Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC Facility
4350 NW Front Avenue
Portland, Oregon

Prepared for:

Gunderson LLC
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April 30, 2016

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April 30, 2016

Gunderson LLC
4350 NW Front Avenue
Portland, OR 97210

Attention: Mr. David Harvey

Subject: Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC Facility
4350 NW Front Avenue
Portland, Oregon

Dear Mr. Harvey:

Cascadia Associates, LLC, is pleased to present this Supplemental Area 2 Riverbank Focused Feasibility Study for the Gunderson LLC facility in Portland, Oregon. We appreciate the opportunity to serve you on this project. If you have any questions or desire further information, please feel free to contact us at 503-906-6577 ext. 101.

Sincerely,

Cascadia Associates, LLC

Chris Breemer, R.G.
Principal

Kurt Harrington, P.E.
Principal

Attachments

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1.0 INTRODUCTION

Cascadia Associates, LLC (Cascadia) prepared this Supplemental Area 2 Riverbank Focused Feasibility Study (Supplemental FFS) on behalf of Gunderson LLC (Gunderson), for the facility at 4350 NW Front Avenue, Portland, Oregon (the Site). This Supplemental FFS was prepared as requested by the Oregon Department of Environmental Quality (DEQ) in their December 31, 2015 letter regarding the September 18, 2015 *Area 2 Riverbank Source Control Measures Focused Feasibility Study* (Apex Companies, 2015).

1.1 PURPOSE AND SCOPE

The purpose of the Supplemental FFS is to evaluate and recommend riverbank source control measures (SCMs) to protect the Willamette River from recontamination due to the erosion or transport of contaminated riverbank soil to the river. The scope of the Supplemental FFS is limited to the Area 2 portion of the Gunderson riverbank, in the interval above the mean high water (MHW) line (13 feet NAVD88[1]). This portion of the riverbank is referred to herein as the "Site". The length of the riverbank is approximately 2,000 feet and the elevation at the top of the riverbank ranges between approximately 31 and 35 feet.

1.2 REGULATORY FRAMEWORK FOR SOURCE CONTROL

The Site is identified as DEQ Environmental Cleanup Site Information number (ECSI no.) 1155. Ongoing assessment and remediation activities at the facility are being completed under Voluntary Cleanup Agreement No. WMCVC-NWR-94-01, between Gunderson and DEQ. Source control activities are being performed under Consent Order No. LQVC – NWR-13-02.

A portion of the Willamette River, including the reach adjacent to the Site, was added to the Superfund National Priority List (NPL) in December 2000. The approximate boundaries of the Portland Harbor Study Area are from river mile (RM) 1.9 to RM 11.8. The Site straddles RM 9 on the west side of the river. The in-water portion of the Portland Harbor Site is defined as below or equal to 13 feet (Integral, et al., 2016); however, the U.S. Environmental Protection Agency (EPA) has indicated the in-water remedial action areas will extend above 13 feet at areas that are deemed a threat to the river. A remedial investigation has been completed, and EPA has nearly completed a feasibility study for addressing contaminated sediment in the Portland Harbor. EPA is the lead agency for the in-water study and cleanup, and DEQ is the lead agency for upland studies and cleanup.

The upland studies and cleanup under DEQ's jurisdiction include controlling current and future sources of contamination to the Willamette River. The Gunderson riverbank soil source control

[1] All elevations in this report are relative to the North American Vertical Datum of 1988 (NAVD88).

evaluation (SCE) and SCMs are being performed at the request of DEQ and in accordance with the requirements set out in the *Portland Harbor Joint Source Control Strategy* (JSCS Guidance; [DEQ/EPA, 2005]).

1.3 WORK PLAN ORGANIZATION

This work plan is divided into 16 primary sections, as described below:

- Section 1 presents the purpose and scope of this work plan.
- Section 2 presents a description of the Site, including nearby upland areas.
- Section 3 summarizes background information, including the findings and conclusions of previous investigations and riverbank SCE activities. This section concludes with a description of the portions of the riverbank where potentially erodible soil has been identified *and* where hazardous substance concentrations in soil exceed source control screening criteria. Where these conditions coincide, SCMs may be warranted.
- Section 4 presents a comparison of riverbank soil data to riverbank source control screening criteria that have been established by EPA and DEQ for evaluating risks of hazardous substance impacts to the Willamette River.
- Section 5 presents a comparison of riverbank soil analytical data to DEQ screening levels for human health and terrestrial ecological health. Human and ecological risk screening are not necessary for evaluating hazardous substance risks to the Willamette River, but are useful for evaluating and selecting riverbank SCMs.
- Section 6 lists the DEQ "hot spot" criteria that may be applicable to the Area 2 riverbank. Soil data are compared to the hot spot criteria to identify riverbank locations that could be classified as hot spots. While not relevant for evaluating risks to the river, the presence of hot spot concentrations is considered when selecting SCMs (Section 14).
- Section 7 describes source control objectives and source control goals.
- Section 8 describes interim SCMs (ISCMs) that were recently implemented at the Site.
- Section 9 presents an evaluation of the effectiveness (current and long-term) of ISCMs.
- Section 10 presents a monitoring and maintenance plan for ISCMs implemented to date.
- Section 11 includes a re-evaluation of riverbank areas that warrant SCMs following completion of the ISCMs discussed in Sections 8 through 10.
- Section 12 describes the criteria that are used to evaluate and select additional SCMs.
- Section 13 presents a range of source control alternatives that may be effective for remaining SCMs at the Area 2 riverbank.

- Section 14 evaluates the source control alternatives relative to the criteria described in Section 12.
- Section 15 describes additional recommended SCMs.
- Section 16 presents a schedule for implementing the additional SCMs, the plan for monitoring the effectiveness of SCMs, and a reporting schedule.

2.0 SITE DESCRIPTION

The Gunderson facility covers approximately 63 acres and 4,000 lineal feet of river frontage along the west bank of the Willamette River, between RM 8.5 and 9.2 (Figure 1). A large portion of the facility was created by filling lowlands, submersible lands, and submerged lands with material dredged from the Willamette River between the 1940s and the 1960s. The facility is bordered by Lakeside Industries on the northwest, NW Front Avenue and the Burlington Northern Santa Fe (BNSF) Railway rail yard on the southwest, Georgia-Pacific Corporation on the southeast, and the Willamette River on the northeast (Figure 2). Gunderson is an active industrial barge and rail car manufacturing facility. Operations are classified under North American Industry Classification System (NAICS) Codes 336510: Railroad Rolling Stock Manufacturing (SIC Code 3743) and 336611: Ship Building and Repairing (SIC Code 3731). The facility is zoned Heavy Industrial and River Industrial.

Impervious surfaces (e.g., buildings, asphalt pavement, and railroad tracks) cover approximately 85 percent of the Site and the remaining 15 percent of the Site is covered with pervious materials, such as gravel. Except for the slope along the riverbank (between top of bank and the river), the Site is relatively flat, with a ground surface elevation ranging between approximately 30 to 36 feet.

As shown on Figure 2, the Site includes three industrial areas, defined as follows (from downriver to upriver): Area 1, Area 2, and the Schnitzer ASD Yard. Areas 1 and 2 are primarily used for manufacturing. The Schnitzer ASD Yard is primarily used for materials storage. The area boundaries are based on similar industrial activities.

This Supplemental FFS addresses the riverbank at Area 2. Area 3 riverbank SCMs are addressed in a separate feasibility study. Area 2 contains the main manufacturing buildings and other facilities used for other manufacturing processes, including: the Marine Barge Launchways, the Plate Shop, the Machine Shop, the Fabrication Bays, Craneways 1 through 6, the Marine Paint & Blast Building, the Finish & Paint Building, and the Maintenance Shop and Administrative Offices. An asphalt-concrete (AC) road, referred to as Main Street, runs northwest to southeast through the central part of Area 2. The entrance to a dock owned by Shell Oil Products U.S. (Equilon) and a related pipeline easement are also located within this area.

2.1 AREA 2 RIVERBANK DESCRIPTION

Area 2 includes approximately 2,000 lineal feet of Willamette River frontage. An overview of Area 2 is presented on Figure 3. For the purposes of this report, to facilitate discussion, data analysis, and remedy selection, the Area 2 riverbank has been divided into four sections, identified (from downstream to upstream) as Sections 1 through 4. The locations of these riverbank subdivisions are shown on Figure 3. Figures 4 through 7 show each of these riverbank sections in detail.

The top of bank is approximately elevation 31 to 36 feet. The ordinary high water line (OHWL) is approximately 20.2 feet. The in-water portion of the Portland Harbor Site is defined as below or equal to 13.3 feet (Integral, et al., 2016).

The riverbank area along the southern third (approx.) of Area 2 is occupied by the Launchways. The Launchways consist of 32 steel "rails" that slope from the upland area to the river. The elevation at the top of the Launchways is approximately 31 feet. The rails, which are sloped approximately 7.5H:1V, are supported at the upper and lower ends by Portland cement concrete (PCC) bulkheads that are oriented parallel to the river. PCC footings, oriented perpendicular to the river, support the Launchway "rails" between the bulkhead and the top of the riverbank. The elevation of the top of the lower bulkhead is approximately 18 feet. Approximately 60 percent of the ground surface between the rails is covered with PCC. The remainder of the ground surface at the Launchways consists of a mixture of crushed rock and soil.

A dock owned by Equilon Enterprises LLC ("Equilon Dock"), and historically used for petroleum distribution to and from the Equilon/Shell Distribution Terminal at 3800 NW St. Helens Road, is located offshore of Area 2. The Equilon Dock, the terminal, and associated pipelines (which run underneath the Gunderson facility pursuant to a permanent easement) are operated by Equilon. Approximately two acres of the riverfront in Area 2 at the Equilon Dock area are owned by Equilon. The Equilon-owned area is shown on Figure 3.

3.0 BACKGROUND

This section is subdivided as follows:

- Section 3.1 describes uses of the Area 2 portion of the facility prior to ownership by Gunderson LLC.
- Section 3.2 describes uses of Area 2 during the period of Gunderson LLC's ownership.
- Section 3.3 summarizes previous environmental investigations that have been performed at or in the vicinity of the Area 2 riverbank. These investigations include general remedial investigation activities (2002 - 2004) as well as investigations specifically performed to evaluate the need for riverbank SCMs. This section concludes with a list of the chemicals in riverbank soil that were identified as potential threats to the Willamette River and a description of the riverbank areas characterized by potentially erodible soil. Those locations where potential erodible soil and elevated chemical concentrations coincide were identified as Source Control Areas.

3.1 HISTORICAL USES OF AREA 2

The land surface elevations at much of Area 2 were significantly lower than the current elevations until the middle of the 20th century, when filling at Area 2 commenced and continued until the mid-1960s. The first fabrication bay was built in 1952; construction of Bays 2 and 3 continued through March 1953. In approximately 1961, Ways No. 3 was constructed near the northern (downstream) end of Area 2 (other ways had been previously constructed at Area 1). By the mid-1960s, the Finishing and Rail Building and the Administration Building were constructed at the southwest side of Area 2, and the Launchways were constructed between 1967 and 1968. In the late 1960s and early 1970s, Craneways 3, 4, and 5 were constructed at the central portion of Area 2. By 1974, the Marine Paint and Blast Building, also called the "Wonder Building," was in place just downstream of the Launchways. In summary, Area 2 has been used for manufacturing purposes since the early 1950s, when the fabrication bays were built. Barge construction was initiated at the Area 2 waterfront in approximately 1961, when Ways No. 3 was built.

In the late 1950s/early 1960s, Gunderson Brothers entered the rail car manufacturing business. Gunderson Brothers also continued to build various vessels until the company and facility was acquired by FMC in 1965. In the mid- to late-1970s, FMC built double-hulled, gas turbine-powered oil tankers at the facility for Chevron. The final Chevron tanker was launched in 1977, after which time, only barges were built at the facility. Barge building ceased at the facility in 1984, until Gunderson LLC resumed building barges in 1993.

In 1974, FMC obtained approval from the Corps and Oregon Department of State Lands (DSL) to place approximately 16,600 cubic yards of fill within and riverward of the foundation of Ways No. 2 and to place approximately 7,000 cubic yards of riprap bank protection to provide suitable foundation for operations on the fill. In 1975, FMC also obtained approval to place a 20-foot extension on City of Portland outfall OF-18. Gunderson Brothers Engineering Corporation (later

changed to Gunderson Bros. Engineering Corp.), a former owner of the facility, had previously placed a 50-foot extension on outfall OF-18.

3.2 GUNDERSON LLC USES OF AREA 2

Since purchasing the facility in 1985, Gunderson has used Area 2 for fabrication of rail cars and barges, refurbishing of rail cars, and administrative functions. Marine barges are constructed in fabric covered metal frame structures adjacent to (west of) the Launchways. When barge modules are complete, they are transferred to the Launchways, where the modules are attached to one another by welding and using fasteners. Until recently, a seam cover for the exterior vertical welds was used to contain the abrasive blast grit at the Launchways. Currently, welded exterior seams on the hull of barge modules are prepared for painting using mechanical profiling techniques. Abrasive grit blasting may occasionally occur on the deck of the barge and in interior holds. Occasionally, abrasive grit blasting is used on the exterior of barge hulls in limited areas. Abrasive grit is captured during interior and deck treatment processes. Some painting occurs at the Launchways. The bulk of barge painting occurs at the upland area west of the Launchways before the barge modules are moved to the Launchways. Some painting occurs while barges are in the Launchways, with the majority of that being the deck.

The abrasive grit that Gunderson uses at the facility is a complex iron-calcium-silicate, which consists of fused oxides of silicon, iron, calcium, and magnesium. A Manufacturer's Safety Data Sheet (MSDS), describing the contents of the abrasive grit is included in Appendix A. The metals concentrations in the abrasive grit are non-detect or less than naturally-occurring concentrations in regional soil, with the exception of copper, which is present in higher concentrations.

3.3 PREVIOUS INVESTIGATIONS

A number of environmental investigations have been performed at and in the vicinity of the Area 2 riverbank. The investigations are discussed below. Historical exploration locations are shown on Figures 8 through 12. Historical analytical data are tabulated in Appendix B.

3.3.1 Preliminary Site Assessment

A preliminary assessment (PA) was performed at the facility in 2002. Squier Associates (2002) subdivided Area 2 into eight subareas, based on the types of activities performed in each area. Areas near the riverbank were referred to (listed upstream to downstream) as Area 2B – the Marine Barge Area (the Launchways and adjacent upland area); Area 2G – the River Bank Area; and Area 2A – the Open Area. The PA provided a description of limited previous environmental investigations performed in Area 2. Soil samples were not collected near the riverbank at Area 2G – the River Bank Area, and Area 2A – the Open Area.

According to the PA, during a 1991 investigation, several borings (e.g., B-15/MW-15 and B-18/MW-18) were advanced at Area 2A (the Open Area) and Area 2B (the Launchways Area). These borings/monitoring wells are at least 75 feet from the riverbank and, therefore, the data from these

borings/wells are not considered representative of material that could reasonably erode to the river.

A sample of blasting grit was collected north of the Marine Paint and Blast Building during the 1991 investigation. Leachable concentrations of arsenic, cadmium, chromium, lead, mercury, selenium, and silver were not detected in the blast grit.

3.3.2 Expanded Preliminary Assessment

An expanded preliminary assessment (XPA) was performed at the facility between April and June 2003 Squier-Kleinfelder (2004). The XPA included the collection and analysis of soil samples from 16 direct-push borings and 7 surface locations.

Borings. Sixteen direct-push borings (A2GP-1 through A2GP-12) were advanced at locations approximately 50 to 200 feet from the riverbank (four of the borings were re-advanced due to encountering practical refusal, hence, borings are labeled only 1 through 12). Due to the distance from the riverbank, the data collected from the borings are not representative of soil that could realistically enter the river through erosion processes.

Surface Soil Samples. Surface soil samples A2GS-1 through A2GS-3 were collected near the Marine Paint and Blast Building. Sample A2GS-1 was collected on the riverbank, near City of Portland outfall OF-18. Sample A2GS-2 was collected at the top of the riverbank on the north side of the Marine Paint and Blast Building. Sample A2GS-3 was collected approximately 50 feet from the riverbank and therefore is not considered for this Supplemental SCE. Sample A2GS-1 exhibited detectable concentrations of polycyclic aromatic hydrocarbons (PAHs) and tributyltin (TBT). Sample A2GS-2 exhibited concentrations of polychlorinated biphenyls (PCBs), PAHs, and TBT. The analytical data for these historical surface soil samples are listed in Appendix B.

Sandy Beaches Samples. Four grab samples (A2GS-9 through A2GS-12) were reportedly collected at "sandy beaches" along the base of the Area 2 riverbank. Sample A2GS-12 specifically targeted sediment in the vicinity of City of Portland outfall OF-18. Figures prepared by Squier-Kleinfelder (2004) indicate that the beach samples were collected at an elevation of approximately 10 to 11 feet. Thus, the beach samples are considered "in-water" samples; these data were included in the *Final Portland Harbor RI/FS, Remedial Investigation Report* (Integral, 2016). The beach samples were submitted for laboratory analysis of chemicals of interest, including petroleum hydrocarbons, semi-volatile organic compounds (SVOCs), volatile organic compounds (VOCs), PCBs, selected metals, and butyltins.

PCBs (Aroclors 1254 and 1260) were detected in beach sediment samples (A2GS-9 through A2GS-12) at concentrations up to 0.508 and 0.0975 milligrams per kilogram (mg/kg), respectively. The highest PCB concentrations were detected in sample A2GS-12, adjacent to outfall OF-18. PAHs were detected in each of the beach samples, with the highest total PAH concentrations detected in samples A2GS-11 and A2GS-12. No VOCs, phthalates, or phenols were detected in the sandy beach samples. Butyltins were detected in three of the four beach samples. The relatively highest concentration of total butyltins (1.83 mg/kg) was detected in sample A2GS-12, which was collected

adjacent to outfall OF-18. A number of metals were detected in beach sediment samples. The maximum detected metals concentrations were: arsenic – 19.6 mg/kg; chromium – 59.5 mg/kg; copper – 400 mg/kg; lead – 343 mg/kg; manganese – 1,100 mg/kg; mercury – 0.25 mg/kg; and zinc – 1,140 mg/kg. The relatively highest concentrations of metals were generally detected in beach sample ASGS-10 (northeast of the Ways 2 Building).

3.3.3 Launchways Soil Evaluation

Four surface soil samples (A2BGS-4, A2BGS-5, A2BGS-6, and A2BGS-7) and one abrasive grit sample (A2BGS-6-Grit) were collected from the Launchways area in April 2004 (Squier-Kleinfelder, 2004) and submitted for laboratory analysis of constituents of interest. The sample locations are shown on Figure 12. Low concentrations (less than 300 mg/kg) of petroleum hydrocarbons (gasoline and diesel) were detected in some of the soil samples. Oil-range hydrocarbons (3,370 mg/kg) were detected in the grit sample. Several VOCs were detected, with the highest concentrations generally detected in the grit sample. Butyltins were detected in several samples (not including the grit sample), with the highest concentration of total butyltins detected at location A2BGS-7. In general, the constituent concentrations in soil (location A2BGS-6) underlying the abrasive grit sample (A2BGS-6-Grit) were non-detect to an order of magnitude less than concentrations in the grit. The soil and grit data are listed in Appendix B.

3.3.4 Willamette River Sediment Investigations

An extensive sediment sampling and analytical program has been implemented in the Portland Harbor since 1998. As part of the Area 2 riverbank SCE, surface sediment (0 – 30 centimeters below the sediment-water interface) data, collected at 28 nearshore locations, were screened against draft EPA Preliminary Remediation Goals (PRGs) as one step in the process of identifying riverbank chemicals of potential concern (COPCs).

The following chemicals were not detected at concentrations that do not exceed or only slightly exceed draft PRGs, and therefore, were determined not to be riverbank COPCs: chromium, nickel, PAHs, phthalates, pesticides (except dieldrin), and dioxins/furans.

3.3.5 Riverbank Source Control Evaluation

A riverbank SCE was performed at Area 2 in 2010 and 2011. The scope of the SCE was developed in coordination with DEQ. The SCE consisted of:

- A reconnaissance of the Area 2 riverbank to assess the extent of bank armoring;
- Completion of 17 borings (identified as "Vectors" 2.1 through 2.17) and collection and analysis of soil samples from the borings;
- Collection and analysis of 25 surface soil samples (S2-1 through S2-25);
- Collection of four composite soil samples (2.7-Composite, 2.8-Composite, 2.9-Composite and 2.10-Composite);
- Analysis of soil samples for an extensive suite of chemicals, including metals, butyltins, PCBs, chlorinated herbicides, organochlorine pesticides, VOCs, SVOCs, phthalates, PAHs, dioxins/furans, and petroleum hydrocarbons; and

- Comparison of soil sample chemical analytical data to Portland Harbor JSCS Screening Level Values (SLVs).

The riverbank survey consisted of walking inspections along the top of the bank and along the river shoreline. Shaw (2011) concluded that riverbank armoring (from the top of the bank to the river) is present at approximately 90 percent of the Area 2 riverbank excluding the Launchways. Riverbank armoring generally consists of riprap, although PCC armoring is present in some areas. Three riverbank areas were identified as partially armored (i.e., exposed soil was present):

- Near the Ways 2 Building (see Figure 9);
- Adjacent to and east of the access to the Equilon Dock (see Figure 10); and
- North/northwest of the Marine Paint and Blast Building (see Figure 11).

As shown on Figures 9 through 12, the 2010 explorations provided extensive coverage of riverbank soil conditions. One or more chemicals were detected in soil at concentrations that exceed the SLVs in all of the borings and surface sample locations. Compounds that exceeded the SLVs included metals, TBT, phthalates, PAHs, and dioxins/furans.

The source(s) of constituents in riverbank soil are unknown; however, based on the absence of manufacturing activities at the riverbank (with the exception of limited operations in the Launchways) during the entire period of Gunderson's operations (1985 to present), it appears that the constituents in riverbank soil were in the original dredge fill material, associated with releases during historical manufacturing activities, and/or result from sediment deposition from the Willamette River during high water events.

3.3.6 DEQ Comments on Riverbank Source Control Evaluation

DEQ provided comments on the Riverbank Source Control Evaluation report in 2011. Among the comments, DEQ:

- Stated that a number of contaminants, including bioaccumulative compounds, were detected in riverbank soil at concentrations significantly above the JSCS SLVs.
- Noted that the Launchways were not included in the "90 percent armored" estimate, and stated that they considered the Launchways "unarmored". DEQ noted that contaminants could be transported from the Launchways to the river.
- Expressed concern that erosion may be occurring at the base of the Launchways lower bulkhead.
- Determined that the riverbank is considered "medium priority for source control".
- Requested additional evaluation, including a weight-of-evidence evaluation, to determine if riverbank source control efforts were necessary.

3.3.7 Supplemental Area 2 Riverbank Source Control Evaluation

A supplemental riverbank SCE (Ash Creek Associates, 2012) was prepared in 2012 in response to DEQ's 2011 comments. No additional soil analytical data were generated during the supplemental assessment; however, the supplemental evaluation included:

- A weight-of-evidence evaluation, using soil data collected between 2002 and 2010, and nearshore sediment data;
- More detailed evaluation of the potential for riverbank erosion; and
- Updated conclusions regarding the potential for riverbank soil to act as a source of contamination to the river.

The following chemicals were identified as COPCs, based on the weight-of-evidence evaluation (i.e., comparison to SLVs and nearshore sediment data, frequency of detection, magnitude of exceedance, and potential for bioaccumulation):

- Metals – lead, arsenic, manganese, mercury, copper, and zinc;
- PCBs;
- TBT; and
- Dieldrin.

Other chemicals, including selected metals (e.g., nickel and silver), PAHs, phthalates, most pesticides, and dioxins/furans were detected at concentrations greater than SLVs; however, these chemicals were determined not to be COPCs due to infrequent detections, low exceedance factors, low bioaccumulation risk, and/or low concentrations in sediment (i.e., based on the weight-of-evidence evaluation).

An expanded riverbank reconnaissance and stability assessment was performed during the supplemental SCE. The assessment included a visual reconnaissance of the riverbank, bank stability observations, and assessment of potential erosion from river action, and an evaluation of erosion risk from overland runoff. This work was performed by licensed geotechnical engineers and geologists. The conclusions of the riverbank erosion evaluation were:

- Overall, the Area 2 riverbank slope meets industry standards for long-term stability in the soil types at the riverbank, although small areas of the riverbank (i.e., north of the Marine Paint and Blast Building and east of the Ways 2 Building) are steeper than general standards.
- The riverbank is armored with a mixture of rock and Portland cement concrete that covers more than 90 percent of the bank, excluding the Launchways. The riverbank exhibits no signs of significant erosion, other than small areas below the Launchways where armoring was absent.
- The potential for direct erosion of the riverbank from overland flow, direct precipitation, or river action is low. This conclusion is based on the lack of overland flow to the riverbank, the bank protections (armor), the low current in this area of the river, and the relative protection offered by the Launchways. There is some potential for erosion in unarmored areas of the Launchways.
- The potential for large scale mass wasting is low based on the riverbank reconnaissance.

In general, Gunderson riverbanks areas armored with riprap have proven to be extremely durable and highly resistant against surface erosion from water flow, propeller wash, and vessel wakes. Photographs depicting riverbank armoring are included in Appendix C.

Gunderson concluded that the Launchways were a medium priority for source control due to chemical concentrations in Launchways soil and evidence of small scale erosion in the Launchways area.

3.3.8 DEQ Comments on Supplemental Area 2 Riverbank Source Control Evaluation

DEQ provided comments on the Supplemental Area 2 Riverbank SCE Report in 2013. Among the comments, DEQ:

- Concurred with the list of COPC identified in the Supplemental Area 2 Riverbank SCE report;
- Concluded that unarmored riverbanks near the discharge point for outfall WR-138 and immediately downstream of the Launchways (i.e., the Marine Paint and Blast Building area) were medium priority for source control;
- Reiterated that SCMs would be required at the Launchways, above and below the lower bulkhead; and
- Requested interim riverbank source controls be implemented, pending construction of permanent SCMs.

3.3.9 Summary and Results of the Riverbank Source Control Evaluation

In summary, multiple phases of investigation were performed between 2002 and 2012 to assess the magnitude and extent of hazardous substances in riverbank soil and nearshore sediment, and to evaluate the potential for riverbank erosion to the Willamette River. Collectively, these investigations demonstrated that soil at many parts of the Area 2 riverbank contains chemical concentrations that exceed source control screening levels, and some of these chemicals are also present in nearshore sediment. Based on these analyses, the following COPCs were identified at the Area 2 riverbank: metals (lead, arsenic, manganese, mercury, copper, and zinc), PCBs, TBT, and dieldrin.

Most of the Area 2 riverbank is armored and not at risk of erosion to the river. Armoring consists of PCC and riprap. Armoring is depicted on photos included in Appendix C. Armoring was limited at portions of the Launchways and at three small areas downstream of the Launchways. The riverbank areas that exhibited COPC concentrations exceeding source control screening levels and erodible soil were identified as requiring SCMs. These areas include:

- Source Control Area 1 – the Launchways (below the lower bulkhead);
- Source Control Area 2 – the Launchways (above the lower bulkhead);
- Source Control Area 3 - the Marine Paint and Blast Building Area;
- Source Control Area 4 – A limited portion of the upper riverbank adjacent to the Equilon Dock; and

- Source Control Area 5 – A limited portion of the upper riverbank near the east corner of the Ways 2 Building.

The source control areas listed above are shown on Figure 8.

COPC concentrations are present in riverbank areas other than those listed above; however, the soil in those areas is not prone to erosion; therefore, those areas do not warrant SCMs.

4.0 RIVERBANK SOIL SOURCE CONTROL SCREENING

The purpose of this report is to identify those portions of the Area 2 riverbank that pose a potential threat to human and ecological health in the Willamette River, and to evaluate and select remedies that are effective for reducing those threats. This section summarizes riverbank soil data that were collected during previous phases of investigation (see Section 3), and compares those data against two sets of standards that have been established by DEQ and EPA specifically to address the risks that upland soil poses to the river:

- SLVs for Upland Soil/Stormwater Sediment; and
- EPA Draft PRGs for Ingestion/Direct Contact (i.e., EPA Remedial Action Objective [RAO] No. 1) and Migration of Contaminants from Riverbank Soil/Sediment (RAO No. 9)[2].

This section compares chemical concentrations in riverbank soil throughout the Area 2 to the screening criteria listed above, regardless of whether or not the soil is at risk of erosion to the river. However, as discussed in Section 3, soil at only limited portions of the Area 2 riverbank is at risk of erosion to the river. Soil that is not at risk of erosion does not present a threat to the river, and therefore, does not warrant source control efforts. The riverbank areas that are at risk of erosion to the river are listed in Section 3.3.9.

The locations of riverbank soil samples are shown on Figures 8 through 12. Data for soil samples collected between the ground surface and approximately 25 feet below ground surface (bgs) are compared to the source control screening standards[3]. Soil collected at depths greater than 25 feet are not compared to screening levels because they pose no erosion risk. A tabulation of riverbank soil data is presented in Appendix B. Tables 1 through 4 list the chemical concentrations in riverbank soil that exceed source control screening criteria.

The results of the source control risk screening are summarized for each riverbank section below. Riverbank Sections are shown on Figure 3.

4.1 RIVERBANK SECTION 1 SOURCE CONTROL SCREENING

Soil samples have been collected at riverbank Section 1 from three borings (Vectors 2.1, 2.2, and 2.3) and from two surface sample locations (S2-1 and S2-2). The sample locations are shown on Figure 9.

As shown on Table 1, soil samples collected at this portion of the riverbank contain the following COPCs at concentrations that exceed the source control screening criteria: arsenic, copper, lead,

[2] Only RAO No. 9 PRGs are listed in Tables 1 through 4 because these PRGs are consistently equal to or lower than RAO No. 1 PRGs.

[3] The soil interval between 0 and 25 feet bgs was used for screening purposes only. This evaluation interval is extremely conservative, as soil at risk of erosion to the river is normally limited to the upper one-foot.

manganese, mercury, zinc, PCBs, and TBT. Of these chemicals, arsenic, lead, and PCBs were detected at concentrations exceeding the source control screening levels in all surface soil samples.

Other chemicals have been detected in Section 1 riverbank soil at concentrations greater than source control screening criteria (e.g., chromium, nickel, PAHs, and phthalates); however, these chemicals are not considered COPCs for source control, as discussed in Section 3.3.6.

4.2 RIVERBANK SECTION 2 SOURCE CONTROL SCREENING

Soil samples have been collected at riverbank Section 2 from three borings (Vectors 2.4, 2.5, and 2.6) and from three surface sample locations (S2-3, S2-4, and S2-5). The sample locations are shown on Figure 10.

As shown on Table 2, soil samples collected at this portion of the riverbank contain the following COPCs at concentrations that exceed the source control screening criteria: metals (arsenic, copper, lead, manganese, and zinc), PCBs, and TBT. Of these chemicals, arsenic, lead, zinc, and PCBs were the constituents detected most frequently at concentrations exceeding the source control screening levels.

Other chemicals have been detected in Section 2 riverbank soil at concentrations greater than source control screening criteria (e.g., chromium, nickel, PAHs, and phthalates); however, these chemicals are not COPCs for source control.

4.3 RIVERBANK SECTION 3 SOURCE CONTROL SCREENING

Soil samples have been collected at riverbank Section 3 from three borings (Vectors 2.7, 2.8, 2.9, and 2.10) from five surface sample locations (A2GS-1, A2GS-2, A2GS-12, S2-6 and S2-14), and from four composite surface sample locations. The sample locations are shown on Figure 11.

As shown on Table 3, soil samples collected at this portion of the riverbank contain the following COPCs at concentrations that exceed the source control screening criteria: arsenic, copper, lead, manganese, zinc, PCBs, and TBT. Of these chemicals, arsenic, copper, lead, zinc, and PCBs were most frequently detected at concentrations exceeding the source control screening levels.

Other chemicals have been detected in Section 3 riverbank soil at concentrations greater than source control screening criteria (e.g., chromium, nickel, PAHs, phthalates, and dioxins/furans); however, these chemicals are not COPCs for source control.

4.4 RIVERBANK SECTION 4 SOURCE CONTROL SCREENING

Soil samples have been collected at riverbank Section 4 from three borings (Vectors 2.11 through 2.17) and from 11 surface sample locations (S2-15 and S2-25). The sample locations are shown on Figure 12.

As shown on Table 4, soil samples collected at this portion of the riverbank contain the following COPCs at concentrations that exceed the source control screening criteria: arsenic, copper, lead, manganese, mercury, zinc, PCBs, and TBT. These chemicals were detected at concentrations

exceeding the source control screening levels in most surface soil samples collected at riverbank Section 4.

Other chemicals have been detected in Section 4 riverbank soil at concentrations greater than source control screening criteria (e.g., chromium, nickel, PAHs, and phthalates); however, these chemicals are not COPCs for source control.

4.5 SUMMARY OF RIVERBANK SOURCE CONTROL SCREENING

In summary, COPCs are widespread in soil at the Area 2 riverbank. However, in most areas, the affected soil is not erodible, due to riverbank armoring. Soil samples that contain COPC concentrations above source control screening levels and are representative of unarmored portions of the riverbank, and therefore, could pose a threat to the river[4], are listed below:

- Source Control Areas 1 and 2: Soil samples have been collected from several borings (Vectors 2.11 through 2.17) and surface locations (S2-15 through S2-25, and A2GS-4, A2GS-5, A2GS-6) in Source Control Areas 1 and 2 (Launchways above and below the lower bulkhead; see Figure 12). The following COPCs were detected in soil samples from this area at concentrations exceeding source control screening criteria: arsenic, copper, lead, manganese, mercury, zinc, PCBs, and TBT. Interim SCMs have been implemented at Source Control Areas 1 and 2. Additional SCMs are discussed in Sections 8.1 and 8.2.
- Source Control Area 3: Several borings (Vectors 2.7 through 2.10), surface soil samples (S2-8 through S2-13), and composite surface soil samples (2.7-COMP through 2.10-COMP) were collected in or near Source Control Area 3 (see Figure 11). The following COPCs were detected in soil samples from this area at concentrations exceeding source control screening criteria: arsenic, copper, lead, manganese, zinc, PCBs, and TBT. This area was recently armored and augmented with bioengineering systems, which are expected to be effective as a permanent SCM (see Section 8.3).
- Source Control Area 4: Vector 2.4 is approximately collocated with Source Control Area 4 (a previously unarmored area near the ramp to the Equilon Dock; see Figure 10). The following COPCs were detected in soil samples from Vector 2.4 at concentrations that exceed source control screening criteria: arsenic, copper, lead, manganese, zinc, and PCBs. Subsequent to the source control evaluations activities (described in Section 3), this area was armored. The new armoring is expected to be effective as a permanent SCM (see Section 8.4).
- Source Control Area 5: Vector 2.1 is approximately collocated with Source Control Area 5 (an unarmored area near the Ways 2 Building; see Figure 9). The following COPCs were detected in soil samples from Vector 2.1 at concentrations that exceed source control

[4] Interim source control measures were implemented at some of these areas between 2013 and 2015 to reduce erosion risks. These measures are discussed in more detail in Section 8.

screening criteria: arsenic, copper, lead, manganese, mercury, zinc, PCBs, and TBT. Subsequent to the source control evaluations activities (described in Section 3), this area was armored and bioengineering was implemented. These systems are expected to be effective as a permanent SCMs (see Section 8.5).

5.0 HUMAN AND ECOLOGICAL RISK SCREENING

The purpose of riverbank SCMs is to protect the Willamette River. Thus, regardless of soil COPC concentrations, riverbank soil that is not at risk for erosion to the Willamette River does not pose a threat to the river, and therefore, does not warrant SCMs.

While not specifically required for source control purposes, chemical concentrations in riverbank soil were compared to human and ecological risk screening criteria to develop a preliminary understanding of the potential for riverbank soil at source control areas to adversely impact human and/or ecological health. This information supports the evaluation of riverbank SCM alternatives (Sections 13 and 14). Human and ecological risk screening was performed for all chemicals that were tested during the SCE, and was not limited to the COPCs listed in Section 3.8.

The comparison of riverbank soil concentrations to human and ecological risk screening criteria is not intended to develop final conclusions about the risks posed by chemicals in riverbank soil. Determinations of human and ecological health risks require more assessment, including understanding of receptors, exposure pathways, and exposure point concentrations.

5.1 HUMAN RISK SCREENING

The risks that chemicals in riverbank soil pose to human health were evaluated by comparing chemical concentrations in riverbank soil to DEQ Risk-Based Concentrations (RBCs) for occupational, construction workers, and excavation workers for the following exposure pathways: (1) direct contact, ingestion, and inhalation; (2) vapor intrusion to indoor air; and (3) volatilization to outdoor air. RBCs are generic screening values based on a number of conservative assumptions that may not be applicable to the Area 2 riverbank (e.g., duration and frequency of exposure); therefore, comparisons with RBCs likely overstate the risks that chemicals in riverbank soil pose to human health. Tables 5 through 8 list soil samples and concentrations that exceed human health screening criteria.

No soil constituent concentrations exceeded RBCs for the vapor intrusion or volatilization to outdoor air exposure pathways; therefore, these exposure scenarios are not further discussed.

5.1.1 Riverbank Section 1 Human Health Risk Screening

Soil samples collected at riverbank Section 1 contain the following chemicals at concentrations that exceed RBCs: arsenic, lead, and dibenzo(a,h)anthracene. Arsenic was detected at concentrations that exceed the RBC for occupational exposure in 11 of 14 soil samples. Arsenic exceeded the construction worker RBC in a smaller number of samples. The excavation worker RBC was exceeded in only one sample. Lead was detected in one sample at a concentration that exceeded the occupational, construction worker, and excavation worker RBCs. Dibenzo(a,h)anthracene was detected in one sample at a concentration that exceeded the occupational RBC.

While several constituents have been detected in riverbank Section 1 at concentrations that exceed RBCs, in the more limited area near Source Control Section 5, only arsenic exceeds an RBC.

Riverbank Section 1 soil sample locations are shown on Figure 9 and human health risk screening data are listed in Table 5.

5.1.2 Riverbank Section 2 Human Health Risk Screening

Only arsenic was detected in soil samples collected at riverbank Section 2 at concentrations exceeding RBCs. Arsenic concentrations in seven of thirteen samples exceeded RBCs for occupational and/or construction worker exposure. The samples closest to Source Control Area 2 were collected from Vector boring 2.4. A sample collected from the 5- to 10-foot interval in that boring exhibited an arsenic concentration that exceeded the occupational and construction worker RBCs. Riverbank Section 2 soil sample locations are shown on Figure 10 and human health risk screening data are listed in Table 6.

5.1.3 Riverbank Section 3 Human Health Risk Screening

Soil samples collected at riverbank Section 3 contain the following chemicals at concentrations that exceed RBCs: arsenic, lead, total PCBs, benzo(a)anthracene, benzo(b)fluoranthene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene. Arsenic was detected in 16 of 29 soil samples at concentrations that exceed RBCs. None of those samples exhibited arsenic concentrations that exceeded the RBC for excavation worker exposure. Lead was detected in one sample at a concentration that exceeds the occupational, construction worker, and excavation worker RBCs. Total PCBs were detected in one sample at concentrations that exceed the occupational RBC. PAHs were detected in one sample at concentrations that exceed the occupational RBC. PCB and PAH concentrations that exceed occupational RBCs were detected only in intervals between 5 and 25 feet bgs; therefore, occupational exposure to these soil constituents is not likely.

While several constituents have been detected in riverbank Section 3 at concentrations that exceed RBCs, in the more limited area near Source Control Section 3, only arsenic exceeds an RBC. Riverbank Section 3 soil sample locations are shown on Figure 11 and human health risk screening data are listed in Table 7.

5.1.4 Riverbank Section 4 Human Health Risk Screening

Soil samples collected at riverbank Section 4 contain the following chemicals at concentrations that exceed RBCs: arsenic, manganese, and diesel-range hydrocarbons. Arsenic was detected in 14 of 22 soil samples at concentrations that exceed RBCs; none of those samples exceeded the RBC for excavation worker exposure. Manganese and diesel-range hydrocarbons were detected in one sample at concentrations that exceed the construction worker RBCs.

Arsenic concentrations that exceed occupational and construction worker RBCs were detected in Source Control Areas 1 and 2. Riverbank Section 4 soil sample locations are shown on Figure 12 and human health risk screening data are listed in Table 8.

5.1.5 Summary of Human Health Risk Screening

Soil samples representing soil at the Area 2 riverbank were compared to RBCs for occupational, construction worker, and excavation worker exposure scenarios. Arsenic concentrations that

exceed occupational and construction worker RBCs are widespread at the Area 2 riverbank, including at Source Control Areas 1 through 5. Several other chemicals were also detected at concentrations that exceed RBCs (i.e., lead, manganese, PCBs, PAHs, and diesel-range hydrocarbons); however, those chemicals were only sporadically detected, often at depths below 5 feet, and commonly were outside of the Source Control Areas. Soil that contains chemical concentrations that exceed RBCs and is outside of source control areas does not require SCMs.

5.2 TERRESTRIAL ECOLOGICAL RISK SCREENING

The risks that chemicals in riverbank soil pose to terrestrial ecological health were evaluated by comparing chemical concentrations to DEQ Level II Screening Level Values (Level II SLVs) for terrestrial receptors. The comparison to Level II SLVs is sufficient only for preliminary risk screening. Actual ecological risks are unknown pending an ecological risk assessment, which would consider many factors, such as suitability of habitat, presence of receptors, presence of threatened and endangered species, and other factors. Tables 9 through 12 list soil samples and concentrations that exceed terrestrial ecological screening criteria. Sample locations are shown on Figures 8 through 12.

5.2.1 Riverbank Section 1 Terrestrial Ecological Risk Screening

Soil samples collected at riverbank Section 1 contain metals (arsenic, chromium, copper, lead, manganese, mercury, nickel, silver and zinc) concentrations that exceed Level II SLVs (Table 9). Surface soil samples collected at riverbank Section 1, in the vicinity of Source Control Area 5 (i.e., samples from boring Vector 2.1 and sample S2-1), exhibit concentrations of metals that exceed Level II SLVs. Table 9 summarizes the terrestrial ecological risk screening for riverbank Section 1.

5.2.2 Riverbank Section 2 Terrestrial Ecological Risk Screening

Soil samples collected at riverbank Section 2 contain metals (arsenic, chromium, copper, lead, manganese, nickel, and zinc) concentrations that exceed Level II SLVs. Surface soil samples collected at riverbank Section 2, in the vicinity of Source Control Area 4 (i.e., samples from Vector boring 2.4) exhibit concentrations of metals that exceed Level II SLVs. Table 10 summarizes the terrestrial ecological risk screening for riverbank Section 2.

5.2.3 Riverbank Section 3 Terrestrial Ecological Risk Screening

Soil samples collected at riverbank Section 3 contain metals (arsenic, barium, chromium, copper, lead, manganese, nickel, and zinc) concentrations that exceed Level II SLVs. All of these compounds were detected in shallow soil in the vicinity of Source Control Area 3 (Table 11).

5.2.4 Riverbank Section 4 Terrestrial Ecological Risk Screening

Soil samples collected at riverbank Section 4 contain metals (arsenic, barium, chromium, copper, lead, manganese, mercury, nickel, selenium, silver, and zinc) concentrations that exceed Level II SLVs. All of these compounds were detected in shallow soil in the vicinity of Source Control Areas 1 and 2 (Table 12).

5.2.5 Summary of Terrestrial Ecological Risk Screening

Chemical concentrations in soil samples from the Area 2 riverbank were compared to Level II SLVs for terrestrial receptors. Metals are widespread in riverbank soil at concentrations that exceed Level II SLVs, including at Source Control Areas 1 through 5. While chemical concentrations in a number of samples exceed screening criteria, the actual risk to terrestrial receptors is likely less than suggested by the screening level exceedances because Level II SLVs are based on a number of conservative assumptions (e.g., presence of threatened and endangered species, suitable habitat, populations of affected receptors, foraging area, etc.) that may not apply to large portions of the Area 2 riverbank.

The findings of the ecological risk screening are applied during the evaluation of ISCMs and SCMs (Section 9 and 14, respectively). Ecological risks outside of source control areas may be further evaluated during a future upland remedial investigation.

6.0 HOT SPOT EVALUATION

Hot spots are defined as soil that presents an unacceptable risk to human health and the environment and is characterized by contamination that is highly concentrated, highly mobile, or cannot be reliably contained. DEQ requires treatment of hot spots of contamination to the extent feasible, although the treatment requirement is subject to the remedy selection balancing factors and criteria listed in Oregon Administrative Rule (OAR) 340-122-090(4), which specifies that a higher threshold be applied in evaluating the reasonableness of costs for treating hot spots of contamination. Therefore, as stated by DEQ, "the purpose of identifying hot spots is to provide the information needed to evaluate feasibility of various remedial alternatives in light of the requirement to treat hot spots if feasible".

Soil hot spot concentrations are defined as a multiplier applied to the acceptable risk-based concentration (the multiplier is 100 for human carcinogens and 10 for ecological and human non-carcinogens). Under current DEQ source control policy, for upland soil, hot spot concentrations should be established for terrestrial ecological receptors and appropriate human receptors. Aquatic screening criteria are not used for establishing hot spot concentrations. Table 13 lists riverbank soil hot spot concentrations.

Human receptors are limited to workers. Therefore, based on current and reasonably likely future land uses, hot spot concentrations were established for occupational receptors, construction workers, and excavation workers. Potential ecological receptors include birds, mammals, invertebrates, and plants. The Site is an operating industrial facility; therefore, ecological habitat is clearly absent from some portions of the riverbank (e.g., the Launchways) and the value of habitat at some other portions of the Area 2 riverbank is limited at best.

Chemical concentrations in riverbank soil were compared to hot spot concentrations for humans and terrestrial ecological receptors. Soil samples that exceed hot spot levels for human health are

highlighted in Tables 5 through 8. Ecological soil hot spot concentrations are highlighted in Tables 9 through 12.

6.1 HUMAN HEALTH HOT SPOTS

Hot spot concentrations for human health are highlighted in Tables 5 through 8. Only arsenic exceeded hot spot criteria for human health. Arsenic was detected in three soil samples (one each in riverbank Sections 1, 2, and 4) at concentrations exceeding the arsenic hot spot criterion (190 mg/kg). The affected soil samples (S2-2, Vector 2.5 surface interval, and S2-16) do not correspond with Source Control Areas, with the exception of sample S2-16 (see Figures 9, 10, and 12, respectively).

Sample S2-16, which is located in Source Control Area 2 (the Launchways above the bulkhead), exhibits an anomalously high concentration of arsenic (267 mg/kg). The geometric mean concentration of arsenic in Launchways soil, based on samples collected between the surface and five feet bgs (see Table 8) is approximately 29 mg/kg, indicating that the arsenic concentration at sample S2-16 is not representative of Launchways soil in general, and the mean arsenic concentration at Source Control Area 2 is well below the hot spot criterion.

6.2 ECOLOGICAL HEALTH HOT SPOTS

Ecological hot spot levels are highlighted in Tables 9 through 12. Several metals (arsenic, chromium, copper, lead, manganese, and zinc) were detected in soil at riverbank Sections 1 through 4 at concentrations that exceed ecological hot spot criteria. The following discussion focuses on soil samples that were collected in the vicinity of Source Control Areas 1 through 5.

At riverbank Section 1, detected concentrations of chromium, copper, lead, manganese, and zinc in surface soil near Source Control Area 5 (i.e., Vector 2.1) exceed ecological hot spot criteria.

At riverbank Section 2, lead, manganese, and zinc concentrations in subsurface soil (5 to 10 feet bgs) near Source Control Area 4 (i.e., Vector 2.4) exceed their respective ecological hot spot criteria (no surface soil samples were collected from that boring). Sample S2-3, the nearest surface soil sample to Source Control Area 4, exhibited a zinc concentration that exceeded ecological hot spot criteria.

At riverbank Section 3, arsenic, chromium, copper, lead, manganese, and zinc concentrations in surface soil near Source Control Area 3 (e.g., surface samples S2-7, S2-9, S2-10, S2-11, and S2-13) exceed ecological hot spot criteria.

At riverbank Section 4, arsenic, chromium, copper, lead, manganese, and zinc concentrations in surface soil near Source Control Area 2 (e.g., surface samples S2-16, S2-18, S2-20, S2-21, and S2-24) and Source Control Area 1 (e.g., surface samples S2-15, S2-17, S2-19, and S2-22) exceed ecological hot spot criteria.

Based on a comparison of chemical concentrations in soil to Level II SLVs, soil in some riverbank areas exceeds ecological hot spot criteria. However, this simple comparison is not sufficient to conclude that riverbank soil poses an actual threat to ecological health for a number of reasons:

- The hot spot screening is based on the assumption that the riverbank provides suitable habitat for ecological receptors. The riverbank is part of an operating industrial facility. In some areas (e.g., the Launchways – Source Control Area 2), habitat is clearly absent and in other areas (e.g., Source Control Area 4), the presence of habitat is questionable.
- The hot spot screening levels are based on the assumed presence of threatened and endangered (T&E) species. It is unclear that terrestrial T&E species are present at the Area 2 riverbank. The absence of T&E species would substantially increase the hot spot criteria.
- Level II SLVs, and by extension, ecological hot spot criteria, are based on a number of default assumptions that may not apply to some receptors or to some portions of the Area 2 riverbank (e.g., dietary fraction, home range, etc.). Modifying these factors to account for site-specific conditions, may significantly affect the hot spot concentrations.

Hot spot concentrations are further considered in Sections 9 (evaluation of ISCMs) and Section 14 (evaluation of proposed SCM).

7.0 SOURCE CONTROL OBJECTIVES

This section describes the objective of SCMs and the criteria that are used to evaluate whether source control goals have been met.

7.1 SOURCE CONTROL OBJECTIVE

The source control objective for Area 2 riverbank soil is to prevent the erosion of soil into the river at concentrations that could result in sediment concentrations above Portland Harbor cleanup levels. It is assumed that the source control objective will be achieved by preventing soil that contains COPCs at concentrations above the source control goal (SCG) concentrations from eroding to the river. Potentially erodible soil has been identified at Source Control Areas 1 through 5; therefore, these areas are targeted for source control.

7.2 SOURCE CONTROL GOAL

Source control goals consist of SLVs and EPA draft PRGs for riverbank soil. The SLVs were developed by DEQ and EPA for SCE purposes. The draft PRGs consider the applicable or relevant and appropriate requirements (ARARs) and beneficial land and water uses in the Willamette River. Erodible riverbank soil that contains chemical concentrations less than the SLVs and the draft PRGs is considered protective of the sediment and water quality in the Willamette River, for both human end ecological receptors. Therefore, the lesser of the SLVs and the draft PRGs are the SCG concentrations. Where naturally occurring background concentrations of metals exceed SCGs, the background concentration is the SCG. The SCGs for COPCs are listed in Table 14.

7.3 RISKS TO UPLAND RECEPTORS

According to the DEQ/EPA Joint Source Control Strategy, "the overarching goal of the JSCS is to identify, evaluate, and control sources of contamination that may reach the Willamette River". Under the JSCS guidance, source control decisions are made based on the threat that upland contaminant sources pose to the river. The guidance specifically directs users to evaluate risks based on comparisons to criteria that were developed for protection of human and ecological receptors in the river. An evaluation of the risks to upland receptors is not included within the scope of the guidance. However, for the purpose of evaluating SCMs, DEQ has requested an evaluation of the risk that COCs in riverbank source control areas pose to workers and terrestrial ecological receptors that may be exposed to riverbank soil. Risks to workers and terrestrial receptors were evaluated in Sections 5.1 and 5.2. Source control measures are evaluated in Sections 9 and 14.

8.0 INTERIM SOURCE CONTOL MEASURES

Between 2011 and early 2016, ISCMs were implemented to address the erosion risk at Source Control Areas 1 through 5 (Apex, 2014). The ISCMs at Source Control Areas 1 through 4 were completed in general accordance with Revised Area 2 and Schnitzer ASD Yard Riverbank Interim Source Control Measures Work Plan (Apex, 2013). The ISCM at Source Control Area 5 was performed independently. Photographs of the ISCMs are included in Appendix C. Monitoring and maintenance have been ongoing since the ISCMs were implemented. The ISCMs are described below. Monitoring and maintenance are described in Section 8.6.

8.1 SOURCE CONTROL AREAS 1 LAUNCHWAYS BELOW THE LOWER BULKHEAD

A temporary wall composed of interlocking sandbags, ranging in weight between approximately 50 and 3,000 pounds (up to 1 cubic yard of sand), and connected with interlocking metal retaining clips, was placed along the base of the riverward side of the lower bulkhead in 2011. The sandbags form a protective barrier that is approximately 4 feet high. The sandbag system has sufficient mass and interlocking strength to resist wave energy and prevent erosion of soil beneath the Launchways bulkhead. The sandbags are covered with black geotextile fabric that is permanently affixed to the top of the lower bulkhead wall. The geotextile fabric prevents degradation of the bags due to ultraviolet light. The placement of sandbags has effectively stopped erosion at the base of the lower bulkhead. Figure 13 depicts ISCM details at the Launchways lower bulkhead.

8.2 SOURCE CONTROL AREA 2- LAUNCHWAYS ABOVE THE LOWER BULKHEAD

The Launchways slope toward the river at a slope of approximately 7.5H:1V. Approximately 60 percent of the ground surface between the Launchways is covered by PCC; the remainder of that area consists of a mixture of crushed rock and soil. To reduce the potential for soil erosion at the Launchways, wattle systems were installed between each set of Launchways, with the exception of Launchways areas that are entirely covered by PCC. The wattle system includes a wattle approximately 12 feet southwest (upland) of the lower bulkhead and a second wattle approximately 10 feet farther in the upland direction. The double wattle system provides redundancy and reduces the potential for erosion of soil to the river via overland flow. In total, 64 wattles were installed in the Launchways at the locations shown on Figure 13. Based on visual inspections, the wattles appear to have significantly reduced the potential for eroded soil to migrate from the Launchways to the Willamette River. The wattles are replaced as necessary to ensure their continued effectiveness.

8.3 SOURCE CONTROL AREA 3- MARINE PAINT AND BLAST BUILDING AREA

ISCMs that were implemented at Source Control Area 3 include riverbank rock replacement, bioengineering, and surface drainage improvements. These ISCMs are described below. Figures 14 and 15 depict ISCM details at Source Control Area 3.

8.3.1 Riverbank Rock Replacement

Rock, consisting of four to nine vertical feet of 3- to 4-inch-thick stone was installed at the riverbank. The thickness of the rock is approximately 4 feet at the lower one to three feet of the armored area. The upper 2 to 6 feet of rock is approximately 3 feet thick. To enhance stability, and further reduce the potential for underlying rock and soil to erode: (1) geogrid material was placed on the ground surface below the rock and over every fourth course of rock; (2) permeable geotextile was installed over the geogrid and wrapped up over the newly exposed riverbank surface to the top of the river bank; and (3) sand was swept into voids between the rock.

Rock replacement was performed along a portion of the riverbank above ordinary high water. Small amounts of surficial soil were removed to facilitate this, but approximately 95% of the removed material was rock. The smaller, irregularly shaped rock was replaced with 3" to 4" thick flat rock, on average 2' wide and 18" deep. The flat rock was stacked in a manner that resulted in slightly lower angled slope. The base of the new rock was installed on a flat bench area, and overlying rock was sloped back and away from the river from that point. The base of the flat rock was two rocks wide in (plan view) tapering to one rock thick at about 4' below the top of the riverbank. The height of the stacked flat rock varies. The stacked flat rock is approximately six feet tall for approximately 120' of riverbank and three to four feet tall for the remaining 250' (approximately) of riverbank around the MPBB towards and past outfall OF-18. The stacked rock terminates where extensive riprap exists behind the Equilon Dock.

8.3.2 Bioengineering

A bioengineered system was installed above the rock to the top of the bank. The system consists of two to five layers of imported soil encased in two wraps of coir fabric, with Columbia Willow and Pacific Willow planted between each soil layer. The soil is approximately two to three feet thick. Approximately 1,000 willows were planted at the riverbank. Kinnikinnick was planted at the top of the riverbank. The coir fabric lasts approximately five to seven years. During this period, root networks will be integrated into the fabric, forming a stable complex mass that works to protect the bank from erosion. The established vegetation is expected to provide sufficient bank stabilization after the coir fabric degrades.

8.3.3 Surface Drainage Improvements

Surface drainage improvements were implemented on the northeast and northwest sides of the MPBB. Historically, limited surface flow occurred over the riverbank was limited. Consequently, a few feet of local, surficial erosion were visible on the north facing edge of the riverbank, approximately 15 feet east of outfall OF-18. Surface drainage improvements were performed to prevent stormwater runoff from flowing over the riverbank at the area of historical erosion and to reduce the likelihood that other, similar local erosion areas might develop. Completed surface drainage improvements are listed below.

Improvement of Soil Infiltration Capacity

Approximately two feet of soil were excavated from the area northwest of the MPBB and disposed of off-site. The upper eight inches of soil were removed from the area northeast of the MPBB building, between a section of railroad tracks. Railroad ties and underlying ballast rock prevented deeper excavation. Geotextile was placed over the excavated soil surface to serve as a demarcation layer between underlying soil and clean imported fill. The area northwest of the MPBB was filled with imported 1.5-inch drain rock to within approximately 6 inches of the ground surface. Another layer of geotextile was placed on top of the drain rock. The upper layer of geotextile was covered by a 6-inch layer of imported ¼- to ¾-inch crushed rock, which functions as a working surface. The area northeast of the MPBB, between the railroad tracks, was filled with imported 1.5-inch drain rock.

Control of Roof Drainage from MPBB

Drainage from approximately 5,000 square feet (sf) of the MPBB roof discharges to the ground surface at the northwest side of the MPBB, via a downspout on that side of the building. The downspout was modified to discharge over a wide area of drain rock, resulting in infiltration of the stormwater runoff, rather than discharge over the riverbank.

Asphalt-Concrete Improvements

Prior to the ISCMs, the asphalt-concrete (AC) surface in some areas north of the MPBB sloped toward the riverbank and an approximately 12,000 square foot area southwest of the MPBB was covered with gravel and degraded pavement.

To reduce the potential for discharge from the AC surface to the riverbank, an AC overlay was installed at the area shown on Figure 14. The thickness of the AC overlay ranged between 4 and 18 inches, depending on the thickness necessary to redirect stormwater runoff. The AC overlay directs stormwater runoff away from the steep riverbank, toward the unpaved area northwest of the MPBB and northwest of the Launchways where the stormwater naturally infiltrates or runs off the more gently sloped riverbank.

The existing AC pavement was removed, replaced or augmented by the installation of new AC pavement that redirects surface flow to areas of infiltration back by the MPBB Building or near towards the Ways, as shown on Figure 14. The asphalt concrete pavement reduces stormwater turbidity and directs stormwater to the OF-136 stormwater conveyance system, away from the riverbank.

Riverbank North of MPBB

Prior to implementation of the SCMs, stormwater from some areas northeast of the MPBB discharged to an unpaved area northwest of the Launchways. This area is shown on Figure 14. The AC overlay (described above) redirected some stormwater runoff away from the riverbank and towards the unpaved area northwest of the Launchways. Approximately two feet of soil were excavated, geotextile was placed over the excavated ground surface, and imported crushed rock

and boulders (12 to 36 inches in diameter) were installed. Columbia Willow and Pacific Willow trees were planted between the boulders to maintain soil stability and improve facility aesthetics.

8.4 SOURCE CONTROL AREA 4 – RIVERBANK NEAR THE EQUILON DOCK

Imported 24- to 36-inch diameter rock was installed at Source Control Area 4 in February 2015. Prior to installation of the rock, a layer of non-woven geotextile was placed and staked over the underlying ground surface. The rock was placed using an excavator that was staged at the top of the riverbank. The Source Control Area 4 rock is illustrated on Figure 16 and shown in Appendix C.

8.5 SOURCE CONTROL AREA 5 – RIVERBANK NEAR THE WAYS 2 BUILDING

ISCMs that were implemented at Source Control Area 5 include riverbank armoring and bioengineering. Each of these ISCMs is described below. Figure 17 depicts ISCM details at this area.

8.5.1 Riverbank Armoring

Armoring, consisting of imported 12- to 24-inch diameter rock was installed in January 2016. Prior to installation of the rock, a layer of non-woven geotextile was installed over the ground surface. The rock was placed using an excavator that was staged at the top of the riverbank.

8.5.2 Bioengineering

A bioengineered system was installed above the rock armoring. Prior to installing the bioengineering system, approximately two cubic yards of soil were excavated to reduce the angle of a portion of the riverbank and to support establishment of vegetation. The excavated soil was transported off-site for disposal.

The bioengineering system consists of a layer of coir fabric that is anchored and covers the entire source control area. Approximately 100 sword fern, 90 Kinnikinnick, 125 Oregon grape, 125 snow berry, and 60 Pacific willow stakes were planted. The coir fabric lasts approximately five to seven years. During this period, root networks will be integrated into the fabric, forming a stable complex mass that works to protect the bank from erosion. The established vegetation is expected to provide sufficient bank stabilization after the coir fabric degrades.

8.6 ISCM MONITORING

Monitoring has been ongoing since the ISCMs were constructed. At a minimum, monitoring includes monthly inspections. Monitoring results are reported to DEQ in bi-monthly progress reports. During the monitoring period (up to five years) the ISCMs have proven to be effective and durable, and have required no maintenance or repairs, other than occasional replacement of wattles at Source Control Area 2 (the Launchways above the lower bulkhead) and vegetation maintenance (i.e., removal of invasive plants) in bioengineering areas. Erosion to the river has not been observed at any of the Source Control Areas since ISCMs were constructed.

8.7 SOIL ANALYTICAL DATA GENERATED DURING ISCMS

Soil was excavated from Source Control Areas 2, 3, and 5 during construction of the ISCMs. Soil samples were collected from residual soil in each of these areas. These sampling efforts were performed after the riverbank source control evaluations were completed, and are described below.

8.7.1 Source Control Area 2 ISCM Data

Eight soil samples were collected at the lower portions of the Launchways, above the lower bulkhead. These samples were collected from residual soil, approximately one-foot bgs, after soil was excavated to prepare for installation of wattle systems. Following collection of soil samples, the excavated areas were backfilled with crushed rock and wattles were installed. Laboratory analytical data for those samples are listed in Appendix D. As shown on those tables, residual soil contains chemical concentrations (i.e., arsenic, copper, lead, selenium, zinc, PCBs, phthalates, TBT, and DDx) that exceed source control screening levels, human health screening levels, and/or ecological screening levels.

8.7.2 Source Control Area 3 ISCM Data

Approximately 27 soil samples were collected at Source Control Area 3. Laboratory analytical data for those samples are listed in Appendix D. As shown in those tables, residual soil contains chemical concentrations (i.e., arsenic, cadmium, copper, lead, manganese, zinc, PCBs, phthalates, and TBT) that exceed source control screening levels, human health screening levels, and/or ecological screening levels. However, as discussed in Section 8.3, residual soil is covered by armoring, imported soil, and/or asphalt concrete; therefore, risks to the Willamette River and human/ecological receptors are low.

8.7.3 Source Control Area 5 ISCM Data

One soil sample was collected at Source Control Area 5. Laboratory analytical data are listed in Appendix D. The associated laboratory report is included in Appendix E. As shown on those tables, residual soil contains chemical concentrations (i.e., copper, lead, mercury, zinc, PCBs, and TBT) that exceed source control screening levels, human health screening levels, and/or ecological screening levels. The concentration of mercury in residual riverbank soil t Source Control Area 5 exceeds the hot spot criterion for invertebrates; however, as previously indicates, this hot spot criterion is based on a number of assumptions (e.g., presence of T&E species) that may not be applicable. Residual soil is covered by armoring, imported soil, and/or asphalt concrete; therefore, overall risks to the Willamette River and human/ecological receptors is expected to be low.

9.0 EVALUATION OF EFFECTIVENESS OF ISCMs

ISCMs were installed between 2011 and 2016. The ISCMs have been monitored since that time and the results of the monitoring have been presented to DEQ in bi-monthly summaries. During the monitoring period (up to five years) the ISCMs have proven to be effective and durable, and have required no maintenance or repairs, other than occasional replacement of wattles at Source Control Area 2 (the Launchways above the lower bulkhead) and vegetation maintenance (i.e., removal of invasive plants) in bioengineering areas. This section presents an evaluation of the effectiveness of the ISCMs at Source Control Areas 1 through 5. Section 10 presents a monitoring and maintenance plan that is proposed to ensure the long-term effectiveness of these ISCMs.

9.1 SOURCE CONTROL AREA 1 – LAUNCHWAYS BELOW THE LOWER BULKHEAD

The temporary wall composed of interlocking sandbags has remained in place since 2011, with no significant deterioration. As shown through ongoing monitoring, the temporary wall continues to function as an effective ISCM, preventing erosion and human/ecological contact with soil beneath the lower bulkhead. This ISCM is required to be maintained until the EPA in-water remedy is implemented (see Section 11.2), after which, erosion potential is expected to be adequately reduced. With ongoing monitoring and maintenance, this ISCM will remain effective.

9.2 SOURCE CONTROL AREA 2 – LAUNCHWAYS ABOVE THE UPPER BULKHEAD

Wattle systems that were installed in the Launchways have served as effective erosion mitigation systems. The effectiveness of the systems has been demonstrated by the accumulation of soil behind (above) the wattles and the absence of sediment accumulation downstream of the wattles. The wattle systems are subject to damage during barge manufacturing activities (i.e., crushing or displacement by equipment); therefore, Gunderson has occasionally replaced portions of the wattle systems.

The wattle systems prevent worker contact with limited areas of surrounding soil, which contains concentrations of arsenic, manganese (one sample), and diesel-range hydrocarbons (one sample) that exceed RBCs. The wattle systems are not protective of surrounding soil. The duration and frequency of worker contact with soil in the Launchways is limited and workers are required to wear protective clothing; therefore, actual worker risk is likely substantially less than suggested based on a simple comparison to RBCs. Terrestrial ecological receptors are absent from the Launchways above the lower bulkhead, as this area is absent of habitat.

9.3 SOURCE CONTROL AREA 3 – MARINE PAINT AND BLAST BUILDING AREA

ISCMs installed at Source Control Area 3 include armoring, bioengineering, enhanced infiltration, and pavement modifications. The armoring and bioengineering efforts protect riverbank areas that were previously deemed to be potentially erodible. Vegetation has become established in the bioengineering systems, further improving the effectiveness of these ISCMs. Ongoing monitoring has shown that the ISCMs are effective at Source Control Area 3. The bioengineering and armoring

systems are intact, having experienced no visible erosion or deterioration, despite record rainfall in December 2015[5]. The enhanced infiltration and pavement modifications have eliminated stormwater runoff from flowing from upland areas to the riverbank.

At the riverbank, two to four feet of imported rock and soil cover underlying impacted soil. At the uplands area, 6 to 18 inches of asphalt-concrete pavement and 8 to 24 inches of imported crushed rock cover impacted soil. These ISCMs are adequate for preventing riverbank soil from migrating to the river and prevent human and terrestrial ecological contact with impacted soil.

The rock armoring, bioengineering, and enhanced infiltration are expected to be effective indefinitely. The AC pavement will be effective for time periods on the order of decades. In summary, with ongoing monitoring and maintenance, as described in Section 10, the Source Control Area 3 ISCMs will be effective indefinitely.

9.4 SOURCE CONTROL AREA 4 – RIVERBANK NEAR THE EQUILON DOCK

Armoring, consisting of imported 24- to 36-inch diameter rock, underlain by non-woven geotextile covers Source Control Area 4. The armoring prevents soil erosion to the river and serves as a barrier to human and terrestrial ecological exposure to soil. The rock armoring is expected to be effective indefinitely.

9.5 SOURCE CONTROL AREA 5 – RIVERBANK NEAR THE WAYS 2 BUILDING

ISCMs installed at Source Control Area 5 include armoring and bioengineering. The armoring and bioengineering efforts protect riverbank areas that were previously deemed to be erodible. Vegetation will become established in the bioengineering systems, further improving the strength and erosion resistance of the bioengineering system. Because the ISCMs were installed at Source Control Area 5 in December 2015/January 2016, inadequate time has passed to evaluate the effectiveness of these systems; however, based on similar work performed elsewhere at the Site (e.g., Source Control Area 3), we expect these systems to be effective SCMs.

At the lower portion of Source Control Area 5, one to three feet of imported rock prevent erosion of riverbank soil. At the upper portion of Source Control Area 5, bioengineering systems prevent soil erosion. These ISCMs are adequate for preventing riverbank soil from migrating to the river.

The rock armoring prevents human and terrestrial ecological contact with impacted soil. Bioengineering does not prevent human and terrestrial ecological receptors from contacting the underlying soil. Soil in this general area (based on data from Vector 2.1 (Table 5) and residual soil [Table D-6 in Appendix D] tested after soil was excavated during the ISCM construction) contains concentrations of arsenic that exceed RBCs and concentrations of arsenic, copper, lead, manganese, nickel, silver, and zinc that exceed Level II SLVs. Gunderson workers do not normally access this area; therefore, actual worker risk is likely substantially less than suggested based on a simple

[5] The National Weather Service reports that the all-time monthly rainfall record at the Portland Airport was set on December 21, 2015. Additional rainfall fell in December, after that date.

comparison to RBCs. The affected area is small (approximately 200 square feet); therefore, it is unclear that the impacted soil is reasonably likely to have a significant adverse effect on ecological receptors. An ecological risk assessment would be necessary to more fully evaluate ecological health risks.

The rock armoring and bioengineering are expected to be effective indefinitely, although ongoing monitoring and maintenance will be required to ensure that bioengineering vegetation becomes established.

10.0 MONITORING AND MAINTENANCE PLAN

Monitoring and maintenance will be performed to evaluate and support the effectiveness of ISCMs and to ensure the continued stability of portions of the riverbank that are outside of Source Control Areas.

10.1 Monitoring

Monitoring will be performed on a monthly basis for at least the first year following completion of the SCMs. After the first year, inspections will be conducted bi-annually (approximately every six months). Inspections may be more frequent if significant precipitation occurs or the Willamette River reaches flood stage.

Monitoring will include:

- Visual inspections of riverbank/Launchways conditions at Source Control Areas 1 through 5 (e.g., extent of sandbag coverage and conditions of armoring and wattles);
- Identification of areas where erosion is occurring, if any;
- Annual quantification of revegetation success (in July); and
- Determination of the need for additional steps necessary to support revegetation efforts or to minimize potential for riverbank erosion.

10.2 Maintenance

Maintenance will include:

- Replacement or augmentation of sandbags, rock, and wattles on an as-needed basis;
- Replacement of coir fabric as necessary;
- Installation of additional plants or seeds to augment riverbank vegetation;
- Removal of soil or accumulations at wattles; and
- Performance of other routine maintenance (e.g., removal of debris from the Launchways ground surface) in accordance with the facility Stormwater Pollution Control Plan (SWPCP).

10.3 REPORTING

Monitoring reports will be included in bi-monthly Progress Reports that are submitted to DEQ. Progress Reports will be continued until DEQ/EPA agree that SCMs are complete. An ISCM monitoring and maintenance summary report will be submitted annually. The initial report will be submitted within one-year of DEQ approval of this report. Subsequent reports will be submitted annually.

11.0 RE-EVALUATION OF AREAS WARRANTING SOURCE CONTROL

The purpose of the FFS is to select a preferred remedy for riverbank areas that may pose a threat to the Willamette River. To pose a threat to the Willamette River, riverbank areas must meet two criteria: (1) potentially erodible soil must be present; and (2) potentially erodible soil must contain hazardous substances at concentrations that exceed SCGs. The potential for soil erosion has been significantly reduced or eliminated at some areas through the implementation of ISCMs. Where the ISCMs amount to permanent remedies that have essentially eliminated erosion risks, additional SCMs are not warranted. Section 11.1 identifies source control areas where ISCMs have been implemented that are effectively permanent, and further SCMs are unnecessary. Section 11.2 discusses the Source Control Area that will be addressed as part of the planned in-water remedy. Section 11.3 discusses the Source Control Area where additional SCMs are required.

11.1 COMPLETED SOURCE CONTROL MEASURES

ISCMs completed at the following areas offer permanent protection from erosion:

- Source Control Area 3 – Previously, small areas of surficial soil that were subject to erosion. The riverbank is now protected by a multi-component armoring system, consisting of geotextile, rock armoring, and bioengineering. Historical sources of overland stormwater flow have been addressed by re-routing stormwater and facilitating stormwater infiltration.
- Source Control Area 4 - Previously unarmored soil in this area is now protected by a multi-component armoring system, consisting of geotextile and rock armoring.
- Source Control Area 5 – Previously unarmored soil in this area is now protected by armoring and bioengineering systems. Armoring protects the lower portion of this area from erosion during high river stage periods. Bioengineering protects the upper portion of this area from erosion via overland flow.

The SCMs listed above offer permanent erosion protection; therefore, additional SCMs are not necessary and these areas are not further evaluated for source control purposes.

The ISCMs at Source Control Areas 3 and 4 are protective of the health of workers and terrestrial ecological receptors. Armoring, installation of pavement, and bioengineering in those areas have covered impacted soil with sufficient materials (e.g., rock, soil, and asphalt-concrete) to prevent exposure under normal circumstances.

At Source Control Area 5, rock armoring is protective of human and terrestrial ecological health. Bioengineering at the upper part of Source Control Area 5 may not be protective of human and ecological health because soil in that area has not been covered with materials sufficient to prevent contact with the underlying soil. However, due to the apparently limited bioengineering area of Source Control Area 5 (i.e., approximately 200 square feet), this soil is unlikely to pose a significant risk to human and terrestrial ecological health.

11.2 SOURCE CONTROL AREA TO BE ADDRESSED DURING THE IN-WATER REMEDY

Source Control Area 1 consists of soil that underlies and supports the lower bulkhead. As discussed in Section 8.1, Gunderson has installed a bulkhead armoring system in this area. This system prevents erosion at the bulkhead and, with ongoing maintenance, could be a permanent remedy; however, EPA plans an in-water remedy in this area.

In the Draft Feasibility Study for the Portland Harbor, EPA has proposed a combination of dredging and armored capping for sediment at Source Control Area 1 under all of the remedial alternatives currently under consideration. The draft design for an armored cap at the Launchways area consists of a three-layer system consisting of (from bottom to top): (1) a 12-inch layer of sand mixed with 20 percent activated carbon, (2) 18 inches of sand, and (3) 6 inches of armor stone. Because EPA plans to address soil at Source Control Area 1, this area is not further evaluated herein.

11.3 SOURCE CONTROL MEASURES REQUIRING EVALUATION

SCMs are incomplete at Source Control Area 2 - the Launchways above the lower bulkhead. A number of interim measures have been implemented in this area, including installation of 64 wattle systems and ongoing implementation of Best Management Practices (e.g., inspections, sweeping, containment of abrasives). These measures significantly reduce the potential for stormwater runoff to convey hazardous substances in soil to the river; however, the erosion prevention measures require ongoing maintenance and replacement, and therefore, are not considered permanent measures. Additionally, soil in Source Control Area 2 contains arsenic at concentrations that exceed screening levels for worker protection. The ISCMs do not address the potential risk to human health. Ecological risk is not considered in this area due to the absence of habitat.

Permanent SCMs for Source Control Area 2 are evaluated in Sections 13 and 14.

12.0 SCM EVALUATION CRITERIA

This section discusses the evaluation criteria that are used to select SCMs for the Site.

12.1 EVALUATION CRITERIA

The riverbank source control alternatives were evaluated using the criteria listed in JSCS for Source Control Alternative Evaluation and Design. These criteria are: (1) effectiveness, (2) implementability, and (3) relative cost. Each criterion is described below. As discussed in Section 6, DEQ has a preference for treatment of hot spots; therefore, hot spot concentrations are also considered during the evaluation of SCMs.

12.1.1 Effectiveness

This criterion includes both the long-term effectiveness of the technology to prevent soils from eroding into the river, as described below.

- **Long-Term Effectiveness.** The effectiveness criterion considers the ability of an alternative to provide long-term environmental protection. An effective technology must be able to withstand scour and erosion that could destabilize the bank.

12.1.2 Implementability

The implementability criterion considers a number of factors that affect the practicability of constructing a particular alternative and the feasibility of minimizing short-term risk (i.e., implementation risk) during construction. These factors include the following.

- **Implementation Risk.** The objective of this criterion is to minimize short-term risks to workers and the environment associated with construction activities. Impacted soil may be exposed by re-grading certain parts of the bank, creating a risk of erosion into the aquatic environment. Although such impacts should be avoided to the extent practicable, in some cases it may be necessary to tolerate some amount of short-term environmental risk to gain long-term environmental protection. Engineering controls (e.g., silt fences) are used in these cases to reduce implementation risk.
- **Operational Constraints.** Upland and waterside operations must not be compromised by the technology. For example, the integrity of adjacent structures and rights of way must not be undermined by excessive removal of the bank.
- **Consistency with Adjacent Remedial Actions.** The proposed alternative must be consistent with the adjacent upland remedies, to the extent the design of these final remedies can be anticipated, as well as any proposed in-water remedial actions associated with the Portland Harbor Superfund site.
- **Permitting.** This factor considers the ease of obtaining permits for the source control alternative, or the ease of fulfilling the substantive requirements of permits exempted under

the Comprehensive Environmental Response, Compensation, and Liability Act and/or DEQ rules.

- **Consistency with Current and Future Land Use.** A source control alternative should not conflict with existing or anticipated future land use, especially water-dependent land use. For example, heavy industrial waterfront usage may conflict with the use of shallow, bioengineered slopes and wide riparian buffer zones.
- **Sustainability.** Sustainability considers the overall use of resources associated with a technology including energy and natural resources used to manufacture, install, and maintain the elements of the technology, as well as carbon dioxide emissions.

12.1.3 Cost

The relative cost to implement a source control alternative is developed at a level sufficient to compare the relative costs.

12.1.4 Hot Spots

DEQ has a preference for the treatment or removal of hot spots of contamination to the extent feasible, although, the treatment requirement for hot spots is subject to the remedy selection balancing factors listed above.

13.0 TECHNOLOGY EVALUATION AND SOURCE CONTROL ALTERNATIVES DEVELOPMENT

This section describes and evaluates the source control technologies applicable to SCMs for the riverbank.

13.1 SCREENING OF GENERAL APPROACHES

General approaches for SCMs at the Source Control Area 2 include:

- No Action;
- Institutional Controls;
- Excavation and Off-Site Disposal;
- Containment/Engineering Controls;
- Biological Treatment; and
- Physical/Chemical/Thermal Treatment.

No Action. A detailed evaluation of the need for source control was prepared in the SCE/Supplemental SCE (Shaw 2011 and Ash Creek 2012). Information presented in those documents indicates that source control is appropriate at some areas of the Area 2 riverbank. Therefore, the No Action alternative was not retained.

Institutional Controls. Institutional Controls consist of physical or legal barriers to prevent access to areas of concern. Institutional Controls would not prevent erosion of soil to surface water so were eliminated from further consideration as a stand-alone remedy, although institutional controls may be an element of other remedies, and could be implemented for protection of worker health.

Removal. Removal, as a standalone remedy, is not a feasible source control remedy for the facility because:

- COCs are present at significant depths in some riverbank areas (e.g., PCBs at 20 to 25 feet bgs at location "Vector 2.7") and excavation of those materials is not practicable.
- Removal of soil containing COC would structurally undermine key components of the facility, such as the Launchways and the Ways 2 Building.
- Any removal alternative that results in incomplete removal of COCs will require containment/engineering controls.

While removal is not a suitable standalone remedy, it may be a component of SCMs that include containment and engineering controls. Therefore, removal measures are considered in combination with other approaches.

Containment/Engineering Controls. Technologies in this category include capping and stabilization. These technologies prevent direct contact with (for workers and terrestrial receptors) and/or erosion of surface soils. These technologies would be included with other approaches, but conceptually, are capable of achieving the project objectives without other technologies. The studies completed as part of the SCE/Supplemental SCE demonstrate that many areas of the riverbank are stable and that well-established riprap and other armoring are successful in preventing surface erosion. Therefore, stabilization technologies were retained for further consideration.

Biological Treatment. Some of the source control COCs, such as metals, are not amenable to biological treatment under normal circumstances. Furthermore, biological treatment can take time during which the soils would be susceptible to erosion. For these reasons, biological treatment was eliminated from further consideration.

Physical/Chemical/Thermal Treatment. Chemical and thermal treatment are not compatible with some of the source control COCs. Physical treatment (e.g., solidification) could achieve the project objectives at high relative cost, but would not be compatible with City of Portland Greenway standards (the resulting condition would not be suitable for planting native species). Therefore, physical/chemical/thermal treatments were eliminated from further consideration.

Summary of Retained General Approaches. For the reasons outlined above, the following general approaches were retained for further evaluation:

- Removal;
- Containment/Engineering Controls; and
- Institutional Controls.

Section 13.2 presents a more detailed discussion of containment/engineering control alternatives. Removal is integrated into containment/engineering alternatives where necessary.

13.2 DESCRIPTION OF CONTAINMENT/ENGINEERING CONTROLS

Five bank stabilization technologies were considered for application at Source Control Area 2: (1) riprap armoring; (2) geosynthetic cellular confinement system (CCS); (3) aggregate containment, (4) PCC containment; and (5) bioengineering. Removal would be a component of all of the alternatives (to prepare the surface for installation of containment systems). Under all of the containment/engineering control alternatives, impacted soil would be exposed while preparing soil for installation of a containment layer, creating a short-term risk of erosion into the aquatic environment. These short term risks can be readily managed and mitigated through proper design, planning and implementation of engineering controls (e.g., silt fences). Standard procedures used in the construction and environmental remediation industries can be employed to minimize implementation risk.

13.2.1 Riprap Armoring

Traditional riprap armoring consists of a blanket of rock material sized to resist river currents and wave action. It is a flexible solution that is able to fit the slope and shape of an existing shoreline. Riprap armoring is tolerant to changes in subsurface soils due to settlement and other forces. In general, riprap slopes can be maintained at a steeper grade than re-vegetated soil slopes and also provide resistance against surface erosion from water flow. Riprap armoring is extremely durable in the long-term and provides high resistance to propeller wash and vessel wakes associated with a working waterfront, as well as overland flow and wind erosion. In some cases, vegetation can be planted in the riprap to further stabilize the slope and enhance the slope appearance and habitat. Riprap is not a feasible approach for Source Control Area 2 because the Launchways are a working area, used to stage equipment and to access vessels, and riprap is not compatible with those activities.

13.2.2 Geosynthetic Cellular Confinement Systems

Geosynthetic cellular confinement systems (CCSs) combine an engineered slope stabilization technology with native vegetation that enhances habitat and long-term slope stability. CCSs are typically three-dimensional structures, made of polyethylene, that form open-ended cylinders 3 to 12 inches deep. Each cell acts as a small dam that allows water to pass over the top while holding in place the soil contained inside the cell. Vegetation may be planted in the upper bank cells. Another form of CCS consists of sandbags with open weave materials that allow for vegetation to be established in the sand. In addition to aesthetics, the vegetation also helps to reduce the potential for erosion as the plants serve as an anchor. Because the walls may be perforated, roots are allowed to grow through the system, further enhancing the erosion protection. The perforations also allow lateral drainage through the system, enhancing performance of the CCS in submerged conditions. CCS systems would not be compatible with Source Control Area 2 because this is a working area.

13.2.3 Aggregate Soil Containment

Source Control Area 2 is constructed at slopes on the order of 7.5:1. The ground surface at approximately 40 percent of the Launchways is covered by a mixture of crushed rock and soil. The soil could be subject to erosion via surface water runoff or current forces during high water. The Launchways constitute a working area, subject to frequent and ongoing activities. Vegetation is generally absent from the Launchways. The Launchways do not provide habitat for aquatic or terrestrial receptors.

Soil containment in the Launchways, above the lower bulkhead, using clean imported aggregate, would maintain a measureable level of protection. The aggregate layer would be separated from underlying impacted material through use of a separation geotextile layer. Installation of the aggregate cap would require soil removal and grading, preparation of the subgrade, placement of the geotextile (including use of an anchoring trench), and placement and grading of the aggregate layer.

Conceptually, the Aggregate Soil Containment alternative could be performed in stages to accommodate facility operations and to manage costs. For example, one-third of the affected area could be treated each year for three years.

Based on the existing slope gradient for the Launchways area (13.3 percent) we evaluated the bed shear associated with direct rainfall and runoff. In evaluating this scenario, we calculated the potential runoff based on the Rational Method as presented in the Oregon Department of Transportation (ODOT) Hydraulics Manual.

Per the City of Portland "Sewer and Drainage Facilities Design Manual" (2007 edition) the short duration (5 minute) 100-year rainfall intensity for the Portland Airport is 4.14 inches per hour.

The Rational Method formula for calculating flow is:

$$Q \quad = C_f Cia$$

Where:

Q = total flow in cfs
C_f = Runoff Coefficient Adjustment Factor = 1.25 for 100-year storm
C = Runoff Coefficient (0.85 for gravel pavements)
I = rainfall intensity (4.14 inches per hour)
a = drainage area in acres (0.045 per bay based on an area 22 feet wide by 90 feet long)

This results in a total flow value of 0.20 cfs which in a unit width basis (width of 22 feet) is 0.0090 cfs/ft.

Calculating flow depth for water flowing off of an inclined plane, the depth of flow is calculated as follows for sheet flow:

$$h = \left(\frac{3Q\nu}{g \sin \alpha}\right)^{\frac{1}{3}}$$

Where:

ν = kinematic viscosity of water (1.4E-5 ft^2/s)
Q = total flow per unit width (0.0090 cfs/ft)
G = acceleration of gravity (32.2 ft/s^2)
α = average slope angle (7.6 degrees)

This results in a calculated flow depth of 0.05 inches. For the purposes of evaluating a minimum rock size to protect the surface, we conservatively assumed a flow depth of 0.5 inches.

The following formula represents bed shear associated with laminar flow over a sloping surface.

$$\tau_d = \gamma(dS)$$

Where: τ_d = bed shear in psf

γ = unit weight of water, 62.4 pcf
d = maximum depth of flow in feet
S = average bed slope (0.133 for 7.5:1)

Using the conservative flow depth of one half inch (0.042 feet), the bed shear is calculated at 0.354 psf. This proves to be the critical case since based on high flow model developed for the Portland Harbor (Integral Consulting et al., 2016), the bed shear values associated with inundation of the Willamette River is less than 0.01 psf (0.4 N/m^2).

For the design of rock lined channels, the relationship between bed shear and aggregate gradation is as follows:

$$\tau_d = 4.0 d_{50}$$

Where:

τ_d = bed shear in psf
d_{50} = mean diameter stone size in feet

The Federal Highway Administration (FHWA) guidance recommends using factors of safety up to 1.5. Using the calculated bed shear of 0.5 psf (reflecting a factor of safety of 1.5) the calculated mean diameter stone size is 0.135 feet (1.6 inches).

The analysis presented above is based on the ability of rounded sands and gravels to resist erosion. Using crushed rock will provide additional protection not accounted for in the model. Based on our analysis, 4 inch minus crushed rock would be suitable for an aggregate containment layer in the Launchways.

For ease of placement and grading, it is typically best to maintain a layer at twice the maximum particle size. As such, the total recommended thickness of the aggregate containment layer (consisting of 4-inch minus rock) would be 8 inches. A conceptual diagram, showing aggregate stabilization in the Launchways is included as Figure 18.

The aggregate cap would require ongoing monitoring to ensure the integrity of the cap. If soil or other materials containing hazardous substances accumulate in the aggregate cap, it would be necessary to clean or replace the cap.

13.2.4 Portland Cement Concrete Soil Containment

This technology is similar to the aggregate soil containment technology described in Section 11.2.3; however, under this alternative, PCC would be the soil containment media. PCC containment in the Launchways, above the lower bulkhead, would prevent stormwater runoff and Willamette River water from eroding soil. PCC containment offers the benefit of a functional working surface and few ongoing maintenance requirements. Installation of the PCC cap would require soil removal

and grading, preparation of the subgrade and construction of the PCC cap. Impacted soil may be exposed by preparing Launchways soil for installation of a containment layer, creating a short-term risk of erosion into the aquatic environment; however, these risks can be readily mitigated trhough proper design, planning, and implementation of engineering controls (e.g., silt fences). Some impacted soil would be removed and disposed of off-site to prepare for installation of the PCC cap. Conceptually, the PCC containment alternative could be performed in stages to accommodate facility operations and to manage costs. For example, one-third of the affected area could be treated each year for three years.

13.2.5 Bioengineering

Bioengineering is the combination of biological, mechanical, and ecological methods to control erosion and stabilize soil through the use of vegetation or a combination of vegetation and construction materials. Both living and nonliving plants can be used. Non-living plants are used as construction materials, similar to engineered materials. Planted vegetation controls erosion and serves as good wildlife and fisheries habitat in riparian systems. Bioengineering has been effective for controlling erosion at some facility riverbank areas (e.g., Source Control Area 3). The City of Portland describes bioengineering as "the ideal measures to use on streambanks and upland slope areas" (City of Portland 2008).

Bioengineering is not a feasible remedy for Source Control Area 2 because that area is a working area that would not support the development of vegetation.

14.0 COMPARATIVE ANALYSIS OF SCM ALTERNATIVES

The potentially applicable alternatives for Source Control Area 2 were evaluated based on the criteria listed in Section 12. In addition, Source Control Area 2 alternatives were evaluated for protectiveness of occupational receptors. Terrestrial ecological risk is not considered during the evaluation of SCM alternatives.

The evaluation of source control alternatives for the Source Control Area 2 was limited to containment/engineering controls. Removal is a component of each of the containment and engineering controls; however, removal was not evaluated as a standalone source control approach because: (1) the depth of impacted soil is at least 25 feet (e.g., Vector 2.10) and the cost for removal of soil to this depth would be disproportionate to the benefits received; and (2) removal efforts would have unacceptable impacts on facility operations.

14.1 EFFECTIVENESS

Each of the stabilization technologies described in Section 13.2 could be used to mitigate erosion risk at the Launchways. Aggregate and PCC containment were deemed to be more effective than other stabilization methods. Aggregate containment is expected to require more maintenance than PCC containment; however, aggregate would enhance stormwater infiltration, and therefore, would reduce runoff.

The following solutions could be effective under some circumstances, but are not compatible with ongoing operations at the Launchways, and therefore are not further considered:

- Riprap – Riprap is a durable and effective means of preventing erosion and preventing contact with contaminated soil; however, riprap is unsuitable for barge manufacturing activities such as equipment staging, construction of temporary cribbing, and worker movement.
- CCS – CCS can be an effective erosion prevention approach; however, equipment and materials cannot be staged on CCS, workers cannot safely move across CCS, and ongoing manufacturing activities would prevent the establishment of vegetation in a CCS.
- Bioengineering – Bioengineering relies on the establishment of a healthy network of vegetation for long-term stability of an erosion prevention system. Vegetation would not become established in the Launchways due to ongoing manufacturing activities. Furthermore, bioengineering systems would not offer the bearing strength required for temporary cribbing used during barge construction.

14.2 IMPLEMENTABILITY

In terms of ease of construction, aggregate containment is the simplest to implement and the materials are readily attainable within the vicinity of the Site. PCC containment is also implementable. PCC materials are readily available in the vicinity of the facility. Construction of

PCC containment is more time consuming and challenging than aggregate containment, and therefore, presents more short term implementation risk. Riprap, CCS, and bioengineering are not compatible with future use of the Launchways. For these reasons, aggregate containment and PCC containment were deemed more implementable than the other technologies.

14.3 COST

Standard engineering procedures were used to estimate the cost of each SCM alternative. The estimated cost incorporates key elements of the SCM, including mobilization, excavation, disposal, Site restoration, monitoring, and operation and maintenance. Costs are limited to those incurred by the party implementing the SCM, including any DEQ oversight and periodic review or monitoring. Consistent with standard EPA feasibility-level estimating protocols, the estimated costs should be within the range of +50 percent to -30 percent of actual costs of implementing the SCM. A contingency of 30 percent has been applied to the overall cost for each SCM and is included in the total SCM cost presented below.

14.3.1 Aggregate Containment Costs

Based on professional experience in the Portland Harbor area, aggregate emplacement would cost on the order of $2 per square foot; subgrade preparation (removal of 8-inches of soil) would cost on the order of $3 per square foot. Assuming approximately 30,000 square feet of aggregate coverage, costs for installing aggregate containment would on the order of $150,000.

Aggregate containment costs could increase beyond the $150,000 base estimate for two reasons: (1) additional costs for working in an active manufacturing area; and (2) the need to replace a portion of aggregate due to the accumulation of fines in the aggregate. Each of these contingencies are discussed below.

The Launchways are an active manufacturing area. If the aggregate emplacement cannot be scheduled to occur when manufacturing activities are not occurring in the Launchways, it will be necessary to perform the SCMs in stages and at times that would not conflict with manufacturing activities. These logistical challenges, including multiple mobilizations, could increase construction costs by approximately 50 percent ($75,000).

Fines may settle into the aggregate (e.g., when the river is at flood stage). Over time, the accumulation of fines may reduce the effectiveness of aggregate for preventing erosion to the river. In the event that aggregate effectiveness is sufficiently reduced, aggregate maintenance would be required. For cost estimating, we have assumed that the cost for replacement of the upper four-inches of aggregate would be approximately equal to one-half the initial installation costs (i.e., $75,000).

In summary, the base cost for installing aggregate in the Launchways is approximately $150,000. The additional costs associated with scheduling and staging work in an active manufacturing area ($75,000) and aggregate replacement ($75,000) could increase costs by $150,000, leading to total costs up to approximately $300,000. Accounting for -30%/+50% contingencies, the range of costs

for aggregate containment range between $105,000 ($150,000 - 30%) to $450,000 ($300,000 + 50%).

14.3.2 PCC Containment Costs

A basic PCC containment system, consisting of an 8-inch-thick layer of PCC, could be installed in Launchways for a cost on the order of $315,000 (subgrade preparation $3 per square foot; reinforced concrete $7.50 per square foot). If installation of the PCC containment system cannot be scheduled to occur when manufacturing activities are not occurring in the Launchways, it would be necessary to perform the SCMs in stages and at times that would not conflict with manufacturing activities. These logistical challenges, including multiple mobilizations, could increase the construction costs by approximately 50 percent ($158,000), for a total of $473,000. Accounting for -30%/+50% contingencies, the range of costs for a basic PCC containment system could range between $221,000 ($315,000 - 30%) to $710,000 ($473,000 + 50%).

However, a basic PCC containment system would not support ongoing operations in the Launchways. Currently, the Launchways are used to stage and construct barges (consisting of modules constructed at other upland areas). The barge staging and fabrication process requires that Launchways surfaces be engineered to support heavy loads. This requires non-standard PCC thicknesses, level PCC surfaces, and special reinforcing details. Estimating the costs of these special, non-standard, construction details is outside of the scope of this FFS; however, Gunderson has previously solicited a contractor bid for these services. According to a previous contractor estimate, a Launchways PCC containment system constructed similar to other PCC-covered portions of the Launchways would cost on the order of $1 million ($700,000 - $1,500,000, with -30%/+50% contingency). The contractor estimate was obtained in approximately 2012. Considering inflation, the estimated costs have likely increased.

14.4 SUMMARY

The comparative analysis of SCMs for Source Control Area 2 – Launchways is summarized below.

Alternative	Effectiveness	Implementability	Cost[6]
Aggregate Containment	Effective; requires ongoing maintenance	Implementable, although scheduling would require consideration of vessel construction schedules.	$105,000 - $450,000
PCC Containment	Effective; requires limited maintenance	Implementable, scheduling requires consideration of vessel construction schedules.	$700,000 - $1,500,000
Riprap	Effective; requires limited maintenance	Not implementable; incompatible with ongoing Launchways operations.	Not estimated
CCS Containment	Would not be effective due to ongoing manufacturing activities in the Launchways	Not implementable; incompatible with ongoing Launchways operations.	Not estimated
Bioengineering	Would not be effective due to ongoing manufacturing activities in the Launchways	Not implementable; incompatible with ongoing Launchways operations.	Not estimated

14.5 HOT SPOTS

One sample collected at Source Control Area 2 exceeded the hot spot criteria for arsenic; however, the average arsenic concentration in that area is well below the hot spot criteria. Both aggregate containment and PCC containment are similarly effective for preventing worker exposure to arsenic in soil. We anticipate that soil that exceeds the hot spot criterion for arsenic will be removed during subgrade preparation for the containment system.

[6] Cost includes +50%/-30% contingencies.

15.0 RECOMMENDED SOURCE CONTROL MEASURES

15.1 SOURCE CONTROL AREA 2 – THE LAUNCHWAYS ABOVE THE LOWER BULKHEAD

The recommended source control measure for the Source Control Area 2 consists of aggregate containment. Approximately eight inches of soil would be excavated from unpaved areas of the Launchways. An approximately 8-inch layer of 4 inch minus crushed rock would be installed over a geotextile liner at unpaved Launchways areas. The crushed rock will prevent erosion of Launchways soil via overland flow and during periods of river inundation. The crushed rock is compatible with ongoing uses of the Launchways. In the future, at Gunderson's discretion, PCC may be installed over the crushed rock if necessary for operations.

This approach is equally effective and implementable relative to other approaches, and the overall cost of this approach is less than other alternatives.

In addition to preventing erosion, aggregate containment would prevent worker exposure to chemicals in underlying soil, and therefore, with ongoing monitoring and maintenance, the aggregate containment system would be protective of worker health.

15.2 OTHER SOURCE CONTROL AREAS

Source Control Area 1 will be addressed concurrent with the in-water remedy.

SCMs have been implemented at Source Control Areas 3, 4, and 5. These measures are protective of the river and are expected to be effective indefinitely, with adequate monitoring and maintenance. The proposed monitoring and maintenance program is described in Section 10.

16.0 SCHEDULE, MONITORING, AND REPORTING

16.1 SCHEDULE

A Source Control Work Plan will be submitted to DEQ within 90 days of DEQ approval of this report.

Source control measures at Source Control Area 2 will be initiated within one year of DEQ approval of the Source Control Work Plan and will be completed on a schedule that consistent with Gunderson's ongoing Launchways maintenance and barge manufacturing activities. We anticipate that the proposed SCMs will be implemented over an approximately three-year period.

16.2 EFFECTIVENESS MONITORING

The effectiveness of the proposed SCMs will be evaluated by:

- Confirming that the size and deployed thickness of the proposed aggregate layer is consistent with the work plan;
- Confirming that the proposed aggregate layer provides complete coverage of soil (excluding PCC-covered areas) in the Launchways, above the lower bulkhead; and
- Monitoring the surface of the lower bulkhead to confirm that erodible materials are not migrating from the Launchways to the river.

Effectiveness monitoring will be performed during construction (i.e., confirmation of aggregate size and thickness) and following construction (i.e., confirmation that aggregate is not being eroded and significantly reducing the thickness of the aggregate layer). Monitoring will be performed on a schedule consistent with that described in Section 10.

16.3 REPORTING

Monitoring reports will be submitted on the schedule described in Section 10. The monitoring reports will include a description of progress implementing the proposed SCM at Source Control Area 2. A Source Control Completion Report will be submitted within 90 days of completion of the SCMs.

17.0 REFERENCES

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Squier Associates, 2002. *Preliminary Site Assessment, Gunderson Area 2 Industrial Operations Area, Portland, Oregon.* June 17, 2002.

Squier-Kleinfelder, 2004. *Expanded Preliminary Assessment, Gunderson Area 2 Rail Car and Marine Barge Assembly Area, Portland, Oregon.* January 2004.

18.0 CLOSING

We trust that the information presented in this work plan meets your current requirements. Should you have any questions, or concerns, please do not hesitate to contact the undersigned.

We appreciate the opportunity to be of service to Gunderson LLC on this project. If you have any questions or comments regarding this report, please contact the undersigned at (503) 906-6577.

Cascadia Associates, LLC	Reviewed By:
Chris Breemer, R.G. Project Manager/Principal	Kurt Harrington, P.E. Principal Engineer

CB/KH/

TABLES

Table 1
Summary of Source Control Risk Screening - Riverbank Section 1
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Surface Soil Samples		Vector 2.1					Vector 2.2				Vector 2.3			Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil	Default Background (Portland Basin Soil)
			S2-1	S2-2	090210-2-2.1-Surface-11-FS	090210-2-2.1-1.5-01-FS	090210-2-2.1-5-02-FS	090210-2-2.1-20-05-FS	090210-2-2.1-20-06-DUP	090310-2-2.2-Surface-11-WS	090310-2-2.2-1.5-01-FS	090310-2-2.2-10-03-FS	090310-2-2.2-20-05-FS	090310-2-2.3-Surface-11-WS	090310-2-2.3-1.5-01-FS	090310-2-2.3-15-04-FS			
	Sample Date		9/24/2010	9/24/2010	9/2/2010	9/2/2010	9/2/2010	9/2/2010	9/2/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010			
	Depth (Feet Below Ground Surface)		0	0	0	0 - 1.5	5 - 10	20 - 25	20 - 25	0	0 - 1.5	10 - 15	20 - 25	0	0 - 1.5	15 - 20			
Inorganics	Mercury	mg/kg	0.0825 J	0.409	0.0834 J	0.0122 J	0.0641 J	0.0243 J	0.0208 J	0.0701 J	0.0042 U	0.0128 J	0.0733 J	0.0540 J	0.0500 J	0.0723 J	0.07	1.1	0.23
	Arsenic	mg/kg	19.9	580	19.2	17.3	26.1	12.4	11.3	23.0	17.1	4.29	7.42	12.7	9.34	8.27	--	3.0	8.8
	Chromium	mg/kg	28.7	129	263	35.0 J	32.9	36.8	32.1	102.0	6.33	17.5	23.7	95.0	22.7	33.4	111	--	76
	Copper	mg/kg	75.1	1,350	902	301	250	34.2	31.5	359	46.5	20.5	22.0	340	29.3	77.1	149	149	34
	Lead	mg/kg	140	1,490	293	63.3 J	87.1	22.1	25.2	137	26.3	7.02	14.2	127	69.8	149	17	128	79
	Manganese	mg/kg	1,130	1,090	6,550	1,240	1,270	859	602	2,600	396	515	647	1,670	625	783	1,100	--	1,800
	Nickel	mg/kg	23.4	75.7	245	26.4 J	22.5	25.4	23.7	87.1	6.58	17.1	18.5	61.2	16.6	36.8	49	--	47
	Zinc	mg/kg	312	5,730	3,130	345	385	109	114	524	137	62.2	70.9	570	123	202	459	459	180
PCBs	Total PCBs	µg/kg	7.07	49.0	40.2	18.3 U	41.5 J	22.28 U	21.18 U	68.3	17.48 U	20.49 U	2.44 J	93.9	2.82 J	53.7	0.39	9	--
PAHs	Benzo(a)anthracene	µg/kg	46.7	1,100 J	247	3.60 U	46.7 J	78.3 J	18.6 J	90.4	3.43 U	14.5 J	4.25 U	214	32.90	242	1,050	--	--
	Chrysene	µg/kg	57.0	1,310 J	459	3.60 U	71.1 J	130 J	28.8 J	173	3.43 U	15.4 J	4.30 U	754	40.70	267	1,290	--	--
	Indeno(1,2,3-cd)pyrene	µg/kg	53.7	1,070 J	254	3.60 U	39.8 J	69.6	13.1 J	112	3.43 U	7.22 J	4.25 U	115	26.20	124	100	--	--
	Pyrene	µg/kg	86.8	1,590 J	463	3.60 U	76.7	320 J	54.8 J	176	3.43 U	23.3	6.40 J	743	84.9	525	1,520	--	--
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	32.2 U	61.6 U	912	14.6 U	75.6 U	17.8 U	17.0 U	628	13.9 U	16.5 U	17.1 U	779	26.2 J	16.3 U	330	135	--
	Di-n-butyl phthalate	µg/kg	32.2 U	61.6 U	256 J	14.6 U	75.6 U	17.8 U	17.0 U	144 U	13.9 U	16.5 U	17.1 U	750	16.3 U	16.3 U	100	--	--
Butyltins	Tributyltin	µg/kg	1.0 U	38	580	1.4 U	1.5 U	1.7 U	1.7 U	300	0.89 U	1.1 U	1.1 U	33	1.0 U	1.0 U	2.3	24,000	--

Notes:

1. -- = Not applicable/not analyzed
2. mg/kg = Milligrams per kilogram
3. µg/kg = Micrograms per kilogram
4. J = The result is an estimated quantity
5. U= Undetected at the method detection limit shown
6. UJ = Undetected at the method detection limit shown, detection limit is an estimated quantity
7. Joint Source Control Strategy (JSCS) Screening Level Values (SLVs); revision date 7/16/2007
8. Shading indicates sample concentration exceeds the background concentration (if established) and the corresponding JSCS SLV and/or the draft PRG
9. PRG = Draft Preliminary Remediation Goal; prepared by U.S. Environmental Protection Agency, July 2015
10. This table lists only analytes that were detected in this section of the riverbank in one or more soil samples collected less than 25 feet bgs, at concentrations that exceed one or more source control screening criteria and background levels
11. Background concentrations from Development of Oregon Background Metals Concentrations in Soil; Oregon Department of Environmental Quality, 2013

Table 2
Summary of Source Control Risk Screening - Riverbank Section 2
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Riverbank Section 2			Vector 2.4				Vector 2.5			Vector 2.6			Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil	Default Background (Portland Basin Soil)
			S2-3	S2-4	S2-5	090710-2-2.4-5-02-FS	090710-2-2.4-10-03-FS	090710-2-2.4-15-04-FS	090710-2-2.4-20-05-FS	090810-2-2.5-00-10-WS	090710-2-2.5-5-02-FS	090710-2-2.5-15-04-FS	090810-2-2.6-00-10-WS	090810-2-2.6-5-01-FS	090810-2-2.6-15-03-FS			
		Date	9/24/2010	9/24/2010	9/24/2010	9/7/2010	9/7/2010	9/7/2010	9/7/2010	9/8/2010	9/7/2010	9/7/2010	9/8/2010	9/8/2010	9/8/2010			
	Depth (Feet Below Ground Surface)		0	0	0	5 - 10	10 - 15	15 - 20	20 - 25	0	5 - 10	15 - 20	0	5 - 10	15 - 20			
Metals	Arsenic	mg/kg	68.1	2.25 J	3.51	23.8	7.59	--	7.22	205	10.0	14.7	63.1	3.14	18.4	--	3.0	8.8
	Chromium	mg/kg	27.9	4.94 J	19.0	56.4 J	32.8	--	134	123	31.2	27.5	72.9	13.5	27.9	111	--	76
	Copper	mg/kg	138	26.9	76.4	100	48.3	--	58.7	1,880	68.0	44.7	687	28.1	89.7	149	149	34
	Lead	mg/kg	125	7.13	20.3	204 J	93.7	--	65.3	459	216	169	188	24.2	162	17	128	79
	Manganese	mg/kg	381	1,400	1,120	2,020	964	--	1,250	2,350	384	984	1,390	620	621	1,100	--	1,800
	Nickel	mg/kg	19.8	3.70 J	11.1	40.6	24.4	--	84.6	170	21.2	23.7	44.7	8.01	20.3	49	--	47
	Zinc	mg/kg	604	99.8	265	658	192	--	172	2,460	321	403	2,150	110	402	459	459	180
PCBs	Total PCBs	µg/kg	3.32 J	19.2 U	3.10 J	9.61 J	8.16	--	2.63 J	10.2	271	16.3	46.1	6.79	9.75	0.39	9	--
PAHs	Benzo(ghi)perylene	µg/kg	320	9.66 J	19.8	255	40.2	38.8 J	122	356	272	516	85.9	6.74 J	18.8	300	--	--
	Indeno(1,2,3-cd)pyrene	µg/kg	276	8.56 J	16.8	202	30.9	28.9 J	96.7	313	249	470	61.0 J	4.23 J	21.8	100	--	--
	Phenanthrene	µg/kg	100	13.7 J	22.5	141	35.0	23.3 J	57.3	1,240	662	1,970	87.5	4.93 J	19.8	1,170	--	--
	Pyrene	µg/kg	307	20.7	32.1	205	89.4	30.4 J	114	972	689	1,790	140	9.39 J	27.4	1,520	--	--
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	28.9 U	41.2	118	78.7 U	14.7 U	--	74.6 U	294	76.0 U	156	452	15.0 U	28.1 J	330	135	--
	Di-n-butyl phthalate	µg/kg	28.9 U	15.3 U	17.0 J	78.7 U	14.7 U	--	74.6 U	116 J	76.0 U	36.0 J	313	15.0 U	16.6 U	100	--	--
Butyltins	Tributyltin	µg/kg	0.9 U	35	15	1.0 U	1.0 U	--	1.0 U	68	0.9 U	1.1 U	1.1 U	3.8	1.2 U	2.3	24,000	--

Notes:
1. -- = Not applicable/not analyzed
2. mg/kg = Milligrams per kilogram
3. µg/kg = Micrograms per kilogram
4. J = The result is an estimated quantity
5. U= Undetected at the method detection limit shown
6. UJ = Undetected at the method detection limit shown, detection limit is an estimated quantity
7. Joint Source Control Strategy (JSCS) Screening Level Values (SLVs); revision date 7/16/2007
8. Shading indicates sample concentration exceeds the background concentration (if established) and the corresponding JSCS SLV and/or the draft PRG
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10. This table lists only analytes that were detected in this section of the riverbank in one or more soil samples collected less than 25 feet bgs, at concentrations that exceed one or more source control screening criteria and background levels
11. Background concentrations from Development of Oregon Background Metals Concentrations in Soil; Oregon Department of Environmental Quality, 2013

Table 3

Summary of Source Control Risk Screening - Riverbank Section 3

Supplemental Area 2 Riverbank Focused Feasibility Study

Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Surface Soil Samples											Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil	Default Background (Portland Basin Soil)
			A2GS-1	A2GS-2	S2-6	S2-7	S2-8	S2-9	S2-10	S2-11	S2-12	S2-13	S2-14			
		Date	6/9/2003	6/9/2003	9/24/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010			
		Depth (Feet Below Ground Surface)	0 - 0.25	0 - 0.25	0	0	0	0	0	0	0	0	0			
Metals	Arsenic	mg/kg	--	--	4.01	135	5.85	6.27	23	29.1	19.0	30.8	61.3	--	3	8.8
	Chromium	mg/kg	--	--	20.5	207	20.3	28.7	82.9	84.2	47.0	96.3	59.6	111	--	76
	Copper	mg/kg	--	--	199	1,580	112	260	1,220	1,130	832	2,870	962	149	149	34
	Lead	mg/kg	--	--	31.2	563	56.3	65.4	1,260	241	39.1	73.8	86.3	17	128	79
	Manganese	mg/kg	--	--	1,110	3,080	1,270	1,360	1,890	2,110	1,660	2,860	2,370	1,100	--	1,800
	Nickel	mg/kg	--	--	12.0	95	13.9	22.7	52	42.6	26.9	53.6	31.3	49	--	47
	Zinc	mg/kg	--	--	650	3,900	300	767	7,420	764	494	3,220	558	459	459	180
PCBs	Total PCBs	µg/kg	ND	596	8.76	123 J	58.0	8.57	88.2	33.6 J	12.9 J	14.4 J	71.5	0.39	9	--
PAHs	2-Methylnaphthalene	µg/kg	ND	ND	7.29 J	46.3	8.65 J	4.23 J	22.2	112	36.9	8.98 J	6.86 U	200	--	--
	Acenaphthene	µg/kg	ND	ND	5.66 J	33.1	4.42 J	3.79 U	24.1	162	34.7	22.7 J	7.04 J	300	--	--
	Acenaphthylene	µg/kg	ND	ND	4.23 U	71.1	4.30 J	3.79 U	8.76 J	85.0	7.68 J	7.59 U	6.86 U	200	--	--
	Anthracene	µg/kg	ND	ND	8.12 J	155	7.99 J	9.31 J	35.6	234	56.4	27.8 J	44.4	845	--	--
	Benzo(a)anthracene	µg/kg	1,210	477	34.1	150	27.4	29.4	89.6	567	105	150	240	1,050	--	--
	Benzo(a)pyrene	µg/kg	1,830	681	47.4	296	41.3	53.4	124	683	110	212	202	1,450	--	--
	Benzo(ghi)perylene	µg/kg	2,050	769	43.2	468	38.3	64.2	129	578	83.5	204	124	300	--	--
	Chrysene	µg/kg	2,400	764	56.5	239	54.8	50.0	146	940	132	228	211	1,290	--	--
	Dibenzo(a,h)anthracene	µg/kg	ND	ND	11.5 J	120	12.0 J	15.9	41.6	192	25.1 J	61.4	54.1	1,300	--	--
	Fluoranthene	µg/kg	1,420	1,090	117	308	67.3	75.7	217	2,650	329	288	474	2,230	--	--
	Fluorene	µg/kg	ND	ND	5.80 J	42.5	5.42 J	5.78 J	19.5	193	49.3	17.7 J	11.7 J	536	--	--
	Indeno(1,2,3-cd)pyrene	µg/kg	1,220	628	38.2	402	33.2	49.9	119	546	76.1	169	121	100	--	--
	Naphthalene	µg/kg	ND	ND	7.64 J	74.3	17.0	7.21 J	39.9	107	38.5	46	6.86 U	561	--	--
	Phenanthrene	µg/kg	ND	564	94.2	229	48.1	49.2	152	2,210	356	150	212	1,170	--	--
	Pyrene	µg/kg	1,740	964	90.6	263	62.4	67.9	188	1,940	277	242	351	1,520	--	--
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	ND	ND	276	820	83.7	77.4	795	3,040	448	610	95.7	330	135	--
	Diethyl phthalate	µg/kg	ND	ND	64.0 J	153	44.8	34.2 J	88.8	792	170	61.7 U	27.9 U	600	--	--
	Di-n-butyl phthalate	µg/kg	--	--	59.7 J	186	15.8 U	30.8 U	63.2 J	108	28.3 U	61.7 U	27.9 U	60	--	--
Butyltins	Tributyltin	µg/kg	189	1,770	99	440	29	24	120	8.8	3.5	74	0.9 U	2.3	24,000	--
Organochlorine Pesticides	4-4'-DDD	µg/kg	--	--	--	--	--	--	--	--	--	--	--	0.33	6.1	--
	4,4'-DDE	µg/kg	--	--	--	--	--	--	--	--	--	--	--	0.33	6.1	--
	4,4'-DDT	µg/kg	--	--	--	--	--	--	--	--	--	--	--	0.33	6.1	--
	Dieldrin	µg/kg	--	--	--	--	--	--	--	--	--	--	--	0.01	0.07	--
Dioxins/Furans	1,2,3,6,7,8-HxCDF	pg/g	--	--	--	--	--	--	--	--	--	--	--	2.7	--	--

Table 3

Summary of Source Control Risk Screening - Riverbank Section 3

Supplemental Area 2 Riverbank Focused Feasibility Study

Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.7 Composite Samples			Vector 2.7 Samples				Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil	Default Background (Portland Basin Soil)
			092210-2-2.7-Composite-11-FS	092210-2-2.7-Composite-12-Total	110110-2-2.7-Composite-01-WS	092210-2-2.7-Surface-01-WS	092210-2-2.7-10-03-FS	092210-2-2.7-25-06-FS	092210-2-2.7-25-07-Dup			
		Date	9/22/2010	9/22/2010	11/1/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010			
		Depth (Feet Below Ground Surface)	0	0	0	0	5 - 10	20 - 25	20 - 25			
Metals	Arsenic	mg/kg	--	--	6.53	11.3	112	6.30 J	10.9 J	--	3	8.8
	Chromium	mg/kg	--	--	26.3 J	51.0	99.8	34.3 J	93.0 J	111	--	76
	Copper	mg/kg	--	--	234	843	282	88.4	124 J	149	149	34
	Lead	mg/kg	--	--	61.5 J	33.6	386	515 J	208 J	17	128	79
	Manganese	mg/kg	--	--	1,120	1,470	840	1,020 J	751 J	1,100	--	1,800
	Nickel	mg/kg	--	--	14.2	39.9	22.3	33.2	60.6	49	--	47
	Zinc	mg/kg	--	--	787	3,970	1,210	730 J	406 J	459	459	180
PCBs	Total PCBs	µg/kg	--	--	34.7 J	27.3	47.6	864 J	136 J	0.39	9	--
PAHs	2-Methylnaphthalene	µg/kg	--	211 U	7.15 J	7.05 U	1,570	72.7	29.6 J	200	--	--
	Acenaphthene	µg/kg	--	211 U	23.6	7.05 U	3,090	40.7	13.4 J	300	--	--
	Acenaphthylene	µg/kg	--	211 U	6.63 J	19.2 J	3,410	12.3 J	13.8 J	200	--	--
	Anthracene	µg/kg	--	211 U	31.4	43.3	8,670	105 J	187 J	845	--	--
	Benzo(a)anthracene	µg/kg	--	211 U	139	91.6	12,500	569 J	81.6 J	1,050	--	--
	Benzo(a)pyrene	µg/kg	--	255 J	196	71.8	10,300	930 J	91.4 J	1,450	--	--
	Benzo(ghi)perylene	µg/kg	--	211 U	169	82.3	5,340	932 J	66.3 J	300	--	--
	Chrysene	µg/kg	--	350 J	201	240	12,000	903 J	206 J	1,290	--	--
	Dibenzo(a,h)anthracene	µg/kg	--	211 U	44.0	28.5 J	1,710	129	15.7 J	1,300	--	--
	Fluoranthene	µg/kg	--	358 J	404	236	33,500	359 J	118 J	2,230	--	--
	Fluorene	µg/kg	--	211 U	23.3	11.8 J	5,850	63.3	50.8	536	--	--
	Indeno(1,2,3-cd)pyrene	µg/kg	--	211 U	153	64.4	5,330	258 J	43.6 J	100	--	--
	Naphthalene	µg/kg	--	211 U	8.49 U	11.6 J	2,320	154 J	52.6 J	561	--	--
	Phenanthrene	µg/kg	--	259 J	278	81.1	37,300	395 J	90.0 J	1,170	--	--
	Pyrene	µg/kg	--	300 J	366 J	260	26,500	1,060 J	215 J	1,520	--	--
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	--	6,020 U	816 J	551	151 U	31.7 U	15.9 U	330	135	--
	Diethyl phthalate	µg/kg	--	602 J	229 J	35.3 J	75.4 U	31.7 U	15.9 U	600	--	--
	Di-n-butyl phthalate	µg/kg	--	1,510 U	206	1,180	75.4 U	63.4 U	15.9 U	60	--	--
Butyltins	Tributyltin	µg/kg	--	--	130	14	0.92 U	1.10 U	1.1 U	2.3	24,000	--
Organochlorine Pesticides	4-4'-DDD	µg/kg	5.63	3.05 U	0.870 U	0.709 UJ	--	--	--	0.33	6.1	--
	4,4'-DDE	µg/kg	2.81	2.04 U	0.870 U	1.44 UJ	--	--	--	0.33	6.1	--
	4,4'-DDT	µg/kg	8.65 U	10.2 U	3.53 U	1.77 UJ	--	--	--	0.33	6.1	--
	Dieldrin	µg/kg	1.52 J	1.01 U	0.870 U	0.709 UJ	--	--	--	0.01	0.07	--
Dioxins/Furans	1,2,3,6,7,8-HxCDF	pg/g	--	--	--	1.9 J	--	--	--	2.7	--	--

Table 3

Summary of Source Control Risk Screening - Riverbank Section 3

Supplemental Area 2 Riverbank Focused Feasibility Study

Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.8 Composite Samples			Vector 2.8 Samples							Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil	Default Background (Portland Basin Soil)
			102610-2-2.8-Composite-06	092110-2-2.8-Composite-07-WS	092110-2-2.8-Composite-08-Total	092110-2-2.8-Surface-02-WS	092110-2-2.8-1.5-01-FS	092110-2-2.8-5-03-FS	092110-2-2.8-10-04-FS	092110-2-2.8-15-05-FS	092110-2-2.8-20-06-FS	102610-2-2.8-25-01-FS			
		Date	10/26/2010	9/22/2010	9/22/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	10/26/2010			
		Depth (Feet Below Ground Surface)	0	0	0	0	0 - 1.5	5 - 10	10 - 15	15 - 20	20 - 25	20 - 25			
Metals	Arsenic	mg/kg	--	--	--	124	1.88	1.13	0.916	11.1	9.46	4.98	--	3	9
	Chromium	mg/kg	--	--	--	135	7.5	8.49	5.22	31.5	25.6	31.3	111	--	76
	Copper	mg/kg	--	--	--	2,080	30.2	13.7	11.9	835	30.9	47.5	149	149	34
	Lead	mg/kg	--	--	--	512	37.0	6.61	4.19	39.1	69.9	24.4	17	128	79
	Manganese	mg/kg	--	--	--	2,850	1,140	748	535	1,770	654	634	1,100	--	1,800
	Nickel	mg/kg	--	--	--	50.7	6.55	4.36	2.31	17.0	20.4	23.4	49	--	47
	Zinc	mg/kg	--	--	--	7,830	92.5	69.8	56.4	168	113	96.3	459	459	180
PCBs	Total PCBs	µg/kg	--	--	--	63.4	20.1	18.2 U	17.9 U	18.2 U	7.81 J	124	0.39	9	--
PAHs	2-Methylnaphthalene	µg/kg	--	--	--	20.2 J	3.69 U	3.63 U	3.50 U	17.9	21.0 U	8.31 J	200	--	--
	Acenaphthene	µg/kg	--	--	--	20.1 J	3.69 U	3.63 U	3.50 U	63.3	27.4 J	5.48 J	300	--	--
	Acenaphthylene	µg/kg	--	--	--	49.2	3.69 U	3.63 U	3.50 U	3.59 U	123	4.34 U	200	--	--
	Anthracene	µg/kg	--	--	--	89.8	3.69 U	3.63 U	3.50 U	109	950	4.40 J	845	--	--
	Benzo(a)anthracene	µg/kg	--	--	--	169	6.29 J	4.89 J	3.50 U	102	1,150	5.02 J	1,050	--	--
	Benzo(a)pyrene	µg/kg	--	--	--	276	9.81 J	5.92 J	3.50 U	88.5	1,660	6.05 J	1,450	--	--
	Benzo(ghi)perylene	µg/kg	--	--	--	484	9.87 J	6.10 J	3.50 U	46.3	1,070	5.65 J	300	--	--
	Chrysene	µg/kg	--	--	88.8 U	309	12.9 J	7.08 J	3.50 U	108	2,060	6.67 J	1,290	--	--
	Dibenzo(a,h)anthracene	µg/kg	--	--	88.8 U	124	3.69 U	3.63 U	3.50 U	17.6	371	4.34 U	1,300	--	--
	Fluoranthene	µg/kg	--	--	88.8 U	337	11.4 J	10.1 J	3.50 U	261	1,200	16.2 J	2,230	--	--
	Fluorene	µg/kg	--	--	88.8 U	22.6 J	3.69 U	3.63 U	3.50 U	64.4	51.4 J	4.34 U	536	--	--
	Indeno(1,2,3-cd)pyrene	µg/kg	--	--	88.8 U	390	6.85 J	4.95 J	3.50 U	47.5	1,150	4.34 U	100	--	--
	Naphthalene	µg/kg	--	--	88.8 U	35.8	3.69 U	3.63 U	3.50 U	35.1	21.0 U	23.3	561	--	--
	Phenanthrene	µg/kg	--	--	88.8 U	195	8.89 J	6.84 J	3.50 U	366	245	25.8	1,170	--	--
	Pyrene	µg/kg	--	--	88.8 U	295	12.1 J	10.3 J	3.50 U	241	1,400	19.0	1,520	--	--
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	--	--	--	1,170	35.0	22.9 J	14.2 U	16.2 J	241.0	161	330	135	--
	Diethyl phthalate	µg/kg	--	--	88.8 U	342	15.0 U	14.7 U	14.2 U	14.6 U	34.2 U	17.6 U	600	--	--
	Di-n-butyl phthalate	µg/kg	--	--	634 U	551	15.0 U	14.7 U	14.2 U	14.6 U	34.2 U	17.6 U	60	--	--
Butyltins	Tributyltin	µg/kg	--	--	--	270	1.0 U	0.96 U	0.89 U	30	5.0	1.2 U	2.3	24,000	--
Organochlorine Pesticides	4-4'-DDD	µg/kg	--	--	--	--	--	--	--	--	0.853 UJ	--	0.33	6.1	--
	4,4'-DDE	µg/kg	--	--	--	--	--	--	--	--	0.454 J	--	0.33	6.1	--
	4,4'-DDT	µg/kg	--	--	--	--	--	--	--	--	2.27 J	--	0.33	6.1	--
	Dieldrin	µg/kg	--	--	--	--	--	--	--	--	0.853 UJ	--	0.01	0.07	--
Dioxins/Furans	1,2,3,6,7,8-HxCDF	pg/g	2.2 J	0.12 U	0.4 U	--	--	--	--	--	--	--	2.7	--	--

Table 3
Summary of Source Control Risk Screening - Riverbank Section 3
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.9 Composite Samples			Vector 2.9 Samples			Vector 2.10 Composite Samples			Vector 2.10 Samples				Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil	Default Background (Portland Basin Soil)
			092110-2-2.9-Composite-12-WS	092110-2-2.9-Composite-13-Total	110110-2-2.9-Composite-02-WS	092110-2-2.9-10-03-FS	092110-2-2.9-20-05-FS	092110-2-2.9-20-06-Dup	102610-2-2.10-Composite	092210-2-2.10-Composite-12-FS	092210-2-2.10-Composite-13-Total	092210-2-2.10-Surface-01-WS	092210-2-2.10-1.5-02-FS	092210-2-2.10-10-04-FS	092210-2-2.10-20-06-FS			
		Date	9/22/2010	9/21/2010	11/1/2010	9/21/2010	9/21/2010	9/21/2010	10/26/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010			
		Depth (Feet Below Ground Surface)	0	0	0	5 - 10	15 - 20	15 - 20	0	0	0	0	0 - 1.5	5 - 10	15 - 20			
Metals	Arsenic	mg/kg	--	--	11.6	4.02	10.0	13.4	--	--	--	34.0	28.6	2.02 J	4.13	--	3	8.8
	Chromium	mg/kg	--	--	51.9	14.9	9.14 J	29.6 J	--	--	--	142	55.80	7.65	23.8	111	--	76
	Copper	mg/kg	--	--	1,020	70.3	37.3 J	58.5 J	--	--	--	3,560	1,590	84	28.2	149	149	34
	Lead	mg/kg	--	--	70.6	22.6	31.8 J	62.6 J	--	--	--	102	66.9	2.89	13.0	17	128	79
	Manganese	mg/kg	--	--	1,630	677	423	594	--	--	--	3,650	2,790	409	473	1,100	--	1,800
	Nickel	mg/kg	--	--	35.3	8.96	6.43 J	15.1 J	--	--	--	107	31.6	3.41 J	15.2	49	--	47
	Zinc	mg/kg	--	--	1,880	120	129 J	181	--	--	--	3,320	418	76.0	77.4	459	459	180
PCBs	Total PCBs	µg/kg	--	--	22.2	3.33 J	9.42	2.87 J	--	--	--	22.3 J	58.3 J	10.6 J	6.82	0.39	9	--
PAHs	2-Methylnaphthalene	µg/kg	--	--		3.40 U	20.6	8.71 J	--	--	--	32.5	10.3 J	3.57 U	4.15 U	200	--	--
	Acenaphthene	µg/kg	--	--	30.1	3.40 U	8.31 J	3.59 U	--	--	--	36.7	15.1 J	3.57 U	4.15 U	300	--	--
	Acenaphthylene	µg/kg	--	--	34.0	3.40 U	15.6	20.9	--	--	--	40.6	7.27 U	3.57 U	4.15 U	200	--	--
	Anthracene	µg/kg	--	--	72.0	3.40 U	28.6	20.1	--	--	--	97.8	37.1	3.57 U	4.15 U	845	--	--
	Benzo(a)anthracene	µg/kg	--	--	215	3.40 U	100	90.7	--	--	--	258	72.9	3.57 U	4.15 U	1,050	--	--
	Benzo(a)pyrene	µg/kg	--	--	310	3.40 U	154	143	--	--	--	322	75.1	4.41 J	4.98 J	1,450	--	--
	Benzo(ghi)perylene	µg/kg	--	--	302	3.40 U	146	136	--	--	--	288	52.6	3.57 U	5.43 J	300	--	--
	Chrysene	µg/kg	--	--	403	3.40 U	140	119	--	--	--	560	87.5	5.31 J	4.62 J	1,290	--	--
	Dibenzo(a,h)anthracene	µg/kg	--	--	86.0	3.40 U	29.3	23.0	--	--	--	88.6	16.7 J	3.57 U	4.15 U	1,300	--	--
	Fluoranthene	µg/kg	--	--	583	3.86 J	212	230	--	--	--	797	186	5.93 J	7.42 J	2,230	--	--
	Fluorene	µg/kg	--	--	31.8	3.40 U	12.3 J	4.36 J	--	--	--	36.8	19.8 J	3.57 U	4.15 U	536	--	--
	Indeno(1,2,3-cd)pyrene	µg/kg	--	--	277	3.40 U	112	96.9	--	--	--	262	46.8	3.57 U	4.15 U	100	--	--
	Naphthalene	µg/kg	--	--	44.2	3.40 U	23.2	9.95 J	--	--	--	62.2	10.2 J	3.57 U	4.15 U	561	--	--
	Phenanthrene	µg/kg	--	--	323	3.40 U	144	96.7	--	--	--	556	177	4.62 J	4.15 U	1,170	--	--
	Pyrene	µg/kg	--	--	530	3.77 J	263	262	--	--	--	576	147	5.92 J	8.73 J	1,520	--	--
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	--	--	854	13.8 U	95.5 J	29.4 J	--	--	--	1,130	29.5 U	14.5 U	16.8 U	330	135	--
	Diethyl phthalate	µg/kg	--	--	239	13.8 U	14.5 U	14.6 U	--	--	--	84.2 J	29.5 U	14.5 U	16.8 U	600	--	--
	Di-n-butyl phthalate	µg/kg	--	--	58.1	13.8 U	14.5 U	14.6 U	--	--	--	77.5 U	29.5 U	14.5 U	16.8 U	60	--	--
Butyltins	Tributyltin	µg/kg	--	--	110	0.91 U	8.2 J	2.9 J	--	--	--	540	8.9	0.92 U	1.1 U	2.3	24,000	--
Organochlorine Pesticides	4-4'-DDD	µg/kg	0.781 U	0.799 U	2.70 U	--	--	--	--	--	--	1.56 UJ	2.22 U	--	--	0.33	6.1	--
	4,4'-DDE	µg/kg	0.781 U	0.799 U	0.891 U	--	--	--	--	--	--	1.56 UJ	1.49 U	--	--	0.33	6.1	--
	4,4'-DDT	µg/kg	1.59 U	1.62 U	2.70 U	--	--	--	--	--	--	3.90 UJ	7.43 U	--	--	0.33	6.1	--
	Dieldrin	µg/kg	0.781 U	0.799 U	0.891 U	--	--	--	--	--	--	1.56 UJ	2.97 U	--	--	0.01	0.07	--
Dioxins/Furans	1,2,3,6,7,8-HxCDF	pg/g	--	--	--	--	1.1 J	--	4.5 J	0.68 J	0.63	--	--	--	--	2.7	--	--

Notes:

1. -- = Not applicable/not analyzed
2. mg/kg = Milligrams per kilogram
3. µg/kg = Micrograms per kilogram
4. pg/g = Picrograms per gram
5. J = The result is an estimated quantity
6. U= Undetected at the method detection limit shown
7. UJ = Undetected at the method detection limit shown, detection limit is an estimated quantity
8. Joint Source Control Strategy (JSCS) Screening Level Values (SLVs); revision date 7/16/2007
9. Shading indicates sample concentration exceeds the background concentration (if established) and the corresponding JSCS SLV and/or the draft PRG
10. PRG = Draft Preliminary Remediation Goal; prepared by U.S. Environmental Protection Agency, July 2015
11. ND = Not detected. Reporting limit unavailable.
12. Background concentrations from Development of Oregon Background Metals Concentrations in Soil; Oregon Department of Environmental Quality, 2013
13. This table lists only analytes that were detected in this section of the riverbank in one or more soil samples collected less than 25 feet bgs, at concentrations that exceed one or more source control screening criteria and background levels

Table 4

Summary of Source Control Risk Screening - Riverbank Section 4

Supplemental Area 2 Riverbank Focused Feasibility Study

Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Surface Samples							Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil	Default Background Conc. Portland Basin Soil
			A2GS-4	A2GS-5	A2GS-6	A2GS-6-GRIT	A2GS-7	S2-15	S2-16			
		Date	4/7/2004	4/7/2004	4/7/2004	4/7/2004	4/7/2004	9/23/2010	9/23/2010			
	Depth (Feet Below Ground Surface)		0	0	0	0	0	0	0			
Inorganics	Mercury	mg/kg	0.0800	ND	ND	ND	0.1340	0.0187 J	0.0209 J	0.07	1.1	0.23
	Arsenic	mg/kg	61.9	19.6	7.2	61.3	56.5	46.9	267	--	3	8.8
	Chromium	mg/kg	166	22.6	20.9	62.2	37.9	59.9	142	111	--	76
	Copper	mg/kg	586	542	25.4	5,260	655	1,040	4,490	149	149	34
	Lead	mg/kg	164	48.5	5.2	88.7	213	80.1	457	17	128	79
	Manganese	mg/kg	4,160	678	455	4,020	1,180	2,020	4,580	1,100	--	1,800
	Nickel	mg/kg	36	23	17	51	42	40.3	74.4	49	--	47
	Zinc	mg/kg	1,030	580	134	4,230	327	926	4,230	459	459	180
PCBs	Total PCBs	µg/kg	--	--	--	--	--	7.66	16.8 U	0.39	9	--
PAHs	2-Methylnaphthalene	µg/kg	--	--	--	--	--	13.3 J	42.2	200	--	--
	Acenaphthene	µg/kg	--	--	--	--	--	12.1 J	116	300	--	--
	Benzo(a)anthracene	µg/kg	--	--	--	--	--	63.3	607	1,050	--	--
	Fluoranthene	µg/kg	--	--	--	--	--	146	1,610	2,230	--	--
	Indeno(1,2,3-cd)pyrene	µg/kg	--	--	--	--	--	71.6	336	100	--	--
	Pyrene	µg/kg	--	--	--	--	--	119	1,120	1,520	--	--
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	--	--	--	--	--	169	671 U	330	135	--
Butyltins	Tributyltin	µg/kg	7.4	39.6	3.3	ND	146	0.88 U	0.86 U	2.3	24,000	--

Table 4

Summary of Source Control Risk Screening - Riverbank Section 4

Supplemental Area 2 Riverbank Focused Feasibility Study

Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Surface Samples							Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil	Default Background Conc. Portland Basin Soil
			S2-17	S2-18	S2-19	S2-20	S2-21	S2-22	S2-23			
		Date	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010			
		Depth (Feet Below Ground Surface)	0	0	0	0	0	0	0			
Inorganics	Mercury	mg/kg	0.0199 J	0.016 J	0.0336 J	0.0224 J	0.038 J	0.0283 J	0.014 J	0.07	1.1	0.23
	Arsenic	mg/kg	52.3	125	118	39.6	132	107	32.9	--	3	8.8
	Chromium	mg/kg	111	92.3	88.8	86.2	92.1	113	70.1	111	--	76
	Copper	mg/kg	3,730	2,000	2,790	4,010	4,890	1,730	1,170	149	149	34
	Lead	mg/kg	87.9	229	278	108	272	208	68.8	17	128	79
	Manganese	mg/kg	2,510	2,000	2,710	3,060	2,500	3,010	2,370	1,100	--	1,800
	Nickel	mg/kg	79.5	89.7	85.7	63.4	67.5	68.1	70.4	49	--	47
	Zinc	mg/kg	2,570	1,920	2,160	1,990	3,400	1,620	966	459	459	180
PCBs	Total PCBs	µg/kg	4.48	16.7	97.1	17.2 U	11.5 J	12.6 J	12.4 J	0.39	9	--
PAHs	2-Methylnaphthalene	µg/kg	95.8	26.5	170	202	50.5 J	35.6	10 J	200	--	--
	Acenaphthene	µg/kg	133 J	55.8	197	463	165	52.4	14.1 J	300	--	--
	Benzo(a)anthracene	µg/kg	485	234	564	1,080	718	248	78.7	1,050	--	--
	Fluoranthene	µg/kg	1,270	588	1,620	3,100	1,840	606	176	2,230	--	--
	Indeno(1,2,3-cd)pyrene	µg/kg	310	147	337	593	523	148	52	100	--	--
	Pyrene	µg/kg	956	425	1,160	2,430	1,500	463	150	1,520	--	--
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	410 J	73.8	288	768	809	172	98.2 J	330	135	--
Butyltins	Tributyltin	µg/kg	1 U	0.86 U	0.91 U	11	27	1 U	12	2.3	24,000	--

Table 4

Summary of Source Control Risk Screening - Riverbank Section 4

Supplemental Area 2 Riverbank Focused Feasibility Study

Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Surface Samples		Vector 2.11	Vector 2.12	Vector 2.13	Vector 2.14		Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil	Default Background Conc. Portland Basin Soil
			S2-24	S2-25	092710-2-2.11-10-02-FS	092710-2-2.12-5-01-FS	092710-2-2.13-5-01-FS	092810-2-2.14-5-01-FS	092810-2-2.14-10-02-FS			
		Date	9/23/2010	9/23/2010	9/27/2010	9/27/2010	9/27/2010	9/28/2010	9/28/2010			
	Depth (Feet Below Ground Surface)		0	0	5 - 10	0 - 5	0 - 5	0 - 5	5 - 10			
Inorganics	Mercury	mg/kg	0.0113 J	0.0327 J	0.0537 J	0.0289 J	0.0397 J	0.0112 J	0.248	0.07	1.1	0.23
	Arsenic	mg/kg	23.2	51.7	4.61	10.9	6.27	4.51	9.05	--	3	8.8
	Chromium	mg/kg	86.6	64.1	46.2	27.3	23.9	16.6	30.8	111	--	76
	Copper	mg/kg	4,900	1,520	44.2	27.9	52.0	55.7 J	321	149	149	34
	Lead	mg/kg	24.4	94.1	88.0	23.3	54.4	10.3	310	17	128	79
	Manganese	mg/kg	2,970	2,730	829	670	342	719	629	1,100	--	1,800
	Nickel	mg/kg	66	40.3	24.5	21.4	19.9	18.2	25.1	49	--	47
	Zinc	mg/kg	3,300	640	203	92.1	103	93.0 J	426	459	459	180
PCBs	Total PCBs	µg/kg	10.9	7.11 J	3.51 J	6.98	98.0 J	15.3	144 J	0.39	9	--
PAHs	2-Methylnaphthalene	µg/kg	21.2 J	6.7 J	4.14 U	4.32 U	32.4 J	5.56 J	14.5 J	200	--	--
	Acenaphthene	µg/kg	43	11.5 J	6.70 J	4.32 U	74.6	6.38 J	8.47 U	300	--	--
	Benzo(a)anthracene	µg/kg	196	54.8	4.54 J	4.32 U	82.9	5.79 J	53.2	1,050	--	--
	Fluoranthene	µg/kg	404	166	11.4 J	7.30 J	216	18.6	133	2,230	--	--
	Indeno(1,2,3-cd)pyrene	µg/kg	178	31.5	4.35 J	4.32 U	38.0	3.92 J	50.0	100	--	--
	Pyrene	µg/kg	334	134	12.5 J	11.5 J	197	14.1 J	125	1,520	--	--
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	485	106	16.8 U	17.5 U	32.6 U	15.3 U	34.4 U	330	135	--
Butyltins	Tributyltin	µg/kg	12	0.87 U	1.0 U	1.1 U	1.0 U	1.0 U	1.0 U	2.3	24,000	--

Table 4

Summary of Source Control Risk Screening - Riverbank Section 4

Supplemental Area 2 Riverbank Focused Feasibility Study

Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.14		Vector 2.15		Vector 2.15		Vector 2.16		Vector 2.17		Vector 2.17		Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil	Default Background Conc. Portland Basin Soil
			092810-2-2.14-20-04-FS		092810-2-2.15-5-01-FS		92810-2-2.15-10-02-FS		091010-2-2.16-1.5-01-FS		091010-2-2.17-1.5-01-FS		091010-2-2.17-10-03-FS				
		Date	9/28/2010		9/28/2010		9/28/2010		9/10/2010		9/10/2010		9/10/2010				
	Depth (Feet Below Ground Surface)		15 - 20		0 - 5		5 - 10		0 - 1.5		0 - 1.5		10 - 15				
Inorganics	Mercury	mg/kg	0.128	J	0.0304	J	0.132		0.0207	J	0.126		0.0726	J	0.07	1.1	0.23
	Arsenic	mg/kg	5.43		5.59		4.39		9.97		7.70		6.84		--	3	8.8
	Chromium	mg/kg	20.4		46.2		42.8		32.4		23.1		31.2		111	--	76
	Copper	mg/kg	38.5		48.8		27.1		113		101		31.4		149	149	34
	Lead	mg/kg	122		32.8		26.6		145		142		71.9		17	128	79
	Manganese	mg/kg	454		9,000		969		1,020		688		666		1,100	--	1,800
	Nickel	mg/kg	15.5		20.0		51.6		42.1		33.9		19.9		49	--	47
	Zinc	mg/kg	190		83.8		88.4		332		188		125		459	459	180
PCBs	Total PCBs	µg/kg	5.70		20.2		15.9		26.8		15.2		6.59		0.39	9	--
PAHs	2-Methylnaphthalene	µg/kg	4.39	UJ	59.6		13.0	J	163		41.8		647	J	200	--	--
	Acenaphthene	µg/kg	4.39	UJ	27.6		14.0	J	42.3		100		91	J	300	--	--
	Benzo(a)anthracene	µg/kg	57.4	J	27.8		11.6	J	185		176		90.6	J	1,050	--	--
	Fluoranthene	µg/kg	130	J	70.4		32.1		352		551		43.2		2,230	--	--
	Indeno(1,2,3-cd)pyrene	µg/kg	47.7	J	14.8	J	8.57	J	95.0		122		17.2	J	100	--	--
	Pyrene	µg/kg	154	J	68.3		36.9		437		485		41.8		1,520	--	--
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	17.8	UJ	31.0	J	21.4	J	52.8		16.0	U	245		330	135	--
Butyltins	Tributyltin	µg/kg	1.1	UJ	1.1	U	1.2	U	1.0	U	1.1	U	1.1	U	2.3	24,000	--

Notes:

1. -- = Not applicable/not analyzed
2. mg/kg = Milligrams per kilogram
3. µg/kg = Micrograms per kilogram
4. J = The result is an estimated quantity
5. U= Undetected at the method detection limit shown
6. UJ = Undetected at the method detection limit shown, detection limit is an estimated quantity
7. Joint Source Control Strategy (JSCS) Screening Level Values (SLVs); revision date 7/16/2007
8. Shading indicates sample concentration exceeds the corresponding JSCS SLV and/or the draft PRG
9. PRG = Draft Preliminary Remediation Goal; prepared by U.S. Environmental Protection Agency, July 2015
10. This table lists only analytes that were detected in this section of the riverbank in one or more soil samples collected less than 25 feet bgs, at concentrations that exceed one or more soure control screening criteria and background levels
11. Background concentrations from Development of Oregon Background Metals Concentrations in Soil; Oregon Department of Environmental Quality, 2013

Table 5
Summary of Human Health Risk Screening - Riverbank Section 1
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Surface Soil Samples		Vector 2.1					Oregon Department of Environmental Quality Risk-Based Concentrations					Default Background Conc. Portland Basin Soil
			S2-1	S2-2	090210-2-2.1-Surface-11-FS	090210-2-2.1-1.5-01-FS	090210-2-2.1-5-02-FS	090210-2-2.1-20-05-FS	090210-2-2.1-20-06-DUP	Soil Ingestion, Dermal Contact, and Inhal.			Vol. to Outdoor Air	Vapor Intrusion	
		Date	9/24/2010	9/24/2010	9/2/2010	9/2/2010	9/2/2010	9/2/2010	9/2/2010						
	Depth (Feet Below Ground Surface)		0	0	0	0 - 1.5	5 - 10	20 - 25	20 - 25	Occ	Const.	Exc	Occ	Occ	
Inorganics	Arsenic	mg/kg	19.9	580	19.2	17.3	26.1	12.4	11.3	1.9	15	420	--	--	8.8
	Lead	mg/kg	140	1,490	293	63.3 J	87.1	22.1	25.2	800	800	800	--	--	79
PAHs	Dibenzo(a,h)anthracene	µg/kg	15.5 J	391 J	84.1	3.60 U	22.5 J	16.3 J	4.18 U	290	2,400	67,000	--	--	--

Group	Constituent	Units	Vector 2.2				Vector 2.3			Oregon Department of Environmental Quality Risk-Based Concentrations					Default Background Conc. Portland Basin Soil
			090310-2-2.2-Surface-11-WS	090310-2-2.2-1.5-01-FS	090310-2-2.2-10-03-FS	090310-2-2.2-20-05-FS	090310-2-2.3-Surface-11-WS	090310-2-2.3-1.5-01-FS	090310-2-2.3-15-04-FS	Soil Ingestion, Dermal Contact, and Inhal.			Vol. to Outdoor Air	Vapor Intrusion	
		Date	9/3/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010						
	Depth (Feet Below Ground Surface)		0	0 - 1.5	10 - 15	20 - 25	0	0 - 1.5	15 - 20	Occ	Const.	Exc	Occ	Occ	
Inorganics	Arsenic	mg/kg	23.0	17.1	4.29	7.42	12.7	9.34	8.27	1.9	15	420	--	--	8.8
	Lead	mg/kg	137	26.3	7.02	14.2	127	69.8	149	800	800	800	--	--	79
PAHs	Dibenzo(a,h)anthracene	µg/kg	35.1 J	3.43 U	4.02 U	4.25 U	38.2 J	8.64 J	36.2	290	2,400	67,000	--	--	--

Notes:

1. -- = Not applicable/not analyzed
2. mg/kg = Milligrams per kilogram
3. µg/kg = Micrograms per kilogram
4. J = The result is an estimated quantity
5. Risk-Based Concentrations; revision date 11/1/2015
6. Gray shading indicates sample concentration exceeds one or more RBCs. Orange shading with bold outline indicates concentration exceeds the corresponding human health hot spot criterion.
7. Background concentrations from Development of Oregon Background Metals Concentrations in Soil; Oregon Department of Environmental Quality, 2013

Table 6

Summary of Human Health Risk Screening - Riverbank Section 2

Supplemental Area 2 Riverbank Focused Feasibility Study

Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Surface Soil Samples			Vector 2.4				Oregon Department of Environmental Quality Risk-Based Concentrations					Default Background Conc. Portland Basin Soil
			S2-3	S2-4	S2-5	090710-2-2.4-5-02-FS	090710-2-2.4-10-03-FS	090710-2-2.4-15-04-FS	090710-2-2.4-20-05-FS	Soil Ingestion, Dermal Contact, and Inhal.			Vol. to Outdoor Air	Vapor Intrusion	
		Date	9/24/2010	9/24/2010	9/24/2010	9/7/2010	9/7/2010	9/7/2010	9/7/2010						
	Depth (Feet Below Ground Surface)		0	0	0	5 - 10	10 - 15	15 - 20	20 - 25	Occ	Const.	Exc	Occ	Occ	
Inorganics	Arsenic	mg/kg	68.1	2.25 J	3.51	23.8	7.59	--	7.22	1.9	15	420	--	--	8.8

Group	Constituent	Units	Vector 2.5			Vector 2.6				Oregon Department of Environmental Quality Risk-Based Concentrations					Default Background Conc. Portland Basin Soil
			090810-2-2.5-00-10-WS	090710-2-2.5-5-02-FS	090710-2-2.5-15-04-FS	090810-2-2.6-00-10-WS	090810-2-2.6-5-01-FS	090810-2-2.6-15-03-FS		Soil Ingestion, Dermal Contact, and Inhal.			Vol. to Outdoor Air	Vapor Intrusion	
		Date	9/8/2010	9/7/2010	9/7/2010	9/8/2010	9/8/2010	9/8/2010							
	Depth (Feet Below Ground Surface)		0	5 - 10	15 - 20	0	5 - 10	15 - 20		Occ	Const.	Exc	Occ	Occ	
Inorganics	Arsenic	mg/kg	205	10.0	14.7	63.1	3.14	18.4		1.9	15	420	--	--	8.8

Notes:

1. -- = Not applicable/not analyzed
2. mg/kg = Milligrams per kilogram
3. J = The result is an estimated quantity
4. Risk-Based Concentrations; revision date 11/1/2015
5. Gray shading indicates concentration exceeds one or more RBCs. Orange shading with bold outline indicates concentration exceeds the corresponding human health hot spot criterion.
6. Background concentrations from Development of Oregon Background Metals Concentrations in Soil; Oregon Department of Environmental Quality, 2013

Table 7

Summary of Human Health Risk Screening - Riverbank Section 3

Supplemental Area 2 Riverbank Focused Feasibility Study

Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Surface Soil Samples								Oregon Department of Environmental Quality Risk-Based Concentrations					Default Background Conc. Portland Basin Soil
			S2-6	S2-7	S2-8	S2-9	S2-10	S2-11	S2-12	S2-13	Soil Ingestion, Dermal Contact, and Inhal.			Vol. to Outdoor Air	Vapor Intrusion	
		Date	9/24/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010						
	Depth (Feet Below Ground Surface)		0	0	0	0	0	0	0	0	Occ	Const.	Exc	Occ	Occ	
Inorganics	Arsenic	mg/kg	4.01	135	5.85	6.27	23	29.1	19.0	30.8	1.9	15	420	--	--	8.8
	Lead	mg/kg	31.2	563	56.3	65.4	1,260	241	39.1	73.8	800	800	800	--	--	79
PCBs	Total PCBs	µg/kg	8.76	123 J	58.0	8.57	88.2	33.6 J	12.9 J	14.4 J	590	4,900	140,000	--	--	--
PAHs	Benzo(a)anthracene	µg/kg	34.1	150	27.4	29.4	89.6	567	105	150	2,900	24,000	660,000	--	--	--
	Benzo(b)fluoranthene	µg/kg	55.3	419	46.7	69.6	212	690	103	274	2,900	24,000	670,000	--	--	--
	Dibenzo(a,h)anthracene	µg/kg	11.5 J	120	12.0 J	15.9	41.6	192	25.1 J	61.4	290	2,400	67,000	--	--	--
	Indeno(1,2,3-cd)pyrene	µg/kg	38.2	402	33.2	49.9	119	546	76.1	169	2,900	24,000	670,000	--	--	--

Group	Constituent	Units	Surface Soil	Vector 2.7 Composite Samples			Vector 2.7 Samples				Oregon Department of Environmental Quality Risk-Based Concentrations					Default Background Conc. Portland Basin Soil
			S2-14	092210-2-2.7-Composite-11-FS	092210-2-2.7-Composite-12-Total	110110-2-2.7-Composite-01-WS	092210-2-2.7-Surface-01-WS	092210-2-2.7-10-03-FS	092210-2-2.7-25-06-FS	092210-2-2.7-25-07-Dup	Soil Ingestion, Dermal Contact, and Inhal.			Vol. to Outdoor Air	Vapor Intrusion	
		Date	9/23/2010	9/22/2010	9/22/2010	11/1/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010						
	Depth (Feet Below Ground Surface)		0	0	0	0	0	5 - 10	20 - 25	20 - 25	Occ	Const.	Exc	Occ	Occ	
Inorganics	Arsenic	mg/kg	61.3	--	--	6.53	11.3	112	6.30 J	10.9 J	1.9	15	420	--	--	8.8
	Lead	mg/kg	86.3	--	--	61.5 J	33.6	386	515 J	208 J	800	800	800	--	--	79
PCBs	Total PCBs	µg/kg	71.5	--	--	34.7 J	27.3	47.6	864 J	136 J	590	4,900	140,000	--	--	--
PAHs	Benzo(a)anthracene	µg/kg	240	--	211 U	139	91.6	12,500	569 J	81.6 J	2,900	24,000	660,000	--	--	--
	Benzo(b)fluoranthene	µg/kg	240	--	565 J	253	181	7,870	446 J	64.7 J	2,900	24,000	670,000	--	--	--
	Dibenzo(a,h)anthracene	µg/kg	54.1	--	211 U	44.0	28.5 J	1,710	129	15.7 J	290	2,400	67,000	--	--	--
	Indeno(1,2,3-cd)pyrene	µg/kg	121	--	211 U	153	64.4	5,330	258 J	43.6 J	2,900	24,000	670,000	--	--	--

Group	Constituent	Units	Vector 2.8 Composite Samples			Vector 2.8 Samples					Oregon Department of Environmental Quality Risk-Based Concentrations					Default Background Conc. Portland Basin Soil
			102610-2-2.8-Composite-06	092110-2-2.8-Composite-07-WS	092110-2-2.8-Composite-08-Total	092110-2-2.8-Surface-02-WS	092110-2-2.8-1.5-01-FS	092110-2-2.8-5-03-FS	092110-2-2.8-10-04-FS	092110-2-2.8-15-05-FS	Soil Ingestion, Dermal Contact, and Inhal.			Vol. to Outdoor Air	Vapor Intrusion	
		Date	10/26/2010	9/22/2010	9/22/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010						
	Depth (Feet Below Ground Surface)		0	0	0	0	0 - 1.5	5 - 10	10 - 15	15 - 20	Occ	Const.	Exc	Occ	Occ	
Inorganics	Arsenic	mg/kg	--	--	--	124	1.88	1.13	0.916	11.1	1.9	15	420	--	--	8.8
	Lead	mg/kg	--	--	--	512	37.0	6.61	4.19	39.1	800	800	800	--	--	79
PCBs	Total PCBs	µg/kg	--	--	--	63.4	20.1	18.2 U	17.9 U	18.2 U	590	4,900	140,000	--	--	--
PAHs	Benzo(a)anthracene	µg/kg	--	--	88.8 U	169	6.29 J	4.89 J	3.50 U	102	2,900	24,000	660,000	--	--	--
	Benzo(b)fluoranthene	µg/kg	--	--	88.8 U	457	10.1 J	6.49 J	3.50 U	61.2	2,900	24,000	670,000	--	--	--
	Dibenzo(a,h)anthracene	µg/kg	--	--	88.8 U	124	3.69 U	3.63 U	3.50 U	17.6	290	2,400	67,000	--	--	--
	Indeno(1,2,3-cd)pyrene	µg/kg	--	--	88.8 U	390	6.85 J	4.95 J	3.50 U	47.5	2,900	24,000	670,000	--	--	--

Table 7
Summary of Human Health Risk Screening - Riverbank Section 3
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.8 Samples		Vector 2.9 Composite Samples			Vector 2.9 Samples			Oregon Department of Environmental Quality Risk-Based Concentrations					Default Background Conc. Portland Basin Soil
			092110-2-2.8-20-06-FS	102610-2-2.8-25-01-FS	092110-2-2.9-Composite-12-WS	092110-2-2.9-Composite-13-Total	110110-2-2.9-Composite-02-WS	092110-2-2.9-10-03-FS	092110-2-2.9-20-05-FS	092110-2-2.9-20-06-Dup	Soil Ingestion, Dermal Contact, and Inhal.			Vol. to Outdoor Air	Vapor Intrusion	
		Date	9/21/2010	10/26/2010	9/22/2010	9/21/2010	11/1/2010	9/21/2010	9/21/2010	9/21/2010						
	Depth (Feet Below Ground Surface)		20 - 25	20 - 25	0	0	0	5 - 10	15 - 20	15 - 20	Occ	Const.	Exc	Occ	Occ	
Inorganics	Arsenic	mg/kg	9.46	4.98	--	--	11.6	4.02	10.0	13.4	1.9	15	420	--	--	8.8
	Lead	mg/kg	69.9	24.4	--	--	70.6	22.6	31.8 J	62.6 J	800	800	800	--	--	79
PCBs	Total PCBs	µg/kg	7.81 J	124	--	--	22.2	3.33 J	9.42	2.87 J	590	4,900	140,000	--	--	--
PAHs	Benzo(a)anthracene	µg/kg	1,150	5.02 J	--	--	215	3.40 U	100	90.7	2,900	24,000	660,000	--	--	--
	Benzo(b)fluoranthene	µg/kg	1,710	5.10 J	--	--	539	3.40 U	127	101	2,900	24,000	670,000	--	--	--
	Dibenzo(a,h)anthracene	µg/kg	371	4.34 U	--	--	86.0	3.40 U	29.3	23.0	290	2,400	67,000	--	--	--
	Indeno(1,2,3-cd)pyrene	µg/kg	1,150	4.34 U	--	--	277	3.40 U	112	96.9	2,900	24,000	670,000	--	--	--

Group	Constituent	Units	Vector 2.10 Comp Samples		Vector 2.10 Samples				Surface Soil Samples		Oregon Department of Environmental Quality Risk-Based Concentrations					Default Background Conc. Portland Basin Soil
			092210-2-2.10-Composite-12-FS	092210-2-2.10-Composite-13-Total	092210-2-2.10-Surface-01-WS	092210-2-2.10-1.5-02-FS	092210-2-2.10-10-04-FS	092210-2-2.10-20-06-FS	A2GS-1	A2GS-2	Soil Ingestion, Dermal Contact, and Inhal.			Vol. to Outdoor Air	Vapor Intrusion	
		Date	9/22/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	6/9/2003	6/9/2003						
	Depth (Feet Below Ground Surface)		0	0	0	0 - 1.5	5 - 10	15 - 20	0 - 0.25	0 - 0.25	Occ	Const.	Exc	Occ	Occ	
Inorganics	Arsenic	mg/kg	--	--	34.0	28.6	2.02 J	4.13	--	--	1.9	15	420	--	--	8.8
	Lead	mg/kg	--	--	102	66.9	2.89	13.0	--	--	800	800	800	--	--	79
PCBs	Total PCBs	µg/kg	--	--	22.3 J	58.3 J	10.6 J	6.82	ND	596	590	4,900	140,000	--	--	--
PAHs	Benzo(a)anthracene	µg/kg	--	--	258	72.9	3.57 U	4.15 U	1,210	477	2,900	24,000	660,000	--	--	--
	Benzo(b)fluoranthene	µg/kg	--	--	560	78.9	4.66 J	4.57 J	--	--	2,900	24,000	670,000	--	--	--
	Dibenzo(a,h)anthracene	µg/kg	--	--	88.6	16.7 J	3.57 U	4.15 U	ND	ND	290	2,400	67,000	--	--	--
	Indeno(1,2,3-cd)pyrene	µg/kg	--	--	262	46.8	3.57 U	4.15 U	1,220	628	2,900	24,000	670,000	--	--	--

Notes:

1. -- = Not applicable/not analyzed
2. mg/kg = Milligrams per kilogram
3. µg/kg = Micrograms per kilogram
4. J = The result is an estimated quantity
5. U= Undetected at the method detection limit shown
6. Risk-Based Concentrations; revision date 11/1/2015
7. Gray shading indicates sample concentration exceeds one or more RBCs.
8. Background concentrations from Development of Oregon Background Metals Concentrations in Soil; Oregon Department of Environmental Quality, 2013

Table 8

Summary of Human Health Risk Screening - Riverbank Section 4

Supplemental Area 2 Riverbank Focused Feasibility Study

Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Surface Soil Samples							Oregon Department of Environmental Quality Risk-Based Concentrations					Default Background Concentrations Portland Basin Soil
			A2GS-4	A2GS-5	A2GS-6	A2GS-6-GRIT	A2GS-7	S2-15	S2-16	Soil Ingestion, Dermal Contact, and Inhal.			Vol. to Outdoor Air	Vapor Intrusion	
		Date	4/7/2004	4/7/2004	4/7/2004	4/7/2004	4/7/2004	9/23/2010	9/23/2010						
Depth (Feet Below Ground Surface)			0	0	0	0	0	0	0	Occ	Const.	Exc	Occ	Occ	
Inorganics	Arsenic	mg/kg	61.9	19.6	7.2	61.3	56.5	46.9	267	1.9	15	420	--	--	8.8
	Manganese	mg/kg	4,160	678	455	4,020	1,180	2,020	4,580	25,000	8,200	230,000	--	--	1,800
Petroleum Hydrocarbons	Diesel	mg/kg	88	ND	ND	ND	ND	138	5,080	14,000	4,600	--	--	--	--
	Heavy Oil	mg/kg	292	ND	ND	ND	ND	476	16,000	--	--	--	--	--	--

Group	Constituent	Units	Surface Soil Samples							Oregon Department of Environmental Quality Risk-Based Concentrations					Default Background Concentrations Portland Basin Soil
			S2-17	S2-18	S2-19	S2-20	S2-21	S2-22	S2-23	Soil Ingestion, Dermal Contact, and Inhal.			Vol. to Outdoor Air	Vapor Intrusion	
		Date	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010						
Depth (Feet Below Ground Surface)			0	0	0	0	0	0	0	Occ	Const.	Exc	Occ	Occ	
Inorganics	Arsenic	mg/kg	52.3	125	118	39.6	132	107	32.9	1.9	15	420	--	--	8.8
	Manganese	mg/kg	2,510	2,000	2,710	3,060	2,500	3,010	2,370	25,000	8,200	230,000	--	--	1,800
Petroleum Hydrocarbons	Diesel	mg/kg	1,360	87.7	119	202	189	97.4	48.8	14,000	4,600	--	--	--	--
	Heavy Oil	mg/kg	4,970	366	452	791	783	371	218	--	--	--	--	--	--

Group	Constituent	Units	Surface Soil Samples		Vector 2.11	Vector 2.12	Vector 2.13	Vector 2.14		Oregon Department of Environmental Quality Risk-Based Concentrations					Default Background Concentrations Portland Basin Soil
			S2-24	S2-25	092710-2-2.11-10-02-FS	092710-2-2.12-5-01-FS	092710-2-2.13-5-01-FS	092810-2-2.14-5-01-FS	092810-2-2.14-10-02-FS	Soil Ingestion, Dermal Contact, and Inhal.			Vol. to Outdoor Air	Vapor Intrusion	
		Date	9/23/2010	9/23/2010	9/27/2010	9/27/2010	9/27/2010	9/28/2010	9/28/2010						
Depth (Feet Below Ground Surface)			0	0	5 - 10	0 - 5	0 - 5	0 - 5	5- 10	Occ	Const.	Exc	Occ	Occ	
Inorganics	Arsenic	mg/kg	23.2	51.7	4.61	10.9	6.27	4.51	9.05	1.9	15	420	--	--	8.8
	Manganese	mg/kg	2,970	2,730	829	670	342	719	629	25,000	8,200	230,000	--	--	1,800
Petroleum Hydrocarbons	Diesel	mg/kg	374	9.89 J	5.75 J	21.6	39.4	1.04 J	25.6	14,000	4,600	--	--	--	--
	Heavy Oil	mg/kg	1,540	36.2	17.8 J	93.8	126	1.95 J	151	--	--	--	--	--	--

Group	Constituent	Units	Vector 2.14	Vector 2.15		Vector 2.16	Vector 2.17		Oregon Department of Environmental Quality Risk-Based Concentrations					Default Background Concentrations Portland Basin Soil
			092810-2-2.14-20-04-FS	092810-2-2.15-5-01-FS	92810-2-2.15-10-02-FS	091010-2-2.16-1.5-01-FS	091010-2-2.17-1.5-01-FS	091010-2-2.17-10-03-FS	Soil Ingestion, Dermal Contact, and Inhal.			Vol. to Outdoor Air	Vapor Intrusion	
		Date	9/28/2010	9/28/2010	9/28/2010	9/10/2010	9/10/2010	9/10/2010						
Depth (Feet Below Ground Surface)			15 - 20	0 - 5	5 - 10	0 - 1.5	0 - 1.5	10 - 15	Occ	Const.	Exc	Occ	Occ	
Inorganics	Arsenic	mg/kg	5.43	5.59	4.39	9.97	7.70	6.84	1.9	15	420	--	--	8.8
	Manganese	mg/kg	454	9,000	969	1,020	688	666	25,000	8,200	230,000	--	--	1,800
Petroleum Hydrocarbons	Diesel	mg/kg	4.32 J	165	85.3	170 J	61.4	6.47 J	14,000	4,600	--	--	--	--
	Heavy Oil	mg/kg	22.4 J	557	244	454 J	121	21.7 J	--	--	--	--	--	--

Notes:

1. -- = Not applicable/not analyzed
2. mg/kg = Milligrams per kilogram
3. J = The result is an estimated quantity
4. Risk-Based Concentrations; revision date 11/1/2015
5. Gray shading indicates concentration exceeds one or more RBCs. Orange shading with bold outline indicates concentration exceeds the corresponding human health hot spot criterio
6. Background concentrations from Development of Oregon Background Metals Concentrations in Soil; Oregon Department of Environmental Quality, 201

Table 9
Summary of Terrestrial Ecological Risk Screening - Riverbank Section 1
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Surface Soil Samples		Vector 2.1					Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			S2-1	S2-2	090210-2-2.1-Surface-11-FS	090210-2-2.1-1.5-01-FS	090210-2-2.1-5-02-FS	090210-2-2.1-20-05-FS	090210-2-2.1-20-06-DUP	Plants	Inverts.	Birds	Mammals	
		Date	9/24/2010	9/24/2010	9/2/2010	9/2/2010	9/2/2010	9/2/2010	9/2/2010					
		Depth (Feet Below Ground Surface)	0	0	0	0 - 1.5	5 - 10	20 - 25	20 - 25					
Inorganics	Mercury	mg/kg	0.0825 J	0.409	0.0834 J	0.0122 J	0.0641 J	0.0243 J	0.0208 J	0.3	0.1	1.5	73	0.23
	Arsenic	mg/kg	19.9	580	19.2	17.3	26.1	12.4	11.3	10	60	10	29	8.8
	Chromium	mg/kg	28.7	129	263	35.0 J	32.9	36.8	32.1	1	0.4	4	410	76
	Copper	mg/kg	75.1	1,350	902	301	250	34.2	31.5	100	50	190	390	34
	Lead	mg/kg	140	1,490	293	63.3 J	87.1	22.1	25.2	50	500	16	4000	79
	Manganese	mg/kg	1,130	1,090	6,550	1,240	1,270	859	602	500	100	4,125	11,000	1,800
	Nickel	mg/kg	23.4	75.7	245	26.4 J	22.5	25.4	23.7	30	200	320	625	47
	Silver	mg/kg	0.256 J	2.330 J	7.55	0.329 J	0.333 J	0.140 J	0.165 J	2	50	--	--	0.82
	Zinc	mg/kg	312	5,730	3,130	345	385	109	114	50	200	60	20,000	180

Group	Constituent	Units	Vector 2.2				Vector 2.3			Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			090310-2-2.2-Surface-11-WS	090310-2-2.2-1.5-01-FS	090310-2-2.2-10-03-FS	090310-2-2.2-20-05-FS	090310-2-2.3-Surface-11-WS	090310-2-2.3-1.5-01-FS	090310-2-2.3-15-04-FS	Plants	Inverts.	Birds	Mammals	
		Date	9/3/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010					
		Depth (Feet Below Ground Surface)	0	0 - 1.5	10 - 15	20 - 25	0	0 - 1.5	15 - 20					
Inorganics	Mercury	mg/kg	0.0701 J	0.0042 U	0.0128 J	0.0733 J	0.0540 J	0.0500 J	0.0723 J	0.3	0.1	1.5	73	0.23
	Arsenic	mg/kg	23.0	17.1	4.29	7.42	12.7	9.34	8.27	10	60	10	29	8.8
	Chromium	mg/kg	102.0	6.33	17.5	23.7	95.0	22.7	33.4	1	0.4	4	410	76
	Copper	mg/kg	359	46.5	20.5	22.0	340	29.3	77.1	100	50	190	390	34
	Lead	mg/kg	137	26.3	7.02	14.2	127	69.8	149	50	500	16	4000	79
	Manganese	mg/kg	2,600	396	515	647	1,670	625	783	500	100	4,125	11,000	1,800
	Nickel	mg/kg	87.1	6.58	17.1	18.5	61.2	16.6	36.8	30	200	320	625	47
	Silver	mg/kg	0.401 J	0.0893 J	0.0900 J	0.094 J	0.335 J	0.122 J	0.336 J	2	50	--	--	0.82
	Zinc	mg/kg	524	137	62.2	70.9	570	123	202	50	200	60	20,000	180

Notes:

1. -- = Not applicable/not analyzed
2. mg/kg = Milligrams per kilogram
3. µg/kg = Micrograms per kilogram
4. J = The result is an estimated quantity
5. U= Undetected at the method detection limit shown
6. UJ = Undetected at the method detection limit shown, detection limit is an estimated quantity.
7. Level II Screening Benchmark Values; revision date 12/2001
8. Gray shading indicates concentration exceeds the background concentration and an SLV. Orange shading with bold outline indicates concentration exceeds an ecological health hot spot criterion.
9. Background concentrations from Development of Oregon Background Metals Concentrations in Soil; Oregon Department of Environmental Quality, 2013

Table 10
Summary of Terrestrial Ecological Risk Screening - Riverbank Section 2
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Surface Soil Samples			Vector 2.4				Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			S2-3	S2-4	S2-5	090710-2-2.4-5-02-FS	090710-2-2.4-10-03-FS	090710-2-2.4-15-04-FS	090710-2-2.4-20-05-FS	Plants	Inverts.	Birds	Mammals	
		Date	9/24/2010	9/24/2010	9/24/2010	9/7/2010	9/7/2010	9/7/2010	9/7/2010					
		Depth (Feet Below Ground Surface)	0	0	0	5 - 10	10 - 15	15 - 20	20 - 25					
Inorganics	Arsenic	mg/kg	68.1	2.25 J	3.51	23.8	7.59	--	7.22	10	60	10	29	8.8
	Chromium	mg/kg	27.9	4.94 J	19.0	56.4 J	32.8	--	134	1	0.4	4	410	76
	Copper	mg/kg	138	26.9	76.4	100	48.3	--	58.7	100	50	190	390	34
	Lead	mg/kg	125	7.13	20.3	204 J	93.7	--	65.3	50	500	16	4,000	79
	Manganese	mg/kg	381	1,400	1,120	2,020	964	--	1,250	500	100	4,125	11,000	1,800
	Nickel	mg/kg	19.8	3.70 J	11.1	40.6	24.4	--	84.6	30	200	320	625	47
	Zinc	mg/kg	604	99.8	265	658	192	--	172	50	200	60	20,000	180

Group	Constituent	Units	Vector 2.5			Vector 2.6			Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			090810-2-2.5-00-10-WS	090710-2-2.5-5-02-FS	090710-2-2.5-15-04-FS	090810-2-2.6-00-10-WS	090810-2-2.6-5-01-FS	090810-2-2.6-15-03-FS	Plants	Inverts.	Birds	Mammals	
		Date	9/8/2010	9/7/2010	9/7/2010	9/8/2010	9/8/2010	9/8/2010					
		Depth (Feet Below Ground Surface)	0	5 - 10	15 - 20	0	5 - 10	15 - 20					
Inorganics	Arsenic	mg/kg	205	10.0	14.7	63.1	3.14	18.4	10	60	10	29	8.8
	Chromium	mg/kg	123	31.2	27.5	72.9	13.5	27.9	1	0.4	4	410	76
	Copper	mg/kg	1,880	68.0	44.7	687	28.1	89.7	100	50	190	390	34
	Lead	mg/kg	459	216	169	188	24.2	162	50	500	16	4,000	79
	Manganese	mg/kg	2,350	384	984	1,390	620	621	500	100	4,125	11,000	1,800
	Nickel	mg/kg	170	21.2	23.7	44.7	8.01	20.3	30	200	320	625	47
	Zinc	mg/kg	2,460	321	403	2,150	110	402	50	200	60	20,000	180

Notes:

1. -- = Not applicable/not analyzed
2. mg/kg = Milligrams per kilogram
3. µg/kg = Micrograms per kilogram
4. J = The result is an estimated quantity
5. U= Undetected at the method detection limit shown
6. UJ = Undetected at the method detection limit shown, detection limit is an estimated quantity
7. Level II Screening Benchmark Values; revision date 12/2001
8. Gray shading indicates concentration exceeds the background concentration and an SLV. Orange shading with bold outline indicates concentration exceeds an ecological health hot spot criterion.
9. Background concentrations from Development of Oregon Background Metals Concentrations in Soil; Oregon Department of Environmental Quality, 2013

Table 11

Summary of Terrestrial Ecological Risk Screening - Riverbank Section 3

Supplemental Area 2 Riverbank Focused Feasibility Study

Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Surface Soil Samples											Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			S2-6	S2-7	S2-8	S2-9	S2-10	S2-11	S2-12	S2-13	S2-14	A2GS-1	A2GS-2	Plants	Inverts.	Birds	Mammals	
		Date	9/24/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	6/9/2003	6/9/2003					
		Depth	0	0	0	0	0	0	0	0	0	0 - 0.25	0 - 0.25					
Inorganics	Arsenic	mg/kg	4.01	135	5.85	6.27	23	29.1	19.0	30.8	61.3	--	--	10	60	10	29	8.8
	Barium	mg/kg	173	586	197	235	629	398	290.0	815	341	--	--	500	3,000	85	638	790
	Chromium	mg/kg	20.5	207	20.3	28.7	82.9	84.2	47.0	96.3	59.6	--	--	1	0.4	4	410	76
	Copper	mg/kg	199	1,580	112	260	1,220	1,130	832	2,870	962	--	--	100	50	190	390	34
	Lead	mg/kg	31.2	563	56.3	65.4	1,260	241	39.1	73.8	86.3	--	--	50	500	16	4,000	79
	Manganese	mg/kg	1,110	3,080	1,270	1,360	1,890	2,110	1,660	2,860	2,370	--	--	500	100	4,125	11,000	1,800
	Nickel	mg/kg	12.0	95	13.9	22.7	52	42.6	26.9	53.6	31.3	--	--	30	200	320	625	47
	Zinc	mg/kg	650	3,900	300	767	7,420	764	494	3,220	558	--	--	50	200	60	20,000	180

Group	Constituent	Units	Vector 2.7 Composite Samples			Vector 2.7 Samples				Vector 2.8 Composite Samples			Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			092210-2-2.7-Composite-11-FS	092210-2-2.7-Composite-12-Total	110110-2-2.7-Composite-01-WS	092210-2-2.7-Surface-01-WS	092210-2-2.7-10-03-FS	092210-2-2.7-25-06-FS	092210-2-2.7-25-07-Dup	102610-2-2.8-Composite-06	092110-2-2.8-Composite-07-WS	092110-2-2.8-Composite-08-Total	Plants	Inverts.	Birds	Mammals	
		Date	9/22/2010	9/22/2010	11/1/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	10/26/2010	9/22/2010	9/22/2010					
		Depth (Feet Below Ground Surface)	0	0	0	0	5 - 10	20 - 25	20 - 25	0	0	0					
Inorganics	Arsenic	mg/kg	--	--	6.53	11.3	112	6.30 J	10.9 J	--	--	--	10	60	10	29	8.8
	Barium	mg/kg	--	--	182 J	205	142	198	237 J	--	--	--	500	3,000	85	638	790
	Chromium	mg/kg	--	--	26.3 J	51.0	99.8	34.3 J	93.0 J	--	--	--	1	0.4	4	410	76
	Copper	mg/kg	--	--	234	843	282	88.4	124 J	--	--	--	100	50	190	390	34
	Lead	mg/kg	--	--	61.5 J	33.6	386	515 J	208 J	--	--	--	50	500	16	4000	79
	Manganese	mg/kg	--	--	1,120	1,470	840	1,020 J	751 J	--	--	--	500	100	4,125	11,000	1,800
	Nickel	mg/kg	--	--	14.2	39.9	22.3	33.2	60.6	--	--	--	30	200	320	625	47
	Zinc	mg/kg	--	--	787	3,970	1,210	730 J	406 J	--	--	--	50	200	60	20,000	180

Table 11

Summary of Terrestrial Ecological Risk Screening - Riverbank Section 3

Supplemental Area 2 Riverbank Focused Feasibility Study

Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.8 Samples							Vector 2.9 Composite Samples			Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			092110-2-2.8-Surface-02-WS	092110-2-2.8-1.5-01-FS	092110-2-2.8-5-03-FS	092110-2-2.8-10-04-FS	092110-2-2.8-15-05-FS	092110-2-2.8-20-06-FS	102610-2-2.8-25-01-FS	092110-2-2.9-Composite-12-WS	092110-2-2.9-Composite-13-Total	110110-2-2.9-Composite-02-WS	Plants	Inverts.	Birds	Mammals	
		Date	9/21/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	10/26/2010	9/22/2010	9/21/2010	11/1/2010					
	Depth (Feet Below Ground Surface)		0	0 - 1.5	5 - 10	10 - 15	15 - 20	20 - 25	20 - 25	0	0	0					
Inorganics	Arsenic	mg/kg	124	1.88	1.13	0.916	11.1	9.46	4.98	--	--	11.6	10	60	10	29	8.8
	Barium	mg/kg	561	114	102	74.1	243	175	145	--	--	300	500	3,000	85	638	790
	Chromium	mg/kg	135	7.5	8.49	5.22	31.5	25.6	31.3	--	--	51.9	1	0.4	4	410	76
	Copper	mg/kg	2,080	30.2	13.7	11.9	835	30.9	47.5	--	--	1,020	100	50	190	390	34
	Lead	mg/kg	512	37.0	6.61	4.19	39.1	69.9	24.4	--	--	70.6	50	500	16	4000	79
	Manganese	mg/kg	2,850	1,140	748	535	1,770	654	634	--	--	1,630	500	100	4,125	11,000	1,800
	Nickel	mg/kg	50.7	6.55	4.36	2.31	17.0	20.4	23.4	--	--	35.3	30	200	320	625	47
	Zinc	mg/kg	7,830	92.5	69.8	56.4	168	113	96.3	--	--	1,880	50	200	60	20,000	180

Group	Constituent	Units	Vector 2.9 Samples			Vector 2.10 Samples				Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			092110-2-2.9-10-03-FS	092110-2-2.9-20-05-FS	092110-2-2.9-20-06-Dup	092210-2-2.10-Surface-01-WS	092210-2-2.10-1.5-02-FS	092210-2-2.10-10-04-FS	092210-2-2.10-20-06-FS	Plants	Inverts.	Birds	Mammals	
		Date	9/21/2010	9/21/2010	9/21/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010					
	Depth (Feet Below Ground Surface)		5 - 10	15 - 20	15 - 20	0	0 - 1.5	5 - 10	15 - 20					
Inorganics	Arsenic	mg/kg	4.02	10.0	13.4	34.0	28.6	2.02 J	4.13	10	60	10	29	8.8
	Barium	mg/kg	93.9	72.8 J	111 J	835	336	61.9	138	500	3,000	85	638	790
	Chromium	mg/kg	14.9	9.14 J	29.6 J	142	55.8	7.65	23.8	1	0.4	4	410	76
	Copper	mg/kg	70.3	37.3 J	58.5 J	3,560	1,590	84	28.2	100	50	190	390	34
	Lead	mg/kg	22.6	31.8 J	62.6 J	102	66.9	2.89	13	50	500	16	4000	79
	Manganese	mg/kg	677	423	594	3,650	2,790	409	473	500	100	4,125	11,000	1,800
	Nickel	mg/kg	8.96	6.43 J	15.1 J	107	31.6	3.41 J	15.2	30	200	320	625	47
	Zinc	mg/kg	120	129 J	181	3,320	418	76	77.4	50	200	60	20,000	180

Notes:

1. -- = Not applicable/not analyzed
2. mg/kg = Milligrams per kilogram
3. µg/kg = Micrograms per kilogram
4. J = The result is an estimated quantity
5. U = Undetected at the method detection limit shown
6. UJ = Undetected at the method detection limit shown, detection limit is an estimated quantity
7. Level II Screening Benchmark Values; revision date 12/2001
8. Gray shading indicates concentration exceeds the background concentration and an SLV. Orange shading with bold outline indicates concentration exceeds an ecological health hot spot criterion
9. ND = Analyte was not detected. The corresponding laboratory method reporting limits are unavailable.
10. Background concentrations from Development of Oregon Background Metals Concentrations in Soil; Oregon Department of Environmental Quality, 2013

Table 12

Summary of Terrestrial Ecological Risk Screening - Riverbank Section 3

Supplemental Area 2 Riverbank Focused Feasibility Study

Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Surface Soil Samples							Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			A2GS-4	A2GS-5	A2GS-6	A2GS-6-GRIT	A2GS-7	S2-15	S2-16					
		Date	4/7/2004	4/7/2004	4/7/2004	4/7/2004	4/7/2004	9/23/2010	9/23/2010	Plants	Inverts.	Birds	Mammals	
		Depth (Feet Below Ground Surface)	0	0	0	0	0	0	0					
Inorganics	Mercury	mg/kg	0.0800	ND	ND	ND	0.1340	0.0187 J	0.0209 J	0.3	0.1	1.5	73	0.23
	Arsenic	mg/kg	61.9	19.6	7.2	61.3	56.5	46.9	267	10	60	10	29	8.8
	Barium	mg/kg	286	146	188	591	223	355	840	500	3,000	85	638	790
	Chromium	mg/kg	166	22.6	20.9	62.2	37.9	59.9	142	1	0.4	4	410	76
	Copper	mg/kg	586	542	25.4	5,260	655	1,040	4,490	100	50	190	390	34
	Lead	mg/kg	164	48.5	5.2	88.7	213	80.1	457	50	500	16	4,000	79
	Manganese	mg/kg	4,160	678	455	4,020	1,180	2,020	4,580	500	100	4,125	11,000	1,800
	Nickel	mg/kg	36	23	17	51	42	40.3	74.4	30	200	320	625	47
	Selenium	mg/kg	0.665	0.387	ND	1	0.592	0.279 J	0.404 J	1	70	2	25	1
	Silver	mg/kg	0.547	ND	ND	2	0.927	0.814	1.76	2	50	--	--	1
	Zinc	mg/kg	1,030	580	134	4,230	327	926	4,230	50	200	60	20,000	180

Group	Constituent	Units	Surface Soil Samples							Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			S2-17	S2-18	S2-19	S2-20	S2-21	S2-22	S2-23					
		Date	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	Plants	Inverts.	Birds	Mammals	
		Depth (Feet Below Ground Surface)	0	0	0	0	0	0	0					
Inorganics	Mercury	mg/kg	0.0199 J	0.016 J	0.0336 J	0.0224 J	0.038 J	0.0283 J	0.014 J	0.3	0.1	1.5	73	0.23
	Arsenic	mg/kg	52.3	125	118	39.6	132	107	32.9	10	60	10	29	9
	Barium	mg/kg	439	208	316	542	559	359	367	500	3,000	85	638	790
	Chromium	mg/kg	111	92.3	88.8	86.2	92.1	113	70.1	1	0.4	4	410	76
	Copper	mg/kg	3,730	2,000	2,790	4,010	4,890	1,730	1,170	100	50	190	390	34
	Lead	mg/kg	87.9	229	278	108	272	208	68.8	50	500	16	4,000	79
	Manganese	mg/kg	2,510	2,000	2,710	3,060	2,500	3,010	2,370	500	100	4,125	11,000	1,800
	Nickel	mg/kg	79.5	89.7	85.7	63.4	67.5	68.1	70.4	30	200	320	625	47
	Selenium	mg/kg	0.0449 U	0.454 J	0.494 J	0.208 J	0.422 J	0.706 J	0.212 J	1	70	2	25	1
	Silver	mg/kg	1.27	0.736	4.96	1.39	1.64	1.02	0.832	2	50	--	--	1
	Zinc	mg/kg	2,570	1,920	2,160	1,990	3,400	1,620	966	50	200	60	20,000	180

Group	Constituent	Units	Surface Soil Samples		Vector 2.11	Vector 2.12	Vector 2.13	Vector 2.14		Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			S2-24	S2-25	092710-2-2.11-10-02-FS	092710-2-2.12-5-01-FS	092710-2-2.13-5-01-FS	092810-2-2.14-5-01-FS	092810-2-2.14-10-02-FS					
		Date	9/23/2010	9/23/2010	9/27/2010	9/27/2010	9/27/2010	9/28/2010	9/28/2010	Plants	Inverts.	Birds	Mammals	
		Depth (Feet Below Ground Surface)	0	0	5 - 10	0 - 5	0 - 5	0 - 5	5 - 10					
Inorganics	Mercury	mg/kg	0.0113 J	0.0327 J	0.0537 J	0.0289 J	0.0397 J	0.0112 J	0.248	0.3	0.1	1.5	73	0.23
	Arsenic	mg/kg	23.2	51.7	4.61	10.9	6.27	4.51	9.05	10	60	10	29	9
	Barium	mg/kg	665	431	166	200	111	129 J	252	500	3,000	85	638	790
	Chromium	mg/kg	86.6	64.1	46.2	27.3	23.9	16.6	30.8	1	0.4	4	410	76
	Copper	mg/kg	4,900	1,520	44.2	27.9	52.0	55.7 J	321	100	50	190	390	34
	Lead	mg/kg	24.4	94.1	88.0	23.3	54.4	10.3	310	50	500	16	4,000	79
	Manganese	mg/kg	2,970	2,730	829	670	342	719	629	500	100	4,125	11,000	1,800
	Nickel	mg/kg	66	40.3	24.5	21.4	19.9	18.2	25.1	30	200	320	625	47
	Selenium	mg/kg	1.94 J	0.333 J	0.101 J	0.146 J	0.0429 J	0.056 J	0.217 J	1	70	2	25	1
	Silver	mg/kg	1.26 J	0.999 J	0.201 J	0.159 J	0.123 J	0.084 J	0.310 J	2	50	--	--	1
	Zinc	mg/kg	3,300	640	203	92.1	103	93.0 J	426	50	200	60	20,000	180

Table 12
Summary of Terrestrial Ecological Risk Screening - Riverbank Section 3
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.14	Vector 2.15		Vector 2.16	Vector 2.17		Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			092810-2-2.14-20-04-FS	092810-2-2.15-5-01-FS	92810-2-2.15-10-02-FS	091010-2-2.16-1.5-01-FS	091010-2-2.17-1.5-01-FS	091010-2-2.17-10-03-FS					
		Date	9/28/2010	9/28/2010	9/28/2010	9/10/2010	9/10/2010	9/10/2010					
		Depth (Feet Below Ground Surface)	15 - 20	0 - 5	5 - 10	0 - 1.5	0 - 1.5	10 - 15	Plants	Inverts.	Birds	Mammals	
Inorganics	Mercury	mg/kg	0.128 J	0.0304 J	0.132	0.0207 J	0.126	0.0726 J	0.3	0.1	1.5	73	0.23
	Arsenic	mg/kg	5.43	5.59	4.39	9.97	7.70	6.84	10	60	10	29	9
	Barium	mg/kg	199	124	135	172	174	186	500	3,000	85	638	790
	Chromium	mg/kg	20.4	46.2	42.8	32.4	23.1	31.2	1	0.4	4	410	76
	Copper	mg/kg	38.5	48.8	27.1	113	101	31.4	100	50	190	390	34
	Lead	mg/kg	122	32.8	26.6	145	142	71.9	50	500	16	4,000	79
	Manganese	mg/kg	454	9,000	969	1,020	688	666	500	100	4,125	11,000	1,800
	Nickel	mg/kg	15.5	20.0	51.6	42.1	33.9	19.9	30	200	320	625	47
	Selenium	mg/kg	0.603 J	0.0122 U	0.0139 U	0.160 J	0.155 J	0.199 J	1	70	2	25	1
	Silver	mg/kg	0.295 U	0.183 J	0.174 J	0.405 J	0.239 J	0.150 J	2	50	--	--	1
	Zinc	mg/kg	190	83.8	88.4	332	188	125	50	200	60	20,000	180

Notes:

1. -- = Not applicable/not analyzed
2. mg/kg = Milligrams per kilogram
3. µg/kg = Micrograms per kilogram
4. Level II Screening Benchmark Values; revision date 12/2001
5. UJ = Undetected at the method detection limit shown, detection limit is an estimated quantity
6. J = The result is an estimated quantity
7. U= Undetected at the method detection limit shown
8. Gray shading indicates concentration exceeds the background concentration and an SLV. Orange shading with bold outline indicates concentration exceeds an ecological health hot spot criterion.

