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Date: September 23, 2022

BRRTS No.: 02-38-580694

Our Ref: 30129347

Subject: GETS Pre-Startup Monitoring Data Package Addendum  
Tyco FTC PFAS, 2700 Industrial Parkway South, Marinette, WI

Dear Ms. Sellwood,

On behalf of Tyco Fire Products LP (Tyco), Arcadis is providing this addendum to the July 15, 2022 data package for Groundwater Extraction and Treatment System (GETS) pre-startup monitoring activities related to the Tyco Fire Technology Center (FTC) per- or polyfluoroalkyl substances (PFAS) site located at 2700 Industrial Parkway South in Marinette, Wisconsin (Site).

This addendum has been prepared in response to comments received from Wisconsin Department of Natural Resources (WDNR) on August 24, 2022 and is being submitted in accordance with NR 724.13(3) and NR 724.17(3m).

This addendum includes the following components:

- Monitoring well construction and development forms for MW-EX-2, MW-EX-3, MW-EX-4, and MW-EX-5
- A summary of the Ditch B staff gauge/benchmark measurements
- Transducer data for the Ditch B Treatment System
- Revised Table 4 (addition of the water level measurement collected from PZ-1S on April 5, 2022)
- Revised Figures 5 and 6

In addition, responses to WDNR comments to the July 15, 2022 data package are presented below.

- WDNR Comment: Verify if MW-EX-2 has a 10-foot well screen, and if so, provide a description as to why.

*MW-EX-2 has a 10-foot screen. Immediately following construction of Extraction Well 2 (EX-2), an unscheduled, preliminary pumping test was conducted at the extraction well. To support this preliminary pumping test, MW-EX-2 was installed using supplies (which included a 10-foot screen) the driller had available on-site. MW-EX-2 was intended to be a temporary installation and the plan was to abandon the well after completing the pump test. Once installed, it was decided to leave MW-EX-2 in place for potential future data collection needs.*

- WDNR Comment: The continuous pressure transducer data for Ditch B in Figure 4 is incomplete.

*All transducer data collected through April 2022 were included within the original submittal July 15, 2022 and are provided in the attached addendum. No transducer data were collected at locations U10 and M09 during the winter months. The stilling wells and transducers were removed from the ditch on November 21, 2021 to prevent damage as a result of ice accumulation. In anticipation of GETS startup, the stilling wells were reinstalled and the transducers were placed back into the stilling*

wells at locations U10 and M09 in May 2022. Data collected after reinstallation will be provided in forthcoming startup phase reports.

For location M09, there are no transducer data from July 5 through July 14, 2021, as the transducer was knocked down due to debris in the ditch. The stilling well and transducer were reinstalled more securely on July 14 and data collection resumed.

- WDNR Comment: Include a statement on how the transducer data are correlated to stage/elevation.

*The following statement has been added to the hydrograph figures: The data collected from each transducer provide the water depth at the transducer collected hourly. These data are then compared to manual measurements taken from the surveyed reference point and converted to a water level elevation.*

- WDNR Comment: Include the stage/elevation measured at the Ditch Treatment System where flow rate is determined.

*Transducer data from the Ditch B treatment system have been added to Figure 4. Note that transducer data at the Ditch B treatment system are provided beginning on July 1, 2021. The data prior to this date may be affected by the treatment system intake depressing the surface water elevation and thus may be biased low. The transducer location was moved upstream in July and then further upstream in October to minimize the impacts of the treatment system intake on stage/elevation measurements. Because of this uncertainty, the water elevations from SG-L09 prior to July 1, 2021 are not used to evaluate natural water elevation.*

- WDNR Comment: Evaluate and provide explanation for the cause and significance of the discrepancy in PFAS concentrations in groundwater collected from permanent monitoring well PZ-55-64 and groundwater collected via vertical aquifer profiling (VAP) in the same location from approximately the same interval.

