Comprehensive Groundwater Conceptual Site Model

Groundwater Source Control Evaluation

Gunderson LLC

Portland, Oregon

Prepared for:

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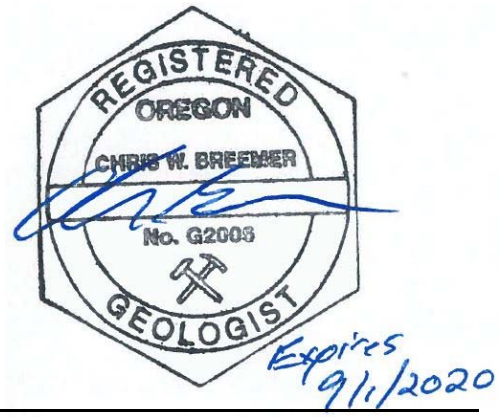
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1.0 INTRODUCTION

Cascadia Associates, LLC (Cascadia) prepared this Comprehensive Groundwater Conceptual Site Model (CSM) on behalf of Gunderson LLC (Gunderson) for the facility at 4350 NW Front Avenue, Portland, Oregon (the Site). This CSM was prepared at the request of the Oregon Department of Environmental Quality (DEQ) and the U.S. Environmental Protection Agency (EPA) in support of the ongoing groundwater source control evaluation (SCE) at the Site.

1.1 PURPOSE AND SCOPE

The *Revised Updated Groundwater Source Control Evaluation* for the Site was submitted to DEQ and EPA in August 2017 (Cascadia, 2017a). To facilitate their review of the groundwater SCE and development of a groundwater source control decision, DEQ and EPA requested this groundwater CSM.

EPA requested the CSM specifically to refine the understanding of groundwater conditions subsequent to deactivation of the groundwater treatment system at the Area 1 portion of the Site. DEQ requested that the CSM explain why some contaminants listed in Table 17 of EPA's 2017 Record of Decision (ROD) for the Portland Harbor Superfund Site were not evaluated in the *Revised Updated Groundwater Source Control Evaluation.*

In accordance with requests from DEQ and EPA, this CSM describes:

- The Site hydrogeology to support an evaluation of groundwater contaminant transport pathways to the Willamette River;
- The potential sources of hazardous substances to groundwater, based upon historical activities and releases at the Site, including maps showing the location and approximate extent of historical releases;
- The current post-remediation groundwater conditions at the Site and trends in chemical concentrations in groundwater; and
- The current groundwater quality at the Site, including figures showing the extent of chemicals present in groundwater above the Portland Harbor Cleanup Levels listed in Table 17 of the ROD.

1.2 REGULATORY FRAMEWORK

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

A portion of the Willamette River, including the reach adjacent to the Site, was added to the Superfund National Priority List in December 2000. The approximate boundaries of the Portland

Harbor Study Area are from river mile (RM) 1.9 to RM 11.8. The Site is on the west side of the Willamette River, approximately between RM 8.5 and RM 9.2.

EPA released the ROD for the Portland Harbor Superfund Site in January 2017 (EPA, 2017). The ROD identifies areas where sediment remediation will be required, prescribes the methods that will be used for remediation, and presents remedial action levels (RALs) and cleanup levels (CULs) that will be used to measure remediation effectiveness. EPA released an Explanation of Significant Difference (ESD) in December 2019 (EPA, 2019). The ESD modifies some RALs and CULs for polycyclic aromatic hydrocarbons (PAHs). The site is within the River Mile 9 West (RM9W) Project Area of the Portland Harbor Superfund Site, as discussed in the *RM 9 West Draft Sufficiency Assessment Report* (Foth, 2020).

A fundamental requirement for remediating sediment in the Willamette River is the control of sources of contamination to the river, including groundwater. The information presented here is intended to support the evaluation of groundwater at the Site. This CSM is prepared in general accordance with the guidance presented in Appendix C of the Portland Harbor Joint Source Control Strategy (JSCS; DEQ/EPA, 2005) and based on additional direction provided by DEQ and EPA.

1.3 REPORT ORGANIZATION

The purpose of the CSM is to facilitate the evaluation of groundwater conditions at the Site and, specifically, to assess whether groundwater at the Site presents a recontamination risk to the Willamette River. To address this question, this report starts by describing the groundwater monitoring network, hydrogeological conditions, and stormwater management systems at the Site. Then, the report describes current and historical activities at the Site. This information is used to demonstrate that potential sources of hazardous substances to groundwater are understood and that monitoring systems are in place to assess for potential impacts. Next, the report discusses the results of groundwater assessment that has been completed at the Site. That is, the report describes the nature and extent of hazardous substances in groundwater and any risks that those hazardous substances may pose to the river. The report concludes by considering whether any chemicals of interest (COI) in groundwater pose a significant recontamination risk.

This report is divided into 11 primary sections:

- Section 2 presents a description of the Site and the current Site use.
- Section 3 presents the Site geology and hydrogeology.
- Section 4 describes stormwater conveyance systems at the Site.

- Section 5 describes historical Site uses and operations and identifies the COI[1] for groundwater based on these Site uses and operations.
- Section 6 describes historical releases of hazardous substances to soil and/or groundwater at the Site, including the original magnitude and extent of impacted media and, if applicable, the post-remediation magnitude and extent of impacted media, and identifies COI for groundwater based on these historical releases.
- Section 7 provides a summary of soil assessments conducted at the Site and identifies COI for groundwater based on these soil assessments.
- Section 8 discusses groundwater assessment (including stormwater infiltration monitoring), source control, and remediation completed at the Site (Section 8.1) and demonstrates that the groundwater assessment and monitoring program has encompassed all COI. Section 8.2 reviews current groundwater concentrations and trends to identify chemicals in groundwater that exceed regulatory criteria established by EPA and DEQ. Chemicals of potential concern (COPC)[2] are identified based on this evaluation.
- Section 9 presents an evaluation of the recontamination risk posed by COPC in groundwater.
- Section 10 presents the conclusions of this CSM.
- Section 11 lists report references.

[1] COI are defined as chemicals that may have been used at the Site or have been detected in environmental media at the Site.

[2] COPC are those chemicals that have been detected in groundwater at concentrations exceeding ROD CULs (or JSCS screening level values [SLVs], when ROD CULs are unavailable) or are chemicals that have detected in soil but for which groundwater data are unavailable. Infrequently detected chemicals are not considered groundwater COPC.

2.0 SITE DESCRIPTION

2.1 SITE DESCRIPTION

The Site is located at 4350 NW Front Avenue in Portland, Oregon. The Site location is shown on Figure 1 and the Site layout is shown on Figure 2. The Site covers approximately 59 acres and 4,000 lineal feet of river frontage along the west bank of the Willamette River. A large portion of the Site was created by filling lowlands, submersible lands, and submerged lands with material dredged from the Willamette River during the 1940s through 1960s. The Site is bordered by Lakeside Industries on the northwest, NW Front Avenue and the Burlington Northern Santa Fe (BNSF) Railway rail yard on the southwest, Georgia-Pacific Corporation on the southeast, and the Willamette River on the northeast. Gunderson is an active industrial barge and rail car manufacturing facility. Site operations are classified under North American Industry Classification System (NAICS) Codes 336510: Railroad Rolling Stock Manufacturing (SIC Code 3743) and 336611: Ship Building and Repairing (SIC Code 3731). The Site is zoned Heavy Industrial and River Industrial.

Impervious surfaces (e.g., buildings, asphalt pavement, and railroad tracks) cover approximately 80 percent of the Site and the remaining 20 percent of the Site, including riverbanks, is covered with pervious materials, such as gravel or vegetation. Many of the impervious surface areas have pervious features within them to promote stormwater infiltration. Except for the slope along the riverbank (between top of bank and the river), the Site is relatively flat, with a ground surface elevation ranging between approximately 36 to 42 feet (North American Vertical Datum 1988 [NAVD88]).

2.2 CURRENT SITE USE

The Site is divided into the following three areas (from downriver to upriver): Area 1, Area 2, and the Schnitzer ASD Yard (referred to in some historical reports as Area 3), as shown on Figure 2. The area boundaries are delineated based on similar industrial activities. Current use, activity, and structures in each Site area are described in more detail below, historical site use is detailed in Sections 5.1 through 5.3.

Area 1. Area 1 is primarily used for material delivery, warehousing, steel parts storage, and the beginning of the manufacturing process. Area 1 buildings include the Wheel Shop, the Plate Shop, the Machine Shop, the Receiving Office, the Receiving Warehouse, and the Main Truck Receiving Dock. A marine dock that has not been in use for many years is located primarily on leased submerged and submersible land offshore of Area 1.

Area 2. Area 2 is primarily used for manufacturing. Area 2 contains the main manufacturing buildings and other facilities used for other manufacturing processes, including: the Marine Barge Launchways, the Fabrication Bays, Craneways 1 through 6, the Marine Paint & Blast Building, the Finish & Paint Building, and the Maintenance Shop and Administrative Offices. An asphalt-concrete

(AC) road, referred to as Main Street, runs northwest to southeast through the central part of Area 2. The former entrance to a dock owned by Shell Oil Products U.S. (Equilon) and a related decommissioned pipeline easement are also located within this area. The dock was removed, and the pipeline was decommissioned in 2017 and 2018, respectively. The easement is now terminated.

Schnitzer ASD Yard. The Schnitzer ASD Yard is primarily used for materials storage. Approximately 60 percent of the Schnitzer ASD Yard is either paved or under cover. Compacted gravel and drain rock cover most of the remaining part of the Schnitzer ASD Yard. Although some areas along the riverbank are not paved, armoring and other structures (i.e., the Outfitting Dock gantry) cover most of the bank. Buildings in the Schnitzer ASD Yard include the Stevedore Building, the Marine Engineering Building, the 3-Bay Building, the Hazardous Materials Storage Area, the Rail Services Building, and the AutoStack Building. The Outfitting Dock runs parallel to almost the entire length of the riverbank of the Schnitzer ASD Yard (1,300 feet out of a total of 1,340 feet). The submerged land beneath the outfitting dock is leased from the State of Oregon.

3.0 GEOLOGY AND HYDROGEOLOGY

The following summary of geological and hydrogeological conditions at the Site is based on information gathered during investigations performed by Squier Associates, Inc. (later Squier/Kleinfelder) in the early 1990s through the mid-2000s and subsequent investigations performed by the Shaw Group and Cascadia.

Groundwater conditions have been characterized through the completion of borings, installation and on-going monitoring of numerous monitoring wells, and review of regional hydrogeological studies. General descriptions of the hydrostratigraphic units at the Site are derived primarily from site-specific studies for Gunderson by Squier/Kleinfelder (2005, 2006a, 2006b), from the *Portland Harbor Remedial Investigation Report* (LWG, 2016), and studies by Cascadia (e.g., Cascadia, 2019d). Excerpts from the 2011 *Groundwater Source Control Evaluation* (Shaw, 2011a), which depict stratigraphic cross sections of the Site, are included in Appendix A.

3.1 GEOLOGIC SETTING

The Site is located on the western edge of a large fault-bounded geologic structure known as the Portland Basin. The basin has been filled with up to 1,400 feet of consolidated and unconsolidated alluvial and glacio-fluvial sedimentary deposits ranging in age from middle Miocene (about 12 million years ago) to Pleistocene age (about 2 million to 0.01 million years ago). The sedimentary deposits overlie 16.5- to 6-million-year-old basalt flows of the Columbia River Basalt Group (CRBG). The basalt flows occur at relatively shallow depths along the west side of the Willamette River in the Site area.

The Site is located along the western bank of the Willamette River on relatively flat land at an approximate elevation of 36 to 42 feet NAVD88. The fault-bounded Portland Hills rise to an elevation of approximately 900 feet approximately 1 mile to the southwest.

3.2 HYDROSTRATIGRAPHIC UNITS

This section describes the hydrostratigraphic units that underlie the Site. The units are described from shallowest to deepest.

3.2.1 Fill

Most of the Site is underlain by fill materials placed in former lowland areas along the Willamette River. The fill is predominantly dredged river sediments. The fill includes fine sand and silty sand with some gravel and larger size rock. Fill deposits also contain various amounts of debris such as concrete, brick, metal, and wood. The thickness of fill materials varies from Front Avenue to the River and from the downstream end to the upstream end of the Site. The thickness ranges from approximately 0.5 foot near Front Avenue along much of the Site to approximately 25 feet near the Willamette River in the upstream third of the Site (i.e., the Schnitzer ASD Yard).

Estimates of hydraulic conductivity for fill deposits in the Portland Harbor area indicate that the fill materials exhibit a broad range of hydraulic characteristics (EPA, 2016). The range of hydraulic conductivities in the fill and alluvium were reported as: silt/clay: 0.005 to 2 feet per day; silty sand: 0.1 to 2 feet per day; sand: 0.5 to 30 feet per day. As described in Section 3.3, the permeability of this unit, where composed of dredge fill sand, is higher than the natural fine-grained alluvium. The presence of silt fill or a silty matrix within the sand fill generally reduces the permeability of the unit significantly.

3.2.2 Alluvial Deposits

Recent alluvium deposits consist of unconsolidated clay, silt, silty sand, and lenses and layers of fine-to-medium sand and gravel deposited in the channels and on the floodplains of the Willamette River. Older alluvial deposits underlie the recent alluvium and consist of coarse-grained and fine-grained units of ice-age flood deposition. The total thickness of the recent and older alluvial units ranges from approximately 30 feet to 150 feet at the Site.

The flood deposits present in the lower portions of the alluvial unit consist of crudely to complexly layered, unconsolidated, fine- to medium-grained sand and silt in the upper portion, with coarse-grained sand and gravel in the lower portion (EPA, 2016). The coarse-grained sands and gravels fill deep channels that were incised into the underlying Troutdale Formation and Columbia River Basalt. This lower coarse-grained unit varies in thickness, ranging from approximately 10 to 200 feet thick along the Willamette River near the Site.

Geological characterization studies of Area 1 indicate the presence of a gravel filled paleochannel that traversed the site in a north-south direction (Squier, 2001). The bottom of the channel appears to be cut into the underlying basalt bedrock about 55 feet below the current ground surface. The channel apparently extends from the Gunderson Machine Shop location, northward through the location of Area 1 former extraction well WEX-60.

Hydraulic conductivity values for the fine-grained fill and alluvium in the Portland Harbor area were summarized in the *Portland Harbor Remedial Investigation Report* (LWG, 2016). The reported ranges of hydraulic conductivities were: silt/clay: 0.005 to 2 feet per day; silty sand: 0.1 to 2 feet per day; and sand: 0.5 to 30 feet per day. In those areas where more permeable sand and gravel zones are present, hydraulic conductivity is expected to be higher.

3.2.3 Bedrock

The CRBG bedrock is present at variable depths along the west side of the Willamette River. The CRBG bedrock has been encountered at the Site at depths ranging from 31 to 160 feet below the ground surface (bgs), with the shallowest CRBG bedrock underlying Area 1. The thickness of the basalt near the Site is estimated to be approximately 600 feet. Borings completed into bedrock on the Site indicated a deposit of weathered basalt gravel at the top of the bedrock, underlain by layered fractured to massive basalt flow units.

Borings in the vicinity of the Site Launchways indicate that the top of the basalt bedrock at that location is more than 160 feet bgs (Squier/Kleinfelder, 2005). Borings at the west side of Area 1 encountered basalt at depths of 31 feet bgs near the river and 49 feet bgs to the south of Front Avenue (Squier, 2002a). Bedrock has not been encountered at borings completed at the Schnitzer ASD Yard.

The hydraulic conductivity of the weathered basalt unit of the CRBG in Area 1 was estimated at 8.84 feet per day based on pump tests performed at monitoring well MW-52 (Squier, 2002a). Hydraulic conductivity values for bedrock at the Site are approximately 50 feet per day in the gravelly fractured and weathered basalt zone, 10 feet per day in the underlying fractured basalt zone, and 0.1 foot per day in the lower unweathered massive basalt zone (Integral, 2005).

3.3 GROUNDWATER OCCURRENCE

Groundwater elevations have been monitored at the Site since the early 1990s. The groundwater elevations and gradients fluctuate seasonally. Hydrographs depicting groundwater elevations and gradients in 2019 are provided in Appendix B. Historical depth to groundwater and groundwater elevations are provided in Appendix C. Figure 3 shows the groundwater monitoring well network at the Site.

Depth to groundwater at the Site generally ranges from 25 to 30 feet bgs in Area 1, 20 to 25 feet bgs in Area 2, and approximately 15 to 20 feet bgs in the Schnitzer ASD Yard. Perched groundwater is sometimes encountered at shallower depths at the Schnitzer ASD Yard. Groundwater elevations are normally highest in the spring (March) and lowest in the fall (September).

The hydraulic gradient indicates that groundwater flow is generally toward the Willamette River throughout the Site. The groundwater gradient is generally relatively flat at Area 1 (approximately 0.0005 to 0.001 foot per foot) and at the downstream portion of Area 2. Steeper groundwater gradients (approximately 0.01 to 0.02 foot per foot) are observed on the upstream portion of Area 2 and at the Schnitzer ASD Yard. This noticeably steeper groundwater gradient in the southern portion of the Site has been consistently observed since at least 1991 (Squier, 1991b).

Groundwater elevations at the Site are affected by the Willamette River stage. Groundwater elevations in some wells exhibit diurnal variability, reflecting Willamette River tidal effects.

To ensure that measured groundwater elevations are correct, the monitoring wells included in the current groundwater monitoring program were re-surveyed in December 2018, using the NAVD88 datum. The vertical datum that was used in surveys conducted prior to 2018 was unclear. The post-2018 survey groundwater elevations and inferred groundwater gradients were generally consistent with the earlier measured elevations and inferred gradients, indicating that the current understanding of groundwater gradients is consistent with historical interpretations.

In 2005, a preliminary groundwater CSM was developed for the Site as part of the EPA-approved Portland Harbor Remedial Investigation. That Site-specific groundwater CSM (Integral, 2005)

concluded that most groundwater at the Site discharges to the Willamette River somewhere offshore and below the mean low water line.

3.4 PREFERENTIAL PATHWAYS

Underground utilities and associated backfill can function as preferential pathways for groundwater. In general, the depth to groundwater at the Site ranges between 15 to 25 feet during seasonal high groundwater periods. Buried utilities at the Site are less than 15 feet deep, except for some stormwater pipes.

Stormwater conveyance systems are depicted on diagrams included in Appendix D. As-built plans showing the invert elevations of the Site stormwater pipes are unavailable and an elevation survey of the Site stormwater outfalls have not been performed. However, a visual inspection of the Site outfalls was conducted in February 2017. Based on a comparison of the outfall elevations with the elevation of the Willamette River at the time of the survey, the elevations of stormwater outfalls are approximately 19.5 feet (NAVD88 datum) or higher, except for City of Portland outfall OF-18. Since the conveyance systems are designed to slope toward the river, the elevations of below grade portions of the stormwater pipes are higher than approximately 19.5 feet (NAVD88), with the exception of outfall OF-18. The stormwater outfalls have been observed during dry weather conditions to confirm that groundwater does not discharge from the stormwater outfalls and surrounding backfill. Collectively, these observations indicate that buried utilities at the Site do not function as preferential pathways for groundwater discharge to the river.

3.4.1 Outfall OF-18

As noted above, portions of the City of Portland outfall OF-18 stormwater pipe and backfill appear to be lower than the seasonally high groundwater level. Dry season discharge from the pipe has not been observed; however, the invert of the outfall is normally submerged in the Willamette River. Thus, in general, dry season discharges from the outfall are difficult or impossible to observe.

To assess the potential for the outfall OF-18 stormwater pipe and backfill to function as a preferential pathway and to affect groundwater quality near the Willamette River, groundwater data collected from monitoring wells near the outfall OF-18 conveyance system were reviewed. Specifically, data collected from monitoring wells MW-17 and MW-31 were reviewed. The locations of these wells and the outfall OF-18 system are shown on Figure 3 and the maps in Appendix D, respectively.

One or more samples from monitoring wells MW-17 and MW-31 have been analyzed for volatile organic compounds (VOCs), total petroleum hydrocarbons (TPH), PAHs, metals, phthalates, and polychlorinated biphenyls (PCBs). Groundwater data for monitoring wells MW-17 and MW-31 are summarized below and listed in Appendix E.

- TPH and PCBs have not been detected above the laboratory method reporting limits (MRLs).
- VOCs have not been detected above the CULs or JSCS SLVs.

- Dissolved metals were analyzed. Only arsenic, manganese, and lead have been detected at concentrations that exceed CULs or JSCS SLVs. Dissolved lead was detected only one time, in March 2019, at a concentration that slightly exceeds the CUL (the detected concentration was 0.591 micrograms per liter [µg/L], compared to the 0.54 µg/L CUL). While arsenic and manganese were detected at concentrations that exceed CULs, the detected concentrations are consistent with naturally occurring regional concentrations (see Section 8.2.3) and are not indicative of impacted groundwater.

- One phthalate, bis(2-ethylhexyl)phthalate (BEHP), has been detected infrequently in groundwater from monitoring wells MW-17 and MW-31, at concentrations (maximum 0.713 µg/L) that slightly exceed the CUL (0.2 µg/L). BEHP is a constituent of polyvinyl chloride (PVC), the material used for the MW-17 and MW-31 well casings. Therefore, the detections of BEHP in monitoring wells MW-17 and MW-31 may be associated with degradation of the well casings and or sampling equipment, rather than a groundwater source. BEHP exhibits low solubility and is relatively immobile in groundwater. Based on the low concentrations detected in wells MW-17 and MW-31, the infrequent detections, and immobility in groundwater, BEHP is not considered a threat to the river as a result of groundwater discharge through a preferential pathway.

- Four PAHs (benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, and chrysene) were detected in well MW-17 at concentrations that slightly exceed the corresponding CULs during the December 2019 groundwater monitoring event. PAHs have not been detected in groundwater from MW-17 or MW-31 at concentrations that exceed the CULs during previous monitoring events. These low, one-time detections of PAHs are not indicative of a significant source of PAHs. In general, PAHs, and in particular high-molecular weight PAHs such as benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, and chrysene, are relatively immobile in groundwater; therefore, the infrequent and low concentration PAH detections in wells MW-17 and MW-31 do not represent a recontamination threat to the river.

Evaluation of groundwater data in the vicinity of other stormwater conveyance pipes is not included in this report, as the invert elevations of other stormwater pipes at the Site are above the seasonally high groundwater elevation at the Site.

3.5 GROUNDWATER MONITORING NETWORK

Geological and hydrogeological conditions at the Site have been evaluated for decades using an extensive network of groundwater monitoring wells. Currently, Gunderson routinely monitors groundwater elevations at 46 monitoring wells and collects periodic samples from 44 monitoring wells that are distributed across the Site. As shown on Figure 3, many of these wells are located close to the riverbank, thus, they are in positions appropriate for evaluating the quality of groundwater discharging to the river and specifically for assessing whether groundwater poses a recontamination risk to the river. Based on the downgradient position of the riverfront wells relative to potential current and historical sources of hazardous substances, the riverfront wells are

effective for monitoring for potential groundwater impacts related to historical releases to soil, ongoing industrial activities, and enhanced stormwater infiltration. In addition to the riverfront wells, the monitoring well network includes numerous other wells that have been constructed near historical releases, infiltration facilities, and potential sources of hazardous substances. These wells enhance the understanding of groundwater conditions Site-wide, and the evaluation of recontamination risks to the river.

4.0 SURFACE WATER

No surface water bodies are present at the Site. Stormwater that accumulates at the Site infiltrates to soil or is conveyed through a network of below grade conveyance lines to 20 Gunderson-owned outfalls at the Willamette River. A very small amount of stormwater runoff discharges from the Site directly to the City of Portland outfall OF-18 conveyance system. Some stormwater that accumulates at the southwest side of the Site discharges to the City of Portland storm sewer system along NW Front Avenue. Stormwater that accumulates in the vicinity of the Launchways (i.e., the Marine Operations Area) is treated in Gunderson's proprietary stormwater treatment system prior to discharging to the Willamette River through outfalls WR-141 or WR-145. Site stormwater drainage system maps showing the drainage basins, outfalls, and conveyance lines are included in Appendix D.

4.1 STORMWATER INFILTRATION

To reduce the volume of stormwater that discharges to the Willamette River, since 2013, Gunderson has established a network of infiltration features at the Site. These features consist of drain rock placed below grade in cut-outs of AC paved areas or drain rock placed below grade in pervious areas with soil that exhibits relatively low permeability. Ninety-seven such stormwater infiltration areas have been established at the Site.

Figures showing the location of infiltration features and a table listing the sizes of the infiltration features are included in Appendix D. The stormwater infiltration features installed since 2013 supplement stormwater infiltration areas that have been active for decades (e.g., unpaved areas of the Schnitzer ASD Yard and the North and South Transfer Tables). Many of the Area 1 Drainage Basin stormwater infiltration features were installed between 2013 and 2015, and the remainder were installed in 2016 and 2019. Infiltration in the Marine Steel Storage Yard Drainage Basin, located in Area 2 of the Site, was initiated in 2014, although most of the infiltration features were established in 2016, and additional features have been added as recently as April 2020. Most of the infiltration features in the Main Street 2 Drainage Basin and the Marine Operations Drainage Basins were established in 2016. Additional features were established in the Main Street 2 Drainage Basin and Marine Operations Drainage Basin between 2016 and the present, although these newer features mainly augmented existing infiltration features in areas already subject to infiltration. The majority of the Schnitzer ASD 3 Drainage Basin (72% of the surface area) and a large portion of the Southern 2 Drainage Basin (29% of the surface area) has been unpaved for the entirety of Site operations. The infiltration features in The Schnitzer ASD 3 Drainage Basin and Southern 2 Drainage Basin were established or enhanced between 2015 and 2019. Thus, facilitated infiltration has been occurring at portions of the Site for six to seven years, and unfacilitated infiltration (e.g., at large unpaved portions of the Schnitzer ASD Yard) has been ongoing for decades.

In addition to the stormwater infiltration at the Site, there is widespread stormwater infiltration in the vicinity of the Site. There is a 100+ acre rail yard directly across Front Avenue to the southwest

of the Site (Figure 2). A significant amount of stormwater infiltration can also occur at the Lakeside property that is immediately adjacent to and downstream of Gunderson to the northeast.

Large-scale stormwater infiltration effects on groundwater quality effectively have been monitored through the quarterly groundwater monitoring program that has been ongoing at the Facility for many years. To further assess potential stormwater infiltration effects on groundwater, particularly at smaller time scales and smaller spatial scales, a focused stormwater infiltration monitoring program was initiated in 2019 (Cascadia, 2019d). Eleven groundwater monitoring wells were installed downgradient of stormwater infiltration features, and pressure transducers were installed in six Area 1 monitoring wells to evaluate for potential short-term infiltration effects on groundwater. A chemical analytical program, developed in coordination with DEQ, was implemented specifically to evaluate for stormwater infiltration effects on groundwater.

The results of the stormwater infiltration monitoring program, after six months of transducer monitoring and three quarterly monitoring events of the 11 newly installed wells, were presented in the *Fourth Quarter 2019 Groundwater Monitoring Report* (Cascadia, 2020). Those results indicate that: (1) groundwater quality has not been adversely affected by stormwater infiltration; (2) large scale changes to groundwater elevation, gradient, or observations of groundwater mounding due to stormwater infiltration have not been observed; and (3) small, short-term, transient effects on groundwater elevation and temperature were observed after long-duration or high intensity rain events. The scope and results of the stormwater infiltration monitoring program are discussed in more detail in Section 8.

5.0 SITE HISTORICAL USE

Areas 1 and 2 of the Site are characterized by a development and operations history that is distinct from the development and operations history of the Schnitzer ASD Yard; therefore, Site history is presented separately for these parts of the Site. Site historical use has been described in numerous documents that have been submitted to DEQ and EPA, including the *Groundwater Source Control Evaluation* (Shaw, 2011a) and the Gunderson LLC response to the EPA Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 104(e) information request (Gunderson LLC/Gunderson Marine LLC, 2008).

5.1 AREAS 1 AND 2

Gunderson Brothers acquired an 11-acre portion of the Site in 1941 that was undeveloped at that time. This property was located in what today is Area 1 and a small portion of Area 2. After acquiring the property, Gunderson Brothers constructed a boat-building plant and commenced building small boats for the Navy, including lifeboats, landing craft mechanized (LCMs), and landing craft control (LCCs). In the mid-1940s, Gunderson Brothers added the manufacture of truck trailers to the Site. By the end of World War II in 1945, Gunderson Brothers had built a steel fabricating shop, marine railway, and shipways at Area 1. Following World War II, the company began manufacturing relatively small commercial boats and barges. In the 1950s, Gunderson Brothers continued to manufacture small pond boats and dredge tenders, in addition to filling Navy orders for LCMs, barges and tugboats. The company also built various metal structures, including steel beams, storage tanks, and dam gates.

In the late 1950s and early 1960s, Gunderson Brothers began manufacturing rail cars. Gunderson Brothers also continued to build various vessels until being acquired by FMC in 1965. In the 1960s, barges and boats constructed by FMC at the Site became longer and larger, and the company continued to build vessels for the Navy. In the mid- to late-1970s, double-hulled, gas turbine-powered oil tankers were built at the Site for Chevron. The final Chevron tanker was launched in 1977, after which time, only barges were built at the Gunderson Site. Then, barge building ceased at the Site in 1984. In 1985, Gunderson LLC (then known as Gunderson, Inc.) acquired the property and assets, including the "Gunderson" name and began its own rail car manufacturing. Gunderson LLC began building barges in 1993.

5.2 SCHNITZER ASD YARD

In 1955, a large portion of the Schnitzer ASD Yard was submerged or submersible land. The area in the Willamette River adjoining the Schnitzer ASD Yard was being used for log storage. Filling of the land began and ship dismantling operations were conducted at the Schnitzer ASD Yard as early as 1958. By 1965, the Schnitzer ASD Yard was completely filled, the Outfitting Dock was built, and the 3-Bay Building had been constructed. Between 1965 and 1967, rail lines were constructed and the Stevedore Building was built. By 1973, the Outfitting Dock had been extended at the upstream end.

Historic activities on the Schnitzer ASD Yard included the dismantling of ships from approximately 1961 to 1973 and automobile demolition and shredding from approximately 1973 to 1980. In 1980, FMC acquired the Site from Schnitzer Investment Corp, some debris and equipment were removed, and the Site was regraded to raise the bank and make the ground surface more uniform. In 1985, Gunderson LLC acquired the Schnitzer ASD Yard, along with the remainder of the Site from FMC. Gunderson has used the Schnitzer ASD Yard for materials and equipment storage since that time.

5.3 SUMMARY OF COI ASSOCIATED WITH HISTORICAL OPERATIONS

The following chemicals may be associated with the historical operations at the Site and are considered COI for groundwater:

- Petroleum hydrocarbons (gasoline, diesel, and oil);
- PAHs;
- VOCs, including halogenated VOCs (HVOCs);
- Metals including antimony, arsenic, barium, cadmium, chromium, copper, lead, manganese, mercury, nickel, and zinc;
- Phthalates;
- Tributyltin (TBT);
- Dioxins/furans; and
- PCBs.

6.0 DOCUMENTED RELEASES

Soil and groundwater at the Site have been affected by hazardous substances that have been released during historical operations, such as the historical use of the Schnitzer ASD Yard for automobile shredding and ship dismantling. A detailed summary of spills and releases that have occurred at the Site was included in the CERCLA Section 104(e) response that Gunderson submitted to EPA on July 30, 2008. A total of 24 releases were listed in the CERCLA Section 104(e) response (Gunderson LLC/Gunderson Marine LLC, 2008). Of those releases, 15 were minor, were immediately cleaned up, and after the immediate response, required no follow-up remediation. Historical releases are listed in Table 1. Nine releases required remediation or were the subject of follow-up investigations. These nine releases are discussed below. The release numbers correspond to the CERCLA Section 104(e) response. The locations of these nine releases are shown on Figure 4.

6.1 AREA 1 RELEASE NO. 2 (USTs 3, 4, AND 5)

Three gasoline underground storage tanks (USTs) were removed from the northwest portion of Area 1 in 1991 (Figure 4). The USTs were located approximately 450 feet from the Willamette River. The USTs ranged in size from 1,000 to 6,000 gallons. No indications of contamination were identified during the UST excavation. Soil samples collected from the excavation sidewalls indicated the presence of gasoline-range hydrocarbons at concentrations ranging between 14 and 39 milligrams per kilogram (mg/kg; Obrist, 1991).

Well MW-21 (Figure 3), downgradient of the USTs, was sampled for benzene, toluene, ethylbenzene, and xylenes (BTEX) during a 1991 groundwater investigation, and none of these petroleum-related VOCs were detected at concentrations that exceeded the laboratory method detection limits (MDL; Squier, 1991b). Additionally, for the last nine years, downgradient wells MW-21, MW-27, and MW-71 have been sampled for BTEX on a quarterly to semi-annual basis. Petroleum constituents (i.e., petroleum hydrocarbons and BTEX) have never been detected above the laboratory MRLs in groundwater from those monitoring wells.

Figure 5 shows the location of the former USTs, the approximate extent of impacts to environmental media (i.e., the UST excavation and the soil immediately surrounding the excavation), and the results of groundwater monitoring downgradient of the USTs. The absence of petroleum hydrocarbon constituents in downgradient groundwater monitoring wells and the very low concentrations of petroleum hydrocarbons in soil detected during the UST excavation indicate that this release did not affect groundwater and that this release is not a source of contamination to the river.

6.2 AREA 1 RELEASE NO. 3 (1,1,1-TRICHLOROETHANE TANK)

A degreasing tank in the southwest corner of the plate shop ruptured in 1980 when a rail car axle was accidentally dropped into the tank. The location of this release is shown on Figure 4. Reportedly, approximately 200 gallons of 1,1,1-trichloroethane (TCA) were released to the paved floor of the building. Subsurface investigations were conducted in the mid to late 1990s, which

showed that concentrations of TCA were present in soil (maximum 56 mg/kg) and groundwater (maximum 170 milligrams per liter [mg/L]). The highest concentrations of TCA in groundwater were detected at or in close proximity to the release location. A downgradient groundwater extraction system was activated in 2004 at well WEX-60. An air sparge/soil vapor extraction (AS/SVE) system was activated at and near the release location in 2007. These remediation systems were used to remove TCA from the subsurface and to prevent migration of associated HVOCs to the Willamette River. A network of monitoring wells was installed to monitor the effectiveness of the remediation systems. Figure 6 shows the historical extent of total molar HVOCs in Area 1 groundwater (in May 2006). The May 2006 monitoring event offers the most comprehensive available historical dataset.

In 2013, a capture zone evaluation was performed for extraction well WEX-60 (Figure 3). That evaluation concluded: (1) VOC concentrations in groundwater at Area 1 had decreased to levels less than or only slightly exceeding DEQ screening criteria; and (2) the extraction well had ceased having a significant effect on groundwater concentrations (Ash Creek Associates/Apex Companies, 2013). In early 2014, DEQ authorized suspension of groundwater treatment at Area 1, contingent on Area 1 HVOC concentrations in groundwater remaining stable to decreasing. The system was deactivated on July 16, 2014.

The risk that VOCs in Area 1 groundwater pose to the Willamette River was evaluated in detail in the *Revised Updated Groundwater Source Control Evaluation* (Cascadia, 2017a). That report concluded that the VOC concentrations in Area 1 groundwater are a low risk to the Willamette River, concentrations are stable to decreasing, and therefore, future risks will be even lower. This conclusion is consistent with the findings of the *Portland Harbor Remedial Investigation Report* (Lower Willamette Group, 2016). The *RM 9 West Draft Sufficiency Assessment Report* for the RM 9 West project area similarly concluded that Area 1 Release No. 3 does not pose a significant threat to the river (Foth, 2020).

Ongoing groundwater monitoring since 2017 has shown that concentrations of VOCs in Area 1 continue to demonstrate stable to decreasing trends, even in the absence of groundwater treatment. The current Area 1 groundwater monitoring well network includes 22 groundwater monitoring wells, screened at many depth intervals from 15 feet bgs to 101 feet bgs (Table 2). Figure 7 shows the current extent of total molar HVOCs in groundwater, based on results of the Fourth Quarter 2019 monitoring event. A comparison of 2019 HVOC concentrations with 2006 HVOC concentrations (Figure 6) demonstrates that the molar mass of HVOCs in groundwater has decreased by three orders of magnitude in some areas, and the lateral extent of HVOCs in groundwater that exceeds CULs has been substantially reduced. Additional discussion regarding the current extent and magnitude of HVOCs in exceedance of CULs is discussed further in Section 8.2.3.

6.3 AREA 2 RELEASE NOS. 5 AND 8 (USTs 6 AND 7)

Two 1,000-gallon USTs that were located north of the Administration Building were decommissioned in 1991. These USTs were approximately 600 feet from the Willamette River, in

the location shown on Figure 4. The USTs were used to store gasoline and solvent. The solvent that had been stored in UST 6, known as Solvent 251, was reportedly composed of 73 to 83 percent toluene and 17 to 24 percent petroleum distillates (Squier, 1997a).

During UST decommissioning, gasoline- and diesel-range hydrocarbons were detected in soil in the excavation (maximum concentrations of 22,000 and 260 mg/kg, respectively; Obrist, 1991). Additional soil samples were collected in the UST excavation area in 1994 and 1995. Those soil samples were analyzed for VOCs and reportedly contained ethylbenzene up to 10.0 mg/kg and total xylenes up to 17.0 mg/kg. Chlorobenzene and toluene also were detected, but at lower concentrations (Squier, 1997a). No other VOCs were detected in the soil samples.

Monitoring well MW-35, shown on Figure 8, was installed immediately adjacent and downgradient of UST excavation in 1997 to assess impacts to groundwater (Squier, 1997a). Reportedly, BTEX were not detected in soil samples collected during completion of well MW-35. Benzene and toluene were detected at concentrations of 1.08 µg/L and 1.62 µg/L, respectively, in groundwater samples collected following well installation and development. Ethylbenzene and xylenes were not detected in the groundwater sample. Well MW-35 was sampled on a quarterly schedule between December 1996 and November 1997, and samples were analyzed for BTEX. BTEX were not detected above the laboratory MDL in the second through fourth quarter 1997 groundwater monitoring events (Squier, 1997b). Based on these results, DEQ concluded that the release posed no threat to human health and the environment. Consequently, DEQ issued a no further action determination for the release in 1998.

Well MW-84 was installed in June 2019 as part of the stormwater infiltration monitoring program. The well was installed approximately 100 feet north of the edge of the UST excavation (i.e., cross-gradient/downgradient of the release). No VOCs, including BTEX, have been detected above the MRL during the quarterly groundwater monitoring of well MW-84. This further supports that Release Nos. 5 and 8 are not current sources of impacts to groundwater.

Figure 8 shows the location of the excavated USTs, estimated extent of impacts, and results of groundwater samples collected from wells MW-35 and MW-84. Based on the absence of chemical concentrations in groundwater at the release area (represented by well MW-35) and DEQ's no further action determination, this release appears to pose no threat to the Willamette River.

6.4 AREA 2 RELEASE NO. 6 (UST 11) AND NO. 7

A 3,000-gallon UST that was located in the Finish and Paint Building and contained xylenes and toluene was decommissioned in place in October 1991. This UST was approximately 450 feet from the Willamette River. The location of the release is shown on Figure 4.

Soil samples collected near the UST contained petroleum hydrocarbons, ethylbenzene, toluene, xylenes, and several PAHs. In 1991, groundwater samples collected from borings approximately 50 feet downgradient of the UST reportedly contained toluene and xylenes at concentrations up to 190 mg/L and 0.230 mg/L, respectively (Squier, 1991a). In close proximity to the UST, toluene was detected in groundwater, which was believed to be a result of historic paint stencil washing with

toluene. Monitoring well MW-17 was installed in 1991 near the location of the borings that exhibited the highest concentrations of toluene and xylenes. Monitoring well MW-31 was installed immediately adjacent and downgradient to the former UST location. In 1998, an SVE system was installed near the decommissioned UST. The SVE system was operated for several years.

Figure 9 shows the location of the UST, the approximate historical pre-SVE system extent of impacts to groundwater, and the most recent groundwater monitoring results for wells located adjacent to or downgradient of the release. Groundwater samples have been collected from four groundwater monitoring wells that are downgradient of the UST (i.e., wells MW-17, MW-31, MW-83, and MW-92). Monitoring wells MW-17 and MW-31 are in close proximity (i.e., within 50 feet) to the UST excavation, whereas monitoring wells MW-83 and MW-92 are downgradient but more distant from the UST excavation area. Monitoring well MW-17 has been sampled on a quarterly or semi-annual schedule since at least 2010. BTEX have not been detected above the MRL. Monitoring well MW-31 was sampled in 2009 and again, most recently, in 2019. BTEX were not detected above the MRLs during either monitoring event. Similarly, BTEX have not been detected above the MRLs in wells MW-83 and MW-92. These results support that Release Nos. 6 and 7 are not a source of hazardous substances to the Willamette River.

6.5 AREA 2 – EQUILON PIPELINE GASOLINE RELEASE AND RELEASE NO. 11

In 1997, a gasoline release from an Equilon-owned pipeline was discovered in the Equilon (formerly Texaco) easement at the southwest side of the Site, approximately 600 feet from the Willamette River. The location of the release is shown on Figure 4. A network of groundwater monitoring wells (SWM-1 through SMW-18; Figure 3) was installed by Equilon between 1997 and 2002 to assess the effects of the release on groundwater. Wells SMW-1 through SMW-10 were installed at and near the release location. Well SMW-11 was installed approximately 250 feet downgradient of the release along the former Equilon pipeline alignment, and wells SMW-12 through SWM-18 were installed 400 to 650 feet downgradient from the release near the Willamette River. Initially, concentrations of gasoline-range petroleum hydrocarbons and benzene were detected in groundwater at the release area (wells SMW-1 through SMW-10) at concentrations up to 94,300 µg/L and 18,900 µg/L, respectively (URS, 2013).

An AS/SVE system was installed at the release area in 1998 to remediate the gasoline impacts (URS, 2013). The system operated until 2003 and was decommissioned in 2007.

In 1999, while remediation of the gasoline release was ongoing, an inactive pipeline within the Equilon easement was damaged by a contractor installing fiber optic cables. The inactive pipeline contained residual oil-range hydrocarbons, which were released to soil. The impacted soil was excavated from the pipe damage location. Confirmatory soil samples indicated that post-excavation soil did not contain TPH (URS, 2013). The release occurred between monitoring wells SMW-4 and SMW-8. Groundwater samples collected from wells SMW-4 and SMW-8 did not exhibit petroleum hydrocarbon impacts from the 1999 release.

Groundwater monitoring of the SMW wells, which was performed until 2009, showed that gasoline impacts to groundwater were limited to the area near the 1997 release, and groundwater near the river did not contain concentrations of gasoline and associated constituents that exceeded CULs or JSCS SLVs. An excerpt from the *Shell Portland Terminal Revised Source Control Evaluation Final* report, which lists historical groundwater monitoring data for petroleum hydrocarbons, BTEX, and naphthalene in wells SMW-1 through SWM-18, is included in Appendix F (URS, 2013).

In 2013, DEQ issued a source control decision for the Equilon facility, including the 1997 and 1999 releases at the Gunderson Site. DEQ stated, "it does not appear that historical pipeline corridor release currently represents a threat to the Willamette River" (DEQ, 2013b). The network of groundwater monitoring wells installed specifically to evaluate this release area was decommissioned in 2018.

6.6 SCHNITZER ASD YARD RELEASE NO. 15 (USTs 1 AND 2)

A 3,000-gallon fuel oil UST and a 5,000-gallon gasoline UST were decommissioned at the Schnitzer ASD Yard, at a location approximately 500 feet from the river, in 1991 (Figure 4). Reportedly, diesel-range hydrocarbons were detected in soil in a sidewall of the excavation at concentrations up to 370 mg/kg. One groundwater sample that was collected from the center of the excavation was analyzed for BTEX. BTEX were not detected above the laboratory method reporting limits. No monitoring wells were installed at the UST excavation. However, a network of groundwater monitoring wells is present between the location of the former USTs and the Willamette River, including at locations along the Schnitzer ASD Yard riverbank.

Figure 10 shows the extent of known impacts of this release, as well as the results of groundwater monitoring that has been conducted downgradient of the USTs. Monitoring wells MW-73, MW-76, MW-77, and MW-87 are located between the release area and the Willamette River (Figure 3). These wells have been monitored for a wide range of constituents including diesel- and oil-range petroleum hydrocarbons, PAHs, and VOCs. As shown in Tables 3 and 5, detected concentrations of VOCs and PAHs in groundwater in these wells, respectively, do not exceed CULs/JSCS SLVs. As noted above, CULs have not been established for diesel- or oil-range petroleum hydrocarbons, but concentrations of petroleum hydrocarbons in these wells have consistently been low to non-detectable. Historical groundwater monitoring results demonstrate similar patterns of low to non-detectable concentrations of petroleum-related constituents, as shown in Appendix E.

Many years of downgradient groundwater monitoring data demonstrate that residual contaminants in soil at the 1991 UST decommissioning area are not a source of groundwater contamination to the Willamette River. Figure 10 shows the location of the UST 1 and UST 2 excavation, the inferred groundwater flow direction(s) based on historical observations, and the recent TPH, BTEX, and PAH results in downgradient groundwater monitoring wells MW-73, MW-76, MW-77, and MW-87. Additional data for these wells are presented in the historical data tables in Appendix E.

6.7 SCHNITZER ASD YARD RELEASE NOS. 17 AND 18

A Phase I Environmental Site Assessment (ESA) was performed at the Schnitzer ASD Yard in 1990. During that assessment, stained soil and three slag disposal areas were observed at the southeastern part of the Schnitzer ASD Yard, in the area shown on Figure 4. In 1991, three borings were advanced to evaluate soil quality in that area. Soil and groundwater samples collected from the borings were analyzed for petroleum hydrocarbons, lead, sulfates, and VOCs. Soil samples exhibited petroleum hydrocarbon concentrations (57 to 1,400 mg/kg), lead (15 to 41 mg/kg), and sulfates (34 mg/kg). Groundwater samples exhibited concentrations of petroleum hydrocarbons (4 to 12 mg/L), chromium (20 µg/L), lead (860 to 27,000 µg/L), and sulfates (2,000 to 34,000 µg/L). VOCs were not detected in soil or groundwater. Chemical concentrations detected in groundwater samples collected from temporary borings, in particular metals concentrations, may have been biased high due to the presence of entrained solids in groundwater samples collected from temporary borings.

Gunderson has installed a network of monitoring wells at the Schnitzer ASD Yard riverbank. Wells MW-73, MW-76, MW-77, MW-79, and MW-87 are located along the riverbank between the area assessed in 1990 and the Willamette River and, therefore, are suitable for evaluating whether significant concentrations of hazardous substances are migrating in groundwater from the Schnitzer ASD Yard to the Willamette River. Groundwater sampling results for petroleum hydrocarbons, lead, chromium, and VOCs from wells MW-73, MW-76, MW-77, MW-79, and MW-87 are summarized below and are presented in Appendix E:

- VOCs: MW-73, MW-76, MW-77, and MW-79 were sampled for VOCs for four quarters between December 2017 and March 2019. MW-87 has been sampled quarterly since the well was installed in June 2019. No VOCs have been detected above the MRL except for o-xylenes in well MW-73 during two of four events. The maximum detected concentration of o-xylenes in well MW-73 (0.650 µg/L) is more than an order of magnitude lower than the corresponding CUL (13 µg/L).

- Lead: Dissolved lead concentrations rarely exceed CULs (4 out of the 32 available sampling results with a maximum exceedance ratio[3] of 1.6). Total lead concentrations, which are not representative of the mobile fraction of lead in groundwater, generally exceed CULs in wells MW-73 and MW-79 and sporadically exceed CULs in wells MW-76, MW-77, and MW-87.

- Chromium: Dissolved chromium has never been detected in these wells at concentrations in exceedance of the CUL. Total chromium has not been detected above the CUL since low-flow sampling was initiated in 2012. Prior to 2012, the wells were sampled using bailers. This sampling method typically results in entrained solids in the sample and a potentially high bias for metals concentrations.

[3] Exceedance Ratio = Detected Concentration/Regulatory Criteria

- TPH: Low to non-detectable concentrations of diesel- and oil-range petroleum hydrocarbons were historically detected in wells MW-73, MW-76, MW-77, and MW-79. No petroleum hydrocarbons have been detected above the MRL in groundwater samples collected from these wells since 2018. No CULs or JSCS SLVs have been established for diesel- or oil-range petroleum hydrocarbons.

These monitoring well data demonstrate that the hazardous substances in soil reported in 1990 are not a source of groundwater contamination to the Willamette River. Figure 11 shows the location of releases No. 17 and 18, the inferred groundwater flow direction(s) based on historical observations, and the Fourth Quarter 2019 TPH, BTEX, PAH, dissolved lead, and dissolved chromium results in downgradient groundwater monitoring wells MW-73, MW-76, MW-77, and MW-87 and well MW-72, located near the release area. For additional data collected from these wells, refer to the historical data tables in Appendix E.

6.8 SUMMARY OF COI ASSOCIATED WITH HISTORICAL RELEASES

The following chemicals may be associated with the historical releases described in this section and are considered COI for groundwater:

- Petroleum hydrocarbons (gasoline, diesel, and oil);
- PAHs;
- VOCs, including HVOCs; and
- Metals including antimony, arsenic, barium, cadmium, chromium, copper, lead, manganese, mercury, nickel, and zinc.

7.0 SOIL CONDITIONS

Many soil investigations have been conducted at the Site since 1990, including soil investigations following releases (described in Sections 6.1 to 6.7), a remedial investigation and focused remedial investigation in the Schnitzer ASD Yard (Squier/Kleinfelder, 2005, 2006a), a focused remedial investigation in Area 2 (Squier/Kleinfelder, 2006b), and more recent SCEs that have been focused on riverbank areas. These investigations, including those that were conducted prior to the initiation or completion of remedial actions, have been summarized in numerous reports, which have been provided to EPA and DEQ. The majority of chemical analytical data for Site soil are described in:

- *Soil and Ground Water Sampling and Testing* (Squier, 1991a);
- *Additional Soil and Groundwater Investigation* (Squier, 1997b);
- *Monitoring Well MW-35* (Revised) (Squier Associates, 1997a);
- *Request for No Further Action Designation UST#6 Site* (Squier, 1997a);
- *Subsurface Investigation in the Vicinity of Aromatic Solvent Tank* (Squier, 1996);
- *Subsurface Investigation in the Vicinity of the TCA Dip Tank Area* (Squier, 1996*)* and several subsequent reports documenting assessment of Release No. 3 (Section 6.2);
- *Preliminary Site Assessment, Gunderson Area 2* (Squier, 2002a);
- *Expanded Preliminary Site Assessment, Gunderson Area 3* (Squier, 2002c);
- *Remedial Investigation, Gunderson Area 3, Former Schnitzer Steel Yard* (Squier/Kleinfelder, 2005);
- *Focused Remedial Investigation and Preliminary Upland Source Evaluation, Gunderson Area 3 – Former Schnitzer Steel Yard* (Squier/Kleinfelder, 2006a);
- *Focused Remedial Investigation and Preliminary Upland Source Evaluation, Gunderson Area 2 – Rail Car and Marine Barge Assembly Area* (Squier/Kleinfelder, 2006b);
- *Area 2 – Erodible and Riverbank Soil Source Control Evaluation* (Shaw, 2011b); and
- *Area 3 – Erodible and Riverbank Soil Source Control Evaluation* (Shaw, 2011c).

Soil samples collected during the previous investigations have been analyzed for: (1) VOCs, including HVOCs and petroleum related VOC constituents; (2) semi-volatile organic compounds (SVOCs) including PAHs, carbazole, phenols, and phthalates; (3) gasoline-, diesel-, and oil-range petroleum hydrocarbons; (4) metals, including antimony, arsenic, barium, beryllium, cadmium, chromium, copper, lead, manganese, mercury, nickel, selenium, silver, thallium, and zinc; (5) PCBs, (6) TBT; (7) dioxins/furans; (8) herbicides (including 2,4,5-TP [Silvex], pentachlorophenol, 2,4-dichlorophenoxyacetic acid [2,4-D]); and (9) organochlorine pesticides (including DDD, DDE, DDT, aldrin, chlordane, and dieldrin). Only riverbank samples were analyzed for herbicides and organochlorine pesticides, and only a limited number of riverbank and upland soil samples have been analyzed for dioxins/furans.

Impacts to soil in Area 1 appear to be limited to HVOCs. The source of HVOCs, the 1980 TCA release, was remediated by the AS/SVE system that operated in Area 1 starting in 2007. In Area 2 and the Schnitzer ASD Yard, concentrations of VOCs, SVOCs, petroleum hydrocarbons, metals, and PCBs

have been historically detected in soil. These soil impacts are related to documented releases (see Sections 6.1 to 6.7) and releases that are undocumented but apparently occurred during routine operations (e.g., dismantling of ships and automobile demolition and shredding at the Schnitzer ASD Yard) and Site development (e.g., grit blasting and grading prior to construction of the Marine Paint and Blast Building).

7.1 SUMMARY OF COI DETECTED IN SOIL

The following chemicals and chemical groups were detected in one or more upland or riverbank soil samples and are considered COI for groundwater:

- Petroleum hydrocarbons (gasoline, diesel, and oil);
- PAHs;
- VOCs, including HVOCs;
- Metals including antimony, arsenic, barium, cadmium, chromium, copper, lead, manganese, mercury, nickel, selenium, and zinc;
- Butyltins, including TBT;
- Dioxin/furans;
- Pesticides/herbicides, specifically DDD, DDE, DDT, chlordane, dieldrin, pentachlorophenol, 2,4,5-TP (Silvex), and 2,4-D;
- Phthalates; and
- PCBs.

Metals detected in soil at concentrations less than DEQ background concentrations for the Portland Basin (DEQ, 2013a) are not included in the above COI list.

8.0 GROUNDWATER ASSESSMENT

Gunderson has evaluated groundwater conditions at the Site for more than 30 years. The following sections describe the history of groundwater assessment, SCE, and groundwater remediation at the Site (Section 8.1), and current groundwater conditions and trends (Section 8.2). The information presented in this Section demonstrates that the scope of groundwater assessment completed at the Site has included all COI that may pose a groundwater recontamination risk to the Willamette River.

8.1 HISTORY OF GROUNDWATER ASSESSMENT, SOURCE CONTROL EVALUATION, AND REMEDIATION

Groundwater conditions at the Site have been evaluated using an extensive network of monitoring wells and temporary borings. As discussed in Sections 6.1 to 6.7, groundwater assessments have been performed: (1) at the TCA release area at Gunderson Area 1; (2) at and near former USTs at Area 1, Area 2, and the Schnitzer ASD Yard; (3) near areas of observed impacts to soil at the Schnitzer ASD Yard; (4) at multiple locations near and downgradient of groundwater infiltration areas; (5) downgradient of the Equilon-owned pipeline release (by others); and (6) during routine ongoing Sitewide groundwater monitoring. These assessments have resulted in a detailed understanding of the nature and extent of hazardous substances in groundwater at the Site and groundwater concentration trends. This section provides a chronology of the groundwater assessment, source control, and groundwater remediation that have been completed at the Site.

8.1.1 1990s Groundwater Assessment and Remediation

Groundwater monitoring was initiated at the Site 30 years ago, in 1990. As described in Section 6, groundwater investigations were completed at several release locations during the early 1990s. Much of the current groundwater monitoring well network was installed during the 1990s. In 1990, 15 groundwater monitoring wells were installed at Areas 1 and 2 and the Schnitzer ASD Yard. Fourteen groundwater monitoring wells were installed in 1991. Subsequently, seven additional wells were installed at Area 2 near and downgradient of USTs 6 and 7. These wells were installed to evaluate groundwater conditions near former UST systems and other potential sources of contamination. In 1993, five of the wells that were installed near USTs 6 and 7 were decommissioned because they were no longer necessary for evaluating groundwater impacts. In 1995, an additional well (MW-34) was installed in Area 1 to define the upgradient extent of the TCA release impacts. In 1996, well MW-35 was installed downgradient of UST 6. In 1998, Gunderson installed additional groundwater monitoring wells at the TCA release area. Also, in 1998, Gunderson activated a vapor extraction system to address soil contamination near UST No. 11.

8.1.2 2000s Groundwater Assessment

In 2000, five additional monitoring wells (MW-49 through MW-53) were installed in Area 1. In 2004 and 2005, as part of remedial investigations in Area 2 and the Schnitzer ASD 3 Yard, MW-66

was installed in Area 2 and seven wells were installed along the top of bank and inland in the Schnitzer ASD Yard. Two additional wells, MW-80 and MW-81, were installed in 2007.

8.1.3 Groundwater Remediation – Area 1 TCA Release

In 2001, well MW-62 and a groundwater extraction well (WEX-60) were installed. In 2004, a groundwater extraction system was installed in Area 1 to remediate TCA and associated HVOCs. In 2004 and 2005, Area 1 vapor extraction wells were installed along with monitoring wells MW-70 and MW-71. In 2007, an AS/SVE system was activated in Area 1 to treat the source zone of the TCA release.

8.1.4 2010 Groundwater Source Control Evaluation

In 2010, Gunderson initiated a groundwater SCE. That evaluation included an expanded groundwater monitoring program encompassing wells in Areas 1 and 2 and the Schnitzer ASD Yard. The *Groundwater Source Control Evaluation* report was submitted to DEQ in 2011 (Shaw, 2011a). The conclusions detailed in that report, and subsequent DEQ comments are summarized below.

- Groundwater in Area 1 was classified as a low priority for source control because VOC concentrations were generally decreasing and the groundwater treatment system was operational. DEQ concurred that the Area 1 plume appeared to pose minimal risk to the Willamette River and recommended a performance evaluation/optimization analysis for the groundwater extraction system. That analysis was performed, resulting in deactivation of the groundwater treatment system.

- Groundwater in Area 2 and the Schnitzer ASD Yard was classified as medium priority for source control because chemical concentrations in groundwater at some locations exceeded JSCS SLVs, and in some cases exceedance ratios were considered elevated. A weight-of-evidence evaluation for PAHs and metals in groundwater at Area 2 and the Schnitzer ASD Yard was requested by DEQ, and DEQ recommended that groundwater samples be collected in riverfront wells and analyzed for dissolved metals to further evaluate mobility of metals in groundwater. Gunderson has collected groundwater samples from the riverfront wells for the subsequent nine years to further evaluate chemical concentrations in groundwater.

8.1.5 2013 Supplemental Groundwater Source Control Evaluation

The *Supplemental Groundwater Source Control Evaluation Report* was submitted to DEQ in 2013 (Ash Creek, 2013) in response to DEQ comments. The report included a weight-of-evidence evaluation for PAHs and metals in Areas 2 and the Schnitzer ASD Yard and a capture zone evaluation of the Area 1 groundwater treatment system. The report concluded:

- Due to infrequent JSCS SLV exceedances, low exceedance factors, absence of bioaccumulation concern, and/or absence of significant sediment impacts for some chemicals, groundwater at the Site does not pose a significant threat to sediment and water

quality in the Willamette River and groundwater should be considered a low priority for source control.

- The evaluation of the Area 1 groundwater extraction and treatment system indicated that the system had been effective for minimizing the migration of VOCs to the Willamette River. However, it was concluded that continued operation of the system was not significantly affecting groundwater concentrations, as VOC concentrations in groundwater were trending downward across Area 1, even in areas outside of the influence of the system.

8.1.6 2013 Completion of Groundwater Remediation – Area 1 TCA Release

In 2013, a capture zone evaluation was performed for Area 1 groundwater extraction well WEX-60. That evaluation concluded: (1) VOC concentrations in groundwater at Area 1 had decreased to levels less than or only slightly exceeding DEQ screening criteria; and (2) the extraction well was no longer having a significant effect on groundwater concentrations. Based on these conclusions, shutdown of the groundwater extraction and treatment system was proposed in the *Fourth Quarter 2013 Groundwater Monitoring Report* (Apex, 2014).

In a May 15, 2014 letter, DEQ authorized suspension of groundwater treatment at Area 1, contingent on VOC concentration trends in Area 1 groundwater remaining stable to decreasing. The system was deactivated on July 16, 2014. Since the system was deactivated, 20 quarterly groundwater monitoring events have been performed.

8.1.7 2016 SMW-12 Area Investigation

In 2016, DEQ requested additional groundwater investigation in the vicinity of former monitoring well SMW-12, as a result of detections of low concentrations of trichloroethene in groundwater samples during several groundwater monitoring events prior to 2015. In 2017, a groundwater investigation was conducted to evaluate groundwater quality between former well SMW-12 and the Willamette River. No VOCs were detected above the CULs or JSCS SLVs, and trichloroethene was not detected above the MRL (Cascadia, 2017a).

8.1.8 2017 Revised Updated Groundwater Source Control Evaluation

In 2017, the *Revised Updated Groundwater Source Control Evaluation* was submitted (Cascadia, 2017a). The *Revised Updated Groundwater Source Control Evaluation* evaluated the concentrations of constituents in groundwater and included: (1) a comparison of those concentrations to applicable screening criteria, (2) a weight-of-evidence evaluation for those constituents exceeding screening criteria, and (3) an assessment of VOC concentration trends in Area 1 of the Site subsequent to the deactivation of the groundwater extraction and treatment system in July 2014.

The report concluded that chemicals in Site groundwater are a low risk to the Willamette River and do not warrant source control measures, and that utility corridors at the Site are not functioning as a preferential pathway for groundwater discharge to the Willamette River. Following submittal of the *Revised Updated Groundwater Source Control Evaluation*, DEQ/EPA requested that the

groundwater monitoring program be expanded to include VOC testing at Schnitzer ASD Yard monitoring wells. DEQ/EPA also requested that a groundwater CSM be prepared for the Site to facilitate a groundwater source control decision.

8.1.9 2017 to 2018 Schnitzer ASD Yard VOC Investigation

Beginning in December 2017, four calendar quarters of VOC sampling were conducted at select groundwater monitoring wells in the Schnitzer ASD Yard. The VOC data are summarized in Section 8.2.2 and listed in Table 3. No significant concentrations of VOCs were detected in groundwater at the Schnitzer ASD Yard.

8.1.10 2018 to Present Groundwater Concentration Trend Evaluation

DEQ requested trend analyses to evaluate post-treatment groundwater conditions at the Site. Based on data from the fourth quarter 2018 to the present, Gunderson has performed statistical evaluation of post-treatment chemical concentrations in groundwater at the TCA release area using the EPA Groundwater Statistics Tool. This evaluation has consistently demonstrated that chemical concentrations, including individual VOCs and total molar HVOCs concentrations, in groundwater are extremely low and concentration trends are stable or decreasing. The most recent concentration trend evaluation, performed after the fourth quarter 2019 groundwater monitoring event, is detailed in Section 8.2.3.

Current groundwater conditions and concentration trends are discussed in more detail in the *Fourth Quarter 2019 Groundwater Monitoring Report*, including the results of the stormwater infiltration monitoring study (Cascadia, 2020). These conditions are discussed in more detail in Section 8.2.

8.1.11 2019 to Present Stormwater Infiltration Monitoring

As noted in Section 4.0, since 2013, Gunderson has established multiple, widely dispersed stormwater infiltration facilities at the Site to reduce the volume of stormwater discharge. These recently established infiltration facilities supplement stormwater infiltration areas that have been active for decades (e.g., unpaved areas of the Schnitzer ASD Yard and the North and South Transfer Tables). DEQ requested that Gunderson develop and implement a plan to evaluate the effects of stormwater infiltration on groundwater.

In response to DEQ's request, Gunderson continued the long-term groundwater monitoring program at the Site and implemented the May 20, 2019 *Final Revised Stormwater Infiltration Monitoring Work Plan* (Cascadia, 2019b). Tasks completed in accordance with that work plan are listed below:

- In June 2019, 11 groundwater monitoring wells (MW-82 through MW-92) were installed near the riverbank and downgradient of infiltration feature networks.
- The groundwater monitoring program for wells MW-14, MW-17, MW-52, and MW-62 was expanded to include analytes potentially present in stormwater discharge.

- Six pressure transducers were installed in Area 1 wells MW-27, MW-49, MW-52, MW-62, MW-71, and MW-91 to evaluate short- and long-term variability in groundwater elevations and temperature.

Groundwater monitoring well installation activities were documented in the *Second Quarter 2019 Groundwater Monitoring and Well Installation Report* (Cascadia, 2019d). The monitoring of wells MW-82 through MW-92 and the expanded monitoring program for wells MW-14, MW-17, MW-52, and MW-62 were incorporated in the quarterly monitoring program at the Site, as shown in Table 2.

The *Fourth Quarter 2019 Groundwater Monitoring Report*, submitted to DEQ in March 2020, included an evaluation of groundwater quality downgradient of stormwater infiltration features, and an evaluation of the short and long-term effects of stormwater infiltration on groundwater elevations and gradients. (Cascadia, 2020).

The pressure transducer study demonstrated that stormwater infiltration may result in minor short-term effects on groundwater elevation and temperature at limited areas. These apparent localized effects on groundwater elevation and temperature are transitory and limited to one- to three-day durations. These findings are consistent with observations during quarterly groundwater monitoring events that have repeatedly shown that stormwater infiltration has not caused significant perturbations to groundwater gradients.

8.2 CURRENT GROUNDWATER CONDITIONS AND TRENDS

8.2.1 Scope of Current Groundwater Monitoring Program

The scope of the current groundwater monitoring program includes collection and analysis of groundwater samples from 44 monitoring wells and groundwater elevation monitoring at 46 wells. As shown on Figure 3, the Site monitoring well network is comprehensive and encompasses the entire Site. Eighteen of the monitoring wells are within approximately 50 feet of the riverbank and downgradient of operational areas. The monitoring program is summarized in Table 2 and Figure 3. The chemical analytical program includes all the COI that pose potential groundwater recontamination risk. Current groundwater conditions at the Site were most recently described in detail in the *Fourth Quarter 2019 Groundwater Monitoring Report* (Cascadia, 2020).

Monitoring frequency is variable. As shown in Table 2, most wells in the monitoring program are sampled quarterly, although some are sampled semi-annually or annually. The chemical analytical program, which was developed with DEQ, also is variable. Wells are monitored for COI that may be present based on current and historical Site uses, historical releases, or presence of stormwater infiltration features.

8.2.2 Regulatory Criteria

To evaluate chemical concentrations in groundwater and assess potential risks to the Willamette River, groundwater analytical data are compared to the groundwater CULs in Table 17 of the ROD. When groundwater CULs are unavailable for an analyte, data are compared to surface water CULs.

Analytes for which no CULs have been established are compared to JSCS SLVs (DEQ/EPA, 2005). Collectively, these screening levels are referred to herein as Regulatory Criteria.

CULs and JSCS SLVs for groundwater were established to identify concentrations of chemicals that may pose an unacceptable risk when groundwater enters the Willamette River. CULs and JSCS SLVs were not established specifically to evaluate the risk posed by constituents in groundwater at upland areas, such as the Site. Therefore, the actual risk that chemicals in groundwater pose to the river is dependent on several factors, including: (1) potential migration to the river; (2) persistence of the chemical in the environment; and (3) mass flux to the river. In some instances, as described in Section 8.2.3., the regional background concentrations of some chemicals (e.g., arsenic and manganese) are significantly higher than the CULs.

8.2.3 Current Concentrations of Chemicals of Interest

The following description of current groundwater conditions is based on the results of the four most recent groundwater monitoring events for the 44 monitoring wells currently sampled in the groundwater monitoring program, including the most recent comprehensive event in December 2019. VOC, TPH, PAH, metals, phthalates, and PCB groundwater data from the four most recent groundwater monitoring events are shown in Tables 3 through 8, respectively. The monitoring wells in the current monitoring program have at least four sampling results for each constituent for which the wells are monitored, with the exception of the 11 wells installed in June 2019. These wells have been sampled three times. The historical groundwater analytical data for all monitoring wells sampled from 2009 through 2019 are compiled in Appendix E.

Volatile Organic Compounds

During the fourth quarter 2019 groundwater monitoring event, groundwater samples collected from 32 groundwater monitoring wells were analyzed for VOCs, including 21 wells in Area 1, six wells in Area 2, and five wells in the Schnitzer ASD Yard. The VOC results from the fourth quarter groundwater monitoring event are shown on Figure 12. The results of the previous four monitoring events, including the comprehensive fourth quarter 2019 event are summarized below by Site area.

Area 1

Very few VOCs were detected in Area 1 groundwater. Only four VOCs (chloroform, 1,1-dichloroethene [1,1-DCE], tetrachloroethene [PCE], and trichloroethene [TCE]) were detected at concentrations that exceed the corresponding CULs or JSCS SLVs. Regulatory Criteria exceedances in Area 1 are summarized in the table below.

Analyte	Frequency of Exceedance (4)	Average Exceedance Ratio (1)	Maximum Exceedance Ratio	Regulatory Criterion	Wells Exceeding Criterion During One or More Events
Chloroform	1/82	12.4	12.4	0.17 (2)	MW-90
1,1-DCE	14/82	3.1	11	7 µg/L (3)	MW-27, MW-36, MW-52, MW-71
PCE	24/82	6.9	16	0.24 µg/L (3)	MW-21, MW-27, MW-36, MW-39, MW-42, MW-51, MW-52, MW-71
TCE	5/82	1.6	2.0	0.6 µg/L (3)	MW-43, MW-50

Notes:
µg/L = micrograms per liter
(1) Exceedance Ratio = Detected Concentration/Regulatory Criteria
(2) Regulatory criterion = JSCS SLV
(3) Regulatory criterion = Portland Harbor ROD Groundwater CUL
(4) Field duplicates are not treated as separate sampling results, and the highest result of the primary and field duplicate sample is used in the calculation of exceedance ratio.

Chloroform was detected in a single sample in well MW-90 during the previous four monitoring events. Chloroform, which is a byproduct of drinking water chlorination treatment with no known source at the Site, was not detected in the subsequent two samples collected from well MW-90.

The monitoring wells in which VOCs were detected at concentrations that exceed groundwater CULs or JSCS SLVs during one or more of the previous four groundwater monitoring events are approximately 100 to 450 feet from the river. These wells include MW-21, MW-27, MW-36, MW-39, MW-42, MW-43, MW-50, MW-51, MW-52, MW-71, and MW-90. The exceedance ratios for VOCs are generally low (average 2 to 7). The highest exceedance ratios for 1,1-DCE, PCE, and TCE were measured in wells MW-36 and MW-71, both of which are approximately 450 feet from the river. Thus, the VOCs in groundwater are considered low risk to the river. Natural attenuation processes are expected to reduce VOC concentrations between monitoring well locations and points of groundwater discharge to the river.

VOC concentration trends in Area 1 groundwater have been evaluated using the EPA Groundwater Statistics Tool since the fourth quarter 2017 monitoring event. The evaluation has included trends for individual VOCs and total molar HVOC concentrations. These evaluations have repeatedly demonstrated that: (1) Area 1 VOC concentrations are extremely low; and (2) trends for both total molar HVOCs and individual VOCs have remained stable to decreasing following deactivation of the groundwater treatment system in August 2014, and (3) trends have not changed since multiple distributed stormwater infiltration facilities were established (i.e., since 2013) (Cascadia, 2018a through 2018d; Cascadia, 2019a; Cascadia, 2019c through 2019e; Cascadia 2020).

Area 2 and Schnitzer ASD Yard

No VOCs were detected in Area 2 and Schnitzer ASD Yard monitoring wells at concentrations greater than the CULs or JSCS SLVs during the previous four monitoring events. As shown in Table 3, only a single VOC (acetone) was detected in one groundwater sample at Area 2 monitoring wells during the

four previous monitoring events. The detected concentration of acetone was less than the JSCS SLV. No VOCs have ever been detected above the MRLs in the four riverfront monitoring wells at Area 2 (MW-82, MW-83, MW-85, and MW-92).

Following completion of the 2017 *Revised Updated Groundwater Source Control Evaluation*, DEQ requested analysis of groundwater samples from the Schnitzer ASD Yard for VOCs (DEQ, 2018). In response, Schnitzer ASD Yard wells MW-10, MW-14, MW-73, MW-74, MW-76, MW-77, and MW-79 have been sampled four times, and wells MW-86 through MW-89 (installed in June 2019) have been sampled three times for VOCs. As shown in Table 3, with the exception of a single detection of chloroform in well MW-86 in exceedance of the JSCS SLV, no VOCs have been detected at concentrations that exceed the Regulatory Criteria. Very few VOCs have been detected above the MRLs.

Total Petroleum Hydrocarbons

Groundwater samples collected from five Area 1 monitoring wells, six Area 2 monitoring wells, and 12 Schnitzer ASD Yard monitoring wells were analyzed for diesel- and oil-range petroleum hydrocarbons (TPHd and TPHo, respectively) during the fourth quarter 2019 monitoring event. TPHd and TPHo were not detected above the MRLs in any samples. No CULs or JSCS SLVs have been established for TPHd or TPHo. Figure 13 shows the TPH results for the fourth quarter 2019 groundwater monitoring event.

In the previous four groundwater monitoring events, 81 groundwater samples analyzed for TPH. TPHd was detected in a single Schnitzer ASD well (MW-73), at a concentration of 0.191 mg/L, and TPHo was detected in a single Schnitzer ASD well (MW-88), at a concentration of 0.434 mg/L. Recent results are consistent with previous monitoring results (i.e., TPH concentrations are non-detectable or less than MRLs). Table 4 lists recent TPH groundwater data for the Site. TPH groundwater data collected since 2009 are listed in Table E-3.

Polycyclic Aromatic Hydrocarbons

During the fourth quarter 2019 monitoring event, groundwater samples for PAH analysis were collected from four Area 1 monitoring wells (MW-52, MW-62, MW-90, and MW-91), eight Area 2 monitoring wells (MW-17, MW-66, MW-81, MW-82, MW-83, MW-84, MW-85, and MW-92), and nine Schnitzer ASD Yard monitoring wells (MW-14, MW-72, MW-73, MW-79, MW-80, MW-86, MW-87, MW-88, and MW-89). The results from the previous four events for these wells are listed in Table 5. The fourth quarter 2019 PAH data are shown on Figure 14.

Of the 21 Site wells monitored for PAHs, during the four most recent monitoring events, only two Area 2 monitoring wells (MW-66 and MW-17) contained PAHs in exceedance of CULs/JSCS SLVs. PAH exceedances occurred only during a single monitoring event at each well. In well MW-66, five PAHs (benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, chrysene, and indeno (1,2,3-cd)pyrene) were detected at concentrations exceeding the corresponding CULs during the fourth quarter 2018 monitoring event. PAHs have not been detected in well MW-66 during the subsequent two monitoring events. In well MW-17, benz(a)anthracene, benzo(b)fluoranthene, and chrysene were

detected in the field duplicate sample collected during the fourth quarter 2019 monitoring event at concentrations that exceed the corresponding CULs. The exceedances are summarized below.

Analyte	Frequency of Exceedance [2]	Average Exceedance Ratio	Maximum Exceedance Ratio	Regulatory Criterion	Wells Exceeding Criterion During One or More Events
Benz(a)anthracene	2/73	28.9	40.4	0.0012 µg/L [1]	MW-17, MW-66
Benzo(a)pyrene	1/73	544	544	0.00012 µg/L [1]	MW-66
Benzo(b)fluoranthene	2/73	43.6	55.9	0.0012 µg/L [1]	MW-17, MW-66
Chrysene	2/73	26.8	36.3	0.0013 µg/L [1]	MW-17, MW-66
Indeno (1,2,3-cd)pyrene	1/73	46.6	46.6	0.0012 µg/L [1]	MW-66

Notes:

[1] Regulatory criterion = Portland Harbor ROD Groundwater CUL

[2] Field duplicates are not treated as separate sampling results, and the highest result of the primary and field duplicate sample is used in the calculation of exceedance ratio.

Wells MW-66 and MW-17 are approximately 200 and 400 feet from the Willamette River, respectively. High molecular weight PAHs such as benzo(a) anthracene, benzo(a)pyrene, benzo(b)fluoranthene, chrysene, and indeno(1,2,3-cd)pyrene, are hydrophobic compounds that exhibit low mobility in groundwater. Thus, the PAHs in groundwater at wells MW-17 and MW-66 are unlikely to pose a recontamination risk to the Willamette River. No PAHs have been detected above CULs in groundwater samples collected from riverfront monitoring wells MW-82, MW-83, MW-85, and MW-92.

Metals

Samples from 29 monitoring wells were analyzed for total and dissolved metals during the fourth quarter 2019 monitoring event. Metals analytical data for these 29 wells from the four most recent groundwater monitoring events are listed in Table 6 and are discussed below. The fourth quarter 2019 metals analytical data are shown on Figure 15.

Arsenic and manganese (total and dissolved) exceeded CULs in the majority of samples collected. As described in the *Revised Updated Groundwater Source Control Evaluation Report* (Cascadia, 2017a), arsenic and manganese concentrations in groundwater that exceed screening criteria are widespread at the Site, including in wells upgradient of the Site. The ubiquitous nature of arsenic and manganese in groundwater is indicative of natural and/or regional sources, rather than Site source areas.

Porewater samples were collected in accordance with an EPA-approved work plan during the Portland Harbor Pre-Remedial Design Investigation (Pre-RD Investigation, AECOM/Geosyntec, 2019). Those samples indicate that natural background concentrations of arsenic and manganese upstream of the Portland Harbor Superfund site are approximately 58 µg/L and 32,000 µg/L, respectively. These concentrations are similar to or exceed the concentrations detected in

groundwater at the Site. The porewater data collected by AECOM/Geosyntec (2019) suggest that the concentrations of arsenic and manganese in Site groundwater are naturally occurring and, therefore, do not pose a recontamination risk to the river.

With the exception of arsenic and manganese, dissolved metals concentrations in groundwater rarely exceed CULs or JSCS SLVs. Dissolved metals concentrations are representative of the mobile fraction of metals in groundwater and are more appropriate than total metals concentrations for evaluating recontamination risks. The frequency and magnitude of dissolved metals exceedances (other than arsenic and manganese) are summarized in the table below for the four most recent groundwater monitoring events. As shown below, dissolved antimony, copper, lead, and zinc were rarely detected above CULs or JSCS SLVs (5 to 10 percent of samples), and when detected, exceeded Regulatory Criteria by factors of 2 to 6. Dissolved barium, cadmium, chromium, mercury, and nickel were rarely detected above MRLs during the previous four groundwater monitoring events, and when detected, concentrations did not exceed Regulatory Criteria.

Analyte	Frequency of Exceedance [3]	Average Exceedance Ratio	Maximum Exceedance Ratio	Regulatory Criterion	Wells Exceeding Criterion During One or More Events
Antimony (dissolved)	5/105	3.3	6.3	6 µg/L [1]	MW-74, MW-79
Copper (dissolved)	7/105	2.0	3.2	2.74 µg/L [2]	MW-14, MW-62, MW-79, MW-90, MW-91, MW-92
Lead (dissolved)	10/105	1.5	2.6	0.54 µg/L [2]	MW-14, MW-17, MW-52, MW-62, MW-73, MW-79, MW-80, MW-89
Zinc (dissolved)	5/105	1.8	3.1	36.5 µg/L [2]	MW-14, MW-62, MW-79, MW-82, MW-92

Notes:

[1] Regulatory criterion = JSCS SLV

[2] Regulatory criterion = Portland Harbor ROD Groundwater CUL

[3] Field duplicates are not treated as separate sampling results, and the highest result of the primary and field duplicate sample is used in the calculation of exceedance ratio.

Concentration trends for dissolved and total metals were discussed in detail in the *Fourth Quarter 2019 Groundwater Monitoring Report* (Cascadia, 2020). The trends are summarized below:

- Dissolved metals trends are stable to decreasing, except for dissolved arsenic in MW-77, which exhibited an increasing trend. The increasing dissolved arsenic trend in well MW-77 appears to be the result of an abnormally low concentration of dissolved arsenic that was measured in December 2015. When the December 2015 data point is excluded from the trend analysis, the concentration trend of dissolved arsenic in MW-77 is stable.
- Total metals trends are decreasing, except total lead in MW-73. The concentration trend for total lead in MW-73 is very slightly increasing, with a concentration trendline slope of 0.00214. The concentrations of dissolved lead in monitoring well MW-73 are stable.

In summary, total and dissolved metals concentrations in groundwater rarely exceed Regulatory Criteria, except for arsenic and manganese. Data collected at the Site and at off-site locations indicate that the concentrations of arsenic and manganese in groundwater are naturally occurring. Concentration trends for metals in Site groundwater are stable to decreasing, with very few exceptions.

Phthalates

During the fourth quarter 2019 groundwater monitoring event, groundwater samples collected from four Area 1 wells (MW-52, MW-62, MW-90, and MW-91), seven Area 2 wells (MW-17, MW-81, MW-82, MW-83, MW-84, MW-85, and MW-92), and six Schnitzer ASD Yard wells (MW-14, MW-79, MW-86, MW-87, MW-88, and MW-89) were analyzed for phthalates. The phthalates data for the four most recent monitoring events at these wells are shown in Table 7. The fourth quarter 2019 phthalates data are shown on Figure 16.

As shown in Table 7, phthalates were not detected above the MRL in any wells during the four most recent groundwater monitoring events. A groundwater CUL has not been established for phthalates, but a surface water CUL is available for BEHP. BEHP has not been detected at concentrations exceeding the surface water CUL since 2018. Prior to 2018, BEHP was rarely detected, and only at very low concentrations. Historical BEHP data are listed in Table E-5 in Appendix E.

PCBs

Groundwater samples collected from two Area 1 wells (MW-90 and MW-91), seven Area 2 wells (MW-17, MW-81, MW-82, MW-83, MW-84, MW-85, and MW-92) and seven Schnitzer ASD Yard wells (MW-14, MW-74, MW-76, MW-86, MW-87, MW-88, and MW-89) were analyzed for PCBs during the fourth quarter 2019 groundwater monitoring event. PCBs were not detected above the MRLs in any of the samples.

PCB data for the four most recent monitoring events for wells sampled during the fourth quarter 2019 event are listed in Table 8. The fourth quarter 2019 PCB results are shown on Figure 17. Historical PCB data are compiled in Table E-6 in Appendix E. As shown in Table E-6, PCB Aroclors have not been detected above the MRLs in groundwater samples collected from Site monitoring wells.

9.0 EVALUATION OF COPCs

Groundwater COPCs at the Site were identified using the following five step process:

Step 1 – Current and Historical Operations Screening

In Sections 5 and 6, chemicals used or released at the Site, currently or historically, were identified as COI. These chemicals include:

- Petroleum hydrocarbons;
- PAHs;
- VOCs, including HVOCs;
- Metals (antimony, arsenic, barium, cadmium, chromium, copper, lead, manganese, mercury, nickel, and zinc);
- Phthalates;
- TBT;
- Dioxins/furans; and
- PCBs.

Step 2 – Evaluation of Soil Chemical Analytical Data

In Section 7, soil analytical data were reviewed and COI were identified based on which chemicals were detected in soil. These COI were reviewed to assess whether the chemicals identified in Step 1 are present in soil, or if additional chemicals not identified during Step 1 are present in soil. Members of each of the chemical groups listed in Step 1 have been detected in one or more soil samples at the Site; therefore, all were retained following soil screening. Additional COI identified based on the soil screening, include:

- Pesticides/herbicides detected in one or more Site soil sample: specifically, DDD, DDE, DDT, chlordane, dieldrin, pentachlorophenol, 2,4,5-TP (Silvex), and 2,4-D;
- Butyltins; and
- Selenium.

Step 3 – Groundwater Concentration Screening

In Section 8, groundwater data were reviewed to determine if Site groundwater has been evaluated for each of the chemical groups listed under Steps 1 and 2. As discussed in Section 8, an extensive groundwater monitoring network has been established at the Facility and a comprehensive chemical analytical program has been implemented. The groundwater monitoring program is suitable for assessing groundwater conditions and potential impacts to the Willamette River. All the COI identified during Steps 1 and 2 have been included in the Site groundwater analytical program, except for dioxins and furans, butyltins, selenium, and pesticides/herbicides. CULs have not been established for selenium and butyltins (with the exception of TBT). Therefore, selenium and

butyltins (with the exception of TBT) are not further evaluated. Dioxin/furans, TBT, and pesticides/herbicides are evaluated further in Section 9.1.

Groundwater monitoring data from the previous four monitoring events for the 44 groundwater monitoring wells in the current monitoring program were screened by comparing detected chemical concentrations to Regulatory Criteria. Chemicals not detected at concentrations exceeding Regulatory Criteria were determined not to be groundwater COPCs. These chemicals include:

- Petroleum hydrocarbons;
- Metals (barium, cadmium, chromium, mercury, and nickel);
- Phthalates; and
- PCBs.

Only the following chemicals were detected in one or more wells during the four most recent groundwater monitoring events at concentrations exceeding the Regulatory Criteria:

- VOCs: chloroform, 1,1-DCE, PCE, and TCE (only in Area 1);
- PAHs: benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, chrysene, and indeno(1,2,3-cd)pyrene (only in Area 2); and
- Metals: antimony, arsenic, copper, lead, manganese, zinc.[4]

Step 4 – Frequency of Detection Screening

Chemicals that were detected in one or more samples at concentrations that exceed Regulatory Criteria during the four most recent monitoring events were further screened based on frequency of detection. That is, chemicals that were only sporadically detected at concentrations that exceed Regulatory Criteria (in less than 5 to 10 percent of samples) during the four most recent groundwater monitoring events were considered to pose low risk for sediment recontamination and were screened out from further consideration. Chemicals screened out based on low frequency of detection include:

- Chloroform[5];
- PAHs; and
- Metals (antimony, copper, lead, and zinc).

The low risk posed by chloroform, copper, lead, and zinc in groundwater is supported by sediment analytical data in the RM9W Project Area. That is, chloroform, copper, lead, and zinc have not been

[4] Dissolved metals concentrations, indicative of the mobile fraction of metals in groundwater, which could potentially impact the Willamette River, were used to determine metals COPC.

[5] Chloroform was detected above the JSCS SLV in two wells during one event out of the previous four monitoring events. In addition to being detected very infrequently in groundwater, chloroform is a byproduct of drinking water chlorination treatment, and no known source of chloroform is present at the Site. Chloroform is not considered a COPC.

detected in sediment at the RM9W Project Area at concentrations that exceed sediment CULs as evaluated based on individual sediment samples or spatially weighted average concentrations.

Step 5 – Screening Summary

Chemicals that were not screened out based on the process outlined above, and warrant further evaluation, include:

- VOCs[6]: 1,1-DCE, PCE, and TCE;
- Metals: arsenic, and manganese;
- TBT;
- Pesticides/herbicides; and
- Dioxins and furans.

These chemicals have been identified as groundwater COPC and are further discussed in Section 9.1.

9.1 EVALUATION OF GROUNDWATER COPCs

Chemicals identified as COPCs based on the screening process summarized in Section 9.0 are further evaluated below.

9.1.1 VOCs

Concentrations of 1,1-DCE, PCE, and TCE in groundwater are extremely low, and trends have remained stable to decreasing following deactivation of the groundwater treatment system in August 2014 and installation of distributed stormwater infiltration facilities at roughly the same time frame. None of the VOC concentrations measured in groundwater were collected at the point of discharge to the Willamette River, which is modeled to be offshore and below ordinary low water. Rather, the data are representative of groundwater conditions 100 to 700 feet from the river's edge. Natural attenuation processes are expected to further reduce VOC concentrations between monitoring well locations and points of groundwater discharge to the river, resulting in no significant recontamination risk. This conclusion is consistent with the findings of the *Portland Harbor Remedial Investigation Report* (Lower Willamette Group, 2016) and the *RM 9 West Draft Sufficiency Assessment Report* (Foth, 2020).

9.1.2 Arsenic and Manganese

Arsenic and manganese concentrations in groundwater at most Site areas and at areas upgradient of the Site exceed CULs. The ubiquitous nature of arsenic and manganese in groundwater at the Site and upgradient locations, along with porewater data collected from background areas during the Portland Harbor Pre-RD investigation (AECOM/Geosyntec, 2019), indicate that the arsenic and

[6] Chloroform was detected above the JSCS SLV in two wells during one event out of the previous four monitoring events. Chloroform is a byproduct of drinking water chlorination treatment, and no known source of chloroform is present at the Site. Chloroform is not considered a COPC.

manganese concentrations in Site groundwater are naturally occurring and do not present a significant recontamination risk to the Willamette River.

9.1.3 Tributyltin

TBT is relatively immobile in environmental media due to its low vapor pressures, low water solubility, and high affinities for soil and organic sediments. Nearly all of the TBT found in the water column is bound to suspended particles, with a small portion associated with dissolved organic matter and organic and inorganic ligands (ATSDR, 2005). Based on these characteristics, TBT in Site groundwater does not present significant recontamination risk to the Willamette River.

During the Portland Harbor Remedial Investigation, the recontamination risks posed by TBT in groundwater were evaluated (Lower Willamette Group, 2016). According to the Remedial Investigation Report, "there are no current or historical groundwater pathways for TBT in the study area."

Sediment offshore of the Site in the RM9W Project Area does not contain TBT at concentrations that exceed the sediment CUL (Foth, 2020), indicating that there is not a significant source of TBT at the Site or other potential sources to the RM9W Project Area.

9.1.4 Dioxins and Furans

Dioxins/furans have not been included in the groundwater analytical program because they are extremely immobile in groundwater. Dioxins/furans are characterized by extremely low vapor pressures, high log octanol-water partition coefficients (Kow), high soil organic carbon-water partitioning coefficients (Koc), and extremely low water solubilities. These characteristics result in a strong affinity for soil and very low mobility in groundwater. Therefore, groundwater is not a significant pathway for the transport of dioxins and furans from upland areas to the Willamette River and these chemicals are not considered a significant groundwater recontamination risk to the river.

9.1.5 Pesticides/Herbicides

As noted in Section 7.1, very few organochlorine pesticides and herbicides have been detected in Site soil. The pesticides and herbicides that have been detected were present at very low concentrations, and only were detected in surface soil at the riverbank. Pesticides and herbicides that were detected include DDD, DDE, DDT, chlordane, dieldrin, pentachlorophenol, 2,4,5-TP (Silvex), and 2,4-D. The sporadic, very low concentrations of pesticides and herbicides in riverbank surface soil are not indicative of a significant source to groundwater, and thus, these chemicals do not present a risk of groundwater recontamination to the river.

Pentachlorophenol, 2,4,5-TP (Silvex), and 2,4-D are not chemicals of concern in Willamette River sediment near the Site (Foth, 2020) . DDx, chlordane, and dieldrin have been identified as sediment chemicals of concern (Foth, 2020); however, sediment concentrations that exceed CULs are

concentrated at City of Portland outfalls OF-18, OF-19, and OF-19A, indicating that sediment at the RM9W Project Area has been affected by stormwater discharges, rather than a groundwater source.

9.2 PORTLAND HARBOR ROD TABLE 17 CHEMICALS

Groundwater CULs have been established for 46 chemicals or groups of chemicals. Those CULs are listed in Table 17 of the ROD. The Site groundwater monitoring program detailed in Section 8 has included 35 of the 46 chemicals. Site groundwater has not been analyzed for the following chemicals, for which groundwater CULs have been established

- Cyanide;
- Pesticides/Herbicides (DDD, DDT, DDE [collectively DDx]; pentachlorophenol, 2,4,5-TP [Silvex], and 2,4-D);
- Perchlorate;
- Vanadium; and
- Aliphatic hydrocarbons C10-C12.

Based on the current and historical uses of the Site, the Site is not a significant source of any of the chemicals listed above.

Total petroleum hydrocarbons have been evaluated extensively in groundwater at the Site. That testing has demonstrated that groundwater has not been significantly impacted by petroleum hydrocarbon mixtures. Accordingly, DEQ has agreed that collection of aliphatic hydrocarbon groundwater data at the Site is not warranted. DEQ noted in an April 18, 2018 letter, "the disparate, sporadic and low magnitude (at or below 1 mg/L) detections of total petroleum hydrocarbons do not add up to a TPH plume and thus, do not warrant evaluation of C10 to C12 Aliphatic hydrocarbons at this site" (DEQ, 2018).

9.3 SUMMARY OF GROUNDWATER SCREENING AND COPC EVALUATION

Gunderson has implemented a long-term and extensive groundwater monitoring program which has included analysis for all COPCs that may have been used and released at the Site and may migrate in groundwater. A review of the chemical concentrations measured in groundwater during the four most recent groundwater monitoring events indicates that very few chemicals are present in Site groundwater at concentrations that exceed Regulatory Criteria. Those chemicals that exceed Regulatory Criteria in more than 5 to 10 percent of samples are limited to a small number of HVOCs in Area 1 and arsenic and manganese Site-wide. The HVOCs in Area 1 groundwater are present at very low concentrations and generally a significant distance from the river. The concentrations of arsenic and manganese in Site groundwater are generally consistent with naturally occurring background concentrations. Overall, the screening process indicates that Site groundwater does not pose a recontamination risk to the Willamette River.

10.0 CONCLUSIONS

This groundwater CSM was prepared to facilitate the evaluation of groundwater conditions at the Site and to support a groundwater source control decision. The overall goal of the groundwater SCE process is to determine if groundwater poses a recontamination threat to the Willamette River.

A groundwater SCE broadly consists of three steps: (1) potential sources of groundwater contamination are identified; (2) groundwater is evaluated to assess whether those chemicals are present in groundwater and if so, at what concentrations; and (3) recontamination risks are evaluated by comparing groundwater concentrations to Regulatory Criteria and considering a range of other factors that may affect the mass and concentrations of chemicals in groundwater that discharge to the Willamette River.

Gunderson has performed multiple phases of soil and groundwater investigation at the Site. These investigations have occurred for more than 30 years. Based on these investigations, and in coordination with DEQ, Gunderson identified a broad group of groundwater COI, which include most of the chemicals for which groundwater CULs were established in the ROD (Table 17).

Gunderson initiated groundwater monitoring at the Site in the early 1990s and continued that program until 2010, when the groundwater monitoring program was expanded at the request of DEQ to support the groundwater SCE. Since 2010, Gunderson continued to coordinate with DEQ and, at DEQ's request, expanded the groundwater monitoring program to include additional analytes and additional monitoring locations. During this period, Gunderson submitted SCE updates to DEQ and continued the quarterly groundwater monitoring program. In 2019, at the request of DEQ, Gunderson substantially expanded the groundwater monitoring program, by installing 11 new monitoring wells, integrating those wells into the quarterly monitoring program, expanding the groundwater analytical program for select existing wells, and conducting a pressure transducer study in six Area 1 wells. This long-term and extensive groundwater monitoring program has provided a groundwater dataset that is sufficient for characterizing groundwater conditions Site-wide, including at operational areas, historical release locations, and within and downgradient of stormwater infiltration areas.

Groundwater analytical data were evaluated by comparing chemical concentrations in groundwater to Regulatory Criteria. Most COI are absent from groundwater, are present at concentrations less than Regulatory Criteria, or are infrequently detected. The few chemicals that are present in groundwater at concentrations greater than Regulatory Criteria are HVOCs at Area 1 and arsenic and manganese Site-wide. The HVOC concentrations in Area 1 groundwater are very low and concentrations are stable to decreasing. In most cases, wells that exhibit detectable concentrations of HVOCs are distant from the river; thus, concentrations in groundwater will be further reduced during migration toward the river. For these reasons, the HVOCs at Area 1 are not considered COPCs. Arsenic and manganese are ubiquitous in Site groundwater and at locations upgradient from the Site. Arsenic and manganese concentrations in groundwater appear to be naturally occurring; therefore, these metals are not considered groundwater COPCs.

The information and analysis presented herein demonstrate that groundwater at the Site does not pose a recontamination risk to the Willamette River. These findings are consistent with the conclusions of the *RM 9 West Draft Sufficiency Assessment Report* (Foth, 2020).

No further groundwater SCE should be required and DEQ should issue a source control decision that memorializes this decision.

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TABLES

Table 1
Releases Listed in EPA CERLA Section 104(e) Response
Gunderson LLC
Portland, Oregon

Release No.	Release Name	Date	Details
1	Waste Oil Release(s)	Unknown	An enclosed subgrade sump that may have been used as an oil water separator was discovered in 1999. Borings were completed in 1990 and no evidence of contamination was encountered.
2	Gasoline Release (USTs Nos. 3, 4, and 5)	Unknown	Details in Groundwater CSM Text (Section 6.1)
3	TCA Spill	May 1980	Details in Groundwater CSM Text (Section 6.2)
4	Diesel Spill	October 12, 2007	A leaky fuel tank on a delivery vehicle released 15 to 20 gallons of diesel onto the ground surface. The spill was promptly cleaned up.
5	Gasoline Release (UST No. 7)	Unknown	Details in Groundwater CSM Text (Section 6.3)
6	Waste Solvent Release (UST No. 11)	Unknown	Details in Groundwater CSM Text (Section 6.4)
7	Toluene Release	Unknown	Details in Groundwater CSM Text (Section 6.4)
8	Solvent 251 Release (UST No. 6)	Unknown	Details in Groundwater CSM Text (Section 6.3)
9	Hydrocarbon Stain	Unknown	Two hydrocarbon stains on the ground surface were observed in 1990. Wells MW-28, MW-29, MW-32 and MW-33, which had been located near this release location, were decommissioned in 1993. No petroleum constituents were detected in the wells at the time of decommissioning. The contaminated soil was excavated during subsequent construction activities.
10	Diesel Spill near Dock	March 23, 1998	An oil sheen, believed to be from the City of Portland Outfall OF-18 was observed on the surface of the in the Willamette River. Booms were deployed to contain the spill. The sheen reportedly weathered and was not visible later that day.
11	Petroleum Release	January 26, 1999	Details in Groundwater CSM Text (Section 6.5)
12	Paint Release	August 23, 2000	Paint with water from rinsing paint brushes and gloves was allowed to enter a storm drain which was discharged into the Willamette River. No trace of paint was found in the River.
13	Paint Overspray Release	September 6, 2000	Air emissions of paint overspray were discharged during railcar painting, when a paint filter was in the process of being replaced. The exact amount of the release is unknown. An estimated 150-200 gallons of paint were applied onto railcars during the timeframe the paint filter was not in place.
14	Toluene and Marine Solvent Spill	February 26, 2001	A bucket of approximately 1.5 gallons of toluene and marine solvent was spilled into the Willamette River between the repair dock and the Site. Contractors used booms to collect the substance from the water.
15	Diesel Spill (UST Nos. 1 and 2)	Unknown	Details in Groundwater CSM Text (Section 6.6)
16	Transmission Oil Spill	Unknown	A transmission oil release reportedly occurred in 1991. A hydrocarbon stain was observed. The release was reportedly communicated to DEQ in 1991. The soil was excavated.
17	Two Hydrocarbon Stains	Unknown	Details in Groundwater CSM Text (Section 6.7)
18	Three Slag Disposal Sites	Unknown	Details in Groundwater CSM Text (Section 6.7)
19	Hydraulic Oil Release	January 13, 1995	A broken hydraulic line reportedly released approximately 5 to 10 gallons of hydraulic oil approximately 30 feet north of the Stevedore Building. The impacted soil was reportedly removed.
20	Hydraulic Oil Release	May 6, 1996	A break on the hydraulic line of a forklift released approximately 15 gallons of hydraulic oil on the west side of the Stevedore Building. The oil was removed and the spill cleaned up.
21	Hydraulic Oil Release	March 23, 2000	A side loader tipped over on the Outfitting Dock and reportedly released less than 0.5 pint of hydraulic oil into the Willamette River. Marine spill responders stated that the release was too minor to be cleaned up.
22	Hydraulic Oil Release	September 6, 2003	A hydraulic oil filter failed on a loader and released approximately 10 to 15 gallons of hydraulic oil onto the ground surface. The oil and impacted soil were removed.
23	Unknown Substance Release	November 12, 2007	An oil-like sheen was observed in the Willamette River between the Outfitting Dock and the riverbank. The origin of the oil-like substance was reportedly a leak from heavy equipment outside the Stevedore Building entering a stormwater catch basin. Booms were placed around the affected catch basins and the catch basins were cleaned and filters replaced.
24	Hydrocarbon Stain	Unknown	Discolored soils were observed next to the Quonset Hut gate in 1990. The area was investigated in 1999. The conclusions of the investigation was that a small amount of surface soil beneath asphalt concrete pavement had historically been impacted by diesel and weathered oil-range hydrocarbons. The impacts were limited to the top 2 feet of surface soil. Due to the surficial soil impacts, this release would not present a risk to groundwater.

Notes:
1. Releases shaded gray were determined to not present a risk to groundwater. These releases were minor, were immediately cleaned up, and after the immediate response, required no follow-up remediation.
2. Reference: Gunderson LLC/Gunderson Marine LLC, 2008. Response to U.S. EPA CERCLA Section 104(e) Information Request. July 30, 2008.

Cascadia Associates, LLC

Table 2
Groundwater Monitoring Program
Gunderson LLC
Portland, Oregon

Area	Monitoring Well	Total Depth (feet bgs)	Screened Interval (feet bgs)	First Quarter		Second Quarter		Third Quarter		Fourth Quarter		VOCs	TPHd	PAHs	Phthalates	PCBs	Total Metals	Dissolved Metals	Total Mercury
				gauge	sample	gauge	sample	gauge	sample	gauge	sample								
Area 1	MW-19	30.0	15 -30	X	--	X	--	X	--	X	X	X	--	--	--	--	--	--	--
	MW-21	35.0	20-35	X	--	X	X	X	--	X	X	X	--	--	--	--	--	--	--
	MW-22	35.0	20-35	X	--	X	--	X	--	X	X	X	--	--	--	--	X	X	
	MW-27	44.0	34-44	X	--	X	X	X	--	X	X	X	--	--	--	--	--	--	--
	MW-36	52.5	47-52	X	X	X	X	X	X	X	X	X	--	--	--	--	--	--	--
	MW-39	49.5	39-49	X	--	X	X	X	--	X	X	X	--	--	--	--	--	--	--
	MW-40	51.5	45-51	X	--	X	--	X	--	X	--	--	--	--	--	--	--	--	--
	MW-41	51.5	45-51	X	--	X	--	X	--	X	X	X	--	--	--	--	--	--	--
	MW-42	56.3	45.8-55.8	X	--	X	--	X	--	X	X	X	--	--	--	--	X	X	X
	MW-43	63.7	56-61	X	X	X	X	X	X	X	X	X	--	--	--	--	--	--	--
	MW-44	57.5	47.5-57.5	X	X	X	X	X	X	X	X	X	--	--	--	--	--	--	--
	MW-49	32.0	23-33	X	--	X	X	X	--	X	X	X	--	--	--	--	--	--	--
	MW-50	50.0	40-50	X	--	X	--	X	--	X	X	X	--	--	--	--	--	--	--
	MW-51	41.0	36-41	X	X	X	X	X	X	X	X	X	--	--	--	--	--	--	--
	MW-52	48.0	38-48	X	X	X	X	X	X	X	X	X	X	X	X	--	X	X	--
	MW-53	101.5	90.5-101	X	--	X	--	X	--	X	X	X	--	--	--	--	--	--	--
	MW-62	50.7	32-42	X	X	X	X	X	X	X	X	X	X	X	X	--	X	X	--
	MW-70	37.0	22-37	X	X	X	X	X	X	X	X	X	--	--	--	--	--	--	--
	MW-71	49.0	39-49	X	--	X	X	X	--	X	X	X	--	--	--	--	--	--	--
	WEX-60	54.0	30-50	X	X	X	X	X	X	X	X	X	X	--	--	--	--	--	--
	MW-90	39.0	14-39	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	--
	MW-91	35.0	15-35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	--
Area 2	MW-17	34.5	19.5-34.5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	--
	MW-23	35.0	20-35	--	--	X	--	--	--	X	--	--	--	--	--	--	--	--	--
	MW-24	35.0	20-35	--	--	X	--	--	--	X	X	--	--	--	--	--	X	X	--
	MW-66	41.0	20-40	--	--	X	X	--	--	X	X	--	--	X	--	--	X	X	--
	MW-81	35.0	20-35	--	--	X	--	--	--	X	X	--	--	X	X	X	X	X	--
	MW-82	30.0	10-30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	--
	MW-83	35.0	15-35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	--
	MW-84	30.0	10-30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	--
	MW-85	35.0	15-35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	--
	MW-92	35.0	15-35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	--
Schnitzer ASD Yard	MW-10	20.0	5-20	--	--	X	X	--	--	X	X	--	X	--	--	--	X	X	X
	MW-11	21.5	6.5-21.5	--	--	X	--	--	--	X	X	--	X	--	--	--	X	X	X
	MW-14	30.0	15-30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	--
	MW-72	30.0	15-30	--	--	X	X	--	--	X	X	--	X	X	--	--	X	X	X
	MW-73	30.0	15-30	--	--	X	X	--	--	X	X	--	X	X	--	--	X	X	X
	MW-74	36.5	20-35	--	--	X	X	--	--	X	X	--	X	--	--	Q4	X	X	X
	MW-76	36.5	20-35	--	--	X	--	--	--	X	X	--	--	--	--	X	X	X	X
	MW-77	36.5	20-35	--	--	X	X	--	--	X	X	--	X	--	--	--	X	X	X
	MW-79	15.0	5-15	--	--	X	X	--	--	X	X	--	X	X	X	--	X	X	X
	MW-80	20.0	5-20	--	--	X	--	--	--	X	X	--	--	X	--	--	X	X	X
	MW-86	30.0	10-30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	--
	MW-87	30.0	10-30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	--
	MW-88	30.0	10-30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	--
	MW-89	30.0	10-30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	--

Notes:

1. VOCs = volatile organic compounds by EPA 8260C.
2. TPHd = total petroleum hydrocarbons, diesel and heavy oil range by NWTPHDx with silica gel clean up.
3. PAHs = polycyclic aromatic hydrocarbons by EPA 8270D.
4. Phthalates by EPA 8270D.
5. PCBs = polychlorinated biphenyls by EPA 8082A.
6. Metals = antimony, arsenic, barium, cadmium, chromium, copper, lead, manganese, nickel, and zinc by EPA 6000/7000 series.
7. Mercury by EPA 7470A.
8. Q4 = analyte is included in the fourth quarter monitoring event only.
9. feet bgs = feet below the ground surface.

Cascadia Associates, LLC

Table 3
Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	Acetone	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	2-Butanone (MEK)	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	2-Chlorotoluene	4-Chlorotoluene	1,2-Dibromo-3-chloropropane	Dibromochloromethane
		Concentrations in µg/L (ppb)																			
AREA 1																					
MW-19	12/7/2016	<20.0 J	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0 J	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/12/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0 J	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/19/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/16/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-21	6/28/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<10.0	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/18/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<10.0	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/18/2018 DUP	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<10.0	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/19/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<10.0	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/10/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<10.0	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/10/2019 DUP	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<10.0	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-22	12/7/2016	<20.0 J	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0 J	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/14/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/20/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/12/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-27	6/28/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/19/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/19/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/10/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-36	3/5/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/19/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/10/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/12/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-39	6/27/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/19/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<10.0	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/19/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<10.0	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/12/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<10.0	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-41	12/7/2016	<20.0 J	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0 J	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/12/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/20/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0 J	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/10/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0 J	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-42	12/7/2016	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/14/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/20/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/11/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
ROD Cleanup Level [4.]		NA	0.44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	64	NA	NA	NA	NA	NA	NA	NA
JSCS SLV [7.]		1,500	1.2	NA	NA	1.1	8.5	8.7	7,100	NA	NA	NA	0.51	50	23	0.17	2.1	NA	NA	NA	0.79

Please refer to notes at end of table.

Cascadia Associates, LLC

Table 3
Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	Acetone	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	2-Butanone (MEK)	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	2-Chlorotoluene	4-Chlorotoluene	1,2-Dibromo-3-chloropropane	Dibromochloromethane
		Concentrations in µg/L (ppb)																			
AREA 1																					
MW-43	3/6/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	3/6/2019 DUP	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00 Q-54	<1.00	<1.00	<5.00	<1.00
	6/19/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/19/2019 DUP	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/11/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/11/2019 DUP	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	1/14/2020	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-44	3/6/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/19/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/11/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/13/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-49	6/27/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/19/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/19/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/12/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-50	12/9/2016	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/13/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/19/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/13/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-51	3/6/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/19/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/11/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/13/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-52	3/5/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/19/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/19/2019 DUP	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/10/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/10/2019 DUP	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/10/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/10/2019 DUP	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-53	12/6/2016	<20.0 J	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0 J	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/12/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/18/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/10/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
ROD Cleanup Level [4.]		NA	0.44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	64	NA	NA	NA	NA	NA	NA	NA
JSCS SLV [7.]		1,500	1.2	NA	NA	1.1	8.5	8.7	7,100	NA	NA	NA	0.51	50	23	0.17	2.1	NA	NA	NA	0.79

Please refer to notes at end of table.

Cascadia Associates, LLC

Table 3
Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	Acetone	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	2-Butanone (MEK)	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	2-Chlorotoluene	4-Chlorotoluene	1,2-Dibromo-3-chloropropane	Dibromochloromethane
		Concentrations in µg/L (ppb)																			
AREA 1																					
MW-62	3/6/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	3/6/2019 DUP	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/19/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/10/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/10/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-70	3/6/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/19/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/10/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/12/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/12/2019 DUP	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-71	6/27/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/19/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/19/2018 DUP	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/19/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/12/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
WEX-60	3/6/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/21/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/10/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/12/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-90	7/2/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	**2.11**	<5.00	<1.00	<1.00	<5.00	<1.00
	9/10/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/12/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-91	7/2/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	7/2/2019 DUP	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/10/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/12/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
AREA 2																					
MW-17	3/6/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/19/2019	**21.4**	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/10/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/16/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/16/2019 DUP	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-82	7/2/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/10/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/12/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
ROD Cleanup Level [4.]		NA	0.44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	64	NA	NA	NA	NA	NA	NA	NA
JSCS SLV [7.]		1,500	1.2	NA	NA	1.1	8.5	8.7	7,100	NA	NA	NA	0.51	50	23	0.17	2.1	NA	NA	NA	0.79

Please refer to notes at end of table.

Cascadia Associates, LLC

Table 3
Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	Acetone	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	2-Butanone (MEK)	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	2-Chlorotoluene	4-Chlorotoluene	1,2-Dibromo-3-chloropropane	Dibromochloromethane
		Concentrations in µg/L (ppb)																			
AREA 2																					
MW-83	7/2/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/11/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/12/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-84	7/2/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/10/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/16/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-85	7/2/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/11/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/12/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-92	7/2/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/10/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/12/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
SCHNITZER ASD YARD																					
MW-10	12/14/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/27/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/18/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	3/4/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-14	3/5/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	**14.5**	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/20/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	**9.42**	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/11/2019	**23.8**	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/11/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-73	12/14/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/27/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/18/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	3/5/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-74	12/14/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/27/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/19/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	3/5/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-76	12/14/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/27/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/19/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	3/5/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-77	12/14/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/27/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/19/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	3/4/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
ROD Cleanup Level [4.]		NA	0.44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	64	NA	NA	NA	NA	NA	NA	NA
JSCS SLV [7.]		1,500	1.2	NA	NA	1.1	8.5	8.7	7,100	NA	NA	NA	0.51	50	23	0.17	2.1	NA	NA	NA	0.79

Please refer to notes at end of table.

Cascadia Associates, LLC

Table 3
Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	Acetone	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	2-Butanone (MEK)	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	2-Chlorotoluene	4-Chlorotoluene	1,2-Dibromo-3-chloropropane	Dibromochloromethane
		Concentrations in µg/L (ppb)																			
SCHNITZER ASD YARD																					
MW-79	12/14/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/27/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/18/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	3/4/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-86	7/2/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	**1.42**	<5.00	<1.00	<1.00	<5.00	<1.00
	9/10/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/13/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-87	7/2/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/11/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/11/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-88	7/2/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/11/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/13/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-89	7/2/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/10/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/16/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
ROD Cleanup Level [4.]		NA	0.44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	64	NA	NA	NA	NA	NA	NA	NA
JSCS SLV [7.]		1,500	1.2	NA	NA	1.1	8.5	8.7	7,100	NA	NA	NA	0.51	50	23	0.17	2.1	NA	NA	NA	0.79

Please refer to notes at end of table.

Cascadia Associates, LLC

Table 3
Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	1,2-Dibromoethane (EDB)	Dibromomethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-Dichloroethane (EDC)	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,2-Dichloropropane	1,3-Dichloropropane	2,2-Dichloropropane	1,1-Dichloropropene	cis-1,3-Dichloropropene	trans-1,3-Dichloropropene	Ethylbenzene	Hexachlorobutadiene	2-Hexanone	Isopropylbenzene	4-Isopropyltoluene
		Concentrations in µg/L (ppb)																					
AREA 1																							
MW-19	12/7/2016	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0 J	<1.00	<1.00
	12/12/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0 J	<1.00	<1.00
	12/19/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/16/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-21	6/28/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**1.60**	<0.400	**1.05**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/18/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**0.839**	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/18/2018 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**0.848**	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/19/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**2.10**	<0.400	**2.29**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/10/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**0.730**	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/10/2019 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**0.750**	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-22	12/7/2016	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0 J	<1.00	<1.00
	12/14/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/20/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/12/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-27	6/28/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**5.00**	<0.400	**7.27**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/19/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**10.9**	<0.400	**18.2**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/19/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**7.10**	<0.400	**11.2**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/10/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**3.94**	<0.400	**7.02**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-36	3/5/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**5.88**	<0.400	**29.0**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/19/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/10/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/12/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**13.9**	<0.400	**77.3**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-39	6/27/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**1.39**	<0.400	**1.18**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/19/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**0.760**	<0.400	**0.490**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/19/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**1.43**	<0.400	**1.05**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/12/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**4.03**	<0.400	**3.04**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-41	12/7/2016	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0 J	<1.00	<1.00
	12/12/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/20/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/10/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-42	12/7/2016	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00 J	**1.83**	<0.500	**3.46**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/14/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**1.22**	<0.400	**3.11**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/20/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**0.635**	<0.500	**1.21**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/11/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.500	<0.400	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
ROD Cleanup Level [4.]		NA	NA	NA	NA	NA	NA	NA	NA	7	70	NA	NA	NA	NA	NA	NA	NA	7.3	NA	NA	NA	NA
JSCS SLV [7.]		0.033	61	49	14	2.8	390	47	0.73	NA	61	110	0.97	NA	NA	NA	0.055	0.055	7.3	0.86	99	660	NA

Please refer to notes at end of table.

Cascadia Associates, LLC

Table 3
Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	1,2-Dibromoethane (EDB)	Dibromomethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-Dichloroethane (EDC)	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,2-Dichloropropane	1,3-Dichloropropane	2,2-Dichloropropane	1,1-Dichloropropene	cis-1,3-Dichloropropene	trans-1,3-Dichloropropene	Ethylbenzene	Hexachlorobutadiene	2-Hexanone	Isopropylbenzene	4-Isopropyltoluene
		Concentrations in µg/L (ppb)																					
AREA 1																							
MW-43	3/6/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**3.67**	<0.400	**0.890**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	3/6/2019 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**3.27**	<0.400	**0.710**	<0.400	<0.400	<0.500	<1.00	<1.00 Q-54	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/19/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**0.536**	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/19/2019 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**0.580**	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/11/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**2.71**	<0.400	**0.560**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/11/19 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**2.73**	<0.400	**0.560**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	1/14/2020	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**2.95**	<0.400	**0.730**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-44	3/6/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/19/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/11/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/13/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-49	6/27/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/19/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/19/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/12/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-50	12/9/2016	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00 J	**0.972**	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/13/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/19/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/13/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**0.852**	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-51	3/6/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**4.39**	<0.400	**1.14**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/19/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**14.0**	<0.400	**3.17**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/11/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**20.3**	<0.400	**6.06**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/13/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-52	3/5/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**4.98**	<0.400	**14.7**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/19/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**10.2**	<0.400	**30.9**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/19/2019 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**10.2**	<0.400	**31.8**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/10/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**3.52**	<0.400	**10.7**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/10/2019 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**4.98**	<0.400	**11.2**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/10/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**2.29**	<0.400	**8.67**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/10/2019 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**3.42**	<0.400	**12.4**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-53	12/6/2016	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0 J	<1.00	<1.00
	12/12/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/18/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/10/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
ROD Cleanup Level [4.]		NA	NA	NA	NA	NA	NA	NA	NA	7	70	NA	NA	NA	NA	NA	NA	NA	7.3	NA	NA	NA	NA
JSCS SLV [7.]		0.033	61	49	14	2.8	390	47	0.73	NA	61	110	0.97	NA	NA	NA	0.055	0.055	7.3	0.86	99	660	NA

Please refer to notes at end of table.

Cascadia Associates, LLC

Table 3
Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	1,2-Dibromoethane (EDB)	Dibromomethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-Dichloroethane (EDC)	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,2-Dichloropropane	1,3-Dichloropropane	2,2-Dichloropropane	1,1-Dichloropropene	cis-1,3-Dichloropropene	trans-1,3-Dichloropropene	Ethylbenzene	Hexachlorobutadiene	2-Hexanone	Isopropylbenzene	4-Isopropyltoluene
		Concentrations in µg/L (ppb)																					
AREA 1																							
MW-62	3/6/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	3/6/2019 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/19/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**1.48**	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/10/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**0.834**	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/10/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**0.630**	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-70	3/6/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/19/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/10/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/12/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/12/2019 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-71	6/27/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**18.4**	**0.408**	**53.9**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/19/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**5.35**	<0.400	**9.63**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/19/2018 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**5.12**	<0.400	**9.54**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/19/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**16.5**	<0.400	**35.5**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/12/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**8.32**	<0.400	**20.2**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
WEX-60	3/6/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/21/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/10/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/12/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-90	7/2/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/10/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/12/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-91	7/2/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**0.640**	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	7/2/2019 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**0.700**	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/10/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/12/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
AREA 2																							
MW-17	3/6/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/19/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/10/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/16/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/16/2019 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-82	7/2/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/10/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/12/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
ROD Cleanup Level [4.]		NA	NA	NA	NA	NA	NA	NA	NA	7	70	NA	NA	NA	NA	NA	NA	NA	7.3	NA	NA	NA	NA
JSCS SLV [7.]		0.033	61	49	14	2.8	390	47	0.73	NA	61	110	0.97	NA	NA	NA	0.055	0.055	7.3	0.86	99	660	NA

Please refer to notes at end of table.

Cascadia Associates, LLC

Table 3
Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	1,2-Dibromoethane (EDB)	Dibromomethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-Dichloroethane (EDC)	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,2-Dichloropropane	1,3-Dichloropropane	2,2-Dichloropropane	1,1-Dichloropropene	cis-1,3-Dichloropropene	trans-1,3-Dichloropropene	Ethylbenzene	Hexachlorobutadiene	2-Hexanone	Isopropylbenzene	4-Isopropyltoluene
		Concentrations in µg/L (ppb)																					
AREA 2																							
MW-83	7/2/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/10/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/12/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-84	7/2/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/10/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/16/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-85	7/2/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/11/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/12/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-92	7/2/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/10/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/12/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
SCHNITZER ASD YARD																							
MW-10	12/14/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/27/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/18/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	3/4/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-14	3/5/2019	<0.500	<1.00	<0.500	<0.500	**1.13**	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/20/2019	<0.500	<1.00	<0.500	<0.500	**0.686**	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/11/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/11/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-73	12/14/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/27/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/18/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	3/5/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-74	12/14/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/27/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/19/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	3/5/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-76	12/14/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/27/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/19/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	3/5/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-77	12/14/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/27/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/19/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	3/4/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
ROD Cleanup Level [4.]		NA	NA	NA	NA	NA	NA	NA	NA	7	70	NA	NA	NA	NA	NA	NA	NA	7.3	NA	NA	NA	NA
JSCS SLV [7.]		0.033	61	49	14	2.8	390	47	0.73	NA	61	110	0.97	NA	NA	NA	0.055	0.055	7.3	0.86	99	660	NA

Please refer to notes at end of table.

Cascadia Associates, LLC

Table 3
Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	1,2-Dibromoethane (EDB)	Dibromomethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-Dichloroethane (EDC)	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,2-Dichloropropane	1,3-Dichloropropane	2,2-Dichloropropane	1,1-Dichloropropene	cis-1,3-Dichloropropene	trans-1,3-Dichloropropene	Ethylbenzene	Hexachlorobutadiene	2-Hexanone	Isopropylbenzene	4-Isopropyltoluene
		Concentrations in µg/L (ppb)																					
SCHNITZER ASD YARD																							
MW-79	12/14/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/27/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/18/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	3/4/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-86	7/2/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/10/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/13/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-87	7/2/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/11/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/11/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-88	7/2/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/11/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/13/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-89	7/2/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/10/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/16/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
ROD Cleanup Level [4.]		NA	NA	NA	NA	NA	NA	NA	NA	7	70	NA	NA	NA	NA	NA	NA	NA	7.3	NA	NA	NA	NA
JSCS SLV [7.]		0.033	61	49	14	2.8	390	47	0.73	NA	61	110	0.97	NA	NA	NA	0.055	0.055	7.3	0.86	99	660	NA

Please refer to notes at end of table.

Cascadia Associates, LLC

Table 3
Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	4-Methyl-2-pentanone (MiBK)	Methyl tert-butyl ether (MTBE)	Methylene chloride	Naphthalene	n-Propylbenzene	Styrene	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	Tetrachloroethene (PCE)	Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene (TCE)	Trichlorofluoromethane	1,2,3-Trichloropropane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl chloride	m,p-Xylene	o-Xylene
		Concentrations in µg/L (ppb)																					
AREA 1																							
MW-19	12/7/2016	<10.0 J	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/12/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/19/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/16/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
MW-21	6/28/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**1.22**	<1.00	<2.00	<2.00	<0.400	<0.500	**0.471**	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/18/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**0.896**	<1.00	<2.00	<2.00	<0.400	<0.500	**0.426**	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/18/2018 DUP	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**0.919**	<1.00	<2.00	<2.00	<0.400	<0.500	**0.500**	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	6/19/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**1.37**	<1.00	<2.00	<2.00	**0.408**	<0.500	**0.438**	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/10/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**0.720**	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/10/2019 DUP	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**0.750**	<1.00	<2.00	<2.00	<0.400	<0.500	**0.400**	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
MW-22	12/7/2016	<10.0 J	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/14/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/20/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/12/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
MW-27	6/28/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**2.54**	<1.00	<2.00	<2.00	**0.803**	<0.500	**0.541**	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/19/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**3.86**	<1.00	<2.00	<2.00	**1.91**	<0.500	**0.593**	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	6/19/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**3.20**	<1.00	<2.00	<2.00	**0.873**	<0.500	**0.462**	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/10/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**2.81**	<1.00	<2.00	<2.00	**0.550**	<0.500	**0.440**	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
MW-36	3/5/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**0.530**	<1.00	<2.00	<2.00	**1.34**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	6/19/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/10/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/12/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**1.19**	<1.00	<2.00	<2.00	**2.61**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
MW-39	6/27/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	**0.96**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/19/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	6/19/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**0.458**	<1.00	<2.00	<2.00	**0.574**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/12/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**1.25**	<1.00	<2.00	<2.00	**0.707**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
MW-41	12/7/2016	<10.0 J	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	**0.460 J**	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/12/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/20/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.400	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/10/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.400	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
MW-42	12/7/2016	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	**0.364 J**	<1.00	<2.00	<2.00	**4.94**	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/14/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**0.730**	<1.00	<2.00	<2.00	**4.64**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/20/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	**0.917**	<1.00	<2.00	<2.00	**1.80**	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/11/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
ROD Cleanup Level [4.]		NA	NA	NA	12	NA	NA	NA	NA	0.24	9.8	NA	NA	NA	NA	0.6	NA	NA	NA	NA	0.022	13	13.0
JSCS SLV [7.]		170	37	8.9	0.2	NA	100	2.5	0.33	0.12	9.8	NA	8.2	11	1.2	0.17	1,300	0.0095	NA	NA	0.015	1.8	

Please refer to notes at end of table.

Cascadia Associates, LLC

Table 3
Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	4-Methyl-2-pentanone (MiBK)	Methyl tert-butyl ether (MTBE)	Methylene chloride	Naphthalene	n-Propylbenzene	Styrene	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	Tetrachloroethene (PCE)	Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene (TCE)	Trichlorofluoromethane	1,2,3-Trichloropropane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl chloride	m,p-Xylene	o-Xylene
		Concentrations in µg/L (ppb)																					
AREA 1																							
MW-43	3/6/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	**0.530**	<0.500	**0.420**	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	3/6/2019 DUP	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	**0.410**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	6/19/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	**0.789**	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	6/19/2019 DUP	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	**0.799**	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/11/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/11/2019 DUP	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	1/14/2020	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	**0.490**	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
MW-44	3/6/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	6/19/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/11/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/13/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
MW-49	6/27/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/19/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	6/19/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/12/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
MW-50	12/9/2016	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	**0.320 J**	<0.500	**1.22**	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/13/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	**1.06**	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/19/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.400	<0.500	**0.850**	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/13/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.400	<0.500	**0.898**	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
MW-51	3/6/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	**0.420**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	6/19/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	**0.639**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/11/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**1.00**	<1.00	<2.00	<2.00	**1.53**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/13/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
MW-52	3/5/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**1.23**	<1.00	<2.00	<2.00	**0.490**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	6/19/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**2.41**	<1.00	<2.00	<2.00	**0.762**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	6/19/2019 DUP	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**2.55**	<1.00	<2.00	<2.00	**0.798**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/10/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**0.890**	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/10/2019 DUP	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**1.00**	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/10/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**0.670**	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/10/2019 DUP	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**0.930**	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
MW-53	12/6/2016	<10.0 J	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/12/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/18/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/10/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
ROD Cleanup Level [4.]		NA	NA	NA	12	NA	NA	NA	NA	0.24	9.8	NA	NA	NA	NA	0.6	NA	NA	NA	NA	0.022	13	13.0
JSCS SLV [7.]		170	37	8.9	0.2	NA	100	2.5	0.33	0.12	9.8	NA	8.2	11	1.2	0.17	1,300	0.0095	NA	NA	0.015	1.8	

Please refer to notes at end of table.

Cascadia Associates, LLC

Table 3
Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	4-Methyl-2-pentanone (MiBK)	Methyl tert-butyl ether (MTBE)	Methylene chloride	Naphthalene	n-Propylbenzene	Styrene	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	Tetrachloroethene (PCE)	Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene (TCE)	Trichlorofluoromethane	1,2,3-Trichloropropane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl chloride	m,p-Xylene	o-Xylene
		Concentrations in µg/L (ppb)																					
AREA 1																							
MW-62	3/6/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	3/6/2019 DUP	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	6/19/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/10/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/10/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
MW-70	3/6/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	**2.03**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	6/19/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	**2.03**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/10/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	**2.29**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/12/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	**2.52**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/12/2019 DUP	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	**2.56**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
MW-71	6/27/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**3.58**	<1.00	<2.00	<2.00	**3.30**	<0.500	**0.403**	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/19/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**1.92**	<1.00	<2.00	<2.00	**1.14**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/19/2018 DUP	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**2.10**	<1.00	<2.00	<2.00	**1.08**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	6/19/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**3.15**	<1.00	<2.00	<2.00	**2.04**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/12/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**2.35**	<1.00	<2.00	<2.00	**1.13**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
WEX-60	3/6/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	6/21/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/10/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/12/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
MW-90	7/2/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/10/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/12/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
MW-91	7/2/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	7/2/2019 DUP	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/10/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/12/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
AREA 2																							
MW-17	3/6/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	6/19/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/10/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/16/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/16/2019 DUP	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
MW-82	7/2/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/10/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/12/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
ROD Cleanup Level [4.]		NA	NA	NA	12	NA	NA	NA	NA	0.24	9.8	NA	NA	NA	NA	0.6	NA	NA	NA	NA	0.022	13	13.0
JSCS SLV [7.]		170	37	8.9	0.2	NA	100	2.5	0.33	0.12	9.8	NA	8.2	11	1.2	0.17	1,300	0.0095	NA	NA	0.015	1.8	

Please refer to notes at end of table.

Cascadia Associates, LLC

Table 3
Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	4-Methyl-2-pentanone (MiBK)	Methyl tert-butyl ether (MTBE)	Methylene chloride	Naphthalene	n-Propylbenzene	Styrene	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	Tetrachloroethene (PCE)	Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene (TCE)	Trichlorofluoromethane	1,2,3-Trichloropropane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl chloride	m,p-Xylene	o-Xylene
		Concentrations in µg/L (ppb)																					
AREA 2																							
MW-83	7/2/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/10/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/12/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
MW-84	7/2/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/10/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/16/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
MW-85	7/2/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/11/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/12/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
MW-92	7/2/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/10/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/12/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
SCHNITZER ASD YARD																							
MW-10	12/14/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	6/27/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/18/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	3/4/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
MW-14	3/5/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	6/20/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/11/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/11/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
MW-73	12/14/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	6/27/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/18/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	**0.530**
	3/5/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	**0.650**
MW-74	12/14/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	6/27/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/19/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	3/5/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
MW-76	12/14/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	6/27/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/19/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	3/5/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
MW-77	12/14/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	6/27/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/19/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	3/4/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
ROD Cleanup Level [4.]		NA	NA	NA	12	NA	NA	NA	NA	0.24	9.8	NA	NA	NA	NA	0.6	NA	NA	NA	NA	0.022	13	13.0
JSCS SLV [7.]		170	37	8.9	0.2	NA	100	2.5	0.33	0.12	9.8	NA	8.2	11	1.2	0.17	1,300	0.0095	NA	NA	0.015	1.8	

Please refer to notes at end of table.

Cascadia Associates, LLC

Table 3
Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	4-Methyl-2-pentanone (MiBK)	Methyl tert-butyl ether (MTBE)	Methylene chloride	Naphthalene	n-Propylbenzene	Styrene	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	Tetrachloroethene (PCE)	Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene (TCE)	Trichlorofluoromethane	1,2,3-Trichloropropane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl chloride	m,p-Xylene	o-Xylene
		Concentrations in µg/L (ppb)																					
SCHNITZER ASD YARD																							
MW-79	12/14/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	6/27/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/18/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	3/4/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
MW-86	7/2/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	**3.06**	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/10/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/13/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
MW-87	7/2/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/11/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/11/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
MW-88	7/2/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/11/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/13/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
MW-89	7/2/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/10/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/16/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
ROD Cleanup Level [4.]		NA	NA	NA	12	NA	NA	NA	NA	0.24	9.8	NA	NA	NA	NA	0.6	NA	NA	NA	NA	0.022	13	13.0
JSCS SLV [7.]		170	37	8.9	0.2	NA	100	2.5	0.33	0.12	9.8	NA	8.2	11	1.2	0.17	1,300	0.0095	NA	NA	0.015	1.8	

Notes:

1. < = constituent was not detected at a concentration greater than laboratory reporting limit shown.
2. -- = not applicable or not established.
3. µg/L (ppb) = micrograms per liter (parts per billion).
4. ROD Cleanup Levels from U.S. EPA Record of Decision Portland Harbor Superfund Site, Portland, Oregon, January 2017. The level shown is the Groundwater Cleanup Level unless one was not available, in which case the Surface Water Cleanup Level was used, per DEQ Guidance.
5. J = concentration is less than the laboratory reporting limit but greater than the laboratory detection limit. The reported value is an estimate.
6. Bold = analyte was detected above the laboratory method detection limit.
7. JSCS SLV = Screening Level Values from Portland Harbor Joint Source Control Strategy (JSCS), December 2005.
8. Shading denotes analyte detected above screening criteria. As instructed by DEQ, concentrations of analytes were compared to the Portland Harbor Cleanup Level. If neither a Groundwater or Surface Water Cleanup Level was available, the data were compared to the Joint Source Control Strategy Screening Level Value.
9. Q-54 = Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260C/8270D. The results are reported as estimated values.

