

MEMORANDUM

Project No. 210426-A-09

October 2, 2023

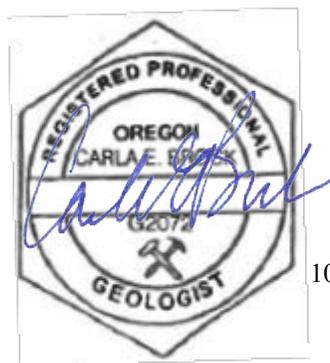
To: Jim Orr, Oregon Department of Environmental Quality

cc: Tamara Holden and Xiaofei Ren, Monroe Apartments Owner LLC;
Ronelle Sears and Mark Odell, City of Milwaukie

From:



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10/2/2023

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Re: Former L.D. McFarland Wood Treating Facility, Milwaukie, Oregon (ECSI #887) Summer 2023 Groundwater Monitoring Results

Aspect Consulting, LLC (Aspect), has prepared this memorandum to present the results of the August 2023 groundwater monitoring event at the Former L.D. McFarland Company, Ltd. (LDM) Creosote Wood Treating Facility in Milwaukie, Oregon (Figure 1). Oregon Department of Environmental Quality (DEQ) provides oversight under the requirements of the August 14, 2001, Stipulation and Consent Decree No. CCV0108179 (Consent Decree; State of Oregon, 2001). As defined in the Consent Decree, the Site consists of approximately 7.24 acres located on a triangular property between SE Oak Street, SE Monroe Street, SE 37th Street, and the adjoining Union Pacific Railroad (UPRR) parcel. The Site is divided into two parcels, Parcel 1 and Parcel 2 (Figure 2). On October 20, 2021, the Site was purchased from Tyee Management Company, LLC (Tyee), by Monroe Apartments Owner LLC, as documented in the Closing Notice to DEQ (Tyee, 2021).

The Site was vacant until late October 2021, when construction for the Seven Acres Apartments (formerly Monroe Apartments) development began on-Site. Parcel 1 has been remediated to DEQ residential use exposure scenarios as part of the Phase I remedial action, completed in 2001. A Certificate of Completion for the Phase I work was received from DEQ in a letter dated July 11, 2002 (DEQ, 2002). Parcel 2 has been remediated to DEQ occupational/commercial use exposure scenarios as part of the Phase II remedial action in accordance with the Phase II Design Report (Aspect, 2020). The remedial action on Parcel 2 was completed on August 8, 2023, as part of Property redevelopment. The forthcoming Phase II Construction Closeout Report will describe the

Phase II remedial action. As part of the Phase II process, six monitoring wells were decommissioned in late October 2021 (Aspect, 2021), and seven protected Parcel 2 monitoring wells were modified on January 25, 2023, to accommodate final development grades.

Ongoing groundwater monitoring has been performed at the Site since completion of the Phase I work, in accordance with a July 25, 2002, "Revised Groundwater Monitoring Plan, Former L.D. McFarland Creosote Wood Treating Facility, Milwaukie, Oregon" (Plan; Bridgewater, 2002). The August 2023 monitoring event is the first sampling event following completion of the Phase II remedial action. The August 2023 groundwater monitoring event consisted of groundwater level measurement in all 13 of the existing Site monitoring wells, and collection and analysis of groundwater samples from nine existing Site monitoring wells and one nearby City of Milwaukie (City) water supply well. Ten well samples, one field duplicate, one field blank, and two equipment rinsate blanks were collected between August 21 and August 23, 2023 and submitted for laboratory analysis in accordance with the Plan; results are summarized below.

City of Milwaukie Well CW-7 Sampling

In accordance with the Plan, City Well No. 7 (CW-7) was sampled during the high-water withdrawal period. Historical City pumping rates are typically highest in July or August.

Groundwater Elevations and Inferred Groundwater Gradient

On January 25, 2023, 7 protected Parcel 2 monitoring wells (MW-3, DMW-3, IMW-3, IMW-10, DMW-10, DMW-14, and VDMW-14) were modified to accommodate final development grades, as described in the Winter 2023 Groundwater Monitoring Results Memo (Aspect, 2023). TerraCalc Land Surveying, Inc. (TerraCalc) conducted a comprehensive monitoring well survey on February 6, 2023, following completion of these well modifications. Well DMW-14's flush-mounted 8-inch diameter traffic rated steel monument was damaged during Phase II remedial action pavement capping; however, there did not appear to be any damage to the interior PVC well casing. Holt Services, Inc (Holt) adjusted DMW-14's monument on July 6, 2023 by raising the monument approximately 1-inch above pavement grade. TerraCalc surveyed the modified DMW-14 elevation on July 11, 2023. The updated survey data for DMW-14 is included in Appendix A, and the top-of-casing elevation is provided on Table 3.

On August 21, 2023, groundwater levels were measured in 13 groundwater monitoring wells on and near the Site. Tables 1, 2, and 3 summarize measured water levels and corresponding calculated groundwater elevations based on the surveyed monitoring well elevations in the shallow, intermediate, and deep groundwater zones, respectively. Groundwater elevations and inferred groundwater flow directions for the shallow, intermediate, and deep groundwater zones are shown on Figures 3, 4, and 5, respectively.

The inferred groundwater flow direction in the shallow and intermediate zones is southwest (see Figures 3 and 4). The groundwater flow direction in the deep zone is east-northeast (see Figure 5). The deep-zone flow direction fluctuates, depending on pumping at City water supply well CW-7.

Table 4 presents the measured vertical groundwater gradient between the shallow and intermediate groundwater zones for well pairs MW-3/IMW-3 and MW-11/DMW-11, and between the intermediate and deep groundwater zones for well pairs IMW-3/DMW-3 and DMW-11/VDMW-11. Historical vertical gradients at well pair MW-5/IMW-5/DMW-5 are

included in Table 4; however, these wells were decommissioned in 2017 and 2021. Based on the August 2023 evaluation of vertical gradients at the MW-3 and MW-11 clusters of wells, groundwater flow continues to have a downward component.

Table 5 presents the monthly pumping rates at City water supply wells CW-4 and CW-7 located near the Site (see Figure 2). As of August 31, 2023, the lowest withdrawal rates over the past year were in November 2022 and February 2023, and the highest withdrawal rates were in July and August 2023.

Chemical Analysis of Groundwater Samples

In accordance with the Plan, groundwater samples were collected from Site monitoring wells IMW-10, DMW-10, MW-11, MDMW-11, DMW-11, VDMW-11, MW-13, DMW-14, and VDMW-14. A sample and duplicate were also collected from City water supply well CW-7.

Field Parameter Measurements

Before sample collection, field parameters (pH, specific conductivity, temperature, dissolved oxygen, oxidation-reduction potential, and turbidity) were measured with portable meters calibrated to the manufacturer's specifications. The wells were purged until temperature, specific conductivity, and pH measurements stabilized to within acceptable low-stress (low-flow) purging requirements.¹ Table 6 summarizes field parameter readings.

Quality Assurance/Quality Control (QA/QC) Samples

A field duplicate sample was collected from City water supply well CW-7. In addition, a field blank sample was prepared while collecting the main and field duplicate samples at well CW-7 using deionized water provided by Apex Laboratories, LLC (Apex). Two equipment rinsate blanks were prepared by running Apex-provided deionized water through the decontaminated stainless-steel bladder pump.

Lab Methods and Data Quality Review

The groundwater samples were submitted to Apex for analysis of PAHs and dibenzofuran by U.S. Environmental Protection Agency (EPA) Method 8270E LVI. The results of the analyses were received from Apex in a report dated September 7, 2023. A copy of the Apex report is provided as Appendix B.

Blank samples were used to check for contamination during field sampling and laboratory analysis. Target analytes were not detected at or above the reporting levels in the blanks, except for the equipment rinsate blank sample collected on August 23, 2023. Associated detections less than the blank contamination were qualified as non-detect at the sample result. Associated non-detections and detections greater than 10 times the blank contamination were not qualified.

A review of the laboratory QA/QC data, including holding times, method blanks, surrogate recoveries, and laboratory control samples did not identify any issues requiring corrective action (see Appendix C). The results were deemed acceptable for their intended use.

¹ See <https://19january2017snapshot.epa.gov/sites/production/files/2015-06/documents/EQASOP-GW001.pdf>

Groundwater Quality Results

Table 7 presents the results for all groundwater PAH and dibenzofuran analyses that have been performed at the Site. Analytical results are screened against the most conservative value for each contaminant published in EPA's May 2023 Regional Screening Levels (RSLs) for resident tap water which are consistent with the RSLs in our winter 2023 groundwater monitoring memo.

The results for the primary and field duplicate samples collected from City water supply well CW-7 did not identify concentrations of PAHs or dibenzofuran above the reporting limits (RLs) (Table 7). Concentrations of PAHs and dibenzofuran were not detected above the RLs in any of the groundwater samples collected from the Site monitoring wells with the exception of well DMW-11. Concentrations of benz(a)anthracene, dibenzofuran, and naphthalene were detected above the RSLs in the groundwater sample collected from well DMW-11 (Table 7). The detected values are consistent with previous groundwater sample results collected from well DMW-11, both before and during Phase II remedial action.

Appendix D contains concentration versus time trend plots for monitoring well pairs IMW-10/DMW-10, DMW-11/MDMW-11/VDMW-11, and DMW-14/VDMW-14 to assess vertical trends in select PAH and dibenzofuran concentrations.

Results Remain Consistent with Historical Data

Overall, sampling results are consistent with historical monitoring patterns. PAH and dibenzofuran concentrations remain relatively consistent since before the Phase II remedial action completion. Although elevated concentrations of PAHs and dibenzofuran have been detected in intermediate well DMW-11 since 2009, concentrations in upgradient and adjacent shallow, intermediate, and deep wells have not increased and flow in the shallow and intermediate zone is consistently away from City water supply well CW-7. Intermediate monitoring well IMW-10 and deep wells DMW-14 and VDMW-14 effectively monitor the groundwater quality in the buffer zone of City water supply well CW-7. These wells and well DMW-11 will be sampled in January or February of 2024 to continue monitoring concentration trends.

References

- Aspect Consulting, LLC (Aspect), 2020, Phase II Design Report, Former L.D. McFarland Creosote Wood Treating Facility, Milwaukie, Oregon, Prepared for: Johnson Development Associates, November 24, 2020.
- Aspect Consulting, LLC (Aspect), 2021, Monitoring Well Decommissioning and Protection Summary Memorandum, Prepared for: Guardian Real Estate Services, LLC, November 22, 2021.
- Aspect Consulting, LLC (Aspect), 2023, Winter 2023 Groundwater Monitoring Memo, Prepared for: Oregon Department of Environmental Quality, March 27, 2023
- Bridgewater Group, Inc. (Bridgewater), 2002, Revised Groundwater Monitoring Plan, Former L.D. McFarland Creosote Wood Treating Facility, Milwaukie, Oregon, July 25, 2002.

Oregon Department of Environmental Quality (DEQ), 2002, Phase I Certification of Completion L.D. McFarland Milwaukie Project ECSI No. 887 and No. 3331 Letter between Matt McClincy of DEQ and Les Lonning of L.D. McFarland Company, July 11, 2002.

State of Oregon, Clackamas County Department of Justice, 2001, Case No. CCV0108179 Stipulation and Consent Decree, Portland, Oregon, Filed August 14, 2001.

Tyee Management Company, LLC (Tyee), 2021, Closing Notice to DEQ Re: State of Oregon v. L.D. McFarland Company, Ltd., Stipulation and Consent Decree (CCV0108179) (the Consent Decree); Closing of Conveyance to Monroe Apartments Owner LLC/Copy of Recorded Deed/Effectiveness of Assignment/Assumption and Release, October 20, 2021.

Limitations

Work for this project was performed for Guardian Real Estate LLC (Client), and this memorandum was prepared in accordance with generally accepted professional practices for the nature and conditions of work completed in the same or similar localities, at the time the work was performed. This memorandum does not represent a legal opinion. No other warranty, expressed or implied, is made.

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Please refer to Appendix E titled "Report Limitations and Guidelines for Use" for additional information governing the use of this report.

Attachments: Table 1 – Groundwater Depths and Elevations – Shallow Water-Bearing Zone
Table 2 – Groundwater Depths and Elevations – Intermediate Water-Bearing Zone
Table 3 – Groundwater Depths and Elevations – Deep Water-Bearing Zone
Table 4 – Vertical Groundwater Gradients
Table 5 – City Well Pumping Data
Table 6 – Groundwater Field Parameters
Table 7 – PAH and Dibenzofuran Concentrations in Groundwater Samples
Figure 1 – Site Location Map
Figure 2 – Site Plan
Figure 3 – Groundwater Elevation Contours, Shallow Zone
Figure 4 – Groundwater Elevation Contours, Intermediate Zone
Figure 5 – Groundwater Elevation Contours, Deep Zone
Appendix A – Monitoring Well Survey
Appendix B – Laboratory Analytical Reports
Appendix C – Data Quality Assurance – Quality Control Review
Appendix D – Concentration vs. Time Trend Plots
IMW-10/DMW-10 Dibenzofuran Concentrations
IMW-10/DMW-10 Naphthalene Concentrations

DMW-11/MDMW-11/VDMW-11 Benzo(a)anthracene Concentrations
DMW-11/MDMW-11/VDMW-11 Dibenzofuran Concentrations
DMW-11/MDMW-11/VDMW-11 Naphthalene Concentrations
DMW-14/VDMW-14 Naphthalene Concentrations
Appendix E – Report Limitations and Guidelines for Use

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TABLES

Table 1. Groundwater Depths and Elevations - Shallow Water-Bearing Zone

Project No. 210426, Milwaukie, Oregon

| Date | Depth to Water (feet TOC) | | | | | | | | | | | | | | Groundwater Elevation, City of Milwaukie Datum (feet) | | | | | | | | | | | | | |
|------------|---------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | MW-1 | MW-2 | MW-3 | MW-4 | MW-5 | MW-6 | MW-7 | MW-8 | MW-8A | MW-9 | MW-10 | MW-11 | MW-12 | MW-13 | MW-1 | MW-2 | MW-3 | MW-4 | MW-5 | MW-6 | MW-7 | MW-8 | MW-8A | MW-9 | MW-10 | MW-11 | MW-12 | MW-13 |
| 5/19/1993 | 33.50 | 15.15 | 16.12 | 17.05 | 13.00 | 13.90 | 15.93 | 11.98 | NI | 15.98 | 15.67 | NI | NI | NI | 86.11 | 85.89 | 86.01 | 86.13 | 85.90 | 86.18 | 86.11 | 86.09 | NI | 86.32 | 86.15 | NI | NI | NI |
| 6/8/1993 | 33.45 | 14.99 | 15.97 | 16.90 | 12.86 | 13.93 | 15.78 | 11.86 | NI | 15.82 | 15.52 | NI | NI | NI | 86.16 | 86.05 | 86.16 | 86.28 | 86.04 | 86.15 | 86.26 | 86.21 | NI | 86.48 | 86.30 | NI | NI | NI |
| 6/25/1993 | 33.54 | 15.10 | 16.06 | 16.99 | 12.95 | 14.00 | 15.87 | 11.94 | NI | 15.91 | 15.58 | NI | NI | NI | 86.07 | 85.94 | 86.07 | 86.19 | 85.95 | 86.08 | 86.17 | 86.13 | NI | 86.39 | 86.24 | NI | NI | NI |
| 8/6/1993 | 33.80 | 15.36 | 16.32 | 17.25 | 13.21 | 14.25 | 16.13 | 12.18 | NI | 16.17 | 15.85 | NI | NI | NI | 85.81 | 85.68 | 85.81 | 85.93 | 85.69 | 85.83 | 85.91 | 85.89 | NI | 86.13 | 85.97 | NI | NI | NI |
| 9/8/1993 | 33.84 | 15.39 | 16.38 | 17.36 | 13.24 | 14.32 | 16.17 | 12.25 | NI | 16.25 | 15.88 | NI | NI | NI | 85.77 | 85.65 | 85.75 | 85.82 | 85.66 | 85.76 | 85.87 | 85.82 | NI | 86.05 | 85.94 | NI | NI | NI |
| 9/2/1994 | 34.00 | 15.55 | 16.50 | 17.42 | 13.36 | 14.43 | 16.31 | 12.35 | NI | 16.35 | 16.03 | NI | NI | NI | 85.61 | 85.49 | 85.63 | 85.76 | 85.54 | 85.65 | 85.73 | 85.72 | NI | 85.95 | 85.79 | NI | NI | NI |
| 9/21/1994 | -- | -- | 16.45 | 17.48 | 13.32 | 14.38 | 16.27 | 12.30 | NI | 16.30 | 15.98 | NI | NI | NI | -- | -- | 85.68 | 85.70 | 85.58 | 85.70 | 85.77 | 85.77 | NI | 86.00 | 85.84 | NI | NI | NI |
| 9/28/1994 | 33.99 | -- | 16.49 | 17.40 | 13.34 | 14.41 | 16.30 | 12.33 | NI | 16.33 | 15.97 | NI | NI | NI | 85.62 | -- | 85.64 | 85.78 | 85.56 | 85.67 | 85.74 | 85.74 | NI | 85.97 | 85.85 | NI | NI | NI |
| 10/24/1994 | 33.88 | 15.43 | 16.40 | 17.32 | 13.25 | 14.32 | 16.21 | 12.25 | NI | 16.25 | 15.93 | NI | NI | NI | 85.73 | 85.61 | 85.73 | 85.86 | 85.65 | 85.76 | 85.83 | 85.82 | NI | 86.05 | 85.89 | NI | NI | NI |
| 11/2/1994 | 33.20 | 14.73 | 15.74 | 16.68 | 12.60 | 13.09 | 15.57 | 11.60 | NI | 15.61 | 15.31 | NI | NI | 9.58 | 86.41 | 86.31 | 86.39 | 86.50 | 86.30 | 86.99 | 86.47 | 86.47 | NI | 86.69 | 86.51 | NI | NI | 86.29 |
| 12/5/1994 | 33.03 | 14.55 | 15.55 | 16.50 | 12.40 | 12.86 | 15.38 | 11.41 | NI | 15.42 | 15.12 | 5.46 | 9.13 | 9.38 | 86.58 | 86.49 | 86.58 | 86.68 | 86.50 | 87.22 | 86.66 | 86.66 | NI | 86.88 | 86.70 | 86.35 | 86.71 | 86.49 |
| 1/9/1995 | 32.96 | 14.50 | 15.48 | 16.41 | 12.30 | 13.14 | 15.30 | 11.33 | NI | 15.34 | 15.03 | 5.37 | 9.37 | 9.03 | 86.65 | 86.54 | 86.65 | 86.77 | 86.60 | 86.94 | 86.74 | 86.74 | NI | 86.96 | 86.79 | 86.44 | 86.47 | 86.84 |
| 1/12/1995 | 32.86 | 14.37 | 15.37 | 16.31 | 12.20 | 10.94 | 15.20 | 11.22 | NI | 15.23 | 14.94 | 5.27 | 8.95 | 9.18 | 86.75 | 86.67 | 86.76 | 86.87 | 86.70 | 89.14 | 86.84 | 86.85 | NI | 87.07 | 86.88 | 86.54 | 86.89 | 86.69 |
| 1/24/1995 | 32.74 | 14.25 | 15.24 | 16.17 | 12.07 | 12.28 | 15.03 | 11.07 | NI | 15.12 | 14.79 | 5.11 | 8.79 | 9.03 | 86.87 | 86.79 | 86.89 | 87.01 | 86.83 | 87.80 | 87.01 | 87.00 | NI | 87.18 | 87.03 | 86.70 | 87.05 | 86.84 |
| 3/13/1995 | 32.07 | 13.61 | 14.60 | 15.54 | 11.48 | 10.05 | 14.43 | 10.48 | NI | 14.48 | 14.18 | 4.65 | -- | -- | 87.54 | 87.43 | 87.53 | 87.64 | 87.42 | 90.03 | 87.61 | 87.59 | NI | 87.82 | 87.64 | 87.16 | -- | -- |
| 4/21/1995 | -- | -- | 14.61 | -- | 11.50 | 12.44 | -- | 10.49 | NI | 14.49 | 14.19 | 4.68 | -- | -- | -- | -- | 87.52 | -- | 87.40 | 87.64 | -- | 87.58 | NI | 87.81 | 87.63 | 87.13 | -- | -- |
| 6/8/1995 | -- | 13.86 | 14.85 | 15.77 | 11.72 | -- | -- | 10.70 | NI | 14.70 | 14.40 | 4.84 | -- | -- | -- | 87.18 | 87.28 | 87.41 | 87.18 | -- | -- | 87.37 | NI | 87.60 | 87.42 | 86.97 | -- | -- |
| 7/6/1995 | 32.41 | 13.95 | 14.93 | 15.86 | 11.78 | 12.81 | 14.74 | 10.79 | NI | 14.78 | 14.49 | 4.87 | 8.52 | 8.75 | 87.20 | 87.09 | 87.20 | 87.32 | 87.12 | 87.27 | 87.30 | 87.28 | NI | 87.52 | 87.33 | 86.94 | 87.32 | 87.12 |
| 8/15/1995 | 32.53 | 14.07 | 15.50 | 15.98 | 11.88 | 12.95 | 14.86 | 10.89 | NI | 14.91 | 14.61 | 4.93 | 8.63 | 8.85 | 87.08 | 86.97 | 86.63 | 87.20 | 87.02 | 87.13 | 87.18 | 87.18 | NI | 87.39 | 87.21 | 86.88 | 87.21 | 87.02 |
| 9/8/1995 | 32.52 | 14.07 | 15.05 | 16.00 | 11.88 | 12.98 | 14.86 | 10.90 | NI | 14.91 | 14.62 | 4.92 | 8.65 | 8.85 | 87.09 | 86.97 | 87.08 | 87.18 | 87.02 | 87.10 | 87.18 | 87.17 | NI | 87.39 | 87.20 | 86.89 | 87.19 | 87.02 |
| 3/19/1996 | 31.22 | 12.81 | 13.76 | 14.67 | 10.69 | 11.90 | 13.57 | 13.62 | NI | 13.62 | 13.32 | 4.02 | 7.40 | 7.67 | 88.39 | 88.23 | 88.37 | 88.51 | 88.21 | 88.18 | 88.47 | 84.45 | NI | 88.68 | 88.50 | 87.79 | 88.44 | 88.20 |
| 6/24/1996 | 32.24 | 13.81 | 14.47 | 15.68 | 11.67 | 12.69 | 14.57 | 10.62 | NI | 14.62 | 14.32 | 4.90 | 8.39 | 8.64 | 87.37 | 87.23 | 87.66 | 87.50 | 87.23 | 87.39 | 87.47 | 87.45 | NI | 87.68 | 87.50 | 86.91 | 87.45 | 87.23 |
| 9/9/1996 | 32.66 | 14.22 | 15.17 | 16.09 | 12.05 | 13.06 | 14.96 | 11.00 | NI | 15.02 | 14.70 | 5.18 | 8.73 | 9.02 | 86.95 | 86.82 | 86.96 | 87.09 | 86.85 | 87.02 | 87.08 | 87.07 | NI | 87.28 | 87.12 | 86.63 | 87.11 | 86.85 |
| 12/3/1996 | 32.23 | 13.76 | 14.75 | 15.70 | 11.62 | 10.50 | 14.56 | 10.60 | NI | 14.62 | 14.33 | 4.79 | 8.37 | 8.59 | 87.38 | 87.28 | 87.38 | 87.48 | 87.28 | 89.58 | 87.48 | 87.47 | NI | 87.68 | 87.49 | 87.02 | 87.47 | 87.28 |
| 1/24/1997 | 31.05 | 12.65 | 13.58 | 14.51 | 10.54 | 9.90 | 13.40 | 9.45 | NI | 13.45 | 13.16 | 3.93 | 7.27 | 7.53 | 88.56 | 88.39 | 88.55 | 88.67 | 88.36 | 90.18 | 88.64 | 88.62 | NI | 88.85 | 88.66 | 87.88 | 88.57 | 88.34 |
| 3/31/1997 | 31.24 | 12.83 | 13.77 | 14.68 | 10.72 | 11.60 | 13.58 | 9.62 | NI | 13.63 | 13.32 | 4.03 | 7.41 | 7.69 | 88.37 | 88.21 | 88.36 | 88.50 | 88.18 | 88.48 | 88.46 | 88.45 | NI | 88.67 | 88.50 | 87.78 | 88.43 | 88.18 |
| 4/1/1997 | 31.26 | 12.85 | 13.78 | 14.68 | 10.72 | 11.63 | 13.59 | 9.63 | NI | 13.63 | 13.32 | 4.04 | 7.41 | 7.69 | 88.35 | 88.19 | 88.35 | 88.50 | 88.18 | 88.45 | 88.45 | 88.44 | NI | 88.67 | 88.50 | 87.77 | 88.43 | 88.18 |
| 4/1/1997 | 31.24 | 12.84 | 13.77 | 14.67 | 10.71 | 11.62 | 13.57 | 9.63 | NI | 13.63 | 13.33 | 4.04 | 7.40 | 7.69 | 88.37 | 88.20 | 88.36 | 88.51 | 88.19 | 88.46 | 88.47 | 88.44 | NI | 88.67 | 88.49 | 87.77 | 88.44 | 88.18 |
| 4/3/1997 | 31.24 | 12.83 | 13.77 | 14.67 | 10.71 | 11.65 | 13.57 | 9.63 | NI | 13.62 | 13.31 | 4.03 | 7.40 | 7.69 | 88.37 | 88.21 | 88.36 | 88.51 | 88.19 | 88.43 | 88.47 | 88.44 | NI | 88.68 | 88.51 | 87.78 | 88.44 | 88.18 |
| 5/6/1997 | 31.46 | 13.04 | 13.97 | 14.88 | 10.89 | 11.86 | 13.77 | 9.81 | NI | 13.81 | 13.51 | 4.18 | 7.60 | 7.88 | 88.15 | 88.00 | 88.16 | 88.30 | 88.01 | 88.22 | 88.27 | 88.26 | NI | 88.49 | 88.31 | 87.63 | 88.24 | 87.99 |
| 10/28/1997 | 32.87 | 14.44 | 15.40 | 16.31 | 12.29 | 13.33 | 15.20 | 11.25 | NI | 15.25 | 14.94 | 5.44 | 8.98 | 9.27 | 86.74 | 86.60 | 86.73 | 86.87 | 86.61 | 86.75 | 86.84 | 86.82 | NI | 87.05 | 86.88 | 86.37 | 86.86 | 86.60 |
| 12/15/1997 | 33.07 | 14.61 | 15.57 | 16.51 | 12.46 | 13.35 | 15.40 | 11.43 | NI | 15.43 | 15.12 | 5.66 | 9.14 | 9.44 | 86.54 | 86.43 | 86.56 | 86.67 | 86.44 | 86.73 | 86.64 | 86.64 | NI | 86.87 | 86.70 | 86.15 | 86.70 | 86.43 |
| 3/17/1998 | 32.39 | 13.94 | 14.91 | 15.84 | 11.81 | 12.75 | 14.73 | 10.76 | NI | 14.77 | 14.47 | 5.03 | 8.51 | 8.79 | 87.22 | 87.10 | 87.22 | 87.34 | 87.09 | 87.33 | 87.31 | 87.31 | NI | 87.53 | 87.35 | 86.78 | 87.33 | 87.08 |
| 6/15/1998 | 32.53 | 14.08 | 15.04 | 15.95 | 11.93 | 12.95 | 14.84 | 10.90 | NI | 14.89 | 14.59 | 5.12 | 8.63 | 8.93 | 87.08 | 86.96 | 87.09 | 87.23 | 86.97 | 87.13 | 87.20 | 87.17 | NI | 87.41 | 87.23 | 86.69 | 87.21 | 86.94 |
| 10/15/1998 | 32.87 | 14.41 | 15.37 | 16.30 | 12.25 | A | 15.20 | A | NI | 15.26 | 14.92 | 5.36 | 8.95 | 9.23 | 86.74 | 86.63 | 86.76 | 86.88 | 86.65 | A | 86.84 | A | NI | 87.04 | 86.90 | 86.45 | 86.89 | 86.64 |
| 12/14/1998 | 32.30 | 13.83 | 14.81 | 15.75 | 11.70 | A | 14.65 | A | NI | 14.70 | 14.41 | 4.85 | 8.45 | 8.67 | 87.31 | 87.21 | 87.32 | 87.43 | 87.20 | A | 87.39 | A | NI | 87.60 | 87.41 | 86.96 | 87.39 | 87.20 |
| 4/27/1999 | 31.39 | 12.97 | 13.93 | 14.86 | 10.83 | A | 13.74 | A | 10.90 | 13.79 | 13.56 | 4.08 | 7.61 | 7.82 | 88.22 | 88.07 | 88.20 | 88.32 | 88.07 | A | 88.30 | A | 88.25 | 88.51 | 88.26 | 87.73 | 88.23 | 88.05 |
| 7/13/1999 | 32.33 | 13.92 | 14.87 | 15.76 | 11.76 | A | 14.66 | A | 11.80 | 14.70 | 14.41 | 4.98 | 8.45 | 8.75 | 87.28 | 87.12 | 87.26 | 87.42 | 87.14 | A | 87.38 | A | 87.35 | 87.60 | 87.41 | 86.83 | 87.39 | 87.12 |
| 10/26/1999 | 33.06 | 14.61 | 15.58 | 16.49 | 12.46 | A | 15.38 | A | 12.48 | 15.42 | 15.10 | 5.65 | 9.13 | 9.44 | 86.55 | 86.43 | 86.55 | 86.69 | 86.44 | A | 86.66 | A | 86.67 | 86.88 | 86.72 | 86.16 | 86.71 | 86.43 |

Table 1. Groundwater Depths and Elevations - Shallow Water-Bearing Zone

Project No. 210426, Milwaukie, Oregon

| Date | Depth to Water (feet TOC) | | | | | | | | | | | | | Groundwater Elevation, City of Milwaukie Datum (feet) | | | | | | | | | | | | | | |
|------------|---------------------------|-------|-------|-------|-------|------|-------|------|--------|-------|-------|-------|-------|---|-------|-------|-------|-------|-------|------|-------|------|--------|-------|-------|-------|-------|-------|
| | MW-1 | MW-2 | MW-3 | MW-4 | MW-5 | MW-6 | MW-7 | MW-8 | MW-8A | MW-9 | MW-10 | MW-11 | MW-12 | MW-13 | MW-1 | MW-2 | MW-3 | MW-4 | MW-5 | MW-6 | MW-7 | MW-8 | MW-8A | MW-9 | MW-10 | MW-11 | MW-12 | MW-13 |
| 1/27/2000 | 32.89 | 14.43 | 15.41 | 16.34 | 12.30 | A | 15.21 | A | 12.32 | 15.26 | 14.95 | 5.47 | 8.98 | 9.27 | 86.72 | 86.61 | 86.72 | 86.84 | 86.60 | A | 86.83 | A | 86.83 | 87.04 | 86.87 | 86.34 | 86.86 | 86.60 |
| 4/17/2000 | 32.78 | 14.33 | 15.30 | 16.23 | 12.20 | A | 15.12 | A | 12.22 | 15.16 | 14.86 | 5.39 | 8.89 | 9.16 | 86.83 | 86.71 | 86.83 | 86.95 | 86.70 | A | 86.92 | A | 86.93 | 87.14 | 86.96 | 86.42 | 86.95 | 86.71 |
| 10/9/2000 | 33.48 | 15.03 | 15.99 | 16.91 | 12.85 | A | 15.80 | A | 12.86 | 15.83 | 15.52 | 5.93 | 9.48 | 9.80 | 86.13 | 86.01 | 86.14 | 86.27 | 86.05 | A | 86.24 | A | 86.29 | 86.47 | 86.30 | 85.88 | 86.36 | 86.07 |
| 4/9/2001 | 33.46 | 14.98 | 15.96 | 16.89 | 12.82 | A | 15.78 | A | 12.89 | 15.84 | 15.52 | 5.90 | 9.52 | 9.77 | 86.15 | 86.06 | 86.17 | 86.29 | 86.08 | A | 86.26 | A | 86.26 | 86.46 | 86.30 | 85.91 | 86.32 | 86.10 |
| 11/12/2001 | 32.91 | 14.43 | 19.63 | 20.06 | 14.41 | A | 19.05 | A | 15.34 | 17.32 | 18.80 | 5.17 | 9.00 | 9.19 | 86.70 | 86.61 | 86.49 | 86.86 | 86.73 | A | 86.83 | A | 87.68 | 86.84 | 86.86 | 86.64 | 86.84 | 86.68 |
| 11/26/2002 | A | A | 19.38 | 20.00 | 14.36 | A | 19.98 | A | >18 | 17.26 | 18.75 | -- | 8.92 | 9.15 | A | A | 86.74 | 86.92 | 86.78 | A | 85.90 | A | <85.02 | 86.90 | 86.91 | -- | 86.92 | 86.72 |
| 11/27/2002 | A | A | -- | -- | -- | A | -- | A | -- | -- | -- | 5.13 | -- | -- | A | A | -- | -- | -- | A | -- | A | -- | -- | -- | 86.68 | -- | -- |
| 4/9/2003 | A | A | 18.82 | 19.53 | 13.92 | A | 18.53 | A | >15.4 | 16.80 | 18.27 | 4.98 | 8.51 | 8.71 | A | A | 87.30 | 87.39 | 87.22 | A | 87.35 | A | <87.62 | 87.36 | 87.39 | 86.83 | 87.33 | 87.16 |
| 11/10/2003 | A | A | 19.38 | 20.09 | 14.45 | A | 19.07 | A | >15.4 | 17.34 | 18.31 | 5.26 | 9.03 | 9.24 | A | A | 86.74 | 86.83 | 86.69 | A | 86.81 | A | <87.62 | 86.82 | 87.35 | 86.55 | 86.81 | 86.63 |
| 4/14/2004 | A | A | 19.08 | 19.79 | 14.17 | A | 18.78 | A | 15.10 | 17.06 | 18.57 | 5.01 | 8.76 | 9.01 | A | A | 87.04 | 87.13 | 86.97 | A | 87.10 | A | 87.92 | 87.10 | 87.09 | 86.80 | 87.08 | 86.86 |
| 12/14/2004 | A | A | 19.50 | 20.21 | 14.55 | A | 19.25 | A | >15.12 | 17.51 | 18.97 | 5.41 | 9.15 | 9.35 | A | A | 86.62 | 86.71 | 86.59 | A | 86.63 | A | <87.90 | 86.65 | 86.69 | 86.40 | 86.69 | 86.52 |
| 4/15/2005 | A | A | 19.57 | 20.28 | 14.63 | A | 19.28 | A | >15.12 | 17.52 | 19.03 | 5.48 | 9.23 | 9.44 | A | A | 86.55 | 86.64 | 86.51 | A | 86.60 | A | <87.90 | 86.64 | 86.63 | 86.33 | 86.61 | 86.43 |
| 11/29/2005 | A | A | 19.65 | 20.33 | 14.70 | A | 19.33 | A | >15.11 | 17.60 | 19.08 | 5.04 | 8.68 | 9.50 | A | A | 86.47 | 86.59 | 86.44 | A | 86.55 | A | <87.90 | 86.56 | 86.58 | 86.77 | 87.16 | 86.37 |
| 5/16/2006 | A | A | 19.15 | 19.80 | 14.40 | A | 18.80 | A | >15.12 | 17.05 | 18.55 | 5.15 | 8.80 | 9.03 | A | A | 86.97 | 87.12 | 86.74 | A | 87.08 | A | <87.90 | 87.11 | 87.11 | 86.66 | 87.04 | 86.84 |
| 12/20/2006 | A | A | 19.61 | 20.38 | 14.78 | A | 19.36 | A | >15.12 | 17.58 | 19.11 | 5.32 | 9.03 | 9.48 | A | A | 86.51 | 86.54 | 86.36 | A | 86.52 | A | <87.90 | 86.58 | 86.55 | 86.49 | 86.81 | 86.39 |
| 5/3/2007 | A | A | 19.17 | 19.85 | 14.26 | A | 18.86 | A | >15.12 | 17.11 | 18.61 | 5.21 | 8.85 | 9.07 | A | A | 86.95 | 87.07 | 86.88 | A | 87.02 | A | <87.90 | 87.05 | 87.05 | 86.60 | 86.99 | 86.80 |
| 12/5/2007 | A | A | 19.24 | 19.95 | 14.32 | A | 18.93 | A | >15.12 | 17.20 | 19.70 | 5.21 | 8.93 | 9.13 | A | A | 86.88 | 86.97 | 86.82 | A | 86.95 | A | <87.90 | 86.96 | 85.96 | 86.60 | 86.91 | 86.74 |
| 4/22/2008 | A | A | 19.17 | 19.86 | 14.25 | A | 18.86 | A | >15.12 | 17.11 | 18.60 | 5.19 | 8.84 | 9.06 | A | A | 86.95 | 87.06 | 86.89 | A | 87.02 | A | <87.90 | 87.05 | 87.06 | 86.62 | 87.00 | 86.81 |
| 12/3/2008 | A | A | 19.78 | 20.47 | 14.84 | A | 19.47 | A | >15.12 | 17.72 | 19.21 | 5.78 | 9.42 | 9.66 | A | A | 86.34 | 86.45 | 86.30 | A | 86.41 | A | <87.90 | 86.44 | 86.45 | 86.03 | 86.42 | 86.21 |
| 4/15/2009 | A | A | 19.77 | 20.47 | 14.82 | A | 19.47 | A | 14.71 | 17.72 | 19.21 | 5.77 | 9.42 | 9.63 | A | A | 86.35 | 86.45 | 86.32 | A | 86.41 | A | 88.31 | 86.44 | 86.45 | 86.04 | 86.42 | 86.24 |
| 10/26/2009 | A | A | 19.79 | 20.50 | 14.83 | A | 19.48 | A | 14.52 | 17.73 | 19.21 | 5.74 | 9.41 | 9.64 | A | A | 86.33 | 86.42 | 86.31 | A | 86.40 | A | 88.50 | 86.43 | 86.45 | 86.07 | 86.43 | 86.23 |
| 5/6/2010 | A | A | 19.37 | 20.50 | 14.50 | A | 19.06 | A | 14.80 | 17.31 | 18.78 | 5.50 | 9.03 | 9.30 | A | A | 86.75 | 86.42 | 86.64 | A | 86.82 | A | 88.22 | 86.85 | 86.88 | 86.31 | 86.81 | 86.57 |
| 10/27/2010 | A | A | 19.55 | 20.25 | 14.61 | A | 19.25 | A | >15.12 | 17.50 | 18.97 | 5.66 | 9.19 | 9.42 | A | A | 86.57 | 86.67 | 86.53 | A | 86.63 | A | <87.90 | 86.66 | 86.69 | 86.15 | 86.65 | 86.45 |
| 6/3/2011 | A | A | 18.51 | 19.20 | 13.62 | A | 18.20 | A | 15.10 | 16.45 | 17.94 | 4.71 | 8.20 | 8.46 | A | A | 87.61 | 87.72 | 87.52 | A | 87.68 | A | 87.92 | 87.71 | 87.72 | 87.10 | 87.64 | 87.41 |
| 10/11/2011 | A | A | 19.28 | 19.96 | 14.35 | A | 18.96 | A | >15.12 | 17.20 | 18.69 | 5.41 | 8.89 | 9.16 | A | A | 86.84 | 86.96 | 86.79 | A | 86.92 | A | <87.90 | 86.96 | 86.97 | 86.40 | 86.95 | 86.71 |
| 5/30/2012 | A | A | 19.02 | 19.69 | 14.11 | A | 18.70 | A | >15.09 | 16.94 | 18.43 | 5.20 | 8.70 | 8.85 | A | A | 87.10 | 87.23 | 87.03 | A | 87.18 | A | <87.93 | 87.22 | 87.23 | 86.61 | 87.14 | 87.02 |
| 10/29/2012 | A | A | 18.78 | 19.46 | 13.84 | A | 18.46 | A | >15.09 | 16.70 | 18.20 | 4.81 | 8.41 | 8.69 | A | A | 87.34 | 87.46 | 87.30 | A | 87.42 | A | <87.93 | 87.46 | 87.46 | 87.00 | 87.43 | 87.18 |
| 6/4/2013 | A | A | 18.58 | 19.25 | 13.66 | A | 18.25 | A | >15.10 | 16.49 | 17.97 | 4.66 | 8.20 | 8.49 | A | A | 87.54 | 87.67 | 87.48 | A | 87.63 | A | <87.92 | 87.67 | 87.69 | 87.15 | 87.64 | 87.38 |
| 10/14/2013 | A | A | 19.20 | 19.87 | 14.25 | A | 18.87 | A | >15.10 | 17.12 | 18.59 | 5.27 | 8.80 | 9.07 | A | A | 86.92 | 87.05 | 86.89 | A | 87.01 | A | <87.92 | 87.04 | 87.07 | 86.54 | 87.04 | 86.80 |
| 5/22/2014 | A | A | 18.85 | 19.52 | 13.91 | A | 18.54 | A | >15.20 | 16.78 | 18.25 | 4.97 | 8.50 | 8.75 | A | A | 87.27 | 87.40 | 87.23 | A | 87.34 | A | <87.82 | 87.38 | 87.41 | 86.84 | 87.34 | 87.12 |
| 11/4/2014 | A | A | 18.90 | 19.60 | 13.95 | A | 18.59 | A | >15.10 | 16.83 | 18.31 | 4.92 | 8.52 | 8.77 | A | A | 87.22 | 87.32 | 87.19 | A | 87.29 | A | <87.92 | 87.33 | 87.35 | 86.89 | 87.32 | 87.10 |
| 4/7/2015 | A | A | 18.92 | 19.60 | 14.00 | A | 18.59 | A | >15.30 | 16.85 | 18.33 | 5.05 | 8.55 | 8.83 | A | A | 87.20 | 87.32 | 87.14 | A | 87.29 | A | <87.72 | 87.31 | 87.33 | 86.76 | 87.29 | 87.04 |
| 10/27/2015 | A | A | 22.45 | 23.15 | 14.69 | A | 19.31 | A | >15.1 | 20.39 | 19.02 | 5.76 | 9.21 | 9.50 | A | A | 83.67 | 83.77 | 86.45 | A | 86.57 | A | <87.92 | 83.77 | 86.64 | 86.05 | 86.63 | 86.37 |
| 6/7/2016 | A | A | 18.51 | 19.17 | 13.61 | A | 18.18 | A | >15.32 | 16.41 | 17.90 | 4.68 | 8.15 | 8.43 | A | A | 87.61 | 87.75 | 87.53 | A | 87.70 | A | <87.70 | 87.75 | 87.76 | 87.13 | 87.69 | 87.44 |
| 10/25/2016 | A | A | 19.11 | 19.80 | 14.20 | A | 18.80 | A | >15.30 | 17.03 | 18.50 | 5.01 | 8.75 | 9.02 | A | A | 87.01 | 87.12 | 86.94 | A | 87.08 | A | <87.72 | 87.13 | 87.16 | 86.80 | 87.09 | 86.85 |
| 2/7/2017 | A | A | 18.35 | 19.07 | 13.45 | A | 18.06 | A | 15.15 | 16.31 | 17.82 | 4.47 | 8.10 | 8.28 | A | A | 87.77 | 87.85 | 87.69 | A | 87.82 | A | 87.87 | 87.85 | 87.84 | 87.34 | 87.74 | 87.59 |
| 2/23/2017 | A | A | 17.94 | 18.83 | 13.05 | A | 17.64 | A | 14.72 | 15.88 | 17.39 | 4.15 | 7.67 | 7.88 | A | A | 88.18 | 88.09 | 88.09 | A | 88.24 | A | 88.30 | 88.28 | 88.27 | 87.66 | 88.17 | 87.99 |
| 8/2/2017 | A | A | 18.71 | 19.36 | 13.84 | A | 18.38 | A | >15.32 | 16.61 | 18.08 | 5.00 | 8.34 | 8.66 | A | A | 87.41 | 87.56 | 87.30 | A | 87.50 | A | <87.70 | 87.55 | 87.58 | 86.81 | 87.50 | 87.21 |
| 8/9/2017 | A | A | 18.81 | 19.46 | 13.93 | A | 18.47 | A | >15.32 | 16.70 | 18.17 | 5.10 | 8.42 | 8.74 | A | A | 87.31 | 87.46 | 87.21 | A | 87.41 | A | <87.70 | 87.46 | 87.49 | 86.71 | 87.42 | 87.13 |
| 2/28/2018 | A | A | 19.00 | 19.67 | 14.29 | A | 18.68 | A | >15.32 | 16.92 | 18.38 | 5.27 | 8.63 | -- | A | A | 87.12 | 87.25 | 86.85 | A | 87.20 | A | <87.70 | 87.24 | 87.28 | 86.54 | 87.21 | -- |
| 8/21/2018 | A | A | 19.61 | 20.28 | 14.69 | A | 19.27 | A | >15.30 | 17.50 | 18.97 | 5.85 | 9.20 | 9.51 | A | A | 86.51 | 86.64 | 86.45 | A | 86.61 | A | <87.72 | 86.66 | 86.69 | 85.96 | 86.64 | 86.36 |

Table 1. Groundwater Depths and Elevations - Shallow Water-Bearing Zone

Project No. 210426, Milwaukie, Oregon

| Date | Depth to Water (feet TOC) | | | | | | | | | | | | | Groundwater Elevation, City of Milwaukie Datum (feet) | | | | | | | | | | | | | | |
|-----------|---------------------------|------|-------|-------|-------|------|-------|------|--------|-------|-------|-------|-------|---|------|------|-------|-------|-------|------|-------|------|--------|-------|-------|-------|-------|-------|
| | MW-1 | MW-2 | MW-3 | MW-4 | MW-5 | MW-6 | MW-7 | MW-8 | MW-8A | MW-9 | MW-10 | MW-11 | MW-12 | MW-13 | MW-1 | MW-2 | MW-3 | MW-4 | MW-5 | MW-6 | MW-7 | MW-8 | MW-8A | MW-9 | MW-10 | MW-11 | MW-12 | MW-13 |
| 1/30/2019 | A | A | 19.52 | 20.20 | 14.60 | A | 19.20 | A | >15.35 | 17.45 | 18.91 | 5.73 | 9.14 | 9.43 | A | A | 86.60 | 86.72 | 86.54 | A | 86.68 | A | <87.67 | 86.71 | 86.75 | 86.08 | 86.70 | 86.44 |
| 7/31/2019 | A | A | 19.97 | 20.64 | 15.03 | A | 19.64 | A | >15.30 | 17.89 | 19.35 | 6.11 | 9.55 | 9.85 | A | A | 86.15 | 86.28 | 86.11 | A | 86.24 | A | <87.72 | 86.27 | 86.31 | 85.70 | 86.29 | 86.02 |
| 2/24/2020 | A | A | 19.47 | 20.16 | 14.53 | A | 19.16 | A | >15.28 | 17.40 | 18.87 | 5.56 | 9.10 | 9.36 | A | A | 86.65 | 86.76 | 86.61 | A | 86.72 | A | <87.74 | 86.76 | 86.79 | 86.25 | 86.74 | 86.51 |
| 9/1/2020 | A | A | 19.93 | 23.45 | 14.98 | A | 19.61 | A | >15.10 | 17.87 | 19.32 | 6.01 | 9.52 | 9.82 | A | A | 86.19 | 83.47 | 86.16 | A | 86.27 | A | <87.92 | 86.29 | 86.34 | 85.80 | 86.32 | 86.05 |
| 3/3/2021 | A | A | 18.71 | 19.42 | 13.77 | A | 18.41 | A | 15.14 | 16.69 | 18.15 | 4.68 | 8.39 | 8.80 | A | A | 87.41 | 87.50 | 87.37 | A | 87.47 | A | 87.88 | 87.47 | 87.51 | 87.13 | 87.45 | 87.07 |
| 8/16/2021 | A | A | 20.09 | 20.78 | 15.18 | A | 19.78 | A | >15.10 | 18.03 | 19.49 | 6.21 | 9.69 | 10.00 | A | A | 86.03 | 86.14 | 85.96 | A | 86.10 | A | <87.92 | 86.13 | 86.17 | 85.60 | 86.15 | 85.87 |
| 1/19/2022 | A | A | 19.19 | A | A | A | A | A | A | A | A | 5.43 | 8.81 | 9.09 | A | A | 86.93 | A | A | A | A | A | A | A | A | 86.38 | 87.03 | 86.78 |
| 7/11/2022 | A | A | 18.98 | A | A | A | A | A | A | A | A | 5.22 | 8.61 | -- | A | A | 87.14 | A | A | A | A | A | A | A | A | 86.59 | 87.23 | -- |
| 2/13/2023 | A | A | 20.10 | A | A | A | A | A | A | A | A | 5.22 | 8.62 | 8.90 | A | A | 90.58 | A | A | A | A | A | A | A | A | 90.14 | 90.76 | 90.53 |
| 8/21/2023 | A | A | 20.34 | A | A | A | A | A | A | A | A | 5.41 | 8.82 | 9.13 | A | A | 90.34 | A | A | A | A | A | A | A | A | 89.95 | 90.56 | 90.30 |

Notes:

A = abandoned well

NI = well not installed

-- = not analyzed, not measured or not available

TOC = top of casing measuring point, City of Milwaukie datum through 2022

¹On-property wells were adjusted and all wells were surveyed in January 2023, NAVD88 datum

| | Surveyed Measuring Point Elevation ¹ | | | | | | | | | | | | | |
|-------------|---|--------|--------|--------|--------|--------|--------|-------|--------|--------|--------|-------|-------|-------|
| | MW-1 | MW-2 | MW-3 | MW-4 | MW-5 | MW-6 | MW-7 | MW-8 | MW-8A | MW-9 | MW-10 | MW-11 | MW-12 | MW-13 |
| 1993 | 119.61 | 101.04 | 102.13 | 103.18 | 98.90 | 100.08 | 102.04 | 98.07 | 99.15 | 102.30 | 101.82 | 91.81 | 95.84 | 95.87 |
| 2001 | 119.61 | 101.04 | 106.12 | 106.92 | 101.14 | 100.08 | 105.88 | 98.07 | 103.02 | 104.16 | 105.66 | 91.81 | 95.84 | 95.87 |
| 2023 | A | A | 110.68 | A | A | A | A | A | A | A | A | 95.36 | 99.38 | 99.43 |