*The higher PFAS concentrations detected in the August 2021 VAP sample [SB-PZ-55 (59-64 ft)] are interpreted to be representative of the highest concentrations present in groundwater in the area of EX-8, which is screened across this same interval. The result is consistent with the highest concentrations observed both upgradient (e.g., PZ-3) and down-gradient (e.g., PZ-52-41). VAP and monitoring well sampling results throughout the plume also show that these zones of highest concentrations occupy a narrow portion of the aquifer. High concentrations are not broadly dispersed throughout the saturated thickness of the aquifer. Zones with vastly different concentrations may be present in close proximity, as was shown at SB-PZ-55 where the PFOA in the 50-55 ft sample was 3.1 ng/L, but 51,000 in the 59-64 ft sample.*

*These observations indicate that flow through the aquifer conforms to a complex network of interconnected pathways, likely following higher-permeability deposits. Under these conditions, changes in the hydraulic gradient may cause flow to shift from one pathway to another. At plume-scale these changes likely have little effect on mass transport. However, individual wells may have dramatic changes in concentrations, as the high-concentration pathways continually shift through seasonal changes in the gradient. In that context, the difference between the high concentrations in the August 2021 VAP sample [SB-PZ-55 (59-64 ft)] and the much lower concentrations detected in PZ-55-64 in April 2022 is consistent with aquifer heterogeneity, recognizing that it has both spatial and temporal components.*

Alyssa Sellwood, P.E.  
WDNR  
September 23, 2022

*When the GETS becomes operational, seasonal changes and the complex geometry of transport pathways will no longer be relevant. The system is designed to extract enough groundwater to fully capture all transport pathways within its operating area. Once the GETS is operational, the concentrations at observation wells like PZ-55-64 will not be relevant for evaluating nature and extent of PFAS concentrations, because the pathways to those wells will be strongly biased by pumping at the adjacent extraction wells. The intended role of PZ-55-64 is nearfield water-level monitoring of EX-8, which is located 15 feet away. The primary data to be monitored to understand how concentrations near EX-8 are changing will be the concentration and mass-removal trends from EX-8 as it operates. These data will be collected as a routine component of the GETS monitoring program. No additional monitoring to evaluate concentration trends at PZ-55-64 is planned.*

- WDNR Comment: The DNR recommends collecting a PFAS sample at or around the start of pumping from each extraction well.

*All extraction wells were sampled for PFAS on September 16, 2022. Validated sample results will be provided to WDNR in a report during the startup phase of monitoring.*

Please do not hesitate to call us if you have any questions.

Sincerely,  
Arcadis U.S., Inc.



Matthew Coleman  
Project Communications Manager

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Direct Line: (315) 671-9641

Enclosures:

Tables

- 4 GETS Baseline Groundwater Elevation Data (Revised)
- 9 Benchmark/Staff Gauge Water Level Measurements (New)

Figures

- 4a Transducer Hydrographs and Ditch B Flow Rates (Revised)
- 4b Transducer Hydrographs and Ditch B Flow Rates (New)
- 5 Potentiometric Surface In Shallow Sand – April 5, 2022 (Revised)
- 6 Potentiometric Surface In Deep Sand – April 5, 2022 (Revised)

Attachments

- 1 Soil Boring Logs, Well Construction Logs, and Well Development Logs (EX-MW2 through EX-MW5)

# Tables

**Table 4**  
**GETS Baseline Groundwater Elevation Data**  
**GETS Pre-Startup Monitoring Data Package**  
**Tyco Fire Technology Center, Marinette, Wisconsin**



