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January 9, 2018

Mr. Matt Thompson
Wisconsin Department of Natural Resources
1300 W Clairemont Ave
Eau Claire, WI 54701

Subject: 2017 Fourth Quarterly Report - Wauleco, Inc., Wausau, Wisconsin
BRRS #02-37-000006

Dear Mr. Thompson:

On behalf of Wauleco, Inc., TRC is submitting a copy (enclosed) of the 2017 Fourth Quarterly Report for the Wauleco, Inc., site in Wausau, Wisconsin.

If you have any questions or comments regarding this information, please call me at (608) 826-3644.

Sincerely,

TRC Environmental Corporation


Bruce Iverson
Project Manager

Attachments: 2017 Fourth Quarterly Report

cc: Evan Schreiner – Wauleco, Inc. (2 copies)
David Crass – Michael Best & Friedrich, LLP (1 copy)
Tom Dushek – TRC Wauleco (1 copy)
Ken Quinn – TRC (1 copy)

Wauleco, Inc. - Wausau, Wisconsin
Quarterly Report
Submitted January 2018

Summary of 2017 Fourth Quarter Activities

Groundwater Extraction and Treatment System Operation

Tables 1a, b, and c summarize the extraction and treatment system performance data for this reporting period. The results of the water discharged to the municipal sewer during the fourth quarter of 2017 are summarized as follows:

- Pentachlorophenol (PCP) screening (on-site gas chromatograph) results for the system effluent samples, which represent the water discharged to the municipal sanitary sewer, averaged 1.27 µg/L in October, 5.07 µg/L in November, and 2.55 µg/L in December.
- Laboratory results for the sampling event conducted this quarter are included in Tables 1a, b, and c for each month. The laboratory results for PCP in the system effluent was <3.0 µg/L on October 11, <3.0 µg/L on November 15, and <3.0 µg/L December 13, 2017.
- Both laboratory and on-site screening results indicate that the effluent PCP concentrations were below the monthly average permit level of 150 µg/L and the daily maximum concentration of 300 µg/L.
- Total treatment system efficiency (including carbon polishing units) removed more than 99 percent of the PCP between the influent and the effluent.

On-site screening PCP influent concentrations ranged from 3,665 µg/L to 8,844 µg/L during the quarter (Tables 1a, b, and c). PCP influent and effluent concentrations in the fluidized bed reactor (FBR) are presented graphically, both as individual data points and as moving averages, on Figure 1. FBR results included the following:

- As shown on Figure 1 and in Tables 1a, b, and c, PCP concentrations in the FBR influent fluctuated during the quarter, and generally remain within normal concentrations.
- The average PCP removal efficiency for the biological portion (*i.e.*, FBR influent to the fixed film reactor [FFR] effluent) of the system during this quarter is compared to the following:

MONTH	AVERAGE PCP REMOVAL (%)	PREVIOUS 12 MONTH AVERAGE (%)	AVERAGE 1 YEAR AGO (%)
October 2017	91	65	39
November 2017	84	70	32
December 2017	83	75	29

The higher PCP removal efficiency during October, November and December 2017 compared to the previous 12 month average, and average 1 year ago is due to replacement of carbon in the FBR and FFR tanks. During early April, 2017 the groundwater treatment system was shut down during the first portion of the month for maintenance. The granular activated carbon was

removed and replaced with regenerated carbon, process tanks were cleaned, and piping was replaced and cleaned.

- The dissolved oxygen concentration in the influent to the FBR averaged 2.7 mg/L in October, 2.4 mg/L in November, and 2.5 mg/L in December 2017.

Laboratory results for the mercury analysis of the system effluent samples are included in Tables 1a, b, and c. The mercury concentration in the system effluent sample (discharged to the sanitary sewer) was <0.02 µg/L on October 11, <0.02 on November 15, and <0.02 µg/L December 13, which are below the permit discharge limit of 1.6 µg/L. The mass loading for mercury in October, November, and December was calculated using half the detection limit of 0.01 µg/L, at 0.00000268 lb/24 hours in October, 0.00000259 lb/24 hours in November, and 0.00000258 in December, which are below the permit discharge limit of 0.00048 lb/24 hours.

The daily groundwater flow of the effluent to the Wausau Wastewater Treatment Plant averaged 22.27 gpm for October, 21.54 gpm for November, and 21.51 gpm for December 2017 (Tables 2a, b, and c). Since June, 2012 the pumping rate has been operated at approximately 22 gpm.

Figure 2 shows the average groundwater flow extracted and the average daily flow discharged to the Wausau Wastewater Treatment Plant.

Groundwater Monitoring

Water table elevations for the month of October 2017 are included in Table 3. Monthly water table elevations have been discontinued, with only quarterly elevations being measured, and semi-annual preparation of water table maps as discussed in the 2014 Annual Groundwater Monitoring Report dated April 16, 2015.

The product thickness data for October 2017 are summarized in Table 4. Measurements show small amounts of product present in October. Three monitoring wells measured had free product: W04A had 0.01 ft, W35 had 0.17 ft, and W40 had 0.11 ft.

