



999 Fourier Dr., Ste. 101
Madison, WI 53717

T 608.826.3600
TRCcompanies.com

January 11, 2024

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

Subject: 2023 Fourth 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 2023 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) 347-8594.

Sincerely,

TRC

A handwritten signature in blue ink that reads "Steve Sellwood".

Steve Sellwood
Project Manager

Attachments: 2023 Fourth Quarterly Report

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

**Wauleco, Inc. - Wausau, Wisconsin
Quarterly Report
Submitted January 2024**

Summary of 2023 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 2023 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 1.52 µg/L in October, 1.90 µg/L in November, and 2.16 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 18, <3.0 µg/L on November 14, and <3.0 µg/L on December 13, 2023.
- 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 3,703 µg/L to 5,412 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 2023	78	67	64
November 2023	79	69	59
December 2023	73	70	62

- The dissolved oxygen concentration in the influent to the FBR averaged 2.5 mg/L in October, 2.4 mg/L in November, and 2.8 mg/L in December 2023.

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 0.024 µg/L on October 18, <0.020 µg/L on November 14, and

<0.020 µg/L on December 13, which are below the permit discharge limit of 1.6 µg/L. The mass loading for mercury in October was calculated at 0.00000641 lb/24 hours, which is below the permit discharge limit of 0.00048 lb/24 hours. The mass loading for mercury in November and December were calculated using half the detection limit of 0.01 µg/L, at 0.00000261 lb/ 24 hours for November, and 0.00000263 lb/24 hours for 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 22.24 gpm for October, 21.73 gpm for November, and 21.88 gpm for December 2023 (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 October 2023 are summarized in Table 3.

The product thickness data for October 2023 are summarized in Table 4. Measurements show minimal product present in October.

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 2023**

**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	10/18/2023	6.5	<				<	
Chemical Oxygen Demand	mg/L	10/18/2023	48	36				27	
Chloride	mg/L	10/18/2023	190	200				200	
Dissolved Oxygen	mg/L	10/4/2023	2.3	1.1	6				
	mg/L	10/11/2023	2.8	1.2	6.2				
	mg/L	10/18/2023	2.4	1.2	6.2				
	mg/L	10/26/2023	2.4	1	5.8				
Nitrogen, Ammonia	mg/L	10/4/2023	0.4	0.3	0.2				
	mg/L	10/11/2023	0.3	0.2	0.2				
	mg/L	10/18/2023	0.3	0.2	0.2				
	mg/L	10/26/2023	0.4	0.3	0.3				
Nitrogen, Nitrate	mg/L	10/4/2023	<	<	<				
	mg/L	10/11/2023	<	<	<				
	mg/L	10/18/2023	<	<	<				
	mg/L	10/26/2023	<	<	<				
Nitrogen, Nitrate + Nitrite	mg/L	10/18/2023	<	<				<	
Nitrogen, Total Kjeldahl	mg/L	10/18/2023	0.45	0.49				<	
Pentachlorophenol-Screen	µg/L	10/1/2023						3	
	µg/L	10/2/2023						3	
	µg/L	10/3/2023						1	
	µg/L	10/4/2023	4248	756	666			1	
	µg/L	10/5/2023						2	
	µg/L	10/6/2023						1	
	µg/L	10/7/2023						2	
	µg/L	10/8/2023						2	
	µg/L	10/9/2023						2	
	µg/L	10/10/2023						1	
	µg/L	10/11/2023	5412	1014	1048			1	
	µg/L	10/12/2023						2	
	µg/L	10/13/2023						2	
	µg/L	10/14/2023						1	
	µg/L	10/15/2023						1	
	µg/L	10/16/2023						1	
	µg/L	10/17/2023						1	
	µg/L	10/18/2023	5297	1553	1179		18	1	
	µg/L	10/19/2023						1	
	µg/L	10/20/2023						2	
	µg/L	10/21/2023						1	
	µg/L	10/22/2023						1	
	µg/L	10/23/2023						1	
µg/L	10/24/2023						1		
µg/L	10/25/2023						1		
µg/L	10/26/2023	3933	1094	1164			1		
µg/L	10/27/2023						2		
µg/L	10/28/2023						2		