Cascadia Associates, LLC

Table 4
Groundwater Analytical Results - Petroleum Hydrocarbons
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	TPH-Diesel	TPH-Oil
		Concentrations in mg/L (ppm)	
AREA 1			
MW-52	3/5/2019	<0.187	<0.374
	6/19/2019	<0.189	<0.377
	9/10/2019	<0.189	<0.377
	12/10/2019	<0.187	<0.374
MW-62	3/6/2019	<0.189	<0.377
	6/19/2019	<0.190	<0.381
	9/10/2019	<0.189	<0.377
	12/10/2019	<0.187	<0.374
WEX-60	3/6/2019	<0.200	<0.400
	3/6/2019 DUP	<0.189	<0.377
	6/21/2019	<0.189	<0.377
	6/21/2019 DUP	<0.190	<0.381
	9/10/2019	<0.189	<0.377
	9/10/2019 DUP	<0.189	<0.377
	12/12/2019	<0.194	<0.388
	12/12/2019 DUP	<0.187	<0.374
MW-90	7/2/2019	<0.187	<0.374
	9/10/2019	<0.187	<0.374
	12/12/2019	<0.187	<0.374
MW-91	7/2/2019	<0.189	<0.377
	9/10/2019	<0.192	<0.385
	12/12/2019	<0.190	<0.381
AREA 2			
MW-17	3/6/2019	<0.187	<0.374
	6/19/2019	<0.187	<0.374
	9/10/2019	<0.189	<0.377
	12/16/2019	<0.192	<0.385
	12/16/2019 DUP	<0.190	<0.381
MW-82	7/2/2019	<0.189	<0.377
	9/10/2019	<0.189	<0.377
	12/12/2019	<0.190	<0.381
MW-83	7/2/2019	<0.187	<0.374
	9/11/2019	<0.189	<0.377
	12/12/2019	<0.190	<0.381
MW-84	7/2/2019	<0.189	<0.377
	9/10/2019	<0.187	<0.374
	12/16/2019	<0.190	<0.381
MW-85	7/2/2019	<0.187	<0.374
	9/11/2019	<0.189	<0.377
	12/12/2019	<0.190	<0.381
MW-92	7/2/2019	<0.189	<0.377
	9/10/2019	<0.196	<0.392
	12/12/2019	<0.187	<0.374
ROD Cleanup Level [4.]		NA	NA
JSCS SLV [5.]		NA	NA

Please refer to notes at end of table.

Cascadia Associates, LLC

Table 4
Groundwater Analytical Results - Petroleum Hydrocarbons
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	TPH-Diesel	TPH-Oil
		Concentrations in mg/L (ppm)	
SCHNITZER ASD YARD			
MW-10	6/26/2018	<0.187	<0.374
	12/18/2018	<0.189	<0.377
	6/21/2019	<0.187	<0.374
	12/10/2019	<0.187	<0.374
MW-11	12/7/2016	<0.187	<0.374
	12/14/2017	<0.213	<0.426
	12/17/2018	<0.187	<0.374
	12/11/2019	<0.194	<0.388
MW-14	3/5/2019	<0.189	<0.377
	6/20/2019	<0.189	<0.377
	9/11/2019	<0.185	<0.370
	12/11/2019	<0.200	<0.400
MW-72	6/26/2018	<0.187	<0.374
	12/18/2018	<0.187	<0.374
	6/21/2019	<0.189	<0.377
	12/13/2019	<0.190	<0.381
	12/13/2019 DUP	<0.189	<0.377
MW-73	6/27/2018	<0.187	<0.374
	12/18/2018	**0.191 F-13**	<0.377
	12/18/2018 DUP	<0.189	<0.377
	6/20/2019	<0.189	<0.377
	12/11/2019	<0.204	<0.408
MW-74	6/27/2018	<0.190	<0.381
	12/19/2018	<0.187	<0.374
	6/20/2019	<0.190	<0.381
	12/13/2019	<0.192	<0.385
MW-77	6/26/2018	<0.187	<0.374
	12/19/2018	<0.187	<0.374
	6/20/2019	<0.190	<0.381
	12/10/2019	<0.190	<0.381
MW-79	6/26/2018	<0.187	<0.374
	12/18/2018	<0.189	<0.377
	6/20/2019	<0.189	<0.377
	12/10/2019	<0.189	<0.377
MW-86	7/2/2019	<0.192	<0.385
	7/2/2019 DUP	<0.187	<0.374
	9/10/2019	<0.189	<0.377
	9/10/2019 DUP	<0.187	<0.374
	12/13/2019	<0.187	<0.374
ROD Cleanup Level [4.]		NA	NA
JSCS SLV [5.]		NA	NA

Please refer to notes at end of table.

Cascadia Associates, LLC

Table 4
Groundwater Analytical Results - Petroleum Hydrocarbons
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	TPH-Diesel	TPH-Oil
		Concentrations in mg/L (ppm)	
SCHNITZER ASD YARD			
MW-87	7/2/2019	<0.189	<0.377
	9/11/2019	<0.189	<0.377
	12/11/2019	<0.200	<0.400
MW-88	7/2/2019	<0.187	<0.374
	9/11/2019	<0.190	<0.381
	12/13/2019	<0.190	<0.381
MW-89	7/2/2019	<0.189	**0.434**
	9/10/2019	<0.190	<0.381
	12/16/2019	<0.190	<0.381
ROD Cleanup Level [4.]		NA	NA
JSCS SLV [5.]		NA	NA

Notes:

1. < = constituent was not detected at a concentration greater than laboratory reporting limit shown.
2. TPH-Diesel = Diesel range total petroleum hydrocarbons; TPH-Oil = Oil range total petroleum hydrocarbons.
3. mg/L (ppm) = milligrams per liter (parts per million).
4. ROD Cleanup Levels from U.S. EPA Record of Decision Portland Harbor Superfund Site, Portland, Oregon, January 2017.
5. JSCS SLVs = Screening Level Values from Portland Harbor Joint Source Control Strategy (JSCS), December 2005.
6. NA = Cleanup Level and SLV not available for this analyte.
7. F-13 = The chromatographic pattern does not resemble the fuel standard used for quantitation.
8. **Bold** = analyte was detected above the laboratory method detection limit.

Table 5
Groundwater Analytical Results - Polycyclic Aromatic Hydrocarbons
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	1-Methylnaphthalene	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	Carbazole	Dibenzofuran
		Concentrations in µg/L (ppb)																			
AREA 1																					
MW-52	3/5/2019	<0.0377	<0.0377	<0.0189	<0.0189	<0.0189	<0.0189	<0.0283	<0.0283	<0.0189	<0.0283	<0.0189	<0.0189	<0.0189	<0.0189	<0.0189	<2.00	<0.0189	<0.0189	<0.0283	<0.0189
	6/19/2019	<0.0377	<0.0377	<0.0189	<0.0189	<0.0189	<0.0189	<0.0283	<0.0283	<0.0189	<0.0283	<0.0189	<0.0189	<0.0189	<0.0189	<0.0189	<0.0377	<0.0189	<0.0189	<0.0283	<0.0189
	9/10/2019	<0.0385	<0.0385	<0.0192	<0.0192	<0.0192	<0.0192	<0.0288	<0.0288	<0.0192	<0.0288	<0.0192	<0.0192	<0.0192	<0.0192	<0.0192	<0.0385	<0.0192	<0.0192	<0.0288	<0.0192
	12/10/2019	<0.0392	<0.0392	<0.0196	<0.0196	<0.0196	<0.0196	<0.0294	<0.0294	<0.0196	<0.0294	<0.0196	<0.0196	<0.0196	<0.0196	<0.0196	<0.0392	<0.0196	<0.0196	<0.0294	<0.0196
MW-62	3/6/2019	<0.0377	<0.0377	<0.0189	<0.0189	<0.0189	<0.0189	<0.0283	<0.0283	<0.0189	<0.0283	<0.0189	<0.0189	<0.0189	<0.0189	<0.0189	<2.00	<0.0189	<0.0189	<0.0283	<0.0189
	6/19/2019	<0.0381	<0.0381	<0.0190	<0.0190	<0.0190	<0.0190	<0.0286	<0.0286	<0.0190	<0.0286	<0.0190	<0.0190	<0.0190	<0.0190	<0.0190	<0.0381	<0.0190	<0.0190	<0.0286	<0.0190
	9/10/2019	<0.0381	<0.0381	<0.0190	<0.0190	<0.0190	<0.0190	<0.0286	<0.0286	<0.0190	<0.0286	<0.0190	<0.0190	<0.0190	<0.0190	<0.0190	<0.0381	<0.0190	<0.0190	<0.0286	<0.0190
	12/10/2019	<0.0374	<0.0374	<0.0187	<0.0187	<0.0187	<0.0187	<0.0280	<0.0280	<0.0187	<0.0280	<0.0187	<0.0187	<0.0187	<0.0187	<0.0187	<0.0374	<0.0187	<0.0187	<0.0280	<0.0187
MW-90	7/2/2019	<0.0377	<0.0377	<0.0189	<0.0189	<0.0189	<0.0189	<0.0283	<0.0283	<0.0189	<0.0283	<0.0189	<0.0189	<0.0189	<0.0189	<0.0189	<0.0377	**0.0249**	<0.0189	<0.0283	<0.0189
	9/10/2019	<0.0381	<0.0381	<0.0190	<0.0190	<0.0190	<0.0190	<0.0286	<0.0286	<0.0190	<0.0286	<0.0190	<0.0190	<0.0190	<0.0190	<0.0190	<0.0381	<0.0190	<0.0190	<0.0286	<0.0190
	12/12/2019	<0.0388	<0.0388	<0.0194	<0.0194	<0.0194	<0.0194	<0.0291	<0.0291	<0.0194	<0.0291	<0.0194	<0.0194	<0.0194	<0.0194	<0.0194	<0.0388	<0.0194	<0.0194	<0.0291	<0.0194
MW-91	7/2/2019	<0.154	<0.154	<0.0769	<0.0769	<0.0769	<0.0769	<0.115	<0.115	<0.0769	<0.115	<0.0769	<0.0769	**0.0803**	<0.0769	<0.0769	<0.154	<0.0769	<0.0769	<0.115	<0.0769
	9/10/2019	<0.151	<0.151	<0.0755	<0.0755	<0.0755	<0.0755	<0.113	<0.113	<0.0755	<0.113	<0.0755	<0.0755	<0.0755	<0.0755	<0.0755	<0.151	<0.0755	<0.0755	<0.113	<0.0755
	12/12/2019	<0.151	<0.151	<0.0755	<0.0755	<0.0755	<0.0755	<0.113	<0.113	<0.0755	<0.113	<0.0755	<0.0755	<0.0755	<0.0755	<0.0755	<0.151	<0.0755	<0.0755	<0.113	<0.0755
AREA 2																					
MW-17	3/6/2019	<0.0377	<0.0377	<0.0189	<0.0189	**0.0217**	<0.0189	<0.0283	<0.0283	<0.0189	<0.0283	<0.0189	<0.0189	<0.0189	<0.0189	<0.0189	<2.00	<0.0189	<0.0189	<0.0283	<0.0189
	6/19/2019	<0.0377	<0.0377	<0.0189	<0.0189	<0.0189	<0.0189	<0.0283	<0.0283	<0.0189	<0.0283	<0.0189	<0.0189	<0.0189	<0.0189	<0.0189	<0.0377	<0.0189	<0.0189	<0.0283	<0.0189
	9/10/2019	<0.0374	<0.0374	<0.0187	<0.0187	<0.0187	<0.0187	<0.0280	<0.0280	<0.0187	<0.0280	<0.0187	<0.0187	<0.0187	<0.0187	<0.0187	<0.0374	<0.0187	<0.0187	<0.0280	<0.0187
	12/16/2019	<0.0381	<0.0381	<0.0190	<0.0190	<0.0190	<0.0190	<0.0286	<0.0286	<0.0190	<0.0286	<0.0190	<0.0190	<0.0190	<0.0190	<0.0190	<0.0381	<0.0190	<0.0190	<0.0286	<0.0190
	12/16/2019 DUP	<0.0381	<0.0381	<0.0190	<0.0190	<0.0190	**0.0208**	<0.0286	**0.0376**	<0.0190	**0.0310**	**0.0226**	<0.0190	<0.0190	<0.0190	<0.0190	<0.0381	<0.0190	<0.0190	<0.0286	<0.0190
MW-66	6/27/2018	<0.0769	<0.0769	**0.210**	**0.0358**	<0.0385	<0.0385	<0.0385	<0.0385	<0.0385	<0.0385	<0.0385	<0.0385	<0.0385	<0.0385	<0.0385	<0.0769	**0.0636**	**0.0522**	--	<0.0385
	12/18/2018	<0.0748	<0.0748	**0.286**	<0.0374	<0.0374	**0.0485 M-05**	**0.0653**	**0.0671 M-05**	**0.0765**	<0.0374	**0.0472 M-05**	<0.0374	**0.0616**	<0.0374	**0.0559**	<0.0748	**0.0994**	**0.168**	--	<0.0374
	6/20/2019	<0.0769	<0.0769	**0.205**	<0.0385	<0.0385	<0.0385	<0.0385	<0.0385	<0.0385	<0.0385	<0.0385	<0.0385	<0.0385	<0.0385	<0.0385	<0.0769	**0.0890**	**0.0877**	--	<0.0385
	12/12/2019	<0.0762	<0.0762	**0.417**	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0762	**0.0942**	**0.0474**	--	<0.0381
MW-81	12/9/2016	<0.150 H	<0.150 H	**0.607 H**	<0.0748 H	<0.0748 H	<0.0748 H	<0.112 H	<0.112 H	<0.0748 H	<0.112 H	<0.0748 H	<0.0748 H	<0.0748 H	<0.0748 H	<0.0748 H	<0.150 H	<0.0748 H	<0.0748 H	<0.112 H	<0.0748 H
	12/13/2017	<0.150	<0.150	**0.396**	<0.0748	<0.0748	<0.0748	<0.112	<0.112	<0.0748	<0.112	<0.0748	<0.0748	<0.0748	<0.0748	<0.0748	<0.150	<0.0748	<0.0748	<0.112	<0.0748
	12/17/2018	<0.150	<0.150	**0.555**	<0.0748	<0.0748	<0.0748	<0.112	<0.112	<0.0748	<0.112	<0.0748	<0.0748	<0.0748	<0.0748	<0.0748	<0.150	<0.0748	<0.0748	<0.112	<0.0748
	12/16/2019	<0.154	<0.154	**0.506**	<0.0769	<0.0769	<0.0769	<0.115	<0.115	<0.0769	<0.115	<0.0769	<0.0769	<0.0769	<0.0769	<0.0769	<0.154	<0.0769	<0.0769	<0.115	<0.0769
MW-82	7/2/2019	<0.151	<0.151	**0.138**	<0.0755	<0.0755	<0.0755	<0.113	<0.113	<0.0755	<0.113	<0.0755	<0.0755	<0.0755	**0.105**	<0.0755	<0.151	**0.238**	<0.0755	<0.113	<0.0755
	9/10/2019	<0.150	<0.150	**0.0833**	<0.0748	<0.0748	<0.0748	<0.112	<0.112	<0.0748	<0.112	<0.0748	<0.0748	<0.0748	<0.0748	<0.0748	<0.150	**0.194**	<0.0748	<0.112	<0.0748
	12/12/2019	<0.160	<0.160	**0.295**	<0.0800	<0.0800	<0.0800	<0.120	<0.120	<0.0800	<0.120	<0.0800	<0.0800	**0.116**	**0.220**	<0.0800	<0.160	**0.424**	<0.0800	<0.120	<0.0800
MW-83	7/2/2019	<0.151	<0.151	**0.253**	<0.0755	<0.0755	<0.0755	<0.113	<0.113	<0.0755	<0.113	<0.0755	<0.0755	**0.101**	<0.0755	<0.0755	**0.203**	**0.182**	**0.0834**	<0.113	<0.0755
	9/11/2019	<0.151	<0.151	**0.266**	<0.0755	<0.0755	<0.0755	<0.113	<0.113	<0.0755	<0.113	<0.0755	<0.0755	<0.0755	<0.0755	<0.0755	<0.151	<0.0755	<0.0755	<0.113	<0.0755
	12/12/2019	<0.167	<0.167	**0.312**	<0.0833	<0.0833	<0.0833	<0.125	<0.125	<0.0833	<0.125	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.167	<0.0833	<0.0833	<0.125	<0.0833
ROD Cleanup Level [4.]		NA	2.1	23	NA	0.73	0.0012	0.00012	0.0012	0.4	0.0013	0.0013	0.00012	6.2	3.9	0.0012	12	6.3	10	NA	NA
JSCS SLV [5.]		NA	0.2	0.2	0.2	0.2	0.018	0.018	0.018	0.2	0.018	0.018	0.018	0.2	0.2	0.018	0.2	0.2	0.2	3.4	3.7

Please refer to notes at end of table.

Cascadia Associates, LLC

Table 5
Groundwater Analytical Results - Polycyclic Aromatic Hydrocarbons
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	1-Methylnaphthalene	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	Carbazole	Dibenzofuran
		Concentrations in µg/L (ppb)																			
AREA 2																					
MW-84	7/2/2019	<0.0377	<0.0377	<0.0189	<0.0189	<0.0189	<0.0189	<0.0283	<0.0283	<0.0189	<0.0283	<0.0189	<0.0189	<0.0189	<0.0189	<0.0189	<0.0377	<0.0189	<0.0189	<0.0283	<0.0189
	9/10/2019	<0.0381	<0.0381	<0.0190	<0.0190	<0.0190	<0.0190	<0.0286	<0.0286	<0.0190	<0.0286	<0.0190	<0.0190	<0.0190	<0.0190	<0.0190	<0.0381	<0.0190	<0.0190	<0.0286	<0.0190
	12/16/2019	<0.0377	<0.0377	<0.0189	<0.0189	<0.0189	<0.0189	<0.0283	<0.0283	<0.0189	<0.0283	<0.0189	<0.0189	<0.0189	<0.0189	<0.0189	<0.0377	<0.0189	<0.0189	<0.0283	<0.0189
MW-85	7/2/2019	<0.151	<0.151	**1.63**	<0.0755	<0.0755	<0.0755	<0.113	<0.113	<0.0755	<0.113	<0.0755	<0.0755	<0.0755	**0.235**	<0.0755	<0.151	<0.0755	<0.0755	<0.113	<0.0755
	9/11/2019	<0.151	<0.151	**0.685**	<0.0755	<0.0755	<0.0755	<0.113	<0.113	<0.0755	<0.113	<0.0755	<0.0755	<0.0755	<0.0755	<0.0755	<0.151	<0.0755	<0.0755	<0.113	<0.0755
	12/12/2019	<0.152	<0.152	**0.518**	<0.0762	<0.0762	<0.0762	<0.114	<0.114	<0.0762	<0.114	<0.0762	<0.0762	<0.0762	<0.0762	<0.0762	<0.152	<0.0762	<0.0762	<0.114	<0.0762
MW-92	7/2/2019	<0.151	<0.151	<0.0755	<0.0755	<0.0755	<0.0755	<0.113	<0.113	<0.0755	<0.113	<0.0755	<0.0755	<0.0755	<0.0755	<0.0755	<0.151	<0.0755	<0.0755	<0.113	<0.0755
	9/10/2019	<0.152	<0.152	<0.0762	<0.0762	<0.0762	<0.0762	<0.114	<0.114	<0.0762	<0.114	<0.0762	<0.0762	<0.0762	<0.0762	<0.0762	<0.152	<0.0762	<0.0762	<0.114	<0.0762
	12/12/2019	<0.154	<0.154	<0.0769	<0.0769	<0.0769	<0.0769	<0.115	<0.115	<0.0769	<0.115	<0.0769	<0.0769	<0.0769	<0.0769	<0.0769	<0.154	<0.0769	<0.0769	<0.115	<0.0769
SCHNITZER ASD YARD																					
MW-14	3/5/2019	<0.0377	<0.0377	**0.112**	<0.0189	<0.0377	<0.0189	<0.0283	<0.0283	<0.0189	<0.0283	<0.0189	<0.0189	**0.0236**	<0.0189	<0.0189	<2.00	**0.0254**	**0.0261**	<0.0283	<0.0189
	3/5/2019 DUP	<0.0377	<0.0377	**0.106**	<0.0189	<0.0189	<0.0189	<0.0283	<0.0283	<0.0189	<0.0283	<0.0189	<0.0189	**0.0221**	<0.0189	<0.0189	<0.0377	**0.0286**	**0.0224**	<0.0283	<0.0189
	6/20/2019	<0.0381	<0.0381	**0.105**	<0.0190	<0.210	<0.0190	<0.0286	<0.0286	<0.0755	<0.0286	<0.0190	<0.0755	<0.0190	<0.0190	<0.0755	<0.0381	**0.0294**	<0.0190	<0.0286	<0.0190
	6/20/2019 DUP	<0.0755	<0.0755	**0.141**	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377
	9/11/2019	<0.151	<0.151	**0.169**	<0.0755	**0.0984**	<0.0755	<0.113	<0.113	<0.0755	<0.113	<0.0755	<0.0755	**0.0781**	**0.342**	<0.0755	<0.151	**0.400**	<0.0755	**0.779**	**0.198**
	9/11/2019 DUP	<0.0755	<0.0755	**0.138**	**0.0424**	**0.114**	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	**0.0855**	**0.355**	<0.0377	<0.0377	**0.427**	**0.0716**	--	**0.263**
	12/11/2019	<0.162	<0.162	<0.0808	<0.0808	**0.0988**	<0.0808	<0.121	<0.121	<0.0808	<0.121	<0.0808	<0.0808	**0.231**	**0.171**	<0.0808	<0.162	**0.312**	**0.173**	**0.158**	**0.104**
MW-72	6/26/2018	<0.0748	<0.0748	**0.108**	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	**0.0433**	**0.0644**	<0.0374	<0.0748	**0.192**	**0.0403**	--	<0.0374
	12/18/2018	<0.0748	<0.0748	**0.0643**	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0748	**0.0828**	<0.0374	--	<0.0374
	12/18/2018 DUP	<0.0748	<0.0748	**0.0611**	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0748	**0.0809**	<0.0374	--	<0.0374
	6/21/2019	<0.0755	<0.0755	**0.0612**	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0755	**0.0822**	**0.0416**	--	<0.0377
	12/13/2019	<0.0377	<0.0377	**0.0655**	<0.0189	<0.0189	<0.0189	<0.0283	<0.0283	<0.189	<0.0283	<0.0189	<0.189	**0.0350**	**0.0277**	<0.189	<0.0377	**0.0886**	**0.0372**	<0.0283	<0.0189
	12/13/2019 DUP	<0.0385	<0.0385	**0.0627**	<0.0192	<0.0192	<0.0192	<0.0288	<0.0288	<0.192	<0.0288	<0.192	<0.192	**0.0356**	**0.0245**	<0.0192	<0.0385	**0.0918**	**0.0372**	<0.0288	<0.0192
MW-73	6/27/2018	**1.32**	**0.720**	**0.460**	<0.0377	**0.0750**	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	**0.0400**	<0.0660	<0.0377	**0.109**	**0.0541**	**0.0491**	--	<0.0377
	12/18/2018	**0.941**	**0.597**	**0.335 M-02**	<0.0377	**0.118**	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	**0.0506 M-04**	<0.0377	**0.0857**	**0.0546**	**0.0389**	--	<0.0377
	6/20/2019	**1.24**	**0.761**	**0.407**	<0.0385	**0.0469**	<0.0385	<0.0385	<0.0385	<0.0385	<0.0385	<0.0385	<0.0385	<0.0385	**0.0504**	<0.0385	**0.123**	**0.0529**	**0.0462**	--	<0.0385
	12/11/2019	**0.594**	**0.343**	**0.248**	<0.0377	**0.150**	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.189	<0.0377	<0.0755	**0.0703**	<0.0377	--	<0.0377
MW-79	6/26/2018	<0.152	<0.152	<0.0762	<0.0762	<0.0762	<0.0762	<0.114	<0.114	<0.0762	<0.114	<0.0762	<0.0762	<0.0762	<0.0762	<0.0762	<0.152	<0.0762	<0.0762	<0.114	<0.0762
	12/18/2018	<0.152	<0.152	<0.0762	<0.0762	<0.0762	<0.0762	<0.114	<0.114	<0.0762	<0.114	<0.0762	<0.0762	<0.0762	<0.0762	<0.0762	<0.152	<0.0762	<0.0762	<0.114	<0.0762
	6/20/2019	<0.150	<0.150	<0.0748	<0.0748	<0.0748	<0.0748	<0.112	<0.112	<0.0748	<0.112	<0.0748	<0.0748	<0.0748	<0.0748	<0.0748	<0.150	<0.0748	<0.0748	<0.112	<0.0748
	12/10/2019	<0.0748	<0.0748	<0.0374	<0.0374	**0.0409**	<0.0374	<0.0561	<0.0561	<0.0374	<0.0561	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0748	<0.0374	<0.0374	<0.0561	<0.0374
ROD Cleanup Level [4.]		NA	2.1	23	NA	0.73	0.0012	0.00012	0.0012	0.4	0.0013	0.0013	0.00012	6.2	3.9	0.0012	12	6.3	10	NA	NA
JSCS SLV [5.]		NA	0.2	0.2	0.2	0.2	0.018	0.018	0.018	0.2	0.018	0.018	0.018	0.2	0.2	0.018	0.2	0.2	0.2	3.4	3.7

Please refer to notes at end of table.

Cascadia Associates, LLC

Table 5
Groundwater Analytical Results - Polycyclic Aromatic Hydrocarbons
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	1-Methylnaphthalene	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	Carbazole	Dibenzofuran
		Concentrations in µg/L (ppb)																			
SCHNITZER ASD YARD																					
MW-80	12/9/2016	<0.0748	<0.0748	**0.0343 J**	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0748	<0.0374	**0.0363 J**	--	<0.0374
	12/14/2017	<0.0374	<0.0374	<0.0187	<0.0187	<0.0187	<0.0187	<0.0280	<0.0280	<0.0187	<0.0280	<0.0187	<0.0187	<0.0187	<0.0187	<0.0187	<0.0374	<0.0187	<0.0187	<0.0280	<0.0187
	12/18/2018	<0.0748	<0.0748	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0748	<0.0374	<0.0374	<0.0374	<0.0374
	12/13/2019	<0.0381	<0.0381	<0.0190	<0.0190	<0.0190	<0.0190	<0.0286	<0.0286	<0.0190	<0.0286	<0.0190	<0.0190	<0.0190	<0.0190	<0.0190	<0.0381	<0.0190	**0.0385 B-02**	<0.0286	<0.0190
MW-86	7/2/2019	<0.151	<0.151	<0.0755	<0.0755	<0.0755	<0.0755	<0.113	<0.113	<0.0755	<0.113	<0.0755	<0.0755	<0.0755	<0.0755	<0.0755	<0.151	<0.0755	<0.0755	<0.113	<0.0755
	9/10/2019	<0.160	<0.160	<0.0800	<0.0800	<0.0800	<0.0800	<0.120	<0.120	<0.0800	<0.120	<0.0800	<0.0800	<0.0800	<0.0800	<0.0800	<0.160	<0.0800	<0.0800	<0.120	<0.0800
	12/13/2019	<0.165	<0.165	<0.0825	<0.0825	<0.0825	<0.0825	<0.124	<0.124	<0.0825	<0.124	<0.0825	<0.0825	<0.0825	<0.0825	<0.0825	<0.165	<0.0825	<0.0825	<0.124	<0.0825
MW-87	7/2/2019	<0.151	<0.151	<0.0755	<0.0755	<0.0755	<0.0755	<0.113	<0.113	<0.0755	<0.113	<0.0755	<0.0755	<0.0755	<0.0755	<0.0755	<0.151	**0.0950**	<0.0755	<0.113	<0.0755
	7/2/2019 DUP	<0.151	<0.151	<0.0755	<0.0755	<0.0755	<0.0755	<0.113	<0.113	<0.0755	<0.113	<0.0755	<0.0755	<0.0755	<0.0755	<0.0755	<0.151	**0.0938**	<0.0755	<0.113	<0.0755
	9/11/2019	<0.151	<0.151	<0.0755	<0.0755	<0.0755	<0.0755	<0.113	<0.113	<0.0755	<0.113	<0.0755	<0.0755	<0.0755	<0.0755	<0.0755	<0.151	<0.0755	<0.0755	<0.113	<0.0755
	9/11/2019 DUP	<0.151	<0.151	<0.0755	<0.0755	<0.0755	<0.0755	<0.113	<0.113	<0.0755	<0.113	<0.0755	<0.0755	<0.0755	<0.0755	<0.0755	<0.151	<0.0755	<0.0755	<0.113	<0.0755
	12/11/2019	<0.168	<0.168	<0.0842	<0.0842	<0.0842	<0.0842	<0.126	<0.126	<0.0842	<0.126	<0.0842	<0.0842	<0.0842	<0.0842	<0.0842	<0.168	<0.0842	<0.0842	<0.126	<0.0842
	12/11/2019 DUP	<0.0777	<0.0777	<0.0388	<0.0388	**0.0499**	<0.0388	<0.0388	<0.0388	<0.0388	<0.0388	<0.0388	<0.0388	**0.0623**	<0.0388	<0.0388	<0.0777	**0.0750**	**0.0608**	--	<0.0388
MW-88	7/2/2019	<0.150	<0.150	**0.281**	<0.0748	<0.0748	<0.0748	<0.112	<0.112	<0.0748	<0.112	<0.0748	<0.0748	<0.0748	<0.0748	<0.0748	<0.150	**0.138**	<0.0748	<0.112	<0.0748
	9/11/2019	<0.150	<0.150	**0.892**	<0.0748	<0.0748	<0.0748	<0.112	<0.112	<0.0748	<0.112	<0.0748	<0.0748	<0.0748	<0.0748	<0.0748	<0.150	**0.114**	<0.0748	<0.112	<0.0748
	12/13/2019	<0.151	<0.151	**0.0946**	<0.0755	<0.0755	<0.0755	<0.113	<0.113	<0.0755	<0.113	<0.0755	<0.0755	<0.0755	<0.0755	<0.0755	<0.151	<0.0755	<0.0755	<0.113	<0.0755
MW-89	7/2/2019	<0.157	<0.157	<0.0784	<0.0784	<0.0784	<0.0784	<0.118	<0.118	<0.0784	<0.118	<0.0784	<0.0784	<0.0784	<0.0784	<0.0784	<0.157	<0.0784	<0.0784	<0.118	<0.0784
	9/10/2019	<0.178	<0.178	<0.0889	<0.0889	<0.0889	<0.0889	<0.133	<0.133	<0.0889	<0.133	<0.0889	<0.0889	<0.0889	<0.0889	<0.0889	<0.178	<0.0889	<0.0889	<0.133	<0.0889
	12/16/2019	<0.154	<0.154	<0.0769	<0.0769	<0.0769	<0.0769	<0.115	<0.115	<0.0769	<0.115	<0.0769	<0.0769	<0.0769	<0.0769	<0.0769	<0.154	<0.0769	**0.102**	<0.115	<0.0769
ROD Cleanup Level [4.]		NA	2.1	23	NA	0.73	0.0012	0.00012	0.0012	0.4	0.0013	0.0013	0.00012	6.2	3.9	0.0012	12	6.3	10	NA	NA
JSCS SLV [5.]		NA	0.2	0.2	0.2	0.2	0.018	0.018	0.018	0.2	0.018	0.018	0.018	0.2	0.2	0.018	0.2	0.2	0.2	3.4	3.7

Notes:

1. < = constituent was not detected at a concentration greater than laboratory reporting limit shown.
2. -- = not analyzed.
3. µg/L (ppb) = micrograms per liter (parts per billion).
4. ROD Cleanup Levels from U.S. EPA Record of Decision Portland Harbor Superfund Site, Portland, Oregon, January 2017 and most recently updated in a January 2020 Errata. The level shown is the Groundwater Cleanup Level unless one was not available, in which case the Surface Water Cleanup Level was used, per DEQ Guidance.
5. JSCS SLV = Screening Level Values from Portland Harbor Joint Source Control Strategy (JSCS), December 2005.
6. **Bold** = analyte was detected above the laboratory method detection limit.
7. Shading denotes analyte detected above screening criteria. As instructed by DEQ, concentrations of analytes were compared to the Portland Harbor Cleanup Levels. If neither a Groundwater or Surface Water Cleanup Level was available, the data were compared to the Joint Source Control Strategy Screening Level Value.
8. M-02 = Due to matrix interference, this analyte cannot be accurately quantified. The reported result is estimated.
9. M-04 = Due to matrix interference, this analyte cannot be accurately quantified. The reported result may contain a high bias.
10. M-05 = Estimated results. Peak separation for structural isomers is insufficient for accurate quantification.
11. J = concentration is less than the reporting limit but greater than the laboratory detection limit. The reported value is an estimate.
12. H = Holding time violation. Reported values are minimum concentrations.
13. NA = Cleanup Level and SLV not available for this analyte.

Cascadia Associates, LLC

Table 6
Groundwater Analytical Results - Metals
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	Antimony		Arsenic		Barium		Cadmium		Chromium		Copper		Lead		Manganese		Mercury		Nickel		Zinc	
		Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved
		Concentrations in µg/L (ppb)																					
AREA 1																							
MW-22	12/7/2016	<1.00	<1.00	**1.43**	**1.39**	**5.99**	**2.72**	<0.200	<0.200	<1.00	<1.00	**0.780 J**	**0.544 J**	**0.246**	<0.200	**145**	**0.767 J**	--	--	<1.00	<1.00	**7.57**	**3.40 J**
	12/14/2017	<1.00	<1.00	**9.54**	**1.52**	**388**	**3.70**	**1.26**	<0.200	**30.4**	<1.00	**61.6**	<1.00	**31.7 B**	<0.200	**4,290**	**3.49**	--	--	**45.8 B-02**	<1.00	**318**	<4.00
	12/20/2018	<1.00	<1.00	**1.94**	**1.49**	**32.9 B-02**	**6.76**	<0.200	<0.200	**2.38**	<1.00	**9.57**	**1.55**	**2.89**	**0.334**	**302**	**51.2**	--	--	**4.52**	<1.00	**60.0**	**8.52**
	12/12/2019	<1.00	<1.00	**2.40**	<2.00	**13.3**	**4.32**	<0.200	<0.200	<2.00	<2.00	<2.00	<2.00	**0.740**	<0.200	**76.3**	**2.02**	--	--	<2.00	<2.00	**7.78**	<4.00
MW-42	12/7/2016	<1.00	<1.00	**0.922 J**	**1.00**	**44.2**	**45.6**	<0.200	<0.200	**0.584 J**	**0.622 J**	<1.00	**0.522 J**	<0.200	<0.200	**1.21**	**1.20**	<0.0800	<0.0800	<1.00	**0.578 J**	**2.68 J**	**4.19**
	12/14/2017	<1.00	<1.00	**1.12**	**1.21**	**44.2**	**45.4**	<0.200	<0.200	**1.10**	**1.15**	<1.00	<1.00	**0.257**	<0.200	**18.9**	**29.2**	<0.0800	--	<1.00	<1.00	**4.99**	<4.00
	12/20/2018	<1.00	<1.00	**1.04**	<1.00	**49.2 B-02**	**47.0**	<0.200	<0.200	<1.00	<1.00	**1.28**	<1.00	<0.200	<0.200	**92.9**	**55.5**	--	--	**1.07**	<1.00	<4.00	<4.00
	12/11/2019	<1.00	<1.00	<1.00	<1.00	**46.9**	**43.1**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**166**	**154**	--	--	<1.00	<1.00	<4.00	<4.00
MW-52	3/5/2019	--	<1.00	--	<1.00	--	**57.1**	--	<0.200	--	<1.00	--	**2.30**	--	**0.568**	--	**485**	--	--	--	**3.59**	--	**9.48**
	6/19/2019	--	<1.00	--	<1.00	--	**47.4**	--	<0.200	--	<1.00	--	**1.07**	--	<0.200	--	**183**	--	--	--	**1.64**	--	<4.00
	9/10/2019	--	<1.00	--	<1.00	--	**44.8**	--	<0.200	--	<1.00	--	<1.00	--	<0.200	--	**252**	--	--	--	**1.98**	--	<4.00
	12/10/2019	<1.00	<1.00	<1.00	<1.00	**50.2**	**45.3**	<0.200	<0.200	<1.00	<1.00	**1.35**	<1.00	<0.200	<0.200	**242**	**218**	--	--	**2.17**	**1.75**	**6.73**	**5.23**
MW-62	3/6/2019	--	<1.00	--	**1.34**	--	**31.5**	--	<0.200	--	<1.00	--	**4.24**	--	**0.708**	--	**397**	--	--	--	**2.38**	--	**48.4**
	6/19/2019	--	<1.00	--	**1.19**	--	**27.8**	--	<0.200	--	<1.00	--	**1.41**	--	<0.200	--	**161**	--	--	--	**2.01**	--	**11.9**
	9/10/2019	--	<1.00	--	**1.26**	--	**40.4**	--	<0.200	--	<1.00	--	**2.52**	--	<0.200	--	**152**	--	--	--	**2.77**	--	**11.2**
	12/10/2019	<1.00	<1.00	**1.25**	**1.28**	**42.3**	**38.5**	<0.200	<0.200	<1.00	<1.00	**2.63**	**1.81**	<0.200	<0.200	**294**	**267**	--	--	**3.17**	**2.93**	**13.8**	**10.6**
MW-90	7/2/2019	--	<1.00	--	<1.00	--	**26.0**	--	<0.200	--	<1.00	--	**7.38**	--	<0.200	--	**672**	--	--	--	**3.79**	--	**7.81**
	9/10/2019	--	<1.00	--	**3.29**	--	**34.2**	--	<0.200	--	<1.00	--	<1.00	--	<0.200	--	**1,570**	--	--	--	**2.88**	--	<4.00
	12/12/2019	<1.00	<1.00	<2.00	<2.00	**21.2**	**20.5**	<0.200	<0.200	<2.00	<2.00	<2.00	<2.00	<0.200	<0.200	**315**	**335**	--	--	**2.00**	**2.10**	<4.00	<4.00
MW-91	7/2/2019	--	<1.00	--	**1.52**	--	**82.4**	--	<0.200	--	<1.00	--	<1.00	--	<0.200	--	**1,800**	--	--	--	**4.75**	--	**7.53**
	9/10/2019	--	<1.00	--	<1.00	--	**56.0**	--	<0.200	--	<1.00	--	**3.04**	--	<0.200	--	**165**	--	--	--	**2.54**	--	**23.1**
	12/12/2019	<1.00	<1.00	<2.00	<2.00	**47.2**	**45.4**	<0.200	<0.200	<2.00	<2.00	**2.79**	**2.28**	<0.200	<0.200	**91.5**	**60**	--	--	<2.00	<2.00	**13.3**	**12.8**
AREA 2																							
MW-17	3/6/2019	<1.00	<1.00	**12.7**	**12.9**	**35.4**	**34.8**	<0.200	<0.200	**1.17**	**1.59**	**2.15**	**1.98**	**0.634**	**0.591**	**5,040**	**4,800**	--	--	**2.69**	**1.84**	**6.98**	<4.00
	6/19/2019	<1.00	<1.00	**16.9**	**14.4**	**70.3 B-02**	**61.0**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**5,840**	**5,130**	--	--	**2.45**	**1.98**	<4.00	<4.00
	6/19/2019 DUP	<1.00	<1.00	**16.5**	**14.7**	**68.2 B-02**	**62.3**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**6,010**	**5,170**	--	--	**2.44**	**1.71**	<4.00	<4.00
	9/10/2019	<1.00	<1.00	**12.6**	**12.9**	**26.1**	**25.1**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**7,210**	**6,680**	--	--	**1.23**	<1.00	<4.00	<4.00
	9/10/2019 DUP	<1.00	<1.00	**12.5**	**13.1**	**26.0**	**26.1**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**7,030**	**7,300**	--	--	<1.00	<1.00	<4.00	<4.00
	12/16/2019	<1.00	<1.00	**7.14**	**7.22**	**17.7**	**17.6**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**4,240**	**4,040**	--	--	<1.00	<1.00	<4.00	<4.00
	12/16/2019 DUP	<1.00	<1.00	**7.42**	**7.29**	**19.1**	**17.6**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**4,090**	**4,030**	--	--	<1.00	<1.00	**11.5**	<4.00
MW-24	12/7/2016	<1.00	<1.00	**3.33**	**0.778 J**	**225**	**18.0**	**0.232**	<0.200	**14.2**	<1.00	**2.41**	<1.00	**0.728**	<0.200	**10,900**	**2,750**	--	--	**11.9**	**3.79**	**15.3**	**3.89 J**
	12/13/2017	<1.00	<1.00	**2.18**	<1.00	**183**	**20.7**	**0.514**	<0.200	**13.6**	<1.00	**9.82**	<1.00	**2.29**	<0.200	**9,860**	**3,330**	--	--	**17.0 B-02**	**3.9**	**30.1**	<4.00
	12/20/2018	<1.00	<1.00	**1.43**	<1.00	**135 B-02**	**21.7**	<0.200	<0.200	**5.29**	<1.00	**1.59**	<1.00	**0.506**	<0.200	**6,260**	**3,040 Q-42**	--	--	**10.2**	**3.94**	**12.7**	<4.00
	12/10/2019	<1.00	<1.00	**2.26**	<1.00	**166**	**19.4**	<0.200	<0.200	**8.73**	<1.00	**1.09**	<1.00	**0.555**	<0.200	**11,200**	**2,840**	--	--	**10.2**	**2.85**	**8.75**	<4.00
MW-66	6/27/2018	<1.00	<1.00	**12.0**	**12.6**	**46.3**	**46.4**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**1,120**	**1,110**	<0.0800	<0.160	<1.00	<1.00	<4.00	<4.00
	12/17/2018	<1.00	<1.00	**12.8**	**11.0**	**120**	**67.0**	<0.200	<0.200	**6.83**	**1.39 Q-17**	**16.0**	**1.16 Q-17**	**7.50**	<0.200	**1,600 Q-42**	**1,450 Q-42**	--	--	**7.39**	<1.00	**41.4**	**4.37**
	6/20/2019	<1.00	<1.00	**9.97**	**9.67**	**49.3 B-02**	**48.2**	<0.200	<0.200	<1.00	<1.00	<1.00	M	<0.200	<0.200	**1,150**	**1,180**	--	--	<1.00	<1.00	<4.00	<4.00
	12/12/2019	<1.00	<1.00	**9.84**	**10.1**	**74.7**	**71.5**	<0.200	<0.200	<2.00	<2.00	<2.00	<1.00	**0.217**	<0.200	**1,730**	**1,180**	--	--	<2.00	<1.00	**5.05**	<4.00
MW-81	12/9/2016	<1.00	<1.00	**8.70**	**8.16**	**101**	**91.3**	<0.200	<1.03	<1.02	<1.01	<1.00	<1.00	<0.200	<0.200	**3,480**	**3,380**	--	--	**1.00**	**0.811 J**	**2.71 J**	**2.74 J**
	12/13/2017	<1.00	<1.00	**15.1**	**6.52**	**547**	**103**	**0.642**	<0.200	**55.5**	<1.00	**96.1**	<1.00	**34.6**	<0.200	**4,650**	**2,900**	--	--	**85.3**	<1.00	**244**	<4.00
	12/17/2018	<1.00	<1.00	**5.06**	**4.63**	**102**	**97.4**	<0.200	<0.200	<1.00	<1.00	**2.29**	<1.00	<0.200	<0.200	**2,600**	**2,620**	--	--	<1.00	<1.00	**8.62**	<4.00
	12/16/2019	<1.00	<1.00	**4.15**	**4.22**	**95.6**	**93.3**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**2,920**	**2,940**	--	--	<1.00	<1.00	<4.00	<4.00
ROD Cleanup Level [5.]		NA		0.018		NA		0.091		11		2.74		0.54		430		NA		NA		36.5	
JSCS SLV [6.]		6		0.045		NA		0.094		100		2.7		0.54		50		0.77		16		36	

Please refer to notes at end of table.

Cascadia Associates, LLC

Table 6
Groundwater Analytical Results - Metals
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	Antimony		Arsenic		Barium		Cadmium		Chromium		Copper		Lead		Manganese		Mercury		Nickel		Zinc	
		Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved
		Concentrations in µg/L (ppb)																					
AREA 2																							
MW-82	7/2/2019	--	<1.00	--	**41.2**	--	**190**	--	<0.200	--	<1.00	--	<1.00	--	<0.200	--	**1,790**	--	--	--	**3.54**	--	**26.6**
	9/10/2019	--	<1.00	--	**26.4**	--	**170**	--	<0.200	--	<1.00	--	<1.00	--	<0.200	--	**2,250 Q-42**	--	--	--	**1.66**	--	**12.3**
	12/12/2019	**5.98**	**5.81**	**233**	**246**	**474**	**467**	<0.200	<0.200	<2.00	<1.00	<2.00	<1.00	**0.365**	<0.200	**2,280**	**2,220**	--	--	**11.1**	**11.1**	**80.5**	**78.1**
MW-83	7/2/2019	--	<1.00	--	**22.0**	--	**102**	--	<0.200	--	<1.00	--	<1.00	--	<0.200	--	**4,330**	--	--	--	<2.00	--	<4.00
	9/11/2019	--	<1.00	--	**24.7**	--	**89.6**	--	<0.200	--	<1.00	--	<1.00	--	<0.200	--	**3,950**	--	--	--	**2.27**	--	<4.00
	12/12/2019	<1.00	<1.00	**23.8**	**24.2**	**90.9**	**89.6**	<0.200	<2.00	<1.00	<10.0	<1.00	<10.0	<0.200	<0.200	**4,050**	**4,190**	--	--	**2.21**	<10.0	<4.00	<40.0
MW-84	7/2/2019	--	<1.00	--	**1.10**	--	**49.2**	--	<0.200	--	<1.00	--	<1.00	--	<0.200	--	**1,370**	--	--	--	**2.04**	--	**7.27**
	9/10/2019	--	<1.00	--	**4.67**	--	**38.1**	--	<0.200	--	<1.00	--	<1.00	--	<0.200	--	**974**	--	--	--	<1.00	--	<4.00
	12/16/2019	<1.00	<1.00	**2.32**	**2.55**	**38.7**	**34.2**	<0.200	<0.200	**1.20**	<1.00	**1.93**	<1.00	**1.19**	<0.200	**1,010**	**1,020**	--	--	**1.12**	<1.00	**4.16**	<4.00
MW-85	7/2/2019	--	<1.00	--	**3.31**	--	**128**	--	<0.200	--	<1.00	--	<1.00	--	<0.200	--	**4,240**	--	--	--	<2.00	--	<4.00
	9/11/2019	--	<1.00	--	**1.67**	--	**87.1**	--	<0.200	--	<1.00	--	<1.00	--	<0.200	--	**3,230**	--	--	--	<1.00	--	<4.00
	12/12/2019	<1.00	<1.00	<1.00	<1.00	**66.6**	**60.6**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**2,200**	**2,250**	--	--	<1.00	<1.00	<4.00	<4.00
MW-92	7/2/2019	--	**1.82**	--	**2.24**	--	**91.2**	--	<0.200	--	<1.00	--	<1.00	--	<0.200	--	**1,430 Q-42**	--	--	--	**4.07**	--	**10.1**
	9/10/2019	--	**2.61**	--	<1.00	--	**48.3**	--	<0.200	--	<1.00	--	**5.69**	--	<0.200	--	**436**	--	--	--	**2.38**	--	**42.9**
	12/12/2019	**2.61**	**2.70**	<2.00	<2.00	**48.5**	**46.4**	<0.200	<0.200	<2.00	<2.00	**3.55**	**2.23**	**0.720**	<0.200	**56.8**	**61.9**	--	--	<2.00	<2.00	**6.69**	**14.6**
SCHNITZER ASD YARD																							
MW-10	6/26/2018	<1.00	**1.99**	**2.52**	**2.29**	**49.7**	**36.7**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	**0.363**	<0.200	**1,280**	**1,310**	<0.0800	<0.160	<1.00	<1.00	<4.00	<4.00
	12/18/2018	<1.00	<1.00	**2.77**	**2.46**	**55.0**	**50.4**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**1,780**	**1,750**	<0.0800	--	**1.18**	<1.00	<4.00	<4.00
	6/21/2019	<1.00	<1.00	**2.72**	**2.68**	**43.7 B-02**	**36.6**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	**0.255**	<0.200	**986**	**973**	<0.0800	--	**1.14**	<1.00	<4.00	<4.00
	12/10/2019	<1.00	<1.00	**2.44**	**2.16**	**47.3**	**40.6**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**1,630**	**1,470**	<0.0800	--	<1.00	<1.00	<4.00	<4.00
MW-11	12/7/2016	<1.00	<1.00	**0.621 J**	**0.611 J**	**21.2**	**20.7**	<0.200	<0.200	<1.00	<1.00	**2.10**	**1.21**	**0.170 J**	<0.200	**388**	**386**	<0.0800	<0.0800	**7.41**	**7.78**	**5.30**	**5.00**
	12/14/2017	<1.00	<1.00	**1.37**	<1.00	**37.2**	**24**	<0.200	<0.200	<1.00	<1.00	**3.64**	**1.22**	**0.689**	<0.200	**269**	**251**	<0.0800	--	**7.25**	**7.16**	**4.07**	<4.00
	12/17/2018	<1.00	<1.00	**1.56**	**1.44**	**35.7**	**28.9**	<0.200	<0.200	<1.00	<1.00	**7.82**	<1.00	**2.78**	<0.200	**1,080**	**1,080**	<0.0800	--	**1.01**	<1.00	**13.8**	<4.00
	12/11/2019	<1.00	<1.00	**1.32**	**1.26**	**24.6**	**22.3**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**928**	**857**	<0.0800	--	<1.00	<1.00	<4.00	<4.00
MW-14	3/5/2019	--	<1.00	--	**3.05**	--	**92.5**	--	<0.200	--	<1.00	--	<1.00	--	<0.200	--	**585**	--	--	--	<1.00	--	<4.00
	3/5/2019 DUP	--	<1.00	--	**3.10**	--	**94.3**	--	<0.200	--	<1.00	--	<1.00	--	<0.200	--	**598**	--	--	--	<1.00	--	<4.00
	6/20/2019	--	<1.00	--	**3.35**	--	**104**	--	<0.200	--	<1.00	--	<1.00	--	<0.200	--	**751**	--	--	--	**1.37**	--	<4.00
	9/11/2019	--	**1.34**	--	**8.55**	--	**32.8**	--	<0.200	--	<1.00	--	**5.48**	--	**0.677**	--	**3.50**	--	--	--	**1.77**	--	**8.10**
	12/11/2019	<1.00	<1.00	**1.28**	**1.26**	**41.2**	**34.3**	<0.200	<0.200	<1.00	<1.00	**19.1**	**8.79**	**0.898**	<0.200	**24.7**	**17.0**	--	--	**1.81**	<1.00	**120**	**37.0**
MW-72	6/26/2018	<1.00	**1.08**	**6.09**	**6.04**	**156**	**175**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**1,410 Q-42**	**1,620 Q-42**	<0.0800	<0.160	**1.75**	**2.11**	<4.00	<4.00
	6/26/18 DUP	<1.00	<1.00	**5.85**	**5.87**	**176**	**169**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**1,620**	**1,580**	<0.0800	<0.160	**2.09**	**1.99**	<4.00	<4.00
	12/18/2018	<1.00	<1.00	**6.17**	**5.97**	**167**	**172**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**1,710**	**1,760**	<0.0800	--	**1.30**	**1.22**	<4.00	<4.00
	12/18/2018 DUP	<1.00	<1.00	**6.13**	**6.17**	**162**	**167**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**1,650**	**1,760**	--	--	**1.39**	**1.21**	<4.00	<4.00
	6/21/2019	<1.00	<1.00	**5.68**	**5.92**	**196 B-02**	**183**	<0.200	<0.200	**1.45**	<1.00	**1.67**	<1.00	**1.22**	<0.200	**2,180**	**2,140**	<0.0800	--	**1.63**	**1.13**	**4.32 B**	<4.00
	12/13/2019	<1.00	<1.00	**5.64**	**5.83**	**212**	**210**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**1,810**	**1,850**	<0.0800	--	**1.50**	**1.49**	<4.00	<4.00
	12/13/2019 DUP	<1.00	<1.00	**6.03**	**5.61**	**221**	**206**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**1,900**	**1,800 Q-42**	--	--	**1.39**	**1.44**	<4.00	<4.00
MW-73	6/27/2018	<1.00	<1.00	**3.90**	**3.56**	**301**	**281**	<0.200	<0.200	**1.71**	**1.36**	**5.54**	<1.00	**7.14**	<0.200	**2,160**	**2,100**	<0.0800	<0.160	**2.36**	**1.22**	**17.7**	**6.34**
	12/18/2018	**1.63**	**1.05**	**4.03**	**3.25**	**260**	**221**	**0.321**	<0.200	**4.01**	<1.00	**16.3**	<1.00	**16.9**	**0.542**	**1,760**	**1,630**	**0.0882**	--	**4.01**	**1.63**	**51.3**	**9.89**
	6/20/2019	<1.00	<1.00	**3.81**	**3.83**	**294 B-02**	**248**	<0.200	<0.200	**1.30**	<1.00	**3.74**	<1.00	**5.04**	<0.200	**2,100**	**2,000**	<0.0800	--	**1.64**	**1.12**	**12.1 B**	<4.00
	12/11/2019	<1.00	<1.00	**3.38**	**3.53**	**278**	**247**	<0.200	<0.200	**1.70**	<1.00	**3.92**	<1.00	**6.00**	**0.878**	**2,110**	**1,960**	<0.0800	--	**4.43**	<1.00	**16.0**	<4.00
MW-74	6/27/2018	<1.00	<1.00	**3.76**	**3.52**	**115**	**107**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**4,580**	**4,540**	<0.0800	<0.160	<1.00	<1.00	<4.00	<4.00
	12/19/2018	<1.00	<1.00	**3.30**	**3.17**	**140 B-02**	**124**	<0.200	<0.200	**1.42**	<1.00	**2.24**	<1.00	**1.35**	<0.200	**4,850**	**4,880**	<0.0800	--	**2.57**	<1.00	**24.0**	<4.00
	6/20/2019	<1.00	<1.00	**2.53**	**2.57**	**126 B-02**	**130**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	**0.206**	**4,040**	**4,370 Q-42**	<0.0800	--	<1.00	**1.08**	<4.00	**11.8**
	12/13/2019	**6.52**	**6.65**	<1.00	<1.00	**61.7**	**57.6**	<0.200	<0.200	**3.34**	**3.33**	**3.27**	**2.41**	**0.679**	<0.200	**221**	**180**	<0.0800	--	**2.08**	**1.88**	**28.4**	**25.3**
ROD Cleanup Level [5.]		NA		0.018		NA		0.091		11		2.74		0.54		430		NA		NA		36.5	
JSCS SLV [6.]		6		0.045		NA		0.094		100		2.7		0.54		50		0.77		16		36	

Please refer to notes at end of table.

Cascadia Associates, LLC

Table 6
Groundwater Analytical Results - Metals
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	Antimony		Arsenic		Barium		Cadmium		Chromium		Copper		Lead		Manganese		Mercury		Nickel		Zinc	
		Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved
		Concentrations in µg/L (ppb)																					
SCHNITZER ASD YARD																							
MW-76	12/7/2016	<1.00	<1.00	**9.96**	**10.7**	**202**	**194**	<0.200	<0.200	**0.514 J**	**0.944 J**	**2.24**	<1.00	<0.200	<0.200	**1,240**	**1,200**	<0.0800	<0.0800	**2.79**	**3.73**	**2.95 J**	**3.56 J**
	12/13/2017	<1.00	<1.00	**11.8**	**10.8**	**165**	**158**	<0.200	<0.200	<1.00	<1.00	<1.00	1	<0.200	<0.200	**1,150**	**1,120**	<0.0800	--	**3.27**	**3.12**	<4.00	<4.00
	1/21/2019**	<1.00	<1.00	**9.56**	**11.2**	**163**	**163**	<0.200	<0.200	<1.00	<1.00	**1.17**	<1.00	<0.200	<0.200	**1,130**	**1,110**	<0.0800	--	**2.32**	**2.13**	--	--
	12/16/2019	<1.00	<1.00	**10.8**	**11.0**	**165**	**156**	<0.200	<0.200	<1.00	<1.00	**1.12**	<1.00	**0.235**	<0.200	**947**	**938**	<0.0800	--	**3.98**	**3.96**	**4.36**	<4.00
MW-77	6/26/2018	<1.00	<1.00	**12.8**	**12.4**	**150**	**141**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**1,410**	**1,360**	<0.0800	<0.160	<1.00	<1.00	<4.00	<4.00
	12/19/2018	<1.00	<1.00	**14.5**	**15.3**	**150 B-02**	**147**	<0.200	<0.200	<1.00	<1.00	**2.48**	<1.00	**0.283**	<0.200	**1,510**	**1,500**	<0.0800	--	**1.41**	<1.00	**9.69**	<4.00
	6/20/2019	<1.00	<1.00	**11.2**	**11.6**	**131 B-02**	**128**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**1,180**	**1,140**	<0.0800	--	<1.00	<1.00	<4.00	<4.00
	12/10/2019	<1.00	<1.00	**14.9**	**13.6**	**152**	**135**	<0.200	<0.200	<1.00	<1.00	**1.34**	<1.00	**0.460**	<0.200	**1,710**	**1,560**	<0.0800	--	**1.52**	**1.07**	<4.00	<4.00
MW-79	6/26/2018	**9.93**	**6.95**	<1.00	<1.00	**246**	**249**	<0.200	<0.200	<1.00	<1.00	**1.45**	<1.00	**0.525**	<0.200	**705**	**701**	<0.0800	<0.160	<1.00	<1.00	**40.9**	<4.00
	12/18/2018	**35.4**	**18.4**	<1.00	<1.00	**126**	**131**	**0.293**	<0.200	<1.00	<1.00	**6.53**	**3.74**	**2.43**	**1.28**	**360**	**384**	<0.0800	--	**7.03**	**7.15**	**252**	**114**
	6/20/2019	**45.6**	**30.1**	<1.00	<1.00	**330 B-02**	**322**	<0.200	<0.200	<1.00	<1.00	**1.97**	<1.00	**0.666**	<0.200	**909**	**913**	<0.0800	--	**1.72**	**1.48**	**58.5 B**	<4.00
	12/10/2019	**50.8**	**37.7**	<1.00	<1.00	**187**	**167**	<0.200	<0.200	<1.00	<1.00	**7.36**	**1.31**	**3.24**	**0.278**	**473**	**425**	<0.0800	--	**10.9**	**10.1**	**119**	**22.6**
MW-80	12/9/2016	<1.00	<1.00	**3.78**	**3.36**	**84.6**	**77.5**	<0.200	<0.200	**0.558 J**	<1.00	**0.967 J**	**0.778 J**	**1.01**	**0.656**	**1,080**	**972**	<0.0800	<0.0800	**0.572 J**	**0.722 J**	**7.72**	**5.87**
	12/14/2017	<1.00	<1.00	**2.69**	**1.47**	**88.8**	**74.7**	**0.211**	<0.200	<1.00	<1.00	**12.2**	**1.68**	**3.62 B**	**1.41**	**615**	**641**	<0.0800	--	**4.79**	**3.77**	**38.6**	**11.4**
	12/18/2018	<1.00	<1.00	**1.58**	**1.20**	**66.2**	**61.8**	<0.200	<0.200	<1.00	<1.00	**4.91**	**1.53**	**0.972**	<0.200	**598**	**608**	<0.0800	--	**2.18**	**1.87**	**15.2**	**6.43**
	12/17/2019	**1.09**	<1.00	**3.01**	**2.50**	**41.4**	**34.3**	<0.200	<0.200	**1.39**	<1.00	**9.13**	<1.00	**5.99**	**0.388**	**319**	**315**	<0.0800	--	**2.28**	<1.00	**38.2**	<4.00
MW-86	7/2/2019	--	<1.00	--	**8.09**	--	**218**	--	<0.200	--	<1.00	--	<1.00	--	<0.200	--	**8.09**	--	--	--	<2.00	--	<4.00
	9/10/2019	--	<1.00	--	**15.1**	--	**185**	--	<0.200	--	<1.00	--	<1.00	--	<0.200	--	**2,080**	--	--	--	**1.56**	--	<4.00
	12/13/2019	<5.00	<1.00	**16.4**	**16.2**	**162**	**156**	<1.00	<0.200	<5.00	<1.00	<5.00	<1.00	**0.434**	<0.200	**1,980**	**1,800**	--	--	<20.0	**1.55**	<20.0	<4.00
MW-87	7/2/2019	--	<1.00	--	**16.9**	--	**168**	--	<0.200	--	<1.00	--	<1.00	--	<0.200	--	**2,400**	--	--	--	**2.11**	--	<4.00
	9/11/2019	--	<1.00	--	**17.7**	--	**163**	--	<0.200	--	<1.00	--	<1.00	--	<0.200	--	**2,800**	--	--	--	**2.76**	--	<4.00
	12/11/2019	<1.00	<1.00	**16.7**	**17.2**	**159**	**142**	<0.200	<0.200	**1.01**	<1.00	**1.81**	<1.00	**1.44**	<0.200	**2,590**	**2,450**	--	--	**3.08**	**2.39**	**11.9**	**4.92**
MW-88	7/2/2019	--	<1.00	--	**6.55**	--	**77.2**	--	<0.200	--	<1.00	--	<1.00	--	<0.200	--	**1,480 Q-42**	--	--	--	<2.00	--	<4.00
	7/2/2019 DUP	--	<1.00	--	**6.65**	--	**79.0**	--	<0.200	--	<1.00	--	<1.00	--	<0.200	--	**1,500**	--	--	--	<2.00	--	<4.00
	9/11/2019	--	<1.00	--	**6.18**	--	**86.8**	--	<0.200	--	<1.00	--	<1.00	--	<0.200	--	**1,770**	--	--	--	<1.00	--	<4.00
	9/11/2019 DUP	--	<1.00	--	**6.34**	--	**85.1**	--	<0.200	--	<1.00	--	<1.00	--	<0.200	--	**1,790**	--	--	--	<1.00	--	<4.00
	12/13/2019	<1.00	<1.00	**2.87**	**2.76**	**46.1**	**210**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**1,610**	**1,590**	--	--	<1.00	<1.00	<4.00	<4.00
MW-89	7/2/2019	--	<1.00	--	**7.53**	--	**110**	--	<0.200	--	<1.00	--	<1.00	--	**0.592**	--	**2,550**	--	--	--	**2.77**	--	**5.89**
	9/10/2019	--	<1.00	--	**10.9**	--	**69.5**	--	<0.200	--	<1.00	--	<1.00	--	<0.200	--	**2,480**	--	--	--	**1.81**	--	<4.00
	12/16/2019	<1.00	<1.00	**13.0**	**10.4**	**183**	**92.9**	**0.210**	<0.200	**20.2**	<1.00	**27.8**	<1.00	**20.2**	<0.200	**2,230**	**1,930**	--	--	**16.5**	**1.56**	**72.0**	<4.00
ROD Cleanup Level [5.]		NA		0.018		NA		0.091		11		2.74		0.54		430		NA		NA		36.5	
JSCS SLV [6.]		6		0.045		NA		0.094		100		2.7		0.54		50		0.77		16		36	

Notes:

1. µg/L (ppb) = micrograms per liter (parts per billion).
2. **Bold** denotes analyte detected above laboratory detection limit.
3. -- = not analyzed or not applicable.
4. Dissolved = sample was field filtered using a 0.45 µm filter.
5. ROD Cleanup Levels from U.S. EPA Record of Decision Portland Harbor Superfund Site, Portland, Oregon, January 2017, and most recently updated in a January 2020 Errata.. The level shown is the Groundwater Cleanup Level unless one was not available, in which case the Surface Water Cleanup Level was used, per DEQ Guidance.
6. JSCS SLV = Screening Level Values from Portland Harbor Joint Source Control Strategy (JSCS), December 2005.
7. Shading denotes analyte detected above screening criteria. As instructed by DEQ, concentrations of analytes were compared to the Portland Harbor Cleanup Level. If neither a Groundwater or Surface Water Cleanup Level was available, the data were compared to the Joint Source Control Strategy Screening Level Value.
8. Q-42 = Matrix Spike and/or Duplicate analysis was performed on this sample. % Recovery or RPD for this analyte is outside laboratory control limits.
9. B-02 = Analyte detected in an associated blank at a level between one-half the MRL and the MRL.
10. J = concentration is less than the reporting limit but greater than the laboratory detection limit. The reported value is an estimate.

Cascadia Associates, LLC

Table 7
Groundwater Analytical Results - Phthalates
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	Bis(2-Ethylhexyl)phthalate	Butyl benzyl phthalate	Diethylphthalate	Dimethyl phthalate	Di-N-Butyl phthalate	Di-N-Octyl phthalate
		Concentrations in µg/L (ppb)					
AREA 1							
MW-52	3/5/2019	<0.377	<0.377	<0.377	<0.377	<0.377	<0.377
	6/19/2019	<0.377	<0.377	<0.377	<0.377	<0.377	<0.377
	9/10/2019	<0.385	<0.385	<0.385	<0.385	<0.385	<0.385
	12/10/2019	<0.392	<0.392	<0.392	<0.392	<0.392	<0.392
MW-62	3/6/2019	<0.377	<0.377	<0.377	<0.377	<0.377	<0.377
	6/19/2019	<0.381	<0.381	<0.381	<0.381	<0.381	<0.381
	9/10/2019	<0.381	<0.381	**0.522**	<0.381	<0.381	<0.381
	12/10/2019	<0.374	<0.374	<0.374	<0.374	<0.374	<0.374
MW-90	7/2/2019	<0.377	<0.377	<0.377	<0.377	<0.377	<0.377
	9/10/2019	<0.381	<0.381	<0.381	<0.381	<0.381	<0.381
	12/12/2019	<0.388	<0.388	<0.388	<0.388	<0.388	<0.388
MW-91	7/2/2019	<1.54	<1.54	<1.54	<1.54	<1.54	<1.54
	9/10/2019	<1.51	<1.51	<1.51	<1.51	<1.51	<1.51
	12/12/2019	<1.51	<1.51	<1.51	<1.51	<1.51	<1.51
AREA 2							
MW-17	3/6/2019	<0.377	<0.377	<0.377	<0.377	<0.377	<0.377
	6/19/2019	<0.377	<0.377	<0.377	<0.377	<0.377	<0.377
	9/10/2019	<0.374	<0.374	<0.374	<0.374	<0.374	<0.374
	12/16/2019	<0.381	<0.381	<0.381	<0.381	<0.381	<0.381
	12/16/2019 DUP	<0.381	<0.381	<0.381	<0.381	<0.381	<0.381
MW-81	12/9/2016	<1.50 H	<1.50 H	<1.50 H	<1.50 H	<1.50 H	<1.50 H
	12/13/2017	<1.50	<1.50	<1.50	<1.50	<1.50	<1.50
	12/17/2018	<1.50	<1.50	<1.50	<1.50	<1.50	<1.50
	12/16/2019	<1.54	<1.54	<1.54	<1.54	<1.54	<1.54
MW-82	7/2/2019	<1.51	<1.51	<1.51	<1.51	<1.51	<1.51
	9/10/2019	<1.50	<1.50	<1.50	<1.50	<1.50	<1.50
	12/12/2019	<1.60	<1.60	<1.60	<1.60	<1.60	<1.60
MW-83	7/2/2019	<1.51	<1.51	<1.51	<1.51	<1.51	<1.51
	9/11/2019	<1.51	<1.51	<1.51	<1.51	<1.51	<1.51
	12/12/2019	<1.67	<1.67	<1.67	<1.67	<1.67	<1.67
MW-84	7/2/2019	<0.377	<0.377	<0.377	<0.377	<0.377	<0.377
	9/10/2019	<0.381	<0.381	<0.381	<0.381	<0.381	<0.381
	12/16/2019	<0.377	<0.377	<0.377	<0.377	<0.377	<0.377
MW-85	7/2/2019	<1.51	<1.51	<1.51	<1.51	<1.51	<1.51
	9/11/2019	<1.51	<1.51	<1.51	<1.51	<1.51	<1.51
	12/12/2019	<1.52	<1.52	<1.52	<1.52	<1.52	<1.52
MW-92	7/2/2019	<1.51	<1.51	<1.51	<1.51	<1.51	<1.51
	9/10/2019	<1.52	<1.52	<1.52	<1.52	<1.52	<1.52
	12/12/2019	<1.54	<1.54	<1.54	<1.54	<1.54	<1.54

Please refer to notes at end of table.

Cascadia Associates, LLC

Table 7
Groundwater Analytical Results - Phthalates
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	Bis(2-Ethylhexyl)phthalate	Butyl benzyl phthalate	Diethylphthalate	Dimethyl phthalate	Di-N-Butyl phthalate	Di-N-Octyl phthalate
		Concentrations in µg/L (ppb)					
SCHNITZER ASD YARD							
MW-14	3/5/2019	<0.377	<0.377	<0.377	<0.377	<0.377	<0.377
	6/20/2019	<0.381	<0.381	<0.381	<0.381	<0.381	<0.381
	9/11/2019	<1.51	<1.51	<1.51	<1.51	<1.51	<1.51
	12/11/2019	<1.62	<1.62	<1.62	<1.62	<1.62	<1.62
	12/11/2019 DUP	<1.57	<1.57	<1.57	<1.57	<1.57	<1.57
MW-79	6/26/2018	<1.52	<1.52	<1.52	<1.52	<1.52	<1.52
	12/18/2018	<1.50	<1.50	<1.50	<1.50	<1.50	<1.50
	6/20/2019	<1.50	<1.50	<1.50	<1.50	<1.50	<1.50
	12/10/2019	<0.748	<0.748	<0.748	<0.748	<0.748	<0.748
MW-86	7/2/2019	<1.51	<1.51	<1.51	<1.51	<1.51	<1.51
	9/10/2019	<1.60	<1.60	<1.60	<1.60	<1.60	<1.60
	12/13/2019	<1.65	<1.65	<1.65	<1.65	<1.65	<1.65
MW-87	7/2/2019	<1.51	<1.51	<1.51	<1.51	<1.51	<1.51
	7/2/2019 DUP	<1.51	<1.51	<1.51	<1.51	<1.51	<1.51
	9/11/2019	<1.51	<1.51	<1.51	<1.51	<1.51	<1.51
	9/11/2019 DUP	<1.51	<1.51	<1.51	<1.51	<1.51	<1.51
	12/11/2019	<1.68	<1.68	<1.68	<1.68	<1.68	<1.68
MW-88	7/2/2019	<1.50	<1.50	<1.50	<1.50	<1.50	<1.50
	9/11/2019	<1.50	<1.50	<1.50	<1.50	<1.50	<1.50
	12/13/2019	<1.51	<1.51	<1.51	<1.51	<1.51	<1.51
MW-89	7/2/2019	<1.57	<1.57	<1.57	<1.57	<1.57	<1.57
	9/10/2019	<1.78	<1.78	<1.78	<1.78	<1.78	<1.78
	12/16/2019	<1.54	<1.54	<1.54	<1.54	<1.54	<1.54
ROD Cleanup Level [3.]		0.2	NA	NA	NA	NA	NA
JSCS SLV [4.]		2.2	3	3	3	3	3

Notes:

1. < = constituent was not detected at a concentration greater than laboratory reporting limit shown.
2. NA = not applicable or not established.
3. ROD Cleanup Levels from U.S. EPA Record of Decision Portland Harbor Superfund Site, Portland, Oregon, January 2017. No Groundwater Cleanup Level was available, so the Surface Water Cleanup Level was used, per DEQ Guidance.
4. JSCS SLV = Screening Level Values from Portland Harbor Joint Source Control Strategy (JSCS), December 2005.
5. µg/L (ppb) = micrograms per liter (parts per billion).
6. **Bold** = Analyte was detected above the laboratory method detection limit.
7. H = Holding time violation. Reported values are minimum concentrations.
8. J = concentration is less than the reporting limit but greater than the laboratory detection limit. The reported value is an estimate.

Table 8
Groundwater Analytical Results - Polychlorinated Biphenyls
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	PCBs						
		Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260
		Concentrations in µg/L (ppb)						
AREA 1								
MW-90	7/2/2019	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962
	9/10/2019	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943
	12/12/2019	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952
MW-91	7/2/2019	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935
	9/10/2019	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943
	12/12/2019	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935
AREA 2								
MW-17	3/6/2019	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943
	6/19/2019	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943
	9/10/2019	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952
	12/16/2019	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952
	12/16/2019 DUP	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962
MW-81	12/9/2016	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374
	12/14/2017	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935
	12/17/2018	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962
	12/16/2019	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943
MW-82	7/2/2019	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943
	9/10/2019	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943
	12/12/2019	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962
MW-83	7/2/2019	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935
	9/11/2019	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
	12/12/2019	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962
MW-84	7/2/2019	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935
	9/10/2019	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943
	12/16/2019	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935
MW-85	7/2/2019	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935
	9/11/2019	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962
	12/12/2019	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943
MW-92	7/2/2019	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952
	9/10/2019	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943
	12/12/2019	<0.0971	<0.0971	<0.0971	<0.0971	<0.0971	<0.0971	<0.0971
SCHNITZER ASD YARD								
MW-14	3/5/2019	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952
	6/20/2019	<0.0971	<0.0971	<0.0971	<0.0971	<0.0971	<0.0971	<0.0971
	9/11/2019	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952
	12/11/2019	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935
MW-74	12/9/2016	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374
	12/13/2017	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952
	12/19/2018	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943
	12/13/2019	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943
ROD Cleanup Level [3.]		0.014						
JSCS SLV [4.]		0.96	0.034	0.034	0.034	0.034	0.033	0.034

Please refer to notes at end of table.

Cascadia Associates, LLC

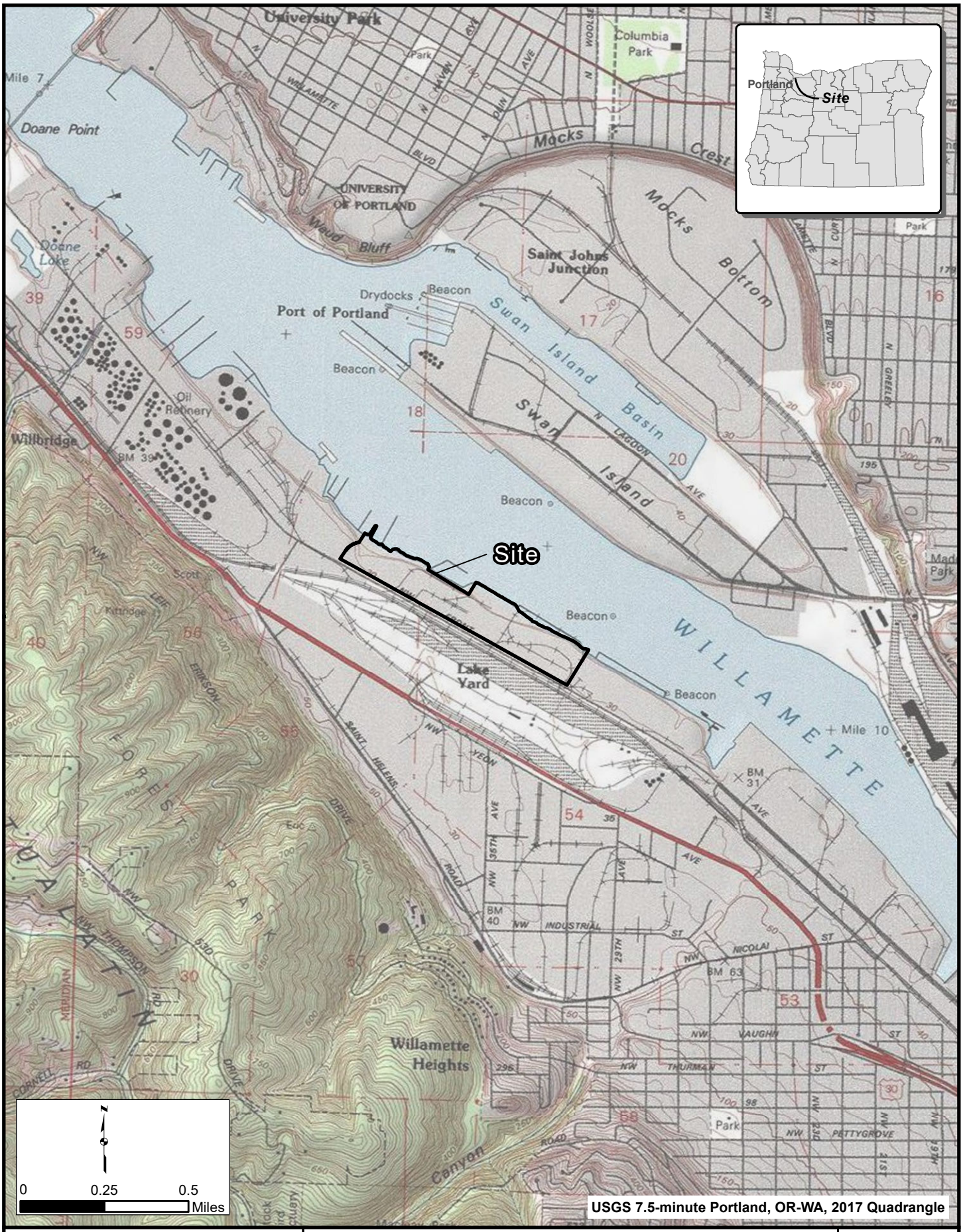
Table 8
Groundwater Analytical Results - Polychlorinated Biphenyls
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	PCBs						
		Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260
		Concentrations in µg/L (ppb)						
SCHNITZER ASD YARD								
MW-76	12/7/2016	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374
	12/13/2017	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935
	12/19/2018	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943
	12/16/2019	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943
MW-86	7/2/2019	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935
	9/10/2019	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943
	12/13/2019	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962
MW-87	7/2/2019	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935
	7/2/2019 DUP	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943
	9/11/2019	<0.0971	<0.0971	<0.0971	<0.0971	<0.0971	<0.0971	<0.0971
	9/11/2019 DUP	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943
	12/11/2019	<0.0971	<0.0971	<0.0971	<0.0971	<0.0971	<0.0971	<0.0971
MW-88	7/2/2019	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935
	9/11/2019	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943
	12/13/2019	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943
MW-89	7/2/2019	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943
	9/10/2019	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
	12/16/2019	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943
ROD Cleanup Level [3.]		0.014						
JSCS SLV [4.]		0.96	0.034	0.034	0.034	0.034	0.033	0.034

Notes:

1. PCBs = polychlorinated biphenyls by EPA 8082.
2. µg/L (ppb) = micrograms per liter (parts per billion).
3. ROD Cleanup Levels from U.S. EPA Record of Decision Portland Harbor Superfund Site, Portland, Oregon, January 2017. The level shown is the Groundwater Cleanup Level unless one was not available, in which case the Surface Water Cleanup Level was used, per DEQ Guidance.
4. JSCS SLV = Screening Level Values from Portland Harbor Joint Source Control Strategy (JSCS), December 2005.

FIGURES



Cascadia Associates, LLC

Site Location Map

Comprehensive Groundwater Conceptual Site Model

Gunderson LLC

Portland, Oregon

Figure 1

PREPARED BY: ES

DATE: 5/13/2020

PROJECT: 0014-001-011/013

AREA 1

AREA 2

SCHNITZER ASD YARD

8.5

9

WILLAMETTE RIVER

LAKESIDE INDUSTRIES

DOCK

EQUILON DOCK (FORMER)

MARINE BARGE LAUNCHWAYS

MARINE PAINT& BLAST BUILDING

CRANEWAY 6

OUTFITTING DOCK

GANTRY

STEVEDORE BUILDING

MARINE ENGINEERING BUILDING

CRANEWAY 5

CRANEWAY 1

CRANEWAY 2

CRANEWAY 3

CRANEWAY 4

MAIN STREET

RAMP

RECEIVING WAREHOUSE

WAYS-1

WAYS-2

APPROXIMATE EQUILON EASEMENT (FORMER)

FABRICATION BAYS

TRANSFER TABLE

FINISH AND PAINT BUILDING

TRANSFER TABLE

MAINTENANCE SHOP

ADMINISTRATIVE OFFICES

3 BAY BUILDING

HAZARDOUS MATERIALS STORAGE

AUTOSTACK BUILDING

RAIL SERVICES BUILDING

GEORGIA-PACIFIC CORP

WHEEL SHOP

PLATE SHOP

MACHINE SHOP

OFFICE

QUONSET BUILDING

NW FRONT AVENUE

BNSF RAILWAY/PTRR

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Legend

River Mile

Site Property Boundary

0 250 500

Feet

Site Vicinity Plan

Comprehensive Groundwater Conceptual Site Model

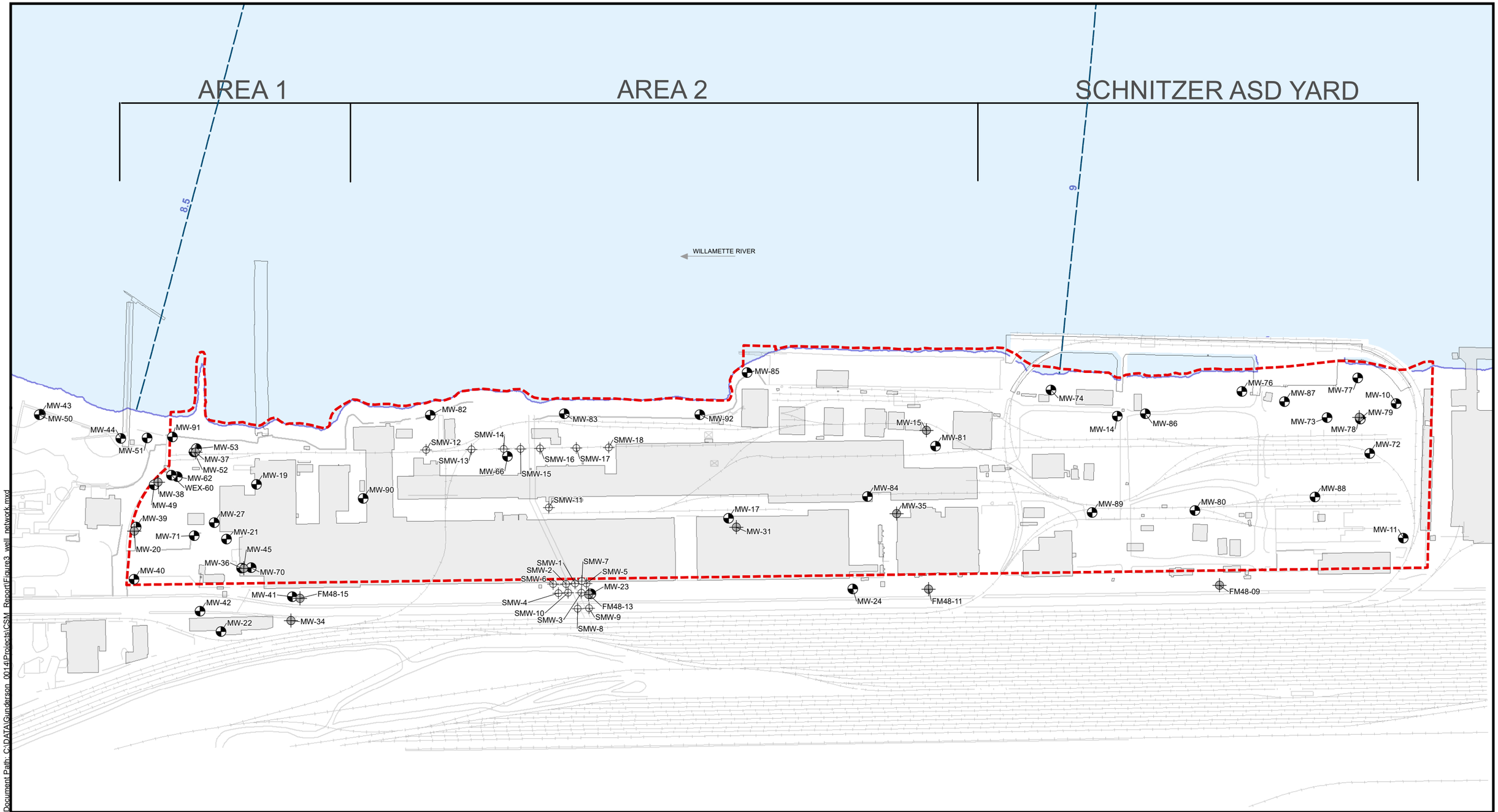
Gunderson LLC

Portland, Oregon

Cascadia Associates, LLC

Figure 2

PREPARED BY: ErikStrandhagen | DATE: 5/7/2020 | PROJECT: 0014-001-011/013



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Legend

Well Network

- Decommissioned Monitoring Well
- Monitoring Well - In Current Groundwater Monitoring Program
- Monitoring Well - Not in Current Groundwater Monitoring Program

- River Mile
- Site Property Boundary

0 250 500
Feet

Sources:
Johnson Land Surveying; Minister and Glaeser Surveying.
Coordinate System:
North American Datum of 1983 (2011) State Plane Oregon North (International Feet)

Groundwater Monitoring Well Network

Comprehensive Groundwater Conceptual Site Model
Gunderson LLC
Portland, Oregon

Cascadia Associates, LLC

Figure 3

PREPARED BY: ErikStrandhagen	DATE: 5/7/2020	PROJECT: 0014-001-011/013

AREA 1

AREA 2

SCHNITZER ASD YARD

8.5

9

WILLAMETTE RIVER

MW-43
MW-50
MW-44
MW-51
MW-91
MW-53
MW-37
MW-52
MW-62
WEX-60
MW-38
MW-49
MW-39
MW-71
MW-20
MW-27
MW-21
MW-45
MW-40
MW-70
MW-36
MW-41
FM48-15
MW-42
MW-22
MW-34
MW-19
MW-90
MW-82
MW-83
MW-92
MW-85
SMW-12
SMW-14
SMW-13
MW-66
SMW-15
SMW-16
SMW-17
SMW-18
SMW-11
MW-15
MW-81
MW-74
MW-14
MW-86
MW-76
MW-87
MW-77
MW-10
MW-73
MW-79
MW-78
MW-72
MW-84
MW-35
MW-17
MW-31
MW-89
MW-80
MW-88
MW-11
MW-24
FM48-11
FM48-09
SMW-1
SMW-2
SMW-6
SMW-7
SMW-5
MW-23
SMW-4
SMW-10
SMW-3
FM48-13
SMW-9
SMW-8

Release Location No. 3

Release Location No. 2

Release Location No. 11

Release Location Nos. 6 and 7

Release Location Nos. 5 and 8

Release Location Nos. 17 and 18

Release Location No. 15

Document Path: C:\DATA\Gunderson_0014\Projects\CSM_Report\Figure4_Releases.mxd

Legend

- Release Location

Well Network

- Decommissioned Monitoring Well
- Monitoring Well - In Current Groundwater Monitoring Program
- Monitoring Well - Not in Current Groundwater Monitoring Program
- River Mile
- Site Property Boundary

0 250 500
Feet

Sources:
Johnson Land Surveying; Minister and Glaeser Surveying.
Coordinate System:
North American Datum of 1983 (2011) State Plane Oregon North (International Feet)

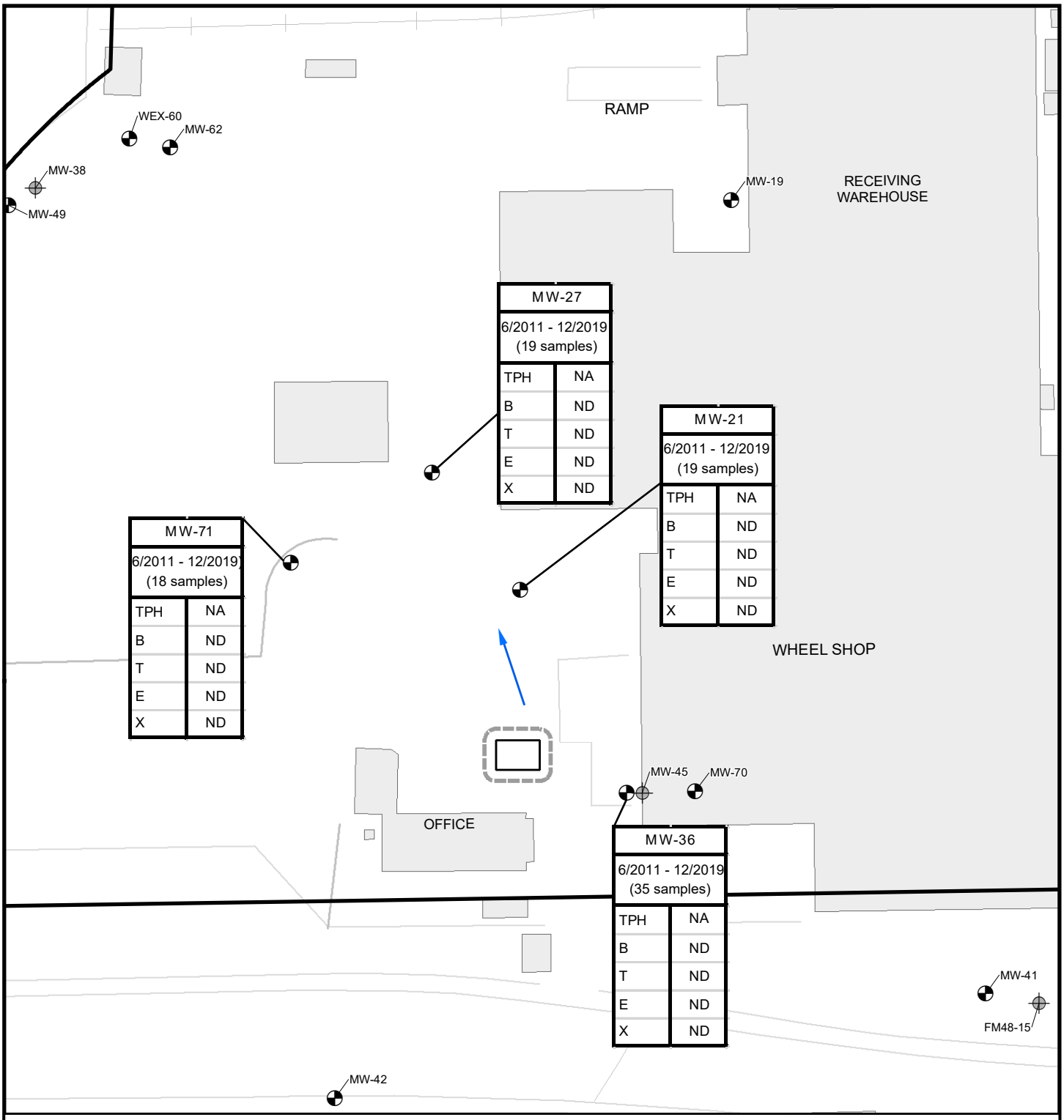
Release Locations

Comprehensive Groundwater Conceptual Site Model
Gunderson LLC
Portland, Oregon

Cascadia Associates, LLC

Figure 4

PREPARED BY: ErikStrandhagen | DATE: 5/7/2020 | PROJECT: 0014-001-011/013



Notes:
1. ND = not detected
2. NA = not analyzed
3. TPH = total petroleum hydrocarbons; B = benzene; T = toluene; E= ethylbenzene; X = xylenes

Well Network

- Decommissioned Monitoring Well
- Monitoring Well - In Current Groundwater Monitoring Program
- Monitoring Well - Not in Current Groundwater Monitoring Program
- Release Location
- Approximate groundwater flow direction
- Approximate extent of impacted media
- Location of UST excavation

0 25 50
Feet

Cascadia Associates, LLC

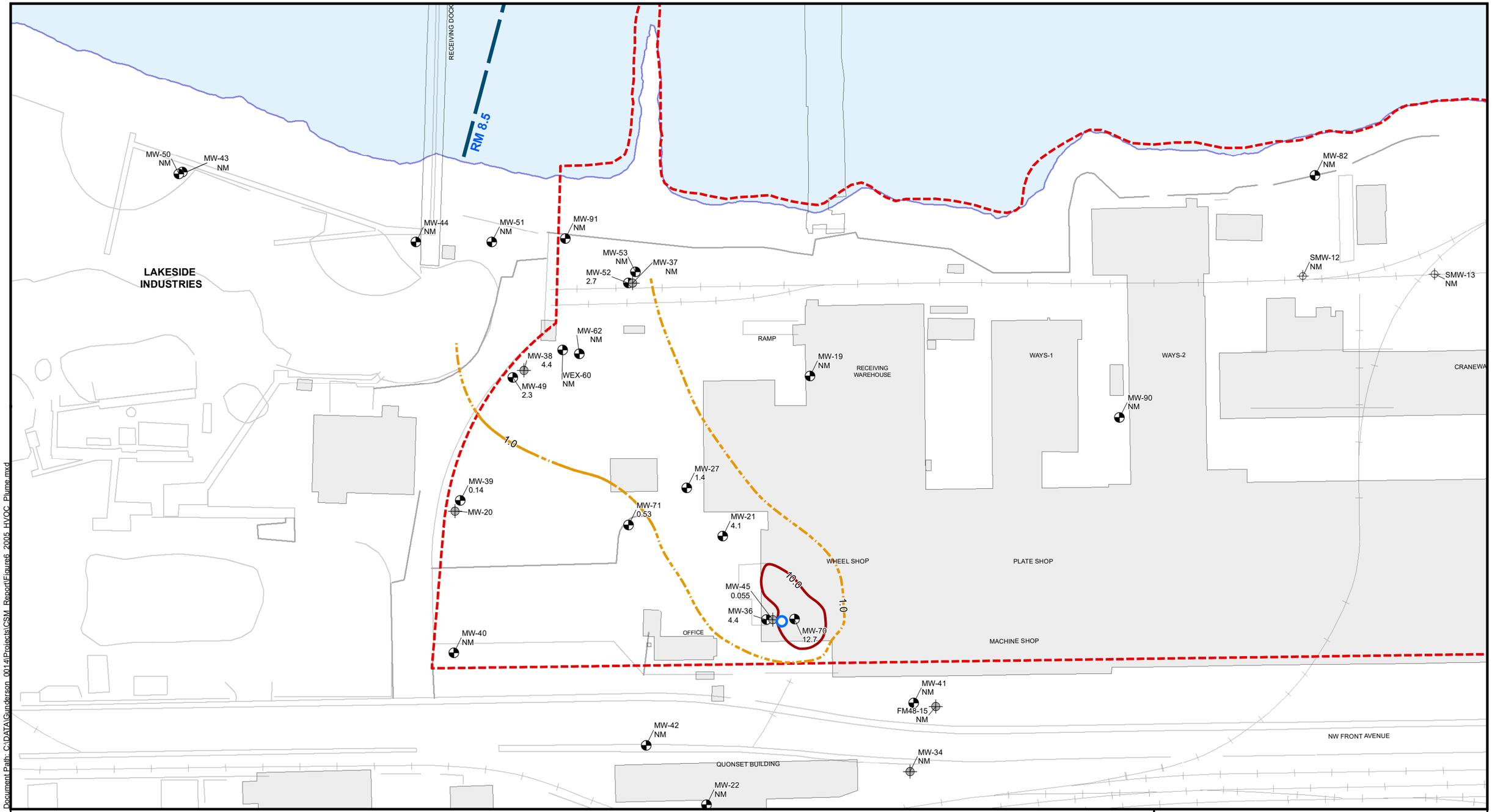
Extent of Impacts: Release No. 2

Comprehensive Groundwater Conceptual Site Model

Gunderson LLC
Portland, Oregon

Figure 5

PREPARED BY: ES | DATE: 5/7/2020 | PROJECT: 0014-001-011/013



Document Path: C:\DATA\Gunderson_0014\Projects\CSM_Report\Figure6_2005_HVOC_Plume.mxd

Notes:
1. HVOCs = halogenated VOCs
2. Listed values are total micromolar (µM) HVOC concentrations.
3. NM = Not measured or monitoring well installed after 2006

Legend

HVOC Contours (µM)
(dashed where inferred)
- 1.0
- 10.0

- Decommissioned Monitoring Well
- Monitoring Well - In Current Groundwater Monitoring Program
- Monitoring Well - Not in Current Groundwater Monitoring Program
- Release Location
- River Mile
- Site Property Boundary

0 50 100
Feet

Sources:
Johnson Land Surveying; Minister and Glaeser Surveying.
Coordinate System:
North American Datum of 1983 (2011) State Plane Oregon North (International Feet)

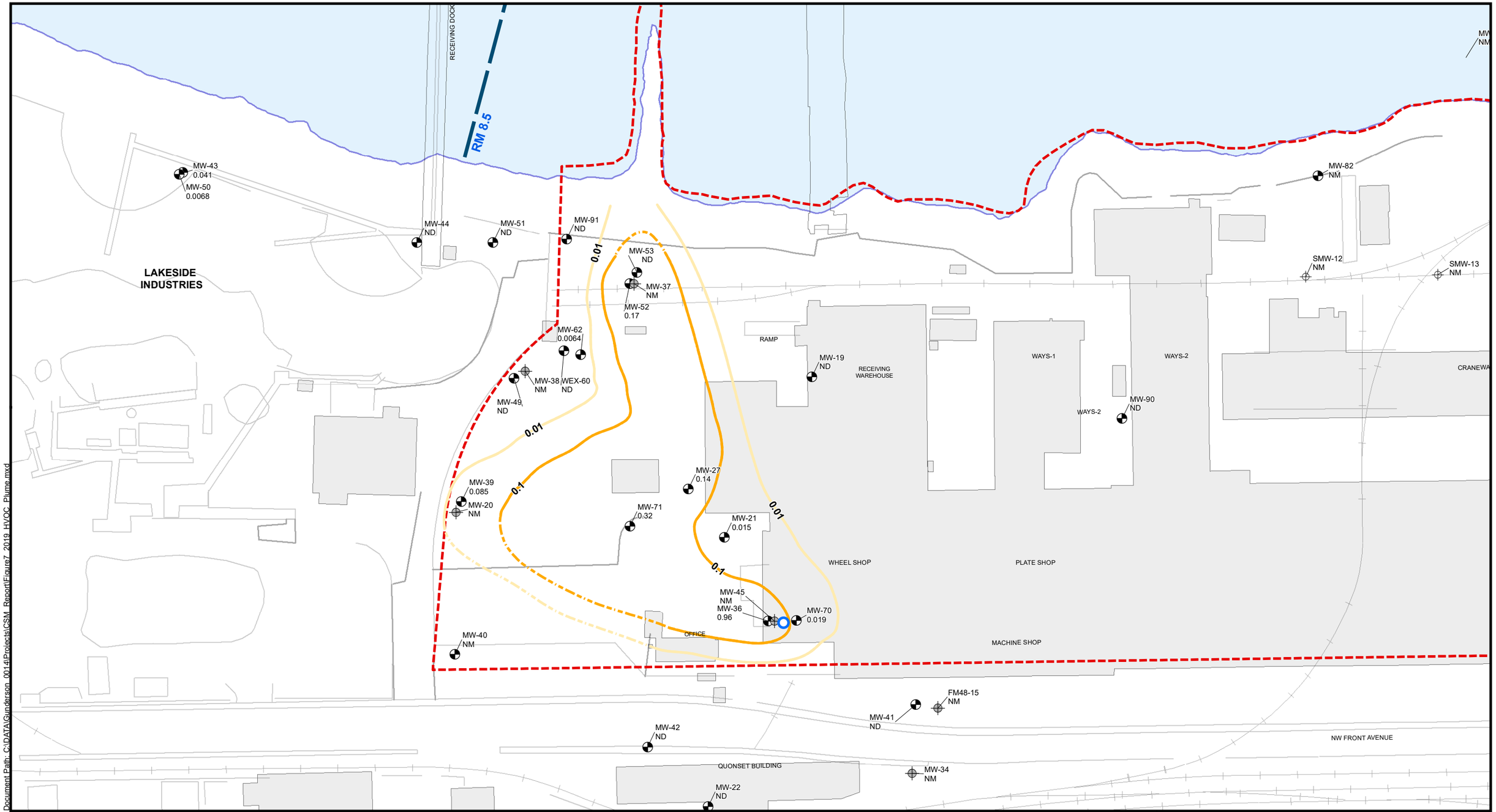
2006 HVOC Plume: Release No. 3

Comprehensive Groundwater Conceptual Site Model
Gunderson LLC
Portland, Oregon

Cascadia Associates, LLC

Figure 6

PREPARED BY: ErikStrandhagen | DATE: 5/8/2020 | PROJECT: 0014-001-011/013



Document Path: C:\DATA\Gunderson_0014\Projects\CSM_Report\Figure7_2019_HVOC_Plume.mxd

Notes:
1. HVOCs = halogenated VOCs
2. Listed values are total micromolar (µM) HVOC concentrations.
3. NM = Well not sampled during monitoring event
4. ND = HVOCs not detected above laboratory method reporting limit

Sources:
Johnson Land Surveying; Minister and Glaeser Surveying.
Coordinate System:
North American Datum of 1983 (2011) State Plane Oregon North (International Feet)

Legend

HVOC Contours (µM)

Dash where Inferred

- 0.01
- 0.1

- Decommissioned Monitoring Well
- Monitoring Well - In Current Groundwater Monitoring Program
- Monitoring Well - Not in Current Groundwater Monitoring Program

- Release Location
- River Mile
- Site Property Boundary

0 50 100
Feet

2019 HVOC Plume: Release No. 3

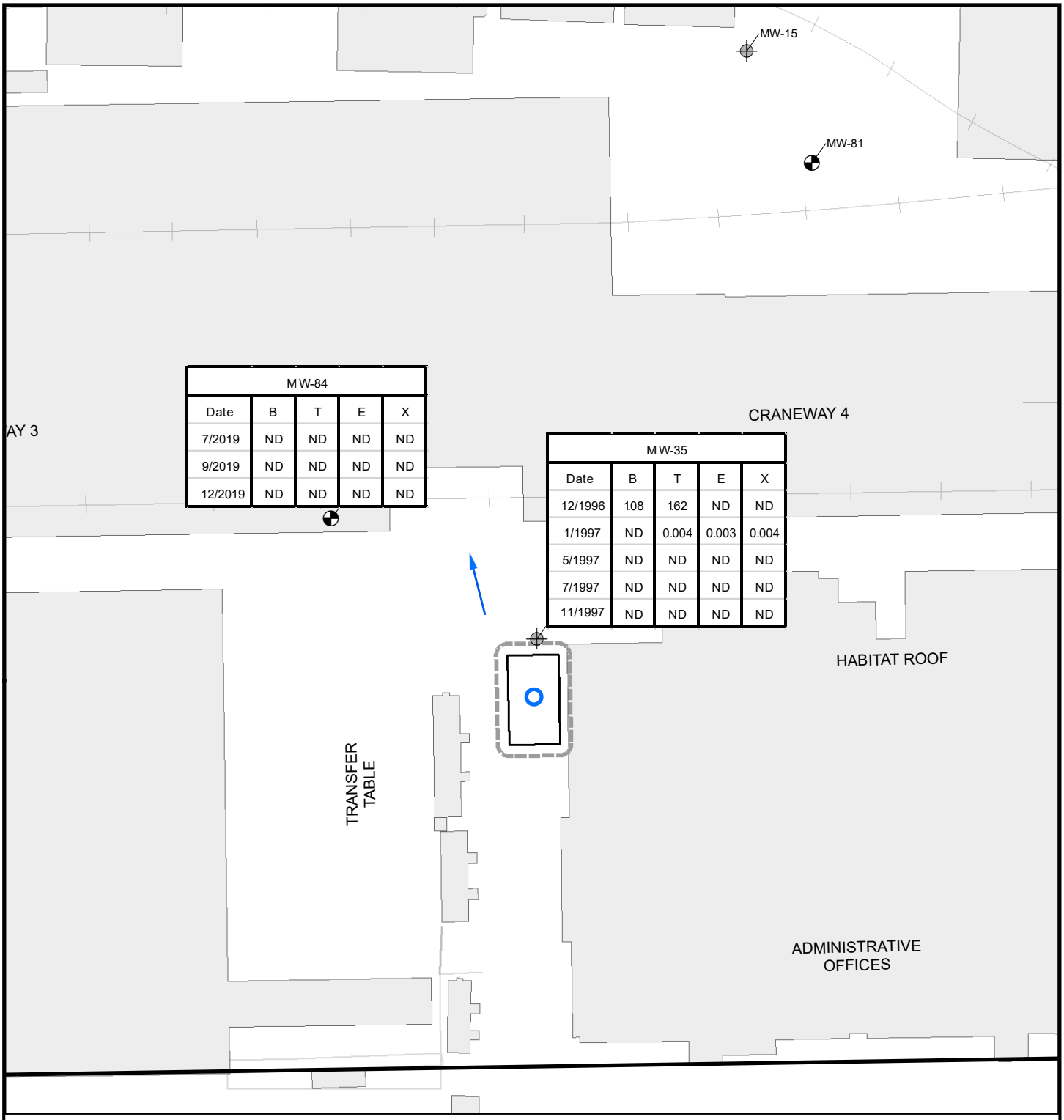
Comprehensive Groundwater Conceptual Site Model

Gunderson LLC
Portland, Oregon

Cascadia Associates, LLC

Figure 7

PREPARED BY: ErikStrandhagen | DATE: 5/8/2020 | PROJECT: 0014-001-011/013



MW-84				
Date	B	T	E	X
7/2019	ND	ND	ND	ND
9/2019	ND	ND	ND	ND
12/2019	ND	ND	ND	ND

MW-35				
Date	B	T	E	X
12/1996	1.08	1.62	ND	ND
1/1997	ND	0.004	0.003	0.004
5/1997	ND	ND	ND	ND
7/1997	ND	ND	ND	ND
11/1997	ND	ND	ND	ND

Notes:
1. ND = not detected
2. Concentrations shown in micrograms per liter.
3. B = benzene; T = toluene; E= ethylbenzene; X = xylenes

Well Network

- Decommissioned Monitoring Well
- Monitoring Well - In Current Groundwater Monitoring Program
- Monitoring Well - Not in Current Groundwater Monitoring Program
- Release Location
- Approximate groundwater flow direction
- Approximate extent of impacted media
- Location of UST excavation

0 25 50
Feet

Cascadia Associates, LLC

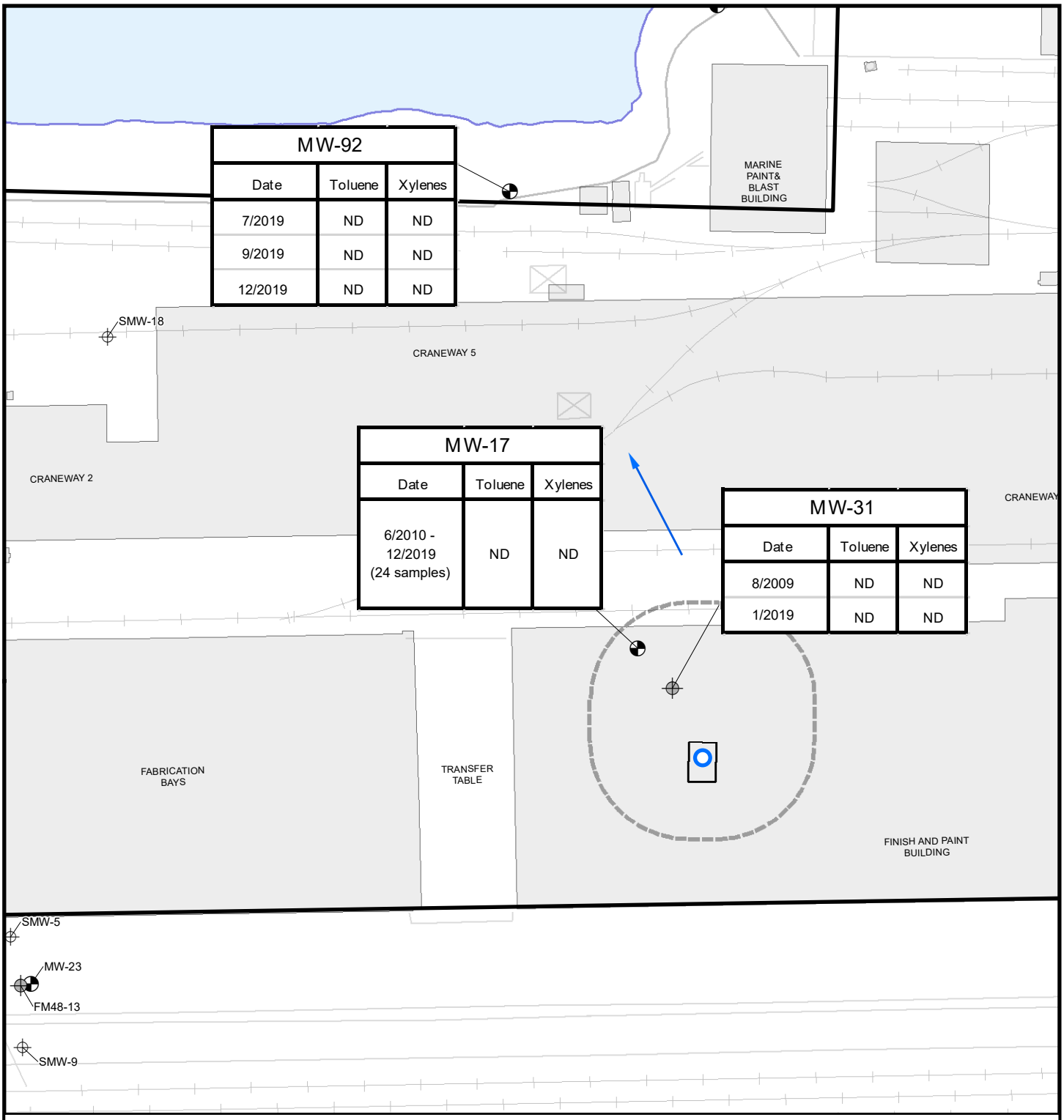
Extent of Impacts: Release Nos. 5 and 8

Comprehensive Groundwater Conceptual Site Model

Gunderson LLC
Portland, Oregon

Figure 8

PREPARED BY: ES | DATE: 5/7/2020 | PROJECT: 0014-001-011/013



Notes:
1. ND = not detected

Well Network

- Decommissioned Monitoring Well
- Monitoring Well - In Current Groundwater Monitoring Program
- Monitoring Well - Not in Current Groundwater Monitoring Program
- Release Location
- Approximate groundwater flow direction
- Approximate extent of historically impacted groundwater
- Location of decommissioned UST

0 25 50
Feet

Cascadia Associates, LLC

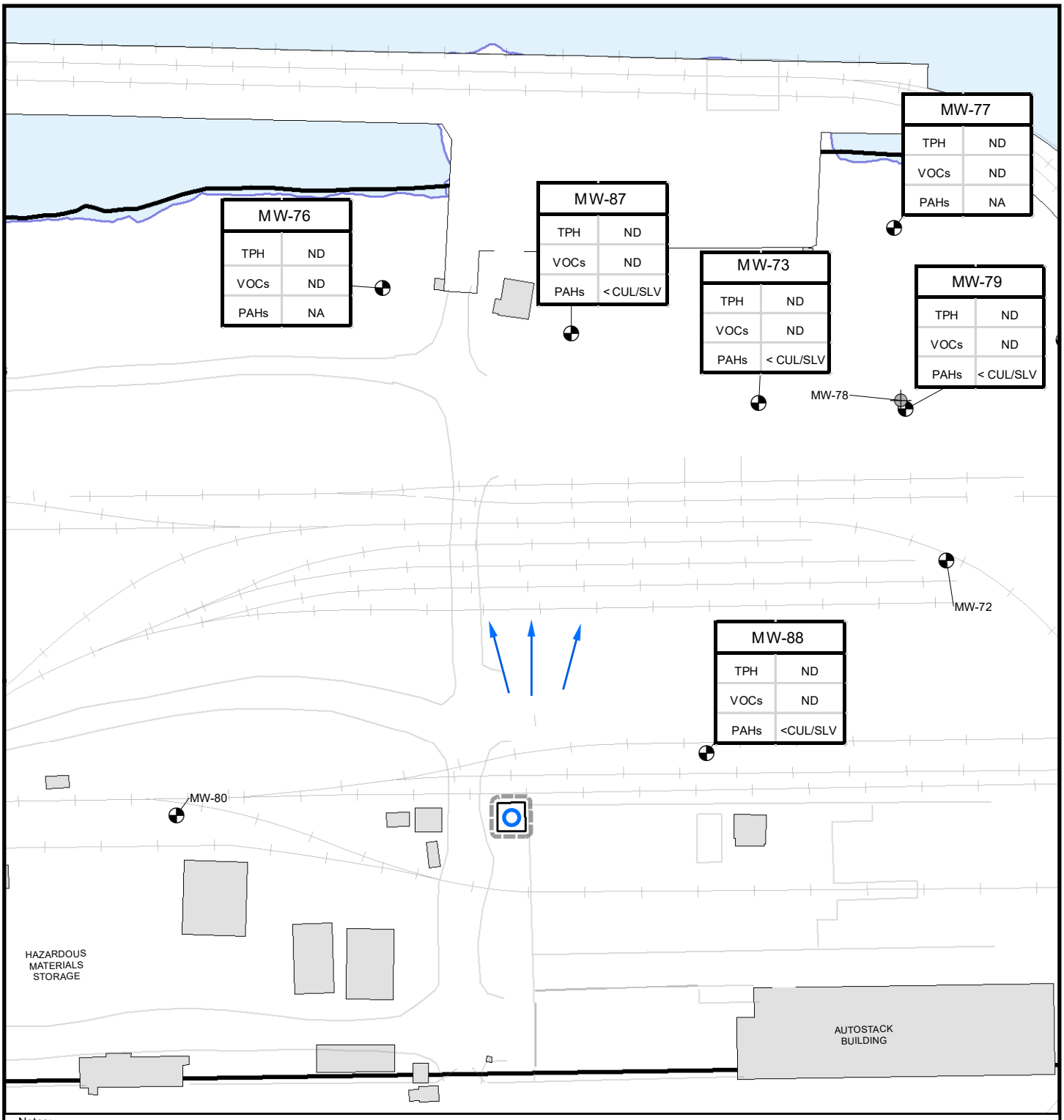
Extent of Impacts: Release No. 6

Comprehensive Groundwater Conceptual Site Model

Gunderson LLC
Portland, Oregon

Figure 9

PREPARED BY: ES | DATE: 5/7/2020 | PROJECT: 0014-001-011/013



Notes:
1. TPH = total petroleum diesel and oil range hydrocarbons
2. VOCs = volatile organic compounds
3. PAHs = polycyclic aromatic hydrocarbons
4. ND = not detected above laboratory method reporting limit
5. NA = not analyzed for listed constituent
6. < CUL/SLV = one or more chemical detected at concentration less than Portland Harbor Record of Decision Groundwater Cleanup Level or Joint Source Control Strategy Screening Level Value

Well Network

- Decommissioned Monitoring Well
- Monitoring Well - In Current Groundwater Monitoring Program
- Monitoring Well - Not in Current Groundwater Monitoring Program
- Release Location
- Approximate observed groundwater flow direction
- Approximate extent of historically impacted media
- Location of decommissioned USTs 1 and 2 (Release No. 15)

0 25 50
Feet

Cascadia Associates, LLC

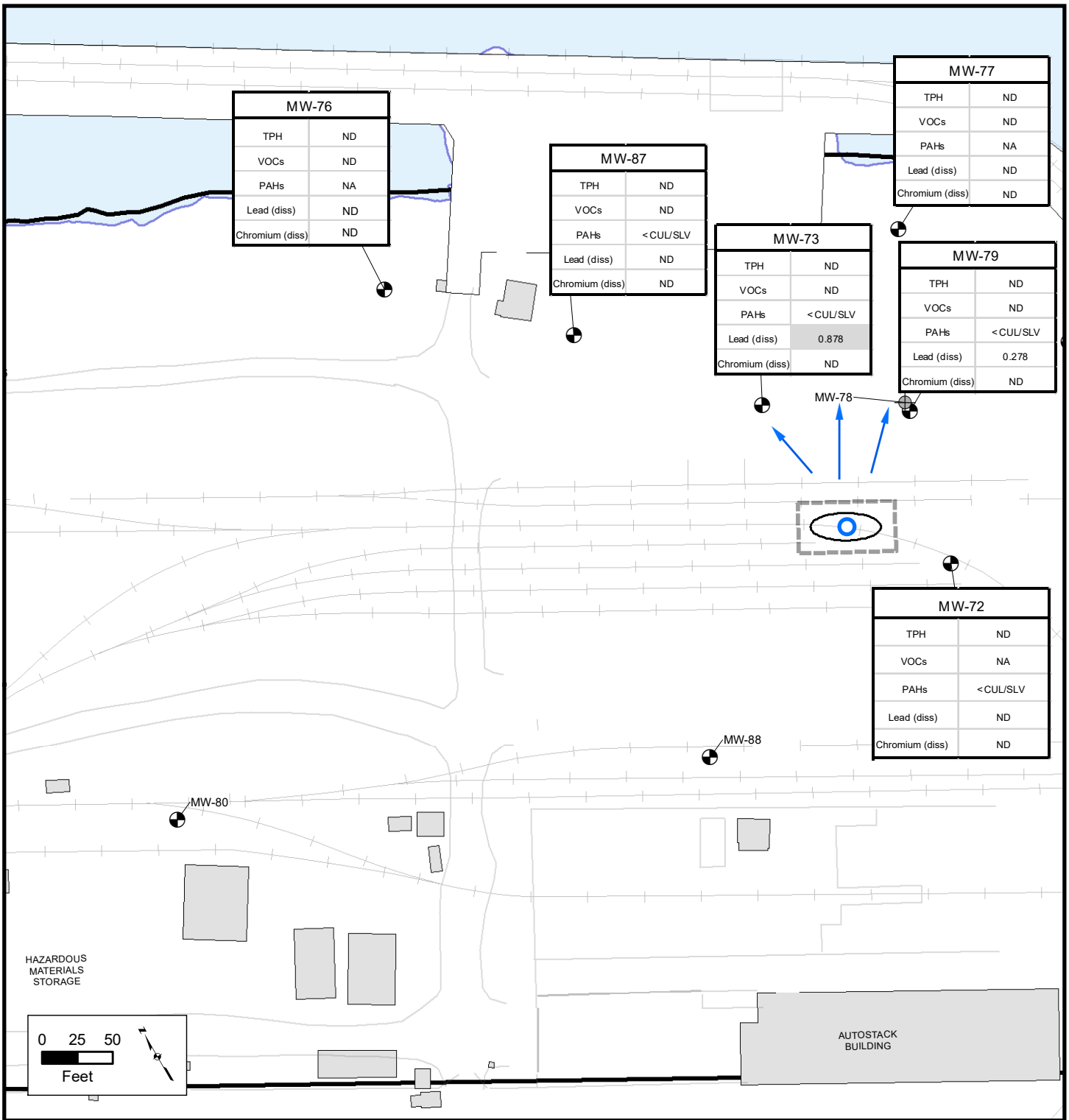
Extent of Impacts: Release No. 15

Comprehensive Groundwater Conceptual Site Model

Gunderson LLC
Portland, Oregon

Figure 10

PREPARED BY: ES | DATE: 5/7/2020 | PROJECT: 0014-001-011/013



Notes:
1. TPH = total petroleum diesel and oil range hydrocarbons
2. VOCs = volatile organic compounds
3. PAHs = polycyclic aromatic hydrocarbons.
4. Lead (diss) = dissolved lead
5. Chromium (diss) = dissolved chromium
6. ND = not detected above laboratory method reporting limit
7. NA = not analyzed for listed constituent
8. < CUL/SLV = one or more chemical detected at concentration less than Portland Harbor Record of Decision Groundwater Cleanup Level or Joint Source Control Strategy Screening Level Value
9. Concentrations shaded gray indicate constituent detected above Portland Harbor Record of Decision Groundwater Cleanup Level
10. Listed concentrations in milligrams per liter

Well Network

- Decommissioned Monitoring Well
- Monitoring Well - In Current Groundwater Monitoring Program
- Monitoring Well - Not in Current Groundwater Monitoring Program
- Release Location
- Approximate groundwater flow direction
- Approximate extent of historically impacted media
- Approximate location of observed soil impacts for Release Nos. 17 and 18

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PREPARED BY: ES | DATE: 5/8/2020

Extent of Impacts: Release Nos. 17 and 18

Comprehensive Groundwater Conceptual Site Model

Gunderson LLC
Portland, Oregon

Figure 11

PROJECT: 0014-001-011/013

AREA 1

AREA 2

SCHNITZER ASD YARD

8.5

9

WILLAMETTE RIVER

MW-50	
1,1-DCA	**0.852**
TCE	**0.898**

MW-43	
1,1-DCA	**2.95**
1,1-DCE	**0.730**
TCE	**0.490**

MW-52	
1,1-DCA	**3.42**
1,1-DCE	**12.4**
PCE	**0.930**

MW-62	
1,1-DCA	**0.630**

MW-21	
1,1-DCA	**0.750**
PCE	**0.750**
TCE	**0.400**

MW-70	
1,1,1-TCA	**2.56**

MW-39	
1,1-DCA	**4.03**
1,1-DCE	**3.04**
PCE	**1.25**
1,1,1-TCA	**0.707**

MW-71	
1,1-DCA	**8.32**
1,1-DCE	**20.2**
PCE	**2.35**
1,1,1-TCA	**1.13**

MW-27	
1,1-DCA	**3.94**
1,1-DCE	**7.02**
PCE	**2.81**
1,1,1-TCA	**0.550**
TCE	**0.440**

MW-36	
1,1-DCA	**13.9**
1,1-DCE	**77.3**
PCE	**1.19**
1,1,1-TCA	**2.61**

MW-85 ND; MW-82 ND; MW-83 ND; MW-92 ND; MW-44 ND; MW-91 ND; MW-53 ND; MW-51 ND; WEX-60 ND; MW-49 ND; MW-19 ND; MW-90 ND; MW-42 ND; MW-41 ND; MW-22 ND; MW-74; MW-14 ND; MW-86 ND; MW-76; MW-87 ND; MW-77; MW-10; MW-73; MW-78; MW-79; MW-72; MW-81; MW-66; MW-84 ND; MW-17 ND; MW-31; MW-89 ND; MW-80; MW-88 ND; MW-11; MW-40; MW-23; MW-24

Document Path: Y:\Gunderson_0014\Projects\CSM_Report\Figure12_HVOC.mxd

Notes:
1. HVOCs = Halogenated Volatile Organic Compounds
2. Only HVOCs detected above the laboratory method reporting limit (MRL) are shown.
3. Listed concentrations are in micrograms per liter.
4. ND = No HVOCs detected above the laboratory MRL.
5. 1,1-DCA = 1,1-Dichloroethane; 1,1-DCE = 1,1-Dichloroethene; PCE = Tetrachloroethene; 1,1,1-TCA = 1,1,1-Trichloroethane; TCE = Trichloroethene
6. Shading indicates that concentration exceeds a Portland Harbor Record of Decision Cleanup Level or a Joint Source Control Strategy Screening Level Value.
7. Monitoring wells not in current groundwater monitoring program are not shown.

Sources:
Johnson Land Surveying;
Minister and Glaeser Surveying.

Coordinate System:
North American Datum of 1983 (2011)
State Plane Oregon North (International Feet)

Legend

- Monitoring Well - Sampled for HVOCs in the Fourth Quarter 2019 Groundwater Monitoring Event
- Monitoring Well - Not Sampled for HVOCs in the Fourth Quarter 2019 Groundwater Monitoring Event
- River Mile
- Site Property Boundary

0 250 500
Feet

Fourth Quarter 2019 Groundwater Monitoring Results – HVOCs

Comprehensive Groundwater Conceptual Site Model
Gunderson LLC
Portland, Oregon

Cascadia Associates, LLC

Figure 12

PREPARED BY: ErikStrandhagen | DATE: 5/13/2020 | PROJECT: 0014-001-011/013

AREA 1

AREA 2

SCHNITZER ASD YARD

8.5

9

WILLAMETTE RIVER

MW-43
MW-50
MW-44
MW-91
ND
MW-51
MW-53
WEX-60
ND
MW-52
ND
MW-49
MW-62
ND
MW-19
MW-39
MW-27
MW-71
MW-21
MW-40
MW-36
MW-70
MW-42
MW-22
MW-41
MW-82
ND
MW-66
MW-90
ND
MW-83
ND
MW-92
ND
MW-85
ND
MW-17
ND
MW-31
MW-84
ND
MW-23
MW-24
MW-81
MW-74
ND
MW-14
ND
MW-86
ND
MW-76
MW-87
ND
MW-77
ND
MW-10
ND
MW-73
ND
MW-78
MW-79
ND
MW-72
ND
MW-88
ND
MW-89
ND
MW-80
MW-11
ND

Document Path: C:\DATA\Gunderson_0014\Projects\CSM_Report\Figure13_TPH.mxd

Notes:
1. Petroleum Hydrocarbons = Diesel- and oil-range petroleum hydrocarbons
2. ND = No petroleum hydrocarbons detected above the laboratory method reporting limit.
3. Monitoring wells not in current groundwater monitoring program are not shown.

Sources:
Johnson Land Surveying;
Minister and Glaeser Surveying.

Coordinate System:
North American Datum of 1983 (2011)
State Plane Oregon North (International Feet)

Legend

- Monitoring Well - Sampled for Petroleum Hydrocarbons in the Fourth Quarter 2019 Groundwater Monitoring Event
- Monitoring Well - Not Sampled for Petroleum Hydrocarbons in the Fourth Quarter 2019 Groundwater Monitoring Event
- River Mile
- Site Property Boundary

0 250 500
Feet

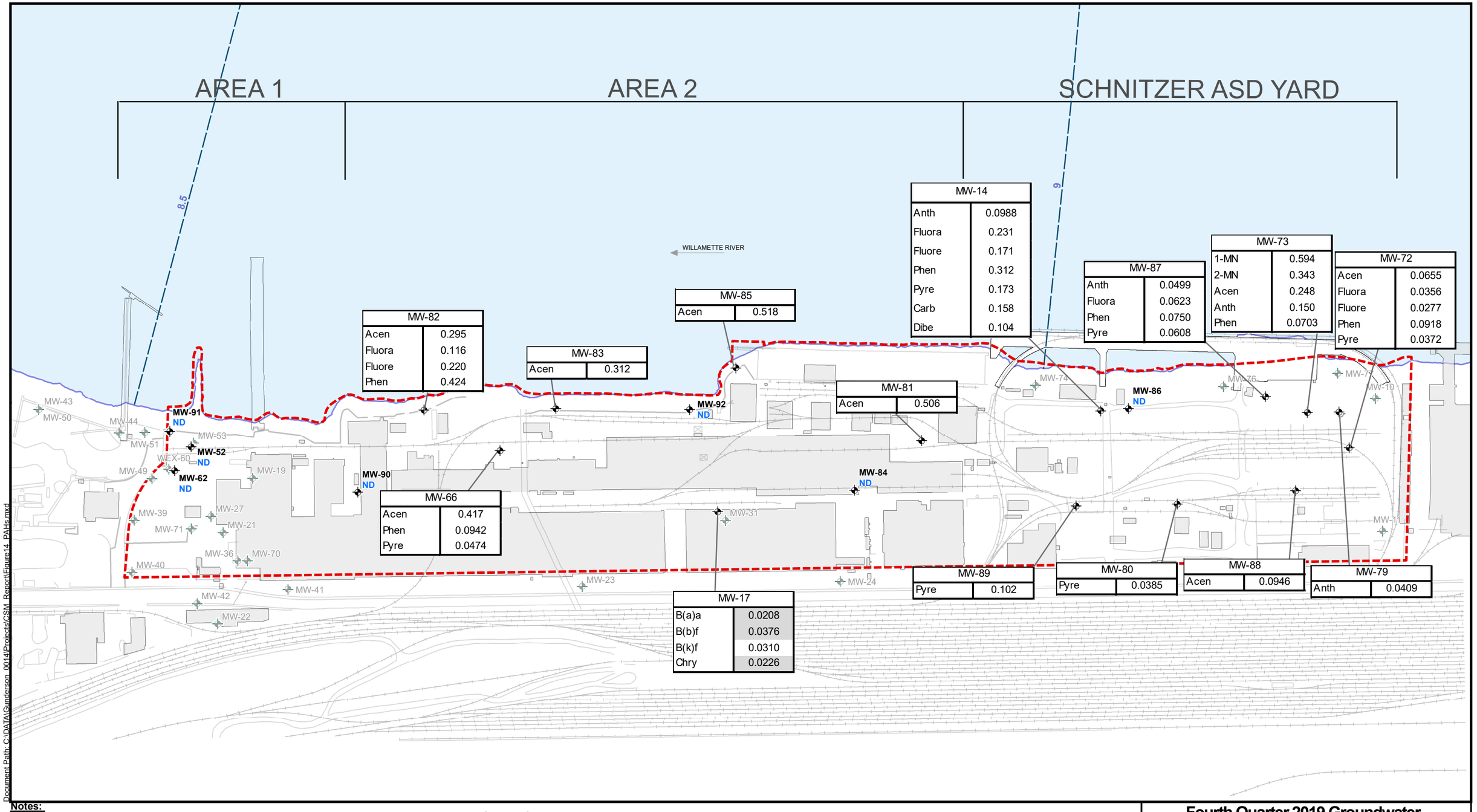
Fourth Quarter 2019 Groundwater Monitoring Results – Petroleum Hydrocarbons

Comprehensive Groundwater Conceptual Site Model
Gunderson LLC
Portland, Oregon

Cascadia Associates, LLC

Figure 13

PREPARED BY: ErikStrandhagen | DATE: 5/7/2020 | PROJECT: 0014-001-011/013



Document Path: C:\DATA\Gunderson_0014\Projects\GSM_Report\Figure14_PAHs.mxd

Notes:

1. PAHs = Polycyclic Aromatic Hydrocarbons
2. Only PAHs detected above the laboratory method reporting limit (MRL) are shown.
3. Listed concentrations are in micrograms per liter.
4. ND = No PAHs detected above the laboratory MRL.
5. Acen = Acenaphthene; Anth = Anthracene; B(a)a = Benz(a)anthracene; B(b)f = Benzo(b)fluoranthene; B(k)f = Benzo(k)fluoranthene; Carb = Carbazole; Chry = Chrysene; Dibe = Dibenzofuran; Fluora = Fluoranthene; Fluore = Fluorene; 1-MN = 1-methylnaphthalene; 2-MN = 2-methylnaphthalene; Phen = Phenanthrene; Pyre = Pyrene.
6. Shading indicates that concentration exceeds a Portland Harbor Record of Decision Cleanup Level or a Joint Source Control Strategy Screening Level Value.
7. Monitoring wells not in current groundwater monitoring program are not shown.

Legend

- Monitoring Well - Sampled for PAHs in the Fourth Quarter 2019 Groundwater Monitoring Event
- Monitoring Well - Not Sampled for PAHs in the Fourth Quarter 2019 Groundwater Monitoring Event
- River Mile
- Site Property Boundary

Sources:
Johnson Land Surveying;
Minister and Glaeser Surveying.

