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From: Gene Hoilman, David Weatherby, RG, URS

Date: May 4, 2012

Subject: Soil Screening Methods for Beneficial Use Determination, Alder Creek Mill

INTRODUCTION

Portland Harbor Holdings II, LLC (PHH) has proposed a 64+/- acre restoration project at the southern tip of Sauvie Island in Portland, Oregon. The portion of the project on the outboard side of the Sauvie Island Drainage Improvement Company (SIDIC) levee will consist of creating a tidal marsh mosaic by excavating soil; the excavated soil will be placed on the inboard side of the SIDIC levee to facilitate forested upland restoration activities. PHH is submitting a Beneficial Use Determination (BUD) application to the Oregon Department of Environmental Quality (DEQ) for use of soils resulting from the proposed restoration activities at the Alder Creek Mill site on Sauvie Island. The *Restoration Work Plan for the Alder Creek Mill Site* (Work Plan; URS, 2011a) provided a preliminary assessment of management options for soils to be excavated during restoration, and selected a preferred placement option. Selection of the preferred option was based on an initial assessment of soil analytical data developed during the *Phase II Environmental Site Assessment for Alder Creek Mill Site* (Phase II ESA; URS, 2011b). The Work Plan described placement of all excavated soils on the portion of the Alder Creek Mill property that lies immediately north of the SIDIC levee (referred to herein as the “upland forest restoration site”).

URS, on behalf of PHH, has now further assessed the soil analytical data to 1) classify soils to be excavated into three “soil management units” (herein referred to simply as “units”) and 2) identify appropriate management options in addition to the option described in the Work Plan. This technical memorandum describes the procedures and results of the assessment, and the proposed revision to the soil disposal option previously communicated in the Work Plan, and will be used to support the pending BUD application.

ASSESSMENT APPROACH AND DEFINITION OF SOIL UNITS

The classification of site soils into soil management units was carried out in the following three steps.

Step 1 – Comparisons of Soil Analytical Data to Ecological Screening Level Values

As described in the Work Plan, identification of soil placement options was initially carried out by comparing soil analytical data to Oregon DEQ risk based concentrations (RBCs) protective of human exposure. Since human use of the upland forest restoration site will be limited by a deed restriction or similar instrument, the only likely receptors to soil contamination are ecological receptors, and as noted below, on-site workers. For this reason the first step of the BUD assessment consisted of a comparison of the Phase II ESA soil analytical data to the DEQ Level II Screening Level Values (SLVs) for ecological receptors (Tables 1 through 7).

This comparison resulted in the identification of soil samples with exceedances of the SLVs. Table 8 provides a summary of the SLV comparison on a sample-by-sample basis, and identifies the recommended soil unit classification for each soil sample. Table 8 only includes soils samples representative of soil that would be excavated during restoration¹. Soil samples with multiple SLV exceedances (in particular for multiple chemical groups) or soils with elevated petroleum hydrocarbon concentrations associated with visible oil staining in soil were initially classified into soil management “Unit 1.” This management unit is defined as soil that can be placed at the upland forest restoration site, but would require capping with “clean” soils (i.e., soils without SLV exceedances) to prevent ecological receptor exposure to the soils. Soils with no SLV exceedances were classified into soil management “Unit 2.” This management unit is defined as soil

¹ Samples excluded include the following stormwater solids samples on Tables 6 and 7: SWS-01, SWS-02, SWS-03, SWS-05, SWS-06, SWS-07, and SWS-11 Dup.

that can be placed at the disposal site, but would NOT require capping. Unit 2 soils could be used to cap Unit 1 soils.

In a few instances (six soil samples), SLV exceedances: 1) were limited to few sample locations, 2) were limited to few or a single chemical, 3) were limited to mobile receptors only, and/or 4) the exceedance was very slight. These soils were classified as Unit 2 soils rather than Unit 1 soils on the basis that when these soils are excavated and mixed with other soils that clearly fall into Unit 2, chemical concentrations in these soils would be unlikely to represent risk to ecological receptors at the upland forest restoration site. The "Comments on Soil Unit" column on Table 8 identifies those samples with SLV exceedances that were classified as Unit 2 soils.

Step 2 – Comparison of Unit 2 Soil Analytical Data to Clean Fill Criteria

The objective of Step 2 was to identify Unit 2 soils that would not require placement at the upland forest restoration site, but could be used for beneficial purposes in other locations on or off site. This step of the assessment was completed by comparing the Unit 2 soil analytical data to the Clean Fill Criteria (DEQ, 2012) (Tables 9 through 14). Unit 1 soils were excluded from this step.

Table 15 provides a summary of the Clean Fill Criteria comparison on a sample-by-sample basis, and identifies the recommended soil unit classification for each soil sample. Similar to Step 1, soil samples with Clean Fill Criteria exceedances were retained as Unit 2 soils and would be managed as described above in Step 1. Seven Step 2 samples were initially classified as Unit 2. Soil samples which met Clean Fill Criteria were classified into soil management "Unit 3." This management unit is defined as clean soil that PHH can use at its discretion on or off site.

Since soil excavation will result in blending of site soils, URS further assessed the samples classified as Unit 2 in this step by calculating 90% upper confidence limit (UCL) concentrations for those chemicals exceeding the clean fill criteria (lead, zinc, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenzofuran, and indeno(1,2,3-cd)pyrene). The results are provided on Table 16. This assessment was completed in two stages. For Stage 1 all Step 2 data for the chemicals noted above were used to calculate the UCL. If the UCL exceeded the Clean Fill Criteria then for Stage 2 the UCL was recalculated by removing the sample with the highest concentration. The removed sample was retained as Unit 2. Stage 2 was iterative – the sample with the next highest concentration was removed until the 90% UCL concentration for the remaining samples was below the Clean Fill Criteria. Using this analysis, seven of the eight samples with Clean Fill Criteria exceedances had to be removed from the UCL calculation and retained as Unit 2. These samples are SB-08-14-16, SB-11-8-10, SWS-08, TP-04-03, TP-09-04, TP-P-02, and TP-Q-01, as shown on Table 16. Benzo(a)pyrene in sample TP-Q-03 was the only chemical in this sample that slightly exceeded the Clean Fill Criteria. When other Step 2 samples with higher benzo(a)pyrene concentrations were removed from the data set, the benzo(a)pyrene UCL concentration for the remaining samples, including TP-Q-03, was below the Clean Fill Criteria. TP-Q-03 was subsequently reclassified to Unit 3 on the basis that blending soil at this sample location with other Unit 3 soils would not result in a Clean Fill Criteria exceedance.

Although it appears that most of the Unit 2 soils also meet the definition of Unit 3, at this time PHH is not proposing to place any soils off site or on site at location other than the inboard side of the SIDIC levee, except as noted below. As such, all Unit 2 and Unit 3 soils will be excavated and placed as a single soil unit.

The SIDIC has expressed an interest in using excavated soils for maintenance of and placement on the SIDIC levee, and therefore PHH is working with the SIDIC to develop the option of placing Unit 3 soils on the outboard side of the levee. This option is included as a component of this BUD application. As described further below, only Unit 3 soils that consist of native soil would be used for this purpose. The methods for segregating native Unit 3 soils from Unit 1 and Unit 2 soils are described at the end of this technical memorandum.

Step 3 – Comparison of Unit 2 Soil to Human Health Screening Criteria

Step 3 was completed in recognition that potential human exposure to excavated soils is possible. The reasonably likely exposure scenario is future excavation worker² exposure to soil associated with the Olympic Petroleum Pipeline or future soil work consistent with the conservation easement. Construction worker exposure to soil is also possible but less likely since no future construction is planned after completion of the upland forest restoration.

Step 3 consisted of a comparison of Unit 2 soil analytical data against DEQ RBCs protective of construction and excavation workers (Tables 17 and 18). The analytical data shown on Tables 17 and 18 are for the soil samples identified as Unit 2 on Table 15. None of the concentrations of detected contaminants in Unit 2 soils exceeded the construction and excavation worker RBCs. Unit 1 soils were not compared to the RBCs because Unit 1 soils will not be placed over the Olympic Pipeline and the soils will be capped by Unit 2 soils. Thus excavation and construction worker exposure to Unit 1 soils placed at the upland forest restoration site is unlikely.

DISTRIBUTION OF SOIL UNITS

To better understand the lateral distribution of the soil units, URS compared the results of this assessment with the distribution of Phase II ESA sample locations, as shown on Figure 4 of the Phase II ESA report (included as Attachment A to this technical memorandum). The results of this comparison are described below.

Unit 1

As shown on Table 8, 11 of the 13 samples identified as Unit 1 are test pit soil samples (identified with “TP” in the sample ID). Two samples are stormwater solids sample (SWS-09 and Pipe-00). As described in the Phase II ESA, test pits were excavated in and around the sawmill, planer building, and bander shed to assess the nature and extent of soil contamination associated with obvious source areas associated with mill structures. The two stormwater solids samples are also adjacent to, and receive stormwater runoff from, active mill areas. Unit 1 soils therefore are not surprisingly associated with mill structures and associated contaminant source areas. Most of the Unit 1 soil samples are associated with visible oil staining in soil, and in most cases the Unit 1 samples consist of fill, although some native soils are also represented.

Unit 2

As shown on Table 15, four of the seven Unit 2 soil samples are also test pit soil samples directly associated with mill structures and associated source areas. Three of the seven samples are soil borings samples (SB-08-14-16 and SB-11-8-10) and a stormwater solids sample (SWS-08). These three samples are not located near mill structures or obvious source areas, and visibly contaminated soil (i.e., stained soil) was not observed in these soil borings. The identification of Unit 2 soils at these three locations is somewhat anomalous relative to the clear pattern of other Unit 1 and 2 soils being directly associated with mill structures. Six of the seven Unit 2 soil samples consist of fill and one consists of native soil.

Unit 3

Finally, as shown on Table 15 and Figure 4 of the Phase II ESA report, samples classified as Unit 3 soils represent all areas of the site where excavation will occur. The lateral and vertical distribution of these samples confirms that the vast majority of the site soil meets the definition of clean fill and could be managed as such. Fill and native soil samples are equally represented by Unit 3. With few exceptions, all native soils on site meet the Unit 3 clean fill criteria. The only exceptions are samples TP-08-03, TP-10-06, and TP-H-02 (Table 8) that classify as Unit 1, and TP-09-04 (Table 15) that classifies as Unit 2. All of these samples are from the sawmill and are directly associated with, or adjacent to, visibly contaminated soils.

² The Olympic Petroleum Pipeline underlies the upland forest restoration site. This exposure scenario assumes a potential for future excavation as part of pipeline maintenance or conservation easement activities.

As described above, PHH currently intends to manage Unit 2 and Unit 3 soils together by placing these soils on the inboard side of the SIDIC levee, with the exception of native Unit 3 soils, which would be placed on the outboard side of the SIDIC levee for levee maintenance.

PROPOSED REVISION TO PREFERRED SOIL PLACEMENT OPTION

To recap, the Work Plan proposed placement of all excavated soils at the site immediately north of the SIDIC levee. The results of the assessment communicated in this technical memorandum provide the basis for revisions to this soil placement option as described below.

Unit 1

All Unit 1 soils will be excavated and placed at the upland forest restoration site, but not over the Olympic Pipeline. Soils classified as Unit 1 generally will be excavated based on visual evidence of contamination. By definition Unit 1 will include any soils with visible evidence of contamination. If, during restoration, additional soils are encountered with visible evidence of contamination, these will be managed as Unit 1 soils.

Unit 1 soil excavation dimensions and volume are summarized on Table 19. Unit 1 soils represent approximately 500 cubic yards (cy). For Unit 1 soils identified in test pits ("TP" on Table 19), the excavation dimensions were initially based on the observation of the extent of visibly contaminated soils in the test pits. The dimensions were expanded to include "overexcavation" into underlying and adjacent non-visibly contaminated soil. That is, the excavation will extend into visually "clean" soil to ensure removal of the entire mass of visibly contaminated soil as well as some amount of surrounding clean soil. For example, if the contamination was observed to a depth of 5 feet, the excavation depth will extend to a depth of 7 feet into visually clean soil.

Sample SWS-09, a sediment sample collected from a stormwater conveyance, did not contain visual evidence of contamination. The excavation associated with SWS-09 will include the entire length of the associated conveyance to a depth of 2 feet and a width of 3 feet. The objective of this excavation approach is to excavate all sediment within the conveyance as well as a portion of the fill underlying the conveyance as Unit 1. The excavation depths will be adjusted as necessary to meet this objective.

Sample Pipe-00 also did not contain visual evidence of contamination. The sample is associated with a capped pipe of unknown origin. The sample is not in a stormwater conveyance nor is it associated with any other known sources of contamination. The excavation dimension assumes a 10-foot by 10-foot excavation area around the sample point to a depth of 2 feet.

Confirmation sampling of Unit 1 excavations is not proposed. Rather, the intent of the Unit 1 excavation is to remove all visibly contaminated soil and to overexcavate into underlying and adjacent visually clean soil. The results of the Phase II ESA support this approach because with few exceptions, Unit 1 soils are restricted to visibly contaminated soils; when visible contamination is not present, the soils classify as Unit 2 or Unit 3. The soil volumes identified on Table 19 include the mass of overexcavated visually clean soil that would be excavated as Unit 1.

Unit 2 and Unit 3

At this time PHH does not intend to segregate Unit 2 soils from Unit 3 soils, except as part of the SIDIC levee maintenance activities. Following excavation of Unit 1 soils, Unit 2 and Unit 3 soils will be excavated and placed as a single unit north of the SIDIC levee. The total estimated volume of Unit 2 and Unit 3 together is approximately 449,500 cy.

A portion of this volume (estimated to be 30,000 to 50,000 cy) may be placed along the outboard side of the SIDIC levee. Only native Unit 3 soils will be used for this purpose. Native site soils are generally fine grained and visually distinct from coarse-grained fill soils on site. As described above, the few locations where native soils did not meet the Unit 3 clean fill criteria are directly associated with, or adjacent to, visibly contaminated soils. Confirmation sampling of native Unit 3 soils that would be used for levee

maintenance is not proposed. Rather, the Phase II ESA results support the following approach for segregating native Unit 3 soils for use as levee material:

- Only native Unit 3 soil will be used. The silty/clayey texture of the native soil will be used to distinguish the soil from non-native fill soils, which consist of sandy or coarser material.
- Native soils for use as levee material will not be excavated until after all currently identified Unit 1 soils have been excavated, and the excavations have been inspected to ensure complete removal of visibly contaminated soils.
- Since native soils underlie fill, the fill will first be removed and placed on the inboard side of the SIDIC prior to excavation of the native soils.
- Excavation of native soil for levee maintenance will not proceed until a sufficiently large area of native soil has been exposure to permit the efficient excavation and transport of the material using heavy equipment such as belly scrapers.
- Prior to excavation of the native soil, the exposed native soil surface will be examined to ensure no pockets of visibly contaminated soil or fill remain.
- Native soils containing visual evidence of contamination, including anthropogenic debris (e.g., metal, brick, plastic) or fill of any kind, will be rejected for use as levee maintenance material.

REFERENCES

DEQ. 2012. Draft Revised Clean Fill Tables. Provided via email to URS on January 13, 2012.

URS Corporation. 2011a. Restoration Work Plan for Alder Creek Mill Site. Prepared for Portland Harbor Holdings II, LLC. October.

URS Corporation. 2011b. Phase II Environmental Site Assessment for Alder Creek Mill Site. Prepared for Portland Harbor Holdings II, LLC. April.

Tables

URS

Table 1. Ecological Screening of Soil Boring Analytical Results -- Metals and Petroleum Hydrocarbons

Alder Creek Mill

Portland, Oregon

Chemical of Interest	Sample Concentrations (mg/kg)															Background Metals Concentrations in Soil ¹ (mg/kg)	DEQ Level II SLVs ²			
	SEP-1-12	SEP-2-21	SEP-3-16	WW-1-15-16	WW-3-12-13	WW-4-13	SB-07-7.5-10	SB-08-14-16**	SB-08-22-24**	SB-09-7-9.5	SB-10-8-10	SB-11-8-10***	SB-11-15-17***	SB-12-13-15	SB-13-13.5-15		Plants	Inverts	Birds	Mammals
	10/12/2010	10/12/2010	10/13/2010	10/12/2010	10/12/2010	10/12/2010	2/11/2011	2/11/2011	2/11/2011	2/11/2011	2/11/2011	2/11/2011	2/11/2011	2/11/2011	2/11/2011					
	12 ft bgs	21 ft bgs	16 ft bgs	15 ft bgs	12 ft bgs	13 ft bgs	7.5 ft bgs	14 ft bgs	22 ft bgs	7 ft bgs	8 ft bgs	8 ft bgs	15 ft bgs	13 ft bgs	13.5 ft bgs					
Fill	Native	Native	Fill	Fill	Fill	Fill	Fill	Native	Native	Fill	Fill	Native	Native	Native						
Metals																				
Arsenic	4.85	6.35	5.46	3.92	4.86	2.97	2.74	5.70	-	3.57	1.96 J	4.57	-	4.64	4.10	7.0	10	60	10	29
Barium	139	186	195	162	158	84.0 J	110	140	-	172	73.0	153	-	171	157	255	500	3,000	85	638
Cadmium	0.411 J	0.352 J	0.565 J	0.399 J	0.769 J	0.149 J	0.136 U	0.717 J	-	0.749 J	0.119 U	0.194 J	-	0.356 J	0.281 J	1.0	4.0	20	6.0	125
Chromium	18.7	27.7	28.1	25.7	22.4	13.1	15.4	23.7	-	22.8	9.33	16.7	-	25.9	21.8	42	--	--	--	410
Copper	18.6	37.1	33.9	33.8	31.4	14.6	15.4	37.5	-	26.4	10.7	16.7	-	34.2	37.5	36	100	50	190	390
Iron	27,200	35,100	33,400	29,000 J	24,000	22,400	21,600	23,900	-	25,900	15,900	26,600	-	25,600	25,600	50,570	10	200	--	--
Lead	12.2	8.76	9.64	9.35	15.0	3.28	4.45	28.5	-	7.58	2.82	6.03	-	9.55	7.60	17	50	500	16	4,000
Manganese	290	618	565	473 J	309	186	203	280	-	446	285	391	-	364	354	898	500	100	4,125	11,000
Mercury	0.0604 J	0.0422 U	0.0435 U	0.0461 U	0.0578 J	0.0343 U	0.0525 J	0.0484 J	-	0.0622 J	0.0336 U	0.0398 J	-	0.0704 J	0.0555 J	0.070	0.30	0.10	1.5	73
Nickel	20.8	26.5	29.4	28.7	31.2	17.8	20.5	28.4	-	23.1	14.1	22.4	-	29.0	22.1	38	30	200	320	625
Selenium	0.586 U	0.563 U	0.580 U	0.614 U	0.615 U	0.457 U	0.545 U	0.652 U	-	0.588 U	0.474 U	0.518 U	-	0.647 U	0.592 U	2.0	1.0	70	2.0	25
Silver	0.147 U	0.141 U	0.145 U	0.154 U	0.154 U	0.114 U	0.136 U	0.163 U	-	0.147 U	0.119 U	0.129 U	-	0.162 U	0.148 U	1.0	2.0	50	--	--
Zinc	59.6	80.4	82.7	85.1	81.2	48.0	51.0	124	-	74.4	36.7	57.5	-	76.4	63.9	86	50	200	60	20,000
Petroleum Hydrocarbons																				
Diesel-Range Organics	5.80 U	5.58 U	6.08 U	-	-	-	-	24.5 J	16.0 U	-	-	17.5 J	16.6 U	-	-	--	--	--	--	--
Oil-Range Organics	14.5 U	14.0 U	15.2 U	-	-	-	-	110	32.0 U	-	-	30.4 J	33.2 U	-	-	--	--	--	--	--
Gasoline-Range Organics	4.02 U	3.80 U	3.84 U	-	-	-	-	-	-	-	-	-	-	-	-	--	--	--	--	--

Notes:

- = The reported concentration exceeds the background concentration and the lowest screening criterion.
- = The reported method detection limit exceeds the background concentration and the lowest screening criterion.

-- = criterion not available.

bgs = below ground surface.

bold = analyte detected above MDL.

J = The sample result is an estimated concentration.

MDL = method detection limit.

¹ See Phase II Environmental Site Assessment for Alder Creek Mill Site, Table 4 for sources of each selected background concentration.

² DEQ, 2001. Guidance for Ecological Risk Assessment, Level II Screening Benchmark Values. Oregon Department of Environmental Quality, Waste Management and Cleanup Division. December.

- = Analytical result not available

mg/kg = milligram per kilogram

SLV = screening level value

U = The analyte was not detected at or above the MDL.

* - SB-14-15-16 is a field duplicate of SB-08-14-16. It was submitted to the analytical laboratory as SB-14-15-16.