**TABLE 1a
OCTOBER 2023**

**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	10/29/2023						2	
	µg/L	10/30/2023						2	
	µg/L	10/31/2023						2	
pH	S.U.	10/4/2023	6.55	6.5	6.55				
	S.U.	10/11/2023	6.5	6.5	6.5				
	S.U.	10/18/2023	6.55	6.55	6.55				
	S.U.	10/26/2023	6.55	6.55	6.55				
Phosphorus, Ortho	mg/L	10/18/2023	<	<				<	
Phosphorus, Phosphate	mg/L	10/4/2023	0.8	0.3	0.3				
	mg/L	10/11/2023	0.7	0.2	0.3				
	mg/L	10/18/2023	0.8	0.2	0.2				
	mg/L	10/26/2023	0.9	0.2	0.2				
Solids, Total Suspended	mg/L	10/18/2023	18	11				<	
Mercury	µg/L	10/18/2023	0.15					0.024	
Phenol									
2,3,4,6-Tetrachlorophenol	µg/L	10/18/2023	110		28		<	<	<
2,4,5-Trichlorophenol	µg/L	10/18/2023	<		<		<	<	<
2,4,6-Trichlorophenol	µg/L	10/18/2023	<		<		<	<	<
2,4-Dichlorophenol	µg/L	10/18/2023	<		<		<	<	<
2,4-Dimethylphenol	µg/L	10/18/2023	<		<		<	<	<
2,4-Dinitrophenol	µg/L	10/18/2023	<		<		<	<	<
2,6-Dichlorophenol	µg/L	10/18/2023	<		<		<	<	<
2-Chlorophenol	µg/L	10/18/2023	<		<		<	<	<
2-Methylphenol	µg/L	10/18/2023	<		<		<	<	<
2-Nitrophenol	µg/L	10/18/2023	<		<		<	<	<
3&4-Methylphenol	µg/L	10/18/2023	<		<		<	<	<
4,6-Dinitro-2-Methylphenol	µg/L	10/18/2023	<		<		<	<	<
4-Chloro-3-Methylphenol	µg/L	10/18/2023	<		<		<	<	<
4-Nitrophenol	µg/L	10/18/2023	<		<		<	<	<
Pentachlorophenol	µg/L	10/18/2023	1300		300		<	<	<
Phenol	µg/L	10/18/2023	<		<		<	<	<

**TABLE 1b
NOVEMBER 2023**

**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	11/14/2023	6.5	<				<	
Chemical Oxygen Demand	mg/L	11/14/2023	38	23				18	
Chloride	mg/L	11/14/2023	170	180				180	
Dissolved Oxygen	mg/L	11/1/2023	2.6	1.2	5.6				
	mg/L	11/8/2023	2.2	1.2	6.2				
	mg/L	11/14/2023	2.4	1.4	6.3				
	mg/L	11/22/2023	2.6	1.4	6.1				
	mg/L	11/30/2023	2.3	1.4	6.2				
Nitrogen, Ammonia	mg/L	11/1/2023	0.4	0.3	0.3				
	mg/L	11/8/2023	0.4	0.3	0.3				
	mg/L	11/14/2023	0.4	0.3	0.4				
	mg/L	11/22/2023	0.5	0.4	0.2				
	mg/L	11/30/2023	0.4	0.4	0.3				
Nitrogen, Nitrate	mg/L	11/1/2023	<	<	<				
	mg/L	11/8/2023	<	<	<				
	mg/L	11/14/2023	<	<	<				
	mg/L	11/22/2023	<	<	<				
	mg/L	11/30/2023	<	<	<				
Nitrogen, Total Kjeldahl	mg/L	11/14/2023	<	<				<	
Pentachlorophenol-Screen	µg/L	11/1/2023	4056	1530	1490			1	
	µg/L	11/2/2023						2	
	µg/L	11/3/2023						2	
	µg/L	11/4/2023						2	
	µg/L	11/5/2023						2	
	µg/L	11/6/2023						2	
	µg/L	11/7/2023						1	
	µg/L	11/8/2023	4697	674	607			2	
	µg/L	11/9/2023						3	
	µg/L	11/10/2023						2	
	µg/L	11/11/2023						2	
	µg/L	11/12/2023						2	
	µg/L	11/13/2023						2	
	µg/L	11/14/2023	4905	916	636		23	2	
	µg/L	11/15/2023						2	
	µg/L	11/16/2023						2	
	µg/L	11/17/2023						2	
	µg/L	11/18/2023						2	
	µg/L	11/19/2023						2	
	µg/L	11/20/2023						2	
	µg/L	11/21/2023						1	
	µg/L	11/22/2023	4796	1004	832			1	
	µg/L	11/23/2023						2	
	µg/L	11/24/2023						2	