Well ID	Type	Year Installed	Zone Screened	Northing	Easting	Depth to Top of Screen (feet bgs)	Depth to Bottom of Screen (feet bgs)	Top of Casing Elevation (feet amsl)	Surface Finish	7/12/2021			4/5/2022		
										Depth to Water	Total Depth	Groundwater Elevation	Depth to Water	Total Depth	Groundwater Elevation
<b>Locations on Tyco FTC</b>															
PZ-1D	MW	2010	BR	463765.45	2579848.55	63.5	68.5	606.23	Stickup	11.09	71.05	595.14	10.62	70.63	595.61
PZ-3	MW	2010	OB	462779.96	2579903.6	38	43	609.20	Stickup	5.97	44.61	603.23	8.81	44.85	600.39
PZ-4S	MW	2010	OB	462494.3	2578513	36	41	607.89*	Stickup	--	--	--	2.45	43.59	605.44
PZ-4D	MW	2010	BR	462514.61	2578515.193	68.5	73.5	607.86	Stickup	--	--	--	3.61	75.85	604.25
PZ-9	WL	NA	OB	463351.67	2578076.42	38	43	611.16	Stickup	6.68	45.03	604.48	5.6	45.31	605.56
PZ-14S	WL	NA	OB	462736.66	2577956.87	4	19	610.77	Stickup	5.12	21.53	605.65	4.16	21.76	606.61
PZ-14D	WL	NA	OB	462739.56	2577964.75	25	35	611.15	Stickup	5.72	36.87	605.43	4.91	36.91	606.24
PZ-15S	MW	NA	OB	463910.973	2579668.704	4	19	608.15	Stickup	9.05	22.05	599.10	8.99	22.21	599.16
PZ-15D	MW	NA	OB	463914.248	2579671.347	22	32	608.17	Stickup	9.28	33.70	598.89	9.22	33.84	598.95
PZ-16S	MW	NA	OB	463910.117	2579069.564	4	19	609.30	Stickup	7.65	21.42	601.65	7.78	21.7	601.52
PZ-16D	MW	NA	OB	463913.751	2579072.133	28	38	608.98	Stickup	7.79	39.16	601.19	7.61	39.03	601.37
PZ-17S	WL	NA	OB	463877.277	2579286.325	4	19	609.51	Stickup	8.65	19.54	600.86	8.71	19.78	600.80
PZ-17D	WL	NA	OB	463881.165	2579293.658	23	33	609.51	Stickup	8.60	33.29	600.91	8.72	34.75	600.79
PZ-18D	MW	NA	OB	462752.51	2579763.36	37	47	609.61	Stickup	8.85	48.30	600.76	8.63	48.53	600.98
PZ-22S	MW	NA	OB	462770.343	2579826.404	10	20	609.70	Stickup	8.79	23.90	600.91	8.65	24.23	601.05
PZ-22D	MW	NA	OB	462767.216	2579825.141	31	41	609.58	Stickup	8.68	43.10	600.90	8.48	43.06	601.10
