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October 11, 2023

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

Subject: 2023 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 2023 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

Bruce Iverson
Project Manager

Attachments: 2023 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)
Steve Sellwood – TRC (1 copy)

Wauleco, Inc. - Wausau, Wisconsin
Quarterly Report
Submitted October 2023

Summary of 2023 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 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 2.74 µg/L in July, 1.52 µg/L in August, and 7.20. 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 13, <3.0. µg/L on August 16, and <3.0 µg/L on September 14, 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 3,861 µg/L to 6,442 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 2023	75	64	65
August 2023	74	65	66
September 2023	74	66	71

- The dissolved oxygen concentration in the influent to the FBR averaged 2.9 mg/L in July, 3.3 mg/L in August, and 3.4 mg/L in September 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 <0.020 µg/L on July 13, <0.020 µg/L on August 16, and <0.020 µg/L on September 14, which are below the permit discharge limit of 1.6 µg/L. The mass loading for

mercury in July was calculated using half the detection limit of 0.01 µg/L, at 0.00000253 lb/ 24 hours, for August was calculated at 0.00000263 lb/24 hours, and for September was calculated at 0.00000268 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 21.06 gpm for July, 21.91 gpm for August, and 22.33 gpm for September 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 July 2023 are summarized in Table 3. A water table map for the month of July 2023 is included as Drawing 1.

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

In response to a WDNR request regarding monitoring well W40R, the well did not have measurable LNAPL in July 2023. The well was sampled during the normal semi-annual July round, and had a PCP concentration of 4,700 ug/L. The tabulated results of the monitoring well data for the January and July 2023 events (including W40R) will be reported in the 2023 Annual Groundwater Monitoring Report in 2024.

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 3, 2023

TABLE 1a
JULY 2023

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

Parameter	UNIT	DATE	FBR Influent	FBR Effluent	FFR Effluent	Bag Filter Effluent	Filters1+2 Effluent	System Effluent	System Eff Dup
Biological Oxygen Demand	mg/L	7/13/2023	7.9	2.5				<	
Chemical Oxygen Demand	mg/L	7/13/2023	40	23				<	
Chloride	mg/L	7/13/2023	350	350				370	
Dissolved Oxygen	mg/L	7/7/2023	2.8	1.2	6.1				
	mg/L	7/13/2023	3	1.2	6.2				
	mg/L	7/20/2023	2.9	1	6.2				
	mg/L	7/27/2023	3	1.3	6				
Nitrogen, Ammonia	mg/L	7/7/2023	0.4	0.2	0.2				
	mg/L	7/13/2023	0.5	0.2	0.2				
	mg/L	7/20/2023	0.4	0.3	0.3				
	mg/L	7/27/2023	0.4	0.3	0.3				
Nitrogen, Nitrate	mg/L	7/7/2023	<	<	<				
	mg/L	7/13/2023	<	<	<				
	mg/L	7/20/2023	<	<	<				
	mg/L	7/27/2023	<	<	<				
Nitrogen, Nitrate + Nitrite	mg/L	7/13/2023	<	<				<	
Nitrogen, Total Kjeldahl	mg/L	7/13/2023	<	<				<	
Pentachlorophenol-Screen	µg/L	7/1/2023						4	
	µg/L	7/2/2023						4	
	µg/L	7/3/2023						4	
	µg/L	7/4/2023						3	
	µg/L	7/5/2023						3	
	µg/L	7/6/2023						3	
	µg/L	7/7/2023	6442	1602	1370			2	
	µg/L	7/8/2023						4	
	µg/L	7/9/2023						4	
	µg/L	7/10/2023						4	
	µg/L	7/11/2023						3	
	µg/L	7/12/2023						1	
	µg/L	7/13/2023	5823	1636	1343		19	1	
	µg/L	7/14/2023						3	
	µg/L	7/15/2023						3	
	µg/L	7/16/2023						3	
	µg/L	7/17/2023						3	
	µg/L	7/18/2023						2	
	µg/L	7/19/2023						2	
	µg/L	7/20/2023	5274	1449	1543			3	
	µg/L	7/21/2023						3	
	µg/L	7/22/2023						3	
	µg/L	7/23/2023						3	
	µg/L	7/24/2023						3	
	µg/L	7/25/2023						2	
	µg/L	7/26/2023						2	
	µg/L	7/27/2023	5952	1489	1480			2	
	µg/L	7/28/2023						2	