Coordinate System:
North American Datum of 1983 (2011)
State Plane Oregon North (International Feet)

0 250 500
Feet

Fourth Quarter 2019 Groundwater Monitoring Results – PAHs

Comprehensive Groundwater Conceptual Site Model
Gunderson LLC
Portland, Oregon

Cascadia Associates, LLC

Figure 14

PREPARED BY: ErikStrandhagen | DATE: 5/7/2020 | PROJECT: 0014-001-011/013

AREA 1

AREA 2

SCHNITZER ASD YARD

8.5

WILLAMETTE RIVER

MW-91	
Barium	45.4
Copper	2.28
Manganese	60.2
Zinc	12.8

MW-52	
Barium	45.3
Manganese	218
Nickel	1.75
Zinc	5.23

MW-82	
Antimony	5.81
Arsenic	246
Barium	467
Manganese	2,220
Nickel	11.1
Zinc	78.1

MW-85	
Barium	60.6
Manganese	2,250

MW-83	
Arsenic	24.2
Barium	89.6
Manganese	4,190

MW-74	
Antimony	6.65
Barium	57.6
Chromium	3.33
Copper	2.41
Manganese	180
Nickel	1.88
Zinc	25.3

MW-14	
Arsenic	1.26
Barium	34.3
Copper	8.79
Manganese	17.0
Zinc	37.0

MW-86	
Arsenic	16.2
Barium	156
Manganese	1,800
Nickel	1.55

MW-87	
Arsenic	17.2
Barium	142
Manganese	2,450
Nickel	2.39
Zinc	4.92

MW-77	
Arsenic	13.6
Barium	135
Manganese	1,560
Nickel	1.07

MW-76	
Arsenic	11.0
Barium	156
Manganese	938
Nickel	3.96

MW-10	
Arsenic	2.16
Barium	40.6
Manganese	1,470

MW-81	
Arsenic	4.22
Barium	93.3
Manganese	2,940

MW-92	
Antimony	2.70
Barium	46.4
Copper	2.23
Manganese	61.9
Zinc	14.6

MW-73	
Arsenic	3.53
Barium	247
Lead	0.878
Manganese	1,960

MW-84	
Arsenic	2.55
Barium	34.2
Manganese	1,020

MW-66	
Arsenic	10.1
Barium	71.5
Manganese	1,180

MW-90	
Barium	20.5
Manganese	335
Nickel	2.10

MW-62	
Arsenic	1.28
Barium	38.5
Copper	1.81
Manganese	267
Nickel	2.93
Zinc	10.6

MW-22	
Barium	4.32
Manganese	2.02

MW-42	
Barium	43.1
Manganese	154

MW-17	
Arsenic	7.29
Barium	17.6
Manganese	4,040

MW-24	
Barium	19.4
Manganese	2,840
Nickel	2.85

MW-89	
Arsenic	10.4
Barium	92.9
Manganese	1,930
Nickel	1.56

MW-80	
Arsenic	2.50
Barium	34.3
Lead	0.388
Manganese	315

MW-88	
Arsenic	2.76
Barium	210
Manganese	1,590

MW-11	
Arsenic	1.26
Barium	22.3
Manganese	857

MW-72	
Arsenic	5.83
Barium	210
Manganese	1,850
Nickel	1.49

MW-79	
Antimony	37.7
Barium	167
Copper	1.31
Lead	0.278
Manganese	425
Nickel	10.1
Zinc	22.6

MW-43, MW-50, MW-44, MW-51, MW-53, WEX-60, MW-49, MW-39, MW-27, MW-21, MW-71, MW-36, MW-70, MW-40, MW-19, MW-31, MW-23

Document Path: C:\DATA\Gunderson_0014\Projects\CSM_Report\Figure15_Dissolved_metals.mxd

Notes:

1. Only dissolved metals detected above the laboratory method reporting limit (MRL) are shown. The following metals are included in the groundwater monitoring program: antimony, arsenic, barium, cadmium, chromium, copper, lead, manganese, nickel, and zinc.
2. Listed concentrations are in micrograms per liter.
3. Shading indicates that concentration exceeds a Portland Harbor Record of Decision Cleanup Level or a Joint Source Control Strategy Screening Level Value. Note that in several instances, the background concentration of metals in the Portland Harbor site vicinity is much higher than the Cleanup Level or Screening Level Value.
4. Monitoring wells not in current groundwater monitoring program are not shown.

Sources:
Johnson Land Surveying;
Minister and Glaeser Surveying.

Coordinate System:
North American Datum of 1983 (2011)
State Plane Oregon North (International Feet)

Legend

- Monitoring Well - Sampled for Dissolved Metals in the Fourth Quarter 2019 Groundwater Monitoring Event
- Monitoring Well - Not Sampled for Dissolved Metals in the Fourth Quarter 2019 Groundwater Monitoring Event
- River Mile
- Site Property Boundary

0 250 500
Feet

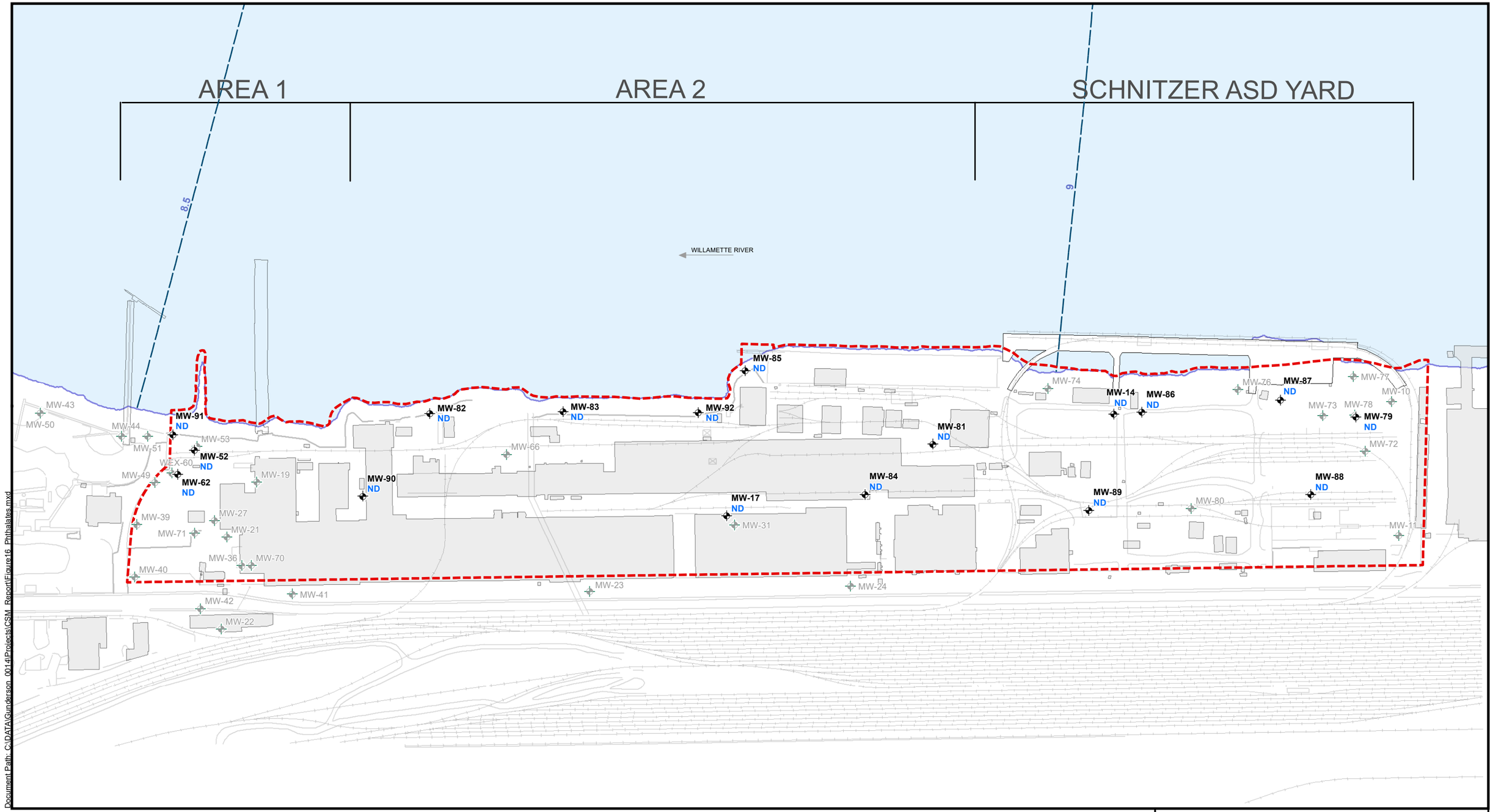
Fourth Quarter 2019 Groundwater Monitoring Results – Dissolved Metals

Comprehensive Groundwater Conceptual Site Model
Gunderson LLC
Portland, Oregon

Cascadia Associates, LLC

Figure 15

PREPARED BY: ErikStrandhagen | DATE: 5/7/2020 | PROJECT: 0014-001-011/013



Document Path: C:\DATA\Gunderson_0014\Projects\CSM_Report\Figure16_Phthalates.mxd

Notes:
1. ND = No phthalates detected above the laboratory method reporting limit
2. Monitoring wells not in current groundwater monitoring program are not shown.

Sources:
Johnson Land Surveying;
Minister and Glaeser Surveying.

Coordinate System:
North American Datum of 1983 (2011)
State Plane Oregon North (International Feet)

Legend

- Monitoring Well - Sampled for Phthalates in the Fourth Quarter 2019 Groundwater Monitoring Event
- Monitoring Well - Not Sampled for Phthalates in the Fourth Quarter 2019 Groundwater Monitoring Event
- River Mile
- Site Property Boundary

0 250 500
Feet

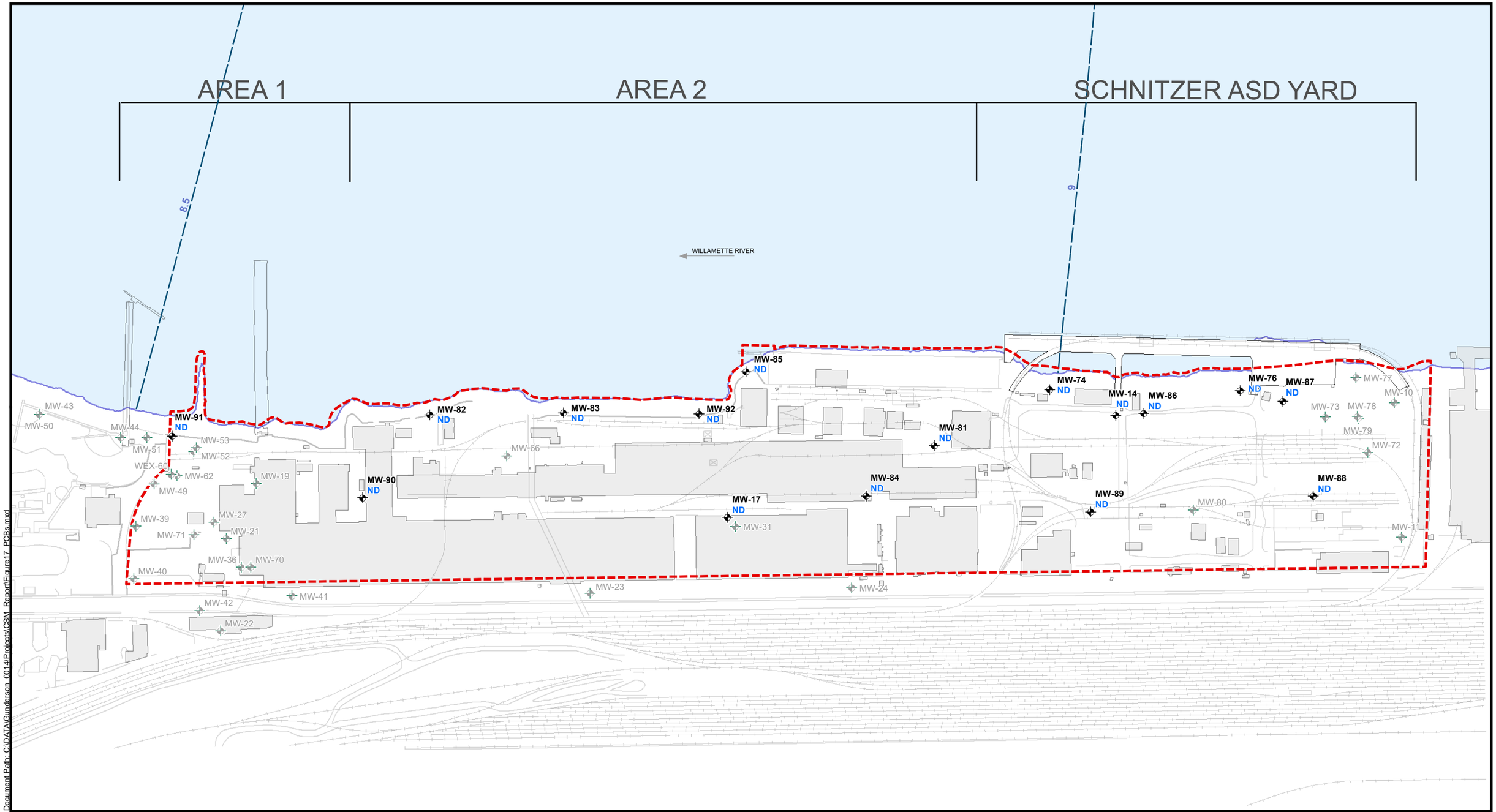
Fourth Quarter 2019 Groundwater Monitoring Results – Phthalates

Comprehensive Groundwater Conceptual Site Model
Gunderson LLC
Portland, Oregon

Cascadia Associates, LLC

Figure 16

PREPARED BY: ErikStrandhagen | DATE: 5/7/2020 | PROJECT: 0014-001-011/013



Document Path: C:\DATA\Gunderson_0014\Projects\CSM_Report\Figure17_PCBs.mxd

Notes:
1. PCBs = polychlorinated biphenyls
2. ND = No PCBs detected above the laboratory method reporting limit.
3. Monitoring wells not in current groundwater monitoring program are not shown.

Sources:
Johnson Land Surveying;
Minister and Glaeser Surveying.

Coordinate System:
North American Datum of 1983 (2011)
State Plane Oregon North (International Feet)

Legend

- Monitoring Well - Sampled for PCBs in the Fourth Quarter 2019 Groundwater Monitoring Event
- Monitoring Well - Not Sampled for PCBs in the Fourth Quarter 2019 Groundwater Monitoring Event
- River Mile
- Site Property Boundary

0 250 500
Feet

Fourth Quarter 2019 Groundwater Monitoring Results – PCBs

Comprehensive Groundwater Conceptual Site Model
Gunderson LLC
Portland, Oregon

Cascadia Associates, LLC

Figure 17

PREPARED BY: ErikStrandhagen | DATE: 5/7/2020 | PROJECT: 0014-001-011/013

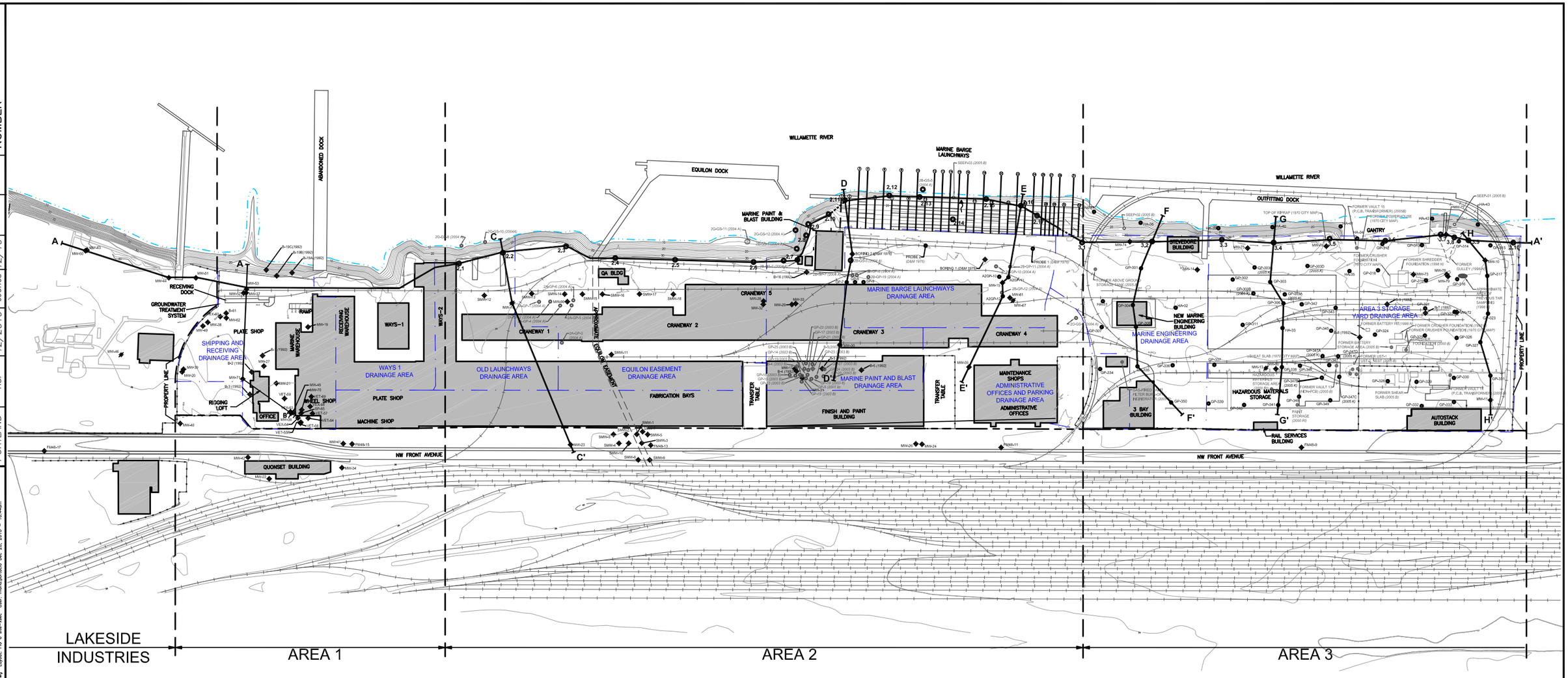
APPENDIX A

EXCERPTS FROM

GROUNDWATER SOURCE CONTROL EVALUATION

(SHAW, 2011a)

OFFICE	DRAWN BY	CHECKED BY	APPROVED BY	PROJECT NUMBER
PORTLAND	RSP 12/2010	JJones 12/10		137492.18000000



LEGEND

- MW-50 — GROUNDWATER WELL
- MW-28 — DECOMMISSIONED GROUNDWATER WELL
- GP-7/HA-37/2.1 — GEOPROBE BORING LOCATION *
- B-4/BORING 1 — BORING LOCATION
- BUILDINGS
- FENCE LINE
- STORM DRAIN
- APPROXIMATE RIVERBANK (ELEVATION +8 FEET, COLUMBIA RIVER DATUM) INDICATES BOUNDARY BETWEEN UPLAND AND IN-WATER AREAS PER PORTLAND HARBOR JSCS, DATED JULY 2007.
- APPROXIMATE AREA BOUNDARIES
- APPROXIMATE PROPERTY BOUNDARY
- 30 — CONTOUR, 10 FOOT INTERVAL
- 32.0 — CONTOUR, 2 FOOT INTERVAL
- DRAINAGE AREA BOUNDARIES
- B — B' GEOLOGIC CROSS-SECTION
- (1992) INDICATES REPORT WHERE HISTORICAL LOCATION WAS NOTED

SCALE
0 300 600 FEET

NOTES

1. BASE MAP TOPOGRAPHY FROM JOHNSON LAND SURVEYING, INC. AERIAL SURVEY, DATED 10/29/07.
2. STORM WATER UTILITIES AND DRAINAGE AREAS FROM KLEINFELDER STORM WATER DRAINAGE BASINS MAP, DATED 1/08.
3. HISTORICAL FEATURES FROM SQUIER & ASSOCIATES AREA 3 SITE PLAN, DATED 9/15/1999.
4. LOCATIONS OF HISTORICAL FEATURES, BORING LOCATIONS, MONITORING WELLS, AND SAMPLING LOCATIONS ARE APPROXIMATE.

* GP = GEOPROBE, HA = HAND AUGER BORING, GS = NEAR-SURFACE SOIL SAMPLING

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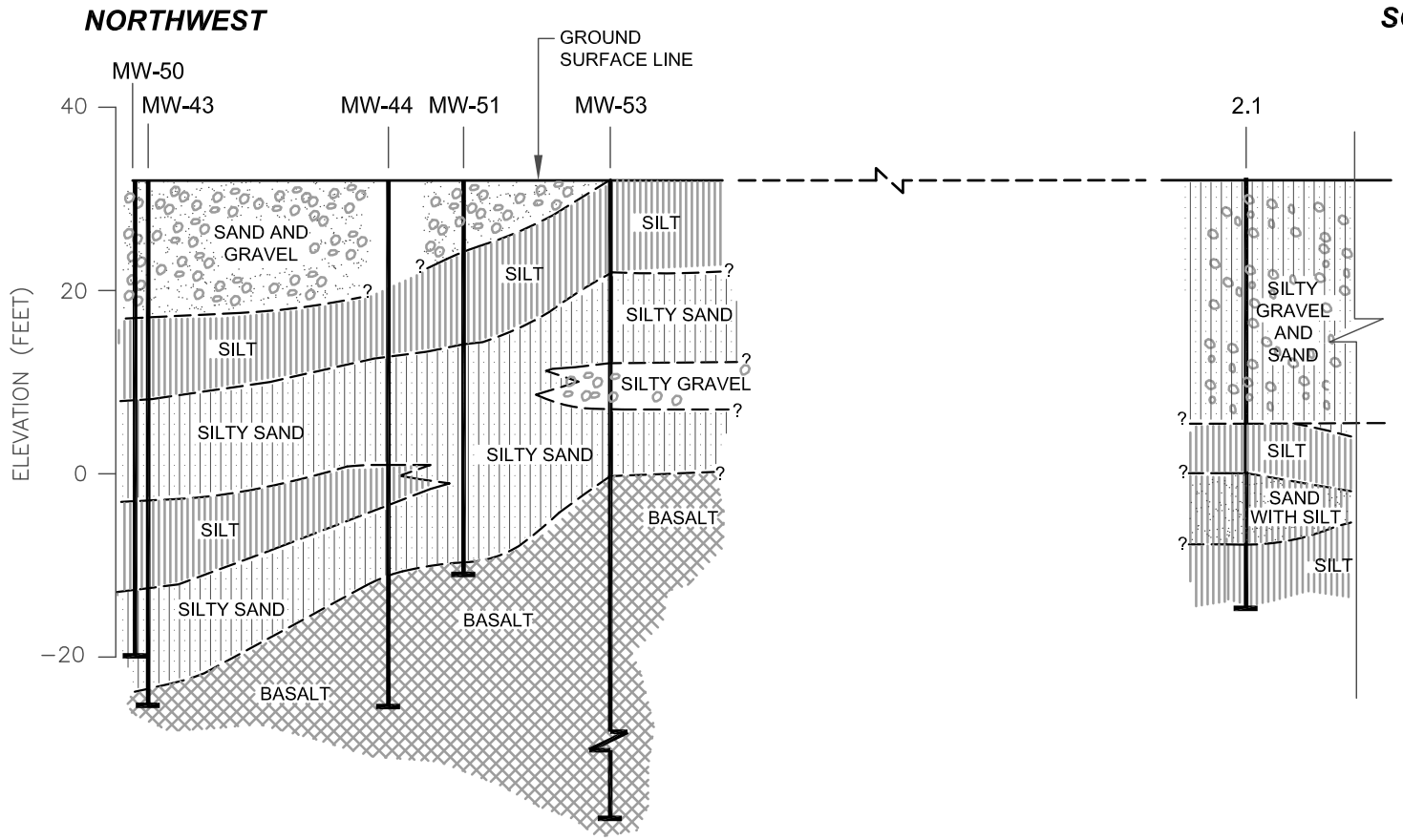
FIGURE 6
CROSS SECTION ALIGNMENT
GROUNDWATER SOURCE CONTROL EVALUATION
GUNDERSON, LLC
4350 NW FRONT AVENUE
PORTLAND, OREGON

GUN0054494

XREF Files: IMAGE Files:
File: N:\Project\final\CAD 2010-Shaw Offices\CAD-Portland\Gunderson\2010 Greenbelter-Gunderson\137492-GW SCE Drawings\GSP-137492-AREAS 123R2.dwg Layout: FIG 6 alte=sses User: marta.portacio Dec 20, 2010 - 10:44am

XREF Files: IMAGE Files:
File: N:\Project\final\CADD 2010-Shaw Offices\CAD-Portland\Gunderson\2010 Greenbrier-Gunderson\137492-GW SCE Drawings\BT-137492-XSEC-A1-3.dwg Layout: FIG 7A-XSEC A-A' User: maria.portacio Dec 20, 2010 - 5:29pm

OFFICE	DRAWN BY		CHECKED BY		APPROVED BY		DRAWING NUMBER
PORTLAND	MLP	12/2010	LTerry	12/10	DHarvey	12/10	137492.18000000



LEGEND:

INFERRED LITHOLOGIC CONTACT, QUERIED WHERE UNCERTAIN

2.4 MONITORING WELL OR BORING LOCATION AND DESIGNATION

SCREENED INTERVAL

SILTY GRAVEL

SILT

SILTY SAND

SAND AND GRAVEL

SILTY GRAVEL AND SAND

BASALT

SCALE (FEET)
0 200 400 FEET
HORIZ. SCALE: 1"=200'

SCALE (FEET)
0 20 40 FEET
VERT. SCALE: 1"=20'

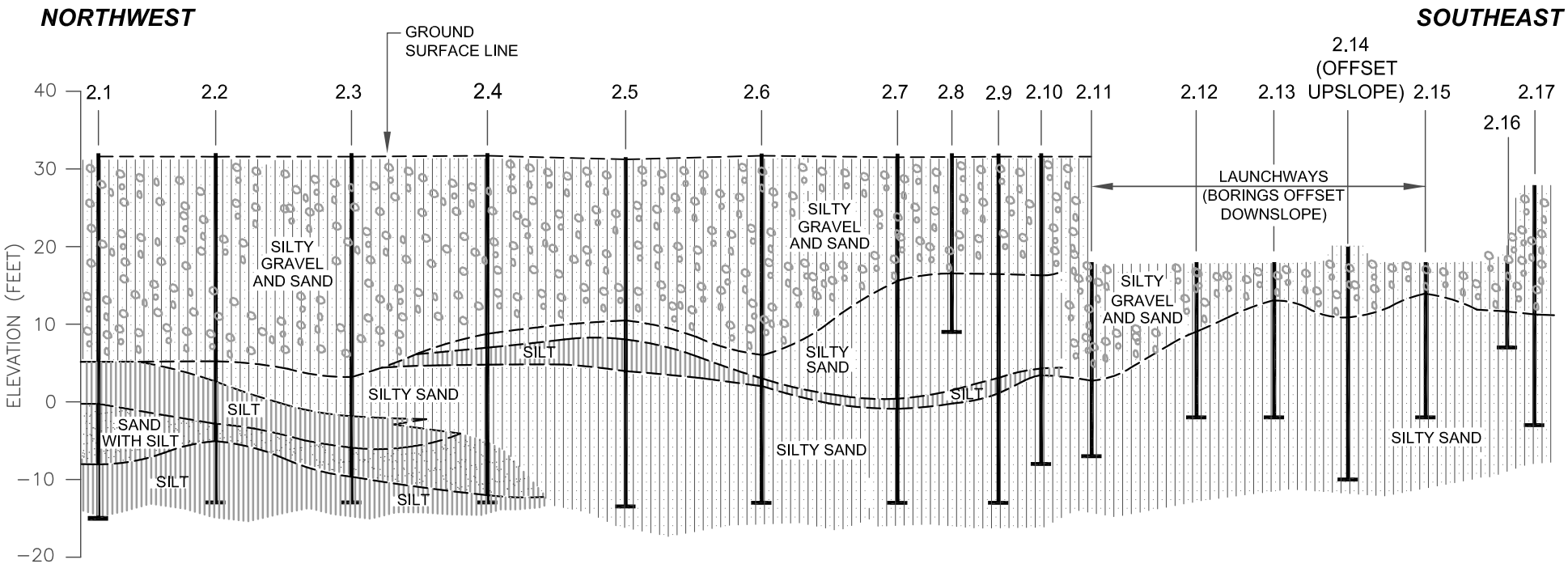
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10300 SW Nimbus Avenue, Suite B
Portland, Oregon 97223
Phone (503) 603-1000
Fax. (503) 603-1001

FIGURE 7a
AREA 1
CROSS-SECTION A-A'
GUNDERSON, LLC
4350 NW FRONT AVENUE
PORTLAND, OREGON

GUN0054495

XREF Files: IMAGE Files:
File: N:\Project\final\CADD 2010-Shaw Offices\CAD-Portland\Gunderson\2010 Greenbrier-Gunderson\137492-GW SCE Drawings\BT-137492-XSEC-A1-3.dwg Layout: FIG 7B-XSEC A-A' User: maria.portacio Dec 20, 2010 - 10:17am

OFFICE	DRAWN BY		CHECKED BY		APPROVED BY		DRAWING NUMBER
PORTLAND	MLP	12/2010	LTerry	12/10	DHarvey	12/10	137492.18000000



LEGEND:

- INFERRED LITHOLOGIC CONTACT, QUERIED WHERE UNCERTAIN
- 2.4 MONITORING WELL OR BORING LOCATION AND DESIGNATION
- SCREENED INTERVAL
- SILT
- SILTY SAND
- SAND WITH SILT
- SILTY GRAVEL AND SAND

SCALE (FEET)
0 200 400 FEET
HORIZ. SCALE: 1"=200'

SCALE (FEET)
0 20 40 FEET
VERT. SCALE: 1"=20'

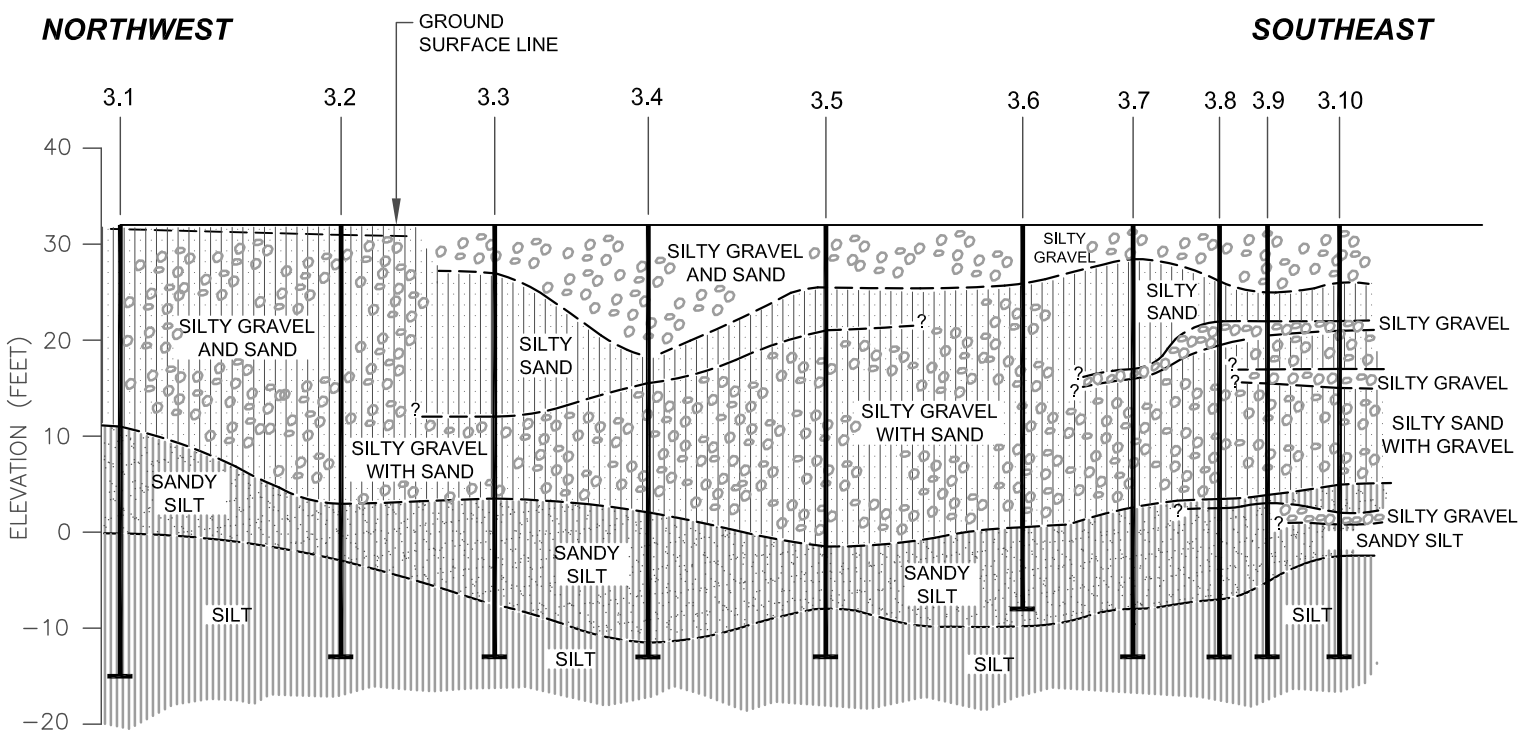
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Fax. (503) 603-1001
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FIGURE 7b
AREA 2
CROSS-SECTION A-A'
GUNDERSON, LLC
4350 NW FRONT AVENUE
PORTLAND, OREGON

GUN0054496

XREF Files: IMAGE Files:
File: N:\Project\final\CADD 2010-Shaw Offices\CAD-Portland\Gunderson\2010 Greenbrier-Gunderson\137492-GW SCE Drawings\BT-137492-XSEC-A1-3.dwg Layout: FIG 7C--XSEC A-A' User: maria.portacio Dec 20, 2010 - 10:20am

OFFICE	DRAWN BY		CHECKED BY		APPROVED BY		DRAWING NUMBER
PORTLAND	MLP	12/2010	LTerry	12/10	DHarvey	12/10	137492.18000000



LEGEND:

- INFERRED LITHOLOGIC CONTACT, QUERIED WHERE UNCERTAIN
- 2.4 MONITORING WELL OR BORING LOCATION AND DESIGNATION
- SCREENED INTERVAL

- SILT
- SILTY SAND
- SANDY SILT
- SILTY GRAVEL AND SAND
- SILTY SAND WITH GRAVEL
- SILTY GRAVEL

SCALE (FEET)
0 200 400 FEET
HORIZ. SCALE: 1"=200'

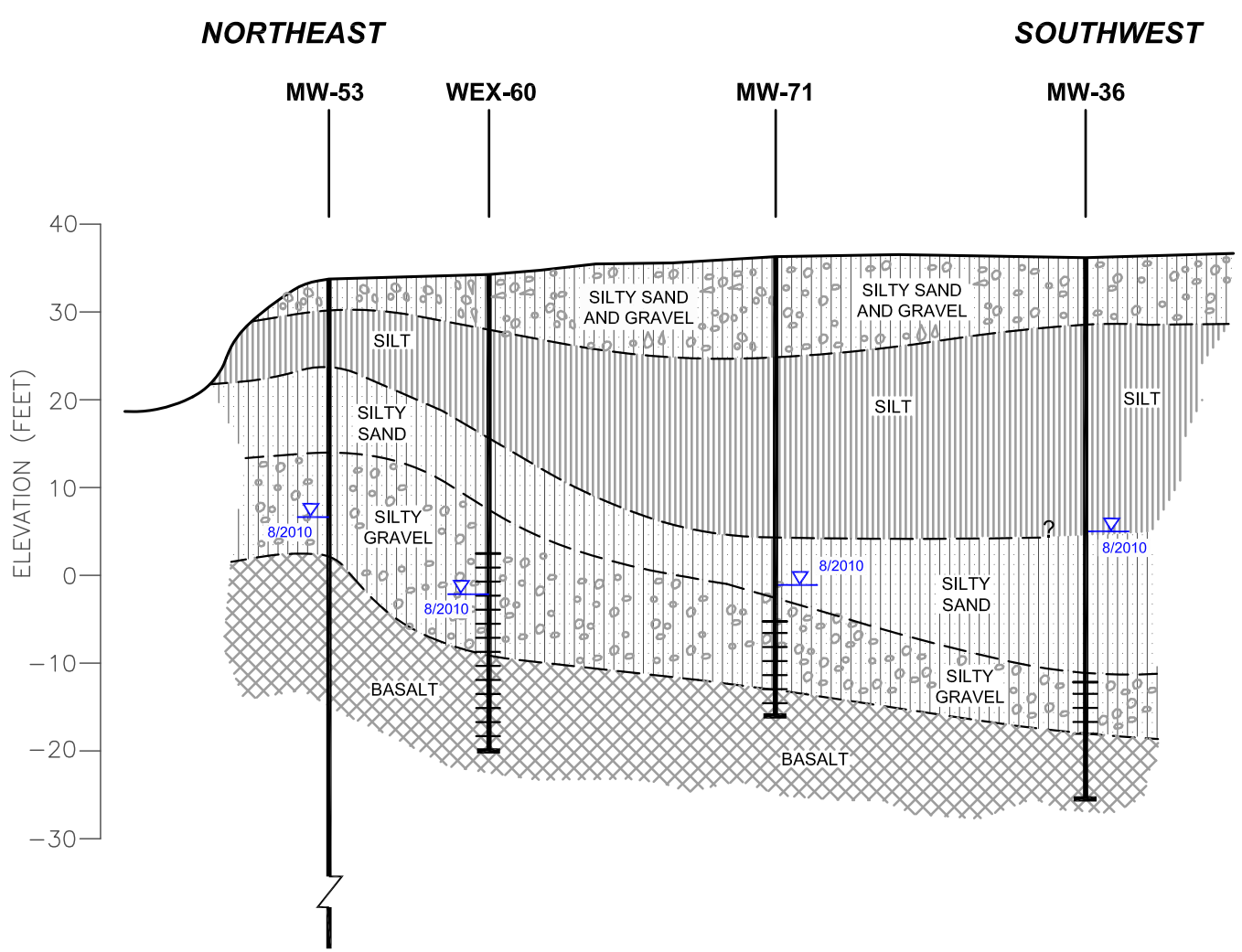
SCALE (FEET)
0 20 40 FEET
VERT. SCALE: 1"=20'

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FIGURE 7c
AREA 3
CROSS-SECTION A-A'
GUNDERSON, LLC
4350 NW FRONT AVENUE
PORTLAND, OREGON

XREF Files: IMAGE Files:
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OFFICE	DRAWN BY		CHECKED BY		APPROVED BY		DRAWING NUMBER
PORTLAND	MLP	11/2010	JJones	12/10			137492.18000000



LEGEND:

- INFERRED LITHOLOGIC CONTACT, QUERIED WHERE UNCERTAIN
- **MW-23** MONITORING WELL OR BORING LOCATION AND DESIGNATION
- SCREENED INTERVAL
- WATER LEVEL, AUGUST 2010
- SILT
- SILTY SAND
- SILTY GRAVEL
- SILTY SAND AND GRAVEL
- GRAVEL
- BASALT
- **TD** TOTAL DEPTH

SCALE (FEET)
0 100 200 FEET
HORIZ. SCALE: 1"=100'

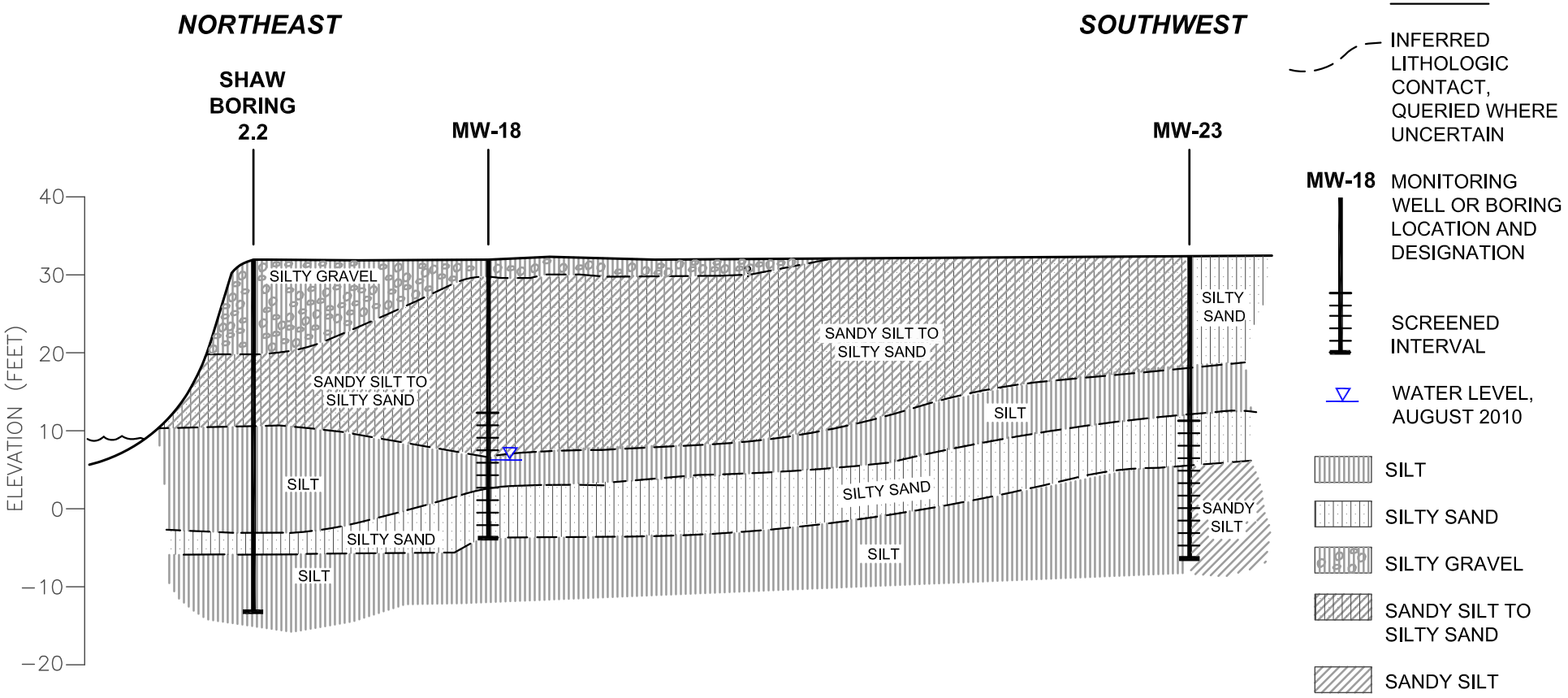
SCALE (FEET)
0 20 40 FEET
VERT. SCALE: 1"=20'

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Phone (503) 603-1000
Fax. (503) 603-1001
Shaw® Shaw Environmental, Inc.

FIGURE 8
AREA 1
CROSS-SECTION B-B'
GUNDERSON, LLC
4350 NW FRONT AVENUE
PORTLAND, OREGON

XREF Files: IMAGE Files:
File: N:\Project\final\CADD 2010-Shaw Offices\CAD-Portland\Gunderson\2010 Greenbrier-Gunderson\137492-GW SCE Drawings\BT-137492-XSEC-A2-3.dwg Layout: XSEC C-C User: maria.portacio Dec 14, 2010 - 5:35pm

OFFICE	DRAWN BY		CHECKED BY		APPROVED BY		DRAWING NUMBER
PORTLAND	MLP	11/2010	JJones	12/10			137492.18000000



LEGEND:

- INFERRED LITHOLOGIC CONTACT, QUERIED WHERE UNCERTAIN
- MW-18 MONITORING WELL OR BORING LOCATION AND DESIGNATION
- SCREENED INTERVAL
- WATER LEVEL, AUGUST 2010
- SILT
- SILTY SAND
- SILTY GRAVEL
- SANDY SILT TO SILTY SAND
- SANDY SILT

SCALE (FEET)
0 100 200 FEET
HORIZ. SCALE: 1"=100'

SCALE (FEET)
0 20 40 FEET
VERT. SCALE: 1"=20'

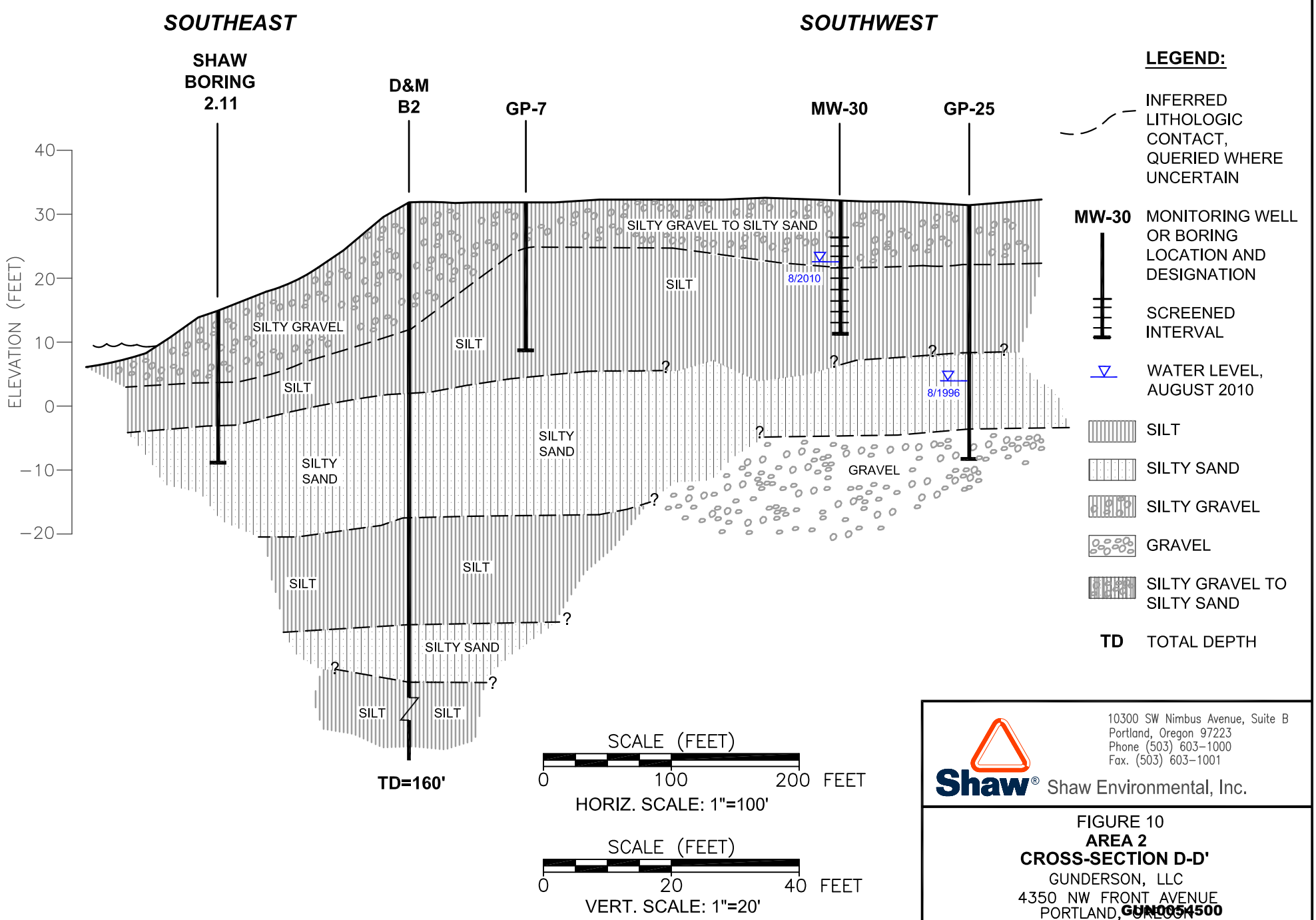
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Fax. (503) 603-1001
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FIGURE 9
AREA 2
CROSS-SECTION C-C'
GUNDERSON, LLC
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PORTLAND, OREGON

GUN0054499

XREF Files: IMAGE Files:
File: N:\Project\final\CADD 2010-Shaw Offices\CAD-Portland\Gunderson\2010 Greenbrier-Gunderson\137492-GW SCE Drawings\BT-137492-XSEC-A2-3.dwg Layout: XSEC D-D User: maria.portacio Dec 14, 2010 - 5:36pm

OFFICE	DRAWN BY		CHECKED BY		APPROVED BY		DRAWING NUMBER
PORTLAND	MLP	11/2010	JJones	12/10			137492.18000000



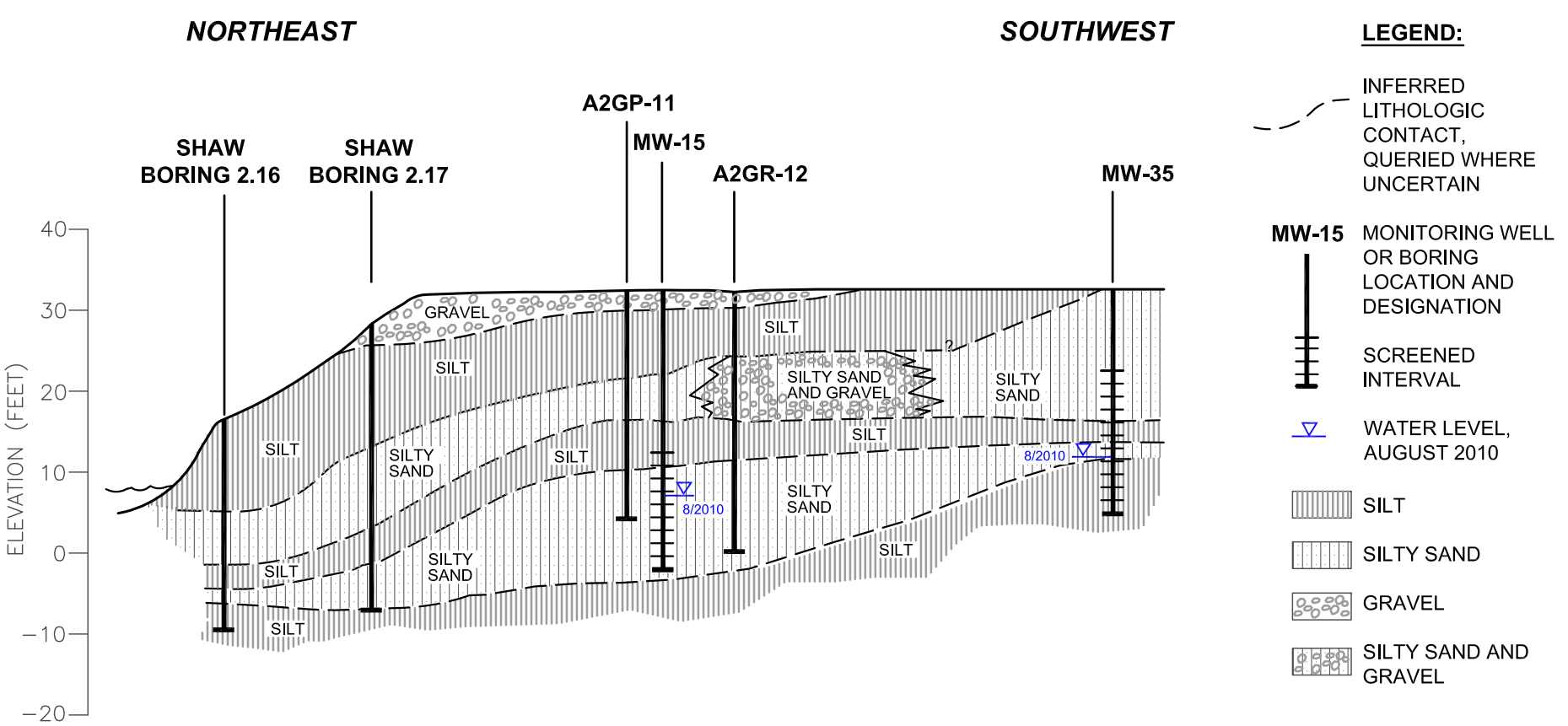
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Fax. (503) 603-1001
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FIGURE 10
AREA 2
CROSS-SECTION D-D'
GUNDERSON, LLC
4350 NW FRONT AVENUE
PORTLAND, OREGON

GUN0054500

XREF Files: IMAGE Files:
File: N:\Project\final\CADD 2010-Shaw Offices\CAD-Portland\Gunderson\2010 Greenbrier-Gunderson\137492-GW SCE Drawings\BT-137492-XSEC-A2-3.dwg Layout: XSEC E-E User: maria.portacio Dec 14, 2010 - 5:36pm

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PORTLAND	MLP	12/10	JJones	12/10			137492.18000000



LEGEND:

- INFERRED LITHOLOGIC CONTACT, QUERIED WHERE UNCERTAIN
- **MW-15** MONITORING WELL OR BORING LOCATION AND DESIGNATION
- SCREENED INTERVAL
- WATER LEVEL, AUGUST 2010
- SILT
- SILTY SAND
- GRAVEL
- SILTY SAND AND GRAVEL

SCALE (FEET)
0 100 200 FEET
HORIZ. SCALE: 1"=100'

SCALE (FEET)
0 20 40 FEET
VERT. SCALE: 1"=20'

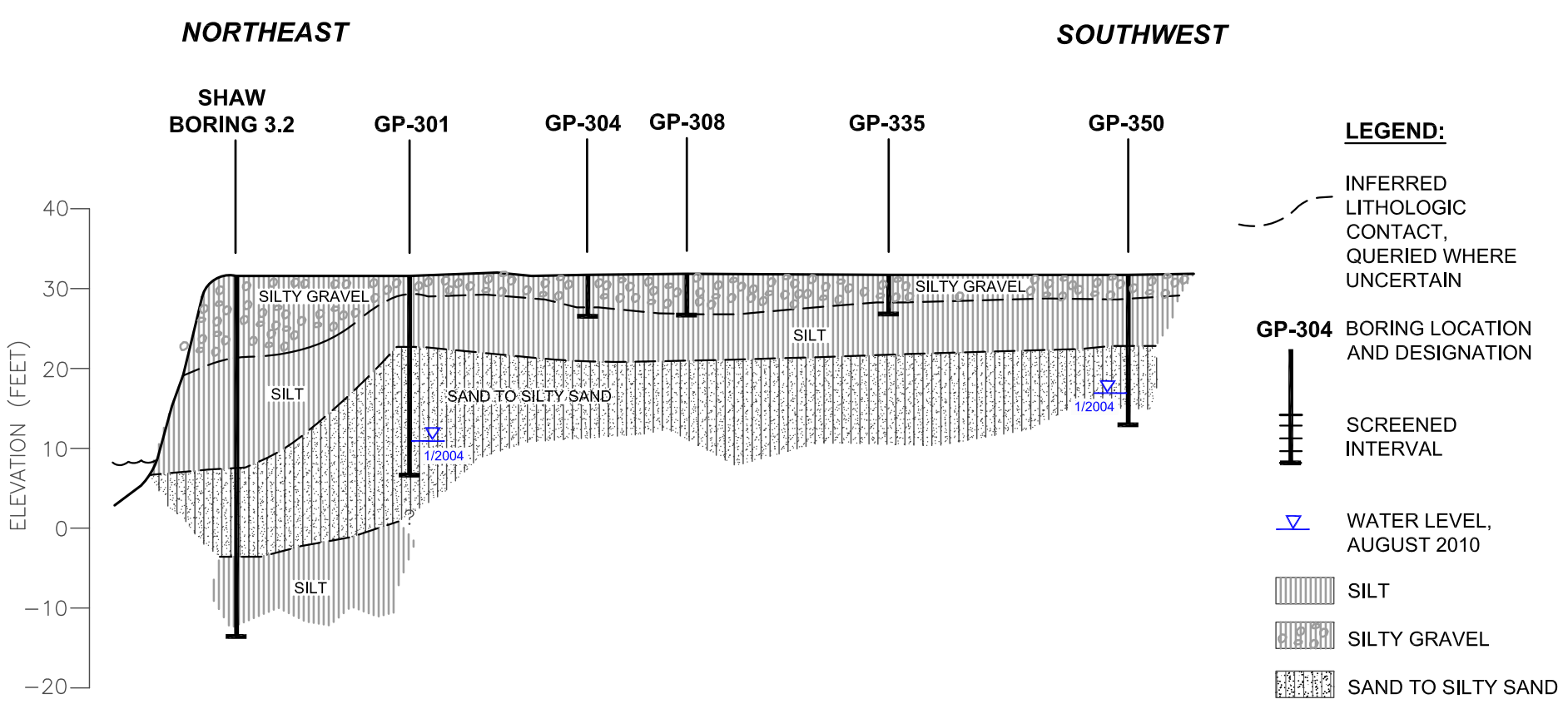
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Portland, Oregon 97223
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Fax. (503) 603-1001
Shaw® Shaw Environmental, Inc.

FIGURE 11
AREA 2
CROSS-SECTION E-E'
GUNDERSON, LLC
4350 NW FRONT AVENUE
PORTLAND, OREGON

GUN0054501

XREF Files: IMAGE Files:
File: N:\Project\final\CADD 2010-Shaw Offices\CAD-Portland\Gunderson\2010 Greenbrier-Gunderson\137492-GW SCE Drawings\BT-137492-XSEC-A2-3.dwg Layout: XSEC F-F User: maria.portacio Dec 14, 2010 - 5:37pm

OFFICE	DRAWN BY		CHECKED BY		APPROVED BY		DRAWING NUMBER
PORTLAND	MLP	11/2010	JJones	12/10			137492.18000000



SCALE (FEET)
0 100 200 FEET
HORIZ. SCALE: 1"=100'

SCALE (FEET)
0 20 40 FEET
VERT. SCALE: 1"=20'

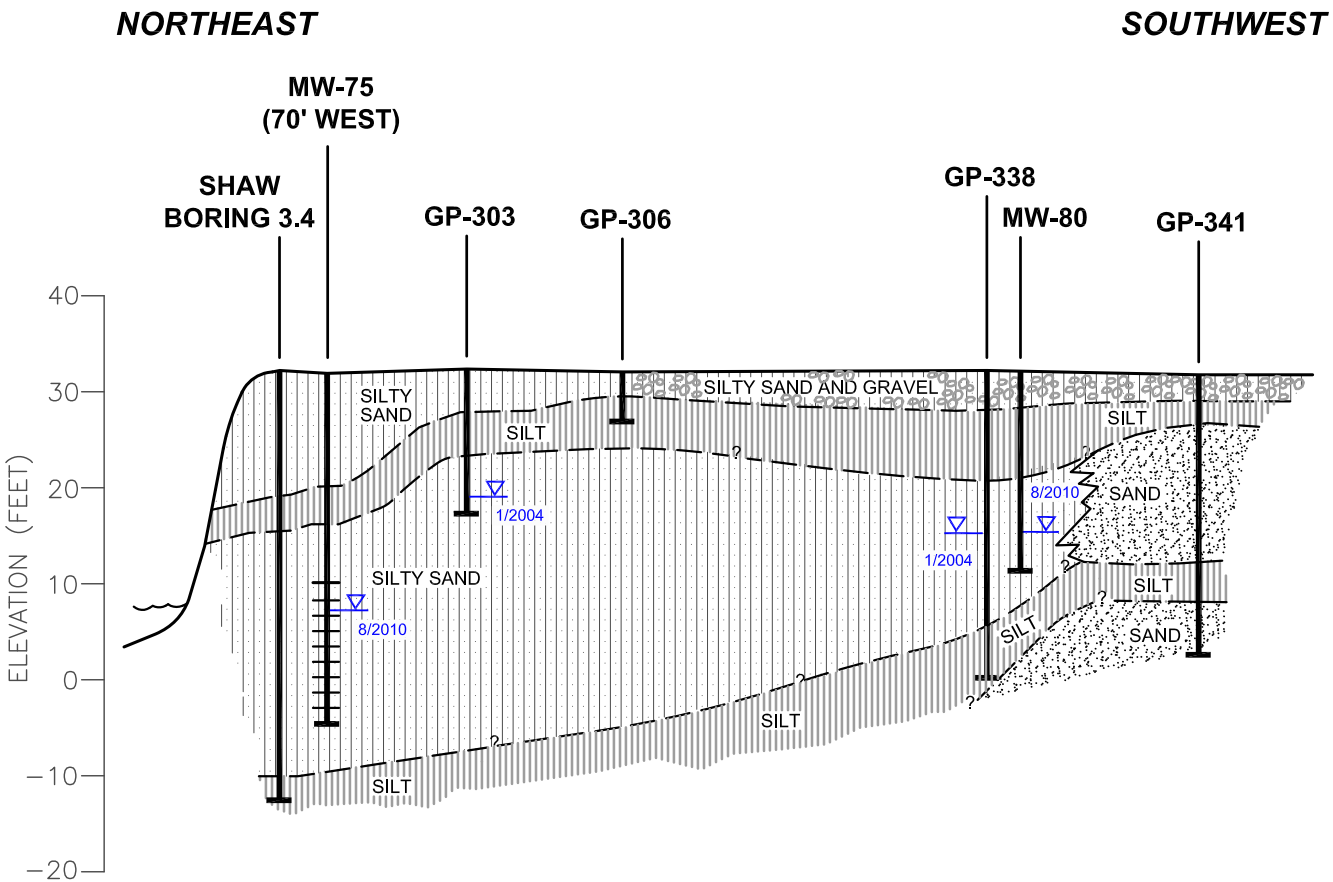
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Phone (503) 603-1000
Fax. (503) 603-1001
Shaw® Shaw Environmental, Inc.

FIGURE 12
AREA 3
CROSS-SECTION F-F'
GUNDERSON, LLC
4350 NW FRONT AVENUE
PORTLAND, OREGON

GUN0054502

XREF Files: IMAGE Files:
File: N:\Project\final\CADD 2010-Shaw Offices\CAD-Portland\Gunderson\2010 Greenbrier-Gunderson\137492-GW SCE Drawings\BT-137492-XSEC-A2-3.dwg Layout: XSEC G-G User: maria.portacio Dec 14, 2010 - 5:37pm

OFFICE	DRAWN BY		CHECKED BY		APPROVED BY		DRAWING NUMBER
PORTLAND	MLP	11/2010	JJones	12/10			137492.18000000



LEGEND:

- INFERRED LITHOLOGIC CONTACT, QUERIED WHERE UNCERTAIN
- **GP-303** BORING LOCATION AND DESIGNATION
- SCREENED INTERVAL
- WATER LEVEL, AUGUST 2010
- SILT
- SAND
- SILTY SAND
- SILTY SAND AND GRAVEL

SCALE (FEET)
0 100 200 FEET
HORIZ. SCALE: 1"=100'

SCALE (FEET)
0 20 40 FEET
VERT. SCALE: 1"=20'

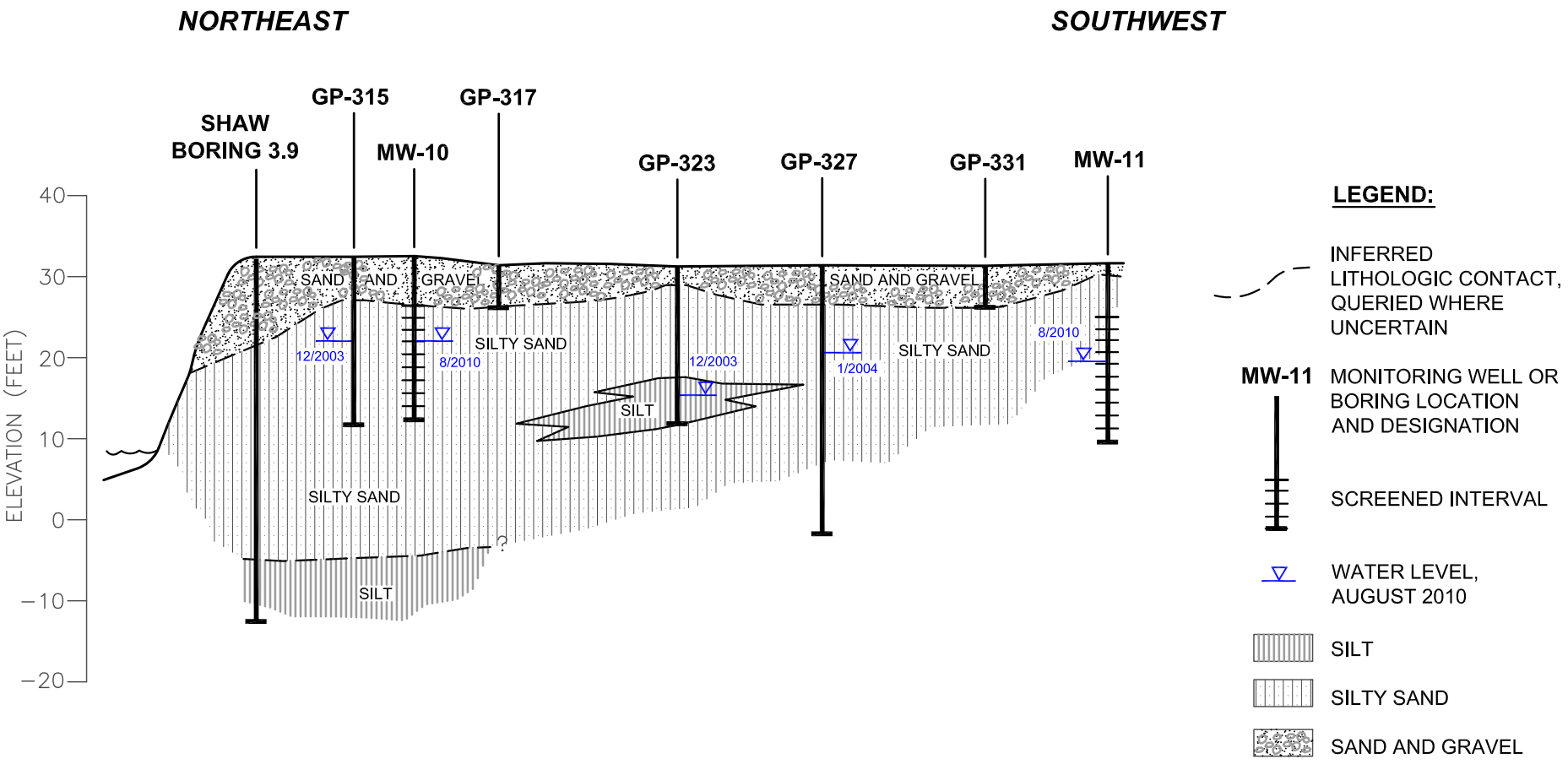
10300 SW Nimbus Avenue, Suite B
Portland, Oregon 97223
Phone (503) 603-1000
Fax. (503) 603-1001
Shaw® Shaw Environmental, Inc.

FIGURE 13
AREA 3
CROSS-SECTION G-G'
GUNDERSON, LLC
4350 NW FRONT AVENUE
PORTLAND, OREGON

GUN0054503

XREF Files: IMAGE Files:
File: N:\Project\final\CADD 2010-Shaw Offices\CAD-Portland\Gunderson\2010 Greenbrier-Gunderson\137492-GW SCE Drawings\BT-137492-XSEC-A2-3.dwg Layout: XSEC H-H User: maria.portacio Dec 14, 2010 - 5:38pm

OFFICE	DRAWN BY		CHECKED BY		APPROVED BY		DRAWING NUMBER
PORTLAND	MPortacio	11/2010	JJones	12/10			137492.18000000



SCALE (FEET)
0 100 200 FEET
HORIZ. SCALE: 1"=100'

SCALE (FEET)
0 20 40 FEET
VERT. SCALE: 1"=20'

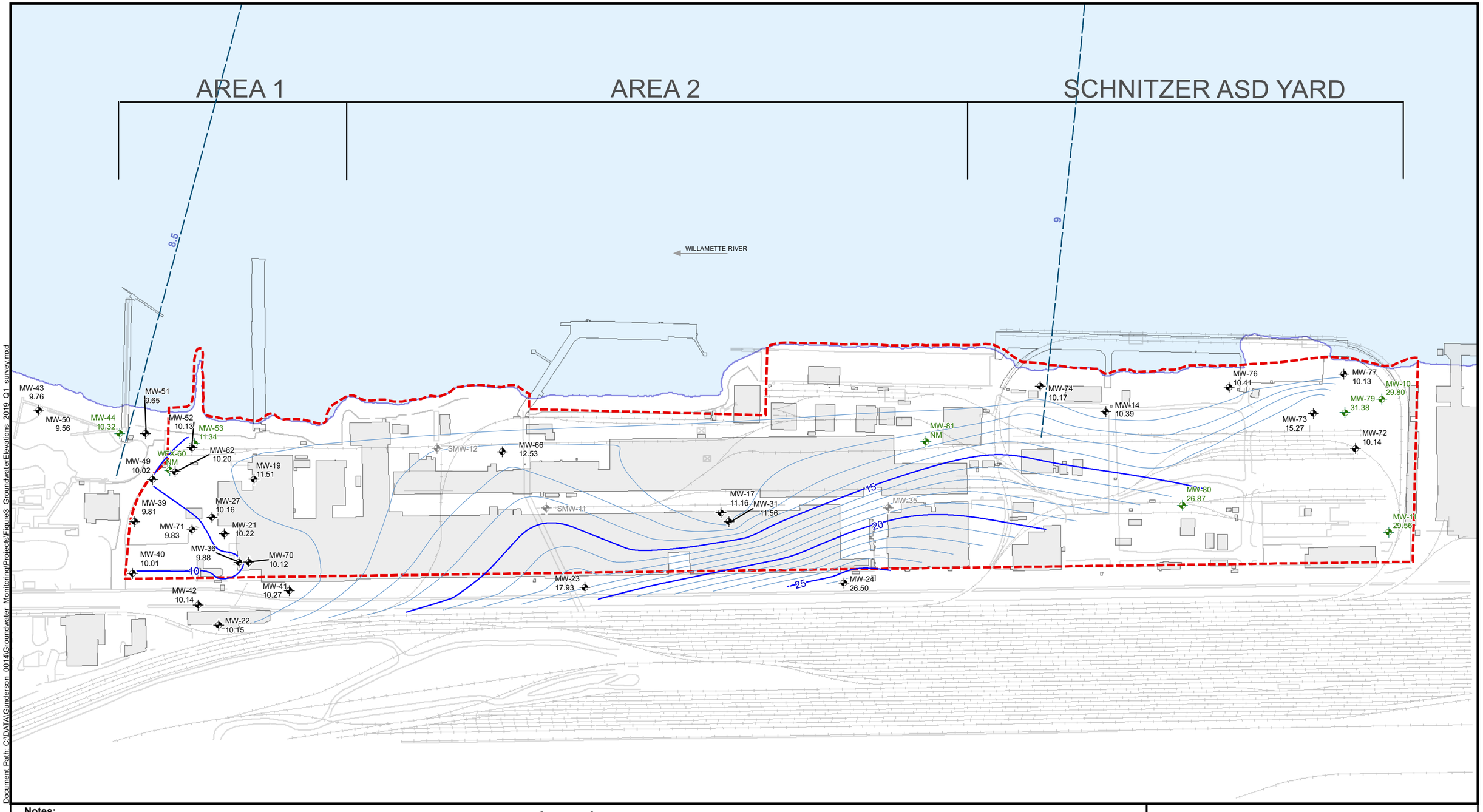
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Phone (503) 603-1000
Fax. (503) 603-1001
Shaw® Shaw Environmental, Inc.

FIGURE 14
AREA 3
CROSS-SECTION H-H'
GUNDERSON, LLC
4350 NW FRONT AVENUE
PORTLAND, OREGON

GUN0054504

APPENDIX B

2019 GROUNDWATER HYDROGRAPHS



Document Path: C:\DATA\Gunderson_0014\Groundwater_Monitoring\Projects\Figure3_GroundwaterElevations_2019_Q1_survey.mxd

Notes:
Groundwater elevations are in the North American Vertical Datum of 1988 and the units are feet.
Water level in WEX-60 cannot be measured due to presence of extraction well pump.
Water levels were measured on March 4, 2019.
Well MW-53 not included in contouring. The screen interval is 90.5 to 101 feet bgs.
Wells MW-10, MW-11, MW-79, and MW-80 not included in contouring. The screen intervals for these wells range from 5 to 21.5 feet bgs.

BGS = below ground surface
NM = not measured

Sources:
Johnson Land Surveying; Minister and Glaeser Surveying.

Coordinate System:
North American Datum of 1983 (2011) State Plane Oregon North (International Feet)

Legend

- Monitoring Well Location
- Monitoring Well Location - Elevation Not Measured or Not Used for Contouring
- Monitoring Well Location - Decommissioned
- 5-Foot Groundwater Elevation Contour
- 1-Foot Groundwater Elevation Contour
- River Mile
- Site Property Boundary

0 250 500
Feet

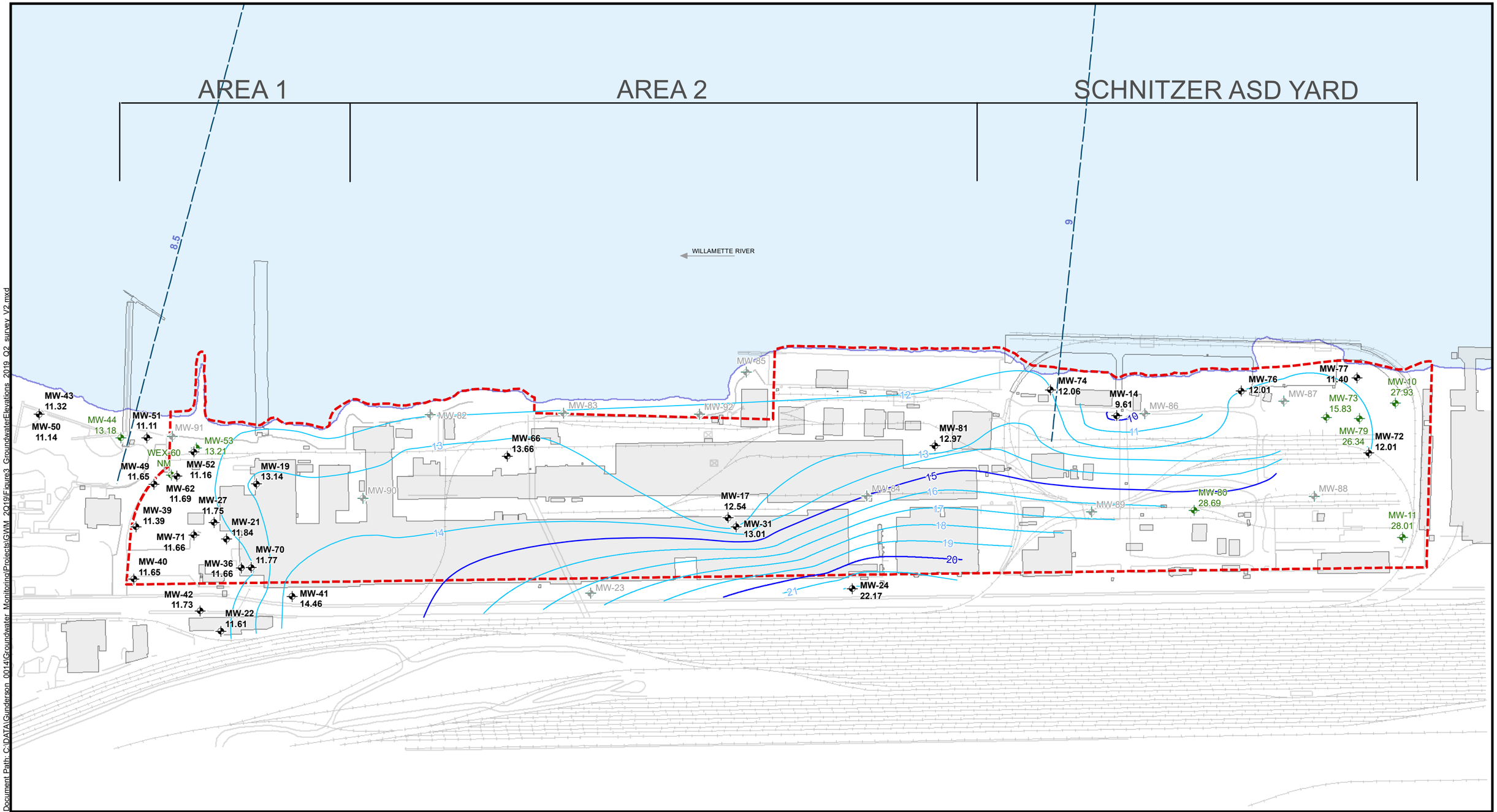
Groundwater Elevations

First Quarter 2019 Groundwater Monitoring Report
Gunderson LLC
Portland, Oregon

Cascadia Associates, LLC

Figure 3

PREPARED BY: ErikStrandhagen | DATE: 6/18/2019 | PROJECT: 0014-001-004



Document Path: C:\DATA\Gunderson_0014\Groundwater_Monitoring\Projects\GWM_2Q19\Figure3_GroundwaterElevations_2019_Q2_survey_V2.mxd

Notes:
Groundwater elevations are in the North American Vertical Datum of 1988 and the units are feet.
Water level in WEX-60 cannot be measured due to presence of extraction well pump.
Water levels were measured on June18, 2019.
Well MW-53 not included in contouring. The screen interval is 90.5 to 101 feet bgs.
Wells MW-10, MW-11, MW-79, and MW-80 not included in contouring. The screen intervals for these wells range from 5 to 21.5 feet bgs.
Well MW-44 and MW-73 not used for contouring due to anomalous elevation.

BGS = below ground surface
NM = not measured

Sources:
Johnson Land Surveying; Minister and Glaeser Surveying.

Coordinate System:
North American Datum of 1983 (2011) State Plane Oregon North (International Feet)

Legend

- Monitoring Well- Elevation Measured on 06/18/2019
- Monitoring Well - Elevation Not Used for Contouring
- Monitoring Well - Elevation Measured on 07/02/2019 or Not Accessible
- River Mile
- Site Property Boundary

0 250 500
Feet

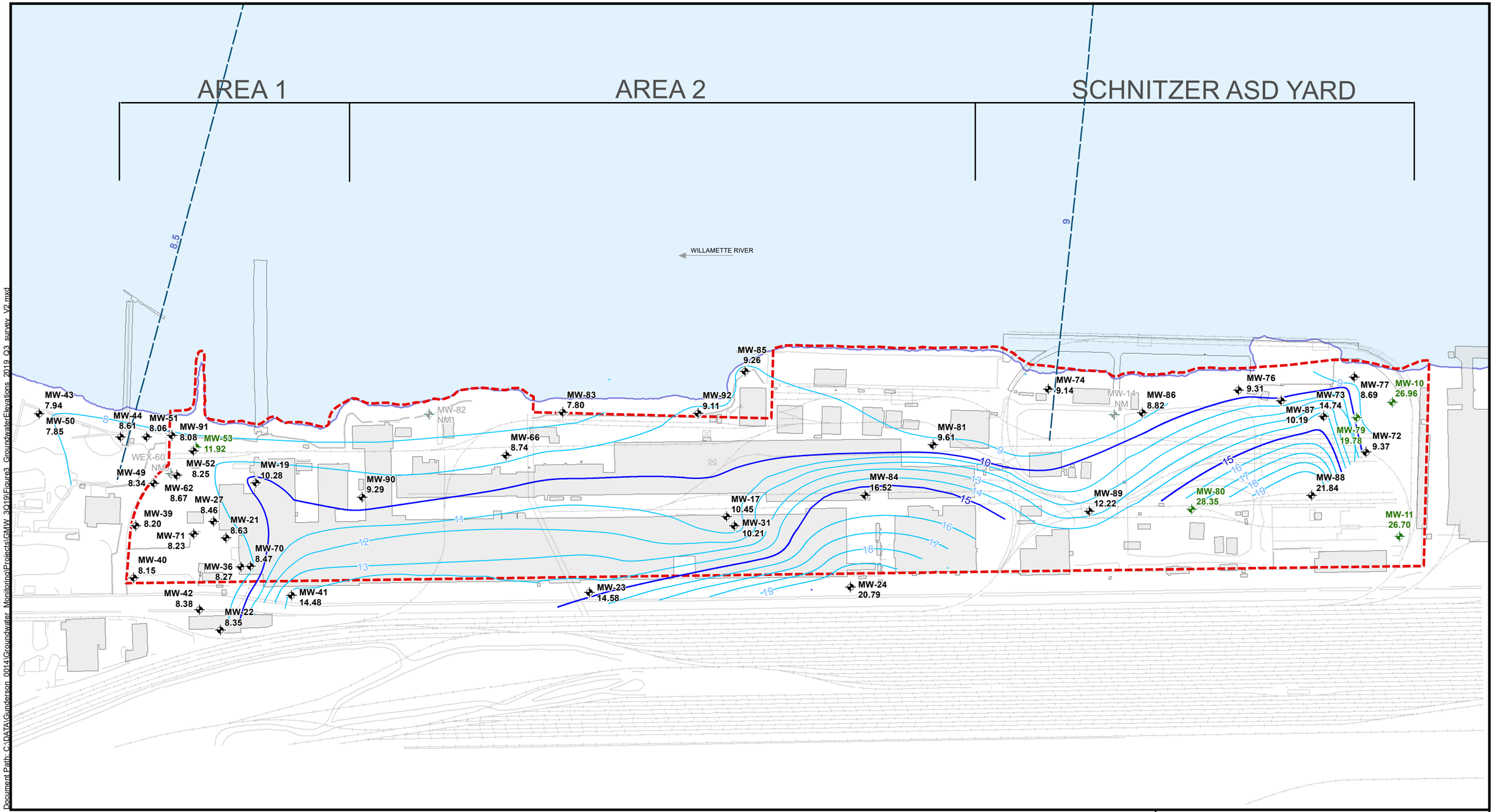
Groundwater Elevations

Second Quarter 2019 Groundwater Monitoring Report
Gunderson LLC
Portland, Oregon

Cascadia Associates, LLC

Figure 3

PREPARED BY: ErikStrandhagen | DATE: 9/16/2019 | PROJECT: 0014-001-004



Document Path: C:\DATA\Gunderson_0014\Groundwater_MonitoringProjects\GMW_3Q19\Figure3_GroundwaterElevations_2019_Q3_survey_V2.mxd

Notes:
Groundwater elevations are in the North American Vertical Datum of 1988 and the units are feet.
Water level in WEX-60 cannot be measured due to presence of extraction well pump.
Well MW-53 not included in contouring. The screen interval is 90.5 to 101 feet bgs.
Wells MW-10, MW-11, MW-79, and MW-80 not included in contouring. The screen intervals for these wells range from 5 to 21.5 feet bgs.
BGS = below ground surface
NM = not measured

Sources:
Johnson Land Surveying; Minister and Glaeser Surveying.

Coordinate System:
North American Datum of 1983 (2011) State Plane Oregon North (International Feet)

Legend

- Monitoring Well - Elevation Measured on September 09, 2019
- Monitoring Well - Elevation Not Used for Contouring
- Monitoring Well - Elevation Not Measured or Well Not Accesible
- River Mile
- Site Property Boundary

0 250 500
Feet

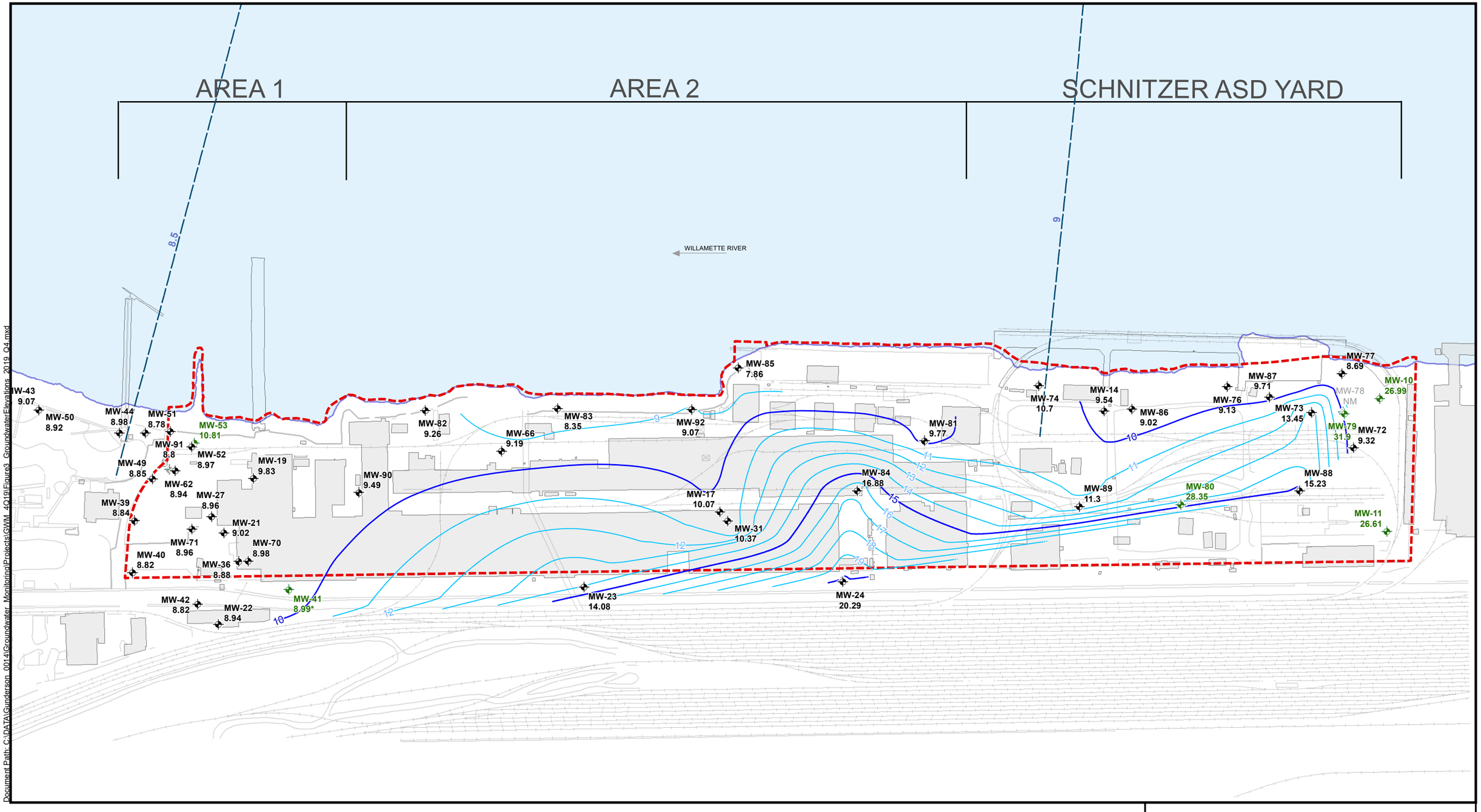
Groundwater Elevations

Third Quarter 2019 Groundwater Monitoring Report
Gunderson LLC
Portland, Oregon

Cascadia Associates, LLC

Figure 3

PREPARED BY: ErikStrandhagen | DATE: 12/10/2019 | PROJECT: 0014-001-004



Document Path: C:\DATA\Gunderson_0014\Groundwater_Monitoring\Projects\GWM_4Q19\Figure3_GroundwaterElevations_2019_Q4.mxd

Notes:
Groundwater elevations are in the North American Vertical Datum of 1988 and the units are feet.
Water level in WEX-60 cannot be measured due to presence of extraction well pump.
Well MW-53 not included in contouring. The screen interval is 90.5 to 101 feet bgs.
Wells MW-10, MW-11, MW-79, and MW-80 not included in contouring. The screen intervals for these wells range from 5 to 21.5 feet bgs.
*MW-41 groundwater elevation from December 10, 2019
BGS = below ground surface
NM = not measured

Sources:
Johnson Land Surveying; Minister and Glaeser Surveying.

Coordinate System:
North American Datum of 1983 (2011) State Plane Oregon North (International Feet)

Legend

- Monitoring Well - Elevation Measured on December 9, 2019
- Monitoring Well - Elevation Not Used for Contouring
- Monitoring Well - Elevation Not Measured or Well Not Accessible
- River Mile
- Site Property Boundary

0 250 500
Feet

Groundwater Elevations

Fourth Quarter 2019 Groundwater Monitoring Report
Gunderson LLC
Portland, Oregon

Cascadia Associates, LLC

Figure 3

PREPARED BY: ErikStrandhagen | DATE: 3/17/2020 | PROJECT: 0014-001-004

APPENDIX C

HISTORICAL GROUNDWATER ELEVATION DATA

Table C-1
Historical Groundwater Elevations – Area 1
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-19	7/22/1991	34.86	24.45	10.41
	4/2/1992	34.86	25.94	8.92
	6/6/1992	34.86	25.79	9.07
	7/20/1994	34.86	26.35	8.51
	10/25/1994	34.86	27.85	7.01
	2/17/1995	34.86	23.05	11.81
	4/18/1995	34.86	24.11	10.75
	7/25/1995	34.86	24.55	10.31
	10/19/1995	34.86	27.00	7.86
	4/23/1996	34.86	18.45	16.41
	8/2/1996	34.86	23.56	11.30
	11/5/1996	34.86	26.14	8.72
	1/23/1997	34.86	17.08	17.78
	4/16/1997	34.86	21.35	13.51
	7/15/1997	34.86	21.52	13.34
	11/3/1997	34.86	24.90	9.96
	2/5/1998	34.86	21.00	13.86
	9/16/1998	34.86	26.47	8.39
	12/30/1998	34.86	22.78	12.08
	5/24/1999	34.86	21.60	13.26
	8/18/1999	34.86	24.33	10.53
	12/21/1999	34.86	22.98	11.88
	4/25/2000	34.86	22.49	12.37
	10/25/2000	34.86	27.23	7.63
	11/27/2000	34.86	27.31	7.55
	2/9/2001	34.86	27.08	7.78
	5/15/2001	34.86	27.05	7.81
	8/7/2001	34.86	27.86	7.00
	12/5/2001	34.86	26.98	7.88
	4/9/2002	34.86	25.55	9.31
	7/29/2002	34.86	24.50	10.36
	11/26/2002	34.86	27.03	7.83
	3/4/2003	34.86	25.02	9.84
	5/19/2003	34.86	23.52	11.34
	12/9/2003	34.86	26.18	8.68
	3/30/2004	34.86	23.98	10.88
	8/19/2004	34.86	26.59	8.27
	11/22/2004	34.86	26.61	8.25
	2/11/2005	34.86	26.02	8.84
	5/18/2005	34.86	24.73	10.13
	9/16/2005	34.86	27.12	7.74
	11/8/2005	34.86	26.52	8.34

Please refer to notes at end of table.

Table C-1
Historical Groundwater Elevations – Area 1
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-19	3/16/2006	34.86	23.58	11.28
(continued)	11/17/2006	34.86	26.11	8.75
	5/22/2007	34.86	23.58	11.28
	8/22/2007	34.86	26.35	8.51
	11/6/2007	34.86	27.68	7.18
	2/11/2008	34.86	24.41	10.45
	5/12/2008	34.86	24.90	9.96
	8/4/2008	34.86	25.99	8.87
	11/14/2008	34.86	27.27	7.59
	2/16/2009	34.86	26.65	8.21
	5/27/2009	34.86	23.40	11.46
	8/18/2009	34.86	26.32	8.54
	12/8/2009	34.86	26.75	8.11
	3/15/2010	34.86	26.04	8.82
	6/1/2010	34.86	24.83	10.03
	8/30/2010	34.86	26.30	8.56
	11/29/2010	34.86	26.29	8.57
	3/30/2011	34.86	22.07	12.79
	9/14/2011	34.86	25.32	9.54
	12/12/2011	34.86	26.33	8.53
	7/2/2012	34.86	19.93	14.93
	9/26/2012	34.86	25.96	8.90
	12/3/2012	34.86	24.45	10.41
	3/22/2013	34.86	25.84	9.02
	6/17/2013	34.86	23.99	10.87
	9/9/2013	34.86	26.52	8.34
	12/10/2013	34.86	26.64	8.22
	3/24/2014	34.86	22.84	12.02
	6/11/2014	34.86	23.37	11.49
	9/19/2014	34.86	29.11	5.75
	12/17/2014	34.86	25.37	9.49
	3/9/2015	34.86	27.20	9.49
	6/25/2015	34.86	NM	--
	9/14/2015	34.86	27.41	7.45
	12/14/2015	34.86	25.70	9.16
	3/21/2016	34.86	22.21	12.65
	6/20/2016	34.86	24.93	9.93
	9/27/2016	34.86	27.41	7.45
	9/29/2016	34.86	27.50	7.36
	12/5/2016	34.86	24.93	9.93

Please refer to notes at end of table.

Table C-1
Historical Groundwater Elevations – Area 1
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-19 (continued)	3/22/2017	34.86	17.13	17.73
	6/26/2017	34.86	20.23	14.63
	9/19/2017	34.86	26.34	8.52
	12/11/2017	34.86	25.35	9.51
	3/14/2018	34.86	24.3	10.56
	6/25/2018	34.86	23.41	11.45
	9/4/2018	34.86	26.51	8.35
	12/17/2018	37.46	27.06	10.40
	3/4/2019	37.46	25.95	11.51
	6/18/2019	37.46	24.32	13.14
	9/9/2019	37.46	27.18	10.28
	12/9/2019	37.46	27.63	9.83
MW-20	7/22/1991	36.99	29.56	7.43
	4/2/1992	36.99	29.08	7.91
	6/6/1992	36.99	28.10	8.89
	7/20/1994	36.99	29.10	7.89
	10/25/1994	36.99	30.56	6.43
	2/17/1995	36.99	25.35	11.64
	4/18/1995	36.99	26.21	10.78
	7/25/1995	36.99	28.05	8.94
	10/19/1995	36.99	31.30	5.69
	1/22/1996	36.99	19.32	17.67
	4/23/1996	36.99	20.81	16.18
	8/2/1996	36.99	26.80	10.19
	11/5/1996	36.99	29.53	7.46
	1/23/1997	36.99	21.26	15.73
	4/16/1997	36.99	24.47	12.52
	7/15/1997	36.99	24.47	12.52
	11/3/1997	36.99	27.08	9.91
	2/5/1998	36.99	25.70	11.29
	9/16/1998	36.99	29.68	7.31
	12/30/1998	36.99	22.19	14.80
	5/24/1999	36.99	24.19	12.80
	8/18/1999	36.99	27.39	9.60
	12/21/1999	36.99	23.36	13.63
	4/25/2000	36.99	23.27	13.72
	10/25/2000	36.99	30.08	6.91
	11/27/2000	36.99	29.48	7.51
	2/9/2001	36.99	29.25	7.74
	5/15/2001	36.99	29.82	7.17
	12/5/2001	36.99	26.69	10.30
	4/9/2002	36.99	28.24	8.75
	11/26/2002	36.99	29.97	7.02
	5/19/2003	36.99	25.75	11.24
	12/9/2003	36.99	27.93	9.06

Please refer to notes at end of table.

Table C-1
Historical Groundwater Elevations – Area 1
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-20 (continued)	3/30/2004	36.99	28.01	8.98
	8/19/2004	36.99	29.35	7.64
	11/22/2004	36.99	30.02	6.97
	2/11/2005	36.99	28.26	8.73
	5/18/2005	36.99	26.21	10.78
	9/16/2005	36.99	30.49	6.50
	11/8/2005	36.99	28.57	8.42
	2/20/2006	36.99	26.95	10.04
	3/16/2006	36.99	26.82	10.17
	6/2/2006	36.99	22.67	14.32
	8/7/2006	36.99	29.15	7.84
	11/17/2006	36.99	26.75	10.24
	2/15/2007	36.99	28.51	8.48
	5/22/2007	36.99	25.79	11.20
	8/22/2007	36.99	29.80	7.19
	11/6/2007	36.99	31.00	5.99
	2/11/2008	36.99	26.47	10.52
	5/12/2008	36.99	26.10	10.89
	8/4/2008	36.99	28.29	8.70
	11/14/2008	36.99	27.89	9.10
	2/16/2009	36.99	28.70	8.29
	5/27/2009	36.99	24.01	12.98
	8/18/2009	36.99	30.07	6.92
	12/8/2009	36.99	28.92	8.07
	3/15/2010	36.99	28.56	8.43
	6/1/2010	36.99	26.54	10.45
	8/30/2010	36.99	29.81	7.18
	11/29/2010	36.99	28.58	8.41
	3/30/2011	36.99	24.38	12.61
	5/31/2011	36.99	17.98	19.01
	9/14/2011	36.99	28.93	8.06
	12/12/2011	36.99	28.93	8.06
	7/2/2012	36.99	21.51	15.48
	9/28/2012	36.99	29.58	7.41
	12/3/2012	36.99	25.30	11.69
MW-21	7/22/1991	35.28	26.75	8.53
	4/2/1992	35.28	27.53	7.75
	6/6/1992	35.28	26.67	8.61
	7/20/1994	35.28	27.65	7.63
	10/25/1994	35.28	29.16	6.12

Please refer to notes at end of table.

Table C-1
Historical Groundwater Elevations – Area 1
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Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-21 (continued)	2/17/1995	35.28	23.98	11.30
	4/18/1995	35.28	24.81	10.47
	7/25/1995	35.28	26.45	8.83
	10/19/1995	35.28	28.40	6.88
	1/22/1996	35.28	17.55	17.73
	4/23/1996	35.28	19.40	15.88
	8/2/1996	35.28	29.19	6.09
	11/5/1996	35.28	27.95	7.33
	1/23/1997	35.28	18.64	16.64
	4/16/1997	35.28	22.95	12.33
	7/15/1997	35.28	22.95	12.33
	11/3/1997	35.28	25.62	9.66
	2/5/1998	35.28	23.15	12.13
	9/16/1998	35.28	28.13	7.15
	12/30/1998	35.28	21.41	13.87
	5/24/1999	35.28	22.69	12.59
	8/18/1999	35.28	25.82	9.46
	12/21/1999	35.28	22.14	13.14
	4/25/2000	35.28	22.03	13.25
	10/25/2000	35.28	28.65	6.63
	11/27/2000	35.28	28.04	7.24
	2/9/2001	35.28	27.85	7.43
	5/15/2001	35.28	28.36	6.92
	8/7/2001	35.28	28.96	6.32
	12/5/2001	35.28	25.64	9.64
	4/9/2002	35.28	26.76	8.52
	7/29/2002	35.28	26.51	8.77
	11/26/2002	35.28	28.40	6.88
	3/4/2003	35.28	26.67	8.61
	5/19/2003	35.28	24.34	10.94
	12/9/2003	35.28	26.71	8.57
	8/19/2004	35.28	27.55	7.73
	11/22/2004	35.28	26.65	8.63
	2/11/2005	35.28	26.60	8.68
	5/18/2005	35.28	24.79	10.49
	9/16/2005	35.28	28.61	6.67
	11/8/2005	35.28	26.94	8.34
	2/20/2006	35.28	24.97	10.31
	3/16/2006	35.28	25.05	10.23
	6/2/2006	35.28	20.93	14.35
	8/7/2006	35.28	27.27	8.01
	11/17/2006	35.28	25.15	10.13

Please refer to notes at end of table.

Table C-1
Historical Groundwater Elevations – Area 1
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-21 (continued)	2/15/2007	35.28	26.65	8.63
	5/22/2007	35.28	24.04	11.24
	8/22/2007	35.28	27.90	7.38
	11/6/2007	35.28	29.12	6.16
	2/11/2008	35.28	24.75	10.53
	5/12/2008	35.28	24.51	10.77
	8/4/2008	35.28	26.48	8.80
	11/14/2008	35.28	26.75	8.53
	2/16/2009	35.28	27.77	7.51
	5/27/2009	35.28	22.49	12.79
	8/18/2009	35.28	28.10	7.18
	12/8/2009	35.28	27.22	8.06
	3/15/2010	35.28	26.81	8.47
	6/1/2010	35.28	24.85	10.43
	8/30/2010	35.28	27.91	7.37
	11/29/2010	35.28	26.73	8.55
	3/30/2011	35.28	22.61	12.67
	5/31/2011	35.28	16.48	18.80
	9/14/2011	35.28	27.02	8.26
	12/12/2011	35.28	27.17	8.11
	7/2/2012	35.28	19.85	15.43
	9/26/2012	35.28	27.74	7.54
	12/3/2012	35.28	23.89	11.39
	3/22/2013	35.28	27.09	8.19
	6/17/2013	35.28	25.25	10.03
	9/9/2013	35.28	27.94	7.34
	12/10/2013	35.28	27.55	7.73
	3/24/2014	35.28	23.79	11.49
	6/11/2014	35.28	23.43	11.85
	9/19/2014	35.28	28.60	6.68
	12/17/2014	35.28	26.11	9.17
	3/9/2015	34.86	25.75	9.49
	6/25/2015	35.28	28.12	7.16
	9/14/2015	35.28	28.45	6.83
	12/14/2015	35.28	22.80	12.48
	3/21/2016	35.28	22.65	12.63
	6/20/2016	35.28	26.36	8.92
	9/27/2016	35.28	28.72	6.56
	9/29/2016	35.28	28.60	6.68
	12/5/2016	35.28	25.44	9.84

Please refer to notes at end of table.

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Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-21 (continued)	3/22/2017	35.28	16.21	19.07
	6/26/2017	35.28	21.51	13.77
	9/19/2017	35.28	27.56	7.72
	12/11/2017	35.28	26.62	8.66
	3/14/2018	35.28	25.38	9.90
	6/25/2018	35.28	24.92	10.36
	9/4/2018	35.28	28.39	6.89
	12/17/2018	37.38	27.89	9.49
	3/4/2019	37.38	27.16	10.22
	6/18/2019	37.38	25.54	11.84
	9/9/2019	37.38	28.75	8.63
	12/9/2019	37.38	28.36	9.02
MW-22	7/22/1991	37.81	28.98	8.83
	4/2/1992	37.81	29.81	8.00
	6/6/1992	37.81	28.96	8.85
	7/20/1994	37.81	29.90	7.91
	10/25/1994	37.81	31.40	6.41
	2/17/1995	37.81	26.14	11.67
	4/18/1995	37.81	26.99	10.82
	7/25/1995	37.81	28.80	9.01
	10/19/1995	37.81	30.81	7.00
	1/22/1996	37.81	19.40	18.41
	4/23/1996	37.81	21.49	16.32
	8/2/1996	37.81	27.48	10.33
	11/5/1996	37.81	30.78	7.03
	1/23/1997	37.81	21.81	16.00
	4/16/1997	37.81	25.22	12.59
	7/15/1997	37.81	25.22	12.59
	11/3/1997	37.81	27.85	9.96
	2/5/1998	37.81	25.34	12.47
	9/16/1998	37.81	30.43	7.38
	12/30/1998	37.81	22.92	14.89
	5/24/1999	37.81	24.92	12.89
	8/18/1999	37.81	28.11	9.70
	12/21/1999	37.81	24.05	13.76
	4/25/2000	37.81	24.05	13.76
	10/25/2000	37.81	30.97	6.84
	11/27/2000	37.81	30.22	7.59
	2/9/2001	37.81	30.08	7.73
	5/15/2001	37.81	30.59	7.22
	8/7/2001	37.81	31.15	6.66
	12/5/2001	37.81	27.38	10.43

Please refer to notes at end of table.

Table C-1
Historical Groundwater Elevations – Area 1
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-22 (continued)	4/9/2002	37.81	28.98	8.83
	7/29/2002	37.81	29.02	8.79
	11/26/2002	37.81	30.67	7.14
	3/4/2003	37.81	28.99	8.82
	5/19/2003	37.81	26.51	11.30
	12/9/2003	37.81	28.74	9.07
	3/30/2004	37.81	28.76	9.05
	8/19/2004	37.81	30.02	7.79
	11/22/2004	37.81	30.62	7.19
	2/11/2005	37.81	29.05	8.76
	5/18/2005	37.81	27.08	10.73
	3/16/2006	37.81	27.49	10.32
	6/2/2006	37.81	23.14	14.67
	8/7/2006	37.81	29.92	7.89
	11/17/2006	37.81	27.34	10.47
	2/15/2007	37.81	29.23	8.58
	5/22/2007	37.81	26.50	11.31
	8/22/2007	37.81	30.63	7.18
	11/6/2007	37.81	31.73	6.08
	2/11/2008	37.81	27.00	10.81
	5/12/2008	37.81	26.85	10.96
	8/4/2008	37.81	29.04	8.77
	11/14/2008	37.81	28.70	9.11
	2/16/2009	37.81	29.45	8.36
	12/8/2009	37.81	29.64	8.17
	9/14/2011	37.81	29.73	8.08
	7/2/2012	37.81	22.94	14.87
	9/26/2012	37.81	30.59	7.22
	12/3/2012	37.81	27.89	9.92
	3/22/2013	37.81	29.68	8.13
	6/17/2013	37.81	27.90	9.91
	9/9/2013	37.81	30.59	7.22
	12/10/2013	37.81	30.10	7.71
	3/24/2014	37.81	26.30	11.51
	6/11/2014	37.81	26.05	11.76
	9/19/147	37.81	31.41	6.40
	12/17/2014	37.81	28.41	9.40
	3/9/2015	34.86	28.38	9.49
	6/25/2015	37.81	30.88	6.93
	9/14/2015	37.81	31.15	6.66
	12/14/2015	37.81	24.50	13.31

Please refer to notes at end of table.

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Historical Groundwater Elevations – Area 1
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-22 (continued)	3/21/2016	37.81	24.98	12.83
	6/20/2016	37.81	29.02	8.79
	9/27/2016	37.81	31.71	6.10
	9/29/2016	37.81	31.20	6.61
	12/5/2016	37.81	27.91	9.90
	3/22/2017	37.81	18.31	19.50
	6/26/2017	37.81	24.19	13.62
	9/19/2017	37.81	30.15	7.66
	12/11/2017	37.81	29.17	8.64
	3/14/2018	37.81	28.00	9.81
	6/25/2018	37.81	27.63	10.18
	9/4/2018	37.81	31.40	6.41
	12/17/2018	39.93	30.29	9.64
	3/4/2019	39.93	29.78	10.15
	6/18/2019	39.93	28.32	11.61
	9/9/2019	39.93	31.58	8.35
	12/9/2019	39.93	30.99	8.94
MW-27	4/2/1992	35.01	26.94	8.07
	6/6/1992	35.01	26.17	8.84
	7/20/1994	35.01	27.20	7.81
	10/25/1994	35.01	28.67	6.34
	2/17/1995	35.01	23.45	11.56
	4/18/1995	35.01	24.32	10.69
	7/25/1995	35.01	26.00	9.01
	10/19/1995	35.01	28.60	6.41
	1/22/1996	35.01	17.55	17.46
	4/23/1996	35.01	18.95	16.06
	8/2/1996	35.01	24.74	10.27
	11/5/1996	35.01	27.48	7.53
	1/23/1997	35.01	19.26	15.75
	4/16/1997	35.01	22.50	12.51
	7/15/1997	35.01	22.46	12.55
	11/3/1997	35.01	25.18	9.83
	2/5/1998	35.01	22.77	12.24
	9/16/1998	35.01	27.71	7.30
	12/30/1998	35.01	20.67	14.34
	5/24/1999	35.01	22.25	12.76
	8/18/1999	35.01	25.31	9.70
	12/21/1999	35.01	21.61	13.40
	4/25/2000	35.01	21.49	13.52
	10/25/2000	35.01	28.12	6.89
	11/27/2000	35.01	27.56	7.45

Please refer to notes at end of table.

Table C-1
Historical Groundwater Elevations – Area 1
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-27 (continued)	2/9/2001	35.01	27.32	7.69
	5/15/2001	35.01	27.80	7.21
	8/7/2001	35.01	28.42	6.59
	12/5/2001	35.01	25.06	9.95
	4/9/2002	35.01	26.46	8.55
	7/29/2002	35.01	26.20	8.81
	11/26/2002	35.01	27.91	7.10
	3/4/2003	35.01	26.22	8.79
	5/19/2003	35.01	23.86	11.15
	12/9/2003	35.01	26.20	8.81
	3/30/2004	35.01	25.92	9.09
	8/19/2004	35.01	27.14	7.87
	11/22/2004	35.01	27.94	7.07
	2/11/2005	35.01	26.44	8.57
	5/18/2005	35.01	24.61	10.40
	9/16/2005	35.01	28.42	6.59
	11/8/2005	35.01	26.82	8.19
	2/20/2006	35.01	24.85	10.16
	6/2/2006	35.01	20.81	14.20
	8/7/2006	35.01	27.13	7.88
	11/17/2006	35.01	25.12	9.89
	2/15/2007	35.01	26.46	8.55
	5/22/2007	35.01	23.88	11.13
	8/22/2007	35.01	27.68	7.33
	11/6/2007	35.01	28.91	6.10
	2/11/2008	35.01	24.79	10.22
	5/12/2008	35.01	24.60	10.41
	8/4/2008	35.01	26.22	8.79
	11/14/2008	35.01	26.40	8.61
	2/16/2009	35.01	26.84	8.17
	5/27/2009	35.01	23.52	11.49
	8/18/2009	35.01	26.70	8.31
	12/7/2009	35.01	27.00	8.01
	3/15/2010	35.01	26.63	8.38
	6/1/2010	35.01	24.79	10.22
	8/30/2010	35.01	27.76	7.25
	11/29/2010	35.01	26.47	8.54
	3/30/2011	35.01	22.50	12.51
	5/31/2011	35.01	16.41	18.60
	9/14/2011	35.01	26.90	8.11
	12/12/2011	35.01	27.05	7.96

Please refer to notes at end of table.

Table C-1
Historical Groundwater Elevations – Area 1
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-27 (continued)	7/2/2012	35.01	19.70	15.31
	9/26/2012	35.01	27.67	7.34
	12/3/2012	35.01	23.69	11.32
	3/22/2013	35.01	26.98	8.03
	6/17/2013	35.01	25.21	9.80
	9/9/2013	35.01	27.81	7.20
	12/10/2013	35.01	27.37	7.64
	3/24/2014	35.01	23.69	11.32
	6/11/2014	35.01	23.39	11.62
	9/19/2014	35.01	28.42	6.59
	12/17/2014	35.01	25.89	9.12
	3/9/2015	34.86	25.60	9.49
	6/25/2015	35.01	27.93	7.08
	9/14/2015	35.01	28.18	6.83
	12/14/2015	35.01	22.55	12.46
	3/21/2016	35.01	22.46	12.55
	6/20/2016	35.01	26.18	8.83
	9/27/2016	35.01	28.51	6.50
	9/29/2016	35.01	28.45	6.56
	12/5/2016	35.01	25.20	9.81
	3/22/2017	35.01	15.90	19.11
	6/26/2017	35.01	21.40	13.61
	9/19/2017	35.01	27.34	7.67
	12/11/2017	35.01	26.45	8.56
	3/14/2018	35.01	25.28	9.73
	6/25/2018	35.01	24.68	10.33
	9/4/2018	35.01	28.33	6.68
	12/17/2018	37.10	27.50	9.60
	3/4/2019	37.10	26.94	10.16
	6/18/2019	37.10	25.35	11.75
	9/9/2019	37.10	28.64	8.46
	12/9/2019	37.10	28.14	8.96
MW-34	4/18/1995	39.19	28.37	10.82
	7/25/1995	39.19	30.20	8.99
	10/19/1995	39.19	32.05	7.14
	1/22/1996	39.19	21.40	17.79
	4/23/1996	39.19	22.95	16.24
	8/2/1996	39.19	28.89	10.30
	11/5/1996	39.19	31.76	7.43
	1/23/1997	39.19	22.81	16.38
	4/16/1997	39.19	26.26	12.93
	7/15/1997	39.19	26.61	12.58
	11/3/1997	39.19	29.25	9.94

Please refer to notes at end of table.

Table C-1
Historical Groundwater Elevations – Area 1
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-34 (continued)	2/5/1998	39.19	26.70	12.49
	9/16/1998	39.19	31.82	7.37
	12/30/1998	39.19	24.41	14.78
	5/24/1999	39.19	26.31	12.88
	8/18/1999	39.19	29.52	9.67
	12/21/1999	39.19	25.51	13.68
	4/25/2000	39.19	25.47	13.72
	10/25/2000	39.19	32.36	6.83
	11/27/2000	39.19	31.65	7.54
	2/9/2001	39.19	31.55	7.64
	5/15/2001	39.19	31.98	7.21
	8/7/2001	39.19	32.53	6.66
	12/5/2001	39.19	28.92	10.27
	4/9/2002	39.19	30.39	8.80
	7/29/2002	39.19	30.35	8.84
	11/26/2002	39.19	32.09	7.10
	3/4/2003	39.19	30.38	8.81
	5/19/2003	39.19	27.90	11.29
	12/9/2003	39.19	30.18	9.01
	3/30/2004	39.19	30.15	9.04
	8/19/2004	39.19	31.42	7.77
	11/22/2004	39.19	31.98	7.21
	2/11/2005	39.19	30.27	8.92
	5/18/2005	39.19	28.52	10.67
	9/16/2005	39.19	32.57	6.62
	11/8/2005	39.19	30.72	8.47
	3/16/2006	39.19	28.91	10.28
	6/2/2006	39.19	24.77	14.42
	8/7/2006	39.19	31.32	7.87
	11/17/2006	39.19	28.83	10.36
	2/15/2007	39.19	30.60	8.59
	5/22/2007	39.19	27.93	11.26
	8/22/2007	39.19	32.02	7.17
	11/6/2007	39.19	33.10	6.09
	2/11/2008	39.19	28.50	10.69
	5/12/2008	39.19	28.22	10.97
	8/4/2008	39.19	30.41	8.78
	11/14/2008	39.19	30.20	8.99
	2/16/2009	39.19	30.80	8.39

Please refer to notes at end of table.

Table C-1
Historical Groundwater Elevations – Area 1
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-36	9/16/1998	36.82	29.48	7.34
	12/30/1998	36.82	22.09	14.73
	5/24/1999	36.82	23.95	12.87
	8/18/1999	36.82	27.17	9.65
	12/21/1999	36.82	23.19	13.63
	4/25/2000	36.82	23.11	13.71
	10/25/2000	36.82	29.17	7.65
	11/27/2000	36.82	29.30	7.52
	2/9/2001	36.82	29.00	7.82
	5/15/2001	36.82	29.88	6.94
	8/7/2001	36.82	30.16	6.66
	12/5/2001	36.82	26.50	10.32
	4/9/2002	36.82	28.01	8.81
	7/29/2002	36.82	28.06	8.76
	11/26/2002	36.82	29.69	7.13
	3/4/2003	36.82	27.97	8.85
	5/19/2003	36.82	25.52	11.30
	12/9/2003	36.82	27.75	9.07
	3/30/2004	36.82	27.70	9.12
	8/19/2004	36.82	29.16	7.66
	11/22/2004	36.82	29.48	7.34
	2/11/2005	36.82	28.08	8.74
	5/18/2005	36.82	26.10	10.72
	9/16/2005	36.82	30.32	6.50
	11/8/2005	36.82	28.35	8.47
	1/16/2006	36.82	20.55	16.27
	2/20/2006	36.82	27.20	9.62
	3/16/2006	36.82	26.62	10.20
	6/2/2006	36.82	22.45	14.37
	8/7/2006	36.82	29.02	7.80
	11/17/2006	36.82	26.51	10.31
	2/15/2007	36.82	28.29	8.53
	5/22/2007	36.82	25.54	11.28
	8/22/2007	36.82	29.69	7.13
	11/6/2007	36.82	30.76	6.06
	2/11/2008	36.82	24.12	12.70
	5/12/2008	36.82	25.85	10.97
	8/4/2008	36.82	28.08	8.74
	11/14/2008	36.82	27.81	9.01
	2/16/2009	36.82	28.34	8.48
	5/27/2009	36.82	23.93	12.89
	8/18/2009	36.82	29.82	7.00

Please refer to notes at end of table.

Table C-1
Historical Groundwater Elevations – Area 1
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-36 (continued)	12/8/2009	36.82	28.80	8.02
	3/15/2010	36.82	28.35	8.47
	6/1/2010	36.82	26.35	10.47
	8/30/2010	36.82	29.63	7.19
	11/29/2010	36.82	28.29	8.53
	3/30/2011	36.82	24.08	12.74
	5/31/2011	36.82	17.71	19.11
	9/14/2011	36.82	28.80	8.02
	12/12/2011	36.82	28.74	8.08
	7/2/2012	36.82	21.30	15.52
	9/26/2012	36.82	29.55	7.27
	12/3/2012	36.82	25.10	11.72
	3/22/2013	36.82	28.71	8.11
	6/17/2013	36.82	26.95	9.87
	9/9/2013	36.82	29.55	7.27
	12/10/2013	36.82	29.11	7.71
	3/24/2014	36.82	25.41	11.41
	6/11/2014	36.82	25.10	11.72
	9/19/2014	36.82	30.32	6.50
	12/17/2014	36.82	27.63	9.19
	3/9/2015	34.86	27.40	9.49
	6/25/2015	36.82	21.42	15.40
	9/16/2015	36.82	29.90	6.92
	12/14/2015	36.82	23.57	13.25
	3/21/2016	36.82	24.10	12.72
	6/20/2016	36.82	28.08	8.74
	9/27/2016	36.82	30.41	6.41
	9/29/2016	36.82	30.21	6.61
	12/5/2016	36.82	27.01	9.81
	3/22/2017	36.82	17.38	19.44
	6/26/2017	36.82	23.19	13.63
	9/20/2017	36.82	29.10	7.72
	12/11/2017	36.82	28.35	8.47
	3/14/2018	36.82	27.00	9.82
	6/25/2018	36.82	26.65	10.17
	9/4/2018	36.82	30.39	6.43
	12/17/2018	38.89	29.41	9.48
	3/4/2019	38.89	29.01	9.88
	6/18/2019	38.89	27.23	11.66
	9/9/2019	38.89	30.62	8.27
	12/9/2019	38.89	30.01	8.88

Please refer to notes at end of table.

Table C-1
Historical Groundwater Elevations – Area 1
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-37	9/16/1998	34.36	27.00	7.36
	12/30/1998	34.36	19.87	14.49
	5/24/1999	34.36	21.70	12.66
	8/18/1999	34.36	26.02	8.34
	12/21/1999	34.36	21.16	13.20
	4/25/2000	34.36	21.03	13.33
	10/25/2000	34.36	27.48	6.88
	11/27/2000	34.36	27.98	6.38
	2/9/2001	34.36	26.75	7.61
	5/15/2001	34.36	27.02	7.34
	8/7/2001	34.36	27.82	6.54
	12/5/2001	34.36	24.36	10.00
	4/9/2002	34.36	25.67	8.69
	7/29/2002	34.36	25.51	8.85
	11/26/2002	34.36	27.25	7.11
	3/4/2003	34.36	25.68	8.68
	5/19/2003	34.36	23.34	11.02
	12/9/2003	34.36	26.20	8.16
	3/30/2004	34.36	25.79	8.57
	8/19/2004	34.36	26.73	7.63
	11/22/2004	34.36	27.51	6.85
	2/11/2005	34.36	26.23	8.13
	5/18/2005	34.36	24.22	10.14
	9/16/2005	34.36	27.88	6.48
	11/8/2005	34.36	26.49	7.87
	2/20/2006	34.36	25.80	8.56
	3/16/2006	34.36	24.45	9.91
	6/2/2006	34.36	20.54	13.82
	8/7/2006	34.36	26.72	7.64
	2/15/2007	34.36	26.27	8.09
	5/22/2007	34.36	23.58	10.78
	8/22/2007	34.36	27.21	7.15
	11/6/2007	34.36	28.30	6.06
	2/11/2008	34.36	25.55	8.81
	5/12/2008	34.36	25.10	9.26
	8/4/2008	34.36	26.28	8.08
	11/14/2008	34.36	26.10	8.26
	2/16/2009	34.36	26.55	7.81
	5/27/2009	34.36	22.10	12.26
	8/18/2009	34.36	27.34	7.02
	12/8/2009	34.36	26.50	7.86

Please refer to notes at end of table.

Table C-1
Historical Groundwater Elevations – Area 1
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-37 (continued)	3/15/2010	34.36	26.30	8.06
	6/1/2010	34.36	25.44	8.92
	8/30/2010	34.36	27.31	7.05
	11/29/2010	34.36	26.19	8.17
	3/30/2011	34.36	22.48	11.88
	5/31/2011	34.36	16.26	18.10
	9/14/2011	34.36	26.64	7.72
	12/12/2011	34.36	26.71	7.65
	7/2/2012	34.36	19.53	14.83
	9/26/2012	34.36	27.16	7.20
	12/3/2012	34.36	23.81	10.55
MW-38	9/16/1998	34.87	27.54	7.33
	12/30/1998	34.87	19.97	14.90
	5/24/1999	34.87	22.06	12.81
	8/18/1999	34.87	25.31	9.56
	12/21/1999	34.87	21.28	13.59
	4/25/2000	34.87	21.26	13.61
	10/25/2000	34.87	28.00	6.87
	11/27/2000	34.87	27.36	7.51
	2/9/2001	34.87	27.20	7.67
	5/15/2001	34.87	27.72	7.15
	8/7/2001	34.87	28.27	6.60
	12/5/2001	34.87	24.63	10.24
	4/9/2002	34.87	26.20	8.67
	7/29/2002	34.87	26.16	8.71
	11/26/2002	34.87	27.85	7.02
	3/4/2003	34.87	26.11	8.76
	5/19/2003	34.87	23.66	11.21
	12/9/2003	34.87	25.88	8.99
	3/30/2004	34.87	25.93	8.94
	8/19/2004	34.87	27.22	7.65
	11/22/2004	34.87	28.08	6.79
	2/11/2005	34.87	26.48	8.39
	5/18/2005	34.87	24.52	10.35
	9/16/2005	34.87	28.60	6.27
	11/8/2005	34.87	26.61	8.26
	2/20/2006	34.87	25.56	9.31
	3/16/2006	34.87	24.46	10.41
	6/2/2006	34.87	20.87	14.00
	8/7/2006	34.87	27.26	7.61
	11/17/2006	34.87	24.84	10.03

Please refer to notes at end of table.

Table C-1
Historical Groundwater Elevations – Area 1
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-38 (continued)	2/15/2007	34.87	26.62	8.25
	5/22/2007	34.87	23.87	11.00
	8/22/2007	34.87	27.85	7.02
	11/6/2007	34.87	29.00	5.87
	2/11/2008	34.87	22.64	12.23
	5/12/2008	34.87	24.35	10.52
	8/4/2008	34.87	26.34	8.53
	11/14/2008	34.87	26.02	8.85
	2/16/2009	34.87	26.77	8.10
	5/27/2009	34.87	23.10	11.77
	8/18/2009	34.87	27.98	6.89
	12/8/2009	34.87	27.15	7.72
	3/15/2010	34.87	26.43	8.44
	6/1/2010	34.87	24.61	10.26
	8/30/2010	34.87	27.86	7.01
	11/29/2010	34.87	26.79	8.08
	3/30/2011	34.87	22.59	12.28
	5/31/2011	34.87	16.14	18.73
	9/14/2011	34.87	27.16	7.71
	12/12/2011	34.87	27.19	7.68
	7/2/2012	34.87	19.96	14.91
	9/26/2012	34.87	27.89	6.98
	12/3/2012	34.87	23.76	11.11
	12/11/2017	34.87	26.43	8.44
MW-39	9/16/1998	37.04	29.74	7.30
	12/30/1998	37.04	22.01	15.03
	5/24/1999	37.04	24.31	12.73
	8/18/1999	37.04	27.47	9.57
	12/21/1999	37.04	23.45	13.59
	4/25/2000	37.04	23.31	13.73
	10/25/2000	37.04	30.17	6.87
	11/27/2000	37.04	29.56	7.48
	2/9/2001	37.04	29.34	7.70
	5/15/2001	37.04	29.90	7.14
	8/7/2001	37.04	30.40	6.64
	12/5/2001	37.04	26.75	10.29
	4/9/2002	37.04	28.33	8.71
	7/29/2002	37.04	28.41	8.63
	11/26/2002	37.04	30.01	7.03

Please refer to notes at end of table.

Table C-1
Historical Groundwater Elevations – Area 1
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-39	3/4/2003	37.04	28.30	8.74
(continued)	5/19/2003	37.04	25.80	11.24
	12/9/2003	37.04	28.00	9.04
	3/30/2004	37.04	28.08	8.96
	8/19/2004	37.04	29.35	7.69
	11/22/2004	37.04	30.03	7.01
	2/11/2005	37.04	28.35	8.69
	5/18/2005	37.04	26.27	10.77
	9/16/2005	37.04	30.59	6.45
	2/20/2006	37.04	27.66	9.38
	3/16/2006	37.04	26.93	10.11
	6/2/2006	37.04	22.75	14.29
	8/7/2006	37.04	29.27	7.77
	11/17/2006	37.04	26.81	10.23
	2/15/2007	37.04	28.63	8.41
	5/22/2007	37.04	25.88	11.16
	8/22/2007	37.04	30.00	7.04
	11/6/2007	37.04	31.07	5.97
	2/11/2008	37.04	24.54	12.50
	5/12/2008	37.04	26.20	10.84
	8/4/2008	37.04	28.35	8.69
	11/14/2008	37.04	28.03	9.01
	2/16/2009	37.04	28.69	8.35
	5/27/2009	37.04	24.01	13.03
	8/18/2009	37.04	30.18	6.86
	12/8/2009	37.04	29.00	8.04
	3/15/2010	37.04	28.62	8.42
	6/1/2010	37.04	26.60	10.44
	8/30/2010	37.04	29.90	7.14
	11/29/2010	37.04	28.66	8.38
	3/30/2011	37.04	24.36	12.68
	5/31/2011	37.04	17.93	19.11
	9/14/2011	37.04	29.04	8.00
	12/12/2011	37.04	29.02	8.02
	7/2/2012	37.04	21.66	15.38
	9/26/2012	37.04	29.88	7.16
	12/3/2012	37.04	25.34	11.70

Please refer to notes at end of table.

Table C-1
Historical Groundwater Elevations – Area 1
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-39 (continued)	3/22/2013	37.04	29.09	7.95
	6/17/2013	37.04	27.32	9.72
	9/9/2013	37.04	28.88	8.16
	12/10/2013	37.04	29.40	7.64
	3/24/2014	37.04	25.80	11.24
	6/11/2014	37.04	25.52	11.52
	9/19/2014	37.04	30.78	6.26
	12/17/2014	37.04	27.98	9.06
	3/9/2015	34.86	26.45	9.49
	6/25/2015	37.04	NM	--
	9/14/2015	37.04	30.27	6.77
	12/14/2015	37.04	23.90	13.14
	3/21/2016	37.04	24.52	12.52
	6/20/2016	37.04	28.42	8.62
	9/27/2016	37.04	30.71	6.33
	9/29/2016	37.04	30.45	6.59
	12/5/2016	37.04	27.33	9.71
	3/22/2017	37.04	17.69	19.35
	6/26/2017	37.04	23.55	13.49
	9/19/2017	37.04	29.40	7.64
	12/11/2017	37.04	28.68	8.36
	3/14/2018	37.04	27.4	9.64
	6/25/2018	37.04	27	10.04
	9/4/2018	37.04	30.70	6.34
	12/17/2018	39.14	29.67	9.47
	3/4/2019	39.14	29.33	9.81
	6/18/2019	39.14	27.75	11.39
	9/9/2019	39.14	30.94	8.20
	12/9/2019	39.14	30.30	8.84
MW-40	9/16/1998	39.49	32.23	7.26
	12/30/1998	39.49	24.44	15.05
	5/24/1999	39.49	26.72	12.77
	8/18/1999	39.49	29.89	9.60
	12/21/1999	39.49	25.85	13.64
	4/25/2000	39.49	25.79	13.70
	10/25/2000	39.49	32.80	6.69
	11/27/2000	39.49	32.01	7.48
	2/9/2001	39.49	31.88	7.61
	5/15/2001	39.49	32.32	7.17
	8/7/2001	39.49	32.92	6.57
	12/5/2001	39.49	29.19	10.30
	4/9/2002	39.49	30.80	8.69
	7/29/2002	39.49	30.90	8.59
	11/26/2002	39.49	32.39	7.10

Please refer to notes at end of table.

Table C-1
Historical Groundwater Elevations – Area 1
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-40 (continued)	3/4/2003	39.49	30.80	8.69
	5/19/2003	39.49	28.23	11.26
	12/9/2003	39.49	30.46	9.03
	3/30/2004	39.49	30.56	8.93
	8/19/2004	39.49	31.72	7.77
	11/22/2004	39.49	32.27	7.22
	2/11/2005	39.49	30.81	8.68
	5/18/2005	39.49	22.84	16.65
	9/16/2005	39.49	32.96	6.53
	11/8/2005	39.49	31.15	8.34
	3/16/2006	39.49	29.30	10.19
	6/2/2006	39.49	25.17	14.32
	8/7/2006	39.49	31.65	7.84
	11/17/2006	39.49	29.19	10.30
	2/15/2007	39.49	31.00	8.49
	5/22/2007	39.49	28.23	11.26
	8/22/2007	39.49	32.41	7.08
	11/6/2007	39.49	33.50	5.99
	2/11/2008	39.49	26.92	12.57
	5/12/2008	39.49	28.60	10.89
	8/4/2008	39.49	30.75	8.74
	11/14/2008	39.49	30.39	9.10
	2/16/2009	39.49	31.08	8.41
	5/27/2009	39.49	26.44	13.05
	8/18/2009	39.49	32.49	7.00
	12/8/2009	39.49	31.62	7.87
	3/15/2010	39.49	31.00	8.49
	6/1/2010	39.49	29.00	10.49
	8/30/2010	39.49	32.25	7.24
	11/29/2010	39.49	30.94	8.55
	3/30/2011	39.49	26.80	12.69
	5/31/2011	39.49	20.32	19.17
	9/14/2011	39.49	31.51	7.98
	12/12/2011	39.49	31.39	8.10
	7/2/2012	39.49	23.98	15.51
	9/26/2012	39.49	32.43	7.06
	12/3/2012	39.49	27.72	11.77
	3/22/2013	39.49	31.47	8.02
	6/17/2013	39.49	29.70	9.79
	9/9/2013	39.49	32.31	7.18
	12/10/2013	39.49	31.78	7.71

Please refer to notes at end of table.

Table C-1
Historical Groundwater Elevations – Area 1
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-40 (continued)	3/24/2014	39.49	28.12	11.37
	6/11/2014	39.49	22.85	16.64
	9/19/2014	39.49	33.23	6.26
	12/17/2014	39.49	30.11	9.38
	3/9/2015	34.86	30.09	9.49
	9/14/2015	39.49	32.97	6.52
	12/14/2015	39.49	26.29	13.20
	3/21/2016	39.49	26.89	12.60
	6/20/2016	39.49	30.80	8.69
	9/27/2016	39.49	33.17	6.32
	9/29/2016	39.49	32.90	6.59
	12/5/2016	39.49	29.72	9.77
	3/22/2017	39.49	20.08	19.41
	6/26/2017	39.49	26.00	13.49
	9/19/2017	39.49	31.91	7.58
	12/11/2017	39.49	31.00	8.49
	3/14/2018	39.49	29.79	9.70
	6/25/2018	39.49	29.41	10.08
	9/4/2018	39.49	33.23	6.26
	12/17/2018	41.61	31.86	9.75
	3/4/2019	41.61	31.60	10.01
	6/18/2019	41.61	29.96	11.65
	9/9/2019	41.61	33.46	8.15
	12/9/2019	41.61	32.79	8.82
MW-41	9/16/1998	36.57	29.19	7.38
	12/30/1998	36.57	21.95	14.62
	5/24/1999	36.57	23.66	12.91
	8/18/1999	36.57	26.83	9.74
	12/21/1999	36.57	22.90	13.67
	4/25/2000	36.57	22.88	13.69
	10/25/2000	36.57	29.48	7.09
	11/27/2000	36.57	28.99	7.58
	2/9/2001	36.57	28.80	7.77
	5/15/2001	36.57	29.30	7.27
	8/7/2001	36.57	29.92	6.65
	12/5/2001	36.57	26.94	9.63
	4/9/2002	36.57	27.72	8.85
	7/29/2002	36.57	27.69	8.88
	11/26/2002	36.57	29.38	7.19
	3/4/2003	36.57	27.69	8.88
	5/19/2003	36.57	25.27	11.30
	12/9/2003	36.57	27.58	8.99

Please refer to notes at end of table.

Table C-1
Historical Groundwater Elevations – Area 1
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-41 (continued)	3/30/2004	36.57	27.34	9.23
	8/19/2004	36.57	28.79	7.78
	11/22/2004	36.57	29.24	7.33
	2/11/2005	36.57	27.84	8.73
	5/18/2005	36.57	25.92	10.65
	9/16/2005	36.57	29.85	6.72
	11/8/2005	36.57	28.10	8.47
	3/16/2006	36.57	26.27	10.30
	6/2/2006	36.57	22.15	14.42
	8/7/2006	36.57	28.61	7.96
	11/17/2006	36.57	26.23	10.34
	2/15/2007	36.57	27.92	8.65
	2/11/2008	36.57	23.85	12.72
	5/12/2008	36.57	25.63	10.94
	2/16/2009	36.57	28.06	8.51
	5/27/2009	36.57	23.79	12.78
	8/18/2009	36.57	29.55	7.02
	12/7/2009	36.57	28.60	7.97
	3/15/2010	36.57	28.10	8.47
	6/1/2010	36.57	26.05	10.52
	8/30/2010	36.57	29.21	7.36
	11/29/2010	36.57	27.99	8.58
	3/30/2011	36.57	23.77	12.80
	5/31/2011	36.57	17.60	18.97
	9/14/2011	36.57	24.20	12.37
	12/12/2011	36.57	28.33	8.24
	7/2/2012	36.57	21.01	15.56
	9/26/2012	36.57	29.24	7.33
	12/3/2012	36.57	24.80	11.77
	3/22/2013	36.57	28.41	8.16
	6/17/2013	36.57	26.60	9.97
	9/9/2013	36.57	29.30	7.27
	12/11/2013	36.57	28.65	7.92
	3/24/2014	36.57	29.04	7.53
	6/11/2014	36.57	24.75	11.82
	9/19/2014	36.57	30.01	6.56
	12/17/2014	NM	NM	--
	3/9/2015	34.86	21.70	9.49

Please refer to notes at end of table.