PZ-45-31	WL	2020	OB	463858.365	2579412.748	20.8	30.8	607.90	Stickup	7.93	32.74	599.97	7.86	32.95	600.04
PZ-47-40	MW	2021	OB	463488.074	2578741.018	35	40	611.04	Stickup	--	--	--	7.69	43.01	603.35
MW-EX-2	WL	2021	OB	463835.844	2579741.381	19.5	29.5	606.76	Stickup	NI	NI	NI	7.92	32.23	598.84
<b>Locations on Tyco (Former Barley)</b>															
MW-EX-3	WL	2021	OB	464475.534	2580784.101	22	27	595.16	Stickup	NI	NI	NI	2.98	25.19	592.18
MW-EX-4	WL	2021	OB	464231.114	2581108.813	22	27	595.51	Stickup	NI	NI	NI	3.87	32.85	591.64
MW-EX-5	WL	2021	OB	463912.681	2581502.253	45	50	594.6	Stickup	NI	NI	NI	3.61	52.66	590.99
<b>Location on School Property</b>															
PZ-23	MW	2017	OB	464564.748	2580218.11	35	40	597.60	Flush	2.83	40.20	594.77	2.6	39.6	595.00
<b>Location in City of Marinette Rights-of-Way</b>															
PZ-24-17	MW	2019	OB	461565.486	2580738.831	7	17	604.84	Flush	5.56	16.68	599.28	5.22	16.33	599.62
PZ-24-47	MW	2019	OB	461570.226	2580738.859	37	47	604.73	Flush	5.60	47.35	599.13	5.12	46.91	599.61
PZ-25-17	MW	2019	OB	465263.641	2579969.294	7	17	598.30	Flush	6.13	16.73	592.17	5.49	16.73	592.81
PZ-26-11	WL	2019	OB	466609.378	2579203.396	6	11	597.77	Flush	5.10	10.99	592.67	4.04	11.01	593.73
PZ-26-49	WL	2020	BR	466616.848	2579219.121	39	49	596.29	Flush	1.64	49.35	594.65	2.05	48.52	594.24
PZ-29-17	MW	2019	OB	465386.375	2581734.145	7	17	593.62	Flush	4.48	17.09	589.14	2.36	17.08	591.26
PZ-29-43	MW	2019	OB	465386.278	2581729.487	38	43	593.52	Flush	4.23	43.41	589.29	3.49	42.52	590.03
PZ-29-68	MW	2020	BR	465386.378	2581721.414	58	68	593.46	Flush	4.24	68.98	589.22	3.38	67.63	590.08
PZ-30-12	MW	2019	OB	464126.008	2582520.183	7	12	594.32	Flush	4.11	12.12	590.21	3.19	12.12	591.13
PZ-30-45	MW	2019	OB	464123.407	2582525.016	35	45	594.22	Flush	4.93	44.66	589.29	4.26	43.75	589.96
PZ-30-59	MW	2019	OB	464121.177	2582529.077	54	59	594.15	Flush	5.15	59.99	589.00	4.28	58.71	589.87