TABLE 1a
JULY 2023

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

Parameter	UNIT	DATE	FBR Influent	FBR Effluent	FFR Effluent	Bag Filter Effluent	Filters1+2 Effluent	System Effluent	System Eff Dup
Pentachlorophenol-Screen	µg/L	7/29/2023						2	
	µg/L	7/30/2023						2	
	µg/L	7/31/2023						2	
pH	S.U.	7/7/2023	6.5	6.5	6.5				
	S.U.	7/13/2023	6.5	6.5	6.5				
	S.U.	7/20/2023	6.5	6.45	6.5				
	S.U.	7/27/2023	6.5	6.5	6.55				
Phosphorus, Ortho	mg/L	7/13/2023	<	<				<	
Phosphorus, Phosphate	mg/L	7/7/2023	0.5	0.1	0.2				
	mg/L	7/13/2023	0.8	0.2	0.2				
	mg/L	7/20/2023	0.8	0.2	0.2				
	mg/L	7/27/2023	0.8	0.2	0.3				
Solids, Total Suspended	mg/L	7/13/2023	20	11				<	
Mercury	µg/L	7/13/2023	0.12					<	
Phenol									
2,3,4,6-Tetrachlorophenol	µg/L	7/13/2023	140	39	33		<	<	<
2,4,5-Trichlorophenol	µg/L	7/13/2023	<	<	<		<	<	<
2,4,6-Trichlorophenol	µg/L	7/13/2023	<	<	<		<	<	<
2,4-Dichlorophenol	µg/L	7/13/2023	<	<	<		<	<	<
2,4-Dimethylphenol	µg/L	7/13/2023	<	<	<		<	<	<
2,4-Dinitrophenol	µg/L	7/13/2023	<	<	<		<	<	<
2,6-Dichlorophenol	µg/L	7/13/2023	<	<	<		<	<	<
2-Chlorophenol	µg/L	7/13/2023	<	<	<		<	<	<
2-Methylphenol	µg/L	7/13/2023	<	<	<		<	<	<
2-Nitrophenol	µg/L	7/13/2023	<	<	<		<	<	<
3&4-Methylphenol	µg/L	7/13/2023	<	<	<		<	<	<
4,6-Dinitro-2-Methylphenol	µg/L	7/13/2023	<	<	<		<	<	<
4-Chloro-3-Methylphenol	µg/L	7/13/2023	<	<	<		<	<	<
4-Nitrophenol	µg/L	7/13/2023	<	<	<		<	<	<
Pentachlorophenol	µg/L	7/13/2023	1900	560	450		<	<	<
Phenol	µg/L	7/13/2023	<	<	<		<	<	<

TABLE 1b
AUGUST 2023

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

Parameter	UNIT	DATE	FBR Influent	FBR Effluent	FFR Effluent	Bag Filter Effluent	Filters1+2 Effluent	System Effluent	System Eff Dup
Biological Oxygen Demand	mg/L	8/16/2023	7.5	2.0				<	
Chemical Oxygen Demand	mg/L	8/16/2023	36	29				<	
Chloride	mg/L	8/16/2023	320	320				330	
Dissolved Oxygen	mg/L	8/3/2023	3.4	1.6	6.6				
	mg/L	8/10/2023	3.4	1.4	6.6				
	mg/L	8/16/2023	3.3	1.3	6.7				
	mg/L	8/24/2023	3.2	1.6	6.6				
	mg/L	8/31/2023	3.4	1.5	6.9				
Nitrogen, Ammonia	mg/L	8/3/2023	0.4	0.2	0.2				
	mg/L	8/10/2023	0.4	0.3	0.3				
	mg/L	8/16/2023	0.4	0.2	0.2				
	mg/L	8/24/2023	0.4	0.3	0.3				
	mg/L	8/31/2023	0.4	0.3	0.2				
Nitrogen, Nitrate	mg/L	8/3/2023	<	<	<				
	mg/L	8/10/2023	<	<	<				
	mg/L	8/16/2023	<	<	<				
	mg/L	8/24/2023	<	<	<				
	mg/L	8/31/2023	<	<	<				
Nitrogen, Total Kjeldahl	mg/L	8/16/2023	<	<				<	
Pentachlorophenol-Screen	µg/L	8/1/2023						3	
	µg/L	8/2/2023						2	
	µg/L	8/3/2023	6228	1911	1347			2	
	µg/L	8/4/2023						2	
	µg/L	8/5/2023						1	
	µg/L	8/6/2023						1	
	µg/L	8/7/2023						1	
	µg/L	8/8/2023						1	
	µg/L	8/9/2023						2	
	µg/L	8/10/2023	4537	1404	1341			2	
	µg/L	8/11/2023						2	
	µg/L	8/12/2023						2	
	µg/L	8/13/2023						2	
	µg/L	8/14/2023						2	
	µg/L	8/15/2023						1	
	µg/L	8/16/2023	4693	1407	1239		14	1	
	µg/L	8/17/2023						2	
	µg/L	8/18/2023						2	
	µg/L	8/19/2023						2	
	µg/L	8/20/2023						2	
	µg/L	8/21/2023						2	
	µg/L	8/22/2023						1	
	µg/L	8/23/2023						1	
	µg/L	8/24/2023	5048	1714	1259			1	