Table 2. Groundwater Depths and Elevations - Intermediate Water-Bearing Zone

Project No. 210426, Milwaukie, Oregon

| Date | Depth to Water (feet TOC) | | | | | Groundwater Elevation, City of Milwaukie Datum (feet) | | | | |
|----------|---------------------------|-------|--------|--------|--------|---|-------|--------|--------|--------|
| | IMW-3 | IMW-5 | DSB-08 | IMW-10 | DMW-11 | IMW-3 | IMW-5 | DSB-08 | IMW-10 | DMW-11 |
| 9/21/94 | NI | NI | 21.73 | NI | NI | NI | NI | 76.79 | NI | NI |
| 9/28/94 | NI | NI | 21.67 | NI | NI | NI | NI | 76.85 | NI | NI |
| 10/24/94 | NI | NI | 21.89 | NI | NI | NI | NI | 76.63 | NI | NI |
| 11/02/94 | NI | NI | 21.32 | NI | NI | NI | NI | 77.20 | NI | NI |
| 12/05/94 | 17.43 | 13.61 | 19.22 | 21.00 | 20.96 | 84.75 | 85.08 | 79.30 | 80.93 | 71.16 |
| 1/09/95 | -- | 13.79 | 19.76 | 21.97 | 20.67 | -- | 84.90 | 78.76 | 79.96 | 71.45 |
| 1/12/95 | 17.61 | 13.72 | 19.83 | 22.04 | 20.91 | 84.57 | 84.97 | 78.69 | 79.89 | 71.21 |
| 1/24/95 | 17.43 | 13.54 | 19.47 | 21.74 | 20.76 | 84.75 | 85.15 | 79.05 | 80.19 | 71.36 |
| 3/13/95 | 16.94 | 13.05 | 19.41 | 21.50 | 20.45 | 85.24 | 85.64 | 79.11 | 80.43 | 71.67 |
| 4/21/95 | 16.83 | 13.02 | 21.55 | 19.02 | 19.13 | 85.35 | 85.67 | 76.97 | 82.91 | 72.99 |
| 6/08/95 | 17.28 | 13.33 | 19.38 | 21.83 | 19.29 | 84.90 | 85.36 | 79.14 | 80.10 | 72.83 |
| 7/06/95 | 17.52 | 13.63 | 20.05 | 22.46 | 20.63 | 84.66 | 85.06 | 78.47 | 79.47 | 71.49 |
| 8/15/95 | 17.69 | 13.56 | 19.40 | 21.97 | 19.27 | 84.49 | 85.13 | 79.12 | 79.96 | 72.85 |
| 9/08/95 | 17.65 | 13.47 | 18.93 | 21.66 | 18.41 | 84.53 | 85.22 | 79.59 | 80.27 | 73.71 |
| 3/19/96 | 15.64 | 11.90 | 16.93 | 19.30 | 16.47 | 86.54 | 86.79 | 81.59 | 82.63 | 75.65 |
| 6/24/96 | 16.91 | 13.21 | 19.04 | 21.42 | 19.69 | 85.27 | 85.48 | 79.48 | 80.51 | 72.43 |
| 9/09/96 | 17.72 | 13.87 | 20.18 | 22.64 | 21.63 | 84.46 | 84.82 | 78.34 | 79.29 | 70.49 |
| 12/03/96 | 16.35 | 12.53 | 16.29 | 19.17 | 14.38 | 85.83 | 86.16 | 82.23 | 82.76 | 77.74 |
| 1/24/97 | 15.18 | 11.37 | 15.34 | 18.23 | 13.88 | 87.00 | 87.32 | 83.18 | 83.70 | 78.24 |
| 3/31/97 | 15.12 | 11.40 | 14.72 | 17.62 | 12.34 | 87.06 | 87.29 | 83.80 | 84.31 | 79.78 |
| 4/01/97 | 15.13 | 11.46 | 14.83 | 17.58 | 12.63 | 87.05 | 87.23 | 83.69 | 84.35 | 79.49 |
| 4/01/97 | 15.35 | 11.78 | 16.03 | 18.36 | 15.13 | 86.83 | 86.91 | 82.49 | 83.57 | 76.99 |
| 4/03/97 | -- | 11.29 | 14.40 | 17.38 | 11.66 | -- | 87.40 | 84.12 | 84.55 | 80.46 |
| 5/06/97 | 15.93 | 12.33 | 17.85 | 20.08 | 18.45 | 86.25 | 86.36 | 80.67 | 81.85 | 73.67 |
| 10/28/97 | 17.13 | 13.52 | 18.62 | 21.26 | 17.74 | 85.05 | 85.17 | 79.90 | 80.67 | 74.38 |
| 12/15/97 | 16.78 | 12.97 | 15.58 | 18.77 | 12.37 | 85.40 | 85.72 | 82.94 | 83.16 | 79.75 |
| 3/17/98 | 16.42 | 12.79 | 17.08 | 19.60 | 16.00 | 85.76 | 85.90 | 81.44 | 82.33 | 76.12 |
| 6/15/98 | 16.90 | 13.25 | 18.38 | 20.86 | 18.52 | 85.28 | 85.44 | 80.14 | 81.07 | 73.60 |
| 10/15/98 | 17.28 | 13.50 | A | 20.85 | 17.92 | 84.90 | 85.19 | A | 81.08 | 74.20 |
| 12/14/98 | 16.00 | 12.09 | A | 17.64 | 10.86 | 86.18 | 86.60 | A | 84.29 | 81.26 |
| 4/27/99 | 15.20 | 11.38 | A | 16.69 | 11.07 | 86.98 | 87.31 | A | 85.24 | 81.05 |
| 7/13/99 | 16.80 | 13.10 | A | 19.15 | 17.60 | 85.38 | 85.59 | A | 82.78 | 74.52 |
| 10/26/99 | 17.15 | 13.28 | A | 19.10 | 14.28 | 85.03 | 85.41 | A | 82.83 | 77.84 |
| 1/27/00 | 16.78 | 12.86 | A | 18.31 | 12.63 | 85.40 | 85.83 | A | 83.62 | 79.49 |
| 4/17/00 | 16.43 | 12.57 | A | 17.65 | 11.20 | 85.75 | 86.12 | A | 84.28 | 80.92 |
| 10/09/00 | 16.23 | 14.15 | A | 21.52 | 18.63 | 85.95 | 84.54 | A | 80.41 | 73.49 |
| 4/09/01 | 17.50 | 13.78 | A | 19.23 | 16.11 | 84.68 | 84.91 | A | 82.70 | 76.01 |
| 11/12/01 | 21.12 | 13.28 | A | 26.67 | 15.74 | 85.00 | 85.41 | A | 83.17 | 76.38 |
| 11/26/02 | 21.31 | 13.71 | A | 28.39 | -- | 84.81 | 84.98 | A | 81.45 | -- |
| 11/27/02 | -- | -- | A | -- | 16.77 | -- | -- | A | -- | 75.35 |
| 4/09/03 | 20.21 | 12.47 | A | 26.36 | 13.26 | 85.91 | 86.22 | A | 83.48 | 78.86 |
| 11/10/03 | 21.19 | 13.54 | A | 28.01 | 17.94 | 84.93 | 85.15 | A | 81.83 | 74.18 |
| 4/14/04 | 20.58 | 12.63 | A | 26.10 | 11.91 | 85.54 | 86.06 | A | 83.74 | 80.21 |
| 12/14/04 | 21.10 | 13.30 | A | 27.52 | 14.70 | 85.02 | 85.39 | A | 82.32 | 77.42 |
| 4/15/05 | 20.91 | 13.05 | A | 26.45 | 12.40 | 85.21 | 85.64 | A | 83.39 | 79.72 |
| 11/29/05 | 21.40 | 13.61 | A | 27.56 | 16.20 | 84.72 | 85.08 | A | 82.28 | 75.92 |
| 5/16/06 | 20.90 | 13.22 | A | 27.60 | 16.04 | 85.22 | 85.47 | A | 82.24 | 76.08 |
| 12/20/06 | 21.07 | 13.51 | A | 26.11 | 12.15 | 85.05 | 85.18 | A | 83.73 | 79.97 |
| 5/03/07 | 20.66 | 12.95 | A | 26.38 | 13.35 | 85.46 | 85.74 | A | 83.46 | 78.77 |
| 12/05/07 | 21.32 | 13.66 | A | 28.07 | 18.25 | 84.80 | 85.03 | A | 81.77 | 73.87 |
| 4/22/08 | 20.74 | 13.10 | A | 26.80 | 15.32 | 85.38 | 85.59 | A | 83.04 | 76.80 |
| 12/03/08 | 21.89 | 14.01 | A | 28.38 | 17.15 | 84.23 | 84.68 | A | 81.46 | 74.97 |
| 4/15/09 | 21.11 | 13.32 | A | 26.60 | 12.40 | 85.01 | 85.37 | A | 83.24 | 79.72 |
| 10/26/09 | 21.61 | 13.67 | A | 28.00 | 16.11 | 84.51 | 85.02 | A | 81.84 | 76.01 |
| 5/06/10 | 20.84 | 13.30 | A | 26.92 | 15.58 | 85.28 | 85.39 | A | 82.92 | 76.54 |
| 10/27/10 | 21.16 | 13.71 | A | 27.46 | 16.41 | 84.96 | 84.98 | A | 82.38 | 75.71 |
| 6/03/11 | 19.88 | 12.50 | A | 17.94 | 12.40 | 86.24 | 86.19 | A | 91.90 | 79.72 |
| 10/11/11 | 20.86 | 13.35 | A | 26.89 | 15.56 | 85.26 | 85.34 | A | 82.95 | 76.56 |
| 5/30/12 | 20.49 | 13.19 | A | 26.61 | 15.65 | 85.63 | 85.50 | A | 83.23 | 76.47 |
| 10/29/12 | 20.70 | 13.06 | A | 27.04 | 15.90 | 85.42 | 85.63 | A | 82.80 | 76.22 |
| 6/04/13 | 20.61 | 12.86 | A | 27.25 | 14.88 | 85.51 | 85.83 | A | 82.59 | 77.24 |
| 10/14/13 | 21.19 | 13.70 | A | 27.82 | 17.65 | 84.93 | 84.99 | A | 82.02 | 74.47 |
| 5/22/14 | 20.65 | 13.05 | A | 26.91 | 15.96 | 85.47 | 85.64 | A | 82.93 | 76.16 |
| 11/04/14 | 20.95 | 13.19 | A | 27.18 | 16.70 | 85.17 | 85.50 | A | 82.66 | 75.42 |
| 4/07/15 | 20.92 | 13.25 | A | 27.37 | 15.26 | 85.20 | 85.44 | A | 82.47 | 76.86 |
| 10/27/15 | 24.52 | 14.22 | A | 28.36 | 18.39 | 81.60 | 84.47 | A | 81.48 | 73.73 |
| 6/07/16 | 20.99 | 13.49 | A | 28.31 | 19.52 | 85.13 | 85.20 | A | 81.53 | 72.60 |
| 10/25/16 | 20.81 | 13.20 | A | 26.87 | 14.02 | 85.31 | 85.49 | A | 82.97 | 78.10 |
| 2/07/17 | 19.62 | 11.85 | A | 24.73 | 9.85 | 86.50 | 86.84 | A | 85.11 | 82.27 |
| 2/23/17 | 19.83 | 12.04 | A | 26.33 | 14.57 | 86.29 | 86.65 | A | 83.51 | 77.55 |
| 8/02/17 | 21.05 | A | A | 28.71 | 19.90 | 85.07 | A | A | 81.13 | 72.22 |
| 8/09/17 | 21.19 | A | A | 28.99 | 18.79 | 84.93 | A | A | 80.85 | 73.33 |
| 2/28/18 | 20.42 | A | A | 26.45 | 13.27 | 85.70 | A | A | 83.39 | 78.85 |
| 8/21/18 | 21.83 | A | A | 29.26 | 20.12 | 84.29 | A | A | 80.58 | 72.00 |
| 1/30/19 | 20.97 | A | A | 27.06 | 18.75 | 85.15 | A | A | 82.78 | 73.37 |
| 7/31/19 | 22.13 | A | A | 29.58 | 20.60 | 83.99 | A | A | 80.26 | 71.52 |

Table 2. Groundwater Depths and Elevations - Intermediate Water-Bearing Zone

Project No. 210426, Milwaukie, Oregon

| Date | Depth to Water (feet TOC) | | | | | Groundwater Elevation, City of Milwaukie Datum (feet) | | | | |
|----------|---------------------------|-------|--------|--------|--------|---|-------|--------|--------|--------|
| | IMW-3 | IMW-5 | DSB-08 | IMW-10 | DMW-11 | IMW-3 | IMW-5 | DSB-08 | IMW-10 | DMW-11 |
| 2/24/20 | 20.80 | A | A | 26.95 | 15.26 | 85.32 | A | A | 82.89 | 76.86 |
| 9/01/20 | 22.18 | A | A | 29.92 | 20.22 | 83.94 | A | A | 79.92 | 71.90 |
| 10/28/20 | -- | A | A | -- | 16.90 | -- | A | A | -- | 75.22 |
| 3/03/21 | 20.17 | A | A | 26.40 | 13.25 | 85.95 | A | A | 83.44 | 78.87 |
| 8/16/21 | 22.53 | A | A | 30.38 | 19.99 | 83.59 | A | A | 79.46 | 72.13 |
| 1/19/22 | 20.36 | A | A | 26.33 | 13.23 | 85.76 | A | A | 83.51 | 78.89 |
| 7/11/22 | 20.8 | A | A | 27.87 | 16.79 | 85.32 | A | A | 81.97 | 75.33 |
| 2/13/23 | 20.51 | A | A | 19.89 | 12.29 | 89.50 | A | A | 87.46 | 83.37 |
| 8/21/23 | 22.18 | A | A | 23.57 | 19.18 | 87.83 | A | A | 83.78 | 76.48 |

Notes:

A = abandoned well

NI = well not installed

-- = not analyzed, not measured or not available

TOC = top of casing measuring point, City of Milwaukie datum through 2022

¹On-property wells were adjusted and all wells were surveyed in January 2023, NAVD88 datum

| | Surveyed Measuring Point Elevation ¹ | | | | |
|-------------|---|-------|--------|--------|--------|
| | IMW-3 | IMW-5 | DSB-08 | IMW10 | DMW-11 |
| 1994 | 102.18 | 98.69 | 98.52 | 101.93 | 92.12 |
| 2001 | 106.12 | 98.69 | 98.52 | 109.84 | 92.12 |
| 2023 | 110.01 | A | A | 107.35 | 95.66 |

Table 3. Groundwater Depths and Elevations - Deep Water-Bearing Zone

Project No. 210426, Milwaukie, Oregon

| Date | Depth to Water (feet TOC) | | | | | | | Groundwater Elevation, City of Milwaukie Datum (feet) | | | | | | |
|----------|---------------------------|--------|---------|----------|----------|---------|----------|---|--------|---------|----------|----------|---------|----------|
| | DMW -3 | DMW -5 | DMW -10 | MDMW -11 | VDMW -11 | DMW -14 | VDMW -14 | DMW -3 | DMW -5 | DMW -10 | MDMW -11 | VDMW -11 | DMW -14 | VDMW -14 |
| 9/02/94 | NI | 55.50 | NI | NI | NI | NI | NI | NI | 43.39 | NI | NI | NI | NI | NI |
| 9/21/94 | 57.85 | 52.86 | NI | NI | NI | NI | NI | 47.87 | 46.03 | NI | NI | NI | NI | NI |
| 9/28/94 | 57.65 | 52.20 | NI | NI | NI | NI | NI | 48.07 | 46.69 | NI | NI | NI | NI | NI |
| 10/24/94 | 58.57 | 53.40 | 61.97 | NI | NI | NI | NI | 47.15 | 45.49 | 45.60 | NI | NI | NI | NI |
| 11/02/94 | 56.88 | 51.61 | 60.58 | NI | NI | NI | NI | 48.84 | 47.28 | 46.99 | NI | NI | NI | NI |
| 12/05/94 | 48.58 | 39.39 | -- | NI | NI | NI | NI | 57.14 | 59.50 | -- | NI | NI | NI | NI |
| 1/09/95 | 53.58 | 48.56 | 55.98 | 42.65 | 45.43 | NI | NI | 52.14 | 50.33 | 51.59 | 49.21 | 46.53 | NI | NI |
| 1/12/95 | 54.22 | 49.18 | 56.54 | 43.34 | 46.13 | NI | NI | 51.50 | 49.71 | 51.03 | 48.52 | 45.83 | NI | NI |
| 1/24/95 | 53.12 | 48.03 | 55.40 | 42.22 | 45.05 | NI | NI | 52.60 | 50.86 | 52.17 | 49.64 | 46.91 | NI | NI |
| 3/13/95 | 54.42 | 49.26 | 56.82 | 43.50 | 46.21 | NI | NI | 51.30 | 49.63 | 50.75 | 48.36 | 45.75 | NI | NI |
| 4/21/95 | 53.20 | 48.09 | 55.64 | 42.57 | 45.04 | NI | NI | 52.52 | 50.80 | 51.93 | 49.29 | 46.92 | NI | NI |
| 6/08/95 | 54.94 | 49.65 | 57.38 | 44.04 | 46.78 | NI | NI | 50.78 | 49.24 | 50.19 | 47.82 | 45.18 | NI | NI |
| 7/06/95 | 57.39 | 52.10 | 59.79 | 46.68 | 49.26 | NI | NI | 48.33 | 46.79 | 47.78 | 45.18 | 42.70 | NI | NI |
| 8/15/95 | 53.16 | 48.73 | 55.60 | 43.17 | 45.97 | NI | NI | 52.56 | 50.16 | 51.97 | 48.69 | 45.99 | NI | NI |
| 9/08/95 | 52.47 | 47.38 | 54.60 | 41.32 | 44.40 | NI | NI | 53.25 | 51.51 | 52.97 | 50.54 | 47.56 | NI | NI |
| 3/19/96 | 45.54 | 40.75 | 48.12 | 35.04 | 36.98 | NI | NI | 60.18 | 58.14 | 59.45 | 56.82 | 54.98 | NI | NI |
| 6/24/96 | 51.36 | 46.32 | 53.78 | 40.59 | 43.16 | NI | NI | 54.36 | 52.57 | 53.79 | 51.27 | 48.80 | NI | NI |
| 9/09/96 | 55.71 | 50.51 | 58.01 | 44.82 | 47.69 | NI | NI | 50.01 | 48.38 | 49.56 | 47.04 | 44.27 | NI | NI |
| 12/03/96 | 36.32 | 33.52 | 36.07 | 25.98 | 27.39 | NI | NI | 69.40 | 65.37 | 71.50 | 65.88 | 64.57 | NI | NI |
| 1/24/97 | 35.31 | 32.33 | 35.44 | 25.61 | 26.60 | NI | NI | 70.41 | 66.56 | 72.13 | 66.25 | 65.36 | NI | NI |
| 3/31/97 | 31.73 | 28.92 | 31.79 | 21.70 | 22.22 | NI | NI | 73.99 | 69.97 | 75.78 | 70.16 | 69.74 | NI | NI |
| 4/01/97 | 33.45 | 30.68 | 33.25 | 23.16 | 24.55 | NI | NI | 72.27 | 68.21 | 74.32 | 68.70 | 67.41 | NI | NI |
| 4/01/97 | 43.95 | 39.06 | 46.18 | 32.71 | 35.84 | NI | NI | 61.77 | 59.83 | 61.39 | 59.15 | 56.12 | NI | NI |
| 4/03/97 | 30.54 | 27.52 | 30.85 | 20.61 | 21.14 | NI | NI | 75.18 | 71.37 | 76.72 | 71.25 | 70.82 | NI | NI |
| 5/06/97 | 48.10 | 43.34 | 50.68 | 37.40 | 39.49 | NI | NI | 57.62 | 55.55 | 56.89 | 54.46 | 52.47 | NI | NI |
| 10/28/97 | 46.60 | 39.19 | 47.91 | 30.97 | 32.07 | NI | NI | 59.12 | 59.70 | 59.66 | 60.89 | 59.89 | NI | NI |
| 12/15/97 | 30.03 | 27.01 | 30.21 | 19.95 | 20.55 | NI | NI | 75.69 | 71.88 | 77.36 | 71.91 | 71.41 | NI | NI |
| 3/17/98 | 42.11 | 37.21 | 45.27 | 31.87 | 33.81 | NI | NI | 63.61 | 61.68 | 62.30 | 59.99 | 58.15 | NI | NI |
| 6/15/98 | 46.78 | 41.69 | 49.53 | 36.35 | 38.10 | NI | NI | 58.94 | 57.20 | 58.04 | 55.51 | 53.86 | NI | NI |
| 10/15/98 | 45.00 | 40.25 | 47.35 | 34.98 | 36.75 | NI | NI | 60.72 | 58.64 | 60.22 | 56.88 | 55.21 | NI | NI |
| 12/14/98 | 27.47 | 24.65 | 27.50 | 17.73 | 18.54 | NI | NI | 78.25 | 74.24 | 80.07 | 74.13 | 73.42 | NI | NI |
| 4/27/99 | 29.42 | 26.32 | 29.82 | 18.95 | 19.40 | 30.52 | 30.51 | 76.30 | 72.57 | 77.75 | 72.91 | 72.56 | 77.95 | 78.98 |
| 7/13/99 | 46.72 | 42.07 | 48.70 | 36.25 | 38.95 | 53.00 | 59.67 | 59.00 | 56.82 | 58.87 | 55.61 | 53.01 | 55.47 | 49.82 |
| 10/26/99 | 34.64 | 31.47 | 35.14 | 23.93 | 24.64 | 36.10 | 36.37 | 71.08 | 67.42 | 72.43 | 67.93 | 67.32 | 72.37 | 73.12 |
| 1/27/00 | 30.80 | 27.79 | 30.77 | 20.48 | 20.99 | 31.57 | 31.32 | 74.92 | 71.10 | 76.80 | 71.38 | 70.97 | 76.90 | 78.17 |
| 4/17/00 | 27.82 | 24.90 | 27.89 | 17.75 | 18.27 | 28.71 | 28.55 | 77.90 | 73.99 | 79.68 | 74.11 | 73.69 | 79.76 | 80.94 |
| 10/09/00 | 44.99 | 37.97 | 52.11 | 31.75 | 32.68 | 57.01 | 65.04 | 60.73 | 60.92 | 55.46 | 60.11 | 59.28 | 51.46 | 44.45 |
| 4/09/01 | 36.19 | 37.83 | 43.52 | 28.03 | 31.97 | 48.33 | 55.62 | 69.53 | 61.06 | 64.05 | 63.83 | 59.99 | 60.14 | 53.87 |
| 11/12/01 | 41.60 | 37.11 | 48.60 | 31.97 | 35.03 | 53.76 | 62.32 | 64.12 | 61.78 | 58.97 | 59.89 | 56.93 | 54.71 | 47.17 |
| 11/26/02 | 52.86 | 43.99 | 57.12 | -- | -- | 61.47 | 71.25 | 52.86 | 54.90 | 50.45 | -- | -- | 47.00 | 38.24 |
| 11/27/02 | -- | -- | -- | 29.98 | 30.38 | -- | -- | -- | -- | -- | 61.88 | 61.58 | -- | -- |
| 4/09/03 | 35.96 | 28.77 | 37.47 | 21.86 | 22.31 | 38.35 | 39.35 | 69.76 | 70.12 | 70.10 | 70.00 | 69.65 | 70.12 | 70.14 |
| 11/10/03 | 49.90 | 40.73 | 54.36 | 36.32 | 39.23 | 59.34 | 68.27 | 55.82 | 58.16 | 53.21 | 55.54 | 52.73 | 49.13 | 41.22 |
| 4/14/04 | 32.82 | 28.60 | 32.39 | 23.33 | 23.84 | 35.16 | 36.31 | 72.90 | 70.29 | 75.18 | 68.53 | 68.12 | 73.31 | 73.18 |
| 12/14/04 | 44.75 | 33.40 | 50.40 | 25.90 | 25.75 | 55.75 | 64.05 | 60.97 | 65.49 | 57.17 | 65.96 | 66.21 | 52.72 | 45.44 |
| 4/15/05 | 33.55 | 27.04 | 34.85 | 10.67 | 20.28 | 35.70 | 36.85 | 72.17 | 71.85 | 72.72 | 81.19 | 71.68 | 72.77 | 72.64 |
| 11/29/05 | 47.49 | 38.12 | 51.62 | 32.75 | 35.92 | 56.44 | 65.19 | 58.23 | 60.77 | 55.95 | 59.11 | 56.04 | 52.03 | 44.30 |
| 5/16/06 | 48.40 | 32.67 | 52.75 | 32.50 | 34.05 | 57.63 | 66.02 | 57.32 | 66.22 | 54.82 | 59.36 | 57.91 | 50.84 | 43.47 |
| 12/20/06 | 45.63 | 37.91 | 48.61 | 20.01 | 21.29 | 35.81 | 37.21 | 60.09 | 60.98 | 58.96 | 71.85 | 70.67 | 72.66 | 72.28 |
| 5/03/07 | 36.98 | 29.49 | 37.85 | 21.55 | 22.96 | 38.78 | 40.32 | 68.74 | 69.40 | 69.72 | 70.31 | 69.00 | 69.69 | 69.17 |
| 12/05/07 | 49.80 | 41.71 | 54.50 | 36.13 | 38.12 | 59.02 | 66.99 | 55.92 | 57.18 | 53.07 | 55.73 | 53.84 | 49.45 | 42.50 |
| 4/22/08 | 45.10 | 38.18 | 49.76 | 31.46 | 33.96 | 54.27 | 62.83 | 60.62 | 60.71 | 57.81 | 60.40 | 58.00 | 54.20 | 46.66 |
| 12/03/08 | 50.24 | 39.98 | 54.15 | 33.91 | 36.92 | 58.66 | 67.34 | 55.48 | 58.91 | 53.42 | 57.95 | 55.04 | 49.81 | 42.15 |
| 4/15/09 | 33.66 | 26.97 | 35.19 | 19.75 | 20.30 | 36.09 | 37.28 | 72.06 | 71.92 | 72.38 | 72.11 | 71.66 | 72.38 | 72.21 |
| 10/26/09 | 48.19 | 34.47 | 52.59 | 31.34 | 33.44 | 57.77 | 66.17 | 57.53 | 64.42 | 54.98 | 60.52 | 58.52 | 50.70 | 43.32 |
| 5/06/10 | 43.49 | 34.26 | 48.83 | 31.11 | 33.40 | 53.65 | 61.32 | 62.23 | 64.63 | 58.74 | 60.75 | 58.56 | 54.82 | 48.17 |
| 10/27/10 | 45.20 | 38.82 | 50.93 | 33.40 | 35.76 | 55.75 | 63.95 | 60.52 | 60.07 | 56.64 | 58.46 | 56.20 | 52.72 | 45.54 |
| 6/03/11 | 40.75 | 33.66 | 43.17 | 13.95 | 30.70 | 49.03 | 56.02 | 64.97 | 65.23 | 64.40 | 77.91 | 61.26 | 59.44 | 53.47 |
| 10/11/11 | 45.22 | 35.65 | 49.78 | 31.60 | 34.19 | 54.72 | 63.14 | 60.50 | 63.24 | 57.79 | 60.26 | 57.77 | 53.75 | 46.35 |
| 5/30/12 | 43.85 | 37.50 | 48.94 | 31.56 | 34.25 | 53.94 | 62.00 | 61.87 | 61.39 | 58.63 | 60.30 | 57.71 | 54.53 | 47.49 |
| 10/29/12 | 42.20 | 35.98 | 42.69 | 30.06 | 32.95 | 43.05 | 44.87 | 63.52 | 62.91 | 64.88 | 61.80 | 59.01 | 65.42 | 64.62 |
| 6/04/13 | 46.96 | 34.53 | 46.39 | 26.95 | 27.75 | 45.84 | 48.52 | 58.76 | 64.36 | 61.18 | 64.91 | 64.21 | 62.63 | 60.97 |
| 10/14/13 | 50.54 | 42.20 | 54.48 | 36.10 | 38.81 | 59.26 | 67.50 | 55.18 | 56.69 | 53.09 | 55.76 | 53.15 | 49.21 | 41.99 |
| 5/22/14 | 47.18 | 39.09 | 51.27 | 32.81 | 35.69 | 56.14 | 64.17 | 58.54 | 59.80 | 56.30 | 59.05 | 56.27 | 52.33 | 45.32 |
| 11/04/14 | 48.55 | 39.39 | 52.61 | 31.00 | 33.59 | 57.50 | 65.60 | 57.17 | 59.50 | 54.96 | 60.86 | 58.37 | 50.97 | 43.89 |
| 4/07/15 | 44.11 | 33.70 | 44.45 | 26.75 | 28.15 | 44.61 | 46.75 | 61.61 | 65.19 | 63.12 | 65.11 | 63.81 | 63.86 | 62.74 |
| 6/03/15 | 49.10 | 38.11 | 50.35 | 31.43 | 33.45 | 50.05 | 52.20 | 56.62 | 60.78 | 57.22 | 60.43 | 58.51 | 58.42 | 57.29 |
| 10/27/15 | 51.45 | 42.22 | 55.78 | 37.50 | 40.03 | 60.65 | 71.41 | 54.27 | 56.67 | 51.79 | 54.36 | 51.93 | 47.82 | 38.08 |
| 6/07/16 | 55.54 | 46.20 | 59.49 | 37.85 | 42.42 | 64.14 | 72.16 | 50.18 | 52.69 | 48.08 | 54.01 | 49.54 | 44.33 | 37.33 |
| 10/25/16 | 38.30 | 32.00 | 39.71 | 23.79 | 24.31 | 40.45 | 41.69 | 67.42 | 66.89 | 67.86 | 68.07 | 67.65 | 68.02 | 67.80 |
| 2/07/17 | 30.27 | 23.41 | 31.86 | 16.21 | 16.70 | 32.74 | 33.96 | 75.45 | 75.48 | 75.71 | 75.65 | 75.26 | 75.73 | 75.53 |
| 2/23/17 | 40.29 | 31.50 | 44.90 | 31.12 | 33.79 | 43.32 | 46.15 | 65.43 | 67.39 | 62.67 | 60.74 | 58.17 | 65.15 | 63.34 |
| 8/02/17 | 56.26 | -- | 60.36 | 41.51 | 44.10 | 64.95 | 72.97 | 49.46 | -- | 47.21 | 50.35 | 47.86 | 43.52 | 36.52 |
| 8/09/17 | 55.08 | -- | 56.64 | 36.09 | 32.37 | 57.00 | 64.35 | 50.64 | -- | 50.93 | 55.77 | 59.59 | 51.47 | 45.14 |
| 2/28/18 | 36.83 | -- | 38.04 | 22.14 | 22.64 | 38.75 | 39.84 | 68.89 | -- | 69.53 | 69.72 | 69.32 | 69.72 | 69.65 |
| 8/21/18 | 56.30 | -- | 60.30 | 41.40 | 44.08 | 64.98 | 72.96 | 49.42 | -- | 47.27 | 50.46 | 47.88 | 43.49 | 36.53 |
| 1/30/19 | 46.12 | -- | 50.45 | 32.15 | 34.56 | 55.10 | 62.90 | 59.60 | -- | 57.12 | 59.71 | 57.40 | 53.37 | 46.59 |
| 7/31/19 | 56.90 | -- | 60.93 | 42.10 | 44.65 | 65.69 | 73.40 | 48.82 | -- | 46.64 | 49.76 | 47.31 | 42.78 | 36.09 |
| 2/24/20 | 43.88 | -- | 48.66 | 30.61 | 32.04 | 53.71 | 60.51 | 61.84 | -- | 58.91 | 61.25 | 59.92 | 54.76 | 48.98 |
| 9/01/20 | 59.59 | -- | 60.91 | 36.37 | 41.52 | 65.62 | 73.34 | 46.13 | -- | 46.66 | 55.49 | 50.44 | 42.85 | 36.15 |
| 3/03/21 | 37.27 | -- | 39.22 | 22.75 | 23.28 | 39.82 | 41.14 | 68.45 | -- | 68.35 | 69.11 | 68.68 | 68.65 | 68.35 |
| 8/16/21 | 50.39 | -- | 54.67 | 35.40 | 36.38 | 54.13 | | | | | | | | |

Table 4. Vertical Groundwater Gradients

Project No. 210426, Milwaukie, Oregon

| Date | Groundwater Elevation, City of Milwaukie Datum (feet) | | | Vertical Gradient (negative is downward flow) | |
|--------------------------------------|--|--------------|-------|--|-----------------------|
| | Shallow | Intermediate | Deep | Shallow/ Intermediate | Intermediate/ Deep |
| Well Cluster MW-3/IMW-3/DMW-3 | | | | | |
| 1/09/95 | 86.65 | -- | 52.14 | -- | -- |
| 1/12/95 | 86.76 | 84.57 | 51.50 | -0.043 | -1.355 |
| 1/24/95 | 86.89 | 84.75 | 52.60 | -0.042 | -1.318 |
| 3/13/95 | 87.53 | 85.24 | 51.30 | -0.045 | -1.391 |
| 4/21/95 | 87.52 | 85.35 | 52.52 | -0.043 | -1.345 |
| 6/08/95 | 87.28 | 84.90 | 50.78 | -0.047 | -1.398 |
| 7/06/95 | 87.20 | 84.66 | 48.33 | -0.050 | -1.489 |
| 8/15/95 | 86.63 | 84.49 | 52.56 | -0.042 | -1.309 |
| 9/08/95 | 87.08 | 84.53 | 53.25 | -0.050 | -1.282 |
| 3/19/96 | 88.37 | 86.54 | 60.18 | -0.036 | -1.080 |
| 6/24/96 | 87.66 | 85.27 | 54.36 | -0.047 | -1.267 |
| 9/09/96 | 86.96 | 84.46 | 50.01 | -0.049 | -1.412 |
| 12/03/96 | 87.38 | 85.83 | 69.40 | -0.030 | -0.673 |
| 1/24/97 | 88.55 | 87.00 | 70.41 | -0.030 | -0.680 |
| 3/31/97 | 88.36 | 87.06 | 73.99 | -0.025 | -0.536 |
| 4/01/97 | 88.35 | 87.05 | 72.27 | -0.025 | -0.606 |
| 4/01/97 | 88.36 | 86.83 | 61.77 | -0.030 | -1.027 |
| 4/03/97 | 88.36 | -- | 75.18 | -- | -- |
| 5/06/97 | 88.16 | 86.25 | 57.62 | -0.037 | -1.173 |
| 10/28/97 | 86.73 | 85.05 | 59.12 | -0.033 | -1.063 |
| 12/15/97 | 86.56 | 85.40 | 75.69 | -0.023 | -0.398 |
| 3/17/98 | 87.22 | 85.76 | 63.61 | -0.029 | -0.908 |
| 6/15/98 | 87.09 | 85.28 | 58.94 | -0.035 | -1.080 |
| 10/15/98 | 86.76 | 84.90 | 60.72 | -0.036 | -0.991 |
| 12/14/98 | 87.32 | 86.18 | 78.25 | -0.022 | -0.325 |
| 4/27/99 | 88.20 | 86.98 | 76.30 | -0.024 | -0.438 |
| 7/13/99 | 87.26 | 85.38 | 59.00 | -0.037 | -1.081 |
| 10/26/99 | 86.55 | 85.03 | 71.08 | -0.030 | -0.572 |
| 1/27/00 | 86.72 | 85.40 | 74.92 | -0.026 | -0.430 |
| 4/17/00 | 86.83 | 85.75 | 77.90 | -0.021 | -0.322 |
| 10/09/00 | 86.14 | 85.95 | 60.73 | -0.004 | -1.034 |
| 4/09/01 | 86.17 | 84.68 | 69.53 | -0.029 | -0.621 |
| 11/12/01 | 86.49 | 85.00 | 64.12 | -0.029 | -0.856 |
| 11/26/02 | 86.74 | 84.81 | 52.86 | -0.038 | -1.309 |
| 4/09/03 | 87.30 | 85.91 | 69.76 | -0.027 | -0.662 |
| 11/10/03 | 86.74 | 84.93 | 55.82 | -0.035 | -1.193 |
| 4/14/04 | 87.04 | 85.54 | 72.90 | -0.029 | -0.518 |
| 12/14/04 | 86.62 | 85.02 | 60.97 | -0.031 | -0.986 |
| 4/15/05 | 86.55 | 85.21 | 72.17 | -0.026 | -0.534 |
| 11/29/05 | 86.47 | 84.72 | 58.23 | -0.034 | -1.086 |
| 5/16/06 | 86.97 | 85.22 | 57.32 | -0.034 | -1.143 |
| 12/20/06 | 86.51 | 85.05 | 60.09 | -0.029 | -1.023 |
| 5/03/07 | 86.95 | 85.46 | 68.74 | -0.029 | -0.685 |
| 12/05/07 | 86.88 | 84.80 | 55.92 | -0.041 | -1.184 |
| 4/22/08 | 86.95 | 85.38 | 60.62 | -0.031 | -1.015 |
| 12/03/08 | 86.34 | 84.23 | 55.48 | -0.041 | -1.178 |
| 4/15/09 | 86.35 | 85.01 | 72.06 | -0.026 | -0.531 |
| 10/26/09 | 86.33 | 84.51 | 57.53 | -0.036 | -1.106 |
| 5/06/10 | 86.75 | 85.28 | 62.23 | -0.029 | -0.945 |
| 10/27/10 | 86.57 | 84.96 | 60.52 | -0.032 | -1.002 |
| 6/03/11 | 87.61 | 86.24 | 64.97 | -0.027 | -0.872 |
| 10/11/11 | 86.84 | 85.26 | 60.50 | -0.031 | -1.015 |
| 5/30/12 | 87.10 | 85.63 | 61.87 | -0.029 | -0.974 |
| 10/29/12 | 87.34 | 85.42 | 63.52 | -0.038 | -0.898 |
| 6/04/13 | 87.54 | 85.51 | 58.76 | -0.040 | -1.096 |
| 10/14/13 | 86.92 | 84.93 | 55.18 | -0.039 | -1.219 |
| 5/22/14 | 87.27 | 85.47 | 58.54 | -0.035 | -1.104 |
| 11/04/14 | 87.22 | 85.17 | 57.17 | -0.040 | -1.148 |
| 4/07/15 | 87.20 | 85.20 | 61.61 | -0.039 | -0.967 |
| 10/27/15 | 83.67 | 81.60 | 54.27 | -0.041 | -1.120 |

Table 4. Vertical Groundwater Gradients

Project No. 210426, Milwaukie, Oregon

| Date | Groundwater Elevation, City of Milwaukie Datum (feet) | | | Vertical Gradient (negative is downward flow) | |
|--------------------------------------|--|--------------|-------|--|-----------------------|
| | Shallow | Intermediate | Deep | Shallow/ Intermediate | Intermediate/ Deep |
| 6/07/16 | 87.61 | 85.13 | 50.18 | -0.049 | -1.432 |
| 10/25/16 | 87.01 | 85.31 | 67.42 | -0.033 | -0.733 |
| 2/07/17 | 87.77 | 86.50 | 75.45 | -0.025 | -0.453 |
| 2/23/17 | 88.18 | 86.29 | 65.43 | -0.037 | -0.855 |
| 8/02/17 | 87.41 | 85.07 | 49.46 | -0.046 | -1.459 |
| 8/09/17 | 87.31 | 84.93 | 50.64 | -0.047 | -1.405 |
| 2/28/18 | 87.12 | 85.70 | 68.89 | -0.028 | -0.689 |
| 8/21/18 | 86.51 | 84.29 | 49.42 | -0.044 | -1.429 |
| 1/30/19 | 86.60 | 85.15 | 59.60 | -0.028 | -1.047 |
| 7/31/19 | 86.15 | 83.99 | 48.82 | -0.042 | -1.441 |
| 2/24/20 | 86.65 | 85.32 | 61.84 | -0.026 | -0.962 |
| 9/01/20 | 86.19 | 83.94 | 46.13 | -0.044 | -1.550 |
| 3/03/21 | 87.41 | 85.95 | 68.45 | -0.029 | -0.717 |
| 8/16/21 | 86.03 | 85.32 | 55.33 | -0.014 | -1.229 |
| 1/19/2022 | 86.93 | 85.76 | 63.83 | -0.023 | -0.899 |
| 7/11/2022 | 87.14 | 85.32 | 54.48 | -0.036 | -1.264 |
| 2/13/2023 | 90.58 | 89.50 | 68.76 | -0.021 | -0.850 |
| 8/21/2023 | 90.34 | 87.83 | 58.44 | -0.049 | -1.205 |
| Well Cluster MW-5/IMW-5/DMW-5 | | | | | |
| 1/09/95 | 86.60 | 84.90 | 50.33 | -0.049 | -1.746 |
| 1/12/95 | 86.70 | 84.97 | 49.71 | -0.050 | -1.781 |
| 1/24/95 | 86.83 | 85.15 | 50.86 | -0.049 | -1.732 |
| 3/13/95 | 87.42 | 85.64 | 49.63 | -0.052 | -1.819 |
| 4/21/95 | 87.40 | 85.67 | 50.80 | -0.050 | -1.761 |
| 6/08/95 | 87.18 | 85.36 | 49.24 | -0.053 | -1.824 |
| 7/06/95 | 87.12 | 85.06 | 46.79 | -0.060 | -1.933 |
| 8/15/95 | 87.02 | 85.13 | 50.16 | -0.055 | -1.766 |
| 9/08/95 | 87.02 | 85.22 | 51.51 | -0.052 | -1.703 |
| 3/19/96 | 88.21 | 86.79 | 58.14 | -0.041 | -1.447 |
| 6/24/96 | 87.23 | 85.48 | 52.57 | -0.051 | -1.662 |
| 9/09/96 | 86.85 | 84.82 | 48.38 | -0.059 | -1.840 |
| 12/03/96 | 87.28 | 86.16 | 65.37 | -0.033 | -1.050 |
| 1/24/97 | 88.36 | 87.32 | 66.56 | -0.030 | -1.048 |
| 3/31/97 | 88.18 | 87.29 | 69.97 | -0.026 | -0.875 |
| 4/01/97 | 88.18 | 87.23 | 68.21 | -0.028 | -0.961 |
| 4/01/97 | 88.19 | 86.91 | 59.83 | -0.037 | -1.368 |
| 4/03/97 | 88.19 | 87.40 | 71.37 | -0.023 | -0.810 |
| 5/06/97 | 88.01 | 86.36 | 55.55 | -0.048 | -1.556 |
| 10/28/97 | 86.61 | 85.17 | 59.70 | -0.042 | -1.286 |
| 12/15/97 | 86.44 | 85.72 | 71.88 | -0.021 | -0.699 |
| 3/17/98 | 87.09 | 85.90 | 61.68 | -0.035 | -1.223 |
| 6/15/98 | 86.97 | 85.44 | 57.20 | -0.044 | -1.426 |
| 10/15/98 | 86.65 | 85.19 | 58.64 | -0.042 | -1.341 |
| 12/14/98 | 87.20 | 86.60 | 74.24 | -0.017 | -0.624 |
| 4/27/99 | 88.07 | 87.31 | 72.57 | -0.022 | -0.744 |
| 7/13/99 | 87.14 | 85.59 | 56.82 | -0.045 | -1.453 |
| 10/26/99 | 86.44 | 85.41 | 67.42 | -0.030 | -0.909 |
| 1/27/00 | 86.60 | 85.83 | 71.10 | -0.022 | -0.744 |
| 4/17/00 | 86.70 | 86.12 | 73.99 | -0.017 | -0.613 |
| 10/09/00 | 86.05 | 84.54 | 60.92 | -0.044 | -1.193 |
| 4/09/01 | 86.08 | 84.91 | 61.06 | -0.034 | -1.205 |
| 11/12/01 | 86.73 | 85.41 | 61.78 | -0.038 | -1.193 |
| 11/26/02 | 86.78 | 84.98 | 54.90 | -0.052 | -1.519 |
| 4/09/03 | 87.22 | 86.22 | 70.12 | -0.029 | -0.813 |
| 11/10/03 | 86.69 | 85.15 | 58.16 | -0.045 | -1.363 |
| 4/14/04 | 86.97 | 86.06 | 70.29 | -0.026 | -0.796 |
| 12/14/04 | 86.59 | 85.39 | 65.49 | -0.035 | -1.005 |
| 4/15/05 | 86.51 | 85.64 | 71.85 | -0.025 | -0.696 |
| 11/29/05 | 86.44 | 85.08 | 60.77 | -0.039 | -1.228 |
| 5/16/06 | 86.74 | 85.47 | 66.22 | -0.037 | -0.972 |
| 12/20/06 | 86.36 | 85.18 | 60.98 | -0.034 | -1.222 |
| 5/03/07 | 86.88 | 85.74 | 69.40 | -0.033 | -0.825 |
| 12/05/07 | 86.82 | 85.03 | 57.18 | -0.052 | -1.407 |

Table 4. Vertical Groundwater Gradients

Project No. 210426, Milwaukie, Oregon

| Date | Groundwater Elevation, City of Milwaukie Datum (feet) | | | Vertical Gradient (negative is downward flow) | |
|--|--|--------------|-------|--|-----------------------|
| | Shallow | Intermediate | Deep | Shallow/ Intermediate | Intermediate/ Deep |
| 4/22/08 | 86.89 | 85.59 | 60.71 | -0.038 | -1.257 |
| 12/03/08 | 86.30 | 84.68 | 58.91 | -0.047 | -1.302 |
| 4/15/09 | 86.32 | 85.37 | 71.92 | -0.028 | -0.679 |
| 10/26/09 | 86.31 | 85.02 | 64.42 | -0.037 | -1.040 |
| 5/06/10 | 86.64 | 85.39 | 64.63 | -0.036 | -1.048 |
| 10/27/10 | 86.53 | 84.98 | 60.07 | -0.045 | -1.258 |
| 6/03/11 | 87.52 | 86.19 | 65.23 | -0.039 | -1.059 |
| 10/11/11 | 86.79 | 85.34 | 63.24 | -0.042 | -1.116 |
| 5/30/12 | 87.03 | 85.50 | 61.39 | -0.044 | -1.218 |
| 10/29/12 | 87.30 | 85.63 | 62.91 | -0.048 | -1.147 |
| 6/04/13 | 87.48 | 85.83 | 64.36 | -0.048 | -1.084 |
| 10/14/13 | 86.89 | 84.99 | 56.69 | -0.055 | -1.429 |
| 5/22/14 | 87.23 | 85.64 | 59.80 | -0.046 | -1.305 |
| 11/04/14 | 87.19 | 85.50 | 59.50 | -0.049 | -1.313 |
| 4/07/15 | 87.14 | 85.44 | 65.19 | -0.049 | -1.023 |
| 10/27/15 | 86.45 | 84.47 | 56.67 | -0.057 | -1.404 |
| 6/07/16 | 87.53 | 85.20 | 52.69 | -0.068 | -1.642 |
| 10/25/16 | 86.94 | 85.49 | 66.89 | -0.042 | -0.939 |
| 2/07/17 | 87.69 | 86.84 | 75.48 | -0.025 | -0.574 |
| 2/23/17 | 88.09 | 86.65 | 67.39 | -0.042 | -0.973 |
| Well Cluster MW-11/DMW-11/VDMW-11 | | | | | |
| 12/05/94 | 86.35 | 71.16 | -- | -0.549 | -- |
| 1/09/95 | 86.44 | 71.45 | 46.53 | -0.541 | -0.315 |
| 1/12/95 | 86.54 | 71.21 | 45.83 | -0.554 | -0.321 |
| 1/24/95 | 86.70 | 71.36 | 46.91 | -0.554 | -0.309 |
| 3/13/95 | 87.16 | 71.67 | 45.75 | -0.559 | -0.327 |
| 4/21/95 | 87.13 | 72.99 | 46.92 | -0.511 | -0.329 |
| 6/08/95 | 86.97 | 72.83 | 45.18 | -0.511 | -0.349 |
| 7/06/95 | 86.94 | 71.49 | 42.70 | -0.558 | -0.364 |
| 8/15/95 | 86.88 | 72.85 | 45.99 | -0.507 | -0.339 |
| 9/08/95 | 86.89 | 73.71 | 47.56 | -0.476 | -0.330 |
| 3/19/96 | 87.79 | 75.65 | 54.98 | -0.438 | -0.261 |
| 6/24/96 | 86.91 | 72.43 | 48.80 | -0.523 | -0.299 |
| 9/09/96 | 86.63 | 70.49 | 44.27 | -0.583 | -0.331 |
| 12/03/96 | 87.02 | 77.74 | 64.57 | -0.335 | -0.166 |
| 1/24/97 | 87.88 | 78.24 | 65.36 | -0.348 | -0.163 |
| 3/31/97 | 87.78 | 79.78 | 69.74 | -0.289 | -0.127 |
| 4/01/97 | 87.77 | 79.49 | 67.41 | -0.299 | -0.153 |
| 4/01/97 | 87.77 | 76.99 | 56.12 | -0.389 | -0.264 |
| 4/03/97 | 87.78 | 80.46 | 70.82 | -0.264 | -0.122 |
| 5/06/97 | 87.63 | 73.67 | 52.47 | -0.504 | -0.268 |
| 10/28/97 | 86.37 | 74.38 | 59.89 | -0.433 | -0.183 |
| 12/15/97 | 86.15 | 79.75 | 71.41 | -0.231 | -0.105 |
| 3/17/98 | 86.78 | 76.12 | 58.15 | -0.385 | -0.227 |
| 6/15/98 | 86.69 | 73.60 | 53.86 | -0.473 | -0.249 |
| 10/15/98 | 86.45 | 74.20 | 55.21 | -0.442 | -0.240 |
| 12/14/98 | 86.96 | 81.26 | 73.42 | -0.206 | -0.099 |
| 4/27/99 | 87.73 | 81.05 | 72.56 | -0.241 | -0.107 |
| 7/13/99 | 86.83 | 74.52 | 53.01 | -0.445 | -0.272 |
| 10/26/99 | 86.16 | 77.84 | 67.32 | -0.300 | -0.133 |
| 1/27/00 | 86.34 | 79.49 | 70.97 | -0.247 | -0.108 |
| 4/17/00 | 86.42 | 80.92 | 73.69 | -0.199 | -0.091 |
| 10/09/00 | 85.88 | 73.49 | 59.28 | -0.447 | -0.180 |
| 4/09/01 | 85.91 | 76.01 | 59.99 | -0.358 | -0.202 |
| 11/12/01 | 86.64 | 76.38 | 56.93 | -0.371 | -0.246 |
| 11/27/02 | 86.68 | 75.35 | 61.58 | -0.409 | -0.174 |
| 4/09/03 | 86.83 | 78.86 | 69.65 | -0.288 | -0.116 |
| 11/10/03 | 86.55 | 74.18 | 52.73 | -0.447 | -0.271 |
| 4/14/04 | 86.80 | 80.21 | 68.12 | -0.238 | -0.153 |
| 12/14/04 | 86.40 | 77.42 | 66.21 | -0.324 | -0.142 |
| 4/15/05 | 86.33 | 79.72 | 71.68 | -0.239 | -0.102 |
| 11/29/05 | 86.77 | 75.92 | 56.04 | -0.392 | -0.251 |
| 5/16/06 | 86.66 | 76.08 | 57.91 | -0.382 | -0.230 |
| 12/20/06 | 86.49 | 79.97 | 70.67 | -0.235 | -0.117 |
| 5/03/07 | 86.60 | 78.77 | 69.00 | -0.283 | -0.123 |
| 12/05/07 | 86.60 | 73.87 | 53.84 | -0.460 | -0.253 |

Table 4. Vertical Groundwater Gradients

Project No. 210426, Milwaukie, Oregon

| Date | Groundwater Elevation, City of Milwaukie Datum (feet) | | | Vertical Gradient (negative is downward flow) | |
|----------|--|--------------|-------|--|-----------------------|
| | Shallow | Intermediate | Deep | Shallow/ Intermediate | Intermediate/ Deep |
| 4/22/08 | 86.62 | 76.80 | 58.00 | -0.355 | -0.237 |
| 12/03/08 | 86.03 | 74.97 | 55.04 | -0.399 | -0.252 |
| 4/15/09 | 86.04 | 79.72 | 71.66 | -0.228 | -0.102 |
| 10/26/09 | 86.07 | 76.01 | 58.52 | -0.363 | -0.221 |
| 5/06/10 | 86.31 | 76.54 | 58.56 | -0.353 | -0.227 |
| 10/27/10 | 86.15 | 75.71 | 56.20 | -0.377 | -0.246 |
| 6/03/11 | 87.10 | 79.72 | 61.26 | -0.267 | -0.233 |
| 10/11/11 | 86.40 | 76.56 | 57.77 | -0.355 | -0.237 |
| 5/30/12 | 86.61 | 76.47 | 57.71 | -0.366 | -0.237 |
| 10/29/12 | 87.00 | 76.22 | 59.01 | -0.389 | -0.217 |
| 6/04/13 | 87.15 | 77.24 | 64.21 | -0.358 | -0.165 |
| 10/14/13 | 86.54 | 74.47 | 53.15 | -0.436 | -0.269 |
| 5/22/14 | 86.84 | 76.16 | 56.27 | -0.386 | -0.251 |
| 11/04/14 | 86.89 | 75.42 | 58.37 | -0.414 | -0.215 |
| 4/07/15 | 86.76 | 76.86 | 63.81 | -0.358 | -0.165 |
| 10/27/15 | 86.05 | 73.73 | 58.51 | -0.445 | -0.192 |
| 6/07/16 | 87.13 | 72.60 | 49.54 | -0.525 | -0.291 |
| 10/25/16 | 86.80 | 78.10 | 67.65 | -0.314 | -0.132 |
| 2/07/17 | 87.34 | 82.27 | 75.26 | -0.183 | -0.089 |
| 2/23/17 | 87.66 | 77.55 | 58.17 | -0.365 | -0.245 |
| 8/02/17 | 86.81 | 72.22 | 47.86 | -0.527 | -0.308 |
| 8/09/17 | 86.71 | 73.33 | 59.59 | -0.483 | -0.174 |
| 2/28/18 | 86.54 | 78.85 | 69.32 | -0.278 | -0.120 |
| 8/21/18 | 85.96 | 72.00 | 47.88 | -0.504 | -0.305 |
| 1/30/19 | 86.08 | 73.37 | 57.40 | -0.459 | -0.202 |
| 7/31/19 | 85.70 | 71.52 | 47.31 | -0.512 | -0.306 |
| 2/24/20 | 86.25 | 76.86 | 59.92 | -0.339 | -0.214 |
| 9/01/20 | 85.80 | 71.90 | 50.44 | -0.502 | -0.271 |
| 3/03/21 | 87.13 | 78.87 | 68.68 | -0.298 | -0.129 |
| 8/16/21 | 85.60 | 72.13 | 55.58 | -0.486 | -0.209 |
| 1/19/22 | 86.38 | 78.89 | 69.44 | -0.270 | -0.119 |
| 7/11/22 | 86.59 | 75.33 | 55.46 | -0.407 | -0.251 |
| 2/13/23 | 90.14 | 83.37 | 75.14 | -0.244 | -0.104 |
| 8/21/23 | 89.95 | 76.48 | 59.88 | -0.486 | -0.210 |

Notes:

– = not analyzed, not measured or not available

Table 5. City Well Pumping Data

Project No. 210426, Milwaukie, Oregon

| Year | Well | Pumping Volume (millions of gallons) | | | | | | | | | | | | |
|------|------|--------------------------------------|------|------|-------|------|------|------|------|------|------|------|------|-------|
| | | Jan | Feb | Mar | April | May | June | July | Aug | Sept | Oct | Nov | Dec | Total |
| 1993 | 4 | 16.3 | 25.7 | 10.5 | 15.9 | 11.1 | 17.3 | 18.9 | 16.6 | 19.6 | 15.4 | 13.3 | 13.9 | 195 |
| | 7 | 18.4 | 16.3 | 20.1 | 22.2 | 13.2 | 23.3 | 25.7 | 30.4 | 31.1 | 20.2 | 17.2 | 20.7 | 259 |
| 1994 | 4 | 20.8 | 16.6 | 19.1 | 20.3 | 20.5 | 19.3 | 21.9 | -- | -- | 14.6 | 15.6 | 15.8 | 185 |
| | 7 | 13.8 | 24.7 | 31.2 | 30.9 | 31.4 | 30.2 | 34.8 | -- | -- | 32.2 | 25.0 | 25.8 | 280 |
| 1995 | 4 | 19.5 | 16.8 | 18.8 | 12.4 | 2.8 | 18.1 | 21.5 | 20.6 | 16.3 | 15.5 | 11.1 | 15.7 | 189 |
| | 7 | 30.7 | 29.4 | 32.6 | 28.6 | 27.0 | 31.3 | 36.5 | 34.4 | 25.1 | 25.3 | 35.1 | 0.0 | 336 |
| 1996 | 4 | 19.4 | 20.9 | 12.1 | 4.3 | 4.2 | 13.0 | 18.9 | 18.9 | 15.7 | 8.4 | 17.8 | 18.1 | 172 |
| | 7 | 9.6 | 9.6 | 25.8 | 33.3 | 32.8 | 34.6 | 35.8 | 35.6 | 37.7 | 38.3 | 6.9 | 1.9 | 302 |
| 1997 | 4 | 17.2 | 14.3 | 12.7 | 9.5 | 14.6 | 21.3 | 8.7 | 11.3 | 14.7 | 2.6 | 15.3 | 0.1 | 142 |
| | 7 | 2.1 | 10.4 | 8.6 | 28.1 | 38.4 | 14.6 | 20.4 | 37.6 | 17.1 | 28.7 | 31.3 | 0.2 | 238 |
| 1998 | 4 | 18.1 | 15.1 | 8.4 | 0.0 | 0.2 | 13.0 | 13.9 | 14.5 | 11.4 | 3.1 | 4.2 | 6.8 | 109 |
| | 7 | 0.0 | 0.0 | 16.4 | 28.7 | 36.2 | 34.6 | 32.3 | 26.0 | 27.3 | 31.4 | 28.1 | 8.0 | 269 |
| 1999 | 4 | 6.7 | 5.4 | 5.8 | 6.5 | 5.0 | 7.1 | 12.6 | 10.8 | 14.1 | 13.9 | 4.1 | 5.0 | 97 |
| | 7 | 11.5 | 2.8 | 5.0 | 5.2 | 7.1 | 13.8 | 22.2 | 21.2 | 6.6 | 2.6 | 11.6 | 3.0 | 113 |
| 2000 | 4 | 7.9 | 5.1 | 5.0 | 4.8 | 6.9 | 9.8 | 15.7 | 14.7 | 7.4 | 10.7 | 6.2 | 6.1 | 100 |
| | 7 | 4.7 | 5.6 | 15.1 | 13.6 | 16.9 | 17.1 | 24.0 | 33.5 | 16.2 | 16.8 | 17.3 | 10.9 | 192 |
| 2001 | 4 | 6.0 | 4.7 | 5.2 | 5.2 | 8.1 | 5.9 | 8.5 | 9.7 | 7.7 | 8.1 | 4.6 | 5.9 | 80 |
| | 7 | 14.0 | 10.9 | 12.0 | 11.8 | 17.5 | 14.9 | 19.0 | 21.4 | 16.9 | 17.4 | 10.6 | 13.6 | 180 |
| 2002 | 4 | 6.7 | 4.7 | 6.1 | 5.5 | 7.7 | 9.8 | 10.2 | 13.8 | 19.6 | 17.5 | 18.2 | 14.6 | 134 |
| | 7 | 13.4 | 9.5 | 12.0 | 14.6 | 18.0 | 22.9 | 23.8 | 19.9 | 12.7 | 6.9 | 13.1 | 16.7 | 184 |
| 2003 | 4 | 11.6 | 6.0 | 6.0 | 5.1 | 6.2 | 10.5 | 13.4 | 14.2 | 11.9 | 5.1 | 6.3 | 4.3 | 101 |
| | 7 | 13.9 | 13.6 | 15.6 | 12.5 | 13.5 | 24.5 | 33.1 | 33.4 | 23.7 | 15.9 | 16.4 | 10.1 | 226 |
| 2004 | 4 | 4.5 | 2.3 | 3.6 | 5.9 | 9.8 | 9.2 | 12.9 | 12.2 | 6.6 | 0.0 | 0.0 | 6.1 | 73 |
| | 7 | 12.0 | 11.0 | 3.0 | 11.4 | 21.5 | 20.8 | 31.7 | 29.8 | 28.1 | 23.0 | 0.0 | 17.9 | 210 |
| 2005 | 4 | 1.1 | 3.4 | 4.5 | 10.5 | 7.2 | 9.2 | 9.7 | 14.4 | 13.0 | 5.2 | 5.2 | 5.3 | 89 |
| | 7 | 23.6 | 6.9 | 17.9 | 6.5 | 12.6 | 19.2 | 20.4 | 28.6 | 24.8 | 12.0 | 10.9 | 11.1 | 195 |
| 2006 | 4 | 4.2 | 4.2 | 4.0 | 6.7 | 6.8 | 12.0 | 13.9 | 11.7 | 7.3 | 7.0 | 4.9 | 0.0 | 83 |
| | 7 | 8.6 | 11.0 | 8.3 | 13.4 | 14.0 | 10.6 | 25.4 | 21.6 | 13.7 | 13.1 | 6.4 | 4.3 | 151 |
| 2007 | 4 | 3.1 | 9.0 | 7.3 | 8.7 | 12.2 | 10.6 | 14.0 | 9.6 | 9.2 | 9.4 | 11.5 | 12.1 | 116 |
| | 7 | 7.0 | 13.8 | 13.5 | 17.7 | 15.8 | 19.7 | 25.8 | 17.8 | 17.3 | 21.9 | 20.1 | 19.0 | 209 |
| 2008 | 4 | 11.3 | 9.3 | 9.8 | 9.1 | 10.9 | 16.4 | 17.4 | 14.5 | 11.5 | 6.8 | 9.8 | 8.8 | 136 |
| | 7 | 18.4 | 21.4 | 19.0 | 15.1 | 21.1 | 24.3 | 32.4 | 30.2 | 12.0 | 13.5 | 19.1 | 17.7 | 244 |
| 2009 | 4 | 8.5 | 0.9 | 2.7 | 5.7 | 8.2 | 8.4 | 12.4 | 11.0 | 7.9 | 7.5 | 6.9 | 8.9 | 89 |
| | 7 | 13.8 | 18.0 | 13.4 | 9.9 | 12.5 | 10.3 | 25.9 | 21.3 | 15.7 | 14.9 | 13.7 | 17.8 | 187 |
| 2010 | 4 | 8.0 | 6.3 | 7.5 | 7.3 | 7.8 | 8.4 | 13.7 | 11.1 | 7.5 | 6.1 | 6.2 | 7.0 | 97 |
| | 7 | 15.9 | 12.4 | 14.7 | 14.4 | 15.5 | 10.3 | 26.8 | 21.8 | 15.0 | 12.8 | 12.5 | 14.0 | 186 |
| 2011 | 4 | 7.1 | 5.7 | 6.4 | 6.5 | 6.9 | 7.3 | 13.0 | 11.7 | 8.9 | 7.0 | 5.9 | 6.8 | 93 |
| | 7 | 12.9 | 11.6 | 12.9 | 13.1 | 14.0 | 14.7 | 26.4 | 24.2 | 18.9 | 14.6 | 14.7 | 10.7 | 189 |
| 2012 | 4 | 7.1 | 9.6 | 2.1 | 3.9 | 8.3 | 8.6 | 12.2 | 11.7 | 11.5 | 7.8 | 8.3 | 9.1 | 100 |
| | 7 | 13.0 | 8.6 | 12.3 | 13.0 | 15.7 | 9.6 | 22.5 | 23.8 | 20.0 | 14.9 | 10.2 | 12.0 | 176 |
| 2013 | 4 | 4.5 | 6.1 | 8.2 | 7.8 | 10.4 | 9.3 | 14.5 | 11.8 | 10.2 | 11.1 | 7.3 | 8.0 | 109 |
| | 7 | 15.4 | 11.2 | 15.1 | 14.4 | 18.1 | 17.3 | 26.8 | 21.9 | 14.4 | 19.7 | 15.9 | 16.1 | 206 |
| 2014 | 4 | 5.4 | 6.9 | 10.2 | 8.3 | 8.0 | 8.9 | 12.2 | 11.2 | 7.9 | 7.4 | 7.6 | 10.2 | 104 |
| | 7 | 13.7 | 15.7 | 15.6 | 15.6 | 15.0 | 19.3 | 26.0 | 23.9 | 14.4 | 16.2 | 17.5 | 19.1 | 212 |
| 2015 | 4 | 5.4 | 2.3 | 7.0 | 7.1 | 8.0 | 8.9 | 10.6 | 9.9 | 8.4 | 9.4 | 7.1 | 4.0 | 88 |
| | 7 | 20.1 | 13.1 | 15.6 | 15.7 | 15.0 | 19.3 | 24.1 | 22.4 | 18.7 | 19.0 | 15.7 | 14.6 | 213 |
| 2016 | 4 | 5.0 | 4.5 | 8.9 | 9.9 | 7.2 | 10.2 | 10.4 | 8.5 | 7.2 | 5.3 | 1.3 | 4.0 | 82 |
| | 7 | 11.6 | 12.7 | 15.4 | 21.8 | 15.9 | 22.4 | 22.3 | 21.5 | 19.0 | 14.9 | 3.5 | 14.6 | 196 |
| 2017 | 4 | 0.0 | 1.6 | 7.0 | 6.3 | 7.4 | 8.0 | 10.8 | 9.1 | 8.5 | 6.4 | 5.6 | 6.6 | 77 |
| | 7 | 0.0 | 3.1 | 16.1 | 14.0 | 18.3 | 18.7 | 24.8 | 23.4 | 19.2 | 15.7 | 13.8 | 16.1 | 183 |
| 2018 | 4 | 5.4 | 5.8 | 6.7 | 6.4 | 9.3 | 9.9 | 11.8 | 11.3 | 7.1 | 7.5 | 6.1 | 6.5 | 94 |
| | 7 | 15.5 | 12.5 | 15.3 | 14.7 | 19.0 | 25.2 | 26.3 | 25.6 | 16.3 | 17.3 | 15.9 | 16.4 | 220 |
| 2019 | 4 | 5.1 | 5.8 | 5.8 | 6.4 | 7.6 | 10.7 | 11.3 | 9.6 | 7.2 | 6.7 | 4.6 | 2.7 | 83 |
| | 7 | 14.0 | 14.6 | 14.6 | 17.0 | 23.1 | 24.5 | 26.7 | 28.6 | 16.0 | 15.4 | 14.1 | 16.8 | 225 |
| 2020 | 4 | 4.3 | 1.8 | 2.9 | 5.2 | 6.7 | 6.2 | 12.9 | 10.6 | 7.5 | 5.9 | 3.2 | 2.0 | 69 |
| | 7 | 17.2 | 16.8 | 17.5 | 10.5 | 15.9 | 16.8 | 26.1 | 23.8 | 17.3 | 13.5 | 10.8 | 16.3 | 203 |
| 2021 | 4 | 2.5 | 3.1 | 4.7 | 5.8 | 5.2 | 7.0 | 10.1 | 9.3 | 7.1 | 0.1 | 0.1 | 4.3 | 59 |
| | 7 | 6.3 | 7.2 | 11.8 | 13.6 | 14.7 | 20.8 | 25.7 | 23.1 | 16.7 | 13.4 | 12.6 | 10.5 | 176 |
| 2022 | 4 | 5.1 | 2.9 | 3.6 | 2.7 | 3.9 | 5.3 | 8.6 | 9.9 | 6.0 | 3.5 | 3.5 | 4.0 | 59 |
| | 7 | 12.1 | 10.6 | 12.4 | 12.2 | 11.9 | 11.8 | 22.7 | 22.8 | 19.1 | 14.1 | 11.2 | 11.6 | 173 |
| 2023 | 4 | 4.4 | 2.9 | 5.1 | 5.0 | 7.1 | 9.2 | 9.7 | 9.7 | -- | -- | -- | -- | 53 |
| | 7 | 11.9 | 6.1 | 9.8 | 11.8 | 10.0 | 15.2 | 18.0 | 22.0 | -- | -- | -- | -- | 105 |

Notes:

-- = not analyzed, not measured or not available

Table 6. Groundwater Field Parameters

Project No. 210426, Milwaukie, Oregon

| Well | Date | Temperature (°C) | pH | Specific Conductivity (µS/cm) | Dissolved Oxygen (mg/l) | ORP (mV) | Turbidity (NTUs) |
|--------------------|------------|------------------|---------|-------------------------------|-------------------------|----------|------------------|
| CW-7 (City) | 12/14/2004 | 12.9 | 6.75 | 202 | 9.54 | 40 | -- |
| | 4/15/2005 | 12.5 | 5.97 | 182 | 8.82 | 36 | -- |
| | 11/29/2005 | 12.2 | 8.34 | 150 | 6.61 | 729 | 8.17 |
| | 5/16/2006 | 16.4 | 7.41 | 224 | 6.45 | 15 | 5.52 |
| | 12/20/2006 | 10.8 | 6.89 | 239 | 10.14 | 252 | 1.10 |
| | 5/3/2007 | 13.0 | 7.87 | 415 | 10.44 | 116 | 0.60 |
| | 12/5/2007 | 12.9 | 8.51 | 243 | 89.00 R | -139 | -- |
| | 4/22/2008 | 13.0 | 7.72 | 189 | 6.90 | 52 | -- |
| | 12/3/2008 | 13.4 | 7.05 | 242 | -- | 161 | 51.4 |
| | 10/26/2009 | 13.1 | 7.64 | 272 | 15.56 R | 94 | 0.6 |
| | 5/7/2010 | 13.5 | 6.75 | 310 | 8.28 | 187 | 3.6 |
| | 9/2/2010 | 14.1 | 7.73 | 431 | 6.82 | 123 | -- |
| | 10/28/2010 | 12.9 | 7.37 | 213 | 0.56 | 24 | 1.4 |
| | 6/3/2011 | 11.8 | 7.55 | 340 | 9.77 | 214 | 16 |
| | 10/11/2011 | 18.0 | 6.32 | 300 | 2.93 | 98 | 1.0 |
| | 5/30/2012 | 16.3 | 5.32 | 358 | 5.32 | 129 | 8.2 |
| | 10/30/2012 | 14.4 | 7.33 | 250 | 3.90 | 142 | 4.9 |
| | 6/20/2013 | 13.7 | 6.78 | 303 | 8.21 | 584 | 3.2 |
| | 10/14/2013 | 15.0 | 7.17 | 272 | 3.97 | 41.6 | 1.4 |
| | 5/20/2014 | 13.9 | 6.19 | 263 | 4.71 | 163.5 | 7.3 |
| | 11/4/2014 | 14.4 | 6.14 | 331 | 7.16 | 149.3 | 0.4 |
| | 4/9/2015 | 14.2 | 6.27 | 296 | 4.58 | 171.2 | 0.9 |
| | 10/27/2015 | 13.9 | 5.24 | 323 | 5.46 | 32.4 | 7.1 |
| | 6/7/2016 | 16.1 | 6.61 | 285 | 4.59 | 198.2 | 0.7 |
| | 10/25/2016 | 14.0 | 5.90 | 315 | 6.50 | 261.0 | 0.6 |
| | 2/23/2017 | 14.1 | 7.86 | 295 | 60.1 R | 105.5 | 2.6 |
| | 8/10/2017 | 16.5 | 6.08 | 254 | 4.59 | 98.7 | 10 |
| | 3/1/2018 | 13.1 | 7.38 | 269 | 5.28 | 144.7 | 0.2 |
| | 8/21/2018 | 15.2 | 6.59 | 279 | 5.86 | 110.5 | 0.0 |
| | 1/30/2019 | 12.3 | 6.38 | 305 | 4.82 | 112.9 | 0.0 |
| | 7/31/2019 | 19.32 | 7.51 | 291 | 5.20 | 215.8 | 10.02 |
| | 2/24/2020 | 13.1 | 7.17 | 387 | 5.71 | 230.7 | 0.0 |
| 9/1/2020 | 15.0 | 6.98 | 992.2 R | 5.55 | 410 | 0.0 | |
| 3/8/2021 | 12.8 | 6.80 | 384 | -- | -- | 1.76 | |
| 8/16/2021 | 19.7 | 7.65 | 471 | 11.40 | 137 | 1.68 | |
| 1/19/2022 | 13.1 | 7.53 | 268.6 | 1.54 | 87.8 | -- | |
| 7/11/2022 | 14 | 8.00 | 314.5 | 9.47 | 122.2 | 0.38 | |
| 2/13/2023 | 13.1 | 7.30 | 229.3 | 4.68 | -79.0 | 0.59 | |
| 8/21/2023 | 13.3 | 7.38 | 219.4 | 5.61 | 181.0 | 0.38 | |
| MW-10 (Shallow) | 10/26/2016 | 15.1 | 5.86 | 371 | 4.64 | 134.2 | 2.8 |
| IMW-10 (Deep) | 12/14/2004 | 14.7 | 6.59 | 248 | 3.64 | 30 | 3.22 |
| | 4/15/2005 | 14.2 | 6.75 | 257 | 0.66 | 12 | 1.39 |
| | 11/30/2005 | 14.6 | 6.05 | 185 | 0.34 | 300 | 2.94 |
| | 5/16/2006 | 14.6 | 7.49 | 215 | 0.41 | 11 | 3.22 |
| | 12/20/2006 | 12.4 | 6.44 | 245 | 1.54 | 11 | 1.71 |
| | 5/3/2007 | 12.7 | 7.03 | 427 | 1.05 | -30 | 3.28 |
| | 12/10/2007 | 11.4 | 8.40 | 280 | 6.90 | -538 | 5.81 |
| | 4/23/2008 | 12.8 | 6.30 | 215 | 0.34 | 3.5 | 4.89 |
| | 12/4/2008 | 12.0 | 6.46 | 279 | -- | -34 | 28 |
| | 4/15/2009 | 12.4 | 6.59 | 248 | 4.01 | -139 | 2.5 |
| | 10/29/2009 | 12.2 | 6.75 | 261 | 2.30 | -189 | 13 |
| | 5/7/2010 | 14.7 | 6.65 | 350 | 0.10 | -27 | 4.3 |
| | 10/28/2010 | 12.8 | 6.87 | 262 | 0.40 | -15 | 7.2 |
| | 6/3/2011 | 10.9 | 6.55 | 390 | 3.00 | 6.0 | 14.2 |
| | 10/14/2011 | 8.3 | 6.58 | 400 | 0 | 100 | 0 |
| | 5/31/2012 | 14.0 | 6.88 | 323 | 1.80 | -16 | 11.0 |
| | 10/30/2012 | 13.7 | 6.77 | 288 | 0.80 | -30 | 17.0 |
| | 6/21/2013 | 14.2 | 6.32 | 344 | 0.98 | -2.3 | 2.43 |
| | 10/17/2013 | 13.0 | 6.49 | 294 | 1.83 | 7.5 | 2.3 |
| | 5/23/2014 | 14.1 | 6.20 | 292 | 1.59 | 6.9 | 9.71 |
| | 11/5/2014 | 15.1 | 6.55 | 305 | 1.80 | -27.7 | 2.7 |
| | 4/8/2015 | 13.2 | 6.50 | 298 | 0.40 | -41.3 | 2.8 |
| | 10/30/2015 | 14.1 | 6.27 | 287 | 0.53 | -0.6 | 8.1 |
| | 6/8/2016 | 18.9 | 6.50 | 292 | 1.34 | 38.7 | 15.4 |
| | 10/26/2016 | 14.4 | 6.47 | 311 | 0.54 | -56.6 | 10.7 |
| | 2/24/2017 | 12.2 | 8.64 | 307 | 42.7 R | -35.5 | 7.5 |
| 8/11/2017 | 15.2 | 4.52 | 239 | 1.75 | 183.7 | -- | |
| 3/1/2018 | 11.7 | 6.99 | 285 | 1.03 | -50.0 | 11.7 | |
| 8/22/2018 | 22.4 R | 6.52 | 290 | 4.02 | 73.6 | 12.8 | |

Table 6. Groundwater Field Parameters

Project No. 210426, Milwaukie, Oregon

| Well | Date | Temperature (°C) | pH | Specific Conductivity (µS/cm) | Dissolved Oxygen (mg/l) | ORP (mV) | Turbidity (NTUs) |
|-----------------|------------|------------------|-------|-------------------------------|-------------------------|----------|------------------|
| IMW-10 (Deep) | 1/31/2019 | 12.1 | 6.46 | 307 | 0.60 | -30.6 | 18.0 |
| | 8/2/2019 | 23.63 | 6.63 | 310 | 8.04 | 222.9 | 40.0 |
| | 2/25/2020 | 12.4 | 7.18 | 306 | 5.48 | -1.5 | 15.4 |
| | 9/2/2020 | 22.16 | 6.73 | 339 | 10.63 | 365.2 | 7.8 |
| | 3/8/2021 | 10.18 | 6.03 | 270 | 1.16 | 126.5 | 7.61 |
| | 8/17/2021 | 13.59 | 6.56 | 275 | 2.74 | 168.1 | 6.71 |
| | 1/20/2022 | 12.9 | 6.78 | 267.7 | 1.02 | 86.1 | 11.8 |
| | 7/12/2022 | 15.3 | 6.45 | 307 | 0.81 | 76.5 | 11.1 |
| | 2/14/2023 | 12.0 | 6.61 | 241.7 | 8.72 | -13.3 | 5.25 |
| | 8/21/2023 | 14.9 | 6.91 | 262.7 | 5.32 | -27.7 | 2.51 |
| DMW-10 (Deep) | 11/30/2005 | 14.3 | 9.51 | 179 | 3.47 | 627 | 2.04 |
| | 11/17/2006 | 12.9 | 9.19 | 207 | 4.87 | -135 | 1.33 |
| | 12/7/2007 | 11.8 | 5.26 | 272 | 37.30 R | 33 | 1.72 |
| | 10/27/2009 | 13.0 | 7.98 | 241 | 1.72 | 0.7 | 10 |
| | 10/12/2011 | 9.6 | 6.43 | 390 | 0 | 92 | 6.8 |
| | 10/16/2013 | 14.4 | 7.96 | 271 | 3.88 | 31.4 | 21 |
| | 10/29/2015 | 14.5 | 7.34 | 292 | 4.36 | 223.5 | 3 |
| | 8/10/2017 | 28.2 | 6.96 | 292 | 3.04 | 109.7 | 6.5 |
| | 8/2/2019 | 21.87 | 6.54 | 290 | 6.80 | 220.6 | 49.6 |
| | 8/18/2021 | 14.55 | 6.15 | 282 | 4.17 | 224.01 | 0.01 |
| | 8/23/2023 | 16.4 | 7.91 | 250.7 | 4.66 | 93.9 | 151 |
| MW-11 (Shallow) | 11/28/2005 | 16.2 | 5.09 | 154 | 3.25 | 73 | 44.3 |
| | 12/10/2007 | 12.7 | 6.77 | 205 | 74.70 R | 292 | 32.4 |
| | 10/28/2009 | 15.3 | 6.53 | 197 | 1.82 | -19 | 9.6 |
| | 10/14/2011 | 10.1 | 6.46 | 310 | 1.01 | 123 | 19.9 |
| | 10/16/2013 | 15.2 | 6.36 | 218 | 4.46 | -50.5 | 21 |
| | 10/29/2015 | 16.4 | 6.24 | 217 | 4.17 | 133.4 | 11.7 |
| | 8/10/2017 | 17.6 | 6.87 | 196 | 4.87 | 124.4 | 42 |
| | 8/2/2019 | 18.96 | 6.54 | 241 | 5.36 | 216.9 | 1.89 |
| | 8/18/2021 | 13.31 | 6.30 | 282 | 5.05 | 213.8 | 7.80 |
| | 8/22/2023 | 15.8 | 6.38 | 239.8 | 8.39 | 135.0 | 10.0 |
| DMW-11 (Inter) | 11/30/2005 | 15.2 | 5.05 | 162 | 4.60 | 614 | 8.02 |
| | 12/10/2007 | 10.5 | 6.69 | 253 | 53.00 R | 194 | 158 |
| | 10/28/2009 | 13.2 | 6.61 | 235 | 1.54 | 73 | 160 |
| | 5/7/2010 | 13.1 | 6.65 | 340 | 2.41 | -33 | 206 |
| | 10/28/2010 | 13.2 | 6.49 | 225 | 0.24 | 34.7 | 20 |
| | 10/12/2011 | 8.9 | 6.86 | 430 | 0 | 4.0 | 31.6 |
| | 6/4/2012 | 13.2 | 7.72 | 323 | 2.27 | 150 | 9.60 |
| | 10/30/2012 | 14.2 | 6.50 | 279 | 1.03 | -50.9 | 19 |
| | 6/21/2013 | 16.4 | 6.35 | 339 | 1.45 | -61.3 | 9.69 |
| | 10/16/2013 | 14.5 | 6.83 | 293 | 1.5 | -105.2 | 11 |
| | 5/22/2014 | 19.0 | 6.31 | 297 | 1.40 | -95.6 | 8.07 |
| | 11/5/2014 | 15.3 | 6.57 | 333 | 0.37 | -103.8 | 1.5 |
| | 4/8/2015 | 12.7 | 6.45 | 335 | 0.51 | -102.1 | 4.2 |
| | 10/29/2015 | 13.9 | 6.74 | 327 | 0.35 | -87 | 10.8 |
| | 6/8/2016 | 16.4 | 6.49 | 330 | 0.44 | -100.1 | 11.1 |
| | 10/26/2016 | 13.9 | 6.43 | 349 | 0.61 | -89.4 | 23.6 |
| | 2/24/2017 | 12.3 | 8.70 | 348 | 5.4 | -111.8 | 6.7 |
| | 8/10/2017 | 17.3 | 5.24 | 254 | 1.42 | 142.6 | 13 |
| | 3/1/2018 | 11.6 | 7.00 | 315 | 0.22 | -108.7 | 7.5 |
| | 8/22/2018 | 18.7 | 6.12 | 319 | 2.18 | -79.2 | 20.4 |
| | 1/31/2019 | 11.6 | 6.25 | 308 | 1.41 | -40.5 | 7.8 |
| | 8/1/2019 | 24.52 | 6.62 | 333 | 1.10 | 210.4 | 4.52 |
| | 2/25/2020 | 11.1 | 7.14 | 332 | 5.48 | -30.8 | 9.9 |
| | 9/2/2020 | 20.43 | 6.72 | 370 | 11.36 | 405.1 | 50 |
| | 10/28/2020 | 10.29 | 6.74 | 308 | 1.58 | 5.2 | 8.7 |
| | 3/8/2021 | 6.62 | 6.02 | 305 | 2.62 | 89.3 | 8.0 |
| | 8/19/2021 | 12.69 | 6.54 | 295 | 5.32 | 130.3 | 10.0 |
| 1/20/2022 | 12.9 | 6.70 | 305 | 0.50 | 78.6 | 33.8 | |
| 7/12/2022 | 15.1 | 6.43 | 332.2 | 5.85 | 79.8 | 5.8 | |
| 2/14/2023 | 11.9 | 6.70 | 219.1 | 4.02 | -42.2 | 92 | |
| 8/23/2023 | 14.4 | 6.83 | 264.8 | 0.55 | -137.7 | 13.1 | |
| MDMW-11 (Deep) | 11/28/2005 | 13.8 | 5.18 | 164 | 1.12 | 71 | 5.09 |
| | 12/6/2007 | 12.6 | 6.12 | 242 | 21.60 R | -9.4 | 73.9 |
| | 10/27/2009 | 13.0 | 6.84 | 216 | 1.55 | -52 | 55 |
| | 10/12/2011 | 9.6 | 6.64 | 340 | 0 | 137 | 120 |
| | 10/15/2013 | 16.4 | 6.85 | 265 | 3.43 | 110.2 | 123 |
| | 10/28/2015 | 11.3 | 6.60 | 227 | 6.67 | 39.9 | 15 |
| | 8/9/2017 | 21.1 | 4.14 | 226 | 10.03 | 190.1 | 306 |
| | 8/1/2019 | 23.63 | 6.52 | 267 | 7.33 | 225.6 | 172 |
| | 8/18/2021 | 19.98 | 6.45 | 255 | 5.12 | 196.1 | 93.7 |
| | 8/22/2023 | 14.3 | 6.32 | 231.8 | 3.82 | 132.6 | 177 |

Table 6. Groundwater Field Parameters

Project No. 210426, Milwaukie, Oregon

| Well | Date | Temperature (°C) | pH | Specific Conductivity (µS/cm) | Dissolved Oxygen (mg/l) | ORP (mV) | Turbidity (NTUs) |
|-----------------|------------|------------------|-------|-------------------------------|-------------------------|----------|------------------|
| VDMW-11 (Deep) | 11/30/2005 | 14.2 | 7.41 | 216 | 4.58 | 688 | 7.46 |
| | 12/6/2007 | 12.8 | 4.04 | 319 | 38.90 R | 68 | 0.05 |
| | 10/26/2009 | 12.7 | 7.22 | 304 | 3.10 | -35 | 8.20 |
| | 10/11/2011 | 9.2 | 5.82 | 460 | 1.25 | 114 | 10.2 |
| | 10/15/2013 | 17.6 | 6.70 | 358 | 4.70 | 148.3 | 13.1 |
| | 10/27/2015 | 12.9 | 6.94 | 398 | 5.12 | 56 | 2.9 |
| | 8/9/2017 | 25.6 | 6.14 | 344 | 4.38 | 183.7 | 180 |
| | 7/31/2019 | 19.10 | 7.00 | 360 | 4.99 | 210.5 | 34.8 |
| | 8/17/2021 | 14.01 | 6.95 | 338 | 5.62 | 186.0 | 4.05 |
| 8/22/2023 | 15.9 | 6.98 | 316.4 | 5.25 | 113.4 | 50.6 | |
| MW-13 (Shallow) | 11/30/2005 | 14.8 | 5.07 | 128 | 1.68 | 722 | 5.58 |
| | 12/12/2007 | 13.0 | -- | 212 | 27.70 R | 125 | 0 |
| | 10/29/2009 | 13.6 | 6.53 | 176 | 3.15 | -239 | 10 |
| | 10/14/2011 | 10.0 | 6.28 | 270 | 3.10 | 119 | 10.6 |
| | 10/17/2013 | 14.8 | 6.14 | 20.2 | 3.40 | -43.6 | 0.9 |
| | 10/30/2015 | 14.7 | 6.22 | 218 | 3.99 | 203.2 | 10.9 |
| | 8/11/2017 | 24.8 | 5.75 | 228 | 3.77 | 164.1 | -- |
| | 8/2/2019 | 18.85 | 5.90 | 214 | 5.06 | 216.2 | 1.53 |
| | 8/19/2021 | 11.66 | 6.65 | 219 | 4.59 | 264.4 | 0.03 |
| | 8/23/2023 | 15.4 | 6.43 | 198.1 | 3.20 | 121.2 | 1.25 |
| DMW-14 (Deep) | 12/14/2004 | 14.5 | 6.70 | 254 | 5.26 | 38 | 2.89 |
| | 4/15/2005 | 14.1 | 6.80 | 277 | 1.35 | 30 | 1.05 |
| | 11/30/2005 | 14.4 | 5.92 | 189 | 1.58 | 691 | 1.86 |
| | 5/16/2006 | 15.3 | 7.58 | 230 | 3.19 | 57 | 2.55 |
| | 11/17/2006 | 13.1 | 8.12 | 230 | 1.54 | -111 | 1.03 |
| | 12/20/2006 | 12.4 | 6.44 | 266 | 2.61 | 136 | 1.80 |
| | 5/3/2007 | 13.3 | 7.09 | 481 | 1.94 | 100 | 1.40 |
| | 12/10/2007 | 12.4 | 8.51 | 296 | 17.50 R | -405 | 0 |
| | 4/23/2008 | 12.1 | 6.27 | 222 | 4.10 | 89 | 0.35 |
| | 12/4/2008 | 12.4 | 7.03 | 330 | -- | 162 | 7 |
| | 4/15/2009 | 12.7 | 6.87 | 286 | 3.22 | -124 | 2.1 |
| | 10/28/2009 | 12.7 | 7.01 | 288 | 0.96 | 862 | 7.6 |
| | 5/7/2010 | 14.8 | 6.81 | 390 | 2.81 | 196 | 23.5 |
| | 10/27/2010 | 13.4 | 6.55 | 360 | 0.50 | 177 | 7 |
| | 6/3/2011 | 14.9 | 6.79 | 400 | 4.62 | 185 | 12 |
| | 10/14/2011 | 8.5 | 6.62 | 400 | 0.01 | 116 | 8.9 |
| | 5/31/2012 | 14.0 | 6.95 | 312 | 2.40 | -13 | 5.58 |
| | 10/30/2012 | 14.0 | 6.69 | 307 | 1.76 | 166 | 13 |
| | 6/21/2013 | 19.0 | 6.47 | 337 | 2.40 | -99 | 6.78 |
| | 10/17/2013 | 13.1 | 6.16 | 278 | 3.70 | 73.9 | 0.7 |
| | 5/23/2014 | 12.3 | 5.72 | 276 | 2.99 | 183.2 | 8.79 |
| | 11/5/2014 | 14.6 | 6.06 | 309 | 3.85 | 160 | 1.1 |
| | 4/8/2015 | 11.1 | 6.14 | 311 | 4.32 | 146.2 | 3.6 |
| | 11/6/2015 | 14.5 | 6.40 | 308 | 6.08 | 284.8 | 12.7 |
| | 6/8/2016 | 18.2 | 6.46 | 314 | 4.50 | 139.7 | 13.4 |
| | 10/26/2016 | 14.3 | 6.21 | 324 | 4.96 | 269.8 | 2.2 |
| | 2/24/2017 | 8.7 | 8.79 | 323 | 18.7 | 138.5 | 2.2 |
| | 8/11/2017 | 21.0 | 5.53 | 283 | 7.29 | 236.7 | -- |
| | 3/1/2018 | 13.1 | 6.83 | 291 | 3.23 | 105.4 | 0.2 |
| | 8/21/2018 | 39.4 R | 6.74 | 317 | 11.63 | 53.1 | 19.5 |
| | 1/31/2019 | 9.7 | 6.00 | 318 | 3.42 | 196.1 | 0.1 |
| | 8/2/2019 | 19.78 | 6.45 | 307 | 10.68 | 226.8 | 11.9 |
| 2/25/2020 | 11.0 | 7.50 | 337 | 2.40 | 227.2 | 0.0 | |
| 9/2/2020 | 19.22 | 6.77 | 350 | 4.16 | 450.55 | 3.2 | |
| 3/8/2021 | 9.54 | 5.99 | 288 | 2.68 | 128.8 | 0.45 | |
| 8/17/2021 | 13.78 | 6.65 | 300 | 4.89 | 152.2 | 0.15 | |
| 1/19/2022 | 12.6 | 6.77 | 289.9 | 1.45 | 73.3 | 0.89 | |
| 7/12/2022 | 14.9 | 6.98 | 349.9 | 1.23 | 69.9 | 0.5 | |
| 2/13/2023 | 12.2 | 6.40 | 255.1 | 3.49 | 45.1 | 24.6 | |
| 8/22/2023 | 16.1 | 6.61 | 268.4 | 3.88 | 112.6 | 16.9 | |
| VDMW-14 (Deep) | 12/14/2004 | 14.5 | 7.29 | 296 | 6.90 | 38 | 2.65 |
| | 4/15/2005 | 13.8 | 6.95 | 326 | 2.78 | 30 | 0.80 |
| | 11/30/2005 | 14.2 | 8.83 | 216 | 2.92 | 222 | 1.76 |
| | 5/16/2006 | 14.7 | 8.06 | 256 | 4.34 | 72 | 2.36 |
| | 11/17/2006 | 13.1 | 4.80 | 261 | 4.21 | 70 | 0.82 |
| | 12/20/2006 | 12.3 | 7.29 | 305 | 5.74 | 90 | 1.46 |
| | 5/3/2007 | 13.1 | 7.96 | 548 | 4.69 | 86 | 4.71 |
| | 12/7/2009 | 12.3 | 5.74 | 344 | 37.00 R | 0.6 | 0 |

Table 6. Groundwater Field Parameters

Project No. 210426, Milwaukie, Oregon

| Well | Date | Temperature (°C) | pH | Specific Conductivity (µS/cm) | Dissolved Oxygen (mg/l) | ORP (mV) | Turbidity (NTUs) |
|-------------------|------------|------------------|-------|-------------------------------|-------------------------|----------|------------------|
| VDMW-14 (Deep) | 4/22/2008 | 12.6 | 7.48 | 260 | 2.94 | 32 | 0.42 |
| | 12/3/2008 | 13.1 | 7.34 | 331 | -- | 140 | 66.6 |
| | 4/15/2009 | 13.1 | 6.65 | 310 | 6.90 | -124 | 5 |
| | 10/27/2009 | 13.1 | 7.66 | 308 | 2.03 | -102 | 9.8 |
| | 5/6/2010 | 13.1 | 7.59 | 420 | 3.90 | 218 | 21.4 |
| | 10/27/2010 | 13.8 | 7.24 | 450 | 2.40 | 169 | 7 |
| | 6/3/2011 | 10.0 | 7.46 | 470 | 5.28 | 196 | 21.4 |
| | 10/12/2011 | 9.8 | 6.26 | 480 | 0.08 | 100 | 10.6 |
| | 5/30/2012 | 16.8 | 5.98 | 391 | 4.08 | 116 | 8.61 |
| | 10/30/2012 | 14.5 | 7.25 | 339 | 2.69 | 169 | 10 |
| | 6/21/2013 | 15.6 | 7.10 | 422 | 4.80 | 167 | 7.60 |
| | 10/16/2013 | 13.6 | 7.37 | 339 | 4.00 | 161.3 | 8.4 |
| | 5/22/2014 | 18.5 | 6.85 | 334 | 2.71 | 41.0 | 13.0 |
| | 11/4/2014 | 15.5 | 7.13 | 396 | 5.21 | 83.1 | 1.5 |
| | 4/7/2015 | 16.8 | 6.96 | 388 | 4.13 | 91.3 | 13.3 |
| | 11/5/2015 | 13.8 | 7.04 | 367 | 8.82 | 267.6 | 10.1 |
| | 6/7/2016 | 33.5 R | 7.30 | 382 | 5.18 | 195.8 | 20.4 |
| | 10/25/2016 | 17.1 | 7.07 | 394 | 6.59 | 292.0 | 1.4 |
| | 2/24/2017 | 8.8 | 9.70 | 388 | 40.4 R | 109.9 | 1.8 |
| | 8/15/2017 | 18.8 | 7.18 | 379 | 6.75 | 148.4 | -- |
| | 3/1/2018 | 8.5 | 7.14 | 366 | 7.24 | 83.4 | 0.2 |
| | 8/21/2018 | 25.3 R | 6.95 | 371 | 8.06 | 81.7 | 13.6 |
| | 1/30/2019 | 13.4 | 7.24 | 380 | 6.28 | 61.5 | 6.2 |
| | 8/1/2019 | 31.35 R | 7.26 | 378 | 6.01 | 222.3 | 11.0 |
| | 2/24/2020 | 10.4 | 7.71 | 369 | 5.80 | 187.9 | 9.9 |
| | 9/1/2020 | 32.8 R | 6.82 | 199.1 | 7.23 | 169.2 | 8.9 |
| | 3/8/2021 | 8.97 | 6.50 | 353 | 8.09 | 160.4 | 2.77 |
| | 8/17/2021 | 12.81 | 7.21 | 359 | 5.67 | 132.0 | 0.02 |
| 1/19/2022 | 12.9 | 7.40 | 355.4 | 5.46 | 71.8 | 1.30 | |
| 7/11/2022 | 25.2 | 7.15 | 372.1 | 5.73 | 67.1 | 2.57 | |
| 2/13/2023 | 12.2 | 6.99 | 302.4 | 4.08 | 59.6 | 414 | |
| 8/21/2023 | 17.0 | 7.29 | 294.1 | 5.66 | 95.3 | 361 | |

Notes:

-- = not analyzed, not measured or not available

°C = degrees Celsius

µS/cm = microsiemens per centimeter

mg/L = milligrams per liter

mV = millivolt

NTU = nephelometric turbidity unit

R = rejected due to calibration error, equipment failure, or anomalous measurement

Table 7. PAH and Dibenzofuran Concentrations in Groundwater Samples

Project No. 210426, Milwaukie, Oregon

| Well | Date ^a | All Measurements in Micrograms per Liter (µg/L or ppb) | | | | | | | | | | | | | | | | | |
|-------------------------------|-------------------|--|-----------------|------------------|---------------------|-----------------|-----------------------|------------------------|----------------------|------------|--------------------------|-----------------|------------------|-----------------|--------------------------|---------------|------------------|---------------|---------------|
| | | Acenaph-thene | Acenaph-thylene | Anthra-cene | Benz(a) anthra-cene | Benzo(a) pyrene | Benzo(b) fluoranthene | Benzo(k) fluoran-thene | Benzo (ghi) perylene | Chrysene | Dibenz (a,h) anthra-cene | Dibenzofuran | Fluoranthene | Fluorene | Indeno (1,2,3-cd) pyrene | Naphthalene | Phenan-threne | Pyrene | |
| Screening Levels ^b | | 530 | -- | 1800 | 0.03 | 0.025 | 0.25 | 2.5 | -- | 25 | 0.025 | 7.9 | 800 | 290 | 0.25 | 0.12 | -- | 120 | |
| CW-4 (City) | 6/9/1993 | 0.045 U | 0.18 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.018 U | 0.0091 U | 0.0091 U | -- | 0.018 U | 0.018 U | 0.018 U | 0.045 U | 0.0091 U | 0.0091 U | |
| CW-7 (City) | 6/9/1993 | 0.045 U | 0.18 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.018 U | 0.0091 U | 0.0091 U | -- | 0.018 U | 0.018 U | 0.018 U | 0.045 U | 0.0091 U | 0.0091 U | |
| | 3/20/1996 | 0.022 | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.026 U | 0.025 | 0.038 | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.026 | |
| | 9/9/1996 | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.026 U | 0.067 | 0.029 | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.019 | |
| | 5/7/1997 | 0.0267 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.125 | 0.029 | 0.0125 U | 0.0125 U | 0.0376 | 0.0125 U | 0.0186 | |
| | 12/18/1997 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | |
| | 6/15/1998 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0281 | 0.0137 | 0.0125 U | 0.0125 U | 0.0131 | 0.0125 U | 0.0143 |
| | 12/17/1998 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | |
| | 4/28/1999 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0352 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | |
| | 10/29/1999 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0273 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | |
| | 4/18/2000 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.127 | 0.0284 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | |
| | 10/9/2000 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0189 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | |
| | 4/10/2001 | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.026 U | 0.0372 | 0.0312 | 0.013 U | 0.013 U | 0.013 U | 0.013 U | |
| | 11/15/2001 | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0236 U | 0.0378 | 0.0192 | 0.0118 U | 0.0118 U | 0.0139 | 0.0118 U | |
| | 11/26/2002 | 0.0344 | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0236 U | 0.13 | 0.0217 | 0.0118 U | 0.0118 U | 0.0328 | 0.0118 U | |
| | 4/9/2003 | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.1 | 0.0222 | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | |
| | 4/9/2003 | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.119 | 0.0255 | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | |
| | 8/25/2003 | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.0378 | 0.0206 | 0.01 U | 0.01 U | 0.01 U | 0.01 U | |
| | 11/11/2003 | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.0291 | 0.0156 | 0.01 U | 0.01 U | 0.02 U | 0.01 U | |
| | 11/11/2003 | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.0291 | 0.0142 | 0.01 U | 0.01 U | 0.02 U | 0.01 U | |
| | 4/14/2004 | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.0194 J | 0.01 U | 0.01 U | 0.01 U | 0.02 U | 0.01 U | |
| | 4/14/2004 | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.02 U | 0.01 U | |
| | 9/9/2004 | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.0435 | 0.0146 J | 0.01 U | 0.01 U | 0.02 U | 0.01 U | |
| | 12/14/2004 | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.0267 | 0.01 U | 0.01 U | 0.01 U | 0.02 U | 0.01 U | |
| | 12/14/2004 | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.0282 | 0.01 U | 0.01 U | 0.01 U | 0.02 U | 0.01 U | |
| | 4/14/2005 | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.02 U | 0.01 U | |
| | 4/14/2005 | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.02 U | 0.01 U | |
| | 9/7/2005 | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.0533 J | 0.0191 J | 0.01 U | 0.01 U | 0.0236 UB | 0.01 U | |
| | 11/29/2005 | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.0142 J | 0.01 U | 0.01 U | 0.01 U | 0.02 U | 0.01 U | |
| | 11/29/2005 | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.0152 J | 0.01 U | 0.01 U | 0.01 U | 0.02 U | 0.01 U | |
| | 5/16/2006 | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.0264 J | 0.0193 | 0.00943 U | 0.00943 U | 0.0189 U | 0.00943 U | |
| | 5/16/2006 | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.0249 J | 0.0156 | 0.00943 U | 0.00943 U | 0.0189 U | 0.00943 U | |
| | 12/21/2006 | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.0284 | 0.00943 U | 0.00943 U | 0.00943 U | 0.0189 UB | 0.00943 U | |
| 12/21/2006 | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.0226 | 0.00943 U | 0.00943 U | 0.00943 U | 0.0189 UB | 0.00943 U | | |
| 5/3/2007 | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.024 UB | 0.00952 U | | |
| 5/3/2007 | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.0344 UB | 0.00952 U | | |
| 8/22/2007 | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.0669 J | 0.0242 | 0.00962 U | 0.00962 U | 0.0538 UB | 0.00962 U | | |
| 12/5/2007 | 0.00389 J | 0.0024 U | 0.00421 | 0.00407 J | 0.00165 U | 0.00316 U | 0.00204 U | 0.00217 U | 0.00431 U | 0.00162 U | 0.0344 J | 0.0143 J | 0.00289 J | 0.00334 U | 0.0189 UB | 0.0108 U | 0.00822 J | | |
| 12/5/2007 | 0.00352 U | 0.00239 U | 0.0042 U | 0.00386 U | 0.00164 U | 0.00315 U | 0.00204 U | 0.00217 U | 0.0043 U | 0.00162 U | 0.0342 J | 0.0139 J | 0.00253 U | 0.00333 U | 0.0865 UB | 0.0108 U | 0.00809 J | | |
| 4/22/2008 | 0.0035 U | 0.00238 U | 0.00418 U | 0.00384 U | 0.00164 U | 0.00314 U | 0.00203 U | 0.00216 U | 0.00428 U | 0.00161 U | 0.0347 J | 0.0152 J | 0.00251 U | 0.00332 U | 0.0126 U | 0.0107 U | 0.00829 J | | |
| 4/22/2008 | 0.0035 U | 0.00238 U | 0.00418 U | 0.00384 U | 0.00164 U | 0.00314 U | 0.00203 U | 0.00216 U | 0.00428 U | 0.00161 U | 0.0309 J | 0.0153 J | 0.00271 J | 0.00332 U | 0.0126 U | 0.0107 U | 0.00879 J | | |
| 8/20/2008 | 0.0035 U | 0.00238 U | 0.00418 U | 0.00436 UB | 0.00164 U | 0.00314 U | 0.00203 U | 0.00216 U | 0.00428 U | 0.00912 UB | 0.0351 J | 0.0139 J | 0.00251 U | 0.01 UB | 0.0126 U | 0.0107 U | 0.00771 J | | |
| 12/3/2008 | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.0271 J | 0.01 U | 0.01 U | 0.01 U | 0.014 U | 0.01 U | | |
| 12/3/2008 | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.0311 J | 0.0112 J | 0.01 U | 0.01 U | 0.014 U | 0.01 U | | |

Table 7. PAH and Dibenzofuran Concentrations in Groundwater Samples

Project No. 210426, Milwaukie, Oregon

| Well | Date ^a | All Measurements in Micrograms per Liter (µg/L or ppb) | | | | | | | | | | | | | | | | |
|-------------------------------|-------------------|--|-----------------|-------------|---------------------|-----------------|-----------------------|------------------------|----------------------|-----------|--------------------------|------------------|------------------|-----------|--------------------------|-----------------|---------------|----------------|
| | | Acenaph-thene | Acenaph-thylene | Anthra-cene | Benz(a) anthra-cene | Benzo(a) pyrene | Benzo(b) fluoranthene | Benzo(k) fluoran-thene | Benzo (ghi) perylene | Chrysene | Dibenz (a,h) anthra-cene | Dibenzofuran | Fluoranthene | Fluorene | Indeno (1,2,3-cd) pyrene | Naphthalene | Phenan-threne | Pyrene |
| Screening Levels ^b | | 530 | -- | 1800 | 0.03 | 0.025 | 0.25 | 2.5 | -- | 25 | 0.025 | 7.9 | 800 | 290 | 0.25 | 0.12 | -- | 120 |
| CW-7 (City) | 4/15/2009 | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.0187 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.0131 UB | 0.0107 U | 0.00935 U |
| | 8/27/2009 | 0.0117 J | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.0592 | 0.0141 UB | 0.00935 U | 0.00935 U | 0.0206 UB | 0.0107 U | 0.00935 U |
| | 8/27/2009 | 0.0108 J | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.0554 | 0.0147 UB | 0.00935 U | 0.00935 U | 0.0251 UB | 0.0107 U | 0.00995 UB |
| | 10/26/2009 | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.0214 | 0.017 | 0.00935 U | 0.00935 U | 0.0126 U | 0.0317 | 0.00995 |
| | 10/26/2009 | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.0237 | 0.0145 | 0.00935 U | 0.00935 U | 0.0126 U | 0.0107 U | 0.00935 U |
| | 5/6/2010 | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.00984 | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U |
| | 5/7/2010 | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00984 J | 0.0138 UB | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U |
| | 9/2/2010 | 0.00957 U | 0.00957 U | 0.00957 U | 0.00957 U | 0.00957 U | 0.00957 U | 0.00957 U | 0.00957 U | 0.00957 U | 0.00957 U | 0.0137 J | 0.0106 J | 0.00957 U | 0.00957 U | 0.0259 J | 0.00957 UB | 0.00957 U |
| | 9/2/2010 | 0.00957 U | 0.00957 U | 0.00957 U | 0.00957 U | 0.00957 U | 0.00957 U | 0.00957 U | 0.00957 U | 0.00957 U | 0.00957 U | 0.00957 U | 0.00967 J | 0.00957 U | 0.00957 U | 0.0191 U | 0.00957 UB | 0.00957 U |
| | 10/28/2010 | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.0119 J | 0.00962 U | 0.00962 U | 0.00962 U | 0.0192 U | 0.00962 U | 0.00962 U |
| | 10/28/2010 | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.019 U | 0.00952 U | 0.00952 U |
| | 6/3/2011 | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.0107 J | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U |
| | 6/3/2011 | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U |
| | 10/11/2011 | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.0105 J | 0.00943 U | 0.00943 U | 0.00943 U | 0.0189 U | 0.00943 U | 0.00943 U |
| | 10/11/2011 | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.0112 J | 0.01 U | 0.01 U | 0.01 U | 0.02 U | 0.01 U | 0.01 U |
| | 5/30/2012 | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.0189 U | 0.00943 U | 0.00943 U |
| | 5/30/2012 | 0.00971 U | 0.00971 U | 0.00971 U | 0.00971 U | 0.00971 U | 0.00971 U | 0.00971 U | 0.00971 U | 0.00971 U | 0.00971 U | 0.00971 U | 0.00971 U | 0.00971 U | 0.00971 U | 0.0194 U | 0.00971 U | 0.00971 U |
| | 10/30/2012 | 0.0196 UB | 0.0196 U | 0.0196 U | 0.0196 U | 0.0196 U | 0.0196 U | 0.0196 U | 0.0196 U | 0.0196 U | 0.0196 U | 0.0113 JB | 0.0196 U | 0.0196 UB | 0.0196 U | 0.0392 UB | 0.0196 U | 0.0196 U |
| | 10/30/2012 | 0.0226 B | 0.0196 U | 0.0196 U | 0.0196 U | 0.0196 U | 0.0196 U | 0.0196 U | 0.0196 U | 0.0196 U | 0.0196 U | 0.0249 B | 0.0196 U | 0.0196 UB | 0.0196 U | 0.0392 UB | 0.0196 U | 0.0196 U |
| | 6/20/2013 | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0388 U | 0.0194 U | 0.0194 U |
| | 6/20/2013 | 0.0190 U | 0.0190 U | 0.0190 U | 0.0190 U | 0.0190 U | 0.0190 U | 0.0190 U | 0.0190 U | 0.0190 U | 0.0190 U | 0.0190 U | 0.0190 U | 0.0190 U | 0.0190 U | 0.0788 | 0.0190 U | 0.0190 U |
| | 10/14/2013 | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0388 U | 0.0194 U | 0.0194 U |
| | 10/14/2013 | 0.0190 U | 0.0190 U | 0.0190 U | 0.0190 U | 0.0190 U | 0.0190 U | 0.0190 U | 0.0190 U | 0.0190 U | 0.0190 U | 0.0190 U | 0.0190 U | 0.0190 U | 0.0190 U | 0.0381 U | 0.0190 U | 0.0190 U |
| | 5/20/2014 | 0.0200 U | 0.0200 U | 0.0200 U | 0.0200 U | 0.0200 U | 0.0200 U | 0.0200 U | 0.0200 U | 0.0200 U | 0.0200 U | 0.0131 JB | 0.0200 U | 0.0200 U | 0.0200 U | 0.0400 U | 0.0200 U | 0.0200 U |
| | 5/20/2014 | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0122 JB | 0.0194 U | 0.0194 U | 0.0194 U | 0.0388 U | 0.0194 U | 0.0194 U |
| | 11/4/2014 | 0.0204 U | 0.0204 U | 0.0204 U | 0.0204 U | 0.0204 U | 0.0204 U | 0.0204 U | 0.0204 U | 0.0204 U | 0.0204 U | 0.0130 J | 0.0204 U | 0.0204 U | 0.0204 U | 0.0408 U | 0.0204 U | 0.0204 U |
| | 11/4/2014 | 0.0202 U | 0.0202 U | 0.0202 U | 0.0202 U | 0.0202 U | 0.0202 U | 0.0202 U | 0.0202 U | 0.0202 U | 0.0202 U | 0.0108 J | 0.0202 U | 0.0202 U | 0.0202 U | 0.0404 U | 0.0202 U | 0.0202 U |
| | 4/9/2015 | 0.0196 U | 0.0490 U | 0.0196 U | 0.0196 U | 0.0196 U | 0.0196 U | 0.0196 U | 0.0196 U | 0.0196 U | 0.0196 U | 0.0105 J | 0.0196 U | 0.0196 U | 0.0196 U | 0.0392 U | 0.0196 U | 0.0196 U |
| | 4/9/2015 | 0.0208 U | 0.0208 U | 0.0208 U | 0.0208 U | 0.0208 U | 0.0208 U | 0.0208 U | 0.0208 U | 0.0208 U | 0.0208 U | 0.0208 U | 0.0208 U | 0.0208 U | 0.0208 U | 0.0417 U | 0.0208 U | 0.0208 U |
| | 10/27/2015 | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0120 J | 0.0194 U | 0.0194 U | 0.0194 U | 0.0388 U | 0.0194 U | 0.0194 U |
| 10/27/2015 | 0.0196 U | 0.0196 U | 0.0196 U | 0.0196 U | 0.0196 U | 0.0196 U | 0.0196 U | 0.0196 U | 0.0196 U | 0.0196 U | 0.0196 U | 0.0196 U | 0.0196 U | 0.0196 U | 0.0392 U | 0.0196 U | 0.0196 U | |
| 6/7/2016 | 0.0233 U | 0.0233 U | 0.0233 U | 0.0233 U | 0.0233 U | 0.0233 U | 0.0233 U | 0.0233 U | 0.0233 U | 0.0233 U | 0.0233 U | 0.0233 U | 0.0233 U | 0.0233 U | 0.0465 U | 0.0233 U | 0.0233 U | |
| 6/7/2016 | 0.0190 U | 0.0190 U | 0.0190 U | 0.0190 U | 0.0190 U | 0.0190 U | 0.0190 U | 0.0190 U | 0.0190 U | 0.0190 U | 0.0190 U | 0.0190 U | 0.0190 U | 0.0190 U | 0.0381 U | 0.0190 U | 0.0190 U | |
| 10/25/2016 | 0.0337 U | 0.0337 U | 0.0337 U | 0.0169 U | 0.0169 U | 0.0169 U | 0.0169 U | 0.0169 U | 0.0337 U | 0.0169 U | 0.0337 U | 0.0337 U | 0.0337 U | 0.0337 U | 0.0674 U | 0.0674 U | 0.0337 U | |
| 10/25/2016 | 0.0335 U | 0.0335 U | 0.0335 U | 0.0168 U | 0.0168 U | 0.0168 U | 0.0168 U | 0.0168 U | 0.0335 U | 0.0168 U | 0.0335 U | 0.0335 U | 0.0335 U | 0.0335 U | 0.0671 U | 0.0671 U | 0.0335 U | |
| 2/23/2017 | 0.0314 U | 0.0314 U | 0.0314 U | 0.0157 U | 0.0157 U | 0.0157 U | 0.0157 U | 0.0157 U | 0.0314 U | 0.0157 U | 0.0314 U | 0.0314 U | 0.0314 U | 0.0314 U | 0.0628 U | 0.0628 U | 0.0314 U | |
| 2/23/2017 | 0.0313 U | 0.0313 U | 0.0313 U | 0.0156 U | 0.0156 U | 0.0156 U | 0.0156 U | 0.0156 U | 0.0313 U | 0.0156 U | 0.0313 U | 0.0313 U | 0.0313 U | 0.0313 U | 0.0626 U | 0.0626 U | 0.0313 U | |
| 8/10/2017 | 0.0319 U | 0.0319 U | 0.0319 U | 0.0159 U | 0.0159 U | 0.0159 U | 0.0159 U | 0.0159 U | 0.0319 U | 0.0159 U | 0.0319 U | 0.0319 U | 0.0319 U | 0.0319 U | 0.0638 U | 0.0638 U | 0.0319 U | |
| 8/10/2017 | 0.0317 U | 0.0317 U | 0.0317 U | 0.0159 U | 0.0159 U | 0.0159 U | 0.0159 U | 0.0159 U | 0.0317 U | 0.0159 U | 0.0159 J | 0.0317 U | 0.0317 U | 0.0317 U | 0.0634 U | 0.0634 U | 0.0317 U | |
| 3/1/2018 | 0.0338 U | 0.0338 U | 0.0338 U | 0.0169 U | 0.0169 U | 0.0169 U | 0.0169 U | 0.0169 U | 0.0338 U | 0.0169 U | 0.0338 U | 0.0338 U | 0.0338 U | 0.0338 U | 0.0676 U | 0.0676 U | 0.0338 U | |