**Petroleum Hydrocarbons analyzed for SB-08-14-16 and SB-08-22-24 were run outside of hold time and with a silica gel cleanup

***Petroleum Hydrocarbons analyzed for SB-11-8-10 and SB-11-15-17 were run outside of hold time.

Table 2. Ecological Screening of Soil Boring Analytical Results -- SVOCs

Alder Creek Mill

Portland, Oregon

Semivolatile Organic Compound	Sample Concentrations (mg/kg)										DEQ Level II SLVs ¹			
	WW-1-15-16	WW-3-12-13	WW-4-13	SB-07-7.5-10	SB-08-14-16	SB-09-7-9.5	SB-10-8-10	SB-11-8-10	SB-12-13-15	SB-13-13.5-15				
	10/12/2010	10/12/2010	10/12/2010	2/11/2011	2/11/2011	2/11/2011	2/11/2011	2/11/2011	2/11/2011	2/11/2011				
	15 ft bgs	12 ft bgs	13 ft bgs	7.5 ft bsg	14 ft bsg	7 ft bsg	8 ft bsg	8 ft bsg	13 ft bsg	13.5 ft bsg				
Fill	Fill	Fill	Fill	Fill	Native	Fill	Fill	Native	Native	Plants	Inverts	Birds	Mammals	
1,2,4-Trichlorobenzene	0.00671 U	0.00602 U	0.00822 U	0.0126 U	0.172 U	0.0173 U	0.0112 U	0.241 U	0.0181 U	0.0175 U	--	20	--	--
1,2-Dichlorobenzene	0.00671 U	0.00602 U	0.00822 U	0.0126 U	0.172 U	0.0173 U	0.0112 U	0.241 U	0.0181 U	0.0175 U	--	--	--	--
1,3-Dichlorobenzene	0.00671 U	0.00602 U	0.00822 U	0.0126 U	0.172 U	0.0173 U	0.0112 U	0.241 U	0.0181 U	0.0175 U	--	--	--	--
1,4-Dichlorobenzene	0.00671 U	0.00602 U	0.00822 U	0.0126 U	0.172 U	0.0173 U	0.0112 U	0.241 U	0.0181 U	0.0175 U	--	20	--	--
1-Methylnaphthalene	0.00537 U	0.00482 U	0.00329 U	0.0101 U	0.137 U	0.0139 U	0.00895 U	0.193 U	0.0145 U	0.0140 U	--	--	--	--
2,3,4,6-Tetrachlorophenol	0.0134 U	0.0120 U	0.0164 U	0.0252 U	0.343 U	0.0347 U	0.0224 U	0.482 U	0.0363 U	0.0350 U	--	20	--	--
2,4,5-Trichlorophenol	0.0134 U	0.0120 U	0.0164 U	0.0252 U	0.343 U	0.0347 U	0.0224 U	0.482 U	0.0363 U	0.0350 U	4.0	9.0	--	--
2,4,6-Trichlorophenol	0.0134 U	0.0120 U	0.0164 U	0.0252 U	0.343 U	0.0347 U	0.0224 U	0.482 U	0.0363 U	0.0350 U	10	10	--	--
2,4-Dichlorophenol	0.0134 U	0.0120 U	0.0164 U	0.0252 U	0.343 U	0.0347 U	0.0224 U	0.482 U	0.0363 U	0.0350 U	20	--	--	--
2,4-Dimethylphenol	0.0134 U	0.0120 U	0.0164 U	0.0252 U	0.343 U	0.0347 U	0.0224 U	0.482 U	0.0363 U	0.0350 U	20	--	--	--
2,4-Dinitrophenol	0.0537 U	0.0482 U	0.0658 U	0.101 U	1.37 U	0.139 U	0.0895 U	1.93 U	0.145 U	0.140 U	20	--	--	--
2,4-Dinitrotoluene	0.0269 U	0.0241 U	0.0329 U	0.0504 U	0.686 U	0.0694 U	0.0448 U	0.964 U	0.0725 U	0.0700 U	--	--	--	--
2,6-Dinitrotoluene	0.0269 U	0.0241 U	0.0329 U	0.0504 U	0.686 U	0.0694 U	0.0448 U	0.964 U	0.0725 U	0.0700 U	--	--	--	--
2-Chloronaphthalene	0.00269 U	0.00241 U	0.00329 U	0.00504 U	0.0686 U	0.00694 U	0.00448 U	0.0964 U	0.00725 U	0.00700 U	--	--	--	--
2-Chlorophenol	0.0134 U	0.0120 U	0.0164 U	0.0252 U	0.343 U	0.0347 U	0.0224 U	0.482 U	0.0363 U	0.0350 U	60	--	--	--
2-Methylnaphthalene	0.00537 U	0.00482 U	0.00329 U	0.0101 U	0.137 U	0.0139 U	0.00895 U	0.193 U	0.0145 U	0.0140 U	--	--	--	--
2-Methylphenol	0.00671 U	0.00602 U	0.00822 U	0.0126 U	0.172 U	0.0173 U	0.0112 U	0.241 U	0.0181 U	0.0175 U	50	--	--	16,000
2-Nitroaniline	0.0537 U	0.0482 U	0.0658 U	0.101 U	1.37 U	0.139 U	0.0895 U	1.93 U	0.145 U	0.140 U	--	--	--	--
2-Nitrophenol	0.0269 U	0.0241 U	0.0329 U	0.0504 U	0.686 U	0.0694 U	0.0448 U	0.964 U	0.0725 U	0.0700 U	--	--	--	--
3+4-Methylphenol(s)	0.00671 U	0.00602 U	0.00822 U	0.0126 U	0.172 U	0.0173 U	0.0112 U	0.241 U	0.0181 U	0.0175 U	--	--	--	--
3-Nitroaniline	0.0537 U	0.0482 U	0.0658 U	0.101 U	1.37 U	0.139 U	0.0895 U	1.93 U	0.145 U	0.140 U	70	--	--	--
4,6-Dinitro-2-methylphenol	0.0671 U	0.0602 U	0.0822 U	0.126 U	1.72 U	0.173 U	0.112 U	2.41 U	0.181 U	0.175 U	--	--	--	--
4-Bromophenyl phenyl ether	0.00671 U	0.00602 U	0.00822 U	0.0126 U	0.172 U	0.0173 U	0.0112 U	0.241 U	0.0181 U	0.0175 U	--	--	--	--
4-Chloro-3-methylphenol	0.0269 U	0.0241 U	0.0329 U	0.0504 U	0.686 U	0.0694 U	0.0448 U	0.964 U	0.0725 U	0.0700 U	--	--	--	--
4-Chloroaniline	0.00671 U	0.00602 U	0.00822 U	0.0126 U	0.172 U	0.0173 U	0.0112 U	0.241 U	0.0181 U	0.0175 U	40	--	--	--
4-Chlorophenyl phenyl ether	0.00671 U	0.00602 U	0.00822 U	0.0126 U	0.172 U	0.0173 U	0.0112 U	0.241 U	0.0181 U	0.0175 U	--	--	--	--
4-Nitroaniline	0.0537 U	0.0482 U	0.0658 U	0.101 U	1.37 U	0.139 U	0.0895 U	1.93 U	0.145 U	0.140 U	40	--	--	--
4-Nitrophenol	0.0269 U	0.0241 U	0.0329 U	0.0504 U	0.686 U	0.0694 U	0.0448 U	0.964 U	0.0725 U	0.0700 U	10	7.0	--	--
Acenaphthene	0.00269 U	0.00241 U	0.00165 U	0.00504 U	0.0686 U	0.00694 U	0.00448 U	0.0964 U	0.00725 U	0.00700 U	20	--	--	--
Acenaphthylene	0.00269 U	0.00241 U	0.00165 U	0.00504 U	0.0686 U	0.00694 U	0.00448 U	0.0964 U	0.00725 U	0.00700 U	--	--	--	--
Aniline	0.00671 U	0.00602 U	0.00822 U	0.0126 U	0.172 U	0.0173 U	0.0112 U	0.241 U	0.0181 U	0.0175 U	200	--	--	--
Anthracene	0.00269 U	0.00241 U	0.00329 U	0.00504 U	0.0686 U	0.00694 U	0.00448 U	0.161 J	0.00725 U	0.00700 U	--	--	--	--
Benz(a)anthracene	0.00269 U	0.00241 U	0.00188 J	0.00504 U	0.202	0.00694 U	0.00661 J	0.678	0.00725 U	0.00700 U	--	--	--	--
Benzo(a)pyrene	0.00269 U	0.00241 U	0.00165 U	0.0130 J	0.486	0.0173 U	0.0135 J	0.732	0.0181 U	0.0175 U	--	--	--	125
Benzo(b)fluoranthene	0.00269 U	0.00241 U	0.00189 J	0.0126 U	0.409	0.0173 U	0.0112 U	0.683	0.0181 U	0.0175 U	--	--	--	--
Benzo(g,h,i)perylene	0.00269 U	0.00241 U	0.00329 U	0.00763 J	0.429	0.0139 U	0.00819 J	0.478	0.00840 J	0.00700 U	--	--	--	--
Benzo(k)fluoranthene	0.00269 U	0.00241 U	0.00165 U	0.0126 U	0.211 J	0.0173 U	0.0112 U	0.334 J	0.0181 U	0.0175 U	--	--	--	--
Benzoic acid	0.336 U	0.301 U	0.411 U	0.630 U	8.58 U	0.867 U	0.559 U	12.1 U	0.907 U	0.875 U	--	--	--	--
Benzyl alcohol	0.0134 U	0.0120 U	0.0164 U	0.0252 U	0.343 U	0.0347 U	0.0224 U	0.482 U	0.0363 U	0.0350 U	--	--	--	--
Bis(2-Chloroethoxy) methane	0.00671 U	0.00602 U	0.00822 U	0.0126 U	0.172 U	0.0173 U	0.0112 U	0.241 U	0.0181 U	0.0175 U	--	--	--	--
Bis(2-Chloroethyl) ether	0.00671 U	0.00602 U	0.00822 U	0.0126 U	0.172 U	0.0173 U	0.0112 U	0.241 U	0.0181 U	0.0175 U	--	--	--	--
Bis(2-Chloroisopropyl) ether	0.00671 U	0.00602 U	0.00822 U	0.0126 U	0.172 U	0.0173 U	0.0112 U	0.241 U	0.0181 U	0.0175 U	--	--	--	--
Bis(2-ethylhexyl)phthalate	0.0537 U	0.0482 U	0.0658 U	0.101 U	1.37 U	0.139 U	0.0895 U	1.93 U	0.145 U	0.140 U	--	--	4.5	1,020
Butyl benzyl phthalate	0.0537 U	0.0482 U	0.0658 U	0.101 U	1.37 U	0.139 U	0.0895 U	1.93 U	0.145 U	0.140 U	--	--	--	--
Carbazole	0.00269 U	0.00361 U	0.00165 U	0.00756 U	0.103 U	0.0104 U	0.00671 U	0.145 U	0.0109 U	0.0105 U	--	--	--	--
Chrysene	0.00269 U	0.00241 U	0.00165 U	0.00504 U	0.241	0.00694 U	0.00494 J	0.702 J	0.00725 U	0.00700 U	--	--	--	--
Dibenz(a,h)anthracene	0.00269 U	0.00241 U	0.00165 U	0.00504 U	0.0686 U	0.00694 U	0.00448 U	0.0964 U	0.00725 U	0.00700 U	--	--	--	--

Table 2. Ecological Screening of Soil Boring Analytical Results -- SVOCs

Alder Creek Mill

Portland, Oregon

Semivolatile Organic Compound	Sample Concentrations (mg/kg)										DEQ Level II SLVs ¹			
	WW-1-15-16	WW-3-12-13	WW-4-13	SB-07-7.5-10	SB-08-14-16	SB-09-7-9.5	SB-10-8-10	SB-11-8-10	SB-12-13-15	SB-13-13.5-15				
	10/12/2010	10/12/2010	10/12/2010	2/11/2011	2/11/2011	2/11/2011	2/11/2011	2/11/2011	2/11/2011	2/11/2011				
	15 ft bgs	12 ft bgs	13 ft bgs	7.5 ft bsg	14 ft bsg	7 ft bsg	8 ft bsg	8 ft bsg	13 ft bsg	13.5 ft bsg				
	Fill	Fill	Fill	Fill	Fill	Native	Fill	Fill	Native	Native	Plants	Inverts	Birds	Mammals
Dibenzofuran	0.00269 U	0.00241 U	0.00165 U	0.00504 U	0.0686 U	0.00694 U	0.00448 U	0.0964 U	0.00725 U	0.00700 U	--	--	--	0.0020
Diethylphthalate	0.0134 U	0.0120 U	0.0164 U	0.0252 U	0.343 U	0.0347 U	0.0224 U	0.482 U	0.0363 U	0.0350 U	100	--	--	250,000
Dimethylphthalate	0.0134 U	0.0120 U	0.0164 U	0.0252 U	0.343 U	0.0347 U	0.0224 U	0.482 U	0.0363 U	0.0350 U	--	200	--	--
Di-n-butylphthalate	0.0252 J	0.0181 U	0.0247 U	0.0354 J	0.343 U	0.0445 J	0.0312 J	0.482 U	0.0438 J	0.0520 J	200	--	0.45	30,000
Di-n-octyl phthalate	0.0537 U	0.0482 U	0.0658 U	0.101 U	1.37 U	0.139 U	0.0895 U	1.93 U	0.145 U	0.140 U	--	--	--	--
Fluoranthene	0.00269 U	0.00241 U	0.00471	0.00504 U	0.226	0.00694 U	0.00764 J	1.30 J	0.00725 U	0.00700 U	--	--	--	--
Fluorene	0.00269 U	0.00241 U	0.00165 U	0.00504 U	0.0686 U	0.00694 U	0.00448 U	0.0964 U	0.00725 U	0.00700 U	--	30	--	--
Hexachlorobenzene	0.00671 U	0.00602 U	0.00822 U	0.00504 U	0.0686 U	0.00694 U	0.00448 U	0.0964 U	0.00725 U	0.00700 U	--	1,000	--	--
Hexachlorobutadiene	0.00671 U	0.00602 U	0.00822 U	0.0126 U	0.172 U	0.0173 U	0.0112 U	0.241 U	0.0181 U	0.0175 U	--	--	--	--
Hexachlorocyclopentadiene	0.0134 U	0.0120 U	0.0164 U	0.0252 U	0.343 U	0.0347 U	0.0224 U	0.482 U	0.0363 U	0.0350 U	10	--	--	--
Hexachloroethane	0.00671 U	0.00602 U	0.00822 U	0.0126 U	0.172 U	0.0173 U	0.0112 U	0.241 U	0.0181 U	0.0175 U	--	--	--	--
Indeno(1,2,3-cd)pyrene	0.00269 U	0.00241 U	0.00193 J	0.00504 U	0.325	0.00694 U	0.00448 U	0.383	0.00725 U	0.00700 U	--	--	--	--
Isophorone	0.00671 U	0.00602 U	0.00822 U	0.0126 U	0.172 U	0.0173 U	0.0112 U	0.241 U	0.0181 U	0.0175 U	--	--	--	--
Naphthalene	0.00537 U	0.00482 U	0.00329 U	0.0101 U	0.221 J	0.0139 U	0.00895 U	0.193 U	0.0145 U	0.0140 U	10	--	--	3,900
Nitrobenzene	0.0269 U	0.0241 U	0.0329 U	0.0504 U	0.686 U	0.0694 U	0.0448 U	0.964 U	0.0725 U	0.0700 U	8.0	40	--	--
N-Nitrosodimethylamine	0.00671 U	0.00602 U	0.00822 U	0.0126 U	0.172 U	0.0173 U	0.0112 U	0.241 U	0.0181 U	0.0175 U	--	--	--	--
N-Nitroso-di-n-propylamine	0.00671 U	0.00602 U	0.00822 U	0.0126 U	0.172 U	0.0173 U	0.0112 U	0.241 U	0.0181 U	0.0175 U	--	--	--	--
N-Nitrosodiphenylamine	0.00671 U	0.00602 U	0.00822 U	0.0126 U	0.172 U	0.0173 U	0.0112 U	0.241 U	0.0181 U	0.0175 U	--	20	--	--
Pentachlorophenol (PCP)	0.0269 U	0.0241 U	0.0329 U	0.101 U	1.37 U	0.139 U	0.0895 U	1.93 U	0.145 U	0.140 U	3.0	4.0	--	30
Phenanthrene	0.00269 U	0.00241 U	0.00538	0.00504 U	0.150	0.00694 U	0.00448 U	0.583 J	0.00725 U	0.00700 U	--	--	--	--
Phenol	0.0199	0.00482 U	0.00658 U	0.0101 U	0.137 U	0.0139 U	0.00895 U	0.193 U	0.0145 U	0.0145 J	70	30	--	--
Pyrene	0.00269 U	0.00270 J	0.00560	0.00504 U	0.357	0.00694 U	0.00966	1.54 J	0.00725 U	0.00700 U	--	--	--	--

Notes:

- = The reported concentration exceeds the lowest screening criterion.
- = The reported method detection limit exceeds the lowest screening criterion.
- = Analytical result not available
- = Criterion not available
- bgs = below ground surface
- bold** = analyte detected above MDL.
- J = The sample result is an estimated concentration.
- MDL = method detection limit
- mg/kg = milligram per kilogram
- U = The analyte was not detected at or above the MDL.
- UJ = The analyte was not detected. The reported sample quantification limit is an estimate.

¹ DEQ, 2001. Guidance for Ecological Risk Assessment, Level II Screening Benchmark Values. Oregon Department of Environmental Quality, Waste Management and Cleanup Division. December.

Table 3. Ecological Screening of Test Pit Analytical Results -- Metals, PCBs, and Petroleum Hydrocarbons

Alder Creek Mill
Portland, Oregon

Chemical of Interest	Sample Concentrations (mg/kg)																				Background Metals Concentrations in Soil ¹ (mg/kg)	DEQ Level II SLVs ²							
	TP-01-03	TP-02-00	TP-02-02	TP-04-03	TP-05-01	TP-05-05	TP-06-02	TP-06-05	TP-07-03	TP-07-07	TP-08-02	TP-08-03	TP-09-01	TP-09-04	TP-10-04	TP-10-10 DUP	TP-10-06	TP-H-02	TP-N-02	TP-P-02		TP-Q-01	TP-Q-03	TP-R-02	Plants	Inverts	Birds	Mammals	
	10/7/2010	10/7/2010	10/7/2010	10/7/2010	10/7/2010	10/7/2010	10/7/2010	10/7/2010	10/7/2010	10/8/2010	10/8/2010	10/8/2010	10/8/2010	10/8/2010	10/8/2010	10/8/2010	10/7/2010	10/8/2010	10/8/2010	10/8/2010		10/8/2010	10/8/2010	10/8/2010					
	3 ft bgs	Surface	2 ft bgs	3 ft bgs	1 ft bgs	5 ft bgs	2 ft bgs	5 ft bgs	3 ft bgs	7 ft bgs	2 ft bgs	3 ft bgs	1 ft bgs	4 ft bgs	4 ft bgs	4 ft bgs	6 ft bgs	2 ft bgs	2 ft bgs	2 ft bgs		1 ft bgs	3 ft bgs	2 ft bgs					
Metals	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Native	Fill	Native	Fill	Native	Fill	Fill	Native	Native	Native	Native	Native	Fill	Native	Fill					
Arsenic	2.66	1.41 J	2.29	2.43	1.70 J	3.66	2.20 J	0.593 U	1.83 J	4.11	1.12 J	5.26	0.555 J	4.00	1.32 J	1.50 J	2.23 J	7.44	2.66	3.26	3.17	5.90	1.66 J	7.0	10	60	10	29	
Barium	92.3	58.9	74.1	83.7	136	187	197	37.6	133	172	33.4	174	89.2	170	69.5 J	98.8 J	154	423	139	86.6	82.4	143	157	255	500	3,000	85	638	
Cadmium	1.10 U	1.32 U	1.14 U	1.17 U	1.25 U	1.31 U	1.57 U	2.97 U	1.33 U	1.38 U	1.13 U	1.34 U	1.23 U	1.42 U	3.39 U	3.65 U	1.27 U	1.24 U	0.726 J	1.11 U	0.257 J	3.65 U	0.485 J	1.0	4.0	20	6.0	125	
Chromium	10.7	13.4	7.01	12.0	11.5	21.4	13.4	1.90 J	17.1	21.4	22.4	20.6	9.20	22.7	2.40 J	3.50 J	18.8	19.9	20.0	12.1	12.0	22.0	12.4	42	--	--	--	410	
Copper	13.0	-	11.6	12.2	-	27.2	25.6	-	-	32.5	50.7	33.7	-	26.8	27.5 J	-	27.5	36.1	27.3	13.4	-	-	-	36	100	50	190	390	
Iron	21,200	-	21,400	22,000 J	-	38,800	25,400	-	-	28,200	10,600	30,700	-	23,700	7,680	-	25,500	39,800	22,300	22,500	-	-	-	50,570	10	200	--	--	
Lead	3.33	8.20	3.07	3.68	25.2	60.3 J	107	7.66	129	8.09	13.9	13.1	10.9	10.9	7.21	9.05	5.92	314	11.8	5.45	4.82	6.75	15.6	17	50	500	16	4,000	
Manganese	266	-	254	221 J	-	519	470	-	469	314	524	-	234	314 J	-	288	1,100	274 J	275	-	-	-	-	898	500	100	4,125	11,000	
Mercury	0.0331 U	0.0395 U	0.0342 U	0.0351 U	0.0519 J	0.0392 U	0.117 J	0.0890 U	0.0400 U	0.183	0.0338 U	0.0737 J	0.0370 U	0.0427 U	0.102 U	0.109 U	0.0382 U	0.0884 J	0.0680 J	0.0334 U	0.0351 U	0.0362 U	0.0393 U	0.070	0.30	0.10	1.5	73	
Nickel	16.1	-	15.7	16.5	-	21.4	21.1	-	-	24.5	249	27.8	-	26.4	4.96 J	-	24.9	21.3	21.0	18.3	-	-	-	38	30	200	320	625	
Selenium	0.44 U	0.526 U	0.457 U	0.468 U	0.501 U	0.523 U	0.628 U	1.19 U	0.533 U	0.553 U	0.451 U	0.537 U	0.493 U	0.569 U	1.35 U	1.46 U	0.509 U	0.497 U	0.493 U	0.445 U	0.519 U	0.468 U	0.483 U	0.524 U	2.0	1.0	70	2.0	25
Silver	0.110 U	0.132 U	0.114 U	0.117 U	0.125 U	0.131 U	0.157 U	0.297 U	0.133 U	0.138 J	0.113 U	0.134 U	0.123 U	0.142 U	0.339 U	0.365 U	0.127 U	0.149 J	0.130 U	0.111 U	0.117 U	0.121 U	0.131 U	1.0	2.0	50	--	--	
Zinc	47.7	-	43.9	47.2	-	138	202	-	-	70.0	37.6	92.9	-	96.9	46.3	-	65.1	278	79.0	55.9	-	-	-	86	50	200	60	20,000	
Polychlorinated Biphenyls																													
Aroclor 1016	0.00160 U	0.00180 U	0.00150 U	0.00147 U	0.00186 U	0.00153 U	0.00238 U	0.0134 U	0.00188 U	0.00184 U	0.00343 U	0.00420 U	0.00156 U	0.00178 U	0.0147 U	0.0127 U	0.00193 U	0.00185 U	0.00221 U	0.00138 U	0.00169 U	0.00190 U	0.00177 U	--	--	--	--	100	
Aroclor 1221	0.00160 U	0.00180 U	0.00150 U	0.00147 U	0.00186 U	0.00153 U	0.00238 U	0.0134 U	0.00188 U	0.00184 U	0.00343 U	0.00420 U	0.00156 U	0.00178 U	0.0147 U	0.0127 U	0.00193 U	0.00185 U	0.00221 U	0.00138 U	0.00169 U	0.00190 U	0.00177 U	--	--	--	--	--	
Aroclor 1232	0.00160 U	0.00180 U	0.00150 U	0.00147 U	0.00186 U	0.00153 U	0.00238 U	0.0134 U	0.00188 U	0.00184 U	0.00343 U	0.00420 U	0.00156 U	0.00178 U	0.0147 U	0.0127 U	0.00193 U	0.00185 U	0.00221 U	0.00138 U	0.00169 U	0.00190 U	0.00177 U	--	--	--	--	--	
Aroclor 1242	0.00160 U	0.00180 U	0.00150 U	0.00147 U	0.00186 U	0.00153 U	0.00238 U	0.0134 U	0.00188 U	0.00184 U	0.0265	0.00420 U	0.00156 U	0.00178 U	0.0147 U	0.0127 U	0.00193 U	0.00185 U	0.00221 U	0.00138 U	0.00169 U	0.00190 U	0.00177 U	--	--	--	1.5	5.0	
Aroclor 1248	0.00160 U	0.00180 U	0.00150 U	0.00147 U	0.00186 U	0.00153 U	0.00238 U	0.0134 U	0.00680	0.00184 U	0.00343 U	0.00420 U	0.00156 U	0.00178 U	0.0147 U	0.0127 U	0.00193 U	0.00185 U	0.00221 U	0.00138 U	0.00169 U	0.00190 U	0.00177 U	--	--	--	--	--	
Aroclor 1254	0.00160 U	0.00180 U	0.00150 U	0.00147 U	0.00186 U	0.00153 U	0.00238 U	0.0134 U	0.00188 U	0.00184 U	0.00343 U	0.00420 U	0.0174 J	0.00178 U	0.0147 U	0.0127 U	0.00193 U	0.00185 U	0.00311 J	0.00138 U	0.00169 U	0.00190 U	0.00177 U	--	--	--	0.70	4.0	
Aroclor 1260	0.00160 U	0.00180 U	0.00150 U	0.00147 U	0.00186 U	0.00153 U	0.00238 U	0.0134 U	0.00188 U	0.00184 U	0.00343 U	0.00420 U	0.00156 U	0.00178 U	0.0147 U	0.0127 U	0.00193 U	0.00447	0.00221 U	0.00138 U	0.00169 U	0.00190 U	0.00177 U	--	--	--	--	--	
Aroclor 1262	0.00160 U	0.00180 U	0.00150 U	0.00147 U	0.00186 U	0.00153 U	0.00238 U	0.0134 U	0.00188 U	0.00184 U	0.00343 U	0.00420 U	0.00156 U	0.00178 U	0.0147 U	0.0127 U	0.00193 U	0.00185 U	0.00221 U	0.00138 U	0.00169 U	0.00190 U	0.00177 U	--	--	--	--	--	
Aroclor 1268	0.00160 U	0.00180 U	0.00150 U	0.00147 U	0.00186 U	0.00153 U	0.00238 U	0.0134 U	0.00188 U	0.00184 U	0.00343 U	0.00420 U	0.00156 U	0.00178 U	0.0147 U	0.0127 U	0.00193 U	0.00185 U	0.00221 U	0.00138 U	0.00169 U	0.00190 U	0.00177 U	--	--	--	--	--	
Total PCBs	0.00160 U	0.00180 U	0.00150 U	0.00147 U	0.00186 U	0.00153 U	0.00238 U	0.0134 U	0.00680	0.00184 U	0.0265	0.00420 U	0.0174	0.00178 U	0.0147 U	0.0127 U	0.00193 U	0.00447	0.00311	0.00138 U	0.00169 U	0.00190 U	0.00177 U	--	40	--	--	4.0	
Petroleum Hydrocarbons																													
Diesel-Range Organics	4.27 U	119	5.21 U	4.51 U	1,500 J	15.6 J	2,150 J	1,820	1,020	6.93 U	89.8	12.0 J	3,780 J	98.0	10,700 J	7,960	282 J	50.9	95.2	4.26 U	5.11 J	4.43 U	114 J	--	--	--	--	--	
Oil-Range Organics	8.53 U	2,040	10.4 U	9.02 U	33,000	102	41,600	6,210	11,400	13.9 U	674	24.4 J	24,100	421	233,000	172,000	5,750	217	303	14.7 J	27.8 J	8.85 U	1,410	--	--	--	--	--	
Gasoline-Range Organics	2.70 U	3.35 U	2.96 U	3.08 U	3.33 U	3.46 J	4.89 U	17.9 U	14.6	4.52 U	12.1	3.51 U	10.3	4.04 U	26.5 U	19.9 U	3.91 U	5.06 J	5.30 U	2.90 U	3.77 U	3.07 U	3.21 U	--	--	--	--	--	

