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October 13, 2022

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

Subject: 2022 Third Quarterly Report - Wauleco, Inc., Wausau, Wisconsin
BRRTS #02-37-000006

Dear Mr. Thompson:

On behalf of Wauleco, Inc., TRC is submitting a copy (enclosed) of the 2022 Third 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) 235-4963.

Sincerely,

TRC

A handwritten signature in blue ink, appearing to read "Bruce Iverson".

Bruce Iverson
Project Manager

Attachments: 2022 Third Quarterly Report

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

**Wauleco, Inc. - Wausau, Wisconsin
Quarterly Report
Submitted October 2022**

Summary of 2022 Third 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 third quarter of 2022 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 1.55 µg/L in July, 2.35 µg/L in August, and 1.77 µg/L in September.
- 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 July 14, <3.0 µg/L on August 10, and <3.0 µg/L on September 21, 2022.
- 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.
- The groundwater treatment system was shutdown on September 8 and returned to full operation on September 16 after replacement of the roof near the powerline.

On-site screening PCP influent concentrations ranged from 2,093 µg/L to 4,876 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 (%)
July 2022	65	79	76
August 2022	66	72	81
September 2022	71	70	80

- The dissolved oxygen concentration in the influent to the FBR averaged 3.1 mg/L in July, 3.2 mg/L in August, and 3.2 mg/L in September 2022.

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 <0.020 µg/L on July 14, <0.020 µg/L on August 10, and 0.020 µg/L on September 21, which are below the permit discharge limit of 1.6 µg/L. The mass loading for mercury in July and August was calculated using half the detection limit of 0.01 µg/L, at 0.00000252 lb/24 hours in July, and 0.00000263 lb/24 hours in August, which are below the permit discharge limit of 0.00048 lb/24 hours. The mass loading for mercury in September was calculated at 0.00000505 lb/24 hours which is 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 20.96 gpm for July, 21.85 gpm for August, and 21.01 gpm for September 2022 (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

A complete round of water table elevations for the month of July 2022 are summarized in Table 3. A water table map for the month of July 2022 is included as Drawing 2.

The product thickness data for July 2022 are summarized in Table 4. Measurements show minimal product present in July (e.g., 0.03 ft at W35, 0.05 ft at W40R, and 0.01 ft at FP03).

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
Drawing 2 – Water Table Map – July 1, 2022

**TABLE 1a
JULY 2022**

**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	7/14/2022	10	4.3				<	
Chemical Oxygen Demand	mg/L	7/14/2022	52	52				44	
Chloride	mg/L	7/14/2022	490	500				500	
Dissolved Oxygen	mg/L	7/7/2022	3.1	1.2	5.6				
	mg/L	7/14/2022	2.9	1.2	5.8				
	mg/L	7/21/2022	3	1.4	5.6				
	mg/L	7/28/2022	3.3	1.3	5.5				
Nitrogen, Ammonia	mg/L	7/7/2022	0.6	0.4	0.4				
	mg/L	7/14/2022	0.6	0.5	0.4				
	mg/L	7/21/2022	0.5	0.4	0.4				
	mg/L	7/28/2022	0.5	0.4	0.3				
Nitrogen, Nitrate	mg/L	7/7/2022	<	<	<				
	mg/L	7/14/2022	<	<	<				
	mg/L	7/21/2022	<	<	<				
	mg/L	7/28/2022	<	<	<				
Nitrogen, Nitrate + Nitrite	mg/L	7/14/2022	<	<			<		
Nitrogen, Total Kjeldahl	mg/L	7/14/2022	<	<			<		
Pentachlorophenol-Screen	µg/L	7/1/2022						1	
	µg/L	7/2/2022						1	
	µg/L	7/3/2022						1	
	µg/L	7/4/2022						1	
	µg/L	7/5/2022						1	
	µg/L	7/6/2022						1	
	µg/L	7/7/2022	4838	1224	1721			2	
	µg/L	7/8/2022						2	
	µg/L	7/9/2022						2	
	µg/L	7/10/2022						2	
	µg/L	7/11/2022						2	
	µg/L	7/12/2022						2	
	µg/L	7/13/2022						3	
	µg/L	7/14/2022	4241	1435	1643		865	2	
	µg/L	7/15/2022						2	
	µg/L	7/16/2022						2	
	µg/L	7/17/2022						2	
	µg/L	7/18/2022						2	
	µg/L	7/19/2022						2	
	µg/L	7/20/2022						1	
	µg/L	7/21/2022	4616	1312	1587			1	
	µg/L	7/22/2022						1	
	µg/L	7/23/2022						1	
	µg/L	7/24/2022						1	
	µg/L	7/25/2022						1	
	µg/L	7/26/2022						1	
	µg/L	7/27/2022						1	
	µg/L	7/28/2022	4195	1493	1327			1	