Enclosures: Tables 1a, b, and c – Above Ground Treatment System Data
Tables 2a, b, and c – Treatment System Flows
Table 3 – Groundwater Elevation Data
Table 4 – Free Product Measurements
Figure 1 – FBR Influent and Effluent PCP Concentrations
Figure 2 – Average Groundwater Extraction Rates and Water Level Deviation Versus Time

**TABLE 1a
OCTOBER 2017**

**Above Ground Treatment System Data
Wauleco, Inc.
Wausau, Wisconsin**

<u>Parameter</u>	<u>UNIT</u>	<u>DATE</u>	<u>FBR Influent</u>	<u>FBR Effluent</u>	<u>FFR Effluent</u>	<u>Bag Filter Effluent</u>	<u>Filters1+2 Effluent</u>	<u>System Effluent</u>	<u>System Eff Dup</u>
Biological Oxygen Demand	mg/L	10/11/2017	10	2.8				<	
Chemical Oxygen Demand	mg/L	10/11/2017	<	<				<	
Chloride	mg/L	10/11/2017	190	180				180	
Dissolved Oxygen	mg/L	10/4/2017	2.6	1.2	6.6				
	mg/L	10/11/2017	3.2	1.7	6.9				
	mg/L	10/18/2017	2.4	1.3	6.2				
	mg/L	10/25/2017	2.4	1.4	6.6				
Nitrogen, Ammonia	mg/L	10/4/2017	1.2	2	2				
	mg/L	10/11/2017	1.5	1	1.1				
	mg/L	10/18/2017	1.8	1	1.5				
	mg/L	10/25/2017	1.3	1.4	1.1				
Nitrogen, Nitrate	mg/L	10/4/2017	<	<	<				
	mg/L	10/11/2017	<	<	<				
	mg/L	10/18/2017	<	<	<				
	mg/L	10/25/2017	<	<	<				
Nitrogen, Nitrate + Nitrite	mg/L	10/11/2017	0.32	<				<	
Nitrogen, Total Kjeldahl	mg/L	10/11/2017	<	<				<	
Pentachlorophenol-Screen	µg/L	10/1/2017						1	
	µg/L	10/2/2017						1	
	µg/L	10/3/2017						2	
	µg/L	10/4/2017	5111	423	249			1	
	µg/L	10/5/2017						2	
	µg/L	10/6/2017						1	
	µg/L	10/7/2017						1	
	µg/L	10/8/2017						1	
	µg/L	10/9/2017						1	
	µg/L	10/10/2017						1	
	µg/L	10/11/2017	4447	555	451		34	1	
	µg/L	10/12/2017						1	
	µg/L	10/13/2017						1	
	µg/L	10/14/2017						1	
	µg/L	10/15/2017						1	
	µg/L	10/16/2017						1	
	µg/L	10/17/2017						1	
	µg/L	10/18/2017	4115	328	211			1	
	µg/L	10/19/2017						2	
	µg/L	10/20/2017						2	
	µg/L	10/21/2017						1	
	µg/L	10/22/2017						1	
	µg/L	10/23/2017						1	
	µg/L	10/24/2017						1	
	µg/L	10/25/2017	3665	717	611			1	
	µg/L	10/26/2017						3	
	µg/L	10/27/2017						2	
	µg/L	10/28/2017						2	

**TABLE 1a
OCTOBER 2017**

**Above Ground Treatment System Data
Wauleco, Inc.
Wausau, Wisconsin**

<u>Parameter</u>	<u>UNIT</u>	<u>DATE</u>	<u>FBR Influent</u>	<u>FBR Effluent</u>	<u>FFR Effluent</u>	<u>Bag Filter Effluent</u>	<u>Filters1+2 Effluent</u>	<u>System Effluent</u>	<u>System Eff Dup</u>
Pentachlorophenol-Screen	µg/L	10/29/2017						1	
	µg/L	10/30/2017						1	
	µg/L	10/31/2017						2	
pH	S.U.	10/4/2017	7.05	7	7				
	S.U.	10/11/2017	7	6.95	7				
	S.U.	10/18/2017	6.95	6.9	6.95				
	S.U.	10/25/2017	7	6.9	6.95				
Phosphorus, Ortho	mg/L	10/16/2017	<	<				<	
Phosphorus, Phosphate	mg/L	10/4/2017	0.8	0.8	0.7				
	mg/L	10/11/2017	0.8	0.4	0.4				
	mg/L	10/18/2017	0.8	0.3	0.3				
	mg/L	10/25/2017	0.8	0.4	0.3				
Solids, Total Suspended	mg/L	10/11/2017	10	12				<	
Mercury	µg/L	10/11/2017	0.20					<	
Phenol									
2,3,4,6-Tetrachlorophenol	µg/L	10/11/2017	350		24		<	<	<
2,4,5-Trichlorophenol	µg/L	10/11/2017	<		<		<	<	<
2,4,6-Trichlorophenol	µg/L	10/11/2017	<		<		<	<	<
2,4-Dichlorophenol	µg/L	10/11/2017	<		<		<	<	<
2,4-Dimethylphenol	µg/L	10/11/2017	<		<		<	<	<
2,4-Dinitrophenol	µg/L	10/11/2017	<		<		<	<	<
2,6-Dichlorophenol	µg/L	10/11/2017	<		<		<	<	<
2-Chlorophenol	µg/L	10/11/2017	<		<		<	<	<
2-Methylphenol	µg/L	10/11/2017	<		<		<	<	<
2-Nitrophenol	µg/L	10/11/2017	<		<		<	<	<
3&4-Methylphenol	µg/L	10/11/2017	<		<		<	<	<
4,6-Dinitro-2-Methylphenol	µg/L	10/11/2017	<		<		<	<	<
4-Chloro-3-Methylphenol	µg/L	10/11/2017	<		<		<	<	<
4-Nitrophenol	µg/L	10/11/2017	<		<		<	<	<
Pentachlorophenol	µg/L	10/11/2017	4300		310		17	<	<
Phenol	µg/L	10/11/2017	<		<		<	<	<