Notes:
 = The reported concentration exceeds the background concentration and the lowest screening criterion.
 = The reported method detection limit exceeds the background concentration and the lowest screening criterion.
-- = criterion not available.
bgs = below ground surface.
bold = analyte detected above MDL.
J = The sample result is an estimated concentration.
MDL = method detection limit.
-- = Analytical result not available
mg/kg = milligram per kilogram
SLV = screening level value
U = The analyte was not detected at or above the MDL.

¹ See Phase II Environmental Site Assessment for Alder Creek Mill Site, Table 4 for sources of each selected background concentration.
² DEQ, 2001. Guidance for Ecological Risk Assessment, Level II Screening Benchmark Values. Oregon Department of Environmental Quality, Waste Management and Cleanup Division. December.

Table 4. Ecological Screening of Test Pit Analytical Results -- VOCs
Alder Creek Mill
Portland, Oregon

Volatile Organic Compound	Sample Concentrations (mg/kg)						DEQ Level II SLVs ¹					
	TP-07-03	TP-08-02	TP-09-01	TP-H-02			Plants	Inverts	Birds	Mammals		
	10/7/2010	10/8/2010	10/8/2010	10/7/2010	1 ft bgs	2 ft bgs						
	3 ft bgs	2 ft bgs	1 ft bgs	2 ft bgs	Fill	Native						
1,1,1,2-Tetrachloroethane	0.0140 U	0.0122 U	0.0210 U	0.0170 U		0.0170 U	--	--	--	--	--	--
1,1,1-Trichloroethane	0.0140 U	0.0122 U	0.0210 U	0.0170 U		0.0170 U	--	--	--	--	55,550	--
1,1,2,2-Tetrachloroethane	0.0140 U	0.0122 U	0.0210 U	0.0170 U		0.0170 U	--	--	--	--	--	--
1,1,2-Trichloroethane	0.0617 U	0.0122 U	0.0210 U	0.0170 U		0.0170 U	--	--	--	--	--	--
1,1-Dichloroethane	0.0166 U	0.0144 U	0.0248 U	0.0201 U		0.0201 U	--	--	--	--	--	--
1,1-Dichloroethene	0.0150 U	0.0130 U	0.0225 U	0.0182 U		0.0182 U	--	--	--	--	3,750	--
1,1-Dichloropropene	0.0280 U	0.0243 U	0.0420 U	0.0340 U		0.0340 U	--	--	--	--	--	--
1,2,3-Trichlorobenzene	0.140 U	0.122 U	0.210 U	0.170 U		0.170 U	--	20.0	--	--	--	--
1,2,3-Trichloropropane	0.0280 U	0.0243 U	0.0420 U	0.0340 U		0.0340 U	--	--	--	--	--	--
1,2,4-Trichlorobenzene	0.140 U	0.122 U	0.210 U	0.170 U		0.170 U	--	20.0	--	--	--	--
1,2,4-Trimethylbenzene	0.0280 U	0.133	0.0420 U	0.0340 U		0.0340 U	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane	0.140 U	0.122 U	0.210 U	0.170 U		0.170 U	--	--	--	--	--	--
1,2-Dibromoethane (EDB)	0.0170 U	0.0147 U	0.0254 U	0.0206 U		0.0206 U	--	--	--	--	--	--
1,2-Dichlorobenzene	0.0140 U	0.0122 U	0.0210 U	0.0170 U		0.0170 U	--	--	--	--	--	--
1,2-Dichloroethane (EDC)	0.0140 U	0.0122 U	0.0210 U	0.0170 U		0.0170 U	--	--	70.0	--	2,780	--
1,2-Dichloropropane	0.0140 U	0.0122 U	0.0210 U	0.0170 U		0.0170 U	--	700	--	--	--	--
1,3,5-Trimethylbenzene	0.0280 U	0.0632	0.0420 U	0.0340 U		0.0340 U	--	--	--	--	--	--
1,3-Dichlorobenzene	0.0140 U	0.0122 U	0.0210 U	0.0170 U		0.0170 U	--	--	--	--	--	--
1,3-Dichloropropane	0.0140 U	0.0122 U	0.0210 U	0.0170 U		0.0170 U	--	--	--	--	--	--
1,4-Dichlorobenzene	0.0140 U	0.0122 U	0.0210 U	0.0170 U		0.0170 U	--	--	--	--	--	--
2,2-Dichloropropane	0.0280 U	0.0243 U	0.0420 U	0.0340 U		0.0340 U	--	20.0	--	--	--	--
2-Butanone (MEK)	0.280 U	0.243 U	0.420 U	0.340 U		0.340 U	--	--	--	--	200,000	--
2-Chlorotoluene	0.193	0.0243 U	0.0420 U	0.0340 U		0.0340 U	--	--	--	--	--	--
2-Hexanone	0.280 U	0.243 U	0.420 U	0.340 U		0.340 U	--	--	--	--	--	--
4-Chlorotoluene	0.0370 J	0.0243 U	0.0420 U	0.0340 U		0.0340 U	--	--	--	--	--	--
4-Isopropyltoluene	0.0280 U	0.0666	0.0940	0.199		0.199	--	--	--	--	--	--
4-Methyl-2-pentanone (MIBK)	0.280 U	0.243 U	0.420 U	0.340 U		0.340 U	--	--	--	--	--	--
Acetone	0.561 U	0.486 U	0.839 U	0.681 U		0.681 U	--	--	--	--	1,250	--
Benzene	0.00701 U	0.134	0.0105 U	0.00851 U		0.00851 U	--	--	--	--	3,300	--
Bromobenzene	0.0153 U	0.0133 U	0.0229 U	0.0186 U		0.0186 U	--	--	--	--	--	--
Bromochloromethane	0.0140 U	0.0122 U	0.0210 U	0.0170 U		0.0170 U	--	--	--	--	--	--
Bromodichloromethane	0.0140 U	0.0122 U	0.0210 U	0.0170 U		0.0170 U	--	--	--	--	--	--
Bromoform	0.0280 U	0.0243 U	0.0420 U	0.0340 U		0.0340 U	--	--	--	--	--	--
Bromomethane	0.280 U	0.243 U	0.420 U	0.340 U		0.340 U	--	--	--	--	--	--
Carbon disulfide	0.280 U	0.243 U	0.420 U	0.340 U		0.340 U	--	--	--	--	--	--
Carbon tetrachloride	0.0140 U	0.0122 U	0.0210 U	0.0170 U		0.0170 U	--	1,000	--	--	2,000	--
Chlorobenzene	0.0146 U	0.0126 U	0.0218 U	0.0177 U		0.0177 U	--	40.0	--	--	--	--
Chloroethane	0.280 U	0.243 U	0.420 U	0.340 U		0.340 U	--	--	--	--	--	--
Chloroform	0.0280 U	0.0243 U	0.0420 U	0.0340 U		0.0340 U	--	--	--	--	1,875	--
Chloromethane	0.140 U	0.122 U	0.210 U	0.170 U		0.170 U	--	--	--	--	--	--
cis-1,2-Dichloroethene	0.0140 U	0.0122 U	0.0210 U	0.0170 U		0.0170 U	--	--	--	--	2,500	--
cis-1,3-Dichloropropene	0.0140 U	0.0122 U	0.0210 U	0.0170 U		0.0170 U	--	--	--	--	--	--
Dibromochloromethane	0.0561 U	0.0486 U	0.0839 U	0.0681 U		0.0681 U	--	--	--	--	--	--
Dibromomethane	0.0280 U	0.0243 U	0.0420 U	0.0340 U		0.0340 U	--	--	--	--	--	--
Dichlorodifluoromethane	0.0561 U	0.0486 U	0.0839 U	0.0681 U		0.0681 U	--	--	--	--	--	--
Ethylbenzene	0.0140 U	0.0593	0.0210 U	0.0170 U		0.0170 U	--	--	--	--	--	--
Hexachlorobutadiene	0.0561 U	0.0486 U	0.0839 U	0.0681 U		0.0681 U	--	--	--	--	--	--
Isopropylbenzene	0.0280 U	0.0243 U	0.0420 U	0.0340 U		0.0340 U	--	--	--	--	--	--
m,p-Xylene	0.0292 J	0.177	0.0420 U	0.0340 U		0.0340 U	100	--	--	--	120	--
Methyl tert-butyl ether (MTBE)	0.0335 U	0.0290 U	0.0501 U	0.0406 U		0.0406 U	--	--	--	--	--	--
Methylene chloride	0.140 U	0.122 U	0.210 U	0.170 U		0.170 U	--	--	--	--	730	--
Naphthalene	0.0561 U	0.483	0.0839 U	0.0681 U		0.0681 U	10.0	--	--	--	3,900	--
n-Butylbenzene	0.0578	0.0350 J	0.0420 U	0.0340 U		0.0340 U	--	--	--	--	--	--
n-Propylbenzene	0.0151 J	0.0297	0.0210 U	0.0170 U		0.0170 U	--	--	--	--	--	--
o-Xylene	0.0471	0.0516	0.0319 J	0.0170 U		0.0170 U	1.00	--	--	--	120	--
sec-Butylbenzene	0.0280 UJ	0.0243 U	0.0420 U	0.0340 U		0.0340 U	--	--	--	--	--	--
Styrene	0.0280 U	0.0243 U	0.0420 U	0.0340 U		0.0340 U	300	--	--	--	--	--
tert-Butylbenzene	0.0280 U	0.0243 U	0.0420 U	0.0340 U		0.0340 U	--	--	--	--	--	--
Tetrachloroethene (PCE)	0.0140 U	0.0122 U	0.0210 U	0.0170 U		0.0170 U	10.0	--	--	--	80.0	--
Toluene	0.0280 U	0.688	0.598	0.340 U		0.340 U	200	--	--	--	1,440	--
trans-1,2-Dichloroethene	0.0140 U	0.0122 U	0.0210 U	0.0170 U		0.0170 U	--	--	--	--	2,500	--
trans-1,3-Dichloropropene	0.0280 U	0.0243 U	0.0420 U	0.0340 U		0.0340 U	--	--	--	--	--	--
Trichloroethene (TCE)	0.0203 U	0.0176 U	0.0304 U	0.0246 U		0.0246 U	--	--	--	--	40.0	--
Trichlorofluoromethane	0.0280 U	0.0243 U	0.0420 U	0.0340 U		0.0340 U	--	--	--	--	--	--
Vinyl chloride	0.0204 U	0.0177 U	0.0305 U	0.0247 U		0.0247 U	--	--	--	--	20.0	--

Notes:

 = The reported concentration exceeds the lowest screening criterion.
 = The reported method detection limit exceeds the lowest screening criterion.
-- = Criterion not available

bgs = below ground surface

bold = analyte detected above MDL.

J = The sample result is an estimated concentration.

MDL = method detection limit

mg/kg = milligram per kilogram

U = The analyte was not detected at or above the MDL.

UJ = The analyte was not detected. The reported sample quantification limit is an estimate.

¹ DEQ, 2001. Guidance for Ecological Risk Assessment, Level II Screening Benchmark Values. Oregon Department of Environmental Quality, Waste Management and Cleanup Division. December.

Table 5. Ecological Screening of Test Pit Analytical Results -- SVOCs
Alder Creek Mill
Portland, Oregon