TABLE 1b
AUGUST 2023

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

Parameter	UNIT	DATE	FBR Influent	FBR Effluent	FFR Effluent	Bag Filter Effluent	Filters1+2 Effluent	System Effluent	System Eff Dup
Pentachlorophenol-Screen	µg/L	8/25/2023						1	
	µg/L	8/26/2023						1	
	µg/L	8/27/2023						1	
	µg/L	8/28/2023						1	
	µg/L	8/29/2023						1	
	µg/L	8/30/2023						1	
	µg/L	8/31/2023	4421	1195	1123			1	
pH	S.U.	8/3/2023	6.5	6.5	6.5				
	S.U.	8/10/2023	6.55	6.5	6.55				
	S.U.	8/16/2023	6.55	6.5	6.55				
	S.U.	8/24/2023	6.55	6.5	6.55				
	S.U.	8/31/2023	6.55	6.5	6.5				
Phosphorus, Ortho	mg/L	8/16/2023	<	<				<	
Phosphorus, Phosphate	mg/L	8/3/2023	0.7	0.2	0.2				
	mg/L	8/10/2023	0.7	0.2	0.2				
	mg/L	8/16/2023	0.8	0.2	0.2				
	mg/L	8/24/2023	0.8	0.3	0.3				
	mg/L	8/31/2023	0.8	0.3	0.3				
Solids, Total Suspended	mg/L	8/16/2023	23	15				<	
Mercury	µg/L	8/16/2023						<	
Phenol									
2,3,4,6-Tetrachlorophenol	µg/L	8/16/2023	110		24			<	<
2,4,5-Trichlorophenol	µg/L	8/16/2023	<		<			<	<
2,4,6-Trichlorophenol	µg/L	8/16/2023	<		<			<	<
2,4-Dichlorophenol	µg/L	8/16/2023	<		<			<	<
2,4-Dimethylphenol	µg/L	8/16/2023	<		<			<	<
2,4-Dinitrophenol	µg/L	8/16/2023	<		<			<	<
2,6-Dichlorophenol	µg/L	8/16/2023	<		<			<	<
2-Chlorophenol	µg/L	8/16/2023	<		<			<	<
2-Methylphenol	µg/L	8/16/2023	<		<			<	<
2-Nitrophenol	µg/L	8/16/2023	<		<			<	<
3&4-Methylphenol	µg/L	8/16/2023	<		<			<	<
4,6-Dinitro-2-Methylphenol	µg/L	8/16/2023	<		<			<	<
4-Chloro-3-Methylphenol	µg/L	8/16/2023	<		<			<	<
4-Nitrophenol	µg/L	8/16/2023	<		<			<	<
Pentachlorophenol	µg/L	8/16/2023	1400		300			<	<
Phenol	µg/L	8/16/2023	<		<			<	<

TABLE 1c
SEPTEMBER 2023

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

Parameter	UNIT	DATE	FBR Influent	FBR Effluent	FFR Effluent	Bag Filter Effluent	Filters1+2 Effluent	System Effluent	System Eff Dup
Biological Oxygen Demand	mg/L	9/14/2023	7.7	3.6				<	
Chemical Oxygen Demand	mg/L	9/14/2023	39	29				19	
Chloride	mg/L	9/14/2023	270	280				280	
Dissolved Oxygen	mg/L	9/8/2023	3.5	1.3	6.7				
	mg/L	9/14/2023	3.7	1.4	6.8				
	mg/L	9/20/2023	3.6	1.4	7				
	mg/L	9/27/2023	2.8	0.8	5.3				
Nitrogen, Ammonia	mg/L	9/8/2023	0.4	0.1	0.2				
	mg/L	9/14/2023	0.4	0.6	0.3				
	mg/L	9/20/2023	0.5	0.3	0.2				
	mg/L	9/27/2023	0.3	0.3	0.1				
Nitrogen, Nitrate	mg/L	9/8/2023	<	<	<				
	mg/L	9/14/2023	<	<	<				
	mg/L	9/20/2023	<	<	<				
	mg/L	9/27/2023	<	<	<				
Nitrogen, Total Kjeldahl	mg/L	9/14/2023	<	<				<	
Pentachlorophenol-Screen	µg/L	9/1/2023						1	
	µg/L	9/2/2023						1	
	µg/L	9/3/2023						1	
	µg/L	9/4/2023						1	
	µg/L	9/5/2023						1	
	µg/L	9/6/2023						1	
	µg/L	9/7/2023						2	
	µg/L	9/8/2023	4696	1171	989			1	
	µg/L	9/9/2023						2	
	µg/L	9/10/2023						2	
	µg/L	9/11/2023						2	
	µg/L	9/12/2023						2	
	µg/L	9/13/2023						2	
	µg/L	9/14/2023	4388	1204	1060		405	2	
	µg/L	9/15/2023						3	
	µg/L	9/16/2023						2	
	µg/L	9/17/2023						2	
	µg/L	9/18/2023						2	
	µg/L	9/19/2023						1	
	µg/L	9/20/2023	3861	1096	946			1	
	µg/L	9/21/2023						4	
	µg/L	9/22/2023						7	
	µg/L	9/23/2023						30	
	µg/L	9/24/2023						30	
	µg/L	9/25/2023						30	
	µg/L	9/26/2023						37	
	µg/L	9/27/2023	4122	1220	1453			29	
	µg/L	9/28/2023						11	