**TABLE 1b
NOVEMBER 2017**

**Above Ground Treatment System Data
Wauleco, Inc.
Wausau, Wisconsin**

<u>Parameter</u>	<u>UNIT</u>	<u>DATE</u>	<u>FBR Influent</u>	<u>FBR Effluent</u>	<u>FFR Effluent</u>	<u>Bag Filter Effluent</u>	<u>Filters 1+2 Effluent</u>	<u>System Effluent</u>	<u>System Eff Dup</u>
Biological Oxygen Demand	mg/L	11/15/2017	6.5	11				<	
Chemical Oxygen Demand	mg/L	11/15/2017	26	30				<	
Chloride	mg/L	11/15/2017	180	180				180	
Dissolved Oxygen	mg/L	11/1/2017	2.5	1.1	6.3				
	mg/L	11/9/2017	2.2	1	6.2				
	mg/L	11/15/2017	2.2	1.2	5.6				
	mg/L	11/22/2017	2.4	1.2	6.3				
	mg/L	11/30/2017	2.5	1.2	6.2				
Nitrogen, Ammonia	mg/L	11/1/2017	0.4	0.4	0.4				
	mg/L	11/9/2017	1.1	1	0.8				
	mg/L	11/15/2017	1.2	0.8	0.7				
	mg/L	11/22/2017	1	0.9	0.7				
	mg/L	11/30/2017	1.2	0.8	0.8				
Nitrogen, Nitrate	mg/L	11/1/2017	<	<	<				
	mg/L	11/9/2017	<	<	<				
	mg/L	11/15/2017	<	<	<				
	mg/L	11/22/2017	<	<	<				
	mg/L	11/30/2017	<	<	<				
Nitrogen, Total Kjeldahl	mg/L	11/15/2017	0.60	0.56				<	
Pentachlorophenol-Screen	µg/L	11/1/2017	5069	939	858			2	
	µg/L	11/2/2017						3	
	µg/L	11/3/2017						5	
	µg/L	11/4/2017						5	
	µg/L	11/5/2017						5	
	µg/L	11/6/2017						11	
	µg/L	11/7/2017						11	
	µg/L	11/8/2017						11	
	µg/L	11/9/2017	5686	659	1052			11	
	µg/L	11/10/2017						8	
	µg/L	11/11/2017						5	
	µg/L	11/12/2017						5	
	µg/L	11/13/2017						5	
	µg/L	11/14/2017						2	
	µg/L	11/15/2017	8844	963	971		131	2	
	µg/L	11/16/2017						6	
	µg/L	11/17/2017						4	
	µg/L	11/18/2017						4	
	µg/L	11/19/2017						4	
	µg/L	11/20/2017						4	
	µg/L	11/21/2017						4	
	µg/L	11/22/2017	8645	1303	1344			4	
	µg/L	11/23/2017						4	
	µg/L	11/24/2017						4	

**TABLE 1b
NOVEMBER 2017**

**Above Ground Treatment System Data
Wauleco, Inc.
Wausau, Wisconsin**

<u>Parameter</u>	<u>UNIT</u>	<u>DATE</u>	<u>FBR Influent</u>	<u>FBR Effluent</u>	<u>FFR Effluent</u>	<u>Bag Filter Effluent</u>	<u>Filters 1+2 Effluent</u>	<u>System Effluent</u>	<u>System Eff Dup</u>
Pentachlorophenol-Screen	µg/L	11/25/2017						4	
	µg/L	11/26/2017						4	
	µg/L	11/27/2017						4	
	µg/L	11/28/2017						4	
	µg/L	11/29/2017						4	
	µg/L	11/30/2017	5980	1209	974			3	
pH	S.U.	11/1/2017	6.95	6.9	6.95				
	S.U.	11/9/2017	7	7	7				
	S.U.	11/15/2017	7	6.9	6.95				
	S.U.	11/22/2017	7	6.9	6.95				
	S.U.	11/30/2017	7	6.9	6.95				
Phosphorus, Ortho	mg/L	11/15/2017	<	<				<	
Phosphorus, Phosphate	mg/L	11/1/2017	0.9	0.4	0.4				
	mg/L	11/9/2017	1	0.6	0.6				
	mg/L	11/15/2017	1	0.4	0.4				
	mg/L	11/22/2017	1.1	0.5	0.5				
	mg/L	11/30/2017	1.2	0.6	0.5				
Solids, Total Suspended	mg/L	11/15/2017	12	10				<	
Mercury	µg/L	11/15/2017						<	
Phenol									
2,3,4,6-Tetrachlorophenol	µg/L	11/15/2017	470	49	54			<	<
2,4,5-Trichlorophenol	µg/L	11/15/2017	<	<	<			<	<
2,4,6-Trichlorophenol	µg/L	11/15/2017	<	<	<			<	<
2,4-Dichlorophenol	µg/L	11/15/2017	<	<	<			<	<
2,4-Dimethylphenol	µg/L	11/15/2017	<	<	<			<	<
2,4-Dinitrophenol	µg/L	11/15/2017	<	<	<			<	<
2,6-Dichlorophenol	µg/L	11/15/2017	<	<	<			<	<
2-Chlorophenol	µg/L	11/15/2017	<	<	<			<	<
2-Methylphenol	µg/L	11/15/2017	<	<	<			<	<
2-Nitrophenol	µg/L	11/15/2017	<	<	<			<	<
3&4-Methylphenol	µg/L	11/15/2017	<	<	<			<	<
4,6-Dinitro-2-Methylphenol	µg/L	11/15/2017	<	<	<			<	<
4-Chloro-3-Methylphenol	µg/L	11/15/2017	<	<	<			<	<
4-Nitrophenol	µg/L	11/15/2017	<	<	<			<	<
Pentachlorophenol	µg/L	11/15/2017	4800	610	660			<	<
Phenol	µg/L	11/15/2017	<	<	<			<	<

