Report

First Half 2018 Groundwater Monitoring Report

J.H. Baxter & Co. Wood Treating Facility
Eugene, Oregon
ECSI No. 55

Prepared for

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1. Introduction

This report presents the results of groundwater monitoring activities conducted in the first half of 2018 at the J.H. Baxter & Co. (Baxter or J.H. Baxter) facility in Eugene, Oregon (facility or Site), located at 85 Baxter Street (Figures 1 and 2). Groundwater monitoring activities were conducted in accordance with the *Groundwater Monitoring Work Plan* (Hart Crowser, 2001), *Revised Groundwater Monitoring Work Plan* (Baxter, 2003), and *Revised Monitoring Program May 2015* (Baxter, 2015).

The facility has a total of 3 extraction wells and 40 monitoring wells. Additionally, an offsite well not owned by Baxter is included in the monitoring well network. The wells are:

- **Extraction Wells** (total of 3): W-13S, W-13I, and W-20I
- **Onsite Monitoring Wells** (total of 25): W-1S, W-2S, W-2I, W-3S, W-4S, W-5I, W-6I, W-7S, W-8S, W-8I, W-9S, W-9I, W-11S, W-11I, W-12I, W-12D, W-13D, W-14I, W-15S, W-18AS, W-18AI, W-21S, W-21I, W-22S, and W-23
- **Offsite Monitoring Wells** (total of 16): W-16AS, W-16AI, W-17AS, W-17AI, W-17BI, W-18BI, W-19AS, W-24, W-25, W-26, W-28, W-29, W-32, W-34, and W-35
- **Non-Baxter Offsite Monitoring Well**: Zip-O-Log

Of these wells, 4 offsite wells including W-24, W-25, W-26 and W-29 were sampled in March 2018 for phenols in agreement with the *Revised Monitoring Program May 2015* (Baxter, 2015). On May 7, 2015, the *Revised Monitoring Program May 2015* was approved by the Oregon Department of Environmental Quality (DEQ; DEQ, 2015). The revised monitoring program requires the sampling of 4 wells semiannually in March and September and 12 wells annually in September. Wells are sampled for phenols. This report summarizes the results of the March 2018 monitoring event and the groundwater extraction data through June 2018. The laboratory reports, field forms, and pentachlorophenol time-series plots from the March 2018 monitoring event are presented in Appendix A, Appendix B, and Appendix C, respectively.

2. Monitoring Activities

The groundwater monitoring event was conducted on March 23, 2018, and March 24, 2018. Field activities, including groundwater level measurements and groundwater sampling, were completed by Baxter personnel. Wells were sampled using low-flow methods as described in the *Revised Groundwater Monitoring Work Plan* (Baxter, 2003), with a portable submersible pump that was decontaminated between each well. Groundwater samples, equipment decontamination, and sample custody procedures were in accordance with previous sampling events, the *Groundwater Monitoring Work Plan* (Hart Crowser, 2001), and *Revised Groundwater Monitoring Work Plan* (Baxter, 2003).

Groundwater samples were analyzed by TestAmerica Laboratories, Inc. (TestAmerica), of Arvada, Colorado, for the following:

- Phenols by U.S. Environmental Protection Agency (EPA) Method 8270C Low Levels (LL)

Groundwater levels were measured at 40 wells and groundwater samples were collected from 4 wells. The laboratory report is presented in Appendix A and groundwater sampling forms are presented in Appendix B.

One field blind, or duplicate, was collected at well W-25 and one equipment blank was collected on March 24, 2018. The blind and equipment blank were analyzed for phenols.

3. Groundwater Elevations

Groundwater elevations are presented in Table 1. Groundwater elevation contours are presented in Figures 3 and 4, with the shallow zone contoured in Figure 3 and the intermediate zone contoured in Figure 4. The groundwater depression around W-13S (Figure 3) is caused by the capture zone of the intermediate extraction well W-20I. The groundwater contour maps for both the shallow and intermediate zones show that the extraction system is achieving capture of the source area.

4. Analytical Results

Groundwater samples for the March 2018 monitoring event were analyzed for phenols. The laboratory results are provided in Table 2 and Appendix A. Pentachlorophenol (PCP) results are presented in Figure 5 and time series plots are presented in Appendix C. Note that the non-detect values on the time series plots are shown as hollow symbols so that when detection limits are elevated, it is not misinterpreted as representing the concentration in the well.

4.1 Onsite Monitoring Wells

Onsite monitoring wells were not sampled during the March 2018 monitoring event.

4.2 Onsite Extraction Wells

Onsite extraction wells were not sampled during the March 2018 monitoring event.

4.3 Offsite Monitoring Wells

PCP was detected in three of the four offsite monitoring wells sampled during the March 2018 monitoring event. The detected concentrations ranged from 7.4 (J-flag) to 36 micrograms per liter (µg/L). The highest offsite concentration of PCP was in well W-24, which is located northwest of the Site. No other phenols were detected. Figure C-9 in Appendix C shows that the PCP concentration in well W-24 increased in 2018 compared to the previous semi-annual monitoring event, but generally has declined since 2011. Offsite wells W-25 and W-26 have shown a general decline in PCP concentration since 2011 (Figures C-9 and C-10 in Appendix C). PCP concentrations in well W-29 have been stable or decreasing since 2011 but increased above the historical average during the March 2018 event (Figure C-10 in Appendix C). Results from the September 2018 sampling event will assist in determining if this an anomalous event.

4.4 Quality Assurance and Quality Control

Groundwater samples for the March 2018 monitoring event were analyzed by TestAmerica. The case narrative in the laboratory report (Appendix A) describes the flags or footnotes associated with exceptions to standard analytical protocols and is summarized below. The results are considered usable with the appropriate flags.

Both sample coolers for the March 2018 monitoring event arrived at the laboratory in good condition, with no broken bottles, and below EPA's 6 degrees Celsius (˚C) recommendation.

TestAmerica qualified analytes with a concentration detected above the method detection limit (MDL), but below the method reporting limit (MRL), with a J-flag. This qualification indicates an estimated concentration because the result is quantitatively uncertain.

An equipment rinsate blank was collected during the March 2018 monitoring event. The blank was analyzed for phenols. No analytes were detected above their respective detection limits in the rinsate blank. Following EPA guidelines for blank detections, no modifications were made to sample results.

One blind sample was collected during the March 2018 monitoring event from W-25. The blind sample was analyzed for phenols. The parent sample and blind results were found to be incomparable as there was no PCP detection in the blank but a J-flagged detection (less than the MRL) in the parent sample. As parent sample was already J-flagged as an estimated value (Table 2) no further qualifications to the results were made.

5. Groundwater Extraction and Treatment System

The groundwater extraction and treatment system consists of three wells, a filtration system, and granulated activated carbon. The system was in operation approximately 181 days, from January 1, 2018, through June 30, 2018. The estimated pumping rates and extracted constituent mass are presented in Table 3.

During the first half of 2018, 13.18 million gallons (MG) of groundwater were extracted and sent through the treatment system. An extracted contaminant mass for PCP was estimated on the basis of September 2017 analytical results for each extraction well (Table 3). In the first half of 2018, approximately 9.6 pounds of PCP were removed.

Since January 1994, approximately 593 MG of groundwater have been extracted and treated. Approximately 1,642 pounds of PCP have been extracted since January 1994. Polycyclic aromatic hydrocarbons (PAH) and total metals were analyzed in groundwater samples through June 2015, so a calculated mass of 4.5 pounds of PAHs and 3.6 pounds of total metals were extracted between January 1994 and June 2015. PAHs and total metals are still extracted from groundwater, but the mass removed is no longer quantified as of June 2015.

6. Second Half 2018 Activities

Semiannual and annual groundwater monitoring will be conducted for the second half of 2018 in accordance with the *Revised Monitoring Program May 2015* (Baxter, 2015), and will occur in September 2018.

7. References

Baxter. 2003. Revised Groundwater Monitoring Work Plan J.H. Baxter & Co. Wood Preserving Facility, 85 Baxter Road, Eugene, Oregon. Prepared by J.H. Baxter & Co. March 7, 2003.

Baxter. 2015. Revised Monitoring Program May 2015 J.H. Baxter Eugene Site ESCI No. 55. Prepared by J.H. Baxter & Co. May 1, 2015.

DEQ. 2015. Email message from Greg Aitken, Oregon Department of Environmental Quality, to Heidi Blischke re: "RE: Groundwater Monitoring Program for the Baxter Site as Discussed at our Meeting." May 7, 2015.

Hart Crowser. 2001. Groundwater Monitoring Work Plan J.H. Baxter Wood Preserving Eugene Facility. Prepared by Hart Crowser, Inc. May 22, 2001.

Tables

Table 1. Groundwater Elevation Summary

J.H. Baxter Wood Treating Facility

Eugene, Oregon

Well ID	Top of Casing Elevation (ft msl)	Depth to Well Bottom (ft)	Depth to Water (ft)	Groundwater Elevation (ft amsl)
			3/23/2018	
W-1S	395.91	28.5	10.42	385.49
W-2S	393.16	27.6	--	--
W-2I	394.23	81.71	6.57	387.66
W-3S	395.01	33	--	--
W-4S	396.56	22.3	9.67	386.89
W-5I	396.71	75.5	11.29	385.42
W-6I	397.77	70	11.64	386.13
W-7S	397.66	20	11.09	386.57
W-8S	395.90	20.17	5.88	390.02
W-8I	393.66	82.33	6.98	386.68
W-9S	396.45	25	6.82	389.63
W-9I	396.19	67	6.40	389.79
W-11S	394.17	24.85	7.34	386.83
W-11I	394.17	83	9.06	385.11
W-12I	395.62	78.5	12.21	383.41
W-12D	395.54	133.75	11.96	383.58
W-13S	396.71	29.02	19.56	377.15
W-13I	396.15	71.46	42.33	353.82
W-13D	396.40	133.51	12.77	383.63
W-14I	395.60	77.5	9.12	386.48
W-15S	396.62	28	12.55	384.07
W-16AS	391.86	24.98	5.91	385.95
W-16AI	391.86	81.85	7.35	384.51
W-17AS	390.29	23.67	5.42	384.87
W-17AI	390.80	87.42	7.01	383.79
W-17BI	392.08	84.88	7.35	384.73
W-18AS	392.84	25.05	7.28	385.56
W-18AI	393.70	86.81	9.57	384.13
W-18BI	391.98	88.6	--	--
W-19AS	393.82	23.66	7.73	386.09
W-20I	397.10	85	32.96	364.14
W-21S	393.80	16.75	6.50	387.30
W-21I	393.80	81.42	6.87	386.93
W-22S	396.72	19.38	8.73	387.99
W-23	396.16	55.5	10.77	385.39
W-24	391.64	65	8.03	383.61
W-25	389.92	64	5.37	384.55
W-26	390.14	79	5.48	384.66
W-28	390.01	84.42	5.81	384.20
W-29	388.56	74.83	4.53	384.03
W-32	388.35	74	5.25	383.10
W-34	389.17	76	6.11	383.06
W-35	391.46	77	6.72	384.74
W-36	388.64	84	--	--

Notes

-- = not measured.

ft amsl = feet above mean sea level.

Table 2. Phenol Analytical Results in Groundwater Samples

J.H. Baxter Wood Treating Facility

Eugene, Oregon

Well ID	Well Location	Sample Date	2,4,5-Trichlorophenol[1]	2,4,6-Trichlorophenol[1]	2,4-Dichlorophenol[1]	2,4-Dimethylphenol[1]	2,4-Dinitrophenol[1]	2,6-Dichlorophenol[1]	2-Chlorophenol[1]	2-Methylphenol[1]	2-Nitrophenol[1]	3 & 4 Methylphenol[1]	4-Chloro-3-methylphenol[1]	4-Methylphenol[1]	4-Nitrophenol[1]	Pentachlorophenol[1]	Phenol[1]
			(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
W-24	Off-Site	3/24/2018	0.066 U	0.10 U	0.047 U	0.38 U	1.9 U	0.10 U	0.088 U	0.047 U	0.23 U	0.094 U	0.25 U	0.094 U	0.94 U	36	0.094 U
W-25	Off-Site	3/24/2018	0.066 U	0.10 U	0.047 U	0.38 U	1.9 U	0.10 U	0.089 U	0.047 U	0.24 U	0.094 U	0.25 U	0.094 U	0.94 U	7.4 J	0.094 U
W-25 (Blind)	Off-Site	3/24/2018	0.066 U	0.10 U	0.047 U	0.38 U	1.9 U	0.10 U	0.088 U	0.047 U	0.23 U	0.094 U	0.25 U	0.094 U	0.94 U	0.75 U	0.094 U
W-26	Off-Site	3/24/2018	0.066 U	0.10 U	0.047 U	0.38 U	1.9 U	0.10 U	0.088 U	0.047 U	0.23 U	0.094 U	0.25 U	0.094 U	0.94 U	0.75 U	0.094 U
W-29	Off-Site	3/24/2018	0.066 U	0.10 U	0.047 U	0.38 U	1.9 U	0.10 U	0.088 U	0.047 U	0.23 U	0.094 U	0.25 U	0.094 U	0.94 U	25	0.094 U
Equipment Rinsate Blank	--	3/24/2018	0.066 U	0.10 U	0.047 U	0.38 U	1.9 U	0.10 U	0.089 U	0.047 U	0.24 U	0.095 U	0.26 U	0.095 U	0.95 U	0.76 U	0.095 U

Notes

1 Analysis by EPA method 8270C Low Levels.

µg/L = micrograms per liter.

Blind = duplicate sample

J = Result is an estimated concentration that is less than the method reporting limit, but greater than or equal to the method detection limit.

U = Analyte was not detected above the sample method detection limit.

Table 3. Groundwater Extraction System Summary
J.H. Baxter Wood Treating Facility
Eugene, Oregon