**TABLE 1b
NOVEMBER 2023**

**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	11/25/2023						2	
	µg/L	11/26/2023						2	
	µg/L	11/27/2023						2	
	µg/L	11/28/2023						2	
	µg/L	11/29/2023						2	
	µg/L	11/30/2023	5235	1511	1438			2	
pH	S.U.	11/1/2023	6.5	6.45	6.5				
	S.U.	11/8/2023	6.55	6.5	6.55				
	S.U.	11/14/2023	6.5	6.4	6.5				
	S.U.	11/22/2023	6.4	6.4	6.4				
	S.U.	11/30/2023	6.45	6.45	6.5				
Phosphorus, Ortho	mg/L	11/14/2023	<	<				<	
Phosphorus, Phosphate	mg/L	11/1/2023	0.9	0.2	0.2				
	mg/L	11/8/2023	0.9	0.3	0.4				
	mg/L	11/14/2023	0.9	0.2	0.3				
	mg/L	11/22/2023	0.8	0.2	0.3				
	mg/L	11/30/2023	0.8	0.2	0.2				
Solids, Total Suspended	mg/L	11/14/2023	18	12				<	
Mercury	µg/L	11/14/2023						<	
Phenol									
2,3,4,6-Tetrachlorophenol	µg/L	11/14/2023	150	15	13			<	<
2,4,5-Trichlorophenol	µg/L	11/14/2023	<	<	<			<	<
2,4,6-Trichlorophenol	µg/L	11/14/2023	<	<	<			<	<
2,4-Dichlorophenol	µg/L	11/14/2023	<	<	<			<	<
2,4-Dimethylphenol	µg/L	11/14/2023	<	<	<			<	<
2,4-Dinitrophenol	µg/L	11/14/2023	<	<	<			<	<
2,6-Dichlorophenol	µg/L	11/14/2023	<	<	<			<	<
2-Chlorophenol	µg/L	11/14/2023	<	<	<			<	<
2-Methylphenol	µg/L	11/14/2023	<	<	<			<	<
2-Nitrophenol	µg/L	11/14/2023	<	<	<			<	<
3&4-Methylphenol	µg/L	11/14/2023	<	<	<			<	<
4,6-Dinitro-2-Methylphenol	µg/L	11/14/2023	<	<	<			<	<
4-Chloro-3-Methylphenol	µg/L	11/14/2023	<	<	<			<	<
4-Nitrophenol	µg/L	11/14/2023	<	<	<			<	<
Pentachlorophenol	µg/L	11/14/2023	1600	150	150			<	<
Phenol	µg/L	11/14/2023	<	<	<			<	<