Semivolatile Organic Compound	Sample Concentrations (mg/kg)																			DEQ Level II SLVs ¹				
	TP-01-03	TP-02-00	TP-02-02	TP-04-03	TP-05-01	TP-05-05	TP-06-02	TP-06-05	TP-07-03	TP-07-07	TP-08-02	TP-08-03	TP-09-01	TP-09-04	TP-10-04	TP-10-06	TP-H-02	TP-P-02	TP-Q-01					TP-Q-03
	10/7/2010	10/7/2010	10/7/2010	10/7/2010	10/7/2010	10/7/2010	10/7/2010	10/7/2010	10/7/2010	10/8/2010	10/8/2010	10/8/2010	10/8/2010	10/8/2010	10/8/2010	10/8/2010	10/7/2010	10/8/2010	10/8/2010	10/8/2010				
	3 ft bgs	Surface	2 ft bgs	3 ft bgs	1 ft bgs	5 ft bgs	2 ft bgs	5 ft bgs	3 ft bgs	7 ft bgs	2 ft bgs	3 ft bgs	1 ft bgs	4 ft bgs	4 ft bgs	6 ft bgs	2 ft bgs	2 ft bgs	1 ft bgs	3 ft bgs				
Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Native	Fill	Native	Fill	Native	Fill	Native	Native	Native	Fill	Native					
1,2,4-Trichlorobenzene	0.00356 U	0.117 U	0.00434 U	0.00376 U	2.55 U	0.0231 U	3.06 U	0.725 U	0.122 U	0.00577 U	0.176 U	0.00503 U	1.72 U	0.0447 U	23.7 U	0.0375 U	0.0237 U	0.00355 U	0.0172 U	0.0184 U	--	20	--	--
1,2-Dichlorobenzene	0.00356 U	0.117 U	0.00434 U	0.00376 U	2.55 U	0.0231 U	3.06 U	0.725 U	0.122 U	0.00577 U	0.176 U	0.00503 U	1.72 U	0.0447 U	23.7 U	0.0375 U	0.0237 U	0.00355 U	0.0172 U	0.0184 U	--	--	--	--
1,3-Dichlorobenzene	0.00356 U	0.117 U	0.00434 U	0.00376 U	2.55 U	0.0231 U	3.06 U	0.725 U	0.122 U	0.00577 U	0.176 U	0.00503 U	1.72 U	0.0447 U	23.7 U	0.0375 U	0.0237 U	0.00355 U	0.0172 U	0.0184 U	--	--	--	--
1,4-Dichlorobenzene	0.00356 U	0.117 U	0.00434 U	0.00376 U	2.55 U	0.0231 U	3.06 U	0.725 U	0.122 U	0.00577 U	0.176 U	0.00503 U	1.72 U	0.0447 U	23.7 U	0.0375 U	0.0237 U	0.00355 U	0.0172 U	0.0184 U	--	20	--	--
1-Methylnaphthalene	-	-	-	-	-	-	-	-	-	-	0.155 J	-	3.29	0.233	19.0 U	0.0300 U	-	-	0.0138 U	0.0148 U	--	--	--	--
2,3,4,6-Tetrachlorophenol	0.00711 U	0.234 U	0.00868 U	0.00751 U	5.10 U	0.0462 U	6.13 U	1.45 U	0.244 U	0.0115 U	0.352 U	0.0101 U	3.43 U	0.0894 U	47.4 U	0.0750 U	0.0473 U	0.00709 U	0.0344 U	0.0369 U	--	20	--	--
2,4,5-Trichlorophenol	0.00711 U	0.234 U	0.00868 U	0.00751 U	5.10 U	0.0462 U	6.13 U	1.45 U	0.244 U	0.0115 U	0.352 U	0.0101 U	3.43 U	0.0894 U	47.4 U	0.0750 U	0.0473 U	0.00709 U	0.0344 U	0.0369 U	4.0	9.0	--	--
2,4,6-Trichlorophenol	0.00711 U	0.234 U	0.00868 U	0.00751 U	5.10 U	0.0462 U	6.13 U	1.45 U	0.244 U	0.0115 U	0.352 U	0.0101 U	3.43 U	0.0894 U	47.4 U	0.0750 U	0.0473 U	0.00709 U	0.0344 U	0.0369 U	10	10	--	--
2,4-Dichlorophenol	0.00711 U	0.234 U	0.00868 U	0.00751 U	5.10 U	0.0462 U	6.13 U	1.45 U	0.244 U	0.0115 U	0.352 U	0.0101 U	3.43 U	0.0894 U	47.4 U	0.0750 U	0.0473 U	0.00709 U	0.0344 U	0.0369 U	20	--	--	--
2,4-Dimethylphenol	0.00711 U	0.234 U	0.00868 U	0.00751 U	5.10 U	0.0462 U	6.13 U	1.45 U	0.244 U	0.0115 U	0.352 U	0.0101 U	3.43 U	0.0894 U	47.4 U	0.0750 U	0.0473 U	0.00709 U	0.0344 U	0.0369 U	20	--	--	--
2,4-Dinitrophenol	0.0284 U	0.935 U	0.0695 U	0.0301 U	20.4 U	0.185 U	24.5 U	5.80 U	1.95 U	0.0923 U	1.41 U	0.0402 U	13.7 U	0.358 U	190 U	0.300 U	0.378 U	0.0284 U	0.138 U	0.148 U	20	--	--	--
2,4-Dinitrotoluene	0.0142 U	0.468 U	0.0174 U	0.0150 U	10.2 U	0.0924 U	12.3 U	2.90 U	0.488 U	0.0231 U	0.704 U	0.0201 U	6.87 U	0.179 U	94.9 U	0.150 U	0.0946 U	0.0142 U	0.0688 U	0.0738 U	--	--	--	--
2,6-Dinitrotoluene	0.0142 U	0.468 U	0.0174 U	0.0150 U	10.2 U	0.0924 U	12.3 U	2.90 U	0.488 U	0.0231 U	0.704 U	0.0201 U	6.87 U	0.179 U	94.9 U	0.150 U	0.0946 U	0.0142 U	0.0688 U	0.0738 U	--	--	--	--
2-Chloronaphthalene	0.00142 U	0.0468 U	0.00174 U	0.00150 U	1.02 U	0.00924 U	1.23 U	0.290 U	0.0488 U	0.00231 U	0.0704 U	0.00201 U	0.687 U	0.0179 U	9.49 U	0.0150 U	0.00946 U	0.00142 U	0.00688 U	0.00738 U	--	--	--	--
2-Chlorophenol	0.00711 U	0.234 U	0.00868 U	0.00751 U	5.10 U	0.0462 U	6.13 U	1.45 U	0.244 U	0.0115 U	0.352 U	0.0101 U	3.43 U	0.0894 U	47.4 U	0.0750 U	0.0473 U	0.00709 U	0.0344 U	0.0369 U	60	--	--	--
2-Methylnaphthalene	0.00284 U	0.0935 U	0.00347 U	0.00878	2.04 U	0.0185 U	2.45 U	0.580 U	0.403	0.00462 U	0.209 J	0.0186	3.59	0.350	19.0 U	0.0300 U	0.0189 U	0.00826	0.0223 J	0.0148 U	--	--	--	--
2-Methylphenol	0.00356 U	0.117 U	0.00434 U	0.00376 U	2.55 U	0.0231 U	3.06 U	0.725 U	0.122 U	0.00577 U	0.176 U	0.00503 U	1.72 U	0.0447 U	23.7 U	0.0375 U	0.0237 U	0.00355 U	0.0172 U	0.0184 U	50	--	--	16,000
2-Nitroaniline	0.0284 U	0.935 U	0.0347 U	0.0301 U	20.4 U	0.185 U	24.5 U	5.80 U	0.976 U	0.0462 U	1.41 U	0.0402 U	13.7 U	0.358 U	190 U	0.300 U	0.189 U	0.0284 U	0.138 U	0.148 U	--	--	--	--
2-Nitrophenol	0.0142 U	0.468 U	0.0174 U	0.0150 U	10.2 U	0.0924 U	12.3 U	2.90 U	0.488 U	0.0231 U	0.704 U	0.0201 U	6.87 U	0.179 U	94.9 U	0.150 U	0.0946 U	0.0142 U	0.0688 U	0.0738 U	--	--	--	--
3+4-Methylphenol(s)	0.00356 U	0.117 U	0.00434 U	0.00376 U	2.55 U	0.0231 U	3.06 U	0.725 U	0.122 U	0.00577 U	0.176 U	0.00503 U	1.72 U	0.0447 U	23.7 U	0.0375 U	0.0237 U	0.00355 U	0.0172 U	0.0184 U	--	--	--	--
3-Nitroaniline	0.0284 U	0.935 U	0.0347 U	0.0301 U	20.4 U	0.185 U	24.5 U	5.80 U	0.976 U	0.0462 U	1.41 U	0.0402 U	13.7 U	0.358 U	190 U	0.300 U	0.189 U	0.0284 U	0.138 U	0.148 U	70	--	--	--
4,6-Dinitro-2-methylphenol	0.0356 U	1.17 U	0.0434 U	0.0376 U	25.5 U	0.231 U	30.6 U	7.25 U	1.22 U	0.0577 U	1.76 U	0.0503 U	17.2 U	0.447 U	237 U	0.375 U	0.237 U	0.0355 U	0.172 U	0.184 U	--	--	--	--
4-Bromophenyl phenyl ether	0.00356 U	0.117 U	0.00434 U	0.00376 U	2.55 U	0.0231 U	3.06 U	0.725 U	0.122 U	0.00577 U	0.176 U	0.00503 U	1.72 U	0.0447 U	23.7 U	0.0375 U	0.0237 U	0.00355 U	0.0172 U	0.0184 U	--	--	--	--
4-Chloro-3-methylphenol	0.0142 U	0.468 U	0.0174 U	0.0150 U	10.2 U	0.0924 U	12.3 U	2.90 U	0.488 U	0.0231 U	0.704 U	0.0201 U	6.87 U	0.179 U	94.9 U	0.150 U	0.0946 U	0.0142 U	0.0688 U	0.0738 U	--	--	--	--
4-Chloroaniline	0.00356 U	0.117 U	0.00434 U	0.00376 U	2.55 U	0.0231 U	3.06 U	0.725 U	0.122 U	0.00577 U	0.176 U	0.0102 U	1.72 U	0.0447 U	23.7 U	0.0375 U	0.0237 U	0.00355 U	0.0172 U	0.0184 U	40	--	--	--
4-Chlorophenyl phenyl ether	0.00356 U	0.117 U	0.00434 U	0.00376 U	2.55 U	0.0231 U	3.06 U	0.725 U	0.122 U	0.00577 U	0.176 U	0.00503 U	1.72 U	0.0447 U	23.7 U	0.0375 U	0.0237 U	0.00355 U	0.0172 U	0.0184 U	--	--	--	--
4-Nitroaniline	0.0284 U	0.935 U	0.0347 U	0.0301 U	20.4 U	0.185 U	24.5 U	5.80 U	0.976 U	0.0462 U	1.41 U	0.0402 U	13.7 U	0.358 U	190 U	0.300 U	0.189 U	0.0284 U	0.138 U	0.148 U	40	--	--	--
4-Nitrophenol	0.0142 U	0.468 U	0.0174 U	0.0150 U	10.2 U	0.0924 U	12.3 U	2.90 U	0.488 U	0.0231 U	0.704 U	0.0201 U	6.87 U	0.179 U	94.9 U	0.150 U	0.0946 U	0.0142 U	0.0688 U	0.0738 U	10	7.0	--	--
Acenaphthene	0.00142 U	0.0468 U	0.00174 U	0.00150 U	1.02 U	0.00924 U	1.23 U	0.290 U	0.0628 J	0.00231 U	0.161	0.0187	0.687 U	0.0179 U	9.49 U	0.0150 U	0.00946 U	0.00142 U	0.00804 J	0.00738 U	20	--	--	--
Acenaphthylene	0.00142 U	0.0468 U	0.00174 U	0.00150 U	1.02 U	0.00924 U	1.23 U	0.290 U	0.0488 U	0.00231 U	0.0704 U	0.0344	0.687 U	0.0179 U	9.49 U	0.0150 U	0.00946 U	0.00688 U	0.00688 U	0.00738 U	--	--	--	--
Aniline	0.00356 U	0.117 U	0.00434 U	0.00376 U	2.55 U	0.0231 U	3.06 U	0.725 U	0.122 U	0.00577 U	0.176 U	0.00503 U	1.72 U	0.0447 U	23.7 U	0.0375 U	0.0237 U	0.00355 U	0.0172 U	0.0184 U	200	--	--	--
Anthracene	0.00142 U	0.0468 U	0.00174 U	0.00272 J	1.02 U	0.0123 J	1.23 U	0.290 U	0.0931 J	0.00231 U	0.287	0.0268	0.687 U	0.0179 U	9.49 U	0.0150 U	0.00946 U	0.0446	0.0275	0.00738 U	--	--	--	--
Benz(a)anthracene	0.00413	0.0718 J	0.00363	0.00739	1.02 U	0.0275	1.23 U	0.290 U	0.198	0.00231 U	6.70	0.262	0.687 U	0.0462	9.49 U	0.0150 U	0.0410	0.0930	0.0482	0.0167	--	--	--	--
Benzo(a)pyrene	0.0106	0.0701 U	0.00714	0.0119	1.53 U	0.0462	1.84 U	0.435 U	0.273 J	0.00414 J	10.9	0.237	1.03 U	0.0907 J	14.2 U	0.0225 U	0.0703	0.103	0.0475	0.0175 J	--	--	--	125
Benzo(b)fluoranthene	0.00756	0.0772 J	0.00585	0.0123	1.02 U	0.0438	1.23 U	0.290 U	0.321	0.00310 J	14.3	0.215	1.03 U	0.0986	14.2 U	0.0450 U	0.0746	0.0957	0.0492	0.0171	--	--	--	--
Benzo(g,h,i)perylene	0.0127	0.0468 U	0.00555	0.00714	1.02 U	0.0307	1.23 U	0.290 U	0.244 U	0.00231 U	10.1	0.130	0.687 U	0.0659 J	9.49 U	1.50 U	0.0642	0.0685	0.0325	0.0141 J	--	--	--	--
Benzo(k)fluoranthene	0.00405	0.0535 J	0.00310 J	0.00537	1.02 J	0.0198	1.23 U	0.290 U	0.111	0.00231 U	4.32	0.0772	1.03 U	0.0488	14.2 U	0.0225 U	0.0302	0.0317	0.0174	0.00770 J	--	--	--	--
Benzoic acid	0.178 U	5.85 U	0.217 U	0.188 U	127 U	1.15 U	153 U	36.2 U	6.10 U	0.289 U	8.79 U	0.251 U	85.8 U	2.24 U	1,190 U	1.88 U	1.18 U	0.177 U	0.860 U	0.922 U	--	--	--	--
Benzyl alcohol	0.00711 U	0.234 U	0.00868 U	0.00751 U	5.10 U	0.0462 U	6.13 U	1.45 U	0.244 U	0.0115 U	0.352 U	0.0135 J	3.43 U	0.0894 U	47.4 U	0.0750 U	0.0473 U	0.00709 U	0.0344 U	0.0369 U	--	--	--	--
Bis(2-Chloroethoxy) methane	0.00356 U	0.117 U	0.00434 U	0.00376 U	2.55 U	0.0231 U	3.06 U	0.725 U	0.122 U	0.00577 U	0.176 U	0.00503 U	1.72 U	0.0447 U	23.7 U	0.0375 U	0.0237 U	0.00355 U	0.0172 U	0.0184 U	--	--	--	--
Bis(2-Chloroethyl) ether	0.00356 U	0.117 U	0.00434 U	0.00376 U	2.55 U	0.0231 U	3.06 U	0.725 U	0.122 U	0.00577 U	0.176 U	0.00503 U	1.72 U	0.0447 U	23.7 U	0.0375 U	0.0237 U	0.00355 U	0.0172 U	0.0184 U	--	--	--	--
Bis(2-Chloroisopropyl) ether	0.00356 U	0.117 U	0.00434 U	0.00376 U	2.55 U	0.0231 U	3.06 U	0.725 U	0.122 U	0.00577 U	0.176 U	0.00503 U	1.72 U	0.0447 U	23.7 U	0.0375 U	0.0237 U	0.00355 U	0.0172 U	0.0184 U	--	--	--	--
Bis(2-ethylhexyl)phthalate	0.0284 U	0.935 U	0.186	0.119	20.4 U	0.185 U	24.5 U	5.80 U	3.51															

Table 5. Ecological Screening of Test Pit Analytical Results -- SVOCs

Alder Creek Mill
Portland, Oregon

Semivolatile Organic Compound	Sample Concentrations (mg/kg)																			DEQ Level II SLVs ¹				
	TP-01-03	TP-02-00	TP-02-02	TP-04-03	TP-05-01	TP-05-05	TP-06-02	TP-06-05	TP-07-03	TP-07-07	TP-08-02	TP-08-03	TP-09-01	TP-09-04	TP-10-04	TP-10-06	TP-H-02	TP-P-02	TP-Q-01					TP-Q-03
	10/7/2010	10/7/2010	10/7/2010	10/7/2010	10/7/2010	10/7/2010	10/7/2010	10/7/2010	10/7/2010	10/8/2010	10/8/2010	10/8/2010	10/8/2010	10/8/2010	10/8/2010	10/8/2010	10/8/2010	10/8/2010	10/8/2010	10/8/2010				
	3 ft bgs	Surface	2 ft bgs	3 ft bgs	1 ft bgs	5 ft bgs	2 ft bgs	5 ft bgs	3 ft bgs	7 ft bgs	2 ft bgs	3 ft bgs	1 ft bgs	4 ft bgs	4 ft bgs	6 ft bgs	2 ft bgs	2 ft bgs	1 ft bgs	3 ft bgs				
	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Native	Fill	Native	Fill	Native	Fill	Native	Native	Native	Native	Fill	Native	Plants	Inverts	Birds	Mammals
Pentachlorophenol (PCP)	0.0142 U	0.468 U	0.0174 U	0.0150 U	12.7 U	0.0924 U	12.3 U	2.90 U	0.488 U	0.0231 U	0.704 U	0.0251 U	6.87 U	0.179 U	94.9 U	0.150 U	0.0946 U	0.0177 U	0.0688 U	0.0739 J	3.0	4.0	--	30
Phenanthrene	0.00314	0.0468 U	0.00232 J	0.0110	1.19 J	0.0533	1.23 U	0.290 U	0.545	0.00244 J	1.63	0.134	0.689 J	0.0453	9.49 U	0.0205 J	0.0434	0.0430	0.103	0.0136 J	--	--	--	--
Phenol	0.00284 U	0.0935 U	0.00347 U	0.00301 U	2.04 U	0.0185 U	2.45 U	0.580 U	0.0976 U	0.00462 U	0.198 J	0.00402 U	1.37 U	0.0381 J	19.0 U	0.0300 U	0.0189 U	0.00284 U	0.0138 U	0.0148 U	70	30	--	--
Pyrene	0.00974	0.105	0.00671	0.0139	4.19	0.0682	1.23 U	0.290 U	0.714	0.00231 U	7.49	0.378	0.687 U	0.0854	9.49 U	0.0349	0.0920	0.155	0.121	0.0239	--	--	--	--

Notes:
 = The reported concentration exceeds the lowest screening criterion.
 = The reported method detection limit exceeds the lowest screening criterion.
 - = Analytical result not available
 -- = Criterion not available
 bgs = below ground surface
 bold = analyte detected above MDL.
 J = The sample result is an estimated concentration.
 MDL = method detection limit
 mg/kg = milligram per kilogram
 U = The analyte was not detected at or above the MDL.
 UJ = The analyte was not detected. The reported sample quantification limit is an estimate.

¹ DEQ, 2001. Guidance for Ecological Risk Assessment, Level II Screening Benchmark Values. Oregon Department of Environmental Quality, Waste Management and Cleanup Division. December.

Table 6. Ecological Screening of Stormwater System Solids Analytical Results -- Metals, PCBs, and Petroleum Hydrocarbons

Alder Creek Mill

Portland, Oregon

Chemical of Interest	Sample Concentrations (mg/kg)										Background Metals Concentrations in Soil ¹ (mg/kg)	DEQ Level II SLVs ²			
	SWS-01	SWS-02	SWS-03	SWS-05	SWS-06	SWS-07	SWS-11 DUP	SWS-08	SWS-09	Pipe-00		Plants	Inverts	Birds	Mammals
	10/8/2010	10/8/2010	10/8/2010	10/8/2010	10/14/2010	10/14/2010	10/14/2010	10/14/2010	10/14/2010	10/14/2010					
	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface					
Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill						
Metals															
Arsenic	1.15 J	0.806 J	0.670 J	0.847 J	2.43 J	2.01 J	2.22 J	2.16 J	1.07 J	3.59	7.0	10	60	10	29
Barium	85.5	89.9	92.3	112	183	117	130	126	114	128	255	500	3,000	85	638
Cadmium	0.882 J	0.750 J	0.764 J	0.769 J	0.678 J	0.382 J	0.405 J	0.322 J	0.717 J	0.691 J	1.0	4.0	20	6.0	125
Chromium	7.55	6.97	7.42	8.74	20.2	11.8	13.2	16.5	12.4	16.6	42	--	--	--	410
Copper	21.2	-	-	27.1	25.4	17.8	-	-	22.1	-	36	100	50	190	390
Iron	30,100	-	-	47,400	30,500	30,400	-	-	37,800	-	50,570	10	200	--	--
Lead	8.81	10.9	10.5	14.6	18.3	5.54	6.16	6.57	12.1	27.2	17	50	500	16	4,000
Manganese	892	-	-	553	326	297	-	-	418	-	898	500	100	4,125	11,000
Mercury	0.0399 J	0.0562 U	0.0468 U	0.0471 U	0.0823 J	0.0382 U	0.0368 U	0.0436 J	0.0578 J	0.0590 J	0.070	0.30	0.10	1.5	73
Nickel	9.18	-	-	9.30	16.7	18.0	-	-	9.99	-	38	30	200	320	625
Selenium	0.452 U	0.750 U	0.623 U	0.627 U	0.714 U	0.510 U	0.491 U	0.560 U	0.736 U	0.532 U	2.0	1.0	70	2.0	25
Silver	0.113 U	0.187 U	0.156 U	0.157 U	0.178 U	0.127 U	0.123 U	0.140 U	0.184 U	0.133 U	1.0	2.0	50	--	--
Zinc	88.8	-	-	134	144	173	-	-	112	-	86	50	200	60	20,000
Polychlorinated Biphenyls															
Aroclor 1016	0.00441 U	0.00257 U	0.00229 U	0.00202 U	0.00633 UJ	0.00175 U	0.00184 U	0.00215 U	0.00279 U	0.00194 U	--	--	--	--	100
Aroclor 1221	0.00441 U	0.00257 U	0.00229 U	0.00202 U	0.00633 UJ	0.00175 U	0.00184 U	0.00215 U	0.00279 U	0.00194 U	--	--	--	--	--
Aroclor 1232	0.00441 U	0.00257 U	0.00229 U	0.00202 U	0.00633 UJ	0.00175 U	0.00184 U	0.00215 U	0.00279 U	0.00194 U	--	--	--	--	--
Aroclor 1242	0.00441 U	0.00257 U	0.00229 U	0.00202 U	0.00633 UJ	0.00175 U	0.00184 U	0.00215 U	0.00279 U	0.00194 U	--	--	--	1.5	5.0
Aroclor 1248	0.00441 U	0.00257 U	0.00229 U	0.00202 U	0.00633 UJ	0.00175 U	0.00184 U	0.00215 U	0.00279 U	0.00194 U	--	--	--	--	--
Aroclor 1254	0.00441 U	0.00257 U	0.00229 U	0.00380 J	0.00931 J	0.00175 U	0.00344 J	0.00215 U	0.00279 U	0.00475	--	--	--	0.70	4.0
Aroclor 1260	0.00694 J	0.00309 J	0.00525 J	0.00377 J	0.00633 UJ	0.00175 U	0.00184 U	0.00215 UJ	0.00279 U	0.00321 J	--	--	--	--	--
Aroclor 1262	0.00441 U	0.00257 U	0.00229 U	0.00202 U	0.00633 UJ	0.00175 U	0.00184 U	0.00215 U	0.00279 U	0.00194 U	--	--	--	--	--
Aroclor 1268	0.00441 U	0.00257 U	0.00229 U	0.00202 U	0.00633 UJ	0.00175 U	0.00184 U	0.00215 U	0.00279 U	0.00194 U	--	--	--	--	--
Total PCBs	0.00694	0.00309	0.00525	0.00757	0.00931	0.00175 U	0.00344	0.00215 U	0.00279 U	0.00796	--	40	--	--	4.0
Petroleum Hydrocarbons															
Diesel-Range Organics	38.1 J	60.8 J	68.7 J	26.7 J	8.37 J	11.6 J	16.3 J	24.8 J	152	38.3	--	--	--	--	--
Oil-Range Organics	363	442	889	380	53.2 J	122	332	94.0	352	332	--	--	--	--	--
Gasoline-Range Organics	4.30 U	11.1 U	11.5 U	5.03 U	6.78 U	3.46 U	2.72 U	3.46 U	6.92 U	4.31 U	--	--	--	--	--

Notes:

- = The reported concentration exceeds the background concentration and the lowest screening criterion.
- = The reported method detection limit exceeds the background concentration and the lowest screening criterion.

-- = criterion not available.

bgs = below ground surface.

bold = analyte detected above MDL.

J = The sample result is an estimated concentration.

MDL = method detection limit.

¹ See Phase II Environmental Site Assessment for Alder Creek Mill Site, Table 4 for sources of each selected background concentration.

² DEQ, 2001. Guidance for Ecological Risk Assessment, Level II Screening Benchmark Values. Oregon Department of Environmental Quality, Waste Management and Cleanup Division. December.

- = Analytical result not available

mg/kg = milligram per kilogram

SLV = screening level value

U = The analyte was not detected at or above the MDL.

Table 7. Ecological Screening of Storm Water System Solids Analytical Results -- SVOCs
Alder Creek Mill
Portland, Oregon