TABLE 1a
JULY 2022

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

<u>Parameter</u>	<u>UNIT</u>	<u>DATE</u>	<u>FBR</u> <u>Influent</u>	<u>FBR</u> <u>Effluent</u>	<u>FFR</u> <u>Effluent</u>	<u>Bag Filter</u> <u>Effluent</u>	<u>Filters1+2</u> <u>Effluent</u>	<u>System</u> <u>Effluent</u>	<u>System</u> <u>Eff Dup</u>
Pentachlorophenol-Screen	µg/L	7/29/2022						2	
	µg/L	7/30/2022						2	
	µg/L	7/31/2022						2	
pH	S.U.	7/7/2022	6.7	6.65	6.65				
	S.U.	7/14/2022	6.7	6.65	6.65				
	S.U.	7/21/2022	6.7	6.7	6.7				
	S.U.	7/28/2022	6.65	6.6	6.65				
Phosphorus, Ortho	mg/L	7/14/2022	<	<				<	
Phosphorus, Phosphate	mg/L	7/7/2022	0.4	0.3	0.3				
	mg/L	7/14/2022	0.4	0.3	0.3				
	mg/L	7/21/2022	0.4	0.3	0.3				
	mg/L	7/28/2022	0.4	0.3	0.3				
Solids, Total Suspended	mg/L	7/14/2022	16	20				5.6	
Mercury	µg/L	7/14/2022	0.13					<	
Phenol									
2,3,4,6-Tetrachlorophenol	µg/L	7/14/2022	180	69	67		60	<	<
2,4,5-Trichlorophenol	µg/L	7/14/2022	<	22	20		<	<	<
2,4,6-Trichlorophenol	µg/L	7/14/2022	<	<	<		<	<	<
2,4-Dichlorophenol	µg/L	7/14/2022	<	<	<		<	<	<
2,4-Dimethylphenol	µg/L	7/14/2022	<	<	<		<	<	<
2,4-Dinitrophenol	µg/L	7/14/2022	<	<	<		<	<	<
2,6-Dichlorophenol	µg/L	7/14/2022	<	<	<		<	<	<
2-Chlorophenol	µg/L	7/14/2022	<	<	<		<	<	<
2-Methylphenol	µg/L	7/14/2022	<	<	<		<	<	<
2-Nitrophenol	µg/L	7/14/2022	<	<	<		<	<	<
3&4-Methylphenol	µg/L	7/14/2022	<	<	<		<	<	<
4,6-Dinitro-2-Methylphenol	µg/L	7/14/2022	<	<	<		<	<	<
4-Chloro-3-Methylphenol	µg/L	7/14/2022	<	<	<		<	<	<
4-Nitrophenol	µg/L	7/14/2022	<	<	<		<	<	<
Pentachlorophenol	µg/L	7/14/2022	2400	780	780		570	<	<
Phenol	µg/L	7/14/2022	<	<	<		<	<	<

**TABLE 1b
AUGUST 2022**

**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	8/10/2022	6.9	3.1				<	
Chemical Oxygen Demand	mg/L	8/10/2022	54	54				44	
Chloride	mg/L	8/10/2022	460	460				470	
Dissolved Oxygen	mg/L	8/3/2022		3.1	4.6				
	mg/L	8/10/2022	3.3	1.4	5.2				
	mg/L	8/17/2022	3.8	1.2	5.4				
	mg/L	8/24/2022	3.3	1.1	5.2				
	mg/L	8/31/2022	2.7	1.2	5.8				
Nitrogen, Ammonia	mg/L	8/3/2022	0.5	0.4	0.4				
	mg/L	8/10/2022	0.6	0.6	0.6				
	mg/L	8/17/2022	0.6	0.4	0.4				
	mg/L	8/24/2022	0.6	0.4	0.4				
	mg/L	8/31/2022	0.5	0.4	0.3				
Nitrogen, Nitrate	mg/L	8/3/2022	<	<	<				
	mg/L	8/10/2022	<	<	<				
	mg/L	8/17/2022	<	<	<				
	mg/L	8/24/2022	<	<	<				
	mg/L	8/31/2022	<	<	<				
Nitrogen, Total Kjeldahl	mg/L	8/10/2022	<	<			<		
Pentachlorophenol-Screen	µg/L	8/1/2022							2
	µg/L	8/2/2022							1
	µg/L	8/3/2022	3847	1296	1671				2
	µg/L	8/4/2022							2
	µg/L	8/5/2022							2
	µg/L	8/6/2022							1
	µg/L	8/7/2022							1
	µg/L	8/8/2022							1
	µg/L	8/9/2022							2
	µg/L	8/10/2022	3686	1405	1238		506		1
	µg/L	8/11/2022							1
	µg/L	8/12/2022							1
	µg/L	8/13/2022							2
	µg/L	8/14/2022							2
	µg/L	8/15/2022							2
	µg/L	8/16/2022							1
	µg/L	8/17/2022	3880	1393	1500				2
	µg/L	8/18/2022							1
	µg/L	8/19/2022							1
	µg/L	8/20/2022							1
	µg/L	8/21/2022							1
	µg/L	8/22/2022							1
	µg/L	8/23/2022							1
	µg/L	8/24/2022	4316	1999	1516				5