Observation Period	Well W-20I								
	Pumping Information			Average Concentrations[1,2,3]			Estimated Mass Extracted[4]		
	Days Pumping	Rate[5]	Volume	PCP	PAHs	Metals	PCP	PAHs	Metals
	(days)	(gpm)	(gallons)	(µg/L)	(µg/L)	(µg/L)	(pounds)	(pounds)	(pounds)
01-Jan-94 to 02-Dec-98	1,783	20 - 30	61,012,800	361	27	0.00	19.57	0.86	0.00
03-Dec-98 to 23-Feb-99	83	25	2,988,000	74	0.43	0.00	1.84	0.01	0.00
24-Feb-99 to 03-Mar-99	8	35	403,200	74	0.43	0.00	0.25	0.00	0.00
04-Mar-99 to 02-Jun-99	92	35	4,636,800	80	0.43	0.00	3.09	0.02	0.00
02-Jun-99 to 15-Dec-99	181	35	9,122,400	97	0.00	0.00	7.39	0.00	0.00
30-Nov-99 to 13-Mar-00	104	35	5,241,600	87	0.00	0.00	3.80	0.00	0.00
13-Mar-00 to 10-Jul-00	119	35	5,997,600	87	0.00	0.00	4.34	0.00	0.00
11-Jul-00 to 30-Sept-00	82	35	4,132,800	97	0.00	0.00	3.36	0.00	0.00
01-Oct-00 to 31-Jan-01	123	35	6,199,200	98	0.00	0.00	5.05	0.00	0.00
01-Feb-01 to 30-Jun-01	150	35	7,560,000	103	0.00	0.00	6.49	0.00	0.00
01-Jul-01 to 31-Dec-01	184	35	9,273,600	104	0.00	0.00	8.01	0.00	0.00
01-Jan-02 to 30-Jun-02	151	35	7,610,400	106	0.00	0.00	6.70	0.00	0.00
01-July-02 to 31-Dec-02	183	35	9,223,200	111	0.00	0.00	8.51	0.00	0.00
01-Jan-03 to 30-Jun-03	134	35	6,753,600	100	0.00	0.00	5.66	0.00	0.00
01-July-03 to 31-Dec-03	184	35	9,273,600	135	0.00	0.00	10.41	0.00	0.00
01-Jan-04 to 30-Jun-04	180	35	9,072,000	108	0.00	0.00	8.14	0.00	0.00
01-July-04 to 31-Dec-04	155	35	7,812,000	185	0.00	0.00	12.03	0.00	0.00
01-Jan-05 to 30-Jun-05	181	35	9,122,400	196	0.00	0.00	14.92	0.00	0.00
01-July-05 to 31-Dec-05	152	35	7,660,800	117	0.00	0.00	7.45	0.00	0.00
01-Jan-06 to 30-Jun-06	176	35	8,870,400	95	0.00	0.00	7.02	0.00	0.00
01-July-06 to 31-Dec-06	184	35	9,273,600	96	0.00	0.00	7.39	0.00	0.00
01-Jan-07 to 30-Jun-07	181	35	9,122,400	83	0.00	0.00	6.31	0.00	0.00
01-July-07 to 31-Dec-07	183	35	9,223,200	78	0.00	0.00	5.98	0.00	0.00
01-Jan-08 to 30-Jun-08	180	35	9,072,000	83	0.00	0.00	6.25	0.00	0.00
01-July-08 to 31-Dec-08	177	35	8,920,800	83	0.00	0.00	6.14	0.00	0.00
01-Jan-09 to 30-Jun-09	180	35	9,072,000	47	0.00	0.00	3.53	0.00	0.00
01-July-09 to 31-Dec-09	180	35	9,072,000	49	0.95	0.00	3.74	0.07	0.00
01-Jan-10 to 30-Jun-10	181	35	9,122,400	43	0.00	0.00	3.30	0.00	0.00
01-July-10 to 31-Dec-10	181	35	9,122,400	61	0.00	0.00	4.65	0.00	0.00
01-Jan-11 to 30-Jun-11	181	35	9,122,400	115	0.00	3.65	8.75	0.00	0.28
01-July-11 to 31-Dec-11	184	35	9,273,600	44	0.00	1.57	3.41	0.00	0.12
01-Jan-12 to 30-Jun-12	163	35	8,215,200	47	0.19	0.60	3.24	0.01	0.04
01-July-12 to 31-Dec-12	183	35	9,223,200	47	0.00	0.00	3.58	0.00	0.00
01-Jan-13 to 30-Jun-13	176	35	8,870,400	24	0.00	2.11	1.78	0.00	0.16
01-July-13 to 31-Dec-13	184	35	9,273,600	37	0.00	0.36	2.89	0.00	0.03
01-Jan-14 to 30-Jun-14	181	35	9,122,400	33	0.09	2.55	2.47	0.01	0.19
01-July-14 to 31-Dec-14	183	35	9,223,200	11	0.00	2.61	0.85	0.00	0.20
01-Jan-15 to 30-Jun-15	180	35	9,072,000	47	0.00	0.55	3.56	0.00	0.04
01-Jul-15 to 31-Dec-15	183	35	9,223,200	28	--	--	2.16	--	--
01-Jan-16 to 30-Jun-16	180	35	9,072,000	28	--	--	2.12	--	--
01-Jul-16 to 31-Dec-16	183	35	9,223,200	19	--	--	1.46	--	--
01-Jan-17 to 30-Jun-17	180	35	9,072,000	19	--	--	1.44	--	--
01-Jul-17 to 31-Dec-17	183	35	9,223,200	25	--	--	1.92	--	--
01-Jan-18 to 30-Jun-18	180	35	9,072,000	25	--	--	1.89	--	--
Cumulative Amounts	--	--	401,176,800	--	--	--	230.95	0.98	1.06

Table 3. Groundwater Extraction System Summary
J.H. Baxter Wood Treating Facility
Eugene, Oregon

Observation Period	Well W-13S								
	Pumping Information			Average Concentrations[1,2,3]			Estimated Mass Extracted[4]		
	Days Pumping	Rate[5]	Volume	PCP	PAHs	Metals	PCP	PAHs	Metals
	(days)	(gpm)	(gallons)	(µg/L)	(µg/L)	(µg/L)	(pounds)	(pounds)	(pounds)
01-Jan-94 to 02-Dec-98	1,783	5	12,837,600	25,175	35	0.00	321.36	1.21	0.00
03-Dec-98 to 23-Feb-99	83	5	597,600	4,170	0.00	0.00	20.85	0.00	0.00
24-Feb-99 to 03-Mar-99	8	5	57,600	4,170	0.00	0.00	2.01	0.00	0.00
04-Mar-99 to 02-Jun-99	92	5	662,400	4,105	0.00	0.00	22.75	0.00	0.00
02-Jun-99 to 15-Dec-99	181	5	1,303,200	3,260	0.00	0.00	35.54	0.00	0.00
30-Nov-99 to 13-Mar-00	104	5	748,800	2,485	0.00	0.00	15.57	0.00	0.00
13-Mar-00 to 10-Jul-00	119	5	856,800	1,880	0.00	0.00	13.47	0.00	0.00
11-Jul-00 to 30-Sept-00	82	5	590,400	1,560	9.7	0.00	7.69	0.05	0.00
01-Oct-00 to 31-Jan-01	123	5	885,600	1,590	1.9	0.00	11.75	0.01	0.00
01-Feb-01 to 30-Jun-01	150	5	1,080,000	1,481	1.4	0.00	13.35	0.01	0.00
01-Jul-01 to 31-Dec-01	184	5	1,324,800	1,379	4.1	0.00	15.25	0.05	0.00
01-Jan-02 to 30-Jun-02	151	5	1,087,200	1,455	1.2	0.00	13.20	0.01	0.00
01-July-02 to 31-Dec-02	183	5	1,317,600	1,435	0.30	0.00	15.78	0.00	0.00
01-Jan-03 to 30-Jun-03	134	5	964,800	1,235	1.2	0.00	9.94	0.01	0.00
01-July-03 to 31-Dec-03	184	5	1,324,800	235	0.17	0.00	2.60	0.00	0.00
01-Jan-04 to 30-Jun-04	180	5	1,296,000	541	0.62	0.00	5.85	0.01	0.00
01-July-04 to 31-Dec-04	155	5	1,116,000	1,018	0.42	0.00	9.48	0.00	0.00
01-Jan-05 to 30-Jun-05	181	5	1,303,200	2,070	2.1	0.00	22.51	0.02	0.00
01-July-05 to 31-Dec-05	152	5	1,094,400	1,730	0.52	0.00	15.80	0.00	0.00
01-Jan-06 to 30-Jun-06	176	5	1,267,200	1,034	0.36	0.00	10.93	0.00	0.00
01-July-06 to 31-Dec-06	184	5	1,324,800	902	0.18	0.00	9.97	0.00	0.00
01-Jan-07 to 30-Jun-07	181	5	1,303,200	729	0.13	0.00	7.92	0.00	0.00
01-July-07 to 31-Dec-07	183	5	1,317,600	78	0.13	0.00	0.86	0.00	0.00
01-Jan-08 to 30-Jun-08	180	5	1,296,000	127	0.11	0.00	1.38	0.00	0.00
01-July-08 to 31-Dec-08	177	5	1,274,400	127	0.11	0.00	1.35	0.00	0.00
01-Jan-09 to 30-Jun-09	180	5	1,296,000	1.36	0.00	0.00	0.01	0.00	0.00
01-July-09 to 31-Dec-09	180	5	1,296,000	43	0.06	165.5	0.46	0.00	1.79
01-Jan-10 to 30-Jun-10	181	5	1,303,200	93	0.00	0.00	1.01	0.00	0.00
01-July-10 to 31-Dec-10	181	5	1,303,200	59	0.00	0.00	0.65	0.00	0.00
01-Jan-11 to 30-Jun-11	181	5	1,303,200	455	0.05	3.10	4.94	0.00	0.03
01-July-11 to 31-Dec-11	184	5	1,324,800	180	0.00	7.70	1.99	0.00	0.09
01-Jan-12 to 30-Jun-12	163	5	1,173,600	590	0.54	3.61	5.78	0.01	0.04
01-July-12 to 31-Dec-12	183	5	1,317,600	428	0.08	4.28	4.70	0.00	0.05
01-Jan-13 to 30-Jun-13	176	5	1,267,200	1,400	0.44	4.95	14.81	0.00	0.05
01-July-13 to 31-Dec-13	184	5	1,324,800	515	1.1	4.63	5.69	0.01	0.05
01-Jan-14 to 30-Jun-14	181	5	1,303,200	168	0.10	3.55	1.82	0.00	0.04
01-July-14 to 31-Dec-14	183	5	1,317,600	85	0.00	2.81	0.93	0.00	0.03
01-Jan-15 to 30-Jun-15	180	5	1,296,000	20	0.00	7.9	0.21	0.00	0.09
01-July-15 to 31-Dec-15	183	5	1,317,600	2.7	--	--	0.03	--	--
01-Jan-16 to 30-Jun-16	180	5	1,296,000	2.7	--	--	0.03	--	--
01-Jul-16 to 31-Dec-16	183	5	1,317,600	4.8	--	--	0.05	--	--
01-Jan-17 to 30-Jun-17	180	5	1,296,000	4.8	--	--	0.05	--	--
01-Jul-17 to 31-Dec-17	183	5	1,317,600	8	--	--	0.09	--	--
01-Jan-18 to 30-Jun-18	180	5	1,296,000	8	--	--	0.09	--	--
Cumulative Amounts	--	--	61,603,200	--	--	--	650.50	1.43	2.26

Table 3. Groundwater Extraction System Summary
J.H. Baxter Wood Treating Facility
Eugene, Oregon

Observation Period	Well W-13I								
	Pumping Information			Average Concentrations[1,2,3]			Estimated Mass Extracted[4]		
	Days Pumping	Rate[5]	Volume	PCP	PAHs	Metals	PCP	PAHs	Metals
	(days)	(gpm)	(gallons)	(µg/L)	(µg/L)	(µg/L)	(pounds)	(pounds)	(pounds)
01-Jan-94 to 02-Dec-98	1,783	10 - 15	32,522,400	3,196	35	0.00	124.69	1.44	0.00
03-Dec-98 to 23-Feb-99	83	10	1,195,200	590	0.00	0.00	5.90	0.00	0.00
24-Feb-99 to 03-Mar-99	8	10	115,200	590	0.00	0.00	0.57	0.00	0.00
04-Mar-99 to 02-Jun-99	92	10	1,324,800	640	0.00	0.00	7.09	0.00	0.00
02-Jun-99 to 15-Dec-99	181	10	2,606,400	876	0.00	0.00	19.10	0.00	0.00
30-Nov-99 to 13-Mar-00	104	10	1,497,600	823	0.00	0.00	10.30	0.00	0.00
13-Mar-00 to 10-Jul-00	119	10	1,713,600	785	0.95	0.00	11.25	0.01	0.00
11-Jul-00 to 30-Sept-00	82	10	1,180,800	803	9.6	0.00	7.91	0.09	0.00
01-Oct-00 to 31-Jan-01	123	10	1,771,200	747	1.8	0.00	11.04	0.03	0.00
01-Feb-01 to 30-Jun-01	150	10	2,160,000	778	1.4	0.00	14.02	0.02	0.00
01-Jul-01 to 31-Dec-01	184	10	2,649,600	887	1.2	0.00	19.61	0.03	0.00
01-Jan-02 to 30-Jun-02	151	10	2,174,400	672	0.55	0.00	12.19	0.01	0.00
01-July-02 to 31-Dec-02	183	10	2,635,200	1,025	0.85	0.00	22.54	0.02	0.00
01-Jan-03 to 30-Jun-03	134	10	1,929,600	829	0.80	0.00	13.35	0.01	0.00
01-July-03 to 31-Dec-03	184	10	2,649,600	883	1.2	0.00	19.51	0.03	0.00
01-Jan-04 to 30-Jun-04	180	10	2,592,000	859	1.2	0.00	18.59	0.03	0.00
01-July-04 to 31-Dec-04	155	10	2,232,000	1,260	1.3	0.00	23.47	0.02	0.00
01-Jan-05 to 30-Jun-05	181	10	2,606,400	942	1.4	0.00	20.48	0.03	0.00
01-July-05 to 31-Dec-05	152	10	2,188,800	970	1.3	0.00	17.72	0.02	0.00
01-Jan-06 to 30-Jun-06	176	10	2,534,400	897	0.88	0.00	18.97	0.02	0.00
01-July-06 to 31-Dec-06	184	10	2,649,600	865	0.43	0.00	19.13	0.01	0.00
01-Jan-07 to 30-Jun-07	181	10	2,606,400	857	0.63	0.00	18.64	0.01	0.00
01-July-07 to 31-Dec-07	183	10	2,635,200	623	1.5	0.00	13.70	0.03	0.00
01-Jan-08 to 30-Jun-08	180	10	2,592,000	866	0.53	0.00	18.73	0.01	0.00
01-July-08 to 31-Dec-08	177	10	2,548,800	866	0.53	0.00	18.41	0.01	0.00
01-Jan-09 to 30-Jun-09	180	10	2,592,000	729	0.32	0.00	15.77	0.01	0.00
01-July-09 to 31-Dec-09	180	10	2,592,000	805	0.95	0.00	17.42	0.02	0.00
01-Jan-10 to 30-Jun-10	181	10	2,606,400	639	0.68	0.00	13.90	0.01	0.00
01-July-10 to 31-Dec-10	181	10	2,606,400	754	0.33	0.00	16.40	0.01	0.00
01-Jan-11 to 30-Jun-11	181	10	2,606,400	1,298	0.30	2.45	28.22	0.01	0.05
01-July-11 to 31-Dec-11	184	10	2,649,600	980	0.50	1.18	21.67	0.01	0.03
01-Jan-12 to 30-Jun-12	163	10	2,347,200	700	0.40	2.73	13.71	0.01	0.05
01-July-12 to 31-Dec-12	183	10	2,635,200	830	1.1	1.56	18.25	0.02	0.03
01-Jan-13 to 30-Jun-13	176	10	2,534,400	1,050	1.1	2.55	22.21	0.02	0.05
01-July-13 to 31-Dec-13	184	10	2,649,600	970	1.2	0.28	21.45	0.03	0.01
01-Jan-14 to 30-Jun-14	181	10	2,606,400	533	0.29	1.95	11.58	0.01	0.04
01-July-14 to 31-Dec-14	183	10	2,635,200	563	0.20	0.26	12.37	0.00	0.01
01-Jan-15 to 30-Jun-15	180	10	2,592,000	385	0.20	0.00	8.33	0.00	0.00
01-Jul-15 to 31-Dec-15	183	10	2,635,200	490	--	--	10.78	--	--
01-Jan-16 to 30-Jun-16	181	10	2,606,400	490	--	--	10.66	--	--
01-Jul-16 to 31-Dec-16	183	10	2,635,200	350	--	--	7.70	--	--
01-Jan-17 to 30-Jun-17	181	10	2,606,400	350	--	--	7.61	--	--
01-Jul-17 to 31-Dec-17	183	10	2,635,200	350	--	--	7.70	--	--
01-Jan-18 to 30-Jun-18	181	10	2,606,400	350	--	--	7.61	--	--
Cumulative Amounts	--	--	130,082,400	--	--	--	760.24	2.06	0.28
TOTALS	--	--	**592,862,400**	--	--	--	**1,641.69**	**4.47**	**3.59**

Table 3. Groundwater Extraction System Summary

J.H. Baxter Wood Treating Facility

Eugene, Oregon

Notes

[1] Concentrations are averages of detected values from quarterly analytical results. For metals, the concentration is average of the sum for each sampling event.

[2] Field duplicate values averaged with parent value before calculating the average concentration for the observation period.

[3] No value assigned to concentrations below the method reporting limit.

[4] Estimated mass calculated on the basis of corrected average concentrations.

[5] Flow rate estimated based upon pump capacity

-- = data not available or not applicable.

µg/L = micrograms per liter.

gpm = gallons per minute.

PCP = pentachlorophenol.

PAHs = polycyclic aromatic hydrocarbons.

Metals = total arsenic, total chromium, total copper, and total zinc.

Figures

LEGEND

- Site
- Eugene City Limits
- Major Road
- Watercourse

Date: January 13, 2017
Data Sources: Air photo taken on June 11, 2014 by the USDA

FIGURE 1

Site Vicinity Map
First Half 2018

J.H. Baxter Wood Treating Facility
Eugene, Oregon

N

0 0.5 1
Miles

GSI Water Solutions, Inc.

