



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

T 608.826.3600  
TRCcompanies.com

October 18, 2024

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

Subject: 2024 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 2024 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) 347-8594.

Sincerely,

TRC

A handwritten signature in blue ink, appearing to read "Steve Sellwood".

Steve Sellwood  
Project Manager

Attachments: 2024 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)

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

**Summary of 2024 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 2024 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 2.03 µg/L in July, 1.58 µg/L in August, and 2.77 µg/L in September.
- Laboratory results for the sampling events 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 17, <3.0 µg/L on August 15, and 1.9 µg/L on September 12, 2024.
- 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 3,393 µg/L to 5,306 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 2024	80	69	75
August 2024	81	70	74
September 2024	70	70	74

- The dissolved oxygen concentration in the influent to the FBR averaged 2.7 mg/L in July, 2.8 mg/L in August, and 2.6 mg/L in September 2024.

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 17, < 0.020 µg/L on August 15, and <0.020 µg/L on September 12, which are below the permit discharge limit of 1.6 µg/L. The mass loading for

mercury, calculated using half the detection limit ( $0.02 \mu\text{g/L} / 2 = 0.01 \mu\text{g/L}$ ), for July was 0.00000227 lb/24 hours, for August was 0.00000241 lb/24 hours, and for September was 0.00000254 lb/24 hours, 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 18.89 gpm for July, 20.03 gpm for August, and 21.17 gpm for September 2024 (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 2024 are summarized in Table 3. A water table map for the month of July 2024 is included as Drawing 1.

The product thickness data for July 2024 are summarized in Table 4. Measurements show product present in a few isolated wells in July.

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 1 – Water Table Map – July 1, 2024

**TABLE 1a  
JULY 2024**

**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	7/17/2024	6.5	<				<	
Chemical Oxygen Demand	mg/L	7/17/2024	34	<				20	
Chloride	mg/L	7/17/2024	200	200				200	
Dissolved Oxygen	mg/L	7/3/2024	2.6	1.2	4.8				
	mg/L	7/11/2024	2.7	1.3	4.6				
	mg/L	7/17/2024	2.8	1.2	4.3				
	mg/L	7/23/2024	2.7	1.3	4.2				
	mg/L	7/30/2024	2.9	1.4	4.7				
Nitrogen, Ammonia	mg/L	7/3/2024	0.4	0.3	0.4				
	mg/L	7/11/2024	0.4	0.3	0.3				
	mg/L	7/17/2024	0.5	0.3	0.3				
	mg/L	7/23/2024	0.4	0.3	0.3				
	mg/L	7/30/2024	0.4	0.3	0.3				
Nitrogen, Nitrate	mg/L	7/3/2024	<	<	<				
	mg/L	7/11/2024	<	<	<				
	mg/L	7/17/2024	<	<	<				
	mg/L	7/23/2024	<	<	<				
	mg/L	7/30/2024	<	<	<				
Nitrogen, Nitrate + Nitrite	mg/L	7/17/2024	<	<			<		
Nitrogen, Total Kjeldahl	mg/L	7/17/2024	<	0.71			0.39		
Pentachlorophenol-Screen	µg/L	7/1/2024							2
	µg/L	7/2/2024							2
	µg/L	7/3/2024	3626	628	388				2
	µg/L	7/4/2024							2
	µg/L	7/5/2024							2
	µg/L	7/6/2024							2
	µg/L	7/7/2024							2
	µg/L	7/8/2024							2
	µg/L	7/9/2024							2
	µg/L	7/10/2024							1
	µg/L	7/11/2024	3393	513	545				1
	µg/L	7/12/2024							2
	µg/L	7/13/2024							2
	µg/L	7/14/2024							2
	µg/L	7/15/2024							2
	µg/L	7/16/2024							2
	µg/L	7/17/2024	4729	973	992		228		2
	µg/L	7/18/2024							2
	µg/L	7/19/2024							2
	µg/L	7/20/2024							2
µg/L	7/21/2024							2	
µg/L	7/22/2024							2	
µg/L	7/23/2024	4983	957	1081				2	
µg/L	7/24/2024							3	
µg/L	7/25/2024							2	