Table 13
Hot Spot Screening Levels for Human and Ecological Receptors
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Chemical of Concern	Units	Human Health				Ecological Health			Hot Spot Conc.
		Risk-Based Screening Level		Hot Spot Multiplier	Hot Spot Conc.	Level II SLV	Hot Spot Multiplier	Hot Spot Conc.	
		Value	Basis						
Arsenic	mg/kg	1.9	DEQ RBC, C	100	190	10	10	100	100
Barium	mg/kg	69,000	DEQ RBC, NC	10	690,000	85	10	850	850
Chromium (III)	mg/kg	530,000	EPA RSL, NC	10	5,300,000	0.4	10	4	4
Copper	mg/kg	14,000	DEQ RBC, NC	10	140,000	50	10	500	500
Lead	mg/kg	800	DEQ RBC, NC	10	8,000	16	10	160	160
Manganese	mg/kg	8,200	DEQ RBC, NC	10	82,000	100	10	1,000	1,000
Mercury	mg/kg	110	DEQ RBC, NC	10	1,100	0.1	10	1	1
Nickel	mg/kg	7,000	DEQ RBC, C	100	700,000	30	10	300	300
Silver	mg/kg	1,800	DEQ RBC, NC	10	18,000	2	10	20	20
Zinc	mg/kg	350,000	EPA RSL, NC	10	3,500,000	50	10	500	500
PCBs (Total)	mg/kg	0.59	DEQ RBC, C	100	59	4	10	40	40
Benzo(a)anthracene	mg/kg	0.29	DEQ RBC, C	100	29	--	--	--	29
Benzo(b)fluoranthene	mg/kg	2.9	DEQ RBC, C	100	290	--	--	--	290
Dibenzo(a,h)anthracene	mg/kg	0.29	DEQ RBC, C	100	29	--	--	--	29
Indeno(1,2,3-cd)pyrene	mg/kg	2.9	DEQ RBC, C	100	290	--	--	--	290
Diesel-Range Hydrocarbons	mg/kg	4,600	DEQ RBC, NC	10	46,000	--	--	--	46,000

Notes:

1. DEQ RBC: Risk-based Screening Levels for occupational, construction worker, and excavtion worker exposure scenarios
2. EPA RSL: U.S. Environmental Protection Agency Regional Screening Level (used when an RBC has not been established)
3. Level II SLV: The minimim Oregon DEQ Level II Screening Level Value for the listed analyte. Assumes threatened and endangered species are present
4. C = carcinogen; NC = non-carcinogen
5. -- = Not applicable or not established
6. Hot spot concentrations are listed only for chemicals that exceed one or more human health and terrestrial ecologicla screening criteria

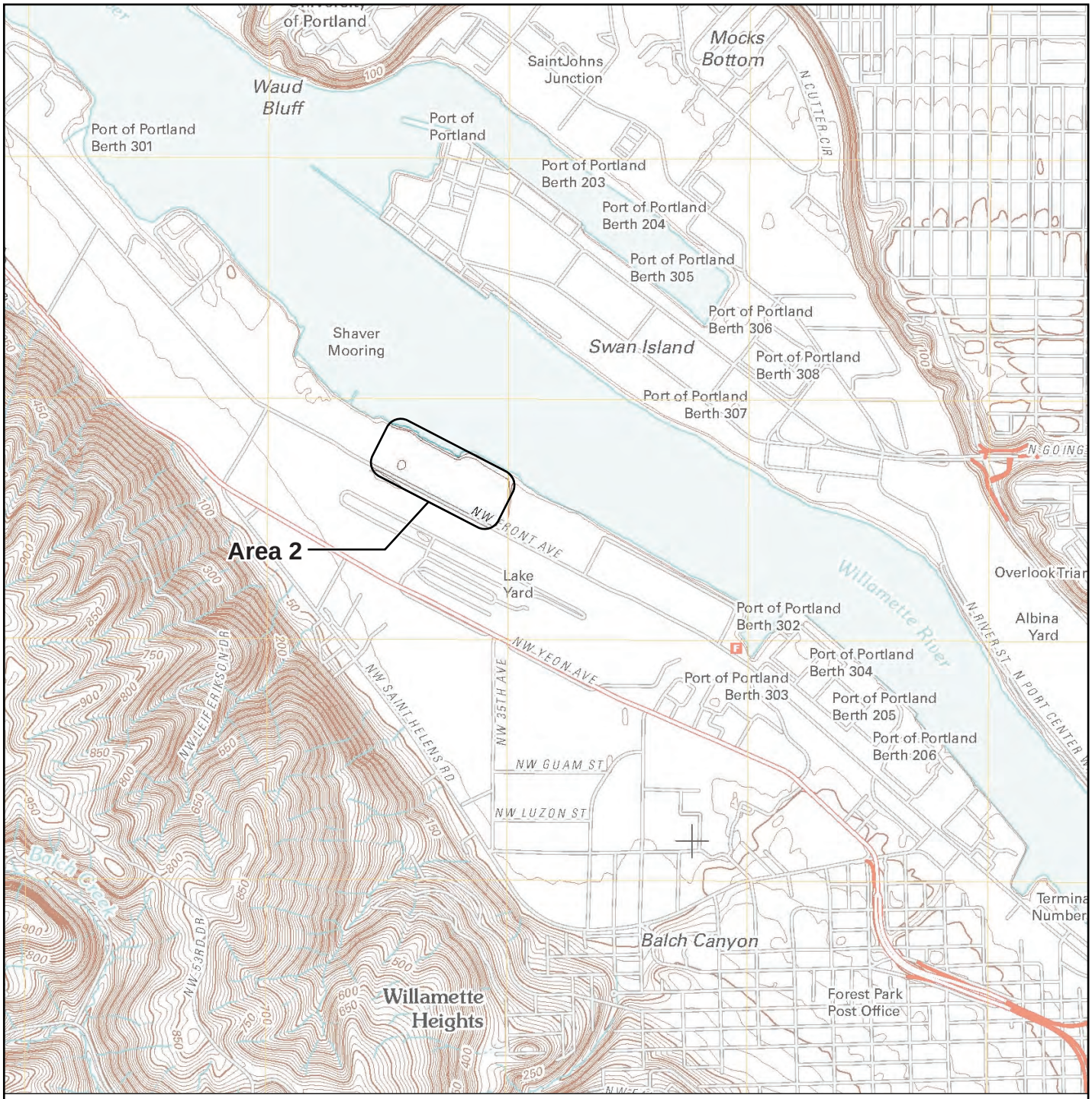
Table 14
Source Control Goal Concentrations
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Chemical of Potential Concern (COPC)	Units	Source Control Concentration Goals			
		Draft PRGs		DEQ/EPA JSCS SLVs	Background Concentrations
		RAO 1 - Ingestion/Direct Contact[1]	RAO 9 - Migration of Contaminants[1]	Upland Soil/Stormwater Sediment[2]	Portland Basin[3]
Arsenic	mg/kg	3	3	7	8.8
Chromium (III)	mg/kg	--	--	111	76
Copper	mg/kg	--	149	149	23
Lead	mg/kg	--	128	17	79
Manganese	mg/kg	--	--	1,100	1,800
Mercury	mg/kg	--	1.1	0.07	0.23
Silver	mg/kg	--	--	5	0.82
Zinc	mg/kg	--	459	459	180
PCBs (Total)	mg/kg	0.37	0.009	0.00039	--
Tributyltin	mg/kg	--	24	0.0023	--
Dieldrin	mg/kg	--	0.00007	0.0000081	--

Notes:

1. PRG = Draft Preliminary Remediation Goal; prepared by U.S. Environmental Protection Agency, July 2015
2. Joint Source Control Strategy (JSCS) Screening Level Values (SLVs); revision date 7/16/2007
3. Background concentrations from Development of Oregon Background Metals Concentrations in Soil; Oregon Department of Environmental Quality, 2013
4. Source control concentration goals are listed only for COPCs
5. -- = Not established

FIGURES



Note: Base map prepared from USGS 7.5-minute quadrangle of Portland, OR, dated 2011 as provided by USGS.gov.

0 2,000 4,000

Approximate Scale in Feet

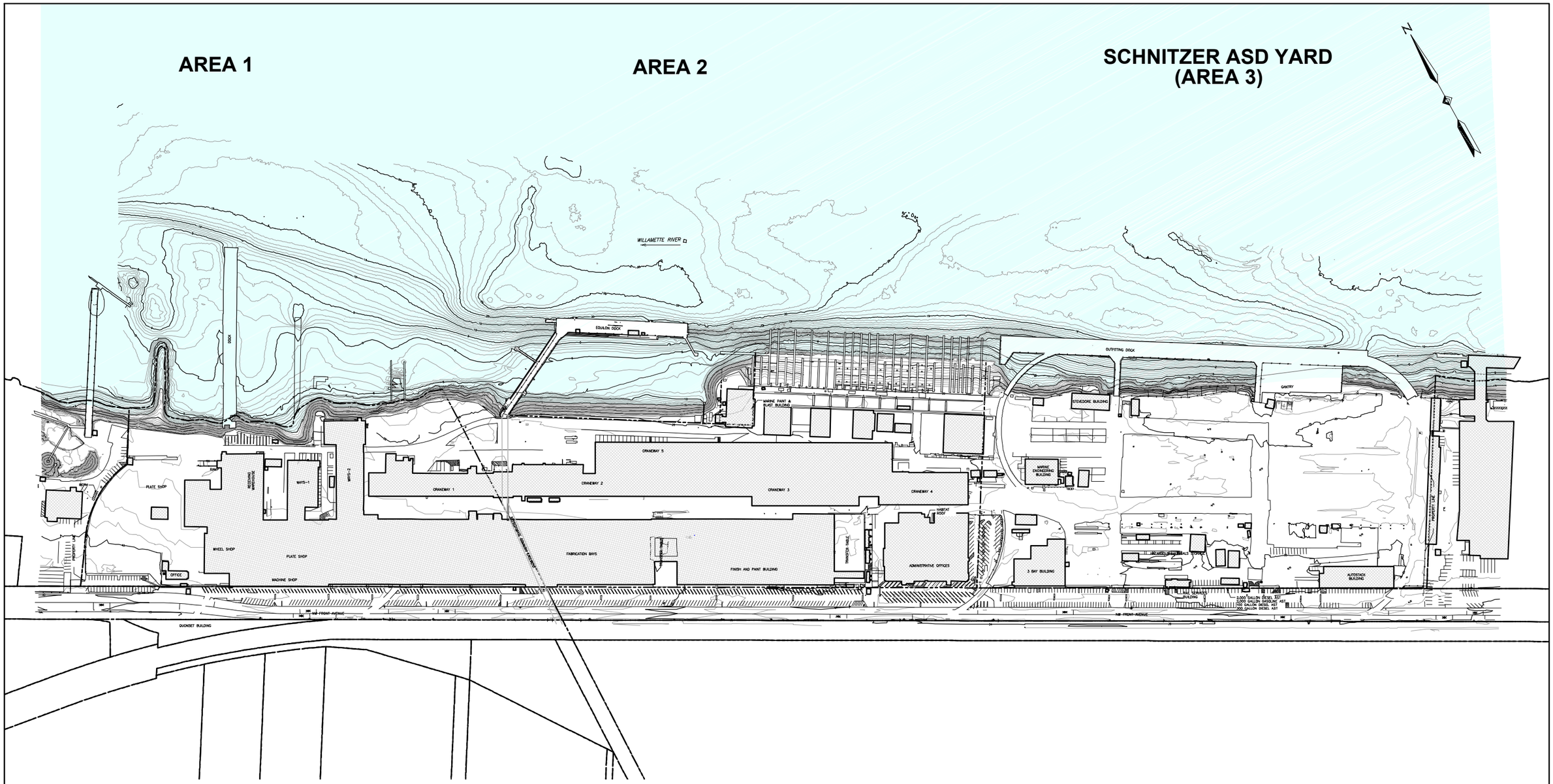
N

Site Vicinity Plan

Supplemental Area 2 Riverbank Source Control Measures
Focused Feasibility Study
Gunderson LLC
Portland, Oregon

Cascadia Associates, LLC

Project Number	0014-001-005-17	Figure
April 2016		1



NOTES:
1) Base map prepared from 2284.dwg (HARN/WO.OR-NIF)
2) Horizontal datum is Oregon Coordinate System of 1983 (2011) epoch 2010.00, north zone, based on GPS observations.
3) North American Vertical Datum 1988.

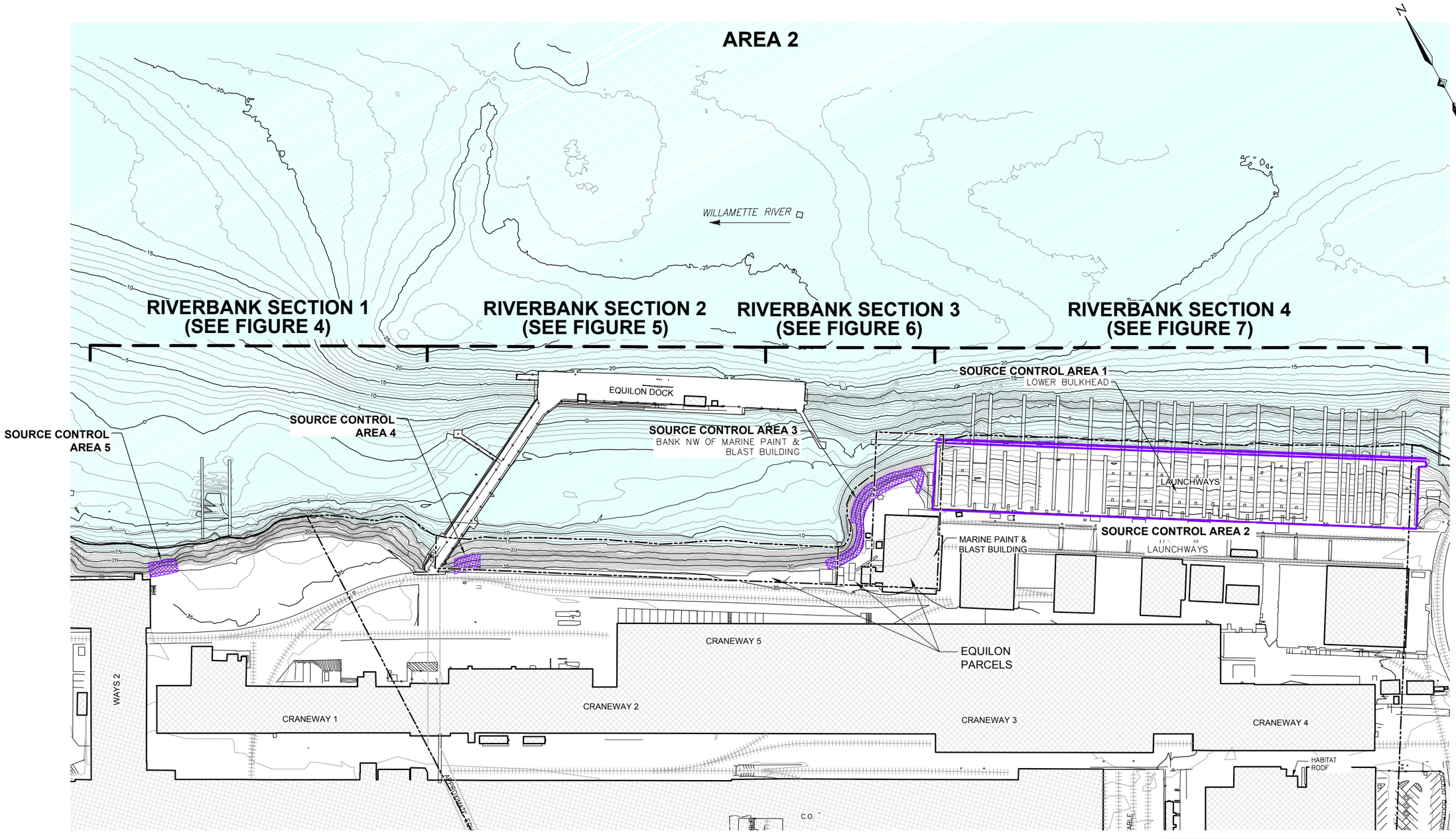
0 300 600
Scale in Feet

Site Vicinity Plan

Supplemental Area 2 Riverbank Source Control Measures
Focused Feasibility Study
Gunderson LLC
Portland, Oregon

Cascadia Associates, LLC

Project Number	0014-001-005-17	Figure
April 2016		2



Legend:

—·-·—·-·— Tax Lot Line

NOTES:
1) Base map prepared from 2284.dwg (HARN/WO.OR-NIF)
2) Horizontal datum is Oregon Coordinate System of 1983 (2011) epoch 2010.00, north zone, based on GPS observations.
3) North American Vertical Datum 1988.

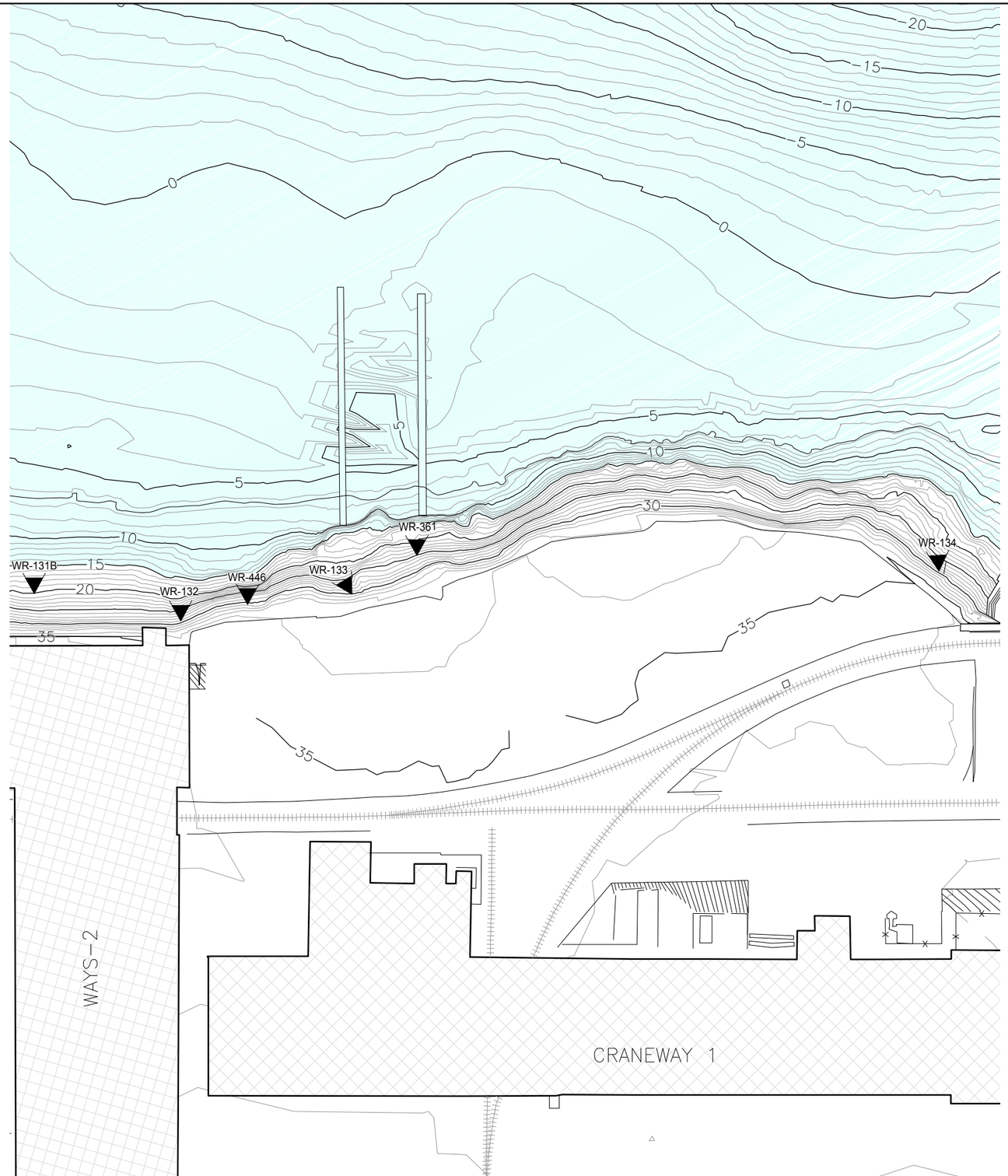
0 150 300
Scale in Feet

Area 2 Plan

Supplemental Area 2 Riverbank Source Control Measures
Focused Feasibility Study
Gunderson LLC
Portland, Oregon

Cascadia Associates, LLC

Project Number	0014-001-005-17	Figure
April 2016		3



N

Legend:

WR-134 Outfall Location

Railroad

NOTES:
1) Base map prepared from 2284.dwg (HARN/WO.OR-NIF)
2) Horizontal datum is Oregon Coordinate System of 1983 (2011) epoch 2010.00, north zone, based on GPS observations.
3) North American Vertical Datum 1988.

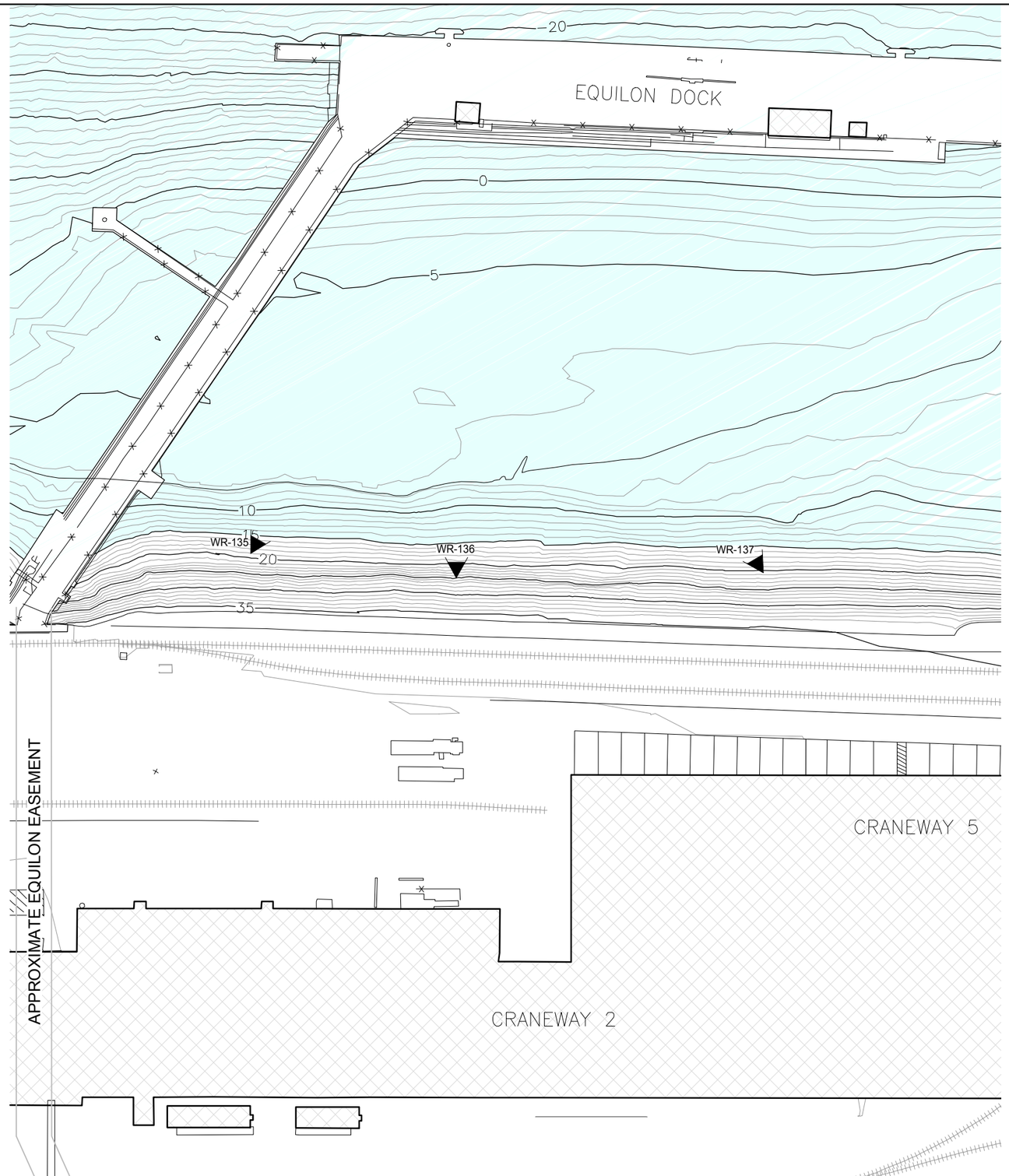
0 60 120
Scale in Feet

Area 2 Riverbank Section 1

Supplemental Area 2 Riverbank Source Control Measures
Focused Feasibility Study
Gunderson LLC
Portland, Oregon

Cascadia Associates, LLC

Project Number	0014-001-005-17	Figure
April 2016		4



N

Legend:

WR-137 Outfall Location

Railroad

NOTES:
1) Base map prepared from 2284.dwg (HARN/WO.OR-NIF)
2) Horizontal datum is Oregon Coordinate System of 1983 (2011) epoch 2010.00, north zone, based on GPS observations.
3) North American Vertical Datum 1988.

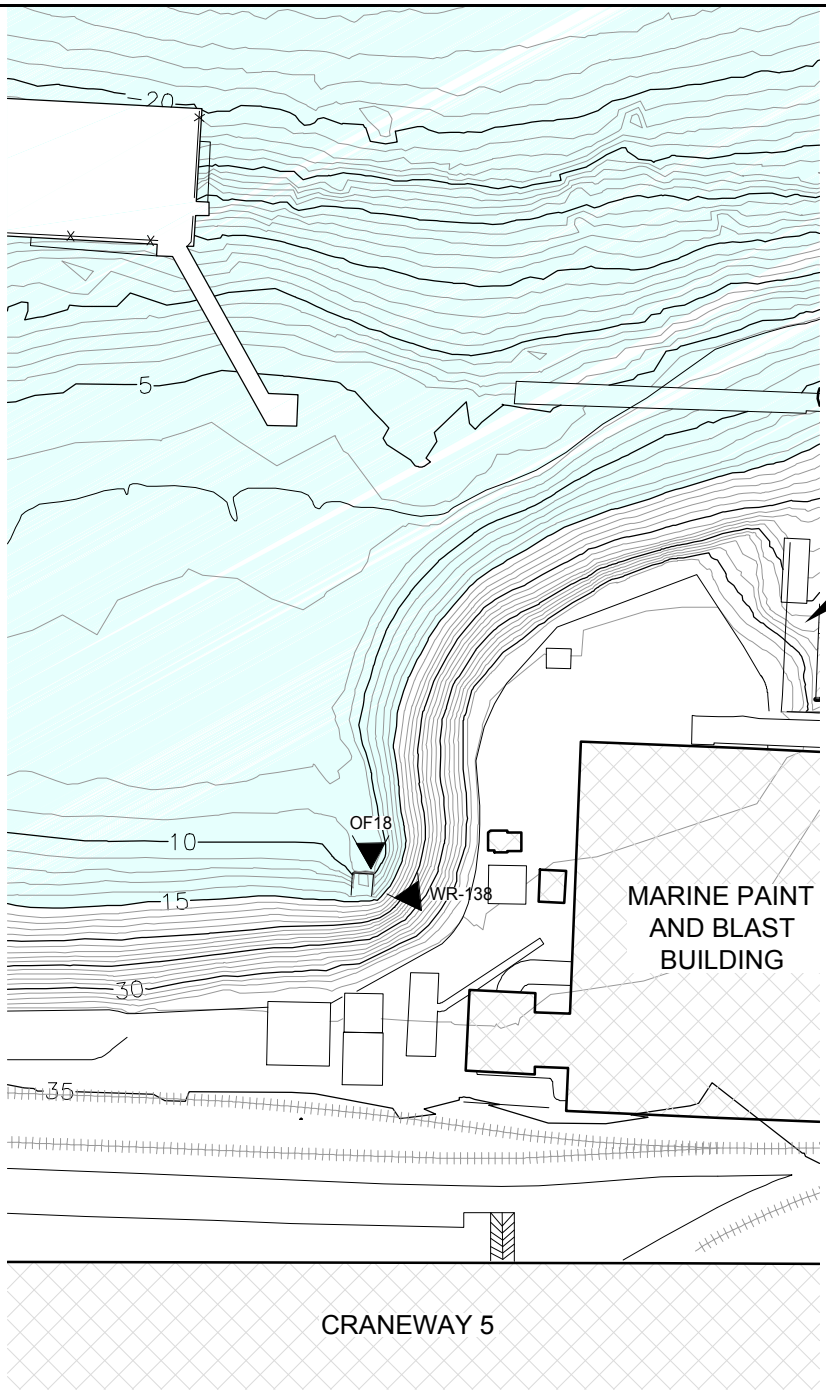
0 60 120
Scale in Feet

Area 2 Riverbank Section 2

Supplemental Area 2 Riverbank Source Control Measures
Focused Feasibility Study
Gunderson LLC
Portland, Oregon

Cascadia Associates, LLC

Project Number	0014-001-005-17	Figure
April 2016		5



NOTES:
1) Base map prepared from 2284.dwg (HARN/WO.OR-NIF)
2) Horizontal datum is Oregon Coordinate System of 1983 (2011) epoch 2010.00, north zone, based on GPS observations.
3) North American Vertical Datum 1988.

0 100 200
Scale in Feet

Legend:

WR-138 ▼ Outfall Location

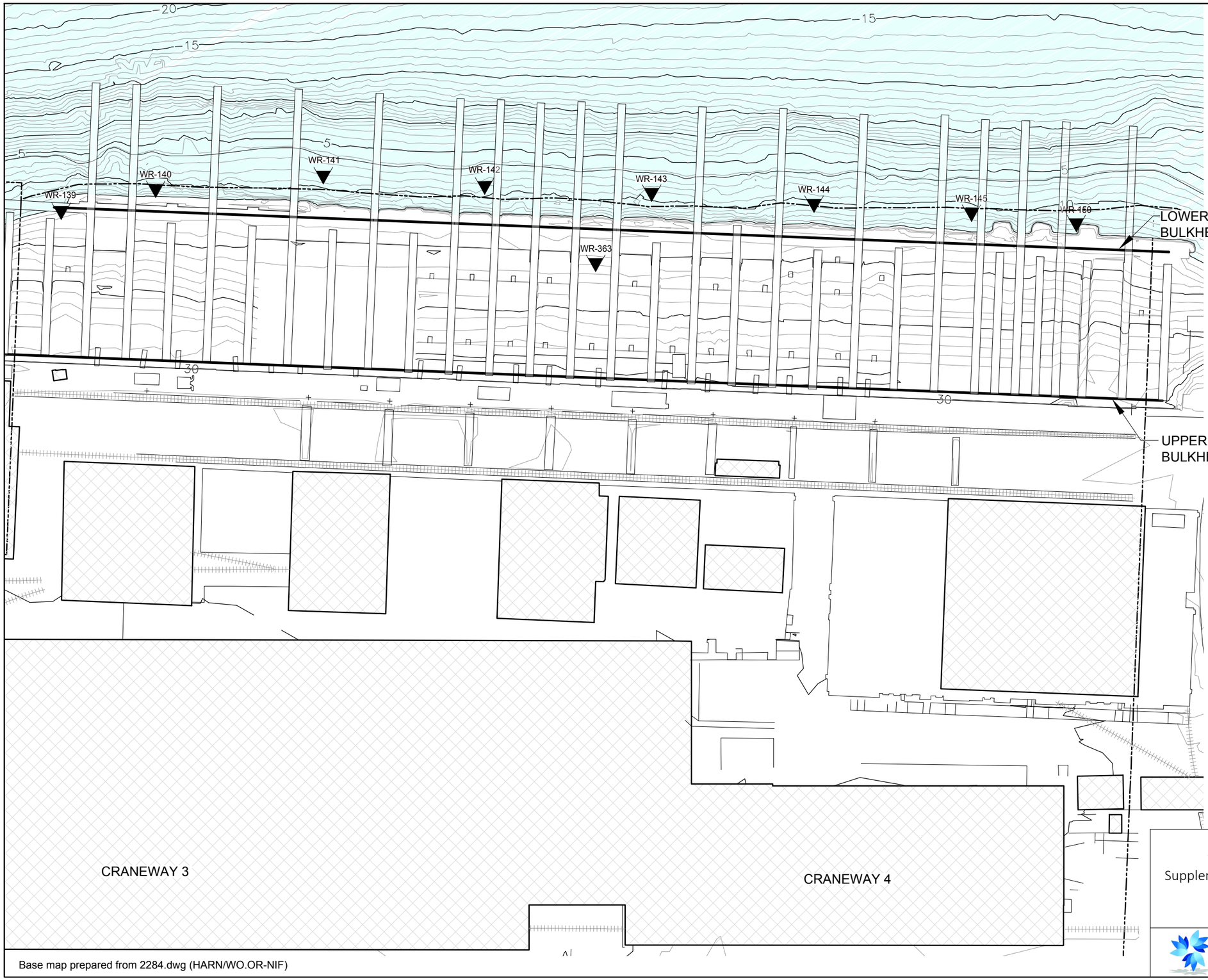
Railroad

Area 2 Riverbank Section 3

Supplemental Area 2 Riverbank Source Control Measures
Focused Feasibility Study
Gunderson LLC
Portland, Oregon

Cascadia Associates, LLC

Project Number	0014-001-005-17	Figure
April 2016		6



Base map prepared from 2284.dwg (HARN/WO.OR-NIF)

Legend:

WR-150 ▼ Outfall Location

Railroad

NOTES:
1) Base map prepared from 2284.dwg (HARN/WO.OR-NIF)
2) Horizontal datum is Oregon Coordinate System of 1983 (2011) epoch 2010.00, north zone, based on GPS observations.
3) North American Vertical Datum 1988.

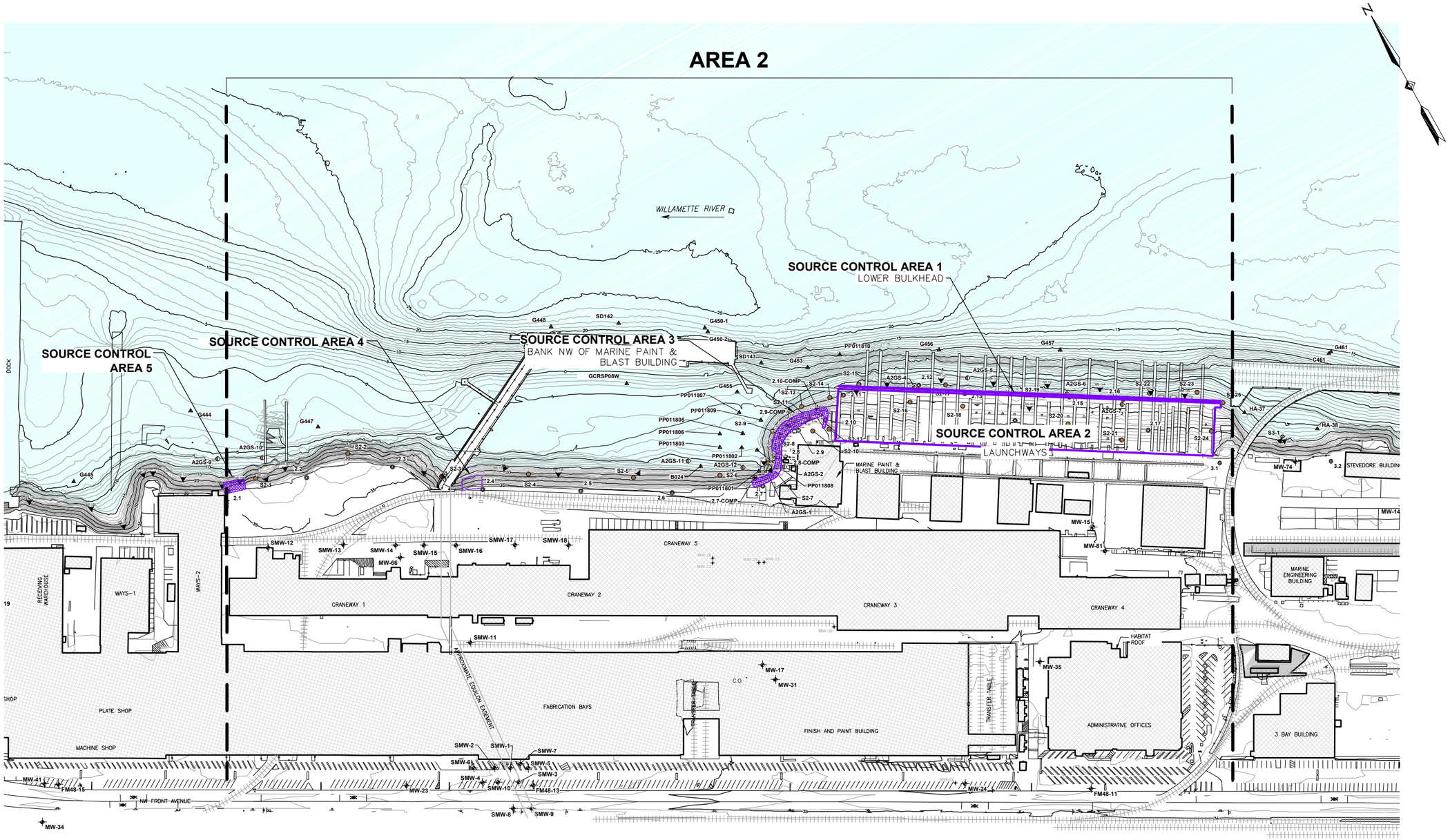
0 60 120
Scale in Feet

Area 2 Riverbank Section 4

Supplemental Area 2 Riverbank Source Control Measures
Focused Feasibility Study
Gunderson LLC
Portland, Oregon

Cascadia Associates, LLC

Project Number	0014-001-005-17	Figure
April 2016		7



Legend:

3.10	Vector Borehole Location
S3-14	Riverbank Surface Sample Location
3.9-COMP	Composite Riverbank Sample Location
HA-41	Surface Sediment Station Location
A2GS-5	Grab Sample (2003)
MW-66	Monitoring Well Location

NOTES:
1) Base map prepared from 2284.dwg (HARN/WO.OR-NIF)
2) Horizontal datum is Oregon Coordinate System of 1983 (2011) epoch 2010.00, north zone, based on GPS observations.
3) North American Vertical Datum 1988.
4) See figures 9-12 for more details.

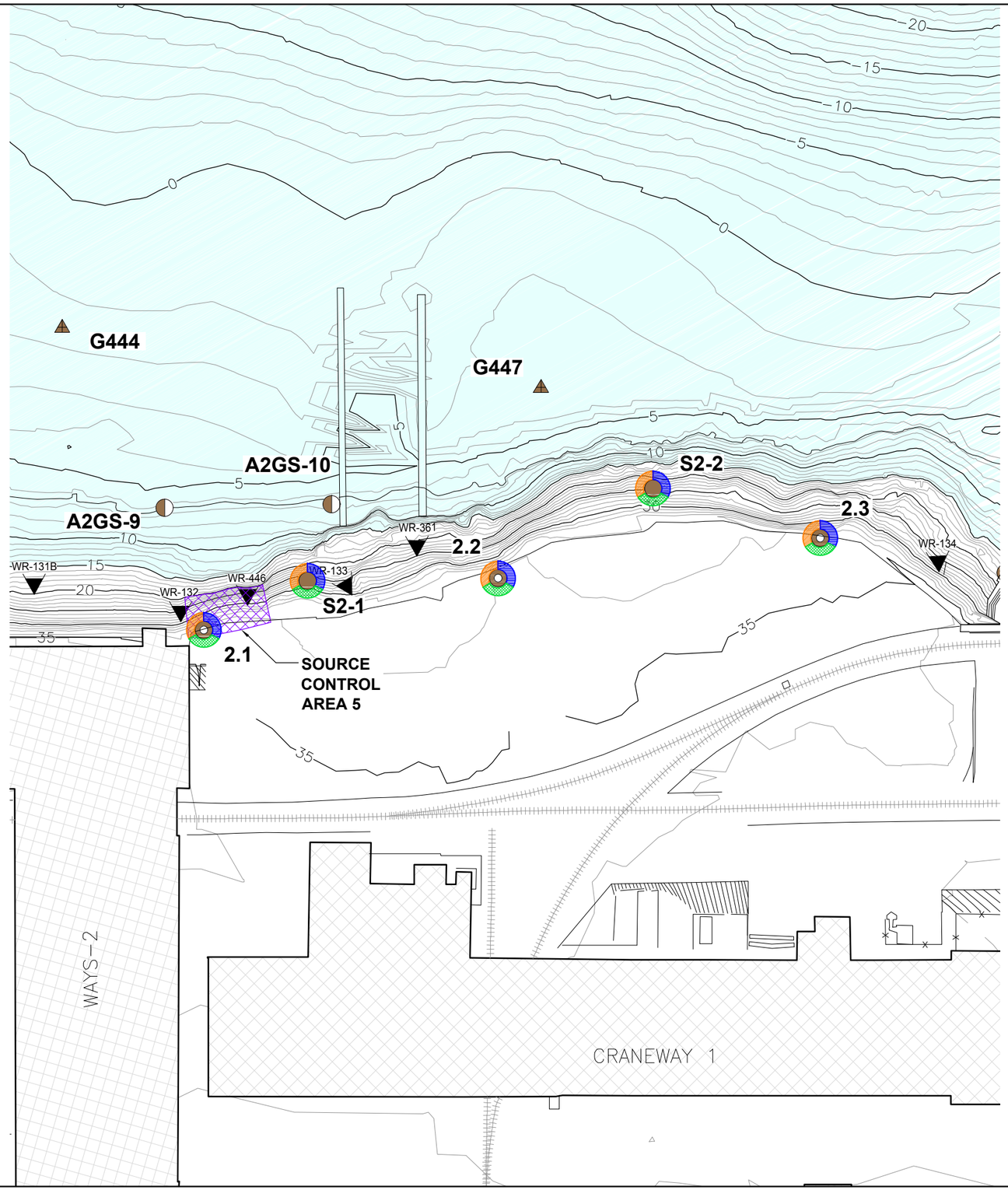
0 200 400
Scale in Feet

Sample Location Map

Supplemental Area 2 Riverbank Source Control Measures
Focused Feasibility Study
Gunderson LLC
Portland, Oregon

Cascadia Associates, LLC

Project Number	0014-001-005-17	Figure
April 2016		8



N

Legend:

3.10	Vector Borehole Location
S3-14	Riverbank Surface Sample Location
3.9-COMP	Composite Riverbank Sample Location
HA-41	Surface Sediment Station Location
A2GS-5	Grab Sample (2003)
WR-134	Outfall Location

Exceedance Legend:

No Exceedance

Exceeds One or More Level II Screening Level Values for Terrestrial Ecological Receptors (Screening Based on T&E Species)

Exceeds the Draft Preliminary Remediation Goal (PRG) for Riverbank Soil and/or the JSCS SLV for Soil.

Exceeds One or More RBCs for Occupational Construction and Excavation Worker Exposure to Soil

NOTES:
1) Base map prepared from 2284.dwg (HARN/WO.OR-NIF)
2) Horizontal datum is Oregon Coordinate System of 1983 (2011) epoch 2010.00, north zone, based on GPS observations.
3) North American Vertical Datum 1988.

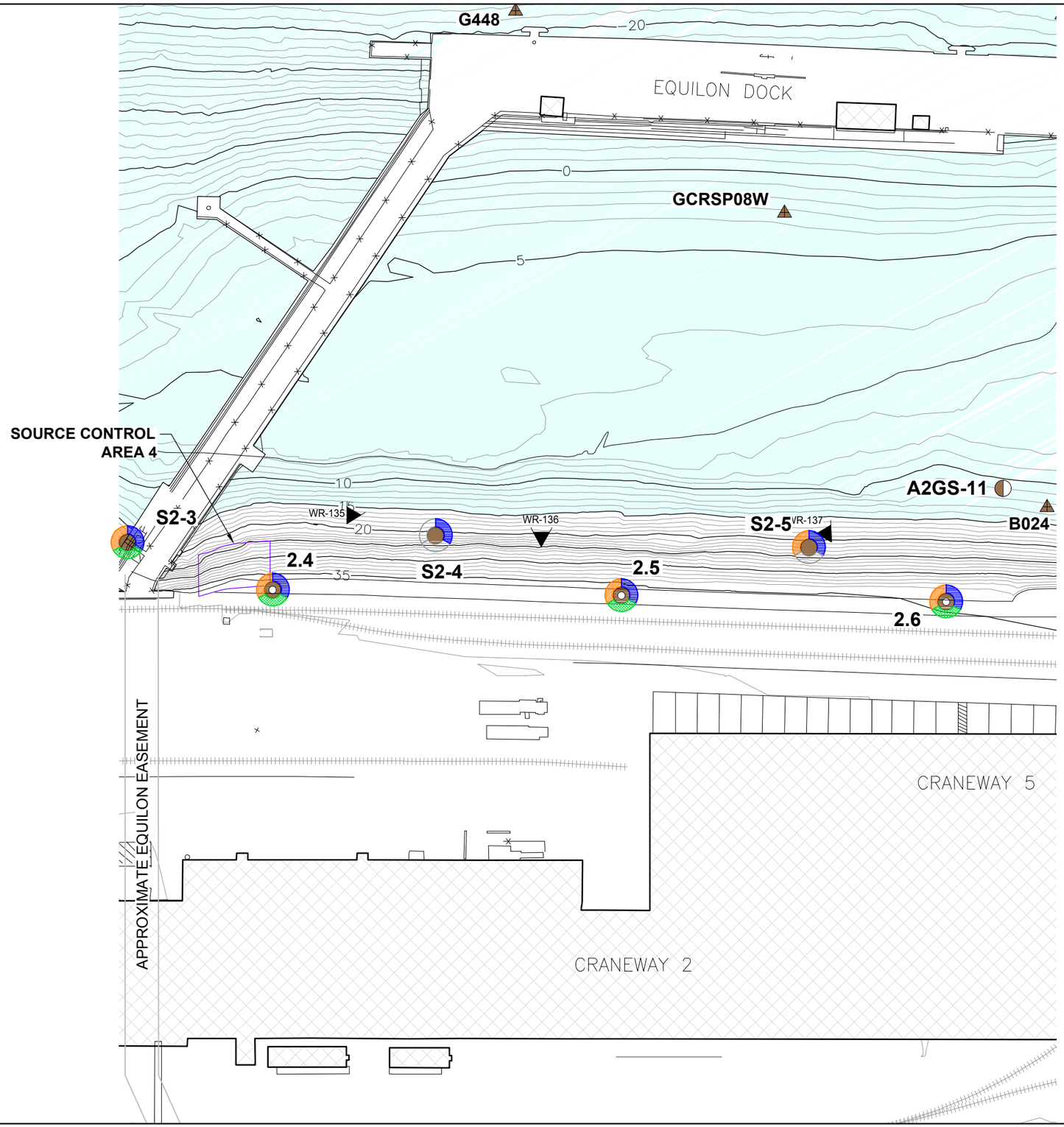
0 60 120
Scale in Feet

Area 2 Riverbank Sample Locations - Map Section 1

Supplemental Area 2 Riverbank Source Control Measures
Focused Feasibility Study
Gunderson LLC
Portland, Oregon

Cascadia Associates, LLC

Project Number	0014-001-005-17	Figure
April 2016		9



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Legend:

3.10	Vector Borehole Location
S3-14	Riverbank Surface Sample Location
3.9-COMP	Composite Riverbank Sample Location
HA-41	Surface Sediment Station Location
A2GS-5	Grab Sample (2003)
WR-134	Outfall Location

Exceedance Legend:

No Exceedance

Exceeds One or More Level II Screening Level Values for Terrestrial Ecological Receptors (Screening Based on T&E Species)

Exceeds the Draft Preliminary Remediation Goal (PRG) for Riverbank Soil and/or the JSCS SLV for Soil.

Exceeds One or More RBCs for Occupational Construction and Excavation Worker Exposure to Soil

NOTES:
1) Base map prepared from 2284.dwg (HARN/WO.OR-NIF)
2) Horizontal datum is Oregon Coordinate System of 1983 (2011) epoch 2010.00, north zone, based on GPS observations.
3) North American Vertical Datum 1988.

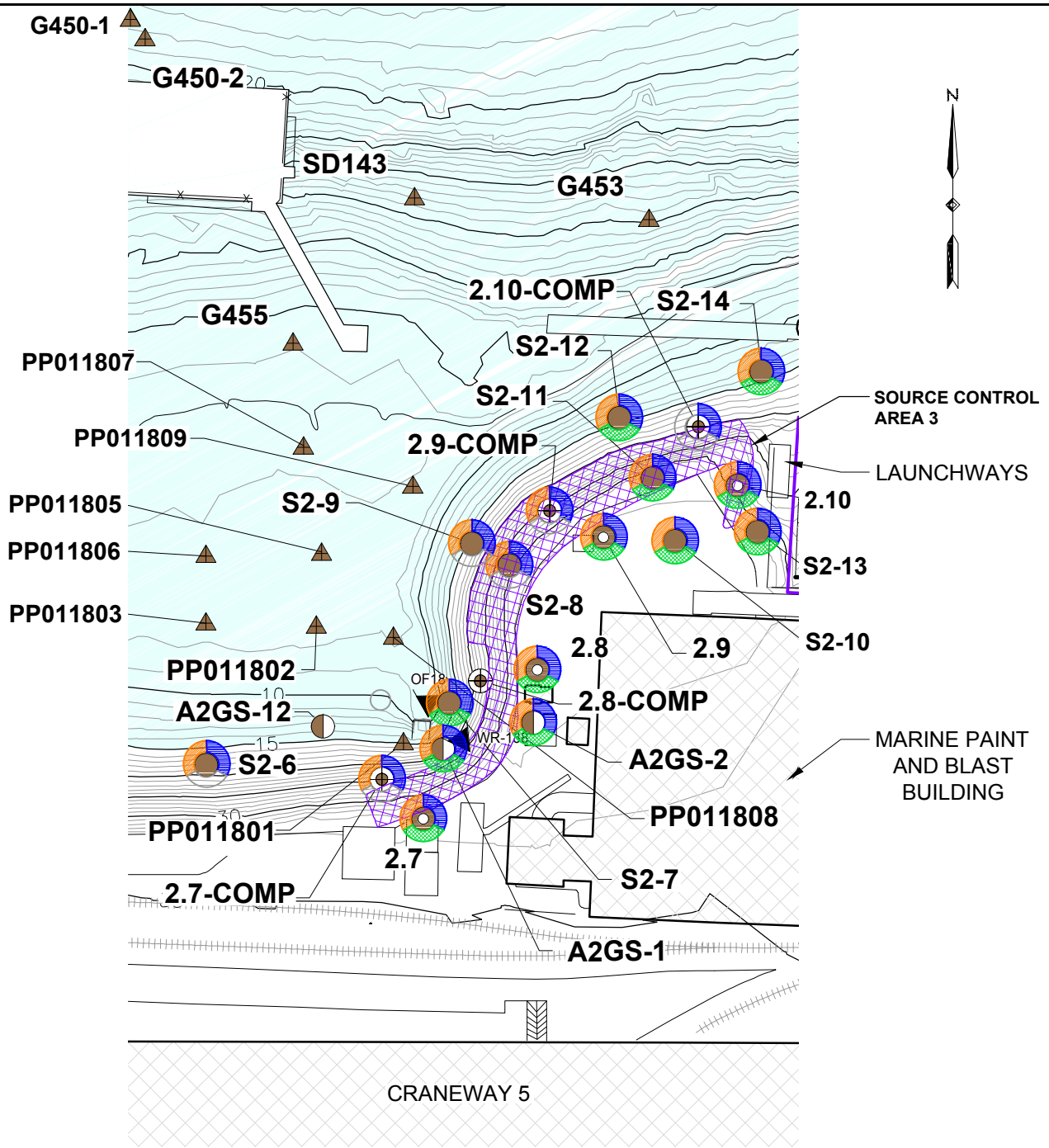
0 60 120
Scale in Feet

Area 2 Riverbank Sample Locations - Map Section 2

Supplemental Area 2 Riverbank Source Control Measures
Focused Feasibility Study
Gunderson LLC
Portland, Oregon

Cascadia Associates, LLC

Project Number	0014-001-005-17	Figure
April 2016		10



Legend:

3.10	○	Vector Borehole Location
S3-14	●	Riverbank Surface Sample Location
3.9-COMP	⊕	Composite Riverbank Sample Location
HA-41	▲	Surface Sediment Station Location
A2GS-5	◐	Grab Sample (2003)
WR-138	▼	Outfall Location

Exceedance Legend:

No Exceedance ○

Exceeds One or More Level II Screening Level Values for Terrestrial Ecological Receptors (Screening Based on T&E Species)

Exceeds the Draft Preliminary Remediation Goal (PRG) for Riverbank Soil and/or the JSCS SLV for Soil.

Exceeds One or More RBCs for Occupational Construction and Excavation Worker Exposure to Soil

NOTES:
1) Base map prepared from 2284.dwg (HARN/WO.OR-NIF)
2) Horizontal datum is Oregon Coordinate System of 1983 (2011) epoch 2010.00, north zone, based on GPS observations.
3) North American Vertical Datum 1988.

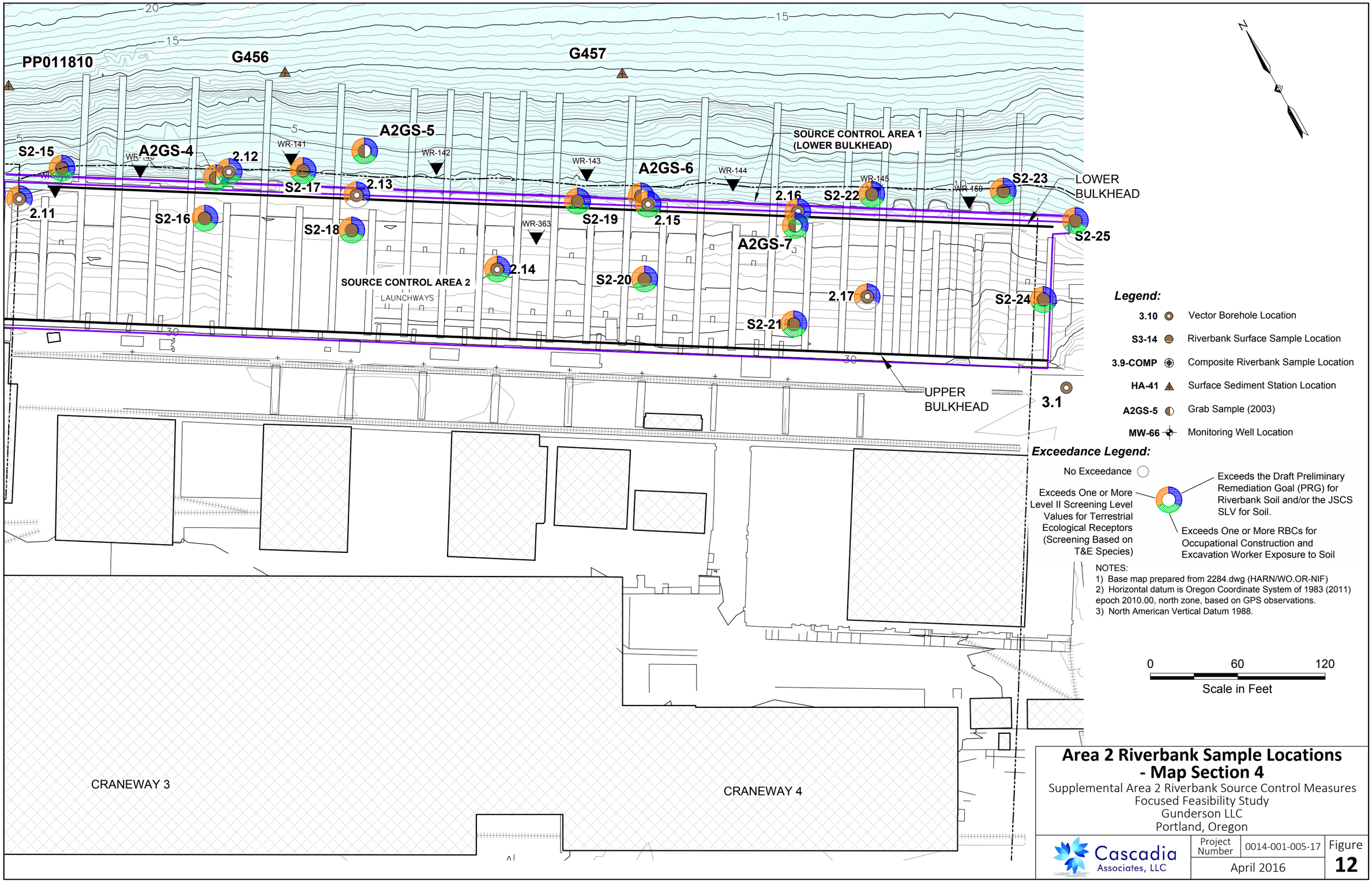
0 100 200
Scale in Feet

Area 2 Riverbank Sample Locations - Map Section 3

Supplemental Area 2 Riverbank Source Control Measures
Focused Feasibility Study
Gunderson LLC
Portland, Oregon

Cascadia Associates, LLC

Project Number	0014-001-005-17	Figure
April 2016		11



Area 2 Riverbank Sample Locations - Map Section 4

Supplemental Area 2 Riverbank Source Control Measures
Focused Feasibility Study
Gunderson LLC
Portland, Oregon

Cascadia Associates, LLC

Project Number	0014-001-005-17	Figure
April 2016		12

WILLAMETTE RIVER

N

SOURCE CONTROL AREA 1

SOURCE CONTROL AREA 2

LAUNCHWAYS

WR-139 WR-140 WR-141 WR-142 WR-143 WR-144 WR-145 WR-150 WR-363

LOWER BULKHEAD

UPPER BULKHEAD

CRANEWAY 4

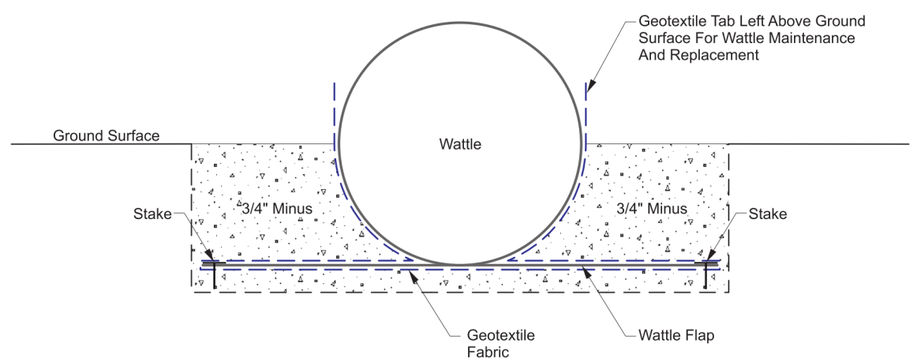
Legend:

3.10	Vector Borehole Location
S3-14	Riverbank Surface Sample Location
3.9-COMP	Composite Riverbank Sample Location
HA-41	Surface Sediment Station Location
A2GS-5	Grab Sample (2003)
MW-66	Monitoring Well Location
	Top of Riverbank (Approximate)
	Crushed Rock
	Soil
	Existing Concrete
	Bulkhead Armoring
	Railroad
	Wattle

NOTES:
1) Base map prepared from 2284.dwg (HARN/WO.OR-NIF)
2) Horizontal datum is Oregon Coordinate System of 1983 (2011) epoch 2010.00, north zone, based on GPS observations.
3) North American Vertical Datum 1988.

0 60 120
Scale in Feet

Wattle Construction Details

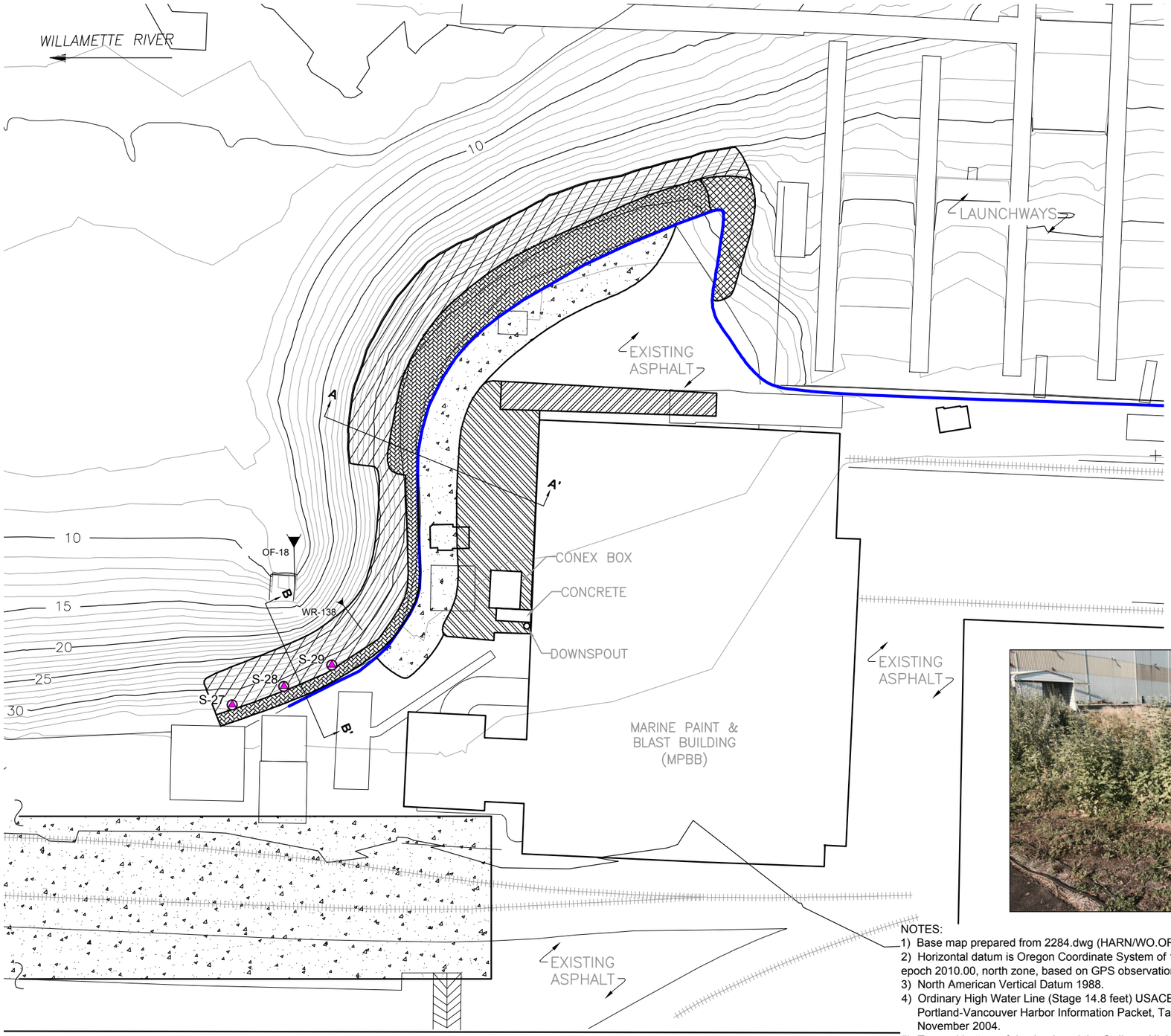


Source Control Areas 1 and 2 - Interim Source Control Measures Details

Supplemental Area 2 Riverbank Source Control Measures
Focused Feasibility Study
Gunderson LLC
Portland, Oregon

Cascadia Associates, LLC

Project Number	0014-001-005-17	Figure
April 2016		13



Legend:

- Rock Armoring
- Bioengineering
- Asphalt-Concrete Overlay
- Boulder Wall
- Crushed Rock Area - Former Soil (≥ 2 Feet Thick)
- Drain Rock Area (8 Inches Thick)
- Top of Riverbank (Approximate)
- WR-138 Outfall Location
- Railroad
- Fence Line
- A A' Cross-Section Location (See Figure 15 for Details)
- S-28 Composite Soil Sample Location

0 30 60

Scale in Feet

NOTES:

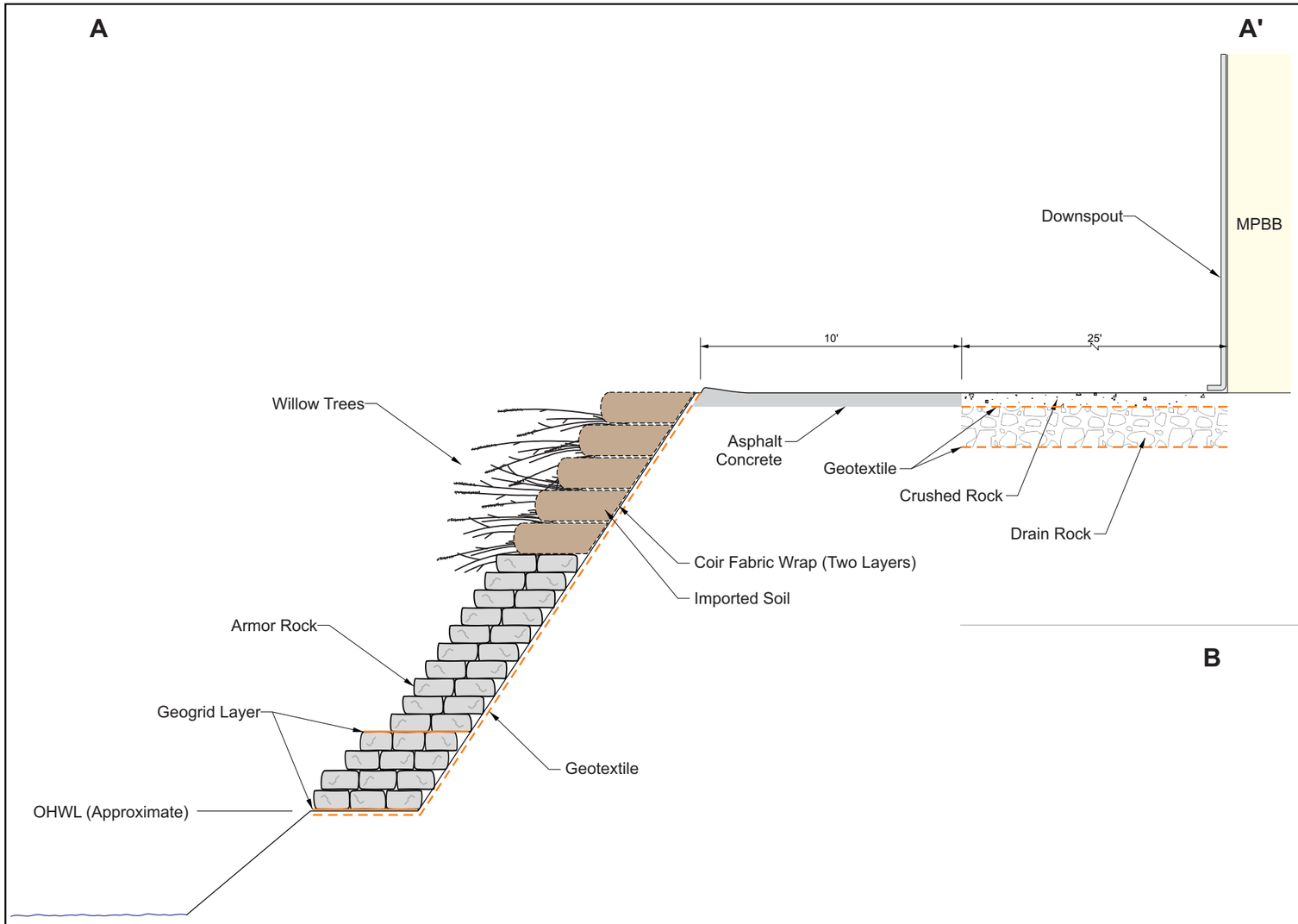
1) Base map prepared from 2284.dwg (HARN/WO.OR-NIF)
2) Horizontal datum is Oregon Coordinate System of 1983 (2011) epoch 2010.00, north zone, based on GPS observations.
3) North American Vertical Datum 1988.
4) Ordinary High Water Line (Stage 14.8 feet) USACE Portland-Vancouver Harbor Information Packet, Table A-1, November 2004.
5) Top and bottom of riverbank and the Ordinary High Water Line elevation 16.56 feet (NGVD) as shown are approximate based on the riverbank elevation survey completed by Minister-Glaeser Surveying, Inc., July 10, 2012.

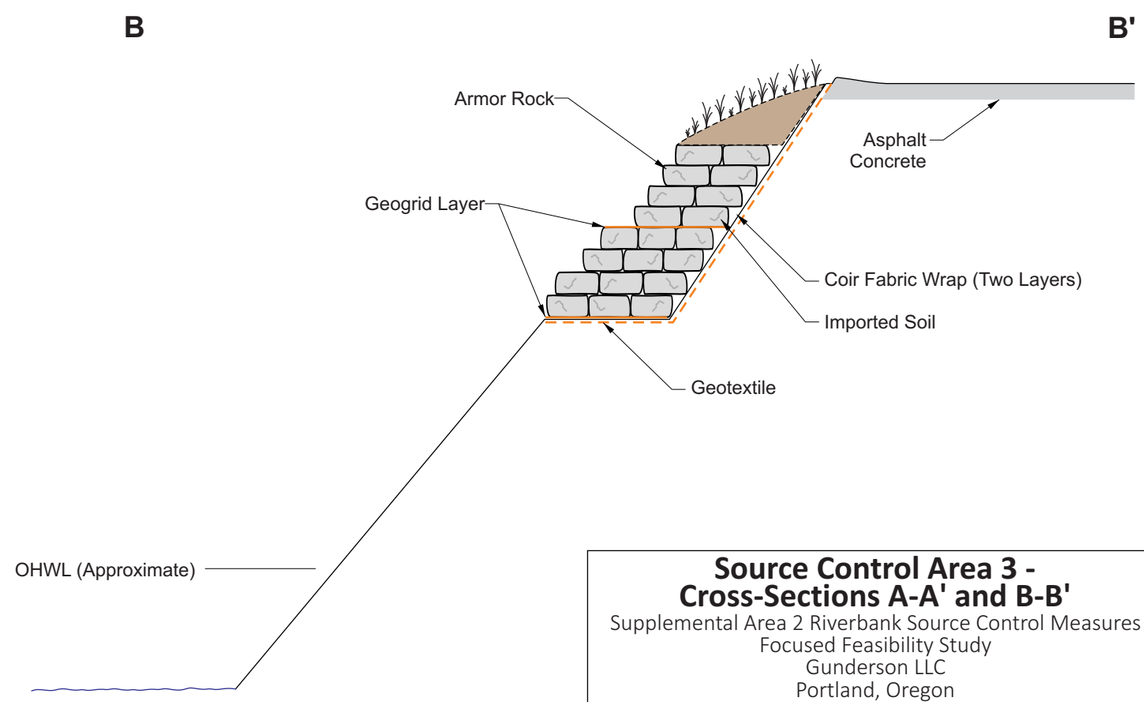
Source Control Area 3 - Interim Source Control Measures Details

Supplemental Area 2 Riverbank Source Control Measures
Focused Feasibility Study
Gunderson LLC
Portland, Oregon

Cascadia Associates, LLC

Project Number	0014-001-005-17	Figure
April 2016		14





0 5 10

Approximate Scale in Feet

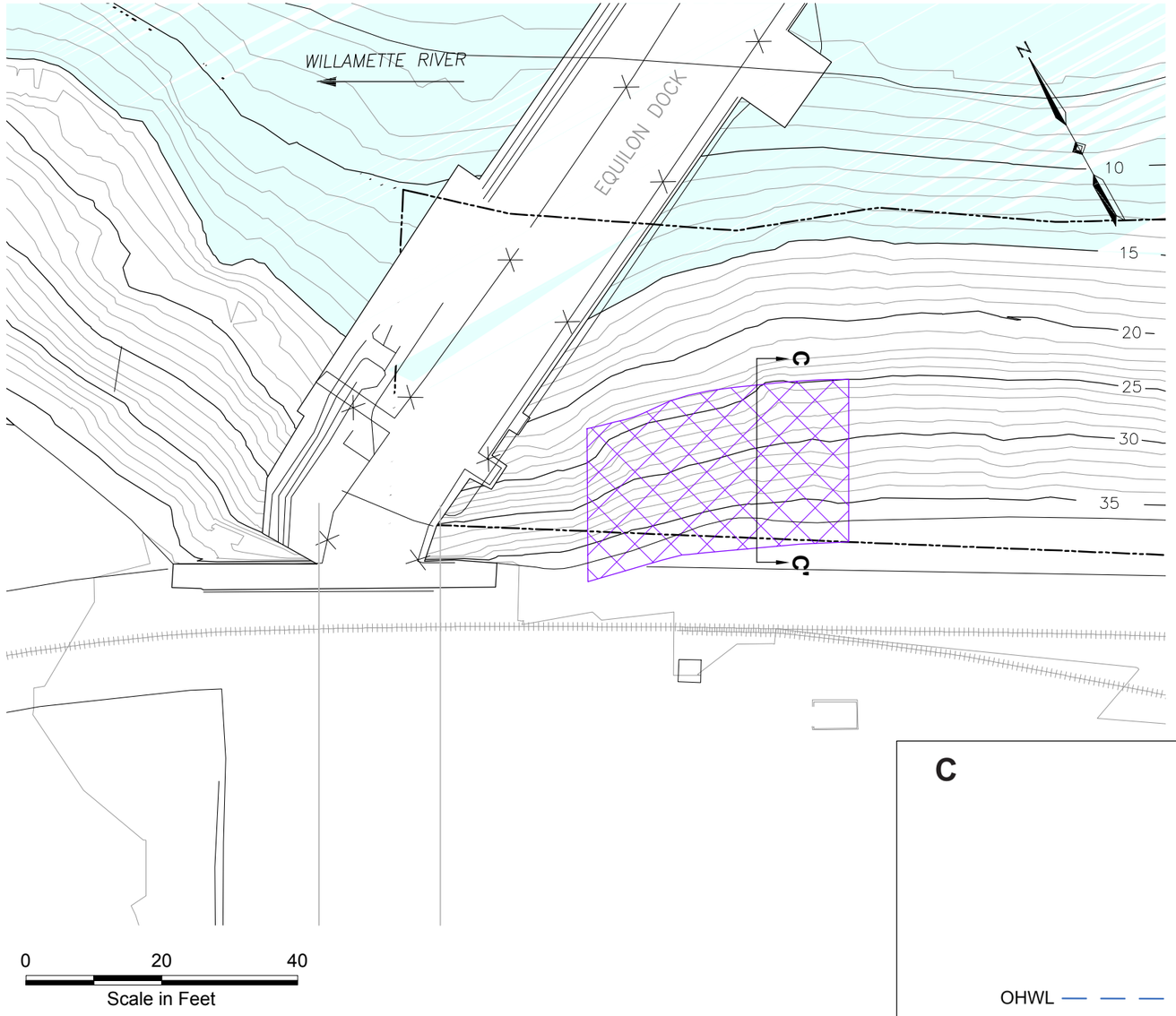
See Figure 14 for Cross-Section Locations

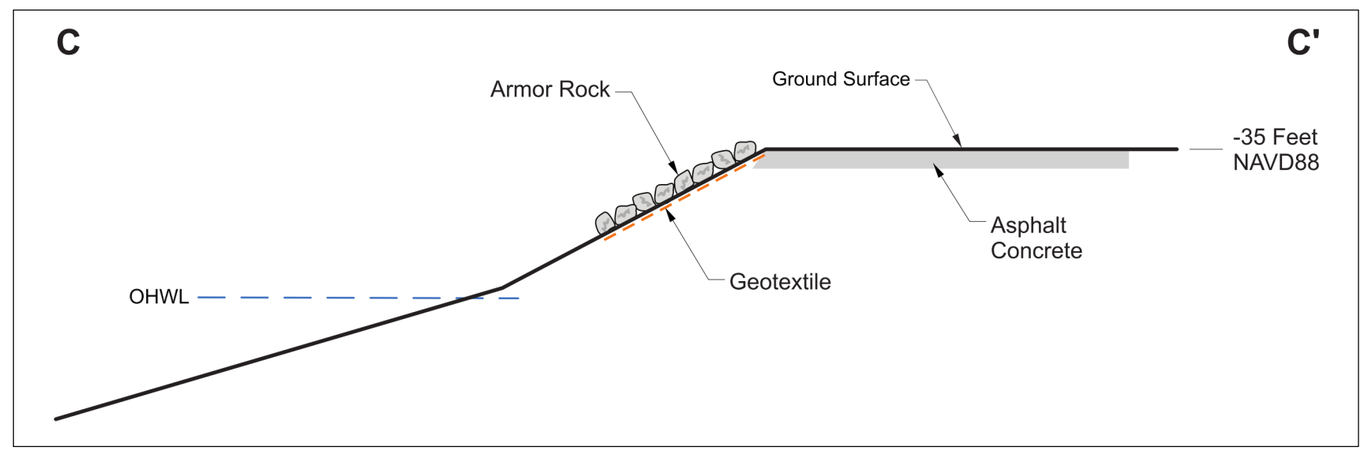
Source Control Area 3 - Cross-Sections A-A' and B-B'

Supplemental Area 2 Riverbank Source Control Measures
Focused Feasibility Study
Gunderson LLC
Portland, Oregon

Cascadia Associates, LLC

Project Number	0014-001-005-17	Figure
	April 2016	15





Legend:

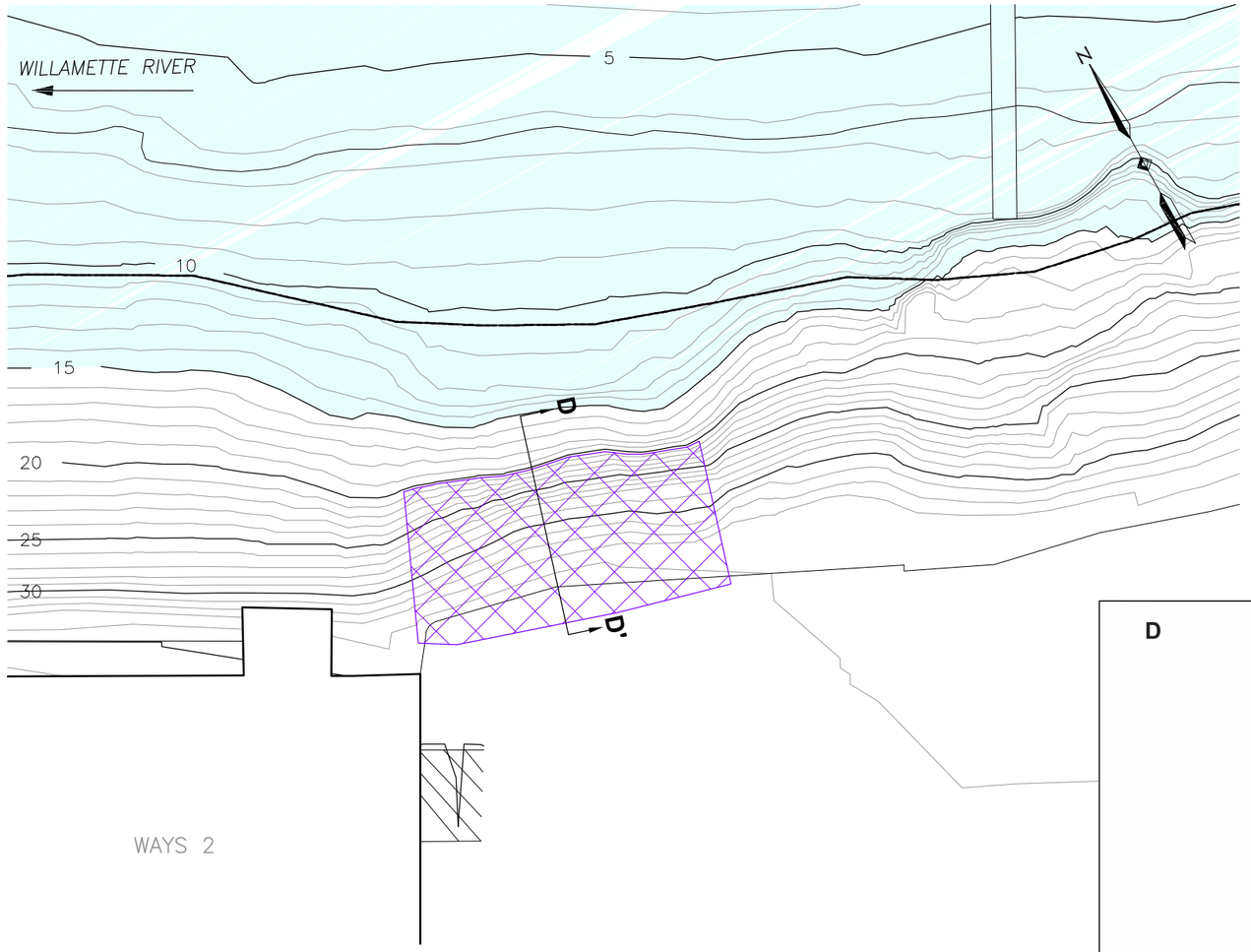
- Riverbank Source Control Measure Location
- C C' Cross-Section Location
- Riverbank
- Railroad

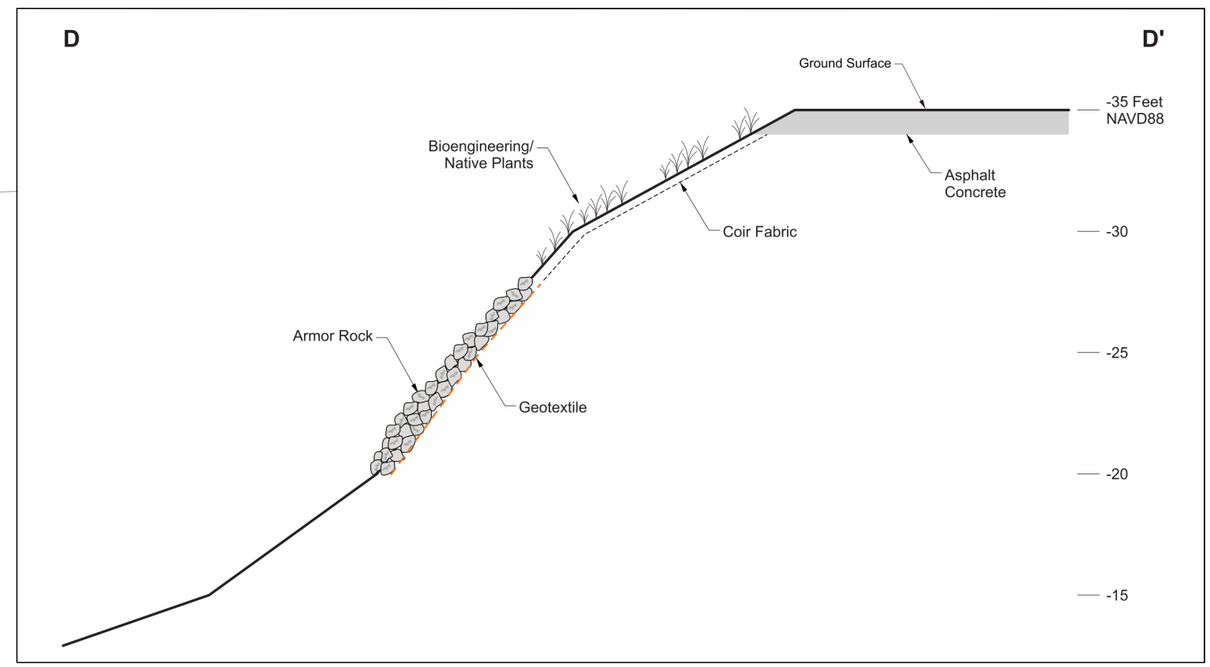
NOTES:
1) Base map prepared from a Johnson Land Survey and OSP-BASE-STW provided by Gunderson LLC.
2) Ordinary High Water Line = 16.6 feet NGVD/20.2 feet NAVD.

Source Control Area 4 -
Interim Source Control Measures Details
Supplemental Area 2 Riverbank Source Control Measures
Focused Feasibility Study
Gunderson LLC
Portland, Oregon

Cascadia Associates, LLC

Project Number	0014-001-005-17	Figure
April 2016		16





0 20 40
Scale in Feet

Legend:

Riverbank Source Control Measure Location

D D' Cross-Section Location

Riverbank

Railroad

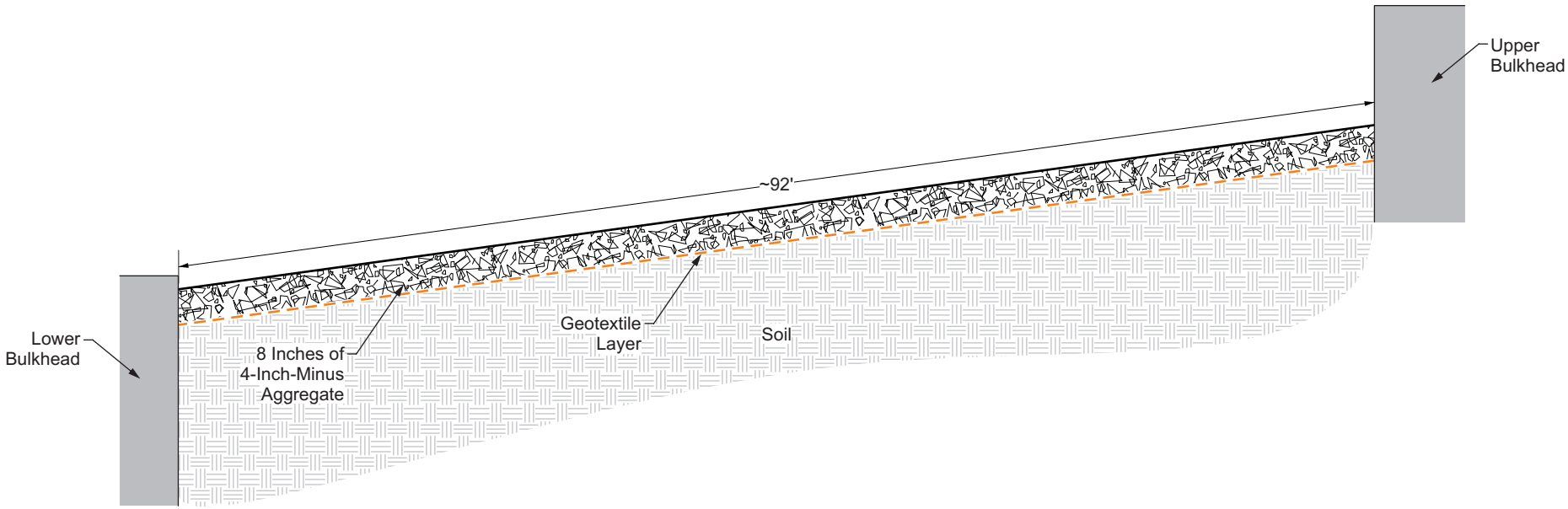
NOTES:
1) Base map prepared from a Johnson Land Survey and OSP-BASE-STW provided by Gunderson LLC.
2) Ordinary High Water Line = 16.6 feet NGVD/20.2 feet NAVD.

Source Control Area 5 - Interim Source Control Measures Details

Supplemental Area 2 Riverbank Source Control Measures
Focused Feasibility Study
Gunderson LLC
Portland, Oregon

Cascadia Associates, LLC

Project Number	0014-001-005-17	Figure
	April 2016	17



Not To Scale

Typical Cross-Section - Proposed Launchways Source Control Measure

Supplemental Area 2 Riverbank Source Control Measures
Focused Feasibility Study
Gunderson LLC
Portland, Oregon

Cascadia Associates, LLC

Project Number	0014-001-005-17	Figure
April 2016		18

APPENDIX A

BLAST GRIT MSDS

KLEEN BLAST

ABRASIVES

Wholesale Equipment, Parts, and Supplies
A Division of CanAm Minerals Inc.

HEADQUARTERS:

50 Oak Ct., Suite 210 Danville, CA 94526 (925) 831-9800 (800) 356-7323 FAX (925) 831-9183

WAREHOUSES:

Tacoma, WA
1448 St. Paul Ave.
Tacoma, WA 98421
(253) 383-2168
(800) 228-4786
FAX (253) 383-2267

Portland, OR
3747 North Suttle Rd.
Portland, OR 97217
(503) 228-3965
(800) 634-8499
FAX (503) 228-6807

Hayward, CA
30028 Industrial Pkwy. S.W.
Hayward, CA 94544
(510) 471-2100
(800) 227-1134
FAX (510) 471-2447

Chula Vista, CA
676 Moss St.
Chula Vista, CA 91911
(619) 427-4711
FAX (619) 427-4733

Material Safety Data Sheet

Complies with ANSI Z400.1 Draft Standard
for the Preparation of Material Safety Data Sheets,
Copyright 1991, Chemical Manufacturers Association

U.S. Department of Labor

Complies with OSHA Hazard Communication
Standard 29 CFR 1910.1200

Section 1: CHEMICAL PRODUCT AND CHEMICAL IDENTIFICATION

Identity (as used on label and list):	**Kleen Blast**
Synonym(s): 8-12 (Large), 16, 16-30, 35, 30-60 (Fine) (numbers indicated are all nomenclature for sizing)	
Manufacturer's Name:	**CanAm Minerals dba Kleen Blast**
Emergency Telephone:	**(925) 831-9800**
Information Telephone:	**(925) 831-9800**
Address:	**50 Oak Ct., Suite 210** **Danville, CA 94526**
Prepared by:	Director of Health & Safety
Date Prepared:	17th November, 2010 Revised: November, 2010

Section 2: COMPOSITION/INFORMATION ON INGREDIENTS

Contents: Vitreous Smelter Slag 99% - 100% C.A.S. #67711-92-6

Formula: Not Applicable

Chemical Family: Iron-Calcium-Silicate (complex silicate) with fused oxides of Si, Fe, Ca, Al, Mg.

Typical Chemical Composition: 38.1% SiO_2; 27.4% Fe_2O_3; 22.8% CaO; 5.7% Al_2O_3; 3.9% MgO; other fused oxides @ <1.0%. Chemical composition shown is typical, elemental concentrations may vary slightly between batches or lots.

Note: Kleen Blast contains < 0.1% crystalline silica. All of the U.S. EPA RCRA 8 metals, the 17 California listed metals listed metals are either nondetected or below the regulatory limits, as well as the lower limits as specified by the U.S. Navy under MIL-A-22262A (SH), specifications for blasting abrasives. TCLP, TTLC and STLC analytical results of metal contents are available upon request. Trace levels in the ppm range of heavy metal contaminants may be present so users need to determine employee exposures in accordance with OSHA regulations.

Permissible Exposure Limits OSHA PEL:
Total Nuisance Dust: 10 mg/m^3
Respirable Dust: 5 mg/m^3

Section 3: HAZARDS IDENTIFICATION

This product does not contain substances at levels regulated:
-by OSHA under 29 CFR 1910.1200
-by USEPA under 40 CFR 302.4 and 40 CFR 355.4
-by USEPA under 40 CFR 261.20
-by USEPA under 40 CFR 116.4

This product is not hazardous material based upon current information and testing results.

Kleen Blast has prepared this material safety data sheet in order to provide product information which will assist our customers in complying with all state and federal waste and hazard minimization laws as well as all state and federal transportation laws.

Appearance and Odor: Black angular to sub-angular granules with no apparent odor.

Health Hazards (acute): *Trauma* hazard associated with handling equipment or sudden release of large volumes. Abrasion injuries possible during blasting operations or similar exposure.

Health Hazards (chronic): *Respiratory* illness as a result of long-term exposure to particulates is possible. NIOSH-approved particulate respirators should be used during blasting operations. Company testing indicates no PEL exposures in the blasting environment of any trace metal contaminants. Job specific trace heavy metal PEL testing needs to conducted by users in accordance with all OSHA regulations.

HAZARDS IDENTIFICATION - Continued

OSHA REGULATORY STATUS

While this material is not classified as hazardous under OSHA regulations, this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.

Physical/Chemical Characteristics

Boiling Point	NA	Specific Gravity (H20=1)	2.8
Vapor Pressure (mm Hg)	NA	Melting Point	2400 F
Vapor Density (Air=1)	NA	Evaporation Rate	None
Solubility in Water	None	(Butyl Acetate=1)	None

Section 4: HAZARD SYMOBOLS:

HAZARD SYMBOLS:

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM (HMIS)

Health	**1 ***
Flammability	**0**
Physical Hazard	**0**
Protective Equipment	

HMIS PERSONAL PROTECTIVE EQUIPMENT RATING: Industrial Use situations: A; Safety Glasses.

CANADIAN WHMIS SYMBOLS:
Not Applicable
This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

Section 5: FIRE AND EXPLOSION HAZARD

Flash Point (Method Used):	NA
Flammable Limits:	LEL: NA UEL: NA
Pyrophoric, oxidizer, organic peroxide:	No
Pressurized during shipment:	No
Extinguishing Media:	NA
Special Fire Fighting Procedures:	NA
Unusual Fire/Explosion Hazards:	NA

Reactivity Data

Stability:	Stable
Conditions to avoid:	None
Materials to avoid (incompatibility):	None
Hazardous decomposition or by-products:	None
Hazardous polymerization:	Will not occur

Section 6: First Aid Measures

Specialized medical treatment required: No

Toxicity Data: Not toxic to mammals or aquatic environments. Not persistent in the environment. Freshwater and saltwater bioassays performed according to the States California and Washington available upon request.

Health Hazard Data (non-chemical)

Target Organs: Lungs, eyes, skin.

Route(s) of Entry:

Inhalation	Skin	Eyes	Ingestion
Fine particulates (PM-10) in the form of dust possible during blasting, loading/unloading, processing and packaging.	Abrasion injuries with high velocity, direct exposure to skin.	Abrasion injuries possible if safety glasses are not worn. Contact lens use may be dangerous when handling this product.	Toxic effects will not occur.

Carcinogenicity	NTP	IARC Monographs	OSHA-Regulated
None	No	None	No

Teratogenic	Mutagenic
No	No

Special Note: Engineering controls should be used to prevent exposures above the PEL. When engineering controls are insufficient, NIOSH approved respirators and/or supplied air should be used. Additional health hazards may be encountered during abrasive blasting operations while removing paints, coatings, rust, etc. Specific health hazards and environmental concerns must be properly assessed by the user and/or potential waste generator.

Signs and symptoms of exposure – *likely only in extreme and unusual conditions:*

Inhalation	Skin	Eyes	Ingestion
Coughing, shortness of breath	Redness, sensitivity	Redness, watering	Unknown

Medical conditions aggravated by exposure – *likely only in extreme and unusual conditions:*

Inhalation	Skin	Eyes	Ingestion
Existing disorder increases risk of discomfort and injury.	Existing disorder	Contact lens use increases risk of discomfort and injury	Unknown

First Aid Measures - Continued

Emergency and first aid procedures – *likely only in extreme and unusual conditions:*

Trunk/torso/limbs:	Follow procedures appropriate to abrasion or trauma injuries
Skin:	Follow procedures appropriate to abrasion injuries.
Eyes:	Flush thoroughly with cool running water.
Inhalation:	Follow procedures appropriate to dust inhalation.
Ingestion:	Not likely.
Note to physicians:	No toxic substances are present in this product.

Section 7: ACCIDENTAL RELEASE MEASURES

Loading/unloading: A release will pose a housekeeping problem. Material should be swept or vacuumed into appropriate containers.

Waste disposal method: If the spent grit remains uncontaminated per the Resource Recovery and Conservation Act (RCRA), then the material meets the definition of a solid waste and may be disposed of per local regulations.

If the spent grit material has been used in a manner that accumulates contaminates at levels above those specified under RCRA, then the waste is defined as hazardous and must be managed per federal or state regulations governing hazardous waste.

Precautions to be taken in handling and storing: Follow good housekeeping practices to reduce practices to reduce airborne emissions. Use approved respiratory protection and clothing in abrasive blast environments.

Exposure Controls: Respiratory protection: NIOSH-approved respiratory equipment for abrasive blast environments. Personal protection: NIOSH-approved garments and head gear during blasting operations.

Engineering controls: Always use engineering controls to limit exposures to

Local Exhaust	Mechanical Exhaust	Special Exhaust	Other
During loading/Unloading	May be appropriate during processing.	May be appropriate during normal abrasive blasting operations.	May be required during unusual abrasive blasting operations.

Section 8: DEPARTMENT OF TRANSPORTATION REQUIREMENTS

Name of Contents:	Abrasive grit
Constituents:	No hazardous substances present at regulated levels
Hazard Class:	Not applicable
UN/NA Number:	Not applicable

Average Trace Metal Analytical

Analyte	**Total Metal mg/kg**	**Method PQL***	**TCLP Level mg/L**	**Method PQL***
Antimony (Sb)	N/D	1.0	-	-
Arsenic (As)	9.0	0.3	N/D	0.01
Barium (Ba)	306.3	5.0	0.49	0.10
Beryllium (Be)	N/D	0.5	-	-
Cadmium (Cd)	N/D	0.5	N/D	0.01
Chromium (Cr)	36.9	0.5	N/D	0.01
Copper (Cu)	1481.0	1.0	-	-
STLC (Cu)**	1.57 mg/L	-	-	-
Lead (Pb)	3.3	0.5	N/D	0.01
Mercury (Hg)	N/D	0.1	N/D	0.02
Nickel (Ni)	14.5	2.5	-	-
Selenium (Se)	N/D	1.0	N/D	0.10
Silver (Ag)	N/D	1.0	N/D	0.02
Thallium (Ti)	N/D	1.0	-	-
Zinc (Zn)	72.4	0.5	-	-

Based upon lab work performed during years 2007, 2008, 2009
* PQL = Practical Quantification Limit
** Additional testing performed on Cu only, 10x Rule, units of measure in mg/L.

APPENDIX B

RIVERBANK CHEMICAL ANALYTICAL DATA COLLECTED DURING SOURCE CONTROL EVALUATIONS

Table B-1
Riverbank Surface Sample Results - Section 1
Source Control Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Riverbank Section 1				Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil	Default Background Concentrations Portland Basin Soil
			S2-1		S2-2				
		Date	9/24/2010		9/24/2010				
		Depth (Feet Below Ground Surface)	0		0				
Inorganics	Mercury	mg/kg	0.0825	J	0.409		0.07	1.1	0.23
	Arsenic	mg/kg	19.9		580		--	3	8.8
	Barium	mg/kg	214		323		--	--	790
	Chromium	mg/kg	28.7		129		111	--	76
	Copper	mg/kg	75.1		1,350		149	149	34
	Lead	mg/kg	140		1,490		17	128	79
	Manganese	mg/kg	1,130		1,090		1,100	--	1,800
	Nickel	mg/kg	23.4		75.7		49	--	47
	Selenium	mg/kg	0.134	J	0.583	J	5	--	0.71
	Silver	mg/kg	0.256	J	2.330	J	5	--	0.82
	Zinc	mg/kg	312		5,730		459	459	180
PCBs	Aroclor 1016	µg/kg	2.03	U	7.75	U	--	--	--
	Aroclor 1221	µg/kg	4.05	U	15.5	U	--	--	--
	Aroclor 1232	µg/kg	2.03	U	7.75	U	--	--	--
	Aroclor 1242	µg/kg	2.03	U	7.75	U	--	--	--
	Aroclor 1248	µg/kg	2.03	U	7.75	U	--	--	--
	Aroclor 1254	µg/kg	2.03	U	7.75	U	--	--	--
	Aroclor 1260	µg/kg	7.07		49.0		--	--	--
	Aroclor 1262	µg/kg	2.03	U	7.75	U	--	--	--
	Aroclor 1268	µg/kg	2.03	U	7.75	U	--	--	--
	Total PCBs	µg/kg	7.07		49.0		0.39	9	--
VOCs	1,1,1,2-Tetrachloroethane	µg/kg	--		--		--	--	--
	1,1,1-Trichloroethane	µg/kg	--		--		--	--	--
	1,1,2,2-Tetrachloroethane	µg/kg	--		--		--	--	--
	1,1,2-Trichloroethane	µg/kg	--		--		--	--	--
	1,1-Dichloroethane	µg/kg	--		--		--	--	--
	1,1-Dichloroethene	µg/kg	--		--		--	--	--
	1,1-Dichloropropene	µg/kg	--		--		--	--	--
	1,2,3-Trichlorobenzene	µg/kg	--		--		--	--	--
	1,2,3-Trichloropropane	µg/kg	--		--		--	--	--
	1,2,4-Trichlorobenzene	µg/kg	--		--		9,200	--	--
	1,2,4-Trimethylbenzene	µg/kg	--		--		--	--	--
	1,2-Dibromo-3-	µg/kg	--		--		--	--	--
	1,2-Dibromoethane	µg/kg	--		--		--	--	--
	1,2-Dichlorobenzene	µg/kg	--		--		1,700	--	--
	1,2-Dichloroethane	µg/kg	--		--		--	--	--
	1,2-Dichloropropane	µg/kg	--		--		--	--	--
	1,3,5-Trimethylbenzene	µg/kg	--		--		--	--	--
	1,3-Dichlorobenzene	µg/kg	--		--		300	--	--
	1,3-Dichloropropane	µg/kg	--		--		--	--	--
	1,4-Dichlorobenzene	µg/kg	--		--		300	--	--
	2,2-Dichloropropane	µg/kg	--		--		--	--	--
	2-Butanone	µg/kg	--		--		--	--	--
	2-Chlorotoluene	µg/kg	--		--		--	--	--
	2-Hexanone	µg/kg	--		--		--	--	--
	4-Chlorotoluene	µg/kg	--		--		--	--	--
	4-Methyl-2-pentanone	µg/kg	--		--		--	--	--
	Acetone	µg/kg	--		--		--	--	--
	Benzene	µg/kg	--		--		--	--	--
	Bromobenzene	µg/kg	--		--		--	--	--
	Bromochloromethane	µg/kg	--		--		--	--	--
	Bromodichloromethane	µg/kg	--		--		--	--	--
	Bromoform	µg/kg	--		--		--	--	--
	Bromomethane	µg/kg	--		--		--	--	--
	Carbon disulfide	µg/kg	--		--		--	--	--
	Carbon tetrachloride	µg/kg	--		--		--	--	--
	Chlorobenzene	µg/kg	--		--		--	--	--

Table B-1
Riverbank Surface Sample Results - Section 1
Source Control Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Riverbank Section 1		Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil	Default Background Concentrations Portland Basin Soil
			S2-1	S2-2			
		Date	9/24/2010	9/24/2010			
	Depth (Feet Below Ground Surface)		0	0			
VOCs (continued)	Chloroethane	µg/kg	--	--	--	--	--
	Chloroform	µg/kg	--	--	--	--	--
	Chloromethane	µg/kg	--	--	--	--	--
	cis-1,2-Dichloroethene	µg/kg	--	--	--	--	--
	cis-1,3-Dichloropropene	µg/kg	--	--	--	--	--
	Dibromochloromethane	µg/kg	--	--	--	--	--
	Dibromomethane	µg/kg	--	--	--	--	--
	Dichlorodifluoromethane	µg/kg	--	--	--	--	--
	Ethylbenzene	µg/kg	--	--	--	--	--
	Hexachlorobutadiene	µg/kg	--	--	600	--	--
	Isopropylbenzene	µg/kg	--	--	--	--	--
	m,p-Xylene	µg/kg	--	--	--	--	--
	Methyl tert-butyl ether	µg/kg	--	--	--	--	--
	Methylene chloride	µg/kg	--	--	--	--	--
	Naphthalene	µg/kg	--	--	561	--	--
	n-Butylbenzene	µg/kg	--	--	--	--	--
	n-Propylbenzene	µg/kg	--	--	--	--	--
	o-Xylene	µg/kg	--	--	--	--	--
	p-Isopropyltoluene	µg/kg	--	--	--	--	--
	sec-Butylbenzene	µg/kg	--	--	--	--	--
	Styrene	µg/kg	--	--	--	--	--
	tert-Butylbenzene	µg/kg	--	--	--	--	--
	Tetrachloroethene	µg/kg	--	--	--	--	--
	Toluene	µg/kg	--	--	--	--	--
	trans-1,2-Dichloroethene	µg/kg	--	--	--	--	--
	trans-1,3-Dichloropropene	µg/kg	--	--	--	--	--
	Trichloroethene	µg/kg	--	--	2,100	--	--
	Trichlorofluoromethane	µg/kg	--	--	--	--	--
	Vinyl chloride	µg/kg	--	--	--	--	--

Table B-1
Riverbank Surface Sample Results - Section 1
Source Control Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Riverbank Section 1		Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil	Default Background Concentrations Portland Basin Soil
			S2-1	S2-2			
		Date	9/24/2010	9/24/2010			
	Depth (Feet Below Ground Surface)		0	0			
SVOCs	1,2,4-Trichlorobenzene	µg/kg	--	--	9,200	--	--
	1,2-Dichlorobenzene	µg/kg	--	--	1,700	--	--
	1,3-Dichlorobenzene	µg/kg	--	--	300	--	--
	1,4-Dichlorobenzene	µg/kg	--	--	300	--	--
	2,4,5-Trichlorophenol	µg/kg	--	--	--	--	--
	2,4,6-Trichlorophenol	µg/kg	--	--	--	--	--
	2,4-Dichlorophenol	µg/kg	--	--	--	--	--
	2,4-Dimethylphenol	µg/kg	--	--	--	--	--
	2,4-Dinitrophenol	µg/kg	--	--	--	--	--
	2,4-Dinitrotoluene	µg/kg	--	--	--	--	--
	2,6-Dinitrotoluene	µg/kg	--	--	--	--	--
	2-Chloronaphthalene	µg/kg	--	--	--	--	--
	2-Chlorophenol	µg/kg	--	--	--	--	--
	2-Methylphenol	µg/kg	--	--	--	--	--
	2-Nitroaniline	µg/kg	--	--	--	--	--
	2-Nitrophenol	µg/kg	--	--	--	--	--
	3,3'-Dichlorobenzidine	µg/kg	--	--	--	--	--
	3,4-Methylphenol	µg/kg	--	--	--	--	--
	3-Nitroaniline	µg/kg	--	--	--	--	--
	4,6-Dinitro-2-methylphenol	µg/kg	--	--	--	--	--
	4-Bromophenyl phenyl ether	µg/kg	--	--	--	--	--
	4-Chloro-3-methylphenol	µg/kg	--	--	--	--	--
	4-Chloroaniline	µg/kg	--	--	--	--	--
	4-Chlorophenyl phenyl ether	µg/kg	--	--	--	--	--
	4-Nitroaniline	µg/kg	--	--	--	--	--
	4-Nitrophenol	µg/kg	--	--	--	--	--
	Benzoic Acid	µg/kg	--	--	--	--	--
	Benzyl Alcohol	µg/kg	--	--	--	--	--
	Bis(2-chloroethoxy)methane	µg/kg	--	--	--	--	--
	Bis(2-chloroethyl)ether	µg/kg	--	--	--	--	--
	Bis(2-chloroisopropyl)ether	µg/kg	--	--	--	--	--
	Dibenzofuran	µg/kg	--	--	--	--	--
	Hexachlorobenzene	µg/kg	--	--	19	0.3	--
	Hexachlorobutadiene	µg/kg	--	--	600	--	--
	Hexachlorocyclopentadiene	µg/kg	--	--	400	--	--
	Hexachloroethane	µg/kg	--	--	--	--	--
	Isophorone	µg/kg	--	--	--	--	--
	Nitrobenzene	µg/kg	--	--	--	--	--
	N-Nitrosodi-n-propylamine	µg/kg	--	--	--	--	--
	N-Nitrosodiphenylamine	µg/kg	--	--	--	--	--
	Pentachlorophenol	µg/kg	--	--	1,000	--	--
	Phenol	µg/kg	--	--	50	--	--

Table B-1
Riverbank Surface Sample Results - Section 1
Source Control Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Riverbank Section 1				Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil	Default Background Concentrations Portland Basin Soil
			S2-1		S2-2				
		Date	9/24/2010		9/24/2010				
		Depth (Feet Below Ground Surface)	0		0				
PAHs	2-Methylnaphthalene	µg/kg	7.93	U	20.9	J	200	--	--
	Acenaphthene	µg/kg	7.93	U	49.5	J	300	--	--
	Acenaphthylene	µg/kg	13.1	J	72.1	J	200	--	--
	Anthracene	µg/kg	13.1	J	352	J	845	--	--
	Benzo(a)anthracene	µg/kg	46.7		1,100	J	1,050	--	--
	Benzo(a)pyrene	µg/kg	62.8		1,440	J	1,450	--	--
	Benzo(b)fluoranthene	µg/kg	55.1		1,350	J	--	--	--
	Benzo(ghi)perylene	µg/kg	75.1		1,170	J	300	--	--
	Benzo(k)fluranthene	µg/kg	53.3		1,220	J	--	--	--
	Chrysene	µg/kg	57.0		1,310	J	1,290	--	--
	Dibenzo(a,h)anthracene	µg/kg	15.5	J	391	J	1,300	--	--
	Fluoranthene	µg/kg	90.3		1,890	J	2,230	--	--
	Fluorene	µg/kg	7.93	U	68.4	J	536	--	--
	Indeno(1,2,3-cd)pyrene	µg/kg	53.7		1,070	J	100	--	--
	Naphthalene	µg/kg	9.02	J	37.8	J	561	--	--
	Phenanthrene	µg/kg	42.0		885	J	1,170	--	--
	Pyrene	µg/kg	86.8		1,590	J	1,520	--	--
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	32.2	U	61.6	U	330	135	--
	Butyl benzyl phthalate	µg/kg	32.2	U	61.6	U	--	--	--
	Diethyl phthalate	µg/kg	32.2	U	61.6	U	600	--	--
	Dimethyl phthalate	µg/kg	32.2	U	61.6	U	--	--	--
	Di-n-butyl phthalate	µg/kg	32.2	U	61.6	U	100	--	--
	Di-n-octyl phthalate	µg/kg	32.2	U	61.6	U	--	--	--
Organotins	Dibutyltin	µg/kg	0.48	U	15		--	--	--
	Monobutyltin	µg/kg	0.46	U	0.43	U	--	--	--
	Tetra-n-butyltin	µg/kg	1.4	U	1.3	U	--	--	--
	Tributyltin	µg/kg	1.0	U	38		2.3	24,000	--
Organochlorine Pesticides	4-4'-DDD	µg/kg	--		--		0.33	6.1	--
	4,4'-DDE	µg/kg	--		--		0.33	6.1	--
	4,4'-DDT	µg/kg	--		--		0.33	6.1	--
	Aldrin	µg/kg	--		--		40	2	--
	alpha-BHC	µg/kg	--		--		--	--	--
	alpha-Chlordane	µg/kg	--		--		--	1.5	--
	beta-BHC	µg/kg	--		--		--	--	--
	Chlordane	µg/kg	--		--		0.37	1.5	--
	delta-BHC	µg/kg	--		--		--	--	--
	Dieldrin	µg/kg	--		--		0.0081	0.07	--
	Endosulfan I	µg/kg	--		--		--	--	--
	Endosulfan II	µg/kg	--		--		--	--	--
	Endosulfan sulfate	µg/kg	--		--		--	--	--
	Endrin	µg/kg	--		--		207	--	--
	Endrin aldehyde	µg/kg	--		--		--	--	--
	Endrin ketone	µg/kg	--		--		--	--	--
	gamma-BHC (Lindane)	µg/kg	--		--		4.99	5	--
	gamma-Chlordane	µg/kg	--		--		--	1.5	--
	Heptachlor	µg/kg	--		--		10	--	--
	Heptachlor epoxide	µg/kg	--		--		16	--	--
	Methoxychlor	µg/kg	--		--		--	--	--
	Toxaphene	µg/kg	--		--		--	--	--
Petroleum Hydrocarbons	Diesel	mg/kg	18.4		143		--	--	--
	Heavy Oil	mg/kg	127		1,430		--	--	--

Notes:
1. -- = Not applicable/not analyzed
2. mg/kg = Milligrams per kilogram
3. µg/kg = Micrograms per kilogram
4. J = The result is an estimated quantity
5. U= Undetected at the method detection limit shown
6. UJ = Undetected at the method detection limit shown, detection limit is an estimated quantity
7. Joint Source Control Strategy (JSCS) Screening Level Values (SLVs); revision date 7/16/2007
8. Shading indicates sample concentration exceeds the corresponding JSCS SLV and/or the draft PRG
9. PRG = Draft Preliminary Remediation Goal; prepared by U.S. Environmental Protection Agency, July 2015

Table B-2
Riverbank Surface Sample Results - Section 1
Human Health Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Riverbank Section 1				Oregon Department of Environmental Quality Risk-Based Concentrations				
			S2-1		S2-2		Soil Ingestion, Dermal Contact, and Inhal.			Vol. to Outdoor Air	Vapor Intrusion
		Date	9/24/2010		9/24/2010						
	Depth (Feet Below Ground Surface)		Surface		Surface		Occ	Const.	Exc	Occ	Occ
Inorganics	Mercury	mg/kg	0.0825	J	0.409		3.50E+02	1.10E+02	2.90E+03	--	--
	Arsenic	mg/kg	19.9		580		1.90E+00	1.50E+01	4.20E+02	--	--
	Barium	mg/kg	214		323		2.20E+05	6.90E+04	--	--	--
	Chromium	mg/kg	28.7		129		--	5.30E+05	--	--	--
	Copper	mg/kg	75.1		1,350		4.70E+04	1.40E+04	3.90E+05	--	--
	Lead	mg/kg	140		1,490		8.00E+02	8.00E+02	8.00E+02	--	--
	Manganese	mg/kg	1,130		1,090		2.50E+04	8.20E+03	2.30E+05	--	--
	Nickel	mg/kg	23.4		75.7		2.20E+04	7.00E+03	1.90E+05	--	--
	Selenium	mg/kg	0.134	J	0.583	J	--	--	--	--	--
	Silver	mg/kg	0.256	J	2.330	J	5.80E+03	1.80E+03	4.90E+04	--	--
	Zinc	mg/kg	312		5,730		--	--	--	--	--
PCBs	Aroclor 1016	µg/kg	2.03	U	7.75	U	--	--	--	--	--
	Aroclor 1221	µg/kg	4.05	U	15.5	U	--	--	--	--	--
	Aroclor 1232	µg/kg	2.03	U	7.75	U	--	--	--	--	--
	Aroclor 1242	µg/kg	2.03	U	7.75	U	--	--	--	--	--
	Aroclor 1248	µg/kg	2.03	U	7.75	U	--	--	--	--	--
	Aroclor 1254	µg/kg	2.03	U	7.75	U	--	--	--	--	--
	Aroclor 1260	µg/kg	7.07		49.0		--	--	--	--	--
	Aroclor 1262	µg/kg	2.03	U	7.75	U	--	--	--	--	--
	Aroclor 1268	µg/kg	2.03	U	7.75	U	--	--	--	--	--
	Total PCBs	µg/kg	7.07		49.0		5.90E+02	4.90E+03	1.40E+05	--	--
VOCs	1,1,1,2-Tetrachloroethane	µg/kg	--		--		--	--	--	--	--
	1,1,1-Trichloroethane	µg/kg	--		--		8.70E+08	4.70E+08	--	--	--
	1,1,2,2-Tetrachloroethane	µg/kg	--		--		--	--	--	--	--
	1,1,2-Trichloroethane	µg/kg	--		--		2.60E+04	5.40E+04	1.50E+06	2.40E+04	4.20E+03
	1,1-Dichloroethane	µg/kg	--		--		2.60E+05	3.20E+06	8.90E+07	2.40E+05	5.90E+03
	1,1-Dichloroethene	µg/kg	--		--		2.90E+07	1.30E+07	3.70E+08	--	6.80E+05
	1,1-Dichloropropene	µg/kg	--		--		--	--	--	--	--
	1,2,3-Trichlorobenzene	µg/kg	--		--		--	--	--	--	--
	1,2,3-Trichloropropane	µg/kg	--		--		--	--	--	--	--
	1,2,4-Trichlorobenzene	µg/kg	--		--		--	--	--	--	--
	1,2,4-Trimethylbenzene	µg/kg	--		--		2.00E+06	2.00E+06	5.40E+07	9.80E+05	2.10E+05
	1,2-Dibromo-3-	µg/kg	--		--		--	--	--	--	--
	1,2-Dibromoethane	µg/kg	--		--		7.30E+02	9.00E+03	2.50E+05	6.50E+02	1.60E+02
	1,2-Dichlorobenzene	µg/kg	--		--		3.60E+07	2.00E+07	5.60E+08	--	--
	1,2-Dichloroethane	µg/kg	--		--		1.60E+04	2.00E+05	5.60E+06	1.50E+04	1.00E+03
	1,2-Dichloropropane	µg/kg	--		--		--	--	--	--	--
	1,3,5-Trimethylbenzene	µg/kg	--		--		1.20E+07	3.50E+06	9.80E+07	--	--
	1,3-Dichlorobenzene	µg/kg	--		--		--	--	--	--	--
	1,3-Dichloropropane	µg/kg	--		--		--	--	--	--	--
	1,4-Dichlorobenzene	µg/kg	--		--		6.40E+04	1.30E+06	3.60E+07	3.60E+04	1.30E+04
	2,2-Dichloropropane	µg/kg	--		--		--	--	--	--	--
	2-Butanone	µg/kg	--		--		--	--	--	--	--
	2-Chlorotoluene	µg/kg	--		--		--	--	--	--	--
	2-Hexanone	µg/kg	--		--		--	--	--	--	--
	4-Chlorotoluene	µg/kg	--		--		--	--	--	--	--
	4-Methyl-2-pentanone	µg/kg	--		--		--	--	--	--	--
	Acetone	µg/kg	--		--		--	--	--	--	--
	Benzene	µg/kg	--		--		3.70E+04	3.80E+05	1.10E+07	5.00E+04	2.10E+03
	Bromobenzene	µg/kg	--		--		--	--	--	--	--
	Bromochloromethane	µg/kg	--		--		--	--	--	--	--
	Bromodichloromethane	µg/kg	--		--		1.50E+04	2.30E+05	6.30E+06	1.10E+04	5.30E+02
	Bromoform	µg/kg	--		--		2.60E+05	2.70E+06	7.40E+07	3.60E+05	1.10E+05
	Bromomethane	µg/kg	--		--		7.50E+05	3.70E+05	1.00E+07	7.00E+05	1.70E+04
	Carbon disulfide	µg/kg	--		--		--	--	--	--	--
	Carbon tetrachloride	µg/kg	--		--		--	--	--	--	--
	Chlorobenzene	µg/kg	--		--		8.70E+06	4.70E+06	1.30E+08	--	--

Table B-2
Riverbank Surface Sample Results - Section 1
Human Health Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Riverbank Section 1		Oregon Department of Environmental Quality Risk-Based Concentrations				
			S2-1	S2-2	Soil Ingestion, Dermal Contact, and Inhal.			Vol. to Outdoor Air	Vapor Intrusion
		Date	9/24/2010	9/24/2010					
	Depth (Feet Below Ground Surface)		Surface	Surface	Occ	Const.	Exc	Occ	Occ
VOCs (continued)	Chloroethane	µg/kg	--	--	--	--	--	--	--
	Chloroform	µg/kg	--	--	2.60E+04	4.10E+05	1.10E+07	1.70E+04	4.10E+02
	Chloromethane	µg/kg	--	--	2.50E+07	2.50E+07	7.00E+08	--	3.00E+05
	cis-1,2-Dichloroethene	µg/kg	--	--	2.30E+06	7.10E+05	2.00E+07	--	--
	cis-1,3-Dichloropropene	µg/kg	--	--	--	--	--	--	--
	Dibromochloromethane	µg/kg	--	--	--	--	--	--	--
	Dibromomethane	µg/kg	--	--	--	--	--	--	--
	Dichlorodifluoromethane	µg/kg	--	--	--	--	--	--	--
	Ethylbenzene	µg/kg	--	--	1.50E+05	1.70E+06	4.90E+07	1.60E+05	1.70E+04
	Hexachlorobutadiene	µg/kg	--	--	--	--	--	--	--
	Isopropylbenzene	µg/kg	--	--	5.70E+07	2.70E+07	7.50E+08	--	--
	m,p-Xylene	µg/kg	--	--	2.50E+07	2.00E+07	5.60E+08	--	--
	Methyl tert-butyl ether	µg/kg	--	--	1.10E+06	1.20E+07	3.20E+08	1.50E+06	1.10E+05
	Methylene chloride	µg/kg	--	--	1.60E+06	2.10E+06	5.80E+07	-	9.50E+05
	Naphthalene	µg/kg	--	--	2.30E+04	5.80E+05	1.60E+07	8.30E+04	8.30E+04
	n-Butylbenzene	µg/kg	--	--	--	--	--	--	--
	n-Propylbenzene	µg/kg	--	--	--	--	--	--	--
	o-Xylene	µg/kg	--	--	2.50E+07	2.00E+07	5.60E+08	--	--
	p-Isopropyltoluene	µg/kg	--	--	--	--	--	--	--
	sec-Butylbenzene	µg/kg	--	--	--	--	--	--	--
	Styrene	µg/kg	--	--	1.30E+08	5.60E+07	--	--	--
	tert-Butylbenzene	µg/kg	--	--	--	--	--	--	--
	Tetrachloroethene	µg/kg	--	--	1.00E+06	1.80E+06	5.00E+07	--	3.60E+04
	Toluene	µg/kg	--	--	8.80E+07	2.80E+07	7.70E+08	--	--
	trans-1,2-Dichloroethene	µg/kg	--	--	2.30E+07	7.10E+06	2.00E+08	--	--
	trans-1,3-Dichloropropene	µg/kg	--	--	--	--	--	--	--
	Trichloroethene	µg/kg	--	--	5.10E+04	4.70E+05	1.30E+07	9.60E+04	2.30E+03
	Trichlorofluoromethane	µg/kg	--	--	1.30E+08	6.90E+07	--	--	--
	Vinyl chloride	µg/kg	--	--	4.40E+03	3.40E+04	9.50E+05	8.90E+04	2.20E+03
SVOCs	1,2,4-Trichlorobenzene	µg/kg	--	--	--	--	--	--	--
	1,2-Dichlorobenzene	µg/kg	--	--	3.60E+07	2.00E+07	5.60E+08	--	--
	1,3-Dichlorobenzene	µg/kg	--	--	--	--	--	--	--
	1,4-Dichlorobenzene	µg/kg	--	--	6.40E+04	1.30E+06	3.60E+07	1.90E+04	1.30E+04
	2,4,5-Trichlorophenol	µg/kg	--	--	--	--	--	--	--
	2,4,6-Trichlorophenol	µg/kg	--	--	2.10E+05	2.70E+05	7.40E+06	--	--
	2,4-Dichlorophenol	µg/kg	--	--	--	--	--	--	--
	2,4-Dimethylphenol	µg/kg	--	--	--	--	--	--	--
	2,4-Dinitrophenol	µg/kg	--	--	--	--	--	--	--
	2,4-Dinitrotoluene	µg/kg	--	--	--	--	--	--	--
	2,6-Dinitrotoluene	µg/kg	--	--	1.50E+03	1.30E+04	3.50E+05	--	--
	2-Chloronaphthalene	µg/kg	--	--	--	--	--	--	--
	2-Chlorophenol	µg/kg	--	--	--	--	--	--	--
	2-Methylphenol	µg/kg	--	--	--	--	--	--	--
	2-Nitroaniline	µg/kg	--	--	--	--	--	--	--
	2-Nitrophenol	µg/kg	--	--	--	--	--	--	--
	3,3'-Dichlorobenzidine	µg/kg	--	--	--	--	--	--	--
	3,4-Methylphenol	µg/kg	--	--	--	--	--	--	--
	3-Nitroaniline	µg/kg	--	--	--	--	--	--	--
	4,6-Dinitro-2-methylphenol	µg/kg	--	--	--	--	--	--	--
	4-Bromophenyl phenyl ether	µg/kg	--	--	--	--	--	--	--
	4-Chloro-3-methylphenol	µg/kg	--	--	--	--	--	--	--
	4-Chloroaniline	µg/kg	--	--	--	--	--	--	--
	4-Chlorophenyl phenyl ether	µg/kg	--	--	--	--	--	--	--
	4-Nitroaniline	µg/kg	--	--	--	--	--	--	--
	4-Nitrophenol	µg/kg	--	--	--	--	--	--	--
	Benzoic Acid	µg/kg	--	--	--	--	--	--	--
	Benzyl Alcohol	µg/kg	--	--	--	--	--	--	--
	Bis(2-chloroethoxy)methane	µg/kg	--	--	--	--	--	--	--
	Bis(2-chloroethyl)ether	µg/kg	--	--	1.30E+03	1.60E+04	4.50E+05	1.20E+03	6.90E+03
	Bis(2-chloroisopropyl)ether	µg/kg	--	--	--	--	--	--	--
	Dibenzofuran	µg/kg	--	--	--	--	--	--	--
	Hexachlorobenzene	µg/kg	--	--	9.30E+02	1.10E+04	3.20E+05	2.40E+03	1.30E+04
	Hexachlorobutadiene	µg/kg	--	--	--	--	--	--	--
	Hexachlorocyclopentadiene	µg/kg	--	--	--	--	--	--	--
	Hexachloroethane	µg/kg	--	--	3.20E+04	1.80E+05	5.10E+06	1.90E+04	7.60E+03
	Isophorone	µg/kg	--	--	--	--	--	--	--
	Nitrobenzene	µg/kg	--	--	--	--	--	--	--
	N-Nitrosodi-n-propylamine	µg/kg	--	--	--	--	--	--	--
	N-Nitrosodiphenylamine	µg/kg	--	--	4.70E+05	3.80E+06	1.10E+08	--	--
	Pentachlorophenol	µg/kg	--	--	4.00E+03	3.40E+04	9.60E+05	--	--
	Phenol	µg/kg	--	--	--	--	--	--	--

Table B-2
Riverbank Surface Sample Results - Section 1
Human Health Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Riverbank Section 1				Oregon Department of Environmental Quality Risk-Based Concentrations				
			S2-1		S2-2		Soil Ingestion, Dermal Contact, and Inhal.			Vol. to Outdoor Air	Vapor Intrusion
		Date	9/24/2010		9/24/2010						
	Depth (Feet Below Ground Surface)		Surface		Surface		Occ	Const.	Exc	Occ	Occ
PAHs	2-Methylnaphthalene	µg/kg	7.93	U	20.9	J	--	--	--	--	--
	Acenaphthene	µg/kg	7.93	U	49.5	J	7.00E+07	2.10E+07	5.90E+08	--	--
	Acenaphthylene	µg/kg	13.1	J	72.1	J	--	--	--	--	--
	Anthracene	µg/kg	13.1	J	352	J	3.50E+08	1.10E+08	--	--	--
	Benzo(a)anthracene	µg/kg	46.7		1,100	J	2.90E+03	2.40E+04	6.60E+05	--	--
	Benzo(a)pyrene	µg/kg	62.8		1,440	J	--	--	--	--	--
	Benzo(b)fluoranthene	µg/kg	55.1		1,350	J	2.90E+03	2.40E+04	6.70E+05	--	--
	Benzo(ghi)perylene	µg/kg	75.1		1,170	J	--	--	--	--	--
	Benzo(k)fluranthene	µg/kg	53.3		1,220	J	--	--	--	--	--
	Chrysene	µg/kg	57.0		1,310	J	2.90E+05	2.40E+06	6.70E+07	--	--
	Dibenzo(a,h)anthracene	µg/kg	15.5	J	391	J	2.90E+02	2.40E+03	6.70E+04	--	--
	Fluoranthene	µg/kg	90.3		1,890	J	3.00E+07	1.00E+07	2.80E+08	--	--
	Fluorene	µg/kg	7.93	U	68.4	J	4.70E+07	1.40E+07	3.90E+08	--	--
	Indeno(1,2,3-cd)pyrene	µg/kg	53.7		1,070	J	2.90E+03	2.40E+04	6.70E+05	--	--
	Naphthalene	µg/kg	9.02	J	37.8	J	2.30E+04	5.80E+05	1.60E+07	8.30E+04	8.30E+04
	Phenanthrene	µg/kg	42.0		885	J	--	--	--	--	--
	Pyrene	µg/kg	86.8		1,590	J	2.30E+07	7.50E+06	2.10E+08	--	--
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	32.2	U	61.6	U	1.60E+05	1.30E+06	3.70E+07	--	--
	Butyl benzyl phthalate	µg/kg	32.2	U	61.6	U	--	--	--	--	--
	Diethyl phthalate	µg/kg	32.2	U	61.6	U	--	--	--	--	--
	Dimethyl phthalate	µg/kg	32.2	U	61.6	U	--	--	--	--	--
	Di-n-butyl phthalate	µg/kg	32.2	U	61.6	U	--	--	--	--	--
	Di-n-octyl phthalate	µg/kg	32.2	U	61.6	U	--	--	--	--	--
Organotins	Dibutyltin	µg/kg	0.48	U	15		--	--	--	--	--
	Monobutyltin	µg/kg	0.46	U	0.43	U	--	--	--	--	--
	Tetra-n-butyltin	µg/kg	1.4	U	1.3	U	--	--	--	--	--
	Tributyltin	µg/kg	1.0	U	38		--	--	--	--	--
Organochlorine Pesticides	4-4'-DDD	µg/kg	--		--		1.20E+04	9.40E+04	2.60E+06		
	4,4'-DDE	µg/kg	--		--		8.20E+03	6.60E+04	1.80E+06	--	--
	4,4'-DDT	µg/kg	--		--		8.50E+03	6.60E+04	1.80E+06	--	--
	Aldrin	µg/kg	--		--		1.30E+02	1.10E+03	3.00E+04	--	--
	alpha-BHC	µg/kg	--		--		3.60E+02	3.00E+03	8.30E+04	--	--
	alpha-Chlordane	µg/kg	--		--		--	--	--	--	--
	beta-BHC	µg/kg	--		--		--	--	--	--	--
	Chlordane	µg/kg	--		--		7.40E+03	6.10E+04	1.70E+06	--	--
	delta-BHC	µg/kg	--		--		--	--	--	--	--
	Dieldrin	µg/kg	--		--		1.40E+02	1.20E+03	3.30E+04	--	--
	Endosulfan I	µg/kg	--		--		--	--	--	--	--
	Endosulfan II	µg/kg	--		--		--	--	--	--	--
	Endosulfan sulfate	µg/kg	--		--		--	--	--	--	--
	Endrin	µg/kg	--		--		2.50E+05	8.00E+04	2.20E+06	--	--
	Endrin aldehyde	µg/kg	--		--		--	--	--	--	--
	Endrin ketone	µg/kg	--		--		--	--	--	--	--
	gamma-BHC (Lindane)	µg/kg	--		--		2.10E+03	1.70E+04	4.70E+05	--	--
	gamma-Chlordane	µg/kg	--		--		--	--	--	--	--
	Heptachlor	µg/kg	--		--		4.50E+02	4.00E+03	1.10E+05	2.30E+05	2.30E+05
	Heptachlor epoxide	µg/kg	--		--		2.40E+02	2.00E+03	5.60E+04	--	--
	Methoxychlor	µg/kg	--		--		--	--	--	--	--
	Toxaphene	µg/kg	--		--		2.10E+03	1.70E+04	4.70E+05	--	--
Petroleum Hydrocarbons	Diesel	mg/kg	18.4		143		1.40E+04	4.60E+03	--	--	--
	Heavy Oil	mg/kg	127		1,430		--	--	--	--	--

Notes:
1. -- = Not applicable/not analyzed
2. mg/kg = Milligrams per kilogram
3. µg/kg = Micrograms per kilogram
4. J = The result is an estimated quantity
5. U= Undetected at the method detection limit shown
6. UJ = Undetected at the method detection limit shown, detection limit is an estimated quantity
7. Risk-Based Concentrations; revision date 11/1/15
8. Shading indicates sample concentration exceeds one or more RBCs

Table B-3
Riverbank Surface Sample Results - Section 1
Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Riverbank Section 1				Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			S2-1		S2-2						
		Date	9/24/2010		9/24/2010		Plants	Inverts.	Birds	Mammals	
		Depth (Feet Below Ground Surface)	0		0						
Inorganics	Mercury	mg/kg	0.0825	J	0.409		0.3	0.1	1.5	73	0.23
	Arsenic	mg/kg	19.9		580		10	60	10	29	8.8
	Barium	mg/kg	214		323		500	3,000	85	638	790
	Chromium	mg/kg	28.7		129		1	0.4	4	410	76
	Copper	mg/kg	75.1		1,350		100	50	190	390	34
	Lead	mg/kg	140		1,490		50	500	16	4000	79
	Manganese	mg/kg	1,130		1,090		500	100	4,125	11,000	1,800
	Nickel	mg/kg	23.4		75.7		30	200	320	625	47
	Selenium	mg/kg	0.134	J	0.583	J	1	70	2	25	0.71
	Silver	mg/kg	0.256	J	2.330	J	2	50	--	--	0.82
	Zinc	mg/kg	312		5,730		50	200	60	20,000	180
PCBs	Aroclor 1016	µg/kg	2.03	U	7.75	U	--	--	--	1.0E+05	--
	Aroclor 1221	µg/kg	4.05	U	15.5	U	--	--	--	--	--
	Aroclor 1232	µg/kg	2.03	U	7.75	U	--	--	--	--	--
	Aroclor 1242	µg/kg	2.03	U	7.75	U	--	--	1.5E+03	5.0E+03	--
	Aroclor 1248	µg/kg	2.03	U	7.75	U	--	--	--	--	--
	Aroclor 1254	µg/kg	2.03	U	7.75	U	--	--	7.0E+02	4.0E+03	--
	Aroclor 1260	µg/kg	7.07		49.0		--	--	--	--	--
	Aroclor 1262	µg/kg	2.03	U	7.75	U	--	--	--	--	--
	Aroclor 1268	µg/kg	2.03	U	7.75	U	--	--	--	--	--
	Total PCBs	µg/kg	7.07		49.0		4.0E+04	--	--	4.0E+03	--
VOCs	1,1,1,2-Tetrachloroethane	µg/kg	--		--		--	--	--	--	--
	1,1,1-Trichloroethane	µg/kg	--		--		--	--	--	5.6E+07	--
	1,1,2,2-Tetrachloroethane	µg/kg	--		--		--	--	--	--	--
	1,1,2-Trichloroethane	µg/kg	--		--		--	--	--	--	--
	1,1-Dichloroethane	µg/kg	--		--		--	--	--	--	--
	1,1-Dichloroethene	µg/kg	--		--		--	--	--	3.8E+06	--
	1,1-Dichloropropene	µg/kg	--		--		--	--	--	--	--
	1,2,3-Trichlorobenzene	µg/kg	--		--		--	2.0E+04	--	--	--
	1,2,3-Trichloropropane	µg/kg	--		--		--	--	--	--	--
	1,2,4-Trichlorobenzene	µg/kg	--		--		--	2.0E+04	--	--	--
	1,2,4-Trimethylbenzene	µg/kg	--		--		--	--	--	--	--
	1,2-Dibromo-3-	µg/kg	--		--		--	--	--	--	--
	1,2-Dibromoethane	µg/kg	--		--		--	--	--	--	--
	1,2-Dichlorobenzene	µg/kg	--		--		--	--	--	--	--
	1,2-Dichloroethane	µg/kg	--		--		--	--	7.0E+04	2.8E+06	--
	1,2-Dichloropropane	µg/kg	--		--		--	7.0E+05	--	--	--
	1,3,5-Trimethylbenzene	µg/kg	--		--		--	--	--	--	--
	1,3-Dichlorobenzene	µg/kg	--		--		--	--	--	--	--
	1,3-Dichloropropane	µg/kg	--		--		--	--	--	--	--
	1,4-Dichlorobenzene	µg/kg	--		--		--	2.0E+04	--	--	--
	2,2-Dichloropropane	µg/kg	--		--		--	--	--	--	--
	2-Butanone	µg/kg	--		--		--	--	--	2.0E+08	--
	2-Chlorotoluene	µg/kg	--		--		--	--	--	--	--
	2-Hexanone	µg/kg	--		--		--	--	--	--	--
	4-Chlorotoluene	µg/kg	--		--		--	--	--	--	--
	4-Methyl-2-pentanone	µg/kg	--		--		--	--	--	--	--
	Acetone	µg/kg	--		--		--	--	--	1.3E+06	--
	Benzene	µg/kg	--		--		--	--	--	3.3E+06	--
	Bromobenzene	µg/kg	--		--		--	--	--	--	--
	Bromochloromethane	µg/kg	--		--		--	--	--	--	--
	Bromodichloromethane	µg/kg	--		--		--	--	--	--	--
	Bromoform	µg/kg	--		--		--	--	--	--	--
	Bromomethane	µg/kg	--		--		--	--	--	--	--
	Carbon disulfide	µg/kg	--		--		--	--	--	--	--
	Carbon tetrachloride	µg/kg	--		--		--	1.0E+06	--	2.0E+06	--
	Chlorobenzene	µg/kg	--		--		--	4.0E+04	--	--	--

Table B-3
Riverbank Surface Sample Results - Section 1
Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Riverbank Section 1		Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			S2-1	S2-2					
		Date	9/24/2010	9/24/2010	Plants	Inverts.	Birds	Mammals	
		Depth (Feet Below Ground Surface)	0	0					
VOCs (continued)	Chloroethane	µg/kg	--	--	--	--	--	--	--
	Chloroform	µg/kg	--	--	--	--	--	1.9E+06	--
	Chloromethane	µg/kg	--	--	--	--	--	--	--
	cis-1,2-Dichloroethene	µg/kg	--	--	--	--	--	2.5E+06	--
	cis-1,3-Dichloropropene	µg/kg	--	--	--	--	--	--	--
	Dibromochloromethane	µg/kg	--	--	--	--	--	--	--
	Dibromomethane	µg/kg	--	--	--	--	--	--	--
	Dichlorodifluoromethane	µg/kg	--	--	--	--	--	--	--
	Ethylbenzene	µg/kg	--	--	--	--	--	--	--
	Hexachlorobutadiene	µg/kg	--	--	--	--	--	--	--
	Isopropylbenzene	µg/kg	--	--	--	--	--	--	--
	m,p-Xylene	µg/kg	--	--	--	--	--	--	--
	Methyl tert-butyl ether	µg/kg	--	--	--	--	--	--	--
	Methylene chloride	µg/kg	--	--	--	--	--	7.3E+05	--
	Naphthalene	µg/kg	--	--	1.0E+04	--	--	3.9E+06	--
	n-Butylbenzene	µg/kg	--	--	--	--	--	--	--
	n-Propylbenzene	µg/kg	--	--	--	--	--	--	--
	o-Xylene	µg/kg	--	--	1.0E+03	--	--	--	--
	p-Isopropyltoluene	µg/kg	--	--	--	--	--	--	--
	sec-Butylbenzene	µg/kg	--	--	--	--	--	--	--
	Styrene	µg/kg	--	--	3.0E+05	--	--	--	--
	tert-Butylbenzene	µg/kg	--	--	--	--	--	--	--
	Tetrachloroethene	µg/kg	--	--	1.0E+04	--	--	8.0E+04	--
	Toluene	µg/kg	--	--	2.0E+05	--	--	1.4E+06	--
	trans-1,2-Dichloroethene	µg/kg	--	--	--	--	--	2.5E+06	--
	trans-1,3-Dichloropropene	µg/kg	--	--	--	--	--	--	--
	Trichloroethene	µg/kg	--	--	--	--	--	4.0E+04	--
	Trichlorofluoromethane	µg/kg	--	--	--	--	--	--	--
	Vinyl chloride	µg/kg	--	--	--	--	--	2.0E+04	--
SVOCs	1,2,4-Trichlorobenzene	µg/kg	--	--	--	2.0E+04	--	--	--
	1,2-Dichlorobenzene	µg/kg	--	--	--	--	--	--	--
	1,3-Dichlorobenzene	µg/kg	--	--	--	--	--	--	--
	1,4-Dichlorobenzene	µg/kg	--	--	--	2.0E+04	--	--	--
	2,4,5-Trichlorophenol	µg/kg	--	--	4.0E+03	9.0E+03	--	--	--
	2,4,6-Trichlorophenol	µg/kg	--	--	1.0E+04	1.0E+04	--	--	--
	2,4-Dichlorophenol	µg/kg	--	--	2.0E+04	--	--	--	--
	2,4-Dimethylphenol	µg/kg	--	--	2.0E+04	--	--	--	--
	2,4-Dinitrophenol	µg/kg	--	--	2.0E+04	--	--	--	--
	2,4-Dinitrotoluene	µg/kg	--	--	--	--	--	--	--
	2,6-Dinitrotoluene	µg/kg	--	--	--	--	--	--	--
	2-Chloronaphthalene	µg/kg	--	--	--	--	--	--	--
	2-Chlorophenol	µg/kg	--	--	6.0E+04	--	--	--	--
	2-Methylphenol	µg/kg	--	--	5.0E+04	--	--	1.6E+07	--
	2-Nitroaniline	µg/kg	--	--	--	--	--	--	--
	2-Nitrophenol	µg/kg	--	--	--	--	--	--	--
	3,3'-Dichlorobenzidine	µg/kg	--	--	--	--	--	--	--
	3,4-Methylphenol	µg/kg	--	--	--	--	--	--	--
	3-Nitroaniline	µg/kg	--	--	7.0E+04	--	--	--	--
	4,6-Dinitro-2-methylphenol	µg/kg	--	--	--	--	--	--	--
	4-Bromophenyl phenyl	µg/kg	--	--	--	--	--	--	--
	4-Chloro-3-methylphenol	µg/kg	--	--	--	--	--	--	--
	4-Chloroaniline	µg/kg	--	--	4.0E+04	--	--	--	--
	4-Chlorophenyl phenyl	µg/kg	--	--	--	--	--	--	--
	4-Nitroaniline	µg/kg	--	--	4.0E+04	--	--	--	--
	4-Nitrophenol	µg/kg	--	--	1.0E+04	7.0E+03	--	--	--
	Benzoic Acid	µg/kg	--	--	--	--	--	--	--
	Benzyl Alcohol	µg/kg	--	--	--	--	--	--	--
	Bis(2-chloroethoxy)methane	µg/kg	--	--	--	--	--	--	--
	Bis(2-chloroethyl)ether	µg/kg	--	--	--	--	--	--	--
	Bis(2-chloroisopropyl)ether	µg/kg	--	--	--	--	--	--	--
	Dibenzofuran	µg/kg	--	--	--	--	--	2.0E+00	--
	Hexachlorobenzene	µg/kg	--	--	--	1.0E+06	--	--	--
	Hexachlorobutadiene	µg/kg	--	--	--	--	--	--	--
	Hexachlorocyclopentadiene	µg/kg	--	--	1.0E+04	--	--	--	--
	Hexachloroethane	µg/kg	--	--	--	--	--	--	--
	Isophorone	µg/kg	--	--	--	--	--	--	--
	Nitrobenzene	µg/kg	--	--	8.0E+03	4.0E+04	--	--	--
	N-Nitrosodi-n-propylamine	µg/kg	--	--	--	--	--	--	--
	N-Nitrosodiphenylamine	µg/kg	--	--	--	2.0E+04	--	--	--
	Pentachlorophenol	µg/kg	--	--	3.0E+03	4.0E+03	--	3.0E+04	--
	Phenol	µg/kg	--	--	7.0E+04	3.0E+04	--	--	--

Table B-3
Riverbank Surface Sample Results - Section 1
Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Riverbank Section 1				Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			S2-1		S2-2						
		Date	9/24/2010		9/24/2010		Plants	Inverts.	Birds	Mammals	
		Depth (Feet Below Ground Surface)	0		0						
PAHs	2-Methylnaphthalene	µg/kg	7.93	U	20.9	J	--	--	--	--	--
	Acenaphthene	µg/kg	7.93	U	49.5	J	2.0E+04	--	--	--	--
	Acenaphthylene	µg/kg	13.1	J	72.1	J	--	--	--	--	--
	Anthracene	µg/kg	13.1	J	352	J	--	--	--	--	--
	Benzo(a)anthracene	µg/kg	46.7		1,100	J	--	--	--	--	--
	Benzo(a)pyrene	µg/kg	62.8		1,440	J	--	--	--	1.3E+05	--
	Benzo(b)fluoranthene	µg/kg	55.1		1,350	J	--	--	--	--	--
	Benzo(ghi)perylene	µg/kg	75.1		1,170	J	--	--	--	--	--
	Benzo(k)fluranthene	µg/kg	53.3		1,220	J	--	--	--	--	--
	Chrysene	µg/kg	57.0		1,310	J	--	--	--	--	--
	Dibenzo(a,h)anthracene	µg/kg	15.5	J	391	J	--	--	--	--	--
	Fluoranthene	µg/kg	90.3		1,890	J	--	--	--	--	--
	Fluorene	µg/kg	7.93	U	68.4	J	--	3.0E+04	--	--	--
	Indeno(1,2,3-cd)pyrene	µg/kg	53.7		1,070	J	--	--	--	--	--
	Naphthalene	µg/kg	9.02	J	37.8	J	1.0E+04	--	--	3.9E+06	--
	Phenanthrene	µg/kg	42.0		885	J	--	--	--	--	--
	Pyrene	µg/kg	86.8		1,590	J	--	--	--	--	--
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	32.2	U	61.6	U	--	--	4.5E+03	1.0E+06	--
	Butyl benzyl phthalate	µg/kg	32.2	U	61.6	U	--	--	--	--	--
	Diethyl phthalate	µg/kg	32.2	U	61.6	U	1.0E+05	--	--	2.5E+08	--
	Dimethyl phthalate	µg/kg	32.2	U	61.6	U	--	2.0E+05	--	--	--
	Di-n-butyl phthalate	µg/kg	32.2	U	61.6	U	2.0E+05	--	4.5E+02	3.0E+07	--
	Di-n-octyl phthalate	µg/kg	32.2	U	61.6	U	--	--	--	--	--
Organotins	Dibutyltin	µg/kg	0.48	U	15		--	--	--	--	--
	Monobutyltin	µg/kg	0.46	U	0.43	U	--	--	--	--	--
	Tetra-n-butyltin	µg/kg	1.4	U	1.3	U	--	--	--	--	--
	Tributyltin	µg/kg	1.0	U	38		--	--	--	--	--
Organochlorine Pesticides	4-4'-DDD	µg/kg	--		--		--	--	1.0E+01	1.0E+05	--
	4,4'-DDE	µg/kg	--		--		--	--	1.0E+01	1.0E+05	--
	4,4'-DDT	µg/kg	--		--		--	--	1.0E+01	1.0E+05	--
	Aldrin	µg/kg	--		--		--	--	--	2.5E+04	--
	alpha-BHC	µg/kg	--		--		--	--	--	--	--
	alpha-Chlordane	µg/kg	--		--		--	--	--	--	--
	beta-BHC	µg/kg	--		--		--	--	--	--	--
	Chlordane	µg/kg	--		--		--	--	9.0E+03	2.5E+05	--
	delta-BHC	µg/kg	--		--		--	--	--	--	--
	Dieldrin	µg/kg	--		--		--	--	3.0E+02	3.0E+03	--
	Endosulfan I	µg/kg	--		--		--	--	--	--	--
	Endosulfan II	µg/kg	--		--		--	--	--	--	--
	Endosulfan sulfate	µg/kg	--		--		--	--	--	--	--
	Endrin	µg/kg	--		--		--	--	4.0E+01	5.0E+03	--
	Endrin aldehyde	µg/kg	--		--		--	--	--	--	--
	Endrin ketone	µg/kg	--		--		--	--	--	--	--
	gamma-BHC (Lindane)	µg/kg	--		--		--	--	2.5E+03	2.0E+05	--
	gamma-Chlordane	µg/kg	--		--		--	--	--	--	--
	Heptachlor	µg/kg	--		--		--	--	--	1.5E+04	--
	Heptachlor epoxide	µg/kg	--		--		--	--	--	--	--
	Methoxychlor	µg/kg	--		--		--	--	--	5.0E+05	--
	Toxaphene	µg/kg	--		--		--	--	--	1.0E+06	--
Petroleum Hydrocarbons	Diesel	mg/kg	18.4		143		--	--	--	--	--
	Heavy Oil	mg/kg	127		1,430		--	--	--	--	--

Notes:
1. -- = Not applicable/not analyzed
2. mg/kg = Milligrams per kilogram
3. µg/kg = Micrograms per kilogram
4. J = The result is an estimated quantity
5. U= Undetected at the method detection limit shown
6. UJ = Undetected at the method detection limit shown, detection limit is an estimated quantity
7. Level II Screening Benchmark Values; revision date 12/2001
8. Shading indicates sample concentration exceeds the default background concentration and one or more SLVs