TABLE 1c
SEPTEMBER 2023

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

Parameter	UNIT	DATE	FBR Influent	FBR Effluent	FFR Effluent	Bag Filter Effluent	Filters1+2 Effluent	System Effluent	System Eff Dup
Pentachlorophenol-Screen	µg/L	9/29/2023						3	
	µg/L	9/30/2023						3	
pH	S.U.	9/8/2023	6.5	6.45	6.5				
	S.U.	9/14/2023	6.65	6.6	6.6				
	S.U.	9/20/2023	6.55	6.55	6.55				
	S.U.	9/27/2023	6.5	6.45	6.45				
Phosphorus, Ortho	mg/L	9/14/2023	<	<				<	
Phosphorus, Phosphate	mg/L	9/8/2023	0.8	0.2	0.2				
	mg/L	9/14/2023	0.6	0.2	0.3				
	mg/L	9/20/2023	0.4	0.2	0.3				
	mg/L	9/27/2023	0.4	0.2	0.2				
Solids, Total Suspended	mg/L	9/14/2023	17	15				<	
Mercury	µg/L	9/14/2023						<	
Phenol									
2,3,4,6-Tetrachlorophenol	µg/L	9/14/2023	120	22	25			<	<
2,4,5-Trichlorophenol	µg/L	9/14/2023	<	<	<			<	<
2,4,6-Trichlorophenol	µg/L	9/14/2023	<	<	<			<	<
2,4-Dichlorophenol	µg/L	9/14/2023	<	<	<			<	<
2,4-Dimethylphenol	µg/L	9/14/2023	<	<	<			<	<
2,4-Dinitrophenol	µg/L	9/14/2023	<	<	<			<	<
2,6-Dichlorophenol	µg/L	9/14/2023	<	<	<			<	<
2-Chlorophenol	µg/L	9/14/2023	<	<	<			<	<
2-Methylphenol	µg/L	9/14/2023	<	<	<			<	<
2-Nitrophenol	µg/L	9/14/2023	<	<	<			<	<
3&4-Methylphenol	µg/L	9/14/2023	<	<	<			<	<
4,6-Dinitro-2-Methylphenol	µg/L	9/14/2023	<	<	<			<	<
4-Chloro-3-Methylphenol	µg/L	9/14/2023	<	<	<			<	<
4-Nitrophenol	µg/L	9/14/2023	<	<	<			<	<
Pentachlorophenol	µg/L	9/14/2023	1600	310	340			<	<
Phenol	µg/L	9/14/2023	<	<	<			<	<

TABLE 2a
JULY 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)
7/1/2023	16.46	21.37	122401332
7/2/2023	16.41	21.34	122432063
7/3/2023	16.36	21.26	122462684
7/4/2023	16.41	21.20	122493219
7/5/2023	16.46	21.18	122523721
7/6/2023	16.47	21.17	122554201
7/7/2023	16.47	21.13	122584632
7/8/2023	15.57	19.89	122613273
7/9/2023	15.71	20.11	122642235
7/10/2023	15.93	20.43	122671657
7/11/2023	17.47	21.59	122702740
7/12/2023	18.02	22.03	122734457
7/13/2023	17.78	21.67	122765660
7/14/2023	17.51	21.58	122796740
7/15/2023	17.49	21.41	122827576
7/16/2023	17.55	21.42	122858415
7/17/2023	17.46	21.31	122889103
7/18/2023	17.17	21.20	122919627
7/19/2023	17.24	21.13	122950049
7/20/2023	16.86	20.93	122980193
7/21/2023	16.55	21.08	123010548
7/22/2023	16.47	20.38	123039893
7/23/2023	16.23	20.49	123069397
7/24/2023	16.41	20.48	123098882
7/25/2023	16.55	20.54	123128454
7/26/2023	16.34	20.47	123157933
7/27/2023	16.28	20.54	123187514
7/28/2023	16.19	20.31	123216754
7/29/2023	17.63	21.72	123248025
7/30/2023	17.67	21.89	123279551
7/31/2023	17.61	21.75	123310865
Average For The Month	16.80	21.06	
Total[2]:			940,299

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 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)
8/1/2023	17.58	21.86	123342346
8/2/2023	17.52	21.80	123373734
8/3/2023	17.39	22.00	123405412
8/4/2023	17.47	21.63	123436556
8/5/2023	17.03	21.42	123467407
8/6/2023	16.99	21.55	123498438
8/7/2023	17.05	21.51	123529412
8/8/2023	19.32	23.11	123562693
8/9/2023	19.82	22.93	123595711
8/10/2023	19.86	22.91	123628697
8/11/2023	19.90	22.81	123661542
8/12/2023	19.83	22.13	123693408
8/13/2023	20.00	22.47	123725764
8/14/2023	19.72	22.41	123758035
8/15/2023	20.08	22.29	123790134
8/16/2023	20.38	22.24	123822164
8/17/2023	20.30	21.45	123853054
8/18/2023	20.28	22.03	123884783
8/19/2023	20.45	21.62	123915919
8/20/2023	21.03	21.98	123947569
8/21/2023	20.94	21.98	123979214
8/22/2023	19.18	21.12	124009631
8/23/2023	18.71	21.32	124040336
8/24/2023	18.74	21.25	124070940
8/25/2023	18.67	21.01	124101190
8/26/2023	18.63	20.95	124131365
8/27/2023	18.77	21.01	124161623
8/28/2023	18.88	20.86	124191662
8/29/2023	21.65	22.38	124223895
8/30/2023	22.05	22.65	124256508
8/31/2023	21.98	22.61	124289073
Average For The Month	19.36	21.91	
Total[2]:			978,208