Document Path: P:\Portland\302 - Baxter\GIS\Eugene\Project_mxds\2016_2h_Report\Figure1_Site_Vicinity_Map.mxd

FIGURE 2

Site Detail Map

First Half 2018

J.H. Baxter Wood Treating Facility
Eugene, Oregon

LEGEND

- Facility Boundary
- Union Pacific Railroad

N

0 100 200 300
Feet

Date: January 13, 2017
Data Sources: AMEC, OGIC, ESRI, Air photo taken on June 6, 2014 by Google Earth

GSI Water Solutions, Inc.

Document Path: P:\Portland\302 - Baxter\GIS\Eugene\Project_mxds\2016_2h_Report\Figure2_Site_Detail_Map.mxd

FIGURE 3

Shallow Zone Groundwater Elevation, First Half 2018

J.H. Baxter Wood Treating Facility
Eugene, Oregon

LEGEND

- Shallow Zone Monitoring Well (March 2018 Groundwater Elevation)
- Shallow Zone Extraction Well (March 2018 Groundwater Elevation)
- Groundwater Elevation Contours (dashed where inferred)
- Groundwater Flow Direction
- Facility Boundary
- Union Pacific Railroad

NOTE:
NM = Not Measured

N

0 100 200 300
Feet

Date: July 25, 2018
Data Sources: AMEC, OGIC, ESRI

GSI Water Solutions, Inc.

Document Path: Y:\0302_Baxter\Source_Figures\Eugene\2018_1h_Report\Figure3_Shallow_Zone_GW_Elev.mxd

FIGURE 4

Intermediate Zone Groundwater Elevation, First Half 2018

J.H. Baxter Wood Treating Facility
Eugene, Oregon

LEGEND

Well_Type

- Shallow Zone Monitoring Well (March 2018 Groundwater Elevation)
- Shallow Zone Extraction Well (March 2018 Groundwater Elevation)
- Groundwater Elevation Contours (dashed where inferred)
- Groundwater Flow Direction
- Facility Boundary
- Union Pacific Railroad

NOTE:
NM = Not Measured

N

0 175 350 525
Feet

Date: July 27, 2018
Data Sources: AMEC, OGIC, ESRI, Air photo taken August 2016 by Metro

GSI Water Solutions, Inc.

Document Path: Y:\0302_Baxter\Source_Figures\Eugene\2018_1h_Report\Figure4_Intermediate_Zone_GW_Elev.mxd

FIGURE 5

Pentachlorophenol in Groundwater, First Half 2018

J.H. Baxter Wood Treating Facility
Eugene, Oregon

LEGEND

- Monitoring Well
- Extraction Well
- Facility Boundary
- Union Pacific Railroad

NOTE:
Results in ug/L (micrograms per liter).
Samples taken on March 24, 2018.
Abbreviations:
J- Estimated
U- Not Detected Above Method Detection Limits

N

0 175 350 525
Feet

Date: July 23, 2018
Data Sources: AMEC, OGIC, ESRI, Air photo taken August 2016 by Metro

GSI Water Solutions, Inc.

Document Path: Y:\0302_Baxter\Source_Figures\Eugene\2018_1h_Report\Figure5_PCP_in_GW.mxd

Appendix A

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Tel: (303)736-0100

TestAmerica Job ID: 280-107812-1
Client Project/Site: Eugene, OR Facility

For:
J. H. Baxter & Co.
PO BOX 5902
San Mateo, California 94402

Attn: Georgia Baxter

Authorized for release by:
4/4/2018 2:26:56 PM

Jamie Ide, Project Manager I
(303)736-0126
jamie.ide@testamericainc.com

Table of Contents

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 280-107812-1

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE
Client: J. H. Baxter & Co.
Project: Eugene, OR Facility
Report Number: 280-107812-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 3/27/2018 9:50 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.5º C.

SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples W-24 (280-107812-1), W-25 (280-107812-2), W-26 (280-107812-3), W-29 (280-107812-4), EQUIPMENT CHECK (280-107812-5) and BLIND (280-107812-6) were analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 03/28/2018 and analyzed on 04/02/2018 and 04/03/2018.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary

Detection Summary

Client: J. H. Baxter & Co.
Project/Site: Eugene, OR Facility

TestAmerica Job ID: 280-107812-1

Client Sample ID: W-24 — Lab Sample ID: 280-107812-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Pentachlorophenol	36		9.4	0.75	ug/L	1		8270C LL	Total/NA

Client Sample ID: W-25 — Lab Sample ID: 280-107812-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Pentachlorophenol	7.4	J	9.4	0.75	ug/L	1		8270C LL	Total/NA

Client Sample ID: W-26 — Lab Sample ID: 280-107812-3

No Detections.

Client Sample ID: W-29 — Lab Sample ID: 280-107812-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Pentachlorophenol	25		9.4	0.75	ug/L	1		8270C LL	Total/NA

Client Sample ID: EQUIPMENT CHECK — Lab Sample ID: 280-107812-5

No Detections.

Client Sample ID: BLIND — Lab Sample ID: 280-107812-6

No Detections.

This Detection Summary does not include radiochemical test results.

Method Summary

Client: J. H. Baxter & Co.
Project/Site: Eugene, OR Facility

TestAmerica Job ID: 280-107812-1

Method	Method Description	Protocol	Laboratory
8270C LL	Semivolatile Organic Compounds by GCMS - Low Levels	SW846	TAL DEN

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Sample Summary

Client: J. H. Baxter & Co.
Project/Site: Eugene, OR Facility

TestAmerica Job ID: 280-107812-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-107812-1	W-24	Water	03/24/18 11:19	03/27/18 09:50
280-107812-2	W-25	Water	03/24/18 12:47	03/27/18 09:50
280-107812-3	W-26	Water	03/24/18 12:18	03/27/18 09:50
280-107812-4	W-29	Water	03/24/18 11:47	03/27/18 09:50
280-107812-5	EQUIPMENT CHECK	Water	03/24/18 13:30	03/27/18 09:50
280-107812-6	BLIND	Water	03/24/18 13:15	03/27/18 09:50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Client Sample ID: W-24
Date Collected: 03/24/18 11:19
Date Received: 03/27/18 09:50

Lab Sample ID: 280-107812-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		4.7	0.066	ug/L		03/28/18 09:36	04/02/18 22:39	1
2,4,6-Trichlorophenol	ND		4.7	0.10	ug/L		03/28/18 09:36	04/02/18 22:39	1
2,4-Dichlorophenol	ND		4.7	0.047	ug/L		03/28/18 09:36	04/02/18 22:39	1
2,4-Dimethylphenol	ND		4.7	0.38	ug/L		03/28/18 09:36	04/02/18 22:39	1
2,4-Dinitrophenol	ND		19	1.9	ug/L		03/28/18 09:36	04/02/18 22:39	1
2,6-Dichlorophenol	ND		0.47	0.10	ug/L		03/28/18 09:36	04/02/18 22:39	1
2-Chlorophenol	ND		4.7	0.088	ug/L		03/28/18 09:36	04/02/18 22:39	1
2-Methylphenol	ND		4.7	0.047	ug/L		03/28/18 09:36	04/02/18 22:39	1
2-Nitrophenol	ND		4.7	0.23	ug/L		03/28/18 09:36	04/02/18 22:39	1
3 & 4 Methylphenol	ND		4.7	0.094	ug/L		03/28/18 09:36	04/02/18 22:39	1
4-Chloro-3-methylphenol	ND		4.7	0.25	ug/L		03/28/18 09:36	04/02/18 22:39	1
4-Nitrophenol	ND		4.7	0.94	ug/L		03/28/18 09:36	04/02/18 22:39	1
Pentachlorophenol	**36**		9.4	0.75	ug/L		03/28/18 09:36	04/02/18 22:39	1
Phenol	ND		9.4	0.094	ug/L		03/28/18 09:36	04/02/18 22:39	1
4-Methylphenol	ND		4.7	0.094	ug/L		03/28/18 09:36	04/02/18 22:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*54*		*24 - 143*	*03/28/18 09:36*	*04/02/18 22:39*	*1*
2-Fluorobiphenyl	*88*		*54 - 120*	*03/28/18 09:36*	*04/02/18 22:39*	*1*
2-Fluorophenol (Surr)	*80*		*45 - 121*	*03/28/18 09:36*	*04/02/18 22:39*	*1*
Phenol-d5 (Surr)	*80*		*40 - 126*	*03/28/18 09:36*	*04/02/18 22:39*	*1*
Terphenyl-d14 (Surr)	*80*		*70 - 125*	*03/28/18 09:36*	*04/02/18 22:39*	*1*
Nitrobenzene-d5 (Surr)	*86*		*48 - 123*	*03/28/18 09:36*	*04/02/18 22:39*	*1*

Client Sample ID: W-25
Date Collected: 03/24/18 12:47
Date Received: 03/27/18 09:50

Lab Sample ID: 280-107812-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		4.7	0.066	ug/L		03/28/18 09:36	04/02/18 23:00	1
2,4,6-Trichlorophenol	ND		4.7	0.10	ug/L		03/28/18 09:36	04/02/18 23:00	1
2,4-Dichlorophenol	ND		4.7	0.047	ug/L		03/28/18 09:36	04/02/18 23:00	1
2,4-Dimethylphenol	ND		4.7	0.38	ug/L		03/28/18 09:36	04/02/18 23:00	1
2,4-Dinitrophenol	ND		19	1.9	ug/L		03/28/18 09:36	04/02/18 23:00	1
2,6-Dichlorophenol	ND		0.47	0.10	ug/L		03/28/18 09:36	04/02/18 23:00	1
2-Chlorophenol	ND		4.7	0.089	ug/L		03/28/18 09:36	04/02/18 23:00	1
2-Methylphenol	ND		4.7	0.047	ug/L		03/28/18 09:36	04/02/18 23:00	1
2-Nitrophenol	ND		4.7	0.24	ug/L		03/28/18 09:36	04/02/18 23:00	1
3 & 4 Methylphenol	ND		4.7	0.094	ug/L		03/28/18 09:36	04/02/18 23:00	1
4-Chloro-3-methylphenol	ND		4.7	0.25	ug/L		03/28/18 09:36	04/02/18 23:00	1
4-Nitrophenol	ND		4.7	0.94	ug/L		03/28/18 09:36	04/02/18 23:00	1
Pentachlorophenol	**7.4**	**J**	9.4	0.75	ug/L		03/28/18 09:36	04/02/18 23:00	1
Phenol	ND		9.4	0.094	ug/L		03/28/18 09:36	04/02/18 23:00	1
4-Methylphenol	ND		4.7	0.094	ug/L		03/28/18 09:36	04/02/18 23:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*86*		*24 - 143*	*03/28/18 09:36*	*04/02/18 23:00*	*1*
2-Fluorobiphenyl	*114*		*54 - 120*	*03/28/18 09:36*	*04/02/18 23:00*	*1*
2-Fluorophenol (Surr)	*104*		*45 - 121*	*03/28/18 09:36*	*04/02/18 23:00*	*1*
Phenol-d5 (Surr)	*96*		*40 - 126*	*03/28/18 09:36*	*04/02/18 23:00*	*1*
Terphenyl-d14 (Surr)	*89*		*70 - 125*	*03/28/18 09:36*	*04/02/18 23:00*	*1*

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Client Sample ID: W-25
Date Collected: 03/24/18 12:47
Date Received: 03/27/18 09:50

Lab Sample ID: 280-107812-2
Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*97*		*48 - 123*	*03/28/18 09:36*	*04/02/18 23:00*	*1*

Client Sample ID: W-26
Date Collected: 03/24/18 12:18
Date Received: 03/27/18 09:50

Lab Sample ID: 280-107812-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		4.7	0.066	ug/L		03/28/18 09:36	04/02/18 23:21	1
2,4,6-Trichlorophenol	ND		4.7	0.10	ug/L		03/28/18 09:36	04/02/18 23:21	1
2,4-Dichlorophenol	ND		4.7	0.047	ug/L		03/28/18 09:36	04/02/18 23:21	1
2,4-Dimethylphenol	ND		4.7	0.38	ug/L		03/28/18 09:36	04/02/18 23:21	1
2,4-Dinitrophenol	ND		19	1.9	ug/L		03/28/18 09:36	04/02/18 23:21	1
2,6-Dichlorophenol	ND		0.47	0.10	ug/L		03/28/18 09:36	04/02/18 23:21	1
2-Chlorophenol	ND		4.7	0.088	ug/L		03/28/18 09:36	04/02/18 23:21	1
2-Methylphenol	ND		4.7	0.047	ug/L		03/28/18 09:36	04/02/18 23:21	1
2-Nitrophenol	ND		4.7	0.23	ug/L		03/28/18 09:36	04/02/18 23:21	1
3 & 4 Methylphenol	ND		4.7	0.094	ug/L		03/28/18 09:36	04/02/18 23:21	1
4-Chloro-3-methylphenol	ND		4.7	0.25	ug/L		03/28/18 09:36	04/02/18 23:21	1
4-Nitrophenol	ND		4.7	0.94	ug/L		03/28/18 09:36	04/02/18 23:21	1
Pentachlorophenol	ND		9.4	0.75	ug/L		03/28/18 09:36	04/02/18 23:21	1
Phenol	ND		9.4	0.094	ug/L		03/28/18 09:36	04/02/18 23:21	1
4-Methylphenol	ND		4.7	0.094	ug/L		03/28/18 09:36	04/02/18 23:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*67*		*24 - 143*	*03/28/18 09:36*	*04/02/18 23:21*	*1*
2-Fluorobiphenyl	*88*		*54 - 120*	*03/28/18 09:36*	*04/02/18 23:21*	*1*
2-Fluorophenol (Surr)	*86*		*45 - 121*	*03/28/18 09:36*	*04/02/18 23:21*	*1*
Phenol-d5 (Surr)	*85*		*40 - 126*	*03/28/18 09:36*	*04/02/18 23:21*	*1*
Terphenyl-d14 (Surr)	*81*		*70 - 125*	*03/28/18 09:36*	*04/02/18 23:21*	*1*
Nitrobenzene-d5 (Surr)	*89*		*48 - 123*	*03/28/18 09:36*	*04/02/18 23:21*	*1*

Client Sample ID: W-29
Date Collected: 03/24/18 11:47
Date Received: 03/27/18 09:50

Lab Sample ID: 280-107812-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		4.7	0.066	ug/L		03/28/18 09:36	04/02/18 23:43	1
2,4,6-Trichlorophenol	ND		4.7	0.10	ug/L		03/28/18 09:36	04/02/18 23:43	1
2,4-Dichlorophenol	ND		4.7	0.047	ug/L		03/28/18 09:36	04/02/18 23:43	1
2,4-Dimethylphenol	ND		4.7	0.38	ug/L		03/28/18 09:36	04/02/18 23:43	1
2,4-Dinitrophenol	ND		19	1.9	ug/L		03/28/18 09:36	04/02/18 23:43	1
2,6-Dichlorophenol	ND		0.47	0.10	ug/L		03/28/18 09:36	04/02/18 23:43	1
2-Chlorophenol	ND		4.7	0.088	ug/L		03/28/18 09:36	04/02/18 23:43	1
2-Methylphenol	ND		4.7	0.047	ug/L		03/28/18 09:36	04/02/18 23:43	1
2-Nitrophenol	ND		4.7	0.23	ug/L		03/28/18 09:36	04/02/18 23:43	1
3 & 4 Methylphenol	ND		4.7	0.094	ug/L		03/28/18 09:36	04/02/18 23:43	1
4-Chloro-3-methylphenol	ND		4.7	0.25	ug/L		03/28/18 09:36	04/02/18 23:43	1
4-Nitrophenol	ND		4.7	0.94	ug/L		03/28/18 09:36	04/02/18 23:43	1
Pentachlorophenol	**25**		9.4	0.75	ug/L		03/28/18 09:36	04/02/18 23:43	1
Phenol	ND		9.4	0.094	ug/L		03/28/18 09:36	04/02/18 23:43	1
4-Methylphenol	ND		4.7	0.094	ug/L		03/28/18 09:36	04/02/18 23:43	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	*95*		*24 - 143*	*03/28/18 09:36*	*04/02/18 23:43*	*1*
2-Fluorobiphenyl	*94*		*54 - 120*	*03/28/18 09:36*	*04/02/18 23:43*	*1*
2-Fluorophenol (Surr)	*102*		*45 - 121*	*03/28/18 09:36*	*04/02/18 23:43*	*1*
Phenol-d5 (Surr)	*96*		*40 - 126*	*03/28/18 09:36*	*04/02/18 23:43*	*1*
Terphenyl-d14 (Surr)	*84*		*70 - 125*	*03/28/18 09:36*	*04/02/18 23:43*	*1*
Nitrobenzene-d5 (Surr)	*92*		*48 - 123*	*03/28/18 09:36*	*04/02/18 23:43*	*1*