Table B-4
Soil Boring Results: 0 to 25 Feet - Riverbank Section 1
Source Control Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.1					Vector 2.2				Vector 2.3			Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil	Default Background (Portland Basin Soil)
			090210-2-2.1-Surface-11-FS	090210-2-2.1-1.5-01-FS	090210-2-2.1-5-02-FS	090210-2-2.1-20-05-FS	090210-2-2.1-20-06-DUP	090310-2-2.2-Surface-11-WS	090310-2-2.2-1.5-01-FS	090310-2-2.2-10-03-FS	090310-2-2.2-20-05-FS	090310-2-2.3-Surface-11-WS	090310-2-2.3-1.5-01-FS	090310-2-2.3-15-04-FS			
	Sample Date		9/2/2010	9/2/2010	9/2/2010	9/2/2010	9/2/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010			
	Depth (Feet Below Ground Surface)		0	0 - 1.5	5 - 10	20 - 25	20 - 25	0	0 - 1.5	10 - 15	20 - 25	0	0 - 1.5	15 - 20			
Inorganics	Mercury	mg/kg	0.0834 J	0.0122 J	0.0641 J	0.0243 J	0.0208 J	0.0701 J	0.0042 U	0.0128 J	0.0733 J	0.0540 J	0.0500 J	0.0723 J	0.07	1.1	0.23
	Arsenic	mg/kg	19.2	17.3	26.1	12.4	11.3	23.0	17.1	4.29	7.42	12.7	9.34	8.27	--	3.0	8.8
	Barium	mg/kg	530	183	182	287	260	151	45.3	120	141	310	148	190	--	--	790
	Chromium	mg/kg	263	35.0 J	32.9	36.8	32.1	102.0	6.33	17.5	23.7	95.0	22.7	33.4	111	--	76
	Copper	mg/kg	902	301	250	34.2	31.5	359	46.5	20.5	22.0	340	29.3	77.1	149	149	34
	Lead	mg/kg	293	63.3 J	87.1	22.1	25.2	137	26.3	7.02	14.2	127	69.8	149	17	128	79
	Manganese	mg/kg	6,550	1,240	1,270	859	602	2,600	396	515	647	1,670	625	783	1,100	--	1,800
	Nickel	mg/kg	245	26.4 J	22.5	25.4	23.7	87.1	6.58	17.1	18.5	61.2	16.6	36.8	49	--	47
	Selenium	mg/kg	0.124 J	0.520 J	0.222 J	0.222 J	0.134 J	0.107 J	0.063 J	0.0600 J	0.094 J	0.391 J	0.183 J	0.183 J	5	--	0.71
	Silver	mg/kg	7.55	0.329 J	0.333 J	0.140 J	0.165 J	0.401 J	0.0893 J	0.0900 J	0.094 J	0.335 J	0.122 J	0.336 J	5	--	0.82
	Zinc	mg/kg	3,130	345	385	109	114	524	137	62.2	70.9	570	123	202	459	459	180
PCBs	Aroclor 1016	µg/kg	2.06 U	1.83 U	1.89 U	2.23 U	2.12 U	18.0 U	1.75 U	2.05 U	2.14 U	7.81 U	2.02 U	4.06 U	--	--	--
	Aroclor 1221	µg/kg	4.10 U	3.66 U	3.77 U	4.44 U	4.22 U	35.9 U	3.48 U	4.09 U	4.27 U	15.6 U	4.03 U	8.10 U	--	--	--
	Aroclor 1232	µg/kg	2.06 U	1.83 U	1.89 U	2.23 U	2.12 U	18.0 U	1.75 U	2.05 U	2.14 U	7.81 U	2.02 U	4.06 U	--	--	--
	Aroclor 1242	µg/kg	2.06 U	1.83 U	1.89 U	2.23 U	2.12 U	18.0 U	1.75 U	2.05 U	2.14 U	7.81 U	2.02 U	4.06 U	--	--	--
	Aroclor 1248	µg/kg	2.06 U	1.83 U	41.5 J	2.23 U	2.12 U	18.0 U	1.75 U	2.05 U	2.14 U	7.81 U	2.02 U	4.06 U	--	--	--
	Aroclor 1254	µg/kg	40.2	1.83 U	1.89 U	2.23 U	2.12 U	18.0 U	1.75 U	2.05 U	2.44 J	93.9	2.82 J	53.7	--	--	--
	Aroclor 1260	µg/kg	2.06 U	1.83 U	1.89 U	2.23 U	2.12 U	68.3	1.75 U	2.05 U	2.14 U	7.81 U	2.02 U	4.06 U	--	--	--
	Aroclor 1262	µg/kg	2.06 U	1.83 U	1.89 U	2.23 U	2.12 U	18.0 U	1.75 U	2.05 U	2.14 U	7.81 U	2.02 U	4.06 U	--	--	--
	Aroclor 1268	µg/kg	2.06 U	1.83 U	1.89 U	2.23 U	2.12 U	18.0 U	1.75 U	2.05 U	2.14 U	7.81 U	2.02 U	4.06 U	--	--	--
	Total PCBs	µg/kg	40.2	18.3 U	41.5 J	22.28 U	21.18 U	68.3	17.48 U	20.49 U	2.44 J	93.9	2.82 J	53.7	0.39	9.00	--
VOCs	1,1,1,2-Tetrachloroethane	µg/kg	--	--	--	--	--	--	9.61 U	--	--	--	--	--	--	--	--
	1,1,1-Trichloroethane	µg/kg	--	--	--	--	--	--	5.19 U	--	--	--	--	--	--	--	--
	1,1,2,2-Tetrachloroethane	µg/kg	--	--	--	--	--	--	11.7 U	--	--	--	--	--	--	--	--
	1,1,2-Trichloroethane	µg/kg	--	--	--	--	--	--	7.00 U	--	--	--	--	--	--	--	--
	1,1-Dichloroethane	µg/kg	--	--	--	--	--	--	6.92 U	--	--	--	--	--	--	--	--
	1,1-Dichloroethene	µg/kg	--	--	--	--	--	--	12.4 U	--	--	--	--	--	--	--	--
	1,1-Dichloropropene	µg/kg	--	--	--	--	--	--	8.15 U	--	--	--	--	--	--	--	--
	1,2,3-Trichlorobenzene	µg/kg	--	--	--	--	--	--	9.66 U	--	--	--	--	--	--	--	--
	1,2,3-Trichloropropane	µg/kg	--	--	--	--	--	--	6.67 U	--	--	--	--	--	--	--	--
	1,2,4-Trichlorobenzene	µg/kg	--	--	--	--	--	--	14.3 U	--	--	--	--	--	9,200	--	--
	1,2,4-Trimethylbenzene	µg/kg	--	--	--	--	--	--	15.2 U	--	--	--	--	--	--	--	--
	1,2-Dibromo-3-chloropropane	µg/kg	--	--	--	--	--	--	42.5 U	--	--	--	--	--	--	--	--
	1,2-Dibromoethane	µg/kg	--	--	--	--	--	--	10.7 U	--	--	--	--	--	--	--	--
	1,2-Dichlorobenzene	µg/kg	--	--	--	--	--	--	8.03 U	--	--	--	--	--	1,700	--	--
	1,2-Dichloroethane	µg/kg	--	--	--	--	--	--	7.81 U	--	--	--	--	--	--	--	--
	1,2-Dichloropropane	µg/kg	--	--	--	--	--	--	6.92 U	--	--	--	--	--	--	--	--
	1,3,5-Trimethylbenzene	µg/kg	--	--	--	--	--	--	8.45 U	--	--	--	--	--	--	--	--
	1,3-Dichlorobenzene	µg/kg	--	--	--	--	--	--	6.44 U	--	--	--	--	--	300	--	--
	1,3-Dichloropropane	µg/kg	--	--	--	--	--	--	6.85 U	--	--	--	--	--	--	--	--
	1,4-Dichlorobenzene	µg/kg	--	--	--	--	--	--	8.72 U	--	--	--	--	--	300	--	--
	2,2-Dichloropropane	µg/kg	--	--	--	--	--	--	6.48 U	--	--	--	--	--	--	--	--
	2-Butanone	µg/kg	--	--	--	--	--	--	26,200 U	--	--	--	--	--	--	--	--
	2-Chlorotoluene	µg/kg	--	--	--	--	--	--	6,120 U	--	--	--	--	--	--	--	--
	2-Hexanone	µg/kg	--	--	--	--	--	--	29,200 U	--	--	--	--	--	--	--	--
	4-Chlorotoluene	µg/kg	--	--	--	--	--	--	4,470 U	--	--	--	--	--	--	--	--
	4-Methyl-2-pentanone	µg/kg	--	--	--	--	--	--	19,700 U	--	--	--	--	--	--	--	--

Table B-4
Soil Boring Results: 0 to 25 Feet - Riverbank Section 1
Source Control Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.1					Vector 2.2					Vector 2.3			Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil	Default Background (Portland Basin Soil)
			090210-2-2.1-Surface-11-FS	090210-2-2.1-1.5-01-FS	090210-2-2.1-5-02-FS	090210-2-2.1-20-05-FS	090210-2-2.1-20-06-DUP	090310-2-2.2-Surface-11-WS	090310-2-2.2-1.5-01-FS	090310-2-2.2-10-03-FS	090310-2-2.2-20-05-FS	090310-2-2.3-Surface-11-WS	090310-2-2.3-1.5-01-FS	090310-2-2.3-15-04-FS			
	Sample Date		9/2/2010	9/2/2010	9/2/2010	9/2/2010	9/2/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010			
	Depth (Feet Below Ground Surface)		0	0 - 1.5	5 - 10	20 - 25	20 - 25	0	0 - 1.5	10 - 15	20 - 25	0	0 - 1.5	15 - 20			
	Acetone	µg/kg	--	--	--	--	--	--	619,000 U	--	--	--	--	--	--	--	--
	Benzene	µg/kg	--	--	--	--	--	--	4,360 U	--	--	--	--	--	--	--	--
	Bromobenzene	µg/kg	--	--	--	--	--	--	12,900 U	--	--	--	--	--	--	--	--
	Bromochloromethane	µg/kg	--	--	--	--	--	--	10,000 U	--	--	--	--	--	--	--	--
	Bromodichloromethane	µg/kg	--	--	--	--	--	--	10,500 U	--	--	--	--	--	--	--	--
	Bromoform	µg/kg	--	--	--	--	--	--	9,480 U	--	--	--	--	--	--	--	--
	Bromomethane	µg/kg	--	--	--	--	--	--	8,290 U	--	--	--	--	--	--	--	--
	Carbon disulfide	µg/kg	--	--	--	--	--	--	7,410 U	--	--	--	--	--	--	--	--
	Carbon tetrachloride	µg/kg	--	--	--	--	--	--	11,300 U	--	--	--	--	--	--	--	--
	Chlorobenzene	µg/kg	--	--	--	--	--	--	3,160 U	--	--	--	--	--	--	--	--
	Chloroethane	µg/kg	--	--	--	--	--	--	19,100 U	--	--	--	--	--	--	--	--
	Chloroform	µg/kg	--	--	--	--	--	--	5,600 U	--	--	--	--	--	--	--	--
	Chloromethane	µg/kg	--	--	--	--	--	--	7,200 U	--	--	--	--	--	--	--	--
	cis-1,2-Dichloroethene	µg/kg	--	--	--	--	--	--	11,100 U	--	--	--	--	--	--	--	--
	cis-1,3-Dichloropropene	µg/kg	--	--	--	--	--	--	4,740 U	--	--	--	--	--	--	--	--
	Dibromochloromethane	µg/kg	--	--	--	--	--	--	7,640 U	--	--	--	--	--	--	--	--
	Dibromomethane	µg/kg	--	--	--	--	--	--	4,890 U	--	--	--	--	--	--	--	--
	Dichlorodifluoromethane	µg/kg	--	--	--	--	--	--	7,410 U	--	--	--	--	--	--	--	--
	Ethylbenzene	µg/kg	--	--	--	--	--	--	2,920 U	--	--	--	--	--	--	--	--
VOCs (continued)	Hexachlorobutadiene	µg/kg	--	--	--	--	--	--	9,160 U	--	--	--	--	--	600	--	--
	Isopropylbenzene	µg/kg	--	--	--	--	--	--	7,640 U	--	--	--	--	--	--	--	--
	m,p-Xylene	µg/kg	--	--	--	--	--	--	18,300 U	--	--	--	--	--	--	--	--
	Methyl tert-butyl ether	µg/kg	--	--	--	--	--	--	5,600 U	--	--	--	--	--	--	--	--
	Methylene chloride	µg/kg	--	--	--	--	--	--	8,240 J	--	--	--	--	--	--	--	--
	Naphthalene	µg/kg	--	--	--	--	--	--	7,930 U	--	--	--	--	--	561	--	--
	n-Butylbenzene	µg/kg	--	--	--	--	--	--	6,590 U	--	--	--	--	--	--	--	--
	n-Propylbenzene	µg/kg	--	--	--	--	--	--	7,240 U	--	--	--	--	--	--	--	--
	o-Xylene	µg/kg	--	--	--	--	--	--	6,670 U	--	--	--	--	--	--	--	--
	p-Isopropyltoluene	µg/kg	--	--	--	--	--	--	9,970 U	--	--	--	--	--	--	--	--
	sec-Butylbenzene	µg/kg	--	--	--	--	--	--	5,240 U	--	--	--	--	--	--	--	--
	Styrene	µg/kg	--	--	--	--	--	--	3,230 U	--	--	--	--	--	--	--	--
	tert-Butylbenzene	µg/kg	--	--	--	--	--	--	10,100 U	--	--	--	--	--	--	--	--
	Tetrachloroethene	µg/kg	--	--	--	--	--	--	14,800 U	--	--	--	--	--	--	--	--
	Toluene	µg/kg	--	--	--	--	--	--	3,610 U	--	--	--	--	--	--	--	--
	trans-1,2-Dichloroethene	µg/kg	--	--	--	--	--	--	6,040 U	--	--	--	--	--	--	--	--
	trans-1,3-Dichloropropene	µg/kg	--	--	--	--	--	--	6,040 U	--	--	--	--	--	--	--	--
	Trichloroethene	µg/kg	--	--	--	--	--	--	7,480 U	--	--	--	--	--	2,100	--	--
	Trichlorofluoromethane	µg/kg	--	--	--	--	--	--	32,000 U	--	--	--	--	--	--	--	--
	Vinyl chloride	µg/kg	--	--	--	--	--	--	7,710 U	--	--	--	--	--	--	--	--

Table B-4
Soil Boring Results: 0 to 25 Feet - Riverbank Section 1
Source Control Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.1					Vector 2.2					Vector 2.3			Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil	Default Background (Portland Basin Soil)
			090210-2-2.1-Surface-11-FS	090210-2-2.1-1.5-01-FS	090210-2-2.1-5-02-FS	090210-2-2.1-20-05-FS	090210-2-2.1-20-06-DUP	090310-2-2.2-Surface-11-WS	090310-2-2.2-1.5-01-FS	090310-2-2.2-10-03-FS	090310-2-2.2-20-05-FS	090310-2-2.3-Surface-11-WS	090310-2-2.3-1.5-01-FS	090310-2-2.3-15-04-FS			
	Sample Date		9/2/2010	9/2/2010	9/2/2010	9/2/2010	9/2/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010			
	Depth (Feet Below Ground Surface)		0	0 - 1.5	5 - 10	20 - 25	20 - 25	0	0 - 1.5	10 - 15	20 - 25	0	0 - 1.5	15 - 20			
SVOCs	1,2,4-Trichlorobenzene	µg/kg	--	--	--	--	--	--	522 U	--	--	--	--	--	9,200	--	--
	1,2-Dichlorobenzene	µg/kg	--	--	--	--	--	--	522 U	--	--	--	--	--	1,700	--	--
	1,3-Dichlorobenzene	µg/kg	--	--	--	--	--	--	522 U	--	--	--	--	--	300	--	--
	1,4-Dichlorobenzene	µg/kg	--	--	--	--	--	--	522 U	--	--	--	--	--	300	--	--
	2,4,5-Trichlorophenol	µg/kg	--	--	--	--	--	--	522 U	--	--	--	--	--	--	--	--
	2,4,6-Trichlorophenol	µg/kg	--	--	--	--	--	--	522 U	--	--	--	--	--	--	--	--
	2,4-Dichlorophenol	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	--	--	--
	2,4-Dimethylphenol	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	--	--	--
	2,4-Dinitrophenol	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	--	--	--
	2,4-Dinitrotoluene	µg/kg	--	--	--	--	--	--	522 U	--	--	--	--	--	--	--	--
	2,6-Dinitrotoluene	µg/kg	--	--	--	--	--	--	2,090 U	--	--	--	--	--	--	--	--
	2-Chloronaphthalene	µg/kg	--	--	--	--	--	--	522 U	--	--	--	--	--	--	--	--
	2-Chlorophenol	µg/kg	--	--	--	--	--	--	522 U	--	--	--	--	--	--	--	--
	2-Methylphenol	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	--	--	--
	2-Nitroaniline	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	--	--	--
	2-Nitrophenol	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	--	--	--
	3,3'-Dichlorobenzidine	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	--	--	--
	3,4-Methylphenol	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	--	--	--
	3-Nitroaniline	µg/kg	--	--	--	--	--	--	522 U	--	--	--	--	--	--	--	--
	4,6-Dinitro-2-methylphenol	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	--	--	--
	4-Bromophenyl phenyl ether	µg/kg	--	--	--	--	--	--	522 U	--	--	--	--	--	--	--	--
	4-Chloro-3-methylphenol	µg/kg	--	--	--	--	--	--	522 U	--	--	--	--	--	--	--	--
	4-Chloroaniline	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	--	--	--
	4-Chlorophenyl phenyl ether	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	--	--	--
	4-Nitroaniline	µg/kg	--	--	--	--	--	--	172 U	--	--	--	--	--	--	--	--
	4-Nitrophenol	µg/kg	--	--	--	--	--	--	104 U	--	--	--	--	--	--	--	--
	Benzoic Acid	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	--	--	--
	Benzyl Alcohol	µg/kg	--	--	--	--	--	--	522 U	--	--	--	--	--	--	--	--
	Bis(2-chloroethoxy)methane	µg/kg	--	--	--	--	--	--	522 U	--	--	--	--	--	--	--	--
	Bis(2-chloroethyl)ether	µg/kg	--	--	--	--	--	--	1,040 U	--	--	--	--	--	--	--	--
	Bis(2-chloroisopropyl)ether	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	--	--	--
	Dibenzofuran	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	--	--	--
	Hexachlorobenzene	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	19	0.30	--
	Hexachlorobutadiene	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	600	--	--
	Hexachlorocyclopentadiene	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	400	--	--
	Hexachloroethane	µg/kg	--	--	--	--	--	--	522 U	--	--	--	--	--	--	--	--
	Isophorone	µg/kg	--	--	--	--	--	--	522 U	--	--	--	--	--	--	--	--
	Nitrobenzene	µg/kg	--	--	--	--	--	--	522 U	--	--	--	--	--	--	--	--
	N-Nitrosodi-n-propylamine	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	--	--	--
	N-Nitrosodiphenylamine	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	--	--	--
	Pentachlorophenol	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	1,000	--	--
	Phenol	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	50	--	--

Table B-4
Soil Boring Results: 0 to 25 Feet - Riverbank Section 1
Source Control Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.1					Vector 2.2				Vector 2.3			Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil	Default Background (Portland Basin Soil)
			090210-2-2.1-Surface-11-FS	090210-2-2.1-1.5-01-FS	090210-2-2.1-5-02-FS	090210-2-2.1-20-05-FS	090210-2-2.1-20-06-DUP	090310-2-2.2-Surface-11-WS	090310-2-2.2-1.5-01-FS	090310-2-2.2-10-03-FS	090310-2-2.2-20-05-FS	090310-2-2.3-Surface-11-WS	090310-2-2.3-1.5-01-FS	090310-2-2.3-15-04-FS			
	Sample Date		9/2/2010	9/2/2010	9/2/2010	9/2/2010	9/2/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010			
	Depth (Feet Below Ground Surface)		0	0 - 1.5	5 - 10	20 - 25	20 - 25	0	0 - 1.5	10 - 15	20 - 25	0	0 - 1.5	15 - 20			
PAHs	2-Methylnaphthalene	µg/kg	20.4 U	3.60 U	18.6 U	4.36 U	4.18 U	17.6 U	522.00 U	4.02 U	4.25 U	19.3 U	4.00 U	20.7	200	--	--
	Acenaphthene	µg/kg	20.4 U	3.60 U	18.6 U	4.36 U	4.18 U	17.6 U	73.00 U	4.02 U	4.25 U	19.3 U	4.00 U	51.7	300	--	--
	Acenaphthylene	µg/kg	20.4 U	3.60 U	18.6 U	8.69 J	4.18 U	17.6 U	3.43 U	4.02 U	4.25 U	47.6 J	7.82 J	44.4	200	--	--
	Anthracene	µg/kg	28.4 J	3.60 U	18.6 U	15.6 J	4.18 U	17.6 U	3.43 U	4.59 J	4.25 U	134	9.19 J	108	845	--	--
	Benzo(a)anthracene	µg/kg	247	3.60 U	46.7 J	78.3 J	18.6 J	90.4	3.43 U	14.5 J	4.25 U	214	32.90	242	1,050	--	--
	Benzo(a)pyrene	µg/kg	344	3.60 U	58.1 J	111 J	23.7 J	133	3.43 U	13.4 J	4.25 U	126	41.60	262	1,450	--	--
	Benzo(b)fluoranthene	µg/kg	419	3.60 U	79.8	84.3 J	19.4 J	185	3.43 U	11.4 J	4.25 U	509	31.10	170	--	--	--
	Benzo(ghi)perylene	µg/kg	332	3.60 U	57.9 J	89.2 J	18.2 J	145	3.43 U	7.88 J	4.25 U	174	34.90	136	300	--	--
	Benzo(k)fluranthene	µg/kg	343	3.60 U	36.8 J	75.2	14.4 J	121	3.43 U	12.3 J	4.25 U	295	30.80	190	--	--	--
	Chrysene	µg/kg	459	3.60 U	71.1 J	130 J	28.8 J	173	3.43 U	15.4 J	4.30 U	754	40.70	267	1,290	--	--
	Dibenzo(a,h)anthracene	µg/kg	84.1	3.60 U	22.5 J	16.3 J	4.18 U	35.1 J	3.43 U	4.02 U	4.25 U	38.2 J	8.64 J	36.2	1,300	--	--
	Fluoranthene	µg/kg	486	3.60 U	91.1	257 J	41.9 J	180	3.43 U	25.9	4.48 J	1,010	60.20	428	2,230	--	--
	Fluorene	µg/kg	20.4 U	3.60 U	18.6 U	12.9 J	4.18 U	17.6 U	3.43 U	4.02 U	4.25 U	25.5 J	4.00 U	64.4	536	--	--
	Indeno(1,2,3-cd)pyrene	µg/kg	254	3.60 U	39.8 J	69.6	13.1 J	112	3.43 U	7.22 J	4.25 U	115	26.20	124	100	--	--
	Naphthalene	µg/kg	20.4 U	3.60 U	18.6 U	4.36 U	4.18 U	17.6 U	3.43 U	4.02 U	42.0	19.3 U	4.00 U	23.1	561	--	--
	Phenanthrene	µg/kg	192	3.60 U	74.5 J	184 J	29.7 J	93.7	3.43 U	16.8	4.25 U	288	43.5	325	1,170	--	--
	Pyrene	µg/kg	463	3.60 U	76.7	320 J	54.8 J	176	3.43 U	23.3	6.40 J	743	84.9	525	1,520	--	--
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	912	14.6 U	75.6 U	17.8 U	17.0 U	628	13.9 U	16.5 U	17.1 U	779	26.2 J	16.3 U	330	135	--
	Butyl benzyl phthalate	µg/kg	182 J	14.6 U	75.6 U	17.8 U	17.0 U	144 U	13.9 U	16.5 U	17.1 U	155 U	16.3 U	16.3 U	--	--	--
	Diethyl phthalate	µg/kg	166 U	14.6 U	75.6 U	17.8 U	17.0 U	144 U	13.9 U	16.5 U	17.1 U	155 U	16.3 U	16.3 U	600	--	--
	Dimethyl phthalate	µg/kg	166 U	14.6 U	75.6 U	17.8 U	17.0 U	144 U	13.9 U	16.5 U	17.1 U	155 U	16.3 U	16.3 U	--	--	--
	Di-n-butyl phthalate	µg/kg	256 J	14.6 U	75.6 U	17.8 U	17.0 U	144 U	13.9 U	16.5 U	17.1 U	750	16.3 U	16.3 U	100	--	--
	Di-n-octyl phthalate	µg/kg	166 U	14.6 U	75.6 U	17.8 U	17.0 U	144 U	13.9 U	16.5 U	17.1 U	155 U	16.3 U	16.3 U	--	--	--
Organotins	Dibutyltin	µg/kg	55	1.4 U	1.5 U	1.7 U	1.7 U	22	0.42 U	0.51 U	0.52 U	0.48 U	0.48 U	0.49 U	--	--	--
	Monobutyltin	µg/kg	38	1.4 U	1.5 U	1.7 U	1.7 U	0.40 U	0.39 U	0.49 U	0.49 U	0.45 U	0.46 U	0.46 U	--	--	--
	Tetra-n-butyltin	µg/kg	4.4 U	3.8 U	4.0 U	4.7 U	4.6 U	1.2 U	1.2 U	1.5 U	1.5 U	1.4 U	1.4 U	1.4 U	--	--	--
	Tributyltin	µg/kg	580	1.4 U	1.5 U	1.7 U	1.7 U	300	0.89 U	1.1 U	1.1 U	33	1.0 U	1.0 U	2.3	24,000	--
Petroleum Hydrocarbons	Diesel	mg/kg	54.9	6.74 J	39.3	25.2	1.52 J	31.9	1.76 J	2.29 J	2.10 J	45.5	5.22 J	41.9	--	--	--
	Heavy Oil	mg/kg	543	49.5	259	127	5.33 J	229	10.5 J	4.11 J	5.59 J	408	50.6	100	--	--	--

Notes:
1. -- = Not applicable/not analyzed
2. mg/kg = Milligrams per kilogram
3. µg/kg = Micrograms per kilogram
4. J = The result is an estimated quantity
5. U= Undetected at the method detection limit shown
6. UJ = Undetected at the method detection limit shown, detection limit is an estimated quantity
7. Joint Source Control Strategy (JSCS) Screening Level Values (SLVs); revision date 7/16/2007
8. Shading indicates sample concentration exceeds the corresponding JSCS SLV and/or the draft PRG
9. PRG = Draft Preliminary Remediation Goal; prepared by U.S. Environmental Protection Agency, July 2015

Table B-5
Soil Boring Results: 0 to 25 Feet - Riverbank Section 1
Human Health Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.1					Vector 2.2				Vector 2.3			Oregon Department of Environmental Quality Risk-Based Concentrations				
			090210-2-2.1-Surface-11-FS	090210-2-2.1-1.5-01-FS	090210-2-2.1-5-02-FS	090210-2-2.1-20-05-FS	090210-2-2.1-20-06-DUP	090310-2-2.2-Surface-11-WS	090310-2-2.2-1.5-01-FS	090310-2-2.2-10-03-FS	090310-2-2.2-20-05-FS	090310-2-2.3-Surface-11-WS	090310-2-2.3-1.5-01-FS	090310-2-2.3-15-04-FS	Soil Ingestion, Dermal Contact, and Inhalation			Vol. to Outdoor Air	Vapor Intrusion
	Sample Date		9/2/2010	9/2/2010	9/2/2010	9/2/2010	9/2/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010	Occ	Const.	Exc	Occ	Occ
	Depth (Feet Below Ground Surface)		0	0 - 1.5	5 - 10	20 - 25	20 - 25	0	0 - 1.5	10 - 15	20 - 25	0	0 - 1.5	15 - 20					
Inorganics	Mercury	mg/kg	0.0834 J	0.0122 J	0.0641 J	0.0243 J	0.0208 J	0.0701 J	0.0042 U	0.0128 J	0.0733 J	0.0540 J	0.0500 J	0.0723 J	3.5E+02	1.1E+02	2.9E+03	--	--
	Arsenic	mg/kg	19.2	17.3	26.1	12.4	11.3	23.0	17.1	4.29	7.42	12.7	9.34	8.27	1.9E+00	1.5E+01	4.2E+02	--	--
	Barium	mg/kg	530	183	182	287	260	151	45.3	120	141	310	148	190	2.2E+05	6.9E+04	--	--	--
	Chromium	mg/kg	263	35.0 J	32.9	36.8	32.1	102.0	6.33	17.5	23.7	95.0	22.7	33.4	--	5.3E+05	--	--	--
	Copper	mg/kg	902	301	250	34.2	31.5	359	46.5	20.5	22.0	340	29.3	77.1	5.E+04	1.E+04	4.E+05	--	--
	Lead	mg/kg	293	63.3 J	87.1	22.1	25.2	137	26.3	7.02	14.2	127	69.8	149	8.E+02	8.E+02	8.E+02	--	--
	Manganese	mg/kg	6,550	1,240	1,270	859	602	2,600	396	515	647	1,670	625	783	3.E+04	8.E+03	2.E+05	--	--
	Nickel	mg/kg	245	26.4 J	22.5	25.4	23.7	87.1	6.58	17.1	18.5	61.2	16.6	36.8	2.E+04	7.E+03	2.E+05	--	--
	Selenium	mg/kg	0.124 J	0.520 J	0.222 J	0.222 J	0.134 J	0.107 J	0.063 J	0.0600 J	0.094 J	0.391 J	0.183 J	0.183 J	--	--	--	--	--
	Silver	mg/kg	7.55	0.329 J	0.333 J	0.140 J	0.165 J	0.401 J	0.0893 J	0.0900 J	0.094 J	0.335 J	0.122 J	0.336 J	5.8E+03	1.8E+03	4.9E+04	--	--
	Zinc	mg/kg	3,130	345	385	109	114	524	137	62.2	70.9	570	123	202	--	--	--	--	--
PCBs	Aroclor 1016	µg/kg	2.06 U	1.83 U	1.89 U	2.23 U	2.12 U	18.0 U	1.75 U	2.05 U	2.14 U	7.81 U	2.02 U	4.06 U	--	--	--	--	--
	Aroclor 1221	µg/kg	4.10 U	3.66 U	3.77 U	4.44 U	4.22 U	35.9 U	3.48 U	4.09 U	4.27 U	15.6 U	4.03 U	8.10 U	--	--	--	--	--
	Aroclor 1232	µg/kg	2.06 U	1.83 U	1.89 U	2.23 U	2.12 U	18.0 U	1.75 U	2.05 U	2.14 U	7.81 U	2.02 U	4.06 U	--	--	--	--	--
	Aroclor 1242	µg/kg	2.06 U	1.83 U	1.89 U	2.23 U	2.12 U	18.0 U	1.75 U	2.05 U	2.14 U	7.81 U	2.02 U	4.06 U	--	--	--	--	--
	Aroclor 1248	µg/kg	2.06 U	1.83 U	41.5 J	2.23 U	2.12 U	18.0 U	1.75 U	2.05 U	2.14 U	7.81 U	2.02 U	4.06 U	--	--	--	--	--
	Aroclor 1254	µg/kg	40.2	1.83 U	1.89 U	2.23 U	2.12 U	18.0 U	1.75 U	2.05 U	2.44 J	93.9	2.82 J	53.7	--	--	--	--	--
	Aroclor 1260	µg/kg	2.06 U	1.83 U	1.89 U	2.23 U	2.12 U	68.3	1.75 U	2.05 U	2.14 U	7.81 U	2.02 U	4.06 U	--	--	--	--	--
	Aroclor 1262	µg/kg	2.06 U	1.83 U	1.89 U	2.23 U	2.12 U	18.0 U	1.75 U	2.05 U	2.14 U	7.81 U	2.02 U	4.06 U	--	--	--	--	--
	Aroclor 1268	µg/kg	2.06 U	1.83 U	1.89 U	2.23 U	2.12 U	18.0 U	1.75 U	2.05 U	2.14 U	7.81 U	2.02 U	4.06 U	--	--	--	--	--
	Total PCBs	µg/kg	40.2	18.3 U	41.5 J	22.28 U	21.18 U	68.3	17.48 U	20.49 U	2.44 J	93.9	2.82 J	53.7	5.9E+02	4.9E+03	1.4E+05	--	--
VOCs	1,1,1,2-Tetrachloroethane	µg/kg	--	--	--	--	--	--	9.61 U	--	--	--	--	--	--	--	--	--	--
	1,1,1-Trichloroethane	µg/kg	--	--	--	--	--	--	5.19 U	--	--	--	--	--	8.7E+08	4.7E+08	--	--	--
	1,1,2,2-Tetrachloroethane	µg/kg	--	--	--	--	--	--	11.7 U	--	--	--	--	--	--	--	--	--	--
	1,1,2-Trichloroethane	µg/kg	--	--	--	--	--	--	7.00 U	--	--	--	--	--	2.6E+04	5.4E+04	1.5E+06	2.4E+04	4.2E+03
	1,1-Dichloroethane	µg/kg	--	--	--	--	--	--	6.92 U	--	--	--	--	--	2.6E+05	3.2E+06	8.9E+07	2.4E+05	5.9E+03
	1,1-Dichloroethene	µg/kg	--	--	--	--	--	--	12.4 U	--	--	--	--	--	2.9E+07	1.3E+07	3.7E+08	--	6.8E+05
	1,1-Dichloropropene	µg/kg	--	--	--	--	--	--	8.15 U	--	--	--	--	--	--	--	--	--	--
	1,2,3-Trichlorobenzene	µg/kg	--	--	--	--	--	--	9.66 U	--	--	--	--	--	--	--	--	--	--
	1,2,3-Trichloropropane	µg/kg	--	--	--	--	--	--	6.67 U	--	--	--	--	--	--	--	--	--	--
	1,2,4-Trichlorobenzene	µg/kg	--	--	--	--	--	--	14.3 U	--	--	--	--	--	--	--	--	--	--
	1,2,4-Trimethylbenzene	µg/kg	--	--	--	--	--	--	15.2 U	--	--	--	--	--	2.0E+06	2.0E+06	5.4E+07	9.8E+05	2.1E+05
	1,2-Dibromo-3-chloropropane	µg/kg	--	--	--	--	--	--	42.5 U	--	--	--	--	--	--	--	--	--	--
	1,2-Dibromoethane	µg/kg	--	--	--	--	--	--	10.7 U	--	--	--	--	--	7.3E+02	9.0E+03	2.5E+05	6.5E+02	1.6E+02
	1,2-Dichlorobenzene	µg/kg	--	--	--	--	--	--	8.03 U	--	--	--	--	--	3.6E+07	2.0E+07	5.6E+08	--	--
	1,2-Dichloroethane	µg/kg	--	--	--	--	--	--	7.81 U	--	--	--	--	--	1.6E+04	2.0E+05	5.6E+06	1.5E+04	1.0E+03
	1,2-Dichloropropane	µg/kg	--	--	--	--	--	--	6.92 U	--	--	--	--	--	--	--	--	--	--
	1,3,5-Trimethylbenzene	µg/kg	--	--	--	--	--	--	8.45 U	--	--	--	--	--	1.2E+07	3.5E+06	9.8E+07	--	--
	1,3-Dichlorobenzene	µg/kg	--	--	--	--	--	--	6.44 U	--	--	--	--	--	--	--	--	--	--
	1,3-Dichloropropane	µg/kg	--	--	--	--	--	--	6.85 U	--	--	--	--	--	--	--	--	--	--
	1,4-Dichlorobenzene	µg/kg	--	--	--	--	--	--	8.72 U	--	--	--	--	--	6.4E+04	1.3E+06	3.6E+07	3.6E+04	1.3E+04
	2,2-Dichloropropane	µg/kg	--	--	--	--	--	--	6.48 U	--	--	--	--	--	--	--	--	--	--
	2-Butanone	µg/kg	--	--	--	--	--	--	26,200 U	--	--	--	--	--	--	--	--	--	--
	2-Chlorotoluene	µg/kg	--	--	--	--	--	--	6,120 U	--	--	--	--	--	--	--	--	--	--
	2-Hexanone	µg/kg	--	--	--	--	--	--	29,200 U	--	--	--	--	--	--	--	--	--	--
	4-Chlorotoluene	µg/kg	--	--	--	--	--	--	4,470 U	--	--	--	--	--	--	--	--	--	--
	4-Methyl-2-pentanone	µg/kg	--	--	--	--	--	--	19,700 U	--	--	--	--	--	--	--	--	--	--

Table B-5
Soil Boring Results: 0 to 25 Feet - Riverbank Section 1
Human Health Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.1					Vector 2.2				Vector 2.3			Oregon Department of Environmental Quality Risk-Based Concentrations				
			090210-2-2.1-Surface-11-FS	090210-2-2.1-1.5-01-FS	090210-2-2.1-5-02-FS	090210-2-2.1-20-05-FS	090210-2-2.1-20-06-DUP	090310-2-2.2-Surface-11-WS	090310-2-2.2-1.5-01-FS	090310-2-2.2-10-03-FS	090310-2-2.2-20-05-FS	090310-2-2.3-Surface-11-WS	090310-2-2.3-1.5-01-FS	090310-2-2.3-15-04-FS	Soil Ingestion, Dermal Contact, and Inhalation			Vol. to Outdoor Air	Vapor Intrusion
	Sample Date		9/2/2010	9/2/2010	9/2/2010	9/2/2010	9/2/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010	Occ	Const.	Exc	Occ	Occ
	Depth (Feet Below Ground Surface)		0	0 - 1.5	5 - 10	20 - 25	20 - 25	0	0 - 1.5	10 - 15	20 - 25	0	0 - 1.5	15 - 20					
VOCs (continued)	Acetone	µg/kg	--	--	--	--	--	--	619,000 U	--	--	--	--	--	--	--	--	--	--
	Benzene	µg/kg	--	--	--	--	--	--	4,360 U	--	--	--	--	--	3.7E+04	3.8E+05	1.1E+07	5.0E+04	2.1E+03
	Bromobenzene	µg/kg	--	--	--	--	--	--	12,900 U	--	--	--	--	--	--	--	--	--	--
	Bromochloromethane	µg/kg	--	--	--	--	--	--	10,000 U	--	--	--	--	--	--	--	--	--	--
	Bromodichloromethane	µg/kg	--	--	--	--	--	--	10,500 U	--	--	--	--	--	1.5E+04	2.3E+05	6.3E+06	1.1E+04	5.3E+02
	Bromoform	µg/kg	--	--	--	--	--	--	9,480 U	--	--	--	--	--	2.6E+05	2.7E+06	7.4E+07	3.6E+05	1.1E+05
	Bromomethane	µg/kg	--	--	--	--	--	--	8,290 U	--	--	--	--	--	7.5E+05	3.7E+05	1.0E+07	7.0E+05	1.7E+04
	Carbon disulfide	µg/kg	--	--	--	--	--	--	7,410 U	--	--	--	--	--	--	--	--	--	--
	Carbon tetrachloride	µg/kg	--	--	--	--	--	--	11,300 U	--	--	--	--	--	--	--	--	--	--
	Chlorobenzene	µg/kg	--	--	--	--	--	--	3,160 U	--	--	--	--	--	8.7E+06	4.7E+06	1.3E+08	--	--
	Chloroethane	µg/kg	--	--	--	--	--	--	19,100 U	--	--	--	--	--	--	--	--	--	--
	Chloroform	µg/kg	--	--	--	--	--	--	5,600 U	--	--	--	--	--	2.6E+04	4.1E+05	1.1E+07	1.7E+04	4.1E+02
	Chloromethane	µg/kg	--	--	--	--	--	--	7,200 U	--	--	--	--	--	2.5E+07	2.5E+07	7.0E+08	--	3.0E+05
	cis-1,2-Dichloroethene	µg/kg	--	--	--	--	--	--	11,100 U	--	--	--	--	--	2.3E+06	7.1E+05	2.0E+07	--	--
	cis-1,3-Dichloropropene	µg/kg	--	--	--	--	--	--	4,740 U	--	--	--	--	--	--	--	--	--	--
	Dibromochloromethane	µg/kg	--	--	--	--	--	--	7,640 U	--	--	--	--	--	--	--	--	--	--
	Dibromomethane	µg/kg	--	--	--	--	--	--	4,890 U	--	--	--	--	--	--	--	--	--	--
	Dichlorodifluoromethane	µg/kg	--	--	--	--	--	--	7,410 U	--	--	--	--	--	--	--	--	--	--
	Ethylbenzene	µg/kg	--	--	--	--	--	--	2,920 U	--	--	--	--	--	1.5E+05	1.7E+06	4.9E+07	1.6E+05	1.7E+04
	Hexachlorobutadiene	µg/kg	--	--	--	--	--	--	9,160 U	--	--	--	--	--	--	--	--	--	--
	Isopropylbenzene	µg/kg	--	--	--	--	--	--	7,640 U	--	--	--	--	--	5.7E+07	2.7E+07	7.5E+08	--	--
	m,p-Xylene	µg/kg	--	--	--	--	--	--	18,300 U	--	--	--	--	--	2.5E+07	2.0E+07	5.6E+08	--	--
	Methyl tert-butyl ether	µg/kg	--	--	--	--	--	--	5,600 U	--	--	--	--	--	1.1E+06	1.2E+07	3.2E+08	1.5E+06	1.1E+05
	Methylene chloride	µg/kg	--	--	--	--	--	--	8,240 J	--	--	--	--	--	1.6E+06	2.1E+06	5.8E+07	-	9.5E+05
	Naphthalene	µg/kg	--	--	--	--	--	--	7,930 U	--	--	--	--	--	2.3E+04	5.8E+05	1.6E+07	8.3E+04	8.3E+04
	n-Butylbenzene	µg/kg	--	--	--	--	--	--	6,590 U	--	--	--	--	--	--	--	--	--	--
	n-Propylbenzene	µg/kg	--	--	--	--	--	--	7,240 U	--	--	--	--	--	--	--	--	--	--
	o-Xylene	µg/kg	--	--	--	--	--	--	6,670 U	--	--	--	--	--	2.5E+07	2.0E+07	5.6E+08	--	--
	p-Isopropyltoluene	µg/kg	--	--	--	--	--	--	9,970 U	--	--	--	--	--	--	--	--	--	--
	sec-Butylbenzene	µg/kg	--	--	--	--	--	--	5,240 U	--	--	--	--	--	--	--	--	--	--
	Styrene	µg/kg	--	--	--	--	--	--	3,230 U	--	--	--	--	--	1.3E+08	5.6E+07	--	--	--
	tert-Butylbenzene	µg/kg	--	--	--	--	--	--	10,100 U	--	--	--	--	--	--	--	--	--	--
	Tetrachloroethene	µg/kg	--	--	--	--	--	--	14,800 U	--	--	--	--	--	1.0E+06	1.8E+06	5.0E+07	--	3.6E+04
	Toluene	µg/kg	--	--	--	--	--	--	3,610 U	--	--	--	--	--	8.8E+07	2.8E+07	7.7E+08	--	--
	trans-1,2-Dichloroethene	µg/kg	--	--	--	--	--	--	6,040 U	--	--	--	--	--	2.3E+07	7.1E+06	2.0E+08	--	--
	trans-1,3-Dichloropropene	µg/kg	--	--	--	--	--	--	6,040 U	--	--	--	--	--	--	--	--	--	--
	Trichloroethene	µg/kg	--	--	--	--	--	--	7,480 U	--	--	--	--	--	5.1E+04	4.7E+05	1.3E+07	9.6E+04	2.3E+03
	Trichlorofluoromethane	µg/kg	--	--	--	--	--	--	32,000 U	--	--	--	--	--	1.3E+08	6.9E+07	--	--	--
	Vinyl chloride	µg/kg	--	--	--	--	--	--	7,710 U	--	--	--	--	--	4.4E+03	3.4E+04	9.5E+05	8.9E+04	2.2E+03

Table B-5
Soil Boring Results: 0 to 25 Feet - Riverbank Section 1
Human Health Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.1					Vector 2.2				Vector 2.3			Oregon Department of Environmental Quality Risk-Based Concentrations				
			090210-2-2.1-Surface-11-FS	090210-2-2.1-1.5-01-FS	090210-2-2.1-5-02-FS	090210-2-2.1-20-05-FS	090210-2-2.1-20-06-DUP	090310-2-2.2-Surface-11-WS	090310-2-2.2-1.5-01-FS	090310-2-2.2-10-03-FS	090310-2-2.2-20-05-FS	090310-2-2.3-Surface-11-WS	090310-2-2.3-1.5-01-FS	090310-2-2.3-15-04-FS	Soil Ingestion, Dermal Contact, and Inhalation			Vol. to Outdoor Air	Vapor Intrusion
	Sample Date		9/2/2010	9/2/2010	9/2/2010	9/2/2010	9/2/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010	Occ	Const.	Exc	Occ	Occ
	Depth (Feet Below Ground Surface)		0	0 - 1.5	5 - 10	20 - 25	20 - 25	0	0 - 1.5	10 - 15	20 - 25	0	0 - 1.5	15 - 20					
SVOCs	1,2,4-Trichlorobenzene	µg/kg	--	--	--	--	--	--	522 U	--	--	--	--	--	--	--	--	--	--
	1,2-Dichlorobenzene	µg/kg	--	--	--	--	--	--	522 U	--	--	--	--	--	3.6E+07	2.0E+07	5.6E+08	--	--
	1,3-Dichlorobenzene	µg/kg	--	--	--	--	--	--	522 U	--	--	--	--	--	--	--	--	--	--
	1,4-Dichlorobenzene	µg/kg	--	--	--	--	--	--	522 U	--	--	--	--	--	6.4E+04	1.3E+06	3.6E+07	1.9E+04	1.3E+04
	2,4,5-Trichlorophenol	µg/kg	--	--	--	--	--	--	522 U	--	--	--	--	--	--	--	--	--	--
	2,4,6-Trichlorophenol	µg/kg	--	--	--	--	--	--	522 U	--	--	--	--	--	2.1E+05	2.7E+05	7.4E+06	--	--
	2,4-Dichlorophenol	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	--	--	--	--	--
	2,4-Dimethylphenol	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	--	--	--	--	--
	2,4-Dinitrophenol	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	--	--	--	--	--
	2,4-Dinitrotoluene	µg/kg	--	--	--	--	--	--	522 U	--	--	--	--	--	--	--	--	--	--
	2,6-Dinitrotoluene	µg/kg	--	--	--	--	--	--	2,090 U	--	--	--	--	--	1.5E+03	1.3E+04	3.5E+05	--	--
	2-Chloronaphthalene	µg/kg	--	--	--	--	--	--	522 U	--	--	--	--	--	--	--	--	--	--
	2-Chlorophenol	µg/kg	--	--	--	--	--	--	522 U	--	--	--	--	--	--	--	--	--	--
	2-Methylphenol	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	--	--	--	--	--
	2-Nitroaniline	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	--	--	--	--	--
	2-Nitrophenol	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	--	--	--	--	--
	3,3'-Dichlorobenzidine	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	--	--	--	--	--
	3,4-Methylphenol	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	--	--	--	--	--
	3-Nitroaniline	µg/kg	--	--	--	--	--	--	522 U	--	--	--	--	--	--	--	--	--	--
	4,6-Dinitro-2-methylphenol	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	--	--	--	--	--
	4-Bromophenyl phenyl ether	µg/kg	--	--	--	--	--	--	522 U	--	--	--	--	--	--	--	--	--	--
	4-Chloro-3-methylphenol	µg/kg	--	--	--	--	--	--	522 U	--	--	--	--	--	--	--	--	--	--
	4-Chloroaniline	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	--	--	--	--	--
	4-Chlorophenyl phenyl ether	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	--	--	--	--	--
	4-Nitroaniline	µg/kg	--	--	--	--	--	--	172 U	--	--	--	--	--	--	--	--	--	--
	4-Nitrophenol	µg/kg	--	--	--	--	--	--	104 U	--	--	--	--	--	--	--	--	--	--
	Benzoic Acid	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	--	--	--	--	--
	Benzyl Alcohol	µg/kg	--	--	--	--	--	--	522 U	--	--	--	--	--	--	--	--	--	--
	Bis(2-chloroethoxy)methane	µg/kg	--	--	--	--	--	--	522 U	--	--	--	--	--	--	--	--	--	--
	Bis(2-chloroethyl)ether	µg/kg	--	--	--	--	--	--	1,040 U	--	--	--	--	--	1.3E+03	1.6E+04	4.5E+05	1.2E+03	6.9E+03
	Bis(2-chloroisopropyl)ether	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	--	--	--	--	--
	Dibenzofuran	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	--	--	--	--	--
	Hexachlorobenzene	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	9.3E+02	1.1E+04	3.2E+05	2.4E+03	1.3E+04
	Hexachlorobutadiene	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	--	--	--	--	--
	Hexachlorocyclopentadiene	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	--	--	--	--	--
	Hexachloroethane	µg/kg	--	--	--	--	--	--	522 U	--	--	--	--	--	3.2E+04	1.8E+05	5.1E+06	1.9E+04	7.6E+03
	Isophorone	µg/kg	--	--	--	--	--	--	522 U	--	--	--	--	--	--	--	--	--	--
	Nitrobenzene	µg/kg	--	--	--	--	--	--	522 U	--	--	--	--	--	--	--	--	--	--
	N-Nitrosodi-n-propylamine	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	--	--	--	--	--
	N-Nitrosodiphenylamine	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	4.7E+05	3.8E+06	1.1E+08	--	--
	Pentachlorophenol	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	4.0E+03	3.4E+04	9.6E+05	--	--
	Phenol	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	--	--	--	--	--

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Soil Boring Results: 0 to 25 Feet - Riverbank Section 1
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Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.1					Vector 2.2				Vector 2.3			Oregon Department of Environmental Quality Risk-Based Concentrations				
			090210-2-2.1-Surface-11-FS	090210-2-2.1-1.5-01-FS	090210-2-2.1-5-02-FS	090210-2-2.1-20-05-FS	090210-2-2.1-20-06-DUP	090310-2-2.2-Surface-11-WS	090310-2-2.2-1.5-01-FS	090310-2-2.2-10-03-FS	090310-2-2.2-20-05-FS	090310-2-2.3-Surface-11-WS	090310-2-2.3-1.5-01-FS	090310-2-2.3-15-04-FS	Soil Ingestion, Dermal Contact, and Inhalation			Vol. to Outdoor Air	Vapor Intrusion
	Sample Date		9/2/2010	9/2/2010	9/2/2010	9/2/2010	9/2/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010	Occ	Const.	Exc	Occ	Occ
	Depth (Feet Below Ground Surface)		0	0 - 1.5	5 - 10	20 - 25	20 - 25	0	0 - 1.5	10 - 15	20 - 25	0	0 - 1.5	15 - 20					
PAHs	2-Methylnaphthalene	µg/kg	20.4 U	3.60 U	18.6 U	4.36 U	4.18 U	17.6 U	522.00 U	4.02 U	4.25 U	19.3 U	4.00 U	20.7	--	--	--	--	--
	Acenaphthene	µg/kg	20.4 U	3.60 U	18.6 U	4.36 U	4.18 U	17.6 U	73.00 U	4.02 U	4.25 U	19.3 U	4.00 U	51.7	7.0E+07	2.1E+07	5.9E+08	--	--
	Acenaphthylene	µg/kg	20.4 U	3.60 U	18.6 U	8.69 J	4.18 U	17.6 U	3.43 U	4.02 U	4.25 U	47.6 J	7.82 J	44.4	--	--	--	--	--
	Anthracene	µg/kg	28.4 J	3.60 U	18.6 U	15.6 J	4.18 U	17.6 U	3.43 U	4.59 J	4.25 U	134	9.19 J	108	3.5E+08	1.1E+08	--	--	--
	Benzo(a)anthracene	µg/kg	247	3.60 U	46.7 J	78.3 J	18.6 J	90.4	3.43 U	14.5 J	4.25 U	214	32.90	242	2.9E+03	2.4E+04	6.6E+05	--	--
	Benzo(a)pyrene	µg/kg	344	3.60 U	58.1 J	111 J	23.7 J	133	3.43 U	13.4 J	4.25 U	126	41.60	262	--	--	--	--	--
	Benzo(b)fluoranthene	µg/kg	419	3.60 U	79.8	84.3 J	19.4 J	185	3.43 U	11.4 J	4.25 U	509	31.10	170	2.9E+03	2.4E+04	6.7E+05	--	--
	Benzo(ghi)perylene	µg/kg	332	3.60 U	57.9 J	89.2 J	18.2 J	145	3.43 U	7.88 J	4.25 U	174	34.90	136	--	--	--	--	--
	Benzo(k)fluranthene	µg/kg	343	3.60 U	36.8 J	75.2	14.4 J	121	3.43 U	12.3 J	4.25 U	295	30.80	190	--	--	--	--	--
	Chrysene	µg/kg	459	3.60 U	71.1 J	130 J	28.8 J	173	3.43 U	15.4 J	4.30 U	754	40.70	267	2.9E+05	2.4E+06	6.7E+07	--	--
	Dibenzo(a,h)anthracene	µg/kg	84.1	3.60 U	22.5 J	16.3 J	4.18 U	35.1 J	3.43 U	4.02 U	4.25 U	38.2 J	8.64 J	36.2	2.9E+02	2.4E+03	6.7E+04	--	--
	Fluoranthene	µg/kg	486	3.60 U	91.1	257 J	41.9 J	180	3.43 U	25.9	4.48 J	1,010	60.20	428	3.0E+07	1.0E+07	2.8E+08	--	--
	Fluorene	µg/kg	20.4 U	3.60 U	18.6 U	12.9 J	4.18 U	17.6 U	3.43 U	4.02 U	4.25 U	25.5 J	4.00 U	64.4	4.7E+07	1.4E+07	3.9E+08	--	--
	Indeno(1,2,3-cd)pyrene	µg/kg	254	3.60 U	39.8 J	69.6	13.1 J	112	3.43 U	7.22 J	4.25 U	115	26.20	124	2.9E+03	2.4E+04	6.7E+05	--	--
	Naphthalene	µg/kg	20.4 U	3.60 U	18.6 U	4.36 U	4.18 U	17.6 U	3.43 U	4.02 U	42.0	19.3 U	4.00 U	23.1	2.3E+04	5.8E+05	1.6E+07	8.3E+04	8.3E+04
	Phenanthrene	µg/kg	192	3.60 U	74.5 J	184 J	29.7 J	93.7	3.43 U	16.8	4.25 U	288	43.5	325	--	--	--	--	--
	Pyrene	µg/kg	463	3.60 U	76.7	320 J	54.8 J	176	3.43 U	23.3	6.40 J	743	84.9	525	2.3E+07	7.5E+06	2.1E+08	--	--
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	912	14.6 U	75.6 U	17.8 U	17.0 U	628	13.9 U	16.5 U	17.1 U	779	26.2 J	16.3 U	1.6E+05	1.3E+06	3.7E+07	--	--
	Butyl benzyl phthalate	µg/kg	182 J	14.6 U	75.6 U	17.8 U	17.0 U	144 U	13.9 U	16.5 U	17.1 U	155 U	16.3 U	16.3 U	--	--	--	--	--
	Diethyl phthalate	µg/kg	166 U	14.6 U	75.6 U	17.8 U	17.0 U	144 U	13.9 U	16.5 U	17.1 U	155 U	16.3 U	16.3 U	--	--	--	--	--
	Dimethyl phthalate	µg/kg	166 U	14.6 U	75.6 U	17.8 U	17.0 U	144 U	13.9 U	16.5 U	17.1 U	155 U	16.3 U	16.3 U	--	--	--	--	--
	Di-n-butyl phthalate	µg/kg	256 J	14.6 U	75.6 U	17.8 U	17.0 U	144 U	13.9 U	16.5 U	17.1 U	750	16.3 U	16.3 U	--	--	--	--	--
	Di-n-octyl phthalate	µg/kg	166 U	14.6 U	75.6 U	17.8 U	17.0 U	144 U	13.9 U	16.5 U	17.1 U	155 U	16.3 U	16.3 U	--	--	--	--	--
Organotins	Dibutyltin	µg/kg	55	1.4 U	1.5 U	1.7 U	1.7 U	22	0.42 U	0.51 U	0.52 U	0.48 U	0.48 U	0.49 U	--	--	--	--	--
	Monobutyltin	µg/kg	38	1.4 U	1.5 U	1.7 U	1.7 U	0.40 U	0.39 U	0.49 U	0.49 U	0.45 U	0.46 U	0.46 U	--	--	--	--	--
	Tetra-n-butyltin	µg/kg	4.4 U	3.8 U	4.0 U	4.7 U	4.6 U	1.2 U	1.2 U	1.5 U	1.5 U	1.4 U	1.4 U	1.4 U	--	--	--	--	--
	Tributyltin	µg/kg	580	1.4 U	1.5 U	1.7 U	1.7 U	300	0.89 U	1.1 U	1.1 U	33	1.0 U	1.0 U	--	--	--	--	--
Petroleum Hydrocarbons	Diesel	mg/kg	54.9	6.74 J	39.3	25.2	1.52 J	31.9	1.76 J	2.29 J	2.10 J	45.5	5.22 J	41.9	1.4E+04	4.6E+03	--	--	--
	Heavy Oil	mg/kg	543	49.5	259	127	5.33 J	229	10.5 J	4.11 J	5.59 J	408	50.6	100	--	--	--	--	--

Notes:
1. -- = Not applicable/not analyzed
2. mg/kg = Milligrams per kilogram
3. µg/kg = Micrograms per kilogram
4. J = The result is an estimated quantity
5. U= Undetected at the method detection limit shown
6. UJ = Undetected at the method detection limit shown, detection limit is an estimated quantity
7. Risk-Based Concentrations; revision date 11/1/15
8. Shading indicates sample concentration exceeds one or more RBCs

Table B-6
Soil Boring Results: 0 to 25 Feet - Riverbank Section 1
Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.1					Vector 2.2				Vector 2.3			Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations
			090210-2-2.1-Surface-11-FS	090210-2-2.1-1.5-01-FS	090210-2-2.1-5-02-FS	090210-2-2.1-20-05-FS	090210-2-2.1-20-06-DUP	090310-2-2.2-Surface-11-WS	090310-2-2.2-1.5-01-FS	090310-2-2.2-10-03-FS	090310-2-2.2-20-05-FS	090310-2-2.3-Surface-11-WS	090310-2-2.3-1.5-01-FS	090310-2-2.3-15-04-FS	Plants	Inverts.	Birds	Mammals	Portland Basin Soil
	Sample Date		9/2/2010	9/2/2010	9/2/2010	9/2/2010	9/2/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010					
	Depth (Feet Below Ground Surface)		0	0 - 1.5	5 - 10	20 - 25	20 - 25	0	0 - 1.5	10 - 15	20 - 25	0	0 - 1.5	15 - 20					
Inorganics	Mercury	mg/kg	0.0834 J	0.0122 J	0.0641 J	0.0243 J	0.0208 J	0.0701 J	0.0042 U	0.0128 J	0.0733 J	0.0540 J	0.0500 J	0.0723 J	0.3	0.1	1.5	73	0.23
	Arsenic	mg/kg	19.2	17.3	26.1	12.4	11.3	23.0	17.1	4.29	7.42	12.7	9.34	8.27	10	60	10	29	8.8
	Barium	mg/kg	530	183	182	287	260	151	45.3	120	141	310	148	190	500	3,000	85	638	790
	Chromium	mg/kg	263	35.0 J	32.9	36.8	32.1	102.0	6.33	17.5	23.7	95.0	22.7	33.4	1	0.4	4	410	76
	Copper	mg/kg	902	301	250	34.2	31.5	359	46.5	20.5	22.0	340	29.3	77.1	100	50	190	390	34
	Lead	mg/kg	293	63.3 J	87.1	22.1	25.2	137	26.3	7.02	14.2	127	69.8	149	50	500	16	4,000	79
	Manganese	mg/kg	6,550	1,240	1,270	859	602	2,600	396	515	647	1,670	625	783	500	100	4,125	11,000	1,800
	Nickel	mg/kg	245	26.4 J	22.5	25.4	23.7	87.1	6.58	17.1	18.5	61.2	16.6	36.8	30	200	320	625	47
	Selenium	mg/kg	0.124 J	0.520 J	0.222 J	0.222 J	0.134 J	0.107 J	0.063 J	0.0600 J	0.094 J	0.391 J	0.183 J	0.183 J	1	70	2	25	0.71
	Silver	mg/kg	7.55	0.329 J	0.333 J	0.140 J	0.165 J	0.401 J	0.0893 J	0.0900 J	0.094 J	0.335 J	0.122 J	0.336 J	2	50	--	--	0.82
	Zinc	mg/kg	3,130	345	385	109	114	524	137	62.2	70.9	570	123	202	50	200	60	20,000	180
PCBs	Aroclor 1016	µg/kg	2.06 U	1.83 U	1.89 U	2.23 U	2.12 U	18.0 U	1.75 U	2.05 U	2.14 U	7.81 U	2.02 U	4.06 U	--	--	--	1.0E+05	--
	Aroclor 1221	µg/kg	4.10 U	3.66 U	3.77 U	4.44 U	4.22 U	35.9 U	3.48 U	4.09 U	4.27 U	15.6 U	4.03 U	8.10 U	--	--	--	--	--
	Aroclor 1232	µg/kg	2.06 U	1.83 U	1.89 U	2.23 U	2.12 U	18.0 U	1.75 U	2.05 U	2.14 U	7.81 U	2.02 U	4.06 U	--	--	--	--	--
	Aroclor 1242	µg/kg	2.06 U	1.83 U	1.89 U	2.23 U	2.12 U	18.0 U	1.75 U	2.05 U	2.14 U	7.81 U	2.02 U	4.06 U	--	--	1.5E+03	5.0E+03	--
	Aroclor 1248	µg/kg	2.06 U	1.83 U	41.5 J	2.23 U	2.12 U	18.0 U	1.75 U	2.05 U	2.14 U	7.81 U	2.02 U	4.06 U	--	--	--	--	--
	Aroclor 1254	µg/kg	40.2	1.83 U	1.89 U	2.23 U	2.12 U	18.0 U	1.75 U	2.05 U	2.44 J	93.9	2.82 J	53.7	--	--	7.0E+02	4.0E+03	--
	Aroclor 1260	µg/kg	2.06 U	1.83 U	1.89 U	2.23 U	2.12 U	68.3	1.75 U	2.05 U	2.14 U	7.81 U	2.02 U	4.06 U	--	--	--	--	--
	Aroclor 1262	µg/kg	2.06 U	1.83 U	1.89 U	2.23 U	2.12 U	18.0 U	1.75 U	2.05 U	2.14 U	7.81 U	2.02 U	4.06 U	--	--	--	--	--
	Aroclor 1268	µg/kg	2.06 U	1.83 U	1.89 U	2.23 U	2.12 U	18.0 U	1.75 U	2.05 U	2.14 U	7.81 U	2.02 U	4.06 U	--	--	--	--	--
	Total PCBs	µg/kg	40.2	18.3 U	41.5 J	22.28 U	21.18 U	68.3	17.48 U	20.49 U	2.44 J	93.9	2.82 J	53.7	4.0E+04	--	--	4.0E+03	--
VOCs	1,1,1,2-Tetrachloroethane	µg/kg	--	--	--	--	--	--	9.61 U	--	--	--	--	--	--	--	--	--	--
	1,1,1-Trichloroethane	µg/kg	--	--	--	--	--	--	5.19 U	--	--	--	--	--	--	--	--	5.6E+07	--
	1,1,2,2-Tetrachloroethane	µg/kg	--	--	--	--	--	--	11.7 U	--	--	--	--	--	--	--	--	--	--
	1,1,2-Trichloroethane	µg/kg	--	--	--	--	--	--	7.00 U	--	--	--	--	--	--	--	--	--	--
	1,1-Dichloroethane	µg/kg	--	--	--	--	--	--	6.92 U	--	--	--	--	--	--	--	--	--	--
	1,1-Dichloroethene	µg/kg	--	--	--	--	--	--	12.4 U	--	--	--	--	--	--	--	--	3.8E+06	--
	1,1-Dichloropropene	µg/kg	--	--	--	--	--	--	8.15 U	--	--	--	--	--	--	--	--	--	--
	1,2,3-Trichlorobenzene	µg/kg	--	--	--	--	--	--	9.66 U	--	--	--	--	--	--	2.0E+04	--	--	--
	1,2,3-Trichloropropane	µg/kg	--	--	--	--	--	--	6.67 U	--	--	--	--	--	--	--	--	--	--
	1,2,4-Trichlorobenzene	µg/kg	--	--	--	--	--	--	14.3 U	--	--	--	--	--	--	2.0E+04	--	--	--
	1,2,4-Trimethylbenzene	µg/kg	--	--	--	--	--	--	15.2 U	--	--	--	--	--	--	--	--	--	--
	1,2-Dibromo-3-chloropropane	µg/kg	--	--	--	--	--	--	42.5 U	--	--	--	--	--	--	--	--	--	--
	1,2-Dibromoethane	µg/kg	--	--	--	--	--	--	10.7 U	--	--	--	--	--	--	--	--	--	--
	1,2-Dichlorobenzene	µg/kg	--	--	--	--	--	--	8.03 U	--	--	--	--	--	--	--	--	--	--
	1,2-Dichloroethane	µg/kg	--	--	--	--	--	--	7.81 U	--	--	--	--	--	--	--	7.0E+04	2.8E+06	--
	1,2-Dichloropropane	µg/kg	--	--	--	--	--	--	6.92 U	--	--	--	--	--	--	7.0E+05	--	--	--
	1,3,5-Trimethylbenzene	µg/kg	--	--	--	--	--	--	8.45 U	--	--	--	--	--	--	--	--	--	--
	1,3-Dichlorobenzene	µg/kg	--	--	--	--	--	--	6.44 U	--	--	--	--	--	--	--	--	--	--
	1,3-Dichloropropane	µg/kg	--	--	--	--	--	--	6.85 U	--	--	--	--	--	--	--	--	--	--
	1,4-Dichlorobenzene	µg/kg	--	--	--	--	--	--	8.72 U	--	--	--	--	--	--	2.0E+04	--	--	--
	2,2-Dichloropropane	µg/kg	--	--	--	--	--	--	6.48 U	--	--	--	--	--	--	--	--	--	--
	2-Butanone	µg/kg	--	--	--	--	--	--	26,200 U	--	--	--	--	--	--	--	--	2.0E+08	--
	2-Chlorotoluene	µg/kg	--	--	--	--	--	--	6,120 U	--	--	--	--	--	--	--	--	--	--
	2-Hexanone	µg/kg	--	--	--	--	--	--	29,200 U	--	--	--	--	--	--	--	--	--	--
	4-Chlorotoluene	µg/kg	--	--	--	--	--	--	4,470 U	--	--	--	--	--	--	--	--	--	--
	4-Methyl-2-pentanone	µg/kg	--	--	--	--	--	--	19,700 U	--	--	--	--	--	--	--	--	--	--
	Acetone	µg/kg	--	--	--	--	--	--	619,000 U	--	--	--	--	--	--	--	--	1.3E+06	--
	Benzene	µg/kg	--	--	--	--	--	--	4,360 U	--	--	--	--	--	--	--	--	3.3E+06	--
	Bromobenzene	µg/kg	--	--	--	--	--	--	12,900 U	--	--	--	--	--	--	--	--	--	--
	Bromochloromethane	µg/kg	--	--	--	--	--	--	10,000 U	--	--	--	--	--	--	--	--	--	--
	Bromodichloromethane	µg/kg	--	--	--	--	--	--	10,500 U	--	--	--	--	--	--	--	--	--	--
	Bromoform	µg/kg	--	--	--	--	--	--	9,480 U	--	--	--	--	--	--	--	--	--	--
	Bromomethane	µg/kg	--	--	--	--	--	--	8,290 U	--	--	--	--	--	--	--	--	--	--

Table B-6
Soil Boring Results: 0 to 25 Feet - Riverbank Section 1
Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.1					Vector 2.2				Vector 2.3			Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations
			090210-2-2.1-Surface-11-FS	090210-2-2.1-1.5-01-FS	090210-2-2.1-5-02-FS	090210-2-2.1-20-05-FS	090210-2-2.1-20-06-DUP	090310-2-2.2-Surface-11-WS	090310-2-2.2-1.5-01-FS	090310-2-2.2-10-03-FS	090310-2-2.2-20-05-FS	090310-2-2.3-Surface-11-WS	090310-2-2.3-1.5-01-FS	090310-2-2.3-15-04-FS					Portland Basin Soil
	Sample Date		9/2/2010	9/2/2010	9/2/2010	9/2/2010	9/2/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010	Plants	Inverts.	Birds	Mammals	
	Depth (Feet Below Ground Surface)		0	0 - 1.5	5 - 10	20 - 25	20 - 25	0	0 - 1.5	10 - 15	20 - 25	0	0 - 1.5	15 - 20					
VOCs (continued)	Carbon disulfide	µg/kg	--	--	--	--	--	--	7,410 U	--	--	--	--	--	--	--	--	--	--
	Carbon tetrachloride	µg/kg	--	--	--	--	--	--	11,300 U	--	--	--	--	--	--	--	--	--	--
	Chlorobenzene	µg/kg	--	--	--	--	--	--	3,160 U	--	--	--	--	--	--	4.0E+04	--	--	--
	Chloroethane	µg/kg	--	--	--	--	--	--	19,100 U	--	--	--	--	--	--	--	--	--	--
	Chloroform	µg/kg	--	--	--	--	--	--	5,600 U	--	--	--	--	--	--	--	--	1.9E+06	--
	Chloromethane	µg/kg	--	--	--	--	--	--	7,200 U	--	--	--	--	--	--	--	--	--	--
	cis-1,2-Dichloroethene	µg/kg	--	--	--	--	--	--	11,100 U	--	--	--	--	--	--	--	--	2.5E+06	--
	cis-1,3-Dichloropropene	µg/kg	--	--	--	--	--	--	4,740 U	--	--	--	--	--	--	--	--	--	--
	Dibromochloromethane	µg/kg	--	--	--	--	--	--	7,640 U	--	--	--	--	--	--	--	--	--	--
	Dibromomethane	µg/kg	--	--	--	--	--	--	4,890 U	--	--	--	--	--	--	--	--	--	--
	Dichlorodifluoromethane	µg/kg	--	--	--	--	--	--	7,410 U	--	--	--	--	--	--	--	--	--	--
	Ethylbenzene	µg/kg	--	--	--	--	--	--	2,920 U	--	--	--	--	--	--	--	--	--	--
	Hexachlorobutadiene	µg/kg	--	--	--	--	--	--	9,160 U	--	--	--	--	--	--	--	--	--	--
	Isopropylbenzene	µg/kg	--	--	--	--	--	--	7,640 U	--	--	--	--	--	--	--	--	--	--
	m,p-Xylene	µg/kg	--	--	--	--	--	--	18,300 U	--	--	--	--	--	--	--	--	--	--
	Methyl tert-butyl ether	µg/kg	--	--	--	--	--	--	5,600 U	--	--	--	--	--	--	--	--	--	--
	Methylene chloride	µg/kg	--	--	--	--	--	--	8,240 J	--	--	--	--	--	--	--	--	7.3E+05	--
	Naphthalene	µg/kg	--	--	--	--	--	--	7,930 U	--	--	--	--	--	1.0E+04	--	--	3.9E+06	--
	n-Butylbenzene	µg/kg	--	--	--	--	--	--	6,590 U	--	--	--	--	--	--	--	--	--	--
	n-Propylbenzene	µg/kg	--	--	--	--	--	--	7,240 U	--	--	--	--	--	--	--	--	--	--
	o-Xylene	µg/kg	--	--	--	--	--	--	6,670 U	--	--	--	--	--	1.0E+03	--	--	--	--
	p-Isopropyltoluene	µg/kg	--	--	--	--	--	--	9,970 U	--	--	--	--	--	--	--	--	--	--
	sec-Butylbenzene	µg/kg	--	--	--	--	--	--	5,240 U	--	--	--	--	--	--	--	--	--	--
	Styrene	µg/kg	--	--	--	--	--	--	3,230 U	--	--	--	--	--	3.0E+05	--	--	--	--
	tert-Butylbenzene	µg/kg	--	--	--	--	--	--	10,100 U	--	--	--	--	--	--	--	--	--	--
	Tetrachloroethene	µg/kg	--	--	--	--	--	--	14,800 U	--	--	--	--	--	1.0E+04	--	--	8.0E+04	--
	Toluene	µg/kg	--	--	--	--	--	--	3,610 U	--	--	--	--	--	2.0E+05	--	--	1.4E+06	--
	trans-1,2-Dichloroethene	µg/kg	--	--	--	--	--	--	6,040 U	--	--	--	--	--	--	--	--	2.5E+06	--
	trans-1,3-Dichloropropene	µg/kg	--	--	--	--	--	--	6,040 U	--	--	--	--	--	--	--	--	--	--
	Trichloroethene	µg/kg	--	--	--	--	--	--	7,480 U	--	--	--	--	--	--	--	--	4.0E+04	--
	Trichlorofluoromethane	µg/kg	--	--	--	--	--	--	32,000 U	--	--	--	--	--	--	--	--	--	--
	Vinyl chloride	µg/kg	--	--	--	--	--	--	7,710 U	--	--	--	--	--	--	--	--	2.0E+04	--
SVOCs	1,2,4-Trichlorobenzene	µg/kg	--	--	--	--	--	--	522 U	--	--	--	--	--	--	2.0E+04	--	--	--
	1,2-Dichlorobenzene	µg/kg	--	--	--	--	--	--	522 U	--	--	--	--	--	--	--	--	--	--
	1,3-Dichlorobenzene	µg/kg	--	--	--	--	--	--	522 U	--	--	--	--	--	--	--	--	--	--
	1,4-Dichlorobenzene	µg/kg	--	--	--	--	--	--	522 U	--	--	--	--	--	--	2.0E+04	--	--	--
	2,4,5-Trichlorophenol	µg/kg	--	--	--	--	--	--	522 U	--	--	--	--	--	4.0E+03	9.0E+03	--	--	--
	2,4,6-Trichlorophenol	µg/kg	--	--	--	--	--	--	522 U	--	--	--	--	--	1.0E+04	1.0E+04	--	--	--
	2,4-Dichlorophenol	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	2.0E+04	--	--	--	--
	2,4-Dimethylphenol	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	2.0E+04	--	--	--	--
	2,4-Dinitrophenol	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	2.0E+04	--	--	--	--
	2,4-Dinitrotoluene	µg/kg	--	--	--	--	--	--	522 U	--	--	--	--	--	--	--	--	--	--
	2,6-Dinitrotoluene	µg/kg	--	--	--	--	--	--	2,090 U	--	--	--	--	--	--	--	--	--	--
	2-Chloronaphthalene	µg/kg	--	--	--	--	--	--	522 U	--	--	--	--	--	--	--	--	--	--
	2-Chlorophenol	µg/kg	--	--	--	--	--	--	522 U	--	--	--	--	--	6.0E+04	--	--	--	--
	2-Methylphenol	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	5.0E+04	--	--	1.6E+07	--
	2-Nitroaniline	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	--	--	--	--	--
	2-Nitrophenol	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	--	--	--	--	--
	3,3'-Dichlorobenzidine	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	--	--	--	--	--
	3,4-Methylphenol	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	--	--	--	--	--
	3-Nitroaniline	µg/kg	--	--	--	--	--	--	522 U	--	--	--	--	--	7.0E+04	--	--	--	--
	4,6-Dinitro-2-methylphenol	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	--	--	--	--	--
	4-Bromophenyl phenyl ether	µg/kg	--	--	--	--	--	--	522 U	--	--	--	--	--	--	--	--	--	--
	4-Chloro-3-methylphenol	µg/kg	--	--	--	--	--	--	522 U	--	--	--	--	--	--	--	--	--	--
	4-Chloroaniline	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	4.0E+04	--	--	--	--

Table B-6
Soil Boring Results: 0 to 25 Feet - Riverbank Section 1
Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.1					Vector 2.2				Vector 2.3			Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations
			090210-2-2.1-Surface-11-FS	090210-2-2.1-1.5-01-FS	090210-2-2.1-5-02-FS	090210-2-2.1-20-05-FS	090210-2-2.1-20-06-DUP	090310-2-2.2-Surface-11-WS	090310-2-2.2-1.5-01-FS	090310-2-2.2-10-03-FS	090310-2-2.2-20-05-FS	090310-2-2.3-Surface-11-WS	090310-2-2.3-1.5-01-FS	090310-2-2.3-15-04-FS	Plants	Inverts.	Birds	Mammals	Portland Basin Soil
	Sample Date		9/2/2010	9/2/2010	9/2/2010	9/2/2010	9/2/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010					
	Depth (Feet Below Ground Surface)		0	0 - 1.5	5 - 10	20 - 25	20 - 25	0	0 - 1.5	10 - 15	20 - 25	0	0 - 1.5	15 - 20					
SVOCs (continued)	4-Chlorophenyl phenyl ether	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	--	--	--	--	--
	4-Nitroaniline	µg/kg	--	--	--	--	--	--	172 U	--	--	--	--	--	4.0E+04	--	--	--	--
	4-Nitrophenol	µg/kg	--	--	--	--	--	--	104 U	--	--	--	--	--	1.0E+04	7.0E+03	--	--	--
	Benzoic Acid	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	--	--	--	--	--
	Benzyl Alcohol	µg/kg	--	--	--	--	--	--	522 U	--	--	--	--	--	--	--	--	--	--
	Bis(2-chloroethoxy)methane	µg/kg	--	--	--	--	--	--	522 U	--	--	--	--	--	--	--	--	--	--
	Bis(2-chloroethyl)ether	µg/kg	--	--	--	--	--	--	1,040 U	--	--	--	--	--	--	--	--	--	--
	Bis(2-chloroisopropyl)ether	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	--	--	--	--	--
	Dibenzofuran	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	--	--	--	2	--
	Hexachlorobenzene	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	--	1.0E+06	--	--	--
	Hexachlorobutadiene	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	--	--	--	--	--
	Hexachlorocyclopentadiene	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	1.0E+04	--	--	--	--
	Hexachloroethane	µg/kg	--	--	--	--	--	--	522 U	--	--	--	--	--	--	--	--	--	--
	Isophorone	µg/kg	--	--	--	--	--	--	522 U	--	--	--	--	--	--	--	--	--	--
	Nitrobenzene	µg/kg	--	--	--	--	--	--	522 U	--	--	--	--	--	8.0E+03	4.0E+04	--	--	--
	N-Nitrosodi-n-propylamine	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	--	--	--	--	--
	N-Nitrosodiphenylamine	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	--	--	--	--	--
	Pentachlorophenol	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	3.0E+03	4.0E+03	--	3.0E+04	--
	Phenol	µg/kg	--	--	--	--	--	--	73.0 U	--	--	--	--	--	7.0E+04	3.0E+04	--	--	--
PAHs	2-Methylnaphthalene	µg/kg	20.4 U	3.60 U	18.6 U	4.36 U	4.18 U	17.6 U	522.00 U	4.02 U	4.25 U	19.3 U	4.00 U	20.7	--	--	--	--	--
	Acenaphthene	µg/kg	20.4 U	3.60 U	18.6 U	4.36 U	4.18 U	17.6 U	73.00 U	4.02 U	4.25 U	19.3 U	4.00 U	51.7	2.0E+04	--	--	--	--
	Acenaphthylene	µg/kg	20.4 U	3.60 U	18.6 U	8.69 J	4.18 U	17.6 U	3.43 U	4.02 U	4.25 U	47.6 J	7.82 J	44.4	--	--	--	--	--
	Anthracene	µg/kg	28.4 J	3.60 U	18.6 U	15.6 J	4.18 U	17.6 U	3.43 U	4.59 J	4.25 U	134	9.19 J	108	--	--	--	--	--
	Benzo(a)anthracene	µg/kg	247	3.60 U	46.7 J	78.3 J	18.6 J	90.4	3.43 U	14.5 J	4.25 U	214	32.90	242	--	--	--	--	--
	Benzo(a)pyrene	µg/kg	344	3.60 U	58.1 J	111 J	23.7 J	133	3.43 U	13.4 J	4.25 U	126	41.60	262	--	--	--	1.3E+05	--
	Benzo(b)fluoranthene	µg/kg	419	3.60 U	79.8	84.3 J	19.4 J	185	3.43 U	11.4 J	4.25 U	509	31.10	170	--	--	--	--	--
	Benzo(ghi)perylene	µg/kg	332	3.60 U	57.9 J	89.2 J	18.2 J	145	3.43 U	7.88 J	4.25 U	174	34.90	136	--	--	--	--	--
	Benzo(k)fluoranthene	µg/kg	343	3.60 U	36.8 J	75.2	14.4 J	121	3.43 U	12.3 J	4.25 U	295	30.80	190	--	--	--	--	--
	Chrysene	µg/kg	459	3.60 U	71.1 J	130 J	28.8 J	173	3.43 U	15.4 J	4.30 U	754	40.70	267	--	--	--	--	--
	Dibenzo(a,h)anthracene	µg/kg	84.1	3.60 U	22.5 J	16.3 J	4.18 U	35.1 J	3.43 U	4.02 U	4.25 U	38.2 J	8.64 J	36.2	--	--	--	--	--
	Fluoranthene	µg/kg	486	3.60 U	91.1	257 J	41.9 J	180	3.43 U	25.9	4.48 J	1,010	60.20	428	--	--	--	--	--
	Fluorene	µg/kg	20.4 U	3.60 U	18.6 U	12.9 J	4.18 U	17.6 U	3.43 U	4.02 U	4.25 U	25.5 J	4.00 U	64.4	--	3.0E+04	--	--	--
	Indeno(1,2,3-cd)pyrene	µg/kg	254	3.60 U	39.8 J	69.6	13.1 J	112	3.43 U	7.22 J	4.25 U	115	26.20	124	--	--	--	--	--
	Naphthalene	µg/kg	20.4 U	3.60 U	18.6 U	4.36 U	4.18 U	17.6 U	3.43 U	4.02 U	42.0	19.3 U	4.00 U	23.1	1.0E+04	--	--	3.9E+06	--
	Phenanthrene	µg/kg	192	3.60 U	74.5 J	184 J	29.7 J	93.7	3.43 U	16.8	4.25 U	288	43.5	325	--	--	--	--	--
	Pyrene	µg/kg	463	3.60 U	76.7	320 J	54.8 J	176	3.43 U	23.3	6.40 J	743	84.9	525	--	--	--	--	--

Table B-6
Soil Boring Results: 0 to 25 Feet - Riverbank Section 1
Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.1					Vector 2.2				Vector 2.3			Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations
			090210-2-2.1-Surface-11-FS	090210-2-2.1-1.5-01-FS	090210-2-2.1-5-02-FS	090210-2-2.1-20-05-FS	090210-2-2.1-20-06-DUP	090310-2-2.2-Surface-11-WS	090310-2-2.2-1.5-01-FS	090310-2-2.2-10-03-FS	090310-2-2.2-20-05-FS	090310-2-2.3-Surface-11-WS	090310-2-2.3-1.5-01-FS	090310-2-2.3-15-04-FS	Plants	Inverts.	Birds	Mammals	Portland Basin Soil
	Sample Date		9/2/2010	9/2/2010	9/2/2010	9/2/2010	9/2/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010	9/3/2010					
	Depth (Feet Below Ground Surface)		0	0 - 1.5	5 - 10	20 - 25	20 - 25	0	0 - 1.5	10 - 15	20 - 25	0	0 - 1.5	15 - 20					
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	912	14.6 U	75.6 U	17.8 U	17.0 U	628	13.9 U	16.5 U	17.1 U	779	26.2 J	16.3 U	--	--	4.5E+03	1.0E+06	--
	Butyl benzyl phthalate	µg/kg	182 J	14.6 U	75.6 U	17.8 U	17.0 U	144 U	13.9 U	16.5 U	17.1 U	155 U	16.3 U	16.3 U	--	--	--	--	--
	Diethyl phthalate	µg/kg	166 U	14.6 U	75.6 U	17.8 U	17.0 U	144 U	13.9 U	16.5 U	17.1 U	155 U	16.3 U	16.3 U	1.0E+05	--	--	2.5E+08	--
	Dimethyl phthalate	µg/kg	166 U	14.6 U	75.6 U	17.8 U	17.0 U	144 U	13.9 U	16.5 U	17.1 U	155 U	16.3 U	16.3 U	--	2.0E+05	--	--	--
	Di-n-butyl phthalate	µg/kg	256 J	14.6 U	75.6 U	17.8 U	17.0 U	144 U	13.9 U	16.5 U	17.1 U	750	16.3 U	16.3 U	2.0E+05	--	4.5E+02	3.0E+07	--
	Di-n-octyl phthalate	µg/kg	166 U	14.6 U	75.6 U	17.8 U	17.0 U	144 U	13.9 U	16.5 U	17.1 U	155 U	16.3 U	16.3 U	--	--	--	--	--
Organotins	Dibutyltin	µg/kg	55	1.4 U	1.5 U	1.7 U	1.7 U	22	0.42 U	0.51 U	0.52 U	0.48 U	0.48 U	0.49 U	--	--	--	--	--
	Monobutyltin	µg/kg	38	1.4 U	1.5 U	1.7 U	1.7 U	0.40 U	0.39 U	0.49 U	0.49 U	0.45 U	0.46 U	0.46 U	--	--	--	--	--
	Tetra-n-butyltin	µg/kg	4.4 U	3.8 U	4.0 U	4.7 U	4.6 U	1.2 U	1.2 U	1.5 U	1.5 U	1.4 U	1.4 U	1.4 U	--	--	--	--	--
	Tributyltin	µg/kg	580	1.4 U	1.5 U	1.7 U	1.7 U	300	0.89 U	1.1 U	1.1 U	33	1.0 U	1.0 U	--	--	--	--	--
Petroleum Hydrocarbons	Diesel	mg/kg	54.9	6.74 J	39.3	25.2	1.52 J	31.9	1.76 J	2.29 J	2.10 J	45.5	5.22 J	41.9	--	--	--	--	--
	Heavy Oil	mg/kg	543	49.5	259	127	5.33 J	229	10.5 J	4.11 J	5.59 J	408	50.6	100	--	--	--	--	--

Notes:
1. -- = Not applicable/not analyzed
2. mg/kg = Milligrams per kilogram
3. µg/kg = Micrograms per kilogram
4. J = The result is an estimated quantity
5. U= Undetected at the method detection limit shown
6. UJ = Undetected at the method detection limit shown, detection limit is an estimated quantity
7. Level II Screening Benchmark Values; revision date 12/2001
8. Shading indicates sample concentration exceeds the default background concentration and one or more SLV

Table B-7
Riverbank Surface Sample Results - Section 2
Source Control Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Riverbank Section 2						Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil	Default Background Concentrations Portland Basin Soil
			S2-3		S2-4		S2-5				
		Date	9/24/2010		9/24/2010		9/24/2010				
		Depth (Feet Below Ground Surface)	0		0		0				
Inorganics	Mercury	mg/kg	0.0285	J	0.00500	U	0.0100	J	0.07	1.1	0.23
	Arsenic	mg/kg	68.1		2.25	J	3.51		--	3	8.8
	Barium	mg/kg	95.4		149		160		--	--	790
	Chromium	mg/kg	27.9		4.94	J	19.0		111	--	76
	Copper	mg/kg	138		26.9		76.4		149	149	34
	Lead	mg/kg	125		7.13		20.3		17	128	79
	Manganese	mg/kg	381		1,400		1,120		1,100	--	1,800
	Nickel	mg/kg	19.8		3.70	J	11.1		49	--	47
	Selenium	mg/kg	0.0759	J	0.0289	J	0.0303	J	5	--	0.71
	Silver	mg/kg	0.314	J	0.0866	J	0.212	J	5	--	0.82
	Zinc	mg/kg	604		99.8		265		459	459	180
PCBs	Aroclor 1016	µg/kg	1.81	U	1.92	U	2.02	U	--	--	--
	Aroclor 1221	µg/kg	3.60	U	3.83	U	4.03	U	--	--	--
	Aroclor 1232	µg/kg	1.81	U	1.92	U	2.02	U	--	--	--
	Aroclor 1242	µg/kg	1.81	U	1.92	U	2.02	U	--	--	--
	Aroclor 1248	µg/kg	1.81	U	1.92	U	2.02	U	--	--	--
	Aroclor 1254	µg/kg	1.81	U	1.92	U	2.02	U	--	--	--
	Aroclor 1260	µg/kg	3.32	J	1.92	U	3.10	J	--	--	--
	Aroclor 1262	µg/kg	1.81	U	1.92	U	2.02	U	--	--	--
	Aroclor 1268	µg/kg	1.81	U	1.92	U	2.02	U	--	--	--
	Total PCBs	µg/kg	3.32	J	19.2	U	3.10	J	0.39	9	--
VOCs	1,1,1,2-Tetrachloroethane	µg/kg	--		10.6	U	11.2	U	--	--	--
	1,1,1-Trichloroethane	µg/kg	--		5.71	U	6.06	U	--	--	--
	1,1,2,2-Tetrachloroethane	µg/kg	--		12.9	U	13.7	U	--	--	--
	1,1,2-Trichloroethane	µg/kg	--		7.69	U	8.16	U	--	--	--
	1,1-Dichloroethane	µg/kg	--		7.61	U	8.07	U	--	--	--
	1,1-Dichloroethene	µg/kg	--		13.6	U	14.4	U	--	--	--
	1,1-Dichloropropene	µg/kg	--		8.96	U	9.50	U	--	--	--
	1,2,3-Trichlorobenzene	µg/kg	--		10.6	U	11.3	U	--	--	--
	1,2,3-Trichloropropane	µg/kg	--		7.33	U	7.77	U	--	--	--
	1,2,4-Trichlorobenzene	µg/kg	--		15.7	U	16.7	U	9,200	--	--
	1,2,4-Trimethylbenzene	µg/kg	--		16.8	U	17.8	U	--	--	--
	1,2-Dibromo-3-chloropropane	µg/kg	--		46.8	U	49.6	U	--	--	--
	1,2-Dibromoethane	µg/kg	--		11.8	U	12.5	U	--	--	--
	1,2-Dichlorobenzene	µg/kg	--		8.82	U	9.36	U	1,700	--	--
	1,2-Dichloroethane	µg/kg	--		8.58	U	9.11	U	--	--	--
	1,2-Dichloropropane	µg/kg	--		7.61	U	8.07	U	--	--	--
	1,3,5-Trimethylbenzene	µg/kg	--		9.28	U	9.85	U	--	--	--
	1,3-Dichlorobenzene	µg/kg	--		7.08	U	7.51	U	300	--	--
	1,3-Dichloropropane	µg/kg	--		7.53	U	7.99	U	--	--	--
	1,4-Dichlorobenzene	µg/kg	--		9.58	U	10.2	U	300	--	--
	2,2-Dichloropropane	µg/kg	--		7.12	U	7.56	U	--	--	--
	2-Butanone	µg/kg	--		28.8	U	30.5	U	--	--	--
	2-Chlorotoluene	µg/kg	--		6.73	U	7.14	U	--	--	--
	2-Hexanone	µg/kg	--		32	U	34	U	--	--	--
	4-Chlorotoluene	µg/kg	--		4.91	U	5.21	U	--	--	--
	4-Methyl-2-pentanone	µg/kg	--		21.6	U	23.0	U	--	--	--
	Acetone	µg/kg	--		680	U	722	U	--	--	--
	Benzene	µg/kg	--		4.79	U	5.08	U	--	--	--
	Bromobenzene	µg/kg	--		14.2	U	15	U	--	--	--
	Bromochloromethane	µg/kg	--		11	U	11.7	U	--	--	--
	Bromodichloromethane	µg/kg	--		11.5	U	12.3	U	--	--	--
	Bromoform	µg/kg	--		10.4	U	11.1	UJ	--	--	--
	Bromomethane	µg/kg	--		9.11	U	9.67	U	--	--	--
	Carbon disulfide	µg/kg	--		8.14	U	8.64	U	--	--	--
	Carbon tetrachloride	µg/kg	--		12.5	U	13.2	U	--	--	--
	Chlorobenzene	µg/kg	--		3.48	U	3.69	U	--	--	--

Table B-7
Riverbank Surface Sample Results - Section 2
Source Control Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Riverbank Section 2						Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil	Default Background Concentrations Portland Basin Soil
			S2-3		S2-4		S2-5				
		Date	9/24/2010		9/24/2010		9/24/2010				
		Depth (Feet Below Ground Surface)	0		0		0				
VOCs (continued)	Chloroethane	µg/kg	--		20.9	U	22.2	U	--	--	--
	Chloroform	µg/kg	--		6.16	U	6.54	U	--	--	--
	Chloromethane	µg/kg	--		7.91	U	8.4	U	--	--	--
	cis-1,2-Dichloroethene	µg/kg	--		12.2	U	13	U	--	--	--
	cis-1,3-Dichloropropene	µg/kg	--		5.21	U	5.53	U	--	--	--
	Dibromochloromethane	µg/kg	--		8.4	U	8.92	UJ	--	--	--
	Dibromomethane	µg/kg	--		5.38	U	5.71	U	--	--	--
	Dichlorodifluoromethane	µg/kg	--		8.14	U	8.64	U	--	--	--
	Ethylbenzene	µg/kg	--		3.2	U	3.4	U	--	--	--
	Hexachlorobutadiene	µg/kg	--		10.1	U	10.7	U	600	--	--
	Isopropylbenzene	µg/kg	--		8.4	U	8.92	U	--	--	--
	m,p-Xylene	µg/kg	--		20.2	U	21.4	U	--	--	--
	Methyl tert-butyl ether	µg/kg	--		6.16	U	6.54	U	--	--	--
	Methylene chloride	µg/kg	--		26.0	J	28.8	J	--	--	--
	Naphthalene	µg/kg	--		--		--		561	--	--
	n-Butylbenzene	µg/kg	--		7.25	U	7.69	U	--	--	--
	n-Propylbenzene	µg/kg	--		7.96	U	8.45	U	--	--	--
	o-Xylene	µg/kg	--		7.33	U	7.77	U	--	--	--
	p-Isopropyltoluene	µg/kg	--		11	U	11.6	U	--	--	--
	sec-Butylbenzene	µg/kg	--		5.76	U	6.12	U	--	--	--
	Styrene	µg/kg	--		3.56	U	3.77	U	--	--	--
	tert-Butylbenzene	µg/kg	--		11.1	U	11.7	U	--	--	--
	Tetrachloroethene	µg/kg	--		16.3	U	17.3	U	--	--	--
	Toluene	µg/kg	--		3.96	U	4.21	U	--	--	--
	trans-1,2-Dichloroethene	µg/kg	--		6.64	U	7.04	U	--	--	--
	trans-1,3-Dichloropropene	µg/kg	--		6.64	U	7.04	U	--	--	--
	Trichloroethene	µg/kg	--		8.22	U	8.72	U	2,100	--	--
	Trichlorofluoromethane	µg/kg	--		35.2	U	37.4	U	--	--	--
	Vinyl chloride	µg/kg	--		8.47	UJ	8.99	UJ	--	--	--

Table B-7
Riverbank Surface Sample Results - Section 2
Source Control Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Riverbank Section 2			Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil	Default Background Concentrations Portland Basin Soil
			S2-3	S2-4	S2-5			
		Date	9/24/2010	9/24/2010	9/24/2010			
		Depth (Feet Below Ground Surface)	0	0	0			
SVOCs	1,2,4-Trichlorobenzene	µg/kg	--	--	--	9,200	--	--
	1,2-Dichlorobenzene	µg/kg	--	--	--	1,700	--	--
	1,3-Dichlorobenzene	µg/kg	--	--	--	300	--	--
	1,4-Dichlorobenzene	µg/kg	--	--	--	300	--	--
	2,4,5-Trichlorophenol	µg/kg	--	--	--	--	--	--
	2,4,6-Trichlorophenol	µg/kg	--	--	--	--	--	--
	2,4-Dichlorophenol	µg/kg	--	--	--	--	--	--
	2,4-Dimethylphenol	µg/kg	--	--	--	--	--	--
	2,4-Dinitrophenol	µg/kg	--	--	--	--	--	--
	2,4-Dinitrotoluene	µg/kg	--	--	--	--	--	--
	2,6-Dinitrotoluene	µg/kg	--	--	--	--	--	--
	2-Chloronaphthalene	µg/kg	--	--	--	--	--	--
	2-Chlorophenol	µg/kg	--	--	--	--	--	--
	2-Methylphenol	µg/kg	--	--	--	--	--	--
	2-Nitroaniline	µg/kg	--	--	--	--	--	--
	2-Nitrophenol	µg/kg	--	--	--	--	--	--
	3,3'-Dichlorobenzidine	µg/kg	--	--	--	--	--	--
	3,4-Methylphenol	µg/kg	--	--	--	--	--	--
	3-Nitroaniline	µg/kg	--	--	--	--	--	--
	4,6-Dinitro-2-methylphenol	µg/kg	--	--	--	--	--	--
	4-Bromophenyl phenyl ether	µg/kg	--	--	--	--	--	--
	4-Chloro-3-methylphenol	µg/kg	--	--	--	--	--	--
	4-Chloroaniline	µg/kg	--	--	--	--	--	--
	4-Chlorophenyl phenyl ether	µg/kg	--	--	--	--	--	--
	4-Nitroaniline	µg/kg	--	--	--	--	--	--
	4-Nitrophenol	µg/kg	--	--	--	--	--	--
	Benzoic Acid	µg/kg	--	--	--	--	--	--
	Benzyl Alcohol	µg/kg	--	--	--	--	--	--
	Bis(2-chloroethoxy)methane	µg/kg	--	--	--	--	--	--
	Bis(2-chloroethyl)ether	µg/kg	--	--	--	--	--	--
	Bis(2-chloroisopropyl)ether	µg/kg	--	--	--	--	--	--
	Dibenzofuran	µg/kg	--	--	--	--	--	--
	Hexachlorobenzene	µg/kg	--	--	--	19	0.3	--
	Hexachlorobutadiene	µg/kg	--	--	--	600	--	--
	Hexachlorocyclopentadiene	µg/kg	--	--	--	400	--	--
	Hexachloroethane	µg/kg	--	--	--	--	--	--
	Isophorone	µg/kg	--	--	--	--	--	--
	Nitrobenzene	µg/kg	--	--	--	--	--	--
	N-Nitrosodi-n-propylamine	µg/kg	--	--	--	--	--	--
	N-Nitrosodiphenylamine	µg/kg	--	--	--	--	--	--
	Pentachlorophenol	µg/kg	--	--	--	1,000	--	--
	Phenol	µg/kg	--	--	--	50	--	--

Table B-7
Riverbank Surface Sample Results - Section 2
Source Control Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Riverbank Section 2						Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil	Default Background Concentrations Portland Basin Soil
			S2-3		S2-4		S2-5				
		Date	9/24/2010		9/24/2010		9/24/2010				
		Depth (Feet Below Ground Surface)	0		0		0				
PAHs	2-Methylnaphthalene	µg/kg	4.62	J	3.77	U	3.95	U	200	--	--
	Acenaphthene	µg/kg	13.2	J	3.77	U	3.95	U	300	--	--
	Acenaphthylene	µg/kg	84.4		3.77	U	3.95	U	200	--	--
	Anthracene	µg/kg	119		3.77	U	3.95	U	845	--	--
	Benzo(a)anthracene	µg/kg	206		8.63	J	15.7	J	1,050	--	--
	Benzo(a)pyrene	µg/kg	330		11.9	J	22.2		1,450	--	--
	Benzo(b)fluoranthene	µg/kg	530		15.0	J	24.7		--	--	--
	Benzo(ghi)perylene	µg/kg	320		9.66	J	19.8		300	--	--
	Benzo(k)fluranthene	µg/kg	286		10.7	J	20.9		--	--	--
	Chrysene	µg/kg	327		16.7		23.5		1,290	--	--
	Dibenzo(a,h)anthracene	µg/kg	95.1		3.77	U	5.12	J	1,300	--	--
	Fluoranthene	µg/kg	369		25.7		35.8		2,230	--	--
	Fluorene	µg/kg	31.8		3.77	U	3.95	U	536	--	--
	Indeno(1,2,3-cd)pyrene	µg/kg	276		8.56	J	16.8		100	--	--
	Naphthalene	µg/kg	8.13	J	3.77	U	4.01	J	561	--	--
	Phenanthrene	µg/kg	100		13.7	J	22.5		1,170	--	--
	Pyrene	µg/kg	307		20.7		32.1		1,520	--	--
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	28.9	U	41.2		118		330	135	--
	Butyl benzyl phthalate	µg/kg	28.9	U	15.3	U	16.1	U	--	--	--
	Diethyl phthalate	µg/kg	28.9	U	15.3	U	17.6	J	600	--	--
	Dimethyl phthalate	µg/kg	28.9	U	15.3	U	16.1	U	--	--	--
	Di-n-butyl phthalate	µg/kg	28.9	U	15.3	U	17.0	J	100	--	--
	Di-n-octyl phthalate	µg/kg	28.9	U	15.3	U	16.1	U	--	--	--
Organotins	Dibutyltin	µg/kg	0.44	U	0.44	U	0.44	U	--	--	--
	Monobutyltin	µg/kg	0.41	U	6.7		0.42	U	--	--	--
	Tetra-n-butyltin	µg/kg	1.3	U	1.3	U	1.3	U	--	--	--
	Tributyltin	µg/kg	0.9	U	35		15		2.3	24,000	--
Organochlorine Pesticides	4-4'-DDD	µg/kg	--		--		--		0.33	6.1	--
	4,4'-DDE	µg/kg	--		--		--		0.33	6.1	--
	4,4'-DDT	µg/kg	--		--		--		0.33	6.1	--
	Aldrin	µg/kg	--		--		--		40	2	--
	alpha-BHC	µg/kg	--		--		--		--	--	--
	alpha-Chlordane	µg/kg	--		--		--		--	1.5	--
	beta-BHC	µg/kg	--		--		--		--	--	--
	Chlordane	µg/kg	--		--		--		0.37	1.5	--
	delta-BHC	µg/kg	--		--		--		--	--	--
	Dieldrin	µg/kg	--		--		--		0.0081	0.07	--
	Endosulfan I	µg/kg	--		--		--		--	--	--
	Endosulfan II	µg/kg	--		--		--		--	--	--
	Endosulfan sulfate	µg/kg	--		--		--		--	--	--
	Endrin	µg/kg	--		--		--		207	--	--
	Endrin aldehyde	µg/kg	--		--		--		--	--	--
	Endrin ketone	µg/kg	--		--		--		--	--	--
	gamma-BHC (Lindane)	µg/kg	--		--		--		4.99	5	--
	gamma-Chlordane	µg/kg	--		--		--		--	1.5	--
	Heptachlor	µg/kg	--		--		--		10	--	--
	Heptachlor epoxide	µg/kg	--		--		--		16	--	--
	Methoxychlor	µg/kg	--		--		--		--	--	--
	Toxaphene	µg/kg	--		--		--		--	--	--
Petroleum Hydrocarbons	Diesel	mg/kg	4.61	J	1.04	J	1.87	J	--	--	--
	Heavy Oil	mg/kg	24.6	J	2.89	J	15.1	J	--	--	--

Notes:
1. -- = Not applicable/not analyzed.
2. mg/kg = Milligrams per kilogram.
3. µg/kg = Micrograms per kilogram.
4. J = The result is an estimated quantity.
5. U= Undetected at the method detection limit shown.
6. UJ = Undetected at the method detection limit shown, detection limit is an estimated quantity.
7. Joint Source Control Strategy (JSCS) Screening Level Values (SLVs); revision date 7/16/2007.
8. Shading indicates sample concentration exceeds the corresponding JSCS SLV and/or the draft PRG.
9. PRG = Draft Preliminary Remediation Goal; prepared by U.S. Environmental Protection Agency, July 2015.

Table B-8
Riverbank Surface Sample Results - Section 2
Human Health Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Riverbank Section 2						Oregon Department of Environmental Quality Risk-Based Concentrations				
			S2-3		S2-4		S2-5		Soil Ingestion, Dermal Contact, and Inhal.			Vol. to Outdoor Air	Vapor Intrusion
		Date	9/24/2010		9/24/2010		9/24/2010						
		Depth (Feet Below Ground Surface)	0		0		0		Occ	Const.	Exc	Occ	Occ
Inorganics	Mercury	mg/kg	0.0285	J	0.00500	U	0.0100	J	3.50E+02	1.10E+02	2.90E+03	--	--
	Arsenic	mg/kg	68.1		2.25	J	3.51		1.90E+00	1.50E+01	4.20E+02	--	--
	Barium	mg/kg	95.4		149		160		2.20E+05	6.90E+04	--	--	--
	Chromium	mg/kg	27.9		4.94	J	19.0		--	5.30E+05	--	--	--
	Copper	mg/kg	138		26.9		76.4		4.70E+04	1.40E+04	3.90E+05	--	--
	Lead	mg/kg	125		7.13		20.3		8.00E+02	8.00E+02	8.00E+02	--	--
	Manganese	mg/kg	381		1,400		1,120		2.50E+04	8.20E+03	2.30E+05	--	--
	Nickel	mg/kg	19.8		3.70	J	11.1		2.20E+04	7.00E+03	1.90E+05	--	--
	Selenium	mg/kg	0.0759	J	0.0289	J	0.0303	J	--	--	--	--	--
	Silver	mg/kg	0.314	J	0.0866	J	0.212	J	5.80E+03	1.80E+03	4.90E+04	--	--
	Zinc	mg/kg	604		99.8		265		--	--	--	--	--
PCBs	Aroclor 1016	µg/kg	1.81	U	1.92	U	2.02	U	--	--	--	--	--
	Aroclor 1221	µg/kg	3.60	U	3.83	U	4.03	U	--	--	--	--	--
	Aroclor 1232	µg/kg	1.81	U	1.92	U	2.02	U	--	--	--	--	--
	Aroclor 1242	µg/kg	1.81	U	1.92	U	2.02	U	--	--	--	--	--
	Aroclor 1248	µg/kg	1.81	U	1.92	U	2.02	U	--	--	--	--	--
	Aroclor 1254	µg/kg	1.81	U	1.92	U	2.02	U	--	--	--	--	--
	Aroclor 1260	µg/kg	3.32	J	1.92	U	3.10	J	--	--	--	--	--
	Aroclor 1262	µg/kg	1.81	U	1.92	U	2.02	U	--	--	--	--	--
	Aroclor 1268	µg/kg	1.81	U	1.92	U	2.02	U	--	--	--	--	--
	Total PCBs	µg/kg	3.32	J	19.2	U	3.10	J	5.90E+02	4.90E+03	1.40E+05	--	--
VOCs	1,1,1,2-Tetrachloroethane	µg/kg	--		10.6	U	11.2	U	--	--	--	--	--
	1,1,1-Trichloroethane	µg/kg	--		5.71	U	6.06	U	8.70E+08	4.70E+08	--	--	--
	1,1,2,2-Tetrachloroethane	µg/kg	--		12.9	U	13.7	U	--	--	--	--	--
	1,1,2-Trichloroethane	µg/kg	--		7.69	U	8.16	U	2.60E+04	5.40E+04	1.50E+06	2.40E+04	4.20E+03
	1,1-Dichloroethane	µg/kg	--		7.61	U	8.07	U	2.60E+05	3.20E+06	8.90E+07	2.40E+05	5.90E+03
	1,1-Dichloroethene	µg/kg	--		13.6	U	14.4	U	2.90E+07	1.30E+07	3.70E+08	--	6.80E+05
	1,1-Dichloropropene	µg/kg	--		8.96	U	9.50	U	--	--	--	--	--
	1,2,3-Trichlorobenzene	µg/kg	--		10.6	U	11.3	U	--	--	--	--	--
	1,2,3-Trichloropropane	µg/kg	--		7.33	U	7.77	U	--	--	--	--	--
	1,2,4-Trichlorobenzene	µg/kg	--		15.7	U	16.7	U	--	--	--	--	--
	1,2,4-Trimethylbenzene	µg/kg	--		16.8	U	17.8	U	2.00E+06	2.00E+06	5.40E+07	9.80E+05	2.10E+05
	1,2-Dibromo-3-chloropropane	µg/kg	--		46.8	U	49.6	U	--	--	--	--	--
	1,2-Dibromoethane	µg/kg	--		11.8	U	12.5	U	7.30E+02	9.00E+03	2.50E+05	6.50E+02	1.60E+02
	1,2-Dichlorobenzene	µg/kg	--		8.82	U	9.36	U	3.60E+07	2.00E+07	5.60E+08	--	--
	1,2-Dichloroethane	µg/kg	--		8.58	U	9.11	U	1.60E+04	2.00E+05	5.60E+06	1.50E+04	1.00E+03
	1,2-Dichloropropane	µg/kg	--		7.61	U	8.07	U	--	--	--	--	--
	1,3,5-Trimethylbenzene	µg/kg	--		9.28	U	9.85	U	1.20E+07	3.50E+06	9.80E+07	--	--
	1,3-Dichlorobenzene	µg/kg	--		7.08	U	7.51	U	--	--	--	--	--
	1,3-Dichloropropane	µg/kg	--		7.53	U	7.99	U	--	--	--	--	--
	1,4-Dichlorobenzene	µg/kg	--		9.58	U	10.2	U	6.40E+04	1.30E+06	3.60E+07	3.60E+04	1.30E+04
	2,2-Dichloropropane	µg/kg	--		7.12	U	7.56	U	--	--	--	--	--
	2-Butanone	µg/kg	--		28.8	U	30.5	U	--	--	--	--	--
	2-Chlorotoluene	µg/kg	--		6.73	U	7.14	U	--	--	--	--	--
	2-Hexanone	µg/kg	--		32	U	34	U	--	--	--	--	--
	4-Chlorotoluene	µg/kg	--		4.91	U	5.21	U	--	--	--	--	--
	4-Methyl-2-pentanone	µg/kg	--		21.6	U	23.0	U	--	--	--	--	--
	Acetone	µg/kg	--		680	U	722	U	--	--	--	--	--
	Benzene	µg/kg	--		4.79	U	5.08	U	3.70E+04	3.80E+05	1.10E+07	5.00E+04	2.10E+03
	Bromobenzene	µg/kg	--		14.2	U	15	U	--	--	--	--	--
	Bromochloromethane	µg/kg	--		11	U	11.7	U	--	--	--	--	--
	Bromodichloromethane	µg/kg	--		11.5	U	12.3	U	1.50E+04	2.30E+05	6.30E+06	1.10E+04	5.30E+02
	Bromoform	µg/kg	--		10.4	U	11.1	UJ	2.60E+05	2.70E+06	7.40E+07	3.60E+05	1.10E+05
	Bromomethane	µg/kg	--		9.11	U	9.67	U	7.50E+05	3.70E+05	1.00E+07	7.00E+05	1.70E+04
	Carbon disulfide	µg/kg	--		8.14	U	8.64	U	--	--	--	--	--
	Carbon tetrachloride	µg/kg	--		12.5	U	13.2	U	--	--	--	--	--
	Chlorobenzene	µg/kg	--		3.48	U	3.69	U	8.70E+06	4.70E+06	1.30E+08	--	--

Table B-8
Riverbank Surface Sample Results - Section 2
Human Health Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Riverbank Section 2						Oregon Department of Environmental Quality Risk-Based Concentrations				
			S2-3		S2-4		S2-5		Soil Ingestion, Dermal Contact, and Inhal.			Vol. to Outdoor Air	Vapor Intrusion
		Date	9/24/2010		9/24/2010		9/24/2010						
		Depth (Feet Below Ground Surface)	0		0		0		Occ	Const.	Exc	Occ	Occ
VOCs (continued)	Chloroethane	µg/kg	--		20.9	U	22.2	U	--	--	--	--	--
	Chloroform	µg/kg	--		6.16	U	6.54	U	2.60E+04	4.10E+05	1.10E+07	1.70E+04	4.10E+02
	Chloromethane	µg/kg	--		7.91	U	8.4	U	2.50E+07	2.50E+07	7.00E+08	--	3.00E+05
	cis-1,2-Dichloroethene	µg/kg	--		12.2	U	13	U	2.30E+06	7.10E+05	2.00E+07	--	--
	cis-1,3-Dichloropropene	µg/kg	--		5.21	U	5.53	U	--	--	--	--	--
	Dibromochloromethane	µg/kg	--		8.4	U	8.92	UJ	--	--	--	--	--
	Dibromomethane	µg/kg	--		5.38	U	5.71	U	--	--	--	--	--
	Dichlorodifluoromethane	µg/kg	--		8.14	U	8.64	U	--	--	--	--	--
	Ethylbenzene	µg/kg	--		3.2	U	3.4	U	1.50E+05	1.70E+06	4.90E+07	1.60E+05	1.70E+04
	Hexachlorobutadiene	µg/kg	--		10.1	U	10.7	U	--	--	--	--	--
	Isopropylbenzene	µg/kg	--		8.4	U	8.92	U	5.70E+07	2.70E+07	7.50E+08	--	--
	m,p-Xylene	µg/kg	--		20.2	U	21.4	U	2.50E+07	2.00E+07	5.60E+08	--	--
	Methyl tert-butyl ether	µg/kg	--		6.16	U	6.54	U	1.10E+06	1.20E+07	3.20E+08	1.50E+06	1.10E+05
	Methylene chloride	µg/kg	--		26.0	J	28.8	J	1.60E+06	2.10E+06	5.80E+07	-	9.50E+05
	Naphthalene	µg/kg	--		--		--		2.30E+04	5.80E+05	1.60E+07	8.30E+04	8.30E+04
	n-Butylbenzene	µg/kg	--		7.25	U	7.69	U	--	--	--	--	--
	n-Propylbenzene	µg/kg	--		7.96	U	8.45	U	--	--	--	--	--
	o-Xylene	µg/kg	--		7.33	U	7.77	U	2.50E+07	2.00E+07	5.60E+08	--	--
	p-Isopropyltoluene	µg/kg	--		11	U	11.6	U	--	--	--	--	--
	sec-Butylbenzene	µg/kg	--		5.76	U	6.12	U	--	--	--	--	--
	Styrene	µg/kg	--		3.56	U	3.77	U	1.30E+08	5.60E+07	--	--	--
	tert-Butylbenzene	µg/kg	--		11.1	U	11.7	U	--	--	--	--	--
	Tetrachloroethene	µg/kg	--		16.3	U	17.3	U	1.00E+06	1.80E+06	5.00E+07	--	3.60E+04
	Toluene	µg/kg	--		3.96	U	4.21	U	8.80E+07	2.80E+07	7.70E+08	--	--
	trans-1,2-Dichloroethene	µg/kg	--		6.64	U	7.04	U	2.30E+07	7.10E+06	2.00E+08	--	--
	trans-1,3-Dichloropropene	µg/kg	--		6.64	U	7.04	U	--	--	--	--	--
	Trichloroethene	µg/kg	--		8.22	U	8.72	U	5.10E+04	4.70E+05	1.30E+07	9.60E+04	2.30E+03
	Trichlorofluoromethane	µg/kg	--		35.2	U	37.4	U	1.30E+08	6.90E+07	--	--	--
	Vinyl chloride	µg/kg	--		8.47	UJ	8.99	UJ	4.40E+03	3.40E+04	9.50E+05	8.90E+04	2.20E+03
SVOCs	1,2,4-Trichlorobenzene	µg/kg	--		--		--		--	--	--	--	--
	1,2-Dichlorobenzene	µg/kg	--		--		--		3.60E+07	2.00E+07	5.60E+08	--	--
	1,3-Dichlorobenzene	µg/kg	--		--		--		--	--	--	--	--
	1,4-Dichlorobenzene	µg/kg	--		--		--		6.40E+04	1.30E+06	3.60E+07	1.90E+04	1.30E+04
	2,4,5-Trichlorophenol	µg/kg	--		--		--		--	--	--	--	--
	2,4,6-Trichlorophenol	µg/kg	--		--		--		2.10E+05	2.70E+05	7.40E+06	--	--
	2,4-Dichlorophenol	µg/kg	--		--		--		--	--	--	--	--
	2,4-Dimethylphenol	µg/kg	--		--		--		--	--	--	--	--
	2,4-Dinitrophenol	µg/kg	--		--		--		--	--	--	--	--
	2,4-Dinitrotoluene	µg/kg	--		--		--		--	--	--	--	--
	2,6-Dinitrotoluene	µg/kg	--		--		--		1.50E+03	1.30E+04	3.50E+05	--	--
	2-Chloronaphthalene	µg/kg	--		--		--		--	--	--	--	--
	2-Chlorophenol	µg/kg	--		--		--		--	--	--	--	--
	2-Methylphenol	µg/kg	--		--		--		--	--	--	--	--
	2-Nitroaniline	µg/kg	--		--		--		--	--	--	--	--
	2-Nitrophenol	µg/kg	--		--		--		--	--	--	--	--
	3,3'-Dichlorobenzidine	µg/kg	--		--		--		--	--	--	--	--
	3,4-Methylphenol	µg/kg	--		--		--		--	--	--	--	--
	3-Nitroaniline	µg/kg	--		--		--		--	--	--	--	--
	4,6-Dinitro-2-methylphenol	µg/kg	--		--		--		--	--	--	--	--
	4-Bromophenyl phenyl ether	µg/kg	--		--		--		--	--	--	--	--
	4-Chloro-3-methylphenol	µg/kg	--		--		--		--	--	--	--	--
	4-Chloroaniline	µg/kg	--		--		--		--	--	--	--	--
	4-Chlorophenyl phenyl ether	µg/kg	--		--		--		--	--	--	--	--
	4-Nitroaniline	µg/kg	--		--		--		--	--	--	--	--
	4-Nitrophenol	µg/kg	--		--		--		--	--	--	--	--
	Benzoic Acid	µg/kg	--		--		--		--	--	--	--	--
	Benzyl Alcohol	µg/kg	--		--		--		--	--	--	--	--
	Bis(2-chloroethoxy)methane	µg/kg	--		--		--		--	--	--	--	--
	Bis(2-chloroethyl)ether	µg/kg	--		--		--		1.30E+03	1.60E+04	4.50E+05	1.20E+03	6.90E+03
	Bis(2-chloroisopropyl)ether	µg/kg	--		--		--		--	--	--	--	--
	Dibenzofuran	µg/kg	--		--		--		--	--	--	--	--
	Hexachlorobenzene	µg/kg	--		--		--		9.30E+02	1.10E+04	3.20E+05	2.40E+03	1.30E+04
	Hexachlorobutadiene	µg/kg	--		--		--		--	--	--	--	--
	Hexachlorocyclopentadiene	µg/kg	--		--		--		--	--	--	--	--
	Hexachloroethane	µg/kg	--		--		--		3.20E+04	1.80E+05	5.10E+06	1.90E+04	7.60E+03
	Isophorone	µg/kg	--		--		--		--	--	--	--	--
	Nitrobenzene	µg/kg	--		--		--		--	--	--	--	--
	N-Nitrosodi-n-propylamine	µg/kg	--		--		--		--	--	--	--	--
	N-Nitrosodiphenylamine	µg/kg	--		--		--		4.70E+05	3.80E+06	1.10E+08	--	--
	Pentachlorophenol	µg/kg	--		--		--		4.00E+03	3.40E+04	9.60E+05	--	--
	Phenol	µg/kg	--		--		--		--	--	--	--	--

Table B-8
Riverbank Surface Sample Results - Section 2
Human Health Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Riverbank Section 2						Oregon Department of Environmental Quality Risk-Based Concentrations				
			S2-3		S2-4		S2-5		Soil Ingestion, Dermal Contact, and Inhal.			Vol. to Outdoor Air	Vapor Intrusion
		Date	9/24/2010		9/24/2010		9/24/2010						
		Depth (Feet Below Ground Surface)	0		0		0		Occ	Const.	Exc	Occ	Occ
PAHs	2-Methylnaphthalene	µg/kg	4.62	J	3.77	U	3.95	U	--	--	--	--	--
	Acenaphthene	µg/kg	13.2	J	3.77	U	3.95	U	7.00E+07	2.10E+07	5.90E+08	--	--
	Acenaphthylene	µg/kg	84.4		3.77	U	3.95	U	--	--	--	--	--
	Anthracene	µg/kg	119		3.77	U	3.95	U	3.50E+08	1.10E+08	--	--	--
	Benzo(a)anthracene	µg/kg	206		8.63	J	15.7	J	2.90E+03	2.40E+04	6.60E+05	--	--
	Benzo(a)pyrene	µg/kg	330		11.9	J	22.2		--	--	--	--	--
	Benzo(b)fluoranthene	µg/kg	530		15.0	J	24.7		2.90E+03	2.40E+04	6.70E+05	--	--
	Benzo(ghi)perylene	µg/kg	320		9.66	J	19.8		--	--	--	--	--
	Benzo(k)fluranthene	µg/kg	286		10.7	J	20.9		--	--	--	--	--
	Chrysene	µg/kg	327		16.7		23.5		2.90E+05	2.40E+06	6.70E+07	--	--
	Dibenzo(a,h)anthracene	µg/kg	95.1		3.77	U	5.12	J	2.90E+02	2.40E+03	6.70E+04	--	--
	Fluoranthene	µg/kg	369		25.7		35.8		3.00E+07	1.00E+07	2.80E+08	--	--
	Fluorene	µg/kg	31.8		3.77	U	3.95	U	4.70E+07	1.40E+07	3.90E+08	--	--
	Indeno(1,2,3-cd)pyrene	µg/kg	276		8.56	J	16.8		2.90E+03	2.40E+04	6.70E+05	--	--
	Naphthalene	µg/kg	8.13	J	3.77	U	4.01	J	2.30E+04	5.80E+05	1.60E+07	8.30E+04	8.30E+04
	Phenanthrene	µg/kg	100		13.7	J	22.5		--	--	--	--	--
	Pyrene	µg/kg	307		20.7		32.1		2.30E+07	7.50E+06	2.10E+08	--	--
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	28.9	U	41.2		118		1.60E+05	1.30E+06	3.70E+07	--	--
	Butyl benzyl phthalate	µg/kg	28.9	U	15.3	U	16.1	U	--	--	--	--	--
	Diethyl phthalate	µg/kg	28.9	U	15.3	U	17.6	J	--	--	--	--	--
	Dimethyl phthalate	µg/kg	28.9	U	15.3	U	16.1	U	--	--	--	--	--
	Di-n-butyl phthalate	µg/kg	28.9	U	15.3	U	17.0	J	--	--	--	--	--
	Di-n-octyl phthalate	µg/kg	28.9	U	15.3	U	16.1	U	--	--	--	--	--
Organotins	Dibutyltin	µg/kg	0.44	U	0.44	U	0.44	U	--	--	--	--	--
	Monobutyltin	µg/kg	0.41	U	6.7		0.42	U	--	--	--	--	--
	Tetra-n-butyltin	µg/kg	1.3	U	1.3	U	1.3	U	--	--	--	--	--
	Tributyltin	µg/kg	0.9	U	35		15		--	--	--	--	--
Organochlorine Pesticides	4-4'-DDD	µg/kg	--		--		--		1.20E+04	9.40E+04	2.60E+06		
	4,4'-DDE	µg/kg	--		--		--		8.20E+03	6.60E+04	1.80E+06	--	--
	4,4'-DDT	µg/kg	--		--		--		8.50E+03	6.60E+04	1.80E+06	--	--
	Aldrin	µg/kg	--		--		--		1.30E+02	1.10E+03	3.00E+04	--	--
	alpha-BHC	µg/kg	--		--		--		3.60E+02	3.00E+03	8.30E+04	--	--
	alpha-Chlordane	µg/kg	--		--		--		--	--	--	--	--
	beta-BHC	µg/kg	--		--		--		--	--	--	--	--
	Chlordane	µg/kg	--		--		--		7.40E+03	6.10E+04	1.70E+06	--	--
	delta-BHC	µg/kg	--		--		--		--	--	--	--	--
	Dieldrin	µg/kg	--		--		--		1.40E+02	1.20E+03	3.30E+04	--	--
	Endosulfan I	µg/kg	--		--		--		--	--	--	--	--
	Endosulfan II	µg/kg	--		--		--		--	--	--	--	--
	Endosulfan sulfate	µg/kg	--		--		--		--	--	--	--	--
	Endrin	µg/kg	--		--		--		2.50E+05	8.00E+04	2.20E+06	--	--
	Endrin aldehyde	µg/kg	--		--		--		--	--	--	--	--
	Endrin ketone	µg/kg	--		--		--		--	--	--	--	--
	gamma-BHC (Lindane)	µg/kg	--		--		--		2.10E+03	1.70E+04	4.70E+05	--	--
	gamma-Chlordane	µg/kg	--		--		--		--	--	--	--	--
	Heptachlor	µg/kg	--		--		--		4.50E+02	4.00E+03	1.10E+05	2.30E+05	2.30E+05
	Heptachlor epoxide	µg/kg	--		--		--		2.40E+02	2.00E+03	5.60E+04	--	--
	Methoxychlor	µg/kg	--		--		--		--	--	--	--	--
	Toxaphene	µg/kg	--		--		--		2.10E+03	1.70E+04	4.70E+05	--	--
Petroleum Hydrocarbons	Diesel	mg/kg	4.61	J	1.04	J	1.87	J	1.40E+04	4.60E+03	--	--	--
	Heavy Oil	mg/kg	24.6	J	2.89	J	15.1	J	--	--	--	--	--

Notes:
1. -- = Not applicable/not analyzed
2. mg/kg = Milligrams per kilogram
3. µg/kg = Micrograms per kilogram
4. J = The result is an estimated quantity
5. U= Undetected at the method detection limit shown
6. UJ = Undetected at the method detection limit shown, detection limit is an estimated quantity
7. Risk-Based Concentrations; revision date 11/1/15
8. Shading indicates sample concentration exceeds one or more RBCs

Table B-9
Riverbank Surface Sample Results - Section 2
Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Riverbank Section 2						Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			S2-3		S2-4		S2-5						
	Date		9/24/2010		9/24/2010		9/24/2010		Plants	Inverts.	Birds	Mammals	
	Depth (Feet Below Ground Surface)		0		0		0						
Inorganics	Mercury	mg/kg	0.0285	J	0.00500	U	0.0100	J	0.3	0.1	1.5	73	0.23
	Arsenic	mg/kg	68.1		2.25	J	3.51		10	60	10	29	8.8
	Barium	mg/kg	95.4		149		160		500	3,000	85	638	790
	Chromium	mg/kg	27.9		4.94	J	19.0		1	0.4	4	410	76
	Copper	mg/kg	138		26.9		76.4		100	50	190	390	34
	Lead	mg/kg	125		7.13		20.3		50	500	16	4000	79
	Manganese	mg/kg	381		1,400		1,120		500	100	4,125	11,000	1,800
	Nickel	mg/kg	19.8		3.70	J	11.1		30	200	320	625	47
	Selenium	mg/kg	0.0759	J	0.0289	J	0.0303	J	1	70	2	25	0.71
	Silver	mg/kg	0.314	J	0.0866	J	0.212	J	2	50	--	--	0.82
	Zinc	mg/kg	604		99.8		265		50	200	60	20,000	180
PCBs	Aroclor 1016	µg/kg	1.81	U	1.92	U	2.02	U	--	--	--	1.0E+05	--
	Aroclor 1221	µg/kg	3.60	U	3.83	U	4.03	U	--	--	--	--	--
	Aroclor 1232	µg/kg	1.81	U	1.92	U	2.02	U	--	--	--	--	--
	Aroclor 1242	µg/kg	1.81	U	1.92	U	2.02	U	--	--	1.5E+03	5.0E+03	--
	Aroclor 1248	µg/kg	1.81	U	1.92	U	2.02	U	--	--	--	--	--
	Aroclor 1254	µg/kg	1.81	U	1.92	U	2.02	U	--	--	7.0E+02	4.0E+03	--
	Aroclor 1260	µg/kg	3.32	J	1.92	U	3.10	J	--	--	--	--	--
	Aroclor 1262	µg/kg	1.81	U	1.92	U	2.02	U	--	--	--	--	--
	Aroclor 1268	µg/kg	1.81	U	1.92	U	2.02	U	--	--	--	--	--
	Total PCBs	µg/kg	3.32	J	19.2	U	3.10	J	4.0E+04	--	--	4.0E+03	--
VOCs	1,1,1,2-Tetrachloroethane	µg/kg	--		10.6	U	11.2	U	--	--	--	--	--
	1,1,1-Trichloroethane	µg/kg	--		5.71	U	6.06	U	--	--	--	5.6E+07	--
	1,1,2,2-Tetrachloroethane	µg/kg	--		12.9	U	13.7	U	--	--	--	--	--
	1,1,2-Trichloroethane	µg/kg	--		7.69	U	8.16	U	--	--	--	--	--
	1,1-Dichloroethane	µg/kg	--		7.61	U	8.07	U	--	--	--	--	--
	1,1-Dichloroethene	µg/kg	--		13.6	U	14.4	U	--	--	--	3.8E+06	--
	1,1-Dichloropropene	µg/kg	--		8.96	U	9.50	U	--	--	--	--	--
	1,2,3-Trichlorobenzene	µg/kg	--		10.6	U	11.3	U	--	2.0E+04	--	--	--
	1,2,3-Trichloropropane	µg/kg	--		7.33	U	7.77	U	--	--	--	--	--
	1,2,4-Trichlorobenzene	µg/kg	--		15.7	U	16.7	U	--	2.0E+04	--	--	--
	1,2,4-Trimethylbenzene	µg/kg	--		16.8	U	17.8	U	--	--	--	--	--
	1,2-Dibromo-3-chloropropane	µg/kg	--		46.8	U	49.6	U	--	--	--	--	--
	1,2-Dibromoethane	µg/kg	--		11.8	U	12.5	U	--	--	--	--	--
	1,2-Dichlorobenzene	µg/kg	--		8.82	U	9.36	U	--	--	--	--	--
	1,2-Dichloroethane	µg/kg	--		8.58	U	9.11	U	--	--	7.0E+04	2.8E+06	--
	1,2-Dichloropropane	µg/kg	--		7.61	U	8.07	U	--	7.0E+05	--	--	--
	1,3,5-Trimethylbenzene	µg/kg	--		9.28	U	9.85	U	--	--	--	--	--
	1,3-Dichlorobenzene	µg/kg	--		7.08	U	7.51	U	--	--	--	--	--
	1,3-Dichloropropane	µg/kg	--		7.53	U	7.99	U	--	--	--	--	--
	1,4-Dichlorobenzene	µg/kg	--		9.58	U	10.2	U	--	2.0E+04	--	--	--
	2,2-Dichloropropane	µg/kg	--		7.12	U	7.56	U	--	--	--	--	--
	2-Butanone	µg/kg	--		28.8	U	30.5	U	--	--	--	2.0E+08	--
	2-Chlorotoluene	µg/kg	--		6.73	U	7.14	U	--	--	--	--	--
	2-Hexanone	µg/kg	--		32	U	34	U	--	--	--	--	--
	4-Chlorotoluene	µg/kg	--		4.91	U	5.21	U	--	--	--	--	--
	4-Methyl-2-pentanone	µg/kg	--		21.6	U	23.0	U	--	--	--	--	--
	Acetone	µg/kg	--		680	U	722	U	--	--	--	1.3E+06	--
	Benzene	µg/kg	--		4.79	U	5.08	U	--	--	--	3.3E+06	--
	Bromobenzene	µg/kg	--		14.2	U	15	U	--	--	--	--	--
	Bromochloromethane	µg/kg	--		11	U	11.7	U	--	--	--	--	--
	Bromodichloromethane	µg/kg	--		11.5	U	12.3	U	--	--	--	--	--
	Bromoform	µg/kg	--		10.4	U	11.1	UJ	--	--	--	--	--
	Bromomethane	µg/kg	--		9.11	U	9.67	U	--	--	--	--	--
	Carbon disulfide	µg/kg	--		8.14	U	8.64	U	--	--	--	--	--
	Carbon tetrachloride	µg/kg	--		12.5	U	13.2	U	--	1.0E+06	--	2.0E+06	--
	Chlorobenzene	µg/kg	--		3.48	U	3.69	U	--	4.0E+04	--	--	--

Table B-9
Riverbank Surface Sample Results - Section 2
Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Riverbank Section 2						Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			S2-3		S2-4		S2-5						
		Date	9/24/2010		9/24/2010		9/24/2010		Plants	Inverts.	Birds	Mammals	
		Depth (Feet Below Ground Surface)	0		0		0						
VOCs (continued)	Chloroethane	µg/kg	--		20.9	U	22.2	U	--	--	--	--	--
	Chloroform	µg/kg	--		6.16	U	6.54	U	--	--	--	1.9E+06	--
	Chloromethane	µg/kg	--		7.91	U	8.4	U	--	--	--	--	--
	cis-1,2-Dichloroethene	µg/kg	--		12.2	U	13	U	--	--	--	2.5E+06	--
	cis-1,3-Dichloropropene	µg/kg	--		5.21	U	5.53	U	--	--	--	--	--
	Dibromochloromethane	µg/kg	--		8.4	U	8.92	UJ	--	--	--	--	--
	Dibromomethane	µg/kg	--		5.38	U	5.71	U	--	--	--	--	--
	Dichlorodifluoromethane	µg/kg	--		8.14	U	8.64	U	--	--	--	--	--
	Ethylbenzene	µg/kg	--		3.2	U	3.4	U	--	--	--	--	--
	Hexachlorobutadiene	µg/kg	--		10.1	U	10.7	U	--	--	--	--	--
	Isopropylbenzene	µg/kg	--		8.4	U	8.92	U	--	--	--	--	--
	m,p-Xylene	µg/kg	--		20.2	U	21.4	U	--	--	--	--	--
	Methyl tert-butyl ether	µg/kg	--		6.16	U	6.54	U	--	--	--	--	--
	Methylene chloride	µg/kg	--		26.0	J	28.8	J	--	--	--	7.3E+05	--
	Naphthalene	µg/kg	--		--		--		1.0E+04	--	--	3.9E+06	--
	n-Butylbenzene	µg/kg	--		7.25	U	7.69	U	--	--	--	--	--
	n-Propylbenzene	µg/kg	--		7.96	U	8.45	U	--	--	--	--	--
	o-Xylene	µg/kg	--		7.33	U	7.77	U	1.0E+03	--	--	--	--
	p-Isopropyltoluene	µg/kg	--		11	U	11.6	U	--	--	--	--	--
	sec-Butylbenzene	µg/kg	--		5.76	U	6.12	U	--	--	--	--	--
	Styrene	µg/kg	--		3.56	U	3.77	U	3.0E+05	--	--	--	--
	tert-Butylbenzene	µg/kg	--		11.1	U	11.7	U	--	--	--	--	--
	Tetrachloroethene	µg/kg	--		16.3	U	17.3	U	1.0E+04	--	--	8.0E+04	--
	Toluene	µg/kg	--		3.96	U	4.21	U	2.0E+05	--	--	1.4E+06	--
	trans-1,2-Dichloroethene	µg/kg	--		6.64	U	7.04	U	--	--	--	2.5E+06	--
	trans-1,3-Dichloropropene	µg/kg	--		6.64	U	7.04	U	--	--	--	--	--
	Trichloroethene	µg/kg	--		8.22	U	8.72	U	--	--	--	4.0E+04	--
	Trichlorofluoromethane	µg/kg	--		35.2	U	37.4	U	--	--	--	--	--
	Vinyl chloride	µg/kg	--		8.47	UJ	8.99	UJ	--	--	--	2.0E+04	--
SVOCs	1,2,4-Trichlorobenzene	µg/kg	--		--		--		--	2.0E+04	--	--	--
	1,2-Dichlorobenzene	µg/kg	--		--		--		--	--	--	--	--
	1,3-Dichlorobenzene	µg/kg	--		--		--		--	--	--	--	--
	1,4-Dichlorobenzene	µg/kg	--		--		--		--	2.0E+04	--	--	--
	2,4,5-Trichlorophenol	µg/kg	--		--		--		4.0E+03	9.0E+03	--	--	--
	2,4,6-Trichlorophenol	µg/kg	--		--		--		1.0E+04	1.0E+04	--	--	--
	2,4-Dichlorophenol	µg/kg	--		--		--		2.0E+04	--	--	--	--
	2,4-Dimethylphenol	µg/kg	--		--		--		2.0E+04	--	--	--	--
	2,4-Dinitrophenol	µg/kg	--		--		--		2.0E+04	--	--	--	--
	2,4-Dinitrotoluene	µg/kg	--		--		--		--	--	--	--	--
	2,6-Dinitrotoluene	µg/kg	--		--		--		--	--	--	--	--
	2-Chloronaphthalene	µg/kg	--		--		--		--	--	--	--	--
	2-Chlorophenol	µg/kg	--		--		--		6.0E+04	--	--	--	--
	2-Methylphenol	µg/kg	--		--		--		5.0E+04	--	--	1.6E+07	--
	2-Nitroaniline	µg/kg	--		--		--		--	--	--	--	--
	2-Nitrophenol	µg/kg	--		--		--		--	--	--	--	--
	3,3'-Dichlorobenzidine	µg/kg	--		--		--		--	--	--	--	--
	3,4-Methylphenol	µg/kg	--		--		--		--	--	--	--	--
	3-Nitroaniline	µg/kg	--		--		--		7.0E+04	--	--	--	--
	4,6-Dinitro-2-methylphenol	µg/kg	--		--		--		--	--	--	--	--
	4-Bromophenyl phenyl ether	µg/kg	--		--		--		--	--	--	--	--
	4-Chloro-3-methylphenol	µg/kg	--		--		--		--	--	--	--	--
	4-Chloroaniline	µg/kg	--		--		--		4.0E+04	--	--	--	--
	4-Chlorophenyl phenyl ether	µg/kg	--		--		--		--	--	--	--	--
	4-Nitroaniline	µg/kg	--		--		--		4.0E+04	--	--	--	--
	4-Nitrophenol	µg/kg	--		--		--		1.0E+04	7.0E+03	--	--	--
	Benzoic Acid	µg/kg	--		--		--		--	--	--	--	--
	Benzyl Alcohol	µg/kg	--		--		--		--	--	--	--	--
	Bis(2-chloroethoxy)methane	µg/kg	--		--		--		--	--	--	--	--
	Bis(2-chloroethyl)ether	µg/kg	--		--		--		--	--	--	--	--
	Bis(2-chloroisopropyl)ether	µg/kg	--		--		--		--	--	--	--	--
	Dibenzofuran	µg/kg	--		--		--		--	--	--	2.0E+00	--
	Hexachlorobenzene	µg/kg	--		--		--		--	1.0E+06	--	--	--
	Hexachlorobutadiene	µg/kg	--		--		--		--	--	--	--	--
	Hexachlorocyclopentadiene	µg/kg	--		--		--		1.0E+04	--	--	--	--
	Hexachloroethane	µg/kg	--		--		--		--	--	--	--	--
	Isophorone	µg/kg	--		--		--		--	--	--	--	--
	Nitrobenzene	µg/kg	--		--		--		8.0E+03	4.0E+04	--	--	--
	N-Nitrosodi-n-propylamine	µg/kg	--		--		--		--	--	--	--	--
	N-Nitrosodiphenylamine	µg/kg	--		--		--		--	2.0E+04	--	--	--
	Pentachlorophenol	µg/kg	--		--		--		3.0E+03	4.0E+03	--	3.0E+04	--
	Phenol	µg/kg	--		--		--		7.0E+04	3.0E+04	--	--	--

Table B-9
Riverbank Surface Sample Results - Section 2
Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Riverbank Section 2						Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			S2-3		S2-4		S2-5						
		Date	9/24/2010		9/24/2010		9/24/2010		Plants	Inverts.	Birds	Mammals	
		Depth (Feet Below Ground Surface)	0		0		0						
PAHs	2-Methylnaphthalene	µg/kg	4.62	J	3.77	U	3.95	U	--	--	--	--	--
	Acenaphthene	µg/kg	13.2	J	3.77	U	3.95	U	2.0E+04	--	--	--	--
	Acenaphthylene	µg/kg	84.4		3.77	U	3.95	U	--	--	--	--	--
	Anthracene	µg/kg	119		3.77	U	3.95	U	--	--	--	--	--
	Benzo(a)anthracene	µg/kg	206		8.63	J	15.7	J	--	--	--	--	--
	Benzo(a)pyrene	µg/kg	330		11.9	J	22.2		--	--	--	1.3E+05	--
	Benzo(b)fluoranthene	µg/kg	530		15.0	J	24.7		--	--	--	--	--
	Benzo(ghi)perylene	µg/kg	320		9.66	J	19.8		--	--	--	--	--
	Benzo(k)fluranthene	µg/kg	286		10.7	J	20.9		--	--	--	--	--
	Chrysene	µg/kg	327		16.7		23.5		--	--	--	--	--
	Dibenzo(a,h)anthracene	µg/kg	95.1		3.77	U	5.12	J	--	--	--	--	--
	Fluoranthene	µg/kg	369		25.7		35.8		--	--	--	--	--
	Fluorene	µg/kg	31.8		3.77	U	3.95	U	--	3.0E+04	--	--	--
	Indeno(1,2,3-cd)pyrene	µg/kg	276		8.56	J	16.8		--	--	--	--	--
	Naphthalene	µg/kg	8.13	J	3.77	U	4.01	J	1.0E+04	--	--	3.9E+06	--
	Phenanthrene	µg/kg	100		13.7	J	22.5		--	--	--	--	--
	Pyrene	µg/kg	307		20.7		32.1		--	--	--	--	--
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	28.9	U	41.2		118		--	--	4.5E+03	1.0E+06	--
	Butyl benzyl phthalate	µg/kg	28.9	U	15.3	U	16.1	U	--	--	--	--	--
	Diethyl phthalate	µg/kg	28.9	U	15.3	U	17.6	J	1.0E+05	--	--	2.5E+08	--
	Dimethyl phthalate	µg/kg	28.9	U	15.3	U	16.1	U	--	2.0E+05	--	--	--
	Di-n-butyl phthalate	µg/kg	28.9	U	15.3	U	17.0	J	2.0E+05	--	4.5E+02	3.0E+07	--
	Di-n-octyl phthalate	µg/kg	28.9	U	15.3	U	16.1	U	--	--	--	--	--
Organotins	Dibutyltin	µg/kg	0.44	U	0.44	U	0.44	U	--	--	--	--	--
	Monobutyltin	µg/kg	0.41	U	6.7		0.42	U	--	--	--	--	--
	Tetra-n-butyltin	µg/kg	1.3	U	1.3	U	1.3	U	--	--	--	--	--
	Tributyltin	µg/kg	0.9	U	35		15		--	--	--	--	--
Organochlorine Pesticides	4-4'-DDD	µg/kg	--		--		--		--	--	--	--	--
	4,4'-DDE	µg/kg	--		--		--		--	--	1.0E+01	1.0E+05	--
	4,4'-DDT	µg/kg	--		--		--		--	--	1.0E+01	1.0E+05	--
	Aldrin	µg/kg	--		--		--		--	--	--	2.5E+04	--
	alpha-BHC	µg/kg	--		--		--		--	--	--	--	--
	alpha-Chlordane	µg/kg	--		--		--		--	--	--	--	--
	beta-BHC	µg/kg	--		--		--		--	--	--	--	--
	Chlordane	µg/kg	--		--		--		--	--	9.0E+03	2.5E+05	--
	delta-BHC	µg/kg	--		--		--		--	--	--	--	--
	Dieldrin	µg/kg	--		--		--		--	--	3.0E+02	3.0E+03	--
	Endosulfan I	µg/kg	--		--		--		--	--	--	--	--
	Endosulfan II	µg/kg	--		--		--		--	--	--	--	--
	Endosulfan sulfate	µg/kg	--		--		--		--	--	--	--	--
	Endrin	µg/kg	--		--		--		--	--	4.0E+01	5.0E+03	--
	Endrin aldehyde	µg/kg	--		--		--		--	--	--	--	--
	Endrin ketone	µg/kg	--		--		--		--	--	--	--	--
	gamma-BHC (Lindane)	µg/kg	--		--		--		--	--	2.5E+03	2.0E+05	--
	gamma-Chlordane	µg/kg	--		--		--		--	--	--	--	--
	Heptachlor	µg/kg	--		--		--		--	--	--	1.5E+04	--
	Heptachlor epoxide	µg/kg	--		--		--		--	--	--	--	--
	Methoxychlor	µg/kg	--		--		--		--	--	--	5.0E+05	--
	Toxaphene	µg/kg	--		--		--		--	--	--	1.0E+06	--
Petroleum Hydrocarbons	Diesel	mg/kg	4.61	J	1.04	J	1.87	J	--	--	--	--	--
	Heavy Oil	mg/kg	24.6	J	2.89	J	15.1	J	--	--	--	--	--

Notes:
1. -- = Not applicable/not analyzed
2. mg/kg = Milligrams per kilogram
3. µg/kg = Micrograms per kilogram
4. J = The result is an estimated quantity
5. U= Undetected at the method detection limit shown
6. UJ = Undetected at the method detection limit shown, detection limit is an estimated quantity
7. Level II Screening Benchmark Values; revision date 12/2001
8. Shading indicates sample concentration exceeds the default background concentration and one or more SLVs

Table B-10
Soil Boring Results: 0 to 25 Feet - Riverbank Section 2
Source Control Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.4				Vector 2.5			Vector 2.6			Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil
			090710-2-2.4-5-02-FS	090710-2-2.4-10-03-FS	090710-2-2.4-15-04-FS	090710-2-2.4-20-05-FS	090810-2-2.5-00-10-WS	090710-2-2.5-5-02-FS	090710-2-2.5-15-04-FS	090810-2-2.6-00-10-WS	090810-2-2.6-5-01-FS	090810-2-2.6-15-03-FS		
		Date	9/7/2010	9/7/2010	9/7/2010	9/7/2010	9/8/2010	9/7/2010	9/7/2010	9/8/2010	9/8/2010	9/8/2010		
		Depth (Feet Below Ground Surface)	5 - 10	10 - 15	15 - 20	20 - 25	0	5 - 10	15 - 20	0	5 - 10	15 - 20		
Inorganics	Mercury	mg/kg	0.149	0.0737 J	--	0.0136 J	0.0379 J	0.133	0.0745 J	0.045 J	0.00600 J	0.0601 J	0.07	1.1
	Arsenic	mg/kg	23.8	7.59	--	7.22	205	10.0	14.7	63.1	3.14	18.4	--	3.0
	Barium	mg/kg	342	151	--	159	463	324	339	257	139	142	--	--
	Chromium	mg/kg	56.4 J	32.8	--	134	123	31.2	27.5	72.9	13.5	27.9	111	--
	Copper	mg/kg	100	48.3	--	58.7	1,880	68.0	44.7	687	28.1	89.7	149	149
	Lead	mg/kg	204 J	93.7	--	65.3	459	216	169	188	24.2	162	17	128
	Manganese	mg/kg	2,020	964	--	1,250	2,350	384	984	1,390	620	621	1,100	--
	Nickel	mg/kg	40.6	24.4	--	84.6	170	21.2	23.7	44.7	8.01	20.3	49	--
	Selenium	mg/kg	0.312 J	0.110 J	--	0.059 J	0.472 J	0.0736 J	0.0616 J	0.222 J	0.1280 J	0.127 J	5	--
	Silver	mg/kg	0.371 J	0.178 J	--	0.155 J	1.67	0.136 J	0.222 J	0.571 J	0.134 J	0.265 J	5	--
	Zinc	mg/kg	658	192	--	172	2,460	321	403	2,150	110	402	459	459
PCBs	Aroclor 1016	µg/kg	1.96 U	1.82 U	--	1.87 U	1.83 U	18.9 U	2.05 U	8.44 U	1.88 U	2.07 U	--	--
	Aroclor 1221	µg/kg	3.90 U	3.63 U	--	3.74 U	3.64 U	37.8 U	4.08 U	16.8 U	3.75 U	4.13 U	--	--
	Aroclor 1232	µg/kg	1.96 U	1.82 U	--	1.87 U	1.83 U	18.9 U	2.05 U	8.44 U	1.88 U	2.07 U	--	--
	Aroclor 1242	µg/kg	1.96 U	1.82 U	--	1.87 U	1.83 U	18.9 U	2.05 U	8.44 U	1.88 U	2.07 U	--	--
	Aroclor 1248	µg/kg	1.96 U	1.82 U	--	1.87 U	1.83 U	18.9 U	2.05 U	8.44 U	1.88 U	2.07 U	--	--
	Aroclor 1254	µg/kg	1.96 U	1.82 U	--	1.87 U	1.83 U	271	10.2 U	8.44 U	1.88 U	2.07 U	--	--
	Aroclor 1260	µg/kg	1.96 U	8.16	--	2.63 J	1.83 U	18.9 U	2.05 U	46.1	6.79	9.75	--	--
	Aroclor 1262	µg/kg	9.61 J	1.82 U	--	1.87 U	10.2	18.9 U	16.3	8.44 U	1.88 U	2.07 U	--	--
	Aroclor 1268	µg/kg	1.96 U	1.82 U	--	1.87 U	1.83 U	18.9 U	2.05 U	8.44 U	1.88 U	2.07 U	--	--
	Total PCBs	µg/kg	9.61 J	8.16	--	2.63 J	10.2	271	16.3	46.1	6.79	9.75	3.90E-01	9.00E+00
VOCs	1,1,1,2-Tetrachloroethane	µg/kg	--	--	--	--	9.92 U	10.5 U	11.2 U	11.7 U	10.2 U	11.3 U	--	--
	1,1,1-Trichloroethane	µg/kg	--	--	--	--	5.36 U	5.66 U	6.07 U	6.33 U	5.52 U	6.10 U	--	--
	1,1,2,2-Tetrachloroethane	µg/kg	--	--	--	--	12.1 U	12.8 U	13.7 U	14.3 U	12.5 U	13.8 U	--	--
	1,1,2-Trichloroethane	µg/kg	--	--	--	--	7.22 U	7.62 U	8.17 U	8.53 U	7.44 U	8.22 U	--	--
	1,1-Dichloroethane	µg/kg	--	--	--	--	7.14 U	7.55 U	8.09 U	8.44 U	7.36 U	8.14 U	--	--
	1,1-Dichloroethene	µg/kg	--	--	--	--	12.8 U	13.5 U	14.4 U	15.1 U	13.1 U	14.5 U	--	--
	1,1-Dichloropropene	µg/kg	--	--	--	--	8.41 U	8.88 U	9.52 U	9.93 U	8.66 U	9.58 U	--	--
	1,2,3-Trichlorobenzene	µg/kg	--	--	--	--	9.97 U	10.5 U	11.3 U	11.8 U	10.3 U	11.4 U	--	--
	1,2,3-Trichloropropane	µg/kg	--	--	--	--	6.88 U	7.26 U	7.79 U	8.12 U	7.09 U	7.83 U	--	--
	1,2,4-Trichlorobenzene	µg/kg	--	--	--	--	14.8 U	15.6 U	16.7 U	17.5 U	15.2 U	16.8 U	9.20E+03	--
	1,2,4-Trimethylbenzene	µg/kg	--	--	--	--	243	16.6 U	17.8 U	18.6 U	16.2 U	17.9 U	--	--
	1,2-Dibromo-3-	µg/kg	--	--	--	--	43.9 U	46.4 U	49.7 U	51.9 U	45.2 U	50.0 U	--	--
	1,2-Dibromoethane	µg/kg	--	--	--	--	11.1 U	11.7 U	12.5 U	13.1 U	11.4 U	12.6 U	--	--
	1,2-Dichlorobenzene	µg/kg	--	--	--	--	8.28 U	8.75 U	9.38 U	9.78 U	8.53 U	9.43 U	1.70E+03	--
	1,2-Dichloroethane	µg/kg	--	--	--	--	8.06 U	8.51 U	9.13 U	9.52 U	8.30 U	9.18 U	--	--
	1,2-Dichloropropane	µg/kg	--	--	--	--	7.14 U	7.55 U	8.09 U	8.44 U	7.36 U	8.14 U	--	--
	1,3,5-Trimethylbenzene	µg/kg	--	--	--	--	152	9.21 U	9.87 U	10.3 U	8.98 U	9.93 U	--	--
	1,3-Dichlorobenzene	µg/kg	--	--	--	--	6.64 U	7.02 U	7.52 U	7.85 U	6.84 U	7.57 U	3.00E+02	--
	1,3-Dichloropropane	µg/kg	--	--	--	--	7.07 U	7.47 U	8.01 U	8.35 U	7.28 U	8.05 U	--	--
	1,4-Dichlorobenzene	µg/kg	--	--	--	--	8.99 U	9.5 U	10.2 U	10.6 U	9.26 U	10.2 U	3.00E+02	--
	2,2-Dichloropropane	µg/kg	--	--	--	--	6.69 U	7.06 U	7.57 U	7.90 U	6.89 U	7.62 U	--	--

Table B-10
Soil Boring Results: 0 to 25 Feet - Riverbank Section 2
Source Control Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.4				Vector 2.5			Vector 2.6			Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil
			090710-2-2.4-5-02-FS	090710-2-2.4-10-03-FS	090710-2-2.4-15-04-FS	090710-2-2.4-20-05-FS	090810-2-2.5-00-10-WS	090710-2-2.5-5-02-FS	090710-2-2.5-15-04-FS	090810-2-2.6-00-10-WS	090810-2-2.6-5-01-FS	090810-2-2.6-15-03-FS		
		Date	9/7/2010	9/7/2010	9/7/2010	9/7/2010	9/8/2010	9/7/2010	9/7/2010	9/8/2010	9/8/2010	9/8/2010		
		Depth (Feet Below Ground Surface)	5 - 10	10 - 15	15 - 20	20 - 25	0	5 - 10	15 - 20	0	5 - 10	15 - 20		
VOCs (continued)	2-Butanone	µg/kg	--	--	--	--	27.0 U	28.5 U	30.6 U	31.9 U	27.8 U	30.8 U	--	--
	2-Chlorotoluene	µg/kg	--	--	--	--	6.32 U	6.67 U	7.15 U	7.46 U	6.51 U	7.19 U	--	--
	2-Hexanone	µg/kg	--	--	--	--	30.1 U	31.8 U	34.1 U	35.5 U	31.0 U	34.3 U	--	--
	4-Chlorotoluene	µg/kg	--	--	--	--	4.61 U	4.87 U	5.23 U	5.45 U	4.75 U	5.26 U	--	--
	4-Methyl-2-pentanone	µg/kg	--	--	--	--	20.3 U	21.4 U	23.0 U	24.0 U	20.9 U	23.1 U	--	--
	Acetone	µg/kg	--	--	--	--	639 U	675 U	724 U	755 U	658 U	728 U	--	--
	Benzene	µg/kg	--	--	--	--	4.50 U	4.75 U	5.09 U	5.31 U	4.63 U	5.12 U	--	--
	Bromobenzene	µg/kg	--	--	--	--	13.3 U	14 U	15.0 U	15.7 U	13.7 U	15.1 U	--	--
	Bromochloromethane	µg/kg	--	--	--	--	10.4 U	10.9 U	11.7 U	12.2 U	10.7 U	11.8 U	--	--
	Bromodichloromethane	µg/kg	--	--	--	--	10.8 U	11.5 U	12.3 U	12.8 U	11.2 U	12.4 U	--	--
	Bromoform	µg/kg	--	--	--	--	9.78 U	10.3 U	11.1 U	11.6 U	10.1 U	11.1 U	--	--
	Bromomethane	µg/kg	--	--	--	--	8.56 U	9.04 U	9.69 U	10.1 U	8.82 U	9.75 U	--	--
	Carbon disulfide	µg/kg	--	--	--	--	7.64 U	8.07 U	8.66 U	9.03 U	7.87 U	8.71 U	--	--
	Carbon tetrachloride	µg/kg	--	--	--	--	11.7 U	12.4 U	13.2 U	13.8 U	12.0 U	13.3 U	--	--
	Chlorobenzene	µg/kg	--	--	--	--	3.26 U	3.45 U	3.70 U	3.86 U	3.36 U	3.72 U	--	--
	Chloroethane	µg/kg	--	--	--	--	19.7 U	20.8 U	22.3 U	23.2 U	20.3 U	22.4 U	--	--
	Chloroform	µg/kg	--	--	--	--	5.78 U	6.11 U	6.55 U	6.83 U	5.96 U	6.59 U	--	--
	Chloromethane	µg/kg	--	--	--	--	7.43 U	7.85 U	8.42 U	8.78 U	7.65 U	8.46 U	--	--
	cis-1,2-Dichloroethene	µg/kg	--	--	--	--	11.5 U	12.1 U	13.0 U	13.6 U	11.8 U	13.1 U	--	--
	cis-1,3-Dichloropropene	µg/kg	--	--	--	--	4.89 U	5.17 U	5.54 U	5.78 U	5.04 U	5.57 U	--	--
	Dibromochloromethane	µg/kg	--	--	--	--	7.89 U	8.33 U	8.93 U	9.32 U	8.13 U	8.98 U	--	--
	Dibromomethane	µg/kg	--	--	--	--	5.05 U	5.33 U	5.72 U	5.96 U	5.20 U	5.75 U	--	--
	Dichlorodifluoromethane	µg/kg	--	--	--	--	7.64 U	8.07 U	8.66 U	9.03 U	7.87 U	8.71 U	--	--
	Ethylbenzene	µg/kg	--	--	--	--	61.7 J	3.18 U	3.41 U	3.55 U	3.10 U	3.43 U	--	--
	Hexachlorobutadiene	µg/kg	--	--	--	--	9.45 U	9.98 U	10.7 U	11.2 U	9.74 U	10.8 U	6.00E+02	--
	Isopropylbenzene	µg/kg	--	--	--	--	20.2 J	8.33 U	8.93 U	9.32 U	8.13 U	8.98 U	--	--
	m,p-Xylene	µg/kg	--	--	--	--	273	20.0 U	21.4 U	22.4 U	19.5 U	21.6 U	--	--
	Methyl tert-butyl ether	µg/kg	--	--	--	--	5.78 U	6.11 U	6.55 U	6.83 U	5.96 U	6.59 U	--	--
	Methylene chloride	µg/kg	--	--	--	--	11.7 J	12.4 J	21.7 J	20.1 J	13.1 J	13.3 J	--	--
	Naphthalene	µg/kg	--	--	--	--	246	8.65 U	9.27 U	9.67 U	8.43 U	9.32 U	5.61E+02	--
	n-Butylbenzene	µg/kg	--	--	--	--	6.8 U	7.19 U	7.71 U	8.04 U	7.01 U	7.75 U	--	--
	n-Propylbenzene	µg/kg	--	--	--	--	23.4 J	7.89 U	8.46 U	8.83 U	7.70 U	8.51 U	--	--
	o-Xylene	µg/kg	--	--	--	--	225	7.26 U	7.79 U	8.12 U	7.09 U	7.83 U	--	--
	p-Isopropyltoluene	µg/kg	--	--	--	--	10.3 U	10.9 U	11.7 U	12.2 U	10.6 U	11.7 U	--	--
	sec-Butylbenzene	µg/kg	--	--	--	--	9.57 J	5.72 U	6.13 U	6.39 U	5.57 U	6.16 U	--	--
	Styrene	µg/kg	--	--	--	--	3.34 U	3.53 U	3.78 U	3.94 U	3.44 U	3.80 U	--	--
	tert-Butylbenzene	µg/kg	--	--	--	--	10.4 U	11.0 U	11.8 U	12.3 U	10.7 U	11.8 U	--	--
	Tetrachloroethene	µg/kg	--	--	--	--	15.3 U	16.2 U	17.3 U	18.1 U	15.8 U	17.4 U	--	--
	Toluene	µg/kg	--	--	--	--	20.2 J	3.93 U	4.21 U	4.40 U	3.83 U	4.24 U	--	--
	trans-1,2-Dichloroethene	µg/kg	--	--	--	--	6.23 U	6.58 U	7.06 U	7.36 U	6.42 U	7.10 U	--	--
	trans-1,3-Dichloropropene	µg/kg	--	--	--	--	6.23 U	6.58 U	7.06 U	7.36 U	6.42 U	7.10 U	--	--
	Trichloroethene	µg/kg	--	--	--	--	7.72 U	8.15 U	8.74 U	9.12 U	7.95 U	8.79 U	2.10E+03	--
	Trichlorofluoromethane	µg/kg	--	--	--	--	33.1 U	34.9 U	37.4 U	39.1 U	34.1 U	37.7 U	--	--
	Vinyl chloride	µg/kg	--	--	--	--	7.95 U	8.4 U	9.01 UJ	9.39 U	8.19 U	9.06 U	--	--

Table B-10
Soil Boring Results: 0 to 25 Feet - Riverbank Section 2
Source Control Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.4				Vector 2.5			Vector 2.6			Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil
			090710-2-2.4-5-02-FS	090710-2-2.4-10-03-FS	090710-2-2.4-15-04-FS	090710-2-2.4-20-05-FS	090810-2-2.5-00-10-WS	090710-2-2.5-5-02-FS	090710-2-2.5-15-04-FS	090810-2-2.6-00-10-WS	090810-2-2.6-5-01-FS	090810-2-2.6-15-03-FS		
		Date	9/7/2010	9/7/2010	9/7/2010	9/7/2010	9/8/2010	9/7/2010	9/7/2010	9/8/2010	9/8/2010	9/8/2010		
		Depth (Feet Below Ground Surface)	5 - 10	10 - 15	15 - 20	20 - 25	0	5 - 10	15 - 20	0	5 - 10	15 - 20		
SVOCs	1,2,4-Trichlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	9.20E+03	--
	1,2-Dichlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	1.70E+03	--
	1,3-Dichlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	3.00E+02	--
	1,4-Dichlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	3.00E+02	--
	2,4,5-Trichlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	2,4,6-Trichlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	2,4-Dichlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	2,4-Dimethylphenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	2,4-Dinitrophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	2,4-Dinitrotoluene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	2,6-Dinitrotoluene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	2-Chloronaphthalene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	2-Chlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	2-Methylphenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	2-Nitroaniline	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	2-Nitrophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	3,3'-Dichlorobenzidine	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	3,4-Methylphenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	3-Nitroaniline	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	4,6-Dinitro-2-methylphenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	4-Bromophenyl phenyl ether	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	4-Chloro-3-methylphenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	4-Chloroaniline	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	4-Chlorophenyl phenyl ether	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	4-Nitroaniline	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	4-Nitrophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Benzoic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Benzyl Alcohol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Bis(2-chloroethoxy)methane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Bis(2-chloroethyl)ether	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Bis(2-chloroisopropyl)ether	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Dibenzofuran	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Hexachlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	1.90E+01	3.00E-01
	Hexachlorobutadiene	µg/kg	--	--	--	--	--	--	--	--	--	--	6.00E+02	--
	Hexachlorocyclopentadiene	µg/kg	--	--	--	--	--	--	--	--	--	--	4.00E+02	--
	Hexachloroethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Isophorone	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Nitrobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	N-Nitrosodi-n-propylamine	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	N-Nitrosodiphenylamine	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Pentachlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	1.00E+03	--
	Phenol	µg/kg	--	--	--	--	--	--	--	--	--	--	5.00E+01	--

Table B-10
Soil Boring Results: 0 to 25 Feet - Riverbank Section 2
Source Control Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.4				Vector 2.5			Vector 2.6			Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil
			090710-2-2.4-5-02-FS	090710-2-2.4-10-03-FS	090710-2-2.4-15-04-FS	090710-2-2.4-20-05-FS	090810-2-2.5-00-10-WS	090710-2-2.5-5-02-FS	090710-2-2.5-15-04-FS	090810-2-2.6-00-10-WS	090810-2-2.6-5-01-FS	090810-2-2.6-15-03-FS		
		Date	9/7/2010	9/7/2010	9/7/2010	9/7/2010	9/8/2010	9/7/2010	9/7/2010	9/8/2010	9/8/2010	9/8/2010		
		Depth (Feet Below Ground Surface)	5 - 10	10 - 15	15 - 20	20 - 25	0	5 - 10	15 - 20	0	5 - 10	15 - 20		
PAHs	2-Methylnaphthalene	µg/kg	38.7 J	3.62 U	19.0 U	7.35 U	100	27.8 J	32.4 J	20.9 U	3.70 U	4.08 U	2.00E+02	--
	Acenaphthene	µg/kg	19.4 U	3.62 U	19.0 U	7.35 U	122	29.0 J	20.3 U	20.9 U	3.70 U	4.08 U	3.00E+02	--
	Acenaphthylene	µg/kg	19.4 U	8.26 J	19.0 U	7.71 J	28.5 J	83.4	125	28.1 J	3.70 U	4.08 U	2.00E+02	--
	Anthracene	µg/kg	26.3 J	8.79 J	19.0 U	11.9 J	224	171	64.6 J	20.9 U	3.70 U	5.60 J	8.45E+02	--
	Benzo(a)anthracene	µg/kg	145	45.3	19.0 U	80.2	447	489	390	50.9 J	4.60 J	12.0 J	1.05E+03	--
	Benzo(a)pyrene	µg/kg	238	55.4	31.6 J	143	446	436	737	58.9 J	6.34 J	15.7 J	1.45E+03	--
	Benzo(b)fluoranthene	µg/kg	256	42.5	30.0 J	140	415	378	597	115	6.75 J	21.4	--	--
	Benzo(ghi)perylene	µg/kg	255	40.2	38.8 J	122	356	272	516	85.9	6.74 J	18.8	3.00E+02	--
	Benzo(k)fluranthene	µg/kg	198	38.1	22.9 J	102	408	358	760	71.9 J	5.02 J	20.6	--	--
	Chrysene	µg/kg	219	52.4	33.8 J	122	496.0	470	932	124	7.30 J	16.0 J	1.29E+03	--
	Dibenzo(a,h)anthracene	µg/kg	80.7	10.4 J	19.0 U	34.3	109	97.9	134	20.9 U	3.70 U	4.49 J	1.30E+03	--
	Fluoranthene	µg/kg	183	66.8	27.8 J	95.7	1,170	864	2,010	135	7.34 J	23.3	2.23E+03	--
	Fluorene	µg/kg	19.4 U	3.62 U	19.0 U	7.35 U	154	74.0 J	24.8 J	20.9 U	3.70 U	4.08 U	5.36E+02	--
	Indeno(1,2,3-cd)pyrene	µg/kg	202	30.9	28.9 J	96.7	313	249	470	61.0 J	4.23 J	21.8	1.00E+02	--
	Naphthalene	µg/kg	64.2 J	3.62 U	19.0 U	7.35 U	125	54.8 J	60.1 J	23.8 J	3.70 U	4.08 U	5.61E+02	--
	Phenanthrene	µg/kg	141	35.0	23.3 J	57.3	1,240	662	1,970	87.5	4.93 J	19.8	1.17E+03	--
	Pyrene	µg/kg	205	89.4	30.4 J	114	972	689	1,790	140	9.39 J	27.4	1.52E+03	--
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	78.7 U	14.7 U	--	74.6 U	294	76.0 U	156	452	15.0 U	28.1 J	3.30E+02	1.35E+02
	Butyl benzyl phthalate	µg/kg	78.7 U	14.7 U	--	74.6 U	73.6 U	90.0 J	58.3 J	84.9 U	15.0 U	16.6 U	--	--
	Diethyl phthalate	µg/kg	78.7 U	14.7 U	--	74.6 U	73.6 U	76.0 U	33.0 U	84.9 U	15.0 U	16.6 U	6.00E+02	--
	Dimethyl phthalate	µg/kg	78.7 U	14.7 U	--	74.6 U	73.6 U	76.0 U	33.0 U	84.9 U	15.0 U	16.6 U	--	--
	Di-n-butyl phthalate	µg/kg	78.7 U	14.7 U	--	74.6 U	116 J	76.0 U	36.0 J	313	15.0 U	16.6 U	1.00E+02	--
	Di-n-octyl phthalate	µg/kg	78.7 U	73.6 U	--	149 U	73.6 U	152 U	33.0 U	84.9 U	15.0 U	16.6 U	--	--
Organotins	Dibutyltin	µg/kg	0.49 U	0.46 U	--	0.47 U	15	0.43 U	0.52 U	0.52 U	29	0.55 U	--	--
	Monobutyltin	µg/kg	0.46 U	0.44 U	--	0.45 U	19	0.40 U	0.50 U	0.49 U	25	0.52 U	--	--
	Tetra-n-butyltin	µg/kg	1.4 U	1.3 U	--	1.4 U	1.3 U	1.2 U	1.5 U	1.5 U	1.3 U	1.6 U	--	--
	Tributyltin	µg/kg	1.0 U	1.0 U	--	1.0 U	68	0.9 U	1.1 U	1.1 U	3.8	1.2 U	2.30E+00	2.40E+04
Petroleum Hydrocarbons	Diesel	mg/kg	40.1	49.9	--	140 J	174	54.5	58.0	69.0	17.8	15.5 J	--	--
	Heavy Oil	mg/kg	372	431	--	1,250 J	663	473	315	514	79.6	82.4	--	--

Notes:
1. -- = Not applicable/not analyzed
2. mg/kg = Milligrams per kilogram
3. µg/kg = Micrograms per kilogram
4. J = The result is an estimated quantity
5. U= Undetected at the method detection limit shown
6. UJ = Undetected at the method detection limit shown, detection limit is an estimated quantity
7. Joint Source Control Strategy (JSCS) Screening Level Values (SLVs); revision date 7/16/2007
8. Shading indicates sample concentration exceeds the corresponding JSCS SLV and/or the draft PRG
9. PRG = Draft Preliminary Remediation Goal; prepared by U.S. Environmental Protection Agency, July 2015