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 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)
9/1/2023	21.95	22.71	124321777
9/2/2023	22.02	22.63	124354357
9/3/2023	21.90	22.65	124386980
9/4/2023	21.81	22.60	124419521
9/5/2023	21.90	22.58	124452035
9/6/2023	22.25	22.50	124484442
9/7/2023	22.38	22.17	124516360
9/8/2023	22.30	22.17	124548285
9/9/2023	21.73	22.05	124580035
9/10/2023	21.50	21.77	124611380
9/11/2023	21.40	21.67	124642587
9/12/2023	21.28	21.78	124673956
9/13/2023	21.54	21.76	124705289
9/14/2023	21.71	21.78	124736656
9/15/2023	21.96	21.80	124768054
9/16/2023	20.86	21.65	124799236
9/17/2023	20.65	21.51	124830211
9/18/2023	20.69	21.47	124861126
9/19/2023	21.49	21.62	124892265
9/20/2023	21.55	21.58	124923338
9/21/2023	21.43	21.55	124954366
9/22/2023	21.34	21.70	124985619
9/23/2023	21.64	21.82	125017040
9/24/2023	21.56	21.83	125048480
9/25/2023	20.85	22.66	125081116
9/26/2023	20.13	23.33	125114717
9/27/2023	22.27	24.32	125149741
9/28/2023	22.55	24.30	125184729
9/29/2023	22.45	24.10	125219428
9/30/2023	22.47	23.67	125253518
Average For The Month	21.65	22.33	
Total[2]:			964,445

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 03, 2023 (ft msl)	August 2023	September 2023
PW01	1164	-----	-----
PW02	Abandoned	-----	-----
PW03	1163.69	-----	-----
PW3S	1162.98	-----	-----
PW04	1162.8	-----	-----
PW05	1162.81	-----	-----
PW06	1163.2	-----	-----
PW07	1162.92	-----	-----
PW08	1164.15	-----	-----
PW09I	-----	-----	-----
PW09O	1162.86	-----	-----
PW10	1163.07	-----	-----
PW11	1161.51	-----	-----
PW12	1164.1	-----	-----
PW13	1162.89	-----	-----
PW14	1162.09	-----	-----
PW15	1162.22	-----	-----
PW16	1161.07	-----	-----
PW17	1160.49	-----	-----
PW18	1162.82	-----	-----
PW19	1161.81	-----	-----
PW20	1161.548	-----	-----
PW21	1161.72	-----	-----
PW22	1162.87	-----	-----
PW23	1162.77	-----	-----
PW24	1161.2	-----	-----
PW25	1159.55	-----	-----
PW26	1159.45	-----	-----
PW27	1158.87	-----	-----
PW28	1163.85	-----	-----
PW29	1163.97	-----	-----
P01	1162.79	-----	-----
OW01	1165.24	-----	-----
W01A	Abandoned	-----	-----
W01B	Abandoned	-----	-----
W02	1163.56	-----	-----
W03A	1161.83	-----	-----
W03B	1162.11	-----	-----
W04A	1163.25	-----	-----
W04B	1163.18	-----	-----
W05	1162.88	-----	-----
W06R	1164.38	-----	-----
W07	1164.06	-----	-----
W08	1174.51	-----	-----
W09	1162.63	-----	-----
W10A	1160.99	-----	-----
W10B	1161.08	-----	-----
W11	1160.91	-----	-----
W12	1160.55	-----	-----
W13	1161.77	-----	-----
W14	1160.73	-----	-----
W16	1162.17	-----	-----
W17	1162.12	-----	-----
W18	1161.02	-----	-----
W19	Abandoned	-----	-----

TABLE 3 (continued)

Groundwater Elevation Data
Wauleco, Inc.
Wausau, Wisconsin

Well	July 03, 2023 (ft msl)	August 2023	September 2023
W21	1160.75	-----	-----
W22	1161.78	-----	-----
W23	1160.83	-----	-----
W24A	1160.83	-----	-----
W25	1164.45	-----	-----
W26/W26R	1161.05	-----	-----
W27	1161.77	-----	-----
W28	1161.02	-----	-----
W29/W29R	1160.86	-----	-----
W30	1162.76	-----	-----
W31	1160.83	-----	-----
W32	1160.85	-----	-----
W33	1162.98	-----	-----
W34	1162.92	-----	-----
W35	1163.03	-----	-----
W36	1163.6	-----	-----
W39	Abandoned	-----	-----
W40/W40R	1161.81	-----	-----
W41	1162.86	-----	-----
W42	1163.65	-----	-----
W44	1162.76	-----	-----
W45	1163.21	-----	-----
W46	1162.6	-----	-----
W47	1161.57	-----	-----
W48	1161.75	-----	-----
W49	1162.28	-----	-----
W66	1164.15	-----	-----
W67	1164.11	-----	-----
W68A	1164.16	-----	-----
W68B	1164.05	-----	-----
W69	1163.12	-----	-----
W70B	Abandoned	-----	-----
River	-----	-----	-----
IW01	1162.87	-----	-----
IW01A	1162.84	-----	-----
FP01	1160.94	-----	-----
FP02	1161.12	-----	-----
FP03	1160.58	-----	-----
FP04	1160.85	-----	-----
3M Basin	Water in both Basins	-----	-----
DFOWM 5	1163.62	-----	-----
DFOWM 9	Abandoned	-----	-----
DFOWM 10A	Abandoned	-----	-----
DFOWM 11	1161.94	-----	-----
DFOWM 12	1163.42	-----	-----
W71	1166.44	-----	-----
W72	1164.81	-----	-----
W73	1163.48	-----	-----
W74	1162.84	-----	-----

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 03, 2023 (ft)	August 2023	September 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	0.00	-----	-----
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	0.26	-----	-----
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	-----	-----

Table 4 (continued)