Table 7. PAH and Dibenzofuran Concentrations in Groundwater Samples

Project No. 210426, Milwaukie, Oregon

| Well | Date ^a | All Measurements in Micrograms per Liter (µg/L or ppb) | | | | | | | | | | | | | | | | |
|-------------------------------|-------------------|--|-----------------|-------------|---------------------|-----------------|-----------------------|------------------------|----------------------|----------|--------------------------|--------------|--------------|----------|--------------------------|--------------|---------------|----------|
| | | Acenaph-thene | Acenaph-thylene | Anthra-cene | Benz(a) anthra-cene | Benzo(a) pyrene | Benzo(b) fluoranthene | Benzo(k) fluoran-thene | Benzo (ghi) perylene | Chrysene | Dibenz (a,h) anthra-cene | Dibenzofuran | Fluoranthene | Fluorene | Indeno (1,2,3-cd) pyrene | Naphthalene | Phenan-threne | Pyrene |
| Screening Levels ^b | | 530 | -- | 1800 | 0.03 | 0.025 | 0.25 | 2.5 | -- | 25 | 0.025 | 7.9 | 800 | 290 | 0.25 | 0.12 | -- | 120 |
| CW-7 (City) | 3/1/2018 | 0.0344 U | 0.0344 U | 0.0344 U | 0.0172 U | 0.0172 U | 0.0172 U | 0.0172 U | 0.0344 U | 0.0172 U | 0.0172 U | 0.0344 U | 0.0344 U | 0.0344 U | 0.0172 U | 0.0689 U | 0.0689 U | 0.0344 U |
| | 8/21/2018 | 0.0317 U | 0.0317 U | 0.0317 U | 0.0158 U | 0.0158 U | 0.0158 U | 0.0158 U | 0.0317 U | 0.0158 U | 0.0158 U | 0.0317 U | 0.0317 U | 0.0317 U | 0.0158 U | 0.0634 U | 0.0634 U | 0.0317 U |
| | 8/21/2018 | 0.0346 U | 0.0346 U | 0.0346 U | 0.0173 U | 0.0173 U | 0.0173 U | 0.0173 U | 0.0346 U | 0.0173 U | 0.0173 U | 0.0346 U | 0.0346 U | 0.0346 U | 0.0173 U | 0.0693 U | 0.0693 U | 0.0346 U |
| | 1/30/2019 | 0.0323 U | 0.0323 U | 0.0323 U | 0.0161 U | 0.0161 U | 0.0161 U | 0.0161 U | 0.0323 U | 0.0161 U | 0.0161 U | 0.0323 U | 0.0323 U | 0.0323 U | 0.0161 U | 0.0646 U | 0.0646 U | 0.0323 U |
| | 1/30/2019 | 0.0329 U | 0.0329 U | 0.0329 U | 0.0164 U | 0.0164 U | 0.0164 U | 0.0164 U | 0.0329 U | 0.0164 U | 0.0164 U | 0.0329 U | 0.0329 U | 0.0329 U | 0.0164 U | 0.0657 U | 0.0657 U | 0.0329 U |
| | 7/31/2019 | 0.0330 U | 0.0330 U | 0.0330 U | 0.0165 U | 0.0165 U | 0.0165 U | 0.0165 U | 0.0330 U | 0.0165 U | 0.0165 U | 0.0330 U | 0.0330 U | 0.0330 U | 0.0165 U | 0.0659 U | 0.0659 U | 0.0330 U |
| | 7/31/2019 | 0.0321 U | 0.0321 U | 0.0321 U | 0.0160 U | 0.0160 U | 0.0160 U | 0.0160 U | 0.0321 U | 0.0160 U | 0.0160 U | 0.0321 U | 0.0321 U | 0.0321 U | 0.0160 U | 0.0641 U | 0.0641 U | 0.0321 U |
| | 2/24/2020 | 0.0323 U | 0.0323 U | 0.0323 U | 0.0161 U | 0.0161 U | 0.0161 U | 0.0161 U | 0.0323 U | 0.0161 U | 0.0161 U | 0.0323 U | 0.0323 U | 0.0323 U | 0.0161 U | 0.0646 U | 0.0646 U | 0.0323 U |
| | 2/24/2020 | 0.0321 U | 0.0321 U | 0.0321 U | 0.0160 U | 0.0160 U | 0.0160 U | 0.0160 U | 0.0321 U | 0.0160 U | 0.0160 U | 0.0321 U | 0.0321 U | 0.0321 U | 0.0160 U | 0.0641 U | 0.0641 U | 0.0321 U |
| | 9/1/2020 | 0.129 U | 0.129 U | 0.0323 U | 0.0161 U | 0.0161 U | 0.0161 U | 0.0161 U | 0.0323 U | 0.0161 U | 0.0161 U | 0.129 U | 0.0323 U | 0.129 U | 0.0161 U | 0.0645 U | 0.0645 U | 0.0323 U |
| | 9/1/2020 | 0.0322 U | 0.0322 U | 0.0322 U | 0.0161 U | 0.0161 U | 0.0161 U | 0.0161 U | 0.0322 U | 0.0161 U | 0.0161 U | 0.0322 U | 0.0322 U | 0.0322 U | 0.0161 U | 0.0645 U | 0.0645 U | 0.0322 U |
| | 3/8/2021 | 0.0347 U | 0.0347 U | 0.0347 U | 0.0174 U | 0.0174 U | 0.0174 U | 0.0174 U | 0.0347 U | 0.0174 U | 0.0174 U | 0.0347 U | 0.0347 U | 0.0347 U | 0.0174 U | 0.0694 U | 0.0694 U | 0.0347 U |
| | 3/8/2021 | 0.0336 U | 0.0336 U | 0.0336 U | 0.0168 U | 0.0168 U | 0.0168 U | 0.0168 U | 0.0336 U | 0.0168 U | 0.0168 U | 0.0336 U | 0.0336 U | 0.0336 U | 0.0168 U | 0.0672 U | 0.0672 U | 0.0336 U |
| | 8/16/2021 | 0.0316 U | 0.0316 U | 0.0316 U | 0.0158 U | 0.0158 U | 0.0158 U | 0.0158 U | 0.0316 U | 0.0158 U | 0.0158 U | 0.0316 U | 0.0316 U | 0.0316 U | 0.0158 U | 0.0631 U | 0.0631 U | 0.0316 U |
| | 8/16/2021 | 0.0319 U | 0.0319 U | 0.0319 U | 0.0159 U | 0.0159 U | 0.0159 U | 0.0159 U | 0.0319 U | 0.0159 U | 0.0159 U | 0.0319 U | 0.0319 U | 0.0319 U | 0.0159 U | 0.0638 U | 0.0638 U | 0.0319 U |
| | 1/19/2022 | 0.0317 U | 0.0317 U | 0.0317 U | 0.0158 U | 0.0158 U | 0.0158 U | 0.0158 U | 0.0317 U | 0.0158 U | 0.0158 U | 0.0317 U | 0.0317 U | 0.0317 U | 0.0158 U | 0.0633 U | 0.0633 U | 0.0317 U |
| | 1/19/2022 | 0.0318 U | 0.0318 U | 0.0318 U | 0.0159 U | 0.0159 U | 0.0159 U | 0.0159 U | 0.0318 U | 0.0159 U | 0.0159 U | 0.0318 U | 0.0318 U | 0.0318 U | 0.0159 U | 0.0636 U | 0.0636 U | 0.0318 U |
| | 07/11/2022 | 0.0339 U | 0.0339 U | 0.0339 U | 0.0169 U | 0.0169 U | 0.0169 U | 0.0169 U | 0.0339 U | 0.0169 U | 0.0169 U | 0.0339 U | 0.0339 U | 0.0339 U | 0.0169 U | 0.0678 U | 0.0678 U | 0.0339 U |
| | 07/11/2022 | 0.0351 U | 0.0351 U | 0.0351 U | 0.0176 U | 0.0176 U | 0.0176 U | 0.0176 U | 0.0351 U | 0.0176 U | 0.0176 U | 0.0351 U | 0.0351 U | 0.0351 U | 0.0176 U | 0.0702 U | 0.0702 U | 0.0351 U |
| | 2/13/2023 | 0.0343 U | 0.0343 U | 0.0343 U | 0.0172 U | 0.0172 U | 0.0172 U | 0.0172 U | 0.0343 U | 0.0172 U | 0.0172 U | 0.0343 U | 0.0343 U | 0.0343 U | 0.0172 U | 0.0687 U | 0.0687 U | 0.0343 U |
| 2/13/2023 | 0.0358 U | 0.0358 U | 0.0358 U | 0.0179 U | 0.0179 U | 0.0179 U | 0.0179 U | 0.0358 U | 0.0179 U | 0.0179 U | 0.0358 U | 0.0358 U | 0.0358 U | 0.0179 U | 0.0716 U | 0.0716 U | 0.0358 U | |
| 08/21/2023 | 0.0342 U | 0.0342 U | 0.0342 U | 0.0171 U | 0.0171 U | 0.0171 U | 0.0171 U | 0.0342 U | 0.0171 U | 0.0171 U | 0.0342 U | 0.0342 U | 0.0342 U | 0.0171 U | 0.0683 U | 0.0683 U | 0.0342 U | |
| 08/21/2023 | 0.0327 U | 0.0327 U | 0.0327 U | 0.0163 U | 0.0163 U | 0.0163 U | 0.0163 U | 0.0327 U | 0.0163 U | 0.0163 U | 0.0327 U | 0.0327 U | 0.0327 U | 0.0163 U | 0.0653 U | 0.0653 U | 0.0327 U | |
| DMW-03 (Deep) | 9/12/1994 | 0.045 U | 0.18 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.018 U | 0.0091 U | 0.0091 U | -- | 0.018 U | 0.018 U | 0.018 U | 0.045 U | 0.0091 U | 0.0091 U |
| | 9/28/1994 | 0.045 U | 0.18 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.018 U | 0.0091 U | 0.0091 U | -- | 0.018 U | 0.018 U | 0.018 U | 0.045 U | 0.0091 U | 0.0091 U |
| | 12/13/1994 | 0.044 U | 0.17 U | 0.0088 U | 0.0088 U | 0.0088 U | 0.0088 U | 0.0088 U | 0.017 U | 0.0088 U | 0.0088 U | -- | 0.017 U | 0.017 U | 0.017 U | 0.044 U | 0.0088 U | 0.0088 U |
| | 8/15/1995 | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.026 U | 0.015 | 0.013 U | 0.013 U |
| | 3/21/1996 | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.026 U | 0.022 U | 0.013 U | 0.013 U | 0.013 U | 0.014 | 0.013 U |
| | 6/24/1996 | 0.015 | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.026 U | 0.027 | 0.013 U | 0.018 | 0.013 U | 0.021 | 0.013 U |
| | 9/10/1996 | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U |
| | 12/3/1996 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| | 5/6/1997 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| | 12/15/1997 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| 12/14/1998 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | |
| DMW-05 (Deep) | 8/31/1994 | 0.045 U | 0.18 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.018 U | 0.0091 U | 0.0091 U | -- | 0.018 U | 0.018 U | 0.018 U | 0.045 U | 0.0091 U | 0.0091 U |
| | 9/28/1994 | 0.045 U | 0.18 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.018 U | 0.0091 U | 0.0091 U | -- | 0.018 U | 0.018 U | 0.018 U | 0.045 U | 0.0091 U | 0.0091 U |
| | 12/12/1994 | 0.045 U | 0.18 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.018 U | 0.0091 U | 0.0091 U | -- | 0.018 U | 0.018 U | 0.018 U | 0.045 U | 0.0091 U | 0.0091 U |
| | 8/15/1995 | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.026 U | 0.013 U | 0.013 U | 0.013 U |
| | 3/19/1996 | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.026 U | 0.013 U | 0.013 U | 0.013 U | 0.022 | 0.013 U | 0.013 U |
| | 9/11/1996 | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.026 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U |
| | 5/6/1997 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| | 12/16/1997 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| | 12/15/1998 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| 10/9/2000 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | |

Table 7. PAH and Dibenzofuran Concentrations in Groundwater Samples

Project No. 210426, Milwaukie, Oregon

| Well | Date ^a | All Measurements in Micrograms per Liter (µg/L or ppb) | | | | | | | | | | | | | | | | | |
|-------------------------------|-------------------|--|-----------------|-----------------|---------------------|-----------------|-----------------------|------------------------|----------------------|--------------|--------------------------|---------------|------------------|-----------------|--------------------------|--------------|-----------------|--------------|----------|
| | | Acenaph-thene | Acenaph-thylene | Anthra-cene | Benz(a) anthra-cene | Benzo(a) pyrene | Benzo(b) fluoranthene | Benzo(k) fluoran-thene | Benzo (ghi) perylene | Chrysene | Dibenz (a,h) anthra-cene | Dibenzofuran | Fluoranthene | Fluorene | Indeno (1,2,3-cd) pyrene | Naphthalene | Phenan-threne | Pyrene | |
| Screening Levels ^b | | 530 | -- | 1800 | 0.03 | 0.025 | 0.25 | 2.5 | -- | 25 | 0.025 | 7.9 | 800 | 290 | 0.25 | 0.12 | -- | 120 | |
| DMW-06 (Shallow) (Inter) | 7/26/1994 | 96 D | 1.7 U | 0.6 U | 0.35 U | 0.35 U | 0.35 U | 0.35 U | 0.69 U | 0.35 U | 0.35 U | -- | 0.31 U | 27 D | 0.69 U | 960 D | 13 U | 0.35 U | |
| | 8/11/1994 | 34 | 0.59 | 0.35 | 0.16 | 0.12 | 0.14 | 0.053 | 0.036 U | 0.094 | 0.039 | -- | 1.4 | 8 | 0.036 U | 0.14 | 2.5 | 1.1 | |
| DMW-10 (Deep) | 10/3/1994 | 0.88 | 0.18 U | 0.13 | 0.031 | 0.0091 U | 0.0091 U | 0.0091 U | 0.018 U | 0.0091 U | 0.0091 U | -- | 0.46 | 0.58 | 0.018 U | 0.65 | 1.5 | 0.4 | |
| | 10/7/1994 | 0.045 U | 0.18 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.018 U | 0.0091 U | 0.0091 U | -- | 0.051 | 0.018 U | 0.018 U | 0.045 U | 0.022 | 0.049 | |
| | 10/14/1994 | 0.045 U | 0.18 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.018 U | 0.0091 U | 0.0091 U | -- | 0.018 U | 0.018 U | 0.018 U | 0.045 U | 0.0091 U | 0.0091 U | |
| | 10/28/1994 | 0.045 U | 0.18 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.018 U | 0.0091 U | 0.0091 U | -- | 0.018 U | 0.018 U | 0.018 U | 0.045 U | 0.0091 U | 0.0091 U | |
| | 12/13/1994 | 0.043 U | 0.17 U | 0.0088 U | 0.0088 U | 0.0088 U | 0.0088 U | 0.0088 U | 0.017 U | 0.0088 U | 0.0088 U | -- | 0.017 U | 0.017 U | 0.017 U | 0.043 U | 0.0088 U | 0.0088 U | |
| | 8/16/1995 | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.026 U | 0.028 | 0.013 U | 0.013 U |
| | 3/20/1996 | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.026 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.017 | 0.013 U | 0.013 U |
| | 6/24/1996 | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.026 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.017 | 0.013 U | 0.013 U |
| | 6/24/1996 | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.026 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.019 | 0.013 U | 0.013 U |
| | 9/10/1996 | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.026 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U |
| | 9/10/1996 | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.026 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U |
| | 12/3/1996 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| | 5/7/1997 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| | 12/17/1997 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| | 3/17/1998 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| | 3/17/1998 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| | 6/15/1998 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| | 10/15/1998 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| | 12/16/1998 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| | 4/28/1999 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| | 12/1/1999 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0178 | 0.0125 U | 0.0125 U |
| | 4/17/2000 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0253 | 0.0125 U | 0.0125 U |
| | 10/9/2000 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0127 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| | 4/10/2001 | 0.0132 U | 0.0132 U | 0.0132 U | 0.0132 U | 0.0132 U | 0.0132 U | 0.0132 U | 0.0132 U | 0.0132 U | 0.0132 U | 0.0263 U | 0.0132 U | 0.0132 U | 0.0132 U | 0.0132 U | 0.0132 U | 0.0132 U | 0.0132 U |
| | 11/14/2001 | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U |
| | 11/12/2003 | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.0276 B | 0.01 U | 0.02 U |
| | 11/30/2005 | 0.00943 U | 0.00943 U | 0.0108 J | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.0269 B | 0.00943 U | 0.0189 U |
| 11/20/2006 | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.0189 UB | 0.00943 U | 0.0189 U | |
| 12/7/2007 | 0.0035 U | 0.00256 J | 0.00418 U | 0.03615 U | 0.00164 U | 0.00314 U | 0.00203 U | 0.00216 U | 0.00428 U | 0.00161 U | 0.00414 J | 0.00598 U | 0.00379 J | 0.00332 U | 0.0628 | 0.0107 U | 0.00577 U | | |
| 10/27/2009 | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.0193 UB | 0.0107 U | 0.00935 U | | |
| 10/12/2011 | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.02 U | 0.01 U | 0.01 U | | |
| 10/16/2013 | 0.0192 U | 0.0192 U | 0.0192 U | 0.0192 U | 0.0192 U | 0.0192 U | 0.0192 U | 0.0192 U | 0.0192 U | 0.0192 U | 0.0192 U | 0.0192 U | 0.0192 U | 0.0192 U | 0.0192 U | 0.0385 U | 0.0192 U | 0.0192 U | |
| 10/29/2015 | 0.0190 U | 0.0190 U | 0.0190 U | 0.0190 U | 0.0190 U | 0.0190 U | 0.0190 U | 0.0190 U | 0.0190 U | 0.0190 U | 0.0190 U | 0.0190 U | 0.0190 U | 0.0190 U | 0.0190 U | 0.0381 U | 0.0190 U | 0.0190 U | |
| 8/10/2017 | 0.0319 U | 0.0319 U | 0.0319 U | 0.0159 U | 0.0159 U | 0.0159 U | 0.0319 U | 0.0159 U | 0.0159 U | 0.0159 U | 0.0319 U | 0.0319 U | 0.0319 U | 0.0159 U | 0.0590 JB | 0.0638 U | 0.0319 U | | |
| 8/2/2019 | 0.123 | 0.0400 U | 0.0400 U | 0.0200 U | 0.0200 U | 0.0200 U | 0.0200 U | 0.0400 U | 0.0200 U | 0.0200 U | 0.0200 U | 0.0539 | 0.0400 U | 0.0384 J | 0.0200 U | 0.116 | 0.0799 U | 0.0400 U | |
| 8/18/2021 | 0.0316 U | 0.0316 U | 0.0316 U | 0.0158 U | 0.0158 U | 0.0158 U | 0.0158 U | 0.0316 U | 0.0158 U | 0.0158 U | 0.0316 U | 0.0316 U | 0.0316 U | 0.0158 U | 0.0632 U | 0.0632 U | 0.0316 U | | |
| 08/23/2023 | 0.0425 U | 0.0425 U | 0.0425 U | 0.0213 U | 0.0213 U | 0.0213 U | 0.0213 U | 0.0425 U | 0.0213 U | 0.0213 U | 0.0425 U | 0.0425 U | 0.0425 U | 0.0213 U | 0.0850 U | 0.0850 U | 0.0425 U | | |

Table 7. PAH and Dibenzofuran Concentrations in Groundwater Samples

Project No. 210426, Milwaukie, Oregon

| Well | Date ^a | All Measurements in Micrograms per Liter (µg/L or ppb) | | | | | | | | | | | | | | | | | |
|-------------------------------|-------------------|--|-----------------|-----------------|---------------------|-----------------|-----------------------|------------------------|----------------------|------------------|--------------------------|----------------|---------------|---------------|--------------------------|-----------------|-----------------|----------------|-----------------|
| | | Acenaph-thene | Acenaph-thylene | Anthra-cene | Benz(a) anthra-cene | Benzo(a) pyrene | Benzo(b) fluoranthene | Benzo(k) fluoran-thene | Benzo (ghi) perylene | Chrysene | Dibenz (a,h) anthra-cene | Dibenzofuran | Fluoranthene | Fluorene | Indeno (1,2,3-cd) pyrene | Naphthalene | Phenan-threne | Pyrene | |
| Screening Levels ^b | | 530 | -- | 1800 | 0.03 | 0.025 | 0.25 | 2.5 | -- | 25 | 0.025 | 7.9 | 800 | 290 | 0.25 | 0.12 | -- | 120 | |
| DMW-11 (Inter) | 10/25/1994 | 64 DJ | 4.5 J | 2 J | 0.23 J | 0.0091 U | 0.0091 U | 0.0091 U | 0.018 U | 0.13 J | 0.0091 U | -- | 10 DJ | 14 DJ | 0.018 U | 65 DJ | 11 DJ | 7.7 DJ | |
| | 12/14/1994 | 59 J | 8.2 J | 2.6 J | 0.088 U | 0.088 U | 0.088 U | 0.088 U | 0.17 U | 0.088 U | 0.088 U | -- | 10 J | 8.9 J | 0.17 U | 6.2 J | 15 J | 7.1 J | |
| | 12/14/1994 | 65 D | 8.8 D | 2.9 D | 0.087 U | 0.087 U | 0.087 U | 0.087 U | 0.17 U | 0.087 U | 0.087 U | -- | 11 D | 9.7 D | 0.17 U | 26 D | 16 D | 7.6 D | |
| | 8/17/1995 | 0.018 | 0.015 U | 0.015 U | 0.015 U | 0.015 U | 0.015 U | 0.015 U | 0.015 U | 0.015 U | 0.015 U | 0.018 | 0.015 U | 0.015 U | 0.03 U | 0.021 | 0.026 | 0.015 U | |
| | 3/21/1996 | 0.016 | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.026 U | 0.024 | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | |
| | 3/21/1996 | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.026 U | 0.014 | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | |
| | 6/24/1996 | 0.015 | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.026 U | 0.019 | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | |
| | 9/9/1996 | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.026 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | |
| | 9/9/1996 | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.026 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | |
| | 12/4/1996 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0196 | 0.0125 U |
| | 5/8/1997 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | |
| | 12/18/1997 | 13.5 | 0.268 | 0.24 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 6.24 | 0.583 | 3.64 | 0.0125 U | 0.95 | 0.991 | 0.412 |
| | 12/18/1997 | 14.2 | 0.268 | 0.258 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 7.35 | 0.585 | 3.89 | 0.0125 U | 1.1 | 1.19 | 0.426 |
| | 10/15/1998 | 16.5 | 0.25 U | 0.305 | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.5 U | 7.15 | 0.59 | 2.55 | 0.25 U | 0.51 | 0.86 | 0.386 |
| | 12/17/1998 | 1.26 | 0.0278 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.114 | 0.0339 | 0.0702 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0198 |
| | 12/17/1998 | 1.16 | 0.0275 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0453 | 0.0325 | 0.0298 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0178 |
| | 4/29/1999 | 0.0874 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | |
| | 11/2/1999 | 0.0125 U | 0.0125 U | 0.0129 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0142 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0205 | 0.0125 U | 0.0278 |
| | 4/19/2000 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | |
| | 10/9/2000 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | |
| | 11/15/2001 | 0.0119 U | 0.0119 U | 0.0119 U | 0.0119 U | 0.0119 U | 0.0119 U | 0.0119 U | 0.0119 U | 0.0119 U | 0.0119 U | 0.0238 U | 0.0119 U | 0.0119 U | 0.0119 U | 0.0119 U | 0.0119 U | 0.0119 U | |
| | 11/11/2003 | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.125 B | 0.01 U | 0.02 U |
| | 11/30/2005 | 0.149 | 0.00943 U | 0.0194 | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.142 | 0.00943 U | 0.00943 U | 0.0189 U | 0.00943 U | 0.0773 B |
| | 12/10/2007 | 7.94 | 0.142 | 0.28 | 0.00861 JB | 0.00173 U | 0.00333 U | 0.00215 U | 0.00229 U | 0.00453 U | 0.0017 U | 7.04 | 1.13 | 2.82 | 0.00351 U | 0.0638 B | 0.0224 B | 0.673 | |
| | 10/28/2009 | 31 | 0.452 | 1.07 | 0.0334 | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.0154 J | 0.00935 U | 30.8 | 4.3 | 10.5 | 0.00935 U | 0.14 UB | 0.14 | 2.96 | |
| | 5/7/2010 | 86.7 | 0.816 | 2.09 | 0.0513 | 0.0105 U | 0.0105 U | 0.0105 U | 0.0105 U | 0.0183 J | 0.0105 U | 48.3 | 5.59 | 28.7 | 0.0105 U | 0.431 | 0.406 | 3.9 | |
| | 10/28/2010 | 28.6 | 0.429 U | 0.774 | 0.0193 J | 0.00976 U | 0.00976 U | 0.00976 U | 0.00976 U | 0.00976 U | 0.00976 U | 15.7 | 2.82 | 10.5 | 0.00976 U | 0.114 | 0.114 | 1.63 | |
| | 10/12/2011 | 92.1 | 1.02 | 2.44 | 0.485 U | 0.485 U | 0.485 U | 0.485 U | 0.485 U | 0.485 U | 0.485 U | 4.85 U | 55.9 | 7.64 | 35.8 | 0.485 U | 0.971 U | 0.602 J | 5.41 |
| | 6/4/2012 | 147 | 1.14 | 3.5 | 0.0569 | 0.0099 U | 0.0099 U | 0.0099 U | 0.0099 U | 0.0309 | 0.0099 U | 87.2 | 11 | 57.7 | 0.0099 U | 0.485 | 1.09 | 7.55 | |
| | 10/30/2012 | 95.2 B | 0.788 | 2.88 | 0.0495 | 0.0211 U | 0.0211 U | 0.0211 U | 0.0211 U | 0.0262 M2 | 0.0211 U | 66.1 B | 13.5 | 47.0 B | 0.0211 U | 0.306 B | 0.737 | 7.80 | |
| 6/21/2013 | 103 | 0.971 U | 2.41 | 0.971 U | 0.971 U | 0.971 U | 0.971 U | 0.971 U | 0.971 U | 0.971 U | 0.971 U | 61.4 | 7.6 | 36.8 | 0.971 U | 1.94 U | 0.971 U | 5.4 | |
| 10/16/2013 | 147 | 1.98 U | 3.87 | 1.98 U | 1.98 U | 1.98 U | 1.98 U | 1.98 U | 1.98 U | 1.98 U | 1.98 U | 82.2 | 10.7 | 58.3 | 1.98 U | 3.96 U | 1.37 J | 7.46 | |
| 5/22/2014 | 73.3 | 2.08 U | 1.57 J | 2.08 U | 2.08 U | 2.08 U | 2.08 U | 2.08 U | 2.08 U | 2.08 U | 2.08 U | 39.1 | 4.97 | 26.2 | 2.08 U | 4.17 U | 2.08 U | 3.49 | |
| 11/5/2014 | 165 | 1.72 J | 3.85 | 2.06 U | 2.06 U | 2.06 U | 2.06 U | 2.06 U | 2.06 U | 2.06 U | 2.06 U | 90.9 | 9.87 | 63.6 | 2.06 U | 4.12 U | 1.07 J | 6.76 | |
| 4/8/2015 | 176 | 2.04 U | 3.67 | 2.04 U | 2.04 U | 2.04 U | 2.04 U | 2.04 U | 2.04 U | 2.04 U | 2.04 U | 86.1 | 11.8 | 62.9 | 2.04 U | 4.08 U | 1.14 J | 8.32 | |
| 10/29/2015 | 194 | 1.56 | 5.54 | 0.095 | 0.0200 U | 0.0200 U | 0.0200 U | 0.0200 U | 0.0431 M2 | 0.0200 U | 99.6 | 12.1 | 72.8 | 0.0200 U | 0.675 | 1.96 | 8.69 | | |
| 6/8/2016 | 162 | 1.61 | 6.04 | 0.0988 | 0.0202 U | 0.0202 U | 0.0202 U | 0.0202 U | 0.0493 M2 | 0.0202 U | 87.4 | 11.8 | 65.5 | 0.0202 U | 0.744 | 2.80 | 8.38 | | |
| 10/26/2016 | 365 | 18.9 J | 33.6 U | 16.8 U | 16.8 U | 16.8 U | 16.8 U | 33.6 U | 16.8 U | 16.8 U | 16.8 U | 187 | 34.5 | 132 | 16.8 U | 67.2 U | 67.2 U | 24.4 J | |
| 2/24/2017 | 279 | 10.6 | 7.63 | 1.56 U | 1.56 U | 1.56 U | 1.56 U | 3.11 U | 1.56 U | 1.56 U | 1.56 U | 179 | 23.5 | 133 | 1.56 U | 6.23 U | 6.23 U | 16.4 | |
| 8/10/2017 | 236 | 2.39 | 6.36 | 0.132 M2 | 0.0158 U | 0.0158 U | 0.0317 U | 0.0158 U | 0.0562 M2 | 0.0158 U | 115 | 19.0 | 87.9 | 0.0158 U | 1.79 | 3.26 | 14.8 | | |
| 3/1/2018 | 296 | 2.12 | 6.84 | 0.186 | 0.0166 U | 0.0166 U | 0.0166 U | 0.0332 U | 0.0738 M5 | 0.0166 U | 188 | 24.3 | 142 | 0.0166 U | 0.587 M2 | 1.39 | 17.4 | | |
| 8/22/2018 | 185 | 2.68 J | 4.74 | 1.72 U | 1.72 U | 1.72 U | 1.72 U | 3.43 U | 1.72 U | 1.72 U | 1.72 U | 103 | 12.1 | 75.5 | 1.72 U | 6.86 U | 6.86 U | 8.33 | |

Table 7. PAH and Dibenzofuran Concentrations in Groundwater Samples

Project No. 210426, Milwaukie, Oregon

| Well | Date ^a | All Measurements in Micrograms per Liter (µg/L or ppb) | | | | | | | | | | | | | | | | |
|-------------------------------|-------------------|--|-----------------|-------------|---------------------|-----------------|-----------------------|------------------------|----------------------|-----------|--------------------------|--------------|--------------|-----------|--------------------------|-------------|---------------|-----------|
| | | Acenaph-thene | Acenaph-thylene | Anthra-cene | Benz(a) anthra-cene | Benzo(a) pyrene | Benzo(b) fluoranthene | Benzo(k) fluoran-thene | Benzo (ghi) perylene | Chrysene | Dibenz (a,h) anthra-cene | Dibenzofuran | Fluoranthene | Fluorene | Indeno (1,2,3-cd) pyrene | Naphthalene | Phenan-threne | Pyrene |
| Screening Levels ^b | | 530 | -- | 1800 | 0.03 | 0.025 | 0.25 | 2.5 | -- | 25 | 0.025 | 7.9 | 800 | 290 | 0.25 | 0.12 | -- | 120 |
| DMW-11 (Inter) | 1/31/2019 | 197 | 10.4 | 6.95 | 1.60 U | 1.60 U | 1.60 U | 3.19 U | 1.60 U | 1.60 U | 1.60 U | 120 | 17.5 | 87.6 | 1.60 U | 6.38 U | 6.38 U | 12.1 |
| | 8/1/2019 | 212 | 2.69 | 5.65 | 0.147 | 0.0168 U | 0.0168 U | 0.0168 U | 0.0336 U | 0.0686 B | 0.0168 U | 113 | 15.5 | 83.2 | 0.0168 U | 1.31 | 2.77 | 10.6 |
| | 2/25/2020 | 209 | 2.97 | 6.25 | 0.343 | 0.0178 | 0.0152 J | 0.0169 U | 0.0169 J | 0.120 | 0.0169 U | 114 | 21.4 | 85.4 | 0.0169 U | 0.545 | 1.37 | 16.1 |
| | 9/2/2020 | 211 | 10.6 | 11.5 | 0.351 | 0.319 U | 0.319 U | 0.319 U | 0.638 U | 0.319 U | 0.319 U | 145 | 26.5 | 103 | 0.319 U | 4.93 | 17.3 | 19.2 |
| | 10/28/2020 | 241 | 4.96 U | 12.2 | 0.206 J | 0.318 U | 0.318 U | 0.318 U | 0.635 U | 0.318 U | 0.318 U | 162 | 26.6 | 113 | 0.318 U | 1.37 | 11.5 | 19.1 |
| | 10/28/2020 | 244 | 6.38 U | 12.8 | 0.247 J | 0.319 U | 0.319 U | 0.319 U | 0.638 U | 0.319 U | 0.319 U | 166 | 27.4 | 115 | 0.319 U | 1.46 | 12.1 | 19.7 |
| | 3/8/2021 | 193 | 6.58 | 7.48 | 0.377 U | 0.377 U | 0.377 U | 0.377 U | 0.755 U | 0.377 U | 0.377 U | 112 | 15.6 | 79.4 | 0.377 U | 0.953 J | 3.06 | 11.2 |
| | 8/19/2021 | 197 | 4.29 | 7.27 | 0.222 J | 0.329 U | 0.329 U | 0.329 U | 0.657 U | 0.329 U | 0.329 U | 110 | 17.4 | 83.0 | 0.329 U | 2.09 | 2.27 | 12.5 |
| | 1/19/2022 | 193 | 9.32 | 6.78 | 0.226 | 0.0159 U | 0.0116 J | 0.0159 U | 0.0319 U | 0.0952 | 0.0159 U | 140 | 13.7 | 89.7 | 0.0159 U | 0.747 | 1.15 | 10.6 |
| | 07/12/2022 | 204 | 3.12 | 6.56 | 0.143 | 0.0163 U | 0.0163 U | 0.0163 U | 0.0327 U | 0.0560 | 0.0163 U | 110 | 13.9 | 79.1 | 0.0163 U | 0.850 | 1.58 | 10.3 |
| | 2/14/2023 | 157 | 6.95 | 5.12 | 0.377 U | 0.377 U | 0.377 U | 0.377 U | 0.755 U | 0.377 U | 0.377 U | 83.4 | 10.7 | 59.9 | 0.377 U | 1.51 U | 1.51 U | 7.76 |
| | 08/23/2023 | 224 | 3.96 | 8.65 | 0.126 | 0.0197 U | 0.0197 U | 0.0197 U | 0.0394 U | 0.0482 | 0.0197 U | 119 | 15.4 | 94.6 | 0.0197 U | 1.39 | 1.75 | 11.0 |
| | DMW-14 (Deep) | 4/30/1999 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| 4/30/1999 | | 0.0133 U | 0.0133 U | 0.0133 U | 0.0133 U | 0.0133 U | 0.0133 U | 0.0133 U | 0.0133 U | 0.0133 U | 0.0265 U | 0.0133 U | 0.0133 U | 0.0133 U | 0.0133 U | 0.0133 U | 0.0133 U | 0.0133 U |
| 7/13/1999 | | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| 7/13/1999 | | 0.0125 U | 0.0125 U | 0.0128 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| 12/1/1999 | | 0.0125 U | 0.0125 U | 0.0523 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| 1/27/2000 | | 0.0125 U | 0.0125 U | 0.0291 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| 1/27/2000 | | 0.0125 U | 0.0125 U | 0.035 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| 4/18/2000 | | 0.0125 U | 0.0125 U | 0.0202 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0129 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| 10/9/2000 | | 0.0125 U | 0.0125 U | 0.016 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| 4/10/2001 | | 0.0118 U | 0.0118 U | 0.0168 | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0236 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U |
| 11/14/2001 | | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U |
| 11/14/2001 | | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0236 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U |
| 4/9/2003 | | 0.00971 U | 0.00971 U | 0.0061 | 0.00971 U | 0.00971 U | 0.00971 U | 0.00971 U | 0.00971 U | 0.00971 U | 0.00971 U | 0.00971 U | 0.00971 U | 0.00971 U | 0.00971 U | 0.00971 U | 0.0543 UB | 0.00971 U |
| 11/11/2003 | | 0.01 U | 0.01 U | 0.0165 J | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.02 U | 0.01 U | 0.02 U |
| 4/14/2004 | | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.02 U | 0.01 U | 0.02 U |
| 12/14/2004 | | 0.01 U | 0.01 U | 0.0157 J | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.02 U | 0.01 U | 0.02 U |
| 4/15/2005 | | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.02 U | 0.01 U | 0.02 U |
| 11/30/2005 | | 0.00943 U | 0.00943 U | 0.0108 J | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.026 B | 0.00943 U |
| 5/16/2006 | | 0.143 | 0.00943 U | 0.105 | 0.021 | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.0304 | 0.00943 U | 0.0141 | 0.441 | 0.0911 | 0.00943 U | 0.0189 UB | 0.557 | 0.283 |
| 11/20/2006 | | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.0402 UB | 0.00943 U |
| 12/21/2006 | | 0.00943 U | 0.00943 U | 0.0117 | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.0189 UB | 0.00943 U | 0.0189 U |
| 5/3/2007 | | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.019 U | 0.00943 U | 0.0189 U |
| 12/10/2007 | | 0.043 UB | 0.00238 U | 0.00658 J | 0.03615 UB | 0.00164 U | 0.00314 U | 0.00203 U | 0.00216 U | 0.00428 U | 0.00161 U | 0.0204 UB | 0.00598 U | 0.0565 UB | 0.00332 U | 0.184 UB | 0.0107 U | 0.00577 U |
| 4/23/2008 | 0.0035 UB | 0.00238 U | 0.00418 U | 0.00851 UB | 0.00577 J | 0.00499 UB | 0.00203 U | 0.00464 J | 0.00549 J | 0.00161 U | 0.00279 U | 0.00866 J | 0.00251 U | 0.00332 U | 0.0195 UB | 0.0107 U | 0.0103 J | |
| 12/4/2008 | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.0265 | 0.01 U | 0.01 U | 0.0218 UB | 0.01 U | 0.0105 J | |
| 4/15/2009 | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.0187 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.0225 UB | 0.0107 U | |
| 10/28/2009 | 0.00935 U | 0.00935 U | 0.0149 J | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.0372 J | 0.0269 UB | 0.0107 U | |
| 5/7/2010 | 0.0099 U | 0.0099 U | 0.0195 J | 0.0099 U | 0.0099 U | 0.0099 U | 0.0099 U | 0.0099 U | 0.0099 U | 0.0099 U | 0.0099 U | 0.0099 U | 0.0099 U | 0.0099 U | 0.0308 | 0.026 UB | 0.0099 U | |
| 10/27/2010 | 0.00966 U | 0.00966 U | 0.0157 J | 0.00966 U | 0.00966 U | 0.00966 U | 0.00966 U | 0.00966 U | 0.00966 U | 0.00966 U | 0.00966 U | 0.00966 U | 0.00966 U | 0.00966 U | 0.00966 U | 0.0193 U | 0.00966 U | |
| 6/17/2011 | 0.0099 U | 0 U | 0.0099 U | 0.0099 U | 0.0099 U | 0.0099 U | 0.0099 U | 0.0099 U | 0.0099 U | 0.0099 U | 0.0099 U | 0.0099 U | 0.0099 U | 0.0099 U | 0.0099 U | 0.0099 U | 0.0099 U | |
| 10/14/2011 | 0.00971 U | 0.00971 U | 0.0145 J | 0.00971 U | 0.00971 U | 0.00971 U | 0.00971 U | 0.00971 U | 0.00971 U | 0.00971 U | 0.00971 U | 0.00971 U | 0.00971 U | 0.00971 U | 0.0194 U | 0.00971 U | 0.00971 U | |

Table 7. PAH and Dibenzofuran Concentrations in Groundwater Samples

Project No. 210426, Milwaukie, Oregon

| Well | Date ^a | All Measurements in Micrograms per Liter (µg/L or ppb) | | | | | | | | | | | | | | | | |
|-------------------------------|-------------------|--|-----------------|-----------------|---------------------|-----------------|-----------------------|------------------------|----------------------|-----------------|--------------------------|--------------|-----------------|--------------|--------------------------|------------------|---------------|-----------------|
| | | Acenaph-thene | Acenaph-thylene | Anthra-cene | Benz(a) anthra-cene | Benzo(a) pyrene | Benzo(b) fluoranthene | Benzo(k) fluoran-thene | Benzo (ghi) perylene | Chrysene | Dibenz (a,h) anthra-cene | Dibenzofuran | Fluoranthene | Fluorene | Indeno (1,2,3-cd) pyrene | Naphthalene | Phenan-threne | Pyrene |
| Screening Levels ^b | | 530 | -- | 1800 | 0.03 | 0.025 | 0.25 | 2.5 | -- | 25 | 0.025 | 7.9 | 800 | 290 | 0.25 | 0.12 | -- | 120 |
| DMW-14 (Deep) | 5/31/2012 | 0.00971 U | 0.00971 U | 0.00971 U | 0.00971 U | 0.00971 U | 0.00971 U | 0.00971 U | 0.00971 U | 0.00971 U | 0.00971 U | 0.00971 U | 0.00971 U | 0.00971 U | 0.00971 U | 0.0194 U | 0.00971 U | 0.00971 U |
| | 10/30/2012 | 0.0192 UB | 0.0192 U | 0.0177 J | 0.0192 U | 0.0192 U | 0.0192 U | 0.0192 U | 0.0192 U | 0.0192 U | 0.0192 UB | 0.0192 U | 0.0240 UB | 0.0192 U | 0.0385 UB | 0.0192 U | 0.0192 U | 0.0192 U |
| | 6/21/2013 | 0.0206 U | 0.0206 U | 0.0206 U | 0.0206 U | 0.0206 U | 0.0206 U | 0.0206 U | 0.0206 U | 0.0206 U | 0.0206 U | 0.0206 U | 0.0206 U | 0.0206 U | 0.0206 U | 0.0412 U | 0.0206 U | 0.0206 U |
| | 10/17/2013 | 0.0206 U | 0.0206 U | 0.0206 U | 0.0206 U | 0.0206 U | 0.0206 U | 0.0206 U | 0.0206 U | 0.0206 U | 0.0206 U | 0.0206 U | 0.0206 U | 0.0206 U | 0.0206 U | 0.0412 U | 0.0206 U | 0.0206 U |
| | 5/23/2014 | 0.0198 U | 0.0198 U | 0.0198 U | 0.0198 U | 0.0198 U | 0.0198 U | 0.0198 U | 0.0198 U | 0.0198 U | 0.0198 U | 0.0198 U | 0.0198 U | 0.0198 U | 0.0198 U | 0.0396 U | 0.0198 U | 0.0198 U |
| | 11/5/2014 | 0.0213 U | 0.0213 U | 0.0106 J | 0.0213 U | 0.0213 U | 0.0213 U | 0.0213 U | 0.0213 U | 0.0213 U | 0.0213 U | 0.0213 U | 0.0213 U | 0.0213 U | 0.0213 U | 0.0288 JB | 0.0213 U | 0.0213 U |
| | 4/8/2015 | 0.0220 U | 0.0659 U | 0.0220 U | 0.0220 U | 0.0220 U | 0.0220 U | 0.0220 U | 0.0220 U | 0.0220 U | 0.0220 U | 0.0220 U | 0.0220 U | 0.0220 U | 0.0220 U | 0.0459 | 0.0220 U | 0.0220 U |
| | 11/6/2015 | 0.0215 U | 0.0215 U | 0.0215 U | 0.0215 U | 0.0215 U | 0.0215 U | 0.0215 U | 0.0215 U | 0.0215 U | 0.0215 U | 0.0215 U | 0.0215 U | 0.0215 U | 0.0215 U | 0.0313 JB | 0.0215 U | 0.0215 U |
| | 6/8/2016 | 0.0142 J | 0.0225 U | 0.0225 U | 0.0225 U | 0.0225 U | 0.0225 U | 0.0225 U | 0.0225 U | 0.0225 U | 0.0225 U | 0.0225 U | 0.0225 U | 0.0225 U | 0.0225 U | 0.0449 U | 0.0225 U | 0.0225 U |
| | 10/26/2016 | 0.0332 U | 0.0332 U | 0.0332 U | 0.0166 U | 0.0166 U | 0.0166 U | 0.0166 U | 0.0332 U | 0.0166 U | 0.0166 U | 0.0332 U | 0.0332 U | 0.0332 U | 0.0166 U | 0.0370 J | 0.0665 U | 0.0332 U |
| | 2/24/2017 | 0.0312 U | 0.0312 U | 0.0312 U | 0.0156 U | 0.0156 U | 0.0156 U | 0.0156 U | 0.0312 U | 0.0156 U | 0.0156 U | 0.0312 U | 0.0312 U | 0.0312 U | 0.0156 U | 0.0624 U | 0.0624 U | 0.0312 U |
| | 8/11/2017 | 0.0165 J | 0.0315 U | 0.0169 J | 0.00984 J | 0.0142 J | 0.0165 M2 | 0.0315 U | 0.00866 J | 0.0106 J | 0.0157 U | 0.0315 U | 0.0169 J | 0.0315 U | 0.0157 U | 0.0736 B | 0.0630 U | 0.0165 J |
| | 3/1/2018 | 0.0384 U | 0.0384 U | 0.0384 U | 0.0192 U | 0.0192 U | 0.0192 U | 0.0192 U | 0.0384 U | 0.0192 U | 0.0192 U | 0.0384 U | 0.0384 U | 0.0384 U | 0.0192 U | 0.123 | 0.0768 U | 0.0384 U |
| | 8/21/2018 | 0.0366 U | 0.0366 U | 0.0366 U | 0.0183 U | 0.0183 U | 0.0183 U | 0.0183 U | 0.0366 U | 0.0183 U | 0.0183 U | 0.0366 U | 0.0366 U | 0.0366 U | 0.0183 U | 0.0655 J | 0.0732 U | 0.0366 U |
| | 1/31/2019 | 0.0341 U | 0.0341 U | 0.0341 U | 0.0170 U | 0.0170 U | 0.0170 U | 0.0341 U | 0.0170 U | 0.0170 U | 0.0170 U | 0.0341 U | 0.0341 U | 0.0341 U | 0.0170 U | 0.0568 J | 0.0682 U | 0.0341 U |
| | 8/2/2019 | 0.0266 J | 0.0339 U | 0.0339 U | 0.0170 U | 0.0170 U | 0.0170 U | 0.0170 U | 0.0339 U | 0.0170 U | 0.0170 U | 0.0339 U | 0.0339 U | 0.0339 U | 0.0170 U | 0.0679 U | 0.0679 U | 0.0339 U |
| | 2/25/2020 | 0.0183 J | 0.0325 U | 0.0325 U | 0.0162 U | 0.0162 U | 0.0162 U | 0.0162 U | 0.0325 U | 0.0162 U | 0.0162 U | 0.0325 U | 0.0325 U | 0.0325 U | 0.0162 U | 0.0650 U | 0.0650 U | 0.0325 U |
| | 9/2/2020 | 0.0317 U | 0.0317 U | 0.0317 U | 0.0159 U | 0.0159 U | 0.0159 U | 0.0159 U | 0.0317 U | 0.0159 U | 0.0159 U | 0.0317 U | 0.0317 U | 0.0317 U | 0.0159 U | 0.0635 U | 0.0635 U | 0.0317 U |
| | 3/8/2021 | 0.0314 U | 0.0314 U | 0.0314 U | 0.0157 U | 0.0157 U | 0.0157 U | 0.0157 U | 0.0314 U | 0.0157 U | 0.0157 U | 0.0314 U | 0.0314 U | 0.0314 U | 0.0157 U | 0.0629 U | 0.0629 U | 0.0314 U |
| | 8/17/2021 | 0.0319 U | 0.0319 U | 0.0180 J | 0.0160 U | 0.0160 U | 0.0160 U | 0.0160 U | 0.0319 U | 0.0160 U | 0.0160 U | 0.0319 U | 0.0319 U | 0.0319 U | 0.0160 U | 0.0639 U | 0.0639 U | 0.0319 U |
| 1/19/2022 | 0.0318 U | 0.0318 U | 0.0318 U | 0.0159 U | 0.0159 U | 0.0159 U | 0.0159 U | 0.0318 U | 0.0159 U | 0.0159 U | 0.0318 U | 0.0318 U | 0.0318 U | 0.0159 U | 0.0635 U | 0.0635 U | 0.0318 U | |
| 07/12/2022 | 0.0328 U | 0.0328 U | 0.0328 U | 0.0164 U | 0.0164 U | 0.0164 U | 0.0164 U | 0.0328 U | 0.0164 U | 0.0164 U | 0.0328 U | 0.0328 U | 0.0328 U | 0.0164 U | 0.0463 J | 0.0655 U | 0.0328 U | |
| 2/13/2023 | 0.0329 U | 0.0329 U | 0.0329 U | 0.0164 U | 0.0164 U | 0.0164 U | 0.0164 U | 0.0329 U | 0.0164 U | 0.0164 U | 0.0329 U | 0.0329 U | 0.0177 J | 0.0164 U | 0.254 | 0.0657 U | 0.0329 U | |
| 08/22/2023 | 0.0362 U | 0.0362 U | 0.0362 U | 0.0181 U | 0.0181 U | 0.0181 U | 0.0181 U | 0.0362 U | 0.0181 U | 0.0181 U | 0.0362 U | 0.0362 U | 0.0362 U | 0.0181 U | 0.0724 U | 0.0724 U | 0.0362 U | |
| DSB-08 (Inter) | 7/22/1994 | 33 | 3.6 | 0.12 | 0.15 | 0.071 | 0.088 | 0.043 | 0.018 U | 0.056 | 0.016 | -- | 0.54 | 9.7 | 0.024 | 270 | 3.5 | 0.45 |
| | 8/9/1994 | 19 | 1 U | 0.11 | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.2 U | -- | 0.3 | 4 | 0.1 U | 240 D | 1.4 | 0.1 |
| | 9/20/1994 | 190 | 9 U | 12 | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.9 U | 0.46 U | 0.46 U | -- | 26 | 110 | 0.9 U | 320 | 170 | 11 |
| | 9/29/1994 | 130 | 7.6 | 8.3 | 0.52 | 0.091 U | 0.091 U | 0.091 U | 0.18 U | 0.091 U | 0.091 U | -- | 23 | 69 D | 0.18 U | 7 | 110 D | 19 |
| | 12/15/1994 | 110 | 17 U | 11 | 0.87 U | 0.87 U | 0.87 U | 0.87 U | 1.7 U | 0.87 U | 0.87 U | -- | 23 | 110 | 1.7 U | 190 | 210 | 17 |
| | 12/15/1994 | 130 J | 9.1 J | 9.8 J | 0.5 J | 0.088 U | 0.088 U | 0.088 U | 0.17 U | 0.12 J | 0.088 U | -- | 24 J | 110 J | 0.17 U | 0.43 U | 200 DJ | 14 DJ |
| | 8/17/1995 | 140 | 3 U | 12 | 3 U | 3 U | 3 U | 3 U | 3 U | 3 U | 3 U | 160 | 31 | 120 | 6 U | 77 | 190 | 23 |
| | 3/22/1996 | 200 | 3.2 | 27 | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 250 | 59 | 150 | 2.5 U | 150 | 360 | 40 |
| | 6/25/1996 | 140 | 2.5 U | 15 | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 160 | 29 | 100 | 2.5 U | 140 | 220 | 21 |
| | 9/11/1996 | 99 | 1.3 U | 14 | 0.7 | 0.31 U | 0.31 U | 0.31 U | 0.31 U | 0.32 | 0.63 U | 130 | 28 | 74 | 0.31 U | 92 | 200 | 22 |
| | 12/3/1996 | 94.4 | 0.313 U | 14.7 | 0.664 | 0.313 U | 0.313 U | 0.313 U | 0.313 U | 0.313 U | 0.625 U | 134 | 23.9 | 41 | 0.313 U | 94.5 | 207 | 27 |
| | 5/9/1997 | 165 | 5 U | 28.8 | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 310 | 50.6 | 113 | 5 U | 67 | 432 | 53.4 |
| | 12/19/1997 | 81.8 | 0.875 | 16.8 | 0.882 | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.319 | 0.5 U | 172 | 34 | 40.3 | 0.25 U | 51.4 | 231 | 28.3 |