Semivolatile Organic Compound	Sample Concentrations (mg/kg)												DEQ Level II SLVs ¹					
	Pipe-00		SWS-06		SWS-07		SWS-11 DUP		SWS-08		SWS-09		C-2		Plants	Inverts	Birds	Mammals
	10/14/2010	10/14/2010	10/14/2010	10/14/2010	10/14/2010	10/14/2010	10/14/2010	10/14/2010	10/14/2010	10/14/2010	10/14/2010	2/10/2011						
	Surface	Fill	Surface	Fill	Surface	Fill	Surface	Fill	Surface	Fill	Surface	Fill	Surface					
1,2,4-Trichlorobenzene	0.0453 U	0.0128 U	0.00883 U	0.00874 U	0.00993 U	0.0128 U	0.0128 U	0.0128 U	0.00993 U	0.0128 U	0.0128 U	2.23 U	2.23 U	--	20	--	--	
1,2-Dichlorobenzene	0.0453 U	0.0128 U	0.00883 U	0.00874 U	0.00993 U	0.0128 U	0.0128 U	0.0128 U	0.00993 U	0.0128 U	0.0128 U	2.23 U	2.23 U	--	--	--	--	
1,3-Dichlorobenzene	0.0453 U	0.0128 U	0.00883 U	0.00874 U	0.00993 U	0.00874 U	0.00874 U	0.00874 U	0.00993 U	0.0128 U	0.0128 U	2.23 U	2.23 U	--	--	--	--	
1,4-Dichlorobenzene	0.0453 U	0.0128 U	0.00883 U	0.00874 U	0.00993 U	0.00874 U	0.00874 U	0.00874 U	0.00993 U	0.0128 U	0.0128 U	2.23 U	2.23 U	--	20	--	--	
1-Methylnaphthalene	0.0362 U	0.00512 U	0.00707 U	0.00699 U	0.00795 U	0.0103 U	0.0103 U	0.0103 U	0.00795 U	0.0103 U	0.0103 U	1.78 U	1.78 U	--	--	--	--	
2,3,4,6-Tetrachlorophenol	0.0905 U	0.0256 U	0.0177 U	0.0175 U	0.0199 U	0.0256 U	0.0256 U	0.0256 U	0.0199 U	0.0256 U	0.0256 U	4.46 U	4.46 U	--	20	--	--	
2,4,5-Trichlorophenol	0.0905 U	0.0256 U	0.0177 U	0.0175 U	0.0199 U	0.0256 U	0.0256 U	0.0256 U	0.0199 U	0.0256 U	0.0256 U	4.46 U	4.46 U	--	9.0	--	--	
2,4,6-Trichlorophenol	0.0905 U	0.0256 U	0.0177 U	0.0175 U	0.0199 U	0.0256 U	0.0256 U	0.0256 U	0.0199 U	0.0256 U	0.0256 U	4.46 U	4.46 U	--	10	--	--	
2,4-Dichlorophenol	0.0905 U	0.0256 U	0.0177 U	0.0175 U	0.0199 U	0.0256 U	0.0256 U	0.0256 U	0.0199 U	0.0256 U	0.0256 U	4.46 U	4.46 U	--	20	--	--	
2,4-Dimethylphenol	0.0905 U	0.0256 U	0.0177 U	0.0175 U	0.0199 U	0.0256 U	0.0256 U	0.0256 U	0.0199 U	0.0256 U	0.0256 U	4.46 U	4.46 U	--	20	--	--	
2,4-Dinitrophenol	0.362 U	0.102 U	0.0706 U	0.0699 U	0.0794 U	0.103 U	0.103 U	0.103 U	0.0794 U	0.103 U	0.103 U	17.8 U	17.8 U	--	--	--	--	
2,4-Dinitrotoluene	0.181 U	0.0512 U	0.0353 U	0.0349 U	0.0397 U	0.0513 U	0.0513 U	0.0513 U	0.0397 U	0.0513 U	0.0513 U	8.92 U	8.92 U	--	--	--	--	
2,6-Dinitrotoluene	0.181 U	0.0512 U	0.0353 U	0.0349 U	0.0397 U	0.0513 U	0.0513 U	0.0513 U	0.0397 U	0.0513 U	0.0513 U	8.92 U	8.92 U	--	--	--	--	
2-Chloronaphthalene	0.0181 U	0.00512 U	0.00353 U	0.00349 U	0.00397 U	0.00513 U	0.00513 U	0.00513 U	0.00397 U	0.00513 U	0.00513 U	0.892 U	0.892 U	--	--	--	--	
2-Chlorophenol	0.0905 U	0.0256 U	0.0177 U	0.0175 U	0.0199 U	0.0256 U	0.0256 U	0.0256 U	0.0199 U	0.0256 U	0.0256 U	4.46 U	4.46 U	--	60	--	--	
2-Methylnaphthalene	0.0362 U	0.00641 J	0.00707 U	0.00699 U	0.00795 U	0.0103 U	0.0103 U	0.0103 U	0.00795 U	0.0103 U	0.0103 U	1.78 U	1.78 U	--	--	--	--	
2-Methylphenol	0.0453 U	0.0128 U	0.00883 U	0.00874 U	0.00993 U	0.0128 U	0.0128 U	0.0128 U	0.00993 U	0.0128 U	0.0128 U	2.23 U	2.23 U	--	50	--	16,000	
2-Nitroaniline	0.362 U	0.102 U	0.0706 U	0.0699 U	0.0794 U	0.103 U	0.103 U	0.103 U	0.0794 U	0.103 U	0.103 U	17.8 U	17.8 U	--	--	--	--	
2-Nitrophenol	0.181 U	0.0512 U	0.0353 U	0.0349 U	0.0397 U	0.0513 U	0.0513 U	0.0513 U	0.0397 U	0.0513 U	0.0513 U	8.92 U	8.92 U	--	--	--	--	
3+4-Methylphenol(s)	0.0453 U	0.0346 J	0.00883 U	0.00874 U	0.0110 J	0.0151 J	0.0151 J	0.0151 J	0.00883 U	0.00874 U	0.00874 U	2.23 U	2.23 U	--	--	--	--	
3-Nitroaniline	0.362 U	0.102 U	0.0706 U	0.0699 U	0.0794 U	0.103 U	0.103 U	0.103 U	0.0794 U	0.103 U	0.103 U	17.8 U	17.8 U	--	70	--	--	
3-Iodo-2-propyl N-butylcarbamate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
4,6-Dinitro-2-methylphenol	0.453 U	0.128 U	0.0883 U	0.0874 U	0.0993 U	0.128 U	0.128 U	0.128 U	0.0993 U	0.128 U	0.128 U	19.3 U	19.3 U	--	--	--	--	
4-Bromophenyl phenyl ether	0.453 U	0.0128 U	0.00883 U	0.00874 U	0.00993 U	0.0128 U	0.0128 U	0.0128 U	0.00993 U	0.0128 U	0.0128 U	2.23 U	2.23 U	--	--	--	--	
4-Chloro-3-methylphenol	0.181 U	0.0512 U	0.0353 U	0.0349 U	0.0397 U	0.0513 U	0.0513 U	0.0513 U	0.0397 U	0.0513 U	0.0513 U	8.92 U	8.92 U	--	--	--	--	
4-Chloroaniline	0.0453 U	0.0128 U	0.00883 U	0.00874 U	0.00993 U	0.0128 U	0.0128 U	0.0128 U	0.00993 U	0.0128 U	0.0128 U	2.23 U	2.23 U	--	40	--	--	
4-Chlorophenyl phenyl ether	0.0453 U	0.0128 U	0.00883 U	0.00874 U	0.00993 U	0.0128 U	0.0128 U	0.0128 U	0.00993 U	0.0128 U	0.0128 U	2.23 U	2.23 U	--	--	--	--	
4-Nitroaniline	0.362 U	0.102 U	0.0706 U	0.0699 U	0.0794 U	0.103 U	0.103 U	0.103 U	0.0794 U	0.103 U	0.103 U	17.8 U	17.8 U	--	40	--	--	
4-Nitrophenol	0.181 U	0.0512 U	0.0353 U	0.0349 U	0.0397 U	0.0513 U	0.0513 U	0.0513 U	0.0397 U	0.0513 U	0.0513 U	8.92 U	8.92 U	--	7.0	--	--	
Acenaphthene	0.0181 U	0.00256 U	0.00354 U	0.00350 U	0.00398 U	0.00514 U	0.00514 U	0.00514 U	0.00398 U	0.00514 U	0.00514 U	0.892 U	0.892 U	--	20	--	--	
Acenaphthylene	0.233	0.0105	0.0106	0.00810	0.0294	0.0137	0.0137	0.0137	0.0294	0.0137	0.0137	0.892 U	0.892 U	--	--	--	--	
Aniline	0.0905 U	0.0763	0.00883 U	0.00874 U	0.00993 U	0.0128 U	0.0128 U	0.0128 U	0.00993 U	0.0128 U	0.0128 U	2.23 U	2.23 U	--	200	--	--	
Anthracene	0.163	0.0102	0.00673 J	0.00498 J	0.0130	0.0136	0.0136	0.0136	0.0130	0.0136	0.0136	0.892 U	0.892 U	--	--	--	--	
Benz(a)anthracene	0.229	0.0282	0.00701 J	0.00664 J	0.0266	0.0199	0.0199	0.0199	0.0266	0.0199	0.0199	0.892 U	0.892 U	--	--	--	--	
Benzo(a)pyrene	0.333	0.0363	0.0106 U	0.00839 U	0.0631	0.0276	0.0276	0.0276	0.0631	0.0276	0.0276	2.23 U	2.23 U	--	--	--	125	
Benzo(b)fluoranthene	0.588	0.0533	0.0202 J	0.0230 J	0.0866	0.0555	0.0555	0.0555	0.0866	0.0555	0.0555	2.23 U	2.23 U	--	--	--	--	
Benzo(g,h,i)perylene	0.581	0.0505	0.0239	0.0182	0.103	0.0419 J	0.0419 J	0.0419 J	0.103	0.0419 J	0.0419 J	0.937 U	0.937 U	--	--	--	--	
Benzo(k)fluoranthene	0.175	0.0211	0.00805 J	0.00908 J	0.0269	0.0202	0.0202	0.0202	0.0269	0.0202	0.0202	2.23 U	2.23 U	--	--	--	--	
Benzoic acid	2.26 U	0.639 U	0.441 U	0.437 U	0.497 U	0.641 U	0.641 U	0.641 U	0.497 U	0.641 U	0.641 U	112 U	112 U	--	--	--	--	
Benzyl alcohol	0.0905 U	0.0261 J	0.0177 U	0.0175 U	0.0397 U	0.0256 U	0.0256 U	0.0256 U	0.0397 U	0.0256 U	0.0256 U	4.46 U	4.46 U	--	--	--	--	
Bis(2-Chloroethoxy) methane	0.0453 U	0.0128 U	0.00883 U	0.00874 U	0.00993 U	0.0128 U	0.0128 U	0.0128 U	0.00993 U	0.0128 U	0.0128 U	2.23 U	2.23 U	--	--	--	--	
Bis(2-Chloroethyl) ether	0.0453 U	0.113 U	0.00883 U	0.00874 U	0.00993 U	0.0128 U	0.0128 U	0.0128 U	0.00993 U	0.0128 U	0.0128 U	2.23 U	2.23 U	--	--	--	--	
Bis(2-Chloroisopropyl) ether	0.0453 U	0.0128 U	0.00883 U	0.00874 U	0.00993 U	0.0128 U	0.0128 U	0.0128 U	0.00993 U	0.0128 U	0.0128 U	2.23 U	2.23 U	--	--	--	--	
Bis(2-ethylhexyl)phthalate	0.362 U	0.102 U	0.0706 U	0.0699 U	0.0794 U	0.103 U	0.103 U	0.103 U	0.0794 U	0.103 U	0.103 U	17.8 U	17.8 U	--	4.5	--	1,020	
Butyl benzyl phthalate	0.362 U	0.102 U	0.0706 U	0.0699 U	0.0794 U	0.103 U	0.103 U	0.103 U	0.0794 U	0.103 U	0.103 U	17.8 U	17.8 U	--	--	--	--	
Carbazole	0.233 J	0.00383 J	0.00354 U	0.00350 U	0.00398 U	0.00514 U	0.00514 U	0.00514 U	0.00398 U	0.00514 U	0.00514 U	1.34 U	1.34 U	--	--	--	--	
Chrysene	0.298	0.0379	0.0106	0.00875	0.0393	0.0333	0.0333	0.0333	0.0393	0.0333	0.0333	0.892 U	0.892 U	--	--	--	--	
Dibenz(a,h)anthracene	0.0533	0.00753	0.00354 U	0.00350 U	0.0114	0.00514 U	0.00514 U	0.00514 U	0.0114	0.00514 U	0.00514 U	0.892 U	0.892 U	--	--	--	--	
Dibenzofuran	0.0200 J	0.00464 J	0.00354 U	0.00442 J	0.00435 J	0.00533 J	0.00533 J	0.00533 J	0.00435 J	0.00533 J	0.00533 J	0.892 U	0.892 U	--	--	--	0.0020	
Diethylphthalate	0.0905 U	0.0256 U	0.0177 U	0.0175 U	0.0199 U	0.0256 U	0.0256 U	0.0256 U	0.0199 U	0.0256 U	0.0256 U	4.46 U	4.46 U	--	100	--	250,000	
Dimethylphthalate	0.0905 U	0.0256 U	0.0177 U	0.0175 U	0.0199 U	0.0256 U	0.0256 U	0.0256 U	0.0199 U	0.0256 U	0.0256 U	4.46 U	4.46 U	--	200	--	--	
Di-n-butylphthalate	0.136 U	0.0384 U	0.0265 U	0.0262 U	0.0298 U	0.0393 J	0.0393 J	0.0393 J	0.0298 U	0.0393 J	0.0393 J	4.46 U	4.46 U	--	--	--	--	
Di-n-octyl phthalate	0.362 U	0.102 U	0.0706 U	0.0699 U	0.0794 U	0.103 U	0.103 U	0.103 U	0.0794 U	0.103 U	0.103 U	17.8 U	17.8 U	--	--	--	30,000	
Fluoranthene	0.492	0.0514	0.0110	0.0104	0.0315	0.0407	0.0407	0.0407	0.0315	0.0407	0.0407	0.892 U	0.892 U	--	--	--	--	
Fluorene	0.0181 U	0.00256 U	0.00354 U	0.00350 U	0.00421 J	0.00514 U	0.00514 U	0.00514 U	0.00421 J	0.00514 U	0.00514 U	0.892 U	0.892 U	--	30	--	--	
Hexachlorobenzene	0.0453 U	0.0128 U	0.00883 U	0.00874 U	0.00993 U	0.0128 U	0.0128 U	0.0128 U	0.00993 U	0.0128 U	0.0128 U	2.23 U	2.23 U	--	1,000	--	--	
Hexachlorobutadiene	0.0453 U	0.0128 U	0.00883 U	0.00874 U	0.00993 U	0.0128 U	0.0128 U	0.0128 U	0.00993 U	0.0128 U	0.0128 U	2.23 U	2.23 U	--	--	--	--	
Hexachlorocyclopentadiene	0.0905 U	0.0256 U	0.0177 U	0.0175 U	0.0199 U	0.0256 U	0.0256 U	0.0256 U	0.0199 U	0.0256 U	0.0256 U	4.46 U	4.46 U	--	10	--	--	
Hexachloroethane	0.0453 U	0.0128 U	0.00883 U	0.00874 U	0.00993 U	0.0128 U	0.0128 U	0.0128 U	0.00993 U	0.0128 U	0.0128 U	2.23 U	2.23 U	--	--	--	--	
Indeno(1,2,3-cd)pyrene	0.454	0.0419	0.0181 J	0.0139 J	0.0785	0.0336 J	0.0336 J	0.0336 J</										

Table 8. Ecological Screening Summary and Soil Unit 1/2 Recommendations

Alder Creek Mill
Portland, Oregon

Sample Location	Soil Type	DEQ SLV Exceedances			Comments on Data	Recommended Soil Unit	Comments on Soil Unit
		Metals	PCBs	TPH SVOCs			
WW-1	Native	--	NA	NA		2	
WW-3	Fill	--	NA	NA		2	
WW-4	Fill	--	NA	NA		2	
SEP-1	Fill	--	NA	ND	SVOCs NA because TPHs ND	2	
SEP-2	Native	--	NA	ND	SVOCs NA because TPHs ND, copper slightly exceeded background	2	
SEP-3	Native	--	NA	ND	SVOCs NA because TPHs ND	2	
SB-07	Fill	--	NA	NA		2	
SB-08-14-16	Fill	Yes	NA	NC	Lead and zinc exceed bird SLV, copper slightly exceeds background	2	SLV exceedance for mobile receptor only
SB-08-22-24	Native	NA	NA	ND	TPHs ND	2	
SB-09	Native	--	NA	NA		2	
SB-10	Fill	--	NA	NA		2	
SB-11-8-10	Fill	--	NA	NC		2	
SB-11-15-17	Native	NA	NA	ND	TPHs ND	2	
SB-12	Native	--	NA	NA	Mercury slightly exceeds background	2	
SB-13	Native	--	NA	NA	Copper slightly exceeds background	2	
SWS-08	Fill	--	ND	NC	Dibenzofuran slightly exceeds mammal SLV	2	Minor SLV exceedance; when blended with other Unit 2 soil, unlikely to exceed
SWS-09	Fill	Yes	ND	NC	Zinc exceeds bird and plant SLV and background, background also exceeds SLV, dibenzofuran slightly exceeds mammal SLV	1	
Pipe-00	Fill	Yes	--	NC	Lead exceeds bird and plant SLV and background, background also exceeds SLV, dibenzofuran slightly exceeds mammal SLV	1	
TP-01-03	Fill	--	ND	ND		2	
TP-02-00	Fill	--	ND	NC		2	
TP-02-02	Fill	--	ND	ND		2	
TP-04-03	Fill	--	ND	ND	Dibenzofuran slightly exceeds mammal SLV	2	Minor SLV exceedance; when blended with other Unit 2 soil, unlikely to exceed
TP-05-01	Fill	Yes	ND	NC	Lead exceeds plant and bird SLV and background; TPH elevated (associated with visible staining)	1	
TP-05-05	Fill	Yes	ND	NC	Lead and zinc exceed plant, invertebrate, and bird SLV and background; TPH levels much lower (sample from below visible staining)	1	
TP-06-02	Fill	Yes	ND	NC	Lead, mercury, and zinc exceed plant, invertebrate, and bird SLV and background; TPH elevated (associated with visible staining)	1	
TP-06-05	Fill	--	ND	NC	TPH still elevated (sample from just below visible staining)	1	
TP-07-03	Fill	Yes	--	NC	Lead exceeds plant and bird SLV and background; TPH elevated (associated with visible staining)	1	
TP-07-07	Native	Yes	ND	ND	Mercury slightly exceeds invertebrate SLV and background	2	Minor SLV exceedance; when blended with other Unit 2 soil, unlikely to exceed
TP-08-02	Fill	Yes	--	NC	Copper and nickel exceed plant and invertebrate SLV and background; dibenzofuran exceeds mammal SLV	1	
TP-08-03	Native	Yes	ND	NC	Zinc exceeds plant, invertebrate, and bird SLVs; dibenzofuran exceeds mammal SLV	1	
TP-09-01	Fill	--	--	NC	TPH elevated (associated with visible staining)	1	
TP-09-04	Native	Yes	ND	NC	Zinc exceeds plant, invertebrate, and bird SLV and slightly exceeds background; TPH significantly lower (sample from just below visible staining); SVOC reporting limits elevated with many exceeding SLVs	2	Minor SLV exceedance; when blended with other Unit 2 soil, unlikely to exceed
TP-10-04	Fill	--	ND	NC		1	
TP-10-06	Native	--	ND	NC	TPH still somewhat elevated even though sample from below visible staining	1	
TP-H-02	Native	Yes	--	NC	Four metals exceed plant, invertebrate, and bird SLVs	1	
TP-N-02	Native	--	--	NC		2	
TP-P-02	Fill	--	ND	NC		2	
TP-O-01	Fill	--	ND	NC	Dibenzofuran slightly exceeds mammal SLV	2	Minor SLV exceedance; when blended with other Unit 2 soil, unlikely to exceed
TP-O-03	Native	--	ND	NC		2	
TP-R-02	Fill	--	ND	NC		2	

Notes:

-- = Deleted but no exceedance of SLVs

NA = Not analyzed.

NC = No criteria (SLV) available.

ND = Not detected.

= exceedance of SLV (for metals and SVOCs) or elevated petroleum hydrocarbon concentrations associated with visible oil staining in soil.
= no exceedance of SLV (for metals, PCBs, and SVOCs) or petroleum hydrocarbon not detected.

Table 9. Clean Fill Screening of Unit 2 Soil Boring Analytical Results -- Metals and Petroleum Hydrocarbons

Alder Creek Mill

Portland, Oregon

Chemical of Interest	Sample Concentrations (mg/kg)															Background Metals Concentrations in Soil ¹ (mg/kg)	Clean Fill Screening Criteria ² (mg/kg)
	SEP-1-12	SEP-2-21	SEP-3-16	WW-1-15-16	WW-3-12-13	WW-4-13	SB-07-7.5-10	SB-08-14-16**	SB-08-22-24**	SB-09-7-9.5	SB-10-8-10	SB-11-8-10***	SB-11-15-17***	SB-12-13-15	SB-13-13.5-15		
	10/12/2010	10/12/2010	10/13/2010	10/12/2010	10/12/2010	10/12/2010	2/11/2011	2/11/2011	2/11/2011	2/11/2011	2/11/2011	2/11/2011	2/11/2011	2/11/2011	2/11/2011		
	12 ft bgs	21 ft bgs	16 ft bgs	15 ft bgs	12 ft bgs	13 ft bgs	7.5 ft bgs	14 ft bgs	22 ft bgs	7 ft bgs	8 ft bgs	8 ft bgs	15 ft bgs	13 ft bgs	13.5 ft bgs		
Fill	Native	Native	Fill	Fill	Fill	Fill	Fill	Native	Native	Fill	Fill	Native	Native	Native			
Metals																	
Arsenic	4.85	6.35	5.46	3.92	4.86	2.97	2.74	5.70	-	3.57	1.96 J	4.57	-	4.64	4.10	7.0	9.6
Barium	139	186	195	162	158	84.0 J	110	140	-	172	73.0	153	-	171	157	255	612
Cadmium	0.411 J	0.352 J	0.565 J	0.399 J	0.769 J	0.149 J	0.136 U	0.717 J	-	0.749 J	0.119 U	0.194 J	-	0.356 J	0.281 J	1.0	1.1
Chromium	18.7	27.7	28.1	25.7	22.4	13.1	15.4	23.7	-	22.8	9.33	16.7	-	25.9	21.8	42	88
Copper	18.6	37.1	33.9	33.8	31.4	14.6	15.4	37.5	-	26.4	10.7	16.7	-	34.2	37.5	36	41
Iron	27,200	35,100	33,400	29,000 J	24,000	22,400	21,600	23,900	-	25,900	15,900	26,600	-	25,600	25,600	50,570	81000
Lead	12.2	8.76	9.64	9.35	15.0	3.28	4.45	28.5	-	7.58	2.82	6.03	-	9.55	7.60	17	16
Manganese	290	618	565	473 J	309	186	203	280	-	446	285	391	-	364	354	898	1,121
Mercury	0.0604 J	0.0422 U	0.0435 U	0.0461 U	0.0578 J	0.0343 U	0.0525 J	0.0484 J	-	0.0622 J	0.0336 U	0.0398 J	-	0.0704 J	0.0555 J	0.070	1.70
Nickel	20.8	26.5	29.4	28.7	31.2	17.8	20.5	28.4	-	23.1	14.1	22.4	-	29.0	22.1	38	176
Selenium	0.586 U	0.563 U	0.580 U	0.614 U	0.615 U	0.457 U	0.545 U	0.652 U	-	0.588 U	0.474 U	0.518 U	-	0.647 U	0.592 U	2.0	50.5
Silver	0.147 U	0.141 U	0.145 U	0.154 U	0.154 U	0.114 U	0.136 U	0.163 U	-	0.147 U	0.119 U	0.129 U	-	0.162 U	0.148 U	1.0	1.1
Zinc	59.6	80.4	82.7	85.1	81.2	48.0	51.0	124	-	74.4	36.7	57.5	-	76.4	63.9	86	95
Petroleum Hydrocarbons																	
Diesel-Range Organics	5.80 U	5.58 U	6.08 U	-	-	-	-	24.5 J	16.0 U	-	-	17.5 J	16.6 U	-	-	--	--
Oil-Range Organics	14.5 U	14.0 U	15.2 U	-	-	-	-	110	32.0 U	-	-	30.4 J	33.2 U	-	-	--	--
Gasoline-Range Organics	4.02 U	3.80 U	3.84 U	-	-	-	-	-	-	-	-	-	-	-	-	--	--

Notes:

 = The reported concentration exceeds the background concentration and the lowest screening criterion.

 = The reported method detection limit exceeds the lowest screening criterion.

-- = criterion not available.

bgs = below ground surface.

bold = analyte detected above MDL.

J = The sample result is an estimated concentration.

MDL = method detection limit.

¹ See Phase II Environmental Site Assessment for Alder Creek Mill Site, Table 4 for sources of each selected background concentration.

² DEQ, 2012. Draft Revised Soil/Sediment Clean Fill Screening Table for Terrestrial/Upland Uses. Oregon Department of Environmental Quality, Solid Waste Program. January.

- = Analytical result not available

mg/kg = milligram per kilogram

SLV = screening level value

U = The analyte was not detected at or above the MDL.

* - SB-14-15-16 is a field duplicate of SB-08-14-16. It was submitted to the analytical laboratory as SB-14-15-16.