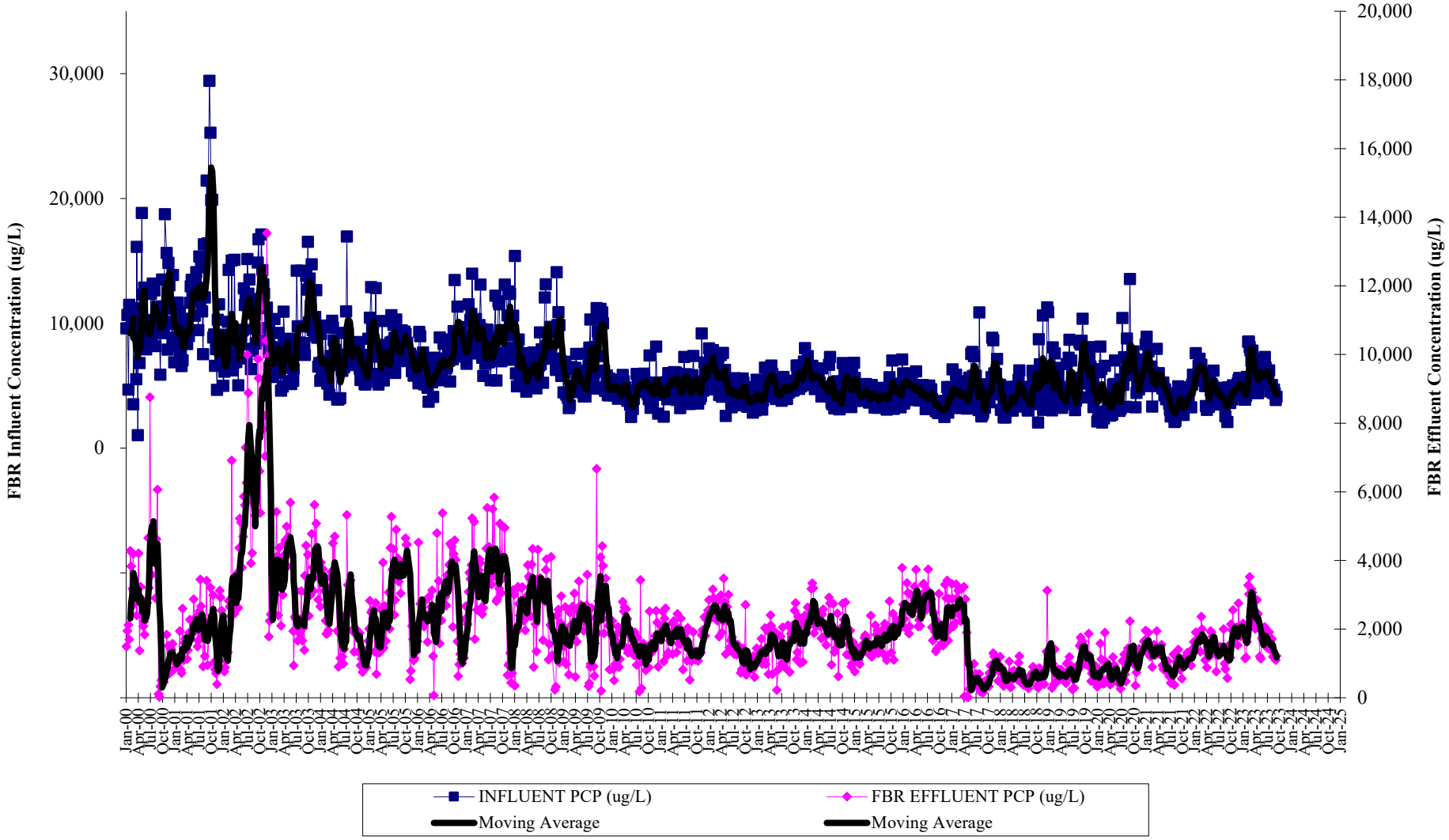
Free Product Measurements
Wauleco, Inc.
Wausau, Wisconsin

Well	July 03, 2023 (ft)	August 2023	September 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	0.17	-----	-----
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