**TABLE 1c
DECEMBER 2023**

**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	12/13/2023	7.0	2.4				<	
Chemical Oxygen Demand	mg/L	12/13/2023	30	28				18	
Chloride	mg/L	12/13/2023	220	220				220	
Dissolved Oxygen	mg/L	12/6/2023	2.6	1.4	6.3				
	mg/L	12/13/2023	3	1.4	6.4				
	mg/L	12/20/2023	2.8	1.4	6.2				
	mg/L	12/28/2023	2.8	1.3	6.2				
Nitrogen, Ammonia	mg/L	12/6/2023	0.4	0.3	0.3				
	mg/L	12/13/2023	0.5	0.4	0.3				
	mg/L	12/20/2023	0.5	0.2	0.3				
	mg/L	12/28/2023	0.4	0.3	0.2				
Nitrogen, Nitrate	mg/L	12/6/2023	<	<	<				
	mg/L	12/13/2023	<	<	<				
	mg/L	12/20/2023	<	<	<				
	mg/L	12/28/2023	<	<	<				
Nitrogen, Total Kjeldahl	mg/L	12/13/2023	<	<				<	
Pentachlorophenol-Screen	µg/L	12/1/2023						2	
	µg/L	12/2/2023						2	
	µg/L	12/3/2023						2	
	µg/L	12/4/2023						2	
	µg/L	12/5/2023						2	
	µg/L	12/6/2023	4418	978	998			1	
	µg/L	12/7/2023						2	
	µg/L	12/8/2023						2	
	µg/L	12/9/2023						2	
	µg/L	12/10/2023						2	
	µg/L	12/11/2023						2	
	µg/L	12/12/2023						2	
	µg/L	12/13/2023	3703	1174	1106		50	2	
	µg/L	12/14/2023						3	
	µg/L	12/15/2023						3	
	µg/L	12/16/2023						2	
	µg/L	12/17/2023						2	
	µg/L	12/18/2023						2	
	µg/L	12/19/2023						2	
	µg/L	12/20/2023	4298	1225	1251			2	
	µg/L	12/21/2023						3	
	µg/L	12/22/2023						3	
	µg/L	12/23/2023						2	
	µg/L	12/24/2023						2	
	µg/L	12/25/2023						2	
	µg/L	12/26/2023						2	
	µg/L	12/27/2023						2	
	µg/L	12/28/2023	4731	1226	1170			1	

**TABLE 1c
DECEMBER 2023**

**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	12/29/2023						3	
	µg/L	12/30/2023						3	
	µg/L	12/31/2023						3	
pH	S.U.	12/6/2023	6.4	6.4	6.4				
	S.U.	12/13/2023	6.4	6.4	6.45				
	S.U.	12/20/2023	6.45	6.5	6.45				
	S.U.	12/28/2023	6.45	6.45	6.45				
Phosphorus, Ortho	mg/L	12/13/2023	<	<				<	
Phosphorus, Phosphate	mg/L	12/6/2023	0.6	0.2	0.2				
	mg/L	12/13/2023	0.7	0.2	0.3				
	mg/L	12/20/2023	0.9	0.2	0.2				
	mg/L	12/28/2023	0.8	0.2	0.2				
Solids, Total Suspended	mg/L	12/13/2023	15	15				<	
Mercury	µg/L	12/13/2023						<	
Phenol									
2,3,4,6-Tetrachlorophenol	µg/L	12/13/2023	150		26			<	<
2,4,5-Trichlorophenol	µg/L	12/13/2023	<		<			<	<
2,4,6-Trichlorophenol	µg/L	12/13/2023	<		<			<	<
2,4-Dichlorophenol	µg/L	12/13/2023	<		<			<	<
2,4-Dimethylphenol	µg/L	12/13/2023	<		<			<	<
2,4-Dinitrophenol	µg/L	12/13/2023	<		<			<	<
2,6-Dichlorophenol	µg/L	12/13/2023	<		<			<	<
2-Chlorophenol	µg/L	12/13/2023	<		<			<	<
2-Methylphenol	µg/L	12/13/2023	<		<			<	<
2-Nitrophenol	µg/L	12/13/2023	<		<			<	<
3&4-Methylphenol	µg/L	12/13/2023	<		<			<	<
4,6-Dinitro-2-Methylphenol	µg/L	12/13/2023	<		<			<	<
4-Chloro-3-Methylphenol	µg/L	12/13/2023	<		<			<	<
4-Nitrophenol	µg/L	12/13/2023	<		<			<	<
Pentachlorophenol	µg/L	12/13/2023	1600		300			<	<
Phenol	µg/L	12/13/2023	<		<			<	<