**Petroleum Hydrocarbons analyzed for SB-08-14-16 and SB-08-22-24 were run outside of hold time and with a silica gel cleanup

***Petroleum Hydrocarbons analyzed for SB-11-8-10 and SB-11-15-17 were run outside of hold time.

Table 10. Clean Fill Screening of Unit 2 Soil Boring Analytical Results -- SVOCs

Alder Creek Mill
Portland, Oregon

Semivolatile Organic Compound	Sample Concentrations (mg/kg)										Clean Fill Screening Criteria ¹ (mg/kg)
	WW-1-15-16	WW-3-12-13	WW-4-13	SB-07-7.5-10	SB-08-14-16	SB-09-7-9.5	SB-10-8-10	SB-11-8-10	SB-12-13-15	SB-13-13.5-15	
	10/12/2010 15 ft bgs	10/12/2010 12 ft bgs	10/12/2010 13 ft bgs	2/11/2011 7.5 ft bgs	2/11/2011 14 ft bgs	2/11/2011 7 ft bgs	2/11/2011 8 ft bgs	2/11/2011 8 ft bgs	2/11/2011 13 ft bgs	2/11/2011 13.5 ft bgs	
1,2,4-Trichlorobenzene	0.00671 U	0.00602 U	0.00822 U	0.0126 U	0.172 U	0.0173 U	0.0112 U	0.241 U	0.0181 U	0.0175 U	20
1,2-Dichlorobenzene	0.00671 U	0.00602 U	0.00822 U	0.0126 U	0.172 U	0.0173 U	0.0112 U	0.241 U	0.0181 U	0.0175 U	2,200
1,3-Dichlorobenzene	0.00671 U	0.00602 U	0.00822 U	0.0126 U	0.172 U	0.0173 U	0.0112 U	0.241 U	0.0181 U	0.0175 U	--
1,4-Dichlorobenzene	0.00671 U	0.00602 U	0.00822 U	0.0126 U	0.172 U	0.0173 U	0.0112 U	0.241 U	0.0181 U	0.0175 U	1.1
1-Methylnaphthalene	0.00537 U	0.00482 U	0.00329 U	0.0101 U	0.137 U	0.0139 U	0.00895 U	0.193 U	0.0145 U	0.0140 U	22
2,3,4,6-Tetrachlorophenol	0.0134 U	0.0120 U	0.0164 U	0.0252 U	0.343 U	0.0347 U	0.0224 U	0.482 U	0.0363 U	0.0350 U	20
2,4,5-Trichlorophenol	0.0134 U	0.0120 U	0.0164 U	0.0252 U	0.343 U	0.0347 U	0.0224 U	0.482 U	0.0363 U	0.0350 U	4.0
2,4,6-Trichlorophenol	0.0134 U	0.0120 U	0.0164 U	0.0252 U	0.343 U	0.0347 U	0.0224 U	0.482 U	0.0363 U	0.0350 U	10
2,4-Dichlorophenol	0.0134 U	0.0120 U	0.0164 U	0.0252 U	0.343 U	0.0347 U	0.0224 U	0.482 U	0.0363 U	0.0350 U	20
2,4-Dimethylphenol	0.0537 U	0.0482 U	0.0329 U	0.0101 U	1.37 U	0.0139 U	0.0895 U	1.93 U	0.145 U	0.140 U	20
2,4-Dinitrotoluene	0.0269 U	0.0241 U	0.0329 U	0.0504 U	0.686 U	0.0694 U	0.0448 U	0.964 U	0.0725 U	0.0700 U	1.6
2,4-Dinitrotoluene	0.0269 U	0.0241 U	0.0329 U	0.0504 U	0.686 U	0.0694 U	0.0448 U	0.964 U	0.0725 U	0.0700 U	61
2-Chloronaphthalene	0.00269 U	0.00241 U	0.00329 U	0.00504 U	0.0686 U	0.0694 U	0.00448 U	0.0964 U	0.00725 U	0.00700 U	6,300
2-Chlorophenol	0.0134 U	0.0120 U	0.0164 U	0.0252 U	0.343 U	0.0347 U	0.0224 U	0.482 U	0.0363 U	0.0350 U	60
2-Methylnaphthalene	0.00537 U	0.00482 U	0.00329 U	0.0101 U	0.137 U	0.0139 U	0.00895 U	0.193 U	0.0145 U	0.0140 U	310
2-Methylphenol	0.00671 U	0.00602 U	0.00822 U	0.0126 U	0.172 U	0.0173 U	0.0112 U	0.241 U	0.0181 U	0.0175 U	50
2-Nitroaniline	0.0537 U	0.0482 U	0.0329 U	0.0101 U	1.37 U	0.0139 U	0.0895 U	1.93 U	0.145 U	0.140 U	610
2-Nitrophenol	0.0269 U	0.0241 U	0.0329 U	0.0504 U	0.686 U	0.0694 U	0.0448 U	0.964 U	0.0725 U	0.0700 U	--
3+4-Methylphenol(s)	0.00671 U	0.00602 U	0.00822 U	0.0126 U	0.172 U	0.0173 U	0.0112 U	0.241 U	0.0181 U	0.0175 U	310
3-Nitroaniline	0.0537 U	0.0482 U	0.0329 U	0.0101 U	1.37 U	0.0139 U	0.0895 U	1.93 U	0.145 U	0.140 U	70
4,6-Dinitro-2-methylphenol	0.0671 U	0.0602 U	0.0822 U	0.0126 U	1.72 U	0.0173 U	0.0112 U	2.41 U	0.181 U	0.175 U	4.9
4-Bromophenyl phenyl ether	0.00671 U	0.00602 U	0.00822 U	0.0126 U	0.172 U	0.0173 U	0.0112 U	0.241 U	0.0181 U	0.0175 U	--
4-Chloro-3-methylphenol	0.0269 U	0.0241 U	0.0329 U	0.0504 U	0.686 U	0.0694 U	0.0448 U	0.964 U	0.0725 U	0.0700 U	6,100
4-Chloroaniline	0.00671 U	0.00602 U	0.00822 U	0.0126 U	0.172 U	0.0173 U	0.0112 U	0.241 U	0.0181 U	0.0175 U	2.4
4-Chlorophenyl phenyl ether	0.00671 U	0.00602 U	0.00822 U	0.0126 U	0.172 U	0.0173 U	0.0112 U	0.241 U	0.0181 U	0.0175 U	--
4-Nitroaniline	0.0537 U	0.0482 U	0.0329 U	0.0101 U	1.37 U	0.0139 U	0.0895 U	1.93 U	0.145 U	0.140 U	24
4-Nitrophenol	0.0269 U	0.0241 U	0.0329 U	0.0504 U	0.686 U	0.0694 U	0.0448 U	0.964 U	0.0725 U	0.0700 U	--
Acenaphthene	0.00269 U	0.00241 U	0.00329 U	0.00504 U	0.0686 U	0.0694 U	0.00448 U	0.0964 U	0.00725 U	0.00700 U	29
Acenaphthylene	0.00269 U	0.00241 U	0.00329 U	0.00504 U	0.0686 U	0.0694 U	0.00448 U	0.0964 U	0.00725 U	0.00700 U	--
Aniline	0.00671 U	0.00602 U	0.00822 U	0.0126 U	0.172 U	0.0173 U	0.0112 U	0.241 U	0.0181 U	0.0175 U	85
Anthracene	0.00269 U	0.00241 U	0.00329 U	0.00504 U	0.0686 U	0.0694 U	0.00448 U	0.0964 U	0.00725 U	0.00700 U	29
Anthracene	0.00269 U	0.00241 U	0.00329 U	0.00504 U	0.0686 U	0.0694 U	0.00448 U	0.0964 U	0.00725 U	0.00700 U	0.15
Benzo(a)anthracene	0.00269 U	0.00241 U	0.00329 U	0.00504 U	0.0686 U	0.0694 U	0.00448 U	0.0964 U	0.00725 U	0.00700 U	0.015
Benzo(a)pyrene	0.00269 U	0.00241 U	0.00329 U	0.00504 U	0.0686 U	0.0694 U	0.00448 U	0.0964 U	0.00725 U	0.00700 U	0.015
Benzo(b)fluoranthene	0.00269 U	0.00241 U	0.00329 U	0.00504 U	0.0686 U	0.0694 U	0.00448 U	0.0964 U	0.00725 U	0.00700 U	0.15
Benzo(g,h,i)perylene	0.00269 U	0.00241 U	0.00329 U	0.00504 U	0.0686 U	0.0694 U	0.00448 U	0.0964 U	0.00725 U	0.00700 U	--
Benzo(k)fluoranthene	0.00269 U	0.00241 U	0.00329 U	0.00504 U	0.0686 U	0.0694 U	0.00448 U	0.0964 U	0.00725 U	0.00700 U	1.1
Benzoic acid	0.336 U	0.301 U	0.411 U	0.626 U	8.58 U	0.867 U	0.559 U	12.1 U	0.907 U	0.875 U	240,000
Benzyl alcohol	0.0134 U	0.0120 U	0.0164 U	0.0252 U	0.343 U	0.0347 U	0.0224 U	0.482 U	0.0363 U	0.0350 U	6,100
Bis(2-Chloroethoxy) methane	0.00671 U	0.00602 U	0.00822 U	0.0126 U	0.172 U	0.0173 U	0.0112 U	0.241 U	0.0181 U	0.0175 U	180
Bis(2-Chloroethyl) ether	0.00671 U	0.00602 U	0.00822 U	0.0126 U	0.172 U	0.0173 U	0.0112 U	0.241 U	0.0181 U	0.0175 U	0.23
Bis(2-Chloroisopropyl) ether	0.00671 U	0.00602 U	0.00822 U	0.0126 U	0.172 U	0.0173 U	0.0112 U	0.241 U	0.0181 U	0.0175 U	4.6
Bis(2-ethylhexyl)phthalate	0.0537 U	0.0482 U	0.0329 U	0.0101 U	1.37 U	0.0139 U	0.0895 U	1.93 U	0.145 U	0.140 U	4.5
Butyl benzyl phthalate	0.0537 U	0.0482 U	0.0329 U	0.0101 U	1.37 U	0.0139 U	0.0895 U	1.93 U	0.145 U	0.140 U	260
Carbazole	0.00269 U	0.00241 U	0.00329 U	0.00504 U	0.0686 U	0.0694 U	0.00448 U	0.0964 U	0.00725 U	0.00700 U	--
Chrysene	0.00269 U	0.00241 U	0.00329 U	0.00504 U	0.0686 U	0.0694 U	0.00448 U	0.0964 U	0.00725 U	0.00700 U	15
Dibenz(a,h)anthracene	0.00269 U	0.00241 U	0.00329 U	0.00504 U	0.0686 U	0.0694 U	0.00448 U	0.0964 U	0.00725 U	0.00700 U	0.015
Dibenzofuran	0.00269 U	0.00241 U	0.00329 U	0.00504 U	0.0686 U	0.0694 U	0.00448 U	0.0964 U	0.00725 U	0.00700 U	0.0020
Diethylphthalate	0.0134 U	0.0120 U	0.0164 U	0.0252 U	0.343 U	0.0347 U	0.0224 U	0.482 U	0.0363 U	0.0350 U	100
Dimethylphthalate	0.0134 U	0.0120 U	0.0164 U	0.0252 U	0.343 U	0.0347 U	0.0224 U	0.482 U	0.0363 U	0.0350 U	200
Di-n-butylphthalate	0.0252 J	0.0181 U	0.0247 U	0.0354 J	0.343 U	0.0347 U	0.0312 J	0.482 U	0.0438 J	0.0520 J	0.45
Di-n-octyl phthalate	0.0537 U	0.0482 U	0.0329 U	0.0101 U	1.37 U	0.0139 U	0.0895 U	1.93 U	0.145 U	0.140 U	--
Fluoranthene	0.00269 U	0.00241 U	0.00329 U	0.00504 U	0.0686 U	0.0694 U	0.00448 U	0.0964 U	0.00725 U	0.00700 U	29
Fluorene	0.00269 U	0.00241 U	0.00329 U	0.00504 U	0.0686 U	0.0694 U	0.00448 U	0.0964 U	0.00725 U	0.00700 U	29
Hexachlorobenzene	0.00671 U	0.00602 U	0.00822 U	0.0126 U	0.172 U	0.0173 U	0.0112 U	0.241 U	0.0181 U	0.0175 U	0.40
Hexachlorocyclopentadiene	0.00671 U	0.00602 U	0.00822 U	0.0126 U	0.172 U	0.0173 U	0.0112 U	0.241 U	0.0181 U	0.0175 U	6.2
Hexachloroethane	0.00671 U	0.00602 U	0.00822 U	0.0126 U	0.172 U	0.0173 U	0.0112 U	0.241 U	0.0181 U	0.0175 U	10
Hexachloroethane	0.00671 U	0.00602 U	0.00822 U	0.0126 U	0.172 U	0.0173 U	0.0112 U	0.241 U	0.0181 U	0.0175 U	35
Indeno(1,2,3-cd)pyrene	0.00269 U	0.00241 U	0.00329 U	0.00504 U	0.0686 U	0.0694 U	0.00448 U	0.0964 U	0.00725 U	0.00700 U	0.15
Isophorone	0.00671 U	0.00602 U	0.00822 U	0.0126 U	0.172 U	0.0173 U	0.0112 U	0.241 U	0.0181 U	0.0175 U	510
Isophorone	0.00671 U	0.00602 U	0.00822 U	0.0126 U	0.172 U	0.0173 U	0.0112 U	0.241 U	0.0181 U	0.0175 U	1.1
Naphthalene	0.00537 U	0.00482 U	0.0329 U	0.0101 U	1.37 U	0.0139 U	0.0895 U	1.93 U	0.145 U	0.140 U	4.8
Nitrobenzene	0.0269 U	0.0241 U	0.0329 U	0.0504 U	0.686 U	0.0694 U	0.0448 U	0.964 U	0.0725 U	0.0700 U	4.8
N-Nitrosodimethylamine	0.00671 U	0.00602 U	0.00822 U	0.0126 U	0.172 U	0.0173 U	0.0112 U	0.241 U	0.0181 U	0.0175 U	0.0023
N-Nitroso-di-n-propylamine	0.00671 U	0.00602 U	0.00822 U	0.0126 U	0.172 U	0.0173 U	0.0112 U	0.241 U	0.0181 U	0.0175 U	0.069
N-Nitrosodiphenylamine	0.00671 U	0.00602 U	0.00822 U	0.0126 U	0.172 U	0.0173 U	0.0112 U	0.241 U	0.0181 U	0.0175 U	20
Pentachlorophenol (PCP)	0.0269 U	0.0241 U	0.0329 U	0.0504 U	0.686 U	0.0694 U	0.0448 U	0.964 U	0.0725 U	0.0700 U	2.1
Phenanthrene	0.00269 U	0.00241 U	0.00329 U	0.00504 U	0.0686 U	0.0694 U	0.00448 U	0.0964 U	0.00725 U	0.00700 U	--
Phenol	0.0199	0.00482 U	0.00658 U	0.0101 U	0.137 U	0.0139 U	0.00895 U	0.193 U	0.0145 U	0.0145 U	30
Pyrene	0.00269 U	0.00270 J	0.00560	0.00504 U	0.0357	0.00694 U	0.00966	1.54 J	0.00725 U	0.00700 U	1,700

Notes:

- = The reported concentration exceeds the lowest screening criterion.
- = The reported method detection limit exceeds the lowest screening criterion.
- = Analytical result not available
- = Criterion not available
- bgs = below ground surface
- bold = analyte detected above MDL.
- J = The sample result is an estimated concentration.
- MDL = method detection limit
- mg/kg = milligram per kilogram
- U = The analyte was not detected at or above the MDL.
- UU = The analyte was not detected. The reported sample quantification limit is an estimate.

¹ DEQ, 2012. Draft Revised Soil/Sediment Clean Fill Screening Table for Terrestrial/Upland Uses. Oregon Department of Environmental Quality, Solid Waste Program. January.

Table 11. Clean Fill Screening of Unit 2 Test Pit Analytical Results -- Metals, PCBs, and Petroleum Hydrocarbons

Alder Creek Mill

Portland, Oregon

Chemical of Interest	Sample Concentrations (mg/kg)											Background Metals Concentrations in Soil ¹ (mg/kg)	Clean Fill Screening Criteria ² (mg/kg)	
	TP-01-03	TP-02-00	TP-02-02	TP-04-03	TP-07-07	TP-09-04	TP-N-02	TP-P-02	TP-Q-01	TP-Q-03	TP-R-02			
	10/7/2010	10/7/2010	10/7/2010	10/7/2010	10/8/2010	10/8/2010	10/8/2010	10/8/2010	10/8/2010	10/8/2010	10/8/2010			
	3 ft bgs	Surface	2 ft bgs	3 ft bgs	7 ft bgs	4 ft bgs	2 ft bgs	2 ft bgs	1 ft bgs	3 ft bgs	2 ft bgs			
Fill	Fill	Fill	Fill	Native	Native	Native	Native	Fill	Native	Fill				
Metals														
Arsenic	2.66	1.41 J	2.29	2.43	4.11	4.00	2.66	3.26	3.17	5.90	1.66 J	7.0	9.6	
Barium	92.3	58.9	74.1	83.7	172	170	139	86.6	82.4	143	157	255	612	
Cadmium	1.10 U	1.32 U	1.14 U	1.17 U	1.38 U	1.42 U	0.726 J	1.11 U	0.257 J	0.350 J	0.485 J	1.0	1.1	
Chromium	10.7	13.4	7.01	12.0	21.4	22.7	20.0	12.1	12.0	22.0	12.4	42	88	
Copper	13.0	-	11.6	12.2	32.5	26.8	27.3	13.4	-	-	-	36	41	
Iron	21,200	-	21,400	22,000 J	28,200	23,700	22,300	22,500	-	-	-	50,570	81,000	
Lead	3.33	8.20	3.07	3.68	8.09	10.9	11.8	5.45	4.82	6.75	15.6	17	16	
Manganese	266	-	254	221 J	469	234	274 J	275	-	-	-	898	1,121	
Mercury	0.0331 U	0.0395 U	0.0342 U	0.0351 U	0.183	0.0427 U	0.0680 J	0.0334 U	0.0351 U	0.0362 U	0.0393 U	0.070	1.7	
Nickel	16.1	-	15.7	16.5	24.5	26.4	21.0	18.3	-	-	-	38	176	
Selenium	0.441 U	0.526 U	0.457 U	0.468 U	0.553 U	0.569 U	0.519 U	0.445 U	0.468 U	0.483 U	0.524 U	2.0	50	
Silver	0.110 U	0.132 U	0.114 U	0.117 U	0.138 J	0.142 U	0.130 U	0.111 U	0.117 U	0.121 U	0.131 U	1.0	1.1	
Zinc	47.7	-	43.9	47.2	70.0	96.9	79.0	55.9	-	-	-	86	95	
Polychlorinated Biphenyls														
Aroclor 1016	0.00160 U	0.00180 U	0.00150 U	0.00147 U	0.00184 U	0.00178 U	0.00221 UJ	0.00138 U	0.00169 U	0.00190 U	0.00177 U	--	--	
Aroclor 1221	0.00160 U	0.00180 U	0.00150 U	0.00147 U	0.00184 U	0.00178 U	0.00221 UJ	0.00138 U	0.00169 U	0.00190 U	0.00177 U	--	--	
Aroclor 1232	0.00160 U	0.00180 U	0.00150 U	0.00147 U	0.00184 U	0.00178 U	0.00221 UJ	0.00138 U	0.00169 U	0.00190 U	0.00177 U	--	--	
Aroclor 1242	0.00160 U	0.00180 U	0.00150 U	0.00147 U	0.00184 U	0.00178 U	0.00221 UJ	0.00138 U	0.00169 U	0.00190 U	0.00177 U	--	--	
Aroclor 1248	0.00160 U	0.00180 U	0.00150 U	0.00147 U	0.00184 U	0.00178 U	0.00221 UJ	0.00138 U	0.00169 U	0.00190 U	0.00177 U	--	--	
Aroclor 1254	0.00160 U	0.00180 U	0.00150 U	0.00147 U	0.00184 U	0.00178 U	0.00311 J	0.00138 U	0.00169 U	0.00190 U	0.00177 U	--	--	
Aroclor 1260	0.00160 U	0.00180 U	0.00150 U	0.00147 U	0.00184 U	0.00178 U	0.00221 UJ	0.00138 U	0.00169 U	0.00190 U	0.00177 U	--	--	
Aroclor 1262	0.00160 U	0.00180 U	0.00150 U	0.00147 U	0.00184 U	0.00178 U	0.00221 UJ	0.00138 U	0.00169 U	0.00190 U	0.00177 U	--	--	
Aroclor 1268	0.00160 U	0.00180 U	0.00150 U	0.00147 U	0.00184 U	0.00178 U	0.00221 UJ	0.00138 U	0.00169 U	0.00190 U	0.00177 U	--	--	
Total PCBs	0.00160 U	0.00180 U	0.00150 U	0.00147 U	0.00184 U	0.00178 U	0.00311	0.00138 U	0.00169 U	0.00190 U	0.00177 U	--	0.22	
Petroleum Hydrocarbons														
Diesel-Range Organics	4.27 U	119	5.21 U	4.51 U	6.93 U	98.0	95.2	4.26 U	5.11 J	4.43 U	114 J	--	--	
Oil-Range Organics	8.53 U	2,040	10.4 U	9.02 U	13.9 U	421	303	14.7 J	27.8 J	8.85 U	1,410	--	--	
Gasoline-Range Organics	2.70 U	3.35 U	2.96 U	3.08 U	4.52 U	4.04 U	5.30 U	2.90 U	3.77 U	3.07 U	3.21 U	--	--	

Notes:

 = The reported concentration exceeds the background concentration and the lowest screening criterion.

 = The reported method detection limit exceeds the lowest screening criterion.

-- = criterion not available.

bgs = below ground surface.

bold = analyte detected above MDL.

J = The sample result is an estimated concentration.

MDL = method detection limit.

- = Analytical result not available

mg/kg = milligram per kilogram

SLV = screening level value

U = The analyte was not detected at or above the MDL.

¹ See Phase II Environmental Site Assessment for Alder Creek Mill Site, Table 4 for sources of each selected background concentration.

² DEQ, 2012. Draft Revised Soil/Sediment Clean Fill Screening Table for Terrestrial/Upland Uses. Oregon Department of Environmental Quality, Solid Waste Program. January.