**TABLE 1a  
JULY 2024**

**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	7/26/2024							2
	µg/L	7/27/2024							2
	µg/L	7/28/2024							2
	µg/L	7/29/2024							2
	µg/L	7/30/2024	5306	1266	1712				3
	µg/L	7/31/2024							3
pH	S.U.	7/3/2024	6.55	6.65	6.7				
	S.U.	7/11/2024	6.6	6.6	6.65				
	S.U.	7/17/2024	6.65	6.65	6.7				
	S.U.	7/23/2024	6.65	6.75	6.8				
	S.U.	7/30/2024	6.6	6.7	6.7				
Phosphorus, Ortho	mg/L	7/17/2024	<	<				<	
Phosphorus, Phosphate	mg/L	7/3/2024	0.4	0.4	0.3				
	mg/L	7/11/2024	0.4	0.3	0.3				
	mg/L	7/17/2024	0.4	0.3	0.4				
	mg/L	7/23/2024	0.5	0.4	0.4				
	mg/L	7/30/2024	1.1	0.3	0.7				
Solids, Total Suspended	mg/L	7/17/2024	20	18				16	
Mercury	µg/L	7/17/2024	0.13					<	
<b>Phenol</b>									
2,3,4,6-Tetrachlorophenol	µg/L	7/17/2024	96	17	16		10	<	<
2,4,5-Trichlorophenol	µg/L	7/17/2024	<	<	<		<	<	<
2,4,6-Trichlorophenol	µg/L	7/17/2024	<	<	<		<	<	<
2,4-Dichlorophenol	µg/L	7/17/2024	<	<	<		<	<	<
2,4-Dimethylphenol	µg/L	7/17/2024	<	<	<		<	<	<
2,4-Dinitrophenol	µg/L	7/17/2024	<	<	<		<	<	<
2,6-Dichlorophenol	µg/L	7/17/2024	<	<	<		<	<	<
2-Chlorophenol	µg/L	7/17/2024	<	<	<		<	<	<
2-Methylphenol	µg/L	7/17/2024	<	<	<		<	<	<
2-Nitrophenol	µg/L	7/17/2024	<	<	<		<	<	<
3&4-Methylphenol	µg/L	7/17/2024	<	<	<		<	<	<
4,6-Dinitro-2-Methylphenol	µg/L	7/17/2024	<	<	<		<	<	<
4-Chloro-3-Methylphenol	µg/L	7/17/2024	<	<	<		<	<	<
4-Nitrophenol	µg/L	7/17/2024	<	<	<		<	<	<
Pentachlorophenol	µg/L	7/17/2024	1100	180	170		97	<	<
Phenol	µg/L	7/17/2024	<	<	<		<	<	<

**TABLE 1b  
AUGUST 2024**

**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	8/15/2024	7.2	<				<	
Chemical Oxygen Demand	mg/L	8/15/2024	37	18				<	
Chloride	mg/L	8/15/2024	150	150				150	
Dissolved Oxygen	mg/L	8/6/2024	3	1.2	4.5				
	mg/L	8/15/2024	3.1	1.1	4.4				
	mg/L	8/20/2024	2.6	1.2	4.7				
	mg/L	8/29/2024	2.4	1.2	4.6				
Nitrogen, Ammonia	mg/L	8/6/2024	0.5	0.2	0.3				
	mg/L	8/15/2024	0.2	0.2	0.1				
	mg/L	8/20/2024	0.3	0.2	0.2				
	mg/L	8/29/2024	0.3	0.2	0.2				
Nitrogen, Nitrate	mg/L	8/6/2024	<	<	<				
	mg/L	8/15/2024	<	<	<				
	mg/L	8/20/2024	<	<	<				
	mg/L	8/29/2024	<	<	<				
Nitrogen, Total Kjeldahl	mg/L	8/15/2024	<	<				<	
Pentachlorophenol-Screen	µg/L	8/1/2024						2	
	µg/L	8/2/2024						3	
	µg/L	8/3/2024						2	
	µg/L	8/4/2024						2	
	µg/L	8/5/2024						2	
	µg/L	8/6/2024	3631	1236	1152			2	
	µg/L	8/7/2024						2	
	µg/L	8/8/2024						2	
	µg/L	8/9/2024						1	
	µg/L	8/10/2024						1	
	µg/L	8/11/2024						1	
	µg/L	8/12/2024						1	
	µg/L	8/13/2024						1	
	µg/L	8/14/2024						2	
	µg/L	8/15/2024	3506	674	695		189	1	
	µg/L	8/16/2024						2	
	µg/L	8/17/2024						2	
	µg/L	8/18/2024						2	
	µg/L	8/19/2024						2	
	µg/L	8/20/2024	4539	783	417			2	
	µg/L	8/21/2024						2	
	µg/L	8/22/2024						2	
	µg/L	8/23/2024						1	
µg/L	8/24/2024						1		
µg/L	8/25/2024						1		
µg/L	8/26/2024						1		
µg/L	8/27/2024						1		