TABLE 2a
OCTOBER 2023

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>
10/1/2023	22.41	23.80	125287788
10/2/2023	22.41	23.63	125321815
10/3/2023	22.39	23.50	125355659
10/4/2023	22.63	23.30	125389212
10/5/2023	22.59	23.17	125422583
10/6/2023	22.50	23.20	125455991
10/7/2023	21.96	23.06	125489195
10/8/2023	22.07	23.29	125522738
10/9/2023	22.08	23.09	125555991
10/10/2023	22.16	23.03	125589151
10/11/2023	22.26	22.98	125622245
10/12/2023	22.28	22.89	125655202
10/13/2023	22.37	22.74	125687946
10/14/2023	22.68	22.60	125720489
10/15/2023	22.54	22.71	125753185
10/16/2023	22.42	22.70	125785870
10/17/2023	22.34	22.68	125818524
10/18/2023	22.29	22.56	125851010
10/19/2023	22.32	22.55	125883478
10/20/2023	21.71	22.37	125915692
10/21/2023	21.76	22.50	125948099
10/22/2023	21.76	22.38	125980323
10/23/2023	19.13	21.20	126010850
10/24/2023	16.99	20.58	126040485
10/25/2023	17.02	20.52	126070040
10/26/2023	17.02	20.53	126099599
10/27/2023	16.56	20.11	126128563
10/28/2023	16.30	20.09	126157491
10/29/2023	16.34	19.95	126186223
10/30/2023	16.56	19.87	126214838
10/31/2023	19.73	21.97	126246476
Average For The Month	20.83	22.24	
Total ⁽²⁾ :			992,958

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 2023
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)
11/1/2023	20.91	22.71	126279177
11/2/2023	20.83	22.70	126311859
11/3/2023	21.03	22.58	126344372
11/4/2023	20.65	22.16	126376289
11/5/2023	21.13	22.69	126408957
11/6/2023	19.94	21.42	126439803
11/7/2023	19.67	21.05	126470122
11/8/2023	19.51	20.94	126500273
11/9/2023	21.04	21.96	126531892
11/10/2023	21.46	22.31	126564019
11/11/2023	21.35	22.21	126596000
11/12/2023	21.29	22.10	126627825
11/13/2023	20.14	21.09	126658198
11/14/2023	19.61	20.77	126688113
11/15/2023	19.96	22.10	126719942
11/16/2023	20.20	22.20	126751916
11/17/2023	19.79	22.06	126783677
11/18/2023	19.71	21.99	126815340
11/19/2023	19.35	21.67	126846549
11/20/2023	19.13	21.53	126877557
11/21/2023	18.81	21.25	126908163
11/22/2023	18.68	21.29	126938827
11/23/2023	18.74	21.00	126969073
11/24/2023	18.89	21.29	126999733
11/25/2023	18.81	21.50	127030693
11/26/2023	18.77	21.41	127061518
11/27/2023	18.85	21.35	127092258
11/28/2023	18.84	21.73	127123542
11/29/2023	18.68	21.48	127154475
11/30/2023	18.68	21.42	127185320
Average For The Month	19.82	21.73	
Total ⁽²⁾ :			938,844

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 2023

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)
12/1/2023	18.64	21.40	127216134
12/2/2023	18.74	21.36	127246898
12/3/2023	18.58	21.44	127277770
12/4/2023	18.56	21.34	127308505
12/5/2023	18.64	21.37	127339274
12/6/2023	18.73	21.17	127369762
12/7/2023	18.65	21.42	127400611
12/8/2023	18.57	21.92	127432176
12/9/2023	18.76	21.87	127463662
12/10/2023	19.04	22.13	127495526
12/11/2023	18.76	22.06	127527286
12/12/2023	18.64	22.15	127559176
12/13/2023	18.75	21.97	127590807
12/14/2023	18.95	22.06	127622577
12/15/2023	18.66	21.85	127654034
12/16/2023	17.02	20.70	127683847
12/17/2023	17.25	20.82	127713834
12/18/2023	17.43	20.82	127743819
12/19/2023	18.45	21.79	127775194
12/20/2023	18.28	21.61	127806313
12/21/2023	17.89	21.62	127837444
12/22/2023	17.74	21.66	127868628
12/23/2023	17.57	21.67	127899837
12/24/2023	17.68	21.62	127930964
12/25/2023	15.21	21.54	127961976
12/26/2023	14.83	21.52	127992968
12/27/2023	17.73	23.32	128026551
12/28/2023	18.78	23.56	128060481
12/29/2023	18.87	23.64	128094526
12/30/2023	19.22	23.51	128128384
12/31/2023	18.98	23.37	128162037
Average For The Month	18.18	21.88	
Total ⁽²⁾ :			976,717