Client Sample ID: EQUIPMENT CHECK
Date Collected: 03/24/18 13:30
Date Received: 03/27/18 09:50

Lab Sample ID: 280-107812-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		4.7	0.066	ug/L		03/28/18 09:36	04/03/18 00:04	1
2,4,6-Trichlorophenol	ND		4.7	0.10	ug/L		03/28/18 09:36	04/03/18 00:04	1
2,4-Dichlorophenol	ND		4.7	0.047	ug/L		03/28/18 09:36	04/03/18 00:04	1
2,4-Dimethylphenol	ND		4.7	0.38	ug/L		03/28/18 09:36	04/03/18 00:04	1
2,4-Dinitrophenol	ND		19	1.9	ug/L		03/28/18 09:36	04/03/18 00:04	1
2,6-Dichlorophenol	ND		0.47	0.10	ug/L		03/28/18 09:36	04/03/18 00:04	1
2-Chlorophenol	ND		4.7	0.089	ug/L		03/28/18 09:36	04/03/18 00:04	1
2-Methylphenol	ND		4.7	0.047	ug/L		03/28/18 09:36	04/03/18 00:04	1
2-Nitrophenol	ND		4.7	0.24	ug/L		03/28/18 09:36	04/03/18 00:04	1
3 & 4 Methylphenol	ND		4.7	0.095	ug/L		03/28/18 09:36	04/03/18 00:04	1
4-Chloro-3-methylphenol	ND		4.7	0.26	ug/L		03/28/18 09:36	04/03/18 00:04	1
4-Nitrophenol	ND		4.7	0.95	ug/L		03/28/18 09:36	04/03/18 00:04	1
Pentachlorophenol	ND		9.5	0.76	ug/L		03/28/18 09:36	04/03/18 00:04	1
Phenol	ND		9.5	0.095	ug/L		03/28/18 09:36	04/03/18 00:04	1
4-Methylphenol	ND		4.7	0.095	ug/L		03/28/18 09:36	04/03/18 00:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	*89*		*24 - 143*	*03/28/18 09:36*	*04/03/18 00:04*	*1*
2-Fluorobiphenyl	*89*		*54 - 120*	*03/28/18 09:36*	*04/03/18 00:04*	*1*
2-Fluorophenol (Surr)	*98*		*45 - 121*	*03/28/18 09:36*	*04/03/18 00:04*	*1*
Phenol-d5 (Surr)	*88*		*40 - 126*	*03/28/18 09:36*	*04/03/18 00:04*	*1*
Terphenyl-d14 (Surr)	*86*		*70 - 125*	*03/28/18 09:36*	*04/03/18 00:04*	*1*
Nitrobenzene-d5 (Surr)	*90*		*48 - 123*	*03/28/18 09:36*	*04/03/18 00:04*	*1*

Client Sample ID: BLIND
Date Collected: 03/24/18 13:15
Date Received: 03/27/18 09:50

Lab Sample ID: 280-107812-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		4.7	0.066	ug/L		03/28/18 09:36	04/03/18 00:25	1
2,4,6-Trichlorophenol	ND		4.7	0.10	ug/L		03/28/18 09:36	04/03/18 00:25	1
2,4-Dichlorophenol	ND		4.7	0.047	ug/L		03/28/18 09:36	04/03/18 00:25	1
2,4-Dimethylphenol	ND		4.7	0.38	ug/L		03/28/18 09:36	04/03/18 00:25	1
2,4-Dinitrophenol	ND		19	1.9	ug/L		03/28/18 09:36	04/03/18 00:25	1
2,6-Dichlorophenol	ND		0.47	0.10	ug/L		03/28/18 09:36	04/03/18 00:25	1
2-Chlorophenol	ND		4.7	0.088	ug/L		03/28/18 09:36	04/03/18 00:25	1
2-Methylphenol	ND		4.7	0.047	ug/L		03/28/18 09:36	04/03/18 00:25	1
2-Nitrophenol	ND		4.7	0.23	ug/L		03/28/18 09:36	04/03/18 00:25	1
3 & 4 Methylphenol	ND		4.7	0.094	ug/L		03/28/18 09:36	04/03/18 00:25	1
4-Chloro-3-methylphenol	ND		4.7	0.25	ug/L		03/28/18 09:36	04/03/18 00:25	1
4-Nitrophenol	ND		4.7	0.94	ug/L		03/28/18 09:36	04/03/18 00:25	1
Pentachlorophenol	ND		9.4	0.75	ug/L		03/28/18 09:36	04/03/18 00:25	1
Phenol	ND		9.4	0.094	ug/L		03/28/18 09:36	04/03/18 00:25	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Client Sample ID: BLIND
Date Collected: 03/24/18 13:15
Date Received: 03/27/18 09:50

Lab Sample ID: 280-107812-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Methylphenol	ND		4.7	0.094	ug/L		03/28/18 09:36	04/03/18 00:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*95*		*24 - 143*	*03/28/18 09:36*	*04/03/18 00:25*	*1*
2-Fluorobiphenyl	*90*		*54 - 120*	*03/28/18 09:36*	*04/03/18 00:25*	*1*
2-Fluorophenol (Surr)	*87*		*45 - 121*	*03/28/18 09:36*	*04/03/18 00:25*	*1*
Phenol-d5 (Surr)	*88*		*40 - 126*	*03/28/18 09:36*	*04/03/18 00:25*	*1*
Terphenyl-d14 (Surr)	*76*		*70 - 125*	*03/28/18 09:36*	*04/03/18 00:25*	*1*
Nitrobenzene-d5 (Surr)	*92*		*48 - 123*	*03/28/18 09:36*	*04/03/18 00:25*	*1*

Surrogate Summary

Client: J. H. Baxter & Co.
Project/Site: Eugene, OR Facility

TestAmerica Job ID: 280-107812-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	PHL	TPHL	NBZ
Lab Sample ID	Client Sample ID	(24-143)	(54-120)	(45-121)	(40-126)	(70-125)	(48-123)
280-107812-1	W-24	54	88	80	80	80	86
280-107812-2	W-25	86	114	104	96	89	97
280-107812-3	W-26	67	88	86	85	81	89
280-107812-4	W-29	95	94	102	96	84	92
280-107812-5	EQUIPMENT CHECK	89	89	98	88	86	90
280-107812-6	BLIND	95	90	87	88	76	92
LCS 280-409315/2-A	Lab Control Sample	97	90	84	91	82	86
LCSD 280-409315/3-A	Lab Control Sample Dup	93	88	83	85	79	90
MB 280-409315/1-A	Method Blank	49	90	95	91	80	96

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol (Surr)
PHL = Phenol-d5 (Surr)
TPHL = Terphenyl-d14 (Surr)
NBZ = Nitrobenzene-d5 (Surr)

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Lab Sample ID: MB 280-409315/1-A
Matrix: Water
Analysis Batch: 409910

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 409315

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		5.0	0.070	ug/L		03/28/18 09:36	04/02/18 20:52	1
2,4,6-Trichlorophenol	ND		5.0	0.11	ug/L		03/28/18 09:36	04/02/18 20:52	1
2,4-Dichlorophenol	ND		5.0	0.050	ug/L		03/28/18 09:36	04/02/18 20:52	1
2,4-Dimethylphenol	ND		5.0	0.40	ug/L		03/28/18 09:36	04/02/18 20:52	1
2,4-Dinitrophenol	ND		20	2.0	ug/L		03/28/18 09:36	04/02/18 20:52	1
2,6-Dichlorophenol	ND		0.50	0.11	ug/L		03/28/18 09:36	04/02/18 20:52	1
2-Chlorophenol	ND		5.0	0.094	ug/L		03/28/18 09:36	04/02/18 20:52	1
2-Methylphenol	ND		5.0	0.050	ug/L		03/28/18 09:36	04/02/18 20:52	1
2-Nitrophenol	ND		5.0	0.25	ug/L		03/28/18 09:36	04/02/18 20:52	1
3 & 4 Methylphenol	ND		5.0	0.10	ug/L		03/28/18 09:36	04/02/18 20:52	1
4-Chloro-3-methylphenol	ND		5.0	0.27	ug/L		03/28/18 09:36	04/02/18 20:52	1
4-Nitrophenol	ND		5.0	1.0	ug/L		03/28/18 09:36	04/02/18 20:52	1
Pentachlorophenol	ND		10	0.80	ug/L		03/28/18 09:36	04/02/18 20:52	1
Phenol	ND		10	0.10	ug/L		03/28/18 09:36	04/02/18 20:52	1
4-Methylphenol	ND		5.0	0.10	ug/L		03/28/18 09:36	04/02/18 20:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*49*		*24 - 143*	*03/28/18 09:36*	*04/02/18 20:52*	*1*
2-Fluorobiphenyl	*90*		*54 - 120*	*03/28/18 09:36*	*04/02/18 20:52*	*1*
2-Fluorophenol (Surr)	*95*		*45 - 121*	*03/28/18 09:36*	*04/02/18 20:52*	*1*
Phenol-d5 (Surr)	*91*		*40 - 126*	*03/28/18 09:36*	*04/02/18 20:52*	*1*
Terphenyl-d14 (Surr)	*80*		*70 - 125*	*03/28/18 09:36*	*04/02/18 20:52*	*1*
Nitrobenzene-d5 (Surr)	*96*		*48 - 123*	*03/28/18 09:36*	*04/02/18 20:52*	*1*

Lab Sample ID: LCS 280-409315/2-A
Matrix: Water
Analysis Batch: 409910

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 409315

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4,5-Trichlorophenol	10.0	9.09		ug/L		91	25 - 120
2,4,6-Trichlorophenol	10.0	9.27		ug/L		93	25 - 120
2,4-Dimethylphenol	10.0	8.01		ug/L		80	26 - 120
2,4-Dinitrophenol	20.0	16.5	J	ug/L		83	10 - 120
2,6-Dichlorophenol	10.0	9.58		ug/L		96	50 - 150
2-Chlorophenol	10.0	8.45		ug/L		85	35 - 120
2-Methylphenol	10.0	8.93		ug/L		89	45 - 120
2-Nitrophenol	10.0	9.85		ug/L		99	45 - 120
3 & 4 Methylphenol	10.0	9.27		ug/L		93	28 - 120
4-Chloro-3-methylphenol	10.0	9.56		ug/L		96	35 - 120
4-Nitrophenol	20.0	17.7		ug/L		88	15 - 120
Pentachlorophenol	20.0	14.7		ug/L		74	14 - 120
Phenol	10.0	7.41	J	ug/L		74	38 - 120
4-Methylphenol	10.0	9.27		ug/L		93	34 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*97*		*24 - 143*
2-Fluorobiphenyl	*90*		*54 - 120*

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCS 280-409315/2-A
Matrix: Water
Analysis Batch: 409910

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 409315

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorophenol (Surr)	*84*		*45 - 121*
Phenol-d5 (Surr)	*91*		*40 - 126*
Terphenyl-d14 (Surr)	*82*		*70 - 125*
Nitrobenzene-d5 (Surr)	*86*		*48 - 123*

Lab Sample ID: LCSD 280-409315/3-A
Matrix: Water
Analysis Batch: 409910

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 409315

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4,5-Trichlorophenol			10.0	8.62		ug/L		86	25 - 120	5	35
2,4,6-Trichlorophenol			10.0	8.95		ug/L		90	25 - 120	4	30
2,4-Dimethylphenol			10.0	6.99		ug/L		70	26 - 120	14	31
2,4-Dinitrophenol			20.0	15.4	J	ug/L		77	10 - 120	7	30
2,6-Dichlorophenol			10.0	9.15		ug/L		91	50 - 150	5	30
2-Chlorophenol			10.0	8.72		ug/L		87	35 - 120	3	38
2-Methylphenol			10.0	8.29		ug/L		83	45 - 120	7	30
2-Nitrophenol			10.0	9.17		ug/L		92	45 - 120	7	32
3 & 4 Methylphenol			10.0	8.59		ug/L		86	28 - 120	8	27
4-Chloro-3-methylphenol			10.0	8.99		ug/L		90	35 - 120	6	28
4-Nitrophenol			20.0	17.0		ug/L		85	15 - 120	4	53
Pentachlorophenol			20.0	15.4		ug/L		77	14 - 120	4	50
Phenol			10.0	8.46	J	ug/L		85	38 - 120	13	36
4-Methylphenol			10.0	8.59		ug/L		86	34 - 120	8	27

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*93*		*24 - 143*
2-Fluorobiphenyl	*88*		*54 - 120*
2-Fluorophenol (Surr)	*83*		*45 - 121*
Phenol-d5 (Surr)	*85*		*40 - 126*
Terphenyl-d14 (Surr)	*79*		*70 - 125*
Nitrobenzene-d5 (Surr)	*90*		*48 - 123*

QC Association Summary

Client: J. H. Baxter & Co.
Project/Site: Eugene, OR Facility

TestAmerica Job ID: 280-107812-1

GC/MS Semi VOA

Prep Batch: 409315

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-107812-1	W-24	Total/NA	Water	3520C	
280-107812-2	W-25	Total/NA	Water	3520C	
280-107812-3	W-26	Total/NA	Water	3520C	
280-107812-4	W-29	Total/NA	Water	3520C	
280-107812-5	EQUIPMENT CHECK	Total/NA	Water	3520C	
280-107812-6	BLIND	Total/NA	Water	3520C	
MB 280-409315/1-A	Method Blank	Total/NA	Water	3520C	
LCS 280-409315/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 280-409315/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 409910

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-107812-1	W-24	Total/NA	Water	8270C LL	409315
280-107812-2	W-25	Total/NA	Water	8270C LL	409315
280-107812-3	W-26	Total/NA	Water	8270C LL	409315
280-107812-4	W-29	Total/NA	Water	8270C LL	409315
280-107812-5	EQUIPMENT CHECK	Total/NA	Water	8270C LL	409315
280-107812-6	BLIND	Total/NA	Water	8270C LL	409315
MB 280-409315/1-A	Method Blank	Total/NA	Water	8270C LL	409315
LCS 280-409315/2-A	Lab Control Sample	Total/NA	Water	8270C LL	409315
LCSD 280-409315/3-A	Lab Control Sample Dup	Total/NA	Water	8270C LL	409315

Lab Chronicle

Client: J. H. Baxter & Co.
Project/Site: Eugene, OR Facility

TestAmerica Job ID: 280-107812-1

Client Sample ID: W-24
Date Collected: 03/24/18 11:19
Date Received: 03/27/18 09:50

Lab Sample ID: 280-107812-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			1063.9 mL	2 mL	409315	03/28/18 09:36	JT	TAL DEN
Total/NA	Analysis	8270C LL		1			409910	04/02/18 22:39	MKW	TAL DEN

Client Sample ID: W-25
Date Collected: 03/24/18 12:47
Date Received: 03/27/18 09:50

Lab Sample ID: 280-107812-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			1061.6 mL	2 mL	409315	03/28/18 09:36	JT	TAL DEN
Total/NA	Analysis	8270C LL		1			409910	04/02/18 23:00	MKW	TAL DEN

Client Sample ID: W-26
Date Collected: 03/24/18 12:18
Date Received: 03/27/18 09:50

Lab Sample ID: 280-107812-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			1065.2 mL	2 mL	409315	03/28/18 09:36	JT	TAL DEN
Total/NA	Analysis	8270C LL		1			409910	04/02/18 23:21	MKW	TAL DEN

Client Sample ID: W-29
Date Collected: 03/24/18 11:47
Date Received: 03/27/18 09:50

Lab Sample ID: 280-107812-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			1066.6 mL	2 mL	409315	03/28/18 09:36	JT	TAL DEN
Total/NA	Analysis	8270C LL		1			409910	04/02/18 23:43	MKW	TAL DEN

Client Sample ID: EQUIPMENT CHECK
Date Collected: 03/24/18 13:30
Date Received: 03/27/18 09:50