Table 7. PAH and Dibenzofuran Concentrations in Groundwater Samples

Project No. 210426, Milwaukie, Oregon

| Well | Date ^a | All Measurements in Micrograms per Liter (µg/L or ppb) | | | | | | | | | | | | | | | | |
|-------------------------------|-------------------|--|-----------------|---------------|---------------------|-----------------|-----------------------|------------------------|----------------------|-----------|--------------------------|----------------|---------------|-----------|--------------------------|-----------------|----------------|---------------|
| | | Acenaph-thene | Acenaph-thylene | Anthra-cene | Benz(a) anthra-cene | Benzo(a) pyrene | Benzo(b) fluoranthene | Benzo(k) fluoran-thene | Benzo (ghi) perylene | Chrysene | Dibenz (a,h) anthra-cene | Dibenzofuran | Fluoranthene | Fluorene | Indeno (1,2,3-cd) pyrene | Naphthalene | Phenan-threne | Pyrene |
| Screening Levels ^b | | 530 | -- | 1800 | 0.03 | 0.025 | 0.25 | 2.5 | -- | 25 | 0.025 | 7.9 | 800 | 290 | 0.25 | 0.12 | -- | 120 |
| IMW-03 (Inter) | 12/13/1994 | 0.044 U | 0.17 U | 0.0088 U | 0.0088 U | 0.0088 U | 0.0088 U | 0.0088 U | 0.017 U | 0.0088 U | 0.0088 U | -- | 0.017 U | 0.017 U | 0.017 U | 0.044 U | 0.0088 U | 0.0088 U |
| | 12/29/1994 | 0.043 U | 0.19 | 0.0088 U | 0.0088 U | 0.0088 U | 0.0088 U | 0.0088 U | 0.017 U | 0.0088 U | 0.0088 U | -- | 0.017 U | 0.017 U | 0.017 U | 0.043 U | 0.016 U | 0.0088 U |
| | 8/16/1995 | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.026 U | 0.062 | 0.013 U | 0.013 U |
| | 3/21/1996 | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.026 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U |
| | 9/10/1996 | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.026 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U |
| | 5/6/1997 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| | 12/15/1997 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| | 12/14/1998 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| IMW-05 (Inter) | 12/12/1994 | 0.045 U | 0.18 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.018 U | 0.0091 U | 0.0091 U | -- | 0.018 U | 0.018 U | 0.018 U | 0.045 U | 0.0091 U | 0.0091 U |
| | 12/28/1994 | 0.044 U | 0.18 U | 0.0089 U | 0.0089 U | 0.0089 U | 0.0089 U | 0.0089 U | 0.018 U | 0.0089 U | 0.0089 U | -- | 0.018 U | 0.018 U | 0.018 U | 0.044 U | 0.021 U | 0.0089 U |
| | 12/28/1994 | 0.045 U | 0.18 U | 0.0089 U | 0.0089 U | 0.0089 U | 0.0089 U | 0.0089 U | 0.018 U | 0.0089 U | 0.0089 U | -- | 0.018 U | 0.018 U | 0.018 U | 0.045 U | 0.017 U | 0.0089 U |
| | 8/15/1995 | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.026 U | 0.013 U | 0.013 U | 0.013 U |
| | 3/19/1996 | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.026 U | 0.013 U | 0.013 U | 0.013 U | 0.014 | 0.013 U | 0.013 U |
| | 9/10/1996 | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.026 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U |
| | 5/6/1997 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| | 12/16/1997 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| 12/15/1998 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | |
| IMW-10 (Inter) | 12/13/1994 | 0.043 U | 0.17 U | 0.0088 U | 0.0088 U | 0.0088 U | 0.0088 U | 0.0088 U | 0.017 U | 0.0088 U | 0.0088 U | -- | 0.017 U | 0.017 U | 0.017 U | 0.043 U | 0.0088 U | 0.0088 U |
| | 12/28/1994 | 0.044 U | 0.18 U | 0.0089 U | 0.0089 U | 0.0089 U | 0.0089 U | 0.0089 U | 0.018 U | 0.0089 U | 0.0089 U | -- | 0.018 U | 0.018 U | 0.018 U | 0.091 U | 0.041 U | 0.01 J |
| | 8/16/1995 | 0.035 | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 15 | 0.013 U | 0.013 U | 0.026 U | 0.062 | 0.013 U | 0.018 |
| | 3/21/1996 | 0.063 U | 0.063 U | 0.063 U | 0.063 U | 0.063 U | 0.063 U | 0.063 U | 0.063 U | 0.063 U | 0.13 U | 31 | 0.063 U | 0.063 U | 0.063 U | 0.063 U | 0.063 U | 0.063 U |
| | 3/21/1996 | 0.063 U | 0.063 U | 0.063 U | 0.063 U | 0.063 U | 0.063 U | 0.063 U | 0.063 U | 0.063 U | 0.13 U | 18 | 0.063 U | 0.063 U | 0.063 U | 0.063 U | 0.063 U | 0.063 U |
| | 9/11/1996 | 0.33 U | 0.33 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.026 U | 17 | 0.013 U | 0.33 U | 0.33 U | 0.015 | 0.013 U |
| | 5/7/1997 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 11.6 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0434 | 0.0125 U |
| | 12/17/1997 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 27.1 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0308 | 0.0125 U |
| | 3/17/1998 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 29.8 | 0.0125 U | 0.0136 | 0.0125 U | 0.0539 | 0.0155 |
| | 6/15/1998 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 15.8 | 0.0125 U | 0.0143 | 0.0125 U | 0.0194 | 0.0125 U |
| | 6/15/1998 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 13.2 | 0.0125 U | 0.0138 | 0.0125 U | 0.0213 | 0.0125 U |
| | 10/15/1998 | 0.313 U | 0.313 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 18.3 | 0.0125 U | 0.313 U | 0.0125 U | 0.313 U | 0.0173 |
| | 12/16/1998 | 0.313 U | 0.313 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 17.5 | 0.0125 U | 0.313 U | 0.0125 U | 0.313 U | 0.0125 U |
| | 4/28/1999 | 0.313 U | 0.313 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 8 | 0.0125 U | 0.313 U | 0.0125 U | 0.313 U | 0.0125 U |
| | 10/28/1999 | 0.0125 U | 0.0125 U | 0.0143 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 5.7 | 0.0125 U | 0.0125 U | 0.0125 U | 0.125 U | 0.0125 U |
| | 4/18/2000 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 6.99 | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U |
| | 10/9/2000 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 2.87 | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U |
| | 11/13/2001 | 0.0119 U | 0.0119 U | 0.0119 U | 0.0119 U | 0.0119 U | 0.0119 U | 0.0119 U | 0.0119 U | 0.0119 U | 0.0119 U | 0.0238 U | 1.61 | 0.0119 U | 0.0119 U | 0.0119 U | 0.0119 U | 0.0119 U |
| | 11/26/2002 | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0236 U | 1.74 | 0.0118 U | 0.0118 U | 0.0118 U | 0.0264 | 0.0118 U |
| | 4/9/2003 | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.99 | 0.00962 U | 0.00962 U | 0.00962 U | 0.0543 UB | 0.00962 U |
| 11/12/2003 | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 1.66 | 0.01 U | 0.01 U | 0.01 U | 0.04 U | 0.01 U | |
| 4/15/2004 | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 3.19 | 0.01 U | 0.01 U | 0.01 U | 0.0266 UB | 0.01 U | |
| 12/14/2004 | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 2.47 | 0.01 U | 0.01 U | 0.01 U | 0.0265 UB | 0.01 U | |
| 4/15/2005 | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.875 | 0.01 U | 0.01 U | 0.01 U | 0.0313 | 0.01 U | |
| 11/30/2005 | 0.00943 U | 0.00943 U | 0.0108 J | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 1.12 | 0.00943 U | 0.00943 U | 0.00943 U | 0.0895 B | 0.00943 U | |
| 5/16/2006 | 0.0511 | 0.00943 U | 0.063 | 0.0155 | 0.01 | 0.00943 U | 0.00943 U | 0.0102 | 0.0282 | 0.00943 U | 1.21 | 0.158 | 0.0437 | 0.00943 U | 0.0244 UB | 0.432 | 0.14 | |
| 12/21/2006 | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.0717 | 0.00943 U | 0.00943 U | 0.00943 U | 0.0189 UB | 0.00943 U | 0.0189 U | |

Table 7. PAH and Dibenzofuran Concentrations in Groundwater Samples

Project No. 210426, Milwaukie, Oregon

| Well | Date ^a | All Measurements in Micrograms per Liter (µg/L or ppb) | | | | | | | | | | | | | | | | | |
|-------------------------------|-------------------|--|-----------------|---------------|---------------------|-----------------|-----------------------|------------------------|----------------------|--------------|--------------------------|---------------|---------------|---------------|--------------------------|------------------|-----------------|---------------|-----------|
| | | Acenaph-thene | Acenaph-thylene | Anthra-cene | Benz(a) anthra-cene | Benzo(a) pyrene | Benzo(b) fluoranthene | Benzo(k) fluoran-thene | Benzo (ghi) perylene | Chrysene | Dibenz (a,h) anthra-cene | Dibenzofuran | Fluoranthene | Fluorene | Indeno (1,2,3-cd) pyrene | Naphthalene | Phenan-threne | Pyrene | |
| Screening Levels ^b | | 530 | -- | 1800 | 0.03 | 0.025 | 0.25 | 2.5 | -- | 25 | 0.025 | 7.9 | 800 | 290 | 0.25 | 0.12 | -- | 120 | |
| MDMW-11 (Deep) | 12/18/1997 | 1.48 | 0.0519 | 0.0134 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.445 | 0.055 | 0.234 | 0.0125 U | 0.013 | 0.0191 | 0.0298 | |
| | 10/15/1998 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | |
| | 10/15/1998 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | |
| | 12/17/1998 | 0.313 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0631 | 0.0125 U | 0.0313 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | |
| | 4/29/1999 | 0.29 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.173 | 0.0671 | 0.039 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | |
| | 11/2/1999 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | |
| | 4/19/2000 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | |
| | 10/9/2000 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | |
| | 4/11/2001 | 0.0318 | 0.012 U | 0.012 U | 0.012 U | 0.012 U | 0.012 U | 0.012 U | 0.012 U | 0.012 U | 0.024 U | 0.012 U | 0.012 U | 0.012 U | 0.012 U | 0.012 U | 0.012 U | 0.012 U | |
| | 11/15/2001 | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0236 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | |
| | 11/10/2003 | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.134 B | 0.01 U | 0.02 U |
| | 11/28/2005 | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.0193 B | 0.00943 U | 0.0189 U |
| | 12/6/2007 | 0.00354 U | 0.00241 U | 0.00422 U | 0.023 UB | 0.00165 U | 0.00317 U | 0.00205 U | 0.00218 U | 0.00432 U | 0.00162 U | 0.174 UB | 0.00604 U | 0.00254 U | 0.00335 U | 0.378 UB | 0.0108 U | 0.00582 U | |
| | 10/27/2009 | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.0204 UB | 0.0107 U | 0.00935 U |
| | 10/12/2011 | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.019 U | 0.00952 U | 0.00952 U | |
| | 10/15/2013 | 0.0200 U | 0.0200 U | 0.0200 U | 0.0200 U | 0.0200 U | 0.0200 U | 0.0200 U | 0.0200 U | 0.0200 U | 0.0200 U | 0.0200 U | 0.0200 U | 0.0200 U | 0.0200 U | 0.0400 U | 0.0200 U | 0.0200 U | |
| | 10/28/2015 | 0.0204 U | 0.0204 U | 0.0204 U | 0.0204 U | 0.0204 U | 0.0103 J | 0.0204 U | 0.0204 U | 0.0204 U | 0.0204 U | 0.0204 U | 0.0204 U | 0.0204 U | 0.0204 U | 0.0408 U | 0.0113 J | 0.0204 U | |
| | 8/9/2017 | 0.0325 U | 0.0325 U | 0.0325 U | 0.0163 U | 0.0163 U | 0.0163 U | 0.0325 U | 0.0163 U | 0.0163 U | 0.0163 U | 0.0325 U | 0.0325 U | 0.0325 U | 0.0163 U | 0.0382 JB | 0.0651 U | 0.0325 U | |
| 8/1/2019 | 0.0387 U | 0.0387 U | 0.0387 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0387 U | 0.0194 U | 0.0194 U | 0.0387 U | 0.0387 U | 0.0387 U | 0.0194 U | 0.0409 J | 0.0774 U | 0.0387 U | | |
| 8/18/2021 | 0.0352 U | 0.0352 U | 0.0352 U | 0.0176 U | 0.0176 U | 0.0176 U | 0.0176 U | 0.0352 U | 0.0176 U | 0.0176 U | 0.0352 U | 0.0352 U | 0.0352 U | 0.0176 U | 0.0705 U | 0.0705 U | 0.0352 U | | |
| 08/22/2023 | 0.0361 U | 0.0361 U | 0.0361 U | 0.0181 U | 0.0181 U | 0.0181 U | 0.0181 U | 0.0361 U | 0.0181 U | 0.0181 U | 0.0361 U | 0.0361 U | 0.0361 U | 0.0181 U | 0.0722 U | 0.0722 U | 0.0361 U | | |
| MW-01 (Shallow) | 6/8/1993 | 0.045 U | 0.18 U | 0.028 | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.018 U | 0.037 | 0.0091 U | -- | 0.018 U | 0.018 U | 0.018 U | 0.045 U | 0.0091 U | 0.0091 U | |
| | 3/28/1994 | 0.045 UJ | 0.18 UJ | 0.0091 UJ | 0.0091 UJ | 0.0091 UJ | 0.0091 UJ | 0.0091 UJ | 0.018 UJ | 0.0091 UJ | 0.0091 UJ | -- | 0.018 UJ | 0.018 UJ | 0.018 UJ | 0.045 UJ | 0.0091 UJ | 0.0091 UJ | |
| | 6/22/1994 | 0.045 U | 0.18 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.018 U | 0.0091 U | 0.0091 U | -- | 0.019 | 0.018 U | 0.018 U | 0.045 U | 0.0095 | 0.0091 U | |
| | 9/28/1994 | 0.045 U | 0.18 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.018 U | 0.0091 U | 0.0091 U | -- | 0.018 U | 0.018 U | 0.018 U | 0.045 U | 0.0091 U | 0.0091 U | |
| | 12/12/1994 | 0.045 U | 0.18 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.018 U | 0.0091 U | 0.0091 U | -- | 0.018 U | 0.018 U | 0.018 U | 0.045 U | 0.0091 U | 0.0091 U | |
| MW-02 (Shallow) | 6/8/1993 | 0.045 U | 0.18 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.018 U | 0.0091 U | 0.0091 U | -- | 0.018 U | 0.018 U | 0.018 U | 0.045 U | 0.0091 U | 0.0091 U | |
| | 9/28/1994 | 0.045 U | 0.18 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.018 U | 0.0091 U | 0.0091 U | -- | 0.018 U | 0.018 U | 0.018 U | 0.045 U | 0.0091 U | 0.0091 U | |
| | 12/12/1994 | 0.045 U | 0.18 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.018 U | 0.0091 U | 0.0091 U | -- | 0.018 U | 0.018 U | 0.018 U | 0.045 U | 0.0091 U | 0.0091 U | |
| MW-03 (Shallow) | 6/8/1993 | 0.045 U | 0.18 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.018 U | 0.0091 U | 0.0091 U | -- | 0.018 U | 0.018 U | 0.018 U | 0.045 U | 0.0091 U | 0.0091 U | |
| | 3/28/1994 | 0.045 UJ | 0.18 UJ | 0.0091 UJ | 0.0091 UJ | 0.0091 UJ | 0.0091 UJ | 0.0091 UJ | 0.018 UJ | 0.0091 UJ | 0.0091 UJ | -- | 0.018 UJ | 0.018 UJ | 0.018 UJ | 0.045 UJ | 0.0091 UJ | 0.0091 UJ | |
| | 6/22/1994 | 0.045 U | 0.18 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.018 U | 0.0091 U | 0.0091 U | -- | 0.018 U | 0.018 U | 0.018 U | 0.045 U | 0.0091 U | 0.0091 U | |
| | 9/28/1994 | 0.045 U | 0.18 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.018 U | 0.0091 U | 0.0091 U | -- | 0.018 U | 0.018 U | 0.018 U | 0.045 U | 0.0091 U | 0.0091 U | |
| | 12/13/1994 | 0.043 U | 0.17 U | 0.0088 U | 0.0088 U | 0.0088 U | 0.0088 U | 0.0088 U | 0.017 U | 0.0088 U | 0.0088 U | -- | 0.017 U | 0.017 U | 0.017 U | 0.043 U | 0.0088 U | 0.0088 U | |
| | 8/15/1995 | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.026 U | 0.013 U | 0.013 U | 0.013 U | |
| | 3/20/1996 | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.026 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.015 | 0.013 U | 0.013 U | |
| | 5/6/1997 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | -- | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | |
| | 12/16/1997 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | |
| | 12/14/1998 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | |

Table 7. PAH and Dibenzofuran Concentrations in Groundwater Samples

Project No. 210426, Milwaukie, Oregon

| Well | Date ^a | All Measurements in Micrograms per Liter (µg/L or ppb) | | | | | | | | | | | | | | | | | |
|-------------------------------|-------------------|--|-----------------|---------------|---------------------|-----------------|-----------------------|------------------------|----------------------|---------------|--------------------------|--------------|--------------|---------------|--------------------------|----------------|---------------|--------------|----------|
| | | Acenaph-thene | Acenaph-thylene | Anthra-cene | Benz(a) anthra-cene | Benzo(a) pyrene | Benzo(b) fluoranthene | Benzo(k) fluoran-thene | Benzo (ghi) perylene | Chrysene | Dibenz (a,h) anthra-cene | Dibenzofuran | Fluoranthene | Fluorene | Indeno (1,2,3-cd) pyrene | Naphthalene | Phenan-threne | Pyrene | |
| Screening Levels ^b | | 530 | -- | 1800 | 0.03 | 0.025 | 0.25 | 2.5 | -- | 25 | 0.025 | 7.9 | 800 | 290 | 0.25 | 0.12 | -- | 120 | |
| MW-04 (Shallow) | 6/8/1993 | 0.045 U | 0.18 U | 0.017 | 0.0091 U | 0.011 | 0.014 | 0.0091 U | 0.018 U | 0.046 | 0.0091 U | -- | 0.018 U | 0.018 U | 0.018 U | 0.045 U | 0.0091 U | 0.017 | |
| | 3/28/1994 | 0.045 UJ | 0.18 UJ | 0.0091 UJ | 0.0091 UJ | 0.0091 UJ | 0.0091 UJ | 0.0091 UJ | 0.018 UJ | 0.0091 UJ | 0.0091 UJ | -- | 0.018 UJ | 0.018 UJ | 0.018 UJ | 0.045 UJ | 0.0091 UJ | 0.0091 UJ | |
| | 6/22/1994 | 0.045 U | 0.18 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.018 U | 0.0091 U | 0.0091 U | -- | 0.018 U | 0.018 U | 0.018 U | 0.045 U | 0.0091 U | 0.0091 U | |
| | 9/28/1994 | 0.045 U | 0.18 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.018 U | 0.0091 U | 0.0091 U | -- | 0.018 U | 0.018 U | 0.018 U | 0.045 U | 0.0091 U | 0.0091 U | |
| | 12/13/1994 | 0.044 U | 0.17 U | 0.0088 U | 0.0088 U | 0.0088 U | 0.0088 U | 0.0088 U | 0.017 U | 0.0088 U | 0.0088 U | -- | 0.017 U | 0.017 U | 0.017 U | 0.044 U | 0.0088 U | 0.0088 U | |
| MW-05 (Shallow) | 6/8/1993 | 0.045 U | 0.18 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.018 U | 0.0091 U | 0.0091 U | -- | 0.061 | 0.018 U | 0.018 U | 0.045 U | 0.012 | 0.045 | |
| | 3/29/1994 | 0.045 UJ | 0.18 UJ | 0.0091 UJ | 0.0091 UJ | 0.0091 UJ | 0.0091 UJ | 0.0091 UJ | 0.018 UJ | 0.0091 UJ | 0.0091 UJ | -- | 0.018 UJ | 0.018 UJ | 0.018 UJ | 0.045 UJ | 0.0091 UJ | 0.0091 UJ | |
| | 3/29/1994 | 0.045 UJ | 0.18 UJ | 0.0091 UJ | 0.0091 UJ | 0.0091 UJ | 0.0091 UJ | 0.0091 UJ | 0.018 UJ | 0.0091 UJ | 0.0091 UJ | -- | 0.018 UJ | 0.018 UJ | 0.018 UJ | 0.045 UJ | 0.0091 UJ | 0.0091 UJ | |
| | 6/23/1994 | 0.045 U | 0.18 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.018 U | 0.0091 U | 0.0091 U | -- | 0.018 U | 0.018 U | 0.018 U | 0.54 | 0.0091 U | 0.0091 U | |
| | 6/23/1994 | 0.045 U | 0.18 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.018 U | 0.0091 U | 0.0091 U | -- | 0.018 U | 0.018 U | 0.018 U | 0.045 U | 0.0091 U | 0.0091 U | |
| | 9/29/1994 | 0.045 U | 0.18 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.018 U | 0.0091 U | 0.0091 U | -- | 0.018 U | 0.018 U | 0.018 U | 0.045 U | 0.0091 U | 0.0091 U | |
| | 9/29/1994 | 0.045 U | 0.18 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.018 U | 0.0091 U | 0.0091 U | -- | 0.018 U | 0.018 U | 0.018 U | 0.045 U | 0.0091 U | 0.0091 U | |
| | 12/14/1994 | 0.043 U | 0.17 U | 0.0087 U | 0.0087 U | 0.0087 U | 0.0087 U | 0.0087 U | 0.017 U | 0.0087 U | 0.0087 U | -- | 0.017 U | 0.017 U | 0.017 U | 0.043 U | 0.0087 U | 0.0087 U | |
| | 3/19/1996 | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.026 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U |
| | 5/6/1997 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | -- | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| | 12/16/1997 | 0.0125 U | 0.0125 U | 0.0487 | 0.0125 U | 0.0125 U | 0.0128 | 0.0125 U | 0.0177 | 0.0125 U | 0.025 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0143 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| | 12/15/1998 | 0.0125 U | 0.0125 U | 0.0326 | 0.0125 U | 0.0134 | 0.0144 | 0.0125 U | 0.0208 | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0169 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| MW-06 (Shallow) | 6/9/1993 | 520 | 18 U | 130 | 100 | 71 | 66 | 35 | 35 | 97 | 0.91 U | -- | 620 | 360 | 27 | 2200 | 1200 | 430 | |
| | 3/28/1994 | 140 J | 37 J | 5.8 J | 0.74 J | 1.2 J | 1.2 J | 0.58 J | 0.6 J | 1.1 J | 0.25 J | -- | 15 J | 63 DJ | 0.18 J | 1500 DJ | 72 DJ | 12 J | |
| | 6/23/1994 | 190 | 28 | 7.7 | 0.95 | 0.4 | 0.37 | 0.18 | 0.18 U | 0.43 | 0.091 U | -- | 15 | 81 | 0.18 U | 2300 D | 110 D | 10 | |
| | 7/26/1994 | 100 | 18 U | 20 | 26 U | 15 | 16 U | 7.5 U | 4.8 | 14 U | 5.3 U | -- | 110 U | 73 | 1.8 U | 470 | 240 U | 160 U | |
| | 9/29/1994 | 43 | 5.9 | 5.2 | 4.4 | 2.6 | 2.6 | 1.2 | 0.9 | 3.1 | 0.091 U | -- | 28 | 25 | 0.18 U | 2.3 | 26 | 20 | |
| | 12/15/1994 | 86 J | 12 J | 3.6 J | 1.3 J | 1.4 J | 1.3 J | 0.089 U | 0.43 J | 1.5 J | 0.089 U | -- | 11 J | 38 J | 0.18 U | 270 J | 26 DJ | 2.9 J | |
| 5/8/1997 | 500 U | 500 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 500 U | 5.18 | 500 U | 5 U | 1220 | 24 | 5 U | | |
| MW-07 (Shallow) | 6/9/1993 | 0.045 U | 0.18 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.018 U | 0.0091 U | 0.0091 U | -- | 0.018 U | 0.018 U | 0.018 U | 0.045 U | 0.0091 U | 0.0091 U | |
| | 6/9/1993 | 0.045 U | 0.18 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.018 U | 0.0091 U | 0.0091 U | -- | 0.018 U | 0.018 U | 0.018 U | 0.045 U | 0.018 | 0.017 | |
| | 3/29/1994 | 0.045 U | 0.18 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.018 U | 0.0091 U | 0.0091 U | -- | 0.018 U | 0.018 U | 0.018 U | 0.067 | 0.0091 U | 0.0091 U | |
| | 6/22/1994 | 0.045 U | 0.18 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.018 U | 0.0091 U | 0.0091 U | -- | 0.018 U | 0.018 U | 0.018 U | 0.045 U | 0.0091 U | 0.0091 U | |
| | 9/29/1994 | 0.045 U | 0.18 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.018 U | 0.0091 U | 0.0091 U | -- | 0.018 U | 0.018 U | 0.018 U | 0.045 U | 0.0091 U | 0.0091 U | |
| | 12/13/1994 | 0.043 U | 0.17 U | 0.0088 U | 0.0088 U | 0.0088 U | 0.0088 U | 0.0088 U | 0.017 U | 0.0088 U | 0.0088 U | -- | 0.017 U | 0.017 U | 0.017 U | 0.043 U | 0.0088 U | 0.0088 U | |
| MW-08 (Shallow) | 6/9/1993 | 320 | 18 U | 32 | 11 | 5.1 | 4.7 | 3.6 | 3.8 | 23 | 0.91 U | -- | 70 | 130 | 2.3 | 2200 | 210 | 42 | |
| | 3/28/1994 | 180 J | 25 J | 13 J | 5.3 J | 3 J | 2.8 J | 1.6 J | 1.6 J | 5 J | 0.88 J | -- | 38 J | 120 DJ | 0.55 J | 2200 DJ | 170 DJ | 22 J | |
| | 6/23/1994 | 640 | 66 | 50 | 32 | 18 | 14 | 9.2 | 6.4 | 28 | 3.4 | -- | 170 | 320 | 7.2 | 7600 D | 520 | 120 | |
| | 7/21/1994 | 93 | 7.8 | 4.9 | 1.5 | 0.71 | 0.63 | 0.42 | 0.26 | 1.1 | 0.16 | -- | 12 | 48 | 0.26 | 250 D | 66 | 17 | |
| | 9/29/1994 | 320 D | 1.8 U | 7.6 | 0.091 U | 0.091 U | 0.091 U | 0.091 U | 0.18 U | 0.091 U | 0.091 U | -- | 3.1 | 120 D | 0.18 U | 430 D | 200 D | 1.2 | |
| | 12/15/1994 | 140 J | 16 J | 6 J | 0.63 J | 0.13 J | 0.13 J | 0.088 U | 0.17 U | 0.38 J | 0.088 U | -- | 13 J | 69 DJ | 0.17 U | 1100 DJ | 89 DJ | 2.2 J | |
| | 5/8/1997 | 500 U | 500 U | 15.2 | 0.899 | 0.354 | 0.407 | 0.337 | 0.313 U | 0.313 U | 0.822 | -- | 16 | 500 U | 0.313 U | 3770 | 500 U | 11.4 | |
| | 4/30/1999 | 55.1 | 1.86 | 1.56 U | 0.363 | 0.313 U | 0.313 U | 0.313 U | 0.313 U | 0.313 U | 0.625 U | 5.95 | 12.5 | 4.78 | 0.313 U | 0.313 U | 1.56 U | 8.14 | |
| | 7/13/1999 | 92.8 | 3.47 | 6.53 | 0.723 | 0.625 U | 0.625 U | 0.625 U | 0.625 U | 0.625 U | 1.25 U | 40 | 18.9 | 52 | 0.625 U | 41 | 44.9 | 12.5 | |
| | 10/28/1999 | 87 | 1.48 | 7.23 | 0.485 | 0.125 U | 0.125 U | 0.125 U | 0.125 U | 0.305 | 0.25 U | 40.8 | 19.6 | 52.7 | 0.125 U | 13.3 | 86.6 | 12.2 | |
| | 1/27/2000 | 55.5 | 2.09 | 6.01 | 1.16 | 0.423 | 0.501 | 0.358 | 0.313 U | 1.16 | 0.625 U | 40.4 | 18.4 | 55.9 | 0.313 U | 13.8 | 43.3 | 12.1 | |

Table 7. PAH and Dibenzofuran Concentrations in Groundwater Samples

Project No. 210426, Milwaukie, Oregon

| Well | Date ^a | All Measurements in Micrograms per Liter (µg/L or ppb) | | | | | | | | | | | | | | | | |
|-------------------------------|-------------------|--|-----------------|-----------------|---------------------|-----------------|-----------------------|------------------------|----------------------|-----------------|--------------------------|-----------------|------------------|-----------|--------------------------|---------------|------------------|------------------|
| | | Acenaph-thene | Acenaph-thylene | Anthra-cene | Benz(a) anthra-cene | Benzo(a) pyrene | Benzo(b) fluoranthene | Benzo(k) fluoran-thene | Benzo (ghi) perylene | Chrysene | Dibenz (a,h) anthra-cene | Dibenzofuran | Fluoranthene | Fluorene | Indeno (1,2,3-cd) pyrene | Naphthalene | Phenan-threne | Pyrene |
| Screening Levels ^b | | 530 | -- | 1800 | 0.03 | 0.025 | 0.25 | 2.5 | -- | 25 | 0.025 | 7.9 | 800 | 290 | 0.25 | 0.12 | -- | 120 |
| MW-09 (Shallow) | 6/9/1993 | 0.045 U | 0.18 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.018 U | 0.0091 U | 0.0091 U | -- | 0.018 U | 0.018 U | 0.018 U | 0.045 U | 0.0091 U | 0.0091 U |
| | 6/9/1993 | 0.045 U | 0.18 U | 0.016 | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.018 U | 0.0091 U | 0.0091 U | -- | 0.018 U | 0.018 U | 0.018 U | 0.045 U | 0.0091 U | 0.0091 U |
| | 3/29/1994 | 0.045 U | 0.18 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.018 U | 0.0091 U | 0.0091 U | -- | 0.018 U | 0.018 U | 0.018 U | 0.057 | 0.0091 U | 0.0091 U |
| | 6/23/1994 | 0.045 U | 0.18 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.018 U | 0.0091 U | 0.0091 U | -- | 0.018 U | 0.018 U | 0.018 U | 0.045 U | 0.0091 U | 0.0091 U |
| | 9/29/1994 | 0.045 U | 0.18 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.018 U | 0.0091 U | 0.0091 U | -- | 0.018 U | 0.018 U | 0.018 U | 0.045 U | 0.0091 U | 0.0091 U |
| | 12/13/1994 | 0.043 U | 0.17 U | 0.0088 U | 0.0088 U | 0.0088 U | 0.0088 U | 0.0088 U | 0.017 U | 0.0088 U | 0.0088 U | -- | 0.017 U | 0.017 U | 0.017 U | 0.043 U | 0.0088 U | 0.0088 U |
| MW-09 (Shallow) | 5/7/1997 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | -- | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| | 12/16/1997 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| | 6/15/1998 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| | 12/15/1998 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| MW-10 (Shallow) | 6/8/1993 | 0.045 U | 0.18 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.018 U | 0.0091 U | 0.0091 U | -- | 0.018 U | 0.018 U | 0.018 U | 0.045 U | 0.0091 U | 0.0091 U |
| | 3/29/1994 | 0.045 U | 0.18 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.018 U | 0.0091 U | 0.0091 U | -- | 0.018 U | 0.018 U | 0.018 U | 0.065 | 0.0091 U | 0.0091 U |
| | 6/22/1994 | 0.045 U | 0.18 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.018 U | 0.0091 U | 0.0091 U | -- | 0.018 U | 0.018 U | 0.018 U | 0.045 U | 0.0091 U | 0.0091 U |
| | 9/28/1994 | 0.045 U | 0.18 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.018 U | 0.0091 U | 0.0091 U | -- | 0.018 U | 0.018 U | 0.018 U | 0.045 U | 0.0091 U | 0.0091 U |
| | 12/12/1994 | 0.045 U | 0.18 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.018 U | 0.0091 U | 0.0091 U | -- | 0.018 U | 0.018 U | 0.018 U | 0.045 U | 0.0091 U | 0.0091 U |
| | 3/19/1996 | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.026 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U |
| | 6/24/1996 | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.026 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.017 | 0.013 U | 0.013 U |
| | 9/9/1996 | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.026 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.014 | 0.013 U |
| | 12/4/1996 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| | 12/4/1996 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| MW-11 (Shallow) | 12/14/1994 | 0.043 U | 0.17 U | 0.0087 U | 0.0087 U | 0.0087 U | 0.0087 U | 0.0087 U | 0.017 U | 0.0087 U | 0.0087 U | -- | 0.017 U | 0.017 U | 0.017 U | 0.043 U | 0.0087 U | 0.0087 U |
| | 12/28/1994 | 0.043 U | 0.17 U | 0.0088 U | 0.0088 U | 0.0088 U | 0.0088 U | 0.0088 U | 0.017 U | 0.0088 U | 0.0088 U | -- | 0.017 U | 0.017 U | 0.017 U | 0.043 U | 0.022 U | 0.0088 U |
| | 8/15/1995 | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.026 U | 0.015 | 0.013 U | 0.013 U |
| | 3/20/1996 | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.026 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U |
| | 5/7/1997 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | -- | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| | 12/17/1997 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| | 6/15/1998 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| | 12/17/1998 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| | 4/29/1999 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| | 11/2/1999 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0219 | 0.0125 U | 0.0125 U |
| | 4/19/2000 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| | 10/9/2000 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| | 11/14/2001 | 0.0121 U | 0.0121 U | 0.0121 U | 0.0121 U | 0.0121 U | 0.0121 U | 0.0121 U | 0.0121 U | 0.0121 U | 0.0242 U | 0.0121 U | 0.0121 U | 0.0121 U | 0.0121 U | 0.0121 U | 0.0121 U | 0.0121 U |
| | 11/11/2003 | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.02 U | 0.01 U |
| | 11/28/2005 | 0.00943 U | 0.00943 U | 0.0118 J | 0.01 J | 0.00943 U | 0.00944 J | 0.00943 U | 0.0112 J | 0.0144 J | 0.00943 U | 0.00943 U | 0.0272 | 0.00943 U | 0.00943 U | 0.0189 U | 0.0188 J | 0.0345 |
| | 12/10/2007 | 0.00354 U | 0.00241 U | 0.00422 U | 0.00551 JB | 0.02 UB | 0.037 UB | 0.00205 U | 0.023 UB | 0.00432 U | 0.00162 U | 0.00282 U | 0.00728 J | 0.00254 U | 0.00335 U | 0.0139 UB | 0.0108 U | 0.00602 J |
| 10/28/2009 | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.016 UB | 0.0107 U | 0.00935 U | |
| 10/14/2011 | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.019 U | 0.00952 U | 0.00952 U | |
| 10/16/2013 | 0.0181 J | 0.0192 U | 0.0192 U | 0.0192 U | 0.0192 U | 0.0192 U | 0.0192 U | 0.0192 U | 0.0192 U | 0.0192 U | 0.0115 J | 0.0112 J | 0.0192 U | 0.0192 U | 0.0385 U | 0.0192 U | 0.00972 J | |
| 10/29/2015 | 0.0108 J | 0.0200 U | 0.0200 U | 0.0200 U | 0.0200 U | 0.0200 U | 0.0200 U | 0.0200 U | 0.0200 U | 0.0200 U | 0.0200 U | 0.0106 J | 0.0200 U | 0.0200 U | 0.0400 U | 0.0200 U | 0.0200 U | |

Table 7. PAH and Dibenzofuran Concentrations in Groundwater Samples

Project No. 210426, Milwaukie, Oregon

| Well | Date ^a | All Measurements in Micrograms per Liter (µg/L or ppb) | | | | | | | | | | | | | | | | | |
|-------------------------------|-------------------|--|-----------------|------------------|---------------------|------------------|-----------------------|------------------------|----------------------|------------------|--------------------------|----------------|------------------|-----------------|--------------------------|-----------------|---------------|---------------|---------------|
| | | Acenaph-thene | Acenaph-thylene | Anthra-cene | Benz(a) anthra-cene | Benzo(a) pyrene | Benzo(b) fluoranthene | Benzo(k) fluoran-thene | Benzo (ghi) perylene | Chrysene | Dibenz (a,h) anthra-cene | Dibenzofuran | Fluoranthene | Fluorene | Indeno (1,2,3-cd) pyrene | Naphthalene | Phenan-threne | Pyrene | |
| Screening Levels ^b | | 530 | -- | 1800 | 0.03 | 0.025 | 0.25 | 2.5 | -- | 25 | 0.025 | 7.9 | 800 | 290 | 0.25 | 0.12 | -- | 120 | |
| MW-11 | 8/10/2017 | 0.0313 U | 0.0313 U | 0.0313 U | 0.0157 U | 0.0391 J | 0.0626 U | 0.0313 U | 0.0626 U | 0.00783 J | 0.0157 U | 0.0313 U | 0.0313 U | 0.0313 U | 0.00822 J | 0.0626 U | 0.0626 U | 0.0313 U | |
| | 8/2/2019 | 0.0414 | 0.0337 U | 0.0197 J | 0.0168 U | 0.0168 U | 0.0168 U | 0.0168 U | 0.0337 U | 0.0168 U | 0.0168 U | 0.0342 | 0.0337 U | 0.0217 J | 0.0168 U | 0.0425 J | 0.0674 U | 0.0337 U | |
| | 8/18/2021 | 0.0319 U | 0.0319 U | 0.0319 U | 0.0159 U | 0.0159 U | 0.0159 U | 0.0159 U | 0.0319 U | 0.0159 U | 0.0159 U | 0.0319 U | 0.0319 U | 0.0319 U | 0.0159 U | 0.0637 U | 0.0637 U | 0.0319 U | |
| | 08/22/2023 | 0.0338 U | 0.0338 U | 0.0338 U | 0.0169 U | 0.0169 U | 0.0169 U | 0.0169 U | 0.0338 U | 0.0169 U | 0.0169 U | 0.0338 U | 0.0338 U | 0.0338 U | 0.0169 U | 0.0675 U | 0.0675 U | 0.0338 U | |
| MW-12 (Shallow) | 12/15/1994 | 0.044 U | 0.18 U | 0.0089 U | 0.0089 U | 0.0089 U | 0.0089 U | 0.0089 U | 0.018 U | 0.0089 U | 0.0089 U | -- | 0.018 U | 0.018 U | 0.018 U | 0.044 U | 0.0089 U | 0.0089 U | |
| | 12/28/1994 | 0.044 U | 0.17 U | 0.0088 U | 0.0088 U | 0.0088 U | 0.0088 U | 0.0088 U | 0.017 U | 0.0088 U | 0.0088 U | -- | 0.017 U | 0.017 U | 0.017 U | 0.044 U | 0.014 U | 0.0088 U | |
| MW-13 (Shallow) | 12/14/1994 | 0.59 | 0.17 U | 0.0088 U | 0.0088 U | 0.0088 U | 0.0088 U | 0.0088 U | 0.017 U | 0.0088 U | 0.0088 U | -- | 0.017 U | 0.017 U | 0.017 U | 1.2 | 0.015 | 0.0088 U | |
| | 12/28/1994 | 0.043 U | 0.58 | 0.0088 U | 0.0088 U | 0.0088 U | 0.0088 U | 0.0088 U | 0.017 U | 0.0088 U | 0.0088 U | -- | 0.017 U | 0.017 U | 0.017 U | 0.043 U | 0.05 U | 0.0088 U | |
| | 8/17/1995 | 0.029 | 0.015 U | 0.015 | 0.015 U | 0.015 U | 0.015 U | 0.015 U | 0.015 U | 0.015 U | 0.015 U | 0.033 | 0.029 | 0.023 | 0.03 U | 0.028 | 0.049 | 0.021 | |
| | 3/21/1996 | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.026 U | 0.019 | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | |
| | 6/24/1996 | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.026 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | |
| | 9/11/1996 | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | |
| | 12/3/1996 | 2.89 | 0.0489 | 0.013 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 1.07 | 0.0281 | 0.0491 | 0.0125 U | 3.04 | 0.0213 | 0.0279 |
| | 5/8/1997 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | -- | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | |
| | 5/8/1997 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | -- | 0.0125 U | 0.0125 U | 0.0125 U | 0.0202 | 0.0125 U | 0.0125 U |
| | 12/18/1997 | 0.0125 U | 0.0125 U | 0.0262 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.05 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | |
| | 10/16/1998 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | |
| | 12/15/1998 | 0.493 | 0.0125 U | 0.0441 | 0.0125 U | 0.0212 | 0.0273 | 0.0125 U | 0.0312 | 0.0134 | 0.025 U | 0.16 | 0.018 | 0.0246 | 0.0254 | 0.0327 | 0.0125 U | 0.013 | |
| | 4/30/1999 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | |
| | 10/28/1999 | 0.0125 U | 0.0125 U | 0.0768 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | |
| | 4/19/2000 | 0.0125 U | 0.0125 U | 0.032 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | |
| | 10/9/2000 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | |
| | 11/13/2001 | 0.0118 U | 0.0118 U | 0.0266 | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0236 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | |
| | 11/11/2003 | 0.01 U | 0.01 U | 0.0142 | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.02 U | 0.01 U | 0.02 U |
| | 11/30/2005 | 0.121 | 0.00943 U | 0.0322 | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.156 J | 0.0136 JB | 0.0283 U | 0.00943 U | 0.0204 B | 0.00943 U | 0.0189 U | |
| | 12/12/2007 | 0.00375 U | 0.00255 U | 0.00849 J | 0.0287 UB | 0.00389 J | 0.00874 J | 0.00359 J | 0.00485 J | 0.00822 J | 0.00179 J | 0.00299 U | 0.09 UB | 0.00269 U | 0.0042 J | 0.071 UB | 0.0115 U | 0.078 UB | |
| | 10/29/2009 | 0.00935 U | 0.00935 U | 0.0357 | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.0199 UB | 0.0107 U | 0.00935 U | |
| | 10/14/2011 | 0.00971 U | 0.00971 U | 0.0523 | 0.00971 U | 0.0194 U | 0.0194 U | 0.00971 U | 0.00971 U | 0.00971 U | 0.00971 U | 0.00971 U | 0.00971 U | 0.00971 U | 0.00971 U | 0.0194 U | 0.00971 U | 0.00971 U | |
| | 10/17/2013 | 0.0206 U | 0.0206 U | 0.0377 | 0.0206 U | 0.0206 U | 0.0206 U | 0.0206 U | 0.0206 U | 0.0206 U | 0.0206 U | 0.0206 U | 0.0206 U | 0.0206 U | 0.0206 U | 0.0412 U | 0.0206 U | 0.0206 U | |
| 10/30/2015 | 0.0194 U | 0.0194 U | 0.0448 | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0388 U | 0.0194 U | 0.0194 U | | |
| 8/11/2017 | 0.0314 U | 0.0314 U | 0.0593 | 0.0157 U | 0.0157 U | 0.00864 J | 0.0314 U | 0.0157 U | 0.0157 U | 0.0157 U | 0.0314 U | 0.0314 U | 0.0314 U | 0.0157 U | 0.0629 U | 0.0629 U | 0.0314 U | | |
| 8/2/2019 | 0.0325 U | 0.0325 U | 0.0754 | 0.0162 U | 0.00950 J | 0.00926 J | 0.0162 U | 0.0325 U | 0.0162 U | 0.0162 U | 0.0216 J | 0.0325 U | 0.0325 U | 0.0162 U | 0.0478 J | 0.0650 U | 0.0325 U | | |
| 8/19/2021 | 0.0321 U | 0.0321 U | 0.0630 | 0.0160 U | 0.0160 U | 0.0160 U | 0.0160 U | 0.0321 U | 0.0160 U | 0.0160 U | 0.0321 U | 0.0321 U | 0.0321 U | 0.0160 U | 0.0642 U | 0.0642 U | 0.0321 U | | |
| 08/23/2023 | 0.0331 U | 0.0331 U | 0.0853 U | 0.0166 U | 0.0166 U | 0.0166 U | 0.0166 U | 0.0331 U | 0.0166 U | 0.0166 U | 0.0331 U | 0.0331 U | 0.0331 U | 0.0166 U | 0.0662 U | 0.0662 U | 0.0331 U | | |

Table 7. PAH and Dibenzofuran Concentrations in Groundwater Samples

Project No. 210426, Milwaukie, Oregon

| Well | Date ^a | All Measurements in Micrograms per Liter (µg/L or ppb) | | | | | | | | | | | | | | | | | |
|-------------------------------|-------------------|--|-----------------|-------------|---------------------|------------------|-----------------------|------------------------|----------------------|--------------|--------------------------|----------------|--------------|------------|--------------------------|-----------------|-----------------|-------------|-----------|
| | | Acenaph-thene | Acenaph-thylene | Anthra-cene | Benz(a) anthra-cene | Benzo(a) pyrene | Benzo(b) fluoranthene | Benzo(k) fluoran-thene | Benzo (ghi) perylene | Chrysene | Dibenz (a,h) anthra-cene | Dibenzofuran | Fluoranthene | Fluorene | Indeno (1,2,3-cd) pyrene | Naphthalene | Phenan-threne | Pyrene | |
| Screening Levels ^b | | 530 | -- | 1800 | 0.03 | 0.025 | 0.25 | 2.5 | -- | 25 | 0.025 | 7.9 | 800 | 290 | 0.25 | 0.12 | -- | 120 | |
| VDMW-11 (Deep) | 11/17/1994 | 3.8 | 0.18 U | 0.32 | 0.063 | 0.011 | 0.013 | 0.0091 U | 0.018 U | 0.026 | 0.0091 U | -- | 1.2 | 2.2 | 0.018 U | 2.6 | 5 | 0.92 | |
| | 11/23/1994 | 0.045 U | 0.18 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.018 U | 0.0091 U | 0.0091 U | -- | 0.018 U | 0.018 U | 0.018 U | 0.045 U | 0.0093 | 0.0091 U | |
| | 11/30/1994 | 0.082 | 0.18 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.0091 U | 0.018 U | 0.0091 U | 0.0091 U | -- | 0.019 | 0.018 U | 0.018 U | 0.045 U | 0.036 | 0.0091 U | |
| | 12/14/1994 | 0.043 U | 0.17 U | 0.0087 U | 0.0087 U | 0.0087 U | 0.0087 U | 0.0087 U | 0.017 U | 0.0087 U | 0.0087 U | -- | 0.017 U | 0.017 U | 0.017 U | 0.043 U | 0.0087 U | 0.0087 U | |
| | 12/14/1994 | 0.043 U | 0.17 U | 0.0088 U | 0.0088 U | 0.0088 U | 0.0088 U | 0.0088 U | 0.017 U | 0.0088 U | 0.0088 U | -- | 0.017 U | 0.017 U | 0.017 U | 0.043 U | 0.0088 U | 0.0088 U | |
| | 8/16/1995 | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.026 U | 0.026 | 0.013 U | 0.013 U |
| | 8/16/1995 | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.026 U | 0.027 | 0.013 U | 0.013 U |
| | 3/20/1996 | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.026 U | 0.017 | 0.013 U | 0.013 U | 0.013 U | 0.02 | 0.013 U | 0.013 U |
| | 9/9/1996 | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.026 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U |
| | 5/7/1997 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| | 12/17/1997 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| | 6/15/1998 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| | 12/16/1998 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| | 4/30/1999 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| | 11/2/1999 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.027 | 0.0125 U | 0.0125 U |
| | 11/2/1999 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.019 | 0.0125 U | 0.0125 U |
| | 4/19/2000 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| | 4/19/2000 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| | 10/9/2000 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| | 10/9/2000 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U |
| | 4/11/2001 | 0.0119 U | 0.0119 U | 0.0119 U | 0.0119 U | 0.0119 U | 0.0119 U | 0.0119 U | 0.0119 U | 0.0119 U | 0.0119 U | 0.0238 U | 0.0119 U | 0.0119 U | 0.0119 U | 0.0119 U | 0.0119 U | 0.0119 U | 0.0119 U |
| | 4/11/2001 | 0.0119 U | 0.0119 U | 0.0119 U | 0.0119 U | 0.0119 U | 0.0119 U | 0.0119 U | 0.0119 U | 0.0119 U | 0.0119 U | 0.0238 U | 0.0119 U | 0.0119 U | 0.0119 U | 0.0119 U | 0.0119 U | 0.0119 U | 0.0119 U |
| | 11/15/2001 | 0.0121 U | 0.0121 U | 0.0121 U | 0.0121 U | 0.0121 U | 0.0121 U | 0.0121 U | 0.0121 U | 0.0121 U | 0.0121 U | 0.0242 U | 0.0121 U | 0.0121 U | 0.0121 U | 0.0121 U | 0.0121 U | 0.0121 U | 0.0121 U |
| | 11/15/2001 | 0.0119 U | 0.0119 U | 0.01119 U | 0.01119 U | 0.01119 U | 0.01119 U | 0.01119 U | 0.01119 U | 0.01119 U | 0.01119 U | 0.0238 U | 0.01119 U | 0.01119 U | 0.01119 U | 0.01119 U | 0.01119 U | 0.01119 U | 0.01119 U |
| | 11/10/2003 | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.0458 B | 0.01 U | 0.02 U |
| | 11/30/2005 | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.0206 B | 0.00943 U | 0.0189 U |
| | 12/6/2007 | 0.00354 U | 0.00241 U | 0.00422 U | 0.0233 UB | 0.00382 J | 0.00566 J | 0.00205 U | 0.00381 J | 0.00432 U | 0.00162 U | 0.00282 U | 0.00604 U | 0.00254 U | 0.00335 U | 0.378 UB | 0.0108 U | 0.00582 U | |
| 10/26/2009 | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.0193 UB | 0.0107 U | 0.00935 U | | |
| 10/11/2011 | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.02 U | 0.01 U | 0.01 U | | |
| 10/15/2013 | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0388 U | 0.0194 U | 0.0194 U | |
| 10/28/2015 | 0.0192 U | 0.0192 U | 0.0192 U | 0.0192 U | 0.0192 U | 0.0192 U | 0.0192 U | 0.0192 U | 0.0192 U | 0.0192 U | 0.0192 U | 0.0192 U | 0.0192 U | 0.0192 U | 0.0235 JB | 0.0192 U | 0.0192 U | | |
| 8/9/2017 | 0.0315 U | 0.0315 U | 0.0315 U | 0.0157 U | 0.0157 U | 0.0157 U | 0.0315 U | 0.0157 U | 0.0157 U | 0.0157 U | 0.0315 U | 0.0315 U | 0.0315 U | 0.0157 U | 0.0602 JB | 0.0630 U | 0.0315 U | | |
| 7/31/2019 | 0.0321 U | 0.0321 U | 0.0321 U | 0.0161 U | 0.0161 U | 0.0161 U | 0.0161 U | 0.0321 U | 0.0161 U | 0.0161 U | 0.0321 U | 0.0321 U | 0.0321 U | 0.0161 U | 0.0519 JB | 0.0642 U | 0.0321 U | | |
| 8/17/2021 | 0.0318 U | 0.0318 U | 0.0318 U | 0.0159 U | 0.0159 U | 0.0159 U | 0.0159 U | 0.0318 U | 0.0159 U | 0.0159 U | 0.0318 U | 0.0318 U | 0.0318 U | 0.0159 U | 0.0635 U | 0.0635 U | 0.0318 U | | |
| 08/22/2023 | 0.0327 U | 0.0327 U | 0.0327 U | 0.0164 U | 0.0164 U | 0.0164 U | 0.0164 U | 0.0327 U | 0.0164 U | 0.0164 U | 0.0327 U | 0.0327 U | 0.0327 U | 0.0164 U | 0.0655 U | 0.0655 U | 0.0327 U | | |

