

**H&V FIBER REMEDIAL PERFORMANCE REPORT  
2020**

H&V Fiber Corporation  
Corvallis, Oregon

DEQ ECSI Number 40

Prepared for:

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# 1 INTRODUCTION

PNG Environmental, Inc. (PNG) prepared this report on behalf of H&V Fiber Corporation (formerly Evanite) to document remedial system performance and groundwater monitoring activities conducted at the former Evanite site for the 2020 calendar year. The Evanite site is located at 1115 SE Crystal Lake Drive in Corvallis, Oregon (Figures 1 through 3). Trichloroethene (TCE) was historically released in soil and groundwater at the site creating dense non-aqueous phase liquid (DNAPL) conditions at the Submicro Building Source Zone. Remedial actions in soil and groundwater were first implemented in 1991 and continue through the present.

Routine site monitoring and reporting conducted since site discovery in 1986 was aimed at documentation of the pump and treat system performance with groundwater wells sampled on a quarterly basis. Groundwater extraction was operated continuously with significant TCE recovered over the first three years of operation. An estimated 90,500 pounds of TCE was extracted as DNAPL from soil and groundwater between 1991 and 1993. After several years of groundwater extraction, very little change in groundwater quality was noted between events as the groundwater surrounding each extraction well was flushed of mobile DNAPL and dissolved phase TCE. Concentrations in monitoring wells outside the core of the plume (i.e., the Source Zone at the Submicro Building) slowly decreased to relatively steady state concentration conditions by the late 1990's. Trichloroethene mass recovery between 2000 and 2011 averaged approximately 1,000 pounds per year with very little change in concentrations of TCE in site remediation wells.

Starting in late 2011, with the addition of a catalytic oxidizer purchased and installed for destruction of TCE off-gas, groundwater pumping from the Source Zone was increased to create a larger unsaturated zone cone of depression in the Submicro Building Source Zone. Soil vapor extraction (SVE) applied in newly installed wells at the top of the now unsaturated aquifer provided for an increase in mass removal with over 10,000 pounds of TCE recovered per year in 2012 and 2013. Groundwater extraction necessary for dewatering the Source Zone was slowly increased through the period with upgrades implemented on the air stripper, tanks, water and air piping, and SVE system.

In 2013, PNG implemented a pilot test to evaluate enhanced reductive dechlorination (ERD) as a remedial alternative to be applied surrounding and within the Source Zone once the decreasing concentration trend in dissolved plume and/or SVE mass removal in the Source Zone became asymptotic. Wells were installed along the axis of the Source Zone plume on the south (i.e., upgradient) edge for injection of nutrients. A recirculation cell was established with extraction in the core of the Source Zone and, after augmentation, reinjection of the extracted water. This cell was designed to provide data ranging from an area with very low TCE concentrations upgradient of the plume to the core of the DNAPL Source Zone where residual DNAPL remains. Monitoring well pairs in the upper and lower portions of the aquifer provided performance data. The test was successful in stimulating degradation in a former DNAPL zone with significant concentrations of anaerobic degradation products measured in the test area. Very little rebound has been observed since 2013.

Subsequent to successful pilot testing, PNG prepared an addendum to the 2007 Focused Feasibility Study (FFS) (Kennec 2007) presenting an amended remedial option (PNG 2015a). Remedy RA-2 Amended included 1) SVE for mass depletion at the DNAPL Source Zone and vapor intrusion protection for the Submicro Building, 2) aggressive

groundwater extraction focused in the Source Zone to remove dissolved contaminants and increase thickness of the unsaturated zone to support SVE, and 3) polishing with ERD starting at the periphery of the plume and moving into the Source Zone. The more aggressive approach, as opposed to the previous decades of pump and treat operations, was supported and/or dependent on the purchase and operations of a Catalytic Oxidizer (CatOx) off-gas system that destroyed chlorinated solvents in the SVE and groundwater air stripper streams. The discharge limits to atmosphere at that time were on the order of a few hundred pounds per year; operations during the pilot testing created over 10,000 pounds per year that was treated with the CatOx.

On May 3, 2017, all off-gas from the groundwater extraction and SVE systems was transitioned to activated carbon adsorption rather than the previously used CatOx system. In May 2017, two 2,000-pound vapor phase activated carbon adsorption canisters were installed in series near the Submicro Building. Off-gas plumbing was altered to connect these carbon adsorption treatment canisters and vent the treated exhaust to a stack above the Submicro roofline (approximately 40 feet above ground). An inline duct heater was installed prior to the activated carbon adsorption canisters to reduce the relative humidity of the influent air stream, as needed, to improve carbon adsorption efficiency. These vapor treatment system modifications allow for significantly increased treatment effectiveness, as well as separation of the remediation systems from H&Vs process, resulting in less remediation system down time. In 2019 and 2020, approximately 0.5 and 0.2 pounds of TCE, respectively, were discharged to atmosphere.

The Oregon Department of Environmental Quality (DEQ) concurred with the conclusions presented in the amended FS and prepared a Staff Report of the recommended remedial action (DEQ 2015a). This document was posted to the DEQ website to support the 30 day public comment period in May 2015. Comments were minimal with several providing support for the recommended remedy.

DEQ prepared the Record of Decision (ROD) (DEQ 2015b) which included a summary of site conditions and the recommended remedial alternative. DEQ stated that the remedial action was considered to be protective, effective, reliable, and cost effective. Current regulatory activities include finalization of a Consent Judgement and development of remedial design documents that will include an updated performance monitoring plan consistent with the optimized remedial scheme.

DEQ's Resource Conservation and Recovery Act (RCRA) program performed a review of progress with the Evanite cleanup activities in September 2016. Primary documents cited in this review were the ROD and 2015 Annual Performance Report. Based on substantive progress with the cleanup dating back to 1991 and including remedial construction activities during the past five years, DEQ assigned the site a RCRA Info Remedy Construction date code of CA 550. This code signifies "remedy constructed" from the standpoint of having been designed to achieve long-term protection of human health and the environment.

In late 2020, H&V submitted the Consent Judgment package to DEQ and is awaiting final approval. The Consent Judgement will serve as a vehicle for implementing the remaining portions of the ROD. Many of the ROD elements have been implemented over the past few years in cooperation with DEQ as pilot testing results were positive and those elements were transitioned to long-term operations.

## **1.1 BACKGROUND**

The history of the site and surrounding area, including summaries of previous investigations, are provided in extensive detail in the original Part B Post Closure Permit

Application (CH2M Hill 1987), Focused Feasibility Study (Kennec 2007), Evanite DNAPL Source Zone Well Installation (PNG 2009a), and H&V Fiber Remedial Performance Report – 2013 (PNG 2014).

Trichloroethene was predominantly used at Evanite from the period between 1975 and 1996 in the manufacturing process for polyethylene-silica battery separator material. Historic spills/releases resulted in a DNAPL Source Zone located in the former process area at the Submicro Building, with a dissolved phase volatile groundwater plume migrating north and northeast towards the Willamette and Marys Rivers (Figures 4 and 5). The original TCE concentrations measured prior to implementation of remediation in 1991 were at near saturation concentrations in the Source Zone with the 100,000 micrograms per liter (ug/L) plume covering approximately ten acres. The original 10,000 ug/L TCE plume outline extended over approximately 23 acres of the facility and discharged into the rivers. The current plume core, as defined by a vapor intrusion standard of 3,700 ug/L for TCE, has been depleted to where only one well still exceeds the criteria (DMW-23 located near the Millrace and Glass Plant). The area has shrunk to less than one-half acre.

Contamination at the Evanite site consists nearly entirely of TCE and its degradation products. Additionally, a segment of the plume offsite to the south in the edges of an adjacent residential neighborhood has been remediated. This historic segment of the Evanite TCE plume also comingled with one or more offsite, upgradient chlorinated groundwater plumes that currently continue to migrate through the neighborhood in a northerly direction toward the Evanite property.

Evanite has been engaged in continuous remedial action with Environmental Protection Agency (EPA) and DEQ approval since April 30, 1990. Hydraulic containment through groundwater pumping at up to six site wells began in 1991 with over 562 million gallons of groundwater extracted and treated through 2020. Evanite's hydraulic containment and groundwater monitoring system historically included six groundwater extraction wells, thirteen monitoring wells located onsite, and up to seventeen residential water wells in the adjacent neighborhood to the south. Additional Source Zone, dual purpose monitoring, and remediation treatment wells were installed in 2009, 2013, 2014, and 2015. Currently, the site well network includes 57 wells screened either at the top or base of the aquifer (i.e., intermediate or deep designation) and includes three wells in the neighborhood to the south. Figure 2 illustrates the current monitoring well network and several of the historic residential wells in the adjacent neighborhood. Well construction details are provided in Table 1.

## **1.2 PERFORMANCE MONITORING PROGRAM**

The monitoring program in 2013 was based on a Performance Monitoring Plan (PNG 2013) that reflected the startup of the CatOx system which allowed increases in groundwater extraction and DNAPL mass removal through SVE. Monitoring requirements for 2020, which followed the same basic schedule outlined in 2013, are illustrated in Table 2. The long-term monitoring program will be developed once the Consent Judgement is signed and will be presented in the Remedial Design/Remedial Action scope of work which includes Sampling and Analysis, Operations and Maintenance, and Performance Monitoring plans. These plans will include flexibility to accommodate the various components of the remedy as initially implemented and subsequently modified in response to reduction of concentrations in the ERD and source depletion areas. The future performance program is discussed in Section 5.3 of this report and will be written in consultation with DEQ after a short pilot phase of implementation following construction activities.

## 2 REGULATORY SETTING

The original 25-acre Evanite TCE plume encompasses multiple potential human health and ecological exposure pathways across the site, ranging from the residential setting in the neighborhood located to the south to heavy industrial manufacturing in the many Evanite buildings, and eventually to groundwater discharge to the Marys and Willamette Rivers. PNG, in a cooperative effort with DEQ, identified currently applicable default regulatory screening criteria for the evaluation of data collected at the Evanite site. The screening criteria were selected based on current and reasonably likely future use of the subject property for complete human health and ecological exposure pathways. These default criteria are considered conservative by definition as they were developed by DEQ for application at typical sites using reasonable exposure parameters. Screening values are presented in Table 3.

The chemicals of potential concern (COPCs) were established decades ago with substantive sampling of soil and groundwater centered around the RCRA Appendix IX analytical suite. A consistent lack of detection of other chemicals (specifically volatile organic compounds [VOCs]) related to TCE resulted in Evanite and the agencies narrowing the target chemical list to five chlorinated compounds related to TCE and its degradation products.

The DEQ's cleanup programs were in early stages of development when Evanite was developing their initial remedial scheme in the late 1980's; therefore, specific guidance for establishing risk-based cleanup goals did not exist. The initial cleanup goal for COPCs was established as "background" with a caveat to seek an alternate concentration limit if background could not be achieved within a few years. Based on the presence of mobile DNAPL over a large area, it was recognized that background levels were unachievable at that time. During the next two decades as active remediation was ongoing, risk-based regulatory criteria were developed by DEQ and now provide a framework for guiding future remedial efforts. DEQ released a ROD in September 2015 developed for the site using these default screening levels.

Human health criteria are provided by DEQ's Risk Based Decision-Making (RBDM) guidance that was originally produced to address hydrocarbon sites, and subsequently modified on several occasions to include other volatiles such as the Evanite COPCs (DEQ 2003). Risk-based concentrations (RBCs) are established for most common applicable human health exposure pathways. Ecological guidance is provided by DEQ's Guidance for Ecological Risk Assessment: Levels I, II, III, IV. This document was developed by DEQ in April 1998 and is consistent with EPA's approach to ecological risk assessment. Level I Ecological Scoping is intended to discern the potential for ecological impacts from site-related contaminants. Level II Ecological Screening provides agency-approved screening criteria (ecological benchmark values) for potentially impacted media and reasonably likely ecological receptors.

A site-specific human health and ecological risk assessment is not necessary for Evanite at this time due to the unique circumstances created by the DNAPL Source Zone and resulting dissolved phase TCE plume. The TCE plume in soil and groundwater at the Submicro Source Zone contains residual DNAPL that is the primary target of future remedial efforts. Contamination in this industrial part of the site exceeds applicable generic RBCs and is expected to do so for many years. Any site specific RBCs calculated for this area would also be exceeded.

The peripheral areas at Evanite surrounding the DNAPL Source Zone have been flushed with pump and treat remediation for decades, and concentrations are below applicable

generic criteria in soil, groundwater, sediment pore water, surface water, and air media. A site specific risk assessment applicable to these areas is not necessary, as the concentrations measured during routine sampling events meet generic criteria that are more conservative (i.e., lower concentration) than site-specific criteria.

## 2.1 DEQ RISK-BASED CONCENTRATIONS

DEQ first developed RBDM guidance for comparing Contaminants of Interest (COI) concentrations to default RBCs for applicable human health exposure scenarios in 2003. These RBCs eventually replaced EPA Preliminary Remediation Goals (PRGs) as screening criteria in human health risk assessments. Published RBC tables are updated periodically by DEQ with the most critical update relevant to Evanite published in November 2011 when the standards for TCE were updated based on new toxicity values published by EPA. More recently in February 2012, DEQ issued an update for tetrachloroethene (PCE) that incorporated a similar modification by EPA to the parameters for that chemical. Both of these modifications increased the RBC concentrations for the various exposure pathways for these chemicals. The current RBDM table was published in May 2018.

In the 2009 revision to its RBC tables, DEQ included newly-developed soil gas and indoor air RBCs for residential, urban, and occupational settings. DEQ also published final guidance for vapor intrusion assessments (DEQ 2010), and issued revised air and soil vapor RBC values in November 2011, February 2012, and November 2015.

The published RBCs (Table 3) represent a conservative default concentration of a chemical in an impacted medium (e.g., soil, groundwater, or air) that represents the upper limit as a regulatory standard. When chemical concentrations on a site exceed the RBC, unacceptable human health impacts are potentially present. For carcinogens, the regulatory standard is represented by an excess cancer risk of one in one million (1E-06); for non-carcinogens, this is represented by a Hazard Index of 1. RBC exceedances typically trigger further investigation and, potentially, a human health risk assessment (HHRA). Therefore, RBCs can be applied at sites as generic, conservative cleanup standards and are routinely used by DEQ to determine if a site requires additional action. Site specific parameters used in the equations to develop the RBCs are often adjusted to match actual conditions in developing site-specific cleanup levels. These are generally significantly greater concentrations than the generic standards. For the Evanite site, where active remediation has been ongoing for 30 years, the comparison is made in the context of the performance evaluation to determine if the site or areas of the site are sufficiently remediated to discontinue active remediation.

There are several exposure pathways by which a receptor may be exposed to a chemical, including incidental ingestion, inhalation, and dermal contact with the affected medium. The current and reasonably anticipated future use of the property is the primary criterion for determining whether a certain exposure pathway is likely to be of concern.

Considering the current industrial and occupational use of the Evanite property, the potential receptors and pathways that are considered applicable and evaluated for the site are:

- Direct contact with soil by an Evanite occupational worker or construction worker is a complete pathway of exposure where TCE was released in soil (i.e., Submicro Process Area). This pathway applies from ground surface to a depth of 10 to 15 feet below ground surface (bgs) which is considered the typical maximum depth of a utility.

- Direct contact with soil and/or groundwater by an excavation worker is a potentially complete pathway in areas where TCE was released in soil (i.e., Submicro Process Area). It is unlikely that direct contact with groundwater could be an issue as the depth to contaminated groundwater in the Source Zone at approximately 20 feet and in areas downgradient at over 40 feet as characterized by field observations downgradient towards the rivers.
- Volatilization of volatile chemicals from subsurface soil or groundwater to indoor and outdoor air is a complete pathway. Occupational workers could potentially be exposed in indoor and outdoor air. For construction and excavation workers, outdoor air is the only likely significant pathway of exposure. In the upgradient neighborhood to the south where low concentration remnants of the plume exist, a resident would be a potential receptor of concern but volatile concentrations do not exceed the applicable RBC; therefore, this is not a complete pathway.
- Domestic or commercial use of groundwater has been eliminated with engineering controls as the Evanite site is on city water and the residential neighborhood wells were switched from shallow wells to city water over 30 years ago; Evanite continues to pay water bills at potentially affected houses. It should also be noted that several upgradient chlorinated solvent plumes are commingled within the neighborhood and flow onto the Evanite property.
- Soil leaching to groundwater is a complete pathway as the TCE DNAPL migrated through the surficial silts/sands and silty sandy gravel aquifer to pool on the underlying clay surface. This pathway applies to the Source Zone.
- Groundwater migration to surface waters of the Willamette and Marys Rivers is a complete pathway that is controlled by the current pump and treat hydraulic containment system. The screening criteria for this pathway are among the lowest concentrations listed in Table 3 as this pathway is anticipated to become the final controlling factor for active remediation. TCE concentrations in the Submicro DNAPL Source Zone must be reduced such that screening criteria applied to the pore water and surface water are not exceeded when groundwater extraction and/or ERD are terminated.

Environmental data presented in the following sections are compared to the lowest RBC for each identified receptor zone (e.g., Residential, Upgradient Area, Source Zone Area, etc.) as presented in tables, figures and discussed in text. The relatively new soil vapor and air RBCs are compared to historic air samples collected at various locations within and around Evanite and to SVE performance data for the currently operating system.

## **2.2 GUIDANCE FOR ECOLOGICAL RISK**

A scoping level ecological risk assessment (Level I) consists of an overview of previous site investigations, site conditions, likely COIs, a description of potential ecological receptors (including rare, threatened, and endangered species) at or near the site, and a summary of the potential or likely exposure of ecological receptors to site-related chemicals. Through the identification of COIs, potential exposure media, potential ecological receptors, and complete exposure pathways, the Level I Scoping provides the basis for a conceptual ecological exposure model.

- The COPCs were previously identified as TCE and five of its chlorinated degradation products: PCE, cis-1,2-Dichloroethene (cis-1,2-DCE), trans-1,2-Dichloroethene (trans-1,2-DCE), 1,1-Dichloroethene (1,1-DCE), and Vinyl chloride.

- An evaluation of on-site pathways determined that the current and expected future habitat quality and quantity is low at the Evanite industrial site. Therefore, potential impact to terrestrial receptors was considered to be insignificant.
- Groundwater migration to the surface water of the Willamette and Marys Rivers is a complete pathway of exposure.

Consistent with DEQ Guidance for Ecological Risk Assessment, the potential for unacceptable impacts to aquatic receptors were further evaluated in a Level II, Ecological Screening. Both pore water samples and surface water samples were collected and screened against DEQ's Level II benchmark values (Table 3).

The benchmark screening values represent media concentrations below which no unacceptable adverse effects are anticipated. Analytical results for surface water samples were nondetect at the method reporting limit (MRL), which was below the benchmark screening criteria for aquatic receptors. Pore water samples were collected to represent the groundwater – surface water interface. Concentrations of the COPCs in surface water did not exceed the benchmark values. However, TCE in pore water at one location, RB-2, did exceed the benchmark values for surface water during the 2020 sampling event.

The Level II Screening determined that no unacceptable ecological impacts are anticipated to aquatic receptors in the Willamette and Marys Rivers. Where media concentrations are below benchmark values, no further ecological evaluation is required under DEQ Guidance.

### 3 2020 MONITORING

This section summarizes investigation activities and analytical results related to the performance monitoring activities at the site in 2020. Sampling was conducted on March 9-13, June 1-11, September 15-23, and December 9-10. Goals of the monitoring included update of the Conceptual Site Model (CSM), evaluation of hydraulic containment or plume capture, and analysis of plume remediation based on the trend of decreasing plume concentrations. An element of the groundwater sampling included the continued evaluation of potential rebound following the 2013 ERD pilot test that was conducted in the Submicro Building Source Zone. In September 2020, coincident with low surface water flow conditions in the rivers, hyporheic pore water and surface water sampling was conducted in the Willamette and Marys Rivers. These samples were necessary to evaluate potential risk at the surface water discharge point for the TCE plume. Soil vapor data were routinely collected from existing intermediate wells for evaluation of the vapor intrusion pathway and to provide remediation performance data necessary to optimize the SVE systems associated with the mass depletion effort at the Submicro Building Source Zone.

#### 3.1 ANNUAL GROUNDWATER MONITORING RESULTS

Monitoring wells were sampled in 2020 to provide a characterization of current plume conditions related to pump and treat operations and to support implementation of the ROD (DEQ 2015b) as proposed in the FFS Addendum (PNG 2015a). Groundwater data for quarterly, semiannual, and annual events in 2020 are presented and discussed below. These most recent data, together with average TCE concentrations from monitoring events over the past three years for each well, are illustrated on Figures 4 and 5 for the intermediate and deep aquifer zones, respectively. The applicable, generic cleanup standards (i.e., RBCs and Secondary Chronic Values [SCVs]) for exposure areas are presented on the figure to support a comparison and identify areas requiring further investigation and/or continued remediation. Laboratory analytical reports and data validation documentation are provided in Appendix A. Groundwater field sample forms are included in Appendix B.

##### 3.1.1 Groundwater Flow Characteristics

The depth to groundwater measurements and elevation data for each well are presented in Table 4. September is a period of seasonally low groundwater with depths to water around 25 to 30 feet bgs near and surrounding the Submicro DNAPL Source Zone. Depths within the Source Zone are controlled by active pumping, which creates a deep cone of depression. Figure 6 shows the groundwater contours from September 15, 2020 during the annual groundwater sampling event. The groundwater elevation contour map has five wells actively pumping in the Source Zone at the Submicro area at a total yield of 34.5 gallons per minute (gpm). Lateral groundwater flow at the Evanite facility is largely directed inward toward the pumping center at the Source Zone. Continuous groundwater extraction creates significant overlapping drawdown cones of depression within the Source Zone core of the Evanite site to support TCE mass removal from intermediate zone SVE wells. A groundwater flow stagnation point is created near wells MW-6, MW-15, and MW-13 as the water table bridges and flow begins to drop toward the Willamette River. This flow pattern created by the groundwater extraction and treatment system has been consistent for 30 years as the primary method to prevent TCE discharge to the rivers at unacceptable concentrations. Sediment pore water data presented in this report confirm the success of these containment efforts.

### 3.1.2 Groundwater Sampling Protocol

Groundwater sampling protocols, including PNG standard operating procedures (SOPs), can be found in the Evanite Sampling and Analysis Plan (SAP) (PNG 2009b). In general, groundwater samples are collected from in-line sampling ports at each of the extraction wells. Prior to sampling monitoring wells, well caps are removed and the static water level allowed to equilibrate before depth to water is measured. Monitoring wells are generally sampled following low-flow sampling methodology and, based on site conditions, either with a peristaltic pump or approved Grundfos submersible environmental pump with new HDPE tubing. All reusable sampling equipment is decontaminated between wells. A flow through cell is used to record groundwater quality parameters and samples are collected following groundwater quality parameter stabilization.

### 3.1.3 Groundwater Analytical Results

During the four groundwater monitoring events in 2020, a total of 121 well samples were collected with 48 samples collected in the September annual event. Data are presented by receptor areas in Tables 5 through 9 and are illustrated on Figures 4 and 5. Deep Zone TCE concentrations ranged from lower than detection limits in the neighborhood and upgradient areas to 14,300 ug/L in deep well DMW-23 (September 2020) which is located just downgradient of the Submicro DNAPL Source Zone. DMW-23 has the highest TCE concentration in groundwater during 2020. The highest intermediate zone concentration in 2020 was 23,200 ug/L at IMW-3, located in the source area and near the center of the cone of depression created by groundwater pumping.

The intermediate and deep zone groundwater plumes have been contoured separately to illustrate their distinct footprints and allow analysis of their unique potential exposure pathways and receptors. TCE contour concentrations of 3,700 ug/L and 47 ug/L were selected to represent the current and future likely default risk-based standards. The TCE concentration of 3,700 ug/L represents the current occupational vapor intrusion RBC and the TCE concentration of 47 ug/L represents the surface water SCV that would be applicable should the plume migrate to and discharge through hyporheic pore water into the rivers.

The area of concern for vapor intrusion from the water table plume or intermediate zone plume (Figure 4) is very limited in extent as compared to the original plume characterized in the 1980's. Only well IMW-3 at the Submicro Building contains unacceptable TCE concentrations using the vapor intrusion RBC of 3,700 ug/L for an occupational setting. This building is currently protected from vapor intrusion by an active sub slab SVE system that is operating during the ongoing source depletion efforts; essentially a combination of mass depletion and vapor intrusion mitigation. TCE concentrations in this uppermost groundwater (i.e., the water table) do not exceed the generic vapor intrusion RBC beneath the Glass Plant Building because plume migration from the source area was and continues to be primarily along the lower aquitard surface. A zone or wedge of relatively clean groundwater overlies the deep plume and provides a barrier to vapor intrusion. In addition, the near surface silt horizon has very low conductivity and provides an additional physical barrier to potential vapor intrusion. Vapor intrusion is therefore not a current concern for the Glass Plant Building.

The 47 ug/L TCE contour in the intermediate groundwater zone (Figure 4) defines a plume that would represent an unacceptable risk if it migrated to the rivers and discharged at these concentrations. This area is limited to the Submicro Source Zone and western Glass Plant footprints; downgradient wells contain very low concentrations or are nondetect for TCE. Because there has not been any active remediation in the intermediate zone

downgradient of the Source Zone, these low concentrations downgradient suggest the intermediate plume did not historically migrate to the rivers. A future risk at the river from this zone is therefore highly unlikely. The current monitoring network is sufficient to monitor this pathway.

The deep groundwater plume (Figure 5) has a larger footprint than the overlying intermediate plume due to the historic presence of the DNAPL accumulations beneath the Submicro Source Zone. These accumulations created a high-concentration dissolved phase plume that migrated downgradient along the base of the aquifer. The original 1991 TCE plume exceeding 10,000 ug/L of TCE covered the majority of the site, encompassing some 23 acres and discharged into the rivers. Currently, the 3,700 ug/L TCE contour reflects the success of the physical source depletion and ERD pilot testing, as this contour area is limited to DMW-23 located between the Submicro and Glass Plant buildings. This contour value is based on occupational vapor intrusion, but has little relevance in the deep zone other than to illustrate the depletion of the current source area.

The 47 ug/L TCE contour is the primary compliance boundary for the deep plume as this concentration represents the applicable standard for pore water in the hyporheic zone of the rivers. This contour boundary is currently halfway between the Source Zone and the rivers.

The site has been segregated into receptor areas based on the lowest applicable TCE RBC concentration considering potential receptors and current and reasonably likely future site use. The applicable RBCs are included on the tables and Figures 4 and 5. Each receptor zone is discussed below in the CSM within the context of the current water quality, RBCs, and SCVs. It is important to note these groundwater data represent active remediation data and that comparisons to applicable RBCs are most useful for evaluating trends in concentration reduction. Final decisions regarding site closure will depend on comparison of groundwater data based on mass flux from the source area relative to the applicable risk-based standards as active remedial efforts are terminated. It is anticipated that as plume concentrations decrease, remedial efforts will be reduced in a sequential manner as deemed appropriate in consultation with DEQ with mass flux performance monitoring within the downgradient plane to demonstrate protection.

## **3.2 PORE WATER**

Pore water from shoreline sediment and surface water sampling from the Marys and Willamette Rivers was initiated in 2010. PNG recommended the use of pushpoint pore water sampling techniques (Zimmerman et al. 2005) to characterize pore water in the groundwater/surface water transition zone (PNG 2010a). Characterization of the chlorinated VOC plume concentrations in the hyporheic zone provides representative exposure data for aquatic biota at the point of groundwater discharge to the Willamette and Marys Rivers. Prior to pore water sampling, upland groundwater monitoring wells were used as surrogate data points to evaluate potential ecological risk. The data was less than optimal as some of the wells were at a distance of 100 feet landward of the discharge face and were therefore not representative of the actual hyporheic zone; the groundwater plume characterized in these wells provided an overestimate of potential risk.

### **3.2.1 Pore Water Analytical Results**

Pore water and surface water results for 2010 through 2020 are tabulated in Tables 10 and 11 with 2020 results illustrated on Figure 7. Sampling techniques are described in detail in the 2010 Groundwater Discharge Investigation Work Plan (PNG 2010b).

All sample depths are below the sediment line with approximately 12 inches of surface water overlying the sediment at the sampling locations. A total of 13 pore water samples were collected from the 7 sampling locations with the goal of collecting two depths at each location to provide data on vertical migration. PNG attempted to collect samples at multiple depth intervals at each sampling location to evaluate concentration trends as the pore water migrates upwards to discharge to the river. Deeper samples would conceptually contain higher concentrations as the proportion of groundwater to surface water in the hyporheic zone would be more dominant with depth. The local presence of cemented gravels prevented the collection of more than one sample from one of the seven locations. Depths ranged from 12 to 48 inches for samples collected. 2020 analytical results are summarized below.

- **RB0-24 and 36:** There was no detection of VOCs above the laboratory method reporting limit (MRL) of 0.5 ug/L. This sample location provides an upgradient (e.g., upstream) boundary for detectable TCE in pore water for all sampling events.
- **RB1-24 and 36:** There was no detection of VOCs above the laboratory MRL of 0.5 ug/L. Historically, this location has varied between nondetect TCE at MRLs of 0.5 and 1.0 ug/L (2014-2017, 2019-2020) and 4.4 ug/L (2011).
- **RB2-24 and 36:** RB-2 is located at the discharge point of a TCE plume that has historically ranged in concentration between 1.4 ug/L and 167 ug/L as measured in hyporheic water.

The most recent data shows a TCE concentration of 8.5 ug/L at a depth of two feet below the sediment and 245 ug/L at a depth of three feet below the sediment. The deeper sample exceeds the TCE screening level of 47 ug/L, and is the highest TCE concentration detected in pore water since pore water monitoring began in 2010. The TCE concentration in the shallow sample is well below the applicable standard indicating the greater TCE concentration observed at depth is attenuated before discharge to the river. Cis-1,2-DCE was also elevated in these samples at concentrations of 4.2 and 51 ug/L, indicating ongoing TCE plume degradation.

Results from 2020 are generally consistent with historic results at this location. Historic samples from depths less than three feet have all been less than the TCE screening level even when the deeper sample exceeded. Shallow samples are expected to have lower concentrations due to a higher degree of surface water influence.

- **RB3-12:** Cis-1,2-DCE was detected at 0.83 ug/L at a depth of 12 inches. TCE was not detected above the laboratory MRL of 0.5 ug/L. Historic samples at this location have had concentrations vary from nondetect to 6.8 ug/L for TCE and 0.58 to 11 ug/L for cis-1,2-DCE. This pattern suggests the plume is highly degraded at this discharge location. This location represents the downstream boundary of this plume segment based on nondetection of chlorinated solvent concentrations downstream of this location in the Willamette River.
- **RB4-24 and 48:** TCE and other constituents were not detected above the MRL of 0.5 ug/L at either of these sample locations. This is consistent with historic samples which have been nondetect or below an MRL of 1 ug/L.
- **RB5-24 and 48:** TCE and other constituents were not detected above the MRL of 0.5 ug/L at either of these sample locations. This is consistent with historic samples which have been nondetect or below an MRL of 1 ug/L.

- **RB6-24 and 48:** TCE and other constituents were not detected at concentrations above the MRL of 0.5 ug/L in the samples at this location. Historically, cis-1,2-DCE and vinyl chloride have been detected at this location. When detected, these concentrations were well below their respective screening criteria. Consistent with very low dissolved oxygen, this pattern suggests ongoing reductive dechlorination in the vicinity of this location in the Marys River.

### 3.3 SURFACE WATER

Two surface water samples were collected during the pore water event from the Willamette River (RB-2) and Marys River (RB-6). No VOCs were detected in either sample above the detection limit of 0.5 ug/L. No VOCs have ever been detected in Mary's River surface water samples during any of the pore water sampling events conducted between 2011 through 2020.

The sampling plan includes collection of surface water samples from the Millrace as it flows through the Evanite property adjacent to the Submicro Source Zone (Figures 2 and 3). Sample EMR-1 is located on the south or upstream portion of the property and EMR-4 is on the north or downstream portion of the property. Two samples were collected in each sampling event, March and September 2020. No VOCs of concern were detected in either March or September samples with a detection limit of 0.5 ug/L (Figure 7).

### 3.4 SOIL VAPOR

Soil vapor data from calibrated photoionization detectors (PIDs) and laboratory analyses have been collected from Evanite SVE system components since 1991. These data are often more useful than soil data to identify and characterize highly contaminated zones. Soil data are more subject to the heterogeneity in distribution of TCE in the Willamette Silt horizon and often provide low concentration or no detection of TCE because a boring and sample missed a contaminated zone by inches or feet. Soil vapor samples from a purged well in the unsaturated zone have a larger zone of influence and therefore moderate the influence of heterogeneity.

#### 3.4.1 Intermediate Zone SVE Wells

Vapor samples from the 12 intermediate wells operational in the SVE system in 2020 contained concentrations of TCE ranging from 0.041 to 1,820 milligrams per cubic meter ( $\text{mg}/\text{m}^3$ ), with the occupational vapor intrusion RBC at  $2.9 \text{ mg}/\text{m}^3$  (Table 12). A decreasing trend in concentrations for those wells that have been active over the past few years is a result of the more aggressive source depletion efforts afforded by increased groundwater extraction and greater groundwater drawdown creating a larger unsaturated zone enhanced SVE through more aggressive air extraction possible following implementation of off-gas treatment. TCE is the dominant chlorinated chemical removed in soil vapor representing 97 to 99% of the mass.

Four of the intermediate zone SVE wells (IMW-3, IMW-24, IMW-25, and IMW-26) are located between the Submicro Building and Millrace which represents the east boundary of the Source Zone. SVE has been active in wells IMW-3, IMW-24 and IMW-26 since they were installed in 2009. Concentrations in IMW-3 decreased from  $256,000 \text{ mg}/\text{m}^3$  TCE in 2011 to below  $1,100 \text{ mg}/\text{m}^3$  in mid-2013 through 2020 with one exception (TCE concentration of  $1,230 \text{ mg}/\text{m}^3$  in March 2019). The other two wells demonstrate a similar trend, although initial concentrations were not as great at these locations. IMW-25 is typically only active during winter months as a means of lessening the strain on the SVE blower when groundwater is high.

In early 2013, IMW-28 and IMW-29 were installed in the Submicro Building at locations along the former TCE extraction process pans. Whereas DNAPL blebs were observed during drilling operations, soil gas concentrations were not as great as those observed in the other three source area SVE wells. In early 2017, IMW-30 and IMW-31, located between IMW-28 and IMW-29 in the Submicro Building, were added to the SVE scheme. The highest TCE concentration in these wells during 2020 was 1,820 mg/m<sup>3</sup> at IMW-31, with TCE being the dominant chemical in all four wells. These wells will be a focus of future source depletion efforts.

### **3.5 REMEDIATION FACILITY AND EQUIPMENT MODIFICATIONS**

In 2017, the previously used CatOx system was shut down and two 2,000-pound vapor phase activated carbon adsorption canisters were installed in series near the Submicro Building. Off-gas plumbing was altered to connect these carbon adsorption treatment canisters and vent the treated exhaust to a stack above the Submicro roofline (approximately 40 feet above ground). An inline duct heater was installed prior to the activated carbon adsorption canisters to reduce the relative humidity of the influent air stream, as needed to improve carbon adsorption efficiency. The inline duct heater was replaced in November 2019 with a modulating model that allows for additional temperature control of the off-gas prior to carbon adsorption treatment. Since May 3, 2017, all off-gas from the groundwater extraction and SVE systems is treated by activated carbon adsorption rather than the previously used CatOx system. Multiple knockouts have been installed along the system piping to allow for the collection of water/condensation from the vapor piping. Draining accumulated water from these lines lessens the strain on the SVE blowers and prolongs the life of the vapor-phase activated carbon. As determined necessary by calculations and field observations, activated carbon in the treatment system canisters is changed approximately every 30 to 40 days. The mass of TCE measured that was vented to the atmosphere in 2020 was 0.2 pounds.

## 4 CONCEPTUAL SITE MODEL

The Evanite CSM is based on historical knowledge of former site operations, onsite and regional soil boring and monitoring well logs, historical TCE recovery data from Source Zone remediation wells (i.e., groundwater and SVE), plume reaction to ERD pilot testing, and observed migration pathways of the DNAPL as it infiltrated and spread through the four primary soil horizons beneath the site. TCE and related breakdown or degradation products are found within a groundwater plume that historically covered the entire site as well as an area in the neighborhood upgradient of the site. This plume has been substantially reduced in size due to active remediation since 1991 and now is centered around the Submicro and Glass Plant No. 2 Buildings (shown on Figures 4 and 5) and the industrial portion of the site immediately downgradient to the northeast.

The current CSM includes an intermediate plume section that is defined by potential risk for vapor intrusion into onsite buildings, and a deeper plume section that is defined by a potential risk of discharge of TCE at unacceptable concentrations to the Willamette and Marys Rivers. The vapor intrusion risk is limited to a single well at the east corner of the Submicro Building and is currently remedied by operations of the sub slab SVE system that also contributes to the ongoing source depletion efforts. Plume migration from the source area is remedied by the hydraulic containment resulting from ongoing groundwater extraction and treatment (i.e., pump and treat) that started in 1991.

The intermediate plume (Figure 4) vapor intrusion RBC for occupational settings is 3,700 ug/L and the residential RBC is 200 ug/L. The current plume area exceeding the occupational RBC is documented by concentrations in well IMW-3 and only potentially affects the central, east portion of the Submicro Building. If the residential RBC was applied, the plume area would be in the range of 1.5 acres similar to the 47 ug/L TCE contour shown on Figure 4. Thirty years of active remediation has reduced and focused site concerns for vapor intrusion down to the original source area at the Submicro Building. All other buildings in the H&V manufacturing areas and surrounding neighborhoods do not have vapor intrusion concerns.

The deep plume has also been substantially remediated. The original 23-acre plume, as defined by TCE concentrations exceeding 10,000 ug/L, has been reduced and focused to a single well in the DNAPL Source Zone. The 1,000 ug/L TCE contour is less than an acre based on recent monitoring data. Future source depletion efforts defined in the ROD are focused in this area.

The plume area exceeding the pore water screening criteria is less than five acres in size and encompasses the southern portion of the Submicro Building and downgradient to the northeast (Figure 5). Since pore water samples were first collected in 2010, this plume has been characterized intermittently in deep pore water from sample location RB-2, likely representing the leading edge of the plume. Note that shallower pore water samples from location RB-2 have not exceeded this criteria. Other pore water locations have also not exceeded this criteria.

### 4.1 SITE GEOLOGY AND HYDROGEOLOGY

The general site stratigraphy is briefly outlined below. A more thorough review of site geology can be found in the FFS (Kennec 2007).

- Where structures are present, structural fill gravels have been measured to depths between one and seven feet bgs.

- From the native soil/structural fill interface to depths of approximately 20 feet, moderately dense silt and clay (Willamette Silt) forms a semi-confining layer.
- Between depths of approximately 20 and 40 feet is a unit of sandy gravel and silty/cemented sandy gravel (Linn Gravel Aquifer). Upper sections of this unit are often cemented in thin, layered zones. This unit is the only recognized aquifer in the area.
- The base of the Linn Gravel Aquifer ranges between 30 and 45 feet across the site and sits unconformably on a clayey silt to clay (Calapooia Clay). This clay aquitard is reported to be up to 100 feet thick in the Willamette Valley and beneath the Evanite site, as characterized by local well logs.

The deep site monitoring wells are screened between approximately 30-40 feet bgs near the base of the water bearing aquifer zone. The early wells were originally placed at the base of the aquifer where 1) local water well drillers had identified the most prolific water bearing zone, and 2) to target the DNAPL pool(s) that had accumulated on the underlying aquitard. In the past twelve years, Evanite has been adding additional deep zone wells and intermediate wells in the DNAPL Source Zone to support remediation technology pilot testing activities and additional plume delineation. The intermediate wells generally straddle the transition from overlying silts into the Sandy Gravel Aquifer and are used for groundwater extraction, SVE, and ERD. These wells also intercept the water table and as such represent monitoring points for vapor intrusion. Well construction details for all site wells are summarized in Table 1.

Groundwater flow under static, pre-pumping conditions is to the north-northeast toward the Willamette and Marys Rivers (Figures 1, 4, and 6), with historic minor fluctuations most likely caused by historic nearby residential pumping and surface water level stage changes in the nearby rivers. During periods of flooding, groundwater flow stagnates for the short period of time during the flooding. Current groundwater flow conditions are controlled by the cone of depression induced by groundwater extraction at the Evanite DNAPL Source Zone.

## 4.2 EXPOSURE AREAS

The five exposure areas (or receptor zone areas) at Evanite with current water quality data are presented in Figures 4 and 5 with pore water and surface water data presented on Figure 7. The boundaries between these areas were selected based on the TCE plume configuration (e.g., DNAPL Source Zone vs. dissolved phase plume) and applicable RBCs as defined by current land use setting (e.g., residential vs. occupational). Whereas the current setting on all of Evanite properties is heavy industrial, zoning allows for possible future mixed use. As such, residential RBCs for vapor intrusion are discussed herein, where appropriate.

The Neighborhood Area is currently characterized by three monitoring wells: IMW-20, IMW-21, and IMW-22 in the neighborhood to the south of the Evanite facility. The current likely applicable lowest RBC for this area is vapor intrusion into buildings from groundwater in a residential setting (TCE at 200 ug/L).

The Upgradient Area is characterized by six wells (DMW-5, DMW-18, DMW-19, DMW-9, DMW-1, and DMW-10 positioned along a south-to-north arc). These wells are located on the Evanite upgradient boundary (i.e., upgradient of the DNAPL Source Zone) with likely applicable RBCs for TCE including vapor intrusion into occupational buildings (3,700 ug/L) or volatilization to outdoor air (occupational worker at 20,000 ug/L). With groundwater flow concentric toward the groundwater extraction center near the Submicro DNAPL Source

Zone, any offsite upgradient contaminated groundwater plumes from another source would flow through these wells to be captured for treatment.

The Source Zone Area is represented by the four original DNAPL extraction wells (DMW-2, DMW-3, DMW-16, and DMW-17) and 22 wells added in recent years to support pilot tests performed to define a long-term remedy. Likely applicable groundwater RBCs would include vapor intrusion to indoor air and volatilization to outdoor air in an occupational setting (TCE at 3,700 and 20,000 ug/L, respectively).

The Hardboard Area is located north and east of the Source Zone Area, northeast and downgradient of the Submicro Building, and is distinct because the current CSM suggests there is no DNAPL residual in this area. Sixteen wells characterize this area. Likely applicable RBCs would include vapor intrusion to indoor air and volatilization to outdoor air in an occupational setting (TCE at 3,700 and 20,000 ug/L, respectively) and plume discharge to the river (TCE in pore water at 47 ug/L). The compliance plane for mass flux discharge monitoring will be defined by the northwest to southeast arc of monitoring wells in this Hardboard area.

The Downgradient Area includes the large grass covered area north of site buildings and riverbank areas covered by thick briars along the Marys and Willamette Rivers. This is the hyporheic zone where the groundwater plume historically discharged and mixed into the significantly larger volumes of surface water of the rivers. Wells DMW-4, DMW-6, DMW-13, DMW-15, and the downgradient pore water sampling locations characterize this area. DEQ's current ecological guidance was used to define the screening level for this area (i.e., Tier II SCV). The Tier II SCV for TCE is 47 ug/L.

### **4.3 TRANSPORT**

The Source Zone Area near the Submicro Building was historically represented by residual DNAPL in the silts and residual and/or pockets of mobile DNAPL in the underlying sandy gravel aquifer. Initially, TCE entered the soil from spills in the former process area near monitoring wells DMW-3, DMW-28, and DMW-29. Upon release to the soil, the TCE DNAPL, with up to 30% dissolved miscella oil, infiltrated vertically through three to six feet of coarse gravel fill material, a thick sequence of silt and silty sandy gravel aquifer matrix, and then ponded on the underlying clay aquitard surface. Source zone migration was primarily vertical with some lateral spreading due to heterogeneity in the layered structure of the silts and sandy silts.

In the Source Zone, small blebs of DNAPL at residual saturation levels have been observed trapped within and tightly sorbed into the unsaturated silts. This area has therefore been the focus of SVE source depletion efforts during several years of pilot testing and is a remediation focus area in the ROD. When installed in 2009, intermediate zone well IMW-3 contained high TCE concentrations, similar to deeper, pre-remediation levels found in 1986. This was expected since active remediation of deep groundwater extraction and treatment had not been focused at the water table. This well now produces the majority of TCE recovered through SVE with concentrations dropping three orders of magnitude from 2011 through 2015. Wells IMW-28, IMW-29, and IMW-31, located in the former Submicro Building process area, contained traces of visible non-aqueous phase liquid (NAPL) blebs during drilling and have been the focus of recent SVE efforts. Initial concentrations in these wells were substantially less than IMW-3 and a decreasing trend in soil vapor concentrations is evident as source depletion efforts continue. Interestingly, IMW-30, located between IMW-28 and 29 in the former process area, did not contain visible NAPL and soil vapor concentrations are somewhat small in comparison. This

pattern attests to the extremely heterogeneous nature of the release and subsequent transport in the unsaturated zone.

Mobile DNAPL reached the aquifer and continued to migrate vertically and laterally on lower permeability finer grained horizons within the sand and gravel aquifer. The separate phase (i.e., DNAPL) migrated to the aquitard surface at approximately 40 feet bgs, accumulated in pools, and migrated in a general easterly direction along the relatively impermeable clay surface. Mobile DNAPL migration was documented at wells DMW-3, DMW-16, and DMW-17 where substantial quantities of separate phase NAPL were recovered until the early 2000s. Four other well locations (DMW-23, DMW-28, IMW-31, and DMW-41) contained soil staining and high PID readings at and into the aquitard surface indicating the former presence of NAPL. These locations provide a rough extent of the original DNAPL as they are bound by several wells that do not exhibit similar features. This footprint starts at the southeast end of the Submicro Building coincident with the former TCE manufacturing process and spreads east and northeast to beneath the west end of the Glass Plant Building. None of these wells currently contain any mobile NAPL as 30 years of flushing has apparently recovered any free product. One well remains with TCE concentrations above 10,000 ug/L (DMW-23), and no other wells exceed the occupational vapor intrusion RBC of 3,700 ug/L.

The Millrace historically represented a physical barrier (i.e., deep ditch) between the TCE process area and other areas of the property (Figures 2 and 3). This former ditch now hosts a large diameter culvert (Figure 3) between and separating the Submicro and Glass Plant Buildings. Whereas TCE contamination was expected to be encountered in the unsaturated zone beneath the former process and release area (Submicro Building area), any borings or wells located to the east of the Millrace were not expected to encounter TCE contamination above the seasonal high water table.

Intermediate groundwater TCE concentrations in wells west of the Millrace ranged in concentration from 22,300 ug/L at IMW-3 to less than laboratory detection limits at other wells. TCE concentrations in water grab samples collected from depths of 27 to 29 feet bgs in the two wells installed in the Glass Plant Building in December 2015 (DMW-41 and DMW-42) ranged from 4.9 to 54 ug/L (as compared to the vapor intrusion RBC of 3,700 ug/L). This wedge of relatively clean water combined with the tight overlying silts provides a natural barrier to vapor intrusion into the overlying Glass Plant Building.

#### **4.3.1 Neighborhood Area**

Groundwater TCE concentrations in the neighborhood have been reduced to below the applicable RBCs following 30 years of aggressive groundwater extraction. Two wells in the neighborhood on SE Vera Avenue have been at nondetect or less than 1.0 ug/L for TCE since installation in 2008. A third well (IMW-20) is located near SE Crystal Lake Drive and was installed at the location of a residential well with the highest original concentration (MW-665 Vera well at over 19,000 ug/L) to provide remediation performance data (PNG 2009c). After an initial decreasing TCE concentration trend following the resumption of groundwater extraction from DMW-12, the IMW-20 well has shown stable reduced VOC concentrations over the past few years (Table 5). The September 2020 TCE concentration in the groundwater sample from IMW-20 was 36 ug/L with the average between 2018 and 2020 at 23 ug/L (Figure 4). These data are well below the applicable RBC of 200 ug/L for potential vapor intrusion in a residential setting.

The RBC for domestic water use is 0.49 ug/L for TCE. Use of groundwater for drinking and other household uses was terminated by implementation of a site engineering control in 1986, when Evanite began paying for city supplied water to neighborhood area homes.

An institutional control of prohibition for drinking water for much of the Evanite property will be implemented with the Consent Decree. The restriction will include neighborhood well IMW-20 which is located along Crystal Lake Drive and has contained TCE at concentrations of between 13 and 36 ug/L since 2013. Note that H&V owns the property where IMW-20 is located. The other two neighborhood wells located to the south and actually in the neighborhood along SE Vera Avenue have been nondetect or just above MRL but below 1 ug/L.

### **4.3.2 Upgradient Area**

The southern and western extent of the Evanite groundwater plume is characterized by this group of six upgradient monitoring wells (Table 6). Pre-remediation concentrations of TCE in groundwater ranged from 42 to 3,000 ug/L in this area. TCE contamination in this Upgradient Area was generally attributed to Evanite as the concentration pattern correlated well with the geometry of the onsite TCE plume. However, due to the local shallow groundwater flow direction to the north and northeast toward the rivers, other regional chlorinated plumes located upgradient of Evanite had comingled into and were masked by the Evanite plume.

Within a few years of startup of the groundwater remediation system, all of the Upgradient Area wells indicated a strong decreasing trend in TCE concentrations. Currently, groundwater from wells DMW-1, DMW-5, DMW-9, and DMW-19 do not contain TCE above laboratory MRLs. In September 2020, wells DMW-10 and DMW-18 contained TCE at 2.5 and 4.8 ug/L, respectively (Figure 5).

Overall, the upgradient wells have been stable at low TCE concentrations for several years, with TCE concentrations well below the occupational vapor intrusion RBC concentration of 3,700 ug/L as well as the residential RBC of 200 ug/L. After 30 years of aggressive groundwater pumping, it is likely that much of the TCE attributable to the Evanite plume has been flushed from the aquifer in the Upgradient Area. Groundwater pumping at Evanite has maintained a northerly shallow groundwater flow direction and as such it is possible that current low level detections of chlorinated compounds in these wells are attributable to the regional chlorinated VOC-containing groundwater plumes.

### **4.3.3 Source Zone Area**

The Source Zone Area includes the DNAPL Source Zone that was the focus of pilot testing efforts to support the FFS (PNG 2008b and 2010b). Three wells (DMW-3, DMW-16, and DMW-17) in this area yielded nearly 3,000 gallons of separate-phase TCE DNAPL from direct pumping and the majority of the 165,931 pounds of TCE recovered from the aquifer through 2020.

Original (1980's) TCE concentrations in groundwater were as great as 1,010,000 ug/L in DMW-3 and 810,000 ug/L in DMW-16. Source Zone groundwater data is summarized in Table 7 with data presented in Figures 4 and 5.

For the September and December 2020 monitoring events, the fifteen deep Source Zone wells ranged in TCE concentrations from nondetect at DMW-40 to 14,300 ug/L at DMW-23, which is located furthest away from the ERD pilot test. Well DMW-3, which historically contained the highest TCE concentrations, was reduced from a range of 12,000 to 18,000 ug/L to a range of 1,600 to 2,400 ug/L following the ERD pilot testing. The December 2020 TCE concentration at DMW-3 of 2,180 ug/L indicates that the well has not rebounded following the ERD pilot test. The deep plume core has been substantially depleted from

beneath the Submicro Building with the current core centered to the west around wells DMW-16 and DMW-23, which were not within the influence of the 2013 ERD pilot testing.

The deep groundwater plume is a potential future risk for discharge to the rivers only after the currently operating hydraulic containment ceases. Current remedial efforts are continuing to reduce the source area plume core with only five deep wells in this area at concentrations higher than 1,000 ug/L in the annual sampling event. Remedial progress in the source area is illustrated by the TCE concentration trends in well DMW-17 and DMW-3 (Figure 8).

DMW-17 is located on the upgradient or south end of the DNAPL Source Zone and had an initial concentration of 200,000 ug/L. An estimated 1,059 gallons of pure phase DNAPL was recovered from this well in 1991 and 1992 after which time no additional accumulation in the well was observed. Groundwater extraction over the next several years reduced the dissolved phase TCE concentrations to around 500 ug/L by the year 2000 where the TCE concentration trend became asymptotic. As indicated on Figure 8, the ERD pilot test reduced the TCE concentrations to below 1 ug/L by the end of 2013. No appreciable rebound has occurred with the 2020 TCE concentrations at or below 18 ug/L. ERD polishing appears to have been successful at this location along the outer edge of the Source Zone.

DMW-3 is located at the center of the Source Zone core, with an initial concentration of 1,010,000 ug/L TCE. After removal of 622 gallons of separate phase TCE NAPL between 1992 and 1994, groundwater extraction related flushing decreased the concentrations down to below 20,000 ug/L by 1997 where the trend became asymptotic. Continued pumping through mid-2013 did little to reduce TCE concentrations until the ERD testing and the SVE mass removal caused a decrease to around 2,000 to 3,000 ug/L where concentrations appear stable since 2014.

The intermediate zone of the source area has been targeted for source depletion with SVE for eight years. Monitoring wells that are within an active SVE radius of influence indicate a strong trend in TCE concentration reduction. 2020 TCE concentrations in groundwater from 13 intermediate zone wells in the Source Zone range from less than 0.5 ug/L in IMW-32 to 23,200 ug/L at IMW-3. IMW-17 is unique in that the SVE implemented at this location in 2012 has decreased TCE concentrations in groundwater from this well from 41,800 ug/L to 620 ug/L in March 2013. Subsequent ERD pilot testing reduced the TCE concentration further, with concentrations remaining at or below 223 ug/L through 2019. Concentrations now appear to be rebounding at this location, with the TCE concentration at 1,180 ug/L in 2020.

Source depletion has reduced the potential risk from occupational vapor intrusion down to a very small area between the Submicro Building and Millrace; only groundwater from a single intermediate well within the Submicro Building typically exceeds the RBC of 3,700 ug/L (IMW-28). The 2020 TCE concentration in groundwater at IMW-28 is 4,340 ug/L. Active SVE beneath the Submicro Building is an engineering control that addresses any potential vapor intrusion risk to onsite workers.

#### **4.3.4 Hardboard Area**

The Hardboard Area is located to the north and east of the DNAPL Source Zone and has not been characterized as containing any mobile DNAPL sources based on previous site investigations and knowledge of manufacturing history. Prior to implementation of groundwater remediation by Evanite in 1991, wells in this area contained very high concentrations of TCE (Table 8) that are often indicative of DNAPL (i.e., > 100,000 ug/L).

However, unlike the Source Zone, TCE concentrations in groundwater steadily declined in response to aquifer pore space flushing to below 1,000 ug/L of TCE prior to becoming asymptotic.

September 2020 groundwater sampling results indicate all intermediate zone TCE concentrations within the Hardboard Area are nondetect at an MRL of 0.5 ug/L. This concentration is well below the vapor intrusion RBCs for occupational and residential settings of 3,700 ug/L and 200 ug/L, respectively. Vapor intrusion is not a pathway of concern anywhere on the property outside of the Source Zone.

The highest TCE concentration in deep zone groundwater in 2020 was at DMW-8 (985 ug/L); this well began with concentrations on the order of 250,000 ug/L and has been as low as nondetect over the past few years. DMW-8 has exhibited the greatest fluctuation in concentrations of all wells over the past decade. Since it is located on the very upgradient boundary of the original high concentration plume, its concentrations appear to be sensitive to minor changes in the groundwater extraction scheme. This well and the surrounding aquifer are targeted for the initial phase of ERD. Remedial progress in the Hardboard area is illustrated by the TCE concentration trends in wells DMW-2 and DMW-11 (Figure 9).

DMW-2 is located north and downgradient of the Source Zone. TCE concentrations in this well were initially as high as 710,000 ug/L, which is definitively indicative of DNAPL. No free product DNAPL was ever observed in this well. Groundwater extraction flushed this location resulting in a decreasing trend in concentrations that became asymptotic by 1998 near or below 2,000 ug/L TCE. Increased pumping, starting during the pilot testing phase, is coincident with a new decreasing trend. Since 2012, TCE concentrations have remained below 500 ug/L. Although this location was not directly affected by the ERD testing, efforts for mass depletion in the Source Zone may be accountable for the most recent trend in decreasing concentrations. Results of the ERD pilot test suggest a groundwater plume zone with these characteristics will respond quickly and efficiently to this in-situ treatment technology.

DMW-11 is located downgradient to the northeast of the Source Zone. TCE concentration trends in this well are similar to concentration trends at DMW-2 with an initial concentration of 180,000 ug/L becoming asymptotic by the year 2000 at a concentration below 500 ug/L (Figure 9). There is a decreasing concentration trend at this location with the September 2020 sampling event indicating TCE at 30 ug/L.

The locations of DMW-2 and DMW-11 are targeted with several additional wells as a compliance plane for performance monitoring based on mass flux. These locations are just downgradient of the original extent of the mobile DNAPL pool and have not exhibited rebound after flushing (i.e., well nests MW-33, 34, and 35).

The deep contaminated plume remnant in the Hardboard area starts below the Glass Plant Building and appears to migrate to the east through DMW-35 to DMW-39 and discharge at pore water location RB-2. The potential risk here is for pore water to exceed the screening level of 47 ug/L, which intermittently occurs at a depth of two to four feet into the sediment. This groundwater plume segment will be closely monitored and targeted in the second phase of ERD remediation.

#### **4.3.5 Downgradient Area and Hyporheic Water**

This area is characterized by three deep wells that are aligned perpendicular to the original plume flow direction (i.e., northeasterly migration from the Source Zone). TCE is currently not detected above a laboratory MRL of 0.5 ug/L in these wells (DMW-6, DMW-13 and

DMW-15). Well DMW-39, installed in December 2014, is located within the footprint of the former Hardboard Building and is located southwest or landward of the sub-area boundary approximately 160 feet upgradient of the Willamette River. The intermediate zone grab sample collected during well installation contained TCE at 1.2 ug/L; this area is not of concern for vapor intrusion in an occupational or residential setting. The September 2020 deep sample reported TCE at 16 ug/L and represents the leading edge of the remnant TCE plume that is migrating toward the Willamette River (Figure 5). This plume segment is the primary reason pore water sampling is conducted.

Groundwater data for this area is provided in Table 9 and pore water and surface water data in Table 10. Data are illustrated on Figures 4, 5, and 7 with applicable screening values for TCE posted on the figures and other chlorinated solvents included in the tables.

Based on direction from DEQ, the Oak Ridge National Laboratory's Tier II SCVs are appropriate screening criteria for the pore water analytical data for TCE, PCE, cis-1,2-DCE, and trans-1,2-DCE. Because no SCV value is reported for vinyl chloride, DEQ has adopted the EPA ecological screening value of 930 ug/L for that constituent. These screening levels represent a highly conservative lower threshold concentration from which site data are screened against to indicate if more evaluation is necessary. They are not intended to be used as cleanup values or triggers for active remediation as they are too conservative for such use.

Currently, all but one of the pore water and near shore sample locations in the downgradient area are below the applicable pore water screening criteria. Intermittently, including in 2020, the exceedance of the TCE screening criteria value has been observed in a deep (two to four feet below sediment surface) pore water sample at RB-2. In addition to 2020, an exceedance was previously observed at this same location in 2011, 2015, and 2018; however, both the deep and shallow samples from this location were below the screening criteria in 2016 and 2017. The shallow sample at this location has consistently been below the screening criteria.

Screening level values for the degradation chemicals are summarized in Table 10 and comparison with analytical results indicates concentrations of these VOCs in all pore water samples are below respective criteria.

Surface water samples collected in the Willamette and Marys Rivers were nondetect for TCE and other COIs, and are below the applicable TCE surface water standard of 3.0 ug/L. Surface samples from the Millrace were also nondetect for TCE and other COIs.

Multiple lines of evidence, including direct observation of relative head differences, pore water field measured water quality parameters, and analytical data indicate that shallow groundwater from the Evanite site has historically discharged to the Willamette River. The pore water sampled is representative of the discharge of remnants of the groundwater plume in the hyporheic zone, to the extent elements of the plume migrate beyond the hydraulic containment.

## 5 REMEDIAL SYSTEM PERFORMANCE

### 5.1 SOIL VAPOR EXTRACTION

Soil vapor extraction and subsequent off-gas destruction were operated nearly continuously during the reporting period. Previously, off-gas treatment was achieved via a catalytic oxidizer. TCE concentrations in off-gas (i.e., combined wells) have been steadily declining over the last few years, making carbon adsorption a more cost-effective alternative. Since May 3, 2017, all off-gas from the groundwater extraction and SVE systems has been treated by activated carbon adsorption rather than the previously used CatOx system. SVE performance data for individual wells are presented in Table 12 and various legs of the SVE and combined SVE and air stripper are presented in Table 13.

Source depletion from SVE exhibit a predictable pattern as wells in the source area were brought online (2011, 2013, and 2017). Each time, the wells yield high masses of TCE for several years and then exhibit a sharp decrease as the TCE within the zone of influence of the well is depleted. IMW-3 is located at the center of the DNAPL zone and initially contained concentrations up to 256,000 mg/m<sup>3</sup> with full time operations in 2011. These high concentrations continued, with concentrations as high as 1,000 mg/m<sup>3</sup>, in 2015. Concentrations reached a low of 19 mg/m<sup>3</sup> in early 2017 when the groundwater extraction was increased to expose more unsaturated zone; concentrations reached a high of 218 mg/m<sup>3</sup> later in December 2017 before decreasing again in 2018 to a low of 49 mg/m<sup>3</sup> in December. This location peaked again temporarily in March 2019 to 1,230 mg/m<sup>3</sup>, before dropping to as low as 86 mg/m<sup>3</sup> in December 2019. In 2020, TCE concentrations at this location ranged between 118 and 357 mg/m<sup>3</sup>. Other intermediate wells installed in 2009 and brought fully online in 2011 illustrate a similar trend (Table 12). Wells IMW-16, 25, and 26 started with concentrations generally in the 1,000s of mg/m<sup>3</sup> of TCE and now range from 0.041 to 34 mg/m<sup>3</sup>. Consistent with increasing groundwater concentrations at this location, IMW-17 has seen increasing vapor concentrations in 2020 with a spike as high as 1,160 mg/m<sup>3</sup> in March.

IMW-28 and 29 are located within the Submicro building in the area where the TCE manufacturing occurred. TCE concentrations in these wells started at 2,600 and 6,400 mg/m<sup>3</sup>, respectively. Within a few years of active SVE, they are following the pattern of the 2011 wells with a steady decreasing trend into 2016 (i.e., 4.4 and 1.1 mg/m<sup>3</sup>, respectively). Concentrations appear to vary with seasonal fluctuations in groundwater, peaking in March and then typically declining through the summer. In December 2020, TCE concentrations in soil vapor from IMW-28 and IMW-29 were 259 and 449 mg/m<sup>3</sup>, respectively.

Two additional SVE wells (IMW-30 and 31) were brought online in 2017 with initial TCE concentrations at 1,320 and 3,330 mg/m<sup>3</sup>, respectively. These wells currently have concentrations of similar magnitude to the other SVE wells inside the Submicro building (IMW-28 and IMW-29) and appear to follow similar seasonal trends. In 2020, TCE concentrations in soil vapor were between 136 and 1,230 mg/m<sup>3</sup> at IMW-30 and between 841 and 1,820 mg/m<sup>3</sup> at IMW-31.

Overall, TCE mass removal from SVE, as measured by SVE system combined discharge, has declined since 2011 as contaminated soil surrounding each of the SVE wells has been purged continuously with air. Combined discharge TCE concentrations in 2011 of 10,300 mg/m<sup>3</sup> were reduced to 693 mg/m<sup>3</sup> or less in 2016 and 2017. Following installation of a secondary SVE blower in June 2017, SVE discharge concentrations have been monitored as coming from wells outside the Submicro Building (Blower 1) and within the

Submicro Building (Blower 2). The maximum SVE discharges from Blower 1 and Blower 2 in 2019 were 77.2 and 2,450 mg/m<sup>3</sup>, respectively.

Up until the ROD (DEQ 2015b) was published, SVE in the Source Zone as a mass depletion remedy was implemented as a pilot test. With the installation of new groundwater extraction wells and SVE wells in the source area, these mass removal efforts have significantly increased.

Data for the SVE combined discharge indicate that TCE is the dominant chemical in the plume. TCE comprised 97 to 99% of the target chemicals on a vapor concentration basis throughout 2020.

## **5.2 HYDRAULIC CONTAINMENT AND CAPTURE**

Capture zone analysis for the Evanite site is based on a weight-of-evidence approach using both hydraulic and groundwater analytical data to evaluate the effectiveness of the containment system. The pump and treat system is designed for depletion and hydraulic containment of the DNAPL Source Zone, contaminant mass removal and shrinking of the Source Zone, and flushing of the dissolved phase portions of the plume found around the plume fringes (Kennec 2007). Hydraulic data includes gathering water level measurements and calculating groundwater elevations to establish the potentiometric groundwater surface and drawdown cones of depression. TCE is used as the indicator chemical to evaluate plume extent and relative mass reduction at the Evanite site.

### **5.2.1 Groundwater Extraction**

The combined groundwater extraction flow rate for the active extraction wells averaged 34.4 gpm in 2020 with over 18.0 million gallons extracted and treated (Figure 11). Thorough evaluations of capture, including groundwater modeling efforts, have been presented in previous annual reports (PNG 2010c, PNG 2015b, PNG 2016, PNG 2017, PNG 2018, PNG 2019, and PNG 2020).

Once the ERD pilot test was completed in late October 2013, groundwater extraction was returned to pre-test conditions with maximum yields from DMW-3 and a combined pumping rate of approximately 30 gpm. Efforts to improve and/or optimize the existing groundwater extraction and treatment systems in 2014 and 2015 increased the maximum potential yield to over 50 gpm. Although these increased extraction rates may only be attainable during winter months when the aquifer is seasonally high, they do provide a mechanism for dewatering and thus enhancing the effectiveness of SVE for mass depletion. The current active groundwater extraction rate is approximately 35 gpm, with slight variations seasonally.

The groundwater extraction emphasis at the site continues to be centered on the DNAPL Source Zone with wells DMW-3, DMW-24 and DMW-29 creating the core of the cone of depression (Figure 6) and accounting for the majority of the total groundwater extracted since October 2009. From system startup through the end of 2020, more than 562 million gallons of groundwater, representing nearly 12 pore flushes of the original plume extent, have been extracted through the hydraulic containment system.

### **5.2.2 Capture Zone Analysis**

#### **Target Capture Zone**

The target capture zone is defined as the three-dimensional zone of groundwater that must be captured by the extraction wells for the hydraulic containment system to be

considered successful (EPA 2008). The Evanite hydraulic containment system was originally designed to capture the entire DNAPL Source Zone and portions of the dissolved VOC plume found outside the Source Zone to encourage flushing and remediation of the dissolved phase portion of the plume (Kennec 2007). Based on significant reductions in contaminant concentrations within the dissolved portions of the plume, the target capture zone was revised in 2013 to the area presented in Figure 10. The width of the target capture zone is approximately 900 feet when extraction is at 30 gpm. An extraction rate of 50 gpm would increase the capture zone significantly. A 30 gpm capture zone is wider than necessary to address the intermediate vapor intrusion plume (i.e., about 90 feet wide in the zone exceeding the 3,700 ug/L occupational RBC) and the deep plume migrating toward the rivers (i.e., about 630 feet wide in the zone exceeding the 47 ug/L surface water screening criteria).

### **Drawdown and Flowfield**

As previously noted, lateral groundwater flow at the Evanite facility is largely directed inward toward the active extraction centered at DMW-3 (Figure 6). The widespread overlapping cones of depression cause a groundwater flow stagnation point near DMW-6, DMW-15, DMW-13, and DMW-12, as groundwater at this point begins to flow away from the Evanite Site toward the Willamette River. Groundwater flow through the neighborhood near IMW-20 through IMW-22 may also be captured.

### **Water Quality Trends**

The core of the Evanite TCE plume is centered within the DNAPL Source Zone at DMW-3/IMW-3 and DMW-23 (Figures 4 and 5). The overall plume shape, with a north-northeast trending axis coinciding with ambient groundwater flow, generally resembles the cone of depression depicted on Figure 6 as key wells along the axis of this plume were pumping during the year. To date, remediation can be characterized in several stages as illustrated by trends in TCE concentrations (Figures 8 and 9). This discussion is supported with plots of TCE concentrations for three wells. DMW-3 is at the core of the DNAPL source area, DMW-2 is directly downgradient of the source area to the north along a discharge flow path to the Marys River, and DMW-11 is downgradient to the northeast along a flow path to the Willamette River.

#### **Initial Three Years (1991 to 1994)**

An initial three years of aggressive groundwater extraction along with separate phase DNAPL pumping from Source Zone wells screened at the base of the aquifer removed the majority of mobile DNAPL (i.e., to the effective radius of influence of the three Submicro Building Source Zone wells). This process of hydraulic displacement of DNAPL for source zone stabilization was successful as recovery dropped from 1,484 gallons in 1991 to 40 gallons in 1994. During this period, all site wells showed a distinct trend in decreasing concentrations. Separate phase DNAPL was recovered from three wells in the Submicro Building Source Zone. TCE mass recovery decreased each subsequent year as mobile DNAPL recovery was depleted and the original SVE system slowly became less effective. Plots for monitoring wells DMW-3 and DMW-17 in the source area and wells DMW-2 and DMW-11 immediately downgradient of the source area illustrate the result of pore flushing (Figures 8 and 9). TCE concentrations in nearly all wells remained greater than the current screening levels for the associated exposure area. Total TCE mass recoveries in 1991, 1992, and 1993 were estimated at 48,800, 26,800, and 14,900 pounds, respectively (Figure 11).

## **1994 to 2000**

Groundwater extraction from these original wells continued as the primary remediation process until 2009 when additional wells were installed to investigate and characterize the upper zone of the aquifer. In the period from 1994 to around 2000, water quality in all wells followed a decreasing trend as multiple pore volume flushes of the groundwater plume continued to extract the dissolved phase TCE. This decreasing trend was likely the result of the first pore flush of a dissolved phase TCE groundwater plume at nearly saturated conditions and a capture zone that began to draw in relatively clean water from upgradient. At this time, the trend of decreasing TCE concentrations became stagnant or asymptotic as TCE concentrations were generally stable until enhanced mass removal pilot testing began in 2010. In the Neighborhood Area, TCE concentrations were flushed to below currently applicable RBCs around 1994. A similar pattern is observed around the DNAPL Source Zone perimeter (Upgradient and Hardboard Areas, Figure 4). TCE concentrations in the Source Zone remained significantly greater than the comparison RBCs, likely due to the presence of residual NAPL. Although pore water sampling was not conducted during this period, the TCE concentrations in four wells along the downgradient rivers greatly exceeded current pore water screening criteria. Total TCE recovery in 2000 was estimated at 1,482 pounds as compared to nearly 50,000 pounds recovered in 1991.

## **2000 to 2010**

From 2000 up until 2010, the trend in water quality at most wells was stable. Wells with TCE concentrations below their respective screening levels remained below these thresholds. Source zone wells remained above screening levels for vapor intrusion in an industrial setting. With the exception of the Neighborhood Area, nearly all wells on the properties exceeded the pore water screening criteria downgradient of the site. Total TCE recovery during this period was around 1,000 pounds each year. By 2007, no pure phase NAPL was recovered or measured in wells due to the nearly two decades of hydraulic displacement pumping effort in the source zone.

## **Pilot Testing Period – 2010 to 2013**

From 2010 to 2013, implementation of several pilot tests in the Source Zone proved to be effective in decreasing TCE concentrations in wells and increasing TCE mass removal. The two-fold approach of increased groundwater extraction in the Source Zone combined with SVE to physically remove TCE mass followed by in-situ treatment with ERD in the area from DMW-3 to DMW-27 has reduced TCE concentrations to below the RBC of 3,700 ug/L for vapor intrusion. This sequential remediation approach is anticipated to be equally effective throughout the remediation of the Source Zone. The 3,700 ug/L or greater TCE concentration plume (Figure 5) has been reduced in size and now does not exist in deep groundwater beneath the Submicro Building.

TCE concentrations in the two Source Zone wells (Figure 8) and two wells immediately downgradient of the Source Zone (Figure 9) exhibit a decreasing trend in response to pilot testing efforts. Significant rebound in TCE concentrations has not been observed since the 2013 ERD pilot testing.

## **Post Pilot Period – 2014 to 2020**

The annual mass of TCE recovered in 2014 through 2020 decreased from amounts recovered in 2013 (Figures 11 and 12) for two primary reasons. Pumping rates and well yields were less than historic amounts due to system modifications that were implemented to support future remediation system expansion and enhanced source depletion efforts. More importantly, the combination of pilot testing using dewatering/SVE and ERD have reduced the TCE source. Although some wells have experienced moderate rebound since the ERD pilot test (TCE concentrations in groundwater at IMW-24 rebounded to approximately 25% of the baseline concentration after nine months and 50% of the baseline after three years), most wells influenced by the ERD have seen very little rebound of VOC concentrations (Table 7). Integrating new wells into the pump and treat and SVE systems in the Source Zone during final remedy implementation will change previously established groundwater and vapor flow paths. It is expected that TCE recovery will increase as new areas are influenced.

## **5.3 REMEDIAL PERFORMANCE**

### **5.3.1 Trichloroethene Mass Removal**

From system startup in 1991 through 2020, an estimated 165,931 pounds of TCE has been removed from a combination of extracted groundwater plume treatment with the air stripper, separate-phase DNAPL recovery, and SVE treatment (Figures 11 and 12). This estimate of TCE mass does not include TCE mass removal through in-situ treatment with ERD.

Groundwater treatment with the air stripper in 2020 has been ongoing at an average active pumping rate of approximately 35 gpm with an average influent TCE concentration of 2.2 mg/L. This remediation system resulted in an average daily extraction of 0.93 pounds of TCE in 2020 (339 pounds per year at this rate).