Lab Sample ID: 280-107812-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			1058.1 mL	2 mL	409315	03/28/18 09:36	JT	TAL DEN
Total/NA	Analysis	8270C LL		1			409910	04/03/18 00:04	MKW	TAL DEN

Client Sample ID: BLIND
Date Collected: 03/24/18 13:15
Date Received: 03/27/18 09:50

Lab Sample ID: 280-107812-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			1066.3 mL	2 mL	409315	03/28/18 09:36	JT	TAL DEN
Total/NA	Analysis	8270C LL		1			409910	04/03/18 00:25	MKW	TAL DEN

Lab Chronicle

Client: J. H. Baxter & Co.
Project/Site: Eugene, OR Facility

TestAmerica Job ID: 280-107812-1

Laboratory References:

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Accreditation/Certification Summary

Client: J. H. Baxter & Co.
Project/Site: Eugene, OR Facility

TestAmerica Job ID: 280-107812-1

Laboratory: TestAmerica Denver

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Oregon	NELAP	10	4025	01-08-19

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
8270C LL	3520C	Water	2,4,5-Trichlorophenol
8270C LL	3520C	Water	2,4,6-Trichlorophenol
8270C LL	3520C	Water	2,4-Dichlorophenol
8270C LL	3520C	Water	2,4-Dimethylphenol
8270C LL	3520C	Water	2,4-Dinitrophenol
8270C LL	3520C	Water	2,6-Dichlorophenol
8270C LL	3520C	Water	2-Chlorophenol
8270C LL	3520C	Water	2-Methylphenol
8270C LL	3520C	Water	2-Nitrophenol
8270C LL	3520C	Water	3 & 4 Methylphenol
8270C LL	3520C	Water	4-Chloro-3-methylphenol
8270C LL	3520C	Water	4-Methylphenol
8270C LL	3520C	Water	4-Nitrophenol
8270C LL	3520C	Water	Pentachlorophenol
8270C LL	3520C	Water	Phenol

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Scott Thielke	Lab PM: Ide, Jamie N	Carrier Tracking No(s):	COC No:
Client Contact: Scott Thielke	Phone: 541.689.3801 (Ext. 4)	E-Mail: Jamie.Ide@testamericainc.com		Page: Page 1 of 1
Company: J. H. Baxter & Co.				Job #:

Address: PO BOX 5902	Due Date Requested:	Analysis Requested	Preservation Codes:
City: San Mateo	TAT Requested (days): 10 Business Days		A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
State, Zip: CA, 94402			
Phone: 650-349-0201(Tel) 650-570-6878(Fax)	PO #:		Other:
Email: sthielke@jhbaxter.com	WO #:		
Project Name:	Project #: 28005894		
Site: JH Baxter Eugene, Or	SSOW#:		

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8270C - Pentachlorophenol (2X1L Amber)	200.8 - Metals (As, Cr, Cu, Zn) (1x500mL Poly)	200.8 - Diss. Metals (As, Cr, Cu, Zn) (1x500mL Poly)	8270C LL - Phenols (2X1L Amber)	EPA 625 - PAH (2X1L Amber)	EPA 1311 - TCLP	8260 - VOCs	8270 - SVOCs	200.8 - Lead	2340 C - Hardness (1x500ml Poly)	SM 5210B - BOD (1 liter Poly)			Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	D	D	N	N	N	N	N	D	N	N				
W-24	3/24/18	1119	G	W	Y	N				2										2	
W-25	3/24/18	1247	G	W	Y	N				2										2	
W-26	3/24/18	1218	G	W	Y	N				2										2	
W-29	3/24/18	1147	G	W	Y	N				2										2	
Equipment Check	3/24/18	1330	G	W	Y	N				2										2	
Blind	3/24/18	1315	G	W	Y	N				2										2	

280-107812 Chain of Custody

Possible Hazard Identification
☐ X Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ■ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Scott Thielke	Date/Time: 3-26-18 0900	JH Baxter		3/27/18 0950	TA-DEN
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 6.6°C-0.1 IR MB

Login Sample Receipt Checklist

Client: J. H. Baxter & Co.

Job Number: 280-107812-1

Login Number: 107812
List Number: 1
Creator: Ide, Jamie N

List Source: TestAmerica Denver

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Appendix B

Eugene Ground Water Sampling Field Log

Site: JH Baxter Eugene, OR

Date 3/24/16

Well # 24 Well Depth: 65' Screen length: 10' Dia. 4" Casing type: PVC

Sampling Device HORIBA Tubing Type POLY Water Level 8.03

Measuring Point T.O.C. Well Location Waite Street

Sampling Personell S.THIELKE/J.THIELKE

Time	Temp. C°	pH (+/-.1)	ORP Red(ox. (+/-10mv)	mS/cm Cond. (+/-3%)	NTU Turb. (+/-10%)	Diss. O2 mg/l (+/-10%)	Water Level	Notes
10:55							8.03	
11:00	13.11	7.88	216	.545	13.9	16.63		
11:03	13.79	7.46	227	.601	33.0	5.08		
11:07	13.79	7.36	228	.619	28.5	2.46	7.85	
11:10	13.63	7.27	230	.616	23.4	1.32		
11:14	13.17	7.24	230	.529	15.2	.79		
11:17	12.86	7.24	233	.627	10.0	.69		
11:19								SAMPLE TAKEN

Samples Collected

PAH 8270c	Phenols	Total Cu,Cr,Zn,As	Diss. Cu,Cr,Zn,As (filtered)
	✓		

Eugene Ground Water Sampling Field Log

Site: JH Baxter Eugene, OR Date 3-24-18

Well # 25 Well Depth: 52' Screen length: 10' Dia. 4" Casing type: PVC

Sampling Device ____ Tubing Type POLY Water Level 5.37

Measuring Point T.O.C. Well Location Roosevelt @ Chase

Sampling Personell S. THIELKE / J. THIELKE

Time	Temp. C°	pH (+/-.1)	ORP Redox. (+/-10mv)	mS/cm Cond. (+/-3%)	NTU Turb. (+/-10%)	Diss. O2 mg/l (+/-10%)	Water Level	Notes
12:28							5.37	
12:33	13.17	7.77	290	.545	1.8	9.17		
12:33	14.30	7.37	294	.628	15.2	.46		
12:36	14.44	7.36	293	.645	11.6	0		
12:41	14.51	7.38	287	.648	7.2	0	5.42	
12:45	14.54	7.35	284	.649	5.4	0		
12:47								SAMPLE TAKEN
13:15		BLIND	TAKEN	AT				
			THIS	WELL				

Samples Collected

PAH 8270c	Phenols	Total Cu,Cr,Zn,As	Diss. Cu,Cr,Zn,As (filtered)
	✓		

Eugene Ground Water Sampling Field Log

Site: JH Baxter Eugene, OR Date 3-24-18

Well # 26 Well Depth: 77' Screen length: 5' Dia. 4" Casing type: PVC

Sampling Device HORIBA Tubing Type POLY Water Level 5.48

Measuring Point T.O.C. Well Location Cross Street

Sampling Personell S. THIERKE / J. THIERKE

Time	Temp. C°	pH (+/-.1)	ORP Redox. (+/-10mv)	mS/cm Cond. (+/-3%)	NTU Turb. (+/-10%)	Diss. O2 mg/l (+/-10%)	Water Level	Notes
11:55							5.48	
12:00	12.88	8.05	263	.187	4.0	13.45		
12:04	14.15	7.44	266	.396	10.7	4.80		
12:10	14.20	7.60	275	.423	5.9	4.14		
12:13	14.21	7.55	275	.429	4.7	3.93	5.47	
12:16	14.05	7.40	279	.429	3.7	4.04		
12:18								SAMPLE TAKEN

Samples Collected	PAH 8270c	Phenols	Total Cu,Cr,Zn,As	Diss. Cu,Cr,Zn,As (filtered)
		✓		

Eugene Ground Water Sampling Field Log

Site: JH Baxter Eugene, OR

Date 3-24-18

Well # 29 Well Depth: 75' Screen length: 5' Dia. 2.5" Casing type: PVC

Sampling Device HORIBA Tubing Type POLY Water Level 4.53

Measuring Point T.O.C. Well Location Cross Street

Sampling Personell S. THIELKE / J. THIELKE

Time	Temp. C°	pH (+/-.1)	ORP Redox. (+/-10mv)	mS/cm Cond. (+/-3%)	NTU Turb. (+/-10%)	Diss. O2 mg/l (+/-10%)	Water Level	Notes
11:26							4.53	
11:32	14.03	8.02	254	.250	11.2	8.62		
11:36	14.81	7.52	267	.493	25.1	.89		
11:39	14.91	7.44	265	.516	22.1	0	4.6	
11:42	14.92	7.42	263	.522	18.9	0		
11:45	14.96	7.39	261	.524	13.0	0		
11:47								Sample taken

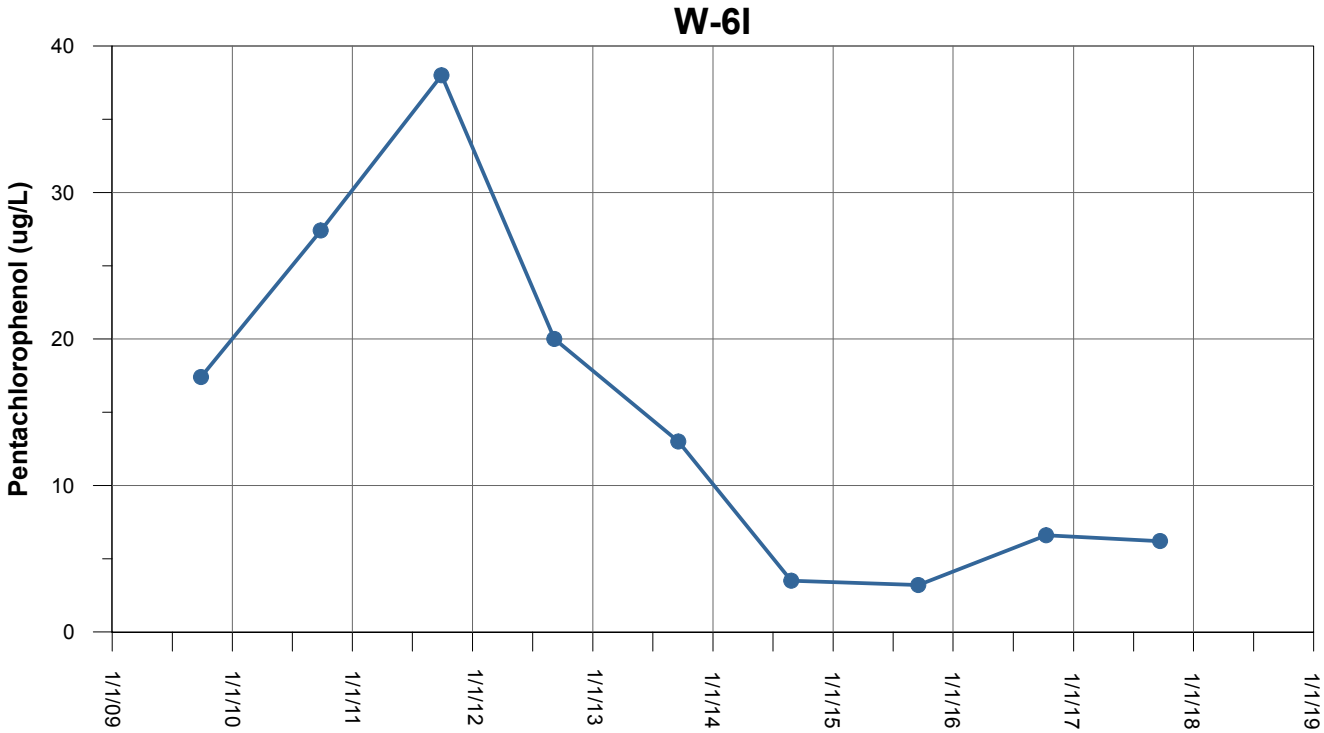
Samples Collected

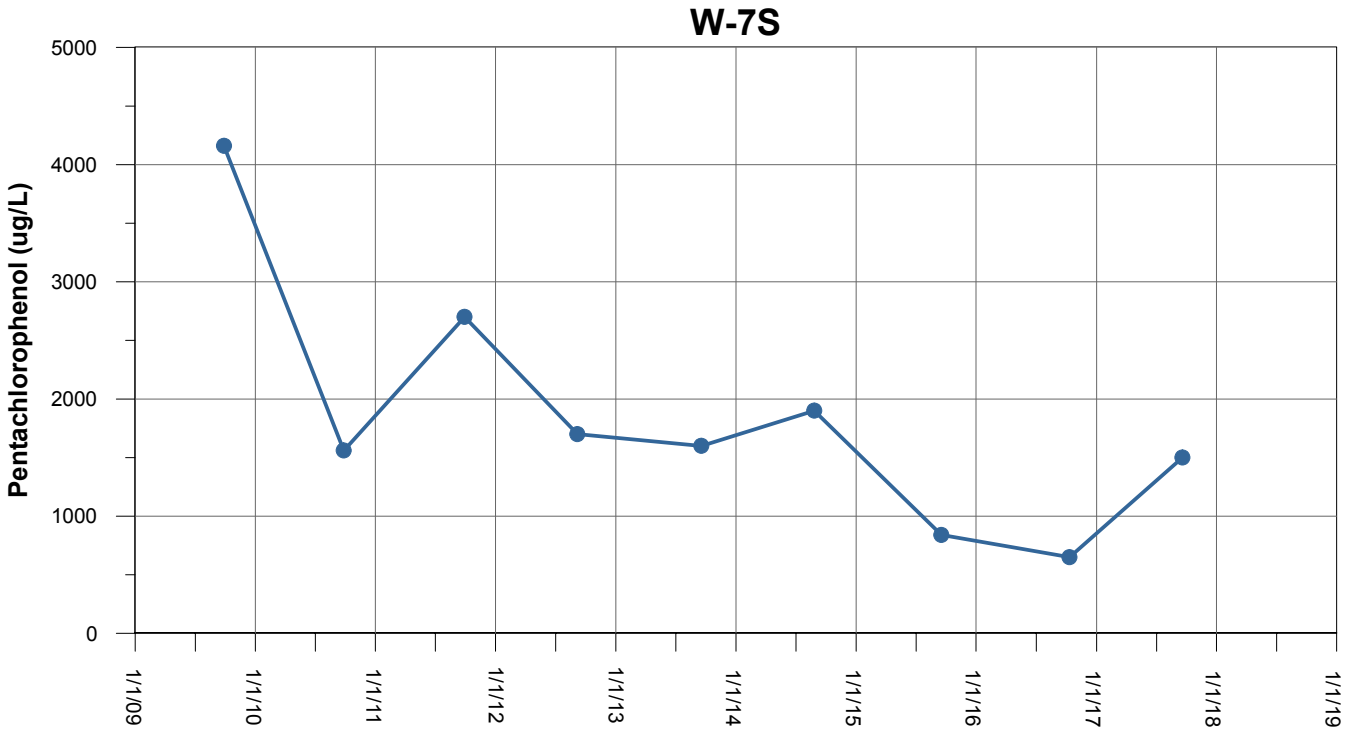
PAH 8270c	Phenols	Total Cu,Cr,Zn,As	Diss. Cu,Cr,Zn,As (filtered)
	/		