**TABLE 1c
DECEMBER 2017**

**Above Ground Treatment System Data
Wauleco, Inc.
Wausau, Wisconsin**

<u>Parameter</u>	<u>UNIT</u>	<u>DATE</u>	<u>FBR Influent</u>	<u>FBR Effluent</u>	<u>FFR Effluent</u>	<u>Bag Filter Effluent</u>	<u>Filters1+2 Effluent</u>	<u>System Effluent</u>	<u>System Eff Dup</u>
Biological Oxygen Demand	mg/L	12/13/2017	8.1	2.4				<	
Chemical Oxygen Demand	mg/L	12/13/2017	29	<				<	
Chloride	mg/L	12/13/2017	180	180				190	
Dissolved Oxygen	mg/L	12/7/2017	2.7	1	6.4				
	mg/L	12/13/2017	2.5	1.2	6.2				
	mg/L	12/20/2017	2.4	1	6.4				
	mg/L	12/28/2017	2.2	1	6.7				
Nitrogen, Ammonia	mg/L	12/7/2017	0.8	0.8	0.8				
	mg/L	12/13/2017	0.8	0.4	0.4				
	mg/L	12/20/2017	1.2	1	1.1				
	mg/L	12/28/2017	1.2	1.3	0.6				
Nitrogen, Nitrate	mg/L	12/7/2017	<	<	<				
	mg/L	12/13/2017	<	<	<				
	mg/L	12/20/2017	<	<	<				
	mg/L	12/28/2017	<	<	<				
Nitrogen, Total Kjeldahl	mg/L	12/13/2017	<	<				<	
Pentachlorophenol-Screen	µg/L	12/1/2017						4	
	µg/L	12/2/2017						2	
	µg/L	12/3/2017						2	
	µg/L	12/4/2017						2	
	µg/L	12/5/2017						2	
	µg/L	12/6/2017						1	
	µg/L	12/7/2017	4434	801	857			1	
	µg/L	12/8/2017						4	
	µg/L	12/9/2017						5	
	µg/L	12/10/2017						5	
	µg/L	12/11/2017						5	
	µg/L	12/12/2017						2	
	µg/L	12/13/2017	5945	1131	1335		145	2	
	µg/L	12/14/2017						5	
	µg/L	12/15/2017						5	
	µg/L	12/16/2017						3	
	µg/L	12/17/2017						3	
	µg/L	12/18/2017						3	
	µg/L	12/19/2017						3	
	µg/L	12/20/2017	7135	968	1010			3	
	µg/L	12/21/2017						3	
	µg/L	12/22/2017						1	
	µg/L	12/23/2017						1	
	µg/L	12/24/2017						1	
	µg/L	12/25/2017						1	
	µg/L	12/26/2017						1	
	µg/L	12/27/2017						1	
	µg/L	12/28/2017	4362	491	569			1	

**TABLE 1c
DECEMBER 2017**

**Above Ground Treatment System Data
Wauleco, Inc.
Wausau, Wisconsin**

<u>Parameter</u>	<u>UNIT</u>	<u>DATE</u>	<u>FBR Influent</u>	<u>FBR Effluent</u>	<u>FFR Effluent</u>	<u>Bag Filter Effluent</u>	<u>Filters1+2 Effluent</u>	<u>System Effluent</u>	<u>System Eff Dup</u>
Pentachlorophenol-Screen	µg/L	12/29/2017						3	
	µg/L	12/30/2017						2	
	µg/L	12/31/2017						2	
pH	S.U.	12/7/2017	7	6.9	6.95				
	S.U.	12/13/2017	7	6.9	6.9				
	S.U.	12/20/2017	7	6.9	6.95				
	S.U.	12/28/2017	6.95	6.9	6.95				
Phosphorus, Ortho	mg/L	12/13/2017	<	<				<	
Phosphorus, Phosphate	mg/L	12/7/2017	1.1	0.8	0.4				
	mg/L	12/13/2017	1.1	0.8	0.8				
	mg/L	12/20/2017	1	1	0.8				
	mg/L	12/28/2017	1	0.8	0.4				
Solids, Total Suspended	mg/L	12/13/2017	8.8	9.6				<	
Mercury	µg/L	12/13/2017						<	
Phenol									
2,3,4,6-Tetrachlorophenol	µg/L	12/13/2017	390		63			<	<
2,4,5-Trichlorophenol	µg/L	12/13/2017	<		<			<	<
2,4,6-Trichlorophenol	µg/L	12/13/2017	<		<			<	<
2,4-Dichlorophenol	µg/L	12/13/2017	<		<			<	<
2,4-Dimethylphenol	µg/L	12/13/2017	<		<			<	<
2,4-Dinitrophenol	µg/L	12/13/2017	<		<			<	<
2,6-Dichlorophenol	µg/L	12/13/2017	<		<			<	<
2-Chlorophenol	µg/L	12/13/2017	<		<			<	<
2-Methylphenol	µg/L	12/13/2017	<		<			<	<
2-Nitrophenol	µg/L	12/13/2017	<		<			<	<
3&4-Methylphenol	µg/L	12/13/2017	<		<			<	<
4,6-Dinitro-2-Methylphenol	µg/L	12/13/2017	<		<			<	<
4-Chloro-3-Methylphenol	µg/L	12/13/2017	<		<			<	<
4-Nitrophenol	µg/L	12/13/2017	<		<			<	<
Pentachlorophenol	µg/L	12/13/2017	4000		600			<	<
Phenol	µg/L	12/13/2017	<		<			<	<