SVE had not been active in recent years until July 2012 when the CatOx off-gas system provided a method for destruction of the higher TCE mass loadings from more aggressive SVE efforts since 2012. In 2020, SVE operations at 300 to 350 cubic feet per minute (cfm) resulted in a removal of 781 pounds of TCE. This is consistent with 2018-2019 results but reduced from previous years' yields due to ongoing system modifications and generally decreasing soil vapor concentrations. Average TCE concentration in off-gas varies seasonally between 20 and 77 mg/m<sup>3</sup> from Blower 1 and 45 and 2,450 mg/m<sup>3</sup> from Blower 2 (i.e., lower TCE concentrations in winter and spring months due to higher groundwater levels). When including the contribution from the groundwater treatment with the air stripper to the SVE operations, the mass removal rate averaged 3.1 pounds of TCE per day, with a total mass removal of 1,120 pounds in 2020.

### **5.3.2 Air Stripper Efficiency**

The groundwater treatment system (i.e., air stripping) at the Evanite facility continues to be effective (Table 14). However, a noticeable drop in efficiency had been noted through 2019 into 2020. In March 2020, the stripper tower media was cleaned using an acid-based treatment from Blue Earth Products to remove mineral build up and restore efficiency. A temporary increase in efficiency was noted following treatment, however the efficiency dropped again to as low as 90%. PNG intends to clean the stripper tower media a second time with the same treatment in 2021. Monitoring of pre-treatment influent versus post-

treatment effluent concentrations indicates the air stripper treatment system has performed with an efficiency of over 97% over the history of operations.

### **5.3.3 Off-gas Treatment**

#### **Current Operations**

Since May 3, 2017, all off-gas from the groundwater extraction and SVE systems is treated by activated carbon adsorption rather than the previously used CatOx system. Two 2,000-pound vapor phase activated carbon adsorption canisters were installed in series near the Submicro Building. Off-gas plumbing was altered to connect these carbon adsorption treatment canisters and vent the treated exhaust to a stack above the Submicro roofline (approximately 40 feet above ground). An inline duct heater was installed prior to the activated carbon adsorption canisters to reduce the relative humidity of the influent air stream, as needed to improve carbon adsorption efficiency. A replacement inline duct heater was installed in November 2019. The replacement heater allows for more precise temperature modulation. These vapor treatment system modifications allow for significantly increased treatment effectiveness, as well as separation of the remedial systems from H&V's process, resulting in less remediation system downtime.

The carbon adsorption treatment system is currently (through 2020) treating an average influent TCE concentration of between 31 and 82 mg/m<sup>3</sup> at 290 to 580 cfm as provided by the groundwater air stripper and SVE systems. TCE destruction efficiencies as measured by influent and effluent TCE concentrations in vapor are shown on Table 14.

### **5.3.4 Enhanced Reductive Dechlorination**

Success of the ERD pilot test in the DNAPL source zone resulted in ERD being selected in the ROD as the polishing technology (PNG 2014). The unit used in the pilot test allowed for flexibility in recirculation of the amendments, addition of amendments in each cycle, and hydraulic control of streamlines necessary to target multiple pathways in the aquifer.

ERD is planned initially for the Glass Plant area of the plume where high concentrations of TCE have been successfully flushed and reduced. Once this area is polished using multiple injection and recovery well arrays necessary to reach all areas of the plume, the system will be transitioned to the DNAPL source zone beneath the Submicro Building.

## 6 LIMITATIONS

PNG has prepared this report for use by the H&V Fiber Corporation (Formerly Evanite). This report may be made available to future property owners and to regulatory agencies. This report is not intended for use by others and the information contained herein is not applicable to other sites.

Our interpretation of subsurface conditions is based on field observations and chemical analytical data. Areas with contamination may exist in portions of the site that were not explored or analyzed.

Within the limitations of scope, schedule, and budget, our services have been executed in accordance with generally accepted practices and laws, rules, and regulations at the time that the report was prepared. No other conditions, express or implied, should be understood.

***PNG ENVIRONMENTAL, INC.***

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## 7 REFERENCES

- CH2M HILL. 1987 (May 25). *RCRA Part B Post-Closure Permit Application. Prepared for Evanite Battery Separator, Inc., Corvallis, Oregon.* CH2M HILL, Corvallis, Oregon.
- DEQ. 2003. *Risk-Based Concentrations for Individual Chemicals.* Oregon Department of Environmental Quality. (Rev. September 2009, November 2011, February 2012, June 2015, and May 2018)
- DEQ. 2010 (March 25). *Guidance for Assessing and Remediating Vapor Intrusion in Buildings.* Oregon Department of Environmental Quality. 10-LQ-007
- DEQ. 2015a (April). *Staff Report- Recommended Remedial Action for Evanite Fiber Corporation.* Oregon Department of Environmental Quality – Western Region
- DEQ. 2015b (September 18). *Record of Decision – Final Approval.* Oregon Department of Environmental Quality – Western Region
- EPA. 2008 (January). *A Systematic Approach for Evaluation of Capture Zones at Pump and Treat Systems, Final Project Report.* United States Environmental Protection Agency. EPA/600/R-08/003.
- Kennec. 2007 (May 30). *Focused Feasibility Study, Evanite Fiber Corporation, Corvallis, Oregon.* Kennec, Inc.
- PNG. 2008a (October 29). *Submicro Pilot Test Work Plan, Evanite Fiber Corporation.* PNG Environmental, Inc.
- PNG. 2008b (December 19). *Evanite Performance Monitoring Program, Evanite Fiber Corporation.* PNG Environmental, Inc.
- PNG. 2009a (August 11). *Evanite DNAPL Source Zone Well Installation, Evanite Fiber Corporation.* PNG Environmental, Inc.
- PNG. 2009b (March 3). *Evanite Performance Monitoring Program Sampling and Analysis Plan, Evanite Fiber Corporation.* PNG Environmental, Inc.
- PNG. 2009c (May 29). *Neighborhood Monitoring Wells, Evanite Fiber Corporation.* PNG Environmental, Inc.
- PNG. 2010a (February 18). *Physical Remedy Pilot Testing Work Plan, DNAPL Source Zone, Evanite Fiber Corporation.* PNG Environmental, Inc.
- PNG. 2010b (September 10). *Groundwater Discharge Investigation Work Plan, Evanite Fiber Corporation.* PNG Environmental, Inc.
- PNG. 2010c (June 10). *Evanite Remedial Performance Report, June 2010, Evanite Fiber Corporation.* PNG Environmental, Inc.
- PNG. 2013 (April 4). *Performance Monitoring Plan.* PNG Environmental, Inc.

PNG. 2014 (June 16). *H&V Fiber Remedial Performance Report – 2013. H&V Fiber Corporation*. PNG Environmental, Inc.

PNG. 2015a (February 12). *Focused Feasibility Study Addendum. H&V Fiber Corporation*. PNG Environmental, Inc.

PNG. 2015b (May 12). *H&V Fiber Remedial Performance Report 2014*. PNG Environmental, Inc.

PNG. 2016 (May 31). *H&V Fiber Remedial Performance Report 2015*. PNG Environmental, Inc.

PNG. 2017 (May 8). *H&V Fiber Remedial Performance Report 2016*. PNG Environmental, Inc.

PNG. 2018 (July 26). *H&V Fiber Remedial Performance Report 2017*. PNG Environmental, Inc.

PNG. 2019 (May 16). *H&V Fiber Remedial Performance Report 2018*. PNG Environmental, Inc.

PNG. 2020 (March 23). *H&V Fiber Remedial Performance Report 2019*. PNG Environmental, Inc.

Zimmerman, M.J., Massey, A.J., Campo, K.W. 2005. *Pushpoint Sampling for Defining Spatial and Temporal Variations in Contaminant Concentrations in Sediment Pore Water near the Ground-Water/Surface-Water Interface*. Scientific Investigations Report 2005-5036. US Department of the Interior, US Geological Survey.

## **TABLES**

**Table 1**  
**Well Construction Details**  
H&V Fiber Corporation  
Corvallis, Oregon

Well Identification	Date Installed	Installer	Installation Method	Construction Materials	Ground Surface Elevation (ft)	Well Casing Elevation <sup>a</sup> (ft)	Well Diameter (in)	Total Well Depth from TOC <sup>a</sup> (ft)	Elevation at Base of Well (ft)	Casing Stickup (ft)	Screen Slot Size	Screened Interval Elevation (ft)	Clay Aquitard Elevation (ft)	Oregon State Plane Coordinates <sup>a</sup>	
														Northing (33....)	Easting (748....)
DMW-1	02/21/1986	Corvallis Drilling	Air Rotary	Steel	224.15	223.77	6	38.88	184.89	-0.38	1/8-inch	184.9 - 194.9	189.15	5726.85	1670.49
DMW-2	02/14/1986	Corvallis Drilling	Air Rotary	Steel	222.40	224.16	6	39.01	185.15	1.76	1/8-inch	185.2 - 195.2	185.4	5924.59	2177.43
DMW-3	02/12/1985	Corvallis Drilling	Air Rotary	Steel	223.50	225.39	6	42.10	183.29	1.89	1/8-inch	183.3 - 193.3	182.5	5657.67	2056.35
IMW-3	06/05/2009	Boart Longyear	Sonic	Stainless	223.43	226.44	4	29.12	197.32	3.01	0.02 slot	198.8 - 207.7	NE	5668.26	2057.35
DMW-4	UK	UK	UK	UK	220.63	221.18	18	40.46	180.72	0.55	UK	UK	UK	5941.70	2809.06
DMW-5	02/19/1985	Corvallis Drilling	Air Rotary	Steel	221.90	223.53	6	44.60	178.93	1.63	1/8-inch	178.9 - 188.9	179.9	5244.85	2252.41
DMW-6	04/22/1986	Corvallis Drilling	Air Rotary	Steel	213.40	218.43	6	35.98	182.45	5.03	1/8-inch	182.5 - 192.5	184.4	6347.76	2245.28
DMW-7	01/30/1987	Geotech Exploration	Hollow Stem	Stainless	221.50	222.05	2	36.57	185.48	0.55	0.01 slot	188.7 - 198.7	183.5	5548.03	2586.84
DMW-8	02/02/1987	Geotech Exploration	Hollow Stem	Stainless	220.77	220.68	2	40.40	180.28	-0.09	0.01 slot	183.5 - 193.5	184.77	5498.52	2378.38
DMW-9	01/27/1987	Geotech Exploration	Hollow Stem	Stainless	220.00	221.51	2	42.74	178.77	1.51	0.01 slot	182.0 - 192.0	181.7	5485.63	1780.60
DMW-10	02/03/1987	Geotech Exploration	Hollow Stem	Stainless	224.44	223.40	2	39.21	184.19	-1.04	0.01 slot	187.4 - 197.4	191.44	6113.52	1797.31
DMW-11	06/06/1988	Staco Well Drilling	Cable Tool	Steel/Stainless	223.90	225.21	6	42.40	182.81	1.31	0.04 slot	183.3 - 198.3	184.9	5860.19	2446.98
DMW-12	06/03/1988	Staco Well Drilling	Cable Tool	Steel/Stainless	222.50	223.60	6	41.17	182.43	1.10	0.04 slot	182.9 - 197.9	185.0	5642.78	2737.28
DMW-13	05/25/1988	Staco Well Drilling	Cable Tool	PVC	218.90	220.47	2	38.80	181.67	1.57	0.01 slot	183.7 - 203.7	180.9	6114.43	2573.52
DMW-14	05/26/1988	Staco Well Drilling	Cable Tool	Steel/Stainless	232.50	233.25	6	49.38	183.87	0.75	0.04 slot	184.9 - 199.9	186.5	5433.43	3090.44
DMW-15	06/17/1988	Staco Well Drilling	Cable Tool	Steel/Stainless	214.34	214.08	6	27.86	186.22	-0.26	0.04 slot	186.7 - 195.7	188.34	6217.36	2437.62
DMW-16	12/05/1988	Staco Well Drilling	Cable Tool	Steel/Stainless	222.40	223.53	6	43.08	180.45	1.13	0.04 slot	181.1 - 187.1	182.3	5667.53	2153.33
IMW-16	06/04/2009	Boart Longyear	Sonic	Stainless	221.95	225.26	4	30.98	194.28	3.31	0.02 slot	195.3 - 204.1	NE	5658.19	2149.94
DMW-17	12/09/1988	Staco Well Drilling	Cable Tool	Steel/Stainless	224.40	226.23	6	46.40	179.83	1.83	0.04 slot	180.3 - 190.3	180.8	5541.23	2058.32
IMW-17	06/08/2009	Boart Longyear	Sonic	Stainless	224.07	226.93	4	31.92	195.01	2.86	0.02 slot	195.3 - 204.1	NE	5550.60	2053.08
DMW-18	12/21/1988	Staco Well Drilling	Cable Tool	Stainless	222.60	223.29	2	40.29	183.00	0.69	0.01 slot	184.0 - 194.0	185.6	5415.84	2170.22
DMW-19	07/10/1990	Onwego Drilling, Inc.	Cable Tool	PVC/Stainless	221.90	225.13	5	45.34	179.79	3.23	0.04 slot	181.9 - 191.9	184.7	5390.65	1965.28
IMW-20	10/29/2008	Boart Longyear	Sonic	PVC	228.07	227.78	2	42.09	185.69	-0.29	0.02 slot	186.2 - 195.7	NE	5410.12	2622.67
IMW-21	10/29/2008	Boart Longyear	Sonic	PVC	231.71	231.45	2	43.18	188.27	-0.26	0.02 slot	188.8 - 198.3	NE	5257.65	2836.26
IMW-22	10/28/2008	Boart Longyear	Sonic	PVC	232.36	232.05	2	43.13	188.92	-0.31	0.02 slot	189.4 - 198.9	187.36	5098.20	2578.12
DMW-23	06/08/2009	Boart Longyear	Sonic	Stainless	222.11	223.57	4	46.80	176.77	1.46	0.02 slot	180.6 - 189.1	181.61	5731.12	2139.69
DMW-24	06/02/2009	Boart Longyear	Sonic	Stainless	224.07	225.65	4	48.22	177.43	1.58	0.02 slot	181.4 - 190.2	182.07	5605.07	2047.19
IMW-24	06/02/2009	Boart Longyear	Sonic	Stainless	224.05	227.00	4	33.41	193.59	2.95	0.02 slot	195.1 - 203.9	NE	5598.46	2046.30
DMW-25	06/03/2009	Boart Longyear	Sonic	Stainless	221.75	224.15	4	46.94	177.21	2.40	0.02 slot	180.7 - 189.6	181.75	5652.40	2088.75
IMW-25	06/03/2009	Boart Longyear	Sonic	Stainless	221.78	224.37	4	31.40	192.97	2.59	0.02 slot	194.5 - 203.4	NE	5662.07	2089.73
DMW-26	12/20/2014	Cascade Drilling	Sonic	PVC/Stainless	223.67	226.24	6	44.84	181.40	2.57	0.060 slot	184.5 - 189.1	184.17	5755.61	2045.00
IMW-26	06/09/2009	Boart Longyear	Sonic	Stainless	223.71	226.67	4	31.18	195.49	2.96	0.02 slot	197.0 - 205.8	NE	5743.92	2042.44
DMW-27	02/06/2013	Boart Longyear	Sonic	PVC	224.07	223.83	4	46.55	177.28	-0.24	0.060 slot	182.5 - 191.8	184.83	5511.25	2061.91
IMW-27	02/06/2013	Boart Longyear	Sonic	PVC	224.09	227.03	4	35.59	191.44	2.94	0.060 slot	189.4 - 198.7	NE	5511.25	2056.38
DMW-28	02/07/2013	Boart Longyear	Sonic	Stainless	224.05	223.74	4	48.07	175.67	-0.31	0.060 slot	180.8 - 190.3	181.74	5529.67	1975.61
IMW-28	02/12/2013	Boart Longyear	Sonic	Stainless	224.04	223.48	4	28.82	194.66	-0.56	0.060 slot	195.8 - 205.3	NE	5534.58	1976.21
DMW-29	02/11/2013	Boart Longyear	Sonic	Stainless	224.05	223.75	4	42.85	180.90	-0.30	0.060 slot	186.0 - 195.5	187.75	5670.00	1990.27
IMW-29	02/11/2013	Boart Longyear	Sonic	Stainless	224.04	223.51	4	28.72	194.79	-0.53	0.060 slot	195.9 - 205.4	NE	5676.33	1990.27
DMW-30	12/02/2015	Cascade Drilling	Sonic	PVC/Stainless	223.99	223.66	4	45.55	178.11	-0.33	0.060 slot	181.2 - 190.8	181.99	5581.71	1977.76
IMW-30	02/12/2013	Boart Longyear	Sonic	PVC	223.99	223.67	4	28.96	194.71	-0.32	0.060 slot	195.9 - 205.2	NE	5575.32	1978.72
IMW-31	02/13/2013	Boart Longyear	Sonic	PVC	224.07	223.73	4	29.01	194.72	-0.34	0.060 slot	196.2 - 205.6	NE	5625.37	1983.07

**Table 1**  
**Well Construction Details**  
H&V Fiber Corporation  
Corvallis, Oregon

Well Identification	Date Installed	Installer	Installation Method	Construction Materials	Ground Surface Elevation (ft)	Well Casing Elevation <sup>a</sup> (ft)	Well Diameter (in)	Total Well Depth from TOC <sup>a</sup> (ft)	Elevation at Base of Well (ft)	Casing Stickup (ft)	Screen Slot Size	Screened Interval Elevation (ft)	Clay Aquitard Elevation (ft)	Oregon State Plane Coordinates <sup>a</sup>	
														Northing (33....)	Easting (748....)
DMW-32	12/22/2014	Cascade Drilling	Sonic	PVC/Stainless	220.00	222.46	6	42.32	180.14	2.46	0.060 slot	183.2 - 187.7	184.00	5466.39	1943.03
IMW-32	12/07/2015	Cascade Drilling	Sonic	PVC/Stainless	220.08	233.08	4	34.88	198.20	13.00	0.060 slot	188.5 - 198.1	NE	5467.08	1934.69
DMW-33	01/07/2014	Cascade Drilling	Sonic	PVC	222.29	221.93	2	35.83	186.10	-0.36	0.020 slot	187.3 - 191.9	187.79	5853.09	2018.69
IMW-33	01/07/2014	Cascade Drilling	Sonic	PVC	222.24	221.91	2	27.74	194.17	-0.33	0.020 slot	195.3 - 200.0	NE	5852.79	2023.41
DMW-34	01/08/2014	Cascade Drilling	Sonic	PVC	222.58	222.54	2	38.59	183.95	-0.04	0.020 slot	185.1 - 189.8	185.58	5946.52	2292.02
IMW-34	01/08/2014	Cascade Drilling	Sonic	PVC	222.60	222.45	2	29.50	192.95	-0.15	0.020 slot	194.1 - 198.8	NE	5949.76	2297.02
DMW-35	01/09/2014	Cascade Drilling	Sonic	PVC	222.97	222.64	2	41.92	180.72	-0.33	0.020 slot	181.9 - 186.6	182.47	5755.97	2614.77
IMW-35	01/10/2014	Cascade Drilling	Sonic	PVC	223.06	222.76	2	29.29	193.47	-0.30	0.020 slot	194.6 - 199.3	NE	5752.18	2618.56
DMW-36	12/18/2014	Cascade Drilling	Sonic	PVC/Stainless	221.33	223.48	6	42.60	180.88	2.15	0.060 slot	184.0 - 188.5	185.33	5523.70	2129.03
DMW-37	12/16/2014	Cascade Drilling	Sonic	PVC/Stainless	220.35	222.50	6	40.00	182.50	2.15	0.060 slot	185.7 - 190.3	185.35	5464.73	2213.29
DMW-38	12/18/2014	Cascade Drilling	Sonic	PVC/Stainless	223.72	226.06	6	44.92	181.14	2.34	0.060 slot	184.3 - 188.8	185.22	5830.74	2347.22
DMW-39	12/19/2014	Cascade Drilling	Sonic	PVC	225.02	227.45	6	45.56	181.89	2.43	0.060 slot	185.0 - 194.6	185.02	5775.50	2830.03
DMW-40	12/01/2015	Cascade Drilling	Sonic	PVC/Stainless	220.64	222.61	4	42.14	180.47	1.97	0.060 slot	183.6 - 193.2	184.14	5557.35	1870.37
IMW-40	12/02/2015	Cascade Drilling	Sonic	PVC/Stainless	220.67	222.50	4	30.08	192.42	1.83	0.060 slot	193.5 - 203.2	NE	5552.02	1869.86
DMW-41	12/03/2015	Cascade Drilling	Sonic	PVC/Stainless	224.45	224.16	4	46.35	177.81	-0.29	0.060 slot	180.9 - 185.5	181.95	5612.92	2235.12
DMW-42	12/04/2015	Cascade Drilling	Sonic	PVC/Stainless	224.39	224.09	4	38.71	185.38	-0.30	0.060 slot	188.5 - 193.1	188.89	5597.15	2356.34

**Notes:**

<sup>a</sup> Wells re-surveyed and total well depths recorded in March 2009, DNAPL wells re-surveyed after SVE components added in July 2010

ft = Feet

HSA = Hollow Stem Auger

TOC = Top of Casing

UK = Unknown

NE - Not encountered during well installation

in = Inches

**Table 2**  
**2020 Design Phase Monitoring Schedule**  
H&V Fiber Corporation  
Corvallis, Oregon

Frequency	Water Pumping Rates and Totalizers	Water VOCs for Evanite Chemicals (EPA 8260)	Air VOCs (PID and Flow)	Air VOCs for Evanite Chemicals (EPA TO-15)	Depth to Water and NAPL
Monthly	<b>TASK 1</b> All Pumping Wells Stripper Effluent		<b>TASK 2</b> All Active SVE Wells	<b>TASK 3</b> Post-SVE1 Post-SVE-2 SVE + Stripper Carbon-Mid Carbon-Eff	
Bi-Monthly		<b>TASK 4</b> Stripper Influent Stripper Effluent			
Quarterly (March, June, Sept., Dec.)		<b>TASK 5</b> DMW-2 DMW-3 DMW-16 DMW-17 DMW-23 DMW-24 DMW-25 DMW-26 DMW-27 DMW-28 DMW-29 DMW-30		<b>TASK 6</b> IMW-3 IMW-16 IMW-17 IMW-24 IMW-25 IMW-26 IMW-27 IMW-28 IMW-29 IMW-30 IMW-31 IMW-32 Submicro Legs SS-1	<b>TASK 7</b> DMW-2 DMW-27 DMW-3 IMW-27 IMW-3 DMW-28 DMW-16 IMW-28 IMW-16 DMW-29 DMW-17 IMW-29 IMW-17 DMW-30 DMW-23 IMW-30 DMW-24 IMW-31 IMW-24 DMW-32 DMW-25 IMW-32 IMW-25 DMW-40 DMW-26 IMW-40 IMW-26
Semi-Annual (March, Sept.)		<b>TASK 8</b> MW-7 DMW-36 MW-8 DMW-37 DMW-11 DMW-38 DMW-12 DMW-39 MW-20 DMW-40 DMW-32 IMW-40 IMW-32 DMW-41 DMW-33 DMW-42 IMW-33 Millrace 1 DMW-34 Millrace 2 IMW-34 DMW-35 IMW-35			<b>TASK 9</b> MW-1 MW-21 MW-5 MW-22 MW-6 DMW-33 MW-7 IMW-33 MW-8 DMW-34 MW-9 IMW-34 MW-10 DMW-35 DMW-11 IMW-35 DMW-12 DMW-36 MW-13 DMW-37 MW-14 DMW-38 MW-15 DMW-39 MW-18 DMW-41 MW-19 DMW-42 MW-20
Annual -March		<b>TASK 10</b> IMW-3 IMW-16 IMW-17 IMW-24 IMW-25 IMW-26 IMW-27 IMW-28 IMW-29 IMW-30 IMW-31			
Annual - Sept.		<b>TASK 11</b> MW-1 MW-5 MW-6 MW-9 MW-10 MW-13 MW-14 MW-15 MW-18 MW-19 MW-21 MW-22 Porewater (7)			

**Notes:**  
VOC = Volatile organic compound  
PID = Photoionizer detector

**Table 3**  
**Media Screening Levels**  
H&V Fiber Corporation  
Corvallis, Oregon

Oregon Department of Environmental Quality Risk Based Concentrations <sup>a</sup>	Criteria Basis	Applicable Plume Area	Pathway	Media	Units	Tetrachloroethene	Trichlorethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl chloride
Soil Ingestion, Dermal Contact, & Inhalation	DEQ RBDM	Neighborhood	Residential	Soil	mg/kg	220 >Csat	6.7	160	1,600 >Csat	0.36
	DEQ RBDM	Source and Hardboard Areas	Occupational	Soil	mg/kg	1,000 >Csat	51	2,300 >Csat	23,000 >Csat	4.4
	DEQ RBDM	All Areas	Construction Worker	Soil	mg/kg	1,800 >Csat	130	710	7,100 >Csat	34
	DEQ RBDM	All Areas	Excavation Worker	Soil	mg/kg	50,000 >Csat	3,700 >Csat	20,000 >Csat	200,000 >Csat	950 >Csat
Volatilization to Outdoor Air	DEQ RBDM	Neighborhood	Residential	Soil	mg/kg	- >Csat	15	- >Max	- >Max	5.3
	DEQ RBDM	Source and Hardboard Areas	Occupational	Soil	mg/kg	- >Csat	96	- >Max	- >Max	89
Vapor Intrusion into Buildings	DEQ RBDM	Neighborhood	Residential	Soil	mg/kg	2.8	0.12	- >Max	- >Max	0.043
	DEQ RBDM	Source and Hardboard Areas	Occupational	Soil	mg/kg	36	2.3	- >Max	- >Max	2.2
Leaching to Groundwater	DEQ RBDM	Neighborhood	Residential	Soil	mg/kg	0.46	0.013	0.63	7.0	0.00057
	DEQ RBDM	Source and Hardboard Areas	Occupational	Soil	mg/kg	1.9	0.087	4.5	51	0.010
Ingestion & Inhalation from Tapwater	DEQ RBDM	Neighborhood	Residential	Groundwater	ug/L	12	0.49	36	360	0.027
Volatilization to Outdoor Air	DEQ RBDM	Neighborhood	Residential	Groundwater	ug/L	64,000	3,300	- >S	- >S	350
	DEQ RBDM	Source and Hardboard Areas	Occupational	Groundwater	ug/L	- >S	20,000	- >S	- >S	5,900
Vapor Intrusion into Buildings	DEQ RBDM	Neighborhood	Residential	Groundwater	ug/L	3,700	200	- >S	- >S	17
	DEQ RBDM	Source and Hardboard Areas	Occupational	Groundwater	ug/L	48,000	3,700	- >S	- >S	880
Groundwater in Excavation	DEQ RBDM	All Areas	Construction/Excavation Worker	Groundwater	ug/L	5,600	430	18,000	180,000	960
Vapor Intrusion into Buildings	DEQ RBDM	Neighborhood	Residential	Soil Gas	ug/m <sup>3</sup>	2,200	95	- >Pv	- >Pv	33
	DEQ RBDM	Source and Hardboard Areas	Occupational	Soil Gas	ug/m <sup>3</sup>	47,000	2,900	- >Pv	- >Pv	2,800
Inhalation	DEQ RBDM	Neighborhood	Residential	Air	ug/m <sup>3</sup>	11	0.47	- >Pv	- >Pv	0.17
	DEQ RBDM	Source and Hardboard Areas	Occupational	Air	ug/m <sup>3</sup>	47	2.9	- >Pv	- >Pv	2.8
Surface Water	See Footnotes <sup>bcd</sup>	Willamette and Marys Rivers	Ecological Receptors	Surface Water	ug/L	0.33	3.0	NV	590	0.24
Pore Water	See Footnotes <sup>bcd</sup>	Willamette and Marys Rivers	Ecological Receptors	Hyporheic Water	ug/L	98	47	590	590	930

**Notes:**

<sup>a</sup> Oregon Department of Environmental Quality (DEQ) Risk-Based Decision Making (RBDM) (revised May 2018)

<sup>b</sup> United States Environmental Protection Agency (EPA) Resource Conservation and Recovery Act (RCRA) Region 5 Ecological Screening Levels (August 22, 2003)

<sup>c</sup> DEQ Human Health Water Quality Criteria for Toxic Pollutants Table 40: Organism (October 7, 2011)

<sup>d</sup> National Oceanic and Atmospheric Administration (NOAA) Office of Response and Restoration Screening Quick Reference Tables (SQRT) (developed 2008)

<sup>e</sup> Per Oak Ridge National Laboratory's Water Quality Criteria - Ecological Receptors - Tier II SCV (Tier II SCV values were taken from Suter II, G.W. and Tsao, C.L., 1996. Toxicological Benchmarks for Screening Potential Contaminants of Concern for Effects on Aquatic Biota: 1996 Revision. ORNL publication ES/ER/TM-96/R2)

mg/kg = Milligrams per kilogram

ug/L = Micrograms per liter

ug/m<sup>3</sup> = Micrograms per cubic meter

NV = No published value

>Csat = This soil RBC exceeds the limit of three-phase equilibrium partitioning. Refer to "ChemData" page of the RBDM for the corresponding value of Csat.

>Max = The constituent RBC for this pathway is greater than 100,000 mg/kg or 100,000 mg/L. The Department believes it is highly unlikely that such concentrations will ever be encountered

>S = The groundwater RBC exceeds the solubility limit. Groundwater concentrations in excess of S indicate that free product may be present

>Pv = The air concentration reported for the RBC exceeds the vapor pressure of the pure chemical. It can be assumed that this constituent cannot create an unacceptable risk by this pathway.

**Table 4  
Groundwater Elevation Data**  
H&V Fiber Corporation  
Corvallis, Oregon

Well Identification	TOC Elevation (feet MSL)	Monitoring Summary		
		Date Measured	Depth to Water (feet below TOC)	Groundwater Elevation (feet MSL)
MW-1  (DMW-1)	223.77	03/23/2009	20.05	203.72
		06/01/2009	20.81	202.96
		08/06/2009	21.95	201.82
		09/14/2009	21.66	202.11
		12/03/2009	21.34	202.43
		03/24/2010	19.91	203.86
		06/08/2010	17.41	206.36
		09/29/2010	21.99	201.78
		12/10/2010	19.59	204.18
		03/22/2011	17.61	206.16
		06/07/2011	19.14	204.63
		09/26/2011	22.05	201.72
		01/27/2012	15.68	208.09
		07/11/2012	20.85	202.92
		03/18/2013	21.62	202.15
		09/04/2013	22.57	201.20
		03/17/2014	17.42	206.35
		09/22/2014	23.10	200.67
		09/01/2015	23.82	199.95
		01/27/2016	15.36	208.41
		03/01/2016	17.51	206.26
		09/06/2016	22.69	201.08
		11/10/2016	21.77	202.00
		03/06/2017	17.26	206.51
		09/14/2017	23.42	200.35
		12/04/2017	21.15	202.62
		03/05/2018	20.01	203.76
		06/05/2018	21.54	202.23
		09/10/2018	23.37	200.40
		12/03/2018	23.99	199.78
		03/04/2019	19.90	203.87
		06/03/2019	21.02	202.75
		09/09/2019	23.34	200.43
		12/16/2019	23.44	200.33
		03/09/2020	20.81	202.96
		06/01/2020	21.39	202.38
09/15/2020	22.28	201.49		
12/08/2020	21.64	202.13		
DMW-2	224.16	03/23/2009	30.06	194.10
		06/01/2009	25.46	198.70
		08/06/2009	27.55	196.61
		09/14/2009	26.74	197.42
		12/03/2009	31.16	193.00
		03/24/2010	26.73	197.43
		06/08/2010	17.49	206.67
		09/29/2010	30.26	193.90
		12/10/2010	23.75	200.41
		03/22/2011	22.99	201.17
		06/07/2011	24.47	199.69
		09/26/2011	29.79	194.37
		10/13/2011	25.72	198.44
		10/17/2011	26.35	197.81
		01/27/2012	13.51	210.65
		07/11/2012	24.80	199.36
		03/18/2013	31.00	193.16
		05/09/2013	30.35	193.81
		05/22/2013	30.00	194.16
		06/03/2013	28.24	195.92

**Table 4**  
**Groundwater Elevation Data**  
H&V Fiber Corporation  
Corvallis, Oregon

Well Identification	TOC Elevation (feet MSL)	Monitoring Summary		
		Date Measured	Depth to Water (feet below TOC)	Groundwater Elevation (feet MSL)
DMW-2 (cont'd)		07/09/2013	30.55	193.61
		07/31/2013	27.63	196.53
		09/04/2013	31.20	192.96
		10/28/2013	29.70	194.46
		11/06/2013	29.80	194.36
		02/04/2014	31.00	193.16
		02/21/2014	21.60	202.56
		03/04/2014	24.23	199.93
		03/17/2014	23.37	200.79
		04/01/2014	23.20	200.96
		05/15/2014	27.72	196.44
		06/03/2014	29.83	194.33
		07/09/2014	31.31	192.85
		08/14/2014	29.70	194.46
		09/22/2014	28.21	195.95
		10/07/2014	28.78	195.38
		11/05/2014	30.22	193.94
		12/01/2014	25.42	198.74
		01/21/2015	21.55	202.61
		03/09/2015	21.77	202.39
		05/18/2015	27.02	197.14
		06/10/2015	35.52	188.64
		07/08/2015	35.45	188.71
		08/10/2015	28.63	195.53
		09/01/2015	35.50	188.66
		11/05/2015	35.52	188.64
		12/14/2015	32.44	191.72
		01/15/2016	18.10	206.06
		01/27/2016	14.78	209.38
		03/01/2016	18.50	205.66
		06/13/2016	30.06	194.10
		09/06/2016	26.08	198.08
		11/10/2016	28.35	195.81
12/05/2016	22.73	201.43		
03/06/2017	18.56	205.60		
06/08/2017	24.62	199.54		
09/14/2017	32.09	192.07		
12/04/2017	25.58	198.58		
03/05/2018	23.32	200.84		
06/05/2018	27.49	196.67		
09/10/2018	27.30	196.86		
12/03/2018	31.19	192.97		
03/04/2019	24.31	199.85		
06/03/2019	25.37	198.79		
09/09/2019	28.48	195.68		
12/16/2019	29.58	194.58		
03/09/2020	25.42	198.74		
06/01/2020	26.35	197.81		
09/15/2020	28.54	195.62		
12/08/2020	26.72	197.44		
IMW-3 <sup>a</sup>	225.50	08/06/2009	26.77	198.73
		09/14/2009	26.22	199.28
		12/03/2009	27.33	198.17
		03/24/2010	26.35	199.15
	226.44	06/08/2010	19.49	206.01
		09/29/2010	24.50	201.94
		12/10/2010	25.05	201.39
		03/22/2011	24.04	202.40

**Table 4**  
**Groundwater Elevation Data**  
H&V Fiber Corporation  
Corvallis, Oregon

Well Identification	TOC Elevation (feet MSL)	Monitoring Summary		
		Date Measured	Depth to Water (feet below TOC)	Groundwater Elevation (feet MSL)
IMW-3 (cont'd)		06/07/2011	25.75	200.69
		09/26/2011	-	-
		10/13/2011	25.40	201.04
		10/17/2011	26.55	199.89
		01/21/2012	25.15	201.29
		01/27/2012	18.78	207.66
		02/01/2012	16.32	210.12
		02/22/2012	26.40	200.04
		02/23/2012	26.40	200.04
		02/27/2012	26.53	199.91
		02/27/2012	26.70	199.74
		03/01/2012	27.50	198.94
		03/04/2012	27.00	199.44
		03/06/2012	25.50	200.94
		03/15/2012	25.90	200.54
		03/16/2012	25.30	201.14
		03/20/2012	24.80	201.64
		03/22/2012	18.80	207.64
		03/29/2012	23.70	202.74
		04/03/2012	18.50	207.94
		04/10/2012	21.10	205.34
		04/13/2012	24.00	202.44
		04/19/2012	25.20	201.24
		05/01/2012	26.20	200.24
		05/04/2012	26.10	200.34
		05/10/2012	26.40	200.04
		07/11/2012	-	-
		03/18/2013	27.72	198.72
		06/03/2013	26.02	200.42
		05/09/2013	27.39	199.05
		05/22/2013	27.66	198.78
		06/03/2013	26.02	200.42
		07/09/2013	25.35	201.09
		07/31/2013	26.35	200.09
		09/04/2013	26.66	199.78
		10/28/2013	26.44	200.00
		11/06/2013	24.80	201.64
		02/04/2014	-	-
		02/21/2014	21.45	204.99
		03/04/2014	20.00	206.44
		03/17/2014	27.81	198.63
		04/01/2014	22.39	204.05
		05/15/2014	23.75	202.69
		06/03/2014	24.34	202.10
		07/09/2014	26.37	200.07
		08/14/2014	26.17	200.27
		09/22/2014	26.71	199.73
	10/07/2014	26.83	199.61	
	11/05/2014	26.25	200.19	
	12/01/2014	26.25	200.19	
	01/21/2015	23.70	202.74	
	03/09/2015	23.92	202.52	
	05/18/2015	25.68	200.76	
	06/10/2015	24.38	202.06	
	07/08/2015	26.40	200.04	
	08/10/2015	24.90	201.54	
	09/01/2015	Dry	-	
	11/05/2015	26.60	199.84	
	12/14/2015	25.75	200.69	

**Table 4**  
**Groundwater Elevation Data**  
H&V Fiber Corporation  
Corvallis, Oregon

Well Identification	TOC Elevation (feet MSL)	Monitoring Summary				
		Date Measured	Depth to Water (feet below TOC)	Groundwater Elevation (feet MSL)		
IMW-3 (cont'd)		01/15/2016	19.40	207.04		
		01/27/2016	15.62	210.82		
		03/01/2016	19.59	206.85		
		06/13/2016	Dry	-		
		09/06/2016	Dry	-		
		11/10/2016	23.54	202.90		
		12/05/2016	25.71	200.73		
		03/06/2017	19.85	206.59		
		06/08/2017	20.69	205.75		
		09/14/2017	23.81	202.63		
		12/04/2017	24.74	201.70		
		03/05/2018	22.97	203.47		
		06/05/2018	23.20	203.24		
		09/10/2018	24.05	202.39		
		12/03/2018	25.49	200.95		
		03/04/2018	23.09	203.35		
		03/13/2019	25.65	200.79		
		06/03/2019	23.24	203.20		
		09/09/2019	25.96	200.48		
		12/16/2019	27.07	199.37		
03/09/2020	20.02	206.42				
06/01/2020	23.97	202.47				
09/15/2020	26.79	199.65				
12/08/2020	24.46	201.98				
DMW-3	225.39	03/23/2009	33.75	191.64		
		06/01/2009	26.23	199.16		
		08/06/2009	34.16	191.23		
		09/14/2009	32.35	193.04		
		12/03/2009	34.44	190.95		
		03/24/2010	34.38	191.01		
		06/08/2010	19.29	206.10		
		09/29/2010	28.45	196.94		
		12/10/2010	31.69	193.70		
		03/22/2011	30.81	194.58		
		06/07/2011	32.34	193.05		
		09/26/2011	34.69	190.70		
		10/13/2011	35.86	189.53		
		10/17/2011	Dry	-		
		01/27/2012	22.02	203.37		
		02/01/2012	15.28	210.11		
		04/10/2012	21.08	204.31		
		04/13/2012	24.00	201.39		
		04/19/2012	25.17	200.22		
		05/01/2012	26.17	199.22		
		05/04/2012	26.08	199.31		
		05/10/2012	26.33	199.06		
		07/11/2012	35.90	189.49		
		03/18/2013	34.23	191.16		
		06/03/2013	-	-		
		Recirculating		05/09/2013	35.85	189.54
		Recirculating		05/22/2013	27.30	198.09
Recirculating		06/03/2013	34.86	190.53		
Recirculating		07/09/2013	26.90	198.49		
DMW-3 Recirculating		07/31/2013	27.30	198.09		
Recirculating		09/04/2013	29.33	196.06		
Recirculating		10/28/2013	28.53	196.86		
		11/06/2013	27.70	197.69		
		02/04/2014	34.20	191.19		

**Table 4**  
**Groundwater Elevation Data**  
H&V Fiber Corporation  
Corvallis, Oregon

Well Identification	TOC Elevation (feet MSL)	Monitoring Summary		
		Date Measured	Depth to Water (feet below TOC)	Groundwater Elevation (feet MSL)
DMW-3 (cont'd)		02/21/2014	26.20	199.19
		03/04/2014	28.90	196.49
		03/17/2014	27.55	197.84
		04/01/2014	27.40	197.99
		05/15/2014	32.00	193.39
		06/03/2014	33.52	191.87
		07/09/2014	33.24	192.15
		08/14/2014	33.30	192.09
		09/22/2014	34.21	191.18
		10/07/2014	34.18	191.21
		11/05/2014	36.21	189.18
		12/01/2014	33.86	191.53
		01/21/2015	29.55	195.84
		03/09/2015	30.00	195.39
		05/18/2015	35.62	189.77
		06/10/2015	37.09	188.30
		07/08/2015	37.30	188.09
		08/10/2015	37.53	187.86
		09/01/2015	36.60	188.79
		11/05/2015	39.20	186.19
		12/14/2015	38.95	186.44
		01/15/2016	18.65	206.74
		01/27/2016	15.82	209.57
		03/01/2016	18.67	206.72
		06/13/2016	33.67	191.72
		09/06/2016	26.04	199.35
		11/10/2016	33.18	192.21
		12/05/2016	24.18	201.21
		03/06/2017	18.96	206.43
		06/08/2017	31.36	194.03
		09/14/2017	-	-
		12/04/2017	32.63	192.76
		03/05/2018	31.35	194.04
06/05/2018	33.29	192.10		
09/10/2018	29.27	196.12		
12/03/2018	36.06	189.33		
03/04/2019	31.14	194.25		
06/03/2019	32.07	193.32		
09/09/2019	37.67	187.72		
12/16/2019	37.22	188.17		
03/09/2020	32.89	192.50		
06/01/2020	31.35	194.04		
09/15/2020	36.03	189.36		
12/08/2020	33.65	191.74		
MW-4	221.18	03/23/2009	23.47	197.71
		06/01/2009	25.42	195.76
		08/06/2009	27.69	193.49
		09/14/2009	26.97	194.21
		12/03/2009	25.35	195.83
		03/24/2010	26.52	194.66
		06/08/2010	16.05	205.13
		09/29/2010	27.59	193.59
		12/10/2010	19.56	201.62
		03/22/2011	21.77	199.41
		06/07/2011	22.11	199.07
		09/26/2011	26.73	194.45
		01/27/2012	8.95	212.23
(DMW-4)		07/11/2012	-	-

**Table 4**  
**Groundwater Elevation Data**  
H&V Fiber Corporation  
Corvallis, Oregon

Well Identification	TOC Elevation (feet MSL)	Monitoring Summary		
		Date Measured	Depth to Water (feet below TOC)	Groundwater Elevation (feet MSL)
DMW-4 (cont'd)		03/18/2013	26.21	194.97
		09/04/2013	27.34	193.84
		03/17/2014	18.95	202.23
		09/22/2014	27.63	193.55
		09/01/2015	28.59	192.59
		01/27/2016	17.49	203.69
		09/06/2016	28.26	192.92
		11/10/2016	-	-
		03/06/2017	21.45	199.73
		09/14/2017	27.80	193.38
MW-5  (DMW-5)	223.53	03/23/2009	19.98	203.55
		06/01/2009	20.42	203.11
		08/06/2009	22.42	201.11
		09/14/2009	22.41	201.12
		12/03/2009	21.78	201.75
		03/24/2010	19.82	203.71
		06/08/2010	18.28	205.25
		09/29/2010	22.25	201.28
		12/10/2010	20.06	203.47
		03/22/2011	15.92	207.61
		06/07/2011	18.30	205.23
		09/26/2011	22.36	201.17
		01/27/2012	16.88	206.65
		07/11/2012	20.46	203.07
		03/18/2013	20.89	202.64
		09/04/2013	22.61	200.92
		03/17/2014	13.52	210.01
		09/22/2014	22.80	200.73
		09/01/2015	23.93	199.60
		01/27/2016	12.77	210.76
		03/01/2016	16.61	206.92
		09/06/2016	23.06	200.47
		11/10/2016	21.59	201.94
		03/06/2017	15.41	208.12
		09/14/2017	23.12	200.41
		12/04/2017	20.24	203.29
		03/05/2018	19.15	204.38
		06/05/2018	20.88	202.65
		09/10/2018	23.23	200.30
		12/03/2018	24.00	199.53
03/04/2019	19.03	204.50		
06/03/2019	20.03	203.50		
09/09/2019	23.18	200.35		
12/16/2019	23.39	200.14		
03/09/2020	19.73	203.80		
06/01/2020	21.04	202.49		
09/15/2020	23.12	200.41		
12/08/2020	22.06	201.47		
MW-6	218.43	03/23/2009	17.71	200.72
		06/01/2009	19.64	198.79
		08/06/2009	22.22	196.21
		09/14/2009	21.35	197.08
		12/03/2009	19.24	199.19
		03/24/2010	20.18	198.25
		06/08/2010	9.80	208.63
		09/29/2010	21.84	196.59
		12/10/2010	13.51	204.92
		03/22/2011	16.35	202.08

**Table 4**  
**Groundwater Elevation Data**  
H&V Fiber Corporation  
Corvallis, Oregon

Well Identification	TOC Elevation (feet MSL)	Monitoring Summary		
		Date Measured	Depth to Water (feet below TOC)	Groundwater Elevation (feet MSL)
MW-6 (cont'd)  (DMW-6)		06/07/2011	16.52	201.91
		09/26/2011	21.17	197.26
		01/27/2012	-	-
		07/11/2012	21.22	197.21
		03/18/2013	19.99	198.44
		09/04/2013	21.72	196.71
		03/17/2014	13.47	204.96
		09/22/2014	22.13	196.30
		03/09/2015	19.60	198.83
		09/01/2015	22.16	196.27
		01/27/2016	12.00	206.43
		03/01/2016	18.45	199.98
		09/06/2016	22.72	195.71
		11/10/2016	19.22	199.21
		03/06/2017	16.05	202.38
		09/14/2017	22.20	196.23
		12/04/2017	14.82	203.61
		03/05/2018	18.96	199.47
		06/05/2018	20.00	198.43
		09/10/2018	22.60	195.83
		12/03/2019	19.78	198.65
		03/04/2019	17.21	201.22
		06/03/2019	19.57	198.86
		09/09/2019	20.87	197.56
		12/16/2019	20.36	198.07
03/09/2020	20.39	198.04		
06/01/2020	20.52	197.91		
09/15/2020	21.64	196.79		
12/08/2020	20.22	198.21		
MW-7  (DMW-7)	222.05	03/23/2009	19.77	202.28
		06/01/2009	20.37	201.68
		08/06/2009	22.58	199.47
		09/14/2009	22.29	199.76
		12/03/2009	21.25	200.80
		03/24/2010	20.14	201.91
		06/08/2010	16.71	205.34
		09/29/2010	22.34	199.71
		12/10/2010	18.92	203.13
		03/22/2011	16.27	205.78
		06/07/2011	18.11	203.94
		09/26/2011	22.31	199.74
		01/27/2012	12.72	209.33
		07/11/2012	20.60	201.45
		03/18/2013	20.92	201.13
		09/04/2013	22.52	199.53
		03/17/2014	14.07	207.98
		09/22/2014	22.63	199.42
		03/09/2015	19.27	202.78
		09/01/2015	23.81	198.24
		01/27/2016	12.15	209.90
		03/01/2016	16.60	205.45
		09/06/2016	22.84	199.21
		11/10/2016	20.91	201.14
		03/06/2017	15.59	206.46
09/14/2017	22.94	199.11		
12/04/2017	18.98	203.07		
03/05/2018	19.23	202.82		
06/05/2018	20.85	201.20		

**Table 4**  
**Groundwater Elevation Data**  
H&V Fiber Corporation  
Corvallis, Oregon

Well Identification	TOC Elevation (feet MSL)	Monitoring Summary		
		Date Measured	Depth to Water (feet below TOC)	Groundwater Elevation (feet MSL)
DMW-7 (cont'd)		09/10/2018	23.18	198.87
		12/03/2019	23.41	198.64
		03/04/2019	18.61	203.44
		06/03/2019	20.01	202.04
		09/09/2019	23.13	198.92
		12/16/2019	23.03	199.02
		03/09/2020	19.80	202.25
		06/01/2020	21.17	200.88
		09/15/2020	23.04	199.01
		12/08/2020	21.80	200.25
MW-8  (DMW-8)	220.68	03/23/2009	18.22	202.46
		06/01/2009	18.62	202.06
		08/06/2009	20.63	200.05
		09/14/2009	20.02	200.66
		12/03/2009	19.77	200.91
		03/24/2010	18.07	202.61
		06/08/2010	14.69	205.99
		09/29/2010	20.41	200.27
		12/10/2010	17.69	202.99
		03/22/2011	14.60	206.08
		06/07/2011	16.51	204.17
		09/26/2011	20.54	200.14
		01/27/2012	11.51	209.17
		07/11/2012	18.85	201.83
		03/18/2013	19.63	201.05
		09/04/2013	20.88	199.80
		03/17/2014	12.80	207.88
		09/22/2014	21.27	199.41
		03/09/2015	16.81	203.87
		09/01/2015	22.38	198.30
		01/27/2016	10.12	210.56
		03/01/2016	13.93	206.75
		09/06/2016	20.87	199.81
		11/10/2016	19.77	200.91
		03/06/2017	13.46	207.22
		09/14/2017	21.65	199.03
		12/04/2017	18.22	202.46
		03/05/2018	17.66	203.02
		06/05/2018	19.42	201.26
		09/10/2018	21.54	199.14
		12/03/2018	22.37	198.31
		03/04/2019	17.24	203.44
06/03/2019	18.54	202.14		
09/09/2019	21.76	198.92		
12/16/2019	21.80	198.88		
03/09/2020	18.34	202.34		
06/01/2020	19.46	201.22		
09/15/2020	21.54	199.14		
12/08/2020	20.18	200.50		
MW-9	221.51	03/23/2009	18.16	203.35
		06/01/2009	18.79	202.72
		08/06/2009	20.14	201.37
		09/14/2009	19.42	202.09
		12/03/2009	19.55	201.96
		03/24/2010	17.71	203.80
		06/08/2010	14.84	206.67
		09/29/2010	20.05	201.46
		12/10/2010	17.73	203.78

**Table 4**  
**Groundwater Elevation Data**  
H&V Fiber Corporation  
Corvallis, Oregon

Well Identification	TOC Elevation (feet MSL)	Monitoring Summary		
		Date Measured	Depth to Water (feet below TOC)	Groundwater Elevation (feet MSL)
MW-9 (cont'd)  (DMW-9)		03/22/2011	15.12	206.39
		06/07/2011	16.93	204.58
		09/26/2011	20.18	201.33
		01/27/2012	12.99	208.52
		07/11/2012	18.61	202.90
		03/18/2013	20.53	200.98
		09/04/2013	20.14	201.37
		03/17/2014	15.32	206.19
		09/22/2014	21.81	199.70
		09/01/2015	22.77	198.74
		01/27/2016	12.01	209.50
		03/01/2016	14.22	207.29
		09/06/2016	20.63	200.88
		11/10/2016	20.46	201.05
		03/06/2017	14.28	207.23
		09/14/2017	22.45	199.06
		12/04/2017	20.05	201.46
		03/05/2018	18.48	203.03
		06/05/2018	20.25	201.26
		09/10/2018	21.96	199.55
		12/03/2018	22.86	198.65
		03/04/2019	18.44	203.07
		06/03/2019	19.46	202.05
		09/09/2019	22.39	199.12
		12/16/2019	22.29	199.22
03/09/2020	19.16	202.35		
06/01/2020	19.88	201.63		
09/15/2020	21.76	199.75		
12/08/2020	20.47	201.04		
MW-10  (DMW-10)	223.40	03/23/2009	21.12	202.28
		06/01/2009	22.69	200.71
		08/06/2009	24.35	199.05
		09/14/2009	24.19	199.21
		12/03/2009	23.86	199.54
		03/24/2010	22.52	200.88
		06/08/2010	15.66	207.74
		09/29/2010	-	-
		12/10/2010	19.00	204.40
		03/22/2011	18.55	204.85
		06/07/2011	-	-
		09/26/2011	24.22	199.18
		01/27/2012	12.53	210.87
		07/11/2012	23.39	200.01
		03/18/2013	23.32	200.08
		09/04/2013	24.56	198.84
		03/17/2014	17.41	205.99
		09/22/2014	24.68	198.72
		09/01/2015	25.21	198.19
		01/27/2016	15.86	207.54
		03/01/2016	20.52	202.88
		09/06/2016	24.87	198.53
		11/10/2016	23.21	200.19
		03/06/2017	18.64	204.76
		09/14/2017	24.69	198.71
12/04/2017	20.59	202.81		
03/05/2018	21.71	201.69		
06/05/2018	23.28	200.12		
09/10/2018	25.05	198.35		

**Table 4**  
**Groundwater Elevation Data**  
H&V Fiber Corporation  
Corvallis, Oregon

Well Identification	TOC Elevation (feet MSL)	Monitoring Summary		
		Date Measured	Depth to Water (feet below TOC)	Groundwater Elevation (feet MSL)
DMW-10 (cont'd)		12/03/2018	25.16	198.24
		03/04/2019	20.51	202.89
		06/03/2019	23.25	200.15
		09/09/2019	24.99	198.41
		12/16/2019	25.27	198.13
		03/09/2020	23.25	200.15
		06/01/2020	23.61	199.79
		09/15/2020	24.21	199.19
		12/08/2020	23.33	200.07
MW-11  (DMW-11)	225.21	03/23/2009	22.48	202.73
		06/01/2009	24.35	200.86
		08/06/2009	26.46	198.75
		09/14/2009	25.74	199.47
		12/03/2009	25.03	200.18
		03/24/2010	24.54	200.67
		06/08/2010	18.04	207.17
		09/29/2010	26.23	198.98
		12/10/2010	21.44	203.77
		03/22/2011	20.44	204.77
		06/07/2011	21.98	203.23
		09/26/2011	26.34	198.87
		01/27/2012	13.39	211.82
		07/11/2012	24.20	201.01
		03/18/2013	25.76	199.45
		09/04/2013	26.74	198.47
		03/17/2014	18.55	206.66
		09/22/2014	26.98	198.23
		03/09/2015	23.39	201.82
		09/01/2015	28.34	196.87
		01/27/2016	15.60	209.61
		03/01/2016	20.22	204.99
		09/06/2016	26.83	198.38
		11/10/2016	25.10	200.11
		03/06/2017	19.43	205.78
		09/14/2017	27.50	197.71
		12/04/2017	22.63	202.58
		03/05/2018	23.45	201.76
		06/05/2018	25.34	199.87
		09/10/2018	27.29	197.92
		12/03/2018	27.73	197.48
		03/04/2019	22.61	202.60
06/03/2019	24.53	200.68		
09/09/2019	27.38	197.83		
12/16/2019	27.33	197.88		
03/09/2020	24.67	200.54		
06/01/2020	25.52	199.69		
09/15/2020	27.22	197.99		
12/08/2020	26.76	198.45		
MW-12	223.60	03/23/2009	20.48	203.12
		06/01/2009	22.44	201.16
		08/06/2009	33.87	189.73
		09/14/2009	32.39	191.21
		12/03/2009	27.18	196.42
		03/24/2010	33.91	189.69
		06/08/2010	17.48	206.12
		09/29/2010	29.08	194.52
		12/10/2010	20.01	203.59
		03/22/2011	18.55	205.05

**Table 4**  
**Groundwater Elevation Data**  
H&V Fiber Corporation  
Corvallis, Oregon

Well Identification	TOC Elevation (feet MSL)	Monitoring Summary		
		Date Measured	Depth to Water (feet below TOC)	Groundwater Elevation (feet MSL)
MW-12 (cont'd)  (DMW-12)		06/07/2011	22.77	200.83
		09/26/2011	24.82	198.78
		01/27/2012	12.20	211.40
		07/11/2012	23.20	200.40
		03/18/2013	23.15	200.45
		09/04/2013	24.54	199.06
		03/17/2014	16.15	207.45
		09/22/2014	24.62	198.98
		03/09/2015	21.92	201.68
		09/01/2015	25.61	197.99
		01/15/2016	18.41	205.19
		01/27/2016	14.44	209.16
		03/01/2016	19.55	204.05
		09/06/2016	24.96	198.64
		11/10/2016	22.62	200.98
		03/06/2017	18.17	205.43
		09/14/2017	24.79	198.81
		12/04/2017	19.93	203.67
		03/05/2018	21.41	202.19
		06/05/2018	22.95	200.65
		09/10/2018	25.10	198.50
		12/03/2018	24.87	198.73
		03/04/2019	20.45	203.15
		06/03/2019	21.97	201.63
		09/09/2019	24.87	198.73
		12/16/2019	24.73	198.87
03/09/2020	21.97	201.63		
06/01/2020	23.44	200.16		
09/15/2020	24.57	199.03		
12/08/2020	23.56	200.04		
MW-13  (DMW-13)	220.47	03/23/2009	19.38	201.09
		06/01/2009	21.61	198.86
		08/06/2009	24.05	196.42
		09/14/2009	23.26	197.21
		12/03/2009	21.36	199.11
		03/24/2010	22.74	197.73
		06/08/2010	11.74	208.73
		09/29/2010	23.81	196.66
		12/10/2010	15.57	204.90
		03/22/2011	17.98	202.49
		06/07/2011	18.26	202.21
		09/26/2011	22.98	197.49
		01/27/2012	4.34	216.13
		07/11/2012	23.30	197.17
		03/18/2013	22.32	198.15
		09/04/2013	23.51	196.96
		03/17/2014	15.12	205.35
		09/22/2014	23.92	196.55
		03/09/2015	23.05	197.42
		09/01/2015	24.69	195.78
		01/27/2016	13.66	206.81
		03/01/2016	20.15	200.32
		09/06/2016	24.44	196.03
		11/10/2016	21.34	199.13
		03/06/2017	17.36	203.11
		09/14/2017	23.95	196.52
12/04/2017	16.44	204.03		
03/05/2018	20.58	199.89		
06/05/2018	21.61	198.86		

**Table 4**  
**Groundwater Elevation Data**  
H&V Fiber Corporation  
Corvallis, Oregon

Well Identification	TOC Elevation (feet MSL)	Monitoring Summary		
		Date Measured	Depth to Water (feet below TOC)	Groundwater Elevation (feet MSL)
DMW-13 (cont'd)		09/10/2018	25.34	195.13
		12/03/2018	22.46	198.01
		03/04/2019	18.31	202.16
		06/03/2019	21.02	199.45
		09/09/2019	23.51	196.96
		12/16/2019	22.87	197.60
		03/09/2020	22.70	197.77
		06/01/2020	22.36	198.11
		09/15/2020	23.29	197.18
		12/08/2020	22.76	197.71
MW-14  (DMW-14)	233.25	03/23/2009	29.60	203.65
		06/01/2009	30.21	203.04
		08/06/2009	32.29	200.96
		09/14/2009	32.63	200.62
		12/03/2009	31.14	202.11
		03/24/2010	29.94	203.31
		06/08/2010	26.45	206.80
		09/29/2010	32.55	200.70
		12/10/2010	29.05	204.20
		03/22/2011	26.45	206.80
		06/07/2011	28.17	205.08
		09/26/2011	32.14	201.11
		01/27/2012	22.22	211.03
		07/11/2012	30.68	202.57
		03/18/2013	30.44	202.81
		09/04/2013	32.58	200.67
		03/17/2014	23.93	209.32
		09/22/2014	32.73	200.52
		03/09/2015	29.63	203.62
		09/01/2015	33.30	199.95
		01/27/2016	22.97	210.28
		03/01/2016	27.63	205.62
		09/06/2016	32.78	200.47
		11/10/2016	30.82	202.43
		03/06/2017	26.29	206.96
		09/14/2017	32.36	200.89
		12/04/2017	28.81	204.44
		03/05/2018	29.32	203.93
		06/05/2018	30.47	202.78
		09/10/2018	32.83	200.42
		12/03/2018	32.96	200.29
		03/04/2019	28.66	204.59
06/03/2019	29.84	203.41		
09/09/2019	32.50	200.75		
12/16/2019	32.71	200.54		
03/09/2020	29.82	203.43		
06/01/2020	30.84	202.41		
09/15/2020	32.56	200.69		
12/08/2020	31.56	201.69		
MW-15	214.08	03/23/2009	13.38	200.70
		06/01/2009	15.55	198.53
		08/06/2009	17.82	196.26
		09/14/2009	16.99	197.09
		12/03/2009	15.33	198.75
		03/24/2010	16.66	197.42
		06/08/2010	15.45	198.63
		09/29/2010	17.60	196.48
		12/10/2010	9.04	205.04

**Table 4**  
**Groundwater Elevation Data**  
H&V Fiber Corporation  
Corvallis, Oregon

Well Identification	TOC Elevation (feet MSL)	Monitoring Summary			
		Date Measured	Depth to Water (feet below TOC)	Groundwater Elevation (feet MSL)	
MW-15 (cont'd)  (DMW-15)		03/22/2011	11.97	202.11	
		06/07/2011	12.14	201.94	
		09/26/2011	16.74	197.34	
		01/27/2012	-	-	
		07/11/2012	17.23	196.85	
		03/18/2013	16.24	197.84	
		09/04/2013	17.32	196.76	
		03/17/2014	9.11	204.97	
		09/22/2014	17.80	196.28	
		03/09/2015	17.11	196.97	
		09/01/2015	18.59	195.49	
		01/27/2016	7.57	206.51	
		03/01/2016	14.24	199.84	
		09/06/2016	18.39	195.69	
		11/10/2016	15.22	198.86	
		03/06/2017	11.57	202.51	
		09/14/2017	17.94	196.14	
		12/04/2017	10.42	203.66	
		03/05/2018	15.04	199.04	
		06/05/2018	15.69	198.39	
		09/10/2018	18.30	195.78	
		12/03/2018	16.31	197.77	
		03/04/2019	12.82	201.26	
		06/03/2019	15.34	198.74	
		09/09/2019	17.51	196.57	
		12/16/2019	16.79	197.29	
		03/09/2020	16.87	197.21	
06/01/2020	16.62	197.46			
09/15/2020	17.27	196.81			
12/08/2020	16.78	197.30			
IMW-16 <sup>a</sup>	224.39	08/06/2009	27.37	197.02	
		09/14/2009	25.00	199.39	
		12/03/2009	26.73	197.66	
		03/24/2010	23.69	200.70	
		06/08/2010	18.34	206.05	
		225.26	09/29/2010	22.91	202.35
			12/10/2010	24.01	201.25
			03/22/2011	22.92	202.34
			06/07/2011	24.50	200.76
			09/26/2011	28.10	197.16
	10/13/2011		26.30	198.96	
	10/17/2011		26.55	198.71	
	01/21/2012		24.75	201.42	
	01/27/2012		17.28	208.89	
	02/01/2012		15.02	211.15	
	02/22/2012		25.05	201.12	
	02/23/2012		25.90	200.27	
	02/27/2012		25.40	200.77	
	02/27/2012	25.80	200.37		
	03/01/2012	25.90	200.27		
	03/04/2012	25.35	200.82		
	03/06/2012	25.20	200.97		
	03/15/2012	24.20	201.97		
03/16/2012	24.20	201.97			
03/20/2012	23.00	203.17			
03/29/2012	21.00	205.17			
04/10/2012	19.50	205.76			
04/13/2012	22.40	202.86			

**Table 4**  
**Groundwater Elevation Data**  
H&V Fiber Corporation  
Corvallis, Oregon

Well Identification	TOC Elevation (feet MSL)	Monitoring Summary		
		Date Measured	Depth to Water (feet below TOC)	Groundwater Elevation (feet MSL)
IMW-16 (cont'd)		04/19/2012	24.00	201.26
		05/01/2012	25.10	200.16
		05/04/2012	24.90	200.36
		05/10/2012	25.30	199.96
		07/11/2012	-	-
		03/18/2013	28.96	196.30
		05/09/2013	27.40	197.86
		05/22/2013	26.83	198.43
		06/03/2013	25.07	200.19
		07/09/2013	26.63	198.63
		07/31/2013	26.10	199.16
		09/04/2013	28.28	196.98
		10/28/2013	27.50	197.76
		11/06/2013	25.30	199.96
		02/04/2014	27.20	198.06
		02/21/2014	21.89	203.37
		03/04/2014	21.30	203.96
		03/17/2014	22.74	202.52
		04/01/2014	21.58	203.68
		05/15/2014	25.60	199.66
		06/03/2014	25.74	199.52
		07/09/2014	26.38	198.88
		08/14/2014	25.94	199.32
		09/22/2014	27.10	198.16
		10/07/2014	28.90	196.36
		11/05/2014	Dry	-
		12/01/2014	26.63	198.63
		01/21/2015	23.20	202.06
		03/09/2015	23.08	202.18
		05/18/2015	Dry	-
		06/10/2015	28.61	196.65
		07/08/2015	Dry	-
		08/10/2015	Dry	-
		09/01/2015	Dry	-
		11/05/2015	Dry	-
		12/14/2015	Dry	-
		01/15/2016	18.46	206.80
		01/27/2016	15.59	209.67
		03/01/2016	18.59	206.67
		06/13/2016	27.14	198.12
		09/06/2016	26.09	199.17
		11/10/2016	27.63	197.63
		12/05/2016	24.32	200.94
	03/06/2017	18.84	206.42	
	06/08/2017	26.12	199.14	
	09/14/2017	Dry	-	
	12/04/2017	25.48	199.78	
	03/05/2018	23.61	201.65	
	06/05/2018	25.10	200.16	
	09/10/2018	28.09	197.17	
	12/03/2018	28.51	196.75	
	03/04/2019	24.90	200.36	
	06/03/2019	22.53	202.73	
	09/09/2019	27.02	198.24	
	12/16/2019	26.59	198.67	
	03/09/2020	20.74	204.52	
	06/01/2020	22.98	202.28	
	09/15/2020	26.47	198.79	
	12/08/2020	23.24	202.02	

**Table 4**  
**Groundwater Elevation Data**  
H&V Fiber Corporation  
Corvallis, Oregon

Well Identification	TOC Elevation (feet MSL)	Monitoring Summary		
		Date Measured	Depth to Water (feet below TOC)	Groundwater Elevation (feet MSL)
DMW-16	223.53	03/23/2009	37.51	186.02
		06/01/2009	26.66	196.87
		08/06/2009	37.25	186.28
		09/14/2009	34.39	189.14
		12/03/2009	37.44	186.09
		03/24/2010	24.58	198.95
		06/08/2010	17.44	206.09
		09/29/2010	26.06	197.47
		12/10/2010	22.15	201.38
		03/22/2011	35.96	187.57
		06/07/2011	28.18	195.35
		09/26/2011	34.43	189.10
		10/13/2011	26.73	196.80
		10/17/2011	27.25	196.28
		01/27/2012	15.73	207.80
		02/01/2012	13.27	210.26
		04/10/2012	19.42	204.11
		04/13/2012	22.33	201.20
		04/19/2012	24.00	199.53
		05/01/2012	25.08	198.45
		05/04/2012	24.75	198.78
		05/10/2012	25.25	198.28
		07/11/2012	29.10	194.43
		03/18/2013	27.65	195.88
		06/03/2013	23.40	200.13
		05/09/2013	25.79	197.74
		05/22/2013	25.00	198.53
		06/03/2013	23.40	200.13
		07/09/2013	25.05	198.48
		07/31/2013	25.50	198.03
		09/04/2013	26.75	196.78
		10/28/2013	26.23	197.30
		11/06/2013	25.30	198.23
		02/04/2014	27.40	196.13
		02/21/2014	20.30	203.23
		03/04/2014	20.95	202.58
		03/17/2014	20.04	203.49
		04/01/2014	19.94	203.59
		05/15/2014	24.25	199.28
		06/03/2014	25.90	197.63
		07/09/2014	26.90	196.63
08/14/2014	25.90	197.63		
09/22/2014	28.09	195.44		
10/07/2014	27.41	196.12		
11/05/2014	28.91	194.62		
12/01/2014	27.15	196.38		
01/21/2015	22.20	201.33		
03/09/2015	22.60	200.93		
05/18/2015	26.92	196.61		
06/10/2015	28.95	194.58		
07/08/2015	29.85	193.68		
08/10/2015	28.84	194.69		
09/01/2015	28.78	194.75		
11/05/2015	30.00	193.53		
12/14/2015	29.03	194.50		
01/15/2016	16.78	206.75		
01/27/2016	13.83	209.70		
03/01/2016	16.88	206.65		
06/13/2016	25.42	198.11		

**Table 4**  
**Groundwater Elevation Data**  
H&V Fiber Corporation  
Corvallis, Oregon

Well Identification	TOC Elevation (feet MSL)	Monitoring Summary			
		Date Measured	Depth to Water (feet below TOC)	Groundwater Elevation (feet MSL)	
DMW-16 (cont'd)		09/06/2016	24.30	199.23	
		11/10/2016	26.12	197.41	
		12/05/2016	22.28	201.25	
		03/06/2017	17.07	206.46	
		06/08/2017	24.34	199.19	
		09/14/2017	28.21	195.32	
		12/04/2017	25.00	198.53	
		03/05/2018	23.48	200.05	
		06/05/2018	25.58	197.95	
		09/10/2018	26.69	196.84	
		12/03/2018	28.67	194.86	
		03/04/2019	23.47	200.06	
		06/03/2019	24.62	198.91	
		09/09/2019	28.29	195.24	
		12/16/2019	28.21	195.32	
		03/09/2020	24.22	199.31	
		06/01/2020	25.11	198.42	
09/15/2020	27.57	195.96			
12/08/2020	25.82	197.71			
IMW-17 <sup>a</sup>	225.36	08/06/2009	27.69	197.67	
		09/14/2009	25.47	199.89	
		12/03/2009	27.09	198.27	
		03/24/2010	25.15	200.21	
		06/08/2010	19.58	205.78	
		226.17	09/29/2010	23.13	203.04
			12/10/2010	24.89	201.28
			03/22/2011	23.17	203.00
			06/07/2011	24.65	201.52
			09/26/2011	28.40	197.77
			10/13/2011	25.04	201.13
			10/17/2011	25.20	200.97
			01/21/2012	25.20	200.97
			01/27/2012	18.93	207.24
			02/22/2012	25.25	200.92
			02/23/2012	26.30	199.87
			02/27/2012	25.80	200.37
	02/27/2012		26.35	199.82	
	03/01/2012		26.50	199.67	
	03/04/2012		25.80	200.37	
	03/06/2012		25.75	200.42	
	03/15/2012	24.90	201.27		
	03/16/2012	25.00	201.17		
	03/20/2012	23.90	202.27		
	03/29/2012	22.90	203.27		
	04/10/2012	21.10	205.07		
	04/13/2012	22.60	203.57		
	04/19/2012	24.20	201.97		
	05/01/2012	25.30	200.87		
	05/04/2012	25.00	201.17		
	05/10/2012	24.80	201.37		
	07/11/2012	-	-		
	03/18/2013	29.38	196.79		
05/09/2013	26.60	199.57			
05/22/2013	26.05	200.12			
06/03/2013	24.58	201.59			
07/09/2013	24.73	201.44			
07/31/2013	24.73	201.44			
09/04/2013	26.12	200.05			

**Table 4**  
**Groundwater Elevation Data**  
H&V Fiber Corporation  
Corvallis, Oregon

Well Identification	TOC Elevation (feet MSL)	Monitoring Summary		
		Date Measured	Depth to Water (feet below TOC)	Groundwater Elevation (feet MSL)
IMW-17 (cont'd)	226.93	10/28/2013	25.04	201.13
		11/06/2013	24.97	201.20
		02/04/2014	28.20	197.97
		02/21/2014	22.90	203.27
		03/04/2014	22.65	203.52
		03/17/2014	21.46	204.71
		04/01/2014	20.90	205.27
		05/15/2014	24.37	201.80
		06/03/2014	25.08	201.09
		07/09/2014	27.18	198.99
		08/14/2014	27.50	198.67
		09/22/2014	30.32	195.85
		10/07/2014	29.00	197.17
		11/05/2014	30.43	195.74
		12/01/2014	28.51	197.66
		01/21/2015	24.13	202.04
		03/09/2015	22.95	203.22
		05/18/2015	28.69	197.48
		06/10/2015	29.35	196.82
		07/08/2015	30.60	195.57
		08/10/2015	29.90	196.27
		09/01/2015	30.28	195.89
		11/05/2015	Dry	-
		12/14/2015	29.93	196.24
		01/15/2016	19.31	206.86
		01/27/2016	16.54	209.63
		03/01/2016	19.28	206.89
		06/13/2016	27.44	198.73
		09/06/2016	26.75	199.42
		11/10/2016	26.60	199.57
		12/05/2016	24.79	201.38
		03/06/2017	19.96	206.21
		06/08/2017	25.96	200.21
09/14/2017	29.65	196.52		
12/04/2017	25.24	200.93		
03/05/2018	24.05	202.88		
06/05/2018	25.90	201.03		
09/10/2018	27.27	199.66		
12/03/2018	29.09	197.84		
03/04/2019	26.63	200.30		
06/03/2019	27.16	199.77		
09/09/2019	28.21	198.72		
12/16/2019	27.66	199.27		
03/09/2020	19.13	207.80		
06/01/2020	25.28	201.65		
09/15/2020	27.63	199.30		
12/08/2020	25.02	201.91		
DMW-17	226.23	03/23/2009	26.73	199.50
		06/01/2009	26.89	199.34
		08/06/2009	28.65	197.58
		09/14/2009	26.60	199.63
		12/03/2009	28.06	198.17
		03/24/2010	26.22	200.01
		06/08/2010	20.34	205.89
		09/29/2010	28.16	198.07
		12/10/2010	25.05	201.18
		03/22/2011	23.38	202.85
		06/07/2011	24.98	201.25