**TABLE 1b**  
**AUGUST 2024**

**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	8/28/2024						1	
	µg/L	8/29/2024	3440	662	494			1	
	µg/L	8/30/2024						2	
	µg/L	8/31/2024						1	
pH	S.U.	8/6/2024	6.6	6.7	6.75				
	S.U.	8/15/2024	6.7	6.7	6.7				
	S.U.	8/20/2024	6.5	6.5	6.6				
	S.U.	8/29/2024	6.65	6.7	6.75				
Phosphorus, Ortho	mg/L	8/15/2024	<	<				<	
Phosphorus, Phosphate	mg/L	8/6/2024	1	0.6	0.8				
	mg/L	8/15/2024	1	0.5	0.8				
	mg/L	8/20/2024	1	1	0.9				
	mg/L	8/29/2024	0.9	0.8	0.9				
Solids, Total Suspended	mg/L	8/15/2024	25	23				12	
Mercury	µg/L	8/15/2024						<	
<b>Phenol</b>									
2,3,4,6-Tetrachlorophenol	µg/L	8/15/2024	79		22			<	<
2,4,5-Trichlorophenol	µg/L	8/15/2024	<		<			<	<
2,4,6-Trichlorophenol	µg/L	8/15/2024	<		<			<	<
2,4-Dichlorophenol	µg/L	8/15/2024	<		<			<	<
2,4-Dimethylphenol	µg/L	8/15/2024	<		<			<	<
2,4-Dinitrophenol	µg/L	8/15/2024	<		<			<	<
2,6-Dichlorophenol	µg/L	8/15/2024	<		<			<	<
2-Chlorophenol	µg/L	8/15/2024	<		<			<	<
2-Methylphenol	µg/L	8/15/2024	<		<			<	<
2-Nitrophenol	µg/L	8/15/2024	<		<			<	<
3&4-Methylphenol	µg/L	8/15/2024	<		<			<	<
4,6-Dinitro-2-Methylphenol	µg/L	8/15/2024	<		<			<	<
4-Chloro-3-Methylphenol	µg/L	8/15/2024	<		<			<	<
4-Nitrophenol	µg/L	8/15/2024	<		<			<	<
Pentachlorophenol	µg/L	8/15/2024	1000		270			<	<
Phenol	µg/L	8/15/2024	<		<			<	<

**TABLE 1c  
SEPTEMBER 2024**

**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	9/12/2024	7.8	2.5				<	
Chemical Oxygen Demand	mg/L	9/12/2024	52	27				<	
Chloride	mg/L	9/12/2024	150	150				150	
Dissolved Oxygen	mg/L	9/5/2024	2.5	1.1	4.6				
	mg/L	9/12/2024	2.6	1.2	4.2				
	mg/L	9/19/2024	2.5	1	4.2				
	mg/L	9/26/2024	2.6	1.1	4.2				
Nitrogen, Ammonia	mg/L	9/5/2024	0.4	0.3	0.3				
	mg/L	9/12/2024	0.4	0.2	0.2				
	mg/L	9/19/2024	0.5	0.3	0.3				
	mg/L	9/26/2024	0.4	0.3	0.3				
Nitrogen, Nitrate	mg/L	9/5/2024	<	<	<				
	mg/L	9/12/2024	<	<	<				
	mg/L	9/19/2024	<	<	<				
	mg/L	9/26/2024	<	<	<				
Nitrogen, Total Kjeldahl	mg/L	9/12/2024	<	<			<		
Pentachlorophenol-Screen	µg/L	9/1/2024							1
	µg/L	9/2/2024							1
	µg/L	9/3/2024							1
	µg/L	9/4/2024							2
	µg/L	9/5/2024	3428	1028	713				1
	µg/L	9/6/2024							3
	µg/L	9/7/2024							2
	µg/L	9/8/2024							2
	µg/L	9/9/2024							2
	µg/L	9/10/2024							3
	µg/L	9/11/2024							3
	µg/L	9/12/2024	4151	1378	1241		389		3
	µg/L	9/13/2024							3
	µg/L	9/14/2024							3
	µg/L	9/15/2024							3
	µg/L	9/16/2024							3
	µg/L	9/17/2024							2
	µg/L	9/18/2024							2
	µg/L	9/19/2024	4023	1428	1610				3
	µg/L	9/20/2024							2
	µg/L	9/21/2024							2
	µg/L	9/22/2024							2
	µg/L	9/23/2024							2
	µg/L	9/24/2024							2
	µg/L	9/25/2024							2
	µg/L	9/26/2024	3551	1337	979				4
	µg/L	9/27/2024							6
	µg/L	9/28/2024							6



**TABLE 1c  
SEPTEMBER 2024**

**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	9/29/2024							6
	µg/L	9/30/2024							6
pH	S.U.	9/5/2024	6.8	6.75	6.8				
	S.U.	9/12/2024	6.6	6.65	6.7				
	S.U.	9/19/2024	6.65	6.7	6.75				
	S.U.	9/26/2024	6.65	6.8	6.8				
Phosphorus, Ortho	mg/L	9/12/2024	<	<			<		
Phosphorus, Phosphate	mg/L	9/5/2024	1.2	0.8	0.8				
	mg/L	9/12/2024	1	0.8	0.8				
	mg/L	9/19/2024	1.2	0.8	0.8				
	mg/L	9/26/2024	0.9	0.9	0.9				
Solids, Total Suspended	mg/L	9/12/2024	18	22			14		
Mercury	µg/L	9/12/2024					<		
<b>Phenol</b>									
2,3,4,6-Tetrachlorophenol	µg/L	9/12/2024	110	29	30			<	<
2,4,5-Trichlorophenol	µg/L	9/12/2024	<	<	<			<	<
2,4,6-Trichlorophenol	µg/L	9/12/2024	<	<	<			<	<
2,4-Dichlorophenol	µg/L	9/12/2024	<	<	<			<	<
2,4-Dimethylphenol	µg/L	9/12/2024	<	<	<			<	<
2,4-Dinitrophenol	µg/L	9/12/2024	<	<	<			<	<
2,6-Dichlorophenol	µg/L	9/12/2024	<	<	<			<	<
2-Chlorophenol	µg/L	9/12/2024	<	<	<			<	<
2-Methylphenol	µg/L	9/12/2024	<	<	<			<	<
2-Nitrophenol	µg/L	9/12/2024	<	<	<			<	<
3&4-Methylphenol	µg/L	9/12/2024	<	<	<			<	<
4,6-Dinitro-2-Methylphenol	µg/L	9/12/2024	<	<	<			<	<
4-Chloro-3-Methylphenol	µg/L	9/12/2024	<	<	<			<	<
4-Nitrophenol	µg/L	9/12/2024	<	<	<			<	<
Pentachlorophenol	µg/L	9/12/2024	890	260	260			1.9	1.8
Phenol	µg/L	9/12/2024	<	<	<			<	<