Table 7. PAH and Dibenzofuran Concentrations in Groundwater Samples

Project No. 210426, Milwaukie, Oregon

| Well | Date ^a | All Measurements in Micrograms per Liter (µg/L or ppb) | | | | | | | | | | | | | | | | | |
|-------------------------------|-------------------|--|-----------------|--------------|---------------------|-----------------|-----------------------|------------------------|----------------------|-----------|--------------------------|------------------|-----------------|------------------|--------------------------|------------------|-----------------|--------------|----------|
| | | Acenaph-thene | Acenaph-thylene | Anthra-cene | Benz(a) anthra-cene | Benzo(a) pyrene | Benzo(b) fluoranthene | Benzo(k) fluoran-thene | Benzo (ghi) perylene | Chrysene | Dibenz (a,h) anthra-cene | Dibenzofuran | Fluoranthene | Fluorene | Indeno (1,2,3-cd) pyrene | Naphthalene | Phenan-threne | Pyrene | |
| Screening Levels ^b | | 530 | -- | 1800 | 0.03 | 0.025 | 0.25 | 2.5 | -- | 25 | 0.025 | 7.9 | 800 | 290 | 0.25 | 0.12 | -- | 120 | |
| VDMW-14 (Deep) | 4/30/1999 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | |
| | 7/13/1999 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | |
| | 12/11/1999 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | |
| | 1/27/2000 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | |
| | 4/17/2000 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | |
| | 10/9/2000 | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.025 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0125 U | 0.0175 | 0.0125 U | 0.0125 U |
| | 4/9/2001 | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.026 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U | 0.013 U |
| | 11/13/2001 | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0236 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U |
| | 11/26/2002 | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0236 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U | 0.0118 U |
| | 4/9/2003 | 0.0098 U | 0.0098 U | 0.0098 U | 0.0098 U | 0.0098 U | 0.0098 U | 0.0098 U | 0.0098 U | 0.0098 U | 0.0098 U | 0.0098 U | 0.0098 U | 0.0098 U | 0.0098 U | 0.0098 U | 0.0543 UB | 0.0098 U | 0.0098 U |
| | 11/12/2003 | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.02 U | 0.01 U | 0.02 U |
| | 4/14/2004 | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.0551 UB | 0.01 U | 0.02 U |
| | 12/14/2004 | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.0237 UB | 0.01 U | 0.02 U |
| | 4/15/2005 | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.02 U | 0.01 U | 0.02 U |
| | 11/30/2005 | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.0332 UB | 0.00943 U | 0.0189 U |
| | 5/16/2006 | 0.352 | 0.00943 U | 0.288 | 0.042 | 0.0166 | 0.0164 | 0.00943 U | 0.0116 | 0.0611 | 0.00943 U | 0.0355 | 0.552 | 0.277 | 0.00943 U | 0.0255 UB | 2.51 | 0.528 | |
| | 11/17/2006 | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.0189 UB | 0.00943 U | 0.0189 U |
| | 12/21/2006 | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.00943 U | 0.0189 UB | 0.00943 U | 0.0189 U |
| | 5/3/2007 | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.0571 U | 0.00943 U | 0.0189 U |
| | 12/7/2007 | 0.0035 U | 0.00238 U | 0.00418 U | 0.00384 U | 0.00164 U | 0.00314 U | 0.00203 U | 0.00216 U | 0.00428 U | 0.00161 U | 0.00279 U | 0.00598 U | 0.00272 J | 0.00332 U | 0.0302 | 0.0107 U | 0.00577 U | |
| | 4/22/2008 | 0.00347 U | 0.00236 U | 0.00414 U | 0.00381 U | 0.00162 U | 0.00311 U | 0.00201 U | 0.00216 U | 0.00424 U | 0.00159 U | 0.00277 U | 0.00593 U | 0.00249 U | 0.00329 U | 0.0303 UB | 0.0106 U | 0.00571 U | |
| | 12/3/2008 | 0.0101 U | 0.0428 | 0.0101 U | 0.0101 U | 0.0101 U | 0.0101 U | 0.0101 U | 0.0101 U | 0.0101 U | 0.0101 U | 0.0101 U | 0.0101 U | 0.0101 U | 0.0101 U | 0.0314 | 0.0101 U | 0.0101 U | |
| | 4/15/2009 | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.0187 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.0315 UB | 0.0107 U | 0.00935 U | |
| 10/27/2009 | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.00935 U | 0.0106 J | 0.00935 U | 0.0254 UB | 0.0141 J | 0.00935 U | | |
| 5/6/2010 | 0.0133 J | 0.00976 U | 0.00976 U | 0.00976 U | 0.00976 U | 0.00976 U | 0.00976 U | 0.00976 U | 0.00976 U | 0.00976 U | 0.00976 U | 0.00976 U | 0.00976 U | 0.00976 U | 0.0402 UB | 0.0195 U | 0.00976 U | | |
| 10/27/2010 | 0.0098 U | 0.0098 U | 0.0098 U | 0.0098 U | 0.0098 U | 0.0098 U | 0.0098 U | 0.0098 U | 0.0098 U | 0.0098 U | 0.0098 U | 0.0098 U | 0.0098 U | 0.0098 U | 0.0196 U | 0.0098 U | 0.0098 U | | |
| 6/17/2011 | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | 0.00962 U | | |
| 10/12/2011 | 0.02 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U | | |
| 5/30/2012 | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.00952 U | 0.019 U | 0.00952 U | 0.00952 U | | |
| 10/30/2012 | 0.0148 JB | 0.0200 U | 0.0200 U | 0.0200 U | 0.0200 U | 0.0200 U | 0.0200 U | 0.0200 U | 0.0200 U | 0.0200 U | 0.0200 U | 0.0136 JB | 0.0200 U | 0.0200 UB | 0.0200 U | 0.0216 JB | 0.0158 J | 0.0200 U | |
| 6/21/2013 | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0388 U | 0.0194 U | 0.0194 U | | |
| 10/16/2013 | 0.0215 U | 0.0215 U | 0.0215 U | 0.0215 U | 0.0215 U | 0.0215 U | 0.0215 U | 0.0215 U | 0.0215 U | 0.0215 U | 0.0215 U | 0.0215 U | 0.0215 U | 0.0215 U | 0.0430 U | 0.0215 U | 0.0215 U | | |

Table 7. PAH and Dibenzofuran Concentrations in Groundwater Samples

Project No. 210426, Milwaukie, Oregon

| Well | Date ^a | All Measurements in Micrograms per Liter (µg/L or ppb) | | | | | | | | | | | | | | | | |
|-------------------------------|-------------------|--|-----------------|-------------|---------------------|------------------|-----------------------|------------------------|----------------------|-----------------|--------------------------|-----------------|--------------|-----------------|--------------------------|------------------|------------------|----------|
| | | Acenaph-thene | Acenaph-thylene | Anthra-cene | Benz(a) anthra-cene | Benzo(a) pyrene | Benzo(b) fluoranthene | Benzo(k) fluoran-thene | Benzo (ghi) perylene | Chrysene | Dibenz (a,h) anthra-cene | Dibenzofuran | Fluoranthene | Fluorene | Indeno (1,2,3-cd) pyrene | Naphthalene | Phenan-threne | Pyrene |
| Screening Levels ^b | | 530 | -- | 1800 | 0.03 | 0.025 | 0.25 | 2.5 | -- | 25 | 0.025 | 7.9 | 800 | 290 | 0.25 | 0.12 | -- | 120 |
| VDMW-14 (Deep) | 5/22/2014 | 0.0204 U | 0.0204 U | 0.0204 U | 0.0204 U | 0.0204 U | 0.0204 U | 0.0204 U | 0.0204 U | 0.0204 U | 0.0204 U | 0.0204 U | 0.0204 U | 0.0204 U | 0.0204 U | 0.0408 U | 0.0204 U | 0.0204 U |
| | 11/4/2014 | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0194 U | 0.0114 J | 0.0194 U | 0.0194 U | 0.0194 U | 0.0456 B | 0.0117 JB | 0.0194 U |
| | 4/7/2015 | 0.0208 U | 0.0521 U | 0.0208 U | 0.0208 U | 0.0208 U | 0.0208 U | 0.0208 U | 0.0208 U | 0.0208 U | 0.0208 U | 0.0208 U | 0.0208 U | 0.0208 U | 0.0208 U | 0.0469 | 0.0208 U | 0.0208 U |
| | 11/5/2015 | 0.0202 U | 0.0202 U | 0.0202 U | 0.0202 U | 0.0202 U | 0.0202 U | 0.0202 U | 0.0202 U | 0.0202 U | 0.0202 U | 0.0202 U | 0.0202 U | 0.0202 U | 0.0202 U | 0.0404 U | 0.0202 U | 0.0202 U |
| | 6/7/2016 | 0.0192 U | 0.0192 U | 0.0192 U | 0.0192 U | 0.0192 U | 0.0192 U | 0.0192 U | 0.0192 U | 0.0192 U | 0.0192 U | 0.0192 U | 0.0192 U | 0.0192 U | 0.0192 U | 0.0385 U | 0.0192 U | 0.0192 U |
| | 10/25/2016 | 0.0335 U | 0.0335 U | 0.0335 U | 0.0168 U | 0.0168 U | 0.0168 U | 0.0168 U | 0.0335 U | 0.0168 U | 0.0168 U | 0.0335 U | 0.0335 U | 0.0335 U | 0.0168 U | 0.0671 U | 0.0671 U | 0.0335 U |
| | 2/24/2017 | 0.0312 U | 0.0312 U | 0.0312 U | 0.0156 U | 0.0156 U | 0.0156 U | 0.0156 U | 0.0312 U | 0.0156 U | 0.0156 U | 0.0312 U | 0.0312 U | 0.0312 U | 0.0156 U | 0.0624 U | 0.0624 U | 0.0312 U |
| | 8/15/2017 | 0.0314 U | 0.0314 U | 0.0314 U | 0.0157 U | 0.0157 U | 0.0157 U | 0.0314 U | 0.0157 U | 0.0157 U | 0.0157 U | 0.0314 U | 0.0314 U | 0.0314 U | 0.0157 U | 0.0432 JB | 0.0629 U | 0.0314 U |
| | 3/1/2018 | 0.0359 U | 0.0359 U | 0.0359 U | 0.0179 U | 0.00933 J | 0.0179 U | 0.0179 U | 0.0359 U | 0.0179 U | 0.0179 U | 0.0359 U | 0.0359 U | 0.0359 U | 0.0179 U | 0.0503 JB | 0.0718 U | 0.0359 U |
| | 8/21/2018 | 0.0318 U | 0.0318 U | 0.0318 U | 0.00969 J | 0.0116 J | 0.0123 J | 0.0159 U | 0.0318 U | 0.0101 J | 0.0159 U | 0.0318 U | 0.0318 U | 0.0318 U | 0.00977 J | 0.0947 | 0.0635 U | 0.0318 U |
| | 1/30/2019 | 0.0347 U | 0.0347 U | 0.0347 U | 0.0173 U | 0.0173 U | 0.0173 U | 0.0347 U | 0.0173 U | 0.0173 U | 0.0173 U | 0.0193 J | 0.0347 U | 0.0180 J | 0.0173 U | 0.0900 | 0.0694 U | 0.0347 U |
| | 8/1/2019 | 0.0371 U | 0.0371 U | 0.0371 U | 0.0186 U | 0.0186 U | 0.0186 U | 0.0186 U | 0.0371 U | 0.0186 U | 0.0186 U | 0.0371 U | 0.0371 U | 0.0371 U | 0.0186 U | 0.120 | 0.0743 U | 0.0371 U |
| | 2/24/2020 | 0.0335 U | 0.0335 U | 0.0335 U | 0.0168 U | 0.0168 U | 0.0168 U | 0.0168 U | 0.0335 U | 0.0168 U | 0.0168 U | 0.0335 U | 0.0335 U | 0.0335 U | 0.0168 U | 0.0649 J | 0.0670 U | 0.0335 U |
| | 9/1/2020 | 0.0321 U | 0.0321 U | 0.0321 U | 0.0160 U | 0.0160 U | 0.0160 U | 0.0160 U | 0.0321 U | 0.0160 U | 0.0160 U | 0.0321 U | 0.0321 U | 0.0321 U | 0.0160 U | 0.0641 U | 0.0641 U | 0.0321 U |
| | 3/8/2021 | 0.0316 U | 0.0316 U | 0.0316 U | 0.0158 U | 0.0158 U | 0.0158 U | 0.0158 U | 0.0316 U | 0.0158 U | 0.0158 U | 0.0316 U | 0.0316 U | 0.0316 U | 0.0158 U | 0.113 B | 0.0632 U | 0.0316 U |
| | 8/17/2021 | 0.0317 U | 0.0317 U | 0.0317 U | 0.0159 U | 0.0159 U | 0.0159 U | 0.0159 U | 0.0317 U | 0.0159 U | 0.0159 U | 0.0317 U | 0.0317 U | 0.0317 U | 0.0159 U | 0.0635 U | 0.0635 U | 0.0317 U |
| | 1/19/2022 | 0.0323 U | 0.0323 U | 0.0323 U | 0.0161 U | 0.0161 U | 0.0161 U | 0.0161 U | 0.0323 U | 0.0161 U | 0.0161 U | 0.0323 U | 0.0323 U | 0.0323 U | 0.0161 U | 0.0617 J | 0.0645 U | 0.0323 U |
| 07/11/2022 | 0.0333 U | 0.0333 U | 0.0333 U | 0.0167 U | 0.0167 U | 0.0167 U | 0.0167 U | 0.0333 U | 0.0167 U | 0.0167 U | 0.0333 U | 0.0333 U | 0.0333 U | 0.0167 U | 0.120 | 0.0667 U | 0.0333 U | |
| 2/13/2023 | 0.0498 U | 0.0498 U | 0.0498 U | 0.0249 U | 0.0249 U | 0.0249 U | 0.0249 U | 0.0498 U | 0.0249 U | 0.0249 U | 0.0498 U | 0.0498 U | 0.0498 U | 0.0249 U | 0.0995 U | 0.0995 U | 0.0498 U | |
| 08/21/2023 | 0.0367 U | 0.0367 U | 0.0367 U | 0.0184 U | 0.0184 U | 0.0184 U | 0.0184 U | 0.0367 U | 0.0184 U | 0.0184 U | 0.0367 U | 0.0367 U | 0.0367 U | 0.0184 U | 0.0734 U | 0.0734 U | 0.0367 U | |

Notes:

Bold - detected

Blue Shaded - Detected result or reporting limit exceeded screening level

(a) Identical successive sample dates for a given well indicate field duplicate results.

(b) May 2023 USEPA Regional Screening Levels (Resident Tapwater). No screening levels established for acenaphthylene, benzo(ghi)perylene, or phenanthrene.

-- = not analyzed, not measured or not available

D = Sample diluted because of high analyte concentration

J = Estimated concentration between the method detection limit and practical quantitation limit

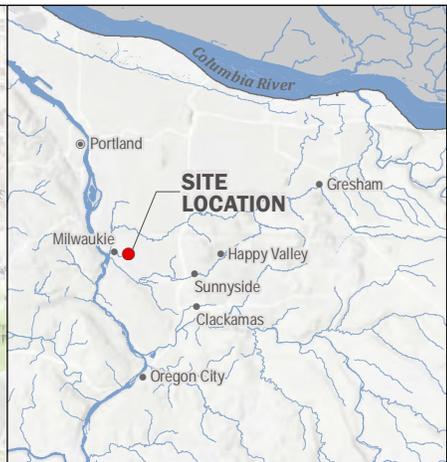
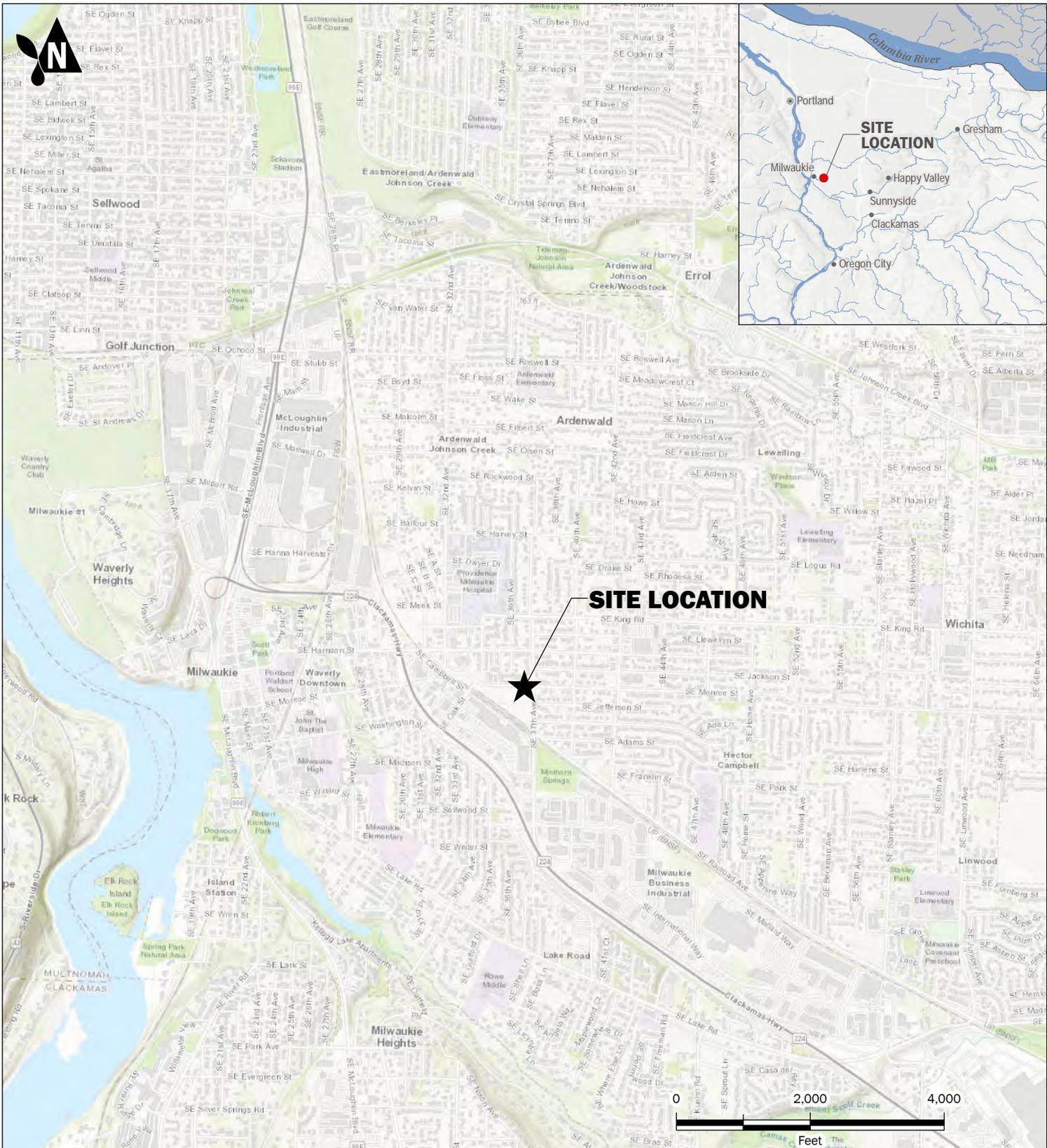
M2 = Due to matrix interference, this analyte cannot be accurately quantified. The reported result is estimated

M5 = Estimated results. Peak separation for structural isomers is insufficient for accurate quantification

U = Not detected at or above the stated method reporting limit. Values prior to October 2012 may be detection limits, typically one half of reporting limits

B = Analyte detected in the associated field blank, equipment blank, and/or method blank. From 2013-2021, B qualifiers are only assigned for detections below or similar to the associated blank detection.

FIGURES

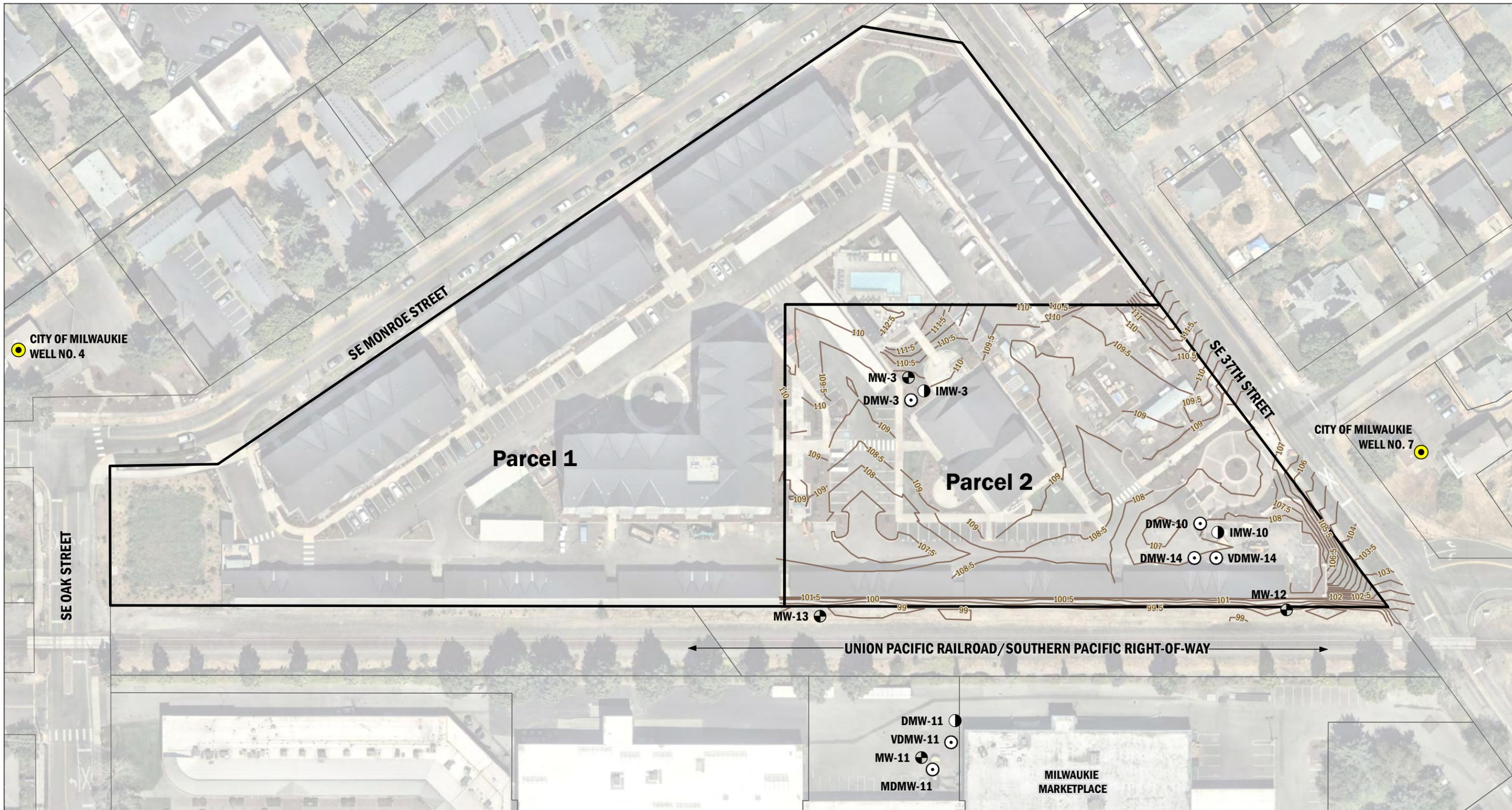


Site Location Map
 Summer 2023 Groundwater Monitoring
 Former L.D. McFarland Creosote Wood Treating Facility
 Milwaukie, Oregon

0 2,000 4,000
 Feet

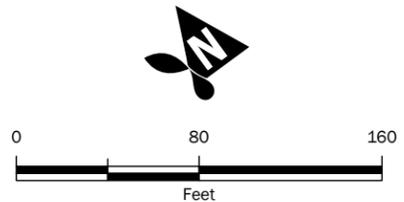
| | | | |
|--|-----------------------|--------------------------------|----------------------------|
| | SEP-2023 | BY: MLK / RAP | FIGURE NO. 1 |
| | PROJECT NO. 210426 | REVISED BY: ZAS / SCC / HMD | |

GIS Path: G:\projects\Monrce\apartments_210426\Delivered\Winter_2023\GIS\Monrce\OJ_Site_Location_Map.mxd | Coordinate System: NAD 1983 StatePlane Oregon North FIPS 5601 Feet | Date Saved: 9/15/2023 | User: jnduran | Print Date: 9/15/2023



- Monitoring Well - Shallow
- Monitoring Well - Intermediate
- Monitoring Well - Deep
- City Water Supply Well
- Parcel 1 and 2 Boundaries
- Post-Construction Topography Contours
- Clackamas County Tax Parcel

Notes:
 1. Monitoring Well locations are based on a survey conducted by TerraCalc Land Surveying, Inc. on February 6, 2023.

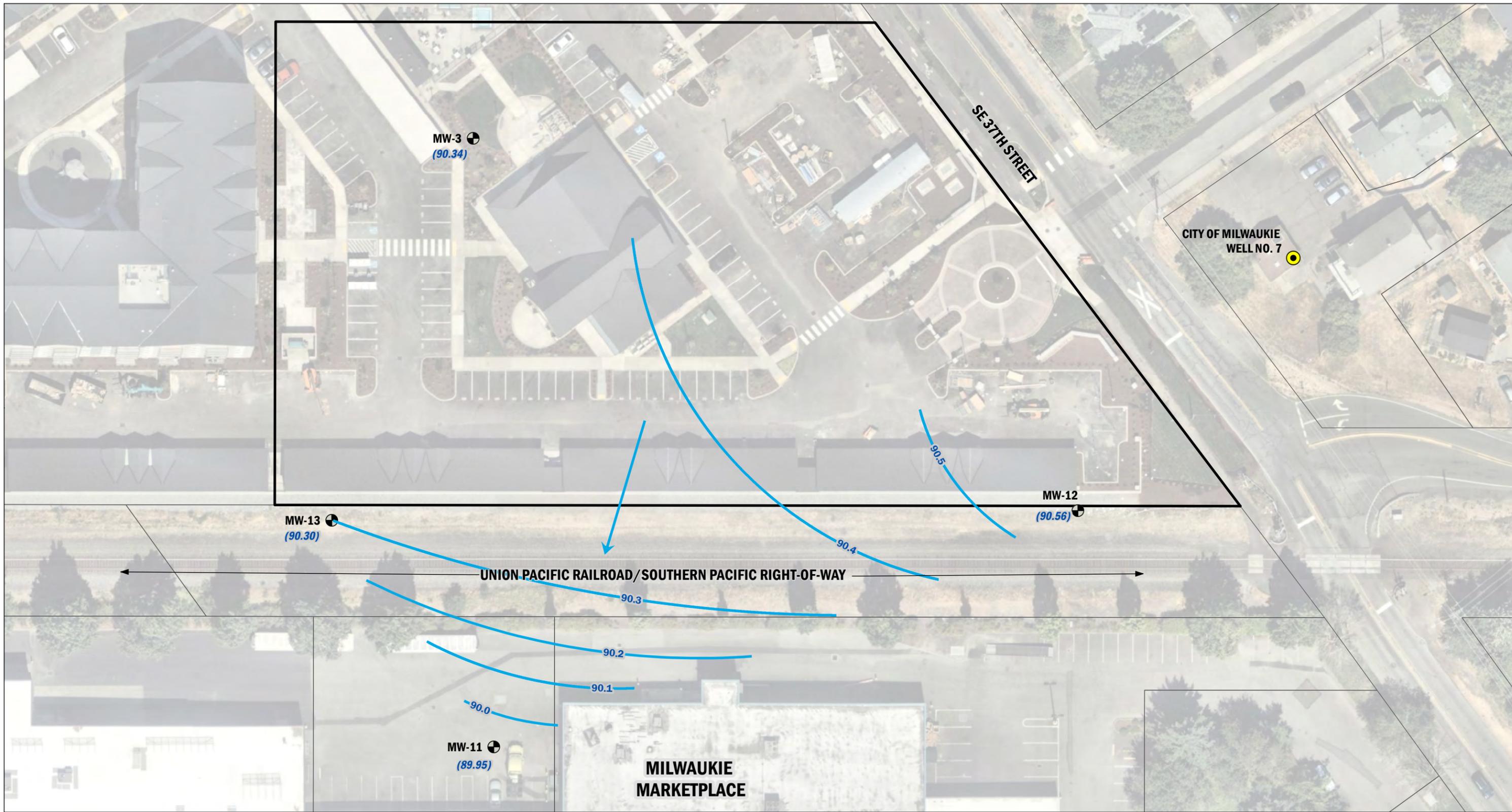


Site Plan

Summer 2023 Groundwater Monitoring
 Former L.D. McFarland Creosote Wood Treating Facility
 Milwaukie, Oregon

| | | | |
|--|-----------------------|--------------------------|------------------------|
| | SEP-2023 | BY: DAH / SCC | FIGURE NO. 2 |
| | PROJECT NO. 210426 | REVISED BY: ZAS / SCC | |

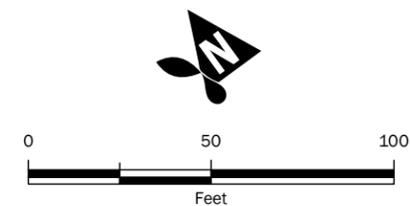
GIS Data: Clackamas Wastewater Treatment Plant, 210426 Delivered Summer 2023 GW Monitoring 02 Site Plan.mxd | Coordinate System: NAD 1983 HARN StatePlane Oregon North FIPS 5601 | Date Saved: 9/22/2023 | User: nicole | Print Date: 9/22/2023



-  Monitoring Well - Shallow
-  City Water Supply Well
-  Property Boundary
-  Clackamas County Tax Parcel

-  Approximate Groundwater Elevation Contour (Feet NAVD88)
-  Inferred General Groundwater Flow Direction
- (90.30)** Groundwater Elevation (August 21, 2023)

Notes:
 1. Monitoring Well locations are based on a survey conducted by TerraCalc Land Surveying, Inc. on February 6, 2023.



Groundwater Elevation Contours Shallow Zone

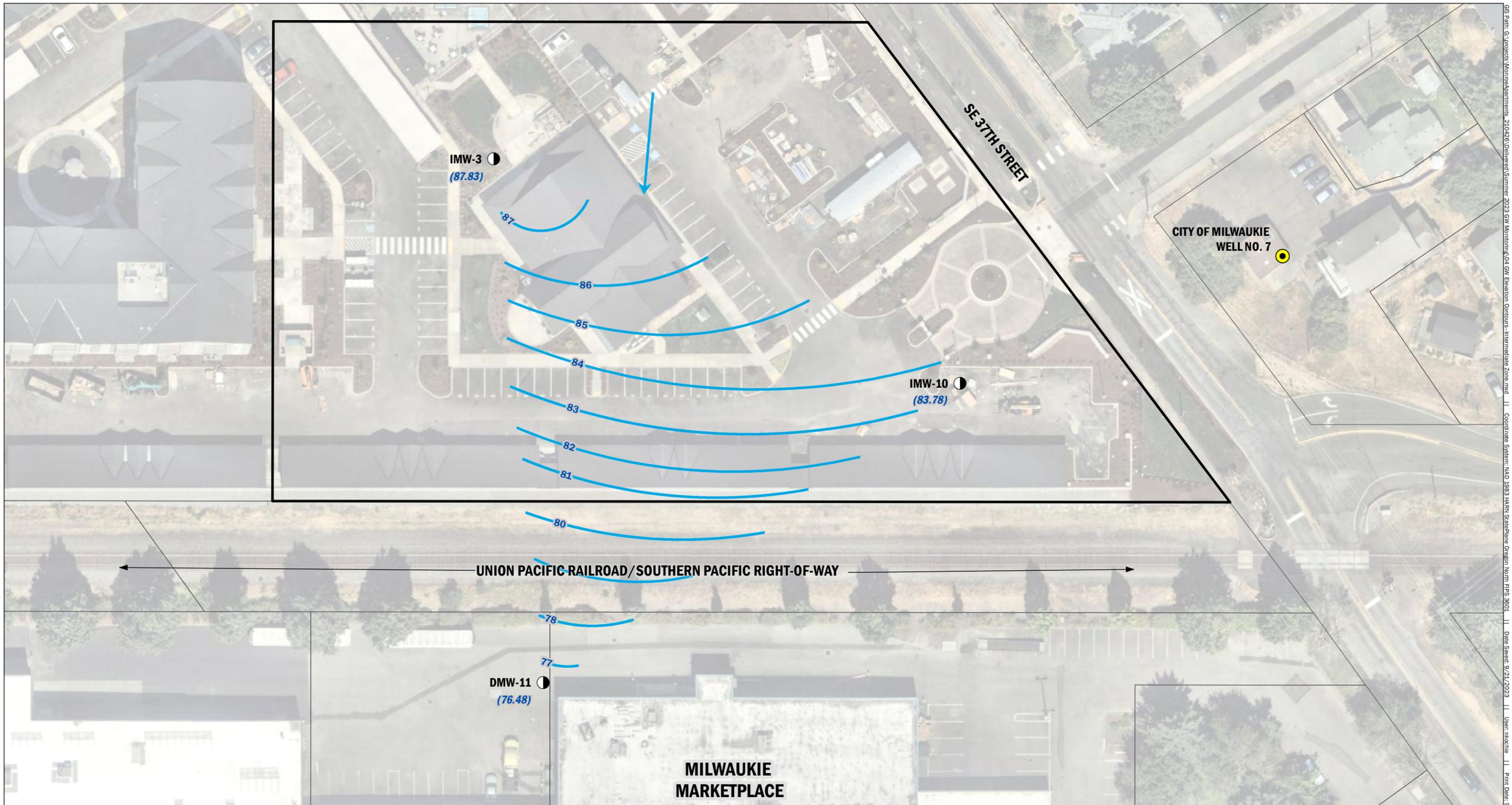
Summer 2023 Groundwater Monitoring
 Former L.D. McFarland Creosote Wood Treating Facility
 Milwaukie, Oregon



SEP-2023
 PROJECT NO.
 210426

BY:
 DAH / SCC
 REVISED BY:
 ZAS / SCC / HMD

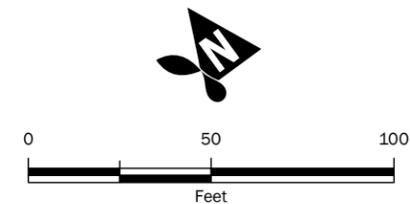
FIGURE NO.
3



-  Monitoring Well - Intermediate
-  City Water Supply Well
-  Property Boundary
-  Clackamas County Tax Parcel

-  Approximate Groundwater Elevation Contour (Feet NAVD88)
-  Inferred General Groundwater Flow Direction
-  Groundwater Elevation (76.48) (August 21, 2023)

Notes:
 1. Monitoring Well locations are based on a survey conducted by TerraCalc Land Surveying, Inc. on February 6, 2023.



Groundwater Elevation Contours Intermediate Zone

Summer 2023 Groundwater Monitoring
 Former L.D. McFarland Creosote Wood Treating Facility
 Milwaukie, Oregon

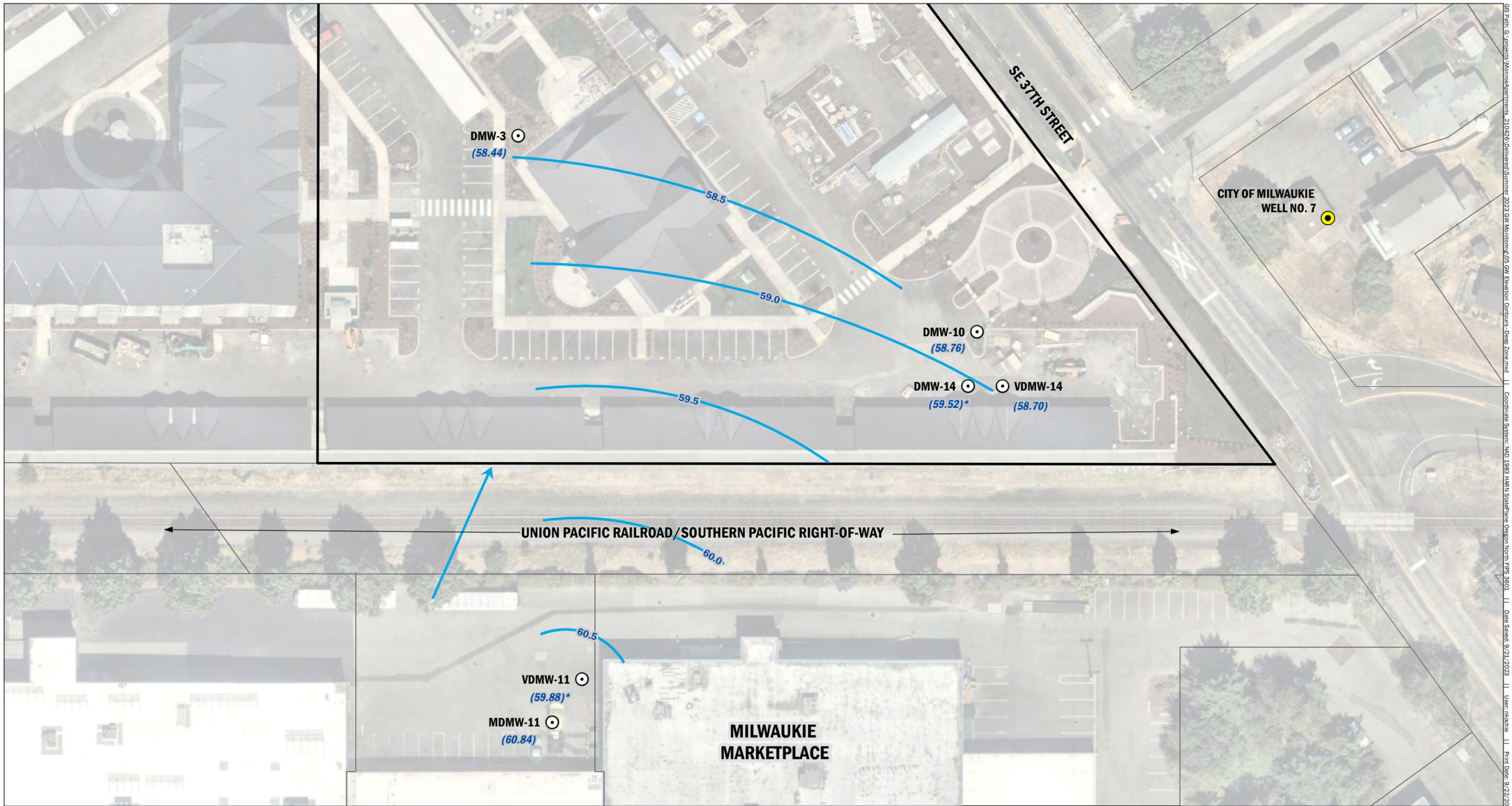


SEP-2023
 PROJECT NO.
 210426

BY:
 DAH / SCC
 REVISED BY:
 ZAS / SCC / HMD

FIGURE NO.
4

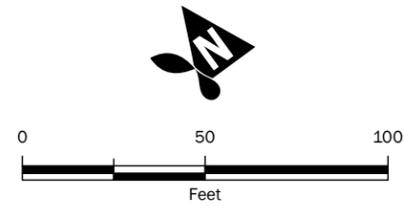
GIS Data: G:\Projects\Monitors\Apartment\210426\Delivered\Summer 2023 GW Monitoring\04 GW Elevation Contours-Intermediate Zone.mxd | Coordinate System: NAD 1983 NAD StatePlane Oregon North FIPS 5001 | Date Saved: 9/21/2023 | User: michele | Print Date: 9/21/2023



-  Monitoring Well - Deep
-  City Water Supply Well
-  Property Boundary
-  Clackamas County Tax Parcel

-  Approximate Groundwater Elevation Contour (Feet NAVD88)
-  Inferred General Groundwater Flow Direction
- (60.84)** Groundwater Elevation (August 21, 2023)

Notes:
 1. Monitoring Well locations are based on a survey conducted by TerraCalc Land Surveying, Inc. on February 6, 2023.
 2. * = Anomalous data not used for contouring.



Groundwater Elevation Contours Deep Zone

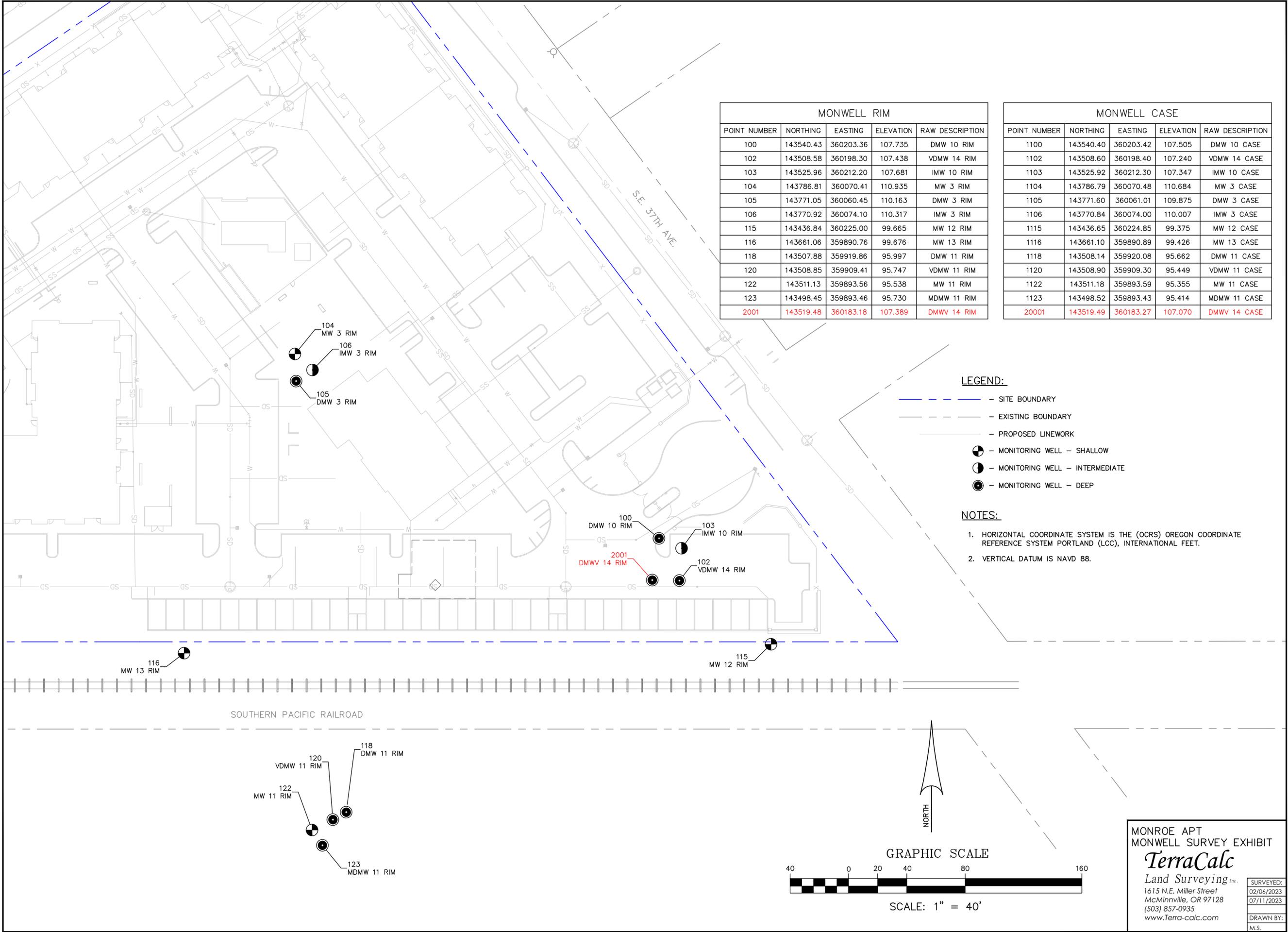
Summer 2023 Groundwater Monitoring
 Former L.D. McFarland Creosote Wood Treating Facility
 Milwaukie, Oregon

| | | | |
|---|-----------------------|--------------------------------|------------------------|
|  | SEP-2023 | BY: DAH / SCC | FIGURE NO. 5 |
| | PROJECT NO. 210426 | REVISED BY: ZAS / SCC / HMD | |

GIS Path: G:\Projects\MapInfo\MapInfo_210426\Delivered\Summer 2023 GW Monitoring\05 GW Elevation Contours-Deep Zone.mxd | Coordinate System: NAD 1983 HARN StatePlane Oregon North FIPS 3601 | Data Source: 9/21/2023 | User: mchole | Print Date: 9/22/2023

APPENDIX A

Monitoring Well Survey



| MONWELL RIM | | | | |
|--------------|-----------|-----------|-----------|-----------------|
| POINT NUMBER | NORTHING | EASTING | ELEVATION | RAW DESCRIPTION |
| 100 | 143540.43 | 360203.36 | 107.735 | DMW 10 RIM |
| 102 | 143508.58 | 360198.30 | 107.438 | VDMW 14 RIM |
| 103 | 143525.96 | 360212.20 | 107.681 | IMW 10 RIM |
| 104 | 143786.81 | 360070.41 | 110.935 | MW 3 RIM |
| 105 | 143771.05 | 360060.45 | 110.163 | DMW 3 RIM |
| 106 | 143770.92 | 360074.10 | 110.317 | IMW 3 RIM |
| 115 | 143436.84 | 360225.00 | 99.665 | MW 12 RIM |
| 116 | 143661.06 | 359890.76 | 99.676 | MW 13 RIM |
| 118 | 143507.88 | 359919.86 | 95.997 | DMW 11 RIM |
| 120 | 143508.85 | 359909.41 | 95.747 | VDMW 11 RIM |
| 122 | 143511.13 | 359893.56 | 95.538 | MW 11 RIM |
| 123 | 143498.45 | 359893.46 | 95.730 | MDMW 11 RIM |
| 2001 | 143519.48 | 360183.18 | 107.389 | DMWV 14 RIM |

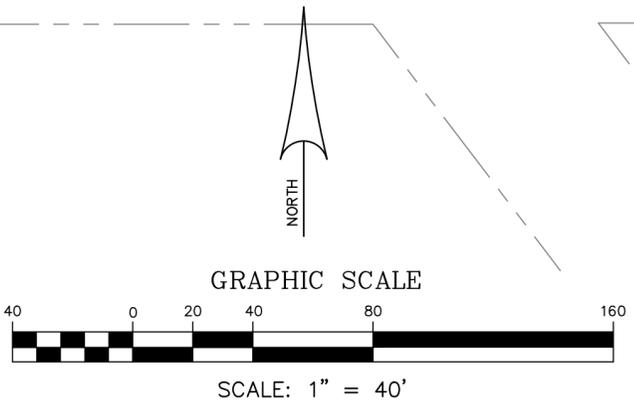
| MONWELL CASE | | | | |
|--------------|-----------|-----------|-----------|-----------------|
| POINT NUMBER | NORTHING | EASTING | ELEVATION | RAW DESCRIPTION |
| 1100 | 143540.40 | 360203.42 | 107.505 | DMW 10 CASE |
| 1102 | 143508.60 | 360198.40 | 107.240 | VDMW 14 CASE |
| 1103 | 143525.92 | 360212.30 | 107.347 | IMW 10 CASE |
| 1104 | 143786.79 | 360070.48 | 110.684 | MW 3 CASE |
| 1105 | 143771.60 | 360061.01 | 109.875 | DMW 3 CASE |
| 1106 | 143770.84 | 360074.00 | 110.007 | IMW 3 CASE |
| 1115 | 143436.65 | 360224.85 | 99.375 | MW 12 CASE |
| 1116 | 143661.10 | 359890.89 | 99.426 | MW 13 CASE |
| 1118 | 143508.14 | 359920.08 | 95.662 | DMW 11 CASE |
| 1120 | 143508.90 | 359909.30 | 95.449 | VDMW 11 CASE |
| 1122 | 143511.18 | 359893.59 | 95.355 | MW 11 CASE |
| 1123 | 143498.52 | 359893.43 | 95.414 | MDMW 11 CASE |
| 20001 | 143519.49 | 360183.27 | 107.070 | DMWV 14 CASE |

LEGEND:

- - - - - SITE BOUNDARY
- - - - - EXISTING BOUNDARY
- - - - - PROPOSED LINWORK
- - MONITORING WELL - SHALLOW
- ◐ - MONITORING WELL - INTERMEDIATE
- ◑ - MONITORING WELL - DEEP

NOTES:

1. HORIZONTAL COORDINATE SYSTEM IS THE (OGRS) OREGON COORDINATE REFERENCE SYSTEM PORTLAND (LCC), INTERNATIONAL FEET.
2. VERTICAL DATUM IS NAVD 88.



MONROE APT
MONWELL SURVEY EXHIBIT

TerraCalc
Land Surveying Inc.

1615 N.E. Miller Street
McMinnville, OR 97128
(503) 857-0935
www.Terra-calc.com

| | |
|-----------|------------|
| SURVEYED: | 02/06/2023 |
| DRAWN BY: | M.S. |

APPENDIX B

Laboratory Analytical Reports



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Thursday, September 7, 2023

Jasmin Toro
Aspect Consulting-Portland
319 SW Washington St, Suite #310
Portland, OR 97204

RE: A3H1362 - Seven Acres - Monroe Apts - 210426

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A3H1362, which was received by the laboratory on 8/24/2023 at 12:50:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: DAuvil@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information
Acceptable Receipt Temperature is less than, or equal to, 6 degC (not frozen), or received on ice the same day as sampling.
(See Cooler Receipt Form for details)
Default Cooler 3.7 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report. All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.