**Table 4**  
**Groundwater Elevation Data**  
H&V Fiber Corporation  
Corvallis, Oregon

Well Identification	TOC Elevation (feet MSL)	Monitoring Summary		
		Date Measured	Depth to Water (feet below TOC)	Groundwater Elevation (feet MSL)
DMW-17 (cont'd)		09/26/2011	28.46	197.77
		10/13/2011	29.22	197.01
		10/17/2011	29.63	196.60
		01/27/2012	19.73	206.50
		04/10/2012	21.08	205.15
		04/13/2012	22.50	203.73
		04/19/2012	24.17	202.06
		05/01/2012	25.25	200.98
		05/04/2012	26.00	200.23
		05/10/2012	24.67	201.56
		07/11/2012	27.70	198.53
		03/18/2013	30.19	196.04
		05/09/2013	27.48	198.75
		05/22/2013	26.72	199.51
		06/03/2013	24.80	201.43
		07/09/2013	26.73	199.50
		07/31/2013	27.20	199.03
		09/04/2013	28.51	197.72
		10/28/2013	27.98	198.25
		11/06/2013	27.35	198.88
		02/04/2014	29.32	196.91
		02/21/2014	22.90	203.33
		03/04/2014	23.37	202.86
		03/17/2014	22.37	203.86
		04/01/2014	22.17	204.06
		05/15/2014	26.31	199.92
		06/03/2014	27.78	198.45
		07/09/2014	28.69	197.54
		08/14/2014	28.92	197.31
		09/22/2014	30.55	195.68
		10/07/2014	30.20	196.03
		11/05/2014	32.28	193.95
		12/01/2014	30.02	196.21
		01/21/2015	25.08	201.15
		03/09/2015	23.51	202.72
		05/18/2015	29.70	196.53
		06/10/2015	31.64	194.59
		07/08/2015	32.70	193.53
		08/10/2015	31.80	194.43
		09/01/2015	31.71	194.52
	11/05/2015	33.03	193.20	
	12/14/2015	32.00	194.23	
	01/15/2016	19.41	206.82	
	01/27/2016	16.59	209.64	
	03/01/2016	19.38	206.85	
	06/13/2016	27.74	198.49	
	09/06/2016	26.78	199.45	
	11/10/2016	28.58	197.65	
	12/05/2016	24.61	201.62	
	03/06/2017	19.62	206.61	
	06/08/2017	27.29	198.94	
	09/14/2017	31.05	195.18	
	12/04/2017	28.07	198.16	
	03/05/2018	26.40	199.83	
	06/05/2018	28.50	197.73	
	09/10/2018	29.62	196.61	
	12/03/2018	31.51	194.72	
	03/04/2019	26.59	199.64	
	06/03/2019	27.73	198.50	

**Table 4**  
**Groundwater Elevation Data**  
H&V Fiber Corporation  
Corvallis, Oregon

Well Identification	TOC Elevation (feet MSL)	Monitoring Summary		
		Date Measured	Depth to Water (feet below TOC)	Groundwater Elevation (feet MSL)
DMW-17 (cont'd)		09/09/2019	31.38	194.85
		12/16/2019	31.23	195.00
		03/09/2020	27.31	198.92
		06/01/2020	28.25	197.98
		09/15/2020	30.65	195.58
		12/08/2020	29.03	197.20
MW-18  (DMW-18)	223.29	03/23/2009	21.40	201.89
		06/01/2009	21.78	201.51
		08/06/2009	23.57	199.72
		09/14/2009	22.57	200.72
		12/03/2009	22.83	200.46
		03/24/2010	21.04	202.25
		06/08/2010	17.21	206.08
		09/29/2010	23.34	199.95
		12/10/2010	20.85	202.44
		03/22/2011	17.77	205.52
		06/07/2011	19.62	203.67
		09/26/2011	23.52	199.77
		01/27/2012	14.32	208.97
		07/11/2012	21.99	201.30
		03/18/2013	23.14	200.15
		05/09/2013	22.52	200.77
		05/22/2013	22.26	201.03
		06/03/2013	21.44	201.85
		07/09/2013	22.65	200.64
		07/31/2013	22.97	200.32
		09/04/2013	23.86	199.43
		10/28/2013	23.33	199.96
		03/17/2014	16.24	207.05
		09/22/2014	24.52	198.77
		03/09/2015	19.35	203.94
		09/01/2015	25.54	197.75
		01/15/2016	16.33	206.96
		01/27/2016	12.99	210.30
		03/01/2016	16.39	206.90
		09/06/2016	23.51	199.78
		11/10/2016	22.94	200.35
		03/06/2017	16.12	207.17
		09/14/2017	24.79	198.50
12/04/2017	21.59	201.70		
03/05/2018	20.70	202.59		
06/05/2018	22.49	200.80		
09/10/2018	24.49	198.80		
12/03/2018	25.53	197.76		
03/04/2019	20.41	202.88		
06/03/2019	21.65	201.64		
09/09/2019	24.93	198.36		
12/16/2019	24.96	198.33		
03/09/2020	21.41	201.88		
06/01/2020	22.46	200.83		
09/15/2020	24.58	198.71		
12/08/2020	23.20	200.09		
MW-19	225.13	03/23/2009	22.20	202.93
		06/01/2009	22.78	202.35
		08/06/2009	24.24	200.89
		09/14/2009	23.36	201.77
		12/03/2009	23.75	201.38
		03/24/2010	21.68	203.45

**Table 4**  
**Groundwater Elevation Data**  
H&V Fiber Corporation  
Corvallis, Oregon

Well Identification	TOC Elevation (feet MSL)	Monitoring Summary		
		Date Measured	Depth to Water (feet below TOC)	Groundwater Elevation (feet MSL)
MW-19 (cont'd)  (DMW-19)		06/08/2010	18.66	206.47
		09/29/2010	24.25	200.88
		12/10/2010	21.95	203.18
		03/22/2011	18.95	206.18
		06/07/2011	20.85	204.28
		09/26/2011	24.25	200.88
		01/27/2012	16.98	208.15
		07/11/2012	22.78	202.35
		03/18/2013	24.43	200.70
		05/09/2013	23.45	201.68
		05/22/2013	23.23	201.90
		06/03/2013	22.28	202.85
		07/09/2013	23.30	201.83
		07/31/2013	23.64	201.49
		09/04/2013	24.79	200.34
		10/28/2013	24.36	200.77
		03/17/2014	18.68	206.45
		09/22/2014	25.74	199.39
		03/09/2015	20.58	204.55
		09/01/2015	26.69	198.44
		01/27/2016	15.33	209.80
		03/01/2016	17.61	207.52
		09/06/2016	24.42	200.71
		11/10/2016	24.26	200.87
		03/06/2017	17.71	207.42
		09/14/2017	26.27	198.86
		12/04/2017	23.69	201.44
		03/05/2018	22.05	203.08
		06/05/2018	23.93	201.20
		09/10/2018	25.75	199.38
		12/03/2018	27.69	197.44
		03/04/2019	21.99	203.14
		06/03/2019	23.06	202.07
09/09/2019	26.18	198.95		
12/16/2019	26.07	199.06		
03/09/2020	22.73	202.40		
06/01/2020	23.55	201.58		
09/15/2020	25.63	199.50		
12/08/2020	24.32	200.81		
MW-20	227.78	03/23/2009	24.55	203.23
		06/01/2009	25.01	202.77
		08/06/2009	27.11	200.67
		09/14/2009	27.06	200.72
		12/03/2009	26.15	201.63
		03/24/2010	24.57	203.21
		06/08/2010	22.29	205.49
		09/29/2010	26.98	200.80
		12/10/2010	24.33	203.45
		03/22/2011	20.95	206.83
		06/07/2011	22.93	204.85
		09/26/2011	27.04	200.74
		01/27/2012	18.54	209.24
		07/11/2012	25.21	202.57
		03/18/2013	25.50	202.28
		09/04/2013	27.32	200.46
		03/17/2014	18.85	208.93
		09/22/2014	27.47	200.31
		03/09/2015	23.94	203.84

**Table 4  
Groundwater Elevation Data**

H&V Fiber Corporation  
Corvallis, Oregon

Well Identification	TOC Elevation (feet MSL)	Monitoring Summary		
		Date Measured	Depth to Water (feet below TOC)	Groundwater Elevation (feet MSL)
MW-20 (cont'd)  (IMW-20)		09/01/2015	28.46	199.32
		01/27/2016	17.15	210.63
		03/01/2016	21.43	206.35
		09/06/2016	27.51	200.27
		11/10/2016	25.87	201.91
		03/06/2017	20.47	207.31
		09/14/2017	27.69	200.09
		12/04/2017	24.23	203.55
		03/05/2018	23.93	203.85
		06/05/2018	25.50	202.28
		09/10/2018	27.84	199.94
		12/03/2018	28.31	199.47
		03/04/2019	23.49	204.29
		06/03/2019	24.66	203.12
		09/09/2019	27.76	200.02
MW-21             (IMW-21)	231.45	03/23/2009	27.16	204.29
		06/01/2009	27.75	203.70
		08/06/2009	29.79	201.66
		09/14/2009	30.11	201.34
		12/03/2009	28.95	202.50
		03/24/2010	27.06	204.39
		06/08/2010	24.71	206.74
		09/29/2010	29.76	201.69
		12/10/2010	27.10	204.35
		03/22/2011	23.51	207.94
		06/07/2011	25.69	205.76
		09/26/2011	29.72	201.73
		01/27/2012	21.69	209.76
		07/11/2012	28.03	203.42
		03/18/2013	27.93	203.52
09/04/2013	30.17	201.28		
03/17/2014	21.30	210.15		
09/22/2014	30.24	201.21		
03/09/2015	26.80	204.65		
09/01/2015	30.90	200.55		
01/27/2016	20.23	211.22		
03/01/2016	24.35	207.10		
09/06/2016	30.34	201.11		
11/10/2016	28.53	202.92		
03/06/2017	23.23	208.22		
09/18/2017	30.13	201.32		
12/04/2017	26.96	204.49		
03/05/2018	26.66	204.79		
06/05/2018	28.12	203.33		
09/10/2018	30.43	201.02		
12/03/2018	30.85	200.60		
03/04/2019	26.04	205.41		
06/04/2019	27.36	204.09		
09/09/2019	30.18	201.27		
12/16/2019	30.41	201.04		
03/11/2020	27.23	204.22		
06/01/2020	28.36	203.09		
09/15/2020	30.28	201.17		

**Table 4**  
**Groundwater Elevation Data**  
H&V Fiber Corporation  
Corvallis, Oregon

Well Identification	TOC Elevation (feet MSL)	Monitoring Summary		
		Date Measured	Depth to Water (feet below TOC)	Groundwater Elevation (feet MSL)
IMW-21 (cont'd)		12/08/2020	29.24	202.21
MW-22	232.05	03/23/2009	27.32	204.73
		06/01/2009	27.98	204.07
		08/06/2009	30.10	201.95
		09/14/2009	30.40	201.65
		12/03/2009	29.20	202.85
		03/24/2010	27.23	204.82
		06/08/2010	23.62	208.43
		09/29/2010	-	-
		12/10/2010	27.19	204.86
		03/22/2011	23.62	208.43
		06/07/2011	25.88	206.17
		09/26/2011	30.03	202.02
		01/27/2012	-	-
(IMW-22)		07/11/2012	28.51	203.54
		03/18/2013	28.19	203.86
		09/04/2013	30.48	201.57
		03/17/2014	21.61	210.44
		09/22/2014	30.69	201.36
		03/09/2015	26.97	205.08
		09/01/2015	31.29	200.76
		01/27/2016	20.51	211.54
		03/01/2016	24.33	207.72
		09/06/2016	30.68	201.37
		11/10/2016	28.84	203.21
		03/06/2017	23.22	208.83
		09/14/2017	30.59	201.46
		12/04/2017	27.27	204.78
		03/05/2018	-	-
		06/05/2018	28.49	203.56
		09/10/2018	30.84	201.21
		12/03/2018	31.36	200.69
		03/04/2019	26.16	205.89
		06/03/2019	27.81	204.24
		09/09/2019	30.64	201.41
		12/16/2019	30.84	201.21
		03/09/2020	27.54	204.51
		06/01/2020	28.63	203.42
		09/15/2020	30.69	201.36
		12/08/2020	29.59	202.46
DMW-23 <sup>a</sup>	223.57	08/06/2009	26.33	197.24
		09/14/2009	24.09	199.48
		12/03/2009	25.74	197.83
		03/24/2010	23.89	199.68
		06/08/2010	17.43	206.14
		09/29/2010	28.02	195.55
		12/10/2010	23.06	200.51
		03/22/2011	21.56	202.01
		06/07/2011	23.47	200.10
		09/26/2011	27.11	196.46
		10/13/2011	28.41	195.16
		10/17/2011	28.88	194.69
		01/27/2012	16.69	206.88
		02/01/2012	14.26	209.31
		07/11/2012	28.50	195.07
		03/18/2013	34.36	189.21
		05/09/2013	31.38	192.19
		05/22/2013	30.87	192.70

**Table 4**  
**Groundwater Elevation Data**  
H&V Fiber Corporation  
Corvallis, Oregon

Well Identification	TOC Elevation (feet MSL)	Monitoring Summary		
		Date Measured	Depth to Water (feet below TOC)	Groundwater Elevation (feet MSL)
DMW-23 (cont'd)		06/03/2013	29.03	194.54
		07/09/2013	31.40	192.17
		07/31/2013	32.70	190.87
		09/04/2013	29.77	193.80
		10/28/2013	30.70	192.87
		11/06/2013	29.10	194.47
		02/04/2014	32.40	191.17
		02/21/2014	27.80	195.77
		03/04/2014	25.68	197.89
		03/17/2014	24.00	199.57
		04/01/2014	26.40	197.17
		05/15/2014	28.98	194.59
		06/03/2014	30.55	193.02
		07/09/2014	35.63	187.94
		08/14/2014	27.90	195.67
		09/22/2014	29.30	194.27
		10/07/2014	34.34	189.23
		11/05/2014	35.60	187.97
		12/01/2014	33.40	190.17
		01/21/2015	29.60	193.97
		03/09/2015	28.53	195.04
		05/18/2015	35.55	188.02
		06/10/2015	36.90	186.67
		07/08/2015	37.22	186.35
		08/10/2015	35.62	187.95
		09/01/2015	35.68	187.89
		12/14/2015	35.53	188.04
		01/15/2016	17.83	205.74
		01/27/2016	14.81	208.76
		03/01/2016	18.06	205.51
		06/13/2016	33.02	190.55
		09/06/2016	25.61	197.96
		11/10/2016	39.45	184.12
12/05/2016	23.04	200.53		
03/06/2017	18.26	205.31		
06/08/2017	38.58	184.99		
09/14/2017	-	-		
12/04/2017	37.47	186.10		
03/05/2018	32.94	190.63		
06/05/2018	35.33	188.24		
09/10/2018	43.60	179.97		
12/03/2018	-	-		
03/04/2019	39.47	184.10		
06/03/2019	40.42	183.15		
09/09/2019	44.18	179.39		
12/16/2019	44.16	179.41		
03/09/2020	38.02	185.55		
06/01/2020	38.32	185.25		
09/15/2020	40.61	182.96		
12/08/2020	35.14	188.43		
IMW-24 <sup>a</sup>	226.18	08/06/2009	28.28	197.90
		09/14/2009	26.41	199.77
		12/03/2009	28.04	198.14
	227.00	03/24/2010	26.18	200.00
		06/08/2010	20.18	206.00
		09/29/2010	24.09	202.91
		12/10/2010	25.63	201.37
		03/22/2011	24.34	202.66

**Table 4**  
**Groundwater Elevation Data**  
H&V Fiber Corporation  
Corvallis, Oregon

Well Identification	TOC Elevation (feet MSL)	Monitoring Summary		
		Date Measured	Depth to Water (feet below TOC)	Groundwater Elevation (feet MSL)
IMW-24 (cont'd)		06/07/2011	25.92	201.08
		09/26/2011	29.39	197.61
		10/13/2011	26.00	201.00
		10/17/2011	30.83	196.17
		01/21/2012	26.50	200.50
		01/27/2012	20.07	206.93
		02/01/2012	16.87	210.13
		02/22/2012	26.50	200.50
		02/23/2012	27.40	199.60
		02/27/2012	26.90	200.10
		02/27/2012	27.60	199.40
		03/01/2012	27.60	199.40
		03/04/2012	26.85	200.15
		03/06/2012	26.90	200.10
		03/15/2012	25.90	201.10
		03/16/2012	26.10	200.90
		03/20/2012	25.10	201.90
		03/29/2012	23.30	203.70
		04/10/2012	21.30	205.70
		04/13/2012	24.00	203.00
		04/19/2012	25.60	201.40
		05/01/2012	26.60	200.40
		05/04/2012	26.40	200.60
		05/10/2012	27.00	200.00
		07/11/2012	-	-
		03/18/2013	29.53	197.47
		05/09/2013	28.10	198.90
		05/22/2013	27.73	199.27
		06/03/2013	25.86	201.14
		07/09/2013	27.50	199.50
		07/31/2013	27.70	199.30
		09/04/2013	27.75	199.25
		10/28/2013	28.70	198.30
		11/06/2013	27.60	199.40
		02/04/2014	28.00	199.00
		02/21/2014	23.80	203.20
		03/04/2014	23.00	204.00
		03/17/2014	23.12	203.88
		04/01/2014	23.02	203.98
		05/15/2014	26.66	200.34
		06/03/2014	28.61	198.39
		07/09/2014	27.68	199.32
		08/14/2014	28.80	198.20
		09/22/2014	30.92	196.08
		10/07/2014	30.52	196.48
		11/05/2014	31.70	195.30
		12/01/2014	29.55	197.45
	01/21/2015	25.71	201.29	
	03/09/2015	24.26	202.74	
	05/18/2015	28.38	198.62	
	06/10/2015	25.55	201.45	
	07/08/2015	32.00	195.00	
	08/10/2015	25.30	201.70	
	09/01/2015	24.40	202.60	
	11/05/2015	Dry	-	
	12/14/2015	30.30	196.70	
	01/15/2016	20.14	206.86	
	01/27/2016	17.32	209.68	
	03/01/2016	19.96	207.04	

**Table 4**  
**Groundwater Elevation Data**  
H&V Fiber Corporation  
Corvallis, Oregon

Well Identification	TOC Elevation (feet MSL)	Monitoring Summary		
		Date Measured	Depth to Water (feet below TOC)	Groundwater Elevation (feet MSL)
IMW-24 (cont'd)		06/13/2016	28.63	198.37
		09/06/2016	27.51	199.49
		11/10/2016	24.00	203.00
		12/05/2016	25.72	201.28
		03/06/2017	20.50	206.50
		06/08/2017	23.81	203.19
		09/14/2017	27.82	199.18
		12/04/2017	25.52	201.48
		03/05/2018	23.80	203.20
		06/05/2018	24.05	202.95
		09/10/2018	25.80	201.20
		12/03/2018	28.31	198.69
		03/04/2019	23.80	203.20
		06/03/2019	23.42	203.58
		09/09/2019	27.52	199.48
		12/16/2019	26.61	200.39
		03/09/2020	18.97	208.03
06/01/2020	24.29	202.71		
09/15/2020	26.48	200.52		
12/08/2020	24.44	202.56		
DMW-24 <sup>a</sup>	225.65	08/06/2009	28.63	197.02
		09/14/2009	26.21	199.44
		12/03/2009	27.65	198.00
		12/03/2009	27.62	198.03
		03/24/2010	25.92	199.73
		06/08/2010	19.62	206.03
		09/29/2010	28.57	197.95
		12/10/2010	25.03	201.49
		03/22/2011	24.16	202.36
		06/07/2011	25.78	200.74
		09/26/2011	29.20	197.32
	226.52	10/13/2011	30.38	196.14
		10/17/2011	25.35	201.17
		01/27/2012	22.32	204.20
		02/01/2012	16.43	210.09
		04/10/2012	21.67	204.85
		04/13/2012	24.00	202.52
		04/19/2012	25.50	201.02
		05/01/2012	26.50	200.02
		05/04/2012	26.33	200.19
		05/10/2012	27.00	199.52
		07/11/2012	28.60	197.92
	225.65	03/18/2013	32.66	193.86
		05/09/2013	27.30	198.35
		05/22/2013	27.00	198.65
		06/03/2013	24.27	201.38
		07/09/2013	26.20	199.45
		07/31/2013	26.68	198.97
		09/04/2013	28.28	197.37
		10/28/2013	27.68	197.97
		11/06/2013	26.94	198.71
		02/04/2014	29.19	196.46
		02/21/2014	23.55	202.10
03/04/2014	23.50	202.15		
03/17/2014	22.20	203.45		
04/01/2014	22.02	203.63		
05/15/2014	26.19	199.46		
06/03/2014	27.59	198.06		

**Table 4**  
**Groundwater Elevation Data**  
H&V Fiber Corporation  
Corvallis, Oregon

Well Identification	TOC Elevation (feet MSL)	Monitoring Summary			
		Date Measured	Depth to Water (feet below TOC)	Groundwater Elevation (feet MSL)	
DMW-24 (cont'd)		07/09/2014	30.55	195.97	
		08/14/2014	30.49	196.03	
		09/22/2014	32.00	194.52	
		10/07/2014	31.70	194.82	
		11/05/2014	31.78	194.74	
		12/01/2014	32.11	194.41	
		01/21/2015	27.45	199.07	
		03/09/2015	24.20	202.32	
		05/18/2015	32.29	194.23	
		06/10/2015	34.26	192.26	
		07/08/2015	35.23	191.29	
		08/10/2015	34.35	192.17	
		09/01/2015	34.11	192.41	
		11/05/2015	35.60	190.92	
		12/14/2015	34.69	191.83	
		01/15/2016	19.73	206.79	
		01/27/2016	16.91	209.61	
		03/01/2016	19.72	206.80	
		06/13/2016	29.39	197.13	
		09/06/2016	26.98	199.54	
		11/10/2016	30.00	196.52	
		12/05/2016	24.96	201.56	
		03/06/2017	19.98	206.54	
		06/08/2017	29.94	196.58	
		09/14/2017	33.87	192.65	
		12/04/2017	31.02	195.50	
		03/05/2018	28.82	197.70	
		06/05/2018	31.35	195.17	
		09/10/2018	32.31	194.21	
		12/03/2018	34.53	191.99	
		03/04/2019	30.00	196.52	
		06/03/2019	31.16	195.36	
		09/09/2019	34.95	191.57	
12/16/2019	34.92	191.60			
03/09/2020	31.02	195.50			
06/01/2020	31.94	194.58			
09/15/2020	34.61	191.91			
12/08/2020	33.08	193.44			
IMW-25 <sup>a</sup>	223.60	08/06/2009	26.81	196.79	
		09/14/2009	24.28	199.32	
		12/03/2009	26.12	197.48	
		03/24/2010	24.14	199.46	
		06/08/2010	15.89	207.71	
		224.41	09/29/2010	22.79	201.62
			12/10/2010	22.15	202.26
			03/22/2011	21.94	202.47
			06/07/2011	23.84	200.57
			09/26/2011	27.32	197.09
	10/13/2011		26.70	197.71	
	10/17/2011		26.25	198.16	
	01/21/2012		24.10	200.31	
	01/27/2012		12.21	212.20	
	02/01/2012		14.87	209.54	
	02/22/2012	23.60	200.81		
	02/23/2012	25.35	199.06		
	02/27/2012	24.75	199.66		
	02/27/2012	25.40	199.01		
	03/01/2012	24.60	199.81		

**Table 4**  
**Groundwater Elevation Data**  
H&V Fiber Corporation  
Corvallis, Oregon

Well Identification	TOC Elevation (feet MSL)	Monitoring Summary		
		Date Measured	Depth to Water (feet below TOC)	Groundwater Elevation (feet MSL)
IMW-25 (cont'd)	224.37	03/04/2012	24.90	199.51
		03/06/2012	24.70	199.71
		03/15/2012	22.60	201.81
		03/16/2012	22.20	202.21
		03/20/2012	22.25	202.16
		03/29/2012	19.60	204.81
		04/10/2012	19.00	205.41
		04/13/2012	21.80	202.61
		04/19/2012	23.50	200.91
		05/01/2012	24.40	200.01
		05/04/2012	24.60	199.81
		05/10/2012	25.30	199.11
		07/11/2012	-	-
		03/18/2013	27.91	196.50
		05/09/2013	27.20	197.21
		05/22/2013	26.33	198.08
		06/03/2013	24.50	199.91
		07/09/2013	26.00	198.41
		07/31/2013	26.10	198.31
		09/04/2013	27.26	197.15
		10/28/2013	27.40	197.01
		11/06/2013	25.90	198.51
		02/04/2014	27.00	197.41
		02/21/2014	16.20	208.21
		03/04/2014	19.90	204.51
		03/17/2014	21.10	203.31
		04/01/2014	20.83	203.58
		05/15/2014	25.58	198.83
		06/03/2014	26.42	197.99
		07/09/2014	26.76	197.65
		08/14/2014	26.60	197.81
		09/22/2014	28.35	196.06
		10/07/2014	28.70	195.71
		11/05/2014	29.70	194.71
		12/01/2014	21.00	203.41
		01/21/2015	23.10	201.31
		03/09/2015	22.22	202.19
		05/18/2015	28.61	195.80
		06/10/2015	Dry	-
		07/08/2015	Dry	-
		08/10/2015	Dry	-
		09/01/2015	Dry	-
		11/05/2015	Dry	-
		12/14/2015	23.09	201.32
		01/15/2016	17.74	206.67
		01/27/2016	15.34	209.07
		03/01/2016	17.86	206.55
06/13/2016	26.85	197.56		
09/06/2016	25.27	199.14		
11/10/2016	27.42	196.99		
12/05/2016	23.33	201.08		
03/06/2017	17.91	206.50		
06/08/2017	25.35	199.06		
09/14/2017	-	-		
12/04/2017	25.03	199.38		
03/05/2018	23.47	200.90		
06/05/2018	26.10	198.27		
09/10/2018	26.50	197.87		
12/03/2018	27.61	196.76		

**Table 4**  
**Groundwater Elevation Data**  
H&V Fiber Corporation  
Corvallis, Oregon

Well Identification	TOC Elevation (feet MSL)	Monitoring Summary			
		Date Measured	Depth to Water (feet below TOC)	Groundwater Elevation (feet MSL)	
IMW-25 (cont'd)		03/04/2019	24.53	199.84	
		06/03/2019	22.01	202.36	
		09/09/2019	25.98	198.39	
		12/16/2019	26.07	198.30	
		03/09/2020	21.02	203.35	
		06/01/2020	22.66	201.71	
		09/15/2020	25.84	198.53	
		12/08/2020	22.83	201.54	
DMW-25 <sup>a</sup>	223.26	08/06/2009	26.92	196.34	
		09/14/2009	24.56	198.70	
		12/03/2009	26.32	196.94	
		03/24/2010	24.58	198.68	
		06/08/2010	17.20	206.06	
		224.15	09/29/2010	30.10	194.05
			12/10/2010	22.77	201.38
			03/22/2011	22.93	201.22
			06/07/2011	24.39	199.76
			09/26/2011	27.85	196.30
			10/13/2011	31.15	193.00
			10/17/2011	31.58	192.57
	01/27/2012		18.24	205.91	
	02/01/2012		13.97	210.18	
	04/10/2012		19.00	205.15	
	04/13/2012		21.67	202.48	
	04/19/2012		23.42	200.73	
	05/01/2012	24.33	199.82		
	05/04/2012	24.50	199.65		
	05/10/2012	25.25	198.90		
	07/11/2012	30.10	194.05		
	03/18/2013	29.74	194.41		
	05/09/2013	31.85	192.30		
	05/22/2013	30.40	193.75		
	06/03/2013	26.40	197.75		
	07/09/2013	27.55	196.60		
	07/31/2013	27.90	196.25		
	09/04/2013	32.86	191.29		
	10/28/2013	31.29	192.86		
	11/06/2013	30.50	193.65		
	02/04/2014	33.60	190.55		
	02/21/2014	28.20	195.95		
	03/04/2014	29.20	194.95		
03/17/2014	29.06	195.09			
04/01/2014	28.93	195.22			
05/15/2014	31.82	192.33			
06/03/2014	33.01	191.14			
07/09/2014	27.77	195.49			
08/14/2014	27.17	196.09			
09/22/2014	29.02	194.24			
10/07/2014	28.63	194.63			
12/01/2014	28.03	195.23			
01/21/2015	23.93	199.33			
03/09/2015	22.43	200.83			
05/18/2015	28.61	194.65			
06/10/2015	30.58	192.68			
07/08/2015	31.29	191.97			
08/10/2015	30.59	192.67			
09/01/2015	30.12	193.14			
11/05/2015	31.93	191.33			

**Table 4**  
**Groundwater Elevation Data**  
H&V Fiber Corporation  
Corvallis, Oregon

Well Identification	TOC Elevation (feet MSL)	Monitoring Summary		
		Date Measured	Depth to Water (feet below TOC)	Groundwater Elevation (feet MSL)
DMW-25 (cont'd)		12/14/2015	30.56	192.70
		01/15/2016	16.49	206.77
		01/27/2016	13.67	209.59
		03/01/2016	16.54	206.72
		06/13/2016	26.76	196.50
		09/06/2016	23.96	199.30
		11/10/2016	27.16	196.10
		12/05/2016	23.33	199.93
		03/06/2017	16.81	206.45
		06/08/2017	25.49	197.77
		09/14/2017	29.64	193.62
		12/04/2017	26.43	196.83
		03/05/2018	24.80	198.46
		06/05/2018	26.86	196.40
		09/10/2018	26.79	196.47
		12/03/2018	29.89	193.37
		03/04/2019	24.59	198.67
		06/03/2019	25.38	197.88
		09/09/2019	29.67	193.59
		12/16/2019	29.52	193.74
03/09/2020	24.96	198.30		
06/01/2020	25.63	197.63		
09/15/2020	28.67	194.59		
12/08/2020	26.81	196.45		
IMW-26 <sup>a</sup>	225.66	08/06/2009	28.65	197.01
		09/14/2009	25.82	199.84
		12/03/2009	27.46	198.20
		03/24/2010	26.09	199.57
		06/08/2010	19.67	205.99
		09/29/2010	24.37	202.30
		12/10/2010	25.71	200.96
		03/22/2011	23.99	202.68
		06/07/2011	25.66	201.01
		09/26/2011	29.44	197.23
		10/13/2011	27.34	199.33
		10/17/2011	25.10	201.57
	01/21/2012	26.10	200.57	
	01/27/2012	18.24	208.43	
	02/01/2012	16.66	210.01	
	02/22/2012	26.40	200.27	
	02/23/2012	26.50	200.17	
	02/27/2012	26.87	199.80	
	02/27/2012	26.40	200.27	
	03/01/2012	27.30	199.37	
	03/04/2012	26.80	199.87	
	03/06/2012	25.60	201.07	
	03/15/2012	25.70	200.97	
	03/16/2012	24.70	201.97	
	03/20/2012	24.20	202.47	
	03/22/2012	19.40	207.27	
	03/29/2012	22.60	204.07	
	04/10/2012	21.25	205.42	
	04/13/2012	24.00	202.67	
	04/19/2012	25.42	201.25	
	05/01/2012	25.42	201.25	
	05/04/2012	25.00	201.67	
	05/10/2012	25.75	200.92	
07/11/2012	-	-		

**Table 4**  
**Groundwater Elevation Data**  
H&V Fiber Corporation  
Corvallis, Oregon

Well Identification	TOC Elevation (feet MSL)	Monitoring Summary		
		Date Measured	Depth to Water (feet below TOC)	Groundwater Elevation (feet MSL)
IMW-26 (cont'd)		03/18/2013	29.42	197.25
		05/09/2013	29.34	197.33
		05/22/2013	28.81	197.86
		06/03/2013	26.89	199.78
		07/09/2013	27.70	198.97
		07/31/2013	28.00	198.67
		09/04/2013	28.40	198.27
		10/28/2013	29.10	197.57
		11/06/2013	28.00	198.67
		02/04/2014	29.50	197.17
		02/21/2014	23.79	202.88
		03/04/2014	29.80	196.87
		03/17/2014	23.07	203.60
		04/01/2014	23.40	203.27
		05/15/2014	26.86	199.81
		06/03/2014	28.42	198.25
		07/09/2014	27.60	199.07
		08/14/2014	28.10	198.57
		09/22/2014	29.62	197.05
		10/07/2014	29.62	197.05
		11/05/2014	29.80	196.87
		12/01/2014	28.76	197.91
		01/21/2015	25.10	201.57
		03/09/2015	24.37	202.30
		05/18/2015	27.64	199.03
		06/10/2015	26.10	200.57
		07/08/2015	29.80	196.87
		08/10/2015	26.55	200.12
		09/01/2015	27.70	198.97
		11/05/2015	29.80	196.87
		12/14/2015	27.85	198.82
		01/15/2016	20.14	206.53
		01/27/2016	17.20	209.47
		03/01/2016	20.18	206.49
		06/13/2016	28.97	197.70
		09/06/2016	27.92	198.75
		11/10/2016	23.50	203.17
		12/05/2016	26.26	200.41
		03/06/2017	20.72	205.95
		06/08/2017	24.12	202.55
09/14/2017	29.10	197.57		
12/04/2017	25.85	200.82		
03/05/2018	23.78	202.89		
06/05/2018	28.72	197.95		
09/10/2018	27.60	199.07		
12/03/2018	29.30	197.37		
03/04/2019	22.40	204.27		
06/03/2019	23.12	203.55		
09/09/2019	26.47	200.20		
12/16/2019	27.83	198.84		
03/09/2020	18.36	208.31		
06/01/2020	23.74	202.93		
09/15/2020	26.31	200.36		
12/08/2020	23.59	203.08		
DMW-26	226.24	03/09/2015	24.60	201.64
		05/18/2015	30.76	195.48
		06/10/2015	32.72	193.52
		07/08/2015	33.58	192.66

**Table 4**  
**Groundwater Elevation Data**  
H&V Fiber Corporation  
Corvallis, Oregon

Well Identification	TOC Elevation (feet MSL)	Monitoring Summary		
		Date Measured	Depth to Water (feet below TOC)	Groundwater Elevation (feet MSL)
DMW-26 (cont'd)		08/10/2015	32.60	193.64
		09/01/2015	32.34	193.90
		11/05/2015	33.30	192.94
		12/14/2015	32.81	193.43
		01/15/2016	19.65	206.59
		01/27/2016	16.82	209.42
		03/01/2016	19.70	206.54
		06/13/2016	28.77	197.47
		09/06/2016	27.22	199.02
		11/10/2016	29.41	196.83
		12/05/2016	25.34	200.90
		03/06/2017	20.11	206.13
		06/08/2017	27.44	198.80
		09/14/2017	32.02	194.22
		12/04/2017	28.29	197.95
		03/05/2018	26.63	199.61
		06/05/2018	26.55	199.69
		09/10/2018	29.66	196.58
		12/03/2018	31.92	194.32
		03/04/2019	26.56	199.68
		06/03/2019	27.57	198.67
		09/09/2019	31.48	194.76
12/16/2019	31.37	194.87		
03/09/2020	27.16	199.08		
06/01/2020	28.03	198.21		
09/15/2020	30.56	195.68		
12/08/2020	28.66	197.58		
IMW-27	223.78	02/19/2013	26.00	197.78
		03/18/2013	26.69	197.09
Injecting for ERD Test		05/09/2013	18.00	205.78
		05/22/2013	7.80	215.98
		06/03/2013	5.75	218.03
		07/09/2013	4.60	219.18
		07/31/2013	5.75	218.03
	ETEC system down	09/04/2013	20.52	203.26
		10/28/2013	4.33	219.45
ERD Pilot Test Over		11/06/2013	19.00	204.78
		02/04/2014	27.70	196.08
		02/21/2014	7.20	216.58
		03/04/2014	19.83	203.95
ERD Pilot Test Over		03/17/2014	16.86	206.92
		04/01/2014	16.54	207.24
		05/15/2014	20.64	203.14
		06/03/2014	24.00	199.78
		07/09/2014	25.30	198.48
		08/14/2014	25.13	198.65
		09/22/2014	26.89	196.89
		10/07/2014	26.44	197.34
		11/05/2014	27.15	196.63
		12/01/2014	25.53	198.25
		01/21/2015	20.60	203.18
		03/09/2015	19.59	204.19
		05/18/2015	25.03	198.75
		06/10/2015	27.02	196.76
ERD Pilot Test Over		07/08/2015	28.55	195.23
		08/10/2015	27.40	196.38
		09/01/2015	27.50	196.28
		11/05/2015	28.50	195.28

**Table 4**  
**Groundwater Elevation Data**  
H&V Fiber Corporation  
Corvallis, Oregon

Well Identification	TOC Elevation (feet MSL)	Monitoring Summary		
		Date Measured	Depth to Water (feet below TOC)	Groundwater Elevation (feet MSL)
IMW-27 (cont'd)	227.03	12/14/2015	27.51	196.27
		01/15/2016	16.37	207.41
		01/27/2016	13.69	210.09
		03/01/2016	16.43	207.35
		06/13/2016	24.13	199.65
		09/06/2016	23.99	199.79
		11/10/2016	24.78	199.00
		12/05/2016	22.27	201.51
		03/06/2017	17.01	206.77
		06/08/2017	23.74	200.04
		09/14/2017	26.96	196.82
		12/04/2017	24.32	199.46
		03/05/2018	23.80	199.98
		06/05/2018	27.98	199.05
		09/10/2018	29.23	197.80
		12/03/2018	30.33	196.70
		03/04/2019	26.13	200.90
		06/03/2019	27.23	199.80
		09/09/2019	30.39	196.64
		12/16/2019	29.92	197.11
03/09/2020	26.53	200.50		
06/01/2020	27.53	199.50		
09/15/2020	29.64	197.39		
12/08/2020	28.05	198.98		
DMW-27	223.83	02/19/2013	26.46	197.37
Injecting for ERD Test	ETEC system down	03/18/2013	27.09	196.74
		05/09/2013	23.98	199.85
		05/22/2013	17.30	206.53
		06/03/2013	19.50	204.33
		07/09/2013	14.40	209.43
		07/31/2013	12.05	211.78
		09/04/2013	24.88	198.95
		10/28/2013	17.57	206.26
		11/06/2013	23.95	199.88
		02/04/2014	26.10	197.73
ERD Pilot Test Over		02/21/2014	11.00	212.83
		03/04/2014	22.93	200.90
		03/17/2014	18.81	205.02
		04/01/2014	18.11	205.72
		05/15/2014	22.65	201.18
		06/03/2014	24.77	199.06
		07/09/2014	26.02	197.81
		08/14/2014	25.91	197.92
		09/22/2014	27.67	196.16
		10/07/2014	27.36	196.47
		11/05/2014	28.20	195.63
		12/01/2014	26.63	197.20
		01/21/2015	25.55	198.28
		03/09/2015	20.20	203.63
		05/18/2015	26.06	197.77
06/10/2015	28.09	195.74		
07/08/2015	29.52	194.31		
08/10/2015	28.43	195.40		
09/01/2015	28.23	195.60		
11/05/2015	29.50	194.33		
12/14/2015	28.26	195.57		
01/15/2016	16.62	207.21		
01/27/2016	13.81	210.02		

**Table 4**  
**Groundwater Elevation Data**  
H&V Fiber Corporation  
Corvallis, Oregon

Well Identification	TOC Elevation (feet MSL)	Monitoring Summary		
		Date Measured	Depth to Water (feet below TOC)	Groundwater Elevation (feet MSL)
DMW-27 (cont'd)		03/01/2016	16.86	206.97
		06/13/2016	24.54	199.29
		09/06/2016	24.20	199.63
		11/10/2016	25.42	198.41
		12/05/2016	22.48	201.35
		03/06/2017	17.26	206.57
		06/08/2017	24.00	199.83
		09/14/2017	27.66	196.17
		12/04/2017	24.72	199.11
		03/05/2018	22.92	200.91
		06/05/2018	25.16	198.67
		09/10/2018	26.76	197.07
		12/03/2018	28.08	195.75
		03/04/2019	23.20	200.63
		06/03/2019	24.23	199.60
		09/09/2019	27.93	195.90
		12/16/2019	27.67	196.16
		03/09/2020	23.78	200.05
		06/01/2020	24.59	199.24
		09/15/2020	27.06	196.77
12/08/2020	25.52	198.31		
IMW-28	223.48	02/20/2013	23.44	200.04
		03/18/2013	22.90	200.58
		05/09/2013	22.85	200.63
		05/22/2013	22.45	201.03
		06/03/2013	21.33	202.15
		07/09/2013	22.15	201.33
		07/31/2013	21.80	201.68
		09/04/2013	20.10	203.38
		10/28/2013	22.35	201.13
		11/06/2013	21.40	202.08
		02/04/2014	25.82	197.66
		02/21/2014	20.00	203.48
		03/04/2014	18.20	205.28
		03/17/2014	18.23	205.25
		04/01/2014	17.58	205.90
		05/15/2014	19.95	203.53
		06/03/2014	21.52	201.96
		07/09/2014	22.29	201.19
		08/14/2014	23.55	199.93
		09/22/2014	22.91	200.57
		10/07/2014	22.75	200.73
		11/05/2014	26.20	197.28
		12/01/2014	22.90	200.58
		01/21/2015	19.10	204.38
		03/09/2015	19.92	203.56
		05/18/2015	22.75	200.73
		06/10/2015	22.12	201.36
		07/08/2015	23.03	200.45
		08/10/2015	22.60	200.88
		09/01/2015	26.13	197.35
		11/05/2015	29.50	193.98
		12/14/2015	23.15	200.33
01/15/2016	16.56	206.92		
01/27/2016	13.75	209.73		
03/01/2016	16.21	207.27		
06/13/2016	22.66	200.82		
09/06/2016	23.89	199.59		

**Table 4**  
**Groundwater Elevation Data**  
H&V Fiber Corporation  
Corvallis, Oregon

Well Identification	TOC Elevation (feet MSL)	Monitoring Summary		
		Date Measured	Depth to Water (feet below TOC)	Groundwater Elevation (feet MSL)
IMW-28 (cont'd)		11/10/2016	21.00	202.48
		12/05/2016	21.33	202.15
		03/06/2017	17.18	206.30
		06/08/2017	19.12	204.36
		09/14/2017	23.11	200.37
		12/04/2017	21.84	201.64
		03/05/2018	22.12	201.36
		06/05/2018	22.90	200.58
		09/10/2018	27.55	195.93
		12/03/2018	22.62	200.86
		03/04/2019	19.97	203.51
		06/03/2019	20.74	202.74
		09/09/2019	22.78	200.70
		12/16/2019	22.63	200.85
		03/09/2020	19.84	203.64
		06/01/2020	20.38	203.10
		09/15/2020	22.64	200.84
12/08/2020	19.92	203.56		
DMW-28	223.74	02/20/2013	25.85	197.89
		03/18/2013	26.15	197.59
		06/03/2013	22.36	201.38
		05/09/2013	24.10	199.64
		05/22/2013	23.06	200.68
		06/03/2013	22.36	201.38
		07/09/2013	23.50	200.24
		07/31/2013	23.98	199.76
		09/04/2013	25.36	198.38
		10/28/2013	24.80	198.94
		11/06/2013	24.30	199.44
		02/04/2014	25.80	197.94
		02/21/2014	19.95	203.79
		03/04/2014	20.20	203.54
		03/17/2014	19.26	204.48
		04/01/2014	18.99	204.75
		05/15/2014	22.95	200.79
		06/03/2014	24.35	199.39
		07/09/2014	25.65	198.09
		08/14/2014	25.35	198.39
		09/22/2014	26.97	196.77
		10/07/2014	26.72	197.02
		11/05/2014	28.02	195.72
		12/01/2014	26.40	197.34
		01/21/2015	21.73	202.01
		03/09/2015	20.75	202.99
		05/18/2015	25.93	197.81
		06/10/2015	27.52	196.22
		07/08/2015	28.44	195.30
		08/10/2015	27.75	195.99
09/01/2015	27.82	195.92		
11/05/2015	28.98	194.76		
12/14/2015	28.12	195.62		
01/15/2016	16.92	206.82		
01/27/2016	14.19	209.55		
03/01/2016	16.78	206.96		
06/13/2016	24.29	199.45		
09/06/2016	23.84	199.90		
11/10/2016	25.01	198.73		
12/05/2016	21.51	202.23		

**Table 4**  
**Groundwater Elevation Data**  
H&V Fiber Corporation  
Corvallis, Oregon

Well Identification	TOC Elevation (feet MSL)	Monitoring Summary		
		Date Measured	Depth to Water (feet below TOC)	Groundwater Elevation (feet MSL)
DMW-28 (cont'd)		03/06/2017	17.05	206.69
		06/08/2017	23.85	199.89
		09/14/2017	27.48	196.26
		12/04/2017	24.61	199.13
		03/05/2018	22.98	200.76
		06/05/2018	25.00	198.74
		09/10/2018	26.33	197.41
		12/03/2018	27.89	195.85
		03/04/2019	23.01	200.73
		06/03/2019	24.12	199.62
		09/09/2019	27.59	196.15
		12/17/2019	27.37	196.37
		03/09/2020	23.73	200.01
		06/01/2020	24.75	198.99
		09/15/2020	26.81	196.93
12/08/2020	25.28	198.46		
IMW-29	223.51	02/20/2013	26.44	197.07
		03/18/2013	26.82	196.69
		05/09/2013	27.00	196.51
		05/22/2013	25.82	197.69
		06/03/2013	23.52	199.99
		07/09/2013	25.05	198.46
		07/31/2013	24.70	198.81
		09/04/2013	23.90	199.61
		10/28/2013	26.10	197.41
		11/06/2013	23.90	199.61
		02/04/2014	25.30	198.21
		02/21/2014	21.05	202.46
		03/04/2014	18.20	205.31
		03/17/2014	19.75	203.76
		04/01/2014	20.11	203.40
		05/15/2014	21.20	202.31
		06/03/2014	23.99	199.52
		07/09/2014	23.31	200.20
		08/14/2014	23.10	200.41
		09/22/2014	24.80	198.71
		10/07/2014	24.70	198.81
		11/05/2014	24.40	199.11
		12/01/2014	27.10	196.41
		01/21/2015	21.90	201.61
		03/09/2015	21.48	202.03
		05/18/2015	24.00	199.51
		06/10/2015	23.56	199.95
		07/08/2015	25.00	198.51
		08/10/2015	24.20	199.31
		09/01/2015	24.95	198.56
11/05/2015	25.50	198.01		
12/14/2015	24.79	198.72		
01/15/2016	15.81	207.70		
01/27/2016	13.93	209.58		
03/01/2016	16.33	207.18		
06/13/2016	25.95	197.56		
09/06/2016	24.41	199.10		
11/10/2016	21.95	201.56		
12/05/2016	22.01	201.50		
03/06/2017	17.49	206.02		
06/08/2017	19.22	204.29		
09/14/2017	24.36	199.15		

**Table 4**  
**Groundwater Elevation Data**  
H&V Fiber Corporation  
Corvallis, Oregon

Well Identification	TOC Elevation (feet MSL)	Monitoring Summary		
		Date Measured	Depth to Water (feet below TOC)	Groundwater Elevation (feet MSL)
IMW-29 (cont'd)		12/04/2017	23.32	200.19
		03/05/2018	21.22	202.29
		06/05/2018	23.43	200.08
		09/10/2018	22.55	200.96
		09/10/2018	22.70	200.81
		12/03/2018	24.22	199.29
		03/04/2019	19.82	203.69
		06/03/2019	21.63	201.88
		09/09/2019	-	-
		12/16/2019	23.26	200.25
		03/09/2020	20.14	203.37
		06/01/2020	21.29	202.22
		09/15/2020	22.93	200.58
		12/08/2020	21.89	201.62
		DMW-29	223.75	02/20/2013
03/18/2013	27.54			196.21
05/09/2013	34.35			189.40
05/22/2013	27.45			196.30
06/03/2013	24.61			199.14
07/09/2013	29.10			194.65
07/31/2013	26.20			197.55
09/04/2013	35.81			187.94
10/28/2013	28.75			195.00
11/06/2013	27.80			195.95
02/04/2014	32.10			191.65
02/21/2014	22.45			201.30
03/04/2014	23.00			200.75
03/17/2014	21.22			202.53
04/01/2014	21.81			201.94
05/15/2014	26.21			197.54
06/03/2014	27.53			196.22
07/09/2014	28.19			195.56
08/14/2014	27.43			196.32
09/22/2014	31.25			192.50
10/07/2014	30.11			193.64
11/05/2014	39.20			184.55
12/01/2014	32.15			191.60
01/21/2015	26.50			197.25
03/09/2015	24.04			199.71
05/18/2015	31.01			192.74
06/10/2015	36.28			187.47
07/08/2015	33.75			190.00
08/10/2015	40.37			183.38
09/01/2015	34.02			189.73
11/05/2015	37.45			186.30
12/14/2015	33.77			189.98
01/15/2016	17.31			206.44
01/27/2016	14.56			209.19
03/01/2016	17.25			206.50
06/13/2016	28.66	195.09		
09/06/2016	24.63	199.12		
11/10/2016	27.73	196.02		
12/05/2016	22.71	201.04		
03/06/2017	17.70	206.05		
06/08/2017	22.22	201.53		
09/14/2017	35.36	188.39		
12/04/2017	31.24	192.51		
03/05/2018	29.45	194.30		

**Table 4**  
**Groundwater Elevation Data**  
H&V Fiber Corporation  
Corvallis, Oregon

Well Identification	TOC Elevation (feet MSL)	Monitoring Summary		
		Date Measured	Depth to Water (feet below TOC)	Groundwater Elevation (feet MSL)
DMW-29 (cont'd)		06/05/2018	31.15	192.60
		09/10/2018	31.88	191.87
		12/03/2018	34.17	189.58
		03/04/2019	28.56	195.19
		06/03/2019	29.23	194.52
		09/09/2019	33.96	189.79
		12/16/2019	33.28	190.47
		03/09/2020	28.77	194.98
		06/01/2020	29.57	194.18
		09/15/2020	32.04	191.71
		12/08/2020	29.97	193.78
IMW-30	223.67	02/20/2013	25.10	198.57
		03/18/2013	25.32	198.35
		05/09/2013	23.82	199.85
		05/22/2013	23.27	200.40
		06/03/2013	21.90	201.77
		07/09/2013	23.15	200.52
		07/31/2013	23.53	200.14
		09/04/2013	24.96	198.71
		10/28/2013	24.60	199.07
		11/06/2013	24.05	199.62
		02/04/2014	25.23	198.44
		02/21/2014	20.08	203.59
		03/04/2014	20.13	203.54
		03/17/2014	19.05	204.62
		04/01/2014	18.55	205.12
		05/15/2014	22.60	201.07
		06/03/2014	23.96	199.71
		07/09/2014	25.12	198.55
		08/14/2014	24.92	198.75
		09/22/2014	26.29	197.38
		10/07/2014	26.20	197.47
		11/05/2014	27.22	196.45
		12/01/2014	25.95	197.72
		01/21/2015	21.20	202.47
		03/09/2015	20.25	203.42
		05/18/2015	25.01	198.66
		06/10/2015	26.55	197.12
		07/08/2015	27.60	196.07
		08/10/2015	26.81	196.86
		09/01/2015	27.08	196.59
		11/05/2015	27.60	196.07
		12/14/2015	27.20	196.47
		01/15/2016	16.85	206.82
01/27/2016	14.09	209.58		
03/03/2016	17.16	206.51		
06/13/2016	23.75	199.92		
09/06/2016	23.91	199.76		
11/10/2016	22.98	200.69		
12/05/2016	21.77	201.90		
03/06/2017	17.21	206.46		
06/08/2017	17.64	206.03		
09/14/2017	23.75	199.92		
12/04/2017	21.04	202.63		
03/05/2018	20.80	202.87		
06/05/2018	23.01	200.66		
09/10/2018	21.75	201.92		
12/03/2018	22.79	200.88		

**Table 4**  
**Groundwater Elevation Data**  
H&V Fiber Corporation  
Corvallis, Oregon

Well Identification	TOC Elevation (feet MSL)	Monitoring Summary		
		Date Measured	Depth to Water (feet below TOC)	Groundwater Elevation (feet MSL)
IMW-30 (cont'd)		03/04/2019	18.86	204.81
		06/03/2019	19.43	204.24
		09/09/2019	23.04	200.63
		12/16/2019	22.02	201.65
		03/09/2020	19.12	204.55
		06/01/2020	19.94	203.73
		09/15/2020	22.73	200.94
		12/08/2020	19.56	204.11
DMW-30	223.66	12/14/2015	28.34	195.32
		01/15/2016	16.90	206.76
		01/27/2016	14.11	209.55
		03/03/2016	17.29	206.37
		06/13/2016	24.49	199.17
		09/06/2016	23.87	199.79
		11/10/2016	25.12	198.54
		12/05/2016	21.58	202.08
		03/06/2017	17.08	206.58
		06/08/2017	23.87	199.79
		09/14/2017	27.70	195.96
		12/04/2017	24.82	198.84
		03/05/2018	23.11	200.55
		06/05/2018	25.19	198.47
		09/10/2018	26.46	197.20
		12/03/2018	28.05	195.61
		03/04/2019	23.12	200.54
		06/03/2019	24.24	199.42
		09/09/2019	27.75	195.91
		12/17/2019	27.57	196.09
03/09/2020	23.86	199.80		
06/01/2020	24.69	198.97		
09/15/2020	26.86	196.80		
12/08/2020	25.42	198.24		
IMW-31	223.73	02/20/2013	26.11	197.62
		03/18/2013	26.89	196.84
		05/09/2013	25.25	198.48
		05/22/2013	24.60	199.13
		06/03/2013	22.79	200.94
		07/09/2013	24.30	199.43
		07/31/2013	24.48	199.25
		09/04/2013	25.75	197.98
		10/28/2013	25.30	198.43
		11/06/2013	24.71	199.02
		02/04/2014	26.25	197.48
		02/21/2014	20.63	203.10
		03/04/2014	21.06	202.67
		03/17/2014	20.03	203.70
		04/01/2014	19.60	204.13
		05/15/2014	23.97	199.76
		06/03/2014	25.26	198.47
		07/09/2014	26.04	197.69
		08/14/2014	25.51	198.22
		09/22/2014	26.34	197.39
		11/05/2014	28.00	195.73
		12/01/2014	26.39	197.34
		01/21/2015	22.50	201.23
03/09/2015	20.10	203.63		
05/18/2015	26.30	197.43		
06/10/2015	27.83	195.90		

**Table 4**  
**Groundwater Elevation Data**  
H&V Fiber Corporation  
Corvallis, Oregon

Well Identification	TOC Elevation (feet MSL)	Monitoring Summary		
		Date Measured	Depth to Water (feet below TOC)	Groundwater Elevation (feet MSL)
IMW-31 (cont'd)		07/08/2015	28.19	195.54
		08/10/2015	27.60	196.13
		09/01/2015	27.55	196.18
		01/27/2016	14.18	209.55
		03/03/2016	17.28	206.45
		06/13/2016	25.20	198.53
		09/06/2016	24.33	199.40
		11/10/2016	24.70	199.03
		12/05/2016	22.32	201.41
		03/06/2017	17.44	206.29
		06/08/2017	20.55	203.18
		09/14/2017	25.53	198.20
		12/04/2017	24.09	199.64
		03/05/2018	22.60	201.13
		06/05/2018	23.52	200.21
		09/10/2018	24.85	198.88
		12/03/2018	25.49	198.24
		03/04/2019	20.93	202.80
		06/03/2019	22.25	201.48
		09/09/2019	26.20	197.53
12/16/2019	24.89	198.84		
03/09/2020	21.46	202.27		
06/01/2020	22.26	201.47		
09/15/2020	25.51	198.22		
12/08/2020	23.04	200.69		
IMW-32	221.89	12/14/2015	24.73	197.16
		01/15/2016	14.92	206.97
		01/27/2016	12.37	209.52
		03/01/2016	15.75	206.14
		06/13/2016	21.16	200.73
		09/06/2016	21.61	200.28
		11/10/2016	22.01	199.88
		12/05/2016	19.38	202.51
		03/06/2017	15.02	206.87
		06/08/2017	20.72	201.17
	223.08	09/14/2017	24.12	197.77
		12/04/2017	21.50	200.39
		03/05/2018	20.62	202.46
		06/05/2018	23.02	200.06
		09/10/2018	24.57	198.51
		12/03/2018	25.29	197.79
		03/04/2019	21.00	202.08
		06/03/2019	22.09	200.99
		09/09/2019	25.09	197.99
		12/16/2019	25.09	197.99
03/09/2020	21.59	201.49		
06/01/2020	22.53	200.55		
09/15/2020	24.64	198.44		
12/08/2020	23.17	199.91		
DMW-32	222.46	03/09/2015	18.58	203.88
		05/18/2015	22.79	199.67
		06/10/2015	24.61	197.85
		07/08/2015	25.53	196.93
		08/10/2015	24.98	197.48
		09/01/2015	25.30	197.16
		11/05/2015	26.20	196.26
		12/14/2015	25.29	197.17
		01/15/2016	15.52	206.94

**Table 4**  
**Groundwater Elevation Data**  
H&V Fiber Corporation  
Corvallis, Oregon

Well Identification	TOC Elevation (feet MSL)	Monitoring Summary		
		Date Measured	Depth to Water (feet below TOC)	Groundwater Elevation (feet MSL)
DMW-32 (cont'd)		01/27/2016	12.92	209.54
		03/01/2016	15.30	207.16
		06/13/2016	21.79	200.67
		09/06/2016	22.16	200.30
		11/10/2016	22.61	199.85
		12/05/2016	19.94	202.52
		03/06/2017	15.55	206.91
		06/08/2017	21.35	201.11
		09/14/2017	24.77	197.69
		12/04/2017	22.13	200.33
		03/05/2018	20.50	201.96
		06/05/2018	22.43	200.03
		09/10/2018	23.93	198.53
		12/03/2018	25.16	197.30
		03/04/2019	20.43	202.03
		06/03/2019	21.52	200.94
		09/09/2019	24.76	197.70
		12/16/2019	24.57	197.89
		03/09/2020	21.07	201.39
		06/01/2020	21.95	200.51
09/15/2020	24.03	198.43		
12/08/2020	22.59	199.87		
IMW-33	221.91	03/17/2014	18.50	203.41
		06/03/2014	21.97	199.94
		09/24/2014	24.54	197.37
		12/01/2014	23.92	197.99
		03/09/2015	18.94	202.97
		09/01/2015	26.52	195.39
		01/15/2016	16.35	205.56
		01/27/2016	13.59	208.32
		03/01/2016	15.07	206.84
		09/06/2016	23.94	197.97
		11/10/2016	23.47	198.44
		03/06/2017	17.94	203.97
		09/14/2017	25.44	196.47
		12/04/2017	-	-
		03/05/2018	22.16	199.75
		06/05/2018	22.60	199.31
		09/10/2018	24.52	197.39
		12/03/2018	25.95	195.96
		03/04/2019	22.25	199.66
		06/03/2019	19.95	201.96
09/09/2019	25.05	196.86		
12/17/2019	25.14	196.77		
03/09/2020	22.79	199.12		
06/01/2020	22.81	199.10		
09/15/2020	24.42	197.49		
12/08/2020	23.27	198.64		
DMW-33	221.93	02/04/2014	25.12	196.81
		03/17/2014	18.34	203.59
		06/03/2014	23.61	198.32
		09/24/2014	24.40	197.53
		12/01/2014	24.37	197.56
		03/09/2015	19.15	202.78
		09/01/2015	27.02	194.91
		01/15/2016	16.02	205.91
		01/27/2016	13.20	208.73
		03/01/2016	16.05	205.88

**Table 4**  
**Groundwater Elevation Data**  
H&V Fiber Corporation  
Corvallis, Oregon

Well Identification	TOC Elevation (feet MSL)	Monitoring Summary		
		Date Measured	Depth to Water (feet below TOC)	Groundwater Elevation (feet MSL)
DMW-33 (cont'd)		09/06/2016	23.36	198.57
		11/10/2016	23.90	198.03
		03/06/2017	16.54	205.39
		09/14/2017	26.00	195.93
		12/04/2017	-	-
		03/05/2018	22.10	199.83
		06/05/2018	23.13	198.80
		09/10/2018	24.74	197.19
		12/03/2018	26.35	195.58
		03/04/2019	20.93	201.00
		06/03/2019	22.05	199.88
		09/09/2019	25.53	196.40
		12/17/2019	25.62	196.31
		03/09/2020	22.01	199.92
		06/01/2020	22.71	199.22
09/15/2020	24.78	197.15		
12/08/2020	23.06	198.87		
IMW-34	222.45	02/04/2014	24.66	197.79
		03/17/2014	17.60	204.85
		06/03/2014	23.12	199.33
		09/22/2014	25.18	197.27
		12/01/2014	21.90	200.55
		03/09/2015	20.71	201.74
		09/01/2015	27.14	195.31
		01/15/2016	17.11	205.34
		01/27/2016	13.52	208.93
		03/01/2016	16.84	205.61
		09/06/2016	24.31	198.14
		11/10/2016	23.75	198.70
		03/06/2017	17.63	204.82
		09/14/2017	26.14	196.31
		12/04/2017	21.44	201.01
		03/05/2018	21.30	201.15
		06/05/2018	23.30	199.15
		09/10/2018	24.45	198.00
		12/03/2018	26.08	196.37
		03/04/2019	20.90	201.55
		06/03/2019	22.64	199.81
		09/09/2019	24.62	197.83
		12/16/2019	25.52	196.93
03/09/2020	22.97	199.48		
06/01/2020	23.51	198.94		
09/15/2020	24.64	197.81		
12/08/2020	23.76	198.69		
DMW-34	222.54	02/04/2014	25.35	197.19
		03/17/2014	17.71	204.83
		06/03/2014	24.10	198.44
		09/22/2014	25.50	197.04
		12/01/2014	21.83	200.71
		03/09/2015	20.76	201.78
		09/01/2015	27.62	194.92
		01/15/2016	16.78	205.76
		01/27/2016	13.28	209.26
		03/01/2016	17.29	205.25
		09/06/2016	24.49	198.05
		11/10/2016	24.03	198.51
		03/06/2017	17.30	205.24

**Table 4**  
**Groundwater Elevation Data**  
H&V Fiber Corporation  
Corvallis, Oregon

Well Identification	TOC Elevation (feet MSL)	Monitoring Summary		
		Date Measured	Depth to Water (feet below TOC)	Groundwater Elevation (feet MSL)
DMW-34 (cont'd)		09/14/2017	26.36	196.18
		12/04/2017	21.85	200.69
		03/05/2018	21.42	201.12
		06/05/2018	23.68	198.86
		09/10/2018	25.22	197.32
		12/03/2018	26.33	196.21
		03/04/2019	21.16	201.38
		06/03/2019	22.31	200.23
		09/09/2019	24.64	197.90
		12/16/2019	25.89	196.65
		03/09/2020	22.63	199.91
		06/01/2020	23.33	199.21
		09/15/2020	25.33	197.21
12/08/2020	23.89	198.65		
IMW-35	222.64	02/04/2014	22.76	199.88
		03/17/2014	15.66	206.98
		06/03/2014	21.94	200.70
		09/22/2014	23.96	198.68
		12/01/2014	19.05	203.59
		03/09/2015	21.69	200.95
		09/01/2015	25.05	197.59
		01/15/2016	17.63	205.01
		01/27/2016	13.86	208.78
		03/01/2016	19.07	203.57
		09/06/2016	24.35	198.29
		11/10/2016	22.00	200.64
		03/06/2017	17.63	205.01
		09/14/2017	24.29	198.35
		12/04/2017	19.09	203.55
		03/05/2018	21.00	201.64
		06/05/2018	-	-
		09/10/2018	24.42	198.22
		12/03/2018	24.13	198.51
		03/04/2019	19.82	202.82
		06/03/2019	21.73	200.91
		09/09/2019	24.32	198.32
		12/16/2019	24.08	198.56
03/09/2020	21.89	200.75		
06/01/2020	22.83	199.81		
09/15/2020	24.24	198.40		
12/08/2020	23.04	199.60		
DMW-35	222.76	02/04/2014	22.60	200.16
		03/17/2014	15.45	207.31
		06/03/2014	21.88	200.88
		09/22/2014	23.88	198.88
		12/01/2014	19.19	203.57
		03/09/2015	21.21	201.55
		09/01/2015	25.19	197.57
		01/15/2016	17.26	205.50
		01/27/2016	13.51	209.25
		03/01/2016	18.53	204.23
		09/06/2016	24.25	198.51
		11/10/2016	22.01	200.75
		03/06/2017	17.28	205.48
		09/14/2017	24.34	198.42
		12/04/2017	19.19	203.57
03/05/2018	20.76	202.00		
06/05/2018	-	-		

**Table 4**  
**Groundwater Elevation Data**  
H&V Fiber Corporation  
Corvallis, Oregon

Well Identification	TOC Elevation (feet MSL)	Monitoring Summary		
		Date Measured	Depth to Water (feet below TOC)	Groundwater Elevation (feet MSL)
DMW-35 (cont'd)		09/10/2018	24.42	198.34
		12/03/2018	24.17	198.59
		03/04/2019	19.69	203.07
		06/03/2019	21.45	201.31
		09/09/2019	24.33	198.43
		12/16/2019	24.11	198.65
		03/09/2020	21.72	201.04
		06/01/2020	22.73	200.03
		09/15/2020	24.20	198.56
		12/08/2020	23.01	199.75
DMW-36	223.48	03/09/2015	20.46	203.02
		06/10/2015	28.13	195.35
		07/08/2015	29.09	194.39
		08/10/2015	28.25	195.23
		09/01/2015	28.34	195.14
		11/05/2015	29.50	193.98
		12/14/2015	28.43	195.05
		01/15/2016	16.64	206.84
		01/27/2016	13.72	209.76
		03/01/2016	16.71	206.77
		09/06/2016	23.95	199.53
		11/10/2016	25.30	198.18
		03/06/2017	16.82	206.66
		09/14/2017	27.65	195.83
		12/04/2017	24.54	198.94
		03/05/2018	23.00	200.48
		06/05/2018	25.06	198.42
		09/10/2018	26.34	197.14
		12/03/2018	28.07	195.41
		03/04/2019	23.01	200.47
06/03/2019	24.19	199.29		
09/09/2019	27.80	195.68		
12/16/2019	27.61	195.87		
03/09/2020	23.75	199.73		
06/01/2020	24.71	198.77		
09/15/2020	27.02	196.46		
12/08/2020	25.47	198.01		
DMW-37	222.50	03/09/2015	18.64	203.86
		06/10/2015	23.80	198.70
		07/08/2015	24.82	197.68
		09/01/2015	24.79	197.71
		12/14/2015	24.27	198.23
		01/15/2016	15.60	206.90
		01/27/2016	12.15	210.35
		03/01/2016	15.78	206.72
		09/06/2016	22.82	199.68
		11/10/2016	22.19	200.31
		03/06/2017	15.38	207.12
		09/14/2017	24.04	198.46
		12/04/2017	20.66	201.84
		03/05/2018	19.91	202.59
		06/05/2018	21.72	200.78
		09/10/2018	23.71	198.79
		12/03/2018	24.73	197.77
		03/04/2019	19.57	202.93
		06/03/2019	20.83	201.67
		09/09/2019	24.09	198.41

**Table 4**  
**Groundwater Elevation Data**  
H&V Fiber Corporation  
Corvallis, Oregon

Well Identification	TOC Elevation (feet MSL)	Monitoring Summary		
		Date Measured	Depth to Water (feet below TOC)	Groundwater Elevation (feet MSL)
DMW-37 (cont'd)		12/16/2019	24.13	198.37
		03/09/2020	20.60	201.90
		06/01/2020	21.66	200.84
		09/15/2020	23.79	198.71
		12/08/2020	22.38	200.12
DMW-38	226.06	03/09/2015	23.53	202.53
		06/10/2015	29.37	196.69
		07/08/2015	30.01	196.05
		09/01/2015	30.04	196.02
		12/14/2015	27.34	198.72
		01/15/2016	19.75	206.31
		01/27/2016	16.27	209.79
		03/01/2016	20.30	205.76
		09/06/2016	27.57	198.49
		11/10/2016	26.90	199.16
		03/06/2017	20.09	205.97
		09/14/2017	29.10	196.96
		12/04/2017	24.78	201.28
		03/05/2018	24.58	201.48
		06/05/2018	26.66	199.40
		09/10/2018	28.44	197.62
		12/03/2018	29.49	196.57
		03/04/2019	24.16	201.90
		06/03/2019	25.77	200.29
		09/09/2019	28.82	197.24
12/16/2019	28.89	197.17		
03/09/2020	25.69	200.37		
06/01/2020	26.59	199.47		
09/15/2020	28.57	197.49		
12/08/2020	26.96	199.10		
DMW-39	227.45	03/09/2015	27.79	199.66
		06/10/2015	29.67	197.78
		07/08/2015	30.37	197.08
		09/01/2015	30.74	196.71
		12/14/2015	19.97	207.48
		01/15/2016	23.22	204.23
		01/27/2016	19.72	207.73
		03/01/2016	25.64	201.81
		09/06/2016	30.23	197.22
		11/10/2016	27.60	199.85
		03/06/2017	23.57	203.88
		09/14/2017	29.93	197.52
		12/04/2017	23.81	203.64
		03/05/2018	26.88	200.57
		06/05/2018	27.90	199.55
		09/10/2018	30.29	197.16
		12/03/2018	29.24	198.21
		03/04/2019	25.31	202.14
		06/03/2019	27.33	200.12
		09/09/2019	29.80	197.65
12/16/2019	29.44	198.01		
03/09/2020	27.98	199.47		
06/01/2020	28.59	198.86		
09/15/2020	29.65	197.80		
12/08/2020	28.77	198.68		
IMW-40	222.50	12/14/2015	24.04	198.46
		01/15/2016	15.46	207.04

**Table 4**  
**Groundwater Elevation Data**  
H&V Fiber Corporation  
Corvallis, Oregon

Well Identification	TOC Elevation (feet MSL)	Monitoring Summary		
		Date Measured	Depth to Water (feet below TOC)	Groundwater Elevation (feet MSL)
IMW-40 (cont'd)		01/27/2016	13.10	209.40
		03/01/2016	15.41	207.09
		06/13/2016	20.75	201.75
		09/06/2016	22.43	200.07
		11/10/2016	21.55	200.95
		12/05/2016	19.59	202.91
		03/06/2017	15.95	206.55
		06/08/2017	20.69	201.81
		09/14/2017	24.04	198.46
		12/04/2017	21.15	201.35
		03/05/2018	19.73	202.77
		06/05/2018	21.75	200.75
		09/10/2018	23.55	198.95
		12/03/2018	24.44	198.06
		03/04/2019	19.60	202.90
		06/03/2019	20.80	201.70
		09/09/2019	23.98	198.52
		12/16/2019	23.73	198.77
		03/09/2020	20.40	202.10
		06/01/2020	21.27	201.23
09/15/2020	23.39	199.11		
12/08/2020	21.74	200.76		
DMW-40	222.61	12/14/2015	24.76	197.85
		01/15/2016	15.75	206.86
		01/27/2016	13.27	209.34
		03/01/2016	15.58	207.03
		06/13/2016	21.58	201.03
		09/06/2016	22.22	200.39
		11/10/2016	22.31	200.30
		12/05/2016	19.92	202.69
		03/06/2017	15.81	206.80
		06/08/2017	21.18	201.43
		09/14/2017	24.48	198.13
		12/04/2017	21.87	200.74
		03/05/2018	20.34	202.27
		06/05/2018	22.21	200.40
		09/10/2018	23.79	198.82
		12/03/2018	24.83	197.78
		03/04/2019	20.25	202.36
		06/03/2019	21.31	201.30
		09/09/2019	24.42	198.19
		12/16/2019	24.24	198.37
03/09/2020	20.88	201.73		
06/01/2020	21.71	200.90		
09/15/2020	23.68	198.93		
12/08/2020	22.24	200.37		
DMW-41	224.16	12/14/2015	27.29	196.87
		01/15/2016	17.28	206.88
		01/27/2016	14.09	210.07
		03/01/2016	17.50	206.66
		09/06/2016	24.72	199.44
		11/10/2016	24.96	199.20
		12/05/2016	19.91	204.25
		03/06/2017	17.38	206.78
		09/14/2017	27.30	196.86
		12/04/2017	23.62	200.54
		03/13/2018	22.26	201.90
		06/05/2018	-	-

**Table 4**  
**Groundwater Elevation Data**  
H&V Fiber Corporation  
Corvallis, Oregon

Well Identification	TOC Elevation (feet MSL)	Monitoring Summary		
		Date Measured	Depth to Water (feet below TOC)	Groundwater Elevation (feet MSL)
DMW-41 (cont'd)		09/10/2018	26.26	197.90
		12/03/2018	27.59	196.57
		03/04/2019	22.41	201.75
		06/03/2019	22.96	201.20
		09/09/2019	27.06	197.10
		12/16/2019	27.00	197.16
		03/09/2020	23.23	200.93
		06/01/2020	24.34	199.82
		09/15/2020	26.59	197.57
		12/08/2020	25.04	199.12
DMW-42	224.09	12/14/2015	25.51	198.58
		01/15/2016	17.14	206.95
		01/27/2016	13.74	210.35
		03/01/2016	17.47	206.62
		09/06/2016	24.50	199.59
		11/10/2016	23.85	200.24
		12/05/2016	19.71	204.38
		03/06/2017	17.04	207.05
		09/14/2017	25.77	198.32
		12/04/2017	-	-
		03/13/2018	21.70	202.39
		06/05/2018	23.53	200.56
		09/10/2018	25.49	198.60
		12/03/2018	26.48	197.61
		03/04/2019	21.32	202.77
		06/03/2019	22.67	201.42
		09/09/2019	25.89	198.20
		12/16/2019	25.89	198.20
		03/09/2020	22.40	201.69
		06/01/2020	23.51	200.58
09/15/2020	25.61	198.48		
12/08/2020	24.16	199.93		

**Notes:**

<sup>a</sup> Elevations surveyed by PNG and tied into existing Survey from BlueDot, Inc.