**TABLE 1b
AUGUST 2022**

**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	8/25/2022							4
	µg/L	8/26/2022							4
	µg/L	8/27/2022							6
	µg/L	8/28/2022							6
	µg/L	8/29/2022							6
	µg/L	8/30/2022							7
	µg/L	8/31/2022	3516	992	699				3
pH	S.U.	8/3/2022	6.65	6.65	6.65				
	S.U.	8/10/2022	6.7	6.7	6.7				
	S.U.	8/17/2022	6.65	6.65	6.65				
	S.U.	8/24/2022	6.6	6.55	6.6				
	S.U.	8/31/2022	6.65	6.65	6.7				
Phosphorus, Ortho	mg/L	8/10/2022	<	<			<		
Phosphorus, Phosphate	mg/L	8/3/2022	0.8	0.3	0.3				
	mg/L	8/10/2022	0.5	0.3	0.3				
	mg/L	8/17/2022	0.5	0.3	0.3				
	mg/L	8/24/2022	0.5	0.3	0.3				
	mg/L	8/31/2022	0.5	0.3	0.3				
Solids, Total Suspended	mg/L	8/10/2022	20	19				11	
Mercury	µg/L	8/10/2022						<	
Phenol									
2,3,4,6-Tetrachlorophenol	µg/L	8/10/2022	160		71			<	<
2,4,5-Trichlorophenol	µg/L	8/10/2022	<		<			<	<
2,4,6-Trichlorophenol	µg/L	8/10/2022	<		<			<	<
2,4-Dichlorophenol	µg/L	8/10/2022	<		<			<	<
2,4-Dimethylphenol	µg/L	8/10/2022	<		<			<	<
2,4-Dinitrophenol	µg/L	8/10/2022	<		<			<	<
2,6-Dichlorophenol	µg/L	8/10/2022	<		<			<	<
2-Chlorophenol	µg/L	8/10/2022	<		<			<	<
2-Methylphenol	µg/L	8/10/2022	<		<			<	<
2-Nitrophenol	µg/L	8/10/2022	<		<			<	<
3&4-Methylphenol	µg/L	8/10/2022	<		<			<	<
4,6-Dinitro-2-Methylphenol	µg/L	8/10/2022	<		<			<	<
4-Chloro-3-Methylphenol	µg/L	8/10/2022	<		<			<	<
4-Nitrophenol	µg/L	8/10/2022	<		<			<	<
Pentachlorophenol	µg/L	8/10/2022	2100		680			<	<
Phenol	µg/L	8/10/2022	<		<			<	<

**TABLE 1c
SEPTEMBER 2022**

**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	9/21/2022	9.0	4.1				<	
Chemical Oxygen Demand	mg/L	9/21/2022	71	64				47	
Chloride	mg/L	9/21/2022	330	330				330	
Dissolved Oxygen	mg/L	9/6/2022	3.1	1.2	5.7				
	mg/L	9/21/2022	3	1.4	6				
	mg/L	9/28/2022	3.6	1.6	6				
Nitrogen, Ammonia	mg/L	9/6/2022	0.4	0.3	0.3				
	mg/L	9/21/2022	0.4	0.4	0.3				
	mg/L	9/28/2022	0.6	0.5	0.5				
Nitrogen, Nitrate	mg/L	9/6/2022	<	<	<				
	mg/L	9/21/2022	<	<	<				
	mg/L	9/28/2022	<	<	<				
Nitrogen, Total Kjeldahl	mg/L	9/21/2022	<	<				<	
Pentachlorophenol-Screen	µg/L	9/1/2022						3	
	µg/L	9/2/2022						2	
	µg/L	9/3/2022						2	
	µg/L	9/4/2022						2	
	µg/L	9/5/2022						2	
	µg/L	9/6/2022	2553	836	667			2	
	µg/L	9/7/2022						2	
	µg/L	9/8/2022							
	µg/L	9/9/2022							
	µg/L	9/10/2022							
	µg/L	9/11/2022							
	µg/L	9/12/2022							
	µg/L	9/13/2022							
	µg/L	9/14/2022							
	µg/L	9/15/2022							
	µg/L	9/16/2022							2
	µg/L	9/17/2022							2
	µg/L	9/18/2022							2
	µg/L	9/19/2022							2
	µg/L	9/20/2022							2
	µg/L	9/21/2022	2093	570	519		71		1
	µg/L	9/22/2022							2
	µg/L	9/23/2022							1
	µg/L	9/24/2022							1
	µg/L	9/25/2022							1
	µg/L	9/26/2022							1
	µg/L	9/27/2022							2
µg/L	9/28/2022	4876	1507	1761				2	
µg/L	9/29/2022							2	
µg/L	9/30/2022							1	

**TABLE 1c
SEPTEMBER 2022**

**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>
pH	S.U.	9/6/2022	6.65	6.6	6.7				
	S.U.	9/21/2022	6.65	6.65	6.65				
	S.U.	9/28/2022	6.6	6.6	6.6				
Phosphorus, Ortho	mg/L	9/21/2022	<	<				<	
Phosphorus, Phosphate	mg/L	9/6/2022	0.4	0.3	0.3				
	mg/L	9/21/2022	0.3	0.4	0.3				
	mg/L	9/28/2022	0.3	0.3	0.3				
Solids, Total Suspended	mg/L	9/21/2022	21	25				<	
Mercury	µg/L	9/21/2022						0.020	
Phenol									
2,3,4,6-Tetrachlorophenol	µg/L	9/21/2022	180	71	72			<	<
2,4,5-Trichlorophenol	µg/L	9/21/2022	<	<	<			<	<
2,4,6-Trichlorophenol	µg/L	9/21/2022	<	<	<			<	<
2,4-Dichlorophenol	µg/L	9/21/2022	<	<	<			<	<
2,4-Dimethylphenol	µg/L	9/21/2022	<	<	<			<	<
2,4-Dinitrophenol	µg/L	9/21/2022	<	<	<			<	<
2,6-Dichlorophenol	µg/L	9/21/2022	<	<	<			<	<
2-Chlorophenol	µg/L	9/21/2022	<	<	<			<	<
2-Methylphenol	µg/L	9/21/2022	<	<	<			<	<
2-Nitrophenol	µg/L	9/21/2022	<	<	<			<	<
3&4-Methylphenol	µg/L	9/21/2022	<	<	<			<	<
4,6-Dinitro-2-Methylphenol	µg/L	9/21/2022	<	<	<			<	<
4-Chloro-3-Methylphenol	µg/L	9/21/2022	<	<	<			<	<
4-Nitrophenol	µg/L	9/21/2022	<	<	<			<	<
Pentachlorophenol	µg/L	9/21/2022	2000	610	620			<	<
Phenol	µg/L	9/21/2022	<	<	<			<	<