JH Baxter Eugene Water Levels March 2018

Well	Depth	Level	Time	Date	Location	Notes
1 (S)	28.5	10.42	1501	3/23/18	Office	
2 (S)	27.6	NDA		3/23/18	Pond	NAPL - LOCK STUCK
2 (I)	81.71	6.57	1424	3/23/18	Pond	
3 (S)	33	NDA		3/23/18	Kiln #3	TOP OF WELL PIPE STUCK
4 (S)	22.3	9.67	1407	3/23/18	Timber Incisor	
5(I)	75.5	11.29	1409	3/23/18	Timber Incisor	
6 (I)	70	11.64	1508	3/23/18	#85 RETORT	ANNUAL / Phenols
7 (S)	20	11.09	1511	3/23/18	#85 RETORT	ANNUAL / Phenols
8 (S)	20.17	5.88	1421	3/23/18	Dry Shed	NAPL
8 (I)	82.33	6.98	1416	3/23/18	Dry Shed	
9 (S)	25	6.82	1445	3/23/18	Pole Yard	
9 (D)	67	6.4	1444	3/23/18	Pole Yard	
11 (S)	24.85	7.34	1404	3/23/18	Light Standards	ANNUAL / Phenols
11 (I)	83	9.06	1403	3/23/18	Light Standards	ANNUAL / Phenols
12 (I)	78.5	12.21	1348	3/23/18	Kiln #3	ANNUAL / Phenols
12 (D)	133.75	11.96	1346	3/23/18	Kiln #3	Discontinue sampling 2016
13 (S)	29.02	19.59	1516	3/23/18	Pump & Treat	ANNUAL / Phenols
13 (I)	71.46	42.33	1519	3/23/18	Pump & Treat	ANNUAL / Phenols
13 (D)	133.51	12.77	1520	3/23/18	North Fence	
14 (I)	77.5	9.12	1505	3/23/18	Office	
15 (S)	28	12.55	1525	3/23/18	North Fence	
16A (S)	24.98	5.91	1316	3/24/18	N&S LaCasa	
16A (I)	81.85	7.35	1313	3/24/18	N&S LaCasa	Discontinue sampling 2016
17A (S)	23.67	5.42	1319	3/24/18	N&S LaCasa	ANNUAL / Phenols
17A (I)	87.42	7.01	1320	3/24/18	N&S LaCasa	ANNUAL / Phenols
17B (I)	84.88	7.35	1324	3/24/18	Archie St.	
18A (S)	25.05	7.28	1358	3/23/18	North Ditch	
18A (I)	86.81	9.57	1356	3/23/18	North Ditch	
18B (I)	88.6	NDA		3/24/18	Waite St.	WELL CAP NOT REMOVEABLE
19 (S)	23.66	7.73	1309	3/24/18	Baxter St.	
20 (I)	85	32.96	1353	3/23/18	Pump & Treat	ANNUAL / Phenols
21 (S)	16.75	6.5	1436	3/23/18	Tram Shed	
21 (I)	81.42	6.87	1433	3/23/18	Tram Shed	
22 (S)	19.38	8.73	1440	3/23/18	Haz Waste Shed	
23 (I)	55.5	10.77	1400	3/23/18	West Fence	ANNUAL / Phenols
24 (I)	65	8.03	1055	3/24/18	Waite St.	SEMI / ANNUAL / Phenols
25 (I)	64	5.37	1228	3/24/18	Roosevelt@Chase	SEMI / ANNUAL / Phenols
26 (I)	79	5.48	1155	3/24/18	Cross St.	SEMI / ANNUAL / Phenols
28 (I)	84.42	5.81	1336	3/24/18	Cross St.	
29 (I)	74.83	4.53	1126	3/24/18	Cross St.	SEMI / ANNUAL / Phenols
32 (I)	74	5.25	1331	3/24/18	Hope Loop	ANNUAL / Phenols
34 (I)	76	6.11	1328	3/24/18	Mira Ct.	
35 (I)	77	6.72	1540	3/23/18	Whittier	
						9 OFFSITE WELLS
						7 ONSITE WELLS

Appendix C





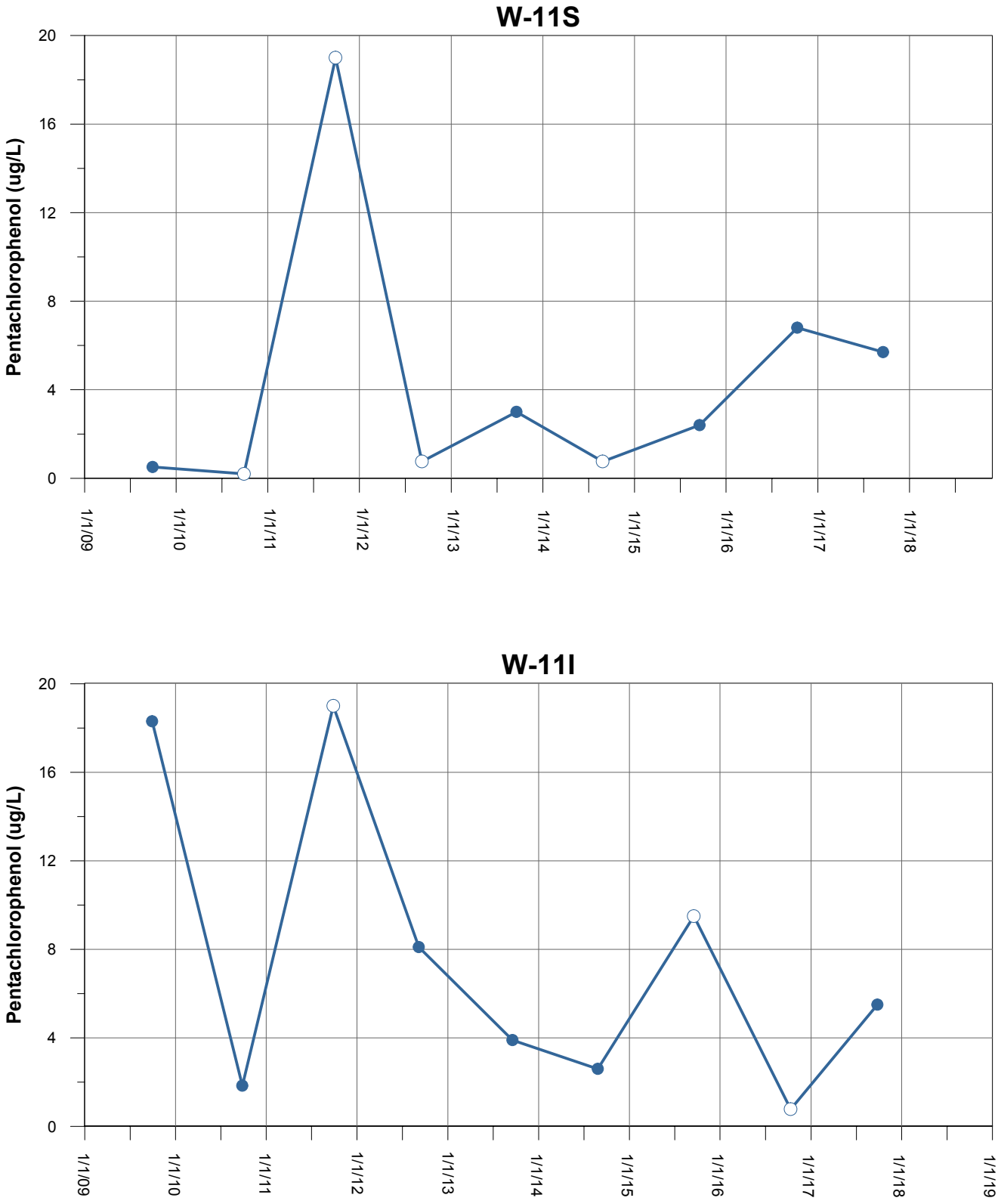
Legend:

- Pentachlorophenol Detected Values
- Pentachlorophenol Non-Detected Values

FIGURE C-1
Pentachlorophenol Groundwater Concentrations in W-6I and W-7S
J.H. Baxter Wood Treating Facility
Eugene, Oregon

Notes:
ug/L = microgram per liter

GSI Water Solutions, Inc.



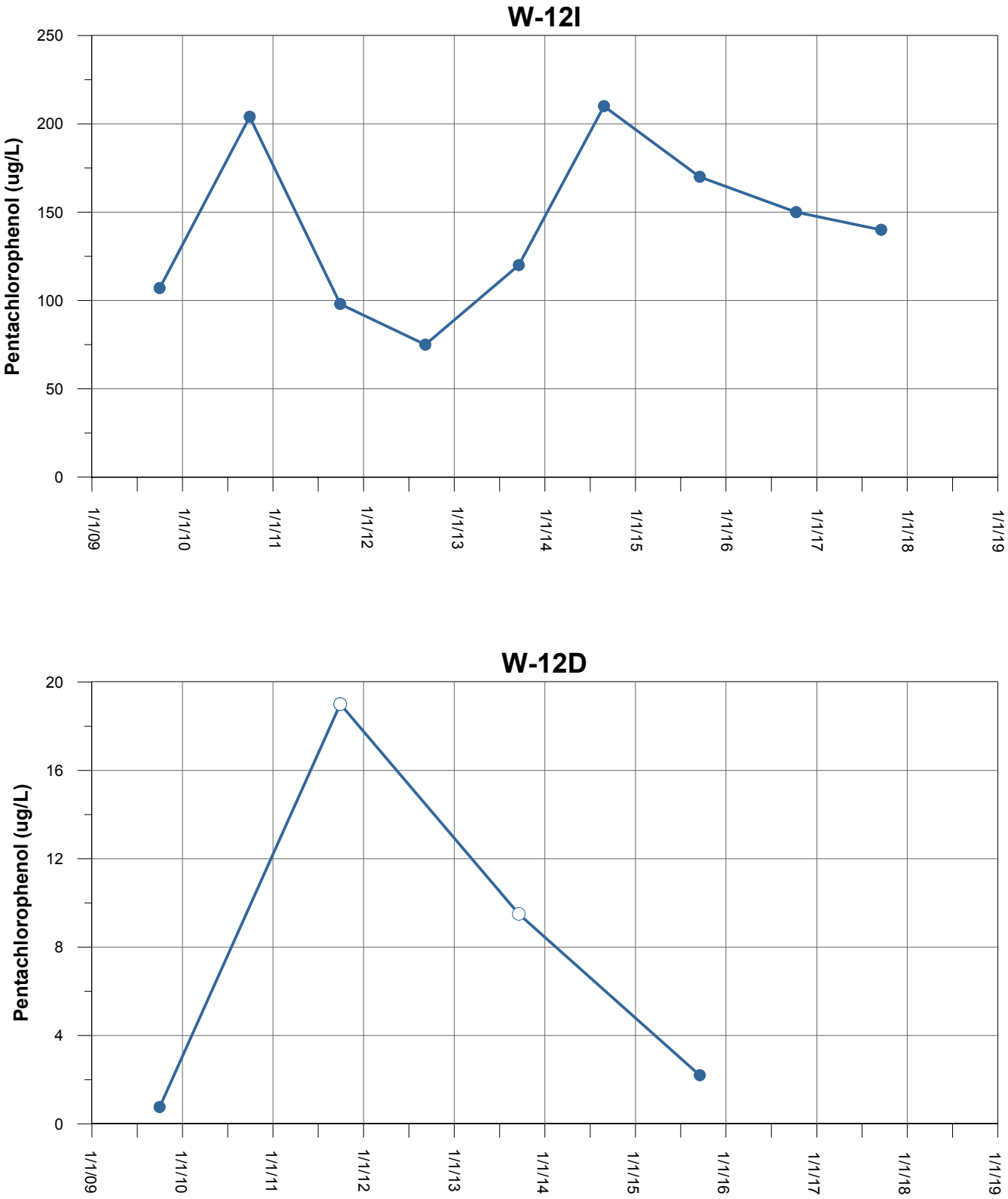
Legend:

- Pentachlorophenol Detected Values
- Pentachlorophenol Non-Detected Values

FIGURE C-2
Pentachlorophenol Groundwater Concentrations in W-11S and W-11I
J.H. Baxter Wood Treating Facility
Eugene, Oregon

Notes:
ug/L = microgram per liter

GSI Water Solutions, Inc.



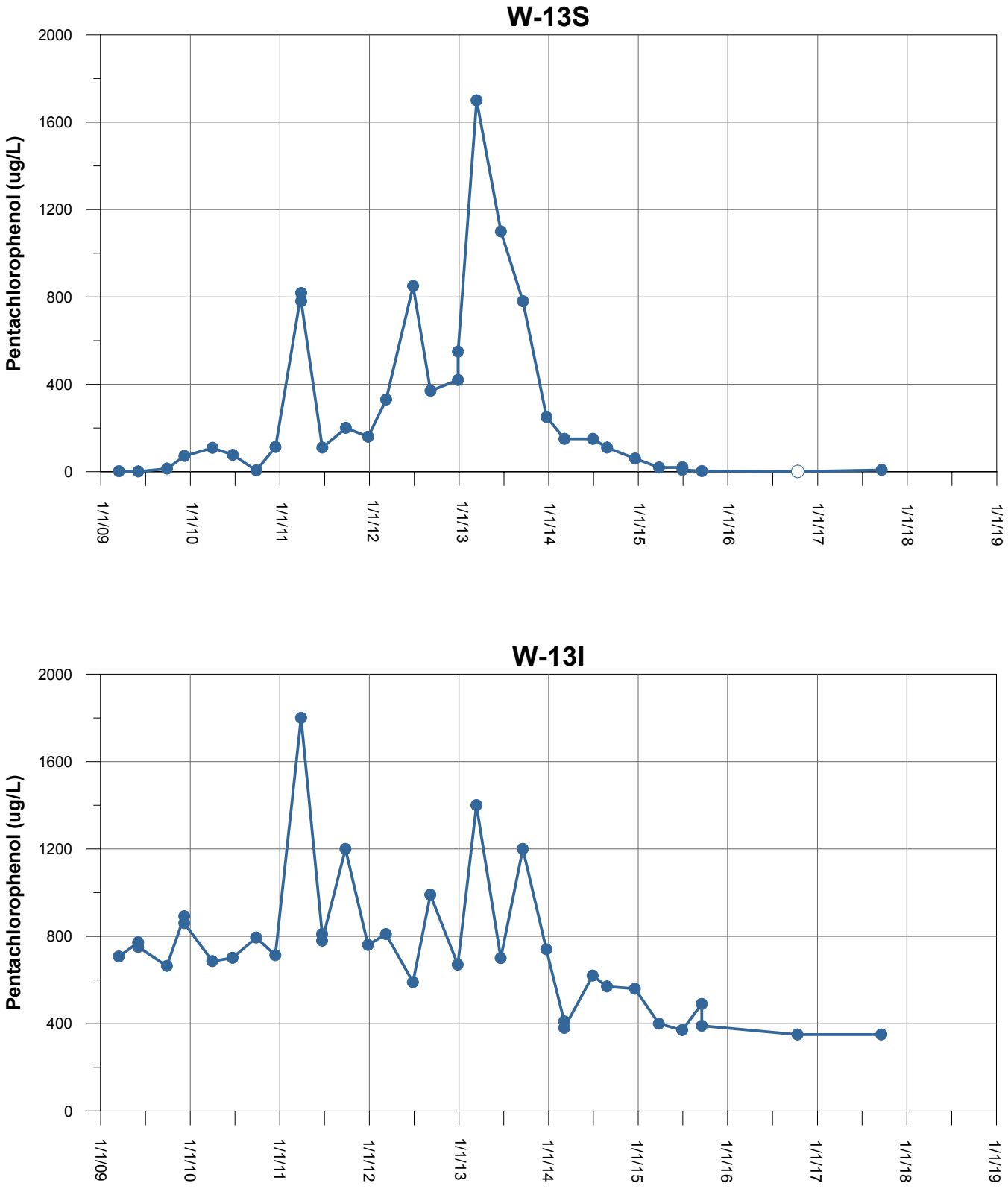
Legend:

- Pentachlorophenol Detected Values
- Pentachlorophenol Non-Detected Values

FIGURE C-3
Pentachlorophenol Groundwater Concentrations in W-12I and W-12D
J.H. Baxter Wood Treating Facility
Eugene, Oregon

Notes:
ug/L = microgram per liter
W-12D sampled every other year.

GSI Water Solutions, Inc.