Table C-1
Historical Groundwater Elevations – Area 1
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-41 (continued)	12/14/2015	36.57	23.43	13.14
	3/21/2016	36.57	23.81	12.76
	6/20/2016	36.57	27.95	8.62
	9/27/2016	36.57	29.82	6.75
	9/29/2016	36.57	29.56	7.01
	12/5/2016	36.57	26.68	9.89
	3/22/2017	36.57	17.54	19.03
	6/26/2017	36.57	22.85	13.72
	9/19/2017	36.57	24.23	12.34
	12/11/2017	36.57	27.88	8.69
	6/25/2018	36.57	26.35	10.22
	9/4/2018	36.57	29.99	6.58
	12/17/2018	38.71	29.03	9.68
	3/4/2019	38.71	28.44	10.27
	6/18/2019	38.71	24.25	14.46
	9/9/2019	38.71	24.23	14.48
	12/9/2019	38.71	NM	NM
MW-42	9/16/1998	38.49	31.17	7.32
	12/30/1998	38.49	23.54	14.95
	5/24/1999	38.49	25.66	12.83
	8/18/1999	38.49	28.84	9.65
	12/21/1999	38.49	24.80	13.69
	4/25/2000	38.49	24.75	13.74
	10/25/2000	38.49	31.69	6.80
	11/27/2000	38.49	30.95	7.54
	2/9/2001	38.49	30.80	7.69
	5/15/2001	38.49	31.25	7.24
	8/7/2001	38.49	31.87	6.62
	12/5/2001	38.49	28.16	10.33
	4/9/2002	38.49	29.70	8.79
	7/29/2002	38.49	29.08	9.41
	11/26/2002	38.49	31.35	7.14
	3/4/2003	38.49	29.71	8.78
	5/19/2003	38.49	27.19	11.30
	12/9/2003	38.49	29.44	9.05
	3/30/2004	38.49	29.41	9.08
	8/19/2004	38.49	30.73	7.76
	11/22/2004	38.49	31.21	7.28
	2/11/2005	38.49	29.76	8.73
	5/18/2005	38.49	27.81	10.68
	9/16/2005	38.49	31.90	6.59
	11/8/2005	38.49	29.98	8.51

Please refer to notes at end of table.

Table C-1
Historical Groundwater Elevations – Area 1
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-42 (continued)	2/20/2006	38.49	28.64	9.85
	3/16/2006	38.49	28.22	10.27
	6/2/2006	38.49	24.08	14.41
	8/7/2006	38.49	30.62	7.87
	11/17/2006	38.49	28.13	10.36
	2/15/2007	38.49	29.95	8.54
	5/22/2007	38.49	27.19	11.30
	8/22/2007	38.49	31.33	7.16
	11/6/2007	38.49	32.45	6.04
	2/11/2008	38.49	25.81	12.68
	5/12/2008	38.49	27.50	10.99
	8/4/2008	38.49	29.76	8.73
	11/14/2008	38.49	29.45	9.04
	2/16/2009	38.49	29.98	8.51
	5/27/2009	38.49	25.40	13.09
	8/18/2009	38.49	31.41	7.08
	12/7/2009	38.49	30.36	8.13
	3/15/2010	38.49	29.95	8.54
	6/1/2010	38.49	28.01	10.48
	8/30/2010	38.49	31.20	7.29
	11/29/2010	38.49	29.88	8.61
	3/30/2011	38.49	25.70	12.79
	5/31/2011	38.49	19.24	19.25
	9/14/2011	38.49	30.43	8.06
	12/12/2011	38.49	30.40	8.09
	7/2/2012	38.49	22.95	15.54
	9/28/2012	38.49	31.28	7.21
	12/3/2012	38.49	26.67	11.82
	3/22/2013	38.49	30.39	8.10
	6/17/2013	38.49	28.61	9.88
	9/9/2013	38.49	31.28	7.21
	12/10/2013	38.49	30.73	7.76
	3/24/2014	38.49	26.98	11.51
	6/11/2014	38.49	26.78	11.71
	9/19/2014	38.49	32.15	6.34
	12/17/2014	38.49	29.05	9.44
	3/9/2015	34.86	29.05	9.49
	6/25/2015	38.49	31.55	6.94
	9/14/2015	38.49	31.87	6.62
	12/14/2015	38.49	25.22	13.27

Please refer to notes at end of table.

Table C-1
Historical Groundwater Elevations – Area 1
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-42 (continued)	3/21/2016	38.49	25.73	12.76
	6/20/2016	38.49	29.72	8.77
	9/27/2016	38.49	32.10	6.39
	9/29/2016	38.49	31.90	6.59
	12/5/2016	38.49	28.60	9.89
	3/22/2017	38.49	18.31	20.18
	6/26/2017	38.49	24.92	13.57
	9/19/2017	38.49	30.89	7.60
	12/11/2017	38.49	29.85	8.64
	3/14/2018	38.49	28.68	9.81
	6/25/2018	38.49	28.35	10.14
	9/4/2018	38.49	32.10	6.39
	12/17/2018	40.63	30.88	9.75
	3/4/2019	40.63	30.49	10.14
	6/18/2019	40.63	28.90	11.73
	9/9/2019	40.63	32.25	8.38
	12/9/2019	40.63	31.81	8.82
MW-43	5/24/1999	40.34	27.65	12.69
	8/18/1999	40.34	30.85	9.49
	12/21/1999	40.34	26.77	13.57
	4/25/2000	40.34	26.68	13.66
	10/25/2000	40.34	33.43	6.91
	11/27/2000	40.34	32.88	7.46
	2/9/2001	40.34	32.81	7.53
	5/15/2001	40.34	33.22	7.12
	8/7/2001	40.34	33.83	6.51
	12/5/2001	40.34	30.03	10.31
	4/9/2002	40.34	31.73	8.61
	7/29/2002	40.34	31.74	8.60
	11/26/2002	40.34	33.25	7.09
	3/4/2003	40.34	31.77	8.57
	5/19/2003	40.34	29.14	11.20
	12/9/2003	40.34	31.30	9.04
	3/30/2004	40.34	31.49	8.85
	8/19/2004	40.34	32.66	7.68
	11/22/2004	40.34	33.22	7.12
	2/11/2005	40.34	31.67	8.67
	5/18/2005	40.34	29.70	10.64
	9/16/2005	40.34	33.80	6.54
	11/8/2005	40.34	31.93	8.41

Please refer to notes at end of table.

Table C-1
Historical Groundwater Elevations – Area 1
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-43 (continued)	2/20/2006	40.34	30.74	9.60
	3/16/2006	40.34	30.21	10.13
	6/2/2006	40.34	26.11	14.23
	8/7/2006	40.34	32.63	7.71
	11/17/2006	40.34	30.07	10.27
	2/15/2007	40.34	31.94	8.40
	5/22/2007	40.34	28.95	11.39
	8/22/2007	40.34	33.39	6.95
	11/6/2007	40.34	34.47	5.87
	2/11/2008	40.34	29.89	10.45
	5/12/2008	40.34	29.51	10.83
	8/4/2008	40.34	31.71	8.63
	11/14/2008	40.34	31.20	9.14
	2/16/2009	40.34	31.91	8.43
	5/27/2009	40.34	27.22	13.12
	8/18/2009	40.34	33.41	6.93
	12/7/2009	40.34	32.33	8.01
	3/15/2010	40.34	31.90	8.44
	6/1/2010	40.34	29.88	10.46
	8/30/2010	40.34	33.16	7.18
	11/29/2010	40.34	31.99	8.35
	3/30/2011	40.34	27.76	12.58
	5/31/2011	40.34	21.13	19.21
	9/14/2011	40.34	32.38	7.96
	12/12/2011	40.34	32.29	8.05
	7/2/2012	40.34	24.93	15.41
	9/26/2012	40.34	33.46	6.88
	12/3/2012	40.34	28.59	11.75
	3/22/2013	40.34	32.43	7.91
	6/17/2013	40.34	30.81	9.53
	9/9/2013	40.34	33.19	7.15
	12/10/2013	40.34	33.15	7.19
	3/24/2014	40.34	29.16	11.18
	6/11/2014	40.34	28.83	11.51
	9/19/2014	40.34	34.50	5.84
	12/17/2014	40.34	30.96	9.38
	3/9/2015	34.86	31.10	9.49
	6/25/2015	40.34	33.55	6.79
	9/14/2015	40.34	33.95	6.39
	12/14/2015	40.34	7.30	33.04

Please refer to notes at end of table.

Table C-1
Historical Groundwater Elevations – Area 1
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-43 (continued)	3/21/2016	40.34	27.91	12.43
	6/20/2016	40.34	31.76	8.58
	9/27/2016	40.34	34.20	6.14
	9/29/2016	40.34	33.85	6.49
	12/5/2016	40.34	30.66	9.68
	3/22/2017	40.34	20.94	19.40
	6/26/2017	40.34	26.97	13.37
	9/19/2017	40.34	32.72	7.62
	12/11/2017	40.34	31.92	8.42
	3/14/2018	40.34	30.75	9.59
	6/25/2018	40.34	30.45	9.89
	9/4/2018	40.34	34.28	6.06
	12/17/2018	42.41	32.57	9.84
	3/4/2019	42.41	32.65	9.76
	6/18/2019	42.41	31.09	11.32
	9/9/2019	42.41	34.47	7.94
	12/9/2019	42.41	33.34	9.07
MW-44	5/24/1999	34.78	22.70	12.08
	8/18/1999	34.78	25.21	9.57
	12/21/1999	34.78	21.22	13.56
	4/25/2000	34.78	21.09	13.69
	10/25/2000	34.78	27.90	6.88
	11/27/2000	34.78	27.40	7.38
	2/9/2001	34.78	27.05	7.73
	5/15/2001	34.78	27.56	7.22
	8/7/2001	34.78	28.02	6.76
	12/5/2001	34.78	24.07	10.71
	4/9/2002	34.78	26.16	8.62
	11/26/2002	34.78	27.87	6.91
	3/4/2003	34.78	29.00	5.78
	5/19/2003	34.78	23.91	10.87
	12/9/2003	34.78	26.27	8.51
	3/30/2004	34.78	25.88	8.90
	11/22/2004	34.78	27.61	7.17
	2/11/2005	34.78	26.04	8.74
	5/18/2005	34.78	24.40	10.38
	9/16/2005	34.78	27.91	6.87
	11/8/2005	34.78	26.82	7.96
	2/20/2006	34.78	24.68	10.10
	3/16/2006	34.78	24.72	10.06
	6/2/2006	34.78	20.49	14.29
	8/7/2006	34.78	27.05	7.73
	11/17/2006	34.78	24.50	10.28

Please refer to notes at end of table.

Table C-1
Historical Groundwater Elevations – Area 1
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-44 (continued)	2/15/2007	34.78	26.29	8.49
	5/22/2007	34.78	24.81	9.97
	8/22/2007	34.78	27.57	7.21
	11/6/2007	34.78	28.26	6.52
	2/11/2008	34.78	24.60	10.18
	5/12/2008	34.78	24.15	10.63
	8/4/2008	34.78	26.09	8.69
	11/14/2008	34.78	26.11	8.67
	2/16/2009	34.78	27.70	7.08
	5/27/2009	34.78	25.49	9.29
	8/18/2009	34.78	27.15	7.63
	12/7/2009	34.78	26.98	7.80
	3/15/2010	34.78	26.31	8.47
	6/1/2010	34.78	24.68	10.10
	8/30/2010	34.78	27.44	7.34
	11/29/2010	34.78	26.58	8.20
	3/30/2011	34.78	22.09	12.69
	5/31/2011	34.78	15.73	19.05
	9/14/2011	34.78	24.20	10.58
	12/12/2011	34.78	26.41	8.37
	7/2/2012	34.78	19.50	15.28
	9/26/2012	34.78	26.63	8.15
	12/3/2012	34.78	24.62	10.16
	3/22/2013	34.78	26.89	7.89
	6/17/2013	34.78	25.47	9.31
	9/9/2013	34.78	27.58	7.20
	12/10/2013	34.78	27.51	7.27
	3/24/2014	34.78	24.40	10.38
	6/11/2014	34.78	23.22	11.56
	9/19/2014	34.78	26.30	8.48
	12/17/2014	34.78	25.46	9.32
	3/9/2015	34.86	24.80	9.49
	6/25/2015	34.78	27.48	7.30
	9/14/2015	34.78	28.41	6.37
	12/14/2015	34.78	24.85	9.93
	3/21/2016	34.78	22.40	12.38
	6/20/2016	34.78	26.04	8.74
	9/27/2016	34.78	30.23	4.55
	9/29/2016	34.78	28.23	6.55
	12/5/2016	34.78	25.08	9.70

Please refer to notes at end of table.

Table C-1
Historical Groundwater Elevations – Area 1
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-44 (continued)	3/22/2017	34.78	15.56	19.22
	6/26/2017	34.78	19.82	14.96
	9/19/2017	34.78	26.61	8.17
	12/11/2017	34.78	27.2	7.58
	3/14/2018	34.78	25.24	9.54
	6/25/2018	34.78	24.91	9.87
	9/4/2018	34.78	28.60	6.18
	12/17/2018	36.90	27.06	9.84
	3/4/2019	36.90	26.58	10.32
	6/18/2019	36.90	23.72	13.18
	9/9/2019	36.90	28.29	8.61
	12/9/2019	36.90	27.92	8.98
MW-45	5/24/1999	36.89	24.02	12.87
	8/18/1999	36.89	27.18	9.71
	12/21/1999	36.89	23.27	13.62
	4/25/2000	36.89	23.20	13.69
	10/25/2000	36.89	29.98	6.91
	11/27/2000	36.89	29.34	7.55
	2/9/2001	36.89	29.16	7.73
	5/15/2001	36.89	29.65	7.24
	8/7/2001	36.89	30.22	6.67
	12/5/2001	36.89	26.65	10.24
	4/9/2002	36.89	28.07	8.82
	7/29/2002	36.89	28.40	8.49
	11/26/2002	36.89	29.77	7.12
	3/4/2003	36.89	28.06	8.83
	5/19/2003	36.89	25.62	11.27
	12/9/2003	36.89	27.83	9.06
	3/30/2004	36.89	27.71	9.18
	8/19/2004	36.89	29.14	7.75
	11/22/2004	36.89	29.61	7.28
	2/11/2005	36.89	28.14	8.75
	5/18/2005	36.89	26.24	10.65
	9/16/2005	36.89	30.30	6.59
	11/8/2005	36.89	29.45	7.44
	1/16/2006	36.89	20.65	16.24
	2/20/2006	36.89	27.91	8.98
	3/16/2006	36.89	26.63	10.26
	6/2/2006	36.89	23.56	13.33
	8/7/2006	36.89	29.63	7.26
	11/17/2006	36.89	26.81	10.08
	2/15/2007	36.89	28.27	8.62
	5/22/2007	36.89	25.96	10.93
	8/22/2007	36.89	30.21	6.68
	11/6/2007	36.89	31.00	5.89

Please refer to notes at end of table.

Table C-1
Historical Groundwater Elevations – Area 1
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-45 (continued)	2/11/2008	36.89	26.04	10.85
	5/12/2008	36.89	25.96	10.93
	8/4/2008	36.89	28.79	8.10
	11/14/2008	36.89	28.12	8.77
	2/16/2009	36.89	28.41	8.48
	5/27/2009	36.89	24.19	12.70
	8/18/2009	36.89	29.91	6.98
	12/8/2009	36.89	28.93	7.96
	3/15/2010	36.89	28.44	8.45
	6/1/2010	36.89	26.91	9.98
	8/30/2010	36.89	30.03	6.86
	11/29/2010	36.89	28.50	8.39
	3/30/2011	36.89	24.16	12.73
	5/31/2011	36.89	17.90	18.99
	9/14/2011	36.89	28.68	8.21
	12/12/2011	36.89	28.83	8.06
	7/2/2012	36.89	21.34	15.55
	9/26/2012	36.89	29.40	7.49
	12/3/2012	36.89	25.25	11.64
MW-49	11/27/2000	35.52	28.30	7.22
	2/9/2001	35.52	27.83	7.69
	5/15/2001	35.52	28.37	7.15
	8/7/2001	35.52	28.92	6.60
	12/5/2001	35.52	25.26	10.26
	4/9/2002	35.52	26.80	8.72
	7/29/2002	35.52	26.81	8.71
	11/26/2002	35.52	28.49	7.03
	3/4/2003	35.52	26.79	8.73
	5/19/2003	35.52	24.32	11.20
	12/9/2003	35.52	26.53	8.99
	3/30/2004	35.52	26.63	8.89
	8/19/2004	35.52	27.86	7.66
	11/22/2004	35.52	28.67	6.85
	2/11/2005	35.52	26.95	8.57
	5/18/2005	35.52	25.02	10.50
	9/16/2005	35.52	29.08	6.44
	11/8/2005	35.52	27.14	8.38
	2/20/2006	35.52	25.74	9.78
	3/16/2006	35.52	25.40	10.12
	6/2/2006	35.52	21.34	14.18
	8/7/2006	35.52	27.76	7.76

Please refer to notes at end of table.

Table C-1
Historical Groundwater Elevations – Area 1
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-49 (continued)	11/17/2006	35.52	25.37	10.15
	2/15/2007	35.52	27.14	8.38
	5/22/2007	35.52	24.43	11.09
	8/22/2007	35.52	28.43	7.09
	11/6/2007	35.52	29.50	6.02
	2/11/2008	35.52	25.11	10.41
	5/12/2008	35.52	24.80	10.72
	8/4/2008	35.52	26.96	8.56
	11/14/2008	35.52	26.66	8.86
	2/16/2009	35.52	27.38	8.14
	5/27/2009	35.52	22.59	12.93
	8/18/2009	35.52	28.58	6.94
	12/8/2009	35.52	27.55	7.97
	3/15/2010	35.52	28.15	7.37
	6/1/2010	35.52	25.14	10.38
	8/30/2010	35.52	28.43	7.09
	11/29/2010	35.52	27.17	8.35
	3/30/2011	35.52	23.08	12.44
	5/31/2011	35.52	17.63	17.89
	9/14/2011	35.52	27.64	7.88
	12/12/2011	35.52	27.64	7.88
	7/2/2012	35.52	20.30	15.22
	9/26/2012	35.52	28.35	7.17
	12/3/2012	35.52	24.09	11.43
	3/22/2013	35.52	27.65	7.87
	6/17/2013	35.52	25.93	9.59
	9/9/2013	35.52	28.52	7.00
	12/10/2013	35.52	28.05	7.47
	3/24/2014	35.52	24.41	11.11
	6/11/2014	35.52	24.14	11.38
	9/19/2014	35.52	29.11	6.41
	12/17/2014	35.52	26.47	9.05
	3/9/2015	34.86	26.10	9.49
	6/25/2015	35.52	28.67	6.85
	12/14/2015	35.52	22.68	12.84
	3/21/2016	35.52	23.01	12.51
	6/20/2016	35.52	26.84	8.68
	9/27/2016	35.52	29.10	6.42
	9/29/2016	35.52	29.04	6.48
	12/5/2016	35.52	25.70	9.82

Please refer to notes at end of table.

Table C-1
Historical Groundwater Elevations – Area 1
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-49 (continued)	3/22/2017	35.52	16.18	19.34
	6/26/2017	35.52	22.03	13.49
	9/19/2017	35.52	27.93	7.59
	12/11/2017	35.52	27.09	8.43
	3/14/2018	35.52	25.8	9.72
	6/25/2018	35.52	25.45	10.07
	9/4/2018	35.52	29.00	6.52
	12/17/2018	37.64	28.17	9.47
	3/4/2019	37.64	27.62	10.02
	6/18/2019	37.64	25.99	11.65
	9/9/2019	37.64	29.30	8.34
	12/9/2019	37.64	28.79	8.85
MW-50	11/27/2000	40.05	32.67	7.38
	2/9/2001	40.05	32.68	7.37
	5/15/2001	40.05	33.08	6.97
	8/7/2001	40.05	33.99	6.06
	12/5/2001	40.05	29.84	10.21
	4/9/2002	40.05	28.42	11.63
	7/29/2002	40.05	31.97	8.08
	11/26/2002	40.05	33.07	6.98
	3/4/2003	40.05	31.61	8.44
	5/19/2003	40.05	29.02	11.03
	12/9/2003	40.05	31.13	8.92
	3/30/2004	40.05	31.35	8.70
	8/19/2004	40.05	32.47	7.58
	11/22/2004	40.05	33.00	7.05
	2/11/2005	40.05	31.50	8.55
	5/18/2005	40.05	29.49	10.56
	9/16/2005	40.05	33.72	6.33
	11/8/2005	40.05	31.77	8.28
	2/20/2006	40.05	30.63	9.42
	3/16/2006	40.05	30.11	9.94
	6/2/2006	40.05	25.96	14.09
	8/7/2006	40.05	32.45	7.60
	11/17/2006	40.05	29.92	10.13
	2/15/2007	40.05	31.79	8.26
	5/22/2007	40.05	29.11	10.94
	8/22/2007	40.05	33.22	6.83
	11/6/2007	40.05	34.30	5.75
	2/11/2008	40.05	29.80	10.25
	5/12/2008	40.05	29.35	10.70
	8/4/2008	40.05	31.42	8.63
	11/14/2008	40.05	31.15	8.90

Please refer to notes at end of table.

Table C-1
Historical Groundwater Elevations – Area 1
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-50 (continued)	2/16/2009	40.05	31.82	8.23
	5/27/2009	40.05	27.22	12.83
	8/18/2009	40.05	33.14	6.91
	12/7/2009	40.05	32.18	7.87
	3/15/2010	40.05	31.79	8.26
	6/1/2010	40.05	29.74	10.31
	8/30/2010	40.05	33.03	7.02
	11/29/2010	40.05	31.89	8.16
	3/30/2011	40.05	27.70	12.35
	5/31/2011	40.05	20.86	19.19
	9/14/2011	40.05	32.26	7.79
	12/12/2011	40.05	32.17	7.88
	7/2/2012	40.05	24.72	15.33
	9/26/2012	40.05	33.32	6.73
	12/3/2012	40.05	28.55	11.50
	3/22/2013	40.05	32.30	7.75
	6/17/2013	40.05	30.59	9.46
	9/9/2013	40.05	33.03	7.02
	12/10/2013	40.05	32.89	7.16
	3/24/2014	40.05	29.02	11.03
	6/11/2014	40.05	28.70	11.03
	9/19/2014	40.05	34.35	11.35
	12/17/2014	40.05	30.82	9.23
	3/9/2015	34.86	30.90	9.49
	6/25/2015	40.05	33.40	6.65
	9/14/2015	40.05	33.74	6.31
	12/14/2015	40.05	27.05	13.00
	3/21/2016	40.05	27.80	12.25
	6/20/2016	40.05	31.60	8.45
	9/27/2016	40.05	34.04	6.01
	9/29/2016	40.05	33.68	6.37
	12/5/2016	40.05	30.53	9.52
	3/22/2017	40.05	20.72	19.33
	6/26/2017	40.05	22.89	17.16
	9/19/2017	40.05	32.83	7.22
	12/11/2017	40.05	31.76	8.29
	3/14/2018	40.05	30.61	9.44
	6/25/2018	40.05	30.32	9.73
	9/4/2018	40.05	34.13	5.92
	12/17/2018	42.08	32.39	9.69
	3/4/2019	42.08	32.52	9.56
	6/18/2019	42.08	30.94	11.14
	9/9/2019	42.08	34.23	7.85
	12/9/2019	42.08	33.16	8.92

Please refer to notes at end of table.

Table C-1
Historical Groundwater Elevations – Area 1
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-51	11/27/2000	34.01	26.61	7.40
	2/9/2001	34.01	26.55	7.46
	5/15/2001	34.01	27.00	7.01
	8/7/2001	34.01	27.64	6.37
	12/5/2001	34.01	23.64	10.37
	4/9/2002	34.01	25.63	8.38
	7/29/2002	34.01	25.75	8.26
	11/26/2002	34.01	27.02	6.99
	3/4/2003	34.01	25.61	8.40
	5/19/2003	34.01	23.01	11.00
	12/9/2003	34.01	25.00	9.01
	3/30/2004	34.01	25.31	8.70
	8/19/2004	34.01	26.46	7.55
	11/22/2004	34.01	27.11	6.90
	2/11/2005	34.01	25.57	8.44
	5/18/2005	34.01	23.58	10.43
	9/16/2005	34.01	27.75	6.26
	11/8/2005	34.01	25.62	8.39
	2/20/2006	34.01	24.77	9.24
	3/16/2006	34.01	24.11	9.90
	6/2/2006	34.01	20.17	13.84
	8/7/2006	34.01	26.62	7.39
	11/17/2006	34.01	23.91	10.10
	2/15/2007	34.01	25.96	8.05
	8/22/2007	34.01	27.25	6.76
	11/6/2007	34.01	28.20	5.81
	2/11/2008	34.01	23.94	10.07
	5/12/2008	34.01	23.50	10.51
	8/4/2008	34.01	25.69	8.32
	11/14/2008	34.01	24.96	9.05
	2/16/2009	34.01	25.99	8.02
	5/27/2009	34.01	21.00	13.01
	8/18/2009	34.01	27.30	6.71
	12/7/2009	34.01	26.12	7.89
	3/15/2010	34.01	25.84	8.17
	6/1/2010	34.01	23.80	10.21
	8/30/2010	34.01	27.16	6.85
	11/29/2010	34.01	25.93	8.08

Please refer to notes at end of table.

Table C-1
Historical Groundwater Elevations – Area 1
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-51 (continued)	3/30/2011	34.01	21.95	12.06
	5/31/2011	34.01	14.87	19.14
	9/14/2011	34.01	26.42	7.59
	12/12/2011	34.01	26.33	7.68
	7/2/2012	34.01	18.98	15.03
	9/26/2012	34.01	27.38	6.63
	12/3/2012	34.01	22.60	11.41
	3/22/2013	34.01	26.41	7.60
	6/17/2013	34.01	24.81	9.20
	9/9/2013	34.01	27.16	6.85
	12/10/2013	34.01	26.85	7.16
	3/24/2014	34.01	23.25	10.76
	6/11/2014	34.01	22.91	11.10
	9/19/2014	34.01	28.00	6.01
	12/17/2014	34.01	24.77	9.24
	3/9/2015	34.86	24.90	9.49
	6/25/2015	34.01	27.32	6.69
	9/14/2015	34.01	27.59	6.42
	12/14/2015	34.01	21.00	13.01
	3/21/2016	34.01	21.84	12.17
	6/20/2016	34.01	25.54	8.47
	9/27/2016	34.01	27.55	6.46
	9/29/2016	34.01	27.61	6.40
	12/5/2016	34.01	24.39	9.62
	3/22/2017	34.01	14.65	19.36
	6/26/2017	34.01	20.95	13.06
	9/19/2017	34.01	26.65	7.36
	12/11/2017	34.01	25.75	8.26
	3/14/2018	34.01	24.59	9.42
	6/25/2018	34.01	24.35	9.66
	9/4/2018	34.01	27.89	6.12
	12/17/2018	36.03	26.45	9.58
	3/4/2019	36.03	26.38	9.65
	6/18/2019	36.03	24.92	11.11
	9/9/2019	36.03	27.97	8.06
	12/9/2019	36.03	27.25	8.78
MW-52	11/27/2000	34.41	27.61	6.80
	2/9/2001	34.41	27.21	7.20
	5/15/2001	34.41	27.40	7.01
	8/7/2001	34.41	28.62	5.79
	12/5/2001	34.41	25.49	8.92
	4/9/2002	34.41	26.20	8.21
	7/29/2002	34.41	25.96	8.45
	11/26/2002	34.41	27.62	6.79

Please refer to notes at end of table.

Table C-1
Historical Groundwater Elevations – Area 1
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-52 (continued)	3/4/2003	34.41	26.85	7.56
	5/19/2003	34.41	24.09	10.32
	12/9/2003	34.41	25.60	8.81
	3/30/2004	34.41	25.80	8.61
	8/19/2004	34.41	26.53	7.88
	11/22/2004	34.41	27.73	6.68
	2/11/2005	34.41	27.03	7.38
	5/18/2005	34.41	24.14	10.27
	9/16/2005	34.41	28.44	5.97
	2/20/2006	34.41	25.31	9.10
	3/16/2006	34.41	24.60	9.81
	6/2/2006	34.41	20.84	13.57
	8/7/2006	34.41	27.16	7.25
	2/15/2007	34.41	26.53	7.88
	5/22/2007	34.41	23.74	10.67
	8/22/2007	34.41	27.74	6.67
	11/6/2007	34.41	28.75	5.66
	2/11/2008	34.41	24.62	9.79
	5/12/2008	34.41	24.19	10.22
	8/4/2008	34.41	26.31	8.10
	11/14/2008	34.41	25.81	8.60
	2/16/2009	34.41	32.10	2.31
	5/27/2009	34.41	29.19	5.22
	8/18/2009	34.41	27.94	6.47
	12/7/2009	34.41	26.74	7.67
	3/15/2010	34.41	26.49	7.92
	6/1/2010	34.41	24.39	10.02
	8/30/2010	34.41	27.70	6.71
	11/29/2010	34.41	26.50	7.91
	3/30/2011	34.41	22.65	11.76
	5/31/2011	34.41	15.62	18.79
	9/14/2011	34.41	27.12	7.29
	12/12/2011	34.41	27.04	7.37
	7/2/2012	34.41	19.69	14.72
	9/26/2012	34.41	27.75	6.66
	12/3/2012	34.41	23.35	11.06
	3/22/2013	34.41	27.09	7.32
	6/17/2013	34.41	25.48	8.93
	9/9/2013	34.41	27.76	6.65
	12/10/2013	34.41	27.23	7.18

Please refer to notes at end of table.

Table C-1
Historical Groundwater Elevations – Area 1
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-52 (continued)	3/24/2014	34.41	23.87	10.54
	6/11/2014	34.41	23.57	10.84
	9/19/2014	34.41	28.28	6.13
	12/17/2014	34.41	25.50	8.91
	3/9/2015	34.86	25.30	9.49
	6/25/2015	34.41	27.72	6.69
	9/14/2015	34.41	27.78	6.63
	12/14/2015	34.41	22.56	11.85
	3/21/2016	34.41	22.37	12.04
	6/20/2016	34.41	26.00	8.41
	9/27/2016	34.41	28.23	6.18
	9/29/2016	34.41	28.10	6.31
	12/5/2016	34.41	24.85	9.56
	3/22/2017	34.41	15.14	19.27
	6/26/2017	34.41	19.98	14.43
	9/19/2017	34.41	27.09	7.32
	12/11/2017	34.41	26.22	8.19
	3/14/2018	34.41	25.00	9.41
	6/25/2018	34.41	24.30	10.11
	9/4/2018	34.41	27.53	6.88
	12/17/2018	36.53	27.20	9.33
	3/4/2019	36.53	26.40	10.13
	6/18/2019	36.53	25.37	11.16
	9/9/2019	36.53	28.28	8.25
	12/9/2019	36.36	27.39	8.97
MW-53	11/27/2000	34.28	26.50	7.78
	2/9/2001	34.28	25.11	9.17
	5/15/2001	34.28	25.14	9.14
	8/7/2001	34.28	26.90	7.38
	12/5/2001	34.28	25.15	9.13
	4/9/2002	34.28	23.50	10.78
	7/29/2002	34.28	24.30	9.98
	11/26/2002	34.28	27.83	6.45
	3/4/2003	34.28	25.07	9.21
	5/19/2003	34.28	23.25	11.03
	12/9/2003	34.28	24.58	9.70
	3/30/2004	34.28	23.30	10.98
	8/19/2004	34.28	25.26	9.02
	11/22/2004	34.28	25.58	8.70
	2/11/2005	34.28	27.31	6.97
	5/18/2005	34.28	23.73	10.55
	9/16/2005	34.28	26.33	7.95
	11/8/2005	34.28	25.07	9.21

Please refer to notes at end of table.

Table C-1
Historical Groundwater Elevations – Area 1
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-53 (continued)	3/16/2006	34.28	22.78	11.50
	6/2/2006	34.28	18.74	15.54
	8/7/2006	34.28	24.67	9.61
	11/17/2006	34.28	26.96	7.32
	2/15/2007	34.28	23.11	11.17
	5/22/2007	34.28	21.39	12.89
	8/22/2007	34.28	24.90	9.38
	11/6/2007	34.28	25.76	8.52
	2/11/2008	34.28	21.86	12.42
	5/12/2008	34.28	21.80	12.48
	8/4/2008	34.28	23.53	10.75
	11/14/2008	34.28	24.51	9.77
	2/16/2009	34.28	27.41	6.87
	5/27/2009	34.28	20.70	13.58
	8/18/2009	34.28	22.80	11.48
	12/7/2009	34.28	24.29	9.99
	3/15/2010	34.28	23.93	10.35
	6/1/2010	34.28	23.15	11.13
	8/30/2010	34.28	23.69	10.59
	11/29/2010	34.28	23.29	10.99
	3/30/2011	34.28	21.48	12.80
	5/31/2011	34.28	16.98	17.30
	9/14/2011	34.28	19.62	14.66
	12/12/2011	34.28	23.98	10.30
	7/2/2012	34.28	19.33	14.95
	9/26/2012	34.28	21.28	13.00
	12/3/2012	34.28	20.90	13.38
	3/22/2013	34.28	22.71	11.57
	6/17/2013	34.28	21.90	12.38
	9/9/2013	34.28	23.32	10.96
	12/10/2013	34.28	24.06	10.22
	3/24/2014	34.28	21.74	12.54
	6/11/2014	34.28	20.74	13.54
	9/19/2014	34.28	23.02	11.26
	12/17/2014	34.28	22.97	11.31
	3/9/2015	34.86	27.25	9.49
	6/25/2015	34.28	22.95	11.33
	9/14/2015	34.28	24.10	10.18
	12/14/2015	34.28	21.85	12.43

Please refer to notes at end of table.

Table C-1
Historical Groundwater Elevations – Area 1
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-53 (continued)	3/21/2016	34.28	20.85	13.43
	6/20/2016	34.28	22.14	12.14
	9/27/2016	34.28	24.22	10.06
	9/29/2016	34.28	25.05	9.23
	12/5/2016	34.28	23.58	10.70
	3/22/2017	34.28	16.67	17.61
	6/26/2017	34.28	16.74	17.54
	9/19/2017	34.28	28.40	5.88
	12/11/2017	34.28	21.54	12.74
	3/14/2018	34.28	23.25	11.03
	6/25/2018	34.28	21.08	13.2
	9/4/2018	34.28	23.45	10.83
	12/17/2018	36.40	24.89	11.51
	3/4/2019	36.40	25.06	11.34
	6/18/2019	36.40	23.19	13.21
	9/9/2019	36.40	24.48	11.92
	12/9/2019	36.40	25.59	10.81
WEX-60	12/5/2001	35.18	24.77	10.41
	4/9/2002	35.18	26.18	9.00
	7/29/2002	35.18	26.00	9.18
	11/26/2002	35.18	27.81	7.37
	3/4/2003	35.18	26.50	8.68
	5/19/2003	35.18	23.54	11.64
	12/9/2003	35.18	25.92	9.26
	3/30/2004	35.18	25.98	9.20
	11/22/2004	35.18	35.78	-0.60
	2/11/2005	35.18	37.38	-2.20
	5/18/2005	35.18	35.64	-0.46
	9/16/2005	35.18	39.08	-3.90
	11/8/2005	35.18	31.11	4.07
	1/16/2006	35.18	23.25	11.93
	2/20/2006	35.18	34.56	0.62
	3/16/2006	35.18	25.11	10.07
	6/2/2006	35.18	34.30	0.88
	8/7/2006	35.18	38.98	-3.80
	11/17/2006	35.18	32.36	2.82
	2/15/2007	35.18	34.67	0.51
	5/22/2007	35.18	33.18	2.00
	8/22/2007	35.18	33.74	1.44
	11/6/2007	35.18	35.12	0.06
	2/11/2008	35.18	33.64	1.54
	5/12/2008	35.18	33.87	1.31
	8/4/2008	35.18	35.17	0.01
	11/14/2008	35.18	34.01	1.17

Please refer to notes at end of table.

Table C-1
Historical Groundwater Elevations – Area 1
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
WEX-60 (continued)	3/15/2010	35.18	32.26	2.92
	6/1/2010	35.18	30.29	4.89
	8/30/2010	35.18	34.50	0.68
	11/29/2010	35.18	33.37	1.81
	3/30/2011	35.18	33.80	1.38
	5/31/2011	35.18	33.00	2.18
	9/14/2011	35.18	39.14	-3.96
	12/12/2011	35.18	38.75	-3.57
	7/2/2012	35.18	39.39	-4.21
	9/26/2012	35.18	38.84	-3.66
	12/3/2012	35.18	39.30	-4.12
	3/22/2013	35.18	40.01	-4.83
	6/17/2013	35.18	40.22	-5.04
	12/12/2013	35.18	39.29	-4.11
	9/9/2013	35.18	39.20	-4.02
	3/24/2014	35.18	39.29	-4.11
	6/11/2014	35.18	NM	--
	12/17/2014	35.18	NM	--
	12/23/2015	34.80	17.61	17.19
	3/21/2016	34.80	22.41	12.39
	6/20/2016	34.80	NM	--
	9/27/2016	34.80	NM	--
	9/29/2016	34.80	NM	--
	12/5/2016	34.80	21.19	13.61
	3/22/2017	34.80	15.48	19.32
	6/26/2017	34.80	24.39	13.41
	9/19/2017	34.80	NM	--
	12/11/2017	34.80	NM	--
	3/14/2018	34.80	NM	--
	6/25/2018	34.80	NM	--
	9/4/2018	34.80	NM	--
	12/17/2018	36.91	NM	--
	3/4/2019	36.91	NM	--
	6/18/2019	36.91	NM	NM
	9/9/2019	36.91	NM	NM
	12/9/2019	36.91	NM	NM
MW-62	12/5/2001	35.39	24.86	10.53
	4/9/2002	35.39	26.24	9.15
	7/29/2002	35.39	25.97	9.42
	11/26/2002	35.39	27.82	7.57
	3/4/2003	35.39	26.08	9.31
	5/19/2003	35.39	23.73	11.66
	12/9/2003	35.39	26.08	9.31
	3/30/2004	35.39	26.01	9.38
	11/22/2004	35.39	29.96	5.43

Please refer to notes at end of table.

Table C-1
Historical Groundwater Elevations – Area 1
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-62 (continued)	2/11/2005	35.39	29.14	6.25
	5/18/2005	35.39	27.19	8.20
	9/16/2005	35.39	30.80	4.59
	11/8/2005	35.39	28.09	7.30
	1/16/2006	35.39	20.42	14.97
	3/16/2006	35.39	25.59	9.80
	6/2/2006	35.39	23.46	11.93
	8/7/2006	35.39	29.74	5.65
	11/17/2006	35.39	26.75	8.64
	2/15/2007	35.39	28.25	7.14
	5/22/2007	35.39	25.85	9.54
	8/22/2007	35.39	29.30	6.09
	11/6/2007	35.39	30.55	4.84
	2/11/2008	35.39	24.54	10.85
	5/12/2008	35.39	26.25	9.14
	8/4/2008	35.39	28.14	7.25
	11/14/2008	35.39	28.18	7.21
	3/15/2010	35.39	28.06	7.33
	6/1/2010	35.39	25.92	9.47
	8/30/2010	35.39	29.03	6.36
	11/29/2010	35.39	27.79	7.60
	3/30/2011	35.39	24.06	11.33
	5/31/2011	35.39	17.80	17.59
	9/14/2011	35.39	28.66	6.73
	12/12/2011	35.39	28.63	6.76
	7/2/2012	35.39	21.60	13.79
	9/26/2012	35.39	28.82	6.57
	12/3/2012	35.39	25.40	9.99
	3/22/2013	35.39	28.32	7.07
	6/17/2013	35.39	26.60	8.79
	9/9/2013	35.39	29.10	6.29
	12/12/2013	35.39	28.78	6.61
	3/24/2014	35.39	28.78	6.61
	6/11/2014	35.39	NM	--
	12/17/2014	35.39	NM	--
	6/25/2015	35.39	NM	--
	12/23/2015	35.05	22.20	12.85
	3/21/2016	35.05	22.63	12.42
	6/20/2016	35.05	26.29	8.76
	9/27/2016	35.05	28.62	6.43
	9/29/2016	35.05	28.54	6.51
	12/5/2016	35.05	24.85	10.20

Please refer to notes at end of table.

Table C-1
Historical Groundwater Elevations – Area 1
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-62 (continued)	3/22/2017	35.05	15.81	19.24
	6/26/2017	35.05	21.58	13.47
	9/19/2017	35.05	27.65	7.40
	12/11/2017	35.05	26.40	8.65
	3/14/2018	35.05	25.31	9.74
	6/25/2018	35.05	24.99	10.06
	9/4/2018	35.05	28.13	6.92
	12/17/2018	37.16	27.90	9.26
	3/4/2019	37.16	26.96	10.20
	6/18/2019	37.16	25.47	11.69
	9/9/2019	37.16	28.49	8.67
	12/9/2019	37.16	28.22	8.94
MW-70	11/22/2004	35.56	28.00	7.56
	2/11/2005	35.56	26.84	8.72
	5/18/2005	35.56	24.94	10.62
	9/16/2005	35.56	28.92	6.64
	1/16/2006	35.56	19.35	16.21
	2/20/2006	35.56	25.01	10.55
	3/16/2006	35.56	25.31	10.25
	6/2/2006	35.56	20.70	14.86
	8/7/2006	35.56	27.49	8.07
	11/17/2006	35.56	25.07	10.49
	2/15/2007	35.56	26.98	8.58
	5/22/2007	35.56	24.24	11.32
	8/22/2007	35.56	28.33	7.23
	11/6/2007	35.56	29.48	6.08
	2/11/2008	35.56	23.71	11.85
	5/12/2008	35.56	24.67	10.89
	8/4/2008	35.56	26.27	9.29
	11/14/2008	35.56	26.50	9.06
	2/16/2009	35.56	27.15	8.41
	5/27/2009	35.56	24.03	11.53
	8/18/2009	35.56	29.52	6.04
	12/8/2009	35.56	28.55	7.01
	3/15/2010	35.56	27.05	8.51
	6/1/2010	35.56	24.69	10.87
	8/30/2010	35.56	27.39	8.17
	11/29/2010	35.56	28.28	7.28
	3/30/2011	35.56	22.84	12.72
	5/31/2011	35.56	16.65	18.91
	9/14/2011	35.56	27.35	8.21
	12/12/2011	35.56	27.02	8.54

Please refer to notes at end of table.

Table C-1
Historical Groundwater Elevations – Area 1
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-70 (continued)	7/2/2012	35.56	20.06	15.50
	9/26/2012	35.56	28.36	7.20
	12/3/2012	35.56	24.42	11.14
	3/22/2013	35.56	26.61	8.95
	6/17/2013	35.56	25.45	10.11
	9/9/2013	35.56	27.17	8.39
	12/10/2013	35.56	27.80	7.76
	3/24/2014	35.56	24.09	11.47
	6/11/2014	35.56	23.68	11.88
	9/19/2014	35.56	28.98	6.58
	12/17/2014	35.56	26.38	9.18
	3/9/2015	34.86	26.10	9.49
	6/25/2015	35.56	28.48	7.08
	9/14/2015	35.56	28.65	6.91
	12/14/2015	35.56	22.65	12.91
	3/21/2016	35.56	22.83	12.73
	6/20/2016	35.56	26.72	8.84
	9/27/2016	35.56	29.05	6.51
	9/29/2016	35.56	28.85	6.71
	12/5/2016	35.56	25.69	9.87
	3/22/2017	35.56	16.34	19.22
	6/26/2017	35.56	21.81	13.75
	9/19/2017	35.56	27.81	7.75
	12/11/2017	35.56	27.02	8.54
	3/14/2018	35.56	25.67	9.89
	6/25/2018	35.56	25.3	10.26
	9/4/2018	35.56	28.80	6.76
	12/17/2018	37.66	28.16	9.50
	3/4/2019	37.66	27.54	10.12
	6/18/2019	37.66	25.89	11.77
	9/9/2019	37.66	29.19	8.47
	12/9/2019	37.66	28.68	8.98
MW-71	11/22/2004	36.36	26.50	9.86
	2/11/2005	36.36	27.67	8.69
	5/18/2005	36.36	25.72	10.64
	9/16/2005	36.36	29.91	6.45
	11/8/2005	36.36	27.94	8.42
	1/16/2006	36.36	20.19	16.17
	2/20/2006	36.36	26.85	9.51
	3/16/2006	36.36	26.25	10.11
	6/2/2006	36.36	22.12	14.24
	8/7/2006	36.36	28.68	7.68
	11/17/2006	36.36	26.14	10.22

Please refer to notes at end of table.

Table C-1
Historical Groundwater Elevations – Area 1
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-71 (continued)	2/15/2007	36.36	27.91	8.45
	5/22/2007	36.36	25.18	11.18
	8/22/2007	36.36	29.30	7.06
	11/6/2007	36.36	32.43	3.93
	2/11/2008	36.36	23.90	12.46
	5/12/2008	36.36	25.52	10.84
	8/4/2008	36.36	27.73	8.63
	11/14/2008	36.36	27.34	9.02
	2/16/2009	36.36	27.89	8.47
	5/27/2009	36.36	23.35	13.01
	8/18/2009	36.36	29.45	6.91
	12/7/2009	36.36	28.36	8.00
	3/15/2010	36.36	27.96	8.40
	6/1/2010	36.36	25.90	10.46
	8/30/2010	36.36	29.28	7.08
	11/29/2010	36.36	27.93	8.43
	3/30/2011	36.36	23.80	12.56
	5/31/2011	36.36	17.28	19.08
	9/14/2011	36.36	28.36	8.00
	12/12/2011	36.36	28.32	8.04
	7/2/2012	36.36	20.92	15.44
	9/26/2012	36.36	29.19	7.17
	12/3/2012	36.36	24.72	11.64
	3/22/2013	36.36	28.40	7.96
	6/17/2013	36.36	26.63	9.73
	9/9/2013	36.36	29.21	7.15
	12/10/2013	36.36	28.70	7.66
	3/24/2014	36.36	25.09	11.27
	6/11/2014	36.36	24.77	11.59
	9/19/2014	36.36	NM	--
	12/17/2014	36.36	NM	--
	3/9/2015	34.86	26.50	9.49
	6/25/2015	36.36	NM	--
	9/14/2015	36.36	29.61	6.75
	12/14/2015	36.36	23.28	13.08
	3/21/2016	36.36	23.79	12.57
	6/20/2016	36.36	27.67	8.69
	9/27/2016	36.36	30.02	6.34
	9/29/2016	36.36	29.34	7.02
	12/5/2016	36.36	26.61	9.75

Please refer to notes at end of table.

Table C-1
Historical Groundwater Elevations – Area 1
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-71 (continued)	3/22/2017	36.36	17.02	19.34
	6/26/2017	36.36	22.83	13.53
	9/19/2017	36.36	28.72	7.64
	12/11/2017	36.36	27.94	8.42
	3/14/2018	36.36	26.60	9.76
	6/25/2018	36.36	26.25	10.11
	9/4/2018	36.36	29.94	6.42
	12/17/2018	38.47	29.00	9.47
	3/4/2019	38.47	28.64	9.83
	6/18/2019	38.47	26.81	11.66
	9/9/2019	38.47	30.24	8.23
	12/9/2019	38.47	29.51	8.96
MW-90	7/2/2019	36.57	25.89	10.68
	9/9/2019	36.57	27.28	9.29
	12/9/2019	36.57	27.08	9.49
MW-91	7/2/2019	36.27	25.99	10.28
	9/9/2019	36.27	28.19	8.08
	12/9/2019	36.27	27.47	8.80

Notes:
feet MSL = feet above mean sea level.
feet BTOC = feet below top of casing.
NM = not measured.
-- = not available.
TOC elevations for wells in the groundwater monitoring program were re-surveyed on December 17, 2018. Listed elevations in NAVD88 datum.
TOC elevations for wells installed in June 2019 were surveyed on July 2, 2019. Listed elevation in NAVD88 datum.

Table C-2
Historical Groundwater Elevations – Area 2
Gunderson LLC
Portland, OR

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-15	7/22/1991	32.38	23.19	9.19
	4/2/1992	32.38	23.85	8.53
	7/20/1994	32.38	24.09	8.29
	10/25/1994	32.38	25.58	6.80
	2/17/1995	32.38	20.60	11.78
	4/18/1995	32.38	21.37	11.01
	7/25/1995	32.38	22.81	9.57
	10/19/1995	32.38	24.75	7.63
	1/22/1996	32.38	15.41	16.97
	4/23/1996	32.38	15.67	16.71
	8/2/1996	32.38	21.10	11.28
	11/5/1996	32.38	24.21	8.17
	1/23/1997	32.38	16.46	15.92
	4/16/1997	32.38	18.79	13.59
	7/15/1997	32.38	18.45	13.93
	11/3/1997	32.38	22.04	10.34
	2/5/1998	32.38	20.29	12.09
	9/16/1998	32.38	24.41	7.97
	8/18/1999	32.38	21.98	10.40
	12/21/1999	32.38	18.80	13.58
	10/25/2000	32.38	24.83	7.55
	2/9/2001	32.38	24.20	8.18
	5/15/2001	32.38	24.76	7.62
	8/7/2001	32.38	25.64	6.74
	12/5/2001	32.38	22.70	9.68
	4/9/2002	32.38	23.34	9.04
	7/29/2002	32.38	23.10	9.28
	11/26/2002	32.38	25.17	7.21
	3/4/2003	32.38	23.40	8.98
	5/19/2003	32.38	21.09	11.29
	12/9/2003	32.38	23.36	9.02
	3/30/2004	32.38	23.44	8.94
	8/19/2004	32.38	24.37	8.01
	11/22/2004	32.38	24.80	7.58
	2/11/2005	32.38	23.35	9.03
	5/18/2005	32.38	21.68	10.70
	9/16/2005	32.38	25.33	7.05
	11/8/2005	32.38	24.18	8.20
	1/10/2006	32.38	19.40	12.98
	3/1/2006	32.38	21.24	11.14
	3/16/2006	32.38	21.68	10.70
	6/2/2006	32.38	17.67	14.71

Please refer to notes at end of table.

Cascadia Associates, LLC

Table C-2
Historical Groundwater Elevations – Area 2
Gunderson LLC
Portland, OR

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-15 (continued)	11/17/2006	32.38	22.30	10.08
	2/15/2007	32.38	23.38	9.00
	5/22/2007	32.38	20.76	11.62
	8/22/2007	32.38	24.49	7.89
	11/6/2007	32.38	25.50	6.88
	2/11/2008	32.38	22.02	10.36
	5/12/2008	32.38	21.10	11.28
	8/4/2008	32.38	22.97	9.41
	11/14/2008	32.38	23.49	8.89
	2/16/2009	32.38	23.54	8.84
	5/27/2009	32.38	18.50	13.88
	8/18/2009	32.38	24.65	7.73
	12/7/2009	32.38	23.98	8.40
MW-17	7/22/1991	34.87	24.63	10.24
	4/2/1992	34.87	25.73	9.14
	6/12/1992	34.87	25.37	9.50
	7/20/1994	34.87	26.24	8.63
	10/25/1994	34.87	27.69	7.18
	2/17/1995	34.87	23.55	11.32
	4/18/1995	34.87	24.12	10.75
	7/25/1995	34.87	25.11	9.76
	10/19/1995	34.87	26.90	7.97
	1/22/1996	34.87	18.25	16.62
	4/23/1996	34.87	18.80	16.07
	8/2/1996	34.87	23.91	10.96
	11/5/1996	34.87	26.19	8.68
	1/23/1997	34.87	18.60	16.27
	4/16/1997	34.87	21.98	12.89
	7/15/1997	34.87	21.99	12.88
	11/3/1997	34.87	24.71	10.16
	2/5/1998	34.87	23.20	11.67
	9/16/1998	34.87	26.27	8.60
	12/30/1998	34.87	21.24	13.63
	5/24/1999	34.87	21.89	12.98
	8/18/1999	34.87	24.51	10.36
	12/21/1999	34.87	21.66	13.21
	4/25/2000	34.87	21.37	13.50
	2/9/2001	34.87	26.52	8.35
	5/15/2001	34.87	26.93	7.94
	8/7/2001	34.87	27.65	7.22
	12/5/2001	34.87	25.47	9.40

Please refer to notes at end of table.

Table C-2
Historical Groundwater Elevations – Area 2
Gunderson LLC
Portland, OR

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-17 (continued)	4/9/2002	34.87	25.43	9.44
	7/29/2002	34.87	25.23	9.64
	11/26/2002	34.87	27.10	7.77
	3/4/2003	34.87	25.68	9.19
	5/19/2003	34.87	23.83	11.04
	12/9/2003	34.87	27.95	6.92
	3/30/2004	34.87	25.46	9.41
	8/19/2004	34.87	26.43	8.44
	11/22/2004	34.87	26.97	7.90
	2/11/2005	34.87	25.90	8.97
	5/18/2005	34.87	24.40	10.47
	9/16/2005	34.87	27.35	7.52
	11/8/2005	34.87	26.40	8.47
	1/10/2006	34.87	22.14	12.73
	3/1/2006	34.87	23.45	11.42
	3/16/2006	34.87	23.68	11.19
	6/2/2006	34.87	20.00	14.87
	8/7/2006	34.87	25.35	9.52
	11/17/2006	34.87	24.74	10.13
	2/15/2007	34.87	25.16	9.71
	5/22/2007	34.87	23.55	11.32
	8/22/2007	34.87	26.36	8.51
	11/6/2007	34.87	27.43	7.44
	2/11/2008	34.87	24.64	10.23
	5/12/2008	34.87	23.83	11.04
	8/4/2008	34.87	25.03	9.84
	11/14/2008	34.87	25.79	9.08
	2/16/2009	34.87	25.69	9.18
	5/27/2009	34.87	21.92	12.95
	8/18/2009	34.87	26.51	8.36
	12/7/2009	34.87	26.26	8.61
	3/15/2010	34.87	25.76	9.11
	6/1/2010	34.87	24.05	10.82
	8/30/2010	34.87	26.10	8.77
	11/29/2010	34.87	25.44	9.43
	3/30/2011	34.87	22.69	12.18
	5/31/2011	34.87	16.49	18.38
	9/14/2011	34.87	27.18	7.69
	12/12/2011	34.87	25.86	9.01
	7/2/2012	34.87	20.28	14.59
	9/26/2012	34.87	26.31	8.56
	12/3/2012	34.87	23.70	11.17

Please refer to notes at end of table.

Table C-2
Historical Groundwater Elevations – Area 2
Gunderson LLC
Portland, OR

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-17 (continued)	6/17/2013	34.87	24.44	10.43
	12/10/2013	34.87	25.96	8.91
	6/11/2014	34.87	22.94	11.93
	12/17/2014	34.87	25.16	9.71
	6/20/2016	34.87	24.82	10.05
	12/5/2016	34.87	24.61	10.26
	6/26/2017	34.87	20.93	13.94
	12/11/2017	34.87	25.23	9.64
	6/25/2018	34.87	23.65	11.22
	12/17/2018	36.95	26.35	10.60
	3/4/2019	36.95	25.79	11.16
	6/18/2019	36.95	24.41	12.54
	9/9/2019	36.95	26.50	10.45
	12/9/2019	36.95	26.88	10.07
MW-23	7/22/1991	35.99	26.90	9.09
	4/2/1992	35.99	27.57	8.42
	6/12/1992	35.99	26.56	9.43
	7/20/1994	35.99	27.65	8.34
	10/25/1994	35.99	29.10	6.89
	2/17/1995	35.99	23.88	12.11
	4/18/1995	35.99	24.71	11.28
	7/25/1995	35.99	26.68	9.31
	10/19/1995	35.99	27.32	8.67
	1/22/1996	35.99	11.20	24.79
	4/23/1996	35.99	19.35	16.64
	8/2/1996	35.99	25.10	10.89
	11/5/1996	35.99	27.99	8.00
	1/23/1997	35.99	19.34	16.65
	4/16/1997	35.99	22.65	13.34
	7/15/1997	35.99	22.74	13.25
	11/3/1997	35.99	25.52	10.47
	2/5/1998	35.99	22.95	13.04
	9/16/1998	35.99	27.99	8.00
	12/30/1998	35.99	20.74	15.25
	5/24/1999	35.99	22.47	13.52
	8/18/1999	35.99	26.82	9.17
	12/21/1999	35.99	21.81	14.18
	7/29/2002	35.99	26.60	9.39
	11/26/2002	35.99	28.30	7.69

Please refer to notes at end of table.

Table C-2
Historical Groundwater Elevations – Area 2
Gunderson LLC
Portland, OR

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-23 (continued)	3/4/2003	35.99	26.39	9.60
	5/19/2003	35.99	24.14	11.85
	12/9/2003	35.99	26.35	9.64
	3/30/2004	35.99	26.37	9.62
	8/19/2004	35.99	27.69	8.30
	11/22/2004	35.99	28.16	7.83
	2/11/2005	35.99	26.65	9.34
	5/18/2005	35.99	24.74	11.25
	9/16/2005	35.99	14.36	21.63
	11/8/2005	35.99	26.85	9.14
	1/10/2006	35.99	12.02	23.97
	3/16/2006	35.99	25.01	10.98
	6/2/2006	35.99	21.54	14.45
	8/7/2006	35.99	27.34	8.65
	11/17/2006	35.99	24.97	11.02
	2/15/2007	35.99	26.79	9.20
	2/16/2009	35.99	26.92	9.07
	8/18/2009	35.99	28.41	7.58
	3/15/2010	35.99	26.86	9.13
	6/1/2010	35.99	24.89	11.10
	8/30/2010	35.99	28.03	7.96
	11/29/2010	35.99	26.54	9.45
	3/30/2011	35.99	22.30	13.69
	5/31/2011	35.99	14.65	21.34
	9/14/2011	35.99	27.12	8.87
	12/12/2011	35.99	27.09	8.90
	7/2/2012	35.99	19.94	16.05
	9/26/2012	35.99	NM	--
	12/3/2012	35.99	23.32	12.67
	6/17/2013	35.99	25.17	10.82
	12/10/2013	35.99	27.25	8.74
	6/11/2014	35.99	23.31	12.68
	12/17/2014	35.99	NM	--
	6/20/2016	35.99	26.25	9.74
	12/5/2016	35.99	25.10	10.89
	6/26/2017	35.99	22.12	13.87
	12/11/2017	35.99	26.30	9.69
	6/25/2018	35.99	18.74	17.25
	12/17/2018	36.89	21.71	15.18
	3/4/2019	36.89	18.96	17.93
	6/18/2019	36.89	NM	NM
	9/9/2019	36.89	22.31	14.58
	12/9/2019	36.89	22.81	14.08

Please refer to notes at end of table.

Table C-2
Historical Groundwater Elevations – Area 2
Gunderson LLC
Portland, OR

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-24	7/22/1991	32.23	12.65	19.58
	4/2/1992	32.23	12.79	19.44
	6/12/1992	32.23	13.22	19.01
	7/20/1994	32.23	13.81	18.42
	10/25/1994	32.23	14.75	17.48
	2/17/1995	32.23	12.05	20.18
	4/18/1995	32.23	11.51	20.72
	7/25/1995	32.23	12.44	19.79
	10/19/1995	32.23	13.26	18.97
	4/23/1996	32.23	9.38	22.85
	8/2/1996	32.23	11.21	21.02
	11/5/1996	32.23	12.93	19.30
	1/23/1997	32.23	8.36	23.87
	4/16/1997	32.23	9.68	22.55
	7/15/1997	32.23	10.52	21.71
	11/3/1997	32.23	12.61	19.62
	2/5/1998	32.23	11.45	20.78
	9/16/1998	32.23	13.25	18.98
	12/30/1998	32.23	11.63	20.60
	5/24/1999	32.23	10.48	21.75
	8/18/1999	32.23	12.14	20.09
	12/21/1999	32.23	12.24	19.99
	4/25/2000	32.23	11.60	20.63
	10/25/2000	32.23	14.20	18.03
	2/9/2001	32.23	14.01	18.22
	5/15/2001	32.23	14.21	18.02
	8/7/2001	32.23	14.75	17.48
	12/5/2001	32.23	14.32	17.91
	4/9/2002	32.23	11.92	20.31
	7/29/2002	32.23	12.83	19.40
	11/26/2002	32.23	14.45	17.78
	3/4/2003	32.23	12.63	19.60
	5/19/2003	32.23	12.11	20.12
	12/9/2003	32.23	13.84	18.39
	3/30/2004	32.23	12.24	19.99
	8/19/2004	32.23	13.86	18.37
	11/22/2004	32.23	14.20	18.03
	2/11/2005	32.23	13.74	18.49
	5/18/2005	32.23	13.20	19.03
	3/16/2006	32.23	10.98	21.25
	6/2/2006	32.23	10.84	21.39
	8/7/2006	32.23	12.85	19.38
	11/17/2006	32.23	13.16	19.07

Please refer to notes at end of table.

Table C-2
Historical Groundwater Elevations – Area 2
Gunderson LLC
Portland, OR

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-24 (continued)	2/15/2007	32.23	12.06	20.17
	5/22/2007	32.23	11.65	20.58
	8/22/2007	32.23	13.43	18.80
	11/6/2007	32.23	14.04	18.19
	2/11/2008	32.23	12.22	20.01
	5/12/2008	32.23	12.03	20.20
	8/4/2008	32.23	12.56	19.67
	11/14/2008	32.23	13.82	18.41
	2/16/2009	32.23	13.02	19.21
	8/18/2009	32.23	13.20	19.03
	12/7/2009	32.23	13.60	18.63
	3/15/2010	32.23	13.02	19.21
	6/1/2010	32.23	11.88	20.35
	8/30/2010	32.23	12.59	19.64
	11/29/2010	32.23	12.36	19.87
	3/30/2011	32.23	9.96	22.27
	5/31/2011	32.23	8.65	23.58
	9/14/2011	32.23	12.19	20.04
	12/12/2011	32.23	12.51	19.72
	7/2/2013	32.23	9.82	22.41
	9/26/2012	32.23	12.70	19.53
	12/3/2012	32.23	11.79	20.44
	6/20/2016	32.23	11.95	20.28
	12/5/2016	32.23	11.99	20.24
	6/26/2017	32.23	9.59	22.64
	12/11/2017	32.23	11.33	20.9
	6/25/2018	32.23	11.32	20.91
	12/17/2018	34.18	13.39	20.79
	3/4/2019	34.18	7.68	26.5
	6/18/2019	34.18	12.01	22.17
	9/9/2019	34.18	13.39	20.79
	12/9/2019	34.18	13.89	20.29
MW-31	4/2/1992	35.04	25.20	9.84
	6/12/1992	35.04	25.03	10.01
	7/20/1994	35.04	26.04	9.00
	2/17/1995	35.04	23.38	11.66
	4/18/1995	35.04	23.80	11.24
	7/25/1995	35.04	24.70	10.34
	10/19/1995	35.04	26.50	8.54
	1/22/1996	35.04	18.29	16.75
	4/23/1996	35.04	18.60	16.44
	8/2/1996	35.04	23.43	11.61
	11/5/1996	35.04	25.80	9.24

Please refer to notes at end of table.

Cascadia Associates, LLC

Table C-2
Historical Groundwater Elevations – Area 2
Gunderson LLC
Portland, OR

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-31 (continued)	1/23/1997	35.04	18.67	16.37
	4/16/1997	35.04	21.63	13.41
	7/15/1997	35.04	21.65	13.39
	11/3/1997	35.04	24.46	10.58
	2/5/1998	35.04	23.00	12.04
	9/16/1998	35.04	25.89	9.15
	12/30/1998	35.04	21.64	13.40
	5/24/1999	35.04	21.73	13.31
	8/18/1999	35.04	24.17	10.87
	12/21/1999	35.04	21.92	13.12
	4/25/2000	35.04	21.29	13.75
	2/9/2001	35.04	26.71	8.33
	5/15/2001	35.04	26.78	8.26
	8/7/2001	35.04	27.78	7.26
	12/5/2001	35.04	25.26	9.78
	4/9/2002	35.04	25.11	9.93
	7/29/2002	35.04	24.90	10.14
	11/26/2002	35.04	26.89	8.15
	3/4/2003	35.04	25.50	9.54
	12/9/2003	35.04	25.82	9.22
	3/30/2004	35.04	25.13	9.91
	8/19/2004	35.04	26.20	8.84
	11/22/2004	35.04	26.76	8.28
	2/11/2005	35.04	27.80	7.24
	5/18/2005	35.04	24.49	10.55
	9/16/2005	35.04	27.03	8.01
	11/8/2005	35.04	26.35	8.69
	3/1/2006	35.04	23.20	11.84
	3/16/2006	35.04	23.36	11.68
	6/2/2006	35.04	19.93	15.11
	8/7/2006	35.04	24.91	10.13
	2/15/2007	35.04	24.77	10.27
	5/22/2007	35.04	23.29	11.75
	8/22/2007	35.04	26.00	9.04
	11/6/2007	35.04	27.10	7.94
	2/11/2008	35.04	24.46	10.58
	5/12/2008	35.04	23.61	11.43
	8/4/2008	35.04	24.62	10.42
	11/14/2008	35.04	25.77	9.27

Please refer to notes at end of table.

Table C-2
Historical Groundwater Elevations – Area 2
Gunderson LLC
Portland, OR

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-31 (continued)	2/16/2009	35.04	25.32	9.72
	5/27/2009	35.04	21.94	13.10
	8/18/2009	35.04	26.10	8.94
	12/7/2009	35.04	26.00	9.04
	1/21/2019	37.05	25.35	11.70
	3/4/2019	37.05	25.49	11.56
	6/18/2019	37.05	24.04	13.01
	9/9/2019	37.05	26.84	10.21
	12/9/2019	37.05	26.68	10.37
MW-35	1/23/1997	31.18	14.46	16.72
	4/16/1997	31.18	17.84	13.34
	7/15/1997	31.18	17.41	13.77
	11/3/1997	31.18	19.06	12.12
	2/5/1998	31.18	17.41	13.77
	9/16/1998	31.18	21.42	9.76
	12/30/1998	31.18	16.25	14.93
	5/24/1999	31.18	16.21	14.97
	8/18/1999	31.18	19.25	11.93
	12/21/1999	31.18	16.75	14.43
	4/25/2000	31.18	16.95	14.23
	10/25/2000	31.18	21.86	9.32
	2/9/2001	31.18	21.49	9.69
	5/15/2001	31.18	21.76	9.42
	8/7/2001	31.18	22.75	8.43
	12/5/2001	31.18	21.29	9.89
	4/9/2002	31.18	20.33	10.85
	7/29/2002	31.18	19.92	11.26
	11/26/2002	31.18	22.05	9.13
	3/4/2003	31.18	20.28	10.90
	5/19/2003	31.18	18.55	12.63
	12/9/2003	31.18	21.14	10.04
	3/30/2004	31.18	20.30	10.88
	8/19/2004	31.18	21.46	9.72
	11/22/2004	31.18	21.83	9.35
	2/11/2005	31.18	20.82	10.36
	5/18/2005	31.18	19.49	11.69
	9/16/2005	31.18	22.24	8.94
	11/8/2005	31.18	21.71	9.47
	3/16/2006	31.18	18.44	12.74
	6/2/2006	31.18	14.76	16.42
	8/7/2006	31.18	20.44	10.74
	11/17/2006	31.18	21.10	10.08

Please refer to notes at end of table.

Table C-2
Historical Groundwater Elevations – Area 2
Gunderson LLC
Portland, OR

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-35 (continued)	2/15/2007	31.18	20.00	11.18
	5/22/2007	31.18	17.97	13.21
	8/22/2007	31.18	21.24	9.94
	11/6/2007	31.18	22.33	8.85
	2/11/2008	31.18	18.89	12.29
	5/12/2008	31.18	18.41	12.77
	8/4/2008	31.18	19.88	11.30
	11/14/2008	31.18	21.30	9.88
	2/16/2009	31.18	20.19	10.99
	5/27/2009	31.18	16.62	14.56
	8/18/2009	31.18	21.40	9.78
	12/7/2009	31.18	21.30	9.88
	3/15/2010	31.18	20.46	10.72
	6/1/2010	31.18	18.71	12.47
	8/30/2010	31.18	21.16	10.02
	11/29/2010	31.18	20.75	10.43
	3/30/2011	31.18	17.59	13.59
	5/31/2011	31.18	10.71	20.47
	9/14/2011	31.18	20.86	10.32
	12/12/2011	31.18	21.10	10.08
	7/2/2012	31.18	15.37	15.81
	9/26/2012	31.18	20.52	10.66
	12/4/2012	31.18	20.09	11.09
MW-66	9/16/2005	34.47	25.63	8.84
	11/8/2005	34.47	25.14	9.33
	3/1/2006	34.47	23.00	11.47
	3/16/2006	34.47	23.87	10.60
	6/2/2006	34.47	20.61	13.86
	8/7/2006	34.47	26.27	8.20
	11/17/2006	34.47	24.95	9.52
	2/15/2007	34.47	29.11	5.36
	5/22/2007	34.47	23.19	11.28
	8/22/2007	34.47	27.21	7.26
	11/6/2007	34.47	28.46	6.01
	2/11/2008	34.47	24.53	9.94
	5/12/2008	34.47	24.23	10.24
	8/4/2008	34.47	24.82	9.65
	11/14/2008	34.47	25.98	8.49

Please refer to notes at end of table.

Cascadia Associates, LLC

Table C-2
Historical Groundwater Elevations – Area 2
Gunderson LLC
Portland, OR

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-66 (continued)	2/16/2009	34.47	26.22	8.25
	5/27/2009	34.47	22.41	12.06
	8/18/2009	34.47	27.43	7.04
	12/7/2009	34.47	26.74	7.73
	3/15/2010	34.47	26.40	8.07
	6/1/2010	34.47	24.28	10.19
	8/30/2010	34.47	27.28	7.19
	11/29/2010	34.47	26.31	8.16
	3/30/2011	34.47	21.76	12.71
	5/31/2011	34.47	18.16	16.31
	9/14/2011	34.47	26.09	8.38
	12/12/2011	34.47	26.50	7.97
	7/2/2012	34.47	19.13	15.34
	9/28/2012	34.47	27.02	7.45
	12/3/2012	34.47	24.51	9.96
	6/17/2013	34.47	23.90	10.57
	12/10/2013	34.47	26.44	8.03
	611/2014	34.47	21.35	13.12
	12/17/2014	34.47	25.10	9.37
	6/20/2016	34.47	23.72	10.75
	12/5/2016	34.47	22.13	12.34
	6/26/2017	34.47	16.70	17.77
	12/11/2017	34.47	23.98	10.49
	6/25/2018	34.47	20.42	14.05
	12/17/2018	36.52	26.66	9.86
	3/4/2019	36.52	23.99	12.53
	6/18/2019	36.52	22.86	13.66
	9/9/2019	36.52	27.78	8.74
	12/9/2019	36.52	27.33	9.19
MW-81	8/22/2007	32.63	24.57	8.06
	11/6/2007	32.63	25.59	7.04
	2/11/2008	32.63	22.48	10.15
	5/12/2008	32.63	21.65	10.98
	8/4/2008	32.63	23.10	9.53
	11/14/2008	32.63	23.83	8.80
	2/16/2009	32.63	23.66	8.97
	5/27/2009	32.63	22.50	10.13
	8/18/2009	32.63	24.85	7.78
	12/7/2009	32.63	24.23	8.40
	3/15/2010	32.63	24.31	8.32
	6/1/2010	32.63	21.80	10.83
	8/30/2010	32.63	25.03	7.60
	11/29/2010	32.63	24.14	8.49

Please refer to notes at end of table.

Table C-2
Historical Groundwater Elevations – Area 2
Gunderson LLC
Portland, OR

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-81 (continued)	3/30/2011	32.63	20.05	12.58
	5/31/2011	32.63	13.46	19.17
	9/14/2011	32.63	23.95	8.68
	12/12/2011	32.63	24.06	8.57
	7/2/2012	32.63	16.54	16.09
	9/26/2012	32.63	24.52	8.11
	12/3/2012	32.63	21.29	11.34
	6/17/2013	32.63	21.86	10.77
	12/10/2013	32.63	23.86	8.77
	6/11/2014	32.63	19.81	12.82
	12/17/2014	32.63	22.69	9.94
	6/20/2016	32.63	22.66	9.97
	12/5/2016	32.63	22.00	10.63
	6/26/2017	32.63	17.56	15.07
	12/11/2017	32.63	22.91	9.72
	6/25/2018	32.63	20.98	11.65
	12/17/2018	34.71	24.24	10.47
	3/4/2019	34.71	NM	NM
	6/18/2019	34.71	21.74	12.97
	9/9/2019	34.71	25.10	9.61
	12/9/2019	34.71	24.94	9.77
MW-82	7/2/2019	32.89	22.21	10.68
	9/9/2019	32.89	NM	NM
	12/9/2019	32.89	23.63	9.26
MW-83	7/2/2019	35.06	25.41	9.65
	9/9/2019	35.06	27.26	7.80
	12/9/2019	35.06	26.71	8.35
MW-84	7/2/2019	35.49	17.69	17.80
	9/9/2019	35.49	18.97	16.52
	12/9/2019	35.49	18.61	16.88
MW-85	7/2/2019	32.16	21.52	10.64
	9/9/2019	32.16	22.90	9.26
	12/9/2019	32.16	24.30	7.86
MW-92	7/2/2019	34.39	24.21	10.18
	9/9/2019	34.39	25.28	9.11
	12/9/2019	34.39	25.32	9.07

Please refer to notes at end of table.

Cascadia Associates, LLC

Table C-2
Historical Groundwater Elevations – Area 2
Gunderson LLC
Portland, OR

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
FM48-11	2/9/2001	31.4	11.12	20.28
	5/15/2001	31.4	11.38	20.02
	8/7/2001	31.4	11.84	19.56
	12/5/2001	31.4	10.87	20.53
	4/9/2002	31.4	8.70	22.70
	7/29/2002	31.4	10.01	21.39
	11/26/2002	31.4	11.72	19.68
	3/4/2003	31.4	9.31	22.09
	5/19/2003	31.4	8.53	22.87
	12/9/2003	31.4	10.71	20.69
	3/30/2004	31.4	8.85	22.55
	8/19/2004	31.4	10.98	20.42
	11/22/2004	31.4	11.32	20.08
	2/11/2005	31.4	10.91	20.49
	5/18/2005	31.4	10.36	21.04
	9/16/2005	31.4	11.44	19.96
	1/10/2006	31.4	8.76	22.64
	6/2/2006	31.4	8.24	23.16
	8/7/2006	31.4	9.57	21.83
	11/17/2006	31.4	9.48	21.92
	5/22/2007	31.4	8.40	23.00
	8/22/2007	31.4	10.14	21.26
	11/6/2007	31.4	10.91	20.49
	2/11/2008	31.4	7.54	23.86
	5/12/2008	31.4	8.30	23.10
	8/4/2008	31.4	9.29	22.11
	11/14/2008	31.4	10.45	20.95
	2/16/2009	31.4	9.23	22.17
	8/18/2009	31.4	10.30	21.10
	12/7/2009	31.4	10.40	21.00
	3/15/2010	31.4	8.87	22.53
	6/1/2010	31.4	8.60	22.80
	9/14/2011	31.4	8.66	22.74
	12/12/2011	31.4	8.99	22.41
	7/2/2012	31.40	7.03	24.37
	9/28/2012	31.40	9.29	22.11
	12/3/2012	31.40	8.12	23.28

Please refer to notes at end of table.

Cascadia Associates, LLC

Table C-2
Historical Groundwater Elevations – Area 2
Gunderson LLC
Portland, OR

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
FM48-13	2/9/2001	34.83	21.98	12.85
	5/15/2001	34.83	22.28	12.55
	8/7/2001	34.83	23.16	11.67
	12/5/2001	34.83	20.58	14.25
	4/9/2002	34.83	18.87	15.96
	7/29/2002	34.83	20.37	14.46
	11/26/2002	34.83	23.01	11.82
	3/4/2003	34.83	19.46	15.37
	5/19/2003	34.83	18.24	16.59
	12/9/2003	34.83	21.54	13.29
	3/30/2004	34.83	19.16	15.67
	8/19/2004	34.83	22.07	12.76
	11/22/2004	34.83	22.54	12.29
	2/11/2005	34.83	21.39	13.44
	5/18/2005	34.83	19.88	14.95
	9/16/2005	34.83	22.50	12.33
	1/10/2006	34.83	17.00	17.83
	3/16/2006	34.83	18.71	16.12
	11/17/2006	34.83	19.60	15.23
	2/15/2007	34.83	19.04	15.79
	8/22/2007	34.83	21.34	13.49
	8/18/2009	34.83	22.30	12.53
	6/1/2010	34.83	19.05	15.78
	8/30/2010	34.83	20.88	13.95
	11/29/2010	34.83	19.65	15.18
	3/30/2011	34.83	16.59	18.24
	5/31/2011	34.83	14.92	19.91
	9/14/2011	34.83	19.91	14.92
	12/12/2011	34.83	20.58	14.25
	7/2/2012	34.84	16.91	17.93
	9/26/2012	34.84	NM	--
	12/3/2012	34.84	18.15	16.69
SMW-11	5/15/2002	34.73	24.61	10.12
	8/7/2002	34.73	25.07	9.66
	11/26/2002	34.73	27.75	6.98
	3/4/2003	34.73	26.14	8.59
	5/19/2003	34.73	23.89	10.84
	12/9/2003	34.73	26.59	8.14

Please refer to notes at end of table.

Table C-2
Historical Groundwater Elevations – Area 2
Gunderson LLC
Portland, OR

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
SMW-11 (continued)	8/19/2004	34.73	27.22	7.51
	10/28/2004	34.73	27.20	7.53
	11/22/2004	34.73	27.69	7.04
	1/21/2005	34.73	26.78	7.95
	2/11/2005	34.73	26.38	8.35
	4/21/2005	34.73	26.83	7.90
	5/18/2005	34.73	24.98	9.75
	7/19/2005	34.73	26.24	8.49
	9/16/2005	34.73	28.18	6.55
	10/25/2005	34.73	28.11	6.62
	11/8/2005	34.73	27.17	7.56
	3/16/2006	34.73	24.39	10.34
	6/2/2006	34.73	20.34	14.39
	8/7/2006	34.73	26.09	8.64
	11/17/2006	34.73	25.59	9.14
	2/15/2007	34.73	25.86	8.87
	5/22/2007	34.73	23.47	11.26
	8/22/2007	34.73	27.02	7.71
	11/6/2007	34.73	28.66	6.07
	2/11/2008	34.73	24.85	9.88
	5/12/2008	34.73	24.67	10.06
	8/4/2008	34.73	25.20	9.53
	11/14/2008	34.73	26.98	7.75
	2/16/2009	34.73	26.19	8.54
	5/27/2009	34.73	22.75	11.98
	8/18/2009	34.73	27.40	7.33
	12/7/2009	34.73	27.02	7.71
	3/15/2010	34.73	26.58	8.15
	6/1/2010	34.73	24.68	10.05
	8/30/2010	34.73	27.18	7.55
	11/29/2010	34.73	26.62	8.11
	3/30/2011	34.73	22.28	12.45
	5/31/2011	34.73	16.64	18.09
	9/14/2011	34.73	26.06	8.67
	12/12/2011	34.73	26.81	7.92
	7/2/2012	34.73	19.50	15.23
	9/26/2012	34.73	26.92	7.81
	12/3/2012	34.73	24.54	10.19

Please refer to notes at end of table.

Table C-2
Historical Groundwater Elevations – Area 2
Gunderson LLC
Portland, OR

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
SMW-11 (continued)	6/17/2013	34.73	24.04	10.69
	12/10/2013	34.73	26.81	7.92
	6/11/2014	34.73	22.02	12.71
	12/17/2014	34.73	25.53	9.20
	6/20/2016	34.73	24.98	9.75
	12/5/2016	34.73	24.81	9.92
	6/26/2017	34.73	19.62	15.11
	12/11/2017	34.73	25.52	9.21
	6/25/2018		Decommissioned	
SMW-12	5/15/2002	32.86	22.80	10.06
	9/16/2002	32.86	25.64	7.22
	11/26/2002	32.86	25.61	7.25
	5/19/2003	32.86	21.72	11.14
	12/9/2003	32.86	23.93	8.93
	3/30/2004	32.86	23.80	9.06
	8/19/2004	32.86	25.07	7.79
	10/28/2004	32.86	24.76	8.10
	11/22/2004	32.86	25.74	7.12
	1/21/2005	32.86	24.11	8.75
	2/11/2005	32.86	24.05	8.81
	4/21/2005	32.86	24.65	8.21
	5/18/2005	32.86	22.26	10.60
	7/19/2005	32.86	24.43	8.43
	9/16/2005	32.86	26.15	6.71
	10/25/2005	32.86	25.93	6.93
	11/8/2005	32.86	24.54	8.32
	3/1/2006	32.86	22.26	10.60
	3/16/2006	32.86	22.54	10.32
	6/2/2006	32.86	18.58	14.28
	8/7/2006	32.86	24.67	8.19
	11/17/2006	32.86	22.72	10.14
	2/15/2007	32.86	24.26	8.60
	5/22/2007	32.86	21.52	11.34
	8/22/2007	32.86	25.48	7.38
	11/6/2007	32.86	26.68	6.18
	2/11/2008	32.86	22.54	10.32
	5/12/2008	32.86	22.24	10.62
	8/4/2008	32.86	23.72	9.14
	11/14/2008	32.86	23.98	8.88

Please refer to notes at end of table.

Cascadia Associates, LLC

Table C-2
Historical Groundwater Elevations – Area 2
Gunderson LLC
Portland, OR

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
SMW-12 (continued)	2/16/2009	32.86	24.29	8.57
	5/27/2009	32.86	20.00	12.86
	8/18/2009	32.86	25.83	7.03
	12/7/2009	32.86	24.80	8.06
	3/15/2010	32.86	24.53	8.33
	6/1/2010	32.86	22.44	10.42
	8/30/2010	32.86	25.64	7.22
	11/29/2010	32.86	24.11	8.75
	3/30/2011	32.86	20.25	12.61
	5/31/2011	32.86	14.02	18.84
	9/14/2011	32.86	24.74	8.12
	12/12/2011	32.86	24.68	8.18
	7/2/2012	32.86	17.46	15.40
	9/26/2012	32.86	NM	--
	12/3/2012	32.86	21.26	11.60
	6/17/2013	32.86	22.73	10.13
	12/10/2013	32.86	24.63	8.23
	6/11/2014	32.86	20.69	12.17
	12/17/2014	32.86	23.34	9.52
	6/20/2016	32.86	23.76	9.10
	12/5/2016	32.86	22.72	10.14
	6/26/2017	32.86	18.25	14.61
	12/11/2017	32.86	23.98	8.88
	6/25/2018		Decommissioned	
SMW-18	5/15/2002	33.78	24.37	9.41
	8/7/2002	33.78	26.18	7.60
	9/16/2002	33.78	27.97	5.81
	11/26/2002	33.78	27.10	6.68
	3/4/2003	33.78	26.08	7.70
	5/19/2003	33.78	23.25	10.53
	12/9/2003	33.78	25.36	8.42
	3/30/2004	33.78	25.57	8.21
	8/19/2004	33.78	26.50	7.28
	10/28/2004	33.78	26.03	7.75
	11/22/2004	33.78	27.25	6.53
	1/21/2005	33.78	25.76	8.02
	4/21/2005	33.78	26.30	7.48
	5/18/2005	33.78	23.42	10.36
	7/19/2005	33.78	26.18	7.60
	9/16/2005	33.78	27.97	5.81
	10/25/2005	33.78	27.38	6.40
	11/8/2005	33.78	26.17	7.61

Please refer to notes at end of table.

Cascadia Associates, LLC

Table C-2
Historical Groundwater Elevations – Area 2
Gunderson LLC
Portland, OR

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
SMW-18 (continued)	1/10/2006	33.78	20.89	12.89
	3/1/2006	33.78	24.00	9.78
	6/2/2006	33.78	20.22	13.56
	8/7/2006	33.78	26.54	7.24
	11/17/2006	33.78	24.49	9.29
	2/15/2007	33.78	26.14	7.64
	5/22/2007	33.78	23.01	10.77
	8/22/2007	33.78	27.48	6.30
	11/6/2007	33.78	28.27	5.51
	2/11/2008	33.78	24.54	9.24
	5/12/2008	33.78	23.69	10.09
	8/4/2008	33.78	25.32	8.46
	2/16/2009	33.78	25.82	7.96
	5/27/2009	33.78	20.75	13.03
	8/18/2009	33.78	27.60	6.18
	12/7/2009	33.78	26.49	7.29
	6/1/2010	33.78	23.93	9.85
	8/30/2010	33.78	27.56	6.22
	11/29/2010	33.78	25.97	7.81
	3/30/2011	33.78	22.31	11.47
	5/31/2011	33.78	14.51	19.27
	9/14/2011	33.78	26.88	6.90
	12/12/2011	33.78	26.44	7.34
	Decommissioned			

Notes:
feet MSL = feet above mean sea level.
feet BTOC = feet below top of casing.
NM = Not Measured.
-- = Not Applicable.
TOC elevations for wells in the groundwater monitoring program were re-surveyed on December 17, 2018. Listed elevations in NAVD88 datum.
TOC elevations for wells installed in June 2019 were surveyed on July 2, 2019. Listed elevation in NAVD88 datum.

Table C-3
Historical Groundwater Elevations – Schnitzer ASD Yard
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-11	7/22/1991	35.98	13.59	22.39
	4/2/1992	35.98	13.63	22.35
	7/20/1994	35.98	15.70	20.28
	10/25/1994	35.98	17.78	18.20
	2/17/1995	35.98	11.13	24.85
	4/18/1995	35.98	9.48	26.50
	7/25/1995	35.98	12.72	23.26
	10/19/1995	35.98	15.28	20.70
	4/23/1996	35.98	7.95	28.03
	8/2/1996	35.98	11.39	24.59
	11/5/1996	35.98	13.71	22.27
	1/23/1997	35.98	6.76	29.22
	4/16/1997	35.98	8.68	27.30
	7/15/1997	35.98	10.39	25.59
	11/3/1997	35.98	12.91	23.07
	2/5/1998	35.98	9.47	26.51
	9/16/1998	35.98	14.27	21.71
	12/30/1998	35.98	9.01	26.97
	4/6/1999	35.98	8.20	27.78
	5/24/1999	35.98	9.98	26.00
	8/18/1999	35.98	12.85	23.13
	12/21/1999	35.98	11.95	24.03

Please refer to notes at end of table.

Table C-3
Historical Groundwater Elevations – Schnitzer ASD Yard
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-11 (continued)	4/25/2000	35.98	11.13	24.85
	10/25/2000	35.98	15.39	20.59
	2/9/2001	35.98	15.49	20.49
	5/15/2001	35.98	15.93	20.05
	8/7/2001	35.98	17.08	18.90
	12/5/2001	35.98	16.67	19.31
	4/9/2002	35.98	11.76	24.22
	7/29/2002	35.98	14.02	21.96
	11/26/2002	35.98	17.06	18.92
	3/4/2003	35.98	12.49	23.49
	5/19/2003	35.98	11.66	24.32
	12/9/2003	35.98	15.42	20.56
	3/30/2004	35.98	12.02	23.96
	8/19/2004	35.98	15.32	20.66
	10/27/2004	35.98	11.83	24.15
	11/22/2004	35.98	16.31	19.67
	1/19/2005	35.98	11.53	24.45
	2/11/2005	35.98	15.43	20.55
	4/21/2005	35.98	11.26	24.72
	5/18/2005	35.98	14.53	21.45
	7/19/2005	35.98	11.48	24.50
	9/16/2005	35.98	16.07	19.91
	10/25/2005	35.98	9.12	26.86
	11/8/2005	35.98	16.14	19.84
	1/10/2006	35.98	11.51	24.47
	3/1/2006	35.98	9.29	26.69
	3/16/2006	35.98	8.51	27.47
	6/2/2006	35.98	10.50	25.48
	8/7/2006	35.98	12.78	23.20
	11/17/2006	35.98	12.27	23.71
	2/15/2007	35.98	10.62	25.36
	5/22/2007	35.98	10.83	25.15
	8/22/2007	35.98	13.27	22.71
	11/6/2007	35.98	14.14	21.84
	2/11/2008	35.98	8.12	27.86
	5/12/2008	35.98	10.71	25.27
	8/4/2008	35.98	12.39	23.59
	11/14/2008	35.98	13.46	22.52

Please refer to notes at end of table.

Table C-3
Historical Groundwater Elevations – Schnitzer ASD Yard
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-11 (continued)	2/16/2009	35.98	11.68	24.30
	5/27/2009	35.98	11.51	24.47
	8/18/2009	35.98	13.75	22.23
	12/7/2009	35.98	13.76	22.22
	3/15/2010	35.98	10.83	25.15
	6/1/2010	35.98	10.71	25.27
	8/30/2010	35.98	11.60	24.38
	11/29/2010	35.98	9.13	26.85
	3/30/2011	35.98	7.02	28.96
	5/31/2011	35.98	8.44	27.54
	9/14/2011	35.98	10.89	25.09
	12/12/2011	35.98	9.83	26.15
	7/2/2012	35.98	8.93	27.05
	9/26/2012	35.98	11.29	24.69
	12/3/2012	35.98	7.84	28.14
	6/17/2013	35.98	9.38	26.60
	12/10/2013	35.98	11.23	24.75
	6/11/2014	35.98	9.32	26.66
	12/17/2014	35.98	10.16	25.82
	6/20/2016	33.16	7.18	25.98
	12/5/2016	33.16	5.29	27.87
	6/26/2017	33.16	6.71	26.45
	12/11/2017	33.16	5.97	27.19
	6/25/2018	33.16	7.26	25.9
	12/17/2018	35.18	7.36	27.82
	3/4/2019	35.18	5.62	29.56
	6/18/2019	35.18	7.17	28.01
	9/9/2019	35.18	8.48	26.7
	12/9/2019	35.18	8.57	26.61
MW-14	7/22/1991	33.51	24.45	9.06
	4/2/1992	33.51	25.21	8.30
	7/20/1994	33.51	25.89	7.62
	10/25/1994	33.51	27.18	6.33
	2/17/1995	33.51	22.27	11.24
	4/18/1995	33.51	23.51	10.00
	7/25/1995	33.51	23.00	10.51
	1/22/1996	33.51	17.10	16.41
	4/23/1996	33.51	17.22	16.29
	8/2/1996	33.51	20.92	12.59
	11/5/1996	33.51	21.60	11.91
	1/23/1997	33.51	16.97	16.54
	4/16/1997	33.51	19.64	13.87
	7/15/1997	33.51	19.91	13.60
	11/3/1997	33.51	23.85	9.66

Please refer to notes at end of table.

Table C-3
Historical Groundwater Elevations – Schnitzer ASD Yard
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-14 (continued)	2/5/1998	33.51	21.10	12.41
	9/16/1998	33.51	26.18	7.33
	12/30/1998	33.51	19.20	14.31
	4/6/1999	33.51	18.67	14.84
	5/24/1999	33.51	19.87	13.64
	8/18/1999	33.51	22.68	10.83
	12/21/1999	33.51	20.27	13.24
	4/25/2000	33.51	20.26	13.25
	10/25/2000	33.51	26.22	7.29
	2/9/2001	33.51	25.59	7.92
	5/15/2001	33.51	25.41	8.10
	8/7/2001	33.51	26.74	6.77
	12/5/2001	33.51	23.40	10.11
	4/9/2002	33.51	24.37	9.14
	7/29/2002	33.51	23.97	9.54
	11/26/2002	33.51	25.30	8.21
	3/4/2003	33.51	24.02	9.49
	5/19/2003	33.51	22.05	11.46
	12/9/2003	33.51	23.88	9.63
	3/30/2004	33.51	24.03	9.48
	8/19/2004	33.51	25.18	8.33
	10/27/2004	33.51	12.87	20.64
	11/22/2004	33.51	24.14	9.37
	1/19/2005	33.51	12.24	21.27
	2/11/2005	33.51	24.62	8.89
	4/21/2005	33.51	12.26	21.25
	5/18/2005	33.51	22.85	10.66
	7/19/2005	33.51	12.57	20.94
	9/16/2005	33.51	26.23	7.28
	10/25/2005	33.51	13.28	20.23
	11/8/2005	33.51	24.31	9.20
	1/10/2006	33.51	20.32	13.19
	3/1/2006	33.51	23.19	10.32
	3/16/2006	33.51	23.18	10.33
	6/2/2006	33.51	19.02	14.49
	8/7/2006	33.51	25.22	8.29
	11/17/2006	33.51	23.44	10.07
	2/15/2007	33.51	24.91	8.60
	5/22/2007	33.51	22.02	11.49
	8/22/2007	33.51	25.79	7.72
	11/6/2007	33.51	27.07	6.44

Please refer to notes at end of table.

Cascadia Associates, LLC

Table C-3
Historical Groundwater Elevations – Schnitzer ASD Yard
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-14 (continued)	2/11/2008	33.51	23.70	9.81
	5/12/2008	33.51	22.92	10.59
	8/4/2008	33.51	24.53	8.98
	11/14/2008	33.51	25.30	8.21
	2/16/2009	33.51	25.11	8.40
	5/27/2009	33.51	21.03	12.48
	8/18/2009	33.51	26.00	7.51
	12/7/2009	33.51	25.33	8.18
	3/15/2010	33.51	25.10	8.41
	6/1/2010	33.51	22.93	10.58
	8/30/2010	33.51	26.33	7.18
	11/29/2010	33.51	21.79	11.72
	3/30/2011	33.51	21.07	12.44
	5/31/2011	33.51	14.82	18.69
	9/14/2011	33.51	25.33	8.18
	12/12/2011	33.51	24.10	9.41
	7/2/2012	33.24	18.34	14.90
	9/26/2012	33.24	25.79	7.45
	12/3/2012	33.24	22.41	10.83
	6/17/2013	33.24	23.02	10.22
	12/10/2013	33.24	25.20	8.04
	6/11/2014	33.24	20.75	12.49
	12/17/2014	33.24	23.61	9.63
	6/20/2016	33.24	24.49	8.75
	12/5/2016	33.24	23.20	10.04
	6/26/2017	33.24	18.85	14.39
	12/11/2017	33.24	24.03	9.21
	6/25/2018	33.24	22.02	11.22
	12/17/2018	35.58	25.48	10.10
	3/4/2019	35.58	25.19	10.39
	6/18/2019	32.82	23.21	9.61
	9/9/2019	32.82	NM	NM
	12/9/2019	32.82	23.28	9.54
MW-72	9/16/2005	33.88	27.15	6.73
	11/8/2005	33.88	25.87	8.01
	1/10/2006	33.88	21.22	12.66
	3/1/2006	33.88	23.40	10.48
	3/16/2006	33.88	23.42	10.46
	6/2/2006	33.88	19.02	14.86
	8/7/2006	33.88	25.85	8.03
	11/17/2006	33.88	24.37	9.51
	2/15/2007	33.88	25.20	8.68
	5/22/2007	33.88	22.61	11.27
	8/22/2007	33.88	26.40	7.48
	11/6/2007	33.88	27.29	6.59

Please refer to notes at end of table.

Table C-3
Historical Groundwater Elevations – Schnitzer ASD Yard
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-72 (continued)	2/11/2008	33.88	23.87	10.01
	5/12/2008	33.88	22.83	11.05
	8/4/2008	33.88	24.90	8.98
	11/14/2008	33.88	25.07	8.81
	2/16/2009	33.88	25.36	8.52
	5/27/2009	33.88	20.91	12.97
	8/18/2009	33.88	26.80	7.08
	12/7/2009	33.88	25.83	8.05
	3/15/2010	33.88	25.64	8.24
	6/1/2010	33.88	23.34	10.54
	8/30/2010	33.88	26.48	7.40
	11/29/2010	33.88	25.67	8.21
	3/30/2011	33.88	21.79	12.09
	5/31/2011	33.88	14.70	19.18
	9/14/2011	33.88	25.50	8.38
	12/12/2011	33.88	25.69	8.19
	7/2/2012	33.88	18.28	15.60
	9/26/2012	33.88	26.24	7.64
	12/3/2012	33.88	22.56	11.32
	6/17/2013	33.88	23.70	10.18
	12/10/2013	33.88	25.52	8.36
	6/11/2014	33.88	21.54	12.34
	12/17/2014	33.88	24.50	9.38
	6/20/2016	33.88	24.51	9.37
	12/5/2016	33.88	23.83	10.05
	6/26/2017	33.88	19.76	14.12
	12/11/2017	33.88	24.75	9.13
	6/25/2018	33.88	23.11	10.77
	12/17/2018	35.94	26.15	9.79
	3/4/2019	35.94	25.80	10.14
	6/18/2019	35.94	23.93	12.01
	9/9/2019	35.94	26.57	9.37
	12/9/2019	35.94	26.62	9.32
MW-73	9/16/2005	32.06	17.42	14.64
	11/8/2005	32.06	17.09	14.97
	1/10/2006	32.06	16.35	15.71
	3/1/2006	32.06	17.45	14.61
	3/16/2006	32.06	17.91	14.15
	6/2/2006	32.06	19.25	12.81
	8/7/2006	32.06	20.17	11.89
	11/17/2006	32.06	21.68	10.38
	2/15/2007	32.06	19.16	12.90
	5/22/2007	32.06	18.25	13.81
	8/22/2007	32.06	19.91	12.15
	11/6/2007	32.06	20.16	11.90

Please refer to notes at end of table.

Table C-3
Historical Groundwater Elevations – Schnitzer ASD Yard
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-73 (continued)	2/11/2008	32.06	18.38	13.68
	5/12/2008	32.06	18.41	13.65
	5/27/2009	32.06	17.55	14.51
	8/18/2009	32.06	20.15	11.91
	12/7/2009	32.06	17.70	14.36
	3/15/2010	32.06	19.88	12.18
	6/1/2010	32.06	18.79	13.27
	8/30/2010	32.06	21.03	11.03
	11/29/2010	32.06	20.95	11.11
	3/30/2011	32.06	17.06	15.00
	5/31/2011	32.06	12.21	19.85
	9/14/2011	32.06	20.13	11.93
	12/12/2011	32.06	21.49	10.57
	7/25/2012	32.06	15.84	16.22
	9/26/2012	32.06	20.91	11.15
	12/3/2012	32.06	16.73	15.33
	6/17/2013	32.06	17.64	14.42
	12/10/2013	32.06	20.22	11.84
	6/11/2014	32.06	15.34	16.72
	12/17/2014	32.06	17.93	14.13
	6/23/2016	32.06	15.78	16.28
	12/5/2016	32.06	15.86	16.20
	6/26/2017	32.06	12.12	19.94
	12/14/2017	32.06	18.93	13.13
	6/25/2018	32.06	15.85	16.21
	12/17/2018	34.18	20.63	13.55
	3/4/2019	34.18	18.91	15.27
	6/18/2019	34.18	18.35	15.83
	9/9/2019	34.18	19.44	14.74
	12/9/2019	34.18	20.73	13.45
MW-74	12/16/2005	32.83	25.94	6.89
	1/9/2006	32.83	19.49	13.34
	1/10/2006	32.83	19.86	12.97
	3/1/2006	32.83	23.02	9.81
	3/16/2006	32.83	22.82	10.01
	6/2/2006	32.83	19.62	13.21
	8/7/2006	32.83	24.76	8.07
	11/17/2006	32.83	23.03	9.80
	2/15/2007	32.83	24.61	8.22
	5/22/2007	32.83	21.71	11.12
	8/22/2007	32.83	25.76	7.07
	11/6/2007	32.83	26.58	6.25
	2/11/2008	32.83	23.22	9.61
	5/12/2008	32.83	22.22	10.61
	11/14/2008	32.83	24.31	8.52

Please refer to notes at end of table.

Table C-3
Historical Groundwater Elevations – Schnitzer ASD Yard
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-74 (continued)	2/16/2009	32.83	24.73	8.10
	5/27/2009	32.83	20.00	12.83
	8/18/2009	32.83	25.95	6.88
	12/7/2009	32.83	24.56	8.27
	3/15/2010	32.83	24.81	8.02
	6/1/2010	32.83	22.59	10.24
	8/30/2010	32.83	26.00	6.83
	11/29/2010	32.83	24.65	8.18
	3/30/2011	32.83	20.98	11.85
	5/31/2011	32.83	13.60	19.23
	9/14/2011	32.83	24.93	7.90
	12/12/2011	32.83	24.90	7.93
	7/2/2012	32.83	17.40	15.43
	9/26/2012	32.83	25.68	7.15
	12/3/2012	32.83	21.71	11.12
	6/17/2013	32.83	22.93	9.90
	12/10/2013	32.83	24.77	8.06
	6/11/2014	32.83	20.70	12.13
	12/17/2014	32.83	23.44	9.39
	6/20/2016	32.83	23.87	8.96
	12/5/2016	32.83	23.01	9.82
	6/26/2017	32.83	18.61	14.22
	12/11/2017	32.83	24.11	8.72
	6/25/2018	32.83	22.28	10.55
	12/17/2018	34.85	24.97	9.88
	3/4/2019	34.85	24.68	10.17
	6/18/2019	34.85	22.79	12.06
	9/9/2019	34.85	25.71	9.14
	12/9/2019	34.85	24.15	10.70
MW-76	12/16/2005	36.55	28.61	7.94
	1/9/2006	36.55	22.62	13.93
	1/10/2006	36.55	22.84	13.71
	3/1/2006	36.55	26.86	9.69
	3/16/2006	36.55	26.66	9.89
	6/2/2006	36.55	22.54	14.01
	8/7/2006	36.55	28.70	7.85
	11/17/2006	36.55	27.18	9.37
	2/15/2007	36.55	28.23	8.32
	5/22/2007	36.55	25.81	10.74
	8/22/2007	36.55	29.57	6.98
	11/6/2007	36.55	30.39	6.16
	2/11/2008	36.55	27.04	9.51
	5/12/2008	36.55	26.27	10.28
	8/4/2008	36.55	27.89	8.66
	11/14/2008	36.55	28.08	8.47

Please refer to notes at end of table.

Table C-3
Historical Groundwater Elevations – Schnitzer ASD Yard
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-76 (continued)	2/16/2009	36.55	28.46	8.09
	5/27/2009	36.55	24.00	12.55
	8/18/2009	36.55	29.61	6.94
	12/7/2009	36.55	28.91	7.64
	3/15/2010	36.55	28.56	7.99
	6/1/2010	36.55	26.58	9.97
	8/30/2010	36.55	29.69	6.86
	11/29/2010	36.55	28.64	7.91
	3/30/2011	36.55	25.06	11.49
	5/31/2011	36.55	17.82	18.73
	9/14/2011	36.55	28.74	7.81
	12/12/2011	36.55	28.82	7.73
	7/2/2012	36.55	21.63	14.92
	9/26/2012	36.55	29.36	7.19
	12/3/2012	36.55	26.02	10.53
	6/17/2013	36.55	26.66	9.89
	12/10/2013	36.55	28.50	8.05
	6/11/2014	36.55	24.48	12.07
	12/17/2014	36.55	27.28	9.27
	6/20/2016	36.55	27.42	9.13
	12/5/2016	36.55	26.83	9.72
	6/26/2017	36.55	22.01	14.54
	12/11/2017	36.55	27.57	8.98
	6/25/2018	36.55	25.7	10.85
	12/17/2018	38.54	28.78	9.76
	3/4/2019	38.54	28.13	10.41
	6/18/2019	38.54	26.53	12.01
	9/9/2019	38.54	29.23	9.31
	12/9/2019	38.54	29.41	9.13
MW-77	12/16/2005	34.67	27.02	7.65
	1/9/2006	34.67	21.18	13.49
	1/10/2006	34.67	21.78	12.89
	3/1/2006	34.67	25.16	9.51
	3/16/2006	34.67	25.24	9.43
	6/2/2006	34.67	21.08	13.59
	8/7/2006	34.67	27.00	7.67
	11/17/2006	34.67	25.11	9.56
	2/15/2007	34.67	26.68	7.99
	5/22/2007	34.67	24.24	10.43
	8/22/2007	34.67	27.89	6.78
	11/6/2007	34.67	28.66	6.01
	2/11/2008	34.67	25.11	9.56
	5/12/2008	34.67	24.66	10.01
	11/14/2008	34.67	26.42	8.25

Please refer to notes at end of table.

Table C-3
Historical Groundwater Elevations – Schnitzer ASD Yard
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-77 (continued)	2/16/2009	34.67	26.80	7.87
	5/27/2009	34.67	22.10	12.57
	8/18/2009	34.67	28.05	6.62
	12/7/2009	34.67	27.02	7.65
	3/15/2010	34.67	26.85	7.82
	6/1/2010	34.67	25.08	9.59
	8/30/2010	34.67	28.12	6.55
	11/29/2010	34.67	26.65	8.02
	3/30/2011	34.67	23.45	11.22
	5/31/2011	34.67	15.52	19.15
	9/14/2011	34.67	27.13	7.54
	12/12/2011	34.67	27.15	7.52
	7/2/2012	34.67	20.00	14.67
	9/26/2012	34.67	27.82	6.85
	12/3/2012	34.67	23.90	10.77
	6/17/2013	34.67	25.25	9.42
	12/10/2013	34.67	26.99	7.68
	6/11/2014	34.67	23.23	11.44
	12/17/2014	34.67	25.66	9.01
	6/20/2016	34.67	26.18	8.49
	12/5/2016	34.67	25.29	9.38
	6/26/2017	34.67	21.75	12.92
	12/11/2017	34.67	26.31	8.36
	6/25/2018	34.67	24.45	10.22
	12/17/2018	36.69	27.21	9.48
	3/4/2019	36.69	26.56	10.13
	6/18/2019	36.69	25.29	11.40
	9/9/2019	36.69	28.00	8.69
	12/9/2019	36.69	28.00	8.69
MW-78	12/16/2005	35.3	27.72	7.58
	1/9/2006	35.3	22.03	13.27
	1/10/2006	35.3	23.83	11.47
	3/1/2006	35.3	26.53	8.77
	3/16/2006	35.3	25.87	9.43
	6/2/2006	35.3	17.03	18.27
	8/7/2006	35.3	28.65	6.65
	11/17/2006	35.3	26.72	8.58
	2/15/2007	35.3	27.66	7.64
	5/22/2007	35.3	25.10	10.20
	8/22/2007	35.3	28.93	6.37
	11/6/2007	35.3	30.02	5.28
	2/11/2008	35.3	26.18	9.12
	5/12/2008	35.3	25.51	9.79
	8/4/2008	35.3	27.52	7.78
	11/14/2008	35.3	27.30	8.00

Please refer to notes at end of table.

Table C-3
Historical Groundwater Elevations – Schnitzer ASD Yard
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-78 (continued)	2/16/2009	35.3	27.95	7.35
	5/27/2009	35.3	22.06	13.24
	8/18/2009	35.3	28.05	7.25
	12/7/2009	35.3	27.87	7.43
	8/30/2010	35.3	28.71	6.59
	11/29/2010	35.3	27.56	7.74
	3/30/2011	35.3	24.02	11.28
	5/31/2011	35.3	16.09	19.21
	9/14/2011	35.3	27.77	7.53
	12/12/2011	35.3	28.15	7.15
	7/2/2012	35.3	20.24	15.06
	9/26/2012	35.3	29.32	5.98
	12/3/2012	35.3	25.36	9.94
	12/11/2017	35.3	25.33	9.97
MW-79	12/16/2005	35.34	8.14	27.20
	1/9/2006	35.34	15.18	20.16
	1/10/2006	35.34	10.53	24.81
	3/1/2006	35.34	10.86	24.48
	3/16/2006	35.34	10.45	24.89
	6/2/2006	35.34	12.50	22.84
	8/7/2006	35.34	11.66	23.68
	11/17/2006	35.34	11.27	24.07
	2/15/2007	35.34	10.90	24.44
	5/22/2007	35.34	10.65	24.69
	8/22/2007	35.34	15.72	19.62
	11/6/2007	35.34	10.71	24.63
	2/11/2008	35.34	10.75	24.59
	5/12/2008	35.34	10.78	24.56
	8/4/2008	35.34	12.20	23.14
	11/14/2008	35.34	10.92	24.42
	2/16/2009	35.34	10.81	24.53
	5/27/2009	35.34	10.69	24.65
	8/18/2009	35.34	13.20	22.14
	12/7/2009	35.34	10.67	24.67
	3/15/2010	35.34	11.03	24.31
	6/1/2010	35.34	10.73	24.61
	8/30/2010	35.34	12.00	23.34
	11/29/2010	35.34	10.49	24.85

Please refer to notes at end of table.

Table C-3
Historical Groundwater Elevations – Schnitzer ASD Yard
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-79 (continued)	3/30/2011	35.34	6.69	28.65
	5/31/2011	35.34	8.67	26.67
	9/14/2011	35.34	12.43	22.91
	12/12/2011	35.34	7.60	27.74
	7/2/2012	35.34	8.71	26.63
	9/26/2012	35.34	14.89	20.45
	12/3/2012	35.34	6.20	29.14
	6/17/2013	35.34	9.17	26.17
	12/10/2013	35.34	5.69	29.65
	6/11/2014	35.34	13.37	21.97
	12/17/2014	35.34	24.50	10.84
	6/20/2016	32.85	25.12	7.73
	12/5/2016	32.85	25.08	7.77
	6/26/2017	32.85	19.74	13.11
	12/11/2017	32.85	3.27	29.58
	6/25/2018	32.85	8.96	23.89
	12/17/2018	34.89	26.71	8.183
	3/4/2019	34.89	3.21	31.683
	6/18/2019	34.89	8.55	26.343
	9/9/2019	34.89	15.11	19.78
	12/9/2019	34.89	2.99	31.90
MW-80	5/22/2007	33.91	15.41	18.50
	8/22/2007	33.91	17.71	16.20
	11/6/2007	33.91	18.77	15.14
	2/11/2008	33.91	9.79	24.12
	5/12/2008	33.91	12.75	21.16
	8/4/2008	33.91	14.91	19.00
	11/14/2008	33.91	11.75	22.16
	2/16/2009	33.91	14.07	19.84
	5/27/2009	33.91	12.62	21.29
	8/18/2009	33.91	17.01	16.90
	12/7/2009	33.91	14.62	19.29
	3/15/2010	33.91	13.23	20.68
	6/1/2010	33.91	14.61	19.30
	8/30/2010	33.91	16.22	17.69
	11/29/2010	33.91	10.59	23.32
	3/30/2011	33.91	11.41	22.50
	5/31/2011	33.91	10.05	23.86
	9/14/2011	33.91	15.11	18.80
	12/12/2011	33.91	15.28	18.63
	7/2/2012	33.91	8.85	25.06
	9/26/2012	33.91	15.58	18.33
	12/3/2012	33.91	10.90	23.01

Please refer to notes at end of table.

Table C-3
Historical Groundwater Elevations – Schnitzer ASD Yard
Gunderson LLC
Portland, Oregon

Well ID	Measurement Date	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-80 (continued)	6/17/2013	33.91	12.27	21.64
	12/10/2013	33.91	14.72	19.19
	6/11/2014	33.91	11.89	22.02
	12/17/2014	33.91	12.86	21.05
	6/20/2016	33.91	11.90	22.01
	12/5/2016	33.91	9.80	24.11
	6/26/2017	33.91	8.22	25.69
	12/11/2017	33.91	9.71	24.20
	6/25/2018	33.91	10.86	23.05
	12/17/2018	35.96	10.05	25.91
	3/4/2019	35.96	9.09	26.87
	6/18/2019	35.96	7.27	28.69
	9/9/2019	35.96	7.61	28.35
	12/9/2019	35.96	7.61	28.35
MW-86	7/2/2019	33.94	23.56	10.38
	9/9/2019	33.94	25.12	8.82
	12/9/2019	33.94	24.92	9.02
MW-87	7/2/2019	35.63	23.89	11.74
	9/9/2019	35.63	25.44	10.19
	12/9/2019	35.63	25.92	9.71
MW-88	7/2/2019	33.64	10.74	22.90
	9/9/2019	33.64	11.80	21.84
	12/9/2019	33.64	18.41	15.23
MW-89	7/2/2019	33.51	20.48	13.03
	9/9/2019	33.51	21.29	12.22
	12/9/2019	33.51	22.21	11.30

Notes:
feet MSL = feet above mean sea level.
feet BTOC = feet below top of casing.
TOC elevations for wells in the groundwater monitoring program were re-surveyed on December 17, 2018. Listed elevations in NAVD88 datum.
TOC elevations for wells installed in June 2019 and MW-14 (following conversion to a flush-mount monument) were surveyed on July 2, 2019. Listed elevation in NAVD88 datum.

APPENDIX D

STORMWATER INFRASTRUCTURE INFORMATION

Table D-1
Stormwater Infiltration Features
Gunderson LLC
Portland, Oregon

Drainage Basin	Infiltration Feature Identification	Width (ft)	Length (ft)	Area (sq ft)	Depth (ft)	Volume (cu ft)
Area 1	INF-1-01	5	8	40	4	160
	INF-1-02	5	8	40	4	160
	INF-1-03	7	4	28	2	56
	INF-1-04	7	4	28	4	112
	INF-1-05	8	5	40	4	160
	INF-1-06	8	5	40	4	160
	INF-1-07	8	5	40	4	160
	INF-1-08	7	5	35	4	140
	INF-1-09	6	4	24	4	96
	INF-1-10	6	4	24	4	96
	INF-1-11	6	4	24	4	96
	INF-1-12	6	4	24	4	96
	INF-1-13	6	4	24	4	96
	INF-1-14	6	4	24	4	96
	INF-1-15	7	5	35	4	140
	INF-1-16	7	8	56	5	280
	INF-1-17	5	8	40	4	160
	INF-Trench	10	1	10	1	10
	INF-1-18	7	12	84	5	420
	INF-1-19	10	45	450	5	2,250
	INF-1-20	2	5	10	4	40
	INF-1-21	10	6	60	4	240
	INF-1-22	7	5	35	4	140
	INF-1-23	5	6	30	3	90
Marine Steel Storage	INF-2-01	5	6	30	4	120
	INF-2-02	9	4	36	4	144
	INF-2-03	20	20	400	4	1,600
	INF-2-04	8	8	64	4	256
	INF-2-05	5	12	60	4	240
	INF-2-06	21	6	126	5	630
	INF-2-07	6	9	54	4	216
	INF-2-08	10	5	50	4	200
	INF-2-09	4	10	40	1	40
	INF-2-10	5	10	50	4	200
	INF-2-11	5	12	60	4	240
	INF-2-12	4	11	44	4	176
	INF-2-13	5	12	60	4	240
	INF-2-14	5	12	60	4	240
	INF-2-15	10	5	50	1	50
	INF-2-29	4	10	40	1	40
	INF-2-30	4	28	112	1	112
	INF-2-31	4	7	28	4	112
	INF-2-32	3	6	18	3	54
	INF-2-33	10	9	85	5	425
	INF-2-36	4	6	24	4	96
	Railways	4	335	1,340	1	1,340
	INF-2-38	4	5	20	3	60
	INF-2-41	3	4	12	4	48
	INF-2-42	22	22	484	5	2,420

Please refer to notes on last page of table

Cascadia Associates, LLC

Table D-1
Stormwater Infiltration Features
Gunderson LLC
Portland, Oregon

Drainage Basin	Infiltration Feature Identification	Width (ft)	Length (ft)	Area (sq ft)	Depth (ft)	Volume (cu ft)
Main Street 2	INF-2-17	4	8	32	4	128
	INF-2-18	10	40	400	5	2,000
	INF-2-19	5	21	105	4	420
	INF-2-20 / N.Transfer Table	--	--	11,000	--	--
	INF-2-28 / S. Transfer Table	--	--	20,000	--	--
	INF-2-23	18	5	90	4	360
	INF-2-24	3	30	90	4	360
	INF-2-34	4	21	84	5	420
	INF-2-35	6	6	36	5	180
Marine Operations	INF-2-16	10	5	50	4	200
	INF-2-21	10	6	60	4	240
	INF-2-22	12	5	60	4	240
	INF-2-25	6	40	240	7	1,680
	INF-2-26	22	66	1,452	7	10,164
	Wonder Building Trench	2	82	123	2	246
	INF-2-37	4	6	24	4	96
	INF-2-39	3	4	12	3	36
	INF-2-40	3	4	12	4	48
Schnitzer ASD 3	INF-3-01	7	10	70	5	350
	INF-3-02	7	10	70	5	350
	INF-3-03	8	4	32	5	160
	INF-3-04	8	4	32	4	128
	INF-3-05	6	10	60	1	60
	INF-3-06	7	10	70	6	420
	INF-3-08	12	21	252	6	1,512
	INF-3-09	9	5	45	5	225
	INF-3-11	10	7	70	5	350
	INF-3-12	6	2	12	4	48
	INF-3-13	4	8	32	4	128
	INF-3-14	4	8	32	4	128
	INF-3-25	30	30	900	2	1,800
Southern 2	INF-3-07	18	19	342	10	3,420
	INF-3-10	12	17	204	3	612
	INF-3-16	2	2	2	2	5
	INF-3-17	2	2	2	2	5
	INF-3-18	2	5	10	2	20
	INF-3-19	4	13	52	4	208
	INF-3-20	7	8	56	4	224
	INF-3-21	3	6	18	5	90
	INF-3-22	3	6	18	4	72
	INF-3-23 trench	2	13	26	1	26
	INF-3-24	2	6	12	6	72
	INF-3-26	6	7	42	6	252
	INF-3-27	6	4	24	6	144
	INF-3-28	6	4	24	6	144
	INF-3-29	7	2	14	2	28
	INF-3-30	14	28	392	7	2,744
	INF-3-31	15	16	240	7	1,680

Notes:
1. ft = Feet
2. cu ft = Cubic feet
3. sq ft = Square feet

Cascadia Associates, LLC

Gunderson Stormwater Drainage Basins

0 300 600

WILLAMETTE RIVER

Area 1

Marine Steel Storage

Marine Operations

Schnitzer ASD 3

Main Street 2

Administration Parking

Southern 2

Hazardous Materials Storage

Willamette River

Equilon Dock (Removed)

(Removed)

Ways 3

Ways 10

Ways 15

Ways 20

Ways 30

Launchways

Outfitting Dock

Gantry

Wonder Building

Marine Paint & Blast Building

Craneway 6

Craneway 5

Carpenter Shop

Stevedore Building

Marine Tool Room/Lunch Room

Marine Engineering Building

Craneway 1

Craneway 2

Craneway 3

Craneway 4

Main Street (Gunderson)

Main Street (Gunderson)

Habitat Roof Maintenance Shop

Oil Storage

Paint Ove

Wash Rack

Habitat Roof

Rainbow Room

Production Bay 3

Production Bay 2

Production Bay 1

Paint Building

Finish Building

Administrative Office

Main Office Entrance 4350 NW Front

Gate 7

3-Bay Building

Railservices

Habitat Roof Fuel Tanks

Tilt-up Building

Gate 10

NW Front Avenue

North Steel Yard

Marine Warehouse

Main Warehouse

OSP

Tool Room

Ways 1

Weld Tech

Wheel Shop

Plate Shop

Machine Shop

Respirators

DAX

Quonset Building

Front Ave.

Stormwater Drainage Basin

OVERALL SITE

Scale: 1"=300'
Datum: NAVD88
Survey Base : 2017 V19

Gunderson LLC
4350 NW Front Ave.
Portland Oregon

GREENBRIER Gunderson

STORMWATER DRAINAGE BASINS

STORM WATER POLLUTION CONTROL PLAN
REV: 4/17/2020
SHEET: FS-1

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Gunderson Stormwater Site Conveyance and Discharge Overview

0 300 600

WILLAMETTE RIVER

Loading Dock

WEX-60 Inactive Extraction Well

Loading Dock

Shipping Track

Abrasive Grit Blasting Tent

Equipment Wash Rack

Shipping Track

Hazardous Materials Storage (90 day)

Loading Dock

Shipping Track

Outfall (WR)
Outfall (WR) Decommissioned
Outfall-Overflow (WR)
Oil Water Separator (OWS)
Catch Basin (CB)/Decomissioned
Roof Down Spout (RD)
Stormwater Pipes

Authorized Non-Stormwater Discharge

C Cooling Tower
A Compressed Air
H H.V.A.C
C Moving Crane System
Contech Treatement Vault(s)
Loading Dock

CONVEYANCE AND DISCHARGE

Scale: 1"=300'
Datum: NAVD88
Survey Base : 2017 V19

Gunderson LLC
4350 NW Front Ave.
Portland Oregon

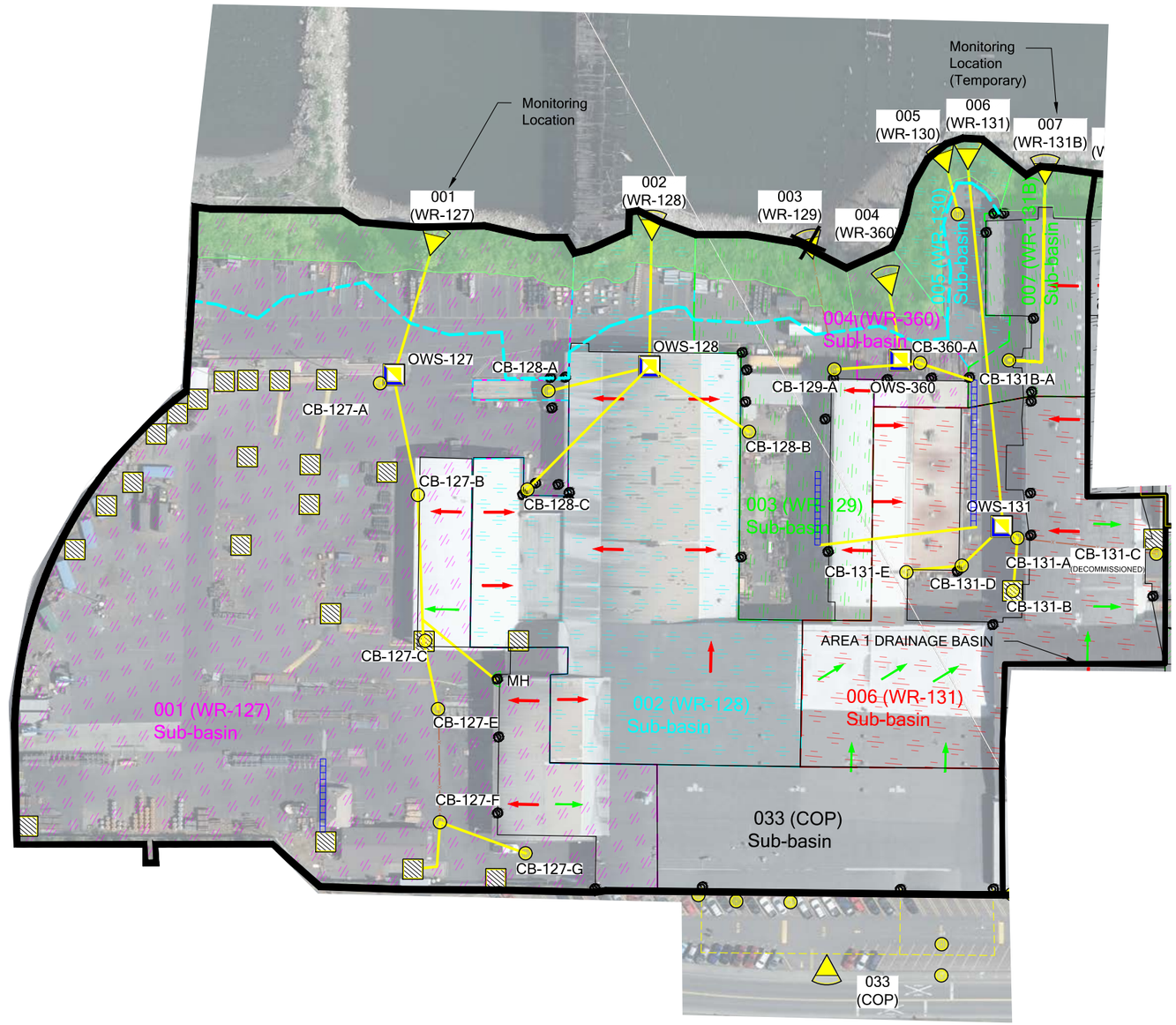
GREENBRIER Gunderson

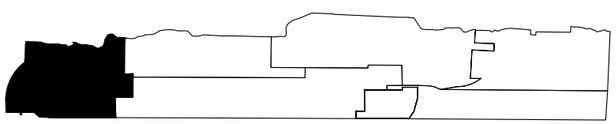
Site Overview

STORM WATER POLLUTION CONTROL PLAN
REV: 4/17/2020
SHEET: CDB-0

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0 100 200





Locator Key

Stormwater Drainage Basin

- Infiltration (INF)
- Outfall (WR)
- Outfall (WR) Decommissioned
- Outfall-Overflow (WR)
- Oil Water Separator (OWS)
- Catch Basin (CB)/Decomissioned
- Roof Down Spout (RD)
- Stormwater Pipes
- Stormwater Pipe Inactive
- Delineation of Riverbank Flow Line
- Roof Flow Direction to Infiltration
- Roof Flow Direction to Outfall

1. Non-monitored discharge points are substantially similar to monitoring locations in their respective drainage basins
2. Steel or other significant materials materials may be stored site-wide.
3. Outdoor storage of significant materials can occur at any location on the property that is outside of a building and relatively flat. Manufacturing occurs outdoors on an intermittent or infrequent basis except in the Marine Operations Drainage Basin where it occurs on a regular basis. Material handling and access areas necessarily encompass these same areas.

AREA DELINEATION

Scale: 1"=100'
Datum: NAVD88
Survey Base : 2017 V19

Gunderson LLC
4350 NW Front Ave.
Portland Oregon

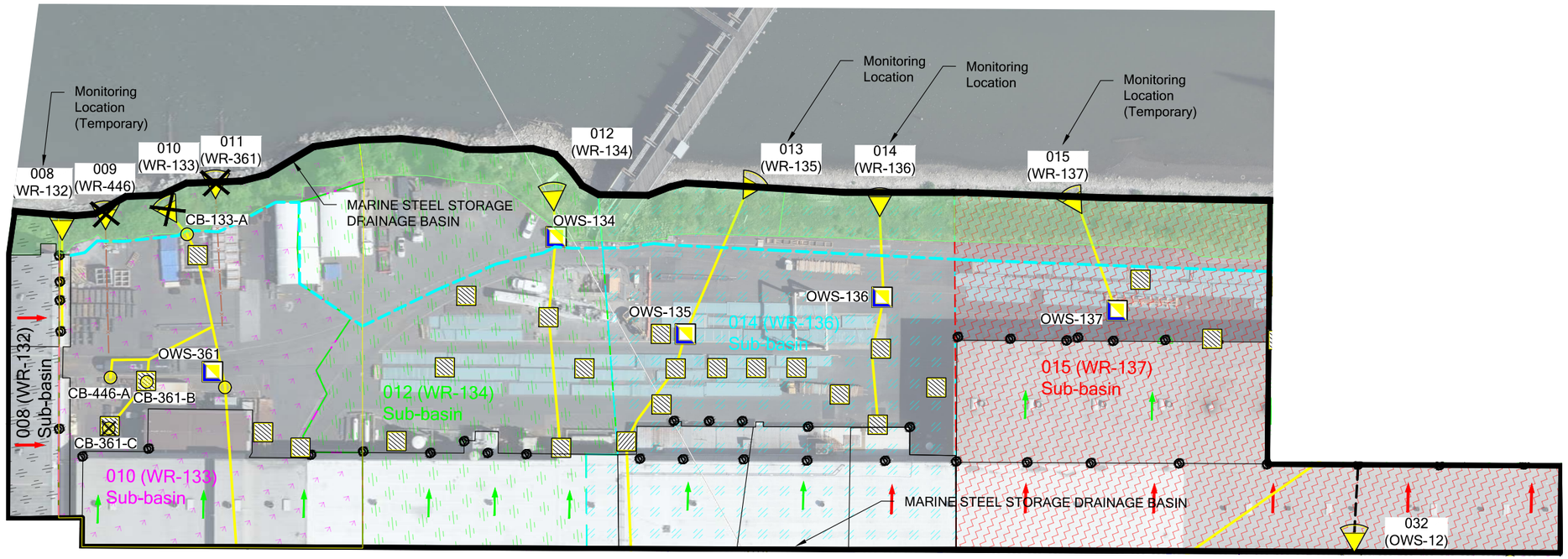
GREENBRIER Gunderson

AREA 1
DRAINAGE BASIN

STORM WATER POLLUTION CONTROL PLAN

REV: 4/17/2020
SHEET: DB-1

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Locator Key

Stormwater Drainage Basin

- Infiltration (INF)
- Outfall (WR)
- Outfall (WR) Decommissioned
- Outfall-Overflow (WR)
- Oil Water Separator (OWS)
- Catch Basin (CB)/Decomissioned
- Roof Down Spout (RD)
- Stormwater Pipes
- Stormwater Pipe Inactive
- Delineation of Riverbank Flow Line
- Roof Flow Direction to Infiltration
- Roof Flow Direction to Outfall

1. Non-monitored discharge points are substantially similar to monitoring locations in their respective drainage basins
2. Steel or other significant materials materials may be stored site-wide.
3. Outdoor storage of significant materials can occur at any location on the property that is outside of a building and relatively flat. Manufacturing occurs outdoors on an intermittent or infrequent basis except in the Marine Operations Drainage Basin where it occurs on a regular basis. Material handling and access areas necessarily encompass these same areas.