TABLE 2a
JULY 2022

Treatment System Flows
Wauleco, Inc.
Wausau, Wisconsin

<u>Date</u>	<u>Influent Groundwater Flow Rate ⁽¹⁾⁽³⁾ (gpm)</u>	<u>POTW Discharge Flow Rate ⁽¹⁾⁽⁴⁾ (gpm)</u>	<u>POTW Totalized Discharge ⁽³⁾ (gal)</u>
7/1/2022	24.38	21.52	111336284
7/2/2022	24.25	21.43	111367142
7/3/2022	24.33	21.41	111397970
7/4/2022	24.33	21.39	111428774
7/5/2022	24.22	21.29	111459428
7/6/2022	23.64	21.01	111489688
7/7/2022	23.92	21.22	111520243
7/8/2022	24.06	21.15	111550699
7/9/2022	24.23	21.26	111581313
7/10/2022	24.05	21.20	111611846
7/11/2022	24.08	21.10	111642235
7/12/2022	24.03	21.12	111672654
7/13/2022	24.16	21.10	111703032
7/14/2022	24.19	21.20	111733553
7/15/2022	24.10	21.14	111763997
7/16/2022	24.26	21.12	111794410
7/17/2022	24.33	21.13	111824833
7/18/2022	24.25	21.04	111855132
7/19/2022	24.28	21.11	111885535
7/20/2022	24.27	21.12	111915947
7/21/2022	24.24	21.08	111946303
7/22/2022	24.19	20.88	111976365
7/23/2022	24.31	21.31	112007047
7/24/2022	24.37	21.10	112037431
7/25/2022	22.79	20.39	112066799
7/26/2022	22.92	20.20	112095888
7/27/2022	22.77	19.99	112124675
7/28/2022	22.74	20.24	112153818
7/29/2022	22.69	19.77	112182288
7/30/2022	22.68	19.91	112210962
7/31/2022	22.75	19.81	112239482
Average For The Month	23.90	20.96	
Total ⁽²⁾ :			934,189

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
AUGUST 2022

Treatment System Flows
Wauleco, Inc.
Wausau, Wisconsin

<u>Date</u>	<u>Influent Groundwater Flow Rate ^{(1) (3)} (gpm)</u>	<u>POTW Discharge Flow Rate ^{(1) (4)} (gpm)</u>	<u>POTW Totalized Discharge ⁽³⁾ (gal)</u>
8/1/2022	22.84	19.79	112267979
8/2/2022	22.71	19.55	112296135
8/3/2022	22.72	19.65	112324434
8/4/2022	22.80	19.81	112352961
8/5/2022	23.03	19.65	112381251
8/6/2022	23.08	20.91	112411364
8/7/2022	23.14	21.29	112442026
8/8/2022	23.37	21.28	112472676
8/9/2022	23.51	21.16	112503151
8/10/2022	23.80	21.10	112533534
8/11/2022	23.83	20.91	112563647
8/12/2022	23.65	21.08	112593997
8/13/2022	23.47	21.24	112624586
8/14/2022	23.31	21.00	112654832
8/15/2022	23.38	20.91	112684938
8/16/2022	23.24	20.74	112714800
8/17/2022	25.12	22.72	112747522
8/18/2022	25.69	23.20	112780927
8/19/2022	25.72	23.13	112814232
8/20/2022	25.71	23.71	112848376
8/21/2022	25.80	23.21	112881796
8/22/2022	25.83	23.02	112914940
8/23/2022	25.97	23.30	112948494
8/24/2022	25.92	23.20	112981905
8/25/2022	25.95	23.11	113015178
8/26/2022	25.88	23.25	113048660
8/27/2022	25.76	22.96	113081728
8/28/2022	25.84	23.11	113115005
8/29/2022	26.06	23.11	113148281
8/30/2022	26.17	22.82	113181147
8/31/2022	26.16	23.34	113214756
Average For The Month	24.50	21.85	
Total ⁽²⁾ :			975,274

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
SEPTEMBER 2022

Treatment System Flows
Wauleco, Inc.
Wausau, Wisconsin

Date	Influent Groundwater Flow Rate ⁽¹⁾⁽³⁾ (gpm)	POTW Discharge Flow Rate ⁽¹⁾⁽⁴⁾⁽⁵⁾ (gpm)	POTW Totalized Discharge ⁽³⁾ (gal)
9/1/2022	25.96	23.15	113248086
9/2/2022	26.05	23.05	113281273
9/3/2022	26.11	23.09	113314516
9/4/2022	26.19	23.10	113347778
9/5/2022	26.17	23.10	113381049
9/6/2022	26.29	23.23	113414505
9/7/2022	26.35	23.38	113448177
9/8/2022	2.30	2.19	113451325
9/9/2022	0.00	0.00	113451325
9/10/2022	0.00	0.00	113451325
9/11/2022	0.00	0.00	113451325
9/12/2022	0.00	0.00	113451325
9/13/2022	0.00	0.00	113451325
9/14/2022	0.00	0.00	113451325
9/15/2022	0.00	0.00	113451325
9/16/2022	0.00	0.00	113451325
9/17/2022	11.29	11.72	113468207
9/18/2022	17.87	18.52	113494873
9/19/2022	17.98	18.16	113521022
9/20/2022	20.38	19.92	113549700
9/21/2022	21.00	21.49	113580644
9/22/2022	20.86	21.16	113611121
9/23/2022	23.63	23.29	113644663
9/24/2022	24.20	23.50	113678497
9/25/2022	23.94	23.39	113712172
9/26/2022	23.96	23.39	113745847
9/27/2022	24.22	23.34	113779455
9/28/2022	24.12	23.36	113813096
9/29/2022	24.18	23.35	113846719
9/30/2022	24.18	23.32	113880298
Average For The Month	16.24	15.41	
Average For The Month While Running	22.15	21.01	
Total ⁽²⁾ :			665,542

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.
- (5) The reed switch was replaced in early December, 2021.