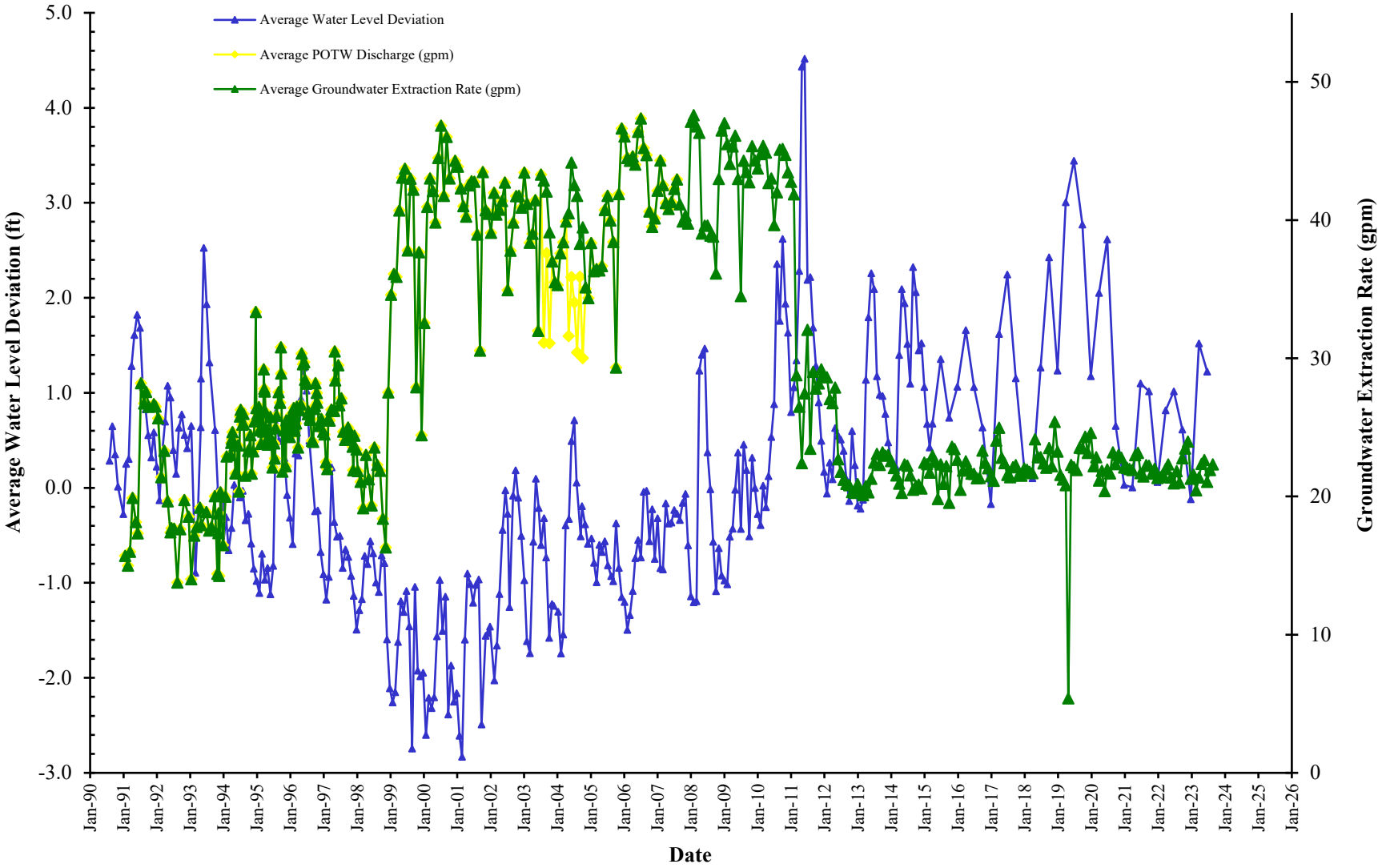
FIGURE 1
FBR Influent and Effluent PCP Concentrations
Wauleco, Inc.
Wausau, WI



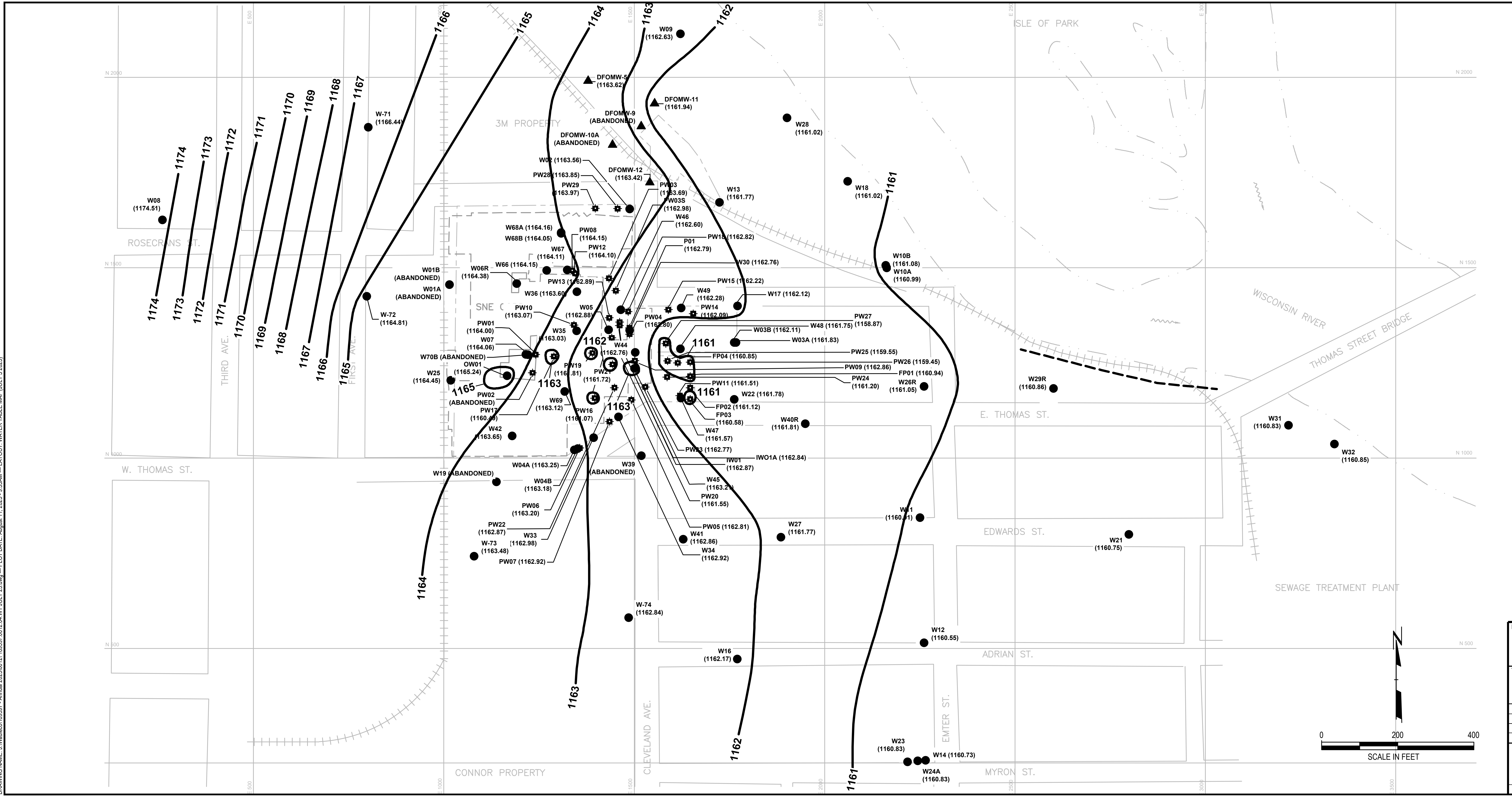
\\madison-vfp\Records\-\WPMSN\PJT2\189597\0012\000001\1895970012PH1-004_F1-F2.xlsx