AREA DELINEATION

Scale: 1"=100'
Datum: NAVD88
Survey Base : 2017 V19

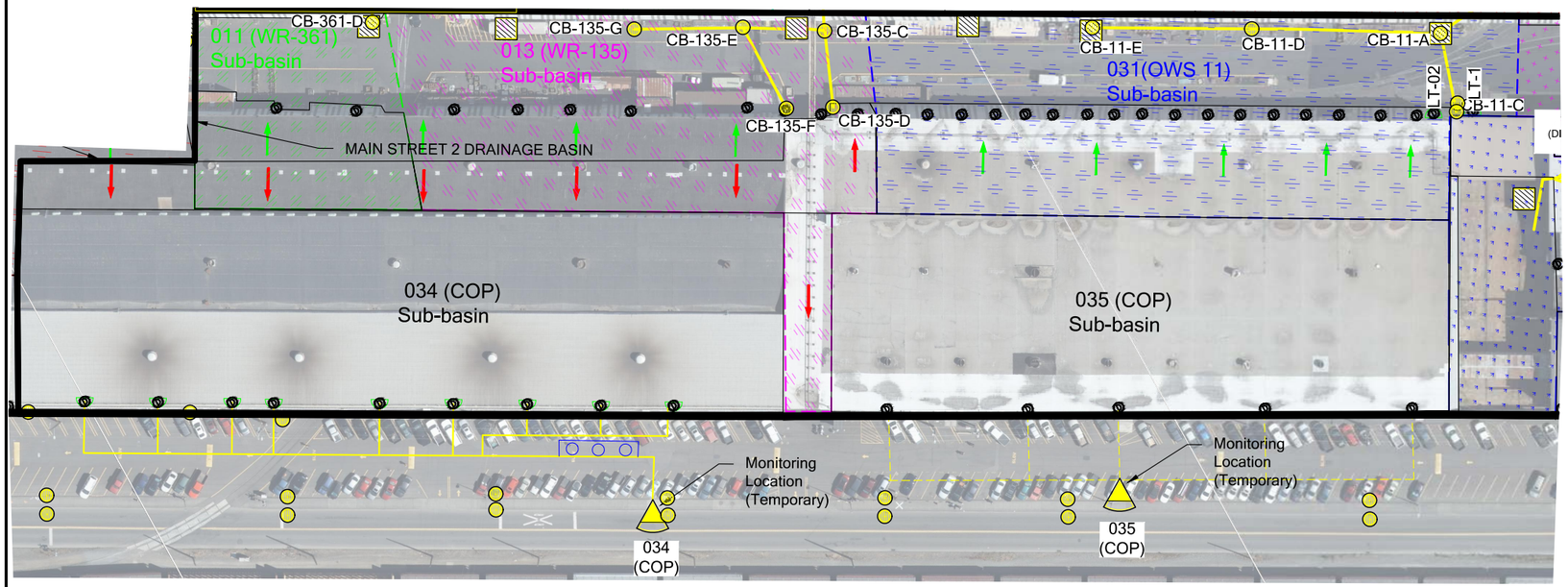
Gunderson LLC
4350 NW Front Ave.
Portland Oregon

GREENBRIER Gunderson

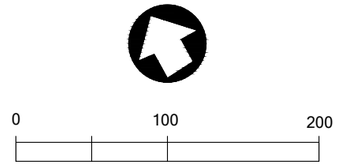
MARINE STEEL STORAGE DRAINAGE BASIN

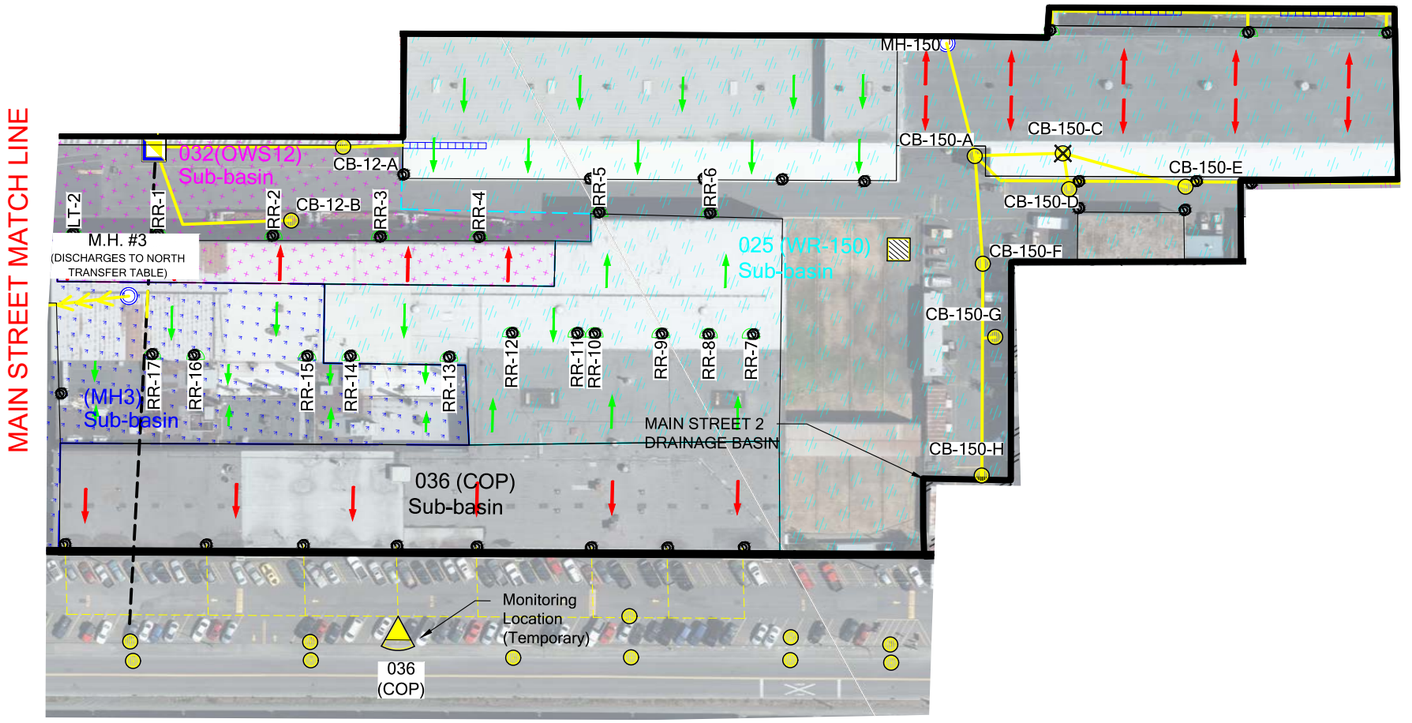
STORM WATER POLLUTION CONTROL PLAN
REV: 4/17/2020
SHEET: DB-2

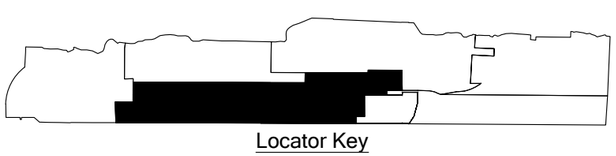
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MAIN STREET MATCH LINE







Locator Key

Stormwater Drainage Basin

- Infiltration (INF)
- Outfall (WR)
- Outfall (WR) Decommissioned
- Outfall-Overflow (WR)
- Oil Water Separator (OWS)
- Catch Basin (CB)/Decomissioned
- Roof Down Spout (RD)
- Stormwater Pipes
- Stormwater Pipe Inactive
- Delineation of Riverbank Flow Line
- Roof Flow Direction to Infiltration
- Roof Flow Direction to Outfall

1. Non-monitored discharge points are substantially similar to monitoring locations in their respective drainage basins
2. Steel or other significant materials materials may be stored site-wide.
3. Outdoor storage of significant materials can occur at any location on the property that is outside of a building and relatively flat. Manufacturing occurs outdoors on an intermittent or infrequent basis except in the Marine Operations Drainage Basin where it occurs on a regular basis. Material handling and access areas necessarily encompass these same areas.

AREA DELINEATION

Scale: 1"=100'
Datum: NAVD88
Survey Base : 2017 V19

Gunderson LLC
4350 NW Front Ave.
Portland Oregon

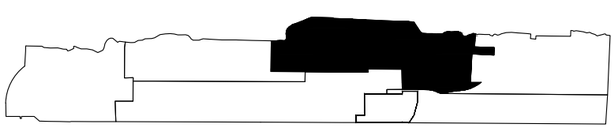
GREENBRIER Gunderson

MAIN STREET 2
DRAINAGE BASIN

STORM WATER POLLUTION
CONTROL PLAN
REV: 4/17/2020
SHEET: DB-3

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Locator Key

- Stormwater Drainage Basin
- Infiltration (INF)
- Outfall (WR)
- Outfall (WR) Decommissioned
- Outfall-Overflow (WR)
- Oil Water Separator (OWS)
- Catch Basin (CB)/Decomissioned
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Survey Base : 2017 V19

Gunderson LLC
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Portland Oregon

GREENBRIER Gunderson

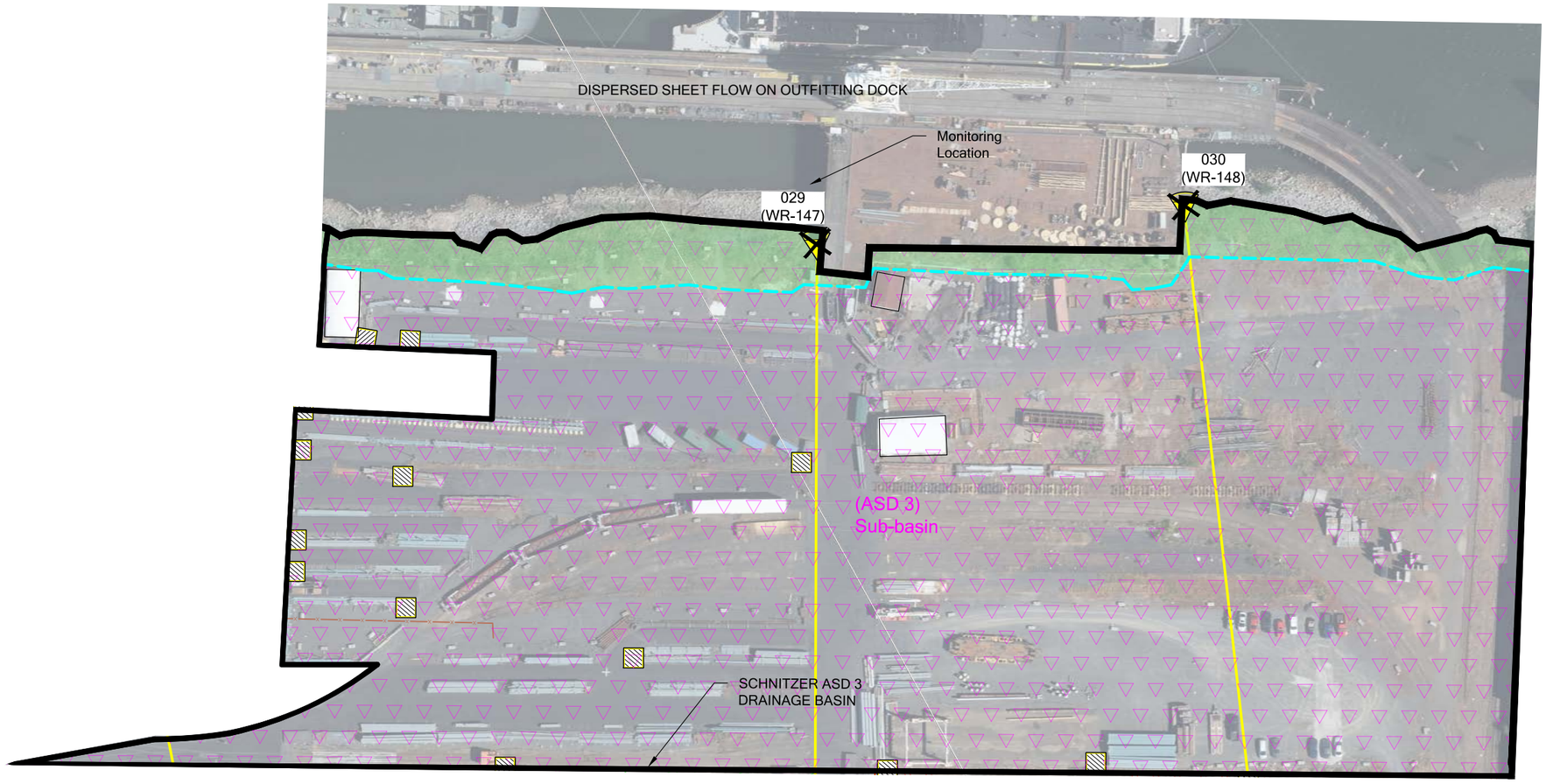
MARINE OPERATIONS DRAINAGE BASIN

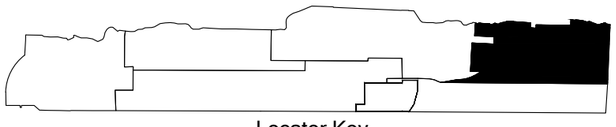
STORM WATER POLLUTION CONTROL PLAN

REV: 4/17/2020
SHEET: DB-4

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0 100 200





Locator Key

Stormwater Drainage Basin

- Infiltration (INF)
- Outfall (WR)
- Outfall (WR) Decommissioned
- Outfall-Overflow (WR)
- Oil Water Separator (OWS)
- Catch Basin (CB)/Decomissioned
- Roof Down Spout (RD)
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- Stormwater Pipe Inactive
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AREA DELINEATION

Scale: 1"=100'
Datum: NAVD88
Survey Base : 2017 V19

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Portland Oregon

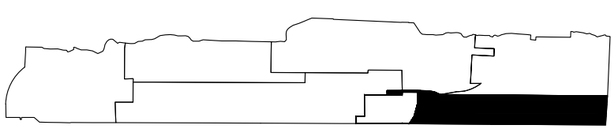
GREENBRIER Gunderson

SCHNITZER ASD 3
DRAINAGE BASIN

STORM WATER POLLUTION CONTROL PLAN
REV: 4/17/2020
SHEET: DB-5

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Locator Key

Stormwater Drainage Basin

- Infiltration (INF)
- Outfall (WR)
- Outfall (WR) Decommissioned
- Outfall-Overflow (WR)
- Oil Water Separator (OWS)
- Catch Basin (CB)/Decomissioned
- Roof Down Spout (RD)
- Stormwater Pipes
- Stormwater Pipe Inactive
- Delineation of Riverbank Flow Line
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AREA DELINEATION

Scale: 1"=100'
Datum: NAVD88
Survey Base : 2017 V19

Gunderson LLC
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Portland Oregon

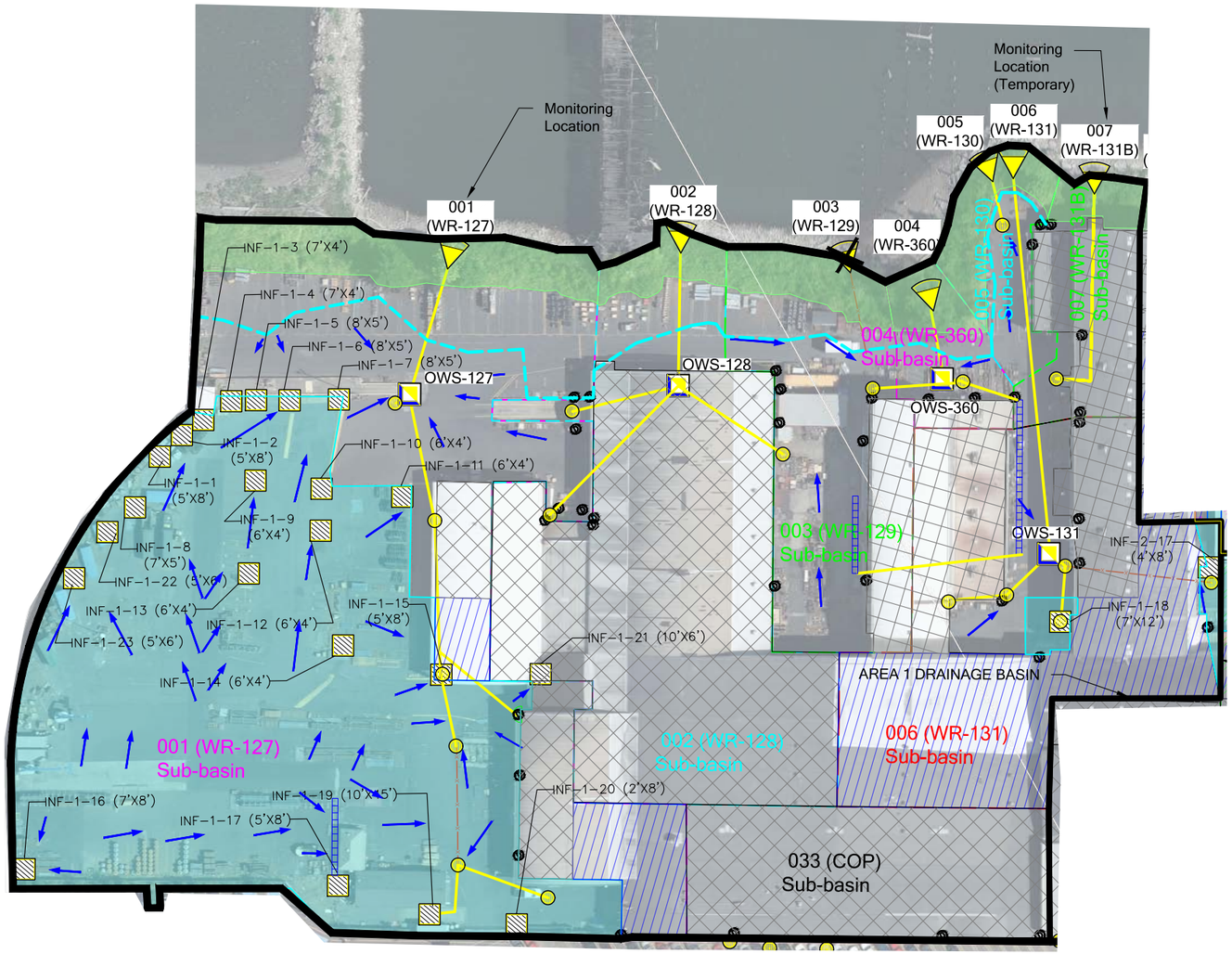
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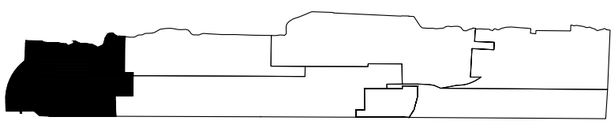
SOUTHERN 2
DRAINAGE BASIN

STORM WATER POLLUTION
CONTROL PLAN
REV: 4/17/2020
SHEET: DB-6

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0 100 200





Locator Key

- Stormwater Drainage Basin
- Infiltrated Ground Area
- Infiltrated Roof Area
- Non-infiltrated Roof Area
- Pervious Riverbank Area
- Paved Area
- Surface Water Flow
- Infiltration (INF)
- Outfall (WR)
- Outfall (WR) Decommissione
- Oil Water Separator (OWS)
- Catch Basin (CB)
- Stormwater Pipes
- Roof Down Spout (RD)

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2. Wastes may be temporarily stored at any location on the property.

INFILTRATION AREAS

Scale: 1"=100'
Datum: NAVD88
Survey Base : 2017 V19

Gunderson LLC
4350 NW Front Ave.
Portland Oregon

GREENBRIER Gunderson

AREA 1
DRAINAGE BASIN

STORM WATER POLLUTION CONTROL PLAN
REV: 4/17/2020
SHEET: IB-1

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0 100 200

Monitoring Location (Temporary)
008 (WR-132)
009 (WR-446)
010 (WR-133)
011 (WR-361)
012 (WR-134)
013 (WR-135)
014 (WR-136)
015 (WR-137)
Monitoring Location
Monitoring Location
Monitoring Location (Temporary)
MARINE STEEL STORAGE DRAINAGE BASIN
OWS-134
OWS-135
OWS-136
OWS-137
OWS-361
INF-2-1 (5'X6')
INF-2-2 (9'X4')
INF-2-3 (20'X20')
INF-2-4 (8'X4')
INF-2-5 (5'X12')
INF-2-6 (9'X6')
INF-2-7 (6'X21')
INF-2-8 (10'X5')
INF-2-9 (10'X5')
INF-2-10 (10'X5')
INF-2-11 (5'X12')
INF-2-12 (4'X11')
INF-2-13 (5'X12')
INF-2-14 (5'X12')
INF-2-15 (10'X5')
INF-2-29 (10'X4')
INF-2-30 (4'X28')
INF-2-31 (4'X7')
INF-2-32 (6'X3')
INF-2-33 (8.5'X10')
INF-2-36 (4'X6')
INF-2-38 (4'X5')
INF-2-41 (3'X4')
INF-2-42(22'x22')
008 (WR-132) Sub-basin
010 (WR-133) Sub-basin
012 (WR-134) Sub-basin
015 (WR-137) Sub-basin
MARINE STEEL STORAGE DRAINAGE BASIN
032 (OWS-12)

Locator Key

- Stormwater Drainage Basin
- Infiltrated Ground Area
- Infiltrated Roof Area
- Non-infiltrated Roof Area
- Pervious Riverbank Area
- Paved Area
- Surface Water Flow
- Infiltration (INF)
- Outfall (WR)
- Outfall (WR) Decommissione
- Oil Water Separator (OWS)
- Catch Basin (CB)
- Stormwater Pipes
- Roof Down Spout (RD)

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INFILTRATION AREAS

Scale: 1"=100'
Datum: NAVD88
Survey Base : 2017 V19

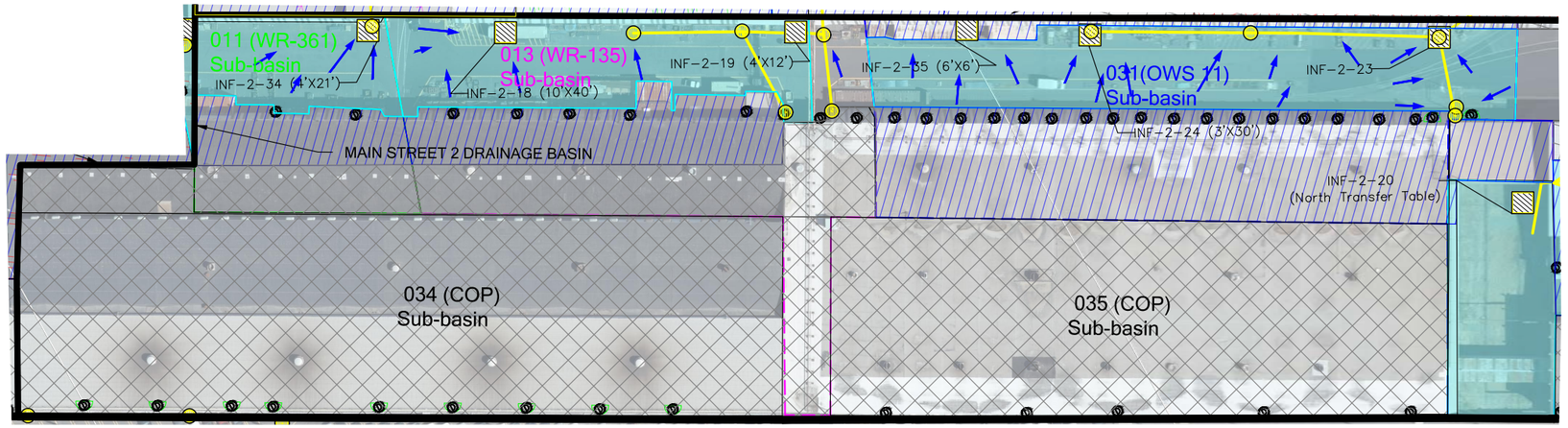
Gunderson LLC
4350 NW Front Ave.
Portland Oregon

GREENBRIER Gunderson

MARINE STEEL STORAGE DRAINAGE BASIN

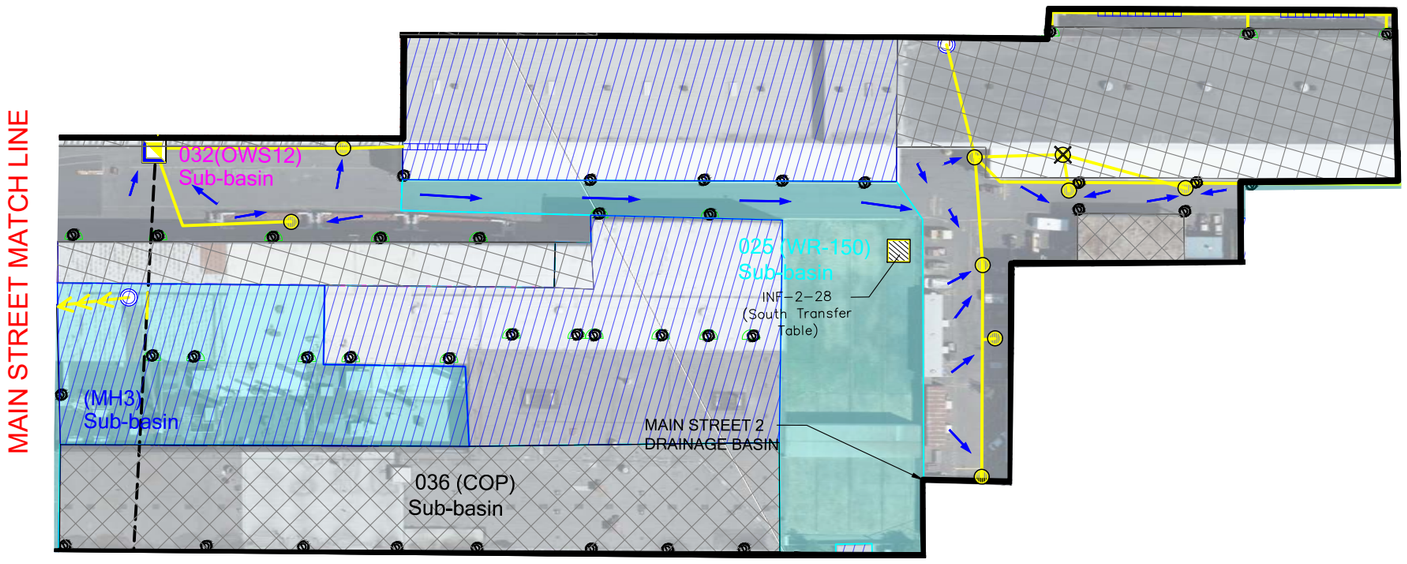
STORM WATER POLLUTION CONTROL PLAN
REV: 4/17/2020
SHEET: IB-2

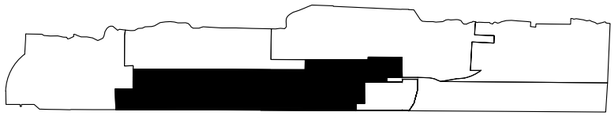
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MAIN STREET MATCH LINE

0 100 200





Locator Key

- Stormwater Drainage Basin
- Infiltrated Ground Area
- Infiltrated Roof Area
- Non-infiltrated Roof Area
- Pervious Riverbank Area
- Paved Area
- Surface Water Flow
- Infiltration (INF)
- Outfall (WR)
- Outfall (WR) Decommissione
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- Catch Basin (CB)
- Stormwater Pipes
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INFILTRATION AREAS

Scale: 1"=100'
Datum: NAVD88
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Gunderson LLC
4350 NW Front Ave.
Portland Oregon

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MAIN STREET 2
DRAINAGE BASIN

STORM WATER POLLUTION CONTROL PLAN
REV: 4/17/2020
SHEET: IB-3

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0 100 200

Monitoring Location
Monitoring Location (Temporary)
Monitoring Location (Temporary)
Monitoring Location (Temporary)
Monitoring Location (Temporary)

017 (WR-139)
018 (WR-140)
019 (WR-141)
020 (WR-142)
021 (WR-363)
022 (WR-143)
023 (WR-144)
024 (WR-145)
025 (WR-150)
026 (WR-377)
027 (WR-377B)
028 (WR-381)
OF18
016 (WR-138)
031 (OWS-11)

OWS-140
OWS-141-A
OWS-141-B
OWS-142-A
OWS-142-B
OWS-143-A
OWS-143-B
OWS-144-A
OWS-144-B
OWS-145-A
OWS-145-B
OWS-377
OWS-381 (Decommisoned)
OWS-11
OWS-150

INF-2-25 (6'X40')
INF-2-26 (22'X66')
INF-2-37 (4'X6')
INF-2-21 (10'X6')
INF-2-16 (10'X6')
INF-2-22 (12'X5')
INF-2-39 (3'X4')
INF-2-40 (3'X4')
INF-3-8 (12'X21')

019 (WR-141Treated) Sub-basin
016 (WR-138) Sub-basin
024 (WR-145 Treated) Sub-basin

City Property

MARINE OPERATIONS DRAINAGE BASIN
MARINE OPERATIONS DRAINAGE BASIN

Locator Key

- Stormwater Drainage Basin
- Infiltrated Ground Area
- Infiltrated Roof Area
- Non-infiltrated Roof Area
- Pervious Riverbank Area
- Paved Area
- Surface Water Flow
- Infiltration (INF)
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Gunderson LLC
4350 NW Front Ave.
Portland Oregon

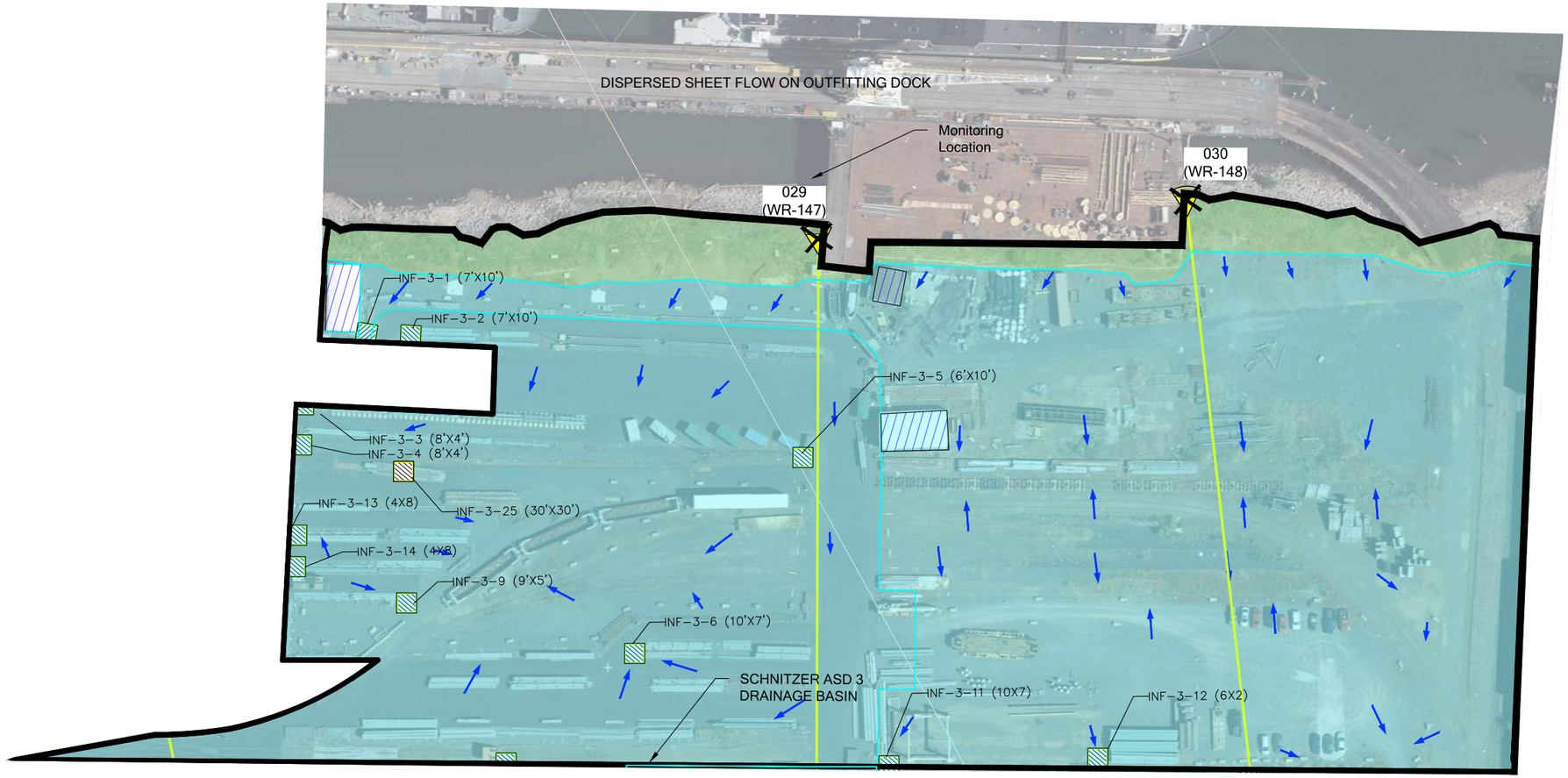
GREENBRIER Gunderson

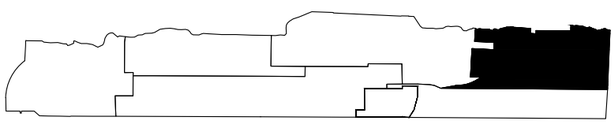
MARINE OPERATIONS DRAINAGE BASIN

STORM WATER POLLUTION CONTROL PLAN
REV: 4/17/2020
SHEET: IB-4

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Locator Key

- Stormwater Drainage Basin
- Infiltrated Ground Area
- Infiltrated Roof Area
- Non-infiltrated Roof Area
- Pervious Riverbank Area
- Paved Area
- Surface Water Flow
- Infiltration (INF)
- Outfall (WR)
- Outfall (WR) Decommissione
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- Catch Basin (CB)
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Survey Base : 2017 V19

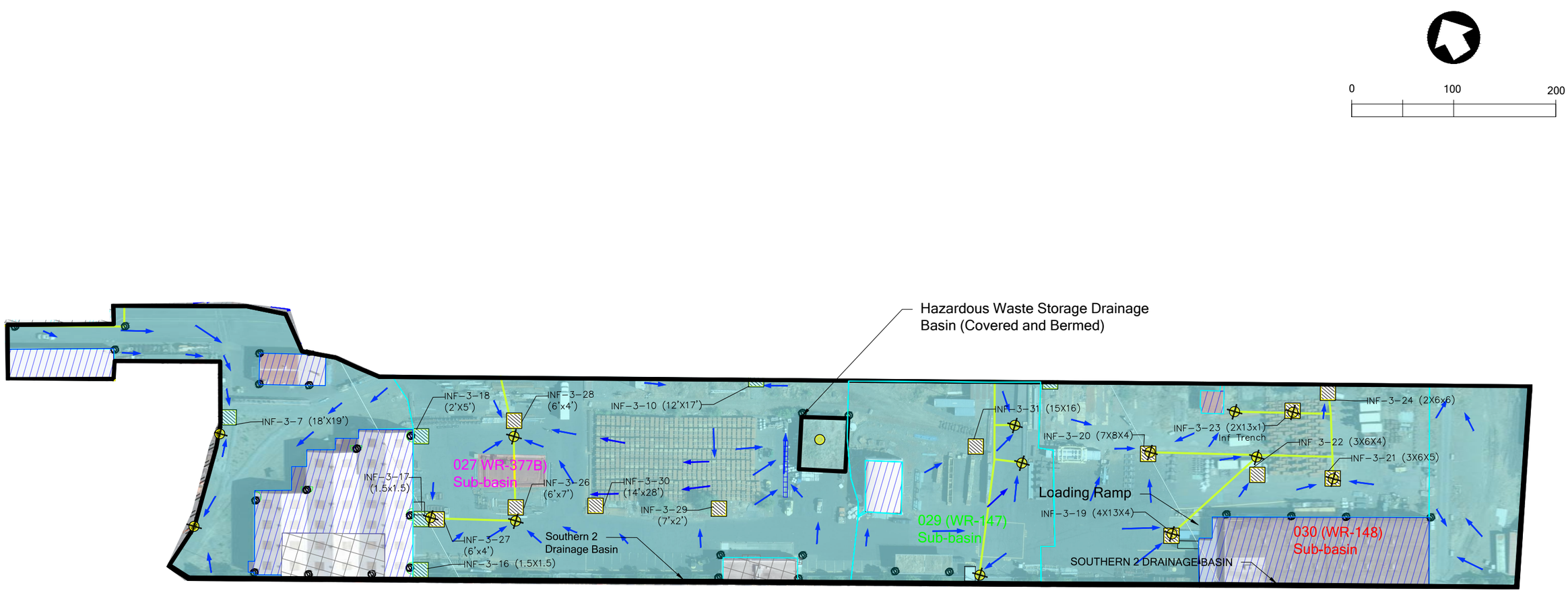
Gunderson LLC
4350 NW Front Ave.
Portland Oregon

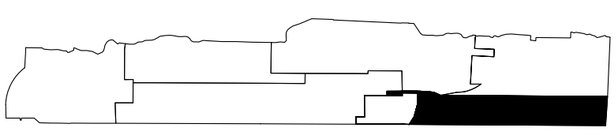
GREENBRIER Gunderson

SCHNITZER ASD 3
DRAINAGE BASIN

STORM WATER POLLUTION CONTROL PLAN
REV: 4/17/2020
SHEET: IB-5

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Locator Key

- Stormwater Drainage Basin
- Infiltrated Ground Area
- Infiltrated Roof Area
- Non-infiltrated Roof Area
- Pervious Riverbank Area
- Paved Area
- Surface Water Flow
- Infiltration (INF)
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INFILTRATION AREAS

Scale: 1"=100'
Datum: NAVD88
Survey Base : 2017 V19

Gunderson LLC
4350 NW Front Ave.
Portland Oregon

GREENBRIER Gunderson

SOUTHERN 2
DRAINAGE BASIN

STORM WATER POLLUTION CONTROL PLAN
REV: 4/17/2020
SHEET: IB-6

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0 100 200

MATCHLINE SEE FIGURE W-2

001 (WR-127)
002 (WR-128)
003 (WR-129)
004 (WR-360)
005 (WR-130)
006 (WR-131)
007 (WR-131B)
008 (WR-132)
009 (WR-446)
010 (WR-133)
011 (WR-361)

MARINE STEEL STORAGE DRAINAGE BASIN
AREA 1 DRAINAGE BASIN
MAIN STREET 2 DRAINAGE BASIN
LAKESIDE INDUSTRIES
Quonset Hut Property

MW-43, MW-50, MW-44, MW-51, MW-91, MW-53, MW-37, MW-52, MW-62, WEX-60, MW-38, MW-49, MW-39, MW-20, MW-71, MW-40, MW-27, MW-21, MW-45, MW-36, MW-70, MW-19, MW-90, MW-66, MW-41, MW-42, mw-22

INF-1-1 (5'X8')
INF-1-2 (5'X8')
INF-1-3 (7'X4')
INF-1-4 (7'X4')
INF-1-5 (8'X5')
INF-1-6 (8'X5')
INF-1-7 (8'X5')
INF-1-8 (7'X5')
INF-1-9 (6'X4')
INF-1-10 (6'X4')
INF-1-11 (6'X4')
INF-1-12 (6'X4')
INF-1-13 (6'X4')
INF-1-14 (6'X4')
INF-1-15 (5'X8')
INF-1-16 (7'X8')
INF-1-17 (5'X8')
INF-1-19 (10'X45')
INF-1-20 (2'X8')
INF-1-21 (10'X6')
INF-1-22 (5'X6')
INF-1-23 (5'X6')
INF-2-1 (5'X6')
INF-2-2 (9'X4')
INF-2-3 (20'X20')
INF-2-17 (4'X8')
INF-2-18 (10'X40')
INF-2-30 (4'X28')
INF-2-31 (4'X7')
INF-2-32 (6'X3')
INF-2-33 (8.5'X10')
INF-2-34 (4'X21')
INF-2-38 (4'X5')

CB-127-A, CB-127-B, CB-127-C, CB-127-E, CB-127-F, CB-127-G
CB-128-A, CB-128-B, CB-128-C
CB-129-A
CB-131-A (DECOMMISSIONED), CB-131-B, CB-131-C, CB-131-D, CB-131-E
CB-133-A
CB-135-G
CB-360-A
CB-361-A, CB-361-B, CB-361-C, CB-361-D
CB-446-A
OWS-127, OWS-128, OWS-131, OWS-360, OWS-361
MH
033 (COP)
034 (COP)

Infiltration (INF)
Outfall (WR)
Outfall (WR) Decommissioned
Outfall-Overflow (WR)
Oil Water Separator (OWS)
Catch Basin (CB)/Decomission
Roof Down Spout (RD)

Stormwater Drainage Basin
Infiltrated Ground Area
Infiltrated Roof Area
Pervious Riverbank Area
Monitoring Well Location

GROUNDWATER MONITORING WELLS

Scale: 1"=100'
Datum: NAVD88
Survey Base : 2017 V19

Gunderson LLC
4350 NW Front Ave.
Portland Oregon

GREENBRIER Gunderson

Site Area - North

STORM WATER POLLUTION CONTROL PLAN
REV: 4/17/2020
SHEET: W-1

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MATCHLINE SEE W-1

MATCHLINE SEE W-3

012 (WR-134)
013 (WR-135)
014 (WR-136)
015 (WR-137)
OF18
016 (WR-138)
017 (WR-139)
018 (WR-140)
019 (WR-141)
020 (WR-142)
021 (WR-363)
022 (WR-143)
023 (WR-144)
024 (WR-145)
025 (WR-150)

OWS-134
OWS-135
OWS-136
OWS-137
OWS-140
OWS-141-A
OWS-141-B
OWS-142-A
OWS-142-B
OWS-143-A
OWS-143-B
OWS-144-A
OWS-144-B
OWS-145-A
OWS-145-B
OWS-150

MW-83
MW-92
MW-85
MW-15
MW-81
MW-84
MW-31
MW-17
MW-35
MW-24
FM48-13
FM48-11

INF-2-25 (6'X40')
INF-2-26 (22'X66')
INF-2-37 (24'X6')
INF-2-21 (10'X6')
INF-2-22 (12'X5')
INF-2-4 (8'X4')
INF-2-29 (10'X4')
INF-2-36 (4'X6')
INF-2-13 (5'X12')
INF-2-8 (10'X5')
INF-2-5 (5'X12')
INF-2-9 (10'X5')
INF-2-10 (10'X5')
INF-2-15 (10'X5')
INF-2-16 (10'X5')
INF-2-39 (3'X4')
INF-2-40 (3'X4')
INF-2-41 (3'X4')
INF-2-14 (5'X12')
INF-2-12 (4'X11')
INF-2-11 (5'X12')
INF-2-6 (9'X6')
INF-2-7 (6'X21')
INF-2-19 (4'X12')
INF-2-35 (6'X6')
INF-2-23
INF-2-24 (3'X30')
INF-2-20 (North Transfer Table)
INF-2-28 (South Transfer Table)

CB-138-C (PLUGGED)
CB-141-A
CB-141-B
CB-141-C
CB-141-D
CB-141-E
CB-141-F
CB-141-G
CB-141-H
CB-142-A
CB-142-B
CB-142-C
CB-142-D
CB-142-E
CB-142-F
CB-143-A
CB-143-B
CB-143-C
CB-143-D
CB-143-E
CB-143-F
CB-144-A
CB-144-B
CB-144-C
CB-144-D
CB-144-E
CB-144-F
CB-145-A
CB-145-B
CB-145-C
CB-145-D
CB-145-E
CB-145-F
CB-135-C
CB-135-D
CB-135-E
CB-135-F
CB-11-A
CB-11-C
CB-11-D
CB-11-E
CB-12-A
CB-12-B
CB-150-A
CB-150-C
CB-150-D
CB-150-E
CB-150-F
CB-150-G
CB-150-H
CB

031 (OWS-11)
032 (OWS-12)
035 (COP)
036 (COP)

031(OWS 11) Sub-basin
035 (COP) Sub-basin
036 (COP) Sub-basin

MARINE STEEL STORAGE DRAINAGE BASIN
MARINE OPERATIONS DRAINAGE BASIN
MAIN STREET 2 DRAINAGE BASIN
ADMINISTRATION PARKING DRAINAGE BASIN

M.H. #3
(DISCHARGES TO NORTH TRANSFER TABLE)
MH-150

LT-1
LT-2
LT-02
RR-1
RR-2
RR-3
RR-4
RR-5
RR-6
RR-7
RR-8
RR-9
RR-10
RR-11
RR-12
RR-13
RR-14
RR-15
RR-16
RR-17

UTILITY TRENCH

Infiltration (INF)
Outfall (WR)
Outfall (WR) Decommissioned
Outfall-Overflow (WR)
Oil Water Separator (OWS)
Catch Basin (CB)/Decomission
Roof Down Spout (RD)

Stormwater Drainage Basin
Infiltrated Ground Area
Infiltrated Roof Area
Pervious Riverbank Area
Monitoring Well Location

GROUNDWATER MONITORING WELLS

Scale: 1"=100'
Datum: NAVD88
Survey Base : 2017 V19

Gunderson LLC
4350 NW Front Ave.
Portland Oregon

GREENBRIER Gunderson

Site Area - Central

STORM WATER POLLUTION CONTROL PLAN
REV: 4/17/2020
SHEET: W-2

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0 100 200

027 (WR-377B)
026 (WR-377)
028 (WR-381)
029 (WR-147)
030 (WR-148)

MW-74
MW-77
MW-76
MW-87
MW-73
MW-10
MW-78
MW-79
MW-72
MW-89
MW-14
MW-80
MW-88
MW-11

CB-377-E
OWS-377
CB-377-A
OWS-381 (Decommisoned)
CB-377-B
CB-377-C
CB-377-F
CB-377-G
CB-377-D
CB-377B-D
CB-377B-E
CB-377B-F
CB-HM-B (sump)
CB-147-A
CB-147-B
CB-147-C
CB-148-A
CB-148-B
CB-148-C
CB-148-D
CB-148-E
CB-148-F

MARINE OPERATIONS DRAINAGE BASIN
SCHNITZER ASD 3 DRAINAGE BASIN
Southern 2 Drainage Basin
SOUTHERN 2 DRAINAGE BASIN

INF-3-1 (7'X10')
INF-3-2 (7'X10')
INF-3-3 (8'X4')
INF-3-4 (8'X4')
INF-3-5 (6'X10')
INF-3-6 (10'X7')
INF-3-7 (18'X19')
INF-3-8 (12'X21')
INF-3-9 (9'X5')
INF-3-10 (12'X17')
INF-3-11 (10X7)
INF-3-12 (6X2)
INF-3-13 (4X8)
INF-3-14 (4X8)
INF-3-16 (1.5X1.5)
INF-3-17 (1.5x1.5)
INF-3-18 (2'X5')
INF-3-19 (4X13X4)
INF-3-20 (7X8X4)
INF-3-21 (3X6X5)
INF-3-22 (3X6X4)
INF-3-23 (2X13x1) Inf Trench
INF-3-24 (2X6x6)
INF-3-25 (30'X30')
INF-3-26 (6'x7')
INF-3-27 (6'x4')
INF-3-28 (6'x4')
INF-3-29 (7'x2')
INF-3-30 (14'x28')
INF-3-31 (15X16)

TB-1
TB-2
TB-3
TB-4
TB-5
TB-6

CB
NAGE

MATCHLINE SEE W-2

Infiltration (INF)
Outfall (WR)
Outfall (WR) Decommissioned
Outfall-Overflow (WR)
Oil Water Separator (OWS)
Catch Basin (CB)/Decomission
Roof Down Spout (RD)

Stormwater Drainage Basin
Infiltrated Ground Area
Infiltrated Roof Area
Pervious Riverbank Area
Monitoring Well Location

GROUNDWATER MONITORING WELLS
Scale: 1"=100'
Datum: NAVD88
Survey Base : 2017 V19

Gunderson LLC
4350 NW Front Ave.
Portland Oregon

GREENBRIER Gunderson

Site Area - South

STORM WATER POLLUTION CONTROL PLAN
REV: 4/17/2020
SHEET: W-3

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APPENDIX E

HISTORICAL GROUNDWATER ANALYTICAL DATA

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	Acetone	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	2-Butanone (MEK)	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	2-Chlorotoluene	4-Chlorotoluene	1,2-Dibromo-3-chloropropane	Dibromochloromethane
		Concentrations in µg/L (ppb)																			
AREA 1																					
MW-19	12/1/2010	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	--	<1.0
	12/14/2011	<25	<0.200	<0.5	<1.0	<1.0	<1.0	<5.0	<10	<1.0	<1.0	<1.0	<0.5	<0.5	<5.0	<0.20	<5.0	<1.0	<1.0	<5.0	<1.0
	3/30/2012	<1.0	<0.06	<0.14	<0.50	<0.08	<1.0	<0.13	<1.0	<0.060	<0.11	<0.09	<0.12	<0.09	<0.10	<0.10	<0.12	<0.09	<0.12	<1.0	<1.0
	7/5/2012	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	12/4/2012	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	12/12/2013	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<0.500	<10.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	12/18/2014	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/15/2015	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/7/2016	<20.0 J	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0 J	<1.00	<1.00	<1.00	<1.00	<0.501	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/12/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0 J	<1.00	<1.00	<1.00	<1.00	<0.502	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/19/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/16/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-21	8/19/2009	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	<0.50	<0.50	**0.13 J**	<5.0	--	--	--	<1.0
	6/2/2010	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	<0.50	<0.50	**0.25 J**	<5.0	--	--	--	<1.0
	11/30/2010	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	<0.50	<0.50	**0.22 J**	<5.0	--	--	--	<1.0
	6/1/2011	<25	<0.20	<0.50	<1.0	<0.50	<1.0	<5.0	<10.0	<5.0	<1.0	<1.0	<0.50	<0.50	<0.50	**0.14 J**	<5.0	<1.0	<1.0	<5.0	<1.0
	12/13/2011	<25	<0.20	<0.50	<1.0	<0.50	<1.0	<5.0	<10.0	<5.0	<1.0	<1.0	<0.50	<0.50	<0.50	**0.12 J**	<5.0	<1.0	<1.0	<5.0	<1.0
	3/26/2012	<1.0	<0.06	<0.14	<0.50	<0.08	<1.0	<0.13	<1.0	<0.060	<0.11	<0.09	<0.12	<0.09	<0.10	**0.18 J**	<0.12	<0.09	<0.12	<1.0	<1.0
	7/5/2012	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	12/5/2012	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	6/18/2013	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	12/12/2013	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	6/11/2014	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	12/18/2014	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/30/2015	<20.0	<0.250	<0.500	<1.00	<1.00	<2.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/15/2015	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/22/2016	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/6/2016	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/27/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/12/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<10.0	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
ROD Cleanup Level [5.]		NA	0.44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	64	NA	NA	NA	NA	NA	NA	NA
JSCS SLV [6.]		1,500	1.2	NA	NA	1.1	8.5	8.7	7,100	NA	NA	NA	0.51	50	23	0.17	2.1	NA	NA	NA	0.79

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	Acetone	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	2-Butanone (MEK)	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	2-Chlorotoluene	4-Chlorotoluene	1,2-Dibromo-3-chloropropane	Dibromochloromethane
		Concentrations in µg/L (ppb)																			
AREA 1																					
MW-21 (continued)	6/28/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<10.0	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/18/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<10.0	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/18/2018 DUP	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<10.0	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/19/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<10.0	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/10/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<10.0	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/10/2019 DUP	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<10.0	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-22	11/30/2010	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	--	<1.0
	12/14/2011	<25	<0.200	<0.5	<1.0	<1.0	<1.0	<5.0	<10	<1.0	<1.0	<1.0	<0.5	<0.5	<5.0	<0.20	<5.0	<1.0	<1.0	<5.0	<1.0
	3/26/2012	<1.0	<0.06	<0.14	<0.50	<0.08	<1.0	<0.13	<1.0	<0.060	<0.11	<0.09	<0.12	<0.09	<0.10	<0.10	<0.12	<0.09	<0.12	<1.0	<1.0
	7/5/2012	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	12/4/2012	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	12/13/2013	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	12/18/2014	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/15/2015	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/7/2016	<20.0 J	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0 J	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/14/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/20/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/12/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-27	8/19/2009	--	--	<1.0	--	<1.0	<2.0	<10.0	--	--	--	--	<1.0	<1.0	<1.0	**0.32 J**	<10	--	--	--	<2.0
	6/2/2010	--	--	<1.0	--	<1.0	<2.0	<10.0	--	--	--	--	<1.0	<1.0	<1.0	**0.34 J**	<10	--	--	--	<2.0
	11/30/2010	--	--	<1.0	--	<1.0	<2.0	<10.0	--	--	--	--	<1.0	<1.0	<1.0	**0.24 J**	<10	--	--	--	<2.0
	6/1/2011	<50	<0.40	<1.0	<2.0	<1.0	<2.0	<10.0	<20	<10	<2.0	<2.0	<1.0	<1.0	<1.0	**0.22 J**	<10	<2.0	<2.0	<10	<2.0
	12/13/2011	<25	<0.20	<0.50	<1.0	<0.50	<1.0	<5.0	<10.0	<5.0	<1.0	<1.0	<0.50	<0.50	<0.50	**0.19 J**	<5.0	<1.0	<1.0	<5.0	<1.0
	12/13/2011 DUP	<25	<0.20	<0.50	<1.0	<0.50	<1.0	<5.0	<10.0	<5.0	<1.0	<1.0	<0.50	<0.50	<0.50	**0.18 J**	<5.0	<1.0	<1.0	<5.0	<1.0
	3/26/2012	<1.0	<0.06	<0.14	<0.50	<0.08	<1.0	<0.13	<1.0	<0.060	<0.11	<0.09	<0.12	<0.09	<0.10	**0.27 J**	<0.12	<0.09	<0.12	<1.0	<1.0
	3/26/2012 DUP	<1.0	<0.06	<0.14	<0.50	<0.08	<1.0	<0.13	<1.0	<0.060	<0.11	<0.09	<0.12	<0.09	<0.10	**0.28 J**	<0.12	<0.09	<0.12	<1.0	<1.0
	7/5/2012	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	12/4/2012	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	6/18/2013	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	12/12/2013	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	6/11/2014	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.00	<5.0	<1.0	<1.0	<5.0	<1.0
	12/18/2014	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
ROD Cleanup Level [5.]		NA	0.44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	64	NA	NA	NA	NA	NA	NA	NA
JSCS SLV [6.]		1,500	1.2	NA	NA	1.1	8.5	8.7	7,100	NA	NA	NA	0.51	50	23	0.17	2.1	NA	NA	NA	0.79

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	Acetone	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	2-Butanone (MEK)	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	2-Chlorotoluene	4-Chlorotoluene	1,2-Dibromo-3-chloropropane	Dibromochloromethane
		Concentrations in µg/L (ppb)																			
AREA 1																					
MW-27 (continued)	6/30/2015	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.00	<5.0	<1.0	<1.0	<5.0	<1.0
	6/30/2015 DUP	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.00	<5.0	<1.0	<1.0	<5.0	<1.0
	12/15/2015	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/21/2016	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/6/2016	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/27/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/12/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<10.0	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/28/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<10.0	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/19/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/19/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/10/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-36	8/19/2009	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	<0.50	**0.51**	**0.35 J**	<5.0	--	--	--	<1.0
	3/16/2010	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	<0.50	**0.27 J**	**0.28 J**	<5.0	--	--	--	<1.0
	6/2/2010	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	<0.50	<0.50	**0.17 J**	<5.0	--	--	--	<1.0
	6/2/2010 DUP	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	<0.50	<0.50	**0.20 J**	<5.0	--	--	--	<1.0
	8/31/2010	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	<0.50	**0.26 J**	**0.35 J**	<5.0	--	--	--	<1.0
	8/31/2010 DUP	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	<0.50	**0.23 J**	**0.32 J**	<5.0	--	--	--	<1.0
	11/30/2010	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	<0.50	**0.18 J**	**0.28 J**	<5.0	--	--	--	<1.0
	6/1/2011	<25	<0.20	<0.50	<1.0	<0.50	<1.0	<5.0	<10.0	<5.0	<1.0	<1.0	<0.50	<0.50	<0.50	**0.13 J**	<5.0	<1.0	<1.0	<5.0	<1.0
	9/15/2011	<50	<0.40	<1.0	<2.0	<1.0	<2.0	<10.0	<20.0	<10.0	<2.0	<2.0	<1.0	<1.0	<1.0	**0.54**	<10.0	<2.0	<2.0	<10.0	<2.0
	12/14/2011	<125	<1.0	<2.5	<5.0	<2.5	<5.0	<25.0	<50.0	<25.0	<5.0	<5.0	<2.5	<2.5	<2.5	**0.55 J**	<25.0	<5.0	<5.0	<25.0	<5.0
	3/30/2012	<1.0	<0.06	<0.14	<0.50	<0.08	<1.0	<0.13	<1.0	<0.060	<0.11	<0.09	<0.12	<0.09	<0.10	**0.14 J**	<0.12	<0.09	<0.12	<1.0	<1.0
	7/5/2012	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	9/28/2012	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	12/4/2012	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	3/22/2013	<20.0	<0.25	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	6/19/2013	<20.0	<0.25	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	9/9/2013	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<1.00	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/9/2013 DUP	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<1.00	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/13/2013	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<1.00	<5.00	<1.0	<5.00	<1.00	<1.00	<5.00	<1.00
ROD Cleanup Level [5.]		NA	0.44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	64	NA	NA	NA	NA	NA	NA	NA
JSCS SLV [6.]		1,500	1.2	NA	NA	1.1	8.5	8.7	7,100	NA	NA	NA	0.51	50	23	0.17	2.1	NA	NA	NA	0.79

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	Acetone	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	2-Butanone (MEK)	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	2-Chlorotoluene	4-Chlorotoluene	1,2-Dibromo-3-chloropropane	Dibromochloromethane
		Concentrations in µg/L (ppb)																			
AREA 1																					
MW-36 (continued)	3/24/2014	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<1.00	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/11/2014	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<1.00	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/19/2014	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	**0.630 J**	<5.00	<1.00	<1.00	<5.00	<1.00
	12/18/2014	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	3/9/2015 DUP	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	3/9/2015	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/30/2015	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/16/2015	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	**0.660 J**	<5.00	<1.00	<1.00	<5.00	<1.00
	12/15/2015	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	3/21/2016	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/22/2016	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/26/2016	<20.1	<0.200	<0.500	<1.00	<1.00	<1.00	<5.01	<10.1	<1.00	<1.00	<1.00	<1.00	<0.501	<5.01	<1.01	<5.01	<1.00	<1.00	<5.01	<1.01
	12/6/2016	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	3/22/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/27/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/20/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/12/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<10.0	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	3/14/2018	<20.0	<0.100	<0.250	<0.500	<0.500	1.49 R	<5.00	<5.00	<0.500	<0.500	<0.500	<0.500	<0.250	<5.00	<0.500	<2.50	<0.500	<0.500	<2.50	<0.500
	6/28/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/5/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/19/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	3/5/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/19/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/10/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/12/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-38	8/19/2009	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	<0.50	<0.50	**0.22 J**	<5.0	--	--	--	<1.0
MW-39	8/19/2009	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	--	<1.0
	6/2/2010	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	<0.50	<0.50	**0.18 J**	<5.0	--	--	--	<1.0
	11/30/2010	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	--	<1.0
	6/1/2011	<25	<0.20	<0.50	<1.0	<0.50	<1.0	<5.0	<10.0	<5.0	<1.0	<1.0	<0.50	<0.50	<0.50	<0.20	<5.0	<1.0	<1.0	<5.0	<1.0
	12/13/2011	<25	<0.20	<0.50	<1.0	<0.50	<1.0	<5.0	<10.0	<5.0	<1.0	<1.0	<0.50	<0.50	<0.50	<0.20	<5.0	<1.0	<1.0	<5.0	<1.0
ROD Cleanup Level [5.]		NA	0.44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	64	NA	NA	NA	NA	NA	NA	NA
JSCS SLV [6.]		1,500	1.2	NA	NA	1.1	8.5	8.7	7,100	NA	NA	NA	0.51	50	23	0.17	2.1	NA	NA	NA	0.79

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	Acetone	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	2-Butanone (MEK)	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	2-Chlorotoluene	4-Chlorotoluene	1,2-Dibromo-3-chloropropane	Dibromochloromethane
		Concentrations in µg/L (ppb)																			
AREA 1																					
MW-39 (continued)	3/27/2012	<1.0	<0.06	<0.14	<0.50	<0.08	<1.0	<0.13	<1.0	<0.060	<0.11	<0.09	<0.12	<0.09	<0.10	<0.10	<0.12	<0.09	<0.12	<1.0	<1.0
	7/5/2012	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	12/3/2012	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	6/18/2013	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	12/13/2013	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	6/11/2014	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.00	<5.0	<1.0	<1.0	<5.0	<1.0
	12/17/2014	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	7/6/2015	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.00	<5.0	<1.0	<1.0	<5.0	<1.0
	12/15/2015	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/21/2016	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/6/2016	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/26/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<10.0	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/12/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<10.0	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/27/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<10.0	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/19/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<10.0	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/19/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<10.0	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/12/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<10.0	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-41	12/1/2010	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	--	<1.0
	12/14/2011	<25	<0.200	<0.5	<1.0	<1.0	<1.0	<5.0	<10	<1.0	<1.0	<1.0	<0.5	<0.5	<5.0	<0.20	<5.0	<1.0	<1.0	<5.0	<1.0
	3/26/2012	<1.0	<0.06	<0.14	<0.50	<0.08	<1.0	<0.13	<1.0	<0.060	<0.11	<0.09	<0.12	<0.09	<0.10	<0.10	<0.12	<0.09	<0.12	<1.0	<1.0
	12/4/2012	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	12/16/2013	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	12/23/2014	<20	<0.25	<0.5	<1	<1	<1	<5	<10	<1	<1	<1	<0.5	<0.5	<5	<1	<5	<1	<1	<5	<1
	12/17/2015	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/7/2016	<20.0 J	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0 J	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/12/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/20/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0 J	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/10/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0 J	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
ROD Cleanup Level [5.]		NA	0.44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	64	NA	NA	NA	NA	NA	NA	NA
JSCS SLV [6.]		1,500	1.2	NA	NA	1.1	8.5	8.7	7,100	NA	NA	NA	0.51	50	23	0.17	2.1	NA	NA	NA	0.79

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	Acetone	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	2-Butanone (MEK)	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	2-Chlorotoluene	4-Chlorotoluene	1,2-Dibromo-3-chloropropane	Dibromochloromethane
		Concentrations in µg/L (ppb)																			
AREA 1																					
MW-42	11/30/2010	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	--	<1.0
	12/14/2011	<25	<0.200	<0.5	<1.0	<1.0	<1.0	<5.0	<10	<1.0	<1.0	<1.0	<0.5	<0.5	<5.0	<0.20	<5.0	<1.0	<1.0	<5.0	<1.0
	3/26/2012	<1.0	<0.06	<0.14	<0.50	<0.08	<1.0	<0.13	<1.0	<0.060	<0.11	<0.09	<0.12	<0.09	<0.10	<0.10	<0.12	<0.09	<0.12	<1.0	<1.0
	7/5/2012	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	12/4/2012	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	12/17/2013	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	12/18/2014	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/15/2015	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/7/2016	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/14/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/20/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/11/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-43	11/29/2010	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	--	<1.0
	12/13/2011	<25	<0.200	<0.5	<1.0	<1.0	<1.0	<5.0	<10	<1.0	<1.0	<1.0	<0.5	<0.5	<5.0	<0.20	<5.0	<1.0	<1.0	<5.0	<1.0
	3/26/2012	<1.0	<0.06	<0.14	<0.50	<0.08	<1.0	<0.13	<1.0	<0.060	<0.11	<0.09	<0.12	<0.09	<0.10	<0.10	<0.12	<0.09	<0.12	<1.0	<1.0
	7/5/2012	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	12/4/2012	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	12/17/2013	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	3/25/2014	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<0.100	<5.0	<1.0	<1.0	<5.0	<1.0
	6/11/2014	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<0.100	<5.0	<1.0	<1.0	<5.0	<1.0
	9/19/2014	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.00	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/23/2014	<20	<0.25	<0.5	<1	<1	<1	<5	<10	<1	<1	<1	<0.5	<0.5	<5	<1	<5	<1	<1	<5	<1
	3/16/2015	<20	0.14	<0.500	<1.00	<1.00	<1.00	<5.00	<10	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	7/6/2015	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/16/2015	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/16/2015	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
ROD Cleanup Level [5.]		NA	0.44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	64	NA	NA	NA	NA	NA	NA	NA
JSCS SLV [6.]		1,500	1.2	NA	NA	1.1	8.5	8.7	7,100	NA	NA	NA	0.51	50	23	0.17	2.1	NA	NA	NA	0.79

Please refer to notes at end of table.

Cascadia Associates, LLC

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Gunderson LLC
Portland, Oregon

Well ID	Sample Date	Acetone	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	2-Butanone (MEK)	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	2-Chlorotoluene	4-Chlorotoluene	1,2-Dibromo-3-chloropropane	Dibromochloromethane
		Concentrations in µg/L (ppb)																			
AREA 1																					
MW-43 (continued)	3/21/2016	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/23/2016	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/27/2016	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/9/2016	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0 J	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00 J	<1.00	<1.00	<5.00	<1.00
	3/23/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0 J	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00 J	<1.00	<1.00	<5.00	<1.00
	6/27/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/21/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/13/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	3/15/2018	<20.0	<0.100	<0.250	<0.500	<0.500	<0.500	<5.00	<5.00	<0.500	<0.500	<0.500	<0.500	<0.250	<5.00	<0.500	<2.50	<0.500	<0.500	<2.50	<0.500
	6/28/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/4/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/19/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	3/6/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	3/6/19 DUP	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00 Q-54	<1.00	<1.00	<5.00	<1.00
	6/19/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/19/2019 DUP	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/11/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/11/2019 DUP	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	1/14/2020	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-44	8/19/2009	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	--	<1.0
	8/19/2009 DUP	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	--	<1.0
	12/7/2009	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	--	<1.0
	11/30/2010	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	--	<1.0
	12/13/2011	<25	<0.200	<0.5	<1.0	<1.0	<1.0	<5.0	<10	<1.0	<1.0	<1.0	<0.5	<0.5	<5.0	<0.20	<5.0	<1.0	<1.0	<5.0	<1.0
	3/26/2012	<1.0	<0.06	<0.14	<0.50	<0.08	<1.0	<0.13	<1.0	<0.060	<0.11	<0.09	<0.12	<0.09	<0.10	<0.10	<0.12	<0.09	<0.12	<1.0	<1.0
	7/5/2012	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	12/4/2012	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	12/11/2013	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	3/24/2014	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<0.100	<5.0	<1.0	<1.0	<5.0	<1.0
	6/11/2014	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<0.100	<5.0	<1.0	<1.0	<5.0	<1.0
	9/19/2014	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/23/2014	<20	<0.25	<0.5	<1	<1	<1	<5	<10	<1	<1	<1	<0.5	<0.5	<5	<1	<5	<1	<1	<5	<1
ROD Cleanup Level [5.]		NA	0.44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	64	NA	NA	NA	NA	NA	NA	NA
JSCS SLV [6.]		1,500	1.2	NA	NA	1.1	8.5	8.7	7,100	NA	NA	NA	0.51	50	23	0.17	2.1	NA	NA	NA	0.79

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	Acetone	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	2-Butanone (MEK)	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	2-Chlorotoluene	4-Chlorotoluene	1,2-Dibromo-3-chloropropane	Dibromochloromethane
		Concentrations in µg/L (ppb)																			
AREA 1																					
MW-44 (continued)	3/16/2015	<20	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/26/2015	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/14/2015	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/16/2015	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	3/21/2016	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/23/2016	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/27/2016	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/9/2016	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	3/23/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/27/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/21/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/13/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	3/15/2018	<20.0	<0.100	<0.250	<0.500	<0.500	<0.500	<5.00	<5.00	<0.500	<0.500	<0.500	<0.500	<0.250	<5.00	<0.500	<2.50	<0.500	<0.500	<2.50	<0.500
	6/28/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/4/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/19/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	3/6/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/19/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/11/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/13/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-45	8/19/2009	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	--	<1.0
MW-49	8/19/2009	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	<0.50	<0.50	**0.12 J**	<5.0	--	--	--	<1.0
	6/2/2010	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	<0.50	<0.50	**0.23 J**	<5.0	--	--	--	<1.0
	11/30/2010	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	<0.50	<0.50	**0.15 J**	<5.0	--	--	--	<1.0
	6/1/2011	<25	<0.20	<0.50	<1.0	<0.50	<1.0	<5.0	<10.0	<5.0	<1.0	<1.0	<0.50	<0.50	<0.50	<0.20	<5.0	<1.0	<1.0	<5.0	<1.0
	12/13/2011	<25	<0.20	<0.50	<1.0	<0.50	<1.0	<5.0	<10.0	<5.0	<1.0	<1.0	<0.50	<0.50	<0.50	**0.12 J**	<5.0	<1.0	<1.0	<5.0	<1.0
	3/27/2012	<1.0	<0.06	<0.14	<0.50	<0.08	<1.0	<0.13	<1.0	**0.063 J**	<0.11	<0.09	<0.12	<0.09	<0.10	**0.13 J**	<0.12	<0.09	<0.12	<1.0	<1.0
	7/5/2012	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	12/4/2012	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	6/18/2013	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	12/12/2013	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	6/11/2014	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.00	<5.0	<1.0	<1.0	<5.0	<1.0
	12/17/2014	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
ROD Cleanup Level [5.]		NA	0.44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	64	NA	NA	NA	NA	NA	NA	NA
JSCS SLV [6.]		1,500	1.2	NA	NA	1.1	8.5	8.7	7,100	NA	NA	NA	0.51	50	23	0.17	2.1	NA	NA	NA	0.79

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	Acetone	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	2-Butanone (MEK)	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	2-Chlorotoluene	4-Chlorotoluene	1,2-Dibromo-3-chloropropane	Dibromochloromethane
		Concentrations in µg/L (ppb)																			
AREA 1																					
MW-49 (continued)	6/30/2015	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.00	<5.0	<1.0	<1.0	<5.0	<1.0
	12/15/2015	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/22/2016	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/6/2016	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/27/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/27/2017 DUP	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/12/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<10.0	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/27/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<10.0	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/19/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/19/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/12/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-50	11/29/2010	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	--	<1.0
	11/29/2010 DUP	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	--	<1.0
	12/13/2011	<25	<0.200	<0.5	<1.0	<1.0	<1.0	<5.0	<10	<1.0	<1.0	<1.0	<0.5	<0.5	<5.0	<0.20	<5.0	<1.0	<1.0	<5.0	<1.0
	3/26/2012	<1.0	<0.06	<0.14	<0.50	<0.08	<1.0	<0.13	<1.0	<0.060	<0.11	<0.09	<0.12	<0.09	<0.10	<0.10	**0.12 J**	<0.09	<0.12	<1.0	<1.0
	7/5/2012	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	12/4/2012	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	12/17/2013	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	12/23/2014	<20	<0.25	<0.5	<1	<1	<1	<5	<10	<1	<1	<1	<0.5	<0.5	<5	<1	<5	<1	<1	<5	<1
	12/16/2015	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/9/2016	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/13/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/19/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/13/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-51	8/19/2009	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	--	<1.0
	12/7/2009	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	--	<1.0
	3/16/2010	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	--	<1.0
	6/2/2010	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	--	<1.0
	8/31/2010	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	<0.50	<0.50	**0.11 J**	<5.0	--	--	--	<1.0
	8/31/2010 DUP	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	<0.50	<0.50	**0.11 J**	<5.0	--	--	--	<1.0
	11/29/2010	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	--	<1.0
	6/1/2011	<25	<0.20	<0.50	<1.0	<0.50	<1.0	<5.0	<10.0	<5.0	<1.0	<1.0	<0.50	<0.50	<0.50	<0.20	<5.0	<1.0	<1.0	<5.0	<1.0
	9/15/2011	<25	<0.20	<0.50	<1.0	<0.50	<1.0	<5.0	<10.0	<5.0	<1.0	<1.0	<0.50	<0.50	<0.50	<0.20	<5.0	<1.0	<1.0	<5.0	<1.0
	12/13/2011	<25	<0.20	<0.50	<1.0	<0.50	<1.0	<5.0	<10.0	<5.0	<1.0	<1.0	<0.50	<0.50	<0.50	<0.20	<5.0	<1.0	<1.0	<5.0	<1.0
ROD Cleanup Level [5.]		NA	0.44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	64	NA	NA	NA	NA	NA	NA	NA
JSCS SLV [6.]		1,500	1.2	NA	NA	1.1	8.5	8.7	7,100	NA	NA	NA	0.51	50	23	0.17	2.1	NA	NA	NA	0.79

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	Acetone	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	2-Butanone (MEK)	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	2-Chlorotoluene	4-Chlorotoluene	1,2-Dibromo-3-chloropropane	Dibromochloromethane
		Concentrations in µg/L (ppb)																			
AREA 1																					
MW-51 (continued)	3/26/2012	<1.0	<0.06	<0.14	<0.50	<0.08	<1.0	<0.13	<1.0	<0.060	<0.11	<0.09	<0.12	<0.09	<0.10	<0.10	<0.12	<0.09	<0.12	<1.0	<1.0
	7/5/2012	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	9/28/2012	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	12/4/2012	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	3/22/2013	<20.0	<0.25	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	6/18/2013	<20.0	<0.25	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	9/9/2013	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<0.500	<0.500	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/11/2013	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<0.500	<0.500	<1.0	<5.00	<1.00	<1.00	<5.00	<1.00
	3/24/2014	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<0.500	<0.500	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/11/2014	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<0.500	<0.500	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/19/2014	<20.0	<0.250	<0.250	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/23/2014	<20	<0.25	<0.5	<1	<1	<1	<5	<10	<1	<1	<1	<0.5	<0.5	<5	<1	<5	<1	<1	<5	<1
	3/15/2015	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/26/2015	<20.0	<0.250	<0.250	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/15/2015	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/16/2015	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	3/21/2016	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/23/2016	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/27/2016	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/9/2016	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	3/23/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/27/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/21/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/13/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	3/15/2018	<20.0	<0.100	<0.250	<0.500	<0.500	<0.500	<5.00	<5.00	<0.500	<0.500	<0.500	<0.500	<0.250	<5.00	<0.500	<2.50	<0.500	<0.500	<2.50	<0.500
	6/28/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/4/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/19/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	3/6/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/19/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/11/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/13/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
ROD Cleanup Level [5.]		NA	0.44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	64	NA	NA	NA	NA	NA	NA	NA
JSCS SLV [6.]		1,500	1.2	NA	NA	1.1	8.5	8.7	7,100	NA	NA	NA	0.51	50	23	0.17	2.1	NA	NA	NA	0.79

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	Acetone	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	2-Butanone (MEK)	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	2-Chlorotoluene	4-Chlorotoluene	1,2-Dibromo-3-chloropropane	Dibromochloromethane
		Concentrations in µg/L (ppb)																			
AREA 1																					
MW-52	8/19/2009	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	--	<1.0
	12/7/2009	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	<0.50	<0.50	**0.14 J**	<5.0	--	--	--	<1.0
	3/16/2010	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	<0.50	<0.50	**0.14 J**	<5.0	--	--	--	<1.0
	3/16/2010 DUP	--	--	<1.0	--	<1.0	<2.0	<10.0	--	--	--	--	<1.0	<1.0	<1.0	<1.0	<10.0	--	--	--	<2.0
	6/2/2010	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	<0.50	<0.50	**0.13 J**	<5.0	--	--	--	<1.0
	8/31/2010	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	<0.50	<0.50	**0.20 J**	<5.0	--	--	--	<1.0
	12/2/2010	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	--	<1.0
	6/2/2011	<25	<0.200	<0.5	<1.0	<1.0	<1.0	<5.0	<10	<1.0	<1.0	<1.0	<0.5	<0.5	<5.0	**0.11 J**	<5.0	<1.0	<1.0	<5.0	<1.0
	9/15/2011	<25	<0.200	<0.5	<1.0	<1.0	<1.0	<5.0	<10	<1.0	<1.0	<1.0	<0.5	<0.5	<5.0	**0.12 J**	<5.0	<1.0	<1.0	<5.0	<1.0
	12/13/2011	<25	<0.200	<0.5	<1.0	<1.0	<1.0	<5.0	<10	<1.0	<1.0	<1.0	<0.5	<0.5	<5.0	**0.11 J**	<5.0	<1.0	<1.0	<5.0	<1.0
	3/29/2012	<1.0	<0.06	<0.14	<0.50	<0.08	<1.0	<0.13	<1.0	<0.060	<0.11	<0.09	<0.12	<0.09	<0.10	**0.10 J**	<0.12	<0.09	<0.12	<1.0	<1.0
	7/5/2012	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	9/28/2012	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	12/4/2012	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	3/22/2013	<20.0	<0.25	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	6/18/2013	<20.0	<0.25	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	9/9/2013	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/12/2013	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.0	<5.00	<1.00	<1.00	<5.00	<1.00
	3/24/2014	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<0.100	<5.00	<1.00	<1.00	<5.00	<1.00
	6/11/2014	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<0.100	<5.00	<1.00	<1.00	<5.00	<1.00
	9/19/2014	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/18/2014	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	3/15/2015	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/30/2015	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/14/2015	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/15/2015	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	3/22/2016	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/21/2016	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	10/4/2016	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/6/2016	<20.0 J	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0 J	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	3/23/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0 J	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/27/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/20/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<10.0	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/12/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
ROD Cleanup Level [5.]		NA	0.44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	64	NA	NA	NA	NA	NA	NA	NA
JSCS SLV [6.]		1,500	1.2	NA	NA	1.1	8.5	8.7	7,100	NA	NA	NA	0.51	50	23	0.17	2.1	NA	NA	NA	0.79

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	Acetone	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	2-Butanone (MEK)	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	2-Chlorotoluene	4-Chlorotoluene	1,2-Dibromo-3-chloropropane	Dibromochloromethane
		Concentrations in µg/L (ppb)																			
AREA 1																					
MW-52 (continued)	3/14/2018	<20.0	<0.100	<0.250	<0.500	<0.500	<0.500	<5.00	<5.00	<0.500	<0.500	<0.500	<0.500	<0.250	<5.00	<0.500	<2.50	<0.500	<0.500	<2.50	<0.500
	6/28/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/4/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/18/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	3/5/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/19/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/19/2019 DUP	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/10/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/10/2019 DUP	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/10/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/10/2019 DUP	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-53	12/7/2009	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	--	<1.0
	12/7/2009 DUP	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	--	<1.0
	12/2/2010	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	--	<1.0
	12/13/2011	<25	<0.200	<0.5	<1.0	<1.0	<1.0	<5.0	<10	<1.0	<1.0	<1.0	<0.5	<0.5	<5.0	<0.20	<5.0	<1.0	<1.0	<5.0	<1.0
	3/27/2012	<1.0	<0.06	<0.14	<0.50	<0.08	<1.0	<0.13	<1.0	<0.060	<0.11	<0.09	<0.12	<0.09	<0.10	<0.10	<0.12	<0.09	<0.12	<1.0	<1.0
	7/5/2012	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	12/4/2012	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	12/12/2013	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	12/18/2014	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/15/2015	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/6/2016	<20.0 J	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0 J	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/12/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/18/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/10/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-62	1/20/2015	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	3/22/2016	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/22/2016	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/22/2016 DUP	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/27/2016	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/27/2016 DUP	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/7/2016	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	3/23/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/26/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/20/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<10.0	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/12/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
ROD Cleanup Level [5.]		NA	0.44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	64	NA	NA	NA	NA	NA	NA	NA
JSCS SLV [6.]		1,500	1.2	NA	NA	1.1	8.5	8.7	7,100	NA	NA	NA	0.51	50	23	0.17	2.1	NA	NA	NA	0.79

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	Acetone	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	2-Butanone (MEK)	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	2-Chlorotoluene	4-Chlorotoluene	1,2-Dibromo-3-chloropropane	Dibromochloromethane
		Concentrations in µg/L (ppb)																			
AREA 1																					
MW-62 (continued)	3/14/2018	<10.0	<0.100	<0.250	<0.500	<0.500	3.25 R	<5.00	<5.00	<0.500	<0.500	<0.500	<0.500	<0.250	<5.00	<0.500	<2.50	<0.500	<0.500	<2.50	2.06 R
	6/27/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/5/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/5/2018 DUP	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/19/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	3/6/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	3/6/2019 DUP	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/19/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/10/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/10/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-70	8/19/2009	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	--	<1.0
	3/16/2010	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	--	<1.0
	6/2/2010	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	--	<1.0
	8/31/2010	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	--	<1.0
	11/30/2010	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	--	<1.0
	6/1/2011	<25	<0.20	<0.50	<1.0	<0.50	<1.0	<5.0	<10.0	<5.0	<1.0	<1.0	<0.50	<0.50	<0.50	**0.12 J**	<5.0	<1.0	<1.0	<5.0	<1.0
	9/15/2011	<25	<0.20	<0.50	<1.0	<0.50	<1.0	<5.0	<10.0	<5.0	<1.0	<1.0	<0.50	<0.50	<0.50	<0.20	<5.0	<1.0	<1.0	<5.0	<1.0
	12/14/2011	<25	<0.20	<0.50	<1.0	<0.50	<1.0	<5.0	<10.0	<5.0	<1.0	<1.0	<0.50	<0.50	<0.50	<0.20	<5.0	<1.0	<1.0	<5.0	<1.0
	3/27/2012	<1.0	<0.06	<0.14	<0.50	<0.08	<1.0	<0.13	<1.0	<0.060	<0.11	<0.09	<0.12	<0.09	<0.10	<0.10	<0.12	<0.09	<0.12	<1.0	<1.0
	7/5/2012	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	9/28/2012	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	12/4/2012	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	3/22/2013	<20.0	<0.25	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	6/18/2013	<20.0	<0.25	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	9/9/2013	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/13/2013	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.0	<5.00	<1.00	<1.00	<5.00	<1.00
	3/24/2014	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/11/2014	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<0.100	<5.00	<1.00	<1.00	<5.00	<1.00
	9/19/2014	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/18/2014	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
ROD Cleanup Level [5.]		NA	0.44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	64	NA	NA	NA	NA	NA	NA	NA
JSCS SLV [6.]		1,500	1.2	NA	NA	1.1	8.5	8.7	7,100	NA	NA	NA	0.51	50	23	0.17	2.1	NA	NA	NA	0.79

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	Acetone	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	2-Butanone (MEK)	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	2-Chlorotoluene	4-Chlorotoluene	1,2-Dibromo-3-chloropropane	Dibromochloromethane
		Concentrations in µg/L (ppb)																			
AREA 1																					
MW-70 (continued)	3/15/2015	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/30/2015	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/14/2015	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/17/2015	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	3/21/2016	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/22/2016	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/27/2016	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/6/2016	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	3/23/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/27/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/20/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/12/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	3/15/2018	<20.0	<0.100	<0.250	<0.500	0.672 R, J	6.18 R	<5.00	<5.00	<0.500	<0.500	<0.500	<0.500	<0.250	<5.00	<0.500	<2.50	<0.500	<0.500	<2.50	4.34 R
	6/28/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/5/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/19/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/19/2018 DUP	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	3/6/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/19/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/10/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/12/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/12/2019 DUP	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-71	6/2/2010	--	--	<1.0	--	<1.0	<2.0	<10.0	--	--	--	--	<1.0	<1.0	<1.0	**0.24 J**	<10	--	--	--	<2.0
	11/30/2010	--	--	<1.0	--	<1.0	<2.0	<10.0	--	--	--	--	<1.0	<1.0	<1.0	**0.56 J**	<10	--	--	--	<2.0
	6/1/2011	<25	<0.20	<0.50	<1.0	<0.50	<1.0	<5.0	<10.0	<5.0	<1.0	<1.0	<0.50	<0.50	<0.50	<0.20	<5.0	<1.0	<1.0	<5.0	<1.0
	12/14/2011	<50	<0.40	<1.0	<2.0	<1.0	<2.0	<10.0	<20	<10	<2.0	<2.0	<1.0	<1.0	<1.0	**0.30 J**	<10	<2.0	<2.0	<10	<2.0
	3/26/2012	<1.0	<0.06	<0.14	<0.50	<0.08	<1.0	<0.13	<1.0	<0.060	<0.11	<0.09	<0.12	<0.09	<0.10	**0.17 J**	<0.12	<0.09	<0.12	<1.0	<1.0
	7/5/2012	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	12/4/2012	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	6/18/2013	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	12/12/2013	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	6/11/2014	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.00	<5.0	<1.0	<1.0	<5.0	<1.0
ROD Cleanup Level [5.]		NA	0.44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	64	NA	NA	NA	NA	NA	NA	NA
JSCS SLV [6.]		1,500	1.2	NA	NA	1.1	8.5	8.7	7,100	NA	NA	NA	0.51	50	23	0.17	2.1	NA	NA	NA	0.79

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	Acetone	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	2-Butanone (MEK)	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	2-Chlorotoluene	4-Chlorotoluene	1,2-Dibromo-3-chloropropane	Dibromochloromethane
		Concentrations in µg/L (ppb)																			
AREA 1																					
MW-71 (continued)	7/6/2015	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.00	<5.0	<1.0	<1.0	<5.0	<1.0
	12/17/2015	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/21/2016	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/6/2016	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/27/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<10.0	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/12/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<10.0	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/27/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/19/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/19/2018 DUP	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/19/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/12/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
WEX-60	12/8/2009	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	--	<1.0
	3/16/2010	--	--	<1.0	--	<1.0	<2.0	<10.0	--	--	--	--	<1.0	<1.0	<1.0	**0.26 J**	<10.0	--	--	--	<2.0
	6/2/2010	--	--	<1.0	--	<1.0	<2.0	<10.0	--	--	--	--	<1.0	<1.0	<1.0	**0.22 J**	<10.0	--	--	--	<2.0
	8/31/2010	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	**0.19 J**	<0.50	**0.20 J**	<5.0	--	--	--	<1.0
	11/31/2010	--	--	<1.0	--	<1.0	<2.0	<10.0	--	--	--	--	<1.0	<1.0	<1.0	**0.22 J**	<10.0	--	--	--	<2.0
	11/31/2010 DUP	--	--	<1.0	--	<1.0	<2.0	<10.0	--	--	--	--	<1.0	<1.0	<1.0	**0.26 J**	<10.0	--	--	--	<2.0
	6/1/2011	<25	<0.20	<0.50	<1.0	<0.50	<1.0	<5.0	<10.0	<5.0	<1.0	<1.0	<0.50	**0.14 J**	<0.50	**0.09 J**	<5.0	<1.0	<1.0	<5.0	<1.0
	6/1/2011 DUP	<25	<0.20	<0.50	<1.0	<0.50	<1.0	<5.0	<10.0	<5.0	<1.0	<1.0	<0.50	<0.50	<0.50	**0.11 J**	<5.0	<1.0	<1.0	<5.0	<1.0
	9/15/2011	<25	<0.20	<0.50	<1.0	<0.50	<1.0	<5.0	<10.0	<5.0	<1.0	<1.0	<0.50	<0.50	<0.50	**0.11 J**	<5.0	<1.0	<1.0	<5.0	<1.0
	9/15/2011 DUP	<25	<0.20	<0.50	<1.0	<0.50	<1.0	<5.0	<10.0	<5.0	<1.0	<1.0	<0.50	<0.50	<0.50	**0.10 J**	<5.0	<1.0	<1.0	<5.0	<1.0
	12/13/2011	<25	<0.20	<0.50	<1.0	<0.50	<1.0	<5.0	<10.0	<5.0	<1.0	<1.0	<0.50	<0.50	<0.50	**0.14 J**	<5.0	<1.0	<1.0	<5.0	<1.0
	3/29/2012	<1.0	<0.06	<0.14	<0.50	<0.08	<1.0	<0.13	<1.0	<0.060	<0.11	<0.09	<0.12	<0.09	<0.10	**0.12 J**	<0.12	<0.09	<0.12	<1.0	<1.0
	7/5/2012	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	7/5/2012 DUP	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	9/28/2012	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	9/28/2012 DUP	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	12/4/2012	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	12/4/2012 DUP	<20.0	<0.250	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	3/22/2013	<20.0	<0.25	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	3/22/2013 DUP	<20.0	<0.25	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	6/18/2013	<20.0	<0.25	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	6/18/2013 DUP	<20.0	<0.25	<0.50	<1.0	<1.0	<1.0	<5.0	<10.0	<1.0	<1.0	<1.0	<0.50	<0.50	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
ROD Cleanup Level [5.]		NA	0.44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	64	NA	NA	NA	NA	NA	NA	NA
JSCS SLV [6.]		1,500	1.2	NA	NA	1.1	8.5	8.7	7,100	NA	NA	NA	0.51	50	23	0.17	2.1	NA	NA	NA	0.79

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	Acetone	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	2-Butanone (MEK)	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	2-Chlorotoluene	4-Chlorotoluene	1,2-Dibromo-3-chloropropane	Dibromochloromethane
		Concentrations in µg/L (ppb)																			
AREA 1																					
WEX-60 (continued)	9/9/2013	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/11/2013	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.0	<5.00	<1.00	<1.00	<5.00	<1.00
	12/12/2013	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.0	<5.00	<1.00	<1.00	<5.00	<1.00
	3/24/2014	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<0.100	<5.00	<1.00	<1.00	<5.00	<1.00
	3/24/2014 DUP	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<0.100	<5.00	<1.00	<1.00	<5.00	<1.00
	6/11/2014	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<0.100	<5.00	<1.00	<1.00	<5.00	<1.00
	6/11/2014 DUP	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<0.100	<5.00	<1.00	<1.00	<5.00	<1.00
	6/11/2014 DUP	<20.0	<0.250	<0.50	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	10/29/2014	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	10/29/2014 DUP	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/18/2014	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/18/2014 DUP	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	3/15/2015	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/30/2015	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/30/2015 DUP	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/30/2015 DUP	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/14/2015	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	1/20/2016	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	3/22/2016	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	3/22/2016 DUP	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/22/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/27/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/7/2016	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/7/2016 DUP	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	3/22/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	3/22/2017 DUP	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/29/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/20/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/20/2017 DUP	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<10.0	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/12/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<10.0	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/12/2017 DUP	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<10.0	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
ROD Cleanup Level [5.]		NA	0.44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	64	NA	NA	NA	NA	NA	NA	NA
JSCS SLV [6.]		1,500	1.2	NA	NA	1.1	8.5	8.7	7,100	NA	NA	NA	0.51	50	23	0.17	2.1	NA	NA	NA	0.79

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	Acetone	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	2-Butanone (MEK)	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	2-Chlorotoluene	4-Chlorotoluene	1,2-Dibromo-3-chloropropane	Dibromochloromethane
		Concentrations in µg/L (ppb)																			
AREA 1																					
WEX-60 (continued)	3/14/2018	<10.0	<0.100	<0.250	<0.500	0.852 R J	6.71 R	<5.00	<5.00	<0.500	<0.500	<0.500	<0.500	<0.250	<5.00	<0.500	<2.50	<0.500	<0.500	<2.50	4.74 R
	3/14/2018 DUP	<10.0	<0.100	<0.250	<0.500	<0.500	<0.500	<5.00	<5.00	<0.500	<0.500	<0.500	<0.500	<0.250	<5.00	<0.500	<2.50	<0.500	<0.500	<2.50	<0.500
	6/27/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/27/2018 DUP	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/4/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/19/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	3/6/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/21/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/10/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/12/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-90	7/2/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	**2.11**	<5.00	<1.00	<1.00	<5.00	<1.00
	9/10/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/12/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-91	7/2/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	7/2/2019 DUP	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/10/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/12/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
AREA 2																					
MW-17	6/3/2010	<25	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<10.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	6/3/2010 DUP	<25	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<10.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	12/1/2010	<25	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<10.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	12/1/2010 DUP	<25	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<10.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	6/2/2011	<25	<0.2	<0.5	<1.0	<1.0	<1.0	<5.0	<10	<1.0	<1.0	<1.0	<0.5	<0.5	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	12/14/2011	<25	<0.2	<0.5	<1.0	<1.0	<1.0	<5.0	<10	<1.0	<1.0	<1.0	<0.5	<0.5	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	12/14/2011 DUP	<25	<0.2	<0.5	<1.0	<1.0	<1.0	<5.0	<10	<1.0	<1.0	<1.0	<0.5	<0.5	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	3/27/2012	<1.0	<0.06	<0.14	<0.5	<0.08	<1.0	<0.13	<1.0	<0.06	<0.11	<0.09	<0.12	<0.09	<0.1	<0.1	<0.12	<0.09	<0.12	<1.0	<0.11
	3/27/2012 DUP	<1.0	<0.06	<0.14	<0.5	<0.08	<1.0	<0.13	<1.0	**0.098 J**	<0.11	<0.09	<0.12	<0.09	<0.1	<0.1	<0.12	<0.09	<0.12	<1.0	<0.11
	7/6/2012	<20	<0.25	<0.5	<1.0	<1.0	<1.0	<5.0	<10	<1.0	<1.0	<1.0	<0.5	<0.5	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	12/5/2012	<20	<0.25	<0.5	<1.0	<1.0	<1.0	<5.0	<10	<1.0	<1.0	<1.0	<0.5	<0.5	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
ROD Cleanup Level [5.]		NA	0.44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	64	NA	NA	NA	NA	NA	NA	NA
JSCS SLV [6.]		1,500	1.2	NA	NA	1.1	8.5	8.7	7,100	NA	NA	NA	0.51	50	23	0.17	2.1	NA	NA	NA	0.79

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	Acetone	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	2-Butanone (MEK)	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	2-Chlorotoluene	4-Chlorotoluene	1,2-Dibromo-3-chloropropane	Dibromochloromethane
		Concentrations in µg/L (ppb)																			
AREA 2																					
MW-17 (continued)	6/19/2013	<20	<0.25	<0.5	<1.0	<1.0	<1.0	<5.0	<10	<1.0	<1.0	<1.0	<0.5	<0.5	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	6/19/2013 DUP	<20	<0.25	<0.5	<1.0	<1.0	<1.0	<5.0	<10	<1.0	<1.0	<1.0	<0.5	<0.5	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	12/16/2013	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<0.500	<10.0	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/16/2013 DUP	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<0.500	<10.0	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/11/2014	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<0.500	<10.0	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/11/2014 DUP	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<0.500	<10.0	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/22/2014	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/22/2014 DUP	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	7/6/2015	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/17/2015	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/17/2015 DUP	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/22/2016	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/22/2016 DUP	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/9/2016	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/9/2016 DUP	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/28/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/13/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/13/2017 DUP	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/27/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/27/2018 DUP	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/19/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	3/6/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/19/2019	**21.4**	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/10/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/16/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/16/2019 DUP	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-31	8/20/2009	<25	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<10.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	8/20/2009 DUP	<25	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<10.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	1/21/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-66	12/7/2009	--	--	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	<0.50	<0.50	<0.50	<5.0	--	--
	1/21/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-81	12/8/2009	<25.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<10.0	<5.0	<1.0	<1.0	<1.0	<1.0	**7.22**	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	12/8/2009 DUP	<25.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<10.0	<5.0	<1.0	<1.0	<1.0	<1.0	**7.03**	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
ROD Cleanup Level [5.]		NA	0.44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	64	NA	NA	NA	NA	NA	NA	NA
JSCS SLV [6.]		1,500	1.2	NA	NA	1.1	8.5	8.7	7,100	NA	NA	NA	0.51	50	23	0.17	2.1	NA	NA	NA	0.79

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	Acetone	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	2-Butanone (MEK)	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	2-Chlorotoluene	4-Chlorotoluene	1,2-Dibromo-3-chloropropane	Dibromochloromethane
		Concentrations in µg/L (ppb)																			
AREA 2																					
MW-82	7/2/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/10/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/12/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-83	7/2/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	7/2/2019 DUP	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/11/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/12/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-84	7/2/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/10/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/16/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-85	7/2/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	7/2/2019 DUP	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/11/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/12/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-92	7/2/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/10/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/12/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
SMW-12	12/1/2010	--	--	<0.50	--	<0.50	<1.0	<5.0	--	--	--	--	<0.50	<0.5	<0.50	<0.5	<5.0	--	--	--	<1.0
	12/15/2011	<25	<0.2	<0.5	<1.0	<1.0	<1.0	<5.0	<10	<1.0	<1.0	<1.0	<0.5	<0.5	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	3/27/2012	<1.0	<0.06	<0.14	<0.5	<0.08	<1.0	<0.13	<1.0	<0.06	<0.11	<0.09	<0.12	<0.09	<0.1	<0.1	<0.12	<0.09	<0.12	<1.0	<0.11
	7/6/2012	<20	<0.25	<0.5	<1.0	<1.0	<1.0	<5.0	<10	<1.0	<1.0	<1.0	<0.5	<0.5	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	7/6/2012 DUP	<20	<0.25	<0.5	<1.0	<1.0	<1.0	<5.0	<10	<1.0	<1.0	<1.0	<0.5	<0.5	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	12/5/2012	<20	<0.25	<0.5	<1.0	<1.0	<1.0	<5.0	<10	<1.0	<1.0	<1.0	<0.5	<0.5	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
	12/16/2013	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<0.500	<10.0	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/22/2014	<20.0	<0.250	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<0.500	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/17/2015	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	**1.35**	<5.00	<1.00	<1.00	<5.00	<1.00
	12/9/2016	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/13/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
SMW-14	12/7/2009	<25.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<10.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
SMW-18	12/7/2009	<25.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<10.0	<5.0	<1.0	<1.0	<1.0	<1.0	**2.86**	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0
SCHNITZER ASD YARD																					
MW-10	12/14/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/27/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/18/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	3/4/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
ROD Cleanup Level [5.]		NA	0.44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	64	NA	NA	NA	NA	NA	NA	NA
JSCS SLV [6.]		1,500	1.2	NA	NA	1.1	8.5	8.7	7,100	NA	NA	NA	0.51	50	23	0.17	2.1	NA	NA	NA	0.79

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	Acetone	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	2-Butanone (MEK)	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	2-Chlorotoluene	4-Chlorotoluene	1,2-Dibromo-3-chloropropane	Dibromochloromethane
		Concentrations in µg/L (ppb)																			
SCHNITZER ASD YARD																					
MW-14	1/21/2019	<20.0	**0.242**	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	**18.9**	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	3/5/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	**14.5**	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/20/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	**9.42**	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/11/2019	**23.8**	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/11/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-73	12/14/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/27/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/18/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	3/5/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-74	12/14/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/27/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/19/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	3/5/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-76	12/14/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/27/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/19/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	3/5/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-77	12/14/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/27/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/19/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	3/4/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-79	12/14/2017	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	6/27/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/18/2018	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	3/4/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-86	7/2/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	**1.42**	<5.00	<1.00	<1.00	<5.00	<1.00
	9/10/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/13/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
ROD Cleanup Level [5.]		NA	0.44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	64	NA	NA	NA	NA	NA	NA	NA
JSCS SLV [6.]		1,500	1.2	NA	NA	1.1	8.5	8.7	7,100	NA	NA	NA	0.51	50	23	0.17	2.1	NA	NA	NA	0.79

Please refer to notes at end of table.

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Gunderson LLC
Portland, Oregon

Well ID	Sample Date	Acetone	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	2-Butanone (MEK)	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	2-Chlorotoluene	4-Chlorotoluene	1,2-Dibromo-3-chloropropane	Dibromochloromethane
		Concentrations in µg/L (ppb)																			
SCHNITZER ASD YARD																					
MW-87	7/2/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/11/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/11/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-88	7/2/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/11/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/13/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
MW-89	7/2/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	9/10/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
	12/16/2019	<20.0	<0.200	<0.500	<1.00	<1.00	<1.00	<5.00	<10.0	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00
ROD Cleanup Level [5.]		NA	0.44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	64	NA	NA	NA	NA	NA	NA	NA
JSCS SLV [6.]		1,500	1.2	NA	NA	1.1	8.5	8.7	7,100	NA	NA	NA	0.51	50	23	0.17	2.1	NA	NA	NA	0.79

Please refer to notes at end of table.

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
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Well ID	Sample Date	1,2-Dibromoethane (EDB)	Dibromomethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-Dichloroethane (EDC)	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,2-Dichloropropane	1,3-Dichloropropane	2,2-Dichloropropane	1,1-Dichloropropene	cis-1,3-Dichloropropene	trans-1,3-Dichloropropene	Ethylbenzene	Hexachlorobutadiene	2-Hexanone	Isopropylbenzene	4-Isopropyltoluene
		Concentrations in µg/L (ppb)																					
AREA 1																							
MW-19	12/1/2010	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**0.12 J**	<0.50	**0.30 J**	<0.50	<0.50	<0.50	--	--	--	<0.50	<0.50	--	--	--	--	--
	12/14/2011	<0.5	<1.0	<0.5	<0.5	<0.5	<1.0	<0.50	<0.5	<0.50	**0.48 J**	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<5.0	<10	<1.0	<1.0
	3/30/2012	<1.0	<0.50	<0.13	<0.11	<0.09	<0.08	**0.11 J**	<0.07	<0.15	**0.32 J**	<0.10	<0.14	<0.10	<0.09	<0.09	<0.10	<0.09	<0.08	<1.0	<5.0	<0.09	<0.08
	7/5/2012	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	12/4/2012	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	12/12/2013	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	12/18/2014	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	**0.30**	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/15/2015	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/7/2016	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0 J	<1.00	<1.00
	12/12/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0 J	<1.00	<1.00
	12/19/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/16/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-21	8/19/2009	<0.50	<0.50	**0.25 J**	<0.50	<0.50	<5.0	**18.5**	<0.50	**6.99**	**0.37 J**	<0.50	<0.50	--	--	--	<0.50	<0.50	--	--	--	--	--
	6/2/2010	<0.50	<0.50	**0.42 J**	<0.50	<0.50	<5.0	**24.2**	<0.50	**25.6**	**0.14 J**	<0.50	<0.50	--	--	--	<0.50	<0.50	--	--	--	--	--
	11/30/2010	<0.50	<0.50	**0.44 J**	<0.50	<0.50	<5.0	**20.4**	<0.50	**23.9**	**0.20 J**	<0.50	<0.50	--	--	--	<0.50	<0.50	--	--	--	--	--
	6/1/2011	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**18.0**	<0.50	**13.3**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<0.50	<1.0	**0.23 J**	<10.0	<2.0	<2.0
	12/13/2011	<0.50	<0.50	**0.50**	<0.50	<0.50	<5.0	**10.7**	<0.50	**7.42**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<0.50	<1.0	<4.0	<10.0	<2.0	<2.0
	3/26/2012	<1.0	<0.50	<0.13	<0.11	<0.09	<0.08	**21.0**	<0.07	**18.0**	<0.14	<0.10	<0.14	<0.10	<0.09	<0.09	<0.10	<0.09	<0.08	<1.0	<5.0	<0.09	<0.08
	7/5/2012	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**13.3**	<0.50	**11.2**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	12/5/2012	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**30.6**	<0.50	**29.1**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	6/18/2013	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**13.6**	<0.50	**11.9**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	12/12/2013	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**5.88**	<0.50	**2.07**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	6/11/2014	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**18.3**	<0.50	**12.9**	<0.500	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	12/18/2014	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**14.5**	<0.500	**10.1**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/30/2015	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**2.99**	<0.500	**0.890**	<0.500	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	12/15/2015	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**15.9**	<0.500	**12.0**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/22/2016	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**10.6**	<0.500	**6.72**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/6/2016	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00 J	**10.8**	<0.500	**8.58**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/27/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**7.69**	<0.500	**5.28**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/12/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**2.11**	<0.400	**1.60**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
ROD Cleanup Level [5.]		NA	NA	NA	NA	NA	NA	NA	NA	7	70	NA	NA	NA	NA	NA	NA	NA	7.3	NA	NA	NA	NA
JSCS SLV [6.]		0.033	61	49	14	2.8	390	47	0.73	NA	61	110	0.97	NA	NA	NA	0.055	0.055	7.3	0.86	99	660	NA

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	1,2-Dibromoethane (EDB)	Dibromomethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-Dichloroethane (EDC)	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,2-Dichloropropane	1,3-Dichloropropane	2,2-Dichloropropane	1,1-Dichloropropene	cis-1,3-Dichloropropene	trans-1,3-Dichloropropene	Ethylbenzene	Hexachlorobutadiene	2-Hexanone	Isopropylbenzene	4-Isopropyltoluene
		Concentrations in µg/L (ppb)																					
AREA 1																							
MW-21 (continued)	6/28/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**1.6**	<0.400	**1.05**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/18/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**0.839**	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/18/2018 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**0.848**	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/19/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**2.10**	<0.400	**2.29**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/10/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**0.730**	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/10/2019 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**0.750**	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-22	11/30/2010	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	<0.50	<0.50	--	--	--	--	--
	12/14/2011	<0.5	<1.0	<0.5	<0.5	<0.5	<1.0	<0.50	<0.5	<0.50	<0.50	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<5.0	<10	<1.0	<1.0
	3/26/2012	<1.0	<0.50	<0.13	<0.11	<0.09	<0.08	<0.09	<0.07	<0.15	<0.14	<0.10	<0.14	<0.10	<0.09	<0.09	<0.10	<0.09	<0.08	<1.0	<5.0	<0.09	<0.08
	7/5/2012	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	12/4/2012	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	12/13/2013	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	12/18/2014	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/15/2015	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/7/2016	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0 J	<1.00	<1.00
	12/14/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/20/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/12/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-27	8/19/2009	<1.0	<1.0	**0.20 J**	<1.0	<1.0	<10	**64.8**	**1.0**	**69.9**	<1.0	<1.0	<1.0	--	--	--	<1.0	<1.0	--	--	--	--	--
	6/2/2010	<1.0	<1.0	<1.0	<1.0	<1.0	<10	**68.2**	**1.2**	**79.6**	<1.0	<1.0	<1.0	--	--	--	<1.0	<1.0	--	--	--	--	--
	11/30/2010	<1.0	<1.0	**0.14 J**	<1.0	<1.0	<10	**47.6**	**0.8 J**	**51.8**	<1.0	<1.0	<1.0	--	--	--	<1.0	<1.0	--	--	--	--	--
	6/1/2011	<1.0	<1.0	**0.22 J**	<1.0	<1.0	<10	**45.1**	**0.68 J**	**55.1**	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<1.0	<1.0	<2.0	<8.0	<20	<4.0	<4.0
	12/13/2011	<0.50	<0.50	**0.27 J**	<0.50	<0.50	<5.0	**27.0**	<0.50	**33.0**	**0.16 J**	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<0.50	<1.0	<4.0	<10.0	<2.0	<2.0
	12/13/2011 DUP	<0.50	<0.50	**0.31 J**	<0.50	<0.50	<5.0	**25.6**	<0.50	**29.7**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<0.50	<1.0	<4.0	<10.0	<2.0	<2.0
	3/26/2012	<1.0	<0.50	**0.32 J**	<0.11	<0.09	<0.08	**42.0**	**0.55 J**	**57**	<0.14	<0.10	<0.14	<0.10	<0.09	<0.09	<0.10	<0.09	<0.08	<1.0	<5.0	<0.09	<0.08
	3/26/2012 DUP	<1.0	<0.50	**0.32 J**	<0.11	<0.09	<0.08	**42.0**	**0.52 J**	**59**	<0.14	<0.10	<0.14	<0.10	<0.09	<0.09	<0.10	<0.09	<0.08	<1.0	<5.0	<0.09	<0.08
	7/5/2012	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**28.8**	<0.50	**41.6**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	12/4/2012	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**41.5**	<0.50	**53.8**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	6/18/2013	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**18.1**	<0.50	**22.5**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	12/12/2013	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**19.7**	<0.50	**25.9**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	6/11/2014	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**13.2**	<0.50	**17.5**	<0.500	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	12/18/2014	<0.500	<1.00	**0.30**	<0.500	<0.500	<1.00	**21.5**	0.29	**36.8**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
ROD Cleanup Level [5.]		NA	NA	NA	NA	NA	NA	NA	NA	7	70	NA	NA	NA	NA	NA	NA	NA	7.3	NA	NA	NA	NA
JSCS SLV [6.]		0.033	61	49	14	2.8	390	47	0.73	NA	61	110	0.97	NA	NA	NA	0.055	0.055	7.3	0.86	99	660	NA

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	1,2-Dibromoethane (EDB)	Dibromomethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-Dichloroethane (EDC)	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,2-Dichloropropane	1,3-Dichloropropane	2,2-Dichloropropane	1,1-Dichloropropene	cis-1,3-Dichloropropene	trans-1,3-Dichloropropene	Ethylbenzene	Hexachlorobutadiene	2-Hexanone	Isopropylbenzene	4-Isopropyltoluene
		Concentrations in µg/L (ppb)																					
AREA 1																							
MW-27 (continued)	6/30/2015	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**8.90**	<0.50	**5.80**	<0.500	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	6/30/2015 DUP	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**8.95**	<0.50	**5.70**	<0.500	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	12/15/2015	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**26.6**	**0.280 J**	**47.9**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/21/2016	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**9.54**	<0.500	**9.88**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/6/2016	<0.500	<1.00	**0.264 J**	<0.500	<0.500	<1.00 J	**23.8**	<0.500	**32.9**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/27/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	**0.50**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/12/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**6.47**	<0.400	**8.05**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/28/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**5.00**	<0.400	**7.27**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/19/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**10.9**	<0.400	**18.2**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/19/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**7.10**	<0.400	**11.2**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/10/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**3.94**	<0.400	**7.02**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-36	8/19/2009	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**87.2**	<0.50	**90.3**	<0.50	<0.50	<0.50	--	--	--	<0.50	<0.50	--	--	--	--	--
	3/16/2010	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**85.3**	<0.50	**81.6**	<0.50	<0.50	<0.50	--	--	--	<0.50	<0.50	--	--	--	--	--
	6/2/2010	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**56**	<0.50	**58.8**	<0.50	<0.50	<0.50	--	--	--	<0.50	<0.50	--	--	--	--	--
	6/2/2010 DUP	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**56**	<0.50	**59.2**	<0.50	<0.50	<0.50	--	--	--	<0.50	<0.50	--	--	--	--	--
	8/31/2010	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**77.5**	<0.50	**71.8**	<0.50	<0.50	<0.50	--	--	--	<0.50	<0.50	--	--	--	--	--
	8/31/2010 DUP	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**74.8**	<0.50	**68.4**	<0.50	<0.50	<0.50	--	--	--	<0.50	<0.50	--	--	--	--	--
	11/30/2010	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**77.4**	<0.50	**66.2**	<0.50	<0.50	<0.50	--	--	--	<0.50	<0.50	--	--	--	--	--
	6/1/2011	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**27.2**	<0.50	**26.4**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<0.50	<1.0	<4.0	<10.0	<2.0	<2.0
	9/15/2011	<1.0	<1.0	<1.0	<1.0	<1.0	<10.0	**47.8**	<1.0	**172**	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<1.0	<1.0	<2.0	<8.0	<20	<4.0	<4.0
	12/14/2011	<2.5	<2.5	<2.5	<2.5	<2.5	<25.0	**43.0**	<2.5	**133**	<2.5	<2.5	<2.5	<5.0	<5.0	<5.0	<2.5	<2.5	<5.0	<20.0	<50.0	<10.0	<10.0
	3/30/2012	<1.0	<0.50	<0.13	<0.11	<0.09	<0.08	**33.0**	<0.07	**33.0**	<0.14	<0.10	<0.14	<0.10	<0.09	<0.09	<0.10	<0.09	<0.08	<1.0	<5.0	<0.09	<0.08
	7/5/2012	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**11.3**	<0.50	**16.2**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	9/28/2012	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**44.4**	<0.50	**185.0**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	12/4/2012	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**13.4**	<0.50	**33.9**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	3/22/2013	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	**3.1**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	6/19/2013	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	9/9/2013	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/9/2013 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/13/2013	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**21.9**	<0.500	**106**	<0.50	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
ROD Cleanup Level [5.]		NA	NA	NA	NA	NA	NA	NA	NA	7	70	NA	NA	NA	NA	NA	NA	NA	7.3	NA	NA	NA	NA
JSCS SLV [6.]		0.033	61	49	14	2.8	390	47	0.73	NA	61	110	0.97	NA	NA	NA	0.055	0.055	7.3	0.86	99	660	NA

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	1,2-Dibromoethane (EDB)	Dibromomethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-Dichloroethane (EDC)	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,2-Dichloropropane	1,3-Dichloropropane	2,2-Dichloropropane	1,1-Dichloropropene	cis-1,3-Dichloropropene	trans-1,3-Dichloropropene	Ethylbenzene	Hexachlorobutadiene	2-Hexanone	Isopropylbenzene	4-Isopropyltoluene
		Concentrations in µg/L (ppb)																					
AREA 1																							
MW-36 (continued)	3/24/2014	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/11/2014	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/19/2014	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**32.0**	<0.500	**169**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/18/2014	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	3/9/2015 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**24.1**	<0.500	**97**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	3/9/2015	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**25.3**	<0.500	**103**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/30/2015	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/16/2015	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**34.5**	<0.500	**160**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/15/2015	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	3/21/2016	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/22/2016	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/26/2016	<0.501	<1.01	<0.500	<0.500	<0.500	<1.01	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/6/2016	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**5.23**	<0.500	**26.4**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	3/22/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/27/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/20/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/12/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	1.66	<0.400	**7.74**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	3/14/2018	<0.250	<0.500	<0.250	<0.250	<0.250	<0.500	<0.200	<0.200	<0.200	<0.200	<0.200	<0.250	<0.500	<0.500	<0.500	<0.500	<0.500	<0.250	<2.50	<10.0	<0.500	<0.500
	6/28/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/5/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**35.9**	<0.400	**172**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/19/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/19/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**5.88**	<0.400	**29.0**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/19/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/10/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/12/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**13.9**	<0.400	**77.3**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-38	8/19/2009	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**39.2**	**0.2 J**	**50.1**	<0.50	<0.50	<0.50	--	--	--	<0.50	<0.50	--	--	--	--	--
MW-39	8/19/2009	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**6.05**	<0.50	**5.02**	<0.50	<0.50	<0.50	--	--	--	<0.50	<0.50	--	--	--	--	--
	6/2/2010	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**22.3**	<0.50	**29.4**	<0.50	<0.50	<0.50	--	--	--	<0.50	<0.50	--	--	--	--	--
	11/30/2010	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**9.51**	<0.50	**11.2**	<0.50	<0.50	<0.50	--	--	--	<0.50	<0.50	--	--	--	--	--
	6/1/2011	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<0.50	**0.9**	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<0.50	<1.0	<4.0	<10.0	<2.0	<2.0
	12/13/2011	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**4.76**	<0.50	**3.56**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<0.50	<1.0	<4.0	<10.0	<2.0	<2.0
ROD Cleanup Level [5.]		NA	NA	NA	NA	NA	NA	NA	NA	7	70	NA	NA	NA	NA	NA	NA	NA	7.3	NA	NA	NA	NA
JSCS SLV [6.]		0.033	61	49	14	2.8	390	47	0.73	NA	61	110	0.97	NA	NA	NA	0.055	0.055	7.3	0.86	99	660	NA

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	1,2-Dibromoethane (EDB)	Dibromomethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-Dichloroethane (EDC)	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,2-Dichloropropane	1,3-Dichloropropane	2,2-Dichloropropane	1,1-Dichloropropene	cis-1,3-Dichloropropene	trans-1,3-Dichloropropene	Ethylbenzene	Hexachlorobutadiene	2-Hexanone	Isopropylbenzene	4-Isopropyltoluene
		Concentrations in µg/L (ppb)																					
AREA 1																							
MW-39 (continued)	3/27/2012	<1.0	<0.50	<0.13	<0.11	<0.09	<0.08	**0.53 J**	<0.07	**0.47 J**	**0.23 J**	<0.10	<0.14	<0.10	<0.09	<0.09	<0.10	<0.09	<0.08	<1.0	<5.0	<0.09	<0.08
	7/5/2012	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**0.87**	<0.50	**0.77**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	12/3/2012	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**1.10**	<0.50	**0.79**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	6/18/2013	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**1.68**	<0.50	**1.71**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	12/13/2013	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**3.28**	<0.50	**3.04**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	6/11/2014	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**1.81**	<0.50	**1.90**	<0.500	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	12/17/2014	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**8.84**	<0.500	**6.21**	<0.500	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	7/6/2015	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<0.500	<0.500	<0.500	<0.500	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	12/15/2015	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**2.35**	<0.500	**1.79**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/21/2016	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/6/2016	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/26/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00 Q-31	**3.24**	<0.500	**2.64**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/12/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**6.26**	<0.400	**4.43**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/27/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**1.39**	<0.400	**1.18**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/19/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**0.760**	<0.400	**0.490**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/19/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**1.43**	<0.400	**1.05**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/12/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**4.03**	<0.400	**3.04**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-41	12/1/2010	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**0.58**	<0.50	**1.14**	<0.50	<0.50	<0.50	--	--	--	<0.50	<0.50	--	--	--	--	--
	12/14/2011	<0.5	<1.0	<0.5	<0.5	<0.5	<1.0	**0.21 J**	<0.5	<0.50	<0.50	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<5.0	<10	<1.0	<1.0
	3/26/2012	<1.0	<0.50	<0.13	<0.11	<0.09	<0.08	<0.09	<0.07	<0.15	<0.14	<0.10	<0.14	<0.10	<0.09	<0.09	<0.10	<0.09	<0.08	<1.0	<5.0	<0.09	<0.08
	12/4/2012	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	12/16/2013	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	12/23/2014	<0.5	<1	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	12/17/2015	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/7/2016	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0 J	<1.00	<1.00
	12/12/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/20/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/10/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
ROD Cleanup Level [5.]		NA	NA	NA	NA	NA	NA	NA	NA	7	70	NA	NA	NA	NA	NA	NA	NA	7.3	NA	NA	NA	NA
JSCS SLV [6.]		0.033	61	49	14	2.8	390	47	0.73	NA	61	110	0.97	NA	NA	NA	0.055	0.055	7.3	0.86	99	660	NA

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	1,2-Dibromoethane (EDB)	Dibromomethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-Dichloroethane (EDC)	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,2-Dichloropropane	1,3-Dichloropropane	2,2-Dichloropropane	1,1-Dichloropropene	cis-1,3-Dichloropropene	trans-1,3-Dichloropropene	Ethylbenzene	Hexachlorobutadiene	2-Hexanone	Isopropylbenzene	4-Isopropyltoluene
		Concentrations in µg/L (ppb)																					
AREA 1																							
MW-42	11/30/2010	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**6.12**	<0.50	**8.31**	<0.50	<0.50	<0.50	--	--	--	<0.50	<0.50	--	--	--	--	--
	12/14/2011	<0.5	<1.0	<0.5	<0.5	<0.5	<1.0	**1.66**	<0.5	**3.71**	<0.50	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<5.0	<10	<1.0	<1.0
	3/26/2012	<1.0	<0.50	<0.13	<0.11	<0.09	<0.08	**0.79 J**	<0.07	**0.78 J**	<0.14	<0.10	<0.14	<0.10	<0.09	<0.09	<0.10	<0.09	<0.08	<1.0	<5.0	<0.09	<0.08
	7/5/2012	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	12/4/2012	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	12/17/2013	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	12/18/2014	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**3.65**	<0.500	**3.52**	<0.500	<0.500	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	12/15/2015	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**2.39**	<0.500	**4.27**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/7/2016	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00 J	**1.83**	<0.500	**3.46**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/14/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**1.22**	<0.400	**3.11**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/20/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**0.635**	<0.500	**1.21**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/11/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.500	<0.400	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-43	11/29/2010	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**0.65**	<0.50	**0.35 J**	**0.78**	<0.50	<0.50	--	--	--	<0.50	<0.50	--	--	--	--	--
	12/13/2011	<0.5	<1.0	<0.5	<0.5	<0.5	<1.0	**0.68**	<0.5	**0.54**	**0.52**	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<5.0	<10	<1.0	<1.0
	3/26/2012	<1.0	<0.50	<0.13	<0.11	<0.09	<0.08	**0.28 J**	<0.07	**0.25 J**	**0.85 J**	<0.10	<0.14	<0.10	<0.09	<0.09	<0.10	<0.09	<0.08	<1.0	<5.0	<0.09	<0.08
	7/5/2012	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	12/4/2012	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**0.56**	<0.50	**0.52**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	12/17/2013	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	3/25/2014	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<0.500	<0.50	<0.500	<0.500	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	6/11/2014	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<0.500	<0.50	<0.500	<0.500	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	9/19/2014	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**0.440 J**	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.0	<10.0	<1.0	<1.0
	12/23/2014	<0.5	<1	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<0.5	<5	<10	<1	<1
	3/16/2015	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**2.27**	<0.500	<0.500	**0.53**	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10	<1.00	<1.00
	7/6/2015	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**4.81**	<0.500	**1.82**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10	<1.00	<1.00
	9/16/2015	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**2.45**	<0.500	**0.360**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10	<1.00	<1.00
	12/16/2015	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**5.59**	<0.500	**1.85**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
ROD Cleanup Level [5.]		NA	NA	NA	NA	NA	NA	NA	NA	7	70	NA	NA	NA	NA	NA	NA	NA	7.3	NA	NA	NA	NA
JSCS SLV [6.]		0.033	61	49	14	2.8	390	47	0.73	NA	61	110	0.97	NA	NA	NA	0.055	0.055	7.3	0.86	99	660	NA

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	1,2-Dibromoethane (EDB)	Dibromomethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-Dichloroethane (EDC)	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,2-Dichloropropane	1,3-Dichloropropane	2,2-Dichloropropane	1,1-Dichloropropene	cis-1,3-Dichloropropene	trans-1,3-Dichloropropene	Ethylbenzene	Hexachlorobutadiene	2-Hexanone	Isopropylbenzene	4-Isopropyltoluene
		Concentrations in µg/L (ppb)																					
AREA 1																							
MW-43 (continued)	3/21/2016	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/23/2016	<0.500	<1.00	<0.500	**0.28**	<0.500	<1.00	**0.76**	<0.500	**0.26**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/27/2016	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**5.23**	<0.500	**1.21**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/9/2016	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**2.87**	<0.500	**0.980**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0 J	<1.00	<1.00
	3/23/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0 J	<1.00	<1.00
	6/27/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**0.400 J**	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/21/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**3.08**	<0.500	**1.35**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/13/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**4.94**	<0.400	**1.56**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	3/15/2018	<0.250	<0.500	<0.250	<0.250	<0.250	<0.500	**0.550**	<0.200	<0.200	<0.200	<0.200	<0.250	<0.500	<0.500	<0.500	<0.500	<0.500	<0.250	<2.50	<10.0	<0.500	<0.500
	6/28/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/4/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**4.81**	<0.400	**1.57**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/19/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**9.02**	<0.400	**1.28**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	3/6/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**3.67**	<0.400	**0.890**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	3/6/2019 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**3.27**	<0.400	**0.710**	<0.400	<0.400	<0.500	<1.00	<1.00 Q-54	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/19/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**0.536**	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/19/2019 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**0.580**	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/11/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**2.71**	<0.400	**0.560**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/11/2019 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**2.73**	<0.400	**0.560**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	1/14/2020	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**2.95**	<0.400	**0.730**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-44	8/19/2009	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**0.82**	<0.50	**1.27**	<0.50	<0.50	<0.50	--	--	--	<0.50	<0.50	--	--	--	--	--
	8/19/2009 DUP	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**0.86**	<0.50	**1.16**	<0.50	<0.50	<0.50	--	--	--	<0.50	<0.50	--	--	--	--	--
	12/7/2009	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**0.31 J**	<0.50	**0.53**	<0.50	<0.50	<0.50	--	--	--	<0.50	<0.50	--	--	--	--	--
	11/30/2010	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**2.42**	<0.50	**3.76**	<0.50	<0.50	<0.50	--	--	--	<0.50	<0.50	--	--	--	--	--
	12/13/2011	<0.5	<1.0	<0.5	<0.5	<0.5	<1.0	**0.25 J**	<0.5	<0.50	<0.50	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<5.0	<10	<1.0	<1.0
	3/26/2012	<1.0	<0.50	<0.13	<0.11	<0.09	<0.08	**0.64 J**	<0.07	**1.60**	<0.14	<0.10	<0.14	<0.10	<0.09	<0.09	<0.10	<0.09	<0.08	<1.0	<5.0	<0.09	<0.08
	7/5/2012	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**2.35**	<0.50	**6.69**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	12/4/2012	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**3.28**	<0.50	**6.99**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	12/11/2013	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	3/24/2014	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**2.20**	<0.50	**3.90**	<0.500	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	6/11/2014	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**0.780**	<0.50	**1.30**	<0.500	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	9/19/2014	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/23/2014	<0.5	<1	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<0.5	<5	<10	<1	<1
ROD Cleanup Level [5.]		NA	NA	NA	NA	NA	NA	NA	NA	7	70	NA	NA	NA	NA	NA	NA	NA	7.3	NA	NA	NA	NA
JSCS SLV [6.]		0.033	61	49	14	2.8	390	47	0.73	NA	61	110	0.97	NA	NA	NA	0.055	0.055	7.3	0.86	99	660	NA

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	1,2-Dibromoethane (EDB)	Dibromomethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-Dichloroethane (EDC)	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,2-Dichloropropane	1,3-Dichloropropane	2,2-Dichloropropane	1,1-Dichloropropene	cis-1,3-Dichloropropene	trans-1,3-Dichloropropene	Ethylbenzene	Hexachlorobutadiene	2-Hexanone	Isopropylbenzene	4-Isopropyltoluene
		Concentrations in µg/L (ppb)																					
AREA 1																							
MW-44 (continued)	3/16/2015	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10	<1.00	<1
	6/26/2015	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10	<1.00	<1.00
	9/14/2015	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10	<1.00	<1.00
	12/16/2015	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	3/21/2016	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/23/2016	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/27/2016	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**0.360**	<0.500	**0.650**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/9/2016	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00 J	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	3/23/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00 J	**3.270**	<0.500	**3.080**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/27/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**3.49**	<0.500	**2.22**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/21/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**0.830**	<0.500	**0.640**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/13/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	3/15/2018	<0.250	<0.500	<0.250	<0.250	<0.250	<0.500	<0.200	<0.200	<0.200	<0.200	<0.200	<0.250	<0.500	<0.500	<0.500	<0.500	<0.500	<0.250	<2.50	<10.0	<0.500	<0.500
	6/28/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/4/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/19/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	3/6/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/19/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/11/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/13/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-45	8/19/2009	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	**0.13 J**	<0.50	<0.50	<0.50	--	--	--	<0.50	<0.50	--	--	--	--	--
MW-49	8/19/2009	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**27.0**	<0.50	**33.0**	<0.50	<0.50	<0.50	--	--	--	<0.50	<0.50	--	--	--	--	--
	6/2/2010	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**36.8**	<0.50	**45.0**	<0.50	<0.50	<0.50	--	--	--	<0.50	<0.50	--	--	--	--	--
	11/30/2010	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**30.9**	**0.13 J**	**0.21 J**	<0.50	<0.50	<0.50	--	--	--	<0.50	<0.50	--	--	--	--	--
	6/1/2011	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**9.16**	<0.50	**7.08**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<0.50	<1.0	<4.0	<10.0	<2.0	<2.0
	12/13/2011	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**20.9**	<0.50	**21.0**	**0.20 J**	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<0.50	<1.0	<4.0	<10.0	<2.0	<2.0
	3/27/2012	<1.0	<0.50	<0.13	<0.11	<0.09	<0.08	**17.0**	<0.07	**16.0**	<0.14	<0.10	<0.14	<0.10	<0.09	<0.09	<0.10	<0.09	<0.08	<1.0	<5.0	<0.09	<0.08
	7/5/2012	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**4.10**	<0.50	**3.57**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	12/4/2012	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**25.7**	<0.50	**6.89**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	6/18/2013	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**8.56**	<0.50	**5.89**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	12/12/2013	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**13.2**	<0.50	**8.19**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	6/11/2014	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**5.59**	<0.50	**3.10**	<0.500	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	12/17/2014	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**11.4**	<0.500	**6.92**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
ROD Cleanup Level [5.]		NA	NA	NA	NA	NA	NA	NA	NA	7	70	NA	NA	NA	NA	NA	NA	NA	7.3	NA	NA	NA	NA
JSCS SLV [6.]		0.033	61	49	14	2.8	390	47	0.73	NA	61	110	0.97	NA	NA	NA	0.055	0.055	7.3	0.86	99	660	NA

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	1,2-Dibromoethane (EDB)	Dibromomethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-Dichloroethane (EDC)	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,2-Dichloropropane	1,3-Dichloropropane	2,2-Dichloropropane	1,1-Dichloropropene	cis-1,3-Dichloropropene	trans-1,3-Dichloropropene	Ethylbenzene	Hexachlorobutadiene	2-Hexanone	Isopropylbenzene	4-Isopropyltoluene
		Concentrations in µg/L (ppb)																					
AREA 1																							
MW-49 (continued)	6/30/2015	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**6.60**	<0.500	**3.52**	<0.500	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	12/15/2015	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**28.2**	<0.500	**9.67**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/22/2016	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**3.28**	<0.500	**5.44**	**0.71**	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/6/2016	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**0.723**	<0.500	**0.585**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/27/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/27/2017 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/12/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/27/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/19/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/19/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/12/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-50	11/29/2010	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**0.18 J**	<0.50	<0.50	**1.33**	<0.50	<0.50	--	--	--	<0.50	<0.50	--	--	--	--	--
	11/29/2010 DUP	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**0.17 J**	<0.50	<0.50	**1.39**	<0.50	<0.50	--	--	--	<0.50	<0.50	--	--	--	--	--
	12/13/2011	<0.5	<1.0	<0.5	<0.5	<0.5	<1.0	<0.50	<0.5	<0.50	**1.14**	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<5.0	<10	<1.0	<1.0
	3/26/2012	<1.0	<0.50	<0.13	<0.11	<0.09	<0.08	**0.52 J**	<0.07	**0.33 J**	**0.59 J**	<0.10	<0.14	<0.10	<0.09	<0.09	<0.10	<0.09	<0.08	<1.0	<5.0	<0.09	<0.08
	7/5/2012	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	**0.94**	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	12/4/2012	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	12/17/2013	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	12/23/2014	<0.5	<1	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	**0.450 J**	<0.5	<0.5	<1	<1	<1	<1	<1	<0.5	<5	<10	<1	<1
	12/16/2015	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**1.74**	<0.500	**0.62**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/9/2016	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00 J	**0.972**	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/13/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/19/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/13/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**0.852**	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-51	8/19/2009	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**14.5**	<0.50	**14.1**	**0.09 J**	<0.50	<0.50	--	--	--	<0.50	<0.50	--	--	--	--	--
	12/7/2009	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**2.77**	<0.50	**3.05**	**0.22 J**	<0.50	<0.50	--	--	--	<0.50	<0.50	--	--	--	--	--
	3/16/2010	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**2.74**	<0.50	**2.94**	<0.50	<0.50	<0.50	--	--	--	<0.50	<0.50	--	--	--	--	--
	6/2/2010	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**16.0**	<0.50	**19.1**	<0.50	<0.50	<0.50	--	--	--	<0.50	<0.50	--	--	--	--	--
	8/31/2010	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**17.5**	<0.50	**19.1**	<0.50	<0.50	<0.50	--	--	--	<0.50	<0.50	--	--	--	--	--
	8/31/2010 DUP	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**17.9**	<0.50	**20.2**	<0.50	<0.50	<0.50	--	--	--	<0.50	<0.50	--	--	--	--	--
	11/29/2010	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**4.05**	<0.50	**3.76**	**0.20 J**	<0.50	<0.50	--	--	--	<0.50	<0.50	--	--	--	--	--
	6/1/2011	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**4.29**	<0.50	**4.6**	**0.26 J**	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<0.50	<1.0	<4.0	<10.0	<2.0	<2.0
	9/15/2011	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**2.42**	<0.50	**3.38**	**0.61**	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<0.50	<1.0	<4.0	<10.0	<2.0	<2.0
	12/13/2011	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**3.21**	<0.50	**2.78**	**1.44**	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<0.50	<1.0	<4.0	<10.0	<2.0	<2.0
ROD Cleanup Level [5.]		NA	NA	NA	NA	NA	NA	NA	NA	7	70	NA	NA	NA	NA	NA	NA	NA	7.3	NA	NA	NA	NA
JSCS SLV [6.]		0.033	61	49	14	2.8	390	47	0.73	NA	61	110	0.97	NA	NA	NA	0.055	0.055	7.3	0.86	99	660	NA

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	1,2-Dibromoethane (EDB)	Dibromomethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-Dichloroethane (EDC)	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,2-Dichloropropane	1,3-Dichloropropane	2,2-Dichloropropane	1,1-Dichloropropene	cis-1,3-Dichloropropene	trans-1,3-Dichloropropene	Ethylbenzene	Hexachlorobutadiene	2-Hexanone	Isopropylbenzene	4-Isopropyltoluene
		Concentrations in µg/L (ppb)																					
AREA 1																							
MW-51 (continued)	3/26/2012	<1.0	<0.50	<0.13	<0.11	<0.09	<0.08	**5.30**	<0.07	**2.90**	**0.51 J**	<0.10	<0.14	<0.10	<0.09	<0.09	<0.10	<0.09	<0.08	<1.0	<5.0	<0.09	<0.08
	7/5/2012	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**2.52**	<0.50	**3.17**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	9/28/2012	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**1.26**	<0.50	**2.20**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	12/4/2012	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**1.12**	<0.50	**0.70**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	3/22/2013	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**3.48**	<0.50	**2.43**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	6/18/2013	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**2.29**	<0.50	**2.14**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	9/9/2013	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**2.32**	<0.500	**2.48**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<0.500	<10.0	<1.00	<1.00
	12/11/2013	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**1.77**	<0.50	**1.12**	<0.50	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<0.500	<10.0	<1.00	<1.00
	3/24/2014	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**0.650**	<0.50	**0.740**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<0.500	<10.0	<1.00	<1.00
	6/11/2014	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**2.87**	<0.50	**1.61**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<0.500	<10.0	<1.00	<1.00
	9/19/2014	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**1.70**	<0.500	**1.63**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/23/2014	<0.5	<1	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<0.5	<5	<10	<1	<1
	3/15/2015	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**2.39**	<0.500	**2.23**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/26/2015	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**4.49**	<0.500	**2.44**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/15/2015	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**14.6**	<0.500	**6.09**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/16/2015	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	3/21/2016	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/23/2016	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**33.9**	<0.500	**12.8**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/27/2016	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**23.2**	<0.500	**9.77**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/9/2016	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00 J	**21.0**	<0.500	**7.94**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	3/23/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00 J	**29.5**	<0.500	**11.0**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/27/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**28.1**	<0.500	**14.0**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/21/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**1.19**	<0.500	**0.64**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/13/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	3/15/2018	<0.250	<0.500	<0.250	<0.250	<0.250	<0.500	<0.200	<0.200	<0.200	<0.200	<0.200	<0.250	<0.500	<0.500	<0.500	<0.500	<0.500	<0.250	<2.50	<10.0	<0.500	<0.500
	6/28/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**31.4**	<0.400	**11.7**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/4/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**29.4**	<0.400	**7.90**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/19/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**0.400**	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	3/6/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**4.39**	<0.400	**1.14**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/19/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**14.0**	<0.400	**3.17**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/11/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**20.3**	<0.400	**6.06**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/13/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
ROD Cleanup Level [5.]		NA	NA	NA	NA	NA	NA	NA	NA	7	70	NA	NA	NA	NA	NA	NA	NA	7.3	NA	NA	NA	NA
JSCS SLV [6.]		0.033	61	49	14	2.8	390	47	0.73	NA	61	110	0.97	NA	NA	NA	0.055	0.055	7.3	0.86	99	660	NA