Apex Laboratories

[Handwritten signature]

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

| | | |
|---|---|--|
| Aspect Consulting-Portland 319 SW Washington St, Suite #310 Portland, OR 97204 | Project: <u>Seven Acres - Monroe Apts</u> Project Number: 210426 Project Manager: Jasmin Toro | Report ID: A3H1362 - 09 07 23 1005 |
|---|---|--|

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

| Client Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|------------------|---------------|--------|----------------|----------------|
| 230821-CW-07 | A3H1362-01 | Water | 08/21/23 11:55 | 08/24/23 12:50 |
| 230821-CW-07-FB | A3H1362-02 | Water | 08/21/23 11:40 | 08/24/23 12:50 |
| 230821-CW-07-DUP | A3H1362-03 | Water | 08/21/23 11:55 | 08/24/23 12:50 |
| 230821-IMW-10 | A3H1362-04 | Water | 08/21/23 14:05 | 08/24/23 12:50 |
| 230821-VDMW-14 | A3H1362-05 | Water | 08/21/23 17:15 | 08/24/23 12:50 |
| 230822-DMW-14 | A3H1362-06 | Water | 08/22/23 09:45 | 08/24/23 12:50 |
| 230822-EB | A3H1362-07 | Water | 08/22/23 09:50 | 08/24/23 12:50 |
| 230822-VDMW-11 | A3H1362-08 | Water | 08/22/23 11:35 | 08/24/23 12:50 |
| 230822-MDMW-11 | A3H1362-09 | Water | 08/22/23 14:50 | 08/24/23 12:50 |
| 230822-MW-11 | A3H1362-10 | Water | 08/22/23 15:08 | 08/24/23 12:50 |
| 230823-DMW-10 | A3H1362-11 | Water | 08/23/23 10:05 | 08/24/23 12:50 |
| 230823-MW-13 | A3H1362-12 | Water | 08/23/23 12:00 | 08/24/23 12:50 |
| 230823-DMW-11 | A3H1362-13 | Water | 08/23/23 13:45 | 08/24/23 12:50 |
| 230823-EB | A3H1362-14 | Water | 08/23/23 14:10 | 08/24/23 12:50 |

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

| | | |
|---|---|---|
| Aspect Consulting-Portland 319 SW Washington St, Suite #310 Portland, OR 97204 | Project: Seven Acres - Monroe Apts Project Number: 210426 Project Manager: Jasmin Toro | Report ID: A3H1362 - 09 07 23 1005 |
|---|---|---|

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|--|---------------|-----------------|-----------------------|-------------------------|----------|-----------------------|----------------------|-------|
| | | | | Matrix: Water | | | | |
| | | | | Batch: 23H0936 | | | | |
| 230821-CW-07 (A3H1362-01) | | | | | | | | |
| Acenaphthene | ND | --- | 0.0342 | ug/L | 1 | 08/25/23 15:57 | EPA 8270E LVI | |
| Acenaphthylene | ND | --- | 0.0342 | ug/L | 1 | 08/25/23 15:57 | EPA 8270E LVI | |
| Anthracene | ND | --- | 0.0342 | ug/L | 1 | 08/25/23 15:57 | EPA 8270E LVI | |
| Benz(a)anthracene | ND | --- | 0.0171 | ug/L | 1 | 08/25/23 15:57 | EPA 8270E LVI | |
| Benzo(a)pyrene | ND | --- | 0.0171 | ug/L | 1 | 08/25/23 15:57 | EPA 8270E LVI | |
| Benzo(b)fluoranthene | ND | --- | 0.0171 | ug/L | 1 | 08/25/23 15:57 | EPA 8270E LVI | |
| Benzo(k)fluoranthene | ND | --- | 0.0171 | ug/L | 1 | 08/25/23 15:57 | EPA 8270E LVI | |
| Benzo(g,h,i)perylene | ND | --- | 0.0342 | ug/L | 1 | 08/25/23 15:57 | EPA 8270E LVI | |
| Chrysene | ND | --- | 0.0171 | ug/L | 1 | 08/25/23 15:57 | EPA 8270E LVI | |
| Dibenz(a,h)anthracene | ND | --- | 0.0171 | ug/L | 1 | 08/25/23 15:57 | EPA 8270E LVI | |
| Fluoranthene | ND | --- | 0.0342 | ug/L | 1 | 08/25/23 15:57 | EPA 8270E LVI | |
| Fluorene | ND | --- | 0.0342 | ug/L | 1 | 08/25/23 15:57 | EPA 8270E LVI | |
| Indeno(1,2,3-cd)pyrene | ND | --- | 0.0171 | ug/L | 1 | 08/25/23 15:57 | EPA 8270E LVI | |
| 1-Methylnaphthalene | ND | --- | 0.0683 | ug/L | 1 | 08/25/23 15:57 | EPA 8270E LVI | |
| 2-Methylnaphthalene | ND | --- | 0.0683 | ug/L | 1 | 08/25/23 15:57 | EPA 8270E LVI | |
| Naphthalene | ND | --- | 0.0683 | ug/L | 1 | 08/25/23 15:57 | EPA 8270E LVI | |
| Phenanthrene | ND | --- | 0.0683 | ug/L | 1 | 08/25/23 15:57 | EPA 8270E LVI | |
| Pyrene | ND | --- | 0.0342 | ug/L | 1 | 08/25/23 15:57 | EPA 8270E LVI | |
| Dibenzofuran | ND | --- | 0.0342 | ug/L | 1 | 08/25/23 15:57 | EPA 8270E LVI | |
| <i>Surrogate: Acenaphthylene-d8 (Surr)</i> | | | <i>Recovery: 95 %</i> | <i>Limits: 78-134 %</i> | <i>1</i> | <i>08/25/23 15:57</i> | <i>EPA 8270E LVI</i> | |
| <i>Benzo(a)pyrene-d12 (Surr)</i> | | | <i>112 %</i> | <i>80-132 %</i> | <i>1</i> | <i>08/25/23 15:57</i> | <i>EPA 8270E LVI</i> | |

| | | | | | | | | |
|------------------------------|----|-----|--------|-----------------------|---|----------------|---------------|--|
| | | | | Matrix: Water | | | | |
| | | | | Batch: 23H0936 | | | | |
| 230821-CW-07-FB (A3H1362-02) | | | | | | | | |
| Acenaphthene | ND | --- | 0.0320 | ug/L | 1 | 08/25/23 16:30 | EPA 8270E LVI | |
| Acenaphthylene | ND | --- | 0.0320 | ug/L | 1 | 08/25/23 16:30 | EPA 8270E LVI | |
| Anthracene | ND | --- | 0.0320 | ug/L | 1 | 08/25/23 16:30 | EPA 8270E LVI | |
| Benz(a)anthracene | ND | --- | 0.0160 | ug/L | 1 | 08/25/23 16:30 | EPA 8270E LVI | |
| Benzo(a)pyrene | ND | --- | 0.0160 | ug/L | 1 | 08/25/23 16:30 | EPA 8270E LVI | |
| Benzo(b)fluoranthene | ND | --- | 0.0160 | ug/L | 1 | 08/25/23 16:30 | EPA 8270E LVI | |
| Benzo(k)fluoranthene | ND | --- | 0.0160 | ug/L | 1 | 08/25/23 16:30 | EPA 8270E LVI | |
| Benzo(g,h,i)perylene | ND | --- | 0.0320 | ug/L | 1 | 08/25/23 16:30 | EPA 8270E LVI | |
| Chrysene | ND | --- | 0.0160 | ug/L | 1 | 08/25/23 16:30 | EPA 8270E LVI | |
| Dibenz(a,h)anthracene | ND | --- | 0.0160 | ug/L | 1 | 08/25/23 16:30 | EPA 8270E LVI | |

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

| | | |
|---|---|---|
| Aspect Consulting-Portland 319 SW Washington St, Suite #310 Portland, OR 97204 | Project: Seven Acres - Monroe Apts Project Number: 210426 Project Manager: Jasmin Toro | Report ID: A3H1362 - 09 07 23 1005 |
|---|---|---|

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|--|---------------|-----------------|-----------------------|-------------------------|----------|-----------------------|----------------------|-------|
| | | | | Matrix: Water | | Batch: 23H0936 | | |
| 230821-CW-07-FB (A3H1362-02) | | | | | | | | |
| Fluoranthene | ND | --- | 0.0320 | ug/L | 1 | 08/25/23 16:30 | EPA 8270E LVI | |
| Fluorene | ND | --- | 0.0320 | ug/L | 1 | 08/25/23 16:30 | EPA 8270E LVI | |
| Indeno(1,2,3-cd)pyrene | ND | --- | 0.0160 | ug/L | 1 | 08/25/23 16:30 | EPA 8270E LVI | |
| 1-Methylnaphthalene | ND | --- | 0.0641 | ug/L | 1 | 08/25/23 16:30 | EPA 8270E LVI | |
| 2-Methylnaphthalene | ND | --- | 0.0641 | ug/L | 1 | 08/25/23 16:30 | EPA 8270E LVI | |
| Naphthalene | ND | --- | 0.0641 | ug/L | 1 | 08/25/23 16:30 | EPA 8270E LVI | |
| Phenanthrene | ND | --- | 0.0641 | ug/L | 1 | 08/25/23 16:30 | EPA 8270E LVI | |
| Pyrene | ND | --- | 0.0320 | ug/L | 1 | 08/25/23 16:30 | EPA 8270E LVI | |
| Dibenzofuran | ND | --- | 0.0320 | ug/L | 1 | 08/25/23 16:30 | EPA 8270E LVI | |
| <i>Surrogate: Acenaphthylene-d8 (Surr)</i> | | | <i>Recovery: 95 %</i> | <i>Limits: 78-134 %</i> | <i>1</i> | <i>08/25/23 16:30</i> | <i>EPA 8270E LVI</i> | |
| <i>Benzo(a)pyrene-d12 (Surr)</i> | | | <i>110 %</i> | <i>80-132 %</i> | <i>1</i> | <i>08/25/23 16:30</i> | <i>EPA 8270E LVI</i> | |
| | | | | Matrix: Water | | Batch: 23H0936 | | |
| 230821-CW-07-DUP (A3H1362-03) | | | | | | | | |
| Acenaphthene | ND | --- | 0.0327 | ug/L | 1 | 08/25/23 17:02 | EPA 8270E LVI | |
| Acenaphthylene | ND | --- | 0.0327 | ug/L | 1 | 08/25/23 17:02 | EPA 8270E LVI | |
| Anthracene | ND | --- | 0.0327 | ug/L | 1 | 08/25/23 17:02 | EPA 8270E LVI | |
| Benz(a)anthracene | ND | --- | 0.0163 | ug/L | 1 | 08/25/23 17:02 | EPA 8270E LVI | |
| Benzo(a)pyrene | ND | --- | 0.0163 | ug/L | 1 | 08/25/23 17:02 | EPA 8270E LVI | |
| Benzo(b)fluoranthene | ND | --- | 0.0163 | ug/L | 1 | 08/25/23 17:02 | EPA 8270E LVI | |
| Benzo(k)fluoranthene | ND | --- | 0.0163 | ug/L | 1 | 08/25/23 17:02 | EPA 8270E LVI | |
| Benzo(g,h,i)perylene | ND | --- | 0.0327 | ug/L | 1 | 08/25/23 17:02 | EPA 8270E LVI | |
| Chrysene | ND | --- | 0.0163 | ug/L | 1 | 08/25/23 17:02 | EPA 8270E LVI | |
| Dibenz(a,h)anthracene | ND | --- | 0.0163 | ug/L | 1 | 08/25/23 17:02 | EPA 8270E LVI | |
| Fluoranthene | ND | --- | 0.0327 | ug/L | 1 | 08/25/23 17:02 | EPA 8270E LVI | |
| Fluorene | ND | --- | 0.0327 | ug/L | 1 | 08/25/23 17:02 | EPA 8270E LVI | |
| Indeno(1,2,3-cd)pyrene | ND | --- | 0.0163 | ug/L | 1 | 08/25/23 17:02 | EPA 8270E LVI | |
| 1-Methylnaphthalene | ND | --- | 0.0653 | ug/L | 1 | 08/25/23 17:02 | EPA 8270E LVI | |
| 2-Methylnaphthalene | ND | --- | 0.0653 | ug/L | 1 | 08/25/23 17:02 | EPA 8270E LVI | |
| Naphthalene | ND | --- | 0.0653 | ug/L | 1 | 08/25/23 17:02 | EPA 8270E LVI | |
| Phenanthrene | ND | --- | 0.0653 | ug/L | 1 | 08/25/23 17:02 | EPA 8270E LVI | |
| Pyrene | ND | --- | 0.0327 | ug/L | 1 | 08/25/23 17:02 | EPA 8270E LVI | |
| Dibenzofuran | ND | --- | 0.0327 | ug/L | 1 | 08/25/23 17:02 | EPA 8270E LVI | |
| <i>Surrogate: Acenaphthylene-d8 (Surr)</i> | | | <i>Recovery: 97 %</i> | <i>Limits: 78-134 %</i> | <i>1</i> | <i>08/25/23 17:02</i> | <i>EPA 8270E LVI</i> | |

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Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

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Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

| | | |
|---|---|---|
| Aspect Consulting-Portland 319 SW Washington St, Suite #310 Portland, OR 97204 | Project: Seven Acres - Monroe Apts Project Number: 210426 Project Manager: Jasmin Toro | Report ID: A3H1362 - 09 07 23 1005 |
|---|---|---|

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---------------|-----------------|------------------------|-------------------------|----------|-----------------------|----------------------|-------|
| 230821-CW-07-DUP (A3H1362-03) | | | Matrix: Water | | | Batch: 23H0936 | | |
| <i>Surrogate: Benzo(a)pyrene-d12 (Surr)</i> | | | <i>Recovery: 113 %</i> | <i>Limits: 80-132 %</i> | <i>1</i> | <i>08/25/23 17:02</i> | <i>EPA 8270E LVI</i> | |
| 230821-IMW-10 (A3H1362-04) | | | Matrix: Water | | | Batch: 23H0936 | | |
| Acenaphthene | ND | --- | 0.0328 | ug/L | 1 | 08/25/23 18:40 | EPA 8270E LVI | |
| Acenaphthylene | ND | --- | 0.0328 | ug/L | 1 | 08/25/23 18:40 | EPA 8270E LVI | |
| Anthracene | ND | --- | 0.0328 | ug/L | 1 | 08/25/23 18:40 | EPA 8270E LVI | |
| Benz(a)anthracene | ND | --- | 0.0164 | ug/L | 1 | 08/25/23 18:40 | EPA 8270E LVI | |
| Benzo(a)pyrene | ND | --- | 0.0164 | ug/L | 1 | 08/25/23 18:40 | EPA 8270E LVI | |
| Benzo(b)fluoranthene | ND | --- | 0.0164 | ug/L | 1 | 08/25/23 18:40 | EPA 8270E LVI | |
| Benzo(k)fluoranthene | ND | --- | 0.0164 | ug/L | 1 | 08/25/23 18:40 | EPA 8270E LVI | |
| Benzo(g,h,i)perylene | ND | --- | 0.0328 | ug/L | 1 | 08/25/23 18:40 | EPA 8270E LVI | |
| Chrysene | ND | --- | 0.0164 | ug/L | 1 | 08/25/23 18:40 | EPA 8270E LVI | |
| Dibenz(a,h)anthracene | ND | --- | 0.0164 | ug/L | 1 | 08/25/23 18:40 | EPA 8270E LVI | |
| Fluoranthene | ND | --- | 0.0328 | ug/L | 1 | 08/25/23 18:40 | EPA 8270E LVI | |
| Fluorene | ND | --- | 0.0328 | ug/L | 1 | 08/25/23 18:40 | EPA 8270E LVI | |
| Indeno(1,2,3-cd)pyrene | ND | --- | 0.0164 | ug/L | 1 | 08/25/23 18:40 | EPA 8270E LVI | |
| 1-Methylnaphthalene | ND | --- | 0.0656 | ug/L | 1 | 08/25/23 18:40 | EPA 8270E LVI | |
| 2-Methylnaphthalene | ND | --- | 0.0656 | ug/L | 1 | 08/25/23 18:40 | EPA 8270E LVI | |
| Naphthalene | ND | --- | 0.0656 | ug/L | 1 | 08/25/23 18:40 | EPA 8270E LVI | |
| Phenanthrene | ND | --- | 0.0656 | ug/L | 1 | 08/25/23 18:40 | EPA 8270E LVI | |
| Pyrene | ND | --- | 0.0328 | ug/L | 1 | 08/25/23 18:40 | EPA 8270E LVI | |
| Dibenzofuran | ND | --- | 0.0328 | ug/L | 1 | 08/25/23 18:40 | EPA 8270E LVI | |
| <i>Surrogate: Acenaphthylene-d8 (Surr)</i> | | | <i>Recovery: 97 %</i> | <i>Limits: 78-134 %</i> | <i>1</i> | <i>08/25/23 18:40</i> | <i>EPA 8270E LVI</i> | |
| <i>Benzo(a)pyrene-d12 (Surr)</i> | | | <i>114 %</i> | <i>80-132 %</i> | <i>1</i> | <i>08/25/23 18:40</i> | <i>EPA 8270E LVI</i> | |
| 230821-VDMW-14 (A3H1362-05) | | | Matrix: Water | | | Batch: 23H0936 | | |
| Acenaphthene | ND | --- | 0.0367 | ug/L | 1 | 08/25/23 19:13 | EPA 8270E LVI | |
| Acenaphthylene | ND | --- | 0.0367 | ug/L | 1 | 08/25/23 19:13 | EPA 8270E LVI | |
| Anthracene | ND | --- | 0.0367 | ug/L | 1 | 08/25/23 19:13 | EPA 8270E LVI | |
| Benz(a)anthracene | ND | --- | 0.0184 | ug/L | 1 | 08/25/23 19:13 | EPA 8270E LVI | |
| Benzo(a)pyrene | ND | --- | 0.0184 | ug/L | 1 | 08/25/23 19:13 | EPA 8270E LVI | |
| Benzo(b)fluoranthene | ND | --- | 0.0184 | ug/L | 1 | 08/25/23 19:13 | EPA 8270E LVI | |
| Benzo(k)fluoranthene | ND | --- | 0.0184 | ug/L | 1 | 08/25/23 19:13 | EPA 8270E LVI | |
| Benzo(g,h,i)perylene | ND | --- | 0.0367 | ug/L | 1 | 08/25/23 19:13 | EPA 8270E LVI | |

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ANALYTICAL REPORT

Apex Laboratories, LLC

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Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

| | | |
|---|---|---|
| Aspect Consulting-Portland 319 SW Washington St, Suite #310 Portland, OR 97204 | Project: Seven Acres - Monroe Apts Project Number: 210426 Project Manager: Jasmin Toro | Report ID: A3H1362 - 09 07 23 1005 |
|---|---|---|

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|--|---------------|-----------------------|-----------------|-------------------------|----------|-----------------------|-----------------------|----------------------|
| 230821-VDMW-14 (A3H1362-05) | | | | Matrix: Water | | Batch: 23H0936 | | |
| Chrysene | ND | --- | 0.0184 | ug/L | 1 | 08/25/23 19:13 | EPA 8270E LVI | |
| Dibenz(a,h)anthracene | ND | --- | 0.0184 | ug/L | 1 | 08/25/23 19:13 | EPA 8270E LVI | |
| Fluoranthene | ND | --- | 0.0367 | ug/L | 1 | 08/25/23 19:13 | EPA 8270E LVI | |
| Fluorene | ND | --- | 0.0367 | ug/L | 1 | 08/25/23 19:13 | EPA 8270E LVI | |
| Indeno(1,2,3-cd)pyrene | ND | --- | 0.0184 | ug/L | 1 | 08/25/23 19:13 | EPA 8270E LVI | |
| 1-Methylnaphthalene | ND | --- | 0.0734 | ug/L | 1 | 08/25/23 19:13 | EPA 8270E LVI | |
| 2-Methylnaphthalene | ND | --- | 0.0734 | ug/L | 1 | 08/25/23 19:13 | EPA 8270E LVI | |
| Naphthalene | ND | --- | 0.0734 | ug/L | 1 | 08/25/23 19:13 | EPA 8270E LVI | |
| Phenanthrene | ND | --- | 0.0734 | ug/L | 1 | 08/25/23 19:13 | EPA 8270E LVI | |
| Pyrene | ND | --- | 0.0367 | ug/L | 1 | 08/25/23 19:13 | EPA 8270E LVI | |
| Dibenzofuran | ND | --- | 0.0367 | ug/L | 1 | 08/25/23 19:13 | EPA 8270E LVI | |
| <i>Surrogate: Acenaphthylene-d8 (Surr)</i> | | <i>Recovery: 99 %</i> | | <i>Limits: 78-134 %</i> | | <i>1</i> | <i>08/25/23 19:13</i> | <i>EPA 8270E LVI</i> |
| <i>Benzo(a)pyrene-d12 (Surr)</i> | | <i>121 %</i> | | <i>80-132 %</i> | | <i>1</i> | <i>08/25/23 19:13</i> | <i>EPA 8270E LVI</i> |
| 230822-DMW-14 (A3H1362-06) | | | | Matrix: Water | | Batch: 23H0936 | | |
| Acenaphthene | ND | --- | 0.0362 | ug/L | 1 | 08/25/23 20:49 | EPA 8270E LVI | |
| Acenaphthylene | ND | --- | 0.0362 | ug/L | 1 | 08/25/23 20:49 | EPA 8270E LVI | |
| Anthracene | ND | --- | 0.0362 | ug/L | 1 | 08/25/23 20:49 | EPA 8270E LVI | |
| Benz(a)anthracene | ND | --- | 0.0181 | ug/L | 1 | 08/25/23 20:49 | EPA 8270E LVI | |
| Benzo(a)pyrene | ND | --- | 0.0181 | ug/L | 1 | 08/25/23 20:49 | EPA 8270E LVI | |
| Benzo(b)fluoranthene | ND | --- | 0.0181 | ug/L | 1 | 08/25/23 20:49 | EPA 8270E LVI | |
| Benzo(k)fluoranthene | ND | --- | 0.0181 | ug/L | 1 | 08/25/23 20:49 | EPA 8270E LVI | |
| Benzo(g,h,i)perylene | ND | --- | 0.0362 | ug/L | 1 | 08/25/23 20:49 | EPA 8270E LVI | |
| Chrysene | ND | --- | 0.0181 | ug/L | 1 | 08/25/23 20:49 | EPA 8270E LVI | |
| Dibenz(a,h)anthracene | ND | --- | 0.0181 | ug/L | 1 | 08/25/23 20:49 | EPA 8270E LVI | |
| Fluoranthene | ND | --- | 0.0362 | ug/L | 1 | 08/25/23 20:49 | EPA 8270E LVI | |
| Fluorene | ND | --- | 0.0362 | ug/L | 1 | 08/25/23 20:49 | EPA 8270E LVI | |
| Indeno(1,2,3-cd)pyrene | ND | --- | 0.0181 | ug/L | 1 | 08/25/23 20:49 | EPA 8270E LVI | |
| 1-Methylnaphthalene | ND | --- | 0.0724 | ug/L | 1 | 08/25/23 20:49 | EPA 8270E LVI | |
| 2-Methylnaphthalene | ND | --- | 0.0724 | ug/L | 1 | 08/25/23 20:49 | EPA 8270E LVI | |
| Naphthalene | ND | --- | 0.0724 | ug/L | 1 | 08/25/23 20:49 | EPA 8270E LVI | |
| Phenanthrene | ND | --- | 0.0724 | ug/L | 1 | 08/25/23 20:49 | EPA 8270E LVI | |
| Pyrene | ND | --- | 0.0362 | ug/L | 1 | 08/25/23 20:49 | EPA 8270E LVI | |

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Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

| | | |
|---|---|---|
| Aspect Consulting-Portland 319 SW Washington St, Suite #310 Portland, OR 97204 | Project: Seven Acres - Monroe Apts Project Number: 210426 Project Manager: Jasmin Toro | Report ID: A3H1362 - 09 07 23 1005 |
|---|---|---|

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|--|---------------|------------------------|-----------------|-------------------------|----------|-----------------------|----------------------|-------|
| 230822-DMW-14 (A3H1362-06) | | | | Matrix: Water | | Batch: 23H0936 | | |
| Dibenzofuran | ND | --- | 0.0362 | ug/L | 1 | 08/25/23 20:49 | EPA 8270E LVI | |
| <i>Surrogate: Acenaphthylene-d8 (Surr)</i> | | <i>Recovery: 97 %</i> | | <i>Limits: 78-134 %</i> | <i>1</i> | <i>08/25/23 20:49</i> | <i>EPA 8270E LVI</i> | |
| <i>Benzo(a)pyrene-d12 (Surr)</i> | | <i>114 %</i> | | <i>80-132 %</i> | <i>1</i> | <i>08/25/23 20:49</i> | <i>EPA 8270E LVI</i> | |
| 230822-EB (A3H1362-07) | | | | Matrix: Water | | Batch: 23H0936 | | |
| Acenaphthene | ND | --- | 0.0337 | ug/L | 1 | 08/25/23 21:22 | EPA 8270E LVI | |
| Acenaphthylene | ND | --- | 0.0337 | ug/L | 1 | 08/25/23 21:22 | EPA 8270E LVI | |
| Anthracene | ND | --- | 0.0337 | ug/L | 1 | 08/25/23 21:22 | EPA 8270E LVI | |
| Benz(a)anthracene | ND | --- | 0.0169 | ug/L | 1 | 08/25/23 21:22 | EPA 8270E LVI | |
| Benzo(a)pyrene | ND | --- | 0.0169 | ug/L | 1 | 08/25/23 21:22 | EPA 8270E LVI | |
| Benzo(b)fluoranthene | ND | --- | 0.0169 | ug/L | 1 | 08/25/23 21:22 | EPA 8270E LVI | |
| Benzo(k)fluoranthene | ND | --- | 0.0169 | ug/L | 1 | 08/25/23 21:22 | EPA 8270E LVI | |
| Benzo(g,h,i)perylene | ND | --- | 0.0337 | ug/L | 1 | 08/25/23 21:22 | EPA 8270E LVI | |
| Chrysene | ND | --- | 0.0169 | ug/L | 1 | 08/25/23 21:22 | EPA 8270E LVI | |
| Dibenz(a,h)anthracene | ND | --- | 0.0169 | ug/L | 1 | 08/25/23 21:22 | EPA 8270E LVI | |
| Fluoranthene | ND | --- | 0.0337 | ug/L | 1 | 08/25/23 21:22 | EPA 8270E LVI | |
| Fluorene | ND | --- | 0.0337 | ug/L | 1 | 08/25/23 21:22 | EPA 8270E LVI | |
| Indeno(1,2,3-cd)pyrene | ND | --- | 0.0169 | ug/L | 1 | 08/25/23 21:22 | EPA 8270E LVI | |
| 1-Methylnaphthalene | ND | --- | 0.0674 | ug/L | 1 | 08/25/23 21:22 | EPA 8270E LVI | |
| 2-Methylnaphthalene | ND | --- | 0.0674 | ug/L | 1 | 08/25/23 21:22 | EPA 8270E LVI | |
| Naphthalene | ND | --- | 0.0674 | ug/L | 1 | 08/25/23 21:22 | EPA 8270E LVI | |
| Phenanthrene | ND | --- | 0.0674 | ug/L | 1 | 08/25/23 21:22 | EPA 8270E LVI | |
| Pyrene | ND | --- | 0.0337 | ug/L | 1 | 08/25/23 21:22 | EPA 8270E LVI | |
| Dibenzofuran | ND | --- | 0.0337 | ug/L | 1 | 08/25/23 21:22 | EPA 8270E LVI | |
| <i>Surrogate: Acenaphthylene-d8 (Surr)</i> | | <i>Recovery: 100 %</i> | | <i>Limits: 78-134 %</i> | <i>1</i> | <i>08/25/23 21:22</i> | <i>EPA 8270E LVI</i> | |
| <i>Benzo(a)pyrene-d12 (Surr)</i> | | <i>113 %</i> | | <i>80-132 %</i> | <i>1</i> | <i>08/25/23 21:22</i> | <i>EPA 8270E LVI</i> | |
| 230822-VDMW-11 (A3H1362-08) | | | | Matrix: Water | | Batch: 23H0936 | | |
| Acenaphthene | ND | --- | 0.0327 | ug/L | 1 | 08/25/23 21:54 | EPA 8270E LVI | |
| Acenaphthylene | ND | --- | 0.0327 | ug/L | 1 | 08/25/23 21:54 | EPA 8270E LVI | |
| Anthracene | ND | --- | 0.0327 | ug/L | 1 | 08/25/23 21:54 | EPA 8270E LVI | |
| Benz(a)anthracene | ND | --- | 0.0164 | ug/L | 1 | 08/25/23 21:54 | EPA 8270E LVI | |
| Benzo(a)pyrene | ND | --- | 0.0164 | ug/L | 1 | 08/25/23 21:54 | EPA 8270E LVI | |

Apex Laboratories

Darrell Auvil, Client Services Manager

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

| | | |
|---|---|---|
| Aspect Consulting-Portland 319 SW Washington St, Suite #310 Portland, OR 97204 | Project: Seven Acres - Monroe Apts Project Number: 210426 Project Manager: Jasmin Toro | Report ID: A3H1362 - 09 07 23 1005 |
|---|---|---|

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|--|---------------|-----------------|------------------------|-------------------------|----------|-----------------------|----------------------|-------|
| 230822-VDMW-11 (A3H1362-08) | | | Matrix: Water | | | Batch: 23H0936 | | |
| Benzo(b)fluoranthene | ND | --- | 0.0164 | ug/L | 1 | 08/25/23 21:54 | EPA 8270E LVI | |
| Benzo(k)fluoranthene | ND | --- | 0.0164 | ug/L | 1 | 08/25/23 21:54 | EPA 8270E LVI | |
| Benzo(g,h,i)perylene | ND | --- | 0.0327 | ug/L | 1 | 08/25/23 21:54 | EPA 8270E LVI | |
| Chrysene | ND | --- | 0.0164 | ug/L | 1 | 08/25/23 21:54 | EPA 8270E LVI | |
| Dibenz(a,h)anthracene | ND | --- | 0.0164 | ug/L | 1 | 08/25/23 21:54 | EPA 8270E LVI | |
| Fluoranthene | ND | --- | 0.0327 | ug/L | 1 | 08/25/23 21:54 | EPA 8270E LVI | |
| Fluorene | ND | --- | 0.0327 | ug/L | 1 | 08/25/23 21:54 | EPA 8270E LVI | |
| Indeno(1,2,3-cd)pyrene | ND | --- | 0.0164 | ug/L | 1 | 08/25/23 21:54 | EPA 8270E LVI | |
| 1-Methylnaphthalene | ND | --- | 0.0655 | ug/L | 1 | 08/25/23 21:54 | EPA 8270E LVI | |
| 2-Methylnaphthalene | ND | --- | 0.0655 | ug/L | 1 | 08/25/23 21:54 | EPA 8270E LVI | |
| Naphthalene | ND | --- | 0.0655 | ug/L | 1 | 08/25/23 21:54 | EPA 8270E LVI | |
| Phenanthrene | ND | --- | 0.0655 | ug/L | 1 | 08/25/23 21:54 | EPA 8270E LVI | |
| Pyrene | ND | --- | 0.0327 | ug/L | 1 | 08/25/23 21:54 | EPA 8270E LVI | |
| Dibenzofuran | ND | --- | 0.0327 | ug/L | 1 | 08/25/23 21:54 | EPA 8270E LVI | |
| <i>Surrogate: Acenaphthylene-d8 (Surr)</i> | | | <i>Recovery: 100 %</i> | <i>Limits: 78-134 %</i> | <i>1</i> | <i>08/25/23 21:54</i> | <i>EPA 8270E LVI</i> | |
| <i>Benzo(a)pyrene-d12 (Surr)</i> | | | <i>114 %</i> | <i>80-132 %</i> | <i>1</i> | <i>08/25/23 21:54</i> | <i>EPA 8270E LVI</i> | |

| | | | | | | | | |
|------------------------------------|----|-----|----------------------|------|---|-----------------------|---------------|--|
| 230822-MDMW-11 (A3H1362-09) | | | Matrix: Water | | | Batch: 23H0936 | | |
| Acenaphthene | ND | --- | 0.0361 | ug/L | 1 | 08/25/23 22:26 | EPA 8270E LVI | |
| Acenaphthylene | ND | --- | 0.0361 | ug/L | 1 | 08/25/23 22:26 | EPA 8270E LVI | |
| Anthracene | ND | --- | 0.0361 | ug/L | 1 | 08/25/23 22:26 | EPA 8270E LVI | |
| Benz(a)anthracene | ND | --- | 0.0181 | ug/L | 1 | 08/25/23 22:26 | EPA 8270E LVI | |
| Benzo(a)pyrene | ND | --- | 0.0181 | ug/L | 1 | 08/25/23 22:26 | EPA 8270E LVI | |
| Benzo(b)fluoranthene | ND | --- | 0.0181 | ug/L | 1 | 08/25/23 22:26 | EPA 8270E LVI | |
| Benzo(k)fluoranthene | ND | --- | 0.0181 | ug/L | 1 | 08/25/23 22:26 | EPA 8270E LVI | |
| Benzo(g,h,i)perylene | ND | --- | 0.0361 | ug/L | 1 | 08/25/23 22:26 | EPA 8270E LVI | |
| Chrysene | ND | --- | 0.0181 | ug/L | 1 | 08/25/23 22:26 | EPA 8270E LVI | |
| Dibenz(a,h)anthracene | ND | --- | 0.0181 | ug/L | 1 | 08/25/23 22:26 | EPA 8270E LVI | |
| Fluoranthene | ND | --- | 0.0361 | ug/L | 1 | 08/25/23 22:26 | EPA 8270E LVI | |
| Fluorene | ND | --- | 0.0361 | ug/L | 1 | 08/25/23 22:26 | EPA 8270E LVI | |
| Indeno(1,2,3-cd)pyrene | ND | --- | 0.0181 | ug/L | 1 | 08/25/23 22:26 | EPA 8270E LVI | |
| 1-Methylnaphthalene | ND | --- | 0.0722 | ug/L | 1 | 08/25/23 22:26 | EPA 8270E LVI | |
| 2-Methylnaphthalene | ND | --- | 0.0722 | ug/L | 1 | 08/25/23 22:26 | EPA 8270E LVI | |

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| Aspect Consulting-Portland 319 SW Washington St, Suite #310 Portland, OR 97204 | Project: Seven Acres - Monroe Apts Project Number: 210426 Project Manager: Jasmin Toro | Report ID: A3H1362 - 09 07 23 1005 |
|---|---|---|

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|--|---------------|-----------------------|-----------------|-------------------------|----------|-----------------------|-----------------------|----------------------|
| | | | | Matrix: Water | | Batch: 23H0936 | | |
| Naphthalene | ND | --- | 0.0722 | ug/L | 1 | 08/25/23 22:26 | EPA 8270E LVI | |
| Phenanthrene | ND | --- | 0.0722 | ug/L | 1 | 08/25/23 22:26 | EPA 8270E LVI | |
| Pyrene | ND | --- | 0.0361 | ug/L | 1 | 08/25/23 22:26 | EPA 8270E LVI | |
| Dibenzofuran | ND | --- | 0.0361 | ug/L | 1 | 08/25/23 22:26 | EPA 8270E LVI | |
| <i>Surrogate: Acenaphthylene-d8 (Surr)</i> | | <i>Recovery: 97 %</i> | | <i>Limits: 78-134 %</i> | | <i>1</i> | <i>08/25/23 22:26</i> | <i>EPA 8270E LVI</i> |
| <i>Benzo(a)pyrene-d12 (Surr)</i> | | <i>115 %</i> | | <i>80-132 %</i> | | <i>1</i> | <i>08/25/23 22:26</i> | <i>EPA 8270E LVI</i> |

| | | | | | | | | |
|--|----|-----------------------|--------|-------------------------|---|-----------------------|-----------------------|----------------------|
| | | | | Matrix: Water | | Batch: 23H0936 | | |
| Acenaphthene | ND | --- | 0.0338 | ug/L | 1 | 08/25/23 22:58 | EPA 8270E LVI | |
| Acenaphthylene | ND | --- | 0.0338 | ug/L | 1 | 08/25/23 22:58 | EPA 8270E LVI | |
| Anthracene | ND | --- | 0.0338 | ug/L | 1 | 08/25/23 22:58 | EPA 8270E LVI | |
| Benz(a)anthracene | ND | --- | 0.0169 | ug/L | 1 | 08/25/23 22:58 | EPA 8270E LVI | |
| Benzo(a)pyrene | ND | --- | 0.0169 | ug/L | 1 | 08/25/23 22:58 | EPA 8270E LVI | |
| Benzo(b)fluoranthene | ND | --- | 0.0169 | ug/L | 1 | 08/25/23 22:58 | EPA 8270E LVI | |
| Benzo(k)fluoranthene | ND | --- | 0.0169 | ug/L | 1 | 08/25/23 22:58 | EPA 8270E LVI | |
| Benzo(g,h,i)perylene | ND | --- | 0.0338 | ug/L | 1 | 08/25/23 22:58 | EPA 8270E LVI | |
| Chrysene | ND | --- | 0.0169 | ug/L | 1 | 08/25/23 22:58 | EPA 8270E LVI | |
| Dibenz(a,h)anthracene | ND | --- | 0.0169 | ug/L | 1 | 08/25/23 22:58 | EPA 8270E LVI | |
| Fluoranthene | ND | --- | 0.0338 | ug/L | 1 | 08/25/23 22:58 | EPA 8270E LVI | |
| Fluorene | ND | --- | 0.0338 | ug/L | 1 | 08/25/23 22:58 | EPA 8270E LVI | |
| Indeno(1,2,3-cd)pyrene | ND | --- | 0.0169 | ug/L | 1 | 08/25/23 22:58 | EPA 8270E LVI | |
| 1-Methylnaphthalene | ND | --- | 0.0675 | ug/L | 1 | 08/25/23 22:58 | EPA 8270E LVI | |
| 2-Methylnaphthalene | ND | --- | 0.0675 | ug/L | 1 | 08/25/23 22:58 | EPA 8270E LVI | |
| Naphthalene | ND | --- | 0.0675 | ug/L | 1 | 08/25/23 22:58 | EPA 8270E LVI | |
| Phenanthrene | ND | --- | 0.0675 | ug/L | 1 | 08/25/23 22:58 | EPA 8270E LVI | |
| Pyrene | ND | --- | 0.0338 | ug/L | 1 | 08/25/23 22:58 | EPA 8270E LVI | |
| Dibenzofuran | ND | --- | 0.0338 | ug/L | 1 | 08/25/23 22:58 | EPA 8270E LVI | |
| <i>Surrogate: Acenaphthylene-d8 (Surr)</i> | | <i>Recovery: 99 %</i> | | <i>Limits: 78-134 %</i> | | <i>1</i> | <i>08/25/23 22:58</i> | <i>EPA 8270E LVI</i> |
| <i>Benzo(a)pyrene-d12 (Surr)</i> | | <i>114 %</i> | | <i>80-132 %</i> | | <i>1</i> | <i>08/25/23 22:58</i> | <i>EPA 8270E LVI</i> |

| | | | | | | | | |
|----------------|----|-----|--------|----------------------|---|-----------------------|---------------|--|
| | | | | Matrix: Water | | Batch: 23H0936 | | |
| Acenaphthene | ND | --- | 0.0425 | ug/L | 1 | 08/25/23 23:31 | EPA 8270E LVI | |
| Acenaphthylene | ND | --- | 0.0425 | ug/L | 1 | 08/25/23 23:31 | EPA 8270E LVI | |

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|---|---|---|
| Aspect Consulting-Portland 319 SW Washington St, Suite #310 Portland, OR 97204 | Project: Seven Acres - Monroe Apts Project Number: 210426 Project Manager: Jasmin Toro | Report ID: A3H1362 - 09 07 23 1005 |
|---|---|---|

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|--|---------------|-----------------|-----------------------|-------------------------|----------|-----------------------|----------------------|-------|
| | | | | Matrix: Water | | | | |
| | | | | | | Batch: 23H0936 | | |
| 230823-DMW-10 (A3H1362-11) | | | | | | | | |
| Anthracene | ND | --- | 0.0425 | ug/L | 1 | 08/25/23 23:31 | EPA 8270E LVI | |
| Benz(a)anthracene | ND | --- | 0.0213 | ug/L | 1 | 08/25/23 23:31 | EPA 8270E LVI | |
| Benzo(a)pyrene | ND | --- | 0.0213 | ug/L | 1 | 08/25/23 23:31 | EPA 8270E LVI | |
| Benzo(b)fluoranthene | ND | --- | 0.0213 | ug/L | 1 | 08/25/23 23:31 | EPA 8270E LVI | |
| Benzo(k)fluoranthene | ND | --- | 0.0213 | ug/L | 1 | 08/25/23 23:31 | EPA 8270E LVI | |
| Benzo(g,h,i)perylene | ND | --- | 0.0425 | ug/L | 1 | 08/25/23 23:31 | EPA 8270E LVI | |
| Chrysene | ND | --- | 0.0213 | ug/L | 1 | 08/25/23 23:31 | EPA 8270E LVI | |
| Dibenz(a,h)anthracene | ND | --- | 0.0213 | ug/L | 1 | 08/25/23 23:31 | EPA 8270E LVI | |
| Fluoranthene | ND | --- | 0.0425 | ug/L | 1 | 08/25/23 23:31 | EPA 8270E LVI | |
| Fluorene | ND | --- | 0.0425 | ug/L | 1 | 08/25/23 23:31 | EPA 8270E LVI | |
| Indeno(1,2,3-cd)pyrene | ND | --- | 0.0213 | ug/L | 1 | 08/25/23 23:31 | EPA 8270E LVI | |
| 1-Methylnaphthalene | ND | --- | 0.0850 | ug/L | 1 | 08/25/23 23:31 | EPA 8270E LVI | |
| 2-Methylnaphthalene | ND | --- | 0.0850 | ug/L | 1 | 08/25/23 23:31 | EPA 8270E LVI | |
| Naphthalene | ND | --- | 0.0850 | ug/L | 1 | 08/25/23 23:31 | EPA 8270E LVI | |
| Phenanthrene | ND | --- | 0.0850 | ug/L | 1 | 08/25/23 23:31 | EPA 8270E LVI | |
| Pyrene | ND | --- | 0.0425 | ug/L | 1 | 08/25/23 23:31 | EPA 8270E LVI | |
| Dibenzofuran | ND | --- | 0.0425 | ug/L | 1 | 08/25/23 23:31 | EPA 8270E LVI | |
| <i>Surrogate: Acenaphthylene-d8 (Surr)</i> | | | <i>Recovery: 98 %</i> | <i>Limits: 78-134 %</i> | <i>1</i> | <i>08/25/23 23:31</i> | <i>EPA 8270E LVI</i> | |
| <i>Benzo(a)pyrene-d12 (Surr)</i> | | | <i>119 %</i> | <i>80-132 %</i> | <i>1</i> | <i>08/25/23 23:31</i> | <i>EPA 8270E LVI</i> | |

| | | | | | | | | |
|----------------------------------|---------------|-----|--------|----------------------|---|-----------------------|---------------|--|
| | | | | Matrix: Water | | | | |
| | | | | | | Batch: 23H0936 | | |
| 230823-MW-13 (A3H1362-12) | | | | | | | | |
| Acenaphthene | ND | --- | 0.0331 | ug/L | 1 | 08/26/23 00:03 | EPA 8270E LVI | |
| Acenaphthylene | ND | --- | 0.0331 | ug/L | 1 | 08/26/23 00:03 | EPA 8270E LVI | |
| Anthracene | 0.0853 | --- | 0.0331 | ug/L | 1 | 08/26/23 00:03 | EPA 8270E LVI | |
| Benz(a)anthracene | ND | --- | 0.0166 | ug/L | 1 | 08/26/23 00:03 | EPA 8270E LVI | |
| Benzo(a)pyrene | ND | --- | 0.0166 | ug/L | 1 | 08/26/23 00:03 | EPA 8270E LVI | |
| Benzo(b)fluoranthene | ND | --- | 0.0166 | ug/L | 1 | 08/26/23 00:03 | EPA 8270E LVI | |
| Benzo(k)fluoranthene | ND | --- | 0.0166 | ug/L | 1 | 08/26/23 00:03 | EPA 8270E LVI | |
| Benzo(g,h,i)perylene | ND | --- | 0.0331 | ug/L | 1 | 08/26/23 00:03 | EPA 8270E LVI | |
| Chrysene | ND | --- | 0.0166 | ug/L | 1 | 08/26/23 00:03 | EPA 8270E LVI | |
| Dibenz(a,h)anthracene | ND | --- | 0.0166 | ug/L | 1 | 08/26/23 00:03 | EPA 8270E LVI | |
| Fluoranthene | ND | --- | 0.0331 | ug/L | 1 | 08/26/23 00:03 | EPA 8270E LVI | |
| Fluorene | ND | --- | 0.0331 | ug/L | 1 | 08/26/23 00:03 | EPA 8270E LVI | |

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|---|---|--|

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|--|---------------|-----------------------|-----------------|-------------------------|----------|----------------|-----------------------|----------------------|
| | | | | Matrix: Water | | | | |
| | | | | Batch: 23H0936 | | | | |
| Indeno(1,2,3-cd)pyrene | ND | --- | 0.0166 | ug/L | 1 | 08/26/23 00:03 | EPA 8270E LVI | |
| 1-Methylnaphthalene | ND | --- | 0.0662 | ug/L | 1 | 08/26/23 00:03 | EPA 8270E LVI | |
| 2-Methylnaphthalene | ND | --- | 0.0662 | ug/L | 1 | 08/26/23 00:03 | EPA 8270E LVI | |
| Naphthalene | ND | --- | 0.0662 | ug/L | 1 | 08/26/23 00:03 | EPA 8270E LVI | |
| Phenanthrene | ND | --- | 0.0662 | ug/L | 1 | 08/26/23 00:03 | EPA 8270E LVI | |
| Pyrene | ND | --- | 0.0331 | ug/L | 1 | 08/26/23 00:03 | EPA 8270E LVI | |
| Dibenzofuran | ND | --- | 0.0331 | ug/L | 1 | 08/26/23 00:03 | EPA 8270E LVI | |
| <i>Surrogate: Acenaphthylene-d8 (Surr)</i> | | <i>Recovery: 97 %</i> | | <i>Limits: 78-134 %</i> | | <i>1</i> | <i>08/26/23 00:03</i> | <i>EPA 8270E LVI</i> |
| <i>Benzo(a)pyrene-d12 (Surr)</i> | | <i>115 %</i> | | <i>80-132 %</i> | | <i>1</i> | <i>08/26/23 00:03</i> | <i>EPA 8270E LVI</i> |
| | | | | Matrix: Water | | | | |
| | | | | Batch: 23H0936 | | | | |
| Acenaphthylene | 3.96 | --- | 0.0394 | ug/L | 1 | 08/26/23 00:35 | EPA 8270E LVI | |
| Anthracene | 8.65 | --- | 0.0394 | ug/L | 1 | 08/26/23 00:35 | EPA 8270E LVI | |
| Benz(a)anthracene | 0.126 | --- | 0.0197 | ug/L | 1 | 08/26/23 00:35 | EPA 8270E LVI | |
| Benzo(a)pyrene | ND | --- | 0.0197 | ug/L | 1 | 08/26/23 00:35 | EPA 8270E LVI | |
| Benzo(b)fluoranthene | ND | --- | 0.0197 | ug/L | 1 | 08/26/23 00:35 | EPA 8270E LVI | |
| Benzo(k)fluoranthene | ND | --- | 0.0197 | ug/L | 1 | 08/26/23 00:35 | EPA 8270E LVI | |
| Benzo(g,h,i)perylene | ND | --- | 0.0394 | ug/L | 1 | 08/26/23 00:35 | EPA 8270E LVI | |
| Chrysene | 0.0482 | --- | 0.0197 | ug/L | 1 | 08/26/23 00:35 | EPA 8270E LVI | |
| Dibenz(a,h)anthracene | ND | --- | 0.0197 | ug/L | 1 | 08/26/23 00:35 | EPA 8270E LVI | |
| Fluoranthene | 15.4 | --- | 0.0394 | ug/L | 1 | 08/26/23 00:35 | EPA 8270E LVI | |
| Indeno(1,2,3-cd)pyrene | ND | --- | 0.0197 | ug/L | 1 | 08/26/23 00:35 | EPA 8270E LVI | |
| 1-Methylnaphthalene | 1.20 | --- | 0.0788 | ug/L | 1 | 08/26/23 00:35 | EPA 8270E LVI | |
| 2-Methylnaphthalene | ND | --- | 0.0788 | ug/L | 1 | 08/26/23 00:35 | EPA 8270E LVI | |
| Naphthalene | 1.39 | --- | 0.0788 | ug/L | 1 | 08/26/23 00:35 | EPA 8270E LVI | |
| Phenanthrene | 1.75 | --- | 0.0788 | ug/L | 1 | 08/26/23 00:35 | EPA 8270E LVI | |
| Pyrene | 11.0 | --- | 0.0394 | ug/L | 1 | 08/26/23 00:35 | EPA 8270E LVI | |
| <i>Surrogate: Acenaphthylene-d8 (Surr)</i> | | <i>Recovery: 93 %</i> | | <i>Limits: 78-134 %</i> | | <i>1</i> | <i>08/26/23 00:35</i> | <i>EPA 8270E LVI</i> |
| <i>Benzo(a)pyrene-d12 (Surr)</i> | | <i>119 %</i> | | <i>80-132 %</i> | | <i>1</i> | <i>08/26/23 00:35</i> | <i>EPA 8270E LVI</i> |
| | | | | Matrix: Water | | | | |
| | | | | Batch: 23H0936 | | | | |
| Acenaphthene | 224 | --- | 0.788 | ug/L | 20 | 08/28/23 14:43 | EPA 8270E LVI | |
| Fluorene | 94.6 | --- | 0.788 | ug/L | 20 | 08/28/23 14:43 | EPA 8270E LVI | |

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ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|--|---------------|-----------------------|----------------------|-------------------------|----------|-----------------------|-----------------------|----------------------|
| 230823-DMW-11 (A3H1362-13RE1) | | | Matrix: Water | | | Batch: 23H0936 | | |
| Dibenzofuran | 119 | --- | 0.788 | ug/L | 20 | 08/28/23 14:43 | EPA 8270E LVI | |
| 230823-EB (A3H1362-14) | | | Matrix: Water | | | Batch: 23H0936 | | |
| Acenaphthene | 0.997 | --- | 0.0347 | ug/L | 1 | 08/26/23 01:07 | EPA 8270E LVI | |
| Acenaphthylene | 0.0416 | --- | 0.0347 | ug/L | 1 | 08/26/23 01:07 | EPA 8270E LVI | |
| Anthracene | 0.107 | --- | 0.0347 | ug/L | 1 | 08/26/23 01:07 | EPA 8270E LVI | |
| Benz(a)anthracene | ND | --- | 0.0173 | ug/L | 1 | 08/26/23 01:07 | EPA 8270E LVI | |
| Benzo(a)pyrene | ND | --- | 0.0173 | ug/L | 1 | 08/26/23 01:07 | EPA 8270E LVI | |
| Benzo(b)fluoranthene | ND | --- | 0.0173 | ug/L | 1 | 08/26/23 01:07 | EPA 8270E LVI | |
| Benzo(k)fluoranthene | ND | --- | 0.0173 | ug/L | 1 | 08/26/23 01:07 | EPA 8270E LVI | |
| Benzo(g,h,i)perylene | ND | --- | 0.0347 | ug/L | 1 | 08/26/23 01:07 | EPA 8270E LVI | |
| Chrysene | ND | --- | 0.0173 | ug/L | 1 | 08/26/23 01:07 | EPA 8270E LVI | |
| Dibenz(a,h)anthracene | ND | --- | 0.0173 | ug/L | 1 | 08/26/23 01:07 | EPA 8270E LVI | |
| Fluoranthene | 0.173 | --- | 0.0347 | ug/L | 1 | 08/26/23 01:07 | EPA 8270E LVI | |
| Fluorene | 0.698 | --- | 0.0347 | ug/L | 1 | 08/26/23 01:07 | EPA 8270E LVI | |
| Indeno(1,2,3-cd)pyrene | ND | --- | 0.0173 | ug/L | 1 | 08/26/23 01:07 | EPA 8270E LVI | |
| 1-Methylnaphthalene | ND | --- | 0.0693 | ug/L | 1 | 08/26/23 01:07 | EPA 8270E LVI | |
| 2-Methylnaphthalene | ND | --- | 0.0693 | ug/L | 1 | 08/26/23 01:07 | EPA 8270E LVI | |
| Naphthalene | ND | --- | 0.0693 | ug/L | 1 | 08/26/23 01:07 | EPA 8270E LVI | |
| Phenanthrene | ND | --- | 0.0693 | ug/L | 1 | 08/26/23 01:07 | EPA 8270E LVI | |
| Pyrene | 0.124 | --- | 0.0347 | ug/L | 1 | 08/26/23 01:07 | EPA 8270E LVI | |
| Dibenzofuran | 0.864 | --- | 0.0347 | ug/L | 1 | 08/26/23 01:07 | EPA 8270E LVI | |
| <i>Surrogate: Acenaphthylene-d8 (Surr)</i> | | <i>Recovery: 97 %</i> | | <i>Limits: 78-134 %</i> | | <i>1</i> | <i>08/26/23 01:07</i> | <i>EPA 8270E LVI</i> |
| <i>Benzo(a)pyrene-d12 (Surr)</i> | | <i>113 %</i> | | <i>80-132 %</i> | | <i>1</i> | <i>08/26/23 01:07</i> | <i>EPA 8270E LVI</i> |

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Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

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| | | |
|-----------------------------------|---|--------------------------------|
| Aspect Consulting-Portland | Project: Seven Acres - Monroe Apts | |
| 319 SW Washington St, Suite #310 | Project Number: 210426 | Report ID: |
| Portland, OR 97204 | Project Manager: Jasmin Toro | A3H1362 - 09 07 23 1005 |

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|--------|-----------------------|---|-------------------------|----------|---------------------|---------------|-------|--------------|-----|-----------|-------|
| Batch 23H0936 - EPA 3511 (Bottle Extraction) | | | | | | Water | | | | | | |
| Blank (23H0936-BLK1) | | | Prepared: 08/25/23 08:16 Analyzed: 08/25/23 14:20 | | | | | | | | | |
| EPA 8270E LVI | | | | | | | | | | | | |
| Acenaphthene | ND | --- | 0.0320 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Acenaphthylene | ND | --- | 0.0320 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Anthracene | ND | --- | 0.0320 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Benz(a)anthracene | ND | --- | 0.0160 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Benzo(a)pyrene | ND | --- | 0.0160 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Benzo(b)fluoranthene | ND | --- | 0.0160 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Benzo(k)fluoranthene | ND | --- | 0.0160 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Benzo(g,h,i)perylene | ND | --- | 0.0320 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Chrysene | ND | --- | 0.0160 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Dibenz(a,h)anthracene | ND | --- | 0.0160 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Fluoranthene | ND | --- | 0.0320 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Fluorene | ND | --- | 0.0320 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Indeno(1,2,3-cd)pyrene | ND | --- | 0.0160 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1-Methylnaphthalene | ND | --- | 0.0640 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 2-Methylnaphthalene | ND | --- | 0.0640 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Naphthalene | ND | --- | 0.0640 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Phenanthrene | ND | --- | 0.0640 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Pyrene | ND | --- | 0.0320 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Carbazole | ND | --- | 0.0320 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Dibenzofuran | ND | --- | 0.0320 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| <i>Surr: Acenaphthylene-d8 (Surr)</i> | | <i>Recovery: 96 %</i> | | <i>Limits: 78-134 %</i> | | <i>Dilution: 1x</i> | | | | | | |
| <i>Benzo(a)pyrene-d12 (Surr)</i> | | <i>108 %</i> | | <i>80-132 %</i> | | <i>"</i> | | | | | | |

| | | | | | | | | | | | | |
|--------------------------|------|-----|---|------|---|------|-----|-----|---------|-----|-----|--|
| LCS (23H0936-BS1) | | | Prepared: 08/25/23 08:16 Analyzed: 08/25/23 14:52 | | | | | | | | | |
| EPA 8270E LVI | | | | | | | | | | | | |
| Acenaphthene | 1.79 | --- | 0.0320 | ug/L | 1 | 1.60 | --- | 112 | 80-120% | --- | --- | |
| Acenaphthylene | 1.80 | --- | 0.0320 | ug/L | 1 | 1.60 | --- | 113 | 80-124% | --- | --- | |
| Anthracene | 1.81 | --- | 0.0320 | ug/L | 1 | 1.60 | --- | 113 | 80-123% | --- | --- | |
| Benz(a)anthracene | 1.86 | --- | 0.0160 | ug/L | 1 | 1.60 | --- | 116 | 80-122% | --- | --- | |
| Benzo(a)pyrene | 1.87 | --- | 0.0160 | ug/L | 1 | 1.60 | --- | 117 | 80-129% | --- | --- | |
| Benzo(b)fluoranthene | 1.87 | --- | 0.0160 | ug/L | 1 | 1.60 | --- | 117 | 80-124% | --- | --- | |
| Benzo(k)fluoranthene | 1.88 | --- | 0.0160 | ug/L | 1 | 1.60 | --- | 117 | 80-125% | --- | --- | |
| Benzo(g,h,i)perylene | 1.84 | --- | 0.0320 | ug/L | 1 | 1.60 | --- | 115 | 80-120% | --- | --- | |