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**

<u>Well</u>	<u>October 02, 2023 (ft msl)</u>	<u>November, 2023</u>	<u>December, 2023</u>
PW01	1163.04	----	----
PW02	Abandoned	----	----
PW03	1162.9	----	----
PW3S	1162.18	----	----
PW04	1162.03	----	----
PW05	1162.05	----	----
PW06	1162.36	----	----
PW07	1162.15	----	----
PW08	1163.27	----	----
PW09I	----	----	----
PW09O	1162.07	----	----
PW10	1162.22	----	----
PW11	1160.95	----	----
PW12	1163.19	----	----
PW13	1162.09	----	----
PW14	1162	----	----
PW15	1162.08	----	----
PW16	1159.97	----	----
PW17	1158.01	----	----
PW18	1162.05	----	----
PW19	1161.22	----	----
PW20	1159.118	----	----
PW21	1160.65	----	----
PW22	1161.08	----	----
PW23	1161.99	----	----
PW24	1160.16	----	----
PW25	1156.35	----	----
PW26	1159.00	----	----
PW27	1157.6	----	----
PW28	1163.04	----	----
PW29	1163.12	----	----
P01	1162.04	----	----
OW01	1164.27	----	----
W01A	Abandoned	----	----
W01B	Abandoned	----	----
W02	1162.74	----	----
W03A	1161.62	----	----
W03B	1161.8	----	----
W04A	1162.45	----	----
W04B	1162.36	----	----
W05	1162.07	----	----
W06R	1163.33	----	----
W07	1163.08	----	----
W08	1171.47	----	----
W09	1162.19	----	----
W10A	1160.97	----	----
W10B	1161.04	----	----
W11	1160.87	----	----
W12	1160.53	----	----
W13	1161.72	----	----
W14	1160.77	----	----
W16	1161.75	----	----
W17	1162.1	----	----
W18	1161.09	----	----
W19	Abandoned	----	----

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

<u>Well</u>	<u>October 02, 2023 (ft msl)</u>	<u>November, 2023</u>	<u>December, 2023</u>
W21	1160.8	----	----
W22	1161.35	----	----
W23	1160.84	----	----
W24A	1160.82	----	----
W25	1163.4	----	----
W26/W26R	1161.08	----	----
W27	1161.51	----	----
W28	1161.04	----	----
W29/W29R	1160.91	----	----
W30	1162.01	----	----
W31	1160.89	----	----
W32	1160.91	----	----
W33	1162.2	----	----
W34	1162.12	----	----
W35	1162.21	----	----
W36	1162.69	----	----
W39	Abandoned	----	----
W40/W40R	1161.37	----	----
W41	1162.03	----	----
W42	1162.75	----	----
W44	1162.01	----	----
W45	1162.31	----	----
W46	1161.82	----	----
W47	1160.96	----	----
W48	1161.46	----	----
W49	1162.13	----	----
W66	1163.22	----	----
W67	1163.19	----	----
W68A	1163.24	----	----
W68B	1163.14	----	----
W69	1162.26	----	----
W70B	Abandoned	----	----
River	----	----	----
IW01	1162.05	----	----
IW01A	1162.05	----	----
FP01	1160.29	----	----
FP02	1160.65	----	----
FP03	1159.1	----	----
FP04	1160.55	----	----
3M Basin	Water in both Basins	----	----
DFOWM 5	----	----	----
DFOWM 9	Abandoned	----	----
DFOWM 10A	Abandoned	----	----
DFOWM 11	----	----	----
DFOWM 12	----	----	----
W71	1165.27	----	----
W72	1163.67	----	----
W73	1162.65	----	----
W74	1162.19	----	----