TOC = Top of casing

MSL = Mean sea level

- = Not measured

**Table 5**  
**Neighborhood Area Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride	
<b>Neighborhood Area Wells</b>									
IMW-20	01/05/2009	0.5 U	55	3.1	0.5 U	0.5 U	0.5 U	0.5 U	
	03/23/2009	0.18 J	48	2.6	0.18 J	0.18 J	0.5 U	0.5 U	
	06/01/2009	0.15 J	42	0.5 U	0.18 J	0.18 J	0.5 U	0.11 J	
	09/14/2009	0.5 U	31	1.6	0.5 U	0.5 U	0.5 U	0.5 U	
	12/03/2009	0.18 J	34	2.1	0.18 J	0.16 J	0.5 U	0.12 J	
	03/24/2010	0.11 J	13	0.80	0.5 U	0.5 U	-	0.5 U	
	06/08/2010	0.090 J	27	1.6	0.10 J	0.1 U	-	0.094 U	
	09/29/2010	0.10 J	24	1.5	0.11 J	0.12 J	-	0.12 J	
	03/22/2011	0.14 J	25	1.1	0.5 U	0.5 U	-	0.5 U	
	06/07/2011	0.10 J	32	1.8	0.14 J	0.13 J	-	0.5 U	
	Duplicate (MW-99)	06/07/2011	0.10 J	30	1.8	0.12 J	0.12 J	-	0.5 U
		09/26/2011	0.5 U	29	1.7	0.5 U	0.5 U	-	0.5 U
		07/16/2012	0.5 U	32	1.9	0.5 U	0.5 U	-	0.5 U
		03/20/2013	1 U	27	1.6	1 U	1 U	-	1 U
		09/04/2013	1 U	18	1.2	1 U	1 U	-	1 U
		03/17/2014	1 U	28	1.4	1 U	1 U	-	1 U
		09/22/2014	1 U	20	1.1	1 U	1 U	-	1 U
03/13/2015		1 U	16	1.0	1 U	1 U	-	1 U	
09/01/2015		1 U	22	1.3	1 UJ <sup>1</sup>	1 UJ <sup>1</sup>	-	1 U	
03/01/2016		0.5 U	25 J	1.7	0.5 U	0.5 U	0.5 U	0.5 U	
Duplicate (MW-98)	09/13/2016	0.5 U	25	1.4	0.5 U	0.5 U	0.5 U	0.5 U	
	09/13/2016	0.5 U	28	1.5	0.5 U	0.5 U	0.5 U	0.5 U	
	03/07/2017	0.5 U	24	1.7	0.5 U	0.5 U	0.5 U	0.5 U	
	09/14/2017	0.5 U	35	2.4	0.5 U	0.5 U	0.5 U	0.5 U	
	03/05/2018	0.5 U	23	1.5	0.5 U	0.5 U	0.5 U	0.5 U	
	09/11/2018	0.5 U	22	1.6	0.5 U	0.5 U	0.5 U	0.5 U	
	03/05/2019	0.5 U	19	1.3	0.5 U	0.5 U	0.5 U	0.5 U	
	09/11/2019	0.5 U	27	1.6	0.5 U	0.5 U	0.5 U	0.5 U	
	03/11/2020	0.5 U	13	0.84	0.5 U	0.5 U	0.5 U	0.5 U	
	09/17/2020	0.5 U	36	2.5	0.5 U	0.5 U	0.5 U	0.5 U	
IMW-21	01/05/2009	0.5 U	0.83	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
	03/23/2009	0.39 J	0.87	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
	06/01/2009	0.28 J	0.68	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
	09/14/2009	0.5 U	0.78	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
Duplicate (MW-99)	12/03/2009	0.28 J	0.63	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
	12/03/2009	0.33 J	0.67	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
	03/24/2010	0.23 J	0.67	0.5 U	0.5 U	0.5 U	-	0.5 U	
	03/22/2011	0.27 J	0.68	0.5 U	0.5 U	0.5 U	-	0.5 U	
	09/26/2011	0.5 U	0.65	0.5 U	0.5 U	0.5 U	-	0.5 U	
	07/12/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	-	0.5 U	
	09/04/2013	1 U	0.48 J	1 U	1 U	1 U	-	1 U	
	09/22/2014	1 U	0.47 J	1 U	1 U	1 U	-	1 U	
	09/01/2015	1 U	0.49 J	1 U	1 UJ <sup>1</sup>	1 UJ <sup>1</sup>	-	1 U	
	09/13/2016	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	

**Table 5**  
**Neighborhood Area Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride	
IMW-21 (cont'd)	09/18/2017	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
	09/11/2018	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
	09/11/2019	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
	09/17/2020	0.5 U	0.52	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
IMW-22	01/05/2009	0.5 U	0.69	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
	03/23/2009	0.5 U	0.63	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
	06/01/2009	0.5 U	0.52	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
	09/14/2009	0.5 U	0.58	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
	12/03/2009	0.5 U	0.48 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
	03/24/2010	0.5 U	0.49 J	0.5 U	0.5 U	0.5 U	-	0.5 U	
	03/22/2011	0.5 U	0.56	0.5 U	0.5 U	0.5 U	-	0.5 U	
	09/26/2011	0.5 U	0.56	0.5 U	0.5 U	0.5 U	-	0.5 U	
	07/12/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	-	0.5 U	
	09/04/2013	1 U	0.49 J	1 U	1 U	1 U	-	1 U	
Duplicate (MW-99)	09/22/2014	1 U	1 U	1 U	1 U	1 U	-	1 U	
	09/01/2015	1 U	1 U	1 U	1 UJ <sup>1</sup>	1 UJ <sup>1</sup>	-	1 U	
	09/13/2016	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
	09/18/2017	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
	09/11/2018	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
	09/11/2019	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
	09/17/2020	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
	<b>DEQ RBC Screening Level Criteria for Water<sup>a</sup></b>								
	Ingestion and Inhalation of Tap Water								
	Residential		12	0.49	36	360	280	2.8	0.027
Volatilization to Outdoor Air									
Residential		64,000	3,300	>S	>S	570,000	16,000	350	
Occupational		>S	20,000	>S	>S	2,400,000	68,000	5,900	
Vapor Intrusion into Buildings									
Residential		3,700	200	>S	>S	29,000	1,100	17	
Occupational		48,000	3,700	>S	>S	360,000	14,000	880	
GW in Excavation									
Construction & Excavation Worker		5,600	430	18,000	180,000	44,000	10,000	960	
<b>Portland Harbor JSCS Levels</b>									
Upland Source Control Screening Level <sup>b</sup>									
		0.33	3.0	NA	1,000	NA	NA	0.24	
2004 AWQC (Human Health - Organism Only) <sup>c</sup>									
		3.3	30	NA	10,000	NA	NA	2.4	
2004 AWQC (Ecological Receptors - Chronic) <sup>d</sup>									
		840	21,900	NA	NA	NA	NA	NA	
Oak Ridge Tier II (Ecological Receptors) <sup>e</sup>									
		98	47	590	590	25 <sup>g</sup>	-	930 <sup>f</sup>	

**Table 5**  
**Neighborhood Area Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

**Notes:**

<sup>a</sup> Oregon Department of Environmental Quality (DEQ) Generic Risk-based concentrations (revised May 2018)

<sup>b</sup> DEQ, Portland Harbor JSCS, Table 3-1 (revised 7/16/07). Values listed are based on human health via fish ingestion

<sup>c</sup> DEQ, Portland Harbor JSCS, Table 3-1 (revised 7/16/07). Per DEQ's Ambient Water Quality Criteria for Organisms Only (DEQ 2004)

<sup>d</sup> DEQ, Portland Harbor JSCS, Table 3-1 (revised 7/16/07). Per DEQ's Ambient Water Quality Criteria - Ecologic Receptors - Chronic (DEQ 2004)

<sup>e</sup> DEQ, Portland Harbor JSCS, Table 3-1 (revised 7/16/07). Per Oak Ridge National Laboratory's Water Quality Criteria - Ecological Receptors - Tier II SCV

<sup>f</sup> Ecological screening value adopted by EPA in Regions 3,5 and 6.

<sup>g</sup> EPA Region III BTAG Freshwater Screening Benchmarks (July 2006)

ug/L = Micrograms per liter

U = not detected at the associated reporting limit

NA = not applicable

- = not available or not analyzed for this parameter

C = results of coelution

E = value reported exceeds linear calibration range; estimated concentration.

D = result from diluted analysis

J = estimated trace concentration

J<sup>1</sup> = Data Validation Qualifier. The numerical value reported is approximate. See Data Validation report for further information

>S = This RBC exceeds the solubility limit

**Table 6**  
**Upgradient Area Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride
<b>Upgradient Area Wells</b>								
DMW-1	04/03/1986	-	2.0	-	-	-	-	-
	05/28/1986	-	1.0	-	-	-	-	-
	06/27/1986	-	23	-	-	-	-	-
	07/30/1986	-	4.0	-	-	-	-	-
	09/04/1986	-	1.0	-	-	-	-	-
	10/13/1986	-	1.0	-	-	-	-	-
	11/14/1986	-	2.0	-	-	-	-	-
	12/22/1986	1 U	1.0	-	1 U	1 U	1 U	-
	06/29/1987	2 U	1.0	-	1 U	1 U	1 U	5.0 C
	09/23/1987	2 U	1 U	-	1 U	1 U	1 U	2 U
	12/22/1987	1 U	6.0	-	1 U	1 U	1 U	1 U
	03/22/1988	1 U	1 U	-	1 U	1 U	1 U	1 U
	06/01/1988	1 U	1 U	1 U	1 U	1 U	2.0	1 U
	09/01/1988	1 U	1 U	1 U	1 U	1 U	1 U	1 U
	12/27/1988	1 U	1 U	-	1 U	1 U	1 U	1 U
	03/17/1989	1 U	1 U	1 U	1 U	1 U	1.0	1 U
	06/15/1989	1 U	1 U	1 U	1 U	1 U	4.0	1 U
	09/12/1989	1 U	1 U	1 U	1 U	1 U	2.0	1 U
	12/27/1989	1 U	1 U	-	1 U	1 U	2.0	1 U
	03/16/1990	1 U	1 U	1 U	1 U	1 U	3.0	1 U
	06/27/1990	1 U	1.0	1 U	1 U	1 U	4.0	1 U
	09/24/1990	1 U	1 U	1 U	1 U	1 U	4.0	1 U
	12/14/1990	1 U	1 U	1 U	1 U	1 U	3.0	1 U
	03/15/1991	1 U	1 U	1 U	1 U	1 U	2.0	1 U
	03/16/1992	1 U	1 U	1 U	1 U	1 U	1 U	1 U
	03/16/1993	1 U	1 U	-	1 U	1 U	1 U	1 U
	08/30/1994	1 U	3.2	-	1 U	1 U	1 U	1 U
	09/12/1995	1 U	1 U	-	1 U	1 U	1 U	1 U
	09/06/1996	1 U	1 U	1 U	1 U	1 U	1 U	1 U
	09/04/1997	1 U	1 U	1 U	1 U	1 U	1 U	1 U
	09/04/1998	1 U	1 U	1 U	1 U	1 U	1 U	1 U
	08/31/1999	1 U	1 U	1 U	1 U	1 U	1 U	1 U
	09/12/2000	1 U	1 U	1 U	1 U	1 U	1 U	1 U
	09/20/2001	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	12/18/2001	0.5 U	2.8	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	03/06/2002	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	06/13/2002	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	09/17/2002	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	09/23/2003	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	09/08/2004	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	09/07/2005	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	08/07/2006	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	12/12/2006	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

**Table 6**  
**Upgradient Area Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride
DMW-1 (cont'd)	09/26/2007	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	03/23/2009	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	03/25/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	-	0.5 U
	03/23/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	-	0.5 U
	07/12/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	-	0.5 U
	09/04/2013	1.7	2.7	0.91 J	1 U	1 U	-	1 U
	09/22/2014	1 U	0.49 J	1 U	1 U	1 U	-	1 U
	09/01/2015	1 U	1 U	1 U	1 UJ <sup>1</sup>	1 UJ <sup>1</sup>	-	1 U
	09/13/2016	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	09/14/2017	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	09/11/2018	0.5 U	1.0	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	09/11/2019	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	09/18/2020	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
DMW-5	04/03/1986	-	46	-	-	-	-	-
	05/28/1986	-	1 U	-	-	-	-	-
	06/27/1986	-	1 U	-	-	-	-	-
	07/30/1986	-	1 U	-	-	-	-	-
	09/04/1986	-	1 U	-	-	-	-	-
	10/13/1986	-	1 U	-	-	-	-	-
	11/14/1986	-	1 U	-	-	-	-	-
	12/22/1986	1 U	1 U	-	1 U	1 U	1 U	1 U
	06/29/1987	1 U	1 U	-	1 U	1 U	1 U	2 U
	09/23/1987	2 U	1 U	-	1 U	1 U	1 U	5.0 C
	12/22/1987	1 U	4.0	-	1 U	1 U	1 U	1 U
	03/22/1988	1 U	1 U	-	1 U	1 U	1 U	1 U
	06/01/1988	1 U	1 U	1 U	1 U	1 U	1 U	1 U
	09/01/1988	1 U	1 U	1 U	1 U	1 U	1 U	1 U
	12/27/1988	1 U	1 U	-	1 U	1 U	1 U	1 U
	03/17/1989	1 U	1 U	1 U	1 U	1 U	1 U	1 U
	06/15/1989	1 U	1 U	1 U	1 U	1 U	1 U	1 U
	09/12/1989	1 U	1 U	1 U	1 U	1 U	1 U	1 U
	12/27/1989	1 U	1 U	-	1 U	1 U	1 U	1 U
	03/16/1990	1 U	1 U	1 U	1 U	1 U	1 U	1 U
	09/12/2000	1 U	1 U	1 U	1 U	1 U	1 U	1 U
	12/13/2006	0.5 U	5.1	0.74	0.5 U	0.5 U	0.5 U	0.5 U
	03/23/2009	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	03/25/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	-	0.5 U
	03/22/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	-	0.5 U
	07/12/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	-	0.5 U
	09/05/2013	1 U	1 U	1 U	1 U	1 U	-	1 U
Duplicate (MW-99)	09/05/2013	1 U	1 U	1 U	1 U	1 U	-	1 U
	09/22/2014	1 U	1.0	1 U	1 U	1 U	-	1 U
	09/01/2015	1 U	1 U	1 U	1 UJ <sup>1</sup>	1 UJ <sup>1</sup>	-	1 U
	09/13/2016	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	09/14/2017	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

**Table 6**  
**Upgradient Area Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride
DMW-5 (cont'd)	09/11/2018	0.5 U	1.2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	09/11/2019	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	09/18/2020	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Duplicate (MW-99)	09/18/2020	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
DMW-9	03/02/1987	1 U	12	-	34	1 U	1 U	1 U
	06/30/1987	3.0 C	42	-	56	1 U	1.0	9.0 C
	09/23/1987	10 U	27	-	48	5 U	5 U	6.0 C
	12/22/1987	1 U	21	-	1 U	1 U	1 U	1.0
	03/22/1988	1 U	42	-	1 U	1 U	10	6.0
	06/01/1988	1 U	32	76	1 U	1 U	3.0	4.0
	09/01/1988	1 U	18	80	1 U	1 U	1 U	7.0
	12/29/1988	1 U	11	-	26	1 U	1 U	3 C
	03/17/1989	1 U	6.0	9.0	1 U	1 U	1 U	7.0
	06/15/1989	2.0	34	130	1 U	1.0	1 U	10
	09/12/1989	1 U	10	18	1 U	1 U	1 U	5.0
	12/27/1989	1 U	12	-	1 U	1 U	1 U	3.0
	03/16/1990	1 U	14	33	1 U	1 U	1 U	1 U
	06/27/1990	1 U	19	60	1 U	1 U	1 U	8.0
	09/24/1990	1 U	18	46	1 U	1 U	1 U	6.0
	12/14/1990	1 U	7.0	27	1 U	1 U	1 U	5.0
	03/15/1991	1 U	9.0	36	1 U	1 U	1 U	8.0
	06/04/1991	1 U	8.0	50	1 U	1 U	1 U	7.0
	09/04/1991	1.0	8.0	51	1 U	1 U	1 U	6.0
	12/06/1991	1.0	6.0	39	1 U	1 U	1 U	7.0
	03/16/1992	1 U	8.0	45	1 U	1 U	1.0	8.0
	06/05/1992	1 U	4.0	36	1 U	1 U	1 U	3.0
	09/04/1992	1 U	3.0	35	1 U	1 U	1 U	1 U
	12/30/1992	1 U	1 U	1 U	1 U	1 U	1 U	1.6
	03/15/1993	1 U	1 U	-	1 U	1 U	1 U	1.7
	06/16/1993	1 U	1.0	7.0	1 U	1 U	1 U	1 U
	09/10/1993	1 U	1 U	-	1 U	1 U	1 U	1 U
	12/17/1993	1 U	1 U	-	1 U	1 U	1 U	1 U
	03/10/1994	1 U	1 U	-	1 U	1 U	1 U	1 U
	06/29/1994	1 U	1 U	5.9	1 U	1 U	1 U	1 U
	08/30/1994	1 U	2 U	-	1 U	1 U	1 U	1 U
	03/21/1995	1 U	1 U	4.0	1 U	1 U	1 U	1 U
	09/12/1995	1 U	1 U	-	1 U	1 U	1 U	1 U
	09/05/1996	1 U	1 U	4.1	1 U	1 U	1 U	1.3
	09/04/1997	1 U	1 U	3.0	1 U	1 U	1 U	1 U
	09/04/1998	1 U	1 U	3.7	1 U	1 U	1 U	1.0
09/02/1999	1 U	1 U	2.0	1 U	1 U	1 U	1 U	
09/12/2000	1 U	1 U	4.0	1 U	1 U	1 U	1.0	
09/19/2001	0.5 U	0.5 U	1.8	0.5 U	0.5 U	0.5 U	0.60	
09/18/2002	0.5 U	0.5 U	3.0	0.5 U	0.5 U	0.5 U	1.1	
09/24/2003	0.5 U	0.5 U	2.5	0.5 U	0.5 U	0.5 U	0.50	

**Table 6**  
**Upgradient Area Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride	
DMW-9 (cont'd)	09/09/2004	0.5 U	0.5 U	2.9	0.5 U	0.5 U	0.5 U	1.0	
	09/07/2005	0.5 U	0.5 U	2.1	0.5 U	0.5 U	0.5 U	0.76	
	08/08/2006	0.5 U	0.5 U	1.8	0.5 U	0.5 U	0.5 U	0.5 U	
	12/12/2006	0.5 U	0.84	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
	09/27/2007	0.5 U	0.5 U	1.7	0.5 U	0.5 U	0.5 U	0.94	
	03/23/2009	0.5 U	0.17 J	4.4	0.5 U	0.5 U	0.5 U	1.2	
	09/14/2009	0.5 U	0.5 U	1.9	0.5 U	0.5 U	-	0.5 U	
	03/25/2010	0.5 U	0.16 J	6.0	0.5 U	0.5 U	-	2.6	
	03/23/2011	0.5 U	0.5 U	1.2	0.5 U	0.5 U	-	0.18 J	
	07/16/2012	0.5 U	0.5 U	7.0	0.5 U	0.5 U	-	2.1	
	09/05/2013	1 U	1 U	0.34 J	1 U	1 U	-	1 U	
	09/22/2014	1 U	1 U	1 U	1 U	1 U	-	1 U	
	09/01/2015	1 U	1 U	1 U	1 UJ <sup>1</sup>	1 UJ <sup>1</sup>	-	1 U	
	09/13/2016	0.5 U	0.93	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
	09/14/2017	0.5 U	0.5 U	1.1	0.5 U	0.5 U	0.5 U	0.5 U	
	09/12/2018	0.5 U	0.80	0.63	0.5 U	0.5 U	0.5 U	0.5 U	
	09/11/2019	0.5 U	0.5 U	1.9	0.5 U	0.5 U	0.5 U	0.5 U	
	Duplicate (MW-99)	09/11/2019	0.5 U	0.5 U	1.9	0.5 U	0.5 U	0.5 U	0.5 U
		09/21/2020	0.5 U	0.5 U	1.6	0.5 U	0.5 U	0.5 U	0.5 U
	DMW-10	03/02/1987		650		110	10 U	10	10 U
06/30/1987		93 C	400	-	83	8.0	7.0	4.0 C	
09/23/1987		95 C	900	-	200	6.0	7.0	10 C	
12/22/1987		4 U	2,400	-	4 U	4 U	12	4.0	
03/23/1988		40	1,400	-	5 U	5 U	5.0	5.0	
06/01/1988		36	500	200	1 U	2.0	4.0	2.0	
09/01/1988		40	680	250	3 U	3 U	3 U	3.0	
12/29/1988		63	780	-	130	2.0	3.0	4.0 C	
03/17/1989		27	6.0	21	1 U	3.0	2.0	1 U	
06/15/1989		33	500	60	1 U	3.0	1.0	5.0	
09/12/1989		3 U	530	70	3 U	3 U	3 U	3.0	
12/27/1989		16	870	-	10 U	10 U	10 U	10 U	
03/16/1990		31	330	48	1 U	1 U	1 U	1 U	
06/27/1990		20	310	4.5	5 U	5 U	5 U	5 U	
09/24/1990		20	300	40	1 U	1 U	1 U	1 U	
12/14/1990		24	170	28	1 U	1.0	1.0	1.0	
03/15/1991		20	110	10	5 U	5 U	5 U	5 U	
06/04/1991		17	57	6.0	5 U	5 U	5 U	5 U	
09/04/1991		18	40	6.0	1 U	1.0	2.0	1 U	
12/06/1991		7.0	15	5.0	1 U	1 U	1.0	1 U	
03/16/1992		15	18	4.0	1 U	1 U	4.0	1 U	
06/05/1992		10	13	5.0	1 U	1 U	1.0	1 U	
09/04/1992		7.0	9.0	4.0	1 U	1 U	1 U	1 U	
12/01/1992		5.1	5.1	-	1 U	1 U	1 U	1 U	
03/16/1993		4.6	4.8	-	1 U	1 U	1 U	1 U	
06/16/1993	11	6.0	1 U	1 U	1 U	2.0	1 U		

**Table 6**  
**Upgradient Area Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride
DMW-10 (cont'd)	09/10/1993	5.4	4.4	-	1 U	1 U	1 U	1 U
	12/17/1993	5.6	3.5	-	1 U	1 U	1 U	1 U
	03/09/1994	1.8	4.4	-	1 U	1 U	1 U	1 U
	06/29/1994	6.0	6.4	1 U	1 U	1 U	1 U	1 U
	08/30/1994	4.5	12	-	1 U	1 U	1 U	1 U
	03/21/1995	7.0	11	12	1 U	1 U	1 U	1 U
	09/12/1995	2.3	2.1	-	1 U	1 U	1 U	1 U
	03/14/1996	1.7	5.9	16	1 U	1 U	1 U	1 U
	09/05/1996	5.9	4.8	3.4	1 U	1 U	1 U	1 U
	03/21/1997	1.6	8.0	29	1 U	1 U	1 U	1 U
	09/04/1997	5.0	3.0	4.0	1 U	1 U	1 U	1 U
	03/13/1998	2.6	2.3	6.5	1 U	1 U	1 U	1 U
	09/04/1998	3.0	2.1	2.2	1 U	1 U	1 U	1 U
	04/02/1999	2.0	3.0	12	1 U	1 U	1 U	1 U
	09/02/1999	5.0	3.0	2.0	1 U	1 U	1 U	1 U
	03/02/2000	1.0	2.0	11	1 U	1 U	1 U	1 U
	09/12/2000	1 U	1 U	1 U	1 U	1 U	1 U	1 U
	09/19/2001	3.0	1.8	2.1	0.5 U	0.5 U	0.5 U	0.5 U
	09/17/2002	6.8	3.7	1.1	0.5 U	0.50	0.50	0.5 U
	09/23/2003	6.5	3.6	2.3	0.5 U	0.5 U	0.60	0.5 U
	09/08/2004	5.1	2.6	0.90	0.5 U	0.5 U	0.5 U	0.5 U
	09/06/2005	5.5	3.9	0.67	0.5 U	0.5 U	0.5 U	0.5 U
	08/08/2006	4.8	4.4	1.0	0.5 U	0.5 U	0.5 U	0.5 U
	12/12/2006	3.5	4.2	2.0	0.5 U	0.5 U	0.5 U	0.5 U
	09/26/2007	4.3	3.2	2.0	0.5 U	0.5 U	0.5 U	0.5 U
	03/23/2009	2.4	3.3	1.5	0.5 U	0.29 J	0.27 J	0.5 U
	03/25/2010	3.4	3.1	0.57	0.5 U	0.40 J	-	0.5 U
	03/22/2011	3.5	14	2.4	0.5 U	0.70	-	0.5 U
	07/13/2012	2.8	5.5	1.3	0.5 U	0.5 U	-	0.5 U
	Duplicate (MW-98)	07/13/2012	3.1	5.8	1.3	0.5 U	0.5 U	-
09/05/2013		1 U	1 U	1 U	1 U	1 U	-	1 U
09/22/2014		2.7	2.4	0.59 J	1 U	1 U	-	1 U
09/01/2015		1.8	1.6	0.60 J	1 UJ <sup>1</sup>	1 UJ <sup>1</sup>	-	1 U
09/13/2016		3.5	2.9	0.68	0.5 U	0.5 U	0.5 U	0.5 U
09/14/2017		3.1	4.2	1.3	0.5 U	0.5 U	0.5 U	0.5 U
09/12/2018		2.4	3.3	0.77	0.5 U	0.5 U	0.5 U	0.5 U
09/12/2019		3.1	3.3 J <sup>1</sup>	0.77	0.5 U	0.5 U	0.5 U	0.5 U
09/21/2020		3.0	2.5	1.8	0.5 U	0.5 U	0.5 U	0.5 U
DMW-18		12/29/1988	1 U	3,000		720	1 U	1 U
	06/27/1990	20 U	84	300	20 U	20 U	20 U	20 U
	09/24/1990	10 U	450	170	10 U	10 U	10 U	10 U
	12/14/1990	50 U	1,300	410	50 U	50 U	50 U	50 U
	03/15/1991	1 U	63	32	1 U	1 U	1 U	1 U
	06/04/1991	10 U	370	110	10 U	10 U	10 U	10 U
	09/04/1991	1 U	820	100	1 U	1 U	1 U	4.0

**Table 6**  
**Upgradient Area Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride
DMW-18 (cont'd)	12/06/1991	20 U	1,200	90	20 U	20 U	20 U	20 U
	03/16/1992	20 U	900	80	20 U	20 U	20 U	20 U
	06/05/1992	10 U	740	40	10 U	10 U	10 U	10 U
	09/04/1992	20 U	710	20	20 U	20 U	20 U	20 U
	12/31/1992	10 U	780	-	10 U	10 U	10 U	10 U
	03/16/1993	10 U	550	-	10 U	10 U	10 U	10 U
	06/17/1993	10 U	440	20	10 U	10 U	10 U	10 U
	09/10/1993	1 U	460	-	1 U	1 U	1 U	1 U
	12/17/1993	1 U	400	-	1 U	1 U	1 U	1 U
	03/09/1994	5 U	260	-	5 U	5 U	5 U	5 U
	06/30/1994	10 U	280	15	10 U	10 U	10 U	10 U
	08/30/1994	10 U	318	-	10 U	10 U	10 U	10 U
	12/22/1994	5 U	150	-	5 U	5 U	5 U	5 U
	03/21/1995	1 U	115	10	1 U	1 U	1 U	1 U
	06/06/1995	5 U	76	-	5 U	5 U	5 U	5 U
	09/12/1995	1 U	59	-	1 U	1 U	1 U	1 U
	12/20/1995	1 U	77	2.6	1 U	1 U	1 U	1 U
	03/14/1996	1 U	48	5.8	1 U	1 U	1 U	1 U
	06/21/1996	1 U	60	10	1 U	1 U	1 U	1 U
	09/05/1996	1 U	54	13	1 U	1 U	1 U	1 U
	03/24/1997	1 U	51	7.3	1 U	1 U	1 U	1 U
	09/04/1997	1 U	37	14	1 U	1 U	1 U	1 U
	03/13/1998	1 U	25	6.3	1 U	1 U	1 U	1 U
	09/04/1998	1 U	26	4.5	1 U	1 U	1 U	1 U
	04/02/1999	1 U	24	6.0	1 U	1 U	1 U	1 U
	09/02/1999	1 U	28	9.0	1 U	1 U	1 U	1 U
	03/01/2000	1 U	32	9.0	1 U	1 U	1 U	1 U
	06/27/2000	1 U	24	12	1 U	1 U	1 U	1 U
	09/12/2000	1 U	20	9.0	1 U	1 U	1 U	1 U
	12/13/2000	1 U	23	6.5	1 U	1 U	1 U	1 U
	03/07/2001	1 U	14	4.1	1 U	1 U	1 U	1 U
	09/20/2001	0.5 U	21	4.1	0.5 U	0.5 U	0.5 U	1 U
	03/05/2002	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
	09/18/2002	0.5 U	9.9	2.1	0.5 U	0.5 U	0.5 U	1 U
	03/19/2003	0.5 U	6.4	2.7	0.5 U	0.5 U	0.5 U	1 U
	09/24/2003	0.5 U	6.3	1.5	0.5 U	0.5 U	0.5 U	1 U
	03/04/2004	0.5 U	15	6.6	0.5 U	0.5 U	0.5 U	1 U
	09/08/2004	0.5 U	6.0	6.5	0.5 U	0.5 U	0.5 U	1 U
	03/09/2005	0.5 U	1.6	0.5 U	0.5 U	0.5 U	0.5 U	1 U
	09/07/2005	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
	03/08/2006	0.5 U	19	7.3	0.5 U	0.5 U	0.5 U	1 U
	08/08/2006	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
	12/13/2006	0.5 U	0.56	7.7	0.5 U	0.5 U	0.5 U	1 U
	03/20/2007	0.5 U	4.6	6.4	0.5 U	0.5 U	0.5 U	1 U
	09/27/2007	0.5 U	4.1	3.5	0.5 U	0.5 U	0.5 U	1 U

**Table 6**  
**Upgradient Area Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride
DMW-18 (cont'd)	03/13/2008	0.5 U	5.5	2.5	0.5 U	0.5 U	0.5 U	1 U
	03/23/2009	0.5 U	0.15 J	0.69	0.5 U	0.5 U	-	0.5 U
	03/26/2010	0.5 U	25	1.2	0.5 U	0.5 U	-	0.5 U
	06/08/2010	0.5 U	2.3	1.5	0.5 U	0.5 U	-	0.5 U
	03/23/2011	0.5 U	1.4	0.98	0.5 U	0.5 U	-	0.5 U
	07/16/2012	0.5 U	0.5 U	12	0.5 U	0.5 U	-	0.5 U
	09/05/2013	1 U	1.3	4.6	1 U	1 U	-	1 U
	09/23/2014	1 U	1 U	6.0	1 U	1 U	-	1 UJ <sup>1</sup>
	09/01/2015	1 U	8.9	4.6	1 UJ <sup>1</sup>	1 UJ <sup>1</sup>	-	1 U
	09/13/2016	0.5 U	0.5 U	22	0.5 U	0.5 U	0.5 U	0.5 U
Duplicate (MW-98)	09/18/2017	0.5 U	4.7	2.5	0.5 U	0.5 U	0.5 U	0.5 U
	09/18/2017	0.5 U	4.6	2.4	0.5 U	0.5 U	0.5 U	0.5 U
	09/12/2018	0.5 U	5.1	2.0	0.5 U	0.5 U	0.5 U	0.5 U
	09/12/2019	0.5 U	0.5 U	14	0.5 U	0.5 U	0.5 U	0.5 U
	09/18/2020	0.5 U	4.8	7.0	0.5 U	0.5 U	0.5 U	0.5 U
MW-19 (DMW-19)	09/24/1990	4 U	220	270	4 U	4 U	4 U	4 U
	12/14/1990	40 U	2,400	760	40 U	40 U	40 U	40 U
	09/12/2000	1 U	1 U	1 U	1 U	1 U	1 U	1 U
	12/12/2006	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	03/23/2009	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	03/25/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	-	0.5 U
Duplicate (MW-99)	03/25/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	-	0.5 U
	03/23/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	-	0.5 U
	07/16/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	-	0.5 U
	09/05/2013	1 U	0.41 J	0.32 J	1 U	1 U	-	1 U
	09/23/2014	1 U	1 U	1 U	1 U	1 U	-	1 UJ <sup>1</sup>
	09/01/2015	1 U	1 U	1 U	1 UJ <sup>1</sup>	1 UJ <sup>1</sup>	-	1 U
	09/13/2016	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	09/14/2017	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	09/12/2018	0.5 U	0.74	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	09/11/2019	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	09/18/2020	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

**Table 6**  
**Upgradient Area Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride
<b>DEQ RBC Screening Level Criteria for Water<sup>a</sup></b>								
Ingestion and Inhalation of Tap Water								
Residential		12	0.49	36	360	280	2.8	0.027
Volatilization to Outdoor Air								
Residential		64,000	3,300	>S	>S	570,000	16,000	350
Occupational		>S	20,000	>S	>S	2,400,000	68,000	5,900
Vapor Intrusion into Buildings								
Residential		3,700	200	>S	>S	29,000	1,100	17
Occupational		48,000	3,700	>S	>S	360,000	14,000	880
GW in Excavation								
Construction & Excavation Worker		5,600	430	18,000	180,000	44,000	10,000	960
<b>Portland Harbor JSCS Levels</b>								
Upland Source Control Screening Level <sup>b</sup>		0.33	3.0	NA	1,000	NA	NA	0.24
2004 AWQC (Human Health - Organism Only) <sup>c</sup>		3.3	30	NA	10,000	NA	NA	2.4
2004 AWQC (Ecological Receptors - Chronic) <sup>d</sup>		840	21,900	NA	NA	NA	NA	NA
Oak Ridge Tier II (Ecological Receptors) <sup>e</sup>		98	47	590	590	25 <sup>g</sup>	-	930 <sup>f</sup>

**Notes:**

- <sup>a</sup> Oregon Department of Environmental Quality (DEQ) Generic Risk-based concentrations (revised May 2018)
  - <sup>b</sup> DEQ, Portland Harbor JSCS, Table 3-1 (revised 7/16/07). Values listed are based on human health via fish ingestion
  - <sup>c</sup> DEQ, Portland Harbor JSCS, Table 3-1 (revised 7/16/07). Per DEQ's Ambient Water Quality Criteria for Organisms Only (DEQ 2004)
  - <sup>d</sup> DEQ, Portland Harbor JSCS, Table 3-1 (revised 7/16/07). Per DEQ's Ambient Water Quality Criteria - Ecologic Receptors - Chronic (DEQ 2004)
  - <sup>e</sup> DEQ, Portland Harbor JSCS, Table 3-1 (revised 7/16/07). Per Oak Ridge National Laboratory's Water Quality Criteria - Ecological Receptors - Tier II SCV
  - <sup>f</sup> Ecological screening value adopted by EPA in Regions 3,5 and 6.
  - <sup>g</sup> EPA Region III BTAG Freshwater Screening Benchmarks (July 2006)
- ug/L = Micrograms per liter  
U = not detected at the associated reporting limit  
NA = not applicable  
- = not available or not analyzed for this parameter  
C = results of coelution  
E = value reported exceeds linear calibration range; estimated concentration.  
D = result from diluted analysis  
J = estimated trace concentration  
J<sup>1</sup> = Data Validation Qualifier. The numerical value reported is approximate. See Data Validation report for further information.  
>S = This RBC exceeds the solubility limit

**Table 7**  
**Source Zone Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride
<b>DNAPL Source Zone Area Wells</b>								
DMW-3	04/03/1986	-	326,000	-	-	-	-	-
	05/28/1986	-	516,000	-	-	-	-	-
	06/27/1986	1,000 U	280,000	-	1,300	1,000 U	1,000 U	1,100 C
	07/30/1986	-	229,000	-	-	-	-	-
	09/04/1986	-	475,000	-	-	-	-	-
	10/13/1986	-	443,000	-	-	-	-	-
	11/14/1986	-	254,000	-	-	-	-	-
	12/22/1986	-	110,000	-	2,000	1,000 U	1,000	1,500 C
	06/29/1987	40,000 U	410,000	-	20,000 U	20,000 U	20,000 U	40,000 U
	09/23/1987	10,000 U	390,000	-	10,000	5,000 U	5,000 U	10,000 U
	12/22/1987	2,000 U	1,010,000	-	2,000 U	2,000 U	2,000 U	2,000 U
	03/17/1989	10,000 U	590,000	10,000 U	10,000 U	10,000 U	10,000 U	10,000 U
	06/15/1989	500 U	280,000	6,500	500 U	500 U	500 U	500
	09/12/1989	250 U	130,000	8,000	250 U	250 U	250 U	250 U
	12/28/1989	1,000 U	230,000	-	1,000 U	1,000 U	1,000 U	1,000 U
	03/16/1990	2,000 U	170,000	6,000	2,000 U	2,000 U	2,000 U	2,000 U
	12/14/1990	2,000 U	250,000	5,000	2,000 U	2,000 U	2,000 U	2,000 U
	03/15/1991	4,000 U	420,000	8,000	4,000 U	4,000 U	4,000 U	4,000 U
	06/04/1991	5,000 U	450,000	14,000	5,000 U	5,000 U	5,000 U	5,000 U
	09/04/1991	10,000 U	380,000	10,000 U	10,000 U	10,000 U	10,000 U	10,000 U
	12/06/1991	5,000 U	300,000	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U
	03/16/1992	1,000 U	160,000	3,000	1,000 U	1,000 U	1,000 U	1,000 U
	06/01/1992	-	98,000	-	-	-	-	-
	09/01/1992	-	96,000	-	-	-	-	-
	11/30/1992	-	120,000	-	-	-	-	-
	03/01/1993	-	81,000	-	-	-	-	-
	06/17/1993	2,000 U	106,000	2,000	2,000 U	2,000 U	2,000 U	2,000 U
	09/09/1993	100 U	48,000	-	100 U	100 U	100 U	100 U
	12/01/1993	-	58,000	-	-	-	-	-
	03/01/1994	-	61,000	-	-	-	-	-
	04/25/1994	500 U	75,000	1,800	500 U	500 U	500 U	500 U
	06/30/1994	2,000 U	61,000	2,000 U	2,000 U	2,000 U	2,000 U	2,000 U
	09/01/1994	-	28,000	-	-	-	-	-
	12/01/1994	-	56,000	-	-	-	-	-
	04/25/1995	-	47,000	-	-	-	-	-
	06/01/1995	-	35,000	-	-	-	-	-
	09/01/1995	-	25,700	-	-	-	-	-
	12/01/1995	-	53,000	-	-	-	-	-
	03/01/1996	-	45,000	-	-	-	-	-
	06/01/1996	-	42,000	-	-	-	-	-
	09/01/1996	-	20,000	-	-	-	-	-
	12/01/1996	-	26,000	-	-	-	-	-
	03/01/1997	-	21,000	-	-	-	-	-
	06/01/1997	-	17,000	-	-	-	-	-

**Table 7**  
**Source Zone Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride
DMW-3 (cont'd)	09/01/1997	-	9,600	-	-	-	-	-
	12/01/1997	-	12,100	-	-	-	-	-
	03/01/1998	-	15,000	-	-	-	-	-
	06/01/1998	-	16,700	-	-	-	-	-
	09/01/1998	-	9,280	-	-	-	-	-
	09/01/1999	-	15,400	-	-	-	-	-
	09/01/2000	-	890	-	-	-	-	-
	07/31/2001	-	11,900 E	-	-	-	-	-
	09/20/2001	3.5	15,600	832	4.3	2.0	0.5 U	5.4
	12/18/2001	100 U	17,500	1,010	100 U	100 U	100 U	100 U
	03/06/2002	3.5	22,500	1,670	5.2	3.1	0.5 U	11
	06/13/2002	3.7	22,100	1,390	5.5	3.3	0.5 U	14
	09/18/2002	-	16,800	-	-	-	-	-
	03/19/2003	-	17,200	-	-	-	-	-
	09/22/2003	-	14,400	-	-	-	-	-
	09/09/2004	-	11,900	-	-	-	-	-
	09/07/2005	-	14,200	-	-	-	-	-
	08/08/2006	-	14,000	-	-	-	-	-
	12/14/2006	2.3	8,030	1,750	11	3.3	0.5 U	17
	02/21/2007	-	73,700	-	-	-	-	-
	09/27/2007	-	11,100	-	-	-	-	-
	03/23/2009	25 U	14,800	756	3.4 J	25 U	-	7.2 J
	06/01/2009	25 U	14,900	780	25 U	25 U	-	25 U
	09/14/2009	25 U	14,900	857	25 U	25 U	-	25 U
	12/03/2009	25 U	11,700	682	4.2 J	25 U	-	6.9 J
	03/24/2010	5.6 J	18,800	946	5.4 J	25 U	-	10 J
	12/10/2010	25 U	13,900	796	25 U	25 U	-	25 U
	03/22/2011	25 U	18,700	791	25 U	25 U	-	7.0 J
	09/26/2011	25 U	10,900	2,630	25 U	25 U	-	173
	02/27/2012	25 U	11,700	615	25 U	25 U	-	25 U
	07/12/2012	25 U	12,000	739	25 U	25 U	-	25 U
	03/19/2013	5 U	3,100	260	5 U	5 U	-	5 U
	04/15/2013	25 U	3,000	220	25 U	25 U	-	25 U
06/03/2013	25 U	1,900	1,200	25 U	25 U	-	25 U	
07/01/2013	10 U	1,800	1,400	9.0 J	10 U	-	4.2 J	
09/05/2013	0.71 J	2,500	1,100	4.4	1.6	-	13	
12/11/2013	5 U	2,100	530	2.3 J	5 U	-	18	
03/17/2014	50 U	1,600	450	50 U	50 U	-	14 J	
06/03/2014	50 U	1,900	440	50 U	50 U	-	50 U	
Duplicate (DMW-99)	06/03/2014	50 U	1,800	380	50 U	-	50 U	
	09/24/2014	50 U	1,700	430	50 U	-	50 U	
	12/03/2014	50 U	2,400	580 J <sup>1</sup>	50 U	-	50 U	
Duplicate (MW-99)	12/03/2014	0.41 J	2,200	510 J <sup>1</sup>	3.1 J <sup>1</sup>	2.3 J <sup>1</sup>	5.5 J <sup>1</sup>	
	03/09/2015	50 U	1,600	290	50 U	-	50 U	
	06/11/2015	50 U	1,900	230	50 U	-	50 U	

**Table 7**  
**Source Zone Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride
DMW-3 (cont'd)	09/01/2015	50 U	2,120	293	50 U	50 U	-	50 U
	12/14/2015	0.5 U	2,210	164	1.1	0.72	-	0.76
	03/07/2015	0.5 U	2,110	297	1.5	1.3	0.5 U	2.5
	06/15/2016	10 U	2,470	242	10 U	10 U	10 U	10 U
	09/14/2016	0.74	2,340	276	1.7	1.3	0.5 U	1.9
	12/05/2016	0.57	2,380	232	1.3	0.94	0.5 U	1.1
	03/09/2017	13 U	2,260	215	13 U	13 U	13 U	13 U
	06/08/2017	0.76	2,850	221	1.6	1.0	0.5 U	0.95
	09/18/2017	13 U	2,960	259	13 U	13 U	13 U	13 U
	12/11/2017	0.80	2,440	178	1.1	0.82	0.5 U	0.85
	03/07/2018	0.77	2,180 J <sup>1</sup>	192	1.0	1.1	0.5 U	1.6
	06/06/2018	0.94	2,940	211	1.3	1.1	0.5 U	1.1
	09/10/2018	0.67	2,950	524	2.6	1.4	0.5 U	1.6
	12/04/2018	0.70	2,270	210	1.0	0.91	0.5 U	1.2
	03/11/2019	0.66	1,990	188	1.0	0.79	0.5 U	0.66
Duplicate (MW-97)	03/11/2019	0.66	2,140	183	1.1	0.72	0.5 U	0.64
	06/04/2019	0.69	2,580	191	1.0	0.80 J <sup>1</sup>	0.5 U	0.55
	09/10/2019	50 U	2,500	189	50 U	50 U	50 U	50 U
	12/18/2019	50 U	2,250	205	50 U	50 U	50 U	50 U
Duplicate (MW-97)	03/11/2020	0.69	1,840	178	0.93	0.68	0.5 U	0.71
	03/11/2020	0.72	1,670	176	0.90	0.73	0.5 U	0.70
	06/02/2020	50 U	1,870	180	50 U	50 U	50 U	50 U
	09/17/2020	25 U	2,550	202	25 U	25 U	25 U	25 U
	12/10/2020	13 U	2,180	217	13 U	13 U	13 U	13 U
IMW-3	06/05/2009	500 U	442,000	2,560	500 U	500 U	-	500 U
	08/06/2009	500 U	318,000	5,820	500 U	500 U	-	500 U
	09/15/2009	250 U	134,000	18,200	250 U	250 U	-	250 U
	03/26/2010	1,000 U	444,700	4,790	1,000 U	1,000 U	-	1,000 U
	03/22/2011	500 UJ <sup>1</sup>	373,000	3,760 J <sup>1</sup>	500 UJ <sup>1</sup>	500 UJ <sup>1</sup>	-	500 UJ <sup>1</sup>
	06/04/2013	10 U	40,000	480	10 U	10 U	-	10 U
	03/18/2014	100 UJ <sup>1</sup>	14,000 J <sup>1</sup>	210	100 U	100 U	-	100 U
	03/03/2016	50 U	42,700	576	50 U	50 U	50 U	50 U
	03/09/2017	250 U	6,320	250 U	250 U	250 U	250 U	250 U
	03/13/2019	4.9	22,300	1,200	3.0	2.2	0.5 U	5.8
	03/11/2020	1.5	23,200	305	0.82	0.5 U	0.5 U	0.5 U
	DMW-16	12/28/1988	100 U	810,000	-	18,000	100 U	100 U
06/27/1990		2,000 U	650,000	22,000	2,000 U	2,000 U	2,000 U	2,000 U
12/14/1990		2,000 U	600,000	16,000	2,000 U	2,000 U	2,000 U	2,000 U
03/15/1991		10,000 U	330,000	10,000 U	10,000 U	10,000 U	10,000 U	10,000 U
06/04/1991		2,000 U	136,000	13,000	2,000 U	2,000 U	2,000 U	2,000 U
09/04/1991		2,000 U	120,000	5,000	2,000 U	2,000 U	2,000 U	2,000 U
12/06/1991		2,000 U	130,000	3,000	2,000 U	2,000 U	2,000 U	2,000 U
03/16/1992		2,000 U	64,000	2,000 U	2,000 U	2,000 U	2,000 U	2,000 U
06/05/1992		1,000 U	73,000	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U

**Table 7**  
**Source Zone Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride
DMW-16 (cont'd)	09/04/1992	1,000 U	38,000	1,000	1,000 U	1,000 U	1,000 U	1,000 U
	11/30/1992	-	77,300	-	-	-	-	-
	12/30/1992	2,000 U	51,000	-	2,000 U	2,000 U	2,000 U	2,000 U
	03/15/1993	1,000 U	83,000	-	1,000 U	1,000 U	1,000 U	1,000 U
	06/17/1993	1,000 U	39,000	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
	09/09/1993	50 U	26,000	-	50 U	50 U	50 U	50 U
	12/17/1993	50 U	28,000	-	50 U	50 U	50 U	50 U
	03/09/1994	500 U	23,000	-	500 U	500 U	500 U	500 U
	04/25/1994	500 U	25,000	500 U	500 U	500 U	500 U	500 U
	06/30/1994	100 U	32,000	470	100 U	100 U	100 U	100 U
	08/29/1994	50 U	24,300 J	-	50 U	50 U	50 U	50 U
	12/01/1994	-	25,000	-	-	-	-	-
	03/20/1995	200 U	20,800	410	200 U	200 U	200 U	200 U
	04/25/1995	-	27,000	-	-	-	-	-
	06/01/1995	-	15,000	-	-	-	-	-
	09/12/1995	500 U	13,000	-	500 U	500 U	500 U	500 U
	12/01/1995	-	11,000	-	-	-	-	-
	03/14/1996	5,000 U	11,000	110	5,000 U	5,000 U	5,000 U	5,000 U
	06/01/1996	-	7,900	-	-	-	-	-
	09/01/1996	-	8,900	-	-	-	-	-
	12/01/1996	-	9,000	-	-	-	-	-
	03/24/1997	100 U	14,100 E	180	100 U	100 U	100 U	100 U
	06/01/1997	-	6,090	-	-	-	-	-
	09/04/1997	200 U	9,000	200 U	200 U	200 U	200 U	200 U
	12/01/1997	-	7,600	-	-	-	-	-
	03/12/1998	200 U	8,600	200 U	200 U	200 U	200 U	200 U
	06/01/1998	-	6,200	-	-	-	-	-
	09/04/1998	100 U	6,320	154	100 U	100 U	100 U	100 U
	04/02/1999	100 U	9,010	130	100 U	100 U	100 U	100 U
	08/31/1999	100 U	5,910	146	100 U	100 U	100 U	100 U
	03/02/2000	100 U	8,520	221	100 U	100 U	100 U	100 U
	10/06/2000	1 U	9,090	-	2.6	1.1	1 U	1.8
	03/07/2001	3.8	4,280	241	1 U	22	1 U	4.2
	07/31/2001	-	4,710	-	-	-	-	-
	09/20/2001	-	4,080	-	-	-	-	-
	12/18/2001	-	5,200	-	-	-	-	-
	03/06/2002	-	5,380	-	-	-	-	-
	09/18/2002	-	4,520	-	-	-	-	-
	03/19/2003	-	7,630	-	-	-	-	-
	09/22/2003	-	6,630	-	-	-	-	-
	09/09/2004	-	5,910	-	-	-	-	-
	09/07/2005	-	3,760	-	-	-	-	-
	08/08/2006	-	3,960	-	-	-	-	-
	12/14/2006	25 U	9,560	4,460	25 U	25 U	25 U	52
	02/21/2007	-	21,300	-	-	-	-	-

**Table 7**  
**Source Zone Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride
DMW-16 (cont'd)	09/27/2007	-	7,150	-	-	-	-	-
	03/23/2009	25 U	5,380	128	25 U	25 U	-	25 U
	06/01/2009	10 U	4,240	162	10 U	10 U	-	10 U
	09/14/2009	10 U	4,970	215	10 U	10 U	-	10 U
	12/03/2009	10 U	6,380	181	10 U	10 U	-	10 U
	03/24/2010	50 U	14,100	2330	13 J	50 U	-	50 U
	12/10/2010	10 U	6,780	250	10 J	10 U	-	10 U
	03/22/2011	1.9 J	4,580	178	0.84 J	5 U	-	5 U
	09/26/2011	5 U	3,000	134	5 U	5 U	-	5 U
	07/12/2012	5 U	3,120	156	5 U	5 U	-	5 U
	03/20/2013	14 J	50,000	2,900	12 J	20 U	-	20 U
	06/04/2013	50 U	2,500	210	50 U	50 U	-	50 U
	07/02/2013	25 U	1,400	240	25 U	25 U	-	25 U
	09/05/2013	1 U	3,400	580	2.8	1.2	-	0.43 J
	12/11/2013	5 U	9,300	500	2.6 J	5 U	5 U	5 U
	03/18/2014	33 J <sup>1</sup>	4,300 J <sup>1</sup>	680	20 U	20 U	-	20 U
	06/04/2014	200 U	8,000	420	200 U	200 U	-	200 U
	09/22/2014	200 U	9,500	580	200 U	200 U	-	200 UJ <sup>1</sup>
	12/02/2014	25 U	1,700	860 J <sup>1</sup>	25 U	25 U	-	25 U
	03/12/2015	25 U	8,600	690	25 U	25 U	-	25 U
	06/10/2015	250 U	9,800	490	250 U	250 U	-	250 U
	09/02/2015	50 U	2,390	502	50 U	50 U	-	50 U
	12/15/2015	0.5 U	8,120	134	0.88	0.5 U	-	0.5 U
	03/03/2016	25 U	3,730	1,400	25 U	25 U	25 U	25 U
	06/13/2016	1.0	13,000 J <sup>1</sup>	808	2.8	1.7	0.5 U	4.9
	09/07/2016	50 U	6,670	887	50 U	50 U	50 U	50 U
	12/05/2016	0.5 U	1,970	726	2.7	1.8	0.5 U	3.7
	03/08/2017	25 U	4,920	544	25 U	25 U	25 U	25 U
	06/09/2017	0.83	4,740	480	3.3	2.1	0.5 U	3.0
	Duplicate (MW-99)	06/09/2017	0.89	5,540	773	3.6	2.5	0.5 U
09/18/2017		25 U	4,590	712	25 U	25 U	25 U	25 U
12/11/2017		5 U	3,580	623	5 U	5 U	5 U	5 U
03/06/2018		0.72	4,430 J <sup>1</sup>	790	3.9	2.2	0.5 U	6.5
06/06/2018		0.99	3,470	723	5.1	3.4	0.5 U	5.5
09/17/2018		0.5 U	5,140	847	4.3	2.6	0.5 U	6.5
Duplicate (MW-97)	09/17/2018	0.5 U	4,440	795	3.9	2.4	0.5 U	6.4
	01/15/2019	10 U	2,410	770	10 U	10 U	10 U	10 U
	03/06/2019	25 U	2,150	694	25 U	25 U	25 U	25 U
	06/04/2019	25 U	3,240	1,080	25 U	25 U	25 U	25 U
	09/11/2019	25 U	2,700	1,200	25 U	25 U	25 U	25 U
	12/18/2019	25 U	2,550	1,260	25 U	25 U	25 U	25 U
	03/12/2020	0.5 U	2,390	1,210	6.4	4.5	0.5 U	7.6
	06/02/2020	25 U	1,950	1,180	25 U	25 U	25 U	25 U
	09/17/2020	25 U	5,880	2,490	25 U	25 U	25 U	25 U
	12/10/2020	25 U	4,130	1,640	25 U	25 U	25 U	25 U

**Table 7**  
**Source Zone Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride
IMW-16	06/05/2009	500 U	1,310	500 U	500 U	500 U	-	500 U
	08/06/2009	10 U	5,160	37	10 U	10 U	-	10 U
	09/15/2009	0.5 U	248	8.7	0.5 U	0.5 U	-	0.5 U
	03/25/2010	0.5 U	148	7.3	0.080 J	0.32 J	-	0.5 U
	03/23/2011	0.090 J	354	4.5	0.090 J	0.5 U	-	0.5 U
	03/20/2013	1 U	140	12	1 U	1 U	-	1 U
	03/18/2014	1 UJ <sup>1</sup>	320 J <sup>1</sup>	1.2	1 U	1 U	-	1 U
	03/12/2015	5 U	530	8.9	5 U	5 U	-	5 U
	03/12/2015	5 U	530	8.9	5 U	5 U	-	5 U
	03/03/2016	2.5 U	177	3.1	2.5 U	2.5 U	2.5 U	2.5 U
	03/08/2017	0.5 U	640	1.1	0.5 U	0.5 U	0.5 U	0.5 U
	03/06/2018	0.5 U	333 J <sup>1</sup>	5.3	0.5 U	0.5 U	0.5 U	0.5 U
	03/06/2019	0.5 U	54	2.7	0.5 U	0.5 U	0.5 U	0.5 U
	03/12/2020	0.5 U	44	3.3	0.5 U	0.5 U	0.5 U	0.5 U
DMW-17	12/29/1988	37 C	200,000	-	7,100	10 U	10 U	440 C
	12/14/1990	400 U	130,000	4,200	400 U	400 U	400 U	400 U
	03/15/1991	2,000 U	66,000	2,000	2,000 U	2,000 U	2,000 U	2,000 U
	06/04/1991	2,000 U	164,000	3,000	2,000 U	2,000 U	2,000 U	2,000 U
	09/04/1991	4,000 U	110,000	4,000 U	4,000 U	4,000 U	4,000 U	4,000 U
	12/06/1991	2,000 U	75,000	2,000 U	2,000 U	2,000 U	2,000 U	2,000 U
	03/16/1992	2,000 U	59,000	2,000 U	2,000 U	2,000 U	2,000 U	2,000 U
	06/01/1992	-	57,000	-	-	-	-	-
	09/01/1992	-	51,000	-	-	-	-	-
	11/30/1992	-	48,000	-	-	-	-	-
	03/01/1993	-	20,000	-	-	-	-	-
	06/17/1993	200 U	2,200	600	200 U	200 U	200 U	200 U
	09/09/1993	1.7	9,100	-	6.3	1.0	1 U	30
	12/01/1993	-	16,000	-	-	-	-	-
	03/01/1994	-	20,000	-	-	-	-	-
	04/25/1994	500 U	16,000	760	500 U	500 U	500 U	500 U
	06/30/1994	250 U	27,000	300	250 U	250 U	250 U	250 U
	09/01/1994	-	21,000	-	-	-	-	-
	12/01/1994	-	19,000	-	-	-	-	-
	04/25/1995	-	12,400	-	-	-	-	-
	06/01/1995	-	3,200	-	-	-	-	-
	09/01/1995	-	3,500	-	-	-	-	-
	06/01/1996	-	3,000	-	-	-	-	-
	12/01/1996	-	560	-	-	-	-	-
	09/01/1997	-	900	-	-	-	-	-
	12/05/1997	100 U	6,250	135	100 U	100 U	100 U	100 U
	03/01/1998	-	1,450	-	-	-	-	-
09/01/2000	-	150	-	-	-	-	-	
12/14/2006	0.5 U	453	241	1.2	0.55	0.5 U	3.5	
02/21/2007	-	510	-	-	-	-	-	

**Table 7**  
**Source Zone Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride
DMW-17 (cont'd)	03/23/2009	1 U	408	107	0.65 J	0.32 J	-	1.1
	06/01/2009	1 U	734	254	1.7	1 U	-	2.5
	09/14/2009	1 U	388	203	1 U	1 U	-	1.4
	12/03/2009	0.5 U	216	80	0.74	0.41 J	-	2.3
	03/24/2010	1 U	466	209	1.4	0.70 J	-	26
	12/10/2010	1 U	1,110	415	1.5	1 U	-	5.8
	03/22/2011	0.5 U	443	89	0.55	0.32 J	-	1.2
	09/26/2011	0.5 U	247	142	0.98	0.5 U	-	1.1
	07/12/2012	0.5 U	244	79	0.5 U	0.5 U	-	0.55
	03/19/2013	1 U	200	56	0.41 J	1 U	-	1.2
	04/15/2013	2 U	180	32	2 U	2 U	-	2 U
	06/03/2013	1 U	9.7	2,200	13	1.6	-	2.4
	07/01/2013	20 U	20 U	2,300	13	20 U	-	70
	09/04/2013	100 U	100 U	350	100 U	100 U	-	120
	12/10/2013	1 U	1 U	77	0.81 J	1 U	-	34
	03/17/2014	1 U	0.76 J	34	1 U	1 U	-	14
	06/03/2014	1 U	1.6	63	1 U	1 U	-	22
	09/24/2014	1 U	4.3	78	1 U	1 U	-	11 J <sup>1</sup>
	12/02/2014	1 U	9.4	56 J <sup>1</sup>	1 U	0.43 J	-	5.2 J <sup>1</sup>
	03/10/2015	1 U	3.7	110	0.81 J	1 U	-	5.8
	06/10/2015	1 U	3.7	93	0.52 J	0.43 J	-	7.9
	09/01/2015	1 U	3.1	36	1 U	1 U	-	4.3
	12/15/2015	0.5 U	14	35	0.5 U	0.5 U	-	1.2
	03/03/2016	0.5 U	53	147	1.0	0.68	0.5 U	8.8
	06/13/2016	0.5 U	161	34	0.5 U	0.5 U	0.5 U	1.0
	09/06/2016	0.5 U	28	34	0.5 U	0.5 U	0.5 U	0.78
	09/06/2016	0.5 U	38	23	0.5 U	0.5 U	0.5 U	0.86
	03/07/2017	0.5 U	24	33	0.5 U	0.5 U	0.5 U	0.68
	06/08/2017	0.5 U	38	36	0.5 U	0.5 U	0.5 U	0.5 U
	09/14/2017	0.5 U	6.3	17	0.5 U	0.5 U	0.5 U	0.55
	12/05/2017	0.5 U	22	24	0.5 U	0.5 U	0.5 U	0.55
	03/05/2018	0.5 U	20 J <sup>1</sup>	84	0.5 U	0.5 U	0.5 U	1.7
	06/05/2018	0.5 U	29	42	0.5 U	0.5 U	0.5 U	1.2
	09/14/2018	0.5 U	27	29	0.5 U	0.5 U	0.5 U	0.87
	12/04/2018	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	03/05/2019	0.5 U	2.2	1.9	0.5 U	0.5 U	0.5 U	0.5 U
	06/04/2019	0.5 U	11	24	0.5 U	0.5 U	0.5 U	0.65
	09/11/2019	0.5 U	5.9	7.7	0.5 U	0.5 U	0.5 U	0.5 U
	12/18/2019	0.5 U	7.7	5.5	0.5 U	0.5 U	0.5 U	0.5 U
	03/10/2020	0.5 U	15	12	0.5 U	0.5 U	0.5 U	0.5 U
	06/02/2020	0.5 U	13	7.1	0.5 U	0.5 U	0.5 U	0.5 U
	09/17/2020	0.5 U	13	9.1	0.5 U	0.5 U	0.5 U	0.5 U
	12/10/2020	0.5 U	18	15	0.5 U	0.5 U	0.5 U	0.5 U

**Table 7**  
**Source Zone Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride
IMW-17	06/10/2009	2.5 U	786	1,450	6.0	5.9	-	74
	08/06/2009	5 U	3,670	1,870	9.1	7.4	-	39
	09/15/2009	10 U	4,850	1,270	10 U	10 U	-	20
	03/26/2010	25 U	16,800	5,370	29	22 J	-	93
	03/23/2011	50 U	41,800	15,600	60	55	-	244
	03/20/2013	1 U	620	620	2.4	2.1	-	1.3
	06/03/2013	5 U	35	900	5.6	5 U	-	7.8
	07/01/2013	5 U	20	1,500	7.9	5 U	-	5.6
	03/17/2014	25 U	25 U	130	25 U	25 U	-	18 J
	06/03/2014	25 U	24 J	650	25 U	25 U	-	64
	03/10/2015	25 U	57	240	25 U	25 U	-	25 U
	03/03/2016	0.5 U	17	46	0.65	0.5 U	0.5 U	2.3
	03/07/2017	0.5 U	197	62	0.82	0.5 U	0.5 U	1.0
	03/06/2018	0.5 U	223 J <sup>1</sup>	197	1.6	0.5 U	0.5 U	0.85
	03/05/2019	0.5 U	208	18	0.5 U	0.5 U	0.5 U	0.5 U
03/10/2020	0.5 U	1,180	307	0.96	0.5 U	0.5 U	0.5 U	
DMW-23	06/10/2009	500 U	202,000	1,640	500 U	500 U	-	500 U
	08/06/2009	100 U	46,300	1,140	100 U	100 U	-	100 U
	09/15/2009	100 U	49,500	1,390	100 U	100 U	-	100 U
	03/26/2010	100 U	45,400	1,120	100 U	100 U	-	100 U
	03/22/2011	50 U	37,900	1,080	50 U	50 U	-	50 U
	02/27/2012	50 U	36,400	723	50 U	50 U	-	50 U
	07/12/2012	50 U	21,800	351	50 U	50 U	-	50 U
	03/19/2013	250 U	43,000	670	250 U	250 U	-	250 U
	06/03/2013	250 U	21,000	250 U	250 U	250 U	-	250 U
	07/01/2013	250 U	19,000	500	200 U	200 U	-	200 U
	09/04/2013	200 U	15,000	490	200 U	200 U	-	200 U
	12/11/2013	20 U	16,000	380	20 U	20 U	-	20 U
	03/18/2014	50 UJ <sup>1</sup>	11,000 J <sup>1</sup>	360	50 U	50 U	-	50 U
	06/03/2014	500 U	8,200	250 J	500 U	500 U	-	500 U
	09/23/2014	500 U	13,000	360 J	500 U	500 U	-	500 UJ <sup>1</sup>
	12/03/2014	200 U	13,000	390	200 U	200 U	-	200 U
	03/09/2015	200 U	12,000	340	200 U	200 U	-	200 U
	06/11/2015	200 U	12,000	280	200 U	200 U	-	200 U
	09/02/2015	200 U	15,600	436	200 U	200 U	-	200 U
	12/15/2015	0.5 U	12,500	67	0.73	0.5 U	-	0.5 U
	03/07/2016	1.7	12,000	662	5.1	1.4	0.5 U	0.98
	06/15/2016	50 U	14,900	359	50 U	50 U	50 U	50 U
	09/14/2016	3.8 J <sup>1</sup>	18,900 J <sup>1</sup>	457 J <sup>1</sup>	3.8 J <sup>1</sup>	2.5 UJ <sup>1</sup>	2.5 UJ <sup>1</sup>	2.5 UJ <sup>1</sup>
12/05/2016	3.1	14,000	332	1.8	1.5	0.5 U	1.5	
03/08/2017	100 U	21,100	330	100 U	100 U	100 U	100 U	
06/08/2017	4.1	15,700	337	7.9	1.6	0.5 U	1.3	
09/18/2017	100 U	14,400	531	100 U	100 U	100 U	100 U	
12/11/2017	5 U	12,600	432	5 U	5 U	5 U	5 U	

**Table 7**  
**Source Zone Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride
DMW-23 (cont'd)	03/07/2018	2.6	9,120 J <sup>1</sup>	447	2.6	1.6	0.5 U	1.6
	06/06/2018	2.4	8,540	379	2.3	1.6	0.5 U	1.2
	09/10/2018	2.8	14,500	563	15	1.4	0.5 U	1.2
	12/04/2018	3.5	15,700	563	11	1.6	0.5 U	1.4
	03/11/2019	2.0	8,790	363	2.3	1.6	0.5 U	1.1
	06/04/2019	100 U	10,500	454	100 U	100 U	100 U	100 U
Duplicate (MW-99)	06/04/2019	1.9	11,700	481	2.7	1.8 J <sup>1</sup>	0.5 U	0.92
	09/10/2019	100 U	13,200	491	100 U	100 U	100 U	100 U
	12/18/2019	100 U	12,900	570	100 U	100 U	100 U	100 U
	03/12/2020	1.8	10,500	530	7.9	1.7	0.5 U	0.96
	06/02/2020	100 U	8,470	444	100 U	100 U	100 U	100 U
	09/17/2020	125 U	14,300	531	125 U	125 U	125 U	125 U
12/10/2020	100 U	11,800	513	100 U	100 U	100 U	100 U	
DMW-24	06/03/2009	2.4	3,970	180	1.2	0.5 U	-	0.61
	08/06/2009	1.3 J	2,050	130	5 U	5 U	-	5 U
	09/15/2009	5 U	2,000	108	5 U	5 U	-	5 U
	03/25/2010	1.6 J	3,140	330	1.6 J	0.85 J	-	3.6 J
	03/23/2011	2.4 J	3,270	161	1.3 J	5 U	-	5 U
	02/27/2012	1.3 J	1,720	137	2.5 U	2.5 U	-	2.5 U
	07/12/2012	5 U	1,800	141	5 U	5 U	-	5 U
	03/19/2013	5 U	1,400	110	5 U	5 U	-	5 U
	04/15/2013	10 U	1,600	100	10 U	10 U	-	10 U
	06/03/2013	10 U	1,800	570	10 U	10 U	-	10 U
	07/02/2013	10 U	2,000	550	10 U	10 U	-	10 U
	07/31/2013	25 U	2,900	500	25 U	25 U	-	25 U
	09/05/2013	2.5 J	3,300	520	2.9 J	5 U	-	3.1 J
	12/10/2013	1.8 J	2,900	290	2.4	0.98 J	-	1.4 J
	03/17/2014	50 U	1,400	410	50 U	50 U	-	50 U
	06/04/2014	50 U	2,400	320	50 U	50 U	-	50 U
	09/23/2014	50 U	900	200	50 U	50 U	-	50 UJ <sup>1</sup>
	12/03/2014	20 U	820	230	20 U	20 U	-	20 U
	03/11/2015	20 U	890	200	20 U	20 U	-	20 U
	06/11/2015	20 U	680	160	20 U	20 U	-	20 U
	09/01/2015	20 U	923	230	20 U	20 U	-	20 U
	12/14/2015	0.5 U	619	141	0.80	0.58	-	1.1
	03/07/2016	2.5 U	705	298	2.5 U	2.5 U	2.5 U	5.2
	06/15/2016	2.5 U	836	166	2.5 U	2.5 U	2.5 U	2.5 U
	09/14/2016	0.56	807	195	1.1	0.67	0.5 U	1.2
	12/05/2016	0.5 U	772	188	1.1	0.71	0.5 U	1.2
	03/09/2017	5 U	711	202	5 U	5 U	5 U	5 U
06/08/2017	0.5 U	720	155	1.3	0.88	0.5 U	0.66	
09/18/2017	5 U	783	150	5 U	5 U	5 U	5 U	
12/11/2017	0.5 U	794	145	0.86	0.72	0.5 U	0.5 U	
03/06/2018	0.5 U	498 J <sup>1</sup>	172	1.0	0.80	0.5 U	0.78	

**Table 7**  
**Source Zone Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride
DMW-24 (cont'd)	06/06/2018	0.5 U	746	172	1.0	0.81	0.5 U	0.52
	09/10/2018	0.5 U	982	152	1.0	0.80	0.5 U	0.5 U
	12/04/2018	0.5 U	800	142	0.94	0.74	0.5 U	0.5 U
	03/11/2019	0.5 U	643	130	0.77	0.60	0.5 U	0.5 U
	09/10/2019	10 U	712	120	10 U	10 U	10 U	10 U
	12/18/2019	10 U	697	124	10 U	10 U	10 U	10 U
	03/12/2020	0.5 U	756	153	0.84	0.76	0.5 U	0.5 U
	06/02/2020	10 U	646	113	10 U	10 U	10 U	10 U
	09/17/2020	5 U	868	121	5 U	5 U	5 U	5 U
	12/10/2020	10 U	797	124	10 U	10 U	10 U	10 U
	IMW-24	06/03/2008	50 U	25,800	3,320	50 U	50 U	-
08/06/2009		5 U	2,040	629	3.6 J	1.9 J	-	8.8
09/15/2009		10 U	4,500	728	10 U	10 U	-	10 U
03/25/2010		25 U	10,100	2,310	12 J	7.2 J	-	32
03/23/2011		50 U	36,900	5,720	22 J	15 J	-	86
03/20/2013		1 U	1,400	560	2.7	0.76 J	-	2.3
04/15/2013		10 U	3,600	620	10 U	10 U	-	2.7
06/03/2013		25 U	12 J	1,900	11 J	20 U	-	20 U
07/02/2013		25 U	1,600	2,100	12 J	25 U	-	25 U
07/31/2013		1 U	1,300	2,300	12	3.3	-	85
09/04/2013		25 U	120	480	25 U	25 U	-	82
12/10/2013		1 U	4.2	140	1.7	0.49 J	-	42
03/17/2014		1 U	300	260	1.2	0.66 J	-	28
06/04/2014		10 U	900	480	10 U	10 U	-	42
03/10/2015		10 U	1,600	350	10 U	10 U	-	20
03/03/2016		5 U	1,820	81	5 U	5 U	5 U	5 U
03/09/2017		10 U	1,810	130	10 U	10 U	10 U	10 U
03/06/2018		0.5 U	1,390 J <sup>1</sup>	44	0.5 U	0.5 U	0.5 U	0.5 U
03/08/2019		0.5 U	78	17	0.5 U	0.5 U	0.5 U	0.5 U
06/04/2019		10 U	890	148	10 U	10 U	10 U	10 U
03/11/2020	0.5 U	336	45	0.5 U	0.5 U	0.5 U	0.5 U	
DMW-25	06/05/2009	500 U	81,000	685	500 U	500 U	-	500 U
	08/06/2009	5 U	2,600	351	1.9 J	5 U	-	5 U
	09/15/2009	10 U	7,700	415	10 U	10 U	-	10 U
	03/26/2010	10 U	4,690	151	10 U	10 U	-	3.9 J
	03/22/2011	10 U	6,920	117	10 U	10 U	-	10 U
	02/27/2012	25 U	8,770	202	25 U	25 U	-	25 U
	07/13/2012	10 U	3,860	297	10 U	10 U	-	10 U
	03/20/2013	1 U	540	51	1 U	1 U	-	1 U
	04/15/2013	5 U	1,100	70	5 U	5 U	-	5 U
	06/03/2013	10 U	260	380	10 U	10 U	-	10 U
	07/01/2013	2 U	990	1400	11	1.7 J	-	2.9
	07/31/2013	25 U	2,600	1,400	25 U	25 U	-	20 J
	09/04/2013	25 U	4,600	860	25 U	25 U	-	46