Table B-11
Soil Boring Results: 0 to 25 Feet - Riverbank Section 2
Human Health Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.4				Vector 2.5			Vector 2.6			Oregon Department of Environmental Quality Risk-Based Concentrations				
			090710-2-2.4-5-02-FS	090710-2-2.4-10-03-FS	090710-2-2.4-15-04-FS	090710-2-2.4-20-05-FS	090810-2-2.5-00-10-WS	090710-2-2.5-5-02-FS	090710-2-2.5-15-04-FS	090810-2-2.6-00-10-WS	090810-2-2.6-5-01-FS	090810-2-2.6-15-03-FS	Soil Ingestion, Dermal Contact, and Inhalation			Vol. to Outdoor	Vapor Intrusion
		Date	9/7/2010	9/7/2010	9/7/2010	9/7/2010	9/8/2010	9/7/2010	9/7/2010	9/8/2010	9/8/2010	9/8/2010	Occ	Const.	Exc	Occ	Occ
		Depth (Feet Below Ground Surface)	5 - 10	10 - 15	15 - 20	20 - 25	0	5 - 10	15 - 20	0	5 - 10	15 - 20					
Inorganics	Mercury	mg/kg	0.149	0.0737 J	--	0.0136 J	0.0379 J	0.133	0.0745 J	0.045 J	0.00600 J	0.0601 J	3.5E+02	1.1E+02	2.9E+03	--	--
	Arsenic	mg/kg	23.8	7.59	--	7.22	205	10.0	14.7	63.1	3.14	18.4	1.9E+00	1.5E+01	4.2E+02	--	--
	Barium	mg/kg	342	151	--	159	463	324	339	257	139	142	2.2E+05	6.9E+04	--	--	--
	Chromium	mg/kg	56.4 J	32.8	--	134	123	31.2	27.5	72.9	13.5	27.9	--	5.3E+05	--	--	--
	Copper	mg/kg	100	48.3	--	58.7	1,880	68.0	44.7	687	28.1	89.7	4.7E+04	1.4E+04	3.9E+05	--	--
	Lead	mg/kg	204 J	93.7	--	65.3	459	216	169	188	24.2	162	8.0E+02	8.0E+02	8.0E+02	--	--
	Manganese	mg/kg	2,020	964	--	1,250	2,350	384	984	1,390	620	621	2.5E+04	8.2E+03	2.3E+05	--	--
	Nickel	mg/kg	40.6	24.4	--	84.6	170	21.2	23.7	44.7	8.01	20.3	2.2E+04	7.0E+03	1.9E+05	--	--
	Selenium	mg/kg	0.312 J	0.110 J	--	0.059 J	0.472 J	0.0736 J	0.0616 J	0.222 J	0.1280 J	0.127 J	--	--	--	--	--
	Silver	mg/kg	0.371 J	0.178 J	--	0.155 J	1.67	0.136 J	0.222 J	0.571 J	0.134 J	0.265 J	5.8E+03	1.8E+03	4.9E+04	--	--
	Zinc	mg/kg	658	192	--	172	2,460	321	403	2,150	110	402	--	--	--	--	--
PCBs	Aroclor 1016	µg/kg	1.96 U	1.82 U	--	1.87 U	1.83 U	18.9 U	2.05 U	8.44 U	1.88 U	2.07 U	--	--	--	--	--
	Aroclor 1221	µg/kg	3.90 U	3.63 U	--	3.74 U	3.64 U	37.8 U	4.08 U	16.8 U	3.75 U	4.13 U	--	--	--	--	--
	Aroclor 1232	µg/kg	1.96 U	1.82 U	--	1.87 U	1.83 U	18.9 U	2.05 U	8.44 U	1.88 U	2.07 U	--	--	--	--	--
	Aroclor 1242	µg/kg	1.96 U	1.82 U	--	1.87 U	1.83 U	18.9 U	2.05 U	8.44 U	1.88 U	2.07 U	--	--	--	--	--
	Aroclor 1248	µg/kg	1.96 U	1.82 U	--	1.87 U	1.83 U	18.9 U	2.05 U	8.44 U	1.88 U	2.07 U	--	--	--	--	--
	Aroclor 1254	µg/kg	1.96 U	1.82 U	--	1.87 U	1.83 U	271	10.2 U	8.44 U	1.88 U	2.07 U	--	--	--	--	--
	Aroclor 1260	µg/kg	1.96 U	8.16	--	2.63 J	1.83 U	18.9 U	2.05 U	46.1	6.79	9.75	--	--	--	--	--
	Aroclor 1262	µg/kg	9.61 J	1.82 U	--	1.87 U	10.2	18.9 U	16.3	8.44 U	1.88 U	2.07 U	--	--	--	--	--
	Aroclor 1268	µg/kg	1.96 U	1.82 U	--	1.87 U	1.83 U	18.9 U	2.05 U	8.44 U	1.88 U	2.07 U	--	--	--	--	--
	Total PCBs	µg/kg	9.61 J	8.16	--	2.63 J	10.2	271	16.3	46.1	6.79	9.75	5.9E+02	4.9E+03	1.4E+05	--	--
VOCs	1,1,1,2-Tetrachloroethane	µg/kg	--	--	--	--	9.92 U	10.5 U	11.2 U	11.7 U	10.2 U	11.3 U	--	--	--	--	--
	1,1,1-Trichloroethane	µg/kg	--	--	--	--	5.36 U	5.66 U	6.07 U	6.33 U	5.52 U	6.10 U	8.7E+08	4.7E+08	--	--	--
	1,1,2,2-Tetrachloroethane	µg/kg	--	--	--	--	12.1 U	12.8 U	13.7 U	14.3 U	12.5 U	13.8 U	--	--	--	--	--
	1,1,2-Trichloroethane	µg/kg	--	--	--	--	7.22 U	7.62 U	8.17 U	8.53 U	7.44 U	8.22 U	2.6E+04	5.4E+04	1.5E+06	2.4E+04	4.2E+03
	1,1-Dichloroethane	µg/kg	--	--	--	--	7.14 U	7.55 U	8.09 U	8.44 U	7.36 U	8.14 U	2.6E+05	3.2E+06	8.9E+07	2.4E+05	5.9E+03
	1,1-Dichloroethene	µg/kg	--	--	--	--	12.8 U	13.5 U	14.4 U	15.1 U	13.1 U	14.5 U	2.9E+07	1.3E+07	3.7E+08	--	6.8E+05
	1,1-Dichloropropene	µg/kg	--	--	--	--	8.41 U	8.88 U	9.52 U	9.93 U	8.66 U	9.58 U	--	--	--	--	--
	1,2,3-Trichlorobenzene	µg/kg	--	--	--	--	9.97 U	10.5 U	11.3 U	11.8 U	10.3 U	11.4 U	--	--	--	--	--
	1,2,3-Trichloropropane	µg/kg	--	--	--	--	6.88 U	7.26 U	7.79 U	8.12 U	7.09 U	7.83 U	--	--	--	--	--
	1,2,4-Trichlorobenzene	µg/kg	--	--	--	--	14.8 U	15.6 U	16.7 U	17.5 U	15.2 U	16.8 U	--	--	--	--	--
	1,2,4-Trimethylbenzene	µg/kg	--	--	--	--	243	16.6 U	17.8 U	18.6 U	16.2 U	17.9 U	2.0E+06	2.0E+06	5.4E+07	9.8E+05	2.1E+05
	1,2-Dibromo-3-	µg/kg	--	--	--	--	43.9 U	46.4 U	49.7 U	51.9 U	45.2 U	50.0 U	--	--	--	--	--
	1,2-Dibromoethane	µg/kg	--	--	--	--	11.1 U	11.7 U	12.5 U	13.1 U	11.4 U	12.6 U	7.3E+02	9.0E+03	2.5E+05	6.5E+02	1.6E+02
	1,2-Dichlorobenzene	µg/kg	--	--	--	--	8.28 U	8.75 U	9.38 U	9.78 U	8.53 U	9.43 U	3.6E+07	2.0E+07	5.6E+08	--	--
	1,2-Dichloroethane	µg/kg	--	--	--	--	8.06 U	8.51 U	9.13 U	9.52 U	8.30 U	9.18 U	1.6E+04	2.0E+05	5.6E+06	1.5E+04	1.0E+03
	1,2-Dichloropropane	µg/kg	--	--	--	--	7.14 U	7.55 U	8.09 U	8.44 U	7.36 U	8.14 U	--	--	--	--	--
	1,3,5-Trimethylbenzene	µg/kg	--	--	--	--	152	9.21 U	9.87 U	10.3 U	8.98 U	9.93 U	1.2E+07	3.5E+06	9.8E+07	--	--
	1,3-Dichlorobenzene	µg/kg	--	--	--	--	6.64 U	7.02 U	7.52 U	7.85 U	6.84 U	7.57 U	--	--	--	--	--
	1,3-Dichloropropane	µg/kg	--	--	--	--	7.07 U	7.47 U	8.01 U	8.35 U	7.28 U	8.05 U	--	--	--	--	--
	1,4-Dichlorobenzene	µg/kg	--	--	--	--	8.99 U	9.5 U	10.2 U	10.6 U	9.26 U	10.2 U	6.4E+04	1.3E+06	3.6E+07	3.6E+04	1.3E+04
	2,2-Dichloropropane	µg/kg	--	--	--	--	6.69 U	7.06 U	7.57 U	7.90 U	6.89 U	7.62 U	--	--	--	--	--

Table B-11
Soil Boring Results: 0 to 25 Feet - Riverbank Section 2
Human Health Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.4				Vector 2.5			Vector 2.6			Oregon Department of Environmental Quality Risk-Based Concentrations				
			090710-2-2.4-5-02-FS	090710-2-2.4-10-03-FS	090710-2-2.4-15-04-FS	090710-2-2.4-20-05-FS	090810-2-2.5-00-10-WS	090710-2-2.5-5-02-FS	090710-2-2.5-15-04-FS	090810-2-2.6-00-10-WS	090810-2-2.6-5-01-FS	090810-2-2.6-15-03-FS	Soil Ingestion, Dermal Contact, and Inhalation			Vol. to Outdoor	Vapor Intrusion
		Date	9/7/2010	9/7/2010	9/7/2010	9/7/2010	9/8/2010	9/7/2010	9/7/2010	9/8/2010	9/8/2010	9/8/2010	Occ	Const.	Exc	Occ	Occ
		Depth (Feet Below Ground Surface)	5 - 10	10 - 15	15 - 20	20 - 25	0	5 - 10	15 - 20	0	5 - 10	15 - 20					
VOCs (continued)	2-Butanone	µg/kg	--	--	--	--	27.0 U	28.5 U	30.6 U	31.9 U	27.8 U	30.8 U	--	--	--	--	--
	2-Chlorotoluene	µg/kg	--	--	--	--	6.32 U	6.67 U	7.15 U	7.46 U	6.51 U	7.19 U	--	--	--	--	--
	2-Hexanone	µg/kg	--	--	--	--	30.1 U	31.8 U	34.1 U	35.5 U	31.0 U	34.3 U	--	--	--	--	--
	4-Chlorotoluene	µg/kg	--	--	--	--	4.61 U	4.87 U	5.23 U	5.45 U	4.75 U	5.26 U	--	--	--	--	--
	4-Methyl-2-pentanone	µg/kg	--	--	--	--	20.3 U	21.4 U	23.0 U	24.0 U	20.9 U	23.1 U	--	--	--	--	--
	Acetone	µg/kg	--	--	--	--	639 U	675 U	724 U	755 U	658 U	728 U	--	--	--	--	--
	Benzene	µg/kg	--	--	--	--	4.50 U	4.75 U	5.09 U	5.31 U	4.63 U	5.12 U	3.7E+04	3.8E+05	1.1E+07	5.0E+04	2.1E+03
	Bromobenzene	µg/kg	--	--	--	--	13.3 U	14 U	15.0 U	15.7 U	13.7 U	15.1 U	--	--	--	--	--
	Bromochloromethane	µg/kg	--	--	--	--	10.4 U	10.9 U	11.7 U	12.2 U	10.7 U	11.8 U	--	--	--	--	--
	Bromodichloromethane	µg/kg	--	--	--	--	10.8 U	11.5 U	12.3 U	12.8 U	11.2 U	12.4 U	1.5E+04	2.3E+05	6.3E+06	1.1E+04	5.3E+02
	Bromoform	µg/kg	--	--	--	--	9.78 U	10.3 U	11.1 U	11.6 U	10.1 U	11.1 U	2.6E+05	2.7E+06	7.4E+07	3.6E+05	1.1E+05
	Bromomethane	µg/kg	--	--	--	--	8.56 U	9.04 U	9.69 U	10.1 U	8.82 U	9.75 U	7.5E+05	3.7E+05	1.0E+07	7.0E+05	1.7E+04
	Carbon disulfide	µg/kg	--	--	--	--	7.64 U	8.07 U	8.66 U	9.03 U	7.87 U	8.71 U	--	--	--	--	--
	Carbon tetrachloride	µg/kg	--	--	--	--	11.7 U	12.4 U	13.2 U	13.8 U	12.0 U	13.3 U	--	--	--	--	--
	Chlorobenzene	µg/kg	--	--	--	--	3.26 U	3.45 U	3.70 U	3.86 U	3.36 U	3.72 U	8.7E+06	4.7E+06	1.3E+08	--	--
	Chloroethane	µg/kg	--	--	--	--	19.7 U	20.8 U	22.3 U	23.2 U	20.3 U	22.4 U	--	--	--	--	--
	Chloroform	µg/kg	--	--	--	--	5.78 U	6.11 U	6.55 U	6.83 U	5.96 U	6.59 U	2.6E+04	4.1E+05	1.1E+07	1.7E+04	4.1E+02
	Chloromethane	µg/kg	--	--	--	--	7.43 U	7.85 U	8.42 U	8.78 U	7.65 U	8.46 U	2.5E+07	2.5E+07	7.0E+08	--	3.0E+05
	cis-1,2-Dichloroethene	µg/kg	--	--	--	--	11.5 U	12.1 U	13.0 U	13.6 U	11.8 U	13.1 U	2.3E+06	7.1E+05	2.0E+07	--	--
	cis-1,3-Dichloropropene	µg/kg	--	--	--	--	4.89 U	5.17 U	5.54 U	5.78 U	5.04 U	5.57 U	--	--	--	--	--
	Dibromochloromethane	µg/kg	--	--	--	--	7.89 U	8.33 U	8.93 U	9.32 U	8.13 U	8.98 U	--	--	--	--	--
	Dibromomethane	µg/kg	--	--	--	--	5.05 U	5.33 U	5.72 U	5.96 U	5.20 U	5.75 U	--	--	--	--	--
	Dichlorodifluoromethane	µg/kg	--	--	--	--	7.64 U	8.07 U	8.66 U	9.03 U	7.87 U	8.71 U	--	--	--	--	--
	Ethylbenzene	µg/kg	--	--	--	--	61.7 J	3.18 U	3.41 U	3.55 U	3.10 U	3.43 U	1.5E+05	1.7E+06	4.9E+07	1.6E+05	1.7E+04
	Hexachlorobutadiene	µg/kg	--	--	--	--	9.45 U	9.98 U	10.7 U	11.2 U	9.74 U	10.8 U	--	--	--	--	--
	Isopropylbenzene	µg/kg	--	--	--	--	20.2 J	8.33 U	8.93 U	9.32 U	8.13 U	8.98 U	5.7E+07	2.7E+07	7.5E+08	--	--
	m,p-Xylene	µg/kg	--	--	--	--	273	20.0 U	21.4 U	22.4 U	19.5 U	21.6 U	2.5E+07	2.0E+07	5.6E+08	--	--
	Methyl tert-butyl ether	µg/kg	--	--	--	--	5.78 U	6.11 U	6.55 U	6.83 U	5.96 U	6.59 U	1.1E+06	1.2E+07	3.2E+08	1.5E+06	1.1E+05
	Methylene chloride	µg/kg	--	--	--	--	11.7 J	12.4 J	21.7 J	20.1 J	13.1 J	13.3 J	1.6E+06	2.1E+06	5.8E+07	-	9.5E+05
	Naphthalene	µg/kg	--	--	--	--	246	8.65 U	9.27 U	9.67 U	8.43 U	9.32 U	2.3E+04	5.8E+05	1.6E+07	8.3E+04	8.3E+04
	n-Butylbenzene	µg/kg	--	--	--	--	6.8 U	7.19 U	7.71 U	8.04 U	7.01 U	7.75 U	--	--	--	--	--
	n-Propylbenzene	µg/kg	--	--	--	--	23.4 J	7.89 U	8.46 U	8.83 U	7.70 U	8.51 U	--	--	--	--	--
	o-Xylene	µg/kg	--	--	--	--	225	7.26 U	7.79 U	8.12 U	7.09 U	7.83 U	2.5E+07	2.0E+07	5.6E+08	--	--
	p-Isopropyltoluene	µg/kg	--	--	--	--	10.3 U	10.9 U	11.7 U	12.2 U	10.6 U	11.7 U	--	--	--	--	--
	sec-Butylbenzene	µg/kg	--	--	--	--	9.57 J	5.72 U	6.13 U	6.39 U	5.57 U	6.16 U	--	--	--	--	--
	Styrene	µg/kg	--	--	--	--	3.34 U	3.53 U	3.78 U	3.94 U	3.44 U	3.80 U	1.3E+08	5.6E+07	--	--	--
	tert-Butylbenzene	µg/kg	--	--	--	--	10.4 U	11.0 U	11.8 U	12.3 U	10.7 U	11.8 U	--	--	--	--	--
	Tetrachloroethene	µg/kg	--	--	--	--	15.3 U	16.2 U	17.3 U	18.1 U	15.8 U	17.4 U	1.0E+06	1.8E+06	5.0E+07	--	3.6E+04
	Toluene	µg/kg	--	--	--	--	20.2 J	3.93 U	4.21 U	4.40 U	3.83 U	4.24 U	8.8E+07	2.8E+07	7.7E+08	--	--
	trans-1,2-Dichloroethene	µg/kg	--	--	--	--	6.23 U	6.58 U	7.06 U	7.36 U	6.42 U	7.10 U	2.3E+07	7.1E+06	2.0E+08	--	--
	trans-1,3-Dichloropropene	µg/kg	--	--	--	--	6.23 U	6.58 U	7.06 U	7.36 U	6.42 U	7.10 U	--	--	--	--	--
	Trichloroethene	µg/kg	--	--	--	--	7.72 U	8.15 U	8.74 U	9.12 U	7.95 U	8.79 U	5.1E+04	4.7E+05	1.3E+07	9.6E+04	2.3E+03
	Trichlorofluoromethane	µg/kg	--	--	--	--	33.1 U	34.9 U	37.4 U	39.1 U	34.1 U	37.7 U	1.3E+08	6.9E+07	--	--	--
	Vinyl chloride	µg/kg	--	--	--	--	7.95 U	8.4 U	9.01 UJ	9.39 U	8.19 U	9.06 U	4.4E+03	3.4E+04	9.5E+05	8.9E+04	2.2E+03

Table B-11
Soil Boring Results: 0 to 25 Feet - Riverbank Section 2
Human Health Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.4				Vector 2.5			Vector 2.6			Oregon Department of Environmental Quality Risk-Based Concentrations				
			090710-2-2.4-5-02-FS	090710-2-2.4-10-03-FS	090710-2-2.4-15-04-FS	090710-2-2.4-20-05-FS	090810-2-2.5-00-10-WS	090710-2-2.5-5-02-FS	090710-2-2.5-15-04-FS	090810-2-2.6-00-10-WS	090810-2-2.6-5-01-FS	090810-2-2.6-15-03-FS	Soil Ingestion, Dermal Contact, and Inhalation			Vol. to Outdoor	Vapor Intrusion
		Date	9/7/2010	9/7/2010	9/7/2010	9/7/2010	9/8/2010	9/7/2010	9/7/2010	9/8/2010	9/8/2010	9/8/2010	Occ	Const.	Exc	Occ	Occ
		Depth (Feet Below Ground Surface)	5 - 10	10 - 15	15 - 20	20 - 25	0	5 - 10	15 - 20	0	5 - 10	15 - 20					
SVOCs	1,2,4-Trichlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,2-Dichlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	3.6E+07	2.0E+07	5.6E+08	--	--
	1,3-Dichlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,4-Dichlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	6.4E+04	1.3E+06	3.6E+07	1.9E+04	1.3E+04
	2,4,5-Trichlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2,4,6-Trichlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	2.1E+05	2.7E+05	7.4E+06	--	--
	2,4-Dichlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2,4-Dimethylphenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2,4-Dinitrophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2,4-Dinitrotoluene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2,6-Dinitrotoluene	µg/kg	--	--	--	--	--	--	--	--	--	--	1.5E+03	1.3E+04	3.5E+05	--	--
	2-Chloronaphthalene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2-Chlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2-Methylphenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2-Nitroaniline	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2-Nitrophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3,3'-Dichlorobenzidine	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3,4-Methylphenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3-Nitroaniline	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4,6-Dinitro-2-methylphenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4-Bromophenyl phenyl ether	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4-Chloro-3-methylphenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4-Chloroaniline	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4-Chlorophenyl phenyl ether	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4-Nitroaniline	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4-Nitrophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Benzoic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Benzyl Alcohol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Bis(2-chloroethoxy)methane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Bis(2-chloroethyl)ether	µg/kg	--	--	--	--	--	--	--	--	--	--	1.3E+03	1.6E+04	4.5E+05	1.2E+03	6.9E+03
	Bis(2-chloroisopropyl)ether	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Dibenzofuran	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Hexachlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	9.3E+02	1.1E+04	3.2E+05	2.4E+03	1.3E+04
	Hexachlorobutadiene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Hexachlorocyclopentadiene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Hexachloroethane	µg/kg	--	--	--	--	--	--	--	--	--	--	3.2E+04	1.8E+05	5.1E+06	1.9E+04	7.6E+03
	Isophorone	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Nitrobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	N-Nitrosodi-n-propylamine	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	N-Nitrosodiphenylamine	µg/kg	--	--	--	--	--	--	--	--	--	--	4.7E+05	3.8E+06	1.1E+08	--	--
	Pentachlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	4.0E+03	3.4E+04	9.6E+05	--	--
	Phenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table B-11
Soil Boring Results: 0 to 25 Feet - Riverbank Section 2
Human Health Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.4				Vector 2.5			Vector 2.6			Oregon Department of Environmental Quality Risk-Based Concentrations				
			090710-2-2.4-5-02-FS	090710-2-2.4-10-03-FS	090710-2-2.4-15-04-FS	090710-2-2.4-20-05-FS	090810-2-2.5-00-10-WS	090710-2-2.5-5-02-FS	090710-2-2.5-15-04-FS	090810-2-2.6-00-10-WS	090810-2-2.6-5-01-FS	090810-2-2.6-15-03-FS	Soil Ingestion, Dermal Contact, and Inhalation			Vol. to Outdoor	Vapor Intrusion
		Date	9/7/2010	9/7/2010	9/7/2010	9/7/2010	9/8/2010	9/7/2010	9/7/2010	9/8/2010	9/8/2010	9/8/2010	Occ	Const.	Exc	Occ	Occ
		Depth (Feet Below Ground Surface)	5 - 10	10 - 15	15 - 20	20 - 25	0	5 - 10	15 - 20	0	5 - 10	15 - 20					
PAHs	2-Methylnaphthalene	µg/kg	38.7 J	3.62 U	19.0 U	7.35 U	100	27.8 J	32.4 J	20.9 U	3.70 U	4.08 U	--	--	--	--	--
	Acenaphthene	µg/kg	19.4 U	3.62 U	19.0 U	7.35 U	122	29.0 J	20.3 U	20.9 U	3.70 U	4.08 U	7.0E+07	2.1E+07	5.9E+08	--	--
	Acenaphthylene	µg/kg	19.4 U	8.26 J	19.0 U	7.71 J	28.5 J	83.4	125	28.1 J	3.70 U	4.08 U	--	--	--	--	--
	Anthracene	µg/kg	26.3 J	8.79 J	19.0 U	11.9 J	224	171	64.6 J	20.9 U	3.70 U	5.60 J	3.5E+08	1.1E+08	--	--	--
	Benzo(a)anthracene	µg/kg	145	45.3	19.0 U	80.2	447	489	390	50.9 J	4.60 J	12.0 J	2.9E+03	2.4E+04	6.6E+05	--	--
	Benzo(a)pyrene	µg/kg	238	55.4	31.6 J	143	446	436	737	58.9 J	6.34 J	15.7 J	--	--	--	--	--
	Benzo(b)fluoranthene	µg/kg	256	42.5	30.0 J	140	415	378	597	115	6.75 J	21.4	2.9E+03	2.4E+04	6.7E+05	--	--
	Benzo(ghi)perylene	µg/kg	255	40.2	38.8 J	122	356	272	516	85.9	6.74 J	18.8	--	--	--	--	--
	Benzo(k)fluranthene	µg/kg	198	38.1	22.9 J	102	408	358	760	71.9 J	5.02 J	20.6	--	--	--	--	--
	Chrysene	µg/kg	219	52.4	33.8 J	122	496.0	470	932	124	7.30 J	16.0 J	2.9E+05	2.4E+06	6.7E+07	--	--
	Dibenzo(a,h)anthracene	µg/kg	80.7	10.4 J	19.0 U	34.3	109	97.9	134	20.9 U	3.70 U	4.49 J	2.9E+02	2.4E+03	6.7E+04	--	--
	Fluoranthene	µg/kg	183	66.8	27.8 J	95.7	1,170	864	2,010	135	7.34 J	23.3	3.0E+07	1.0E+07	2.8E+08	--	--
	Fluorene	µg/kg	19.4 U	3.62 U	19.0 U	7.35 U	154	74.0 J	24.8 J	20.9 U	3.70 U	4.08 U	4.7E+07	1.4E+07	3.9E+08	--	--
	Indeno(1,2,3-cd)pyrene	µg/kg	202	30.9	28.9 J	96.7	313	249	470	61.0 J	4.23 J	21.8	2.9E+03	2.4E+04	6.7E+05	--	--
	Naphthalene	µg/kg	64.2 J	3.62 U	19.0 U	7.35 U	125	54.8 J	60.1 J	23.8 J	3.70 U	4.08 U	2.3E+04	5.8E+05	1.6E+07	8.3E+04	8.3E+04
	Phenanthrene	µg/kg	141	35.0	23.3 J	57.3	1,240	662	1,970	87.5	4.93 J	19.8	--	--	--	--	--
	Pyrene	µg/kg	205	89.4	30.4 J	114	972	689	1,790	140	9.39 J	27.4	2.3E+07	7.5E+06	2.1E+08	--	--
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	78.7 U	14.7 U	--	74.6 U	294	76.0 U	156	452	15.0 U	28.1 J	1.6E+05	1.3E+06	3.7E+07	--	--
	Butyl benzyl phthalate	µg/kg	78.7 U	14.7 U	--	74.6 U	73.6 U	90.0 J	58.3 J	84.9 U	15.0 U	16.6 U	--	--	--	--	--
	Diethyl phthalate	µg/kg	78.7 U	14.7 U	--	74.6 U	73.6 U	76.0 U	33.0 U	84.9 U	15.0 U	16.6 U	--	--	--	--	--
	Dimethyl phthalate	µg/kg	78.7 U	14.7 U	--	74.6 U	73.6 U	76.0 U	33.0 U	84.9 U	15.0 U	16.6 U	--	--	--	--	--
	Di-n-butyl phthalate	µg/kg	78.7 U	14.7 U	--	74.6 U	116 J	76.0 U	36.0 J	313	15.0 U	16.6 U	--	--	--	--	--
	Di-n-octyl phthalate	µg/kg	78.7 U	73.6 U	--	149 U	73.6 U	152 U	33.0 U	84.9 U	15.0 U	16.6 U	--	--	--	--	--
Organotins	Dibutyltin	µg/kg	0.49 U	0.46 U	--	0.47 U	15	0.43 U	0.52 U	0.52 U	29	0.55 U	--	--	--	--	--
	Monobutyltin	µg/kg	0.46 U	0.44 U	--	0.45 U	19	0.40 U	0.50 U	0.49 U	25	0.52 U	--	--	--	--	--
	Tetra-n-butyltin	µg/kg	1.4 U	1.3 U	--	1.4 U	1.3 U	1.2 U	1.5 U	1.5 U	1.3 U	1.6 U	--	--	--	--	--
	Tributyltin	µg/kg	1.0 U	1.0 U	--	1.0 U	68	0.9 U	1.1 U	1.1 U	3.8	1.2 U	--	--	--	--	--
Petroleum Hydrocarbons	Diesel	mg/kg	40.1	49.9		140 J	174	54.5	58.0	69.0	17.8	15.5 J	1.4E+04	4.6E+03	--	--	--
	Heavy Oil	mg/kg	372	431		1,250 J	663	473	315	514	79.6	82.4	--	--	--	--	--

Notes:
1. -- = Not applicable/not analyzed
2. mg/kg = Milligrams per kilogram
3. µg/kg = Micrograms per kilogram
4. J = The result is an estimated quantity
5. U= Undetected at the method detection limit shown
6. UJ = Undetected at the method detection limit shown, detection limit is an estimated quantity
7. Risk-Based Concentrations; revision date 11/1/15
8. Shading indicates sample concentration exceeds one or more RBCs

Table B-12
Soil Boring Results: 0 to 25 Feet - Riverbank Section 2
Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.4				Vector 2.5			Vector 2.6			Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			090710-2-2.4-5-02-FS	090710-2-2.4-10-03-FS	090710-2-2.4-15-04-FS	090710-2-2.4-20-05-FS	090810-2-2.5-00-10-WS	090710-2-2.5-5-02-FS	090710-2-2.5-15-04-FS	090810-2-2.6-00-10-WS	090810-2-2.6-5-01-FS	090810-2-2.6-15-03-FS	Plants	Inverts.	Birds	Mammals	
		Date	9/7/2010	9/7/2010	9/7/2010	9/7/2010	9/8/2010	9/7/2010	9/7/2010	9/8/2010	9/8/2010	9/8/2010					
		Depth (Feet Below Ground Surface)	5 - 10	10 - 15	15 - 20	20 - 25	0	5 - 10	15 - 20	0	5 - 10	15 - 20					
Inorganics	Mercury	mg/kg	0.149	0.0737 J	--	0.0136 J	0.0379 J	0.133	0.0745 J	0.045 J	0.00600 J	0.0601 J	0.3	0.1	2	73	0.23
	Arsenic	mg/kg	23.8	7.59	--	7.22	205	10.0	14.7	63.1	3.14	18.4	10	60	10	29	8.8
	Barium	mg/kg	342	151	--	159	463	324	339	257	139	142	500	3,000	85	638	790
	Chromium	mg/kg	56.4 J	32.8	--	134	123	31.2	27.5	72.9	13.5	27.9	1	0.4	4	410	76
	Copper	mg/kg	100	48.3	--	58.7	1,880	68.0	44.7	687	28.1	89.7	100	50	190	390	34
	Lead	mg/kg	204 J	93.7	--	65.3	459	216	169	188	24.2	162	50	500	16	4,000	79
	Manganese	mg/kg	2,020	964	--	1,250	2,350	384	984	1,390	620	621	500	100	4,125	11,000	1,800
	Nickel	mg/kg	40.6	24.4	--	84.6	170	21.2	23.7	44.7	8.01	20.3	30	200	320	625	47
	Selenium	mg/kg	0.312 J	0.110 J	--	0.059 J	0.472 J	0.0736 J	0.0616 J	0.222 J	0.1280 J	0.127 J	1	70	2	25	0.71
	Silver	mg/kg	0.371 J	0.178 J	--	0.155 J	1.67	0.136 J	0.222 J	0.571 J	0.134 J	0.265 J	2	50	--	--	0.82
	Zinc	mg/kg	658	192	--	172	2,460	321	403	2,150	110	402	50	200	60	20,000	180
PCBs	Aroclor 1016	µg/kg	1.96 U	1.82 U	--	1.87 U	1.83 U	18.9 U	2.05 U	8.44 U	1.88 U	2.07 U	--	--	--	1.0E+05	--
	Aroclor 1221	µg/kg	3.90 U	3.63 U	--	3.74 U	3.64 U	37.8 U	4.08 U	16.8 U	3.75 U	4.13 U	--	--	--	--	--
	Aroclor 1232	µg/kg	1.96 U	1.82 U	--	1.87 U	1.83 U	18.9 U	2.05 U	8.44 U	1.88 U	2.07 U	--	--	--	--	--
	Aroclor 1242	µg/kg	1.96 U	1.82 U	--	1.87 U	1.83 U	18.9 U	2.05 U	8.44 U	1.88 U	2.07 U	--	--	1.5E+03	5.0E+03	--
	Aroclor 1248	µg/kg	1.96 U	1.82 U	--	1.87 U	1.83 U	18.9 U	2.05 U	8.44 U	1.88 U	2.07 U	--	--	--	--	--
	Aroclor 1254	µg/kg	1.96 U	1.82 U	--	1.87 U	1.83 U	271	10.2 U	8.44 U	1.88 U	2.07 U	--	--	7.0E+02	4.0E+03	--
	Aroclor 1260	µg/kg	1.96 U	8.16	--	2.63 J	1.83 U	18.9 U	2.05 U	46.1	6.79	9.75	--	--	--	--	--
	Aroclor 1262	µg/kg	9.61 J	1.82 U	--	1.87 U	10.2	18.9 U	16.3	8.44 U	1.88 U	2.07 U	--	--	--	--	--
	Aroclor 1268	µg/kg	1.96 U	1.82 U	--	1.87 U	1.83 U	18.9 U	2.05 U	8.44 U	1.88 U	2.07 U	--	--	--	--	--
	Total PCBs	µg/kg	9.61 J	8.16	--	2.63 J	10.2	271	16.3	46.1	6.79	9.75	4.0E+04	--	--	4.0E+03	--
VOCs	1,1,1,2-Tetrachloroethane	µg/kg	--	--	--	--	9.92 U	10.5 U	11.2 U	11.7 U	10.2 U	11.3 U	--	--	--	--	--
	1,1,1-Trichloroethane	µg/kg	--	--	--	--	5.36 U	5.66 U	6.07 U	6.33 U	5.52 U	6.10 U	--	--	--	5.6E+07	--
	1,1,2,2-Tetrachloroethane	µg/kg	--	--	--	--	12.1 U	12.8 U	13.7 U	14.3 U	12.5 U	13.8 U	--	--	--	--	--
	1,1,2-Trichloroethane	µg/kg	--	--	--	--	7.22 U	7.62 U	8.17 U	8.53 U	7.44 U	8.22 U	--	--	--	--	--
	1,1-Dichloroethane	µg/kg	--	--	--	--	7.14 U	7.55 U	8.09 U	8.44 U	7.36 U	8.14 U	--	--	--	--	--
	1,1-Dichloroethene	µg/kg	--	--	--	--	12.8 U	13.5 U	14.4 U	15.1 U	13.1 U	14.5 U	--	--	--	3.8E+06	--
	1,1-Dichloropropene	µg/kg	--	--	--	--	8.41 U	8.88 U	9.52 U	9.93 U	8.66 U	9.58 U	--	--	--	--	--
	1,2,3-Trichlorobenzene	µg/kg	--	--	--	--	9.97 U	10.5 U	11.3 U	11.8 U	10.3 U	11.4 U	--	2.0E+04	--	--	--
	1,2,3-Trichloropropane	µg/kg	--	--	--	--	6.88 U	7.26 U	7.79 U	8.12 U	7.09 U	7.83 U	--	--	--	--	--
	1,2,4-Trichlorobenzene	µg/kg	--	--	--	--	14.8 U	15.6 U	16.7 U	17.5 U	15.2 U	16.8 U	--	2.0E+04	--	--	--
	1,2,4-Trimethylbenzene	µg/kg	--	--	--	--	243	16.6 U	17.8 U	18.6 U	16.2 U	17.9 U	--	--	--	--	--
	1,2-Dibromo-3-chloropropane	µg/kg	--	--	--	--	43.9 U	46.4 U	49.7 U	51.9 U	45.2 U	50.0 U	--	--	--	--	--
	1,2-Dibromoethane	µg/kg	--	--	--	--	11.1 U	11.7 U	12.5 U	13.1 U	11.4 U	12.6 U	--	--	--	--	--
	1,2-Dichlorobenzene	µg/kg	--	--	--	--	8.28 U	8.75 U	9.38 U	9.78 U	8.53 U	9.43 U	--	--	--	--	--
	1,2-Dichloroethane	µg/kg	--	--	--	--	8.06 U	8.51 U	9.13 U	9.52 U	8.30 U	9.18 U	--	--	7.0E+04	2.8E+06	--
	1,2-Dichloropropane	µg/kg	--	--	--	--	7.14 U	7.55 U	8.09 U	8.44 U	7.36 U	8.14 U	--	7.0E+05	--	--	--
	1,3,5-Trimethylbenzene	µg/kg	--	--	--	--	152	9.21 U	9.87 U	10.3 U	8.98 U	9.93 U	--	--	--	--	--
	1,3-Dichlorobenzene	µg/kg	--	--	--	--	6.64 U	7.02 U	7.52 U	7.85 U	6.84 U	7.57 U	--	--	--	--	--
	1,3-Dichloropropane	µg/kg	--	--	--	--	7.07 U	7.47 U	8.01 U	8.35 U	7.28 U	8.05 U	--	--	--	--	--
	1,4-Dichlorobenzene	µg/kg	--	--	--	--	8.99 U	9.5 U	10.2 U	10.6 U	9.26 U	10.2 U	--	2.0E+04	--	--	--
	2,2-Dichloropropane	µg/kg	--	--	--	--	6.69 U	7.06 U	7.57 U	7.90 U	6.89 U	7.62 U	--	--	--	--	--

Table B-12
Soil Boring Results: 0 to 25 Feet - Riverbank Section 2
Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.4				Vector 2.5			Vector 2.6			Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			090710-2-2.4-5-02-FS	090710-2-2.4-10-03-FS	090710-2-2.4-15-04-FS	090710-2-2.4-20-05-FS	090810-2-2.5-00-10-WS	090710-2-2.5-5-02-FS	090710-2-2.5-15-04-FS	090810-2-2.6-00-10-WS	090810-2-2.6-5-01-FS	090810-2-2.6-15-03-FS	Plants	Inverts.	Birds	Mammals	
	Date		9/7/2010	9/7/2010	9/7/2010	9/7/2010	9/8/2010	9/7/2010	9/7/2010	9/8/2010	9/8/2010	9/8/2010					
	Depth (Feet Below Ground Surface)		5 - 10	10 - 15	15 - 20	20 - 25	0	5 - 10	15 - 20	0	5 - 10	15 - 20					
VOCs (continued)	2-Butanone	µg/kg	--	--	--	--	27.0 U	28.5 U	30.6 U	31.9 U	27.8 U	30.8 U	--	--	--	2.0E+08	--
	2-Chlorotoluene	µg/kg	--	--	--	--	6.32 U	6.67 U	7.15 U	7.46 U	6.51 U	7.19 U	--	--	--	--	--
	2-Hexanone	µg/kg	--	--	--	--	30.1 U	31.8 U	34.1 U	35.5 U	31.0 U	34.3 U	--	--	--	--	--
	4-Chlorotoluene	µg/kg	--	--	--	--	4.61 U	4.87 U	5.23 U	5.45 U	4.75 U	5.26 U	--	--	--	--	--
	4-Methyl-2-pentanone	µg/kg	--	--	--	--	20.3 U	21.4 U	23.0 U	24.0 U	20.9 U	23.1 U	--	--	--	--	--
	Acetone	µg/kg	--	--	--	--	639 U	675 U	724 U	755 U	658 U	728 U	--	--	--	1.3E+06	--
	Benzene	µg/kg	--	--	--	--	4.50 U	4.75 U	5.09 U	5.31 U	4.63 U	5.12 U	--	--	--	3.3E+06	--
	Bromobenzene	µg/kg	--	--	--	--	13.3 U	14 U	15.0 U	15.7 U	13.7 U	15.1 U	--	--	--	--	--
	Bromochloromethane	µg/kg	--	--	--	--	10.4 U	10.9 U	11.7 U	12.2 U	10.7 U	11.8 U	--	--	--	--	--
	Bromodichloromethane	µg/kg	--	--	--	--	10.8 U	11.5 U	12.3 U	12.8 U	11.2 U	12.4 U	--	--	--	--	--
	Bromoform	µg/kg	--	--	--	--	9.78 U	10.3 U	11.1 U	11.6 U	10.1 U	11.1 U	--	--	--	--	--
	Bromomethane	µg/kg	--	--	--	--	8.56 U	9.04 U	9.69 U	10.1 U	8.82 U	9.75 U	--	--	--	--	--
	Carbon disulfide	µg/kg	--	--	--	--	7.64 U	8.07 U	8.66 U	9.03 U	7.87 U	8.71 U	--	--	--	--	--
	Carbon tetrachloride	µg/kg	--	--	--	--	11.7 U	12.4 U	13.2 U	13.8 U	12.0 U	13.3 U	--	1.0E+06	--	2.0E+06	--
	Chlorobenzene	µg/kg	--	--	--	--	3.26 U	3.45 U	3.70 U	3.86 U	3.36 U	3.72 U	--	4.0E+04	--	--	--
	Chloroethane	µg/kg	--	--	--	--	19.7 U	20.8 U	22.3 U	23.2 U	20.3 U	22.4 U	--	--	--	--	--
	Chloroform	µg/kg	--	--	--	--	5.78 U	6.11 U	6.55 U	6.83 U	5.96 U	6.59 U	--	--	--	1.9E+06	--
	Chloromethane	µg/kg	--	--	--	--	7.43 U	7.85 U	8.42 U	8.78 U	7.65 U	8.46 U	--	--	--	--	--
	cis-1,2-Dichloroethene	µg/kg	--	--	--	--	11.5 U	12.1 U	13.0 U	13.6 U	11.8 U	13.1 U	--	--	--	2.5E+06	--
	cis-1,3-Dichloropropene	µg/kg	--	--	--	--	4.89 U	5.17 U	5.54 U	5.78 U	5.04 U	5.57 U	--	--	--	--	--
	Dibromochloromethane	µg/kg	--	--	--	--	7.89 U	8.33 U	8.93 U	9.32 U	8.13 U	8.98 U	--	--	--	--	--
	Dibromomethane	µg/kg	--	--	--	--	5.05 U	5.33 U	5.72 U	5.96 U	5.20 U	5.75 U	--	--	--	--	--
	Dichlorodifluoromethane	µg/kg	--	--	--	--	7.64 U	8.07 U	8.66 U	9.03 U	7.87 U	8.71 U	--	--	--	--	--
	Ethylbenzene	µg/kg	--	--	--	--	61.7 J	3.18 U	3.41 U	3.55 U	3.10 U	3.43 U	--	--	--	--	--
	Hexachlorobutadiene	µg/kg	--	--	--	--	9.45 U	9.98 U	10.7 U	11.2 U	9.74 U	10.8 U	--	--	--	--	--
	Isopropylbenzene	µg/kg	--	--	--	--	20.2 J	8.33 U	8.93 U	9.32 U	8.13 U	8.98 U	--	--	--	--	--
	m,p-Xylene	µg/kg	--	--	--	--	273	20.0 U	21.4 U	22.4 U	19.5 U	21.6 U	--	--	--	--	--
	Methyl tert-butyl ether	µg/kg	--	--	--	--	5.78 U	6.11 U	6.55 U	6.83 U	5.96 U	6.59 U	--	--	--	--	--
	Methylene chloride	µg/kg	--	--	--	--	11.7 J	12.4 J	21.7 J	20.1 J	13.1 J	13.3 J	--	--	--	7.3E+05	--
	Naphthalene	µg/kg	--	--	--	--	246	8.65 U	9.27 U	9.67 U	8.43 U	9.32 U	1.0E+04	--	--	3.9E+06	--
	n-Butylbenzene	µg/kg	--	--	--	--	6.8 U	7.19 U	7.71 U	8.04 U	7.01 U	7.75 U	--	--	--	--	--
	n-Propylbenzene	µg/kg	--	--	--	--	23.4 J	7.89 U	8.46 U	8.83 U	7.70 U	8.51 U	--	--	--	--	--
	o-Xylene	µg/kg	--	--	--	--	225	7.26 U	7.79 U	8.12 U	7.09 U	7.83 U	1.0E+03	--	--	--	--
	p-Isopropyltoluene	µg/kg	--	--	--	--	10.3 U	10.9 U	11.7 U	12.2 U	10.6 U	11.7 U	--	--	--	--	--
	sec-Butylbenzene	µg/kg	--	--	--	--	9.57 J	5.72 U	6.13 U	6.39 U	5.57 U	6.16 U	--	--	--	--	--
	Styrene	µg/kg	--	--	--	--	3.34 U	3.53 U	3.78 U	3.94 U	3.44 U	3.80 U	3.0E+05	--	--	--	--
	tert-Butylbenzene	µg/kg	--	--	--	--	10.4 U	11.0 U	11.8 U	12.3 U	10.7 U	11.8 U	--	--	--	--	--
	Tetrachloroethene	µg/kg	--	--	--	--	15.3 U	16.2 U	17.3 U	18.1 U	15.8 U	17.4 U	1.0E+04	--	--	8.0E+04	--
	Toluene	µg/kg	--	--	--	--	20.2 J	3.93 U	4.21 U	4.40 U	3.83 U	4.24 U	2.0E+05	--	--	1.4E+06	--
	trans-1,2-Dichloroethene	µg/kg	--	--	--	--	6.23 U	6.58 U	7.06 U	7.36 U	6.42 U	7.10 U	--	--	--	2.5E+06	--
	trans-1,3-Dichloropropene	µg/kg	--	--	--	--	6.23 U	6.58 U	7.06 U	7.36 U	6.42 U	7.10 U	--	--	--	--	--
	Trichloroethene	µg/kg	--	--	--	--	7.72 U	8.15 U	8.74 U	9.12 U	7.95 U	8.79 U	--	--	--	4.0E+04	--
	Trichlorofluoromethane	µg/kg	--	--	--	--	33.1 U	34.9 U	37.4 U	39.1 U	34.1 U	37.7 U	--	--	--	--	--
	Vinyl chloride	µg/kg	--	--	--	--	7.95 U	8.4 U	9.01 UJ	9.39 U	8.19 U	9.06 U	--	--	--	2.0E+04	--

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Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.4				Vector 2.5			Vector 2.6			Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			090710-2-2.4-5-02-FS	090710-2-2.4-10-03-FS	090710-2-2.4-15-04-FS	090710-2-2.4-20-05-FS	090810-2-2.5-00-10-WS	090710-2-2.5-5-02-FS	090710-2-2.5-15-04-FS	090810-2-2.6-00-10-WS	090810-2-2.6-5-01-FS	090810-2-2.6-15-03-FS					
		Date	9/7/2010	9/7/2010	9/7/2010	9/7/2010	9/8/2010	9/7/2010	9/7/2010	9/8/2010	9/8/2010	9/8/2010	Plants	Inverts.	Birds	Mammals	
		Depth (Feet Below Ground Surface)	5 - 10	10 - 15	15 - 20	20 - 25	0	5 - 10	15 - 20	0	5 - 10	15 - 20					
SVOCs	1,2,4-Trichlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	2.0E+04	--	--	--
	1,2-Dichlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,3-Dichlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,4-Dichlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	2.0E+04	--	--	--
	2,4,5-Trichlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	4.0E+03	9.0E+03	--	--	--
	2,4,6-Trichlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	1.0E+04	1.0E+04	--	--	--
	2,4-Dichlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	2.0E+04	--	--	--	--
	2,4-Dimethylphenol	µg/kg	--	--	--	--	--	--	--	--	--	--	2.0E+04	--	--	--	--
	2,4-Dinitrophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	2.0E+04	--	--	--	--
	2,4-Dinitrotoluene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2,6-Dinitrotoluene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2-Chloronaphthalene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2-Chlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	6.0E+04	--	--	--	--
	2-Methylphenol	µg/kg	--	--	--	--	--	--	--	--	--	--	5.0E+04	--	--	1.6E+07	--
	2-Nitroaniline	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2-Nitrophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3,3'-Dichlorobenzidine	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3,4-Methylphenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3-Nitroaniline	µg/kg	--	--	--	--	--	--	--	--	--	--	7.0E+04	--	--	--	--
	4,6-Dinitro-2-methylphenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4-Bromophenyl phenyl ether	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4-Chloro-3-methylphenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4-Chloroaniline	µg/kg	--	--	--	--	--	--	--	--	--	--	4.0E+04	--	--	--	--
	4-Chlorophenyl phenyl ether	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4-Nitroaniline	µg/kg	--	--	--	--	--	--	--	--	--	--	4.0E+04	--	--	--	--
	4-Nitrophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	1.0E+04	7.0E+03	--	--	--
	Benzoic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Benzyl Alcohol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Bis(2-chloroethoxy)methane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Bis(2-chloroethyl)ether	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Bis(2-chloroisopropyl)ether	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Dibenzofuran	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	2.0E+00	--
	Hexachlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	1.0E+06	--	--	--
	Hexachlorobutadiene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Hexachlorocyclopentadiene	µg/kg	--	--	--	--	--	--	--	--	--	--	1.0E+04	--	--	--	--
	Hexachloroethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Isophorone	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Nitrobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	8.0E+03	4.0E+04	--	--	--
	N-Nitrosodi-n-propylamine	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	N-Nitrosodiphenylamine	µg/kg	--	--	--	--	--	--	--	--	--	--	--	2.0E+04	--	--	--
	Pentachlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	3.0E+03	4.0E+03	--	3.0E+04	--
	Phenol	µg/kg	--	--	--	--	--	--	--	--	--	--	7.0E+04	3.0E+04	--	--	--

Table B-12
Soil Boring Results: 0 to 25 Feet - Riverbank Section 2
Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.4				Vector 2.5			Vector 2.6			Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			090710-2-2.4-5-02-FS	090710-2-2.4-10-03-FS	090710-2-2.4-15-04-FS	090710-2-2.4-20-05-FS	090810-2-2.5-00-10-WS	090710-2-2.5-5-02-FS	090710-2-2.5-15-04-FS	090810-2-2.6-00-10-WS	090810-2-2.6-5-01-FS	090810-2-2.6-15-03-FS	Plants	Inverts.	Birds	Mammals	
		Date	9/7/2010	9/7/2010	9/7/2010	9/7/2010	9/8/2010	9/7/2010	9/7/2010	9/8/2010	9/8/2010	9/8/2010					
	Depth (Feet Below Ground Surface)		5 - 10	10 - 15	15 - 20	20 - 25	0	5 - 10	15 - 20	0	5 - 10	15 - 20					
PAHs	2-Methylnaphthalene	µg/kg	38.7 J	3.62 U	19.0 U	7.35 U	100	27.8 J	32.4 J	20.9 U	3.70 U	4.08 U	--	--	--	--	--
	Acenaphthene	µg/kg	19.4 U	3.62 U	19.0 U	7.35 U	122	29.0 J	20.3 U	20.9 U	3.70 U	4.08 U	2.0E+04	--	--	--	--
	Acenaphthylene	µg/kg	19.4 U	8.26 J	19.0 U	7.71 J	28.5 J	83.4	125	28.1 J	3.70 U	4.08 U	--	--	--	--	--
	Anthracene	µg/kg	26.3 J	8.79 J	19.0 U	11.9 J	224	171	64.6 J	20.9 U	3.70 U	5.60 J	--	--	--	--	--
	Benzo(a)anthracene	µg/kg	145	45.3	19.0 U	80.2	447	489	390	50.9 J	4.60 J	12.0 J	--	--	--	--	--
	Benzo(a)pyrene	µg/kg	238	55.4	31.6 J	143	446	436	737	58.9 J	6.34 J	15.7 J	--	--	--	1.3E+05	--
	Benzo(b)fluoranthene	µg/kg	256	42.5	30.0 J	140	415	378	597	115	6.75 J	21.4	--	--	--	--	--
	Benzo(ghi)perylene	µg/kg	255	40.2	38.8 J	122	356	272	516	85.9	6.74 J	18.8	--	--	--	--	--
	Benzo(k)fluranthene	µg/kg	198	38.1	22.9 J	102	408	358	760	71.9 J	5.02 J	20.6	--	--	--	--	--
	Chrysene	µg/kg	219	52.4	33.8 J	122	496.0	470	932	124	7.30 J	16.0 J	--	--	--	--	--
	Dibenzo(a,h)anthracene	µg/kg	80.7	10.4 J	19.0 U	34.3	109	97.9	134	20.9 U	3.70 U	4.49 J	--	--	--	--	--
	Fluoranthene	µg/kg	183	66.8	27.8 J	95.7	1,170	864	2,010	135	7.34 J	23.3	--	--	--	--	--
	Fluorene	µg/kg	19.4 U	3.62 U	19.0 U	7.35 U	154	74.0 J	24.8 J	20.9 U	3.70 U	4.08 U	--	3.0E+04	--	--	--
	Indeno(1,2,3-cd)pyrene	µg/kg	202	30.9	28.9 J	96.7	313	249	470	61.0 J	4.23 J	21.8	--	--	--	--	--
	Naphthalene	µg/kg	64.2 J	3.62 U	19.0 U	7.35 U	125	54.8 J	60.1 J	23.8 J	3.70 U	4.08 U	1.0E+04	--	--	3.9E+06	--
	Phenanthrene	µg/kg	141	35.0	23.3 J	57.3	1,240	662	1,970	87.5	4.93 J	19.8	--	--	--	--	--
	Pyrene	µg/kg	205	89.4	30.4 J	114	972	689	1,790	140	9.39 J	27.4	--	--	--	--	--
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	78.7 U	14.7 U	--	74.6 U	294	76.0 U	156	452	15.0 U	28.1 J	--	--	4.5E+03	1.0E+06	--
	Butyl benzyl phthalate	µg/kg	78.7 U	14.7 U	--	74.6 U	73.6 U	90.0 J	58.3 J	84.9 U	15.0 U	16.6 U	--	--	--	--	--
	Diethyl phthalate	µg/kg	78.7 U	14.7 U	--	74.6 U	73.6 U	76.0 U	33.0 U	84.9 U	15.0 U	16.6 U	1.0E+05	--	--	2.5E+08	--
	Dimethyl phthalate	µg/kg	78.7 U	14.7 U	--	74.6 U	73.6 U	76.0 U	33.0 U	84.9 U	15.0 U	16.6 U	--	2.0E+05	--	--	--
	Di-n-butyl phthalate	µg/kg	78.7 U	14.7 U	--	74.6 U	116 J	76.0 U	36.0 J	313	15.0 U	16.6 U	2.0E+05	--	4.5E+02	3.0E+07	--
	Di-n-octyl phthalate	µg/kg	78.7 U	73.6 U	--	149 U	73.6 U	152 U	33.0 U	84.9 U	15.0 U	16.6 U	--	--	--	--	--
Organotins	Dibutyltin	µg/kg	0.49 U	0.46 U	--	0.47 U	15	0.43 U	0.52 U	0.52 U	29	0.55 U	--	--	--	--	--
	Monobutyltin	µg/kg	0.46 U	0.44 U	--	0.45 U	19	0.40 U	0.50 U	0.49 U	25	0.52 U	--	--	--	--	--
	Tetra-n-butyltin	µg/kg	1.4 U	1.3 U	--	1.4 U	1.3 U	1.2 U	1.5 U	1.5 U	1.3 U	1.6 U	--	--	--	--	--
	Tributyltin	µg/kg	1.0 U	1.0 U	--	1.0 U	68	0.9 U	1.1 U	1.1 U	3.8	1.2 U	--	--	--	--	--
Petroleum Hydrocarbons	Diesel	mg/kg	40.1	49.9		140 J	174	54.5	58.0	69.0	17.8	15.5 J	--	--	--	--	--
	Heavy Oil	mg/kg	372	431		1,250 J	663	473	315	514	79.6	82.4	--	--	--	--	--

Notes:
1. -- = Not applicable/not analyzed
2. mg/kg = Milligrams per kilogram
3. µg/kg = Micrograms per kilogram
4. J = The result is an estimated quantity
5. U= Undetected at the method detection limit shown
6. UJ = Undetected at the method detection limit shown, detection limit is an estimated quantity
7. Level II Screening Benchmark Values; revision date 12/2001
8. Shading indicates sample concentration exceeds the default background concentration and one or more SLVs

Table B-13
Riverbank Surface Sample Results - Section 3
Source Control Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Riverbank Section 3											Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil	Default Background Concentrations Portland Basin Soil
			A2GS-1	A2GS-2	S2-6	S2-7	S2-8	S2-9	S2-10	S2-11	S2-12	S2-13	S2-14			
		Date	6/9/2003	6/9/2003	9/24/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010			
		Depth (Feet Below Ground Surface)	0 - 0.25	0 - 0.25	0	0	0	0	0	0	0	0	0			
Inorganics	Mercury	mg/kg	--	--	0.0137 J	0.123	0.0509 J	0.0537 J	0.0218 J	0.0214 J	0.00880 J	0.0136 J	0.0302 J	0.07	1.1	0.23
	Arsenic	mg/kg	--	--	4.01	135	5.85	6.27	23	29.1	19.0	30.8	61.3	--	3	8.8
	Barium	mg/kg	--	--	173	586	197	235	629	398	290.0	815	341	--	--	790
	Chromium	mg/kg	--	--	20.5	207	20.3	28.7	82.9	84.2	47.0	96.3	59.6	111	--	76
	Copper	mg/kg	--	--	199	1,580	112	260	1,220	1,130	832	2,870	962	149	149	34
	Lead	mg/kg	--	--	31.2	563	56.3	65.4	1,260	241	39.1	73.8	86.3	17	128	79
	Manganese	mg/kg	--	--	1,110	3,080	1,270	1,360	1,890	2,110	1,660	2,860	2,370	1100	--	1,800
	Nickel	mg/kg	--	--	12.0	95	13.9	22.7	52	42.6	26.9	53.6	31.3	49	--	47
	Selenium	mg/kg	--	--	0.0641 J	0.658 J	0.0886 J	0.173 J	0.0522 U	0.274 J	0.159 J	0.46 J	0.471 J	5	--	0.71
	Silver	mg/kg	--	--	0.256 J	1.18	0.325 J	0.675	1.1	1.13	0.718	1.24	1.03	5	--	0.82
	Zinc	mg/kg	--	--	650	3,900	300	767	7,420	764	494	3,220	558	459	459	180
PCBs	Aroclor 1016	µg/kg	--	--	2.14 U	9.96 UJ	1.96 U	1.92 U	4.35 U	1.81 U	1.77 U	1.92 U	1.73 U	--	--	--
	Aroclor 1221	µg/kg	--	--	4.27 U	19.9 UJ	3.91 U	3.82 U	8.66 U	3.62 U	3.54 U	3.83 U	3.46 U	--	--	--
	Aroclor 1232	µg/kg	--	--	2.14 U	9.96 UJ	1.96 U	1.92 U	4.35 U	1.81 U	1.77 U	1.92 U	1.73 U	--	--	--
	Aroclor 1242	µg/kg	--	--	2.14 U	9.97 UJ	1.96 U	1.92 U	4.35 U	1.81 U	1.77 U	1.92 U	1.73 U	--	--	--
	Aroclor 1248	µg/kg	--	--	2.14 U	9.97 UJ	25.4	1.92 U	4.35 U	15.4 J	1.77 U	1.92 U	37.4	--	--	--
	Aroclor 1254	µg/kg	--	--	2.14 U	123 J	1.96 U	1.92 U	88.2	1.81 U	1.77 U	1.92 U	1.73 U	--	--	--
	Aroclor 1260	µg/kg	--	--	8.76	9.97 UJ	32.6	8.57	4.35 U	18.2 J	12.9 J	14.4 J	34.1	--	--	--
	Aroclor 1262	µg/kg	--	--	2.14 U	9.97 UJ	1.96 U	1.92 U	4.35 U	1.81 U	1.77 U	1.92 U	1.73 U	--	--	--
	Aroclor 1268	µg/kg	--	--	2.14 U	9.97 UJ	1.96 U	1.92 U	4.35 U	1.81 U	1.77 U	1.92 U	1.73 U	--	--	--
	Total PCBs	µg/kg	ND	596	8.76	123 J	58.0	8.57	88.2	33.6 J	12.9 J	14.4 J	71.5	0.39	9	--
VOCs	1,1,1,2-Tetrachloroethane	µg/kg	--	--	11.8 U	--	--	--	--	--	--	--	--	--	--	--
	1,1,1-Trichloroethane	µg/kg	--	--	6.38 U	--	--	--	--	--	--	--	--	--	--	--
	1,1,2,2-Tetrachloroethane	µg/kg	--	--	14.4 U	--	--	--	--	--	--	--	--	--	--	--
	1,1,2-Trichloroethane	µg/kg	--	--	8.60 U	--	--	--	--	--	--	--	--	--	--	--
	1,1-Dichloroethane	µg/kg	--	--	8.51 U	--	--	--	--	--	--	--	--	--	--	--
	1,1-Dichloroethene	µg/kg	--	--	15.2 U	--	--	--	--	--	--	--	--	--	--	--
	1,1-Dichloropropene	µg/kg	--	--	10.0 U	--	--	--	--	--	--	--	--	--	--	--
	1,2,3-Trichlorobenzene	µg/kg	--	--	11.9 U	--	--	--	--	--	--	--	--	--	--	--
	1,2,3-Trichloropropane	µg/kg	--	--	8.19 U	--	--	--	--	--	--	--	--	--	--	--
	1,2,4-Trichlorobenzene	µg/kg	--	--	17.6 U	--	--	--	--	--	--	--	--	9,200	--	--
	1,2,4-Trimethylbenzene	µg/kg	--	--	18.7 U	--	--	--	--	--	--	--	--	--	--	--
	1,2-Dibromo-3-	µg/kg	--	--	52.3 U	--	--	--	--	--	--	--	--	--	--	--
	1,2-Dibromoethane	µg/kg	--	--	13.2 U	--	--	--	--	--	--	--	--	--	--	--
	1,2-Dichlorobenzene	µg/kg	--	--	9.86 U	--	--	--	--	--	--	--	--	1,700	--	--
	1,2-Dichloroethane	µg/kg	--	--	9.60 U	--	--	--	--	--	--	--	--	--	--	--
	1,2-Dichloropropane	µg/kg	--	--	8.51 U	--	--	--	--	--	--	--	--	--	--	--
	1,3,5-Trimethylbenzene	µg/kg	--	--	10.4 U	--	--	--	--	--	--	--	--	--	--	--

Table B-13
Riverbank Surface Sample Results - Section 3
Source Control Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Riverbank Section 3											Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil	Default Background Concentrations Portland Basin Soil
			A2GS-1	A2GS-2	S2-6	S2-7	S2-8	S2-9	S2-10	S2-11	S2-12	S2-13	S2-14			
		Date	6/9/2003	6/9/2003	9/24/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010			
		Depth (Feet Below Ground Surface)	0 - 0.25	0 - 0.25	0	0	0	0	0	0	0	0	0			
VOCs (continued)	1,3-Dichlorobenzene	µg/kg	--	--	7.91 U	--	--	--	--	--	--	--	--	300	--	--
	1,3-Dichloropropane	µg/kg	--	--	8.42 U	--	--	--	--	--	--	--	--	--	--	--
	1,4-Dichlorobenzene	µg/kg	--	--	10.7 U	--	--	--	--	--	--	--	--	300	--	--
	2,2-Dichloropropane	µg/kg	--	--	7.96 U	--	--	--	--	--	--	--	--	--	--	--
	2-Butanone	µg/kg	--	--	32.2 U	--	--	--	--	--	--	--	--	--	--	--
	2-Chlorotoluene	µg/kg	--	--	7.52 U	--	--	--	--	--	--	--	--	--	--	--
	2-Hexanone	µg/kg	--	--	35.8 U	--	--	--	--	--	--	--	--	--	--	--
	4-Chlorotoluene	µg/kg	--	--	5.49 U	--	--	--	--	--	--	--	--	--	--	--
	4-Methyl-2-pentanone	µg/kg	--	--	24.2 U	--	--	--	--	--	--	--	--	--	--	--
	Acetone	µg/kg	--	--	761 U	--	--	--	--	--	--	--	--	--	--	--
	Benzene	µg/kg	--	--	5.35 U	--	--	--	--	--	--	--	--	--	--	--
	Bromobenzene	µg/kg	--	--	15.8 U	--	--	--	--	--	--	--	--	--	--	--
	Bromochloromethane	µg/kg	--	--	12.3 U	--	--	--	--	--	--	--	--	--	--	--
	Bromodichloromethane	µg/kg	--	--	12.9 U	--	--	--	--	--	--	--	--	--	--	--
	Bromoform	µg/kg	--	--	11.6 U	--	--	--	--	--	--	--	--	--	--	--
	Bromomethane	µg/kg	--	--	10.2 U	--	--	--	--	--	--	--	--	--	--	--
	Carbon disulfide	µg/kg	--	--	9.10 U	--	--	--	--	--	--	--	--	--	--	--
	Carbon tetrachloride	µg/kg	--	--	13.9 U	--	--	--	--	--	--	--	--	--	--	--
	Chlorobenzene	µg/kg	--	--	3.89 U	--	--	--	--	--	--	--	--	--	--	--
	Chloroethane	µg/kg	--	--	23.4 U	--	--	--	--	--	--	--	--	--	--	--
	Chloroform	µg/kg	--	--	6.89 U	--	--	--	--	--	--	--	--	--	--	--
	Chloromethane	µg/kg	--	--	8.85 U	--	--	--	--	--	--	--	--	--	--	--
	cis-1,2-Dichloroethene	µg/kg	--	--	13.7 U	--	--	--	--	--	--	--	--	--	--	--
	cis-1,3-Dichloropropene	µg/kg	--	--	5.82 U	--	--	--	--	--	--	--	--	--	--	--
	Dibromochloromethane	µg/kg	--	--	9.39 U	--	--	--	--	--	--	--	--	--	--	--
	Dibromomethane	µg/kg	--	--	6.01 U	--	--	--	--	--	--	--	--	--	--	--
	Dichlorodifluoromethane	µg/kg	--	--	9.10 U	--	--	--	--	--	--	--	--	--	--	--
	Ethylbenzene	µg/kg	--	--	3.58 U	--	--	--	--	--	--	--	--	--	--	--
	Hexachlorobutadiene	µg/kg	--	--	11.3 U	--	--	--	--	--	--	--	--	600	--	--
	Isopropylbenzene	µg/kg	--	--	9.39 U	--	--	--	--	--	--	--	--	--	--	--
	m,p-Xylene	µg/kg	--	--	22.5 U	--	--	--	--	--	--	--	--	--	--	--
	Methyl tert-butyl ether	µg/kg	--	--	6.89 U	--	--	--	--	--	--	--	--	--	--	--
	Methylene chloride	µg/kg	--	--	29.1 J	--	--	--	--	--	--	--	--	--	--	--
	Naphthalene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	561	--	--
	n-Butylbenzene	µg/kg	--	--	8.10 U	--	--	--	--	--	--	--	--	--	--	--
	n-Propylbenzene	µg/kg	--	--	8.90 U	--	--	--	--	--	--	--	--	--	--	--
	o-Xylene	µg/kg	--	--	8.19 U	--	--	--	--	--	--	--	--	--	--	--
	p-Isopropyltoluene	µg/kg	--	--	12.3 U	--	--	--	--	--	--	--	--	--	--	--
	sec-Butylbenzene	µg/kg	--	--	6.44 U	--	--	--	--	--	--	--	--	--	--	--
	Styrene	µg/kg	--	--	3.97 U	--	--	--	--	--	--	--	--	--	--	--

Table B-13
Riverbank Surface Sample Results - Section 3
Source Control Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Riverbank Section 3											Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil	Default Background Concentrations Portland Basin Soil
			A2GS-1	A2GS-2	S2-6	S2-7	S2-8	S2-9	S2-10	S2-11	S2-12	S2-13	S2-14			
		Date	6/9/2003	6/9/2003	9/24/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010			
		Depth (Feet Below Ground Surface)	0 - 0.25	0 - 0.25	0	0	0	0	0	0	0	0	0			
VOCs (continued)	tert-Butylbenzene	µg/kg	--	--	12.4 U	--	--	--	--	--	--	--	--	--	--	--
	Tetrachloroethene	µg/kg	--	--	18.2 U	--	--	--	--	--	--	--	--	--	--	--
	Toluene	µg/kg	--	--	4.43 U	--	--	--	--	--	--	--	--	--	--	--
	trans-1,2-Dichloroethene	µg/kg	--	--	7.42 U	--	--	--	--	--	--	--	--	--	--	--
	trans-1,3-Dichloropropene	µg/kg	--	--	7.42 U	--	--	--	--	--	--	--	--	--	--	--
	Trichloroethene	µg/kg	--	--	9.19 U	--	--	--	--	--	--	--	--	2,100	--	--
	Trichlorofluoromethane	µg/kg	--	--	39.4 U	--	--	--	--	--	--	--	--	--	--	--
	Vinyl chloride	µg/kg	--	--	9.47 UJ	--	--	--	--	--	--	--	--	--	--	--
SVOCs	1,2,4-Trichlorobenzene	µg/kg	--	--	--	1,190 U	585 U	570 U	--	--	--	--	--	9,200	--	--
	1,2-Dichlorobenzene	µg/kg	--	--	--	1,190 U	585 U	570 U	--	--	--	--	--	1,700	--	--
	1,3-Dichlorobenzene	µg/kg	--	--	--	1,190 U	585 U	570 U	--	--	--	--	--	300	--	--
	1,4-Dichlorobenzene	µg/kg	--	--	--	1,190 U	585 U	570 U	--	--	--	--	--	300	--	--
	2,4,5-Trichlorophenol	µg/kg	--	--	--	167 U	82.0 U	79.7 U	--	--	--	--	--	--	--	--
	2,4,6-Trichlorophenol	µg/kg	--	--	--	167 U	82.0 U	79.7 U	--	--	--	--	--	--	--	--
	2,4-Dichlorophenol	µg/kg	--	--	--	167 U	82.0 U	79.7 U	--	--	--	--	--	--	--	--
	2,4-Dimethylphenol	µg/kg	--	--	--	1,190 U	585 U	570 U	--	--	--	--	--	--	--	--
	2,4-Dinitrophenol	µg/kg	--	--	--	4,780 U	2,340 U	2,280 U	--	--	--	--	--	--	--	--
	2,4-Dinitrotoluene	µg/kg	--	--	--	1,190 U	585 U	570 U	--	--	--	--	--	--	--	--
	2,6-Dinitrotoluene	µg/kg	--	--	--	1,190 U	585 U	570 U	--	--	--	--	--	--	--	--
	2-Chloronaphthalene	µg/kg	--	--	--	167 U	82.0 U	79.7 U	--	--	--	--	--	--	--	--
	2-Chlorophenol	µg/kg	--	--	--	167 U	82.0 U	79.7 U	--	--	--	--	--	--	--	--
	2-Methylphenol	µg/kg	--	--	--	167 U	82.0 U	79.7 U	--	--	--	--	--	--	--	--
	2-Nitroaniline	µg/kg	--	--	--	167 U	82.0 U	79.7 U	--	--	--	--	--	--	--	--
	2-Nitrophenol	µg/kg	--	--	--	167 U	82.0 U	79.7 U	--	--	--	--	--	--	--	--
	3,3'-Dichlorobenzidine	µg/kg	--	--	--	1,190 U	585 U	570 U	--	--	--	--	--	--	--	--
	3,4-Methylphenol	µg/kg	--	--	--	167 U	82.0 U	79.7 U	--	--	--	--	--	--	--	--
	3-Nitroaniline	µg/kg	--	--	--	1,190 U	585 U	570 U	--	--	--	--	--	--	--	--
	4,6-Dinitro-2-methylphenol	µg/kg	--	--	--	1,190 U	585 U	570 U	--	--	--	--	--	--	--	--
	4-Bromophenyl phenyl	µg/kg	--	--	--	167 U	82.0 U	79.7 U	--	--	--	--	--	--	--	--
	4-Chloro-3-methylphenol	µg/kg	--	--	--	167 U	82.0 U	79.7 U	--	--	--	--	--	--	--	--
	4-Chloroaniline	µg/kg	--	--	--	394 U	193 U	188 U	--	--	--	--	--	--	--	--
	4-Chlorophenyl phenyl	µg/kg	--	--	--	239 U	117 U	114 U	--	--	--	--	--	--	--	--
	4-Nitroaniline	µg/kg	--	--	--	167 U	82.0 U	79.7 U	--	--	--	--	--	--	--	--
	4-Nitrophenol	µg/kg	--	--	--	1,190 U	585 U	570 U	--	--	--	--	--	--	--	--
	Benzoic Acid	µg/kg	--	--	--	1,190 U	585 U	570 U	--	--	--	--	--	--	--	--
	Benzyl Alcohol	µg/kg	--	--	--	2,390 U	1,170 U	1,140 U	--	--	--	--	--	--	--	--
	Bis(2-chloroethoxy)methane	µg/kg	--	--	--	167 U	82.0 U	79.7 U	--	--	--	--	--	--	--	--
	Bis(2-chloroethyl)ether	µg/kg	--	--	--	167 U	82.0 U	79.7 U	--	--	--	--	--	--	--	--
	Bis(2-chloroisopropyl)ether	µg/kg	--	--	--	167 U	82.0 U	79.7 U	--	--	--	--	--	--	--	--
	Dibenzofuran	µg/kg	--	--	--	167 U	82.0 U	79.7 U	--	--	--	--	--	--	--	--

Table B-13
Riverbank Surface Sample Results - Section 3
Source Control Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Riverbank Section 3											Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil	Default Background Concentrations Portland Basin Soil
			A2GS-1	A2GS-2	S2-6	S2-7	S2-8	S2-9	S2-10	S2-11	S2-12	S2-13	S2-14			
		Date	6/9/2003	6/9/2003	9/24/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010			
		Depth (Feet Below Ground Surface)	0 - 0.25	0 - 0.25	0	0	0	0	0	0	0	0	0			
SVOCs (continued)	Hexachlorobenzene	µg/kg	--	--	--	167 U	82.0 U	79.7 U	--	--	--	--	--	19	0.3	--
	Hexachlorobutadiene	µg/kg	--	--	--	1,190 U	585 U	570 U	--	--	--	--	--	600	--	--
	Hexachlorocyclopentadiene	µg/kg	--	--	--	1,190 U	585 U	570 U	--	--	--	--	--	400	--	--
	Hexachloroethane	µg/kg	--	--	--	1,190 U	585 U	570 U	--	--	--	--	--	--	--	--
	Isophorone	µg/kg	--	--	--	167 U	82.0 U	79.7 U	--	--	--	--	--	--	--	--
	Nitrobenzene	µg/kg	--	--	--	167 U	82.0 U	79.7 U	--	--	--	--	--	--	--	--
	N-Nitrosodi-n-propylamine	µg/kg	--	--	--	167 U	82.0 U	79.7 U	--	--	--	--	--	--	--	--
	N-Nitrosodiphenylamine	µg/kg	--	--	--	167 U	82.0 U	79.7 U	--	--	--	--	--	--	--	--
	Pentachlorophenol	µg/kg	--	--	--	1,190 U	585 U	570 U	--	--	--	--	--	1,000	--	--
	Phenol	µg/kg	--	--	--	167 U	82 U	79.7 U	--	--	--	--	--	50	--	--
PAHs	2-Methylnaphthalene	µg/kg	--	--	7.29 J	46.3	8.65 J	4.23 J	22.2	112	36.9	8.98 J	6.86 U	200	--	--
	Acenaphthene	µg/kg	--	--	5.66 J	33.1	4.42 J	3.79 U	24.1	162	34.7	22.7 J	7.04 J	300	--	--
	Acenaphthylene	µg/kg	--	--	4.23 U	71.1	4.30 J	3.79 U	8.76 J	85.0	7.68 J	7.59 U	6.86 U	200	--	--
	Anthracene	µg/kg	--	--	8.12 J	155	7.99 J	9.31 J	35.6	234	56.4	27.8 J	44.4	845	--	--
	Benzo(a)anthracene	µg/kg	--	--	34.1	150	27.4	29.4	89.6	567	105	150	240	1,050	--	--
	Benzo(a)pyrene	µg/kg	--	--	47.4	296	41.3	53.4	124	683	110	212	202	1,450	--	--
	Benzo(b)fluoranthene	µg/kg	--	--	55.3	419	46.7	69.6	212	690	103	274	240	--	--	--
	Benzo(ghi)perylene	µg/kg	--	--	43.2	468	38.3	64.2	129	578	83.5	204	124	300	--	--
	Benzo(k)fluranthene	µg/kg	--	--	51.9	290	37.0	45.5	126	663	101	206	168	--	--	--
	Chrysene	µg/kg	--	--	56.5	239	54.8	50.0	146	940	132	228	211	1,290	--	--
	Dibenzo(a,h)anthracene	µg/kg	--	--	11.5 J	120	12.0 J	15.9	41.6	192	25.1 J	61.4	54.1	1,300	--	--
	Fluoranthene	µg/kg	--	--	117	308	67.3	75.7	217	2,650	329	288	474	2,230	--	--
	Fluorene	µg/kg	--	--	5.80 J	42.5	5.42 J	5.78 J	19.5	193	49.3	17.7 J	11.7 J	536	--	--
	Indeno(1,2,3-cd)pyrene	µg/kg	--	--	38.2	402	33.2	49.9	119	546	76.1	169	121	100	--	--
	Naphthalene	µg/kg	--	--	7.64 J	74.3	17.0	7.21 J	39.9	107	38.5	46	6.86 U	561	--	--
	Phenanthrene	µg/kg	--	--	94.2	229	48.1	49.2	152	2,210	356	150	212	1,170	--	--
	Pyrene	µg/kg	--	--	90.6	263	62.4	67.9	188	1,940	277	242	351	1,520	--	--
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	ND	ND	276	820	83.7	77.4	795	3,040	448	610	95.7	330	135	--
	Butyl benzyl phthalate	µg/kg	--	--	34.3 U	38.8 J	15.8 U	30.8 U	61.8 J	29.0 U	28.3 U	61.7 U	27.9 U	--	--	--
	Diethyl phthalate	µg/kg	ND	ND	64.0 J	153	44.8	34.2 J	88.8	792	170	61.7 U	27.9 U	600	--	--
	Dimethyl phthalate	µg/kg	--	--	34.3 U	31.8 U	15.8 U	30.8 U	35.0 U	29.0 U	28.3 U	61.7 U	27.9 U	--	--	--
	Di-n-butyl phthalate	µg/kg	--	--	59.7 J	186	15.8 U	30.8 U	63.2 J	108	28.3 U	61.7 U	27.9 U	100	--	--
	Di-n-octyl phthalate	µg/kg	--	--	34.3 U	31.8 U	15.8 U	30.8 U	761	29.0 U	28.3 U	130	27.9 U	--	--	--
Organotins	Dibutyltin	µg/kg	--	--	13	130 J	9.8	7.1	34	0.41 U	0.42 U	29	0.41 U	--	--	--
	Monobutyltin	µg/kg	--	--	15	110 J	13	6.5	22	7.9	10	12	0.39 U	--	--	--
	Tetra-n-butyltin	µg/kg	--	--	1.5 U	1.5 U	3.4 J	1.3 U	1.4 U	1.2 U	1.2 U	1.3 U	1.2 U	--	--	--
	Tributyltin	µg/kg	189	1,770	99	440	29	24	120	8.8	3.5	74	0.9 U	2.3	24,000	--

Table B-13
Riverbank Surface Sample Results - Section 3
Source Control Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Riverbank Section 3											Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil	Default Background Concentrations Portland Basin Soil
			A2GS-1	A2GS-2	S2-6	S2-7	S2-8	S2-9	S2-10	S2-11	S2-12	S2-13	S2-14			
		Date	6/9/2003	6/9/2003	9/24/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010			
		Depth (Feet Below Ground Surface)	0 - 0.25	0 - 0.25	0	0	0	0	0	0	0	0	0			
Organochlorine Pesticides	4-4'-DDD	µg/kg	--	--	--	1.60 U	--	--	--	--	--	--	--	--	6.1	--
	4,4'-DDE	µg/kg	--	--	--	0.787 U	--	--	--	--	--	--	--	0.330	6.1	--
	4,4'-DDT	µg/kg	--	--	--	4.79 U	--	--	--	--	--	--	--	0.33	6.1	--
	Aldrin	µg/kg	--	--	--	0.787 U	--	--	--	--	--	--	--	40	2	--
	alpha-BHC	µg/kg	--	--	--	0.787 U	--	--	--	--	--	--	--	--	--	--
	alpha-Chlordane	µg/kg	--	--	--	0.787 U	--	--	--	--	--	--	--	--	1.5	--
	beta-BHC	µg/kg	--	--	--	1.74	--	--	--	--	--	--	--	--	--	--
	Chlordane	µg/kg	--	--	--	17.9 U	--	--	--	--	--	--	--	0.37	1.5	--
	delta-BHC	µg/kg	--	--	--	0.787 U	--	--	--	--	--	--	--	--	--	--
	Dieldrin	µg/kg	--	--	--	3.20 U	--	--	--	--	--	--	--	0.0081	0.07	--
	Endosulfan I	µg/kg	--	--	--	0.787 U	--	--	--	--	--	--	--	--	--	--
	Endosulfan II	µg/kg	--	--	--	0.787 U	--	--	--	--	--	--	--	--	--	--
	Endosulfan sulfate	µg/kg	--	--	--	0.787 U	--	--	--	--	--	--	--	--	--	--
	Endrin	µg/kg	--	--	--	0.787 U	--	--	--	--	--	--	--	207	--	--
	Endrin aldehyde	µg/kg	--	--	--	1.60 U	--	--	--	--	--	--	--	--	--	--
	Endrin ketone	µg/kg	--	--	--	3.20 U	--	--	--	--	--	--	--	--	--	--
	gamma-BHC (Lindane)	µg/kg	--	--	--	0.787 U	--	--	--	--	--	--	--	4.99	5	--
	gamma-Chlordane	µg/kg	--	--	--	0.787 U	--	--	--	--	--	--	--	--	1.5	--
	Heptachlor	µg/kg	--	--	--	0.787 U	--	--	--	--	--	--	--	10	--	--
	Heptachlor epoxide	µg/kg	--	--	--	0.787 U	--	--	--	--	--	--	--	16	--	--
	Methoxychlor	µg/kg	--	--	--	1.97 U	--	--	--	--	--	--	--	--	--	--
	Toxaphene	µg/kg	--	--	--	23.8 U	--	--	--	--	--	--	--	--	--	--
Petroleum Hydrocarbons	Diesel	mg/kg	--	--	8.85 J	76.8 J	1.63 J	29.5	22.6	22.0	6.24 J	51.5	7.84 J	--	--	--
	Heavy Oil	mg/kg	--	--	79.3	204	7.11 J	321	61.4	40.7	43.9	292	61.9	--	--	--

Notes:
1. -- = Not applicable/not analyzed.
2. mg/kg = Milligrams per kilogram.
3. µg/kg = Micrograms per kilogram.
4. J = The result is an estimated quantity.
5. U= Undetected at the method detection limit shown.
6. UJ = Undetected at the method detection limit shown, detection limit is an estimated quantity.
7. Joint Source Control Strategy (JSCS) Screening Level Values (SLVs); revision date 7/16/2007.
8. Shading indicates sample concentration exceeds the corresponding JSCS SLV and/or the draft PRG.
9. PRG = Draft Preliminary Remediation Goal; prepared by U.S. Environmental Protection Agency, July 2015.

Table B-14
Riverbank Surface Sample Results - Section 3
Human Health Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Riverbank Section 3									Oregon Department of Environmental Quality Risk-Based Concentrations				
			S2-6	S2-7	S2-8	S2-9	S2-10	S2-11	S2-12	S2-13	S2-14	Soil Ingestion, Dermal Contact, and Inhal.			Vol. to Outdoor Air	Vapor Intrusion
		Date	9/24/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010					
	Depth (Feet Below Ground Surface)		0	0	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Occ	Const.	Exc	Occ	Occ
Inorganics	Mercury	mg/kg	0.0137 J	0.123	0.0509 J	0.0537 J	0.0218 J	0.0214 J	0.00880 J	0.0136 J	0.0302 J	3.50E+02	1.10E+02	2.90E+03	--	--
	Arsenic	mg/kg	4.01	135	5.85	6.27	23	29.1	19.0	30.8	61.3	1.90E+00	1.50E+01	4.20E+02	--	--
	Barium	mg/kg	173	586	197	235	629	398	290.0	815	341	2.20E+05	6.90E+04	--	--	--
	Chromium	mg/kg	20.5	207	20.3	28.7	82.9	84.2	47.0	96.3	59.6	--	5.30E+05	--	--	--
	Copper	mg/kg	199	1,580	112	260	1,220	1,130	832	2870	962	4.70E+04	1.40E+04	3.90E+05	--	--
	Lead	mg/kg	31.2	563	56.3	65.4	1,260	241	39.1	73.8	86.3	8.00E+02	8.00E+02	8.00E+02	--	--
	Manganese	mg/kg	1,110	3,080	1,270	1,360	1,890	2,110	1,660	2860	2370	2.50E+04	8.20E+03	2.30E+05	--	--
	Nickel	mg/kg	12.0	95	13.9	22.7	52	42.6	26.9	53.6	31.3	2.20E+04	7.00E+03	1.90E+05	--	--
	Selenium	mg/kg	0.0641 J	0.658 J	0.0886 J	0.173 J	0.0522 U	0.274 J	0.159 J	0.46 J	0.471 J	--	--	--	--	--
	Silver	mg/kg	0.256 J	1.18	0.325 J	0.675	1.1	1.13	0.718	1.24	1.03	5.80E+03	1.80E+03	4.90E+04	--	--
	Zinc	mg/kg	650	3,900	300	767	7,420	764	494	3220	558	--	--	--	--	--
PCBs	Aroclor 1016	µg/kg	2.14 U	9.96 UJ	1.96 U	1.92 U	4.35 U	1.81 U	1.77 U	1.92 U	1.73 U	--	--	--	--	--
	Aroclor 1221	µg/kg	4.27 U	19.9 UJ	3.91 U	3.82 U	8.66 U	3.62 U	3.54 U	3.83 U	3.46 U	--	--	--	--	--
	Aroclor 1232	µg/kg	2.14 U	9.96 UJ	1.96 U	1.92 U	4.35 U	1.81 U	1.77 U	1.92 U	1.73 U	--	--	--	--	--
	Aroclor 1242	µg/kg	2.14 U	9.97 UJ	1.96 U	1.92 U	4.35 U	1.81 U	1.77 U	1.92 U	1.73 U	--	--	--	--	--
	Aroclor 1248	µg/kg	2.14 U	9.97 UJ	25.4	1.92 U	4.35 U	15.4 J	1.77 U	1.92 U	37.4	--	--	--	--	--
	Aroclor 1254	µg/kg	2.14 U	123 J	1.96 U	1.92 U	88.2	1.81 U	1.77 U	1.92 U	1.73 U	--	--	--	--	--
	Aroclor 1260	µg/kg	8.76	9.97 UJ	32.6	8.57	4.35 U	18.2 J	12.9 J	14.4 J	34.1	--	--	--	--	--
	Aroclor 1262	µg/kg	2.14 U	9.97 UJ	1.96 U	1.92 U	4.35 U	1.81 U	1.77 U	1.92 U	1.73 U	--	--	--	--	--
	Aroclor 1268	µg/kg	2.14 U	9.97 UJ	1.96 U	1.92 U	4.35 U	1.81 U	1.77 U	1.92 U	1.73 U	--	--	--	--	--
	Total PCBs	µg/kg	8.76	123 J	58.0	8.57	88.2	33.6 J	12.9 J	14.4 J	71.5	5.90E+02	4.90E+03	1.40E+05	--	--

Table B-14
Riverbank Surface Sample Results - Section 3
Human Health Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Riverbank Section 3										Oregon Department of Environmental Quality Risk-Based Concentrations				
			S2-6		S2-7	S2-8	S2-9	S2-10	S2-11	S2-12	S2-13	S2-14	Soil Ingestion, Dermal Contact, and Inhal.			Vol. to Outdoor Air	Vapor Intrusion
		Date	9/24/2010		9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010					
	Depth (Feet Below Ground Surface)		0		0	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Occ	Const.	Exc	Occ	Occ
VOCs	1,1,1,2-Tetrachloroethane	µg/kg	11.8	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,1,1-Trichloroethane	µg/kg	6.38	U	--	--	--	--	--	--	--	--	8.70E+08	4.70E+08	--	--	--
	1,1,2,2-Tetrachloroethane	µg/kg	14.4	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,1,2-Trichloroethane	µg/kg	8.60	U	--	--	--	--	--	--	--	--	2.60E+04	5.40E+04	1.50E+06	2.40E+04	4.20E+03
	1,1-Dichloroethane	µg/kg	8.51	U	--	--	--	--	--	--	--	--	2.60E+05	3.20E+06	8.90E+07	2.40E+05	5.90E+03
	1,1-Dichloroethene	µg/kg	15.2	U	--	--	--	--	--	--	--	--	2.90E+07	1.30E+07	3.70E+08	--	6.80E+05
	1,1-Dichloropropene	µg/kg	10.0	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,2,3-Trichlorobenzene	µg/kg	11.9	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,2,3-Trichloropropane	µg/kg	8.19	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,2,4-Trichlorobenzene	µg/kg	17.6	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,2,4-Trimethylbenzene	µg/kg	18.7	U	--	--	--	--	--	--	--	--	2.00E+06	2.00E+06	5.40E+07	9.80E+05	2.10E+05
	1,2-Dibromo-3-	µg/kg	52.3	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,2-Dibromoethane	µg/kg	13.2	U	--	--	--	--	--	--	--	--	7.30E+02	9.00E+03	2.50E+05	6.50E+02	1.60E+02
	1,2-Dichlorobenzene	µg/kg	9.86	U	--	--	--	--	--	--	--	--	3.60E+07	2.00E+07	5.60E+08	--	--
	1,2-Dichloroethane	µg/kg	9.60	U	--	--	--	--	--	--	--	--	1.60E+04	2.00E+05	5.60E+06	1.50E+04	1.00E+03
	1,2-Dichloropropane	µg/kg	8.51	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,3,5-Trimethylbenzene	µg/kg	10.4	U	--	--	--	--	--	--	--	--	1.20E+07	3.50E+06	9.80E+07	--	--
	1,3-Dichlorobenzene	µg/kg	7.91	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,3-Dichloropropane	µg/kg	8.42	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,4-Dichlorobenzene	µg/kg	10.7	U	--	--	--	--	--	--	--	--	6.40E+04	1.30E+06	3.60E+07	3.60E+04	1.30E+04
	2,2-Dichloropropane	µg/kg	7.96	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	2-Butanone	µg/kg	32.2	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	2-Chlorotoluene	µg/kg	7.52	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	2-Hexanone	µg/kg	35.8	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	4-Chlorotoluene	µg/kg	5.49	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	4-Methyl-2-pentanone	µg/kg	24.2	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	Acetone	µg/kg	761	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	Benzene	µg/kg	5.35	U	--	--	--	--	--	--	--	--	3.70E+04	3.80E+05	1.10E+07	5.00E+04	2.10E+03
	Bromobenzene	µg/kg	15.8	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	Bromochloromethane	µg/kg	12.3	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	Bromodichloromethane	µg/kg	12.9	U	--	--	--	--	--	--	--	--	1.50E+04	2.30E+05	6.30E+06	1.10E+04	5.30E+02
	Bromoform	µg/kg	11.6	U	--	--	--	--	--	--	--	--	2.60E+05	2.70E+06	7.40E+07	3.60E+05	1.10E+05
	Bromomethane	µg/kg	10.2	U	--	--	--	--	--	--	--	--	7.50E+05	3.70E+05	1.00E+07	7.00E+05	1.70E+04
	Carbon disulfide	µg/kg	9.10	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	Carbon tetrachloride	µg/kg	13.9	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	Chlorobenzene	µg/kg	3.89	U	--	--	--	--	--	--	--	--	8.70E+06	4.70E+06	1.30E+08	--	--

Table B-14
Riverbank Surface Sample Results - Section 3
Human Health Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Riverbank Section 3											Oregon Department of Environmental Quality Risk-Based Concentrations				
			S2-6		S2-7	S2-8	S2-9	S2-10	S2-11	S2-12	S2-13	S2-14		Soil Ingestion, Dermal Contact, and Inhal.			Vol. to Outdoor Air	Vapor Intrusion
		Date	9/24/2010		9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010						
	Depth (Feet Below Ground Surface)		0		0	Surface	Surface	Surface	Surface	Surface	Surface	Surface		Occ	Const.	Exc	Occ	Occ
VOCs (continued)	Chloroethane	µg/kg	23.4	U	--	--	--	--	--	--	--	--		--	--	--	--	--
	Chloroform	µg/kg	6.89	U	--	--	--	--	--	--	--	--		2.60E+04	4.10E+05	1.10E+07	1.70E+04	4.10E+02
	Chloromethane	µg/kg	8.85	U	--	--	--	--	--	--	--	--		2.50E+07	2.50E+07	7.00E+08	--	3.00E+05
	cis-1,2-Dichloroethene	µg/kg	13.7	U	--	--	--	--	--	--	--	--		2.30E+06	7.10E+05	2.00E+07	--	--
	cis-1,3-Dichloropropene	µg/kg	5.82	U	--	--	--	--	--	--	--	--		--	--	--	--	--
	Dibromochloromethane	µg/kg	9.39	U	--	--	--	--	--	--	--	--		--	--	--	--	--
	Dibromomethane	µg/kg	6.01	U	--	--	--	--	--	--	--	--		--	--	--	--	--
	Dichlorodifluoromethane	µg/kg	9.10	U	--	--	--	--	--	--	--	--		--	--	--	--	--
	Ethylbenzene	µg/kg	3.58	U	--	--	--	--	--	--	--	--		1.50E+05	1.70E+06	4.90E+07	1.60E+05	1.70E+04
	Hexachlorobutadiene	µg/kg	11.3	U	--	--	--	--	--	--	--	--		--	--	--	--	--
	Isopropylbenzene	µg/kg	9.39	U	--	--	--	--	--	--	--	--		5.70E+07	2.70E+07	7.50E+08	--	--
	m,p-Xylene	µg/kg	22.5	U	--	--	--	--	--	--	--	--		2.50E+07	2.00E+07	5.60E+08	--	--
	Methyl tert-butyl ether	µg/kg	6.89	U	--	--	--	--	--	--	--	--		1.10E+06	1.20E+07	3.20E+08	1.50E+06	1.10E+05
	Methylene chloride	µg/kg	29.1	J	--	--	--	--	--	--	--	--		1.60E+06	2.10E+06	5.80E+07	-	9.50E+05
	Naphthalene	µg/kg	--		--	--	--	--	--	--				2.30E+04	5.80E+05	1.60E+07	8.30E+04	8.30E+04
	n-Butylbenzene	µg/kg	8.10	U	--	--	--	--	--	--	--	--		--	--	--	--	--
	n-Propylbenzene	µg/kg	8.90	U	--	--	--	--	--	--	--	--		--	--	--	--	--
	o-Xylene	µg/kg	8.19	U	--	--	--	--	--	--	--	--		2.50E+07	2.00E+07	5.60E+08	--	--
	p-Isopropyltoluene	µg/kg	12.3	U	--	--	--	--	--	--	--	--		--	--	--	--	--
	sec-Butylbenzene	µg/kg	6.44	U	--	--	--	--	--	--	--	--		--	--	--	--	--
	Styrene	µg/kg	3.97	U	--	--	--	--	--	--	--	--		1.30E+08	5.60E+07	--	--	--
	tert-Butylbenzene	µg/kg	12.4	U	--	--	--	--	--	--	--	--		--	--	--	--	--
	Tetrachloroethene	µg/kg	18.2	U	--	--	--	--	--	--	--	--		1.00E+06	1.80E+06	5.00E+07	--	3.60E+04
	Toluene	µg/kg	4.43	U	--	--	--	--	--	--	--	--		8.80E+07	2.80E+07	7.70E+08	--	--
	trans-1,2-Dichloroethene	µg/kg	7.42	U	--	--	--	--	--	--	--	--		2.30E+07	7.10E+06	2.00E+08	--	--
	trans-1,3-Dichloropropene	µg/kg	7.42	U	--	--	--	--	--	--	--	--		--	--	--	--	--
	Trichloroethene	µg/kg	9.19	U	--	--	--	--	--	--	--	--		5.10E+04	4.70E+05	1.30E+07	9.60E+04	2.30E+03
	Trichlorofluoromethane	µg/kg	39.4	U	--	--	--	--	--	--	--	--		1.30E+08	6.90E+07	--	--	--
	Vinyl chloride	µg/kg	9.47	UJ	--	--	--	--	--	--	--	--		4.40E+03	3.40E+04	9.50E+05	8.90E+04	2.20E+03

Table B-14
Riverbank Surface Sample Results - Section 3
Human Health Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Riverbank Section 3													Oregon Department of Environmental Quality Risk-Based Concentrations				
			S2-6	S2-7		S2-8		S2-9		S2-10	S2-11	S2-12	S2-13	S2-14		Soil Ingestion, Dermal Contact, and Inhal.			Vol. to Outdoor Air	Vapor Intrusion
		Date	9/24/2010	9/23/2010		9/23/2010		9/23/2010		9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010						
	Depth (Feet Below Ground Surface)		0	0		Surface		Surface		Surface	Surface	Surface	Surface	Surface		Occ	Const.	Exc	Occ	Occ
SVOCs	1,2,4-Trichlorobenzene	µg/kg	--	1,190	U	585	U	570	U	--	--	--	--	--		--	--	--	--	--
	1,2-Dichlorobenzene	µg/kg	--	1,190	U	585	U	570	U	--	--	--	--	--		3.60E+07	2.00E+07	5.60E+08	--	--
	1,3-Dichlorobenzene	µg/kg	--	1,190	U	585	U	570	U	--	--	--	--	--		--	--	--	--	--
	1,4-Dichlorobenzene	µg/kg	--	1,190	U	585	U	570	U	--	--	--	--	--		6.40E+04	1.30E+06	3.60E+07	1.90E+04	1.30E+04
	2,4,5-Trichlorophenol	µg/kg	--	167	U	82.0	U	79.7	U	--	--	--	--	--		--	--	--	--	--
	2,4,6-Trichlorophenol	µg/kg	--	167	U	82.0	U	79.7	U	--	--	--	--	--		2.10E+05	2.70E+05	7.40E+06	--	--
	2,4-Dichlorophenol	µg/kg	--	167	U	82.0	U	79.7	U	--	--	--	--	--		--	--	--	--	--
	2,4-Dimethylphenol	µg/kg	--	1,190	U	585	U	570	U	--	--	--	--	--		--	--	--	--	--
	2,4-Dinitrophenol	µg/kg	--	4,780	U	2,340	U	2,280	U	--	--	--	--	--		--	--	--	--	--
	2,4-Dinitrotoluene	µg/kg	--	1,190	U	585	U	570	U	--	--	--	--	--		--	--	--	--	--
	2,6-Dinitrotoluene	µg/kg	--	1,190	U	585	U	570	U	--	--	--	--	--		1.50E+03	1.30E+04	3.50E+05	--	--
	2-Chloronaphthalene	µg/kg	--	167	U	82.0	U	79.7	U	--	--	--	--	--		--	--	--	--	--
	2-Chlorophenol	µg/kg	--	167	U	82.0	U	79.7	U	--	--	--	--	--		--	--	--	--	--
	2-Methylphenol	µg/kg	--	167	U	82.0	U	79.7	U	--	--	--	--	--		--	--	--	--	--
	2-Nitroaniline	µg/kg	--	167	U	82.0	U	79.7	U	--	--	--	--	--		--	--	--	--	--
	2-Nitrophenol	µg/kg	--	167	U	82.0	U	79.7	U	--	--	--	--	--		--	--	--	--	--
	3,3'-Dichlorobenzidine	µg/kg	--	1,190	U	585	U	570	U	--	--	--	--	--		--	--	--	--	--
	3,4-Methylphenol	µg/kg	--	167	U	82.0	U	79.7	U	--	--	--	--	--		--	--	--	--	--
	3-Nitroaniline	µg/kg	--	1,190	U	585	U	570	U	--	--	--	--	--		--	--	--	--	--
	4,6-Dinitro-2-methylphenol	µg/kg	--	1,190	U	585	U	570	U	--	--	--	--	--		--	--	--	--	--
	4-Bromophenyl phenyl	µg/kg	--	167	U	82.0	U	79.7	U	--	--	--	--	--		--	--	--	--	--
	4-Chloro-3-methylphenol	µg/kg	--	167	U	82.0	U	79.7	U	--	--	--	--	--		--	--	--	--	--
	4-Chloroaniline	µg/kg	--	394	U	193	U	188	U	--	--	--	--	--		--	--	--	--	--
	4-Chlorophenyl phenyl	µg/kg	--	239	U	117	U	114	U	--	--	--	--	--		--	--	--	--	--
	4-Nitroaniline	µg/kg	--	167	U	82.0	U	79.7	U	--	--	--	--	--		--	--	--	--	--
	4-Nitrophenol	µg/kg	--	1,190	U	585	U	570	U	--	--	--	--	--		--	--	--	--	--
	Benzoic Acid	µg/kg	--	1,190	U	585	U	570	U	--	--	--	--	--		--	--	--	--	--
	Benzyl Alcohol	µg/kg	--	2,390	U	1,170	U	1,140	U	--	--	--	--	--		--	--	--	--	--
	Bis(2-chloroethoxy)methane	µg/kg	--	167	U	82.0	U	79.7	U	--	--	--	--	--		--	--	--	--	--
	Bis(2-chloroethyl)ether	µg/kg	--	167	U	82.0	U	79.7	U	--	--	--	--	--		1.30E+03	1.60E+04	4.50E+05	1.20E+03	6.90E+03
	Bis(2-chloroisopropyl)ether	µg/kg	--	167	U	82.0	U	79.7	U	--	--	--	--	--		--	--	--	--	--
	Dibenzofuran	µg/kg	--	167	U	82.0	U	79.7	U	--	--	--	--	--		--	--	--	--	--
	Hexachlorobenzene	µg/kg	--	167	U	82.0	U	79.7	U	--	--	--	--	--		9.30E+02	1.10E+04	3.20E+05	2.40E+03	1.30E+04
	Hexachlorobutadiene	µg/kg	--	1,190	U	585	U	570	U	--	--	--	--	--		--	--	--	--	--
	Hexachlorocyclopentadiene	µg/kg	--	1,190	U	585	U	570	U	--	--	--	--	--		--	--	--	--	--
	Hexachloroethane	µg/kg	--	1,190	U	585	U	570	U	--	--	--	--	--		3.20E+04	1.80E+05	5.10E+06	1.90E+04	7.60E+03
	Isophorone	µg/kg	--	167	U	82.0	U	79.7	U	--	--	--	--	--		--	--	--	--	--
	Nitrobenzene	µg/kg	--	167	U	82.0	U	79.7	U	--	--	--	--	--		--	--	--	--	--
	N-Nitrosodi-n-propylamine	µg/kg	--	167	U	82.0	U	79.7	U	--	--	--	--	--		--	--	--	--	--
	N-Nitrosodiphenylamine	µg/kg	--	167	U	82.0	U	79.7	U	--	--	--	--	--		4.70E+05	3.80E+06	1.10E+08	--	--
	Pentachlorophenol	µg/kg	--	1,190	U	585	U	570	U	--	--	--	--	--		4.00E+03	3.40E+04	9.60E+05	--	--
	Phenol	µg/kg	--	167	U	82	U	79.7	U	--	--	--	--	--		--	--	--	--	--

Table B-14
Riverbank Surface Sample Results - Section 3
Human Health Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Riverbank Section 3									Oregon Department of Environmental Quality Risk-Based Concentrations				
			S2-6	S2-7	S2-8	S2-9	S2-10	S2-11	S2-12	S2-13	S2-14	Soil Ingestion, Dermal Contact, and Inhal.			Vol. to Outdoor Air	Vapor Intrusion
		Date	9/24/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010					
	Depth (Feet Below Ground Surface)		0	0	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Occ	Const.	Exc	Occ	Occ
PAHs	2-Methylnaphthalene	µg/kg	7.29 J	46.3	8.65 J	4.23 J	22.2	112	36.9	8.98 J	6.86 U	--	--	--	--	--
	Acenaphthene	µg/kg	5.66 J	33.1	4.42 J	3.79 U	24.1	162	34.7	22.7 J	7.04 J	7.00E+07	2.10E+07	5.90E+08	--	--
	Acenaphthylene	µg/kg	4.23 U	71.1	4.30 J	3.79 U	8.76 J	85.0	7.68 J	7.59 U	6.86 U	--	--	--	--	--
	Anthracene	µg/kg	8.12 J	155	7.99 J	9.31 J	35.6	234	56.4	27.8 J	44.4	3.50E+08	1.10E+08	--	--	--
	Benzo(a)anthracene	µg/kg	34.1	150	27.4	29.4	89.6	567	105	150	240	2.90E+03	2.40E+04	6.60E+05	--	--
	Benzo(a)pyrene	µg/kg	47.4	296	41.3	53.4	124	683	110	212	202	--	--	--	--	--
	Benzo(b)fluoranthene	µg/kg	55.3	419	46.7	69.6	212	690	103	274	240	2.90E+03	2.40E+04	6.70E+05	--	--
	Benzo(ghi)perylene	µg/kg	43.2	468	38.3	64.2	129	578	83.5	204	124	--	--	--	--	--
	Benzo(k)fluranthene	µg/kg	51.9	290	37.0	45.5	126	663	101	206	168	--	--	--	--	--
	Chrysene	µg/kg	56.5	239	54.8	50.0	146	940	132	228	211	2.90E+05	2.40E+06	6.70E+07	--	--
	Dibenzo(a,h)anthracene	µg/kg	11.5 J	120	12.0 J	15.9	41.6	192	25.1 J	61.4	54.1	2.90E+02	2.40E+03	6.70E+04	--	--
	Fluoranthene	µg/kg	117	308	67.3	75.7	217	2,650	329	288	474	3.00E+07	1.00E+07	2.80E+08	--	--
	Fluorene	µg/kg	5.80 J	42.5	5.42 J	5.78 J	19.5	193	49.3	17.7 J	11.7 J	4.70E+07	1.40E+07	3.90E+08	--	--
	Indeno(1,2,3-cd)pyrene	µg/kg	38.2	402	33.2	49.9	119	546	76.1	169	121	2.90E+03	2.40E+04	6.70E+05	--	--
	Naphthalene	µg/kg	7.64 J	74.3	17.0	7.21 J	39.9	107	38.5	46	6.86 U	2.30E+04	5.80E+05	1.60E+07	8.30E+04	8.30E+04
	Phenanthrene	µg/kg	94.2	229	48.1	49.2	152	2,210	356	150	212	--	--	--	--	--
	Pyrene	µg/kg	90.6	263	62.4	67.9	188	1,940	277	242	351	2.30E+07	7.50E+06	2.10E+08	--	--
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	276	820	83.7	77.4	795	3,040	448	610	95.7	1.60E+05	1.30E+06	3.70E+07	--	--
	Butyl benzyl phthalate	µg/kg	34.3 U	38.8 J	15.8 U	30.8 U	61.8 J	29.0 U	28.3 U	61.7 U	27.9 U	--	--	--	--	--
	Diethyl phthalate	µg/kg	64.0 J	153	44.8	34.2 J	88.8	792	170	61.7 U	27.9 U	--	--	--	--	--
	Dimethyl phthalate	µg/kg	34.3 U	31.8 U	15.8 U	30.8 U	35.0 U	29.0 U	28.3 U	61.7 U	27.9 U	--	--	--	--	--
	Di-n-butyl phthalate	µg/kg	59.7 J	186	15.8 U	30.8 U	63.2 J	108	28.3 U	61.7 U	27.9 U	--	--	--	--	--
	Di-n-octyl phthalate	µg/kg	34.3 U	31.8 U	15.8 U	30.8 U	761	29.0 U	28.3 U	130	27.9 U	--	--	--	--	--
Organotins	Dibutyltin	µg/kg	13	130 J	9.8	7.1	34	0.41 U	0.42 U	29	0.41 U	--	--	--	--	--
	Monobutyltin	µg/kg	15	110 J	13	6.5	22	7.9	10	12	0.39 U	--	--	--	--	--
	Tetra-n-butyltin	µg/kg	1.5 U	1.5 U	3.4 J	1.3 U	1.4 U	1.2 U	1.2 U	1.3 U	1.2 U	--	--	--	--	--
	Tributyltin	µg/kg	99	440	29	24	120	8.8	3.5	74	0.9 U	--	--	--	--	--

Table B-14
Riverbank Surface Sample Results - Section 3
Human Health Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Riverbank Section 3									Oregon Department of Environmental Quality Risk-Based Concentrations				
			S2-6	S2-7	S2-8	S2-9	S2-10	S2-11	S2-12	S2-13	S2-14	Soil Ingestion, Dermal Contact, and Inhal.			Vol. to Outdoor Air	Vapor Intrusion
		Date	9/24/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010					
	Depth (Feet Below Ground Surface)		0	0	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Occ	Const.	Exc	Occ	Occ
Organochlorine Pesticides	4-4'-DDD	µg/kg	--	1.60 U	--	--	--	--	--	--	--	1.20E+04	9.40E+04	2.60E+06		
	4,4'-DDE	µg/kg	--	0.787 U	--	--	--	--	--	--	--	8.20E+03	6.60E+04	1.80E+06	--	--
	4,4'-DDT	µg/kg	--	4.79 U	--	--	--	--	--	--	--	8.50E+03	6.60E+04	1.80E+06	--	--
	Aldrin	µg/kg	--	0.787 U	--	--	--	--	--	--	--	1.30E+02	1.10E+03	3.00E+04	--	--
	alpha-BHC	µg/kg	--	0.787 U	--	--	--	--	--	--	--	3.60E+02	3.00E+03	8.30E+04	--	--
	alpha-Chlordane	µg/kg	--	0.787 U	--	--	--	--	--	--	--	--	--	--	--	--
	beta-BHC	µg/kg	--	1.74	--	--	--	--	--	--	--	--	--	--	--	--
	Chlordane	µg/kg	--	17.9 U	--	--	--	--	--	--	--	7.40E+03	6.10E+04	1.70E+06	--	--
	delta-BHC	µg/kg	--	0.787 U	--	--	--	--	--	--	--	--	--	--	--	--
	Dieldrin	µg/kg	--	3.20 U	--	--	--	--	--	--	--	1.40E+02	1.20E+03	3.30E+04	--	--
	Endosulfan I	µg/kg	--	0.787 U	--	--	--	--	--	--	--	--	--	--	--	--
	Endosulfan II	µg/kg	--	0.787 U	--	--	--	--	--	--	--	--	--	--	--	--
	Endosulfan sulfate	µg/kg	--	0.787 U	--	--	--	--	--	--	--	--	--	--	--	--
	Endrin	µg/kg	--	0.787 U	--	--	--	--	--	--	--	2.50E+05	8.00E+04	2.20E+06	--	--
	Endrin aldehyde	µg/kg	--	1.60 U	--	--	--	--	--	--	--	--	--	--	--	--
	Endrin ketone	µg/kg	--	3.20 U	--	--	--	--	--	--	--	--	--	--	--	--
	gamma-BHC (Lindane)	µg/kg	--	0.787 U	--	--	--	--	--	--	--	2.10E+03	1.70E+04	4.70E+05	--	--
	gamma-Chlordane	µg/kg	--	0.787 U	--	--	--	--	--	--	--	--	--	--	--	--
	Heptachlor	µg/kg	--	0.787 U	--	--	--	--	--	--	--	4.50E+02	4.00E+03	1.10E+05	2.30E+05	2.30E+05
	Heptachlor epoxide	µg/kg	--	0.787 U	--	--	--	--	--	--	--	2.40E+02	2.00E+03	5.60E+04	--	--
	Methoxychlor	µg/kg	--	1.97 U	--	--	--	--	--	--	--	--	--	--	--	--
	Toxaphene	µg/kg	--	23.8 U	--	--	--	--	--	--	--	2.10E+03	1.70E+04	4.70E+05	--	--
Petroleum Hydrocarbons	Diesel	mg/kg	8.85 J	76.8 J	1.63 J	29.5	22.6	22.0	6.24 J	51.5	7.84 J	1.40E+04	4.60E+03	--	--	--
	Heavy Oil	mg/kg	79.3	204	7.11 J	321	61.4	40.7	43.9	292	61.9	--	--	--	--	--

Notes:
1. -- = Not applicable/not analyzed
2. mg/kg = Milligrams per kilogram
3. µg/kg = Micrograms per kilogram
4. J = The result is an estimated quantity
5. U= Undetected at the method detection limit shown
6. UJ = Undetected at the method detection limit shown, detection limit is an estimated quantity
7. Risk-Based Concentrations; revision date 11/1/15
8. Shading indicates sample concentration exceeds one or more RBCs

Table B-15
Riverbank Surface Sample Results - Section 3
Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Riverbank Section 3									Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			S2-6	S2-7	S2-8	S2-9	S2-10	S2-11	S2-12	S2-13	S2-14	Plants	Inverts.	Birds	Mammals	
		Date	9/24/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010					
		Depth (Feet Below Ground Surface)	0	0	0	0	0	0	0	0	0					
Inorganics	Mercury	mg/kg	0.0137 J	0.123	0.0509 J	0.0537 J	0.0218 J	0.0214 J	0.00880 J	0.0136 J	0.0302 J	0.3	0.1	1.5	73	0.23
	Arsenic	mg/kg	4.01	135	5.85	6.27	23	29.1	19	30.8	61.3	10	60	10	29	8.8
	Barium	mg/kg	173	586	197	235	629	398	290	815	341	500	3,000	85	638	790
	Chromium	mg/kg	20.5	207	20.3	28.7	82.9	84.2	47	96.3	59.6	1	0.4	4	410	76
	Copper	mg/kg	199	1,580	112	260	1,220	1,130	832	2,870	962	100	50	190	390	34
	Lead	mg/kg	31.2	563	56.3	65.4	1,260	241	39.1	73.8	86.3	50	500	16	4,000	79
	Manganese	mg/kg	1,110	3,080	1,270	1,360	1,890	2,110	1,660	2,860	2,370	500	100	4,125	11,000	1,800
	Nickel	mg/kg	12	95	13.9	22.7	52	42.6	26.9	53.6	31.3	30	200	320	625	47
	Selenium	mg/kg	0.0641 J	0.658 J	0.0886 J	0.173 J	0.0522 U	0.274 J	0.159 J	0.46 J	0.471 J	1	70	2	25	0.71
	Silver	mg/kg	0.256 J	1.18	0.325 J	0.675	1.1	1.13	0.718	1.24	1.03	2	50	--	--	0.82
	Zinc	mg/kg	650	3,900	300	767	7,420	764	494	3,220	558	50	200	60	20,000	180
PCBs	Aroclor 1016	µg/kg	2.14 U	9.96 UJ	1.96 U	1.92 U	4.35 U	1.81 U	1.77 U	1.92 U	1.73 U	--	--	--	1.0E+05	--
	Aroclor 1221	µg/kg	4.27 U	19.9 UJ	3.91 U	3.82 U	8.66 U	3.62 U	3.54 U	3.83 U	3.46 U	--	--	--	--	--
	Aroclor 1232	µg/kg	2.14 U	9.96 UJ	1.96 U	1.92 U	4.35 U	1.81 U	1.77 U	1.92 U	1.73 U	--	--	--	--	--
	Aroclor 1242	µg/kg	2.14 U	9.97 UJ	1.96 U	1.92 U	4.35 U	1.81 U	1.77 U	1.92 U	1.73 U	--	--	1.5E+03	5.0E+03	--
	Aroclor 1248	µg/kg	2.14 U	9.97 UJ	25.4	1.92 U	4.35 U	15.4 J	1.77 U	1.92 U	37.4	--	--	--	--	--
	Aroclor 1254	µg/kg	2.14 U	123 J	1.96 U	1.92 U	88.2	1.81 U	1.77 U	1.92 U	1.73 U	--	--	7.0E+02	4.0E+03	--
	Aroclor 1260	µg/kg	8.76	9.97 UJ	32.6	8.57	4.35 U	18.2 J	12.9 J	14.4 J	34.1	--	--	--	--	--
	Aroclor 1262	µg/kg	2.14 U	9.97 UJ	1.96 U	1.92 U	4.35 U	1.81 U	1.77 U	1.92 U	1.73 U	--	--	--	--	--
	Aroclor 1268	µg/kg	2.14 U	9.97 UJ	1.96 U	1.92 U	4.35 U	1.81 U	1.77 U	1.92 U	1.73 U	--	--	--	--	--
	Total PCBs	µg/kg	8.76	123 J	58.0	8.57	88.2	33.6 J	12.9 J	14.4 J	71.5	4.0E+04	--	--	4.0E+03	--

Table B-15
Riverbank Surface Sample Results - Section 3
Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Riverbank Section 3										Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			S2-6		S2-7	S2-8	S2-9	S2-10	S2-11	S2-12	S2-13	S2-14	Plants	Inverts.	Birds	Mammals	
		Date	9/24/2010		9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010					
		Depth (Feet Below Ground Surface)	0		0	0	0	0	0	0	0	0					
VOCs	1,1,1,2-Tetrachloroethane	µg/kg	11.8	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,1,1-Trichloroethane	µg/kg	6.38	U	--	--	--	--	--	--	--	--	--	--	--	5.6E+07	--
	1,1,2,2-Tetrachloroethane	µg/kg	14.4	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,1,2-Trichloroethane	µg/kg	8.60	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,1-Dichloroethane	µg/kg	8.51	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,1-Dichloroethene	µg/kg	15.2	U	--	--	--	--	--	--	--	--	--	--	--	3.8E+06	--
	1,1-Dichloropropene	µg/kg	10.0	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,2,3-Trichlorobenzene	µg/kg	11.9	U	--	--	--	--	--	--	--	--	--	2.0E+04	--	--	--
	1,2,3-Trichloropropane	µg/kg	8.19	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,2,4-Trichlorobenzene	µg/kg	17.6	U	--	--	--	--	--	--	--	--	--	2.0E+04	--	--	--
	1,2,4-Trimethylbenzene	µg/kg	18.7	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,2-Dibromo-3-	µg/kg	52.3	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,2-Dibromoethane	µg/kg	13.2	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,2-Dichlorobenzene	µg/kg	9.86	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,2-Dichloroethane	µg/kg	9.60	U	--	--	--	--	--	--	--	--	--	--	7.0E+04	2.8E+06	--
	1,2-Dichloropropane	µg/kg	8.51	U	--	--	--	--	--	--	--	--	--	7.0E+05	--	--	--
	1,3,5-Trimethylbenzene	µg/kg	10.4	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,3-Dichlorobenzene	µg/kg	7.91	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,3-Dichloropropane	µg/kg	8.42	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,4-Dichlorobenzene	µg/kg	10.7	U	--	--	--	--	--	--	--	--	--	2.0E+04	--	--	--
	2,2-Dichloropropane	µg/kg	7.96	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	2-Butanone	µg/kg	32.2	U	--	--	--	--	--	--	--	--	--	--	--	2.0E+08	--
	2-Chlorotoluene	µg/kg	7.52	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	2-Hexanone	µg/kg	35.8	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	4-Chlorotoluene	µg/kg	5.49	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	4-Methyl-2-pentanone	µg/kg	24.2	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	Acetone	µg/kg	761	U	--	--	--	--	--	--	--	--	--	--	--	1.3E+06	--
	Benzene	µg/kg	5.35	U	--	--	--	--	--	--	--	--	--	--	--	3.3E+06	--
	Bromobenzene	µg/kg	15.8	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	Bromochloromethane	µg/kg	12.3	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	Bromodichloromethane	µg/kg	12.9	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	Bromoform	µg/kg	11.6	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	Bromomethane	µg/kg	10.2	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	Carbon disulfide	µg/kg	9.10	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	Carbon tetrachloride	µg/kg	13.9	U	--	--	--	--	--	--	--	--	--	1.0E+06	--	2.0E+06	--
	Chlorobenzene	µg/kg	3.89	U	--	--	--	--	--	--	--	--	--	4.0E+04	--	--	--

Table B-15
Riverbank Surface Sample Results - Section 3
Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Riverbank Section 3										Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			S2-6		S2-7	S2-8	S2-9	S2-10	S2-11	S2-12	S2-13	S2-14	Plants	Inverts.	Birds	Mammals	
	Date		9/24/2010		9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010					
	Depth (Feet Below Ground Surface)		0		0	0	0	0	0	0	0	0					
VOCs (continued)	Chloroethane	µg/kg	23.4	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	Chloroform	µg/kg	6.89	U	--	--	--	--	--	--	--	--	--	--	--	1.9E+06	--
	Chloromethane	µg/kg	8.85	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	cis-1,2-Dichloroethene	µg/kg	13.7	U	--	--	--	--	--	--	--	--	--	--	--	2.5E+06	--
	cis-1,3-Dichloropropene	µg/kg	5.82	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	Dibromochloromethane	µg/kg	9.39	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	Dibromomethane	µg/kg	6.01	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	Dichlorodifluoromethane	µg/kg	9.10	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	Ethylbenzene	µg/kg	3.58	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	Hexachlorobutadiene	µg/kg	11.3	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	Isopropylbenzene	µg/kg	9.39	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	m,p-Xylene	µg/kg	22.5	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	Methyl tert-butyl ether	µg/kg	6.89	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	Methylene chloride	µg/kg	29.1	J	--	--	--	--	--	--	--	--	--	--	--	7.3E+05	--
	Naphthalene	µg/kg	--		--	--	--	--	--	--	--	--	1.0E+04	--	--	3.9E+06	--
	n-Butylbenzene	µg/kg	8.10	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	n-Propylbenzene	µg/kg	8.90	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	o-Xylene	µg/kg	8.19	U	--	--	--	--	--	--	--	--	1.0E+03	--	--	--	--
	p-Isopropyltoluene	µg/kg	12.3	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	sec-Butylbenzene	µg/kg	6.44	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	Styrene	µg/kg	3.97	U	--	--	--	--	--	--	--	--	3.0E+05	--	--	--	--
	tert-Butylbenzene	µg/kg	12.4	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	Tetrachloroethene	µg/kg	18.2	U	--	--	--	--	--	--	--	--	1.0E+04	--	--	8.0E+04	--
	Toluene	µg/kg	4.43	U	--	--	--	--	--	--	--	--	2.0E+05	--	--	1.4E+06	--
	trans-1,2-Dichloroethene	µg/kg	7.42	U	--	--	--	--	--	--	--	--	--	--	--	2.5E+06	--
	trans-1,3-Dichloropropene	µg/kg	7.42	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	Trichloroethene	µg/kg	9.19	U	--	--	--	--	--	--	--	--	--	--	--	4.0E+04	--
	Trichlorofluoromethane	µg/kg	39.4	U	--	--	--	--	--	--	--	--	--	--	--	--	--
	Vinyl chloride	µg/kg	9.47	UJ	--	--	--	--	--	--	--	--	--	--	--	2.0E+04	--

Table B-15
Riverbank Surface Sample Results - Section 3
Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Riverbank Section 3									Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			S2-6	S2-7	S2-8	S2-9	S2-10	S2-11	S2-12	S2-13	S2-14	Plants	Inverts.	Birds	Mammals	
		Date	9/24/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010					
		Depth (Feet Below Ground Surface)	0	0	0	0	0	0	0	0	0					
SVOCs	1,2,4-Trichlorobenzene	µg/kg	--	1,190 U	585 U	570 U	--	--	--	--	--	--	2.0E+04	--	--	--
	1,2-Dichlorobenzene	µg/kg	--	1,190 U	585 U	570 U	--	--	--	--	--	--	--	--	--	--
	1,3-Dichlorobenzene	µg/kg	--	1,190 U	585 U	570 U	--	--	--	--	--	--	--	--	--	--
	1,4-Dichlorobenzene	µg/kg	--	1,190 U	585 U	570 U	--	--	--	--	--	--	2.0E+04	--	--	--
	2,4,5-Trichlorophenol	µg/kg	--	167 U	82.0 U	79.7 U	--	--	--	--	--	4.0E+03	9.0E+03	--	--	--
	2,4,6-Trichlorophenol	µg/kg	--	167 U	82.0 U	79.7 U	--	--	--	--	--	1.0E+04	1.0E+04	--	--	--
	2,4-Dichlorophenol	µg/kg	--	167 U	82.0 U	79.7 U	--	--	--	--	--	2.0E+04	--	--	--	--
	2,4-Dimethylphenol	µg/kg	--	1,190 U	585 U	570 U	--	--	--	--	--	2.0E+04	--	--	--	--
	2,4-Dinitrophenol	µg/kg	--	4,780 U	2,340 U	2,280 U	--	--	--	--	--	2.0E+04	--	--	--	--
	2,4-Dinitrotoluene	µg/kg	--	1,190 U	585 U	570 U	--	--	--	--	--	--	--	--	--	--
	2,6-Dinitrotoluene	µg/kg	--	1,190 U	585 U	570 U	--	--	--	--	--	--	--	--	--	--
	2-Chloronaphthalene	µg/kg	--	167 U	82.0 U	79.7 U	--	--	--	--	--	--	--	--	--	--
	2-Chlorophenol	µg/kg	--	167 U	82.0 U	79.7 U	--	--	--	--	--	6.0E+04	--	--	--	--
	2-Methylphenol	µg/kg	--	167 U	82.0 U	79.7 U	--	--	--	--	--	5.0E+04	--	--	1.6E+07	--
	2-Nitroaniline	µg/kg	--	167 U	82.0 U	79.7 U	--	--	--	--	--	--	--	--	--	--
	2-Nitrophenol	µg/kg	--	167 U	82.0 U	79.7 U	--	--	--	--	--	--	--	--	--	--
	3,3'-Dichlorobenzidine	µg/kg	--	1,190 U	585 U	570 U	--	--	--	--	--	--	--	--	--	--
	3,4-Methylphenol	µg/kg	--	167 U	82.0 U	79.7 U	--	--	--	--	--	--	--	--	--	--
	3-Nitroaniline	µg/kg	--	1,190 U	585 U	570 U	--	--	--	--	--	7.0E+04	--	--	--	--
	4,6-Dinitro-2-methylphenol	µg/kg	--	1,190 U	585 U	570 U	--	--	--	--	--	--	--	--	--	--
	4-Bromophenyl phenyl ether	µg/kg	--	167 U	82.0 U	79.7 U	--	--	--	--	--	--	--	--	--	--
	4-Chloro-3-methylphenol	µg/kg	--	167 U	82.0 U	79.7 U	--	--	--	--	--	--	--	--	--	--
	4-Chloroaniline	µg/kg	--	394 U	193 U	188 U	--	--	--	--	--	4.0E+04	--	--	--	--
	4-Chlorophenyl phenyl ether	µg/kg	--	239 U	117 U	114 U	--	--	--	--	--	--	--	--	--	--
	4-Nitroaniline	µg/kg	--	167 U	82.0 U	79.7 U	--	--	--	--	--	4.0E+04	--	--	--	--
	4-Nitrophenol	µg/kg	--	1,190 U	585 U	570 U	--	--	--	--	--	1.0E+04	7.0E+03	--	--	--
	Benzoic Acid	µg/kg	--	1,190 U	585 U	570 U	--	--	--	--	--	--	--	--	--	--
	Benzyl Alcohol	µg/kg	--	2,390 U	1,170 U	1,140 U	--	--	--	--	--	--	--	--	--	--
	Bis(2-chloroethoxy)methane	µg/kg	--	167 U	82.0 U	79.7 U	--	--	--	--	--	--	--	--	--	--
	Bis(2-chloroethyl)ether	µg/kg	--	167 U	82.0 U	79.7 U	--	--	--	--	--	--	--	--	--	--
	Bis(2-chloroisopropyl)ether	µg/kg	--	167 U	82.0 U	79.7 U	--	--	--	--	--	--	--	--	--	--
	Dibenzofuran	µg/kg	--	167 U	82.0 U	79.7 U	--	--	--	--	--	--	--	--	2.0E+00	--
	Hexachlorobenzene	µg/kg	--	167 U	82.0 U	79.7 U	--	--	--	--	--	--	1.0E+06	--	--	--
	Hexachlorobutadiene	µg/kg	--	1,190 U	585 U	570 U	--	--	--	--	--	--	--	--	--	--
	Hexachlorocyclopentadiene	µg/kg	--	1,190 U	585 U	570 U	--	--	--	--	--	1.0E+04	--	--	--	--
	Hexachloroethane	µg/kg	--	1,190 U	585 U	570 U	--	--	--	--	--	--	--	--	--	--
	Isophorone	µg/kg	--	167 U	82.0 U	79.7 U	--	--	--	--	--	--	--	--	--	--
	Nitrobenzene	µg/kg	--	167 U	82.0 U	79.7 U	--	--	--	--	--	8.0E+03	4.0E+04	--	--	--
	N-Nitrosodi-n-propylamine	µg/kg	--	167 U	82.0 U	79.7 U	--	--	--	--	--	--	--	--	--	--
	N-Nitrosodiphenylamine	µg/kg	--	167 U	82.0 U	79.7 U	--	--	--	--	--	--	2.0E+04	--	--	--
	Pentachlorophenol	µg/kg	--	1,190 U	585 U	570 U	--	--	--	--	--	3.0E+03	4.0E+03	--	3.0E+04	--
	Phenol	µg/kg	--	167 U	82 U	79.7 U	--	--	--	--	--	7.0E+04	3.0E+04	--	--	--

Table B-15
Riverbank Surface Sample Results - Section 3
Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Riverbank Section 3									Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			S2-6	S2-7	S2-8	S2-9	S2-10	S2-11	S2-12	S2-13	S2-14	Plants	Inverts.	Birds	Mammals	
		Date	9/24/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010					
		Depth (Feet Below Ground Surface)	0	0	0	0	0	0	0	0	0					
PAHs	2-Methylnaphthalene	µg/kg	7.29 J	46.3	8.65 J	4.23 J	22.2	112	36.9	8.98 J	6.86 U	--	--	--	--	--
	Acenaphthene	µg/kg	5.66 J	33.1	4.42 J	3.79 U	24.1	162	34.7	22.7 J	7.04 J	2.0E+04	--	--	--	--
	Acenaphthylene	µg/kg	4.23 U	71.1	4.30 J	3.79 U	8.76 J	85.0	7.68 J	7.59 U	6.86 U	--	--	--	--	--
	Anthracene	µg/kg	8.12 J	155	7.99 J	9.31 J	35.6	234	56.4	27.8 J	44.4	--	--	--	--	--
	Benzo(a)anthracene	µg/kg	34.1	150	27.4	29.4	89.6	567	105	150	240	--	--	--	--	--
	Benzo(a)pyrene	µg/kg	47.4	296	41.3	53.4	124	683	110	212	202	--	--	--	1.3E+05	--
	Benzo(b)fluoranthene	µg/kg	55.3	419	46.7	69.6	212	690	103	274	240	--	--	--	--	--
	Benzo(ghi)perylene	µg/kg	43.2	468	38.3	64.2	129	578	83.5	204	124	--	--	--	--	--
	Benzo(k)fluranthene	µg/kg	51.9	290	37.0	45.5	126	663	101	206	168	--	--	--	--	--
	Chrysene	µg/kg	56.5	239	54.8	50.0	146	940	132	228	211	--	--	--	--	--
	Dibenzo(a,h)anthracene	µg/kg	11.5 J	120	12.0 J	15.9	41.6	192	25.1 J	61.4	54.1	--	--	--	--	--
	Fluoranthene	µg/kg	117	308	67.3	75.7	217	2,650	329	288	474	--	--	--	--	--
	Fluorene	µg/kg	5.80 J	42.5	5.42 J	5.78 J	19.5	193	49.3	17.7 J	11.7 J	--	3.0E+04	--	--	--
	Indeno(1,2,3-cd)pyrene	µg/kg	38.2	402	33.2	49.9	119	546	76.1	169	121	--	--	--	--	--
	Naphthalene	µg/kg	7.64 J	74.3	17.0	7.21 J	39.9	107	38.5	46	6.86 U	1.0E+04	--	--	3.9E+06	--
	Phenanthrene	µg/kg	94.2	229	48.1	49.2	152	2,210	356	150	212	--	--	--	--	--
	Pyrene	µg/kg	90.6	263	62.4	67.9	188	1,940	277	242	351	--	--	--	--	--
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	276	820	83.7	77.4	795	3,040	448	610	95.7	--	--	4.5E+03	1.0E+06	--
	Butyl benzyl phthalate	µg/kg	34.3 U	38.8 J	15.8 U	30.8 U	61.8 J	29.0 U	28.3 U	61.7 U	27.9 U	--	--	--	--	--
	Diethyl phthalate	µg/kg	64.0 J	153	44.8	34.2 J	88.8	792	170	61.7 U	27.9 U	1.0E+05	--	--	2.5E+08	--
	Dimethyl phthalate	µg/kg	34.3 U	31.8 U	15.8 U	30.8 U	35.0 U	29.0 U	28.3 U	61.7 U	27.9 U	--	2.0E+05	--	--	--
	Di-n-butyl phthalate	µg/kg	59.7 J	186	15.8 U	30.8 U	63.2 J	108	28.3 U	61.7 U	27.9 U	2.0E+05	--	4.5E+02	3.0E+07	--
	Di-n-octyl phthalate	µg/kg	34.3 U	31.8 U	15.8 U	30.8 U	761	29.0 U	28.3 U	130	27.9 U	--	--	--	--	--
Organotins	Dibutyltin	µg/kg	13	130 J	9.8	7.1	34	0.41 U	0.42 U	29	0.41 U	--	--	--	--	--
	Monobutyltin	µg/kg	15	110 J	13	6.5	22	7.9	10	12	0.39 U	--	--	--	--	--
	Tetra-n-butyltin	µg/kg	1.5 U	1.5 U	3.4 J	1.3 U	1.4 U	1.2 U	1.2 U	1.3 U	1.2 U	--	--	--	--	--
	Tributyltin	µg/kg	99	440	29	24	120	8.8	3.5	74	0.9 U	--	--	--	--	--

Table B-15
Riverbank Surface Sample Results - Section 3
Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Riverbank Section 3									Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			S2-6	S2-7	S2-8	S2-9	S2-10	S2-11	S2-12	S2-13	S2-14	Plants	Inverts.	Birds	Mammals	
	Date		9/24/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010					
	Depth (Feet Below Ground Surface)		0	0	0	0	0	0	0	0	0					
Organochlorine Pesticides	4-4'-DDD	µg/kg	--	1.60 U	--	--	--	--	--	--	--	--	--	--	--	--
	4,4'-DDE	µg/kg	--	0.787 U	--	--	--	--	--	--	--	--	--	1.0E+01	1.0E+05	--
	4,4'-DDT	µg/kg	--	4.79 U	--	--	--	--	--	--	--	--	--	1.0E+01	1.0E+05	--
	Aldrin	µg/kg	--	0.787 U	--	--	--	--	--	--	--	--	--	--	2.5E+04	--
	alpha-BHC	µg/kg	--	0.787 U	--	--	--	--	--	--	--	--	--	--	--	--
	alpha-Chlordane	µg/kg	--	0.787 U	--	--	--	--	--	--	--	--	--	--	--	--
	beta-BHC	µg/kg	--	1.74	--	--	--	--	--	--	--	--	--	--	--	--
	Chlordane	µg/kg	--	17.9 U	--	--	--	--	--	--	--	--	--	9.0E+03	2.5E+05	--
	delta-BHC	µg/kg	--	0.787 U	--	--	--	--	--	--	--	--	--	--	--	--
	Dieldrin	µg/kg	--	3.20 U	--	--	--	--	--	--	--	--	--	3.0E+02	3.0E+03	--
	Endosulfan I	µg/kg	--	0.787 U	--	--	--	--	--	--	--	--	--	--	--	--
	Endosulfan II	µg/kg	--	0.787 U	--	--	--	--	--	--	--	--	--	--	--	--
	Endosulfan sulfate	µg/kg	--	0.787 U	--	--	--	--	--	--	--	--	--	--	--	--
	Endrin	µg/kg	--	0.787 U	--	--	--	--	--	--	--	--	--	4.0E+01	5.0E+03	--
	Endrin aldehyde	µg/kg	--	1.60 U	--	--	--	--	--	--	--	--	--	--	--	--
	Endrin ketone	µg/kg	--	3.20 U	--	--	--	--	--	--	--	--	--	--	--	--
	gamma-BHC (Lindane)	µg/kg	--	0.787 U	--	--	--	--	--	--	--	--	--	2.5E+03	2.0E+05	--
	gamma-Chlordane	µg/kg	--	0.787 U	--	--	--	--	--	--	--	--	--	--	--	--
	Heptachlor	µg/kg	--	0.787 U	--	--	--	--	--	--	--	--	--	--	1.5E+04	--
	Heptachlor epoxide	µg/kg	--	0.787 U	--	--	--	--	--	--	--	--	--	--	--	--
	Methoxychlor	µg/kg	--	1.97 U	--	--	--	--	--	--	--	--	--	--	5.0E+05	--
	Toxaphene	µg/kg	--	23.8 U	--	--	--	--	--	--	--	--	--	--	1.0E+06	--
Petroleum Hydrocarbons	Diesel	mg/kg	8.85 J	76.8 J	1.63 J	29.5	22.6	22.0	6.24 J	51.5	7.84 J	--	--	--	--	--
	Heavy Oil	mg/kg	79.3	204	7.11 J	321	61.4	40.7	43.9	292	61.9	--	--	--	--	--

Notes:
1. -- = Not applicable/not analyzed
2. mg/kg = Milligrams per kilogram
3. µg/kg = Micrograms per kilogram
4. J = The result is an estimated quantity
5. U= Undetected at the method detection limit shown
6. UJ = Undetected at the method detection limit shown, detection limit is an estimated quantity
7. Level II Screening Benchmark Values; revision date 12/2001
8. Shading indicates sample concentration exceeds the default background concentration and one or more SLVs

Table B-16
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
Source Control Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.7 Composite Samples				Vector 2.7 Samples								Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil
			092210-2-2.7-Composite-11-FS	092210-2-2.7-Composite-12-Total	110110-2-2.7-Composite-01-WS		092210-2-2.7-Surface-01-WS		092210-2-2.7-10-03-FS		092210-2-2.7-25-06-FS		092210-2-2.7-25-07-Dup			
		Date	9/22/2010	9/22/2010	11/1/2010		9/22/2010		9/22/2010		9/22/2010		9/22/2010			
		Depth (Feet Below Ground Surface)	0	0	0		0		5 - 10		20 - 25		20 - 25			
Inorganics	Mercury	mg/kg	--	--	0.0379	J	0.0137	J	0.152		0.171		0.165		0.07	1.1
	Arsenic	mg/kg	--	--	6.53		11.3		112		6.30	J	10.9	J	--	3
	Barium	mg/kg	--	--	182	J	205		142		198		237	J	--	--
	Chromium	mg/kg	--	--	26.3	J	51.0		99.8		34.3	J	93.0	J	111	--
	Copper	mg/kg	--	--	234		843		282		88.4		124	J	149	149
	Lead	mg/kg	--	--	61.5	J	33.6		386		515	J	208	J	17	128
	Manganese	mg/kg	--	--	1,120		1,470		840		1,020	J	751	J	1,100	--
	Nickel	mg/kg	--	--	14.2		39.9		22.3		33.2		60.6		48.6	--
	Selenium	mg/kg	--	--	0.155	J	0.269	J	0.2550	J	0.131	J	0.332	J	5	--
	Silver	mg/kg	--	--	0.258	J	0.365	J	0.544	J	0.340	J	0.458	J	5	--
	Zinc	mg/kg	--	--	787		3,970		1,210		730	J	406	J	459	459
PCBs	Aroclor 1016	µg/kg	--	--	2.2	U	1.79	U	3.79	U	39.5	U	10.1	U	--	--
	Aroclor 1221	µg/kg	--	--	4.39	U	3.56	U	7.55	U	78.70	U	20.1	U	--	--
	Aroclor 1232	µg/kg	--	--	2.2	U	1.79	U	3.79	U	39.5	U	10.1	U	--	--
	Aroclor 1242	µg/kg	--	--	2.2	U	1.79	U	3.79	U	864	J	10.1	U	--	--
	Aroclor 1248	µg/kg	--	--	2.2	U	1.79	U	3.79	U	39.5	U	136	J	--	--
	Aroclor 1254	µg/kg	--	--	2.2	U	19.0		18.4		39.5	U	10.1	U	--	--
	Aroclor 1260	µg/kg	--	--	34.7	J	1.79	U	3.79	U	39.5	U	10.1	U	--	--
	Aroclor 1262	µg/kg	--	--	2.2	U	8.28		29.2		39.5	U	10.1	U	--	--
	Aroclor 1268	µg/kg	--	--	2.2	U	1.79	U	3.79	U	39.5	U	10.1	U	--	--
	Total PCBs	µg/kg	--	--	34.7	J	27.3		47.6		864	J	136	J	3.90E-01	9.00E+00

Table B-16
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
Source Control Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.7 Composite Samples				Vector 2.7 Samples				Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil
			092210-2-2.7-Composite-11-FS	092210-2-2.7-Composite-12-Total	110110-2-2.7-Composite-01-WS		092210-2-2.7-Surface-01-WS	092210-2-2.7-10-03-FS	092210-2-2.7-25-06-FS	092210-2-2.7-25-07-Dup		
		Date	9/22/2010	9/22/2010	11/1/2010		9/22/2010	9/22/2010	9/22/2010	9/22/2010		
		Depth (Feet Below Ground Surface)	0	0	0		0	5 - 10	20 - 25	20 - 25		
VOCs	1,1,1,2-Tetrachloroethane	µg/kg	--	--	12.1	U	--	--	--	--	--	--
	1,1,1-Trichloroethane	µg/kg	--	--	6.52	U	--	--	--	--	--	--
	1,1,2,2-Tetrachloroethane	µg/kg	--	--	14.7	U	--	--	--	--	--	--
	1,1,2-Trichloroethane	µg/kg	--	--	8.78	U	--	--	--	--	--	--
	1,1-Dichloroethane	µg/kg	--	--	8.69	U	--	--	--	--	--	--
	1,1-Dichloroethene	µg/kg	--	--	15.5	U	--	--	--	--	--	--
	1,1-Dichloropropene	µg/kg	--	--	10.2	U	--	--	--	--	--	--
	1,2,3-Trichlorobenzene	µg/kg	--	--	12.1	U	--	--	--	--	--	--
	1,2,3-Trichloropropane	µg/kg	--	--	8.37	U	--	--	--	--	--	--
	1,2,4-Trichlorobenzene	µg/kg	--	--	18.0	U	--	--	--	--	9.20E+03	--
	1,2,4-Trimethylbenzene	µg/kg	--	--	19.1	U	--	--	--	--	--	--
	1,2-Dibromo-3-chloropropane	µg/kg	--	--	53.4	U	--	--	--	--	--	--
	1,2-Dibromoethane	µg/kg	--	--	13.5	U	--	--	--	--	--	--
	1,2-Dichlorobenzene	µg/kg	--	--	10.1	U	--	--	--	--	1.70E+03	--
	1,2-Dichloroethane	µg/kg	--	--	9.8	U	--	--	--	--	--	--
	1,2-Dichloropropane	µg/kg	--	--	8.69	U	--	--	--	--	--	--
	1,3,5-Trimethylbenzene	µg/kg	--	--	14.2	J	--	--	--	--	--	--
	1,3-Dichlorobenzene	µg/kg	--	--	8.08	U	--	--	--	--	3.00E+02	--
	1,3-Dichloropropane	µg/kg	--	--	8.6	U	--	--	--	--	--	--
	1,4-Dichlorobenzene	µg/kg	--	--	10.9	U	--	--	--	--	3.00E+02	--
	2,2-Dichloropropane	µg/kg	--	--	8.14	U	--	--	--	--	--	--
	2-Butanone	µg/kg	--	--	32.9	U	--	--	--	--	--	--
	2-Chlorotoluene	µg/kg	--	--	7.68	U	--	--	--	--	--	--
	2-Hexanone	µg/kg	--	--	36.6	U	--	--	--	--	--	--
	4-Chlorotoluene	µg/kg	--	--	5.61	U	--	--	--	--	--	--
	4-Methyl-2-pentanone	µg/kg	--	--	24.7	U	--	--	--	--	--	--
	Acetone	µg/kg	--	--	777	U	--	--	--	--	--	--
	Benzene	µg/kg	--	--	5.47	U	--	--	--	--	--	--
	Bromobenzene	µg/kg	--	--	16.2	U	--	--	--	--	--	--
	Bromochloromethane	µg/kg	--	--	12.6	U	--	--	--	--	--	--
	Bromodichloromethane	µg/kg	--	--	13.2	UJ	--	--	--	--	--	--
	Bromoform	µg/kg	--	--	11.9	U	--	--	--	--	--	--
	Bromomethane	µg/kg	--	--	10.4	U	--	--	--	--	--	--
	Carbon disulfide	µg/kg	--	--	9.3	U	--	--	--	--	--	--
	Carbon tetrachloride	µg/kg	--	--	14.2	U	--	--	--	--	--	--

Table B-16
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
Source Control Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.7 Composite Samples				Vector 2.7 Samples				Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil
			092210-2-2.7-Composite-11-FS	092210-2-2.7-Composite-12-Total	110110-2-2.7-Composite-01-WS		092210-2-2.7-Surface-01-WS	092210-2-2.7-10-03-FS	092210-2-2.7-25-06-FS	092210-2-2.7-25-07-Dup		
		Date	9/22/2010	9/22/2010	11/1/2010		9/22/2010	9/22/2010	9/22/2010	9/22/2010		
		Depth (Feet Below Ground Surface)	0	0	0		0	5 - 10	20 - 25	20 - 25		
VOCs (continued)	Chlorobenzene	µg/kg	--	--	3.97	U	--	--	--	--	--	--
	Chloroethane	µg/kg	--	--	23.9	U	--	--	--	--	--	--
	Chloroform	µg/kg	--	--	7.04	U	--	--	--	--	--	--
	Chloromethane	µg/kg	--	--	9.04	U	--	--	--	--	--	--
	cis-1,2-Dichloroethene	µg/kg	--	--	14	U	--	--	--	--	--	--
	cis-1,3-Dichloropropene	µg/kg	--	--	5.95	U	--	--	--	--	--	--
	Dibromochloromethane	µg/kg	--	--	9.6	U	--	--	--	--	--	--
	Dibromomethane	µg/kg	--	--	6.14	U	--	--	--	--	--	--
	Dichlorodifluoromethane	µg/kg	--	--	9.3	U	--	--	--	--	--	--
	Ethylbenzene	µg/kg	--	--	3.66	U	--	--	--	--	--	--
	Hexachlorobutadiene	µg/kg	--	--	11.5	U	--	--	--	--	6.00E+02	--
	Isopropylbenzene	µg/kg	--	--	9.6	U	--	--	--	--	--	--
	m,p-Xylene	µg/kg	--	--	23	U	--	--	--	--	--	--
	Methyl tert-butyl ether	µg/kg	--	--	7.04	U	--	--	--	--	--	--
	Methylene chloride	µg/kg	--	--	29.8	J	--	--	--	--	--	--
	Naphthalene	µg/kg	--	--	9.96	U	--	--	--	--	5.61E+02	--
	n-Butylbenzene	µg/kg	--	--	8.28	U	--	--	--	--	--	--
	n-Propylbenzene	µg/kg	--	--	9.09	U	--	--	--	--	--	--
	o-Xylene	µg/kg	--	--	8.37	U	--	--	--	--	--	--
	p-Isopropyltoluene	µg/kg	--	--	12.5	U	--	--	--	--	--	--
	sec-Butylbenzene	µg/kg	--	--	6.58	U	--	--	--	--	--	--
	Styrene	µg/kg	--	--	4.06	U	--	--	--	--	--	--
	tert-Butylbenzene	µg/kg	--	--	12.6	U	--	--	--	--	--	--
	Tetrachloroethene	µg/kg	--	--	18.6	U	--	--	--	--	--	--
	Toluene	µg/kg	--	--	4.53	U	--	--	--	--	--	--
	trans-1,2-Dichloroethene	µg/kg	--	--	7.58	U	--	--	--	--	--	--
	trans-1,3-Dichloropropene	µg/kg	--	--	7.58	U	--	--	--	--	--	--
	Trichloroethene	µg/kg	--	--	9.39	U	--	--	--	--	2.10E+03	--
	Trichlorofluoromethane	µg/kg	--	--	40.2	U	--	--	--	--	--	--
	Vinyl chloride	µg/kg	--	--	9.68	UJ	--	--	--	--	--	--

Table B-16
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
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Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.7 Composite Samples			Vector 2.7 Samples				Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil
			092210-2-2.7-Composite-11-FS	092210-2-2.7-Composite-12-Total	110110-2-2.7-Composite-01-WS	092210-2-2.7-Surface-01-WS	092210-2-2.7-10-03-FS	092210-2-2.7-25-06-FS	092210-2-2.7-25-07-Dup		
		Date	9/22/2010	9/22/2010	11/1/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010		
		Depth (Feet Below Ground Surface)	0	0	0	0	5 - 10	20 - 25	20 - 25		
SVOCs	1,2,4-Trichlorobenzene	µg/kg	--	1,510 U	664 U	2,120 U	1,130 U	595 U	600 U	9.20E+03	--
	1,2-Dichlorobenzene	µg/kg	--	1,510 U	664 U	2,120 U	1,130 U	595 U	600 U	1.70E+03	--
	1,3-Dichlorobenzene	µg/kg	--	1,510 U	664 U	2,120 U	1,130 U	595 U	600 U	3.00E+02	--
	1,4-Dichlorobenzene	µg/kg	--	1,510 U	664 U	2,120 U	1,130 U	595 U	600 U	3.00E+02	--
	2,4,5-Trichlorophenol	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	--	--
	2,4,6-Trichlorophenol	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	--	--
	2,4-Dichlorophenol	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	--	--
	2,4-Dimethylphenol	µg/kg	--	1,510 U	664 U	2,120 U	1,130 U	595 U	600 U	--	--
	2,4-Dinitrophenol	µg/kg	--	6,020 U	2,650 U	8,460 U	4,540 U	2,380 U	2,400 U	--	--
	2,4-Dinitrotoluene	µg/kg	--	1,510 U	664 U	2,120 U	1,130 U	595 U	600 U	--	--
	2,6-Dinitrotoluene	µg/kg	--	1,510 U	664 U	2,120 U	1,130 U	595 U	600 U	--	--
	2-Chloronaphthalene	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	--	--
	2-Chlorophenol	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	--	--
	2-Methylphenol	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	--	--
	2-Nitroaniline	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	--	--
	2-Nitrophenol	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	--	--
	3,3'-Dichlorobenzidine	µg/kg	--	1,510 U	664 U	2,120 U	1,130 U	595 U	600 U	--	--
	3,4-Methylphenol	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	--	--
	3-Nitroaniline	µg/kg	--	1,510 U	664 U	2,120 U	1,130 U	595 U	600 U	--	--
	4,6-Dinitro-2-methylphenol	µg/kg	--	1,510 U	664 U	2,120 U	1,130 U	595 U	600 U	--	--
	4-Bromophenyl phenyl ether	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	--	--
	4-Chloro-3-methylphenol	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	--	--
	4-Chloroaniline	µg/kg	--	497 U	219 U	698 U	374 U	196 U	198 U	--	--
	4-Chlorophenyl phenyl ether	µg/kg	--	301 U	133 U	423 U	227 U	119 U	120 U	--	--
	4-Nitroaniline	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	--	--
	4-Nitrophenol	µg/kg	--	183 UJ	32.9 U	2,120 U	1,130 U	595 U	600 U	--	--
	Benzoic Acid	µg/kg	--	1,510 U	664 U	2,120 U	1,130 U	595 U	600 U	--	--
	Benzyl Alcohol	µg/kg	--	3,010 U	1,330 U	4,230 U	2,270 U	1,190 U	1,200 U	--	--
	Bis(2-chloroethoxy)methane	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	--	--
	Bis(2-chloroethyl)ether	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	--	--
	Bis(2-chloroisopropyl)ether	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	--	--
	Dibenzofuran	µg/kg	--	211 U	92.9 U	296 U	732 J	83.3 U	84.0 U	--	--
	Hexachlorobenzene	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	1.90E+01	3.00E-01
	Hexachlorobutadiene	µg/kg	--	1,510 U	664 U	2,120 U	1,130 U	595 U	600 U	6.00E+02	--
	Hexachlorocyclopentadiene	µg/kg	--	1,510 U	664 U	2,120 U	1,130 U	595 U	600 U	4.00E+02	--
	Hexachloroethane	µg/kg	--	1,510 U	664 U	2,120 U	1,130 U	595 U	600 U	--	--
	Isophorone	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	--	--
	Nitrobenzene	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	--	--
	N-Nitrosodi-n-propylamine	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	--	--
	N-Nitrosodiphenylamine	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	--	--
	Pentachlorophenol	µg/kg	--	183 U	664 U	2,120 U	1,130 U	595 U	600 U	1.00E+03	--
	Phenol	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	5.00E+01	--

Table B-16
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
Source Control Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.7 Composite Samples			Vector 2.7 Samples				Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil
			092210-2-2.7-Composite-11-FS	092210-2-2.7-Composite-12-Total	110110-2-2.7-Composite-01-WS	092210-2-2.7-Surface-01-WS	092210-2-2.7-10-03-FS	092210-2-2.7-25-06-FS	092210-2-2.7-25-07-Dup		
		Date	9/22/2010	9/22/2010	11/1/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010		
		Depth (Feet Below Ground Surface)	0	0	0	0	5 - 10	20 - 25	20 - 25		
PAHs	2-Methylnaphthalene	µg/kg	--	211 U	7.15 J	7.05 U	1,570	72.7	29.6 J	2.00E+02	--
	Acenaphthene	µg/kg	--	211 U	23.6	7.05 U	3,090	40.7	13.4 J	3.00E+02	--
	Acenaphthylene	µg/kg	--	211 U	6.63 J	19.2 J	3,410	12.3 J	13.8 J	2.00E+02	--
	Anthracene	µg/kg	--	211 U	31.4	43.3	8,670	105 J	187 J	8.45E+02	--
	Benzo(a)anthracene	µg/kg	--	211 U	139	91.6	12,500	569 J	81.6 J	1.05E+03	--
	Benzo(a)pyrene	µg/kg	--	255 J	196	71.8	10,300	930 J	91.4 J	1.45E+03	--
	Benzo(b)fluoranthene	µg/kg	--	565 J	253	181	7,870	446 J	64.7 J	--	--
	Benzo(ghi)perylene	µg/kg	--	211 U	169	82.3	5,340	932 J	66.3 J	3.00E+02	--
	Benzo(k)fluranthene	µg/kg	--	366 J	191	111	8,800	246 J	50.6 J	--	--
	Chrysene	µg/kg	--	350 J	201	240	12,000	903 J	206 J	1.29E+03	--
	Dibenzo(a,h)anthracene	µg/kg	--	211 U	44.0	28.5 J	1,710	129	15.7 J	1.30E+03	--
	Fluoranthene	µg/kg	--	358 J	404	236	33,500	359 J	118 J	2.23E+03	--
	Fluorene	µg/kg	--	211 U	23.3	11.8 J	5,850	63.3	50.8	5.36E+02	--
	Indeno(1,2,3-cd)pyrene	µg/kg	--	211 U	153	64.4	5,330	258 J	43.6 J	1.00E+02	--
	Naphthalene	µg/kg	--	211 U	8.49 U	11.6 J	2,320	154 J	52.6 J	5.61E+02	--
	Phenanthrene	µg/kg	--	259 J	278	81.1	37,300	395 J	90.0 J	1.17E+03	--
	Pyrene	µg/kg	--	300 J	366 J	260	26,500	1,060 J	215 J	1.52E+03	--
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	--	6,020 U	816 J	551	151 U	31.7 U	15.9 U	3.30E+02	1.35E+02
	Butyl benzyl phthalate	µg/kg	--	211 U	32.9 J	30.3 J	151 U	31.7 U	15.9 U	--	--
	Diethyl phthalate	µg/kg	--	602 J	229 J	35.3 J	75.4 U	31.7 U	15.9 U	6.00E+02	--
	Dimethyl phthalate	µg/kg	--	211 U	17.7 U	28.6 U	75.4 U	31.7 U	15.9 U	--	--
	Di-n-butyl phthalate	µg/kg	--	1,510 U	206	1,180	75.4 U	63.4 U	15.9 U	6.00E+01	--
	Di-n-octyl phthalate	µg/kg	--	211 U	17.7 U	28.6 U	75.4 U	31.7 U	15.9 U	--	--
Organotins	Dibutyltin	µg/kg	--	--	53	15	0.43 U	0.50 U	0.50 U	--	--
	Monobutyltin	µg/kg	--	--	26	18	0.41 U	0.48 U	0.48 U	--	--
	Tetra-n-butyltin	µg/kg	--	--	1.4 U	1.3 U	1.3 U	1.50 U	1.5 U	--	--
	Tributyltin	µg/kg	--	--	130	14	0.92 U	1.10 U	1.1 U	2.30E+00	2.40E+04

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Group	Constituent	Units	Vector 2.7 Composite Samples						Vector 2.7 Samples						Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil
			092210-2-2.7-Composite-11-FS		092210-2-2.7-Composite-12-Total		110110-2-2.7-Composite-01-WS		092210-2-2.7-Surface-01-WS		092210-2-2.7-10-03-FS		092210-2-2.7-25-06-FS		092210-2-2.7-25-07-Dup			
		Date	9/22/2010		9/22/2010		11/1/2010		9/22/2010		9/22/2010		9/22/2010		9/22/2010			
		Depth (Feet Below Ground Surface)	0		0		0		0		5 - 10		20 - 25		20 - 25			
Organochlorine Pesticides	4-4'-DDD	µg/kg	5.63		3.05	U	0.870	U	0.709	UJ	--		--		--		3.30E-01	6.10E+00
	4,4'-DDE	µg/kg	2.81		2.04	U	0.870	U	1.44	UJ	--		--		--		3.30E-01	6.10E+00
	4,4'-DDT	µg/kg	8.65	U	10.2	U	3.53	U	1.77	UJ	--		--		--		3.30E-01	6.10E+00
	Aldrin	µg/kg	0.852	U	1.01	U	0.870	UJ	0.709	UJ	--		--		--		4.00E+01	2.00E+00
	alpha-BHC	µg/kg	0.852	U	2.04	U	0.870	U	0.709	UJ	--		--		--		--	--
	alpha-Chlordane	µg/kg	0.852	U	1.01	U	0.870	U	0.709	UJ	--		--		--		--	--
	beta-BHC	µg/kg	0.852	U	1.01	U	0.870	U	1.44	UJ	--		--		--		--	--
	Chlordane	µg/kg	19.4	U	22.9	U	19.8	U	16.1	UJ	--		--		--		3.70E-01	1.50E+00
	delta-BHC	µg/kg	0.852	U	1.01	U	0.870	U	0.709	UJ	--		--		--		--	--
	Dieldrin	µg/kg	1.52	J	1.01	U	0.870	U	0.709	UJ	--		--		--		8.10E-03	7.00E-02
	Endosulfan I	µg/kg	0.852	U	1.01	U	0.870	U	0.709	UJ	--		--		--		--	--
	Endosulfan II	µg/kg	0.852	U	1.01	U	0.870	U	0.709	UJ	--		--		--		--	--
	Endosulfan sulfate	µg/kg	0.852	U	1.01	U	0.870	U	0.709	UJ	--		--		--		--	--
	Endrin	µg/kg	0.852	U	1.01	U	0.870	UJ	0.709	UJ	--		--		--		2.07E+02	--
	Endrin aldehyde	µg/kg	0.852	U	1.01	U	0.870	U	1.44	UJ	--		--		--		--	--
	Endrin ketone	µg/kg	0.852	U	1.01	U	0.870	U	3.60	UJ	--		--		--		--	--
	gamma-BHC (Lindane)	µg/kg	0.852	U	1.01	U	0.870	U	0.709	UJ	--		--		--		4.99E+00	5.00E+00
	gamma-Chlordane	µg/kg	1.32	U	1.01	U	0.870	U	0.709	UJ	--		--		--		--	1.50E+00
	Heptachlor	µg/kg	0.852	U	1.01	U	0.870	U	0.709	UJ	--		--		--		1.00E+01	--
	Heptachlor epoxide	µg/kg	0.852	U	1.01	U	0.870	U	0.709	UJ	--		--		--		1.60E+01	--
	Methoxychlor	µg/kg	4.26	U	2.04	U	0.870	U	1.77	UJ	--		--		--		--	--
	Toxaphene	µg/kg	25.8	U	30.5	U	26.4	U	215	UJ	--		--		--		--	--
Chlorinated Herbicides	2,4,5-T	µg/kg	161	UJ	183	U	32.9	U	--		--		--		--		--	--
	2,4,5-TP (Silvex)	µg/kg	103	UJ	94.3	U	16.9	U	--		--		--		--		--	--
	2,4-D	µg/kg	326	UJ	370	U	66.5	U	--		--		--		--		--	--
	2,4-DB	µg/kg	326	UJ	370	U	66.5	U	--		--		--		--		--	--
	4-Nitrophenol	µg/kg	161	UJ	183	UJ	32.9	U	--		--		--		--		--	--
	Dalapon	µg/kg	816	UJ	926	U	166	U	--		--		--		--		--	--
	Dicamba	µg/kg	161	UJ	183	U	32.9	U	--		--		--		--		--	--
	Dichlorprop	µg/kg	326	UJ	370	U	66.5	U	--		--		--		--		--	--
	Dinoseb	µg/kg	326	UJ	370	U	66.5	U	--		--		--		--		--	--
	MCPA	µg/kg	16,300	UJ	18,500	U	3,320	U	--		--		--		--		--	--
	MCPP	µg/kg	16,300	UJ	18,500	U	3,320	UJ	--		--		--		--		--	--
	Pentachlorophenol	µg/kg	161	UJ	183	U	32.9	U	--		--		--		--		2.50E+02	--
	Picloram	µg/kg	161	UJ	183	U	32.9	U	--		--		--		--		--	--

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Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.7 Composite Samples				Vector 2.7 Samples								Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil
			092210-2-2.7-Composite-11-FS	092210-2-2.7-Composite-12-Total	110110-2-2.7-Composite-01-WS		092210-2-2.7-Surface-01-WS		092210-2-2.7-10-03-FS		092210-2-2.7-25-06-FS		092210-2-2.7-25-07-Dup			
		Date	9/22/2010	9/22/2010	11/1/2010		9/22/2010		9/22/2010		9/22/2010		9/22/2010			
		Depth (Feet Below Ground Surface)	0	0	0		0		5 - 10		20 - 25		20 - 25			
Dioxins/Furans	1,2,3,4,6,7,8-HpCDD	pg/g	--	--	160		--		--		--		--		6.90E+02	--
	1,2,3,4,6,7,8-HpCDF	pg/g	--	--	25		--		--		--		--		6.90E+02	--
	1,2,3,4,7,8,9-HpCDF	pg/g	--	--	2.9	J	--		--		--		--		6.90E+02	--
	1,2,3,4,7,8-HxCDD	pg/g	--	--	1.6	J	--		--		--		--		--	--
	1,2,3,4,7,8-HxCDF	pg/g	--	--	4	J	--		--		--		--		2.70E+00	2.3E-03
	1,2,3,6,7,8-HxCDD	pg/g	--	--	5.4		--		--		--		--		--	--
	1,2,3,6,7,8-HxCDF	pg/g	--	--	1.9	J	--		--		--		--		2.70E+00	--
	1,2,3,7,8,9-HxCDD	pg/g	--	--	3.4	J	--		--		--		--		--	--
	1,2,3,7,8,9-HxCDF	pg/g	--	--	0.18	J	--		--		--		--		2.70E+00	--
	1,2,3,7,8-PeCDD	pg/g	--	--	1.1	J	--		--		--		--		2.60E+00	1.3E-01
	1,2,3,7,8-PeCDF	pg/g	--	--	0.94	J	--		--		--		--		2.60E+00	--
	2,3,4,6,7,8-HxCDF	pg/g	--	--	1.5	J	--		--		--		--		2.70E+00	--
	2,3,4,7,8-PeCDF	pg/g	--	--	2	J	--		--		--		--		3.00E-02	1.9E-01
	2,3,7,8-TCDD	pg/g	--	--	0.26	J	--		--		--		--		9.10E-03	1.4E-01
	2,3,7,8-TCDF	pg/g	--	--	2.4		--		--		--		--		7.70E-01	4.1E-01
	OCDD	pg/g	--	--	1,400		--		--		--		--		2.30E+04	--
	OCDF	pg/g	--	--	99		--		--		--		--		2.30E+04	--
	Total HpCDD	pg/g	--	--	300		--		--		--		--		--	--
	Total HpCDF	pg/g	--	--	86		--		--		--		--		--	--
	Total HxCDD	pg/g	--	--	38		--		--		--		--		--	--
	Total HxCDF	pg/g	--	--	39		--		--		--		--		--	--
	Total PeCDD	pg/g	--	--	5.7		--		--		--		--		--	--
	Total PeCDF	pg/g	--	--	17		--		--		--		--		--	--
	Total TCDD	pg/g	--	--	2.2		--		--		--		--		--	--
	Total TCDF	pg/g	--	--	15		--		--		--		--		--	--
Petroleum Hydrocarbons	Diesel	mg/kg	--	--	3.01	J	88.2		35.4		68.2	J	44.6	J	--	--
	Heavy Oil	mg/kg	--	--	10.7	J	719		138		425	J	123	J	--	--

Table B-16
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
Source Control Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.8 Composite Samples			Vector 2.8 Samples							Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil
			102610-2-2.8-Composite-06	092110-2-2.8-Composite-07-WS	092110-2-2.8-Composite-08-Total	092110-2-2.8-Surface-02-WS	092110-2-2.8-1.5-01-FS	092110-2-2.8-5-03-FS	092110-2-2.8-10-04-FS	092110-2-2.8-15-05-FS	092110-2-2.8-20-06-FS	102610-2-2.8-25-01-FS		
		Date	10/26/2010	9/22/2010	9/22/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	10/26/2010		
		Depth (feet Below Ground Surface)	0	0	0	0	0 - 1.5	5 - 10	10 - 15	15 - 20	20 - 25	20 - 25		
Inorganics	Mercury	mg/kg	--	--	--	0.105	0.00940 J	0.00450 U	0.00290 U	0.00540 U	0.222	0.0942	0.07	1.1
	Arsenic	mg/kg	--	--	--	124	1.88	1.13	0.916	11.1	9.46	4.98	--	3
	Barium	mg/kg	--	--	--	561	114	102	74.1	243	175	145	--	--
	Chromium	mg/kg	--	--	--	135	7.5	8.49	5.22	31.5	25.6	31.3	111	--
	Copper	mg/kg	--	--	--	2,080	30.2	13.7	11.9	835	30.9	47.5	149	149
	Lead	mg/kg	--	--	--	512	37.0	6.61	4.19	39.1	69.9	24.4	17	128
	Manganese	mg/kg	--	--	--	2,850	1,140	748	535	1,770	654	634	1,100	--
	Nickel	mg/kg	--	--	--	50.7	6.55	4.36	2.31	17.0	20.4	23.4	48.6	--
	Selenium	mg/kg	--	--	--	0.632 J	0.0786 J	0.0714 J	0.0268 J	0.208 J	0.0767 J	0.117 J	5	--
	Silver	mg/kg	--	--	--	1.23	0.14 J	0.159 J	0.123 J	0.515 J	0.179 J	0.209 J	5	--
	Zinc	mg/kg	--	--	--	7,830	92.5	69.8	56.4	168	113	96.3	459	459
PCBs	Aroclor 1016	µg/kg	--	--	--	21.5 U	1.87 U	1.82 U	1.79 U	1.82 U	2.12 U	8.75 U	--	--
	Aroclor 1221	µg/kg	--	--	--	42.9 U	3.73 U	3.63 U	3.56 U	3.63 U	4.22 U	17.5 U	--	--
	Aroclor 1232	µg/kg	--	--	--	21.5 U	1.87 U	1.82 U	1.79 U	1.82 U	2.12 U	8.75 U	--	--
	Aroclor 1242	µg/kg	--	--	--	21.5 U	1.87 U	1.82 U	1.79 U	1.82 U	2.12 U	8.75 U	--	--
	Aroclor 1248	µg/kg	--	--	--	21.5 U	13.1	1.82 U	1.79 U	1.82 U	2.12 U	8.75 U	--	--
	Aroclor 1254	µg/kg	--	--	--	21.5 U	1.87 U	1.82 U	1.79 U	1.82 U	2.12 U	74.0	--	--
	Aroclor 1260	µg/kg	--	--	--	21.5 U	6.96	1.82 U	1.79 U	1.82 U	7.81 U	8.75 U	--	--
	Aroclor 1262	µg/kg	--	--	--	63.4	1.87 U	1.82 U	1.79 U	1.82 U	2.12 U	49.9	--	--
	Aroclor 1268	µg/kg	--	--	--	21.5 U	1.87 U	1.82 U	1.79 U	1.82 U	2.12 U	8.75 U	--	--
	Total PCBs	µg/kg	--	--	--	63.4	20.1	18.2 U	17.9 U	18.2 U	7.81 J	124	3.90E-01	9.00E+00