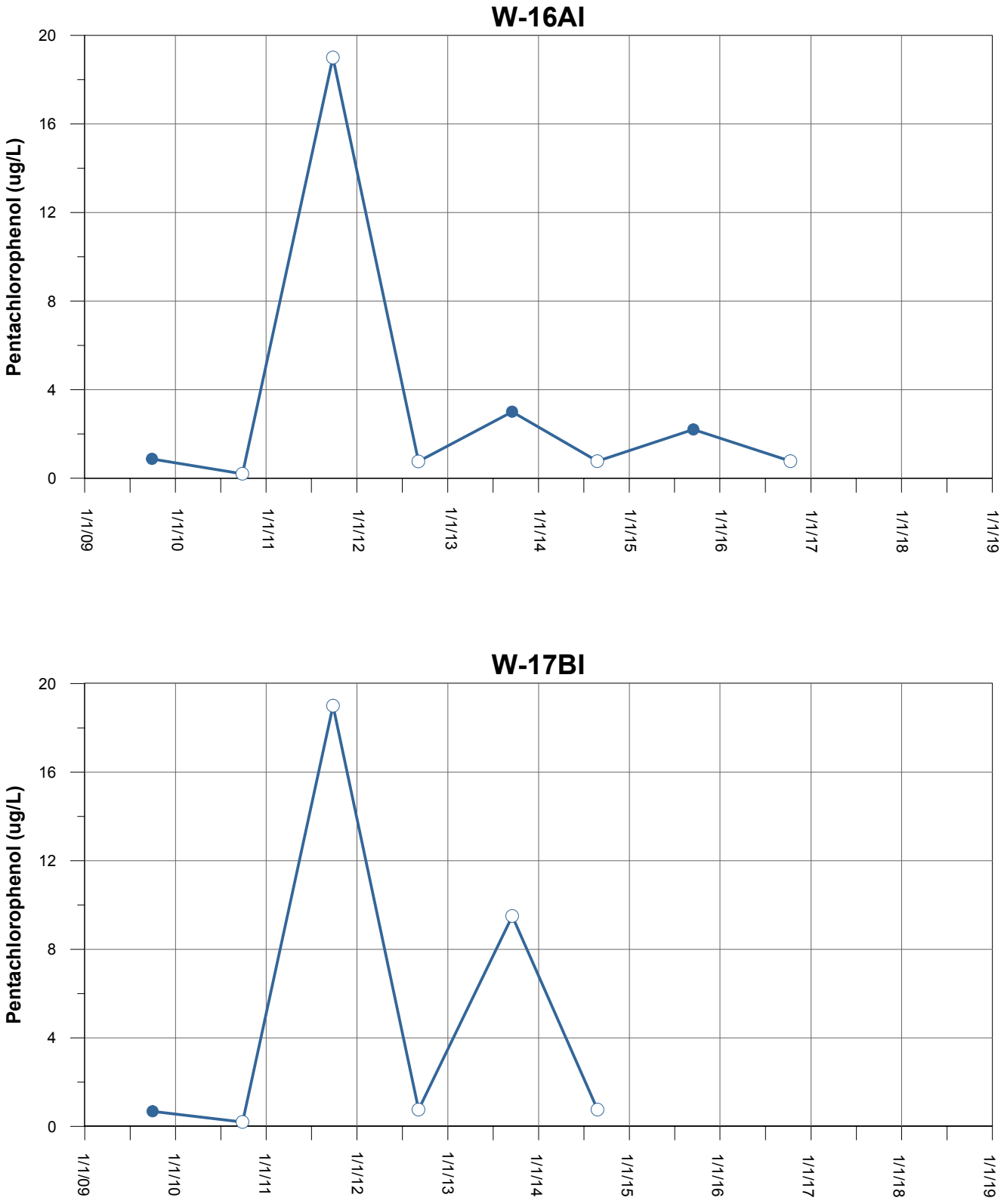
Legend:

- Pentachlorophenol Detected Values
- Pentachlorophenol Non-Detected Values

Notes:
ug/L = microgram per liter

FIGURE C-4
Pentachlorophenol Groundwater Concentrations in W-13S and W-13I
J.H. Baxter Wood Treating Facility
Eugene, Oregon

GSI Water Solutions, Inc.



Legend:

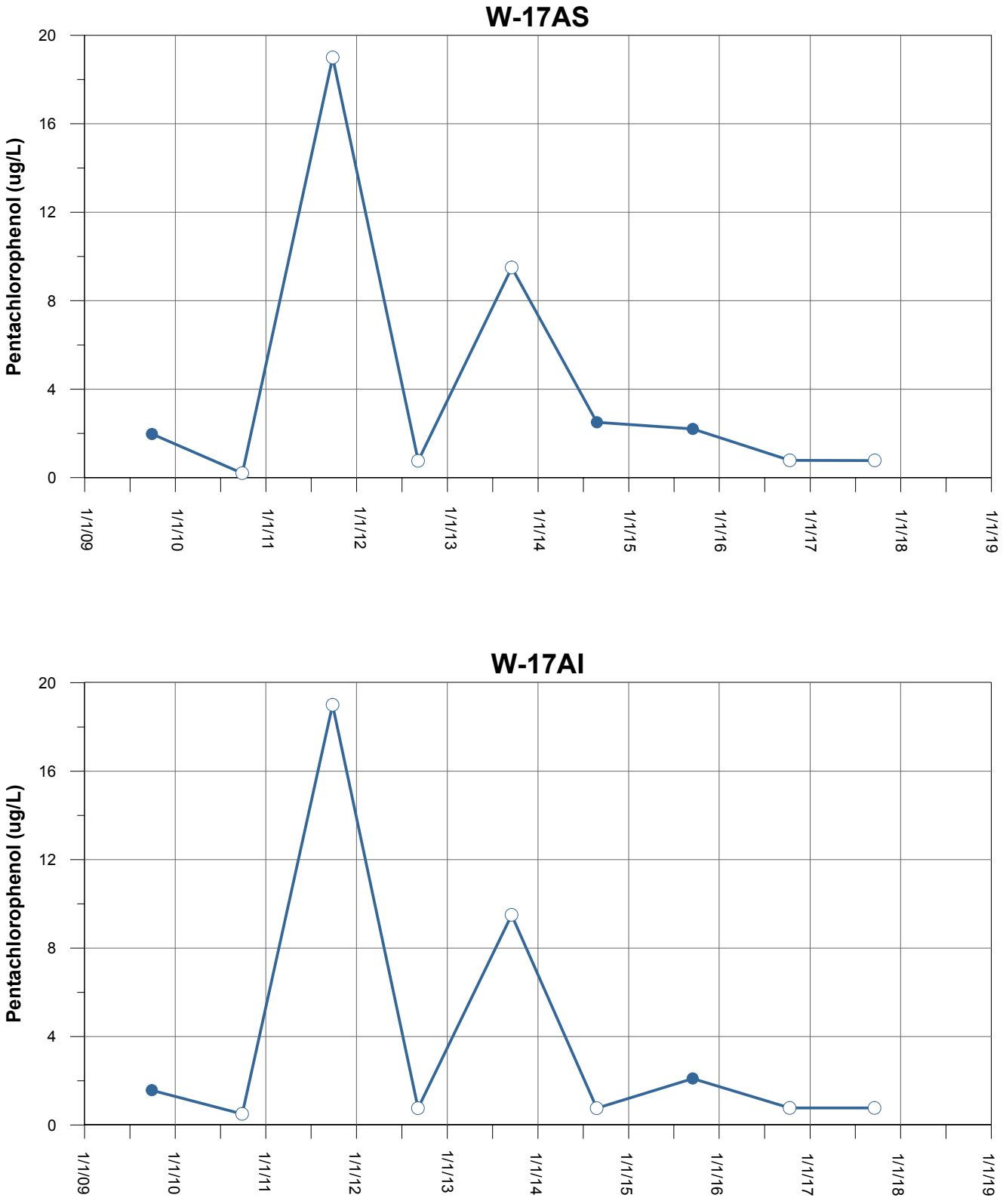
- Pentachlorophenol Detected Values
- Pentachlorophenol Non-Detected Values

Notes:
ug/L = microgram per liter

FIGURE C-5
Pentachlorophenol Groundwater Concentrations in W-16AI and W-17BI

J.H. Baxter Wood Treating Facility
Eugene, Oregon

GSI Water Solutions, Inc.



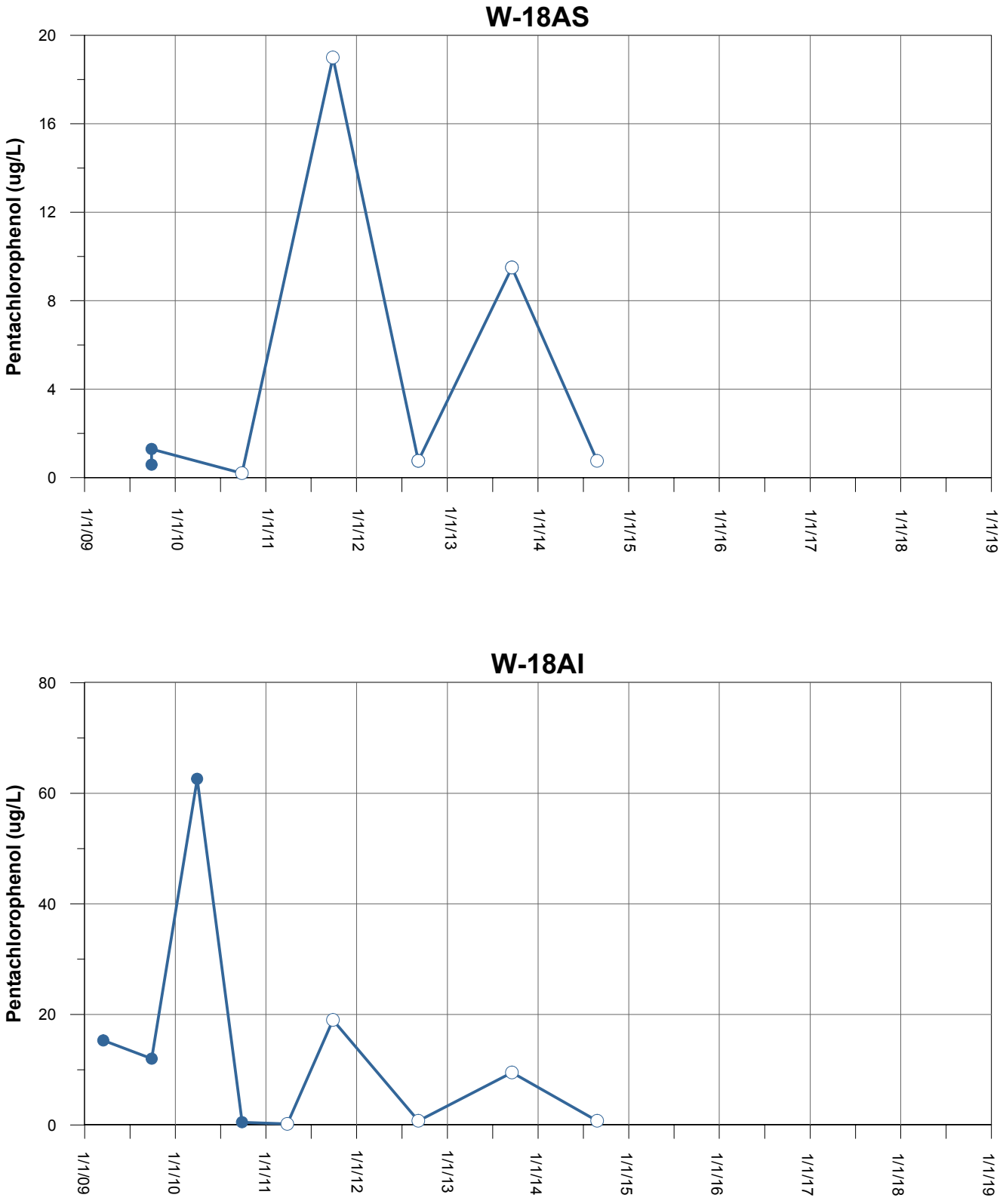
Legend:

- Pentachlorophenol Detected Values
- Pentachlorophenol Non-Detected Values

Notes:
ug/L = microgram per liter

FIGURE C-6
Pentachlorophenol Groundwater Concentrations in W-17AS and W-17AI
J.H. Baxter Wood Treating Facility
Eugene, Oregon

GSI Water Solutions, Inc.



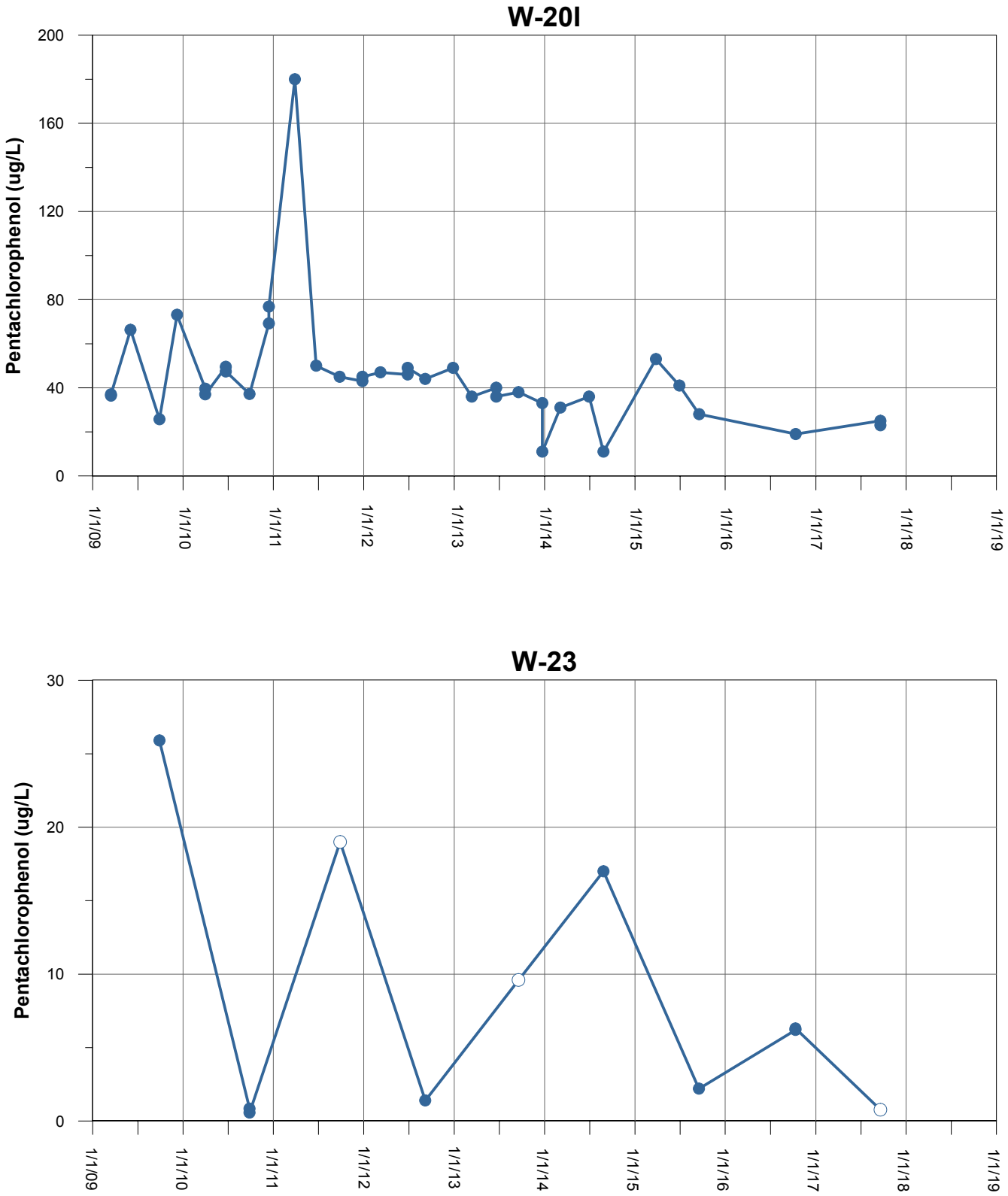
Legend:

- Pentachlorophenol Detected Values
- Pentachlorophenol Non-Detected Values

FIGURE C-7
Pentachlorophenol Groundwater Concentrations in W-18AS and W-18AI
J.H. Baxter Wood Treating Facility
Eugene, Oregon

Notes:
ug/L = microgram per liter

GSI Water Solutions, Inc.