**Table 7**  
**Source Zone Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride
DMW-25 (cont'd)	12/18/2013	50 U	2,800	330	50 U	50 U	-	19 J
	03/17/2014	50 U	4,100	240	50 U	50 U	-	50 U
	06/03/2014	50 U	3,500	220	50 U	50 U	-	50 U
	09/22/2014	5 U	230	130	5 U	5 U	-	12
	12/02/2014	5 U	1,100	220 J <sup>1</sup>	2.1 J <sup>1</sup>	2.0 J <sup>1</sup>	-	2.0 J <sup>1</sup>
	03/10/2015	5 U	360	66	5 U	5 U	-	5 U
	06/10/2015	5 U	370	68	5 U	5 U	-	5 U
	09/01/2015	5 U	646	138	5 U	5 U	-	5 U
	12/15/2015	0.5 U	108	22	0.5 U	0.5 U	-	0.5 U
	03/03/2016	0.5 U	1,480	275	2.1	2.1	0.5 U	2.3
	06/13/2016	0.5 U	948 J <sup>1</sup>	101	0.61	0.5 U	0.5 U	0.57
	09/07/2016	2.5 U	1,470	210	2.5 U	2.5 U	2.5 U	2.5 U
	12/05/2016	0.5 U	1,040	125	0.73	0.71	0.5 U	1.0
	03/08/2017	10 U	933	72	10 U	10 U	10 U	10 U
	06/09/2017	0.5 U	1,280	119	0.74	0.70	0.5 U	0.53
	09/18/2017	10 U	2,030	160	10 U	10 U	10 U	10 U
	12/05/2017	5 U	1,570	167	5 U	5 U	5 U	5 U
	03/06/2018	0.5 U	800 J <sup>1</sup>	123	0.68	0.78	0.5 U	1.4
	06/06/2018	5 U	1,170	117	5 U	5 U	5 U	5 U
	Duplicate (MW-99)	06/06/2018	0.5 U	1,360	129	0.70	0.63	0.5 U
09/17/2018		0.5 U	1,630	214	1.3	1.1	0.5 U	0.66
Duplicate (MW-99)	12/04/2018	0.5 U	184	39	0.5 U	0.5 U	0.5 U	0.5 U
	12/04/2018	0.5 U	182	40	0.5 U	0.5 U	0.5 U	0.5 U
	03/06/2019	10 U	676	88	10 U	10 U	10 U	10 U
	06/05/2019	5 U	697	106	5 U	5 U	5 U	5 U
	09/11/2019	5 U	1,470	182	5 U	5 U	5 U	5 U
	12/18/2019	5 U	1,860	205	5.3	5 U	5 U	5 U
	03/12/2020	0.5 U	762	110	0.55	0.5 U	0.5 U	0.5 U
	06/02/2020	50 U	767	105	50 U	50 U	50 U	50 U
	09/17/2020	50 U	1,310	178	50 U	50 U	50 U	50 U
	12/10/2020	10 U	1,250	163	10 U	10 U	10 U	10 U
IMW-25	06/05/2009	500 U	6,670	500 U	500 U	500 U	-	500 U
	08/06/2009	25 U	16,500	275	25 U	25 U	-	25 U
	09/15/2009	50 U	45,800	1,300	50 U	50 U	-	50 U
	03/26/2010	0.5 U	386	6.2	0.5 U	0.5 U	-	0.5 U
	03/23/2011	5 U	1,900	59	5 U	5 U	-	5 U
	03/20/2013	1 U	23	0.95 J	1 U	1 U	-	1 U
	04/15/2013	1 U	310	2.4	1 U	1 U	-	1 U
	07/02/2013	5 U	8,500	1,700	6.3	2.1 J	-	3.1 J
	03/18/2014	1 U	130	11	1 U	1 U	-	1 U
	03/10/2015	1 U	3,900	200	1.2	1 U	-	0.86 J
	03/03/2016	0.5 U	1,770	33	0.5 U	0.5 U	0.5 U	0.5 U
	03/08/2017	0.5 U	85	3.8	0.5 U	0.5 U	0.5 U	0.5 U
	03/06/2018	0.5 U	447 J <sup>1</sup>	15	0.5 U	0.5 U	0.5 U	0.5 U

**Table 7**  
**Source Zone Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride	
IMW-25 (cont'd)	03/06/2019	0.5 U	9.2	1.1	0.5 U	0.5 U	0.5 U	0.5 U	
	03/12/2020	0.5 U	677	23	0.5 U	0.5 U	0.5 U	0.5 U	
DMW-26	01/07/2015	0.56 J	360	26	1 U	1 U	-	1 U	
	03/11/2015	0.61 J	53	6.8	1 U	1 U	-	1 U	
	06/11/2015	1 U	100	16	1 U	1 U	-	1 U	
	09/02/2015	1 U	38	24	1 U	1 U	-	1 U	
	12/14/2015	0.5 U	25	4.4	0.5 U	0.5 U	-	0.5 U	
	03/02/2016	0.52	722	118	0.58	0.5 U	0.5 U	0.5 U	
	06/13/2016	0.5 U	60	7.9	0.5 U	0.5 U	0.5 U	0.5 U	
	09/07/2016	0.60	112	11	0.5 U	0.5 U	0.5 U	0.5 U	
	12/05/2016	0.63	49	5.6	0.5 U	0.5 U	0.5 U	0.5 U	
	03/08/2017	0.64	55	6.4	0.5 U	0.5 U	0.5 U	0.5 U	
	06/09/2017	0.62	55	7.4	0.5 U	0.5 U	0.5 U	0.5 U	
	09/14/2017	0.71	57	6.8	0.5 U	0.5 U	0.5 U	0.5 U	
	Duplicate (MW-99)	09/14/2017	0.66	57	6.9	0.5 U	0.5 U	0.5 U	0.5 U
		12/05/2017	0.71	50	7.0	0.5 U	0.5 U	0.5 U	0.5 U
		03/07/2018	0.5 U	16	3.8	0.5 U	0.5 U	0.5 U	0.5 U
		06/05/2018	0.5 U	24	3.8	0.5 U	0.5 U	0.5 U	0.5 U
		09/17/2018	0.66	48	5.4	0.5 U	0.5 U	0.5 U	0.5 U
12/04/2018		0.5 U	61	18	0.5 U	0.5 U	0.5 U	0.78	
03/07/2019		0.5 U	21	5.3	0.5 U	0.5 U	0.5 U	0.5 U	
06/05/2019		0.5 U	28	46	0.5 U	0.5 U	0.5 U	1.3	
09/13/2019		0.5 U	5.5	1.4	0.5 U	0.5 U	0.5 U	0.5 U	
12/18/2019		0.5 U	26	5.8	0.5 U	0.5 U	0.5 U	0.5 U	
Duplicate (MW-99)		12/18/2019	0.5 U	24	5.6	0.5 U	0.5 U	0.5 U	0.5 U
		03/10/2020	0.5 U	15	3.0	0.5 U	0.5 U	0.5 U	0.5 U
Duplicate (MW-99)		03/10/2020	0.5 U	14	2.6	0.5 U	0.5 U	0.5 U	0.5 U
	06/02/2020	0.5 U	7.8	2.0	0.5 U	0.5 U	0.5 U	0.5 U	
Duplicate (MW-99)	06/02/2020	0.5 U	7.5	1.7	0.5 U	0.5 U	0.5 U	0.5 U	
	09/23/2020	0.5 U	2.8	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
	12/10/2020	0.5 U	1.5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
IMW-26	06/10/2009	50 U	128,000	24,600	45 J	26 J	-	31 J	
	08/06/2009	100 U	41,400	6,300	100 U	100 U	-	100 U	
	09/15/2009	100 U	91,900	8,370	100 U	100 U	-	100 U	
	03/26/2010	50 U	32,400	10,000	87	50 U	-	50 U	
	03/23/2011	50 U	55,300	16,000	23 J	16 J	-	48 J	
	03/20/2013	1 U	430	74	0.53 J	1 U	-	1 U	
	03/18/2014	1 UJ <sup>1</sup>	64 J <sup>1</sup>	19	1 U	1 U	-	1 U	
	03/11/2015	1 U	280	47	1 U	1 U	-	1 U	
	03/02/2016	5 U	314	30	5 U	5 U	5 U	5 U	
	03/08/2017	0.5 U	184	23	0.5 U	0.5 U	0.5 U	0.5 U	
	03/07/2018	0.5 U	68 J <sup>1</sup>	19	0.5 U	0.5 U	0.5 U	0.5 U	
	03/07/2019	0.5 U	142	27	0.5 U	0.5 U	0.5 U	0.5 U	
	03/10/2020	0.5 U	20	4.9	0.5 U	0.5 U	0.5 U	0.5 U	

**Table 7**  
**Source Zone Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride	
DMW-27	03/20/2013	1 U	5.8	7.4	1 U	1 U	-	1 U	
	04/15/2013	1 U	5.2	7.0	1 U	1 U	-	1 U	
	03/18/2014	1 UJ <sup>1</sup>	32 J <sup>1</sup>	77	1 U	1 U	-	3.1	
	06/04/2014	1 U	0.59 J	21	1 U	1 U	-	18	
	09/23/2014	1 U	3.8	12	1 U	1 U	-	6.2	
	12/02/2014	1 U	1 U	16 J <sup>1</sup>	1 U	1 U	-	10 J <sup>1</sup>	
	03/12/2015	1 U	30	41	1 U	1 U	-	10	
	06/11/2015	1 U	2.1	24	1 U	1 U	-	6.8	
	09/01/2015	1 U	1.1	19	1 U	1 U	-	3.5	
	12/15/2015	0.5 U	0.51	1.1	0.5 U	0.5 U	-	0.5 U	
	03/02/2016	0.5 U	39	24	0.5 U	0.5 U	0.5 U	13	
	06/13/2016	0.5 U	0.71	32	0.5 U	0.5 U	0.5 U	3.1	
	09/06/2016	0.5 U	0.99	65	0.5 U	0.5 U	0.5 U	7.6	
	12/05/2016	0.5 U	0.80	34	0.5 U	0.5 U	0.5 U	3.9	
	03/07/2017	0.5 U	1.2	61	0.5 U	0.5 U	0.5 U	6.5	
	Duplicate (DMW-99)	03/07/2017	0.5 U	0.99	60	0.5 U	0.5 U	0.5 U	6.3
		06/08/2017	0.5 U	1.2	21	0.5 U	0.5 U	0.5 U	1.9
		09/14/2017	0.5 U	0.85	25	0.5 U	0.5 U	0.5 U	3.5
		12/05/2017	0.5 U	2.4	27	0.5 U	0.5 U	0.5 U	2.4
		03/05/2018	0.5 U	0.66 J <sup>1</sup>	24	0.5 U	0.5 U	0.5 U	3.0
06/05/2018		0.5 U	0.52	7.2	0.5 U	0.5 U	0.5 U	1.4	
09/14/2018		0.5 U	0.87	9.7	0.5 U	0.5 U	0.5 U	3.0	
12/04/2018		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
03/05/2019		0.5 U	0.80	11	0.5 U	0.5 U	0.5 U	1.9	
06/04/2019		0.5 U	1.0	7.8	0.5 U	0.5 U	0.5 U	1.1	
09/11/2019		0.5 U	0.5 U	2.1	0.5 U	0.5 U	0.5 U	0.58	
12/18/2019		0.5 U	0.5 U	4.2	0.5 U	0.5 U	0.5 U	1.5	
03/10/2020		0.5 U	0.74	1.5	0.5 U	0.5 U	0.5 U	0.5 U	
06/02/2020		0.5 U	0.5 U	2.1	0.5 U	0.5 U	0.5 U	0.5 U	
09/17/2020	0.5 U	0.5 U	2.9	0.5 U	0.5 U	0.5 U	0.81		
12/10/2020	0.5 U	0.5 U	2.4	0.5 U	0.5 U	0.5 U	0.5 U		
IMW-27	03/20/2013	1 U	16	13	1 U	1 U	-	1 U	
	04/15/2013	1 U	16	12	1 U	1 U	-	1 U	
	03/18/2014	1 U	4.7	78	1 U	1 U	-	30	
	06/04/2014	1 U	1 U	0.65 J	1 U	1 U	-	1 U	
	03/12/2015	1 U	160	22	1 U	1 U	-	0.82 J	
	03/02/2016	0.5 U	28	7.1	0.5 U	0.5 U	0.5 U	0.5 U	
	06/13/2016	0.5 U	39	32	0.5 U	0.5 U	0.5 U	13	
	03/07/2017	0.5 U	2.7	7.6	0.5 U	0.5 U	0.5 U	0.5 U	
	03/05/2018	0.5 U	0.5 UJ <sup>1</sup>	1.3	0.5 U	0.5 U	0.5 U	0.5 U	
	03/05/2019	0.5 U	0.5 U	1.2	0.5 U	0.5 U	0.5 U	0.5 U	
	03/10/2020	0.5 U	0.5 U	1.1	0.5 U	0.5 U	0.5 U	0.5 U	
	DMW-28	03/20/2013	0.87 J	700	12	1 U	1 U	-	1 U
06/04/2013		5 U	1,500	18	5 U	5 U	-	5 U	

**Table 7**  
**Source Zone Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride
DMW-28 (cont'd)	07/02/2013	10 U	1,100	15	10 U	10 U	-	10 U
	09/05/2013	0.86 J	1,100	15	1 U	1 U	-	0.54 J
	12/11/2013	0.82 J	500	14	1 U	1 U	-	0.31 J
	03/19/2014	0.76 J <sup>1</sup>	1,600 J <sup>1</sup>	14	1 U	1 U	-	1 U
	06/04/2014	50 U	1,400	50 U	50 U	50 U	-	50 U
	09/24/2014	5 U	190	73	5 U	5 U	-	5 U
	12/01/2014	5 U	1,200	43 J <sup>1</sup>	5 U	5 U	-	5 U
	03/11/2015	50 U	1,600	62	50 U	50 U	-	50 U
Duplicate (DMW-99)	03/11/2015	0.93 J	1,500	35	1 U	1 U	-	1 U
	06/11/2015	50 U	1,200	20 J	50 U	50 U	-	50 U
	09/02/2015	50 U	1,260	16 J	50 U	50 U	-	50 U
	12/15/2015	0.81	931	6.0	0.5 U	0.5 U	-	0.5 U
	03/03/2016	1.2	1,770	120	0.64	0.5 U	0.5 U	0.5 U
	06/13/2016	0.89	925 J <sup>1</sup>	140	0.62	0.5 U	0.5 U	0.5 U
	09/07/2016	2.5 U	1,370	125	2.5 U	2.5 U	2.5 U	2.5 U
	12/06/2016	1.3	1,140	155	1.2	0.76	0.5 U	0.5 U
	03/07/2017	10 U	731	118	10 U	10 U	10 U	10 U
	06/09/2017	0.5 U	383	75	0.5 U	0.5 U	0.5 U	0.5 U
	09/14/2017	0.61	614	157	0.80	0.5 U	0.5 U	0.5 U
	12/05/2017	0.51	664	109	0.54	0.5 U	0.5 U	0.5 U
	03/07/2018	0.5 U	328 J <sup>1</sup>	75	0.69	0.5 U	0.5 U	0.5 U
	06/06/2018	0.5 U	745	134	0.76	0.55	0.5 U	0.5 U
	09/17/2018	0.54	889	176	1.1	0.5 U	0.5 U	0.5 U
	12/04/2018	0.83	11,300	5,140	8.6	20	0.5 U	624
	01/15/2019	2.5 U	590	134	2.5 U	2.5 U	2.5 U	2.5 U
	03/06/2019	10 U	574	144	10 U	10 U	10 U	10 U
	06/05/2019	5 U	960	239	5 U	5 U	5 U	5 U
	09/12/2019	5 U	677 J <sup>1</sup>	164	5 U	5 U	5 U	5 U
12/18/2019	5 U	518	126	5 U	5 U	5 U	5 U	
03/11/2020	0.5 U	504	147	0.74	0.5 U	0.5 U	0.5 U	
06/02/2020	5 U	351	95	5 U	5 U	5 U	5 U	
09/18/2020	5 U	295	100	5 U	5 U	5 U	5 U	
12/10/2020	5 U	495	132	5 U	5 U	5 U	5 U	
IMW-28	03/20/2013	0.50 J	4,200	1,500	9.3	0.58 J	-	4.2
	07/02/2013	25 U	5,100	1,800	25 U	25 U	-	25 U
	12/11/2013	5 U	2,200	1,700	7.2	2.1 J	-	11
	03/19/2014	10 UJ <sup>1</sup>	5,500 J <sup>1</sup>	1,300	5.6 J	10 U	-	3.5 J
	03/11/2015	100 U	8,800	1,400	100 U	100 U	-	100 U
Duplicate (DMW-98)	03/03/2016	50 U	8,830	3,050	50 U	50 U	50 U	50 U
	03/03/2016	1.3	7,050	2,470	10	0.62	0.5 U	0.71
	03/06/2017	50 U	6,610	1,280	50 U	50 U	50 U	50 U
	03/07/2018	0.62	4,830 J <sup>1</sup>	390	2.0	0.5 U	0.5 U	0.5 U
	03/06/2019	50 U	2,780	553	50 U	50 U	50 U	50 U
03/10/2020	0.53	4,340	114	0.70	0.5 U	0.5 U	0.5 U	

**Table 7**  
**Source Zone Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride
DMW-29	03/19/2013	1 U	28	3.0	1 U	1 U	-	1 U
	04/15/2013	1 U	29	14	1 U	1 U	-	1 U
	05/09/2013	1 U	760	120	1.4	1 U	-	1 U
	06/03/2013	0.38	1,300	1 U	1.8	1 U	-	1 U
	07/02/2013	10 U	1,000	140	10 U	10 U	-	10 U
	07/31/2013	10 U	1,200	190	10 U	10 U	-	10 U
	09/04/2013	10 U	1,400	220	10 U	10 U	-	4.2 J
	12/11/2013	1 U	400	85	0.90 J	1 U	-	0.42 J
	03/19/2014	0.45 J <sup>1</sup>	1,500 J <sup>1</sup>	160	1.2	1 U	-	0.65 J
	03/19/2014	0.44 J <sup>1</sup>	1,600 J <sup>1</sup>	180	1.2	1 U	-	0.73 J
Duplicate (DMW-99)	06/03/2014	50 U	800	140	50 U	50 U	-	50 U
	09/23/2014	5 U	390	95	5 U	5 U	-	5 U
Duplicate (DMW-98)	09/23/2014	1 U	180	74	0.66 J	1 U	-	0.40 J <sup>1</sup>
	12/01/2014	5 U	310	75 J <sup>1</sup>	5 U	5 U	-	5 U
	03/09/2015	5 U	630	75	5 U	5 U	-	5 U
	06/11/2015	5 U	160	52	3.6 J	5 U	-	5 U
	09/02/2015	5 U	207	56	5 U	5 U	-	5 U
	12/14/2015	0.5 U	69	22	0.58	0.5 U	-	0.5 U
	03/07/2016	0.5 U	870	67	0.5 U	0.5 U	0.5 U	0.5 U
	06/15/2016	2.5 U	803	74	2.5 U	2.5 U	2.5 U	2.5 U
Duplicate (DMW-99)	06/15/2016	0.5 U	739	69	0.5 U	0.5 U	0.5 U	0.5 U
	09/14/2016	0.5 U	179	61	0.51	0.5 U	0.5 U	0.5 U
	12/05/2016	0.5 U	30	3.5	0.5 U	0.5 U	0.5 U	0.5 U
	03/07/2017	0.5 U	876	88	0.86	0.5 U	0.5 U	0.5 U
	06/08/2017	0.5 U	806	92	4.8	0.5 U	0.5 U	0.5 U
	09/18/2017	0.5 U	173	54	0.5 U	0.5 U	0.5 U	0.5 U
	12/11/2017	0.5 U	396	93	0.5 U	0.5 U	0.5 U	0.5 U
	12/11/2017	0.5 U	352	86	0.53	0.5 U	0.5 U	0.5 U
	03/07/2018	0.5 U	672 J <sup>1</sup>	90	0.52	0.5 U	0.5 U	0.5 U
	06/06/2018	0.5 U	465	91	0.94	0.5 U	0.5 U	0.5 U
Duplicate (MW-99)	09/10/2018	0.5 U	884	142	3.6	0.5 U	0.5 U	0.5 U
	12/04/2018	0.5 U	64	31	0.5 U	0.5 U	0.5 U	0.5 U
	03/11/2019	0.5 U	282	56	0.86	0.5 U	0.5 U	0.5 U
	06/04/2019	2.5 U	208	44	3.1	2.5 U	2.5 U	2.5 U
	09/10/2019	2.5 U	53	34	2.5 U	2.5 U	2.5 U	2.5 U
	12/18/2019	2.5 U	35	28	2.5 U	2.5 U	2.5 U	2.5 U
	03/12/2020	0.5 U	178	45	0.5 U	0.5 U	0.5 U	0.5 U
	06/02/2020	2.5 U	36	24	2.5 U	2.5 U	2.5 U	2.5 U
	09/17/2020	0.5 U	28	31	1.1	0.5 U	0.5 U	0.5 U
	12/10/2020	0.5 U	45	27	0.82	0.5 U	0.5 U	0.5 U
IMW-29	03/19/2013	50 U	9,400	420	50 U	50 U	-	50 U
	06/04/2013	50 U	8,000	640	50 U	50 U	-	50 U
	07/02/2013	50 U	6,700	560	50 U	50 U	-	50 U
	03/19/2014	20 UJ <sup>1</sup>	5,800 J <sup>1</sup>	270	20 U	20 U	-	20 U

**Table 7**  
**Source Zone Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride	
IMW-29 (cont'd)	03/11/2015	100 U	1,600	75 J	100 U	100 U	-	100 U	
	03/03/2016	2.3	19,100	152	1.3	0.5 U	0.5 U	0.62	
	03/06/2017	10 U	2,660	109	10 U	10 U	10 U	10 U	
	03/07/2018	1.1 J <sup>1</sup>	2,850	50	0.66	0.5 U	0.5 U	0.5 U	
	03/07/2019	0.59	1,810	31	0.5 U	0.5 U	0.5 U	0.5 U	
	03/11/2020	0.5 U	929	23	0.5 U	0.5 U	0.5 U	0.5 U	
DMW-30	12/14/2015	0.5 U	61	3.7	0.5 U	0.5 U	-	0.5 U	
	03/03/2016	0.5 U	835	179	0.79	0.51	0.5 U	0.5 U	
	06/13/2016	0.5 U	92 J <sup>1</sup>	21	0.5 U	0.5 U	0.5 U	0.5 U	
	09/08/2016	0.5 U	153	8.7	0.5 U	0.5 U	0.5 U	0.5 U	
	12/06/2016	0.5 U	111	7.4	0.5 U	0.5 U	0.5 U	0.5 U	
	03/06/2017	0.5 U	200	25	0.5 U	0.5 U	0.5 U	0.5 U	
	06/08/2017	0.5 U	386	91	0.63	0.5 U	0.5 U	0.5 U	
	09/14/2017	0.5 U	90	50	0.5 U	0.5 U	0.5 U	0.5 U	
	12/05/2017	0.5 U	76	28	0.5 U	0.5 U	0.5 U	0.5 U	
	03/07/2018	0.5 U	841	172	0.5 U	0.5 U	0.5 U	0.5 U	
	03/07/2018	0.5 U	834	180	0.5 U	0.5 U	0.5 U	0.5 U	
Duplicate (MW-98)	06/05/2018	0.5 U	171	76	0.5 U	0.5 U	0.5 U	0.5 U	
	09/14/2018	0.5 U	95	79	0.5 U	0.5 U	0.5 U	0.5 U	
	12/04/2018	0.5 U	50	67	0.5 U	0.5 U	0.5 U	0.5 U	
	03/07/2019	0.5 U	157	16 J	0.5 U	0.5 U	0.5 U	0.5 U	
	03/07/2019	0.5 U	1,450	246 J	1.1	0.5 U	0.5 U	0.5 U	
(MW-98)*	06/05/2019	0.5 U	169	49	0.5 U	0.5 U	0.5 U	0.5 U	
	09/13/2019	0.5 U	32	53	0.5 U	0.5 U	0.5 U	0.5 U	
	12/18/2019	0.5 U	38	74	0.5 U	0.5 U	0.5 U	0.5 U	
	03/10/2020	0.5 U	123	27	0.5 U	0.5 U	0.5 U	0.5 U	
	06/02/2020	0.5 U	17	4.4	0.5 U	0.5 U	0.5 U	0.5 U	
	09/18/2020	0.5 U	22	9.6	0.5 U	0.5 U	0.5 U	0.5 U	
	12/10/2020	0.5 U	27	62	0.5 U	0.5 U	0.5 U	0.5 U	
	12/10/2020	0.5 U	32	73	0.5 U	0.5 U	0.5 U	0.5 U	
	IMW-30	03/20/2013	1 U	38	100	1 U	1 U	-	2.0
		03/19/2014	1 UJ <sup>1</sup>	300 J <sup>1</sup>	490	1.7	0.45 J	-	5.0
03/11/2015		1 U	15	50	1 U	1 U	-	2.0	
03/03/2016		0.5 U	192	79	0.5 U	0.5 U	0.5 U	0.54	
03/06/2017		2.5 U	291	108	2.5 U	2.5 U	2.5 U	2.5 U	
03/07/2018		0.5 U	1,140 J <sup>1</sup>	227	1.2	0.5 U	0.5 U	0.85	
03/07/2019		0.5 U	1,420	258	1.3	0.5 U	0.5 U	0.53	
03/11/2020		0.5 U	606	214	1.3	0.5 U	0.5 U	0.5 U	
IMW-31		03/19/2013	1 U	33	9.8	1 U	1 U	-	1 U
		03/19/2014	0.40 J <sup>1</sup>	2,000 J <sup>1</sup>	85	0.48 J	1 U	-	1 U
		03/11/2015	1 U	59	36	1 U	1 U	-	1.4
	03/03/2016	0.57	4,270	50	0.5 U	0.5 U	0.5 U	0.5 U	
	03/06/2017	25 U	6,320	212	25 U	25 U	25 U	25 U	
	03/07/2018	0.5 U	1,450	87	0.91	0.5 U	0.5 U	0.5 U	

**Table 7**  
**Source Zone Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride
IMW-31 (cont'd)	03/07/2019	25 U	1,900	65	25 U	25 U	25 U	25 U
	03/11/2020	0.5 U	159	29	0.5 U	0.5 U	0.5 U	0.5 U
DMW-32	01/19/2015	0.47 J	370	0.39 J	1 U	1 U	-	1 U
	03/12/2015	1 U	66	16	1 U	1 U	-	1 U
	06/10/2015	1 U	39	1 U	1 U	1 U	-	1 U
	09/03/2015	1 U	215	0.42 J	1 U	1 U	-	1 U
	12/16/2015	0.5 U	366	4.0	0.5 U	0.5 U	-	0.5 U
	03/03/2016	0.5 U	70 J <sup>1</sup>	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	06/15/2016	0.5 U	33	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	09/08/2016	0.5 U	174	7.1	0.5 U	0.5 U	0.5 U	0.5 U
	12/06/2016	0.5 U	187	17	0.5 U	0.5 U	0.5 U	0.5 U
	03/06/2017	0.5 U	115	13	0.5 U	0.5 U	0.5 U	0.5 U
	06/08/2017	0.5 U	80	20	0.5 U	0.5 U	0.5 U	0.5 U
	09/14/2017	0.5 U	148	37	0.5 U	0.5 U	0.5 U	0.5 U
	12/05/2017	0.5 U	116	28	0.5 U	0.5 U	0.5 U	0.5 U
	03/07/2018	0.5 U	89	39	0.5 U	0.5 U	0.5 U	0.64
	06/05/2018	0.5 U	79	24	0.5 U	0.5 U	0.5 U	0.5 U
	09/13/2018	0.5 U	148	45	0.5 U	0.5 U	0.5 U	0.5 U
	12/04/2018	0.5 U	197	51	0.5 U	0.5 U	0.5 U	0.5 U
	03/07/2019	0.5 U	83	44	0.5 U	0.5 U	0.5 U	4.3
	09/13/2019	0.5 U	136 J <sup>1</sup>	46	0.5 U	0.5 U	0.5 U	0.5 U
	03/10/2020	0.5 U	108	42	0.5 U	0.5 U	0.5 U	0.5 U
09/21/2020	0.5 U	19	135	0.68	2.5 U	0.5 U	42	
IMW-32	12/14/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	-	0.5 U
	03/03/2016	0.5 U	8.4 J <sup>1</sup>	1.9	0.5 U	0.5 U	0.5 U	0.5 U
	06/15/2016	0.5 U	0.53	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	09/08/2016	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	12/06/2016	0.5 U	7.8	0.63	0.5 U	0.5 U	0.5 U	0.5 U
	03/06/2017	0.5 U	0.99	0.57	0.5 U	0.5 U	0.5 U	0.5 U
	06/08/2017	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	09/14/2017	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	12/05/2017	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	03/07/2018	0.5 U	3.0	0.51	0.5 U	0.5 U	0.5 U	0.5 U
	09/13/2018	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	03/07/2019	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	09/13/2019	0.5 U	0.5 UJ <sup>1</sup>	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	03/10/2020	0.5 U	3.7	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
09/21/2020	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
DMW-36	01/08/2015	1 U	87	10	1 U	1 U	-	1 U
	03/13/2015	1 U	5.8	7.3	1 U	1 U	-	1 U
	06/11/2015	1 U	5.8	13	1 U	1 U	-	1 U
	09/03/2015	1 U	3.5	15	1 U	1 U	-	1 U
	12/16/2015	0.5 U	4.5	7.0	0.5 U	0.5 U	-	0.5 U

**Table 7**  
**Source Zone Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride
DMW-36 (cont'd)	03/03/2016	0.5 U	14 J <sup>1</sup>	5.0	0.5 U	0.5 U	0.5 U	0.5 U
	09/08/2016	0.5 U	4.9	2.7	0.5 U	0.5 U	0.5 U	0.5 U
	03/09/2017	0.5 U	2.0	1.8	0.5 U	0.5 U	0.5 U	0.5 U
	09/18/2017	0.5 U	2.6	5.1	0.5 U	0.5 U	0.5 U	0.5 U
	03/07/2018	0.5 U	4.2	4.4	0.5 U	0.5 U	0.5 U	0.5 U
	09/14/2018	0.5 U	1.8	8.3	0.5 U	0.5 U	0.5 U	0.5 U
	03/06/2019	0.5 U	1.5	8.4	0.5 U	0.5 U	0.5 U	0.5 U
	09/13/2019	0.5 U	3.0	12	0.5 U	0.5 U	0.5 U	0.5 U
	03/12/2020	0.5 U	2.0	6.8	0.5 U	0.5 U	0.5 U	0.5 U
	09/23/2020	0.5 U	2.0	6.9	0.5 U	0.5 U	0.5 U	0.5 U
DMW-40	12/14/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	-	0.5 U
	03/03/2016	0.5 U	0.74 J <sup>1</sup>	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	06/13/2016	0.5 U	0.5 U	1.7	0.5 U	0.5 U	0.5 U	0.5 U
	09/07/2016	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	12/06/2016	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	03/06/2017	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	09/14/2017	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	03/07/2018	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	09/13/2018	0.5 U	0.55	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	03/06/2019	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	09/12/2019	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	03/10/2020	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	09/18/2020	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IMW-40	12/14/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	-	0.5 U
	03/03/2016	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	06/13/2016	0.5 U	0.88 J <sup>1</sup>	0.61	0.5 U	0.5 U	0.5 U	0.5 U
	09/07/2016	0.5 U	0.54	1.3	0.5 U	0.5 U	0.5 U	0.5 U
	12/06/2016	0.5 U	0.92	1.5	0.5 U	0.5 U	0.5 U	0.5 U
	03/06/2017	0.5 U	0.81	1.7	0.5 U	0.5 U	0.5 U	0.5 U
	09/14/2017	0.5 U	0.88	2.6	0.5 U	0.5 U	0.5 U	0.5 U
	03/07/2018	0.5 U	0.79	1.7	0.5 U	0.5 U	0.5 U	0.5 U
	09/13/2018	0.5 U	1.5	1.9	0.5 U	0.5 U	0.5 U	0.5 U
	03/06/2019	0.5 U	0.70	1.4	0.5 U	0.5 U	0.5 U	0.5 U
	09/12/2019	0.5 U	1.3 J <sup>1</sup>	1.5	0.5 U	0.5 U	0.5 U	0.5 U
	03/10/2020	0.5 U	0.67	1.1	0.5 U	0.5 U	0.5 U	0.5 U
	09/18/2020	0.5 U	0.82	1.3	0.5 U	0.5 U	0.5 U	0.5 U
DMW-41	12/16/2015	0.5 U	1,650	261	1.3	0.95	-	0.5 U
Duplicate (MW-99)	12/16/2015	2.5 U	1,190	254	2.5 U	2.5 U	-	2.5 U
	03/03/2016	2.5 U	2.5 U	2,190	9.5	3.2	2.5 U	2.5 U
	06/15/2016	10 U	106	36,800	134	44	10 U	46
	09/14/2016	0.5 U	1,510	99	0.5 U	0.5 U	0.5 U	0.5 U
	12/07/2016	0.5 U	1,760	153	0.69	0.61	0.5 U	0.5 U
Duplicate (MW-99)	12/07/2016	0.5 U	1,840	153	0.70	0.61	0.5 U	0.5 U

**Table 7**  
**Source Zone Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride
DMW-41 (cont'd)	03/09/2017	10 U	1,880	129	10 U	10 U	10 U	10 U
	09/19/2017	10 U	1,360	115	10 U	10 U	10 U	10 U
	03/13/2018	10 U	1,750	148	10 U	10 U	10 U	10 U
Duplicate (MW-97)	03/13/2018	0.5 U	1,540	135	0.73	0.5 U	0.5 U	0.64
	09/14/2018	0.5 U	1,890	315	1.6	0.97	0.5 U	2.7
	03/07/2019	0.5 U	58	7.9	0.5 U	0.5 U	0.5 U	0.5 U
	09/12/2019	0.5 U	1,560	206	0.85	0.73	0.5 U	0.5 U
	03/12/2020	0.5 U	1,680	192	0.85	0.61	0.5 U	0.71
	09/23/2020	25 U	2,260	181	25 U	25 U	25 U	25 U
<b>DEQ RBC Screening Level Criteria for Water<sup>a</sup></b>								
Ingestion and Inhalation of Tap Water								
Residential		12	0.49	36	360	280	2.8	0.027
Volatilization to Outdoor Air								
Residential		64,000	3,300	>S	>S	570,000	16,000	350
Occupational		>S	20,000	>S	>S	2,400,000	68,000	5,900
Vapor Intrusion into Buildings								
Residential		3,700	200	>S	>S	29,000	1,100	17
Occupational		48,000	3,700	>S	>S	360,000	14,000	880
GW in Excavation								
Construction & Excavation Worker		5,600	430	18,000	180,000	44,000	10,000	960
<b>Portland Harbor JSCS Levels</b>								
Upland Source Control Screening Level <sup>b</sup>		0.33	3.0	NA	1,000	NA	NA	0.24
2004 AWQC (Human Health - Organism Only) <sup>c</sup>		3.3	30	NA	10,000	NA	NA	2.4
2004 AWQC (Ecological Receptors - Chronic) <sup>d</sup>		840	21,900	NA	NA	NA	NA	NA
Oak Ridge Tier II (Ecological Receptors) <sup>e</sup>		98	47	590	590	25 <sup>g</sup>	-	930 <sup>f</sup>

**Table 7**  
**Source Zone Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

**Notes:**

<sup>a</sup> Oregon Department of Environmental Quality (DEQ) Generic Risk-based concentrations (revised May 2018)

<sup>b</sup> DEQ, Portland Harbor JSCS, Table 3-1 (revised 7/16/07). Values listed are based on human health via fish ingestion

<sup>c</sup> DEQ, Portland Harbor JSCS, Table 3-1 (revised 7/16/07). Per DEQ's Ambient Water Quality Criteria for Organisms Only (DEQ 2004)

<sup>d</sup> DEQ, Portland Harbor JSCS, Table 3-1 (revised 7/16/07). Per DEQ's Ambient Water Quality Criteria - Ecologic Receptors - Chronic (DEQ 2004)

<sup>e</sup> DEQ, Portland Harbor JSCS, Table 3-1 (revised 7/16/07). Per Oak Ridge National Laboratory's Water Quality Criteria - Ecological Receptors - Tier II SCV

<sup>f</sup> Ecological screening value adopted by EPA in Regions 3,5 and 6.

<sup>g</sup> EPA Region III BTAG Freshwater Screening Benchmarks (July 2006)

MW-98\* sampled on 3/7/2019 at 11:04 was mislabeled and is not a duplicate sample. This sample should have been labeled as an experimental sample testing new sampling techniques.

ug/L = Micrograms per liter

U = not detected at the associated reporting limit

NA = not applicable

- = not available or not analyzed for this parameter

C = results of coelution

E = value reported exceeds linear calibration range; estimated concentration.

D = result from diluted analysis

J = estimated trace concentration

J<sup>1</sup> = Data Validation Qualifier. The numerical value reported is approximate. See Data Validation report for further information.

>S = This RBC exceeds the solubility limit

**Table 8**  
**Hardboard Area Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride
<b>Hardboard Area Wells</b>								
DMW-2	04/03/1986	-	47,000	-	-	-	-	-
	05/28/1986	-	223,000	-	-	-	-	-
	06/27/1986	1,000 U	260,000	-	6,700	1,000 U	1,000 U	4,200
	07/30/1986	-	129,000	-	-	-	-	-
	09/04/1986	-	358,000	-	-	-	-	-
	10/13/1986	-	335,000	-	-	-	-	-
	11/14/1986	-	87,000	-	-	-	-	-
	12/22/1986	23	290,000	-	26,000	78	26	1,014
	06/29/1987	10,000 U	100,000	-	17,000	5,000 U	5,000 U	10,000 U
	09/23/1987	2,000 U	58,000	-	9,000	1,000 U	1,000 U	2,000 U
	12/22/1987	33	450,000	-	23,000	97	15	1,500
	03/29/1988	1,000 U	460,000	-	1,000 U	1,000 U	1,000 U	1,000 U
	06/01/1988	1,000 U	440,000	76,000	1,000 U	1,000 U	1,000 U	2,000
	09/01/1988	2,000 U	630,000	50,000	2,000 U	2,000 U	2,000 U	2,000 U
	01/03/1989	100 U	710,000	-	41,000	100 U	100 U	3,500
	03/17/1989	700 U	360,000	8,700	700 U	700 U	700 U	2,000
	06/15/1989	4,000 U	860,000	20,000	4,000 U	4,000 U	4,000 U	4,000 U
	09/12/1989	1,000 U	480,000	12,000	1,000 U	1,000 U	1,000 U	1,000 U
	10/27/1989	56	580,000	-	-	130	50 U	3,300 E
	12/28/1989	1,000 U	520,000	-	1,000 U	1,000 U	1,000 U	1,100
	03/16/1990	1,000 U	660,000	16,000	1,000 U	1,000 U	1,000 U	1,000 U
	12/12/1990	3,600 U	400,000	-	-	3,600 U	3,600 U	7,100 U
	03/15/1991	10,000 U	290,000	10,000 U	10,000	10,000 U	10,000 U	10,000 U
	06/04/1991	10,000 U	210,000	10,000 U	10,000 U	10,000 U	10,000 U	10,000 U
	09/04/1991	5,000 U	190,000	-	-	5,000 U	5,000 U	10,000 U
	12/06/1991	5,000 U	140,000	8,000	5,000 U	5,000 U	5,000 U	5,000 U
	03/16/1992	1,000 U	83,000	5,000	1,000 U	1,000 U	1,000 U	1,000 U
	06/01/1992	-	71,000	-	-	-	-	-
	09/03/1992	5,000 U	44,000	-	-	5,000 U	5,000 U	10,000 U
	11/30/1992	-	53,300	-	-	-	-	-
	03/01/1993	-	28,000	-	-	-	-	-
	06/17/1993	500 U	20,000	5,500	500 U	500 U	500 U	500 U
	09/08/1993	4.0 J	17,000	-	33	15	5 U	81
	12/01/1993	-	10,200	-	-	-	-	-
	03/01/1994	-	18,000	-	-	-	-	-
	04/25/1994	200 U	12,000	6.9	310	200 U	200 U	200 U
	06/30/1994	2.0 J	8,500	-	-	8.0	5 U	72
	09/01/1994	-	11,000	-	-	-	-	-
	12/01/1994	-	10,000	-	-	-	-	-
	04/25/1995	-	8,000	-	-	-	-	-
	06/06/1995	2.0 J	3,800	-	-	7.0	5 U	97
	09/01/1995	-	5,300	-	-	-	-	-
	12/01/1995	-	1,600	-	-	-	-	-

**Table 8**  
**Hardboard Area Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride
DMW-2 (cont'd)	03/01/1996	-	1,600	-	-	-	-	-
	06/01/1996	-	2,000	-	-	-	-	-
	09/05/1996	1.0 J	3,400	-	-	5.0	5 U	110
	12/01/1996	-	500	-	-	-	-	-
	03/01/1997	-	1,050	-	-	-	-	-
	06/20/1997	200 U	2,800	1,900	200 U	200 U	200 U	200 U
	09/01/1997	-	600	-	-	-	-	-
	12/01/1997	-	1,270	-	-	-	-	-
	03/01/1998	-	1,480	-	-	-	-	-
	06/19/1998	1.0	1,710	818	10	2.0	1 U	186
	09/01/1998	-	2,810	-	-	-	-	-
	08/30/1999	50 U	2,000	730	50 U	50 U	50 U	91
	08/22/2000	1 U	810	-	1.8	1 U	1 U	72
	07/31/2001	-	1,630	-	-	-	-	-
	09/20/2001	-	1,930	-	-	-	-	-
	12/18/2001	-	820	-	-	-	-	-
	03/06/2002	-	155	-	-	-	-	-
	09/18/2002	-	2,700	-	-	-	-	-
	03/19/2003	-	1,680	-	-	-	-	-
	09/22/2003	-	1,790	-	-	-	-	-
	09/09/2004	-	1,460	-	-	-	-	-
	08/08/2006	-	2,350	-	-	-	-	-
	12/14/2006	0.59	2,690	516	3.1	3.1	0.5 U	18
	09/27/2007	-	1,290	-	-	-	-	-
	03/23/2009	0.27 J	735	183	0.89 J	1.2	-	12
	06/01/2009	1 U	717	163	1 U	1.1	-	8.1
	09/14/2009	2.5 U	1,150	152	2.5 U	2.5 U	-	2.5 U
	12/03/2009	0.26 J	569	135	0.57 J	1.0 J	-	15
	03/24/2010	0.50 J	1,650	183	0.96 J	1.3 J	-	8.9
	12/10/2010	1 U	564	154	1 U	1.2	-	20
	03/22/2011	0.21 J	501	108	0.50 J	1.1	-	11
	09/26/2011	1 U	587	46	1 U	1 U	-	4.3
	02/27/2012	1 U	449	155	0.63 J	0.93 J	-	10
	07/12/2012	0.5 U	78	75	0.5 U	0.72	-	3.5
	03/19/2013	1 U	320	160	0.58 J	1.3	-	9.2
	09/04/2013	5.0 U	400	120	5 U	5 U	-	9.6
	03/17/2014	5 U	340	120	5 U	5 U	-	12
	06/03/2014	5 U	300	120	5 U	5 U	-	8.0
	09/22/2014	5 U	230	130	5 U	5 U	-	12 J <sup>1</sup>
	Duplicate (DMW-99)	09/22/2014	1 U	190	180	0.58 J	0.99 J	-
12/16/2014		1 U	140	190	0.75 J	0.91 J	-	18
03/09/2015	5 U	300	100	5 U	5 U	-	2.1 J	
09/02/2015	5 U	402	140	5 U	5 U	-	7.1	
Duplicate (DMW-98)	09/02/2015	10 U	394	132	10 U	10 U	-	6.8 J

**Table 8**  
**Hardboard Area Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride
DMW-2 (cont'd)	03/07/2016	0.5 U	444	120	0.56	1.0	0.5 U	2.7
	09/14/2016	0.5 U	457	92	0.50	1.0	0.5 U	0.5 U
	09/14/2016	0.5 U	484	102	0.57	1.1	0.5 U	0.54 J <sup>1</sup>
	03/08/2017	2.5 U	197	126	2.5 U	2.5 U	2.5 U	2.5 U
	09/18/2017	2.5 U	318	112	2.5 U	2.5 U	2.5 U	5.5
	03/07/2018	0.5 U	85 J <sup>1</sup>	221	0.5 U	0.85	0.5 U	1.7
	06/06/2018	0.5 U	273	129	0.62	1.6	0.5 U	5.2
	09/13/2018	0.5 U	118	429	2.3	2.4	0.5 U	5.8
	12/04/2018	0.5 U	303	126	0.77	1.3	0.5 U	6.3
	03/11/2019	0.5 U	157	107	0.57	0.85	0.5 U	1.5
	06/04/2019	0.5 U	229	150	0.83	1.5	0.5 U	3.0
	09/24/2019	0.5 U	92 J <sup>1</sup>	62	0.5 U	0.64	0.5 U	3.5
	12/18/2019	0.5 U	238	143	0.80	1.6	0.5 U	5.3
	03/12/2020	0.5 U	206	130	0.73	1.4	0.5 U	0.69
	06/02/2020	5 U	190	120	5 U	5 U	5 U	5 U
	09/17/2020	5 U	186	148	5 U	5 U	5 U	5 U
	12/10/2020	5 U	210	144	5 U	5 U	5 U	5 U
DMW-7	03/02/1987	100 U	160,000	-	13,000	100 U	100 U	2,000 C
	07/01/1987	20,000 U	140,000	-	18,000	10,000 U	10,000 U	20,000 U
	09/24/1987	10,000 U	100,000	-	10,000	5,000 U	5,000 U	10,000 U
	12/22/1987	700 U	200,000	-	700 U	700 U	700 U	700 U
	03/23/1988	1,000 U	248,000	-	1,000 U	1,000 U	1,000 U	1,000 U
	06/01/1988	500 U	170,000	17,000	500 U	500 U	500 U	500 U
	09/01/1988	400 U	92,000	8,000	400 U	400 U	400 U	400 U
	12/30/1988	100 U	200,000	-	100 U	100 U	100 U	1,000 C
	03/17/1989	1 U	104,000	3,000	1 U	1 U	1 U	400
	06/15/1989	1,000 U	280,000	8,000	1,000 U	1,000 U	1,000 U	1,000 U
	09/12/1989	500 U	80,000	5,500	500 U	500 U	500 U	500 U
	12/27/1989	100 U	130,000	-	100 U	100 U	100 U	220
	03/16/1990	1,000 U	180,000	6,000	1,000 U	1,000 U	1,000 U	1,000 U
	06/27/1990	2,000 U	200,000	8,000	2,000 U	2,000 U	2,000 U	2,000 U
	09/24/1990	4,000 U	150,000	6,000	4,000 U	4,000 U	4,000 U	4,000 U
	12/14/1990	2,000 U	150,000	6,000	2,000 U	2,000 U	2,000 U	2,000 U
	03/15/1991	4,000 U	100,000	4,000 U	4,000 U	4,000 U	4,000 U	4,000 U
	06/04/1991	1,000 U	27,000	1,000	1,000 U	1,000 U	1,000 U	1,000 U
	09/04/1991	25 U	1,800	190	25 U	25 U	25 U	25 U
	12/06/1991	100 U	2,000	200	100 U	100 U	100 U	100 U
	03/16/1992	10 U	200	150	10 U	10 U	10 U	10 U
	06/05/1992	10 U	150	40	10 U	10 U	10 U	10 U
	09/04/1992	1 U	99	36	1 U	1 U	1 U	2.0
12/30/1992	1 U	60	-	1 U	1 U	1 U	4.0	
03/16/1993	5 U	93	-	5 U	5 U	5 U	5 U	
06/17/1993	2 U	100	73	2 U	2 U	2 U	2 U	

**Table 8**  
**Hardboard Area Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride
DMW-7 (cont'd)	09/10/1993	1 U	39	-	1 U	1 U	1 U	1 U
	12/16/1993	1 U	20	-	1 U	1 U	1 U	1 U
	03/10/1994	1 U	20	-	1 U	1 U	1 U	1 U
	06/30/1994	1 U	11	21	1 U	1 U	1 U	1 U
	08/30/1994	1 U	54	-	1 U	1 U	1 U	1.3
	03/21/1995	1 U	66	32	1 U	1 U	1 U	1 U
	09/12/1995	1 U	12	-	1 U	1 U	1 U	1 U
	03/15/1996	1 U	7.3	3.0	1 U	1 U	1 U	1 U
	09/05/1996	1 U	4.1	2.4	1 U	1 U	1 U	1 U
	03/24/1997	1 U	23	5.1	1 U	1 U	1 U	1 U
	09/04/1997	1 U	4.0	1 U	1 U	1 U	1 U	1 U
	03/13/1998	1 U	4.2	1.6	1 U	1 U	1 U	1 U
	09/04/1998	1 U	4.1	1 U	1 U	1 U	1 U	1 U
	04/02/1999	1 U	16	2.0	1 U	1 U	1 U	1 U
	09/02/1999	1 U	1.0	1 U	1 U	1 U	1 U	1 U
	03/01/2000	1 U	3.0	2.0	1 U	1 U	1 U	1 U
	09/12/2000	1 U	1 U	1 U	1 U	1 U	1 U	1 U
	03/07/2001	1 U	68	5.8	1 U	1 U	1 U	1.9
	09/20/2001	0.5 U	0.70	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	12/19/2001	0.5 U	150	11	0.5 U	0.5 U	0.5 U	0.5 U
	03/06/2002	0.5 U	1.4	0.50	0.5 U	0.5 U	0.5 U	0.5 U
	06/13/2002	0.5 U	3.9	0.70	0.5 U	0.5 U	0.5 U	0.5 U
	09/18/2002	0.5 U	3.8	1.0	0.5 U	0.5 U	0.5 U	0.5 U
	03/19/2003	0.5 U	2.6	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	09/24/2003	0.5 U	5.0	0.90	0.5 U	0.5 U	0.5 U	0.5 U
	03/04/2004	0.5 U	4.8	2.0	0.5 U	0.5 U	0.5 U	0.5 U
	09/09/2004	0.5 U	4.1	0.90	0.5 U	0.5 U	0.5 U	0.5 U
	03/08/2005	0.5 U	2.5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	09/07/2005	0.5 U	3.0	1.1	0.5 U	0.5 U	0.5 U	0.5 U
	03/08/2006	0.5 U	3.6	2.2	0.5 U	0.5 U	0.5 U	0.5 U
	08/08/2006	0.5 U	1.8	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	12/13/2006	0.5 U	312	24	0.5 U	0.5 U	0.5 U	0.5 U
	03/20/2007	0.5 U	4.3	1.2	0.5 U	0.5 U	0.5 U	0.5 U
09/27/2007	0.5 U	8.4	1.5	0.5 U	0.5 U	0.5 U	0.5 U	
03/13/2008	0.5 U	2.2	2.6	0.5 U	0.5 U	0.5 U	0.5 U	
03/23/2009	0.5 U	2.4	3.4	0.5 U	0.5 U	-	0.5 U	
12/03/2009	0.5 U	8.8	1.2	0.5 U	0.5 U	-	0.5 U	
03/26/2010	0.5 U	1.1	0.31 J	0.5 U	0.5 U	-	0.5 U	
03/23/2011	0.5 U	1.8	1.4	0.5 U	0.5 U	-	0.5 U	
07/16/2012	0.5 U	0.54	1.7	0.5 U	0.5 U	-	0.5 U	
03/20/2013	1 U	0.86 J	1 U	1 U	1 U	-	1 U	
Duplicate (MW-99)	03/20/2013	1 U	0.77 J	1 U	1 U	-	1 U	
	09/05/2013	1 U	1.4	0.78 J	1 U	-	1 U	
	03/17/2014	1 U	0.86 J	1 U	1 U	-	1 U	

**Table 8**  
**Hardboard Area Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride
DMW-7 (cont'd)	09/23/2014	1 U	1 U	0.56 J	1 U	1 U	-	1 UJ <sup>1</sup>
	03/13/2015	1 U	0.60 J	1 U	1 U	1 U	-	1 U
	09/01/2015	1 U	6.3	3.2	1 UJ <sup>1</sup>	1 UJ <sup>1</sup>	-	1 U
	03/01/2016	0.5 U	0.64 J <sup>1</sup>	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	09/13/2016	0.5 U	1.1	1.6	0.5 U	0.5 U	0.5 U	0.5 U
	03/07/2017	0.5 U	0.5 U	0.60	0.5 U	0.5 U	0.5 U	0.5 U
	09/14/2017	0.5 U	0.60	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	03/05/2018	0.5 U	0.86 J <sup>1</sup>	0.96	0.5 U	0.5 U	0.5 U	0.5 U
	09/12/2018	0.5 U	1.7	2.4	0.5 U	0.5 U	0.5 U	0.5 U
	03/05/2019	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	09/12/2019	0.5 UJ <sup>1</sup>	1.8 J <sup>1</sup>	0.56 J <sup>1</sup>	0.5 UJ <sup>1</sup>	0.5 UJ <sup>1</sup>	0.5 UJ <sup>1</sup>	0.5 UJ <sup>1</sup>
	03/11/2020	0.5 U	2.6	1.1	0.5 U	0.5 U	0.5 U	0.5 U
	09/21/2020	0.5 U	3.9	1.1	0.5 U	0.5 U	0.5 U	0.5 U
Duplicate (MW-98)	09/21/2020	0.5 U	3.5	1.2	0.5 U	0.5 U	0.5 U	0.5 U
DMW-8	02/19/1987	100 U	140,000	-	8,800	100 U	100 U	600 C
	03/02/1987	100 U	230,000	-	17,000	100 U	100 U	2,000 C
	06/30/1987	10,000 U	260,000	-	24,000	5,000 U	5,000 U	10,000 U
	09/24/1987	10,000 U	240,000	-	20,000	5,000 U	5,000 U	10,000 U
	12/22/1987	1,000 U	196,000	-	1,000 U	1,000 U	1,000 U	1,000 U
	03/23/1988	1,000 U	292,000	-	1,000 U	1,000 U	1,000 U	1,000 U
	06/01/1988	500 U	125,000	14,000	500 U	500 U	500 U	500 U
	09/01/1988	700 U	186,000	11,000	700 U	700 U	700 U	700 U
	12/30/1988	100 U	270,000	-	100 U	100 U	100 U	1,200 C
	03/17/1989	100 U	124,000	3,600	100 U	100 U	100 U	500
	06/15/1989	1,000 U	350,000	36,000	1,000 U	1,000 U	1,000 U	1,000
	09/12/1989	500 U	125,000	7,500	500	500 U	500 U	500 U
	12/27/1989	100 U	290,000	-	100 U	100 U	100 U	540
	03/16/1990	2,000 U	220,000	10,000	2,000 U	2,000 U	2,000 U	2,000 U
	06/27/1990	5,000 U	230,000	13,000	5,000 U	5,000 U	5,000 U	5,000 U
	09/24/1990	4,000 U	190,000	7,000	4,000 U	4,000 U	4,000 U	4,000 U
	12/14/1990	4,000 U	230,000	7,000	4,000 U	4,000 U	4,000 U	4,000 U
	03/15/1991	4,000 U	48,000	4,000 U	4,000 U	4,000 U	4,000 U	4,000 U
	06/04/1991	1,000 U	57,000	2,000	1,000 U	1,000 U	1,000 U	1,000 U
	09/04/1991	1,000 U	46,000	2,000	1,000 U	1,000 U	1,000 U	1,000 U
	12/06/1991	1,000 U	27,000	1,200	1,000 U	1,000 U	1,000 U	1,000 U
	03/16/1992	100 U	20,000	800	100 U	100 U	100 U	100 U
	06/05/1992	1,000 U	13,000	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
	09/04/1992	100 U	9,500	400	100 U	100 U	100 U	100 U
	12/30/1992	100 U	7,000	-	100 U	100 U	100 U	100 U
	03/16/1993	100 U	6,900	-	100 U	100 U	100 U	100 U
	06/17/1993	100 U	5,500	200	100 U	100 U	100 U	100 U
09/10/1993	1 U	4,000	-	1 U	1 U	1 U	8.2	
12/16/1993	1 U	4,800	-	1 U	1 U	1 U	5.2	

**Table 8**  
**Hardboard Area Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride
DMW-8 (cont'd)	03/10/1994	50 U	2,700	-	50 U	50 U	50 U	50 U
	06/29/1994	100 U	3,400	150	100 U	100 U	100 U	100 U
	08/30/1994	20 U	1,840	-	20 U	20 U	20 U	20 U
	12/22/1994	50 U	1,400	-	50 U	50 U	50 U	50 U
	03/21/1995	20 U	1,600	79	20 U	20 U	20 U	20 U
	06/06/1995	50 U	1,500	-	50 U	50 U	50 U	50 U
	09/12/1995	50 U	1,400	-	50 U	50 U	50 U	50 U
	12/20/1995	10 U	910	20	10 U	10 U	10 U	10 U
	03/15/1996	1 U	660	35	1 U	1 U	1 U	1 U
	06/21/1996	1 U	696	69	1 U	1 U	1 U	1 U
	09/05/1996	1 U	80	9.5	1 U	1 U	1 U	1 U
	03/24/1997	10 U	711	61	10 U	10 U	10 U	10 U
	09/04/1997	1 U	632	61	1 U	1 U	1 U	1 U
	03/13/1998	10 U	527	54	10 U	10 U	10 U	10 U
	09/04/1998	10 U	511	43	10 U	10 U	10 U	10 U
	04/02/1999	10 U	560	33	10 U	10 U	10 U	10 U
	09/02/1999	10 U	536	45	10 U	10 U	10 U	10 U
	03/01/2000	10 U	346	28	10 U	10 U	10 U	10 U
	06/27/2000	1 U	371	43	1 U	1 U	1 U	1 U
	09/12/2000	1 U	521	43	1 U	1 U	1 U	1 U
	03/07/2001	1 U	271	44	1 U	1.1	1 U	1.0
	09/20/2001	0.5 U	427	51	0.5 U	0.5 U	0.5 U	1.4
	03/05/2002	0.5 U	0.5 U	0.60	0.5 U	0.5 U	0.5 U	0.5 U
	09/18/2002	0.5 U	770	47	0.5 U	0.60	0.5 U	1.4
	03/19/2003	0.5 U	446	33	0.5 U	0.5 U	0.5 U	1.1
	09/24/2003	0.5 U	464	37	0.5 U	0.50	0.5 U	1.2
	03/04/2004	0.5 U	258	24	0.5 U	0.5 U	0.5 U	0.90
	09/09/2004	0.5 U	311	25	0.5 U	0.5 U	0.5 U	0.60
	03/09/2005	0.5 U	507	33	0.5 U	0.63	0.5 U	1.2
	09/07/2005	0.5 U	811	28	1 U	1 U	1 U	1 U
	03/08/2006	0.5 U	266	18	0.5 U	0.5 U	0.5 U	0.5 U
	08/08/2006	2.5 U	1,010	48	2.5 U	2.5 U	2.5 U	2.5 U
	12/13/2006	0.5 U	451	43	0.5 U	0.51	0.5 U	1.0
	03/20/2007	0.5 U	285	18	0.15 J	0.28 J	0.5 U	0.52
	09/27/2007	1 U	422	26	1 U	1 U	1 U	1 U
	03/13/2008	0.5 U	458	23	0.5 U	0.51	0.5 U	0.58
	03/23/2009	0.5 U	15	1.9	0.5 U	0.5 U	-	0.5 U
	09/14/2009	1 U	414	31	1 U	1 U	-	1 U
	12/03/2009	1 U	855	51	0.46 J	1.3	-	0.87 J
	03/26/2010	2.5 U	1,230	61	0.59 J	1.7 J	-	2.5 U
	03/26/2010	2.5 U	1,170	60	2.5 U	1.7 J	-	2.5 U
06/08/2010	0.060 U	222	19	0.14 J	0.40 J	-	0.22 J	
Duplicate (MW-98)	06/08/2010	0.060 U	215	19	0.15 J	0.42 J	-	0.24 J

**Table 8**  
**Hardboard Area Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride
DMW-8 (cont'd)	09/29/2010	0.5 UJ <sup>1</sup>	150 J <sup>1</sup>	11 J <sup>1</sup>	0.5 UJ <sup>1</sup>	0.15 J <sup>1</sup>	-	0.5 UJ <sup>1</sup>
Duplicate (MW-98)	09/29/2010	0.5 UJ <sup>1</sup>	51 J <sup>1</sup>	11 J <sup>1</sup>	0.10 J <sup>1</sup>	0.31 J <sup>1</sup>	-	0.5 UJ <sup>1</sup>
	03/23/2011	0.5 U	0.63	0.74	0.5 U	0.5 U	-	0.5 U
Duplicate (MW-98)	03/23/2011	0.5 U	1.7	0.78	0.5 U	0.5 U	-	0.5 U
	09/26/2011	0.5 U	720	39	0.5 U	0.98	-	0.5 U
Duplicate (MW-99)	09/26/2011	0.5 U	749	43	0.5 U	1.1	-	0.5 U
	07/16/2012	1 U	715	39	1 U	1 U	-	1 U
	03/20/2013	1 U	750	40	1 U	0.99 J	-	0.30 J
	09/05/2013	1 U	1.6	0.47 J	1 U	1 U	-	1 U
Duplicate (MW-98)	09/05/2013	1 U	1.9	0.51 J	1 U	1 U	-	1 U
	03/17/2014	1 U	0.59 J	0.44 J	1 U	1 U	-	1 U
Duplicate (MW-98)	03/17/2014	1 U	0.66 J	0.41 J	1 U	1 U	-	1 U
	09/23/2014	1 U	1 U	1 U	1 U	1 U	-	1 UJ <sup>1</sup>
	03/13/2015	1 U	0.93 J	0.54 J	1 U	1 U	-	1 U
	09/01/2015	1 U	594	38	0.77 J <sup>1</sup>	0.78 J <sup>1</sup>	-	0.38 J
	03/02/2016	0.5 U	4.4 J <sup>1</sup>	0.74	0.5 U	0.5 U	0.5 U	0.5 U
	09/13/2016	0.5 U	1,010	55	0.51	1.6	0.5 U	0.5 U
	03/07/2017	0.5 U	1.7	3.1	0.5 U	0.5 U	0.5 U	0.5 U
	09/19/2017	0.5 U	539	35	0.5 U	0.98	0.5 U	0.5 U
	03/07/2018	0.5 U	748	42	0.5 U	0.5 U	0.5 U	0.5 U
	09/12/2018	0.5 U	420	29	0.5 U	0.92	0.5 U	0.5 U
Duplicate (MW-99)	09/12/2018	0.5 U	500	24	0.5 U	0.81	0.5 U	0.5 U
	03/05/2019	0.5 U	3.5	0.82	0.5 U	0.5 U	0.5 U	0.5 U
	09/12/2019	0.5 U	646	38	0.5 U	1.3	0.5 U	0.5 U
	03/11/2020	0.5 U	0.89	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	09/21/2020	0.5 U	985	38	0.5 U	10 U	0.5 U	0.65
DMW-11	06/01/1988	250 U	85,000	2,400	250 U	250 U	250 U	250 U
	09/01/1988	400 U	68,000	1,100	400 U	400 U	400 U	400 U
	12/28/1988	100 U	88,000	-	1,600	100 U	100 U	100 U
	03/17/1989	200 U	71,000	300	200 U	200 U	200 U	200 U
	06/15/1989	1,000 U	180,000	1,000	1,000 U	1,000 U	1,000 U	1,000 U
	09/12/1989	250 U	55,000	750	250 U	250 U	250 U	250 U
	12/28/1989	100 U	91,000	-	100 U	100 U	100 U	100 U
	03/16/1990	1,000 U	93,000	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
	12/14/1990	200 U	53,000	500	200 U	200 U	200 U	200 U
	03/15/1991	1,000 U	55,000	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
	06/04/1991	1,000 U	46,000	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
	09/04/1991	1,000 U	43,000	1,000	1,000 U	1,000 U	1,000 U	1,000 U
	12/06/1991	1,000 U	29,000	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
	03/16/1992	100 U	21,000	600	100 U	100 U	100 U	100 U
	06/01/1992	-	22,000	-	-	-	-	-
	09/01/1992	-	14,000	-	-	-	-	-
	11/30/1992	-	16,000	-	-	-	-	-

**Table 8**  
**Hardboard Area Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride	
DMW-11 (cont'd)	03/01/1993	-	9,000	-	-	-	-	-	
	06/17/1993	100 U	8,000	400	100 U	100 U	100 U	100 U	
	09/08/1993	1 U	7,500	-	1 U	1 U	1 U	9.0	
	12/01/1993	-	5,800	-	-	-	-	-	
	03/01/1994	-	16,000	-	-	-	-	-	
	04/25/1994	100 U	3,800	730	100 U	100 U	100 U	100 U	
	06/30/1994	250 U	7,800	290	250 U	250 U	250 U	250 U	
	09/01/1994	-	10,600	-	-	-	-	-	-
	12/01/1994	-	9,000	-	-	-	-	-	-
	04/25/1995	-	2,100	-	-	-	-	-	-
	06/01/1995	-	4,700	-	-	-	-	-	-
	09/01/1995	-	3,900	-	-	-	-	-	-
	12/01/1995	-	2,900	-	-	-	-	-	-
	03/01/1996	-	6,700	-	-	-	-	-	-
	06/01/1996	-	860	-	-	-	-	-	-
	09/01/1996	-	1,140	-	-	-	-	-	-
	12/01/1996	-	960	-	-	-	-	-	-
	03/01/1997	-	500	-	-	-	-	-	-
	06/01/1997	-	880	-	-	-	-	-	-
	09/01/1997	-	1,000	-	-	-	-	-	-
	12/01/1997	-	700	-	-	-	-	-	-
	03/01/1998	-	500	-	-	-	-	-	-
	06/01/1998	-	1,700	-	-	-	-	-	-
	09/01/1998	-	660	-	-	-	-	-	-
	09/01/1999	-	770	-	-	-	-	-	-
	09/01/2000	-	220	-	-	-	-	-	-
	07/31/2001	-	418	-	-	-	-	-	-
	09/20/2001	-	363	-	-	-	-	-	-
	12/18/2001	-	309	-	-	-	-	-	-
	03/06/2002	-	382	-	-	-	-	-	-
	09/18/2002	-	458	-	-	-	-	-	-
	03/19/2003	-	394	-	-	-	-	-	-
	09/22/2003	-	495	-	-	-	-	-	-
	09/09/2004	-	375	-	-	-	-	-	-
	09/07/2005	-	320	-	-	-	-	-	-
	08/08/2006	-	436	-	-	-	-	-	-
12/14/2006	0.80	68	119	0.61	0.5 U	0.5 U	2.2		
09/27/2007	-	456	-	-	-	-	-		
03/23/2009	0.17	88	13	0.10 J	0.32 J	-	0.18 J		
06/01/2009	0.79	5.7	4.3	0.5 U	0.5 U	-	0.5 U		
09/14/2009	1 U	358	67	1 U	1 U	-	1 U		
12/03/2009	0.31 J	5.7	5.0	0.5 U	0.14 J	-	0.13 J		
03/24/2010	0.26 J	86	22	0.14 J	0.24 J	-	0.5 U		
12/10/2010	0.76	2.9	4.2	0.5 U	0.5 U	-	0.5 U		

**Table 8**  
**Hardboard Area Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride
DMW-11 (cont'd)	03/22/2011	0.21 J	46	9.6	0.5 U	0.22 J	-	0.5 U
	09/26/2011	0.5 U	239	51	0.5 U	0.53	-	0.5 U
	07/12/2012	0.5 U	219	36	0.5 U	0.59	-	0.5 U
	03/19/2013	0.46 J	5.2	5.9	1 U	1 U	-	1 U
	09/05/2013	1 U	170	41	0.45 J	0.53 J	-	1 U
	03/17/2014	1 U	1 U	5.4	1 U	1 U	-	1 U
	09/22/2014	1 U	130	30	1 U	1 U	-	1 U
	03/12/2015	1 U	100	28	1 U	1 U	-	1 U
	09/03/2015	1 U	40	14	1 U	1 U	-	1 U
	03/11/2016	0.5 U	124	21	0.5 U	0.5 U	0.5 U	0.5 U
Duplicate (MW-97)	03/11/2016	0.5 U	120	20	0.5 U	0.5 U	0.5 U	0.5 U
	09/14/2016	0.5 U	108	29	0.5 U	0.5 U	0.5 U	0.5 U
Duplicate (MW-97)	03/09/2017	1.6	1.9	5.0	0.5 U	0.5 U	0.5 U	0.5 U
	03/09/2017	1.7	1.7	5.0	0.5 U	0.5 U	0.5 U	0.5 U
	09/19/2017	1.1	2.3	3.4	0.5 U	0.5 U	0.5 U	0.5 U
	03/06/2018	0.5 U	1.0 J <sup>1</sup>	4.6	0.5 U	0.5 U	0.5 U	0.5 U
	09/13/2018	1.1	14	7.5	0.5 U	0.5 U	0.5 U	0.5 U
	03/06/2019	0.59	1.5	5.1	0.5 U	0.5 U	0.5 U	0.5 U
	09/12/2019	0.5 U	7.7	5.1	0.5 U	0.5 U	0.5 U	0.5 U
	03/11/2020	0.5 U	103	25	0.5 U	0.5 U	0.5 U	0.5 U
Duplicate (MW-98)	03/11/2020	0.5 U	96	23	0.5 U	0.5 U	0.5 U	0.5 U
	09/23/2020	0.5 U	30	21	0.5 U	0.5 U	0.5 U	0.5 U
DMW-12	06/01/1988	500 U	85,000	7,800	500 U	500 U	500 U	500 U
	06/01/1988	500 U	110,000	14,000	500 U	500 U	500 U	500 U
	09/01/1988	400 U	108,000	10,000	400 U	400 U	400 U	400 U
	12/28/1988	100 U	160,000	-	16,000	100 U	100 U	530
	03/17/1989	100 U	66,000	2,400	100 U	100 U	100 U	500
	06/15/1989	500 U	140,000	4,500	500 U	500 U	500 U	500 U
	09/12/1989	250 U	65,000	4,500	250 U	250 U	250 U	250 U
	12/28/1989	100 U	72,000	-	100 U	100 U	100 U	100 U
	03/16/1990	1,000 U	98,000	4,000	1,000 U	1,000 U	1,000 U	1,000 U
	12/14/1990	1,000 U	150,000	7,000	1,000 U	1,000 U	1,000 U	1,000 U
	03/15/1991	2,000 U	52,000	2,000 U	2,000 U	2,000 U	2,000 U	2,000 U
	06/04/1991	1,000 U	28,000	1,000	1,000 U	1,000 U	1,000 U	1,000 U
	09/04/1991	1,000 U	240,000	6,000	1,000 U	1,000 U	1,000 U	1,000 U
	12/06/1991	1,000 U	20,000	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
	03/06/1992	100 U	10,000	500	100 U	100 U	100 U	100 U
	06/01/1992	-	10,000	-	-	-	-	-
	09/01/1992	-	9,000	-	-	-	-	-
	11/30/1992	-	8,100	-	-	-	-	-
	03/01/1993	-	5,000	-	-	-	-	-
	06/17/1993	100 U	3,000	300	100 U	100 U	100 U	100 U
	09/08/1993	1 U	2,700	-	1 U	1 U	1 U	4.6

**Table 8**  
**Hardboard Area Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride
DMW-12 (cont'd)	12/01/1993	-	8,000	-	-	-	-	-
	03/01/1994	-	3,000	-	-	-	-	-
	04/25/1994	10 U	1,500	110	10 U	10 U	10 U	10 U
	06/30/1994	100 U	1,600	100	100 U	100 U	100 U	100 U
	09/01/1994	-	4,000	-	-	-	-	-
	12/01/1994	-	8,000	-	-	-	-	-
	04/25/1995	-	600	-	-	-	-	-
	06/01/1995	-	500	-	-	-	-	-
	09/01/1995	-	500	-	-	-	-	-
	12/01/1995	-	4,100	-	-	-	-	-
	03/01/1996	-	378	-	-	-	-	-
	06/01/1996	-	200	-	-	-	-	-
	09/01/1996	-	340	-	-	-	-	-
	12/01/1996	-	400	-	-	-	-	-
	03/01/1997	-	300	-	-	-	-	-
	06/01/1997	-	280	-	-	-	-	-
	09/01/1997	-	340	-	-	-	-	-
	12/01/1997	-	360	-	-	-	-	-
	03/01/1998	-	220	-	-	-	-	-
	06/01/1998	-	380	-	-	-	-	-
	09/01/1998	-	220	-	-	-	-	-
	09/01/1999	-	360	-	-	-	-	-
	09/01/2000	-	150	-	-	-	-	-
	07/31/2001	-	285	-	-	-	-	-
	09/20/2001	-	227	-	-	-	-	-
	12/18/2001	-	208	-	-	-	-	-
	03/06/2002	-	182	-	-	-	-	-
	09/18/2002	-	176	-	-	-	-	-
	03/19/2003	-	175	-	-	-	-	-
	09/22/2003	-	253	-	-	-	-	-
	09/09/2004	-	289	-	-	-	-	-
	12/14/2006	0.5 U	329	93	0.70	0.66	0.5 U	0.90
	09/27/2007	-	364	-	-	-	-	-
	03/23/2009	0.13 J	70	11	0.13 J	0.14 J	-	0.44 J
	06/01/2009	0.5 U	23	10	0.5 U	0.5 U	-	0.5 U
	09/12/2009	0.5 U	175	33	0.5 U	0.5 U	-	0.5 U
	12/03/2009	0.14 J	139	28	0.20 J	0.32 J	-	0.24 J
	03/24/2010	0.15 J	138	27	0.24 J	0.29 J	-	0.5 U
	06/07/2011	0.10 J	140	23	0.16 J	0.25 J	-	0.5 U
	09/26/2011	0.5 U	139	28	0.5 U	0.5 U	-	0.5 U
	07/12/2012	0.5 U	3.5	1.3	0.5 U	0.5 U	-	0.5 U
	03/20/2013	1 U	47	5.5	1 U	1 U	-	1 U
	09/05/2013	1.1	34	6.1	1 U	1 U	-	1 U
	03/18/2014	1 UJ'	150 J'	34	1 U	1 U	-	1 U