Table B-16
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
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Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.8 Composite Samples			Vector 2.8 Samples							Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil
			102610-2-2.8-Composite-06	092110-2-2.8-Composite-07-WS	092110-2-2.8-Composite-08-Total	092110-2-2.8-Surface-02-WS	092110-2-2.8-1.5-01-FS	092110-2-2.8-5-03-FS	092110-2-2.8-10-04-FS	092110-2-2.8-15-05-FS	092110-2-2.8-20-06-FS	102610-2-2.8-25-01-FS		
		Date	10/26/2010	9/22/2010	9/22/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	10/26/2010		
		Depth (feet Below Ground Surface)	0	0	0	0	0 - 1.5	5 - 10	10 - 15	15 - 20	20 - 25	20 - 25		
VOCs	1,1,1,2-Tetrachloroethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	1,1,1-Trichloroethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	1,1,2,2-Tetrachloroethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	1,1,2-Trichloroethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	1,1-Dichloroethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	1,1-Dichloroethene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	1,1-Dichloropropene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	1,2,3-Trichlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	1,2,3-Trichloropropane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	1,2,4-Trichlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	9.20E+03	--
	1,2,4-Trimethylbenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	1,2-Dibromo-3-chloropropane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	1,2-Dibromoethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	1,2-Dichlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	1.70E+03	--
	1,2-Dichloroethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	1,2-Dichloropropane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	1,3,5-Trimethylbenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	1,3-Dichlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	3.00E+02	--
	1,3-Dichloropropane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	1,4-Dichlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	3.00E+02	--
	2,2-Dichloropropane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	2-Butanone	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	2-Chlorotoluene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	2-Hexanone	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	4-Chlorotoluene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	4-Methyl-2-pentanone	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Acetone	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Benzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Bromobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Bromochloromethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Bromodichloromethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Bromoform	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Bromomethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Carbon disulfide	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Carbon tetrachloride	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--

Table B-16
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
Source Control Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
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Group	Constituent	Units	Vector 2.8 Composite Samples			Vector 2.8 Samples							Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil
			102610-2-2.8-Composite-06	092110-2-2.8-Composite-07-WS	092110-2-2.8-Composite-08-Total	092110-2-2.8-Surface-02-WS	092110-2-2.8-1.5-01-FS	092110-2-2.8-5-03-FS	092110-2-2.8-10-04-FS	092110-2-2.8-15-05-FS	092110-2-2.8-20-06-FS	102610-2-2.8-25-01-FS		
		Date	10/26/2010	9/22/2010	9/22/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	10/26/2010		
		Depth (feet Below Ground Surface)	0	0	0	0	0 - 1.5	5 - 10	10 - 15	15 - 20	20 - 25	20 - 25		
VOCs (continued)	Chlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Chloroethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Chloroform	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Chloromethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	cis-1,2-Dichloroethene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	cis-1,3-Dichloropropene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Dibromochloromethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Dibromomethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Dichlorodifluoromethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Ethylbenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Hexachlorobutadiene	µg/kg	--	--	--	--	--	--	--	--	--	--	6.00E+02	--
	Isopropylbenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	m,p-Xylene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Methyl tert-butyl ether	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Methylene chloride	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Naphthalene	µg/kg	--	--	--	--	--	--	--	--	--	--	5.61E+02	--
	n-Butylbenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	n-Propylbenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	o-Xylene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	p-Isopropyltoluene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	sec-Butylbenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Styrene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	tert-Butylbenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Tetrachloroethene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Toluene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	trans-1,2-Dichloroethene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	trans-1,3-Dichloropropene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Trichloroethene	µg/kg	--	--	--	--	--	--	--	--	--	--	2.10E+03	--
	Trichlorofluoromethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Vinyl chloride	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--

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Group	Constituent	Units	Vector 2.8 Composite Samples			Vector 2.8 Samples							Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil
			102610-2-2.8-Composite-06	092110-2-2.8-Composite-07-WS	092110-2-2.8-Composite-08-Total	092110-2-2.8-Surface-02-WS	092110-2-2.8-1.5-01-FS	092110-2-2.8-5-03-FS	092110-2-2.8-10-04-FS	092110-2-2.8-15-05-FS	092110-2-2.8-20-06-FS	102610-2-2.8-25-01-FS		
		Date	10/26/2010	9/22/2010	9/22/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	10/26/2010		
		Depth (feet Below Ground Surface)	0	0	0	0	0 - 1.5	5 - 10	10 - 15	15 - 20	20 - 25	20 - 25		
SVOCs	1,2,4-Trichlorobenzene	µg/kg	--	--	--	2,580 U	555 U	548 U	531 U	542 U	635 U	654 U	9.20E+03	--
	1,2-Dichlorobenzene	µg/kg	--	--	--	2,580 U	555 U	548 U	531 U	542 U	635 U	654 U	1.70E+03	--
	1,3-Dichlorobenzene	µg/kg	--	--	--	2,580 U	555 U	548 U	531 U	542 U	635 U	654 U	3.00E+02	--
	1,4-Dichlorobenzene	µg/kg	--	--	--	2,580 U	555 U	548 U	531 U	542 U	635 U	654 U	3.00E+02	--
	2,4,5-Trichlorophenol	µg/kg	--	--	--	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	--	--
	2,4,6-Trichlorophenol	µg/kg	--	--	--	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	--	--
	2,4-Dichlorophenol	µg/kg	--	--	--	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	--	--
	2,4-Dimethylphenol	µg/kg	--	--	--	2,580 U	555 U	548 U	531 U	542 U	635 U	654 U	--	--
	2,4-Dinitrophenol	µg/kg	--	--	--	10,300 U	2,220 U	2,190 U	2,120 U	2,170 U	2,540 U	2,620 U	--	--
	2,4-Dinitrotoluene	µg/kg	--	--	--	2,580 U	555 U	548 U	531 U	542 U	635 U	654 U	--	--
	2,6-Dinitrotoluene	µg/kg	--	--	--	2,580 U	555 U	548 U	531 U	542 U	635 U	654 U	--	--
	2-Chloronaphthalene	µg/kg	--	--	--	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	--	--
	2-Chlorophenol	µg/kg	--	--	--	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	--	--
	2-Methylphenol	µg/kg	--	--	--	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	--	--
	2-Nitroaniline	µg/kg	--	--	--	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	--	--
	2-Nitrophenol	µg/kg	--	--	--	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	--	--
	3,3'-Dichlorobenzidine	µg/kg	--	--	--	2,580 U	555 U	548 U	531 U	542 U	635 U	654 U	--	--
	3,4-Methylphenol	µg/kg	--	--	--	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	--	--
	3-Nitroaniline	µg/kg	--	--	--	2,580 U	555 U	548 U	531 U	542 U	635 U	654 U	--	--
	4,6-Dinitro-2-methylphenol	µg/kg	--	--	--	2,580 U	555 U	548 U	531 U	542 U	635 U	654 U	--	--
	4-Bromophenyl phenyl ether	µg/kg	--	--	--	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	--	--
	4-Chloro-3-methylphenol	µg/kg	--	--	--	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	--	--
	4-Chloroaniline	µg/kg	--	--	--	851 U	183 U	181 U	175 U	179 U	210 U	216 U	--	--
	4-Chlorophenyl phenyl ether	µg/kg	--	--	--	516 U	111 U	110 U	106 U	108 U	127 U	131 U	--	--
	4-Nitroaniline	µg/kg	--	--	--	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	--	--
	4-Nitrophenol	µg/kg	--	--	--	2,580 U	555 U	548 U	531 U	542 U	635 U	654 U	--	--
	Benzoic Acid	µg/kg	--	--	--	2,580 U	555 U	548 U	531 U	542 U	635 U	654 U	--	--
	Benzyl Alcohol	µg/kg	--	--	--	5,160 U	1,110 U	1,100 U	1,060 U	1,080 U	1,270 U	1,310 U	--	--
	Bis(2-chloroethoxy)methane	µg/kg	--	--	--	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	--	--
	Bis(2-chloroethyl)ether	µg/kg	--	--	--	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	--	--
	Bis(2-chloroisopropyl)ether	µg/kg	--	--	--	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	--	--
	Dibenzofuran	µg/kg	--	--	88.8 U	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	--	--
	Hexachlorobenzene	µg/kg	--	--	88.8 U	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	1.90E+01	3.00E-01
	Hexachlorobutadiene	µg/kg	--	--	634 U	2,580 U	555 U	548 U	531 U	542 U	635 U	654 U	6.00E+02	--
	Hexachlorocyclopentadiene	µg/kg	--	--	634 U	2,580 U	555 U	548 U	531 U	542 U	635 U	654 U	4.00E+02	--
	Hexachloroethane	µg/kg	--	--	634 U	2,580 U	555 U	548 U	531 U	542 U	635 U	654 U	--	--
	Isophorone	µg/kg	--	--	88.8 U	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	--	--
	Nitrobenzene	µg/kg	--	--	88.8 U	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	--	--
	N-Nitrosodi-n-propylamine	µg/kg	--	--	88.8 U	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	--	--
	N-Nitrosodiphenylamine	µg/kg	--	--	88.8 U	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	--	--
	Pentachlorophenol	µg/kg	--	--	634 U	2,580 U	555 U	548 U	531 U	542 U	635 U	654 U	1.00E+03	--
	Phenol	µg/kg	--	--	88.8 U	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	5.00E+01	--

Table B-16
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
Source Control Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.8 Composite Samples			Vector 2.8 Samples							Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil
			102610-2-2.8-Composite-06	092110-2-2.8-Composite-07-WS	092110-2-2.8-Composite-08-Total	092110-2-2.8-Surface-02-WS	092110-2-2.8-1.5-01-FS	092110-2-2.8-5-03-FS	092110-2-2.8-10-04-FS	092110-2-2.8-15-05-FS	092110-2-2.8-20-06-FS	102610-2-2.8-25-01-FS		
		Date	10/26/2010	9/22/2010	9/22/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	10/26/2010		
		Depth (feet Below Ground Surface)	0	0	0	0	0 - 1.5	5 - 10	10 - 15	15 - 20	20 - 25	20 - 25		
PAHs	2-Methylnaphthalene	µg/kg	--	--	--	20.2 J	3.69 U	3.63 U	3.50 U	17.9	21.0 U	8.31 J	2.00E+02	--
	Acenaphthene	µg/kg	--	--	--	20.1 J	3.69 U	3.63 U	3.50 U	63.3	27.4 J	5.48 J	3.00E+02	--
	Acenaphthylene	µg/kg	--	--	--	49.2	3.69 U	3.63 U	3.50 U	3.59 U	123	4.34 U	2.00E+02	--
	Anthracene	µg/kg	--	--	--	89.8	3.69 U	3.63 U	3.50 U	109	950	4.40 J	8.45E+02	--
	Benzo(a)anthracene	µg/kg	--	--	--	169	6.29 J	4.89 J	3.50 U	102	1,150	5.02 J	1.05E+03	--
	Benzo(a)pyrene	µg/kg	--	--	--	276	9.81 J	5.92 J	3.50 U	88.5	1,660	6.05 J	1.45E+03	--
	Benzo(b)fluoranthene	µg/kg	--	--	--	457	10.1 J	6.49 J	3.50 U	61.2	1,710	5.10 J	--	--
	Benzo(ghi)perylene	µg/kg	--	--	--	484	9.87 J	6.10 J	3.50 U	46.3	1,070	5.65 J	3.00E+02	--
	Benzo(k)fluranthene	µg/kg	--	--	--	305	7.80 J	5.77 J	3.50 U	78.7	1,290	4.34 U	--	--
	Chrysene	µg/kg	--	--	88.8 U	309	12.9 J	7.08 J	3.50 U	108	2,060	6.67 J	1.29E+03	--
	Dibenzo(a,h)anthracene	µg/kg	--	--	88.8 U	124	3.69 U	3.63 U	3.50 U	17.6	371	4.34 U	1.30E+03	--
	Fluoranthene	µg/kg	--	--	88.8 U	337	11.4 J	10.1 J	3.50 U	261	1,200	16.2 J	2.23E+03	--
	Fluorene	µg/kg	--	--	88.8 U	22.6 J	3.69 U	3.63 U	3.50 U	64.4	51.4 J	4.34 U	5.36E+02	--
	Indeno(1,2,3-cd)pyrene	µg/kg	--	--	88.8 U	390	6.85 J	4.95 J	3.50 U	47.5	1,150	4.34 U	1.00E+02	--
	Naphthalene	µg/kg	--	--	88.8 U	35.8	3.69 U	3.63 U	3.50 U	35.1	21.0 U	23.3	5.61E+02	--
	Phenanthrene	µg/kg	--	--	88.8 U	195	8.89 J	6.84 J	3.50 U	366	245	25.8	1.17E+03	--
	Pyrene	µg/kg	--	--	88.8 U	295	12.1 J	10.3 J	3.50 U	241	1,400	19.0	1.52E+03	--
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	--	--	--	1,170	35.0	22.9 J	14.2 U	16.2 J	241.0	161	3.30E+02	1.35E+02
	Butyl benzyl phthalate	µg/kg	--	--	--	40.6 J	15.0 U	14.7 U	14.2 U	14.6 U	34.2 U	17.6 U	--	--
	Diethyl phthalate	µg/kg	--	--	88.8 U	342	15.0 U	14.7 U	14.2 U	14.6 U	34.2 U	17.6 U	6.00E+02	--
	Dimethyl phthalate	µg/kg	--	--	88.8 U	34.3 U	15.0 U	14.7 U	14.2 U	14.6 U	34.2 U	17.6 U	--	--
	Di-n-butyl phthalate	µg/kg	--	--	634 U	551	15.0 U	14.7 U	14.2 U	14.6 U	34.2 U	17.6 U	6.00E+01	--
	Di-n-octyl phthalate	µg/kg	--	--	634 U	166	15.0 U	14.7 U	14.2 U	14.6 U	34.2 U	17.6 U	--	--
Organotins	Dibutyltin	µg/kg	--	--	--	230	0.46 U	0.45 U	0.41 U	14	0.51 U	0.56 U	--	--
	Monobutyltin	µg/kg	--	--	--	110	0.44 U	0.43 U	0.39 U	0.42 U	0.49 U	0.53 U	--	--
	Tetra-n-butyltin	µg/kg	--	--	--	1.5 U	1.3 U	1.3 U	1.2 U	1.3 U	1.5 U	1.6 U	--	--
	Tributyltin	µg/kg	--	--	--	270	1.0 U	0.96 U	0.89 U	30	5.0	1.2 U	2.30E+00	2.40E+04

Table B-16
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
Source Control Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.8 Composite Samples			Vector 2.8 Samples							Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil
			102610-2-2.8-Composite-06	092110-2-2.8-Composite-07-WS	092110-2-2.8-Composite-08-Total	092110-2-2.8-Surface-02-WS	092110-2-2.8-1.5-01-FS	092110-2-2.8-5-03-FS	092110-2-2.8-10-04-FS	092110-2-2.8-15-05-FS	092110-2-2.8-20-06-FS	102610-2-2.8-25-01-FS		
		Date	10/26/2010	9/22/2010	9/22/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	10/26/2010		
		Depth (feet Below Ground Surface)	0	0	0	0	0 - 1.5	5 - 10	10 - 15	15 - 20	20 - 25	20 - 25		
Organochlorine Pesticides	4-4'-DDD	µg/kg	--	--	--	--	--	--	--	--	0.853 UJ	--	3.30E-01	6.10E+00
	4,4'-DDE	µg/kg	--	--	--	--	--	--	--	--	0.454 J	--	3.30E-01	6.10E+00
	4,4'-DDT	µg/kg	--	--	--	--	--	--	--	--	2.27 J	--	3.30E-01	6.10E+00
	Aldrin	µg/kg	--	--	--	--	--	--	--	--	0.420 UJ	--	4.00E+01	2.00E+00
	alpha-BHC	µg/kg	--	--	--	--	--	--	--	--	0.420 UJ	--	--	--
	alpha-Chlordane	µg/kg	--	--	--	--	--	--	--	--	2.79 J	--	--	--
	beta-BHC	µg/kg	--	--	--	--	--	--	--	--	0.420 UJ	--	--	--
	Chlordane	µg/kg	--	--	--	--	--	--	--	--	16.3 J	--	3.70E-01	1.50E+00
	delta-BHC	µg/kg	--	--	--	--	--	--	--	--	0.420 UJ	--	--	--
	Dieldrin	µg/kg	--	--	--	--	--	--	--	--	0.853 UJ	--	8.10E-03	7.00E-02
	Endosulfan I	µg/kg	--	--	--	--	--	--	--	--	0.420 UJ	--	--	--
	Endosulfan II	µg/kg	--	--	--	--	--	--	--	--	0.420 UJ	--	--	--
	Endosulfan sulfate	µg/kg	--	--	--	--	--	--	--	--	0.420 UJ	--	--	--
	Endrin	µg/kg	--	--	--	--	--	--	--	--	0.420 UJ	--	2.07E+02	--
	Endrin aldehyde	µg/kg	--	--	--	--	--	--	--	--	0.420 UJ	--	--	--
	Endrin ketone	µg/kg	--	--	--	--	--	--	--	--	0.420 UJ	--	--	--
	gamma-BHC (Lindane)	µg/kg	--	--	--	--	--	--	--	--	0.420 UJ	--	4.99E+00	5.00E+00
	gamma-Chlordane	µg/kg	--	--	--	--	--	--	--	--	2.71 J	--	--	1.50E+00
	Heptachlor	µg/kg	--	--	--	--	--	--	--	--	0.420 UJ	--	1.00E+01	--
	Heptachlor epoxide	µg/kg	--	--	--	--	--	--	--	--	0.420 UJ	--	1.60E+01	--
	Methoxychlor	µg/kg	--	--	--	--	--	--	--	--	0.420 UJ	--	--	--
	Toxaphene	µg/kg	--	--	--	--	--	--	--	--	12.7 UJ	--	--	--
Chlorinated Herbicides	2,4,5-T	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	2,4,5-TP (Silvex)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	2,4-D	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	2,4-DB	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	4-Nitrophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Dalapon	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Dicamba	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Dichlorprop	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Dinoseb	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	MCPA	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	MCPP	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Pentachlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	2.50E+02	--
	Picloram	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--

Table B-16
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
Source Control Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.8 Composite Samples			Vector 2.8 Samples							Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil
			102610-2-2.8-Composite-06	092110-2-2.8-Composite-07-WS	092110-2-2.8-Composite-08-Total	092110-2-2.8-Surface-02-WS	092110-2-2.8-1.5-01-FS	092110-2-2.8-5-03-FS	092110-2-2.8-10-04-FS	092110-2-2.8-15-05-FS	092110-2-2.8-20-06-FS	102610-2-2.8-25-01-FS		
		Date	10/26/2010	9/22/2010	9/22/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	10/26/2010		
		Depth (feet Below Ground Surface)	0	0	0	0	0 - 1.5	5 - 10	10 - 15	15 - 20	20 - 25	20 - 25		
Dioxins/Furans	1,2,3,4,6,7,8-HpCDD	pg/g	190	1.8 J	35	--	--	--	--	--	--	--	6.90E+02	--
	1,2,3,4,6,7,8-HpCDF	pg/g	80	0.64 J	7.3	--	--	--	--	--	--	--	6.90E+02	--
	1,2,3,4,7,8,9-HpCDF	pg/g	3.8 J	0.25 U	0.43 J	--	--	--	--	--	--	--	6.90E+02	--
	1,2,3,4,7,8-HxCDD	pg/g	0.61 J	0.16 U	0.78 J	--	--	--	--	--	--	--	--	--
	1,2,3,4,7,8-HxCDF	pg/g	3.2 J	0.19 J	0.55 J	--	--	--	--	--	--	--	2.70E+00	2.3E-03
	1,2,3,6,7,8-HxCDD	pg/g	7	0.23 J	1.8 J	--	--	--	--	--	--	--	--	--
	1,2,3,6,7,8-HxCDF	pg/g	2.2 J	0.12 U	0.4 U	--	--	--	--	--	--	--	2.70E+00	--
	1,2,3,7,8,9-HxCDD	pg/g	3.5 J	0.15 J	1.1 J	--	--	--	--	--	--	--	--	--
	1,2,3,7,8,9-HxCDF	pg/g	0.13 U	0.13 U	0.51 U	--	--	--	--	--	--	--	2.70E+00	--
	1,2,3,7,8-PeCDD	pg/g	1.5 J	0.14 U	0.39 U	--	--	--	--	--	--	--	2.60E+00	1.3E-01
	1,2,3,7,8-PeCDF	pg/g	0.82 J	0.16 U	0.73 U	--	--	--	--	--	--	--	2.60E+00	--
	2,3,4,6,7,8-HxCDF	pg/g	1.2 J	0.13 U	0.44 U	--	--	--	--	--	--	--	2.70E+00	--
	2,3,4,7,8-PeCDF	pg/g	1.2 J	0.16 U	0.75 U	--	--	--	--	--	--	--	3.00E-02	1.9E-01
	2,3,7,8-TCDD	pg/g	2.4	0.11 U	0.15 U	--	--	--	--	--	--	--	9.10E-03	1.4E-01
	2,3,7,8-TCDF	pg/g	1.1 J	0.29 J	0.92 J	--	--	--	--	--	--	--	7.70E-01	4.1E-01
	OCDD	pg/g	2,200 J	16	330	--	--	--	--	--	--	--	2.30E+04	--
	OCDF	pg/g	360	1 J	15	--	--	--	--	--	--	--	2.30E+04	--
	Total HpCDD	pg/g	400	3.4	70	--	--	--	--	--	--	--	--	--
	Total HpCDF	pg/g	320	1.2	21	--	--	--	--	--	--	--	--	--
	Total HxCDD	pg/g	52	0.47	15	--	--	--	--	--	--	--	--	--
	Total HxCDF	pg/g	79	0.19	9	--	--	--	--	--	--	--	--	--
	Total PeCDD	pg/g	18	0.43 U	0.5	--	--	--	--	--	--	--	--	--
	Total PeCDF	pg/g	34	0.23 U	1.8	--	--	--	--	--	--	--	--	--
	Total TCDD	pg/g	21	0.27	0.44	--	--	--	--	--	--	--	--	--
	Total TCDF	pg/g	27	0.46	0.92	--	--	--	--	--	--	--	--	--
Petroleum Hydrocarbons	Diesel	mg/kg	--	--	--	36.5	27.4	4.13 J	0.975 J	5.68 J	5.10 J	39.6	--	--
	Heavy Oil	mg/kg	--	--	--	169	207	0.766 U	3.96 J	5.25 J	9.12 J	111	--	--

Table B-16
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
Source Control Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.9 Composite Samples			Vector 2.9 Samples			Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil
			092110-2-2.9-Composite-12-WS	092110-2-2.9-Composite-13-Total	110110-2-2.9-Composite-02-WS	092110-2-2.9-10-03-FS	092110-2-2.9-20-05-FS	092110-2-2.9-20-06-Dup		
		Date	9/22/2010	9/21/2010	11/1/2010	9/21/2010	9/21/2010	9/21/2010		
		Depth (feet Below Ground Surface)	0	0	0	5 - 10	15 - 20	15 - 20		
Inorganics	Mercury	mg/kg	--	--	0.0363 J	0.00910 J	0.131	0.0414 J	0.07	1.1
	Arsenic	mg/kg	--	--	11.6	4.02	10.0	13.4	--	3
	Barium	mg/kg	--	--	300	93.9	72.8 J	111 J	--	--
	Chromium	mg/kg	--	--	51.9	14.9	9.14 J	29.6 J	111	--
	Copper	mg/kg	--	--	1,020	70.3	37.3 J	58.5 J	149	149
	Lead	mg/kg	--	--	70.6	22.6	31.8 J	62.6 J	17	128
	Manganese	mg/kg	--	--	1,630	677	423	594	1,100	--
	Nickel	mg/kg	--	--	35.3	8.96	6.43 J	15.1 J	48.6	--
	Selenium	mg/kg	--	--	0.290 J	0.0753 J	0.141 J	0.137 J	5	--
	Silver	mg/kg	--	--	0.533 J	0.151 J	0.146 J	0.176 J	5	--
	Zinc	mg/kg	--	--	1,880	120	129 J	181	459	459
PCBs	Aroclor 1016	µg/kg	--	--	2.25 U	1.75 U	1.80 U	1.83 U	--	--
	Aroclor 1221	µg/kg	--	--	4.48 U	3.48 U	3.60 U	3.66 U	--	--
	Aroclor 1232	µg/kg	--	--	2.25 U	1.75 U	1.80 U	1.83 U	--	--
	Aroclor 1242	µg/kg	--	--	2.25 U	1.75 U	1.80 U	1.83 U	--	--
	Aroclor 1248	µg/kg	--	--	2.25 U	1.75 U	1.80 U	1.83 U	--	--
	Aroclor 1254	µg/kg	--	--	2.25 U	1.75 U	1.80 U	1.83 U	--	--
	Aroclor 1260	µg/kg	--	--	22.2	3.33 J	9.42	1.83 U	--	--
	Aroclor 1262	µg/kg	--	--	2.25 U	1.75 U	1.80 U	2.87 J	--	--
	Aroclor 1268	µg/kg	--	--	2.25 U	1.75 U	1.80 U	1.83 U	--	--
	Total PCBs	µg/kg	--	--	22.2	3.33 J	9.42	2.87 J	3.90E-01	9.00E+00

Table B-16
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
Source Control Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.9 Composite Samples				Vector 2.9 Samples			Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil
			092110-2-2.9-Composite-12-WS	092110-2-2.9-Composite-13-Total	110110-2-2.9-Composite-02-WS		092110-2-2.9-10-03-FS	092110-2-2.9-20-05-FS	092110-2-2.9-20-06-Dup		
		Date	9/22/2010	9/21/2010	11/1/2010		9/21/2010	9/21/2010	9/21/2010		
		Depth (feet Below Ground Surface)	0	0	0		5 - 10	15 - 20	15 - 20		
VOCs	1,1,1,2-Tetrachloroethane	µg/kg	--	--	12.5	U	--	--	--	--	--
	1,1,1-Trichloroethane	µg/kg	--	--	6.77	U	--	--	--	--	--
	1,1,2,2-Tetrachloroethane	µg/kg	--	--	15.3	U	--	--	--	--	--
	1,1,2-Trichloroethane	µg/kg	--	--	9.12	U	--	--	--	--	--
	1,1-Dichloroethane	µg/kg	--	--	9.02	U	--	--	--	--	--
	1,1-Dichloroethene	µg/kg	--	--	16.1	U	--	--	--	--	--
	1,1-Dichloropropene	µg/kg	--	--	10.6	U	--	--	--	--	--
	1,2,3-Trichlorobenzene	µg/kg	--	--	12.6	U	--	--	--	--	--
	1,2,3-Trichloropropane	µg/kg	--	--	8.69	U	--	--	--	--	--
	1,2,4-Trichlorobenzene	µg/kg	--	--	674	U	--	--	--	9.20E+03	--
	1,2,4-Trimethylbenzene	µg/kg	--	--	22.8	J	--	--	--	--	--
	1,2-Dibromo-3-chloropropane	µg/kg	--	--	55.5	U	--	--	--	--	--
	1,2-Dibromoethane	µg/kg	--	--	14.0	U	--	--	--	--	--
	1,2-Dichlorobenzene	µg/kg	--	--	674	U	--	--	--	1.70E+03	--
	1,2-Dichloroethane	µg/kg	--	--	10.2	U	--	--	--	--	--
	1,2-Dichloropropane	µg/kg	--	--	9.02	U	--	--	--	--	--
	1,3,5-Trimethylbenzene	µg/kg	--	--	24.2	J	--	--	--	--	--
	1,3-Dichlorobenzene	µg/kg	--	--	674	U	--	--	--	3.00E+02	--
	1,3-Dichloropropane	µg/kg	--	--	8.93	U	--	--	--	--	--
	1,4-Dichlorobenzene	µg/kg	--	--	674	U	--	--	--	3.00E+02	--
	2,2-Dichloropropane	µg/kg	--	--	8.45	U	--	--	--	--	--
	2-Butanone	µg/kg	--	--	34.1	U	--	--	--	--	--
	2-Chlorotoluene	µg/kg	--	--	7.98	U	--	--	--	--	--
	2-Hexanone	µg/kg	--	--	38.0	U	--	--	--	--	--
	4-Chlorotoluene	µg/kg	--	--	5.83	U	--	--	--	--	--
	4-Methyl-2-pentanone	µg/kg	--	--	25.6	U	--	--	--	--	--
	Acetone	µg/kg	--	--	807	U	--	--	--	--	--
	Benzene	µg/kg	--	--	5.68	U	--	--	--	--	--
	Bromobenzene	µg/kg	--	--	16.8	U	--	--	--	--	--
	Bromochloromethane	µg/kg	--	--	13.1	U	--	--	--	--	--
	Bromodichloromethane	µg/kg	--	--	13.7	U	--	--	--	--	--
	Bromoform	µg/kg	--	--	12.4	U	--	--	--	--	--
	Bromomethane	µg/kg	--	--	10.8	U	--	--	--	--	--
	Carbon disulfide	µg/kg	--	--	9.65	U	--	--	--	--	--
	Carbon tetrachloride	µg/kg	--	--	14.8	U	--	--	--	--	--

Table B-16
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
Source Control Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.9 Composite Samples				Vector 2.9 Samples			Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil
			092110-2-2.9-Composite-12-WS	092110-2-2.9-Composite-13-Total	110110-2-2.9-Composite-02-WS		092110-2-2.9-10-03-FS	092110-2-2.9-20-05-FS	092110-2-2.9-20-06-Dup		
		Date	9/22/2010	9/21/2010	11/1/2010		9/21/2010	9/21/2010	9/21/2010		
		Depth (feet Below Ground Surface)	0	0	0		5 - 10	15 - 20	15 - 20		
VOCs (continued)	Chlorobenzene	µg/kg	--	--	4.12	U	--	--	--	--	--
	Chloroethane	µg/kg	--	--	24.8	U	--	--	--	--	--
	Chloroform	µg/kg	--	--	7.31	U	--	--	--	--	--
	Chloromethane	µg/kg	--	--	9.39	U	--	--	--	--	--
	cis-1,2-Dichloroethene	µg/kg	--	--	14.5	U	--	--	--	--	--
	cis-1,3-Dichloropropene	µg/kg	--	--	6.18	U	--	--	--	--	--
	Dibromochloromethane	µg/kg	--	--	9.96	U	--	--	--	--	--
	Dibromomethane	µg/kg	--	--	6.38	U	--	--	--	--	--
	Dichlorodifluoromethane	µg/kg	--	--	9.65	U	--	--	--	--	--
	Ethylbenzene	µg/kg	--	--	3.80	U	--	--	--	--	--
	Hexachlorobutadiene	µg/kg	--	--	674	U	--	--	--	6.00E+02	--
	Isopropylbenzene	µg/kg	--	--	9.96	U	--	--	--	--	--
	m,p-Xylene	µg/kg	--	--	23.9	U	--	--	--	--	--
	Methyl tert-butyl ether	µg/kg	--	--	7.31	U	--	--	--	--	--
	Methylene chloride	µg/kg	--	--	29.5	J	--	--	--	--	--
	Naphthalene	µg/kg	--	--	94.3	U	--	--	--	5.61E+02	--
	n-Butylbenzene	µg/kg	--	--	8.59	U	--	--	--	--	--
	n-Propylbenzene	µg/kg	--	--	9.44	U	--	--	--	--	--
	o-Xylene	µg/kg	--	--	8.69	U	--	--	--	--	--
	p-Isopropyltoluene	µg/kg	--	--	13.0	U	--	--	--	--	--
	sec-Butylbenzene	µg/kg	--	--	6.84	U	--	--	--	--	--
	Styrene	µg/kg	--	--	4.22	U	--	--	--	--	--
	tert-Butylbenzene	µg/kg	--	--	13.1	U	--	--	--	--	--
	Tetrachloroethene	µg/kg	--	--	19.3	U	--	--	--	--	--
	Toluene	µg/kg	--	--	4.70	U	--	--	--	--	--
	trans-1,2-Dichloroethene	µg/kg	--	--	7.87	U	--	--	--	--	--
	trans-1,3-Dichloropropene	µg/kg	--	--	7.87	U	--	--	--	--	--
	Trichloroethene	µg/kg	--	--	9.75	U	--	--	--	2.10E+03	--
	Trichlorofluoromethane	µg/kg	--	--	41.8	U	--	--	--	--	--
	Vinyl chloride	µg/kg	--	--	10.0	UJ	--	--	--	--	--

Table B-16
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Group	Constituent	Units	Vector 2.9 Composite Samples				Vector 2.9 Samples			Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil
			092110-2-2.9-Composite-12-WS	092110-2-2.9-Composite-13-Total	110110-2-2.9-Composite-02-WS		092110-2-2.9-10-03-FS	092110-2-2.9-20-05-FS	092110-2-2.9-20-06-Dup		
		Date	9/22/2010	9/21/2010	11/1/2010		9/21/2010	9/21/2010	9/21/2010		
		Depth (feet Below Ground Surface)	0	0	0		5 - 10	15 - 20	15 - 20		
SVOCs	1,2,4-Trichlorobenzene	µg/kg	--	--	674	U	--	--	--	9.20E+03	--
	1,2-Dichlorobenzene	µg/kg	--	--	674	U	--	--	--	1.70E+03	--
	1,3-Dichlorobenzene	µg/kg	--	--	674	U	--	--	--	3.00E+02	--
	1,4-Dichlorobenzene	µg/kg	--	--	674	U	--	--	--	3.00E+02	--
	2,4,5-Trichlorophenol	µg/kg	--	--	94.3	U	--	--	--	--	--
	2,4,6-Trichlorophenol	µg/kg	--	--	94.3	U	--	--	--	--	--
	2,4-Dichlorophenol	µg/kg	--	--	94.3	U	--	--	--	--	--
	2,4-Dimethylphenol	µg/kg	--	--	674	U	--	--	--	--	--
	2,4-Dinitrophenol	µg/kg	--	--	2,700	U	--	--	--	--	--
	2,4-Dinitrotoluene	µg/kg	--	--	674	U	--	--	--	--	--
	2,6-Dinitrotoluene	µg/kg	--	--	674	U	--	--	--	--	--
	2-Chloronaphthalene	µg/kg	--	--	94.3	U	--	--	--	--	--
	2-Chlorophenol	µg/kg	--	--	94.3	U	--	--	--	--	--
	2-Methylphenol	µg/kg	--	--	94.3	U	--	--	--	--	--
	2-Nitroaniline	µg/kg	--	--	94.3	U	--	--	--	--	--
	2-Nitrophenol	µg/kg	--	--	94.3	U	--	--	--	--	--
	3,3'-Dichlorobenzidine	µg/kg	--	--	674	U	--	--	--	--	--
	3,4-Methylphenol	µg/kg	--	--	94.3	U	--	--	--	--	--
	3-Nitroaniline	µg/kg	--	--	674	U	--	--	--	--	--
	4,6-Dinitro-2-methylphenol	µg/kg	--	--	674	U	--	--	--	--	--
	4-Bromophenyl phenyl ether	µg/kg	--	--	94.3	U	--	--	--	--	--
	4-Chloro-3-methylphenol	µg/kg	--	--	94.3	U	--	--	--	--	--
	4-Chloroaniline	µg/kg	--	--	222	U	--	--	--	--	--
	4-Chlorophenyl phenyl ether	µg/kg	--	--	135	U	--	--	--	--	--
	4-Nitroaniline	µg/kg	--	--	94.3	U	--	--	--	--	--
	4-Nitrophenol	µg/kg	--	--	674	U	--	--	--	--	--
	Benzoic Acid	µg/kg	--	--	674	U	--	--	--	--	--
	Benzyl Alcohol	µg/kg	--	--	1,350	U	--	--	--	--	--
	Bis(2-chloroethoxy)methane	µg/kg	--	--	94.3	U	--	--	--	--	--
	Bis(2-chloroethyl)ether	µg/kg	--	--	94.3	U	--	--	--	--	--
	Bis(2-chloroisopropyl)ether	µg/kg	--	--	94.3	U	--	--	--	--	--
	Dibenzofuran	µg/kg	--	--	94.3	U	--	--	--	--	--
	Hexachlorobenzene	µg/kg	--	--	94.3	U	--	--	--	1.90E+01	3.00E-01
	Hexachlorobutadiene	µg/kg	--	--	674	U	--	--	--	6.00E+02	--
	Hexachlorocyclopentadiene	µg/kg	--	--	674	U	--	--	--	4.00E+02	--
	Hexachloroethane	µg/kg	--	--	674	U	--	--	--	--	--
	Isophorone	µg/kg	--	--	94.3	U	--	--	--	--	--
	Nitrobenzene	µg/kg	--	--	94.3	U	--	--	--	--	--
	N-Nitrosodi-n-propylamine	µg/kg	--	--	94.3	U	--	--	--	--	--
	N-Nitrosodiphenylamine	µg/kg	--	--	94.3	U	--	--	--	--	--
	Pentachlorophenol	µg/kg	--	--	674	U	--	--	--	1.00E+03	--
	Phenol	µg/kg	--	--	94.3	U	--	--	--	5.00E+01	--

Table B-16
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
Source Control Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.9 Composite Samples			Vector 2.9 Samples			Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil
			092110-2-2.9-Composite-12-WS	092110-2-2.9-Composite-13-Total	110110-2-2.9-Composite-02-WS	092110-2-2.9-10-03-FS	092110-2-2.9-20-05-FS	092110-2-2.9-20-06-Dup		
		Date	9/22/2010	9/21/2010	11/1/2010	9/21/2010	9/21/2010	9/21/2010		
		Depth (feet Below Ground Surface)	0	0	0	5 - 10	15 - 20	15 - 20		
PAHs	2-Methylnaphthalene	µg/kg	--	--	--	3.40 U	20.6	8.71 J	2.00E+02	--
	Acenaphthene	µg/kg	--	--	30.1	3.40 U	8.31 J	3.59 U	3.00E+02	--
	Acenaphthylene	µg/kg	--	--	34.0	3.40 U	15.6	20.9	2.00E+02	--
	Anthracene	µg/kg	--	--	72.0	3.40 U	28.6	20.1	8.45E+02	--
	Benzo(a)anthracene	µg/kg	--	--	215	3.40 U	100	90.7	1.05E+03	--
	Benzo(a)pyrene	µg/kg	--	--	310	3.40 U	154	143	1.45E+03	--
	Benzo(b)fluoranthene	µg/kg	--	--	539	3.40 U	127	101	--	--
	Benzo(ghi)perylene	µg/kg	--	--	302	3.40 U	146	136	3.00E+02	--
	Benzo(k)fluranthene	µg/kg	--	--	338	3.40 U	115	86.4	--	--
	Chrysene	µg/kg	--	--	403	3.40 U	140	119	1.29E+03	--
	Dibenzo(a,h)anthracene	µg/kg	--	--	86.0	3.40 U	29.3	23.0	1.30E+03	--
	Fluoranthene	µg/kg	--	--	583	3.86 J	212	230	2.23E+03	--
	Fluorene	µg/kg	--	--	31.8	3.40 U	12.3 J	4.36 J	5.36E+02	--
	Indeno(1,2,3-cd)pyrene	µg/kg	--	--	277	3.40 U	112	96.9	1.00E+02	--
	Naphthalene	µg/kg	--	--	44.2	3.40 U	23.2	9.95 J	5.61E+02	--
	Phenanthrene	µg/kg	--	--	323	3.40 U	144	96.7	1.17E+03	--
	Pyrene	µg/kg	--	--	530	3.77 J	263	262	1.52E+03	--
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	--	--	854	13.8 U	95.5 J	29.4 J	3.30E+02	1.35E+02
	Butyl benzyl phthalate	µg/kg	--	--	39.5	13.8 U	14.5 U	14.6 U	--	--
	Diethyl phthalate	µg/kg	--	--	239	13.8 U	14.5 U	14.6 U	6.00E+02	--
	Dimethyl phthalate	µg/kg	--	--	18.1 U	13.8 U	14.5 U	14.6 U	--	--
	Di-n-butyl phthalate	µg/kg	--	--	58.1	13.8 U	14.5 U	14.6 U	6.00E+01	--
	Di-n-octyl phthalate	µg/kg	--	--	26.1 J	13.8 U	29.0 U	14.6 U	--	--
Organotins	Dibutyltin	µg/kg	--	--	25	0.42 U	0.43 U	0.44 U	--	--
	Monobutyltin	µg/kg	--	--	79	0.40 U	0.41 U	0.42 U	--	--
	Tetra-n-butyltin	µg/kg	--	--	1.6 U	1.2 U	1.2 U	1.3 U	--	--
	Tributyltin	µg/kg	--	--	110	0.91 U	8.2 J	2.9 J	2.30E+00	2.40E+04

Table B-16
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
Source Control Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
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Group	Constituent	Units	Vector 2.9 Composite Samples						Vector 2.9 Samples			Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil
			092110-2-2.9-Composite-12-WS		092110-2-2.9-Composite-13-Total		110110-2-2.9-Composite-02-WS		092110-2-2.9-10-03-FS	092110-2-2.9-20-05-FS	092110-2-2.9-20-06-Dup		
		Date	9/22/2010		9/21/2010		11/1/2010		9/21/2010	9/21/2010	9/21/2010		
		Depth (feet Below Ground Surface)	0		0		0		5 - 10	15 - 20	15 - 20		
Organochlorine Pesticides	4-4'-DDD	µg/kg	0.781	U	0.799	U	2.70	U	--	--	--	3.30E-01	6.10E+00
	4,4'-DDE	µg/kg	0.781	U	0.799	U	0.891	U	--	--	--	3.30E-01	6.10E+00
	4,4'-DDT	µg/kg	1.59	U	1.62	U	2.70	U	--	--	--	3.30E-01	6.10E+00
	Aldrin	µg/kg	0.781	U	0.799	U	0.891	U	--	--	--	4.00E+01	2.00E+00
	alpha-BHC	µg/kg	0.781	U	0.799	U	0.891	U	--	--	--	--	--
	alpha-Chlordane	µg/kg	0.781	U	0.799	U	0.891	U	--	--	--	--	--
	beta-BHC	µg/kg	0.781	U	0.799	U	0.891	U	--	--	--	--	--
	Chlordane	µg/kg	17.8	U	18.2	U	20.2	U	--	--	--	3.70E-01	1.50E+00
	delta-BHC	µg/kg	0.781	U	0.799	U	0.891	U	--	--	--	--	--
	Dieldrin	µg/kg	0.781	U	0.799	U	0.891	U	--	--	--	8.10E-03	7.00E-02
	Endosulfan I	µg/kg	0.781	U	0.799	U	0.891	U	--	--	--	--	--
	Endosulfan II	µg/kg	0.781	U	0.799	U	0.891	U	--	--	--	--	--
	Endosulfan sulfate	µg/kg	1.59	U	0.799	U	0.891	U	--	--	--	--	--
	Endrin	µg/kg	0.781	U	0.799	U	0.891	U	--	--	--	2.07E+02	--
	Endrin aldehyde	µg/kg	1.59	U	0.799	U	0.891	U	--	--	--	--	--
	Endrin ketone	µg/kg	0.781	U	0.799	U	0.891	U	--	--	--	--	--
	gamma-BHC (Lindane)	µg/kg	0.781	U	0.799	U	0.891	U	--	--	--	4.99E+00	5.00E+00
	gamma-Chlordane	µg/kg	0.781	U	0.799	U	0.891	U	--	--	--	--	1.50E+00
	Heptachlor	µg/kg	0.781	U	0.799	U	0.891	U	--	--	--	1.00E+01	--
	Heptachlor epoxide	µg/kg	0.781	U	0.799	U	0.891	U	--	--	--	1.60E+01	--
	Methoxychlor	µg/kg	2.37	U	2.42	U	0.891	U	--	--	--	--	--
	Toxaphene	µg/kg	23.7	U	24.2	U	27.0	U	--	--	--	--	--
Chlorinated Herbicides	2,4,5-T	µg/kg	1,600	U	163	U	32.4	U	--	--	--	--	--
	2,4,5-TP (Silvex)	µg/kg	825	U	83.9	U	16.7	U	--	--	--	--	--
	2,4-D	µg/kg	3,240	U	329	U	65.5	U	--	--	--	--	--
	2,4-DB	µg/kg	3,240	U	329	U	65.5	U	--	--	--	--	--
	4-Nitrophenol	µg/kg	1,600	UJ	163	UJ	32.4	U	--	--	--	--	--
	Dalapon	µg/kg	8,110	U	824	U	164	U	--	--	--	--	--
	Dicamba	µg/kg	1,600	U	163	U	32.4	U	--	--	--	--	--
	Dichlorprop	µg/kg	3,240	U	329	U	65.5	U	--	--	--	--	--
	Dinoseb	µg/kg	3,240	U	329	U	65.5	U	--	--	--	--	--
	MCPA	µg/kg	162,000	U	16,400	U	3,270	U	--	--	--	--	--
	MCPP	µg/kg	162,000	U	16,400	U	3,270	U	--	--	--	--	--
	Pentachlorophenol	µg/kg	1,600	U	163	U	32.4	U	--	--	--	2.50E+02	--
	Picloram	µg/kg	1,600	U	163	U	32.4	U	--	--	--	--	--

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Source Control Risk Screening
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Group	Constituent	Units	Vector 2.9 Composite Samples				Vector 2.9 Samples						Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil
			092110-2-2.9-Composite-12-WS	092110-2-2.9-Composite-13-Total	110110-2-2.9-Composite-02-WS		092110-2-2.9-10-03-FS		092110-2-2.9-20-05-FS		092110-2-2.9-20-06-Dup			
		Date	9/22/2010	9/21/2010	11/1/2010		9/21/2010		9/21/2010		9/21/2010			
		Depth (feet Below Ground Surface)	0	0	0		5 - 10		15 - 20		15 - 20			
Dioxins/Furans	1,2,3,4,6,7,8-HpCDD	pg/g	--	--	300		--		--		--		6.90E+02	--
	1,2,3,4,6,7,8-HpCDF	pg/g	--	--	13		--		--		--		6.90E+02	--
	1,2,3,4,7,8,9-HpCDF	pg/g	--	--	0.82	J	--		--		--		6.90E+02	--
	1,2,3,4,7,8-HxCDD	pg/g	--	--	1.9	J	--		--		--		--	--
	1,2,3,4,7,8-HxCDF	pg/g	--	--	1.3	J	--		--		--		2.70E+00	2.3E-03
	1,2,3,6,7,8-HxCDD	pg/g	--	--	7.3		--		--		--		--	--
	1,2,3,6,7,8-HxCDF	pg/g	--	--	1.1	J	--		--		--		2.70E+00	--
	1,2,3,7,8,9-HxCDD	pg/g	--	--	5		--		--		--		--	--
	1,2,3,7,8,9-HxCDF	pg/g	--	--	0.1	U	--		--		--		2.70E+00	--
	1,2,3,7,8-PeCDD	pg/g	--	--	2.2	J	--		--		--		2.60E+00	1.3E-01
	1,2,3,7,8-PeCDF	pg/g	--	--	0.51	J	--		--		--		2.60E+00	--
	2,3,4,6,7,8-HxCDF	pg/g	--	--	0.91	J	--		--		--		2.70E+00	--
	2,3,4,7,8-PeCDF	pg/g	--	--	0.74	J	--		--		--		3.00E-02	1.9E-01
	2,3,7,8-TCDD	pg/g	--	--	0.70	J	--		--		--		9.10E-03	1.4E-01
	2,3,7,8-TCDF	pg/g	--	--	0.75	J	--		--		--		7.70E-01	4.1E-01
	OCDD	pg/g	--	--	2,300		--		--		--		2.30E+04	--
	OCDF	pg/g	--	--	34		--		--		--		2.30E+04	--
	Total HpCDD	pg/g	--	--	720		--		--		--		--	--
	Total HpCDF	pg/g	--	--	45		--		--		--		--	--
	Total HxCDD	pg/g	--	--	84		--		--		--		--	--
	Total HxCDF	pg/g	--	--	29		--		--		--		--	--
	Total PeCDD	pg/g	--	--	11		--		--		--		--	--
	Total PeCDF	pg/g	--	--	9.5		--		--		--		--	--
	Total TCDD	pg/g	--	--	5.2		--		--		--		--	--
	Total TCDF	pg/g	--	--	5.2		--		--		--		--	--
Petroleum Hydrocarbons	Diesel	mg/kg	--	--	9.41	J	1.75	J	27.5		12.3	J	--	--
	Heavy Oil	mg/kg	--	--	37.8		5.16	J	127	J	65.4	J	--	--

Table B-16
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
Source Control Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.10 Composite Samples			Vector 2.10 Samples				Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil
			102610-2-2.10-Composite	092210-2-2.10-Composite-12-FS	092210-2-2.10-Composite-13-Total	092210-2-2.10-Surface-01-WS	092210-2-2.10-1.5-02-FS	092210-2-2.10-10-04-FS	092210-2-2.10-20-06-FS		
		Date	10/26/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010		
		Depth (feet Below Ground Surface)	0	0	0	0	0 - 1.5	5 - 10	15 - 20		
Inorganics	Mercury	mg/kg	--	--	--	0.0328 J	0.0480 J	0.00400 J	0.0454 J	0.07	1.1
	Arsenic	mg/kg	--	--	--	34.0	28.6	2.02 J	4.13	--	3
	Barium	mg/kg	--	--	--	835	336	61.9	138	--	--
	Chromium	mg/kg	--	--	--	142	55.80	7.65	23.8	111	--
	Copper	mg/kg	--	--	--	3,560	1,590	84	28.2	149	149
	Lead	mg/kg	--	--	--	102	66.9	2.89	13.0	17	128
	Manganese	mg/kg	--	--	--	3,650	2,790	409	473	1,100	--
	Nickel	mg/kg	--	--	--	107	31.6	3.41 J	15.2	48.6	--
	Selenium	mg/kg	--	--	--	0.585 J	0.499 J	0.0517 J	0.0761 J	5	--
	Silver	mg/kg	--	--	--	1.03	1.03	0.129 J	0.171 J	5	--
	Zinc	mg/kg	--	--	--	3,320	418	76.0	77.4	459	459
PCBs	Aroclor 1016	µg/kg	--	--	--	1.94 U	1.84 U	1.81 U	2.12 U	--	--
	Aroclor 1221	µg/kg	--	--	--	3.87 U	3.68 U	3.61 U	4.22 U	--	--
	Aroclor 1232	µg/kg	--	--	--	1.94 U	1.84 U	1.81 U	2.12 U	--	--
	Aroclor 1242	µg/kg	--	--	--	1.94 U	1.84 U	1.81 U	2.12 U	--	--
	Aroclor 1248	µg/kg	--	--	--	1.94 U	1.84 U	7.42	2.12 U	--	--
	Aroclor 1254	µg/kg	--	--	--	1.94 U	1.84 U	1.81 U	2.12 U	--	--
	Aroclor 1260	µg/kg	--	--	--	1.94 U	58.3 J	3.22 J	6.82	--	--
	Aroclor 1262	µg/kg	--	--	--	22.3 J	1.84 U	1.81 U	2.12 U	--	--
	Aroclor 1268	µg/kg	--	--	--	1.94 U	1.84 U	1.81 U	2.12 U	--	--
	Total PCBs	µg/kg	--	--	--	22.3 J	58.3 J	10.6 J	6.82	3.90E-01	9.00E+00

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Group	Constituent	Units	Vector 2.10 Composite Samples			Vector 2.10 Samples				Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil
			102610-2-2.10-Composite	092210-2-2.10-Composite-12-FS	092210-2-2.10-Composite-13-Total	092210-2-2.10-Surface-01-WS	092210-2-2.10-1.5-02-FS	092210-2-2.10-10-04-FS	092210-2-2.10-20-06-FS		
		Date	10/26/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010		
		Depth (feet Below Ground Surface)	0	0	0	0	0 - 1.5	5 - 10	15 - 20		
VOCs	1,1,1,2-Tetrachloroethane	µg/kg	--	--	--	--	--	--	--	--	--
	1,1,1-Trichloroethane	µg/kg	--	--	--	--	--	--	--	--	--
	1,1,2,2-Tetrachloroethane	µg/kg	--	--	--	--	--	--	--	--	--
	1,1,2-Trichloroethane	µg/kg	--	--	--	--	--	--	--	--	--
	1,1-Dichloroethane	µg/kg	--	--	--	--	--	--	--	--	--
	1,1-Dichloroethene	µg/kg	--	--	--	--	--	--	--	--	--
	1,1-Dichloropropene	µg/kg	--	--	--	--	--	--	--	--	--
	1,2,3-Trichlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--
	1,2,3-Trichloropropane	µg/kg	--	--	--	--	--	--	--	--	--
	1,2,4-Trichlorobenzene	µg/kg	--	--	--	--	--	--	--	9.20E+03	--
	1,2,4-Trimethylbenzene	µg/kg	--	--	--	--	--	--	--	--	--
	1,2-Dibromo-3-chloropropane	µg/kg	--	--	--	--	--	--	--	--	--
	1,2-Dibromoethane	µg/kg	--	--	--	--	--	--	--	--	--
	1,2-Dichlorobenzene	µg/kg	--	--	--	--	--	--	--	1.70E+03	--
	1,2-Dichloroethane	µg/kg	--	--	--	--	--	--	--	--	--
	1,2-Dichloropropane	µg/kg	--	--	--	--	--	--	--	--	--
	1,3,5-Trimethylbenzene	µg/kg	--	--	--	--	--	--	--	--	--
	1,3-Dichlorobenzene	µg/kg	--	--	--	--	--	--	--	3.00E+02	--
	1,3-Dichloropropane	µg/kg	--	--	--	--	--	--	--	--	--
	1,4-Dichlorobenzene	µg/kg	--	--	--	--	--	--	--	3.00E+02	--
	2,2-Dichloropropane	µg/kg	--	--	--	--	--	--	--	--	--
	2-Butanone	µg/kg	--	--	--	--	--	--	--	--	--
	2-Chlorotoluene	µg/kg	--	--	--	--	--	--	--	--	--
	2-Hexanone	µg/kg	--	--	--	--	--	--	--	--	--
	4-Chlorotoluene	µg/kg	--	--	--	--	--	--	--	--	--
	4-Methyl-2-pentanone	µg/kg	--	--	--	--	--	--	--	--	--
	Acetone	µg/kg	--	--	--	--	--	--	--	--	--
	Benzene	µg/kg	--	--	--	--	--	--	--	--	--
	Bromobenzene	µg/kg	--	--	--	--	--	--	--	--	--
	Bromochloromethane	µg/kg	--	--	--	--	--	--	--	--	--
	Bromodichloromethane	µg/kg	--	--	--	--	--	--	--	--	--
	Bromoform	µg/kg	--	--	--	--	--	--	--	--	--
	Bromomethane	µg/kg	--	--	--	--	--	--	--	--	--
	Carbon disulfide	µg/kg	--	--	--	--	--	--	--	--	--
	Carbon tetrachloride	µg/kg	--	--	--	--	--	--	--	--	--

Table B-16
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
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Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.10 Composite Samples			Vector 2.10 Samples				Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil
			102610-2-2.10-Composite	092210-2-2.10-Composite-12-FS	092210-2-2.10-Composite-13-Total	092210-2-2.10-Surface-01-WS	092210-2-2.10-1.5-02-FS	092210-2-2.10-10-04-FS	092210-2-2.10-20-06-FS		
		Date	10/26/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010		
		Depth (feet Below Ground Surface)	0	0	0	0	0 - 1.5	5 - 10	15 - 20		
VOCs (continued)	Chlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--
	Chloroethane	µg/kg	--	--	--	--	--	--	--	--	--
	Chloroform	µg/kg	--	--	--	--	--	--	--	--	--
	Chloromethane	µg/kg	--	--	--	--	--	--	--	--	--
	cis-1,2-Dichloroethene	µg/kg	--	--	--	--	--	--	--	--	--
	cis-1,3-Dichloropropene	µg/kg	--	--	--	--	--	--	--	--	--
	Dibromochloromethane	µg/kg	--	--	--	--	--	--	--	--	--
	Dibromomethane	µg/kg	--	--	--	--	--	--	--	--	--
	Dichlorodifluoromethane	µg/kg	--	--	--	--	--	--	--	--	--
	Ethylbenzene	µg/kg	--	--	--	--	--	--	--	--	--
	Hexachlorobutadiene	µg/kg	--	--	--	--	--	--	--	6.00E+02	--
	Isopropylbenzene	µg/kg	--	--	--	--	--	--	--	--	--
	m,p-Xylene	µg/kg	--	--	--	--	--	--	--	--	--
	Methyl tert-butyl ether	µg/kg	--	--	--	--	--	--	--	--	--
	Methylene chloride	µg/kg	--	--	--	--	--	--	--	--	--
	Naphthalene	µg/kg	--	--	--	--	--	--	--	5.61E+02	--
	n-Butylbenzene	µg/kg	--	--	--	--	--	--	--	--	--
	n-Propylbenzene	µg/kg	--	--	--	--	--	--	--	--	--
	o-Xylene	µg/kg	--	--	--	--	--	--	--	--	--
	p-Isopropyltoluene	µg/kg	--	--	--	--	--	--	--	--	--
	sec-Butylbenzene	µg/kg	--	--	--	--	--	--	--	--	--
	Styrene	µg/kg	--	--	--	--	--	--	--	--	--
	tert-Butylbenzene	µg/kg	--	--	--	--	--	--	--	--	--
	Tetrachloroethene	µg/kg	--	--	--	--	--	--	--	--	--
	Toluene	µg/kg	--	--	--	--	--	--	--	--	--
	trans-1,2-Dichloroethene	µg/kg	--	--	--	--	--	--	--	--	--
	trans-1,3-Dichloropropene	µg/kg	--	--	--	--	--	--	--	--	--
	Trichloroethene	µg/kg	--	--	--	--	--	--	--	2.10E+03	--
	Trichlorofluoromethane	µg/kg	--	--	--	--	--	--	--	--	--
	Vinyl chloride	µg/kg	--	--	--	--	--	--	--	--	--

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Group	Constituent	Units	Vector 2.10 Composite Samples			Vector 2.10 Samples				Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil
			102610-2-2.10-Composite	092210-2-2.10-Composite-12-FS	092210-2-2.10-Composite-13-Total	092210-2-2.10-Surface-01-WS	092210-2-2.10-1.5-02-FS	092210-2-2.10-10-04-FS	092210-2-2.10-20-06-FS		
		Date	10/26/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010		
		Depth (feet Below Ground Surface)	0	0	0	0	0 - 1.5	5 - 10	15 - 20		
SVOCs	1,2,4-Trichlorobenzene	µg/kg	--	--	--	2,310 U	549 U	--	634 U	9.20E+03	--
	1,2-Dichlorobenzene	µg/kg	--	--	--	2,310 U	549 U	--	634 U	1.70E+03	--
	1,3-Dichlorobenzene	µg/kg	--	--	--	2,310 U	549 U	--	634 U	3.00E+02	--
	1,4-Dichlorobenzene	µg/kg	--	--	--	2,310 U	549 U	--	634 U	3.00E+02	--
	2,4,5-Trichlorophenol	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	--	--
	2,4,6-Trichlorophenol	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	--	--
	2,4-Dichlorophenol	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	--	--
	2,4-Dimethylphenol	µg/kg	--	--	--	2,310 U	549 U	--	634 U	--	--
	2,4-Dinitrophenol	µg/kg	--	--	--	9,240 U	2,200 U	--	2,530 U	--	--
	2,4-Dinitrotoluene	µg/kg	--	--	--	2,310 U	549 U	--	634 U	--	--
	2,6-Dinitrotoluene	µg/kg	--	--	--	2,310 U	549 U	--	634 U	--	--
	2-Chloronaphthalene	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	--	--
	2-Chlorophenol	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	--	--
	2-Methylphenol	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	--	--
	2-Nitroaniline	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	--	--
	2-Nitrophenol	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	--	--
	3,3'-Dichlorobenzidine	µg/kg	--	--	--	2,310 U	549 U	--	634 U	--	--
	3,4-Methylphenol	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	--	--
	3-Nitroaniline	µg/kg	--	--	--	2,310 U	549 U	--	634 U	--	--
	4,6-Dinitro-2-methylphenol	µg/kg	--	--	--	2,310 U	549 U	--	634 U	--	--
	4-Bromophenyl phenyl ether	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	--	--
	4-Chloro-3-methylphenol	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	--	--
	4-Chloroaniline	µg/kg	--	--	--	762 U	181 U	--	209 U	--	--
	4-Chlorophenyl phenyl ether	µg/kg	--	--	--	462 U	110 U	--	127 U	--	--
	4-Nitroaniline	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	--	--
	4-Nitrophenol	µg/kg	--	--	--	2,310 U	549 U	--	634 U	--	--
	Benzoic Acid	µg/kg	--	--	--	2,310 U	549 U	--	634 U	--	--
	Benzyl Alcohol	µg/kg	--	--	--	4,620 U	1,100 U	--	1,270 U	--	--
	Bis(2-chloroethoxy)methane	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	--	--
	Bis(2-chloroethyl)ether	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	--	--
	Bis(2-chloroisopropyl)ether	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	--	--
	Dibenzofuran	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	--	--
	Hexachlorobenzene	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	1.90E+01	3.00E-01
	Hexachlorobutadiene	µg/kg	--	--	--	2,310 U	549 U	--	634 U	6.00E+02	--
	Hexachlorocyclopentadiene	µg/kg	--	--	--	2,310 U	549 U	--	634 U	4.00E+02	--
	Hexachloroethane	µg/kg	--	--	--	2,310 U	549 U	--	634 U	--	--
	Isophorone	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	--	--
	Nitrobenzene	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	--	--
	N-Nitrosodi-n-propylamine	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	--	--
	N-Nitrosodiphenylamine	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	--	--
	Pentachlorophenol	µg/kg	--	--	--	2,310 U	549 U	--	634 U	1.00E+03	--
	Phenol	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	5.00E+01	--

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Group	Constituent	Units	Vector 2.10 Composite Samples			Vector 2.10 Samples				Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil
			102610-2-2.10-Composite	092210-2-2.10-Composite-12-FS	092210-2-2.10-Composite-13-Total	092210-2-2.10-Surface-01-WS	092210-2-2.10-1.5-02-FS	092210-2-2.10-10-04-FS	092210-2-2.10-20-06-FS		
		Date	10/26/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010		
		Depth (feet Below Ground Surface)	0	0	0	0	0 - 1.5	5 - 10	15 - 20		
PAHs	2-Methylnaphthalene	µg/kg	--	--	--	32.5	10.3 J	3.57 U	4.15 U	2.00E+02	--
	Acenaphthene	µg/kg	--	--	--	36.7	15.1 J	3.57 U	4.15 U	3.00E+02	--
	Acenaphthylene	µg/kg	--	--	--	40.6	7.27 U	3.57 U	4.15 U	2.00E+02	--
	Anthracene	µg/kg	--	--	--	97.8	37.1	3.57 U	4.15 U	8.45E+02	--
	Benzo(a)anthracene	µg/kg	--	--	--	258	72.9	3.57 U	4.15 U	1.05E+03	--
	Benzo(a)pyrene	µg/kg	--	--	--	322	75.1	4.41 J	4.98 J	1.45E+03	--
	Benzo(b)fluoranthene	µg/kg	--	--	--	560	78.9	4.66 J	4.57 J	--	--
	Benzo(ghi)perylene	µg/kg	--	--	--	288	52.6	3.57 U	5.43 J	3.00E+02	--
	Benzo(k)fluranthene	µg/kg	--	--	--	420	63.8	3.57 U	4.15 U	--	--
	Chrysene	µg/kg	--	--	--	560	87.5	5.31 J	4.62 J	1.29E+03	--
	Dibenzo(a,h)anthracene	µg/kg	--	--	--	88.6	16.7 J	3.57 U	4.15 U	1.30E+03	--
	Fluoranthene	µg/kg	--	--	--	797	186	5.93 J	7.42 J	2.23E+03	--
	Fluorene	µg/kg	--	--	--	36.8	19.8 J	3.57 U	4.15 U	5.36E+02	--
	Indeno(1,2,3-cd)pyrene	µg/kg	--	--	--	262	46.8	3.57 U	4.15 U	1.00E+02	--
	Naphthalene	µg/kg	--	--	--	62.2	10.2 J	3.57 U	4.15 U	5.61E+02	--
	Phenanthrene	µg/kg	--	--	--	556	177	4.62 J	4.15 U	1.17E+03	--
	Pyrene	µg/kg	--	--	--	576	147	5.92 J	8.73 J	1.52E+03	--
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	--	--	--	1,130	29.5 U	14.5 U	16.8 U	3.30E+02	1.35E+02
	Butyl benzyl phthalate	µg/kg	--	--	--	127 J	77.1	14.5 U	16.8 U	--	--
	Diethyl phthalate	µg/kg	--	--	--	84.2 J	29.5 U	14.5 U	16.8 U	6.00E+02	--
	Dimethyl phthalate	µg/kg	--	--	--	77.5 U	29.5 U	14.5 U	16.8 U	--	--
	Di-n-butyl phthalate	µg/kg	--	--	--	77.5 U	29.5 U	14.5 U	16.8 U	6.00E+01	--
	Di-n-octyl phthalate	µg/kg	--	--	--	77.5 U	29.5 U	14.5 U	16.8 U	--	--
Organotins	Dibutyltin	µg/kg	--	--	--	140	0.42 U	0.43 U	0.49 U	--	--
	Monobutyltin	µg/kg	--	--	--	53 J	0.40 U	2.7	0.47 U	--	--
	Tetra-n-butyltin	µg/kg	--	--	--	1.4 U	1.2 U	1.3 U	1.4 U	--	--
	Tributyltin	µg/kg	--	--	--	540	8.9	0.92 U	1.1 U	2.30E+00	2.40E+04

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Group	Constituent	Units	Vector 2.10 Composite Samples			Vector 2.10 Samples						Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil
			102610-2-2.10-Composite	092210-2-2.10-Composite-12-FS	092210-2-2.10-Composite-13-Total	092210-2-2.10-Surface-01-WS		092210-2-2.10-1.5-02-FS		092210-2-2.10-10-04-FS	092210-2-2.10-20-06-FS		
		Date	10/26/2010	9/22/2010	9/22/2010	9/22/2010		9/22/2010		9/22/2010	9/22/2010		
		Depth (feet Below Ground Surface)	0	0	0	0		0 - 1.5		5 - 10	15 - 20		
Organochlorine Pesticides	4-4'-DDD	µg/kg	--	--	--	1.56	UJ	2.22	U	--	--	3.30E-01	6.10E+00
	4,4'-DDE	µg/kg	--	--	--	1.56	UJ	1.49	U	--	--	3.30E-01	6.10E+00
	4,4'-DDT	µg/kg	--	--	--	3.90	UJ	7.43	U	--	--	3.30E-01	6.10E+00
	Aldrin	µg/kg	--	--	--	0.769	UJ	0.731	U	--	--	4.00E+01	2.00E+00
	alpha-BHC	µg/kg	--	--	--	0.769	UJ	0.731	U	--	--	--	--
	alpha-Chlordane	µg/kg	--	--	--	0.769	UJ	0.731	U	--	--	--	--
	beta-BHC	µg/kg	--	--	--	0.769	UJ	0.731	U	--	--	--	--
	Chlordane	µg/kg	--	--	--	17.5	UJ	16.6	U	--	--	3.70E-01	1.50E+00
	delta-BHC	µg/kg	--	--	--	0.769	UJ	0.731	U	--	--	--	--
	Dieldrin	µg/kg	--	--	--	1.56	UJ	2.97	U	--	--	8.10E-03	7.00E-02
	Endosulfan I	µg/kg	--	--	--	0.769	UJ	0.731	U	--	--	--	--
	Endosulfan II	µg/kg	--	--	--	0.769	UJ	0.731	U	--	--	--	--
	Endosulfan sulfate	µg/kg	--	--	--	2.33	UJ	0.731	U	--	--	--	--
	Endrin	µg/kg	--	--	--	1.56	UJ	0.731	U	--	--	2.07E+02	--
	Endrin aldehyde	µg/kg	--	--	--	2.33	UJ	2.22	U	--	--	--	--
	Endrin ketone	µg/kg	--	--	--	3.89	UJ	0.731	U	--	--	--	--
	gamma-BHC (Lindane)	µg/kg	--	--	--	0.769	UJ	0.731	U	--	--	4.99E+00	5.00E+00
	gamma-Chlordane	µg/kg	--	--	--	0.769	UJ	0.731	U	--	--	--	1.50E+00
	Heptachlor	µg/kg	--	--	--	0.769	UJ	0.731	U	--	--	1.00E+01	--
	Heptachlor epoxide	µg/kg	--	--	--	0.769	UJ	0.731	U	--	--	1.60E+01	--
	Methoxychlor	µg/kg	--	--	--	3.84	UJ	3.66	U	--	--	--	--
	Toxaphene	µg/kg	--	--	--	23.3	UJ	22.2	U	--	--	--	--
Chlorinated Herbicides	2,4,5-T	µg/kg	--	--	--	--		--		--	--	--	--
	2,4,5-TP (Silvex)	µg/kg	--	--	--	--		--		--	--	--	--
	2,4-D	µg/kg	--	--	--	--		--		--	--	--	--
	2,4-DB	µg/kg	--	--	--	--		--		--	--	--	--
	4-Nitrophenol	µg/kg	--	--	--	--		--		--	--	--	--
	Dalapon	µg/kg	--	--	--	--		--		--	--	--	--
	Dicamba	µg/kg	--	--	--	--		--		--	--	--	--
	Dichlorprop	µg/kg	--	--	--	--		--		--	--	--	--
	Dinoseb	µg/kg	--	--	--	--		--		--	--	--	--
	MCPA	µg/kg	--	--	--	--		--		--	--	--	--
	MCPP	µg/kg	--	--	--	--		--		--	--	--	--
	Pentachlorophenol	µg/kg	--	--	--	--		--		--	--	2.50E+02	--
	Picloram	µg/kg	--	--	--	--		--		--	--	--	--

Table B-16
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
Source Control Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.10 Composite Samples			Vector 2.10 Samples				Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil
			102610-2-2.10-Composite	092210-2-2.10-Composite-12-FS	092210-2-2.10-Composite-13-Total	092210-2-2.10-Surface-01-WS	092210-2-2.10-1.5-02-FS	092210-2-2.10-10-04-FS	092210-2-2.10-20-06-FS		
		Date	10/26/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010		
		Depth (feet Below Ground Surface)	0	0	0	0	0 - 1.5	5 - 10	15 - 20		
Dioxins/Furans	1,2,3,4,6,7,8-HpCDD	pg/g	120	100	100	--	--	--	--	6.90E+02	--
	1,2,3,4,6,7,8-HpCDF	pg/g	94	21	15	--	--	--	--	6.90E+02	--
	1,2,3,4,7,8,9-HpCDF	pg/g	2.8 J	1.4 J	1.1	--	--	--	--	6.90E+02	--
	1,2,3,4,7,8-HxCDD	pg/g	0.35 J	0.78 J	1.3 J	--	--	--	--	--	--
	1,2,3,4,7,8-HxCDF	pg/g	2.4 J	1.5 J	0.85 J	--	--	--	--	2.70E+00	2.3E-03
	1,2,3,6,7,8-HxCDD	pg/g	4.7	3.7 J	5.3 J	--	--	--	--	--	--
	1,2,3,6,7,8-HxCDF	pg/g	4.5 J	0.68 J	0.63	--	--	--	--	2.70E+00	--
	1,2,3,7,8,9-HxCDD	pg/g	1 J	1.9 J	2.1 J	--	--	--	--	--	--
	1,2,3,7,8,9-HxCDF	pg/g	0.22 U	0.21 U	0.47 J	--	--	--	--	2.70E+00	--
	1,2,3,7,8-PeCDD	pg/g	0.5 J	0.61 J	0.49 U	--	--	--	--	2.60E+00	1.3E-01
	1,2,3,7,8-PeCDF	pg/g	0.58 J	0.45 J	0.69 J	--	--	--	--	2.60E+00	--
	2,3,4,6,7,8-HxCDF	pg/g	2.2 J	0.52 J	0.44 U	--	--	--	--	2.70E+00	--
	2,3,4,7,8-PeCDF	pg/g	1.1 J	0.57 J	0.71 J	--	--	--	--	3.00E-02	1.9E-01
	2,3,7,8-TCDD	pg/g	0.27 J	1.6	0.14 U	--	--	--	--	9.10E-03	1.4E-01
	2,3,7,8-TCDF	pg/g	0.86 J	0.48 J	0.47 U	--	--	--	--	7.70E-01	4.1E-01
	OCDD	pg/g	1,200	1,000	910 J	--	--	--	--	2.30E+04	--
	OCDF	pg/g	180	81	42	--	--	--	--	2.30E+04	--
	Total HpCDD	pg/g	240	200	200	--	--	--	--	--	--
	Total HpCDF	pg/g	260	85	59	--	--	--	--	--	--
	Total HxCDD	pg/g	29	25	36	--	--	--	--	--	--
	Total HxCDF	pg/g	88	23	20	--	--	--	--	--	--
	Total PeCDD	pg/g	7.5	3.6	2.3	112 J	102	4.82 J	2.37 J	--	--
	Total PeCDF	pg/g	38	8.1	4.3	675 J	904	29.7	9.58 J	--	--
	Total TCDD	pg/g	3.3	4	0.4	--	--	--	--	--	--
	Total TCDF	pg/g	21	7.7	1.6	--	--	--	--	--	--
Petroleum Hydrocarbons	Diesel	mg/kg	--	--	--	--	--	--	--	--	--
	Heavy Oil	mg/kg	--	--	--	--	--	--	--	--	--

Notes:
1. -- = Not applicable/not analyzed
2. mg/kg = Milligrams per kilogram
3. µg/kg = Micrograms per kilogram
4. J = The result is an estimated quantity
5. U= Undetected at the method detection limit shown
6. UJ = Undetected at the method detection limit shown, detection limit is an estimated quantity
7. Joint Source Control Strategy (JSCS) Screening Level Values (SLVs); revision date 7/16/2007
8. Shading indicates sample concentration exceeds the corresponding JSCS SLV and/or the draft PRG
9. PRG = Draft Preliminary Remediation Goal; prepared by U.S. Environmental Protection Agency, July 2015

Table B-17
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
Human Health Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.7 Composite Samples			Vector 2.7 Samples				Oregon Department of Environmental Quality Risk-Based Concentrations				
			092210-2-2.7-Composite-11-FS	092210-2-2.7-Composite-12-Total	110110-2-2.7-Composite-01-WS	092210-2-2.7-Surface-01-WS	092210-2-2.7-10-03-FS	092210-2-2.7-25-06-FS	092210-2-2.7-25-07-Dup	Soil Ingestion, Dermal Contact, and Inhalation			Vol. to Outdoor Air	Vapor Intrusion
		Date	9/22/2010	9/22/2010	11/1/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	Occ	Const.	Exc	Occ	Occ
		Depth (Feet Below Ground Surface)	0	0	0	0	5 - 10	20 - 25	20 - 25					
Inorganics	Mercury	mg/kg	--	--	0.0379 J	0.0137 J	0.152	0.171	0.165	350	110	2,900	--	--
	Arsenic	mg/kg	--	--	6.53	11.3	112	6.30 J	10.9 J	1.9	15	420	--	--
	Barium	mg/kg	--	--	182 J	205	142	198	237 J	220,000	69,000	--	--	--
	Chromium	mg/kg	--	--	26.3 J	51.0	99.8	34.3 J	93.0 J	--	530,000	--	--	--
	Copper	mg/kg	--	--	234	843	282	88.4	124 J	47,000	14,000	390,000	--	--
	Lead	mg/kg	--	--	61.5 J	33.6	386	515 J	208 J	800	800	800	--	--
	Manganese	mg/kg	--	--	1,120	1,470	840	1,020 J	751 J	25,000	8,200	230,000	--	--
	Nickel	mg/kg	--	--	14.2	39.9	22.3	33.2	60.6	22,000	7,000	190,000	--	--
	Selenium	mg/kg	--	--	0.155 J	0.269 J	0.2550 J	0.131 J	0.332 J	--	--	--	--	--
	Silver	mg/kg	--	--	0.258 J	0.365 J	0.544 J	0.340 J	0.458 J	5,800	1,800	49,000	--	--
	Zinc	mg/kg	--	--	787	3,970	1,210	730 J	406 J	--	--	--	--	--
PCBs	Aroclor 1016	µg/kg	--	--	2.2 U	1.79 U	3.79 U	39.5 U	10.1 U	--	--	--	--	--
	Aroclor 1221	µg/kg	--	--	4.39 U	3.56 U	7.55 U	78.70 U	20.1 U	--	--	--	--	--
	Aroclor 1232	µg/kg	--	--	2.2 U	1.79 U	3.79 U	39.5 U	10.1 U	--	--	--	--	--
	Aroclor 1242	µg/kg	--	--	2.2 U	1.79 U	3.79 U	864 J	10.1 U	--	--	--	--	--
	Aroclor 1248	µg/kg	--	--	2.2 U	1.79 U	3.79 U	39.5 U	136 J	--	--	--	--	--
	Aroclor 1254	µg/kg	--	--	2.2 U	19.0	18.4	39.5 U	10.1 U	--	--	--	--	--
	Aroclor 1260	µg/kg	--	--	34.7 J	1.79 U	3.79 U	39.5 U	10.1 U	--	--	--	--	--
	Aroclor 1262	µg/kg	--	--	2.2 U	8.28	29.2	39.5 U	10.1 U	--	--	--	--	--
	Aroclor 1268	µg/kg	--	--	2.2 U	1.79 U	3.79 U	39.5 U	10.1 U	--	--	--	--	--
	Total PCBs	µg/kg	--	--	34.7 J	27.3	47.6	864 J	136 J	5.90E+02	4.90E+03	1.40E+05	--	--

Table B-17
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
Human Health Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.7 Composite Samples				Vector 2.7 Samples				Oregon Department of Environmental Quality Risk-Based Concentrations				
			092210-2-2.7-Composite-11-FS	092210-2-2.7-Composite-12-Total	110110-2-2.7-Composite-01-WS		092210-2-2.7-Surface-01-WS	092210-2-2.7-10-03-FS	092210-2-2.7-25-06-FS	092210-2-2.7-25-07-Dup	Soil Ingestion, Dermal Contact, and Inhalation			Vol. to Outdoor Air	Vapor Intrusion
		Date	9/22/2010	9/22/2010	11/1/2010		9/22/2010	9/22/2010	9/22/2010	9/22/2010	Occ	Const.	Exc	Occ	Occ
		Depth (Feet Below Ground Surface)	0	0	0		0	5 - 10	20 - 25	20 - 25					
VOCs	1,1,1,2-Tetrachloroethane	µg/kg	--	--	12.1	U	--	--	--	--	--	--	--	--	--
	1,1,1-Trichloroethane	µg/kg	--	--	6.52	U	--	--	--	--	8.70E+08	4.70E+08	--	--	--
	1,1,2,2-Tetrachloroethane	µg/kg	--	--	14.7	U	--	--	--	--	--	--	--	--	--
	1,1,2-Trichloroethane	µg/kg	--	--	8.78	U	--	--	--	--	2.60E+04	5.40E+04	1.50E+06	2.40E+04	4.20E+03
	1,1-Dichloroethane	µg/kg	--	--	8.69	U	--	--	--	--	2.60E+05	3.20E+06	8.90E+07	2.40E+05	5.90E+03
	1,1-Dichloroethene	µg/kg	--	--	15.5	U	--	--	--	--	2.90E+07	1.30E+07	3.70E+08	--	6.80E+05
	1,1-Dichloropropene	µg/kg	--	--	10.2	U	--	--	--	--	--	--	--	--	--
	1,2,3-Trichlorobenzene	µg/kg	--	--	12.1	U	--	--	--	--	--	--	--	--	--
	1,2,3-Trichloropropane	µg/kg	--	--	8.37	U	--	--	--	--	--	--	--	--	--
	1,2,4-Trichlorobenzene	µg/kg	--	--	18.0	U	--	--	--	--	--	--	--	--	--
	1,2,4-Trimethylbenzene	µg/kg	--	--	19.1	U	--	--	--	--	2.00E+06	2.00E+06	5.40E+07	9.80E+05	2.10E+05
	1,2-Dibromo-3-chloropropane	µg/kg	--	--	53.4	U	--	--	--	--	--	--	--	--	--
	1,2-Dibromoethane	µg/kg	--	--	13.5	U	--	--	--	--	7.30E+02	9.00E+03	2.50E+05	6.50E+02	1.60E+02
	1,2-Dichlorobenzene	µg/kg	--	--	10.1	U	--	--	--	--	3.60E+07	2.00E+07	5.60E+08	--	--
	1,2-Dichloroethane	µg/kg	--	--	9.8	U	--	--	--	--	1.60E+04	2.00E+05	5.60E+06	1.50E+04	1.00E+03
	1,2-Dichloropropane	µg/kg	--	--	8.69	U	--	--	--	--	--	--	--	--	--
	1,3,5-Trimethylbenzene	µg/kg	--	--	14.2	J	--	--	--	--	1.20E+07	3.50E+06	9.80E+07	--	--
	1,3-Dichlorobenzene	µg/kg	--	--	8.08	U	--	--	--	--	--	--	--	--	--
	1,3-Dichloropropane	µg/kg	--	--	8.6	U	--	--	--	--	--	--	--	--	--
	1,4-Dichlorobenzene	µg/kg	--	--	10.9	U	--	--	--	--	6.40E+04	1.30E+06	3.60E+07	3.60E+04	1.30E+04
	2,2-Dichloropropane	µg/kg	--	--	8.14	U	--	--	--	--	--	--	--	--	--
	2-Butanone	µg/kg	--	--	32.9	U	--	--	--	--	--	--	--	--	--
	2-Chlorotoluene	µg/kg	--	--	7.68	U	--	--	--	--	--	--	--	--	--
	2-Hexanone	µg/kg	--	--	36.6	U	--	--	--	--	--	--	--	--	--
	4-Chlorotoluene	µg/kg	--	--	5.61	U	--	--	--	--	--	--	--	--	--
	4-Methyl-2-pentanone	µg/kg	--	--	24.7	U	--	--	--	--	--	--	--	--	--
	Acetone	µg/kg	--	--	777	U	--	--	--	--	--	--	--	--	--
	Benzene	µg/kg	--	--	5.47	U	--	--	--	--	3.70E+04	3.80E+05	1.10E+07	5.00E+04	2.10E+03
	Bromobenzene	µg/kg	--	--	16.2	U	--	--	--	--	--	--	--	--	--
	Bromochloromethane	µg/kg	--	--	12.6	U	--	--	--	--	--	--	--	--	--
	Bromodichloromethane	µg/kg	--	--	13.2	UJ	--	--	--	--	1.50E+04	2.30E+05	6.30E+06	1.10E+04	5.30E+02
	Bromoform	µg/kg	--	--	11.9	U	--	--	--	--	2.60E+05	2.70E+06	7.40E+07	3.60E+05	1.10E+05
	Bromomethane	µg/kg	--	--	10.4	U	--	--	--	--	7.50E+05	3.70E+05	1.00E+07	7.00E+05	1.70E+04
	Carbon disulfide	µg/kg	--	--	9.3	U	--	--	--	--	--	--	--	--	--
	Carbon tetrachloride	µg/kg	--	--	14.2	U	--	--	--	--	--	--	--	--	--

Table B-17
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
Human Health Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.7 Composite Samples				Vector 2.7 Samples				Oregon Department of Environmental Quality Risk-Based Concentrations				
			092210-2-2.7-Composite-11-FS	092210-2-2.7-Composite-12-Total	110110-2-2.7-Composite-01-WS		092210-2-2.7-Surface-01-WS	092210-2-2.7-10-03-FS	092210-2-2.7-25-06-FS	092210-2-2.7-25-07-Dup	Soil Ingestion, Dermal Contact, and Inhalation			Vol. to Outdoor Air	Vapor Intrusion
		Date	9/22/2010	9/22/2010	11/1/2010		9/22/2010	9/22/2010	9/22/2010	9/22/2010	Occ	Const.	Exc	Occ	Occ
		Depth (Feet Below Ground Surface)	0	0	0		0	5 - 10	20 - 25	20 - 25					
VOCs (copntinued)	Chlorobenzene	µg/kg	--	--	3.97	U	--	--	--	--	8.70E+06	4.70E+06	1.30E+08	--	--
	Chloroethane	µg/kg	--	--	23.9	U	--	--	--	--	--	--	--	--	--
	Chloroform	µg/kg	--	--	7.04	U	--	--	--	--	2.60E+04	4.10E+05	1.10E+07	1.70E+04	4.10E+02
	Chloromethane	µg/kg	--	--	9.04	U	--	--	--	--	2.50E+07	2.50E+07	7.00E+08	--	3.00E+05
	cis-1,2-Dichloroethene	µg/kg	--	--	14	U	--	--	--	--	2.30E+06	7.10E+05	2.00E+07	--	--
	cis-1,3-Dichloropropene	µg/kg	--	--	5.95	U	--	--	--	--	--	--	--	--	--
	Dibromochloromethane	µg/kg	--	--	9.6	U	--	--	--	--	--	--	--	--	--
	Dibromomethane	µg/kg	--	--	6.14	U	--	--	--	--	--	--	--	--	--
	Dichlorodifluoromethane	µg/kg	--	--	9.3	U	--	--	--	--	--	--	--	--	--
	Ethylbenzene	µg/kg	--	--	3.66	U	--	--	--	--	1.50E+05	1.70E+06	4.90E+07	1.60E+05	1.70E+04
	Hexachlorobutadiene	µg/kg	--	--	11.5	U	--	--	--	--	--	--	--	--	--
	Isopropylbenzene	µg/kg	--	--	9.6	U	--	--	--	--	5.70E+07	2.70E+07	7.50E+08	--	--
	m,p-Xylene	µg/kg	--	--	23	U	--	--	--	--	2.50E+07	2.00E+07	5.60E+08	--	--
	Methyl tert-butyl ether	µg/kg	--	--	7.04	U	--	--	--	--	1.10E+06	1.20E+07	3.20E+08	1.50E+06	1.10E+05
	Methylene chloride	µg/kg	--	--	29.8	J	--	--	--	--	1.60E+06	2.10E+06	5.80E+07	-	9.50E+05
	Naphthalene	µg/kg	--	--	9.96	U	--	--	--	--	2.30E+04	5.80E+05	1.60E+07	8.30E+04	8.30E+04
	n-Butylbenzene	µg/kg	--	--	8.28	U	--	--	--	--	--	--	--	--	--
	n-Propylbenzene	µg/kg	--	--	9.09	U	--	--	--	--	--	--	--	--	--
	o-Xylene	µg/kg	--	--	8.37	U	--	--	--	--	2.50E+07	2.00E+07	5.60E+08	--	--
	p-Isopropyltoluene	µg/kg	--	--	12.5	U	--	--	--	--	--	--	--	--	--
	sec-Butylbenzene	µg/kg	--	--	6.58	U	--	--	--	--	--	--	--	--	--
	Styrene	µg/kg	--	--	4.06	U	--	--	--	--	1.30E+08	5.60E+07	--	--	--
	tert-Butylbenzene	µg/kg	--	--	12.6	U	--	--	--	--	--	--	--	--	--
	Tetrachloroethene	µg/kg	--	--	18.6	U	--	--	--	--	1.00E+06	1.80E+06	5.00E+07	--	3.60E+04
	Toluene	µg/kg	--	--	4.53	U	--	--	--	--	8.80E+07	2.80E+07	7.70E+08	--	--
	trans-1,2-Dichloroethene	µg/kg	--	--	7.58	U	--	--	--	--	2.30E+07	7.10E+06	2.00E+08	--	--
	trans-1,3-Dichloropropene	µg/kg	--	--	7.58	U	--	--	--	--	--	--	--	--	--
	Trichloroethene	µg/kg	--	--	9.39	U	--	--	--	--	5.10E+04	4.70E+05	1.30E+07	9.60E+04	2.30E+03
	Trichlorofluoromethane	µg/kg	--	--	40.2	U	--	--	--	--	1.30E+08	6.90E+07	--	--	--
	Vinyl chloride	µg/kg	--	--	9.68	UJ	--	--	--	--	4.40E+03	3.40E+04	9.50E+05	8.90E+04	2.20E+03

Table B-17
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
Human Health Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.7 Composite Samples			Vector 2.7 Samples				Oregon Department of Environmental Quality Risk-Based Concentrations				
			092210-2-2.7-Composite-11-FS	092210-2-2.7-Composite-12-Total	110110-2-2.7-Composite-01-WS	092210-2-2.7-Surface-01-WS	092210-2-2.7-10-03-FS	092210-2-2.7-25-06-FS	092210-2-2.7-25-07-Dup	Soil Ingestion, Dermal Contact, and Inhalation			Vol. to Outdoor Air	Vapor Intrusion
		Date	9/22/2010	9/22/2010	11/1/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	Occ	Const.	Exc	Occ	Occ
		Depth (Feet Below Ground Surface)	0	0	0	0	5 - 10	20 - 25	20 - 25					
SVOCs	1,2,4-Trichlorobenzene	µg/kg	--	1,510 U	664 U	2,120 U	1,130 U	595 U	600 U	--	--	--	--	--
	1,2-Dichlorobenzene	µg/kg	--	1,510 U	664 U	2,120 U	1,130 U	595 U	600 U	3.60E+07	2.00E+07	5.60E+08	--	--
	1,3-Dichlorobenzene	µg/kg	--	1,510 U	664 U	2,120 U	1,130 U	595 U	600 U	--	--	--	--	--
	1,4-Dichlorobenzene	µg/kg	--	1,510 U	664 U	2,120 U	1,130 U	595 U	600 U	6.40E+04	1.30E+06	3.60E+07	1.90E+04	1.30E+04
	2,4,5-Trichlorophenol	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	--	--	--	--	--
	2,4,6-Trichlorophenol	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	2.10E+05	2.70E+05	7.40E+06	--	--
	2,4-Dichlorophenol	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	--	--	--	--	--
	2,4-Dimethylphenol	µg/kg	--	1,510 U	664 U	2,120 U	1,130 U	595 U	600 U	--	--	--	--	--
	2,4-Dinitrophenol	µg/kg	--	6,020 U	2,650 U	8,460 U	4,540 U	2,380 U	2,400 U	--	--	--	--	--
	2,4-Dinitrotoluene	µg/kg	--	1,510 U	664 U	2,120 U	1,130 U	595 U	600 U	--	--	--	--	--
	2,6-Dinitrotoluene	µg/kg	--	1,510 U	664 U	2,120 U	1,130 U	595 U	600 U	1.50E+03	1.30E+04	3.50E+05	--	--
	2-Chloronaphthalene	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	--	--	--	--	--
	2-Chlorophenol	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	--	--	--	--	--
	2-Methylphenol	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	--	--	--	--	--
	2-Nitroaniline	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	--	--	--	--	--
	2-Nitrophenol	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	--	--	--	--	--
	3,3'-Dichlorobenzidine	µg/kg	--	1,510 U	664 U	2,120 U	1,130 U	595 U	600 U	--	--	--	--	--
	3,4-Methylphenol	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	--	--	--	--	--
	3-Nitroaniline	µg/kg	--	1,510 U	664 U	2,120 U	1,130 U	595 U	600 U	--	--	--	--	--
	4,6-Dinitro-2-methylphenol	µg/kg	--	1,510 U	664 U	2,120 U	1,130 U	595 U	600 U	--	--	--	--	--
	4-Bromophenyl phenyl ether	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	--	--	--	--	--
	4-Chloro-3-methylphenol	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	--	--	--	--	--
	4-Chloroaniline	µg/kg	--	497 U	219 U	698 U	374 U	196 U	198 U	--	--	--	--	--
	4-Chlorophenyl phenyl ether	µg/kg	--	301 U	133 U	423 U	227 U	119 U	120 U	--	--	--	--	--
	4-Nitroaniline	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	--	--	--	--	--
	4-Nitrophenol	µg/kg	--	183 UJ	32.9 U	2,120 U	1,130 U	595 U	600 U	--	--	--	--	--
	Benzoic Acid	µg/kg	--	1,510 U	664 U	2,120 U	1,130 U	595 U	600 U	--	--	--	--	--
	Benzyl Alcohol	µg/kg	--	3,010 U	1,330 U	4,230 U	2,270 U	1,190 U	1,200 U	--	--	--	--	--
	Bis(2-chloroethoxy)methane	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	--	--	--	--	--
	Bis(2-chloroethyl)ether	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	1.30E+03	1.60E+04	4.50E+05	1.20E+03	6.90E+03
	Bis(2-chloroisopropyl)ether	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	--	--	--	--	--
	Dibenzofuran	µg/kg	--	211 U	92.9 U	296 U	732 J	83.3 U	84.0 U	--	--	--	--	--
	Hexachlorobenzene	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	9.30E+02	1.10E+04	3.20E+05	2.40E+03	1.30E+04
	Hexachlorobutadiene	µg/kg	--	1,510 U	664 U	2,120 U	1,130 U	595 U	600 U	--	--	--	--	--
	Hexachlorocyclopentadiene	µg/kg	--	1,510 U	664 U	2,120 U	1,130 U	595 U	600 U	--	--	--	--	--
	Hexachloroethane	µg/kg	--	1,510 U	664 U	2,120 U	1,130 U	595 U	600 U	3.20E+04	1.80E+05	5.10E+06	1.90E+04	7.60E+03
	Isophorone	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	--	--	--	--	--
	Nitrobenzene	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	--	--	--	--	--
	N-Nitrosodi-n-propylamine	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	--	--	--	--	--
	N-Nitrosodiphenylamine	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	4.70E+05	3.80E+06	1.10E+08	--	--
	Pentachlorophenol	µg/kg	--	183 U	664 U	2,120 U	1,130 U	595 U	600 U	4.00E+03	3.40E+04	9.60E+05	--	--
	Phenol	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	--	--	--	--	--

Table B-17
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
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Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.7 Composite Samples			Vector 2.7 Samples				Oregon Department of Environmental Quality Risk-Based Concentrations				
			092210-2-2.7-Composite-11-FS	092210-2-2.7-Composite-12-Total	110110-2-2.7-Composite-01-WS	092210-2-2.7-Surface-01-WS	092210-2-2.7-10-03-FS	092210-2-2.7-25-06-FS	092210-2-2.7-25-07-Dup	Soil Ingestion, Dermal Contact, and Inhalation			Vol. to Outdoor Air	Vapor Intrusion
		Date	9/22/2010	9/22/2010	11/1/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	Occ	Const.	Exc	Occ	Occ
		Depth (Feet Below Ground Surface)	0	0	0	0	5 - 10	20 - 25	20 - 25					
PAHs	2-Methylnaphthalene	µg/kg	--	211 U	7.15 J	7.05 U	1,570	72.7	29.6 J	--	--	--	--	--
	Acenaphthene	µg/kg	--	211 U	23.6	7.05 U	3,090	40.7	13.4 J	7.00E+07	2.10E+07	5.90E+08	--	--
	Acenaphthylene	µg/kg	--	211 U	6.63 J	19.2 J	3,410	12.3 J	13.8 J	--	--	--	--	--
	Anthracene	µg/kg	--	211 U	31.4	43.3	8,670	105 J	187 J	3.50E+08	1.10E+08	--	--	--
	Benzo(a)anthracene	µg/kg	--	211 U	139	91.6	12,500	569 J	81.6 J	2.90E+03	2.40E+04	6.60E+05	--	--
	Benzo(a)pyrene	µg/kg	--	255 J	196	71.8	10,300	930 J	91.4 J	--	--	--	--	--
	Benzo(b)fluoranthene	µg/kg	--	565 J	253	181	7,870	446 J	64.7 J	2.90E+03	2.40E+04	6.70E+05	--	--
	Benzo(ghi)perylene	µg/kg	--	211 U	169	82.3	5,340	932 J	66.3 J	--	--	--	--	--
	Benzo(k)fluranthene	µg/kg	--	366 J	191	111	8,800	246 J	50.6 J	--	--	--	--	--
	Chrysene	µg/kg	--	350 J	201	240	12,000	903 J	206 J	2.90E+05	2.40E+06	6.70E+07	--	--
	Dibenzo(a,h)anthracene	µg/kg	--	211 U	44.0	28.5 J	1,710	129	15.7 J	2.90E+02	2.40E+03	6.70E+04	--	--
	Fluoranthene	µg/kg	--	358 J	404	236	33,500	359 J	118 J	3.00E+07	1.00E+07	2.80E+08	--	--
	Fluorene	µg/kg	--	211 U	23.3	11.8 J	5,850	63.3	50.8	4.70E+07	1.40E+07	3.90E+08	--	--
	Indeno(1,2,3-cd)pyrene	µg/kg	--	211 U	153	64.4	5,330	258 J	43.6 J	2.90E+03	2.40E+04	6.70E+05	--	--
	Naphthalene	µg/kg	--	211 U	8.49 U	11.6 J	2,320	154 J	52.6 J	2.30E+04	5.80E+05	1.60E+07	8.30E+04	8.30E+04
	Phenanthrene	µg/kg	--	259 J	278	81.1	37,300	395 J	90.0 J	--	--	--	--	--
	Pyrene	µg/kg	--	300 J	366 J	260	26,500	1,060 J	215 J	2.30E+07	7.50E+06	2.10E+08	--	--
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	--	6,020 U	816 J	551	151 U	31.7 U	15.9 U	1.60E+05	1.30E+06	3.70E+07	--	--
	Butyl benzyl phthalate	µg/kg	--	211 U	32.9 J	30.3 J	151 U	31.7 U	15.9 U	--	--	--	--	--
	Diethyl phthalate	µg/kg	--	602 J	229 J	35.3 J	75.4 U	31.7 U	15.9 U	--	--	--	--	--
	Dimethyl phthalate	µg/kg	--	211 U	17.7 U	28.6 U	75.4 U	31.7 U	15.9 U	--	--	--	--	--
	Di-n-butyl phthalate	µg/kg	--	1,510 U	206	1,180	75.4 U	63.4 U	15.9 U	--	--	--	--	--
	Di-n-octyl phthalate	µg/kg	--	211 U	17.7 U	28.6 U	75.4 U	31.7 U	15.9 U	--	--	--	--	--
Organotins	Dibutyltin	µg/kg	--	--	53	15	0.43 U	0.50 U	0.50 U	--	--	--	--	--
	Monobutyltin	µg/kg	--	--	26	18	0.41 U	0.48 U	0.48 U	--	--	--	--	--
	Tetra-n-butyltin	µg/kg	--	--	1.4 U	1.3 U	1.3 U	1.50 U	1.5 U	--	--	--	--	--
	Tributyltin	µg/kg	--	--	130	14	0.92 U	1.10 U	1.1 U	--	--	--	--	--

Table B-17
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
Human Health Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.7 Composite Samples						Vector 2.7 Samples							Oregon Department of Environmental Quality Risk-Based Concentrations				
			092210-2-2.7-Composite-11-FS		092210-2-2.7-Composite-12-Total		110110-2-2.7-Composite-01-WS		092210-2-2.7-Surface-01-WS		092210-2-2.7-10-03-FS	092210-2-2.7-25-06-FS	092210-2-2.7-25-07-Dup	Soil Ingestion, Dermal Contact, and Inhalation			Vol. to Outdoor Air	Vapor Intrusion
		Date	9/22/2010		9/22/2010		11/1/2010		9/22/2010		9/22/2010	9/22/2010	9/22/2010	Occ	Const.	Exc	Occ	Occ
		Depth (Feet Below Ground Surface)	0		0		0		0		5 - 10	20 - 25	20 - 25					
Organochlorine Pesticides	4-4'-DDD	µg/kg	5.63		3.05	U	0.870	U	0.709	UJ	--	--	--					
	4,4'-DDE	µg/kg	2.81		2.04	U	0.870	U	1.44	UJ	--	--	--	1.20E+04	9.40E+04	2.60E+06		
	4,4'-DDT	µg/kg	8.65	U	10.2	U	3.53	U	1.77	UJ	--	--	--	8.20E+03	6.60E+04	1.80E+06	--	--
	Aldrin	µg/kg	0.852	U	1.01	U	0.870	UJ	0.709	UJ	--	--	--	8.50E+03	6.60E+04	1.80E+06	--	--
	alpha-BHC	µg/kg	0.852	U	2.04	U	0.870	U	0.709	UJ	--	--	--	1.30E+02	1.10E+03	3.00E+04	--	--
	alpha-Chlordane	µg/kg	0.852	U	1.01	U	0.870	U	0.709	UJ	--	--	--	3.60E+02	3.00E+03	8.30E+04	--	--
	beta-BHC	µg/kg	0.852	U	1.01	U	0.870	U	1.44	UJ	--	--	--	--	--	--	--	--
	Chlordane	µg/kg	19.4	U	22.9	U	19.8	U	16.1	UJ	--	--	--	--	--	--	--	--
	delta-BHC	µg/kg	0.852	U	1.01	U	0.870	U	0.709	UJ	--	--	--	7.40E+03	6.10E+04	1.70E+06	--	--
	Dieldrin	µg/kg	1.52	J	1.01	U	0.870	U	0.709	UJ	--	--	--	--	--	--	--	--
	Endosulfan I	µg/kg	0.852	U	1.01	U	0.870	U	0.709	UJ	--	--	--	1.40E+02	1.20E+03	3.30E+04	--	--
	Endosulfan II	µg/kg	0.852	U	1.01	U	0.870	U	0.709	UJ	--	--	--	--	--	--	--	--
	Endosulfan sulfate	µg/kg	0.852	U	1.01	U	0.870	U	0.709	UJ	--	--	--	--	--	--	--	--
	Endrin	µg/kg	0.852	U	1.01	U	0.870	UJ	0.709	UJ	--	--	--	--	--	--	--	--
	Endrin aldehyde	µg/kg	0.852	U	1.01	U	0.870	U	1.44	UJ	--	--	--	2.50E+05	8.00E+04	2.20E+06	--	--
	Endrin ketone	µg/kg	0.852	U	1.01	U	0.870	U	3.60	UJ	--	--	--	--	--	--	--	--
	gamma-BHC (Lindane)	µg/kg	0.852	U	1.01	U	0.870	U	0.709	UJ	--	--	--	--	--	--	--	--
	gamma-Chlordane	µg/kg	1.32	U	1.01	U	0.870	U	0.709	UJ	--	--	--	2.10E+03	1.70E+04	4.70E+05	--	--
	Heptachlor	µg/kg	0.852	U	1.01	U	0.870	U	0.709	UJ	--	--	--	--	--	--	--	--
	Heptachlor epoxide	µg/kg	0.852	U	1.01	U	0.870	U	0.709	UJ	--	--	--	4.50E+02	4.00E+03	1.10E+05	2.30E+05	2.30E+05
	Methoxychlor	µg/kg	4.26	U	2.04	U	0.870	U	1.77	UJ	--	--	--	2.40E+02	2.00E+03	5.60E+04	--	--
	Toxaphene	µg/kg	25.8	U	30.5	U	26.4	U	215	UJ	--	--	--	--	--	--	--	--
Chlorinated Herbicides	2,4,5-T	µg/kg	161	UJ	183	U	32.9	U	--		--	--	--	2.10E+03	1.70E+04	4.70E+05	--	--
	2,4,5-TP (Silvex)	µg/kg	103	UJ	94.3	U	16.9	U	--		--	--	--	--	--	--	--	--
	2,4-D	µg/kg	326	UJ	370	U	66.5	U	--		--	--	--	8.20E+07	2.70E+06	7.40E+07	--	--
	2,4-DB	µg/kg	326	UJ	370	U	66.5	U	--		--	--	--	--	--	--	--	--
	4-Nitrophenol	µg/kg	161	UJ	183	UJ	32.9	U	--		--	--	--	--	--	--	--	--
	Dalapon	µg/kg	816	UJ	926	U	166	U	--		--	--	--	--	--	--	--	--
	Dicamba	µg/kg	161	UJ	183	U	32.9	U	--		--	--	--	--	--	--	--	--
	Dichlorprop	µg/kg	326	UJ	370	U	66.5	U	--		--	--	--	--	--	--	--	--
	Dinoseb	µg/kg	326	UJ	370	U	66.5	U	--		--	--	--	--	--	--	--	--
	MCPA	µg/kg	16,300	UJ	18,500	U	3,320	U	--		--	--	--	4.10E+05	1.30E+05	3.70E+06	--	--
	MCPP	µg/kg	16,300	UJ	18,500	U	3,320	UJ	--		--	--	--	--	--	--	--	--
	Pentachlorophenol	µg/kg	161	UJ	183	U	32.9	U	--		--	--	--	4.00E+03	3.40E+04	9.60E+05	--	--
	Picloram	µg/kg	161	UJ	183	U	32.9	U	--		--	--	--	--	--	--	--	--

Table B-17
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
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Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.7 Composite Samples				Vector 2.7 Samples						Oregon Department of Environmental Quality Risk-Based Concentrations				
			092210-2-2.7-Composite-11-FS	092210-2-2.7-Composite-12-Total	110110-2-2.7-Composite-01-WS		092210-2-2.7-Surface-01-WS	092210-2-2.7-10-03-FS	092210-2-2.7-25-06-FS		092210-2-2.7-25-07-Dup		Soil Ingestion, Dermal Contact, and Inhalation			Vol. to Outdoor Air	Vapor Intrusion
		Date	9/22/2010	9/22/2010	11/1/2010		9/22/2010	9/22/2010	9/22/2010		9/22/2010		Occ	Const.	Exc	Occ	Occ
		Depth (Feet Below Ground Surface)	0	0	0		0	5 - 10	20 - 25		20 - 25						
Dioxins/Furans	1,2,3,4,6,7,8-HpCDD	pg/g	--	--	160		--	--	--		--		--	--	--	--	--
	1,2,3,4,6,7,8-HpCDF	pg/g	--	--	25		--	--	--		--		--	--	--	--	--
	1,2,3,4,7,8,9-HpCDF	pg/g	--	--	2.9	J	--	--	--		--		--	--	--	--	--
	1,2,3,4,7,8-HxCDD	pg/g	--	--	1.6	J	--	--	--		--		--	--	--	--	--
	1,2,3,4,7,8-HxCDF	pg/g	--	--	4	J	--	--	--		--		--	--	--	--	--
	1,2,3,6,7,8-HxCDD	pg/g	--	--	5.4		--	--	--		--		--	--	--	--	--
	1,2,3,6,7,8-HxCDF	pg/g	--	--	1.9	J	--	--	--		--		--	--	--	--	--
	1,2,3,7,8,9-HxCDD	pg/g	--	--	3.4	J	--	--	--		--		--	--	--	--	--
	1,2,3,7,8,9-HxCDF	pg/g	--	--	0.18	J	--	--	--		--		--	--	--	--	--
	1,2,3,7,8-PeCDD	pg/g	--	--	1.1	J	--	--	--		--		--	--	--	--	--
	1,2,3,7,8-PeCDF	pg/g	--	--	0.94	J	--	--	--		--		--	--	--	--	--
	2,3,4,6,7,8-HxCDF	pg/g	--	--	1.5	J	--	--	--		--		--	--	--	--	--
	2,3,4,7,8-PeCDF	pg/g	--	--	2	J	--	--	--		--		--	--	--	--	--
	2,3,7,8-TCDD	pg/g	--	--	0.26	J	--	--	--		--		1.60E+01	1.70E+02	4.80E+03	1.30E+05	1.30E+05
	2,3,7,8-TCDF	pg/g	--	--	2.4		--	--	--		--		--	--	--	--	--
	OCDD	pg/g	--	--	1,400		--	--	--		--		--	--	--	--	--
	OCDF	pg/g	--	--	99		--	--	--		--		--	--	--	--	--
	Total HpCDD	pg/g	--	--	300		--	--	--		--		--	--	--	--	--
	Total HpCDF	pg/g	--	--	86		--	--	--		--		--	--	--	--	--
	Total HxCDD	pg/g	--	--	38		--	--	--		--		--	--	--	--	--
	Total HxCDF	pg/g	--	--	39		--	--	--		--		--	--	--	--	--
	Total PeCDD	pg/g	--	--	5.7		--	--	--		--		--	--	--	--	--
	Total PeCDF	pg/g	--	--	17		--	--	--		--		--	--	--	--	--
	Total TCDD	pg/g	--	--	2.2		--	--	--		--		--	--	--	--	--
	Total TCDF	pg/g	--	--	15		--	--	--		--		--	--	--	--	--
Petroleum Hydrocarbons	Diesel	mg/kg	--	--	3.01	J	88.2	35.4	68.2	J	44.6	J	1.40E+04	4.60E+03	--	--	--
	Heavy Oil	mg/kg	--	--	10.7	J	719	138	425	J	123	J	--	--	--	--	--

Table B-17
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
Human Health Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.8 Composite Samples			Vector 2.8 Samples							Oregon Department of Environmental Quality Risk-Based Concentrations				
			102610-2-2.8-Composite-06	092110-2-2.8-Composite-07-WS	092110-2-2.8-Composite-08-Total	092110-2-2.8-Surface-02-WS	092110-2-2.8-1.5-01-FS	092110-2-2.8-5-03-FS	092110-2-2.8-10-04-FS	092110-2-2.8-15-05-FS	092110-2-2.8-20-06-FS	102610-2-2.8-25-01-FS	Soil Ingestion, Dermal Contact, and Inhalation			Vol. to Outdoor Air	Vapor Intrusion
		Date	10/26/2010	9/22/2010	9/22/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	10/26/2010	Occ	Const.	Exc	Occ	Occ
		Depth (Feet Below Ground Surface)	0	0	0	0	0 - 1.5	5 - 10	10 - 15	15 - 20	20 - 25	20 - 25					
Inorganics	Mercury	mg/kg	--	--	--	0.105	0.00940 J	0.00450 U	0.00290 U	0.00540 U	0.222	0.0942	350	110	2,900	--	--
	Arsenic	mg/kg	--	--	--	124	1.88	1.13	0.916	11.1	9.46	4.98	1.9	15	420	--	--
	Barium	mg/kg	--	--	--	561	114	102	74.1	243	175	145	220,000	69,000	--	--	--
	Chromium	mg/kg	--	--	--	135	7.5	8.49	5.22	31.5	25.6	31.3	--	530,000	--	--	--
	Copper	mg/kg	--	--	--	2,080	30.2	13.7	11.9	835	30.9	47.5	47,000	14,000	390,000	--	--
	Lead	mg/kg	--	--	--	512	37.0	6.61	4.19	39.1	69.9	24.4	800	800	800	--	--
	Manganese	mg/kg	--	--	--	2,850	1,140	748	535	1,770	654	634	25,000	8,200	230,000	--	--
	Nickel	mg/kg	--	--	--	50.7	6.55	4.36	2.31	17.0	20.4	23.4	22,000	7,000	190,000	--	--
	Selenium	mg/kg	--	--	--	0.632 J	0.0786 J	0.0714 J	0.0268 J	0.208 J	0.0767 J	0.117 J	--	--	--	--	--
	Silver	mg/kg	--	--	--	1.23	0.14 J	0.159 J	0.123 J	0.515 J	0.179 J	0.209 J	5,800	1,800	49,000	--	--
	Zinc	mg/kg	--	--	--	7,830	92.5	69.8	56.4	168	113	96.3	--	--	--	--	--
PCBs	Aroclor 1016	µg/kg	--	--	--	21.5 U	1.87 U	1.82 U	1.79 U	1.82 U	2.12 U	8.75 U	--	--	--	--	--
	Aroclor 1221	µg/kg	--	--	--	42.9 U	3.73 U	3.63 U	3.56 U	3.63 U	4.22 U	17.5 U	--	--	--	--	--
	Aroclor 1232	µg/kg	--	--	--	21.5 U	1.87 U	1.82 U	1.79 U	1.82 U	2.12 U	8.75 U	--	--	--	--	--
	Aroclor 1242	µg/kg	--	--	--	21.5 U	1.87 U	1.82 U	1.79 U	1.82 U	2.12 U	8.75 U	--	--	--	--	--
	Aroclor 1248	µg/kg	--	--	--	21.5 U	13.1	1.82 U	1.79 U	1.82 U	2.12 U	8.75 U	--	--	--	--	--
	Aroclor 1254	µg/kg	--	--	--	21.5 U	1.87 U	1.82 U	1.79 U	1.82 U	2.12 U	74.0	--	--	--	--	--
	Aroclor 1260	µg/kg	--	--	--	21.5 U	6.96	1.82 U	1.79 U	1.82 U	7.81 U	8.75 U	--	--	--	--	--
	Aroclor 1262	µg/kg	--	--	--	63.4	1.87 U	1.82 U	1.79 U	1.82 U	2.12 U	49.9	--	--	--	--	--
	Aroclor 1268	µg/kg	--	--	--	21.5 U	1.87 U	1.82 U	1.79 U	1.82 U	2.12 U	8.75 U	--	--	--	--	--
	Total PCBs	µg/kg	--	--	--	63.4	20.1	18.2 U	17.9 U	18.2 U	7.81 J	124	5.90E+02	4.90E+03	1.40E+05	--	--

Table B-17
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
Human Health Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.8 Composite Samples			Vector 2.8 Samples							Oregon Department of Environmental Quality Risk-Based Concentrations				
			102610-2-2.8-Composite-06	092110-2-2.8-Composite-07-WS	092110-2-2.8-Composite-08-Total	092110-2-2.8-Surface-02-WS	092110-2-2.8-1.5-01-FS	092110-2-2.8-5-03-FS	092110-2-2.8-10-04-FS	092110-2-2.8-15-05-FS	092110-2-2.8-20-06-FS	102610-2-2.8-25-01-FS	Soil Ingestion, Dermal Contact, and Inhalation			Vol. to Outdoor Air	Vapor Intrusion
		Date	10/26/2010	9/22/2010	9/22/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	10/26/2010	Occ	Const.	Exc	Occ	Occ
		Depth (Feet Below Ground Surface)	0	0	0	0	0 - 1.5	5 - 10	10 - 15	15 - 20	20 - 25	20 - 25					
VOCs	1,1,1,2-Tetrachloroethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,1,1-Trichloroethane	µg/kg	--	--	--	--	--	--	--	--	--	--	8.70E+08	4.70E+08	--	--	--
	1,1,2,2-Tetrachloroethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,1,2-Trichloroethane	µg/kg	--	--	--	--	--	--	--	--	--	--	2.60E+04	5.40E+04	1.50E+06	2.40E+04	4.20E+03
	1,1-Dichloroethane	µg/kg	--	--	--	--	--	--	--	--	--	--	2.60E+05	3.20E+06	8.90E+07	2.40E+05	5.90E+03
	1,1-Dichloroethene	µg/kg	--	--	--	--	--	--	--	--	--	--	2.90E+07	1.30E+07	3.70E+08	--	6.80E+05
	1,1-Dichloropropene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,2,3-Trichlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,2,3-Trichloropropane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,2,4-Trichlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,2,4-Trimethylbenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	2.00E+06	2.00E+06	5.40E+07	9.80E+05	2.10E+05
	1,2-Dibromo-3-chloropropane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,2-Dibromoethane	µg/kg	--	--	--	--	--	--	--	--	--	--	7.30E+02	9.00E+03	2.50E+05	6.50E+02	1.60E+02
	1,2-Dichlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	3.60E+07	2.00E+07	5.60E+08	--	--
	1,2-Dichloroethane	µg/kg	--	--	--	--	--	--	--	--	--	--	1.60E+04	2.00E+05	5.60E+06	1.50E+04	1.00E+03
	1,2-Dichloropropane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,3,5-Trimethylbenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	1.20E+07	3.50E+06	9.80E+07	--	--
	1,3-Dichlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,3-Dichloropropane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,4-Dichlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	6.40E+04	1.30E+06	3.60E+07	3.60E+04	1.30E+04
	2,2-Dichloropropane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2-Butanone	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2-Chlorotoluene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2-Hexanone	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4-Chlorotoluene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4-Methyl-2-pentanone	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Acetone	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Benzene	µg/kg	--	--	--	--	--	--	--	--	--	--	3.70E+04	3.80E+05	1.10E+07	5.00E+04	2.10E+03
	Bromobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Bromochloromethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Bromodichloromethane	µg/kg	--	--	--	--	--	--	--	--	--	--	1.50E+04	2.30E+05	6.30E+06	1.10E+04	5.30E+02
	Bromoform	µg/kg	--	--	--	--	--	--	--	--	--	--	2.60E+05	2.70E+06	7.40E+07	3.60E+05	1.10E+05
	Bromomethane	µg/kg	--	--	--	--	--	--	--	--	--	--	7.50E+05	3.70E+05	1.00E+07	7.00E+05	1.70E+04
	Carbon disulfide	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Carbon tetrachloride	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table B-17
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
Human Health Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.8 Composite Samples			Vector 2.8 Samples							Oregon Department of Environmental Quality Risk-Based Concentrations				
			102610-2-2.8-Composite-06	092110-2-2.8-Composite-07-WS	092110-2-2.8-Composite-08-Total	092110-2-2.8-Surface-02-WS	092110-2-2.8-1.5-01-FS	092110-2-2.8-5-03-FS	092110-2-2.8-10-04-FS	092110-2-2.8-15-05-FS	092110-2-2.8-20-06-FS	102610-2-2.8-25-01-FS	Soil Ingestion, Dermal Contact, and Inhalation			Vol. to Outdoor Air	Vapor Intrusion
		Date	10/26/2010	9/22/2010	9/22/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	10/26/2010	Occ	Const.	Exc	Occ	Occ
		Depth (Feet Below Ground Surface)	0	0	0	0	0 - 1.5	5 - 10	10 - 15	15 - 20	20 - 25	20 - 25					
VOCs (continued)	Chlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	8.70E+06	4.70E+06	1.30E+08	--	--
	Chloroethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Chloroform	µg/kg	--	--	--	--	--	--	--	--	--	--	2.60E+04	4.10E+05	1.10E+07	1.70E+04	4.10E+02
	Chloromethane	µg/kg	--	--	--	--	--	--	--	--	--	--	2.50E+07	2.50E+07	7.00E+08	--	3.00E+05
	cis-1,2-Dichloroethene	µg/kg	--	--	--	--	--	--	--	--	--	--	2.30E+06	7.10E+05	2.00E+07	--	--
	cis-1,3-Dichloropropene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Dibromochloromethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Dibromomethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Dichlorodifluoromethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Ethylbenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	1.50E+05	1.70E+06	4.90E+07	1.60E+05	1.70E+04
	Hexachlorobutadiene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Isopropylbenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	5.70E+07	2.70E+07	7.50E+08	--	--
	m,p-Xylene	µg/kg	--	--	--	--	--	--	--	--	--	--	2.50E+07	2.00E+07	5.60E+08	--	--
	Methyl tert-butyl ether	µg/kg	--	--	--	--	--	--	--	--	--	--	1.10E+06	1.20E+07	3.20E+08	1.50E+06	1.10E+05
	Methylene chloride	µg/kg	--	--	--	--	--	--	--	--	--	--	1.60E+06	2.10E+06	5.80E+07	-	9.50E+05
	Naphthalene	µg/kg	--	--	--	--	--	--	--	--	--	--	2.30E+04	5.80E+05	1.60E+07	8.30E+04	8.30E+04
	n-Butylbenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	n-Propylbenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	o-Xylene	µg/kg	--	--	--	--	--	--	--	--	--	--	2.50E+07	2.00E+07	5.60E+08	--	--
	p-Isopropyltoluene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	sec-Butylbenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Styrene	µg/kg	--	--	--	--	--	--	--	--	--	--	1.30E+08	5.60E+07	--	--	--
	tert-Butylbenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Tetrachloroethene	µg/kg	--	--	--	--	--	--	--	--	--	--	1.00E+06	1.80E+06	5.00E+07	--	3.60E+04
	Toluene	µg/kg	--	--	--	--	--	--	--	--	--	--	8.80E+07	2.80E+07	7.70E+08	--	--
	trans-1,2-Dichloroethene	µg/kg	--	--	--	--	--	--	--	--	--	--	2.30E+07	7.10E+06	2.00E+08	--	--
	trans-1,3-Dichloropropene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Trichloroethene	µg/kg	--	--	--	--	--	--	--	--	--	--	5.10E+04	4.70E+05	1.30E+07	9.60E+04	2.30E+03
	Trichlorofluoromethane	µg/kg	--	--	--	--	--	--	--	--	--	--	1.30E+08	6.90E+07	--	--	--
	Vinyl chloride	µg/kg	--	--	--	--	--	--	--	--	--	--	4.40E+03	3.40E+04	9.50E+05	8.90E+04	2.20E+03

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Group	Constituent	Units	Vector 2.8 Composite Samples			Vector 2.8 Samples							Oregon Department of Environmental Quality Risk-Based Concentrations				
			102610-2-2.8-Composite-06	092110-2-2.8-Composite-07-WS	092110-2-2.8-Composite-08-Total	092110-2-2.8-Surface-02-WS	092110-2-2.8-1.5-01-FS	092110-2-2.8-5-03-FS	092110-2-2.8-10-04-FS	092110-2-2.8-15-05-FS	092110-2-2.8-20-06-FS	102610-2-2.8-25-01-FS	Soil Ingestion, Dermal Contact, and Inhalation			Vol. to Outdoor Air	Vapor Intrusion
		Date	10/26/2010	9/22/2010	9/22/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	10/26/2010	Occ	Const.	Exc	Occ	Occ
		Depth (Feet Below Ground Surface)	0	0	0	0	0 - 1.5	5 - 10	10 - 15	15 - 20	20 - 25	20 - 25					
SVOCs	1,2,4-Trichlorobenzene	µg/kg	--	--	634 U	2,580 U	555 U	548 U	531 U	542 U	635 U	654 U	--	--	--	--	--
	1,2-Dichlorobenzene	µg/kg	--	--	634 U	2,580 U	555 U	548 U	531 U	542 U	635 U	654 U	3.60E+07	2.00E+07	5.60E+08	--	--
	1,3-Dichlorobenzene	µg/kg	--	--	634 U	2,580 U	555 U	548 U	531 U	542 U	635 U	654 U	--	--	--	--	--
	1,4-Dichlorobenzene	µg/kg	--	--	634 U	2,580 U	555 U	548 U	531 U	542 U	635 U	654 U	6.40E+04	1.30E+06	3.60E+07	1.90E+04	1.30E+04
	2,4,5-Trichlorophenol	µg/kg	--	--	88.8 U	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	--	--	--	--	--
	2,4,6-Trichlorophenol	µg/kg	--	--	88.8 U	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	2.10E+05	2.70E+05	7.40E+06	--	--
	2,4-Dichlorophenol	µg/kg	--	--	88.8 U	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	--	--	--	--	--
	2,4-Dimethylphenol	µg/kg	--	--	634 U	2,580 U	555 U	548 U	531 U	542 U	635 U	654 U	--	--	--	--	--
	2,4-Dinitrophenol	µg/kg	--	--	2,540 U	10,300 U	2,220 U	2,190 U	2,120 U	2,170 U	2,540 U	2,620 U	--	--	--	--	--
	2,4-Dinitrotoluene	µg/kg	--	--	634 U	2,580 U	555 U	548 U	531 U	542 U	635 U	654 U	--	--	--	--	--
	2,6-Dinitrotoluene	µg/kg	--	--	634 U	2,580 U	555 U	548 U	531 U	542 U	635 U	654 U	1.50E+03	1.30E+04	3.50E+05	--	--
	2-Chloronaphthalene	µg/kg	--	--	88.8 U	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	--	--	--	--	--
	2-Chlorophenol	µg/kg	--	--	88.8 U	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	--	--	--	--	--
	2-Methylphenol	µg/kg	--	--	88.8 U	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	--	--	--	--	--
	2-Nitroaniline	µg/kg	--	--	88.8 U	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	--	--	--	--	--
	2-Nitrophenol	µg/kg	--	--	88.8 U	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	--	--	--	--	--
	3,3'-Dichlorobenzidine	µg/kg	--	--	634 U	2,580 U	555 U	548 U	531 U	542 U	635 U	654 U	--	--	--	--	--
	3,4-Methylphenol	µg/kg	--	--	88.8 U	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	--	--	--	--	--
	3-Nitroaniline	µg/kg	--	--	634 U	2,580 U	555 U	548 U	531 U	542 U	635 U	654 U	--	--	--	--	--
	4,6-Dinitro-2-methylphenol	µg/kg	--	--	634 U	2,580 U	555 U	548 U	531 U	542 U	635 U	654 U	--	--	--	--	--
	4-Bromophenyl phenyl ether	µg/kg	--	--	88.8 U	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	--	--	--	--	--
	4-Chloro-3-methylphenol	µg/kg	--	--	88.8 U	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	--	--	--	--	--
	4-Chloroaniline	µg/kg	--	--	209 U	851 U	183 U	181 U	175 U	179 U	210 U	216 U	--	--	--	--	--
	4-Chlorophenyl phenyl ether	µg/kg	--	--	127 U	516 U	111 U	110 U	106 U	108 U	127 U	131 U	--	--	--	--	--
	4-Nitroaniline	µg/kg	--	--	88.8 U	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	--	--	--	--	--
	4-Nitrophenol	µg/kg	--	--	634 U	2,580 U	555 U	548 U	531 U	542 U	635 U	654 U	--	--	--	--	--
	Benzoic Acid	µg/kg	--	--	634 U	2,580 U	555 U	548 U	531 U	542 U	635 U	654 U	--	--	--	--	--
	Benzyl Alcohol	µg/kg	--	--	1,270 U	5,160 U	1,110 U	1,100 U	1,060 U	1,080 U	1,270 U	1,310 U	--	--	--	--	--
	Bis(2-chloroethoxy)methane	µg/kg	--	--	88.8 U	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	--	--	--	--	--
	Bis(2-chloroethyl)ether	µg/kg	--	--	88.8 U	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	1.30E+03	1.60E+04	4.50E+05	1.20E+03	6.90E+03
	Bis(2-chloroisopropyl)ether	µg/kg	--	--	88.8 U	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	--	--	--	--	--
	Dibenzofuran	µg/kg	--	--	88.8 U	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	--	--	--	--	--
	Hexachlorobenzene	µg/kg	--	--	88.8 U	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	9.30E+02	1.10E+04	3.20E+05	2.40E+03	1.30E+04
	Hexachlorobutadiene	µg/kg	--	--	634 U	2,580 U	555 U	548 U	531 U	542 U	635 U	654 U	--	--	--	--	--
	Hexachlorocyclopentadiene	µg/kg	--	--	634 U	2,580 U	555 U	548 U	531 U	542 U	635 U	654 U	--	--	--	--	--
	Hexachloroethane	µg/kg	--	--	634 U	2,580 U	555 U	548 U	531 U	542 U	635 U	654 U	3.20E+04	1.80E+05	5.10E+06	1.90E+04	7.60E+03
	Isophorone	µg/kg	--	--	88.8 U	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	--	--	--	--	--
	Nitrobenzene	µg/kg	--	--	88.8 U	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	--	--	--	--	--
	N-Nitrosodi-n-propylamine	µg/kg	--	--	88.8 U	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	--	--	--	--	--
	N-Nitrosodiphenylamine	µg/kg	--	--	88.8 U	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	4.70E+05	3.80E+06	1.10E+08	--	--
	Pentachlorophenol	µg/kg	--	--	634 U	2,580 U	555 U	548 U	531 U	542 U	635 U	654 U	4.00E+03	3.40E+04	9.60E+05	--	--
	Phenol	µg/kg	--	--	88.8 U	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	--	--	--	--	--

Table B-17
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
Human Health Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.8 Composite Samples			Vector 2.8 Samples							Oregon Department of Environmental Quality Risk-Based Concentrations				
			102610-2-2.8-Composite-06	092110-2-2.8-Composite-07-WS	092110-2-2.8-Composite-08-Total	092110-2-2.8-Surface-02-WS	092110-2-2.8-1.5-01-FS	092110-2-2.8-5-03-FS	092110-2-2.8-10-04-FS	092110-2-2.8-15-05-FS	092110-2-2.8-20-06-FS	102610-2-2.8-25-01-FS	Soil Ingestion, Dermal Contact, and Inhalation			Vol. to Outdoor Air	Vapor Intrusion
		Date	10/26/2010	9/22/2010	9/22/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	10/26/2010	Occ	Const.	Exc	Occ	Occ
		Depth (Feet Below Ground Surface)	0	0	0	0	0 - 1.5	5 - 10	10 - 15	15 - 20	20 - 25	20 - 25					
PAHs	2-Methylnaphthalene	µg/kg	--	--	88.8 U	20.2 J	3.69 U	3.63 U	3.50 U	17.9	21.0 U	8.31 J	--	--	--	--	--
	Acenaphthene	µg/kg	--	--	88.8 U	20.1 J	3.69 U	3.63 U	3.50 U	63.3	27.4 J	5.48 J	7.00E+07	2.10E+07	5.90E+08	--	--
	Acenaphthylene	µg/kg	--	--	88.8 U	49.2	3.69 U	3.63 U	3.50 U	3.59 U	123	4.34 U	--	--	--	--	--
	Anthracene	µg/kg	--	--	88.8 U	89.8	3.69 U	3.63 U	3.50 U	109	950	4.40 J	3.50E+08	1.10E+08	--	--	--
	Benzo(a)anthracene	µg/kg	--	--	88.8 U	169	6.29 J	4.89 J	3.50 U	102	1,150	5.02 J	2.90E+03	2.40E+04	6.60E+05	--	--
	Benzo(a)pyrene	µg/kg	--	--	88.8 U	276	9.81 J	5.92 J	3.50 U	88.5	1,660	6.05 J	--	--	--	--	--
	Benzo(b)fluoranthene	µg/kg	--	--	88.8 U	457	10.1 J	6.49 J	3.50 U	61.2	1,710	5.10 J	2.90E+03	2.40E+04	6.70E+05	--	--
	Benzo(ghi)perylene	µg/kg	--	--	88.8 U	484	9.87 J	6.10 J	3.50 U	46.3	1,070	5.65 J	--	--	--	--	--
	Benzo(k)fluranthene	µg/kg	--	--	88.8 U	305	7.80 J	5.77 J	3.50 U	78.7	1,290	4.34 U	--	--	--	--	--
	Chrysene	µg/kg	--	--	88.8 U	309	12.9 J	7.08 J	3.50 U	108	2,060	6.67 J	2.90E+05	2.40E+06	6.70E+07	--	--
	Dibenzo(a,h)anthracene	µg/kg	--	--	88.8 U	124	3.69 U	3.63 U	3.50 U	17.6	371	4.34 U	2.90E+02	2.40E+03	6.70E+04	--	--
	Fluoranthene	µg/kg	--	--	88.8 U	337	11.4 J	10.1 J	3.50 U	261	1,200	16.2 J	3.00E+07	1.00E+07	2.80E+08	--	--
	Fluorene	µg/kg	--	--	88.8 U	22.6 J	3.69 U	3.63 U	3.50 U	64.4	51.4 J	4.34 U	4.70E+07	1.40E+07	3.90E+08	--	--
	Indeno(1,2,3-cd)pyrene	µg/kg	--	--	88.8 U	390	6.85 J	4.95 J	3.50 U	47.5	1,150	4.34 U	2.90E+03	2.40E+04	6.70E+05	--	--
	Naphthalene	µg/kg	--	--	88.8 U	35.8	3.69 U	3.63 U	3.50 U	35.1	21.0 U	23.3	2.30E+04	5.80E+05	1.60E+07	8.30E+04	8.30E+04
	Phenanthrene	µg/kg	--	--	88.8 U	195	8.89 J	6.84 J	3.50 U	366	245	25.8	--	--	--	--	--
	Pyrene	µg/kg	--	--	88.8 U	295	12.1 J	10.3 J	3.50 U	241	1,400	19.0	2.30E+07	7.50E+06	2.10E+08	--	--
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	--	--	2,540 U	1,170	35.0	22.9 J	14.2 U	16.2 J	241.0	161	1.60E+05	1.30E+06	3.70E+07	--	--
	Butyl benzyl phthalate	µg/kg	--	--	88.8 U	40.6 J	15.0 U	14.7 U	14.2 U	14.6 U	34.2 U	17.6 U	--	--	--	--	--
	Diethyl phthalate	µg/kg	--	--	88.8 U	342	15.0 U	14.7 U	14.2 U	14.6 U	34.2 U	17.6 U	--	--	--	--	--
	Dimethyl phthalate	µg/kg	--	--	88.8 U	34.3 U	15.0 U	14.7 U	14.2 U	14.6 U	34.2 U	17.6 U	--	--	--	--	--
	Di-n-butyl phthalate	µg/kg	--	--	634 U	551	15.0 U	14.7 U	14.2 U	14.6 U	34.2 U	17.6 U	--	--	--	--	--
	Di-n-octyl phthalate	µg/kg	--	--	634 U	166	15.0 U	14.7 U	14.2 U	14.6 U	34.2 U	17.6 U	--	--	--	--	--
Organotins	Dibutyltin	µg/kg	--	--	--	230	0.46 U	0.45 U	0.41 U	14	0.51 U	0.56 U	--	--	--	--	--
	Monobutyltin	µg/kg	--	--	--	110	0.44 U	0.43 U	0.39 U	0.42 U	0.49 U	0.53 U	--	--	--	--	--
	Tetra-n-butyltin	µg/kg	--	--	--	1.5 U	1.3 U	1.3 U	1.2 U	1.3 U	1.5 U	1.6 U	--	--	--	--	--
	Tributyltin	µg/kg	--	--	--	270	1.0 U	0.96 U	0.89 U	30	5.0	1.2 U	--	--	--	--	--

Table B-17
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
Human Health Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.8 Composite Samples			Vector 2.8 Samples							Oregon Department of Environmental Quality Risk-Based Concentrations				
			102610-2-2.8-Composite-06	092110-2-2.8-Composite-07-WS	092110-2-2.8-Composite-08-Total	092110-2-2.8-Surface-02-WS	092110-2-2.8-1.5-01-FS	092110-2-2.8-5-03-FS	092110-2-2.8-10-04-FS	092110-2-2.8-15-05-FS	092110-2-2.8-20-06-FS	102610-2-2.8-25-01-FS	Soil Ingestion, Dermal Contact, and Inhalation			Vol. to Outdoor Air	Vapor Intrusion
		Date	10/26/2010	9/22/2010	9/22/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	10/26/2010	Occ	Const.	Exc	Occ	Occ
		Depth (Feet Below Ground Surface)	0	0	0	0	0 - 1.5	5 - 10	10 - 15	15 - 20	20 - 25	20 - 25					
Organochlorine Pesticides	4-4'-DDD	µg/kg	--	--	--	--	--	--	--	--	0.853 UJ	--					
	4,4'-DDE	µg/kg	--	--	--	--	--	--	--	--	0.454 J	--	1.20E+04	9.40E+04	2.60E+06		
	4,4'-DDT	µg/kg	--	--	--	--	--	--	--	--	2.27 J	--	8.20E+03	6.60E+04	1.80E+06	--	--
	Aldrin	µg/kg	--	--	--	--	--	--	--	--	0.420 UJ	--	8.50E+03	6.60E+04	1.80E+06	--	--
	alpha-BHC	µg/kg	--	--	--	--	--	--	--	--	0.420 UJ	--	1.30E+02	1.10E+03	3.00E+04	--	--
	alpha-Chlordane	µg/kg	--	--	--	--	--	--	--	--	2.79 J	--	3.60E+02	3.00E+03	8.30E+04	--	--
	beta-BHC	µg/kg	--	--	--	--	--	--	--	--	0.420 UJ	--	--	--	--	--	--
	Chlordane	µg/kg	--	--	--	--	--	--	--	--	16.3 J	--	--	--	--	--	--
	delta-BHC	µg/kg	--	--	--	--	--	--	--	--	0.420 UJ	--	7.40E+03	6.10E+04	1.70E+06	--	--
	Dieldrin	µg/kg	--	--	--	--	--	--	--	--	0.853 UJ	--	--	--	--	--	--
	Endosulfan I	µg/kg	--	--	--	--	--	--	--	--	0.420 UJ	--	1.40E+02	1.20E+03	3.30E+04	--	--
	Endosulfan II	µg/kg	--	--	--	--	--	--	--	--	0.420 UJ	--	--	--	--	--	--
	Endosulfan sulfate	µg/kg	--	--	--	--	--	--	--	--	0.420 UJ	--	--	--	--	--	--
	Endrin	µg/kg	--	--	--	--	--	--	--	--	0.420 UJ	--	--	--	--	--	--
	Endrin aldehyde	µg/kg	--	--	--	--	--	--	--	--	0.420 UJ	--	2.50E+05	8.00E+04	2.20E+06	--	--
	Endrin ketone	µg/kg	--	--	--	--	--	--	--	--	0.420 UJ	--	--	--	--	--	--
	gamma-BHC (Lindane)	µg/kg	--	--	--	--	--	--	--	--	0.420 UJ	--	--	--	--	--	--
	gamma-Chlordane	µg/kg	--	--	--	--	--	--	--	--	2.71 J	--	2.10E+03	1.70E+04	4.70E+05	--	--
	Heptachlor	µg/kg	--	--	--	--	--	--	--	--	0.420 UJ	--	--	--	--	--	--
	Heptachlor epoxide	µg/kg	--	--	--	--	--	--	--	--	0.420 UJ	--	4.50E+02	4.00E+03	1.10E+05	2.30E+05	2.30E+05
	Methoxychlor	µg/kg	--	--	--	--	--	--	--	--	0.420 UJ	--	2.40E+02	2.00E+03	5.60E+04	--	--
	Toxaphene	µg/kg	--	--	--	--	--	--	--	--	12.7 UJ	--	--	--	--	--	--
Chlorinated Herbicides	2,4,5-T	µg/kg	--	--	--	--	--	--	--	--	--	--	2.10E+03	1.70E+04	4.70E+05	--	--
	2,4,5-TP (Silvex)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2,4-D	µg/kg	--	--	--	--	--	--	--	--	--	--	8.20E+07	2.70E+06	7.40E+07	--	--
	2,4-DB	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4-Nitrophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Dalapon	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Dicamba	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Dichlorprop	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Dinoseb	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MCPA	µg/kg	--	--	--	--	--	--	--	--	--	--	4.10E+05	1.30E+05	3.70E+06	--	--
	MCPP	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Pentachlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	4.00E+03	3.40E+04	9.60E+05	--	--
	Picloram	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table B-17
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
Human Health Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.8 Composite Samples			Vector 2.8 Samples							Oregon Department of Environmental Quality Risk-Based Concentrations				
			102610-2-2.8-Composite-06	092110-2-2.8-Composite-07-WS	092110-2-2.8-Composite-08-Total	092110-2-2.8-Surface-02-WS	092110-2-2.8-1.5-01-FS	092110-2-2.8-5-03-FS	092110-2-2.8-10-04-FS	092110-2-2.8-15-05-FS	092110-2-2.8-20-06-FS	102610-2-2.8-25-01-FS	Soil Ingestion, Dermal Contact, and Inhalation			Vol. to Outdoor Air	Vapor Intrusion
		Date	10/26/2010	9/22/2010	9/22/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	10/26/2010	Occ	Const.	Exc	Occ	Occ
		Depth (Feet Below Ground Surface)	0	0	0	0	0 - 1.5	5 - 10	10 - 15	15 - 20	20 - 25	20 - 25					
Dioxins/Furans	1,2,3,4,6,7,8-HpCDD	pg/g	190	1.8 J	35	--	--	--	--	--	--	--	--	--	--	--	--
	1,2,3,4,6,7,8-HpCDF	pg/g	80	0.64 J	7.3	--	--	--	--	--	--	--	--	--	--	--	--
	1,2,3,4,7,8,9-HpCDF	pg/g	3.8 J	0.25 U	0.43 J	--	--	--	--	--	--	--	--	--	--	--	--
	1,2,3,4,7,8-HxCDD	pg/g	0.61 J	0.16 U	0.78 J	--	--	--	--	--	--	--	--	--	--	--	--
	1,2,3,4,7,8-HxCDF	pg/g	3.2 J	0.19 J	0.55 J	--	--	--	--	--	--	--	--	--	--	--	--
	1,2,3,6,7,8-HxCDD	pg/g	7	0.23 J	1.8 J	--	--	--	--	--	--	--	--	--	--	--	--
	1,2,3,6,7,8-HxCDF	pg/g	2.2 J	0.12 U	0.4 U	--	--	--	--	--	--	--	--	--	--	--	--
	1,2,3,7,8,9-HxCDD	pg/g	3.5 J	0.15 J	1.1 J	--	--	--	--	--	--	--	--	--	--	--	--
	1,2,3,7,8,9-HxCDF	pg/g	0.13 U	0.13 U	0.51 U	--	--	--	--	--	--	--	--	--	--	--	--
	1,2,3,7,8-PeCDD	pg/g	1.5 J	0.14 U	0.39 U	--	--	--	--	--	--	--	--	--	--	--	--
	1,2,3,7,8-PeCDF	pg/g	0.82 J	0.16 U	0.73 U	--	--	--	--	--	--	--	--	--	--	--	--
	2,3,4,6,7,8-HxCDF	pg/g	1.2 J	0.13 U	0.44 U	--	--	--	--	--	--	--	--	--	--	--	--
	2,3,4,7,8-PeCDF	pg/g	1.2 J	0.16 U	0.75 U	--	--	--	--	--	--	--	--	--	--	--	--
	2,3,7,8-TCDD	pg/g	2.4	0.11 U	0.15 U	--	--	--	--	--	--	--	1.60E+01	1.70E+02	4.80E+03	1.30E+05	1.30E+05
	2,3,7,8-TCDF	pg/g	1.1 J	0.29 J	0.92 J	--	--	--	--	--	--	--	--	--	--	--	--
	OCDD	pg/g	2,200 J	16	330	--	--	--	--	--	--	--	--	--	--	--	--
	OCDF	pg/g	360	1 J	15	--	--	--	--	--	--	--	--	--	--	--	--
	Total HpCDD	pg/g	400	3.4	70	--	--	--	--	--	--	--	--	--	--	--	--
	Total HpCDF	pg/g	320	1.2	21	--	--	--	--	--	--	--	--	--	--	--	--
	Total HxCDD	pg/g	52	0.47	15	--	--	--	--	--	--	--	--	--	--	--	--
	Total HxCDF	pg/g	79	0.19	9	--	--	--	--	--	--	--	--	--	--	--	--
	Total PeCDD	pg/g	18	0.43 U	0.5	--	--	--	--	--	--	--	--	--	--	--	--
	Total PeCDF	pg/g	34	0.23 U	1.8	--	--	--	--	--	--	--	--	--	--	--	--
	Total TCDD	pg/g	21	0.27	0.44	--	--	--	--	--	--	--	--	--	--	--	--
	Total TCDF	pg/g	27	0.46	0.92	--	--	--	--	--	--	--	--	--	--	--	--
Petroleum Hydrocarbons	Diesel	mg/kg	--	--	--	36.5	27.4	4.13 J	0.975 J	5.68 J	5.10 J	39.6	1.40E+04	4.60E+03	--	--	--
	Heavy Oil	mg/kg	--	--	--	169	207	0.766 U	3.96 J	5.25 J	9.12 J	111	--	--	--	--	--

Table B-17
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
Human Health Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.9 Composite Samples			Vector 2.9 Samples			Oregon Department of Environmental Quality Risk-Based Concentrations				
			092110-2-2.9-Composite-12-WS	092110-2-2.9-Composite-13-Total	110110-2-2.9-Composite-02-WS	092110-2-2.9-10-03-FS	092110-2-2.9-20-05-FS	092110-2-2.9-20-06-Dup	Soil Ingestion, Dermal Contact, and Inhalation			Vol. to Outdoor Air	Vapor Intrusion
		Date	9/22/2010	9/21/2010	11/1/2010	9/21/2010	9/21/2010	9/21/2010	Occ	Const.	Exc	Occ	Occ
		Depth (Feet Below Ground Surface)	0	0	0	5 - 10	15 - 20	15 - 20					
Inorganics	Mercury	mg/kg	--	--	0.0363 J	0.00910 J	0.131	0.0414 J	350	110	2,900	--	--
	Arsenic	mg/kg	--	--	11.6	4.02	10.0	13.4	1.9	15	420	--	--
	Barium	mg/kg	--	--	300	93.9	72.8 J	111 J	220,000	69,000	--	--	--
	Chromium	mg/kg	--	--	51.9	14.9	9.14 J	29.6 J	--	530,000	--	--	--
	Copper	mg/kg	--	--	1,020	70.3	37.3 J	58.5 J	47,000	14,000	390,000	--	--
	Lead	mg/kg	--	--	70.6	22.6	31.8 J	62.6 J	800	800	800	--	--
	Manganese	mg/kg	--	--	1,630	677	423	594	25,000	8,200	230,000	--	--
	Nickel	mg/kg	--	--	35.3	8.96	6.43 J	15.1 J	22,000	7,000	190,000	--	--
	Selenium	mg/kg	--	--	0.290 J	0.0753 J	0.141 J	0.137 J	--	--	--	--	--
	Silver	mg/kg	--	--	0.533 J	0.151 J	0.146 J	0.176 J	5,800	1,800	49,000	--	--
	Zinc	mg/kg	--	--	1,880	120	129 J	181	--	--	--	--	--
PCBs	Aroclor 1016	µg/kg	--	--	2.25 U	1.75 U	1.80 U	1.83 U	--	--	--	--	--
	Aroclor 1221	µg/kg	--	--	4.48 U	3.48 U	3.60 U	3.66 U	--	--	--	--	--
	Aroclor 1232	µg/kg	--	--	2.25 U	1.75 U	1.80 U	1.83 U	--	--	--	--	--
	Aroclor 1242	µg/kg	--	--	2.25 U	1.75 U	1.80 U	1.83 U	--	--	--	--	--
	Aroclor 1248	µg/kg	--	--	2.25 U	1.75 U	1.80 U	1.83 U	--	--	--	--	--
	Aroclor 1254	µg/kg	--	--	2.25 U	1.75 U	1.80 U	1.83 U	--	--	--	--	--
	Aroclor 1260	µg/kg	--	--	22.2	3.33 J	9.42	1.83 U	--	--	--	--	--
	Aroclor 1262	µg/kg	--	--	2.25 U	1.75 U	1.80 U	2.87 J	--	--	--	--	--
	Aroclor 1268	µg/kg	--	--	2.25 U	1.75 U	1.80 U	1.83 U	--	--	--	--	--
	Total PCBs	µg/kg	--	--	22.2	3.33 J	9.42	2.87 J	5.90E+02	4.90E+03	1.40E+05	--	--

Table B-17
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
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Group	Constituent	Units	Vector 2.9 Composite Samples				Vector 2.9 Samples				Oregon Department of Environmental Quality Risk-Based Concentrations				
			092110-2-2.9-Composite-12-WS	092110-2-2.9-Composite-13-Total	110110-2-2.9-Composite-02-WS		092110-2-2.9-10-03-FS	092110-2-2.9-20-05-FS	092110-2-2.9-20-06-Dup		Soil Ingestion, Dermal Contact, and Inhalation			Vol. to Outdoor Air	Vapor Intrusion
		Date	9/22/2010	9/21/2010	11/1/2010		9/21/2010	9/21/2010	9/21/2010		Occ	Const.	Exc	Occ	Occ
		Depth (Feet Below Ground Surface)	0	0	0		5 - 10	15 - 20	15 - 20						
VOCs	1,1,1,2-Tetrachloroethane	µg/kg	--	--	12.5	U	--	--	--		--	--	--	--	--
	1,1,1-Trichloroethane	µg/kg	--	--	6.77	U	--	--	--		8.70E+08	4.70E+08	--	--	--
	1,1,2,2-Tetrachloroethane	µg/kg	--	--	15.3	U	--	--	--		--	--	--	--	--
	1,1,2-Trichloroethane	µg/kg	--	--	9.12	U	--	--	--		2.60E+04	5.40E+04	1.50E+06	2.40E+04	4.20E+03
	1,1-Dichloroethane	µg/kg	--	--	9.02	U	--	--	--		2.60E+05	3.20E+06	8.90E+07	2.40E+05	5.90E+03
	1,1-Dichloroethene	µg/kg	--	--	16.1	U	--	--	--		2.90E+07	1.30E+07	3.70E+08	--	6.80E+05
	1,1-Dichloropropene	µg/kg	--	--	10.6	U	--	--	--		--	--	--	--	--
	1,2,3-Trichlorobenzene	µg/kg	--	--	12.6	U	--	--	--		--	--	--	--	--
	1,2,3-Trichloropropane	µg/kg	--	--	8.69	U	--	--	--		--	--	--	--	--
	1,2,4-Trichlorobenzene	µg/kg	--	--	674	U	--	--	--		--	--	--	--	--
	1,2,4-Trimethylbenzene	µg/kg	--	--	22.8	J	--	--	--		2.00E+06	2.00E+06	5.40E+07	9.80E+05	2.10E+05
	1,2-Dibromo-3-chloropropane	µg/kg	--	--	55.5	U	--	--	--		--	--	--	--	--
	1,2-Dibromoethane	µg/kg	--	--	14.0	U	--	--	--		7.30E+02	9.00E+03	2.50E+05	6.50E+02	1.60E+02
	1,2-Dichlorobenzene	µg/kg	--	--	674	U	--	--	--		3.60E+07	2.00E+07	5.60E+08	--	--
	1,2-Dichloroethane	µg/kg	--	--	10.2	U	--	--	--		1.60E+04	2.00E+05	5.60E+06	1.50E+04	1.00E+03
	1,2-Dichloropropane	µg/kg	--	--	9.02	U	--	--	--		--	--	--	--	--
	1,3,5-Trimethylbenzene	µg/kg	--	--	24.2	J	--	--	--		1.20E+07	3.50E+06	9.80E+07	--	--
	1,3-Dichlorobenzene	µg/kg	--	--	674	U	--	--	--		--	--	--	--	--
	1,3-Dichloropropane	µg/kg	--	--	8.93	U	--	--	--		--	--	--	--	--
	1,4-Dichlorobenzene	µg/kg	--	--	674	U	--	--	--		6.40E+04	1.30E+06	3.60E+07	3.60E+04	1.30E+04
	2,2-Dichloropropane	µg/kg	--	--	8.45	U	--	--	--		--	--	--	--	--
	2-Butanone	µg/kg	--	--	34.1	U	--	--	--		--	--	--	--	--
	2-Chlorotoluene	µg/kg	--	--	7.98	U	--	--	--		--	--	--	--	--
	2-Hexanone	µg/kg	--	--	38.0	U	--	--	--		--	--	--	--	--
	4-Chlorotoluene	µg/kg	--	--	5.83	U	--	--	--		--	--	--	--	--
	4-Methyl-2-pentanone	µg/kg	--	--	25.6	U	--	--	--		--	--	--	--	--
	Acetone	µg/kg	--	--	807	U	--	--	--		--	--	--	--	--
	Benzene	µg/kg	--	--	5.68	U	--	--	--		3.70E+04	3.80E+05	1.10E+07	5.00E+04	2.10E+03
	Bromobenzene	µg/kg	--	--	16.8	U	--	--	--		--	--	--	--	--
	Bromochloromethane	µg/kg	--	--	13.1	U	--	--	--		--	--	--	--	--
	Bromodichloromethane	µg/kg	--	--	13.7	U	--	--	--		1.50E+04	2.30E+05	6.30E+06	1.10E+04	5.30E+02
	Bromoform	µg/kg	--	--	12.4	U	--	--	--		2.60E+05	2.70E+06	7.40E+07	3.60E+05	1.10E+05
	Bromomethane	µg/kg	--	--	10.8	U	--	--	--		7.50E+05	3.70E+05	1.00E+07	7.00E+05	1.70E+04
	Carbon disulfide	µg/kg	--	--	9.65	U	--	--	--		--	--	--	--	--
	Carbon tetrachloride	µg/kg	--	--	14.8	U	--	--	--		--	--	--	--	--

Table B-17
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Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.9 Composite Samples				Vector 2.9 Samples			Oregon Department of Environmental Quality Risk-Based Concentrations				
			092110-2-2.9-Composite-12-WS	092110-2-2.9-Composite-13-Total	110110-2-2.9-Composite-02-WS		092110-2-2.9-10-03-FS	092110-2-2.9-20-05-FS	092110-2-2.9-20-06-Dup	Soil Ingestion, Dermal Contact, and Inhalation			Vol. to Outdoor Air	Vapor Intrusion
		Date	9/22/2010	9/21/2010	11/1/2010		9/21/2010	9/21/2010	9/21/2010	Occ	Const.	Exc	Occ	Occ
		Depth (Feet Below Ground Surface)	0	0	0		5 - 10	15 - 20	15 - 20					
VOCs (continued)	Chlorobenzene	µg/kg	--	--	4.12	U	--	--	--	8.70E+06	4.70E+06	1.30E+08	--	--
	Chloroethane	µg/kg	--	--	24.8	U	--	--	--	--	--	--	--	--
	Chloroform	µg/kg	--	--	7.31	U	--	--	--	2.60E+04	4.10E+05	1.10E+07	1.70E+04	4.10E+02
	Chloromethane	µg/kg	--	--	9.39	U	--	--	--	2.50E+07	2.50E+07	7.00E+08	--	3.00E+05
	cis-1,2-Dichloroethene	µg/kg	--	--	14.5	U	--	--	--	2.30E+06	7.10E+05	2.00E+07	--	--
	cis-1,3-Dichloropropene	µg/kg	--	--	6.18	U	--	--	--	--	--	--	--	--
	Dibromochloromethane	µg/kg	--	--	9.96	U	--	--	--	--	--	--	--	--
	Dibromomethane	µg/kg	--	--	6.38	U	--	--	--	--	--	--	--	--
	Dichlorodifluoromethane	µg/kg	--	--	9.65	U	--	--	--	--	--	--	--	--
	Ethylbenzene	µg/kg	--	--	3.80	U	--	--	--	1.50E+05	1.70E+06	4.90E+07	1.60E+05	1.70E+04
	Hexachlorobutadiene	µg/kg	--	--	674	U	--	--	--	--	--	--	--	--
	Isopropylbenzene	µg/kg	--	--	9.96	U	--	--	--	5.70E+07	2.70E+07	7.50E+08	--	--
	m,p-Xylene	µg/kg	--	--	23.9	U	--	--	--	2.50E+07	2.00E+07	5.60E+08	--	--
	Methyl tert-butyl ether	µg/kg	--	--	7.31	U	--	--	--	1.10E+06	1.20E+07	3.20E+08	1.50E+06	1.10E+05
	Methylene chloride	µg/kg	--	--	29.5	J	--	--	--	1.60E+06	2.10E+06	5.80E+07	-	9.50E+05
	Naphthalene	µg/kg	--	--	94.3	U	--	--	--	2.30E+04	5.80E+05	1.60E+07	8.30E+04	8.30E+04
	n-Butylbenzene	µg/kg	--	--	8.59	U	--	--	--	--	--	--	--	--
	n-Propylbenzene	µg/kg	--	--	9.44	U	--	--	--	--	--	--	--	--
	o-Xylene	µg/kg	--	--	8.69	U	--	--	--	2.50E+07	2.00E+07	5.60E+08	--	--
	p-Isopropyltoluene	µg/kg	--	--	13.0	U	--	--	--	--	--	--	--	--
	sec-Butylbenzene	µg/kg	--	--	6.84	U	--	--	--	--	--	--	--	--
	Styrene	µg/kg	--	--	4.22	U	--	--	--	1.30E+08	5.60E+07	--	--	--
	tert-Butylbenzene	µg/kg	--	--	13.1	U	--	--	--	--	--	--	--	--
	Tetrachloroethene	µg/kg	--	--	19.3	U	--	--	--	1.00E+06	1.80E+06	5.00E+07	--	3.60E+04
	Toluene	µg/kg	--	--	4.70	U	--	--	--	8.80E+07	2.80E+07	7.70E+08	--	--
	trans-1,2-Dichloroethene	µg/kg	--	--	7.87	U	--	--	--	2.30E+07	7.10E+06	2.00E+08	--	--
	trans-1,3-Dichloropropene	µg/kg	--	--	7.87	U	--	--	--	--	--	--	--	--
	Trichloroethene	µg/kg	--	--	9.75	U	--	--	--	5.10E+04	4.70E+05	1.30E+07	9.60E+04	2.30E+03
	Trichlorofluoromethane	µg/kg	--	--	41.8	U	--	--	--	1.30E+08	6.90E+07	--	--	--
	Vinyl chloride	µg/kg	--	--	10.0	UJ	--	--	--	4.40E+03	3.40E+04	9.50E+05	8.90E+04	2.20E+03

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Group	Constituent	Units	Vector 2.9 Composite Samples				Vector 2.9 Samples			Oregon Department of Environmental Quality Risk-Based Concentrations				
			092110-2-2.9-Composite-12-WS	092110-2-2.9-Composite-13-Total	110110-2-2.9-Composite-02-WS		092110-2-2.9-10-03-FS	092110-2-2.9-20-05-FS	092110-2-2.9-20-06-Dup	Soil Ingestion, Dermal Contact, and Inhalation			Vol. to Outdoor Air	Vapor Intrusion
		Date	9/22/2010	9/21/2010	11/1/2010		9/21/2010	9/21/2010	9/21/2010	Occ	Const.	Exc	Occ	Occ
		Depth (Feet Below Ground Surface)	0	0	0		5 - 10	15 - 20	15 - 20					
SVOCs	1,2,4-Trichlorobenzene	µg/kg	--	--	674	U	--	--	--	--	--	--	--	--
	1,2-Dichlorobenzene	µg/kg	--	--	674	U	--	--	--	3.60E+07	2.00E+07	5.60E+08	--	--
	1,3-Dichlorobenzene	µg/kg	--	--	674	U	--	--	--	--	--	--	--	--
	1,4-Dichlorobenzene	µg/kg	--	--	674	U	--	--	--	6.40E+04	1.30E+06	3.60E+07	1.90E+04	1.30E+04
	2,4,5-Trichlorophenol	µg/kg	--	--	94.3	U	--	--	--	--	--	--	--	--
	2,4,6-Trichlorophenol	µg/kg	--	--	94.3	U	--	--	--	2.10E+05	2.70E+05	7.40E+06	--	--
	2,4-Dichlorophenol	µg/kg	--	--	94.3	U	--	--	--	--	--	--	--	--
	2,4-Dimethylphenol	µg/kg	--	--	674	U	--	--	--	--	--	--	--	--
	2,4-Dinitrophenol	µg/kg	--	--	2,700	U	--	--	--	--	--	--	--	--
	2,4-Dinitrotoluene	µg/kg	--	--	674	U	--	--	--	--	--	--	--	--
	2,6-Dinitrotoluene	µg/kg	--	--	674	U	--	--	--	1.50E+03	1.30E+04	3.50E+05	--	--
	2-Chloronaphthalene	µg/kg	--	--	94.3	U	--	--	--	--	--	--	--	--
	2-Chlorophenol	µg/kg	--	--	94.3	U	--	--	--	--	--	--	--	--
	2-Methylphenol	µg/kg	--	--	94.3	U	--	--	--	--	--	--	--	--
	2-Nitroaniline	µg/kg	--	--	94.3	U	--	--	--	--	--	--	--	--
	2-Nitrophenol	µg/kg	--	--	94.3	U	--	--	--	--	--	--	--	--
	3,3'-Dichlorobenzidine	µg/kg	--	--	674	U	--	--	--	--	--	--	--	--
	3,4-Methylphenol	µg/kg	--	--	94.3	U	--	--	--	--	--	--	--	--
	3-Nitroaniline	µg/kg	--	--	674	U	--	--	--	--	--	--	--	--
	4,6-Dinitro-2-methylphenol	µg/kg	--	--	674	U	--	--	--	--	--	--	--	--
	4-Bromophenyl phenyl ether	µg/kg	--	--	94.3	U	--	--	--	--	--	--	--	--
	4-Chloro-3-methylphenol	µg/kg	--	--	94.3	U	--	--	--	--	--	--	--	--
	4-Chloroaniline	µg/kg	--	--	222	U	--	--	--	--	--	--	--	--
	4-Chlorophenyl phenyl ether	µg/kg	--	--	135	U	--	--	--	--	--	--	--	--
	4-Nitroaniline	µg/kg	--	--	94.3	U	--	--	--	--	--	--	--	--
	4-Nitrophenol	µg/kg	--	--	674	U	--	--	--	--	--	--	--	--
	Benzoic Acid	µg/kg	--	--	674	U	--	--	--	--	--	--	--	--
	Benzyl Alcohol	µg/kg	--	--	1,350	U	--	--	--	--	--	--	--	--
	Bis(2-chloroethoxy)methane	µg/kg	--	--	94.3	U	--	--	--	--	--	--	--	--
	Bis(2-chloroethyl)ether	µg/kg	--	--	94.3	U	--	--	--	1.30E+03	1.60E+04	4.50E+05	1.20E+03	6.90E+03
	Bis(2-chloroisopropyl)ether	µg/kg	--	--	94.3	U	--	--	--	--	--	--	--	--
	Dibenzofuran	µg/kg	--	--	94.3	U	--	--	--	--	--	--	--	--
	Hexachlorobenzene	µg/kg	--	--	94.3	U	--	--	--	9.30E+02	1.10E+04	3.20E+05	2.40E+03	1.30E+04
	Hexachlorobutadiene	µg/kg	--	--	674	U	--	--	--	--	--	--	--	--
	Hexachlorocyclopentadiene	µg/kg	--	--	674	U	--	--	--	--	--	--	--	--
	Hexachloroethane	µg/kg	--	--	674	U	--	--	--	3.20E+04	1.80E+05	5.10E+06	1.90E+04	7.60E+03
	Isophorone	µg/kg	--	--	94.3	U	--	--	--	--	--	--	--	--
	Nitrobenzene	µg/kg	--	--	94.3	U	--	--	--	--	--	--	--	--
	N-Nitrosodi-n-propylamine	µg/kg	--	--	94.3	U	--	--	--	--	--	--	--	--
	N-Nitrosodiphenylamine	µg/kg	--	--	94.3	U	--	--	--	4.70E+05	3.80E+06	1.10E+08	--	--
	Pentachlorophenol	µg/kg	--	--	674	U	--	--	--	4.00E+03	3.40E+04	9.60E+05	--	--
	Phenol	µg/kg	--	--	94.3	U	--	--	--	--	--	--	--	--

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Group	Constituent	Units	Vector 2.9 Composite Samples			Vector 2.9 Samples			Oregon Department of Environmental Quality Risk-Based Concentrations				
			092110-2-2.9-Composite-12-WS	092110-2-2.9-Composite-13-Total	110110-2-2.9-Composite-02-WS	092110-2-2.9-10-03-FS	092110-2-2.9-20-05-FS	092110-2-2.9-20-06-Dup	Soil Ingestion, Dermal Contact, and Inhalation			Vol. to Outdoor Air	Vapor Intrusion
		Date	9/22/2010	9/21/2010	11/1/2010	9/21/2010	9/21/2010	9/21/2010	Occ	Const.	Exc	Occ	Occ
		Depth (Feet Below Ground Surface)	0	0	0	5 - 10	15 - 20	15 - 20					
PAHs	2-Methylnaphthalene	µg/kg				3.40 U	20.6	8.71 J	--	--	--	--	--
	Acenaphthene	µg/kg	--	--	30.1	3.40 U	8.31 J	3.59 U	7.00E+07	2.10E+07	5.90E+08	--	--
	Acenaphthylene	µg/kg	--	--	34.0	3.40 U	15.6	20.9	--	--	--	--	--
	Anthracene	µg/kg	--	--	72.0	3.40 U	28.6	20.1	3.50E+08	1.10E+08	--	--	--
	Benzo(a)anthracene	µg/kg	--	--	215	3.40 U	100	90.7	2.90E+03	2.40E+04	6.60E+05	--	--
	Benzo(a)pyrene	µg/kg	--	--	310	3.40 U	154	143	--	--	--	--	--
	Benzo(b)fluoranthene	µg/kg	--	--	539	3.40 U	127	101	2.90E+03	2.40E+04	6.70E+05	--	--
	Benzo(ghi)perylene	µg/kg	--	--	302	3.40 U	146	136	--	--	--	--	--
	Benzo(k)fluranthene	µg/kg	--	--	338	3.40 U	115	86.4	--	--	--	--	--
	Chrysene	µg/kg	--	--	403	3.40 U	140	119	2.90E+05	2.40E+06	6.70E+07	--	--
	Dibenzo(a,h)anthracene	µg/kg	--	--	86.0	3.40 U	29.3	23.0	2.90E+02	2.40E+03	6.70E+04	--	--
	Fluoranthene	µg/kg	--	--	583	3.86 J	212	230	3.00E+07	1.00E+07	2.80E+08	--	--
	Fluorene	µg/kg	--	--	31.8	3.40 U	12.3 J	4.36 J	4.70E+07	1.40E+07	3.90E+08	--	--
	Indeno(1,2,3-cd)pyrene	µg/kg	--	--	277	3.40 U	112	96.9	2.90E+03	2.40E+04	6.70E+05	--	--
	Naphthalene	µg/kg	--	--	44.2	3.40 U	23.2	9.95 J	2.30E+04	5.80E+05	1.60E+07	8.30E+04	8.30E+04
	Phenanthrene	µg/kg	--	--	323	3.40 U	144	96.7	--	--	--	--	--
	Pyrene	µg/kg	--	--	530	3.77 J	263	262	2.30E+07	7.50E+06	2.10E+08	--	--
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	--	--	854	13.8 U	95.5 J	29.4 J	1.60E+05	1.30E+06	3.70E+07	--	--
	Butyl benzyl phthalate	µg/kg	--	--	39.5	13.8 U	14.5 U	14.6 U	--	--	--	--	--
	Diethyl phthalate	µg/kg	--	--	239	13.8 U	14.5 U	14.6 U	--	--	--	--	--
	Dimethyl phthalate	µg/kg	--	--	18.1 U	13.8 U	14.5 U	14.6 U	--	--	--	--	--
	Di-n-butyl phthalate	µg/kg	--	--	58.1	13.8 U	14.5 U	14.6 U	--	--	--	--	--
	Di-n-octyl phthalate	µg/kg	--	--	26.1 J	13.8 U	29.0 U	14.6 U	--	--	--	--	--
Organotins	Dibutyltin	µg/kg	--	--	25	0.42 U	0.43 U	0.44 U	--	--	--	--	--
	Monobutyltin	µg/kg	--	--	79	0.40 U	0.41 U	0.42 U	--	--	--	--	--
	Tetra-n-butyltin	µg/kg	--	--	1.6 U	1.2 U	1.2 U	1.3 U	--	--	--	--	--
	Tributyltin	µg/kg	--	--	110	0.91 U	8.2 J	2.9 J	--	--	--	--	--