Table 12. Clean Fill Screening of Unit 2 Test Pit Analytical Results -- SVOCs
Alder Creek Mill
Portland, Oregon

Semivolatile Organic Compound	Sample Concentrations (mg/kg)												Clean Fill Screening Criteria ¹ (mg/kg)
	TP-01-03	TP-02-00	TP-02-02	TP-04-03	TP-07-07	TP-09-04	TP-P-02	TP-Q-01	TP-Q-03				
	10/7/2010	10/7/2010	10/7/2010	10/7/2010	10/8/2010	10/8/2010	10/8/2010	10/8/2010	10/8/2010	10/8/2010	10/8/2010		
	3 ft bgs	Surface	2 ft bgs	3 ft bgs	7 ft bgs	4 ft bgs	2 ft bgs	1 ft bgs	3 ft bgs	Native	Native		
Fill		Fill		Fill		Native		Native		Fill		Native	
1,2,4-Trichlorobenzene	0.00356 U	0.117 U	0.00434 U	0.00376 U	0.00577 U	0.0447 U	0.00355 U	0.0172 U	0.0184 U	0.0184 U	0.0184 U	20	
1,2-Dichlorobenzene	0.00356 U	0.117 U	0.00434 U	0.00376 U	0.00577 U	0.0447 U	0.00355 U	0.0172 U	0.0184 U	0.0184 U	0.0184 U	2,200	
1,3-Dichlorobenzene	0.00356 U	0.117 U	0.00434 U	0.00376 U	0.00577 U	0.0447 U	0.00355 U	0.0172 U	0.0184 U	0.0184 U	0.0184 U	--	
1,4-Dichlorobenzene	0.00356 U	0.117 U	0.00434 U	0.00376 U	0.00577 U	0.0447 U	0.00355 U	0.0172 U	0.0184 U	0.0184 U	0.0184 U	1.1	
1-Methylnaphthalene	--	--	--	--	--	0.233	--	0.0138 U	0.0148 U	0.0148 U	0.0148 U	22	
2,3,4,6-Tetrachlorophenol	0.00711 U	0.234 U	0.00868 U	0.00751 U	0.0115 U	0.0894 U	0.00709 U	0.0344 U	0.0369 U	0.0369 U	0.0369 U	20	
2,4,5-Trichlorophenol	0.00711 U	0.234 U	0.00868 U	0.00751 U	0.0115 U	0.0894 U	0.00709 U	0.0344 U	0.0369 U	0.0369 U	0.0369 U	4.0	
2,4,6-Trichlorophenol	0.00711 U	0.234 U	0.00868 U	0.00751 U	0.0115 U	0.0894 U	0.00709 U	0.0344 U	0.0369 U	0.0369 U	0.0369 U	10	
2,4-Dichlorophenol	0.00711 U	0.234 U	0.00868 U	0.00751 U	0.0115 U	0.0894 U	0.00709 U	0.0344 U	0.0369 U	0.0369 U	0.0369 U	20	
2,4-Dimethylphenol	0.00711 U	0.234 U	0.00868 U	0.00751 U	0.0115 U	0.0894 U	0.00709 U	0.0344 U	0.0369 U	0.0369 U	0.0369 U	20	
2,4-Dinitrophenol	0.0284 U	0.935 U	0.0695 U	0.0301 U	0.0923 U	0.358 U	0.0284 U	0.138 U	0.148 U	0.148 U	0.148 U	20	
2,4-Dinitrotoluene	0.0142 U	0.468 U	0.0174 U	0.0150 U	0.0231 U	0.179 U	0.0142 U	0.0688 U	0.0738 U	0.0738 U	0.0738 U	1.6	
2,6-Dinitrotoluene	0.0142 U	0.468 U	0.0174 U	0.0150 U	0.0231 U	0.179 U	0.0142 U	0.0688 U	0.0738 U	0.0738 U	0.0738 U	61	
2-Chloronaphthalene	0.00142 U	0.0468 U	0.00174 U	0.00150 U	0.00231 U	0.0179 U	0.00142 U	0.00688 U	0.00738 U	0.00738 U	0.00738 U	6,300	
2-Chlorophenol	0.00711 U	0.234 U	0.00868 U	0.00751 U	0.0115 U	0.0894 U	0.00709 U	0.0344 U	0.0369 U	0.0369 U	0.0369 U	60	
2-Methylnaphthalene	0.00284 U	0.0935 U	0.00347 U	0.00376 U	0.00577 U	0.0447 U	0.00355 U	0.0172 U	0.0184 U	0.0184 U	0.0184 U	310	
2-Methylphenol	0.00356 U	0.117 U	0.00434 U	0.00376 U	0.00577 U	0.0447 U	0.00355 U	0.0172 U	0.0184 U	0.0184 U	0.0184 U	50	
2-Nitroaniline	0.0284 U	0.935 U	0.0347 U	0.0301 U	0.0462 U	0.358 U	0.0284 U	0.138 U	0.148 U	0.148 U	0.148 U	610	
2-Nitrophenol	0.0142 U	0.468 U	0.0174 U	0.0150 U	0.0231 U	0.179 U	0.0142 U	0.0688 U	0.0738 U	0.0738 U	0.0738 U	--	
3+4-Methylphenol(s)	0.00356 U	0.117 U	0.00434 U	0.00376 U	0.00577 U	0.0447 U	0.00355 U	0.0172 U	0.0184 U	0.0184 U	0.0184 U	310	
3-Nitroaniline	0.0284 U	0.935 U	0.0347 U	0.0301 U	0.0462 U	0.358 U	0.0284 U	0.138 U	0.148 U	0.148 U	0.148 U	70	
4,6-Dinitro-2-methylphenol	0.0356 U	1.17 U	0.0434 U	0.0376 U	0.0577 U	0.447 U	0.0355 U	0.172 U	0.184 U	0.184 U	0.184 U	4.9	
4-Bromophenyl phenyl ether	0.00356 U	0.117 U	0.00434 U	0.00376 U	0.00577 U	0.0447 U	0.00355 U	0.0172 U	0.0184 U	0.0184 U	0.0184 U	--	
4-Chloro-3-methylphenol	0.0142 U	0.468 U	0.0174 U	0.0150 U	0.0231 U	0.179 U	0.0142 U	0.0688 U	0.0738 U	0.0738 U	0.0738 U	6,100	
4-Chloroaniline	0.00356 U	0.117 U	0.00434 U	0.00376 U	0.00577 U	0.0447 U	0.00355 U	0.0172 U	0.0184 U	0.0184 U	0.0184 U	2.4	
4-Chlorophenyl phenyl ether	0.00356 U	0.117 U	0.00434 U	0.00376 U	0.00577 U	0.0447 U	0.00355 U	0.0172 U	0.0184 U	0.0184 U	0.0184 U	--	
4-Nitroaniline	0.0284 U	0.935 U	0.0347 U	0.0301 U	0.0462 U	0.358 U	0.0284 U	0.138 U	0.148 U	0.148 U	0.148 U	24	
4-Nitrophenol	0.0142 U	0.468 U	0.0174 U	0.0150 U	0.0231 U	0.179 U	0.0142 U	0.0688 U	0.0738 U	0.0738 U	0.0738 U	--	
Acenaphthene	0.00142 U	0.0468 U	0.00174 U	0.00150 U	0.00231 U	0.0179 U	0.00142 U	0.00688 U	0.00738 U	0.00738 U	0.00738 U	29	
Acenaphthylene	0.00142 U	0.0468 U	0.00174 U	0.00150 U	0.00231 U	0.0179 U	0.00142 U	0.00688 U	0.00738 U	0.00738 U	0.00738 U	--	
Aniline	0.00356 U	0.117 U	0.00434 U	0.00376 U	0.00577 U	0.0447 U	0.00355 U	0.0172 U	0.0184 U	0.0184 U	0.0184 U	85	
Anthracene	0.00142 U	0.0468 U	0.00174 U	0.00150 U	0.00231 U	0.0179 U	0.00142 U	0.00688 U	0.00738 U	0.00738 U	0.00738 U	29	
Benz(a)anthracene	0.00413	0.0718 J	0.00363	0.00739	0.00231 U	0.0462	0.0930	0.0275	0.0275	0.0275	0.0275	0.15	
Benzo(a)pyrene	0.0106	0.0701 U	0.00714	0.0119	0.00414 J	0.0907 J	0.103	0.0475	0.0175 J	0.0175 J	0.0175 J	0.015	
Benzo(b)fluoranthene	0.00756	0.0772 J	0.00585	0.0123	0.00310 J	0.0986	0.0957	0.0492	0.0171	0.0171	0.0171	0.15	
Benzo(g,h,i)perylene	0.0127	0.0468 U	0.00555	0.00714	0.00231 U	0.0659 J	0.0685	0.0325	0.0141 J	0.0141 J	0.0141 J	--	
Benzo(k)fluoranthene	0.00405	0.0535 J	0.00310 J	0.00537	0.00231 U	0.0488	0.0317	0.0174	0.00770 J	0.00770 J	0.00770 J	1.1	
Benzoic acid	0.178 U	5.85 U	0.217 U	0.188 U	0.289 U	2.24 U	0.177 U	0.860 U	0.922 U	0.922 U	0.922 U	240,000	
Benzyl alcohol	0.00711 U	0.234 U	0.00868 U	0.00751 U	0.0115 U	0.0894 U	0.00709 U	0.0344 U	0.0369 U	0.0369 U	0.0369 U	6,100	
Bis(2-Chloroethoxy) methane	0.00356 U	0.117 U	0.00434 U	0.00376 U	0.00577 U	0.0447 U	0.00355 U	0.0172 U	0.0184 U	0.0184 U	0.0184 U	180	
Bis(2-Chloroethyl) ether	0.00356 U	0.117 U	0.00434 U	0.00376 U	0.00577 U	0.0447 U	0.00355 U	0.0172 U	0.0184 U	0.0184 U	0.0184 U	0.23	
Bis(2-Chloroisopropyl) ether	0.00356 U	0.117 U	0.00434 U	0.00376 U	0.00577 U	0.0447 U	0.00355 U	0.0172 U	0.0184 U	0.0184 U	0.0184 U	4.6	
Bis(2-ethylhexyl)phthalate	0.0284 U	0.935 U	0.186	0.119	0.0477 J	0.358 U	0.0284 U	0.138 U	0.148 U	0.148 U	0.148 U	4.5	
Butyl benzyl phthalate	0.0284 U	0.935 U	0.0347 U	0.0301 U	0.0462 U	0.373 J	0.0284 U	0.138 U	0.148 U	0.148 U	0.148 U	260	
Carbazole	0.00213 U	0.0701 U	0.00260 U	0.00265 J	0.00346 U	0.0268 U	0.00497	0.0103 U	0.0111 U	0.0111 U	0.0111 U	--	
Chrysene	0.00497	0.0522 J	0.00339 J	0.00874	0.00231 U	0.0705	0.110	0.0613	0.0147 J	0.0147 J	0.0147 J	15	
Dibenz(a,h)anthracene	0.00782	0.0468 U	0.00174 U	0.00150 U	0.00231 U	0.0179 U	0.0128	0.00731 J	0.00738 U	0.00738 U	0.00738 U	0.015	
Dibenzofuran	0.00142 U	0.0468 U	0.00174 U	0.00150 U	0.00231 U	0.0179 U	0.00142 U	0.0166	0.00738 U	0.00738 U	0.00738 U	0.0020	
Diethylphthalate	0.00711 U	0.234 U	0.00868 U	0.00751 U	0.0115 U	0.0894 U	0.00709 U	0.0344 U	0.0369 U	0.0369 U	0.0369 U	100	
Dimethylphthalate	0.00711 U	0.234 U	0.00868 U	0.00751 U	0.0115 U	0.0894 U	0.00709 U	0.0344 U	0.0369 U	0.0369 U	0.0369 U	200	
Di-n-butylphthalate	0.0107 U	0.351 U	0.0133 J	0.0113 U	0.0173 U	0.134 U	0.0106 U	0.0516 U	0.0553 U	0.0553 U	0.0553 U	0.45	
Di-n-octyl phthalate	0.0284 U	0.935 U	0.0347 U	0.0301 U	0.0462 U	0.358 U	0.0284 U	0.138 U	0.148 U	0.148 U	0.148 U	--	
Fluoranthene	0.00700	0.0804 J	0.00501	0.0111	0.00231 U	0.0670	0.141	0.104	0.0219	0.0219	0.0219	29	
Fluorene	0.00142 U	0.0468 U	0.00174 U	0.00150 U	0.00231 U	0.0179 U	0.00217 J	0.00688 U	0.00738 U	0.00738 U	0.00738 U	29	
Hexachlorobenzene	0.00356 U	0.117 U	0.00434 U	0.00376 U	0.00577 U	0.0447 U	0.00355 U	0.0172 U	0.0184 U	0.0184 U	0.0184 U	0.40	
Hexachlorobutadiene	0.00356 U	0.117 U	0.00434 U	0.00376 U	0.00577 U	0.0447 U	0.00355 U	0.0172 U	0.0184 U	0.0184 U	0.0184 U	6.2	
Hexachlorocyclopentadiene	0.00711 U	0.234 U	0.00868 U	0.00751 U	0.0115 U	0.0894 U	0.00709 U	0.0344 U	0.0369 U	0.0369 U	0.0369 U	10	
Hexachloroethane	0.00356 U	0.117 U	0.00434 U	0.00376 U	0.00577 U	0.0447 U	0.00355 U	0.0172 U	0.0184 U	0.0184 U	0.0184 U	35	
Indeno(1,2,3-cd)pyrene	0.00903	0.0468 U	0.00461	0.00586	0.00231 U	0.0622 J	0.0620	0.0320	0.0148 J	0.0148 J	0.0148 J	0.15	
Isophorone	0.00356 U	0.117 U	0.00434 U	0.00376 U	0.00577 U	0.0447 U	0.00355 U	0.0172 U	0.0184 U	0.0184 U	0.0184 U	510	
Naphthalene	0.00284 U	0.0935 U	0.00347 U	0.00301 U	0.00462 U	0.0358 U	0.0226	0.0675	0.0148 U	0.0148 U	0.0148 U	1.1	
Nitrobenzene	0.0142 U	0.468 U	0.0174 U	0.0150 U	0.0231 U	0.179 U	0.0142 U	0.0688 U	0.0738 U	0.0738 U	0.0738 U	4.8	
N-Nitrosodimethylamine	0.00356 U	0.117 U	0.00434 U	0.00376 U	0.00577 U	0.0447 U	0.00355 U	0.0172 U	0.0184 U	0.0184 U	0.0184 U	0.0023	
N-Nitroso-di-n-propylamine	0.00356 U	0.117 U	0.00434 U	0.00376 U	0.00577 U	0.0447 U	0.00355 U	0.0172 U	0.0184 U	0.0184 U	0.0184 U	0.069	
N-Nitrosodiphenylamine	0.00356 U	0.117 U	0.00434 U	0.00376 U	0.00577 U	0.0447 U	0.00355 U	0.0172 U	0.0184 U	0.0184 U	0.0184 U	20	
Pentachlorophenol (PCP)	0.0142 U	0.468 U	0.0174 U	0.0150 U	0.0231 U	0.179 U	0.0177 U	0.0688 U	0.0739 J	0.0739 J	0.0739 J	2.1	
Phenanthrene	0.00314	0.0468 U	0.00232 J	0.0110	0.00244 J	0.0453	0.0430	0.103	0.0136 J	0.0136 J	0.0136 J	--	
Phenol	0.00284 U	0.0935 U	0.00347 U	0.00301 U	0.00462 U	0.0381 J	0.00284 U	0.0138 U	0.0148 U	0.0148 U	0.0148 U	30	
Pyrene	0.00974	0.105	0.00671	0.0139	0.00231 U	0.0854	0.155	0.121	0.0239	0.0239	0.0239	1,700	

Notes:
 = The reported concentration exceeds the lowest screening criterion.
 = The reported method detection limit exceeds the lowest screening criterion.
-- = Analytical result not available
-- = Criterion not available

bgs = below ground surface
bold = analyte detected above MDL.
J = The sample result is an estimated concentration.
MDL = method detection limit
mg/kg = milligram per kilogram

U = The analyte was not detected at or above the MDL.
UU = The analyte was not detected. The reported sample quantification limit is an estimate.
¹ DEQ, 2012. Draft Revised Soil/Sediment Clean Fill Screening Table for Terrestrial/Upland Uses. Oregon Department of Environmental Quality, Solid Waste Management Program. January.

Table 13. Clean Fill Screening of Unit 2 Stormwater System Solids Analytical Results -- Metals, PCBs, and Petroleum Hydrocarbons

Alder Creek Mill

Portland, Oregon

Chemical of Interest	SWS-08	Background Metals Concentrations in Soil ¹ (mg/kg)	Clean Fill Screening Criteria ² (mg/kg)
	10/14/2010		
	Surface		
	Fill		
Metals			
Arsenic	2.16 J	7.0	9.6
Barium	126	255	612
Cadmium	0.322 J	1.0	1.1
Chromium	16.5	42	88
Copper	-	36	41
Iron	-	50,570	81,000
Lead	6.57	17	16
Manganese	-	898	1,121
Mercury	0.0436 J	0.070	1.7
Nickel	-	38	176
Selenium	0.560 U	2.0	50
Silver	0.140 U	1.0	1.1
Zinc	-	86	95
Polychlorinated Biphenyls			
Aroclor 1016	0.00215 U	--	--
Aroclor 1221	0.00215 U	--	--
Aroclor 1232	0.00215 U	--	--
Aroclor 1242	0.00215 U	--	--
Aroclor 1248	0.00215 U	--	--
Aroclor 1254	0.00215 U	--	--
Aroclor 1260	0.00215 U	--	--
Aroclor 1262	0.00215 U	--	--
Aroclor 1268	0.00215 U	--	--
Total PCBs	0.00215 U	--	0.22
Petroleum Hydrocarbons			
Diesel-Range Organics	24.8 J	--	--
Oil-Range Organics	94.0	--	--
Gasoline-Range Organics	3.46 U	--	--

Notes:

 = The reported concentration exceeds the background concentration and the lowest screening criterion.

 = The reported method detection limit exceeds the background concentration and the lowest screening criterion.

-- = criterion not available.

bgs = below ground surface.

bold = analyte detected above MDL.

J = The sample result is an estimated concentration.

MDL = method detection limit.

¹ See Phase II Environmental Site Assessment for Alder Creek Mill Site, Table 4 for sources of each selected background concentration.

² DEQ, 2012. Draft Revised Soil/Sediment Clean Fill Screening Table for Terrestrial/Upland Uses. Oregon Department of Environmental Quality, Solid Waste Program. January.

**Table 14. Clean Fill Screening of Unit 2 Storm Water System Solids
Analytical Results -- SVOCs**

Alder Creek Mill

Portland, Oregon

Semivolatile Organic Compound	SWS-08	Clean Fill Screening Criteria ¹ (mg/kg)
	10/14/2010	
	Surface	
	Fill	
1,2,4-Trichlorobenzene	0.00993 U	20
1,2-Dichlorobenzene	0.00993 U	2,200
1,3-Dichlorobenzene	0.00993 U	--
1,4-Dichlorobenzene	0.00993 U	1.1
1-Methylnaphthalene	0.00795 U	22
2,3,4,6-Tetrachlorophenol	0.0199 U	20
2,4,5-Trichlorophenol	0.0199 U	4.0
2,4,6-Trichlorophenol	0.0199 U	10
2,4-Dichlorophenol	0.0199 U	20
2,4-Dimethylphenol	0.0199 U	20
2,4-Dinitrophenol	0.0794 U	20
2,4-Dinitrotoluene	0.0397 U	1.6
2,6-Dinitrotoluene	0.0397 U	61
2-Chloronaphthalene	0.00397 U	6,300
2-Chlorophenol	0.0199 U	60
2-Methylnaphthalene	0.00795 U	310
2-Methylphenol	0.00993 U	50
2-Nitroaniline	0.0794 U	610
2-Nitrophenol	0.0397 U	--
3+4-Methylphenol(s)	0.0110 J	310
3-Nitroaniline	0.0794 UJ	70
3-Iodo-2-propynyl N-butylcarbamate	--	
4,6-Dinitro-2-methylphenol	0.0993 U	4.9
4-Bromophenyl phenyl ether	0.00993 U	--
4-Chloro-3-methylphenol	0.0397 U	6,100
4-Chloroaniline	0.00993 U	2.4
4-Chlorophenyl phenyl ether	0.00993 U	--
4-Nitroaniline	0.0794 U	24
4-Nitrophenol	0.0397 U	--
Acenaphthene	0.00398 U	29
Acenaphthylene	0.0294	--
Aniline	0.00993 UJ	85
Anthracene	0.0130	29
Benz(a)anthracene	0.0266	0.15
Benzo(a)pyrene	0.0631	0.015
Benzo(b)fluoranthene	0.0866	0.15
Benzo(g,h,i)perylene	0.103	--
Benzo(k)fluoranthene	0.0269	1.1
Benzoic acid	0.497 U	240,000
Benzyl alcohol	0.0397 U	6,100
Bis(2-Chloroethoxy) methane	0.00993 U	180
Bis(2-Chloroethyl) ether	0.00993 U	0.23
Bis(2-Chloroisopropyl) ether	0.00993 UJ	4.6
Bis(2-ethylhexyl)phthalate	0.0794 U	4.5
Butyl benzyl phthalate	0.0794 U	260
Carbazole	0.00398 U	--
Chrysene	0.0393	15

**Table 14. Clean Fill Screening of Unit 2 Storm Water System Solids
Analytical Results -- SVOCs**

Alder Creek Mill

Portland, Oregon

Semivolatile Organic Compound	SWS-08	Clean Fill Screening Criteria ¹ (mg/kg)
	10/14/2010	
	Surface	
	Fill	
Dibenz(a,h)anthracene	0.0114	0.015
Dibenzofuran	0.00435 J	0.0020
Diethylphthalate	0.0199 U	100
Dimethylphthalate	0.0199 U	200
Di-n-butylphthalate	0.0298 U	0.45
Di-n-octyl phthalate	0.0794 U	--
Fluoranthene	0.0315	29
Fluorene	0.00421 J	29
Hexachlorobenzene	0.00993 U	0.40
Hexachlorobutadiene	0.00993 U	6.2
Hexachlorocyclopentadiene	0.0199 U	10
Hexachloroethane	0.00993 U	35
Indeno(1,2,3-cd)pyrene	0.0785	0.15
Isophorone	0.00993 U	510
Naphthalene	0.0146 J	1.1
Nitrobenzene	0.0397 U	4.8
N-Nitrosodimethylamine	0.00993 U	0.0023
N-Nitroso-di-n-propylamine	0.00993 U	0.069
N-Nitrosodiphenylamine	0.00993 U	20
Pentachlorophenol (PCP)	0.0397 U	2.1
Phenanthrene	0.0191	--
Phenol	0.00794 U	30
Propiconazole	--	--
Pyrene	0.0473	1,700

Notes:

= The reported concentration exceeds the lowest screening criterion.

= The reported method detection limit exceeds the lowest screening criterion.

- = Analytical result not available

-- = Criterion not available

bgs = below ground surface

bold = analyte detected above MDL.

J = The sample result is an estimated concentration.

MDL = method detection limit

mg/kg = milligram per kilogram

U = The analyte was not detected at or above the MDL.

UJ = The analyte was not detected. The reported sample quantification limit is an estimate.

¹ DEQ, 2012. Draft Revised Soil/Sediment Clean Fill Screening Table for Terrestrial/Upland Uses. Oregon Department of Environmental Quality, Solid Waste Program. January.