**Table 8**  
**Hardboard Area Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride	
DMW-12 (cont'd)	09/23/2014	1 U	5.1	5.0	1 U	1 U	-	0.74 J <sup>1</sup>	
	03/13/2015	1 U	9.0	3.7	1 U	1 U	-	1 U	
	09/02/2015	1 U	2.7	2.0	1 UJ <sup>1</sup>	1 UJ <sup>1</sup>	-	0.42 J	
Duplicate (MW-99)	09/02/2015	1 U	2.8	2.1	1 U	1 U	-	0.46 J	
	03/02/2016	0.5 U	17 J <sup>1</sup>	4.0	0.5 U	0.5 U	0.5 U	0.5 U	
	09/06/2016	0.5 U	2.9	1.9	0.5 U	0.5 U	0.5 U	0.5 U	
	03/07/2017	0.5 U	5.0	23	0.5 U	0.5 U	0.5 U	13	
	09/18/2017	0.5 U	1.0	61	0.5 U	0.5 U	0.5 U	47	
	03/05/2018	0.5 U	5.7	2.1	0.5 U	0.5 U	0.5 U	0.5 U	
	09/13/2018	0.5 U	2.3	5.4	0.5 U	0.5 U	0.5 U	1.4	
	03/05/2019	0.5 U	35	7.1	0.5 U	0.5 U	0.5 U	0.5 U	
	09/12/2019	0.5 U	2.2	4.5	0.5 U	0.5 U	0.5 U	0.95	
	03/11/2020	0.5 U	7.8	4.2	0.5 U	0.5 U	0.5 U	0.80	
	09/23/2020	0.5 U	2.3	25	0.5 U	0.5 U	0.5 U	6.6	
	DMW-14	06/01/1988	1 U	38	2.0	1 U	1 U	1 U	1 U
		09/01/1988	1 U	42	2.0	1 U	1 U	1 U	1 U
12/28/1988		1 U	25	-	1 U	1 U	1 U	1 U	
03/17/1989		1 U	22	1 U	1 U	1 U	1 U	1 U	
06/15/1989		1 U	36	1.0	1 U	1 U	1 U	1 U	
09/12/1989		1 U	14	1 U	1 U	1 U	1 U	1 U	
12/28/1989		1 U	23	-	1 U	1 U	1 U	1 U	
03/16/1990		1 U	29	1.0	1 U	1 U	1 U	1 U	
06/27/1990		1 U	40	3.0	1 U	1 U	1 U	1 U	
09/24/1990		1 U	29	3.0	1 U	1 U	1 U	1 U	
12/14/1990		1 U	18	2.0	1 U	1 U	1 U	1 U	
03/15/1991		1 U	28	3.0	1 U	1 U	1 U	1 U	
06/04/1991		1 U	35	8.0	1 U	1 U	1 U	1 U	
09/04/1991		1 U	84	10	1 U	1 U	1 U	1 U	
12/06/1991		5 U	32	5 U	5 U	5 U	5 U	5 U	
03/16/1992		1 U	30	2.0	1 U	1 U	1 U	1 U	
06/05/1992		1 U	40	4.0	1 U	1 U	1 U	1.0	
09/04/1992		1 U	31	2.0	1 U	1 U	1 U	1 U	
12/01/1992		1 U	11	-	1 U	1 U	1 U	1 U	
03/16/1993		1 U	11	-	1 U	1 U	1 U	1 U	
06/16/1993		1 U	10	1 U	1 U	1 U	1 U	1 U	
09/09/1993		1 U	24	-	1 U	1 U	1 U	1 U	
12/16/1993		1 U	3.9	-	1 U	1 U	1 U	1 U	
03/09/1994		1 U	4.0	-	1 U	1 U	1 U	1 U	
06/29/1994		1 U	6.9	1.0	1 U	1 U	1 U	1 U	
08/30/1994		1 U	12	-	1 U	1 U	1 U	1 U	
12/21/1994		1 U	1.4	-	1 U	1 U	1 U	1 U	
03/20/1995		1 U	8.0	2.0	1 U	1 U	1 U	1 U	
06/06/1995		1 U	5.1	-	1 U	1 U	1 U	1 U	
09/11/1995		1 U	3.3	-	1 U	1 U	1 U	1 U	

**Table 8**  
**Hardboard Area Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride
DMW-14 (cont'd)	12/20/1995	1 U	2.5	1 U	1 U	1 U	1 U	1 U
	03/14/1996	1 U	3.9	1 U	1 U	1 U	1 U	1 U
	06/21/1996	1.5	5.0	1 U	1 U	1 U	1 U	1 U
	09/06/1996	1.2	5.8	1 U	1 U	1 U	1 U	1 U
	03/21/1997	2.4	4.2	1 U	1 U	1 U	1 U	1 U
	09/04/1997	2.0	4.0	1 U	1 U	1 U	1 U	1 U
	03/12/1998	2.6	2.4	1 U	1 U	1 U	1 U	1 U
	09/03/1998	2.5	3.6	1 U	1 U	1 U	1 U	1 U
	04/01/1999	3.0	2.0	1 U	1 U	1 U	1 U	1 U
	08/31/1999	2.0	2.0	1 U	1 U	1 U	1 U	1 U
	09/12/2000	3.0	2.0	1 U	1 U	1 U	1 U	1 U
	09/21/2001	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	09/17/2002	3.2	7.1	1.6	0.5 U	0.5 U	0.5 U	0.5 U
	09/23/2003	2.3	2.3	0.80	0.5 U	0.5 U	0.5 U	0.5 U
	09/08/2004	2.5	1.6	0.80	0.5 U	0.5 U	0.5 U	1.1
	09/07/2005	1.7	1.8	1.2	0.5 U	0.5 U	0.5 U	0.5 U
	08/07/2006	1.3	2.3	1.2	0.5 U	0.5 U	0.5 U	0.5 U
	12/13/2006	1.9	2.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	09/26/2007	2.2	1.8	0.60	0.5 U	0.5 U	0.5 U	0.5 U
	03/23/2009	0.26 J	0.56	0.65	0.5 U	0.5 U	0.5 U	0.10 J
	03/25/2010	0.23 J	0.72	0.27 J	0.5 U	0.5 U	0.5 U	-
	03/22/2011	0.17 J	0.99	0.20 J	0.5 U	0.5 U	0.5 U	-
	Duplicate (MW-99)	03/22/2011	0.14 J	0.97	0.19 J	0.5 U	0.5 U	-
		07/13/2012	0.5 U	0.74	0.5 U	0.5 U	0.5 U	-
		09/05/2013	1 U	0.87 J	1.6	1 U	1 U	-
		09/22/2014	0.37 J	2.0	3.9	1 U	1 U	-
		09/01/2015	1 U	1.7	5.2	1 UJ <sup>1</sup>	1 UJ <sup>1</sup>	-
09/14/2016		0.5 U	1.9	4.0	0.5 U	0.5 U	0.5 U	
09/18/2017		0.5 U	1.4	3.8	0.5 U	0.5 U	0.5 U	
09/13/2018		0.5 U	0.98	1.1	0.5 U	0.5 U	0.5 U	
09/12/2019		0.5 U	0.5 U	0.70	0.5 U	0.5 U	0.5 U	
09/23/2020		0.5 U	0.57	2.6	0.5 U	0.5 U	0.5 U	
DMW-33		01/09/2014	0.88	26	3.1	1 U	1 U	-
		03/17/2014	1 U	7.6	6.6	1 U	1 U	-
		06/03/2014	1 U	6.6	2.6	1 U	1 U	-
	09/24/2014	0.44 J	11	2.4	1 U	1 U	-	
	12/01/2014	0.50 J	14	6.1 J <sup>1</sup>	1 UJ <sup>1</sup>	1 UJ <sup>1</sup>	-	
	03/13/2015	1 U	7.5	2.5	1 U	1 U	-	
	09/03/2015	1 U	7.4	1.7	1 UJ <sup>1</sup>	1 UJ <sup>1</sup>	-	
	03/02/2016	0.5 U	15 J <sup>1</sup>	2.9	0.5 U	0.5 U	0.5 U	
	Duplicate (MW-99)	03/02/2016	0.5 U	15 J <sup>1</sup>	2.7	0.5 U	0.5 U	0.5 U
09/08/2016		0.5 U	22	2.6	0.5 U	0.5 U	0.5 U	
03/09/2017		0.5 U	7.8	3.7	0.5 U	0.5 U	0.5 U	

**Table 8**  
**Hardboard Area Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride	
DMW-33 (cont'd)	09/14/2017	0.5 U	4.0	0.73	0.5 U	0.5 U	0.5 U	0.5 U	
	03/06/2018	0.5 U	0.5 U	0.81	0.5 U	0.5 U	0.5 U	0.5 U	
	09/13/2018	0.5 U	4.3	1.4	0.5 U	0.5 U	0.5 U	0.5 U	
	03/06/2019	0.5 U	2.2	0.55	0.5 U	0.5 U	0.5 U	0.5 U	
	09/13/2019	0.5 U	3.1 J <sup>1</sup>	0.72	0.5 U	0.5 U	0.5 U	0.5 U	
	03/10/2020	0.5 U	5.1	1.4	0.5 U	0.5 U	0.5 U	0.5 U	
	09/21/2020	0.5 U	4.0	0.59	0.5 U	0.5 U	0.5 U	0.5 U	
IMW-33	01/09/2014	1 U	0.53 J	1 U	1 U	1 U	-	1 U	
	03/17/2014	1 U	1 U	1.6	1 U	1 U	-	1 U	
	06/03/2014	1 U	1 U	0.68 J	1 U	1 U	-	1 U	
	09/24/2014	1 U	0.54 J	1.3	1 U	1 U	-	1 UJ <sup>1</sup>	
	12/01/2014	1 U	0.48 J	2.0 J <sup>1</sup>	1 U	1 U	-	1 U	
	03/13/2015	1 U	0.70 J	1 U	1 U	1 U	-	1 U	
	09/15/2015	1 U	1 U	0.45 J	1 UJ <sup>1</sup>	1 UJ <sup>1</sup>	-	1 U	
	03/02/2016	0.5 U	0.5 UJ <sup>1</sup>	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
	09/08/2016	0.5 U	0.57	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
	03/09/2017	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
	09/14/2017	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
	03/06/2018	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
	Duplicate (MW-99)	03/06/2018	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
		09/13/2018	0.5 U	0.69	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
03/06/2019		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
09/13/2019		0.5 U	0.5 UJ <sup>1</sup>	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
03/10/2020		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
09/21/2020		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
DMW-34		01/09/2014	1 U	800	120	0.70 J	1.9	-	0.87 J
	03/17/2014	20 U	190	26	20 U	20 U	-	20 U	
	06/03/2014	1 U	32	4.5	1 U	1 U	-	1 U	
	09/22/2014	1 U	34	4.4	1 U	1 U	-	1 UJ <sup>1</sup>	
	12/16/2014	1 U	610	130	0.59 J	1.5	-	0.56 J	
	03/13/2015	1 U	42	6.7	1 U	1 U	-	1 U	
	09/03/2015	1 U	39	6.6	1 U	1 U	-	1 U	
	03/02/2016	0.5 U	49 J <sup>1</sup>	13	0.5 U	0.5 U	0.5 U	0.5 U	
	09/09/2016	0.5 U	74	10	0.5 U	0.5 U	0.5 U	0.5 U	
	03/09/2017	0.5 UJ <sup>1</sup>	42 J <sup>1</sup>	6.5 J <sup>1</sup>	0.5 UJ <sup>1</sup>	0.5 UJ <sup>1</sup>	0.5 UJ <sup>1</sup>	0.5 UJ <sup>1</sup>	
	09/19/2017	0.5 U	20	3.0	0.5 U	0.5 U	0.5 U	0.5 U	
	03/06/2018	0.5 U	144	31	0.5 U	0.5 U	0.5 U	0.5 U	
	09/14/2018	0.5 U	39	5.4	0.5 U	0.5 U	0.5 U	0.5 U	
	03/06/2019	0.5 U	50	7.7	0.5 U	0.5 U	0.5 U	0.5 U	
	09/13/2019	0.5 UJ <sup>1</sup>	22 J <sup>1</sup>	4.2 J <sup>1</sup>	0.5 UJ <sup>1</sup>	0.5 UJ <sup>1</sup>	0.5 UJ <sup>1</sup>	0.5 UJ <sup>1</sup>	
	03/12/2020	0.5 U	1.6	1.1	0.5 U	0.5 U	0.5 U	0.5 U	
	09/23/2020	0.5 U	32	5.1	0.5 U	0.5 U	0.5 U	0.5 U	

**Table 8**  
**Hardboard Area Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride	
IMW-34	01/09/2014	1 U	4.1	0.52 J	1 U	1 U	-	1 U	
	03/17/2014	1 U	1 U	1 U	1 U	1 U	-	1 U	
	06/03/2014	1 U	1 U	1 U	1 U	1 U	-	1 U	
	09/22/2014	1 U	1 U	1 U	1 U	1 U	-	1 U	
	12/16/2014	1 U	0.66 J	0.37 J	1 U	1 U	-	1 U	
	03/13/2015	1 U	0.47 J	1 U	1 U	1 U	-	1 U	
	09/03/2015	1 U	1 U	1 U	1 UJ <sup>1</sup>	1 UJ <sup>1</sup>	-	1 U	
	03/02/2016	0.5 U	3.6 J <sup>1</sup>	2.6	0.5 U	0.5 U	0.5 U	0.5 U	
	09/09/2016	0.5 U	23	2.9	0.5 U	0.5 U	0.5 U	0.5 U	
	03/09/2017	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
	09/19/2017	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
	03/06/2018	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
	09/13/2018	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
	03/06/2019	0.5 U	0.5 U	0.84	0.5 U	0.5 U	0.5 U	0.5 U	
	09/13/2019	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
Duplicate (MW-97)	09/13/2019	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
	03/12/2020	0.5 U	159	36	0.5 U	0.72	0.5 U	0.5 U	
	09/23/2020	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
DMW-35	01/14/2014	5 U	490	51	1 U	0.73 J	-	1 U	
	03/18/2014	5 U	550	150	5 U	5 U	-	5 U	
	06/03/2014	5 U	570	150	5 U	5 U	-	5 U	
	09/22/2014	5 U	620	230	5 U	5 U	-	5 U	
	12/02/2014	5 U	340	110 J <sup>1</sup>	5 U	5 U	-	5 U	
	03/13/2015	5 U	1,700	880	2.2 J	3.0 J	-	2.7 J	
	09/03/2015	10 U	475	151	10 U	10 U	-	10 U	
	03/02/2016	0.5 U	128 J <sup>1</sup>	243	1.1	1.5	0.5 U	0.5 U	
	09/09/2016	0.5 U	457	204	1.5	1.2	0.5 U	2.5	
	Duplicate (MW-99)	09/09/2016	0.5 U	499	195	1.2	1.1	0.5 U	2.1
		03/07/2017	5 U	364	233	5 U	5 U	5 U	5 U
		09/18/2017	5 U	434	191	5 U	5 U	5 U	5 U
		03/06/2018	0.5 U	116	121	0.5 U	0.74	0.5 U	0.5 U
		09/14/2018	0.5 U	368	263	1.2	1.6	0.5 U	5.2
		03/05/2019	0.5 U	359	267	1.2	1.6	0.5 U	1.0
09/13/2019		5 U	422 J <sup>1</sup>	240	5 U	5 U	5 U	5 U	
03/11/2020		0.5 U	574	437	1.5	2.0	0.5 U	3.2	
09/23/2020		0.5 U	462	352	5 U	5 U	5 U	5.9	
IMW-35		01/14/2014	1 U	1 U	0.86 J	1 U	1 U	-	1 U
	03/18/2014	1 U	1 U	0.34 J	1 U	1 U	-	1 U	
	06/03/2014	1 U	0.43 J	0.56 J	1 U	1 U	-	1 U	
	09/22/2014	1 U	1 U	1 U	1 U	1 U	-	1 U	
	12/02/2014	1 U	1 U	0.52 J <sup>1</sup>	1 U	1 U	-	1 U	
	03/13/2015	1 U	1 U	1.2	1 U	1 U	-	1 U	
	09/03/2015	1 U	0.41 J	0.87 J	1 U	1 U	-	1 U	

**Table 8**  
**Hardboard Area Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride	
IMW-35 (cont'd)	03/02/2016	1 U	0.85 J <sup>1</sup>	0.51	0.5 U	0.5 U	0.5 U	0.5 U	
	09/09/2016	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
	03/07/2017	0.5 U	0.5 U	0.64	0.5 U	0.5 U	0.5 U	0.5 U	
	09/18/2017	0.5 U	0.5 U	0.91	0.5 U	0.5 U	0.5 U	0.5 U	
	03/06/2018	0.5 U	0.5 U	0.73	0.5 U	0.5 U	0.5 U	0.5 U	
	09/14/2018	0.5 U	0.5 U	1.0	0.5 U	0.5 U	0.5 U	0.5 U	
	03/05/2019	0.5 U	0.5 U	0.78	0.5 U	0.5 U	0.5 U	0.5 U	
	09/13/2019	0.5 U	0.5 U	0.72	0.5 U	0.5 U	0.5 U	0.5 U	
	03/11/2020	0.5 U	0.5 U	0.79	0.5 U	0.5 U	0.5 U	0.5 U	
	09/23/2020	0.5 U	0.5 U	0.82	0.5 U	0.5 U	0.5 U	0.5 U	
Duplicate (MW-97)	09/23/2020	0.5 U	0.5 U	0.79	0.5 U	0.5 U	0.5 U	0.5 U	
DMW-37	03/13/2015	1 U	22	1.9	1 U	1 U	-	1 U	
	06/10/2015	1 U	8.2	1.0	1 U	1 U	-	1 U	
	09/01/2015	1 U	18	3.9	1 UJ <sup>1</sup>	1 UJ <sup>1</sup>	-	1 U	
	12/16/2015	0.5 U	15	1.2	0.5 U	0.5 U	-	0.5 U	
	03/02/2016	0.5 U	6.2 J <sup>1</sup>	0.75	0.5 U	0.5 U	0.5 U	0.5 U	
	09/08/2016	0.5 U	14	2.2	0.5 U	0.5 U	0.5 U	0.5 U	
	03/07/2017	0.5 U	17	2.2	0.5 U	0.5 U	0.5 U	0.5 U	
	09/18/2017	0.5 U	16	2.0	0.5 U	0.5 U	0.5 U	0.5 U	
	03/07/2018	0.5 U	14	1.4	0.5 U	0.5 U	0.5 U	0.5 U	
	09/12/2018	0.5 U	13	2.0	0.5 U	0.5 U	0.5 U	0.5 U	
	03/05/2019	0.5 U	13	1.4	0.5 U	0.5 U	0.5 U	0.5 U	
	09/12/2019	0.5 U	8.2	5.6	0.5 U	0.5 U	0.5 U	0.5 U	
	03/11/2020	0.5 U	12	1.1	0.5 U	0.5 U	0.5 U	0.5 U	
09/18/2020	0.5 U	4.7	1.7	0.5 U	0.5 U	0.5 U	0.5 U		
DMW-38	01/19/2015	1 U	360	26	1 U	1 U	-	1 U	
Duplicate (DMW-98)	03/13/2015	10 U	230	24	10 U	10 U	-	10 U	
	03/13/2015	1 U	240	23	1 U	1 U	-	1 U	
	06/10/2015	1 U	170	20	1 U	1 U	-	1 U	
	09/03/2015	1 U	176	19	1 U	1 U	-	1 U	
	12/16/2015	0.5 U	143	47	0.5 U	0.5 U	-	3.6	
	03/02/2016	0.5 U	506 J <sup>1</sup>	63	0.5 U	0.58	0.5 U	0.5 U	
	09/08/2016	0.5 U	407	41	0.5 U	0.69	0.5 U	0.5 U	
	03/09/2017	0.5 U	226	24	0.5 U	0.5 U	0.5 U	0.5 U	
	09/19/2017	0.5 U	191	20	0.5 U	0.5 U	0.5 U	0.5 U	
	03/06/2018	0.5 U	204	93	0.5 U	0.71	0.5 U	6.4	
	09/14/2018	0.5 U	254	21	0.5 U	0.52	0.5 U	0.5 U	
	Duplicate (MW-98)	09/14/2018	0.5 U	243	21	0.5 U	0.54	0.5 U	0.5 U
	Duplicate (MW-99)	03/06/2019	0.5 U	139	18	0.5 U	0.57	0.5 U	0.5 U
Duplicate (MW-99)	03/06/2019	0.5 U	143	19	0.5 U	0.53	0.5 U	0.5 U	
Duplicate (MW-99)	09/13/2019	0.5 U	199	39	0.5 U	0.71	0.5 U	2.0	
Duplicate (DMW-98)	09/13/2019	0.5 U	188	35	0.5 U	0.64	0.5 U	1.6	
	03/12/2020	0.5 U	297	57	0.5 U	0.88	0.5 U	0.78	

**Table 8**  
**Hardboard Area Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride
DMW-38 (cont'd)	09/23/2020	0.5 U	212	302	0.78	1.7	0.5 U	16
DMW-39	01/19/2015	1 U	330	85	1 U	0.82 J	-	0.41 J
	03/13/2015	20 U	49	460	20 U	20 U	-	20 U
	06/10/2015	1 U	2.6	1.6	1 U	1 U	-	1 U
	09/02/2015	1 U	6.7	2.4	1 UJ <sup>1</sup>	1 UJ <sup>1</sup>	-	1 U
	12/16/2015	0.5 U	21	5.4	0.5 U	0.5 U	-	0.5 U
	03/02/2016	0.5 U	17 J <sup>1</sup>	4.6	0.5 U	0.5 U	0.5 U	0.5 U
	09/08/2016	0.5 U	4.9	2.1	0.5 U	0.5 U	0.5 U	0.5 U
	03/07/2017	0.5 U	52	13	0.5 U	0.5 U	0.5 U	0.5 U
	09/18/2017	0.5 U	12	3.5	0.5 U	0.5 U	0.5 U	0.5 U
	03/05/2018	0.5 U	19	4.6	0.5 U	0.5 U	0.5 U	0.5 U
	09/13/2018	0.5 U	5.8	1.4	0.5 U	0.5 U	0.5 U	0.5 U
	03/05/2019	0.5 U	11	2.9	0.5 U	0.5 U	0.5 U	0.5 U
	09/12/2019	0.5 U	60	14	0.5 U	0.5 U	0.5 U	0.5 U
	03/11/2020	0.5 U	3.9	1.3	0.5 U	0.5 U	0.5 U	0.5 U
	09/23/2020	0.5 U	16	4.3	0.5 U	0.5 U	0.5 U	0.5 U
DMW-42	12/16/2015	0.5 U	13	7.4	0.5 U	0.5 U	-	0.5 U
	03/03/2016	0.5 U	54	48	0.5 U	0.5 U	0.5 U	0.5 U
	06/15/2016	0.5 U	15	13	0.5 U	0.5 U	0.5 U	0.5 U
	09/14/2016	0.5 U	4.6	10	0.5 U	0.5 U	0.5 U	0.5 U
	12/07/2016	0.5 U	1.6	28	0.5 U	0.5 U	0.5 U	0.5 U
	03/09/2017	0.5 U	0.61	1.3	0.5 U	0.5 U	0.5 U	0.5 U
	09/19/2017	0.5 U	9.8	12	0.5 U	0.5 U	0.5 U	0.5 U
	09/19/2017	0.5 U	9.9	13	0.5 U	0.5 U	0.5 U	0.5 U
Duplicate (MW-97)	03/13/2018	0.5 U	11	12	0.5 U	0.5 U	0.5 U	0.5 U
	09/14/2018	0.5 U	2.7	5.4	0.5 U	0.5 U	0.5 U	0.5 U
	03/07/2019	0.5 U	23	9.9	0.5 U	0.5 U	0.5 U	0.5 U
	09/12/2019	0.5 U	22	7.2	0.5 U	0.5 U	0.5 U	0.5 U
	03/12/2020	0.5 U	9.7	18	0.5 U	0.5 U	0.5 U	0.5 U
	09/23/2020	0.5 U	19	8.1	0.5 U	0.5 U	0.5 U	0.5 U

**Table 8**  
**Hardboard Area Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride
<b>DEQ RBC Screening Level Criteria for Water<sup>a</sup></b>								
Ingestion and Inhalation of Tap Water								
Residential		12	0.49	36	360	280	2.8	0.027
Volatilization to Outdoor Air								
Residential		64,000	3,300	>S	>S	570,000	16,000	350
Occupational		>S	20,000	>S	>S	2,400,000	68,000	5,900
Vapor Intrusion into Buildings								
Residential		3,700	200	>S	>S	29,000	1,100	17
Occupational		48,000	3,700	>S	>S	360,000	14,000	880
GW in Excavation								
Construction & Excavation Worker		5,600	430	18,000	180,000	44,000	10,000	960
<b>Portland Harbor JSCS Levels</b>								
Upland Source Control Screening Level <sup>b</sup>		0.33	3.0	NA	1,000	NA	NA	0.24
2004 AWQC (Human Health - Organism Only) <sup>c</sup>		3.3	30	NA	10,000	NA	NA	2.4
2004 AWQC (Ecological Receptors - Chronic) <sup>d</sup>		840	21,900	NA	NA	NA	NA	NA
Oak Ridge Tier II (Ecological Receptors) <sup>e</sup>		98	47	590	590	25 <sup>g</sup>	-	930 <sup>f</sup>

**Notes:**

- <sup>a</sup> Oregon Department of Environmental Quality (DEQ) Generic Risk-based concentrations (revised May 2018)
  - <sup>b</sup> DEQ, Portland Harbor JSCS, Table 3-1 (revised 7/16/07). Values listed are based on human health via fish ingestion
  - <sup>c</sup> DEQ, Portland Harbor JSCS, Table 3-1 (revised 7/16/07). Per DEQ's Ambient Water Quality Criteria for Organisms Only (DEQ 2004)
  - <sup>d</sup> DEQ, Portland Harbor JSCS, Table 3-1 (revised 7/16/07). Per DEQ's Ambient Water Quality Criteria - Ecologic Receptors - Chronic (DEQ 2004)
  - <sup>e</sup> DEQ, Portland Harbor JSCS, Table 3-1 (revised 7/16/07). Per Oak Ridge National Laboratory's Water Quality Criteria - Ecological Receptors - Tier II SCV
  - <sup>f</sup> Ecological screening value adopted by EPA in Regions 3,5 and 6.
  - <sup>g</sup> EPA Region III BTAG Freshwater Screening Benchmarks (July 2006)
- ug/L = Micrograms per liter  
U = not detected at the associated reporting limit  
NA = not applicable  
- = not available or not analyzed for this parameter  
C = results of coelution  
E = value reported exceeds linear calibration range; estimated concentration.  
D = result from diluted analysis  
J = estimated trace concentration  
J<sup>1</sup> = Data Validation Qualifier. The numerical value reported is approximate. See Data Validation report for further information.  
>S = This RBC exceeds the solubility limit

**Table 9**  
**Downgradient Area Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride
<b>Downgradient Area Wells</b>								
DMW-4	04/03/1986	-	5,320	-	-	-	-	-
	05/28/1986	-	2,360	-	-	-	-	-
	06/27/1986	100 U	4,200	-	340	100 U	100 U	100 U
	07/30/1986	-	14,300	-	-	-	-	-
	09/04/1986	-	15,900	-	-	-	-	-
	10/13/1986	-	10,700	-	-	-	-	-
	11/14/1986	-	1,260	-	-	-	-	-
	12/22/1986	10 U	780	-	26	10 U	10 U	10 U
	10/06/1987	20 U	720	-	110	10 U	10 U	20 U
	12/22/1987	1 U	1,100	-	1 U	1 U	1 U	3.0
	03/22/1988	10 U	3,100	-	10 U	10 U	10 U	10 U
	06/01/1988	4 U	1,300	33	4 U	4 U	4 U	4 U
	09/01/1988	2 U	710	70	2 U	2 U	2 U	2 U
	12/27/1988	1 U	2,500	-	300	1 U	1 U	9.0 C
	03/17/1989	1 U	2.0	1 U	1 U	1 U	1 U	1 U
	06/15/1989	38	5,300	400	3.0	5.0	1.0	49
	09/12/1989	10 U	2,500	280	10 U	10 U	10 U	10 U
	12/29/1989	1,000 U	17,000	-	1,000 U	1,000 U	1,000 U	1,000 U
	03/16/1990	5 U	1,600	120	5 U	5 U	5 U	5 U
	06/27/1990	20 U	5,000	440	20 U	20 U	20 U	20 U
	09/24/1990	100 U	7,000	400	100 U	100 U	100 U	100 U
	12/14/1990	30 U	8,800	400	30 U	30 U	30 U	30 U
	03/15/1991	100 U	1,200	100	100 U	100 U	100 U	100
	06/04/1991	100 U	1,500	200	100 U	100 U	100 U	100 U
	09/04/1991	20 U	8,900	1,200	20 U	20 U	20 U	20 U
	12/06/1991	100 U	1,700	400	100 U	100 U	100 U	100 U
	03/16/1992	50 U	6,200	860	50 U	50 U	50 U	50 U
	06/05/1992	100 U	5,800	530	100 U	100 U	100 U	100 U
	09/04/1992	100 U	4,300	600	100 U	100 U	100 U	100
	12/31/1992	5 U	320	-	5 U	5 U	5 U	5 U
	03/16/1993	20 U	1,000	-	20 U	20 U	20 U	20 U
	06/17/1993	20 U	640	140	20 U	20 U	20 U	20 U
	09/09/1993	5 U	2,300	-	5 U	5 U	5 U	15
	12/16/1993	10 U	920	-	10 U	10 U	10 U	10 U
	03/09/1994	25 U	1,000	-	25 U	25 U	25 U	25 U
	06/30/1994	200 U	5,500	1,500	200 U	200 U	200 U	200 U
	08/29/1994	50 U	3,520	-	50 U	50 U	50 U	50 U
	12/31/1994	20 U	730	-	20 U	20 U	20 U	20 U
	03/20/1995	10 U	827	220	10 U	10 U	10 U	10 U
	06/06/1995	25 U	1,400	-	25 U	25 U	25 U	25 U
	09/11/1995	2 U	1,400	-	2 U	2 U	2 U	12
	12/20/1995	1 U	250	90	1 U	1 U	1 U	3.2
	03/15/1996	1 U	210	51	1 U	1 U	1 U	1 U

**Table 9**  
**Downgradient Area Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride
DMW-4 (cont'd)	06/21/1996	10 U	728	138	10 U	10 U	10 U	10 U
	09/05/1996	20 U	1,250	299	20 U	20 U	20 U	24
	12/23/1996	1 U	102	70	1 U	1 U	1 U	5.9
	03/21/1997	10 U	191	59	10 U	10 U	10 U	10 U
	06/20/1997	10 U	395	176	10 U	10 U	10 U	10 U
	09/04/1997	5 U	421	181	5 U	5 U	5 U	5 U
	12/05/1997	10 U	164	109	10 U	10 U	10 U	18
	03/12/1998	2 U	135	73	2 U	2 U	2 U	4.1
	06/04/1998	4 U	226	169	4 U	4 U	4 U	9.0
	09/03/1998	5 U	344	190	5 U	5 U	5 U	5.9
	12/28/1998	5 U	118	141	5 U	5 U	5 U	7.0
	04/01/1999	2 U	114	71	2 U	2 U	2 U	3.0
	06/16/1999	2 U	118	94	2 U	2 U	2 U	6.0
	08/31/1999	5 U	353	206	5 U	5 U	5 U	8.0
	12/06/1999	2 U	112	109	2 U	2 U	2 U	11
	03/02/2000	5 U	85	62	5 U	5 U	5 U	5 U
	06/27/2000	1 U	288	308	1.1	1 U	1 U	11
	09/12/2000	1 U	380	345	2.0	1.0	1 U	14
	12/13/2000	1 U	190	179	1 U	1.0	1 U	5.4
	03/08/2001	1 U	231	177	1 U	1.4	1 U	7.0
	09/19/2001	0.5 U	581	473	2.7	2.0	0.5 U	13
	12/18/2001	0.5 U	86	82	0.5 U	0.50	0.5 U	4.4
	03/06/2002	0.5 U	79	140	0.70	0.50	0.5 U	5.8
	06/13/2002	0.5 U	213	217	0.90	0.70	0.5 U	5.1
	09/17/2002	0.5 U	323	332	1.4	1.1	0.5 U	16
	03/19/2003	0.5 U	103	129	0.5 U	0.5 U	0.5 U	9.4
	09/23/2003	0.5 U	407	514	2.5	2.0	0.5 U	20
	03/03/2004	0.5 U	88	119	0.5 U	0.5 U	0.5 U	9.6
	09/08/2004	0.5 U	278	309	1.3	1.0	0.5 U	9.7
	03/08/2005	0.5 U	301	307	1.1	0.81	0.5 U	6.9
	09/06/2005	0.5 U	426	398	1.7	1.2	0.5 U	9.4
	03/08/2006	0.5 U	225	268	1.1	1.0	0.5 U	6.6
	08/07/2006	0.5 U	1,090	1,110	6.2	4.9	0.5 U	30
	12/13/2006	0.5 U	149	306	1.1	1.8	0.5 U	18
	03/20/2007	1 U	416	501	1.8	1.4	1 U	12
	09/26/2007	5 U	1,580	2,190	8.3	6.7	5 U	65
	03/13/2008	1 U	419	468	2.2	1.7	1 U	12
	03/23/2009	0.5 U	48	174	0.58	0.29 J	-	0.5 U
	09/15/2009	1 U	774	946	5.0	3.8	-	27
	03/25/2010	1 U	488	541	2.4	1.8	-	13
09/29/2010	0.33 J	642	757	3.9	2.4	-	25	
03/22/2011	0.10 J	165	218	0.88	0.72	-	7.3	
DMW-6	05/28/1986	-	882	-	-	-	-	-
	06/27/1986	-	815	-	-	-	-	-

**Table 9**  
**Downgradient Area Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride
DMW-6 (cont'd)	07/30/1986	-	427	-	-	-	-	-
	09/04/1986	-	3,610	-	-	-	-	-
	10/13/1986	-	559	-	-	-	-	-
	11/14/1986	-	435	-	-	-	-	-
	12/22/1986	10 U	450	-	250	10 U	10 U	10 U
	07/01/1987	20 U	3,500	-	880	10 U	10 U	20 U
	09/23/1987	100 U	6,900	-	1,500	50 U	50 U	50 C
	12/22/1987	20 U	3,200	-	20 U	20 U	20 U	20 U
	03/23/1988	1 U	350	-	2.0	1 U	1 U	2.0
	06/01/1988	1 U	400	1,300	2.0	1 U	1 U	8.0
	09/01/1988	1 U	110	90	1 U	1 U	1 U	1.0
	12/27/1988	3.0	15,000	-	2,500	4.0	1 U	160
	03/17/1989	40 U	16,600	2,200	80	40 U	40 U	300
	06/15/1989	40 U	4,500	1,300	40 U	40 U	40 U	70
	09/12/1989	3 U	600	10	3 U	3 U	3 U	3 U
	12/27/1989	1 U	33,000	-	1 U	1 U	1 U	110
	03/16/1990	10 U	15,000	2,000	10 U	10 U	10 U	10 U
	06/27/1990	200 U	22,000	2,400	200 U	200 U	200 U	200 U
	09/24/1990	50 U	2,600	280	50 U	50 U	50 U	50 U
	12/14/1990	50 U	43,000	4,800	50 U	50 U	50 U	200
	03/15/1991	100 U	5,900	2,200	100 U	100 U	100 U	100
	06/04/1991	100 U	30,300	100 U	100 U	100 U	100 U	100 U
	09/04/1991	1,000 U	21,000	2,000	1,000 U	1,000 U	1,000 U	1,000 U
	12/06/1991	1,000 U	4,500	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
	03/16/1992	100 U	24,000	2,000	100 U	100 U	100 U	100 U
	06/05/1992	100 U	6,600	580	100 U	100 U	100 U	100 U
	09/04/1992	25 U	3,200	310	25 U	25 U	25 U	25 U
	12/01/1992	1 U	84	-	1 U	1 U	1 U	1 U
	03/16/1993	1 U	25	-	1 U	1 U	1 U	1 U
	06/17/1993	250 U	13,000	1,000	250 U	250 U	250 U	250 U
	09/09/1993	1 U	3,600	-	1 U	1 U	1 U	15
	12/16/1993	5 U	2,500	-	5 U	5 U	5 U	5 U
	03/09/1994	50 U	2,200	-	50 U	50 U	50 U	50 U
	06/30/1994	500 U	15,000	1,500	500 U	500 U	500 U	500 U
	08/29/1994	50 U	4,620	-	50 U	50 U	50 U	50 U
	12/21/1994	50 U	990	-	50 U	50 U	50 U	50 U
	03/20/1995	100 U	8,680	1,010	100 U	100 U	100 U	100 U
	06/06/1995	200 U	4,100	-	200 U	200 U	200 U	200 U
	09/11/1995	50 U	3,000	-	50 U	50 U	50 U	50 U
	12/20/1995	1 U	820	110	1 U	1 U	1 U	1.8
	03/14/1996	5 U	9,700	1,200	5.8	5 U	5 U	43
	06/21/1996	20 U	1,100	112	20 U	20 U	20 U	20 U
	09/06/1996	100 U	3,970	512	100 U	100 U	100 U	100 U
	12/23/1996	10 U	1,160	197	10 U	10 U	10 U	10 U

**Table 9**  
**Downgradient Area Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride
DMW-6 (cont'd)	03/21/1997	100 U	4,420	1,040	100 U	100 U	100 U	100 U
	06/20/1997	20 U	1,160	174	20 U	20 U	20 U	20 U
	09/04/1997	100 U	1,720	281	100 U	100 U	100 U	100 U
	12/05/1997	50 U	893	125	50 U	50 U	50 U	50 U
	03/12/1998	50 U	4,030	866	50 U	50 U	50 U	50 U
	06/04/1998	50 U	2,690	536	50 U	50 U	50 U	50 U
	09/03/1998	10 U	413	73	10 U	10 U	10 U	10 U
	12/28/1998	10 U	1,440	399	10 U	10 U	10 U	13
	04/01/1999	20 U	310	912	20 U	20 U	20 U	25
	06/16/1999	20 U	959	202	20 U	20 U	20 U	20 U
	08/31/1999	20 U	402	75	20 U	20 U	20 U	20 U
	12/06/1999	1 U	34	17	1 U	1 U	1 U	1.0
	03/02/2000	10 U	1,480	583	10 U	10 U	10 U	15
	06/27/2000	1 U	543	115	1 U	1 U	1 U	4.0
	09/12/2000	1 U	57	14	1 U	1 U	1 U	1 U
	12/13/2000	1 U	1,050	233	1.3	1 U	1 U	5.4
	03/08/2001	1 U	1,020	317	1.4	3.2	1 U	6.5
	09/20/2001	0.5 U	44	18	0.5 U	0.5 U	0.5 U	0.5 U
	03/05/2002	0.5 U	48	32	0.5 U	0.5 U	0.5 U	1.1
	09/17/2002	0.5 U	1,500	606	1.9	1.6	0.5 U	19
	03/19/2003	0.5 U	358	215	0.5 U	0.5 U	0.5 U	7.2
	09/23/2003	0.5 U	10	16	0.5 U	0.5 U	0.5 U	1.7
	03/03/2004	0.5 U	1.3	1.1	0.5 U	0.5 U	0.5 U	0.5 U
	09/08/2004	0.5 U	12	7.2	0.5 U	0.5 U	0.5 U	0.60
	03/08/2005	0.5 U	0.83	4.5	0.5 U	0.5 U	0.5 U	0.5 U
	09/06/2005	0.5 U	14	6.9	0.5 U	0.5 U	0.5 U	0.5 U
	03/08/2006	0.5 U	2.0	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	08/07/2006	0.5 U	395	206	1.2	1.8	0.5 U	9.9
	12/12/2006	0.5 U	3.4	34	0.5 U	0.5 U	0.5 U	1.6
	03/19/2007	0.5 U	3.5	3.3	0.5 U	0.5 U	0.5 U	0.25 J
	09/26/2007	0.5 U	74	156	0.78	0.68	0.5 U	11
	03/12/2008	0.5 U	1.1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	03/23/2009	0.5 U	0.36 J	0.27 J	0.5 U	0.5 U	-	0.5 U
	09/14/2009	0.5 U	1.4	4.2	0.5 U	0.5 U	-	0.5 U
	03/25/2010	0.5 U	0.31 J	0.5 U	0.5 U	0.5 U	-	0.5 U
	09/29/2010	0.5 U	0.21 J	0.24 J	0.5 U	0.5 U	-	0.5 U
03/23/2011	0.5 U	75	114	0.40 J	0.76	-	7.4	
06/07/2011	0.5 U	15	138	0.41 J	0.55	-	35	
09/26/2011	0.5 U	159	343	1.2	1.7	-	23	
07/16/2012	0.5 U	0.5 U	0.59	0.5 U	0.5 U	-	0.5 U	
09/05/2013	1 U	14	180	0.49	1.0	-	46	
09/23/2014	1 U	0.60 J	7.2	1 U	1 U	-	3.4	
09/02/2015	1 U	1.1	12	1 UJ <sup>1</sup>	1 UJ <sup>1</sup>	-	4.3	
09/13/2016	0.5 U	4.8	23	0.5 U	0.5 U	0.5 U	8.6	

**Table 9**  
**Downgradient Area Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride
DMW-6 (cont'd)	09/14/2017	0.5 U	16	85	0.5 U	0.68	0.5 U	4.2
	09/13/2018	0.5 U	0.78	7.6	0.5 U	0.5 U	0.5 U	7.3
	09/13/2019	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	09/23/2020	0.5 U	0.5 U	16	0.5 U	0.5 U	0.5 U	13
DMW-13	09/01/1988	1 U	1 U	7.0	1 U	1 U	1 U	1 U
	01/03/1989	1 U	23	-	22	1 U	1 U	1 U
	03/17/1989	1 U	1.0	4.0	1 U	1 U	1 U	1 U
	06/15/1989	1 U	5,000	900	7.0	4.0	1 U	23
	09/12/1989	10 U	2,900	660	10 U	10 U	10 U	10 U
	12/27/1989	1 U	1,800	-	2.0	1.0	1 U	12
	03/16/1990	1 U	120	18	1 U	1 U	1 U	1 U
	12/14/2006	0.5 U	1.2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	03/23/2009	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	-	0.5 U
	09/14/2009	0.5 U	0.5 U	1.1	0.5 U	0.5 U	-	0.5 U
	03/25/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	-	0.5 U
	09/29/2010	0.5 U	0.5 U	0.63	0.5 U	0.5 U	-	0.56
	03/23/2011	0.5 U	0.12 J	0.10 J	0.5 U	0.5 U	-	0.5 U
	06/07/2011	0.5 U	0.11 J	0.5 U	0.5 U	0.5 U	-	0.5 U
	09/26/2011	0.5 U	0.5 U	1.5	0.5 U	0.5 U	-	0.5 U
	07/13/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	-	0.5 U
	09/05/2013	1 U	1 U	0.39 J	1 U	1 U	-	1 U
	09/23/2014	1 U	1 U	1 U	1 U	1 U	-	1 U
	09/02/2015	1 U	1 U	0.44 J	1 U	1 U	-	1 U
	09/14/2016	0.5 U	1 U	4.3	0.5 U	0.5 U	0.5 U	0.69
09/14/2017	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
09/13/2018	0.5 U	0.5 U	0.72	0.5 U	0.5 U	0.5 U	0.5 U	
09/13/2019	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
09/23/2020	0.5 U	0.5 U	0.66	0.5 U	0.5 U	0.5 U	0.5 U	
DMW-15	06/01/1988	500 U	50,000	20,000	500 U	500 U	500 U	250
	09/01/1988	200 U	55,000	14,000	200 U	200 U	200 U	200
	12/28/1988	10 U	33,000	-	11,000	10 U	10 U	48 C
	03/17/1989	70 U	30,500	4,500	70 U	70 U	70 U	600
	06/15/1989	500 U	160,000	44,000	500 U	500 U	500 U	1,500
	09/12/1989	500 U	75,000	13,000	500 U	500 U	500 U	500 U
	12/28/1989	100 U	150,000	-	100 U	100 U	100 U	260
	03/16/1990	1,000 U	74,000	9,000	1,000 U	1,000 U	1,000 U	1,000 U
	06/27/1990	5,000 U	160,000	18,000	5,000 U	5,000 U	5,000 U	5,000 U
	09/24/1990	50 U	4,200	1,200	50 U	50 U	50 U	50 U
	12/14/1990	400 U	120,000	14,000	400 U	400 U	400 U	400
	03/15/1991	2,000 U	100,000	12,000	2,000 U	2,000 U	2,000 U	2,000 U
	06/04/1991	2,000 U	92,000	16,000	2,000 U	2,000 U	2,000 U	2,000 U
	09/04/1991	2,000 U	84,000	12,000	2,000 U	2,000 U	2,000 U	2,000 U
12/06/1991	20 U	58	6,000	20 U	20 U	20 U	210	

**Table 9**  
**Downgradient Area Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride
DMW-15 (cont'd)	03/16/1992	2,000 U	25,000	20,000	2,000 U	2,000 U	2,000 U	2,000 U
	06/05/1992	2,000 U	16,000	16,000	2,000 U	2,000 U	2,000 U	2,000 U
	09/04/1992	100 U	6,900	13,000	100 U	100 U	100 U	100 U
	12/30/1992	2 U	20	-	2.2	2 U	2 U	170
	03/16/1993	1 U	14	-	1 U	1 U	1 U	14
	06/17/1993	1 U	3.0	9,000	27	18	1 U	110 J
	09/09/1993	1 U	2.4	-	11	7.6	1 U	280
	12/16/1993	1 U	1 U	-	2.2	3.4	1 U	240
	03/09/1994	1 U	1.4	-	7.1	5.2	1 U	390
	06/30/1994	250 U	310	7,500	250 U	250 U	250 U	490
	08/29/1994	100 U	289	-	100 U	100 U	100 U	538
	12/21/1994	2 U	21	-	2 U	2 U	2 U	89
	03/20/1995	20 U	36	1,800	20 U	20 U	20 U	770
	06/06/1995	25 U	45	-	25 U	25 U	25 U	870
	09/11/1995	5 U	13	-	5 U	5 U	5 U	500
	12/20/1995	1 U	22	51	1 U	1 U	1 U	65
	03/14/1996	1 U	22	550	1 U	1 U	1 U	350
	06/21/1996	20 U	34	874	20 U	20 U	20 U	473
	09/06/1996	10 U	34	955	10 U	10 U	10 U	339
	12/23/1996	1 U	18	30	1 U	1 U	1 U	55
	03/21/1997	10 U	24	42	10 U	10 U	10 U	147
	06/20/1997	1 U	21	965	1 U	2.2	1 U	614
	09/04/1997	5 U	11	1,070	5 U	5 U	5 U	729
	12/05/1997	20 U	26	89	20 U	20 U	20 U	324
	03/12/1998	5 U	18	100	5 U	5 U	5 U	238
	06/04/1998	5 U	18	92	5 U	5 U	5 U	206
	09/03/1998	5 U	15	576	5 U	5 U	5 U	248
	12/28/1998	5 U	11	227	5 U	5 U	5 U	397
	04/01/1999	5 U	10	186	5 U	5 U	5 U	364
	06/16/1999	5 U	10	131	5 U	5 U	5 U	289
	08/31/1999	5 U	11	92	5 U	5 U	5 U	93
	12/06/1999	2 U	9.0	55	2 U	2 U	2 U	164
	03/02/2000	1 U	8.0	44	1 U	1 U	1 U	112
	07/24/2000	1 U	1 U	1 U	1 U	1 U	1 U	1 U
	09/12/2000	1 U	8.0	192	1 U	1 U	1 U	175
	12/13/2000	1 U	6.9	162	1 U	1 U	1 U	202
	03/08/2001	1 U	9.9	206	1 U	1 U	1 U	197
	09/20/2001	0.5 U	6.6	313	0.5 U	1.3	0.5 U	187
	12/18/2001	0.5 U	7.1	137	0.5 U	0.60	0.5 U	270
	03/06/2002	0.5 U	10	150	0.5 U	0.60	0.5 U	183
06/13/2002	0.5 U	7.1	180	0.5 U	0.60	0.5 U	335	
09/17/2002	0.5 U	7.7	269	0.5 U	0.70	0.5 U	711	
03/19/2003	0.5 U	7.4	70	0.5 U	0.5 U	0.5 U	210	
09/23/2003	0.5 U	14	121	0.5 U	0.5 U	0.5 U	358	

**Table 9**  
**Downgradient Area Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride	
DMW-15 (cont'd)	03/03/2004	0.5 U	12	71	0.5 U	0.5 U	0.5 U	177	
	09/08/2004	0.5 U	5.0	77	0.5 U	0.5 U	0.5 U	340	
	03/08/2005	0.5 U	14	93	0.5 U	0.5 U	0.5 U	99	
	09/06/2005	0.5 U	7.8	60	0.5 U	0.5 U	0.5 U	197	
	03/08/2006	0.5 U	18	184	0.5 U	1.4	0.5 U	162	
	08/07/2006	0.5 U	7.2	82	0.5 U	0.5 U	0.5 U	136	
	12/12/2006	0.5 U	5.7	31	0.5 U	0.5 U	0.5 U	96	
	03/19/2007	0.5 U	5.8	102	0.18 J	0.34 J	0.5 U	171	
	09/26/2007	0.5 U	5.0	21	0.5 U	0.5 U	0.5 U	91	
	03/12/2008	0.5 U	5.5	28	0.5 U	0.5 U	0.5 U	82	
	03/23/2009	0.5 U	0.5 U	0.44 J	0.5 U	0.5 U	-	2.6	
	09/14/2009	0.5 U	0.5 U	0.50 U	0.5 U	0.5 U	-	0.5 U	
	03/25/2010	0.5 U	0.5 U	0.27 J	0.5 U	0.5 U	-	1.0	
	09/29/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	-	0.5 U	
	03/23/2011	0.5 U	1.9	0.54	0.5 U	0.5 U	-	0.5 U	
	06/07/2011	0.5 U	0.5 U	0.090 J	0.5 U	0.5 U	-	0.5 U	
	09/26/2011	0.5 U	3.3	2.1	0.5 U	0.5 U	-	0.5 U	
	07/13/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	-	0.5 U	
	09/05/2013	1 U	0.52 J	1.5	1 U	1 U	1 U	0.39 J	
	09/23/2014	1 U	1 U	1 U	1 U	1 U	1 U	1 U	
	09/02/2015	1 U	1 U	1 U	1 U	1 UJ <sup>1</sup>	1 UJ <sup>1</sup>	-	1.7
	09/13/2016	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	09/14/2017	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	09/13/2018	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	09/13/2019	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	09/23/2020	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

**Table 9**  
**Downgradient Area Wells Groundwater Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Well	Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Vinyl chloride
<b>DEQ RBC Screening Level Criteria for Water<sup>a</sup></b>								
Ingestion and Inhalation of Tap Water								
Residential		12	0.49	36	360	280	2.8	0.027
Volatilization to Outdoor Air								
Residential		64,000	3,300	>S	>S	570,000	16,000	350
Occupational		>S	20,000	>S	>S	2,400,000	68,000	5,900
Vapor Intrusion into Buildings								
Residential		3,700	200	>S	>S	29,000	1,100	17
Occupational		48,000	3,700	>S	>S	360,000	14,000	880
GW in Excavation								
Construction & Excavation Worker		5,600	430	18,000	180,000	44,000	10,000	960
<b>Portland Harbor JSCS Levels</b>								
Upland Source Control Screening Level <sup>b</sup>		0.33	3.0	NA	1,000	NA	NA	0.24
2004 AWQC (Human Health - Organism Only) <sup>c</sup>		3.3	30	NA	10,000	NA	NA	2.4
2004 AWQC (Ecological Receptors - Chronic) <sup>d</sup>		840	21,900	NA	NA	NA	NA	NA
Oak Ridge Tier II (Ecological Receptors) <sup>e</sup>		98	47	590	590	25 <sup>g</sup>	-	930 <sup>f</sup>

**Notes:**

<sup>a</sup> Oregon Department of Environmental Quality (DEQ) Generic Risk-based concentrations (revised May 2018)

<sup>b</sup> DEQ, Portland Harbor JSCS, Table 3-1 (revised 7/16/07). Values listed are based on human health via fish ingestion

<sup>c</sup> DEQ, Portland Harbor JSCS, Table 3-1 (revised 7/16/07). Per DEQ's Ambient Water Quality Criteria for Organisms Only (DEQ 2004)

<sup>d</sup> DEQ, Portland Harbor JSCS, Table 3-1 (revised 7/16/07). Per DEQ's Ambient Water Quality Criteria - Ecologic Receptors - Chronic (DEQ 2004)

<sup>e</sup> DEQ, Portland Harbor JSCS, Table 3-1 (revised 7/16/07). Per Oak Ridge National Laboratory's Water Quality Criteria - Ecological Receptors - Tier II SCV

<sup>f</sup> Ecological screening value adopted by EPA in Regions 3,5 and 6.

<sup>g</sup> EPA Region III BTAG Freshwater Screening Benchmarks (July 2006)

ug/L = Micrograms per liter

U = not detected at the associated reporting limit

NA = not applicable

- = not available or not analyzed for this parameter

C = results of coelution

E = value reported exceeds linear calibration range; estimated concentration.

D = result from diluted analysis

J = estimated trace concentration

J<sup>1</sup> = Data Validation Qualifier. The numerical value reported is approximate. See Data Validation report for further information.

>S = This RBC exceeds the solubility limit

**Table 10**  
**Pore Water and Surface Water Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Sample ID	Sample Depth <sup>a</sup> (inches)	Date	Tetrachloroethene	Trichloroethene	cis-1,2- Dichloroethene	trans-1,2- Dichloroethene	1,1- Dichloroethene	Vinyl Chloride
<b>Pore Water</b>								
RB0-24	24	09/27/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RB0-24	24	09/28/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RB0-24	24	09/25/2013	1 UJ <sup>1</sup>	1 U	1 U	1 U	1 U	1 U
RB0-24	24	10/13/2014	1 U	1 U	1 U	1 U	1 U	1 U
RB0-24	24	09/15/2015	1 U	1 U	1 U	1 U	1 U	1 U
RB0-42	42	09/15/2015	1 U	1 U	1 U	1 U	1 U	1 U
RB0-24	24	09/12/2016	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RB0-36	36	09/12/2016	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RB0-24	24	09/13/2017	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RB0-36	36	09/13/2017	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RB0-24	24	09/27/2018	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RB0-36	36	09/27/2018	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RB0-24	24	09/24/2019	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RB0-36	36	09/24/2019	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RB0-24	24	09/22/2020	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RB0-36	36	09/22/2020	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RB1-12	12	09/29/2010	0.50	2.9	1.8	0.5 U	0.5 U	0.11 J
RB1-16	16	09/27/2011	0.64	4.4	1.9	0.5 U	0.5 U	0.5 U
RB1-16	16	09/28/2012	0.5 U	0.34 J	0.37 J	0.5 U	0.5 U	0.5 U
RB1-16	16	09/25/2013	0.55 J <sup>1</sup>	3.8	1.8	1 U	1 U	1 U
RB1-16	16	10/13/2014	1 U	1 U	1 U	1 U	1 U	1 U
RB1-24	24	09/15/2015	1 U	1 U	1 U	1 U	1 U	1 U
RB1-48	48	09/15/2015	1 U	1 U	1 U	1 U	1 U	1 U
RB1-24	24	09/12/2016	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RB1-36	36	09/12/2016	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RB1-24	24	09/13/2017	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RB1-36	36	09/13/2017	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RB1-24	24	09/27/2018	0.56	3.3	2.3	0.5 U	0.5 U	0.5 U
RB1-36	36	09/27/2018	0.69	3.5	2.4	0.5 U	0.5 U	0.5 U
RB1-24	24	09/24/2019	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RB1-36	36	09/24/2019	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RB1-24	24	09/22/2020	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RB1-36	36	09/22/2020	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RB2-12	12	09/29/2010	0.89	23	10	0.12 J	0.5 U	1.1
RB2-18	18	09/29/2010	0.95	14	4.4	0.5 U	0.5 U	0.5 U
RB2-24	24	09/27/2011	0.83	13	3.2	0.5 U	0.5 U	0.5 U
RB2-36	36	09/27/2011	0.5 U	167	47	0.5 U	0.51	6.6
RB2-24	24	09/28/2012	0.75	11	3.6	0.5 U	0.5 U	0.5 U

**Table 10**  
**Pore Water and Surface Water Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Sample ID	Sample Depth <sup>a</sup> (inches)	Date	Tetrachloroethene	Trichloroethene	cis-1,2- Dichloroethene	trans-1,2- Dichloroethene	1,1- Dichloroethene	Vinyl Chloride
RB2-36	36	09/28/2012	0.81	12	4.2	0.5 U	0.5 U	0.5 U
RB2-24	24	09/25/2013	0.52 J <sup>1</sup>	10	3.5	1 U	1 U	1 U
RB2-36	36	09/25/2013	0.44 J <sup>1</sup>	9.0	3.4	1 U	1 U	1 U
RB2-24	24	10/13/2014	1 U	9.1	3.0	1 U	1 U	1 U
RB2-36	36	10/13/2014	1 U	18	5.0	1 U	1 U	1 U
RB2-48	48	09/15/2015	1 U	152	109	0.49 J	0.70 J	12
RB2-24	24	09/12/2016	0.52	17	6.7	0.5 U	0.5 U	0.89
RB2-48	48	09/12/2016	0.5 U	18	69	0.5 U	0.5 U	27
RB2-24	24	09/13/2017	0.5 U	8.3	2.6	0.5 U	0.5 U	0.5 U
RB2-48	48	09/13/2017	0.5 U	7.4	2.6	0.5 U	0.5 U	0.5 U
RB2-18	18	09/27/2018	0.5 U	1.4	2.0	0.5 U	0.5 U	5.4
RB2-24	24	09/27/2018	0.5 U	131	26	0.5 U	0.5 U	0.5 U
RB2-24	24	09/24/2019	0.64	6.6	3.1	0.5 U	0.5 U	0.5 U
RB2-36	36	09/24/2019	0.71	10	3.6	0.5 U	0.5 U	0.5 U
RB2-24	24	09/22/2020	0.5 U	8.5	4.2	0.5 U	0.5 U	0.5 U
RB2-36	36	09/22/2020	0.5 U	245	51	0.5 U	2.5 U	0.5 U
RB3-13	13	09/29/2010	0.5 U	0.63	10	0.5 U	0.21 J	5.1
RB3-10	10	09/27/2011	0.5 U	0.5 U	6.4	0.5 U	0.5 U	0.5 U
RB3-10	10	09/28/2012	0.5 U	0.5 U	3.5	0.5 U	4.3	0.5 U
RB3-10	10	09/25/2013	1 UJ <sup>1</sup>	6.8	7.1	1 U	1 U	1 U
RB3-12	12	10/13/2014	1 U	1 U	0.58 J	1 U	1 U	2.4
RB3-12	12	09/15/2015	1 U	1.8	11	1 U	1 U	1.0 J
RB3-12	12	09/12/2016	0.5 U	1.8	2.0	0.5 U	0.5 U	0.56
RB3-12	12	09/13/2017	0.5 U	1.5	11	0.5 U	0.5 U	4.0
RB3-12	12	09/27/2018	0.5 U	0.75	0.86	0.5 U	0.5 U	0.5 U
RB3-12	12	09/24/2019	0.5 U	5.5	8.4	0.5 U	0.5 U	0.5 U
RB3-12	12	09/22/2020	0.5 U	0.5 U	0.83	0.5 U	0.5 U	0.5 U
RB4-18	18	09/29/2010	0.5 U	0.5 U	0.16 J	0.5 U	0.5 U	0.26 J
RB4-34	34	09/29/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.17 J
RB4-38	38	09/27/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RB4-24	24	09/28/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.28 J	0.5 U
RB4-18	18	09/25/2013	1 UJ <sup>1</sup>	1 U	1 U	1 U	1 U	1 U
RB4-34	34	09/25/2013	1 UJ <sup>1</sup>	1 U	1 U	1 U	1 U	1 U
RB4-18	18	10/13/2014	1 U	1 U	1 U	1 U	1 U	1 U
RB4-36	36	10/13/2014	1 U	1 U	1 U	1 U	1 U	1 U
RB4-24	24	09/15/2015	1 U	1 U	1 U	1 U	1 U	1 U
RB4-48	48	09/15/2015	1 U	1 U	1 U	1 U	1 U	1 U
RB4-24	24	09/12/2016	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RB4-48	48	09/12/2016	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

**Table 10**  
**Pore Water and Surface Water Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Sample ID	Sample Depth <sup>a</sup> (inches)	Date	Tetrachloroethene	Trichloroethene	cis-1,2- Dichloroethene	trans-1,2- Dichloroethene	1,1- Dichloroethene	Vinyl Chloride
RB4-24	24	09/13/2017	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RB4-48	48	09/13/2017	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RB4-24	24	09/27/2018	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RB4-72	72	09/27/2018	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RB4-24	24	09/24/2019	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RB4-48	48	09/24/2019	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RB4-24	24	09/22/2020	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RB4-48	48	09/22/2020	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RB5-70	70	09/29/2010	0.5 U	0.5 U	0.72	0.5 U	0.5 U	0.27 J
RB5-24	24	09/27/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RB5-48	48	09/27/2011	0.5	0.5 U	3.3	0.5 U	0.5 U	0.5 U
RB5-24	24	09/28/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RB5-26	26	09/25/2013	1 UJ <sup>1</sup>	1 U	1 U	1 U	1 U	1 U
RB5-26	26	10/13/2014	1 U	1 U	1 U	1 U	1 U	1 U
RB5-24	24	09/15/2015	1 U	1 U	1 U	1 U	1 U	0.33 J
RB5-48	48	09/15/2015	1 U	1 U	1 U	1 U	1 U	1 U
RB5-24	24	09/16/2016	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.64
RB5-48	48	09/16/2016	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.71
RB5-24	24	09/13/2017	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.69
RB5-48	48	09/13/2017	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.62
RB5-24	24	09/27/2018	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RB5-48	48	09/27/2018	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RB5-24	24	09/24/2019	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RB5-48	48	09/24/2019	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RB5-24	24	09/22/2020	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RB5-48	48	09/22/2020	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RB6-30	30	09/29/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RB6-50	50	09/29/2010	0.5 U	0.5 U	0.08 J	0.5 U	0.5 U	0.5 U
RB6-48	48	09/27/2011	0.5 U	0.5 U	2.7	0.5 U	0.5 U	19
RB6-24	24	09/28/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.65	0.5 U
RB6-48	48	09/28/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RB6-24	24	09/25/2013	1 UJ <sup>1</sup>	1 U	1 U	1 U	1 U	1 U
RB6-48	48	09/25/2013	1 UJ <sup>1</sup>	1 U	1 U	1 U	1 U	1 U
RB6-24	24	10/13/2014	1 U	1 U	1 U	1 U	1 U	1 U
RB6-48	48	10/13/2014	1 U	1 U	1 U	1 U	1 U	1 U
RB6-24	24	09/15/2015	1 U	1 U	1 U	1 U	1 U	1 U
RB6-48	48	09/15/2015	1 U	1 U	4.8	1 U	1 U	33
RB6-24	24	09/12/2016	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RB6-48	48	09/12/2016	0.5 U	0.5 U	2.2	0.5 U	0.5 U	9.6

**Table 10**  
**Pore Water and Surface Water Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Sample ID	Sample Depth <sup>a</sup> (inches)	Date	Tetrachloroethene	Trichloroethene	cis-1,2- Dichloroethene	trans-1,2- Dichloroethene	1,1- Dichloroethene	Vinyl Chloride
RB6-24	24	09/13/2017	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.7
RB6-48	48	09/13/2017	0.5 U	0.5 U	11	0.5 U	0.5 U	132
RB6-24	24	09/27/2018	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RB6-48	48	09/27/2018	0.5 U	0.5 U	37	0.5 U	0.5 U	39
RB6-24	24	09/24/2019	0.5 U	0.5 U	0.70	0.5 U	0.5 U	0.83
RB6-48	48	09/24/2019	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RB6-24	24	09/22/2020	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RB6-48	48	09/22/2020	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
<b>Surface Water</b>								
RB2-SW	-	09/28/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	-	09/25/2013	1 UJ <sup>1</sup>	1 U	1 U	1 U	1 U	1 U
	-	10/13/2014	1 U	1 U	1 U	1 U	1 U	1 U
	-	09/15/2015	1 U	1 U	1 U	1 U	1 U	1 U
	-	09/12/2016	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RB2-SW (cont'd)	-	09/13/2017	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	-	09/27/2018	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	-	09/24/2019	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	-	09/22/2020	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RB3-SW	-	09/27/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RB5-SW	-	09/27/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RB6-SW	-	09/27/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	-	09/28/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	-	09/25/2013	1 UJ <sup>1</sup>	1 U	1 U	1 U	1 U	1 U
	-	10/13/2014	1 U	1 U	1 U	1 U	1 U	1 U
	-	09/15/2015	1 U	1 U	1 U	1 U	1 U	1 U
	-	09/12/2016	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	-	09/13/2017	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	-	09/27/2018	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	-	09/24/2019	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	-	09/22/2020	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
EMR-1 (Millrace 1)	-	03/19/2013	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	-	03/17/2014	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	-	09/22/2014	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	-	03/10/2015	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	-	03/02/2016	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	-	09/19/2017	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	-	03/06/2018	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

**Table 10**  
**Pore Water and Surface Water Analytical Results - VOCs (ug/L)**  
H&V Fiber Corporation  
Corvallis, Oregon

Sample ID	Sample Depth <sup>a</sup> (inches)	Date	Tetrachloroethene	Trichloroethene	cis-1,2- Dichloroethene	trans-1,2- Dichloroethene	1,1- Dichloroethene	Vinyl Chloride
EMR-1 (Millrace 1) (cont'd)	-	09/17/2018	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	-	03/11/2019	0.5 U	0.67	0.5 U	0.5 U	0.5 U	0.5 U
	-	03/11/2019	0.5 U	0.67	0.5 U	0.5 U	0.5 U	0.5 U
	-	09/13/2019	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	-	03/11/2020	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	-	09/21/2020	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	-	03/10/2021	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
EMR-4 (Millrace 4)	-	03/19/2013	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	-	03/17/2014	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	-	03/10/2015	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	-	03/02/2016	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	-	09/19/2017	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	-	03/06/2018	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	-	09/17/2018	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	-	03/11/2019	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	-	03/11/2019	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	-	09/13/2019	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	-	03/11/2020	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	-	09/21/2020	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	-	03/10/2021	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
<b>Screening Criteria</b>								
Oak Ridge Tier II (Ecological Receptors) <sup>b</sup>			98	47	590	590	25 <sup>d</sup>	930 <sup>c</sup>
Portland Harbor JSCS Levels								
Upland Source Control Screening Level <sup>e</sup>			0.33	3.0	NA	1,000	NA	0.24

**Notes:**

<sup>a</sup> Sample depth is relative to in-water sediment elevation. All samples were collected in approximately 12 inches of water.

<sup>b</sup> Per Oak Ridge National Laboratory's Water Quality Criteria - Ecological Receptors - Tier II SCV (Tier II SCV values were taken from Suter II, G.W. and Tsao, C.L., 1996. Toxicological Benchmarks for Screening Potential Contaminants of Concern for Effects on Aquatic Biota: 1996 Revision. ORNL publication ES/ER/TM-96/R2)

<sup>c</sup> Ecological screening value adopted by EPA in Regions 3, 5 and 6.

<sup>d</sup> EPA Region III BTAG Freshwater Screening Benchmarks (July 2006)

<sup>e</sup> Oregon Department of Environmental Quality (DEQ), Portland Harbor JSCS, Table 3-1 (revised 7/16/07). Values listed are based on human health via fish ingestion.  
ug/L = Micrograms per liter

U = not detected at the associated reporting limit

J = estimated trace concentration

J<sup>1</sup> = Data Validation Qualifier. The numerical value reported is approximate. See Data Validation report for further information.

**Table 11**  
**Field Parameters in Pore Water**  
H&V Fiber Corporation  
Corvallis, Oregon

Sample ID	Date	pH (S.U.)	Specific Conductance (mS/cm)	Temperature (°F)	Dissolved Oxygen (mg/L)	Redox (ORP) (mV)
RB0-24	09/27/2011	9.19	0.624	61.1	0.38	-162
RB0-24	09/28/2012	7.51	0.395	59.8	0.38	83
RB0-24	09/25/2013	7.19	0.350	58.3	0.31	21
RB0-24	10/13/2014	7.70	0.452	58.8	0.25	2.0
RB0-24	09/15/2015	6.86	0.304	61.1	0.37	181
RB0-42	09/15/2015	7.11	0.311	61.4	0.29	134
RB0-24	09/12/2016	7.26	0.690	63.5	0.12	-131
RB0-36	09/12/2016	7.10	0.650	63.4	0.16	-119
RB0-24	09/13/2017	8.00	0.660	67.1	0.15	-157
RB0-36	09/13/2017	8.11	0.660	62.3	0.19	-160
RB0-24	09/27/2018	7.21	0.660	61.5	0.64	-107
RB0-36	09/27/2018	7.23	0.540	59.5	0.18	-92
RB0-24	09/24/2019	8.79	0.630	61.9	- <sup>1</sup>	-180
RB0-36	09/24/2019	8.83	0.630	61.7	- <sup>1</sup>	-159
RB0-24	09/22/2020	7.15	0.560	61.0	0.27	-33
RB0-36	09/22/2020	7.17	0.550	60.9	0.23	-36
RB1-12	09/29/2010	6.77	0.397	62.4	1.4	23
RB1-16	09/27/2011	9.32	0.424	60.0	0.68	-171
RB1-16	09/28/2012	7.45	0.289	59.5	0.36	22
RB1-16	09/25/2013	7.05	0.324	57.7	1.1	-60
RB1-16	10/13/2014	7.81	0.357	59.1	0.22	-77
RB1-24	09/15/2015	7.09	0.371	62.8	0.12	-37
RB1-48	09/15/2015	7.20	0.315	61.0	0.19	7.0
RB1-24	09/12/2016	7.14	0.367	59.3	0.15	-70
RB1-36	09/12/2016	7.06	0.384	60.4	0.12	-74
RB1-24	09/13/2017	7.72	0.412	61.4	0.090	-146
RB1-36	09/13/2017	7.93	0.326	61.1	0.10	-149
RB1-24	09/27/2018	7.26	0.306	60.8	0.77	-25
RB1-36	09/27/2018	7.28	0.310	61.6	0.83	-38
RB1-24	09/24/2019	8.76	0.431	62.4	- <sup>1</sup>	-211
RB1-36	09/24/2019	8.76	0.444	61.9	- <sup>1</sup>	-192
RB1-24	09/22/2020	7.04	0.258	61.5	0.24	-34
RB1-36	09/22/2020	7.09	0.313	61.1	0.27	-34
RB2-SW	09/28/2012	7.71	0.055	60.3	6.8	8.0
RB2-SW	09/25/2013	7.11	0.057	58.0	8.8	3.0
RB2-SW	10/13/2014	7.46	0.061	59.3	6.9	1.0
RB2-SW	09/15/2015	7.44	0.101	62.0	5.1	-97
RB2-SW	09/12/2016	7.76	0.071	64.6	8.4	-7.7
RB2-SW	09/13/2017	8.04	0.060	64.2	7.6	22
RB2-SW	09/27/2018	7.74	0.970	63.1	7.4	-78
RB2-SW	09/24/2019	9.31	0.057	62.3	- <sup>1</sup>	-175
RB2-SW	09/22/2020	7.23	0.056	60.9	0.95	4.2
RB2-12	09/29/2010	6.29	0.431	61.5	1.0	89
RB2-18	09/29/2010	6.31	0.419	62.7	3.3	119
RB2-24	09/27/2011	8.94	0.462	60.4	2.9	-158
RB2-36	09/27/2011	9.24	0.484	61.0	0.57	-175
RB2-24	09/28/2012	7.09	0.375	59.8	2.5	44
RB2-36	09/28/2012	7.04	0.381	60.3	3.0	46
RB2-24	09/25/2013	6.82	0.328	56.5	0.26	-4.0
RB2-36	09/25/2013	6.92	0.326	56.3	2.9	-11

**Table 11**  
**Field Parameters in Pore Water**  
H&V Fiber Corporation  
Corvallis, Oregon

Sample ID	Date	pH (S.U.)	Specific Conductance (mS/cm)	Temperature (°F)	Dissolved Oxygen (mg/L)	Redox (ORP) (mV)
RB2-24	10/13/2014	7.57	0.341	59.6	2.2	-14
RB2-36	10/13/2014	7.51	0.348	59.0	1.6	-48
RB2-24	09/15/2015	7.23	0.353	60.9	0.90	-74
RB2-48	09/15/2015	7.27	0.393	60.7	0.22	-83
RB2-24	09/12/2016	6.79	0.347	62.2	0.63	40
RB2-48	09/12/2016	6.98	0.380	64.4	0.28	-28
RB2-24	09/13/2017	7.62	0.357	62.1	2.6	56
RB2-48	09/13/2017	7.60	0.364	63.0	3.4	40
RB2-18	09/27/2018	7.15	0.338	62.5	0.68	27
RB2-24	09/27/2018	7.24	0.340	62.3	0.87	21
RB2-24	09/24/2019	8.57	0.325	61.9	- <sup>1</sup>	-102
RB2-36	09/24/2019	8.69	0.328	62.1	- <sup>1</sup>	-109
RB2-24	09/22/2020	6.81	0.317	61.3	0.40	13
RB2-36	09/22/2020	7.07	0.355	61.0	0.33	-9.6
RB3-SW	09/27/2011	9.94	0.069	61.1	6.9	-210
RB3-13	09/29/2010	6.55	0.475	63.0	0.43	-94
RB3-10	09/27/2011	9.38	0.463	61.6	0.55	-176
RB3-10	09/28/2012	7.31	0.405	62.2	0.42	40
RB3-10	09/25/2013	6.87	0.329	57.6	1.4	34
RB3-12	10/13/2014	7.81	0.417	60.3	0.43	6.0
RB3-12	09/15/2015	7.20	0.380	63.5	0.34	-50
RB3-12	09/12/2016	7.11	0.349	65.1	0.22	-75
RB3-12	09/13/2017	7.76	0.381	63.0	0.35	-68
RB3-12	09/27/2018	7.15	0.340	63.3	0.60	39
RB3-12	09/24/2019	8.63	0.326	62.8	- <sup>1</sup>	-111
RB3-12	09/22/2020	7.10	0.072	62.6	0.72	46
RB4-18	09/29/2010	6.35	1.05	63.7	0.65	-103
RB4-34	09/29/2010	-	-	-	-	-
RB4-18	09/27/2011	-	-	-	-	-
RB4-38	09/27/2011	9.06	0.494	59.8	0.14	-158
RB4-24	09/28/2012	7.13	0.572	64.3	0.34	40
RB4-18	09/25/2013	7.07	0.829	61.1	0.10	-166
RB4-34	09/25/2013	6.83	0.632	58.9	0.34	-67
RB4-18	10/13/2014	7.88	0.295	63.6	0.06	-181
RB4-36	10/13/2014	7.76	1.10	63.4	0.11	-56
RB4-24	09/15/2015	7.20	0.957	64.1	0.21	-114
RB4-48	09/15/2015	6.92	0.702	63.2	0.11	-37
RB4-24	09/12/2016	7.17	0.820	65.4	0.14	-142
RB4-48	09/12/2016	7.16	0.336	66.0	0.14	-119
RB4-24	09/13/2017	7.70	0.810	65.6	0.07	-169
RB4-48	09/13/2017	7.62	0.670	63.0	0.16	-140
RB4-24	09/27/2018	7.03	0.800	65.3	0.56	-109
RB4-72	09/27/2018	6.93	0.620	64.2	0.57	-71
RB4-24	09/24/2019	8.62	0.780	62.7	- <sup>1</sup>	-192
RB4-48	09/24/2019	8.60	0.790	62.9	- <sup>1</sup>	-186
RB4-24	09/22/2020	7.16	0.453	61.8	0.30	5.8
RB4-48	09/22/2020	7.31	0.510	69.9	0.22	-32
RB5-SW	09/27/2011	9.64	0.114	61.6	6.0	-164
RB5-30	09/29/2010	-	-	-	-	-

**Table 11**  
**Field Parameters in Pore Water**  
H&V Fiber Corporation  
Corvallis, Oregon

Sample ID	Date	pH (S.U.)	Specific Conductance (mS/cm)	Temperature (°F)	Dissolved Oxygen (mg/L)	Redox (ORP) (mV)
RB5-70	09/29/2010	6.21	0.490	58.2	1.0	-42
RB5-24	09/27/2011	9.04	0.876	61.8	0.22	-143
RB5-48	09/27/2011	9.04	0.725	61.1	0.34	-134
RB5-24	09/28/2012	7.38	0.147	61.9	0.40	22
RB5-26	09/25/2013	7.04	0.655	58.0	0.21	-157
RB5-26	10/13/2014	7.64	0.737	61.3	0.20	-129
RB5-24	09/15/2015	7.21	0.446	64.2	0.09	-133
RB5-48	09/15/2015	7.23	0.537	64.1	0.41	-119
RB5-24	09/12/2016	6.90	0.570	65.3	0.56	-132
RB5-48	09/12/2016	6.90	0.660	65.9	0.38	-132
RB5-24	09/13/2017	7.80	0.501	72.7	0.040	-166
RB5-48	09/13/2017	7.78	0.650	63.5	0.070	-163
RB5-24	09/27/2018	7.06	0.462	64.5	0.58	-89
RB5-48	09/27/2018	6.97	0.680	65.4	0.59	-101
RB5-24	09/24/2019	8.59	0.690	64.2	- <sup>1</sup>	-203
RB5-48	09/24/2019	8.63	0.690	64.2	- <sup>1</sup>	-190
RB5-24	09/22/2020	6.95	0.297	62.3	0.33 <sup>1</sup>	-9
RB5-48	09/22/2020	7.02	0.151	63.9	0.27 <sup>1</sup>	-14
RB6-SW	09/27/2011	9.67	0.173	62.7	6.0	-137
RB6-SW	09/28/2012	7.50	0.083	63.1	6.8	-24
RB6-SW	09/25/2013	7.47	0.043	59.5	8.1	-177
RB6-SW	10/13/2014	7.56	0.078	59.9	6.1	-118
RB6-SW	09/15/2015	7.47	0.078	63.1	4.2	-104
RB6-SW	09/12/2016	7.69	0.079	65.2	9.2	-19
RB6-SW	09/13/2017	8.34	0.096	66.5	6.2	-63
RB6-SW	09/27/2018	7.68	0.036	62.6	4.0	-50
RB6-SW	09/24/2019	9.14	0.075	63.5	- <sup>1</sup>	-196
RB6-SW	09/22/2020	7.11	0.084	62.7	0.87	31
RB6-30	09/29/2010	6.37	0.905	62.1	0.74	-110
RB6-50	09/29/2010	6.42	0.537	61.6	0.55	-82
RB6-24	09/27/2011	-	-	-	-	-
RB6-48	09/27/2011	9.12	0.388	61.1	0.33	-115
RB6-24	09/28/2012	7.22	0.911	63.3	0.29	15
RB6-48	09/28/2012	7.12	0.579	62.3	0.22	9.0
RB6-24	09/25/2013	6.86	0.817	58.6	0.27	-148
RB6-48	09/25/2013	6.95	0.427	58.7	0.16	-162
RB6-24	10/13/2014	7.55	0.940	62.0	0.10	-167
RB6-48	10/13/2014	7.78	0.462	60.6	0.30	-122
RB6-24	09/15/2015	7.10	0.591	64.5	0.19	-121
RB6-48	09/15/2015	7.23	0.350	62.8	0.23	-126
RB6-24	09/12/2016	6.82	0.900	66.0	0.52	-139
RB6-48	09/12/2016	6.93	0.401	65.5	1.33	-129
RB6-24	09/13/2017	7.59	1.22	68.3	0.080	-158
RB6-48	09/13/2017	7.66	0.389	64.9	0.20	85
RB6-24	09/27/2018	6.96	0.780	63.6	0.31	-109
RB6-48	09/27/2018	7.19	0.341	62.0	0.27	-106
RB6-24	09/24/2019	8.56	0.415	63.4	- <sup>1</sup>	-185
RB6-48	09/24/2019	8.64	0.303	62.6	- <sup>1</sup>	-174
RB6-24	09/22/2020	7.04	0.940	64.0	0.29	-32
RB6-48	09/22/2020	7.04	0.297	61.3	0.30	-32

**Table 11**  
**Field Parameters in Pore Water**  
H&V Fiber Corporation  
Corvallis, Oregon

**Notes:**

<sup>1</sup> Unreliable measurements due to problems with field instrumentation.