**TABLE 2a**  
**JULY 2024**

**Treatment System Flows**  
**Wauleco, Inc.**  
**Wausau, Wisconsin**

<u>Date</u>	<u>Influent Groundwater Flow Rate <sup>(1)(3)</sup> (gpm)</u>	<u>POTW Discharge Flow Rate <sup>(1)(4)</sup> (gpm)</u>	<u>POTW Totalized Discharge <sup>(3)</sup> (gal)</u>
7/1/2024	20.39	19.25	133850080
7/2/2024	20.52	18.60	133876869
7/3/2024	20.82	17.94	133902706
7/4/2024	20.79	17.04	133927249
7/5/2024	20.83	17.28	133952125
7/6/2024	20.81	19.46	133980144
7/7/2024	21.13	19.13	134007692
7/8/2024	21.33	18.97	134035009
7/9/2024	21.71	18.57	134061745
7/10/2024	21.55	18.76	134088760
7/11/2024	21.23	18.61	134115560
7/12/2024	21.30	18.29	134141904
7/13/2024	20.79	17.83	134167573
7/14/2024	19.71	16.51	134191342
7/15/2024	21.69	16.65	134215314
7/16/2024	21.85	16.61	134239235
7/17/2024	22.30	16.38	134262826
7/18/2024	22.19	17.06	134287397
7/19/2024	22.37	17.23	134312202
7/20/2024	24.83	19.39	134340117
7/21/2024	25.83	19.65	134368419
7/22/2024	25.62	19.71	134396802
7/23/2024	25.61	19.71	134425188
7/24/2024	25.72	19.86	134453784
7/25/2024	26.85	20.28	134482981
7/26/2024	27.25	20.47	134512462
7/27/2024	28.46	21.38	134543248
7/28/2024	29.29	21.58	134574320
7/29/2024	29.03	21.54	134605331
7/30/2024	29.11	21.18	134635837
7/31/2024	27.83	20.63	134665540
Average For The Month	23.51	18.89	
Total <sup>(2)</sup> :			843,178

Footnotes:

- <sup>(1)</sup> 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.
- <sup>(2)</sup> 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.
- <sup>(3)</sup> Totalizers were reset to 0 on August 23, 2012 during the system shutdown for maintenance.
- <sup>(4)</sup> A new effluent meter was installed in April, 2017 during the system shutdown for maintenance.

**TABLE 2b**  
**AUGUST 2024**

**Treatment System Flows**  
**Wauleco, Inc.**  
**Wausau, Wisconsin**

<u>Date</u>	<u>Influent Groundwater Flow Rate <sup>(1) (3)</sup> (gpm)</u>	<u>POTW Discharge Flow Rate <sup>(1) (4)</sup> (gpm)</u>	<u>POTW Totalized Discharge <sup>(3)</sup> (gal)</u>
8/1/2024	27.51	20.10	134694484
8/2/2024	27.11	19.75	134722917
8/3/2024	27.00	20.12	134751889
8/4/2024	27.12	19.95	134780624
8/5/2024	27.16	20.08	134809535
8/6/2024	27.18	19.93	134838236
8/7/2024	26.95	19.70	134866610
8/8/2024	26.90	20.38	134895955
8/9/2024	27.02	20.34	134925246
8/10/2024	27.06	20.12	134954222
8/11/2024	27.17	20.10	134983172
8/12/2024	27.21	20.12	135012147
8/13/2024	27.00	20.91	135042259
8/14/2024	26.47	21.12	135072670
8/15/2024	26.29	21.09	135103039
8/16/2024	26.11	20.49	135132542
8/17/2024	25.85	20.70	135162347
8/18/2024	25.98	20.29	135191562
8/19/2024	25.46	20.08	135220472
8/20/2024	25.04	19.94	135249179
8/21/2024	25.26	19.83	135277728
8/22/2024	24.96	19.91	135306399
8/23/2024	24.74	19.79	135334894
8/24/2024	24.40	19.68	135363235
8/25/2024	24.10	19.76	135391686
8/26/2024	24.03	19.45	135419701
8/27/2024	24.07	18.95	135446994
8/28/2024	24.18	19.21	135474652
8/29/2024	24.17	19.31	135502457
8/30/2024	24.03	19.24	135530158
8/31/2024	25.99	20.46	135559616
Average For The Month	25.92	20.03	
Total <sup>(2)</sup> :			894,076