TABLE 2a
OCTOBER 2017

Treatment System Flows
Wauleco, Inc.
Wausau, Wisconsin

Date	Influent Groundwater Flow Rate ^{(1) (3)} (gpm)	POTW Discharge Flow Rate ^{(1) (4)} (gpm)	POTW Totalized Discharge ⁽³⁾ (gal)
10/1/2017	22.51	22.11	57908463
10/2/2017	21.06	21.42	57939310
10/3/2017	22.64	22.13	57971182
10/4/2017	23.20	22.43	58003477
10/5/2017	23.18	22.37	58035693
10/6/2017	23.08	22.25	58067729
10/7/2017	23.06	22.44	58100043
10/8/2017	23.08	22.33	58132201
10/9/2017	23.14	22.41	58164468
10/10/2017	23.22	22.37	58196684
10/11/2017	23.29	22.42	58228967
10/12/2017	23.37	22.16	58260880
10/13/2017	23.45	22.36	58293082
10/14/2017	23.41	22.43	58325381
10/15/2017	23.38	22.38	58357606
10/16/2017	23.40	22.34	58389771
10/17/2017	23.45	22.37	58421990
10/18/2017	23.41	22.36	58454185
10/19/2017	23.39	22.28	58486265
10/20/2017	23.35	22.27	58518330
10/21/2017	23.25	22.25	58550374
10/22/2017	23.28	22.29	58582468
10/23/2017	23.27	22.21	58614456
10/24/2017	23.34	22.24	58646483
10/25/2017	23.32	22.26	58678535
10/26/2017	23.34	22.25	58710577
10/27/2017	23.35	22.21	58742562
10/28/2017	23.30	22.28	58774643
10/29/2017	23.33	22.23	58806660
10/30/2017	23.37	22.30	58838776
10/31/2017	23.35	22.30	58870888
Monthly Average	23.18	22.27	
Total ⁽²⁾ :			994,265

Footnotes:

- ⁽¹⁾ Influent and POTW discharge flow rates are daily averages. These may not be equal due to balancing in the treatment system and calibration of individual flowmeters. The influent groundwater flow rate is calculated by adding the instantaneous flow rate from each pumping well (i.e., 16 meters). The POTW discharge flow rate is recorded directly from the effluent meter.
- ⁽²⁾ Total is the cumulative gallons discharged to the POTW during the reporting period. This number is calculated by subtracting the total of the previous month's last day from the total of the current month's last day, see previous month's report for the number used. The total from the first day of the current month is not used in the calculation.
- ⁽³⁾ Totalizers were reset to 0 on August 23, 2012 during the system shutdown for maintenance.
- ⁽⁴⁾ A new effluent meter was installed in April, 2017 during the system shutdown for maintenance.

TABLE 2b
NOVEMBER 2017

Treatment System Flows
Wauleco, Inc.
Wausau, Wisconsin

Date	Influent Groundwater Flow Rate ^{(1) (3)} (gpm)	POTW Discharge Flow Rate ^{(1) (4)} (gpm)	POTW Totalized Discharge ⁽³⁾ (gal)
11/1/2017	23.35	22.29	58902983
11/2/2017	23.31	22.37	58935192
11/3/2017	23.31	22.41	58967461
11/4/2017	23.20	22.27	58999532
11/5/2017	23.96	23.19	59032919
11/6/2017	22.96	22.26	59064978
11/7/2017	22.96	22.14	59096862
11/8/2017	22.96	22.00	59128540
11/9/2017	22.61	21.95	59160148
11/10/2017	20.13	20.25	59189309
11/11/2017	20.14	20.14	59218306
11/12/2017	20.17	20.22	59247418
11/13/2017	20.21	20.17	59276465
11/14/2017	20.25	20.16	59305498
11/15/2017	20.15	20.10	59334437
11/16/2017	20.12	20.01	59363250
11/17/2017	21.66	20.97	59393446
11/18/2017	22.39	21.32	59424143
11/19/2017	22.41	21.72	59455420
11/20/2017	22.51	21.90	59486952
11/21/2017	22.50	21.89	59518468
11/22/2017	22.49	21.95	59550081
11/23/2017	22.44	21.59	59581170
11/24/2017	22.54	21.70	59612425
11/25/2017	22.64	21.81	59643828
11/26/2017	22.65	21.83	59675266
11/27/2017	22.71	22.04	59706997
11/28/2017	22.73	21.83	59738439
11/29/2017	22.74	21.93	59770023
11/30/2017	22.66	21.84	59801478
Average For The Month	22.16	21.54	
Total ⁽²⁾ :			930,590

Footnotes:

- (1) Influent and POTW discharge flow rates are daily averages. These may not be equal due to balancing in the treatment system and calibration of individual flowmeters. The influent groundwater flow rate is calculated by adding the instantaneous flow rate from each pumping well (i.e., 16 meters). The POTW discharge flow rate is recorded directly from the effluent meter.
- (2) Total is the cumulative gallons discharged to the POTW during the reporting period. This number is calculated by subtracting the total of the previous month's last day from the total of the current month's last day, see previous month's report for the number used. The total from the first day of the current month is not used in the calculation.
- (3) Totalizers were reset to 0 on August 23, 2012 during the system shutdown for maintenance.
- (4) A new effluent meter was installed in April, 2017 during the system shutdown for maintenance.

TABLE 2c
DECEMBER 2017

Treatment System Flows
Wauleco, Inc.
Wausau, Wisconsin

Date	Influent Groundwater Flow Rate ^{(1) (3)} (gpm)	POTW Discharge Flow Rate ^{(1) (4)} (gpm)	POTW Totalized Discharge ⁽³⁾ (gal)
12/1/2017	22.66	21.73	59832771
12/2/2017	22.64	21.78	59864139
12/3/2017	22.63	21.76	59895469
12/4/2017	22.52	21.74	59926779
12/5/2017	22.57	21.39	59957582
12/6/2017	22.55	21.50	59988537
12/7/2017	22.56	21.65	60019714
12/8/2017	22.56	21.62	60050853
12/9/2017	22.61	21.56	60081897
12/10/2017	22.63	21.58	60112979
12/11/2017	22.64	21.73	60144268
12/12/2017	22.69	21.78	60175628
12/13/2017	22.72	21.30	60206297
12/14/2017	22.64	21.60	60237407
12/15/2017	22.69	21.61	60268522
12/16/2017	22.77	21.62	60299658
12/17/2017	22.69	21.66	60330845
12/18/2017	22.74	21.76	60362177
12/19/2017	22.72	21.59	60393265
12/20/2017	22.64	21.65	60424436
12/21/2017	22.64	21.76	60455768
12/22/2017	22.65	21.89	60487296
12/23/2017	22.63	21.01	60517548
12/24/2017	22.63	21.10	60547925
12/25/2017	22.61	20.88	60577994
12/26/2017	22.61	21.06	60608325
12/27/2017	22.61	21.35	60639073
12/28/2017	22.64	21.46	60669969
12/29/2017	22.69	21.59	60701055
12/30/2017	22.73	21.23	60731620
12/31/2017	22.76	20.73	60761467
Average	22.65	21.51	
Total ⁽²⁾ :			959,989