Table B-17
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
Human Health Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.9 Composite Samples						Vector 2.9 Samples			Oregon Department of Environmental Quality Risk-Based Concentrations				
			092110-2-2.9-Composite-12-WS		092110-2-2.9-Composite-13-Total		110110-2-2.9-Composite-02-WS		092110-2-2.9-10-03-FS	092110-2-2.9-20-05-FS	092110-2-2.9-20-06-Dup	Soil Ingestion, Dermal Contact, and Inhalation			Vol. to Outdoor Air	Vapor Intrusion
		Date	9/22/2010		9/21/2010		11/1/2010		9/21/2010	9/21/2010	9/21/2010	Occ	Const.	Exc	Occ	Occ
		Depth (Feet Below Ground Surface)	0		0		0		5 - 10	15 - 20	15 - 20					
Organochlorine Pesticides	4-4'-DDD	µg/kg	0.781	U	0.799	U	2.70	U	--	--	--					
	4,4'-DDE	µg/kg	0.781	U	0.799	U	0.891	U	--	--	--	1.20E+04	9.40E+04	2.60E+06		
	4,4'-DDT	µg/kg	1.59	U	1.62	U	2.70	U	--	--	--	8.20E+03	6.60E+04	1.80E+06	--	--
	Aldrin	µg/kg	0.781	U	0.799	U	0.891	U	--	--	--	8.50E+03	6.60E+04	1.80E+06	--	--
	alpha-BHC	µg/kg	0.781	U	0.799	U	0.891	U	--	--	--	1.30E+02	1.10E+03	3.00E+04	--	--
	alpha-Chlordane	µg/kg	0.781	U	0.799	U	0.891	U	--	--	--	3.60E+02	3.00E+03	8.30E+04	--	--
	beta-BHC	µg/kg	0.781	U	0.799	U	0.891	U	--	--	--	--	--	--	--	--
	Chlordane	µg/kg	17.8	U	18.2	U	20.2	U	--	--	--	--	--	--	--	--
	delta-BHC	µg/kg	0.781	U	0.799	U	0.891	U	--	--	--	7.40E+03	6.10E+04	1.70E+06	--	--
	Dieldrin	µg/kg	0.781	U	0.799	U	0.891	U	--	--	--	--	--	--	--	--
	Endosulfan I	µg/kg	0.781	U	0.799	U	0.891	U	--	--	--	1.40E+02	1.20E+03	3.30E+04	--	--
	Endosulfan II	µg/kg	0.781	U	0.799	U	0.891	U	--	--	--	--	--	--	--	--
	Endosulfan sulfate	µg/kg	1.59	U	0.799	U	0.891	U	--	--	--	--	--	--	--	--
	Endrin	µg/kg	0.781	U	0.799	U	0.891	U	--	--	--	--	--	--	--	--
	Endrin aldehyde	µg/kg	1.59	U	0.799	U	0.891	U	--	--	--	2.50E+05	8.00E+04	2.20E+06	--	--
	Endrin ketone	µg/kg	0.781	U	0.799	U	0.891	U	--	--	--	--	--	--	--	--
	gamma-BHC (Lindane)	µg/kg	0.781	U	0.799	U	0.891	U	--	--	--	--	--	--	--	--
	gamma-Chlordane	µg/kg	0.781	U	0.799	U	0.891	U	--	--	--	2.10E+03	1.70E+04	4.70E+05	--	--
	Heptachlor	µg/kg	0.781	U	0.799	U	0.891	U	--	--	--	--	--	--	--	--
	Heptachlor epoxide	µg/kg	0.781	U	0.799	U	0.891	U	--	--	--	4.50E+02	4.00E+03	1.10E+05	2.30E+05	2.30E+05
	Methoxychlor	µg/kg	2.37	U	2.42	U	0.891	U	--	--	--	2.40E+02	2.00E+03	5.60E+04	--	--
	Toxaphene	µg/kg	23.7	U	24.2	U	27.0	U	--	--	--	--	--	--	--	--
Chlorinated Herbicides	2,4,5-T	µg/kg	1,600	U	163	U	32.4	U	--	--	--	2.10E+03	1.70E+04	4.70E+05	--	--
	2,4,5-TP (Silvex)	µg/kg	825	U	83.9	U	16.7	U	--	--	--	--	--	--	--	--
	2,4-D	µg/kg	3,240	U	329	U	65.5	U	--	--	--	8.20E+07	2.70E+06	7.40E+07	--	--
	2,4-DB	µg/kg	3,240	U	329	U	65.5	U	--	--	--	--	--	--	--	--
	4-Nitrophenol	µg/kg	1,600	UJ	163	UJ	32.4	U	--	--	--	--	--	--	--	--
	Dalapon	µg/kg	8,110	U	824	U	164	U	--	--	--	--	--	--	--	--
	Dicamba	µg/kg	1,600	U	163	U	32.4	U	--	--	--	--	--	--	--	--
	Dichlorprop	µg/kg	3,240	U	329	U	65.5	U	--	--	--	--	--	--	--	--
	Dinoseb	µg/kg	3,240	U	329	U	65.5	U	--	--	--	--	--	--	--	--
	MCPA	µg/kg	162,000	U	16,400	U	3,270	U	--	--	--	4.10E+05	1.30E+05	3.70E+06	--	--
	MCPP	µg/kg	162,000	U	16,400	U	3,270	U	--	--	--	--	--	--	--	--
	Pentachlorophenol	µg/kg	1,600	U	163	U	32.4	U	--	--	--	4.00E+03	3.40E+04	9.60E+05	--	--
	Picloram	µg/kg	1,600	U	163	U	32.4	U	--	--	--	--	--	--	--	--

Table B-17
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
Human Health Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.9 Composite Samples				Vector 2.9 Samples						Oregon Department of Environmental Quality Risk-Based Concentrations				
			092110-2-2.9-Composite-12-WS	092110-2-2.9-Composite-13-Total	110110-2-2.9-Composite-02-WS		092110-2-2.9-10-03-FS		092110-2-2.9-20-05-FS		092110-2-2.9-20-06-Dup		Soil Ingestion, Dermal Contact, and Inhalation			Vol. to Outdoor Air	Vapor Intrusion
		Date	9/22/2010	9/21/2010	11/1/2010		9/21/2010		9/21/2010		9/21/2010		Occ	Const.	Exc	Occ	Occ
		Depth (Feet Below Ground Surface)	0	0	0		5 - 10		15 - 20		15 - 20						
Dioxins/Furans	1,2,3,4,6,7,8-HpCDD	pg/g	--	--	300		--		--		--		--	--	--	--	--
	1,2,3,4,6,7,8-HpCDF	pg/g	--	--	13		--		--		--		--	--	--	--	--
	1,2,3,4,7,8,9-HpCDF	pg/g	--	--	0.82	J	--		--		--		--	--	--	--	--
	1,2,3,4,7,8-HxCDD	pg/g	--	--	1.9	J	--		--		--		--	--	--	--	--
	1,2,3,4,7,8-HxCDF	pg/g	--	--	1.3	J	--		--		--		--	--	--	--	--
	1,2,3,6,7,8-HxCDD	pg/g	--	--	7.3		--		--		--		--	--	--	--	--
	1,2,3,6,7,8-HxCDF	pg/g	--	--	1.1	J	--		--		--		--	--	--	--	--
	1,2,3,7,8,9-HxCDD	pg/g	--	--	5		--		--		--		--	--	--	--	--
	1,2,3,7,8,9-HxCDF	pg/g	--	--	0.1	U	--		--		--		--	--	--	--	--
	1,2,3,7,8-PeCDD	pg/g	--	--	2.2	J	--		--		--		--	--	--	--	--
	1,2,3,7,8-PeCDF	pg/g	--	--	0.51	J	--		--		--		--	--	--	--	--
	2,3,4,6,7,8-HxCDF	pg/g	--	--	0.91	J	--		--		--		--	--	--	--	--
	2,3,4,7,8-PeCDF	pg/g	--	--	0.74	J	--		--		--		--	--	--	--	--
	2,3,7,8-TCDD	pg/g	--	--	0.70	J	--		--		--		1.60E+01	1.70E+02	4.80E+03	1.30E+05	1.30E+05
	2,3,7,8-TCDF	pg/g	--	--	0.75	J	--		--		--		--	--	--	--	--
	OCDD	pg/g	--	--	2,300		--		--		--		--	--	--	--	--
	OCDF	pg/g	--	--	34		--		--		--		--	--	--	--	--
	Total HpCDD	pg/g	--	--	720		--		--		--		--	--	--	--	--
	Total HpCDF	pg/g	--	--	45		--		--		--		--	--	--	--	--
	Total HxCDD	pg/g	--	--	84		--		--		--		--	--	--	--	--
	Total HxCDF	pg/g	--	--	29		--		--		--		--	--	--	--	--
	Total PeCDD	pg/g	--	--	11		--		--		--		--	--	--	--	--
	Total PeCDF	pg/g	--	--	9.5		--		--		--		--	--	--	--	--
	Total TCDD	pg/g	--	--	5.2		--		--		--		--	--	--	--	--
	Total TCDF	pg/g	--	--	5.2		--		--		--		--	--	--	--	--
Petroleum Hydrocarbons	Diesel	mg/kg	--	--	9.41	J	1.75	J	27.5		12.3	J	1.40E+04	4.60E+03	--	--	--
	Heavy Oil	mg/kg	--	--	37.8		5.16	J	127	J	65.4	J	--	--	--	--	--

Table B-17
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
Human Health Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.10 Composite Samples			Vector 2.10 Samples				Oregon Department of Environmental Quality Risk-Based Concentrations				
			102610-2-2.10-Composite	092210-2-2.10-Composite-12-FS	092210-2-2.10-Composite-13-Total	092210-2-2.10-Surface-01-WS	092210-2-2.10-1.5-02-FS	092210-2-2.10-10-04-FS	092210-2-2.10-20-06-FS	Soil Ingestion, Dermal Contact, and Inhalation			Vol. to Outdoor Air	Vapor Intrusion
		Date	10/26/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	Occ	Const.	Exc	Occ	Occ
		Depth (Feet Below Ground Surface)	0	0	0	0	0 - 1.5	5 - 10	15 - 20					
Inorganics	Mercury	mg/kg	--	--	--	0.0328 J	0.0480 J	0.00400 J	0.0454 J	350	110	2,900	--	--
	Arsenic	mg/kg	--	--	--	34.0	28.6	2.02 J	4.13	1.9	15	420	--	--
	Barium	mg/kg	--	--	--	835	336	61.9	138	220,000	69,000	--	--	--
	Chromium	mg/kg	--	--	--	142	55.80	7.65	23.8	--	530,000	--	--	--
	Copper	mg/kg	--	--	--	3,560	1,590	84	28.2	47,000	14,000	390,000	--	--
	Lead	mg/kg	--	--	--	102	66.9	2.89	13.0	800	800	800	--	--
	Manganese	mg/kg	--	--	--	3,650	2,790	409	473	25,000	8,200	230,000	--	--
	Nickel	mg/kg	--	--	--	107	31.6	3.41 J	15.2	22,000	7,000	190,000	--	--
	Selenium	mg/kg	--	--	--	0.585 J	0.499 J	0.0517 J	0.0761 J	--	--	--	--	--
	Silver	mg/kg	--	--	--	1.03	1.03	0.129 J	0.171 J	5,800	1,800	49,000	--	--
	Zinc	mg/kg	--	--	--	3,320	418	76.0	77.4	--	--	--	--	--
PCBs	Aroclor 1016	µg/kg	--	--	--	1.94 U	1.84 U	1.81 U	2.12 U	--	--	--	--	--
	Aroclor 1221	µg/kg	--	--	--	3.87 U	3.68 U	3.61 U	4.22 U	--	--	--	--	--
	Aroclor 1232	µg/kg	--	--	--	1.94 U	1.84 U	1.81 U	2.12 U	--	--	--	--	--
	Aroclor 1242	µg/kg	--	--	--	1.94 U	1.84 U	1.81 U	2.12 U	--	--	--	--	--
	Aroclor 1248	µg/kg	--	--	--	1.94 U	1.84 U	7.42	2.12 U	--	--	--	--	--
	Aroclor 1254	µg/kg	--	--	--	1.94 U	1.84 U	1.81 U	2.12 U	--	--	--	--	--
	Aroclor 1260	µg/kg	--	--	--	1.94 U	58.3 J	3.22 J	6.82	--	--	--	--	--
	Aroclor 1262	µg/kg	--	--	--	22.3 J	1.84 U	1.81 U	2.12 U	--	--	--	--	--
	Aroclor 1268	µg/kg	--	--	--	1.94 U	1.84 U	1.81 U	2.12 U	--	--	--	--	--
	Total PCBs	µg/kg	--	--	--	22.3 J	58.3 J	10.6 J	6.82	5.90E+02	4.90E+03	1.40E+05	--	--

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Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
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Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.10 Composite Samples			Vector 2.10 Samples				Oregon Department of Environmental Quality Risk-Based Concentrations				
			102610-2-2.10-Composite	092210-2-2.10-Composite-12-FS	092210-2-2.10-Composite-13-Total	092210-2-2.10-Surface-01-WS	092210-2-2.10-1.5-02-FS	092210-2-2.10-10-04-FS	092210-2-2.10-20-06-FS	Soil Ingestion, Dermal Contact, and Inhalation			Vol. to Outdoor Air	Vapor Intrusion
		Date	10/26/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	Occ	Const.	Exc	Occ	Occ
		Depth (Feet Below Ground Surface)	0	0	0	0	0 - 1.5	5 - 10	15 - 20					
VOCs	1,1,1,2-Tetrachloroethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	1,1,1-Trichloroethane	µg/kg	--	--	--	--	--	--	--	8.70E+08	4.70E+08	--	--	--
	1,1,2,2-Tetrachloroethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	1,1,2-Trichloroethane	µg/kg	--	--	--	--	--	--	--	2.60E+04	5.40E+04	1.50E+06	2.40E+04	4.20E+03
	1,1-Dichloroethane	µg/kg	--	--	--	--	--	--	--	2.60E+05	3.20E+06	8.90E+07	2.40E+05	5.90E+03
	1,1-Dichloroethene	µg/kg	--	--	--	--	--	--	--	2.90E+07	1.30E+07	3.70E+08	--	6.80E+05
	1,1-Dichloropropene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	1,2,3-Trichlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	1,2,3-Trichloropropane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	1,2,4-Trichlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	1,2,4-Trimethylbenzene	µg/kg	--	--	--	--	--	--	--	2.00E+06	2.00E+06	5.40E+07	9.80E+05	2.10E+05
	1,2-Dibromo-3-chloropropane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	1,2-Dibromoethane	µg/kg	--	--	--	--	--	--	--	7.30E+02	9.00E+03	2.50E+05	6.50E+02	1.60E+02
	1,2-Dichlorobenzene	µg/kg	--	--	--	--	--	--	--	3.60E+07	2.00E+07	5.60E+08	--	--
	1,2-Dichloroethane	µg/kg	--	--	--	--	--	--	--	1.60E+04	2.00E+05	5.60E+06	1.50E+04	1.00E+03
	1,2-Dichloropropane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	1,3,5-Trimethylbenzene	µg/kg	--	--	--	--	--	--	--	1.20E+07	3.50E+06	9.80E+07	--	--
	1,3-Dichlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	1,3-Dichloropropane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	1,4-Dichlorobenzene	µg/kg	--	--	--	--	--	--	--	6.40E+04	1.30E+06	3.60E+07	3.60E+04	1.30E+04
	2,2-Dichloropropane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	2-Butanone	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	2-Chlorotoluene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	2-Hexanone	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	4-Chlorotoluene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	4-Methyl-2-pentanone	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Acetone	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Benzene	µg/kg	--	--	--	--	--	--	--	3.70E+04	3.80E+05	1.10E+07	5.00E+04	2.10E+03
	Bromobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Bromochloromethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Bromodichloromethane	µg/kg	--	--	--	--	--	--	--	1.50E+04	2.30E+05	6.30E+06	1.10E+04	5.30E+02
	Bromoform	µg/kg	--	--	--	--	--	--	--	2.60E+05	2.70E+06	7.40E+07	3.60E+05	1.10E+05
	Bromomethane	µg/kg	--	--	--	--	--	--	--	7.50E+05	3.70E+05	1.00E+07	7.00E+05	1.70E+04
	Carbon disulfide	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Carbon tetrachloride	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--

Table B-17
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
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Group	Constituent	Units	Vector 2.10 Composite Samples			Vector 2.10 Samples				Oregon Department of Environmental Quality Risk-Based Concentrations				
			102610-2-2.10-Composite	092210-2-2.10-Composite-12-FS	092210-2-2.10-Composite-13-Total	092210-2-2.10-Surface-01-WS	092210-2-2.10-1.5-02-FS	092210-2-2.10-10-04-FS	092210-2-2.10-20-06-FS	Soil Ingestion, Dermal Contact, and Inhalation			Vol. to Outdoor Air	Vapor Intrusion
		Date	10/26/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	Occ	Const.	Exc	Occ	Occ
		Depth (Feet Below Ground Surface)	0	0	0	0	0 - 1.5	5 - 10	15 - 20					
VOCs (continued)	Chlorobenzene	µg/kg	--	--	--	--	--	--	--	8.70E+06	4.70E+06	1.30E+08	--	--
	Chloroethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Chloroform	µg/kg	--	--	--	--	--	--	--	2.60E+04	4.10E+05	1.10E+07	1.70E+04	4.10E+02
	Chloromethane	µg/kg	--	--	--	--	--	--	--	2.50E+07	2.50E+07	7.00E+08	--	3.00E+05
	cis-1,2-Dichloroethene	µg/kg	--	--	--	--	--	--	--	2.30E+06	7.10E+05	2.00E+07	--	--
	cis-1,3-Dichloropropene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Dibromochloromethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Dibromomethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Dichlorodifluoromethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Ethylbenzene	µg/kg	--	--	--	--	--	--	--	1.50E+05	1.70E+06	4.90E+07	1.60E+05	1.70E+04
	Hexachlorobutadiene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Isopropylbenzene	µg/kg	--	--	--	--	--	--	--	5.70E+07	2.70E+07	7.50E+08	--	--
	m,p-Xylene	µg/kg	--	--	--	--	--	--	--	2.50E+07	2.00E+07	5.60E+08	--	--
	Methyl tert-butyl ether	µg/kg	--	--	--	--	--	--	--	1.10E+06	1.20E+07	3.20E+08	1.50E+06	1.10E+05
	Methylene chloride	µg/kg	--	--	--	--	--	--	--	1.60E+06	2.10E+06	5.80E+07	-	9.50E+05
	Naphthalene	µg/kg	--	--	--	--	--	--	--	2.30E+04	5.80E+05	1.60E+07	8.30E+04	8.30E+04
	n-Butylbenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	n-Propylbenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	o-Xylene	µg/kg	--	--	--	--	--	--	--	2.50E+07	2.00E+07	5.60E+08	--	--
	p-Isopropyltoluene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	sec-Butylbenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Styrene	µg/kg	--	--	--	--	--	--	--	1.30E+08	5.60E+07	--	--	--
	tert-Butylbenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Tetrachloroethene	µg/kg	--	--	--	--	--	--	--	1.00E+06	1.80E+06	5.00E+07	--	3.60E+04
	Toluene	µg/kg	--	--	--	--	--	--	--	8.80E+07	2.80E+07	7.70E+08	--	--
	trans-1,2-Dichloroethene	µg/kg	--	--	--	--	--	--	--	2.30E+07	7.10E+06	2.00E+08	--	--
	trans-1,3-Dichloropropene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Trichloroethene	µg/kg	--	--	--	--	--	--	--	5.10E+04	4.70E+05	1.30E+07	9.60E+04	2.30E+03
	Trichlorofluoromethane	µg/kg	--	--	--	--	--	--	--	1.30E+08	6.90E+07	--	--	--
	Vinyl chloride	µg/kg	--	--	--	--	--	--	--	4.40E+03	3.40E+04	9.50E+05	8.90E+04	2.20E+03

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Group	Constituent	Units	Vector 2.10 Composite Samples			Vector 2.10 Samples				Oregon Department of Environmental Quality Risk-Based Concentrations				
			102610-2-2.10-Composite	092210-2-2.10-Composite-12-FS	092210-2-2.10-Composite-13-Total	092210-2-2.10-Surface-01-WS	092210-2-2.10-1.5-02-FS	092210-2-2.10-10-04-FS	092210-2-2.10-20-06-FS	Soil Ingestion, Dermal Contact, and Inhalation			Vol. to Outdoor Air	Vapor Intrusion
		Date	10/26/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	Occ	Const.	Exc	Occ	Occ
		Depth (Feet Below Ground Surface)	0	0	0	0	0 - 1.5	5 - 10	15 - 20					
SVOCs	1,2,4-Trichlorobenzene	µg/kg	--	--	--	2,310 U	549 U	--	634 U	--	--	--	--	--
	1,2-Dichlorobenzene	µg/kg	--	--	--	2,310 U	549 U	--	634 U	3.60E+07	2.00E+07	5.60E+08	--	--
	1,3-Dichlorobenzene	µg/kg	--	--	--	2,310 U	549 U	--	634 U	--	--	--	--	--
	1,4-Dichlorobenzene	µg/kg	--	--	--	2,310 U	549 U	--	634 U	6.40E+04	1.30E+06	3.60E+07	1.90E+04	1.30E+04
	2,4,5-Trichlorophenol	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	--	--	--	--	--
	2,4,6-Trichlorophenol	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	2.10E+05	2.70E+05	7.40E+06	--	--
	2,4-Dichlorophenol	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	--	--	--	--	--
	2,4-Dimethylphenol	µg/kg	--	--	--	2,310 U	549 U	--	634 U	--	--	--	--	--
	2,4-Dinitrophenol	µg/kg	--	--	--	9,240 U	2,200 U	--	2,530 U	--	--	--	--	--
	2,4-Dinitrotoluene	µg/kg	--	--	--	2,310 U	549 U	--	634 U	--	--	--	--	--
	2,6-Dinitrotoluene	µg/kg	--	--	--	2,310 U	549 U	--	634 U	1.50E+03	1.30E+04	3.50E+05	--	--
	2-Chloronaphthalene	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	--	--	--	--	--
	2-Chlorophenol	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	--	--	--	--	--
	2-Methylphenol	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	--	--	--	--	--
	2-Nitroaniline	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	--	--	--	--	--
	2-Nitrophenol	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	--	--	--	--	--
	3,3'-Dichlorobenzidine	µg/kg	--	--	--	2,310 U	549 U	--	634 U	--	--	--	--	--
	3,4-Methylphenol	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	--	--	--	--	--
	3-Nitroaniline	µg/kg	--	--	--	2,310 U	549 U	--	634 U	--	--	--	--	--
	4,6-Dinitro-2-methylphenol	µg/kg	--	--	--	2,310 U	549 U	--	634 U	--	--	--	--	--
	4-Bromophenyl phenyl ether	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	--	--	--	--	--
	4-Chloro-3-methylphenol	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	--	--	--	--	--
	4-Chloroaniline	µg/kg	--	--	--	762 U	181 U	--	209 U	--	--	--	--	--
	4-Chlorophenyl phenyl ether	µg/kg	--	--	--	462 U	110 U	--	127 U	--	--	--	--	--
	4-Nitroaniline	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	--	--	--	--	--
	4-Nitrophenol	µg/kg	--	--	--	2,310 U	549 U	--	634 U	--	--	--	--	--
	Benzoic Acid	µg/kg	--	--	--	2,310 U	549 U	--	634 U	--	--	--	--	--
	Benzyl Alcohol	µg/kg	--	--	--	4,620 U	1,100 U	--	1,270 U	--	--	--	--	--
	Bis(2-chloroethoxy)methane	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	--	--	--	--	--
	Bis(2-chloroethyl)ether	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	1.30E+03	1.60E+04	4.50E+05	1.20E+03	6.90E+03
	Bis(2-chloroisopropyl)ether	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	--	--	--	--	--
	Dibenzofuran	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	--	--	--	--	--
	Hexachlorobenzene	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	9.30E+02	1.10E+04	3.20E+05	2.40E+03	1.30E+04
	Hexachlorobutadiene	µg/kg	--	--	--	2,310 U	549 U	--	634 U	--	--	--	--	--
	Hexachlorocyclopentadiene	µg/kg	--	--	--	2,310 U	549 U	--	634 U	--	--	--	--	--
	Hexachloroethane	µg/kg	--	--	--	2,310 U	549 U	--	634 U	3.20E+04	1.80E+05	5.10E+06	1.90E+04	7.60E+03
	Isophorone	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	--	--	--	--	--
	Nitrobenzene	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	--	--	--	--	--
	N-Nitrosodi-n-propylamine	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	--	--	--	--	--
	N-Nitrosodiphenylamine	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	4.70E+05	3.80E+06	1.10E+08	--	--
	Pentachlorophenol	µg/kg	--	--	--	2,310 U	549 U	--	634 U	4.00E+03	3.40E+04	9.60E+05	--	--
	Phenol	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	--	--	--	--	--

Table B-17
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
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Group	Constituent	Units	Vector 2.10 Composite Samples			Vector 2.10 Samples									Oregon Department of Environmental Quality Risk-Based Concentrations				
			102610-2-2.10-Composite	092210-2-2.10-Composite-12-FS	092210-2-2.10-Composite-13-Total	092210-2-2.10-Surface-01-WS	092210-2-2.10-1.5-02-FS		092210-2-2.10-10-04-FS		092210-2-2.10-20-06-FS		Soil Ingestion, Dermal Contact, and Inhalation			Vol. to Outdoor Air	Vapor Intrusion
		Date	10/26/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010		9/22/2010		9/22/2010		Occ	Const.	Exc	Occ	Occ
		Depth (Feet Below Ground Surface)	0	0	0	0	0 - 1.5		5 - 10		15 - 20						
PAHs	2-Methylnaphthalene	µg/kg	--	--	--	32.5	10.3	J	3.57	U	4.15	U	--	--	--	--	--
	Acenaphthene	µg/kg	--	--	--	36.7	15.1	J	3.57	U	4.15	U	7.00E+07	2.10E+07	5.90E+08	--	--
	Acenaphthylene	µg/kg	--	--	--	40.6	7.27	U	3.57	U	4.15	U	--	--	--	--	--
	Anthracene	µg/kg	--	--	--	97.8	37.1		3.57	U	4.15	U	3.50E+08	1.10E+08	--	--	--
	Benzo(a)anthracene	µg/kg	--	--	--	258	72.9		3.57	U	4.15	U	2.90E+03	2.40E+04	6.60E+05	--	--
	Benzo(a)pyrene	µg/kg	--	--	--	322	75.1		4.41	J	4.98	J	--	--	--	--	--
	Benzo(b)fluoranthene	µg/kg	--	--	--	560	78.9		4.66	J	4.57	J	2.90E+03	2.40E+04	6.70E+05	--	--
	Benzo(ghi)perylene	µg/kg	--	--	--	288	52.6		3.57	U	5.43	J	--	--	--	--	--
	Benzo(k)fluranthene	µg/kg	--	--	--	420	63.8		3.57	U	4.15	U	--	--	--	--	--
	Chrysene	µg/kg	--	--	--	560	87.5		5.31	J	4.62	J	2.90E+05	2.40E+06	6.70E+07	--	--
	Dibenzo(a,h)anthracene	µg/kg	--	--	--	88.6	16.7	J	3.57	U	4.15	U	2.90E+02	2.40E+03	6.70E+04	--	--
	Fluoranthene	µg/kg	--	--	--	797	186		5.93	J	7.42	J	3.00E+07	1.00E+07	2.80E+08	--	--
	Fluorene	µg/kg	--	--	--	36.8	19.8	J	3.57	U	4.15	U	4.70E+07	1.40E+07	3.90E+08	--	--
	Indeno(1,2,3-cd)pyrene	µg/kg	--	--	--	262	46.8		3.57	U	4.15	U	2.90E+03	2.40E+04	6.70E+05	--	--
	Naphthalene	µg/kg	--	--	--	62.2	10.2	J	3.57	U	4.15	U	2.30E+04	5.80E+05	1.60E+07	8.30E+04	8.30E+04
	Phenanthrene	µg/kg	--	--	--	556	177		4.62	J	4.15	U	--	--	--	--	--
	Pyrene	µg/kg	--	--	--	576	147		5.92	J	8.73	J	2.30E+07	7.50E+06	2.10E+08	--	--
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	--	--	--	1,130	29.5	U	14.5	U	16.8	U	1.60E+05	1.30E+06	3.70E+07	--	--
	Butyl benzyl phthalate	µg/kg	--	--	--	127	77.1		14.5	U	16.8	U	--	--	--	--	--
	Diethyl phthalate	µg/kg	--	--	--	84.2	29.5	U	14.5	U	16.8	U	--	--	--	--	--
	Dimethyl phthalate	µg/kg	--	--	--	77.5	29.5	U	14.5	U	16.8	U	--	--	--	--	--
	Di-n-butyl phthalate	µg/kg	--	--	--	77.5	29.5	U	14.5	U	16.8	U	--	--	--	--	--
	Di-n-octyl phthalate	µg/kg	--	--	--	77.5	29.5	U	14.5	U	16.8	U	--	--	--	--	--
Organotins	Dibutyltin	µg/kg	--	--	--	140	0.42	U	0.43	U	0.49	U	--	--	--	--	--
	Monobutyltin	µg/kg	--	--	--	53	0.40	U	2.7		0.47	U	--	--	--	--	--
	Tetra-n-butyltin	µg/kg	--	--	--	1.4	1.2	U	1.3	U	1.4	U	--	--	--	--	--
	Tributyltin	µg/kg	--	--	--	540	8.9		0.92	U	1.1	U	--	--	--	--	--

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Group	Constituent	Units	Vector 2.10 Composite Samples			Vector 2.10 Samples							Oregon Department of Environmental Quality Risk-Based Concentrations				
			102610-2-2.10-Composite	092210-2-2.10-Composite-12-FS	092210-2-2.10-Composite-13-Total	092210-2-2.10-Surface-01-WS		092210-2-2.10-1.5-02-FS		092210-2-2.10-10-04-FS	092210-2-2.10-20-06-FS		Soil Ingestion, Dermal Contact, and Inhalation			Vol. to Outdoor Air	Vapor Intrusion
		Date	10/26/2010	9/22/2010	9/22/2010	9/22/2010		9/22/2010		9/22/2010	9/22/2010		Occ	Const.	Exc	Occ	Occ
		Depth (Feet Below Ground Surface)	0	0	0	0		0 - 1.5		5 - 10	15 - 20						
Organochlorine Pesticides	4-4'-DDD	µg/kg	--	--	--	1.56	UJ	2.22	U	--	--						
	4,4'-DDE	µg/kg	--	--	--	1.56	UJ	1.49	U	--	--		1.20E+04	9.40E+04	2.60E+06		
	4,4'-DDT	µg/kg	--	--	--	3.90	UJ	7.43	U	--	--		8.20E+03	6.60E+04	1.80E+06	--	--
	Aldrin	µg/kg	--	--	--	0.769	UJ	0.731	U	--	--		8.50E+03	6.60E+04	1.80E+06	--	--
	alpha-BHC	µg/kg	--	--	--	0.769	UJ	0.731	U	--	--		1.30E+02	1.10E+03	3.00E+04	--	--
	alpha-Chlordane	µg/kg	--	--	--	0.769	UJ	0.731	U	--	--		3.60E+02	3.00E+03	8.30E+04	--	--
	beta-BHC	µg/kg	--	--	--	0.769	UJ	0.731	U	--	--		--	--	--	--	--
	Chlordane	µg/kg	--	--	--	17.5	UJ	16.6	U	--	--		--	--	--	--	--
	delta-BHC	µg/kg	--	--	--	0.769	UJ	0.731	U	--	--		7.40E+03	6.10E+04	1.70E+06	--	--
	Dieldrin	µg/kg	--	--	--	1.56	UJ	2.97	U	--	--		--	--	--	--	--
	Endosulfan I	µg/kg	--	--	--	0.769	UJ	0.731	U	--	--		1.40E+02	1.20E+03	3.30E+04	--	--
	Endosulfan II	µg/kg	--	--	--	0.769	UJ	0.731	U	--	--		--	--	--	--	--
	Endosulfan sulfate	µg/kg	--	--	--	2.33	UJ	0.731	U	--	--		--	--	--	--	--
	Endrin	µg/kg	--	--	--	1.56	UJ	0.731	U	--	--		--	--	--	--	--
	Endrin aldehyde	µg/kg	--	--	--	2.33	UJ	2.22	U	--	--		2.50E+05	8.00E+04	2.20E+06	--	--
	Endrin ketone	µg/kg	--	--	--	3.89	UJ	0.731	U	--	--		--	--	--	--	--
	gamma-BHC (Lindane)	µg/kg	--	--	--	0.769	UJ	0.731	U	--	--		--	--	--	--	--
	gamma-Chlordane	µg/kg	--	--	--	0.769	UJ	0.731	U	--	--		2.10E+03	1.70E+04	4.70E+05	--	--
	Heptachlor	µg/kg	--	--	--	0.769	UJ	0.731	U	--	--		--	--	--	--	--
	Heptachlor epoxide	µg/kg	--	--	--	0.769	UJ	0.731	U	--	--		4.50E+02	4.00E+03	1.10E+05	2.30E+05	2.30E+05
	Methoxychlor	µg/kg	--	--	--	3.84	UJ	3.66	U	--	--		2.40E+02	2.00E+03	5.60E+04	--	--
	Toxaphene	µg/kg	--	--	--	23.3	UJ	22.2	U	--	--		--	--	--	--	--
Chlorinated Herbicides	2,4,5-T	µg/kg	--	--	--	--		--		--	--		2.10E+03	1.70E+04	4.70E+05	--	--
	2,4,5-TP (Silvex)	µg/kg	--	--	--	--		--		--	--		--	--	--	--	--
	2,4-D	µg/kg	--	--	--	--		--		--	--		8.20E+07	2.70E+06	7.40E+07	--	--
	2,4-DB	µg/kg	--	--	--	--		--		--	--		--	--	--	--	--
	4-Nitrophenol	µg/kg	--	--	--	--		--		--	--		--	--	--	--	--
	Dalapon	µg/kg	--	--	--	--		--		--	--		--	--	--	--	--
	Dicamba	µg/kg	--	--	--	--		--		--	--		--	--	--	--	--
	Dichlorprop	µg/kg	--	--	--	--		--		--	--		--	--	--	--	--
	Dinoseb	µg/kg	--	--	--	--		--		--	--		--	--	--	--	--
	MCPA	µg/kg	--	--	--	--		--		--	--		4.10E+05	1.30E+05	3.70E+06	--	--
	MCPP	µg/kg	--	--	--	--		--		--	--		--	--	--	--	--
	Pentachlorophenol	µg/kg	--	--	--	--		--		--	--		4.00E+03	3.40E+04	9.60E+05	--	--
	Picloram	µg/kg	--	--	--	--		--		--	--		--	--	--	--	--

Table B-17
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
Human Health Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.10 Composite Samples			Vector 2.10 Samples				Oregon Department of Environmental Quality Risk-Based Concentrations				
			102610-2-2.10-Composite	092210-2-2.10-Composite-12-FS	092210-2-2.10-Composite-13-Total	092210-2-2.10-Surface-01-WS	092210-2-2.10-1.5-02-FS	092210-2-2.10-10-04-FS	092210-2-2.10-20-06-FS	Soil Ingestion, Dermal Contact, and Inhalation			Vol. to Outdoor Air	Vapor Intrusion
		Date	10/26/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	Occ	Const.	Exc	Occ	Occ
		Depth (Feet Below Ground Surface)	0	0	0	0	0 - 1.5	5 - 10	15 - 20					
Dioxins/Furans	1,2,3,4,6,7,8-HpCDD	pg/g	120	100	100	--	--	--	--	--	--	--	--	--
	1,2,3,4,6,7,8-HpCDF	pg/g	94	21	15	--	--	--	--	--	--	--	--	--
	1,2,3,4,7,8,9-HpCDF	pg/g	2.8 J	1.4 J	1.1	--	--	--	--	--	--	--	--	--
	1,2,3,4,7,8-HxCDD	pg/g	0.35 J	0.78 J	1.3 J	--	--	--	--	--	--	--	--	--
	1,2,3,4,7,8-HxCDF	pg/g	2.4 J	1.5 J	0.85 J	--	--	--	--	--	--	--	--	--
	1,2,3,6,7,8-HxCDD	pg/g	4.7	3.7 J	5.3 J	--	--	--	--	--	--	--	--	--
	1,2,3,6,7,8-HxCDF	pg/g	4.5 J	0.68 J	0.63	--	--	--	--	--	--	--	--	--
	1,2,3,7,8,9-HxCDD	pg/g	1 J	1.9 J	2.1 J	--	--	--	--	--	--	--	--	--
	1,2,3,7,8,9-HxCDF	pg/g	0.22 U	0.21 U	0.47 J	--	--	--	--	--	--	--	--	--
	1,2,3,7,8-PeCDD	pg/g	0.5 J	0.61 J	0.49 U	--	--	--	--	--	--	--	--	--
	1,2,3,7,8-PeCDF	pg/g	0.58 J	0.45 J	0.69 J	--	--	--	--	--	--	--	--	--
	2,3,4,6,7,8-HxCDF	pg/g	2.2 J	0.52 J	0.44 U	--	--	--	--	--	--	--	--	--
	2,3,4,7,8-PeCDF	pg/g	1.1 J	0.57 J	0.71 J	--	--	--	--	--	--	--	--	--
	2,3,7,8-TCDD	pg/g	0.27 J	1.6	0.14 U	--	--	--	--	1.60E+01	1.70E+02	4.80E+03	1.30E+05	1.30E+05
	2,3,7,8-TCDF	pg/g	0.86 J	0.48 J	0.47 U	--	--	--	--	--	--	--	--	--
	OCDD	pg/g	1,200	1,000	910 J	--	--	--	--	--	--	--	--	--
	OCDF	pg/g	180	81	42	--	--	--	--	--	--	--	--	--
	Total HpCDD	pg/g	240	200	200	--	--	--	--	--	--	--	--	--
	Total HpCDF	pg/g	260	85	59	--	--	--	--	--	--	--	--	--
	Total HxCDD	pg/g	29	25	36	--	--	--	--	--	--	--	--	--
	Total HxCDF	pg/g	88	23	20	--	--	--	--	--	--	--	--	--
	Total PeCDD	pg/g	7.5	3.6	2.3	112 J	102	4.82 J	2.37 J	--	--	--	--	--
	Total PeCDF	pg/g	38	8.1	4.3	675 J	904	29.7	9.58 J	--	--	--	--	--
	Total TCDD	pg/g	3.3	4	0.4	--	--	--	--	--	--	--	--	--
	Total TCDF	pg/g	21	7.7	1.6	--	--	--	--	--	--	--	--	--
Petroleum Hydrocarbons	Diesel	mg/kg	--	--	--	--	--	--	--	1.40E+04	4.60E+03	--	--	--
	Heavy Oil	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--

Notes:
1. -- = Not applicable/not analyzed
2. mg/kg = Milligrams per kilogram
3. µg/kg = Micrograms per kilogram
4. pg/g = Picrograms per gram
5. J = The result is an estimated quantity
6. U= Undetected at the method detection limit shown
7. UJ = Undetected at the method detection limit shown, detection limit is an estimated quantity
8. Risk-Based Concentrations; revision date 11/1/15
9. Shading indicates sample concentration exceeds one or more RBCs

Table B-18
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.7 Composite Samples				Vector 2.7 Samples								Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			092210-2-2.7-Composite-11-FS	092210-2-2.7-Composite-12-Total	110110-2-2.7-Composite-01-WS		092210-2-2.7-Surface-01-WS		092210-2-2.7-10-03-FS		092210-2-2.7-25-06-FS		092210-2-2.7-25-07-Dup		Plants	Inverts.	Birds	Mamals	
		Date	9/22/2010	9/22/2010	11/1/2010		9/22/2010		9/22/2010		9/22/2010		9/22/2010						
		Depth (Feet Below Ground Surface)	0	0	0		0		5 - 10		20 - 25		20 - 25						
Inorganics	Mercury	mg/kg	--	--	0.0379	J	0.0137	J	0.152		0.171		0.165		0.3	0.1	1.5	73.0	0.23
	Arsenic	mg/kg	--	--	6.53		11.3		112		6.30	J	10.9	J	10	60	10	29	8.8
	Barium	mg/kg	--	--	182	J	205		142		198		237	J	500	3000	85	638	790
	Chromium	mg/kg	--	--	26.3	J	51.0		99.8		34.3	J	93.0	J	1	0.4	4	410	76
	Copper	mg/kg	--	--	234		843		282		88.4		124	J	100	50	190	390	34
	Lead	mg/kg	--	--	61.5	J	33.6		386		515	J	208	J	50	500	16	4,000	79
	Manganese	mg/kg	--	--	1,120		1,470		840		1,020	J	751	J	500	100	4,125	11,000	1,800
	Nickel	mg/kg	--	--	14.2		39.9		22.3		33.2		60.6		30	200	320	625	47
	Selenium	mg/kg	--	--	0.155	J	0.269	J	0.2550	J	0.131	J	0.332	J	1	70	2	25	0.71
	Silver	mg/kg	--	--	0.258	J	0.365	J	0.544	J	0.340	J	0.458	J	2	50	--	--	0.82
	Zinc	mg/kg	--	--	787		3,970		1,210		730	J	406	J	50	200	60	20,000	180
PCBs	Aroclor 1016	µg/kg	--	--	2.2	U	1.79	U	3.79	U	39.5	U	10.1	U	--	--	--	100,000	--
	Aroclor 1221	µg/kg	--	--	4.39	U	3.56	U	7.55	U	78.70	U	20.1	U	--	--	--	--	--
	Aroclor 1232	µg/kg	--	--	2.2	U	1.79	U	3.79	U	39.5	U	10.1	U	--	--	--	--	--
	Aroclor 1242	µg/kg	--	--	2.2	U	1.79	U	3.79	U	864	J	10.1	U	--	--	1,500	5,000	--
	Aroclor 1248	µg/kg	--	--	2.2	U	1.79	U	3.79	U	39.5	U	136	J	--	--	--	--	--
	Aroclor 1254	µg/kg	--	--	2.2	U	19.0		18.4		39.5	U	10.1	U	--	--	700	4,000	--
	Aroclor 1260	µg/kg	--	--	34.7	J	1.79	U	3.79	U	39.5	U	10.1	U	--	--	--	--	--
	Aroclor 1262	µg/kg	--	--	2.2	U	8.28		29.2		39.5	U	10.1	U	--	--	--	--	--
	Aroclor 1268	µg/kg	--	--	2.2	U	1.79	U	3.79	U	39.5	U	10.1	U	--	--	--	--	--
	Total PCBs	µg/kg	--	--	34.7	J	27.3		47.6		864	J	136	J	40,000	--	--	4,000	--

Table B-18
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.7 Composite Samples				Vector 2.7 Samples				Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			092210-2-2.7-Composite-11-FS	092210-2-2.7-Composite-12-Total	110110-2-2.7-Composite-01-WS		092210-2-2.7-Surface-01-WS	092210-2-2.7-10-03-FS	092210-2-2.7-25-06-FS	092210-2-2.7-25-07-Dup					
		Date	9/22/2010	9/22/2010	11/1/2010		9/22/2010	9/22/2010	9/22/2010	9/22/2010	Plants	Inverts.	Birds	Mamals	
	Depth (Feet Below Ground Surface)		0	0	0		0	5 - 10	20 - 25	20 - 25					
VOCs	1,1,1,2-Tetrachloroethane	µg/kg	--	--	12.1	U	--	--	--	--	--				--
	1,1,1-Trichloroethane	µg/kg	--	--	6.52	U	--	--	--	--	--	--	--	55,550,000	--
	1,1,2,2-Tetrachloroethane	µg/kg	--	--	14.7	U	--	--	--	--	--	--	--	--	--
	1,1,2-Trichloroethane	µg/kg	--	--	8.78	U	--	--	--	--	--	--	--	--	--
	1,1-Dichloroethane	µg/kg	--	--	8.69	U	--	--	--	--	--	--	--	--	--
	1,1-Dichloroethene	µg/kg	--	--	15.5	U	--	--	--	--	--	--	--	3,750,000	--
	1,1-Dichloropropene	µg/kg	--	--	10.2	U	--	--	--	--	--	--	--	--	--
	1,2,3-Trichlorobenzene	µg/kg	--	--	12.1	U	--	--	--	--	--	20,000	--	--	--
	1,2,3-Trichloropropane	µg/kg	--	--	8.37	U	--	--	--	--	--	--	--	--	--
	1,2,4-Trichlorobenzene	µg/kg	--	--	18.0	U	--	--	--	--	--	20,000	--	--	--
	1,2,4-Trimethylbenzene	µg/kg	--	--	19.1	U	--	--	--	--	--	--	--	--	--
	1,2-Dibromo-3-chloropropane	µg/kg	--	--	53.4	U	--	--	--	--	--	--	--	--	--
	1,2-Dibromoethane	µg/kg	--	--	13.5	U	--	--	--	--	--	--	--	--	--
	1,2-Dichlorobenzene	µg/kg	--	--	10.1	U	--	--	--	--	--	--	--	--	--
	1,2-Dichloroethane	µg/kg	--	--	9.8	U	--	--	--	--	--	--	70,000	2,780,000	--
	1,2-Dichloropropane	µg/kg	--	--	8.69	U	--	--	--	--	--	700,000	--	--	--
	1,3,5-Trimethylbenzene	µg/kg	--	--	14.2	J	--	--	--	--	--	--	--	--	--
	1,3-Dichlorobenzene	µg/kg	--	--	8.08	U	--	--	--	--	--	--	--	--	--
	1,3-Dichloropropane	µg/kg	--	--	8.6	U	--	--	--	--	--	--	--	--	--
	1,4-Dichlorobenzene	µg/kg	--	--	10.9	U	--	--	--	--	--	20,000	--	--	--
	2,2-Dichloropropane	µg/kg	--	--	8.14	U	--	--	--	--	--	--	--	--	--
	2-Butanone	µg/kg	--	--	32.9	U	--	--	--	--	--	--	--	#########	--
	2-Chlorotoluene	µg/kg	--	--	7.68	U	--	--	--	--	--	--	--	--	--
	2-Hexanone	µg/kg	--	--	36.6	U	--	--	--	--	--	--	--	--	--
	4-Chlorotoluene	µg/kg	--	--	5.61	U	--	--	--	--	--	--	--	--	--
	4-Methyl-2-pentanone	µg/kg	--	--	24.7	U	--	--	--	--	--	--	--	--	--
	Acetone	µg/kg	--	--	777	U	--	--	--	--	--	--	--	1,250,000	--
	Benzene	µg/kg	--	--	5.47	U	--	--	--	--	--	--	--	3,300,000	--
	Bromobenzene	µg/kg	--	--	16.2	U	--	--	--	--	--	--	--	--	--
	Bromochloromethane	µg/kg	--	--	12.6	U	--	--	--	--	--	--	--	--	--
	Bromodichloromethane	µg/kg	--	--	13.2	UJ	--	--	--	--	--	--	--	--	--
	Bromoform	µg/kg	--	--	11.9	U	--	--	--	--	--	--	--	--	--
	Bromomethane	µg/kg	--	--	10.4	U	--	--	--	--	--	--	--	--	--
	Carbon disulfide	µg/kg	--	--	9.3	U	--	--	--	--	--	--	--	--	--
	Carbon tetrachloride	µg/kg	--	--	14.2	U	--	--	--	--	--	1,000,000	--	2,000,000	--

Table B-18
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.7 Composite Samples				Vector 2.7 Samples				Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			092210-2-2.7-Composite-11-FS	092210-2-2.7-Composite-12-Total	110110-2-2.7-Composite-01-WS		092210-2-2.7-Surface-01-WS	092210-2-2.7-10-03-FS	092210-2-2.7-25-06-FS	092210-2-2.7-25-07-Dup					
		Date	9/22/2010	9/22/2010	11/1/2010		9/22/2010	9/22/2010	9/22/2010	9/22/2010	Plants	Inverts.	Birds	Mamals	
	Depth (Feet Below Ground Surface)		0	0	0		0	5 - 10	20 - 25	20 - 25					
VOCs (copntinued)	Chlorobenzene	µg/kg	--	--	3.97	U	--	--	--	--	--	40,000	--	--	--
	Chloroethane	µg/kg	--	--	23.9	U	--	--	--	--	--	--	--	--	--
	Chloroform	µg/kg	--	--	7.04	U	--	--	--	--	--	--	--	1,875,000	--
	Chloromethane	µg/kg	--	--	9.04	U	--	--	--	--	--	--	--	--	--
	cis-1,2-Dichloroethene	µg/kg	--	--	14	U	--	--	--	--	--	--	--	2,500,000	--
	cis-1,3-Dichloropropene	µg/kg	--	--	5.95	U	--	--	--	--	--	--	--	--	--
	Dibromochloromethane	µg/kg	--	--	9.6	U	--	--	--	--	--	--	--	--	--
	Dibromomethane	µg/kg	--	--	6.14	U	--	--	--	--	--	--	--	--	--
	Dichlorodifluoromethane	µg/kg	--	--	9.3	U	--	--	--	--	--	--	--	--	--
	Ethylbenzene	µg/kg	--	--	3.66	U	--	--	--	--	--	--	--	--	--
	Hexachlorobutadiene	µg/kg	--	--	11.5	U	--	--	--	--	--	--	--	--	--
	Isopropylbenzene	µg/kg	--	--	9.6	U	--	--	--	--	--	--	--	--	--
	m,p-Xylene	µg/kg	--	--	23	U	--	--	--	--	--	--	--	--	--
	Methyl tert-butyl ether	µg/kg	--	--	7.04	U	--	--	--	--	--	--	--	--	--
	Methylene chloride	µg/kg	--	--	29.8	J	--	--	--	--	--	--	--	730,000	--
	Naphthalene	µg/kg	--	--	9.96	U	--	--	--	--	10,000	--	--	3,900,000	--
	n-Butylbenzene	µg/kg	--	--	8.28	U	--	--	--	--	--	--	--	--	--
	n-Propylbenzene	µg/kg	--	--	9.09	U	--	--	--	--	--	--	--	--	--
	o-Xylene	µg/kg	--	--	8.37	U	--	--	--	--	1,000	--	--	--	--
	p-Isopropyltoluene	µg/kg	--	--	12.5	U	--	--	--	--	--	--	--	--	--
	sec-Butylbenzene	µg/kg	--	--	6.58	U	--	--	--	--	--	--	--	--	--
	Styrene	µg/kg	--	--	4.06	U	--	--	--	--	300,000	--	--	--	--
	tert-Butylbenzene	µg/kg	--	--	12.6	U	--	--	--	--	--	--	--	--	--
	Tetrachloroethene	µg/kg	--	--	18.6	U	--	--	--	--	10,000	--	--	80,000	--
	Toluene	µg/kg	--	--	4.53	U	--	--	--	--	200,000	--	--	1,440,000	--
	trans-1,2-Dichloroethene	µg/kg	--	--	7.58	U	--	--	--	--	--	--	--	2,500,000	--
	trans-1,3-Dichloropropene	µg/kg	--	--	7.58	U	--	--	--	--	--	--	--	--	--
	Trichloroethene	µg/kg	--	--	9.39	U	--	--	--	--	--	--	--	40,000	--
	Trichlorofluoromethane	µg/kg	--	--	40.2	U	--	--	--	--	--	--	--	--	--
	Vinyl chloride	µg/kg	--	--	9.68	UJ	--	--	--	--	--	--	--	20,000	--

Table B-18
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.7 Composite Samples			Vector 2.7 Samples				Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			092210-2-2.7-Composite-11-FS	092210-2-2.7-Composite-12-Total	110110-2-2.7-Composite-01-WS	092210-2-2.7-Surface-01-WS	092210-2-2.7-10-03-FS	092210-2-2.7-25-06-FS	092210-2-2.7-25-07-Dup	Plants	Inverts.	Birds	Mamals	
		Date	9/22/2010	9/22/2010	11/1/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010					
		Depth (Feet Below Ground Surface)	0	0	0	0	5 - 10	20 - 25	20 - 25					
SVOCs	1,2,4-Trichlorobenzene	µg/kg	--	1,510 U	664 U	2,120 U	1,130 U	595 U	600 U	--	20,000	--	--	--
	1,2-Dichlorobenzene	µg/kg	--	1,510 U	664 U	2,120 U	1,130 U	595 U	600 U	--	--	--	--	--
	1,3-Dichlorobenzene	µg/kg	--	1,510 U	664 U	2,120 U	1,130 U	595 U	600 U	--	--	--	--	--
	1,4-Dichlorobenzene	µg/kg	--	1,510 U	664 U	2,120 U	1,130 U	595 U	600 U	--	20,000	--	--	--
	2,4,5-Trichlorophenol	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U		9,000	--	--	--
	2,4,6-Trichlorophenol	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	10,000	10,000	--	--	--
	2,4-Dichlorophenol	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	20,000	--	--	--	--
	2,4-Dimethylphenol	µg/kg	--	1,510 U	664 U	2,120 U	1,130 U	595 U	600 U	20,000	--	--	--	--
	2,4-Dinitrophenol	µg/kg	--	6,020 U	2,650 U	8,460 U	4,540 U	2,380 U	2,400 U	20,000	--	--	--	--
	2,4-Dinitrotoluene	µg/kg	--	1,510 U	664 U	2,120 U	1,130 U	595 U	600 U	--	--	--	--	--
	2,6-Dinitrotoluene	µg/kg	--	1,510 U	664 U	2,120 U	1,130 U	595 U	600 U	--	--	--	--	--
	2-Chloronaphthalene	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	--	--	--	--	--
	2-Chlorophenol	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	60,000	--	--	--	--
	2-Methylphenol	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	50,000	--	--	16,000,000	--
	2-Nitroaniline	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	--	--	--	--	--
	2-Nitrophenol	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	--	--	--	--	--
	3,3'-Dichlorobenzidine	µg/kg	--	1,510 U	664 U	2,120 U	1,130 U	595 U	600 U	--	--	--	--	--
	3,4-Methylphenol	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	--	--	--	--	--
	3-Nitroaniline	µg/kg	--	1,510 U	664 U	2,120 U	1,130 U	595 U	600 U	70,000	--	--	--	--
	4,6-Dinitro-2-methylphenol	µg/kg	--	1,510 U	664 U	2,120 U	1,130 U	595 U	600 U	--	--	--	--	--
	4-Bromophenyl phenyl ether	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	--	--	--	--	--
	4-Chloro-3-methylphenol	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	--	--	--	--	--
	4-Chloroaniline	µg/kg	--	497 U	219 U	698 U	374 U	196 U	198 U	40,000	--	--	--	--
	4-Chlorophenyl phenyl ether	µg/kg	--	301 U	133 U	423 U	227 U	119 U	120 U	--	--	--	--	--
	4-Nitroaniline	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	40,000	--	--	--	--
	4-Nitrophenol	µg/kg	--	183 UJ	32.9 U	2,120 U	1,130 U	595 U	600 U	10,000	7,000	--	--	--
	Benzoic Acid	µg/kg	--	1,510 U	664 U	2,120 U	1,130 U	595 U	600 U	--	--	--	--	--
	Benzyl Alcohol	µg/kg	--	3,010 U	1,330 U	4,230 U	2,270 U	1,190 U	1,200 U	--	--	--	--	--
	Bis(2-chloroethoxy)methane	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	--	--	--	--	--
	Bis(2-chloroethyl)ether	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	--	--	--	--	--
	Bis(2-chloroisopropyl)ether	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	--	--	--	--	--
	Dibenzofuran	µg/kg	--	211 U	92.9 U	296 U	732 J	83.3 U	84.0 U	--	--	--	2	--
	Hexachlorobenzene	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	--	1,000,000	--	--	--
	Hexachlorobutadiene	µg/kg	--	1,510 U	664 U	2,120 U	1,130 U	595 U	600 U	--	--	--	--	--
	Hexachlorocyclopentadiene	µg/kg	--	1,510 U	664 U	2,120 U	1,130 U	595 U	600 U	10,000	--	--	--	--
	Hexachloroethane	µg/kg	--	1,510 U	664 U	2,120 U	1,130 U	595 U	600 U	--	--	--	--	--
	Isophorone	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	--	--	--	--	--
	Nitrobenzene	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	8,000	40,000	--	--	--
	N-Nitrosodi-n-propylamine	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	--	--	--	--	--
	N-Nitrosodiphenylamine	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	--	20,000	--	--	--
	Pentachlorophenol	µg/kg	--	183 U	664 U	2,120 U	1,130 U	595 U	600 U	3,000	4,000	--	30,000	--
	Phenol	µg/kg	--	211 U	92.9 U	296 U	159 U	83.3 U	84.0 U	70,000	30,000	--	--	--

Table B-18
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.7 Composite Samples			Vector 2.7 Samples				Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			092210-2-2.7-Composite-11-FS	092210-2-2.7-Composite-12-Total	110110-2-2.7-Composite-01-WS	092210-2-2.7-Surface-01-WS	092210-2-2.7-10-03-FS	092210-2-2.7-25-06-FS	092210-2-2.7-25-07-Dup	Plants	Inverts.	Birds	Mamals	
		Date	9/22/2010	9/22/2010	11/1/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010					
		Depth (Feet Below Ground Surface)	0	0	0	0	5 - 10	20 - 25	20 - 25					
PAHs	2-Methylnaphthalene	µg/kg	--	211 U	7.15 J	7.05 U	1,570	72.7	29.6 J	--	--	--	--	--
	Acenaphthene	µg/kg	--	211 U	23.6	7.05 U	3,090	40.7	13.4 J	20,000	--	--	--	--
	Acenaphthylene	µg/kg	--	211 U	6.63 J	19.2 J	3,410	12.3 J	13.8 J	--	--	--	--	--
	Anthracene	µg/kg	--	211 U	31.4	43.3	8,670	105 J	187 J	--	--	--	--	--
	Benzo(a)anthracene	µg/kg	--	211 U	139	91.6	12,500	569 J	81.6 J	--	--	--	--	--
	Benzo(a)pyrene	µg/kg	--	255 J	196	71.8	10,300	930 J	91.4 J	--	--	--	125,000	--
	Benzo(b)fluoranthene	µg/kg	--	565 J	253	181	7,870	446 J	64.7 J	--	--	--	--	--
	Benzo(ghi)perylene	µg/kg	--	211 U	169	82.3	5,340	932 J	66.3 J	--	--	--	--	--
	Benzo(k)fluranthene	µg/kg	--	366 J	191	111	8,800	246 J	50.6 J	--	--	--	--	--
	Chrysene	µg/kg	--	350 J	201	240	12,000	903 J	206 J	--	--	--	--	--
	Dibenzo(a,h)anthracene	µg/kg	--	211 U	44.0	28.5 J	1,710	129	15.7 J	--	--	--	--	--
	Fluoranthene	µg/kg	--	358 J	404	236	33,500	359 J	118 J	--	--	--	--	--
	Fluorene	µg/kg	--	211 U	23.3	11.8 J	5,850	63.3	50.8	--	30,000	--	--	--
	Indeno(1,2,3-cd)pyrene	µg/kg	--	211 U	153	64.4	5,330	258 J	43.6 J	--	--	--	--	--
	Naphthalene	µg/kg	--	211 U	8.49 U	11.6 J	2,320	154 J	52.6 J	10,000	--	--	3,900,000	--
	Phenanthrene	µg/kg	--	259 J	278	81.1	37,300	395 J	90.0 J	--	--	--	--	--
	Pyrene	µg/kg	--	300 J	366 J	260	26,500	1,060 J	215 J	--	--	--	--	--
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	--	6,020 U	816 J	551	151 U	31.7 U	15.9 U	--	--	4,500	1,020,000	--
	Butyl benzyl phthalate	µg/kg	--	211 U	32.9 J	30.3 J	151 U	31.7 U	15.9 U	--	--	--	--	--
	Diethyl phthalate	µg/kg	--	602 J	229 J	35.3 J	75.4 U	31.7 U	15.9 U	100,000	--	--	#########	--
	Dimethyl phthalate	µg/kg	--	211 U	17.7 U	28.6 U	75.4 U	31.7 U	15.9 U	--	200,000	--	--	--
	Di-n-butyl phthalate	µg/kg	--	1,510 U	206	1,180	75.4 U	63.4 U	15.9 U	200,000	--	450	30,000,000	--
	Di-n-octyl phthalate	µg/kg	--	211 U	17.7 U	28.6 U	75.4 U	31.7 U	15.9 U	--	--	--	--	--
Butyltins	Dibutyltin	µg/kg	--	--	53	15	0.43 U	0.50 U	0.50 U	--	--	--	--	--
	Monobutyltin	µg/kg	--	--	26	18	0.41 U	0.48 U	0.48 U	--	--	--	--	--
	Tetra-n-butyltin	µg/kg	--	--	1.4 U	1.3 U	1.3 U	1.50 U	1.5 U	--	--	--	--	--
	Tributyltin	µg/kg	--	--	130	14	0.92 U	1.10 U	1.1 U	--	--	--	--	--

Table B-18
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.7 Composite Samples						Vector 2.7 Samples								Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			092210-2-2.7-Composite-11-FS		092210-2-2.7-Composite-12-Total		110110-2-2.7-Composite-01-WS		092210-2-2.7-Surface-01-WS		092210-2-2.7-10-03-FS		092210-2-2.7-25-06-FS		092210-2-2.7-25-07-Dup		Plants	Inverts.	Birds	Mamals	
		Date	9/22/2010		9/22/2010		11/1/2010		9/22/2010		9/22/2010		9/22/2010		9/22/2010						
		Depth (Feet Below Ground Surface)	0		0		0		0		5 - 10		20 - 25		20 - 25						
Organochlorine Pesticides	4-4'-DDD	µg/kg	5.63		3.05	U	0.870	U	0.709	UJ	--		--		--		--	--	10	100,000	--
	4,4'-DDE	µg/kg	2.81		2.04	U	0.870	U	1.44	UJ	--		--		--		--	--	10	100,000	--
	4,4'-DDT	µg/kg	8.65	U	10.2	U	3.53	U	1.77	UJ	--		--		--		--	--	10	100,000	--
	Aldrin	µg/kg	0.852	U	1.01	U	0.870	UJ	0.709	UJ	--		--		--		--	--	--	25,000	--
	alpha-BHC	µg/kg	0.852	U	2.04	U	0.870	U	0.709	UJ	--		--		--		--	--	--	--	--
	alpha-Chlordane	µg/kg	0.852	U	1.01	U	0.870	U	0.709	UJ	--		--		--		--	--	--	--	--
	beta-BHC	µg/kg	0.852	U	1.01	U	0.870	U	1.44	UJ	--		--		--		--	--	--	--	--
	Chlordane	µg/kg	19.4	U	22.9	U	19.8	U	16.1	UJ	--		--		--		--	--	9,000	250,000	--
	delta-BHC	µg/kg	0.852	U	1.01	U	0.870	U	0.709	UJ	--		--		--		--	--	--	--	--
	Dieldrin	µg/kg	1.52	J	1.01	U	0.870	U	0.709	UJ	--		--		--		--	--	300	3	--
	Endosulfan I	µg/kg	0.852	U	1.01	U	0.870	U	0.709	UJ	--		--		--		--	--	--	--	--
	Endosulfan II	µg/kg	0.852	U	1.01	U	0.870	U	0.709	UJ	--		--		--		--	--	--	--	--
	Endosulfan sulfate	µg/kg	0.852	U	1.01	U	0.870	U	0.709	UJ	--		--		--		--	--	--	--	--
	Endrin	µg/kg	0.852	U	1.01	U	0.870	UJ	0.709	UJ	--		--		--		--	--	40	5,000	--
	Endrin aldehyde	µg/kg	0.852	U	1.01	U	0.870	U	1.44	UJ	--		--		--		--	--	--	--	--
	Endrin ketone	µg/kg	0.852	U	1.01	U	0.870	U	3.60	UJ	--		--		--		--	--	--	--	--
	gamma-BHC (Lindane)	µg/kg	0.852	U	1.01	U	0.870	U	0.709	UJ	--		--		--		--	--	8,000	1,000,000	--
	gamma-Chlordane	µg/kg	1.32	U	1.01	U	0.870	U	0.709	UJ	--		--		--		--	--	--	--	--
	Heptachlor	µg/kg	0.852	U	1.01	U	0.870	U	0.709	UJ	--		--		--		--	--	--	15,000	--
	Heptachlor epoxide	µg/kg	0.852	U	1.01	U	0.870	U	0.709	UJ	--		--		--		--	--	--	--	--
	Methoxychlor	µg/kg	4.26	U	2.04	U	0.870	U	1.77	UJ	--		--		--		--	--	--	500,000	--
	Toxaphene	µg/kg	25.8	U	30.5	U	26.4	U	215	UJ	--		--		--		--	--	--	100,000	--
Chlorinated Herbicides	2,4,5-T	µg/kg	161	UJ	183	U	32.9	U	--		--		--		--		--	--	--	--	--
	2,4,5-TP (Silvex)	µg/kg	103	UJ	94.3	U	16.9	U	--		--		--		--		--	--	--	--	--
	2,4-D	µg/kg	326	UJ	370	U	66.5	U	--		--		--		--		--	--	--	--	--
	2,4-DB	µg/kg	326	UJ	370	U	66.5	U	--		--		--		--		--	--	--	--	--
	4-Nitrophenol	µg/kg	161	UJ	183	UJ	32.9	U	--		--		--		--		10,000	7,000	--	--	--
	Dalapon	µg/kg	816	UJ	926	U	166	U	--		--		--		--		--	--	--	--	--
	Dicamba	µg/kg	161	UJ	183	U	32.9	U	--		--		--		--		--	--	--	--	--
	Dichlorprop	µg/kg	326	UJ	370	U	66.5	U	--		--		--		--		--	--	--	--	--
	Dinoseb	µg/kg	326	UJ	370	U	66.5	U	--		--		--		--		--	--	--	--	--
	MCPA	µg/kg	16,300	UJ	18,500	U	3,320	U	--		--		--		--		--	--	--	--	--
	MCPP	µg/kg	16,300	UJ	18,500	U	3,320	UJ	--		--		--		--		--	--	--	--	--
	Pentachlorophenol	µg/kg	161	UJ	183	U	32.9	U	--		--		--		--		3,000	4,000	--	30,000	--
	Picloram	µg/kg	161	UJ	183	U	32.9	U	--		--		--		--		--	--	--	--	--

Table B-18
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.7 Composite Samples				Vector 2.7 Samples					Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			092210-2-2.7-Composite-11-FS	092210-2-2.7-Composite-12-Total	110110-2-2.7-Composite-01-WS		092210-2-2.7-Surface-01-WS	092210-2-2.7-10-03-FS	092210-2-2.7-25-06-FS	092210-2-2.7-25-07-Dup		Plants	Inverts.	Birds	Mamals	
		Date	9/22/2010	9/22/2010	11/1/2010		9/22/2010	9/22/2010	9/22/2010	9/22/2010						
	Depth (Feet Below Ground Surface)		0	0	0		0	5 - 10	20 - 25	20 - 25						
Dioxins/Furans	1,2,3,4,6,7,8-HpCDD	pg/g	--	--	160		--	--	--	--		--	--	--	--	--
	1,2,3,4,6,7,8-HpCDF	pg/g	--	--	25		--	--	--	--		--	--	--	--	--
	1,2,3,4,7,8,9-HpCDF	pg/g	--	--	2.9	J	--	--	--	--		--	--	--	--	--
	1,2,3,4,7,8-HxCDD	pg/g	--	--	1.6	J	--	--	--	--		--	--	--	--	--
	1,2,3,4,7,8-HxCDF	pg/g	--	--	4	J	--	--	--	--		--	--	--	--	--
	1,2,3,6,7,8-HxCDD	pg/g	--	--	5.4		--	--	--	--		--	--	--	--	--
	1,2,3,6,7,8-HxCDF	pg/g	--	--	1.9	J	--	--	--	--		--	--	--	--	--
	1,2,3,7,8,9-HxCDD	pg/g	--	--	3.4	J	--	--	--	--		--	--	--	--	--
	1,2,3,7,8,9-HxCDF	pg/g	--	--	0.18	J	--	--	--	--		--	--	--	--	--
	1,2,3,7,8-PeCDD	pg/g	--	--	1.1	J	--	--	--	--		--	--	--	--	--
	1,2,3,7,8-PeCDF	pg/g	--	--	0.94	J	--	--	--	--		--	--	--	--	--
	2,3,4,6,7,8-HxCDF	pg/g	--	--	1.5	J	--	--	--	--		--	--	--	--	--
	2,3,4,7,8-PeCDF	pg/g	--	--	2	J	--	--	--	--		--	--	--	--	--
	2,3,7,8-TCDD	pg/g	--	--	0.26	J	--	--	--	--		--	--	0.055	0.12	--
	2,3,7,8-TCDF	pg/g	--	--	2.4		--	--	--	--		--	--	--	--	--
	OCDD	pg/g	--	--	1,400		--	--	--	--		--	--	--	--	--
	OCDF	pg/g	--	--	99		--	--	--	--		--	--	--	--	--
	Total HpCDD	pg/g	--	--	300		--	--	--	--		--	--	--	--	--
	Total HpCDF	pg/g	--	--	86		--	--	--	--		--	--	--	--	--
	Total HxCDD	pg/g	--	--	38		--	--	--	--		--	--	--	--	--
	Total HxCDF	pg/g	--	--	39		--	--	--	--		--	--	--	--	--
	Total PeCDD	pg/g	--	--	5.7		--	--	--	--		--	--	--	--	--
	Total PeCDF	pg/g	--	--	17		--	--	--	--		--	--	--	--	--
	Total TCDD	pg/g	--	--	2.2		--	--	--	--		--	--	--	--	--
	Total TCDF	pg/g	--	--	15		--	--	--	--		--	--	--	--	--
Petroleum Hydrocarbons	Diesel	mg/kg	--	--	3.01	J	88.2	35.4	68.2	J	44.6 J	--	--	--	--	--
	Heavy Oil	mg/kg	--	--	10.7	J	719	138	425	J	123 J	--	--	--	--	--

Table B-18
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.8 Composite Samples			Vector 2.8 Samples							Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			102610-2-2.8-Composite-06	092110-2-2.8-Composite-07-WS	092110-2-2.8-Composite-08-Total	092110-2-2.8-Surface-02-WS	092110-2-2.8-1.5-01-FS	092110-2-2.8-5-03-FS	092110-2-2.8-10-04-FS	092110-2-2.8-15-05-FS	092110-2-2.8-20-06-FS	102610-2-2.8-25-01-FS					
		Date	10/26/2010	9/22/2010	9/22/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	10/26/2010	Plants	Inverts.	Birds	Mamals	
		Depth (Feet Below Ground Surface)	0	0	0	0	0 - 1.5	5 - 10	10 - 15	15 - 20	20 - 25	20 - 25					
Inorganics	Mercury	mg/kg	--	--	--	0.105	0.00940 J	0.00450 U	0.00290 U	0.00540 U	0.222	0.0942	0.3	0.1	1.5	73.0	0.23
	Arsenic	mg/kg	--	--	--	124	1.88	1.13	0.916	11.1	9.46	4.98	10	60	10	29	8.8
	Barium	mg/kg	--	--	--	561	114	102	74.1	243	175	145	500	3000	85	638	790
	Chromium	mg/kg	--	--	--	135	7.5	8.49	5.22	31.5	25.6	31.3	1	0.4	4	410	76
	Copper	mg/kg	--	--	--	2,080	30.2	13.7	11.9	835	30.9	47.5	100	50	190	390	34
	Lead	mg/kg	--	--	--	512	37.0	6.61	4.19	39.1	69.9	24.4	50	500	16	4,000	79
	Manganese	mg/kg	--	--	--	2,850	1,140	748	535	1,770	654	634	500	100	4,125	11,000	1,800
	Nickel	mg/kg	--	--	--	50.7	6.55	4.36	2.31	17.0	20.4	23.4	30	200	320	625	47
	Selenium	mg/kg	--	--	--	0.632 J	0.0786 J	0.0714 J	0.0268 J	0.208 J	0.0767 J	0.117 J	1	70	2	25	0.71
	Silver	mg/kg	--	--	--	1.23	0.14 J	0.159 J	0.123 J	0.515 J	0.179 J	0.209 J	2	50	--	--	0.82
	Zinc	mg/kg	--	--	--	7,830	92.5	69.8	56.4	168	113	96.3	50	200	60	20,000	180
PCBs	Aroclor 1016	µg/kg	--	--	--	21.5 U	1.87 U	1.82 U	1.79 U	1.82 U	2.12 U	8.75 U	--	--	--	100,000	--
	Aroclor 1221	µg/kg	--	--	--	42.9 U	3.73 U	3.63 U	3.56 U	3.63 U	4.22 U	17.5 U	--	--	--	--	--
	Aroclor 1232	µg/kg	--	--	--	21.5 U	1.87 U	1.82 U	1.79 U	1.82 U	2.12 U	8.75 U	--	--	--	--	--
	Aroclor 1242	µg/kg	--	--	--	21.5 U	1.87 U	1.82 U	1.79 U	1.82 U	2.12 U	8.75 U	--	--	1,500	5,000	--
	Aroclor 1248	µg/kg	--	--	--	21.5 U	13.1	1.82 U	1.79 U	1.82 U	2.12 U	8.75 U	--	--	--	--	--
	Aroclor 1254	µg/kg	--	--	--	21.5 U	1.87 U	1.82 U	1.79 U	1.82 U	2.12 U	74.0	--	--	700	4,000	--
	Aroclor 1260	µg/kg	--	--	--	21.5 U	6.96	1.82 U	1.79 U	1.82 U	7.81 U	8.75 U	--	--	--	--	--
	Aroclor 1262	µg/kg	--	--	--	63.4	1.87 U	1.82 U	1.79 U	1.82 U	2.12 U	49.9	--	--	--	--	--
	Aroclor 1268	µg/kg	--	--	--	21.5 U	1.87 U	1.82 U	1.79 U	1.82 U	2.12 U	8.75 U	--	--	--	--	--
	Total PCBs	µg/kg	--	--	--	63.4	20.1	18.2 U	17.9 U	18.2 U	7.81 J	124	40,000	--	--	4,000	--

Table B-18
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.8 Composite Samples			Vector 2.8 Samples							Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			102610-2-2.8-Composite-06	092110-2-2.8-Composite-07-WS	092110-2-2.8-Composite-08-Total	092110-2-2.8-Surface-02-WS	092110-2-2.8-1.5-01-FS	092110-2-2.8-5-03-FS	092110-2-2.8-10-04-FS	092110-2-2.8-15-05-FS	092110-2-2.8-20-06-FS	102610-2-2.8-25-01-FS					
		Date	10/26/2010	9/22/2010	9/22/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	10/26/2010	Plants	Inverts.	Birds	Mamals	
		Depth (Feet Below Ground Surface)	0	0	0	0	0 - 1.5	5 - 10	10 - 15	15 - 20	20 - 25	20 - 25					
VOCs	1,1,1,2-Tetrachloroethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--				--
	1,1,1-Trichloroethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	55,550,000	--
	1,1,2,2-Tetrachloroethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,1,2-Trichloroethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,1-Dichloroethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,1-Dichloroethene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	3,750,000	--
	1,1-Dichloropropene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,2,3-Trichlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	20,000	--	--	--
	1,2,3-Trichloropropane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,2,4-Trichlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	20,000	--	--	--
	1,2,4-Trimethylbenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,2-Dibromo-3-chloropropane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,2-Dibromoethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,2-Dichlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,2-Dichloroethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	70,000	2,780,000	--
	1,2-Dichloropropane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	700,000	--	--	--
	1,3,5-Trimethylbenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,3-Dichlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,3-Dichloropropane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,4-Dichlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	20,000	--	--	--
	2,2-Dichloropropane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2-Butanone	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	#########	--
	2-Chlorotoluene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2-Hexanone	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4-Chlorotoluene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4-Methyl-2-pentanone	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Acetone	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	1,250,000	--
	Benzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	3,300,000	--
	Bromobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Bromochloromethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Bromodichloromethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Bromoform	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Bromomethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Carbon disulfide	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Carbon tetrachloride	µg/kg	--	--	--	--	--	--	--	--	--	--	--	1,000,000	--	2,000,000	--

Table B-18
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.8 Composite Samples			Vector 2.8 Samples							Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			102610-2-2.8-Composite-06	092110-2-2.8-Composite-07-WS	092110-2-2.8-Composite-08-Total	092110-2-2.8-Surface-02-WS	092110-2-2.8-1.5-01-FS	092110-2-2.8-5-03-FS	092110-2-2.8-10-04-FS	092110-2-2.8-15-05-FS	092110-2-2.8-20-06-FS	102610-2-2.8-25-01-FS					
		Date	10/26/2010	9/22/2010	9/22/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	10/26/2010	Plants	Inverts.	Birds	Mamals	
		Depth (Feet Below Ground Surface)	0	0	0	0	0 - 1.5	5 - 10	10 - 15	15 - 20	20 - 25	20 - 25					
VOCs (continued)	Chlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	40,000	--	--	--
	Chloroethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Chloroform	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	1,875,000	--
	Chloromethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	cis-1,2-Dichloroethene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	2,500,000	--
	cis-1,3-Dichloropropene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Dibromochloromethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Dibromomethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Dichlorodifluoromethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Ethylbenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Hexachlorobutadiene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Isopropylbenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	m,p-Xylene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Methyl tert-butyl ether	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Methylene chloride	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	730,000	--
	Naphthalene	µg/kg	--	--	--	--	--	--	--	--	--	--	10,000	--	--	3,900,000	--
	n-Butylbenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	n-Propylbenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	o-Xylene	µg/kg	--	--	--	--	--	--	--	--	--	--	1,000	--	--	--	--
	p-Isopropyltoluene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	sec-Butylbenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Styrene	µg/kg	--	--	--	--	--	--	--	--	--	--	300,000	--	--	--	--
	tert-Butylbenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Tetrachloroethene	µg/kg	--	--	--	--	--	--	--	--	--	--	10,000	--	--	80,000	--
	Toluene	µg/kg	--	--	--	--	--	--	--	--	--	--	200,000	--	--	1,440,000	--
	trans-1,2-Dichloroethene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	2,500,000	--
	trans-1,3-Dichloropropene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Trichloroethene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	40,000	--
	Trichlorofluoromethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Vinyl chloride	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	20,000	--

Table B-18
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.8 Composite Samples			Vector 2.8 Samples							Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			102610-2-2.8-Composite-06	092110-2-2.8-Composite-07-WS	092110-2-2.8-Composite-08-Total	092110-2-2.8-Surface-02-WS	092110-2-2.8-1.5-01-FS	092110-2-2.8-5-03-FS	092110-2-2.8-10-04-FS	092110-2-2.8-15-05-FS	092110-2-2.8-20-06-FS	102610-2-2.8-25-01-FS	Plants	Inverts.	Birds	Mamals	
		Date	10/26/2010	9/22/2010	9/22/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	10/26/2010					
		Depth (Feet Below Ground Surface)	0	0	0	0	0 - 1.5	5 - 10	10 - 15	15 - 20	20 - 25	20 - 25					
SVOCs	1,2,4-Trichlorobenzene	µg/kg	--	--	634 U	2,580 U	555 U	548 U	531 U	542 U	635 U	654 U	--	20,000	--	--	--
	1,2-Dichlorobenzene	µg/kg	--	--	634 U	2,580 U	555 U	548 U	531 U	542 U	635 U	654 U	--	--	--	--	--
	1,3-Dichlorobenzene	µg/kg	--	--	634 U	2,580 U	555 U	548 U	531 U	542 U	635 U	654 U	--	--	--	--	--
	1,4-Dichlorobenzene	µg/kg	--	--	634 U	2,580 U	555 U	548 U	531 U	542 U	635 U	654 U	--	20,000	--	--	--
	2,4,5-Trichlorophenol	µg/kg	--	--	88.8 U	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	4,000	9,000	--	--	--
	2,4,6-Trichlorophenol	µg/kg	--	--	88.8 U	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	10,000	10,000	--	--	--
	2,4-Dichlorophenol	µg/kg	--	--	88.8 U	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	20,000	--	--	--	--
	2,4-Dimethylphenol	µg/kg	--	--	634 U	2,580 U	555 U	548 U	531 U	542 U	635 U	654 U	20,000	--	--	--	--
	2,4-Dinitrophenol	µg/kg	--	--	2,540 U	10,300 U	2,220 U	2,190 U	2,120 U	2,170 U	2,540 U	2,620 U	20,000	--	--	--	--
	2,4-Dinitrotoluene	µg/kg	--	--	634 U	2,580 U	555 U	548 U	531 U	542 U	635 U	654 U	--	--	--	--	--
	2,6-Dinitrotoluene	µg/kg	--	--	634 U	2,580 U	555 U	548 U	531 U	542 U	635 U	654 U	--	--	--	--	--
	2-Chloronaphthalene	µg/kg	--	--	88.8 U	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	--	--	--	--	--
	2-Chlorophenol	µg/kg	--	--	88.8 U	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	60,000	--	--	--	--
	2-Methylphenol	µg/kg	--	--	88.8 U	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	50,000	--	--	16,000,000	--
	2-Nitroaniline	µg/kg	--	--	88.8 U	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	--	--	--	--	--
	2-Nitrophenol	µg/kg	--	--	88.8 U	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	--	--	--	--	--
	3,3'-Dichlorobenzidine	µg/kg	--	--	634 U	2,580 U	555 U	548 U	531 U	542 U	635 U	654 U	--	--	--	--	--
	3,4-Methylphenol	µg/kg	--	--	88.8 U	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	--	--	--	--	--
	3-Nitroaniline	µg/kg	--	--	634 U	2,580 U	555 U	548 U	531 U	542 U	635 U	654 U	70,000	--	--	--	--
	4,6-Dinitro-2-methylphenol	µg/kg	--	--	634 U	2,580 U	555 U	548 U	531 U	542 U	635 U	654 U	--	--	--	--	--
	4-Bromophenyl phenyl ether	µg/kg	--	--	88.8 U	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	--	--	--	--	--
	4-Chloro-3-methylphenol	µg/kg	--	--	88.8 U	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	--	--	--	--	--
	4-Chloroaniline	µg/kg	--	--	209 U	851 U	183 U	181 U	175 U	179 U	210 U	216 U	40,000	--	--	--	--
	4-Chlorophenyl phenyl ether	µg/kg	--	--	127 U	516 U	111 U	110 U	106 U	108 U	127 U	131 U	--	--	--	--	--
	4-Nitroaniline	µg/kg	--	--	88.8 U	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	40,000	--	--	--	--
	4-Nitrophenol	µg/kg	--	--	634 U	2,580 U	555 U	548 U	531 U	542 U	635 U	654 U	10,000	7,000	--	--	--
	Benzoic Acid	µg/kg	--	--	634 U	2,580 U	555 U	548 U	531 U	542 U	635 U	654 U	--	--	--	--	--
	Benzyl Alcohol	µg/kg	--	--	1,270 U	5,160 U	1,110 U	1,100 U	1,060 U	1,080 U	1,270 U	1,310 U	--	--	--	--	--
	Bis(2-chloroethoxy)methane	µg/kg	--	--	88.8 U	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	--	--	--	--	--
	Bis(2-chloroethyl)ether	µg/kg	--	--	88.8 U	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	--	--	--	--	--
	Bis(2-chloroisopropyl)ether	µg/kg	--	--	88.8 U	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	--	--	--	--	--
	Dibenzofuran	µg/kg	--	--	88.8 U	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	--	--	--	2	--
	Hexachlorobenzene	µg/kg	--	--	88.8 U	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	--	1,000,000	--	--	--
	Hexachlorobutadiene	µg/kg	--	--	634 U	2,580 U	555 U	548 U	531 U	542 U	635 U	654 U	--	--	--	--	--
	Hexachlorocyclopentadiene	µg/kg	--	--	634 U	2,580 U	555 U	548 U	531 U	542 U	635 U	654 U	10,000	--	--	--	--
	Hexachloroethane	µg/kg	--	--	634 U	2,580 U	555 U	548 U	531 U	542 U	635 U	654 U	--	--	--	--	--
	Isophorone	µg/kg	--	--	88.8 U	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	--	--	--	--	--
	Nitrobenzene	µg/kg	--	--	88.8 U	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	8,000	40,000	--	--	--
	N-Nitrosodi-n-propylamine	µg/kg	--	--	88.8 U	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	--	--	--	--	--
	N-Nitrosodiphenylamine	µg/kg	--	--	88.8 U	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	--	20,000	--	--	--
	Pentachlorophenol	µg/kg	--	--	634 U	2,580 U	555 U	548 U	531 U	542 U	635 U	654 U	3,000	4,000	--	30,000	--
	Phenol	µg/kg	--	--	88.8 U	361 U	77.7 U	76.7 U	74.3 U	75.9 U	89.0 U	91.6 U	70,000	30,000	--	--	--

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Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
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Supplemental Area 2 Riverbank Focused Feasibility Study
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Group	Constituent	Units	Vector 2.8 Composite Samples			Vector 2.8 Samples							Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			102610-2-2.8-Composite-06	092110-2-2.8-Composite-07-WS	092110-2-2.8-Composite-08-Total	092110-2-2.8-Surface-02-WS	092110-2-2.8-1.5-01-FS	092110-2-2.8-5-03-FS	092110-2-2.8-10-04-FS	092110-2-2.8-15-05-FS	092110-2-2.8-20-06-FS	102610-2-2.8-25-01-FS					
		Date	10/26/2010	9/22/2010	9/22/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	10/26/2010	Plants	Inverts.	Birds	Mamals	
		Depth (Feet Below Ground Surface)	0	0	0	0	0 - 1.5	5 - 10	10 - 15	15 - 20	20 - 25	20 - 25					
PAHs	2-Methylnaphthalene	µg/kg	--	--	88.8 U	20.2 J	3.69 U	3.63 U	3.50 U	17.9	21.0 U	8.31 J	--	--	--	--	--
	Acenaphthene	µg/kg	--	--	88.8 U	20.1 J	3.69 U	3.63 U	3.50 U	63.3	27.4 J	5.48 J	20,000	--	--	--	--
	Acenaphthylene	µg/kg	--	--	88.8 U	49.2	3.69 U	3.63 U	3.50 U	3.59 U	123	4.34 U	--	--	--	--	--
	Anthracene	µg/kg	--	--	88.8 U	89.8	3.69 U	3.63 U	3.50 U	109	950	4.40 J	--	--	--	--	--
	Benzo(a)anthracene	µg/kg	--	--	88.8 U	169	6.29 J	4.89 J	3.50 U	102	1,150	5.02 J	--	--	--	--	--
	Benzo(a)pyrene	µg/kg	--	--	88.8 U	276	9.81 J	5.92 J	3.50 U	88.5	1,660	6.05 J	--	--	--	125,000	--
	Benzo(b)fluoranthene	µg/kg	--	--	88.8 U	457	10.1 J	6.49 J	3.50 U	61.2	1,710	5.10 J	--	--	--	--	--
	Benzo(ghi)perylene	µg/kg	--	--	88.8 U	484	9.87 J	6.10 J	3.50 U	46.3	1,070	5.65 J	--	--	--	--	--
	Benzo(k)fluranthene	µg/kg	--	--	88.8 U	305	7.80 J	5.77 J	3.50 U	78.7	1,290	4.34 U	--	--	--	--	--
	Chrysene	µg/kg	--	--	88.8 U	309	12.9 J	7.08 J	3.50 U	108	2,060	6.67 J	--	--	--	--	--
	Dibenzo(a,h)anthracene	µg/kg	--	--	88.8 U	124	3.69 U	3.63 U	3.50 U	17.6	371	4.34 U	--	--	--	--	--
	Fluoranthene	µg/kg	--	--	88.8 U	337	11.4 J	10.1 J	3.50 U	261	1,200	16.2 J	--	--	--	--	--
	Fluorene	µg/kg	--	--	88.8 U	22.6 J	3.69 U	3.63 U	3.50 U	64.4	51.4 J	4.34 U	--	30,000	--	--	--
	Indeno(1,2,3-cd)pyrene	µg/kg	--	--	88.8 U	390	6.85 J	4.95 J	3.50 U	47.5	1,150	4.34 U	--	--	--	--	--
	Naphthalene	µg/kg	--	--	88.8 U	35.8	3.69 U	3.63 U	3.50 U	35.1	21.0 U	23.3	10,000	--	--	3,900,000	--
	Phenanthrene	µg/kg	--	--	88.8 U	195	8.89 J	6.84 J	3.50 U	366	245	25.8	--	--	--	--	--
	Pyrene	µg/kg	--	--	88.8 U	295	12.1 J	10.3 J	3.50 U	241	1,400	19.0	--	--	--	--	--
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	--	--	2,540 U	1,170	35.0	22.9 J	14.2 U	16.2 J	241.0	161	--	--	4,500	1,020,000	--
	Butyl benzyl phthalate	µg/kg	--	--	88.8 U	40.6 J	15.0 U	14.7 U	14.2 U	14.6 U	34.2 U	17.6 U	--	--	--	--	--
	Diethyl phthalate	µg/kg	--	--	88.8 U	342	15.0 U	14.7 U	14.2 U	14.6 U	34.2 U	17.6 U	100,000	--	--	#########	--
	Dimethyl phthalate	µg/kg	--	--	88.8 U	34.3 U	15.0 U	14.7 U	14.2 U	14.6 U	34.2 U	17.6 U	--	200,000	--	--	--
	Di-n-butyl phthalate	µg/kg	--	--	634 U	551	15.0 U	14.7 U	14.2 U	14.6 U	34.2 U	17.6 U	200,000	--	450	30,000,000	--
	Di-n-octyl phthalate	µg/kg	--	--	634 U	166	15.0 U	14.7 U	14.2 U	14.6 U	34.2 U	17.6 U	--	--	--	--	--
Butyltins	Dibutyltin	µg/kg	--	--	--	230	0.46 U	0.45 U	0.41 U	14	0.51 U	0.56 U	--	--	--	--	--
	Monobutyltin	µg/kg	--	--	--	110	0.44 U	0.43 U	0.39 U	0.42 U	0.49 U	0.53 U	--	--	--	--	--
	Tetra-n-butyltin	µg/kg	--	--	--	1.5 U	1.3 U	1.3 U	1.2 U	1.3 U	1.5 U	1.6 U	--	--	--	--	--
	Tributyltin	µg/kg	--	--	--	270	1.0 U	0.96 U	0.89 U	30	5.0	1.2 U	--	--	--	--	--

Table B-18
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.8 Composite Samples			Vector 2.8 Samples							Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			102610-2-2.8-Composite-06	092110-2-2.8-Composite-07-WS	092110-2-2.8-Composite-08-Total	092110-2-2.8-Surface-02-WS	092110-2-2.8-1.5-01-FS	092110-2-2.8-5-03-FS	092110-2-2.8-10-04-FS	092110-2-2.8-15-05-FS	092110-2-2.8-20-06-FS	102610-2-2.8-25-01-FS	Plants	Inverts.	Birds	Mamals	
		Date	10/26/2010	9/22/2010	9/22/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	10/26/2010					
		Depth (Feet Below Ground Surface)	0	0	0	0	0 - 1.5	5 - 10	10 - 15	15 - 20	20 - 25	20 - 25					
Organochlorine Pesticides	4-4'-DDD	µg/kg	--	--	--	--	--	--	--	--	0.853 UJ	--	--	--	10	100,000	--
	4,4'-DDE	µg/kg	--	--	--	--	--	--	--	--	0.454 J	--	--	--	10	100,000	--
	4,4'-DDT	µg/kg	--	--	--	--	--	--	--	--	2.27 J	--	--	--	10	100,000	--
	Aldrin	µg/kg	--	--	--	--	--	--	--	--	0.420 UJ	--	--	--	--	25,000	--
	alpha-BHC	µg/kg	--	--	--	--	--	--	--	--	0.420 UJ	--	--	--	--	--	--
	alpha-Chlordane	µg/kg	--	--	--	--	--	--	--	--	2.79 J	--	--	--	--	--	--
	beta-BHC	µg/kg	--	--	--	--	--	--	--	--	0.420 UJ	--	--	--	--	--	--
	Chlordane	µg/kg	--	--	--	--	--	--	--	--	16.3 J	--	--	--	9,000	250,000	--
	delta-BHC	µg/kg	--	--	--	--	--	--	--	--	0.420 UJ	--	--	--	--	--	--
	Dieldrin	µg/kg	--	--	--	--	--	--	--	--	0.853 UJ	--	--	--	300	3	--
	Endosulfan I	µg/kg	--	--	--	--	--	--	--	--	0.420 UJ	--	--	--	--	--	--
	Endosulfan II	µg/kg	--	--	--	--	--	--	--	--	0.420 UJ	--	--	--	--	--	--
	Endosulfan sulfate	µg/kg	--	--	--	--	--	--	--	--	0.420 UJ	--	--	--	--	--	--
	Endrin	µg/kg	--	--	--	--	--	--	--	--	0.420 UJ	--	--	--	40	5,000	--
	Endrin aldehyde	µg/kg	--	--	--	--	--	--	--	--	0.420 UJ	--	--	--	--	--	--
	Endrin ketone	µg/kg	--	--	--	--	--	--	--	--	0.420 UJ	--	--	--	--	--	--
	gamma-BHC (Lindane)	µg/kg	--	--	--	--	--	--	--	--	0.420 UJ	--	--	--	8,000	1,000,000	--
	gamma-Chlordane	µg/kg	--	--	--	--	--	--	--	--	2.71 J	--	--	--	--	--	--
	Heptachlor	µg/kg	--	--	--	--	--	--	--	--	0.420 UJ	--	--	--	--	15,000	--
	Heptachlor epoxide	µg/kg	--	--	--	--	--	--	--	--	0.420 UJ	--	--	--	--	--	--
	Methoxychlor	µg/kg	--	--	--	--	--	--	--	--	0.420 UJ	--	--	--	--	500,000	--
	Toxaphene	µg/kg	--	--	--	--	--	--	--	--	12.7 UJ	--	--	--	--	100,000	--
Chlorinated Herbicides	2,4,5-T	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2,4,5-TP (Silvex)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2,4-D	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2,4-DB	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4-Nitrophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	10,000	7,000	--	--	--
	Dalapon	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Dicamba	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Dichlorprop	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Dinoseb	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MCPA	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MCPP	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Pentachlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	3,000	4,000	--	30,000	--
	Picloram	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table B-18
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.8 Composite Samples			Vector 2.8 Samples							Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			102610-2-2.8-Composite-06	092110-2-2.8-Composite-07-WS	092110-2-2.8-Composite-08-Total	092110-2-2.8-Surface-02-WS	092110-2-2.8-1.5-01-FS	092110-2-2.8-5-03-FS	092110-2-2.8-10-04-FS	092110-2-2.8-15-05-FS	092110-2-2.8-20-06-FS	102610-2-2.8-25-01-FS					
		Date	10/26/2010	9/22/2010	9/22/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	9/21/2010	10/26/2010	Plants	Inverts.	Birds	Mamals	
		Depth (Feet Below Ground Surface)	0	0	0	0	0 - 1.5	5 - 10	10 - 15	15 - 20	20 - 25	20 - 25					
Dioxins/Furans	1,2,3,4,6,7,8-HpCDD	pg/g	190	1.8 J	35	--	--	--	--	--	--	--	--	--	--	--	--
	1,2,3,4,6,7,8-HpCDF	pg/g	80	0.64 J	7.3	--	--	--	--	--	--	--	--	--	--	--	--
	1,2,3,4,7,8,9-HpCDF	pg/g	3.8 J	0.25 U	0.43 J	--	--	--	--	--	--	--	--	--	--	--	--
	1,2,3,4,7,8-HxCDD	pg/g	0.61 J	0.16 U	0.78 J	--	--	--	--	--	--	--	--	--	--	--	--
	1,2,3,4,7,8-HxCDF	pg/g	3.2 J	0.19 J	0.55 J	--	--	--	--	--	--	--	--	--	--	--	--
	1,2,3,6,7,8-HxCDD	pg/g	7	0.23 J	1.8 J	--	--	--	--	--	--	--	--	--	--	--	--
	1,2,3,6,7,8-HxCDF	pg/g	2.2 J	0.12 U	0.4 U	--	--	--	--	--	--	--	--	--	--	--	--
	1,2,3,7,8,9-HxCDD	pg/g	3.5 J	0.15 J	1.1 J	--	--	--	--	--	--	--	--	--	--	--	--
	1,2,3,7,8,9-HxCDF	pg/g	0.13 U	0.13 U	0.51 U	--	--	--	--	--	--	--	--	--	--	--	--
	1,2,3,7,8-PeCDD	pg/g	1.5 J	0.14 U	0.39 U	--	--	--	--	--	--	--	--	--	--	--	--
	1,2,3,7,8-PeCDF	pg/g	0.82 J	0.16 U	0.73 U	--	--	--	--	--	--	--	--	--	--	--	--
	2,3,4,6,7,8-HxCDF	pg/g	1.2 J	0.13 U	0.44 U	--	--	--	--	--	--	--	--	--	--	--	--
	2,3,4,7,8-PeCDF	pg/g	1.2 J	0.16 U	0.75 U	--	--	--	--	--	--	--	--	--	--	--	--
	2,3,7,8-TCDD	pg/g	2.4	0.11 U	0.15 U	--	--	--	--	--	--	--	--	--	0.055	0.12	--
	2,3,7,8-TCDF	pg/g	1.1 J	0.29 J	0.92 J	--	--	--	--	--	--	--	--	--	--	--	--
	OCDD	pg/g	2,200 J	16	330	--	--	--	--	--	--	--	--	--	--	--	--
	OCDF	pg/g	360	1 J	15	--	--	--	--	--	--	--	--	--	--	--	--
	Total HpCDD	pg/g	400	3.4	70	--	--	--	--	--	--	--	--	--	--	--	--
	Total HpCDF	pg/g	320	1.2	21	--	--	--	--	--	--	--	--	--	--	--	--
	Total HxCDD	pg/g	52	0.47	15	--	--	--	--	--	--	--	--	--	--	--	--
	Total HxCDF	pg/g	79	0.19	9	--	--	--	--	--	--	--	--	--	--	--	--
	Total PeCDD	pg/g	18	0.43 U	0.5	--	--	--	--	--	--	--	--	--	--	--	--
	Total PeCDF	pg/g	34	0.23 U	1.8	--	--	--	--	--	--	--	--	--	--	--	--
	Total TCDD	pg/g	21	0.27	0.44	--	--	--	--	--	--	--	--	--	--	--	--
	Total TCDF	pg/g	27	0.46	0.92	--	--	--	--	--	--	--	--	--	--	--	--
Petroleum Hydrocarbons	Diesel	mg/kg	--	--	--	36.5	27.4	4.13 J	0.975 J	5.68 J	5.10 J	39.6	--	--	--	--	--
	Heavy Oil	mg/kg	--	--	--	169	207	0.766 U	3.96 J	5.25 J	9.12 J	111	--	--	--	--	--

Table B-18
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.9 Composite Samples			Vector 2.9 Samples			Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			092110-2-2.9-Composite-12-WS	092110-2-2.9-Composite-13-Total	110110-2-2.9-Composite-02-WS	092110-2-2.9-10-03-FS	092110-2-2.9-20-05-FS	092110-2-2.9-20-06-Dup	Plants	Inverts.	Birds	Mamals	
		Date	9/22/2010	9/21/2010	11/1/2010	9/21/2010	9/21/2010	9/21/2010					
		Depth (Feet Below Ground Surface)	0	0	0	5 - 10	15 - 20	15 - 20					
Inorganics	Mercury	mg/kg	--	--	0.0363 J	0.00910 J	0.131	0.0414 J	0.3	0.1	1.5	73.0	0.23
	Arsenic	mg/kg	--	--	11.6	4.02	10.0	13.4	10	60	10	29	8.8
	Barium	mg/kg	--	--	300	93.9	72.8 J	111 J	500	3000	85	638	790
	Chromium	mg/kg	--	--	51.9	14.9	9.14 J	29.6 J	1	0.4	4	410	76
	Copper	mg/kg	--	--	1,020	70.3	37.3 J	58.5 J	100	50	190	390	34
	Lead	mg/kg	--	--	70.6	22.6	31.8 J	62.6 J	50	500	16	4,000	79
	Manganese	mg/kg	--	--	1,630	677	423	594	500	100	4,125	11,000	1,800
	Nickel	mg/kg	--	--	35.3	8.96	6.43 J	15.1 J	30	200	320	625	47
	Selenium	mg/kg	--	--	0.290 J	0.0753 J	0.141 J	0.137 J	1	70	2	25	0.71
	Silver	mg/kg	--	--	0.533 J	0.151 J	0.146 J	0.176 J	2	50	--	--	0.82
	Zinc	mg/kg	--	--	1,880	120	129 J	181	50	200	60	20,000	180
PCBs	Aroclor 1016	µg/kg	--	--	2.25 U	1.75 U	1.80 U	1.83 U	--	--	--	100,000	--
	Aroclor 1221	µg/kg	--	--	4.48 U	3.48 U	3.60 U	3.66 U	--	--	--	--	--
	Aroclor 1232	µg/kg	--	--	2.25 U	1.75 U	1.80 U	1.83 U	--	--	--	--	--
	Aroclor 1242	µg/kg	--	--	2.25 U	1.75 U	1.80 U	1.83 U	--	--	1,500	5,000	--
	Aroclor 1248	µg/kg	--	--	2.25 U	1.75 U	1.80 U	1.83 U	--	--	--	--	--
	Aroclor 1254	µg/kg	--	--	2.25 U	1.75 U	1.80 U	1.83 U	--	--	700	4,000	--
	Aroclor 1260	µg/kg	--	--	22.2	3.33 J	9.42	1.83 U	--	--	--	--	--
	Aroclor 1262	µg/kg	--	--	2.25 U	1.75 U	1.80 U	2.87 J	--	--	--	--	--
	Aroclor 1268	µg/kg	--	--	2.25 U	1.75 U	1.80 U	1.83 U	--	--	--	--	--
	Total PCBs	µg/kg	--	--	22.2	3.33 J	9.42	2.87 J	40,000	--	--	4,000	--

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Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
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Group	Constituent	Units	Vector 2.9 Composite Samples				Vector 2.9 Samples			Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			092110-2-2.9-Composite-12-WS	092110-2-2.9-Composite-13-Total	110110-2-2.9-Composite-02-WS		092110-2-2.9-10-03-FS	092110-2-2.9-20-05-FS	092110-2-2.9-20-06-Dup					
		Date	9/22/2010	9/21/2010	11/1/2010		9/21/2010	9/21/2010	9/21/2010	Plants	Inverts.	Birds	Mamals	
		Depth (Feet Below Ground Surface)	0	0	0		5 - 10	15 - 20	15 - 20					
VOCs	1,1,1,2-Tetrachloroethane	µg/kg	--	--	12.5	U	--	--	--	--				--
	1,1,1-Trichloroethane	µg/kg	--	--	6.77	U	--	--	--	--	--	--	55,550,000	--
	1,1,2,2-Tetrachloroethane	µg/kg	--	--	15.3	U	--	--	--	--	--	--	--	--
	1,1,2-Trichloroethane	µg/kg	--	--	9.12	U	--	--	--	--	--	--	--	--
	1,1-Dichloroethane	µg/kg	--	--	9.02	U	--	--	--	--	--	--	--	--
	1,1-Dichloroethene	µg/kg	--	--	16.1	U	--	--	--	--	--	--	3,750,000	--
	1,1-Dichloropropene	µg/kg	--	--	10.6	U	--	--	--	--	--	--	--	--
	1,2,3-Trichlorobenzene	µg/kg	--	--	12.6	U	--	--	--	--	20,000	--	--	--
	1,2,3-Trichloropropane	µg/kg	--	--	8.69	U	--	--	--	--	--	--	--	--
	1,2,4-Trichlorobenzene	µg/kg	--	--	674	U	--	--	--	--	20,000	--	--	--
	1,2,4-Trimethylbenzene	µg/kg	--	--	22.8	J	--	--	--	--	--	--	--	--
	1,2-Dibromo-3-chloropropane	µg/kg	--	--	55.5	U	--	--	--	--	--	--	--	--
	1,2-Dibromoethane	µg/kg	--	--	14.0	U	--	--	--	--	--	--	--	--
	1,2-Dichlorobenzene	µg/kg	--	--	674	U	--	--	--	--	--	--	--	--
	1,2-Dichloroethane	µg/kg	--	--	10.2	U	--	--	--	--	--	70,000	2,780,000	--
	1,2-Dichloropropane	µg/kg	--	--	9.02	U	--	--	--	--	700,000	--	--	--
	1,3,5-Trimethylbenzene	µg/kg	--	--	24.2	J	--	--	--	--	--	--	--	--
	1,3-Dichlorobenzene	µg/kg	--	--	674	U	--	--	--	--	--	--	--	--
	1,3-Dichloropropane	µg/kg	--	--	8.93	U	--	--	--	--	--	--	--	--
	1,4-Dichlorobenzene	µg/kg	--	--	674	U	--	--	--	--	20,000	--	--	--
	2,2-Dichloropropane	µg/kg	--	--	8.45	U	--	--	--	--	--	--	--	--
	2-Butanone	µg/kg	--	--	34.1	U	--	--	--	--	--	--	#########	--
	2-Chlorotoluene	µg/kg	--	--	7.98	U	--	--	--	--	--	--	--	--
	2-Hexanone	µg/kg	--	--	38.0	U	--	--	--	--	--	--	--	--
	4-Chlorotoluene	µg/kg	--	--	5.83	U	--	--	--	--	--	--	--	--
	4-Methyl-2-pentanone	µg/kg	--	--	25.6	U	--	--	--	--	--	--	--	--
	Acetone	µg/kg	--	--	807	U	--	--	--	--	--	--	1,250,000	--
	Benzene	µg/kg	--	--	5.68	U	--	--	--	--	--	--	3,300,000	--
	Bromobenzene	µg/kg	--	--	16.8	U	--	--	--	--	--	--	--	--
	Bromochloromethane	µg/kg	--	--	13.1	U	--	--	--	--	--	--	--	--
	Bromodichloromethane	µg/kg	--	--	13.7	U	--	--	--	--	--	--	--	--
	Bromoform	µg/kg	--	--	12.4	U	--	--	--	--	--	--	--	--
	Bromomethane	µg/kg	--	--	10.8	U	--	--	--	--	--	--	--	--
	Carbon disulfide	µg/kg	--	--	9.65	U	--	--	--	--	--	--	--	--
	Carbon tetrachloride	µg/kg	--	--	14.8	U	--	--	--	--	1,000,000	--	2,000,000	--

Table B-18
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.9 Composite Samples				Vector 2.9 Samples			Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			092110-2-2.9-Composite-12-WS	092110-2-2.9-Composite-13-Total	110110-2-2.9-Composite-02-WS		092110-2-2.9-10-03-FS	092110-2-2.9-20-05-FS	092110-2-2.9-20-06-Dup	Plants	Inverts.	Birds	Mamals	
		Date	9/22/2010	9/21/2010	11/1/2010		9/21/2010	9/21/2010	9/21/2010					
		Depth (Feet Below Ground Surface)	0	0	0		5 - 10	15 - 20	15 - 20					
VOCs (continued)	Chlorobenzene	µg/kg	--	--	4.12	U	--	--	--	--	40,000	--	--	--
	Chloroethane	µg/kg	--	--	24.8	U	--	--	--	--	--	--	--	--
	Chloroform	µg/kg	--	--	7.31	U	--	--	--	--	--	--	1,875,000	--
	Chloromethane	µg/kg	--	--	9.39	U	--	--	--	--	--	--	--	--
	cis-1,2-Dichloroethene	µg/kg	--	--	14.5	U	--	--	--	--	--	--	2,500,000	--
	cis-1,3-Dichloropropene	µg/kg	--	--	6.18	U	--	--	--	--	--	--	--	--
	Dibromochloromethane	µg/kg	--	--	9.96	U	--	--	--	--	--	--	--	--
	Dibromomethane	µg/kg	--	--	6.38	U	--	--	--	--	--	--	--	--
	Dichlorodifluoromethane	µg/kg	--	--	9.65	U	--	--	--	--	--	--	--	--
	Ethylbenzene	µg/kg	--	--	3.80	U	--	--	--	--	--	--	--	--
	Hexachlorobutadiene	µg/kg	--	--	674	U	--	--	--	--	--	--	--	--
	Isopropylbenzene	µg/kg	--	--	9.96	U	--	--	--	--	--	--	--	--
	m,p-Xylene	µg/kg	--	--	23.9	U	--	--	--	--	--	--	--	--
	Methyl tert-butyl ether	µg/kg	--	--	7.31	U	--	--	--	--	--	--	--	--
	Methylene chloride	µg/kg	--	--	29.5	J	--	--	--	--	--	--	730,000	--
	Naphthalene	µg/kg	--	--	94.3	U	--	--	--	10,000	--	--	3,900,000	--
	n-Butylbenzene	µg/kg	--	--	8.59	U	--	--	--	--	--	--	--	--
	n-Propylbenzene	µg/kg	--	--	9.44	U	--	--	--	--	--	--	--	--
	o-Xylene	µg/kg	--	--	8.69	U	--	--	--	1,000	--	--	--	--
	p-Isopropyltoluene	µg/kg	--	--	13.0	U	--	--	--	--	--	--	--	--
	sec-Butylbenzene	µg/kg	--	--	6.84	U	--	--	--	--	--	--	--	--
	Styrene	µg/kg	--	--	4.22	U	--	--	--	300,000	--	--	--	--
	tert-Butylbenzene	µg/kg	--	--	13.1	U	--	--	--	--	--	--	--	--
	Tetrachloroethene	µg/kg	--	--	19.3	U	--	--	--	10,000	--	--	80,000	--
	Toluene	µg/kg	--	--	4.70	U	--	--	--	200,000	--	--	1,440,000	--
	trans-1,2-Dichloroethene	µg/kg	--	--	7.87	U	--	--	--	--	--	--	2,500,000	--
	trans-1,3-Dichloropropene	µg/kg	--	--	7.87	U	--	--	--	--	--	--	--	--
	Trichloroethene	µg/kg	--	--	9.75	U	--	--	--	--	--	--	40,000	--
	Trichlorofluoromethane	µg/kg	--	--	41.8	U	--	--	--	--	--	--	--	--
	Vinyl chloride	µg/kg	--	--	10.0	UJ	--	--	--	--	--	--	20,000	--

Table B-18
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
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Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.9 Composite Samples				Vector 2.9 Samples			Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			092110-2-2.9-Composite-12-WS	092110-2-2.9-Composite-13-Total	110110-2-2.9-Composite-02-WS		092110-2-2.9-10-03-FS	092110-2-2.9-20-05-FS	092110-2-2.9-20-06-Dup					
		Date	9/22/2010	9/21/2010	11/1/2010		9/21/2010	9/21/2010	9/21/2010	Plants	Inverts.	Birds	Mamals	
		Depth (Feet Below Ground Surface)	0	0	0		5 - 10	15 - 20	15 - 20					
SVOCs	1,2,4-Trichlorobenzene	µg/kg	--	--	674	U	--	--	--	--	20,000	--	--	--
	1,2-Dichlorobenzene	µg/kg	--	--	674	U	--	--	--	--	--	--	--	--
	1,3-Dichlorobenzene	µg/kg	--	--	674	U	--	--	--	--	--	--	--	--
	1,4-Dichlorobenzene	µg/kg	--	--	674	U	--	--	--	--	20,000	--	--	--
	2,4,5-Trichlorophenol	µg/kg	--	--	94.3	U	--	--	--	4,000	9,000	--	--	--
	2,4,6-Trichlorophenol	µg/kg	--	--	94.3	U	--	--	--	10,000	10,000	--	--	--
	2,4-Dichlorophenol	µg/kg	--	--	94.3	U	--	--	--	20,000	--	--	--	--
	2,4-Dimethylphenol	µg/kg	--	--	674	U	--	--	--	20,000	--	--	--	--
	2,4-Dinitrophenol	µg/kg	--	--	2,700	U	--	--	--	20,000	--	--	--	--
	2,4-Dinitrotoluene	µg/kg	--	--	674	U	--	--	--	--	--	--	--	--
	2,6-Dinitrotoluene	µg/kg	--	--	674	U	--	--	--	--	--	--	--	--
	2-Chloronaphthalene	µg/kg	--	--	94.3	U	--	--	--	--	--	--	--	--
	2-Chlorophenol	µg/kg	--	--	94.3	U	--	--	--	60,000	--	--	--	--
	2-Methylphenol	µg/kg	--	--	94.3	U	--	--	--	50,000	--	--	16,000,000	--
	2-Nitroaniline	µg/kg	--	--	94.3	U	--	--	--	--	--	--	--	--
	2-Nitrophenol	µg/kg	--	--	94.3	U	--	--	--	--	--	--	--	--
	3,3'-Dichlorobenzidine	µg/kg	--	--	674	U	--	--	--	--	--	--	--	--
	3,4-Methylphenol	µg/kg	--	--	94.3	U	--	--	--	--	--	--	--	--
	3-Nitroaniline	µg/kg	--	--	674	U	--	--	--	70,000	--	--	--	--
	4,6-Dinitro-2-methylphenol	µg/kg	--	--	674	U	--	--	--	--	--	--	--	--
	4-Bromophenyl phenyl ether	µg/kg	--	--	94.3	U	--	--	--	--	--	--	--	--
	4-Chloro-3-methylphenol	µg/kg	--	--	94.3	U	--	--	--	--	--	--	--	--
	4-Chloroaniline	µg/kg	--	--	222	U	--	--	--	40,000	--	--	--	--
	4-Chlorophenyl phenyl ether	µg/kg	--	--	135	U	--	--	--	--	--	--	--	--
	4-Nitroaniline	µg/kg	--	--	94.3	U	--	--	--	40,000	--	--	--	--
	4-Nitrophenol	µg/kg	--	--	674	U	--	--	--	10,000	7,000	--	--	--
	Benzoic Acid	µg/kg	--	--	674	U	--	--	--	--	--	--	--	--
	Benzyl Alcohol	µg/kg	--	--	1,350	U	--	--	--	--	--	--	--	--
	Bis(2-chloroethoxy)methane	µg/kg	--	--	94.3	U	--	--	--	--	--	--	--	--
	Bis(2-chloroethyl)ether	µg/kg	--	--	94.3	U	--	--	--	--	--	--	--	--
	Bis(2-chloroisopropyl)ether	µg/kg	--	--	94.3	U	--	--	--	--	--	--	--	--
	Dibenzofuran	µg/kg	--	--	94.3	U	--	--	--	--	--	--	2	--
	Hexachlorobenzene	µg/kg	--	--	94.3	U	--	--	--	--	1,000,000	--	--	--
	Hexachlorobutadiene	µg/kg	--	--	674	U	--	--	--	--	--	--	--	--
	Hexachlorocyclopentadiene	µg/kg	--	--	674	U	--	--	--	10,000	--	--	--	--
	Hexachloroethane	µg/kg	--	--	674	U	--	--	--	--	--	--	--	--
	Isophorone	µg/kg	--	--	94.3	U	--	--	--	--	--	--	--	--
	Nitrobenzene	µg/kg	--	--	94.3	U	--	--	--	8,000	40,000	--	--	--
	N-Nitrosodi-n-propylamine	µg/kg	--	--	94.3	U	--	--	--	--	--	--	--	--
	N-Nitrosodiphenylamine	µg/kg	--	--	94.3	U	--	--	--	--	20,000	--	--	--
	Pentachlorophenol	µg/kg	--	--	674	U	--	--	--	3,000	4,000	--	30,000	--
	Phenol	µg/kg	--	--	94.3	U	--	--	--	70,000	30,000	--	--	--

Table B-18
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Group	Constituent	Units	Vector 2.9 Composite Samples			Vector 2.9 Samples						Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			092110-2-2.9-Composite-12-WS	092110-2-2.9-Composite-13-Total	110110-2-2.9-Composite-02-WS	092110-2-2.9-10-03-FS		092110-2-2.9-20-05-FS		092110-2-2.9-20-06-Dup		Plants	Inverts.	Birds	Mamals	
		Date	9/22/2010	9/21/2010	11/1/2010	9/21/2010		9/21/2010		9/21/2010						
		Depth (Feet Below Ground Surface)	0	0	0	5 - 10		15 - 20		15 - 20						
PAHs	2-Methylnaphthalene	µg/kg	--	--	--	3.40	U	20.6		8.71	J	--	--	--	--	--
	Acenaphthene	µg/kg	--	--	30.1	3.40	U	8.31	J	3.59	U	20,000	--	--	--	--
	Acenaphthylene	µg/kg	--	--	34.0	3.40	U	15.6		20.9		--	--	--	--	--
	Anthracene	µg/kg	--	--	72.0	3.40	U	28.6		20.1		--	--	--	--	--
	Benzo(a)anthracene	µg/kg	--	--	215	3.40	U	100		90.7		--	--	--	--	--
	Benzo(a)pyrene	µg/kg	--	--	310	3.40	U	154		143		--	--	--	125,000	--
	Benzo(b)fluoranthene	µg/kg	--	--	539	3.40	U	127		101		--	--	--	--	--
	Benzo(ghi)perylene	µg/kg	--	--	302	3.40	U	146		136		--	--	--	--	--
	Benzo(k)fluranthene	µg/kg	--	--	338	3.40	U	115		86.4		--	--	--	--	--
	Chrysene	µg/kg	--	--	403	3.40	U	140		119		--	--	--	--	--
	Dibenzo(a,h)anthracene	µg/kg	--	--	86.0	3.40	U	29.3		23.0		--	--	--	--	--
	Fluoranthene	µg/kg	--	--	583	3.86	J	212		230		--	--	--	--	--
	Fluorene	µg/kg	--	--	31.8	3.40	U	12.3	J	4.36	J	--	30,000	--	--	--
	Indeno(1,2,3-cd)pyrene	µg/kg	--	--	277	3.40	U	112		96.9		--	--	--	--	--
	Naphthalene	µg/kg	--	--	44.2	3.40	U	23.2		9.95	J	10,000	--	--	3,900,000	--
	Phenanthrene	µg/kg	--	--	323	3.40	U	144		96.7		--	--	--	--	--
	Pyrene	µg/kg	--	--	530	3.77	J	263		262		--	--	--	--	--
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	--	--	854	13.8	U	95.5	J	29.4	J	--	--	4,500	1,020,000	--
	Butyl benzyl phthalate	µg/kg	--	--	39.5	13.8	U	14.5	U	14.6	U	--	--	--	--	--
	Diethyl phthalate	µg/kg	--	--	239	13.8	U	14.5	U	14.6	U	100,000	--	--	#########	--
	Dimethyl phthalate	µg/kg	--	--	18.1	U	13.8	U	14.5	U	14.6	U	--	200,000	--	--	--
	Di-n-butyl phthalate	µg/kg	--	--	58.1		13.8	U	14.5	U	14.6	U	200,000	--	450	30,000,000	--
	Di-n-octyl phthalate	µg/kg	--	--	26.1	J	13.8	U	29.0	U	14.6	U	--	--	--	--	--
Butyltins	Dibutyltin	µg/kg	--	--	25		0.42	U	0.43	U	0.44	U	--	--	--	--	--
	Monobutyltin	µg/kg	--	--	79		0.40	U	0.41	U	0.42	U	--	--	--	--	--
	Tetra-n-butyltin	µg/kg	--	--	1.6	U	1.2	U	1.2	U	1.3	U	--	--	--	--	--
	Tributyltin	µg/kg	--	--	110		0.91	U	8.2	J	2.9	J	--	--	--	--	--

Table B-18
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
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Group	Constituent	Units	Vector 2.9 Composite Samples						Vector 2.9 Samples			Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			092110-2-2.9-Composite-12-WS		092110-2-2.9-Composite-13-Total		110110-2-2.9-Composite-02-WS		092110-2-2.9-10-03-FS	092110-2-2.9-20-05-FS	092110-2-2.9-20-06-Dup					
		Date	9/22/2010		9/21/2010		11/1/2010		9/21/2010	9/21/2010	9/21/2010	Plants	Inverts.	Birds	Mamals	
		Depth (Feet Below Ground Surface)	0		0		0		5 - 10	15 - 20	15 - 20					
Organochlorine Pesticides	4-4'-DDD	µg/kg	0.781	U	0.799	U	2.70	U	--	--	--	--	--	10	100,000	--
	4,4'-DDE	µg/kg	0.781	U	0.799	U	0.891	U	--	--	--	--	--	10	100,000	--
	4,4'-DDT	µg/kg	1.59	U	1.62	U	2.70	U	--	--	--	--	--	10	100,000	--
	Aldrin	µg/kg	0.781	U	0.799	U	0.891	U	--	--	--	--	--	--	25,000	--
	alpha-BHC	µg/kg	0.781	U	0.799	U	0.891	U	--	--	--	--	--	--	--	--
	alpha-Chlordane	µg/kg	0.781	U	0.799	U	0.891	U	--	--	--	--	--	--	--	--
	beta-BHC	µg/kg	0.781	U	0.799	U	0.891	U	--	--	--	--	--	--	--	--
	Chlordane	µg/kg	17.8	U	18.2	U	20.2	U	--	--	--	--	--	9,000	250,000	--
	delta-BHC	µg/kg	0.781	U	0.799	U	0.891	U	--	--	--	--	--	--	--	--
	Dieldrin	µg/kg	0.781	U	0.799	U	0.891	U	--	--	--	--	--	300	3	--
	Endosulfan I	µg/kg	0.781	U	0.799	U	0.891	U	--	--	--	--	--	--	--	--
	Endosulfan II	µg/kg	0.781	U	0.799	U	0.891	U	--	--	--	--	--	--	--	--
	Endosulfan sulfate	µg/kg	1.59	U	0.799	U	0.891	U	--	--	--	--	--	--	--	--
	Endrin	µg/kg	0.781	U	0.799	U	0.891	U	--	--	--	--	--	40	5,000	--
	Endrin aldehyde	µg/kg	1.59	U	0.799	U	0.891	U	--	--	--	--	--	--	--	--
	Endrin ketone	µg/kg	0.781	U	0.799	U	0.891	U	--	--	--	--	--	--	--	--
	gamma-BHC (Lindane)	µg/kg	0.781	U	0.799	U	0.891	U	--	--	--	--	--	8,000	1,000,000	--
	gamma-Chlordane	µg/kg	0.781	U	0.799	U	0.891	U	--	--	--	--	--	--	--	--
	Heptachlor	µg/kg	0.781	U	0.799	U	0.891	U	--	--	--	--	--	--	15,000	--
	Heptachlor epoxide	µg/kg	0.781	U	0.799	U	0.891	U	--	--	--	--	--	--	--	--
	Methoxychlor	µg/kg	2.37	U	2.42	U	0.891	U	--	--	--	--	--	--	500,000	--
	Toxaphene	µg/kg	23.7	U	24.2	U	27.0	U	--	--	--	--	--	--	100,000	--
Chlorinated Herbicides	2,4,5-T	µg/kg	1,600	U	163	U	32.4	U	--	--	--	--	--	--	--	--
	2,4,5-TP (Silvex)	µg/kg	825	U	83.9	U	16.7	U	--	--	--	--	--	--	--	--
	2,4-D	µg/kg	3,240	U	329	U	65.5	U	--	--	--	--	--	--	--	--
	2,4-DB	µg/kg	3,240	U	329	U	65.5	U	--	--	--	--	--	--	--	--
	4-Nitrophenol	µg/kg	1,600	UJ	163	UJ	32.4	U	--	--	--	10,000	7,000	--	--	--
	Dalapon	µg/kg	8,110	U	824	U	164	U	--	--	--	--	--	--	--	--
	Dicamba	µg/kg	1,600	U	163	U	32.4	U	--	--	--	--	--	--	--	--
	Dichlorprop	µg/kg	3,240	U	329	U	65.5	U	--	--	--	--	--	--	--	--
	Dinoseb	µg/kg	3,240	U	329	U	65.5	U	--	--	--	--	--	--	--	--
	MCPA	µg/kg	162,000	U	16,400	U	3,270	U	--	--	--	--	--	--	--	--
	MCPP	µg/kg	162,000	U	16,400	U	3,270	U	--	--	--	--	--	--	--	--
	Pentachlorophenol	µg/kg	1,600	U	163	U	32.4	U	--	--	--	3,000	4,000	--	30,000	--
	Picloram	µg/kg	1,600	U	163	U	32.4	U	--	--	--	--	--	--	--	--

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Group	Constituent	Units	Vector 2.9 Composite Samples				Vector 2.9 Samples				Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			092110-2-2.9-Composite-12-WS	092110-2-2.9-Composite-13-Total	110110-2-2.9-Composite-02-WS		092110-2-2.9-10-03-FS	092110-2-2.9-20-05-FS	092110-2-2.9-20-06-Dup		Plants	Inverts.	Birds	Mamals	
		Date	9/22/2010	9/21/2010	11/1/2010		9/21/2010	9/21/2010	9/21/2010						
	Depth (Feet Below Ground Surface)		0	0	0		5 - 10	15 - 20	15 - 20						
Dioxins/Furans	1,2,3,4,6,7,8-HpCDD	pg/g	--	--	300		--	--	--		--	--	--	--	--
	1,2,3,4,6,7,8-HpCDF	pg/g	--	--	13		--	--	--		--	--	--	--	--
	1,2,3,4,7,8,9-HpCDF	pg/g	--	--	0.82	J	--	--	--		--	--	--	--	--
	1,2,3,4,7,8-HxCDD	pg/g	--	--	1.9	J	--	--	--		--	--	--	--	--
	1,2,3,4,7,8-HxCDF	pg/g	--	--	1.3	J	--	--	--		--	--	--	--	--
	1,2,3,6,7,8-HxCDD	pg/g	--	--	7.3		--	--	--		--	--	--	--	--
	1,2,3,6,7,8-HxCDF	pg/g	--	--	1.1	J	--	--	--		--	--	--	--	--
	1,2,3,7,8,9-HxCDD	pg/g	--	--	5		--	--	--		--	--	--	--	--
	1,2,3,7,8,9-HxCDF	pg/g	--	--	0.1	U	--	--	--		--	--	--	--	--
	1,2,3,7,8-PeCDD	pg/g	--	--	2.2	J	--	--	--		--	--	--	--	--
	1,2,3,7,8-PeCDF	pg/g	--	--	0.51	J	--	--	--		--	--	--	--	--
	2,3,4,6,7,8-HxCDF	pg/g	--	--	0.91	J	--	--	--		--	--	--	--	--
	2,3,4,7,8-PeCDF	pg/g	--	--	0.74	J	--	--	--		--	--	--	--	--
	2,3,7,8-TCDD	pg/g	--	--	0.70	J	--	--	--		--	--	0.055	0.12	--
	2,3,7,8-TCDF	pg/g	--	--	0.75	J	--	--	--		--	--	--	--	--
	OCDD	pg/g	--	--	2,300		--	--	--		--	--	--	--	--
	OCDF	pg/g	--	--	34		--	--	--		--	--	--	--	--
	Total HpCDD	pg/g	--	--	720		--	--	--		--	--	--	--	--
	Total HpCDF	pg/g	--	--	45		--	--	--		--	--	--	--	--
	Total HxCDD	pg/g	--	--	84		--	--	--		--	--	--	--	--
	Total HxCDF	pg/g	--	--	29		--	--	--		--	--	--	--	--
	Total PeCDD	pg/g	--	--	11		--	--	--		--	--	--	--	--
	Total PeCDF	pg/g	--	--	9.5		--	--	--		--	--	--	--	--
	Total TCDD	pg/g	--	--	5.2		--	--	--		--	--	--	--	--
	Total TCDF	pg/g	--	--	5.2		--	--	--		--	--	--	--	--
Petroleum Hydrocarbons	Diesel	mg/kg	--	--	9.41	J	1.75	J	27.5		12.3	J	--	--	--	--	--
	Heavy Oil	mg/kg	--	--	37.8		5.16	J	127	J	65.4	J	--	--	--	--	--

Table B-18
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.10 Composite Samples			Vector 2.10 Samples				Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			102610-2-2.10-Composite	092210-2-2.10-Composite-12-FS	092210-2-2.10-Composite-13-Total	092210-2-2.10-Surface-01-WS	092210-2-2.10-1.5-02-FS	092210-2-2.10-10-04-FS	092210-2-2.10-20-06-FS					
		Date	10/26/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	Plants	Inverts.	Birds	Mamals	
	Depth (Feet Below Ground Surface)		0	0	0	0	0 - 1.5	5 - 10	15 - 20					
Inorganics	Mercury	mg/kg	--	--	--	0.0328 J	0.0480 J	0.00400 J	0.0454 J	0.3	0.1	1.5	73.0	0.23
	Arsenic	mg/kg	--	--	--	34.0	28.6	2.02 J	4.13	10	60	10	29	8.8
	Barium	mg/kg	--	--	--	835	336	61.9	138	500	3000	85	638	790
	Chromium	mg/kg	--	--	--	142	55.80	7.65	23.8	1	0.4	4	410	76
	Copper	mg/kg	--	--	--	3,560	1,590	84	28.2	100	50	190	390	34
	Lead	mg/kg	--	--	--	102	66.9	2.89	13.0	50	500	16	4,000	79
	Manganese	mg/kg	--	--	--	3,650	2,790	409	473	500	100	4,125	11,000	1,800
	Nickel	mg/kg	--	--	--	107	31.6	3.41 J	15.2	30	200	320	625	47
	Selenium	mg/kg	--	--	--	0.585 J	0.499 J	0.0517 J	0.0761 J	1	70	2	25	0.71
	Silver	mg/kg	--	--	--	1.03	1.03	0.129 J	0.171 J	2	50	--	--	0.82
	Zinc	mg/kg	--	--	--	3,320	418	76.0	77.4	50	200	60	20,000	180
PCBs	Aroclor 1016	µg/kg	--	--	--	1.94 U	1.84 U	1.81 U	2.12 U	--	--	--	100,000	--
	Aroclor 1221	µg/kg	--	--	--	3.87 U	3.68 U	3.61 U	4.22 U	--	--	--	--	--
	Aroclor 1232	µg/kg	--	--	--	1.94 U	1.84 U	1.81 U	2.12 U	--	--	--	--	--
	Aroclor 1242	µg/kg	--	--	--	1.94 U	1.84 U	1.81 U	2.12 U	--	--	1,500	5,000	--
	Aroclor 1248	µg/kg	--	--	--	1.94 U	1.84 U	7.42	2.12 U	--	--	--	--	--
	Aroclor 1254	µg/kg	--	--	--	1.94 U	1.84 U	1.81 U	2.12 U	--	--	700	4,000	--
	Aroclor 1260	µg/kg	--	--	--	1.94 U	58.3 J	3.22 J	6.82	--	--	--	--	--
	Aroclor 1262	µg/kg	--	--	--	22.3 J	1.84 U	1.81 U	2.12 U	--	--	--	--	--
	Aroclor 1268	µg/kg	--	--	--	1.94 U	1.84 U	1.81 U	2.12 U	--	--	--	--	--
	Total PCBs	µg/kg	--	--	--	22.3 J	58.3 J	10.6 J	6.82	40,000	--	--	4,000	--

Table B-18
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
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Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.10 Composite Samples			Vector 2.10 Samples				Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			102610-2-2.10-Composite	092210-2-2.10-Composite-12-FS	092210-2-2.10-Composite-13-Total	092210-2-2.10-Surface-01-WS	092210-2-2.10-1.5-02-FS	092210-2-2.10-10-04-FS	092210-2-2.10-20-06-FS					
		Date	10/26/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	Plants	Inverts.	Birds	Mamals	
	Depth (Feet Below Ground Surface)		0	0	0	0	0 - 1.5	5 - 10	15 - 20					
VOCs	1,1,1,2-Tetrachloroethane	µg/kg	--	--	--	--	--	--	--	--				--
	1,1,1-Trichloroethane	µg/kg	--	--	--	--	--	--	--	--	--	--	55,550,000	--
	1,1,2,2-Tetrachloroethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	1,1,2-Trichloroethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	1,1-Dichloroethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	1,1-Dichloroethene	µg/kg	--	--	--	--	--	--	--	--	--	--	3,750,000	--
	1,1-Dichloropropene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	1,2,3-Trichlorobenzene	µg/kg	--	--	--	--	--	--	--	--	20,000	--	--	--
	1,2,3-Trichloropropane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	1,2,4-Trichlorobenzene	µg/kg	--	--	--	--	--	--	--	--	20,000	--	--	--
	1,2,4-Trimethylbenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	1,2-Dibromo-3-chloropropane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	1,2-Dibromoethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	1,2-Dichlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	1,2-Dichloroethane	µg/kg	--	--	--	--	--	--	--	--	--	70,000	2,780,000	--
	1,2-Dichloropropane	µg/kg	--	--	--	--	--	--	--	--	700,000	--	--	--
	1,3,5-Trimethylbenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	1,3-Dichlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	1,3-Dichloropropane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	1,4-Dichlorobenzene	µg/kg	--	--	--	--	--	--	--	--	20,000	--	--	--
	2,2-Dichloropropane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	2-Butanone	µg/kg	--	--	--	--	--	--	--	--	--	--	#########	--
	2-Chlorotoluene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	2-Hexanone	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	4-Chlorotoluene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	4-Methyl-2-pentanone	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Acetone	µg/kg	--	--	--	--	--	--	--	--	--	--	1,250,000	--
	Benzene	µg/kg	--	--	--	--	--	--	--	--	--	--	3,300,000	--
	Bromobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Bromochloromethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Bromodichloromethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Bromoform	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Bromomethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Carbon disulfide	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Carbon tetrachloride	µg/kg	--	--	--	--	--	--	--	--	1,000,000	--	2,000,000	--

Table B-18
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
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Supplemental Area 2 Riverbank Focused Feasibility Study
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Group	Constituent	Units	Vector 2.10 Composite Samples			Vector 2.10 Samples				Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			102610-2-2.10-Composite	092210-2-2.10-Composite-12-FS	092210-2-2.10-Composite-13-Total	092210-2-2.10-Surface-01-WS	092210-2-2.10-1.5-02-FS	092210-2-2.10-10-04-FS	092210-2-2.10-20-06-FS					
		Date	10/26/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	Plants	Inverts.	Birds	Mamals	
		Depth (Feet Below Ground Surface)	0	0	0	0	0 - 1.5	5 - 10	15 - 20					
VOCs (continued)	Chlorobenzene	µg/kg	--	--	--	--	--	--	--	--	40,000	--	--	--
	Chloroethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Chloroform	µg/kg	--	--	--	--	--	--	--	--	--	--	1,875,000	--
	Chloromethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	cis-1,2-Dichloroethene	µg/kg	--	--	--	--	--	--	--	--	--	--	2,500,000	--
	cis-1,3-Dichloropropene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Dibromochloromethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Dibromomethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Dichlorodifluoromethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Ethylbenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Hexachlorobutadiene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Isopropylbenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	m,p-Xylene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Methyl tert-butyl ether	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Methylene chloride	µg/kg	--	--	--	--	--	--	--	--	--	--	730,000	--
	Naphthalene	µg/kg	--	--	--	--	--	--	--	10,000	--	--	3,900,000	--
	n-Butylbenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	n-Propylbenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	o-Xylene	µg/kg	--	--	--	--	--	--	--	1,000	--	--	--	--
	p-Isopropyltoluene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	sec-Butylbenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Styrene	µg/kg	--	--	--	--	--	--	--	300,000	--	--	--	--
	tert-Butylbenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Tetrachloroethene	µg/kg	--	--	--	--	--	--	--	10,000	--	--	80,000	--
	Toluene	µg/kg	--	--	--	--	--	--	--	200,000	--	--	1,440,000	--
	trans-1,2-Dichloroethene	µg/kg	--	--	--	--	--	--	--	--	--	--	2,500,000	--
	trans-1,3-Dichloropropene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Trichloroethene	µg/kg	--	--	--	--	--	--	--	--	--	--	40,000	--
	Trichlorofluoromethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Vinyl chloride	µg/kg	--	--	--	--	--	--	--	--	--	--	20,000	--

Table B-18
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.10 Composite Samples			Vector 2.10 Samples				Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			102610-2-2.10-Composite	092210-2-2.10-Composite-12-FS	092210-2-2.10-Composite-13-Total	092210-2-2.10-Surface-01-WS	092210-2-2.10-1.5-02-FS	092210-2-2.10-10-04-FS	092210-2-2.10-20-06-FS					
		Date	10/26/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	Plants	Inverts.	Birds	Mamals	
	Depth (Feet Below Ground Surface)		0	0	0	0	0 - 1.5	5 - 10	15 - 20					
SVOCs	1,2,4-Trichlorobenzene	µg/kg	--	--	--	2,310 U	549 U	--	634 U	--	20,000	--	--	--
	1,2-Dichlorobenzene	µg/kg	--	--	--	2,310 U	549 U	--	634 U	--	--	--	--	--
	1,3-Dichlorobenzene	µg/kg	--	--	--	2,310 U	549 U	--	634 U	--	--	--	--	--
	1,4-Dichlorobenzene	µg/kg	--	--	--	2,310 U	549 U	--	634 U	--	20,000	--	--	--
	2,4,5-Trichlorophenol	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	4,000	9,000	--	--	--
	2,4,6-Trichlorophenol	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	10,000	10,000	--	--	--
	2,4-Dichlorophenol	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	20,000	--	--	--	--
	2,4-Dimethylphenol	µg/kg	--	--	--	2,310 U	549 U	--	634 U	20,000	--	--	--	--
	2,4-Dinitrophenol	µg/kg	--	--	--	9,240 U	2,200 U	--	2,530 U	20,000	--	--	--	--
	2,4-Dinitrotoluene	µg/kg	--	--	--	2,310 U	549 U	--	634 U	--	--	--	--	--
	2,6-Dinitrotoluene	µg/kg	--	--	--	2,310 U	549 U	--	634 U	--	--	--	--	--
	2-Chloronaphthalene	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	--	--	--	--	--
	2-Chlorophenol	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	60,000	--	--	--	--
	2-Methylphenol	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	50,000	--	--	16,000,000	--
	2-Nitroaniline	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	--	--	--	--	--
	2-Nitrophenol	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	--	--	--	--	--
	3,3'-Dichlorobenzidine	µg/kg	--	--	--	2,310 U	549 U	--	634 U	--	--	--	--	--
	3,4-Methylphenol	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	--	--	--	--	--
	3-Nitroaniline	µg/kg	--	--	--	2,310 U	549 U	--	634 U	70,000	--	--	--	--
	4,6-Dinitro-2-methylphenol	µg/kg	--	--	--	2,310 U	549 U	--	634 U	--	--	--	--	--
	4-Bromophenyl phenyl ether	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	--	--	--	--	--
	4-Chloro-3-methylphenol	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	--	--	--	--	--
	4-Chloroaniline	µg/kg	--	--	--	762 U	181 U	--	209 U	40,000	--	--	--	--
	4-Chlorophenyl phenyl ether	µg/kg	--	--	--	462 U	110 U	--	127 U	--	--	--	--	--
	4-Nitroaniline	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	40,000	--	--	--	--
	4-Nitrophenol	µg/kg	--	--	--	2,310 U	549 U	--	634 U	10,000	7,000	--	--	--
	Benzoic Acid	µg/kg	--	--	--	2,310 U	549 U	--	634 U	--	--	--	--	--
	Benzyl Alcohol	µg/kg	--	--	--	4,620 U	1,100 U	--	1,270 U	--	--	--	--	--
	Bis(2-chloroethoxy)methane	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	--	--	--	--	--
	Bis(2-chloroethyl)ether	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	--	--	--	--	--
	Bis(2-chloroisopropyl)ether	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	--	--	--	--	--
	Dibenzofuran	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	--	--	--	2	--
	Hexachlorobenzene	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	--	1,000,000	--	--	--
	Hexachlorobutadiene	µg/kg	--	--	--	2,310 U	549 U	--	634 U	--	--	--	--	--
	Hexachlorocyclopentadiene	µg/kg	--	--	--	2,310 U	549 U	--	634 U	10,000	--	--	--	--
	Hexachloroethane	µg/kg	--	--	--	2,310 U	549 U	--	634 U	--	--	--	--	--
	Isophorone	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	--	--	--	--	--
	Nitrobenzene	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	8,000	40,000	--	--	--
	N-Nitrosodi-n-propylamine	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	--	--	--	--	--
	N-Nitrosodiphenylamine	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	--	20,000	--	--	--
	Pentachlorophenol	µg/kg	--	--	--	2,310 U	549 U	--	634 U	3,000	4,000	--	30,000	--
	Phenol	µg/kg	--	--	--	323 U	76.9 U	--	88.7 U	70,000	30,000	--	--	--

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Group	Constituent	Units	Vector 2.10 Composite Samples			Vector 2.10 Samples				Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			102610-2-2.10-Composite	092210-2-2.10-Composite-12-FS	092210-2-2.10-Composite-13-Total	092210-2-2.10-Surface-01-WS	092210-2-2.10-1.5-02-FS	092210-2-2.10-10-04-FS	092210-2-2.10-20-06-FS					
		Date	10/26/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	Plants	Inverts.	Birds	Mamals	
	Depth (Feet Below Ground Surface)		0	0	0	0	0 - 1.5	5 - 10	15 - 20					
PAHs	2-Methylnaphthalene	µg/kg	--	--	--	32.5	10.3 J	3.57 U	4.15 U	--	--	--	--	--
	Acenaphthene	µg/kg	--	--	--	36.7	15.1 J	3.57 U	4.15 U	20,000	--	--	--	--
	Acenaphthylene	µg/kg	--	--	--	40.6	7.27 U	3.57 U	4.15 U	--	--	--	--	--
	Anthracene	µg/kg	--	--	--	97.8	37.1	3.57 U	4.15 U	--	--	--	--	--
	Benzo(a)anthracene	µg/kg	--	--	--	258	72.9	3.57 U	4.15 U	--	--	--	--	--
	Benzo(a)pyrene	µg/kg	--	--	--	322	75.1	4.41 J	4.98 J	--	--	--	125,000	--
	Benzo(b)fluoranthene	µg/kg	--	--	--	560	78.9	4.66 J	4.57 J	--	--	--	--	--
	Benzo(ghi)perylene	µg/kg	--	--	--	288	52.6	3.57 U	5.43 J	--	--	--	--	--
	Benzo(k)fluranthene	µg/kg	--	--	--	420	63.8	3.57 U	4.15 U	--	--	--	--	--
	Chrysene	µg/kg	--	--	--	560	87.5	5.31 J	4.62 J	--	--	--	--	--
	Dibenzo(a,h)anthracene	µg/kg	--	--	--	88.6	16.7 J	3.57 U	4.15 U	--	--	--	--	--
	Fluoranthene	µg/kg	--	--	--	797	186	5.93 J	7.42 J	--	--	--	--	--
	Fluorene	µg/kg	--	--	--	36.8	19.8 J	3.57 U	4.15 U	--	30,000	--	--	--
	Indeno(1,2,3-cd)pyrene	µg/kg	--	--	--	262	46.8	3.57 U	4.15 U	--	--	--	--	--
	Naphthalene	µg/kg	--	--	--	62.2	10.2 J	3.57 U	4.15 U	10,000	--	--	3,900,000	--
	Phenanthrene	µg/kg	--	--	--	556	177	4.62 J	4.15 U	--	--	--	--	--
	Pyrene	µg/kg	--	--	--	576	147	5.92 J	8.73 J	--	--	--	--	--
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	--	--	--	1,130	29.5 U	14.5 U	16.8 U	--	--	4,500	1,020,000	--
	Butyl benzyl phthalate	µg/kg	--	--	--	127 J	77.1	14.5 U	16.8 U	--	--	--	--	--
	Diethyl phthalate	µg/kg	--	--	--	84.2 J	29.5 U	14.5 U	16.8 U	100,000	--	--	#########	--
	Dimethyl phthalate	µg/kg	--	--	--	77.5 U	29.5 U	14.5 U	16.8 U	--	200,000	--	--	--
	Di-n-butyl phthalate	µg/kg	--	--	--	77.5 U	29.5 U	14.5 U	16.8 U	200,000	--	450	30,000,000	--
	Di-n-octyl phthalate	µg/kg	--	--	--	77.5 U	29.5 U	14.5 U	16.8 U	--	--	--	--	--
Butyltins	Dibutyltin	µg/kg	--	--	--	140	0.42 U	0.43 U	0.49 U	--	--	--	--	--
	Monobutyltin	µg/kg	--	--	--	53 J	0.40 U	2.7	0.47 U	--	--	--	--	--
	Tetra-n-butyltin	µg/kg	--	--	--	1.4 U	1.2 U	1.3 U	1.4 U	--	--	--	--	--
	Tributyltin	µg/kg	--	--	--	540	8.9	0.92 U	1.1 U	--	--	--	--	--

Table B-18
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.10 Composite Samples			Vector 2.10 Samples				Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			102610-2-2.10-Composite	092210-2-2.10-Composite-12-FS	092210-2-2.10-Composite-13-Total	092210-2-2.10-Surface-01-WS	092210-2-2.10-1.5-02-FS	092210-2-2.10-10-04-FS	092210-2-2.10-20-06-FS	Plants	Inverts.	Birds	Mamals	
		Date	10/26/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010					
		Depth (Feet Below Ground Surface)	0	0	0	0	0 - 1.5	5 - 10	15 - 20					
Organochlorine Pesticides	4-4'-DDD	µg/kg	--	--	--	1.56 UJ	2.22 U	--	--	--	--	10	100,000	--
	4,4'-DDE	µg/kg	--	--	--	1.56 UJ	1.49 U	--	--	--	--	10	100,000	--
	4,4'-DDT	µg/kg	--	--	--	3.90 UJ	7.43 U	--	--	--	--	10	100,000	--
	Aldrin	µg/kg	--	--	--	0.769 UJ	0.731 U	--	--	--	--	--	25,000	--
	alpha-BHC	µg/kg	--	--	--	0.769 UJ	0.731 U	--	--	--	--	--	--	--
	alpha-Chlordane	µg/kg	--	--	--	0.769 UJ	0.731 U	--	--	--	--	--	--	--
	beta-BHC	µg/kg	--	--	--	0.769 UJ	0.731 U	--	--	--	--	--	--	--
	Chlordane	µg/kg	--	--	--	17.5 UJ	16.6 U	--	--	--	--	9,000	250,000	--
	delta-BHC	µg/kg	--	--	--	0.769 UJ	0.731 U	--	--	--	--	--	--	--
	Dieldrin	µg/kg	--	--	--	1.56 UJ	2.97 U	--	--	--	--	300	3	--
	Endosulfan I	µg/kg	--	--	--	0.769 UJ	0.731 U	--	--	--	--	--	--	--
	Endosulfan II	µg/kg	--	--	--	0.769 UJ	0.731 U	--	--	--	--	--	--	--
	Endosulfan sulfate	µg/kg	--	--	--	2.33 UJ	0.731 U	--	--	--	--	--	--	--
	Endrin	µg/kg	--	--	--	1.56 UJ	0.731 U	--	--	--	--	40	5,000	--
	Endrin aldehyde	µg/kg	--	--	--	2.33 UJ	2.22 U	--	--	--	--	--	--	--
	Endrin ketone	µg/kg	--	--	--	3.89 UJ	0.731 U	--	--	--	--	--	--	--
	gamma-BHC (Lindane)	µg/kg	--	--	--	0.769 UJ	0.731 U	--	--	--	--	8,000	1,000,000	--
	gamma-Chlordane	µg/kg	--	--	--	0.769 UJ	0.731 U	--	--	--	--	--	--	--
	Heptachlor	µg/kg	--	--	--	0.769 UJ	0.731 U	--	--	--	--	--	15,000	--
	Heptachlor epoxide	µg/kg	--	--	--	0.769 UJ	0.731 U	--	--	--	--	--	--	--
	Methoxychlor	µg/kg	--	--	--	3.84 UJ	3.66 U	--	--	--	--	--	500,000	--
	Toxaphene	µg/kg	--	--	--	23.3 UJ	22.2 U	--	--	--	--	--	100,000	--
Chlorinated Herbicides	2,4,5-T	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	2,4,5-TP (Silvex)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	2,4-D	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	2,4-DB	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	4-Nitrophenol	µg/kg	--	--	--	--	--	--	--	10,000	7,000	--	--	--
	Dalapon	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Dicamba	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Dichlorprop	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Dinoseb	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	MCPA	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	MCPP	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Pentachlorophenol	µg/kg	--	--	--	--	--	--	--	3,000	4,000	--	30,000	--
	Picloram	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--

Table B-18
Soil Boring Results: 0 to 25 Feet - Riverbank Section 3
Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.10 Composite Samples			Vector 2.10 Samples				Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			102610-2-2.10-Composite	092210-2-2.10-Composite-12-FS	092210-2-2.10-Composite-13-Total	092210-2-2.10-Surface-01-WS	092210-2-2.10-1.5-02-FS	092210-2-2.10-10-04-FS	092210-2-2.10-20-06-FS	Plants	Inverts.	Birds	Mamals	
	Date		10/26/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010					
	Depth (Feet Below Ground Surface)		0	0	0	0	0 - 1.5	5 - 10	15 - 20					
Dioxins/Furans	1,2,3,4,6,7,8-HpCDD	pg/g	120	100	100	--	--	--	--	--	--	--	--	--
	1,2,3,4,6,7,8-HpCDF	pg/g	94	21	15	--	--	--	--	--	--	--	--	--
	1,2,3,4,7,8,9-HpCDF	pg/g	2.8 J	1.4 J	1.1	--	--	--	--	--	--	--	--	--
	1,2,3,4,7,8-HxCDD	pg/g	0.35 J	0.78 J	1.3 J	--	--	--	--	--	--	--	--	--
	1,2,3,4,7,8-HxCDF	pg/g	2.4 J	1.5 J	0.85 J	--	--	--	--	--	--	--	--	--
	1,2,3,6,7,8-HxCDD	pg/g	4.7	3.7 J	5.3 J	--	--	--	--	--	--	--	--	--
	1,2,3,6,7,8-HxCDF	pg/g	4.5 J	0.68 J	0.63	--	--	--	--	--	--	--	--	--
	1,2,3,7,8,9-HxCDD	pg/g	1 J	1.9 J	2.1 J	--	--	--	--	--	--	--	--	--
	1,2,3,7,8,9-HxCDF	pg/g	0.22 U	0.21 U	0.47 J	--	--	--	--	--	--	--	--	--
	1,2,3,7,8-PeCDD	pg/g	0.5 J	0.61 J	0.49 U	--	--	--	--	--	--	--	--	--
	1,2,3,7,8-PeCDF	pg/g	0.58 J	0.45 J	0.69 J	--	--	--	--	--	--	--	--	--
	2,3,4,6,7,8-HxCDF	pg/g	2.2 J	0.52 J	0.44 U	--	--	--	--	--	--	--	--	--
	2,3,4,7,8-PeCDF	pg/g	1.1 J	0.57 J	0.71 J	--	--	--	--	--	--	--	--	--
	2,3,7,8-TCDD	pg/g	0.27 J	1.6	0.14 U	--	--	--	--	--	--	0.055	0.12	--
	2,3,7,8-TCDF	pg/g	0.86 J	0.48 J	0.47 U	--	--	--	--	--	--	--	--	--
	OCDD	pg/g	1,200	1,000	910 J	--	--	--	--	--	--	--	--	--
	OCDF	pg/g	180	81	42	--	--	--	--	--	--	--	--	--
	Total HpCDD	pg/g	240	200	200	--	--	--	--	--	--	--	--	--
	Total HpCDF	pg/g	260	85	59	--	--	--	--	--	--	--	--	--
	Total HxCDD	pg/g	29	25	36	--	--	--	--	--	--	--	--	--
	Total HxCDF	pg/g	88	23	20	--	--	--	--	--	--	--	--	--
	Total PeCDD	pg/g	7.5	3.6	2.3	112 J	102	4.82 J	2.37 J	--	--	--	--	--
	Total PeCDF	pg/g	38	8.1	4.3	675 J	904	29.7	9.58 J	--	--	--	--	--
	Total TCDD	pg/g	3.3	4	0.4	--	--	--	--	--	--	--	--	--
	Total TCDF	pg/g	21	7.7	1.6	--	--	--	--	--	--	--	--	--
Petroleum Hydrocarbons	Diesel	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--
	Heavy Oil	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--

Notes:
1. -- = Not applicable/not analyzed
2. mg/kg = Milligrams per kilogram
3. µg/kg = Micrograms per kilogram
4. pg/g = Picrograms per gram
5. J = The result is an estimated quantity
6. U= Undetected at the method detection limit shown
7. UJ = Undetected at the method detection limit shown, detection limit is an estimated quantity
8. Level II Screening Benchmark Values; revision date 12/2001
9. Shading indicates sample concentration exceeds the default background concentration and one or more SLVs

Table B-19
Riverbank Surface Sample Results - Section 4
Source Control Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Riverbank Section 4											Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil	Default Background Conc. Portland Basin Soil
			S2-15	S2-16	S2-17	S2-18	S2-19	S2-20	S2-21	S2-22	S2-23	S2-24	S2-25			
		Date	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010			
		Depth (Feet Below Ground Surface)	0	0	0	0	0	0	0	0	0	0	0			
Inorganics	Mercury	mg/kg	0.0187 J	0.0209 J	0.0199 J	0.016 J	0.0336 J	0.0224 J	0.038 J	0.0283 J	0.014 J	0.0113 J	0.0327 J	0.07	1.1	0.23
	Arsenic	mg/kg	46.9	267	52.3	125	118	39.6	132	107	32.9	23.2	51.7	--	3	8.8
	Barium	mg/kg	355	840	439	208	316	542	559	359	367	665	431	--	--	790
	Chromium	mg/kg	59.9	142	111	92.3	88.8	86.2	92.1	113	70.1	86.6	64.1	111	--	76
	Copper	mg/kg	1,040	4,490	3,730	2,000	2,790	4,010	4,890	1,730	1,170	4,900	1,520	149	149	34
	Lead	mg/kg	80.1	457	87.9	229	278	108	272	208	68.8	24.4	94.1	17	128	79
	Manganese	mg/kg	2,020	4,580	2,510	2,000	2,710	3,060	2,500	3,010	2,370	2,970	2,730	1,100	--	1,800
	Nickel	mg/kg	40.3	74.4	79.5	89.7	85.7	63.4	67.5	68.1	70.4	66	40.3	49	--	47
	Selenium	mg/kg	0.279 J	0.404 J	0.0449 U	0.454 J	0.494 J	0.208 J	0.422 J	0.706 J	0.212 J	1.94 J	0.333 J	5	--	0.71
	Silver	mg/kg	0.814	1.76	1.27	0.736	4.96	1.39	1.64	1.02	0.832	1.26 J	0.999 J	5	--	0.82
	Zinc	mg/kg	926	4,230	2,570	1,920	2,160	1,990	3,400	1,620	966	3,300	640	459	459	180
PCBs	Aroclor 1016	µg/kg	1.85 U	1.68 U	1.87 U	1.68 U	9.12 U	1.72 U	1.76 U	1.81 U	1.76 U	1.9 U	1.84 U	--	--	--
	Aroclor 1221	µg/kg	3.69 U	3.35 U	3.73 U	3.36 U	18.2 U	3.44 U	3.5 U	3.6 U	3.5 U	3.79 U	3.67 U	--	--	--
	Aroclor 1232	µg/kg	1.85 U	1.68 U	1.87 U	1.68 U	9.12 U	1.72 U	1.76 U	1.81 U	1.76 U	1.9 U	1.84 U	--	--	--
	Aroclor 1242	µg/kg	1.85 U	1.68 U	1.87 U	1.68 U	9.12 U	1.72 U	1.76 U	1.81 U	1.76 U	1.9 U	1.84 U	--	--	--
	Aroclor 1248	µg/kg	1.85 U	1.68 U	1.87 U	1.68 U	9.12 U	1.72 U	1.76 U	1.81 U	1.76 U	1.9 U	1.84 U	--	--	--
	Aroclor 1254	µg/kg	1.85 U	1.68 U	1.87 U	16.7	9.12 U	1.72 U	1.76 U	12.6 J	12.4 J	10.9	7.11 J	--	--	--
	Aroclor 1260	µg/kg	7.66	1.68 U	4.48	1.68 U	97.1	1.72 U	11.5 J	1.81 U	1.76 U	1.9 U	1.84 U	--	--	--
	Aroclor 1262	µg/kg	1.85 U	1.68 U	1.87 U	1.68 U	9.12 U	1.72 U	1.76 U	1.81 U	1.76 U	1.9 U	1.84 U	--	--	--
	Aroclor 1268	µg/kg	1.85 U	1.68 U	1.87 U	1.68 U	9.12 U	1.72 U	1.76 U	1.81 U	1.76 U	1.9 U	1.84 U	--	--	--
	Total PCBs	µg/kg	7.66	16.8 U	4.48	16.7	97.1	17.2 U	11.5 J	12.6 J	12.4 J	10.9	7.11 J	0.39	9	--
VOCs	1,1,1,2-Tetrachloroethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,1,1-Trichloroethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,1,2,2-Tetrachloroethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,1,2-Trichloroethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,1-Dichloroethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,1-Dichloroethene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,1-Dichloropropene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,2,3-Trichlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,2,3-Trichloropropane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,2,4-Trichlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	9,200	--	--
	1,2,4-Trimethylbenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,2-Dibromo-3-	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,2-Dibromoethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,2-Dichlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	1,700	--	--
	1,2-Dichloroethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,2-Dichloropropane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,3,5-Trimethylbenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table B-19
Riverbank Surface Sample Results - Section 4
Source Control Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Riverbank Section 4											Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil	Default Background Conc. Portland Basin Soil
			S2-15	S2-16	S2-17	S2-18	S2-19	S2-20	S2-21	S2-22	S2-23	S2-24	S2-25			
		Date	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010			
		Depth (Feet Below Ground Surface)	0	0	0	0	0	0	0	0	0	0	0			
VOCs (continued)	1,3-Dichlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	300	--	--
	1,3-Dichloropropane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,4-Dichlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	300	--	--
	2,2-Dichloropropane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2-Butanone	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2-Chlorotoluene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2-Hexanone	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4-Chlorotoluene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4-Methyl-2-pentanone	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Acetone	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Benzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Bromobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Bromochloromethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Bromodichloromethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Bromoform	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Bromomethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Carbon disulfide	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Carbon tetrachloride	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Chlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Chloroethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Chloroform	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Chloromethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	cis-1,2-Dichloroethene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	cis-1,3-Dichloropropene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Dibromochloromethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Dibromomethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Dichlorodifluoromethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Ethylbenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Hexachlorobutadiene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	600	--	--
	Isopropylbenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	m,p-Xylene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Methyl tert-butyl ether	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Methylene chloride	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Naphthalene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	561	--	--
	n-Butylbenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	n-Propylbenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	o-Xylene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	p-Isopropyltoluene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	sec-Butylbenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Styrene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table B-19
Riverbank Surface Sample Results - Section 4
Source Control Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Riverbank Section 4											Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil	Default Background Conc. Portland Basin Soil
			S2-15	S2-16	S2-17	S2-18	S2-19	S2-20	S2-21	S2-22	S2-23	S2-24	S2-25			
		Date	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010			
		Depth (Feet Below Ground Surface)	0	0	0	0	0	0	0	0	0	0	0			
VOCs (continued)	tert-Butylbenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Tetrachloroethene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Toluene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	trans-1,2-Dichloroethene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	trans-1,3-Dichloropropene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Trichloroethene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	2,100	--	--
	Trichlorofluoromethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Vinyl chloride	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SVOCs	1,2,4-Trichlorobenzene	µg/kg	--	--	--	--	--	--	--	538 U	--	--	--	9,200	--	--
	1,2-Dichlorobenzene	µg/kg	--	--	--	--	--	--	--	538 U	--	--	--	1,700	--	--
	1,3-Dichlorobenzene	µg/kg	--	--	--	--	--	--	--	538 U	--	--	--	300	--	--
	1,4-Dichlorobenzene	µg/kg	--	--	--	--	--	--	--	538 U	--	--	--	300	--	--
	2,4,5-Trichlorophenol	µg/kg	--	--	--	--	--	--	--	75.3 U	--	--	--	--	--	--
	2,4,6-Trichlorophenol	µg/kg	--	--	--	--	--	--	--	75.3 U	--	--	--	--	--	--
	2,4-Dichlorophenol	µg/kg	--	--	--	--	--	--	--	75.3 U	--	--	--	--	--	--
	2,4-Dimethylphenol	µg/kg	--	--	--	--	--	--	--	538 U	--	--	--	--	--	--
	2,4-Dinitrophenol	µg/kg	--	--	--	--	--	--	--	2,150 U	--	--	--	--	--	--
	2,4-Dinitrotoluene	µg/kg	--	--	--	--	--	--	--	538 U	--	--	--	--	--	--
	2,6-Dinitrotoluene	µg/kg	--	--	--	--	--	--	--	538 U	--	--	--	--	--	--
	2-Chloronaphthalene	µg/kg	--	--	--	--	--	--	--	75.3 U	--	--	--	--	--	--
	2-Chlorophenol	µg/kg	--	--	--	--	--	--	--	75.3 U	--	--	--	--	--	--
	2-Methylphenol	µg/kg	--	--	--	--	--	--	--	75.3 U	--	--	--	--	--	--
	2-Nitroaniline	µg/kg	--	--	--	--	--	--	--	75.3 U	--	--	--	--	--	--
	2-Nitrophenol	µg/kg	--	--	--	--	--	--	--	75.3 U	--	--	--	--	--	--
	3,3'-Dichlorobenzidine	µg/kg	--	--	--	--	--	--	--	538 U	--	--	--	--	--	--
	3,4-Methylphenol	µg/kg	--	--	--	--	--	--	--	75.3 U	--	--	--	--	--	--
	3-Nitroaniline	µg/kg	--	--	--	--	--	--	--	538 U	--	--	--	--	--	--
	4,6-Dinitro-2-methylphenol	µg/kg	--	--	--	--	--	--	--	538 U	--	--	--	--	--	--
	4-Bromophenyl phenyl	µg/kg	--	--	--	--	--	--	--	75.3 U	--	--	--	--	--	--
	4-Chloro-3-methylphenol	µg/kg	--	--	--	--	--	--	--	75.3 U	--	--	--	--	--	--
	4-Chloroaniline	µg/kg	--	--	--	--	--	--	--	177 U	--	--	--	--	--	--
	4-Chlorophenyl phenyl	µg/kg	--	--	--	--	--	--	--	108 U	--	--	--	--	--	--
	4-Nitroaniline	µg/kg	--	--	--	--	--	--	--	75.3 U	--	--	--	--	--	--
	4-Nitrophenol	µg/kg	--	--	--	--	--	--	--	538 U	--	--	--	--	--	--
	Benzoic Acid	µg/kg	--	--	--	--	--	--	--	538 U	--	--	--	--	--	--
	Benzyl Alcohol	µg/kg	--	--	--	--	--	--	--	1,080 U	--	--	--	--	--	--
	Bis(2-chloroethoxy)methane	µg/kg	--	--	--	--	--	--	--	75.3 U	--	--	--	--	--	--
	Bis(2-chloroethyl)ether	µg/kg	--	--	--	--	--	--	--	75.3 U	--	--	--	--	--	--
	Bis(2-chloroisopropyl)ether	µg/kg	--	--	--	--	--	--	--	75.3 U	--	--	--	--	--	--
	Dibenzofuran	µg/kg	--	--	--	--	--	--	--	107 J	--	--	--	--	--	--

Table B-19
Riverbank Surface Sample Results - Section 4
Source Control Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Riverbank Section 4											Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil	Default Background Conc. Portland Basin Soil
			S2-15	S2-16	S2-17	S2-18	S2-19	S2-20	S2-21	S2-22	S2-23	S2-24	S2-25			
		Date	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010			
		Depth (Feet Below Ground Surface)	0	0	0	0	0	0	0	0	0	0	0			
SVOCs (continued)	Hexachlorobenzene	µg/kg	--	--	--	--	--	--	--	75.3 U	--	--	--	19	0.3	--
	Hexachlorobutadiene	µg/kg	--	--	--	--	--	--	--	538 U	--	--	--	600	--	--
	Hexachlorocyclopentadiene	µg/kg	--	--	--	--	--	--	--	538 U	--	--	--	400	--	--
	Hexachloroethane	µg/kg	--	--	--	--	--	--	--	538 U	--	--	--	--	--	--
	Isophorone	µg/kg	--	--	--	--	--	--	--	75.3 U	--	--	--	--	--	--
	Nitrobenzene	µg/kg	--	--	--	--	--	--	--	75.3 U	--	--	--	--	--	--
	N-Nitrosodi-n-propylamine	µg/kg	--	--	--	--	--	--	--	75.3 U	--	--	--	--	--	--
	N-Nitrosodiphenylamine	µg/kg	--	--	--	--	--	--	--	75.3 U	--	--	--	--	--	--
	Pentachlorophenol	µg/kg	--	--	--	--	--	--	--	538 U	--	--	--	1,000	--	--
	Phenol	µg/kg	--	--	--	--	--	--	--	75.3 U	--	--	--	50	--	--
PAHs	2-Methylnaphthalene	µg/kg	13.3 J	42.2	95.8	26.5	170	202	50.5 J	35.6	10 J	21.2 J	6.7 J	200	--	--
	Acenaphthene	µg/kg	12.1 J	116	133 J	55.8	197	463	165	52.4	14.1 J	43	11.5 J	300	--	--
	Acenaphthylene	µg/kg	7.27 U	17.6 J	14.7 J	8.33 J	73.3	36.4 J	29 J	11 J	15.6 J	40.3	3.58 U	200	--	--
	Anthracene	µg/kg	21.3 J	255	251	101	372	714	275	100	43.5	68.3	18.9	845	--	--
	Benzo(a)anthracene	µg/kg	63.3	607	485	234	564	1,080	718	248	78.7	196	54.8	1,050	--	--
	Benzo(a)pyrene	µg/kg	85.7	527	433	230	525	981	760	236	73	228	50.2	1,450	--	--
	Benzo(b)fluoranthene	µg/kg	115	527	453	243	456	882	677	246	85.1	319	50.7	--	--	--
	Benzo(ghi)perylene	µg/kg	80.5	323	323	155	357	636	577	157	57.8	201	35.3	300	--	--
	Benzo(k)fluranthene	µg/kg	79.6	516	384	213	480	817	720	231	68.2	236	43.8	--	--	--
	Chrysene	µg/kg	103	663	570	258	609	1,140	796	275	94.9	297	66.3	1,290	--	--
	Dibenzo(a,h)anthracene	µg/kg	25.6 J	115 J	105	54.4	116	170	166	50.6	17 J	61.2	11 J	1,300	--	--
	Fluoranthene	µg/kg	146	1,610	1,270	588	1,620	3,100	1,840	606	176	404	166	2,230	--	--
	Fluorene	µg/kg	13.3 J	134	161	69.3	268	511	162	66.7	20.4 J	33.3	14.3 J	536	--	--
	Indeno(1,2,3-cd)pyrene	µg/kg	71.6	336	310	147	337	593	523	148	52	178	31.5	100	--	--
	Naphthalene	µg/kg	29.5	45.7	58.7	20.6	248	234	59.9 J	25.4 J	12.1 J	79	6.11 J	561	--	--
	Phenanthrene	µg/kg	86.5	1,190	1,250	553	1,740	3,440	1,480	537	144	269	123	1,170	--	--
	Pyrene	µg/kg	119	1,120	956	425	1,160	2,430	1,500	463	150	334	134	1,520	--	--
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	169	671 U	410 J	73.8	288	768	809	172	98.2 J	485	106	330	135	--
	Butyl benzyl phthalate	µg/kg	73.8 U	671 U	297 U	27 U	144 U	136 U	140 U	28.5 U	70.9 U	152 U	14.5 U	--	--	--
	Diethyl phthalate	µg/kg	73.8 U	134 U	74.1 U	15.7 J	144 U	203 J	140 U	32.6 J	70.9 U	152 U	47.7	600	--	--
	Dimethyl phthalate	µg/kg	73.8 U	134 U	74.1 U	13.5 U	144 U	136 U	140 U	28.5 U	70.9 U	152 U	14.5 U	--	--	--
	Di-n-butyl phthalate	µg/kg	73.8 U	134 U	74.1 U	13.5 U	144 U	136 U	140 U	28.5 U	70.9 U	152 U	25.6 J	100	--	--
	Di-n-octyl phthalate	µg/kg	73.8 U	671 U	741 U	27 U	288 U	272 U	140 U	143 U	70.9 U	152 U	14.5 U	--	--	--
Organotins	Dibutyltin	µg/kg	0.41 U	0.4 U	0.44 U	0.4 U	0.43 U	0.44 U	44	0.44 U	0.51 U	0.43 U	0.41 U	--	--	--
	Monobutyltin	µg/kg	0.39 U	0.38 U	0.42 U	0.38 U	0.4 U	0.42 U	46	0.42 U	0.49 U	0.41 U	0.39 U	--	--	--
	Tetra-n-butyltin	µg/kg	1.2 U	1.2 U	1.3 U	16	1.2 U	1.3 U	1.3 U	1.3 U	1.5 U	1.3 U	1.2 U	--	--	--
	Tributyltin	µg/kg	0.88 U	0.86 U	1 U	0.86 U	0.91 U	11	27	1 U	12	12	0.87 U	2.3	24,000	--

Table B-19
Riverbank Surface Sample Results - Section 4
Source Control Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Riverbank Section 4											Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil	Default Background Conc. Portland Basin Soil
			S2-15	S2-16	S2-17	S2-18	S2-19	S2-20	S2-21	S2-22	S2-23	S2-24	S2-25			
		Date	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010			
		Depth (Feet Below Ground Surface)	0	0	0	0	0	0	0	0	0	0	0			
Organochlorine Pesticides	4-4'-DDD	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	6.1	--
	4,4'-DDE	µg/kg	--	--	--	--	--	--	--	--	--	--	--	0.330	6.1	--
	4,4'-DDT	µg/kg	--	--	--	--	--	--	--	--	--	--	--	0.33	6.1	--
	Aldrin	µg/kg	--	--	--	--	--	--	--	--	--	--	--	40	2	--
	alpha-BHC	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	alpha-Chlordane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	1.5	--
	beta-BHC	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Chlordane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	0.37	1.5	--
	delta-BHC	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Dieldrin	µg/kg	--	--	--	--	--	--	--	--	--	--	--	0.0081	0.07	--
	Endosulfan I	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Endosulfan II	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Endosulfan sulfate	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Endrin	µg/kg	--	--	--	--	--	--	--	--	--	--	--	207	--	--
	Endrin aldehyde	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Endrin ketone	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	gamma-BHC (Lindane)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	4.99	5	--
	gamma-Chlordane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	1.5	--
	Heptachlor	µg/kg	--	--	--	--	--	--	--	--	--	--	--	10	--	--
	Heptachlor epoxide	µg/kg	--	--	--	--	--	--	--	--	--	--	--	16	--	--
	Methoxychlor	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Toxaphene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Petroleum Hydrocarbons	Diesel	mg/kg	138	5,080	1,360	87.7	119	202	189	97.4	48.8	374	9.89 J	--	--	--
	Heavy Oil	mg/kg	476	16,000	4,970	366	452	791	783	371	218	1,540	36.2	--	--	--