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.


ISLE OF PARK
3M PROPERTY
ROSECRANS ST.
THIRD AVE.
FIRST AVE.
W. THOMAS ST.
E. THOMAS ST.
EDWARDS ST.
ADRIAN ST.
MYRON ST.
EMTER ST.
CLEVELAND AVE.
CONNOR PROPERTY
WISCONSIN RIVER
THOMAS STREET BRIDGE
SEWAGE TREATMENT PLANT
1174
1173
1172
1171
1170
1169
1168
1167
1166
1165
1164
1163
1162
1161
W08 (1174.51)
W-71 (1166.44)
W-72 (1164.81)
W09 (1162.63)
DFOMW-5 (1163.62)
DFOMW-11 (1161.94)
DFOMW-9 (ABANDONED)
DFOMW-10A (ABANDONED)
DFOMW-12 (1163.42)
W28 (1161.02)
W18 (1161.02)
W13 (1161.77)
W10B (1161.08)
W10A (1160.99)
W30 (1162.76)
W17 (1162.12)
PW27 (1158.87)
W48 (1161.75)
W03B (1162.11)
W03A (1161.83)
PW25 (1159.55)
PW26 (1159.45)
PW09 (1162.86)
FP01 (1160.94)
PW24 (1161.20)
W26R (1161.05)
W22 (1161.78)
FP02 (1161.12)
FP03 (1160.58)
W40R (1161.81)
W47 (1161.57)
PW23 (1162.77)
IWO1A (1162.84)
IW01 (1162.87)
W29R (1160.86)
W31 (1160.83)
W32 (1160.85)
W21 (1160.75)
W27 (1161.77)
PW05 (1162.81)
W41 (1162.86)
W34 (1162.92)
W-74 (1162.84)
W16 (1162.17)
W12 (1160.55)
W23 (1160.83)
W14 (1160.73)
W24A (1160.83)
W01B (ABANDONED)
W01A (ABANDONED)
W25 (1164.45)
OW01 (1165.24)
W70B (ABANDONED)
PW02 (ABANDONED)
W42 (1163.65)
W19 (ABANDONED)
W39 (ABANDONED)
W04A (1163.25)
W04B (1163.18)
PW06 (1163.20)
PW22 (1162.87)
W33 (1162.98)
W-73 (1163.48)
PW07 (1162.92)
W69 (1163.12)
W06R (1164.38)
W66 (1164.15)
W36 (1163.60)
W68A (1164.16)
W68B (1164.05)
PW08 (1164.15)
W67 (1164.11)
PW12 (1164.10)
PW10 (1163.07)
PW01 (1164.00)
W07 (1164.06)
W35 (1163.03)
W05 (1162.88)
W44 (1162.76)
PW11 (1161.51)
FP04 (1160.85)
W49 (1162.28)
PW14 (1162.09)
P01 (1162.79)
W46 (1162.60)
W03S (1162.98)
W02 (1163.56)
PW28 (1163.85)
PW29 (1163.97)
W45
PW20 (1161.55)
SCALE IN FEET
0
200
400

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 3, 2023. ON THIS DATE, THE PUMPING RATE OF THE GROUNDWATER EXTRACTION SYSTEM WAS APPROXIMATELY 21.3 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.

PROJECT:
WAULECO, INC.
ANNUAL GROUNDWATER MONITORING REPORT
WAUSAU, WISCONSIN

TITLE:
WATER TABLE MAP
(JULY 3 2023)

DRAWN BY:	E. ALEXANDER	PROJ NO.:	189597.0012
CHECKED BY:	T. DUSHEK	DRAWING 1	
APPROVED BY:	S. SELLWOOD		
DATE:	AUGUST 2023		

TRC
999 Fourier Drive
Suite 101
Madison, WI 53717
Phone: 608.826.3600

FILE NO.: 189597.0012.04.WT JULY 23.dwg

DRAWING NAME: J:\Wauleco\189597 - Annual 2023\0012\189597.0012.04 WT JULY 23.dwg --- PLOT DATE: August 11, 2023 - 9:35AM --- LAYOUT: WATER TABLE MAP (JULY 3 2023)

Version: 2017-10-21