Legend:

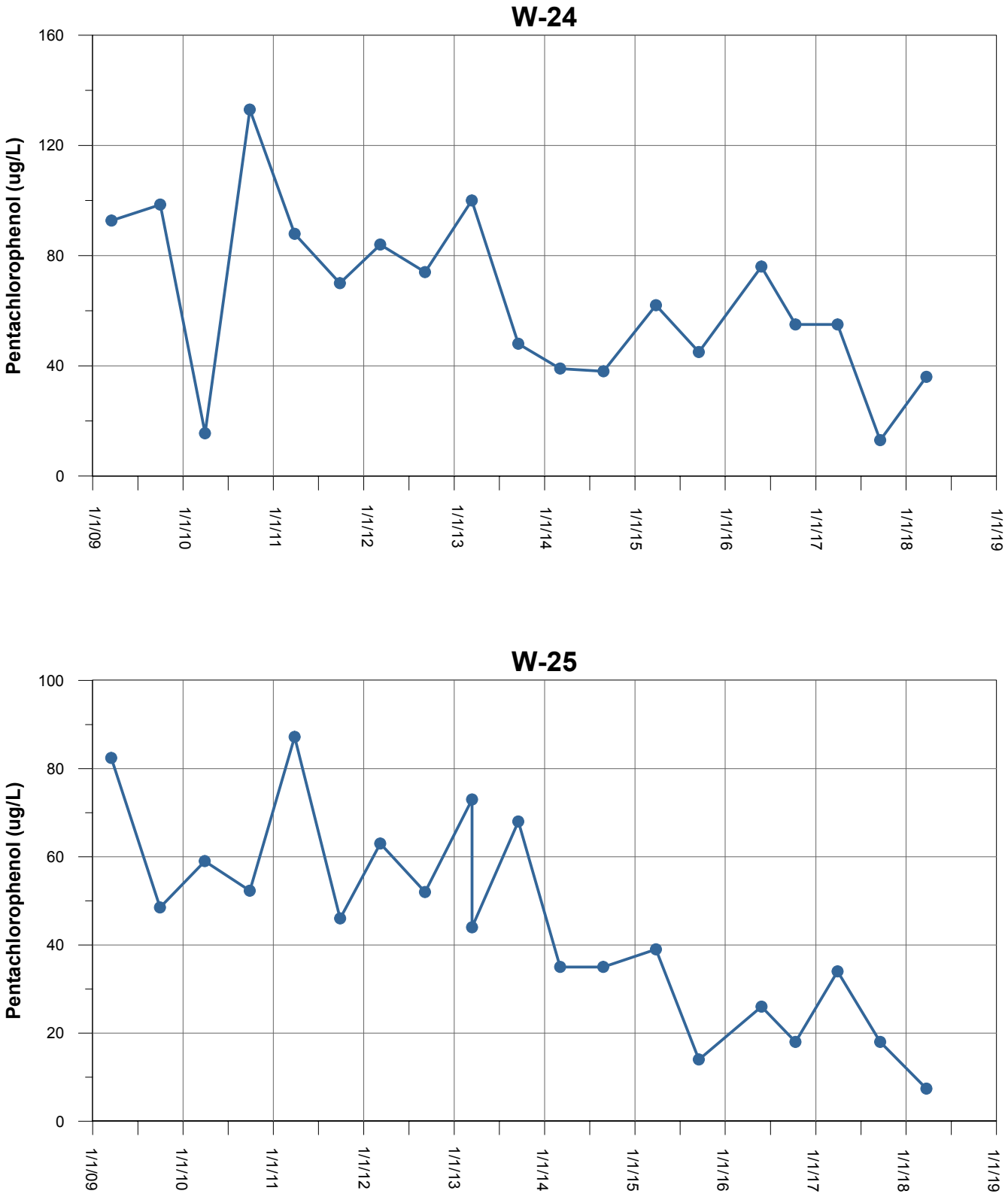
- Pentachlorophenol Detected Values
- Pentachlorophenol Non-Detected Values

Notes:
ug/L = microgram per liter

FIGURE C-8
Pentachlorophenol Groundwater Concentrations in W-20I and W-23

J.H. Baxter Wood Treating Facility
Eugene, Oregon

GSI Water Solutions, Inc.



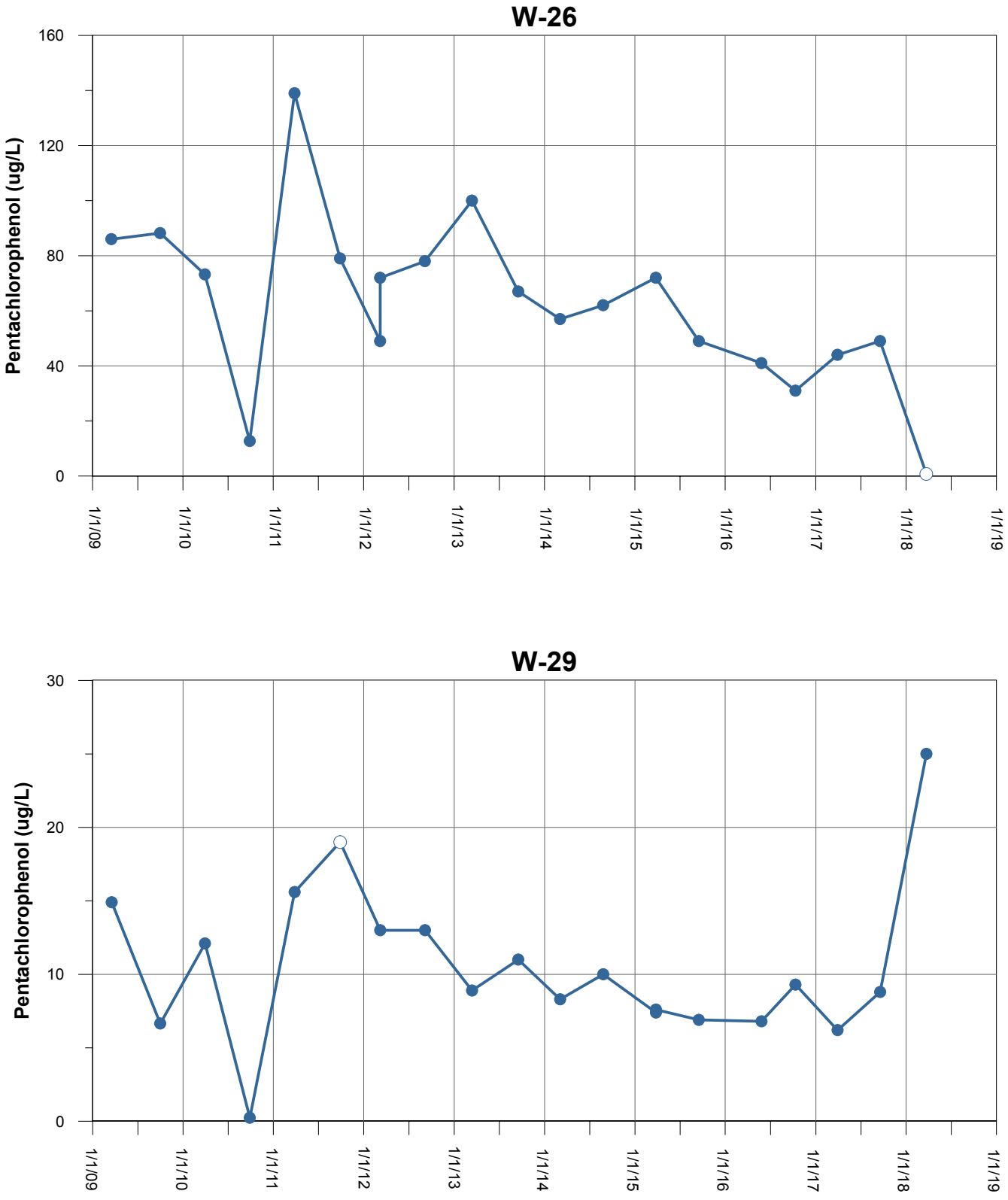
Legend:

- Pentachlorophenol Detected Values
- Pentachlorophenol Non-Detected Values

FIGURE C-9
Pentachlorophenol Groundwater Concentrations in W-24 and W-25
J.H. Baxter Wood Treating Facility
Eugene, Oregon

Notes:
ug/L = microgram per liter

GSI Water Solutions, Inc.



Legend:

- Pentachlorophenol Detected Values
- Pentachlorophenol Non-Detected Values

Notes:

ug/L = microgram per liter

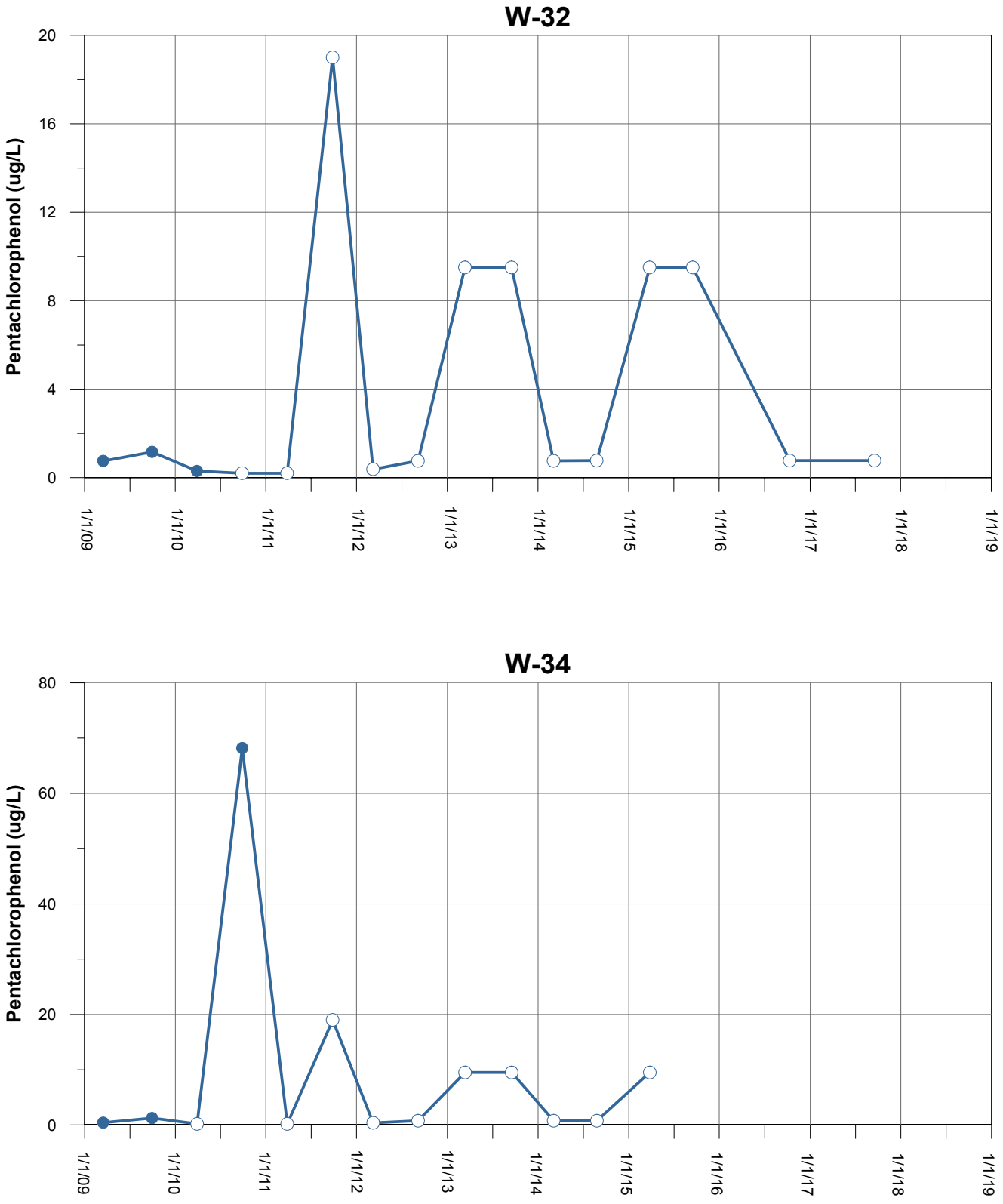
FIGURE C-10

Pentachlorophenol Groundwater Concentrations in W-26 and W-29

J.H. Baxter Wood Treating Facility

Eugene, Oregon

GSI Water Solutions, Inc.



Legend:

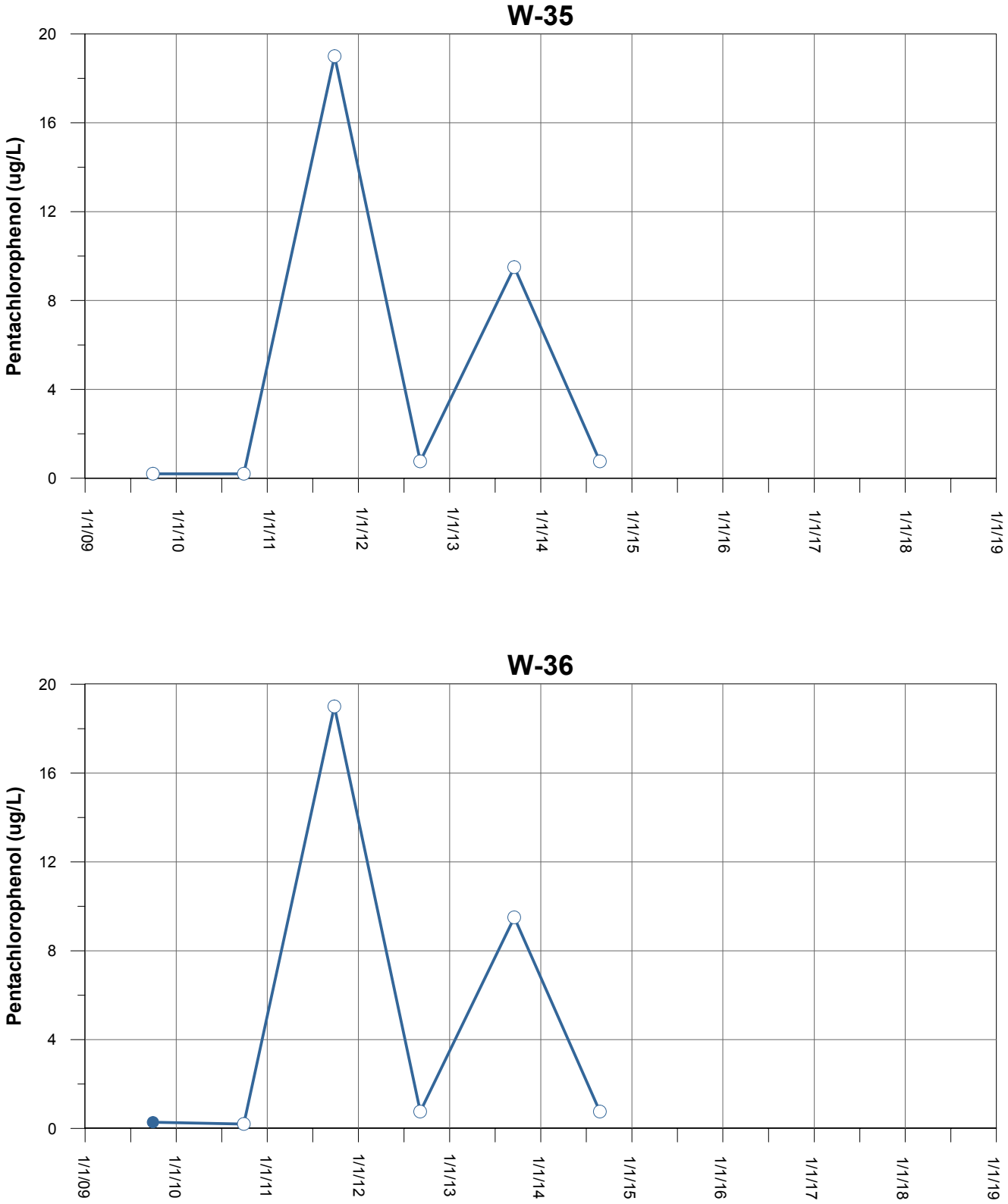
- Pentachlorophenol Detected Values
- Pentachlorophenol Non-Detected Values

Notes:
ug/L = microgram per liter

FIGURE C-11
Pentachlorophenol Groundwater Concentrations in W-32 and W-34

J.H. Baxter Wood Treating Facility
Eugene, Oregon

GSI Water Solutions, Inc.



Legend:

- Pentachlorophenol Detected Values
- Pentachlorophenol Non-Detected Values

Notes:
ug/L = microgram per liter

FIGURE C-12
Pentachlorophenol Groundwater Concentrations in W-35 and W-36
J.H. Baxter Wood Treating Facility
Eugene, Oregon

GSI Water Solutions, Inc.