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 2024**

**Treatment System Flows  
Wauleco, Inc.  
Wausau, Wisconsin**

Date	Influent Groundwater Flow Rate <sup>(1)(3)</sup> (gpm)	POTW Discharge Flow Rate <sup>(1)(4)(5)</sup> (gpm)	POTW Totalized Discharge <sup>(3)</sup> (gal)
9/1/2024	26.91	21.38	135590400
9/2/2024	26.87	21.08	135620757
9/3/2024	26.37	21.02	135651020
9/4/2024	25.91	20.52	135680567
9/5/2024	25.58	20.21	135709665
9/6/2024	25.43	20.30	135738892
9/7/2024	24.66	20.00	135767691
9/8/2024	23.92	19.62	135795950
9/9/2024	23.97	19.63	135824223
9/10/2024	25.44	20.95	135854390
9/11/2024	26.38	21.52	135885379
9/12/2024	26.65	21.56	135916422
9/13/2024	26.66	21.38	135947214
9/14/2024	26.92	21.30	135977883
9/15/2024	27.14	21.35	136008630
9/16/2024	27.23	20.83	136038632
9/17/2024	25.91	21.12	136069044
9/18/2024	27.03	21.66	136100228
9/19/2024	27.41	21.98	136131883
9/20/2024	27.86	22.02	136163597
9/21/2024	27.71	22.08	136195388
9/22/2024	27.34	21.53	136226392
9/23/2024	27.22	21.39	136257190
9/24/2024	27.20	21.22	136287745
9/25/2024	27.28	21.49	136318686
9/26/2024	27.23	21.65	136349861
9/27/2024	26.16	21.10	136380238
9/28/2024	26.83	21.84	136411684
9/29/2024	27.08	22.26	136443733
9/30/2024	25.79	20.98	136473945
Average For The Month	26.47	21.17	
Total <sup>(2)</sup> :			914,329

**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>July 01, 2024 (ft msl)</u>	<u>August, 2024</u>	<u>September, 2024</u>
PW01	1165.15	----	----
PW02	Abandoned	----	----
PW03	1164.98	----	----
PW3S	1165.13	----	----
PW04	1164.9	----	----
PW05	1164.76	----	----
PW06	1164.55	----	----
PW07	1164.54	----	----
PW08	1165.29	----	----
PW09I	----	----	----
PW09O	1164.88	----	----
PW10	1165.11	----	----
PW11	1164.1	----	----
PW12	1164.9	----	----
PW13	1165.04	----	----
PW14	1165.53	----	----
PW15	1165.54	----	----
PW16	1162.71	----	----
PW17	1164.35	----	----
PW18	1165.14	----	----
PW19	1164.92	----	----
PW20	1164.044	----	----
PW21	1164.85	----	----
PW22	1164.69	----	----
PW23	1164.66	----	----
PW24	1163.24	----	----
PW25	1164.32	----	----
PW26	1162.20	----	----
PW27	1162.94	----	----
PW28	1164.8	----	----
PW29	1164.87	----	----
P01	1164.89	----	----
OW01	1166.07	----	----
W01A	Abandoned	----	----
W01B	Abandoned	----	----
W02	1164.55	----	----
W03A	1164.7	----	----
W03B	1163.37	----	----
W04A	1164.59	----	----
W04B	1164.59	----	----
W05	1164.76	----	----
W06R	1165.16	----	----
W07	1165.16	----	----
W08	1175.69	----	----
W09	1163.33	----	----
W10A	1162.12	----	----
W10B	1162.02	----	----
W11	1161.85	----	----
W12	1161.25	----	----
W13	1163.25	----	----
W14	1161.37	----	----
W16	1163.49	----	----
W17	1165.17	----	----
W18	1161.65	----	----
W19	Abandoned	----	----

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

<u>Well</u>	<u>July 01, 2024 (ft msl)</u>	<u>August, 2024</u>	<u>September, 2024</u>
W21	1161.34	----	----
W22	1164.12	----	----
W23	1161.55	----	----
W24A	1161.48	----	----
W25	1165.24	----	----
W26/W26R	1162.17	----	----
W27	1163.1	----	----
W28	1161.64	----	----
W29/W29R	1161.54	----	----
W30	1164.86	----	----
W31	1161.13	----	----
W32	1161.13	----	----
W33	1164.49	----	----
W34	1164.53	----	----
W35	1164.95	----	----
W36	1165.14	----	----
W39	Abandoned	----	----
W40/W40R	1163.75	----	----
W41	1164.14	----	----
W42	1163.78	----	----
W44	1164.82	----	----
W45	1164.97	----	----
W46	1164.74	----	----
W47	1164.13	----	----
W48	1164.88	----	----
W49	1165.64	----	----
W66	1164.94	----	----
W67	1164.91	----	----
W68A	1165.05	----	----
W68B	1164.83	----	----
W69	1164.82	----	----
W70B	Abandoned	----	----
River	----	----	----
IW01	1164.98	----	----
IW01A	1164.88	----	----
FP01	1163.70	----	----
FP02	1163.77	----	----
FP03	1163.08	----	----
FP04	1163.99	----	----
3M Basin	Water in both Basins	----	----
DFOWM 5	1164.3	----	----
DFOWM 9	Abandoned	----	----
DFOWM 10A	Abandoned	----	----
DFOWM 11	1162.85	----	----
DFOWM 12	1164.29	----	----
W71	1166.68	----	----
W72	1165.49	----	----
W73	1164.53	----	----
W74	1164.01	----	----