S.U. = Standard units

mS/cm = Millisiemens per centimeter

F = degrees Fahrenheit

mg/L = Milligrams per liter

mV = Millivolts

- = not measured or not available

**Table 12**  
**Soil Vapor Analytical Results - VOCs (mg/m<sup>3</sup>)**  
**SVE Extraction Wells**  
H&V Fiber Corporation  
Corvallis, Oregon

Location	Date	Tetrachloroethene		Trichloroethene		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene		1,1-Dichloroethene		Vinyl Chloride	
		mg/m <sup>3</sup>	ppmv	mg/m <sup>3</sup>	ppmv	mg/m <sup>3</sup>	ppmv	mg/m <sup>3</sup>	ppmv	mg/m <sup>3</sup>	ppmv	mg/m <sup>3</sup>	ppmv
IMW-3	06/10/2009	828 U	120 U	44,100	8,074	222 J	55 J	484 U	120 U	484 U	120 U	312 U	120 U
	10/14/2011	4,280 U	620 U	256,000	46,869	811 J	201 J	2,500 U	620 U	2,500 U	620 U	1,610 U	619 U
	02/27/2012	1,030 U	149 U	24,700	4,522	105 J	26 J	605 U	150 U	605 U	150 U	390 U	150 U
	07/19/2012	205 U	30 U	15,900	2,911	101 J	25 J	120 U	30 U	120 U	30 U	77 U	30 U
	07/24/2012	272 U	39 U	14,800	2,710	63 J	16 J	159 U	39 U	159 U	39 U	103 U	40 U
	08/01/2012	279 U	40 U	13,100	2,398	75 J	19 J	163 U	40 U	163 U	40 U	105 U	40 U
	09/06/2012	138 U	20 U	8,470	1,551	58 J	14 J	81 U	20 U	81 U	20 U	52 U	20 U
	02/20/2013	44 U	6.3 U	3,510	643	25 J	6.1 J	25 U	6.3 U	25 U	6.3 U	16 U	6.3 U
	05/29/2013	1.1 U	0.16 U	910	167	5.5	1.4	0.63 U	0.16 U	0.63 U	0.16 U	0.41 U	0.16 U
	09/04/2013	1.1 U	0.16 U	750	137	2.7	0.67	0.63 U	0.16 U	0.63 U	0.16 U	0.41 U	0.16 U
	01/08/2014	1.1 U	0.16 U	490	90	6.7	1.7	0.63 U	0.16 U	0.63 U	0.16 U	0.41 U	0.16 U
	03/04/2014	24	3.5	54	10	1.8	0.45	0.063 U	0.016 U	0.063 U	0.016 U	0.041 U	0.016 U
	06/03/2014	2.7 U	0.39 U	960	176	5.5	1.4	1.6 U	0.40 U	1.6 U	0.40 U	1.0 U	0.38 U
	09/04/2014	1.1 U	0.16 U	640	117	5.2	1.3	0.63 U	0.16 U	0.63 U	0.16 U	0.41 U	0.16 U
	12/01/2014	0.12	0.017	160	29	3.2	0.79	0.063 U	0.016 U	0.063 U	0.016 U	0.041 U	0.016 U
	03/10/2015	1.1 U	0.16 U	1,100	201	3.7	0.92	0.63 U	0.16 U	0.63 U	0.16 U	0.41 U	0.16 U
	06/10/2015	1.1 U	0.16 U	540	99	3.1	0.77	0.63 U	0.16 U	0.63 U	0.16 U	0.41 U	0.16 U
	09/01/2015	1.1 U	0.16 U	421	77	4.5	1.1	0.63 U	0.16 U	0.63 U	0.16 U	0.41 U	0.16 U
	12/14/2015	0.061	0.0088	244	45	3.0	0.74	0.027	0.0068	0.0077	0.0019	0.019	0.0075
	03/11/2016	0.024	0.0034	72	13	2.0	0.50	0.025	0.0062	0.0080 U	0.0020 U	0.013	0.0050
	06/21/2016	0.018	0.0026	76	14	0.91	0.23	0.0069	0.0017	0.0040 U	0.0010 U	0.0050	0.0019
	09/16/2016	0.27 U	0.039 U	430	79	3.3	0.81	0.16 U	0.039 U	0.16 U	0.039 U	0.10 U	0.039 U
	12/22/2016	0.011	0.0015	23	4.3	0.94	0.23	0.018	0.0044	0.0048	0.0012	0.0057	0.0022
	03/10/2017	0.015	0.0021	19	3.5	0.81	0.20	0.014	0.0034	0.0039	0.0010	0.0017	0.00066
	06/08/2017	0.11 U	0.016 U	64	12	0.062 U	0.015 U	0.063 U	0.016 U	0.063 U	0.016 U	0.041 U	0.016 U
	09/20/2017	0.032	0.0046	112	21	1.1	0.27	0.012	0.0029	0.0063 U	0.0016 U	0.0081	0.0031
	12/12/2017	0.11 U	0.016 U	218	40	2.1	0.53	0.063 U	0.016 U	0.063 U	0.016 U	0.041 U	0.016 U
	03/19/2018	0.054 U	0.0079 U	161	29	2.6	0.65	0.032 U	0.0079 U	0.032 U	0.0079 U	0.020 U	0.0078 U
	06/13/2018	0.027 U	0.0039 U	170	31	1.5	0.37	0.016 U	0.0039 U	0.016 U	0.0039 U	0.010 U	0.0039 U
	09/06/2018	0.11 U	0.0158 U	60	11	1.8	0.43	0.063 U	0.016 U	0.063 U	0.016 U	0.041 U	0.016 U
12/05/2018	0.064	0.0093	49	9.0	0.80	0.20	0.0085	0.0021	0.0040	0.0010	0.0075	0.0029	
03/08/2019	0.011	0.0016	1,230	225	0.96	0.24	0.015	0.0036	0.0084	0.0021	0.011	0.0043	
06/06/2019	0.0082	0.0012	111	20	1.2	0.31	0.0032	0.00080	0.0016 U	0.00039 U	0.0022	0.00083	
09/10/2019	0.011	0.0016	142	26	1.6	0.38	0.0057	0.0014	0.0017	0.00042	0.0029	0.0011	
12/17/2019	0.017	0.0024	86	16	1.3	0.33	0.013	0.0033	0.0052	0.0013	0.011	0.0043	
03/13/2020	0.045	0.0065	357	65	2.6	0.65	0.016 U	0.0039 U	0.016 U	0.0039 U	0.016	0.0063	
06/11/2020	0.013	0.0019	118	22	1.3	0.32	0.010	0.0024	0.0040	0.0010	0.0054	0.0021	
09/16/2020	0.020	0.0029	129	24	1.8	0.45	0.012	0.0029	0.0045	0.0011	0.0058	0.0022	
12/09/2020	0.027 U	0.0039 U	130	24	2.4	0.60	0.016 U	0.0039 U	0.016 U	0.0039 U	0.010 U	0.0039 U	
IMW-16	06/10/2009	14 U	2.0 U	541	99	2.2 J	0.56 J	8.2 U	2.0 U	8.2 U	2.0 U	5.3 U	2.0 U
	10/14/2011	14 U	2.0 U	705	129	5.6 J	1.4 J	8.0 U	2.0 U	8.0 U	2.0 U	5.2 U	2.0 U
	07/19/2012	3.6 U	0.52 U	393	72	4.6	1.1	2.1 U	0.52 U	2.1 U	0.52 U	1.4 U	0.52 U
	08/01/2012	0.30 U	0.044 U	46	8.4	0.67	0.17	0.18 U	0.044 U	0.18 U	0.044 U	0.11 U	0.044 U
	09/06/2012	0.50 U	0.072 U	35	6.3	0.29 U	0.072 U	0.29 U	0.072 U	0.29 U	0.072 U	0.19 U	0.073 U
	03/19/2013	0.0040	0.00058	0.34	0.063	0.014	0.0034	0.0020 U	0.00050 U	0.0020 U	0.00050 U	0.0013 U	0.00050 U
	05/29/2013	0.035	0.0051	9.1	1.67	0.071	0.018	0.0016 U	0.00040 U	0.0016 U	0.00040 U	0.0010 U	0.00038 U
	09/04/2013	0.0075	0.0011	0.64	0.12	0.019	0.0047	0.0016 U	0.00040 U	0.0016 U	0.00040 U	0.0010 U	0.00038 U
	01/08/2014	0.018	0.0026	2.7	0.49	0.026	0.0065	0.0016 U	0.00040 U	0.0016 U	0.00040 U	0.0010 U	0.00038 U
	03/04/2014	0.0040	0.00058	0.86	0.16	0.0044	0.0011	0.0016 U	0.00040 U	0.0016 U	0.00040 U	0.0010 U	0.00038 U

**Table 12**  
**Soil Vapor Analytical Results - VOCs (mg/m<sup>3</sup>)**  
**SVE Extraction Wells**  
H&V Fiber Corporation  
Corvallis, Oregon

Location	Date	Tetrachloroethene		Trichloroethene		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene		1,1-Dichloroethene		Vinyl Chloride	
		mg/m <sup>3</sup>	ppmv	mg/m <sup>3</sup>	ppmv	mg/m <sup>3</sup>	ppmv	mg/m <sup>3</sup>	ppmv	mg/m <sup>3</sup>	ppmv	mg/m <sup>3</sup>	ppmv
IMW-16 (cont'd)	06/03/2014	0.011	0.0016	1.7	0.31	0.0087	0.0022	0.0016 U	0.00040 U	0.0016 U	0.00040 U	0.0010 U	0.00038 U
	12/01/2014	0.0036	0.00052	0.11	0.020	0.0071	0.0018	0.0016 U	0.00040 U	0.0016 U	0.00040 U	0.0010 U	0.00038 U
	12/12/2017	0.0027 U	0.00039 U	0.069	0.013	0.0016 U	0.00039 U	0.0016 U	0.00039 U	0.0016 U	0.00039 U	0.0010 U	0.00039 U
	03/19/2018	0.0045	0.00066	0.52	0.096	0.017	0.0043	0.0016 U	0.00039 U	0.0016 U	0.00039 U	0.0010 U	0.00039 U
	03/08/2019	0.0027 U	0.00039 U	0.31	0.057	0.0071	0.0018	0.0016 U	0.00039 U	0.0016 U	0.00039 U	0.0010 U	0.00039 U
	06/06/2019	0.0027 U	0.00039 U	0.19	0.035	0.0055	0.0014	0.0016 U	0.00039 U	0.0016 U	0.00039 U	0.0010 U	0.00039 U
	09/10/2019	0.0029	0.00042	0.069	0.013	0.0033	0.00081	0.00079 U	0.00020 U	0.00079 U	0.00020 U	0.00051 U	0.00020 U
	12/17/2019	0.0015	0.00022	0.24	0.043	0.0064	0.0016	0.00079 U	0.00020 U	0.00079 U	0.00020 U	0.00051 U	0.00020 U
	03/13/2020	0.0015	0.00021	34	6.3	0.041	0.010	0.00079 U	0.00020 U	0.00079 U	0.00020 U	0.00051 U	0.00020 U
	06/11/2020	0.0020	0.00029	0.40	0.074	0.028	0.0070	0.00079 U	0.00020 U	0.00079 U	0.00020 U	0.00051 U	0.00020 U
	09/16/2020	0.0025	0.00036	0.042	0.0077	0.0031	0.00077	0.00079 U	0.00020 U	0.00079 U	0.00020 U	0.00051 U	0.00020 U
	12/09/2020	0.0023	0.00033	0.041	0.0076	0.0038	0.00095	0.00079 U	0.00020 U	0.00079 U	0.00020 U	0.00051 U	0.00020 U
IMW-17	06/10/2009	3.4 U	0.50 U	14	2.5	94	23	0.87 J	0.22 J	5.4	1.3	50	19
	10/14/2011	43 U	6.3 U	2,330	427	264	66	25 U	6.3 U	4.6 J	1.2 J	50	19
	07/19/2012	103 U	15 U	7,150	1,309	673	167	60 U	15 U	60 U	15 U	13 J	4.9 J
	03/19/2013	0.043 U	0.0062 U	1.5	0.28	1.2	0.30	0.019 J	0.0046 J	0.045	0.011	0.032	0.012
	05/29/2013	0.0027 U	0.00039 U	0.16	0.029	0.17	0.042	0.0029	0.00072	0.0016 U	0.00040 U	0.013	0.0050
	09/04/2013	2.9	0.42	210	38	8.7	2.2	1.3 U	0.32 U	1.3 U	0.32 U	0.82 U	0.32 U
	01/08/2014	0.028	0.0041	0.096	0.018	0.44	0.11	0.0052	0.0013	0.013	0.0032	0.059	0.023
	03/19/2018	0.034 U	0.0049 U	105	19	51	13	0.14	0.035	0.041	0.010	0.065	0.025
	06/13/2018	0.094	0.014	162	30	24	5.9	0.25	0.062	0.12	0.030	0.11	0.043
	09/06/2018	0.11 U	0.016 U	37	6.8	8.3	2.1	0.063 U	0.016 U	0.063 U	0.016 U	0.041 U	0.016 U
	12/05/2018	0.067	0.0098	33	6.1	4.2	1.0	0.034	0.0084	0.021	0.0053	0.017	0.0067
	06/06/2019	0.022	0.0031	5.5	1.0	1.7	0.42	0.22	0.053	0.078	0.019	0.063	0.024
	09/10/2019	0.021	0.0031	26	4.7	2.3	0.58	0.0092	0.0023	0.014	0.0035	0.0050	0.0019
	12/17/2019	0.039	0.0057	51	9.4	5.7	1.4	0.036	0.0090	0.023	0.0056	0.015	0.0058
	03/13/2020	14 U	2.0 U	1,160	212	172	43	0.56	0.14	0.19	0.048	0.20	0.077
06/11/2020	0.11	0.015	160	29	11	2.7	0.10	0.026	0.067	0.017	0.024	0.0094	
09/16/2020	0.053	0.0077	62	11	5.7	1.4	0.046	0.012	0.041	0.010	0.017	0.0065	
12/09/2020	0.14	0.020	291	53	23	5.7	0.12	0.030	0.060	0.015	0.042	0.016	
IMW-24	06/03/2009	4.0 U	0.57 U	143	26	7.7	1.9	4.0 U	0.98 U	16 U	3.9 U	1.8 J	0.67 J
	10/14/2011	2,880 U	417 U	96,100	17,594	855 J	212 J	1,680 U	417 U	1,680 U	417 U	1,080 U	415 U
	07/19/2012	94 U	14 U	6,440	1,179	240	60	55 U	14 U	55 U	14 U	35 U	14 U
	07/24/2012	69 U	10 U	3,120	571	204	51	40 U	10 U	40 U	10 U	26 U	10 U
	08/01/2012	60 U	8.7 U	3,170	580	238	59	35 U	8.7 U	35 U	8.7 U	23 U	8.7 U
	09/06/2012	21 U	3.0 U	1,440	264	126	31	12 U	3.0 U	12 U	3.0 U	7.8 U	3.0 U
	02/19/2013	3.7 U	0.54 U	471	86	26	6.4	2.2 U	0.54 U	2.2 U	0.54 U	1.4 U	0.54 U
	05/29/2013	1.1 U	0.16 U	640	117	15	3.7	0.63 U	0.16 U	0.63 U	0.16 U	0.41 U	0.16 U
	09/04/2013	1.1 U	0.16 U	64	12	14	3.5	0.63 U	0.16 U	0.63 U	0.16 U	0.41 U	0.16 U
	01/08/2014	2.7 U	0.39 U	700	128	19	4.7	1.6 U	0.40 U	1.6 U	0.40 U	1.0 U	0.38 U
	03/04/2014	0.012	0.0017	18	3.3	0.52	0.13	0.0063 U	0.0016 U	0.0063 U	0.0016 U	0.0041 U	0.0016 U
	06/03/2014	2.7 U	0.39 U	1,900	348	33	8.2	1.6 U	0.40 U	1.6 U	0.40 U	1.0 U	0.38 U
	09/04/2014	1.1 U	0.16 U	330	60	11	2.7	0.63 U	0.16 U	0.63 U	0.16 U	0.41 U	0.16 U
	12/01/2014	5.4 U	0.78 U	1,800	330	14	3.5	3.2 U	0.79 U	3.2 U	0.79 U	2.0 U	0.77 U
	03/10/2015	5.4 U	0.78 U	5,900	1,080	48	12	3.2 U	0.79 U	3.2 U	0.79 U	2.0 U	0.77 U
06/10/2015	0.11 U	0.016 U	180	33	3.3	0.82	0.063 U	0.016 U	0.063 U	0.016 U	0.041 U	0.016 U	
09/01/2015	0.11 U	0.016 U	126	23	5.9	1.5	0.063 U	0.016 U	0.063 U	0.016 U	0.041 U	0.016 U	
12/04/2015	0.035	0.0051	36	6.6	1.1	0.28	0.017	0.0042	0.0077	0.0019	0.0023	0.00087	

**Table 12**  
**Soil Vapor Analytical Results - VOCs (mg/m<sup>3</sup>)**  
**SVE Extraction Wells**  
H&V Fiber Corporation  
Corvallis, Oregon

Location	Date	Tetrachloroethene		Trichloroethene		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene		1,1-Dichloroethene		Vinyl Chloride	
		mg/m <sup>3</sup>	ppmv	mg/m <sup>3</sup>	ppmv	mg/m <sup>3</sup>	ppmv	mg/m <sup>3</sup>	ppmv	mg/m <sup>3</sup>	ppmv	mg/m <sup>3</sup>	ppmv
IMW-24 (cont'd)	03/11/2016	0.0027 U	0.00039 U	2.6	0.47	0.078	0.019	0.0016 U	0.00039 U	0.0016 U	0.00039	0.0010 U	0.00039 U
	06/21/2016	0.30	0.043	960	176	12	3.0	0.14	0.034	0.087	0.022	0.051 U	0.020 U
	09/16/2016	0.17	0.025	176	32	4.8	1.2	0.087	0.022	0.11	0.028	0.023	0.0090
	12/22/2016	0.0027 U	0.00039 U	2.0	0.36	0.040	0.010	0.0016 U	0.00039 U	0.0016 U	0.00039 U	0.0010 U	0.00039 U
	03/10/2017	0.0049	0.00071	3.0	0.55	0.041	0.010	0.0016 U	0.00039 U	0.0016 U	0.00039 U	0.0010 U	0.00039
	06/08/2017	0.12	0.018	176	32	2.0	0.50	0.063 U	0.016 U	0.063 U	0.016 U	0.041 U	0.016 U
	09/20/2017	0.042	0.0061	15	2.8	0.57	0.14	0.013	0.0033	0.025	0.0063	0.0034	0.0013
	03/19/2018	1.1 U	0.16 U	1,610	295	10	2.6	0.63 U	0.16 U	0.63 U	0.16 U	0.41 U	0.16 U
	06/13/2018	1.1 U	0.16 U	64	12	0.83	0.21	0.63 U	0.16 U	0.63 U	0.16 U	0.41 U	0.16 U
	09/06/2018	0.11 U	0.016 U	109	20	2.5	0.62	0.063 U	0.016 U	0.063 U	0.016 U	0.041 U	0.016 U
	12/05/2018	0.40	0.057	29	5.4	0.48	0.12	0.0081	0.0020	0.0036	0.00090	0.0011	0.00044
	03/08/2019	0.024	0.0035	19	3.4	1.1	0.27	0.027	0.0066	0.011	0.0028	0.0026	0.0010
	06/06/2019	0.11 U	0.016 U	2,190	401	5.3	1.3	0.063 U	0.016 U	0.063 U	0.016 U	0.041 U	0.016 U
	09/10/2019	0.041	0.0059	64	12	1.2	0.29	0.021	0.0051	0.012	0.0031	0.0020	0.00078
	12/17/2019	0.0044	0.00064	1.8	0.33	0.63 J	0.16 J	0.0055	0.0014	0.0022	0.00056	0.00055 U	0.00021 U
	03/13/2020	0.0053	0.00077	99	18	11	2.7	0.0048	0.0012	0.0020	0.00048	0.00063	0.00024
	06/11/2020	0.0047	0.00069	21	3.9	0.32	0.079	0.0042	0.0011	0.0022	0.00055	0.0011	0.00043
	09/16/2020	0.030	0.0044	50	9.1	0.93	0.23	0.024	0.0060	0.010	0.0026	0.0019	0.00073
12/09/2020	0.0092	0.0013	59	11	1.5	0.36	0.0073	0.0018	0.0044	0.0011	0.0036	0.0014	
IMW-25	06/10/2009	162 U	23 U	8,520	1,560	21 J	5.1 J	95 U	24 U	95 U	24 U	61 U	24 U
	10/14/2011	14 U	2.0 U	737	135	7.5 J	1.9 J	8.0 U	2.0 U	8.0 U	2.0 U	5.2 U	2.0 U
	07/19/2012	1.7 U	0.25 U	93	17	0.59 J	0.15 J	1.0 U	0.25 U	1.0 U	0.25 U	0.65 U	0.25 U
	07/24/2012	0.75 U	0.11 U	66	12	0.54	0.13	0.44 U	0.11 U	0.44 U	0.11 U	0.28 U	0.11 U
	02/19/2013	0.15 U	0.021 U	22	4.0	0.56	0.14	0.086 U	0.021 U	0.086 U	0.021 U	0.056 U	0.021 U
	05/29/2013	0.016	0.0023	9.6	1.8	0.23	0.057	0.0034	0.00084	0.0016 U	0.00040 U	0.0010 U	0.00038 U
	09/04/2013	0.034 U	0.0049 U	1.9	0.35	0.27	0.067	0.020 U	0.0050 U	0.020 U	0.0050 U	0.013 U	0.0050 U
	01/08/2014	0.027 U	0.0039 U	14	2.6	0.25	0.062	0.016 U	0.0040 U	0.016 U	0.0040 U	0.010 U	0.0038 U
	03/04/2014	0.0027 U	0.00039 U	0.44	0.081	0.17	0.042	0.0016 U	0.0004 U	0.0016 U	0.00040 U	0.0010 U	0.00038 U
	06/03/2014	0.011 U	0.0016 U	13	2.4	0.22	0.055	0.0063 U	0.0016 U	0.0063 U	0.0016 U	0.0041 U	0.0016 U
	12/01/2014	0.0027 U	0.00039 U	0.33	0.060	0.0018	0.00045	0.0016 U	0.00040 U	0.0016 U	0.00040 U	0.0010 U	0.00038 U
	12/12/2017	0.0027 U	0.00039 U	1.1	0.20	0.030	0.0075	0.0016 U	0.00039 U	0.0016 U	0.00039 U	0.0010 U	0.00039 U
	03/19/2018	0.0027 U	0.00039 U	5.6	1.0	0.091	0.023	0.0016 U	0.00039 U	0.0016 U	0.00039 U	0.0010 U	0.00039 U
	06/13/2018	0.0027 U	0.00039 U	6.0	1.1	0.084	0.021	0.0016 U	0.00039 U	0.0016 U	0.00039 U	0.0010 U	0.00039 U
	09/06/2018	0.0053	0.00077	3.6	0.66	0.059	0.015	0.0016 U	0.00039 U	0.0016 U	0.00039 U	0.0010 U	0.00039 U
	12/05/2018	0.013	0.0019	4.4	0.80	0.038	0.0094	0.0016 U	0.00039 U	0.0016 U	0.00039 U	0.0010 U	0.00039 U
	09/10/2019	0.13	0.019	2.2	0.40	0.063	0.016	0.00079 U	0.00020 U	0.014	0.0034	0.022	0.0084
	12/17/2019	0.0014	0.00021	2.7	0.49	0.052	0.013	0.00079 U	0.00020 U	0.00079 U	0.00020 U	0.00055 U	0.00021 U
03/13/2020	0.0014 U	0.00020 U	6.4	1.2	0.12	0.030	0.00079 U	0.00020 U	0.00079 U	0.00020 U	0.00051 U	0.00020 U	
06/11/2020	0.011	0.0016	4.8	0.88	0.13	0.033	0.00079 U	0.00020 U	0.00079 U	0.00020 U	0.00051 U	0.00020 U	
09/16/2020	0.0019	0.00027	3.7	0.67	0.029	0.0071	0.00079 U	0.00020 U	0.00079 U	0.00020 U	0.00051 U	0.00020 U	
12/09/2020	0.0015	0.00022	6.8	1.2	0.048	0.012	0.00079 U	0.00020 U	0.00079 U	0.00020 U	0.00051 U	0.00020 U	
IMW-26	06/10/2009	84 U	12 U	5,840	1,069	472	117	49 U	12 U	49 U	12 U	7.3 J	2.8 J
	10/14/2011	682 U	99 U	34,000	6,225	2,010	499	398 U	99 U	398 U	99 U	257 U	99 U
	02/27/2012	150 U	22 U	4,280	784	452	112	88 U	22 U	88 U	22 U	56 U	22 U
	07/19/2012	46 U	6.7 U	2,420	443	201	50	27 U	6.7 U	27 U	6.7 U	17 U	6.7 U
	07/24/2012	69 U	10 U	4,750	870	305	76	40 U	10 U	40 U	10 U	26 U	10 U
	08/01/2012	41 U	6.0 U	1,970	361	143	35	24 U	6.0 U	24 U	6.0 U	16 U	6.0 U
	09/06/2012	21 U	3.0 U	1,230	225	51	13	12 U	3.0 U	12 U	3.0 U	7.8 U	3.0 U

**Table 12**  
**Soil Vapor Analytical Results - VOCs (mg/m<sup>3</sup>)**  
**SVE Extraction Wells**  
H&V Fiber Corporation  
Corvallis, Oregon

Location	Date	Tetrachloroethene		Trichloroethene		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene		1,1-Dichloroethene		Vinyl Chloride	
		mg/m <sup>3</sup>	ppmv	mg/m <sup>3</sup>	ppmv	mg/m <sup>3</sup>	ppmv	mg/m <sup>3</sup>	ppmv	mg/m <sup>3</sup>	ppmv	mg/m <sup>3</sup>	ppmv
IMW-26 (cont'd)	02/19/2013	3.5 U	0.50 U	297	54	20	5.0	2.0 U	0.51 U	2.0 U	0.51 U	1.3 U	0.50 U
	05/29/2013	0.068	0.0099	75	14	5.5	1.4	0.13	0.032	0.024	0.0060	0.072	0.028
	09/04/2013	0.27 U	0.039 U	75	14	3.7	0.92	0.16 U	0.040 U	0.16 U	0.040 U	0.10 U	0.038 U
	01/08/2014	0.11 U	0.016 U	100	18	8.7	2.2	0.075	0.019	0.063 U	0.016 U	0.046	0.018
	03/04/2014	0.011 U	0.0016 U	11	2.0	1.1	0.27	0.021	0.0052	0.0063 U	0.0016 U	0.017	0.0065
	06/03/2014	0.068 U	0.0099 U	54	10	7.1	1.8	0.087	0.022	0.040 U	0.010 U	0.041	0.016
	09/04/2014	0.056	0.0081	80	15	5.9	1.5	0.091	0.023	0.024	0.0060	0.087	0.033
	12/01/2014	1.1 U	0.16 U	350	64	7.1	1.8	0.63 U	0.16 U	0.63 U	0.16 U	0.41 U	0.16 U
	03/10/2015	0.067	0.010	40	7.3	2.5	0.62	0.13	0.032	0.025	0.0062	0.051	0.020
	06/10/2015	0.11 U	0.016 U	75	14	3.1	0.77	0.063 U	0.016 U	0.063 U	0.016 U	0.041 U	0.016 U
	09/01/2015	0.11 U	0.016 U	82	15	3.6	0.89	0.063 U	0.016 U	0.063 U	0.016 U	0.041 U	0.016 U
	12/14/2015	0.041	0.0059	49	9.0	2.4	0.60	0.020	0.0049	0.011	0.0026	0.011	0.0042
	03/11/2016	0.0027 U	0.00039 U	2.7	0.50	0.054	0.013	0.0016	0.00041	0.0016 U	0.00039 U	0.0010 U	0.0004 U
	06/21/2016	0.0027 U	0.00039 U	31	5.6	2.5	0.62	0.064	0.016	0.021	0.0053	0.015	0.0057
	09/16/2016	0.053	0.0077	54	10	3.4	0.85	0.047	0.012	0.022	0.0055	0.026	0.010
	12/22/2016	0.012	0.0017	2.9	0.52	0.39	0.096	0.0081	0.0020	0.0036	0.00089	0.0016	0.00062
	03/10/2017	0.0048	0.00069	2.2	0.41	0.083	0.021	0.0016 U	0.00039 U	0.0016 U	0.00039 U	0.0010 U	0.00039 U
	06/08/2017	0.017	0.0024	32	5.9	2.4	0.59	0.077	0.019	0.018	0.0043	0.021	0.0080
	09/20/2017	0.023	0.0034	13	2.3	0.83	0.21	0.013	0.0032	0.0071	0.0018	0.0050	0.0019
	12/12/2017	0.014	0.0020	11	2.1	0.80	0.20	0.0032 U	0.00079 U	0.0053	0.0013	0.0038	0.0014
	03/19/2018	0.0057	0.00082	8.5	1.6	1.3	0.32	0.023	0.0057	0.0029	0.00073	0.0018	0.00070
	06/13/2018	0.015	0.0021	4.0	0.73	1.3	0.32	0.018	0.0044	0.0035	0.00088	0.027	0.010
	09/06/2018	0.012	0.0017	6.0	1.1	1.0	0.25	0.0053	0.0013	0.0016 U	0.00039 U	0.0010 U	0.00039 U
	12/05/2018	0.050	0.0073	9.0	1.7	0.77	0.19	0.0059	0.0015	0.0026	0.00064	0.0012	0.00045
	03/08/2019	0.0071	0.0010	2.1	0.38	0.10	0.025	0.016	0.0039	0.0040	0.00100	0.0020	0.00075
	06/06/2019	0.0048	0.00069	7.5	1.4	0.73	0.18	0.016	0.0041	0.0027	0.00066	0.0017	0.00065
	09/10/2019	0.024	0.0035	12	2.1	0.88	0.22	0.0050	0.0012	0.0029	0.00073	0.0010	0.00038
	12/17/2019	0.030	0.0043	6.3	1.2	0.52	0.13	0.0054	0.0013	0.0030	0.00074	0.00092	0.00036
03/13/2020	0.0029	0.00042	3.2	0.58	0.42	0.10	0.0093	0.0023	0.0028	0.00068	0.0014	0.00054	
06/11/2020	0.042	0.0061	7.5	1.4	0.71	0.18	0.011	0.0027	0.0024	0.00059	0.0012	0.00046	
09/16/2020	0.026	0.0037	5.7	1.0	0.59	0.15	0.0067	0.0017	0.0028	0.00070	0.00051 U	0.00020 U	
12/09/2020	0.0038	0.00056	3.9	0.72	0.33	0.081	0.0039	0.0010	0.0010	0.00024	0.00051 U	0.00020 U	
IMW-27	02/19/2013	0.012 U	0.0018 U	0.055	0.010	0.022	0.0055	0.072 U	0.018 U	0.0072 U	0.0018 U	0.0047 U	0.0018 U
	03/19/2018	0.027 U	0.0039 U	0.026	0.0047	0.0016 U	0.00039 U	0.0016 U	0.00039 U	0.0016 U	0.00039 U	0.0010 U	0.00039 U
IMW-28	02/19/2013	17 U	2.5 U	1,890	346	289	72	10 U	2.5 U	10 U	2.5 U	13	5.1
	05/29/2013	22 U	3.2 U	1,100	201	120	30	13 U	3.2 U	13 U	3.2 U	8.2 U	3.2 U
	09/04/2013	1.1 U	0.16 U	530	97	37	9.2	0.63 U	0.16 U	0.63 U	0.16 U	1.6	0.62
	01/08/2014	2.7 U	0.39 U	750	137	110	27	1.6 U	0.40 U	1.6 U	0.40 U	2.4	0.92
	03/04/2014	11	1.6	490	90	28	6.9	0.63 U	0.16 U	0.63 U	0.16 U	0.41 U	0.16 U
	06/03/2014	54 U	7.83 U	910	167	75	19	32 U	7.9 U	32 U	7.9 U	20 U	7.7 U
	09/04/2014	1.1 U	0.16 U	640	117	52	13	0.63 U	0.16 U	0.63 U	0.16 U	0.49	0.19
	12/01/2014	2.7 U	0.39 U	910	167	34	8.4	1.6 U	0.40 U	1.6 U	0.40 U	1.0 U	0.38 U
	03/10/2015	2.7 U	0.39 U	2,600	476	150	37	1.6	0.40	1.6 U	0.40 U	1.0 U	0.38 U
	06/10/2015	1.1 U	0.16 U	530	97	38	9.4	0.63 U	0.16 U	0.63 U	0.16 U	0.41 U	0.16 U
	09/01/2015	1.1 U	0.16 U	546	100	29	7.1	0.63 U	0.16 U	0.63 U	0.16 U	0.41 U	0.16 U
	12/14/2015	0.17	0.024	479	88	33	8.2	0.34	0.083	0.076	0.019	0.18	0.067
	03/11/2016	0.0037	0.00053	5.6	1.0	0.77	0.19	0.0055	0.0014	0.0016 U	0.00039 U	0.0010 U	0.00039 U
	06/21/2016	0.28	0.040	694	127	38	9.4	0.40	0.099	0.087	0.022	0.16	0.063

**Table 12**  
**Soil Vapor Analytical Results - VOCs (mg/m<sup>3</sup>)**  
**SVE Extraction Wells**  
H&V Fiber Corporation  
Corvallis, Oregon

Location	Date	Tetrachloroethene		Trichloroethene		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene		1,1-Dichloroethene		Vinyl Chloride	
		mg/m <sup>3</sup>	ppmv	mg/m <sup>3</sup>	ppmv	mg/m <sup>3</sup>	ppmv	mg/m <sup>3</sup>	ppmv	mg/m <sup>3</sup>	ppmv	mg/m <sup>3</sup>	ppmv
IMW-28 (cont'd)	09/16/2016	0.33	0.047	519	95	37	9.1	0.35	0.086	0.16 U	0.039 U	0.20	0.076
	12/22/2016	0.0082	0.0012	4.4	0.80	0.41	0.10	0.0064	0.0016	0.0021	0.00052	0.0014	0.00055
	03/10/2017	0.0055	0.00080	6.0	1.1	0.58	0.14	0.0058	0.0014	0.0016 U	0.00039 U	0.0010 U	0.00039 U
	06/08/2017	1.1 U	0.16 U	96	18	5.3	1.3	0.63 U	0.16 U	0.63 U	0.16 U	0.041 U	0.016 U
	09/20/2017	0.053	0.0077	205	38	8.4	2.1	0.069	0.017	0.016	0.0039	0.039	0.015
	12/12/2017	0.15	0.022	423	77	19	4.7	0.23	0.056	0.063 U	0.016 U	0.076	0.029
	03/19/2018	1.1 U	0.16 U	1,420	260	29	7.2	0.63 U	0.16 U	0.63 U	0.16 U	0.41 U	0.16 U
	06/13/2018	0.17	0.025	380	70	11	2.6	0.10	0.026	0.063 U	0.016 U	0.041 U	0.016 U
	09/06/2018	0.11 U	0.016 U	78	14	5.7	1.4	0.063 U	0.016 U	0.063 U	0.016 U	0.041 U	0.016 U
	12/05/2018	0.039	0.0057	161	29	5.0	1.2	0.041	0.010	0.020 U	0.0049 U	0.021	0.0082
	03/08/2019	0.080	0.012	1,350	247	45	11	0.31	0.076	0.071 U	0.017 U	0.095	0.036
	06/06/2019	0.094	0.014	630	115	26	6.4	0.19	0.047	0.036	0.0090	0.045	0.017
	09/10/2019	0.014	0.0020	134	25	3.9	0.97	0.018	0.0046	0.0037	0.00092	0.0080	0.0031
	12/17/2019	0.041	0.0060	24	4.4	6.4	1.6	0.067	0.017	0.016 U	0.0039 U	0.023	0.0089
	03/13/2020	0.14	0.020	447	82	8.5	2.1	0.15	0.037	0.063 U	0.016 U	0.041 U	0.016 U
	06/11/2020	0.073	0.011	355	65	10	2.6	0.13	0.031	0.025	0.0063	0.029	0.011
	09/16/2020	0.037	0.0054	172	31	5.2	1.3	0.055	0.014	0.016 U	0.0039 U	0.010 U	0.0039 U
12/09/2020	0.094	0.014	259	47	5.3	1.3	0.12	0.029	0.027	0.0068	0.029	0.011	
IMW-29	02/19/2013	43 U	6.2 U	4,950	906	60	15	25 U	6.3 U	25 U	6.3 U	16 U	6.3 U
	05/29/2013	5.4 U	0.78 U	3,100	568	40	10	3.2 U	0.79 U	3.2 U	0.79 U	2.0 U	0.77 U
	09/04/2013	1.1 U	0.16 U	1,200	220	13	3.2	0.63 U	0.16 U	0.63 U	0.16 U	0.41 U	0.16 U
	01/08/2014	11 U	1.6 U	640	117	8.3	2.1	6.3 U	1.6 U	6.3 U	1.6 U	4.1 U	1.6 U
	03/04/2014	260	38	3,600	659	10	2.5	6.3 U	1.6 U	6.3 U	1.6 U	4.1 U	1.6 U
	06/03/2014	5.4 U	0.78 U	2,600	476	23	5.7	3.2 U	0.79 U	3.2 U	0.79 U	2.0 U	0.77 U
	09/04/2014	5.4 U	0.78 U	2,700	494	11	2.7	3.2 U	0.79 U	3.2 U	0.79 U	2.0 U	0.77 U
	12/01/2014	0.14	0.020	43	7.9	0.95	0.24	0.063 U	0.016 U	0.063 U	0.016 U	0.041 U	0.016 U
	03/10/2015	81	12	6,400	1,172	25	6.2	6.3 U	1.6 U	6.3 U	1.6 U	4.1 U	1.6 U
	06/10/2015	0.42	0.061	1,200	220	4.8	1.2	0.075	0.019	0.063 U	0.016 U	0.041 U	0.016 U
	09/01/2015	1.1 U	0.16 U	1,220	223	12	3.0	0.63 U	0.16 U	0.63 U	0.16 U	0.41 U	0.16 U
	12/14/2015	0.48	0.069	1,360	249	5.1	1.3	0.063 U	0.016 U	0.063 U	0.016 U	0.041 U	0.016 U
	03/11/2016	0.035	0.0050	13	2.5	0.20	0.050	0.0033	0.00083	0.0016 U	0.00039 U	0.0013	0.00050
	06/21/2016	1.1 U	0.16 U	1,790	328	11	2.7	0.63 U	0.16 U	0.63 U	0.16 U	0.41 U	0.16 U
	09/16/2016	5.4 U	0.79 U	1,900	348	9.2	2.3	3.2 U	0.79 U	3.2 U	0.79 U	2.0 U	0.78 U
	12/22/2016	0.0027 U	0.00039 U	1.1	0.19	0.19	0.047	0.0016 U	0.00039 U	0.0016 U	0.00039 U	0.0010 U	0.00039 U
	03/10/2017	0.010	0.0015	11	2.0	0.086	0.021	0.0016 U	0.00039 U	0.0031	0.00077	0.0045	0.0017
	06/08/2017	2.7 U	0.39 U	1,390	254	6.9	1.7	1.6 U	0.39 U	1.6 U	0.39 U	1.0 U	0.39 U
	09/20/2017	0.34	0.049	1,050	192	4.6	1.1	0.063 U	0.016 U	0.063 U	0.016 U	0.041 U	0.016 U
	12/12/2017	1.1 U	0.16 U	1,050	192	4.4	1.1	0.63 U	0.16 U	0.63 U	0.16 U	0.41 U	0.16 U
	03/19/2018	1.1 U	0.16 U	122	22	0.63 U	0.16 U	0.63 U	0.16 U	0.63 U	0.16 U	0.41 U	0.16 U
	06/13/2018	0.020	0.0030	37	6.7	0.21	0.053	0.0063 U	0.0016 U	0.0063 U	0.0016 U	0.0041 U	0.0016 U
	09/06/2018	1.1 U	0.16 U	445	81	4.0	1.0	0.63 U	0.16 U	0.63 U	0.16 U	0.41 U	0.16 U
	12/05/2018	6.7	0.97	706	129	3.4	0.85	0.32 U	0.079 U	0.32 U	0.079 U	0.20 U	0.078 U
	03/08/2019	0.38	0.055	1,250	229	4.9	1.21	0.063 U	0.016 U	0.063 U	0.016 U	0.041 U	0.016 U
	06/06/2019	0.18	0.026	450	82	1.7	0.41	0.026	0.0065	0.016 U	0.0039 U	0.010 U	0.0039 U
	09/10/2019	0.090	0.013	536	98	1.6	0.40	0.016	0.0041	0.016 U	0.0039 U	0.010 U	0.0039 U
12/17/2019	0.71	0.10	321	59	3.2	0.80	0.063 U	0.016 U	0.063 U	0.016 U	0.041 U	0.016 U	
03/13/2020	0.33	0.048	777	142	2.4	0.60	0.063 U	0.016 U	0.063 U	0.016 U	0.041 U	0.016 U	
06/11/2020	0.15	0.021	447	82	1.4	0.35	0.020	0.0049	0.016 U	0.0039 U	0.010 U	0.0039 U	
09/16/2020	0.19	0.027	605	111	2.6	0.65	0.034	0.0084	0.016 U	0.0039 U	0.010 U	0.0039 U	

**Table 12**  
**Soil Vapor Analytical Results - VOCs (mg/m<sup>3</sup>)**  
**SVE Extraction Wells**  
H&V Fiber Corporation  
Corvallis, Oregon

Location	Date	Tetrachloroethene		Trichloroethene		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene		1,1-Dichloroethene		Vinyl Chloride	
		mg/m <sup>3</sup>	ppmv	mg/m <sup>3</sup>	ppmv	mg/m <sup>3</sup>	ppmv	mg/m <sup>3</sup>	ppmv	mg/m <sup>3</sup>	ppmv	mg/m <sup>3</sup>	ppmv
IMW-29 (cont'd)	12/09/2020	0.23	0.033	449	82	2.0	0.49	0.063 U	0.016 U	0.063 U	0.016 U	0.041 U	0.016 U
IMW-30	02/19/2013	0.012 U	0.0018 U	1.2	0.23	0.88	0.22	0.011	0.0027	0.0038 J	0.00095 J	0.14	0.053
	03/10/2017	0.0028	0.00041	2.4	0.43	0.29	0.071	0.0039	0.0010	0.0016	0.00039	0.0030	0.0012
	06/08/2017	2.7 U	0.39 U	1,320	242	64	16	1.6 U	0.39 U	1.6 U	0.39 U	1.0 U	0.39 U
	09/20/2017	0.12	0.018	573	105	75	19	0.45	0.11	0.092	0.023 U	0.29	0.11
	12/12/2017	2.7 U	0.39 U	991	181	102	25	1.6 U	0.39 U	1.6 U	0.39 U	1.0 U	0.39 U
	03/19/2018	2.7 U	0.39 U	139	25	4.7	1.2	1.6 U	0.39 U	1.6 U	0.39 U	1.0 U	0.39 U
	06/13/2018	1.1 U	0.16 U	961	176	96	24	0.95	0.24	0.63 U	0.16 U	0.41 U	0.16 U
	09/06/2018	0.065	0.0094	245	45	64	16	0.77	0.19	0.12	0.029	0.30	0.11
	12/05/2018	4.8	0.69	157	29	24	5.9	0.27	0.068	0.063 U	0.016 U	0.13	0.048
	03/08/2019	0.54 U	0.079 U	1,470	269	55	14	0.75	0.19	0.32 U	0.079 U	0.20 U	0.078 U
	06/06/2019	0.12	0.017	716	131	67	17	0.62	0.15	0.088	0.022	0.15	0.057
	09/10/2019	0.041	0.0060	145	27	29	7.1	0.20	0.049	0.061	0.015	0.12	0.045
	12/17/2019	0.073	0.011	199	36	34	8.4	0.42	0.11	0.074	0.018	0.11	0.042
	03/13/2020	1.1 U	0.16 U	1,230	225	53	13	0.70	0.17	0.63 U	0.16 U	0.41 U	0.16 U
	06/11/2020	0.078	0.011	552	101	89	22	0.67	0.17	0.077	0.019	0.075	0.029
	09/16/2020	0.026	0.0038	156	29	34	8.3	0.27	0.067	0.063	0.016	0.12	0.048
	12/09/2020	0.24	0.034	136	25	31	7.7	0.28	0.070	0.039	0.0097	0.072	0.028
IMW-31	02/19/2013	0.15 U	0.021 U	5.6	1.0	0.19	0.047	0.086 U	0.021 U	0.086 U	0.021 U	0.056 U	0.021 U
	03/10/2017	0.0093	0.0013	12.4	2.3	0.18	0.045	0.0016 U	0.00039 U	0.0016 U	0.00039 U	0.0019 U	0.00073 U
	06/08/2017	2.7 U	0.39 U	3,330	610	19	4.6	1.6 U	0.39 U	1.6 U	0.39 U	1.0 U	0.39 U
	09/20/2017	0.22	0.032	872	160	4.1	1.0	0.063 U	0.016 U	0.063 U	0.016 U	0.041 U	0.016 U
	12/12/2017	1.1 U	0.16 U	1,830	335	10	2.6	0.63 U	0.16 U	0.63 U	0.16 U	0.41 U	0.16 U
	03/19/2018	1.1 U	0.16 U	2,270	416	11	2.7	0.63 U	0.16 U	0.63 U	0.16 U	0.41 U	0.16 U
	06/13/2018	1.1 U	0.16 U	1,280	234	9.3	2.3	0.63 U	0.16 U	0.63 U	0.16 U	0.41 U	0.16 U
	09/06/2018	1.1 U	0.16 U	309	57	2.7	0.66	0.063 U	0.016 U	0.063 U	0.016 U	0.041 U	0.016 U
	03/08/2019	0.54 U	0.079 U	3,260	597	8.5	2.1	0.088	0.022	0.060	0.015	0.092	0.035
	09/12/2019	0.10	0.014	515	94	4.1	1.0	0.041	0.010	0.014	0.0034	0.018	0.0069
	12/17/2019	2.6	0.37	424	78	5.8	1.4	0.063 U	0.016 U	0.063 U	0.016 U	0.041 U	0.016 U
	03/13/2020	1.1 U	0.16 U	1,820	333	8.0	2.0	0.63 U	0.16 U	0.63 U	0.16 U	0.41 U	0.16 U
	06/11/2020	0.11 U	0.016 U	1,190	218	0.35	0.088	0.063 U	0.016 U	0.063 U	0.016 U	0.041 U	0.016 U
09/16/2020	0.089	0.013	841	154	4.6	1.1	0.038	0.0094	0.016 U	0.0039 U	0.010 U	0.0039 U	
12/09/2020	0.56	0.081	922	169	6.3	1.6	0.063 U	0.016 U	0.063 U	0.016 U	0.041 U	0.016 U	
IMW-32	03/19/2018	0.0027 U	0.00039 U	0.026	0.0047	0.80	0.20	0.012	0.0029	0.0018	0.00044	0.0010 U	0.00039 U
Subslab-1	06/13/2018	0.0033	0.00048	3.3	0.60	0.80	0.20	0.012	0.0029	0.0018	0.00044	0.0010 U	0.00039 U
	09/06/2018	0.012	0.0017	8.7	1.6	2.2	0.55	0.024	0.0060	0.0037	0.00091	0.0017	0.00065
	12/05/2018	0.0057	0.00083	8.0	1.5	1.8	0.44	0.015	0.0036	0.0024	0.00058	0.0015	0.00056
	03/08/2019	1.5	0.21	542	99	20	4.9	3.3	0.82	0.063 U	0.016 U	0.57	0.22
	06/06/2019	0.034 U	0.0049 U	3.0	0.55	0.28	0.069	0.020 U	0.0049 U	0.020 U	0.0049 U	0.013 U	0.0049 U
	09/10/2019	0.0054	0.00078	6.0	1.1	1.2	0.31	0.012	0.0029	0.0015	0.00037	0.0012	0.00045
	12/17/2019	0.056	0.0081	0.79	0.14	0.29	0.072	0.0036	0.00089	0.00079 U	0.00020 U	0.00051 U	0.00020 U
	03/13/2020	0.0056	0.00081	5.6	1.0	1.7	0.43	0.010	0.0026	0.0017	0.00041	0.0011	0.00042
06/11/2020	0.0042	0.00061	11	2.0	2.2	0.55	0.0078	0.0019	0.0010	0.00026	0.00051 U	0.00020 U	
Subslab-4	03/04/2014	0.0027 U	0.00039 U	1.1	0.20	0.48	0.12	0.0033	0.00082	0.0016 U	0.00040 U	0.0010 U	0.00038 U
	03/11/2016	0.0027 U	0.00039 U	3.2	0.58	0.80	0.20	0.0061	0.0015	0.0016 U	0.00039 U	0.0010 U	0.00039 U
	06/08/2017	0.0027 U	0.00039 U	2.5	0.46	0.45	0.11	0.0031	0.00077	0.0016 U	0.00039 U	0.0010 U	0.00039 U
Subslab-5	03/10/2015	0.059	0.0086	1.4	0.26	0.38	0.094	0.0044	0.0011	0.0016 U	0.00040 U	0.0033	0.0013

**Table 12**  
**Soil Vapor Analytical Results - VOCs (mg/m<sup>3</sup>)**  
**SVE Extraction Wells**  
H&V Fiber Corporation  
Corvallis, Oregon

Location	Date	Tetrachloroethene		Trichloroethene		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene		1,1-Dichloroethene		Vinyl Chloride	
		mg/m <sup>3</sup>	ppmv	mg/m <sup>3</sup>	ppmv	mg/m <sup>3</sup>	ppmv	mg/m <sup>3</sup>	ppmv	mg/m <sup>3</sup>	ppmv	mg/m <sup>3</sup>	ppmv
Subslab-5 (cont'd)	03/11/2016	0.0027 U	0.00039 U	2.1	0.38	0.50	0.12	0.0027	0.00066	0.0016 U	0.00039 U	0.0010 U	0.00039 U
	12/22/2016	0.0027 U	0.00039 U	1.5	0.27	0.51	0.13	0.0018	0.00045	0.0016 U	0.00039 U	0.0010 U	0.00039 U
	03/10/2017	0.0027 U	0.00039 U	0.97	0.18	0.22	0.055	0.0016 U	0.00039 U	0.0016 U	0.00039 U	0.0010 U	0.00039 U
	03/08/2019	0.0027 U	0.00039 U	4.6	0.85	0.62	0.15	0.0024	0.00059	0.0016 U	0.00039 U	0.0010 U	0.00039 U
<b>DEQ RBC Screening Level Criteria for Soil Gas<sup>a</sup></b>													
Vapor Intrusion into Buildings													
Occupational Setting		47	6.8	2.9	0.53	>Pv	>Pv	>Pv	>Pv	880	218	2.8	1.1

**Notes:**

<sup>a</sup> Oregon Department of Environmental Quality (DEQ) Generic Risk-based concentrations (revised May 2018)

VOCs = Volatile Organic Compounds

mg/m<sup>3</sup> = Milligrams per cubic meter

ppmv = Parts per million volume

U = Undetected at reporting limit shown

J = Estimated value

>Pv = The air concentration reported for the RBC exceeds the vapor pressure of the pure chemical. It can be assumed that this constituent cannot create an unacceptable risk by this pathway.

**Table 13**  
**SVE Performance Analytical Results - VOCs (ug/m<sup>3</sup>)**  
**SVE Pre-Treatment**  
H&V Fiber Corporation  
Covallis, Oregon

Location	Date	PCE	TCE	TCE as % of Total VOCs	cis -1,2-DCE	trans -1,2-DCE	1,1-DCE	Vinyl Chloride
SVE Blower 1 Discharge (PSVE1)	08/04/2010	129,560 U	6,182,368	94%	115,376	75,728 U	75,736 U	6,902 J
	10/14/2011	177,000 U	10,300,000	94%	204,000	103,000 U	103,000 U	66,600 U
	07/19/2012	59,000 U	3,300,000	94%	53,600	34,500 U	34,500 U	22,200 U
	07/24/2012	53,800 U	3,930,000	96%	41,900	31,500 U	31,500 U	20,300 U
	08/01/2012	60,000 U	2,790,000	94%	40,700	35,100 U	35,100 U	22,600 U
	09/06/2012	40,700 U	2,100,000	94%	38,400	23,800 U	23,800 U	15,300 U
	02/15/2013	17,600 U	2,230,000	94%	102,000	10,300 U	10,300 U	6,630 U
	02/19/2013	17,200 U	2,240,000	96%	52,400	10,100 U	10,100 U	6,500 U
	04/09/2013	1,400 U	260,000	92%	17,000	790 U	790 U	2,500
	05/09/2013	1,100 U	39,000	68%	16,000	630 U	630 U	410 U
	05/29/2013	1,100 U	640,000	98%	8,700	630 U	630 U	410 U
	07/03/2013	1,100 U	500,000	98%	7,500	630 U	630 U	410 U
	08/01/2013	240	480,000	98%	7,500	67	63 U	110
	09/04/2013	200	750,000	98%	11,000	100	63 U	170
	10/01/2013	1,100 U	750,000	98%	11,000	630 U	630 U	410 U
	11/06/2013	190	860,000	99%	7,500	75	67	180
	01/08/2014	1,100 U	390,000	95%	17,000	630 U	630 U	410 U
	02/04/2014	1,100 U	460,000	98%	8,300	630 U	630 U	410 U
	03/04/2014	27 U	20,000	95%	990	16 U	16 U	10 U
	04/04/2014	5.4 U	11,000	94%	630	4.8	3.2 U	2.0 U
	05/15/2014	1,100 U	410,000	98%	5,500	630 U	630 U	410 U
	06/03/2014	1,100 U	400,000	98%	5,500	630 U	630 U	410 U
	07/09/2014	1,100 U	400,000	98%	7,100	630 U	630 U	410 U
	08/14/2014	2,700 U	1,100,000	98%	11,000	1,600 U	1,600 U	1,000 U
	09/04/2014	2,700 U	750,000	98%	9,900	1,600 U	1,600 U	1,000 U
	10/07/2014	2,700 U	640,000	97%	12,000	1,600 U	1,600 U	1,000 U
	11/05/2014	1,100 U	290,000	96%	8,300	630 U	630 U	410 U
	12/01/2014	110 U	210,000	98%	4,800	63 U	63 U	130
	01/21/2015	34 U	54,000	97%	1,600	20 U	20 U	13 U
	03/10/2015	110 U	340,000	99%	2,700	63 U	63 U	41 U
	05/18/2015	1,100 U	700,000	96%	29,000	630 U	630 U	410 U
	06/10/2015	150	520,000	98%	7,900	63 U	63 U	49
	07/08/2015	1,600	640,000	98%	11,000	630 U	630 U	410 U
	09/01/2015	1,090 U	435,000	97%	9,510	634 U	634 U	409 U
	11/05/2015	164	371,000	98%	5,410	63 U	63 U	41 U
	12/14/2015	201	432,000	98%	6,430	63 U	63 U	41 U
	01/15/2016	2.7 U	2,400	71%	987	3.8	1.6 U	1.0 U
	03/11/2016	3.4	9,350	95%	525	5.0	1.6 U	1.6
	05/12/2016	77	266,000	99%	3,300	46	20 U	27
	06/21/2016	220	693,000	99%	7,710	63 U	63 U	41 U
	08/04/2016	128	499,000	98%	7,460	80	26	38
	09/16/2016	474	470,000	98%	7,950	159 U	159 U	102 U
11/10/2016	69	262,000	98%	4,750	42	20 U	17	
12/22/2016	2.7 U	6,290	91%	614	2.9	1.6 U	1.1	
02/06/2017	6.5	31,500	98%	743	7.3	2.4	5.6	
03/10/2017	2.7 U	4,570	93%	333	2.2	1.6 U	1.0 U	
05/09/2017	12	37,500	97%	1,060	15	4.4	7.8	
06/27/2017	28	108,000	99%	1,130	14	7.9	8.0	
08/09/2017	109 U	151,000	99%	1,800	63 U	63 U	41 U	
09/20/2017	19 J	32,700	98%	584	9.8 J	7.3 J	5.2 J	
11/14/2017	12	35,600	98%	721	6.9	4.0 U	3.9	
12/12/2017	11 U	27,100	98%	506	6.3 U	6.3 U	4.1 U	
02/27/2018	27 U	29,000	99%	326	16 U	16 U	10 U	
03/19/2018	11 U	27,600	97%	846	8.2	6.3 U	4.2	
05/22/2018	15	58,900	98%	1,230	12	6.3 U	5.2	

**Table 13**  
**SVE Performance Analytical Results - VOCs (ug/m<sup>3</sup>)**  
**SVE Pre-Treatment**  
H&V Fiber Corporation  
Covallis, Oregon

Location	Date	PCE	TCE	TCE as % of Total VOCs	cis -1,2-DCE	trans -1,2-DCE	1,1-DCE	Vinyl Chloride
SVE Blower 1 Discharge (PSVE1) (cont'd)	06/13/2018	27 U	78,400	96%	2,940	18	16 U	10 U
	08/08/2018	36	45,200	96%	1,650	13	13 U	8.2 U
	09/06/2018	34 U	69,900	96%	2,740	20 U	20 U	13 U
	12/05/2018	3.7	14,600	97%	434	1.8	1.6 U	1.1
	01/11/2019	11	43,400	98%	1,010	11	4.4	6.7
	02/14/2019	2.7 U	2,460	92%	214	1.6 U	1.6 U	1.0 U
	03/08/2019	5.5	37,900	99%	432	4.7	2.7	3.3
	04/18/2019	146	2,150	92%	27	1.6 U	1.6 U	1.0 U
	05/07/2019	9.2	7,450	98%	137	1.9	1.6 U	1.0 U
	06/06/2019	10	53,800	99%	794	7.4	3.1	3.2
	07/15/2019*	8.7	18,500	98%	448	6.5	2.6	2.6
	08/14/2019	13	123,000	98%	3,040	6.6	3.9	2.7
	09/10/2019	7.6	30,400	98%	749	3.2	1.8	1.1
	10/29/2019	15	8,360	96%	334	5.1	2.6	1.7
	11/18/2019	16	25,700	97%	808	6.5	3.4	2.6
	12/17/2019	11	17,000	97%	416	6.8	3.6	3.6
	01/09/2020	27 U	45,900	97%	1,230	16 U	16 U	10 U
	02/11/2020	4.1	26,400	99%	349	3.8	1.8	2.4
	03/13/2020	58	67,000	98%	1,010	7.7	3.2	3.4
	** 04/14/2020	23	77,200	99%	868	13	4.6	5.0
	05/20/2020	16	64,800	99%	896	7.9	3.5	3.6
	06/11/2020	7.6	35,800	98%	587	4.8	5.8	2.1
	07/09/2020	12	39,700	98%	646	5.8	2.7	2.3
	08/06/2020	16	25,900	98%	523	6.0	3.2	2.5
	09/16/2020	14	44,100	98%	959	8.2	4.3	3.2
	10/08/2020	17	45,800	98%	820	7.0	3.5	2.8
	11/12/2020	12	19,700	97%	650	6.5	3.2	2.6
12/09/2020	13	39,700	98%	888	7.9	4.1	3.5	
SVE Blower 2 Discharge (PSVE2)	06/27/2017	155	539,000	97%	13,900	181	44	102
	08/09/2017	1,090 U	1,120,000	98%	23,700	634 U	634 U	409 U
	09/20/2017	153	628,000	99%	8,870	63 U	63 U	42
	11/14/2017	156	1,190,000	99%	10,400	89	79 U	51 U
	12/12/2017	136	688,000	98%	14,000	149	63 U	68
	02/27/2018	1,090 U	1,230,000	98%	19,200	634 U	634 U	409 U
	03/19/2018	150	997,000	99%	8,200	20 U	37	65
	05/22/2018	75	395,000	98%	9,150	139	30	54
	06/13/2018	171	391,000	97%	11,700	99	63 U	42
	08/08/2018	3,360	191,000	96%	4,850	63 U	63 U	41 U
	09/06/2018	109 U	132,000	95%	6,330	63 U	63 U	41 U
	12/05/2018	8,980	290,000	96%	4,390	63 U	63 U	41 U
	01/11/2019	109	484,000	99%	5,050	71	20	29
	02/14/2019	2,720 U	651,000	96%	16,800	1,590 U	1,590 U	1,020 U
	03/08/2019	8.2	60,100	98%	1,310	7.8	2.1	2.8
	04/18/2019	4.1	3,720	93%	269	1.6	1.6 U	1.0 U
	05/07/2019	10	32,500	99%	313	5.1	1.9	3.4
	06/06/2019	69	1,340,000	99%	9,590	69	20 U	27
	07/15/2019*	134	159,000	95%	8,270	65	63 U	41 U
	08/14/2019	89	614,000	99%	5,180	48	40 U	26 U
	09/10/2019	125	509,000	98%	8,510	79	16	29
	10/29/2019	109 U	82,500	97%	1,930	63 U	63 U	41 U
11/18/2019	27 U	3,960	98%	29	16 U	16 U	10 U	
12/17/2019	1,570	356,000	98%	6,100	63 U	63 U	41 U	
01/09/2020	109 U	203,000	97%	4,990	63 U	63 U	41 U	
02/11/2020	1,090 U	2,450,000	99%	11,900	634 U	634 U	409 U	

**Table 13**  
**SVE Performance Analytical Results - VOCs (ug/m<sup>3</sup>)**  
**SVE Pre-Treatment**  
H&V Fiber Corporation  
Covallis, Oregon

Location	Date	PCE	TCE	TCE as % of Total VOCs	cis -1,2-DCE	trans -1,2-DCE	1,1-DCE	Vinyl Chloride
SVE Blower 2 Discharge (PSVE2) (cont'd)	03/13/2020	173	1,240,000	99%	7,490	82	63 U	41 U
	05/20/2020	21	54,100	99%	753	16	3.5	4.0
	06/11/2020	34	99,700	98%	1,530	20	4.4	5.5
	07/09/2020	17	47,800	98%	927	16	3.1	4.7
	08/06/2020	17	68,600	98%	1,460	13	2.6	4.9
	09/16/2020	19	100,000	98%	2,070	16	3.6	5.7
	10/08/2020	45	85,700	99%	1,170	21	4.6	6.6
	11/12/2020	23	37,600	98%	666	12	3.3	4.1
	12/09/2020	26	45,000	98%	789	11	2.8	3.4
Combined SVE + Stripper at Submicro	08/04/2010	86,825	5,266,748	94%	100,310	50,750 U	50,755 U	32,720 U
	09/29/2010	29,982 U	20,422,086	98%	380,227	26,485 U	30,731 U	14,545 J
	09/28/2011	15,000 U	252,000	78%	9,630 J	15,000 U	15,000 U	15,000 U
	10/14/2011	172,000 U	7,970,000	93%	146,000	100,000 U	100,000 U	64,700 U
	02/27/2012	21,800 U	1,260,000	93%	41,900	12,700 U	12,700 U	1,770 J
	07/19/2012	23,000 U	1,530,000	95%	28,200	13,400 U	13,400 U	8,660 U
	07/24/2012	59,000 U	2,830,000	94%	31,900 J	34,500 U	34,500 U	22,200 U
	08/01/2012	14,800 U	1,720,000	96%	26,200	8,670 U	8,670 U	5,590 U
	09/06/2012	31,700 U	1,760,000	94%	32,300	18,600 U	18,600 U	12,000 U
	09/28/2012	17,200 U	1,660,000	96%	31,900	10,100 U	10,100 U	6,500 U
	02/15/2013	20,400 U	2,550,000	95%	100,000	11,900 U	11,900 U	4,080 U
	02/19/2013	13,900 U	1,840,000	96%	35,900	8,110 U	8,110 U	5,230 U
	05/09/2013	240	960,000	99%	12,000	71	32 U	210
	05/29/2013	1,100 U	800,000	98%	11,000	630 U	630 U	410 U
	07/03/2013	200	270,000	98%	4,800	63 U	63 U	72
	08/01/2013	240	480,000	98%	7,100	67	63 U	110
	09/04/2013	140	330,000	97%	11,000	87	63 U	330
	10/01/2013	150	190,000	97%	6,300	63 U	63 U	120
	11/06/2013	140	310,000	99%	4,000	63 U	63 U	110
	01/08/2014	1,100 U	260,000	94%	13,000	630 U	630 U	410 U
	02/04/2014	1,100 U	350,000	97%	7,900	630 U	630 U	410 U
	03/04/2014	27 U	17,000	96%	630	16 U	16 U	10 U
	04/04/2014	110 U	44,000	93%	2,800	63 U	63 U	51
	05/15/2014	110 U	290,000	99%	3,000	63 U	63 U	49
	06/03/2014	1,100 U	350,000	97%	6,700	630 U	630 U	410 U
	07/09/2014	110 U	260,000	97%	7,900	63 U	63 U	69
	08/14/2014	1,100 U	410,000	97%	8,300	630 U	630 U	410 U
	09/04/2014	1,100 U	350,000	97%	6,700	630 U	630 U	410 U
	10/07/2014	540 U	280,000	97%	7,100	320 U	320 U	200 U
	11/05/2014	140	170,000	97%	4,400	63 U	63 U	69
	12/01/2014	110 U	170,000	97%	4,400	63 U	63 U	49
	01/21/2015	110 U	70,000	96%	2,400	63 U	63 U	41 U
	03/10/2015	110 U	160,000	98%	2,700	63 U	63 U	41 U
05/18/2015	1,100 U	700,000	96%	27,000	630 U	630 U	410 U	
06/10/2015	110 U	380,000	98%	7,100	63 U	63 U	64	
07/08/2015	750	540,000	98%	10,000	87	63 U	87	
09/01/2015	135	303,000	97%	7,820	63 U	63 U	41 U	
11/05/2015	112	253,000	98%	5,330	63 U	63 U	41 U	
12/14/2015	77	483,000	97%	12,600	50	23	65	
03/11/2016	16	46,700	93%	3,450	27	18	36	
05/12/2016	53	242,000	98%	4,100	39	18	33	
06/21/2016	181	382,000	98%	5,850	63 U	63 U	41 U	
08/04/2016	76	309,000	98%	5,500	44	20 U	30	
09/16/2016	3,340	333,000	97%	7,220	159 U	159 U	102 U	
10/26/2016	61	203,000	98%	4,000	39	16	25	
11/10/2016	51	244,000	98%	4,600	34	20 U	22	

**Table 13**  
**SVE Performance Analytical Results - VOCs (ug/m<sup>3</sup>)**  
**SVE Pre-Treatment**  
H&V Fiber Corporation  
Covallis, Oregon

Location	Date	PCE	TCE	TCE as % of Total VOCs	cis -1,2-DCE	trans -1,2-DCE	1,1-DCE	Vinyl Chloride
Combined SVE + Stripper at Submicro (cont'd)	12/22/2016	27 U	56,100	94%	3,350	18	16 U	13
	02/06/2017	35	159,000	98%	3,240	22	16 U	17
	03/10/2017	23	68,800	98%	1,690	14	8.5	7.9
	05/09/2017	16	43,200	95%	2,180	19	10	11
	05/12/2017	624 U	130,000	97%	3,610	365 U	365 U	235 U
	05/17/2017	34 U	106,000	97%	2,800	23	20 U	18
	05/23/2017	109	109,000	97%	3,050	26	16 U	15
	05/30/2017	34 U	186,000	98%	4,290	34	20 U	23
	05/31/2017	41	165,000	98%	3,920	35	17	20
	06/14/2017	15	157,000	98%	3,110	17	7.0	14
	06/27/2017	41	211,000	98%	4,320	34	20 U	19
	07/05/2017	34 U	151,000	97%	4,530	28	20 U	16
	07/19/2017	170	186,000	97%	5,960	63 U	63 U	41 U
	07/26/2017	109 U	139,000	97%	3,730	63 U	63 U	41 U
	08/02/2017	58	242,000	98%	4,750	29	16 U	18
	08/09/2017	66	25,800	84%	4,780	34	15	22
	08/18/2017	508	177,000	98%	3,880	63 U	63 U	41 U
	08/29/2017	70	192,000	98%	4,330	40	20 U	22
	09/07/2017	57	278,000	99%	3,670	26	16 U	17
	09/20/2017	43	114,000	97%	3,860	30	20 U	20
	10/04/2017	185	151,000	98%	2,310	27	12	16
	10/20/2017	31	94,800	97%	2,370	20	10	15
	11/03/2017	21	88,900	97%	2,840	20	10	13
	11/14/2017	34 U	106,000	97%	2,890	21	20 U	13 U
	11/28/2017	15	63,300	98%	1,360	3.2 U	11	11
	12/12/2017	70	61,700	97%	2,010	20 U	20 U	13 U
	12/28/2017	34 U	86,200	96%	3,710	27	20 U	13
	01/11/2018	34 U	42,800	96%	2,000	20 U	20 U	13 U
	01/16/2018	7.9	27,400	95%	1,250	16	8.3	10
	02/27/2018	27 U	41,600	95%	2,280	17	16 U	10 U
	03/19/2018	34 U	53,100	96%	2,240	20 U	20 U	13 U
	04/05/2018	24	53,100	97%	1,860	17	8.0	7.3
	05/07/2018	27 U	62,500	97%	2,120	20	16 U	12
	05/22/2018	17	45,800	96%	1,690	24	10	10
	06/13/2018	20	66,400	97%	1,910	31	13	13
	06/27/2018	27 U	59,400	94%	3,670	24	16 U	10
	07/24/2018	28	72,100	97%	2,380	31	16 U	15
	08/08/2018	45	38,200	96%	1,530	29	11	12
	09/06/2018	38	114,000	97%	3,140	21	20 U	13 U
	10/05/2018	109 U	28,600	88%	3,920	63 U	63 U	41 U
	12/05/2018	38	283,000	99%	3,790	24	16 U	13
	01/11/2019	21	137,000	98%	2,900	28	15	17
02/14/2019	34 U	51,900	94%	3,360	20 U	20 U	13 U	
03/08/2019	12	60,600	98%	1,430	17	10	9.2	
04/18/2019	27 U	30,600	95%	1,460	16 U	16 U	10 U	
05/07/2019	13	30,400	97%	852	8.9	5.4	4.9	
06/06/2019	16	86,400	97%	2,280	25	13	12	
07/15/2019	23	90,400	98%	1,990	23	11	9.0	
08/14/2019	38	189,000	98%	3,940	31	16 U	17	
09/10/2019	29	50,600	97%	1,280	21	9.9	8.8	
10/29/2019	40	27,400	85%	4,640	27	16 U	16	
11/18/2019	39	73,900	97%	2,450	23	24	12	
12/17/2019	36	124,000	96%	5,110	39	22	22	
01/09/2020	27 U	69,700	95%	3,700	25	16 U	17	