Table 15. Clean Fill Screening Summary and Soil Unit 2/3 Recommendations

Alder Creek Mill
Portland, Oregon

Sample Location	Soil Type	DEQ Clean Fill Criteria Exceedances				Comments on Data	Recommended Soil Unit
		Metals	PCBs	TPH	SVOCs		
WW-1	Native	--	NA	NA	--		3
WW-3	Fill	--	NA	NA	--		3
WW-4	Fill	--	NA	NA	--		3
SEP-1	Fill	--	NA	ND	NA	SVOCs NA because TPHs ND	3
SEP-2	Native	--	NA	ND	NA	SVOCs NA because TPHs ND	3
SEP-3	Native	--	NA	ND	NA	SVOCs NA because TPHs ND	3
SB-07	Fill	--	NA	NA	--		3
SB-08-14-16	Fill	Yes	NA	NC	Yes	Lead, zinc, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, and indeno(1,2,3-cd)pyrene exceeded criteria. When blended with other Unit 2 soil, only benzo(a)pyrene UCL exceeded criteria	2
SB-08-22-24	Native	NA	NA	ND	NA	TPHs ND	3
SB-09	Native	--	NA	NA	--		3
SB-10	Fill	--	NA	NA	--		3
SB-11-8-10	Fill	--	NA	NC	Yes	Benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, and indeno(1,2,3-cd)pyrene exceeded criteria. When blended with other Unit 2 soil, only benzo(a)pyrene UCL exceeded criteria	2
SB-11-15-17	Native	NA	NA	ND	NA	TPHs ND	3
SB-12	Native	--	NA	NA	--		3
SB-13	Native	--	NA	NA	--		3
SWS-08	Fill	--	ND	NC	Yes	Dibenzofuran and benzo(a)pyrene exceeded criteria. When blended with other Unit 2 soil, benzo(a)pyrene UCL exceeded criteria. Removing Dibenzofuran results with greater criteria exceedance (TP-04-03 and TP-Q-01) left this sample result as the only detection, preventing dibenzofuran UCL calculation.	2
TP-01-03	Fill	--	ND	ND	--		3
TP-02-00	Fill	--	ND	NC	--		3
TP-02-02	Fill	--	ND	ND	--		3
TP-04-03	Fill	--	ND	ND	Yes	Dibenzofuran exceeded criteria. When blended with other Unit 2 soil, dibenzofuran UCL also exceeded criteria	2
TP-07-07	Native	--	ND	ND	--		3
TP-09-04	Native	Yes	ND	NC	Yes	Zinc and benzo(a)pyrene exceeded criteria. When blended with other Unit 2 soil, only benzo(a)pyrene UCL exceeded criteria	2
TP-N-02	Native	--	--	NC	NA		3
TP-P-02	Fill	--	ND	NC	Yes	Benzo(a)pyrene exceeded criteria. When blended with other Unit 2 soil, benzo(a)pyrene UCL also exceeded criteria	2
TP-Q-01	Fill	--	ND	NC	Yes	Dibenzofuran and benzo(a)pyrene exceeded criteria. When blended with other Unit 2 soil, benzo(a)pyrene UCL exceeded criteria.	2
TP-Q-03	Native	--	ND	NC	Yes	Benzo(a)pyrene exceeded criteria. When blended with other Unit 2 soil (excluding those with greater exceedances), benzo(a)pyrene UCL did not exceed criteria	3
TP-R-02	Fill	--	ND	NC	NA		3

Notes:

-- = Detected but no exceedance of Clean Fill Criteria.

NA = Not analyzed.

NC = No criteria available.

ND = Not detected.

 = exceedance of the Clean Fill Criteria.

 = no exceedance of the Clean Fill Criteria or petroleum hydrocarbons not detected.

Table 16. UCLs Calculated To Support Unit 2 and 3 Classifications

Alder Creek Mill
Portland, Oregon

Chemical of Interest	Stage 1: Unit 2 90% UCL, All Samples		Stage 2: Unit 2 90% UCL, Removed Samples		Background Metals Concentrations in Soil ¹ (mg/kg)	Clean Fill Screening Criteria ² (mg/kg)
	UCL Method	UCL	Removed Sample	UCL Method		
Lead	90% Adjusted Gamma UCL	10.08	--	--	17	16
Zinc	90% Student's-t UCL	74.35	--	--	86	95
Benzo(a)anthracene	90% KM (BCA) UCL	0.105	--	--	--	0.15
Benzo(a)pyrene	90% KM (BCA) UCL	0.133	SB-11-8-10, SB-08-14-16, TP-P-02, TP-09-04, SWS-08, TP-Q-01	90% KM (t) UCL	--	0.015
Benzo(b)fluoranthene	90% KM (BCA) UCL	0.129	--	--	--	0.15
Dibenzofuran	90% KM (t) UCL	0.00790	TP-04-03, TP-Q-01	Only one detected value, unable to compute, suggest removing SWS-08 as well.	--	0.0020
Indeno(1,2,3-cd)pyrene	90% KM (BCA) UCL	0.0866	--	--	--	0.15

Notes:

Yellow background = The 90% UCL exceeds the background concentration and the lowest screening criterion.

UCL = Upper Confidence Limit

-- = Samples not removed, UCL not calculated, or criterion not available.

¹ See Phase II Environmental Site Assessment for Alder Creek Mill Site, Table 4 for sources of each selected background concentration.

² DEQ, 2012. Draft Revised Soil/Sediment Clean Fill Screening Table for Terrestrial/Upland Uses. Oregon Department of Environmental Quality, Solid Waste Program. January.

Table 17. Unit 2 Soil Analytical Results – Metals, PCBs, and Petroleum Hydrocarbons Compared to Excavation and Construction Worker Risk-Based Concentrations

Alder Creek Mill
Portland, Oregon

Chemical of Interest	Sample Concentrations (mg/kg)										Background Metals Concentrations in Soil ¹ (mg/kg)	DEQ RBC Construction Worker ² (mg/kg)	DEQ RBC Excavation Worker ² (mg/kg)	
	TP-04-03	TP-09-04	TP-P-02	TP-Q-01	SB-08-14-16**	SB-11-3-10***	SWS-08		Fill	Fill				
	10/7/2010	10/8/2010	10/8/2010	10/8/2010	2/11/2011	2/11/2011	10/14/2010	10/14/2010						
	3 ft bgs	4 ft bgs	2 ft bgs	1 ft bgs	14 ft bgs	8 ft bgs	Surface	Surface						
Metals														
Arsenic	2.43	4.00	3.26	3.17	5.70	4.57	2.16	J	2.16	J	7.0	13.0	370	
Barium	83.7	170	86.6	82.4	140	153	126				255	60,000	--	
Cadmium	1.17	1.42	1.11	0.257	J	0.194	J	0.322	J		1.0	150	4,300	
Chromium	12.0	22.7	12.1	12.0	23.7	16.7	16.5				42	43.0	1,200	
Copper	12.2	26.8	13.4	-	37.5	16.7	-				36	12,000	340,000	
Iron	22,000	J	23,700	22,500	-	23,900	26,600	-	-	-	50,570	--	--	
Lead	3.68	10.9	5.45	4.82	28.5	6.03	6.57				17	43.0	1,200	
Manganese	221	J	234	275	280	391	-				898	12,000	340,000	
Mercury	0.0351	U	0.0427	U	0.0351	U	0.0484	J	0.0436	J	0.070	800	800	
Nickel	16.5	26.4	18.3	-	28.4	22.4	-				38	93.0	2,600	
Selenium	0.468	U	0.569	U	0.445	U	0.468	U	0.518	U	2.0	--	--	
Silver	0.117	U	0.142	U	0.111	U	0.117	U	0.129	U	1.0	1,500	43,000	
Zinc	47.2	96.9	55.9	-	124	57.5	-				86	--	--	
Polychlorinated Biphenyls														
Aroclor 1016	0.00147	U	0.00178	U	0.00138	U	0.00169	U	-	-	--	--	--	
Aroclor 1221	0.00147	U	0.00178	U	0.00138	U	0.00169	U	-	-	--	--	--	
Aroclor 1232	0.00147	U	0.00178	U	0.00138	U	0.00169	U	-	-	--	--	--	
Aroclor 1242	0.00147	U	0.00178	U	0.00138	U	0.00169	U	-	-	--	--	--	
Aroclor 1248	0.00147	U	0.00178	U	0.00138	U	0.00169	U	-	-	--	--	--	
Aroclor 1254	0.00147	U	0.00178	U	0.00138	U	0.00169	U	-	-	--	--	--	
Aroclor 1260	0.00147	U	0.00178	U	0.00138	U	0.00169	U	-	-	--	--	--	
Aroclor 1262	0.00147	U	0.00178	U	0.00138	U	0.00169	U	-	-	--	--	--	
Aroclor 1268	0.00147	U	0.00178	U	0.00138	U	0.00169	U	-	-	--	--	--	
Total PCBs	0.00147	U	0.00178	U	0.00138	U	0.00169	U	-	-	--	4.40	120	
Petroleum Hydrocarbons														
Diesel-Range Organics	4.51	U	98.0	4.26	U	5.11	J	24.5	J	17.5	J	24.8	J	--
Oil-Range Organics	9.02	U	421	14.7	J	27.8	J	110		30.4	J	94.0		--
Gasoline-Range Organics	3.08	U	4.04	U	2.90	U	3.77	U	-	-	--	3.46	U	--

Notes:
 = The reported concentration exceeds the background concentration and the lowest screening criterion.
 = The reported method detection limit exceeds the background concentration and the lowest screening criterion.
 -- = criterion not available.

bgs = below ground surface.
bold = analyte detected above MDL.
 J = The sample result is an estimated concentration.
 MDL = method detection limit.

¹ See Phase II Environmental Site Assessment for Alder Creek Mill Site, Table 4 for sources of each selected background concentration.
² DEQ, 2011. Risk-Based Decision Making for the Remediation of Petroleum-Contaminated Sites. Oregon Department of Environmental Quality, November.

Table 18. Unit 2 Soil Analytical Results -- SVOCs
Compared to Excavation and Construction Worker Risk-Based Concentrations

Alder Creek Mill
Portland, Oregon

Semivolatile Organic Compound	Sample Concentrations (mg/kg)							DEQ RBC Construction Worker ¹ (mg/kg)	DEQ RBC Excavation Worker ¹ (mg/kg)
	TP-04-03	TP-09-04	TP-P-02	TP-Q-01	SB-08-14-16	SB-11-8-10	SWS-08		
	10/7/2010	10/8/2010	10/8/2010	10/8/2010	2/11/2011	2/11/2011	10/14/2010		
	3 ft bgs	4 ft bgs	2 ft bgs	1 ft bgs	14 ft bsg	8 ft bsg	Surface		
	Fill	Native	Native	Fill	Fill	Fill			
1,2,4-Trichlorobenzene	0.00376 U	0.0447 U	0.00355 U	0.0172 U	0.172 U	0.241 U	0.00993 U	--	--
1,2-Dichlorobenzene	0.00376 U	0.0447 U	0.00355 U	0.0172 U	0.172 U	0.241 U	0.00993 U	19,000	520,000
1,3-Dichlorobenzene	0.00376 U	0.0447 U	0.00355 U	0.0172 U	0.172 U	0.241 U	0.00993 U	--	--
1,4-Dichlorobenzene	0.00376 U	0.0447 U	0.00355 U	0.0172 U	0.172 U	0.241 U	0.00993 U	1,200	34,000
1-Methylnaphthalene	-	0.233	-	0.0138 U	0.137 U	0.193 U	0.00795 U	--	--
2,3,4,6-Tetrachlorophenol	0.00751 U	0.0894 U	0.00709 U	0.0344 U	0.343 U	0.482 U	0.0199 U	--	--
2,4,5-Trichlorophenol	0.00751 U	0.0894 U	0.00709 U	0.0344 U	0.343 U	0.482 U	0.0199 U	--	--
2,4,6-Trichlorophenol	0.00751 U	0.0894 U	0.00709 U	0.0344 U	0.343 U	0.482 U	0.0199 U	240	6,600
2,4-Dichlorophenol	0.00751 U	0.0894 U	0.00709 U	0.0344 U	0.343 U	0.482 U	0.0199 U	--	--
2,4-Dimethylphenol	0.00751 U	0.0894 U	0.00709 U	0.0344 U	0.343 U	0.482 U	0.0199 U	--	--
2,4-Dinitrophenol	0.0301 U	0.358 U	0.0284 U	0.138 U	1.37 U	1.93 U	0.0794 U	--	--
2,4-Dinitrotoluene	0.0150 U	0.179 U	0.0142 U	0.0688 U	0.686 U	0.964 U	0.0397 U	--	--
2,6-Dinitrotoluene	0.0150 U	0.179 U	0.0142 U	0.0688 U	0.686 U	0.964 U	0.0397 U	240	6,600
2-Chloronaphthalene	0.00150 U	0.0179 U	0.00142 U	0.00688 U	0.0686 U	0.0964 U	0.00397 U	--	--
2-Chlorophenol	0.00751 U	0.0894 U	0.00709 U	0.0344 U	0.343 U	0.482 U	0.0199 U	--	--
2-Methylnaphthalene	0.00878	0.350	0.00826	0.0223 J	0.137 U	0.193 U	0.00795 U	--	--
2-Methylphenol	0.00376 U	0.0447 U	0.00355 U	0.0172 U	0.172 U	0.241 U	0.00993 U	--	--
2-Nitroaniline	0.0301 U	0.358 U	0.0284 U	0.138 U	1.37 U	1.93 U	0.0794 U	--	--
2-Nitrophenol	0.0150 U	0.179 U	0.0142 U	0.0688 U	0.686 U	0.964 U	0.0397 U	--	--
3+4-Methylphenol(s)	0.00376 U	0.0447 U	0.00355 U	0.0172 U	0.172 U	0.241 U	0.0110 J	--	--
3-Nitroaniline	0.0301 U	0.358 U	0.0284 U	0.138 U	1.37 U	1.93 U	0.0794 UJ	--	--
4,6-Dinitro-2-methylphenol	0.0376 U	0.447 U	0.0355 U	0.172 U	1.72 U	2.41 U	0.0993 U	--	--
4-Bromophenyl phenyl ether	0.00376 U	0.0447 U	0.00355 U	0.0172 U	0.172 U	0.241 U	0.00993 U	--	--
4-Chloro-3-methylphenol	0.0150 U	0.179 U	0.0142 U	0.0688 U	0.686 U	0.964 U	0.0397 U	--	--
4-Chloroaniline	0.00376 U	0.0447 U	0.00355 U	0.0172 U	0.172 U	0.241 U	0.00993 U	--	--
4-Chlorophenyl phenyl ether	0.00376 U	0.0447 U	0.00355 U	0.0172 U	0.172 U	0.241 U	0.00993 U	--	--
4-Nitroaniline	0.0301 U	0.358 U	0.0284 U	0.138 U	1.37 U	1.93 U	0.0794 U	--	--
4-Nitrophenol	0.0150 U	0.179 U	0.0142 U	0.0688 U	0.686 U	0.964 U	0.0397 U	--	--
Acenaphthene	0.0336	0.0179 U	0.00142 U	0.00804 J	0.0686 U	0.0964 U	0.00397 U	19,000	520,000
Acenaphthylene	0.00150 U	0.0179 U	0.00688	0.00688 U	0.0686 U	0.0964 U	0.0294	--	--
Aniline	0.00376 U	0.0447 U	0.00355 U	0.0172 U	0.172 U	0.241 U	0.00993 UJ	--	--
Anthracene	0.00272 J	0.0179 U	0.0446	0.0275	0.0686 U	0.161 J	0.0130	93000	--
Benz(a)anthracene	0.00739	0.0462	0.0930	0.0482	0.202	0.678	0.0266	21	590
Benzo(a)pyrene	0.0119	0.0907 J	0.103	0.0475	0.486	0.732	0.0631	2.1	59.0
Benzo(b)fluoranthene	0.0123	0.0986	0.0957	0.0492	0.409	0.683	0.0866	21	590
Benzo(g,h,i)perylene	0.00714	0.0659 J	0.0685	0.0325	0.429	0.478	0.103	--	--
Benzo(k)fluoranthene	0.00537	0.0488	0.0317	0.0174	0.211 J	0.334 J	0.0269	210	5,900
Benzoic acid	0.188 U	2.24 U	0.177 U	0.860 U	8.58 U	12.1 U	0.497 U	--	--
Benzyl alcohol	0.00751 U	0.0894 U	0.00709 U	0.0344 U	0.343 U	0.482 U	0.0397 U	--	--
Bis(2-Chloroethoxy) methane	0.00376 U	0.0447 U	0.00355 U	0.0172 U	0.172 U	0.241 U	0.00993 U	--	--
Bis(2-Chloroethyl) ether	0.00376 U	0.0447 U	0.00355 U	0.0172 U	0.172 U	0.241 U	0.00993 U	15	410
Bis(2-Chloroisopropyl) ether	0.00376 U	0.0447 UJ	0.00355 UJ	0.0172 U	0.172 U	0.241 U	0.00993 UJ	--	--
Bis(2-ethylhexyl)phthalate	0.119	0.358 U	0.0284 U	0.138 U	1.37 U	1.93 U	0.0794 U	1,200	33,000
Butyl benzyl phthalate	0.0301 U	0.373 J	0.0284 U	0.138 U	1.37 U	1.93 U	0.0794 U	--	--
Carbazole	0.00265 J	0.0268 U	0.00497	0.0103 U	0.103 U	0.145 U	0.00398 U	--	--
Chrysene	0.00874	0.0705	0.110	0.0613	0.241	0.702 J	0.0393	2,100	57,000
Dibenz(a,h)anthracene	0.00150 U	0.0179 U	0.0128	0.00731 J	0.0686 U	0.0964 U	0.0114	2.1	59.0
Dibenzofuran	0.0202	0.0179 U	0.00142 U	0.0166	0.0686 U	0.0964 U	0.00435 J	--	--
Diethylphthalate	0.00751 U	0.0894 U	0.00709 U	0.0344 U	0.343 U	0.482 U	0.0199 U	--	--
Dimethylphthalate	0.00751 U	0.0894 U	0.00709 U	0.0344 U	0.343 U	0.482 U	0.0199 U	--	--
Di-n-butylphthalate	0.0113 U	0.134 U	0.0106 U	0.0516 U	0.343 U	0.482 U	0.0298 U	--	--
Di-n-octyl phthalate	0.0301 U	0.358 U	0.0284 U	0.138 U	1.37 U	1.93 U	0.0794 U	--	--
Fluoranthene	0.0111	0.0670	0.141	0.104	0.226	1.30 J	0.0315	8,900	250,000
Fluorene	0.0261	0.0179 U	0.00217 J	0.00688 U	0.0686 U	0.0964 U	0.00421 J	12,000	340,000
Hexachlorobenzene	0.00376 U	0.0447 U	0.00355 U	0.0172 U	0.0686 U	0.0964 U	0.00993 U	12	330
Hexachlorobutadiene	0.00376 U	0.0447 U	0.00355 U	0.0172 U	0.172 U	0.241 U	0.00993 U	--	--
Hexachlorocyclopentadiene	0.00751 U	0.0894 UJ	0.00709 U	0.0344 U	0.343 U	0.482 U	0.0199 U	--	--
Hexachloroethane	0.00376 U	0.0447 U	0.00355 U	0.0172 U	0.172 U	0.241 U	0.00993 U	240	6,600
Indeno(1,2,3-cd)pyrene	0.00586	0.0622 J	0.0620	0.0320	0.325	0.383	0.0785	21	590
Isophorone	0.00376 U	0.0447 U	0.00355 U	0.0172 U	0.172 U	0.241 U	0.00993 U	--	--
Naphthalene	0.00301 U	0.0358 U	0.0226	0.0675	0.221 J	0.193 U	0.0146 J	580	16,000
Nitrobenzene	0.0150 U	0.179 U	0.0142 U	0.0688 U	0.686 U	0.964 U	0.0397 U	--	--
N-Nitrosodimethylamine	0.00376 U	0.0447 U	0.00355 U	0.0172 U	0.172 U	0.241 U	0.00993 U	--	--
N-Nitroso-di-n-propylamine	0.0121	0.0447 U	0.00355 U	0.0172 U	0.172 U	0.241 U	0.00993 U	2.4	66.0
N-Nitrosodiphenylamine	0.00376 U	0.0447 U	0.00355 U	0.0172 U	0.172 U	0.241 U	0.00993 U	3,400	95,000
Pentachlorophenol (PCP)	0.0150 U	0.179 U	0.0177 U	0.0688 U	1.37 U	1.93 U	0.0397 U	31	860
Phenanthrene	0.0110	0.0453	0.0430	0.103	0.150	0.583 J	0.0191	--	--
Phenol	0.00301 U	0.0381 J	0.00284 U	0.0138 U	0.137 U	0.193 U	0.00794 U	--	--
Pyrene	0.0139	0.0854	0.155	0.121	0.357	1.54 J	0.0473	6,700	190,000

Notes:

- = The reported concentration exceeds the lowest screening criterion.
- = The reported method detection limit exceeds the lowest screening criterion.

-- = Analytical result not available

-- = Criterion not available

bgs = below ground surface

bold = analyte detected above MDL

J = The sample result is an estimated concentration.

MDL = method detection limit

mg/kg = milligram per kilogram

U = The analyte was not detected at or above the MDL

UJ = The analyte was not detected. The reported sample quantification limit is an estimate.

¹DEQ, 2011. Risk-Based Decision Making for the Remediation of Petroleum-Contaminated Sites. Oregon Department of Environmental Quality, November.

Table 19. Soil Unit 1 Excavation Dimensions and Volume

Alder Creek Mill
Portland, Oregon

Sample Location	Sample ID	Sample Depth (feet)	Soil Type	Proposed Unit 1 Excavation Dimension		Volume (yard ³)
				Depth (feet)	Lateral Extent (feet ²)	
TP-05	TP-05-01	1	Fill	7	225	58
	TP-05-05	5	Fill			
TP-06	TP-06-02	2	Fill	7	25	6
	TP-06-05	5	Fill			
TP-07	TP-07-03	3	Fill	5	25	5
TP-08	TP-08-02	2	Fill	5	1600	296
	TP-08-03	3	Native			
TP-09	TP-09-01	1	Fill	3	25	3
	TP-10-04	4	Fill			
TP-10	TP-10-06	6	Native	8	225	67
	TP-H-02	2	Native			
SWS-09	SWS-09	Surface	Fill	4	100	15
		Surface	Fill	2	540	40
Pipe-00	Pipe-00	Surface	Fill	2	100	7
		Surface	Fill	2	100	7
					Total Volume	497

Figure 4 of the Phase II ESA report



Map Features

- Soil Boring Location
- Surface Soil Sample Location
- ◆ Composite Soil Sample Location
- ▲ Test Pit Location

Source: USGS, 2008.



FEBRUARY 2011
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SAMPLE LOCATIONS

PORTLAND HARBOR HOLDINGS II, LLC
ALDER CREEK LUMBER
SAUVIE ISLAND, OREGON

FIGURE 4