Notes on Page 2.

**Table 4**  
**GETS Baseline Groundwater Elevation Data**  
**GETS Pre-Startup Monitoring Data Package**  
**Tyco Fire Technology Center, Marinette, Wisconsin**



Well ID	Type	Year Installed	Zone Screened	Northing	Easting	Depth to Top of Screen (feet bgs)	Depth to Bottom of Screen (feet bgs)	Top of Casing Elevation (feet amsl)	Surface Finish	7/12/2021			4/5/2022		
										Depth to Water	Total Depth	Groundwater Elevation	Depth to Water	Total Depth	Groundwater Elevation
PZ-31-17	MW	2019	OB	462494.154	2582369.025	7	17	595.49	Flush	3.94	17.21	591.55	2.79	17.12	592.70
PZ-31-40	MW	2019	OB	462490.811	2582364.016	35	40	595.38	Flush	4.19	41.25	591.19	3.11	40.45	592.27
PZ-31-53	MW	2019	OB	462491.429	2582374.602	48	53	595.24	Flush	4.31	53.33	590.93	2.95	52.13	592.29
PZ-33-12	WL	2019	OB	460123.938	2582902.908	7	12	594.33	Flush	2.02	10.75	592.31	0.5	10.71	593.83
PZ-33-33	WL	2019	OB	460123.727	2582897.363	28	33	594.33	Flush	1.97	33.58	592.36	0.6	32.94	593.73
PZ-33-67	WL	2019	OB	460123.109	2582892.678	57	67	594.42	Flush	2.23	67.55	592.19	0.78	66.38	593.64
PZ-51-38	WL	2021	OB	463344.357	2582027.174	33	38	594.41	Flush	NI	NI	NI	3.14	37.92	591.27
PZ-52-41	WL	2021	OB	462776.477	2582413.718	36	41	594.73	Flush	NI	NI	NI	3.51	41.29	591.22
PZ-53-40	WL	2021	OB	461921.215	2582490.505	35	40	595.67	Flush	NI	NI	NI	2.7	39.53	592.97
PZ-54-47	MW	2021	OB	462712.3	2581376.3	42	47	598.38	Flush	NI	NI	NI	2.33	47.71	596.05
PZ-55-64	WL	2021	OB	462662.519	2580658.807	59	64	616.26	Flush	NI	NI	NI	18.24	63.96	598.02
PZ-56-42	MW	2021	OB	463289.605	2580664.186	37.2	42.2	605.43	Flush	NI	NI	NI	8.98	42.8	596.45
PZ-57-38	MW	2021	OB	462908.71	2583829.915	33	38	594.04	Flush	NI	NI	NI	3.68	38.85	590.36
<b>Location on Northland Lutheran Property</b>															
PZ-32-18	MW	2019	OB	461901.091	2583990.782	8	18	591.19	Flush	2.39	18.33	588.80	1.72	18.11	589.47
PZ-32-72	MW	2019	OB	461908.303	2583990.817	67	72	591.23	Flush	2.57	73.80	588.66	1.81	71.22	589.42