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ANALYTICAL REPORT

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|-----------------------------------|---|--------------------------------|
| Aspect Consulting-Portland | Project: Seven Acres - Monroe Apts | |
| 319 SW Washington St, Suite #310 | Project Number: 210426 | Report ID: |
| Portland, OR 97204 | Project Manager: Jasmin Toro | A3H1362 - 09 07 23 1005 |

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|--------|-----------------------|---|-------------------------|----------|---------------------|---------------|-------|--------------|-----|-----------|-------|
| Batch 23H0936 - EPA 3511 (Bottle Extraction) | | | | | | Water | | | | | | |
| LCS (23H0936-BS1) | | | Prepared: 08/25/23 08:16 Analyzed: 08/25/23 14:52 | | | | | | | | | |
| Chrysene | 1.78 | --- | 0.0160 | ug/L | 1 | 1.60 | --- | 111 | 80-120% | --- | --- | |
| Dibenz(a,h)anthracene | 1.77 | --- | 0.0160 | ug/L | 1 | 1.60 | --- | 111 | 80-120% | --- | --- | |
| Fluoranthene | 1.89 | --- | 0.0320 | ug/L | 1 | 1.60 | --- | 118 | 80-126% | --- | --- | |
| Fluorene | 1.84 | --- | 0.0320 | ug/L | 1 | 1.60 | --- | 115 | 77-127% | --- | --- | |
| Indeno(1,2,3-cd)pyrene | 1.83 | --- | 0.0160 | ug/L | 1 | 1.60 | --- | 114 | 80-121% | --- | --- | |
| 1-Methylnaphthalene | 1.59 | --- | 0.0640 | ug/L | 1 | 1.60 | --- | 99 | 53-148% | --- | --- | |
| 2-Methylnaphthalene | 1.58 | --- | 0.0640 | ug/L | 1 | 1.60 | --- | 99 | 48-150% | --- | --- | |
| Naphthalene | 1.82 | --- | 0.0640 | ug/L | 1 | 1.60 | --- | 114 | 78-120% | --- | --- | |
| Phenanthrene | 1.78 | --- | 0.0640 | ug/L | 1 | 1.60 | --- | 112 | 80-120% | --- | --- | |
| Pyrene | 1.89 | --- | 0.0320 | ug/L | 1 | 1.60 | --- | 118 | 80-125% | --- | --- | |
| Carbazole | 1.82 | --- | 0.0320 | ug/L | 1 | 1.60 | --- | 114 | 65-141% | --- | --- | |
| Dibenzofuran | 1.77 | --- | 0.0320 | ug/L | 1 | 1.60 | --- | 110 | 76-121% | --- | --- | |
| <i>Surr: Acenaphthylene-d8 (Surr)</i> | | <i>Recovery: 95 %</i> | | <i>Limits: 78-134 %</i> | | <i>Dilution: 1x</i> | | | | | | |
| <i>Benzo(a)pyrene-d12 (Surr)</i> | | <i>111 %</i> | | <i>80-132 %</i> | | <i>"</i> | | | | | | |

| | | | | | | | | | | | | |
|-------------------------------|------|-----|---|------|---|------|-----|-----|---------|-----|-------------|--|
| LCS Dup (23H0936-BSD1) | | | Prepared: 08/25/23 08:16 Analyzed: 08/25/23 15:25 | | | | | | | | Q-19 | |
| EPA 8270E LVI | | | | | | | | | | | | |
| Acenaphthene | 1.76 | --- | 0.0320 | ug/L | 1 | 1.60 | --- | 110 | 80-120% | 2 | 30% | |
| Acenaphthylene | 1.77 | --- | 0.0320 | ug/L | 1 | 1.60 | --- | 111 | 80-124% | 2 | 30% | |
| Anthracene | 1.81 | --- | 0.0320 | ug/L | 1 | 1.60 | --- | 113 | 80-123% | 0.1 | 30% | |
| Benz(a)anthracene | 1.85 | --- | 0.0160 | ug/L | 1 | 1.60 | --- | 116 | 80-122% | 0.3 | 30% | |
| Benzo(a)pyrene | 1.87 | --- | 0.0160 | ug/L | 1 | 1.60 | --- | 117 | 80-129% | 0.4 | 30% | |
| Benzo(b)fluoranthene | 1.90 | --- | 0.0160 | ug/L | 1 | 1.60 | --- | 119 | 80-124% | 2 | 30% | |
| Benzo(k)fluoranthene | 1.88 | --- | 0.0160 | ug/L | 1 | 1.60 | --- | 118 | 80-125% | 0.3 | 30% | |
| Benzo(g,h,i)perylene | 1.89 | --- | 0.0320 | ug/L | 1 | 1.60 | --- | 118 | 80-120% | 2 | 30% | |
| Chrysene | 1.77 | --- | 0.0160 | ug/L | 1 | 1.60 | --- | 111 | 80-120% | 0.2 | 30% | |
| Dibenz(a,h)anthracene | 1.78 | --- | 0.0160 | ug/L | 1 | 1.60 | --- | 111 | 80-120% | 0.2 | 30% | |
| Fluoranthene | 1.91 | --- | 0.0320 | ug/L | 1 | 1.60 | --- | 119 | 80-126% | 1 | 30% | |
| Fluorene | 1.85 | --- | 0.0320 | ug/L | 1 | 1.60 | --- | 116 | 77-127% | 0.9 | 30% | |
| Indeno(1,2,3-cd)pyrene | 1.86 | --- | 0.0160 | ug/L | 1 | 1.60 | --- | 116 | 80-121% | 2 | 30% | |
| 1-Methylnaphthalene | 1.61 | --- | 0.0640 | ug/L | 1 | 1.60 | --- | 101 | 53-148% | 1 | 30% | |
| 2-Methylnaphthalene | 1.60 | --- | 0.0640 | ug/L | 1 | 1.60 | --- | 100 | 48-150% | 1 | 30% | |
| Naphthalene | 1.80 | --- | 0.0640 | ug/L | 1 | 1.60 | --- | 113 | 78-120% | 1 | 30% | |
| Phenanthrene | 1.80 | --- | 0.0640 | ug/L | 1 | 1.60 | --- | 112 | 80-120% | 0.7 | 30% | |

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ANALYTICAL REPORT

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| | | |
|---|---|---|
| Aspect Consulting-Portland 319 SW Washington St, Suite #310 Portland, OR 97204 | Project: Seven Acres - Monroe Apts Project Number: 210426 Project Manager: Jasmin Toro | Report ID: A3H1362 - 09 07 23 1005 |
|---|---|---|

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes | |
|---|--------|-----------------------|---|-------------------------|----------|---------------------|---------------|-------|--------------|-----|-----------|-------|--|
| Batch 23H0936 - EPA 3511 (Bottle Extraction) | | | | | | Water | | | | | | | |
| LCS Dup (23H0936-BSD1) | | | Prepared: 08/25/23 08:16 Analyzed: 08/25/23 15:25 | | | | | | Q-19 | | | | |
| Pyrene | 1.88 | --- | 0.0320 | ug/L | 1 | 1.60 | --- | 118 | 80-125% | 0.6 | 30% | | |
| Carbazole | 1.81 | --- | 0.0320 | ug/L | 1 | 1.60 | --- | 113 | 65-141% | 0.6 | 30% | | |
| Dibenzofuran | 1.78 | --- | 0.0320 | ug/L | 1 | 1.60 | --- | 111 | 76-121% | 0.8 | 30% | | |
| <i>Surr: Acenaphthylene-d8 (Surr)</i> | | <i>Recovery: 95 %</i> | | <i>Limits: 78-134 %</i> | | <i>Dilution: 1x</i> | | | | | | | |
| <i>Benzo(a)pyrene-d12 (Surr)</i> | | <i>111 %</i> | | <i>80-132 %</i> | | <i>"</i> | | | | | | | |

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| Aspect Consulting-Portland 319 SW Washington St, Suite #310 Portland, OR 97204 | Project: Seven Acres - Monroe Apts Project Number: 210426 Project Manager: Jasmin Toro | Report ID: A3H1362 - 09 07 23 1005 |
|---|---|---|

SAMPLE PREPARATION INFORMATION

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

| Prep: EPA 3511 (Bottle Extraction) | | | | | Sample | Default | RL Prep |
|------------------------------------|--------|---------------|----------------|----------------|---------------|---------------|---------|
| Lab Number | Matrix | Method | Sampled | Prepared | Initial/Final | Initial/Final | Factor |
| <u>Batch: 23H0936</u> | | | | | | | |
| A3H1362-01 | Water | EPA 8270E LVI | 08/21/23 11:55 | 08/25/23 08:16 | 117.13mL/5mL | 125mL/5mL | 1.07 |
| A3H1362-02 | Water | EPA 8270E LVI | 08/21/23 11:40 | 08/25/23 08:16 | 124.88mL/5mL | 125mL/5mL | 1.00 |
| A3H1362-03 | Water | EPA 8270E LVI | 08/21/23 11:55 | 08/25/23 08:16 | 122.47mL/5mL | 125mL/5mL | 1.02 |
| A3H1362-04 | Water | EPA 8270E LVI | 08/21/23 14:05 | 08/25/23 08:16 | 122mL/5mL | 125mL/5mL | 1.02 |
| A3H1362-05 | Water | EPA 8270E LVI | 08/21/23 17:15 | 08/25/23 08:16 | 108.93mL/5mL | 125mL/5mL | 1.15 |
| A3H1362-06 | Water | EPA 8270E LVI | 08/22/23 09:45 | 08/25/23 08:16 | 110.49mL/5mL | 125mL/5mL | 1.13 |
| A3H1362-07 | Water | EPA 8270E LVI | 08/22/23 09:50 | 08/25/23 08:16 | 118.69mL/5mL | 125mL/5mL | 1.05 |
| A3H1362-08 | Water | EPA 8270E LVI | 08/22/23 11:35 | 08/25/23 08:16 | 122.23mL/5mL | 125mL/5mL | 1.02 |
| A3H1362-09 | Water | EPA 8270E LVI | 08/22/23 14:50 | 08/25/23 08:16 | 110.78mL/5mL | 125mL/5mL | 1.13 |
| A3H1362-10 | Water | EPA 8270E LVI | 08/22/23 15:08 | 08/25/23 08:16 | 118.45mL/5mL | 125mL/5mL | 1.06 |
| A3H1362-11 | Water | EPA 8270E LVI | 08/23/23 10:05 | 08/25/23 08:16 | 94.08mL/5mL | 125mL/5mL | 1.33 |
| A3H1362-12 | Water | EPA 8270E LVI | 08/23/23 12:00 | 08/25/23 08:16 | 120.81mL/5mL | 125mL/5mL | 1.03 |
| A3H1362-13 | Water | EPA 8270E LVI | 08/23/23 13:45 | 08/25/23 08:16 | 101.56mL/5mL | 125mL/5mL | 1.23 |
| A3H1362-13RE1 | Water | EPA 8270E LVI | 08/23/23 13:45 | 08/25/23 08:16 | 101.56mL/5mL | 125mL/5mL | 1.23 |
| A3H1362-14 | Water | EPA 8270E LVI | 08/23/23 14:10 | 08/25/23 08:16 | 115.36mL/5mL | 125mL/5mL | 1.08 |

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| Aspect Consulting-Portland 319 SW Washington St, Suite #310 Portland, OR 97204 | Project: Seven Acres - Monroe Apts Project Number: 210426 Project Manager: Jasmin Toro | Report ID: A3H1362 - 09 07 23 1005 |
|---|---|---|

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

Q-19 Blank Spike Duplicate (BSD) sample analyzed in place of Matrix Spike/Duplicate samples due to limited sample amount available for analysis.

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|---|---|---|

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

- DET Analyte DETECTED at or above the detection or reporting limit.
- ND Analyte NOT DETECTED at or above the detection or reporting limit.
- NR Result Not Reported
- RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as "dry", "wet", or " " (blank) designation.

- "dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.
- "wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.
- " " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

Results for Volatiles analyses on soils and sediments that are reported on a "dry weight" basis include the water miscible solvent (WMS) correction referenced in the EPA 8000 Method guidance documents. Solid and Liquid samples reported on an "As Received" basis do not have the WMS correction applied, as dry weight was not performed.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

- " --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.
- " *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

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|---|---|---|

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks:

- Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).
- For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
- For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
- For further details, please request a copy of this document.
- Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.
- 'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level, if results are not reported to the MDL.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

Darrell Auvil, Client Services Manager

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ANALYTICAL REPORT

Apex Laboratories, LLC

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Table with 3 columns: Client info (Aspect Consulting-Portland), Project info (Seven Acres - Monroe Apts), and Report ID (A3H1362 - 09 07 23 1005).

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) -
EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Table with 6 columns: Matrix, Analysis, TNI_ID, Analyte, TNI_ID, Accreditation. Content: All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation. Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provided by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Handwritten signature of Darrell Auvil

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

| | | |
|---|---|---|
| Aspect Consulting-Portland 319 SW Washington St, Suite #310 Portland, OR 97204 | Project: Seven Acres - Monroe Apts Project Number: 210426 Project Manager: Jasmin Toro | Report ID: A3H1362 - 09 07 23 1005 |
|---|---|---|

APEX LABS COOLER RECEIPT FORM

Client: Aspect Consulting Element WO#: A3H1362
Project/Project #: Seven Acres / Monroe Apts / 210426

Delivery Info:
Date/time received: 8/24/23 @ 12:50 By: AJM
Delivered by: Apex Client ESS FedEx UPS Radio Morgan SDS Evergreen Other

Cooler Inspection Date/time inspected: 8/24/23 @ 14:24 By: AJM
Chain of Custody included? Yes No
Signed/dated by client? Yes No

| | Cooler #1 | Cooler #2 | Cooler #3 | Cooler #4 | Cooler #5 | Cooler #6 | Cooler #7 |
|----------------------------|-------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Temperature (°C) | <u>3.7</u> | | | | | | |
| Custody seals? (Y/N) | <u>N</u> | | | | | | |
| Received on ice? (Y/N) | <u>Y</u> | | | | | | |
| Temp. blanks? (Y/N) | <u>Y</u> | | | | | | |
| Ice type: (Gel/Real/Other) | <u>Real</u> | | | | | | |
| Condition (In/Out): | <u>In</u> | | | | | | |

Cooler out of temp? (Y/N) Possible reason why: _____
Green dots applied to out of temperature samples? Yes No
Out of temperature samples form initiated? Yes No
Sample Inspection: Date/time inspected: 8/24/23 @ 17:57 By: ly
All samples intact? Yes No Comments: _____

Bottle labels/COCs agree? Yes No Comments: T on 230822-MDMW-11 reads 1400, LOL reads 1450.

COC/container discrepancies form initiated? Yes No
Containers/volumes received appropriate for analysis? Yes No Comments: _____

Do VOA vials have visible headspace? Yes No NA
Comments: _____

Water samples: pH checked: Yes No NA pH appropriate? Yes No NA
Comments: _____

Additional information:

Labeled by: RAM Witness: AJM Cooler Inspected by: ly

Form Y-003 R-00

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager

APPENDIX C

Data Quality Assurance/Quality Control Review

DATA VALIDATION REPORT
Former LD McFarland Site
Summer 2023 Groundwater Monitoring
September 2023
SDG A3H1362

Prepared by:
Aspect Consulting, LLC
710 Second Ave, Suite 550
Seattle, WA 98104

Project No. 210426 • September 25, 2023

O:\Portland_Projects\210000_Projects\210426 Monroe Apartments\Report Drafts\SemiAnnual GW Monitoring Reports\Summer 2023\Appendix C Data Validation Report\DV Report_2023_08.docx

1 Introduction

This report summarizes the findings of the United States Environmental Protection Agency (EPA) Stage 2A data validation performed on analytical data for the groundwater samples collected on August 21, 22, and 23, 2023, for the former LD McFarland site semiannual groundwater sampling.

Samples were analyzed for polycyclic aromatic hydrocarbons (PAHs) and dibenzofuran by Apex Labs in Tigard, Oregon, as Sample Delivery Group (SDG) A3H1362. The analytical methods are summarized below:

Analytical Methods

| Analysis | Method | Laboratory |
|--|-----------|------------|
| Polycyclic aromatic hydrocarbons (PAHs) (low level) and dibenzofuran | EPA 8270E | Apex |

The validation followed the procedures documented in the analytical methods, National Functional Guidelines for Organic Data Review (EPA, 2020), National Functional Guidelines for Inorganic Data Review (EPA, 2020), and appropriate method-specific guidelines (EPA, 2015).

Data assigned a J qualifier (estimated) may be used for site evaluation purposes, but the reasons for qualification should be taken into account when interpreting sample concentrations. Data marked as do-not-report (NR) should not be used under any circumstances. Values without qualification meet all data measurement quality objectives and are suitable for use.

Data qualifier definitions and a summary table of the qualified data are included in the Qualified Data Summary at the end of this report. Data qualifiers have been incorporated into the project chemistry database to reflect the validation in this report.

2 Data Validation Findings

Groundwater samples in this SDG, and the chemical analyses performed on them, are tabulated below. The sections below describe the results of the data quality review by analyte group (analysis).

Sample Index

| Sample ID | Sample Date | Sample Type | Sample Matrix | EPA 8270E: PAHs; dibenzofuran |
|------------------|-------------|-------------------------|---------------|-------------------------------------|
| 230821-CW-07 | 8/21/2023 | Primary | Groundwater | X |
| 230821-CW-07-DUP | 8/21/2023 | Field Duplicate | Groundwater | X |
| 230821-CW-07-FB | 8/21/2023 | Field Blank | Water | X |
| 230821-IMW-10 | 8/21/2023 | Primary | Groundwater | X |
| 230821-VDMW-14 | 8/21/2023 | Primary | Groundwater | X |
| 230822-DMW-14 | 8/22/2023 | Primary | Groundwater | X |
| 230822-EB | 8/22/2023 | Equipment Rinsate Blank | Water | X |
| 230822-MDMW-11 | 8/22/2023 | Primary | Groundwater | X |
| 230822-MW-11 | 8/22/2023 | Primary | Groundwater | X |
| 230822-VDMW-11 | 8/22/2023 | Primary | Groundwater | X |
| 230823-DMW-10 | 8/23/2023 | Primary | Groundwater | X |
| 230823-DMW-11 | 8/23/2023 | Primary | Groundwater | X |
| 230823-EB | 8/23/2023 | Equipment Rinsate Blank | Water | X |
| 230823-MW-13 | 8/23/2023 | Primary | Groundwater | X |

2.1 PAHs and Dibenzofuran (EPA 8270E)

2.1.1 Sample Receipt, Preservation, and Holding Times

All groundwater samples and quality assurance/quality control samples were transported under strict chain-of-custody procedures.

Sample receipt, and preservation (2-6 degrees C) were acceptable.

Samples were analyzed within the requisite holding time limit.

Extractions and analyses were performed within the recommended holding time criteria.

The samples were preserved and stored appropriately.

2.1.2 Blanks/Detection Levels

Method, field, and equipment rinsate blanks were used to check for contamination during field sampling and laboratory analysis. Target analytes were not detected at or above the reporting levels in the blanks, except for the equipment rinsate blank sample collected on August 23, 2023. Results were qualified as described in the sections below.

2.1.2.1 Method Blanks

Laboratory method blank analyses were performed at the required frequencies. No target analytes were detected above reporting limits (RLs) in method blanks.

2.1.2.2 Trip Blanks

Trip blanks were not required for this sampling event.

2.1.2.3 Field Blanks

Field blanks are used to check whether ambient conditions in the field may have contaminated samples by exposing laboratory-supplied deionized water to ambient air. No target analytes were detected above the RL in the one field blank submitted.

2.1.2.4 Equipment Rinsate Blanks

Equipment rinsate blanks are used to check whether possible contamination from sampling equipment may have occurred during the collection of samples. They are collected by pouring laboratory-supplied deionized water over decontaminated sampling equipment. No target analytes were detected above the RL in the equipment rinsate blank collected on August 22, 2023.

No target analytes were detected above the RL in the equipment rinsate blank collected on August 23, 2023, with the following exceptions:

Anthracene – Detected at 0.107 ug/L in the equipment rinsate blank. Associated detections less than the blank contamination are qualified as non-detect (U) at the sample result. Associated non-detections and detections that are greater than 10x the blank contamination do not require qualification

Pyrene – Detected at 0.124 ug/L in the equipment rinsate blank. Associated non-detections and detections that are greater than 10x the blank contamination do not require qualification.

Dibenzofuran – Detected at 0.864 ug/L in the equipment rinsate blank. Associated non-detections and detections that are greater than 10x the blank contamination do not require qualification.

Fluoranthene – Detected at 0.173 ug/L in the equipment rinsate blank. Associated non-detections and detections that are greater than 10x the blank contamination do not require qualification.

Acenaphthylene – Detected at 0.0416 ug/L in the equipment rinsate blank. Associated non-detections and detections that are greater than 10x the blank contamination do not require qualification.

Acenaphthene – Detected at 0.997 ug/L in the equipment rinsate blank. Associated non-detections and detections that are greater than 10x the blank contamination do not require qualification.

Fluorene – Detected at 0.698 ug/L in the equipment rinsate blank (8/23/2023). Associated non-detections and detections that are greater than 10x the blank contamination do not require qualification.

2.1.3 Laboratory Control Samples/Laboratory Control Sample Duplicates (LCS/LCSD)

Laboratory control sample/laboratory control sample duplicates (LCS/LCSD) are spiked with target analytes to provide information on laboratory precision and accuracy. LCS extractions and analyses were performed at the required frequency. All LCS analytes were within acceptance limits for percent recovery.

All LCS/LCSD analytes were within acceptance limits for relative percent difference (RPD), suggesting sufficient laboratory precision. All LCS and LCSD %R and RPD were within the laboratory specified control limits. No qualification or action was needed.

2.1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

No MS/MSD samples were analyzed by the laboratory due to insufficient sample volume available for analysis. The laboratory instead ran an LCSD duplicate (Blank Spike Duplicate). No qualification or action was needed.

2.1.5 Surrogates

Samples are spiked with surrogate compounds to evaluate laboratory performance on individual samples. All surrogate %R values were within laboratory-specified control limit. No qualification or action was needed.

2.1.6 Field Duplicates

Field duplicate samples measure both field and laboratory precision. One field duplicate pair was submitted for analysis (230821-CW-07/230821-CW-07-DUP). No detections were reported for either sample. Nondetect data are not used in the evaluation of field duplicate results.

2.1.7 Reporting Limits

Apex Labs used routine RLs for nondetect results. Reporting limits were increased for samples associated with equipment blank detections when the result concentration was less than the concentration detected in the blank.

2.1.8 Case Narrative/Laboratory Qualification

No case narrative or laboratory qualifications were provided.

2.1.9 Overall Assessment

The data package was reviewed for transcription errors, omissions, and anomalies. No errors were found.

Accuracy was acceptable based on the LCS/LCSD, and precision was acceptable based on the LCS/LCSD RPD values. The data are of known quality and are acceptable for use as qualified.

3 Qualified Data Summary

No sample results were qualified as estimated (J) or were rejected (R) as part of this validation report. One result was changed from detected to nondetect (U) based on a detection in the equipment rinsate blank (see Section 2.1.2.4 and 2.1.7). Other nondetected values simply qualified U are not included in the list below.

| Sample | Method | Analyte | Qualifier | Reason |
|--------------|---------|------------|-----------|---|
| 230823-MW-13 | SW8270E | Anthracene | U | EB detected at 0.107 ug/L; Detected result to nondetect at result value |

Data Qualifier Definitions

| Data Qualifier | Definition |
|----------------|--|
| J | The analyte was detected above the reported quantitation limit, and the reported concentration was an estimated value. |
| R | The sample results are unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample. |
| U | The analyte was analyzed for but was considered not detected at the reporting limit or reported value. |
| UJ | The analyte was analyzed for, and the associated quantitation limit was an estimated value. |

The data are considered acceptable for their intended use, with the appropriate data qualifiers assigned.

4 References

U.S. Environmental Protection Agency (EPA), 2015, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA publication SW-846, Third Edition, Final Updates I (1993), II (1995), IIA (1994), IIB (1995), III (1997), IIIA (1999), IIIB (2005), IV (2008), and V (2015).

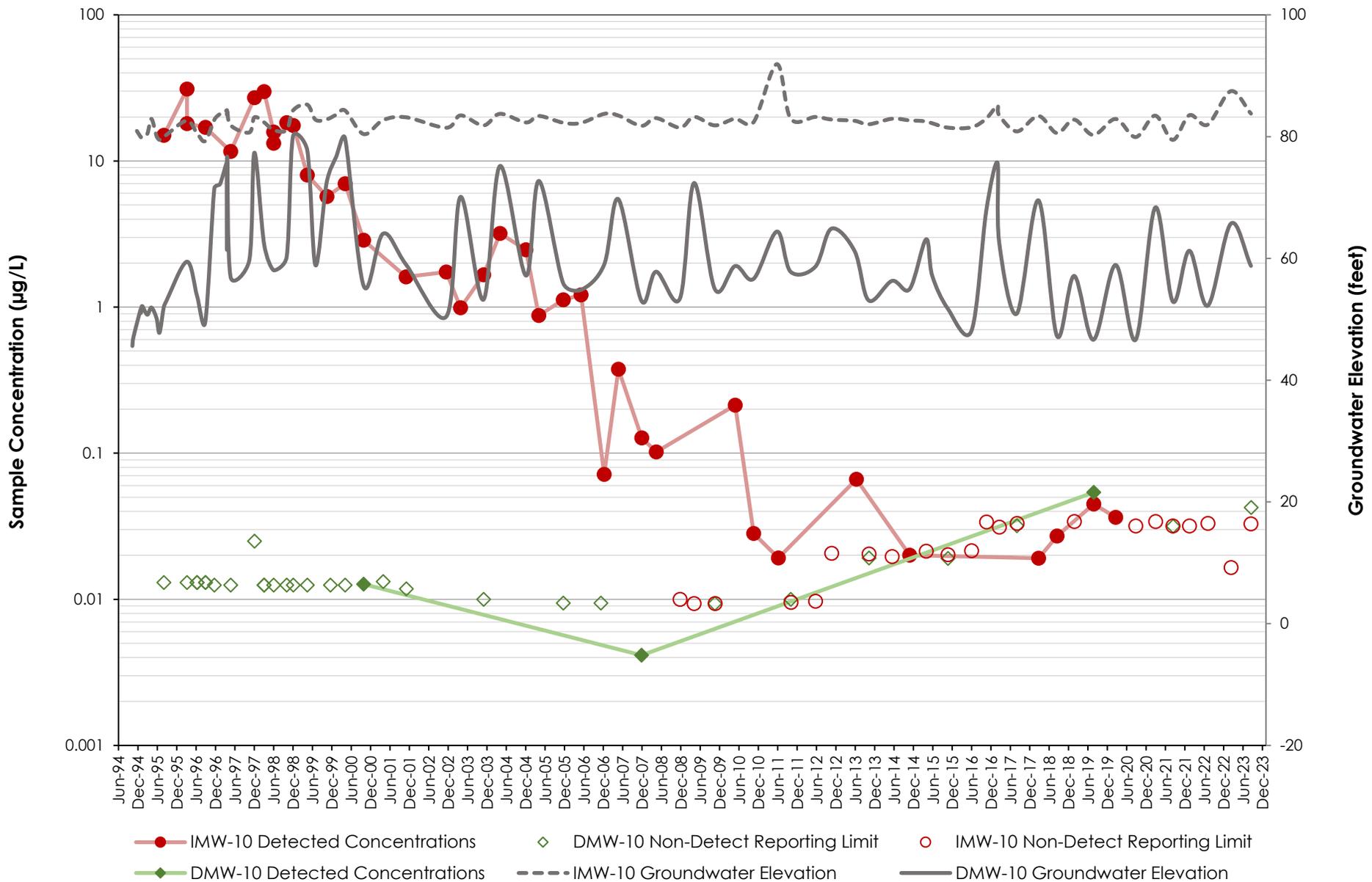
U.S. Environmental Protection Agency (EPA), 2020, Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, Office of Superfund Remediation and Technology Innovation (OSRTI), EPA Publication No. 542-R-20-006, November.

U.S. Environmental Protection Agency (EPA), 2020, Contract Laboratory Program National Functional Guidelines for Organic Methods Data Review, Office of Superfund Remediation and Technology Innovation (OSRTI), EPA Publication No. 540-R-20-005, November.

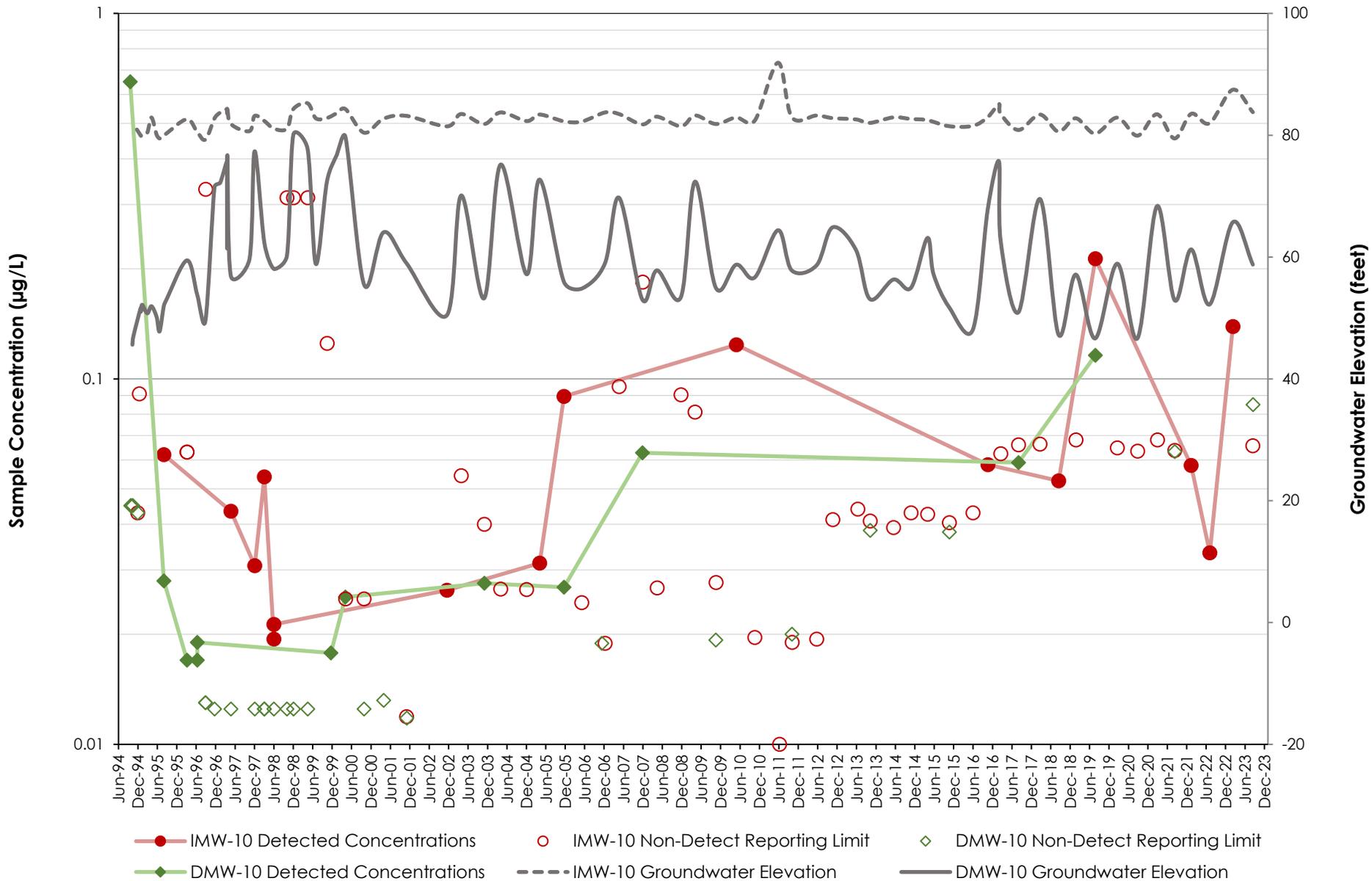
APPENDIX D

Concentration vs. Time Trend Plots

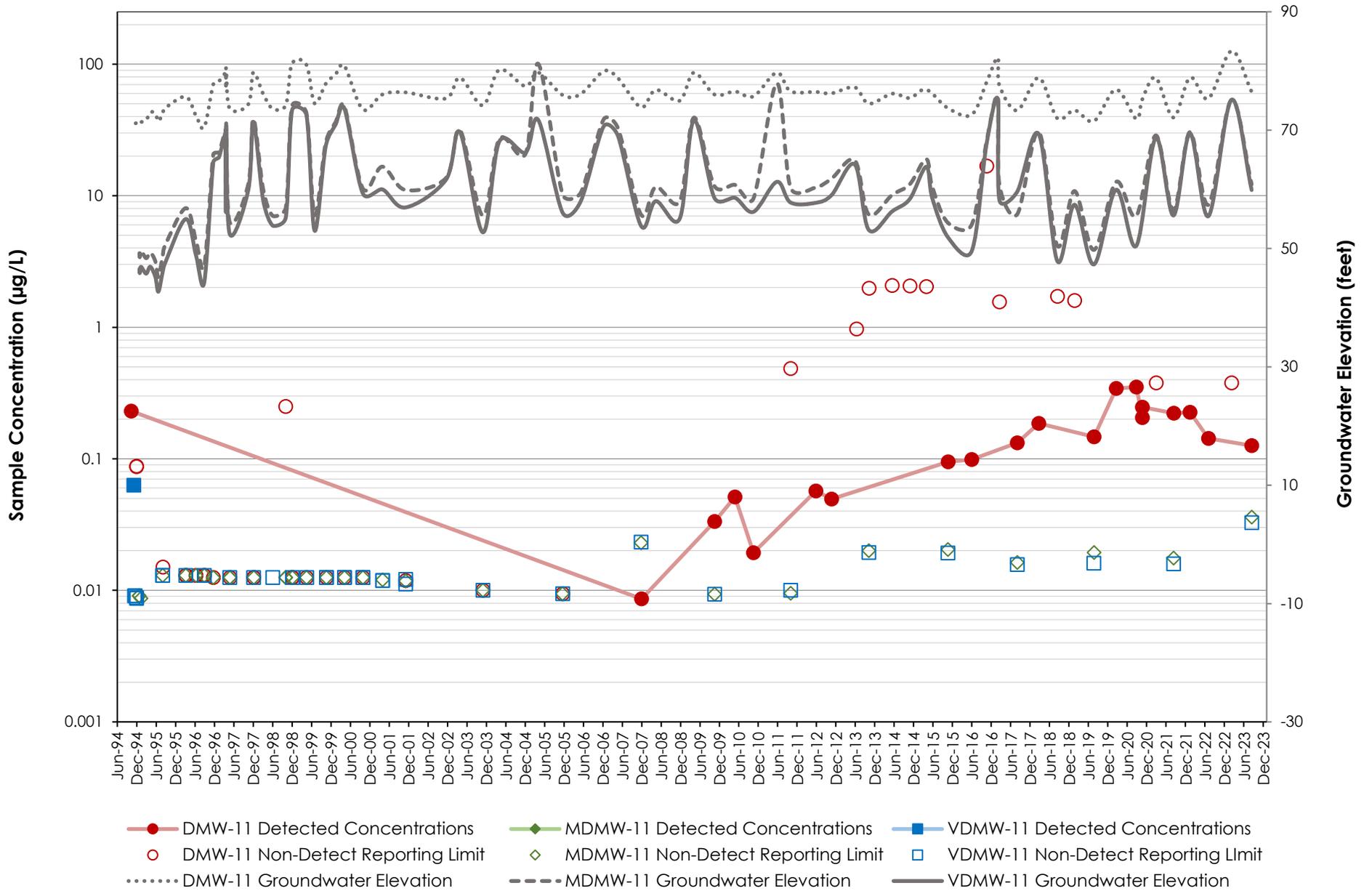
IMW-10 / DMW-10 Dibenzofuran Concentrations



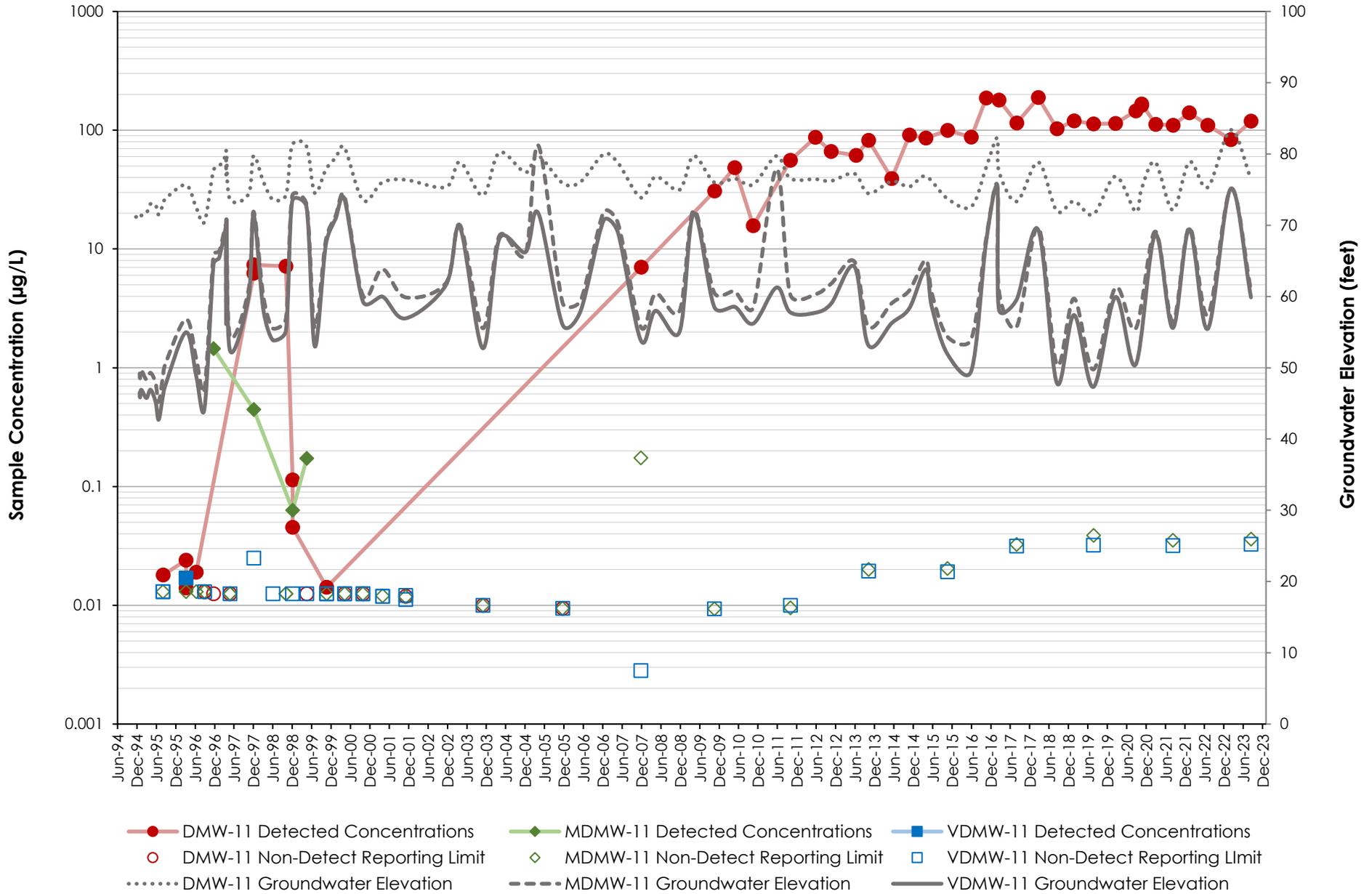
IMW-10 / DMW-10 Naphthalene Concentrations



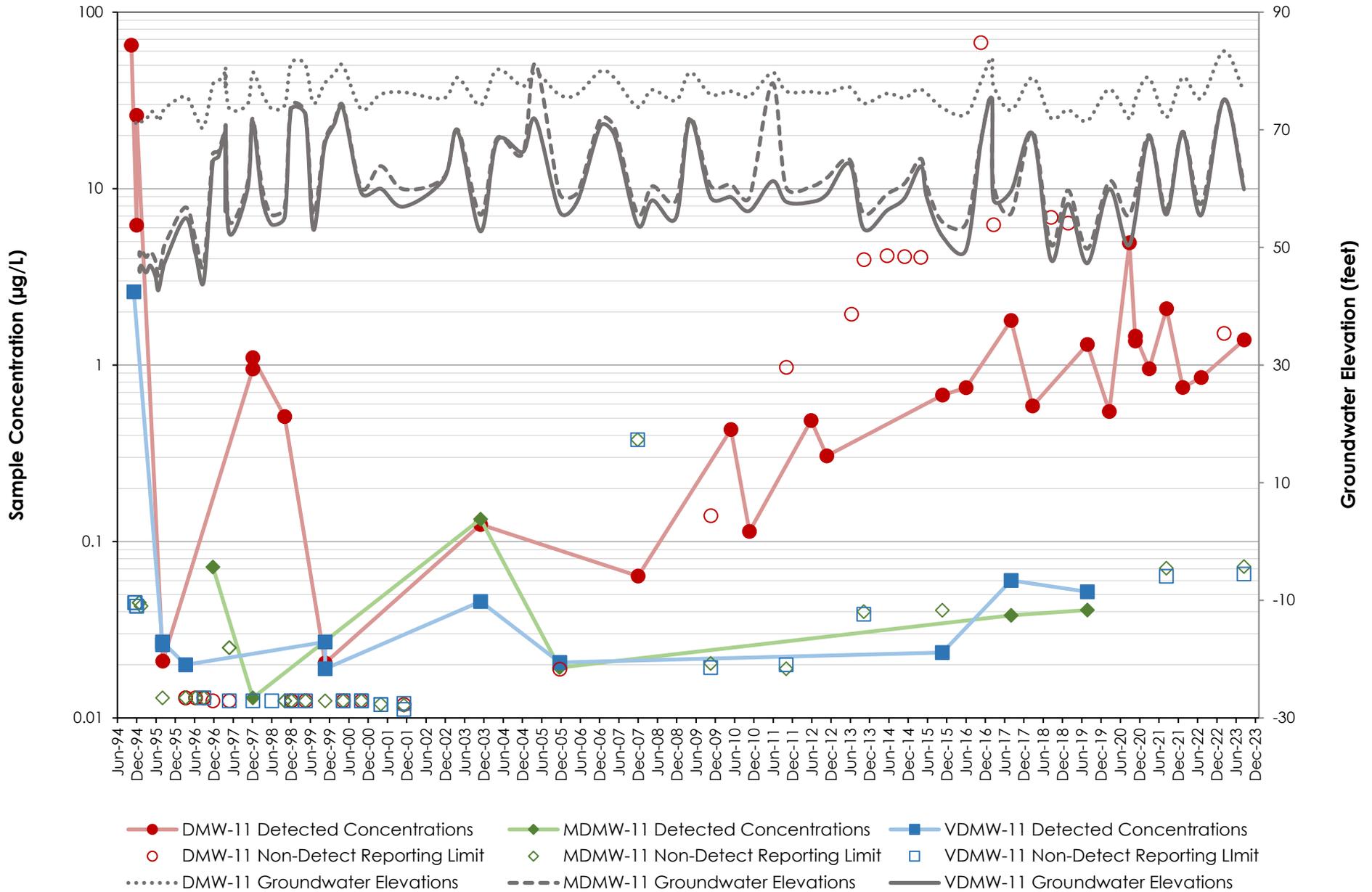
**DMW-11 / MDMW-11 / VDMW-11
Benz(a)anthracene Concentrations**



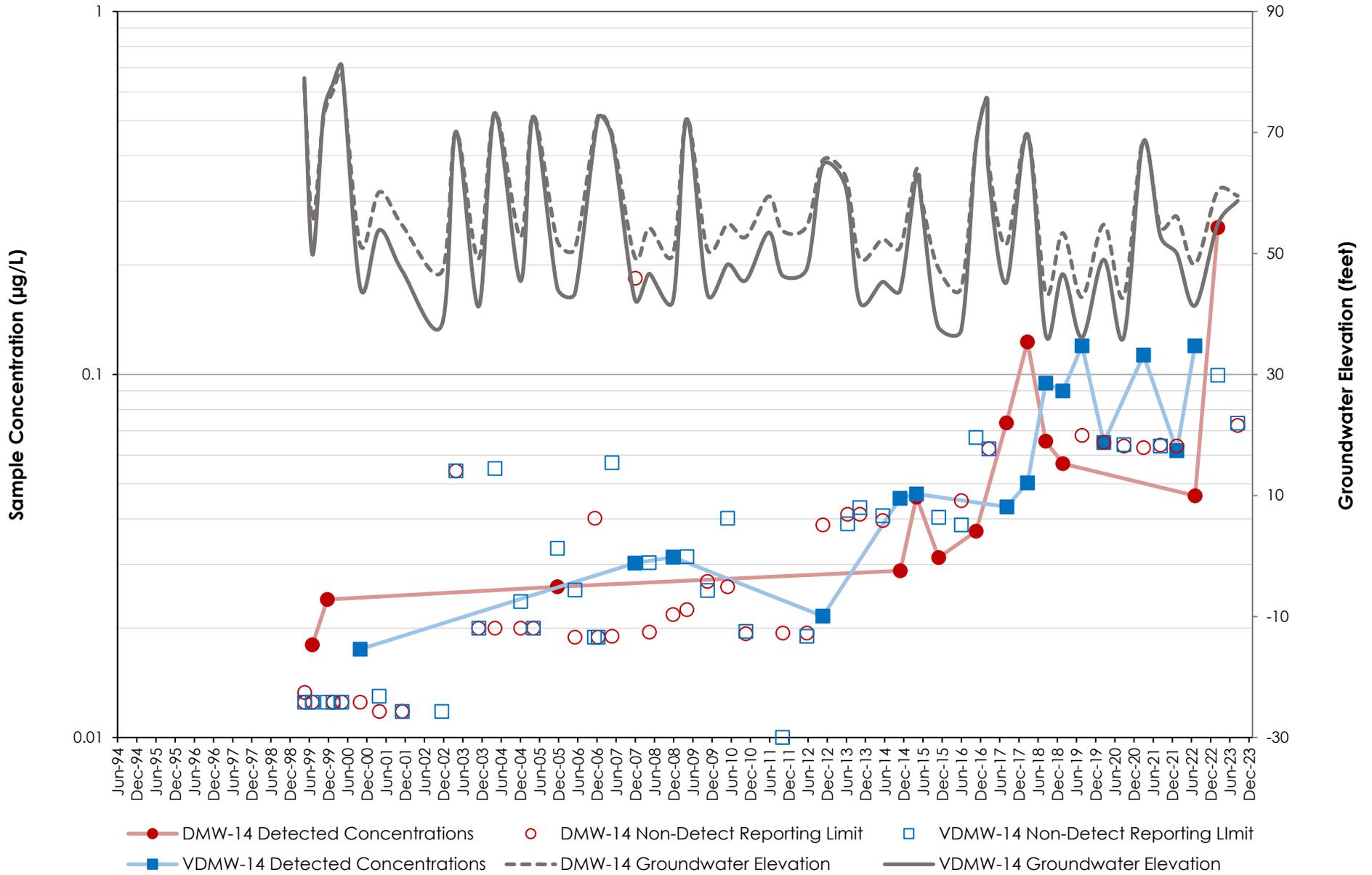
**DMW-11 / MDMW-11 / VDMW-11
Dibenzofuran Concentrations**



DMW-11 / MDMW-11 / VDMW-11 Naphthalene Concentrations



DMW-14 / VDMW-14 Naphthalene Concentrations



APPENDIX E

Report Limitations and Guidelines for Use

REPORT LIMITATIONS AND USE GUIDELINES

Reliance Conditions for Third Parties

This report was prepared for the exclusive use of the Client. No other party may rely on this report or the product of our services without the express written consent of Aspect Consulting, LLC (Aspect). This limitation is to provide our firm with reasonable protection against liability claims by third parties with whom there would otherwise be no contractual conditions or limitations and guidelines governing their use of the report. Within the limitations of scope, schedule and budget, our services have been executed in accordance with our Agreement with the Client and recognized standards of professionals in the same locality and involving similar conditions.

Services for Specific Purposes, Persons and Projects

Aspect has performed the services in general accordance with the scope and limitations of our Agreement. This report has been prepared for the exclusive use of the Client and their authorized third parties, approved in writing by Aspect. This report is not intended for use by others, and the information contained herein is not applicable to other properties.

This report is not, and should not, be construed as a warranty or guarantee regarding the presence or absence of hazardous substances or petroleum products that may affect the subject property. The report is not intended to make any representation concerning title or ownership to the subject property. If real property records were reviewed, they were reviewed for the sole purpose of determining the subject property's historical uses. All findings, conclusions, and recommendations stated in this report are based on the data and information provided to Aspect, current use of the subject property, and observations and conditions that existed on the date and time of the report.

Aspect structures its services to meet the specific needs of our clients. Because each environmental study is unique, each environmental report is unique, prepared solely for the specific client and subject property. This report should not be applied for any purpose or project except the purpose described in the Agreement.

This Report Is Project-Specific

Aspect considered a number of unique, project-specific factors when establishing the Scope of Work for this project and report. You should not rely on this report if it was:

- Not prepared for you
- Not prepared for the specific purpose identified in the Agreement
- Not prepared for the specific real property assessed
- Completed before important changes occurred concerning the subject property, project or governmental regulatory actions

If changes are made to the project or subject property after the date of this report, Aspect should be retained to assess the impact of the changes with respect to the conclusions contained in the report.

Geoscience Interpretations

The geoscience practices (geotechnical engineering, geology, and environmental science) require interpretation of spatial information that can make them less exact than other engineering and natural science disciplines. It is important to recognize this limitation in evaluating the content of the report. If you are unclear how these "Report Limitations and Use Guidelines" apply to your project or site, you should contact Aspect.

Discipline-Specific Reports Are Not Interchangeable

The equipment, techniques and personnel used to perform an environmental study differ significantly from those used to perform a geotechnical or geologic study and vice versa. For that reason, a geotechnical engineering or geologic report does not usually address any environmental findings, conclusions or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. Similarly, environmental reports are not used to address geotechnical or geologic concerns regarding the subject property.

Environmental Regulations Are Not Static

Some hazardous substances or petroleum products may be present near the subject property in quantities or under conditions that may have led, or may lead, to contamination of the subject property, but are not included in current local, state or federal regulatory definitions of hazardous substances or petroleum products or do not otherwise present potential liability. Changes may occur in the standards for appropriate inquiry or regulatory definitions of hazardous substance and petroleum products; therefore, this report has a limited useful life.

Property Conditions Change Over Time

This report is based on conditions that existed at the time the study was performed. The findings and conclusions of this report may be affected by the passage of time (for example, Phase I ESA reports are applicable for 180 days), by events such as a change in property use or occupancy, or by natural events, such as floods, earthquakes, slope failure or groundwater fluctuations. If more than six months have passed since issuance of our report, or if any of the described events may have occurred following the issuance of the report, you should contact Aspect so that we may evaluate whether changed conditions affect the continued reliability or applicability of our conclusions and recommendations.

Phase I ESAs – Uncertainty Remains After Completion

Aspect has performed the services in general accordance with the scope and limitations of our Agreement and the current version of the “Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process”, ASTM E1527, and U.S. Environmental Protection Agency (EPA)'s Federal Standard 40 CFR Part 312 "Innocent Landowners, Standards for Conducting All Appropriate Inquiries".

No ESA can wholly eliminate uncertainty regarding the potential for recognized environmental conditions in connection with subject property. Performance of an ESA study is intended to reduce, but not eliminate, uncertainty regarding the potential for environmental conditions affecting the subject property. There is always a potential that areas with contamination that were not identified during this ESA exist at the subject property or in the study area. Further evaluation of such potential would require additional research, subsurface exploration, sampling and/or testing.

Historical Information Provided by Others

Aspect has relied upon information provided by others in our description of historical conditions and in our review of regulatory databases and files. The available data does not provide definitive information with regard to all past uses, operations or incidents affecting the subject property or adjacent properties. Aspect makes no warranties or guarantees regarding the accuracy or completeness of information provided or compiled by others.

Exclusion of Mold, Fungus, Radon, Lead, and HBM

Aspect's services do not include the investigation, detection, prevention or assessment of the presence of molds, fungi, spores, bacteria, and viruses, and/or any of their byproducts. Accordingly, this report does not include any interpretations, recommendations, findings, or conclusions regarding the detection, assessment, prevention or abatement of molds, fungi, spores, bacteria, and viruses, and/or any of their byproducts. Aspect's services also do not include the investigation or assessment of hazardous building materials (HBM) such as asbestos, polychlorinated biphenyls (PCBs) in light ballasts, lead based paint, asbestos-containing building materials, urea-formaldehyde insulation in on-site structures or debris or any other HBMs. Aspect's services do not include an evaluation of radon or lead in drinking water, unless specifically requested.