Footnotes:

- (1) Influent and POTW discharge flow rates are daily averages. These may not be equal due to balancing in the treatment system and calibration of individual flowmeters. The influent groundwater flow rate is calculated by adding the instantaneous flow rate from each pumping well (i.e., 16 meters). The POTW discharge flow rate is recorded directly from the effluent meter.
- (2) Total is the cumulative gallons discharged to the POTW during the reporting period. This number is calculated by subtracting the total of the previous month's last day from the total of the current month's last day, see previous month's report for the number used. The total from the first day of the current month is not used in the calculation.
- (3) Totalizers were reset to 0 on August 23, 2012 during the system shutdown for maintenance.
- (4) A new effluent meter was installed in April, 2017 during the system shutdown for maintenance.

TABLE 3

**Groundwater Elevation Data
Wauleco, Inc.
Wausau, Wisconsin**

<u>Well</u>	October 12, 2017 (ft msl)	November 2017	December 2017
PW01	1163.69	----	----
PW02	Abandoned	----	----
PW03	1163.63	----	----
PW3S	1162.91	----	----
PW04	1162.77	----	----
PW05	1162.74	----	----
PW06	1163.02	----	----
PW07	1162.83	----	----
PW08	1163.92	----	----
PW09I	-----	----	----
PW09O	1162.83	----	----
PW10	1162.95	----	----
PW11	1161.27	----	----
PW12	1163.33	----	----
PW13	1162.85	----	----
PW14	1162.49	----	----
PW15	1162.6	----	----
PW16	1162.66	----	----
PW17	1162.43	----	----
PW18	1162.84	----	----
PW19	1162.45	----	----
PW20	1162.37	----	----
PW21	1162.24	----	----
PW22	1162.77	----	----
PW23	1162.68	----	----
PW24	1161.2	----	----
PW25	1160.08	----	----
PW26	1160.67	----	----
PW27	1160.65	----	----
PW28	1163.7	----	----
PW29	1163.79	----	----
P01	1162.77	----	----
OW01	1164.92	----	----
W01A	1164.06	----	----
W01B	1164.1	----	----
W02	1163.42	----	----
W03A	1162.04	----	----
W03B	1162.16	----	----
W04A	1163.00	----	----
W04B	1163	----	----
W05	1162.8	----	----
W06R	1163.99	----	----
W07	1163.74	----	----
W08	1172.41	----	----
W09	1162.66	----	----
W10A	1161.15	----	----
W10B	1161.21	----	----
W11	1161.12	----	----
W12	1160.73	----	----
W13	1162.18	----	----
W14	1161.06	----	----
W16	1162.27	----	----
W17	1162.41	----	----

TABLE 3 (continued)

Groundwater Elevation Data
 Wauleco, Inc.
 Wausau, Wisconsin

Well	October 12, 2017 (ft msl)	November 2017	December 2017
W18	1161.22	----	----
W19	1163.42	----	----
W21	1160.99	----	----
W22	1161.8	----	----
W23	1161.09	----	----
W24A	1161.09	----	----
W25	1164.03	----	----
W26	1161.15	----	----
W27	1161.77	----	----
W28	1161.21	----	----
W29	1161.03	----	----
W30	1162.75	----	----
W31	1160.98	----	----
W32	1161	----	----
W33	1162.83	----	----
W34	1162.78	----	----
W35	1162.92	----	----
W36	1163.35	----	----
W39	1162.79	----	----
W40	1161.628	----	----
W41	1162.62	----	----
W42	1163.38	----	----
W44	1162.74	----	----
W45	1163.38	----	----
W46	1162.61	----	----
W47	1161.28	----	----
W48	1162.07	----	----
W49	1162.58	----	----
W66	1163.84	----	----
W67	1163.79	----	----
W68A	1163.89	----	----
W68B	1163.75	----	----
W69	1163.04	----	----
W70B	Abandoned	----	----
River	----	----	----
IW01	1162.78	----	----
IW01A	1162.79	----	----
FP01	1160.63	----	----
FP02	1160.19	----	----
FP03	1159.99	----	----
FP04	1161.27	----	----
3M Basin	Water in both Basins	----	----
DFOWM 5	----	----	----
DFOWM 9	Abandoned	----	----
DFOWM 10A	Abandoned	----	----
DFOWM 11	----	----	----
DFOWM 12	----	----	----
W71	1165.9	----	----
W72	1164.37	----	----
W73	1163.27	----	----
W74	1162.75	----	----

Notes:

1. ft msl = feet mean sea level
2. PW09O denotes the outer well and PW09I denotes the inner well
3. ---- = Well not measured
4. Groundwater elevations have been adjusted for product thickness.
5. Top of casing elevations were resurveyed for the on-site wells on December 4, 2009 . Use of the new data began in January 2010.