**Table 13**  
**SVE Performance Analytical Results - VOCs (ug/m<sup>3</sup>)**  
**SVE Pre-Treatment**  
H&V Fiber Corporation  
Covallis, Oregon

Location	Date	PCE	TCE	TCE as % of Total VOCs	cis -1,2-DCE	trans -1,2-DCE	1,1-DCE	Vinyl Chloride
Combined SVE + Stripper at Submicro (cont'd)	02/11/2020	15	82,000	98%	2,000	21	14	15
	03/13/2020	18	71,300	98%	1,740	26	15	13
	04/14/2020	21	68,000	97%	1,780	20	10	8.5
	05/20/2020	16	32,700	97%	963	16	8.0	7.2
	06/11/2020	19	70,700	97%	2,480	21	12	11
	07/09/2020	17	49,700	97%	1,680	18	9.5	8.8
	08/06/2020	16	31,400	97%	967	17	9.3	8.8
	09/16/2020	11	45,500	97%	1,170	10	5.0	5.0
	10/08/2020	20	57,300	98%	967	13	5.8	5.8
	11/23/2020	22	39,400	97%	1,290	22	13	11
	12/09/2020	21	53,200	97%	1,320	13	8.1	7.3
	Between Carbon <sup>a</sup>	05/09/2017	2.7 U	108	95%	5.4	1.6 U	1.6 U
05/12/2017		2.1 U	9.9	42%	14	1.3 U	1.3 U	14
05/17/2017		2.7 U	13	63%	7.4	1.6 U	1.6 U	13
05/23/2017		2.7 U	180	97%	5.6	1.6 U	1.6 U	19
05/30/2017		2.7 U	321	93%	23	1.6 U	1.6 U	15
05/31/2017		314	320	47%	35	1.6 U	1.6 U	10
06/14/2017		2.7 U	250	94%	6.2	1.6 U	1.6 U	11
06/27/2017		2.7 U	276	93%	6.1	1.6 U	1.6 U	14
07/05/2017		2.7 U	372	63%	194	3.6	5.8	19
07/19/2017		2.7 U	10	22%	1.6 U	1.6 U	1.6 U	37
07/26/2017		2.7 U	5.2	17%	1.6 U	1.6 U	1.6 U	25
08/02/2017		2.7 U	406	96%	24	1.6 U	1.6 U	19
08/09/2017		2.7 U	2,180	49%	2,170	16	34	28
08/18/2017		2.7 U	11	25%	10	1.6 U	1.6 U	24
08/29/2017		2.7 U	579	60%	361	2.7	6.6	19
09/07/2017		2.7 U	27,300	77%	8,100	96	125	22
09/20/2017		16	149	68%	29	1.6 U	1.6 U	25
10/04/2017		2.7 U	1,130	64%	564	10	33	23
10/20/2017		2.7 U	201	75%	52	1.6 U	2.7	11
11/03/2017		2.7 U	2,810	54%	2,330	11	16	11
11/14/2017		6.8 U	42,400	88%	5,340	82	101	14
11/28/2017		2.7 U	502	24%	1,480	20	41	11
12/12/2017		2.7 U	183	22%	635	5.9	3.9	8.8
12/28/2017		38	1,570	63%	828	9.2	1.7	26
01/11/2018		1.4 U	174	61%	96	0.79 U	5.6	11
01/26/2018		2.7 U	100	87%	3.2	1.6 U	1.6 U	12
02/27/2018		2.7 U	111	79%	20	1.6 U	3.5	6.4
03/19/2018		2.7 U	110	91%	3.7	1.6 U	1.6 U	6.6
04/05/2018		2.7 U	99	90%	3.3	1.6 U	1.6 U	8.2
05/07/2018		2.7 U	90	87%	2.9	1.6 U	1.6 U	10
05/22/2018		2.7 U	52	84%	2.6	1.6 U	1.6 U	7.1
06/13/2018		2.7 U	169	86%	6.3	1.6 U	1.6 U	22
06/27/2018		3.2	136	86%	5.0	1.6 U	1.6 U	13
07/24/2018	2.7 U	178	89%	6.4	1.6 U	1.6 U	16	
08/08/2018	2.7 U	224	93%	5.0	1.6 U	1.6 U	13	
09/06/2018	2.7 U	2.1 U	0%	1.6 U	1.6 U	1.6 U	13	
10/05/2018	2.7 U	474	71%	182	1.6 U	3.2	8.3	
12/05/2018	2.7 U	363	43%	444	3.4	10	12	
01/11/2019	2.7 U	195	86%	16	1.6 U	3.1	9.6	
02/14/2019	2.7 U	91	83%	3.8	1.6 U	1.6 U	9.3	
03/08/2019	2.7 U	179	89%	4.6	1.6 U	1.6 U	11	
04/18/2019	4.2	63	40%	48	1.6 U	1.6 U	41	
05/07/2019	2.7 U	2.1 U	0%	1.6 U	1.6 U	1.6 U	9.5	

**Table 13**  
**SVE Performance Analytical Results - VOCs (ug/m<sup>3</sup>)**  
**SVE Pre-Treatment**  
H&V Fiber Corporation  
Covallis, Oregon

Location	Date	PCE	TCE	TCE as % of Total VOCs	cis -1,2-DCE	trans -1,2-DCE	1,1-DCE	Vinyl Chloride	
Between Carbon (cont'd)	06/06/2019	2.7 U	27	68%	1.6 U	1.6 U	1.6 U	5.2	
	07/15/2019	2.7 U	112	88%	5.8	1.6 U	1.6 U	3.4	
	08/14/2019	1.4 U	238	88%	10	0.79 U	0.79 U	19	
	09/10/2019	34	2,000	92%	100	27	12	12	
	10/29/2019	1.4 U	189	61%	104	0.90	3.9	13	
	11/18/2019	1.4 U	151	87%	5.2	0.79 U	0.79 U	14	
	12/17/2019	1.4 U	254	90%	7.7	0.79 U	0.79 U	16	
	01/09/2020	1.4 U	246	88%	13	0.79 U	0.79 U	16	
	02/11/2020	1.4 U	1.1 U	20%	0.79 U	0.79 U	0.79 U	0.62	
	03/13/2020	1.4 U	11	43%	0.79 U	0.79 U	0.79 U	11	
	04/14/2020	1.4 U	19	60%	0.79 U	0.79 U	0.79 U	9.3	
	05/20/2020	1.4 U	1.1 U	0%	0.79 U	0.79 U	0.79 U	0.51 U	
	06/11/2020	1.4 U	718	97%	0.79 U	0.79 U	0.79 U	22	
	07/09/2020	1.4 U	1.1 U	8%	0.79 U	0.79 U	0.79 U	9.0	
	08/06/2020	1.4 U	1.1 U	0%	0.79 U	0.79 U	0.79 U	7.5	
	09/16/2020	1.4 U	1.3	16%	0.79 U	0.79 U	0.79 U	3.1	
	10/08/2020	1.4 U	1.1 U	0%	0.79 U	0.79 U	0.79 U	6.9	
	11/12/2020	1.4 U	24	73%	0.79 U	0.79 U	0.79 U	8.9	
12/09/2020	1.4 U	290	96%	5.9	0.79 U	0.79 U	14		
Post Carbon <sup>a</sup>	05/09/2017	2.7 U	2.1 U	0%	1.6 U	1.6 U	1.6 U	1.0 U	
	05/12/2017	3.2 U	2.5 U	0%	1.9 U	1.9 U	1.9 U	1.4 J	
	05/17/2017	2.7 U	2.1 U	0%	1.6 U	1.6 U	1.6 U	26	
	05/23/2017	2.7 U	5.1	19%	1.6 U	1.6 U	1.6 U	22	
	05/30/2017	2.7 U	2.4	17%	1.6 U	1.6 U	1.6 U	12	
	05/31/2017	25	2.1 U	0%	1.6 U	1.6 U	1.6 U	10	
	06/14/2017	2.7 U	2.1 U	0%	1.6 U	1.6 U	1.6 U	10	
	06/27/2017	1.2	1,640	85%	257	2.1	3.0	17	
	07/05/2017	2.7 U	3,750	87%	521	3.5	5.1	15	
	07/19/2017	2.7 U	3.5	8%	1.6 U	1.6 U	1.6 U	38	
	07/26/2017	2.7 U	2.1 U	0%	1.6 U	1.6 U	1.6 U	20	
	08/02/2017	2.7 U	8.3	31%	1.6 U	1.6 U	1.6 U	19	
	08/09/2017	3.5	3.1	35%	2.3	1.6 U	1.6 U	1.0 U	
	(Duplicate)	08/09/2017	4.0	2.1 U	0%	1.6 U	1.6 U	1.6 U	1.0 U
	08/18/2017	2.7 U	2.1 U	0%	1.6 U	1.6 U	1.6 U	10	
	08/29/2017	4.1	3.5	13%	1.6 U	1.6 U	1.6 U	20	
	09/07/2017	2.7 U	278	92%	5.6	1.6 U	1.6 U	18	
	09/20/2017	2.7 U	16	32%	1.6 U	1.6 U	1.6 U	35	
	10/04/2017	2.7 U	5.4	23%	3.1	1.6 U	1.6 U	15	
	10/20/2017	2.7 U	9.3	50%	1.6 U	1.6 U	1.6 U	9.4	
11/03/2017	2.7 U	5.9	27%	4.0	1.6 U	1.6 U	12		
11/14/2017	2.7 U	114	64%	44	1.6 U	3.3	17		
11/28/2017	2.7 U	9.2	40%	4.5	1.6 U	1.6 U	9.1		
12/12/2017	28	32	44%	5.4	1.6 U	1.6 U	7.1		
12/28/2017	25	4.8	14%	1.7	1.6 U	1.6 U	3.5		
01/11/2018	1.4 U	4.3	38%	0.79 U	0.79 U	0.79 U	7.0		
01/16/2018	2.7 U	3.0	30%	1.6 U	1.6 U	1.6 U	7.1		
02/27/2018	2.7 U	61	72%	1.6 U	1.6 U	1.6 U	24		
03/19/2018	2.7 U	2.1 U	0%	1.6 U	1.6 U	1.6 U	1.0 U		
04/05/2018	2.7 U	2.1 U	0%	1.6 U	1.6 U	1.6 U	7.8		
05/07/2018	2.7 U	2.7	16%	1.6 U	1.6 U	1.6 U	14		
05/22/2018	2.7 U	8.3	40%	1.6 U	1.6 U	1.6 U	13		
06/13/2018	2.7 U	7.7	41%	1.6 U	1.6 U	1.6 U	11		
06/27/2018	2.9	4.4	20%	1.6 U	1.6 U	1.6 U	15		
07/24/2018	2.7 U	2.1 U	0%	1.6 U	1.6 U	1.6 U	11		

**Table 13**  
**SVE Performance Analytical Results - VOCs (ug/m<sup>3</sup>)**  
**SVE Pre-Treatment**  
H&V Fiber Corporation  
Covallis, Oregon

Location	Date	PCE	TCE	TCE as % of Total VOCs	cis -1,2-DCE	trans -1,2-DCE	1,1-DCE	Vinyl Chloride
Post Carbon (cont'd)	08/08/2018	2.7 U	2.1 U	0%	1.6 U	1.6 U	1.6 U	6.8
	09/06/2018	2.7 U	2.1 U	0%	1.6 U	1.6 U	1.6 U	20
	10/05/2018	2.7 U	2.1 U	0%	1.6 U	1.6 U	1.6 U	5.9
	12/05/2018	2.9	14	40%	2.6	1.6 U	1.6 U	16
	01/11/2019	2.7 U	6.4	36%	1.8	1.6 U	1.6 U	7.8
	02/14/2019	2.7 U	7.5	34%	1.6 U	1.6 U	1.6 U	13
	03/08/2019	2.7 U	17	61%	1.6 U	1.6 U	1.6 U	9.0
	04/18/2019	3.1	3.1	12%	1.6 U	1.6 U	1.6 U	20
	05/07/2019	2.8	2.6	26%	1.6 U	1.6 U	1.6 U	4.7
	06/06/2019	2.7 U	99	100%	1.6 U	1.6 U	1.6 U	1.0 U
	07/15/2019	2.7 U	4.0	40%	1.6 U	1.6 U	1.6 U	6.1
	08/14/2019	1.4 U	323	91%	0.79 U	0.79 U	0.79 U	31
	09/10/2019	1.4 U	26	53%	0.79 U	0.79 U	0.79 U	22
	10/29/2019	1.4 U	2.1	17%	0.79 U	0.79 U	0.79 U	9.1
	11/18/2019	1.4 U	2.0	100%	0.79 U	0.79 U	0.79 U	0.51 U
	12/17/2019	1.4 U	129	90%	2.6	0.79 U	0.79 U	13
	01/09/2020	1.4 U	4.1	10%	0.79 U	0.79 U	0.79 U	38
	02/11/2020	1.4 U	1.8	8%	0.79 U	0.79 U	0.79 U	21
	03/13/2020	1.4 U	8.5	43%	0.79 U	0.79 U	0.79 U	11
	04/14/2020	1.4 U	2.7	15%	0.79 U	0.79 U	0.79 U	15
	05/20/2020	1.4 U	1.1 U	0%	0.79 U	0.79 U	0.79 U	8.6
	06/11/2020	1.4 U	2.1	20%	0.79 U	0.79 U	0.79 U	8.4
	07/09/2020	1.4 U	1.6	100%	0.79 U	0.79 U	0.79 U	0.51 U
	08/06/2020	1.8	1.6	13%	0.79 U	0.79 U	0.79 U	8.6
	09/16/2020	1.4 U	68	90%	0.79 U	0.79 U	0.79 U	7.8
	10/08/2020	1.4 U	2.4	21%	0.79 U	0.79 U	0.79 U	8.7
	11/12/2020	1.4 U	5.6	45%	0.79 U	0.79 U	0.79 U	6.9
	12/09/2020	1.4 U	15	58%	0.79 U	0.79 U	0.79 U	11

**Notes:**

<sup>a</sup> Activated carbon replacement: Carbon Vessel 1 - 6/2/17 (2000 lbs), Carbon Vessels 1 and 2 - 7/12/17 (4000 lbs), Carbon Vessel 1 - 8/15/17 (2000 lbs), Carbon Vessel 2 - 9/15/17 (2000 lbs), Carbon Vessel 1 - 10/13/17 (2000 lbs), Carbon Vessel 2 - 11/17/17 (2000 lbs), Carbon Vessel 1 - 12/19/17 (2000 lbs), Carbon Vessel 2 - 1/15/18 (2000 lbs), Carbon Vessel 1 - 3/13/18 (2000 lbs), Carbon Vessel 2 - 4/19/18 (2000 lbs), Carbon Vessel 1 - 5/29/18 (2000 lbs), Carbon Vessel 2 - 7/10/18 (2000 lbs), Carbon Vessel 1 - 8/27/18 (2000 lbs), Carbon Vessel 2 - 10/11/18 (2000 lbs), Carbon Vessel 1 - 11/20/18 (2000 lbs), Carbon Vessel 2 - 12/27/18 (2000 lbs), Carbon Vessel 1 - 2/6/19 (2000 lbs), Carbon Vessel 2 - 3/11/19 (2000 lbs), Carbon Vessel 1 - 4/22/19 (2000 lbs), Carbon Vessel 2 - 6/4/19 (2000 lbs), Carbon Vessel 1 - 7/18/19 (2000 lbs), Carbon Vessel 2 - 8/29/19 (2000 lbs), Carbon Vessel 1 - 10/3/19 (2000 lbs), Carbon Vessel 2 - 11/15/19 (2000 lbs), Carbon Vessel 1 - 12/19/19 (2000 lbs), Carbon Vessel 2 - 1/20/20 (2000 lbs), Carbon Vessel 1 - 2/24/20 (2000 lbs), Carbon Vessel 2 - 3/26/20 (2000 lbs), Carbon Vessel 1 - 5/1/20 (2000 lbs), Carbon Vessel 2 - 6/3/20 (2000 lbs), Carbon Vessel 1 - 7/6/20 (2000 lbs), Carbon Vessel 2 - 8/10/20 (2000 lbs), Carbon Vessel 1 - 9/21/20 (2000 lbs), Carbon Vessel 2 - 10/29/20 (2000 lbs), Carbon Vessel 1 - 11/25/20 (2000 lbs), Carbon Vessel 2 - 12/29/20 (2000 lbs)

PCE = Tetrachloroethene

TCE = Trichloroethene

DCE = Dichloroethene

ug/m<sup>3</sup> = Micrograms per cubic meter of air

\*SVE Blower 1 and 2 Discharge samples collected on 7/15/2019 were mislabeled in the field. Sample results were reversed in order to match historical data.

U = Undetected at Method Reporting Limit shown

J = Estimated value

Treatment of remediation system offgas using vapor phase activated carbon adsorption began 05/03/2017

SVE Blower 2 start up on 06/22/2017

\*\*Blower 2 went down on March 26, 2020. The system was temporarily modified to run all SVE well locations through Blower 1. A replacement blower was installed at the Blower 2 location on April 27, 2020.

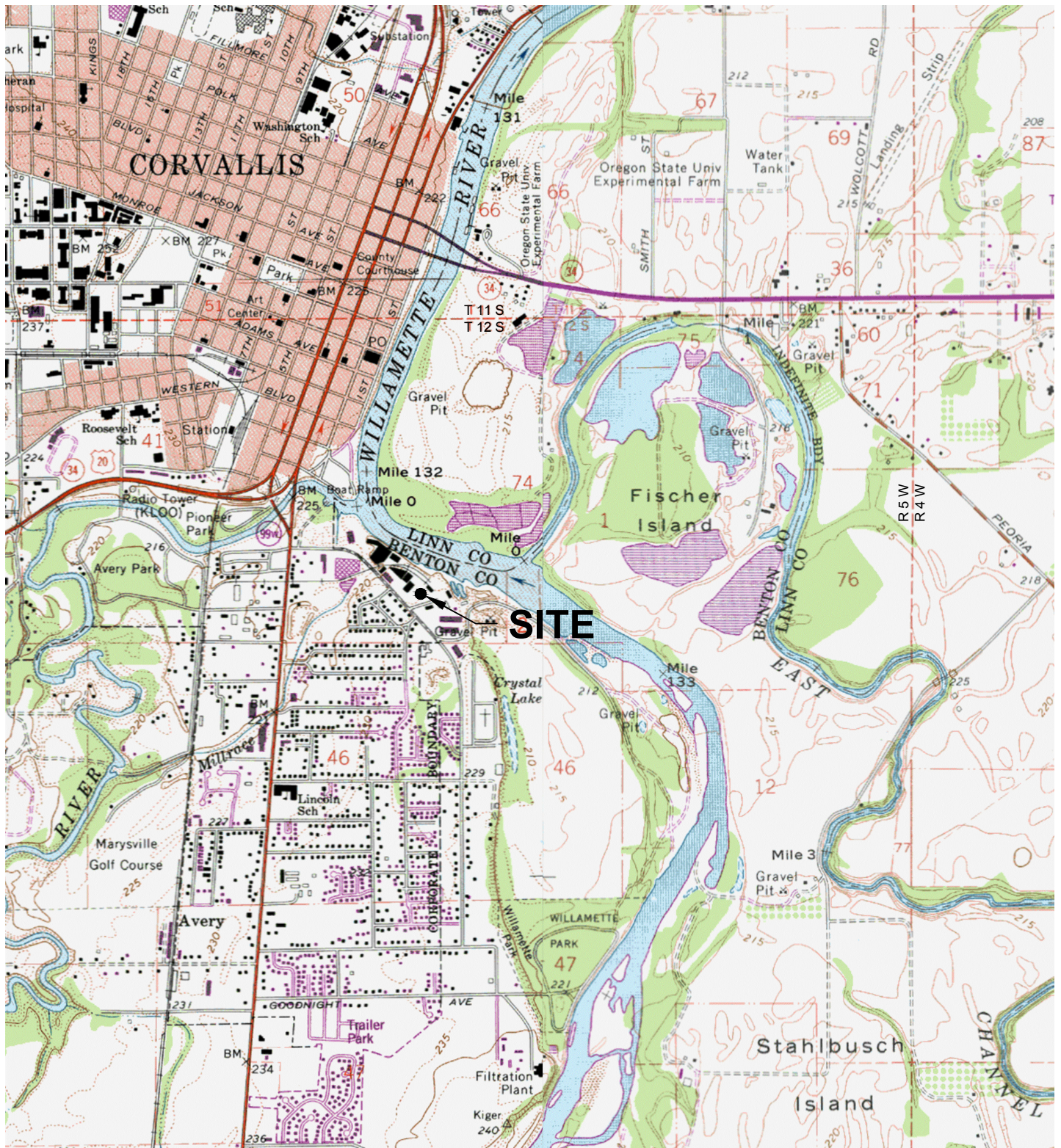
**Table 14**  
**TCE Groundwater Treatment System Performance**  
H&V Fiber Corporation  
Corvallis, Oregon

Date	Average Extraction Rate (gpm)	Gallons Extracted for Period	Influent Concentration (ug/L)	Effluent Concentration (ug/L)	Efficiency (%)
03/09/2015	19.4	1,311,423	6,800	100	98.5%
05/18/2015	-	-	5,100	120	97.6%
06/11/2015	37.7	5,104,999	3,700	76	97.9%
07/08/2015	48.1	1,869,870	3,300	49	98.5%
09/01/2015	26.8	2,124,824	4,490	60	98.7%
11/05/2015	35.2	3,294,218	3,610	56	98.4%
12/16/2015	37.9	2,239,115	3,560	56	98.4%
03/11/2016	10.3	1,273,371	2,740	42	98.5%
05/12/2016	33.2	2,965,909	4,570	63	98.6%
06/21/2016	25.2	1,453,189	4,560	35	99.2%
08/04/2016	35.2	2,228,843	5,320	88	98.4%
09/14/2016	28.7	1,694,148	5,930	48	99.2%
11/10/2016	30.8	2,524,092	4,960	72	98.5%
12/22/2016	26.5	1,601,159	5,530	93	98.3%
02/06/2017	36.7	2,431,907	11,000	161	98.5%
03/10/2017	33.6	1,549,476	8,770	110	98.7%
05/09/2017	26.8	2,315,215	6,480	61	99.1%
06/08/2017	38.8	1,675,487	4,940	50	99.0%
06/27/2017	35.9	983,492	4,670	66	98.6%
08/09/2017	41.2	2,549,051	2,570	34	98.7%
09/18/2017	39.1	2,253,864	2,900	41	98.6%
11/14/2017	36.3	2,976,562	3,440	17	99.5%
12/11/2017	40.2	1,564,039	3,420	31	99.1%
02/27/2018	28.2	3,163,183	4,690	52	98.9%
03/07/2018	34.1	392,814	2,690	25	99.1%
05/22/2018	33.0	3,609,842	3,510	33	99.1%
06/06/2018	35.0	755,196	3,150	32	99.0%
08/08/2018	35.1	3,183,271	3,430	30	99.1%
09/10/2018	29.3	1,393,803	3,850	4.1	99.9%
12/04/2018	33.5	4,095,817	3,090	80	97.4%
02/14/2019	34.8	3,606,994	3,010	58	98.1%
03/11/2019	38.1	1,373,115	2,970	161	94.6%
05/07/2019	37.3	3,059,187	3,080	109	96.5%
06/04/2019	36.2	1,461,571	3,100	100	96.8%
07/15/2019	30.0	1,770,301	3,400	36	98.9%
09/10/2019	38.1	3,131,222	3,060	111	96.4%
10/29/2019	37.3	2,633,609	2,800	94	96.6%
12/18/2019	34.8	2,504,412	2,590	141	94.6%
02/11/2020	34.1	2,700,619	1,920	110	94.3%
03/12/2020	35.4	1,529,893	1,820	111	93.9%
04/14/2020	35.0	1,663,610	2,550	36	98.6%
06/02/2020	35.5	2,504,294	1,850	144	92.2%
08/06/2020	34.3	3,211,748	2,500	174	93.0%
09/17/2020	34.5	2,087,579	2,620	262	90.0%
11/12/2020	32.6	2,631,263	2,210	119	94.6%
12/10/2020	33.0	1,330,051	2,150	134	93.8%

**Notes:**

- °F = Degrees Fahrenheit
- ug/L = Micrograms per liter
- % = Percent
- U = undetected at detection limit shown
- = Not available

## FIGURES



APPROXIMATE SCALE IN FEET



**NOTE:**  
 USGS, Corvallis-Riverside Quadrangle  
 Oregon  
 7.5 Minute Series (Topographic)  
 Lat: 44°33'12.02"N, Long: 123°15'31.82"W

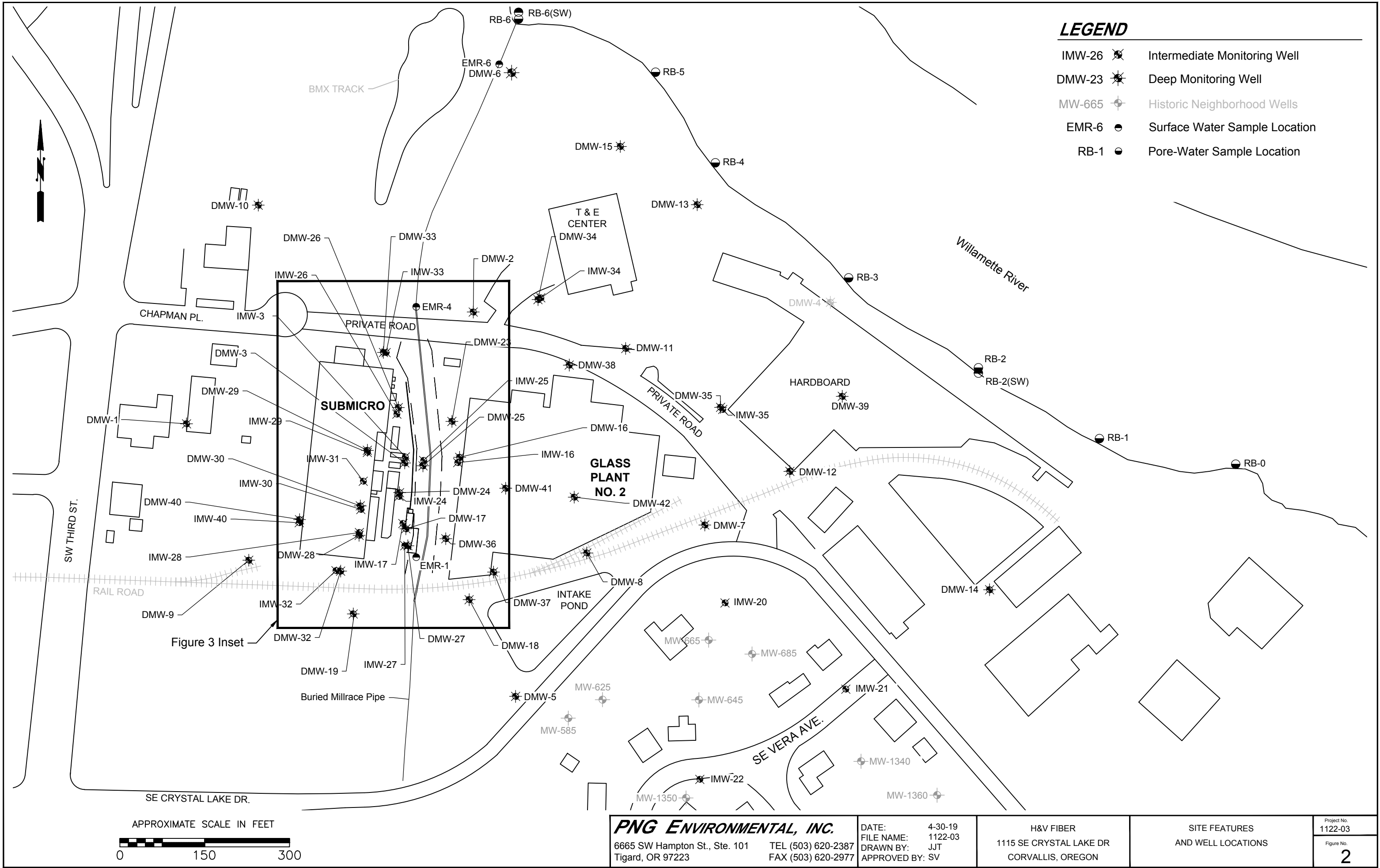
**PNG ENVIRONMENTAL, INC.**  
 6665 SW Hampton Street,  
 Suite 101 Tigard, OR 97223

DATE: 6-12-14  
 FILE NAME: 1122-01  
 DRAWN BY: JJT  
 APPROVED BY: SV

H&V FIBER  
 1115 SE CRYSTAL LAKE DR  
 CORVALLIS, OREGON

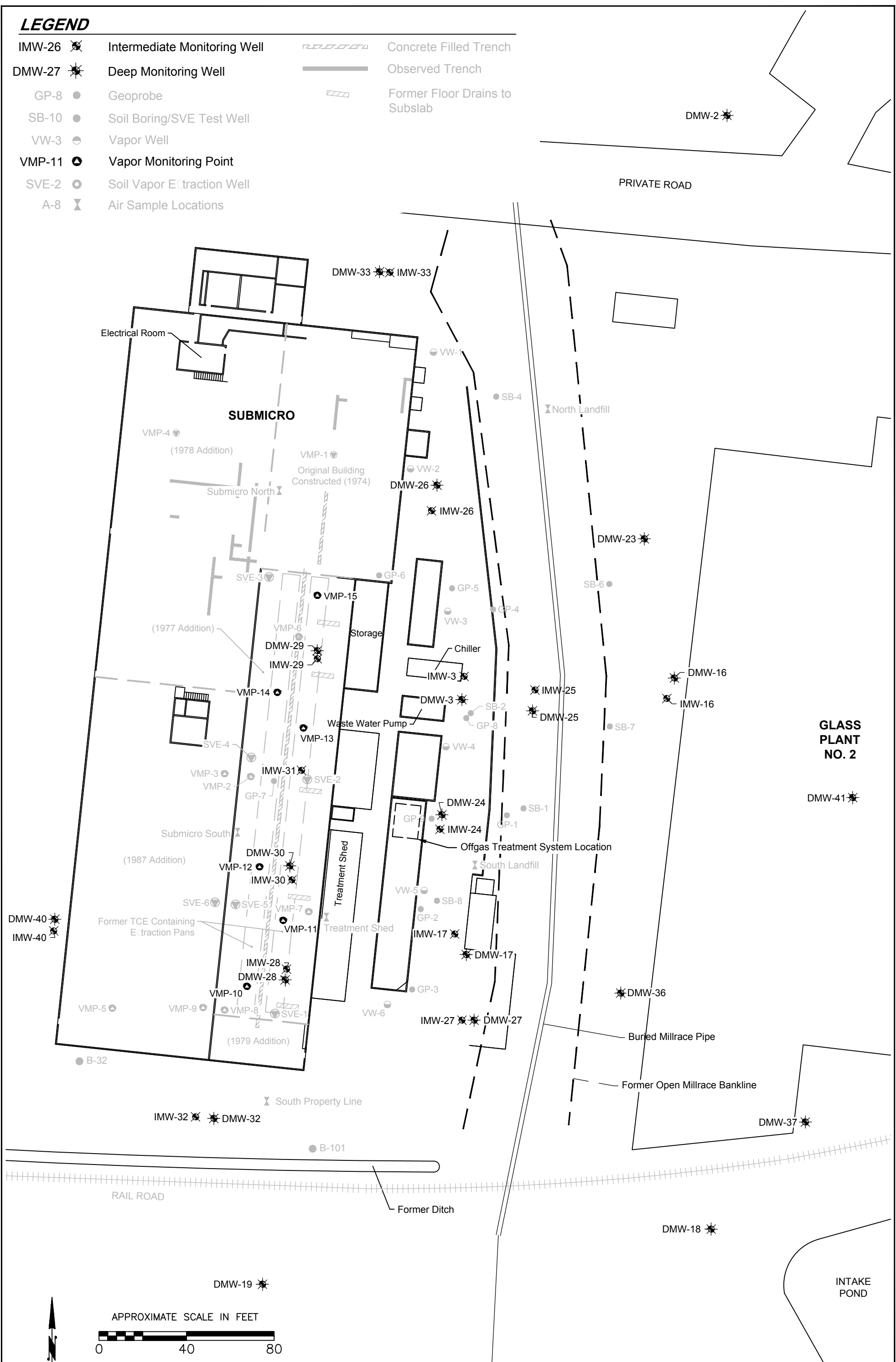
SITE LOCATION MAP

Project No. 1122-03  
 Figure No. 1



**LEGEND**

- IMW-26 ✖ Intermediate Monitoring Well
- DMW-27 ✖ Deep Monitoring Well
- GP-8 ● Geoprobe
- SB-10 ● Soil Boring/SVE Test Well
- VW-3 ● Vapor Well
- VMP-11 ● Vapor Monitoring Point
- SVE-2 ● Soil Vapor Extraction Well
- A-8 ✖ Air Sample Locations
- ▤ Concrete Filled Trench
- ▬ Observed Trench
- ▨ Former Floor Drains to Subslab



**GLASS PLANT NO. 2**

**PNG ENVIRONMENTAL, INC.**  
 6665 SW Hampton St., Ste. 101 Tigard, OR 97223  
 TEL (503) 620-2387  
 FAX (503) 620-2977







DATE: 2-2-18  
 FILE NAME: 1122-03  
 DRAWN BY: JJT  
 APPROVED BY: SD

H&V FIBER  
 1115 SE CRYSTAL LAKE DR.  
 CORVALLIS, OREGON

SITE FEATURES  
 SUBMICRO DNAPL SOURCE ZONE

Project No. 1122-03  
 Figure No. **3**

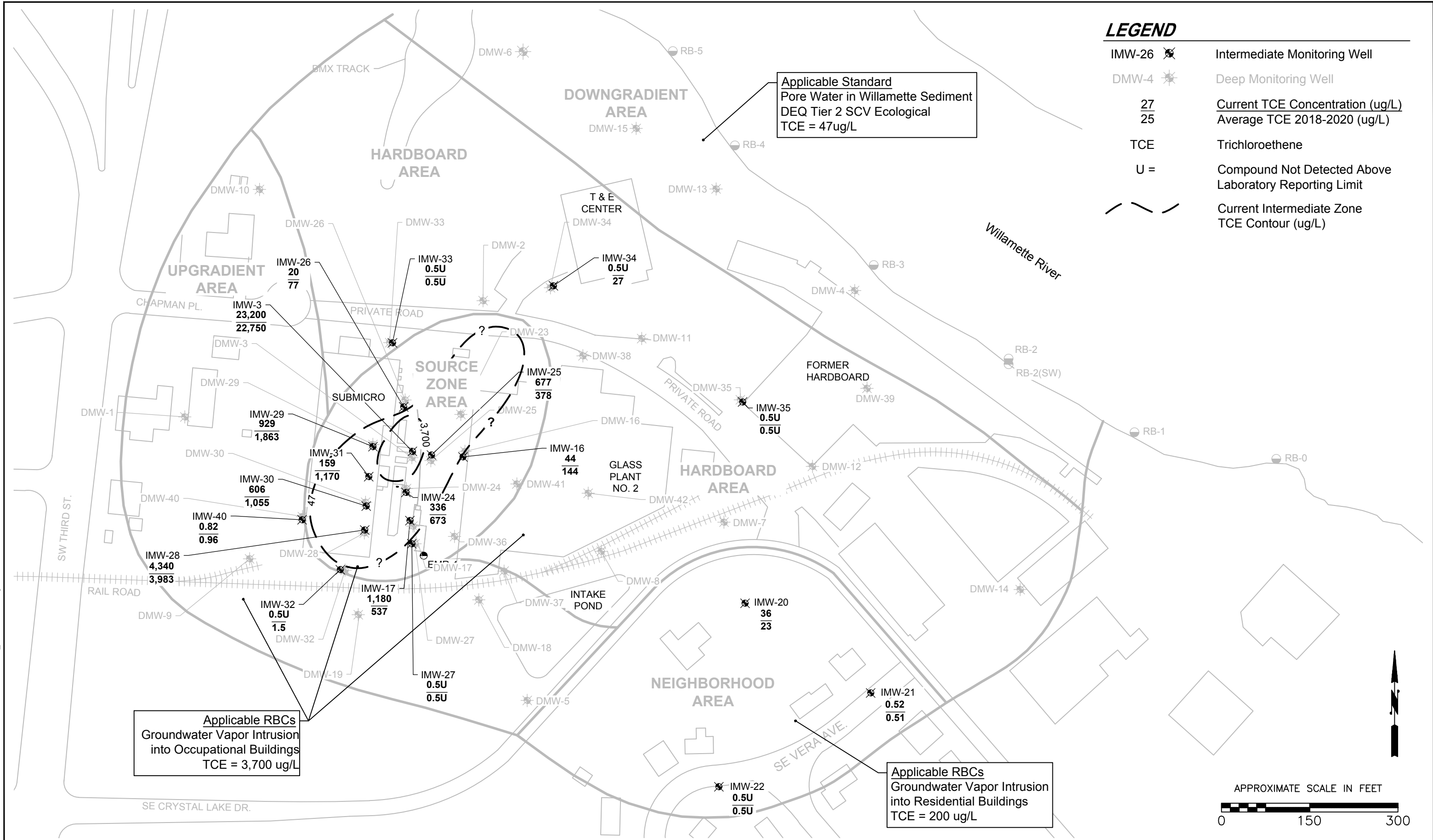
**LEGEND**

- IMW-26  Intermediate Monitoring Well
- DMW-4  Deep Monitoring Well
- $\frac{27}{25}$   Current TCE Concentration (ug/L)  
Average TCE 2018-2020 (ug/L)
- TCE  Trichloroethene
- U =  Compound Not Detected Above Laboratory Reporting Limit
-  Current Intermediate Zone TCE Contour (ug/L)

Applicable Standard  
Pore Water in Willamette Sediment  
DEQ Tier 2 SCV Ecological  
TCE = 47ug/L

Applicable RBCs  
Groundwater Vapor Intrusion  
into Occupational Buildings  
TCE = 3,700 ug/L

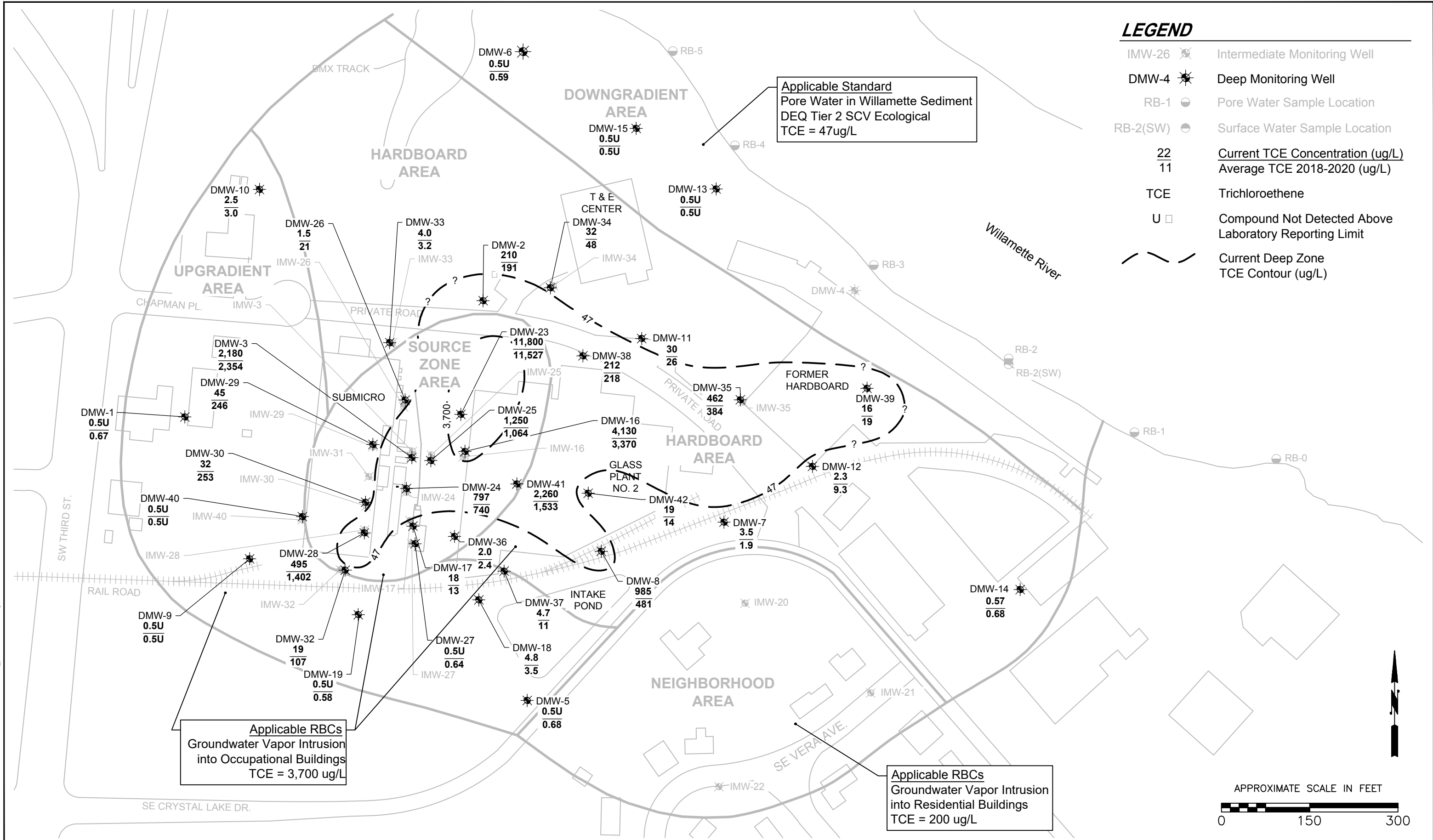
Applicable RBCs  
Groundwater Vapor Intrusion  
into Residential Buildings  
TCE = 200 ug/L



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**LEGEND**

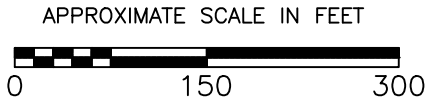
- IMW-26 ☼ Intermediate Monitoring Well
- DMW-4 ☼ Deep Monitoring Well
- RB-1 ● Pore Water Sample Location
- RB-2(SW) ● Surface Water Sample Location
- $\frac{22}{11}$  Current TCE Concentration (ug/L)  
Average TCE 2018-2020 (ug/L)
- TCE Trichloroethene
- U □ Compound Not Detected Above Laboratory Reporting Limit
- - - Current Deep Zone TCE Contour (ug/L)



Applicable Standard  
Pore Water in Willamette Sediment  
DEQ Tier 2 SCV Ecological  
TCE = 47ug/L

Applicable RBCs  
Groundwater Vapor Intrusion  
into Occupational Buildings  
TCE = 3,700 ug/L

Applicable RBCs  
Groundwater Vapor Intrusion  
into Residential Buildings  
TCE = 200 ug/L



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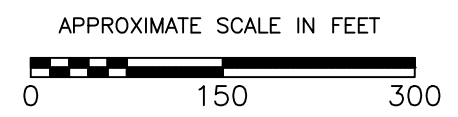
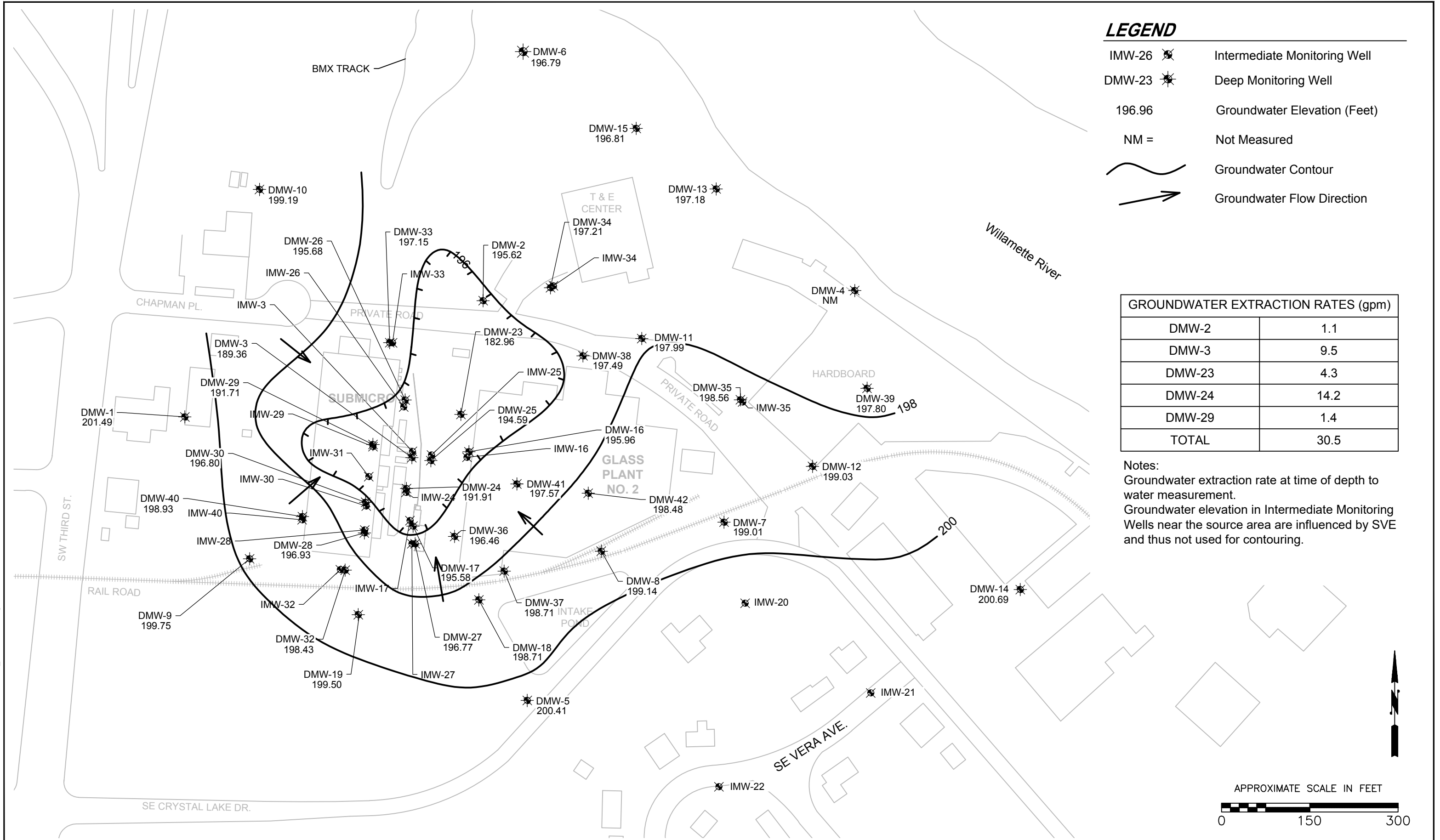
<p><b>PNG ENVIRONMENTAL, INC.</b> 6665 SW Hampton St., Ste. 101 Tigard, OR 97223</p>		<p>DATE: 1-28-21</p>	<p>H&amp;V FIBER 1115 SE CRYSTAL LAKE DR CORVALLIS, OREGON</p>	<p>TCE IN GROUNDWATER CURRENT DEEP CONDITIONS</p>	<p>Project No. 1122-03</p>
		<p>FILE NAME: 1122-03</p> <p>DRAWN BY: JJT</p> <p>APPROVED BY: ED</p>			<p>Figure No. 5</p>

**LEGEND**

- IMW-26 ☒ Intermediate Monitoring Well
- DMW-23 ☒ Deep Monitoring Well
- 196.96 Groundwater Elevation (Feet)
- NM = Not Measured
- ~ Groundwater Contour
- Groundwater Flow Direction

GROUNDWATER EXTRACTION RATES (gpm)	
DMW-2	1.1
DMW-3	9.5
DMW-23	4.3
DMW-24	14.2
DMW-29	1.4
<b>TOTAL</b>	<b>30.5</b>

Notes:  
 Groundwater extraction rate at time of depth to water measurement.  
 Groundwater elevation in Intermediate Monitoring Wells near the source area are influenced by SVE and thus not used for contouring.



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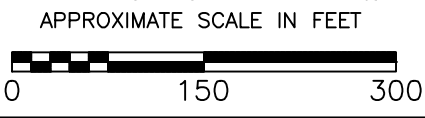
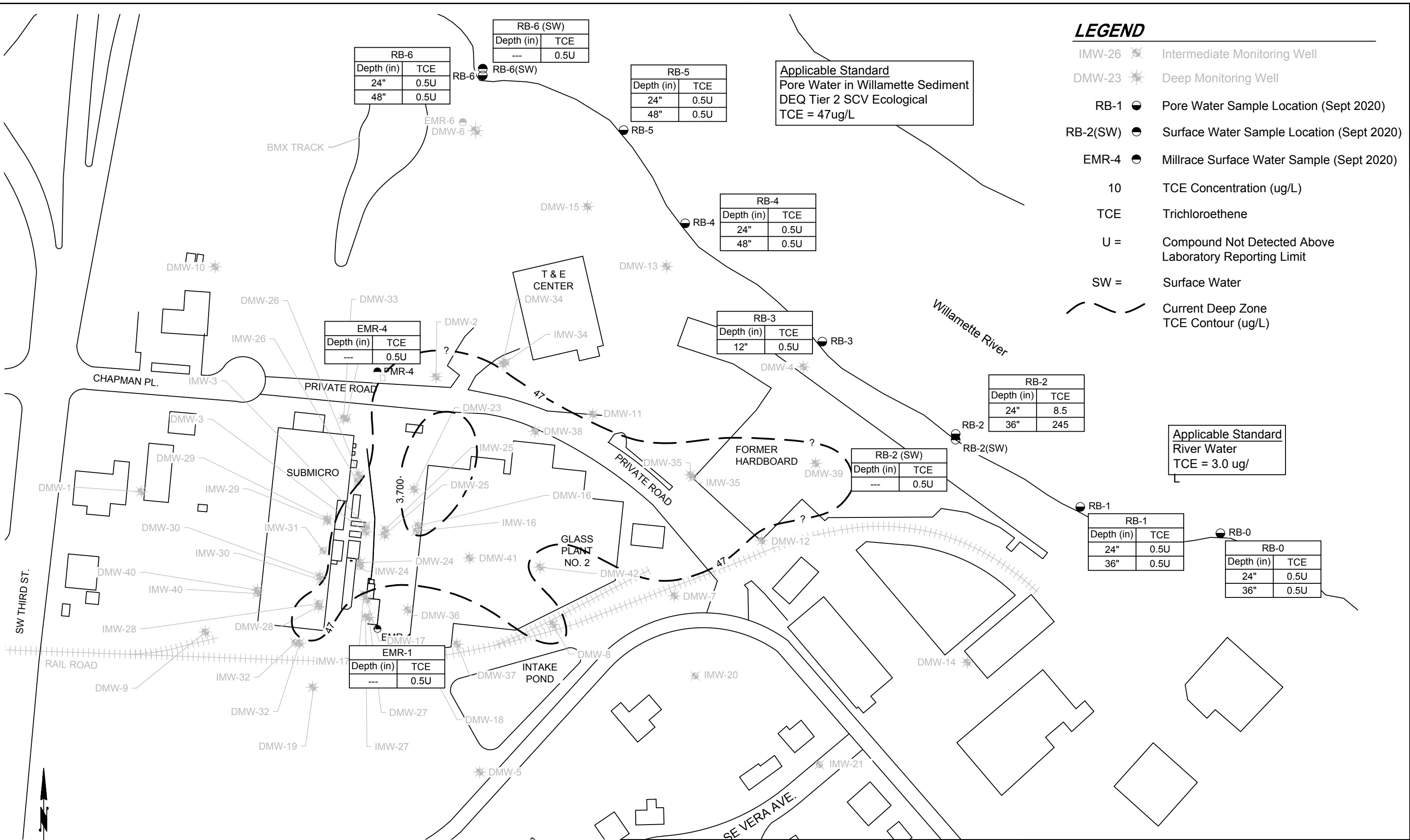
I:\Autocad Files\PNG-Autocad\1122-03 Evantite\2021\Jan\_2021\1122-03\_TCE-012821.dwg 2.17.2014

**LEGEND**

- IMW-26 Intermediate Monitoring Well
- DMW-23 Deep Monitoring Well
- RB-1 Pore Water Sample Location (Sept 2020)
- RB-2(SW) Surface Water Sample Location (Sept 2020)
- EMR-4 Millrace Surface Water Sample (Sept 2020)
- 10 TCE Concentration (ug/L)
- TCE Trichloroethene
- U = Compound Not Detected Above Laboratory Reporting Limit
- SW = Surface Water
- Current Deep Zone TCE Contour (ug/L)

**Applicable Standard**  
 Pore Water in Willamette Sediment  
 DEQ Tier 2 SCV Ecological  
 TCE = 47ug/L

**Applicable Standard**  
 River Water  
 TCE = 3.0 ug/L



**PNG ENVIRONMENTAL, INC.**  
 6665 SW Hampton St., Ste. 101 Tigard, OR 97223  
 TEL (503) 620-2387 FAX (503) 620-2977

DATE: 1-28-21  
 FILE NAME: 1122-03  
 DRAWN BY: JJT  
 APPROVED BY: ED

H&V FIBER  
 1115 SE CRYSTAL LAKE DR.  
 CORVALLIS, OREGON

TCE IN PORE WATER  
 AND SURFACE WATER  
 SEPTEMBER 2020

Project No. 1122-03  
 Figure No. 7

**Figure 8**  
**TCE in Groundwater - DMW-3 and DMW-17**  
**H&V Fiber Corporation**

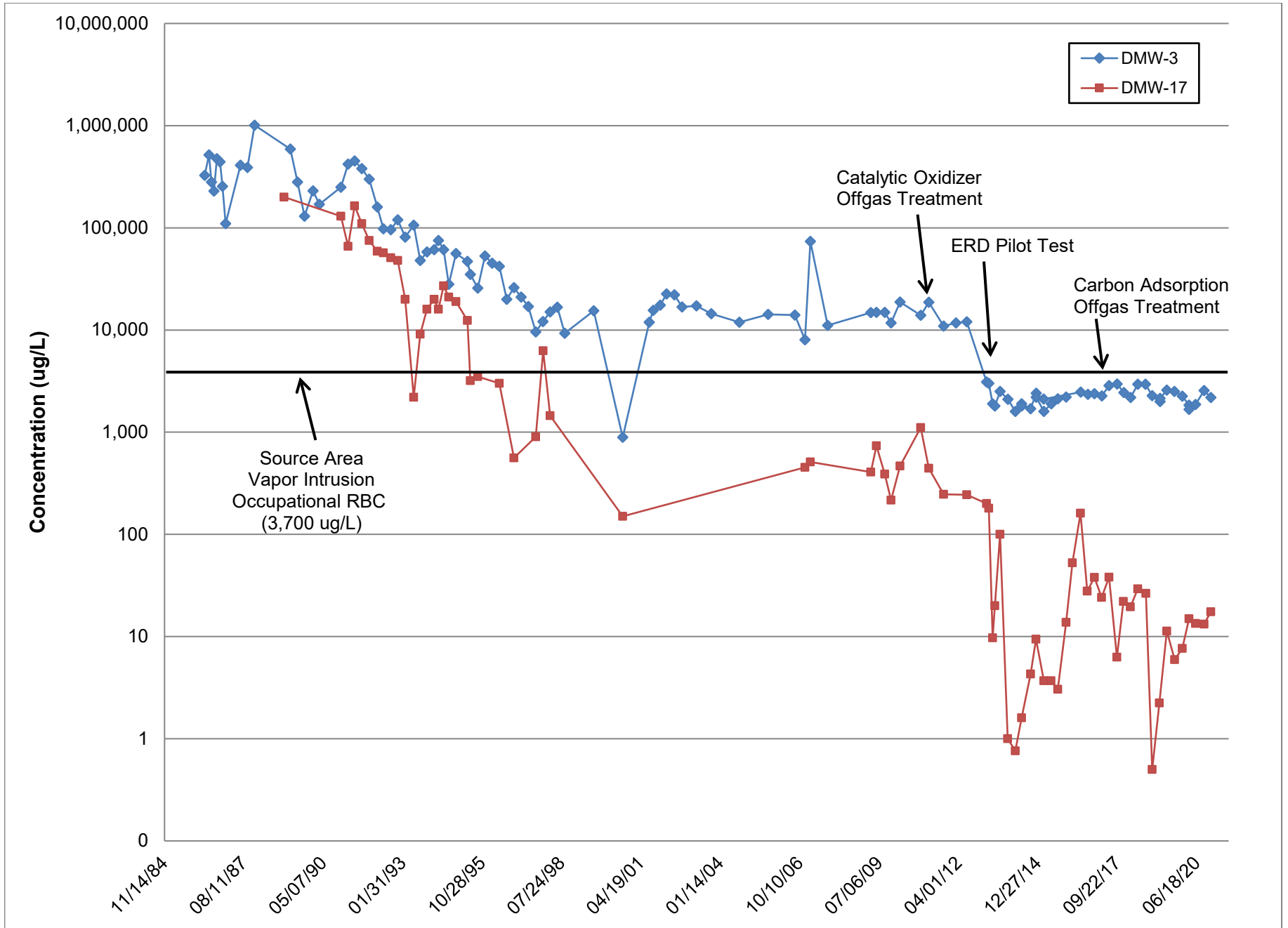
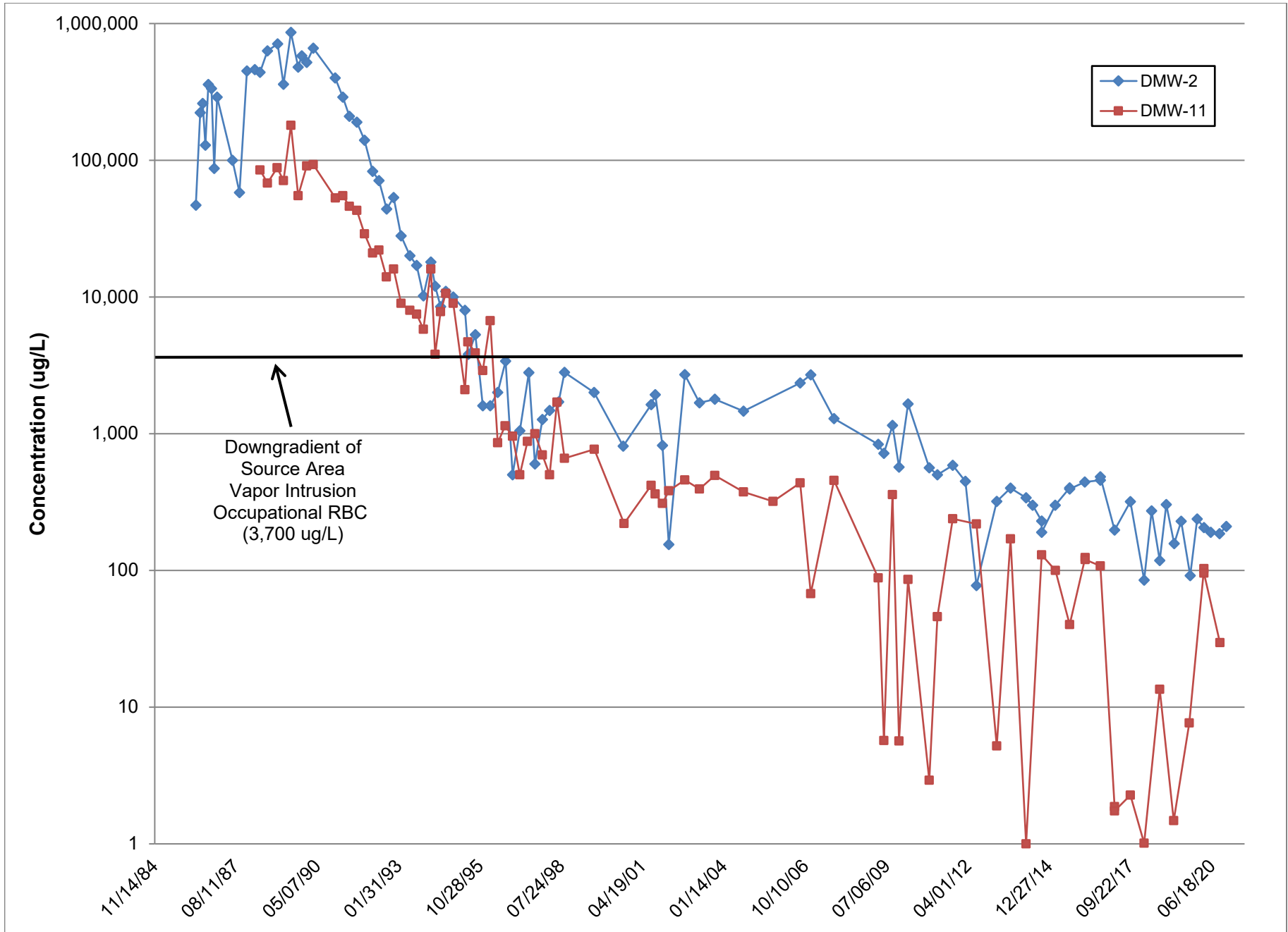
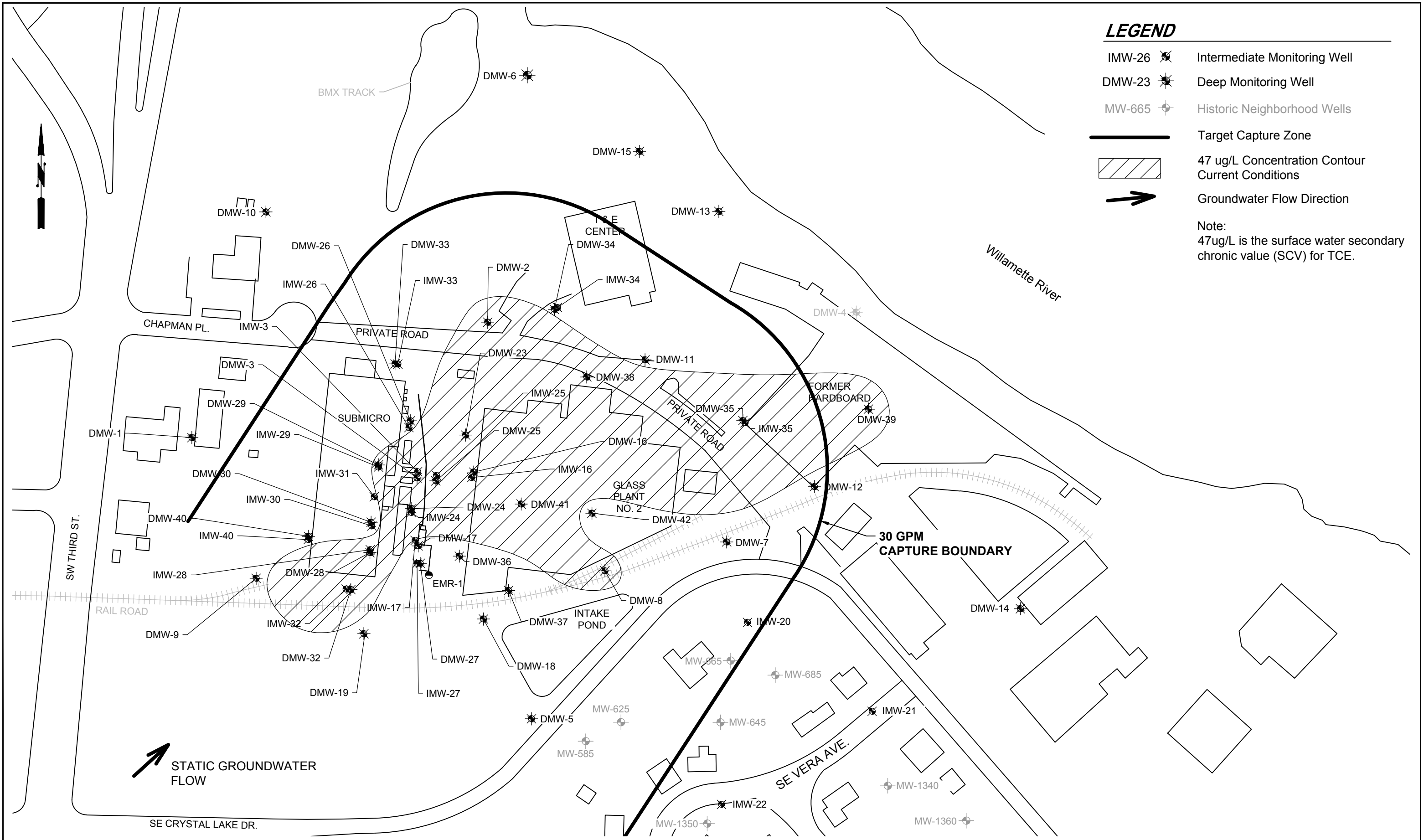


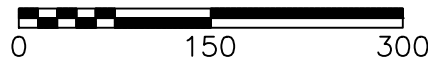
Figure 9  
TCE in Groundwater - DMW-2 and DMW-11  
H&V Fiber Corporation



C:\Users\Josh\Desktop\Autocad Files\PNG-Autocad\1122-03 Evantle\2019\1122-03\_TCE-102119.dwg 2.17.2014



APPROXIMATE SCALE IN FEET



**PNG ENVIRONMENTAL, INC.**

6665 SW Hampton St., Ste. 101 Tigard, OR 97223  
TEL (503) 620-2387 FAX (503) 620-2977

DATE: 1-7-20  
FILE NAME: 1122-03  
DRAWN BY: JJT  
APPROVED BY: SV

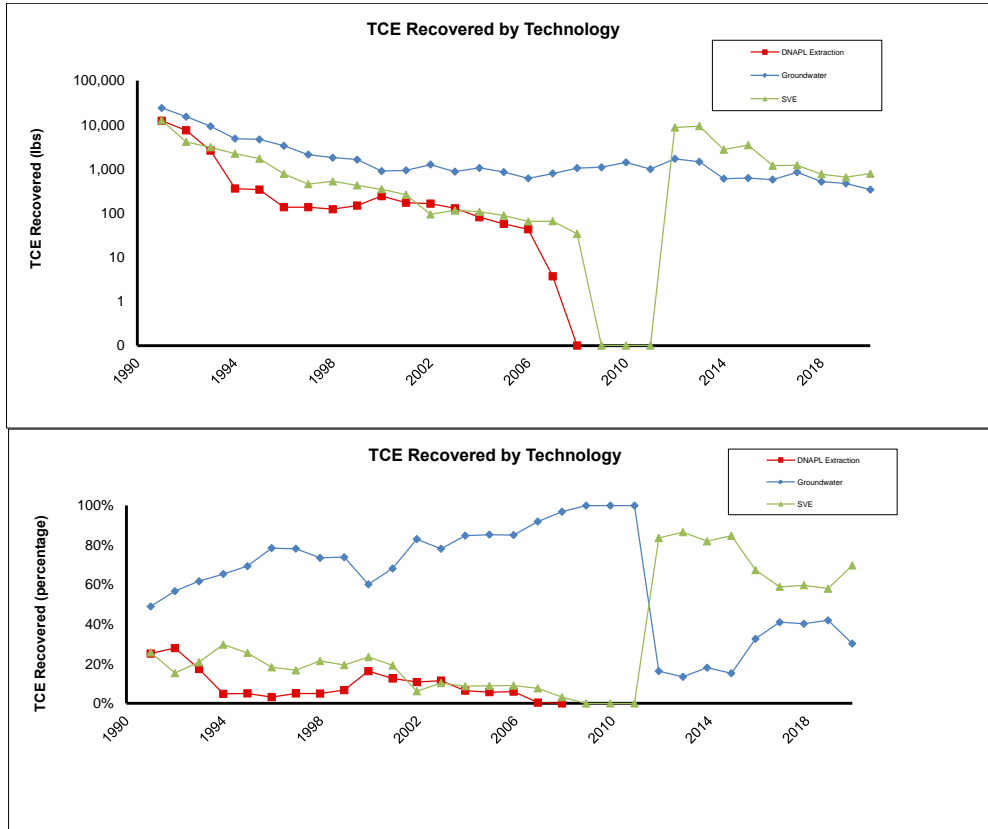
H&V FIBER  
1115 SE CRYSTAL LAKE DR  
CORVALLIS, OREGON

TARGET CAPTURE ZONE

Project No.  
1122-03

Figure No.  
**10**

**Figure 11**  
**Groundwater, DNAPL Recovery, and Soil Vapor Extraction Performance Data**  
 H & V Fiber Corporation  
 Corvallis, Oregon



Time Period	Groundwater		DNAPL Extraction			SVE (lbs)	Total TCE (lbs)	Contribution by Technology			
	Gallons	TCE (lbs)	DNAPL (gallons)	TCE (lbs)	Oil (gallons)			GW%	DNAPL%	SVE%	Total%
1991	21,000,100	23,900	1,484	12,300	478	12,600	48,800	49.0%	25.2%	25.8%	100%
1992	25,349,700	15,200	892	7,500	286	4,100	26,800	56.7%	28.0%	15.3%	100%
1993	25,931,500	9,200	315	2,600	102	3,100	14,900	61.7%	17.4%	20.8%	100%
1994	26,459,400	4,860	40	360	13	2,210	7,430	65.4%	4.8%	29.7%	100%
1995	25,698,500	4,640	41	340	14	1,710	6,690	69.4%	5.1%	25.6%	100%
1996	25,295,100	3,333	16.9	136	5.4	776	4,245	78.5%	3.2%	18.3%	100%
1997	24,324,600	2,110	16.6	136	5.3	452	2,698	78.2%	5.0%	16.8%	100%
1998	24,471,200	1,794	14.7	122	4.6	523	2,439	73.6%	5.0%	21.4%	100%
1999	24,184,200	1,620	17.5	148	5.7	425	2,193	73.9%	6.7%	19.4%	100%
2000	20,990,000	892	29.2	242	9.4	348	1,482	60.2%	16.3%	23.5%	100%
2001	17,967,500	930	20.9	172	6.7	262	1,364	68.2%	12.6%	19.2%	100%
2002	18,150,000	1,259	20.0	164	6.4	94	1,517	83.0%	10.8%	6.2%	100%
2003	16,807,400	868	15	128	5	114	1,110	78.2%	11.6%	10.3%	100%
2004	16,402,400	1,050	9.7	81	3.1	108	1,238	84.8%	6.5%	8.7%	100%
2005	13,624,300	848	6.7	57	2.2	88	994	85.3%	5.7%	8.9%	100%
2006	13,087,100	611	5.1	43	1.6	65	718	85.1%	6.0%	9.1%	100%
2007	14,556,200	790	0.5	4	0.1	66	859	91.9%	0.4%	7.6%	100%
2008	14,379,800	1,045	0.0	0	0.0	34	1,079	96.8%	0.0%	3.2%	100%
2009	14,197,700	1,087	0.0	0	0.0	0	1,088	100.0%	0.0%	0.0%	100%
2010	15,218,100	1,408	0.0	0	0.0	0	1,408	100.0%	0.0%	0.0%	100%
2011	11,895,138	986	0.0	0	0.0	0	986	100.0%	0.0%	0.0%	100%
2012	19,357,192	1,697	0.0	0	0.0	8,692	10,389	16.3%	0.0%	83.7%	100%
2013	15,048,449	1,449	0.0	0	0.0	9,331	10,780	13.4%	0.0%	86.6%	100%
2014	15,910,300	602	0.0	0	0.0	2,734	3,336	18.1%	0.0%	81.9%	100%
2015	15,152,906	621	0.0	0	0.0	3,450	4,071	15.2%	0.0%	84.8%	100%
2016	13,837,730	573	0.0	0	0.0	1,184	1,757	32.6%	0.0%	67.4%	100%
2017	18,841,943	841	0.0	0	0.0	1,209	2,050	41.0%	0.0%	59.0%	100%
2018	17,485,298	513	0.0	0	0.0	762	1,276	40.2%	0.0%	59.8%	100%
2019	18,828,467	469	0.0	0	0.0	648	1,116	42.0%	0.0%	58.0%	100%
2020	18,070,584	339	0.0	0	0.0	781	1,120	30.3%	0.0%	69.7%	100%
Totals	562,522,807	85,534	2,945	24,533	949	55,864	165,931	51.5%	14.8%	33.7%	100%

**Notes:**  
 Data provided by Evanite 1991-2008  
 PNG Began Project Management in 2009  
 TCE = Trichloroethene  
 SVE = Soil vapor extraction  
 DNAPL = Dense non-aqueous phase liquids  
 lbs = Pounds  
 2020 data through December 31

**Figure 12**  
**TCE Mass Removal**  
H&V Fiber Corporation  
Corvallis, Oregon