TABLE 3

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

Well	July 01, 2022 (ft msl)	August 2022 (ft msl)	September 2022 (ft msl)
PW01	1163.59	-----	-----
PW02	Abandoned	-----	-----
PW03	1163.4	-----	-----
PW3S	1162.76	-----	-----
PW04	1162.6	-----	-----
PW05	1162.61	-----	-----
PW06	1162.91	-----	-----
PW07	1162.75	-----	-----
PW08	1163.8	-----	-----
PW09I	-----	-----	-----
PW09O	1162.67	-----	-----
PW10	1162.84	-----	-----
PW11	1161.39	-----	-----
PW12	1163.66	-----	-----
PW13	1162.68	-----	-----
PW14	1162.16	-----	-----
PW15	1162.25	-----	-----
PW16	1161.03	-----	-----
PW17	1158.93	-----	-----
PW18	1162.64	-----	-----
PW19	1161.43	-----	-----
PW20	1161.14	-----	-----
PW21	1161.77	-----	-----
PW22	1162.65	-----	-----
PW23	1162.56	-----	-----
PW24	1160.45	-----	-----
PW25	1158.49	-----	-----
PW26	1160.49	-----	-----
PW27	1158.41	-----	-----
PW28	1163.47	-----	-----
PW29	1163.58	-----	-----
P01	1162.6	-----	-----
OW01	1164.77	-----	-----
W01A	Abandoned	-----	-----
W01B	Abandoned	-----	-----
W02	1163.2	-----	-----
W03A	1161.88	-----	-----
W03B	1161.98	-----	-----
W04A	1162.99	-----	-----
W04B	1162.9	-----	-----
W05	1162.65	-----	-----
W06R	1163.84	-----	-----
W07	1163.63	-----	-----
W08	1173.43	-----	-----
W09	1162.34	-----	-----
W10A	1161.08	-----	-----
W10B	1161.1	-----	-----
W11	1160.93	-----	-----
W12	1160.53	-----	-----
W13	1161.76	-----	-----
W14	1160.78	-----	-----
W16	1162.18	-----	-----
W17	1162.06	-----	-----
W18	1161.07	-----	-----
W19	Abandoned	-----	-----

TABLE 3 (continued)

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

<u>Well</u>	<u>July 01, 2022 (ft msl)</u>	<u>August 2022 (ft msl)</u>	<u>September 2022 (ft msl)</u>
W21	1160.76	-----	-----
W22	1161.74	-----	-----
W23	1160.9	-----	-----
W24A	1160.87	-----	-----
W25	1163.93	-----	-----
W26/W26R	1161.1	-----	-----
W27	1161.71	-----	-----
W28	1161.04	-----	-----
W29/W29R	1160.91	-----	-----
W30	1162.59	-----	-----
W31	1160.85	-----	-----
W32	1160.88	-----	-----
W33	1162.75	-----	-----
W34	1162.69	-----	-----
W35	1162.78	-----	-----
W36	1163.28	-----	-----
W39	Abandoned	-----	-----
W40/W40R	1161.68	-----	-----
W41	1162.64	-----	-----
W42	1163.3	-----	-----
W44	1162.59	-----	-----
W45	1163.2	-----	-----
W46	1162.43	-----	-----
W47	1161.47	-----	-----
W48	1161.76	-----	-----
W49	1162.26	-----	-----
W66	1163.69	-----	-----
W67	1163.66	-----	-----
W68A	1163.74	-----	-----
W68B	1163.6	-----	-----
W69	1162.85	-----	-----
W70B	Abandoned	-----	-----
River	-----	-----	-----
IW01	1162.67	-----	-----
IW01A	1162.63	-----	-----
FP01	1161.06	-----	-----
FP02	1160.96	-----	-----
FP03	1159.458	-----	-----
FP04	1161.16	-----	-----
3M Basin	Water in first Basin	-----	-----
DFOWM 5	1163.21	-----	-----
DFOWM 9	Abandoned	-----	-----
DFOWM 10A	Abandoned	-----	-----
DFOWM 11	1161.86	-----	-----
DFOWM 12	1162.96	-----	-----
W71	1165.74	-----	-----
W72	1164.21	-----	-----
W73	1163.15	-----	-----
W74	1162.69	-----	-----

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.

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

<u>Well</u>	July 01, 2022 (ft)	August 2022 (ft)	September 2022 (ft)
PW01	0.00	-----	-----
PW02	Abandoned	-----	-----
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	Abandoned	-----	-----
W01B	Abandoned	-----	-----
W02	0.00	-----	-----
W03A	0.00	-----	-----
W03B	0.00	-----	-----
W04A	0.00	-----	-----
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