**Acronyms and Abbreviations:**

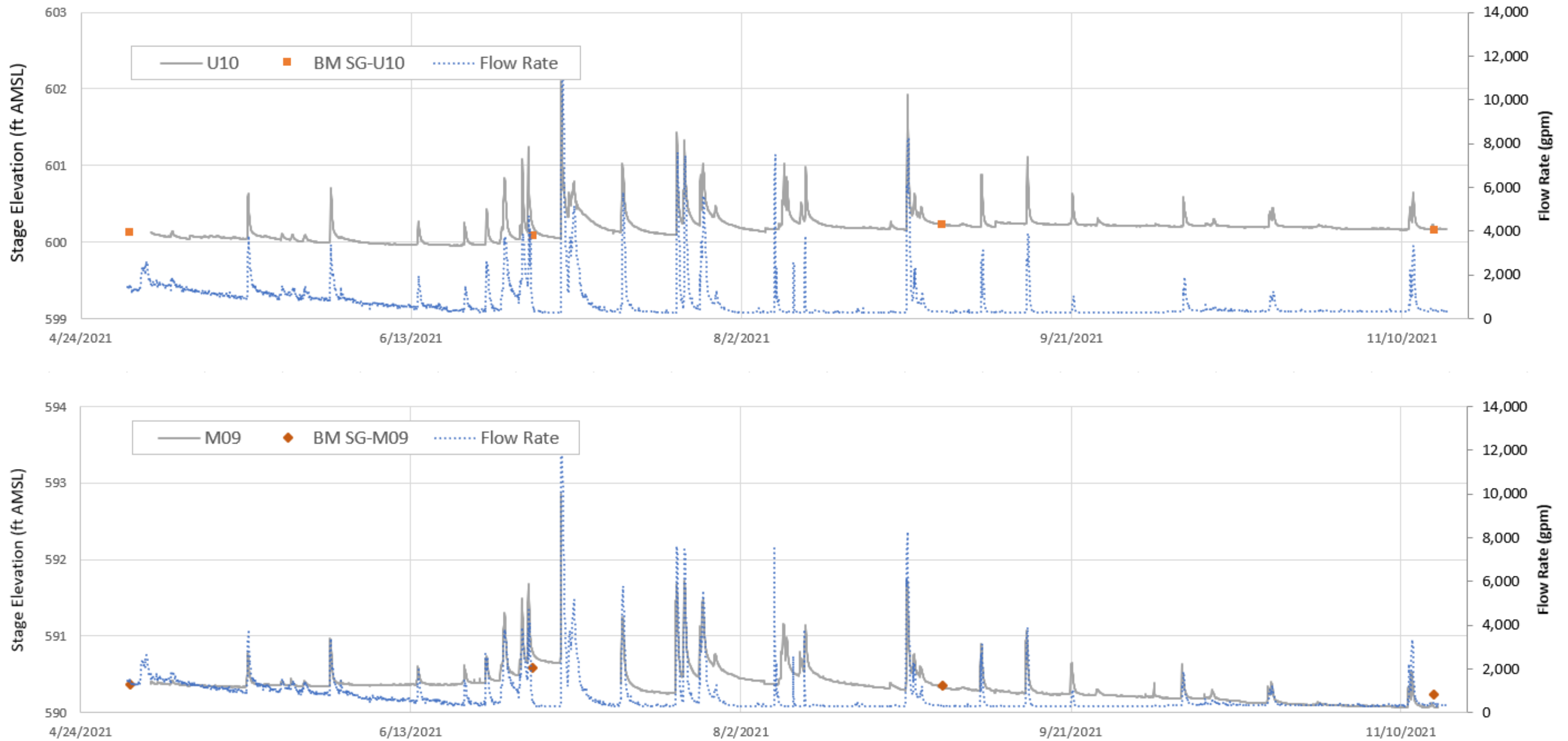
- amsl = above mean sea level
- bgs = below ground surface
- BR = bedrock
- EX = extraction well
- FTC = Fire Technology Center
- GETS = groundwater extraction and treatment system
- MW = monitoring well (sampling and gauging)
- NA = information not available
- NI = monitoring well was not installed during the gauging event
- OB = overburden
- PZ = Piezometer
- WL = water level (depth to bottom and depth to water) only
- \* = Estimated elevation