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

Well	October 02, 2023 (ft)	November, 2023	December, 2023
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	0.01	----	----
PW17	0.00	----	----
PW18	0.00	----	----
PW19	0.00	----	----
PW20	0.01	----	----
PW21	0.00	----	----
PW22	0.00	----	----
PW23	0.00	----	----
PW24	0.00	----	----
PW25	0.00	----	----
PW26	0.01	----	----
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	0.02	----	----
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	October 02, 2023 (ft)	November, 2023	December, 2023
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	0.00	----	----
W36	0.00	----	----
W39	Abandoned	----	----
W40/W40R	0.00	----	----
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	0.00	----	----
FP04	0.00	----	----
3M Basin	0.00	----	----
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

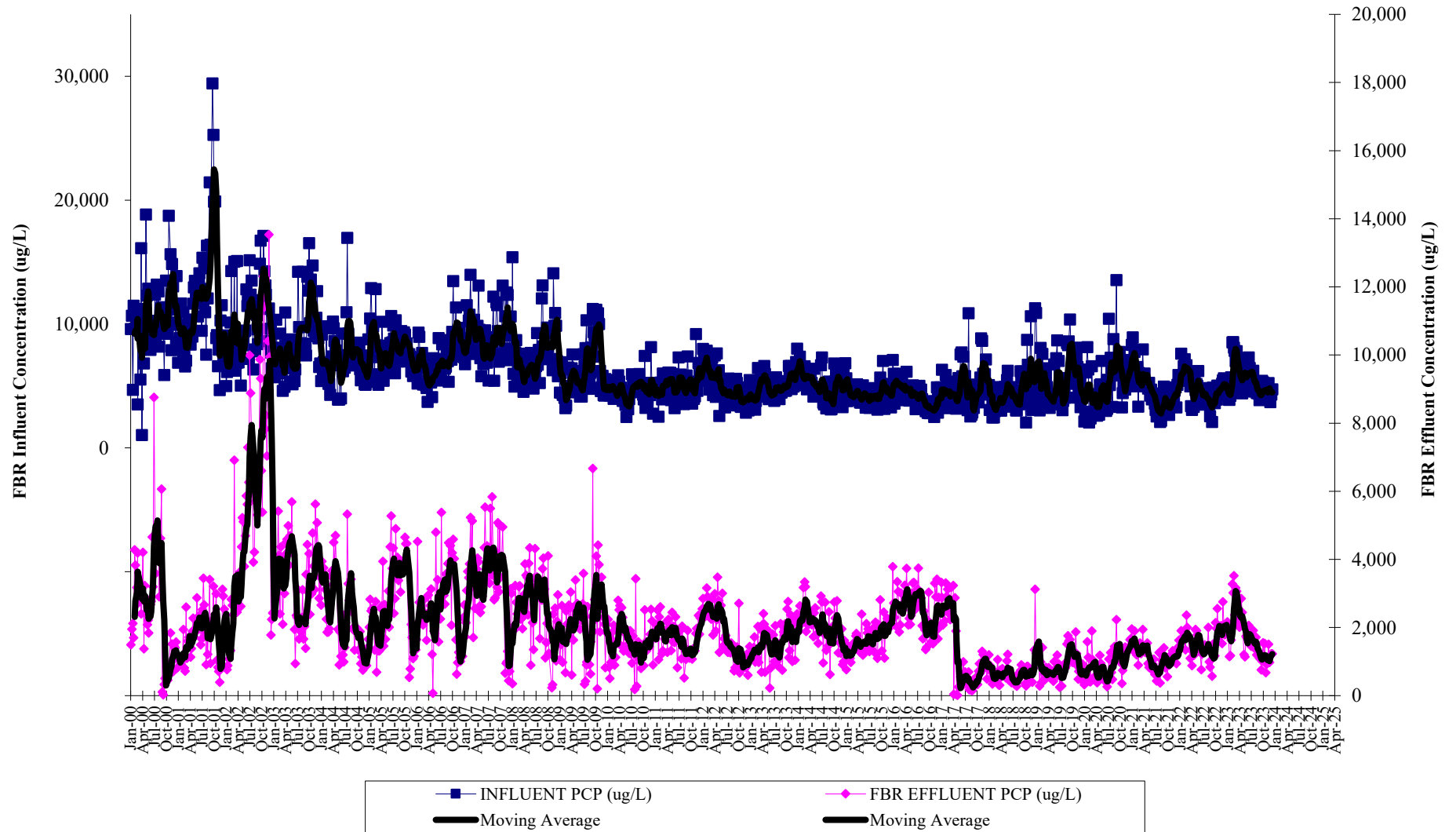
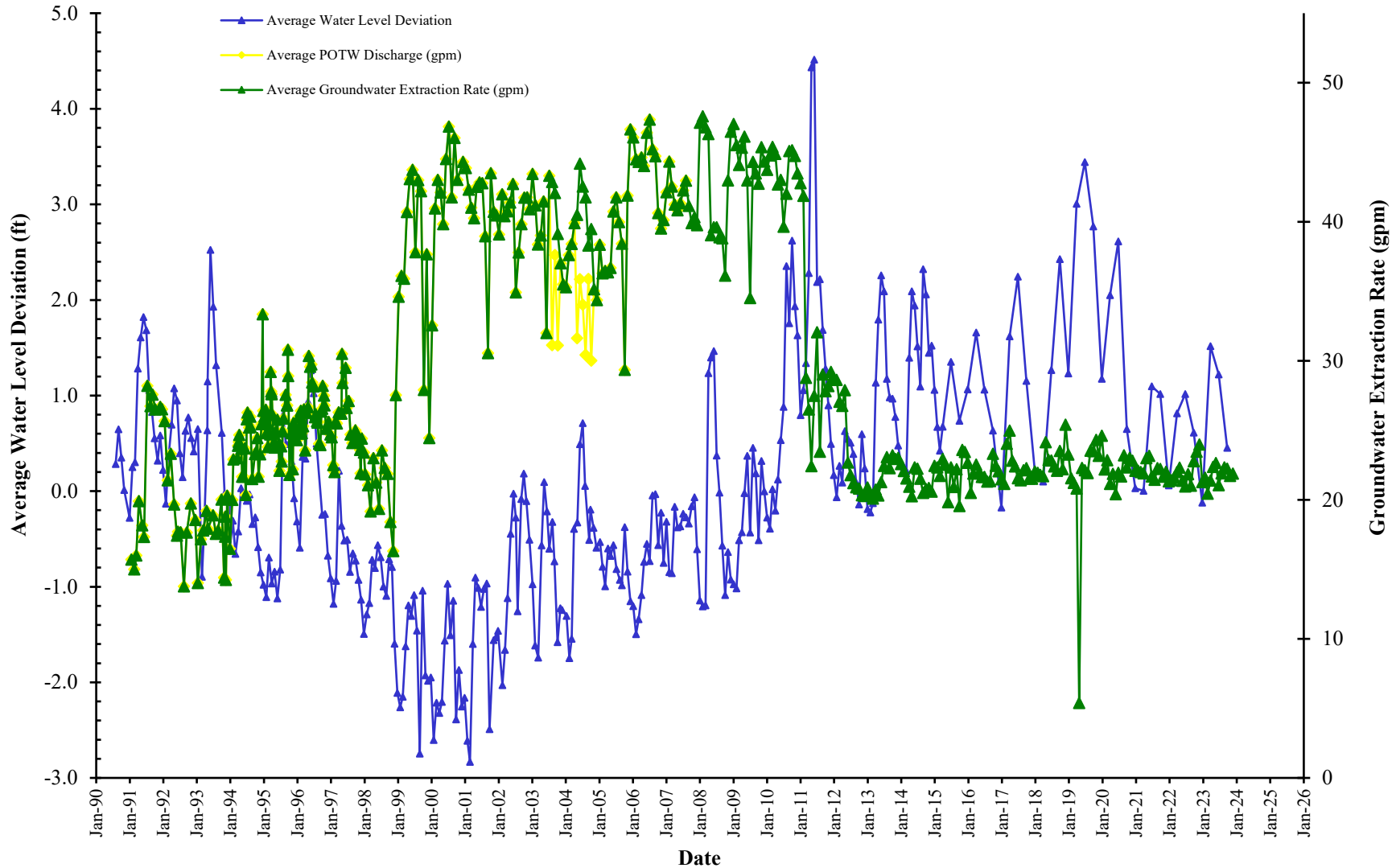


FIGURE 2

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.