Notes:
1. -- = Not applicable/not analyzed
2. mg/kg = Milligrams per kilogram
3. µg/kg = Micrograms per kilogram
4. J = The result is an estimated quantity
5. U= Undetected at the method detection limit shown
6. UJ = Undetected at the method detection limit shown, detection limit is an estimated quantity
7. Joint Source Control Strategy (JSCS) Screening Level Values (SLVs); revision date 7/16/2007
8. Shading indicates sample concentration exceeds the corresponding JSCS SLV and/or the draft PRG
9. PRG = Draft Preliminary Remediation Goal; prepared by U.S. Environmental Protection Agency, July 2015

Table B-20
Riverbank Surface Sample Results - Section 4
Human Health Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Riverbank Section 4											Oregon Department of Environmental Quality Risk-Based Concentrations				
			S2-15	S2-16	S2-17	S2-18	S2-19	S2-20	S2-21	S2-22	S2-23	S2-24	S2-25	Soil Ingestion, Dermal Contact, and Inhal.			Vol. to Outdoor Air	Vapor Intrusion
Date			9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010					
Depth			0	0	0	0	0	0	0	0	0	0	0	Occ	Const.	Exc	Occ	Occ
Inorganics	Mercury	mg/kg	0.0187 J	0.0209 J	0.0199 J	0.016 J	0.0336 J	0.0224 J	0.038 J	0.0283 J	0.014 J	0.0113 J	0.0327 J	3.50E+02	1.10E+02	2.90E+03	--	--
	Arsenic	mg/kg	46.9	267	52.3	125	118	39.6	132	107	32.9	23.2	51.7	1.90E+00	1.50E+01	4.20E+02	--	--
	Barium	mg/kg	355	840	439	208	316	542	559	359	367	665	431	2.20E+05	6.90E+04	--	--	--
	Chromium	mg/kg	59.9	142	111	92.3	88.8	86.2	92.1	113	70.1	86.6	64.1	--	5.30E+05	--	--	--
	Copper	mg/kg	1040	4490	3730	2000	2790	4010	4890	1730	1170	4900	1520	4.70E+04	1.40E+04	3.90E+05	--	--
	Lead	mg/kg	80.1	457	87.9	229	278	108	272	208	68.8	24.4	94.1	8.00E+02	8.00E+02	8.00E+02	--	--
	Manganese	mg/kg	2020	4580	2510	2000	2710	3060	2500	3010	2370	2970	2730	2.50E+04	8.20E+03	2.30E+05	--	--
	Nickel	mg/kg	40.3	74.4	79.5	89.7	85.7	63.4	67.5	68.1	70.4	66	40.3	2.20E+04	7.00E+03	1.90E+05	--	--
	Selenium	mg/kg	0.279 J	0.404 J	0.0449 U	0.454 J	0.494 J	0.208 J	0.422 J	0.706 J	0.212 J	1.94 J	0.333 J	--	--	--	--	--
	Silver	mg/kg	0.814	1.76	1.27	0.736	4.96	1.39	1.64	1.02	0.832	1.26 J	0.999 J	5.80E+03	1.80E+03	4.90E+04	--	--
	Zinc	mg/kg	926	4230	2570	1920	2160	1990	3400	1620	966	3300	640	--	--	--	--	--
PCBs	Aroclor 1016	µg/kg	1.85 U	1.68 U	1.87 U	1.68 U	9.12 U	1.72 U	1.76 U	1.81 U	1.76 U	1.9 U	1.84 U	--	--	--	--	--
	Aroclor 1221	µg/kg	3.69 U	3.35 U	3.73 U	3.36 U	18.2 U	3.44 U	3.5 U	3.6 U	3.5 U	3.79 U	3.67 U	--	--	--	--	--
	Aroclor 1232	µg/kg	1.85 U	1.68 U	1.87 U	1.68 U	9.12 U	1.72 U	1.76 U	1.81 U	1.76 U	1.9 U	1.84 U	--	--	--	--	--
	Aroclor 1242	µg/kg	1.85 U	1.68 U	1.87 U	1.68 U	9.12 U	1.72 U	1.76 U	1.81 U	1.76 U	1.9 U	1.84 U	--	--	--	--	--
	Aroclor 1248	µg/kg	1.85 U	1.68 U	1.87 U	1.68 U	9.12 U	1.72 U	1.76 U	1.81 U	1.76 U	1.9 U	1.84 U	--	--	--	--	--
	Aroclor 1254	µg/kg	1.85 U	1.68 U	1.87 U	16.7	9.12 U	1.72 U	1.76 U	12.6 J	12.4 J	10.9	7.11 J	--	--	--	--	--
	Aroclor 1260	µg/kg	7.66	1.68 U	4.48	1.68 U	97.1	1.72 U	11.5 J	1.81 U	1.76 U	1.9 U	1.84 U	--	--	--	--	--
	Aroclor 1262	µg/kg	1.85 U	1.68 U	1.87 U	1.68 U	9.12 U	1.72 U	1.76 U	1.81 U	1.76 U	1.9 U	1.84 U	--	--	--	--	--
	Aroclor 1268	µg/kg	1.85 U	1.68 U	1.87 U	1.68 U	9.12 U	1.72 U	1.76 U	1.81 U	1.76 U	1.9 U	1.84 U	--	--	--	--	--
	Total PCBs	µg/kg	7.66	16.8 U	4.48	16.7	97.1	17.2 U	11.5 J	12.6 J	12.4 J	10.9	7.11 J	5.90E+02	4.90E+03	1.40E+05	--	--

Table B-20
Riverbank Surface Sample Results - Section 4
Human Health Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Riverbank Section 4											Oregon Department of Environmental Quality Risk-Based Concentrations				
			S2-15	S2-16	S2-17	S2-18	S2-19	S2-20	S2-21	S2-22	S2-23	S2-24	S2-25	Soil Ingestion, Dermal Contact, and Inhal.			Vol. to Outdoor Air	Vapor Intrusion
Date			9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010					
Depth			0	0	0	0	0	0	0	0	0	0	0	Occ	Const.	Exc	Occ	Occ
VOCs	1,1,1,2-Tetrachloroethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,1,1-Trichloroethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	8.70E+08	4.70E+08	--	--	--
	1,1,2,2-Tetrachloroethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,1,2-Trichloroethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	2.60E+04	5.40E+04	1.50E+06	2.40E+04	4.20E+03
	1,1-Dichloroethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	2.60E+05	3.20E+06	8.90E+07	2.40E+05	5.90E+03
	1,1-Dichloroethene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	2.90E+07	1.30E+07	3.70E+08	--	6.80E+05
	1,1-Dichloropropene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,2,3-Trichlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,2,3-Trichloropropane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,2,4-Trichlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,2,4-Trimethylbenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	2.00E+06	2.00E+06	5.40E+07	9.80E+05	2.10E+05
	1,2-Dibromo-3-	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,2-Dibromoethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	7.30E+02	9.00E+03	2.50E+05	6.50E+02	1.60E+02
	1,2-Dichlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	3.60E+07	2.00E+07	5.60E+08	--	--
	1,2-Dichloroethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	1.60E+04	2.00E+05	5.60E+06	1.50E+04	1.00E+03
	1,2-Dichloropropane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,3,5-Trimethylbenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	1.20E+07	3.50E+06	9.80E+07	--	--
	1,3-Dichlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,3-Dichloropropane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,4-Dichlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	6.40E+04	1.30E+06	3.60E+07	3.60E+04	1.30E+04
	2,2-Dichloropropane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2-Butanone	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2-Chlorotoluene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2-Hexanone	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4-Chlorotoluene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4-Methyl-2-pentanone	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Acetone	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Benzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	3.70E+04	3.80E+05	1.10E+07	5.00E+04	2.10E+03
	Bromobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Bromochloromethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Bromodichloromethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	1.50E+04	2.30E+05	6.30E+06	1.10E+04	5.30E+02
	Bromoform	µg/kg	--	--	--	--	--	--	--	--	--	--	--	2.60E+05	2.70E+06	7.40E+07	3.60E+05	1.10E+05
	Bromomethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	7.50E+05	3.70E+05	1.00E+07	7.00E+05	1.70E+04
	Carbon disulfide	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Carbon tetrachloride	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Chlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	8.70E+06	4.70E+06	1.30E+08	--	--

Table B-20
Riverbank Surface Sample Results - Section 4
Human Health Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Riverbank Section 4											Oregon Department of Environmental Quality Risk-Based Concentrations				
			S2-15	S2-16	S2-17	S2-18	S2-19	S2-20	S2-21	S2-22	S2-23	S2-24	S2-25	Soil Ingestion, Dermal Contact, and Inhal.			Vol. to Outdoor Air	Vapor Intrusion
Date			9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010					
Depth			0	0	0	0	0	0	0	0	0	0	0	Occ	Const.	Exc	Occ	Occ
VOCs (continued)	Chloroethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Chloroform	µg/kg	--	--	--	--	--	--	--	--	--	--	--	2.60E+04	4.10E+05	1.10E+07	1.70E+04	4.10E+02
	Chloromethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	2.50E+07	2.50E+07	7.00E+08	--	3.00E+05
	cis-1,2-Dichloroethene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	2.30E+06	7.10E+05	2.00E+07	--	--
	cis-1,3-Dichloropropene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Dibromochloromethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Dibromomethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Dichlorodifluoromethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Ethylbenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	1.50E+05	1.70E+06	4.90E+07	1.60E+05	1.70E+04
	Hexachlorobutadiene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Isopropylbenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	5.70E+07	2.70E+07	7.50E+08	--	--
	m,p-Xylene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	2.50E+07	2.00E+07	5.60E+08	--	--
	Methyl tert-butyl ether	µg/kg	--	--	--	--	--	--	--	--	--	--	--	1.10E+06	1.20E+07	3.20E+08	1.50E+06	1.10E+05
	Methylene chloride	µg/kg	--	--	--	--	--	--	--	--	--	--	--	1.60E+06	2.10E+06	5.80E+07	-	9.50E+05
	Naphthalene	µg/kg												2.30E+04	5.80E+05	1.60E+07	8.30E+04	8.30E+04
	n-Butylbenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	n-Propylbenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	o-Xylene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	2.50E+07	2.00E+07	5.60E+08	--	--
	p-Isopropyltoluene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	sec-Butylbenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Styrene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	1.30E+08	5.60E+07	--	--	--
	tert-Butylbenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Tetrachloroethene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	1.00E+06	1.80E+06	5.00E+07	--	3.60E+04
	Toluene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	8.80E+07	2.80E+07	7.70E+08	--	--
	trans-1,2-Dichloroethene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	2.30E+07	7.10E+06	2.00E+08	--	--
	trans-1,3-Dichloropropene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Trichloroethene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	5.10E+04	4.70E+05	1.30E+07	9.60E+04	2.30E+03
	Trichlorofluoromethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	1.30E+08	6.90E+07	--	--	--
	Vinyl chloride	µg/kg	--	--	--	--	--	--	--	--	--	--	--	4.40E+03	3.40E+04	9.50E+05	8.90E+04	2.20E+03

Table B-20
Riverbank Surface Sample Results - Section 4
Human Health Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Riverbank Section 4											Oregon Department of Environmental Quality Risk-Based Concentrations				
			S2-15	S2-16	S2-17	S2-18	S2-19	S2-20	S2-21	S2-22	S2-23	S2-24	S2-25	Soil Ingestion, Dermal Contact, and Inhal.			Vol. to Outdoor Air	Vapor Intrusion
Date			9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010					
Depth			0	0	0	0	0	0	0	0	0	0	0	Occ	Const.	Exc	Occ	Occ
SVOCs	1,2,4-Trichlorobenzene	µg/kg	--	--	--	--	--	--	--	538 U	--	--	--	--	--	--	--	--
	1,2-Dichlorobenzene	µg/kg	--	--	--	--	--	--	--	538 U	--	--	--	3.60E+07	2.00E+07	5.60E+08	--	--
	1,3-Dichlorobenzene	µg/kg	--	--	--	--	--	--	--	538 U	--	--	--	--	--	--	--	--
	1,4-Dichlorobenzene	µg/kg	--	--	--	--	--	--	--	538 U	--	--	--	6.40E+04	1.30E+06	3.60E+07	1.90E+04	1.30E+04
	2,4,5-Trichlorophenol	µg/kg	--	--	--	--	--	--	--	75.3 U	--	--	--	--	--	--	--	--
	2,4,6-Trichlorophenol	µg/kg	--	--	--	--	--	--	--	75.3 U	--	--	--	2.10E+05	2.70E+05	7.40E+06	--	--
	2,4-Dichlorophenol	µg/kg	--	--	--	--	--	--	--	75.3 U	--	--	--	--	--	--	--	--
	2,4-Dimethylphenol	µg/kg	--	--	--	--	--	--	--	538 U	--	--	--	--	--	--	--	--
	2,4-Dinitrophenol	µg/kg	--	--	--	--	--	--	--	2150 U	--	--	--	--	--	--	--	--
	2,4-Dinitrotoluene	µg/kg	--	--	--	--	--	--	--	538 U	--	--	--	--	--	--	--	--
	2,6-Dinitrotoluene	µg/kg	--	--	--	--	--	--	--	538 U	--	--	--	1.50E+03	1.30E+04	3.50E+05	--	--
	2-Chloronaphthalene	µg/kg	--	--	--	--	--	--	--	75.3 U	--	--	--	--	--	--	--	--
	2-Chlorophenol	µg/kg	--	--	--	--	--	--	--	75.3 U	--	--	--	--	--	--	--	--
	2-Methylphenol	µg/kg	--	--	--	--	--	--	--	75.3 U	--	--	--	--	--	--	--	--
	2-Nitroaniline	µg/kg	--	--	--	--	--	--	--	75.3 U	--	--	--	--	--	--	--	--
	2-Nitrophenol	µg/kg	--	--	--	--	--	--	--	75.3 U	--	--	--	--	--	--	--	--
	3,3'-Dichlorobenzidine	µg/kg	--	--	--	--	--	--	--	538 U	--	--	--	--	--	--	--	--
	3,4-Methylphenol	µg/kg	--	--	--	--	--	--	--	75.3 U	--	--	--	--	--	--	--	--
	3-Nitroaniline	µg/kg	--	--	--	--	--	--	--	538 U	--	--	--	--	--	--	--	--
	4,6-Dinitro-2-methylphenol	µg/kg	--	--	--	--	--	--	--	538 U	--	--	--	--	--	--	--	--
	4-Bromophenyl phenyl ether	µg/kg	--	--	--	--	--	--	--	75.3 U	--	--	--	--	--	--	--	--
	4-Chloro-3-methylphenol	µg/kg	--	--	--	--	--	--	--	75.3 U	--	--	--	--	--	--	--	--
	4-Chloroaniline	µg/kg	--	--	--	--	--	--	--	177 U	--	--	--	--	--	--	--	--
	4-Chlorophenyl phenyl ether	µg/kg	--	--	--	--	--	--	--	108 U	--	--	--	--	--	--	--	--
	4-Nitroaniline	µg/kg	--	--	--	--	--	--	--	75.3 U	--	--	--	--	--	--	--	--
	4-Nitrophenol	µg/kg	--	--	--	--	--	--	--	538 U	--	--	--	--	--	--	--	--
	Benzoic Acid	µg/kg	--	--	--	--	--	--	--	538 U	--	--	--	--	--	--	--	--
	Benzyl Alcohol	µg/kg	--	--	--	--	--	--	--	1080 U	--	--	--	--	--	--	--	--
	Bis(2-chloroethoxy)methane	µg/kg	--	--	--	--	--	--	--	75.3 U	--	--	--	--	--	--	--	--
	Bis(2-chloroethyl)ether	µg/kg	--	--	--	--	--	--	--	75.3 U	--	--	--	1.30E+03	1.60E+04	4.50E+05	1.20E+03	6.90E+03
	Bis(2-chloroisopropyl)ether	µg/kg	--	--	--	--	--	--	--	75.3 U	--	--	--	--	--	--	--	--
	Dibenzofuran	µg/kg	--	--	--	--	--	--	--	107 J	--	--	--	--	--	--	--	--
	Hexachlorobenzene	µg/kg	--	--	--	--	--	--	--	75.3 U	--	--	--	9.30E+02	1.10E+04	3.20E+05	2.40E+03	1.30E+04
	Hexachlorobutadiene	µg/kg	--	--	--	--	--	--	--	538 U	--	--	--	--	--	--	--	--
	Hexachlorocyclopentadiene	µg/kg	--	--	--	--	--	--	--	538 U	--	--	--	--	--	--	--	--
	Hexachloroethane	µg/kg	--	--	--	--	--	--	--	538 U	--	--	--	3.20E+04	1.80E+05	5.10E+06	1.90E+04	7.60E+03
	Isophorone	µg/kg	--	--	--	--	--	--	--	75.3 U	--	--	--	--	--	--	--	--
	Nitrobenzene	µg/kg	--	--	--	--	--	--	--	75.3 U	--	--	--	--	--	--	--	--
	N-Nitrosodi-n-propylamine	µg/kg	--	--	--	--	--	--	--	75.3 U	--	--	--	--	--	--	--	--
	N-Nitrosodiphenylamine	µg/kg	--	--	--	--	--	--	--	75.3 U	--	--	--	4.70E+05	3.80E+06	1.10E+08	--	--
	Pentachlorophenol	µg/kg	--	--	--	--	--	--	--	538 U	--	--	--	4.00E+03	3.40E+04	9.60E+05	--	--
	Phenol	µg/kg	--	--	--	--	--	--	--	75.3 U	--	--	--	--	--	--	--	--

Table B-20
Riverbank Surface Sample Results - Section 4
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Group	Constituent	Units	Riverbank Section 4											Oregon Department of Environmental Quality Risk-Based Concentrations				
			S2-15	S2-16	S2-17	S2-18	S2-19	S2-20	S2-21	S2-22	S2-23	S2-24	S2-25	Soil Ingestion, Dermal Contact, and Inhal.			Vol. to Outdoor Air	Vapor Intrusion
Date			9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010					
Depth			0	0	0	0	0	0	0	0	0	0	0	Occ	Const.	Exc	Occ	Occ
PAHs	2-Methylnaphthalene	µg/kg	13.3 J	42.2	95.8	26.5	170	202	50.5 J	35.6	10 J	21.2 J	6.7 J	--	--	--	--	--
	Acenaphthene	µg/kg	12.1 J	116	133 J	55.8	197	463	165	52.4	14.1 J	43	11.5 J	7.00E+07	2.10E+07	5.90E+08	--	--
	Acenaphthylene	µg/kg	7.27 U	17.6 J	14.7 J	8.33 J	73.3	36.4 J	29 J	11 J	15.6 J	40.3	3.58 U	--	--	--	--	--
	Anthracene	µg/kg	21.3 J	255	251	101	372	714	275	100	43.5	68.3	18.9	3.50E+08	1.10E+08	--	--	--
	Benzo(a)anthracene	µg/kg	63.3	607	485	234	564	1080	718	248	78.7	196	54.8	2.90E+03	2.40E+04	6.60E+05	--	--
	Benzo(a)pyrene	µg/kg	85.7	527	433	230	525	981	760	236	73	228	50.2	--	--	--	--	--
	Benzo(b)fluoranthene	µg/kg	115	527	453	243	456	882	677	246	85.1	319	50.7	2.90E+03	2.40E+04	6.70E+05	--	--
	Benzo(ghi)perylene	µg/kg	80.5	323	323	155	357	636	577	157	57.8	201	35.3	--	--	--	--	--
	Benzo(k)fluranthene	µg/kg	79.6	516	384	213	480	817	720	231	68.2	236	43.8	--	--	--	--	--
	Chrysene	µg/kg	103	663	570	258	609	1140	796	275	94.9	297	66.3	2.90E+05	2.40E+06	6.70E+07	--	--
	Dibenzo(a,h)anthracene	µg/kg	25.6 J	115 J	105	54.4	116	170	166	50.6	17 J	61.2	11 J	2.90E+02	2.40E+03	6.70E+04	--	--
	Fluoranthene	µg/kg	146	1610	1270	588	1620	3100	1840	606	176	404	166	3.00E+07	1.00E+07	2.80E+08	--	--
	Fluorene	µg/kg	13.3 J	134	161	69.3	268	511	162	66.7	20.4 J	33.3	14.3 J	4.70E+07	1.40E+07	3.90E+08	--	--
	Indeno(1,2,3-cd)pyrene	µg/kg	71.6	336	310	147	337	593	523	148	52	178	31.5	2.90E+03	2.40E+04	6.70E+05	--	--
	Naphthalene	µg/kg	29.5	45.7	58.7	20.6	248	234	59.9 J	25.4 J	12.1 J	79	6.11 J	2.30E+04	5.80E+05	1.60E+07	8.30E+04	8.30E+04
	Phenanthrene	µg/kg	86.5	1190	1250	553	1740	3440	1480	537	144	269	123	--	--	--	--	--
	Pyrene	µg/kg	119	1120	956	425	1160	2430	1500	463	150	334	134	2.30E+07	7.50E+06	2.10E+08	--	--
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	169	671 U	410 J	73.8	288	768	809	172	98.2 J	485	106	1.60E+05	1.30E+06	3.70E+07	--	--
	Butyl benzyl phthalate	µg/kg	73.8 U	671 U	297 U	27 U	144 U	136 U	140 U	28.5 U	70.9 U	152 U	14.5 U	--	--	--	--	--
	Diethyl phthalate	µg/kg	73.8 U	134 U	74.1 U	15.7 J	144 U	203 J	140 U	32.6 J	70.9 U	152 U	47.7	--	--	--	--	--
	Dimethyl phthalate	µg/kg	73.8 U	134 U	74.1 U	13.5 U	144 U	136 U	140 U	28.5 U	70.9 U	152 U	14.5 U	--	--	--	--	--
	Di-n-butyl phthalate	µg/kg	73.8 U	134 U	74.1 U	13.5 U	144 U	136 U	140 U	28.5 U	70.9 U	152 U	25.6 J	--	--	--	--	--
	Di-n-octyl phthalate	µg/kg	73.8 U	671 U	741 U	27 U	288 U	272 U	140 U	143 U	70.9 U	152 U	14.5 U	--	--	--	--	--
Organotins	Dibutyltin	µg/kg	0.41 U	0.4 U	0.44 U	0.4 U	0.43 U	0.44 U	44	0.44 U	0.51 U	0.43 U	0.41 U	--	--	--	--	--
	Monobutyltin	µg/kg	0.39 U	0.38 U	0.42 U	0.38 U	0.4 U	0.42 U	46	0.42 U	0.49 U	0.41 U	0.39 U	--	--	--	--	--
	Tetra-n-butyltin	µg/kg	1.2 U	1.2 U	1.3 U	16	1.2 U	1.3 U	1.3 U	1.3 U	1.5 U	1.3 U	1.2 U	--	--	--	--	--
	Tributyltin	µg/kg	0.88 U	0.86 U	1 U	0.86 U	0.91 U	11	27	1 U	12	12	0.87 U	--	--	--	--	--

Table B-20
Riverbank Surface Sample Results - Section 4
Human Health Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Riverbank Section 4											Oregon Department of Environmental Quality Risk-Based Concentrations				
			S2-15	S2-16	S2-17	S2-18	S2-19	S2-20	S2-21	S2-22	S2-23	S2-24	S2-25	Soil Ingestion, Dermal Contact, and Inhal.			Vol. to Outdoor Air	Vapor Intrusion
Date			9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010					
Depth			0	0	0	0	0	0	0	0	0	0	0	Occ	Const.	Exc	Occ	Occ
Organochlorine Pesticides	4-4'-DDD	µg/kg	--	--	--	--	--	--	--	--	--	--	--	1.20E+04	9.40E+04	2.60E+06		
	4,4'-DDE	µg/kg	--	--	--	--	--	--	--	--	--	--	--	8.20E+03	6.60E+04	1.80E+06	--	--
	4,4'-DDT	µg/kg	--	--	--	--	--	--	--	--	--	--	--	8.50E+03	6.60E+04	1.80E+06	--	--
	Aldrin	µg/kg	--	--	--	--	--	--	--	--	--	--	--	1.30E+02	1.10E+03	3.00E+04	--	--
	alpha-BHC	µg/kg	--	--	--	--	--	--	--	--	--	--	--	3.60E+02	3.00E+03	8.30E+04	--	--
	alpha-Chlordane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	beta-BHC	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Chlordane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	7.40E+03	6.10E+04	1.70E+06	--	--
	delta-BHC	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Dieldrin	µg/kg	--	--	--	--	--	--	--	--	--	--	--	1.40E+02	1.20E+03	3.30E+04	--	--
	Endosulfan I	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Endosulfan II	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Endosulfan sulfate	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Endrin	µg/kg	--	--	--	--	--	--	--	--	--	--	--	2.50E+05	8.00E+04	2.20E+06	--	--
	Endrin aldehyde	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Endrin ketone	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	gamma-BHC (Lindane)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	2.10E+03	1.70E+04	4.70E+05	--	--
	gamma-Chlordane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Heptachlor	µg/kg	--	--	--	--	--	--	--	--	--	--	--	4.50E+02	4.00E+03	1.10E+05	2.30E+05	2.30E+05
	Heptachlor epoxide	µg/kg	--	--	--	--	--	--	--	--	--	--	--	2.40E+02	2.00E+03	5.60E+04	--	--
	Methoxychlor	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Toxaphene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	2.10E+03	1.70E+04	4.70E+05	--	--
Petroleum Hydrocarbons	Diesel	mg/kg	138	5,080	1,360	87.7	119	202	189	97.4	48.8	374	9.89 J	1.40E+04	4.60E+03	--	--	--
	Heavy Oil	mg/kg	476	16,000	4,970	366	452	791	783	371	218	1,540	36.2	--	--	--	--	--

Notes:
1. -- = Not applicable/not analyzed.
2. mg/kg = Milligrams per kilogram.
3. µg/kg = Micrograms per kilogram.
4. J = The result is an estimated quantity.
5. U= Undetected at the method detection limit shown.
6. UJ = Undetected at the method detection limit shown, detection limit is an estimated quantity.
7. Risk-Based Concentrations; revision date 11/1/15.
8. Shading indicates sample concentration exceeds one or more RBCs

Table B-21
Riverbank Surface Sample Results - Section 4
Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Riverbank Section 4																Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			ASGS-4	ASGS-5	ASGS-6	ASGS-6-GRIT	ASGS-7	S2-15	S2-16	S2-17	S2-18	S2-19	S2-20	S2-21	S2-22	S2-23	S2-24	S2-25					
		Date	4/7/2004	4/7/2004	4/7/2004	4/7/2004	4/7/2004	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	Plants	Inverts.	Birds	Mamals	
	Depth (Feet Below Ground Surface)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
Inorganics	Mercury	mg/kg	0.0800	ND	ND	ND	0.1340	0.0187 J	0.0209 J	0.0199 J	0.016 J	0.0336 J	0.0224 J	0.038 J	0.0283 J	0.014 J	0.0113 J	0.0327 J	0.3	0.1	1.5	73	0.23
	Arsenic	mg/kg	61.9	19.6	7.2	61.3	56.5	46.9	267	52.3	125	118	39.6	132	107	32.9	23.2	51.7	10	60	10	29	8.8
	Barium	mg/kg	286	146	188	591	223	355	840	439	208	316	542	559	359	367	665	431	500	3,000	85	638	790
	Chromium	mg/kg	166	22.6	20.9	62.2	37.9	59.9	142	111	92.3	88.8	86.2	92.1	113	70.1	86.6	64.1	1	0.4	4	410	76
	Copper	mg/kg	586	542	25.4	5,260	655	1,040	4,490	3,730	2,000	2,790	4,010	4,890	1,730	1,170	4,900	1,520	100	50	190	390	34
	Lead	mg/kg	164	48.5	5.2	88.7	213	80.1	457	87.9	229	278	108	272	208	68.8	24.4	94.1	50	500	16	4000	79
	Manganese	mg/kg	4,160	678	455	4,020	1,180	2,020	4,580	2,510	2,000	2,710	3,060	2,500	3,010	2,370	2,970	2,730	500	100	4,125	11,000	1,800
	Nickel	mg/kg	36	23	17	51	42	40.3	74.4	79.5	89.7	85.7	63.4	67.5	68.1	70.4	66	40.3	30	200	320	625	47
	Selenium	mg/kg	0.665	0.387	ND	1	0.592	0.279 J	0.404 J	0.0449 U	0.454 J	0.494 J	0.208 J	0.422 J	0.706 J	0.212 J	1.94 J	0.333 J	1	70	2	25	0.71
	Silver	mg/kg	0.547	ND	ND	2	0.927	0.814	1.76	1.27	0.736	4.96	1.39	1.64	1.02	0.832	1.26 J	0.999 J	2	50	--	--	0.82
	Zinc	mg/kg	1,030	580	134	4,230	327	926	4,230	2,570	1,920	2,160	1,990	3,400	1,620	966	3,300	640	50	200	60	20,000	180
PCBs	Aroclor 1016	µg/kg	--	--	--	--	--	1.85 U	1.68 U	1.87 U	1.68 U	9.12 U	1.72 U	1.76 U	1.81 U	1.76 U	1.9 U	1.84 U	--	--	--	1.0E+05	--
	Aroclor 1221	µg/kg	--	--	--	--	--	3.69 U	3.35 U	3.73 U	3.36 U	18.2 U	3.44 U	3.5 U	3.6 U	3.5 U	3.79 U	3.67 U	--	--	--	--	--
	Aroclor 1232	µg/kg	--	--	--	--	--	1.85 U	1.68 U	1.87 U	1.68 U	9.12 U	1.72 U	1.76 U	1.81 U	1.76 U	1.9 U	1.84 U	--	--	--	--	--
	Aroclor 1242	µg/kg	--	--	--	--	--	1.85 U	1.68 U	1.87 U	1.68 U	9.12 U	1.72 U	1.76 U	1.81 U	1.76 U	1.9 U	1.84 U	--	--	1.5E+03	5.0E+03	--
	Aroclor 1248	µg/kg	--	--	--	--	--	1.85 U	1.68 U	1.87 U	1.68 U	9.12 U	1.72 U	1.76 U	1.81 U	1.76 U	1.9 U	1.84 U	--	--	--	--	--
	Aroclor 1254	µg/kg	--	--	--	--	--	1.85 U	1.68 U	1.87 U	16.7	9.12 U	1.72 U	1.76 U	12.6 J	12.4 J	10.9	7.11 J	--	--	7.0E+02	4.0E+03	--
	Aroclor 1260	µg/kg	--	--	--	--	--	7.66	1.68 U	4.48	1.68 U	97.1	1.72 U	11.5 J	1.81 U	1.76 U	1.9 U	1.84 U	--	--	--	--	--
	Aroclor 1262	µg/kg	--	--	--	--	--	1.85 U	1.68 U	1.87 U	1.68 U	9.12 U	1.72 U	1.76 U	1.81 U	1.76 U	1.9 U	1.84 U	--	--	--	--	--
	Aroclor 1268	µg/kg	--	--	--	--	--	1.85 U	1.68 U	1.87 U	1.68 U	9.12 U	1.72 U	1.76 U	1.81 U	1.76 U	1.9 U	1.84 U	--	--	--	--	--
	Total PCBs	µg/kg	--	--	--	--	--	7.66	16.8 U	4.48	16.7	97.1	17.2 U	11.5 J	12.6 J	12.4 J	10.9	7.11 J	4.0E+04	--	--	4.0E+03	--

Table B-21
Riverbank Surface Sample Results - Section 4
Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Riverbank Section 4																Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			ASGS-4	ASGS-5	ASGS-6	ASGS-6-GRIT	ASGS-7	S2-15	S2-16	S2-17	S2-18	S2-19	S2-20	S2-21	S2-22	S2-23	S2-24	S2-25					
		Date	4/7/2004	4/7/2004	4/7/2004	4/7/2004	4/7/2004	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	Plants	Inverts.	Birds	Mamals	
		Depth (Feet Below Ground Surface)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
VOCs	1,1,1,2-Tetrachloroethane	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,1,1-Trichloroethane	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5.6E+07	--
	1,1,2,2-Tetrachloroethane	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,1,2-Trichloroethane	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,1-Dichloroethane	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,1-Dichloroethene	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.8E+06	--
	1,1-Dichloropropene	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,2,3-Trichlorobenzene	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	2.0E+04	--	--	--
	1,2,3-Trichloropropane	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,2,4-Trichlorobenzene	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	2.0E+04	--	--	--
	1,2,4-Trimethylbenzene	µg/kg	222	142	ND	7,890	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,2-Dibromo-3-	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,2-Dibromoethane	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,2-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,2-Dichloroethane	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	7.0E+04	2.8E+06	--
	1,2-Dichloropropane	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	7.0E+05	--	--	--
	1,3,5-Trimethylbenzene	µg/kg	110	ND	ND	3,690	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,3-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,3-Dichloropropane	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,4-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	2.0E+04	--	--	--
	2,2-Dichloropropane	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2-Butanone	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.0E+08	--
	2-Chlorotoluene	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2-Hexanone	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4-Chlorotoluene	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4-Methyl-2-pentanone	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Acetone	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.3E+06	--
	Benzene	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.3E+06	--
	Bromobenzene	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Bromochloromethane	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Bromodichloromethane	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Bromoform	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Bromomethane	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Carbon disulfide	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Carbon tetrachloride	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	1.0E+06	--	2.0E+06	--
	Chlorobenzene	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	4.0E+04	--	--	--

Table B-21
Riverbank Surface Sample Results - Section 4
Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Riverbank Section 4																Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			ASGS-4	ASGS-5	ASGS-6	ASGS-6-GRIT	ASGS-7	S2-15	S2-16	S2-17	S2-18	S2-19	S2-20	S2-21	S2-22	S2-23	S2-24	S2-25					
		Date	4/7/2004	4/7/2004	4/7/2004	4/7/2004	4/7/2004	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	Plants	Inverts.	Birds	Mamals	
		Depth (Feet Below Ground Surface)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
VOCs (continued)	Chloroethane	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Chloroform	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.9E+06	--
	Chloromethane	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	cis-1,2-Dichloroethene	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.5E+06	--
	cis-1,3-Dichloropropene	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Dibromochloromethane	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Dibromomethane	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Dichlorodifluoromethane	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Ethylbenzene	µg/kg	ND	ND	ND	490	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Hexachlorobutadiene	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Isopropylbenzene	µg/kg	ND	ND	ND	403	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	m,p-Xylene	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Methyl tert-butyl ether	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Methylene chloride	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7.3E+05	--
	Naphthalene	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	1.0E+04	--	--	3.9E+06	--
	n-Butylbenzene	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	n-Propylbenzene	µg/kg	ND	ND	ND	496	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	o-Xylene	µg/kg	132	ND	ND	8,990	ND	--	--	--	--	--	--	--	--	--	--	--	1.0E+03	--	--	--	--
	p-Isopropyltoluene	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	sec-Butylbenzene	µg/kg	ND	ND	ND	309	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Styrene	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	3.0E+05	--	--	--	--
	tert-Butylbenzene	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Tetrachloroethene	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	1.0E+04	--	--	8.0E+04	--
	Toluene	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	2.0E+05	--	--	1.4E+06	--
	trans-1,2-Dichloroethene	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.5E+06	--
	trans-1,3-Dichloropropene	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Trichloroethene	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.0E+04	--
	Trichlorofluoromethane	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Vinyl chloride	µg/kg	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.0E+04	--

Table B-21
Riverbank Surface Sample Results - Section 4
Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Riverbank Section 4																Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			ASGS-4	ASGS-5	ASGS-6	ASGS-6-GRIT	ASGS-7	S2-15	S2-16	S2-17	S2-18	S2-19	S2-20	S2-21	S2-22	S2-23	S2-24	S2-25					
		Date	4/7/2004	4/7/2004	4/7/2004	4/7/2004	4/7/2004	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	Plants	Inverts.	Birds	Mamals	
		Depth (Feet Below Ground Surface)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
SVOCs	1,2,4-Trichlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	538 U	--	--	--	--	2.0E+04	--	--	--
	1,2-Dichlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	538 U	--	--	--	--	--	--	--	--
	1,3-Dichlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	538 U	--	--	--	--	--	--	--	--
	1,4-Dichlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	538 U	--	--	--	--	2.0E+04	--	--	--
	2,4,5-Trichlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	75.3 U	--	--	--	4.0E+03	9.0E+03	--	--	--
	2,4,6-Trichlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	75.3 U	--	--	--	1.0E+04	1.0E+04	--	--	--
	2,4-Dichlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	75.3 U	--	--	--	2.0E+04	--	--	--	--
	2,4-Dimethylphenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	538 U	--	--	--	2.0E+04	--	--	--	--
	2,4-Dinitrophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	2150 U	--	--	--	2.0E+04	--	--	--	--
	2,4-Dinitrotoluene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	538 U	--	--	--	--	--	--	--	--
	2,6-Dinitrotoluene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	538 U	--	--	--	--	--	--	--	--
	2-Chloronaphthalene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	75.3 U	--	--	--	--	--	--	--	--
	2-Chlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	75.3 U	--	--	--	6.0E+04	--	--	--	--
	2-Methylphenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	75.3 U	--	--	--	5.0E+04	--	--	1.6E+07	--
	2-Nitroaniline	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	75.3 U	--	--	--	--	--	--	--	--
	2-Nitrophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	75.3 U	--	--	--	--	--	--	--	--
	3,3'-Dichlorobenzidine	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	538 U	--	--	--	--	--	--	--	--
	3,4-Methylphenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	75.3 U	--	--	--	--	--	--	--	--
	3-Nitroaniline	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	538 U	--	--	--	7.0E+04	--	--	--	--
	4,6-Dinitro-2-methylphenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	538 U	--	--	--	--	--	--	--	--
	4-Bromophenyl phenyl ether	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	75.3 U	--	--	--	--	--	--	--	--
	4-Chloro-3-methylphenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	75.3 U	--	--	--	--	--	--	--	--
	4-Chloroaniline	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	177 U	--	--	--	4.0E+04	--	--	--	--
	4-Chlorophenyl phenyl ether	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	108 U	--	--	--	--	--	--	--	--
	4-Nitroaniline	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	75.3 U	--	--	--	4.0E+04	--	--	--	--
	4-Nitrophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	538 U	--	--	--	1.0E+04	7.0E+03	--	--	--
	Benzoic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	538 U	--	--	--	--	--	--	--	--
	Benzyl Alcohol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	1080 U	--	--	--	--	--	--	--	--
	Bis(2-chloroethoxy)methane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	75.3 U	--	--	--	--	--	--	--	--
	Bis(2-chloroethyl)ether	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	75.3 U	--	--	--	--	--	--	--	--
	Bis(2-chloroisopropyl)ether	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	75.3 U	--	--	--	--	--	--	--	--
	Dibenzofuran	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	107 J	--	--	--	--	--	--	2.0E+00	--
	Hexachlorobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	75.3 U	--	--	--	--	1.0E+06	--	--	--
	Hexachlorobutadiene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	538 U	--	--	--	--	--	--	--	--
	Hexachlorocyclopentadiene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	538 U	--	--	--	1.0E+04	--	--	--	--
	Hexachloroethane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	538 U	--	--	--	--	--	--	--	--
	Isophorone	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	75.3 U	--	--	--	--	--	--	--	--
	Nitrobenzene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	75.3 U	--	--	--	8.0E+03	4.0E+04	--	--	--
	N-Nitrosodi-n-propylamine	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	75.3 U	--	--	--	--	--	--	--	--
	N-Nitrosodiphenylamine	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	75.3 U	--	--	--	--	2.0E+04	--	--	--
	Pentachlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	538 U	--	--	--	3.0E+03	4.0E+03	--	3.0E+04	--
	Phenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	75.3 U	--	--	--	7.0E+04	3.0E+04	--	--	--

Table B-21
Riverbank Surface Sample Results - Section 4
Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Riverbank Section 4																Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			ASGS-4	ASGS-5	ASGS-6	ASGS-6-GRIT	ASGS-7	S2-15	S2-16	S2-17	S2-18	S2-19	S2-20	S2-21	S2-22	S2-23	S2-24	S2-25					
		Date	4/7/2004	4/7/2004	4/7/2004	4/7/2004	4/7/2004	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	Plants	Inverts.	Birds	Mamals	
		Depth (Feet Below Ground Surface)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
PAHs	2-Methylnaphthalene	µg/kg	--	--	--	--	--	13.3 J	42.2	95.8	26.5	170	202	50.5 J	35.6	10 J	21.2 J	6.7 J	--	--	--	--	--
	Acenaphthene	µg/kg	--	--	--	--	--	12.1 J	116	133 J	55.8	197	463	165	52.4	14.1 J	43	11.5 J	2.0E+04	--	--	--	--
	Acenaphthylene	µg/kg	--	--	--	--	--	7.27 U	17.6 J	14.7 J	8.33 J	73.3	36.4 J	29 J	11 J	15.6 J	40.3	3.58 U	--	--	--	--	--
	Anthracene	µg/kg	--	--	--	--	--	21.3 J	255	251	101	372	714	275	100	43.5	68.3	18.9	--	--	--	--	--
	Benzo(a)anthracene	µg/kg	--	--	--	--	--	63.3	607	485	234	564	1080	718	248	78.7	196	54.8	--	--	--	--	--
	Benzo(a)pyrene	µg/kg	--	--	--	--	--	85.7	527	433	230	525	981	760	236	73	228	50.2	--	--	--	1.3E+05	--
	Benzo(b)fluoranthene	µg/kg	--	--	--	--	--	115	527	453	243	456	882	677	246	85.1	319	50.7	--	--	--	--	--
	Benzo(ghi)perylene	µg/kg	--	--	--	--	--	80.5	323	323	155	357	636	577	157	57.8	201	35.3	--	--	--	--	--
	Benzo(k)fluranthene	µg/kg	--	--	--	--	--	79.6	516	384	213	480	817	720	231	68.2	236	43.8	--	--	--	--	--
	Chrysene	µg/kg	--	--	--	--	--	103	663	570	258	609	1140	796	275	94.9	297	66.3	--	--	--	--	--
	Dibenzo(a,h)anthracene	µg/kg	--	--	--	--	--	25.6 J	115 J	105	54.4	116	170	166	50.6	17 J	61.2	11 J	--	--	--	--	--
	Fluoranthene	µg/kg	--	--	--	--	--	146	1610	1270	588	1620	3100	1840	606	176	404	166	--	--	--	--	--
	Fluorene	µg/kg	--	--	--	--	--	13.3 J	134	161	69.3	268	511	162	66.7	20.4 J	33.3	14.3 J	--	3.0E+04	--	--	--
	Indeno(1,2,3-cd)pyrene	µg/kg	--	--	--	--	--	71.6	336	310	147	337	593	523	148	52	178	31.5	--	--	--	--	--
	Naphthalene	µg/kg	--	--	--	--	--	29.5	45.7	58.7	20.6	248	234	59.9 J	25.4 J	12.1 J	79	6.11 J	1.0E+04	--	--	3.9E+06	--
	Phenanthrene	µg/kg	--	--	--	--	--	86.5	1190	1250	553	1740	3440	1480	537	144	269	123	--	--	--	--	--
	Pyrene	µg/kg	--	--	--	--	--	119	1120	956	425	1160	2430	1500	463	150	334	134	--	--	--	--	--
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	--	--	--	--	--	169	671 U	410 J	73.8	288	768	809	172	98.2 J	485	106	--	--	4.5E+03	1.0E+06	--
	Butyl benzyl phthalate	µg/kg	--	--	--	--	--	73.8 U	671 U	297 U	27 U	144 U	136 U	140 U	28.5 U	70.9 U	152 U	14.5 U	--	--	--	--	--
	Diethyl phthalate	µg/kg	--	--	--	--	--	73.8 U	134 U	74.1 U	15.7 J	144 U	203 J	140 U	32.6 J	70.9 U	152 U	47.7	1.0E+05	--	--	2.5E+08	--
	Dimethyl phthalate	µg/kg	--	--	--	--	--	73.8 U	134 U	74.1 U	13.5 U	144 U	136 U	140 U	28.5 U	70.9 U	152 U	14.5 U	--	2.0E+05	--	--	--
	Di-n-butyl phthalate	µg/kg	--	--	--	--	--	73.8 U	134 U	74.1 U	13.5 U	144 U	136 U	140 U	28.5 U	70.9 U	152 U	25.6 J	2.0E+05	--	4.5E+02	3.0E+07	--
	Di-n-octyl phthalate	µg/kg	--	--	--	--	--	73.8 U	671 U	741 U	27 U	288 U	272 U	140 U	143 U	70.9 U	152 U	14.5 U	--	--	--	--	--
Organotins	Dibutyltin	µg/kg	7.8	32.7	1.7	ND	11.6	0.41 U	0.4 U	0.44 U	0.4 U	0.43 U	0.44 U	44	0.44 U	0.51 U	0.43 U	0.41 U	--	--	--	--	--
	Monobutyltin	µg/kg	ND	13.1	4.9	ND	16.4	0.39 U	0.38 U	0.42 U	0.38 U	0.4 U	0.42 U	46	0.42 U	0.49 U	0.41 U	0.39 U	--	--	--	--	--
	Tetra-n-butyltin	µg/kg	ND	ND	ND	ND	ND	1.2 U	1.2 U	1.3 U	16	1.2 U	1.3 U	1.3 U	1.3 U	1.5 U	1.3 U	1.2 U	--	--	--	--	--
	Tributyltin	µg/kg	7.4	39.6	3.3	ND	146	0.88 U	0.86 U	1 U	0.86 U	0.91 U	11	27	1 U	12	12	0.87 U	--	--	--	--	--

Table B-21
Riverbank Surface Sample Results - Section 4
Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
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Group	Constituent	Units	Riverbank Section 4																Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			ASGS-4	ASGS-5	ASGS-6	ASGS-6-GRIT	ASGS-7	S2-15	S2-16	S2-17	S2-18	S2-19	S2-20	S2-21	S2-22	S2-23	S2-24	S2-25					
		Date	4/7/2004	4/7/2004	4/7/2004	4/7/2004	4/7/2004	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	9/23/2010	Plants	Inverts.	Birds	Mamals	
	Depth (Feet Below Ground Surface)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
Organochlorine Pesticides	4-4'-DDD	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4,4'-DDE	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.0E+01	1.0E+05	--
	4,4'-DDT	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.0E+01	1.0E+05	--
	Aldrin	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.5E+04	--
	alpha-BHC	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	alpha-Chlordane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	beta-BHC	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Chlordane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	9.0E+03	2.5E+05	--
	delta-BHC	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Dieldrin	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.0E+02	3.0E+03	--
	Endosulfan I	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Endosulfan II	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Endosulfan sulfate	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Endrin	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.0E+01	5.0E+03	--
	Endrin aldehyde	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Endrin ketone	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	gamma-BHC (Lindane)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.5E+03	2.0E+05	--
	gamma-Chlordane	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Heptachlor	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.5E+04	--
	Heptachlor epoxide	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Methoxychlor	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5.0E+05	--
	Toxaphene	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.0E+06	--
Petroleum Hydrocarbons	Diesel	mg/kg	88	ND	ND	ND	25.6	138	5,080	1,360	87.7	119	202	189	97.4	48.8	374	9.89 J	--	--	--	--	--
	Heavy Oil	mg/kg	292	ND	ND	3,370	ND	476	16,000	4,970	366	452	791	783	371	218	1,540	36.2	--	--	--	--	--

Notes:
1. -- = Not applicable/not analyzed
2. mg/kg = Milligrams per kilogram
3. µg/kg = Micrograms per kilogram
4. J = The result is an estimated quantity
5. U= Undetected at the method detection limit shown
6. UJ = Undetected at the method detection limit shown, detection limit is an estimated quantity
7. Level II Screening Benchmark Values; revision date 12/2001
8. Shading indicates sample concentration exceeds the default background concentration and one or more SLVs

Table B-22
Soil Boring Results: 0 to 25 Feet - Riverbank Section 4
Source Control Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.11		Vector 2.12		Vector 2.13		Vector 2.14						Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil
			092710-2-2.11-10-02-FS		092710-2-2.12-5-01-FS		092710-2-2.13-5-01-FS		092810-2-2.14-5-01-FS		092810-2-2.14-10-02-FS		092810-2-2.14-20-04-FS			
		Date	9/27/2010		9/27/2010		9/27/2010		9/28/2010		9/28/2010		9/28/2010			
		Depth (Feet Below Ground Surface)	5 - 10		0 - 5		0 - 5		0 - 5		5 - 10		15 - 20			
Inorganics	Mercury	mg/kg	0.0537	J	0.0289	J	0.0397	J	0.0112	J	0.248		0.128	J	0.07	1.1
	Arsenic	mg/kg	4.61		10.9		6.27		4.51		9.05		5.43		--	3
	Barium	mg/kg	166		200		111		129	J	252		199		--	--
	Chromium	mg/kg	46.2		27.3		23.9		16.6		30.8		20.4		111	--
	Copper	mg/kg	44.2		27.9		52.0		55.7	J	321		38.5		149	149
	Lead	mg/kg	88.0		23.3		54.4		10.3		310		122		17	128
	Manganese	mg/kg	829		670		342		719		629		454		1,100	--
	Nickel	mg/kg	24.5		21.4		19.9		18.2		25.1		15.5		48.6	--
	Selenium	mg/kg	0.101	J	0.146	J	0.0429	J	0.056	J	0.217	J	0.603	J	5	--
	Silver	mg/kg	0.201	J	0.159	J	0.123	J	0.084	J	0.310	J	0.295	U	5	--
	Zinc	mg/kg	203		92.1		103		93.0	J	426		190		459	459
PCBs	Aroclor 1016	µg/kg	2.09	U	2.21	U	4.07	U	3.84	U	8.69	U	2.24	U	--	--
	Aroclor 1221	µg/kg	4.17	U	4.41	U	8.11	U	7.65	U	17.3	U	4.46	U	--	--
	Aroclor 1232	µg/kg	2.09	U	2.21	U	4.07	U	3.84	U	8.69	U	2.24	U	--	--
	Aroclor 1242	µg/kg	2.09	U	2.21	U	4.07	U	3.84	U	8.69	U	2.24	U	--	--
	Aroclor 1248	µg/kg	2.09	U	2.21	U	75.7	J	3.84	U	94.5		2.24	U	--	--
	Aroclor 1254	µg/kg	3.51	J	2.21	U	4.07	U	15.3		8.69	U	5.70		--	--
	Aroclor 1260	µg/kg	2.09	U	6.98		22.3		3.84	U	49.8	J	2.24	U	--	--
	Aroclor 1262	µg/kg	2.09	U	2.21	U	4.07	U	3.84	U	8.69	U	2.24	U	--	--
	Aroclor 1268	µg/kg	2.09	U	2.21	U	4.07	U	3.84	U	8.69	U	2.24	U	--	--
	Total PCBs	µg/kg	3.51	J	6.98		98.0	J	15.3		144	J	5.70		3.90E-01	9.00E+00
SVOCs	1,2,4-Trichlorobenzene	µg/kg	--		--		--		--		--		--		9.20E+03	--
	1,2-Dichlorobenzene	µg/kg	--		--		--		--		--		--		1.70E+03	--
	1,3-Dichlorobenzene	µg/kg	--		--		--		--		--		--		3.00E+02	--
	1,4-Dichlorobenzene	µg/kg	--		--		--		--		--		--		3.00E+02	--
	2,4,5-Trichlorophenol	µg/kg	--		--		--		--		--		--		--	--
	2,4,6-Trichlorophenol	µg/kg	--		--		--		--		--		--		--	--
	2,4-Dichlorophenol	µg/kg	--		--		--		--		--		--		--	--
	2,4-Dimethylphenol	µg/kg	--		--		--		--		--		--		--	--
	2,4-Dinitrophenol	µg/kg	--		--		--		--		--		--		--	--
	2,4-Dinitrotoluene	µg/kg	--		--		--		--		--		--		--	--
	2,6-Dinitrotoluene	µg/kg	--		--		--		--		--		--		--	--
	2-Chloronaphthalene	µg/kg	--		--		--		--		--		--		--	--
	2-Chlorophenol	µg/kg	--		--		--		--		--		--		--	--
	2-Methylphenol	µg/kg	--		--		--		--		--		--		--	--
	2-Nitroaniline	µg/kg	--		--		--		--		--		--		--	--
	2-Nitrophenol	µg/kg	--		--		--		--		--		--		--	--

Table B-22
Soil Boring Results: 0 to 25 Feet - Riverbank Section 4
Source Control Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.11		Vector 2.12		Vector 2.13		Vector 2.14						Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil
			092710-2-2.11-10-02-FS		092710-2-2.12-5-01-FS		092710-2-2.13-5-01-FS		092810-2-2.14-5-01-FS		092810-2-2.14-10-02-FS		092810-2-2.14-20-04-FS			
		Date	9/27/2010		9/27/2010		9/27/2010		9/28/2010		9/28/2010		9/28/2010			
		Depth (Feet Below Ground Surface)	5 - 10		0 - 5		0 - 5		0 - 5		5 - 10		15 - 20			
SVOCs (continued)	3,3'-Dichlorobenzidine	µg/kg	--		--		--		--		--		--		--	--
	3,4-Methylphenol	µg/kg	--		--		--		--		--		--		--	--
	3-Nitroaniline	µg/kg	--		--		--		--		--		--		--	--
	4,6-Dinitro-2-methylphenol	µg/kg	--		--		--		--		--		--		--	--
	4-Bromophenyl phenyl ether	µg/kg	--		--		--		--		--		--		--	--
	4-Chloro-3-methylphenol	µg/kg	--		--		--		--		--		--		--	--
	4-Chloroaniline	µg/kg	--		--		--		--		--		--		--	--
	4-Chlorophenyl phenyl ether	µg/kg	--		--		--		--		--		--		--	--
	4-Nitroaniline	µg/kg	--		--		--		--		--		--		--	--
	4-Nitrophenol	µg/kg	--		--		--		--		--		--		--	--
	Benzoic Acid	µg/kg	--		--		--		--		--		--		--	--
	Benzyl Alcohol	µg/kg	--		--		--		--		--		--		--	--
	Bis(2-chloroethoxy)methane	µg/kg	--		--		--		--		--		--		--	--
	Bis(2-chloroethyl)ether	µg/kg	--		--		--		--		--		--		--	--
	Bis(2-chloroisopropyl)ether	µg/kg	--		--		--		--		--		--		--	--
	Dibenzofuran	µg/kg	--		--		--		--		--		--		--	--
	Hexachlorobenzene	µg/kg	--		--		--		--		--		--		1.90E+01	3.00E-01
	Hexachlorobutadiene	µg/kg	--		--		--		--		--		--		6.00E+02	--
	Hexachlorocyclopentadiene	µg/kg	--		--		--		--		--		--		4.00E+02	--
	Hexachloroethane	µg/kg	--		--		--		--		--		--		--	--
	Isophorone	µg/kg	--		--		--		--		--		--		--	--
	Nitrobenzene	µg/kg	--		--		--		--		--		--		--	--
	N-Nitrosodi-n-propylamine	µg/kg	--		--		--		--		--		--		--	--
	N-Nitrosodiphenylamine	µg/kg	--		--		--		--		--		--		--	--
	Pentachlorophenol	µg/kg	--		--		--		--		--		--		1.00E+03	--
	Phenol	µg/kg	--		--		--		--		--		--		5.00E+01	--
PAHs	2-Methylnaphthalene	µg/kg	4.14	U	4.32	U	32.4	J	5.56	J	14.5	J	4.39	UJ	2.00E+02	--
	Acenaphthene	µg/kg	6.70	J	4.32	U	74.6		6.38	J	8.47	U	4.39	UJ	3.00E+02	--
	Acenaphthylene	µg/kg	4.14	U	4.32	U	16.7	J	3.76	U	8.47	U	5.59	J	2.00E+02	--
	Anthracene	µg/kg	4.14	U	4.32	U	46.9		3.76	U	17.7	J	11.7	J	8.45E+02	--
	Benzo(a)anthracene	µg/kg	4.54	J	4.32	U	82.9		5.79	J	53.2		57.4	J	1.05E+03	--
	Benzo(a)pyrene	µg/kg	6.35	J	6.25	J	66.5		5.59	J	74.2		73.2	J	1.45E+03	--
	Benzo(b)fluoranthene	µg/kg	5.73	J	6.36	J	58.1		5.34	J	70.6		65.0	J	--	--
	Benzo(ghi)perylene	µg/kg	5.91	J	5.82	J	50.1		4.41	J	72.2		61.8	J	3.00E+02	--
	Benzo(k)fluranthene	µg/kg	4.88	J	4.32	U	53.7		4.61	J	59.1		60.4	J	--	--
	Chrysene	µg/kg	6.61	J	6.79	J	105.0		6.30	J	82.9		81.2	J	1.29E+03	--
	Dibenzo(a,h)anthracene	µg/kg	4.14	U	4.32	U	12.3	J	3.76	U	15.3	J	11.8	J	1.30E+03	--
	Fluoranthene	µg/kg	11.4	J	7.30	J	216		18.6		133		130	J	2.23E+03	--
	Fluorene	µg/kg	4.14	U	4.32	U	29.7	J	5.06	J	12.0	J	4.39	UJ	5.36E+02	--
	Indeno(1,2,3-cd)pyrene	µg/kg	4.35	J	4.32	U	38.0		3.92	J	50.0		47.7	J	1.00E+02	--
	Naphthalene	µg/kg	4.14	U	4.32	U	50.9		9.25	J	52.8		4.39	UJ	5.61E+02	--
	Phenanthrene	µg/kg	7.74	J	4.87	J	211		26.3		108		64.4	J	1.17E+03	--
	Pyrene	µg/kg	12.5	J	11.5	J	197		14.1	J	125		154	J	1.52E+03	--

Table B-22
Soil Boring Results: 0 to 25 Feet - Riverbank Section 4
Source Control Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.11		Vector 2.12		Vector 2.13		Vector 2.14						Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil
			092710-2-2.11-10-02-FS		092710-2-2.12-5 01-FS		092710-2-2.13-5 01-FS		092810-2-2.14-5 01-FS		092810-2-2.14-10-02-FS		092810-2-2.14-20-04-FS			
		Date	9/27/2010		9/27/2010		9/27/2010		9/28/2010		9/28/2010		9/28/2010			
		Depth (Feet Below Ground Surface)	5 - 10		0 - 5		0 - 5		0 - 5		5 - 10		15 - 20			
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	16.8	U	17.5	U	32.6	U	15.3	U	34.4	U	17.8	UJ	3.30E+02	1.35E+02
	Butyl benzyl phthalate	µg/kg	16.8	U	17.5	U	32.6	U	15.3	U	34.4	U	17.8	UJ	--	--
	Diethyl phthalate	µg/kg	16.8	U	17.5	U	32.6	U	15.3	U	34.4	U	17.8	UJ	6.00E+02	--
	Dimethyl phthalate	µg/kg	16.8	U	17.5	U	32.6	U	15.3	U	34.4	U	17.8	UJ	--	--
	Di-n-butyl phthalate	µg/kg	16.8	U	17.5	U	32.6	U	15.3	U	47.9	J	17.8	UJ	1.00E+02	--
	Di-n-octyl phthalate	µg/kg	16.8	U	17.5	U	65.1	U	15.3	U	34.4	U	17.8	UJ	--	--
Organotins	Dibutyltin	µg/kg	0.47	U	0.52	U	0.49	U	0.47	U	0.49	U	0.51	UJ	--	--
	Monobutyltin	µg/kg	0.45	U	0.50	U	0.47	U	0.45	U	0.46	U	0.49	UJ	--	--
	Tetra-n-butyltin	µg/kg	1.4	U	1.5	U	1.4	U	1.4	U	1.4	U	1.5	UJ	--	--
	Tributyltin	µg/kg	1.0	U	1.1	U	1.0	U	1.0	U	1.0	U	1.1	UJ	2.30E+00	2.40E+01
Petroleum Hydrocarbons	Diesel	mg/kg	5.75	J	21.6		39.4		1.04	J	25.6		4.32	J	--	--
	Heavy Oil	mg/kg	17.8	J	93.8		126		1.95	J	151		22.4	J	--	--

Table B-22
Soil Boring Results: 0 to 25 Feet - Riverbank Section 4
Source Control Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Vector 2.15		Vector 2.16		Vector 2.17		Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil
		092810-2-2.15-501-FS	92810-2-2.15-1002-FS	091010-2-2.16-1.5-01-FS	091010-2-2.17-1.5-01-FS	091010-2-2.17-10-03-FS			
	Date	9/28/2010	9/28/2010	9/10/2010	9/10/2010	9/10/2010			
	Depth (Feet Below Ground Surface)	0 - 5	5 - 10	0 - 1.5	0 - 1.5	10 - 15			
Inorganics	Mercury	0.0304 J	0.132	0.0207 J	0.126	0.0726 J		0.07	1.1
	Arsenic	5.59	4.39	9.97	7.70	6.84		--	3
	Barium	124	135	172	174	186		--	--
	Chromium	46.2	42.8	32.4	23.1	31.2		111	--
	Copper	48.8	27.1	113	101	31.4		149	149
	Lead	32.8	26.6	145	142	71.9		17	128
	Manganese	9,000	969	1,020	688	666		1,100	--
	Nickel	20.0	51.6	42.1	33.9	19.9		48.6	--
	Selenium	0.0122 U	0.0139 U	0.160 J	0.155 J	0.199 J		5	--
	Silver	0.183 J	0.174 J	0.405 J	0.239 J	0.150 J		5	--
	Zinc	83.8	88.4	332	188	125		459	459
PCBs	Aroclor 1016	2.03 U	2.36 U	1.92 U	2.01 U	2.17 U		--	--
	Aroclor 1221	4.04 U	4.71 U	3.83 U	4.00 U	4.33 U		--	--
	Aroclor 1232	2.03 U	2.36 U	1.92 U	2.01 U	2.17 U		--	--
	Aroclor 1242	2.03 U	2.36 U	1.92 U	2.01 U	2.17 U		--	--
	Aroclor 1248	20.2	15.9	21.8	2.01 U	2.17 U		--	--
	Aroclor 1254	2.03 U	2.36 U	1.92 U	15.2	6.59		--	--
	Aroclor 1260	2.03 U	2.36 U	4.97	2.01 U	2.17 U		--	--
	Aroclor 1262	2.03 U	2.36 U	1.92 U	2.01 U	2.17 U		--	--
	Aroclor 1268	2.03 U	2.36 U	1.92 U	2.01 U	2.17 U		--	--
	Total PCBs	20.2	15.9	26.8	15.2	6.59		3.90E-01	9.00E+00
SVOCs	1,2,4-Trichlorobenzene	--	--	--	1,200 U	647 U		9.20E+03	--
	1,2-Dichlorobenzene	--	--	--	1,200 U	647 U		1.70E+03	--
	1,3-Dichlorobenzene	--	--	--	168 U	647 U		3.00E+02	--
	1,4-Dichlorobenzene	--	--	--	168 U	647 U		3.00E+02	--
	2,4,5-Trichlorophenol	--	--	--	168 U	90.6 U		--	--
	2,4,6-Trichlorophenol	--	--	--	1,200 U	90.6 U		--	--
	2,4-Dichlorophenol	--	--	--	4,810 U	90.6 U		--	--
	2,4-Dimethylphenol	--	--	--	1,200 U	647 U		--	--
	2,4-Dinitrophenol	--	--	--	1,200 U	647 U		--	--
	2,4-Dinitrotoluene	--	--	--	168 U	647 U		--	--
	2,6-Dinitrotoluene	--	--	--	168 U	647 U		--	--
	2-Chloronaphthalene	--	--	--	168 U	90.6 U		--	--
	2-Chlorophenol	--	--	--	168 U	90.6 U		--	--
	2-Methylphenol	--	--	--	168 U	90.6 U		--	--
	2-Nitroaniline	--	--	--	1,200 U	647 U		--	--
	2-Nitrophenol	--	--	--	168 U	2,590 U		--	--

Table B-22
Soil Boring Results: 0 to 25 Feet - Riverbank Section 4
Source Control Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Vector 2.15		Vector 2.16	Vector 2.17		Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil
		092810-2-2.15-501-FS	92810-2-2.15-1002-FS	091010-2-2.16-1.5-01-FS	091010-2-2.17-1.5-01-FS	091010-2-2.17-10-03-FS		
	Date	9/28/2010	9/28/2010	9/10/2010	9/10/2010	9/10/2010		
	Depth (Feet Below Ground Surface)	0 - 5	5 - 10	0 - 1.5	0 - 1.5	10 - 15		
SVOCs (continued)	3,3'-Dichlorobenzidine	--	--	--	1,200 U	647 U	--	--
	3,4-Methylphenol	--	--	--	1,200 U	647 U	--	--
	3-Nitroaniline	--	--	--	168 U	90.6 U	--	--
	4,6-Dinitro-2-methylphenol	--	--	--	168 U	90.6 U	--	--
	4-Bromophenyl phenyl ether	--	--	--	397 U	90.6 U	--	--
	4-Chloro-3-methylphenol	--	--	--	241 U	90.6 U	--	--
	4-Chloroaniline	--	--	--	168 U	90.6 U	--	--
	4-Chlorophenyl phenyl ether	--	--	--	1,200 U	647 U	--	--
	4-Nitroaniline	--	--	--	1,200 U	90.6 U	--	--
	4-Nitrophenol	--	--	--	2,410 U	647 U	--	--
	Benzoic Acid	--	--	--	168 U	647 U	--	--
	Benzyl Alcohol	--	--	--	168 U	90.6 U	--	--
	Bis(2-chloroethoxy)methane	--	--	--	168 U	90.6 U	--	--
	Bis(2-chloroethyl)ether	--	--	--	168 U	213 U	--	--
	Bis(2-chloroisopropyl)ether	--	--	--	168 U	129 U	--	--
	Dibenzofuran	--	--	--	1,200 U	90.6 U	--	--
	Hexachlorobenzene	--	--	--	1,200 U	647 U	1.90E+01	3.00E-01
	Hexachlorobutadiene	--	--	--	1,200 U	647 U	6.00E+02	--
	Hexachlorocyclopentadiene	--	--	--	168 U	1,290 U	4.00E+02	--
	Hexachloroethane	--	--	--	168 U	90.6 U	--	--
	Isophorone	--	--	--	168 U	90.6 U	--	--
	Nitrobenzene	--	--	--	168 U	90.6 U	--	--
	N-Nitrosodi-n-propylamine	--	--	--	1,200 U	90.6 U	--	--
	N-Nitrosodiphenylamine	--	--	--	168 U	90.6 U	--	--
	Pentachlorophenol	--	--	--	1,200 U	647 U	1.00E+03	--
	Phenol	--	--	--	168 U	647 U	5.00E+01	--
PAHs	2-Methylnaphthalene	59.6	13.0 J	163	41.8	647.0 J	2.00E+02	--
	Acenaphthene	27.6	14.0 J	42.3	100	90.60 J	3.00E+02	--
	Acenaphthylene	6.82 J	4.98 J	83.4	27.7	90.60 U	2.00E+02	--
	Anthracene	15.6 J	8.62 J	147	128	90.60 J	8.45E+02	--
	Benzo(a)anthracene	27.8	11.6 J	185	176	90.6 J	1.05E+03	--
	Benzo(a)pyrene	27.1	14.3 J	208	162	647.0	1.45E+03	--
	Benzo(b)fluoranthene	24.8	12.7 J	136	154	90.6	--	--
	Benzo(ghi)perylene	18.5	11.7 J	138	147	23.1	3.00E+02	--
	Benzo(k)fluranthene	20.8	10.5 J	121	145	17.7	--	--
	Chrysene	34.9	18.7 J	287	227	25.7	1.29E+03	--
	Dibenzo(a,h)anthracene	5.08 J	4.64 U	46.5	33.0	4.47 J	1.30E+03	--
	Fluoranthene	70.4	32.1	352	551	43.2	2.23E+03	--
	Fluorene	31.0	8.14 J	135	69.2	5.99 J	5.36E+02	--
	Indeno(1,2,3-cd)pyrene	14.8 J	8.57 J	95.0	122	17.2 J	1.00E+02	--
	Naphthalene	84.6	26.4	292	104	29.6	5.61E+02	--
	Phenanthrene	98.8	35.0	591	290	40.9	1.17E+03	--
	Pyrene	68.3	36.9	437	485	41.8	1.52E+03	--

Table B-22
Soil Boring Results: 0 to 25 Feet - Riverbank Section 4
Source Control Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Vector 2.15		Vector 2.16		Vector 2.17				Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil
		092810-2-2.15-501-FS		92810-2-2.15-1002-FS		091010-2-2.16-1.5-01-FS		091010-2-2.17-1.5-01-FS		091010-2-2.17-10-03-FS			
	Date	9/28/2010		9/28/2010		9/10/2010		9/10/2010		9/10/2010			
	Depth (Feet Below Ground Surface)	0 - 5		5 - 10		0 - 1.5		0 - 1.5		10 - 15			
Phthalates	Bis(2-ethylhexyl)phthalate	31.0	J	21.4	J	52.8		16.0	U	245		3.30E+02	1.35E+02
	Butyl benzyl phthalate	16.1	U	18.8	U	15.3	U	16.0	U	17.4	U	--	--
	Diethyl phthalate	16.1	U	18.8	U	15.3	U	16.0	U	17.4	U	6.00E+02	--
	Dimethyl phthalate	16.1	U	18.8	U	15.3	U	16.0	U	17.4	U	--	--
	Di-n-butyl phthalate	16.1	U	18.8	U	15.3	U	16.0	U	17.4	U	1.00E+02	--
	Di-n-octyl phthalate	16.1	U	18.8	U	15.3	U	16.0	U	17.4	U	--	--
Organotins	Dibutyltin	0.49	U	0.54	U	0.48	U	0.51	U	0.51	U	--	--
	Monobutyltin	0.47	U	0.51	U	0.46	U	0.49	U	0.49	U	--	--
	Tetra-n-butyltin	1.4	U	1.6	U	1.4	U	1.5	U	1.5	U	--	--
	Tributyltin	1.1	U	1.2	U	1.0	U	1.1	U	1.1	U	2.30E+00	2.40E+04
Petroleum Hydrocarbons	Diesel	165		85.3		170	J	61.4		6.47	J	--	--
	Heavy Oil	557		244		454	J	121		21.7	J	--	--

Notes:
1. -- = Not applicable/not analyzed
2. mg/kg = Milligrams per kilogram
3. µg/kg = Micrograms per kilogram
4. J = The result is an estimated quantity
5. U= Undetected at the method detection limit shown
6. UJ = Undetected at the method detection limit shown, detection limit is an estimated quantity
7. Joint Source Control Strategy (JSCS) Screening Level Values (SLVs); revision date 7/16/2007
8. Shading indicates sample concentration exceeds the corresponding JSCS SLV and/or the draft PRG
9. PRG = Draft Preliminary Remediation Goal; prepared by U.S. Environmental Protection Agency, July 2015

Table B-23
Soil Boring Results: 0 to 25 Feet - Riverbank Section 4
Human Health Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.11		Vector 2.12		Vector 2.13		Vector 2.14					Oregon Department of Environmental Quality Risk-Based Concentrations				
			092710-2-2.11-10-02-FS		092710-2-2.12-5-01-FS		092710-2-2.13-5-01-FS		092810-2-2.14-5-01-FS		092810-2-2.14-10-02-FS		092810-2-2.14-20-04-FS	Soil Ingestion, Dermal Contact, and Inhalation			Vol. to Outdoor Air	Vapor Intrusion
		Date	9/27/2010		9/27/2010		9/27/2010		9/28/2010		9/28/2010		9/28/2010					
		Depth (Feet Below Ground Surface)	5 - 10		0 - 5		0 - 5		0 - 5		5 - 10		15 - 20	Occ	Const.	Exc	Occ	Occ
Inorganics	Mercury	mg/kg	0.0537	J	0.0289	J	0.0397	J	0.0112	J	0.248		0.128	J	3.5E+02	1.1E+02	2.9E+03	--	--
	Arsenic	mg/kg	4.61		10.9		6.27		4.51		9.05		5.43	1.9E+00	1.5E+01	4.2E+02	--	--
	Barium	mg/kg	166		200		111		129	J	252		199	2.2E+05	6.9E+04	--	--	--
	Chromium	mg/kg	46.2		27.3		23.9		16.6		30.8		20.4	--	5.3E+05	--	--	--
	Copper	mg/kg	44.2		27.9		52.0		55.7	J	321		38.5	5.E+04	1.E+04	4.E+05	--	--
	Lead	mg/kg	88.0		23.3		54.4		10.3		310		122	8.E+02	8.E+02	8.E+02	--	--
	Manganese	mg/kg	829		670		342		719		629		454	3.E+04	8.E+03	2.E+05	--	--
	Nickel	mg/kg	24.5		21.4		19.9		18.2		25.1		15.5	2.E+04	7.E+03	2.E+05	--	--
	Selenium	mg/kg	0.101	J	0.146	J	0.0429	J	0.056	J	0.217	J	0.603	J	--	--	--	--	--
	Silver	mg/kg	0.201	J	0.159	J	0.123	J	0.084	J	0.310	J	0.295	U	5.8E+03	1.8E+03	4.9E+04	--	--
	Zinc	mg/kg	203		92.1		103		93.0	J	426		190		--	--	--	--	--
PCBs	Aroclor 1016	µg/kg	2.09	U	2.21	U	4.07	U	3.84	U	8.69	U	2.24	U	--	--	--	--	--
	Aroclor 1221	µg/kg	4.17	U	4.41	U	8.11	U	7.65	U	17.3	U	4.46	U	--	--	--	--	--
	Aroclor 1232	µg/kg	2.09	U	2.21	U	4.07	U	3.84	U	8.69	U	2.24	U	--	--	--	--	--
	Aroclor 1242	µg/kg	2.09	U	2.21	U	4.07	U	3.84	U	8.69	U	2.24	U	--	--	--	--	--
	Aroclor 1248	µg/kg	2.09	U	2.21	U	75.7	J	3.84	U	94.5		2.24	U	--	--	--	--	--
	Aroclor 1254	µg/kg	3.51	J	2.21	U	4.07	U	15.3		8.69	U	5.70		--	--	--	--	--
	Aroclor 1260	µg/kg	2.09	U	6.98		22.3		3.84	U	49.8	J	2.24	U	--	--	--	--	--
	Aroclor 1262	µg/kg	2.09	U	2.21	U	4.07	U	3.84	U	8.69	U	2.24	U	--	--	--	--	--
	Aroclor 1268	µg/kg	2.09	U	2.21	U	4.07	U	3.84	U	8.69	U	2.24	U	--	--	--	--	--
	Total PCBs	µg/kg	3.51	J	6.98		98.0	J	15.3		144	J	5.70		5.9E+02	4.9E+03	1.4E+05	--	--
SVOCs	1,2,4-Trichlorobenzene	µg/kg	--		--		--		--		--		--		--	--	--	--	--
	1,2-Dichlorobenzene	µg/kg	--		--		--		--		--		--		3.6E+07	2.0E+07	5.6E+08	--	--
	1,3-Dichlorobenzene	µg/kg	--		--		--		--		--		--		--	--	--	--	--
	1,4-Dichlorobenzene	µg/kg	--		--		--		--		--		--		6.4E+04	1.3E+06	3.6E+07	1.9E+04	1.3E+04
	2,4,5-Trichlorophenol	µg/kg	--		--		--		--		--		--		--	--	--	--	--
	2,4,6-Trichlorophenol	µg/kg	--		--		--		--		--		--		2.1E+05	2.7E+05	7.4E+06	--	--
	2,4-Dichlorophenol	µg/kg	--		--		--		--		--		--		--	--	--	--	--
	2,4-Dimethylphenol	µg/kg	--		--		--		--		--		--		--	--	--	--	--
	2,4-Dinitrophenol	µg/kg	--		--		--		--		--		--		--	--	--	--	--
	2,4-Dinitrotoluene	µg/kg	--		--		--		--		--		--		--	--	--	--	--
	2,6-Dinitrotoluene	µg/kg	--		--		--		--		--		--		1.5E+03	1.3E+04	3.5E+05	--	--
	2-Chloronaphthalene	µg/kg	--		--		--		--		--		--		--	--	--	--	--
	2-Chlorophenol	µg/kg	--		--		--		--		--		--		--	--	--	--	--
	2-Methylphenol	µg/kg	--		--		--		--		--		--		--	--	--	--	--
	2-Nitroaniline	µg/kg	--		--		--		--		--		--		--	--	--	--	--
	2-Nitrophenol	µg/kg	--		--		--		--		--		--		--	--	--	--	--
	3,3'-Dichlorobenzidine	µg/kg	--		--		--		--		--		--		--	--	--	--	--
	3,4-Methylphenol	µg/kg	--		--		--		--		--		--		--	--	--	--	--
	3-Nitroaniline	µg/kg	--		--		--		--		--		--		--	--	--	--	--
	4,6-Dinitro-2-methylphenol	µg/kg	--		--		--		--		--		--		--	--	--	--	--
	4-Bromophenyl phenyl ether	µg/kg	--		--		--		--		--		--		--	--	--	--	--
	4-Chloro-3-methylphenol	µg/kg	--		--		--		--		--		--		--	--	--	--	--

Table B-23
Soil Boring Results: 0 to 25 Feet - Riverbank Section 4
Human Health Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.11		Vector 2.12		Vector 2.13		Vector 2.14						Oregon Department of Environmental Quality Risk-Based Concentrations				
			092710-2-2.11-10-02-FS		092710-2-2.12-5-01-FS		092710-2-2.13-5-01-FS		092810-2-2.14-5-01-FS		092810-2-2.14-10-02-FS		092810-2-2.14-20-04-FS		Soil Ingestion, Dermal Contact, and Inhalation			Vol. to Outdoor Air	Vapor Intrusion
		Date	9/27/2010		9/27/2010		9/27/2010		9/28/2010		9/28/2010		9/28/2010						
		Depth (Feet Below Ground Surface)	5 - 10		0 - 5		0 - 5		0 - 5		5 - 10		15 - 20		Occ	Const.	Exc	Occ	Occ
SVOCs (continued)	4-Chloroaniline	µg/kg	--		--		--		--		--		--		--	--	--	--	--
	4-Chlorophenyl phenyl ether	µg/kg	--		--		--		--		--		--		--	--	--	--	--
	4-Nitroaniline	µg/kg	--		--		--		--		--		--		--	--	--	--	--
	4-Nitrophenol	µg/kg	--		--		--		--		--		--		--	--	--	--	--
	Benzoic Acid	µg/kg	--		--		--		--		--		--		--	--	--	--	--
	Benzyl Alcohol	µg/kg	--		--		--		--		--		--		--	--	--	--	--
	Bis(2-chloroethoxy)methane	µg/kg	--		--		--		--		--		--		--	--	--	--	--
	Bis(2-chloroethyl)ether	µg/kg	--		--		--		--		--		--		1.3E+03	1.6E+04	4.5E+05	1.2E+03	6.9E+03
	Bis(2-chloroisopropyl)ether	µg/kg	--		--		--		--		--		--		--	--	--	--	--
	Dibenzofuran	µg/kg	--		--		--		--		--		--		--	--	--	--	--
	Hexachlorobenzene	µg/kg	--		--		--		--		--		--		9.3E+02	1.1E+04	3.2E+05	2.4E+03	1.3E+04
	Hexachlorobutadiene	µg/kg	--		--		--		--		--		--		--	--	--	--	--
	Hexachlorocyclopentadiene	µg/kg	--		--		--		--		--		--		--	--	--	--	--
	Hexachloroethane	µg/kg	--		--		--		--		--		--		3.2E+04	1.8E+05	5.1E+06	1.9E+04	7.6E+03
	Isophorone	µg/kg	--		--		--		--		--		--		--	--	--	--	--
	Nitrobenzene	µg/kg	--		--		--		--		--		--		--	--	--	--	--
	N-Nitrosodi-n-propylamine	µg/kg	--		--		--		--		--		--		--	--	--	--	--
	N-Nitrosodiphenylamine	µg/kg	--		--		--		--		--		--		4.7E+05	3.8E+06	1.1E+08	--	--
	Pentachlorophenol	µg/kg	--		--		--		--		--		--		4.0E+03	3.4E+04	9.6E+05	--	--
	Phenol	µg/kg	--		--		--		--		--		--		--	--	--	--	--
PAHs	2-Methylnaphthalene	µg/kg	4.14	U	4.32	U	32.4	J	5.56	J	14.5	J	4.39	UJ	--	--	--	--	--
	Acenaphthene	µg/kg	6.70	J	4.32	U	74.6		6.38	J	8.47	U	4.39	UJ	7.0E+07	2.1E+07	5.9E+08	--	--
	Acenaphthylene	µg/kg	4.14	U	4.32	U	16.7	J	3.76	U	8.47	U	5.59	J	--	--	--	--	--
	Anthracene	µg/kg	4.14	U	4.32	U	46.9		3.76	U	17.7	J	11.7	J	3.5E+08	1.1E+08	--	--	--
	Benzo(a)anthracene	µg/kg	4.54	J	4.32	U	82.9		5.79	J	53.2		57.4	J	2.9E+03	2.4E+04	6.6E+05	--	--
	Benzo(a)pyrene	µg/kg	6.35	J	6.25	J	66.5		5.59	J	74.2		73.2	J	--	--	--	--	--
	Benzo(b)fluoranthene	µg/kg	5.73	J	6.36	J	58.1		5.34	J	70.6		65.0	J	2.9E+03	2.4E+04	6.7E+05	--	--
	Benzo(ghi)perylene	µg/kg	5.91	J	5.82	J	50.1		4.41	J	72.2		61.8	J	--	--	--	--	--
	Benzo(k)fluranthene	µg/kg	4.88	J	4.32	U	53.7		4.61	J	59.1		60.4	J	--	--	--	--	--
	Chrysene	µg/kg	6.61	J	6.79	J	105.0		6.30	J	82.9		81.2	J	2.9E+05	2.4E+06	6.7E+07	--	--
	Dibenzo(a,h)anthracene	µg/kg	4.14	U	4.32	U	12.3	J	3.76	U	15.3	J	11.8	J	2.9E+02	2.4E+03	6.7E+04	--	--
	Fluoranthene	µg/kg	11.4	J	7.30	J	216		18.6		133		130	J	3.0E+07	1.0E+07	2.8E+08	--	--
	Fluorene	µg/kg	4.14	U	4.32	U	29.7	J	5.06	J	12.0	J	4.39	UJ	4.7E+07	1.4E+07	3.9E+08	--	--
	Indeno(1,2,3-cd)pyrene	µg/kg	4.35	J	4.32	U	38.0		3.92	J	50.0		47.7	J	2.9E+03	2.4E+04	6.7E+05	--	--
	Naphthalene	µg/kg	4.14	U	4.32	U	50.9		9.25	J	52.8		4.39	UJ	2.3E+04	5.8E+05	1.6E+07	8.3E+04	8.3E+04
	Phenanthrene	µg/kg	7.74	J	4.87	J	211		26.3		108		64.4	J	--	--	--	--	--
	Pyrene	µg/kg	12.5	J	11.5	J	197		14.1	J	125		154	J	2.3E+07	7.5E+06	2.1E+08	--	--

Table B-23
Soil Boring Results: 0 to 25 Feet - Riverbank Section 4
Human Health Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.11		Vector 2.12		Vector 2.13		Vector 2.14						Oregon Department of Environmental Quality Risk-Based Concentrations				
			092710-2-2.11-10-02-FS		092710-2-2.12-5-01-FS		092710-2-2.13-5-01-FS		092810-2-2.14-5-01-FS		092810-2-2.14-10-02-FS		092810-2-2.14-20-04-FS		Soil Ingestion, Dermal Contact, and Inhalation			Vol. to Outdoor Air	Vapor Intrusion
		Date	9/27/2010		9/27/2010		9/27/2010		9/28/2010		9/28/2010		9/28/2010						
		Depth (Feet Below Ground Surface)	5 - 10		0 - 5		0 - 5		0 - 5		5 - 10		15 - 20		Occ	Const.	Exc	Occ	Occ
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	16.8	U	17.5	U	32.6	U	15.3	U	34.4	U	17.8	UJ	1.6E+05	1.3E+06	3.7E+07	--	--
	Butyl benzyl phthalate	µg/kg	16.8	U	17.5	U	32.6	U	15.3	U	34.4	U	17.8	UJ	--	--	--	--	--
	Diethyl phthalate	µg/kg	16.8	U	17.5	U	32.6	U	15.3	U	34.4	U	17.8	UJ	--	--	--	--	--
	Dimethyl phthalate	µg/kg	16.8	U	17.5	U	32.6	U	15.3	U	34.4	U	17.8	UJ	--	--	--	--	--
	Di-n-butyl phthalate	µg/kg	16.8	U	17.5	U	32.6	U	15.3	U	47.9	J	17.8	UJ	--	--	--	--	--
	Di-n-octyl phthalate	µg/kg	16.8	U	17.5	U	65.1	U	15.3	U	34.4	U	17.8	UJ	--	--	--	--	--
Organotins	Dibutyltin	µg/kg	0.47	U	0.52	U	0.49	U	0.47	U	0.49	U	0.51	UJ	--	--	--	--	--
	Monobutyltin	µg/kg	0.45	U	0.50	U	0.47	U	0.45	U	0.46	U	0.49	UJ	--	--	--	--	--
	Tetra-n-butyltin	µg/kg	1.4	U	1.5	U	1.4	U	1.4	U	1.4	U	1.5	UJ	--	--	--	--	--
	Tributyltin	µg/kg	1.0	U	1.1	U	1.0	U	1.0	U	1.0	U	1.1	UJ	--	--	--	--	--
Petroleum Hydrocarbons	Diesel	mg/kg	5.75	J	21.6		39.4		1.04	J	25.6		4.32	J	1.4E+04	4.6E+03	--	--	--
	Heavy Oil	mg/kg	17.8	J	93.8		126		1.95	J	151		22.4	J	--	--	--	--	--

Table B-23
Soil Boring Results: 0 to 25 Feet - Riverbank Section 4
Human Health Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.15		Vector 2.16	Vector 2.17		Oregon Department of Environmental Quality Risk-Based Concentrations				
			092810-2-2.15-5-01-FS	92810-2-2.15-10-02-FS	091010-2-2.16-1.5-01-FS	091010-2-2.17-1.5-01-FS	091010-2-2.17-10-03-FS	Soil Ingestion, Dermal Contact, and Inhalation			Vol. to Outdoor Air	Vapor Intrusion
			9/28/2010	9/28/2010	9/10/2010	9/10/2010	9/10/2010					
			0 - 5	5 - 10	0 - 1.5	0 - 1.5	10 - 15	Occ	Const.	Exc	Occ	Occ
Inorganics	Mercury	mg/kg	0.0304 J	0.132	0.0207 J	0.126	0.0726 J	3.5E+02	1.1E+02	2.9E+03	--	--
	Arsenic	mg/kg	5.59	4.39	9.97	7.70	6.84	1.9E+00	1.5E+01	4.2E+02	--	--
	Barium	mg/kg	124	135	172	174	186	2.2E+05	6.9E+04	--	--	--
	Chromium	mg/kg	46.2	42.8	32.4	23.1	31.2	--	5.3E+05	--	--	--
	Copper	mg/kg	48.8	27.1	113	101	31.4	5.E+04	1.E+04	4.E+05	--	--
	Lead	mg/kg	32.8	26.6	145	142	71.9	8.E+02	8.E+02	8.E+02	--	--
	Manganese	mg/kg	9,000	969	1,020	688	666	3.E+04	8.E+03	2.E+05	--	--
	Nickel	mg/kg	20.0	51.6	42.1	33.9	19.9	2.E+04	7.E+03	2.E+05	--	--
	Selenium	mg/kg	0.0122 U	0.0139 U	0.160 J	0.155 J	0.199 J	--	--	--	--	--
	Silver	mg/kg	0.183 J	0.174 J	0.405 J	0.239 J	0.150 J	5.8E+03	1.8E+03	4.9E+04	--	--
	Zinc	mg/kg	83.8	88.4	332	188	125	--	--	--	--	--
PCBs	Aroclor 1016	µg/kg	2.03 U	2.36 U	1.92 U	2.01 U	2.17 U	--	--	--	--	--
	Aroclor 1221	µg/kg	4.04 U	4.71 U	3.83 U	4.00 U	4.33 U	--	--	--	--	--
	Aroclor 1232	µg/kg	2.03 U	2.36 U	1.92 U	2.01 U	2.17 U	--	--	--	--	--
	Aroclor 1242	µg/kg	2.03 U	2.36 U	1.92 U	2.01 U	2.17 U	--	--	--	--	--
	Aroclor 1248	µg/kg	20.2	15.9	21.8	2.01 U	2.17 U	--	--	--	--	--
	Aroclor 1254	µg/kg	2.03 U	2.36 U	1.92 U	15.2	6.59	--	--	--	--	--
	Aroclor 1260	µg/kg	2.03 U	2.36 U	4.97	2.01 U	2.17 U	--	--	--	--	--
	Aroclor 1262	µg/kg	2.03 U	2.36 U	1.92 U	2.01 U	2.17 U	--	--	--	--	--
	Aroclor 1268	µg/kg	2.03 U	2.36 U	1.92 U	2.01 U	2.17 U	--	--	--	--	--
	Total PCBs	µg/kg	20.2	15.9	26.8	15.2	6.59	5.9E+02	4.9E+03	1.4E+05	--	--
SVOCs	1,2,4-Trichlorobenzene	µg/kg	--	--	--	1,200 U	647 U	--	--	--	--	--
	1,2-Dichlorobenzene	µg/kg	--	--	--	1,200 U	647 U	3.6E+07	2.0E+07	5.6E+08	--	--
	1,3-Dichlorobenzene	µg/kg	--	--	--	168 U	647 U	--	--	--	--	--
	1,4-Dichlorobenzene	µg/kg	--	--	--	168 U	647 U	6.4E+04	1.3E+06	3.6E+07	1.9E+04	1.3E+04
	2,4,5-Trichlorophenol	µg/kg	--	--	--	168 U	90.6 U	--	--	--	--	--
	2,4,6-Trichlorophenol	µg/kg	--	--	--	1,200 U	90.6 U	2.1E+05	2.7E+05	7.4E+06	--	--
	2,4-Dichlorophenol	µg/kg	--	--	--	4,810 U	90.6 U	--	--	--	--	--
	2,4-Dimethylphenol	µg/kg	--	--	--	1,200 U	647 U	--	--	--	--	--
	2,4-Dinitrophenol	µg/kg	--	--	--	1,200 U	647 U	--	--	--	--	--
	2,4-Dinitrotoluene	µg/kg	--	--	--	168 U	647 U	--	--	--	--	--
	2,6-Dinitrotoluene	µg/kg	--	--	--	168 U	647 U	1.5E+03	1.3E+04	3.5E+05	--	--
	2-Chloronaphthalene	µg/kg	--	--	--	168 U	90.6 U	--	--	--	--	--
	2-Chlorophenol	µg/kg	--	--	--	168 U	90.6 U	--	--	--	--	--
	2-Methylphenol	µg/kg	--	--	--	168 U	90.6 U	--	--	--	--	--
	2-Nitroaniline	µg/kg	--	--	--	1,200 U	647 U	--	--	--	--	--
	2-Nitrophenol	µg/kg	--	--	--	168 U	2,590 U	--	--	--	--	--
	3,3'-Dichlorobenzidine	µg/kg	--	--	--	1,200 U	647 U	--	--	--	--	--
	3,4-Methylphenol	µg/kg	--	--	--	1,200 U	647 U	--	--	--	--	--
	3-Nitroaniline	µg/kg	--	--	--	168 U	90.6 U	--	--	--	--	--
	4,6-Dinitro-2-methylphenol	µg/kg	--	--	--	168 U	90.6 U	--	--	--	--	--
	4-Bromophenyl phenyl ether	µg/kg	--	--	--	397 U	90.6 U	--	--	--	--	--
	4-Chloro-3-methylphenol	µg/kg	--	--	--	241 U	90.6 U	--	--	--	--	--

Table B-23
Soil Boring Results: 0 to 25 Feet - Riverbank Section 4
Human Health Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.15				Vector 2.16		Vector 2.17				Oregon Department of Environmental Quality Risk-Based Concentrations				
			092810-2-2.15-5-01-FS		92810-2-2.15-10-02-FS		091010-2-2.16-1.5-01-FS		091010-2-2.17-1.5-01-FS		091010-2-2.17-10-03-FS		Soil Ingestion, Dermal Contact, and Inhalation			Vol. to Outdoor Air	Vapor Intrusion
			9/28/2010		9/28/2010		9/10/2010		9/10/2010		9/10/2010						
			0 - 5		5 - 10		0 - 1.5		0 - 1.5		10 - 15		Occ	Const.	Exc	Occ	Occ
SVOCs (continued)	4-Chloroaniline	µg/kg	--		--		--		168	U	90.6	U	--	--	--	--	--
	4-Chlorophenyl phenyl ether	µg/kg	--		--		--		1,200	U	647	U	--	--	--	--	--
	4-Nitroaniline	µg/kg	--		--		--		1,200	U	90.6	U	--	--	--	--	--
	4-Nitrophenol	µg/kg	--		--		--		2,410	U	647	U	--	--	--	--	--
	Benzoic Acid	µg/kg	--		--		--		168	U	647	U	--	--	--	--	--
	Benzyl Alcohol	µg/kg	--		--		--		168	U	90.6	U	--	--	--	--	--
	Bis(2-chloroethoxy)methane	µg/kg	--		--		--		168	U	90.6	U	--	--	--	--	--
	Bis(2-chloroethyl)ether	µg/kg	--		--		--		168	U	213	U	1.3E+03	1.6E+04	4.5E+05	1.2E+03	6.9E+03
	Bis(2-chloroisopropyl)ether	µg/kg	--		--		--		168	U	129	U	--	--	--	--	--
	Dibenzofuran	µg/kg	--		--		--		1,200	U	90.6	U	--	--	--	--	--
	Hexachlorobenzene	µg/kg	--		--		--		1,200	U	647	U	9.3E+02	1.1E+04	3.2E+05	2.4E+03	1.3E+04
	Hexachlorobutadiene	µg/kg	--		--		--		1,200	U	647	U	--	--	--	--	--
	Hexachlorocyclopentadiene	µg/kg	--		--		--		168	U	1,290	U	--	--	--	--	--
	Hexachloroethane	µg/kg	--		--		--		168	U	90.6	U	3.2E+04	1.8E+05	5.1E+06	1.9E+04	7.6E+03
	Isophorone	µg/kg	--		--		--		168	U	90.6	U	--	--	--	--	--
	Nitrobenzene	µg/kg	--		--		--		168	U	90.6	U	--	--	--	--	--
	N-Nitrosodi-n-propylamine	µg/kg	--		--		--		1,200	U	90.6	U	--	--	--	--	--
	N-Nitrosodiphenylamine	µg/kg	--		--		--		168	U	90.6	U	4.7E+05	3.8E+06	1.1E+08	--	--
	Pentachlorophenol	µg/kg	--		--		--		1,200	U	647	U	4.0E+03	3.4E+04	9.6E+05	--	--
	Phenol	µg/kg	--		--		--		168	U	647	U	--	--	--	--	--
PAHs	2-Methylnaphthalene	µg/kg	59.6		13.0	J	163		41.8		647.0	J	--	--	--	--	--
	Acenaphthene	µg/kg	27.6		14.0	J	42.3		100		90.60	J	7.0E+07	2.1E+07	5.9E+08	--	--
	Acenaphthylene	µg/kg	6.82	J	4.98	J	83.4		27.7		90.60	U	--	--	--	--	--
	Anthracene	µg/kg	15.6	J	8.62	J	147		128		90.60	J	3.5E+08	1.1E+08	--	--	--
	Benzo(a)anthracene	µg/kg	27.8		11.6	J	185		176		90.6	J	2.9E+03	2.4E+04	6.6E+05	--	--
	Benzo(a)pyrene	µg/kg	27.1		14.3	J	208		162		647.0		--	--	--	--	--
	Benzo(b)fluoranthene	µg/kg	24.8		12.7	J	136		154		90.6		2.9E+03	2.4E+04	6.7E+05	--	--
	Benzo(ghi)perylene	µg/kg	18.5		11.7	J	138		147		23.1		--	--	--	--	--
	Benzo(k)fluranthene	µg/kg	20.8		10.5	J	121		145		17.7		--	--	--	--	--
	Chrysene	µg/kg	34.9		18.7	J	287		227		25.7		2.9E+05	2.4E+06	6.7E+07	--	--
	Dibenzo(a,h)anthracene	µg/kg	5.08	J	4.64	U	46.5		33.0		4.47	J	2.9E+02	2.4E+03	6.7E+04	--	--
	Fluoranthene	µg/kg	70.4		32.1		352		551		43.2		3.0E+07	1.0E+07	2.8E+08	--	--
	Fluorene	µg/kg	31.0		8.14	J	135		69.2		5.99	J	4.7E+07	1.4E+07	3.9E+08	--	--
	Indeno(1,2,3-cd)pyrene	µg/kg	14.8	J	8.57	J	95.0		122		17.2	J	2.9E+03	2.4E+04	6.7E+05	--	--
	Naphthalene	µg/kg	84.6		26.4		292		104		29.6		2.3E+04	5.8E+05	1.6E+07	8.3E+04	8.3E+04
	Phenanthrene	µg/kg	98.8		35.0		591		290		40.9		--	--	--	--	--
	Pyrene	µg/kg	68.3		36.9		437		485		41.8		2.3E+07	7.5E+06	2.1E+08	--	--

Table B-23
Soil Boring Results: 0 to 25 Feet - Riverbank Section 4
Human Health Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.15		Vector 2.16		Vector 2.17				Oregon Department of Environmental Quality Risk-Based Concentrations				
			092810-2-2.15-5-01-FS	92810-2-2.15-10-02-FS	091010-2-2.16-1.5-01-FS		091010-2-2.17-1.5-01-FS		091010-2-2.17-10-03-FS		Soil Ingestion, Dermal Contact, and Inhalation			Vol. to Outdoor Air	Vapor Intrusion
			9/28/2010	9/28/2010	9/10/2010		9/10/2010		9/10/2010						
			0 - 5	5 - 10	0 - 1.5		0 - 1.5		10 - 15		Occ	Const.	Exc	Occ	Occ
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	31.0	J 21.4	J 52.8		16.0	U	245		1.6E+05	1.3E+06	3.7E+07	--	--
	Butyl benzyl phthalate	µg/kg	16.1	U 18.8	U 15.3	U	16.0	U	17.4	U	--	--	--	--	--
	Diethyl phthalate	µg/kg	16.1	U 18.8	U 15.3	U	16.0	U	17.4	U	--	--	--	--	--
	Dimethyl phthalate	µg/kg	16.1	U 18.8	U 15.3	U	16.0	U	17.4	U	--	--	--	--	--
	Di-n-butyl phthalate	µg/kg	16.1	U 18.8	U 15.3	U	16.0	U	17.4	U	--	--	--	--	--
	Di-n-octyl phthalate	µg/kg	16.1	U 18.8	U 15.3	U	16.0	U	17.4	U	--	--	--	--	--
Organotins	Dibutyltin	µg/kg	0.49	U 0.54	U 0.48	U	0.51	U	0.51	U	--	--	--	--	--
	Monobutyltin	µg/kg	0.47	U 0.51	U 0.46	U	0.49	U	0.49	U	--	--	--	--	--
	Tetra-n-butyltin	µg/kg	1.4	U 1.6	U 1.4	U	1.5	U	1.5	U	--	--	--	--	--
	Tributyltin	µg/kg	1.1	U 1.2	U 1.0	U	1.1	U	1.1	U	--	--	--	--	--
Petroleum Hydrocarbons	Diesel	mg/kg	165	85.3	170	J	61.4		6.47	J	1.4E+04	4.6E+03	--	--	--
	Heavy Oil	mg/kg	557	244	454	J	121		21.7	J	--	--	--	--	--

Notes:

1. -- = Not applicable/not analyzed
2. mg/kg = Milligrams per kilogram
3. µg/kg = Micrograms per kilogram
4. J = The result is an estimated quantity
5. U= Undetected at the method detection limit shown
6. UJ = Undetected at the method detection limit shown, detection limit is an estimated quantity
7. Risk-Based Concentrations; revision date 11/1/15
8. Shading indicates sample concentration exceeds one or more RBCs

Table B-24
Soil Boring Results: 0 to 25 Feet - Riverbank Section 4
Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.11		Vector 2.12		Vector 2.13		Vector 2.14					Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			092710-2-2.11-10-02-FS		092710-2-2.12-5-01-FS		092710-2-2.13-5-01-FS		092810-2-2.14-5-01-FS		092810-2-2.14-10-02-FS		092810-2-2.14-20-04-FS					
		Date	9/27/2010		9/27/2010		9/27/2010		9/28/2010		9/28/2010		9/28/2010	Plants	Inverts.	Birds	Mamals	
		Depth (Feet Below Ground Surface)	5 - 10		0 - 5		0 - 5		0 - 5		5 - 10		15 - 20					
Inorganics	Mercury	mg/kg	0.0537	J	0.0289	J	0.0397	J	0.0112	J	0.248		0.128	J	0.3	0.1	1.5	73	0.23
	Arsenic	mg/kg	4.61		10.9		6.27		4.51		9.05		5.43		10	60	10	29	8.8
	Barium	mg/kg	166		200		111		129	J	252		199		500	3,000	85	638	790
	Chromium	mg/kg	46.2		27.3		23.9		16.6		30.8		20.4		1.0	0.4	4.0	410	76
	Copper	mg/kg	44.2		27.9		52.0		55.7	J	321		38.5		100	50	190	390	34
	Lead	mg/kg	88.0		23.3		54.4		10.3		310		122		50	500	16	4,000	79
	Manganese	mg/kg	829		670		342		719		629		454		500	100	4,125	11,000	1,800
	Nickel	mg/kg	24.5		21.4		19.9		18.2		25.1		15.5		30	200	320	625	47
	Selenium	mg/kg	0.101	J	0.146	J	0.0429	J	0.056	J	0.217	J	0.603	J	1	70	2	25	0.71
	Silver	mg/kg	0.201	J	0.159	J	0.123	J	0.084	J	0.310	J	0.295	U	2	50	--	--	0.82
	Zinc	mg/kg	203		92.1		103		93.0	J	426		190		50	200	60	20,000	180
PCBs	Aroclor 1016	µg/kg	2.09	U	2.21	U	4.07	U	3.84	U	8.69	U	2.24	U	--	--	--	1.0E+05	--
	Aroclor 1221	µg/kg	4.17	U	4.41	U	8.11	U	7.65	U	17.3	U	4.46	U	--	--	--	--	--
	Aroclor 1232	µg/kg	2.09	U	2.21	U	4.07	U	3.84	U	8.69	U	2.24	U	--	--	--	--	--
	Aroclor 1242	µg/kg	2.09	U	2.21	U	4.07	U	3.84	U	8.69	U	2.24	U	--	--	1.5E+03	5.0E+03	--
	Aroclor 1248	µg/kg	2.09	U	2.21	U	75.7	J	3.84	U	94.5		2.24	U	--	--	--	--	--
	Aroclor 1254	µg/kg	3.51	J	2.21	U	4.07	U	15.3		8.69	U	5.70		--	--	7.0E+02	4.0E+03	--
	Aroclor 1260	µg/kg	2.09	U	6.98		22.3		3.84	U	49.8	J	2.24	U	--	--	--	--	--
	Aroclor 1262	µg/kg	2.09	U	2.21	U	4.07	U	3.84	U	8.69	U	2.24	U	--	--	--	--	--
	Aroclor 1268	µg/kg	2.09	U	2.21	U	4.07	U	3.84	U	8.69	U	2.24	U	--	--	--	--	--
	Total PCBs	µg/kg	3.51	J	6.98		98.0	J	15.3		144	J	5.70		4.0E+04	--	--	4.0E+03	--
SVOCs	1,2,4-Trichlorobenzene	µg/kg	--		--		--		--		--		--		--	2.0E+04	--	--	--
	1,2-Dichlorobenzene	µg/kg	--		--		--		--		--		--		--	--	--	--	--
	1,3-Dichlorobenzene	µg/kg	--		--		--		--		--		--		--	--	--	--	--
	1,4-Dichlorobenzene	µg/kg	--		--		--		--		--		--		--	2.0E+04	--	--	--
	2,4,5-Trichlorophenol	µg/kg	--		--		--		--		--		--		4.0E+03	9.0E+03	--	--	--
	2,4,6-Trichlorophenol	µg/kg	--		--		--		--		--		--		1.0E+04	1.0E+04	--	--	--
	2,4-Dichlorophenol	µg/kg	--		--		--		--		--		--		2.0E+04	--	--	--	--
	2,4-Dimethylphenol	µg/kg	--		--		--		--		--		--		2.0E+04	--	--	--	--
	2,4-Dinitrophenol	µg/kg	--		--		--		--		--		--		2.0E+04	--	--	--	--
	2,4-Dinitrotoluene	µg/kg	--		--		--		--		--		--		--	--	--	--	--
	2,6-Dinitrotoluene	µg/kg	--		--		--		--		--		--		--	--	--	--	--
	2-Chloronaphthalene	µg/kg	--		--		--		--		--		--		--	--	--	--	--
	2-Chlorophenol	µg/kg	--		--		--		--		--		--		6.0E+04	--	--	--	--
	2-Methylphenol	µg/kg	--		--		--		--		--		--		5.0E+04	--	--	1.6E+07	--
	2-Nitroaniline	µg/kg	--		--		--		--		--		--		--	--	--	--	--
	2-Nitrophenol	µg/kg	--		--		--		--		--		--		--	--	--	--	--
	3,3'-Dichlorobenzidine	µg/kg	--		--		--		--		--		--		--	--	--	--	--
	3,4-Methylphenol	µg/kg	--		--		--		--		--		--		--	--	--	--	--
	3-Nitroaniline	µg/kg	--		--		--		--		--		--		7.0E+04	--	--	--	--
	4,6-Dinitro-2-methylphenol	µg/kg	--		--		--		--		--		--		--	--	--	--	--
	4-Bromophenyl phenyl ether	µg/kg	--		--		--		--		--		--		--	--	--	--	--
	4-Chloro-3-methylphenol	µg/kg	--		--		--		--		--		--		--	--	--	--	--

Table B-24
Soil Boring Results: 0 to 25 Feet - Riverbank Section 4
Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.11		Vector 2.12		Vector 2.13		Vector 2.14						Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			092710-2-2.11-10-02-FS		092710-2-2.12-5-01-FS		092710-2-2.13-5-01-FS		092810-2-2.14-5-01-FS		092810-2-2.14-10-02-FS		092810-2-2.14-20-04-FS						
		Date	9/27/2010		9/27/2010		9/27/2010		9/28/2010		9/28/2010		9/28/2010		Plants	Inverts.	Birds	Mamals	
		Depth (Feet Below Ground Surface)	5 - 10		0 - 5		0 - 5		0 - 5		5 - 10		15 - 20						
SVOCs (continued)	4-Chloroaniline	µg/kg	--		--		--		--		--		--		4.0E+04	--	--	--	--
	4-Chlorophenyl phenyl ether	µg/kg	--		--		--		--		--		--		--	--	--	--	--
	4-Nitroaniline	µg/kg	--		--		--		--		--		--		4.0E+04	--	--	--	--
	4-Nitrophenol	µg/kg	--		--		--		--		--		--		1.0E+04	7.0E+03	--	--	--
	Benzoic Acid	µg/kg	--		--		--		--		--		--		--	--	--	--	--
	Benzyl Alcohol	µg/kg	--		--		--		--		--		--		--	--	--	--	--
	Bis(2-chloroethoxy)methane	µg/kg	--		--		--		--		--		--		--	--	--	--	--
	Bis(2-chloroethyl)ether	µg/kg	--		--		--		--		--		--		--	--	--	--	--
	Bis(2-chloroisopropyl)ether	µg/kg	--		--		--		--		--		--		--	--	--	--	--
	Dibenzofuran	µg/kg	--		--		--		--		--		--		--	--	--	2.0E+00	--
	Hexachlorobenzene	µg/kg	--		--		--		--		--		--		--	1.0E+06	--	--	--
	Hexachlorobutadiene	µg/kg	--		--		--		--		--		--		--	--	--	--	--
	Hexachlorocyclopentadiene	µg/kg	--		--		--		--		--		--		1.0E+04	--	--	--	--
	Hexachloroethane	µg/kg	--		--		--		--		--		--		--	--	--	--	--
	Isophorone	µg/kg	--		--		--		--		--		--		--	--	--	--	--
	Nitrobenzene	µg/kg	--		--		--		--		--		--		8.0E+03	4.0E+04	--	--	--
	N-Nitrosodi-n-propylamine	µg/kg	--		--		--		--		--		--		--	--	--	--	--
	N-Nitrosodiphenylamine	µg/kg	--		--		--		--		--		--		--	2.0E+04	--	--	--
	Pentachlorophenol	µg/kg	--		--		--		--		--		--		3.0E+03	4.0E+03	--	3.0E+04	--
	Phenol	µg/kg	--		--		--		--		--		--		7.0E+04	3.0E+04	--	--	--
PAHs	2-Methylnaphthalene	µg/kg	4.14	U	4.32	U	32.4	J	5.56	J	14.5	J	4.39	UJ	--	--	--	--	--
	Acenaphthene	µg/kg	6.70	J	4.32	U	74.6		6.38	J	8.47	U	4.39	UJ	2.0E+04	--	--	--	--
	Acenaphthylene	µg/kg	4.14	U	4.32	U	16.7	J	3.76	U	8.47	U	5.59	J	--	--	--	--	--
	Anthracene	µg/kg	4.14	U	4.32	U	46.9		3.76	U	17.7	J	11.7	J	--	--	--	--	--
	Benzo(a)anthracene	µg/kg	4.54	J	4.32	U	82.9		5.79	J	53.2		57.4	J	--	--	--	--	--
	Benzo(a)pyrene	µg/kg	6.35	J	6.25	J	66.5		5.59	J	74.2		73.2	J	--	--	--	1.3E+05	--
	Benzo(b)fluoranthene	µg/kg	5.73	J	6.36	J	58.1		5.34	J	70.6		65.0	J	--	--	--	--	--
	Benzo(ghi)perylene	µg/kg	5.91	J	5.82	J	50.1		4.41	J	72.2		61.8	J	--	--	--	--	--
	Benzo(k)fluranthene	µg/kg	4.88	J	4.32	U	53.7		4.61	J	59.1		60.4	J	--	--	--	--	--
	Chrysene	µg/kg	6.61	J	6.79	J	105.0		6.30	J	82.9		81.2	J	--	--	--	--	--
	Dibenzo(a,h)anthracene	µg/kg	4.14	U	4.32	U	12.3	J	3.76	U	15.3	J	11.8	J	--	--	--	--	--
	Fluoranthene	µg/kg	11.4	J	7.30	J	216		18.6		133		130	J	--	--	--	--	--
	Fluorene	µg/kg	4.14	U	4.32	U	29.7	J	5.06	J	12.0	J	4.39	UJ	--	3.0E+04	--	--	--
	Indeno(1,2,3-cd)pyrene	µg/kg	4.35	J	4.32	U	38.0		3.92	J	50.0		47.7	J	--	--	--	--	--
	Naphthalene	µg/kg	4.14	U	4.32	U	50.9		9.25	J	52.8		4.39	UJ	1.0E+04	--	--	3.9E+06	--
	Phenanthrene	µg/kg	7.74	J	4.87	J	211		26.3		108		64.4	J	--	--	--	--	--
	Pyrene	µg/kg	12.5	J	11.5	J	197		14.1	J	125		154	J	--	--	--	--	--

Table B-24
Soil Boring Results: 0 to 25 Feet - Riverbank Section 4
Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.11		Vector 2.12		Vector 2.13		Vector 2.14						Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			092710-2-2.11-10-02-FS		092710-2-2.12-5-01-FS		092710-2-2.13-5-01-FS		092810-2-2.14-5-01-FS		092810-2-2.14-10-02-FS		092810-2-2.14-20-04-FS						
		Date	9/27/2010		9/27/2010		9/27/2010		9/28/2010		9/28/2010		9/28/2010		Plants	Inverts.	Birds	Mamals	
		Depth (Feet Below Ground Surface)	5 - 10		0 - 5		0 - 5		0 - 5		5 - 10		15 - 20						
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	16.8	U	17.5	U	32.6	U	15.3	U	34.4	U	17.8	UJ	--	--	4.5E+03	1.0E+06	--
	Butyl benzyl phthalate	µg/kg	16.8	U	17.5	U	32.6	U	15.3	U	34.4	U	17.8	UJ	--	--	--	--	--
	Diethyl phthalate	µg/kg	16.8	U	17.5	U	32.6	U	15.3	U	34.4	U	17.8	UJ	1.0E+05	--	--	2.5E+08	--
	Dimethyl phthalate	µg/kg	16.8	U	17.5	U	32.6	U	15.3	U	34.4	U	17.8	UJ	--	2.0E+05	--	--	--
	Di-n-butyl phthalate	µg/kg	16.8	U	17.5	U	32.6	U	15.3	U	47.9	J	17.8	UJ	2.0E+05	--	4.5E+02	3.0E+07	--
	Di-n-octyl phthalate	µg/kg	16.8	U	17.5	U	65.1	U	15.3	U	34.4	U	17.8	UJ	--	--	--	--	--
Organotins	Dibutyltin	µg/kg	0.47	U	0.52	U	0.49	U	0.47	U	0.49	U	0.51	UJ	--	--	--	--	--
	Monobutyltin	µg/kg	0.45	U	0.50	U	0.47	U	0.45	U	0.46	U	0.49	UJ	--	--	--	--	--
	Tetra-n-butyltin	µg/kg	1.4	U	1.5	U	1.4	U	1.4	U	1.4	U	1.5	UJ	--	--	--	--	--
	Tributyltin	µg/kg	1.0	U	1.1	U	1.0	U	1.0	U	1.0	U	1.1	UJ	--	--	--	--	--
Petroleum Hydrocarbons	Diesel	mg/kg	5.75	J	21.6		39.4		1.04	J	25.6		4.32	J	--	--	--	--	--
	Heavy Oil	mg/kg	17.8	J	93.8		126		1.95	J	151		22.4	J	--	--	--	--	--

Table B-24
Soil Boring Results: 0 to 25 Feet - Riverbank Section 4
Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.15		Vector 2.16	Vector 2.17		Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			092810-2-2.15-5-01-FS	92810-2-2.15-10-02-FS	091010-2-2.16-1.5-01-FS	091010-2-2.17-1.5-01-FS	091010-2-2.17-10-03-FS					
			9/28/2010	9/28/2010	9/10/2010	9/10/2010	9/10/2010	Plants	Inverts.	Birds	Mamals	
			0 - 5	5 - 10	0 - 1.5	0 - 1.5	10 - 15					
Inorganics	Mercury	mg/kg	0.0304 J	0.132	0.0207 J	0.126	0.0726 J	0.3	0.1	1.5	73	0.23
	Arsenic	mg/kg	5.59	4.39	9.97	7.70	6.84	10	60	10	29	8.8
	Barium	mg/kg	124	135	172	174	186	500	3,000	85	638	790
	Chromium	mg/kg	46.2	42.8	32.4	23.1	31.2	1.0	0.4	4.0	410	76
	Copper	mg/kg	48.8	27.1	113	101	31.4	100	50	190	390	34
	Lead	mg/kg	32.8	26.6	145	142	71.9	50	500	16	4,000	79
	Manganese	mg/kg	9,000	969	1,020	688	666	500	100	4,125	11,000	1,800
	Nickel	mg/kg	20.0	51.6	42.1	33.9	19.9	30	200	320	625	47
	Selenium	mg/kg	0.0122 U	0.0139 U	0.160 J	0.155 J	0.199 J	1	70	2	25	0.71
	Silver	mg/kg	0.183 J	0.174 J	0.405 J	0.239 J	0.150 J	2	50	--	--	0.82
	Zinc	mg/kg	83.8	88.4	332	188	125	50	200	60	20,000	180
PCBs	Aroclor 1016	µg/kg	2.03 U	2.36 U	1.92 U	2.01 U	2.17 U	--	--	--	1.0E+05	--
	Aroclor 1221	µg/kg	4.04 U	4.71 U	3.83 U	4.00 U	4.33 U	--	--	--	--	--
	Aroclor 1232	µg/kg	2.03 U	2.36 U	1.92 U	2.01 U	2.17 U	--	--	--	--	--
	Aroclor 1242	µg/kg	2.03 U	2.36 U	1.92 U	2.01 U	2.17 U	--	--	1.5E+03	5.0E+03	--
	Aroclor 1248	µg/kg	20.2	15.9	21.8	2.01 U	2.17 U	--	--	--	--	--
	Aroclor 1254	µg/kg	2.03 U	2.36 U	1.92 U	15.2	6.59	--	--	7.0E+02	4.0E+03	--
	Aroclor 1260	µg/kg	2.03 U	2.36 U	4.97	2.01 U	2.17 U	--	--	--	--	--
	Aroclor 1262	µg/kg	2.03 U	2.36 U	1.92 U	2.01 U	2.17 U	--	--	--	--	--
	Aroclor 1268	µg/kg	2.03 U	2.36 U	1.92 U	2.01 U	2.17 U	--	--	--	--	--
	Total PCBs	µg/kg	20.2	15.9	26.8	15.2	6.59	4.0E+04	--	--	4.0E+03	--
SVOCs	1,2,4-Trichlorobenzene	µg/kg	--	--	--	1,200 U	647 U	--	2.0E+04	--	--	--
	1,2-Dichlorobenzene	µg/kg	--	--	--	1,200 U	647 U	--	--	--	--	--
	1,3-Dichlorobenzene	µg/kg	--	--	--	168 U	647 U	--	--	--	--	--
	1,4-Dichlorobenzene	µg/kg	--	--	--	168 U	647 U	--	2.0E+04	--	--	--
	2,4,5-Trichlorophenol	µg/kg	--	--	--	168 U	90.6 U	4.0E+03	9.0E+03	--	--	--
	2,4,6-Trichlorophenol	µg/kg	--	--	--	1,200 U	90.6 U	1.0E+04	1.0E+04	--	--	--
	2,4-Dichlorophenol	µg/kg	--	--	--	4,810 U	90.6 U	2.0E+04	--	--	--	--
	2,4-Dimethylphenol	µg/kg	--	--	--	1,200 U	647 U	2.0E+04	--	--	--	--
	2,4-Dinitrophenol	µg/kg	--	--	--	1,200 U	647 U	2.0E+04	--	--	--	--
	2,4-Dinitrotoluene	µg/kg	--	--	--	168 U	647 U	--	--	--	--	--
	2,6-Dinitrotoluene	µg/kg	--	--	--	168 U	647 U	--	--	--	--	--
	2-Chloronaphthalene	µg/kg	--	--	--	168 U	90.6 U	--	--	--	--	--
	2-Chlorophenol	µg/kg	--	--	--	168 U	90.6 U	6.0E+04	--	--	--	--
	2-Methylphenol	µg/kg	--	--	--	168 U	90.6 U	5.0E+04	--	--	1.6E+07	--
	2-Nitroaniline	µg/kg	--	--	--	1,200 U	647 U	--	--	--	--	--
	2-Nitrophenol	µg/kg	--	--	--	168 U	2,590 U	--	--	--	--	--
	3,3'-Dichlorobenzidine	µg/kg	--	--	--	1,200 U	647 U	--	--	--	--	--
	3,4-Methylphenol	µg/kg	--	--	--	1,200 U	647 U	--	--	--	--	--
	3-Nitroaniline	µg/kg	--	--	--	168 U	90.6 U	7.0E+04	--	--	--	--
	4,6-Dinitro-2-methylphenol	µg/kg	--	--	--	168 U	90.6 U	--	--	--	--	--
	4-Bromophenyl phenyl ether	µg/kg	--	--	--	397 U	90.6 U	--	--	--	--	--
	4-Chloro-3-methylphenol	µg/kg	--	--	--	241 U	90.6 U	--	--	--	--	--

Table B-24
Soil Boring Results: 0 to 25 Feet - Riverbank Section 4
Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.15				Vector 2.16			Vector 2.17				Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			092810-2-2.15-5-01-FS		92810-2-2.15-10-02-FS		091010-2-2.16-1.5-01-FS			091010-2-2.17-1.5-01-FS		091010-2-2.17-10-03-FS		Plants	Inverts.	Birds	Mamals	
			9/28/2010		9/28/2010		9/10/2010			9/10/2010		9/10/2010						
			0 - 5		5 - 10		0 - 1.5			0 - 1.5		10 - 15						
SVOCs (continued)	4-Chloroaniline	µg/kg	--		--		--			168	U	90.6	U	4.0E+04	--	--	--	--
	4-Chlorophenyl phenyl ether	µg/kg	--		--		--			1,200	U	647	U	--	--	--	--	--
	4-Nitroaniline	µg/kg	--		--		--			1,200	U	90.6	U	4.0E+04	--	--	--	--
	4-Nitrophenol	µg/kg	--		--		--			2,410	U	647	U	1.0E+04	7.0E+03	--	--	--
	Benzoic Acid	µg/kg	--		--		--			168	U	647	U	--	--	--	--	--
	Benzyl Alcohol	µg/kg	--		--		--			168	U	90.6	U	--	--	--	--	--
	Bis(2-chloroethoxy)methane	µg/kg	--		--		--			168	U	90.6	U	--	--	--	--	--
	Bis(2-chloroethyl)ether	µg/kg	--		--		--			168	U	213	U	--	--	--	--	--
	Bis(2-chloroisopropyl)ether	µg/kg	--		--		--			168	U	129	U	--	--	--	--	--
	Dibenzofuran	µg/kg	--		--		--			1,200	U	90.6	U	--	--	--	2.0E+00	--
	Hexachlorobenzene	µg/kg	--		--		--			1,200	U	647	U	--	1.0E+06	--	--	--
	Hexachlorobutadiene	µg/kg	--		--		--			1,200	U	647	U	--	--	--	--	--
	Hexachlorocyclopentadiene	µg/kg	--		--		--			168	U	1,290	U	1.0E+04	--	--	--	--
	Hexachloroethane	µg/kg	--		--		--			168	U	90.6	U	--	--	--	--	--
	Isophorone	µg/kg	--		--		--			168	U	90.6	U	--	--	--	--	--
	Nitrobenzene	µg/kg	--		--		--			168	U	90.6	U	8.0E+03	4.0E+04	--	--	--
	N-Nitrosodi-n-propylamine	µg/kg	--		--		--			1,200	U	90.6	U	--	--	--	--	--
	N-Nitrosodiphenylamine	µg/kg	--		--		--			168	U	90.6	U	--	2.0E+04	--	--	--
	Pentachlorophenol	µg/kg	--		--		--			1,200	U	647	U	3.0E+03	4.0E+03	--	3.0E+04	--
	Phenol	µg/kg	--		--		--			168	U	647	U	7.0E+04	3.0E+04	--	--	--
PAHs	2-Methylnaphthalene	µg/kg	59.6		13.0	J	163			41.8		647.0	J	--	--	--	--	--
	Acenaphthene	µg/kg	27.6		14.0	J	42.3			100		90.60	J	2.0E+04	--	--	--	--
	Acenaphthylene	µg/kg	6.82	J	4.98	J	83.4			27.7		90.60	U	--	--	--	--	--
	Anthracene	µg/kg	15.6	J	8.62	J	147			128		90.60	J	--	--	--	--	--
	Benzo(a)anthracene	µg/kg	27.8		11.6	J	185			176		90.6	J	--	--	--	--	--
	Benzo(a)pyrene	µg/kg	27.1		14.3	J	208			162		647.0		--	--	--	1.3E+05	--
	Benzo(b)fluoranthene	µg/kg	24.8		12.7	J	136			154		90.6		--	--	--	--	--
	Benzo(ghi)perylene	µg/kg	18.5		11.7	J	138			147		23.1		--	--	--	--	--
	Benzo(k)fluranthene	µg/kg	20.8		10.5	J	121			145		17.7		--	--	--	--	--
	Chrysene	µg/kg	34.9		18.7	J	287			227		25.7		--	--	--	--	--
	Dibenzo(a,h)anthracene	µg/kg	5.08	J	4.64	U	46.5			33.0		4.47	J	--	--	--	--	--
	Fluoranthene	µg/kg	70.4		32.1		352			551		43.2		--	--	--	--	--
	Fluorene	µg/kg	31.0		8.14	J	135			69.2		5.99	J	--	3.0E+04	--	--	--
	Indeno(1,2,3-cd)pyrene	µg/kg	14.8	J	8.57	J	95.0			122		17.2	J	--	--	--	--	--
	Naphthalene	µg/kg	84.6		26.4		292			104		29.6		1.0E+04	--	--	3.9E+06	--
	Phenanthrene	µg/kg	98.8		35.0		591			290		40.9		--	--	--	--	--
	Pyrene	µg/kg	68.3		36.9		437			485		41.8		--	--	--	--	--

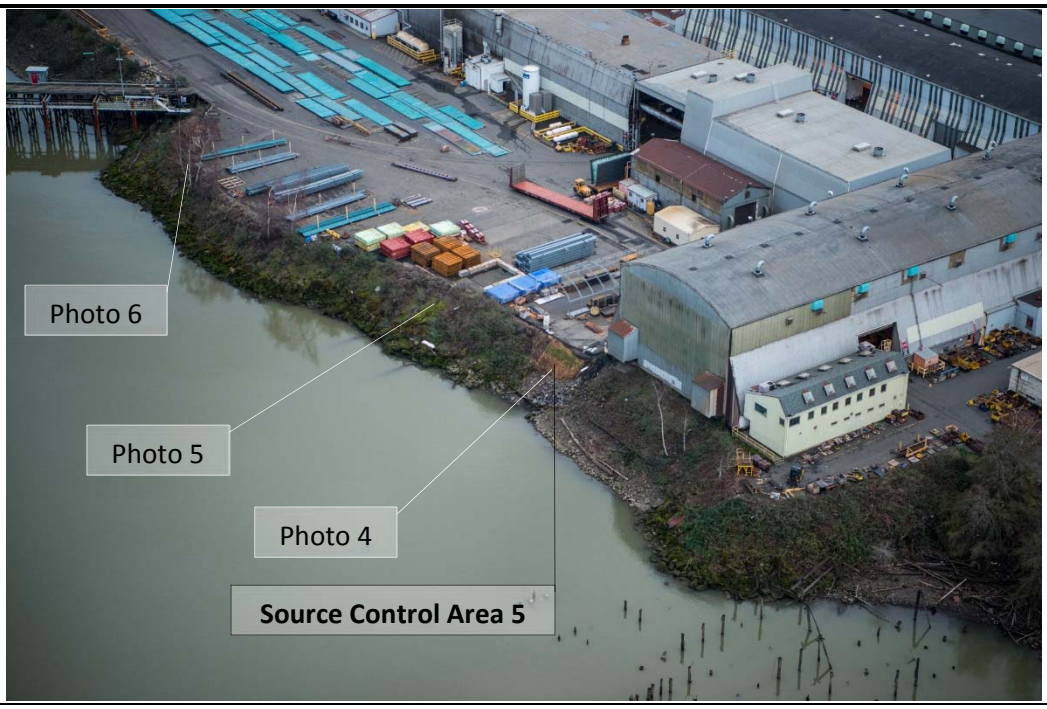
Table B-24
Soil Boring Results: 0 to 25 Feet - Riverbank Section 4
Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Vector 2.15		Vector 2.16		Vector 2.17		Oregon Department of Environmental Quality Level II Screening Level Values for Soil				Default Background Concentrations Portland Basin Soil
			092810-2-2.15-5-01-FS	92810-2-2.15-10-02-FS	091010-2-2.16-1.5-01-FS	091010-2-2.17-1.5-01-FS	091010-2-2.17-10-03-FS		Plants	Inverts.	Birds	Mamals	
			9/28/2010	9/28/2010	9/10/2010	9/10/2010	9/10/2010						
			0 - 5	5 - 10	0 - 1.5	0 - 1.5	10 - 15						
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	31.0 J	21.4 J	52.8	16.0 U	245		--	--	4.5E+03	1.0E+06	--
	Butyl benzyl phthalate	µg/kg	16.1 U	18.8 U	15.3 U	16.0 U	17.4 U		--	--	--	--	--
	Diethyl phthalate	µg/kg	16.1 U	18.8 U	15.3 U	16.0 U	17.4 U		1.0E+05	--	--	2.5E+08	--
	Dimethyl phthalate	µg/kg	16.1 U	18.8 U	15.3 U	16.0 U	17.4 U		--	2.0E+05	--	--	--
	Di-n-butyl phthalate	µg/kg	16.1 U	18.8 U	15.3 U	16.0 U	17.4 U		2.0E+05	--	4.5E+02	3.0E+07	--
	Di-n-octyl phthalate	µg/kg	16.1 U	18.8 U	15.3 U	16.0 U	17.4 U		--	--	--	--	--
Organotins	Dibutyltin	µg/kg	0.49 U	0.54 U	0.48 U	0.51 U	0.51 U		--	--	--	--	--
	Monobutyltin	µg/kg	0.47 U	0.51 U	0.46 U	0.49 U	0.49 U		--	--	--	--	--
	Tetra-n-butyltin	µg/kg	1.4 U	1.6 U	1.4 U	1.5 U	1.5 U		--	--	--	--	--
	Tributyltin	µg/kg	1.1 U	1.2 U	1.0 U	1.1 U	1.1 U		--	--	--	--	--
Petroleum Hydrocarbons	Diesel	mg/kg	165	85.3	170 J	61.4	6.47 J		--	--	--	--	--
	Heavy Oil	mg/kg	557	244	454 J	121	21.7 J		--	--	--	--	--

Notes:
1. -- = Not applicable/not analyzed
2. mg/kg = Milligrams per kilogram
3. µg/kg = Micrograms per kilogram
4. J = The result is an estimated quantity
5. U= Undetected at the method detection limit shown
6. UJ = Undetected at the method detection limit shown, detection limit is an estimated quantity
7. Level II Screening Benchmark Values; revision date 12/2001
8. Shading indicates sample concentration exceeds the default background concentration and one or more SLVs

APPENDIX C

RIVERBANK PHOTO LOG



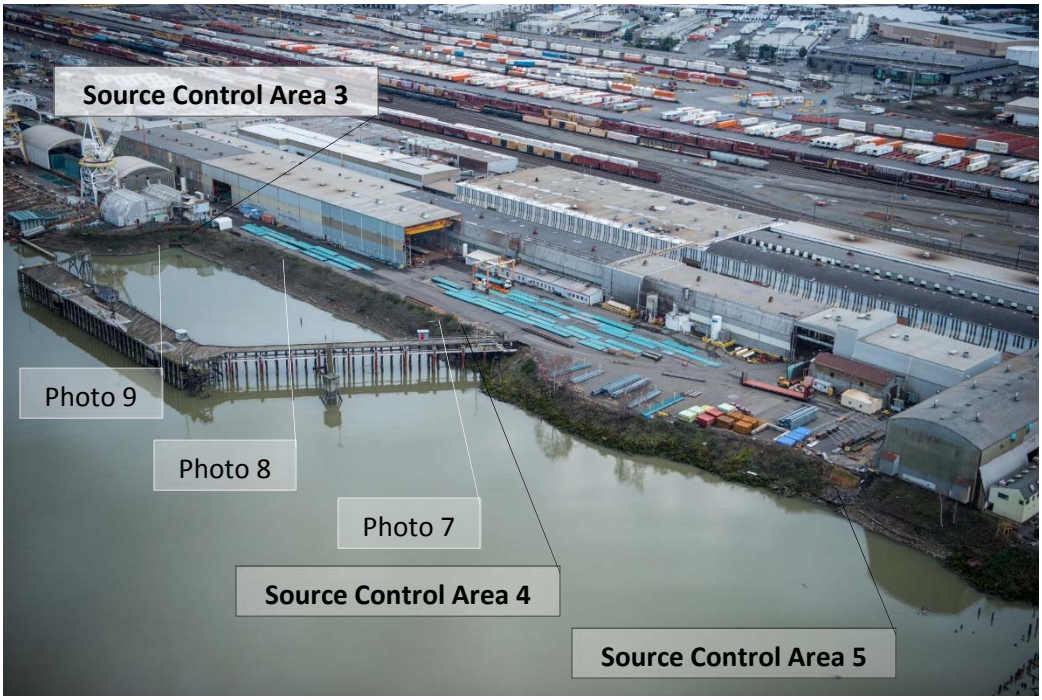


Photo 1 (Top) Aerial view of the west portion of the Area 2 riverbank.	Supplemental Riverbank FFS Gunderson Area 2 Riverbank Portland, Oregon
Photo 2 (bottom) Aerial view of the west and central portions of the Area 2 riverbank.	0014-001-005-17 Cascadia Associates, LLC

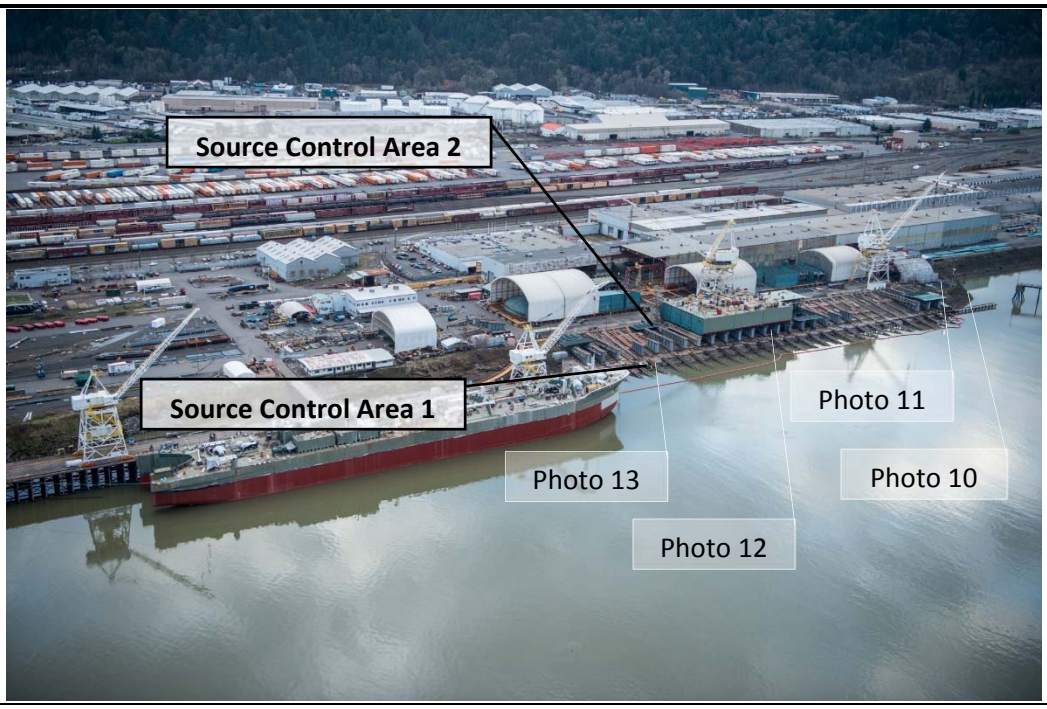
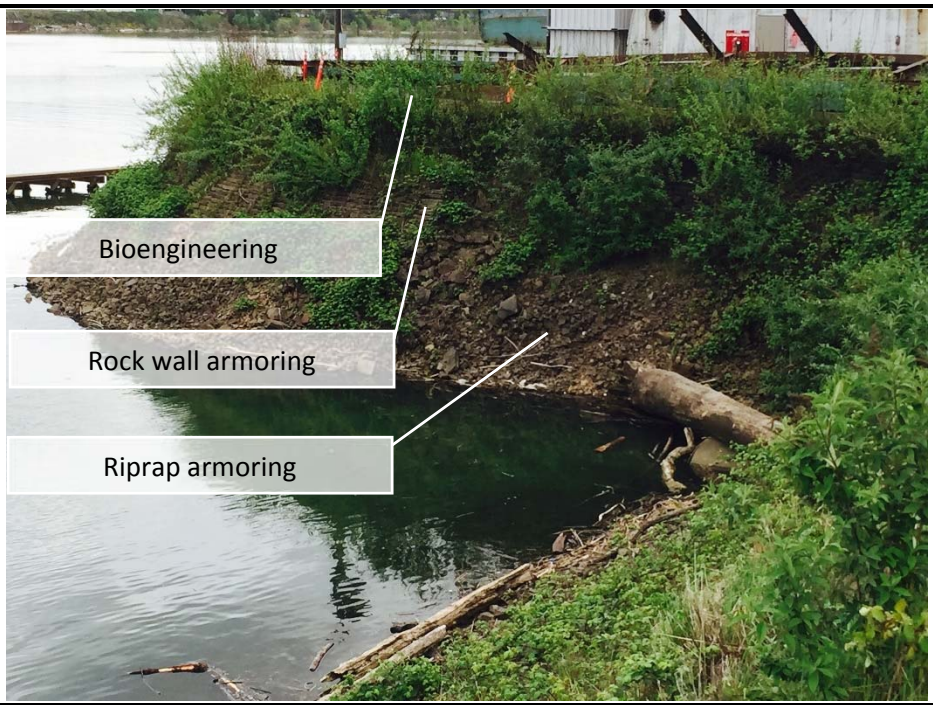


Photo 3 (Top) Aerial view of the east portion of the Area 2 riverbank.	Supplemental SCMs FFS Gunderson Area 2 Riverbank Portland, Oregon
Photo 4 (bottom) Armoring and bioengineering at Source Control Area 5. View toward the east.	0014-001-005-17 Cascadia Associates, LLC

Photo 5 (Top) Portland cement armoring (covered with moss) between Source Control Areas 4 and 5. View toward the north.	Supplemental SCMs FFS Gunderson Area 2 Riverbank Portland, Oregon
Photo 6 (bottom) Armored and vegetated riverbank between Source Control Areas 4 and 5. View toward the northwest.	0014-001-005-17 Cascadia Associates, LLC

Photo 7 (Top) Riprap armoring at Source Control Area 4. View toward the east.	Supplemental SCMs FFS Gunderson Area 2 Riverbank Portland, Oregon
Photo 8 (bottom) Riprap armoring between Source Control Areas 3 and 4. View toward the east.	0014-001-005-17 Cascadia Associates, LLC



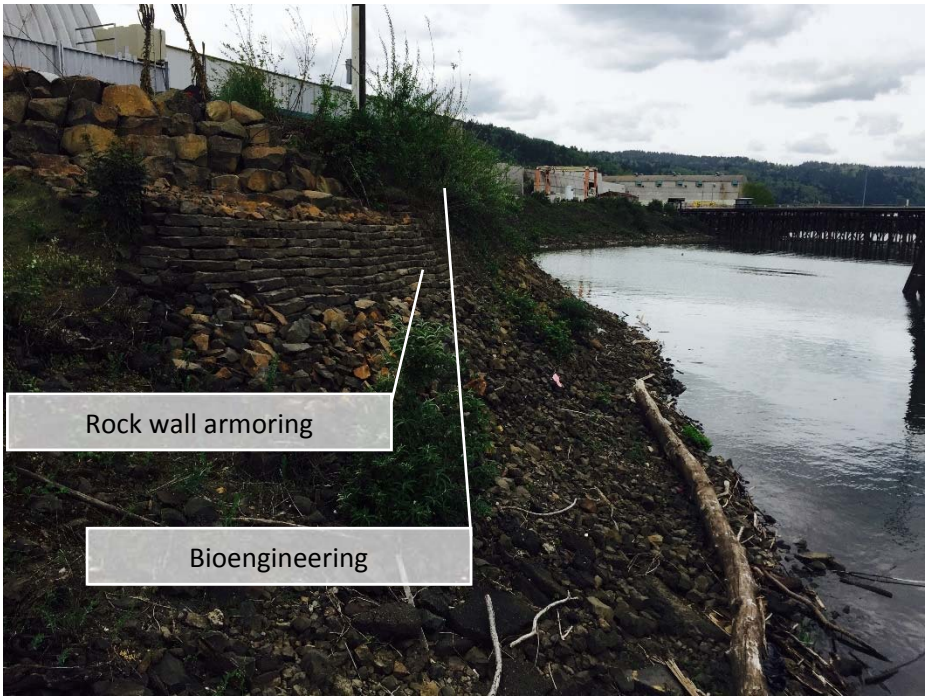
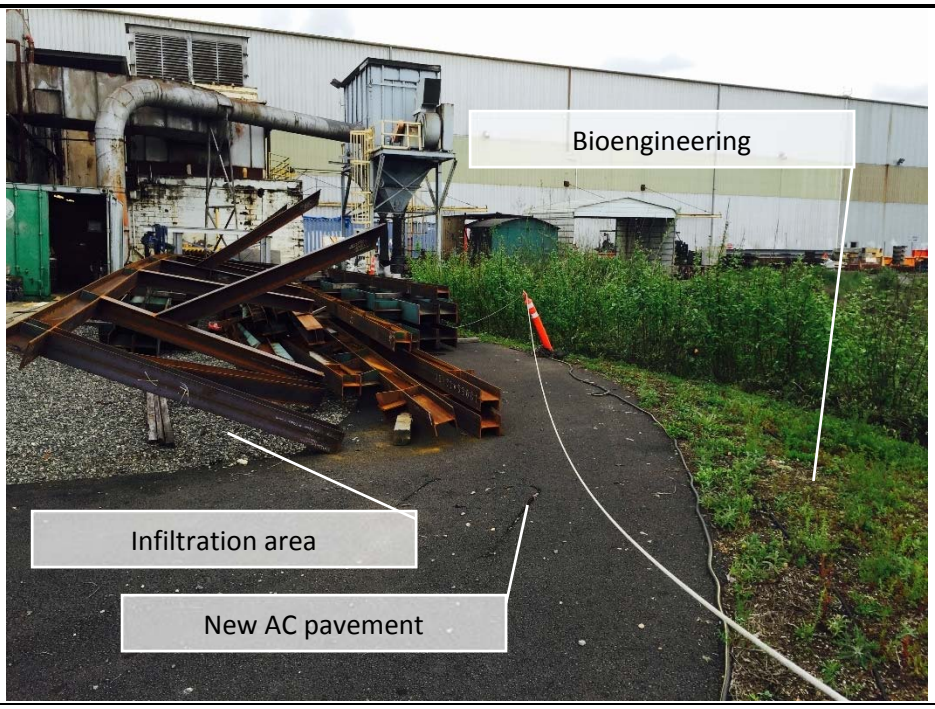


Photo 9 (Top) Riverbank at the west portion of Source Control Area 3. View toward the east.	Supplemental SCMs FFS Gunderson Area 2 Riverbank Portland, Oregon
Photo 10 (bottom) Riverbank at the northeast portion of Source Control Area 3. View toward the northwest.	0014-001-005-17 Cascadia Associates, LLC



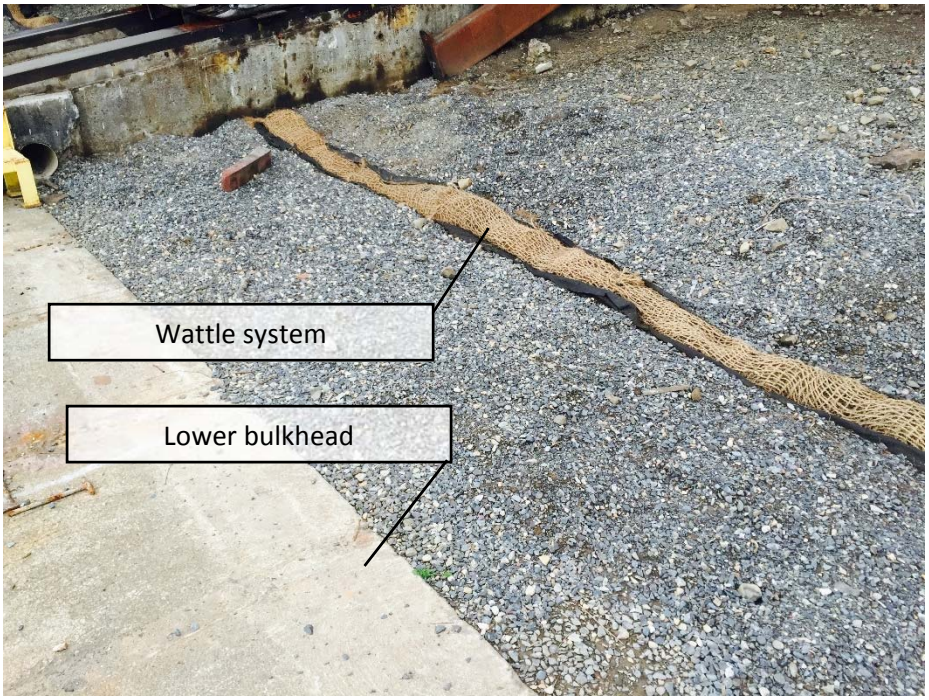


Photo 11 (Top) Source Control Area 3	Supplemental SCMs FFS Gunderson Area 2 Riverbank Portland, Oregon
Photo 12 (bottom) Wattle system at lower bulkhead	0014-001-005-17 Cascadia Associates, LLC

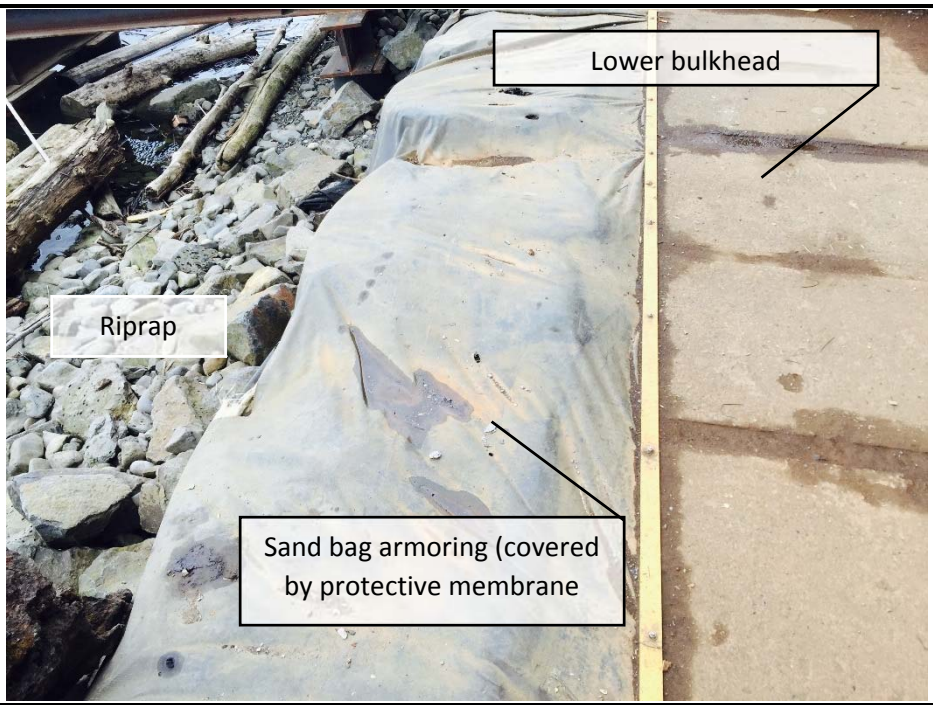


Photo 13 (Top) View of lower bulkhead, sand bag armoring, and riprap	Supplemental SCMs FFS Gunderson Area 2 Riverbank Portland, Oregon
Photo 14 (bottom)	0014-001-005-17 Cascadia Associates, LLC

APPENDIX D

RIVERBANK CHEMICAL ANALYTICAL DATA COLLECTED DURING ISCMs

Table D-1
Residual Soil: Source Control Area 2
Interim Source Control Measures - Soil Source Control Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Ways 4-7		Ways 7-10		Ways 10-13		Ways 13-17		Ways 18-22		Ways 23-26		Ways 26-32		Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil	Default Background Concentrations Portland Basin Soil
		Date	10/11/2013		10/10/2013		10/10/2013		10/9/2013		10/4/2013		10/4/2013		10/4/2013				
		Depth (Feet Below Ground Surface)	1		1		1		1		1		1		1				
Inorganics	Arsenic	mg/kg	8.05		10.0		5.40		4.56		7.01		14.8		49.6		7	3	8.8
	Barium	mg/kg	137		98.7		120		128		120		143		139		--	--	790
	Cadmium	mg/kg	0.356		0.286		0.303		0.820		0.526		0.970		0.670		1	5	0.63
	Chromium	mg/kg	16.6		12.9		17.8		21.1		48.7	M	22.1		29.1		111	--	76
	Copper	mg/kg	39.8		115		126		85.0		65.1		314		669		149	149	34
	Lead	mg/kg	46.3		39.0		38.3		73.4		83.5		98.8		145		17	128	79
	Manganese	mg/kg	656		415		663		934		1,720		821		767		1,100	--	1,800
	Mercury	mg/kg	0.0981	U	0.0916	U	0.0969	U	0.104		0.100	U	0.118		0.112		0.07	1.1	0.23
	Nickel	mg/kg	15.1		16.0		20.0		35.5		124		25.6		23.2		48.6	--	47
	Selenium	mg/kg	1.23	U	1.14	U	1.21	U	1.21	U	1.25	U	1.31	U	1.14	U	2.0	--	0.71
	Silver	mg/kg	0.245	U	0.229	U	0.242	U	0.241	U	0.250	U	0.262	U	0.341		5	--	0.82
	Zinc	mg/kg	103		171		191		267		130		878		890		459	459	180
PCBs	Aroclor 1016	µg/kg	2.33	U	1.88	U	1.83	U	1.95	U	2.19	U	2.23	U	2.12	U	530	--	--
	Aroclor 1221	µg/kg	2.33	U	1.88	U	1.83	U	1.95	U	2.19	U	2.23	U	2.12	U	--	--	--
	Aroclor 1232	µg/kg	2.33	U	1.88	U	1.83	U	1.95	U	2.19	U	2.23	U	2.12	U	--	--	--
	Aroclor 1242	µg/kg	2.33	U	4.28	EST	14.2	EST	18.7	EST	2.19	U	10.1	EST	8.25	EST	--	--	--
	Aroclor 1248	µg/kg	2.33	U	1.88	U	1.83	U	1.95	U	2.19	U	2.23	U	2.12	U	1,500	--	--
	Aroclor 1254	µg/kg	2.33	U	4.94	EST	16.6	EST	18.6	EST	6.67	EST	2.23	U	17.2	EST	300	--	--
	Aroclor 1260	µg/kg	17.2		5.17	EST	13.4	EST	9.71	EST	3.77	J	118	EST	17.8	EST	200	--	--
	Aroclor 1262	µg/kg	2.33	U	1.88	U	1.83	U	1.95	U	2.19	U	2.23	U	2.12	U	--	--	--
	Aroclor 1268	µg/kg	2.33	U	1.88	U	1.83	U	1.95	U	2.19	U	2.23	U	2.12	U	--	--	--
	Total PCBs	µg/kg	17.2		14.39		44.2		47.0		10.44		128.1		43.3		0.39	9	--
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	93.5	U	89.8	U	188		180	J	115	J	222		220		330	135	--
	Butyl benzyl phthalate	µg/kg	93.5	U	89.8	U	156	J	165	J	90.1	U	103	U	99.3	U	--	--	--
	Diethyl phthalate	µg/kg	93.5	U	89.8	U	93.8	U	91.4	U	90.1	U	103	U	182	J	600	--	--
	Dimethyl phthalate	µg/kg	93.5	U	89.8	U	93.8	U	91.4	U	90.1	U	103	U	99.3	U	--	--	--
	Di-n-butyl phthalate	µg/kg	93.5	U	89.8	U	93.8	U	91.4	U	90.1	U	103	U	99.3	U	60	--	--
	Di-n-octyl phthalate	µg/kg	187	U	180	U	188	U	183	U	180	U	206	U	199	U	--	--	--
Butyltins	Tributyltin	µg/kg	3.4	U	6.0		3.8	U	3.4	U	3.6	U	79		73		2.3	24,000	--

Table D-1
Residual Soil: Source Control Area 2
Interim Source Control Measures - Soil Source Control Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Ways 4-7		Ways 7-10		Ways 10-13		Ways 13-17		Ways 18-22		Ways 23-26		Ways 26-32		Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil	Default Background Concentrations Portland Basin Soil
		Date	10/11/2013		10/10/2013		10/10/2013		10/9/2013		10/4/2013		10/4/2013		10/4/2013				
	Depth (Feet Below Ground Surface)		1		1		1		1		1		1		1				
Organochlorine Pesticides	Aldrin	µg/kg	2.06	U	1.85	U	1.97	U	1.95	U	2.02	U	2.14	U	1.91	U	40	2	--
	alpha-BHC	µg/kg	2.06	U	1.85	U	1.97	U	1.95	U	2.02	U	2.14	U	1.91	U	--	--	--
	beta-BHC	µg/kg	2.06	U	1.85	U	1.97	U	1.95	U	2.02	U	2.14	U	1.91	U	--	--	--
	delta-BHC	µg/kg	2.06	U	1.85	U	1.97	U	1.95	U	2.02	U	2.14	U	1.91	U	--	--	--
	gamma-BHC (Lindane)	µg/kg	2.06	U	1.85	U	1.97	U	1.95	U	2.02	U	2.14	U	1.91	U	4.99	5	--
	alpha-Chlordane	µg/kg	2.06	U	1.85	U	1.97	U	1.95	U	2.02	U	12.5		1.91	U	--	1.5	--
	gamma-Chlordane	µg/kg	2.06	U	1.85	U	1.97	U	1.95	U	2.02	U	17.7		1.91	U	--	1.5	--
	4,4'-DDD	µg/kg	18.8	M	2.17	J	1.97	U	4.03		2.02	U	4.26	U	1.91	U	0.33	--	--
	4,4'-DDE	µg/kg	5.17		1.85	U	1.97	U	1.95	U	2.02	U	2.14	U	1.91	U	0.33	6.1	--
	4,4'-DDT	µg/kg	147	M	17.9		3.93	U	3.25	J	2.02	U	6.40	U	3.81	U	0.33	6.1	--
	Dieldrin	µg/kg	2.06	U	1.85	U	1.97	U	1.95	U	2.02	U	6.40	U	1.91	U	0.0081	0.07	--
	Endosulfan I	µg/kg	2.06	U	1.85	U	1.97	U	1.95	U	2.02	U	2.14	U	1.91	U	--	--	--
	Endosulfan II	µg/kg	2.06	U	1.85	U	1.97	U	1.95	U	2.02	U	2.14	U	1.91	U	--	--	--
	Endosulfan sulfate	µg/kg	2.06	U	1.85	U	1.97	U	1.95	U	2.02	U	2.14	U	1.91	U	--	--	--
	Endrin	µg/kg	2.06	U	1.85	U	1.97	U	1.95	U	2.02	U	2.14	U	1.91	U	207	--	--
	Endrin aldehyde	µg/kg	2.06	U	1.85	U	1.97	U	1.95	U	2.02	U	2.14	U	1.91	U	--	--	--
	Endrin ketone	µg/kg	2.06	U	1.85	U	1.97	U	1.95	U	2.02	U	2.14	U	1.91	U	--	--	--
	Heptachlor	µg/kg	2.06	U	1.85	U	1.97	U	1.95	U	2.02	U	2.14	U	1.91	U	10	--	--
	Heptachlor epoxide	µg/kg	2.06	U	1.85	U	1.97	U	1.95	U	2.02	U	2.14	U	1.91	U	16	--	--
	Methoxychlor	µg/kg	6.16	U	5.53	U	5.89	U	5.85	U	6.04	U	6.40	U	5.72	U	--	--	--
	Chlordane	µg/kg	61.6	U	55.3	U	58.9	U	58.5	U	60.4	U	64.0	U	57.2	U	0.37	1.5	--
	Toxaphene	µg/kg	61.6	U	55.3	U	58.9	U	58.5	U	60.4	U	64.0	U	57.2	U	--	--	--
	cis-Nonachlor	µg/kg	2.06	U	1.85	U	1.97	U	3.89	U	2.02	U	2.14	U	1.91	U	--	--	--
	2,4'-DDD	µg/kg	3.96	J	1.85	U	3.93	U	1.95	U	2.02	U	4.26	U	1.91	U	--	--	--
	2,4'-DDE	µg/kg	2.06	U	1.85	U	1.97	U	1.95	U	2.02	U	2.14	U	1.91	U	--	--	--
	2,4'-DDT	µg/kg	8.33		1.85	U	1.97	U	1.95	U	2.02	U	2.14	U	1.91	U	--	--	--
	Hexachlorobenzene	µg/kg	6.16	U	5.53	U	5.89	U	5.85	U	6.04	U	6.40	U	5.72	U	19	0.3	--
	Hexachlorobutadiene	µg/kg	2.06	U	1.85	U	1.97	U	1.95	U	2.02	U	2.14	U	1.91	U	6	--	--
	Mirex	µg/kg	2.06	U	1.85	U	1.97	U	1.95	U	2.02	U	2.14	U	1.91	U	--	--	--
	Oxychlordane	µg/kg	2.06	U	1.85	U	1.97	U	1.95	U	2.02	U	2.14	U	1.91	U	--	--	--
	trans-Nonachlor	µg/kg	2.06	U	1.85	U	1.97	U	1.95	U	2.02	U	10.9		1.91	U	--	--	--

Notes:
1. -- = Not applicable or not established
2. mg/kg = Milligrams per kilogram
3. µg/kg = Micrograms per kilogram
4. J = The result is an estimated quantity. Result detected below the lowest point of the calibration curve, but above the specified MDL.
5. U= Undetected at the method reporting limit shown
6. JSCS Screening Level = Portland Harbor Joint Source Control Strategy; Table 3-1, revision date 7/16/07
7. PRG = Draft Preliminary Remediation Goal; EPA, July 2015
8. Shading indicates sample concentration exceeds the corresponding JSCS SLV and/or the draft PRG

Table D-2
Residual Soil: Source Control Area 2
Interim Source Control Measures - Residual Soil Human and Terrestrial Ecological Risk
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Ways 4-7	Ways 7-10	Ways 10-13	Ways 13-17	Ways 18-22	Ways 23-26	Ways 26-32	Oregon Department of Environmental Quality Risk-Based Concentrations: Soil Ingestion, Dermal Contact, and Inhalation			Vol. to Outdoor	Vapor Intrusion	DEQ Level II SLVs				Default Background Concentrations Portland Basin Soil
		Date	10/11/2013	10/10/2013	10/10/2013	10/9/2013	10/4/2013	10/4/2013	10/4/2013										
	Depth (Feet Below Ground Surface)		1	1	1	1	1	1	1	Occ	Const.	Exc	Occ	Occ	Plants	Inverts.	Birds	Mammals	
Inorganics	Arsenic	mg/kg	8.05	10.0	5.40	4.56	7.01	14.8	49.6	1.9	15	420	--	--	10	60	10	29	8.8
	Barium	mg/kg	137	98.7	120	128	120	143	139	220,000	69,000	--	--	--	500	3000	85	638	790
	Cadmium	mg/kg	0.356	0.286	0.303	0.820	0.526	0.970	0.670	1,100	350	9,700	--	--	4	20	6	125	0.63
	Chromium	mg/kg	16.6	12.9	17.8	21.1	48.7 M	22.1	29.1	--	530,000	--	--	--	1	0.4	4	410	76
	Copper	mg/kg	39.8	115	126	85.0	65.1	314	669	47,000	14,000	390,000	--	--	100	50	190	390	34
	Lead	mg/kg	46.3	39.0	38.3	73.4	83.5	98.8	145	800	800	800	--	--	50	500	16	4,000	79
	Manganese	mg/kg	656	415	663	934	1720	821	767	25,000	8,200	230,000	--	--	500	100	4125	11,000	1,800
	Mercury	mg/kg	0.0981 U	0.0916 U	0.0969 U	0.104	0.100 U	0.118	0.112	350	110	2,900	--	--	0.3	0.1	1.5	73	0.23
	Nickel	mg/kg	15.1	16.0	20.0	35.5	124	25.6	23.2	22,000	7,000	190,000	--	--	30	200	320	625	47
	Selenium	mg/kg	1.23 U	1.14 U	1.21 U	1.21 U	1.25 U	1.31 U	1.14 U	--	--	--	--	--	1	70	2	25	0.71
	Silver	mg/kg	0.245 U	0.229 U	0.242 U	0.241 U	0.250 U	0.262 U	0.341	5,800	1,800	49,000	--	--	2	50	--	--	0.82
	Zinc	mg/kg	103	171	191	267	130	878	890	--	--	--	--	--	50	200	60	20,000	180
PCBs	Aroclor 1016	µg/kg	2.33 U	1.88 U	1.83 U	1.95 U	2.19 U	2.23 U	2.12 U	--	--	--	--	--	--	--	--	100,000	--
	Aroclor 1221	µg/kg	2.33 U	1.88 U	1.83 U	1.95 U	2.19 U	2.23 U	2.12 U	--	--	--	--	--	--	--	--	--	--
	Aroclor 1232	µg/kg	2.33 U	1.88 U	1.83 U	1.95 U	2.19 U	2.23 U	2.12 U	--	--	--	--	--	--	--	--	--	--
	Aroclor 1242	µg/kg	2.33 U	4.28 EST	14.2 EST	18.7 EST	2.19 U	10.1 EST	8.25 EST	--	--	--	--	--	--	--	1,500	5,000	--
	Aroclor 1248	µg/kg	2.33 U	1.88 U	1.83 U	1.95 U	2.19 U	2.23 U	2.12 U	--	--	--	--	--	--	--	--	--	--
	Aroclor 1254	µg/kg	2.33 U	4.94 EST	16.6 EST	18.6 EST	6.67 EST	2.23 U	17.2 EST	--	--	--	--	--	--	--	700	4,000	--
	Aroclor 1260	µg/kg	17.2	5.17 EST	13.4 EST	9.71 EST	3.77 J	118 EST	17.8 EST	--	--	--	--	--	--	--	--	--	--
	Aroclor 1262	µg/kg	2.33 U	1.88 U	1.83 U	1.95 U	2.19 U	2.23 U	2.12 U	--	--	--	--	--	--	--	--	--	--
	Aroclor 1268	µg/kg	2.33 U	1.88 U	1.83 U	1.95 U	2.19 U	2.23 U	2.12 U	--	--	--	--	--	--	--	--	--	--
	Total PCBs	µg/kg	17.2	14.39	44.2	47.0	10.44	128.10	43.3	590	4,900	140,000	--	--	40,000	--	--	4,000	--
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	93.5 U	89.8 U	188	180 J	115 J	222	220	160,000	1,300,000	3.7E+07	--	--	--	--	4,500	1,020,000	--
	Butyl benzyl phthalate	µg/kg	93.5 U	89.8 U	156 J	165 J	90.1 U	103 U	99.3 U	--	--	--	--	--	--	--	--	--	--
	Diethyl phthalate	µg/kg	93.5 U	89.8 U	93.8 U	91.4 U	90.1 U	103 U	182 J	--	--	--	--	--	100,000	--	--	250,000,000	--
	Dimethyl phthalate	µg/kg	93.5 U	89.8 U	93.8 U	91.4 U	90.1 U	103 U	99.3 U	--	--	--	--	--	--	200,000	--	--	--
	Di-n-butyl phthalate	µg/kg	93.5 U	89.8 U	93.8 U	91.4 U	90.1 U	103 U	99.3 U	--	--	--	--	--	200,000	--	450	30,000,000	--
	Di-n-octyl phthalate	µg/kg	187 U	180 U	188 U	183 U	180 U	206 U	199 U	--	--	--	--	--	--	--	--	--	--
Butyltins	Tributyltin	µg/kg	3.4 U	6.0	3.8 U	3.4 U	3.6 U	79	73	--	--	--	--	--	--	--	--	--	--

Table D-2
Residual Soil: Source Control Area 2
Interim Source Control Measures - Residual Soil Human and Terrestrial Ecological Risk
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Ways 4-7		Ways 7-10		Ways 10-13		Ways 13-17		Ways 18-22		Ways 23-26		Ways 26-32		Oregon Department of Environmental Quality Risk-Based Concentrations: Soil Ingestion, Dermal Contact, and Inhalation			Vol. to Outdoor	Vapor Intrusion	DEQ Level II SLVs				Default Background Concentrations Portland Basin Soil
		Date	10/11/2013		10/10/2013		10/10/2013		10/9/2013		10/4/2013		10/4/2013		10/4/2013											
	Depth (Feet Below Ground Surface)		1		1		1		1		1		1		1		Occ	Const.	Exc	Occ	Occ	Plants	Inverts.	Birds	Mammals	
Organochlorine Pesticides	Aldrin	µg/kg	2.06	U	1.85	U	1.97	U	1.95	U	2.02	U	2.14	U	1.91	U	130	1,100	30,000	--	--	--	--	--	25,000	--
	alpha-BHC	µg/kg	2.06	U	1.85	U	1.97	U	1.95	U	2.02	U	2.14	U	1.91	U	360	3,000	83,000	--	--	--	--	--	--	--
	beta-BHC	µg/kg	2.06	U	1.85	U	1.97	U	1.95	U	2.02	U	2.14	U	1.91	U	--	--	--	--	--	--	--	--	--	--
	delta-BHC	µg/kg	2.06	U	1.85	U	1.97	U	1.95	U	2.02	U	2.14	U	1.91	U	--	--	--	--	--	--	--	--	--	--
	gamma-BHC (Lindane)	µg/kg	2.06	U	1.85	U	1.97	U	1.95	U	2.02	U	2.14	U	1.91	U	2,100	17,000	470,000	--	--	--	--	8,000	1,000,000	--
	alpha-Chlordane	µg/kg	2.06	U	1.85	U	1.97	U	1.95	U	2.02	U	12.5		1.91	U	--	--	--	--	--	--	--	--	--	--
	gamma-Chlordane	µg/kg	2.06	U	1.85	U	1.97	U	1.95	U	2.02	U	17.7		1.91	U	--	--	--	--	--	--	--	--	--	--
	4,4'-DDD	µg/kg	18.8	M	2.17	J	1.97	U	4.03		2.02	U	4.26	U	1.91	U	--	--	--	--	--	--	--	10	100,000	--
	4,4'-DDE	µg/kg	5.17		1.85	U	1.97	U	1.95	U	2.02	U	2.14	U	1.91	U	8,200	66,000	1,800,000	--	--	--	--	10	100,000	--
	4,4'-DDT	µg/kg	147	M	17.9		3.93	U	3.25	J	2.02	U	6.40	U	3.81	U	8,500	66,000	1,800,000	--	--	--	--	10	100,000	--
	Dieldrin	µg/kg	2.06	U	1.85	U	1.97	U	1.95	U	2.02	U	6.40	U	1.91	U	140	1,200	33,000	--	--	--	--	300	3,000	--
	Endosulfan I	µg/kg	2.06	U	1.85	U	1.97	U	1.95	U	2.02	U	2.14	U	1.91	U	--	--	--	--	--	--	--	--	--	--
	Endosulfan II	µg/kg	2.06	U	1.85	U	1.97	U	1.95	U	2.02	U	2.14	U	1.91	U	--	--	--	--	--	--	--	--	--	--
	Endosulfan sulfate	µg/kg	2.06	U	1.85	U	1.97	U	1.95	U	2.02	U	2.14	U	1.91	U	--	--	--	--	--	--	--	--	--	--
	Endrin	µg/kg	2.06	U	1.85	U	1.97	U	1.95	U	2.02	U	2.14	U	1.91	U	250,000	80,000	2,200,000	--	--	--	--	40	5,000	--
	Endrin aldehyde	µg/kg	2.06	U	1.85	U	1.97	U	1.95	U	2.02	U	2.14	U	1.91	U	--	--	--	--	--	--	--	--	--	--
	Endrin ketone	µg/kg	2.06	U	1.85	U	1.97	U	1.95	U	2.02	U	2.14	U	1.91	U	--	--	--	--	--	--	--	--	--	--
	Heptachlor	µg/kg	2.06	U	1.85	U	1.97	U	1.95	U	2.02	U	2.14	U	1.91	U	450	4,000	110,000	230,000	230,000	--	--	--	15,000	--
	Heptachlor epoxide	µg/kg	2.06	U	1.85	U	1.97	U	1.95	U	2.02	U	2.14	U	1.91	U	240	2000	56000	--	--	--	--	--	--	--
	Methoxychlor	µg/kg	6.16	U	5.53	U	5.89	U	5.85	U	6.04	U	6.40	U	5.72	U	--	--	--	--	--	--	--	--	500,000	--
	Chlordane	µg/kg	61.6	U	55.3	U	58.9	U	58.5	U	60.4	U	64.0	U	57.2	U	7,400	61,000	1,700,000	--	--	--	--	9,000	250,000	--
	Toxaphene	µg/kg	61.6	U	55.3	U	58.9	U	58.5	U	60.4	U	64.0	U	57.2	U	2,100	17,000	470,000	--	--	--	--	--	1,000,000	--
	cis-Nonachlor	µg/kg	2.06	U	1.85	U	1.97	U	3.89	U	2.02	U	2.14	U	1.91	U	--	--	--	--	--	--	--	--	--	--
	2,4'-DDD	µg/kg	3.96	J	1.85	U	3.93	U	1.95	U	2.02	U	4.26	U	1.91	U	--	--	--	--	--	--	--	--	--	--
	2,4'-DDE	µg/kg	2.06	U	1.85	U	1.97	U	1.95	U	2.02	U	2.14	U	1.91	U	--	--	--	--	--	--	--	--	--	--
	2,4'-DDT	µg/kg	8.33		1.85	U	1.97	U	1.95	U	2.02	U	2.14	U	1.91	U	--	--	--	--	--	--	--	--	--	--
	Hexachlorobenzene	µg/kg	6.16	U	5.53	U	5.89	U	5.85	U	6.04	U	6.40	U	5.72	U	930	11,000	320,000	2,400	13,000	--	1,000,000	--	--	--
	Hexachlorobutadiene	µg/kg	2.06	U	1.85	U	1.97	U	1.95	U	2.02	U	2.14	U	1.91	U	--	--	--	--	--	--	--	--	--	--
	Mirex	µg/kg	2.06	U	1.85	U	1.97	U	1.95	U	2.02	U	2.14	U	1.91	U	--	--	--	--	--	--	--	--	--	--
	Oxychlordane	µg/kg	2.06	U	1.85	U	1.97	U	1.95	U	2.02	U	2.14	U	1.91	U	--	--	--	--	--	--	--	--	--	--
	trans-Nonachlor	µg/kg	2.06	U	1.85	U	1.97	U	1.95	U	2.02	U	10.9		1.91	U	--	--	--	--	--	--	--	--	--	--