**Table 9**  
**Benchmark/Staff Gauge Water Level Measurements**  
**GETS Pre-Startup Monitoring Data Package**  
**Tyco Fire Technology Center, Marinette, Wisconsin**

Location	Survey Elevation	5/4/2021		7/1/2021		9/1/2021		11/21/2021		4/5/2022	
		Measurement to Water Surface (ft)	Water Surface Elevation (ft AMSL)	Measurement to Water Surface (ft)	Water Surface Elevation (ft AMSL)	Measurement to Water Surface (ft)	Water Surface Elevation (ft AMSL)	Measurement to Water Surface (ft)	Water Surface Elevation (ft AMSL)	Measurement to Water Surface (ft)	Water Surface Elevation (ft AMSL)
BM SG-U10	604.92	4.80	600.12	4.84	600.08	4.70	600.22	4.77	600.15	4.04	600.88
BM SG-M09	594.32	3.95	590.37	3.73	590.59	3.97	590.35	4.08	590.24	4.01	590.31
BM SG-M01	593.47	3.96	589.51	3.90	589.57	4.05	589.42	4.10	589.37	3.76	589.71
BM SG-L09	594.46	5.93	588.53	5.98	588.48	6.00	588.46	6.10	588.36	5.65	588.81

# Figures





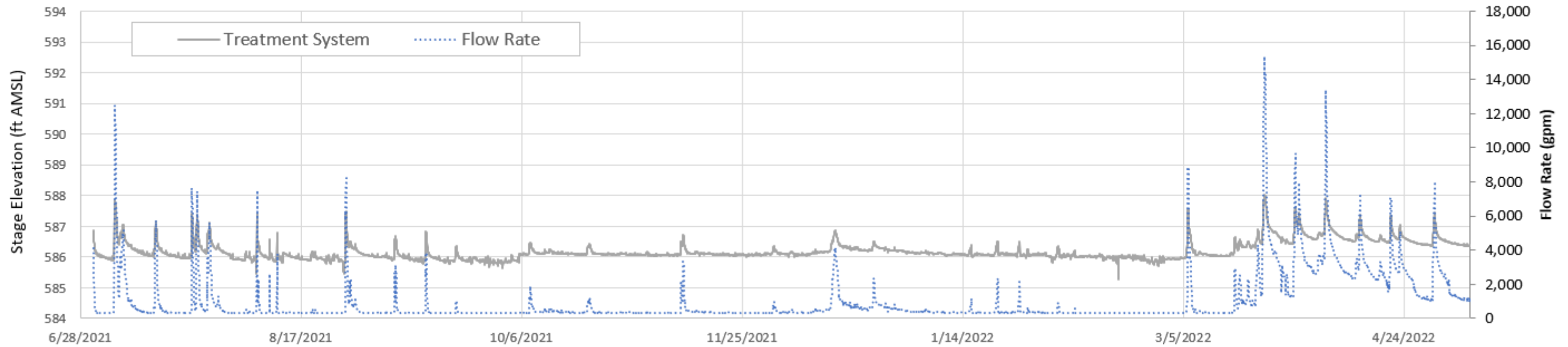
**Notes:**

1. REFER TO FIGURE 1 OF THIS SUBMITTAL FOR THE LOCATIONS OF U10, SG-U10, M09 AND SG-M09.
2. U10 AND M09 STAGE ELEVATION DATA WERE COLLECTED USING TRANSDUCERS PLACED IN STILLING WELLS NEAR EACH RESPECTIVE SURFACE WATER SAMPLING LOCATION (I.E., U10 MEASUREMENTS WERE COLLECTED NEAR SWU10).
3. LOCATIONS SGU10 AND SGM09 ARE SURVEYED BENCHMARK LOCATIONS WHERE SURFACE WATER LEVELS HAVE BEEN MEASURED MANUALLY USING A WATER LEVEL METER.
4. DITCH B FLOW RATE WAS CALCULATED AT THE DITCH B TREATMENT SYSTEM USING A RATING CURVE CALCULATION PRESENTED IN THE MAY 2022 DITCH B SEMI-ANNUAL OPERATION, MAINTENANCE, AND OPTIMIZATION PROGRESS REPORT #5 (ARCADIS 2022).
5. THE DATA COLLECTED FROM EACH TRANSDUCER PROVIDE THE WATER DEPTH AT THE TRANSDUCER COLLECTED HOURLY. THESE DATA ARE THEN COMPARED TO MANUAL MEASUREMENTS TAKEN FROM THE SURVEYED REFERENCE POINT AND CONVERTED TO A WATER LEVEL ELEVATION.

**Acronyms and Abbreviations:**

ft AMSL – FEET ABOVE MEAN SEA LEVEL  
 gpm – GALLONS PER MINUTE

TYCO FIRE TECHNOLOGY CENTER MARINETTE, WI <b>GETS PRE-STARTUP MONITORING DATA PACKAGE</b>	
<b>TRANSDUCER HYDROGRAPHS AND          DITCH B FLOW RATES</b>	
	FIGURE <b>4a</b>




**Notes:**

1. REFER TO FIGURE 1 OF THIS SUBMITTAL FOR THE LOCATION OF THE DITCH B TREATMENT SYSTEM.
2. DITCH B FLOW RATE WAS CALCULATED AT THE DITCH B TREATMENT SYSTEM USING A RATING CURVE CALCULATION PRESENTED IN THE MAY 2022 DITCH B SEMI-ANNUAL OPERATION, MAINTENANCE, AND OPTIMIZATION PROGRESS REPORT #5 (ARCADIS 2022).
3. THE DATA COLLECTED FROM EACH TRANSDUCER PROVIDE THE WATER DEPTH AT THE TRANSDUCER COLLECTED HOURLY. THESE DATA ARE THEN COMPARED TO MANUAL MEASUREMENTS TAKEN FROM THE SURVEYED REFERENCE POINT AND CONVERTED TO A WATER LEVEL ELEVATION.