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	1,2-Dibromoethane (EDB)	Dibromomethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-Dichloroethane (EDC)	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,2-Dichloropropane	1,3-Dichloropropane	2,2-Dichloropropane	1,1-Dichloropropene	cis-1,3-Dichloropropene	trans-1,3-Dichloropropene	Ethylbenzene	Hexachlorobutadiene	2-Hexanone	Isopropylbenzene	4-Isopropyltoluene
		Concentrations in µg/L (ppb)																					
AREA 1																							
MW-52	8/19/2009	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**12.3**	<0.50	**28.0**	<0.50	<0.50	<0.50	--	--	--	<0.50	<0.50	--	--	--	--	--
	12/7/2009	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**26.3**	**0.23 J**	**57.9**	<0.50	<0.50	<0.50	--	--	--	<0.50	<0.50	--	--	--	--	--
	3/16/2010	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**26.1**	<0.50	**57.6**	<0.50	<0.50	<0.50	--	--	--	<0.50	<0.50	--	--	--	--	--
	3/16/2010 DUP	<1.0	<1.0	<1.0	<1.0	<1.0	<10.0	**25.4**	<1.0	**56.2**	<1.0	<1.0	<1.0	--	--	--	<1.0	<1.0	--	--	--	--	--
	6/2/2010	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**24.3**	<0.50	**53.8**	<0.50	<0.50	<0.50	--	--	--	<0.50	<0.50	--	--	--	--	--
	8/31/2010	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**22.9**	<0.50	**59.1**	**0.13 J**	<0.50	<0.50	--	--	--	<0.50	<0.50	--	--	--	--	--
	12/2/2010	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**12.7**	**0.10 J**	**24.6**	**0.13 J**	<0.50	<0.50	--	--	--	<0.50	<0.50	--	--	--	--	--
	6/2/2011	<0.5	<1.0	<0.5	<0.5	<0.5	<1.0	**16.1**	<0.5	**31.2**	**0.11 J**	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<5.0	<10	<1.0	<1.0
	9/15/2011	<0.5	<1.0	<0.5	<0.5	<0.5	<1.0	**13.8**	<0.5	**41.1**	<0.50	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<5.0	<10	<1.0	<1.0
	12/13/2011	<0.5	<1.0	<0.5	<0.5	<0.5	<1.0	**12.4**	<0.5	**30.7**	<0.50	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<5.0	<10	<1.0	<1.0
	3/29/2012	<1.0	<0.50	<0.13	<0.11	<0.09	<0.08	**11.0**	<0.07	**23.0**	**0.20 J**	<0.10	<0.14	<0.10	<0.09	<0.09	<0.10	<0.09	<0.08	<1.0	<5.0	<0.09	<0.08
	7/5/2012	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**9.51**	<0.50	**22.2**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	9/28/2012	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**0.64**	<0.50	**0.72**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	12/4/2012	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**7.47**	<0.50	**18.8**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	3/22/2013	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	**0.64**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	6/18/2013	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**2.00**	<0.50	**4.69**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	9/9/2013	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**0.620**	<0.500	**0.780**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<0.500	<10.0	<1.00	<1.00
	12/12/2013	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**2.92**	<0.500	**7.53**	<0.50	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<0.500	<10.0	<1.00	<1.00
	3/24/2014	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**3.75**	<0.500	**8.43**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<0.500	<10.0	<1.00	<1.00
	6/11/2014	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**1.92**	<0.500	**4.44**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<0.500	<10.0	<1.00	<1.00
	9/19/2014	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**0.420 J**	<0.500	**0.370 J**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/18/2014	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**9.37**	<0.500	**47.7**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	3/15/2015	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**1.22**	<0.500	**5.01**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/30/2015	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**0.900**	<0.500	**4.54**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/14/2015	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**0.330 J**	<0.500	**0.300 J**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/15/2015	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	3/22/2016	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**3.53**	<0.500	**17.50**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/21/2016	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	10/4/2016	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**0.250**	<0.500	**0.310**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/6/2016	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**0.510**	<0.500	**1.55**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0 J	<1.00	<1.00
	3/23/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0 J	<1.00	<1.00
	6/27/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**1.43**	<0.500	**4.18**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/20/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	**3.08**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/12/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
ROD Cleanup Level [5.]		NA	NA	NA	NA	NA	NA	NA	NA	7	70	NA	NA	NA	NA	NA	NA	NA	7.3	NA	NA	NA	NA
JSCS SLV [6.]		0.033	61	49	14	2.8	390	47	0.73	NA	61	110	0.97	NA	NA	NA	0.055	0.055	7.3	0.86	99	660	NA

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	1,2-Dibromoethane (EDB)	Dibromomethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-Dichloroethane (EDC)	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,2-Dichloropropane	1,3-Dichloropropane	2,2-Dichloropropane	1,1-Dichloropropene	cis-1,3-Dichloropropene	trans-1,3-Dichloropropene	Ethylbenzene	Hexachlorobutadiene	2-Hexanone	Isopropylbenzene	4-Isopropyltoluene
		Concentrations in µg/L (ppb)																					
AREA 1																							
MW-52 (continued)	3/14/2018	<0.250	<0.500	<0.250	<0.250	<0.250	<0.500	<0.200	<0.200	<0.200	<0.200	<0.200	<0.250	<0.500	<0.500	<0.500	<0.500	<0.500	<0.250	<2.50	<10.0	<0.500	<0.500
	6/28/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/4/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**1.57**	<0.400	**4.00**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/19/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**1.50**	<0.400	**3.76**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	3/5/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**4.98**	<0.400	**14.7**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/19/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**10.2**	<0.400	**30.9**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/19/2019 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**10.2**	<0.400	**31.8**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/10/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**3.52**	<0.400	**10.7**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/10/2019 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**4.98**	<0.400	**11.2**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/10/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**2.29**	<0.400	**8.67**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/10/2019 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**3.42**	<0.400	**12.4**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-53	12/7/2009	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	<0.50	<0.50	--	--	--	--	--
	12/7/2009 DUP	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	<0.50	<0.50	--	--	--	--	--
	12/2/2010	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	<0.50	<0.50	--	--	--	--	--
	12/13/2011	<0.5	<1.0	<0.5	<0.5	<0.5	<1.0	<0.50	<0.5	<0.50	<0.50	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<5.0	<10	<1.0	<1.0
	3/27/2012	<1.0	<0.50	<0.13	<0.11	<0.09	<0.08	<0.09	<0.07	<0.15	<0.14	<0.10	<0.14	<0.10	<0.09	<0.09	<0.10	<0.09	<0.08	<1.0	<5.0	<0.09	<0.08
	7/5/2012	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	12/4/2012	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	12/12/2013	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	12/18/2014	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/15/2015	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/6/2016	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0 J	<1.00	<1.00
	12/12/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/18/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/10/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-62	1/20/2015	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**3.82**	<0.500	**1.19**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	3/22/2016	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**4.50**	<0.500	**1.83**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/22/2016	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**33.6**	<0.500	**7.89**	**0.250**	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/22/2016 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**33.8**	<0.500	**7.71**	**0.270**	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/27/2016	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**13.3**	<0.500	**3.49**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/27/2016 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**13.2**	<0.500	**3.58**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/7/2016	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00 J	**7.51**	<0.500	**2.06**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	3/23/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00 J	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/26/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**6.66**	<0.500	**1.41**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/20/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**2.35**	<0.500	**0.574**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/12/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**1.21**	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
ROD Cleanup Level [5.]		NA	NA	NA	NA	NA	NA	NA	NA	7	70	NA	NA	NA	NA	NA	NA	NA	7.3	NA	NA	NA	NA
JSCS SLV [6.]		0.033	61	49	14	2.8	390	47	0.73	NA	61	110	0.97	NA	NA	NA	0.055	0.055	7.3	0.86	99	660	NA

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	1,2-Dibromoethane (EDB)	Dibromomethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-Dichloroethane (EDC)	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,2-Dichloropropane	1,3-Dichloropropane	2,2-Dichloropropane	1,1-Dichloropropene	cis-1,3-Dichloropropene	trans-1,3-Dichloropropene	Ethylbenzene	Hexachlorobutadiene	2-Hexanone	Isopropylbenzene	4-Isopropyltoluene
		Concentrations in µg/L (ppb)																					
AREA 1																							
MW-62 (continued)	3/14/2018	<0.250	<0.500	<0.250	<0.250	<0.250	<0.500	**1.04**	<0.200	**0.238 J**	<0.200	<0.200	<0.250	<0.500	<0.500	<0.500	<0.500	<0.500	<0.250	<2.50	<5.00	<0.500	<0.500
	6/27/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**2.52**	<0.400	**0.578**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/5/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**0.732**	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/5/2018 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**0.745**	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/19/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**3.00**	<0.400	**0.710**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	3/6/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	3/6/2019 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/19/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**1.48**	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/10/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**0.834**	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/10/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**0.630**	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-70	8/19/2009	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**5.9**	<0.50	**1.81**	<0.50	<0.50	<0.50	--	--	--	<0.50	<0.50	--	--	--	--	--
	3/16/2010	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**4.8**	**2.16**	**1.35**	<0.50	<0.50	<0.50	--	--	--	<0.50	<0.50	--	--	--	--	--
	6/2/2010	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**1.25**	<0.50	**0.38 J**	<0.50	<0.50	<0.50	--	--	--	<0.50	<0.50	--	--	--	--	--
	8/31/2010	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**0.23 J**	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	<0.50	<0.50	--	--	--	--	--
	11/30/2010	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**2.72**	<0.50	**1.06**	<0.50	<0.50	<0.50	--	--	--	<0.50	<0.50	--	--	--	--	--
	6/1/2011	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**2.27**	<0.50	**6.19**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<0.50	<1.0	<4.0	<10.0	<2.0	<2.0
	9/15/2011	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**0.45 J**	<0.50	**0.71**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<0.50	<1.0	<4.0	<10.0	<2.0	<2.0
	12/14/2011	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**0.85**	<0.50	**0.42 J**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<0.50	<1.0	<4.0	<10.0	<2.0	<2.0
	3/27/2012	<1.0	<0.50	<0.13	<0.11	<0.09	<0.08	**0.87 J**	<0.07	**1.50**	<0.14	<0.10	<0.14	<0.10	<0.09	<0.09	<0.10	<0.09	<0.08	<1.0	<5.0	<0.09	<0.08
	7/5/2012	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**0.98**	<0.50	**2.42**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	9/28/2012	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**0.76**	<0.50	**0.79**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	12/4/2012	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**0.60**	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	3/22/2013	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	6/18/2013	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	9/9/2013	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<0.500	<10.0	<1.00	<1.00
	12/13/2013	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**1.33**	<0.500	<0.50	<0.50	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<0.500	<10.0	<1.00	<1.00
	3/24/2014	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<0.500	<10.0	<1.00	<1.00
	6/11/2014	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<0.500	<10.0	<1.00	<1.00
	9/19/2014	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**0.460 J**	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/18/2014	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
ROD Cleanup Level [5.]		NA	NA	NA	NA	NA	NA	NA	NA	7	70	NA	NA	NA	NA	NA	NA	NA	7.3	NA	NA	NA	NA
JSCS SLV [6.]		0.033	61	49	14	2.8	390	47	0.73	NA	61	110	0.97	NA	NA	NA	0.055	0.055	7.3	0.86	99	660	NA

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	1,2-Dibromoethane (EDB)	Dibromomethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-Dichloroethane (EDC)	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,2-Dichloropropane	1,3-Dichloropropane	2,2-Dichloropropane	1,1-Dichloropropene	cis-1,3-Dichloropropene	trans-1,3-Dichloropropene	Ethylbenzene	Hexachlorobutadiene	2-Hexanone	Isopropylbenzene	4-Isopropyltoluene
		Concentrations in µg/L (ppb)																					
AREA 1																							
MW-70 (continued)	3/15/2015	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/30/2015	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<0.500	<10.0	<1.00	<1.00
	9/14/2015	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**0.310 J**	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/17/2015	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	3/21/2016	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/22/2016	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/27/2016	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/6/2016	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	3/23/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	**1.07**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/27/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/20/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/12/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	3/15/2018	<0.250	<0.500	<0.250	<0.250	<0.250	<0.500	<0.200	<0.200	<0.200	<0.200	<0.200	<0.250	<0.500	<0.500	<0.500	<0.500	<0.500	<0.250	<2.50	<10.0	<0.500	<0.500
	6/28/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/5/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/19/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/19/2018 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	3/6/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/19/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/10/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/12/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/12/2019 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-71	6/2/2010	<1.0	<1.0	<1.0	<1.0	<1.0	<10	**41.0**	1.2	**43.3**	<1.0	<1.0	<1.0	--	--	--	<1.0	<1.0	--	--	--	--	--
	11/30/2010	<1.0	<1.0	<1.0	<1.0	<1.0	<10	**56.6**	1.2	**91.2**	<1.0	<1.0	<1.0	--	--	--	<1.0	<1.0	--	--	--	--	--
	6/1/2011	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**8.36**	<0.50	**4.65**	**0.10 J**	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<0.50	<1.0	<4.0	<10.0	<2.0	<2.0
	12/14/2011	<1.0	<1.0	<1.0	<1.0	<1.0	<10	**50.1**	**0.64 J**	**73.6**	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<1.0	<1.0	<2.0	<8.0	<20	<4.0	<4.0
	3/26/2012	<1.0	<0.50	<0.13	<0.11	<0.09	<0.08	**21.0**	<0.07	**13.0**	<0.14	<0.10	<0.14	<0.10	<0.09	<0.09	<0.10	<0.09	<0.08	<1.0	<5.0	<0.09	<0.08
	7/5/2012	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**9.78**	<0.50	**6.56**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	12/4/2012	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<0.50	**43.50**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	6/18/2013	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**25.9**	<0.50	**27.1**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	12/12/2013	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**25.2**	<0.50	**35.2**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	6/11/2014	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**18.8**	<0.50	**23.7**	<0.500	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
ROD Cleanup Level [5.]		NA	NA	NA	NA	NA	NA	NA	NA	7	70	NA	NA	NA	NA	NA	NA	NA	7.3	NA	NA	NA	NA
JSCS SLV [6.]		0.033	61	49	14	2.8	390	47	0.73	NA	61	110	0.97	NA	NA	NA	0.055	0.055	7.3	0.86	99	660	NA

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	1,2-Dibromoethane (EDB)	Dibromomethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-Dichloroethane (EDC)	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,2-Dichloropropane	1,3-Dichloropropane	2,2-Dichloropropane	1,1-Dichloropropene	cis-1,3-Dichloropropene	trans-1,3-Dichloropropene	Ethylbenzene	Hexachlorobutadiene	2-Hexanone	Isopropylbenzene	4-Isopropyltoluene
		Concentrations in µg/L (ppb)																					
AREA 1																							
MW-71 (continued)	7/6/2015	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**26.4**	<0.50	**41.1**	<0.500	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	12/17/2015	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**26.2**	<0.500	**12.3**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/21/2016	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**26.5**	**0.43**	**59.4**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/6/2016	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00 J	**20.7**	<0.500	**22.0**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/27/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00 Q-31	**7.23**	<0.500	**4.40**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/12/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**15.7**	<0.400	**36.8**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/27/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**18.4**	**0.408**	**53.9**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/19/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**5.35**	<0.400	**9.63**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/19/2018 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**5.12**	<0.400	**9.54**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/19/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**16.5**	<0.400	**35.5**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/12/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**8.32**	<0.400	**20.2**	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
WEX-60	12/8/2009	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	<0.50	<0.50	--	--	--	--	--
	3/16/2010	<1.0	<1.0	<1.0	<1.0	<1.0	<10.0	**47.7**	<1.0	**67.1**	<1.0	<1.0	<1.0	--	--	--	<1.0	<1.0	--	--	--	--	--
	6/2/2010	<1.0	<1.0	<1.0	<1.0	<1.0	<10.0	**38.2**	<1.0	**56.5**	<1.0	<1.0	<1.0	--	--	--	<1.0	<1.0	--	--	--	--	--
	8/31/2010	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**37.4**	**0.26 J**	**42.6**	**0.17 J**	<0.50	<0.50	--	--	--	<0.50	<0.50	--	--	--	--	--
	11/31/2010	<1.0	<1.0	<1.0	<1.0	<1.0	<10.0	**38.6**	<1.0	**46.9**	**0.24 J**	<1.0	<1.0	--	--	--	<1.0	<1.0	--	--	--	--	--
	11/31/2010 DUP	<1.0	<1.0	<1.0	<1.0	<1.0	<10.0	**38.1**	<1.0	**46.8**	**0.24 J**	<1.0	<1.0	--	--	--	<1.0	<1.0	--	--	--	--	--
	6/1/2011	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**14.7**	<0.50	**20.4**	**0.17 J**	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<0.50	<1.0	<4.0	<10.0	<2.0	<2.0
	6/1/2011 DUP	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**2.36**	<0.50	**6.65**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<0.50	<1.0	<4.0	<10.0	<2.0	<2.0
	9/15/2011	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**20.0**	<0.50	**24.4**	**0.18 J**	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<0.50	<1.0	<4.0	<10.0	<2.0	<2.0
	9/15/2011 DUP	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**19.7**	<0.50	**24.8**	**0.21 J**	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<0.50	<1.0	<4.0	<10.0	<2.0	<2.0
	12/13/2011	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	**26.6**	<0.50	**34.6**	**0.20 J**	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<0.50	<1.0	<4.0	<10.0	<2.0	<2.0
	3/29/2012	<1.0	<0.50	<0.13	<0.11	<0.09	<0.08	**18.0**	<0.07	**23.0**	**0.17 J**	<0.10	<0.14	<0.10	<0.09	<0.09	<0.10	<0.09	<0.08	<1.0	<5.0	<0.09	<0.08
	7/5/2012	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**9.92**	<0.50	**17.6**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	7/5/2012 DUP	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**9.64**	<0.50	**16.4**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	9/28/2012	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**21.8**	<0.50	**24.1**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	9/28/2012 DUP	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**20.8**	<0.50	**24.5**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	12/4/2012	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**22.6**	<0.50	**21.5**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	12/4/2012 DUP	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**23.2**	<0.50	**19.6**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	3/22/2013	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**18.8**	<0.50	**21.9**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	3/22/2013 DUP	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**18.9**	<0.50	**22.1**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	6/18/2013	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**14.2**	<0.50	**18.2**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
	6/18/2013 DUP	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	**14.4**	<0.50	**18.7**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<10.0	<1.0	<1.0
ROD Cleanup Level [5.]		NA	NA	NA	NA	NA	NA	NA	NA	7	70	NA	NA	NA	NA	NA	NA	NA	7.3	NA	NA	NA	NA
JSCS SLV [6.]		0.033	61	49	14	2.8	390	47	0.73	NA	61	110	0.97	NA	NA	NA	0.055	0.055	7.3	0.86	99	660	NA

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	1,2-Dibromoethane (EDB)	Dibromomethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-Dichloroethane (EDC)	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,2-Dichloropropane	1,3-Dichloropropane	2,2-Dichloropropane	1,1-Dichloropropene	cis-1,3-Dichloropropene	trans-1,3-Dichloropropene	Ethylbenzene	Hexachlorobutadiene	2-Hexanone	Isopropylbenzene	4-Isopropyltoluene
		Concentrations in µg/L (ppb)																					
AREA 1																							
WEX-60 (continued)	9/9/2013	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**21.3**	<0.500	**22.6**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<0.500	<10.0	<1.00	<1.00
	12/11/2013	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**19.8**	<0.50	**19.7**	<0.50	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<0.500	<10.0	<1.00	<1.00
	12/12/2013	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**20.2**	<0.50	**20.2**	<0.50	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<0.500	<10.0	<1.00	<1.00
	3/24/2014	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**15.2**	<0.50	**17.3**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<0.500	<10.0	<1.00	<1.00
	3/24/2014 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**15.7**	<0.50	**18.0**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<0.500	<10.0	<1.00	<1.00
	6/11/2014	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**11.1**	<0.50	**15.6**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<0.500	<10.0	<1.00	<1.00
	6/11/2014 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**12.3**	<0.50	**19.0**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<0.500	<10.0	<1.00	<1.00
	6/11/2014 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**15.4**	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<0.500	<10.0	<1.00	<1.00
	10/29/2014	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**18.7**	<0.500	**11.3**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	10/29/2014 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**16.0**	<0.500	**9.64**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/18/2014	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**1.3**	<0.500	**0.81**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/18/2014 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**1.39**	<0.500	**0.96**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	3/15/2015	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**7.38**	<0.500	**4.01**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/30/2015	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**14.6**	<0.500	**6.32**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/30/2015 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**16.3**	<0.500	**7.03**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/30/2015 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**16.6**	<0.500	**6.93**	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/14/2015	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**9.26**	<0.500	**5.19**	**0.270 J**	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	1/20/2016	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	3/22/2016	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	3/22/2016 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/22/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/27/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/7/2016	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00 J	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/7/2016 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00 J	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	3/22/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00 J	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	3/22/2017 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00 J	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/29/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/20/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/20/2017 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/12/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/12/2017 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
ROD Cleanup Level [5.]		NA	NA	NA	NA	NA	NA	NA	NA	7	70	NA	NA	NA	NA	NA	NA	NA	7.3	NA	NA	NA	NA
JSCS SLV [6.]		0.033	61	49	14	2.8	390	47	0.73	NA	61	110	0.97	NA	NA	NA	0.055	0.055	7.3	0.86	99	660	NA

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	1,2-Dibromoethane (EDB)	Dibromomethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-Dichloroethane (EDC)	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,2-Dichloropropane	1,3-Dichloropropane	2,2-Dichloropropane	1,1-Dichloropropene	cis-1,3-Dichloropropene	trans-1,3-Dichloropropene	Ethylbenzene	Hexachlorobutadiene	2-Hexanone	Isopropylbenzene	4-Isopropyltoluene
		Concentrations in µg/L (ppb)																					
AREA 1																							
WEX-60 (continued)	3/14/2018	<0.250	<0.500	<0.250	<0.250	<0.250	<0.500	<0.200	<0.200	<0.200	<0.200	<0.200	<0.250	<0.500	<0.500	<0.500	<0.500	<0.500	<0.250	<2.50	<5.00	<0.500	<0.500
	3/14/2018 DUP	<0.250	<0.500	<0.250	<0.250	<0.250	<0.500	<0.200	<0.200	<0.200	<0.200	<0.200	<0.250	<0.500	<0.500	<0.500	<0.500	<0.500	<0.250	<2.50	<5.00	<0.500	<0.500
	6/27/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/27/2018 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/4/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/19/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	3/6/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/21/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/10/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/12/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-90	7/2/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/10/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/12/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-91	7/2/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**0.640**	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	7/2/2019 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	**0.700**	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/10/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/12/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
AREA 2																							
MW-17	6/3/2010	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<4.0	<10.0	<2.0	<2.0
	6/3/2010 DUP	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<4.0	<10.0	<2.0	<2.0
	12/1/2010	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<4.0	<10.0	<2.0	<2.0
	12/1/2010 DUP	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	**0.11 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<4.0	<10.0	<2.0	<2.0
	6/2/2011	<0.5	<1.0	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<5.0	<10	<1.0	<1.0
	12/14/2011	<0.5	<1.0	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<5.0	<10	<1.0	<1.0
	12/14/2011 DUP	<0.5	<1.0	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<5.0	<10	<1.0	<1.0
	3/27/2012	<0.13	<0.5	<0.13	<0.11	<0.09	<0.8	<0.09	<0.07	<0.15	<0.14	<0.1	<0.14	<0.1	<0.09	<0.09	<0.01	<0.09	<0.08	<1.0	<5.0	<0.09	--
	3/27/2012 DUP	<0.13	<0.5	<0.13	<0.11	<0.09	<0.8	<0.09	<0.07	<0.15	<0.14	<0.1	<0.14	<0.1	<0.09	<0.09	<0.01	<0.09	<0.08	<1.0	<5.0	<0.09	--
	7/6/2012	<0.5	<1.0	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<5.0	<10	<1.0	<1.0
	12/5/2012	<0.5	<1.0	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<5.0	<10	<1.0	<1.0
ROD Cleanup Level [5.]		NA	NA	NA	NA	NA	NA	NA	NA	7	70	NA	NA	NA	NA	NA	NA	NA	7.3	NA	NA	NA	NA
JSCS SLV [6.]		0.033	61	49	14	2.8	390	47	0.73	NA	61	110	0.97	NA	NA	NA	0.055	0.055	7.3	0.86	99	660	NA

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	1,2-Dibromoethane (EDB)	Dibromomethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-Dichloroethane (EDC)	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,2-Dichloropropane	1,3-Dichloropropane	2,2-Dichloropropane	1,1-Dichloropropene	cis-1,3-Dichloropropene	trans-1,3-Dichloropropene	Ethylbenzene	Hexachlorobutadiene	2-Hexanone	Isopropylbenzene	4-Isopropyltoluene
		Concentrations in µg/L (ppb)																					
AREA 2																							
MW-17 (continued)	6/19/2013	<0.5	<1.0	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<5.0	<10	<1.0	<1.0
	6/19/2013 DUP	<0.5	<1.0	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<5.0	<10	<1.0	<1.0
	12/16/2013	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/16/2013 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/11/2014	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/11/2014 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/22/2014	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/22/2014 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	7/6/2015	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/17/2015	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/17/2015 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/22/2016	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/22/2016 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/9/2016	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00 J	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/9/2016 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00 J	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/28/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/13/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/13/2017 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/27/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/27/2018 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/19/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	3/6/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/19/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/10/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/16/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/16/2019 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-31	8/20/2009	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<4.0	<10.0	<2.0	<2.0
	8/20/2009 DUP	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<4.0	<10.0	<2.0	<2.0
	1/21/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-66	12/7/2009	--	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	<0.50	<0.50	--	--	--
	1/21/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-81	12/8/2009	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	**0.15 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<4.0	<10.0	<2.0	<2.0
	12/8/2009 DUP	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	**0.14 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<4.0	<10.0	<2.0	<2.0
ROD Cleanup Level [5.]		NA	NA	NA	NA	NA	NA	NA	NA	7	70	NA	NA	NA	NA	NA	NA	NA	7.3	NA	NA	NA	NA
JSCS SLV [6.]		0.033	61	49	14	2.8	390	47	0.73	NA	61	110	0.97	NA	NA	NA	0.055	0.055	7.3	0.86	99	660	NA

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	1,2-Dibromoethane (EDB)	Dibromomethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-Dichloroethane (EDC)	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,2-Dichloropropane	1,3-Dichloropropane	2,2-Dichloropropane	1,1-Dichloropropene	cis-1,3-Dichloropropene	trans-1,3-Dichloropropene	Ethylbenzene	Hexachlorobutadiene	2-Hexanone	Isopropylbenzene	4-Isopropyltoluene
		Concentrations in µg/L (ppb)																					
AREA 2																							
MW-82	7/2/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/10/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/12/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-83	7/2/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	7/2/2019 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/11/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/12/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-84	7/2/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/10/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/16/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-85	7/2/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	7/2/2019 DUP	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/11/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/12/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-92	7/2/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/10/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/12/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
SMW-12	12/1/2010	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.5	<0.5	<0.5	**3.57**	**0.39 J**	<0.50	--	--	--	<0.50	<0.50	--	--	--	--	--
	12/15/2011	<0.5	<1.0	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	**1.00**	**0.15 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<5.0	<10	<1.0	<1.0
	3/27/2012	<0.13	<0.5	<0.13	<0.11	<0.09	<0.8	<0.09	<0.07	<0.15	**6.40**	**0.47 J**	<0.14	<0.1	<0.09	<0.09	<0.01	<0.09	<0.08	<1.0	<5.0	<0.09	--
	7/6/2012	<0.5	<1.0	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	**3.64**	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<5.0	<10	<1.0	<1.0
	7/6/2012 DUP	<0.5	<1.0	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	**3.72**	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<5.0	<10	<1.0	<1.0
	12/5/2012	<0.5	<1.0	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	**9.38**	**0.86**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<5.0	<10	<1.0	<1.0
	12/16/2013	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	**2.46**	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/22/2014	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	**8.04**	**0.570**	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/17/2015	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	**6.86**	**0.578**	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/9/2016	<0.500	<1.00	<0.500	<0.500	<0.500 J	<1.00	<0.500	<0.500	<0.500	**4.63**	**0.302 J**	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/13/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	**2.31**	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
SMW-14	12/7/2009	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<4.0	<10.0	<2.0	<2.0
SMW-18	12/7/2009	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<4.0	<10.0	<2.0	<2.0
SCHNITZER ASD YARD																							
MW-10	12/14/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/27/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/18/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	3/4/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
ROD Cleanup Level [5.]		NA	NA	NA	NA	NA	NA	NA	NA	7	70	NA	NA	NA	NA	NA	NA	NA	7.3	NA	NA	NA	NA
JSCS SLV [6.]		0.033	61	49	14	2.8	390	47	0.73	NA	61	110	0.97	NA	NA	NA	0.055	0.055	7.3	0.86	99	660	NA

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	1,2-Dibromoethane (EDB)	Dibromomethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-Dichloroethane (EDC)	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,2-Dichloropropane	1,3-Dichloropropane	2,2-Dichloropropane	1,1-Dichloropropene	cis-1,3-Dichloropropene	trans-1,3-Dichloropropene	Ethylbenzene	Hexachlorobutadiene	2-Hexanone	Isopropylbenzene	4-Isopropyltoluene
		Concentrations in µg/L (ppb)																					
SCHNITZER ASD YARD																							
MW-14	1/21/2019	<0.500	<1.00	<0.500	<0.500	**0.866**	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	3/5/2019	<0.500	<1.00	<0.500	<0.500	**1.13**	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/20/2019	<0.500	<1.00	<0.500	<0.500	**0.686**	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/11/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/11/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-73	12/14/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/27/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/18/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	3/5/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-74	12/14/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/27/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/19/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	3/5/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-76	12/14/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/27/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/19/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	3/5/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-77	12/14/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/27/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/19/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	3/4/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-79	12/14/2017	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	6/27/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/18/2018	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	3/4/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-86	7/2/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/10/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/13/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
ROD Cleanup Level [5.]		NA	NA	NA	NA	NA	NA	NA	NA	7	70	NA	NA	NA	NA	NA	NA	NA	7.3	NA	NA	NA	NA
JSCS SLV [6.]		0.033	61	49	14	2.8	390	47	0.73	NA	61	110	0.97	NA	NA	NA	0.055	0.055	7.3	0.86	99	660	NA

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	1,2-Dibromoethane (EDB)	Dibromomethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-Dichloroethane (EDC)	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,2-Dichloropropane	1,3-Dichloropropane	2,2-Dichloropropane	1,1-Dichloropropene	cis-1,3-Dichloropropene	trans-1,3-Dichloropropene	Ethylbenzene	Hexachlorobutadiene	2-Hexanone	Isopropylbenzene	4-Isopropyltoluene
		Concentrations in µg/L (ppb)																					
SCHNITZER ASD YARD																							
MW-87	7/2/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/11/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/11/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-88	7/2/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/11/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/13/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
MW-89	7/2/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	9/10/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
	12/16/2019	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<5.00	<10.0	<1.00	<1.00
ROD Cleanup Level [5.]		NA	NA	NA	NA	NA	NA	NA	NA	7	70	NA	NA	NA	NA	NA	NA	NA	7.3	NA	NA	NA	NA
JSCS SLV [6.]		0.033	61	49	14	2.8	390	47	0.73	NA	61	110	0.97	NA	NA	NA	0.055	0.055	7.3	0.86	99	660	NA

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	4-Methyl-2-pentanone (MiBK)	Methyl tert-butyl ether (MTBE)	Methylene chloride	Naphthalene	n-Propylbenzene	Styrene	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	Tetrachloroethene (PCE)	Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene (TCE)	Trichlorofluoromethane	1,2,3-Trichloropropane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl chloride	m,p-Xylene	o-Xylene
		Concentrations in µg/L (ppb)																					
AREA 1																							
MW-19	12/1/2010	--	--	<5.0	--	--	--	<0.50	<0.50	<0.50	--	--	--	<0.50	<0.50	**0.11 J**	<0.50	<0.50	--	--	<0.50	--	--
	12/14/2011	<1.0	<1.0	<5.0	<2.0	<0.5	<1.0	<0.5	<0.5	<0.50	<1.0	<2.0	<2.0	<0.50	<0.5	**0.14 J**	<2.0	<1.0	<1.0	<1.0	<5.0	<1.0	<0.5
	3/30/2012	<1.0	<0.09	<0.12	<1.0	<0.09	<0.09	<0.10	<0.12	**0.20 J**	<0.09	<1.0	<0.14	<0.10	<0.50	**0.14 J**	<0.11	<1.0	<0.07	<0.09	<0.09	<0.19	<0.12
	7/5/2012	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<2.0	<2.0	<0.50	<0.50	<0.50	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	12/4/2012	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<2.0	<2.0	<0.50	<0.50	<0.50	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	12/12/2013	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<2.0	<2.0	<0.50	<0.50	<0.50	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	12/18/2014	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.50	<1.00	<2.00	<2.00	<0.50	<0.500	**0.290 J**	<2.00	<1.00	<1.00	<1.00	<0.500	<1.0	<0.50
	12/15/2015	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/7/2016	<10.0 J	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/12/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/19/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/16/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
MW-21	8/19/2009	--	--	<5.0	--	--	--	<0.50	<0.50	**4.03**	--	--	--	**7.07**	<0.50	**0.910**	<0.50	<0.50	--	--	<0.50	--	--
	6/2/2010	--	--	<5.0	--	--	--	<0.50	<0.50	**4.67**	--	--	--	**26.6**	<0.50	**0.520**	<0.50	<0.50	--	--	<0.50	--	--
	11/30/2010	--	--	<5.0	--	--	--	<0.50	<0.50	**3.56**	--	--	--	**24.1**	<0.50	**0.47 J**	<0.50	<0.50	--	--	<0.50	--	--
	6/1/2011	<5.0	<1.0	<5.0	<2.0	<1.0	<1.0	<0.50	<0.50	**2.53**	<1.0	<1.0	<1.0	**31.1**	<0.50	**0.49 J**	<0.50	<0.50	<1.0	<1.0	<0.50	<2.0	<1.0
	12/13/2011	<5.0	<1.0	<5.0	<2.0	<1.0	<1.0	<0.50	<0.50	**2.80**	<1.0	<1.0	<1.0	**6.75**	<0.50	**0.580**	<0.50	<0.50	<1.0	<1.0	<0.50	<2.0	<1.0
	3/26/2012	<1.0	<0.09	<0.12	<1.0	<0.09	<0.09	<0.10	<0.12	**2.90**	<0.09	<1.0	<0.14	**25.0**	<0.50	**0.42 J**	<0.11	<1.0	<0.07	<0.09	<0.09	<0.19	<0.12
	7/5/2012	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	**2.21**	<1.0	<2.0	<2.0	**16.0**	<0.50	<0.50	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	12/5/2012	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	**3.03**	<1.0	<2.0	<2.0	**27.0**	<0.50	<0.50	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	6/18/2013	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	**2.38**	<1.0	<2.0	<2.0	**9.36**	<1.0	<0.50	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	12/12/2013	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	**2.78**	<1.0	<2.0	<2.0	**1.37**	<0.50	**0.720**	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	6/11/2014	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	**1.77**	<1.0	<2.0	<2.0	**12.60**	<0.50	<0.500	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	12/18/2014	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	**2.90**	<1.00	<2.00	<2.00	**6.75**	<0.500	**0.790**	<2.00	<1.00	<1.00	<1.00	<0.500	<1.0	<0.500
	6/30/2015	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	**1.47**	<1.00	<2.00	<2.00	**0.56**	<0.500	**0.640**	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	12/15/2015	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	**1.95**	<1.00	<2.00	<2.00	**6.90**	<0.500	**0.290 J**	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	6/22/2016	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	**1.95**	<1.00	<2.00	<2.00	**2.62**	<0.500	**0.430**	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/6/2016	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	**2.68**	<1.00	<2.00	<2.00	**3.63**	<0.500	**0.587**	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	6/27/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	**1.96**	<1.00	<2.00	<2.00	**2.13**	<0.500	**0.510**	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/12/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**2.29**	<1.00	<2.00	<2.00	**0.441**	<0.500	**0.706**	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
ROD Cleanup Level [5.]		NA	NA	NA	12	NA	NA	NA	NA	0.24	9.8	NA	NA	NA	NA	0.6	NA	NA	NA	NA	0.022	13	
JSCS SLV [6.]		170	37	8.9	0.2	NA	100	2.5	0.33	0.12	9.8	NA	8.2	11	1.2	0.17	1,300	0.0095	NA	NA	0.015	1.8	13.0

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	4-Methyl-2-pentanone (MiBK)	Methyl tert-butyl ether (MTBE)	Methylene chloride	Naphthalene	n-Propylbenzene	Styrene	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	Tetrachloroethene (PCE)	Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene (TCE)	Trichlorofluoromethane	1,2,3-Trichloropropane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl chloride	m,p-Xylene	o-Xylene
		Concentrations in µg/L (ppb)																					
AREA 1																							
MW-21 (continued)	6/28/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**1.22**	<1.00	<2.00	<2.00	<0.400	<0.500	**0.471**	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/18/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**0.896**	<1.00	<2.00	<2.00	<0.400	<0.500	**0.426**	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/18/2018 DUP	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**0.919**	<1.00	<2.00	<2.00	<0.400	<0.500	**0.500**	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	6/19/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**1.37**	<1.00	<2.00	<2.00	**0.408**	<0.500	**0.438**	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/10/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**0.720**	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/10/2019 DUP	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**0.750**	<1.00	<2.00	<2.00	<0.400	<0.500	**0.400**	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
MW-22	11/30/2010	--	--	<5.0	--	--	--	<0.50	<0.50	<0.50	--	--	--	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	<0.50	--	--
	12/14/2011	<1.0	<1.0	<5.0	<2.0	<0.5	<1.0	<0.5	<0.5	<0.50	<1.0	<2.0	<2.0	<0.50	<0.5	<0.50	<2.0	<1.0	<1.0	<1.0	<5.0	<1.0	<0.5
	3/26/2012	<1.0	<0.09	<0.12	<1.0	<0.09	<0.09	<0.10	<0.12	<0.09	**0.11 J**	<1.0	<0.14	<0.10	<0.50	<0.14	<0.11	<1.0	<0.07	<0.09	<0.09	<0.19	<0.12
	7/5/2012	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<2.0	<2.0	<0.50	<0.50	<0.50	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	12/4/2012	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<2.0	<2.0	<0.50	<0.50	<0.50	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	12/13/2013	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<2.0	<2.0	<0.50	<0.50	<0.50	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	12/18/2014	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.50	<2.00	<1.00	<1.00	<1.00	<0.500	<1.0	<0.500
	12/15/2015	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/7/2016	<10.0 J	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/14/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/20/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/12/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
MW-27	8/19/2009	--	--	<10	--	--	--	<1.0	<1.0	**11.3**	--	--	--	**29.3**	<1.0	**0.62 J**	<1.0	<1.0	--	--	<1.0	--	--
	6/2/2010	--	--	<10	--	--	--	<1.0	<1.0	**12.0**	--	--	--	**27.5**	<1.0	**0.78 J**	<1.0	<1.0	--	--	<1.0	--	--
	11/30/2010	--	--	<10	--	--	--	<1.0	<1.0	**9.14**	--	--	--	**17.5**	<1.0	**0.64 J**	<1.0	<1.0	--	--	<1.0	--	--
	6/1/2011	<10	<2.0	<10	<4.0	<2.0	<2.0	<1.0	<1.0	**7.60**	<2.0	<2.0	<2.0	**21.2**	<1.0	**0.64 J**	<1.0	<1.0	<2.0	<2.0	<1.0	<4.0	<2.0
	12/13/2011	<5.0	<1.0	<5.0	<2.0	<1.0	<1.0	<0.50	<0.50	**5.42**	<1.0	<1.0	<1.0	**14.1**	<0.50	**0.70**	<0.50	<0.50	<1.0	<1.0	<0.50	<2.0	<1.0
	12/13/2011 DUP	<5.0	<1.0	<5.0	<2.0	<1.0	<1.0	<0.50	<0.50	**5.57**	<1.0	<1.0	<1.0	**13.0**	<0.50	**0.74**	<0.50	<0.50	<1.0	<1.0	<0.50	<2.0	<1.0
	3/26/2012	<1.0	<0.09	<0.12	<1.0	<0.09	<0.09	<0.10	<0.12	**7.30**	<0.09	<1.0	<0.14	**24.0**	<0.50	**0.67 J**	<0.11	<1.0	<0.07	<0.09	<0.09	<0.19	<0.12
	3/26/2012 DUP	<1.0	<0.09	<0.12	<1.0	<0.09	<0.09	<0.10	<0.12	**7.70**	<0.09	<1.0	<0.14	**24.0**	<0.50	**0.69 J**	<0.11	<1.0	<0.07	<0.09	<0.09	<0.19	<0.12
	7/5/2012	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	**5.64**	<1.0	<2.0	<2.0	**17.7**	<0.50	**0.63**	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	12/4/2012	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	**6.03**	<1.0	<2.0	<2.0	**21.0**	<0.50	<0.50	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	6/18/2013	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	**4.03**	<1.0	<2.0	<2.0	**7.20**	<1.0	**0.56**	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	12/12/2013	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	**3.28**	<1.0	<2.0	<2.0	**8.89**	<0.50	**0.500**	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	6/11/2014	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	**3.17**	<1.0	<2.0	<2.0	**5.54**	<0.50	<0.500	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	12/18/2014	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	**4.46**	<1.00	<2.00	<2.00	**9.04**	<0.500	**0.760**	<2.00	<1.00	<1.00	<1.00	**0.84**	<1.0	<0.500
ROD Cleanup Level [5.]		NA	NA	NA	12	NA	NA	NA	NA	0.24	9.8	NA	NA	NA	NA	0.6	NA	NA	NA	NA	0.022	13	
JSCS SLV [6.]		170	37	8.9	0.2	NA	100	2.5	0.33	0.12	9.8	NA	8.2	11	1.2	0.17	1,300	0.0095	NA	NA	0.015	1.8	13.0

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	4-Methyl-2-pentanone (MiBK)	Methyl tert-butyl ether (MTBE)	Methylene chloride	Naphthalene	n-Propylbenzene	Styrene	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	Tetrachloroethene (PCE)	Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene (TCE)	Trichlorofluoromethane	1,2,3-Trichloropropane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl chloride	m,p-Xylene	o-Xylene
		Concentrations in µg/L (ppb)																					
AREA 1																							
MW-27 (continued)	6/30/2015	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	**2.84**	<1.0	<2.0	<2.0	**1.55**	<0.50	**0.690**	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	6/30/2015 DUP	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	**2.90**	<1.0	<2.0	<2.0	**1.56**	<0.50	**0.700**	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	12/15/2015	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	**4.51**	<1.00	<2.00	<2.00	**7.93**	<0.500	**0.490 J**	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	6/21/2016	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	**3.20**	<1.00	<2.00	<2.00	**2.31**	<0.500	**0.590**	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/6/2016	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	**4.68**	<1.00	<2.00	<2.00	**5.32**	<0.500	**0.596**	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	6/27/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/12/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**2.96**	<1.00	<2.00	<2.00	**1.21**	<0.500	**0.555**	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	6/28/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**2.54**	<1.00	<2.00	<2.00	**0.803**	<0.500	**0.541**	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/19/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**3.86**	<1.00	<2.00	<2.00	**1.91**	<0.500	**0.593**	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	6/19/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**3.20**	<1.00	<2.00	<2.00	**0.873**	<0.500	**0.462**	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/10/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**2.81**	<1.00	<2.00	<2.00	**0.550**	<0.500	**0.440**	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
MW-36	8/19/2009	--	--	<5.0	--	--	--	<0.50	<0.50	**3.75**	--	--	--	**55.5**	<0.50	**0.39 J**	<0.50	<0.50	--	--	<0.50	--	--
	3/16/2010	--	--	<5.0	--	--	--	<0.50	<0.50	**3.45**	--	--	--	**57.6**	<0.50	**0.22 J**	<0.50	<0.50	--	--	<0.50	--	--
	6/2/2010	--	--	<5.0	--	--	--	<0.50	<0.50	**2.56**	--	--	--	**39.6**	<0.50	<0.50	<0.50	<0.50	--	--	<0.50	--	--
	6/2/2010 DUP	--	--	<5.0	--	--	--	<0.50	<0.50	**2.63**	--	--	--	**40.2**	<0.50	**0.08 J**	<0.50	<0.50	--	--	<0.50	--	--
	8/31/2010	--	--	**0.19 J**	--	--	--	<0.50	<0.50	**3.93**	--	--	--	**39.7**	<0.50	**0.31 J**	<0.50	<0.50	--	--	<0.50	--	--
	8/31/2010 DUP	--	--	**0.17 J**	--	--	--	<0.50	<0.50	**3.73**	--	--	--	**37.6**	<0.50	**0.28 J**	<0.50	<0.50	--	--	<0.50	--	--
	11/30/2010	--	--	<5.0	--	--	--	<0.50	<0.50	**3.64**	--	--	--	**40.5**	<0.50	**0.23 J**	<0.50	<0.50	--	--	<0.50	--	--
	6/1/2011	<5.0	<1.0	<5.0	<2.0	<1.0	<1.0	<0.50	<0.50	**1.33**	<1.0	<1.0	<1.0	**12.1**	<0.50	**0.26 J**	<0.50	<0.50	<1.0	<1.0	<0.50	<2.0	<1.0
	9/15/2011	<10.0	<2.0	<10.0	<4.0	<2.0	<2.0	<1.0	<1.0	**2.36**	<2.0	<2.0	<2.0	**26.4**	<1.0	**0.24 J**	<1.0	<1.0	<2.0	<2.0	<1.0	<4.0	<2.0
	12/14/2011	<25.0	<5.0	<25.0	<10.0	<5.0	<5.0	<2.5	<2.5	**2.20 J**	<5.0	<5.0	<5.0	**21.0**	<2.5	<2.5	<2.5	<2.5	<5.0	<5.0	<2.5	<5.0	<10.0
	3/30/2012	<1.0	<0.09	<0.12	<1.0	<0.09	<0.09	<0.10	<0.12	**1.60**	<0.09	<1.0	<0.14	**13.0**	<0.50	**0.22 J**	<0.11	<1.0	<0.07	<0.09	<0.09	<0.19	<0.12
	7/5/2012	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	**0.80**	<1.0	<2.0	<2.0	**4.37**	<0.50	<0.50	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	9/28/2012	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	**1.91**	<1.0	<2.0	<2.0	**23.1**	<0.50	<0.50	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	12/4/2012	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	**0.61**	<1.0	<2.0	<2.0	**5.11**	<0.50	<0.50	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	3/22/2013	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<5.0	<5.0	<0.50	<0.50	<0.50	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	6/19/2013	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<2.0	<2.0	<0.50	<1.0	<0.50	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	9/9/2013	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<5.00	<1.00	<5.00	<2.00	<1.00	<1.00	<1.00	<5.00	<1.00	<5.00
	9/9/2013 DUP	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<5.00	<1.00	<5.00	<2.00	<1.00	<1.00	<1.00	<5.00	<1.00	<5.00
	12/13/2013	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	**1.44**	<1.00	<2.00	<2.00	**10.7**	<0.50	<0.50	<2.00	<1.00	<1.00	<1.00	<5.00	<1.00	<5.00
ROD Cleanup Level [5.]		NA	NA	NA	12	NA	NA	NA	NA	0.24	9.8	NA	NA	NA	NA	0.6	NA	NA	NA	NA	0.022	13	
JSCS SLV [6.]		170	37	8.9	0.2	NA	100	2.5	0.33	0.12	9.8	NA	8.2	11	1.2	0.17	1,300	0.0095	NA	NA	0.015	1.8	13.0

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	4-Methyl-2-pentanone (MiBK)	Methyl tert-butyl ether (MTBE)	Methylene chloride	Naphthalene	n-Propylbenzene	Styrene	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	Tetrachloroethene (PCE)	Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene (TCE)	Trichlorofluoromethane	1,2,3-Trichloropropane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl chloride	m,p-Xylene	o-Xylene
		Concentrations in µg/L (ppb)																					
AREA 1																							
MW-36 (continued)	3/24/2014	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.50	<0.500	<2.00	<1.00	<1.00	<1.00	<5.00	<1.00	<5.00
	6/11/2014	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.50	<0.500	<2.00	<1.00	<1.00	<1.00	<5.00	<1.00	<5.00
	9/19/2014	<10.00	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	**1.84**	<1.00	<2.00	<2.00	**10.7**	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/18/2014	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	3/9/2015 DUP	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	**1.94**	<1.00	<2.00	<2.00	**9.34**	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	3/9/2015	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	**1.88**	<1.00	<2.00	<2.00	**9.61**	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	6/30/2015	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	**0.36**	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	9/16/2015	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	**2.13**	<1.00	<2.00	<2.00	**12.6**	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	**3.04**	<1.00	<0.500
	12/15/2015	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	3/21/2016	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	6/22/2016	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	9/26/2016	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/6/2016	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	**0.520**	<1.00	<2.00	<2.00	**1.68**	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	3/22/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	6/27/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	9/20/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/12/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	3/14/2018	<5.00	<0.500	<1.50	<1.00	<0.250	<0.500	<0.200	<0.250	<0.200	<0.500	<1.00	<1.00	<0.200	<0.250	<0.200	<1.00	<0.500	<0.500	<0.500	<0.200	<0.500	<0.250
	6/28/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/5/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**2.64**	<1.00	<2.00	<2.00	**7.72**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/19/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	3/5/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**0.530**	<1.00	<2.00	<2.00	**1.34**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	6/19/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/10/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/12/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**1.19**	<1.00	<2.00	<2.00	**2.61**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
MW-38	8/19/2009	--	--	<5.0	--	--	--	<0.50	<0.50	**1.97**	--	--	--	**54.6**	<0.50	**0.32 J**	<0.50	<0.50	--	--	<0.50	--	--
MW-39	8/19/2009	--	--	<5.0	--	--	--	<0.50	<0.50	**0.23 J**	--	--	--	**8.75**	<0.50	<0.50	<0.50	<0.50	--	--	<0.50	--	--
	6/2/2010	--	--	<5.0	--	--	--	<0.50	<0.50	**1.09**	--	--	--	**43.0**	<0.50	**0.26 J**	<0.50	<0.50	--	--	<0.50	--	--
	11/30/2010	--	--	<5.0	--	--	--	<0.50	<0.50	**0.55**	--	--	--	**12.5**	<0.50	**0.19 J**	<0.50	<0.50	--	--	<0.50	--	--
	6/1/2011	<5.0	<1.0	<5.0	<2.0	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	**0.18 J**	<0.50	**1.42**	<0.50	<0.50	<1.0	<1.0	<0.50	<2.0	<1.0
	12/13/2011	<5.0	<1.0	<5.0	<2.0	<1.0	<1.0	<0.50	<0.50	**0.20 J**	<1.0	<1.0	<1.0	**4.54**	<0.50	**0.27 J**	<0.50	<0.50	<1.0	<1.0	<0.50	<2.0	<1.0
ROD Cleanup Level [5.]		NA	NA	NA	12	NA	NA	NA	NA	0.24	9.8	NA	NA	NA	NA	0.6	NA	NA	NA	NA	0.022	13	
JSCS SLV [6.]		170	37	8.9	0.2	NA	100	2.5	0.33	0.12	9.8	NA	8.2	11	1.2	0.17	1,300	0.0095	NA	NA	0.015	1.8	13.0

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	4-Methyl-2-pentanone (MiBK)	Methyl tert-butyl ether (MTBE)	Methylene chloride	Naphthalene	n-Propylbenzene	Styrene	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	Tetrachloroethene (PCE)	Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene (TCE)	Trichlorofluoromethane	1,2,3-Trichloropropane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl chloride	m,p-Xylene	o-Xylene
		Concentrations in µg/L (ppb)																					
AREA 1																							
MW-39 (continued)	3/27/2012	<1.0	<0.09	<0.12	<1.0	<0.09	<0.09	<0.10	<0.12	<0.09	<0.09	<1.0	<0.14	**0.90 J**	<0.50	**0.61 J**	<0.11	<1.0	<0.07	<0.09	<0.09	<0.19	<0.12
	7/5/2012	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<2.0	<2.0	**1.64**	<0.50	<0.50	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	12/3/2012	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<2.0	<2.0	**1.44**	<0.50	<0.50	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	6/18/2013	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<2.0	<2.0	**2.70**	<1.0	<0.50	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	12/13/2013	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<2.0	<2.0	**4.43**	<1.0	<0.50	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	6/11/2014	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	<0.500	<1.0	<2.0	<2.0	**2.72**	<0.50	<0.500	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	12/17/2014	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	**0.480 J**	<1.0	<2.0	<2.0	**5.02**	<0.50	**0.380 J**	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	7/6/2015	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	<0.500	<1.0	<2.0	<2.0	<0.500	<0.50	<0.500	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	12/15/2015	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	**1.64**	<0.500	**0.86**	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	6/21/2016	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/6/2016	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	6/26/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	**0.327 J**	<1.00	<2.00	<2.00	**2.00**	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/12/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**0.984**	<1.00	<2.00	<2.00	**2.06**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	6/27/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	**0.960**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/19/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	6/19/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**0.458**	<1.00	<2.00	<2.00	**0.574**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/12/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**1.25**	<1.00	<2.00	<2.00	**0.707**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
MW-41	12/1/2010	--	--	<5.0	--	--	--	<0.50	<0.50	**0.17 J**	--	--	--	**0.85**	<0.50	<0.50	<0.50	<0.50	--	--	<0.50	--	--
	12/14/2011	<1.0	<1.0	<5.0	<2.0	<0.5	<1.0	<0.5	<0.5	<0.50	<1.0	<2.0	<2.0	**1.35**	<0.5	<0.50	<2.0	<1.0	<1.0	<1.0	<5.0	<1.0	<0.5
	3/26/2012	<1.0	<0.09	<0.12	<1.0	<0.09	<0.09	<0.10	<0.12	**0.14 J**	<0.09	<1.0	<0.14	**0.44 J**	<0.50	<0.14	<0.11	<1.0	<0.07	<0.09	<0.09	<0.19	<0.12
	12/4/2012	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<2.0	<2.0	**0.63**	<0.50	<0.50	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	12/16/2013	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<2.0	<2.0	**0.680**	<0.50	<0.50	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	12/23/2014	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	<0.500	<1.0	<2.0	<2.0	<0.500	<0.50	<0.500	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	12/17/2015	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/7/2016	<10.0 J	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	**0.460 J**	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/12/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/20/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.400	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/10/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.400	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
ROD Cleanup Level [5.]		NA	NA	NA	12	NA	NA	NA	NA	0.24	9.8	NA	NA	NA	NA	0.6	NA	NA	NA	NA	0.022	13	
JSCS SLV [6.]		170	37	8.9	0.2	NA	100	2.5	0.33	0.12	9.8	NA	8.2	11	1.2	0.17	1,300	0.0095	NA	NA	0.015	1.8	13.0

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	4-Methyl-2-pentanone (MiBK)	Methyl tert-butyl ether (MTBE)	Methylene chloride	Naphthalene	n-Propylbenzene	Styrene	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	Tetrachloroethene (PCE)	Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene (TCE)	Trichlorofluoromethane	1,2,3-Trichloropropane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl chloride	m,p-Xylene	o-Xylene
		Concentrations in µg/L (ppb)																					
AREA 1																							
MW-42	11/30/2010	--	--	<5.0	--	--	--	<0.50	<0.50	**0.11 J**	--	--	--	**12.6**	<0.50	**0.16 J**	<0.50	<0.50	--	--	<0.50	--	--
	12/14/2011	<1.0	<1.0	<5.0	<2.0	<0.5	<1.0	<0.5	<0.5	<0.50	<1.0	<2.0	<2.0	**3.07**	<0.50	<0.50	<2.0	<1.0	<1.0	<1.0	<5.0	<1.0	<0.5
	3/26/2012	<1.0	<0.09	<0.12	<1.0	<0.09	<0.09	<0.10	<0.12	<0.09	<0.09	<1.0	<0.14	**1.8**	<0.50	**0.15 J**	<0.11	<1.0	<0.07	<0.09	<0.09	<0.19	<0.12
	7/5/2012	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<2.0	<2.0	<0.50	<0.50	<0.50	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	12/4/2012	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<2.0	<2.0	<0.50	<0.50	<0.50	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	12/17/2013	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<2.0	<2.0	**0.960**	<0.50	<0.50	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	12/18/2014	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<2.0	<2.0	**5.28**	<0.50	**0.360 J**	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	12/15/2015	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	**5.45**	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/7/2016	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	**0.364 J**	<1.00	<2.00	<2.00	**4.94**	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/14/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**0.730**	<1.00	<2.00	<2.00	**4.64**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/20/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	**0.917**	<1.00	<2.00	<2.00	**1.80**	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/11/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
MW-43	11/29/2010	--	--	<5.0	--	--	--	<0.50	<0.50	<0.50	--	--	--	**0.38 J**	<0.50	**1.51**	<0.50	<0.50	--	--	<0.50	--	--
	12/13/2011	<1.0	<1.0	<5.0	<2.0	<0.5	<1.0	<0.5	<0.5	<0.50	<1.0	<2.0	<2.0	**0.91**	<0.5	**1.16**	<2.0	<1.0	<1.0	<1.0	<5.0	<1.0	<0.5
	3/26/2012	<1.0	<0.09	<0.12	<1.0	<0.09	<0.09	<0.10	<0.12	<0.09	<0.09	<1.0	<0.14	**0.49 J**	<0.50	**1.70**	<0.11	<1.0	<0.07	<0.09	<0.09	<0.19	<0.12
	7/5/2012	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<2.0	<2.0	<0.50	<0.50	**0.70**	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	12/4/2012	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<2.0	<2.0	**0.75**	<0.50	**1.05**	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	12/17/2013	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<2.0	<2.0	<0.50	<0.50	<0.50	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	3/25/2014	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	<0.500	<1.0	<2.0	<2.0	<0.500	<0.50	<0.500	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	6/11/2014	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	<0.500	<1.0	<2.0	<2.0	<0.500	<0.50	<0.500	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	9/19/2014	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/23/2014	<10	<1	<5	<2	<0.5	<1	<0.5	<0.5	<0.5	<1	<2	<2	<0.5	<0.5	<0.500	<2	<1	<1	<1	<0.5	<1.00	<0.5
	3/16/2015	<10	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	7/6/2015	<10	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	**2.38**	<0.500	**0.69**	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	9/16/2015	<10	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	**0.400 J**	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/16/2015	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	**1.55**	<0.500	**0.65**	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
ROD Cleanup Level [5.]		NA	NA	NA	12	NA	NA	NA	NA	0.24	9.8	NA	NA	NA	NA	0.6	NA	NA	NA	NA	0.022	13	
JSCS SLV [6.]		170	37	8.9	0.2	NA	100	2.5	0.33	0.12	9.8	NA	8.2	11	1.2	0.17	1,300	0.0095	NA	NA	0.015	1.8	13.0

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	4-Methyl-2-pentanone (MiBK)	Methyl tert-butyl ether (MTBE)	Methylene chloride	Naphthalene	n-Propylbenzene	Styrene	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	Tetrachloroethene (PCE)	Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene (TCE)	Trichlorofluoromethane	1,2,3-Trichloropropane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl chloride	m,p-Xylene	o-Xylene
		Concentrations in µg/L (ppb)																					
AREA 1																							
MW-43 (continued)	3/21/2016	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	6/23/2016	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	**0.28**	<0.500	**0.64**	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	9/27/2016	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	**1.00**	<0.500	**0.260**	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/9/2016	<10.0 J	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	**0.970**	<0.500	**0.560**	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	3/23/2017	<10.0 J	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	**0.788**	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	6/27/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	**0.290 J**	<0.500	**0.76**	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	9/21/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	**1.01**	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/13/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	**0.960**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	3/15/2018	<5.00	<0.500	<1.50	<1.00	<0.250	<0.500	<0.200	<0.250	<0.200	<0.500	<1.00	<1.00	**0.218 J**	<0.250	**0.312 J**	<1.00	<0.500	<0.500	<0.500	<0.200	<0.500	<0.250
	6/28/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	**0.935**	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/4/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**0.427**	<1.00	<2.00	<2.00	**1.01**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/19/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	**0.520**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	3/6/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	**0.530**	<0.500	**0.420**	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	3/6/2019 DUP	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	**0.410**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	6/19/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	**0.789**	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	6/19/2019 DUP	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	**0.799**	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/11/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/11/2019 DUP	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	1/14/2020	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	**0.490**	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
MW-44	8/19/2009	--	--	<5.0	--	--	--	<0.50	<0.50	<0.50	--	--	--	**0.68**	<0.50	<0.50	<0.50	<0.50	--	--	<0.50	--	--
	8/19/2009 DUP	--	--	<5.0	--	--	--	<0.50	<0.50	<0.50	--	--	--	**0.7**	<0.50	<0.50	<0.50	<0.50	--	--	<0.50	--	--
	12/7/2009	--	--	<5.0	--	--	--	<0.50	<0.50	<0.50	--	--	--	**0.27 J**	<0.50	<0.50	<0.50	<0.50	--	--	<0.50	--	--
	11/30/2010	--	--	<5.0	--	--	--	<0.50	<0.50	**0.27 J**	--	--	--	**2.6**	<0.50	**0.08 J**	<0.50	<0.50	--	--	<0.50	--	--
	12/13/2011	<1.0	<1.0	<5.0	<2.0	<0.5	<1.0	<0.5	<0.5	<0.50	<1.0	<2.0	<2.0	<0.50	<0.5	<0.50	<2.0	<1.0	<1.0	<1.0	<5.0	<1.0	<0.5
	3/26/2012	<1.0	<0.09	<0.12	<1.0	<0.09	<0.09	<0.10	<0.12	**0.10 J**	<0.09	<1.0	<0.14	**0.39 J**	<0.50	<0.14	<0.11	<1.0	<0.07	<0.09	<0.09	<0.19	<0.12
	7/5/2012	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<2.0	<2.0	**1.19**	<0.50	<0.50	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	12/4/2012	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<2.0	<2.0	**1.35**	<0.50	<0.50	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	12/11/2013	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<2.0	<2.0	<0.50	<0.50	<0.50	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	3/24/2014	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	<0.500	<1.0	<2.0	<2.0	**0.910**	<0.50	<0.500	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	6/11/2014	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	<0.500	<1.0	<2.0	<2.0	<0.500	<0.50	<0.500	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	9/19/2014	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/23/2014	<10	<1	<5	<2	<0.5	<1	<0.5	<0.5	<0.5	<1	<2	<2	<0.5	<0.5	<0.500	<2	<1	<1	<1	<0.5	<1.00	<0.5
ROD Cleanup Level [5.]		NA	NA	NA	12	NA	NA	NA	NA	0.24	9.8	NA	NA	NA	NA	0.6	NA	NA	NA	NA	0.022	13	
JSCS SLV [6.]		170	37	8.9	0.2	NA	100	2.5	0.33	0.12	9.8	NA	8.2	11	1.2	0.17	1,300	0.0095	NA	NA	0.015	1.8	13.0

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	4-Methyl-2-pentanone (MiBK)	Methyl tert-butyl ether (MTBE)	Methylene chloride	Naphthalene	n-Propylbenzene	Styrene	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	Tetrachloroethene (PCE)	Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene (TCE)	Trichlorofluoromethane	1,2,3-Trichloropropane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl chloride	m,p-Xylene	o-Xylene
		Concentrations in µg/L (ppb)																					
AREA 1																							
MW-44 (continued)	3/16/2015	<10	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	6/26/2015	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	9/14/2015	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/16/2015	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	3/21/2016	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	6/23/2016	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	9/27/2016	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/9/2016	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	3/23/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	**0.510**	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	6/27/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	**0.310 J**	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	9/21/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/13/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	3/15/2018	<5.00	<0.500	<1.50	<1.00	<0.250	<0.500	<0.200	<0.250	<0.200	<0.500	<1.00	<1.00	<0.200	<0.250	<0.200	<1.00	<0.500	<0.500	<0.500	<0.200	<0.500	<0.250
	6/28/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/4/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/19/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	3/6/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	6/19/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/11/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/13/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
MW-45	8/19/2009	--	--	<5.0	--	--	--	<0.50	<0.50	<0.50	--	--	--	**0.22 J**	<0.50	**0.11 J**	<0.50	<0.50	--	--	<0.50	--	--
MW-49	8/19/2009	--	--	<5.0	--	--	--	<0.50	<0.50	**1.21**	--	--	--	**29.6**	<0.50	**0.32 J**	<0.50	<0.50	--	--	<0.50	--	--
	6/2/2010	--	--	<5.0	--	--	--	<0.50	<0.50	**2.08**	--	--	--	**47.3**	<0.50	**0.28 J**	<0.50	<0.50	--	--	<0.50	--	--
	11/30/2010	--	--	<5.0	--	--	--	<0.50	<0.50	**1.82**	--	--	--	**31.4**	<0.50	**0.29 J**	<0.50	<0.50	--	--	<0.50	--	--
	6/1/2011	<5.0	<1.0	<5.0	<2.0	<1.0	<1.0	<0.50	<0.50	**0.83**	<1.0	<1.0	<1.0	**14.5**	<0.50	**0.49**	<0.50	<0.50	<1.0	<1.0	<0.50	<2.0	<1.0
	12/13/2011	<5.0	<1.0	<5.0	<2.0	<1.0	<1.0	<0.50	<0.50	**1.34**	<1.0	<1.0	<1.0	**21.7**	<0.50	**0.61**	<0.50	<0.50	<1.0	<1.0	<0.50	<2.0	<1.0
	3/27/2012	<1.0	<0.09	<0.12	<1.0	<0.09	<0.09	<0.10	<0.12	**0.91 J**	<0.09	<1.0	<0.14	**17.0**	<0.50	**0.37 J**	<0.11	<1.0	<0.07	<0.09	<0.09	<0.19	<0.12
	7/5/2012	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	--	<1.0	<2.0	<2.0	**5.40**	<0.50	**0.73**	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	12/4/2012	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<2.0	<2.0	**9.84**	<0.50	<0.50	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	6/18/2013	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	**0.63**	<1.0	<2.0	<2.0	**5.99**	<1.0	<0.50	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	12/12/2013	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	**0.640**	<1.0	<2.0	<2.0	**7.91**	<0.50	<0.50	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	6/11/2014	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	<0.500	<1.0	<2.0	<2.0	**4.04**	<0.50	<0.500	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	12/17/2014	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	**0.600**	<1.00	<2.00	<2.00	**6.39**	<0.500	**0.670**	<2.00	<1.00	<1.00	<1.00	**0.50**	<1.0	<0.500
ROD Cleanup Level [5.]		NA	NA	NA	12	NA	NA	NA	NA	0.24	9.8	NA	NA	NA	NA	0.6	NA	NA	NA	NA	0.022	13	
JSCS SLV [6.]		170	37	8.9	0.2	NA	100	2.5	0.33	0.12	9.8	NA	8.2	11	1.2	0.17	1,300	0.0095	NA	NA	0.015	1.8	13.0

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	4-Methyl-2-pentanone (MiBK)	Methyl tert-butyl ether (MTBE)	Methylene chloride	Naphthalene	n-Propylbenzene	Styrene	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	Tetrachloroethene (PCE)	Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene (TCE)	Trichlorofluoromethane	1,2,3-Trichloropropane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl chloride	m,p-Xylene	o-Xylene
		Concentrations in µg/L (ppb)																					
AREA 1																							
MW-49 (continued)	6/30/2015	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	**0.430**	<1.0	<2.0	<2.0	**3.52**	<0.500	**0.280**	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	12/15/2015	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	**0.88**	<1.00	<2.00	<2.00	**6.32**	<0.500	**0.54**	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	6/22/2016	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/6/2016	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	6/27/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	6/27/2017 DUP	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/12/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	6/27/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/19/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	6/19/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/12/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
MW-50	11/29/2010	--	--	<5.0	--	--	--	<0.50	<0.50	**0.13 J**	--	--	--	**0.14 J**	<0.50	**2.26**	<0.50	<0.50	--	--	<0.50	--	--
	11/29/2010 DUP	--	--	<5.0	--	--	--	<0.50	<0.50	**0.12 J**	--	--	--	**0.18 J**	<0.50	**2.34**	<0.50	<0.50	--	--	<0.50	--	--
	12/13/2011	<1.0	<1.0	<5.0	<2.0	<0.5	<1.0	<0.5	<0.5	<0.50	<1.0	<2.0	<2.0	<0.50	<0.5	**2.20**	<2.0	<1.0	<1.0	<1.0	<5.0	<1.0	<0.5
	3/26/2012	<1.0	<0.09	<0.12	<1.0	<0.09	<0.09	<0.10	<0.12	<0.09	<0.09	<1.0	<0.14	**0.81 J**	<0.50	**1.50**	<0.11	<1.0	<0.07	<0.09	<0.09	<0.19	<0.12
	7/5/2012	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<2.0	<2.0	<0.50	<0.50	**1.72**	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	12/4/2012	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<2.0	<2.0	<0.50	<0.50	**1.41**	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	12/17/2013	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<2.0	<2.0	<0.50	<0.50	**0.690**	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	--
	12/23/2014	<10	<1	<5	<2	<0.5	<1	<0.5	<0.5	<0.5	<1	<2	<2	<0.5	<0.5	**1.66**	<2	<1	<1	<1	<0.5	<1.0	<0.5
	12/16/2015	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	**0.76**	<0.500	**1.25**	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/9/2016	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	**0.320 J**	<0.500	**1.22**	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/13/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	**1.06**	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/19/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.400	<0.500	**0.850**	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/13/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.400	<0.500	**0.898**	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
MW-51	8/19/2009	--	--	<5.0	--	--	--	<0.50	<0.50	**0.93**	--	--	--	**17.9**	<0.50	**0.97**	<0.50	<0.50	--	--	<0.50	--	--
	12/7/2009	--	--	<5.0	--	--	--	<0.50	<0.50	**0.53**	--	--	--	**2.3**	<0.50	**0.82**	<0.50	<0.50	--	--	<0.50	--	--
	3/16/2010	--	--	<5.0	--	--	--	<0.50	<0.50	**0.28 J**	--	--	--	**2.95**	<0.50	**0.37 J**	<0.50	<0.50	--	--	<0.50	--	--
	6/2/2010	--	--	<5.0	--	--	--	<0.50	<0.50	**0.67**	--	--	--	**21.3**	<0.50	**0.54**	<0.50	<0.50	--	--	<0.50	--	--
	8/31/2010	--	--	<5.0	--	--	--	<0.50	<0.50	**0.88**	--	--	--	**19.8**	<0.50	**0.48 J**	<0.50	<0.50	--	--	<0.50	--	--
	8/31/2010 DUP	--	--	<5.0	--	--	--	<0.50	<0.50	**0.92**	--	--	--	**20.8**	<0.50	**0.48 J**	<0.50	<0.50	--	--	<0.50	--	--
	11/29/2010	--	--	<5.0	--	--	--	<0.50	<0.50	**0.6**	--	--	--	**3.42**	<0.50	**0.30 J**	<0.50	<0.50	--	--	<0.50	--	--
	6/1/2011	<5.0	<1.0	<5.0	<2.0	<1.0	<1.0	<0.50	<0.50	**0.71**	<1.0	<1.0	<1.0	**4.55**	<0.50	**0.75**	<0.50	<0.50	<1.0	<1.0	<0.50	<2.0	<1.0
	9/15/2011	<5.0	<1.0	<5.0	<2.0	<1.0	<1.0	<0.50	<0.50	**0.48 J**	<1.0	<1.0	<1.0	**1.64**	<0.50	**1.21**	<0.50	<0.50	<1.0	<1.0	<0.50	<2.0	**0.09 J**
	12/13/2011	<5.0	<1.0	<5.0	<2.0	<1.0	<1.0	<0.50	<0.50	**0.46 J**	<1.0	<1.0	<1.0	**1.21**	<0.50	**2.41**	<0.50	<0.50	<1.0	<1.0	<0.50	<2.0	<1.0
ROD Cleanup Level [5.]		NA	NA	NA	12	NA	NA	NA	NA	0.24	9.8	NA	NA	NA	NA	0.6	NA	NA	NA	NA	0.022	13	
JSCS SLV [6.]		170	37	8.9	0.2	NA	100	2.5	0.33	0.12	9.8	NA	8.2	11	1.2	0.17	1,300	0.0095	NA	NA	0.015	1.8	13.0

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	4-Methyl-2-pentanone (MiBK)	Methyl tert-butyl ether (MTBE)	Methylene chloride	Naphthalene	n-Propylbenzene	Styrene	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	Tetrachloroethene (PCE)	Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene (TCE)	Trichlorofluoromethane	1,2,3-Trichloropropane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl chloride	m,p-Xylene	o-Xylene
		Concentrations in µg/L (ppb)																					
AREA 1																							
MW-51 (continued)	3/26/2012	<1.0	<0.09	<0.12	<1.0	<0.09	<0.09	<0.10	<0.12	**0.49 J**	<0.09	<1.0	<0.14	**3.80**	<0.50	**1.40**	<0.11	<1.0	<0.07	<0.09	<0.09	<0.19	<0.12
	7/5/2012	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<2.0	<2.0	**1.81**	<0.50	**1.03**	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	9/28/2012	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<2.0	<2.0	**0.96**	<0.50	**1.14**	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	12/4/2012	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<2.0	<2.0	<0.50	<0.50	**0.89**	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	3/22/2013	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<5.0	<5.0	**2.35**	<0.50	**0.63**	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	6/18/2013	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<2.0	<2.0	**2.25**	<1.0	**0.77**	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	9/9/2013	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	**2.34**	<1.00	**0.590**	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/11/2013	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.50	<1.00	<2.00	<2.00	**1.08**	<0.50	**0.520**	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	3/24/2014	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.50	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	6/11/2014	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	**2.32**	<0.50	**0.530**	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	9/19/2014	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	**1.17**	<0.500	**0.580**	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/23/2014	<10	<1	<5	<2	<0.5	<1	<0.5	<0.5	<0.5	<1	<2	<2	<0.500	<0.5	<0.500	<2	<1	<1	<1	<0.5	<1.00	<0.5
	3/15/2015	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	**0.31**	<1.00	<2.00	<2.00	**1.31**	<0.500	**1.18**	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	6/26/2015	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	**1.92**	<0.500	**1.03**	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	9/15/2015	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	**0.250 J**	<1.00	<2.00	<2.00	**3.57**	<0.500	**0.970**	<2.00	<1.00	<1.00	<1.00	**1.10**	<1.00	<0.500
	12/16/2015	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	3/21/2016	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	6/23/2016	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	**0.900**	<1.00	<2.00	<2.00	**5.17**	<0.500	**0.480**	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	9/27/2016	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	**1.12**	<1.00	<2.00	<2.00	**4.95**	<0.500	**0.340**	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/9/2016	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	**0.985**	<1.00	<2.00	<2.00	**3.71**	<0.500	**0.343 J**	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	3/23/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	**0.730**	<1.00	<2.00	<2.00	**3.47**	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	6/27/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	**1.42**	<1.00	<2.00	<2.00	**4.98**	<0.500	**0.350 J**	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	9/21/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/13/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	3/15/2018	<5.00	<0.500	<1.50	<1.00	<0.250	<0.500	<0.200	<0.250	<0.200	<0.500	<1.00	<1.00	<0.200	<0.250	<0.200	<1.00	<0.500	<0.500	<0.500	<0.200	<0.500	<0.250
	6/28/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**1.05**	<1.00	<2.00	<2.00	**2.09**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/4/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**0.672**	<1.00	<2.00	<2.00	**1.85**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/19/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	3/6/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	**0.420**	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	6/19/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	**0.639**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/11/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**1.00**	<1.00	<2.00	<2.00	**1.53**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/13/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
ROD Cleanup Level [5.]		NA	NA	NA	12	NA	NA	NA	NA	0.24	9.8	NA	NA	NA	NA	0.6	NA	NA	NA	NA	0.022	13	
JSCS SLV [6.]		170	37	8.9	0.2	NA	100	2.5	0.33	0.12	9.8	NA	8.2	11	1.2	0.17	1,300	0.0095	NA	NA	0.015	1.8	13.0

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	4-Methyl-2-pentanone (MiBK)	Methyl tert-butyl ether (MTBE)	Methylene chloride	Naphthalene	n-Propylbenzene	Styrene	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	Tetrachloroethene (PCE)	Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene (TCE)	Trichlorofluoromethane	1,2,3-Trichloropropane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl chloride	m,p-Xylene	o-Xylene
		Concentrations in µg/L (ppb)																					
AREA 1																							
MW-52	8/19/2009	--	--	<5.0	--	--	--	<0.50	<0.50	**1.37**	--	--	--	**7.35**	<0.50	**0.33 J**	<0.50	<0.50	--	--	<0.50	--	--
	12/7/2009	--	--	<5.0	--	--	--	<0.50	<0.50	**2.64**	--	--	--	**17.9**	<0.50	**0.78**	<0.50	<0.50	--	--	<0.50	--	--
	3/16/2010	--	--	<5.0	--	--	--	<0.50	<0.50	**2.58**	--	--	--	**16.2**	<0.50	**0.71**	<0.50	<0.50	--	--	<0.50	--	--
	3/16/2010 DUP	--	--	<10.0	--	--	--	<1.0	<1.0	**2.46**	--	--	--	**15.6**	<1.0	**0.62 J**	<1.0	<1.0	--	--	<1.0	--	--
	6/2/2010	--	--	<5.0	--	--	--	<0.50	<0.50	**2.64**	--	--	--	**16.2**	<0.50	**0.81**	<0.50	<0.50	--	--	<0.50	--	--
	8/31/2010	--	--	<5.0	--	--	--	<0.50	<0.50	**3.7**	--	--	--	**14**	<0.50	**0.66**	<0.50	<0.50	--	--	<0.50	--	--
	12/2/2010	--	--	<5.0	--	--	--	<0.50	<0.50	**1.43**	--	--	--	**7.7**	<0.50	**0.44 J**	<0.50	<0.50	--	--	<0.50	--	--
	6/2/2011	<1.0	<1.0	<5.0	<2.0	<0.5	<1.0	<0.5	<0.5	**1.69**	<1.0	<2.0	<2.0	**11.5**	<0.5	**0.64**	<2.0	<1.0	<1.0	<1.0	<5.0	<1.0	<0.5
	9/15/2011	<1.0	<1.0	<5.0	<2.0	<0.5	<1.0	<0.5	<0.5	**2.76**	<1.0	<2.0	<2.0	**8.8**	<0.5	**0.52**	<2.0	<1.0	<1.0	<1.0	<5.0	<1.0	<0.5
	12/13/2011	<1.0	<1.0	<5.0	<2.0	<0.5	<1.0	<0.5	<0.5	**1.64**	<1.0	<2.0	<2.0	**8.59**	<0.5	**0.71**	<2.0	<1.0	<1.0	<1.0	<5.0	<1.0	<0.5
	3/29/2012	<1.0	<0.09	<0.12	<1.0	<0.09	<0.09	<0.10	<0.12	**1.30**	<0.09	<1.0	<0.14	**6.60**	<0.50	**0.74 J**	<0.11	<1.0	<0.07	<0.09	<0.09	<0.19	<0.12
	7/5/2012	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	**1.25**	<1.0	<2.0	<2.0	**7.33**	<0.50	**0.81**	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	9/28/2012	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<2.0	<2.0	<0.50	<0.50	<0.50	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	12/4/2012	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	**1.01**	<1.0	<2.0	<2.0	**5.06**	<0.50	**0.95**	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	3/22/2013	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<5.0	<5.0	<0.50	<0.50	<0.50	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	6/18/2013	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<2.0	<2.0	**0.83**	<1.0	<0.50	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	9/9/2013	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<1.00	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/12/2013	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.50	<1.00	<2.00	<2.00	**1.56**	<0.50	<0.50	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	3/24/2014	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	**2.07**	<0.50	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	6/11/2014	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	**0.860**	<0.50	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	9/19/2014	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/18/2014	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	**2.67**	<1.00	<2.00	<2.00	**3.69**	<0.500	**0.730**	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	3/15/2015	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	**0.35**	<1.00	<2.00	<2.00	**0.26**	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	6/30/2015	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	**0.430 J**	<1.00	<2.00	<2.00	**0.340 J**	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	9/14/2015	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/15/2015	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	3/22/2016	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	**1.77**	<1.00	<2.00	<2.00	**0.84**	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	6/21/2016	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	10/4/2016	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/6/2016	<10.0 J	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	**0.310 J**
	3/23/2017	<10.0 J	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	6/27/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	**0.340 J**	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	9/20/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/12/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
ROD Cleanup Level [5.]		NA	NA	NA	12	NA	NA	NA	NA	0.24	9.8	NA	NA	NA	NA	0.6	NA	NA	NA	NA	0.022	13	
JSCS SLV [6.]		170	37	8.9	0.2	NA	100	2.5	0.33	0.12	9.8	NA	8.2	11	1.2	0.17	1,300	0.0095	NA	NA	0.015	1.8	13.0

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	4-Methyl-2-pentanone (MiBK)	Methyl tert-butyl ether (MTBE)	Methylene chloride	Naphthalene	n-Propylbenzene	Styrene	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	Tetrachloroethene (PCE)	Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene (TCE)	Trichlorofluoromethane	1,2,3-Trichloropropane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl chloride	m,p-Xylene	o-Xylene
		Concentrations in µg/L (ppb)																					
AREA 1																							
MW-52 (continued)	3/14/2018	<5.00	<0.500	<1.50	<1.00	<0.250	<0.500	<0.200	<0.250	<0.200	<0.500	<1.00	<1.00	<0.200	<0.250	<0.200	<1.00	<0.500	<0.500	<0.500	<0.200	<0.500	<0.250
	6/28/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/4/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/19/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/19/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**1.23**	<1.00	<2.00	<2.00	**0.490**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	6/19/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**2.41**	<1.00	<2.00	<2.00	**0.762**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	6/19/2019 DUP	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**2.55**	<1.00	<2.00	<2.00	**0.798**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/10/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**0.890**	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/10/2019 DUP	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**1.00**	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/10/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**0.670**	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/10/2019 DUP	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**0.930**	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
MW-53	12/7/2009	--	--	<5.0	--	--	--	<0.50	<0.50	<0.50	--	--	--	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	<0.50	--	--
	12/7/2009 DUP	--	--	<5.0	--	--	--	<0.50	<0.50	<0.50	--	--	--	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	<0.50	--	--
	12/2/2010	--	--	<5.0	--	--	--	<0.50	<0.50	<0.50	--	--	--	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	<0.50	--	--
	12/13/2011	<1.0	<1.0	<5.0	<2.0	<0.5	<1.0	<0.5	<0.5	<0.50	<1.0	<2.0	<2.0	<0.50	<0.5	<0.50	<2.0	<1.0	<1.0	<1.0	<5.0	<1.0	<0.5
	3/27/2012	<1.0	<0.09	<0.12	<1.0	<0.09	<0.09	<0.10	<0.12	<0.09	<0.09	<1.0	<0.14	<0.10	<0.50	<0.14	<0.11	<1.0	<0.07	<0.09	<0.09	<0.19	<0.12
	7/5/2012	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<2.0	<2.0	<0.50	<0.50	<0.50	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	12/4/2012	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<2.0	<2.0	<0.50	<0.50	<0.50	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	12/12/2013	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<2.0	<2.0	<0.50	<0.50	<0.50	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	12/18/2014	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.50	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/15/2015	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/6/2016	<10.0 J	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/12/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/18/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/10/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
MW-62	1/20/2015	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	**0.290 J**	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	3/22/2016	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	**0.360**	<1.00	<2.00	<2.00	**0.450**	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	6/22/2016	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	**0.530**	<1.00	<2.00	<2.00	**1.44**	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	6/22/16 DUP	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	**0.580**	<1.00	<2.00	<2.00	**1.40**	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	9/27/2016	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	**0.720**	<1.00	<2.00	<2.00	**0.530**	<0.500	**0.250**	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	9/27/2016 DUP	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	**0.780**	<1.00	<2.00	<2.00	**0.430**	<0.500	**0.260**	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/7/2016	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	**0.264 J**	<1.00	<2.00	<2.00	**0.319 J**	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	3/23/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	6/26/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	9/20/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/12/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
ROD Cleanup Level [5.]		NA	NA	NA	12	NA	NA	NA	NA	0.24	9.8	NA	NA	NA	NA	0.6	NA	NA	NA	NA	0.022	13	
JSCS SLV [6.]		170	37	8.9	0.2	NA	100	2.5	0.33	0.12	9.8	NA	8.2	11	1.2	0.17	1,300	0.0095	NA	NA	0.015	1.8	13.0

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	4-Methyl-2-pentanone (MiBK)	Methyl tert-butyl ether (MTBE)	Methylene chloride	Naphthalene	n-Propylbenzene	Styrene	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	Tetrachloroethene (PCE)	Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene (TCE)	Trichlorofluoromethane	1,2,3-Trichloropropane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl chloride	m,p-Xylene	o-Xylene
		Concentrations in µg/L (ppb)																					
AREA 1																							
MW-62 (continued)	3/14/2018	<5.00	<0.500	<1.50	<1.00	<0.250	<0.500	<0.200	<0.250	<0.200	<0.500	<1.00	<1.00	<0.200	<0.250	<0.200	<1.00	<0.500	<0.500	<0.500	<0.200	<0.500	<0.250
	6/27/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/5/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/5/2018 DUP	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/19/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	3/6/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	3/6/2019 DUP	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	6/19/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/10/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/10/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
MW-70	8/19/2009	--	--	<5.0	--	--	--	<0.50	<0.50	**5.20**	--	--	--	**31.2**	<0.50	**0.4 J**	<0.50	<0.50	--	--	<0.50	--	--
	3/16/2010	--	--	<5.0	--	--	--	<0.50	<0.50	**7.79**	--	--	--	**34.4**	<0.50	**0.45 J**	<0.50	<0.50	--	--	<0.50	--	--
	6/2/2010	--	--	<5.0	--	--	--	<0.50	<0.50	**1.44**	--	--	--	**5.41**	<0.50	**0.08 J**	<0.50	<0.50	--	--	<0.50	--	--
	8/31/2010	--	--	<5.0	--	--	--	<0.50	<0.50	**0.21 J**	--	--	--	**0.63**	<0.50	<0.50	<0.50	<0.50	--	--	<0.50	--	--
	11/30/2010	--	--	<5.0	--	--	--	<0.50	<0.50	**3.7**	--	--	--	**11.7**	<0.50	**0.23 J**	<0.50	<0.50	--	--	<0.50	--	--
	6/1/2011	<5.0	<1.0	<5.0	<2.0	<1.0	<1.0	<0.50	<0.50	**10.8**	<1.0	<1.0	<1.0	**56.9**	<0.50	**0.45 J**	<0.50	<0.50	<1.0	<1.0	<0.50	<2.0	<1.0
	9/15/2011	<5.0	<1.0	<5.0	<2.0	<1.0	<1.0	<0.50	<0.50	**2.36**	<1.0	<1.0	<1.0	**6.92**	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<0.50	<2.0	**0.09 J**
	12/14/2011	<5.0	<1.0	<5.0	<2.0	<1.0	<1.0	<0.50	<0.50	**2.25**	<1.0	<1.0	<1.0	**4.84**	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<0.50	<2.0	<1.0
	3/27/2012	<1.0	<0.09	<0.12	<1.0	<0.09	<0.09	<0.10	<0.12	**4.40**	<0.09	<1.0	<0.14	**13.0**	<0.50	**0.16 J**	<0.11	<1.0	<0.07	<0.09	<0.09	<0.19	<0.12
	7/5/2012	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	**6.00**	<1.0	<2.0	<2.0	**20.1**	<0.50	<0.50	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	9/28/2012	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	**2.68**	<1.0	<2.0	<2.0	**7.85**	<0.50	<0.50	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	12/4/2012	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	**1.37**	<1.0	<2.0	<2.0	**3.83**	<0.50	<0.50	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	3/22/2013	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	**0.91**	<1.0	<5.0	<5.0	**1.74**	<0.50	<0.50	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	6/18/2013	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	**2.35**	<1.0	<2.0	<2.0	**2.84**	<1.0	<0.50	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	9/9/2013	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	**0.770**	<1.00	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/13/2013	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	**1.91**	<1.00	<2.00	<2.00	**3.68**	<0.50	<0.50	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	3/24/2014	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	**1.04**	<1.00	<2.00	<2.00	**2.70**	<0.50	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	6/11/2014	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	**0.860**	<1.00	<2.00	<2.00	**1.61**	<0.50	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	9/19/2014	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	**0.850**	<1.00	<2.00	<2.00	**1.74**	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/18/2014	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	**0.560**	<1.00	<2.00	<2.00	**0.810**	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
ROD Cleanup Level [5.]		NA	NA	NA	12	NA	NA	NA	NA	0.24	9.8	NA	NA	NA	NA	0.6	NA	NA	NA	NA	0.022	13	
JSCS SLV [6.]		170	37	8.9	0.2	NA	100	2.5	0.33	0.12	9.8	NA	8.2	11	1.2	0.17	1,300	0.0095	NA	NA	0.015	1.8	13.0

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	4-Methyl-2-pentanone (MiBK)	Methyl tert-butyl ether (MTBE)	Methylene chloride	Naphthalene	n-Propylbenzene	Styrene	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	Tetrachloroethene (PCE)	Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene (TCE)	Trichlorofluoromethane	1,2,3-Trichloropropane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl chloride	m,p-Xylene	o-Xylene
		Concentrations in µg/L (ppb)																					
AREA 1																							
MW-70 (continued)	3/15/2015	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	**1.01**	<1.00	<2.00	<2.00	**1.43**	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	6/30/2015	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	**0.59**	<1.00	<2.00	<2.00	**1.10**	<0.50	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	9/14/2015	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	**0.850**	<1.00	<2.00	<2.00	**1.20**	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/17/2015	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	**0.602**	<1.00	<2.00	<2.00	**1.27**	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	3/21/2016	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	**0.315**	<1.00	<2.00	<2.00	**1.37**	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	6/22/2016	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	**0.280**	<1.00	<2.00	<2.00	**1.15**	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	9/27/2016	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	**0.560**	<1.00	<2.00	<2.00	**1.57**	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/6/2016	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	**0.431 J**	<1.00	<2.00	<2.00	**1.37**	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	3/23/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	**1.610**	<1.00	<2.00	<2.00	**3.03**	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	6/27/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	**0.430 J**	<1.00	<2.00	<2.00	**2.25**	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	9/20/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	**1.48**	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/12/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	**1.76**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	3/15/2018	<5.00	<0.500	<1.50	<1.00	<0.250	<0.500	<0.200	<0.250	**0.274 J**	<0.500	<1.00	<1.00	**1.66**	<0.250	<0.200	<1.00	<0.500	<0.500	<0.500	<0.200	<0.500	<0.250
	6/28/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	**1.71**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/5/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	**1.92**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/19/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	**2.05**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/19/2018 DUP	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	**2.08**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	3/6/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	**2.03**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	6/19/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	**2.03**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/10/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	**2.29**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/12/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	**2.52**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/12/2019 DUP	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	**2.56**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
MW-71	6/2/2010	--	--	<10	--	--	--	<1.0	<1.0	**2.96**	--	--	--	**68**	<1.0	<1.0	<1.0	<1.0	--	--	<1.0	--	--
	11/30/2010	--	--	<10	--	--	--	<1.0	<1.0	**4.0**	--	--	--	**84.8**	<1.0	**0.34 J**	<1.0	<1.0	--	--	<1.0	--	--
	6/1/2011	<5.0	<1.0	<5.0	<2.0	<1.0	<1.0	<0.50	<0.50	**0.76**	<1.0	<1.0	<1.0	**15.1**	<0.50	**0.55**	<0.50	<0.50	<1.0	<1.0	<0.50	<2.0	<1.0
	12/14/2011	<10	<2.0	**0.46 J**	<4.0	<2.0	<2.0	<1.0	<1.0	**4.98**	<2.0	<2.0	<2.0	**33.8**	<1.0	**0.46 J**	<1.0	<1.0	<2.0	<2.0	<1.0	<4.0	<2.0
	3/26/2012	<1.0	<0.09	<0.12	<1.0	<0.09	<0.09	<0.10	<0.12	**1.70**	<0.09	<1.0	<0.14	**31.0**	<0.50	**0.20 J**	<0.11	<1.0	<0.07	<0.09	<0.09	<0.19	<0.12
	7/5/2012	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	**0.91**	<1.0	<2.0	<2.0	**13.9**	<0.50	**0.55**	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	12/4/2012	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	**2.02**	<1.0	<2.0	<2.0	**36.8**	<0.50	<0.50	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	6/18/2013	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	**1.74**	<1.0	<2.0	<2.0	**18.2**	<1.0	<0.50	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	12/12/2013	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	**2.04**	<1.0	<2.0	<2.0	**15.0**	<0.50	<0.50	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	6/11/2014	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	**1.24**	<1.0	<2.0	<2.0	**12.2**	<0.50	**0.51**	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
ROD Cleanup Level [5.]		NA	NA	NA	12	NA	NA	NA	NA	0.24	9.8	NA	NA	NA	NA	0.6	NA	NA	NA	NA	0.022	13	
JSCS SLV [6.]		170	37	8.9	0.2	NA	100	2.5	0.33	0.12	9.8	NA	8.2	11	1.2	0.17	1,300	0.0095	NA	NA	0.015	1.8	13.0

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	4-Methyl-2-pentanone (MiBK)	Methyl tert-butyl ether (MTBE)	Methylene chloride	Naphthalene	n-Propylbenzene	Styrene	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	Tetrachloroethene (PCE)	Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene (TCE)	Trichlorofluoromethane	1,2,3-Trichloropropane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl chloride	m,p-Xylene	o-Xylene
		Concentrations in µg/L (ppb)																					
AREA 1																							
MW-71 (continued)	7/6/2015	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	**2.53**	<1.0	<2.0	<2.0	**10.8**	<0.50	**0.34**	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	12/17/2015	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	**1.38**	<1.00	<2.00	<2.00	**6.03**	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	6/21/2016	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	**4.12**	<1.00	<2.00	<2.00	**7.84**	<0.500	**0.31**	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/6/2016	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	**2.31**	<1.00	<2.00	<2.00	**7.31**	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	6/27/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	**0.641**	<1.00	<2.00	<2.00	**3.88**	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/12/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**3.79**	<1.00	<2.00	<2.00	**3.65**	<0.500	**0.436**	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	6/27/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**3.58**	<1.00	<2.00	<2.00	**3.30**	<0.500	**0.436**	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/19/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**1.92**	<1.00	<2.00	<2.00	**1.14**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/19/2018 DUP	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**2.10**	<1.00	<2.00	<2.00	**1.08**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	6/19/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**3.15**	<1.00	<2.00	<2.00	**2.04**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/12/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	**2.35**	<1.00	<2.00	<2.00	**1.13**	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
WEX-60	12/8/2009	--	--	<5.0	--	--	--	<0.50	<0.50	<0.50	--	--	--	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	<0.50	--	--
	3/16/2010	--	--	<10.0	--	--	--	<1.0	<1.0	**3.16**	--	--	--	**46.2**	<1.0	**0.42 J**	<1.0	<1.0	--	--	<1.0	--	--
	6/2/2010	--	--	<10.0	--	--	--	<1.0	<1.0	**3.14**	--	--	--	**43.3**	<1.0	**0.24 J**	<1.0	<1.0	--	--	<1.0	--	--
	8/31/2010	--	--	<5.0	--	--	--	<0.50	<0.50	**2.86**	--	--	--	**35.8**	<0.50	**0.41 J**	<0.50	<0.50	--	--	<0.50	--	--
	11/31/2010	--	--	<10.0	--	--	--	<1.0	<1.0	**3.0**	--	--	--	**36.2**	<1.0	**0.36 J**	<1.0	<1.0	--	--	<1.0	--	--
	11/31/2010 DUP	--	--	<10.0	--	--	--	<1.0	<1.0	**3.04**	--	--	--	**36.0**	<1.0	**0.36 J**	<1.0	<1.0	--	--	<1.0	--	--
	6/1/2011	<5.0	<1.0	<5.0	<2.0	<1.0	<1.0	<0.50	<0.50	**1.69**	<1.0	<1.0	<1.0	**12.2**	<0.50	**0.64**	<0.50	<0.50	<1.0	<1.0	<0.50	<2.0	<1.0
	6/1/2011 DUP	<5.0	<1.0	<5.0	<2.0	<1.0	<1.0	<0.50	<0.50	**10.8**	<1.0	<1.0	<1.0	**58.2**	<0.50	**0.44 J**	<0.50	<0.50	<1.0	<1.0	<0.50	<2.0	<1.0
	9/15/2011	<5.0	<1.0	<5.0	<2.0	<1.0	<1.0	<0.50	<0.50	**1.93**	<1.0	<1.0	<1.0	**17.0**	<0.50	**0.65**	<0.50	<0.50	<1.0	<1.0	<0.50	<2.0	<1.0
	9/15/2011 DUP	<5.0	<1.0	<5.0	<2.0	<1.0	<1.0	<0.50	<0.50	**1.97**	<1.0	<1.0	<1.0	**16.5**	<0.50	**0.72**	<0.50	<0.50	<1.0	<1.0	<0.50	<2.0	<1.0
	12/13/2011	<5.0	<1.0	<5.0	<2.0	<1.0	<1.0	<0.50	<0.50	**2.37**	<1.0	<1.0	<1.0	**21.5**	<0.50	**0.68**	<0.50	<0.50	<1.0	<1.0	<0.50	<2.0	<1.0
	3/29/2012	<1.0	<0.09	<0.12	<1.0	<0.09	<0.09	<0.10	<0.12	**1.60**	<0.09	<1.0	<0.14	**13.0**	<0.50	**0.60 J**	<0.11	<1.0	<0.07	<0.09	<0.09	<0.19	<0.12
	7/5/2012	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	**1.52**	<1.0	<2.0	<2.0	**6.94**	<0.50	**0.86**	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	7/5/2012 DUP	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	**1.56**	<1.0	<2.0	<2.0	**6.89**	<0.50	**0.90**	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	9/28/2012	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	**1.63**	<1.0	<2.0	<2.0	**13.0**	<0.50	**0.62**	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	9/28/2012 DUP	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	**1.44**	<1.0	<2.0	<2.0	**12.3**	<0.50	**0.55**	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	12/4/2012	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	**2.03**	<1.0	<2.0	<2.0	**11.2**	<0.50	<0.50	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	12/4/2012 DUP	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	**1.49**	<1.0	<2.0	<2.0	**11.3**	<0.50	<0.50	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	3/22/2013	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	**2.11**	<1.0	<5.0	<5.0	**14.1**	<0.50	**0.50**	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	3/22/2013 DUP	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	**2.14**	<1.0	<5.0	<5.0	**14.2**	<0.50	<0.50	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	6/18/2013	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	**1.87**	<1.0	<2.0	<2.0	**7.09**	<1.0	**0.54**	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
	6/18/2013 DUP	<10.0	<1.0	<5.0	<2.0	<0.50	<1.0	<0.50	<0.50	**1.96**	<1.0	<2.0	<2.0	**7.06**	<1.0	**0.56**	<2.0	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50
ROD Cleanup Level [5.]		NA	NA	NA	12	NA	NA	NA	NA	0.24	9.8	NA	NA	NA	NA	0.6	NA	NA	NA	NA	0.022	13	
JSCS SLV [6.]		170	37	8.9	0.2	NA	100	2.5	0.33	0.12	9.8	NA	8.2	11	1.2	0.17	1,300	0.0095	NA	NA	0.015	1.8	13.0

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	4-Methyl-2-pentanone (MiBK)	Methyl tert-butyl ether (MTBE)	Methylene chloride	Naphthalene	n-Propylbenzene	Styrene	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	Tetrachloroethene (PCE)	Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene (TCE)	Trichlorofluoromethane	1,2,3-Trichloropropane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl chloride	m,p-Xylene	o-Xylene
		Concentrations in µg/L (ppb)																					
AREA 1																							
WEX-60 (continued)	9/9/2013	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	**2.03**	<1.00	<2.00	<2.00	**11.1**	<1.00	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/11/2013	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	**2.02**	<1.00	<2.00	<2.00	**9.62**	<0.50	<0.50	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/12/2013	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	**1.98**	<1.00	<2.00	<2.00	**9.73**	<0.50	<0.50	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	3/24/2014	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	**1.48**	<1.00	<2.00	<2.00	**7.32**	<0.50	**0.550**	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	3/24/2014 DUP	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	**1.52**	<1.00	<2.00	<2.00	**7.53**	<0.50	**0.540**	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	6/11/2014	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	**1.47**	<1.00	<2.00	<2.00	**5.15**	<0.50	**0.750**	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	6/11/2014 DUP	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	**1.50**	<1.00	<2.00	<2.00	**5.63**	<0.50	**0.870**	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	6/11/2014 DUP	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	10/29/2014	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	**0.900**	<1.00	<2.00	<2.00	**5.66**	<0.500	**0.290 J**	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	10/29/2014 DUP	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	**0.650**	<1.00	<2.00	<2.00	**4.82**	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/18/2014	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	**0.460 J**	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/18/2014 DUP	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	**0.520**	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	3/15/2015	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	**0.43**	<1.00	<2.00	<2.00	**2.32**	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	6/30/2015	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	**0.590**	<1.00	<2.00	<2.00	**3.79**	<0.500	**0.280 J**	<2.00	<1.00	<1.00	<1.00	**1.37**	<1.00	<0.500
	6/30/2015 DUP	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	**0.690**	<1.00	<2.00	<2.00	**4.39**	<0.500	**0.320 J**	<2.00	<1.00	<1.00	<1.00	**1.34**	<1.00	<0.500
	6/30/2015 DUP	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	**0.720**	<1.00	<2.00	<2.00	**4.45**	<0.500	**0.310 J**	<2.00	<1.00	<1.00	<1.00	**1.41**	<1.00	<0.500
	9/14/2015	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	**0.400 J**	<0.500	**0.300 J**	<2.00	<1.00	<1.00	<1.00	**0.850**	<1.00	<0.500
	1/20/2016	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	3/22/2016	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	3/22/2016 DUP	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	6/22/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/27/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/7/2016	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/7/2016 DUP	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	3/22/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	3/22/2017 DUP	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	6/29/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	9/20/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/20/2017 DUP	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/12/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/12/2017 DUP	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
ROD Cleanup Level [5.]		NA	NA	NA	12	NA	NA	NA	NA	0.24	9.8	NA	NA	NA	NA	0.6	NA	NA	NA	NA	0.022	13	
JSCS SLV [6.]		170	37	8.9	0.2	NA	100	2.5	0.33	0.12	9.8	NA	8.2	11	1.2	0.17	1,300	0.0095	NA	NA	0.015	1.8	13.0

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	4-Methyl-2-pentanone (MiBK)	Methyl tert-butyl ether (MTBE)	Methylene chloride	Naphthalene	n-Propylbenzene	Styrene	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	Tetrachloroethene (PCE)	Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene (TCE)	Trichlorofluoromethane	1,2,3-Trichloropropane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl chloride	m,p-Xylene	o-Xylene
		Concentrations in µg/L (ppb)																					
AREA 1																							
WEX-60 (continued)	3/14/2018	<5.00	<0.500	<1.50	<1.00	<0.250	<0.500	<0.200	<0.250	<0.200	<0.500	<1.00	<1.00	<0.200	<0.250	<0.200	<1.00	<0.500	<0.500	<0.500	<0.200	<0.500	<0.250
	3/14/2018 DUP	<5.00	<0.500	<1.50	<1.00	<0.250	<0.500	<0.200	<0.250	<0.200	<0.500	<1.00	<1.00	<0.200	<0.250	<0.200	<1.00	<0.500	<0.500	<0.500	<0.200	<0.500	<0.250
	6/27/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	6/27/2018 DUP	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/4/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/19/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	3/6/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	6/21/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/10/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/12/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
MW-90	7/2/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/10/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/12/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
MW-91	7/2/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	7/2/19 DUP	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/10/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/12/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
AREA 2																							
MW-17	6/3/2010	<5.0	<1.0	<5.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0
	6/3/2010 DUP	<5.0	<1.0	<5.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0
	12/1/2010	<5.0	<1.0	<5.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0
	12/1/2010 DUP	<5.0	<1.0	<5.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0
	6/2/2011	<1.0	<1.0	<5.0	<2.0	<0.5	<1.0	<0.5	<0.5	<0.5	<1.0	<2.0	<2.0	<0.5	<0.5	<0.5	<2.0	<1.0	<1.0	<1.0	<5.0	<1.0	<0.5
	12/14/2011	<1.0	<1.0	<5.0	<2.0	<0.5	<1.0	<0.5	<0.5	<0.5	<1.0	<2.0	<2.0	<0.5	<0.5	<0.5	<2.0	<1.0	<1.0	<1.0	<5.0	<1.0	<0.5
	12/14/2011 DUP	<1.0	<1.0	<5.0	<2.0	<0.5	<1.0	<0.5	<0.5	<0.5	<1.0	<2.0	<2.0	<0.5	<0.5	<0.5	<2.0	<1.0	<1.0	<1.0	<5.0	<1.0	<0.5
	3/27/2012	<1.0	<0.09	<0.12	<1.0	<0.09	<0.09	<1.0	<0.12	--	<0.09	<1.0	<0.14	<0.1	<0.5	<0.14	<0.11	<1.0	<0.07	<0.09	<0.09	<0.19	<0.12
	3/27/2012 DUP	<1.0	<0.09	<0.12	<1.0	<0.09	<0.09	<1.0	<0.12	--	<0.09	<1.0	<0.14	<0.1	<0.5	<0.14	<0.11	<1.0	<0.07	<0.09	<0.09	<0.19	<0.12
	7/6/2012	<10	<1.0	<5.0	<2.0	<0.5	<1.0	<0.5	<0.5	<0.5	<1.0	<2.0	<2.0	<0.5	<0.5	<0.5	<2.0	<1.0	<1.0	<1.0	<0.5	<1.0	<0.5
	12/5/2012	<10	<1.0	<5.0	<2.0	<0.5	<1.0	<0.5	<0.5	<0.5	<1.0	<2.0	<2.0	<0.5	<0.5	<0.5	<2.0	<1.0	<1.0	<1.0	<0.5	<1.0	<0.5
ROD Cleanup Level [5.]		NA	NA	NA	12	NA	NA	NA	NA	0.24	9.8	NA	NA	NA	NA	0.6	NA	NA	NA	NA	0.022	13	
JSCS SLV [6.]		170	37	8.9	0.2	NA	100	2.5	0.33	0.12	9.8	NA	8.2	11	1.2	0.17	1,300	0.0095	NA	NA	0.015	1.8	13.0

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	4-Methyl-2-pentanone (MiBK)	Methyl tert-butyl ether (MTBE)	Methylene chloride	Naphthalene	n-Propylbenzene	Styrene	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	Tetrachloroethene (PCE)	Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene (TCE)	Trichlorofluoromethane	1,2,3-Trichloropropane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl chloride	m,p-Xylene	o-Xylene
		Concentrations in µg/L (ppb)																					
AREA 2																							
MW-17 (continued)	6/19/2013	<10	<1.0	<5.0	<2.0	<0.5	<1.0	<0.5	<0.5	<0.5	<1.0	<2.0	<2.0	<0.5	<0.5	<0.5	<2.0	<1.0	<1.0	<1.0	<0.5	<1.0	<0.5
	6/19/2013 DUP	<10	<1.0	<5.0	<2.0	<0.5	<1.0	<0.5	<0.5	<0.5	<1.0	<2.0	<2.0	<0.5	<0.5	<0.5	<2.0	<1.0	<1.0	<1.0	<0.5	<1.0	<0.5
	12/16/2013	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/16/2013 DUP	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	6/11/2014	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	6/11/2014 DUP	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/22/2014	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/22/2014 DUP	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	7/6/2015	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/17/2015	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/17/2015 DUP	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	6/22/2016	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	6/22/2016 DUP	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/9/2016	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/9/2016 DUP	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	6/28/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/13/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/13/2017 DUP	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	6/27/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	6/27/2018 DUP	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/19/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	3/6/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	6/19/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/10/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/16/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/16/2019 DUP	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
MW-31	8/20/2009	<5.0	<1.0	<5.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0
	8/20/2009 DUP	<5.0	<1.0	<5.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0
	1/21/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
MW-66	12/7/2009	--	--	--	--	<5.0	--	--	--	<0.50	<0.50	<0.50	--	--	--	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	<0.50
	1/21/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
MW-81	12/8/2009	<5.0	<1.0	<5.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0
	12/8/2009 DUP	<5.0	<1.0	<5.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0
ROD Cleanup Level [5.]		NA	NA	NA	12	NA	NA	NA	NA	0.24	9.8	NA	NA	NA	NA	0.6	NA	NA	NA	NA	0.022	13	
JSCS SLV [6.]		170	37	8.9	0.2	NA	100	2.5	0.33	0.12	9.8	NA	8.2	11	1.2	0.17	1,300	0.0095	NA	NA	0.015	1.8	13.0

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	4-Methyl-2-pentanone (MiBK)	Methyl tert-butyl ether (MTBE)	Methylene chloride	Naphthalene	n-Propylbenzene	Styrene	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	Tetrachloroethene (PCE)	Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene (TCE)	Trichlorofluoromethane	1,2,3-Trichloropropane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl chloride	m,p-Xylene	o-Xylene
		Concentrations in µg/L (ppb)																					
AREA 2																							
MW-82	7/2/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/10/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/12/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
MW-83	7/2/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	7/2/2019 DUP	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/11/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/12/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
MW-84	7/2/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/10/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/16/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
MW-85	7/2/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	7/2/2019 DUP	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/11/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/12/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
MW-92	7/2/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/10/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/12/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
SMW-12	12/1/2010	--	--	<5.0	--	--	--	<0.50	<0.50	<0.50	--	--	--	<0.50	<0.50	**7.92**	<0.50	<0.50	--	--	<0.50	--	--
	12/15/2011	<1.0	<1.0	<5.0	<2.0	<0.5	<1.0	<0.5	<0.5	<0.5	<1.0	<2.0	<2.0	<0.5	<0.5	**0.83**	<2.0	<1.0	<1.0	<1.0	<5.0	<1.0	<0.5
	3/27/2012	<1.0	**0.11 J**	<0.12	<1.0	<0.09	<0.09	<1.0	<0.12	--	<0.09	<1.0	<0.14	<0.1	<0.5	**12.0**	<0.11	<1.0	<0.07	<0.09	<0.09	<0.19	<0.12
	7/6/2012	<10	<1.0	<5.0	<2.0	<0.5	<1.0	<0.5	<0.5	<0.5	<1.0	<2.0	<2.0	<0.5	<0.5	**4.78**	<2.0	<1.0	<1.0	<1.0	<0.5	<1.0	<0.5
	7/6/2012 DUP	<10	<1.0	<5.0	<2.0	<0.5	<1.0	<0.5	<0.5	<0.5	<1.0	<2.0	<2.0	<0.5	<0.5	**4.76**	<2.0	<1.0	<1.0	<1.0	<0.5	<1.0	<0.5
	12/5/2012	<10	<1.0	<5.0	<2.0	<0.5	<1.0	<0.5	<0.5	<0.5	<1.0	<2.0	<2.0	<0.5	<0.5	**17.4**	<2.0	<1.0	<1.0	<1.0	<0.5	<1.0	<0.5
	12/16/2013	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	**2.90**	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/22/2014	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	**16.2**	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/17/2015	<10.0	<1.00	<5.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	**8.74**	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/9/2016	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.500	<0.500	<0.500	<1.00	<2.00	<2.00	<0.500	<0.500	<0.500	<2.00	<1.00	<1.00	<1.00	<0.500	<1.00	<0.500
	12/13/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
SMW-14	12/7/2009	<5.0	**0.28 J**	<5.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0
SMW-18	12/7/2009	<5.0	<1.0	<5.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0
SCHNITZER ASD YARD																							
MW-10	12/14/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	6/27/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/18/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	3/4/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
ROD Cleanup Level [5.]		NA	NA	NA	12	NA	NA	NA	NA	0.24	9.8	NA	NA	NA	NA	0.6	NA	NA	NA	NA	0.022	13	
JSCS SLV [6.]		170	37	8.9	0.2	NA	100	2.5	0.33	0.12	9.8	NA	8.2	11	1.2	0.17	1,300	0.0095	NA	NA	0.015	1.8	13.0

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	4-Methyl-2-pentanone (MiBK)	Methyl tert-butyl ether (MTBE)	Methylene chloride	Naphthalene	n-Propylbenzene	Styrene	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	Tetrachloroethene (PCE)	Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene (TCE)	Trichlorofluoromethane	1,2,3-Trichloropropane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl chloride	m,p-Xylene	o-Xylene
		Concentrations in µg/L (ppb)																					
SCHNITZER ASD YARD																							
MW-14	1/21/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	3/5/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	6/20/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/11/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/11/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
MW-73	12/14/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	6/27/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/18/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	**0.530**
	3/5/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	**0.650**
MW-74	12/14/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	6/27/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/19/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	3/5/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
MW-76	12/14/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	6/27/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/19/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	3/5/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
MW-77	12/14/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	6/27/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/19/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	3/4/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
MW-79	12/14/2017	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	6/27/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/18/2018	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	3/4/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
MW-86	7/2/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	**3.06**	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/10/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/13/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
ROD Cleanup Level [5.]		NA	NA	NA	12	NA	NA	NA	NA	0.24	9.8	NA	NA	NA	NA	0.6	NA	NA	NA	NA	0.022	13	
JSCS SLV [6.]		170	37	8.9	0.2	NA	100	2.5	0.33	0.12	9.8	NA	8.2	11	1.2	0.17	1,300	0.0095	NA	NA	0.015	1.8	13.0

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-1
Historical Groundwater Analytical Results - Volatile Organic Compounds
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	4-Methyl-2-pentanone (MiBK)	Methyl tert-butyl ether (MTBE)	Methylene chloride	Naphthalene	n-Propylbenzene	Styrene	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	Tetrachloroethene (PCE)	Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene (TCE)	Trichlorofluoromethane	1,2,3-Trichloropropane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl chloride	m,p-Xylene	o-Xylene
		Concentrations in µg/L (ppb)																					
SCHNITZER ASD YARD																							
MW-87	7/2/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/11/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/11/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
MW-88	7/2/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/11/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/13/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
MW-89	7/2/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	9/10/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
	12/16/2019	<10.0	<1.00	<3.00	<2.00	<0.500	<1.00	<0.400	<0.500	<0.400	<1.00	<2.00	<2.00	<0.400	<0.500	<0.400	<2.00	<1.00	<1.00	<1.00	<0.400	<1.00	<0.500
ROD Cleanup Level [5.]		NA	NA	NA	12	NA	NA	NA	NA	0.24	9.8	NA	NA	NA	NA	0.6	NA	NA	NA	NA	0.022	13	13.0
JSCS SLV [6.]		170	37	8.9	0.2	NA	100	2.5	0.33	0.12	9.8	NA	8.2	11	1.2	0.17	1,300	0.0095	NA	NA	0.015	1.8	

Notes:

1. Volatile Organic Compound (VOC) analysis by EPA Method 8260B.
2. -- = Not analyzed or not applicable.
3. µg/L (ppb) = micrograms per liter (parts per billion).
4. **Bold** denotes analyte detected above laboratory reporting limit.
5. ROD Cleanup Levels from U.S. EPA Record of Decision Portland Harbor Superfund Site, Portland, Oregon, January 2017. The level shown is the Groundwater Cleanup Level unless one was not available, in which case the Surface Water Cleanup Level was used, per DEQ Guidance.
6. JSCS SLV = Screening Level Values from Portland Harbor Joint Source Control Strategy (JSCS), December 2005.
7. J = concentration is less than the laboratory reporting limit but greater than the laboratory detection limit. The reported
8. Shading denotes analyte detected above screening criteria. As instructed by DEQ, concentrations of analytes were compared to the Portland Harbor Cleanup Level. If neither a Groundwater or Surface Water Cleanup Level was available, the data were compared to the Joint Source Control Strategy Screening Level Value.
9. R = Data are rejected. Detected concentration a result of laboratory-based contamination. As a result of the rejection of this data, detections are not bolded or shaded.
10. NA = Cleanup Level and SLV not available for this analyte.
11. < = constituent was not detected at a concentration greater than laboratory method reporting limit shown.
12. Q-54 = Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260C/8270D.

Cascadia Associates, LLC

Table E-2
Historical Groundwater Analytical Results - Petroleum Hydrocarbons
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	TPH-Diesel	TPH-Oil
		Concentrations in mg/L (ppm)	
AREA 1			
MW-52	1/21/2019	<0.190	<0.381
	3/5/2019	<0.187	<0.374
	6/19/2019	<0.189	<0.377
	9/10/2019	<0.189	<0.377
	12/10/2019	<0.187	<0.374
MW-62	1/20/2015	<0.238	<0.476
	3/22/2016	<0.238	<0.476
	6/22/2016	<0.238	<0.476
	6/22/16 DUP	<0.238	<0.476
	9/27/2016	<0.190	**0.401**
	9/27/2016 DUP	<0.190	**0.443**
	12/7/2016	<0.187	**0.211 J**
	3/23/2017	<0.187	<0.187
	6/26/2017	<0.185	<0.370
	9/20/2017	<0.189	<0.377
	12/12/2017	<0.189	<0.377
	3/14/2018	<0.189	<0.377
	6/27/2018	<0.187	<0.374
	9/5/2018	<0.187	<0.374
	12/19/2018	<0.187	<0.374
	3/6/2019	<0.189	<0.377
	6/19/2019	<0.190	<0.381
	9/10/2019	<0.189	<0.377
	12/10/2019	<0.187	<0.374
ROD Cleanup Level [9.]		NA	NA
JSCS SLV [10.]		NA	NA

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-2
Historical Groundwater Analytical Results - Petroleum Hydrocarbons
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	TPH-Diesel	TPH-Oil
		Concentrations in mg/L (ppm)	
AREA 1			
WEX-60	12/8/2009	**0.0182 J**	<0.481
	3/16/2010	--	--
	6/2/2010	--	--
	8/31/2010	--	--
	11/31/2010	**0.0832 J**	<0.476
	11/31/2010 DUP	**0.0815 J**	<0.476
	6/1/2011	**0.0366**	<0.50
	6/1/2011 DUP	--	--
	9/15/2011	<0.098	<0.49
	9/15/2011 DUP	**0.0416 J**	<0.481
	12/13/2011	**0.0671**	<0.49
	3/29/2012	**0.065 JZ**	<0.038
	7/5/2012	<0.234	<0.467
	7/5/2012 DUP	<0.234	<0.467
	9/28/2012	<0.187	<0.374
	9/28/12 DUP	<0.187	<0.374
	12/4/2012	<0.187	<0.374
	12/4/2012 DUP	<0.187	<0.374
	3/22/2013	<0.189	<0.377
	3/22/2013 DUP	<0.187	<0.374
	6/18/2013	<0.194	<0.388
	6/18/2013 DUP	<0.192	<0.385
	9/9/2013	<0.238	<0.476
	12/11/2013	<0.245	<0.490
	12/12/2013	<0.240	<0.481
	3/24/2014	<0.236	<0.472
	3/24/2014 DUP	<0.236	<0.472
	6/11/2014	<0.236	<0.472
	6/11/2014 DUP	<0.236	<0.472
	6/11/2014 DUP	<0.236	<0.472
	10/29/2014	**0.131 J**	<0.385
	10/29/2014 DUP	**0.102 J**	<0.392
	12/18/2014	<0.236	<0.472
	12/18/2014 DUP	<0.236	<0.472
	3/15/2015	<0.260	<0.521
ROD Cleanup Level [9.]		NA	NA
JSCS SLV [10.]		NA	NA

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-2
Historical Groundwater Analytical Results - Petroleum Hydrocarbons
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	TPH-Diesel	TPH-Oil
		Concentrations in mg/L (ppm)	
AREA 1			
WEX-60 (continued)	6/30/2015	<0.0943	<0.189
	6/30/2015 DUP	--	--
	6/30/2015 DUP	--	--
	9/14/2015	<0.248	<0.495
	1/20/2016	<0.238	<0.476
	3/22/2016	<0.238	<0.476
	3/22/2016 DUP	<0.238	<0.476
	6/22/2016	--	--
	9/27/2016	--	--
	12/7/2016	<0.187	**0.202 J**
	12/7/2016 DUP	<0.187	<0.374
	3/22/2017	<0.187	<0.374
	3/22/2017 DUP	<0.189	<0.377
	6/29/2017	<0.187	<0.374
	9/20/2017	<0.187	<0.374
	9/20/2017 DUP	<0.189	**0.469**
	12/12/2017	<0.187	<0.374
	12/12/2017 DUP	<0.187	<0.374
	3/14/2018	<0.189	<0.377
	3/14/2018 DUP	<0.189	<0.377
	6/27/2018	<0.187	**0.890**
	6/27/2018 DUP	<0.187	<0.374
	9/4/2018	<0.185	<0.370
	9/4/2018 DUP	<0.185	<0.370
	12/19/2018	<0.189	<0.377
	3/6/2019	<0.200	<0.400
	3/6/2019 DUP	<0.189	<0.377
	6/21/2019	<0.189	<0.377
	6/21/2019 DUP	<0.190	<0.381
	9/10/2019	<0.189	<0.377
	9/10/2019 DUP	<0.189	<0.377
	12/12/2019	<0.194	<0.388
	12/12/2019 DUP	<0.187	<0.374
ROD Cleanup Level [9.]		NA	NA
JSCS SLV [10.]		NA	NA

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-2
Historical Groundwater Analytical Results - Petroleum Hydrocarbons
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	TPH-Diesel	TPH-Oil
		Concentrations in mg/L (ppm)	
AREA 1			
MW-90	7/2/2019	<0.187	<0.374
	9/10/2019	<0.187	<0.374
	12/12/2019	<0.187	<0.374
MW-91	7/2/2019	<0.189	<0.377
	9/10/2019	<0.192	<0.385
	12/12/2019	<0.190	<0.381
AREA 2			
MW-17	1/21/2019	<0.187	<0.374
	3/6/2019	<0.187	<0.374
	6/19/2019	<0.187	<0.374
	9/10/2019	<0.189	<0.377
	12/16/2019	<0.192	<0.385
	12/16/2019 DUP	<0.190	<0.381
MW-31	1/21/2019	<0.190	<0.381
MW-66	1/21/2019	<0.189	<0.377
MW-82	7/2/2019	<0.189	<0.377
	9/10/2019	<0.189	<0.377
	12/12/2019	<0.190	<0.381
MW-83	7/2/2019	<0.187	<0.374
	9/11/2019	<0.189	<0.377
	12/12/2019	<0.190	<0.381
MW-84	7/2/2019	<0.189	<0.377
	9/10/2019	<0.187	<0.374
	12/16/2019	<0.190	<0.381
MW-85	7/2/2019	<0.187	<0.374
	9/11/2019	<0.189	<0.377
	12/12/2019	<0.190	<0.381
MW-92	7/2/2019	<0.189	<0.377
	9/10/2019	<0.196	<0.392
	12/12/2019	<0.187	<0.374
ROD Cleanup Level [9.]		NA	NA
JSCS SLV [10.]		NA	NA

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-2
Historical Groundwater Analytical Results - Petroleum Hydrocarbons
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	TPH-Diesel	TPH-Oil
		Concentrations in mg/L (ppm)	
SCHNITZER ASD YARD			
MW-10	8/20/2009	**1.04**	**1.17**
	6/3/2010	**1.41**	**1.18**
	12/1/2010	**1.52**	**1.51**
	6/3/2011	**1.56**	**0.775**
	12/15/2011	**0.717**	**0.474**
	3/28/2012	**3.6**	**1.9**
	7/6/2012	<0.238	<0.476
	12/5/2012	**0.953**	**1.19**
	6/19/2013	<0.190	**1.66**
	12/13/2013	<0.238	<0.476
	6/11/2014	**0.453**	<0.476
	12/19/2014	<0.236	**3.83**
	12/18/2015	**0.112 J**	<0.385
	6/21/2016	<0.240	<0.481
	12/12/2016	**1.97 F-11**	<0.374
	6/28/2017	<0.185	<0.370
	6/28/2017 DUP	<0.185	<0.370
	12/14/2017	<0.187	<0.374
	6/26/2018	<0.187	<0.374
	12/18/2018	<0.189	<0.377
	6/21/2019	<0.187	<0.374
	12/10/2019	<0.187	<0.374
MW-11	12/1/2010	**0.0858 J**	**0.0651 J**
	12/15/2011	**0.13**	**0.116 J**
	3/29/2012	**0.12**	**0.083 J**
	7/6/2012	<0.236	<0.472
	12/5/2012	<0.189	<0.377
	12/13/2013	<0.238	<0.476
	12/19/2014	<0.236	<0.472
	12/16/2015	<0.189	<0.377
	12/7/2016	<0.187	<0.374
	12/14/2017	<0.213	<0.426
	12/17/2018	<0.187	<0.374
	12/11/2019	<0.194	<0.388
ROD Cleanup Level [9.]		NA	NA
JSCS SLV [10.]		NA	NA

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-2
Historical Groundwater Analytical Results - Petroleum Hydrocarbons
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	TPH-Diesel	TPH-Oil
		Concentrations in mg/L (ppm)	
SCHNITZER ASD YARD			
MW-14	1/21/2019	<0.189	<0.377
	3/5/2019	<0.189	<0.377
	6/20/2019	<0.189	<0.377
	9/11/2019	<0.185	<0.370
	12/11/2019	<0.200	<0.400
MW-72	12/2/2010	**1.11**	**0.55**
	12/2/2010 DUP	**1.04**	**0.481**
	6/2/2011	**0.327**	**0.0508 J**
	12/15/2011	**0.261**	**0.0654 J**
	12/15/2011 DUP	**0.319**	**0.101 J**
	3/29/2012	**0.52**	**0.13 J**
	3/29/2012 DUP	**0.58**	**0.18 J**
	7/6/2012	<0.236	<0.472
	7/6/2012 DUP	<0.234	<0.467
	12/5/2012	**0.410**	<0.374
	12/5/2012 DUP	**0.411**	<0.374
	6/19/2013	**0.408**	<0.381
	12/13/2013	<0.238	<0.476
	12/13/2013 DUP	<0.238	<0.476
	6/11/2014	<0.236	<0.472
	12/19/2014	<0.236	<0.472
	12/19/2014 DUP	<0.236	<0.472
	6/26/2015	**0.389**	<0.377
	12/16/2015	<0.189	<0.377
	12/16/2015 DUP	**0.116 J**	<0.377
	6/21/2016	<0.238	<0.476
	6/21/16 DUP	<0.238	<0.476
	12/7/2016	**0.421 F-11**	<0.374
	12/7/16 DUP	**0.369 F-11**	<0.374
	6/28/2017	<0.189	<0.377
	12/14/2017	<0.187	<0.374
	12/14/2017 DUP	<0.187	<0.374
	6/26/2018	<0.187	<0.374
	12/18/2018	<0.187	<0.374
	6/21/2019	<0.189	<0.377
	12/13/2019	<0.190	<0.381
	12/13/2019 DUP	<0.189	<0.377
ROD Cleanup Level [9.]		NA	NA
JSCS SLV [10.]		NA	NA

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-2
Historical Groundwater Analytical Results - Petroleum Hydrocarbons
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	TPH-Diesel	TPH-Oil
		Concentrations in mg/L (ppm)	
SCHNITZER ASD YARD			
MW-73	8/20/2009	**1.16**	**1.78**
	12/8/2009	**1.59**	**2.48**
	6/3/2010	**2.51**	**3.71**
	6/3/2010 DUP	**2.28**	**3.18**
	12/2/2010	**1.88**	**2.01**
	6/3/2011	**2.95**	**0.667**
	12/16/2011	**1.19**	**0.898**
	3/28/2012	**3.1**	**0.6**
	7/25/2012	**0.463**	<0.467
	12/5/2012	**4.49**	**0.603**
	6/19/2013	**1.84**	<0.381
	12/16/2013	**1.21**	<0.476
	6/12/2014	**0.630**	**0.694**
	12/19/2014	**0.157 J**	<0.236
	6/26/2015	**1.680**	<0.189
	12/18/2015	**0.241**	<0.385
	6/23/2016	<0.238	<0.476
	12/12/2016	**4.49 F-13**	<0.374
	6/28/2017	<0.187	**0.272 J**
	12/14/2017	**0.254 F-13**	<0.381
	6/27/2018	<0.187	<0.374
	12/18/2018	**0.191 F-13**	<0.377
	12/18/2018 DUP	<0.189	<0.377
	6/20/2019	<0.189	<0.377
	12/11/2019	<0.204	<0.408
MW-74	6/3/2010	**1.05**	**1.39**
	12/2/2010	**1.51**	**0.916**
	6/3/2011	**0.392**	**0.325**
	12/16/2011	**0.701**	**0.277 J**
	3/28/2012	**0.32**	**0.21 J**
	7/6/2012	<0.236	<0.472
	12/5/2012	**0.455**	<0.388
	6/19/2013	**0.485**	<0.381
	12/16/2013	<0.243	<0.485
	6/12/2014	<0.236	<0.472
	12/22/2014	<0.236	<0.472
ROD Cleanup Level [9.]		NA	NA
JSCS SLV [10.]		NA	NA

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-2
Historical Groundwater Analytical Results - Petroleum Hydrocarbons
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	TPH-Diesel	TPH-Oil
		Concentrations in mg/L (ppm)	
SCHNITZER ASD YARD			
MW-74 (continued)	12/16/2015	<0.189	<0.377
	6/22/2016	<0.238	<0.476
	12/9/2016	**0.384 F-11**	<0.374
	6/28/2017	<0.185	<0.370
	12/14/2017	<0.187	<0.374
	6/27/2018	<0.190	<0.381
	12/19/2018	<0.187	<0.374
	6/20/2019	<0.190	<0.381
	12/13/2019	<0.192	<0.385
MW-77	8/20/2009	**0.666**	**0.314 J**
	12/8/2009	**0.668**	**0.318 J**
	6/3/2010	**0.444**	**0.196 J**
	12/2/2010	**1.39**	**0.668**
	6/3/2011	**0.62**	0.237
	12/16/2011	**0.561**	**0.166 J**
	3/28/2012	**0.18**	**0.10 J**
	7/6/2012	<0.236	<0.472
	12/5/2012	**0.947**	<0.374
	6/19/2013	**0.598**	<0.381
	6/12/2014	<0.238	<0.476
	12/19/2014	<0.236	<0.472
	12/18/2015	**0.577**	<0.377
	6/21/2016	<0.236	<0.472
	12/12/2016	**1.56 F-11**	<0.374
	6/28/2017	<0.185	<0.370
	12/14/2017	<0.187	<0.374
	6/26/2018	<0.187	<0.374
	12/19/2018	<0.187	<0.374
	6/20/2019	<0.190	<0.381
	12/10/2019	<0.190	<0.381
MW-78	8/20/2009	**0.495**	**0.458 J**
	12/8/2009	**0.956**	**1.25**
ROD Cleanup Level [9.]		NA	NA
JSCS SLV [10.]		NA	NA

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-2
Historical Groundwater Analytical Results - Petroleum Hydrocarbons
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	TPH-Diesel	TPH-Oil
		Concentrations in mg/L (ppm)	
SCHNITZER ASD YARD			
MW-79	8/20/2009	**1.28**	**1.35**
	8/20/2009 DUP	**2.08**	**2.78**
	12/8/2009	**1.35**	**1.59**
	12/8/2009 DUP	**1.58**	**1.98**
	6/3/2010	**1.53**	**2.33**
	12/1/2010	**1.7**	**1.53**
	6/2/2011	**0.819**	**0.704**
	6/2/11 DUP	**0.853**	**0.732**
	12/16/2011	**0.688**	**0.432 J**
	3/28/2012	**1.2**	**2.4**
	7/6/2012	<0.234	<0.467
	12/5/2012	**0.241**	<0.374
	6/19/2013	<0.189	**0.710**
	12/13/2013	<0.238	<0.476
	6/12/2014	<0.236	<0.472
	12/19/2014	<0.236	<0.472
	6/26/2015	**0.363**	<0.189
	12/18/2015	**0.248**	<0.377
	6/23/2016	<0.238	<0.476
	12/12/2016	**0.495 F-11**	<0.377
	6/28/2017	<0.187	**0.261 J**
	12/14/2017	<0.189	<0.377
	6/26/2018	<0.187	<0.374
	12/18/2018	<0.189	<0.377
	6/20/2019	<0.189	<0.377
	12/10/2019	<0.189	<0.377
MW-86	7/2/2019	<0.192	<0.385
	7/2/19 DUP	<0.187	<0.374
	9/10/2019	<0.189	<0.377
	9/10/2019 DUP	<0.187	<0.374
	12/13/2019	<0.187	<0.374
MW-87	7/2/2019	<0.189	<0.377
	9/11/2019	<0.189	<0.377
	12/11/2019	<0.200	<0.400
ROD Cleanup Level [9.]		NA	NA
JSCS SLV [10.]		NA	NA

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-2
Historical Groundwater Analytical Results - Petroleum Hydrocarbons
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	TPH-Diesel	TPH-Oil
		Concentrations in mg/L (ppm)	
SCHNITZER ASD YARD			
MW-88	7/2/2019	<0.187	<0.374
	9/11/2019	<0.190	<0.381
	12/13/2019	<0.190	<0.381
MW-89	7/2/2019	<0.189	**0.434**
	9/10/2019	<0.190	<0.381
	12/16/2019	<0.190	<0.381
ROD Cleanup Level [9.]		NA	NA
JSCS SLV [10.]		NA	NA

Notes:

1. TPH = Total Petroleum Hydrocarbons by NWTPHDx method with silica gel clean up.
2. mg/L (ppm) = milligrams per liter (parts per million).
3. **Bold** denotes analyte detected above laboratory reporting limit.
4. J = result is estimated.
5. Z = the chromatographic response does not resemble a typical fuel pattern.
6. -- = not analyzed or not available.
7. F-11 = hydrocarbon pattern indicates sample is possibly weathered diesel or from another related compound.
8. F-13 = The sample chromatogram does not resemble the fuel standard used for quantitation. Value is estimated.
9. ROD Cleanup Levels from U.S. EPA Record of Decision Portland Harbor Superfund Site, Portland, Oregon, January 2017. The level shown is the Groundwater Cleanup Level unless one was not available, in which case the Surface Water Cleanup Level was used, per DEQ Guidance.
10. JSCS SLV = Screening Level Values from Portland Harbor Joint Source Control Strategy (JSCS), December 2005.
11. Shading denotes analyte detected above screening criteria. As instructed by DEQ, concentrations of analytes were compared to the Portland Harbor Cleanup Level. If neither a Groundwater or Surface Water Cleanup Level was available, the data were compared to the Joint Source Control Strategy Screening Level Value.
12. NA = Cleanup Level and SLV not available for this analyte.
13. < = constituent was not detected at a concentration greater than laboratory method reporting limit shown.