**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	July 01, 2024 (ft)	August, 2024	September, 2024
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	0.23	----	----
PW17	0.00	----	----
PW18	0.00	----	----
PW19	0.00	----	----
PW20	0.38	----	----
PW21	0.00	----	----
PW22	0.00	----	----
PW23	0.00	----	----
PW24	0.00	----	----
PW25	0.00	----	----
PW26	0.02	----	----
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	1.86	----	----
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

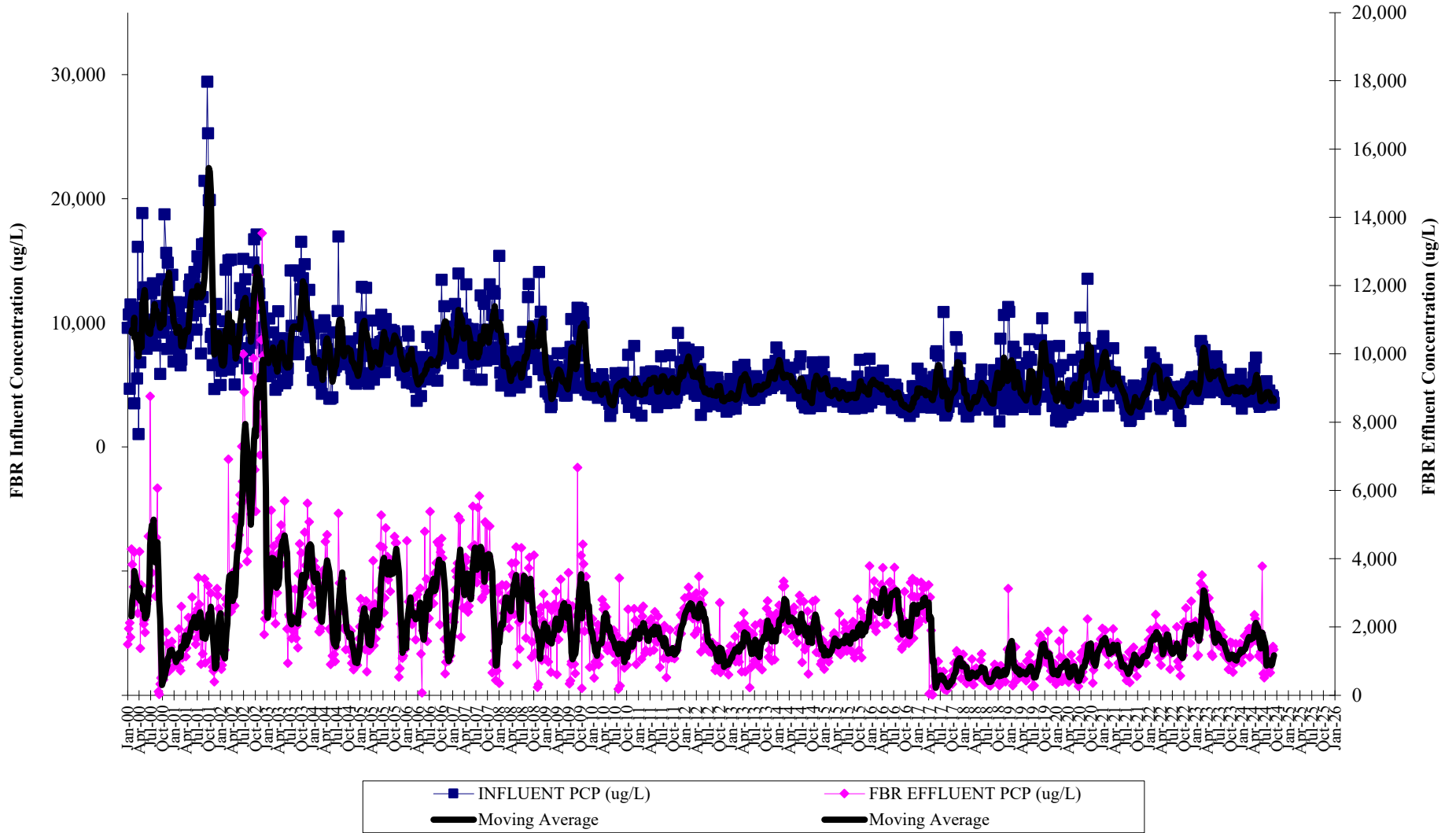
Well	July 01, 2024 (ft)	August, 2024	September, 2024
W18	0.00	----	----
W19	Abandoned	----	----
W21	0.00	----	----
W22	0.00	----	----
W23	0.00	----	----
W24A	0.00	----	----
W25	0.00	----	----
W26/W26R	0.00	----	----
W27	0.00	----	----
W28	0.00	----	----
W29/W29R	0.00	----	----
W30	0.00	----	----
W31	0.00	----	----
W32	0.00	----	----
W33	0.00	----	----
W34	0.00	----	----
W35	0.14	----	----
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