Well	July 01, 2022 (ft)	August 2022 (ft)	September 2022 (ft)
W18	0.00	-----	-----
W19	Abandoned	-----	-----
W21	0.00	-----	-----
W22	0.00	-----	-----
W23	0.00	-----	-----
W24A	0.00	-----	-----
W25	0.00	-----	-----
W26/W26R	0.00	-----	-----
W27	0.00	-----	-----
W28	0.00	-----	-----
W29/W29R	0.00	-----	-----
W30	0.00	-----	-----
W31	0.00	-----	-----
W32	0.00	-----	-----
W33	0.00	-----	-----
W34	0.00	-----	-----
W35	0.03	-----	-----
W36	0.00	-----	-----
W39	Abandoned	-----	-----
W40/W40R	0.05	-----	-----
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	Abandoned	-----	-----
River	-----	-----	-----
IW01	0.00	-----	-----
IW01A	0.00	-----	-----
FP01	0.00	-----	-----
FP02	0.00	-----	-----
FP03	0.01	-----	-----
FP04	0.00	-----	-----
3M Basin	-----	-----	-----
DFOWM 5	0.00	-----	-----
DFOWM 9	Abandoned	-----	-----
DFOWM 10A	Abandoned	-----	-----
DFOWM 11	0.00	-----	-----
DFOWM 12	0.00	-----	-----
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

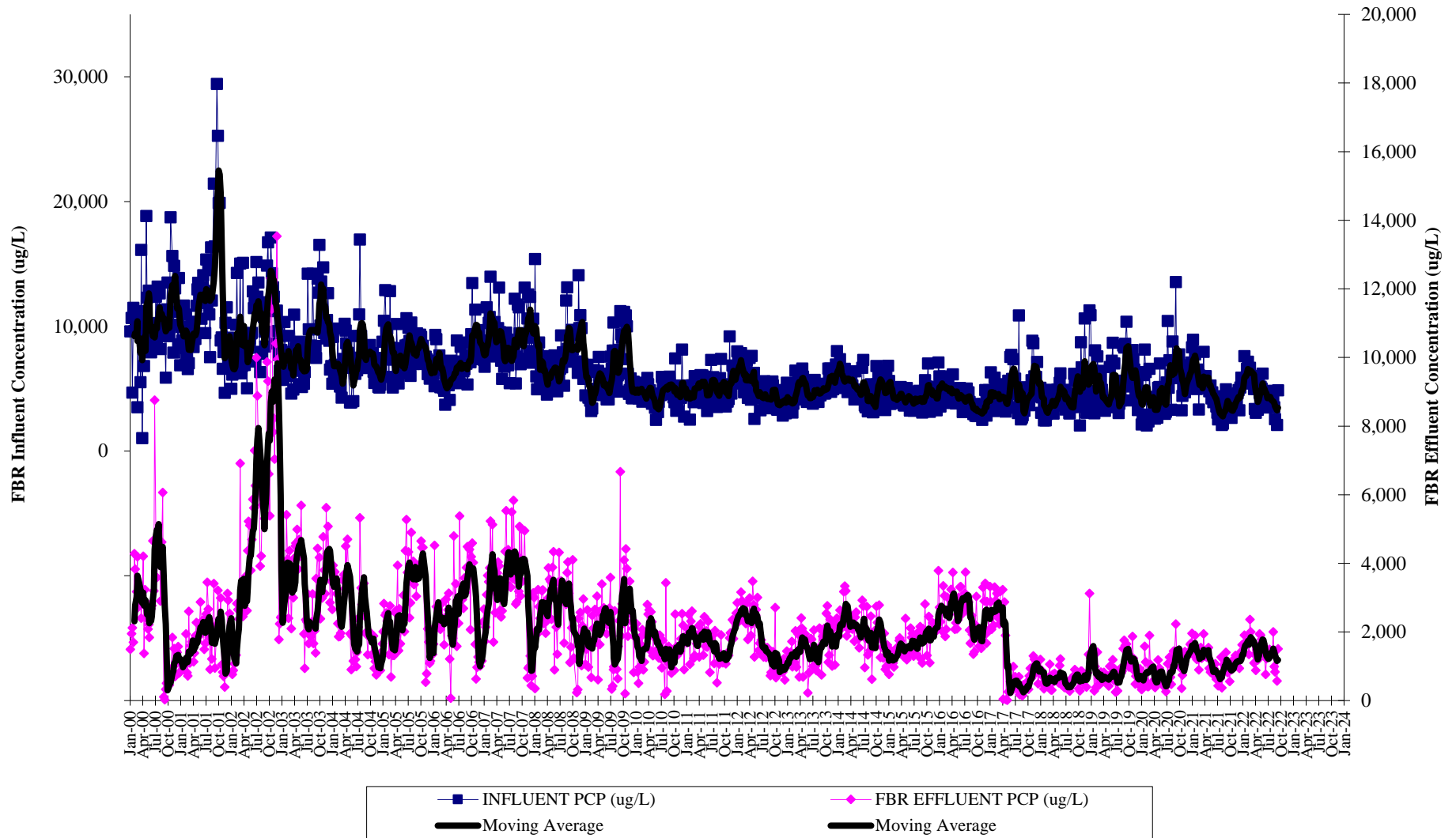
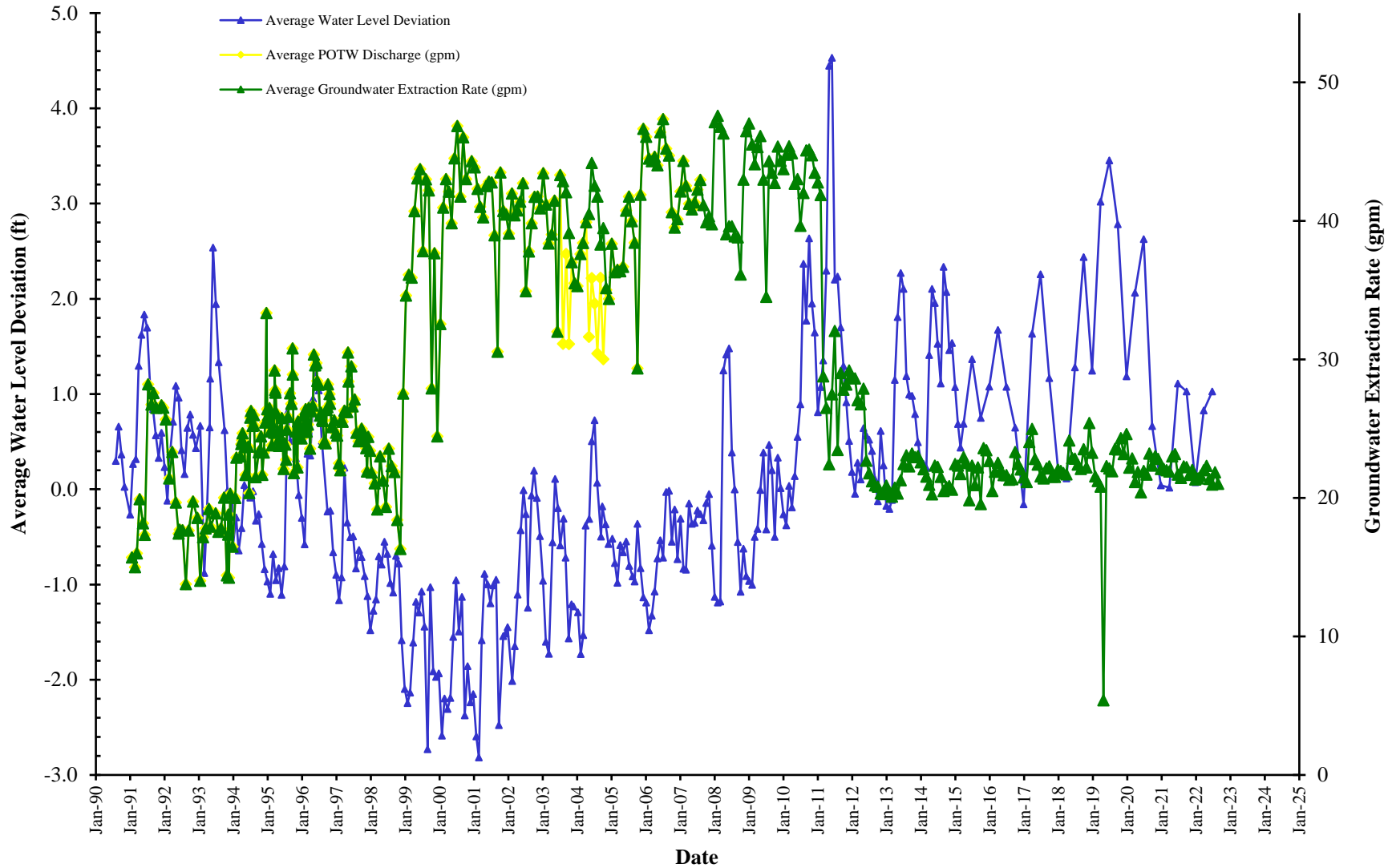