Notes:
1. -- = Not applicable or not established
2. mg/kg = Milligrams per kilogram
3. µg/kg = Micrograms per kilogram
4. J = The result is an estimated quantity. Result detected below the lowest point of the calibration curve, but above the specified MDL.
5. U= Undetected at the method reporting limit shown
6. JSCS Screening Level = Portland Harbor Joint Source Control Strategy; Table 3-1, revision date 7/16/07
7. EST = Result reported as an Estimated Value. Results estimated due to presence of multiple aroclors and matrix interference
8. Highlighting denotes concentration above the JSCS screening level
9. Exceedance = Detected Concentrations/JSCS screening level

Table D-3
Residual Soil: Source Control Area 2
Interim Source Control Measures - Residual Soil Human and Terrestrial Ecological Risk
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Analytical Method	Way 13-14		Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil	Oregon Department of Environmental Quality Risk-Based Concentrations: Soil Ingestion, Dermal Contact, and Inhalation			Vol. to Outdoor	Vapor Intrusion	DEQ Level II SLVs			
			Date	10/9/2013				Occ	Const.	Exc	Occ	Occ	Plants	Inverts.	Birds	Mammals
	Depth (Feet Below Ground Surface)			3												
VOCs	Acetone	µg/kg	EPA 8260B	639	U	--	--	--	--	--	--	--	--	--	--	1.3E+06
	Benzene	µg/kg	EPA 8260B	7.99	U	--	--	3.7E+04	3.8E+05	1.1E+07	5.0E+04	2.1E+03	--	--	--	3.3E+06
	Bromobenzene	µg/kg	EPA 8260B	16	U	--	--	--	--	--	--	--	--	--	--	--
	Bromochloromethane	µg/kg	EPA 8260B	31.9	U	--	--	--	--	--	--	--	--	--	--	--
	Bromodichloromethane	µg/kg	EPA 8260B	31.9	U	--	--	1.5E+04	2.3E+05	6.3E+06	1.1E+04	5.3E+02	--	--	--	--
	Bromoform	µg/kg	EPA 8260B	31.9	U	--	--	2.6E+05	2.7E+06	7.4E+07	3.6E+05	1.1E+05	--	--	--	--
	Bromomethane	µg/kg	EPA 8260B	639	U	--	--	7.5E+05	3.7E+05	1.0E+07	7.0E+05	1.7E+04	--	--	--	--
	2-Butanone	µg/kg	EPA 8260B	319	U	--	--	--	--	--	--	--	--	--	--	2.0E+08
	n-Butylbenzene	µg/kg	EPA 8260B	31.9	U	--	--	--	--	--	--	--	--	--	--	--
	sec-Butylbenzene	µg/kg	EPA 8260B	31.9	U	--	--	--	--	--	--	--	--	--	--	--
	tert-Butylbenzene	µg/kg	EPA 8260B	31.9	U	--	--	--	--	--	--	--	--	--	--	--
	Carbon tetrachloride	µg/kg	EPA 8260B	16	U	--	--	--	--	--	--	--	--	--	--	--
	Chlorobenzene	µg/kg	EPA 8260B	16	U	--	--	8.7E+06	4.7E+06	1.3E+08	--	--	--	4.0E+04	--	--
	Chloroethane	µg/kg	EPA 8260B	319	U	--	--	--	--	--	--	--	--	--	--	--
	Chloroform	µg/kg	EPA 8260B	31.9	U	--	--	2.6E+04	4.1E+05	1.1E+07	1.7E+04	4.1E+02	--	--	--	1.9E+06
	Chloromethane	µg/kg	EPA 8260B	160	U	--	--	2.5E+07	2.5E+07	7.0E+08	--	3.0E+05	--	--	--	--
	2-Chlorotoluene	µg/kg	EPA 8260B	31.9	U	--	--	--	--	--	--	--	--	--	--	--
	4-Chlorotoluene	µg/kg	EPA 8260B	31.9	U	--	--	--	--	--	--	--	--	--	--	--
	1,2-Dibromo-3-chloropropane	µg/kg	EPA 8260B	160	U	--	--	--	--	--	--	--	--	--	--	--
	Dibromochloromethane	µg/kg	EPA 8260B	63.9	U	--	--	--	--	--	--	--	--	--	--	--
	1,2-Dibromoethane	µg/kg	EPA 8260B	16	U	--	--	7.3E+02	9.0E+03	2.5E+05	6.5E+02	1.6E+02	--	--	--	--
	Dibromomethane	µg/kg	EPA 8260B	31.9	U	--	--	--	--	--	--	--	--	--	--	--
	1,2-Dichlorobenzene	µg/kg	EPA 8260B	16	U	1,700	--	3.6E+07	2.0E+07	5.6E+08	--	--	--	--	--	--
	1,3-Dichlorobenzene	µg/kg	EPA 8260B	16	U	300	--	--	--	--	--	--	--	--	--	--
	1,4-Dichlorobenzene	µg/kg	EPA 8260B	16	U	300	--	6.4E+04	1.3E+06	3.6E+07	3.6E+04	1.3E+04	--	2.0E+04	--	--
	Dichlorodifluoromethane	µg/kg	EPA 8260B	63.9	U	--	--	--	--	--	--	--	--	--	--	--
	1,1-Dichloroethane	µg/kg	EPA 8260B	16	U	--	--	2.6E+05	3.2E+06	8.9E+07	2.4E+05	5.9E+03	--	--	--	--
	1,2-Dichloroethane	µg/kg	EPA 8260B	16	U	--	--	1.6E+04	2.0E+05	5.6E+06	1.5E+04	1.0E+03	--	--	7.0E+04	2.8E+06
	1,1-Dichloroethene	µg/kg	EPA 8260B	16	U	--	--	2.9E+07	1.3E+07	3.7E+08	--	6.8E+05	--	--	--	3.8E+06
	cis-1,2-Dichloroethene	µg/kg	EPA 8260B	16	U	--	--	2.3E+06	7.1E+05	2.0E+07	--	--	--	--	--	2.5E+06
	trans-1,2-Dichloroethene	µg/kg	EPA 8260B	16	U	--	--	2.3E+07	7.1E+06	2.0E+08	--	--	--	--	--	2.5E+06
	1,2-Dichloropropane	µg/kg	EPA 8260B	16	U	--	--	--	--	--	--	--	--	7.0E+05	--	--
	1,3-Dichloropropane	µg/kg	EPA 8260B	16	U	--	--	--	--	--	--	--	--	--	--	--
	2,2-Dichloropropane	µg/kg	EPA 8260B	31.9	U	--	--	--	--	--	--	--	--	--	--	--
	1,1-Dichloropropene	µg/kg	EPA 8260B	31.9	U	--	--	--	--	--	--	--	--	--	--	--
	cis-1,3-Dichloropropene	µg/kg	EPA 8260B	31.9	U	--	--	--	--	--	--	--	--	--	--	--
	trans-1,3-Dichloropropene	µg/kg	EPA 8260B	31.9	U	--	--	--	--	--	--	--	--	--	--	--
	Ethylbenzene	µg/kg	EPA 8260B	16	U	--	--	1.5E+05	1.7E+06	4.9E+07	1.6E+05	1.7E+04	--	--	--	--
	Hexachlorobutadiene	µg/kg	EPA 8260B	63.9	U	600	--	--	--	--	--	--	--	--	--	--
	2-Hexanone	µg/kg	EPA 8260B	319	U	--	--	--	--	--	--	--	--	--	--	--
	Isopropylbenzene	µg/kg	EPA 8260B	31.9	U	--	--	5.7E+07	2.7E+07	7.5E+08	--	--	--	--	--	--
	p-Isopropyltoluene	µg/kg	EPA 8260B	31.9	U	--	--	--	--	--	--	--	--	--	--	--
	4-Methyl-2-pentanone	µg/kg	EPA 8260B	319	U	--	--	--	--	--	--	--	--	--	--	--
	Methyl tert-butyl ether	µg/kg	EPA 8260B	31.9	U	--	--	1.1E+06	1.2E+07	3.2E+08	1.5E+06	1.1E+05	--	--	--	--
	Methylene chloride	µg/kg	EPA 8260B	160	U	--	--	1.6E+06	2.1E+06	5.8E+07	-	9.5E+05	--	--	--	7.3E+05
	Naphthalene	µg/kg	EPA 8260B	498	M	561	--	2.3E+04	5.8E+05	1.6E+07	8.3E+04	8.3E+04	1.0E+04	--	--	3.9E+06
	n-Propylbenzene	µg/kg	EPA 8260B	16	U	--	--	--	--	--	--	--	--	--	--	--
	Styrene	µg/kg	EPA 8260B	31.9	U	--	--	--	--	--	--	--	3.0E+05	--	--	--
	1,1,1,2-Tetrachloroethane	µg/kg	EPA 8260B	31.9	U	--	--	--	--	--	--	--	--	0.0E+00	0.0E+00	0.0E+00
	1,1,2,2-Tetrachloroethane	µg/kg	EPA 8260B	16	U	--	--	--	--	--	--	--	--	--	--	--
	Tetrachloroethene	µg/kg	EPA 8260B	31.9	U	--	--	1.0E+06	1.8E+06	5.0E+07	--	3.6E+04	1.0E+04	--	--	8.0E+04
	Toluene	µg/kg	EPA 8260B	31.9	U	--	--	8.8E+07	2.8E+07	7.7E+08	--	--	2.0E+05	--	--	1.4E+06
	1,2,3-Trichlorobenzene	µg/kg	EPA 8260B	160	U	--	--	--	--	--	--	--	--	2.0E+04	--	--
	1,2,4-Trichlorobenzene	µg/kg	EPA 8260B	160	U	9,200	--	--	--	--	--	--	--	2.0E+04	--	--
	1,1,1-Trichloroethane	µg/kg	EPA 8260B	16	U	--	--	8.7E+08	4.7E+08	--	--	--	--	--	--	5.6E+07
	1,1,2-Trichloroethane	µg/kg	EPA 8260B	16	U	--	--	2.6E+04	5.4E+04	1.5E+06	2.4E+04	4.2E+03	--	--	--	--
	Trichloroethene	µg/kg	EPA 8260B	16	U	2,100	--	5.1E+04	4.7E+05	1.3E+07	9.6E+04	2.3E+03	--	--	--	4.0E+04
	Trichlorofluoromethane	µg/kg	EPA 8260B	63.9	U	--	--	1.3E+08	6.9E+07	--	--	--	--	--	--	--
	1,2,3-Trichloropropane	µg/kg	EPA 8260B	31.9	U	--	--	--	--	--	--	--	--	--	--	--
	1,2,4-Trimethylbenzene	µg/kg	EPA 8260B	31.9	U	--	--	2.0E+06	2.0E+06	5.4E+07	9.8E+05	2.1E+05	--	--	--	--
	1,3,5-Trimethylbenzene	µg/kg	EPA 8260B	31.9	U	--	--	1.2E+07	3.5E+06	9.8E+07	--	--	--	--	--	--
	Vinyl chloride	µg/kg	EPA 8260B	16	U	--	--	4.4E+03	3.4E+04	9.5E+05	8.9E+04	2.2E+03	--	--	--	2.0E+04
	m,p-Xylene	µg/kg	EPA 8260B	31.9	U	--	--	2.5E+07	2.0E+07	5.6E+08	--	--	--	--	--	--
	o-Xylene	µg/kg	EPA 8260B	16	U	--	--	2.5E+07	2.0E+07	5.6E+08	--	--	1.0E+03	--	--	--
	Carbon disulfide	µg/kg	EPA 8260B	--		--	--	--	--	--	--	--	--	--	--	--

Notes:
1. -- = Not applicable
2. mg/kg = Milligrams per kilogram
3. µg/kg = Micrograms per kilogram
4. U= Undetected at the method detection limit shown
5. JSCS Screening Level = Portland Harbor Joint Source Control Strategy; Table 3-1, revision date 7/16/07

Table D-4
Residual Soil: Source Control Area 3
Interim Source Control Measures - Residual Soil Source Control Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	S-1		S-2		S-3		S-5		S-6		S-7		S-9		S-10		Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil	Default Background Concentrations Portland Basin Soil
		Date	10/1/2013		10/2/2013		10/3/2013		10/23/2013		10/23/2013		10/23/2013		10/23/2013		10/23/2013				
	Depth (Feet Below Ground Surface)		1		1		1		1		1		1		1		1				
Inorganics	Arsenic	mg/kg	22.8		3.62		2.21		10.6		6.86		6.1		7.56		14.1		7	3	8.8
	Barium	mg/kg	320		158		165		261		148		260		178		256		--	--	790
	Cadmium	mg/kg	0.523		0.396		0.384		1.23		0.580		0.720		0.377		1.16		1	5	0.63
	Chromium	mg/kg	45.8		17.2		12.4		34.7		25.3		23.7		22.1		36.2		111	--	76
	Copper	mg/kg	983		264		105		767		532		371		502		648		149	149	34
	Lead	mg/kg	96.2		30.1		25.6		498		96.6		74.8		61.5		173		17	128	79
	Manganese	mg/kg	1,890		902		933		2,330		1,060		1,410		1,140		1,350		1,100	--	1,800
	Mercury	mg/kg	0.0486	U	0.0494	U	0.0530	U	0.0908	U	0.091	U	0.0960	U	0.0913	U	0.159		0.07	1.1	0.23
	Nickel	mg/kg	27.0		10.5		7.60		23.9		13.4		15.9		16.8		29.0		48.6	--	47
	Selenium	mg/kg	0.790	J	0.618	U	0.662	U	1.14	U	1.14	U	1.2	U	1.14	U	1.26	U	2	--	0.71
	Silver	mg/kg	0.632		0.136	J	0.132	U	0.420		0.375		0.252		0.308		0.515		5	--	0.82
	Zinc	mg/kg	592		453		235		1,610		605		694		473		1,020		459	459	180
PCBs	Aroclor 1016	µg/kg	2.02	U	2.43	U	1.95	U	2.05	U	2.00	U	2.41	U	9.99	U	10.5	U	530	--	--
	Aroclor 1221	µg/kg	2.02	U	2.43	U	1.95	U	2.05	U	2.00	U	2.41	U	9.99	U	10.5	U	--	--	--
	Aroclor 1232	µg/kg	2.02	U	2.43	U	1.95	U	2.05	U	2.00	U	2.41	U	9.99	U	10.5	U	--	--	--
	Aroclor 1242	µg/kg	13.9	EST	27.3	EST	28.9	EST	2.05	U	2.0	U	2.41	U	9.99	U	10.5	U	--	--	--
	Aroclor 1248	µg/kg	2.02	U	2.43	U	1.95	U	45.5	EST	34.2	EST	20.4	EST	189	EST	523	EST	1,500	--	--
	Aroclor 1254	µg/kg	14.2	EST	5.46	EST	5.85	EST	26.3	EST	28.8	EST	16.9	EST	184	EST	231	EST	300	--	--
	Aroclor 1260	µg/kg	18.1	EST	5.40	EST	7.71	EST	30.2	EST	31.4	EST	30.1	EST	151	EST	293	EST	200	--	--
	Aroclor 1262	µg/kg	2.02	U	2.43	U	1.95	U	2.05	U	2.00	U	2.41	U	9.99	U	10.5	U	--	--	--
	Aroclor 1268	µg/kg	2.02	U	2.43	U	1.95	U	2.05	U	2.00	U	2.41	U	9.99	U	10.5	U	--	--	--
	Total PCBs	µg/kg	46.2		38.16		42.46		102.00		94.4		67.4		524		1,047		0.39	9	--
PAHs	Acenaphthene	µg/kg	--		--		--		--		--		--		--		--		300	--	--
	Acenaphthylene	µg/kg	--		--		--		--		--		--		--		--		200	--	--
	Anthracene	µg/kg	--		--		--		--		--		--		--		--		845	--	--
	Benzo(a)anthracene	µg/kg	--		--		--		--		--		--		--		--		1,050	--	--
	Benzo(a)pyrene	µg/kg	--		--		--		--		--		--		--		--		1,450	--	--
	Benzo(b)fluoranthene	µg/kg	--		--		--		--		--		--		--		--		--	--	--
	Benzo(k)fluranthene	µg/kg	--		--		--		--		--		--		--		--		13,000	--	--
	Benzo(ghi)perylene	µg/kg	--		--		--		--		--		--		--		--		300	--	--
	Chrysene	µg/kg	--		--		--		--		--		--		--		--		1,290	--	--
	Dibenzo(a,h)anthracene	µg/kg	--		--		--		--		--		--		--		--		1,300	--	--
	Fluoranthene	µg/kg	--		--		--		--		--		--		--		--		2,230	--	--
	Fluorene	µg/kg	--		--		--		--		--		--		--		--		536	--	--
	Indeno(1,2,3-cd)pyrene	µg/kg	--		--		--		--		--		--		--		--		100	--	--
	1-Methylnaphthalene	µg/kg	--		--		--		--		--		--		--		--		--	--	--
	2-Methylnaphthalene	µg/kg	--		--		--		--		--		--		--		--		200	--	--
	Naphthalene	µg/kg	--		--		--		--		--		--		--		--		561	--	--
	Phenanthrene	µg/kg	--		--		--		--		--		--		--		--		1,170	--	--
	Pyrene	µg/kg	--		--		--		--		--		--		--		--		1,520	--	--
	Carbazole	µg/kg	--		--		--		--		--		--		--		--		--	--	--
	Dibenzofuran	µg/kg	--		--		--		--		--		--		--		--		--	--	--

Table D-4
Residual Soil: Source Control Area 3
Interim Source Control Measures - Residual Soil Source Control Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	S-11		S-12		S-14		S-15		S-16		S-17		S-18		S-21		S-22		Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil	Default Background Concentrations Portland Basin Soil
		Date	10/22/2013		10/22/2013		10/22/2013		10/22/2013		10/22/2013		10/22/2013		10/22/2013		11/8/2013		11/8/2013				
	Depth (Feet Below Ground Surface)		1		1		1		1		1		1		1		1		1				
Inorganics	Arsenic	mg/kg	18.9		10.9		13.6		20.7		21.1		25.2		51.1		18.8		16.2		7	3	8.8
	Barium	mg/kg	258		216		272		341		450		410		423		309		282		--	--	790
	Cadmium	mg/kg	0.845		0.717		1.06		0.701		1.09		1.37		3.81		0.953		2.89	M	1	5	0.63
	Chromium	mg/kg	42.4		27.1		34.1		65.5		65.1		63.9		127		65.2		58.5		111	--	76
	Copper	mg/kg	690		448		648		1,260		1,390		1,310		1,170		897		723		149	149	34
	Lead	mg/kg	127		164		159		184		99.2		281		489		125		257		17	128	79
	Manganese	mg/kg	1,520		1,310		1,360		1,920		2,180		2,440		2,040		1,480		1,470		1,100	--	1,800
	Mercury	mg/kg	0.104		0.104	U	0.1000		0.0862	U	0.09	U	0.0921	U	0.101	U	0.0855	J	0.145		0.07	1.1	0.23
	Nickel	mg/kg	37.5		17.2		25.9		30.2		34.2		32.9		47.4		27.3		24.5		48.6	--	47
	Selenium	mg/kg	1.19	U	1.3	U	1.15	U	1.08	U	1.13	U	1.15	U	1.26	U	0.627	U	0.583	U	2	--	0.71
	Silver	mg/kg	0.536		0.287		0.507		0.722		0.732		0.818		0.706		0.564	J	0.665	J	5	--	0.82
	Zinc	mg/kg	734		1,110		1,090		1,100		1,670		2,410		3,920		1,980		14,400	M	459	459	180
PCBs	Aroclor 1016	µg/kg	2.14	U	2.07	U	21.6	U	2.06	U	2.16	U	2.18	U	2.18	U	11.0	U	10.9	U	530	--	--
	Aroclor 1221	µg/kg	2.14	U	2.07	U	21.6	U	2.06	U	2.16	U	2.18	U	2.18	U	11.0	U	10.9	U	--	--	--
	Aroclor 1232	µg/kg	2.14	U	2.07	U	21.6	U	2.06	U	2.16	U	2.18	U	2.18	U	11.0	U	10.9	U	--	--	--
	Aroclor 1242	µg/kg	2.14	U	2.07	U	21.6	U	2.1	U	2.16	U	2.18	U	2.18	U	12.3	J	26.5	EST	--	--	--
	Aroclor 1248	µg/kg	59.1	EST	73.1	EST	1,150	EST	86.7	EST	18	EST	28.4	EST	47.8	EST	11.0	U	10.9	U	1,500	--	--
	Aroclor 1254	µg/kg	98.2	EST	46.1	EST	272	EST	65.7	EST	22	EST	43.3	EST	106	EST	11.0	U	113	EST	300	--	--
	Aroclor 1260	µg/kg	219	EST	68.9	EST	216	EST	104	EST	29.3	EST	69.5	EST	116	EST	273		178	EST	200	--	--
	Aroclor 1262	µg/kg	2.14	U	2.07	U	21.6	U	2.06	U	2.16	U	2.18	U	2.18	U	--		--		--	--	--
	Aroclor 1268	µg/kg	2.14	U	2.07	U	21.6	U	2.06	U	2.16	U	2.18	U	2.18	U	--		--		--	--	--
	Total PCBs	µg/kg	376.3		188.1		1,638		256.4		69.3		141.2		269.8		285.3		317.5		0.39	9	--
PAHs	Acenaphthene	µg/kg	--		--		--		--		--		--		--		--		--		300	--	--
	Acenaphthylene	µg/kg	--		--		--		--		--		--		--		--		--		200	--	--
	Anthracene	µg/kg	--		--		--		--		--		--		--		--		--		845	--	--
	Benzo(a)anthracene	µg/kg	--		--		--		--		--		--		--		--		--		1,050	--	--
	Benzo(a)pyrene	µg/kg	--		--		--		--		--		--		--		--		--		1,450	--	--
	Benzo(b)fluoranthene	µg/kg	--		--		--		--		--		--		--		--		--		--	--	--
	Benzo(k)fluranthene	µg/kg	--		--		--		--		--		--		--		--		--		13,000	--	--
	Benzo(ghi)perylene	µg/kg	--		--		--		--		--		--		--		--		--		300	--	--
	Chrysene	µg/kg	--		--		--		--		--		--		--		--		--		1,290	--	--
	Dibenzo(a,h)anthracene	µg/kg	--		--		--		--		--		--		--		--		--		1,300	--	--
	Fluoranthene	µg/kg	--		--		--		--		--		--		--		--		--		2,230	--	--
	Fluorene	µg/kg	--		--		--		--		--		--		--		--		--		536	--	--
	Indeno(1,2,3-cd)pyrene	µg/kg	--		--		--		--		--		--		--		--		--		100	--	--
	1-Methylnaphthalene	µg/kg	--		--		--		--		--		--		--		--		--		--	--	--
	2-Methylnaphthalene	µg/kg	--		--		--		--		--		--		--		--		--		200	--	--
	Naphthalene	µg/kg	--		--		--		--		--		--		--		--		--		561	--	--
	Phenanthrene	µg/kg	--		--		--		--		--		--		--		--		--		1,170	--	--
	Pyrene	µg/kg	--		--		--		--		--		--		--		--		--		1,520	--	--
	Carbazole	µg/kg	--		--		--		--		--		--		--		--		--		--	--	--
	Dibenzofuran	µg/kg	--		--		--		--		--		--		--		--		--		--	--	--

Table D-4
Residual Soil: Source Control Area 3
Interim Source Control Measures - Residual Soil Source Control Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	S-23		S-24		S-25		S-26		S-27		S-28		S-29		S-19[12]		S-20[12]		Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil	Default Background Concentrations Portland Basin Soil
		Date	11/18/2013		11/18/2013		11/18/2013		11/18/2013		11/27/2013		10/27/2014		10/27/2014		11/8/2013		11/8/2013				
	Depth (Feet Below Ground Surface)		1		1		1		1		1		1		1		1		1				
Inorganics	Arsenic	mg/kg	13.1		29.3		15.7		20.2		25.7		10.7		20		20.8		34.9		7	3	8.8
	Barium	mg/kg	332		273		225		285		324		170		278		266		516		--	--	790
	Cadmium	mg/kg	1.9		1.79		1.68		3.16		3.05		2.09		3.82		1.54		2.89		1	5	0.63
	Chromium	mg/kg	54.2		49.3		54.6		138		87		52.1		77		58.3		86.6		111	--	76
	Copper	mg/kg	743		737		791		740		1,020		443		849		935		1,590		149	149	34
	Lead	mg/kg	589		457		209		163		181		152		215		701		1,940		17	128	79
	Manganese	mg/kg	1,910		1,480		1,540		2,430		3,230		944		1,670		1,620		2,130		1,100	--	1,800
	Mercury	mg/kg	0.054	U	0.0489	U	0.0689	J	0.193		0.0738	J	0.106	U	0.0659	J	0.0745	J	0.209	U	0.07	1.1	0.23
	Nickel	mg/kg	26.7		28.6		30.2		56.8		59.7		20.5		50		32.6		39.6		48.6	--	47
	Selenium	mg/kg	0.675		0.612	U	0.649	U	0.721	J	0.725	J	1.33	U	1.36	U	0.649	U	0.745	J	2	--	0.71
	Silver	mg/kg	0.499		0.514		0.545		0.507		0.738		0.278		0.558		0.597	J	0.967	J	5	--	0.82
	Zinc	mg/kg	5,200		3,550		2,490		2,210		2,560		7,270		7,290		1,470		7,790		459	459	180
PCBs	Aroclor 1016	µg/kg	2.36	U	2.31	U	2.50	U	2.19	U	6.18	U	11.5	U	11.6	U	2.26	U	4.69	U	530	--	--
	Aroclor 1221	µg/kg	2.36	U	2.31	U	2.50	U	2.19	U	6.18	U	11.5	U	11.6	U	2.26	U	4.69	U	--	--	--
	Aroclor 1232	µg/kg	2.36	U	2.31	U	2.50	U	2.19	U	6.18	U	11.5	U	11.6	U	2.26	U	4.69	U	--	--	--
	Aroclor 1242	µg/kg	12.6	EST	10.2	EST	4.53	J	19.5	EST	10.1	J	11.5	U	7.37	J	4.95	EST	50.2	EST	--	--	--
	Aroclor 1248	µg/kg	2.36	U	2.31	U	2.50	U	2.19	U	6.18	U	11.5	U	11.6	U	2.26	U	4.69	U	1,500	--	--
	Aroclor 1254	µg/kg	24.7	EST	31.1	EST	44.9	EST	85.7	EST	6.18	U	73.6		77.5		2.26	U	178	EST	300	--	--
	Aroclor 1260	µg/kg	27.8	EST	48.5	EST	57.0	EST	113	EST	6.18	U	96.1		120		212	EST	122	EST	200	--	--
	Aroclor 1262	µg/kg	--		--		--		--		75.9	EST	--		--		--		--		--	--	--
	Aroclor 1268	µg/kg	--		--		--		--		73.6	EST	--		--		--		--		--	--	--
	Total PCBs	µg/kg	65.10		89.8		106.4		218.2		159.6		169.7		204.9		216.95		350.2		0.39	9	--
PAHs	Acenaphthene	µg/kg	196	U	475		212	U	202	U	--		227	U	237	U	--		--		300	--	--
	Acenaphthylene	µg/kg	196	U	193	U	212	U	202	U	--		227	U	237	U	--		--		200	--	--
	Anthracene	µg/kg	196	U	1,040		212	U	320	J	--		227	U	237	U	--		--		845	--	--
	Benzo(a)anthracene	µg/kg	443		1,610		471		677		--		260		270		--		--		1,050	--	--
	Benzo(a)pyrene	µg/kg	626		1,780		739		806		--		402		347		--		--		1,450	--	--
	Benzo(b)fluoranthene	µg/kg	631		1,960		1,030	J Q	929		--		770		677		--		--		--	--	--
	Benzo(k)fluranthene	µg/kg	298	J	731		--		305	J	--		230		222	J	--		--		13,000	--	--
	Benzo(ghi)perylene	µg/kg	367	J	1,160		488		507		--		443		350		--		--		300	--	--
	Chrysene	µg/kg	491		1,720		518		722		--		405		431		--		--		1,290	--	--
	Dibenzo(a,h)anthracene	µg/kg	196	U	207	J	212	U	202	U	--		227	U	136		--		--		1,300	--	--
	Fluoranthene	µg/kg	902	B	5,170	B	1,140	B	1,750	B	--		477		544		--		--		2,230	--	--
	Fluorene	µg/kg	196	U	748		212	U	202	U	--		227	U	237	U	--		--		536	--	--
	Indeno(1,2,3-cd)pyrene	µg/kg	420		1,250		491		548		--		484		360		--		--		100	--	--
	1-Methylnaphthalene	µg/kg	392	U	386	U	423	U	404	U	--		454	U	473	U	--		--		--	--	--
	2-Methylnaphthalene	µg/kg	392	U	386	U	423	U	404	U	--		454	U	473	U	--		--		200	--	--
	Naphthalene	µg/kg	392	U	386	U	423	U	404	U	--		454	U	473	U	--		--		561	--	--
	Phenanthrene	µg/kg	496		4,820		830		1,640		--		366		464		--		--		1,170	--	--
	Pyrene	µg/kg	824		4,170		926		1,410		--		410		427		--		--		1,520	--	--
	Carbazole	µg/kg	294	U	467	J	317	U	303	U	--		341	U	355	U	--		--		--	--	--
	Dibenzofuran	µg/kg	196	U	415		212	U	202	U	--		227	U	237	U	--		--		--	--	--

Table D-4
Residual Soil: Source Control Area 3
Interim Source Control Measures - Residual Soil Source Control Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	S-1		S-2		S-3		S-5		S-6		S-7		S-9		S-10		Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil	Default Background Concentrations Portland Basin Soil
		Date	10/1/2013		10/2/2013		10/3/2013		10/23/2013		10/23/2013		10/23/2013		10/23/2013		10/23/2013				
	Depth (Feet Below Ground Surface)		1		1		1		1		1		1		1		1				
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	2,860	M	492		440		983		1,340		1,370		460		397		330	135	--
	Butyl benzyl phthalate	µg/kg	201	U	99.0	J	53.4		85.0	U	97	J	93.8	U	80.7	U	132	J	--	--	--
	Diethyl phthalate	µg/kg	1,450	M	179	J	143		588.0	M	549		397		151	J	86.7	U	600	--	--
	Dimethyl phthalate	µg/kg	201	U	96.6	U	24.6	U	85.0	U	82.0	U	93.8	U	80.7	U	86.7	U	--	--	--
	Di-n-butyl phthalate	µg/kg	295	J	96.6	U	41.6	J	85.0	U	82.0	U	112	J	80.7	U	86.7	U	60	--	--
	Di-n-octyl phthalate	µg/kg	402	U	193	U	49.2	U	170	U	164	U	188	U	161	U	173	U	--	--	--
Butyltins	Tributyltin	µg/kg	5.5		55		19		28		74		40		30		25		2.3	24,000	--
Organochlorine Pesticides	Aldrin	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	40	2	--
	alpha-BHC	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	--	--	--
	beta-BHC	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	--	--	--
	delta-BHC	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	--	--	--
	gamma-BHC (Lindane)	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	4.99	5	--
	alpha-Chlordane	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	--	1.5	--
	gamma-Chlordane	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	--	1.5	--
	4,4'-DDD	µg/kg	3.61	U	2.07	U	2.05	U	8.42	U	3.82	U	4.15	U	9.32	U	19.7	U	0.33	--	--
	4,4'-DDE	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	0.33	6.1	--
	4,4'-DDT	µg/kg	9.00	U	2.07	U	2.05	U	13.2	U	7.62	U	8.28	U	7.76	U	70.8	U	0.33	6.1	--
	Dieldrin	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	39.3	U	0.0081	0.07	--
	Endosulfan I	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	--	--	--
	Endosulfan II	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	--	--	--
	Endosulfan sulfate	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	--	--	--
	Endrin	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	207	--	--
	Endrin aldehyde	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	--	--	--
	Endrin ketone	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	--	--	--
	Heptachlor	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	10	--	--
	Heptachlor epoxide	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	16	--	--
	Methoxychlor	µg/kg	5.42	U	6.21	U	6.14	U	11.4	U	11.4	U	12.4	U	11.7	U	59.0	U	--	--	--
	Chlordane	µg/kg	54.2	U	62.1	U	61.4	U	114	U	114	U	124	U	117	U	590	U	0.37	1.5	--
	Toxaphene	µg/kg	54.2	U	62.1	U	61.4	U	114	U	114	U	124	U	117	U	590	U	--	--	--
	cis-Nonachlor	µg/kg	3.61	U	2.07	U	2.05	U	7.58	U	3.82	U	4.15	U	7.76	U	19.7	U	--	--	--
	2,4'-DDD	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	--	--	--
	2,4'-DDE	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	--	--	--
	2,4'-DDT	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	--	--	--
	Hexachlorobenzene	µg/kg	5.42	U	6.21	U	6.14	U	11.4	U	11.4	U	12.4	U	11.7	U	59.0	U	19	0.3	--
	Hexachlorobutadiene	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	6	--	--
	Mirex	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	--	--	--
	Oxychlordane	µg/kg	3.61	U	4.14	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	59.0	U	--	--	--
	trans-Nonachlor	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	--	--	--

Table D-4
Residual Soil: Source Control Area 3
Interim Source Control Measures - Residual Soil Source Control Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	S-11		S-12		S-14		S-15		S-16		S-17		S-18		S-21		S-22		Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil	Default Background Concentrations Portland Basin Soil
		Date	10/22/2013		10/22/2013		10/22/2013		10/22/2013		10/22/2013		10/22/2013		10/22/2013		11/8/2013		11/8/2013				
	Depth (Feet Below Ground Surface)		1		1		1		1		1		1		1		1		1				
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	923		1,550		1,590		1,430		1,030		1,300		4,720		672	U	2,750		330	135	--
	Butyl benzyl phthalate	µg/kg	94.4	U	81.8	U	204	U	84.3	J	255	U	454	U	338	J	672	U	656	U	--	--	--
	Diethyl phthalate	µg/kg	221		361		1,800		191		262	J	1,290		4,370		336	U	554	J	600	--	--
	Dimethyl phthalate	µg/kg	94.4	U	81.8	U	207	U	84.2	U	255	U	454	U	209	U	336	U	328	U	--	--	--
	Di-n-butyl phthalate	µg/kg	94.4	U	119		207	U	366		255	U	454	U	674		336	U	684		60	--	--
	Di-n-octyl phthalate	µg/kg	189	U	164	U	415	U	168	U	511	U	908	U	418	U	1,340	U	1,310		--	--	--
Butyltins	Tributyltin	µg/kg	28		44		43		180		140		140		1,700		91		110		2.3	24,000	--
Organochlorine Pesticides	Aldrin	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	7.59	U	40	2	--
	alpha-BHC	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	7.59	U	--	--	--
	beta-BHC	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	7.59	U	--	--	--
	delta-BHC	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	7.59	U	--	--	--
	gamma-BHC (Lindane)	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	7.59	U	4.99	5	--
	alpha-Chlordane	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	7.59	U	--	1.5	--
	gamma-Chlordane	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	7.59	U	--	1.5	--
	4,4'-DDD	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	7.59	U	0.33	--	--
	4,4'-DDE	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	7.59	U	0.33	6.1	--
	4,4'-DDT	µg/kg	32.5	U	10.6	U	79.6	U	14.3	U	7.54	U	15.0	U	46.5	U	27.7	U	31.8	U	0.33	6.1	--
	Dieldrin	µg/kg	15.5	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	15.4	U	15.1	U	0.0081	0.07	--
	Endosulfan I	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	7.59	U	--	--	--
	Endosulfan II	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	7.59	U	--	--	--
	Endosulfan sulfate	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	7.59	U	--	--	--
	Endrin	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	7.59	U	207	--	--
	Endrin aldehyde	µg/kg	7.76	U	3.94	U	39.9	U	14.3	U	3.78	U	7.52	U	15.5	U	7.72	U	7.59	U	--	--	--
	Endrin ketone	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	7.59	U	--	--	--
	Heptachlor	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	7.59	U	10	--	--
	Heptachlor epoxide	µg/kg	7.76	U	3.94	U	119	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	7.59	U	16	--	--
	Methoxychlor	µg/kg	23.2	U	11.8	U	1190	U	21.4	U	11.3	U	22.5	U	46.5	U	23.1	U	22.7	U	--	--	--
	Chlordane	µg/kg	232	U	118	U	1190	U	214	U	113	U	225	U	465	U	231	U	227	U	0.37	1.5	--
	Toxaphene	µg/kg	232	U	118	U	39.9	U	214	U	113	U	225	U	465	U	231	U	227	U	--	--	--
	cis-Nonachlor	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	7.59	U	--	--	--
	2,4'-DDD	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	7.59	U	--	--	--
	2,4'-DDE	µg/kg	7.76	U	3.94	U	39.9	U	14.3	U	3.78	U	7.52	U	15.5	U	7.72	U	7.59	U	--	--	--
	2,4'-DDT	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	7.59	U	--	--	--
	Hexachlorobenzene	µg/kg	23.2	U	11.8	U	119	U	21.4	U	11.3	U	22.5	U	46.5	U	23.1	U	22.7	U	19	0.3	--
	Hexachlorobutadiene	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	7.59	U	6	--	--
	Mirex	µg/kg	7.76	U	3.94	U	39.9	U	14.3	U	3.78	U	7.52	U	15.5	U	7.72	U	7.59	U	--	--	--
	Oxychlordane	µg/kg	7.76	U	3.94	U	79.6	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	7.59	U	--	--	--
	trans-Nonachlor	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	7.59	U	--	--	--

Table D-4
Residual Soil: Source Control Area 3
Interim Source Control Measures - Residual Soil Source Control Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	S-23		S-24		S-25		S-26		S-27		S-28		S-29		S-19[12]		S-20[12]		Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil	Default Background Concentrations Portland Basin Soil
		Date	11/18/2013		11/18/2013		11/18/2013		11/18/2013		11/27/2013		10/27/2014		10/27/2014		11/8/2013		11/8/2013				
	Depth (Feet Below Ground Surface)		1		1		1		1		1		1		1		1		1				
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	3,010	J	2,030	J	4,490		4,470		3,110		2,630		4,890		6,500		39,700		330	135	--
	Butyl benzyl phthalate	µg/kg	1,960	U	1,930	U	2,120	U	2,020	U	612	U	2,270	U	2,370	U	657	U	639	U	--	--	--
	Diethyl phthalate	µg/kg	2,900	J	3,560	J	4,390		2,020	U	671	J	1,140	J	1,820	J	864		5,280		600	--	--
	Dimethyl phthalate	µg/kg	1,960	U	1,930	U	2,120	U	2,020	U	612	U	2,270	U	2,370	U	329	U	320	U	--	--	--
	Di-n-butyl phthalate	µg/kg	1,960	U	1,930	U	2,120	U	2,020	U	627	J	2,270	U	2,370	U	329	U	3,790		60	--	--
	Di-n-octyl phthalate	µg/kg	3,920	U	3,860	U	2,120	U	4,040	U	1,220	U	4,540	U	4,730	U	1,310	U	1,280	U	--	--	--
Butyltins	Tributyltin	µg/kg	72		95		120		150		290		--		--		33		1,500		2.3	24,000	--
Organochlorine Pesticides	Aldrin	µg/kg	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	1.63	U	1.66	U	7.74	U	15.5	U	40	2	--
	alpha-BHC	µg/kg	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	2.26	U	1.66	U	7.74	U	15.5	U	--	--	--
	beta-BHC	µg/kg	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	1.63	U	1.66	U	7.74	U	15.5	U	--	--	--
	delta-BHC	µg/kg	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	1.63	U	1.66	U	7.74	U	15.5	U	--	--	--
	gamma-BHC (Lindane)	µg/kg	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	1.63	U	1.66	U	7.74	U	15.5	U	4.99	5	--
	alpha-Chlordane	µg/kg	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	--		--		7.74	U	15.5	U	--	1.5	--
	gamma-Chlordane	µg/kg	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	--		--		7.74	U	15.5	U	--	1.5	--
	4,4'-DDD	µg/kg	2.07	U	1.98	U	2.06	U	2.03	U	8.41	U	1.87	U	1.95	U	7.74	U	15.5	U	0.33	--	--
	4,4'-DDE	µg/kg	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	1.63	U	2.3	U	7.74	U	15.5	U	0.33	6.1	--
	4,4'-DDT	µg/kg	5.58	U	5.92	U	11.7	U	16.4	U	20.2	U	6.38	U	6.09	U	15.4	U	46.5	U	0.33	6.1	--
	Dieldrin	µg/kg	2.07	U	1.98	U	4.11	U	4.05	U	4.22	U	3.19	U	3.09	U	7.74	U	15.5	U	0.0081	0.07	--
	Endosulfan I	µg/kg	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	1.63	U	1.66	U	7.74	U	15.5	U	--	--	--
	Endosulfan II	µg/kg	2.07	U	1.98	U	2.06	U	4.05	U	4.22	U	1.63	U	1.66	U	7.74	U	30.9	U	--	--	--
	Endosulfan sulfate	µg/kg	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	1.63	U	1.66	U	7.74	U	15.5	U	--	--	--
	Endrin	µg/kg	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	1.63	U	2.74	U	7.74	U	15.5	U	207	--	--
	Endrin aldehyde	µg/kg	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	1.63	U	1.66	U	7.74	U	15.5	U	--	--	--
	Endrin ketone	µg/kg	2.07	U	1.98	U	2.06	U	4.05	U	4.22	U	2.16	U	2.05	U	7.74	U	15.5	U	--	--	--
	Heptachlor	µg/kg	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	1.63	U	1.66	U	7.74	U	15.5	U	10	--	--
	Heptachlor epoxide	µg/kg	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	1.63	U	1.66	U	7.74	U	15.5	U	16	--	--
	Methoxychlor	µg/kg	6.2	U	5.92	U	6.17	U	6.09	U	12.6	U	6.87	U	7.49	U	23.2	U	46.5	U	--	--	--
	Chlordane	µg/kg	62.0	U	59.2	U	61.7	U	60.9	U	126	U	49.1	U	49.9	U	232	U	465	U	0.37	1.5	--
	Toxaphene	µg/kg	62.0	U	59.2	U	61.7	U	60.9	U	126	U	49.1	U	49.9	U	232	U	465	U	--	--	--
	cis-Nonachlor	µg/kg	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	1.63	U	1.66	U	7.74	U	15.5	U	--	--	--
	2,4'-DDD	µg/kg	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	2.31	U	2.69	U	7.74	U	15.5	U	--	--	--
	2,4'-DDE	µg/kg	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	1.63	U	1.66	U	7.74	U	15.5	U	--	--	--
	2,4'-DDT	µg/kg	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	1.63	U	1.66	U	7.74	U	15.5	U	--	--	--
	Hexachlorobenzene	µg/kg	6.20	U	5.92	U	6.17	U	6.09	U	12.6	U	4.91	U	4.99	U	23.2	U	46.5	U	19	0.3	--
	Hexachlorobutadiene	µg/kg	2.07	U	1.98	U	2.06	U	2.03	U	8.41	U	1.63	U	1.66	U	7.74	U	15.5	U	6	--	--
	Mirex	µg/kg	2.07	U	3.94	U	4.11	U	4.05	U	4.22	U	1.63	U	2.05	U	7.74	U	15.5	U	--	--	--
	Oxychlordane	µg/kg	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	1.63	U	1.66	U	7.74	U	15.5	U	--	--	--
	trans-Nonachlor	µg/kg	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	1.63	U	1.66	U	7.74	U	15.5	U	--	--	--

Notes:

1. -- = Not analyzed or not established
2. mg/kg = Milligrams per kilogram
3. µg/kg = Micrograms per kilogram
4. J = The result is an estimated quantity
5. U= Undetected at the method detection limit shown
6. PRG = Draft Preliminary Remediation Goal; EPA, July 2015
7. Joint Source Control Strategy (JSCS) Screening Level Values (SLVs); revision date 7/16/2007
8. EST = Result reported as an Estimated Value. Results estimated due to presence of multiple aroclors and matrix interference
9. Q = Peak separation for Benzo(b) and Benzo(k)fluoranthenes did not meet method specified criteria
10. Shading indicates sample concentration exceeds the corresponding JSCS SLV and/or the draft PRG
11. B = Analyte was detected in the method blank. Results may be biased high.
12. Soil represented by these samples has been removed from facility

Table D-5
Residual Soil: Source Control Area 3
Interim Source Control Measures - Residual Soil Human Health Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	S-1		S-2		S-3		S-5		S-6		S-7		S-9		S-10		Oregon Department of Environmental Quality Risk-Based Concentrations: Soil Ingestion, Dermal Contact, and Inhalation			Vol. to Outdoor	Vapor Intrusion	Default Background Concentrations Portland Basin Soil
		Date	10/1/2013		10/2/2013		10/3/2013		10/23/2013		10/23/2013		10/23/2013		10/23/2013		10/23/2013							
	Depth (Feet Below Ground Surface)		1		1		1		1		1		1		1		1		Occ	Const.	Exc	Occ	Occ	
Inorganics	Arsenic	mg/kg	22.8		3.62		2.21		10.6		6.86		6.1		7.56		14.1		1.9	15	420	--	--	8.8
	Barium	mg/kg	320		158		165		261		148		260		178		256		220,000	69,000	--	--	--	790
	Cadmium	mg/kg	0.523		0.396		0.384		1.23		0.580		0.720		0.377		1.16		1,100	350	9,700	--	--	0.63
	Chromium	mg/kg	45.8		17.2		12.4		34.7		25.3		23.7		22.1		36.2		--	530,000	--	--	--	76
	Copper	mg/kg	983		264		105		767		532		371		502		648		47,000	14,000	390,000	--	--	34
	Lead	mg/kg	96.2		30.1		25.6		498		96.6		74.8		61.5		173		800	800	800	--	--	79
	Manganese	mg/kg	1,890		902		933		2,330		1,060		1,410		1,140		1,350		25,000	8,200	230,000	--	--	1,800
	Mercury	mg/kg	0.0486	U	0.0494	U	0.0530	U	0.0908	U	0.091	U	0.0960	U	0.0913	U	0.159		350	110	2,900	--	--	0.23
	Nickel	mg/kg	27.0		10.5		7.60		23.9		13.4		15.9		16.8		29.0		22,000	7,000	190,000	--	--	47
	Selenium	mg/kg	0.790	J	0.618	U	0.662	U	1.14	U	1.14	U	1.2	U	1.14	U	1.26	U	--	--	--	--	--	0.71
	Silver	mg/kg	0.632		0.136	J	0.132	U	0.420		0.375		0.252		0.308		0.515		5,800	1,800	49,000	--	--	0.82
	Zinc	mg/kg	592		453		235		1,610		605		694		473		1,020		--	--	--	--	--	180
PCBs	Aroclor 1016	µg/kg	2.02	U	2.43	U	1.95	U	2.05	U	2.00	U	2.41	U	9.99	U	10.5	U	--	--	--	--	--	--
	Aroclor 1221	µg/kg	2.02	U	2.43	U	1.95	U	2.05	U	2.00	U	2.41	U	9.99	U	10.5	U	--	--	--	--	--	--
	Aroclor 1232	µg/kg	2.02	U	2.43	U	1.95	U	2.05	U	2.00	U	2.41	U	9.99	U	10.5	U	--	--	--	--	--	--
	Aroclor 1242	µg/kg	13.9	EST	27.3	EST	28.9	EST	2.05	U	2.0	U	2.41	U	9.99	U	10.5	U	--	--	--	--	--	--
	Aroclor 1248	µg/kg	2.02	U	2.43	U	1.95	U	45.5	EST	34.2	EST	20.4	EST	189	EST	523	EST	--	--	--	--	--	--
	Aroclor 1254	µg/kg	14.2	EST	5.46	EST	5.85	EST	26.3	EST	28.8	EST	16.9	EST	184	EST	231	EST	--	--	--	--	--	--
	Aroclor 1260	µg/kg	18.1	EST	5.40	EST	7.71	EST	30.2	EST	31.4	EST	30.1	EST	151	EST	293	EST	--	--	--	--	--	--
	Aroclor 1262	µg/kg	2.02	U	2.43	U	1.95	U	2.05	U	2.00	U	2.41	U	9.99	U	10.5	U	--	--	--	--	--	--
	Aroclor 1268	µg/kg	2.02	U	2.43	U	1.95	U	2.05	U	2.00	U	2.41	U	9.99	U	10.5	U	--	--	--	--	--	--
	Total PCBs	µg/kg	46.2		38.16		42.46		102.00		94.4		67.4		524		1,047		590	4,900	140,000	--	--	--
PAHs	Acenaphthene	µg/kg	--		--		--		--		--		--		--		--		7.0E+07	2.1E+07	5.9E+08	--	--	--
	Acenaphthylene	µg/kg	--		--		--		--		--		--		--		--		--	--	--	--	--	--
	Anthracene	µg/kg	--		--		--		--		--		--		--		--		3.5E+08	1.1E+08	--	--	--	--
	Benzo(a)anthracene	µg/kg	--		--		--		--		--		--		--		--		2.9E+03	2.4E+04	6.6E+05	--	--	--
	Benzo(a)pyrene	µg/kg	--		--		--		--		--		--		--		--		--	--	--	--	--	--
	Benzo(b)fluoranthene	µg/kg	--		--		--		--		--		--		--		--		2.9E+03	2.4E+04	6.7E+05	--	--	--
	Benzo(k)fluranthene	µg/kg	--		--		--		--		--		--		--		--		--	--	--	--	--	--
	Benzo(ghi)perylene	µg/kg	--		--		--		--		--		--		--		--		--	--	--	--	--	--
	Chrysene	µg/kg	--		--		--		--		--		--		--		--		2.9E+05	2.4E+06	6.7E+07	--	--	--
	Dibenzo(a,h)anthracene	µg/kg	--		--		--		--		--		--		--		--		2.9E+02	2.4E+03	6.7E+04	--	--	--
	Fluoranthene	µg/kg	--		--		--		--		--		--		--		--		3.0E+07	1.0E+07	2.8E+08	--	--	--
	Fluorene	µg/kg	--		--		--		--		--		--		--		--		4.7E+07	1.4E+07	3.9E+08	--	--	--
	Indeno(1,2,3-cd)pyrene	µg/kg	--		--		--		--		--		--		--		--		2.9E+03	2.4E+04	6.7E+05	--	--	--
	1-Methylnaphthalene	µg/kg	--		--		--		--		--		--		--		--		--	--	--	--	--	--
	2-Methylnaphthalene	µg/kg	--		--		--		--		--		--		--		--		--	--	--	--	--	--
	Naphthalene	µg/kg	--		--		--		--		--		--		--		--		2.3E+04	5.8E+05	1.6E+07	8.3E+04	8.3E+04	--
	Phenanthrene	µg/kg	--		--		--		--		--		--		--		--		--	--	--	--	--	--
	Pyrene	µg/kg	--		--		--		--		--		--		--		--		2.3E+07	7.5E+06	2.1E+08	--	--	--
	Carbazole	µg/kg	--		--		--		--		--		--		--		--		--	--	--	--	--	--
	Dibenzofuran	µg/kg	--		--		--		--		--		--		--		--		--	--	--	--	--	--

Table D-5
Residual Soil: Source Control Area 3
Interim Source Control Measures - Residual Soil Human Health Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	S-11		S-12		S-14		S-15		S-16		S-17		S-18		S-21		Oregon Department of Environmental Quality Risk-Based Concentrations: Soil Ingestion, Dermal Contact, and Inhalation			Vol. to Outdoor	Vapor Intrusion	Default Background Concentrations Portland Basin Soil
		Date	10/22/2013		10/22/2013		10/22/2013		10/22/2013		10/22/2013		10/22/2013		10/22/2013		11/8/2013							
	Depth (Feet Below Ground Surface)		1		1		1		1		1		1		1		1		Occ	Const.	Exc	Occ	Occ	
Inorganics	Arsenic	mg/kg	18.9		10.9		13.6		20.7		21.1		25.2		51.1		18.8		1.9	15	420	--	--	8.8
	Barium	mg/kg	258		216		272		341		450		410		423		309		220,000	69,000	--	--	--	790
	Cadmium	mg/kg	0.845		0.717		1.06		0.701		1.09		1.37		3.81		0.953		1,100	350	9,700	--	--	0.63
	Chromium	mg/kg	42.4		27.1		34.1		65.5		65.1		63.9		127		65.2		--	530,000	--	--	--	76
	Copper	mg/kg	690		448		648		1,260		1,390		1,310		1170		897		47,000	14,000	390,000	--	--	34
	Lead	mg/kg	127		164		159		184		99.2		281		489		125		800	800	800	--	--	79
	Manganese	mg/kg	1,520		1,310		1,360		1,920		2,180		2,440		2,040		1,480		25,000	8,200	230,000	--	--	1,800
	Mercury	mg/kg	0.104		0.104	U	0.1000		0.0862	U	0.09	U	0.0921	U	0.101	U	0.0855	J	350	110	2,900	--	--	0.23
	Nickel	mg/kg	37.5		17.2		25.9		30.2		34.2		32.9		47.4		27.3		22,000	7,000	190,000	--	--	47
	Selenium	mg/kg	1.19	U	1.3	U	1.15	U	1.08	U	1.13	U	1.15	U	1.26	U	0.627	U	--	--	--	--	--	0.71
	Silver	mg/kg	0.536		0.287		0.507		0.722		0.732		0.818		0.706		0.564	J	5,800	1,800	49,000	--	--	0.82
	Zinc	mg/kg	734		1,110		1,090		1,100		1,670		2,410		3,920		1,980		--	--	--	--	--	180
PCBs	Aroclor 1016	µg/kg	2.14	U	2.07	U	21.6	U	2.06	U	2.16	U	2.18	U	2.18	U	11.0	U	--	--	--	--	--	--
	Aroclor 1221	µg/kg	2.14	U	2.07	U	21.6	U	2.06	U	2.16	U	2.18	U	2.18	U	11.0	U	--	--	--	--	--	--
	Aroclor 1232	µg/kg	2.14	U	2.07	U	21.6	U	2.06	U	2.16	U	2.18	U	2.18	U	11.0	U	--	--	--	--	--	--
	Aroclor 1242	µg/kg	2.14	U	2.07	U	21.6	U	2.1	U	2.16	U	2.18	U	2.18	U	12.3	J	--	--	--	--	--	--
	Aroclor 1248	µg/kg	59.1	EST	73.1	EST	1,150	EST	86.7	EST	18	EST	28.4	EST	47.8	EST	11.0	U	--	--	--	--	--	--
	Aroclor 1254	µg/kg	98.2	EST	46.1	EST	272	EST	65.7	EST	22	EST	43.3	EST	106	EST	11.0	U	--	--	--	--	--	--
	Aroclor 1260	µg/kg	219	EST	68.9	EST	216	EST	104	EST	29.3	EST	69.5	EST	116	EST	273		--	--	--	--	--	--
	Aroclor 1262	µg/kg	2.14	U	2.07	U	21.6	U	2.06	U	2.16	U	2.18	U	2.18	U	--		--	--	--	--	--	--
	Aroclor 1268	µg/kg	2.14	U	2.07	U	21.6	U	2.06	U	2.16	U	2.18	U	2.18	U	--		--	--	--	--	--	--
	Total PCBs	µg/kg	376.3		188.1		1,638		256.4		69.3		141.2		269.8		285.3		590	4,900	140,000	--	--	--
PAHs	Acenaphthene	µg/kg	--		--		--		--		--		--		--		--		7.0E+07	2.1E+07	5.9E+08	--	--	--
	Acenaphthylene	µg/kg	--		--		--		--		--		--		--		--		--	--	--	--	--	--
	Anthracene	µg/kg	--		--		--		--		--		--		--		--		3.5E+08	1.1E+08	--	--	--	--
	Benzo(a)anthracene	µg/kg	--		--		--		--		--		--		--		--		2.9E+03	2.4E+04	6.6E+05	--	--	--
	Benzo(a)pyrene	µg/kg	--		--		--		--		--		--		--		--		--	--	--	--	--	--
	Benzo(b)fluoranthene	µg/kg	--		--		--		--		--		--		--		--		2.9E+03	2.4E+04	6.7E+05	--	--	--
	Benzo(k)fluranthene	µg/kg	--		--		--		--		--		--		--		--		--	--	--	--	--	--
	Benzo(ghi)perylene	µg/kg	--		--		--		--		--		--		--		--		--	--	--	--	--	--
	Chrysene	µg/kg	--		--		--		--		--		--		--		--		2.9E+05	2.4E+06	6.7E+07	--	--	--
	Dibenzo(a,h)anthracene	µg/kg	--		--		--		--		--		--		--		--		2.9E+02	2.4E+03	6.7E+04	--	--	--
	Fluoranthene	µg/kg	--		--		--		--		--		--		--		--		3.0E+07	1.0E+07	2.8E+08	--	--	--
	Fluorene	µg/kg	--		--		--		--		--		--		--		--		4.7E+07	1.4E+07	3.9E+08	--	--	--
	Indeno(1,2,3-cd)pyrene	µg/kg	--		--		--		--		--		--		--		--		2.9E+03	2.4E+04	6.7E+05	--	--	--
	1-Methylnaphthalene	µg/kg	--		--		--		--		--		--		--		--		--	--	--	--	--	--
	2-Methylnaphthalene	µg/kg	--		--		--		--		--		--		--		--		--	--	--	--	--	--
	Naphthalene	µg/kg	--		--		--		--		--		--		--		--		2.3E+04	5.8E+05	1.6E+07	8.3E+04	8.3E+04	--
	Phenanthrene	µg/kg	--		--		--		--		--		--		--		--		--	--	--	--	--	--
	Pyrene	µg/kg	--		--		--		--		--		--		--		--		2.3E+07	7.5E+06	2.1E+08	--	--	--
	Carbazole	µg/kg	--		--		--		--		--		--		--		--		--	--	--	--	--	--
	Dibenzofuran	µg/kg	--		--		--		--		--		--		--		--		--	--	--	--	--	--

Table D-5
Residual Soil: Source Control Area 3
Interim Source Control Measures - Residual Soil Human Health Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	S-22		S-23		S-24		S-25		S-26		S-27		S-28		S-29		S-19[12]		S-20[12]		Oregon Department of Environmental Quality Risk-Based Concentrations: Soil Ingestion, Dermal Contact, and Inhalation			Vol. to Outdoor	Vapor Intrusion	Default Background Concentrations Portland Basin Soil
		Date	11/8/2013		11/18/2013		11/18/2013		11/18/2013		11/18/2013		11/27/2013		10/27/2014		10/27/2014		11/8/2013		11/8/2013							
	Depth (Feet Below Ground Surface)		1		1		1		1		1		1		1		1		1		1		Occ	Const.	Exc	Occ	Occ	
Inorganics	Arsenic	mg/kg	16.2		13.1		29.3		15.7		20.2		25.7		10.7		20		20.8		34.9		1.9	15	420	--	--	8.8
	Barium	mg/kg	282		332		273		225		285		324		170		278		266		516		220,000	69,000	--	--	--	790
	Cadmium	mg/kg	2.89	M	1.9		1.79		1.68		3.16		3.05		2.09		3.82		1.54		2.89		1,100	350	9,700	--	--	0.63
	Chromium	mg/kg	58.5		54.2		49.3		54.6		138		87		52.1		77		58.3		86.6		--	530,000	--	--	--	76
	Copper	mg/kg	723		743		737		791		740		1,020		443		849		935		1,590		47,000	14,000	390,000	--	--	34
	Lead	mg/kg	257		589		457		209		163		181		152		215		701		1,940		800	800	800	--	--	79
	Manganese	mg/kg	1,470		1,910		1,480		1,540		2,430		3,230		944		1,670		1,620		2,130		25,000	8,200	230,000	--	--	1,800
	Mercury	mg/kg	0.145		0.054	U	0.0489	U	0.0689	J	0.193		0.0738	J	0.106	U	0.0659	J	0.0745	J	0.209	U	350	110	2,900	--	--	0.23
	Nickel	mg/kg	24.5		26.7		28.6		30.2		56.8		59.7		20.5		50		32.6		39.6		22,000	7,000	190,000	--	--	47
	Selenium	mg/kg	0.583	U	0.675		0.612	U	0.649	U	0.721	J	0.725	J	1.33	U	1.36	U	0.649	U	0.745	J	--	--	--	--	--	0.71
	Silver	mg/kg	0.665	J	0.499		0.514		0.545		0.507		0.738		0.278		0.558		0.597	J	0.967	J	5,800	1,800	49,000	--	--	0.82
	Zinc	mg/kg	14,400	M	5,200		3,550		2,490		2,210		2,560		7,270		7,290		1,470		7,790		--	--	--	--	--	180
PCBs	Aroclor 1016	µg/kg	10.9	U	2.36	U	2.31	U	2.50	U	2.19	U	6.18	U	11.5	U	11.6	U	2.26	U	4.69	U	--	--	--	--	--	--
	Aroclor 1221	µg/kg	10.9	U	2.36	U	2.31	U	2.50	U	2.19	U	6.18	U	11.5	U	11.6	U	2.26	U	4.69	U	--	--	--	--	--	--
	Aroclor 1232	µg/kg	10.9	U	2.36	U	2.31	U	2.50	U	2.19	U	6.18	U	11.5	U	11.6	U	2.26	U	4.69	U	--	--	--	--	--	--
	Aroclor 1242	µg/kg	26.5	EST	12.6	EST	10.2	EST	4.53	J	19.5	EST	10.1	J	11.5	U	7.37	J	4.95	EST	50.2	EST	--	--	--	--	--	--
	Aroclor 1248	µg/kg	10.9	U	2.36	U	2.31	U	2.50	U	2.19	U	6.18	U	11.5	U	11.6	U	2.26	U	4.69	U	--	--	--	--	--	--
	Aroclor 1254	µg/kg	113	EST	24.7	EST	31.1	EST	44.9	EST	85.7	EST	6.18	U	73.6		77.5		2.26	U	178	EST	--	--	--	--	--	--
	Aroclor 1260	µg/kg	178	EST	27.8	EST	48.5	EST	57.0	EST	113	EST	6.18	U	96.1		120		212	EST	122	EST	--	--	--	--	--	--
	Aroclor 1262	µg/kg	--		--		--		--		--		75.9	EST	--		--		--		--		--	--	--	--	--	--
	Aroclor 1268	µg/kg	--		--		--		--		--		73.6	EST	--		--		--		--		--	--	--	--	--	--
	Total PCBs	µg/kg	317.5		65.10		89.8		106.4		218.2		159.6		169.7		204.9		216.95		350.2		590	4,900	140,000	--	--	--
PAHs	Acenaphthene	µg/kg	--		196	U	475		212	U	202	U	--		227	U	237	U	--		--		7.0E+07	2.1E+07	5.9E+08	--	--	--
	Acenaphthylene	µg/kg	--		196	U	193	U	212	U	202	U	--		227	U	237	U	--		--		--	--	--	--	--	--
	Anthracene	µg/kg	--		196	U	1,040		212	U	320	J	--		227	U	237	U	--		--		3.5E+08	1.1E+08	--	--	--	--
	Benzo(a)anthracene	µg/kg	--		443		1,610		471		677		--		260		270		--		--		2.9E+03	2.4E+04	6.6E+05	--	--	--
	Benzo(a)pyrene	µg/kg	--		626		1,780		739		806		--		402		347		--		--		--	--	--	--	--	--
	Benzo(b)fluoranthene	µg/kg	--		631		1,960		1,030	J Q	929		--		770		677		--		--		2.9E+03	2.4E+04	6.7E+05	--	--	--
	Benzo(k)fluranthene	µg/kg	--		298	J	731		--		305	J	--		230		222	J	--		--		--	--	--	--	--	--
	Benzo(ghi)perylene	µg/kg	--		367	J	1,160		488		507		--		443		350		--		--		--	--	--	--	--	--
	Chrysene	µg/kg	--		491		1,720		518		722		--		405		431		--		--		2.9E+05	2.4E+06	6.7E+07	--	--	--
	Dibenzo(a,h)anthracene	µg/kg	--		196	U	207	J	212	U	202	U	--		227	U	136		--		--		2.9E+02	2.4E+03	6.7E+04	--	--	--
	Fluoranthene	µg/kg	--		902	B	5,170	B	1,140	B	1,750	B	--		477		544		--		--		3.0E+07	1.0E+07	2.8E+08	--	--	--
	Fluorene	µg/kg	--		196	U	748		212	U	202	U	--		227	U	237	U	--		--		4.7E+07	1.4E+07	3.9E+08	--	--	--
	Indeno(1,2,3-cd)pyrene	µg/kg	--		420		1,250		491		548		--		484		360		--		--		2.9E+03	2.4E+04	6.7E+05	--	--	--
	1-Methylnaphthalene	µg/kg	--		392	U	386	U	423	U	404	U	--		454	U	473	U	--		--		--	--	--	--	--	--
	2-Methylnaphthalene	µg/kg	--		392	U	386	U	423	U	404	U	--		454	U	473	U	--		--		--	--	--	--	--	--
	Naphthalene	µg/kg	--		392	U	386	U	423	U	404	U	--		454	U	473	U	--		--		2.3E+04	5.8E+05	1.6E+07	8.3E+04	8.3E+04	--
	Phenanthrene	µg/kg	--		496		4,820		830		1,640		--		366		464		--		--		--	--	--	--	--	--
	Pyrene	µg/kg	--		824		4,170		926		1,410		--		410		427		--		--		2.3E+07	7.5E+06	2.1E+08	--	--	--
	Carbazole	µg/kg	--		294	U	467	J	317	U	303	U	--		341	U	355	U	--		--		--	--	--	--	--	--
	Dibenzofuran	µg/kg	--		196	U	415		212	U	202	U	--		227	U	237	U	--		--		--	--	--	--	--	--

Table D-5
Residual Soil: Source Control Area 3
Interim Source Control Measures - Residual Soil Human Health Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	S-1		S-2		S-3		S-5		S-6		S-7		S-9		S-10		Oregon Department of Environmental Quality Risk-Based Concentrations: Soil Ingestion, Dermal Contact, and Inhalation			Vol. to Outdoor	Vapor Intrusion	Default Background Concentrations Portland Basin Soil
		Date	10/1/2013		10/2/2013		10/3/2013		10/23/2013		10/23/2013		10/23/2013		10/23/2013		10/23/2013							
	Depth (Feet Below Ground Surface)		1		1		1		1		1		1		1		1		Occ	Const.	Exc	Occ	Occ	
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	2,860	M	492		440		983		1,340		1,370		460		397		1.6E+05	1.3E+06	3.7E+07	--	--	--
	Butyl benzyl phthalate	µg/kg	201	U	99.0	J	53.4		85.0	U	97	J	93.8	U	80.7	U	132	J	--	--	--	--	--	--
	Diethyl phthalate	µg/kg	1,450	M	179	J	143		588.0	M	549		397		151	J	86.7	U	--	--	--	--	--	--
	Dimethyl phthalate	µg/kg	201	U	96.6	U	24.6	U	85.0	U	82.0	U	93.8	U	80.7	U	86.7	U	--	--	--	--	--	--
	Di-n-butyl phthalate	µg/kg	295	J	96.6	U	41.6	J	85.0	U	82.0	U	112	J	80.7	U	86.7	U	--	--	--	--	--	--
	Di-n-octyl phthalate	µg/kg	402	U	193	U	49.2	U	170	U	164	U	188	U	161	U	173	U	--	--	--	--	--	--
Butyltins	Tributyltin	µg/kg	5.5		55.0		19		28.0		74		40.0		30		25.0		--	--	--	--	--	--
Organochlorine Pesticides	Aldrin	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	1.3E+02	1.1E+03	3.0E+04	--	--	--
	alpha-BHC	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	3.6E+02	3.0E+03	8.3E+04	--	--	--
	beta-BHC	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	--	--	--	--	--	--
	delta-BHC	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	--	--	--	--	--	--
	gamma-BHC (Lindane)	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	2.1E+03	1.7E+04	4.7E+05	--	--	--
	alpha-Chlordane	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	--	--	--	--	--	--
	gamma-Chlordane	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	--	--	--	--	--	--
	4,4'-DDD	µg/kg	3.61	U	2.07	U	2.05	U	8.42	U	3.82	U	4.15	U	9.32	U	19.7	U	--	--	--	--	--	--
	4,4'-DDE	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	8.2E+03	6.6E+04	1.8E+06	--	--	--
	4,4'-DDT	µg/kg	9.00	U	2.07	U	2.05	U	13.2	U	7.62	U	8.28	U	7.76	U	70.8	U	8.5E+03	6.6E+04	1.8E+06	--	--	--
	Dieldrin	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	39.3	U	1.4E+02	1.2E+03	3.3E+04	--	--	--
	Endosulfan I	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	--	--	--	--	--	--
	Endosulfan II	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	--	--	--	--	--	--
	Endosulfan sulfate	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	--	--	--	--	--	--
	Endrin	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	2.5E+05	8.0E+04	2.2E+06	--	--	--
	Endrin aldehyde	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	--	--	--	--	--	--
	Endrin ketone	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	--	--	--	--	--	--
	Heptachlor	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	4.5E+02	4.0E+03	1.1E+05	2.3E+05	2.3E+05	--
	Heptachlor epoxide	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	2.4E+02	2.0E+03	5.6E+04	--	--	--
	Methoxychlor	µg/kg	5.42	U	6.21	U	6.14	U	11.4	U	11.4	U	12.4	U	11.7	U	59.0	U	--	--	--	--	--	--
	Chlordane	µg/kg	54.2	U	62.1	U	61.4	U	114	U	114	U	124	U	117	U	590	U	7.4E+03	6.1E+04	1.7E+06	--	--	--
	Toxaphene	µg/kg	54.2	U	62.1	U	61.4	U	114	U	114	U	124	U	117	U	590	U	2.1E+03	1.7E+04	4.7E+05	--	--	--
	cis-Nonachlor	µg/kg	3.61	U	2.07	U	2.05	U	7.58	U	3.82	U	4.15	U	7.76	U	19.7	U	--	--	--	--	--	--
	2,4'-DDD	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	--	--	--	--	--	--
	2,4'-DDE	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	--	--	--	--	--	--
	2,4'-DDT	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	--	--	--	--	--	--
	Hexachlorobenzene	µg/kg	5.42	U	6.21	U	6.14	U	11.4	U	11.4	U	12.4	U	11.7	U	59.0	U	9.3E+02	1.1E+04	3.2E+05	2.4E+03	1.3E+04	--
	Hexachlorobutadiene	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	--	--	--	--	--	--
	Mirex	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	--	--	--	--	--	--
	Oxychlordane	µg/kg	3.61	U	4.14	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	59.0	U	--	--	--	--	--	--
	trans-Nonachlor	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	--	--	--	--	--	--

Table D-5
Residual Soil: Source Control Area 3
Interim Source Control Measures - Residual Soil Human Health Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	S-11		S-12		S-14		S-15		S-16		S-17		S-18		S-21		Oregon Department of Environmental Quality Risk-Based Concentrations: Soil Ingestion, Dermal Contact, and Inhalation			Vol. to Outdoor	Vapor Intrusion	Default Background Concentrations Portland Basin Soil
		Date	10/22/2013		10/22/2013		10/22/2013		10/22/2013		10/22/2013		10/22/2013		10/22/2013		11/8/2013							
	Depth (Feet Below Ground Surface)		1		1		1		1		1		1		1		1		Occ	Const.	Exc	Occ	Occ	
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	923		1,550		1,590		1,430		1,030		1,300		4,720		672	U	1.6E+05	1.3E+06	3.7E+07	--	--	--
	Butyl benzyl phthalate	µg/kg	94.4	U	81.8	U	204	U	84.3	J	255	U	454	U	338	J	672	U	--	--	--	--	--	--
	Diethyl phthalate	µg/kg	221		361		1,800		191		262	J	1,290		4,370		336	U	--	--	--	--	--	--
	Dimethyl phthalate	µg/kg	94.4	U	81.8	U	207	U	84.2	U	255	U	454	U	209	U	336	U	--	--	--	--	--	--
	Di-n-butyl phthalate	µg/kg	94.4	U	119		207	U	366		255	U	454	U	674		336	U	--	--	--	--	--	--
	Di-n-octyl phthalate	µg/kg	189	U	164	U	415	U	168	U	511	U	908	U	418	U	1,340	U	--	--	--	--	--	--
Butyltins	Tributyltin	µg/kg	28.0		44		43.0		180.0		140		140.0		1,700		91.0		--	--	--	--	--	--
Organochlorine Pesticides	Aldrin	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	1.3E+02	1.1E+03	3.0E+04	--	--	--
	alpha-BHC	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	3.6E+02	3.0E+03	8.3E+04	--	--	--
	beta-BHC	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	--	--	--	--	--	--
	delta-BHC	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	--	--	--	--	--	--
	gamma-BHC (Lindane)	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	2.1E+03	1.7E+04	4.7E+05	--	--	--
	alpha-Chlordane	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	--	--	--	--	--	--
	gamma-Chlordane	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	--	--	--	--	--	--
	4,4'-DDD	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	--	--	--	--	--	--
	4,4'-DDE	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	8.2E+03	6.6E+04	1.8E+06	--	--	--
	4,4'-DDT	µg/kg	32.5	U	10.6	U	79.6	U	14.3	U	7.54	U	15.0	U	46.5	U	27.7	U	8.5E+03	6.6E+04	1.8E+06	--	--	--
	Dieldrin	µg/kg	15.5	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	15.4	U	1.4E+02	1.2E+03	3.3E+04	--	--	--
	Endosulfan I	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	--	--	--	--	--	--
	Endosulfan II	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	--	--	--	--	--	--
	Endosulfan sulfate	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	--	--	--	--	--	--
	Endrin	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	2.5E+05	8.0E+04	2.2E+06	--	--	--
	Endrin aldehyde	µg/kg	7.76	U	3.94	U	39.9	U	14.3	U	3.78	U	7.52	U	15.5	U	7.72	U	--	--	--	--	--	--
	Endrin ketone	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	--	--	--	--	--	--
	Heptachlor	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	4.5E+02	4.0E+03	1.1E+05	2.3E+05	2.3E+05	--
	Heptachlor epoxide	µg/kg	7.76	U	3.94	U	119	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	2.4E+02	2.0E+03	5.6E+04	--	--	--
	Methoxychlor	µg/kg	23.2	U	11.8	U	1190	U	21.4	U	11.3	U	22.5	U	46.5	U	23.1	U	--	--	--	--	--	--
	Chlordane	µg/kg	232	U	118	U	1190	U	214	U	113	U	225	U	465	U	231	U	7.4E+03	6.1E+04	1.7E+06	--	--	--
	Toxaphene	µg/kg	232	U	118	U	39.9	U	214	U	113	U	225	U	465	U	231	U	2.1E+03	1.7E+04	4.7E+05	--	--	--
	cis-Nonachlor	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	--	--	--	--	--	--
	2,4'-DDD	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	--	--	--	--	--	--
	2,4'-DDE	µg/kg	7.76	U	3.94	U	39.9	U	14.3	U	3.78	U	7.52	U	15.5	U	7.72	U	--	--	--	--	--	--
	2,4'-DDT	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	--	--	--	--	--	--
	Hexachlorobenzene	µg/kg	23.2	U	11.8	U	119	U	21.4	U	11.3	U	22.5	U	46.5	U	23.1	U	9.3E+02	1.1E+04	3.2E+05	2.4E+03	1.3E+04	--
	Hexachlorobutadiene	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	--	--	--	--	--	--
	Mirex	µg/kg	7.76	U	3.94	U	39.9	U	14.3	U	3.78	U	7.52	U	15.5	U	7.72	U	--	--	--	--	--	--
	Oxychlordane	µg/kg	7.76	U	3.94	U	79.6	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	--	--	--	--	--	--
	trans-Nonachlor	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	--	--	--	--	--	--

Table D-5
Residual Soil: Source Control Area 3
Interim Source Control Measures - Residual Soil Human Health Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	S-22		S-23		S-24		S-25		S-26		S-27		S-28		S-29		S-19[12]		S-20[12]		Oregon Department of Environmental Quality Risk-Based Concentrations: Soil Ingestion, Dermal Contact, and Inhalation			Vol. to Outdoor	Vapor Intrusion	Default Background Concentrations Portland Basin Soil
		Date	11/8/2013		11/18/2013		11/18/2013		11/18/2013		11/18/2013		11/27/2013		10/27/2014		10/27/2014		11/8/2013		11/8/2013							
	Depth (Feet Below Ground Surface)		1		1		1		1		1		1		1		1		1		1		Occ	Const.	Exc	Occ	Occ	
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	2,750		3,010	J	2,030	J	4,490		4,470		3,110		2,630		4,890		6,500		39,700		1.6E+05	1.3E+06	3.7E+07	--	--	--
	Butyl benzyl phthalate	µg/kg	656	U	1,960	U	1,930	U	2,120	U	2,020	U	612	U	2,270	U	2,370	U	657	U	639	U	--	--	--	--	--	--
	Diethyl phthalate	µg/kg	554	J	2,900	J	3,560	J	4,390		2,020	U	671	J	1,140	J	1,820	J	864		5,280		--	--	--	--	--	--
	Dimethyl phthalate	µg/kg	328	U	1,960	U	1,930	U	2,120	U	2,020	U	612	U	2,270	U	2,370	U	329	U	320	U	--	--	--	--	--	--
	Di-n-butyl phthalate	µg/kg	684		1,960	U	1,930	U	2,120	U	2,020	U	627	J	2,270	U	2,370	U	329	U	3,790		--	--	--	--	--	--
	Di-n-octyl phthalate	µg/kg	1,310		3,920	U	3,860	U	2,120	U	4,040	U	1,220	U	4,540	U	4,730	U	1,310	U	1,280	U	--	--	--	--	--	--
Butyltins	Tributyltin	µg/kg	110		72		95		120		150		290		--		--		33		1,500		--	--	--	--	--	--
Organochlorine Pesticides	Aldrin	µg/kg	7.59	U	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	1.63	U	1.66	U	7.74	U	15.5	U	1.3E+02	1.1E+03	3.0E+04	--	--	--
	alpha-BHC	µg/kg	7.59	U	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	2.26	U	1.66	U	7.74	U	15.5	U	3.6E+02	3.0E+03	8.3E+04	--	--	--
	beta-BHC	µg/kg	7.59	U	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	1.63	U	1.66	U	7.74	U	15.5	U	--	--	--	--	--	--
	delta-BHC	µg/kg	7.59	U	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	1.63	U	1.66	U	7.74	U	15.5	U	--	--	--	--	--	--
	gamma-BHC (Lindane)	µg/kg	7.59	U	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	1.63	U	1.66	U	7.74	U	15.5	U	2.1E+03	1.7E+04	4.7E+05	--	--	--
	alpha-Chlordane	µg/kg	7.59	U	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	--		--		7.74	U	15.5	U	--	--	--	--	--	--
	gamma-Chlordane	µg/kg	7.59	U	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	--		--		7.74	U	15.5	U	--	--	--	--	--	--
	4,4'-DDD	µg/kg	7.59	U	2.07	U	1.98	U	2.06	U	2.03	U	8.41	U	1.87	U	1.95	U	7.74	U	15.5	U	--	--	--	--	--	--
	4,4'-DDE	µg/kg	7.59	U	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	1.63	U	2.3	U	7.74	U	15.5	U	8.2E+03	6.6E+04	1.8E+06	--	--	--
	4,4'-DDT	µg/kg	31.8	U	5.58	U	5.92	U	11.7	U	16.4	U	20.2	U	6.38	U	6.09	U	15.4	U	46.5	U	8.5E+03	6.6E+04	1.8E+06	--	--	--
	Dieldrin	µg/kg	15.1	U	2.07	U	1.98	U	4.11	U	4.05	U	4.22	U	3.19	U	3.09	U	7.74	U	15.5	U	1.4E+02	1.2E+03	3.3E+04	--	--	--
	Endosulfan I	µg/kg	7.59	U	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	1.63	U	1.66	U	7.74	U	15.5	U	--	--	--	--	--	--
	Endosulfan II	µg/kg	7.59	U	2.07	U	1.98	U	2.06	U	4.05	U	4.22	U	1.63	U	1.66	U	7.74	U	30.9	U	--	--	--	--	--	--
	Endosulfan sulfate	µg/kg	7.59	U	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	1.63	U	1.66	U	7.74	U	15.5	U	--	--	--	--	--	--
	Endrin	µg/kg	7.59	U	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	1.63	U	2.74	U	7.74	U	15.5	U	2.5E+05	8.0E+04	2.2E+06	--	--	--
	Endrin aldehyde	µg/kg	7.59	U	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	1.63	U	1.66	U	7.74	U	15.5	U	--	--	--	--	--	--
	Endrin ketone	µg/kg	7.59	U	2.07	U	1.98	U	2.06	U	4.05	U	4.22	U	2.16	U	2.05	U	7.74	U	15.5	U	--	--	--	--	--	--
	Heptachlor	µg/kg	7.59	U	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	1.63	U	1.66	U	7.74	U	15.5	U	4.5E+02	4.0E+03	1.1E+05	2.3E+05	2.3E+05	--
	Heptachlor epoxide	µg/kg	7.59	U	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	1.63	U	1.66	U	7.74	U	15.5	U	2.4E+02	2.0E+03	5.6E+04	--	--	--
	Methoxychlor	µg/kg	22.7	U	6.2	U	5.92	U	6.17	U	6.09	U	12.6	U	6.87	U	7.49	U	23.2	U	46.5	U	--	--	--	--	--	--
	Chlordane	µg/kg	227	U	62.0	U	59.2	U	61.7	U	60.9	U	126	U	49.1	U	49.9	U	232	U	465	U	7.4E+03	6.1E+04	1.7E+06	--	--	--
	Toxaphene	µg/kg	227	U	62.0	U	59.2	U	61.7	U	60.9	U	126	U	49.1	U	49.9	U	232	U	465	U	2.1E+03	1.7E+04	4.7E+05	--	--	--
	cis-Nonachlor	µg/kg	7.59	U	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	1.63	U	1.66	U	7.74	U	15.5	U	--	--	--	--	--	--
	2,4'-DDD	µg/kg	7.59	U	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	2.31	U	2.69	U	7.74	U	15.5	U	--	--	--	--	--	--
	2,4'-DDE	µg/kg	7.59	U	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	1.63	U	1.66	U	7.74	U	15.5	U	--	--	--	--	--	--
	2,4'-DDT	µg/kg	7.59	U	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	1.63	U	1.66	U	7.74	U	15.5	U	--	--	--	--	--	--
	Hexachlorobenzene	µg/kg	22.7	U	6.20	U	5.92	U	6.17	U	6.09	U	12.6	U	4.91	U	4.99	U	23.2	U	46.5	U	9.3E+02	1.1E+04	3.2E+05	2.4E+03	1.3E+04	--
	Hexachlorobutadiene	µg/kg	7.59	U	2.07	U	1.98	U	2.06	U	2.03	U	8.41	U	1.63	U	1.66	U	7.74	U	15.5	U	--	--	--	--	--	--
	Mirex	µg/kg	7.59	U	2.07	U	3.94	U	4.11	U	4.05	U	4.22	U	1.63	U	2.05	U	7.74	U	15.5	U	--	--	--	--	--	--
	Oxychlordane	µg/kg	7.59	U	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	1.63	U	1.66	U	7.74	U	15.5	U	--	--	--	--	--	--
	trans-Nonachlor	µg/kg	7.59	U	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	1.63	U	1.66	U	7.74	U	15.5	U	--	--	--	--	--	--

Notes:

1. -- = Not analyzed or not established
2. mg/kg = Milligrams per kilogram
3. µg/kg = Micrograms per kilogram
4. J = The result is an estimated quantity
5. U= Undetected at the method detection limit shown
6. EST = Result reported as an Estimated Value. Results estimated due to presence of multiple aroclors and matrix interference.
7. Q = Peak separation for Benzo(b) and Benzo(k)fluoranthenes did not meet method specified criteria. Reported result includes the combined area of the two isomers and should be considered the total of Benzo(b+k)Fluoranthenes.
8. Gray shading indicates sample concentration exceeds one or more RBCs.
9. JSCS Screening Level = Portland Harbor Joint Source Control Strategy; Table 3-1, revision date 7/16/07
10. B = Analyte was detected in the method blank. Results may be biased high.
11. Exceedance = Detected Concentrations/JSCS screening level
12. Soil represented by these samples has been removed from Facility

Table D-6
Residual Soil: Source Control Area 3
Interim Source Control Measures - Residual Soil Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	S-1		S-2		S-3		S-5		S-6		S-7		S-9		S-10		DEQ Level II SLVs				Default Background Concentrations Portland Basin Soil
		Date	10/1/2013		10/2/2013		10/3/2013		10/23/2013		10/23/2013		10/23/2013		10/23/2013		10/23/2013		Plants	Inverts.	Birds	Mammals	
	Depth (Feet Below Ground Surface)		1		1		1		1		1		1		1		1						
Inorganics	Arsenic	mg/kg	22.8		3.62		2.21		10.6		6.86		6.1		7.56		14.1		10	60	10	29	8.8
	Barium	mg/kg	320		158		165		261		148		260		178		256		500	3,000	85	638	790
	Cadmium	mg/kg	0.523		0.396		0.384		1.23		0.580		0.720		0.377		1.16		4	20	6	125	0.63
	Chromium	mg/kg	45.8		17.2		12.4		34.7		25.3		23.7		22.1		36.2		1	0.4	4	410	76
	Copper	mg/kg	983		264		105		767		532		371		502		648		100	50	190	390	34
	Lead	mg/kg	96.2		30.1		25.6		498		96.6		74.8		61.5		173		50	500	16	4,000	79
	Manganese	mg/kg	1,890		902		933		2,330		1,060		1,410		1,140		1,350		500	100	4,125	11,000	1,800
	Mercury	mg/kg	0.0486	U	0.0494	U	0.0530	U	0.0908	U	0.091	U	0.0960	U	0.0913	U	0.159		0.3	0.1	1.5	73	0.23
	Nickel	mg/kg	27.0		10.5		7.60		23.9		13.4		15.9		16.8		29.0		30	200	320	625	47
	Selenium	mg/kg	0.790	J	0.618	U	0.662	U	1.14	U	1.14	U	1.2	U	1.1400	U	1.26	U	1	70	2	25	0.71
	Silver	mg/kg	0.632		0.136	J	0.132	U	0.420		0.375		0.252		0.308		0.515		2	50	--	--	0.82
	Zinc	mg/kg	592		453		235		1610		605		694		473		1,020		50	200	60	20,000	180
PCBs	Aroclor 1016	µg/kg	2.02	U	2.43	U	1.95	U	2.05	U	2.00	U	2.41	U	9.99	U	10.5	U	--	--	--	100,000	--
	Aroclor 1221	µg/kg	2.02	U	2.43	U	1.95	U	2.05	U	2.00	U	2.41	U	9.99	U	10.5	U	--	--	--	--	--
	Aroclor 1232	µg/kg	2.02	U	2.43	U	1.95	U	2.05	U	2.00	U	2.41	U	9.99	U	10.5	U	--	--	--	--	--
	Aroclor 1242	µg/kg	13.9	EST	27.3	EST	28.9	EST	2.05	U	2.0	U	2.41	U	9.99	U	10.5	U	--	--	1,500	5,000	--
	Aroclor 1248	µg/kg	2.02	U	2.43	U	1.95	U	45.5	EST	34.2	EST	20.4	EST	189	EST	523	EST	--	--	--	--	--
	Aroclor 1254	µg/kg	14.2	EST	5.46	EST	5.85	EST	26.3	EST	28.8	EST	16.9	EST	184	EST	231	EST	--	--	700	4,000	--
	Aroclor 1260	µg/kg	18.1	EST	5.40	EST	7.71	EST	30.2	EST	31.4	EST	30.1	EST	151	EST	293	EST	--	--	--	--	--
	Aroclor 1262	µg/kg	2.02	U	2.43	U	1.95	U	2.05	U	2.00	U	2.41	U	9.99	U	10.5	U	--	--	--	--	--
	Aroclor 1268	µg/kg	2.02	U	2.43	U	1.95	U	2.05	U	2.00	U	2.41	U	9.99	U	10.5	U	--	--	--	--	--
	Total PCBs	µg/kg	46.2		38.16		42.46		102.00		94.4		67.4		524		1,047		40,000	--	--	4,000	--
PAHs	Acenaphthene	µg/kg	--		--		--		--		--		--		--		--		20,000	--	--	--	--
	Acenaphthylene	µg/kg	--		--		--		--		--		--		--		--		--	--	--	--	--
	Anthracene	µg/kg	--		--		--		--		--		--		--		--		--	--	--	--	--
	Benzo(a)anthracene	µg/kg	--		--		--		--		--		--		--		--		--	--	--	--	--
	Benzo(a)pyrene	µg/kg	--		--		--		--		--		--		--		--		--	--	--	125,000	--
	Benzo(b)fluoranthene	µg/kg	--		--		--		--		--		--		--		--		--	--	--	--	--
	Benzo(k)fluranthene	µg/kg	--		--		--		--		--		--		--		--		--	--	--	--	--
	Benzo(ghi)perylene	µg/kg	--		--		--		--		--		--		--		--		--	--	--	--	--
	Chrysene	µg/kg	--		--		--		--		--		--		--		--		--	--	--	--	--
	Dibenzo(a,h)anthracene	µg/kg	--		--		--		--		--		--		--		--		--	--	--	--	--
	Fluoranthene	µg/kg	--		--		--		--		--		--		--		--		--	--	--	--	--
	Fluorene	µg/kg	--		--		--		--		--		--		--		--		--	30,000	--	--	--
	Indeno(1,2,3-cd)pyrene	µg/kg	--		--		--		--		--		--		--		--		--	--	--	--	--
	1-Methylnaphthalene	µg/kg	--		--		--		--		--		--		--		--		--	--	--	--	--
	2-Methylnaphthalene	µg/kg	--		--		--		--		--		--		--		--		--	--	--	--	--
	Naphthalene	µg/kg	--		--		--		--		--		--		--		--		10,000	--	--	3,900,000	--
	Phenanthrene	µg/kg	--		--		--		--		--		--		--		--		--	--	--	--	--
	Pyrene	µg/kg	--		--		--		--		--		--		--		--		--	--	--	--	--
	Carbazole	µg/kg	--		--		--		--		--		--		--		--		--	--	--	--	--
	Dibenzofuran	µg/kg	--		--		--		--		--		--		--		--		--	--	--	2	--

Table D-6
Residual Soil: Source Control Area 3
Interim Source Control Measures - Residual Soil Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	S-11		S-12		S-14		S-15		S-16		S-17		S-18		S-21		DEQ Level II SLVs				Default Background Concentrations Portland Basin Soil
		Date	10/22/2013		10/22/2013		10/22/2013		10/22/2013		10/22/2013		10/22/2013		10/22/2013		11/8/2013		Plants	Inverts.	Birds	Mammals	
	Depth (Feet Below Ground Surface)		1		1		1		1		1		1		1		1						
Inorganics	Arsenic	mg/kg	18.9		10.9		13.6		20.7		21.1		25.2		51.1		18.8		10	60	10	29	8.8
	Barium	mg/kg	258		216		272		341		450		410		423		309		500	3,000	85	638	790
	Cadmium	mg/kg	0.845		0.717		1.06		0.701		1.09		1.37		3.81		0.953		4	20	6	125	0.63
	Chromium	mg/kg	42.4		27.1		34.1		65.5		65.1		63.9		127		65.2		1	0.4	4	410	76
	Copper	mg/kg	690		448		648		1,260		1,390		1,310		1170		897		100	50	190	390	34
	Lead	mg/kg	127		164		159		184		99.2		281		489		125		50	500	16	4,000	79
	Manganese	mg/kg	1,520		1,310		1,360		1,920		2,180		2,440		2,040		1,480		500	100	4,125	11,000	1,800
	Mercury	mg/kg	0.104		0.104	U	0.1000		0.0862	U	0.09	U	0.0921	U	0.101	U	0.0855	J	0.3	0.1	1.5	73	0.23
	Nickel	mg/kg	37.5		17.2		25.9		30.2		34.2		32.9		47.4		27.3		30	200	320	625	47
	Selenium	mg/kg	1.19	U	1.3	U	1.15	U	1.08	U	1.13	U	1.15	U	1.26	U	0.627	U	1	70	2	25	0.71
	Silver	mg/kg	0.536		0.287		0.507		0.722		0.732		0.818		0.706		0.564	J	2	50	--	--	0.82
	Zinc	mg/kg	734		1,110		1,090		1,100		1,670		2,410		3920		1,980		50	200	60	20,000	180
PCBs	Aroclor 1016	µg/kg	2.14	U	2.07	U	21.6	U	2.06	U	2.16	U	2.18	U	2.18	U	11.0	U	--	--	--	100,000	--
	Aroclor 1221	µg/kg	2.14	U	2.07	U	21.6	U	2.06	U	2.16	U	2.18	U	2.18	U	11.0	U	--	--	--	--	--
	Aroclor 1232	µg/kg	2.14	U	2.07	U	21.6	U	2.06	U	2.16	U	2.18	U	2.18	U	11.0	U	--	--	--	--	--
	Aroclor 1242	µg/kg	2.14	U	2.07	U	21.6	U	2.1	U	2.16	U	2.18	U	2.18	U	12.3	J	--	--	1,500	5,000	--
	Aroclor 1248	µg/kg	59.1	EST	73.1	EST	1,150	EST	86.7	EST	18	EST	28.4	EST	47.8	EST	11.0	U	--	--	--	--	--
	Aroclor 1254	µg/kg	98.2	EST	46.1	EST	272	EST	65.7	EST	22	EST	43.3	EST	106	EST	11.0	U	--	--	700	4,000	--
	Aroclor 1260	µg/kg	219	EST	68.9	EST	216	EST	104	EST	29.3	EST	69.5	EST	116	EST	273		--	--	--	--	--
	Aroclor 1262	µg/kg	2.14	U	2.07	U	21.6	U	2.06	U	2.16	U	2.18	U	2.18	U	--		--	--	--	--	--
	Aroclor 1268	µg/kg	2.14	U	2.07	U	21.6	U	2.06	U	2.16	U	2.18	U	2.18	U	--		--	--	--	--	--
	Total PCBs	µg/kg	376.3		188.1		1,638		256.4		69.3		141.2		269.8		285.3		40,000	--	--	4,000	--
PAHs	Acenaphthene	µg/kg	--		--		--		--		--		--		--		--		20,000	--	--	--	--
	Acenaphthylene	µg/kg	--		--		--		--		--		--		--		--		--	--	--	--	--
	Anthracene	µg/kg	--		--		--		--		--		--		--		--		--	--	--	--	--
	Benzo(a)anthracene	µg/kg	--		--		--		--		--		--		--		--		--	--	--	--	--
	Benzo(a)pyrene	µg/kg	--		--		--		--		--		--		--		--		--	--	--	125,000	--
	Benzo(b)fluoranthene	µg/kg	--		--		--		--		--		--		--		--		--	--	--	--	--
	Benzo(k)fluranthene	µg/kg	--		--		--		--		--		--		--		--		--	--	--	--	--
	Benzo(ghi)perylene	µg/kg	--		--		--		--		--		--		--		--		--	--	--	--	--
	Chrysene	µg/kg	--		--		--		--		--		--		--		--		--	--	--	--	--
	Dibenzo(a,h)anthracene	µg/kg	--		--		--		--		--		--		--		--		--	--	--	--	--
	Fluoranthene	µg/kg	--		--		--		--		--		--		--		--		--	--	--	--	--
	Fluorene	µg/kg	--		--		--		--		--		--		--		--		--	30,000	--	--	--
	Indeno(1,2,3-cd)pyrene	µg/kg	--		--		--		--		--		--		--		--		--	--	--	--	--
	1-Methylnaphthalene	µg/kg	--		--		--		--		--		--		--		--		--	--	--	--	--
	2-Methylnaphthalene	µg/kg	--		--		--		--		--		--		--		--		--	--	--	--	--
	Naphthalene	µg/kg	--		--		--		--		--		--		--		--		10,000	--	--	3,900,000	--
	Phenanthrene	µg/kg	--		--		--		--		--		--		--		--		--	--	--	--	--
	Pyrene	µg/kg	--		--		--		--		--		--		--		--		--	--	--	--	--
	Carbazole	µg/kg	--		--		--		--		--		--		--		--		--	--	--	--	--
	Dibenzofuran	µg/kg	--		--		--		--		--		--		--		--		--	--	--	2	--

Table D-6
Residual Soil: Source Control Area 3
Interim Source Control Measures - Residual Soil Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	S-22	S-23	S-24	S-25	S-26	S-27	S-28	S-29	S-19[11]	S-20[11]	DEQ Level II SLVs				Default Background Concentrations Portland Basin Soil
		Date	11/8/2013	11/18/2013	11/18/2013	11/18/2013	11/18/2013	11/27/2013	10/27/2014	10/27/2014	11/8/2013	11/8/2013	Plants	Inverts.	Birds	Mammals	
		Depth (Feet Below Ground Surface)	1	1	1	1	1	1	1	1	1	1					
Inorganics	Arsenic	mg/kg	16.2	13.1	29.3	15.7	20.2	25.7	10.7	20	20.8	34.9	10	60	10	29	8.8
	Barium	mg/kg	282	332	273	225	285	324	170	278	266	516	500	3,000	85	638	790
	Cadmium	mg/kg	2.89 M	1.9	1.79	1.68	3.16	3.05	2.09	3.82	1.54	2.89	4	20	6	125	0.63
	Chromium	mg/kg	58.5	54.2	49.3	54.6	138	87	52.1	77	58.3	86.6	1	0.4	4	410	76
	Copper	mg/kg	723	743	737	791	740	1,020	443	849	935	1,590	100	50	190	390	34
	Lead	mg/kg	257	589	457	209	163	181	152	215	701	1,940	50	500	16	4,000	79
	Manganese	mg/kg	1,470	1,910	1,480	1,540	2,430	3,230	944	1,670	1,620	2,130	500	100	4,125	11,000	1,800
	Mercury	mg/kg	0.145	0.054 U	0.0489 U	0.0689 J	0.193	0.0738 J	0.106 U	0.0659 J	0.075 J	0.209 U	0.3	0.1	1.5	73	0.23
	Nickel	mg/kg	24.5	26.7	28.6	30.2	56.8	59.7	20.5	50	32.6	39.6	30	200	320	625	47
	Selenium	mg/kg	0.583 U	0.675	0.612 U	0.649 U	0.721 J	0.725 J	1.33 U	1.36 U	0.649 U	0.745 J	1	70	2	25	0.71
	Silver	mg/kg	0.665 J	0.499	0.514	0.545	0.507	0.738	0.278	0.558	0.597 J	0.967 J	2	50	--	--	0.82
	Zinc	mg/kg	14,400 M	5,200	3,550	2,490	2,210	2,560	7,270	7,290	1,470	7,790	50	200	60	20,000	180
PCBs	Aroclor 1016	µg/kg	10.9 U	2.36 U	2.31 U	2.50 U	2.19 U	6.18 U	11.5 U	11.6 U	2.26 U	4.69 U	--	--	--	100,000	--
	Aroclor 1221	µg/kg	10.9 U	2.36 U	2.31 U	2.50 U	2.19 U	6.18 U	11.5 U	11.6 U	2.26 U	4.69 U	--	--	--	--	--
	Aroclor 1232	µg/kg	10.9 U	2.36 U	2.31 U	2.50 U	2.19 U	6.18 U	11.5 U	11.6 U	2.26 U	4.69 U	--	--	--	--	--
	Aroclor 1242	µg/kg	26.5 EST	12.6 EST	10.2 EST	4.53 J	19.5 EST	10.1 J	11.5 U	7.37 J	4.95 EST	50.2 EST	--	--	1,500	5,000	--
	Aroclor 1248	µg/kg	10.9 U	2.36 U	2.31 U	2.50 U	2.19 U	6.18 U	11.5 U	11.6 U	2.26 U	4.69 U	--	--	--	--	--
	Aroclor 1254	µg/kg	113 EST	24.7 EST	31.1 EST	44.9 EST	85.7 EST	6.18 U	73.6	77.5	2.26 U	178 EST	--	--	700	4,000	--
	Aroclor 1260	µg/kg	178 EST	27.8 EST	48.5 EST	57.0 EST	113 EST	6.18 U	96.1	120	212 EST	122 EST	--	--	--	--	--
	Aroclor 1262	µg/kg	--	--	--	--	--	75.9 EST	--	--	--	--	--	--	--	--	--
	Aroclor 1268	µg/kg	--	--	--	--	--	73.6 EST	--	--	--	--	--	--	--	--	--
	Total PCBs	µg/kg	317.5	65.10	89.8	106.4	218.2	159.6	169.7	204.9	216.95	350.2	40,000	--	--	4,000	--
PAHs	Acenaphthene	µg/kg	--	196 U	475	212 U	202 U	--	227 U	237 U	--	--	20,000	--	--	--	--
	Acenaphthylene	µg/kg	--	196 U	193 U	212 U	202 U	--	227 U	237 U	--	--	--	--	--	--	--
	Anthracene	µg/kg	--	196 U	1,040	212 U	320 J	--	227 U	237 U	--	--	--	--	--	--	--
	Benzo(a)anthracene	µg/kg	--	443	1,610	471	677	--	260	270	--	--	--	--	--	--	--
	Benzo(a)pyrene	µg/kg	--	626	1,780	739	806	--	402	347	--	--	--	--	--	125,000	--
	Benzo(b)fluoranthene	µg/kg	--	631	1,960	1,030 J Q	929	--	770	677	--	--	--	--	--	--	--
	Benzo(k)fluranthene	µg/kg	--	298 J	731	--	305 J	--	230	222 J	--	--	--	--	--	--	--
	Benzo(ghi)perylene	µg/kg	--	367 J	1,160	488	507	--	443	350	--	--	--	--	--	--	--
	Chrysene	µg/kg	--	491	1,720	518	722	--	405	431	--	--	--	--	--	--	--
	Dibenzo(a,h)anthracene	µg/kg	--	196 U	207 J	212 U	202 U	--	227 U	136	--	--	--	--	--	--	--
	Fluoranthene	µg/kg	--	902 B	5,170 B	1,140 B	1,750 B	--	477	544	--	--	--	--	--	--	--
	Fluorene	µg/kg	--	196 U	748	212 U	202 U	--	227 U	237 U	--	--	--	30,000	--	--	--
	Indeno(1,2,3-cd)pyrene	µg/kg	--	420	1,250	491	548	--	484	360	--	--	--	--	--	--	--
	1-Methylnaphthalene	µg/kg	--	392 U	386 U	423 U	404 U	--	454 U	473 U	--	--	--	--	--	--	--
	2-Methylnaphthalene	µg/kg	--	392 U	386 U	423 U	404 U	--	454 U	473 U	--	--	--	--	--	--	--
	Naphthalene	µg/kg	--	392 U	386 U	423 U	404 U	--	454 U	473 U	--	--	10,000	--	--	3,900,000	--
	Phenanthrene	µg/kg	--	496	4,820	830	1,640	--	366	464	--	--	--	--	--	--	--
	Pyrene	µg/kg	--	824	4,170	926	1,410	--	410	427	--	--	--	--	--	--	--
	Carbazole	µg/kg	--	294 U	467 J	317 U	303 U	--	341 U	355 U	--	--	--	--	--	--	--
	Dibenzofuran	µg/kg	--	196 U	415	212 U	202 U	--	227 U	237 U	--	--	--	--	--	2	--

Table D-6
Residual Soil: Source Control Area 3
Interim Source Control Measures - Residual Soil Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	S-1		S-2		S-3		S-5		S-6		S-7		S-9		S-10		DEQ Level II SLVs				Default Background Concentrations Portland Basin Soil
		Date	10/1/2013		10/2/2013		10/3/2013		10/23/2013		10/23/2013		10/23/2013		10/23/2013		10/23/2013		Plants	Inverts.	Birds	Mammals	
	Depth (Feet Below Ground Surface)		1		1		1		1		1		1		1		1						
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	2,860	M	492		440		983		1,340		1,370		460		397		--	--	4,500	1,020,000	--
	Butyl benzyl phthalate	µg/kg	201	U	99.0	J	53.4		85.0	U	97	J	93.8	U	80.7	U	132	J	--	--	--	--	--
	Diethyl phthalate	µg/kg	1,450	M	179	J	143		588.0	M	549		397		151	J	86.7	U	100,000	--	--	250,000	--
	Dimethyl phthalate	µg/kg	201	U	96.6	U	24.6	U	85.0	U	82.0	U	93.8	U	80.7	U	86.7	U	--	200,000	--	--	--
	Di-n-butyl phthalate	µg/kg	295	J	96.6	U	41.6	J	85.0	U	82.0	U	112	J	80.7	U	86.7	U	200,000	--	450	30,000,000	--
	Di-n-octyl phthalate	µg/kg	402	U	193	U	49.2	U	170	U	164	U	188	U	161	U	173	U	--	--	--	--	--
Butyltins	Tributyltin	µg/kg	5.5		55.0		19		28.0		74		40.0		30		25.0		--	--	--	--	--
Organochlorine Pesticides	Aldrin	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	--	--	--	25,000	--
	alpha-BHC	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	--	--	--	--	--
	beta-BHC	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	--	--	--	--	--
	delta-BHC	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	--	--	--	--	--
	gamma-BHC (Lindane)	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	--	--	2,500	200,000	--
	alpha-Chlordane	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	--	--	--	--	--
	gamma-Chlordane	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	--	--	--	--	--
	4,4'-DDD	µg/kg	3.61	U	2.07	U	2.05	U	8.42	U	3.82	U	4.15	U	9.32	U	19.7	U	--	--	10	100,000	--
	4,4'-DDE	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	--	--	10	100,000	--
	4,4'-DDT	µg/kg	9.00	U	2.07	U	2.05	U	13.2	U	7.62	U	8.28	U	7.76	U	70.8	U	--	--	10	100,000	--
	Dieldrin	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	39.3	U	--	--	300	3,000	--
	Endosulfan I	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	--	--	--	--	--
	Endosulfan II	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	--	--	--	--	--
	Endosulfan sulfate	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	--	--	--	--	--
	Endrin	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	--	--	40	5,000	--
	Endrin aldehyde	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	--	--	--	--	--
	Endrin ketone	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	--	--	--	--	--
	Heptachlor	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	--	--	--	15,000	--
	Heptachlor epoxide	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	--	--	--	--	--
	Methoxychlor	µg/kg	5.42	U	6.21	U	6.14	U	11.4	U	11.4	U	12.4	U	11.7	U	59.0	U	--	--	--	500,000	--
	Chlordane	µg/kg	54.2	U	62.1	U	61.4	U	114	U	114	U	124	U	117	U	590	U	--	--	9,000	250,000	--
	Toxaphene	µg/kg	54.2	U	62.1	U	61.4	U	114	U	114	U	124	U	117	U	590	U	--	--	--	1,000,000	--
	cis-Nonachlor	µg/kg	3.61	U	2.07	U	2.05	U	7.58	U	3.82	U	4.15	U	7.76	U	19.7	U	--	--	--	--	--
	2,4'-DDD	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	--	--	--	--	--
	2,4'-DDE	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	--	--	--	--	--
	2,4'-DDT	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	--	--	--	--	--
	Hexachlorobenzene	µg/kg	5.42	U	6.21	U	6.14	U	11.4	U	11.4	U	12.4	U	11.7	U	59.0	U	--	1,000,000	--	--	--
	Hexachlorobutadiene	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	--	--	--	--	--
	Mirex	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	--	--	--	--	--
	Oxychlordane	µg/kg	3.61	U	4.14	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	59.0	U	--	--	--	--	--
	trans-Nonachlor	µg/kg	1.81	U	2.07	U	2.05	U	3.8	U	3.82	U	4.15	U	3.89	U	19.7	U	--	--	--	--	--

Table D-6
Residual Soil: Source Control Area 3
Interim Source Control Measures - Residual Soil Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	S-11		S-12		S-14		S-15		S-16		S-17		S-18		S-21		DEQ Level II SLVs				Default Background Concentrations Portland Basin Soil
		Date	10/22/2013		10/22/2013		10/22/2013		10/22/2013		10/22/2013		10/22/2013		10/22/2013		11/8/2013		Plants	Inverts.	Birds	Mammals	
	Depth (Feet Below Ground Surface)		1		1		1		1		1		1		1		1						
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	923		1,550		1,590		1,430		1,030		1,300		4,720		672	U	--	--	4,500	1,020,000	--
	Butyl benzyl phthalate	µg/kg	94.4	U	81.8	U	204	U	84.3	J	255	U	454	U	338	J	672	U	--	--	--	--	--
	Diethyl phthalate	µg/kg	221		361		1,800		191		262	J	1,290		4,370		336	U	100,000	--	--	250,000	--
	Dimethyl phthalate	µg/kg	94.4	U	81.8	U	207	U	84.2	U	255	U	454	U	209	U	336	U	--	200,000	--	--	--
	Di-n-butyl phthalate	µg/kg	94.4	U	119		207	U	366		255	U	454	U	674		336	U	200,000	--	450	30,000,000	--
	Di-n-octyl phthalate	µg/kg	189	U	164	U	415	U	168	U	511	U	908	U	418	U	1,340	U	--	--	--	--	--
Butyltins	Tributyltin	µg/kg	28.0		44		43.0		180.0		140		140.0		1,700		91.0		--	--	--	--	--
Organochlorine Pesticides	Aldrin	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	--	--	--	25,000	--
	alpha-BHC	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	--	--	--	--	--
	beta-BHC	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	--	--	--	--	--
	delta-BHC	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	--	--	--	--	--
	gamma-BHC (Lindane)	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	--	--	2,500	200,000	--
	alpha-Chlordane	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	--	--	--	--	--
	gamma-Chlordane	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	--	--	--	--	--
	4,4'-DDD	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	--	--	10	100,000	--
	4,4'-DDE	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	--	--	10	100,000	--
	4,4'-DDT	µg/kg	32.5	U	10.6	U	79.6	U	14.3	U	7.54	U	15.0	U	46.5	U	27.7	U	--	--	10	100,000	--
	Dieldrin	µg/kg	15.5	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	15.4	U	--	--	300	3,000	--
	Endosulfan I	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	--	--	--	--	--
	Endosulfan II	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	--	--	--	--	--
	Endosulfan sulfate	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	--	--	--	--	--
	Endrin	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	--	--	40	5,000	--
	Endrin aldehyde	µg/kg	7.76	U	3.94	U	39.9	U	14.3	U	3.78	U	7.52	U	15.5	U	7.72	U	--	--	--	--	--
	Endrin ketone	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	--	--	--	--	--
	Heptachlor	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	--	--	--	15,000	--
	Heptachlor epoxide	µg/kg	7.76	U	3.94	U	119	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	--	--	--	--	--
	Methoxychlor	µg/kg	23.2	U	11.8	U	1190	U	21.4	U	11.3	U	22.5	U	46.5	U	23.1	U	--	--	--	500,000	--
	Chlordane	µg/kg	232	U	118	U	1190	U	214	U	113	U	225	U	465	U	231	U	--	--	9,000	250,000	--
	Toxaphene	µg/kg	232	U	118	U	39.9	U	214	U	113	U	225	U	465	U	231	U	--	--	--	1,000,000	--
	cis-Nonachlor	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	--	--	--	--	--
	2,4'-DDD	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	--	--	--	--	--
	2,4'-DDE	µg/kg	7.76	U	3.94	U	39.9	U	14.3	U	3.78	U	7.52	U	15.5	U	7.72	U	--	--	--	--	--
	2,4'-DDT	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	--	--	--	--	--
	Hexachlorobenzene	µg/kg	23.2	U	11.8	U	119	U	21.4	U	11.3	U	22.5	U	46.5	U	23.1	U	--	1,000,000	--	--	--
	Hexachlorobutadiene	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	--	--	--	--	--
	Mirex	µg/kg	7.76	U	3.94	U	39.9	U	14.3	U	3.78	U	7.52	U	15.5	U	7.72	U	--	--	--	--	--
	Oxychlordane	µg/kg	7.76	U	3.94	U	79.6	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	--	--	--	--	--
	trans-Nonachlor	µg/kg	7.76	U	3.94	U	39.9	U	7.16	U	3.78	U	7.52	U	15.5	U	7.72	U	--	--	--	--	--

Table D-6
Residual Soil: Source Control Area 3
Interim Source Control Measures - Residual Soil Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	S-22		S-23		S-24		S-25		S-26		S-27		S-28		S-29		S-19[11]		S-20[11]		DEQ Level II SLVs				Default Background Concentrations Portland Basin Soil
		Date	11/8/2013		11/18/2013		11/18/2013		11/18/2013		11/18/2013		11/27/2013		10/27/2014		10/27/2014		11/8/2013		11/8/2013		Plants	Inverts.	Birds	Mammals	
		Depth (Feet Below Ground Surface)	1		1		1		1		1		1		1		1		1		1						
Phthalates	Bis(2-ethylhexyl)phthalate	µg/kg	2,750		3,010	J	2,030	J	4,490		4,470		3,110		2,630		4,890		6,500		39,700		--	--	4,500	1,020,000	--
	Butyl benzyl phthalate	µg/kg	656	U	1,960	U	1,930	U	2,120	U	2,020	U	612	U	2,270	U	2,370	U	657	U	639	U	--	--	--	--	--
	Diethyl phthalate	µg/kg	554	J	2,900	J	3,560	J	4,390		2,020	U	671	J	1,140	J	1,820	J	864		5,280		100,000	--	--	250,000	--
	Dimethyl phthalate	µg/kg	328	U	1,960	U	1,930	U	2,120	U	2,020	U	612	U	2,270	U	2,370	U	329	U	320	U	--	200,000	--	--	--
	Di-n-butyl phthalate	µg/kg	684		1,960	U	1,930	U	2,120	U	2,020	U	627	J	2,270	U	2,370	U	329	U	3,790		200,000	--	450	30,000,000	--
	Di-n-octyl phthalate	µg/kg	1,310		3,920	U	3,860	U	2,120	U	4,040	U	1,220	U	4,540	U	4,730	U	1,310	U	1,280	U	--	--	--	--	--
Butyltins	Tributyltin	µg/kg	110.0		72		95		120.0		150.0		290		--		--		33		1,500		--	--	--	--	--
Organochlorine Pesticides	Aldrin	µg/kg	7.59	U	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	1.63	U	1.66	U	7.74	U	15.5	U	--	--	--	25,000	--
	alpha-BHC	µg/kg	7.59	U	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	2.26	U	1.66	U	7.74	U	15.5	U	--	--	--	--	--
	beta-BHC	µg/kg	7.59	U	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	1.63	U	1.66	U	7.74	U	15.5	U	--	--	--	--	--
	delta-BHC	µg/kg	7.59	U	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	1.63	U	1.66	U	7.74	U	15.5	U	--	--	--	--	--
	gamma-BHC (Lindane)	µg/kg	7.59	U	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	1.63	U	1.66	U	7.74	U	15.5	U	--	--	2,500	200,000	--
	alpha-Chlordane	µg/kg	7.59	U	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	--		--		7.74	U	15.5	U	--	--	--	--	--
	gamma-Chlordane	µg/kg	7.59	U	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	--		--		7.74	U	15.5	U	--	--	--	--	--
	4,4'-DDD	µg/kg	7.59	U	2.07	U	1.98	U	2.06	U	2.03	U	8.41	U	1.87	U	1.95	U	7.74	U	15.5	U	--	--	10	100,000	--
	4,4'-DDE	µg/kg	7.59	U	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	1.63	U	2.3	U	7.74	U	15.5	U	--	--	10	100,000	--
	4,4'-DDT	µg/kg	31.8	U	5.58	U	5.92	U	11.7	U	16.4	U	20.2	U	6.38	U	6.09	U	15.4	U	46.5	U	--	--	10	100,000	--
	Dieldrin	µg/kg	15.1	U	2.07	U	1.98	U	4.11	U	4.05	U	4.22	U	3.19	U	3.09	U	7.74	U	15.5	U	--	--	300	3,000	--
	Endosulfan I	µg/kg	7.59	U	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	1.63	U	1.66	U	7.74	U	15.5	U	--	--	--	--	--
	Endosulfan II	µg/kg	7.59	U	2.07	U	1.98	U	2.06	U	4.05	U	4.22	U	1.63	U	1.66	U	7.74	U	30.9	U	--	--	--	--	--
	Endosulfan sulfate	µg/kg	7.59	U	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	1.63	U	1.66	U	7.74	U	15.5	U	--	--	--	--	--
	Endrin	µg/kg	7.59	U	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	1.63	U	2.74	U	7.74	U	15.5	U	--	--	40	5,000	--
	Endrin aldehyde	µg/kg	7.59	U	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	1.63	U	1.66	U	7.74	U	15.5	U	--	--	--	--	--
	Endrin ketone	µg/kg	7.59	U	2.07	U	1.98	U	2.06	U	4.05	U	4.22	U	2.16	U	2.05	U	7.74	U	15.5	U	--	--	--	--	--
	Heptachlor	µg/kg	7.59	U	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	1.63	U	1.66	U	7.74	U	15.5	U	--	--	--	15,000	--
	Heptachlor epoxide	µg/kg	7.59	U	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	1.63	U	1.66	U	7.74	U	15.5	U	--	--	--	--	--
	Methoxychlor	µg/kg	22.7	U	6.2	U	5.92	U	6.17	U	6.09	U	12.6	U	6.87	U	7.49	U	23.2	U	46.5	U	--	--	--	500,000	--
	Chlordane	µg/kg	227	U	62.0	U	59.2	U	61.7	U	60.9	U	126	U	49.1	U	49.9	U	232	U	465	U	--	--	9,000	250,000	--
	Toxaphene	µg/kg	227	U	62.0	U	59.2	U	61.7	U	60.9	U	126	U	49.1	U	49.9	U	232	U	465	U	--	--	--	1,000,000	--
	cis-Nonachlor	µg/kg	7.59	U	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	1.63	U	1.66	U	7.74	U	15.5	U	--	--	--	--	--
	2,4'-DDD	µg/kg	7.59	U	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	2.31	U	2.69	U	7.74	U	15.5	U	--	--	--	--	--
	2,4'-DDE	µg/kg	7.59	U	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	1.63	U	1.66	U	7.74	U	15.5	U	--	--	--	--	--
	2,4'-DDT	µg/kg	7.59	U	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	1.63	U	1.66	U	7.74	U	15.5	U	--	--	--	--	--
	Hexachlorobenzene	µg/kg	22.7	U	6.20	U	5.92	U	6.17	U	6.09	U	12.6	U	4.91	U	4.99	U	23.2	U	46.5	U	--	1,000,000	--	--	--
	Hexachlorobutadiene	µg/kg	7.59	U	2.07	U	1.98	U	2.06	U	2.03	U	8.41	U	1.63	U	1.66	U	7.74	U	15.5	U	--	--	--	--	--
	Mirex	µg/kg	7.59	U	2.07	U	3.94	U	4.11	U	4.05	U	4.22	U	1.63	U	2.05	U	7.74	U	15.5	U	--	--	--	--	--
	Oxychlordane	µg/kg	7.59	U	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	1.63	U	1.66	U	7.74	U	15.5	U	--	--	--	--	--
	trans-Nonachlor	µg/kg	7.59	U	2.07	U	1.98	U	2.06	U	2.03	U	4.22	U	1.63	U	1.66	U	7.74	U	15.5	U	--	--	--	--	--

Please refer to notes at end of table.

Notes:

1. -- = Not analyzed or not established
2. mg/kg = Milligrams per kilogram.
3. µg/kg = Micrograms per kilogram.
4. J = The result is an estimated quantity.
5. U= Undetected at the method detection limit shown.
6. JSCS Screening Level = Portland Harbor Joint Source Control Strategy; Table 3-1, revision date 7/16/07.
7. EST = Result reported as an Estimated Value. Results estimated due to presence of multiple aroclors and matrix interference
8. Q = Peak separation for Benzo(b) and Benzo(k)fluoranthenes did not meet method specified criteria. Reported result includes the combined area of the two isomers and should be considered the total of Benzo(b+k)Fluoranthenes.
9. Gray shading indicates sample concentration exceeds the default background concentration (metals only) and one or more SLVs. Orange shading indicates concentrations exceeds an ecological health hot spot criterion.
10. B = Analyte was detected in the method blank. Results may be biased high.
11. Soil represented by these samples has been removed from facility.

Table D-7
Residual Soil: Source Control Area 5
Interim Source Control Measures - Residual Soil Source Control, Human Health, and Terrestrial Ecological Risk Screening
Supplemental Area 2 Riverbank Focused Feasibility Study
Gunderson LLC - Portland, Oregon

Group	Constituent	Units	Ways 2 COMP	Oregon DEQ and EPA JSCS SLVs	EPA Draft PRG for Riverbank Soil	Oregon Department of Environmental Quality Risk-Based Concentrations					DEQ Level II SLVs				Default Background Concentrations Portland Basin Soil
						Soil Ingestion, Dermal Contact, and Inhalation			Vol. to Outdoor	Vapor Intrusion					
		Sample Date	1/29/2016												
	Depth (Feet Below Ground Surface)		0 - 0.5			Occ	Const.	Exc	Occ	Occ	Plants	Inverts.	Birds	Mammals	
Inorganics	Mercury	mg/kg	1.11	0.07	1.1	350	110	2,900	--	--	0.3	0.1	1.5	73	0.23
	Antimony	mg/kg	2.84	64	--	--	--	--	--	--	5	--	--	15	1
	Arsenic	mg/kg	9.39	--	3	1.9	15	420	--	--	10	60	10	29	8.8
	Barium	mg/kg	131	--	--	220,000	69,000	--	--	--	500	3000	85	638	790
	Beryllium	mg/kg	0.423	--	--	2,300	700	19,000	--	--	10	--	--	83	2
	Cadmium	mg/kg	0.712	1	5	1,100	350	9,700	--	--	4	20	6	125	0.63
	Chromium	mg/kg	29.3	111	--	--	530,000	--	--	--	1	0.4	4	410	76
	Copper	mg/kg	111	149	149	47,000	14,000	390,000	--	--	100	50	190	390	34
	Lead	mg/kg	98.4	17	128	800	800	800	--	--	50	500	16	4000	79
	Manganese	mg/kg	932	1,100	--	25,000	8,200	230,000	--	--	500	100	4,125	11,000	1,800
	Nickel	mg/kg	21.3	48.6	--	22,000	7,000	190,000	--	--	30	200	320	625	47
	Selenium	mg/kg	1.21 U	5	--	--	--	--	--	--	1	70	2	25	0.71
	Silver	mg/kg	0.145 J	5	--	5,800	1,800	49,000	--	--	2	50	--	--	0.82
	Zinc	mg/kg	347	459	459	--	--	--	--	--	50	200	60	20,000	180
PCBs	Aroclor 1016	ug/kg	11.7 U	--	--	--	--	--	--	--	--	--	--	100	--
	Aroclor 1221	ug/kg	11.7 U	--	--	--	--	--	--	--	--	--	--	--	--
	Aroclor 1232	ug/kg	11.7 U	--	--	--	--	--	--	--	--	--	--	--	--
	Aroclor 1242	ug/kg	11.7 U	--	--	--	--	--	--	--	--	--	1,500	5,000	--
	Aroclor 1248	ug/kg	11.7 U	--	--	--	--	--	--	--	--	--	--	--	--
	Aroclor 1254	ug/kg	6.4 J	--	--	--	--	--	--	--	--	--	700	4000	--
	Aroclor 1260	ug/kg	8.67 J	--	--	--	--	--	--	--	--	--	--	--	--
	Total PCBs	ug/kg	15.07 J	0.39	9	590	4,900	140,000	--	--	40,000	--	--	4,000	--
Pesticides	4,4'-DDD	ug/kg	1.61 U	--	6.1	12,000	94,000	2,600,000	--	--	--	--	10	100,000	--
	4,4'-DDE	ug/kg	1.61 U	0.33	6.1	8,200	66,000	1,800,000	--	--	--	--	10	100,000	--
	4,4'-DDT	ug/kg	1.65 U	0.33	6.1	8,500	66,000	1,800,000	--	--	--	--	10	100,000	--
	Aldrin	ug/kg	1.61 U	40	2	130	1,100	30,000	--	--	--	--	--	25,000	--
	alpha-BHC	ug/kg	1.61 U	--	--	360	3,000	83,000	--	--	--	--	--	--	--
	beta-BHC	ug/kg	1.61 U	--	--	--	--	--	--	--	--	--	--	--	--
	Chlordane (Technical)	ug/kg	48.3 U	0.37	1.5	7,400	61,000	1,700,000	--	--	--	--	9,000	250,000	--
	cis-Chlordane	ug/kg	1.61 U	0.37	1.5	7,400	61,000	1,700,000	--	--	--	--	9,000	250,000	--
	delta-BHC	ug/kg	1.61 U	--	--	--	--	--	--	--	--	--	--	--	--
	Dieldrin	ug/kg	1.61 U	0.0081	0.07	140	1,200	33,000	--	--	--	--	300	3,000	--
	Endosulfan I	ug/kg	1.61 U	--	--	--	--	--	--	--	--	--	--	--	--
	Endosulfan II	ug/kg	1.61 U	--	--	--	--	--	--	--	--	--	--	--	--
	Endosulfan sulfate	ug/kg	1.61 U	--	--	--	--	--	--	--	--	--	--	--	--
	Endrin	ug/kg	1.61 U	207	--	250,000	80,000	2,200,000	--	--	--	--	40	5,000	--
	Endrin Aldehyde	ug/kg	1.61 U	--	--	--	--	--	--	--	--	--	--	--	--
	Endrin ketone	ug/kg	1.61 U	--	--	--	--	--	--	--	--	--	--	--	--
	gamma-BHC (Lindane)	ug/kg	1.61 U	4.99	5	2,100	17,000	470,000	--	--	--	--	2,500	200,000	--
	Heptachlor	ug/kg	1.61 U	10	--	450	4,000	110,000	230,000	230,000	--	--	--	15	--
	Heptachlor epoxide	ug/kg	1.61 U	16	--	240	2,000	56,000	--	--	--	--	--	--	--
	Methoxychlor	ug/kg	4.83 U	--	--	--	--	--	--	--	--	--	--	500,000	--
	Toxaphene (Total)	ug/kg	48.3 U	--	--	2,100	17,000	470,000	--	--	--	--	--	1,000,000	--
	trans-Chlordane	ug/kg	1.61 U	0.37	1.5	7,400	61,000	1,700,000	--	--	--	--	9,000	250,000	--
Organotins	Butyltin Ion	ug/kg	3.4 JQ	--	--	--	--	--	--	--	--	--	--	--	--
	Dibutyltin Ion	ug/kg	5 U	--	--	--	--	--	--	--	--	--	--	--	--
	Tributyltin Ion	ug/kg	2.7 J	2.3	24000	--	--	--	--	--	--	--	--	--	--

Notes:
1. -- = Not applicable/not analyzed
2. mg/kg = Milligrams per kilogram
3. µg/kg = Micrograms per kilogram
4. J = The result is an estimated quantity
5. U= Undetected at the method detection limit shown
6. Gray shading indicates sample concentration exceeds one or more RBCs.
7. UJ = Undetected at the method detection limit shown, detection limit is an estimated quantity
8. Risk-Based Concentrations; revision date 11/1/15
9. PRG = Draft Preliminary Remediation Goal; EPA, July 2015
10. JSCS Screening Level = Portland Harbor Joint Source Control Strategy; Table 3-1, revision date 7/16/07

APPENDIX E

SOURCE CONTROL AREA 5 LABORATORY REPORT

LABORATORY DATA QUALITY ASSURANCE REVIEW

This appendix presents a quality assurance review of laboratory analytical data at riverbank Source Control Area 5 on January 29, 2016. Soil analyses were performed by Apex Labs (Apex) of Tigard, Oregon, under sample delivery group A6B0026.

Quality assurance/quality control (QA/QC) is discussed below.

- Samples were received by the analytical laboratory in good condition and in the appropriate, laboratory-supplied sample containers.
- Samples were received by the laboratory within the recommended temperature range.
- The samples were analyzed within their respective method holding times.

Cascadia reviewed the laboratory narrative, data, and quality control data and determined that the data are appropriate for evaluating soil and groundwater conditions at the site, with the following qualifiers:

- The relative percent difference (RPD) of Aroclor 1254 concentrations in Laboratory Control Sample (LCS) 6020131-BS1 and LCS Duplicate (LCSD) 6020131-DUP is 58 percent, which is outside of the recommended range. In this case, the detected concentrations in the LCS and LCSD were less than 5 times the method reporting limit, thus, the RPD data are not useful for controlling data quality.
- The RPD of butyltin ion in LCS/LCSD sample LCS-020416 is 21.7%. The recommended limit is 20%.

Overall, data were reviewed by Cascadia's Project Manager and found to be acceptable for evaluating general soil and groundwater conditions at the sampled locations.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Saturday, February 27, 2016

Chris Breemer
Cascadia Associates
3226 SW Mitchell Ct.
Portland, OR 97239

RE: Ways 2 Blds / [none]

Enclosed are the results of analyses for work order A6B0026, which was received by the laboratory on 1/29/2016 at 12:30:00PM.

Thank you for using Apex Labs. We appreciate your business and strive to provide the highest quality services to the environmental industry.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Cascadia Associates	Project: **Ways 2 Blds**	
3226 SW Mitchell Ct.	Project Number: [none]	**Reported:**
Portland, OR 97239	Project Manager: Chris Breemer	02/27/16 13:40

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Ways 2 Comp	A6B0026-04	Soil	01/29/16 08:00	01/29/16 12:30

Apex Laboratories

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

Philip Nerenberg, Lab Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Cascadia Associates	Project: **Ways 2 Blds**	
3226 SW Mitchell Ct.	Project Number: [none]	**Reported:**
Portland, OR 97239	Project Manager: Chris Breemer	02/27/16 13:40

ANALYTICAL SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
Ways 2 Comp (A6B0026-04)			**Matrix: Soil**		**Batch: 6020131**			**C-07**
Aroclor 1016	ND	5.85	11.7	ug/kg dry	1	02/05/16 16:35	EPA 8082A	
Aroclor 1221	ND	5.85	11.7	"	"	"	"	
Aroclor 1232	ND	5.85	11.7	"	"	"	"	
Aroclor 1242	ND	5.85	11.7	"	"	"	"	
Aroclor 1248	ND	5.85	11.7	"	"	"	"	
Aroclor 1254	**6.40**	5.85	11.7	"	"	"	"	J
Aroclor 1260	**8.67**	5.85	11.7	"	"	"	"	J
Surrogate: Decachlorobiphenyl (Surr)			*Recovery: 71 %*	*Limits: 72-126 %*	"	"	"	*S-03*

Apex Laboratories

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

Philip Nerenberg, Lab Director

Apex Labs

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Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Cascadia Associates	Project: **Ways 2 Blds**	
3226 SW Mitchell Ct.	Project Number: [none]	**Reported:**
Portland, OR 97239	Project Manager: Chris Breemer	02/27/16 13:40

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
Ways 2 Comp (A6B0026-04RE1)			**Matrix: Soil**		**Batch: 6020312**			**C-05**
Aldrin	ND	0.806	1.61	ug/kg dry	1	02/11/16 15:24	EPA 8081B	
alpha-BHC	ND	0.806	1.61	"	"	"	"	
beta-BHC	ND	0.806	1.61	"	"	"	"	
delta-BHC	ND	0.806	1.61	"	"	"	"	
gamma-BHC (Lindane)	ND	0.806	1.61	"	"	"	"	
cis-Chlordane	ND	0.806	1.61	"	"	"	"	
trans-Chlordane	ND	0.806	1.61	"	"	"	"	
4,4'-DDD	ND	1.61	1.61	"	"	"	"	
4,4'-DDE	ND	0.806	1.61	"	"	"	"	
4,4'-DDT	ND	1.65	1.65	"	"	"	"	R-02
Dieldrin	ND	0.806	1.61	"	"	"	"	
Endosulfan I	ND	0.806	1.61	"	"	"	"	
Endosulfan II	ND	0.806	1.61	"	"	"	"	
Endosulfan sulfate	ND	0.806	1.61	"	"	"	"	
Endrin	ND	0.806	1.61	"	"	"	"	
Endrin Aldehyde	ND	0.806	1.61	"	"	"	"	
Endrin ketone	ND	0.806	1.61	"	"	"	"	
Heptachlor	ND	0.806	1.61	"	"	"	"	
Heptachlor epoxide	ND	0.806	1.61	"	"	"	"	
Methoxychlor	ND	2.41	4.83	"	"	"	"	
Chlordane (Technical)	ND	24.1	48.3	"	"	"	"	
Toxaphene (Total)	ND	24.1	48.3	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 72 %*	*Limits: 42-129 %*	"	"	"	
Decachlorobiphenyl (Surr)			*115 %*	*Limits: 65-151 %*	"	"	"	

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Philip Nerenberg, Lab Director

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Cascadia Associates	Project: **Ways 2 Blds**	
3226 SW Mitchell Ct.	Project Number: [none]	**Reported:**
Portland, OR 97239	Project Manager: Chris Breemer	02/27/16 13:40

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
Ways 2 Comp (A6B0026-04)			**Matrix: Soil**					
Batch: 6020165								
Antimony	**2.84**	0.604	1.21	mg/kg dry	10	02/08/16 11:57	EPA 6020A	
Arsenic	**9.39**	0.604	1.21	"	"	"	"	
Barium	**131**	0.604	1.21	"	"	"	"	
Beryllium	**0.423**	0.121	0.242	"	"	"	"	
Cadmium	**0.712**	0.121	0.242	"	"	"	"	
Chromium	**29.3**	0.604	1.21	"	"	"	"	
Copper	**111**	1.21	2.42	"	"	"	"	
Lead	**98.4**	0.121	0.242	"	"	"	"	
Manganese	**932**	0.604	1.21	"	"	"	"	
Mercury	**1.11**	0.0483	0.0966	"	"	"	"	
Nickel	**21.3**	0.604	1.21	"	"	"	"	
Selenium	ND	0.604	1.21	"	"	"	"	
Silver	**0.145**	0.121	0.242	"	"	"	"	J
Zinc	**347**	2.42	4.83	"	"	"	"	

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Cascadia Associates	Project: **Ways 2 Blds**	
3226 SW Mitchell Ct.	Project Number: [none]	**Reported:**
Portland, OR 97239	Project Manager: Chris Breemer	02/27/16 13:40

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
Ways 2 Comp (A6B0026-04)			**Matrix: Soil**		**Batch: 6020059**			
% Solids	**81.7**	1.00	1.00	% by Weight	1	02/03/16 09:01	EPA 8000C	

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Cascadia Associates	Project: **Ways 2 Blds**	
3226 SW Mitchell Ct.	Project Number: [none]	**Reported:**
Portland, OR 97239	Project Manager: Chris Breemer	02/27/16 13:40

QUALITY CONTROL (QC) SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6020131 - EPA 3546							**Soil**					
Blank (6020131-BLK1)					Prepared: 02/04/16 11:37		Analyzed: 02/05/16 15:59					**C-07**
EPA 8082A												
Aroclor 1016	ND	4.17	8.33	ug/kg wet	1	---	---	---	---	---	---	
Aroclor 1221	ND	4.17	8.33	"	"	---	---	---	---	---	---	
Aroclor 1232	ND	4.17	8.33	"	"	---	---	---	---	---	---	
Aroclor 1242	ND	4.17	8.33	"	"	---	---	---	---	---	---	
Aroclor 1248	ND	4.17	8.33	"	"	---	---	---	---	---	---	
Aroclor 1254	ND	4.17	8.33	"	"	---	---	---	---	---	---	
Aroclor 1260	ND	4.17	8.33	"	"	---	---	---	---	---	---	
Surr: Decachlorobiphenyl (Surr)			*Recovery: 88 %*	*Limits: 72-126 %*			*Dilution: 1x*					
LCS (6020131-BS1)					Prepared: 02/04/16 11:37		Analyzed: 02/05/16 16:17					**C-07**
EPA 8082A												
Aroclor 1016	185	5.00	10.0	ug/kg wet	1	250	---	74	47-134%	---	---	
Aroclor 1260	204	5.00	10.0	"	"	"	---	82	53-140%	---	---	
Surr: Decachlorobiphenyl (Surr)			*Recovery: 90 %*	*Limits: 72-126 %*			*Dilution: 1x*					
Duplicate (6020131-DUP1)					Prepared: 02/04/16 11:37		Analyzed: 02/05/16 17:11					**C-07**
QC Source Sample: Ways 2 Comp (A6B0026-04)												
EPA 8082A												
Aroclor 1016	ND	5.87	11.7	ug/kg dry	1	---	ND	---	---	---	30%	
Aroclor 1221	ND	5.87	11.7	"	"	---	ND	---	---	---	30%	
Aroclor 1232	ND	5.87	11.7	"	"	---	ND	---	---	---	30%	
Aroclor 1242	ND	5.87	11.7	"	"	---	ND	---	---	---	30%	
Aroclor 1248	ND	5.87	11.7	"	"	---	ND	---	---	---	30%	
Aroclor 1254	**11.6**	5.87	11.7	"	"	---	6.40	---	---	58	30%	Q-05, J
Aroclor 1260	**10.5**	5.87	11.7	"	"	---	8.67	---	---	19	30%	J
Surr: Decachlorobiphenyl (Surr)			*Recovery: 75 %*	*Limits: 72-126 %*			*Dilution: 1x*					

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Cascadia Associates	Project: **Ways 2 Blds**	
3226 SW Mitchell Ct.	Project Number: [none]	**Reported:**
Portland, OR 97239	Project Manager: Chris Breemer	02/27/16 13:40

QUALITY CONTROL (QC) SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6020312 - EPA 3546							**Soil**					
Blank (6020312-BLK1)					Prepared: 02/10/16 12:01		Analyzed: 02/11/16 14:48					**C-05**
EPA 8081B												
Aldrin	ND	0.323	0.645	ug/kg wet	1	---	---	---	---	---	---	
alpha-BHC	ND	0.323	0.645	"	"	---	---	---	---	---	---	
beta-BHC	ND	0.323	0.645	"	"	---	---	---	---	---	---	
delta-BHC	ND	0.323	0.645	"	"	---	---	---	---	---	---	
gamma-BHC (Lindane)	ND	0.323	0.645	"	"	---	---	---	---	---	---	
cis-Chlordane	ND	0.323	0.645	"	"	---	---	---	---	---	---	
trans-Chlordane	ND	0.323	0.645	"	"	---	---	---	---	---	---	
4,4'-DDD	ND	0.323	0.645	"	"	---	---	---	---	---	---	
4,4'-DDE	ND	0.323	0.645	"	"	---	---	---	---	---	---	
4,4'-DDT	ND	0.323	0.645	"	"	---	---	---	---	---	---	
Dieldrin	ND	0.323	0.645	"	"	---	---	---	---	---	---	
Endosulfan I	ND	0.323	0.645	"	"	---	---	---	---	---	---	
Endosulfan II	ND	0.323	0.645	"	"	---	---	---	---	---	---	
Endosulfan sulfate	ND	0.323	0.645	"	"	---	---	---	---	---	---	
Endrin	ND	0.323	0.645	"	"	---	---	---	---	---	---	
Endrin Aldehyde	**0.484**	0.323	0.645	"	"	---	---	---	---	---	---	B-02, J
Endrin ketone	ND	0.323	0.645	"	"	---	---	---	---	---	---	
Heptachlor	ND	0.323	0.645	"	"	---	---	---	---	---	---	
Heptachlor epoxide	ND	0.323	0.645	"	"	---	---	---	---	---	---	
Methoxychlor	ND	0.968	1.94	"	"	---	---	---	---	---	---	
Chlordane (Technical)	ND	9.68	19.4	"	"	---	---	---	---	---	---	
Toxaphene (Total)	ND	9.68	19.4	"	"	---	---	---	---	---	---	

Surr: 2,4,5,6-TCMX (Surr)	*Recovery: 81 %*	*Limits: 42-129 %*	*Dilution: 1x*
Decachlorobiphenyl (Surr)	*98 %*	*65-151 %*	*"*

LCS (6020312-BS1)					Prepared: 02/10/16 12:01		Analyzed: 02/11/16 15:06					**C-05**
EPA 8081B												
Aldrin	13.7	0.334	0.666	ug/kg wet	1	16.7	---	82	45-136%	---	---	
alpha-BHC	14.0	0.334	0.666	"	"	"	---	84	45-137%	---	---	
beta-BHC	16.2	0.334	0.666	"	"	"	---	97	50-136%	---	---	
delta-BHC	15.2	0.334	0.666	"	"	"	---	91	47-139%	---	---	

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Cascadia Associates	Project: **Ways 2 Blds**	
3226 SW Mitchell Ct.	Project Number: [none]	**Reported:**
Portland, OR 97239	Project Manager: Chris Breemer	02/27/16 13:40

QUALITY CONTROL (QC) SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6020312 - EPA 3546							**Soil**					
LCS (6020312-BS1)					Prepared: 02/10/16 12:01		Analyzed: 02/11/16 15:06					**C-05**
gamma-BHC (Lindane)	14.4	0.334	0.666	"	"	"	---	87	49-135%	---	---	
cis-Chlordane	15.0	0.334	0.666	"	"	"	---	90	54-133%	---	---	
trans-Chlordane	15.0	0.334	0.666	"	"	"	---	90	53-135%	---	---	
4,4'-DDD	19.1	0.334	0.666	"	"	"	---	115	56-139%	---	---	
4,4'-DDE	17.9	0.334	0.666	"	"	"	---	107	56-134%	---	---	
4,4'-DDT	19.1	0.334	0.666	"	"	"	---	114	50-141%	---	---	
Dieldrin	16.4	0.334	0.666	"	"	"	---	98	56-136%	---	---	
Endosulfan I	15.3	0.334	0.666	"	"	"	---	92	52-132%	---	---	
Endosulfan II	18.1	0.334	0.666	"	"	"	---	109	53-134%	---	---	
Endosulfan sulfate	17.4	0.334	0.666	"	"	"	---	104	55-136%	---	---	
Endrin	18.0	0.334	0.666	"	"	"	---	108	56-140%	---	---	
Endrin Aldehyde	18.2	0.334	0.666	"	"	"	---	109	35-137%	---	---	B-02
Endrin ketone	17.8	0.334	0.666	"	"	"	---	107	55-136%	---	---	
Heptachlor	13.6	0.334	0.666	"	"	"	---	81	47-136%	---	---	
Heptachlor epoxide	14.5	0.334	0.666	"	"	"	---	87	52-136%	---	---	
Methoxychlor	21.6	1.00	2.00	"	"	"	---	130	52-143%	---	---	

Surr: 2,4,5,6-TCMX (Surr) — *Recovery: 94 %* — *Limits: 42-129 %* — *Dilution: 1x*
Decachlorobiphenyl (Surr) — *102 %* — *65-151 %* — *"*

Duplicate (6020312-DUP1)					Prepared: 02/10/16 12:01		Analyzed: 02/11/16 16:19					**C-05**
QC Source Sample: Ways 2 Comp (A6B0026-04RE1)												
EPA 8081B												
Aldrin	ND	0.799	1.59	ug/kg dry	1	---	ND	---	---	---	30%	
alpha-BHC	ND	0.799	1.59	"	"	---	ND	---	---	---	30%	
beta-BHC	ND	0.799	1.59	"	"	---	ND	---	---	---	30%	
delta-BHC	ND	0.799	1.59	"	"	---	ND	---	---	---	30%	
gamma-BHC (Lindane)	ND	0.799	1.59	"	"	---	ND	---	---	---	30%	
cis-Chlordane	ND	0.799	1.59	"	"	---	ND	---	---	---	30%	
trans-Chlordane	ND	0.799	1.59	"	"	---	ND	---	---	---	30%	
4,4'-DDD	ND	0.799	1.59	"	"	---	ND	---	---	---	30%	
4,4'-DDE	ND	0.799	1.59	"	"	---	ND	---	---	---	30%	
4,4'-DDT	ND	1.58	1.59	"	"	---	ND	---	---	---	30%	

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Cascadia Associates	Project: **Ways 2 Blds**	
3226 SW Mitchell Ct.	Project Number: [none]	**Reported:**
Portland, OR 97239	Project Manager: Chris Breemer	02/27/16 13:40

QUALITY CONTROL (QC) SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6020312 - EPA 3546							**Soil**					
Duplicate (6020312-DUP1)					Prepared: 02/10/16 12:01		Analyzed: 02/11/16 16:19					**C-05**
QC Source Sample: Ways 2 Comp (A6B0026-04RE1)												
Dieldrin	ND	0.799	1.59	"	"	---	ND	---	---	---	30%	
Endosulfan I	ND	0.799	1.59	"	"	---	ND	---	---	---	30%	
Endosulfan II	ND	0.799	1.59	"	"	---	ND	---	---	---	30%	
Endosulfan sulfate	ND	0.799	1.59	"	"	---	ND	---	---	---	30%	
Endrin	ND	0.799	1.59	"	"	---	ND	---	---	---	30%	
Endrin Aldehyde	ND	0.799	1.59	"	"	---	ND	---	---	---	30%	
Endrin ketone	ND	0.799	1.59	"	"	---	ND	---	---	---	30%	
Heptachlor	ND	0.799	1.59	"	"	---	ND	---	---	---	30%	
Heptachlor epoxide	ND	0.799	1.59	"	"	---	ND	---	---	---	30%	
Methoxychlor	ND	2.39	4.79	"	"	---	ND	---	---	---	30%	
Chlordane (Technical)	ND	23.9	47.9	"	"	---	ND	---	---	---	30%	
Toxaphene (Total)	ND	23.9	47.9	"	"	---	ND	---	---	---	30%	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 71 %*		*Limits: 42-129 %*			*Dilution: 1x*				
Decachlorobiphenyl (Surr)			*96 %*		*65-151 %*			*"*				
Matrix Spike (6020312-MS1)					Prepared: 02/10/16 12:01		Analyzed: 02/11/16 17:14					**C-05**
QC Source Sample: Ways 2 Comp (A6B0026-04RE1)												
EPA 8081B												
Aldrin	15.6	0.803	1.60	ug/kg dry	1	20.0	ND	78	45-136%	---	---	
alpha-BHC	15.6	0.803	1.60	"	"	"	ND	78	45-137%	---	---	
beta-BHC	22.5	0.803	1.60	"	"	"	ND	112	50-136%	---	---	
delta-BHC	20.9	0.803	1.60	"	"	"	ND	104	47-139%	---	---	
gamma-BHC (Lindane)	17.3	0.803	1.60	"	"	"	ND	86	49-135%	---	---	
cis-Chlordane	18.0	0.803	1.60	"	"	"	ND	90	54-133%	---	---	
trans-Chlordane	15.4	0.803	1.60	"	"	"	ND	77	53-135%	---	---	
4,4'-DDD	16.3	0.803	1.60	"	"	"	ND	81	56-139%	---	---	
4,4'-DDE	16.1	0.803	1.60	"	"	"	ND	80	56-134%	---	---	
4,4'-DDT	16.8	0.803	1.60	"	"	"	ND	84	50-141%	---	---	
Dieldrin	15.3	0.803	1.60	"	"	"	ND	76	56-136%	---	---	
Endosulfan I	18.3	0.803	1.60	"	"	"	ND	91	52-132%	---	---	

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Cascadia Associates	Project: **Ways 2 Blds**	
3226 SW Mitchell Ct.	Project Number: [none]	**Reported:**
Portland, OR 97239	Project Manager: Chris Breemer	02/27/16 13:40

QUALITY CONTROL (QC) SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6020312 - EPA 3546							**Soil**					
Matrix Spike (6020312-MS1)					Prepared: 02/10/16 12:01		Analyzed: 02/11/16 17:14					**C-05**
QC Source Sample: Ways 2 Comp (A6B0026-04RE1)												
Endosulfan II	20.0	0.803	1.60	ug/kg dry	"	"	ND	100	53-134%	---	---	
Endosulfan sulfate	18.3	0.803	1.60	"	"	"	ND	92	55-136%	---	---	
Endrin	20.2	0.803	1.60	"	"	"	ND	101	56-140%	---	---	
Endrin Aldehyde	18.0	0.803	1.60	"	"	"	ND	90	35-137%	---	---	B-02
Endrin ketone	18.9	0.803	1.60	"	"	"	ND	94	55-136%	---	---	
Heptachlor	16.8	0.803	1.60	"	"	"	ND	84	47-136%	---	---	
Heptachlor epoxide	17.7	0.803	1.60	"	"	"	ND	88	52-136%	---	---	
Methoxychlor	26.9	2.40	4.81	"	"	"	ND	134	52-143%	---	---	

Surr: 2,4,5,6-TCMX (Surr) *Recovery: 77 %* *Limits: 42-129 %* *Dilution: 1x*
Decachlorobiphenyl (Surr) *87 %* *65-151 %* *"*

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Cascadia Associates	Project: **Ways 2 Blds**	
3226 SW Mitchell Ct.	Project Number: [none]	**Reported:**
Portland, OR 97239	Project Manager: Chris Breemer	02/27/16 13:40

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6020165 - EPA 3051A							**Soil**					
Blank (6020165-BLK1)					Prepared: 02/05/16 09:21		Analyzed: 02/08/16 11:46					
EPA 6020A												
Antimony	ND	0.500	1.00	mg/kg wet	10	---	---	---	---	---	---	
Arsenic	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Barium	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Beryllium	ND	0.100	0.200	"	"	---	---	---	---	---	---	
Cadmium	ND	0.100	0.200	"	"	---	---	---	---	---	---	
Chromium	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Copper	ND	1.00	2.00	"	"	---	---	---	---	---	---	
Lead	ND	0.100	0.200	"	"	---	---	---	---	---	---	
Manganese	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Mercury	ND	0.0400	0.0800	"	"	---	---	---	---	---	---	
Nickel	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Selenium	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Silver	ND	0.100	0.200	"	"	---	---	---	---	---	---	
Blank (6020165-BLK2)					Prepared: 02/05/16 09:21		Analyzed: 02/08/16 15:14					
EPA 6020A												
Zinc	ND	2.00	4.00	mg/kg wet	10	---	---	---	---	---	---	Q-16
LCS (6020165-BS1)					Prepared: 02/05/16 09:21		Analyzed: 02/08/16 11:49					
EPA 6020A												
Antimony	25.4	0.500	1.00	mg/kg wet	10	25.0	---	102	80-120%	---	---	
Arsenic	49.9	0.500	1.00	"	"	50.0	---	100	"	---	---	
Barium	50.7	0.500	1.00	"	"	"	---	101	"	---	---	
Beryllium	24.3	0.100	0.200	"	"	25.0	---	97	"	---	---	
Cadmium	50.5	0.100	0.200	"	"	50.0	---	101	"	---	---	
Chromium	50.3	0.500	1.00	"	"	"	---	101	"	---	---	
Copper	52.4	1.00	2.00	"	"	"	---	105	"	---	---	
Lead	52.9	0.100	0.200	"	"	"	---	106	"	---	---	
Manganese	50.4	0.500	1.00	"	"	"	---	101	"	---	---	
Mercury	1.02	0.0400	0.0800	"	"	1.00	---	102	"	---	---	
Nickel	51.1	0.500	1.00	"	"	50.0	---	102	"	---	---	

Apex Laboratories

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Philip Nerenberg, Lab Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Cascadia Associates	Project: **Ways 2 Blds**	
3226 SW Mitchell Ct.	Project Number: [none]	**Reported:**
Portland, OR 97239	Project Manager: Chris Breemer	02/27/16 13:40

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6020165 - EPA 3051A							**Soil**					
LCS (6020165-BS1)					Prepared: 02/05/16 09:21		Analyzed: 02/08/16 11:49					
Selenium	27.1	0.500	1.00	mg/kg wet	"	25.0	---	108	"	---	---	
Silver	25.3	0.100	0.200	"	"	"	---	101	"	---	---	
Zinc	59.0	2.00	4.00	"	"	50.0	---	118	"	---	---	

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Cascadia Associates	Project: **Ways 2 Blds**	
3226 SW Mitchell Ct.	Project Number: [none]	**Reported:**
Portland, OR 97239	Project Manager: Chris Breemer	02/27/16 13:40

QUALITY CONTROL (QC) SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6020059 - Total Solids (Dry Weight)							**Soil**					
Duplicate (6020059-DUP2)					Prepared: 02/02/16 12:07		Analyzed: 02/03/16 09:01					
QC Source Sample: Ways 2 Comp (A6B0026-04)												
EPA 8000C												
% Solids	**82.0**	1.00	1.00	% by Weight	1	---	81.7	---	---	0.4	10%	

No Client related Batch QC samples analyzed for this batch. See notes page for more information.

Apex Laboratories

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Philip Nerenberg, Lab Director

Analytical Resources, Incorporated
Analytical Chemists and Consultants

February 8, 2016

Philip Nerenberg
Apex Laboratories
12232 SW Garden Place
Tigard, OR 97223

RE: Project: A6B0026
ARI Job No.: AVI5

Dear Mr. Nerenberg:

Please find enclosed the original Chain of Custody records (COCs), sample receipt documentation, and the final data for the samples from the project referenced above.

Sample receipt information and analytical details are addressed in the Case Narrative.

An electronic copy of this report and all supporting raw data will be kept on file at ARI. Should you have any questions or concerns, please feel free to call me at your convenience.

Respectfully,
ANALYTICAL RESOURCES, INC.

Susan D. Dunnihoo
- for -
Cheronne Oreiro
Project Manager
(206) 695-6214
cheronneo@arilabs.com
www.arilabs.com

cc: eFile: AVI5

Enclosures

4611 South 134th Place, Suite 100 • Tukwila WA 98168 • **206-695-6200** • **206-695-6201** fax

AVI5

HF 2-2-16

SUBCONTRACT ORDER

Apex Laboratories

A6B0026

SENDING LABORATORY:

Apex Laboratories
12232 S.W. Garden Place
Tigard, OR 97223
Phone: (503) 718-2323
Fax: (503) 718-0333
Project Manager: Philip Nerenberg

RECEIVING LABORATORY:

Analytical Resources, INC
4611 S. 134th Place
Tukwila, WA 98168
Phone :(206) 695-6200
Fax: (206) 695-6201

Composite of samples -01, -02, and -03

Sample Name: Ways 2 Comp **Soil** **Sampled: 01/29/16 08:00** (A6B0026-04)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (3) (Sub) *Containers Supplied:* (B)2 oz Glass Jar	02/11/16 17:00	02/12/16 08:00	

Standard TAT

Released By	Date	Received By	Date
	2/2/16	UPS (Shipper)	
UPS (Shipper)			2-3-16 @ 1108
Released By	Date	Received By ARI	Date

AVI5 : 00002

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Apex

Project Name:

COC No(s): NA

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

Assigned ARI Job No: AVI5

Tracking No: 1ZX4720R0394975258 NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	YES	NO
Were custody papers included with the cooler?	YES	NO
Were custody papers properly filled out (ink, signed, etc.)	YES	NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry) 4.6

Time:

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

Temp Gun ID#: D005276

Cooler Accepted by: TR Date: 2-3-16 Time: 1108

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	NO
What kind of packing material was used? ... Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other:			
Was sufficient ice used (if appropriate)?	NA	YES	NO
Were all bottles sealed in individual plastic bags?		YES	NO
Did all bottles arrive in good condition (unbroken)?		YES	NO
Were all bottle labels complete and legible?		YES	NO
Did the number of containers listed on COC match with the number of containers received?		YES	NO
Did all bottle labels and tags agree with custody papers?		YES	NO
Were all bottles used correct for the requested analyses?		YES	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)...	NA	YES	NO
Were all VOC vials free of air bubbles?	NA	YES	NO
Was sufficient amount of sample sent in each bottle?		YES	NO
Date VOC Trip Blank was made at ARI	NA		

Was Sample Split by ARI : NA YES Date/Time: Equipment: Split by:

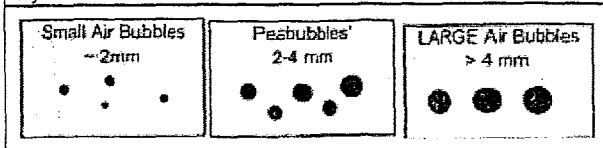
Samples Logged by: CA Date: 2/3/16 Time: 1332

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

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

Additional Notes, Discrepancies, & Resolutions:

By: Date:



Small → "sm"	(< 2 mm)
Peabubbles → "pb"	(2 to < 4 mm)
Large → "lg"	(4 to < 6 mm)
Headspace → "hs"	(> 6 mm)

Case Narrative

Client: Apex Laboratories
Project: A6B0026
ARI Job No.: AVI5

Sample Receipt

Analytical Resources, Inc. (ARI) accepted one soil sample composite on February 3, 2016 under ARI job AVI5. The cooler temperature measured by IR thermometer following ARI SOP was 4.6°C. For further details regarding sample receipt, please refer to the Cooler Receipt Form.

The samples were analyzed for parameters as requested.

Butyltins by SW8270-SIM/Krone

The result for the Butyl Tin Ion is "Q" flagged for the continuing calibration outside the control limit at 22.3% (limit 20%).

There were no other irregularities with this analysis.

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: AVI5
Client: Apex Labs
Project Event: A6B0026
Project Name: N/A

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	Ways 2 Comp	AVI5A	16-1673	Soil	01/29/16 08:00	02/03/16 11:08

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by SW8270D-SIM GC/MS
Extraction Method: SW3546

Sample ID: Ways 2 Comp
SAMPLE

Lab Sample ID: AVI5A
LIMS ID: 16-1673
Matrix: Soil
Data Release Authorized:
Reported: 02/08/16

QC Report No: AVI5-Apex Labs
Project: A6B0026
Event: NA
Date Sampled: 01/29/16
Date Received: 02/03/16

Date Extracted: 02/04/16
Date Analyzed: 02/05/16 16:31
Instrument/Analyst: NT12/VTS
Silica Gel Cleanup: Yes

Sample Amount: 5.79 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: No
Moisture: 17.8%

CAS Number	Analyte	RL	Result	Q
36643-28-4	**Tributyltin Ion**	**3.3**	**2.7**	**J**
14488-53-0	Dibutyltin Ion	5.0	< 5.0	U
78763-54-9	**Butyltin Ion**	**3.5**	**3.4**	**JQ**

Reported in µg/kg (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	47.6%
Tripentyl Tin Chloride	49.0%

FORM I

ANALYTICAL RESOURCES INCORPORATED

TBT SURROGATE RECOVERY SUMMARY

Matrix: Soil

QC Report No: AVI5-Apex Labs
Project: A6B0026
Event: NA

Client ID	TPRT	TPNT	TOT OUT
MB-020416	54.8%	55.5%	0
LCS-020416	52.4%	58.8%	0
Ways 2 Comp	47.6%	49.0%	0

	QC LIMITS
(TPRT) = Tripropyl Tin Chloride	(30-160)
(TPNT) = Tripentyl Tin Chloride	(30-160)

Prep Method: SW3546
Analytical Method: TBT (Hexyl) 8270D-SIM
Log Number Range: 16-1673 to 16-1673

FORM-II TBT

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by SW8270D-SIM GC/MS

Sample ID: LCS-020416
LAB CONTROL SAMPLE

Lab Sample ID: LCS-020416
LIMS ID: 16-1673
Matrix: Soil
Data Release Authorized: MW
Reported: 02/08/16

QC Report No: AVI5-Apex Labs
Project: A6B0026

Date Sampled: NA
Date Received: NA

Date Extracted LCS: 02/04/16
Date Analyzed LCS: 02/05/16 16:18
Instrument/Analyst LCS: NT12/VTS
Silica Gel Cleanup: Yes

Sample Amount LCS: 5.00 g-dry-wt
Final Extract Volume LCS: 0.50 mL
Dilution Factor LCS: 1.00
Alumina Cleanup: No

Analyte	LCS	Spike Added	Recovery
Tributyltin Ion	28.0	44.6	62.8%
Dibutyltin Ion	27.3	38.4	71.1%
Butyltin Ion	21.7 Q	31.2	69.6%

Reported in µg/kg (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	52.4%
Tripentyl Tin Chloride	58.8%

FORM III

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by SW8270D-SIM GC/MS
Extraction Method: SW3546

Sample ID: MB-020416
METHOD BLANK

Lab Sample ID: MB-020416
LIMS ID: 16-1673
Matrix: Soil
Data Release Authorized: MW
Reported: 02/08/16

QC Report No: AVI5-Apex Labs
Project: A6B0026
Event: NA
Date Sampled: NA
Date Received: NA

Date Extracted: 02/04/16
Date Analyzed: 02/05/16 16:05
Instrument/Analyst: NT12/VTS
Silica Gel Cleanup: Yes

Sample Amount: 5.00 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: No

CAS Number	Analyte	RL	Result	Q
36643-28-4	Tributyltin Ion	3.9	< 3.9	U
14488-53-0	Dibutyltin Ion	5.8	< 5.8	U
78763-54-9	Butyltin Ion	4.1	< 4.1	U

Reported in µg/kg (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	54.8%
Tripentyl Tin Chloride	55.5%

Apex Labs

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503-718-0333 Fax

Cascadia Associates	Project: **Ways 2 Blds**	
3226 SW Mitchell Ct.	Project Number: [none]	**Reported:**
Portland, OR 97239	Project Manager: Chris Breemer	02/27/16 13:40

SAMPLE PREPARATION INFORMATION

Polychlorinated Biphenyls by EPA 8082A

Prep: EPA 3546

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 6020131							
A6B0026-04	Soil	EPA 8082A	01/29/16 08:00	02/04/16 11:37	10.47g/5mL	10g/5mL	0.96

Organochlorine Pesticides by EPA 8081B

Prep: EPA 3546

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 6020312							
A6B0026-04RE1	Soil	EPA 8081B	01/29/16 08:00	02/10/16 12:01	30.45g/20mL	30g/5mL	3.94

Total Metals by EPA 6020 (ICPMS)

Prep: EPA 3051A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 6020165							
A6B0026-04	Soil	EPA 6020A	01/29/16 08:00	02/05/16 09:21	0.507g/50mL	0.5g/50mL	0.99

Percent Dry Weight

Prep: Total Solids (Dry Weight)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 6020059							
A6B0026-04	Soil	EPA 8000C	01/29/16 08:00	02/02/16 12:07	1N/A/1N/A	1N/A/1N/A	NA

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Cascadia Associates	Project: **Ways 2 Blds**	
3226 SW Mitchell Ct.	Project Number: [none]	**Reported:**
Portland, OR 97239	Project Manager: Chris Breemer	02/27/16 13:40

Notes and Definitions

Qualifiers:

B-02	Analyte detected in an associated blank at a level between one-half the MRL and the MRL. (See Notes and Conventions below.)
C-05	Extract has undergone a GPC (Gel-Permeation Chromatography) cleanup per EPA 3640A. Reporting levels may be raised due to dilution necessary for cleanup. Sample Final Volume includes the GPC dilution factor, see the Prep page for details.
C-07	Extract has undergone Sulfuric Acid Cleanup by EPA 3665A, Sulfur Cleanup by EPA 3660B, and Florisil Cleanup by EPA 3620B in order to minimize matrix interference.
J	Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.
Q-05	Analyses are not controlled on RPD values from sample and duplicate concentrations are below 5 times the reporting level.
Q-16	Reanalysis of an original Batch QC sample.
R-02	The Reporting Limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample.
S-03	Reextraction and analysis, or analysis of laboratory duplicate, confirms surrogate failure due to sample matrix effect.

Notes and Conventions:

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis. Results listed as 'wet' or without 'dry'designation are not dry weight corrected.
RPD	Relative Percent Difference
MDL	If MDL is not listed, data has been evaluated to the Method Reporting Limit only.
WMSC	Water Miscible Solvent Correction has been applied to Results and MRLs for volatiles soil samples per EPA 8000C.
Batch QC	Unless specifically requested, this report contains only results for Batch QC derived from client samples included in this report. All analyses were performed with the appropriate Batch QC (including Sample Duplicates, Matrix Spikes and/or Matrix Spike Duplicates) in order to meet or exceed method and regulatory requirements. Any exceptions to this will be qualified in this report. Complete Batch QC results are available upon request. In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) is analyzed to demonstrate accuracy and precision of the extraction and analysis.
Blank Policy	Apex assesses blank data for potential high bias down to a level equal to ½ the method reporting limit (MRL), except for conventional chemistry and HCID analyses which are assessed only to the MRL. Sample results flagged with a B or B-02 qualifier are potentially biased high if they are less than ten times the level found in the blank for inorganic analyses or less than five times the level found in the blank for organic analyses. For accurate comparison of volatile results to the level found in the blank; water sample results should be divided by the dilution factor, and soil sample results should be divided by 1/50 of the sample dilution to account for the sample prep factor. Results qualified as reported below the MRL may include a potential high bias if associated with a B or B-02 qualified blank. B and B-02 qualifications are not applied to J qualified results reported below the MRL.
---	QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

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Cascadia Associates	Project: **Ways 2 Blds**	
3226 SW Mitchell Ct.	Project Number: [none]	**Reported:**
Portland, OR 97239	Project Manager: Chris Breemer	02/27/16 13:40

*** Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Apex Labs

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Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Cascadia Associates
3226 SW Mitchell Ct.
Portland, OR 97239

Project: **Ways 2 Blds**
Project Number: [none]
Project Manager: Chris Breemer

Reported:
02/27/16 13:40

APEX LABS — CHAIN OF CUSTODY

Lab # A6B0026 COC 1 of 1

12232 S.W. Garden Place, Tigard, OR 97223 Ph: 503-718-2323 Fax: 503-718-0333

Company: Cascadia Associates | Project Mgr: C. Breemer | Project Name: Ways 2 Blds | Project #

Address: | Phone: 503 906 6572 | Fax: | Email:

Sampled by: Chris Breemer

Site Location: OR WA
Other: _____

ANALYSIS REQUEST

	SAMPLE ID	LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 VOC	8260 RBDM VOCs	8260 BTEX	8270 SVOC	8270 SIM PAHs	8082 PCBs	600 TTO	RCRA Metals (8)	TCLP Metals (8)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS TCLP	1200- COLS	1200-Z
1	Ways 2-Comp-1		1/29/16	08:00	S	1															
2	Ways 2-Comp-2		↓	↓	↓	1															
3	Ways 2-Comp-3		↓	↓	↓	2															
4	Ways 2 Comp														X						
5																					
6																					
7																					
8																					
9																					
10																					

Normal Turn Around Time (TAT) = 7-10 Business Days YES NO

TAT Requested (circle): 1 Day 2 Day 3 Day 4 DAY 5 DAY Other: _____

SAMPLES ARE HELD FOR 30 DAYS

SPECIAL INSTRUCTIONS: Direct Bill to Gunderson
Prepare a single composite sample from 4 jars. Will follow-up w/ additional tests.

RELINQUISHED BY:		RECEIVED BY:		RELINQUISHED BY:		RECEIVED BY:	
Signature: [signature]	Date: 1/29/16	Signature: [signature]	Date: 1/29/16	Signature:	Date:	Signature:	Date:
Printed Name: Chris Breemer	Time: 12:30	Printed Name: [signature]	Time: 12:30	Printed Name:	Time:	Printed Name:	Time:
Company: Cascadia Associates.		Company: Apex		Company:		Company:	

Apex Laboratories

Philip Nerenberg

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Philip Nerenberg, Lab Director

Cascadia
Associates, LLC