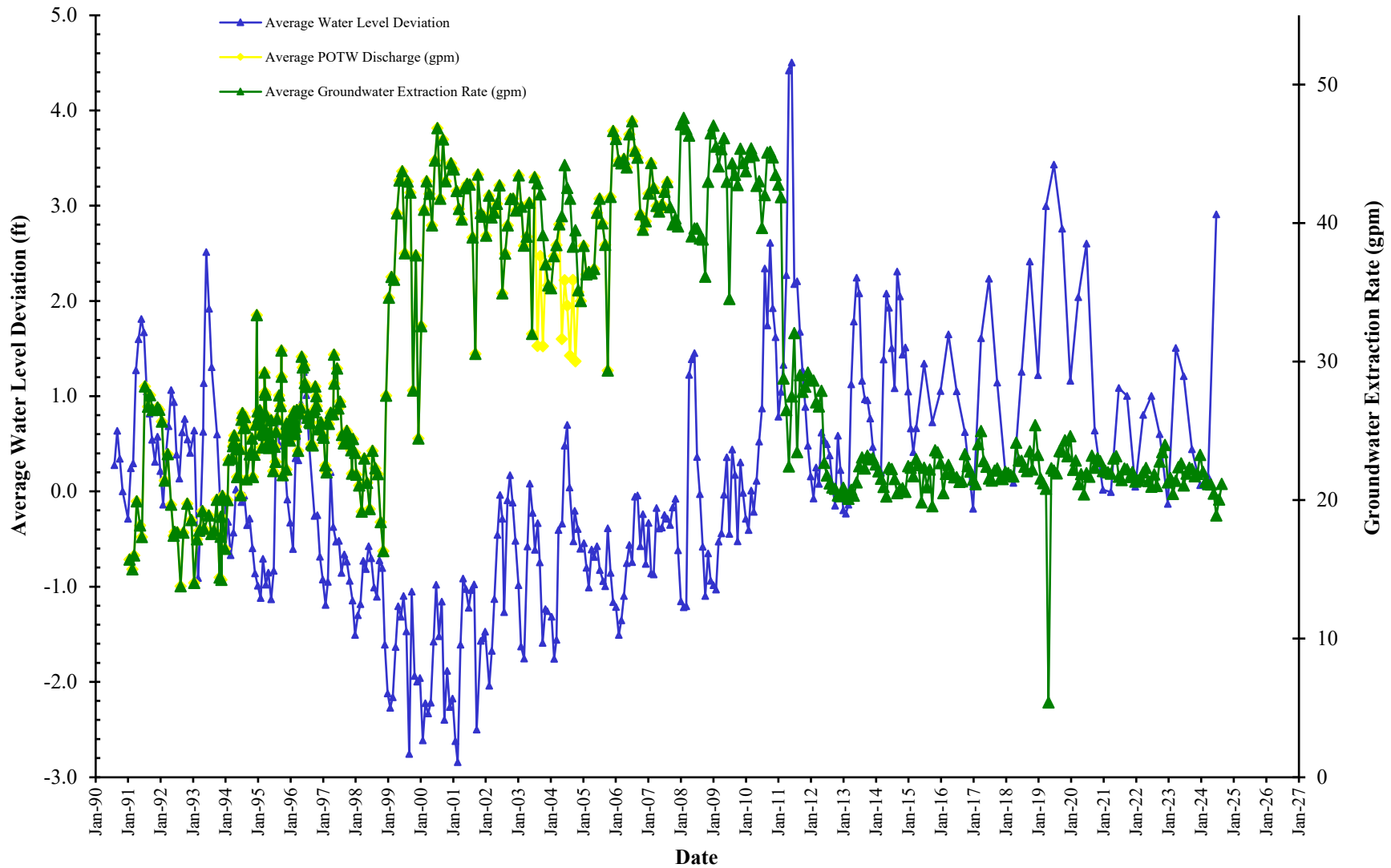


**FIGURE 1**  
**FBR Influent and Effluent PCP Concentrations**  
**Wauleco, Inc.**  
**Wausau, WI**



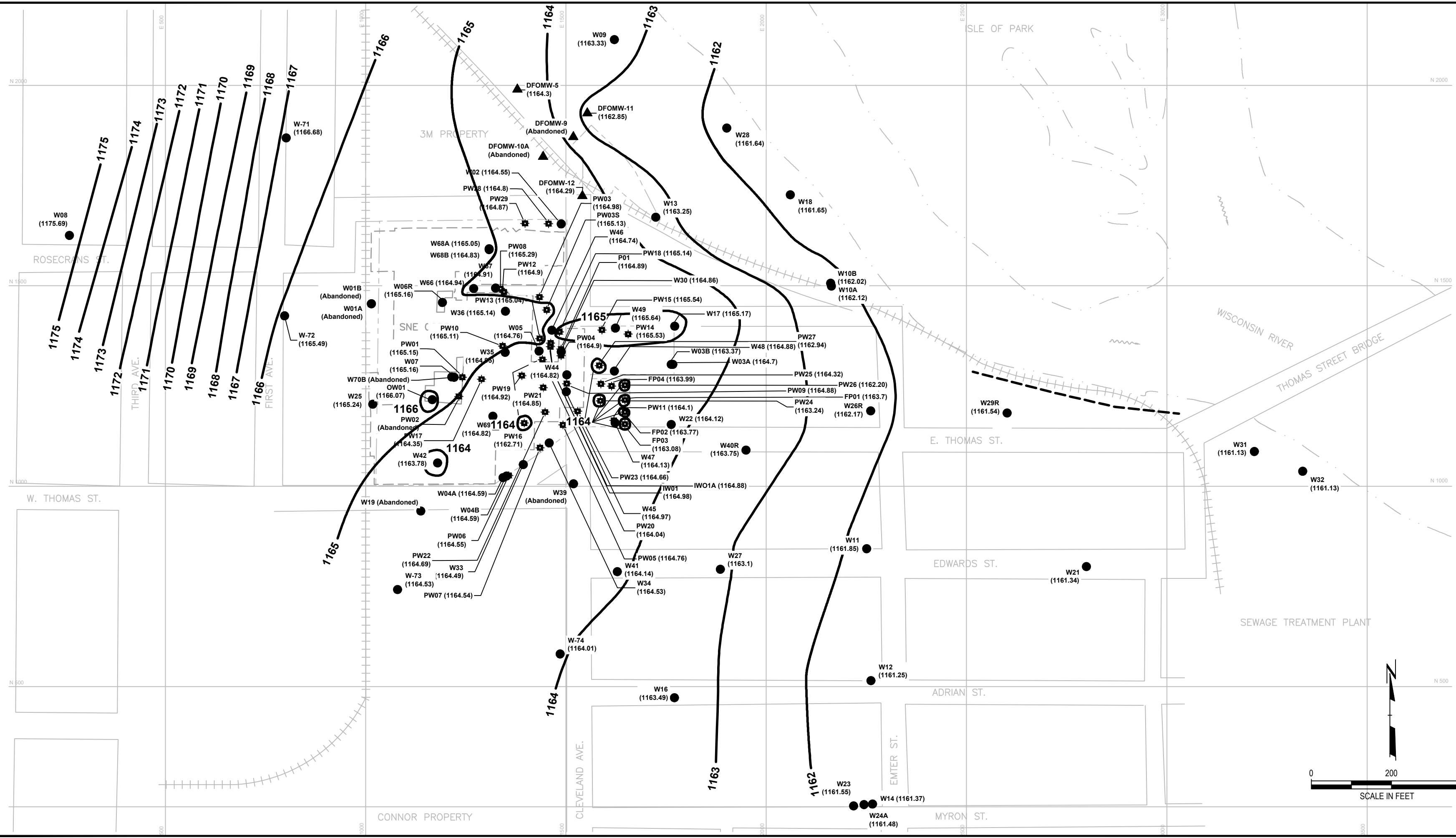
**FIGURE 2**

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



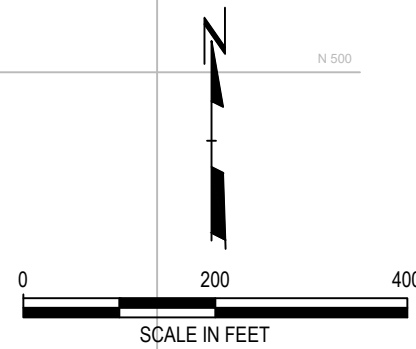
**Note:** The Average Groundwater Extraction Rate is a monthly average of the flow into the treatment system. The monthly average POTW discharge is less than the total extraction rate during the PPT pilot test due to the injection of treated water into IW01.

1:04 - USER ENAMEL - ATTACHED WELLS - SHOWN - JULY 2024 WIT DATA - ATTACHED BASES -  
 DRAWING NAME: J:\Wauleco\189597 - Annual 02/24/01/31 189597.0012.04.WT - JULY 24.dwg -- PLOT DATE: August 05, 2024 - 12:47PM -- LAYOUT: WATER TABLE MAP (JULY 1, 2024)  
 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, 2024. ON THIS DATE, THE PUMPING RATE OF THE GROUNDWATER EXTRACTION SYSTEM WAS APPROXIMATELY 19.3 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.



<b>PROJECT:</b>		<b>WAULECO, INC.</b>	
<b>ANNUAL GROUNDWATER MONITORING REPORT</b>		<b>WAUSAU, WISCONSIN</b>	
<b>TITLE:</b>			
<b>WATER TABLE MAP</b>			
<b>(JULY 1 2024)</b>			
DRAWN BY:	T.FIEBRANZ	PROJ NO.:	189597.0012
CHECKED BY:	T.DUSHEK	<b>DRAWING 1</b>	
APPROVED BY:	S.SELLWOOD		
DATE:	JULY 2024		
		999 Fourier Drive Suite 101 Madison, WI 53717 Phone: 608.826.3600	
FILE NO.:		189597.0012.04.WT JULY 24.dwg	