Cascadia Associates, LLC

Table E-3
Historical Groundwater Analytical Results – Polycyclic Aromatic Hydrocarbons
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	1-Methylnaphthalene	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	Carbazole	Dibenzofuran
		Concentrations in µg/L (ppb)																			
AREA 1																					
MW-52	1/21/2019	<0.163	<0.163	<0.0816	<0.0816	<0.0816	<0.0816	<0.122	<0.122	<0.0816	<0.122	<0.0816	<0.0816	<0.0816	<0.0816	<0.0816	<0.163	<0.0816	<0.0816	<0.122	<0.0816
	3/5/2019	<0.0377	<0.0377	<0.0189	<0.0189	<0.0189	<0.0189	<0.0283	<0.0283	<0.0189	<0.0283	<0.0189	<0.0189	<0.0189	<0.0189	<0.0189	<2.00	<0.0189	<0.0189	<0.0283	<0.0189
	6/19/2019	<0.0377	<0.0377	<0.0189	<0.0189	<0.0189	<0.0189	<0.0283	<0.0283	<0.0189	<0.0283	<0.0189	<0.0189	<0.0189	<0.0189	<0.0189	<0.0377	<0.0189	<0.0189	<0.0283	<0.0189
	9/10/2019	<0.0385	<0.0385	<0.0192	<0.0192	<0.0192	<0.0192	<0.0288	<0.0288	<0.0192	<0.0288	<0.0192	<0.0192	<0.0192	<0.0192	<0.0192	<0.0385	<0.0192	<0.0192	<0.0288	<0.0192
	12/10/2019	<0.0392	<0.0392	<0.0196	<0.0196	<0.0196	<0.0196	<0.0294	<0.0294	<0.0196	<0.0294	<0.0196	<0.0196	<0.0196	<0.0196	<0.0196	<0.0392	<0.0196	<0.0196	<0.0294	<0.0196
MW-62	1/21/2019	<0.163	<0.163	<0.0816	<0.0816	<0.0816	<0.0816	<0.122	<0.122	<0.0816	<0.122	<0.0816	<0.0816	<0.0816	<0.0816	<0.0816	<0.163	<0.0816	<0.0816	<0.122	<0.0816
	3/6/2019	<0.0377	<0.0377	<0.0189	<0.0189	<0.0189	<0.0189	<0.0283	<0.0283	<0.0189	<0.0283	<0.0189	<0.0189	<0.0189	<0.0189	<0.0189	<2.00	<0.0189	<0.0189	<0.0283	<0.0189
	6/19/2019	<0.0381	<0.0381	<0.0190	<0.0190	<0.0190	<0.0190	<0.0286	<0.0286	<0.0190	<0.0286	<0.0190	<0.0190	<0.0190	<0.0190	<0.0190	<0.0381	<0.0190	<0.0190	<0.0286	<0.0190
	9/10/2019	<0.0381	<0.0381	<0.0190	<0.0190	<0.0190	<0.0190	<0.0286	<0.0286	<0.0190	<0.0286	<0.0190	<0.0190	<0.0190	<0.0190	<0.0190	<0.0381	<0.0190	<0.0190	<0.0286	<0.0190
	12/10/2019	<0.0374	<0.0374	<0.0187	<0.0187	<0.0187	<0.0187	<0.0280	<0.0280	<0.0187	<0.0280	<0.0187	<0.0187	<0.0187	<0.0187	<0.0187	<0.0374	<0.0187	<0.0187	<0.0280	<0.0187
MW-90	7/2/2019	<0.0377	<0.0377	<0.0189	<0.0189	<0.0189	<0.0189	<0.0283	<0.0283	<0.0189	<0.0283	<0.0189	<0.0189	<0.0189	<0.0189	<0.0189	<0.0377	**0.0249**	<0.0189	<0.0283	<0.0189
	9/10/2019	<0.0381	<0.0381	<0.0190	<0.0190	<0.0190	<0.0190	<0.0286	<0.0286	<0.0190	<0.0286	<0.0190	<0.0190	<0.0190	<0.0190	<0.0190	<0.0381	<0.0190	<0.0190	<0.0286	<0.0190
	12/12/2019	<0.0388	<0.0388	<0.0194	<0.0194	<0.0194	<0.0194	<0.0291	<0.0291	<0.0194	<0.0291	<0.0194	<0.0194	<0.0194	<0.0194	<0.0194	<0.0388	<0.0194	<0.0194	<0.0291	<0.0194
MW-91	7/2/2019	<0.154	<0.154	<0.0769	<0.0769	<0.0769	<0.0769	<0.115	<0.115	<0.0769	<0.115	<0.0769	<0.0769	**0.0803**	<0.0769	<0.0769	<0.154	<0.0769	<0.0769	<0.115	<0.0769
	9/10/2019	<0.151	<0.151	<0.0755	<0.0755	<0.0755	<0.0755	<0.113	<0.113	<0.0755	<0.113	<0.0755	<0.0755	<0.0755	<0.0755	<0.0755	<0.151	<0.0755	<0.0755	<0.113	<0.0755
	12/12/2019	<0.151	<0.151	<0.0755	<0.0755	<0.0755	<0.0755	<0.113	<0.113	<0.0755	<0.113	<0.0755	<0.0755	<0.0755	<0.0755	<0.0755	<0.151	<0.0755	<0.0755	<0.113	<0.0755
AREA 2																					
MW-17	1/21/2019	<0.0784	<0.0784	<0.0392	<0.0392	<0.0392	<0.0392	<0.0392	<0.0392	<0.0392	<0.0392	<0.0392	<0.0392	<0.0392	<0.0392	<0.0392	<0.0784	<0.0392	<0.0392	--	<0.0392
	3/6/2019	<0.0377	<0.0377	<0.0189	<0.0189	**0.0217**	<0.0189	<0.0283	<0.0283	<0.0189	<0.0283	<0.0189	<0.0189	<0.0189	<0.0189	<0.0189	<2.00	<0.0189	<0.0189	<0.0283	<0.0189
	6/19/2019	<0.0377	<0.0377	<0.0189	<0.0189	<0.0189	<0.0189	<0.0283	<0.0283	<0.0189	<0.0283	<0.0189	<0.0189	<0.0189	<0.0189	<0.0189	<0.0377	<0.0189	<0.0189	<0.0283	<0.0189
	9/10/2019	<0.0374	<0.0374	<0.0187	<0.0187	<0.0187	<0.0187	<0.0280	<0.0280	<0.0187	<0.0280	<0.0187	<0.0187	<0.0187	<0.0187	<0.0187	<0.0374	<0.0187	<0.0187	<0.0280	<0.0187
	12/16/2019	<0.0381	<0.0381	<0.0190	<0.0190	<0.0190	<0.0190	<0.0286	<0.0286	<0.0190	<0.0286	<0.0190	<0.0190	<0.0190	<0.0190	<0.0190	<0.0381	<0.0190	<0.0190	<0.0286	<0.0190
	12/16/2019 DUP	<0.0381	<0.0381	<0.0190	<0.0190	<0.0190	**0.0208**	<0.0286	**0.0376**	<0.0190	**0.0310**	**0.0226**	<0.0190	<0.0190	<0.0190	<0.0190	<0.0381	<0.0190	<0.0190	<0.0286	<0.0190
MW-31	1/21/2019	<0.0392	<0.0392	<0.0196	<0.0196	<0.0196	<0.0196	<0.0294	<0.0294	<0.0196	<0.0294	<0.0196	<0.0196	<0.0196	<0.0196	<0.0196	<0.0392	<0.0196	<0.0196	<0.0294	<0.0196
MW-66	12/8/2009	--	--	**0.588 J**	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.192	**0.0789 J**	<0.0962	<0.0962	<0.0962	**0.0922 J**	**0.15**	--	--
	6/3/2010	--	<0.0966	**0.218**	<0.0966	<0.0966	**0.0258**	**0.0321**	**0.0195**	<0.0966	**0.0178**	**0.0302**	<0.0966	**0.0673 J**	<0.0966	**0.0228**	<0.0966	**0.115**	**0.148**	--	--
	12/1/2010	--	--	**0.0564 J**	<0.0971	<0.0971	<0.0971	<0.0971	<0.0971	<0.0971	<0.0971	<0.0971	<0.194	<0.0971	<0.0971	<0.0971	<0.0971	<0.0971	**0.0511 J**	--	--
	6/2/2011	--	<0.0957	**0.205**	<0.0957	<0.0957	**0.0823**	**0.0875**	**0.0481**	**0.0565 J**	**0.0568**	**0.0785**	**0.0119**	**0.147**	<0.0957	**0.046**	<0.0957	**0.19**	**0.224**	--	--
	12/15/2011	--	<0.0952	**0.133**	<0.0952	<0.0952	<0.00476	<0.00476	<0.00476	<0.0952	<0.00476	<0.00476	<0.00476	<0.0952	<0.0952	<0.00476	<0.0952	**0.0749**	<0.0952	--	--
	3/27/2012	--	<0.048	**0.14**	<0.048	<0.048	**0.012**	**0.017**	**0.012**	<0.048	**0.011**	**0.015**	--	<0.048	<0.048	**0.011**	<0.048	**0.11**	**0.08 J**	--	--
	7/6/2012	<0.0748	<0.0748	**0.191**	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0748	**0.102**	**0.05**	--	<0.0374
	12/5/2012	<0.0748	<0.0748	**0.114**	<0.0374	<0.0374	<0.0374	**0.04**	<0.0748 *	**0.045**	<0.0748 *	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0748	**0.0693**	**0.0548**	--	<0.0374
ROD Cleanup Level [10.]		NA	2.1	23	NA	0.73	0.0012	0.00012	0.0012	0.4	0.0013	0.0013	0.00012	6.2	3.9	0.0012	12	6.3	10	NA	NA
JSCS SLV [11.]		NA	0.2	0.2	0.2	0.2	0.018	0.018	0.018	0.2	0.018	0.018	0.018	0.2	0.2	0.018	0.2	0.2	0.2	3.4	3.7

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-3
Historical Groundwater Analytical Results – Polycyclic Aromatic Hydrocarbons
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	1-Methylnaphthalene	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	Carbazole	Dibenzofuran
		Concentrations in µg/L (ppb)																			
AREA 2																					
MW-66 (continued)	6/19/2013	<0.151	<0.151	**0.154**	<0.0755	<0.0755	<0.0755	<0.113	<0.113	<0.0755	<0.113	<0.0755	<0.0755	<0.0755	<0.0755	<0.0755	<0.151	**0.166**	**0.113**	<0.113	<0.0755
	12/16/2013	<0.190	<0.190	0.478	<0.0952	<0.0952	<0.0952	<0.143	<0.143	<0.0952	<0.143	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.190	<0.0952	<0.0952	<0.0952	<0.0952
	6/11/2014	<0.0381	<0.0381	**0.180**	<0.0190	**0.0203**	<0.0190	<0.0286	<0.0286	<0.0190	<0.0286	<0.0190	<0.0190	<0.0190	<0.0190	<0.0190	**0.0514**	**0.139**	**0.0904**	<0.0286	<0.0190
	12/23/2014	<0.151	<0.151	**0.276**	<0.0755	<0.0755	**0.0393 J**	<0.113	<0.113	<0.0755	<0.113	<0.0755	<0.0755	<0.0755	<0.0755	<0.0755	<0.151	**0.114**	**0.0640 J**	<0.113	<0.0755
	6/30/2015	<0.0762	<0.0762	**0.090**	<0.0381	**0.0303**	<0.0381	<0.0571	<0.0571	<0.0381	<0.0571	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0762	<0.0381	**0.0533**	<0.0381	<0.0381
	12/17/2015	<0.0762	<0.0762	**0.0956**	<0.0381	--	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0762	**0.0795**	**0.0679**	--	<0.0381
	6/22/2016	<0.0762	<0.0762	**0.131**	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0762	**0.113**	**0.059**	<0.0381	<0.0381
	12/12/2016	<0.0755	<0.0755	**0.167**	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0755	**0.112**	**0.0907**	--	<0.0377
	6/27/2017	<0.0748	<0.0748	**0.131**	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0748	**0.0639**	**0.0475**	<0.113	<0.0755
	12/13/2017	<0.0374	<0.0374	**0.0795**	<0.0187	<0.0187	<0.0187	<0.0280	<0.0280	<0.0187	<0.0280	<0.0187	<0.0187	<0.0187	<0.0187	<0.0187	<0.0374	**0.0609**	**0.0593**	<0.0280	<0.0187
	6/27/2018	<0.0769	<0.0769	**0.210**	**0.0358**	<0.0385	<0.0385	<0.0385	<0.0385	<0.0385	<0.0385	<0.0385	<0.0385	<0.0385	<0.0385	<0.0385	<0.0769	**0.0636**	**0.0522**	--	<0.0385
	12/18/2018	<0.0748	<0.0748	**0.286**	<0.0374	<0.0374	**0.0485 M-05**	**0.0653**	**0.0671 M-05**	**0.0765**	<0.0374	**0.0472 M-05**	<0.0374	**0.0616**	<0.0374	**0.0559**	<0.0748	**0.0994**	**0.168**	--	<0.0374
	6/20/2019	<0.0769	<0.0769	**0.205**	<0.0385	<0.0385	<0.0385	<0.0385	<0.0385	<0.0385	<0.0385	<0.0385	<0.0385	<0.0385	<0.0385	<0.0385	<0.0769	**0.0890**	**0.0877**	--	<0.0385
	12/12/2019	<0.0762	<0.0762	**0.417**	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0762	**0.0942**	**0.0474**	--	<0.0381
MW-81	12/8/2009	--	--	**0.697**	<0.0962	<0.0962	<0.0962	**0.0668 J**	<0.0962	**0.101**	<0.0962	<0.0962	<0.192	**0.0673 J**	<0.0962	**0.058 J**	<0.0962	**0.0543**	**0.151**	--	--
	12/8/2009 DUP	--	--	**0.691**	<0.0962	<0.0962	<0.0962	**0.0517 J**	<0.0962	**0.0826 J**	<0.0962	<0.0962	<0.192	**0.0617 J**	<0.0962	<0.0962	<0.0962	**0.0509 J**	**0.136**	--	--
	12/1/2010	--	--	**0.56**	<0.098	<0.098	<0.098	<0.098	<0.098	<0.098	<0.098	<0.098	<0.196	<0.098	<0.098	<0.098	<0.098	<0.098	**0.0684 J**	--	--
	12/15/2011	--	<0.0952	**0.62**	<0.0952	<0.0952	<0.00476	<0.00476	<0.00476	<0.0952	<0.00476	<0.00476	<0.00476	<0.0952	<0.0952	<0.00476	<0.0952	<0.0952	<0.0952	--	--
	3/28/2012	--	<0.049	**0.35**	<0.049	<0.049	<0.0049	<0.0049	<0.0049	<0.049	<0.0049	<0.0049	--	<0.049	<0.049	<0.0049	<0.049	<0.049	<0.049	--	--
	7/6/2012	<0.0748	<0.0748	**0.683**	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0748	<0.0374	<0.0374	--	<0.0374
	12/5/2012	<0.0748	<0.0748	**0.568**	<0.0374	<0.0374	<0.0374	<0.0374	<0.0748 *	**0.0473**	<0.0748 *	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0748	<0.0374	**0.0396**	--	<0.0374
	12/16/2013	<0.190	<0.190	**0.478**	<0.00952	<0.00952	<0.00952	<0.143	<0.143	<0.00952	<0.143	<0.00952	<0.00952	<0.00952	<0.00952	<0.00952	<0.190	<0.0952	<0.0952	<0.143	<0.0952
	12/23/2014	<0.0377	<0.037	**0.511**	<0.0189	**0.0116 J**	<0.0189	<0.0283	<0.0283	**0.0227**	<0.0283	<0.0189	<0.0189	**0.0205**	<0.0189	**0.0207**	<0.0377	**0.0314**	**0.0448**	<0.0283	<0.0189
	12/17/2015	<0.152	<0.152	**0.326**	<0.0762	<0.0762	<0.0762	<0.114	<0.114	<0.0762	<0.114	<0.0762	<0.0762	<0.0762	<0.0762	<0.0762	<0.152	<0.0762	<0.0762	<0.114	<0.0762
	12/9/2016	<0.150 H	<0.150 H	**0.607 H**	<0.0748 H	<0.0748 H	<0.0748 H	<0.112 H	<0.112 H	<0.0748 H	<0.112 H	<0.0748 H	<0.0748 H	<0.0748 H	<0.0748 H	<0.0748 H	<0.150 H	<0.0748 H	<0.0748 H	<0.112 H	<0.0748 H
	12/13/2017	<0.150	<0.150	**0.396**	<0.0748	<0.0748	<0.0748	<0.112	<0.112	<0.0748	<0.112	<0.0748	<0.0748	<0.0748	<0.0748	<0.0748	<0.150	<0.0748	<0.0748	<0.112	<0.0748
	12/17/2018	<0.150	<0.150	**0.555**	<0.0748	<0.0748	<0.0748	<0.112	<0.112	<0.0748	<0.112	<0.0748	<0.0748	<0.0748	<0.0748	<0.0748	<0.150	<0.0748	<0.0748	<0.112	<0.0748
	12/16/2019	<0.154	<0.154	**0.506**	<0.0769	<0.0769	<0.0769	<0.115	<0.115	<0.0769	<0.115	<0.0769	<0.0769	<0.0769	<0.0769	<0.0769	<0.154	<0.0769	<0.0769	<0.115	<0.0769
MW-82	7/2/2019	<0.151	<0.151	**0.138**	<0.0755	<0.0755	<0.0755	<0.113	<0.113	<0.0755	<0.113	<0.0755	<0.0755	<0.0755	**0.105**	<0.0755	<0.151	**0.238**	<0.0755	<0.113	<0.0755
	9/10/2019	<0.150	<0.150	**0.0833**	<0.0748	<0.0748	<0.0748	<0.112	<0.112	<0.0748	<0.112	<0.0748	<0.0748	<0.0748	<0.0748	<0.0748	<0.150	**0.194**	<0.0748	<0.112	<0.0748
	12/12/2019	<0.160	<0.160	**0.295**	<0.0800	<0.0800	<0.0800	<0.120	<0.120	<0.0800	<0.120	<0.0800	<0.0800	**0.116**	**0.220**	<0.0800	<0.160	**0.424**	<0.0800	<0.120	<0.0800
MW-83	7/2/2019	<0.151	<0.151	**0.253**	<0.0755	<0.0755	<0.0755	<0.113	<0.113	<0.0755	<0.113	<0.0755	<0.0755	**0.101**	<0.0755	<0.0755	**0.203**	**0.182**	**0.0834**	<0.113	<0.0755
	9/11/2019	<0.151	<0.151	**0.266**	<0.0755	<0.0755	<0.0755	<0.113	<0.113	<0.0755	<0.113	<0.0755	<0.0755	<0.0755	<0.0755	<0.0755	<0.151	<0.0755	<0.0755	<0.113	<0.0755
	12/12/2019	<0.167	<0.167	**0.312**	<0.0833	<0.0833	<0.0833	<0.125	<0.125	<0.0833	<0.125	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.167	<0.0833	<0.0833	<0.125	<0.0833
ROD Cleanup Level [10.]		NA	2.1	23	NA	0.73	0.0012	0.00012	0.0012	0.4	0.0013	0.0013	0.00012	6.2	3.9	0.0012	12	6.3	10	NA	NA
JSCS SLV [11.]		NA	0.2	0.2	0.2	0.2	0.018	0.018	0.018	0.2	0.018	0.018	0.018	0.2	0.2	0.018	0.2	0.2	0.2	3.4	3.7

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-3
Historical Groundwater Analytical Results – Polycyclic Aromatic Hydrocarbons
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	1-Methylnaphthalene	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	Carbazole	Dibenzofuran
		Concentrations in µg/L (ppb)																			
AREA 2																					
MW-84	7/2/2019	<0.0377	<0.0377	<0.0189	<0.0189	<0.0189	<0.0189	<0.0283	<0.0283	<0.0189	<0.0283	<0.0189	<0.0189	<0.0189	<0.0189	<0.0189	<0.0377	<0.0189	<0.0189	<0.0283	<0.0189
	9/10/2019	<0.0381	<0.0381	<0.0190	<0.0190	<0.0190	<0.0190	<0.0286	<0.0286	<0.0190	<0.0286	<0.0190	<0.0190	<0.0190	<0.0190	<0.0190	<0.0381	<0.0190	<0.0190	<0.0286	<0.0190
	12/16/2019	<0.0377	<0.0377	<0.0189	<0.0189	<0.0189	<0.0189	<0.0283	<0.0283	<0.0189	<0.0283	<0.0189	<0.0189	<0.0189	<0.0189	<0.0189	<0.0377	<0.0189	<0.0189	<0.0283	<0.0189
MW-85	7/2/2019	<0.151	<0.151	**1.63**	<0.0755	<0.0755	<0.0755	<0.113	<0.113	<0.0755	<0.113	<0.0755	<0.0755	<0.0755	**0.235**	<0.0755	<0.151	<0.0755	<0.0755	<0.113	<0.0755
	9/11/2019	<0.151	<0.151	**0.685**	<0.0755	<0.0755	<0.0755	<0.113	<0.113	<0.0755	<0.113	<0.0755	<0.0755	<0.0755	<0.0755	<0.0755	<0.151	<0.0755	<0.0755	<0.113	<0.0755
	12/12/2019	<0.152	<0.152	**0.518**	<0.0762	<0.0762	<0.0762	<0.114	<0.114	<0.0762	<0.114	<0.0762	<0.0762	<0.0762	<0.0762	<0.0762	<0.152	<0.0762	<0.0762	<0.114	<0.0762
MW-92	7/2/2019	<0.151	<0.151	<0.0755	<0.0755	<0.0755	<0.0755	<0.113	<0.113	<0.0755	<0.113	<0.0755	<0.0755	<0.0755	<0.0755	<0.0755	<0.151	<0.0755	<0.0755	<0.113	<0.0755
	9/10/2019	<0.152	<0.152	<0.0762	<0.0762	<0.0762	<0.0762	<0.114	<0.114	<0.0762	<0.114	<0.0762	<0.0762	<0.0762	<0.0762	<0.0762	<0.152	<0.0762	<0.0762	<0.114	<0.0762
	12/12/2019	<0.154	<0.154	<0.0769	<0.0769	<0.0769	<0.0769	<0.115	<0.115	<0.0769	<0.115	<0.0769	<0.0769	<0.0769	<0.0769	<0.0769	<0.154	<0.0769	<0.0769	<0.115	<0.0769
SMW-12	12/7/2009	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/1/2010	--	--	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.192	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	--	--
	12/15/2011	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.00476	<0.00476	<0.00476	<0.0952	<0.00476	<0.00476	<0.00476	<0.0952	<0.0952	<0.00476	<0.0952	<0.0952	<0.0952	--	--
	3/27/2012	<0.048	<0.048	<0.048	<0.048	<0.048	<0.0048	<0.0048	<0.0048	<0.048	<0.0048	<0.0048	--	<0.048	<0.048	<0.0048	<0.048	<0.048	<0.048	--	--
	7/6/2012	<0.0748	<0.0748	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0748	<0.0374	<0.0374	--	<0.0374
	7/6/2012 DUP	<0.0748	<0.0748	<0.0374	<0.0374	<0.0374	<0.0374	**0.042**	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0748	<0.0374	<0.0374	--	<0.0374
	12/5/2012	<0.0755	<0.0755	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0755 *	<0.0377	<0.0755 *	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0755	<0.0377	<0.0755	--	<0.0377
	12/16/2013	<0.0381	<0.0381	<0.0190	<0.0190	**0.0193**	<0.0190	<0.0286	<0.0286	<0.0190	<0.0286	<0.0190	<0.0190	<0.0190	<0.0190	<0.0190	<0.0381	<0.0190	<0.0190	<0.0286	<0.0190
	12/23/2014	<0.0377	<0.0377	<0.0189	<0.0189	**0.0263**	<0.0189	<0.0283	<0.0283	<0.0189	<0.0283	<0.0189	<0.0189	<0.0189	<0.0189	<0.0189	<0.0377	<0.0189	**0.0222**	<0.0283	<0.0189
	12/17/2015	<0.0762	<0.0762	<0.0381	<0.0381	**0.0196 J**	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<2.00	<0.0381	<0.0381	--	<0.0381
	12/9/2016	<0.0792 H	<0.0792 H	<0.0396 H	<0.0396 H	**0.0224 J H**	<0.0396 H	<0.0396 H	<0.0396 H	<0.0396 H	<0.0396 H	<0.0396 H	<0.0396 H	<0.0396 H	<0.0396 H	<0.0396 H	<0.0792 H	<0.0396 H	<0.0396 H	--	<0.0396 H
	12/13/2017	<0.0374	<0.0374	<0.0187	<0.0187	**0.0211**	<0.0187	<0.0280	<0.0280	<0.0187	<0.0280	<0.0187	<0.0187	<0.0187	<0.0187	<0.0187	<0.0374	<0.0187	**0.0467**	<0.0280	<0.0187
SCHNITZER ASD YARD																					
MW-14	1/21/2019	<0.167	<0.167	**0.0853**	<0.0833	<0.0833	<0.0833	<0.125	<0.125	<0.125	<0.125	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.167	<0.0833	<0.0833	<0.125	<0.0833
	3/5/2019	<0.0377	<0.0377	**0.0793**	<0.0189	<0.0377	<0.0189	<0.0283	<0.0283	<0.0189	<0.0283	<0.0189	<0.0189	<0.0189	<0.0189	<0.0189	<2.00	**0.0209**	<0.0189	<0.0283	<0.0189
	3/5/2019 DUP	<0.0377	<0.0377	**0.0753**	<0.0189	<0.0189	<0.0189	<0.0283	<0.0283	<0.0189	<0.0283	<0.0189	<0.0189	<0.0189	<0.0189	<0.0189	<0.0377	<0.0189	<0.0189	<0.0283	<0.0189
	6/20/2019	<0.0381	<0.0381	**0.105**	<0.0190	<0.210	<0.0190	<0.0286	<0.0286	<0.0755	<0.0286	<0.0190	<0.0755	<0.0190	<0.0190	<0.0755	<0.0381	**0.0294**	<0.0190	<0.0286	<0.0190
	6/20/2019 DUP	<0.0755	<0.0755	**0.141**	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377
	9/11/2019	<0.151	<0.151	**0.169**	<0.0755	**0.0984**	<0.0755	<0.113	<0.113	<0.0755	<0.113	<0.0755	<0.0755	**0.0781**	**0.342**	<0.0755	<0.151	**0.400**	<0.0755	**0.779**	**0.198**
	9/11/2019 DUP	<0.0755	<0.0755	**0.138**	**0.0424**	**0.114**	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	**0.0855**	**0.355**	<0.0377	<0.0377	**0.427**	**0.0716**	--	**0.263**
	12/11/2019	<0.162	<0.162	<0.0808	<0.0808	**0.0988**	<0.0808	<0.121	<0.121	<0.0808	<0.121	<0.0808	<0.0808	**0.231**	**0.171**	<0.0808	<0.162	**0.312**	**0.173**	**0.158**	**0.104**
ROD Cleanup Level [10.]		NA	2.1	23	NA	0.73	0.0012	0.00012	0.0012	0.4	0.0013	0.0013	0.00012	6.2	3.9	0.0012	12	6.3	10	NA	NA
JSCS SLV [11.]		NA	0.2	0.2	0.2	0.2	0.018	0.018	0.018	0.2	0.018	0.018	0.018	0.2	0.2	0.018	0.2	0.2	0.2	3.4	3.7

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-3
Historical Groundwater Analytical Results – Polycyclic Aromatic Hydrocarbons
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	1-Methylnaphthalene	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	Carbazole	Dibenzofuran
		Concentrations in µg/L (ppb)																			
SCHNITZER ASD YARD																					
MW-72	8/20/2009	--	--	**0.103**	<0.0952	**0.0647 J**	**0.216**	**0.257**	**0.145**	**0.191**	**0.182**	**0.235**	<0.19	**0.517**	<0.0952	**0.144**	**0.107**	**0.291**	**0.603**	--	--
	12/8/2009	**0.0937 J**	<0.0962	<0.0962	<0.0962	<0.0962	**0.0553 J**	<0.0962	<0.0962	**0.0551 J**	<0.0962	**0.054 J**	<0.192	**0.194**	<0.0962	<0.0962	**0.0807 J**	**0.175**	**0.242**	--	--
	12/2/2010	--	--	**0.0831 J**	<0.0971	<0.0971	<0.0971	<0.0971	<0.0971	<0.0971	<0.0971	<0.0971	<0.194	**0.0613 J**	**0.0574 J**	<0.0971	<0.0971	**0.156**	**0.0704 J**	--	--
	12/2/2010 DUP	--	--	**0.102**	<0.0971	<0.0971	<0.0971	<0.0971	<0.0971	<0.0971	<0.0971	<0.0971	<0.194	**0.080 J**	**0.0713 J**	<0.0971	<0.0971	**0.202**	**0.09 J**	--	--
	6/2/2011	--	<0.0952	**0.0784 J**	<0.0952	<0.00476	<0.00476	<0.00476	<0.00476	<0.0952	<0.00476	<0.00476	<0.00476	<0.0952	<0.0952	<0.00476	<0.0952	**0.0925 J**	<0.0952	--	--
	12/15/2011	--	<0.0952	**0.0840 J**	<0.0952	<0.0952	**0.00651**	**0.00613**	<0.00476	<0.0952	<0.00476	**0.00853**	<0.00476	<0.0952	<0.0952	<0.00476	<0.0952	**0.0964**	**0.0506 J**	--	--
	12/15/2011 DUP	--	<0.0952	**0.0869**	<0.0952	<0.0952	<0.00476	<0.00476	<0.00476	<0.0952	<0.00476	**0.00543**	<0.00476	<0.0952	<0.0952	<0.00476	<0.0952	**0.0972**	<0.0952	--	--
	3/29/2012	<0.049	<0.049	**0.081 J**	<0.049	<0.049	<0.0049	<0.0049	<0.0049	<0.049	<0.0049	<0.0049	--	<0.049	**0.058 J**	<0.0049	<0.049	**0.13**	<0.049	--	--
	3/29/2012 DUP	<0.049	<0.049	**0.078 J**	<0.049	<0.049	<0.0049	<0.0049	<0.0049	<0.049	<0.0049	<0.0049	--	<0.049	**0.059 J**	<0.0049	<0.049	**0.12**	<0.049	--	--
	7/6/2012	<0.0748	<0.0374	**0.1**	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	**0.045**	**0.0731**	<0.0374	<0.0748	**0.206**	<0.0374	--	<0.0374
	7/6/2012 DUP	<0.0748	<0.0374	**0.0978**	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	**0.0457**	**0.0832**	<0.0374	<0.0748	**0.227**	<0.0374	--	<0.0374
	12/5/2012	<0.0748	<0.0748	**0.102**	<0.0374	**0.0394**	<0.0374	<0.0374	<0.0748 *	<0.0374	<0.0748 *	<0.0374	<0.0374	**0.057**	**0.0654**	<0.0374	<0.0748	**0.183**	**0.0503**	--	<0.0374
	12/5/2012 DUP	<0.0748	<0.0748	**0.109**	<0.0374	**0.0423**	<0.0374	**0.0397**	<0.0748 *	**0.0401**	<0.0748 *	<0.0374	<0.0374	**0.0792**	**0.0692**	<0.0374	<0.0748	**0.20**	**0.0761**	--	<0.0374
	6/19/2013	<0.151	<0.151	<0.0755	<0.0755	<0.0755	<0.0755	<0.113	<0.113	<0.0755	<0.113	<0.0755	<0.0755	**0.0997**	<0.0755	<0.0755	<0.151	**0.173**	**0.102**	<0.113	<0.0755
	12/13/2013	<0.152	<0.152	**0.0926**	<0.0762	<0.0762	<0.114	<0.114	<0.114	<0.0762	<0.114	<0.0762	<0.0762	<0.0762	<0.0762	<0.0762	<0.152	**0.133**	<0.0762	<0.114	<0.0762
	12/13/2013 DUP	<0.381	<0.381	<0.190	<0.190	<0.190	<0.190	<0.286	<0.286	<0.190	<0.286	<0.190	<0.190	<0.190	<0.190	<0.190	<0.190	<0.381	<0.190	<0.286	<0.190
	6/11/2014	<0.0381	<0.0381	**0.0631**	<0.0190	**0.0296**	<0.0190	<0.0286	<0.0286	<0.0190	<0.0286	<0.0190	<0.0190	**0.0470**	**0.0311**	<0.0190	**0.0220**	**0.107**	**0.0486**	<0.0286	<0.0190
	12/19/2014	<0.0762	<0.0762	**0.101**	<0.0381	**0.0329 J**	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	**0.0436**	**0.0516**	<0.0381	<0.0762	**0.153**	**0.0417**	--	<0.0381
	12/19/2014 DUP	<0.0755	<0.0755	**0.0962**	<0.0377	**0.0399**	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	**0.0427**	**0.0541**	<0.0377	<0.0755	**0.146**	**0.0404**	--	<0.0377
	6/26/2015	<0.151	<0.151	**0.0628**	<0.0755	<0.0755	<0.0755	<0.113	<0.113	<0.0755	<0.113	<0.0755	<0.0755	**<0.0755**	**0.0422**	<0.0755	<0.151	**0.075**	**<0.0755**	<0.113	<0.0755
	12/16/2015	<0.0762	<0.0762	**0.0613**	<0.0381	**0.0213 J**	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	**0.0334 J**	<0.0381	<0.0381	<0.0762	**0.0758**	**0.0373 J**	--	--
	12/16/2015 DUP	<0.0762	<0.0762	**0.0585**	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	**0.0322 J**	<0.0381	<0.0381	<0.0762	**0.0677**	**0.0327 J**	--	--
	6/21/2016	<0.0769	<0.0769	**0.0683**	<0.0385	**0.0227**	<0.0385	<0.0385	<0.0385	<0.0385	<0.0385	<0.0385	<0.0385	**0.0333**	**0.0453**	<0.0385	<0.0769	**0.131**	**0.0301**	--	<0.0385
	6/21/2016 DUP	<0.0762	<0.0762	**0.0667**	<0.0381	**0.0208**	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	**0.0316**	**0.0435**	<0.0381	<0.0762	**0.124**	**0.0282**	--	<0.0381
	12/7/2016	<0.0748 H	<0.0748 H	**0.0871 H**	<0.0374 H	**0.0289 H**	<0.0374 H	<0.0374 H	<0.0374 H	<0.0374 H	<0.0374 H	<0.0374 H	<0.0374 H	**0.0507 H**	**0.0449 H**	<0.0374 H	<0.0748 H	**0.126 H**	**0.0551 H**	--	<0.0374 H
	12/7/2016 DUP	<0.0748 H	<0.0748 H	**0.0808 H**	<0.0374 H	**0.0256 J, H**	<0.0374 H	<0.0374 H	<0.0374 H	<0.0374 H	<0.0374 H	<0.0374 H	<0.0374 H	**0.0505 H**	**0.042 H**	<0.0374 H	<0.0748 H	**0.126 H**	**0.0552 H**	--	<0.0374 H
	6/28/2017	<0.0755	<0.0755	**0.123**	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	**0.0421**	**0.0887**	<0.0377	<0.0755	**0.208**	**0.0325 J**	--	<0.0377
	12/14/2017	<0.0374	<0.0374	**0.0718**	<0.0187	**0.0332**	<0.0187	<0.0280	<0.0280	<0.0187	<0.0280	<0.0187	<0.0187	**0.0487**	**0.0303**	<0.0187	<0.0374	**0.104**	**0.0561**	<0.0280	<0.0187
	12/14/2017 DUP	<0.0374	<0.0374	**0.0837**	<0.0187	**0.0392**	<0.0187	<0.0280	<0.0280	<0.0187	<0.0280	<0.0187	<0.0187	**0.0506**	**0.0292 M-04**	<0.0187	<0.0374	**0.117**	**0.05**	<0.0280	<0.0187
	6/26/2018	<0.0748	<0.0748	**0.108**	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	**0.0433**	**0.0644**	<0.0374	<0.0748	**0.192**	**0.0403**	--	<0.0374
	12/18/2018	<0.0748	<0.0748	**0.0643**	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0748	**0.0828**	<0.0374	--	<0.0374
	12/18/2018 DUP	<0.0748	<0.0748	**0.0611**	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0748	**0.0809**	<0.0374	--	<0.0374
	6/21/2019	<0.0755	<0.0755	**0.0612**	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0755	**0.0822**	**0.0416**	--	<0.0377
	12/13/2019	<0.0377	<0.0377	**0.0655**	<0.0189	<0.0189	<0.0189	<0.0283	<0.0283	<0.189	<0.0283	<0.0189	<0.189	**0.0350**	**0.0277**	<0.189	<0.0377	**0.0886**	**0.0372**	<0.0283	<0.0189
	12/13/2019 DUP	<0.0385	<0.0385	**0.0627**	<0.0192	<0.0192	<0.0192	<0.0288	<0.0288	<0.192	<0.0288	<0.192	<0.192	**0.0356**	**0.0245**	<0.0192	<0.0385	**0.0918**	**0.0372**	<0.0288	<0.0192
ROD Cleanup Level [10.]		NA	2.1	23	NA	0.73	0.0012	0.00012	0.0012	0.4	0.0013	0.0013	0.00012	6.2	3.9	0.0012	12	6.3	10	NA	NA
JSCS SLV [11.]		NA	0.2	0.2	0.2	0.2	0.018	0.018	0.018	0.2	0.018	0.018	0.018	0.2	0.2	0.018	0.2	0.2	0.2	3.4	3.7

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-3
Historical Groundwater Analytical Results – Polycyclic Aromatic Hydrocarbons
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	1-Methylnaphthalene	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	Carbazole	Dibenzofuran
		Concentrations in µg/L (ppb)																			
SCHNITZER ASD YARD																					
MW-73	8/20/2009	--	--	**0.113**	<0.0952	**0.121**	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.19	**0.194**	**0.327**	<0.0952	**0.089**	**0.629**	**0.256**	--	--
	12/8/2009	--	--	**0.0649 J**	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.192	**0.0817 J**	**0.0996**	<0.0962	<0.0962	**0.235**	**0.106**	--	--
	6/3/2010	--	<0.0966	**0.128**	<0.0966	**0.069 J**	**0.0157**	**0.0096**	**0.00665**	<0.0966	**0.00604**	**0.0207**	<0.00483	**0.118**	**0.194**	**0.00665**	**0.168**	**0.318**	**0.179**	--	--
	6/3/2010 DUP	--	<0.0971	**0.122**	<0.0971	**0.0606**	**0.0178**	**0.0141**	**0.00953**	<0.0971	**0.00875**	**0.0228**	<0.00485	**0.113**	**0.168**	**0.00882**	**0.166**	**0.285**	**0.168**	--	--
	12/2/2010	--	--	**0.179**	<0.0962	**0.166**	<0.0962	**0.0626 J**	<0.0962	**0.0749 J**	<0.0962	**0.0646 J**	<0.192	**0.219**	**0.949**	<0.0962	**0.13**	**1.09**	**0.363**	--	--
	6/3/2011	--	<0.0952	<0.0952	<0.0952	<0.0952	**0.0061**	**0.00635**	<0.00476	<0.0952	<0.00476	**0.00869**	<0.00476	<0.0952	**0.062 J**	<0.00476	<0.0952	**0.101**	<0.0952	--	--
	12/16/2011	--	**0.0895 J**	**0.0807 J**	<0.0952	<0.0952	**0.0072**	**0.00745**	**0.00585**	<0.0952	**0.00611**	**0.00977**	<0.00476	<0.0952	<0.0952	**0.00486**	**0.125**	**0.0625 J**	**0.0505 J**	--	--
	3/28/2012	**0.15**	**0.053 J**	**0.061 J**	<0.048	<0.048	**0.0083**	**0.011**	**0.0076**	<0.048	**0.0074**	**0.011**	--	<0.048	<0.048	**0.0063**	**0.065 J**	**0.071 J**	**0.048 J**	--	--
	7/25/2012	<0.374	<0.112	<0.131	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	**0.0456**	<0.112	<0.0374	**0.087**	**0.11**	**0.0633**	--	<0.0374
	12/5/2012	<0.458	<0.159	<0.140	<0.0374	**0.0661**	<0.0374	<0.0374	<0.0748 *	<0.0374	<0.0748 *	<0.0374	<0.0374	**0.0414**	**0.0458**	<0.0374	**0.0832**	**0.0885**	**0.069**	--	<0.0374
	6/19/2013	<0.755	<0.755	<0.377	<0.377	<0.377	<0.377	<0.566	<0.566	<0.377	<0.566	<0.377	<0.377	<0.377	<0.377	<0.377	<0.755	<0.377	<0.377	<0.566	<0.377
	12/16/2013	<0.755	<0.755	<0.377	<0.377	<0.377	<0.377	<0.566	<0.566	<0.377	<0.566	<0.377	<0.377	<0.377	<0.377	<0.377	<0.755	<0.377	<0.377	<0.566	<0.377
	6/12/2014	**0.836**	**0.320**	**0.201**	<0.190	<0.190	**0.115**	**0.162**	<0.286	<0.190	<0.286	**0.0970**	<0.190	**0.148**	<0.190	<0.190	<0.381	**0.160**	**0.177**	<0.286	<0.190
	12/19/2014	**0.620**	**0.284**	<0.171	<0.0381	**0.177**	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	**0.0451**	<0.0667	<0.0381	**0.075 J**	**0.101**	**0.0578**	--	<0.0381
	6/26/2015	**0.747**	**0.437**	**0.149**	<0.189	<0.189	<0.189	<0.283	<0.283	<0.283	<0.283	<0.189	<0.189	<0.189	<0.189	<0.189	<0.377	<0.377	<0.189	<0.283	<0.189
	12/18/2015	**0.565**	**0.253**	**0.177**	<0.0377	<0.0566	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0566	<0.0377	**0.0751 J**	**0.0654**	**0.055**	--	--
	6/23/2016	**0.747**	**0.437**	**0.149**	<0.189	<0.189	<0.189	<0.283	<0.283	<0.283	<0.283	<0.189	<0.189	<0.189	<0.189	<0.189	<0.377	<0.377	<0.189	<0.283	<0.189
	12/12/2016	**0.705**	**0.282**	**0.241**	<0.374	**0.0919**	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	**0.0363 J**	<0.374	<0.0374	<0.0748	**0.0633**	**0.0485**	--	<0.374
	6/28/2017	**0.0642**	**0.301**	**0.247**	<0.0377	**0.137**	**0.0233 J**	**0.0248 J**	**0.0291 J**	**0.0349 J**	<0.0377	<0.0377	<0.0377	**0.0541**	**0.066**	**0.0345 J**	**0.0735 J**	**0.0704**	**0.0785**	--	<0.0377
	12/14/2017	**1.01**	**0.524**	**0.372**	<0.0748	<0.0748	<0.0748	<0.112	<0.112	<0.0748	<0.112	<0.0748	<0.0748	<0.0748	<0.0748	<0.0748	<0.150	**0.106**	<0.112	**0.157**	<0.0748
	6/27/2018	**1.32**	**0.720**	**0.460**	<0.0377	**0.0750**	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	**0.040**	<0.0377	<0.0377	**0.0109**	**0.0541**	**0.0491**	**--**	<0.0377
	12/18/2018	**0.941**	**0.597**	**0.335 M-02**	<0.0377	**0.1180**	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	**0.0506 M-04**	<0.0377	**0.0857**	**0.0546**	**0.0389**	**--**	<0.0377
	6/20/2019	**1.24**	**0.761**	**0.407**	<0.0385	**0.0469**	<0.0385	<0.0385	<0.0385	<0.0385	<0.0385	<0.0385	<0.0385	<0.0385	**0.0504**	<0.0385	**0.123**	**0.0529**	**0.0462**	--	<0.0385
	12/11/2019	**0.594**	**0.343**	**0.248**	<0.0377	**0.150**	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.189	<0.0377	<0.0755	**0.0703**	<0.0377	--	<0.0377
MW-77	8/20/2009	--	--	**0.0582**	<0.0952	<0.0952	<0.0952	**0.05 J**	<0.0952	<0.0952	<0.0952	<0.0952	<0.19	**0.0805 J**	<0.0952	<0.0952	<0.0952	**0.0696**	**0.10**	--	--
	12/8/2009	--	--	**0.0532 J**	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.192	**0.0648 J**	<0.0962	<0.0962	<0.0962	**0.0603 J**	**0.083 J**	--	--
MW-79	8/20/2009	--	--	**0.061 J**	<0.0971	**0.0542 J**	**0.0668 J**	**0.0733 J**	<0.0971	**0.0738 J**	<0.0971	**0.109**	<0.194	**0.0716 J**	<0.0971	<0.0971	<0.0971	**0.0711 J**	**0.24**	--	--
	8/20/2009 DUP	--	--	**0.0805 J**	**0.0484 J**	**0.133**	**0.261**	**0.306**	**0.194**	**0.307**	**0.12**	**0.379**	<0.192	**0.293**	**0.0759 J**	**0.152**	**0.129**	**0.231**	**0.647**	--	--
	12/8/2009	--	--	**0.0714 J**	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	**0.0515 J**	<0.0962	**0.0715 J**	<0.192	<0.0962	**0.0529 J**	<0.0962	**0.0504 J**	**0.0524 J**	**0.142**	--	--
	12/8/2009 DUP	--	--	**0.0771 J**	<0.0962	**0.0486 J**	**0.0595 J**	**0.0724 J**	<0.0962	**0.0796 J**	<0.0962	**0.103**	<0.192	**0.0705 J**	**0.0642 J**	<0.0962	**0.0625 J**	**0.0708 J**	**0.19**	--	--
	6/3/2010	--	<0.0966	**0.064 J**	<0.0966	**0.0532 J**	**0.0385**	**0.0329**	**0.0177**	<0.0966	**0.0115**	**0.0592**	**0.00645**	**0.0651 J**	<0.0966	**0.0163**	<0.0966	<0.0966	**0.219**	--	--
	12/1/2010	--	--	**0.0791 J**	<0.0952	**0.0496 J**	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	**0.0614**	<0.19	**0.0503 J**	**0.057 J**	<0.0952	<0.0952	<0.0952	**0.183**	--	--
ROD Cleanup Level [10.]		NA	2.1	23	NA	0.73	0.0012	0.00012	0.0012	0.4	0.0013	0.0013	0.00012	6.2	3.9	0.0012	12	6.3	10	NA	NA
JSCS SLV [11.]		NA	0.2	0.2	0.2	0.2	0.018	0.018	0.018	0.2	0.018	0.018	0.018	0.2	0.2	0.018	0.2	0.2	0.2	3.4	3.7

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-3
Historical Groundwater Analytical Results – Polycyclic Aromatic Hydrocarbons
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	1-Methylnaphthalene	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	Carbazole	Dibenzofuran
		Concentrations in µg/L (ppb)																			
SCHNITZER ASD YARD																					
MW-79 (continued)	6/2/2011	--	<0.0971	<0.0971	<0.0971	<0.00485	**0.0127**	**0.0125**	<0.00485	<0.0971	<0.00485	**0.0237**	<0.00485	<0.0971	<0.0971	**0.00505**	<0.0971	<0.0971	**0.0585 J**	--	--
	6/2/2011 DUP	--	<0.0966	<0.0966	<0.0966	<0.00483	**0.0134**	**0.0118**	<0.00483	<0.0966	<0.00483	**0.0196**	<0.00483	<0.0966	<0.0966	<0.00483	<0.0966	<0.0966	**0.0566 J**	--	--
	12/16/2011	--	<0.0952	**0.0538 J**	<0.0952	<0.0952	<0.00476	<0.00476	<0.00476	<0.0952	<0.00476	**0.00564**	<0.00476	<0.0952	**0.0509 J**	<0.00476	<0.0952	<0.0952	<0.0952	--	--
	3/28/2012	<0.049	<0.049	<0.049	<0.049	<0.049	**0.055**	**0.071**	**0.046**	<0.049	**0.019**	**0.11**	--	<0.049	<0.049	**0.025**	<0.049	<0.049	**0.14**	--	--
	7/6/2012	<0.0748	<0.0748	<0.0374	<0.0374	**0.0594**	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0748	<0.0374	<0.0374	--	<0.0374
	12/5/2012	**0.103**	<0.0748	**0.0391**	<0.0374	**0.0543**	<0.0374	<0.0374	<0.0748 *	<0.0374	<0.0748 *	<0.0374	<0.0374	<0.0374	**0.0624**	<0.0374	<0.0748	**0.0385**	<0.0374	--	<0.0374
	6/19/2013	<0.151	<0.151	<0.0755	<0.0755	<0.0755	<0.0755	<0.113	<0.113	<0.0755	<0.113	<0.0755	<0.0755	<0.0755	<0.0755	<0.0755	<0.151	<0.0755	<0.0755	<0.113	<0.0755
	12/13/2013	<0.152	<0.152	<0.0762	<0.0762	**0.0804**	<0.0762	<0.114	<0.114	<0.0762	<0.114	<0.0762	<0.0762	<0.0762	<0.0762	<0.0762	<0.152	<0.0762	<0.0762	<0.114	<0.0762
	6/12/2014	**0.0198**	<0.0385	**0.0328**	<0.0192	**0.0418**	<0.0192	<0.0288	<0.0288	<0.0192	<0.0288	<0.0192	<0.0192	<0.0192	**0.0234**	<0.0192	**0.0591**	**0.0214**	<0.0192	<0.0288	<0.0192
	12/19/2014	<0.151	<0.151	<0.0755	<0.0755	**0.0877**	<0.0755	<0.113	<0.113	<0.0755	<0.113	<0.0755	<0.0755	<0.0755	<0.0755	<0.0755	<0.151	<0.0755	<0.0755	<0.113	<0.0755
	6/26/2015	<0.151	<0.151	<0.0755	<0.0755	**0.0457**	<0.0755	<0.113	<0.113	<0.0755	<0.113	<0.0755	<0.0755	<0.0755	<0.0755	<0.0755	0.0889	<0.0755	<0.0755	<0.113	<0.0755
	12/18/2015	<0.152	<0.152	<0.0762	<0.0762	<0.0762	<0.0762	<0.114	<0.114	<0.0762	<0.114	<0.0762	<0.0762	<0.0762	<0.0762	<0.0762	<0.152	<0.0762	<0.0762	--	--
	6/23/2016	<0.154	<0.154	<0.0769	<0.0769	<0.0769	<0.0769	<0.115	<0.115	<0.0769	<0.115	<0.0769	<0.0769	<0.0769	<0.0769	<0.0769	<0.154	<0.0769	<0.0769	<0.115	<0.0769
	12/12/2016	<0.154	<0.154	<0.0769	<0.0769	<0.0769	<0.0769	<0.115	<0.115	<0.0769	<0.115	<0.0769	<0.0769	<0.0769	<0.0769	<0.0769	<0.154	<0.0769	<0.0769	<0.115	<0.0769
	6/28/2017	<0.151	<0.151	<0.0755	<0.0755	<0.0755	<0.0755	<0.113	<0.113	<0.0755	<0.113	<0.0755	<0.0755	<0.0755	<0.0755	<0.0755	<0.151	<0.0755	<0.0755	<0.113	<0.0755
	12/14/2017	<0.151	<0.151	<0.0755	<0.0755	**0.0854**	<0.0755	<0.113	<0.113	<0.0755	<0.113	<0.0755	<0.0755	<0.0755	<0.0755	<0.0755	<0.151	<0.0755	<0.0755	<0.113	<0.0755
	6/26/2018	<0.152	<0.152	<0.0762	<0.0762	<0.0762	<0.0762	<0.114	<0.114	<0.0762	<0.114	<0.0762	<0.0762	<0.0762	<0.0762	<0.0762	<0.152	<0.0762	<0.0762	<0.114	<0.0762
	12/18/2018	<0.152	<0.152	<0.0762	<0.0762	<0.0762	<0.0762	<0.114	<0.114	<0.0762	<0.114	<0.0762	<0.0762	<0.0762	<0.0762	<0.0762	<0.152	<0.0762	<0.0762	<0.114	<0.0762
	6/20/2019	<0.150	<0.150	<0.0748	<0.0748	<0.0748	<0.0748	<0.112	<0.112	<0.0748	<0.112	<0.0748	<0.0748	<0.0748	<0.0748	<0.0748	<0.150	<0.0748	<0.0748	<0.112	<0.0748
	12/10/2019	<0.0748	<0.0748	<0.0374	<0.0374	**0.0409**	<0.0374	<0.0561	<0.0561	<0.0374	<0.0561	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0748	<0.0374	<0.0374	<0.0561	<0.0374
MW-80	12/8/2009	--	--	0.185	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.192	**0.0974**	<0.0962	<0.0962	**0.0988**	**0.0896 J**	**0.134**	--	--
	12/2/2010	--	--	**0.0591 J**	<0.0971	<0.0971	<0.0971	**0.0559 J**	<0.0971	**0.0576 J**	<0.0971	**0.055 J**	<0.194	**0.123**	<0.0971	<0.0971	**0.114**	**0.0914 J**	**0.203**	--	--
	12/16/2011	--	<0.0952	**0.251**	<0.0952	<0.0952	**0.0129**	**0.0179**	**0.0127**	<0.0952	**0.0133**	**0.0187**	<0.00476	<0.0952	<0.0952	**0.0117**	<0.0952	**0.0917 J**	**0.0624 J**	--	--
	3/29/2012	<0.049	<0.049	**0.093 J**	<0.049	<0.049	<0.0049	<0.0049	<0.0049	<0.049	<0.0049	**0.0054**	--	<0.049	<0.049	<0.0049	<0.049	<0.049	<0.049	--	--
	7/6/2012	<0.0748	<0.0748	**0.0726**	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0748	<0.0374	**0.0376**	--	<0.0374
	12/16/2013	<0.151	<0.151	**0.298**	<0.0755	<0.0755	<0.0755	<0.113	<0.113	<0.0755	<0.113	<0.0755	<0.0755	<0.0755	<0.0755	<0.0755	<0.151	**0.158**	<0.0755	<0.113	<0.0755
	12/23/2014	<0.0377	<0.0377	**0.0484**	<0.0189	**0.0109 J**	<0.0189	<0.0283	<0.0283	<0.0189	<0.0283	<0.0189	<0.0189	**0.0192**	**0.0106 J**	<0.0189	<0.0189	**0.0188 J**	**0.0432**	<0.0283	<0.0189
	12/18/2015	<0.0762	<0.0762	**0.0190 J**	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	**0.0190 J**	<0.0381	<0.0381	<0.0762	<0.0381	**0.061**	--	--
	12/9/2016	<0.0748	<0.0748	**0.0343 J**	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0748	<0.0374	**0.0363 J**	--	<0.0374
	12/14/2017	<0.0374	<0.0374	<0.0187	<0.0187	<0.0187	<0.0187	<0.0280	<0.0280	<0.0187	<0.0280	<0.0187	<0.0187	<0.0187	<0.0187	<0.0187	<0.0374	<0.0187	<0.0187	<0.0280	<0.0187
	12/18/2018	<0.0748	<0.0748	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0748	<0.0374	<0.0374	<0.0374	<0.0374
	12/13/2019	<0.0381	<0.0381	<0.0190	<0.0190	<0.0190	<0.0190	<0.0286	<0.0286	<0.0190	<0.0286	<0.0190	<0.0190	<0.0190	<0.0190	<0.0190	<0.0381	<0.0190	**0.0385 B-**	<0.0286	<0.0190
ROD Cleanup Level [10.]		NA	2.1	23	NA	0.73	0.0012	0.00012	0.0012	0.4	0.0013	0.0013	0.00012	6.2	3.9	0.0012	12	6.3	10	NA	NA
JSCS SLV [11.]		NA	0.2	0.2	0.2	0.2	0.018	0.018	0.018	0.2	0.018	0.018	0.018	0.2	0.2	0.018	0.2	0.2	0.2	3.4	3.7

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-3
Historical Groundwater Analytical Results – Polycyclic Aromatic Hydrocarbons
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	1-Methylnaphthalene	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	Carbazole	Dibenzofuran
		Concentrations in µg/L (ppb)																			
SCHNITZER ASD YARD																					
MW-86	7/2/2019	<0.151	<0.151	<0.0755	<0.0755	<0.0755	<0.0755	<0.113	<0.113	<0.0755	<0.113	<0.0755	<0.0755	<0.0755	<0.0755	<0.0755	<0.151	<0.0755	<0.0755	<0.113	<0.0755
	9/10/2019	<0.160	<0.160	<0.0800	<0.0800	<0.0800	<0.0800	<0.120	<0.120	<0.0800	<0.120	<0.0800	<0.0800	<0.0800	<0.0800	<0.0800	<0.160	<0.0800	<0.0800	<0.120	<0.0800
	12/13/2019	<0.165	<0.165	<0.0825	<0.0825	<0.0825	<0.0825	<0.124	<0.124	<0.0825	<0.124	<0.0825	<0.0825	<0.0825	<0.0825	<0.0825	<0.165	<0.0825	<0.0825	<0.124	<0.0825
MW-87	7/2/2019	<0.151	<0.151	<0.0755	<0.0755	<0.0755	<0.0755	<0.113	<0.113	<0.0755	<0.113	<0.0755	<0.0755	<0.0755	<0.0755	<0.0755	<0.151	**0.0950**	<0.0755	<0.113	<0.0755
	7/2/2019 DUP	<0.151	<0.151	<0.0755	<0.0755	<0.0755	<0.0755	<0.113	<0.113	<0.0755	<0.113	<0.0755	<0.0755	<0.0755	<0.0755	<0.0755	<0.151	**0.0938**	<0.0755	<0.113	<0.0755
	9/11/2019	<0.151	<0.151	<0.0755	<0.0755	<0.0755	<0.0755	<0.113	<0.113	<0.0755	<0.113	<0.0755	<0.0755	<0.0755	<0.0755	<0.0755	<0.151	<0.0755	<0.0755	<0.113	<0.0755
	9/11/2019 DUP	<0.151	<0.151	<0.0755	<0.0755	<0.0755	<0.0755	<0.113	<0.113	<0.0755	<0.113	<0.0755	<0.0755	<0.0755	<0.0755	<0.0755	<0.151	<0.0755	<0.0755	<0.113	<0.0755
	12/11/2019	<0.168	<0.168	<0.0842	<0.0842	<0.0842	<0.0842	<0.126	<0.126	<0.0842	<0.126	<0.0842	<0.0842	<0.0842	<0.0842	<0.0842	<0.168	<0.0842	<0.0842	<0.126	<0.0842
	12/11/2019 DUP	<0.0777	<0.0777	<0.0388	<0.0388	**0.0499**	<0.0388	<0.0388	<0.0388	<0.0388	<0.0388	<0.0388	<0.0388	**0.0623**	<0.0388	<0.0388	<0.0777	**0.0750**	**0.0608**	--	<0.0388
MW-88	7/2/2019	<0.150	<0.150	**0.281**	<0.0748	<0.0748	<0.0748	<0.112	<0.112	<0.0748	<0.112	<0.0748	<0.0748	<0.0748	<0.0748	<0.0748	<0.150	**0.138**	<0.0748	<0.112	<0.0748
	9/11/2019	<0.150	<0.150	**0.892**	<0.0748	<0.0748	<0.0748	<0.112	<0.112	<0.0748	<0.112	<0.0748	<0.0748	<0.0748	<0.0748	<0.0748	<0.150	**0.114**	<0.0748	<0.112	<0.0748
	12/13/2019	<0.151	<0.151	**0.0946**	<0.0755	<0.0755	<0.0755	<0.113	<0.113	<0.0755	<0.113	<0.0755	<0.0755	<0.0755	<0.0755	<0.0755	<0.151	<0.0755	<0.0755	<0.113	<0.0755
MW-89	7/2/2019	<0.157	<0.157	<0.0784	<0.0784	<0.0784	<0.0784	<0.118	<0.118	<0.0784	<0.118	<0.0784	<0.0784	<0.0784	<0.0784	<0.0784	<0.157	<0.0784	<0.0784	<0.118	<0.0784
	9/10/2019	<0.178	<0.178	<0.0889	<0.0889	<0.0889	<0.0889	<0.133	<0.133	<0.0889	<0.133	<0.0889	<0.0889	<0.0889	<0.0889	<0.0889	<0.178	<0.0889	<0.0889	<0.133	<0.0889
	12/16/2019	<0.154	<0.154	<0.0769	<0.0769	<0.0769	<0.0769	<0.115	<0.115	<0.0769	<0.115	<0.0769	<0.0769	<0.0769	<0.0769	<0.0769	<0.154	<0.0769	**0.102**	<0.115	<0.0769
ROD Cleanup Level [10.]		NA	2.1	23	NA	0.73	0.0012	0.00012	0.0012	0.4	0.0013	0.0013	0.00012	6.2	3.9	0.0012	12	6.3	10	NA	NA
JSCS SLV [11.]		NA	0.2	0.2	0.2	0.2	0.018	0.018	0.018	0.2	0.018	0.018	0.018	0.2	0.2	0.018	0.2	0.2	0.2	3.4	3.7

Notes:

1. PAHs = polycyclic aromatic hydrocarbons by EPA Method 8270 SIM.
2. µg/L (ppb) = micrograms per liter (parts per billion).
3. -- = not analyzed or not applicable.
4. **Bold** denotes analyte detected above laboratory reporting limit.
5. J = result is less than the reporting limit, but greater than or equal to the detection limit.
6. Z = the chromatographic response does not resemble a typical fuel pattern.
7. F-11 = hydrocarbon pattern indicates sample is possibly weathered diesel or from another related compound.
8. F-13 = The sample chromatogram does not resemble the fuel standard used for quantitation. Value is estimated.
9. H = Holding time violation. Reported values are minimum concentrations.
10. ROD Cleanup Levels from U.S. EPA Record of Decision Portland Harbor Superfund Site, Portland, Oregon, January 2017, and subsequent updates including the January 2020 Errata #2. The level shown is the Groundwater Cleanup Level unless one was not available, in which case, the Surface Water Cleanup Level was used, per DEQ Guidance.
11. JSCS SLV = Screening Level Values from Portland Harbor Joint Source Control Strategy (JSCS), December 2005.
12. Shading denotes analyte detected above screening criteria. As instructed by DEQ, concentrations of analytes were compared to the Portland Harbor Cleanup Level. If neither a Groundwater or Surface Water Cleanup Level was available, the data were compared to the Joint Source Control Strategy Screening Level Value.
13. M-04 = Due to matrix interference, this analyte cannot be accurately quantified. The reported result may contain a high bias.
14. NA = Cleanup Level and SLV not available for this analyte.
15. < = constituent was not detected at a concentration greater than laboratory method reporting limit shown.

Cascadia Associates, LLC

Table E-4
Historical Groundwater Analytical Results – Metals
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	Antimony		Arsenic		Barium		Cadmium		Chromium		Copper		Lead		Manganese		Mercury		Nickel		Zinc	
		Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved
		Concentrations in µg/L (ppb)																					
AREA 1																							
MW-22	12/15/2015	<1.00	<1.00	**1.17**	**1.03**	**9.26**	**4.04**	<0.200	<0.200	**3.13**	**2.81**	**0.944 J**	<1.00	**0.311**	<0.200	**206**	**0.733 J**	--	--	**0.978 J**	<1.00	**13.8**	**4.57**
	12/7/2016	<1.00	<1.00	**1.43**	**1.39**	**5.99**	**2.72**	<0.200	<0.200	<1.00	<1.00	**0.780 J**	**0.544 J**	**0.25**	<0.200	**145**	**0.767 J**	--	--	<1.00	<1.00	**7.57**	**3.40 J**
	12/14/2017	<1.00	<1.00	**9.54**	**1.52**	**388**	**3.7**	**1.26**	<0.200	**30.4**	<1.00	**61.6**	<1.00	**31.7 B**	<0.200	**4,290**	**3.49**	--	--	**45.8 B-02**	<1.00	**318**	<4.00
	12/20/2018	<1.00	<1.00	**1.94**	**1.49**	**32.9 B-02**	**6.76**	<0.200	<0.200	**2.38**	<1.00	**9.57**	**1.55**	**2.89**	**0.334**	**302**	**51.2**	--	--	**4.52**	<1.00	**60.0**	**8.52**
	12/12/2019	<1.00	<1.00	**2.40**	<2.00	**13.3**	**4.32**	<0.200	<0.200	<2.00	<2.00	<2.00	<2.00	**0.740**	<0.200	**76.3**	**2.02**	--	--	<2.00	<2.00	**7.78**	<4.00
MW-42	12/15/2015	<1.00	<1.00	**0.722 J**	**0.622 J**	**30.1**	**29.6**	<0.200	<0.200	**0.878 J**	**0.756 J**	<1.00	<1.00	<0.200	<0.200	**3.12**	**0.911 J**	--	--	<1.00	<1.00	<4.00	**5.91**
	12/7/2016	<1.00	<1.00	**0.922 J**	**1.00**	**44.2**	**45.6**	<0.200	<0.200	**0.584 J**	**0.622 J**	<1.00	**0.522 J**	<0.200	<0.200	**1.21**	**1.2**	<0.0800	<0.0800	<1.00	**0.578 J**	**2.68 J**	**4.19**
	12/14/2017	<1.00	<1.00	**1.12**	**1.21**	**44.2**	**45.4**	<0.200	<0.200	**1.1**	**1.15**	<1.00	<1.00	**0.257**	<0.200	**18.9**	**29.2**	<0.0800	--	<1.00	<1.00	**4.99**	<4.00
	12/20/2018	<1.00	<1.00	**1.04**	<1.00	**49.2 B-02**	**47.0**	<0.200	<0.200	<1.00	<1.00	**1.28**	<1.00	<0.200	<0.200	**92.9**	**55.5**	--	--	**1.07**	<1.00	<4.00	<4.00
	12/11/2019	<1.00	<1.00	<1.00	<1.00	**46.9**	**43.1**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**166**	**154**	--	--	<1.00	<1.00	<4.00	<4.00
MW-52	1/21/2019	--	<1.00	--	<1.00	--	**52.6**	--	<0.200	--	<1.00	--	**1.25**	--	<0.200	--	**278**	--	--	--	**2.24**	--	**4.11**
	3/5/2019	--	<1.00	--	<1.00	--	**57.1**	--	<0.200	--	<1.00	--	**2.30**	--	**0.568**	--	**485**	--	--	--	**3.59**	--	**9.48**
	6/19/2019	--	<1.00	--	<1.00	--	**47.4**	--	<0.200	--	<1.00	--	**1.07**	--	<0.200	--	**183**	--	--	--	**1.64**	--	<4.00
	9/10/2019	--	<1.00	--	<1.00	--	**44.8**	--	<0.200	--	<1.00	--	<1.00	--	<0.200	--	**252**	--	--	--	**1.98**	--	<4.00
	12/10/2019	<1.00	<1.00	<1.00	<1.00	**50.2**	**45.3**	<0.200	<0.200	<1.00	<1.00	**1.35**	<1.00	<0.200	<0.200	**242**	**218**	--	--	**2.17**	**1.75**	**6.73**	**5.23**
MW-62	1/21/2019	--	<1.00	--	**1.12**	--	**27.2**	--	<0.200	--	<1.00	--	**1.89**	--	<0.200	--	**221**	--	--	--	**3.52**	--	**25.1**
	3/6/2019	--	<1.00	--	**1.34**	--	**31.5**	--	<0.200	--	<1.00	--	**4.24**	--	**0.708**	--	**397**	--	--	--	**2.38**	--	**48.4**
	6/19/2019	--	<1.00	--	**1.19**	--	**27.8**	--	<0.200	--	<1.00	--	**1.41**	--	<0.200	--	**161**	--	--	--	**2.01**	--	**11.9**
	9/10/2019	--	<1.00	--	**1.26**	--	**40.4**	--	<0.200	--	<1.00	--	**2.52**	--	<0.200	--	**152**	--	--	--	**2.77**	--	**11.2**
	12/10/2019	<1.00	<1.00	**1.25**	**1.28**	**42.3**	**38.5**	<0.200	<0.200	<1.00	<1.00	**2.63**	**1.81**	<0.200	<0.200	**294**	**267**	--	--	**3.17**	**2.93**	**13.8**	**10.6**
MW-90	7/2/2019	--	<1.00	--	<1.00	--	**26.0**	--	<0.200	--	<1.00	--	**7.38**	--	<0.200	--	**672**	--	--	--	**3.79**	--	**7.81**
	9/10/2019	--	<1.00	--	**3.29**	--	**34.2**	--	<0.200	--	<1.00	--	<1.00	--	<0.200	--	**1,570**	--	--	--	**2.88**	--	<4.00
	12/12/2019	<1.00	<1.00	<2.00	<2.00	**21.2**	**20.5**	<0.200	<0.200	<2.00	<2.00	<2.00	<2.00	<0.200	<0.200	**315**	**335**	--	--	**2.00**	**2.10**	<4.00	<4.00
MW-91	7/2/2019	--	<1.00	--	**1.52**	--	**82.4**	--	<0.200	--	<1.00	--	<1.00	--	<0.200	--	**1,800**	--	--	--	**4.75**	--	**7.53**
	9/10/2019	--	<1.00	--	<1.00	--	**56.0**	--	<0.200	--	<1.00	--	**3.04**	--	<0.200	--	**165**	--	--	--	**2.54**	--	**23.1**
	12/12/2019	<1.00	<1.00	<2.00	<2.00	**47.2**	**45.4**	<0.200	<0.200	<2.00	<2.00	**2.79**	**2.28**	<0.200	<0.200	**91.5**	**60**	--	--	<2.00	<2.00	**13.3**	**12.8**
AREA 2																							
MW-17	12/1/2010	**0.09 J**	--	**32.8**	--	**7.39**	--	<1.0	--	**3.31**		**3.70**	--	**2.98**	--	**2,360**	--	--	--	**2.78**	--	**9.11 J**	--
	12/1/2010 DUP	**0.081 J**	--	**32.2**	--	**73.2**	--	<1.0	--	**3.26**		**3.53**	--	**2.92**	--	**2,520**	--	--	--	**2.83**	--	**8.6 J**	--
	6/2/2011	**0.06 J**	--	**2.94**	--	**24.9**	--	<1.0	--	**1.14 J**		**1.49 J**	--	**0.61 J**	--	**2,490**	--	--	--	**4.50**	--	**3.31 J**	--
	12/14/2011	**0.09 J**	--	**7.20**	--	**2.46**	--	<1.0	--	**2.73**		**2.42**	--	**1.69**	--	**2,190**	--	--	--	**3.18**	--	**7.06**	--
	12/14/2011 DUP	**0.11 J**	--	**7.85**	--	**25.1**	--	<1.0	--	**2.60**		**2.63**	--	**1.97**	--	**2,260**	--	--	--	**3.24**	--	**8.04 J**	--
	3/27/2012	--	--	**4.20**	--	**23.0**	--	<0.19	--	<0.84		**0.53 J**	--	**0.26 J**	--	**3,300**	--	--	--	**2.20**	--	<3.1	--
	3/27/2012 DUP	--	--	**4.30**	--	**22.0**	--	<0.19	--	<0.84		**0.71 J**	--	**0.31 J**	--	**4,000**	--	--	--	**2.20**	--	<3.1	--
	7/6/2012	<1.0	--	**19.6**	--	**44.3**	--	<1.0	--	<2.0		**2.86**	--	**1.94**	--	**4,810**	--	--	--	**5.90**	--	**7.31**	--
	12/5/2012	<1.0	--	**16.1**	--	**36.1**	--	<1.0	--	<2.0		<2.0	--	<1.0	--	**5,130**	--	--	--	**3.01**	--	**4.17**	--
	6/19/2013	<1.0	--	**17.2**	--	**25.9**	--	<1.0	--	<2.0		<2.0	--	<1.0	--	**6,260**	--	--	--	**5.03**	--	<4.0	--
	6/19/2013 DUP	<1.0	--	**19.0**	--	**26.7**	--	<1.0	--	<2.0		<2.0	--	<1.0	--	**5,890**	--	--	--	**4.59**	--	<4.0	--
	12/16/2013	<1.00	--	**11.8**	--	**21.1**	--	<0.200	--	**1.08**		<1.00	--	**0.378**	--	**3,010**	--	--	--	**2.11**	--	<4.00	--
	12/16/2013 DUP	<1.00	--	**11.4**	--	**21.4**	--	<0.200	--	<1.00		<1.00	--	**0.456**	--	**2,990**	--	--	--	**2.11**	--	<4.00	--
ROD Cleanup Level [6.]		NA		0.018		NA		0.091		11		2.74		0.54		430		NA		NA		36.5	
JSCS SLV [7.]		6		0.045		NA		0.094		100		2.7		0.54		50		0.77		16		36	

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-4
Historical Groundwater Analytical Results – Metals
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	Antimony		Arsenic		Barium		Cadmium		Chromium		Copper		Lead		Manganese		Mercury		Nickel		Zinc	
		Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved
		Concentrations in µg/L (ppb)																					
AREA 2																							
MW-17 (continued)	6/11/2014	<1.00	--	**18.1**	--	**48.2**	--	**0.200**	--	**1.40**		<1.00	--	<0.200	--	**5,850**	--	--	--	**4.79**	--	<4.00	--
	6/11/2014 DUP	<1.00	--	**18.9**	--	**49.5**	--	**0.344**	--	**1.46**		<1.00	--	<0.200	--	**5,940**	--	--	--	**5.44**	--	<4.00	--
	12/23/2014	<1.00	--	**12.9**	--	**21.3**	--	<0.200	--	<1.00		**1.51 J**	--	<0.200	--	**4,060**	--	--	--	**1.09**	--	<4.00	--
	12/23/2014 DUP	<1.00	--	**12.8**	--	**21.5**	--	<0.200	--	<1.00		<0.200	--	<0.200	--	**3,980**	--	--	--	**1.09**	--	<4.00	--
	7/6/2015	<1.00	--	**18.6**	--	**43.2**	--	**0.0444**	--	**0.711**	--	**1.06**	--	**0.267**	--	**4,100**	--	--	--	**1.53**	--	**3.06**	--
	12/17/2015	<1.00	<1.00	**11.7**	**5.09**	**30.6**	**4.76**	**0.0667 J**	<0.200	**1.00**	<1.00	**2.13**	<1.00	**0.922**	<0.200	**3,660**	**3,730**	--	--	**2.46**	**1.36**	**13.7**	**4.02**
	12/17/2015 DUP	<1.00	<1.00	**11.8**	**4.56**	**30.9**	**4.53**	<0.200	<0.200	**0.844 J**	<1.00	**1.87**	<1.00	**0.767**	<0.200	**3,700**	**3,720**	--	--	**2.16**	**3.02**	**5.9**	**5.73**
	6/22/2016	<1.00	<1.00	**14**	**2.92**	**37.7**	**12.40**	<0.200	<0.200	<1.00	<1.00	**0.567**	<1.00	**0.2**	<0.200	**5,050**	**5,170**	--	--	**2.64**	**2.92**	**2.11**	<4.00
	6/22/2016 DUP	<1.00	<1.00	**17.5**	**2.88**	**41.9**	**11.60**	<0.200	<0.200	<1.00	<1.00	<1.00	0.79	**0.233**	<0.200	**4,820**	**4,710**	--	--	**1.63**	**1.70**	<4.00	**2.53**
	12/9/2016	<1.00	<1.00	**13.1**	**12.0**	**26.6**	**19.8**	<0.200	<0.200	**0.733 J**	**0.544 J**	**2.02**	**0.656 J**	**0.300**	<0.200	**3,700**	**3,680**	--	--	**1.69**	**1.29**	**6.68**	**5.61**
	12/9/2016 DUP	<1.00	<1.00	**13.1**	**11.9**	**26.1**	**19.5**	<0.200	<0.200	**0.611 J**	<1.00	**2.23**	<1.00	**0.344**	<0.200	**3,780**	**3,670**	--	--	**1.78**	**1.20**	**6.70**	**4.20**
	6/28/2017	<1.00	<1.00	**15.8**	**14.2**	**115**	**108**	**0.0667 J**	<0.200	**1.03**	<1.00	**1.88**	**0.9 J**	**0.244**	<0.200	**15,900**	**16,400**	--	--	**17.6**	**18.3**	**2.89 J**	<4.00
	12/13/2017	<1.00	<1.00	**12.9**	**15.1**	**27.9**	**26**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**5,580 Q42**	**6,330**	--	--	**2.48**	**1.12**	<4.00	<4.00
	12/13/2017 DUP	<1.00	<1.00	**12.4**	**15.2**	**27.8**	**26.3**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**5,640**	**6,270**	--	--	**2.33**	**1.22**	<4.00	<4.00
	6/27/2018	<1.00	<1.00	**20.6**	**23**	**59.6**	**54.6**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**6,570**	**6,810**	<0.0800	<0.160	**6.02**	**3.31**	<4.00	<4.00
	12/19/2018	<1.00	<1.00	**12.7**	**10.9**	**34.1 B-02**	**21.9**	**0.207**	<0.200	**1.73**	<1.00	**4.91**	<1.00	**2.18**	<0.200	**4,630**	**5,240**	--	--	**3.84**	<1.00	**10.9**	<4.00
	12/19/2018 DUP	<1.00	<1.00	**12.2**	**11.9**	**45.9 B-02**	**20.2**	**0.362**	<0.200	**3.61**	<1.00	**7.30**	<1.00	**4.63**	<0.200	**4,760**	**4,640**	--	--	**6.10**	<1.00	**15.0**	<4.00
	3/6/2019	<1.00	<1.00	**12.7**	**12.9**	**35.4**	**34.8**	<0.200	<0.200	**1.17**	**1.59**	**2.15**	**1.98**	**0.63**	**0.591**	**5,040**	**4,800**	--	--	**2.69**	**1.84**	**6.98**	<4.00
	6/19/2019	<1.00	<1.00	**16.9**	**14.4**	**70.3 B-02**	**61.0**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**5,840**	**5,130**	--	--	**2.45**	**1.98**	<4.00	<4.00
	6/19/2019 DUP	<1.00	<1.00	**16.5**	**14.7**	**68.2 B-02**	**62.3**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**6,010**	**5,170**	--	--	**2.44**	**1.71**	<4.00	<4.00
	9/10/2019	<1.00	<1.00	**12.6**	**12.9**	**26.1**	**25.1**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**7,210**	**6,680**	--	--	**1.23**	<1.00	<4.00	<4.00
	9/10/2019 DUP	<1.00	<1.00	**12.5**	**13.1**	**26.0**	**26.1**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**7,030**	**7,300**	--	--	<1.00	<1.00	<4.00	<4.00
	12/16/2019	<1.00	<1.00	**7.14**	**7.22**	**17.7**	**17.6**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**4,240**	**4,040**	--	--	<1.00	<1.00	<4.00	<4.00
	12/16/2019 DUP	<1.00	<1.00	**7.42**	**7.29**	**19.1**	**17.6**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**4,090**	**4,030**	--	--	<1.00	<1.00	**11.5**	<4.00
MW-23	12/17/2015	<1.00	<1.00	**1.24**	**1.22**	**20.4**	**19.4**	<0.200	<0.200	**4.07**	**3.91**	<1.00	<1.00	**0.533**	<0.200	**2.81**	**0.722 J**	--	--	**0.756 J**	**0.611 J**	**7.38**	**5.08**
MW-24	12/17/2015	<1.00	<1.00	**1.51**	<1.00	**111**	**4.8**	**0.278**	<0.200	**15.8**	**10.1**	**2.54**	**0.711 J**	**2.51**	<0.200	**6,720**	**1,820**	--	--	**10.8**	**3.98**	**22**	**6.24**
	12/7/2016	<1.00	<1.00	**3.33**	**0.778 J**	**225**	**18.0**	**0.232**	<0.200	**14.2**	<1.00	**2.41**	<1.00	**0.728**	<0.200	**10,900**	**2,750**	--	--	**11.9**	**3.79**	**15.3**	**3.89 J**
	12/13/2017	<1.00	<1.00	**2.18**	<1.00	**183**	**20.7**	**0.514**	<0.200	**13.6**	<1.00	**9.82**	<1.00	**2.29**	<0.200	**9,860**	**3,330**	--	--	**17.0 B-02**	**3.90**	**30.1**	<4.00
	12/20/2018	<1.00	<1.00	**1.43**	<1.00	**135 B-02**	**21.7**	<0.200	<0.200	**5.29**	<1.00	**1.59**	<1.00	**0.506**	<0.200	**6,260**	**3,040 Q-42**	--	--	**10.2**	**3.94**	**12.7**	<4.00
	12/10/2019	<1.00	<1.00	**2.26**	<1.00	**166**	**19.4**	<0.200	<0.200	**8.73**	<1.00	**1.09**	<1.00	**0.555**	<0.200	**11,200**	**2,840**	--	--	**10.2**	**2.85**	**8.75**	<4.00
MW-31	1/21/2019	--	<1.00	--	**14.4**	--	**55.0**	--	<0.200	--	<1.00	--	<1.00	--	<0.200	--	**6,540**	--	--	--	**2.86**	--	<4.00
MW-66	12/8/2009	<20	--	**112**	--	**1,900**	--	**5.2 J**	--	**234**	--	**415**	--	**303**	--	**14,600**	--	--	--	**249**	--	**895**	--
	6/3/2010	**0.60 J**	--	**69**	--	**1,870**	--	**2.9 J**	--	**193**	--	**342**	--	**214**	--	**9,540**	--	--	--	**231**	--	**825**	--
	12/1/2010	**0.198 J**	--	**63.6**	--	**579**	--	<2.0	--	**36.9**	--	**64.7**	--	**44.4**	--	**6,880**	--	--	--	**50.4**	--	**167**	--
	6/2/2011	**0.06 J**	--	<1.0	--	<1.0	--	<1.0	--	<1.0	--	<1.0	--	<1.0	--	**0.32 J**	--	--	--	<2.0	--	<1.0	--
	12/15/2011	**0.11 J**	--	**32.7**	--	**147**	--	<1.0	--	**3.24**	--	**3.82**	--	**1.74**	--	**4,040**	--	--	--	**5.10**	--	**9.23 J**	--
	3/27/2012	--	--	**32.0**	--	**320**	--	**0.21**	--	**25.0**	--	**37.0**	--	**19.0**	--	**4,900**	--	--	--	**24.0**	--	**79.0**	--
	7/6/2012	<1.0	--	**23.1**	--	**144**	--	<1.0	--	<2.0	--	**2.11**	--	<1.0	--	**3,460**	--	--	--	**4.70**	--	**10.6**	--
	12/5/2012	<1.0	--	**22.2**	--	**190**	--	<1.0	--	**6.00**	--	**11.8**	--	**6.83**	--	**3,940**	--	--	--	**10.1**	--	**23.4**	--
	6/19/2013	<1.0	--	**12.4**	--	**138**	--	<1.0	--	**4.24**	--	**6.81**	--	**3.81**	--	**2,980**	--	--	--	**5.99**	--	**14.0**	--
	12/16/2013	<1.00	--	**30.8**	--	**241**	--	**0.311**	--	**15.3**	--	**26.6**	--	**14.9**	--	**4,020**	--	--	--	**20.1**	--	**60.4**	--
	6/11/2014	<1.00	--	**15.1**	--	**116**	--	<1.00	--	**1.02**	--	**2.96**	--	**0.389**	--	--	--	--	--	**3.94**	--	**6.43**	--
	12/23/2014	<1.00	--	**17.5**	--	**127**	--	<0.200	--	**0.856 J**	--	**1.67**	--	**0.500**	--	**3,690**	--	--	--	**3.79**	--	**12.2**	--
ROD Cleanup Level [6.]		NA		0.018		NA		0.091		11		2.74		0.54		430		NA		NA		36.5	
JSCS SLV [7.]		6		0.045		NA		0.094		100		2.7		0.54		50		0.77		16		36	

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-4
Historical Groundwater Analytical Results – Metals
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	Antimony		Arsenic		Barium		Cadmium		Chromium		Copper		Lead		Manganese		Mercury		Nickel		Zinc	
		Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved
		Concentrations in µg/L (ppb)																					
AREA 2																							
MW-66 (continued)	6/30/2015	<1.00	--	**12.0**	--	**60.1**	--	<0.200	--	<1.00	--	**1.56**	--	**0.122**	--	**2,840**	--	--	--	**1.17**	--	**7.38**	--
	12/17/2015	<1.00	<1.00	**28.8**	**8.67**	**135**	**42.3**	<0.200	<0.200	**2.74**	<1.00	**4.79**	<1.00	**2.77**	<0.200	**3,430**	**3,490**	--	--	**4.88**	**2.9**	**11.6**	**2.73 J**
	6/22/2016	<1.00	<1.00	**12.1**	**1.68**	**76.8**	**12.6**	<0.200	<0.200	**1.16**	<1.00	**1.91**	<1.00	**0.989**	<0.200	**1,680**	**1,490**	--	--	**1.63**	**0.833**	**5.74**	<4.00
	12/12/2016	<1.00	<1.00	**14.6**	**14.0**	**77.1**	**68.6**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**1,860**	**1,730**	--	--	**3.57**	**3.33**	**2.73 J**	**2.77 J**
	6/27/2017	<1.00	<1.00	**14.2**	**13.9**	**37.1**	**37.5**	**0.0556 J**	<0.200	**0.678 J**	<1.00	**0.944 J**	<1.00	**0.222**	<0.200	**953**	**941**	--	--	**1.27**	**1.03**	**5.38**	<4.00
	12/13/2017	<1.00	<1.00	**11.6**	**11.4**	**45.2**	**43.5**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**1,150**	**1,090**	--	--	<1.00	<1.00	<4.00	<4.00
	6/27/2018	<1.00	<1.00	**12.0**	**12.6**	**46.3**	**46.4**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**1,120**	**1,110**	<0.0800	<0.160	<1.00	<1.00	<4.00	<4.00
	12/17/2018	<1.00	<1.00	**12.8**	**11.0**	**120**	**67.0**	<0.200	<0.200	**6.83**	**1.39 Q-17**	**16.0**	**1.16 Q-17**	**7.50**	<0.200	**1,600 Q-42**	**1,450 Q-42**	--	--	**7.39**	<1.00	**41.4**	**4.37**
	6/20/2019	<1.00	<1.00	**9.97**	**9.67**	**49.3 B-02**	**48.2**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**1,150**	**1,180**	--	--	<1.00	<1.00	<4.00	<4.00
	12/12/2019	<1.00	<1.00	**9.84**	**10.1**	**74.7**	**71.5**	<0.200	<0.200	<2.00	<2.00	<2.00	<1.00	**0.217**	<0.200	**1,730**	**1,180**	--	--	<2.00	<1.00	**5.05**	<4.00
MW-81	12/8/2009	<5.0	--	**22.4**	--	**643**	--	<5.0	--	**72.8**	--	**112**	--	**52.8**	--	**4,610**	--	--	--	**82.4**	--	**244**	--
	12/8/2009 DUP	<5.0	--	**23.8**	--	**750**	--	<5.0	--	**83.6**	--	**134**	--	**56.9**	--	**5,060**	--	--	--	**97.3**	--	**291**	--
	12/1/2010	**0.08 J**	--	**12.1**	--	**166**	--	<1.0	--	**9.9**	--	**15**	--	**6.1**	--	**2,710**	--	--	--	**10.1**	--	**29.2**	--
	12/15/2011	**0.06**	--	**11.60**	--	**54.7**	--	<1.0	--	<2.0	--	**0.58 J**	--	<1.0	--	**1,920**	--	--	--	**0.78 J**	--	<10	--
	3/28/2012	--	--	**13.00**	--	**110**	--	<0.19	--	**4.00**	--	**4.90**	--	**1.70**	--	**2,900**	--	--	--	**4.10**	--	**10.0**	--
	7/6/2012	<1.0	--	**11.70**	--	**74.2**	--	<1.0	--	<2.0	--	<2.0	--	<1.0	--	**2,390**	--	--	--	<2.0	--	<4.0	--
	12/5/2012	<1.0	--	**11.1**	--	**67.7**	--	<1.0	--	<2.0	--	<2.0	--	<1.0	--	**1,910**	--	--	--	<2.0	--	<4.0	--
	12/16/2013	<1.00	--	**12.1**	--	**73.4**	--	<0.200	--	**2.51**	--	**6.87**	--	**0.878**	--	**2,230**	--	--	--	**2.83**	--	**27.2**	--
	12/23/2014	<1.00	--	**11.7**	--	**92.3**	--	<0.200	--	**0.811 J**	--	**0.889 J**	--	**0.278**	--	**2,960**	--	--	--	**1.37**	--	**3.18 J**	--
	12/17/2015	<1.00	<1.00	**15**	**4.86**	**139**	**48.9**	<0.200	<0.200	**1.18**	<1.00	**0.744 J**	<1.00	**0.333**	<0.200	**3,840**	**3,920**	--	--	**3.17**	**2.46**	**3.18 J**	**2.42 J**
	12/9/2016	<1.00	<1.00	**8.70**	**8.16**	**101**	**91.3**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**3,480**	**3,380**	--	--	**1.00**	**0.811 J**	**2.71 J**	**2.74 J**
	12/13/2017	<1.00	<1.00	**15.1**	**6.52**	**547**	**103**	**0.642**	<0.200	**55.5**	<1.00	**96.1**	<1.00	**34.6**	<0.200	**4,650**	**2,900**	--	--	**85.3**	<1.00	**244**	<4.00
	12/17/2018	<1.00	<1.00	**5.06**	**4.63**	**102**	**97.4**	<0.200	<0.200	<1.00	<1.00	**2.29**	<1.00	<0.200	<0.200	**2,600**	**2,620**	--	--	<1.00	<1.00	**8.62**	<4.00
	12/16/2019	<1.00	<1.00	**4.15**	**4.22**	**95.6**	**93.3**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**2,920**	**2,940**	--	--	<1.00	<1.00	<4.00	<4.00
MW-82	7/2/2019	--	<1.00	--	**41.2**	--	**190**	--	<0.200	--	<1.00	--	<1.00	--	<0.200	--	**1,790**	--	--	--	**3.54**	--	**26.6**
	9/10/2019	--	<1.00	--	**26.4**	--	**170**	--	<0.200	--	<1.00	--	<1.00	--	<0.200	--	**2,250 Q-42**	--	--	--	**1.66**	--	**12.3**
	12/12/2019	**5.98**	**5.81**	**233**	**246**	**474**	**467**	<0.200	<0.200	<2.00	<1.00	<2.00	<1.00	**0.365**	<0.200	**2,280**	**2,220**	--	--	**11.1**	**11.1**	**80.5**	**78.1**
MW-83	7/2/2019	--	<1.00	--	**22.0**	--	**102**	--	<0.200	--	<1.00	--	<1.00	--	<0.200	--	**4,330**	--	--	--	<2.00	--	<4.00
	9/11/2019	--	<1.00	--	**24.7**	--	**89.6**	--	<0.200	--	<1.00	--	<1.00	--	<0.200	--	**3,950**	--	--	--	**2.27**	--	<4.00
	12/12/2019	<1.00	<1.00	**23.8**	**24.2**	**90.9**	**89.6**	<0.200	<2.00	<1.00	<10.0	<1.00	<10.0	<0.200	<0.200	**4,050**	**4,190**	--	--	**2.21**	<10.0	<4.00	<40.0
MW-84	7/2/2019	--	<1.00	--	**1.10**	--	**49.2**	--	<0.200	--	<1.00	--	<1.00	--	<0.200	--	**1,370**	--	--	--	**2.04**	--	**7.27**
	9/10/2019	--	<1.00	--	**4.67**	--	**38.1**	--	<0.200	--	<1.00	--	<1.00	--	<0.200	--	**974**	--	--	--	<1.00	--	<4.00
	12/16/2019	<1.00	<1.00	**2.32**	**2.55**	**38.7**	**34.2**	<0.200	<0.200	**1.20**	<1.00	**1.93**	<1.00	**1.19**	<0.200	**1,010**	**1,020**	--	--	**1.12**	<1.00	**4.16**	<4.00
MW-85	7/2/2019	--	<1.00	--	**3.31**	--	**128**	--	<0.200	--	<1.00	--	<1.00	--	<0.200	--	**4,240**	--	--	--	<2.00	--	<4.00
	9/11/2019	--	<1.00	--	**1.67**	--	**87.1**	--	<0.200	--	<1.00	--	<1.00	--	<0.200	--	**3,230**	--	--	--	<1.00	--	<4.00
	12/12/2019	<1.00	<1.00	<1.00	<1.00	**66.6**	**60.6**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**2,200**	**2,250**	--	--	<1.00	<1.00	<4.00	<4.00
MW-92	7/2/2019	--	**1.82**	--	**2.24**	--	**91.2**	--	<0.200	--	<1.00	--	<1.00	--	<0.200	--	**1,430 Q-42**	--	--	--	**4.07**	--	**10.1**
	9/10/2019	--	**2.61**	--	<1.00	--	**48.3**	--	<0.200	--	<1.00	--	**5.69**	--	<0.200	--	**436**	--	--	--	**2.38**	--	**42.9**
	12/12/2019	**2.61**	**2.70**	<2.00	<2.00	**48.5**	**46.4**	<0.200	<0.200	<2.00	<2.00	**3.55**	**2.23**	**0.720**	<0.200	**56.8**	**61.9**	--	--	<2.00	<2.00	**6.69**	**14.6**
SMW-11	12/17/2015	<1.00	<1.00	**17.1**	**3.48**	**43**	**11.9**	<0.200	<0.200	**0.833 J**	<1.00	**2.06**	<1.00	**0.811**	**0.233**	**2,130**	**2,210**	--	--	**2.36**	**1.81**	**4.08**	**2.96 J**
	12/15/2017	<1.00	<1.00	**17.2**	**15.6**	**45.5**	**44**	<0.200	<0.200	**1.17**	<1.00	**2.15**	<1.00	**1.38**	**0.419**	**2,200**	**2,240 Q-42**	--	--	**3.97**	**2.65**	**4.26**	<4.00
SMW-12	12/5/2012	<1.12	--	**58.0**	--	**268**	--	<1.12	--	**2.60**	--	**4.49**	--	**1.14**	--	**3,720**	--	--	--	**2.75**	--	**8.36**	--
	12/17/2015	<1.00	<1.00	**6.76**	**5.54**	**63.5**	**48**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**1,920**	**2,000**	--	--	**0.922 J**	**0.756 J**	<4.00	<4.00
	12/9/2016	<1.00	<1.00	**35.5**	**34.7**	**167**	**152**	<0.200	<0.200	<1.00	<1.00	<1.00	**0.578 J**	<0.200	<0.200	**4,870**	**4,680**	--	--	**1.02**	**0.8 J**	**3.18 J**	**3.49 J**
	12/13/2017	<1.00	<1.00	**33.0**	**31.5**	**209**	**195**	<0.200	<0.200	**3.91**	<1.00	**5.50**	<1.00	**2.23**	<0.200	**6,960**	**6,260**	--	--	**5.75**	<1.00	**26.3**	<4.00
ROD Cleanup Level [6.]		NA		0.018		NA		0.094		11		2.74		0.54		430		NA		NA		36.5	
JSCS SLV [7.]		6		0.045		NA		0.094		100		2.7		0.54		50		0.77		16		36	

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-4
Historical Groundwater Analytical Results – Metals
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	Antimony		Arsenic		Barium		Cadmium		Chromium		Copper		Lead		Manganese		Mercury		Nickel		Zinc	
		Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved
		Concentrations in µg/L (ppb)																					
SCHNITZER ASD YARD																							
MW-10	8/20/2009	**0.58 J**	--	**24**	--	**386**	--	**1.52**	--	**44.6**	--	**120**	--	**236**	--	**3,010**	--	**0.603**	--	**390**	--	**376**	--
	6/3/2010	**0.44 J**	--	**5.66 J**	--	**83.7**	--	<0.2	--	**3.92 J**	--	**8.88**	--	**9.68**	--	**1,890**	--	<0.2	--	**47.6**	--	**26.3**	--
	12/1/2010	**0.462 J**	--	**11.4**	--	**183**	--	<2.0	--	**15.2**	--	**31.5**	--	**47**	--	**2,850**	--	**0.165 J**	--	**125**	--	**108**	--
	6/3/2011	**0.39 J**	--	**2.96**	--	**84.3**	--	<1.0	--	<2.0	--	<10	--	**0.29 J**	--	**2,400**	--	<0.2	--	**1.67 J**	--	**3.63 J**	--
	12/15/2011	**0.25 J**	--	**3.55**	--	**75.4**	--	<5.0	--	<10	--	<10	--	<5.0	--	**2,720**	--	<0.2	--	**2.35**	--	<50	--
	3/28/2012	--	--	**2.70**	--	**65**	--	<0.19	--	<0.84	--	<0.53	--	**0.24 J**	--	**2,200**	--	<0.055	--	**0.88 J**	--	<3.1	--
	7/6/2012	<1.0	--	**3.47**	--	**59.8**	--	<1.0	--	<2.0	--	<2.0	--	**1.3**	--	**1,930**	--	<0.08	--	<2.0	--	<4.0	--
	12/5/2012	<1.0	--	**4.12**	--	**85.4**	--	<1.0	--	<2.0	--	<2.0	--	<1.0	--	**2,080**	--	<0.08	--	<2.0	--	<4.0	--
	6/19/2013	<1.0	--	**3.69**	--	**73.6**	--	<1.0	--	<2.0	--	<2.0	--	<1.0	--	**2,030**	--	<0.08	--	**2.91**	--	<4.0	--
	12/13/2013	<1.00	--	**3.06**	--	**81.6**	--	<0.200	--	**2.01**	--	<1.00	--	<0.200	--	**2,750**	--	<0.0800	--	**1.53**	--	**6.87**	--
	6/11/2014	<1.00	--	**3.68**	--	**67.8**	--	<0.200	--	**2.04**	--	<1.00	--	<0.200	--	**1,940**	--	<0.0800	--	**1.69**	--	<4.00	--
	12/19/2014	<1.00	--	**3.20**	--	**77.4**	--	<0.200	--	**0.633 J**	--	**13.8**	--	**0.544**	--	**2,060**	--	<0.0800	--	**2.98**	--	**3.22 J**	--
	12/18/2015	<1.00	<1.00	**3.71**	**1.72**	**77.0**	**22.5**	<0.200	<0.200	**0.678 J**	<1.00	**0.700 J**	<1.00	**0.456**	<0.200	**2,740**	**2,650**	<0.0800	<0.0800	**1.11**	**6.07**	**4.27**	**2.30 J**
	12/12/2016	<1.00	<1.00	**3.27**	**3.09**	**66.1**	**61.2**	<0.200	<0.200	**0.511 J**	<1.00	**1.06**	<1.00	**0.189 J**	<0.200	**1,700**	**1,640**	<0.0800	<0.0800	**1.19**	**0.789 J**	**4.21**	**3.36 J**
	6/28/2017	<1.00	<1.00	**3.06**	**2.86**	**52.6**	**41.5**	<0.200	<0.200	**0.967 J**	<1.00	**1.37**	**4.06**	**0.311**	**0.144 J**	**1,160**	**1,180**	<0.0800	--	**1.73**	**1.33**	**4.52**	**3.76 J**
	6/28/2017 DUP	<1.00	<1.00	**3.14**	**3.00**	**52.8**	**42.1**	<0.200	**0.256**	**0.789 J**	**0.867 J**	**1.77**	**0.711 J**	**0.289**	**0.322**	**1,150**	**1,210**	<0.0800	--	**1.54**	**1.69**	**4.51**	<4.00
	12/14/2017	<1.00	<1.00	**3.03**	**2.78**	**58**	**53.9**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	**0.301**	<0.200	**1,560**	**1,520**	<0.0800	--	**1.40**	<1.00	<4.00	<4.00
	6/26/2018	<1.00	**1.99**	**2.52**	**2.29**	**49.7**	**36.7**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	**0.363**	<0.200	**1,280**	**1,310**	<0.0800	<0.160	<1.00	<1.00	<4.00	<4.00
	12/18/2018	<1.00	<1.00	**2.77**	**2.46**	**55.0**	**50.4**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**1,780**	**1,750**	<0.0800	--	**1.18**	<1.00	<4.00	<4.00
	6/21/2019	<1.00	<1.00	**2.72**	**2.68**	**43.7 B-02**	**36.6**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	**0.255**	<0.200	**986**	**973**	<0.0800	--	**1.14**	<1.00	<4.00	<4.00
	12/10/2019	<1.00	<1.00	**2.44**	**2.16**	**47.3**	**40.6**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**1,630**	**1,470**	<0.0800	--	<1.00	<1.00	<4.00	<4.00
MW-11	12/8/2009	**4.36**	--	**5.32**	--	**123**	--	<2.0	--	**16.8**	--	**62.1**	--	**16.4**	--	**1,480**	--	<0.2	--	**14.5**	--	**64.2**	--
	12/1/2010	**0.087 J**	--	**1.67**	--	**41.2**	--	<1.0	--	<2.0	--	**2.54**	--	**0.557 J**	--	**286**	--	<0.20	--	**7.95**	--	<1.0	--
	12/15/2011	**0.07 J**	--	**2.33**	--	**36.9**	--	<1.0	--	**1.86 J**	--	**2.85**	--	**0.5 J**	--	**946**	--	<0.2	--	**1.16 J**	--	**4.62**	--
	3/29/2012	--	--	**0.13**	--	**33.0**	--	<0.19	--	<0.84	--	**2.40**	--	**0.11 J**	--	**1,100**	--	<0.055	--	**10.0**	--	<3.1	--
	7/6/2012	<1.0	--	<2.0	--	**18.6**	--	<1.0	--	<2.0	--	**2.06**	--	<1.0	--	**949**	--	<0.08	--	**5.27**	--	<4.0	--
	12/5/2012	<1.0	--	<2.0	--	**22.1**	--	<1.0	--	<2.0	--	<2.0	--	<1.0	--	**566**	--	<0.08	--	**8.36**	--	<4.0	--
	12/13/2013	<1.00	--	**1.39**	--	**24.5**	--	<0.200	--	<1.00	--	<1.00	--	<0.200	--	**878**	--	<0.0800	--	<1.00	--	<4.00	--
	12/19/2014	<1.0	--	**1.49**	--	**27.5**	--	**0.0444 J**	--	<1.0	--	<1.0	--	**0.156 J**	--	**934**	--	<0.0800	--	<1.0	--	<4.0	--
	12/16/2015	<1.00	<1.00	**1.44**	<1.00	**44.7**	**12.4**	**0.478**	<0.200	**2.2**	<1.00	**52.1**	<1.00	**3.11**	<0.200	**1,220**	**576**	**0.0936**	<0.0800	**10.6**	**5.67**	14.8	**4.62**
	12/7/2016	<1.00	<1.00	**0.621 J**	**0.611 J**	**21.2**	**20.7**	<0.200	<0.200	<1.00	<1.00	**2.10**	**1.21**	**0.170 J**	<0.200	**388**	**386**	<0.0800	<0.0800	**7.41**	**7.78**	**5.30**	**5.00**
	12/14/2017	<1.00	<1.00	**1.37**	<1.00	**37.2**	**24.0**	<0.200	<0.200	<1.00	<1.00	**3.64**	**1.22**	**0.689**	<0.200	**269**	**251**	<0.0800	--	**7.25**	**7.16**	**4.07**	<4.00
	12/17/2018	<1.00	<1.00	**1.56**	**1.44**	**35.7**	**28.9**	<0.200	<0.200	<1.00	<1.00	**7.82**	<1.00	**2.78**	<0.200	**1,080**	**1,080**	<0.0800	--	**1.01**	<1.00	**13.8**	<4.00
	12/11/2019	<1.00	<1.00	**1.32**	**1.26**	**24.6**	**22.3**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**928**	**857**	<0.0800	--	<1.00	<1.00	<4.00	<4.00
ROD Cleanup Level [6.]		NA		0.018		NA		0.094		11		2.74		0.54		430		NA		NA		36.5	
JSCS SLV [7.]		6		0.045		NA		0.094		100		2.7		0.54		50		0.77		16		36	

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-4
Historical Groundwater Analytical Results – Metals
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	Antimony		Arsenic		Barium		Cadmium		Chromium		Copper		Lead		Manganese		Mercury		Nickel		Zinc	
		Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved
		Concentrations in µg/L (ppb)																					
SCHNITZER ASD YARD																							
MW-14	8/20/2009	**0.16 J**	--	**4.95**	--	**184**	--	**0.19 J**	--	**7.95 J**	--	**19.8**	--	**8.73**	--	**1,170**	--	<0.20	--	**9.48**	--	**48.5**	--
	1/21/2019	--	<1.00	--	**3.94**	--	**107**	--	<0.200	--	<1.00	--	<1.00	--	<0.200	--	**648**	--	--	--	<1.00	--	<4.00
	3/5/2019	--	<1.00	--	**3.05**	--	**92.5**	--	<0.200	--	<1.00	--	<1.00	--	<0.200	--	**585**	--	--	--	<1.00	--	<4.00
	3/5/2019 DUP	--	<1.00	--	**3.10**	--	**94.3**	--	<0.200	--	<1.00	--	<1.00	--	<0.200	--	**598**	--	--	--	<1.00	--	<4.00
	6/20/2019	--	<1.00	--	**3.35**	--	**104**	--	<0.200	--	<1.00	--	<1.00	--	<0.200	--	**751**	--	--	--	**1.37**	--	<4.00
	9/11/2019	--	**1.34**	--	**8.55**	--	**32.8**	--	<0.200	--	<1.00	--	**5.48**	--	**0.677**	--	**3.50**	--	--	--	**1.77**	--	**8.10**
	12/11/2019	<1.00	<1.00	**1.28**	**1.26**	41.2	**34.3**	<0.200	<0.200	<1.00	<1.00	**19.1**	**8.79**	**0.898**	<0.200	**24.7**	**17.0**	--	--	**1.81**	<1.00	**120**	**37.0**
MW-72	8/20/2009	**0.35 J**	--	**15.4**	--	**850**	--	**2.31**	--	**71**	--	**176**	--	**119**	--	**3,760**	--	**0.823**	--	**52.7**	--	**306**	--
	12/8/2009	<10.0	--	**14.1**	--	**630**	--	<10.0	--	**62.3**	--	**139**	--	**94.7**	--	**3,040**	--	<0.2	--	**54.9**	--	**295**	--
	6/3/2010	**0.4 J**	--	**10.3**	--	**349**	--	**0.6 J**	--	**24.9**	--	**52.1**	--	**39.9**	--	**2,170**	--	**0.301**	--	**21.8**	--	**118**	--
	12/2/2010	**0.46 J**	--	**7.76**	--	**310**	--	**0.38 J**	--	**14.6**	--	**28.3**	--	**24.9**	--	**2,120**	--	**0.193 J**	--	**14.1**	--	**75.3**	--
	12/2/2010 DUP	**0.32 J**	--	**7.12**	--	**277**	--	**0.38 J**	--	**12.6**	--	**26.6**	--	**22.5**	--	**2,130**	--	**0.145 J**	--	**12.0**	--	**72.0**	--
	6/2/2011	<1.0	--	**6.30**	--	**211**	--	<1.0	--	**0.88 J**	--	<2.0	--	<1.0	--	**2,700**	--	<0.20	--	**1.96 J**	--	<10	--
	12/15/2011	<2.0	--	**6.08**	--	**196**	--	<2.0	--	<4.0	--	**1.58 J**	--	**0.62 J**	--	**2,140**	--	<0.2	--	**2.48 J**	--	**8.02**	--
	12/15/2011 DUP	**0.08 J**	--	**6.06**	--	**196**	--	<1.0	--	**2.62**	--	**1.31 J**	--	**0.59 J**	--	**2,140**	--	<0.2	--	**2.48 J**	--	**8.02 J**	--
	3/29/2012	--	--	**6.70**	--	**200**	--	<0.19	--	**1.9 J**	--	**0.53 J**	--	**0.11 J**	--	**1,700**	--	**0.11 J**	--	**3.40**	--	**3.9 J**	--
	3/29/2012 DUP	--	--	**6.50**	--	**200**	--	<0.19	--	**1.7 J**	--	**0.53 J**	--	**0.11 J**	--	**1,700**	--	<0.055	--	**3.50**	--	**3.9 J**	--
	7/6/2012	<1.0	--	**10.9**	--	**188**	--	<1.0	--	<2.0	--	<2.0	--	<1.0	--	**1,390**	--	<0.08	--	**5.42**	--	<4.0	--
	7/6/2012 DUP	<1.0	--	**10.9**	--	**188**	--	<1.0	--	<2.0	--	<2.0	--	<1.0	--	**1,370**	--	<0.08	--	**5.66**	--	<4.0	--
	12/5/2012	<1.0	--	**9.26**	--	**184**	--	<1.0	--	<2.0	--	<2.0	--	<1.0	--	**1,620**	--	<0.08	--	**4.47**	--	**4.01**	--
	12/5/2012 DUP	<1.0	--	**8.82**	--	**182**	--	<1.0	--	<2.0	--	<2.0	--	<1.0	--	**1,620**	--	<0.08	--	**4.61**	--	<4.0	--
	6/19/2013	<1.0	--	**6.26**	--	**162**	--	<1.0	--	**3.58**	--	**6.33**	--	**4.59**	--	**1,850**	--	<0.08	--	**4.47**	--	**14.5**	--
	12/13/2013	<1.00	--	**7.24**	--	**178**	--	<0.200	--	**3.62**	--	<1.00	--	**0.28**	--	**1,830**	--	<0.0800	--	**2.87**	--	<4.00	--
	12/13/2013 DUP	<1.00	--	**7.14**	--	**176**	--	<0.200	--	**3.87**	--	**1.97**	--	**0.37**	--	**1,810**	--	<0.0800	--	**3.09**	--	**4.03**	--
	6/11/2014	<1.00	--	**7.03**	--	**179**	--	<0.200	--	**3.99**	--	**2.46**	--	**1.42**	--	**1,940**	--	<00.800	--	**3.12**	--	**4.89**	--
	12/19/2014	<1.0	--	**7.14**	--	**198**	--	<0.200	--	**1.09**	--	**0.556 J**	--	**0.356**	--	**1,790**	--	<0.0800	--	**2.66**	--	**2.87 J**	--
	12/19/2014 DUP	<1.0	--	**7.38**	--	**200**	--	<0.200	--	**1.07**	--	<1.0	--	**0.278**	--	**1,890**	--	<0.0800	--	**2.71**	--	**3.00 J**	--
	12/16/2015	<1.00	<1.00	**6.30**	**1.87**	**196**	**60.5**	<0.200	<0.200	**1.07**	<1.00	<1.00	<1.00	<0.200	<0.200	**2,240**	**2,260**	<0.0800	<0.0800	**2.11**	**1.80**	<4.00	<4.00
	12/16/2015 DUP	<1.00	<1.00	**6.34**	**2.08**	**193**	**66.4**	<0.200	<0.200	**1.12**	<1.00	<1.00	<1.00	<0.200	<0.200	**2,200**	**2,280**	<0.0800	<0.0800	**2.00**	**1.91**	<4.00	**5.66**
	12/7/2016	<1.00	<1.00	**6.68**	**6.24**	**206**	**186**	**0.0444 J**	<0.200	**1.73**	**0.856 J**	**2.63**	<1.00	**1.66**	<0.200	**2,040**	**1,990**	<0.0800	<0.0800	**2.71**	**1.83**	**8.72**	**2.81 J**
	12/7/2016 DUP	<1.00	<1.00	**6.01**	**6.01**	**183**	**183**	**0.0511 J**	<0.200	**1.45**	**1.00**	**2.36**	<1.00	**1.58**	<0.200	**2,140**	**2,000**	<0.0800	<0.0800	**2.07**	**1.74**	**8.18**	**3.34 J**
	6/28/2017	<1.00	<1.00	**7.63**	**8.57**	**202**	**199**	<0.200	<0.200	**1.06**	**1.00**	**0.733 J**	**0.589 J**	**0.27**	<0.200	**1,440**	**1,490**	<0.0800	--	**4.43**	**4.96**	<4.00	<4.00
	12/14/2017	<1.00	<1.00	**6.04**	**6.17**	**175**	**198**	<0.200	<0.200	<1.00	<1.00	**1.32**	<1.00	**0.523**	<0.200	**2,040**	**2,060**	<0.0800	--	**1.99**	**2.25**	**5.15**	<4.00
	12/14/2017 DUP	<1.00	<1.00	**6.12**	**5.99**	**176**	**181**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	**0.705**	<0.200	**2,050**	**1,990**	<0.0800	--	**2.11**	**1.98**	**4.48**	<4.00
	6/26/2018	<0.500	**1.08**	**6.09**	**6.04**	**156**	**175**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**1,410**	**1,620**	<0.0800	<0.160	**1.75**	**2.11**	<4.00	<4.00
	6/26/2018 DUP	<1.00	<1.00	**5.85**	**5.87**	**176**	**169**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**1,620**	**1,580**	<0.0800	<0.160	**2.09**	**1.99**	<4.00	<4.00
	12/18/2018	<1.00	<1.00	**6.17**	**5.97**	**167**	**172**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**1,710**	**1,760**	<0.0800	--	**1.30**	**1.22**	<4.00	<4.00
	12/18/2018 DUP	<1.00	<1.00	**6.13**	**6.17**	**162**	**167**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**1,650**	**1,760**	--	--	**1.39**	**1.21**	<4.00	<4.00
	6/21/2019	<1.00	<1.00	**5.68**	**5.92**	**196 B-02**	**183**	<0.200	<0.200	**1.45**	<1.00	**1.67**	<1.00	**1.22**	<0.200	**2,180**	**2,140**	<0.0800	--	**1.63**	**1.13**	**4.32**	<4.00
	12/13/2019	<1.00	<1.00	**5.64**	**5.83**	**212**	**210**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**1,810**	**1,850**	<0.0800	--	**1.50**	**1.49**	<4.00	<4.00
	12/13/2019 DUP	<1.00	<1.00	**6.03**	**5.61**	**221**	**206**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**1,900**	**1,800 Q-42**	--	--	**1.39**	**1.44**	<4.00	<4.00
ROD Cleanup Level [6.]		NA		0.018		NA		0.094		11		2.74		0.54		430		NA		NA		36.5	
JSCS SLV [7.]		6		0.045		NA		0.094		100		2.7		0.54		50		0.77		16		36	

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-4
Historical Groundwater Analytical Results – Metals
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	Antimony		Arsenic		Barium		Cadmium		Chromium		Copper		Lead		Manganese		Mercury		Nickel		Zinc	
		Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved
		Concentrations in µg/L (ppb)																					
SCHNITZER ASD YARD																							
MW-73	8/20/2009	**0.29 J**	--	**11.9**	--	**643**	--	**1.06**	--	**46.6**	--	**94.2**	--	**85.1**	--	**3,880**	--	**0.549**	--	**29.2**	--	**223**	--
	12/8/2009	<10.0	--	**12.4**	--	**682**	--	<10.0	--	**41.3**	--	**85.4**	--	**84**	--	**3,340**	--	<0.2	--	**32.4**	--	**229**	--
	6/3/2010	**0.4 J**	--	**19.7**	--	**995**	--	**2.2 J**	--	**99.2**	--	**193**	--	**183**	--	**4,700**	--	**1.4**	--	**80.4**	--	**571**	--
	6/3/2010 DUP	**0.35 J**	--	**20.7**	--	**988**	--	**2.3 J**	--	**101**	--	**202**	--	**188**	--	**4,860**	--	**1.07**	--	**81.4**	--	**572**	--
	12/2/2010	**0.3 J**	--	**11.6**	--	**1140**	--	**2.46**	--	**55.8**	--	**105**	--	**142**	--	**6,280**	--	**1.81**	--	**74.6**	--	**700**	--
	6/3/2011	**0.38 J**	--	**3.91**	--	**386**	--	<1.0	--	**4.45**	--	**7.7 J**	--	**6.74**	--	**2,680**	--	**0.0954 J**	--	**4.71**	--	**23.7**	--
	12/16/2011	**0.25 J**	--	**5.55**	--	**356**	--	<5.0	--	**10.1**	--	**14.8**	--	**10.0**	--	**2,360**	--	<0.2	--	**6.8**	--	**4.3 J**	--
	3/28/2012	--	--	**3.9**	--	**350**	--	<0.19	--	**3.00**	--	**3.3**	--	**3.00**	--	**2,500**	--	**0.49**	--	**2.6**	--	**8.9 J**	--
	7/25/2012	<1.0	--	**4.29**	--	**324**	--	<1.0	--	**2.62**	--	**3.38**	--	**3.51**	--	**2,220**	--	<0.08	--	**4.01**	--	**10.8 B**	--
	12/5/2012	<1.0	--	**4.62**	--	**317**	--	<1.0	--	<2.0	--	<2.0	--	<1.0	--	**2,270**	--	<0.08	--	**4.34**	--	**4.19**	--
	6/19/2013	<1.0	--	**4.26**	--	**305**	--	<1.0	--	**2.80**	--	**3.16**	--	**2.61**	--	**2,430**	--	<0.08	--	**4.63**	--	**7.36**	--
	12/16/2013	<1.00	--	**4.3**	--	**337**	--	<0.200	--	**5.52**	--	**2.37**	--	**0.989**	--	**2,470**	--	<0.0800	--	**4.10**	--	**6.19**	--
	6/11/2014	<1.00	--	**8.39**	--	**537**	--	**1.83**	--	**30.30**	--	**182**	--	**69.3**	--	**2,940**	--	**0.218**	--	**38.6**	--	**223**	--
	12/19/2014	<1.00	--	**3.92**	--	**304**	--	**0.0566 J**	--	**2.07**	--	**2.30**	--	**2.16**	--	**2,480**	--	<0.0800	--	**1.84**	--	**5.42**	--
	12/18/2015	<1.00	<1.00	**3.54**	**2.83**	**294**	**108**	**0.0556 J**	<0.200	**1.73**	**0.700 J**	**3.48**	<1.00	**3.9**	<0.200	**2,220**	**2,220**	<0.0800	<0.0800	**3.19**	**1.87**	**12.2**	**3.66 J**
	12/12/2016	**0.789 J**	<1.00	**4.06**	**3.69**	**298**	**272**	**0.200**	<0.200	**2.22**	**1.31**	**11.6**	<1.00	**13.7**	<0.200	**1,970**	**1,950**	**0.0986**	<0.0800	**4.39**	**2.34**	**36.0**	**3.31 J**
	6/28/2017	**0.678 J**	<1.00	**4.01**	**3.94**	**300**	**288**	**0.2**	<0.200	**3.52**	**1.37**	**11.4**	**0.867 J**	**14.1**	**0.1 J**	**2,060**	**2,130**	**0.0723 J**	--	**4.33**	**3.67**	**33**	**43.2**
	12/14/2017	<1.00	<1.00	**4.49**	**3.89**	**290**	**286**	<0.200	<0.200	**2.12**	<1.00	**11.0**	**6.18**	**14.4 B**	**0.527**	**2,220**	**2,160 Q-42**	**0.0858**	--	**2.93**	**1.21**	**37**	**6.60**
	6/27/2018	<1.00	<1.00	**3.90**	**3.56**	**301**	**281**	<0.200	<0.200	**1.71**	**1.36**	**5.54**	<1.00	**7.14**	<0.200	**2,160**	**2,100**	<0.0800	<0.160	**2.36**	**1.22**	**17.7**	**6.34**
	12/18/2018	**1.63**	**1.05**	**4.03**	**3.25**	**260**	**221**	**0.321**	<0.200	**4.01**	<1.00	**16.3**	<1.00	**16.9**	**0.542**	**1,760**	**1,630**	**0.0882**	--	**4.01**	**1.63**	**51.3**	**9.89**
	6/20/2019	<1.00	<1.00	**3.81**	**3.83**	**294 B-02**	**248**	<0.200	<0.200	**1.30**	<1.00	**3.74**	<1.00	**5.04**	<0.200	**2,100**	**2,000**	<0.0800	--	**1.64**	**1.12**	**12.1 B**	<4.00
	12/11/2019	<1.00	<1.00	**3.38**	**3.53**	**278**	**247**	<0.200	<0.200	**1.70**	<1.00	**3.92**	<1.00	**6.00**	**0.878**	**2,110**	**1,960**	<0.0800	--	**4.43**	<1.00	**16.0**	<4.00
MW-74	12/8/2009	**1.2 J**	--	**63.2**	--	**1620**	--	**12.0 J**	--	**270**	--	**619**	--	**646**	--	**13,100**	--	**0.275**	--	**235**	--	**3,120**	--
	6/3/2010	**0.35 J**	--	**2.32**	--	**87.5**	--	<1.0	--	<1.0	--	<1.0	--	<1.0	--	**5,700**	--	**1.31**	--	**1.7 J**	--	**3.39 J**	--
	12/2/2010	**1.1 J**	--	**12**	--	**349**	--	**1.38 J**	--	**44.7**	--	**94.3**	--	**115**	--	**5,730**	--	**0.747**	--	**43.9**	--	**488**	--
	6/3/2011	**4.63**	--	**2.04**	--	**168**	--	<1.0	--	**0.96 J**	--	**4.95 J**	--	**1.0**	--	**1,920**	--	<0.2	--	**11.2**	--	**138**	--
	12/16/2011	**0.38 J**	--	**2.28**	--	**118**	--	<1.0	--	**3.23**	--	**5.06**	--	**3.17**	--	**3,680**	--	<0.2	--	**6.35**	--	**48.6**	--
	3/28/2012	--	--	**1.7**	--	**79**	--	<0.19	--	**3.20**	--	**1.3 J**	--	**0.12 J**	--	**1,300**	--	<0.055	--	**5.8**	--	**57**	--
	7/6/2012	<1.0	--	**10.2**	--	**153**	--	<1.0	--	<2.0	--	<2.0	--	<1.0	--	**3,300**	--	<0.08	--	**5.08**	--	**37.8 B**	--
	12/5/2012	<1.0	--	**7.31**	--	**187**	--	<1.0	--	**2.17**	--	**4.92**	--	**2.3**	--	**4,850**	--	<0.08	--	**4.23**	--	**27.1**	--
	6/19/2013	<1.0	--	**2.26**	--	**95.2**	--	<1.0	--	<2.0	--	**8.94**	--	<1.00	--	**3,540**	--	<0.08	--	**2.86**	--	**20.7**	--
	12/16/2013	<1.00	--	**2.83**	--	**112**	--	<0.200	--	**2.29**	--	**1.12**	--	**0.522**	--	**4,280**	--	<0.0800	--	**2.88**	--	**7.48**	--
	6/11/2014	<1.00	--	**3.28**	--	**98.2**	--	<0.200	--	**1.76**	--	**1.29**	--	<0.200	--	**3,780**	--	<0.0800	--	**2.18**	--	**5.98**	--
	12/22/2014	**1.58**	--	**1.64**	--	**97.4**	--	<0.200	--	<1.00	--	**0.800 J**	--	<0.200	--	**3,480**	--	<0.0800	--	**2.99**	--	**36.2**	--
ROD Cleanup Level [6.]		NA		0.018		NA		0.091		11		2.74		0.54		430		NA		NA		36.5	
JSCS SLV [7.]		6		0.045		NA		0.094		100		2.7		0.54		50		0.77		16		36	

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-4
Historical Groundwater Analytical Results – Metals
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	Antimony		Arsenic		Barium		Cadmium		Chromium		Copper		Lead		Manganese		Mercury		Nickel		Zinc	
		Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved
		Concentrations in µg/L (ppb)																					
SCHNITZER ASD YARD																							
MW-74 (continued)	12/16/2015	<1.00	<1.00	**10.6**	**4.23**	**254**	**87.7**	<0.200	<0.200	**1.29**	**0.622 J**	<1.00	<1.00	<0.200	**0.156 J**	**1,400**	**1,410**	<0.0800	<0.0800	**3.98**	**3.67**	**2.16 J**	**5.99**
	12/9/2016	<1.00	<1.00	**2.07**	**1.71**	**117**	**103**	<0.200	<0.200	<1.00	<1.00	**0.556 J**	<1.00	**0.256**	<0.200	**3,810**	**3,760**	<0.0800	<0.0800	**2.34**	**2.04**	**9.64**	**4.87**
	6/28/2017	<1.00	<1.00	**4.64**	**4.71**	**190**	**184**	**0.0444 J**	<0.200	**1.27**	**1.11**	**0.789 J**	**0.756 J**	**0.111 J**	<0.200	**6,280**	**6,330**	<0.0800	--	**2.06**	**3.33**	<4.00	<4.00
	12/14/2017	<1.00	<1.00	**2.36**	**2.20**	**101**	**98.5**	<0.200	<0.200	<1.00	<1.00	<1.00	**1.38**	<0.200	<0.200	**4,310**	**4,430**	<0.0800	--	**1.30**	**1.83**	**11.4**	**9.17**
	6/27/2018	<1.00	<1.00	**3.76**	**3.52**	**115**	**107**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**4,580**	**4,540**	<0.0800	<0.160	<1.00	<1.00	<4.00	<4.00
	12/19/2018	<1.00	<1.00	**3.3**	**3.17**	**140 B-02**	**124**	<0.200	<0.200	**1.42**	<1.00	**2.24**	<1.00	**1.35**	<0.200	**4,850**	**4,880**	<0.0800	--	**2.57**	<1.00	**24.0**	<4.00
	6/20/2019	<1.00	<1.00	**2.53**	**2.57**	**126 B-02**	**130**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	**0.206**	**4,040**	**4,370 Q-42**	<0.0800	--	<1.00	**1.08**	<4.00	**11.8**
	12/13/2019	**6.52**	**6.65**	<1.00	<1.00	**61.7**	**57.6**	<0.200	<0.200	**3.34**	**3.33**	**3.27**	**2.41**	**0.679**	<0.200	**221**	**180**	<0.0800	--	**2.08**	**1.88**	**28.4**	**25.3**
MW-76	12/8/2009	**1.4 J**	--	**46.4**	--	**1460**	--	**4.6 J**	--	**174**	--	**339**	--	**262**	--	**6,460**	--	<0.2	--	**162**	--	**1,010**	--
	12/2/2010	**0.3 J**	--	**17.7**	--	**459**	--	**0.8 J**	--	**40.6**	--	**86.4**	--	**69.6**	--	**2,250**	--	0.751	--	**36.8**	--	**228**	--
	12/16/2011	**0.16 J**	--	**10.7**	--	**174**	--	<1.0	--	**2.9**	--	**4.41**	--	**2.4**	--	**944**	--	<0.2	--	**5.74**	--	**13.6**	--
	12/16/2011 DUP	**0.16 J**	--	**11.3**	--	**191**	--	<1.0	--	**4.36**	--	**6.17**	--	**3.65**	--	**996**	--	<0.2	--	**7**	--	**20.5**	--
	3/28/2012	--	--	**10**	--	**310**	--	<0.19	--	**1.7 J**	--	**3.8**	--	**1.1**	--	**1,700**	--	**1.1**	--	**5.2**	--	**6.9 J**	--
	3/28/2012 DUP	--	--	**10**	--	**310**	--	<0.19	--	**1.7 J**	--	**3.8**	--	**1.1**	--	**1,600**	--	**0.28**	--	**5.1**	--	**6.7 J**	--
	7/6/2012	<1.0	--	**10.1**	--	**286**	--	<1.0	--	<2.0	--	<2.0	--	<1.0	--	**2,420**	--	<0.08	--	**6.43**	--	<4.0	--
	12/5/2012	<1.0	--	**13.8**	--	**281**	--	<1.0	--	<2.0	--	**2.42**	--	<1.0	--	**1,350**	--	<0.08	--	**6.59**	--	**4.27**	--
	12/16/2013	<1.00	--	**12.6**	--	**180**	--	<0.2000	--	**3.57**	--	**1.30**	--	**0.400**	--	**1,050**	--	<0.0800	--	**5.89**	--	<4.00	--
	12/19/2014	<1.00	--	**11.3**	--	**220**	--	**0.0444 J**	--	**0.911 J**	--	<1.00	--	**0.133 J**	--	**1,490**	--	<0.088	--	**3.42**	--	**3.03 J**	--
	12/23/2015	<1.00	<1.00	**10.9**	**1.44**	**282**	**94.2**	<0.200	<0.200	**1.91**	**0.533 J**	**1.9**	**1.09**	**0.644**	<0.200	**1,500**	**1,470**	<0.0800	<0.0800	**4.92**	**3.9**	**34.1**	**8.99**
	12/7/2016	<1.00	<1.00	**9.96**	**10.7**	**202**	**194**	<0.200	<0.200	**0.514 J**	**0.944 J**	**2.24**	<1.00	<0.200	<0.200	**1,240**	**1,200**	<0.0800	<0.0800	**2.79**	**3.73**	**2.95 J**	**3.56 J**
	12/13/2017	<1.00	<1.00	**11.8**	**10.8**	**165**	**158**	<0.200	<0.200	<1.00	<1.00	<1.00	1	<0.200	<0.200	**1,150**	**1,120**	<0.0800		**3.27**	**3.12**	<4.00	<4.00
	1/21/2019	<1.00	<1.00	**9.56**	**11.2**	**163**	**163**	<0.200	<0.200	<1.00	<1.00	**1.17**	<1.00	<0.200	<0.200	**1,130**	**1,110**	<0.0800	--	**2.32**	**2.13**	<4.00	<4.00
	12/16/2019	<1.00	<1.00	**10.8**	**11.0**	**165**	**156**	<0.200	<0.200	<1.00	<1.00	**1.12**	<1.00	**0.235**	<0.200	**947**	**938**	<0.0800	--	**3.98**	**3.96**	**4.36**	<4.00
MW-77	8/20/2009	**0.20 J**	--	**15.2**	--	**171**	--	**0.12 J**	--	**6.75 J**	--	**20.2**	--	**10.5**	--	**1,850**	--	<0.20	--	**4.82**	--	**28.6**	--
	12/8/2009	<10.0	--	**13.2**	--	**152**	--	<10.0	--	<10.0	--	**12.1 J**	--	**7.5 J**	--	**1,530**	--	<0.2	--	**3.8 J**	--	<100	--
	6/3/2010	<2.0	--	**10.6**	--	**120**	--	<2.0	--	<2.0	--	<2.0	--	<2.0	--	**1,270**	--	<0.2	--	**0.82 J**	--	<2.0	--
	12/2/2010	0.22 J	--	**13**	--	**192**	--	<2.0	--	**10.7**	--	**22.5**	--	**18.5**	--	**1,700**	--	<0.2	--	**8.48**	--	**47.6**	--
	6/3/2011	**0.11 J**	--	**9.7**	--	**171**	--	<1.0	--	**2.86**	--	**6.45 J**	--	**3.68**	--	**1,930**	--	<0.2	--	**2.46**	--	**10.3**	--
	12/16/2011	**0.1 J**	--	**11.3**	--	**121**	--	<1.0	--	**1.06 J**	--	**1.37 J**	--	**1.00**	--	**1,190**	--	<0.2	--	**1.08 J**	--	**6.7 J**	--
	3/28/2012	--	--	**8.1**	--	**99**	--	<0.19	--	**1.8 J**	--	**1.8 J**	--	**1.00**	--	**1,000**	--	<0.055	--	**1.9 J**	--	**3.9 J**	--
	7/6/2012	<1.0	--	**10.5**	--	**160**	--	<1.0	--	**2.87**	--	**5.81**	--	**5.28**	--	**1,500**	--	<0.08	--	**4.34**	--	**12.9 B**	--
	12/5/2012	<1.0	--	**13.1**	--	**175**	--	<1.0	--	**2.43**	--	**7.86**	--	**5.02**	--	**1,620**	--	<0.08	--	**4.81**	--	**11.9**	--
	6/19/2013	<1.0	--	**9.31**	--	**125**	--	<1.0	--	<2.0	--	<2.0	--	<1.0	--	**1,300**	--	<0.08	--	**2.62**	--	<4.0	--
	12/16/2013	<1.00	--	**13.1**	--	**141**	--	<0.200	--	**1.82**	--	**2.10**	--	**0.222**	--	**1,450**	--	<0.0800	--	**3.02**	--	<4.00	--
	6/11/2014	<1.00	--	**9.39**	--	**145**	--	**0.200**	--	**3.81**	--	**2.33**	--	**0.478**	--	**1,450**	--	<0.0800	--	**2.37**	--	<4.00	--
	12/19/2014	<1.00	--	**12.7**	--	**157**	--	<0.200	--	**0.956 J**	--	**0.567 J**	--	**0.178 J**	--	**1,590**	--	<0.0800	--	**1.20**	--	**2.92 J**	--
ROD Cleanup Level [6.]		NA		0.018		NA		0.094		11		2.74		0.54		430		NA		NA		36.5	
JSCS SLV [7.]		6		0.045		NA		0.094		100		2.7		0.54		50		0.77		16		36	