Table 4

**Free Product Measurements
Wauleco, Inc.
Wausau, Wisconsin**

<u>Well</u>	October 12, 2017 (ft)	November 2017	December 2017
PW01	0.00	----	----
PW02	-----	----	----
PW03	0.00	----	----
PW3S	0.00	----	----
PW04	0.00	----	----
PW05	0.00	----	----
PW06	0.00	----	----
PW07	0.00	----	----
PW08	0.00	----	----
PW09I	-----	----	----
PW09O	0.00	----	----
PW10	0.00	----	----
PW11	0.00	----	----
PW12	0.00	----	----
PW13	0.00	----	----
PW14	0.00	----	----
PW15	0.00	----	----
PW16	0.00	----	----
PW17	0.00	----	----
PW18	0.00	----	----
PW19	0.00	----	----
PW20	0.00	----	----
PW21	0.00	----	----
PW22	0.00	----	----
PW23	0.00	----	----
PW24	0.00	----	----
PW25	0.00	----	----
PW26	0.00	----	----
PW27	0.00	----	----
PW28	0.00	----	----
PW29	0.00	----	----
P01	0.00	----	----
OW01	0.00	----	----
W01A	0.00	----	----
W01B	0.00	----	----
W02	0.00	----	----
W03A	0.00	----	----
W03B	0.00	----	----
W04A	0.01	----	----
W04B	0.00	----	----
W05	0.00	----	----
W06R	0.00	----	----
W07	0.00	----	----
W08	0.00	----	----
W09	0.00	----	----
W10A	0.00	----	----
W10B	0.00	----	----
W11	0.00	----	----
W12	0.00	----	----
W13	0.00	----	----
W14	0.00	----	----
W16	0.00	----	----
W17	0.00	----	----

**Free Product Measurements
Wauleco, Inc.
Wausau, Wisconsin**

<u>Well</u>	October 12, 2017 (ft)	November 2017	December 2017
W18	0.00	----	----
W19	0.00	----	----
W21	0.00	----	----
W22	0.00	----	----
W23	0.00	----	----
W24A	0.00	----	----
W25	0.00	----	----
W26	0.00	----	----
W27	0.00	----	----
W28	0.00	----	----
W29	0.00	----	----
W30	0.00	----	----
W31	0.00	----	----
W32	0.00	----	----
W33	0.00	----	----
W34	0.00	----	----
W35	0.17	----	----
W36	0.00	----	----
W39	0.00	----	----
W40	0.11	----	----
W41	0.00	----	----
W42	0.00	----	----
W44	0.00	----	----
W45	0.00	----	----
W46	0.00	----	----
W47	0.00	----	----
W48	0.00	----	----
W49	0.00	----	----
W66	0.00	----	----
W67	0.00	----	----
W68A	0.00	----	----
W68B	0.00	----	----
W69	0.00	----	----
W70B	0.00	----	----
River	-----	----	----
IW01	0.00	----	----
IW01A	0.00	----	----
FP01	0.00	----	----
FP02	0.00	----	----
FP03	0.00	----	----
FP04	0.00	----	----
3M Basin	0.00	----	----
DFOWM 5	-----	----	----
DFOWM 9	0.00	----	----
DFOWM 10A	0.00	----	----
DFOWM 11	-----	----	----
DFOWM 12	-----	----	----
W71	0.00	----	----
W72	0.00	----	----
W73	0.00	----	----
W74	0.00	----	----

Notes:

1. PW09O denotes the outer well and PW09I denotes the inner well
2. ----- = Well not measured

FIGURE 1
FBR Influent and Effluent PCP Concentrations
Wauleco, Inc.
Wausau, WI

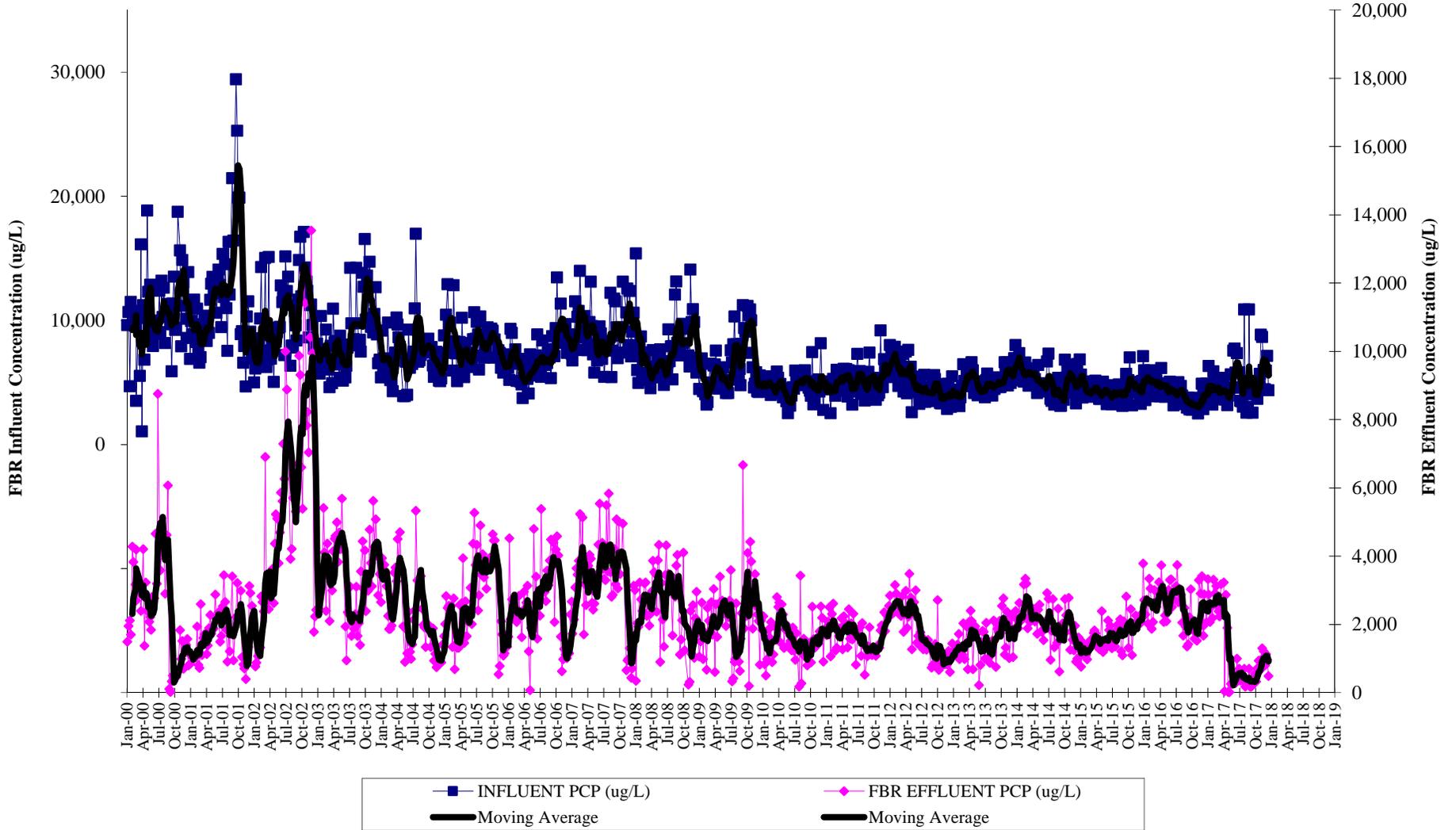
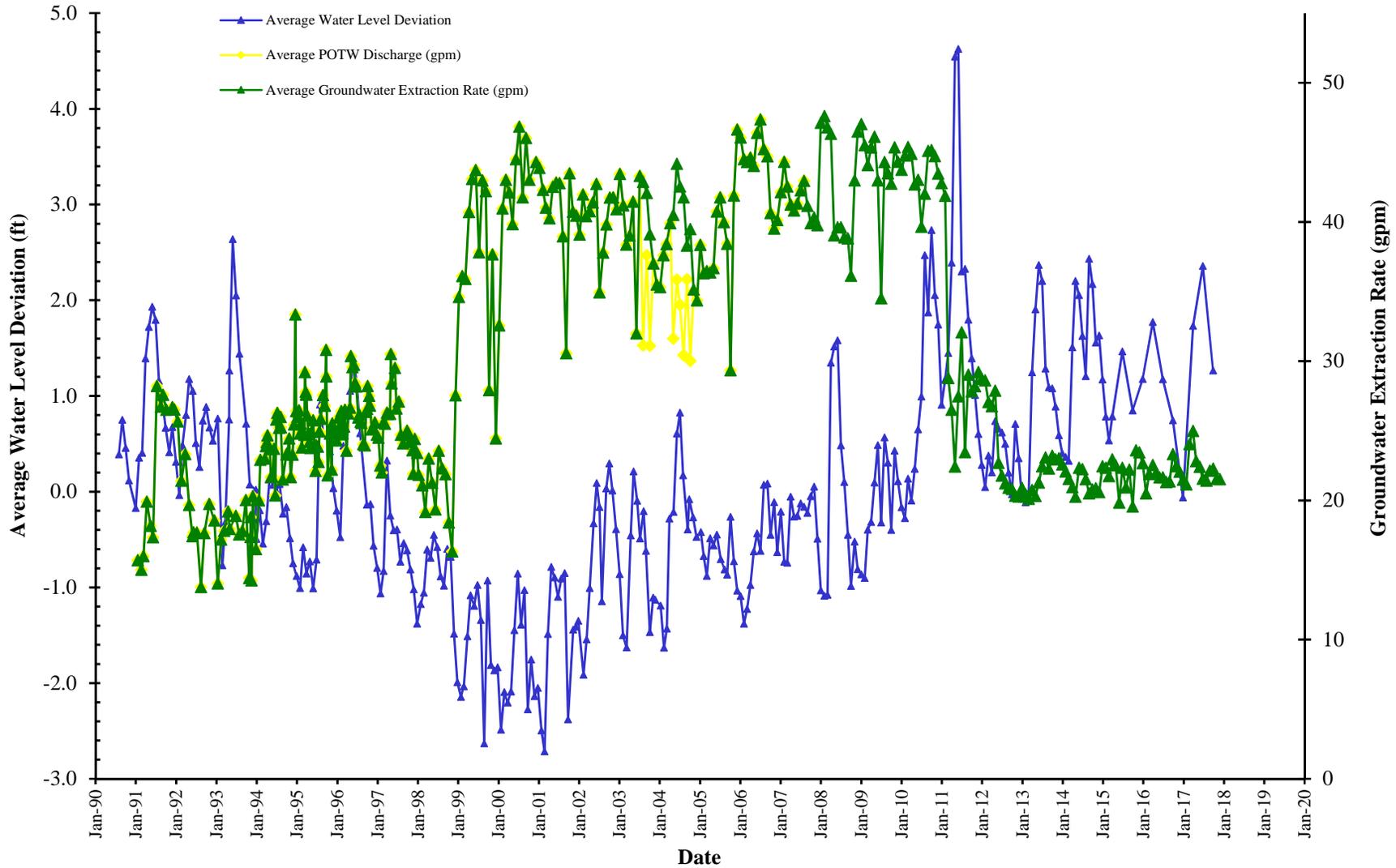


FIGURE 2

**Average Groundwater Extraction Rates and Water Level Deviation Versus Time
Wauleco, Inc.
Wausau, WI**



Note: The Average Groundwater Extraction Rate is a monthly average of the flow into the treatment system. The monthly average POTW discharge is less than the total extraction rate during the PPT pilot test due to the injection of treated water into IW01.