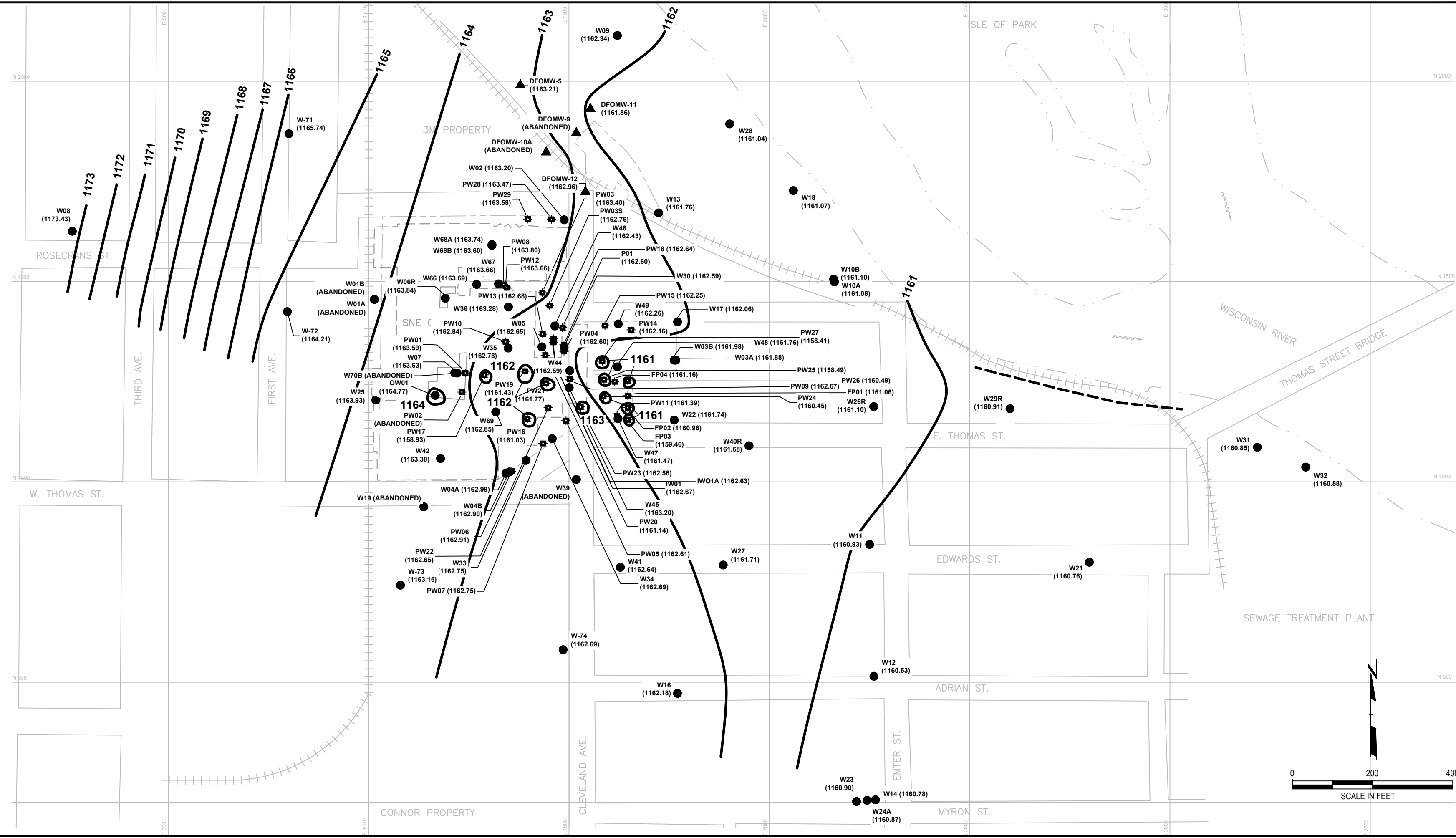
FIGURE 2

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



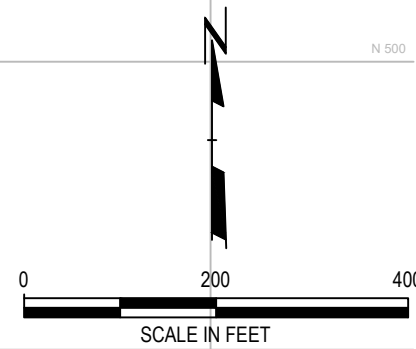
Note: The Average Groundwater Extraction Rate is a monthly average of the flow into the treatment system. The monthly average POTW discharge is less than the total extraction rate during the PPT pilot test due to the injection of treated water into IW01.

I:\04 - USER: TROBES - ATTACHED FILES - Baume & Mercier - JULY 2022\VT.dwg - ATTACHED IMAGES
 DRAWING NAME: J:\Wausau\189597 - annual\2022\011189597.001\04.WT July 22.dwg - PLOT DATE: August 09, 2022 - 7:23AM - LAYOUT: WATER TABLE MAP (JULY 1 2022)
 Version: 2017-10-21



- LEGEND**
- W17 ● (1162.42) MONITORING WELL LOCATION, NUMBER AND WATER TABLE ELEVATION
 - PW12 ■ (1164.12) EXTRACTION WELL LOCATION, NUMBER AND WATER TABLE ELEVATION
 - APPROXIMATE PROPERTY LINE
 - - - FORMER BUILDING OUTLINE
 - 1161 — WATER TABLE ELEVATION CONTOUR
 - DFOMW-5 ▲ 3M GROUNDWATER MONITORING WELL
 - - - APPROXIMATE LOCATION OF SHEET PILE WALL

- NOTES**
1. BASE MAP DEVELOPED FROM DRAWING A107250-1 OF THE SEPTEMBER 1992 SEMI-ANNUAL GROUNDWATER MONITORING REPORT BY KEYSTONE ENVIRONMENTAL, MWH DRAWING 2082658.302160101-B1, AND 3M WELLS LOCATION BASED ON 3M MAPS.
 2. WATER ELEVATIONS OBTAINED BY TRC ON JULY 1, 2022. ON THIS DATE, THE PUMPING RATE OF THE GROUNDWATER EXTRACTION SYSTEM WAS APPROXIMATELY 21.5 GPM.
 3. WAULECO WELLS PW02 AND W70B WERE ABANDONED ON 7/21/16 DURING SOIL MOUND REMOVAL ACTIVITIES BY TRC. 3M WELLS DFOMW9 AND DFOMW10A WERE ABANDONED BY 3M IN THE SUMMER OF 2015.
 4. WAULECO WELLS W19 AND W39 WERE ABANDONED ON 3/28/19 PRIOR TO THOMAS STREET RECONSTRUCTION. WELLS W26, W29, AND W40 WERE ALSO ABANDONED ON 3/28/19, WITH REPLACEMENT WELLS W26R, W29R, AND W40R INSTALLED ON 6/24/19.
 5. THE CITY OF WAUSAU INSTALLED A STEEL SHEET PILING WALL IN 2020 TO REPLACE A ROCK WALL ON THE WISCONSIN RIVER BANK LOCATED WEST OF THE THOMAS STREET BRIDGE.
 6. WAULECO WELLS W1A AND W1B WERE ABANDONED ON 6/29/21 AND 6/30/21 DUE TO THE RAILROAD PROPERTY TRANSFER TO 3M.



PROJECT:		WAULECO, INC.	
		ANNUAL GROUNDWATER MONITORING REPORT	
		WAUSAU, WISCONSIN	
TITLE:			
WATER TABLE MAP			
(JULY 1 2022)			
DRAWN BY:	E.ALEXANDER	PROJ NO.:	189597.0011
CHECKED BY:	T.DUSHEK	DRAWING 2	
APPROVED BY:	S. SELLWOOD		
DATE:	AUGUST 2022		
		708 Heartland Trail Suite 3000 Madison, WI 53717 Phone: 608.826.3600	
FILE NO.:		189597.0011.04.WT July 22.dwg	