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-4
Historical Groundwater Analytical Results – Metals
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	Antimony		Arsenic		Barium		Cadmium		Chromium		Copper		Lead		Manganese		Mercury		Nickel		Zinc	
		Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved
		Concentrations in µg/L (ppb)																					
SCHNITZER ASD YARD																							
MW-77 (continued)	6/26/2015	<1.00	--	**14.5**	--	**141**	--	**0.0778**	--	**0.811**	--	**0.544**	--	**0.311**	--	**1,500**	--	<0.0800	--	**1.21**	--	**2.97**	--
	12/18/2015	<1.00	**0.644 J**	**5.08**	**3.07**	**81.7**	**47.2**	<0.200	<0.200	**0.767 J**	<1.00	**2.00**	<1.00	**0.289**	<0.200	**1,520**	**1,530**	<0.0800	<0.0800	**1.29**	**1.03**	**2.66 J**	**5.06**
	12/12/2016	<1.00	<1.00	**12.8**	**12.8**	**159**	**146**	<0.200	<0.200	**0.678 J**	**0.756 J**	**0.856 J**	<1.00	**0.300**	<0.200	**1,340**	**1,300**	<0.0800	<0.0800	**1.80**	**1.47**	**4.12**	**3.14 J**
	6/28/2017	<1.00	<1.00	**12.1**	**12.1**	**153**	**147**	<0.200	<0.200	**1.08**	**0.8 J**	**1.33**	**1.27**	**0.211**	<0.200	**1,220**	**1,290**	<0.0800	--	**2.41**	**3.19**	**3.47 J**	<4.00
	12/14/2017	<1.00	<1.00	**14.5**	**14.3**	**142**	**144**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	**0.400**	<0.200	**1,430**	**1,390**	<0.0800		**1.30**	**1.44**	<4.00	<4.00
	6/26/2018	<1.00	<1.00	**12.8**	**12.4**	**150**	**141**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**1,410**	**1,360**	<0.0800	<0.160	<1.00	<1.00	<4.00	<4.00
	12/19/2018	<1.00	<1.00	**14.5**	**15.3**	**150 B-02**	**147**	<0.200	<0.200	<1.00	<1.00	**2.48**	<1.00	**0.283**	<0.200	**1,510**	**1,500**	<0.0800	--	**1.41**	<1.00	**9.69**	<4.00
	6/20/2019	<1.00	<1.00	**11.2**	**11.6**	**131 B-02**	**128**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**1,180**	**1,140**	<0.0800	--	<1.00	<1.00	<4.00	<4.00
	12/10/2019	<1.00	<1.00	**14.9**	**13.6**	**152**	**135**	<0.200	<0.200	<1.00	<1.00	**1.34**	<1.00	**0.460**	<0.200	**1,710**	**1,560**	<0.0800	--	**1.52**	**1.07**	<4.00	<4.00
MW-78	8/20/2009	**1.44**	--	**5.16**	--	**361**	--	**0.3 J**	--	**106**	--	**20**	--	**26.5**	--	**3,150**	--	**0.176 J**	--	**7.81**	--	**67**	--
	12/8/2009	**2.2 J**	--	**8.7 J**	--	**450**	--	<10.0	--	**23.3**	--	**51**	--	**64.7**	--	**3,190**	--	<0.2	--	**20.6**	--	**181**	--
MW-79	8/20/2009	**11.5**	--	**16.5**	--	**577**	--	**2.55**	--	**105**	--	**167**	--	**421**	--	**2,740**	--	**0.703**	--	**56.6**	--	**817**	--
	8/20/2009 DUP	**10.9**	--	**16.7**	--	**576**	--	**2.47**	--	**99.2**	--	**156**	--	**407**	--	**2,870**	--	**1.14**	--	**54.7**	--	**802**	--
	12/5/2009	**5.9 J**	--	**13.5**	--	**535**	--	**2.0 J**	--	**78.5**	--	**131**	--	**393**	--	**2,710**	--	<0.2	--	**47.5**	--	**783**	--
	12/5/2009 DUP	**6.4 J**	--	**15.5**	--	**562**	--	**1.9 J**	--	**90.6**	--	**128**	--	**412**	--	**2,920**	--	<0.2	--	**52.2**	--	**843**	--
	6/3/2010	**5.76**	--	**7.24**	--	**253**	--	**0.76 J**	--	**36.1**	--	**59.2**	--	**125**	--	**1,440**	--	**0.619**	--	**20.9**	--	**287**	--
	12/1/2010	**5.81**	--	**14.8**	--	**690**	--	<2.0	--	**92.2**	--	**142**	--	**262**	--	**2,830**	--	**1.34**	--	**67.8**	--	**727**	--
	6/2/2011	**0.59 J**	--	**0.33 J**	--	**29.8**	--	<1.0	--	**2.94**	--	**9.54**	--	**6.67**	--	**48.6**	--	<0.20	--	**1.77**	--	**58.9**	--
	6/2/2011 DUP	**21.5**	--	**1.02**	--	**181**	--	<1.0	--	<1.0	--	**0.95 J**	--	**0.18 J**	--	**417**	--	<0.20	--	**3.19**	--	**13.0**	--
	12/16/2011	**121**	--	**2.53**	--	**175**	--	<1.0	--	**4.10**	--	**12.8**	--	**12.0**	--	**390**	--	<0.2	--	**12.2**	--	**803**	--
	3/28/2012	--	--	**0.96 J**	--	**73**	--	<0.19	--	<0.84	--	**1.8 J**	--	**0.62 J**	--	**220**	--	<0.055	--	**4.80**	--	**140**	--
	7/6/2012	**29.1**	--	**2.04**	--	**172**	--	<1.0	--	<2.0	--	<2.0	--	<1.0	--	**637**	--	<0.08	--	**6.99**	--	**41.5 B**	--
	12/5/2012	**41.2**	--	<2.0	--	**87.9**	--	<1.0	--	<2.0	--	**3.09**	--	**2.41**	--	**134**	--	<0.08	--	**4.86**	--	**185**	--
	6/19/2013	**57.1**	--	<2.0	--	**173**	--	<1.0	--	<2.0	--	<2.0	--	**1.03**	--	**691**	--	<0.08	--	**10.7**	--	**275**	--
	12/16/2013	**16.7**	--	<1.00	--	**204**	--	<0.200	--	**1.83**	--	**7.34**	--	**1.66**	--	**416**	--	<0.0800	--	**12.7**	--	**76.8**	--
	6/11/2014	**490**	--	**5.48**	--	**256**	--	**0.322**	--	**3.50**	--	**8.92**	--	**7.81**	--	**359**	--	<0.0800	--	**13.7**	--	**736**	--
	12/19/2014	**22.3**	--	**1.11**	--	**207**	--	**0.400**	--	**0.744 J**	--	**9.18**	--	**6.42**	--	**444**	--	<0.0800	--	**11.7**	--	**141**	--
	6/26/2015	**77.5**	--	**1.42**	--	**230**	--	<0.200	--	<1.00	--	**0.556**	--	**2.88**	--	**573**	--	<0.0800	--	**2.9**	--	**11.2**	--
	12/18/2015	**30.1**	**12.1**	**0.800 J**	<1.00	**135**	**131**	**0.111 J**	<0.200	**0.956 J**	<1.00	**5.97**	**0.544 J**	**9.04**	**0.678**	**434**	**422**	<0.0800	<0.0800	**2.38**	**1.79**	**197**	**14.2**
	12/12/2016	<1.00	<1.00	**3.81**	**3.50**	**316**	**284**	**0.0444 J**	<0.200	**4.58**	**1.16**	**8.22**	**0.733 J**	**1.39**	<0.200	**2,330**	**2,310**	<0.0800	<0.0800	**7.41**	**4.69**	**7.54**	**3.08 J**
	6/28/2017	<1.00	<1.00	**3.88**	**3.94**	**301**	**288**	**0.0889 J**	<0.200	**4.42**	**1.37**	**6.73**	**0.833 J**	**3.76**	<0.200	**2,470**	**2,550**	<0.0800	--	**6.22**	**5.98**	**11.9**	<4.00
	12/14/2017	**112**	**99.3**	**2.91**	**2.52**	**198**	**212**	**0.281**	<0.200	<1.00	<1.00	**6.98**	**1.48**	**4.20 B**	<0.200	**633**	**681**	<0.0800	--	**15.8 B-02**	**14.7**	**550**	**244**
	6/26/2018	**9.93**	**6.95**	<1.00	<1.00	**246**	**249**	<0.200	<0.200	<1.00	<1.00	**1.45**	<1.00	**0.525**	<0.200	**705**	**701**	<0.0800	<0.160	<1.00	<1.00	**40.9**	<4.00
	12/18/2018	**35.4**	**18.4**	<1.00	<1.00	**126**	**131**	**0.293**	<0.200	<1.00	<1.00	**6.53**	**3.74**	**2.43**	**1.28**	**360**	**384**	<0.0800	--	**7.03**	**7.15**	**252**	**114**
	6/20/2019	**45.6**	**30.1**	<1.00	<1.00	**330 B-02**	**322**	<0.200	<0.200	<1.00	<1.00	**1.97**	<1.00	**0.666**	<0.200	**909**	**913**	<0.0800	--	**1.72**	**1.48**	**58.5**	<4.00
	12/10/2019	**50.8**	**37.7**	<1.00	<1.00	**187**	**167**	<0.200	<0.200	<1.00	<1.00	**7.36**	**1.31**	**3.24**	**0.278**	**473**	**425**	<0.0800	--	**10.9**	**10.1**	**119**	**22.6**
ROD Cleanup Level [6.]		NA		0.018		NA		0.094		11		2.74		0.54		430		NA		NA		36.5	
JSCS SLV [7.]		6		0.045		NA		0.094		100		2.7		0.54		50		0.77		16		36	

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-4
Historical Groundwater Analytical Results – Metals
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	Antimony		Arsenic		Barium		Cadmium		Chromium		Copper		Lead		Manganese		Mercury		Nickel		Zinc	
		Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved
		Concentrations in µg/L (ppb)																					
SCHNITZER ASD YARD																							
MW-80	12/8/2009	**1.0 J**	--	**63.2**	--	**1170**	--	**2.05 J**	--	**24.1**	--	**79**	--	**113**	--	**3,130**	--	<0.2	--	**21.2**	--	**538**	--
	12/2/2010	**0.64 J**	--	**28.1**	--	**728**	--	**1.9 J**	--	**54.1**	--	**111**	--	**183**	--	**2,490**	--	0.863	--	**46.7**	--	**438**	--
	12/16/2011	**0.95 J**	--	**14.8**	--	**224**	--	<5.0	--	**128**	--	**42.2**	--	**90.4**	--	**3,110**	--	<0.2	--	**79.1**	--	**202**	--
	3/29/2012	--	--	**5.3**	--	**69**	--	<0.19	--	**1.9 J**	--	**3.8**	--	**5.8**	--	**1,800**	--	<0.055	--	**3.00**	--	**22**	--
	7/6/2012	<1.00	--	**5.58**	--	**73.6**	--	<1.0	--	<2.0	--	<2.0	--	**3.1**	--	**1,740**	--	<0.08	--	<2.0	--	**6.11 B**	--
	12/5/2012	<1.0	--	**4.23**	--	**67.9**	--	<1.0	--	<2.0	--	<2.0	--	<1.0	--	**1,600**	--	<0.08	--	<2.0	--	<4.0	--
	12/16/2013	<1.00	--	**10.6**	--	**87.5**	--	<0.200	--	**3.71**	--	**40.6**	--	**5.98**	--	**3,190**	--	<0.0800	--	**2.78**	--	**38.8**	--
	12/23/2014	<1.0	--	**3.62**	--	**86.9**	**6.00**	<0.200	--	**0.544 J**	--	**1.46 J**	--	**1.56**	--	**956**	--	<0.0800	--	**0.889**	--	**10.3**	--
	12/18/2015	<1.00	<1.00	**4.39**	**1.49**	**111**	**55.3**	**0.144 J**	<0.200	**1.58**	<1.00	**8.29**	<1.00	**11.0**	<0.200	**994**	**945**	<0.0800	<0.0800	**2.13**	**1.41**	**70**	**10.7**
	12/9/2016	<1.00	<1.00	**3.78**	**3.36**	**84.6**	**77.5**	<0.200	<0.200	**0.558 J**	<1.00	**0.967 J**	**0.778 J**	**1.01**	**0.656**	**1,080**	**972**	<0.0800	<0.0800	**0.572 J**	**0.722 J**	**7.72**	**5.87**
	12/14/2017	<1.00	<1.00	**2.69**	**1.47**	**88.8**	**74.7**	**0.211**	<0.200	<1.00	<1.00	**12.2**	**1.68**	**3.62 B**	**1.41**	**615**	**641**	<0.0800	--	**4.79**	**3.77**	**38.6**	**11.4**
	12/18/2018	<1.00	<1.00	**1.58**	**1.20**	**66.2**	**61.8**	<0.200	<0.200	<1.00	<1.00	**4.91**	**1.53**	**0.972**	<0.200	**598**	**608**	<0.0800	--	**2.18**	**1.87**	**15.2**	**6.43**
	12/17/2019	**1.09**	<1.00	**3.01**	**2.50**	**41.4**	**34.3**	<0.200	<0.200	**1.39**	<1.00	**9.13**	<1.00	**5.99**	**0.388**	**319**	**315**	<0.0800	--	**2.28**	<1.00	**38.2**	<4.00
MW-86	7/2/2019	--	<1.00	--	**8.09**	--	**218**	--	<0.200	--	<1.00	--	<1.00	--	<0.200	--	**2,110**	--	--	--	<2.00	--	<4.00
	9/10/2019	--	<1.00	--	**15.1**	--	**185**	--	<0.200	--	<1.00	--	<1.00	--	<0.200	--	**2,080**	--	--	--	**1.56**	--	<4.00
	12/13/2019	<5.00	<1.00	**16.4**	**16.2**	**162**	**156**	<1.00	<0.200	<5.00	<1.00	<5.00	<1.00	**0.434**	<0.200	**1,980**	**1,800**	--	--	<20.0	**1.55**	<20.0	<4.00
MW-87	7/2/2019	--	<1.00	--	**16.9**	--	**168**	--	<0.200	--	<1.00	--	<1.00	--	<0.200	--	**2,400**	--	--	--	**2.11**	--	<4.00
	9/11/2019	--	<1.00	--	**17.7**	--	**163**	--	<0.200	--	<1.00	--	<1.00	--	<0.200	--	**2,800**	--	--	--	**2.76**	--	<4.00
	12/11/2019	<1.00	<1.00	**16.7**	**17.2**	**159**	**142**	<0.200	<0.200	**1.01**	<1.00	**1.81**	<1.00	**1.44**	<0.200	**2,590**	**2,450**	--	--	**3.08**	**2.39**	**11.9**	**4.92**
MW-88	7/2/2019	--	<1.00	--	**6.55**	--	**77.2**	--	<0.200	--	<1.00	--	<1.00	--	<0.200	--	**1,480 Q-42**	--	--	--	<2.00	--	<4.00
	7/2/2019 DUP	--	<1.00	--	**6.65**	--	**79.0**	--	<0.200	--	<1.00	--	<1.00	--	<0.200	--	**1,500**	--	--	--	<2.00	--	<4.00
	9/11/2019	--	<1.00	--	**6.18**	--	**86.8**	--	<0.200	--	<1.00	--	<1.00	--	<0.200	--	**1,770**	--	--	--	<1.00	--	<4.00
	9/11/2019 DUP	--	<1.00	--	**6.34**	--	**85.1**	--	<0.200	--	<1.00	--	<1.00	--	<0.200	--	**1,790**	--	--	--	<1.00	--	<4.00
	12/13/2019	<1.00	<1.00	**2.87**	**2.76**	**46.1**	**210**	<0.200	<0.200	<1.00	<1.00	<1.00	<1.00	<0.200	<0.200	**1,610**	**1,590**	--	--	<1.00	<1.00	<4.00	<4.00
MW-89	7/2/2019	--	<1.00	--	**7.53**	--	**110**	--	<0.200	--	<1.00	--	<1.00	--	**0.592**	--	**2,550**	--	--	--	**2.77**	--	**5.89**
	9/10/2019	--	<1.00	--	**10.9**	--	**69.5**	--	<0.200	--	<1.00	--	<1.00	**20.2**	<0.200	**2,230**	**1,930**	--	--	**16.5**	**1.56**	**72.0**	<4.00
ROD Cleanup Level [6.]		NA		0.018		NA		0.094		11		2.74		0.54		430		NA		NA		36.5	
JSCS SLV [7.]		6		0.045		NA		0.094		100		2.7		0.54		50		0.77		16		36	

Notes:

1. Metals by EPA 6000/7000 Series.
2. mg/L (ppm) = milligrams per liter (parts per million).
3. -- = not analyzed or not applicable.
4. **Bold** denotes analyte detected above laboratory reporting limit.
5. J = result is less than the reporting limit, but greater than or equal to the detection limit.
6. ROD Cleanup Levels from U.S. EPA Record of Decision Portland Harbor Superfund Site, Portland, Oregon, January 2017. The level shown is the Groundwater Cleanup Level unless one was not available, in which case the Surface Water Cleanup Level was used, per DEQ Guidance.
7. JSCS SLV = Screening Level Values from Portland Harbor Joint Source Control Strategy (JSCS), December 2005.
8. Shading denotes analyte detected above screening criteria. As instructed by DEQ, concentrations of analytes were compared to the Portland Harbor Cleanup Level. If neither a Groundwater or Surface Water Cleanup Level was available, the data were compared to the Joint Source Control Strategy Screening Level Value.
9. B = analyte detected in an associated blank at a level above the MRL.
10. B-02 = analyte detected in an associated blank at a level between one-half the MRL and the MRL.
11. Q-42 = Matrix spike and/or duplicate analysis was performed on this sample. Percent recovery or RPD for this analyte is outside laboratory control limits. Concentration is estimated.
12. NA = Cleanup Level and SLV not available for this analyte.
13. < = constituent was not detected at a concentration greater than laboratory method reporting limit shown.

Cascadia Associates, LLC

Table E-5
Historical Groundwater Analytical Results – Phthalates
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	Bis(2-Ethylhexyl)phthalate	Butyl benzyl phthalate	Diethylphthalate	Dimethyl phthalate	Di-N-Butyl phthalate	Di-N-Octyl phthalate
		Concentrations in µg/L (ppb)					
AREA 1							
MW-52	1/21/2019	<1.63	<1.63	<1.63	<1.63	<1.63	<1.63
	3/5/2019	<0.377	<0.377	<0.377	<0.377	<0.377	<0.377
	6/19/2019	<0.377	<0.377	<0.377	<0.377	<0.377	<0.377
	9/10/2019	<0.385	<0.385	<0.385	<0.385	<0.385	<0.385
	12/10/2019	<0.392	<0.392	<0.392	<0.392	<0.392	<0.392
MW-62	1/21/2019	<1.63	<1.63	<1.63	<1.63	<1.63	<1.63
	3/6/2019	<0.377	<0.377	<0.377	<0.377	<0.377	<0.377
	6/19/2019	<0.381	<0.381	<0.381	<0.381	<0.381	<0.381
	9/10/2019	<0.381	<0.381	**0.522**	<0.381	<0.381	<0.381
	12/10/2019	<0.374	<0.374	<0.374	<0.374	<0.374	<0.374
MW-90	7/2/2019	<0.377	<0.377	<0.377	<0.377	<0.377	<0.377
	9/10/2019	<0.381	<0.381	<0.381	<0.381	<0.381	<0.381
	12/12/2019	<0.388	<0.388	<0.388	<0.388	<0.388	<0.388
MW-91	7/2/2019	<1.54	<1.54	<1.54	<1.54	<1.54	<1.54
	9/10/2019	<1.51	<1.51	<1.51	<1.51	<1.51	<1.51
	12/12/2019	<1.51	<1.51	<1.51	<1.51	<1.51	<1.51
AREA 2							
MW-17	12/1/2010	**0.627 J**	<0.971	<0.971	<0.971	<0.971	<0.971
	12/1/2010 DUP	**0.62 J**	<0.971	<0.971	<0.971	<0.971	<0.971
	6/2/2011	<0.962	<0.962	<0.962	<0.962	<0.962	<0.962
	12/14/2011	<0.952	<0.952	<0.952	<0.952	<0.952	<0.952
	3/27/2012	**0.70 J**	<0.510	<0.510	<0.510	<0.510	<0.510
	3/27/2012 DUP	<0.51	<0.51	<0.51	<0.51	<0.51	<0.51
	7/6/2012	<0.935	<0.935	<0.935	<0.935	<0.935	<0.935
	12/5/2012	<0.935	**1.34**	<0.935	<0.935	<0.935	<0.935
	6/19/2013	<2.08	<2.83	<2.83	<2.83	<2.83	<2.83
	6/19/2013 DUP	<2.08	<2.83	<2.83	<2.83	<2.83	<2.83
	12/16/2013	<2.12	<2.88	<2.88	<2.88	<2.88	<2.88
	12/16/2013 DUP	<2.12	<2.88	<2.88	<2.88	<2.88	<2.88
	6/11/2014	<2.10	<2.86	<2.86	<2.86	<2.86	<2.86
	6/11/2014 DUP	<2.10	<2.86	<2.86	<2.86	<2.86	<2.86
	12/23/2014	<2.08	<2.83	<2.83	<2.83	<2.83	<2.83
	12/23/2014 DUP	<2.08	<2.83	<2.83	<2.83	<2.83	<2.83
ROD Cleanup Level [7.]		0.2	NA	NA	NA	NA	NA
JSCS SLV [8.]		2.2	3	3	3	3	3

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-5
Historical Groundwater Analytical Results – Phthalates
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	Bis(2-Ethylhexyl)phthalate	Butyl benzyl phthalate	Diethylphthalate	Dimethyl phthalate	Di-N-Butyl phthalate	Di-N-Octyl phthalate
		Concentrations in µg/L (ppb)					
AREA 2							
MW-17 (continued)	7/6/2015	**0.297**	<0.381	<0.381	<0.381	<0.381	<0.381
	12/17/2015	**0.641**	<0.385	<0.385	<0.385	<0.385	<0.385
	6/22/2016	<0.377	<0.377	<0.377	<0.377	<0.377	<0.377
	6/22/2016 DUP	<0.381	<0.381	<0.381	<0.381	<0.381	<0.381
	12/9/2016	<0.374 H	<0.374 H	<0.374 H	<0.374 H	<0.374 H	<0.374 H
	12/9/2016 DUP	<0.374 H	<0.374 H	<0.374 H	<0.374 H	<0.374 H	<0.374 H
	6/28/2017	<1.51	<1.51	<1.51	<1.51	<1.51	<1.51
	12/13/2017	<0.374	<0.374	<0.374	<0.374	<0.374	<0.374
	12/13/2017 DUP	<0.374	<0.374	<0.374	<0.374	<0.374	<0.374
	6/27/2018	<0.377	<0.377	<0.377	<0.377	<0.377	<0.377
	12/19/2018	**0.696**	<0.374	<0.374	<0.374	<0.374	**0.508**
	3/6/2019	<0.377	<0.377	<0.377	<0.377	<0.377	<0.377
	6/19/2019	<0.377	<0.377	<0.377	<0.377	<0.377	<0.377
	9/10/2019	<0.374	<0.374	<0.374	<0.374	<0.374	<0.374
	12/16/2019	<0.381	<0.381	<0.381	<0.381	<0.381	<0.381
	12/16/2019 DUP	<0.381	<0.381	<0.381	<0.381	<0.381	<0.381
MW-31	8/20/2009	<0.952	<0.952	<0.952	<0.952	<0.952	<0.952
	8/20/2009 DUP	**0.713 J**	<0.952	<0.952	<0.952	<0.952	<0.952
	1/21/2019	<0.392	<0.392	<0.392	<0.392	<0.392	<0.392
MW-66	12/16/2013	<10.5	<14.3	<14.4	<14.5	<14.6	<14.7
	6/27/2017	**0.968 J**	<1.51	<1.51	<1.51	<1.51	<1.51
	1/21/2019	<1.51	<1.51	<1.51	<1.51	<1.51	<1.51
MW-81	12/8/2009	**1.03**	<0.962	<0.962	<0.962	<0.962	<0.962
	12/8/2009 DUP	**0.912**	<0.962	<0.962	<0.962	<0.962	<0.962
	12/1/2010	**0.971**	<0.952	<0.952	<0.952	<0.952	<0.952
	12/15/2011	<0.952	<0.952	<0.952	<0.952	<0.952	<9.52
	3/28/2012	<0.510	<0.510	<0.510	<0.510	<0.510	<0.510
	7/6/2012	<0.935	<0.935	<0.935	<0.935	<0.935	<0.935
	12/5/2012	**1.29**	**1.56**	<0.935	<0.935	<0.935	<0.935
ROD Cleanup Level [7.]		0.2	NA	NA	NA	NA	NA
JSCS SLV [8.]		2.2	3	3	3	3	3

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-5
Historical Groundwater Analytical Results – Phthalates
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	Bis(2-Ethylhexyl)phthalate	Butyl benzyl phthalate	Diethylphthalate	Dimethyl phthalate	Di-N-Butyl phthalate	Di-N-Octyl phthalate
		Concentrations in µg/L (ppb)					
AREA 2							
MW-81 (continued)	12/16/2013	<10.5	<14.3	<14.3	<14.3	<14.3	<14.3
	12/23/2014	<2.08	<2.83	<2.83	<2.83	<2.83	<2.83
	12/17/2015	**0.990 J**	<1.52	<1.52	<1.52	<1.52	<1.52
	12/9/2016	<1.50 H	<1.50 H	<1.50 H	<1.50 H	<1.50 H	<1.50 H
	12/13/2017	<1.50	<1.50	<1.50	<1.50	<1.50	<1.50
	12/17/2018	<1.50	<1.50	<1.50	<1.50	<1.50	<1.50
	12/16/2019	<1.54	<1.54	<1.54	<1.54	<1.54	<1.54
MW-82	7/2/2019	<1.51	<1.51	<1.51	<1.51	<1.51	<1.51
	9/10/2019	<1.50	<1.50	<1.50	<1.50	<1.50	<1.50
	12/12/2019	<1.60	<1.60	<1.60	<1.60	<1.60	<1.60
MW-83	7/2/2019	<1.51	<1.51	<1.51	<1.51	<1.51	<1.51
	9/11/2019	<1.51	<1.51	<1.51	<1.51	<1.51	<1.51
	12/12/2019	<1.67	<1.67	<1.67	<1.67	<1.67	<1.67
MW-84	7/2/2019	<0.377	<0.377	<0.377	<0.377	<0.377	<0.377
	9/10/2019	<0.381	<0.381	<0.381	<0.381	<0.381	<0.381
	12/16/2019	<0.377	<0.377	<0.377	<0.377	<0.377	<0.377
MW-85	7/2/2019	<1.51	<1.51	<1.51	<1.51	<1.51	<1.51
	9/11/2019	<1.51	<1.51	<1.51	<1.51	<1.51	<1.51
	12/12/2019	<1.52	<1.52	<1.52	<1.52	<1.52	<1.52
MW-92	7/2/2019	<1.51	<1.51	<1.51	<1.51	<1.51	<1.51
	9/10/2019	<1.52	<1.52	<1.52	<1.52	<1.52	<1.52
	12/12/2019	<1.54	<1.54	<1.54	<1.54	<1.54	<1.54
SMW-12	12/7/2009	<0.971	<0.971	<0.971	<0.971	<0.971	<0.971
ROD Cleanup Level [7.]		0.2	NA	NA	NA	NA	NA
JSCS SLV [8.]		2.2	3	3	3	3	3

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-5
Historical Groundwater Analytical Results – Phthalates
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	Bis(2-Ethylhexyl)phthalate	Butyl benzyl phthalate	Diethylphthalate	Dimethyl phthalate	Di-N-Butyl phthalate	Di-N-Octyl phthalate
		Concentrations in µg/L (ppb)					
SCHNITZER ASD YARD							
MW-14	1/21/2019	<1.67	<1.67	<1.67	<1.67	<1.67	<1.67
	3/5/2019	<0.377	<0.377	<0.377	<0.377	<0.377	<0.377
	6/20/2019	<0.381	<0.381	<0.381	<0.381	<0.381	<0.381
	9/11/2019	<1.51	<1.51	<1.51	<1.51	<1.51	<1.51
	12/11/2019	<1.62	<1.62	<1.62	<1.62	<1.62	<1.62
	12/11/2019 DUP	<1.57	<1.57	<1.57	<1.57	<1.57	<1.57
MW-79	8/20/2009	**0.821 J**	<0.971	<0.971	<0.971	<0.971	<0.971
	8/20/2009 DUP	**1.66**	<0.962	<0.962	<0.962	<0.962	<0.962
	12/8/2009	<0.962	<0.962	<0.962	<0.962	<0.962	<0.962
	12/8/2009 DUP	**0.603 J**	<0.962	<0.962	<0.962	<0.962	<0.962
	6/3/2010	<0.966	<0.966	<0.966	<0.966	<0.966	<0.966
	12/1/2010	**0.781 J**	<0.952	<0.952	<0.952	<0.952	<0.952
	6/2/2011	<0.971	<0.971	<0.971	<0.971	<0.971	<0.971
	6/2/2011 DUP	<0.966	<0.966	<0.966	<0.966	<0.966	<0.966
	12/16/2011	--	<0.952	<0.952	<0.952	<0.952	<0.952
	3/28/2012	**1.80**	<0.510	<0.510	<0.510	<0.510	<0.510
	7/6/2012	**1.35**	<0.935	<0.935	<0.935	<0.935	<0.935
	12/5/2012	<0.935	**1.36**	<0.935	<0.935	<0.935	<0.935
	6/19/2013	<8.30	<11.3	<11.3	<11.3	<11.3	<11.3
	12/13/2013	<8.38	<11.4	<11.4	<11.4	<11.4	<11.4
	6/12/2014	<2.12	<2.88	<2.88	<2.88	<2.88	<2.88
	12/19/2014	<8.30	<11.3	<11.3	<11.3	<11.3	<11.3
	12/18/2015	<1.52	<1.52	<1.52	<1.52	<1.52	<1.52
	6/23/2016	<1.54	<1.54	<1.54	<1.54	<1.54	<1.54
	12/12/2016	<1.54	<1.54	<1.54	<1.54	<1.54	<1.54
	6/28/2017	**0.968 J**	<1.51	<1.51	<1.51	<1.51	<1.51
	12/14/2017	<1.51	<1.51	<1.51	<1.51	<1.51	<1.51
	6/26/2018	<1.52	<1.52	<1.52	<1.52	<1.52	<1.52
	12/18/2018	<1.50	<1.50	<1.50	<1.50	<1.50	<1.50
	6/20/2019	<1.50	<1.50	<1.50	<1.50	<1.50	<1.50
	12/10/2019	<0.748	<0.748	<0.748	<0.748	<0.748	<0.748
MW-80	12/8/2009	<0.962	<0.962	<0.962	<0.962	<0.962	<0.962
ROD Cleanup Level [7.]		0.2	NA	NA	NA	NA	NA
JSCS SLV [8.]		2.2	3	3	3	3	3

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-5
Historical Groundwater Analytical Results – Phthalates
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	Bis(2-Ethylhexyl)phthalate	Butyl benzyl phthalate	Diethylphthalate	Dimethyl phthalate	Di-N-Butyl phthalate	Di-N-Octyl phthalate
		Concentrations in µg/L (ppb)					
SCHNITZER ASD YARD							
MW-86	7/2/2019	<1.51	<1.51	<1.51	<1.51	<1.51	<1.51
	9/10/2019	<1.60	<1.60	<1.60	<1.60	<1.60	<1.60
	12/13/2019	<1.65	<1.65	<1.65	<1.65	<1.65	<1.65
MW-87	7/2/2019	<1.51	<1.51	<1.51	<1.51	<1.51	<1.51
	7/2/2019 DUP	<1.51	<1.51	<1.51	<1.51	<1.51	<1.51
	9/11/2019	<1.51	<1.51	<1.51	<1.51	<1.51	<1.51
	9/11/2019 DUP	<1.51	<1.51	<1.51	<1.51	<1.51	<1.51
	12/11/2019	<1.68	<1.68	<1.68	<1.68	<1.68	<1.68
MW-88	7/2/2019	<1.50	<1.50	<1.50	<1.50	<1.50	<1.50
	9/11/2019	<1.50	<1.50	<1.50	<1.50	<1.50	<1.50
	12/13/2019	<1.51	<1.51	<1.51	<1.51	<1.51	<1.51
MW-89	7/2/2019	<1.57	<1.57	<1.57	<1.57	<1.57	<1.57
	9/10/2019	<1.78	<1.78	<1.78	<1.78	<1.78	<1.78
	12/16/2019	<1.54	<1.54	<1.54	<1.54	<1.54	<1.54
ROD Cleanup Level [7.]		0.2	NA	NA	NA	NA	NA
JSCS SLV [8.]		2.2	3	3	3	3	3

Notes:

1. Phthalates by EPA 8270 SIM.
2. µg/L (ppb) = micrograms per liter (parts per billion).
3. J = result is less than the reporting limit, but greater than or equal to the detection limit.
4. -- = not analyzed or not applicable.
5. **Bold** denotes analyte detected above laboratory reporting limit.
6. H = Holding time violation. Reported values are minimum concentrations.
7. ROD Cleanup Levels from U.S. EPA Record of Decision Portland Harbor Superfund Site, Portland, Oregon, January 2017. The level shown is the Groundwater Cleanup Level unless one was not available, in which case the Surface Water Cleanup Level was used, per DEQ Guidance.
8. JSCS SLV = Screening Level Values from Portland Harbor Joint Source Control Strategy (JSCS), December 2005.
9. NA = Cleanup Level and SLV not available for this analyte.
10. < = constituent was not detected at a concentration greater than laboratory method reporting limit shown.

Cascadia Associates, LLC

Table E-6
Historical Groundwater Analytical Results – Polychlorinated Biphenyls
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	PCBs						
		Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260
		Concentrations in µg/L (ppb)						
AREA 1								
MW-90	7/2/2019	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962
	9/10/2019	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943
	12/12/2019	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952
MW-91	7/2/2019	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935
	9/10/2019	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943
	12/12/2019	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935
AREA 2								
MW-17	1/21/2019	<0.102	<0.102	<0.102	<0.102	<0.102	<0.102	<0.102
	3/6/2019	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943
	6/19/2019	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943
	9/10/2019	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952
	12/16/2019	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952
	12/16/2019 DUP	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962
MW-31	1/21/2019	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952
MW-66	1/21/2019	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952
MW-81	12/1/2010	<0.485	<0.971	<0.485	<0.485	<0.485	<0.485	<0.485
	12/15/2011	<0.0943	<0.189	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943
	3/28/2012	<0.0530	<0.110	<0.0530	<0.0530	<0.0530	<0.0530	<0.0530
	7/6/2012	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935
	12/5/2012	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935
	12/16/2013	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377
	12/23/2014	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377
	12/17/2015	<0.0385	<0.0385	<0.0385	<0.0385	<0.0385	<0.0385	<0.0385
	12/9/2016	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374
	12/14/2017	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935
	12/17/2018	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962
	12/16/2019	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943
MW-82	7/2/2019	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943
	9/10/2019	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943
	12/12/2019	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962
MW-83	7/2/2019	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935
	9/11/2019	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
	12/12/2019	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962
ROD Cleanup Level [6.]		0.014						
JSCS SLV [7.]		0.96	0.034	0.034	0.034	0.034	0.033	0.034

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-6
Historical Groundwater Analytical Results – Polychlorinated Biphenyls
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	PCBs						
		Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260
		Concentrations in µg/L (ppb)						
AREA 2								
MW-84	7/2/2019	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935
	9/10/2019	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943
	12/16/2019	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935
MW-85	7/2/2019	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935
	9/11/2019	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962
	12/12/2019	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943
MW-92	7/2/2019	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952
	9/10/2019	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943
	12/12/2019	<0.0971	<0.0971	<0.0971	<0.0971	<0.0971	<0.0971	<0.0971
SCHNITZER ASD YARD								
MW-14	1/21/2019	<0.104	<0.104	<0.104	<0.104	<0.104	<0.104	<0.104
	3/5/2019	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952
	6/20/2019	<0.0971	<0.0971	<0.0971	<0.0971	<0.0971	<0.0971	<0.0971
	9/11/2019	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952
	12/11/2019	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935
MW-74	12/2/2010	<0.490	<0.980	<0.490	<0.490	<0.490	<0.490	<0.490
	12/16/2011	<0.0943	<0.189	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943
	3/28/2012	<0.0510	<0.10	<0.0510	<0.0510	<0.0510	<0.0510	<0.0510
	7/6/2012	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935
	12/5/2012	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935
	12/22/2014	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377
	12/16/2015	<0.0392	<0.0392	<0.0392	<0.0392	<0.0392	<0.0392	<0.0392
	12/9/2016	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374
	12/13/2017	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952
	12/19/2018	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943
	12/13/2019	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943
MW-76	12/2/2010	<0.485	<0.971	<0.485	<0.485	<0.485	<0.485	<0.485
	12/16/2011	<0.0943	<0.189	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943
	12/16/2011 DUP	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943
	3/28/2012	<0.0530	<0.110	<0.0530	<0.0530	<0.0530	<0.0530	<0.0530
	3/28/2012 DUP	<0.053	<0.11	<0.053	<0.053	<0.053	<0.053	<0.053
	7/6/2012	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935
	12/5/2012	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935
ROD Cleanup Level [6.]		0.014						
JSCS SLV [7.]		0.96	0.034	0.034	0.034	0.034	0.033	0.034

Please refer to notes at end of table.

Cascadia Associates, LLC

Table E-6
Historical Groundwater Analytical Results – Polychlorinated Biphenyls
Gunderson LLC
Portland, Oregon

Well ID	Sample Date	PCBs						
		Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260
		Concentrations in µg/L (ppb)						
SCHNITZER ASD YARD (cont.)								
MW-76	12/16/2013	<0.0392	<0.0392	<0.0392	<0.0392	<0.0392	<0.0392	<0.0392
	12/19/2014	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381
	12/23/2015	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381
	12/7/2016	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374
	12/13/2017	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935
	12/19/2018	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943
	12/16/2019	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943
MW-79	12/19/2014	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381	<0.0381
MW-86	7/2/2019	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935
	9/10/2019	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943
	12/13/2019	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962
MW-87	7/2/2019	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935
	7/2/2019 DUP	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943
	9/11/2019	<0.0971	<0.0971	<0.0971	<0.0971	<0.0971	<0.0971	<0.0971
	9/11/2019 DUP	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943
	12/11/2019	<0.0971	<0.0971	<0.0971	<0.0971	<0.0971	<0.0971	<0.0971
MW-88	7/2/2019	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935
	9/11/2019	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943
	12/13/2019	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943
MW-89	7/2/2019	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943
	9/10/2019	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
	12/16/2019	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943
ROD Cleanup Level [6.]		0.014						
JSCS SLV [7.]		0.96	0.034	0.034	0.034	0.034	0.033	0.034

Notes:

1. PCBs = polychlorinated biphenyls by EPA 8082.
2. µg/L (ppb) = micrograms per liter (parts per billion).
3. -- = not analyzed or not applicable.
4. **Bold** denotes analyte detected above laboratory reporting limit.
5. J = result is less than the reporting limit, but greater than or equal to the detection limit.
6. ROD Cleanup Levels from U.S. EPA Record of Decision Portland Harbor Superfund Site, Portland, Oregon, January 2017. The level shown is the Groundwater Cleanup Level unless one was not available, in which case the Surface Water Cleanup Level was used, per DEQ Guidance.
7. JSCS SLV = Screening Level Values from Portland Harbor Joint Source Control Strategy (JSCS), December 2005.
8. < = constituent was not detected at a concentration greater than laboratory method reporting limit shown.

Cascadia Associates, LLC

APPENDIX F

EXCERPTS FROM *GROUNDWATER AND STORMWATER SOURCE CONTROL EVALUATION, SHELL OIL PRODUCTS US PORTLAND BULK TERMINAL* (URS, 2013)

TABLE 12
SUMMARY OF GROUNDWATER CHEMICAL ANALYTICAL DATA
TPH AND VOLATILE ORGANIC COMPOUNDS

SHELL OIL PRODUCTS US PORTLAND BULK TERMINAL
3800 NW ST. HELENS ROAD
PORTLAND, OREGON

Monitoring Well Number	Date Sampled	Gasoline-Range Hydrocarbons (NWTPH-Gx) (mg/L)	Diesel- & Heavy Oil-Range Hydrocarbons (NWTPH-Dx) (mg/L)		Selected Volatile Organic Compounds[1] (EPA Method 8260B or SW8021B) (µg/L)				
		Gasoline	Diesel	Oil	Benzene	Ethybenzene	Toluene	Xylenes	Naphthalene
JSCS SLV[1]		NE	NE	NE	1.2	7.3	9.8	13	0.2
MW-6	12/30/02	0.55	4.1	<0.5	**4**	<1	<1	<1	<1
	03/25/03	<0.25	1.6	<0.5	**5.3**	<1	<1	<1	<1
	07/14/03	0.35	2.6	<1	**6.7**	<1	<1	<1	<1
	10/27/04	0.39	8.5	<10	**8.5**	<1	<1	<1	<1
	01/20/05	<0.25	9.8	<2.5	**5.6**	<1	<1	<1	**3.2**
	04/21/05	0.45	32	<10	**3.9**	<1	<1	<1	<1
	07/19/05	0.39	8.5	<2.5	**1.4**	2.8	<1	<1	**3.4**
	10/25/05	--	--	--	--	--	--	--	--
	01/19/06	--	--	--	--	--	--	--	--
	04/25/06	1.38	60.1	<0.505	**5.15**	<0.500	0.52	<1.00	<2.00
	07/27/06	0.577	17.5	<0.505	**4.06**	<0.500	1.33	<1.00	<2.00
	11/16/06	0.439	18.5	0.985	**31.1**	<0.500	0.56	<1.00	<2.00
	01/25/07	0.516	93.2	<4.81	**3.69**	<0.500	<0.500	<1.00	<2.00
	05/23/07	0.449	36.9	0.732	1.15	<0.500	<0.500	<1.00	<2.00
	08/30/07	1.22	1390	<19.4	<1.0	<2.0	<2.0	<6.0	<5.0
	11/30/07	0.344	36.1	0.675	0.600	<0.500	0.650	<1.00	<2.00
	02/20/08	0.37	17.5	0.549	**1.35**	<0.500	<0.500	<3.00	<5.00
	05/15/08	0.41	9.1	<0.022	<0.35	<0.34	<0.25	<0.299	<0.3
	10/02/08	0.73	17	<5	<0.5	<5	<5	<5	<5
	12/02/08	580	700	<20	<10	<20	<20	<20	<200
	02/11/09	1.4	5.4	<0.100	0.44	<1.0	0.44	<1.0	<10
	05/22/09	3.8	240	<10.0	<0.50	<1.0	<1.0	<1.0	<10
	01/26/10	1.1	3.7	<0.100	0.84	<1.0	0.45	<1.0	<10
	11/09/10	6	4.3	<0.100	<0.50	<1.0	0.45	<1.0	<10
	02/02/11	0.73	2.9	<0.100	<0.50	<1.0	<1.0	<1.0	<10
	02/22/12	0.287	3.52	<0.600	<1.0	<1.0	<1.0	<2.0	<5.0

TABLE 12
SUMMARY OF GROUNDWATER CHEMICAL ANALYTICAL DATA
TPH AND VOLATILE ORGANIC COMPOUNDS

SHELL OIL PRODUCTS US PORTLAND BULK TERMINAL
3800 NW ST. HELENS ROAD
PORTLAND, OREGON

Monitoring Well Number	Date Sampled	Gasoline-Range Hydrocarbons (NWTPH-Gx) (mg/L)	Diesel- & Heavy Oil-Range Hydrocarbons (NWTPH-Dx) (mg/L)		Selected Volatile Organic Compounds[1] (EPA Method 8260B or SW8021B) (µg/L)				
		Gasoline	Diesel	Oil	Benzene	Ethybenzene	Toluene	Xylenes	Naphthalene
JSCS SLV[1]		NE	NE	NE	1.2	7.3	9.8	13	0.2
MW-8	12/30/02	3.3	1.1	<0.5	**41**	**20**	4.9	**16**	<1
	03/25/03	0.32	1.5	<0.5	**75**	<1	2.7	1.7	<1
	07/14/03	0.97	2.1	<0.5	**39**	<1	2.6	1.3	<1
	10/27/03	1.1	1.2	<0.5	**25**	<1	2.2	1.6	**3.5**
	1/21/2004	<1.2	2.1	<0.5	**28**	<1	2	<1	<1
	04/28/04	1.1	1.4	<0.5	**40**	<1	2	<1	<1
	08/02/04	0.73	1.4	<0.5	**11**	<1	1.3	<1	<1
	10/27/04	1.2	1	<0.5	**20**	5.9	2.2	4.4	**2.1**
	01/20/05	0.76	1.1	<0.5	**33**	<1	2.2	1.8	**1.9**
	04/21/05	1	1.9	<1	**26**	<1	1.8	<1	<1
	07/19/05	1.2	0.62	<0.5	**26**	<1	1.7	1.2	**4.7**
	04/25/06	0.548	4.23	<0.505	**39**	0.56	2.92	1.33	<2.00
	07/27/06	0.655	1.64	<0.500	**8.8**	0.72	0.88	2.3	<2.00
	11/15/06	1.73	2.95	<0.490	**10.8**	**25.2**	2.87	**13.9**	**2.96**
	01/24/07	0.598	3.4	<0.481	**21.8**	2.12	3.16	1.87	<2.00
	05/23/07	1.02	2.8	<0.476	**15.4**	<0.500	1.94	1.11	<2.00
	08/30/07	0.531	1.71	<0.490	**6.69**	<0.500	1.21	1.37	**7.61**
	11/30/07	1.53	3.32	<0.476	**11.2**	**9.18**	3.44	9.50	<2.00
	02/20/08	0.751	2.58	<0.481	**18.7**	1.45	2.29	1.26	<2.00
	05/15/08	1.1	3.8	<0.011	**12**	<0.34	<0.25	<0.299	**1.8**
	10/02/08	0.95	1.7	<0.5	<5	<5	<5	<5	<5
	12/02/08	0.91	1.3	<0.1	**3.3**	<1	0.7	0.26	<5
	02/11/09	0.94	1.3	<0.100	**12**	<1.0	2.3	0.75	<10
	05/22/09	0.81	1.1	<0.100	**5.8**	<1.0	1.7	<1.0	<10
	08/04/09	1.3	1.1	<0.100	**7.8**	<1.0	0.98	0.47	<10
	11/02/09	1.2	1.5	<0.100	**5.4**	<1.0	1.3	0.55	<10
	01/26/10	1.4	1.2	<0.100	**6.1**	1.1	1.5	0.99	<10
	05/26/10	1.2	1.2	<0.100	**3.2**	3.9	0.86	2	**4**
	08/06/10	1.1	--	--	1.1	2.9	0.67	1.8	<10
	11/09/10	1.1	1.2	<0.100	**2**	0.95	0.97	0.78	<10
	02/01/11	1.3	1.8	<0.100	**3.1**	2.8	1.3	2.4	**4.5**
	02/22/12	0.846	1.13	<0.200	**1.8**	0.51	1.3	0.91	<5.0

TABLE 12
SUMMARY OF GROUNDWATER CHEMICAL ANALYTICAL DATA
TPH AND VOLATILE ORGANIC COMPOUNDS

SHELL OIL PRODUCTS US PORTLAND BULK TERMINAL
3800 NW ST. HELENS ROAD
PORTLAND, OREGON

Monitoring Well Number	Date Sampled	Gasoline-Range Hydrocarbons (NWTPH-Gx) (mg/L)	Diesel- & Heavy Oil-Range Hydrocarbons (NWTPH-Dx) (mg/L)		Selected Volatile Organic Compounds[1] (EPA Method 8260B or SW8021B) (µg/L)				
		Gasoline	Diesel	Oil	Benzene	Ethybenzene	Toluene	Xylenes	Naphthalene
JSCS SLV[1]		NE	NE	NE	1.2	7.3	9.8	13	0.2
MW-10	12/30/02	13	1.4	<0.5	**6.5**	**60**	3.2	**184.6**	**16**
	01/19/04	0.83	0.56	<0.5	<1	<1	<1	<1	**4.5**
	01/20/05	8.8	0.7	<0.5	**11**	**25**	4.3	**51.8**	**120**
	01/25/07	1.48	1.39	<0.476	<0.200	<0.500	<0.500	<1.00	**3.28**
	02/20/08	3.23	1.56	<0.481	<0.200	0.56	<0.500	<1.00	**8.55**
	02/11/09	2.5	2.2	<0.100	<0.50	<1.0	<1.0	<1.0	<10
	01/26/10	1.7	0.7	<0.100	<0.50	<1.0	<1.0	<1.0	<10
	02/02/11	<0.100	0.12	<0.100	<0.50	<1.0	<1.0	<1.0	<10
	02/22/12	<0.200	0.368	<0.200	<1.0	<1.0	<1.0	<2.0	<5.0
MW-11	12/30/02	0.75	0.5	<0.5	**7**	<1	<1	1.2	<1
	01/21/04	<0.25	0.83	<0.5	<1	<1	<1	<1	<1
	01/20/05	<0.25	0.47	<0.5	<1	<1	1.5	<1	<1
	01/24/07	0.295	2.17	<0.481	0.21	<0.500	1.07	1.22	<2.00
	02/20/08	0.623	1.71	<0.481	0.31	<0.500	2.21	1.85	<2.00
	02/11/09	0.45	0.84	<0.100	<0.50	<1.0	3.1	0.65	<10
	05/22/09	0.69	0.51	<0.100	<0.50	<1.0	<1.0	1.2	<10
	01/26/10	1.2	1.1	<0.100	0.32	2.8	2.6	4.4	<10
	05/26/10	1.9	0.78	<0.100	<0.50	0.61	5.1	5.1	<10
	02/01/11	1.1	0.91	<0.100	<0.50	1.3	3.8	2.3	<10
	02/22/12	0.338	0.643	<0.200	0.24	<1.0	6.1	<2.0	<5.0
MW-12	12/30/02	4.1	<0.25	<0.5	**130**	<10	<10	11	<10
	01/19/04	3.1	0.53	<0.5	**190**	**14**	<10	11	<10
	01/20/05	1.6	0.31	<0.5	**130**	6.3	4.2	12.8	<1
	01/25/07	2.27	1.35	<0.481	**151**	4.64	4.36	6.81	<2.00
	02/20/08	2.75	0.713	<0.481	**150**	5.4	4.16	6.37	<2.00
	02/11/09	4.5	1.4	<0.100	**100**	1.9	4	6.9	<10
	01/26/10	3.2	1	<0.100	**110**	2.5	3.3	5.9	<10
	02/02/11	5.4	0.84	<0.100	**120**	5.3	4	7.4	<10
	02/22/12	3.05	0.221	<0.190	**110**	1.92	2.7	3.92	<10

TABLE 12
SUMMARY OF GROUNDWATER CHEMICAL ANALYTICAL DATA
TPH AND VOLATILE ORGANIC COMPOUNDS

SHELL OIL PRODUCTS US PORTLAND BULK TERMINAL
3800 NW ST. HELENS ROAD
PORTLAND, OREGON

Monitoring Well Number	Date Sampled	Gasoline-Range Hydrocarbons (NWTPH-Gx) (mg/L)	Diesel- & Heavy Oil-Range Hydrocarbons (NWTPH-Dx) (mg/L)		Selected Volatile Organic Compounds[1] (EPA Method 8260B or SW8021B) (µg/L)				
		Gasoline	Diesel	Oil	Benzene	Ethybenzene	Toluene	Xylenes	Naphthalene
JSCS SLV[1]		NE	NE	NE	1.2	7.3	9.8	13	0.2
MW-13	12/30/02	1.6	0.82	<0.5	1.1	1.9	1.6	3	**8.3**
	01/19/04	3.3	1.3	<0.5	**5.7**	4.6	1.4	10	**1.7**
	01/20/05	2.4	1.5	<0.5	**110**	**45**	8.3	11	<5
	01/24/07	0.424	2.85	0.658	**5.29**	0.71	1.62	<1.00	<2.00
	02/20/08	0.456	1.99	0.634	0.45	<0.500	0.63	<1.00	<2.00
	02/11/09	1.7	2	<0.100	**6**	0.33	1.5	1.6	<10
	01/27/10	0.73	0.89	<0.100	0.36	<1.0	0.72	<1.0	<10
	02/01/11	0.8	0.95	<0.100	<0.50	0.33	0.73	<1.0	<10
	02/22/12	0.53	0.87	<0.200	0.28	<1.0	0.55	<2.0	<5.0
MW-104	12/30/02	<1.2	0.37	<0.5	**5.6**	5.6	<1	1.4	<1
	01/19/04	<0.25	<0.25	<0.5	<1	<1	<1	<1	<1
	01/20/05	<0.25	0.57	<0.5	<1	<1	<1	1.8	<1
	01/24/07	0.526	3.39	<0.481	<0.200	<0.500	0.53	<1.00	<2.00
	02/20/08	0.989	0.856	<0.481	0.92	<0.500	1.41	1.82	**2.28**
	02/11/09	0.17	<0.100	<0.100	<0.50	<1.0	<1.0	<1.0	<10
	01/27/10	0.12	<0.100	<0.100	**3.8**	<1.0	0.37	<1.0	<10
	02/01/11	0.56	0.37	<0.100	**1.8**	<1.0	0.94	0.89	<10
	02/22/12	0.755	1.38	<0.200	**10.1**	0.28	1.2	0.72	<5.0
MW-105	12/31/02	<0.25	<0.25	<0.5	<1	<1	<1	<1	<1
	01/19/04	<0.25	<0.25	<0.5	<1	<1	<1	<1	<1
	01/20/05	<0.25	<0.25	<0.5	<1	<1	<1	<1	<1
	01/25/07	<0.250	<0.240	<0.481	<0.200	<0.500	<0.500	<1.00	<2.00
	02/22/08	<0.250	<0.240	<0.481	<0.200	<0.500	<0.500	<1.50	<2.00
	02/11/09	<0.100	<0.100	<0.100	<0.50	<1.0	<1.0	<1.0	<10
	01/26/10	<0.100	<0.100	<0.100	<0.50	<1.0	<1.0	<1.0	<10
	02/02/11	<0.100	<0.100	<0.100	<0.50	<1.0	<1.0	<1.0	<10
	02/23/12	<0.200	<0.100	<0.200	<1.0	<1.0	<1.0	<2.0	<5.0

TABLE 12
SUMMARY OF GROUNDWATER CHEMICAL ANALYTICAL DATA
TPH AND VOLATILE ORGANIC COMPOUNDS

SHELL OIL PRODUCTS US PORTLAND BULK TERMINAL
3800 NW ST. HELENS ROAD
PORTLAND, OREGON

Monitoring Well Number	Date Sampled	Gasoline-Range Hydrocarbons (NWTPH-Gx) (mg/L)	Diesel- & Heavy Oil-Range Hydrocarbons (NWTPH-Dx) (mg/L)		Selected Volatile Organic Compounds[1] (EPA Method 8260B or SW8021B) (µg/L)				
		Gasoline	Diesel	Oil	Benzene	Ethybenzene	Toluene	Xylenes	Naphthalene
JSCS SLV[1]		NE	NE	NE	1.2	7.3	9.8	13	0.2
MW-106	12/31/02	<0.25	<0.25	<0.5	<1	<1	<1	<1	<1
	01/19/04	<0.25	<0.25	<0.5	<1	<1	<1	<1	<1
	01/20/05	<0.25	<0.25	<0.5	<1	<1	<1	<1	<1
	01/24/07	<0.250	<0.238	<0.476	<0.200	<0.500	<0.500	<1.00	<2.00
	02/20/08	<0.250	<0.236	<0.472	<0.200	<0.500	<0.500	<1.00	<2.00
	02/10/09	<0.100	<0.100	<0.100	<0.50	<1.0	<1.0	<1.0	<10
	01/26/10	<0.100	<0.100	<0.100	<0.50	<1.0	<1.0	<1.0	<10
	02/01/11	<0.100	<0.100	<0.100	<0.50	<1.0	<1.0	<1.0	<10
	02/22/12	<0.200	<0.098	<0.200	<1.0	<1.0	<1.0	<2.0	<5
MW-107	12/30/02	1	0.72	<0.5	**1.8**	<1	<1	1.3	<1
	01/19/04	0.86	1.2	<0.5	**2.3**	<1	<1	1.3	**1.1**
	01/20/05	0.42	1.1	<0.5	**2.5**	1.4	<1	3.6	<1
	01/24/07	0.313	3.75	<0.481	0.49	<0.500	0.56	<1.00	<2.00
	02/20/08	0.847	1.75	<0.481	**1.39**	<0.500	2.52	1.17	<2.00
	02/11/09	0.9	1	<0.100	0.51	<1.0	0.45	0.7	<10
	01/26/10	0.53	0.24	<0.100	**2.9**	<1.0	1.3	0.66	<10
	02/01/11	<0.100	<0.100	<0.100	<0.50	<1.0	<1.0	<1.0	<10
	02/22/12	<0.200	0.761	<0.200	1.1	<1.0	0.32	<2.0	<5.0
MW-108	12/30/02	1.4	2.7	<0.5	**2**	<1	<1	2.6	<1
	01/19/04	<0.25	2.1	<0.5	<1	<1	<1	<1	**1.3**
	01/20/05	0.26	3.2	<0.5	<1	<1	<1	<1	<1
	01/24/07	0.359	16.5	0.615	<0.200	<0.500	<0.500	<1.00	<2.00
	02/20/08	0.535	3.94	<0.481	**3.03**	<0.500	<0.500	<1.00	<2.00
	02/11/09	1.2	2.3	<0.100	**3.2**	<1.0	0.55	0.9	<10
	01/27/10	1.3	2.5	<0.100	**2**	<1.0	0.56	0.85	<10
	02/01/11	0.19	0.25	<0.100	<0.50	<1.0	<1.0	<1.0	<10
	02/22/12	0.247	0.35	<0.200	0.21	<1.0	<1.0	<2.0	<5.0

TABLE 12
SUMMARY OF GROUNDWATER CHEMICAL ANALYTICAL DATA
TPH AND VOLATILE ORGANIC COMPOUNDS

SHELL OIL PRODUCTS US PORTLAND BULK TERMINAL
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PORTLAND, OREGON

Monitoring Well Number	Date Sampled	Gasoline-Range Hydrocarbons (NWTPH-Gx) (mg/L)	Diesel- & Heavy Oil-Range Hydrocarbons (NWTPH-Dx) (mg/L)		Selected Volatile Organic Compounds[1] (EPA Method 8260B or SW8021B) (µg/L)				
		Gasoline	Diesel	Oil	Benzene	Ethybenzene	Toluene	Xylenes	Naphthalene
JSCS SLV[1]		NE	NE	NE	1.2	7.3	9.8	13	0.2
MW-109	12/30/02	3.0	1.2	<0.5	**13**	6.5	2.9	2.9	<1
	01/19/04	2.0	1.1	<0.5	**3.2**	1.5	<1	3.3	**3.4**
	01/20/05	1.7	0.84	<0.5	**6.3**	2.8	1.9	2.8	**1.5**
	01/24/07	0.951	1.94	<0.481	0.25	<0.500	<0.500	<1.00	<2.00
	02/20/08	0.461	0.779	<0.481	0.22	<0.500	<0.500	<1.00	<2.00
	02/11/09	0.93	0.98	<0.100	<0.50	<1.0	0.4	0.66	<10
	01/26/10	1.6	0.46	<0.100	0.31	<1.0	0.47	0.73	<10
	02/01/11	0.58	0.49	<0.100	<0.50	<1.0	0.56	<1.0	<10
	02/22/12	1.08	0.595	<0.190	0.3	<1.0	0.29	<2.0	<5.0
MW-110	12/31/02	2.7	3.2	<0.5	**2.6**	**13**	1.2	**52.3**	**22**
	01/21/04	1.0	6.2	<1	<1	**8**	1	7	**13**
	01/25/07	1.78	23.7	3.58	**78.8**	**70.9**	5.9	**318**	**21.7**
	02/20/08	2.21	16.9	0.858	**22.3**	**59.9**	6.19	**219**	**19.1**
	02/11/09	1.6	5.7	0.21	**6.2**	**21**	2.8	**75**	**12**
	01/27/10	2.0	6.8	0.15	**3.8**	**21**	2.3	**69**	**18**
	02/02/11	0.55	1.2	<0.100	**1.7**	2.2	0.35	5.2	**5.9**
	02/23/12	0.669	3.73	0.761	0.53	**8.2**	0.31	10.8	**3.02**

TABLE 12
SUMMARY OF GROUNDWATER CHEMICAL ANALYTICAL DATA
TPH AND VOLATILE ORGANIC COMPOUNDS

SHELL OIL PRODUCTS US PORTLAND BULK TERMINAL
3800 NW ST. HELENS ROAD
PORTLAND, OREGON

Monitoring Well Number	Date Sampled	Gasoline-Range Hydrocarbons (NWTPH-Gx) (mg/L)	Diesel- & Heavy Oil-Range Hydrocarbons (NWTPH-Dx) (mg/L)		Selected Volatile Organic Compounds[1] (EPA Method 8260B or SW8021B) (µg/L)				
		Gasoline	Diesel	Oil	Benzene	Ethybenzene	Toluene	Xylenes	Naphthalene
JSCS SLV[1]		NE	NE	NE	1.2	7.3	9.8	13	0.2
MW-111	12/31/02	0.3	<0.25	<0.5	<1	<1	<1	<1	**1.1**
	01/21/04	<0.25	<0.25	<0.5	<1	<1	<1	<1	<1
	01/21/05	<0.25	<0.25	<0.5	<1	<1	<1	<1	<1
	01/25/07	<0.250	<0.240	<0.481	<0.200	<0.500	<0.500	<1.00	<2.00
	02/20/08	<0.250	0.351	<0.481	<0.500	<0.500	<0.500	<3.00	<5.00
	02/11/09	<0.100	<0.100	<0.100	<0.50	<1.0	<1.0	<1.0	<10
	01/27/10	<0.100	<0.100	<0.100	<0.50	<1.0	<1.0	<1.0	<10
	02/02/11	<0.100	<0.100	<0.100	<0.50	<1.0	<1.0	<1.0	<10
	02/23/12	<0.200	<0.95	<0.190	<1.0	<1.0	<1.0	<2.0	<5.0
MW-112	12/30/02	0.26	<0.25	<0.5	<1	<1	<1	<1	<1
	01/19/04	<0.25	<0.25	<0.5	<1	<1	<1	<1	<1
	01/20/05	<0.25	<0.25	<0.5	<1	<1	<1	<1	<1
	01/24/07	<0.250	<0.240	<0.481	<0.200	<0.500	<0.500	<1.00	<2.00
	02/20/08	<0.250	<0.240	<0.481	<0.200	<0.500	<0.500	<1.00	<2.00
	02/10/09	<0.100	<0.100	<0.100	<0.50	<1.0	<1.0	<1.0	<10
	01/26/10	<0.100	<0.100	<0.100	<0.50	<1.0	<1.0	<1.0	<10
	02/01/11	<0.100	<0.100	<0.100	<0.50	<1.0	<1.0	<1.0	<10
	02/23/12	<0.200	<0.95	<0.190	<1.0	<1.0	<1.0	<2.0	<5.0

TABLE 12
SUMMARY OF GROUNDWATER CHEMICAL ANALYTICAL DATA
TPH AND VOLATILE ORGANIC COMPOUNDS

SHELL OIL PRODUCTS US PORTLAND BULK TERMINAL
3800 NW ST. HELENS ROAD
PORTLAND, OREGON

Monitoring Well Number	Date Sampled	Gasoline-Range Hydrocarbons (NWTPH-Gx) (mg/L)	Diesel- & Heavy Oil-Range Hydrocarbons (NWTPH-Dx) (mg/L)		Selected Volatile Organic Compounds[1] (EPA Method 8260B or SW8021B) (µg/L)				
		Gasoline	Diesel	Oil	Benzene	Ethybenzene	Toluene	Xylenes	Naphthalene
JSCS SLV[1]		NE	NE	NE	1.2	7.3	9.8	13	0.2
MW-116	12/30/02	3.5	11	<2.5	**130**	**44**	4	**26**	**93**
	03/25/03	<1.2	8.4	<2.5	**100**	**32**	3.3	7.7	**20**
	07/14/03	2	7.9	<1	**110**	**44**	<5	**14**	**38**
	10/27/03	5.8	7.8	<2.5	**37**	**120**	2.5	**30**	**69**
	01/21/04	2.2	6.1	<1	**140**	**20**	<5	6.4	**18**
	10/27/04	2.6	9.1	2.2	**28**	**96**	1.9	**25.6**	**120**
	01/20/05	1.8	6.8	<1	**20**	**83**	1.3	13	**99**
	04/21/05	1.4	5.8	<1	**11**	**37**	<1	4	**49**
	07/19/05	2.3	3.1	0.68	**17**	**82**	2.5	**13.7**	**96**
	11/16/06	1.08	5.51	0.879	**9.3**	**8.85**	1.09	2.22	**27.3**
	01/24/07	0.843	58.6	4.13	**46.3**	4.34	1.68	2.9	**15.1**
	05/23/07	0.664	8.28	0.633	**5.08**	3.61	0.63	1.62	**9.56**
	08/30/07	1.48	4.27	<0.500	**6.92**	4.15	0.91	2.77	**34.0**
	11/30/07	2.36	14.3	0.76	**94.9**	3.05	2.95	5.5	**18.0**
	02/20/08	2.11	44.4	3.23	**54.3**	2.5	1.43	2.8	**6.89**
	05/15/08	0.44	18	<0.056	**25**	<0.34	<0.25	<0.299	<0.3
	10/02/08	1.9	9.4	<5	<5	<5	<5	<5	**8**
	12/02/08	1.6	2.4	<0.1	**1.7**	0.68	<1	1.13	**7.3**
	02/11/09	9.1	--	2.2	**17**	A	<10	<10	**26**
	05/22/09	2.3	86	<10.000	<0.5	<1.0	<1.0	<1.0	<10
	11/02/09	1.7	12	0.38	**3.1**	1.2	0.54	1.8	**59**
	01/26/10	1.4	4	<0.100	**24**	1.2	0.72	1.4	**14**
	05/26/10	2.9	17	<0.500	**1.4**	0.45	<1.0	<1.0	<10
	08/06/10	0.98	4.3	<0.100	1.2	0.4	0.41	<1.0	**3.4**
	11/09/10	0.68	3.4	<0.100	<0.50	<1.0	<1.0	<1.0	<10
	02/01/11	2.3	1.3	<0.100	**36**	1.6	1.3	2.7	<10
	02/22/12	0.995	1.23	<0.190	**76.9**	0.812	1.6	1.72	**0.68**

TABLE 12
SUMMARY OF GROUNDWATER CHEMICAL ANALYTICAL DATA
TPH AND VOLATILE ORGANIC COMPOUNDS

SHELL OIL PRODUCTS US PORTLAND BULK TERMINAL
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PORTLAND, OREGON

Monitoring Well Number	Date Sampled	Gasoline-Range Hydrocarbons (NWTPH-Gx) (mg/L)	Diesel- & Heavy Oil-Range Hydrocarbons (NWTPH-Dx) (mg/L)		Selected Volatile Organic Compounds[1] (EPA Method 8260B or SW8021B) (µg/L)				
		Gasoline	Diesel	Oil	Benzene	Ethybenzene	Toluene	Xylenes	Naphthalene
JSCS SLV[1]		NE	NE	NE	1.2	7.3	9.8	13	0.2
MW-117	12/31/02	13	<0.75	<1.5	**36**	**390**	4	**14**	**19**
	03/25/03	5.6	<0.25	<0.5	**28**	**770**	<10	**18**	<10
	07/14/03	<12	2.1	<0.5	**37**	**590**	<5	**21**	<5
	10/27/03	8.7	1.6	<0.5	**19**	**410**	<10	12	<10
	01/22/04	9.5	12	<5	**15**	**490**	2	9	**9**
	04/28/04	8.1	1.3	<0.5	**35**	**590**	<10	**22**	**17**
	08/02/04	8 5	3.9	<0.5	**40**	**430**	<5	**18**	<5
	10/27/04	15	2	<0.5	**36**	**370**	<10	12	**15**
	01/21/05	12	0.32	<0.5	**28**	**410**	<5	**17**	<5
	04/21/05	12	0.28	<0.5	**16**	**490**	<5	11	**6.4**
	07/19/05	12	0.61	<0.5	**19**	**340**	<5	11	**11**
	04/25/06	4.71	2.42	<0.510	**14.2**	**379**	2.54	9.42	<4.00
	07/27/06	7.36	1.89	<0.500	**34.4**	**340**	3.26	11.3	**4.46**
	11/16/06	6.84	2.21	<0.485	**24.3**	**622**	3.55	**16.6**	<10.0
	01/25/07	5.19	2.24	<0.481	**10.6**	**404**	<2.50	10.7	<10.0
	05/23/07	7.26	2.32	<0.481	**5.45**	**186**	<2.50	6.35	<10.0
	08/30/07	4.96	1.67	<0.472	**6.2**	**71**	<4.0	<12	<10
	11/30/07	6.91	1.90	<0.476	**12.0**	**370**	<2.50	10.9	<10.0
	02/22/08	6.85	2.16	<0.481	**7.61**	**326**	<5.00	**432**	<20.0
	05/15/08	9	0.61	<0.011	<8.7	**280**	<6.2	**14**	**7.4**
	10/02/08	9.7	0.73	<0.5	**7.8**	**200**	<5	9.7	**4**
	12/02/08	7	3.7	<0.1	**11**	**320**	3.7	10	<100
	02/10/09	13	3.6	<0.100	**8.5**	**330**	2.6	12	<50
	05/22/09	10	2	<0.100	**6.2**	**270**	<2.0	9	<20
	08/04/09	13	2.7	<0.100	**13**	**210**	1.9	11	<20
	11/02/09	9.2	3.9	<0.100	**11**	**250**	2	8.3	<20
	01/26/10	8.9	3.9	<0.100	**5.7**	**220**	2.2	6.6	<20
	05/26/10	13	3.1	<0.100	**4.8**	**240**	1.6	8.2	**2.7**
	08/06/10	14	2.9	<0.100	**4**	**210**	2	7.4	<20
	11/09/10	9	2	<0.100	**5.1**	**200**	1.6	6.8	<10
	02/02/11	14	2.2	<0.100	**3.5**	**160**	1.8	7	**3.3**
	02/22/12	8.53	0.409	<0.190	**4.1**	**133**	1.42	4	**1.6**

TABLE 12
SUMMARY OF GROUNDWATER CHEMICAL ANALYTICAL DATA
TPH AND VOLATILE ORGANIC COMPOUNDS

SHELL OIL PRODUCTS US PORTLAND BULK TERMINAL
3800 NW ST. HELENS ROAD
PORTLAND, OREGON

Monitoring Well Number	Date Sampled	Gasoline-Range Hydrocarbons (NWTPH-Gx) (mg/L)	Diesel- & Heavy Oil-Range Hydrocarbons (NWTPH-Dx) (mg/L)		Selected Volatile Organic Compounds[1] (EPA Method 8260B or SW8021B) (µg/L)				
		Gasoline	Diesel	Oil	Benzene	Ethybenzene	Toluene	Xylenes	Naphthalene
JSCS SLV[1]		NE	NE	NE	1.2	7.3	9.8	13	0.2
MW-118	12/30/02	1.4	<0.25	<0.5	**39**	2.8	1.8	3.5	**1.4**
	01/19/04	3.4	0.55	<0.5	**150**	**56**	<10	12	<10
	01/20/05	0.68	<0.25	<0.5	**16**	1	<1	1.5	<1
	01/24/07	3.14	0.976	<0.481	**151**	**46.2**	8.52	12.2	<2.00
	02/20/08	2.46	0.868	<0.481	**121**	**40.4**	7.17	10.9	<2.00
	02/11/09	6.6	1.5	<0.100	**110**	**25**	6.9	12	<10
	01/26/10	4.4	0.71	<0.100	**110**	**30**	6.6	11	<10
	02/02/11	7.5	1.1	<0.100	**93**	**22**	5.8	11	<10
	02/22/12	4.7	0.855	0.79	**96.9**	**17**	4.3	7	<10
MW-119	12/30/02	<0.25	<0.25	<0.5	<1	<1	<1	<1	<1
MW-120	12/31/02	<0.25	0.35	1.2	<1	<1	<1	<1	<1
	01/19/04	<0.25	<0.25	<0.5	<1	<1	<1	<1	<1
	01/20/05	<0.25	<0.25	<0.5	<1	<1	<1	<1	<1
	01/24/07	<0.250	<0.238	0.686	<0.200	<0.500	<0.500	<1.00	<2.00
	02/20/08	<0.250	<0.238	<0.476	<0.200	<0.500	<0.500	<1.00	<2.00
	02/10/09	<0.100	<0.100	<0.100	<0.50	<1.0	<1.0	<1.0	<10
	01/26/10	<0.100	<0.100	<0.100	<0.50	<1.0	<1.0	<1.0	<10
	02/01/11	<0.100	<0.100	<0.100	<0.50	<1.0	<1.0	<1.0	<10
	02/22/12	0.057	0.058	0.137	<1.0	<1.0	<1.0	<2.0	<5.0
MW-121A	12/31/02	1.6	<0.25	<0.5	**12**	<5	<5	5.1	**13**
MW-122	12/31/02	<0.25	<0.25	<0.5	<1	<1	<1	<1	<1
	01/19/04	<0.25	<0.25	<0.5	<1	<1	<1	<1	<1
	01/20/05	<0.25	<0.25	<0.5	<1	<1	<1	<1	<1
	01/25/07	<0.250	0.661	<0.481	<0.200	<0.500	<0.500	<1.00	<2.00
	02/22/08	<0.250	0.455	<0.481	<0.200	<0.500	<0.500	<1.50	<2.00
	02/11/09	0.24	0.17	<0.100	<0.50	<1.0	<1.0	<1.0	<10
	01/27/10	0.16	0.18	<0.100	<0.50	<1.0	<1.0	<1.0	<10
	02/02/11	0.26	0.11	<0.100	<0.50	<1.0	<1.0	<1.0	<10
	02/23/12	0.214	0.151	<0.190	<1.0	<1.0	<1.0	<2.0	<5.0

TABLE 12
SUMMARY OF GROUNDWATER CHEMICAL ANALYTICAL DATA
TPH AND VOLATILE ORGANIC COMPOUNDS

SHELL OIL PRODUCTS US PORTLAND BULK TERMINAL
3800 NW ST. HELENS ROAD
PORTLAND, OREGON

Monitoring Well Number	Date Sampled	Gasoline-Range Hydrocarbons (NWTPH-Gx) (mg/L)	Diesel- & Heavy Oil-Range Hydrocarbons (NWTPH-Dx) (mg/L)		Selected Volatile Organic Compounds[1] (EPA Method 8260B or SW8021B) (µg/L)				
		Gasoline	Diesel	Oil	Benzene	Ethybenzene	Toluene	Xylenes	Naphthalene
JSCS SLV[1]		NE	NE	NE	1.2	7.3	9.8	13	0.2
MW-123	12/31/02	<0.25	<0.25	<0.5	**2.2**	<1	<1	<1	<1
	01/19/04	<0.25	<0.25	<0.5	<1	<1	<1	<1	<1
	01/21/05	<0.25	<0.25	<0.5	<1	<1	<1	<1	<1
	01/25/07	<0.250	<0.240	<0.481	<0.200	<0.500	<0.500	<1.00	<2.00
	02/20/08	<0.250	<0.240	<0.481	<0.200	<0.500	<0.500	<1.00	<2.00
	02/11/09	0.16	<0.100	0.14	<0.50	<1.0	<1.0	<1.0	<10
	01/27/10	<0.100	<0.100	<0.100	<0.50	<1.0	<1.0	<1.0	<10
	02/02/11	<0.100	<0.100	<0.100	<0.50	<1.0	<1.0	<1.0	<10
	02/23/12	<0.200	<0.096	<0.190	<1.0	<1.0	<1.0	<2.0	<5.0
MW-124	12/31/02	0.8	<0.25	<0.5	**19**	1.2	1	3.7	<1
	01/19/04	1.3	0.31	<0.5	**39**	<5	<5	6.3	<5
	01/21/05	1.5	<0.25	<0.5	**2.1**	1.1	1.7	6.1	<1
	01/25/07	0.74	0.311	<0.476	**12.8**	<0.500	1.46	2.04	<2.00
	02/22/08	1.22	0.515	<0.481	**23.8**	1.41	2.18	3.78	<2.00
	02/11/09	2.9	0.6	<0.100	**4.6**	0.6	1.6	2	<10
	01/27/10	2.4	0.67	<0.100	**12**	1.4	2.2	3.4	<10
	02/02/11	5.4	0.87	<0.100	**29**	4.9	3	7.3	<10
	02/23/12	2.17	0.153	<0.190	**23.4**	2.12	2.12	4.12	<25
American Industries, Inc. Wells									
AS-1	12/30/02	1	0.54	<0.5	**17**	1.6	1.2	1.5	<1
	03/25/03	<0.25	0.45	<0.5	<1	<1	<1	<1	**2.1**
	07/16/03	0.55	1.5	<0.5	**300**	<1	<1	<1	**15**
	08/21/03	1.16	--	--	**57.2**	<1	2.5	<3	<2
	10/27/03	1.1	1.8	<0.5	**9.9**	<1	<1	1.5	<1
	01/22/04	0.63	0.67	<0.5	<1	<1	<1	<1	**1.9**
	04/28/04	<0.25	0.73	<0.5	**29**	<1	<1	<1	<1
	08/02/04	0.96	0.88	<0.5	**180**	<1	1.8	1.9	<1
	10/27/04	0.95	1.9	0.53	**41**	<1	3.2	5.3	<1
	01/20/05	0.89	0.47	<0.5	<1	<1	<1	4.6	<1
	04/21/05	0.56	1	<0.5	<1	<1	1.1	<1	<1
	07/19/05	0.76	0.9	<0.5	**4.7**	<1	<1	1.5	**1.3**

TABLE 12
SUMMARY OF GROUNDWATER CHEMICAL ANALYTICAL DATA
TPH AND VOLATILE ORGANIC COMPOUNDS

SHELL OIL PRODUCTS US PORTLAND BULK TERMINAL
3800 NW ST. HELENS ROAD
PORTLAND, OREGON

Monitoring Well Number	Date Sampled	Gasoline-Range Hydrocarbons (NWTPH-Gx) (mg/L)	Diesel- & Heavy Oil-Range Hydrocarbons (NWTPH-Dx) (mg/L)		Selected Volatile Organic Compounds[1] (EPA Method 8260B or SW8021B) (µg/L)				
		Gasoline	Diesel	Oil	Benzene	Ethybenzene	Toluene	Xylenes	Naphthalene
JSCS SLV[1]		NE	NE	NE	1.2	7.3	9.8	13	0.2
AS-1	04/25/06	0.734	2.57	<0.505	**58.2**	4.86	**22.5**	8.18	<2.00
	07/27/06	0.885	2.84	<0.500	**61.9**	**30.6**	**10**	**23.7**	<2.00
	11/16/06	0.873	2.3	<0.481	**39.4**	1.53	**12.9**	7.52	**6.82**
	01/23/07	0.365	2.1	<0.476	<0.200	<0.500	1.37	<1.00	<2.00
	05/23/07	<0.250	1.72	<0.481	**8.86**	<0.500	<0.500	<1.00	<2.00
	08/30/07	0.997	1.84	<0.485	**13.5**	**7.68**	7.07	**18.1**	<2.00
	11/30/07	0.701	2.29	<0.476	**21.6**	0.89	3.72	4.81	**11.7**
	02/22/08	0.482	1.49	<0.481	0.401	<0.500	1.08	<1.50	<2.00
	05/15/08	0.88	2.3	<0.011	**5.5**	<0.34	<0.25	<0.299	--
	10/02/08	1.3	2.3	<0.5	**29**	<5	<5	<5	<5
	12/03/08	0.81	1.5	<0.1	0.31	<1	1.2	0.82	<5
	02/11/09	0.65	0.97	<0.100	<0.50	<1.0	1.1	0.79	<10
	05/21/09	0.7	0.89	<0.100	<0.5	<1.0	<1.0	<1.0	<10
	08/04/09	0.91	0.94	<0.100	0.98	<1.0	1.1	1.9	<10
	11/02/09	0.58	0.76	<0.100	**3.2**	<1.0	1.3	1.1	<10
	01/26/10	0.84	1.1	<0.100	<0.50	<1.0	1.2	1.1	<10
	05/26/10	0.73	0.67	<0.100	0.39	<1.0	0.83	0.75	<10
	08/06/10	0.97	0.49	<0.100	<0.50	<1.0	0.85	1.4	<10
	11/09/10	0.44	0.38	<0.100	0.33	<1.0	1.2	0.92	<10
	02/01/11	0.64	0.49	<0.100	0.83	<1.0	1.1	1.3	<10
	02/21/12	0.651	0.23	<0.200	0.29	<1.0	1.3	1.6	<5.0

TABLE 12
SUMMARY OF GROUNDWATER CHEMICAL ANALYTICAL DATA
TPH AND VOLATILE ORGANIC COMPOUNDS

SHELL OIL PRODUCTS US PORTLAND BULK TERMINAL
3800 NW ST. HELENS ROAD
PORTLAND, OREGON

Monitoring Well Number	Date Sampled	Gasoline-Range Hydrocarbons (NWTPH-Gx) (mg/L)	Diesel- & Heavy Oil-Range Hydrocarbons (NWTPH-Dx) (mg/L)		Selected Volatile Organic Compounds[1] (EPA Method 8260B or SW8021B) (µg/L)				
		Gasoline	Diesel	Oil	Benzene	Ethybenzene	Toluene	Xylenes	Naphthalene
JSCS SLV[1]		NE	NE	NE	1.2	7.3	9.8	13	0.2
AS-2	12/30/02	<1.2	0.47	<0.5	**3.9**	<1	1.2	2	**2.2**
	03/25/03	0.45	0.73	<0.5	**1.6**	<1	1.1	1.8	<1
	07/16/03	0.43	1.6	<0.5	**6.3**	<1	<1	2.4	**19**
	10/27/03	0.63	1.1	<0.5	<1	<1	<1	<1	<1
	04/28/04	<0.25	<0.25	<0.5	<1	<1	<1	<1	<1
	08/02/04	<0.25	0.64	<0.5	<1	<1	<1	<1	<1
	10/27/04	<1.2	0.93	<0.5	**2.4**	<1	1.6	4	**1.3**
	01/20/05	0.78	1.1	<0.5	**2.8**	<1	1.1	3.5	**3.4**
	04/21/05	0.7	1.1	<0.5	**100**	<1	1.3	1.7	<1
	07/19/05	<0.25	<0.25	<0.5	<1	<1	<1	<1	<1
	04/25/06	<0.250	2.26	<0.505	**4.51**	<0.500	0.5	<1.00	<2.00
	07/27/06	<0.250	<0.246	<0.493	<0.200	<0.500	<0.500	<1.00	<2.00
	11/16/06	0.371	2.41	<0.490	**7.11**	<0.500	<0.500	<1.00	<2.00
	01/23/07	<0.250	0.526	<0.485	<0.200	<0.500	<0.500	<1.00	<2.00
	05/23/07	<0.250	<0.240	<0.481	<0.200	<0.500	<0.500	<1.00	<2.00
	08/30/07	<0.250	1.24	<0.476	**2.50**	<0.500	1.13	3.26	<2.00
	11/30/07	0.953	2.43	<0.476	**40.4**	**8.76**	6.59	**22.7**	<2.00
	02/22/08	0.766	2	<0.481	0.321	<0.500	0.731	1.58	<2.00
	05/15/08	0.11	0.75	<0.011	<0.35	<0.34	<0.25	<0.3	--
	10/02/08	0.16	1.2	<0.5	<5	<5	<5	<5	<5
	12/03/08	1.1	0.51	<0.1	**24**	<1	1.2	2.24	<10
	02/11/09	1	1.1	<0.100	**1.6**	<1.0	1.1	1	<10
	05/21/09	0.13	0.15	<0.100	<0.50	<1.0	<1.0	<1.0	<10
	08/04/09	<0.100	0.1	<0.100	<0.50	<1.0	<1.0	<1.0	<10
	11/02/09	<0.100	0.63	<0.100	<0.50	<1.0	<1.0	<1.0	<10
	01/26/10	0.83	0.82	<0.100	<0.50	<1.0	0.42	0.51	<10
	05/26/10	<0.100	<0.100	<0.100	<0.50	<1.0	<1.0	<1.0	<10
	08/06/10	<0.100	<0.100	<0.100	<0.50	<1.0	<1.0	<1.0	<10
	11/09/10	<0.100	<0.100	<0.100	<0.50	<1.0	<1.0	<1.0	<10
	02/01/11	<0.100	<0.100	<0.100	<0.50	<1.0	<1.0	<1.0	<10
	02/21/12	0.058 J	0.144	<0.200	<1.0	<1.0	<1.0	<2.0	<5.0

TABLE 12
SUMMARY OF GROUNDWATER CHEMICAL ANALYTICAL DATA
TPH AND VOLATILE ORGANIC COMPOUNDS

SHELL OIL PRODUCTS US PORTLAND BULK TERMINAL
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PORTLAND, OREGON

Monitoring Well Number	Date Sampled	Gasoline-Range Hydrocarbons (NWTPH-Gx) (mg/L)	Diesel- & Heavy Oil-Range Hydrocarbons (NWTPH-Dx) (mg/L)		Selected Volatile Organic Compounds[1] (EPA Method 8260B or SW8021B) (µg/L)				
		Gasoline	Diesel	Oil	Benzene	Ethybenzene	Toluene	Xylenes	Naphthalene
JSCS SLV[1]		NE	NE	NE	1.2	7.3	9.8	13	0.2
AS-3	12/30/02	2.2	1.4	<0.5	**13**	5.6	2.9	4.4	<1
	03/25/03	0.53	1.7	<0.5	**2.8**	2.1	2	2.1	<1
	07/16/03	2.5	2.1	<0.5	**21**	**65**	<1	7.6	**32**
	10/27/03	1.1	3	0.56	**2.7**	1.3	1	1.9	<1
	01/22/04	2.5	2.8	<0.5	**5.5**	1.6	1.8	3.6	**8.4**
	04/28/04	<0.25	1.3	<0.5	<1	<1	<1	<1	<1
	08/02/04	<0.25	1.8	<0.5	<1	<1	<1	<1	<1
	10/27/04	1.7	2.3	1.1	**2.5**	1.5	1.1	4.8	**4.9**
	01/20/05	1.8	3.1	<0.5	**3.1**	1.3	1.4	2.2	<1
	04/21/05	2.7	2.7	<1	**2.8**	<1	1.9	2.3	<1
	07/19/05	<0.25	1.2	<0.5	<1	<1	<1	<1	**1.1**
	04/25/06	<0.250	0.389	0.928	<0.200	<0.500	<0.500	<1.00	<2.00
	07/27/06	<0.250	3.31	0.983	<0.200	<0.500	<0.500	<1.00	<2.00
	11/16/06	1.31	5.37	0.934	0.32	<0.500	0.86	<1.00	<2.00
	01/23/07	<0.250	0.88	1.17	<0.200	<0.500	<0.500	<1.00	<2.00
	05/23/07	<0.250	0.416	0.604	<0.200	<0.500	<0.500	<1.00	<2.00
	08/30/07	0.614	3.13	<0.476	0.59	<0.500	<0.500	<1.00	<2.00
	11/30/07	1.87	3.48	<0.476	<0.200	<0.500	1.01	1.17	<2.00
	02/22/08	<0.250	0.539	0.698	<2.00	<0.500	<0.500	<1.50	<2.00
	05/15/08	0.058	0.58	0.86	<0.35	<0.34	<0.25	<0.3	--
	10/02/08	<0.25	3.5	0.58	<5	<5	<5	<5	<5
	12/02/08	0.68	1.2	<0.1	0.32	<1	0.35	<1	<10
	02/11/09	0.9	1.6	<0.100	0.55	<1.0	0.56	<1.0	<10
	05/21/09	1.6	1.5	<0.100	<0.50	<1.0	<1.0	<1.0	<10
	08/04/09	1.8	1.1	<0.100	0.77	0.24	0.53	1	<10
	11/02/09	1.5	2.5	<0.100	0.74	0.43	0.52	<1.0	<10
	01/26/10	1.9	1.7	<0.100	0.38	<1.0	0.53	<1.0	<10
	05/26/10	<0.100	<0.100	<0.100	<0.50	<1.0	<1.0	<1.0	<10
	08/06/10	<0.100	<0.100	<0.100	<0.50	<1.0	<1.0	<1.0	<10
	11/09/10	1.1	0.9	<0.100	0.34	0.29	0.47	0.88	<10
	02/01/11	0.4	0.33	<0.100	<0.50	<1.0	0.39	<1.0	<10
	02/21/12	<0.200	<0.096	0.19	<1.0	<1.0	<1.0	<2.0	<5.0

TABLE 12
SUMMARY OF GROUNDWATER CHEMICAL ANALYTICAL DATA
TPH AND VOLATILE ORGANIC COMPOUNDS

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PORTLAND, OREGON

Monitoring Well Number	Date Sampled	Gasoline-Range Hydrocarbons (NWTPH-Gx) (mg/L)	Diesel- & Heavy Oil-Range Hydrocarbons (NWTPH-Dx) (mg/L)		Selected Volatile Organic Compounds[1] (EPA Method 8260B or SW8021B) (µg/L)				
		Gasoline	Diesel	Oil	Benzene	Ethybenzene	Toluene	Xylenes	Naphthalene
JSCS SLV[1]		NE	NE	NE	1.2	7.3	9.8	13	0.2
Pipeline Corridor/Gunderson Wells									
SMW-1	12/26/02	--	--	--	--	--	--	--	--
	03/26/03	<0.25	--	--	<1.0	<1.0	<1.0	<1.0	<1.0
	07/16/03	<0.25	--	--	<1.0	<1.0	<1.0	<1.0	<1.0
SMW-2	12/26/02	--	--	--	--	--	--	--	--
	07/15/03	<0.25	--	--	<1.0	<1.0	<1.0	<1.0	<1.0
SMW-3	03/26/03	0.26	--	--	**2**	1	<1.0	6	**2**
	07/16/03	1.9	--	--	**4**	3	1	**14**	**4**
	10/27/03	11	--	--	**3**	4	1	**21**	<1
	01/22/04	4.2	--	--	<1	<1	<1	1	**9**
	04/28/04	4.5	--	--	<1	1	<1	5	**13**
	08/02/04	0.44	--	--	**2**	<1	<1	1	**6**
	10/27/04	1.5	--	--	**3**	2	1	9	**4**
	01/21/05	<0.25	--	--	<1	<1	<1	<1	<1
	04/22/05	2	--	--	<1	<1	<1	1	<1
	07/19/05	29	--	--	<5	<5	<5	<5	**25**
SMW-4	12/26/02	--	--	--	--	--	--	--	--
	03/26/03	<0.25	--	--	**11**	<1.0	<1.0	<1.0	<1.0
SMW-4A	07/16/03	<0.25	--	--	**3**	<1.0	<1.0	<1.0	<1.0
	10/27/03	<0.25	--	--	<1	<1	<1	<1	<1
	01/22/04	<0.25	--	--	<1	<1	<1	<1	<1
	04/28/04	<0.25	--	--	<1	<1	<1	<1	<1
	08/02/04	<0.25	--	--	<1	<1	<1	<1	<1
	10/27/04	<0.25	--	--	<1	<1	<1	<1	<1
	01/21/05	<0.25	--	--	<1	<1	<1	<1	<1
	04/21/05	<0.25	--	--	<1	<1	<1	<1	<1
	07/19/05	<0.25	--	--	<1	<1	<1	<1	<1
SMW-5	12/26/02	<0.25	--	--	<1.0	<1.0	<1.0	<1.0	<1.0
	03/26/03	<0.25	--	--	<1.0	<1.0	<1.0	<1.0	<1.0
	07/16/03	<0.25	--	--	<1.0	<1.0	<1.0	<1.0	<1.0

TABLE 12
SUMMARY OF GROUNDWATER CHEMICAL ANALYTICAL DATA
TPH AND VOLATILE ORGANIC COMPOUNDS

SHELL OIL PRODUCTS US PORTLAND BULK TERMINAL
3800 NW ST. HELENS ROAD
PORTLAND, OREGON

Monitoring Well Number	Date Sampled	Gasoline-Range Hydrocarbons (NWTPH-Gx) (mg/L)	Diesel- & Heavy Oil-Range Hydrocarbons (NWTPH-Dx) (mg/L)		Selected Volatile Organic Compounds[1] (EPA Method 8260B or SW8021B) (µg/L)				
		Gasoline	Diesel	Oil	Benzene	Ethybenzene	Toluene	Xylenes	Naphthalene
JSCS SLV[1]		NE	NE	NE	1.2	7.3	9.8	13	0.2
SMW-6	12/26/02	<0.25	--	--	<1.0	<1.0	<1.0	<1.0	<1.0
	03/26/03	<0.25	--	--	<1.0	<1.0	<1.0	<1.0	<1.0
	07/16/03	<0.25	--	--	<1.0	<1.0	<1.0	<1.0	<1.0
SMW-7	12/26/02	<0.25	--	--	<1.0	<1.0	<1.0	<1.0	<1.0
	03/26/03	<0.25	--	--	<1.0	<1.0	<1.0	<1.0	<1.0
	07/16/03	<0.25	--	--	<1.0	<1.0	<1.0	<1.0	<1.0
SMW-8	12/27/02	<0.25	<0.25	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0
	03/26/03	<0.25	--	--	<1.0	<1.0	<1.0	<1.0	<1.0
	07/16/03	<0.25	--	--	<1.0	<1.0	<1.0	<1.0	<1.0
SMW-9	12/27/02	<0.25	<0.25	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0
	07/16/03	<0.25	--	--	<1.0	<1.0	<1.0	<1.0	<1.0
SMW-10	12/27/02	<0.25	--	--	<1.0	<1.0	<1.0	<1.0	
	03/26/03	<0.25	--	--	<1.0	<1.0	<1.0	<1.0	<1.0
	07/16/03	<0.25	--	--	<1.0	<1.0	1	<1.0	<1.0
	10/28/03	<0.25	--	--	<1	<1	<1	<1	<1
	01/22/04	<0.25	--	--	<1	<1	<1	<1	<1
	04/28/04	<0.25	--	--	<1	<1	<1	<1	<1
	08/02/04	<0.25	--	--	<1	<1	<1	<1	<1
	10/27/04	<0.25	--	--	<1	<1	<1	<1	<1
	01/21/05	<0.25	--	--	<1	<1	<1	<1	<1
	04/22/05	<0.25	--	--	<1	<1	<1	<1	<1
	07/19/05	<0.25	--	--	<1	<1	<1	<1	<1

TABLE 12
SUMMARY OF GROUNDWATER CHEMICAL ANALYTICAL DATA
TPH AND VOLATILE ORGANIC COMPOUNDS

SHELL OIL PRODUCTS US PORTLAND BULK TERMINAL
3800 NW ST. HELENS ROAD
PORTLAND, OREGON

Monitoring Well Number	Date Sampled	Gasoline-Range Hydrocarbons (NWTPH-Gx) (mg/L)	Diesel- & Heavy Oil-Range Hydrocarbons (NWTPH-Dx) (mg/L)		Selected Volatile Organic Compounds[1] (EPA Method 8260B or SW8021B) (µg/L)				
		Gasoline	Diesel	Oil	Benzene	Ethybenzene	Toluene	Xylenes	Naphthalene
JSCS SLV[1]		NE	NE	NE	1.2	7.3	9.8	13	0.2
SMW-11	12/27/02	2.6	<0.25	<0.5	**2**	3	1	3	<1.0
	03/27/03	0.56	0.26	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0
	07/15/03	1.6	0.55	<0.5	<1.0	<1.0	<1.0	<1.0	**7**
	10/28/03	<0.25	--	--	**3**	3	1	5	**3**
	01/19/04	1.7	--	--	1	1	<1	4	**3**
	04/28/04	1.5	--	--	<1	2	<1	5	**4**
	08/03/04	1.3	--	--	<1	2	<1	2	<1
	10/28/04	1.3	--	--	1	2	<1	8	**3**
	01/21/05	1.4	--	--	<1	<1	<1	1	<1
	04/22/05	1.4	--	--	<1	<1	<1	<1	<1
	07/19/05	1.3	--	--	<1	<1	<1	2	**3**
	10/26/05	--	--	--	**1.3**	<1	2.7	8	--
	01/20/06	--	--	--	<0.200	0.840	<0.500	1.47	--
	04/26/06	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	07/27/06	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	11/15/06	--	--	--	0.88	1.15	1.52	2.35	--
	01/23/07	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	05/24/07	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	08/30/07	--	--	--	*<2.00*	<5.00	<5.00	<10.0	--
	11/29/07	--	--	--	0.96	1.17	1.13	<1.00	--
	02/21/08	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	05/16/08	--	--	--	<0.35	<0.25	<0.34	<0.299	--
	12/02/08	--	--	--	0.54	0.86	0.38 J	1.23	--
	05/22/09	--	--	--	<0.50	<1.0	<1.0	<1.0	--

TABLE 12
SUMMARY OF GROUNDWATER CHEMICAL ANALYTICAL DATA
TPH AND VOLATILE ORGANIC COMPOUNDS

SHELL OIL PRODUCTS US PORTLAND BULK TERMINAL
3800 NW ST. HELENS ROAD
PORTLAND, OREGON

Monitoring Well Number	Date Sampled	Gasoline-Range Hydrocarbons (NWTPH-Gx) (mg/L)	Diesel- & Heavy Oil-Range Hydrocarbons (NWTPH-Dx) (mg/L)		Selected Volatile Organic Compounds[1] (EPA Method 8260B or SW8021B) (µg/L)				
		Gasoline	Diesel	Oil	Benzene	Ethybenzene	Toluene	Xylenes	Naphthalene
JSCS SLV[1]		NE	NE	NE	1.2	7.3	9.8	13	0.2
SMW-12	12/26/02	<0.25	<0.25	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0
	03/27/03	<0.25	<0.25	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0
	07/15/03	<0.25	<0.25	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0
	10/28/03	<0.25	<0.25	<0.5	<1	<1	<1	<1	<1
	01/22/04	<0.25	--	--	<1	<1	<1	<1	<1
	04/28/04	<0.25	--	--	<1	<1	<1	<1	<1
	08/03/04	<0.25	--	--	<1	<1	<1	<1	<1
	10/28/04	<0.25	--	--	<1	<1	<1	<1	<1
	01/21/05	<0.25	--	--	<1	<1	<1	<1	<1
	04/22/05	<0.25	--	--	<1	<1	<1	<1	<1
	07/19/05	<0.25	--	--	<1	<1	<1	<1	<1
	10/26/05	--	--	--	<1	<1	<1	<1	--
	01/19/06	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	04/25/06	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	07/27/06	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	11/15/06	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	01/23/07	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	05/24/07	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	08/30/07	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	11/09/07	--	--	--	<0.500	<0.500	<0.500	<0.500	--
	11/29/07	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	02/15/08	--	--	--	<0.500	<2.00	<0.500	<0.5	--
	02/21/08	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	05/16/08	--	--	--	<0.35	<0.25	<0.34	<0.3	--
	05/16/08	--	--	--	<0.250	<1.0	<0.500	<0.500	--
	11/20/08	--	--	--	<0.250	<1.0	<0.500	<0.500	--
	12/02/08	--	--	--	0.06 J	<0.5	<0.5	<0.5	--
	05/22/09	--	--	--	<0.50	<1.0	<1.0	<1.0	--

TABLE 12
SUMMARY OF GROUNDWATER CHEMICAL ANALYTICAL DATA
TPH AND VOLATILE ORGANIC COMPOUNDS

SHELL OIL PRODUCTS US PORTLAND BULK TERMINAL
3800 NW ST. HELENS ROAD
PORTLAND, OREGON

Monitoring Well Number	Date Sampled	Gasoline-Range Hydrocarbons (NWTPH-Gx) (mg/L)	Diesel- & Heavy Oil-Range Hydrocarbons (NWTPH-Dx) (mg/L)		Selected Volatile Organic Compounds[1] (EPA Method 8260B or SW8021B) (µg/L)				
		Gasoline	Diesel	Oil	Benzene	Ethybenzene	Toluene	Xylenes	Naphthalene
JSCS SLV[1]		NE	NE	NE	1.2	7.3	9.8	13	0.2
SMW-13	12/26/02	<0.25	<0.25	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0
	03/27/03	<0.25	<0.25	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0
	07/15/03	<0.25	<0.25	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0
	10/28/03	<0.25	<0.25	<0.5	<1	<1	<1	<1	<1
	01/22/04	<0.25	--	--	<1	<1	<1	<1	<1
	04/28/04	<0.25	--	--	<1	<1	<1	<1	<1
	08/03/04	<0.25	--	--	<1	<1	<1	<1	<1
	10/28/04	<0.25	--	--	<1	<1	<1	<1	<1
	01/21/05	<0.25	--	--	<1	<1	<1	<1	<1
	04/22/05	<0.25	--	--	<1	<1	<1	<1	<1
	07/19/05	<0.25	--	--	<1	<1	<1	<1	<1
	10/26/05	--	--	--	<1	<1	<1	<1	--
	01/19/06	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	04/26/06	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	07/27/06	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	11/15/06	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	01/23/07	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	05/24/07	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	08/23/07	--	--	--	<0.5	<0.5	<2	<1.5	--
	08/30/07	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	11/29/07	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	02/21/08	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	05/16/08	--	--	--	<0.35	<0.25	<0.34	<0.3	--
	12/02/08	--	--	--	0.07 J	0.07 J	<0.5	<0.5	--
	05/22/09	--			<0.50	<1.0	<1.0	<1.0	--

TABLE 12
SUMMARY OF GROUNDWATER CHEMICAL ANALYTICAL DATA
TPH AND VOLATILE ORGANIC COMPOUNDS

SHELL OIL PRODUCTS US PORTLAND BULK TERMINAL
3800 NW ST. HELENS ROAD
PORTLAND, OREGON

Monitoring Well Number	Date Sampled	Gasoline-Range Hydrocarbons (NWTPH-Gx) (mg/L)	Diesel- & Heavy Oil-Range Hydrocarbons (NWTPH-Dx) (mg/L)		Selected Volatile Organic Compounds[1] (EPA Method 8260B or SW8021B) (µg/L)				
		Gasoline	Diesel	Oil	Benzene	Ethybenzene	Toluene	Xylenes	Naphthalene
JSCS SLV[1]		NE	NE	NE	1.2	7.3	9.8	13	0.2
SMW-14	12/27/02	<0.25	<0.25	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0
	03/27/03	<0.25	<0.25	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0
	07/15/03	<0.25	<0.25	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0
	10/28/03	<0.25	<0.25	<0.5	<1	<1	<1	<1	<1
	01/22/04	<0.25	--	--	<1	<1	<1	<1	<1
	04/28/04	<0.25	--	--	<1	<1	<1	<1	<1
	08/03/04	<0.25	--	--	<1	<1	<1	<1	<1
	10/28/04	<0.25	--	--	<1	<1	<1	<1	<1
	01/21/05	<0.25	--	--	<1	<1	<1	<1	<1
	04/22/05	<0.25	--	--	<1	<1	<1	<1	<1
	07/20/05	<0.25	--	--	<1	<1	<1	<1	<1
	10/26/05	--	--	--	<1	<1	<1	<1	--
	01/19/06	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	04/26/06	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	07/27/06	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	11/15/06	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	01/13/07	--	--	--	<0.500	<0.500	<0.500	<1.00	--
	01/23/07	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	05/24/07	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	08/30/07	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	11/29/07	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	02/21/08	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	05/16/08	--	--	--	<0.35	<0.25	<0.34	<0.3	--
	11/20/08	--	--	--	<0.250	<1.0	<0.500	<0.500	--
	12/02/08	--	--	--	0.06 J	<0.5	<0.5	<0.5	--
	05/22/09	--	--	--	<0.50	<1.0	<1.0	<1.0	--

TABLE 12
SUMMARY OF GROUNDWATER CHEMICAL ANALYTICAL DATA
TPH AND VOLATILE ORGANIC COMPOUNDS

SHELL OIL PRODUCTS US PORTLAND BULK TERMINAL
3800 NW ST. HELENS ROAD
PORTLAND, OREGON

Monitoring Well Number	Date Sampled	Gasoline-Range Hydrocarbons (NWTPH-Gx) (mg/L)	Diesel- & Heavy Oil-Range Hydrocarbons (NWTPH-Dx) (mg/L)		Selected Volatile Organic Compounds[1] (EPA Method 8260B or SW8021B) (µg/L)				
		Gasoline	Diesel	Oil	Benzene	Ethybenzene	Toluene	Xylenes	Naphthalene
JSCS SLV[1]		NE	NE	NE	1.2	7.3	9.8	13	0.2
SMW-15	12/27/02	<0.25	<0.25	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0
	03/27/03	<0.25	<0.25	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0
	07/15/03	<0.25	<0.25	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0
	10/28/03	<0.25	<0.25	<0.5	<1	<1	<1	<1	<1
	01/22/04	<0.25	--	--	<1	<1	<1	<1	<1
	04/28/04	<0.05	--	--	<1	<1	<1	<1	<1
	08/03/04	<0.25	--	--	<1	<1	<1	<1	<1
	10/28/04	<0.25	--	--	<1	<1	<1	<1	<1
	01/21/05	<0.25	--	--	<1	<1	<1	<1	<1
	04/22/05	<0.25	--	--	<1	<1	<1	<1	<1
	07/20/05	<0.25	--	--	<1	<1	<1	<1	<1
	10/26/05	--	--	--	<1	<1	<1	<1	--
	01/19/06	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	04/26/06	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	07/27/06	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	11/15/06	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	01/23/07	--	--	--	--	--	--	--	--
	05/24/07	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	08/30/07	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	11/29/07	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	02/21/08	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	05/16/08	--	--	--	<0.35	<0.25	<0.34	<0.3	--
	11/21/08	--	--	--	<0.25	<1	<0.5	<0.5	--
	12/02/08	--	--	--	0.05 J	0.06 J	<0.5	<0.5	--
	05/22/09	--	--	--	<0.50	<1.0	<1.0	<1.0	--

TABLE 12
SUMMARY OF GROUNDWATER CHEMICAL ANALYTICAL DATA
TPH AND VOLATILE ORGANIC COMPOUNDS

SHELL OIL PRODUCTS US PORTLAND BULK TERMINAL
3800 NW ST. HELENS ROAD
PORTLAND, OREGON

Monitoring Well Number	Date Sampled	Gasoline-Range Hydrocarbons (NWTPH-Gx) (mg/L)	Diesel- & Heavy Oil-Range Hydrocarbons (NWTPH-Dx) (mg/L)		Selected Volatile Organic Compounds[1] (EPA Method 8260B or SW8021B) (µg/L)				
		Gasoline	Diesel	Oil	Benzene	Ethybenzene	Toluene	Xylenes	Naphthalene
JSCS SLV[1]		NE	NE	NE	1.2	7.3	9.8	13	0.2
SMW-16	12/26/02	<0.25	<0.25	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0
	03/27/03	<0.25	<0.25	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0
	07/15/03	<0.25	<0.25	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0
	10/28/03	<0.25	<0.25	<0.5	<1	<1	<1	<1	<1
	01/22/04	<0.25	--	--	<1	<1	<1	<1	<1
	04/28/04	<0.25	--	--	<1	<1	<1	<1	<1
	08/03/04	<0.25	--	--	<1	<1	<1	<1	<1
	10/28/04	0.25	--	--	<1	<1	<1	<1	<1
	01/21/05	<0.25	--	--	<1	<1	<1	<1	<1
	04/22/05	0.27	--	--	<1	<1	<1	<1	<1
	07/20/05	<0.25	--	--	<1	<1	<1	<1	<1
	10/26/05	--	--	--	<1	<1	<1	<1	--
	01/19/06	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	04/26/06	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	07/27/06	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	11/15/06	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	01/23/07	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	05/24/07	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	08/30/07	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	11/29/07	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	02/21/08	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	05/16/08	--	--	--	<0.35	<0.34	<0.25	<0.3	--
	12/02/08	--	--	--	<0.5	0.1 J	<0.5	0.26 J	--
	05/22/09	--	--	--	<0.50	<1.0	<1.0	<1.0	--

TABLE 12
SUMMARY OF GROUNDWATER CHEMICAL ANALYTICAL DATA
TPH AND VOLATILE ORGANIC COMPOUNDS

SHELL OIL PRODUCTS US PORTLAND BULK TERMINAL
3800 NW ST. HELENS ROAD
PORTLAND, OREGON

Monitoring Well Number	Date Sampled	Gasoline-Range Hydrocarbons (NWTPH-Gx) (mg/L)	Diesel- & Heavy Oil-Range Hydrocarbons (NWTPH-Dx) (mg/L)		Selected Volatile Organic Compounds[1] (EPA Method 8260B or SW8021B) (µg/L)				
		Gasoline	Diesel	Oil	Benzene	Ethybenzene	Toluene	Xylenes	Naphthalene
JSCS SLV[1]		NE	NE	NE	1.2	7.3	9.8	13	0.2
SMW-17	12/26/02	<0.25	<0.25	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0
	03/27/03	<0.25	<0.25	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0
	07/15/03	<0.25	<0.25	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0
	10/28/03	<0.25	<0.25	<0.5	<1	<1	<1	<1	<1
	01/22/04	<0.25	--	--	<1	<1	<1	<1	<1
	04/28/04	<0.25	--	--	<1	<1	<1	<1	<1
	08/03/04	<0.25	--	--	<1	<1	<1	<1	<1
	10/28/04	<0.25	--	--	<1	<1	<1	<1	<1
	01/21/05	<0.25	--	--	<1	<1	<1	<1	<1
	04/22/05	<0.25	--	--	<1	<1	<1	<1	<1
	07/20/05	<0.25	--	--	<1	<1	<1	<1	<1
	10/26/05	--	--	--	<1	<1	<1	<1	--
	01/19/06	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	04/26/06	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	07/27/06	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	11/15/06	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	01/23/07	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	05/24/07	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	08/30/07	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	11/29/07	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	02/21/08	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	05/16/08	--	--	--	<0.35	<0.25	<0.34	<0.3	--
	12/02/08	--	--	--	0.08 J	0.06 J	<0.5	<0.5	--
	05/22/09	--	--	--	<0.50	<1.0	<1.0	<1.0	--
SMW-18	12/27/02	<0.25	<0.25	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0
	03/27/03	<0.25	<0.25	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0
	07/15/03	<0.25	<0.25	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0
	10/28/03	<0.25	<0.25	<0.5	<1	<1	<1	<1	<1
	01/22/04	<0.25	--	--	<1	<1	<1	<1	<1
	04/28/04	<0.25	--	--	<1	<1	<1	<1	<1
	08/03/04	<0.25	--	--	<1	<1	<1	<1	<1
	10/28/04	<0.25	--	--	<1	<1	<1	<1	<1

TABLE 12
SUMMARY OF GROUNDWATER CHEMICAL ANALYTICAL DATA
TPH AND VOLATILE ORGANIC COMPOUNDS

SHELL OIL PRODUCTS US PORTLAND BULK TERMINAL
3800 NW ST. HELENS ROAD
PORTLAND, OREGON

Monitoring Well Number	Date Sampled	Gasoline-Range Hydrocarbons (NWTPH-Gx) (mg/L)	Diesel- & Heavy Oil-Range Hydrocarbons (NWTPH-Dx) (mg/L)		Selected Volatile Organic Compounds[1] (EPA Method 8260B or SW8021B) (µg/L)				
		Gasoline	Diesel	Oil	Benzene	Ethybenzene	Toluene	Xylenes	Naphthalene
JSCS SLV[1]		NE	NE	NE	1.2	7.3	9.8	13	0.2
SMW-18	01/21/05	<0.25	--	--	<1	<1	<1	<1	<1
	04/22/05	<0.25	--	--	<1	<1	<1	<1	<1
	07/20/05	<0.25	--	--	<1	<1	<1	<1	<1
	10/26/05	--	--	--	<1	<1	<1	<1	--
	01/19/06	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	04/26/06	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	07/27/06	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	11/15/06	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	01/23/07	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	05/24/07	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	08/24/07	--	--	--	<0.500	<0.500	<0.500	<1.50	--
	08/30/07	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	11/29/07	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	11/30/07	--	--	--	<0.500	<0.500	<0.500	<1.50	--
	02/15/08	--	--	--	<0.500	<2.00	<0.500	<0.5	--
	02/21/08	--	--	--	<0.200	<0.500	<0.500	<1.00	--
	05/16/08	--	--	--	<0.25	<1.0	<0.5	<0.5	--
	05/16/08	--	--	--	<0.35	<0.25	<0.34	<0.3	--
	12/02/08	--	--	--	0.06 J	0.08 J	<0.5	<0.5	--
	05/22/09	--	--	--	<0.50	<1.0	<1.0	<1.0	--
SMW-23	05/15/02	--	<0.25	<0.75	<1.0	<1.0	<1.0	<1.0	<2.0
	09/16/02	--	--	--	--	--	--	--	--
	12/27/02	<0.25	--	--	<1.0	<1.0	<1.0	<1.0	<1.0
	07/15/03	<0.25	--	--	<1.0	<1.0	<1.0	<1.0	<1.0

Notes:

< = Values reported below the laboratory reporting limit.
J = Associated numerical value is an estimated quantity.
mg/L = milligrams per liter
µg/L = micrograms per liter
NE = Not Evaluated
-- = Not analyzed
Bold indicates concentrations exceed an JSCS SLV.

[1]Oregon Department of Environmental Quality. Interim Final Portland Harbor Joint Source Control Strategy, Table 3-1. December 2005, updated July 2007. The values reported were chosen based on the priority listed in Table 3-1.

TABLE 13
SUMMARY OF GROUNDWATER CHEMICAL ANALYTICAL DATA[1]
POLYCYCLIC AROMATIC HYDROCARBONS
SHELL OIL PRODUCTS US PORTLAND BULK TERMINAL
3800 NW ST. HELENS ROAD
PORTLAND, OREGON

Polycyclic Aromatic Hydrocarbons (EPA Method 8270 or 8310) (µg/L)																			
Sample Location	**Date Sampled**	1-Methylnaphthalene	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene
JSCS SLV[1]		NE	0.2	0.2	0.2	0.2	0.018	0.018	0.018	0.2	0.018	0.018	0.018	0.2	0.2	0.018	0.2	0.2	0.2
MW-6	12/30/02	--	--	**2.4**	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	**3.7**	<2	<2	**2.5**	<2
	02/10/09	--	<1.0	**2.2**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**2.3**	<1.0	<1.0	**1.3**	<1.0
	05/22/09	**1200**	**95**	**150**	<25	**41**	<25	<25	<25	<25	<25	<25	<25	<25	**210**	<25	<25	**300**	**26**
	11/09/10	**18**	<2.0	**3**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	**2.2**	<2.0	<2.0	<2.0	<2.0
	02/02/11	**12**	<1.0	**3.4**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**2**	<1.0	<1.0	<1.0	<1.0
	02/22/12	--	<0.5	**0.954**	<0.5	<0.5	**0.00658**	**0.00488**	<0.005	<0.005	<0.005	**0.0146**	<0.005	<0.5	**0.413**	<0.005	<1.0	<0.5	**0.128**
MW-8	04/21/05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/11/09	--	<1.0	**1.5**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**2**	<1.0	<1.0	**1.3**	<1.0
	05/22/09	**74**	<2.5	**3**	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	**3.9**	<2.5	<2.5	<2.5	<2.5
	08/04/09	**170**	<0.10	**4.2**	<0.10	**0.23**	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	**0.11**	**7.8**	<0.10	<0.10	**3.3**	**0.15**
	11/02/09	**230**	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	01/26/10	**140**	<0.10	**4.3**	<0.10	**0.28**	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	**0.12**	**6.6**	<0.10	**1.2**	**3.4**	**0.18**
	05/26/10	**100**	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
	08/06/10	**96**	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
	11/09/10	**160**	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	**5.2**	<5.0	<5.0	<5.0	<5.0
	02/01/11	**130**	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
	02/22/12	--	<0.5	**3.67**	<1.0	**0.238**	**0.0102**	**0.0133**	**0.0159**	<0.1	**0.0151**	**0.0134**	**0.0237**	**0.0588**	**3.84**	**0.0256**	<2.40	**1.45**	**0.0954**
MW-11	05/22/09	**22**	<1.0	**1.2**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	05/26/10	**29**	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
MW-116	12/30/02	--	--	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	**19**	<4	**21**	**12**	**6.9**
	02/11/09	--	**40**	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	**12**	<2.5	**9**	**19**	<2.5
	05/22/09	**8.9**	**1.4**	**6.2**	<0.20	**8**	<0.20	<0.20	<0.20	<0.20	<0.20	**0.36**	<0.20	**0.42**	**8.9**	<0.20	<0.20	<0.20	**4.6**
	11/02/09	**120**	**83**	**6.2**	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	**12**	<5.0	**29**	**10**	<5.0
	01/26/10	**30**	**8.1**	**1.7**	<0.10	**0.31**	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	**3.9**	<0.10	**4.7**	**1.1**	**0.53**
	05/26/10	**15**	**3.9**	**1.6**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**3.4**	<1.0	<1.0	**3.3**	<1.0
	08/06/10	**7.9**	**1.3**	**1.8**	<0.50	**0.57**	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	**3.2**	<0.50	<0.50	**1.4**	**0.64**
	11/09/10	**5.1**	**1.4**	**0.76**	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	**1.1**	<0.50	<0.50	<0.50	<0.50
	02/01/11	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
	02/22/12	--	<0.10	<0.10	<0.10	<2.0	**0.0363**	**0.0131**	**0.00839**	<0.10	<0.005	**0.12**	<0.005	<0.10	<2.0	**0.00617**	<1.0	<1.0	**0.607**

TABLE 13
SUMMARY OF GROUNDWATER CHEMICAL ANALYTICAL DATA[1]
POLYCYCLIC AROMATIC HYDROCARBONS
SHELL OIL PRODUCTS US PORTLAND BULK TERMINAL
3800 NW ST. HELENS ROAD
PORTLAND, OREGON

Polycyclic Aromatic Hydrocarbons (EPA Method 8270 or 8310) (µg/L)																			
Sample Location	**Date Sampled**	1-Methylnaphthalene	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene
JSCS SLV[1]		NE	0.2	0.2	0.2	0.2	0.018	0.018	0.018	0.2	0.018	0.018	0.018	0.2	0.2	0.018	0.2	0.2	0.2
MW-117	12/31/02	--	--	<1	**7.4**	<1	<1	<1	<1	<1	<1	<1	<1	<1	**6.2**	<1	<1	<1	<1
	02/10/09	--	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	**2.5**	<0.50	<0.50
	05/22/09	**24**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	08/04/09	**47**	<0.10	**0.63**	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	**1.2**	<0.10	<0.10	**1.1**	<0.10
	11/02/09	**26**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	**4.2**	<2.0	<2.0
	01/26/10	**41**	**0.67**	**0.52**	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	**0.76**	<0.10	**4.2**	**0.67**	<0.10
	05/26/10	**25**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	**4**	<2.0	<2.0
	08/06/10	**26**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
MW-117	11/09/10	**26**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	02/02/11	**24**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	02/02/11	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	02/22/12	--	**0.159**	**0.438**	<0.1	<0.1	<0.005	<0.005	<0.005	<0.1	<0.005	<0.005	<0.005	<0.1	**0.556**	<0.005	<5.0	**0.475**	<0.1
American Industries Wells																			
AS-1	12/03/08	--	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	08/04/09	**12**	<0.10	**3.3**	<0.10	**0.18**	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	**0.21**	**2.5**	<0.10	<0.10	**1.4**	**0.25**
	02/21/12	--	<0.10	**1.32**	<0.2	**0.153**	**0.0132**	<0.05	<0.05	<0.10	<0.05	**0.0137**	<0.05	**0.192**	**0.967**	<0.05	<0.10	**1.21**	**0.231**
AS-2	12/03/08	--	**1**	**2.5**	<0.1	**0.19**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.15**	**2.1**	<0.1	<0.1	**1.5**	**0.2**
	08/04/09	<0.10	<0.10	**1**	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	**1.4**	<0.10	<0.10	<0.10	**0.53**	<0.10
AS-3	12/02/08	--	**4**	**0.59**	<0.1	**0.12**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.17**	**1**	<0.1	<0.1	**0.25**	**0.17**
	08/04/09	**1.7**	<0.10	**0.94**	<0.10	**0.18**	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	**0.39**	**1.5**	<0.10	<0.10	**0.43**	**0.4**
	12/31/02	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

TABLE 13
SUMMARY OF GROUNDWATER CHEMICAL ANALYTICAL DATA[1]
POLYCYCLIC AROMATIC HYDROCARBONS
SHELL OIL PRODUCTS US PORTLAND BULK TERMINAL
3800 NW ST. HELENS ROAD
PORTLAND, OREGON

Polycyclic Aromatic Hydrocarbons (EPA Method 8270 or 8310) (µg/L)																			
Sample Location	**Date Sampled**	1-Methylnaphthalene	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene
JSCS SLV[1]		NE	0.2	0.2	0.2	0.2	0.018	0.018	0.018	0.2	0.018	0.018	0.018	0.2	0.2	0.018	0.2	0.2	0.2
Pipeline Corridor/Gunderson Wells																			
SMW-11	05/16/02	--	--	**1.2**	**0.34**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**1.1**	<0.1	<0.1	**0.3**	<0.1
	12/27/02	--	--	**0.61**	**0.21**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.49**	<0.1	**0.13**	**0.21**	<0.1
	03/27/03	--	--	**0.39**	**0.11**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.27**	<0.1	<0.1	**0.17**	<0.1
	07/15/03	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	12/02/08	--	**0.017**	**1.6**	<0.055	**0.078**	**0.0096**	**0.0089**	**0.012**	**0.013**	**0.004**	**0.012**	**0.0021 J**	**0.018**	**0.11**	**0.012**	<0.450	**1.1**	**0.12**
SMW-12	05/16/02	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	09/13/02	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	12/26/02	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	03/27/03	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	07/15/03	--	--	**0.28**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**1.5**	<0.1	<0.1	**0.2**	<0.1
	12/02/08	--	**0.0024 J**	**0.0064**	**0.0018 J**	**0.0094**	**0.0093**	**0.0092**	**0.011**	**0.0085**	**0.0042**	**0.013**	**0.0015 J**	**0.024**	**0.0035**	**0.0078**	**0.0072**	**0.022**	**0.047**
SMW-13	05/16/02	--	--	**0.41**	**0.16**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.15**	**0.11**
	09/13/02	--	--	**0.2**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.7**	<0.1	<0.1	**0.1**	<0.1
	12/26/02	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	03/27/03	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.18**	<0.1	<0.1	<0.1	<0.1
	07/15/03	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.2**	<0.1	<0.1	**0.24**	**0.13**
	12/02/08	--	**0.0043**	**0.024**	**0.0047**	**0.01**	**0.011**	**0.007**	**0.0077**	**0.0083**	**0.0023 J**	**0.014**	**0.0009 J**	**0.01**	**0.0038**	**0.0063**	**0.087**	**0.011**	**0.091**
SMW-14	05/16/02	--	--	**0.39**	**0.31**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.25**	**0.38**	<0.1
	09/16/02	--	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**0.6**	<0.5
	12/27/02	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.11**	<0.1	<0.1	**0.17**	**0.16**	**0.14**
	03/27/03	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.19**	<0.1	<0.1	**0.17**	<0.1
	07/15/03	--	--	**0.12**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.23**	<0.1	<0.1	**0.28**	**0.11**
	12/02/08	--	**0.0035**	**0.065**	**0.0063**	**0.021**	**0.043**	**0.041**	**0.036**	**0.045**	**0.011**	**0.048**	**0.0044**	**0.15**	**0.012**	**0.033**	**0.02**	**0.1**	**0.3**

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POLYCYCLIC AROMATIC HYDROCARBONS
SHELL OIL PRODUCTS US PORTLAND BULK TERMINAL
3800 NW ST. HELENS ROAD
PORTLAND, OREGON

Polycyclic Aromatic Hydrocarbons (EPA Method 8270 or 8310) (µg/L)																			
Sample Location	**Date Sampled**	1-Methylnaphthalene	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene
JSCS SLV[1]		NE	0.2	0.2	0.2	0.2	0.018	0.018	0.018	0.2	0.018	0.018	0.018	0.2	0.2	0.018	0.2	0.2	0.2
SMW-15	05/15/02	--	--	**0.11**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.11**	<0.1	<0.1	<0.1	**0.11**	**0.15**
	09/13/02	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.1**	<0.1	<0.1	<0.1	**0.2**	<0.1	<0.1	<0.1	**0.2**	**0.4**
	12/27/02	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	03/27/03	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	07/15/03	--	--	**0.23**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	12/02/08	--	**0.0037**	**0.018**	**0.0044**	**0.0092**	**0.019**	**0.03**	**0.024**	**0.037**	**0.0078**	**0.023**	**0.0035**	**0.07**	**0.0032 J**	**0.027**	**0.015**	**0.048**	**0.13**
SMW-16	05/15/02	--	--	**0.23**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.12**	<0.1	<0.1	**0.16**	**0.12**
	09/13/02	--	--	**0.3**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.1**	<0.1
	12/26/02	--	--	**0.14**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	03/27/03	--	--	**0.13**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	07/15/03	--	--	**0.4**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	12/02/08	--	**0.0092**	**0.44**	**0.016**	**0.026**	**0.063**	**0.092**	**0.082**	**0.09**	**0.03**	**0.07**	**0.014**	**0.15**	**0.011**	**0.078**	**0.12**	**0.068**	**0.32**
SMW-17	05/15/02	--	--	**0.11**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	09/16/02	--	--	**0.6**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	12/26/02	--	--	**0.17**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	03/27/03	--	--	**0.2**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	07/15/03	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	12/02/08	--	**0.0076**	**0.36**	**0.013**	**0.012**	**0.023**	**0.041**	**0.034**	**0.053**	**0.015**	**0.03**	**0.0046**	**0.052**	**0.0064**	**0.04**	**0.079**	**0.053**	**0.12**

TABLE 13
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POLYCYCLIC AROMATIC HYDROCARBONS
SHELL OIL PRODUCTS US PORTLAND BULK TERMINAL
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PORTLAND, OREGON

Polycyclic Aromatic Hydrocarbons (EPA Method 8270 or 8310) (µg/L)																			
Sample Location	**Date Sampled**	1-Methylnaphthalene	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene
JSCS SLV[1]		NE	0.2	0.2	0.2	0.2	0.018	0.018	0.018	0.2	0.018	0.018	0.018	0.2	0.2	0.018	0.2	0.2	0.2
SMW-18	05/15/02	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	09/16/02	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.1**
	12/27/02	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	03/27/03	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	07/15/03	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	12/02/08	--	**0.0033 J**	**0.04**	**0.005**	**0.0061**	**0.011**	**0.016**	**0.014**	**0.02**	**0.0**	**0.014**	**0.0017 J**	**0.027**	**0.003 J**	**0.014**	**0.021**	**0.031**	**0.066**
SMW-23	05/15/02	--	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

Notes:
< = Values reported below the laboratory reporting limit.
J = Associated numerical value is an estimated quantity.
JSCS SLVs = Portland Harbor Joint Source Control Strategy Screening Level Values.
µg/L = micrograms per liter
NE = Not Evaluated
-- = Not analyzed
Bold indicates analyte detection
= Highlighted concentrations exceed an JSCS SLV.
[1]Oregon Department of Environmental Quality. Interim Final Portland Harbor Joint Source Control Strategy, Table 3-1. December 2005, updated July 2007. The values reported were chosen based on the priority listed in Table 3-1.


Cascadia
Associates, LLC