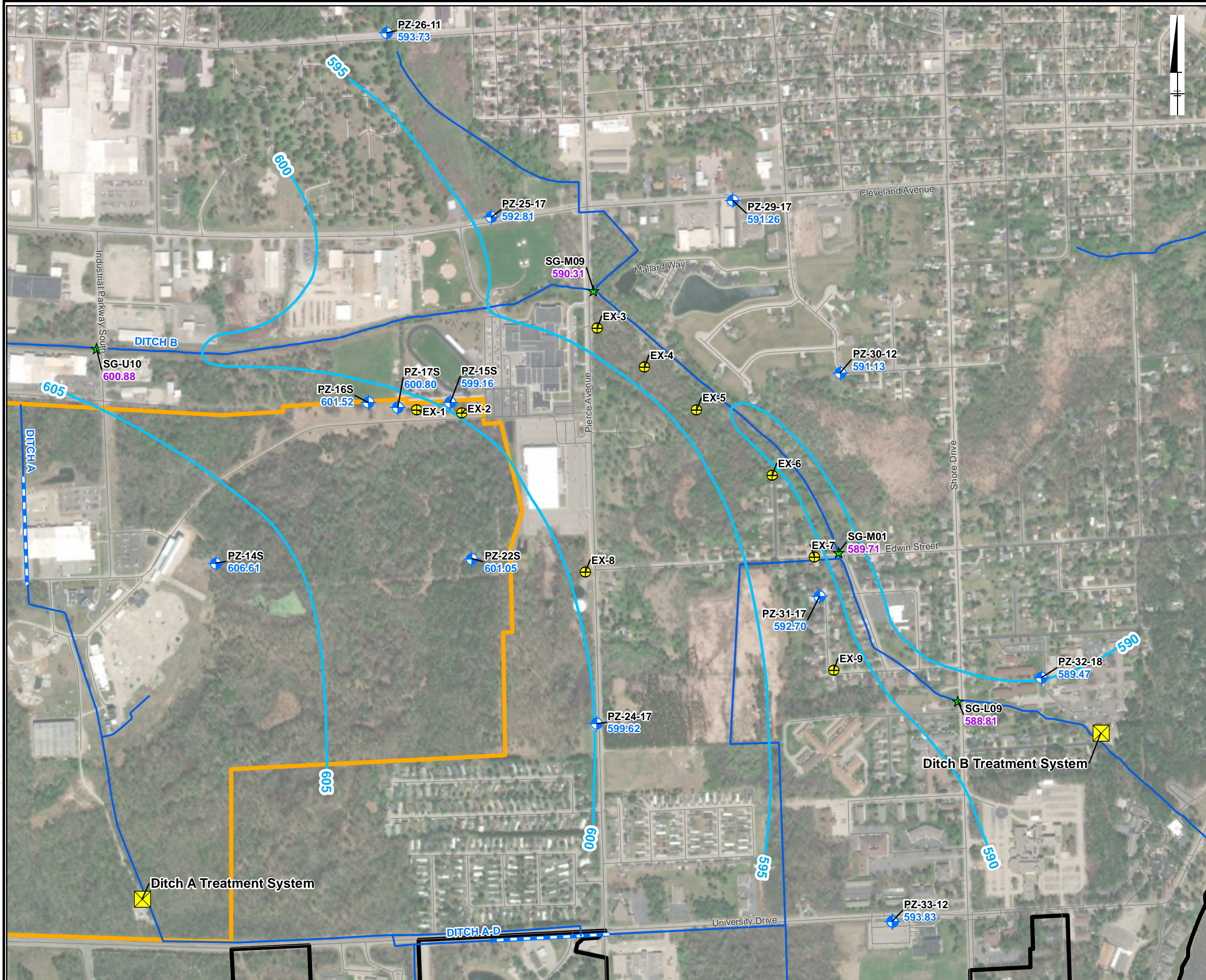
**Acronyms and Abbreviations:**

- ft AMSL – FEET ABOVE MEAN SEA LEVEL
- gpm – GALLONS PER MINUTE

TYCO FIRE TECHNOLOGY CENTER MARINETTE, WI <b>GETS PRE-STARTUP MONITORING DATA PACKAGE</b>	
<b>TRANSDUCER HYDROGRAPHS AND          DITCH B FLOW RATES</b>	
	FIGURE <b>4b</b>



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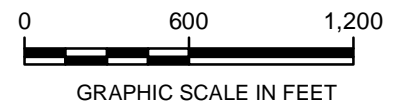
**LEGEND:**

- APPROXIMATE MARINETTE CITY BOUNDARY
- APPROXIMATE SITE PROPERTY BOUNDARY
- ROAD
- CULVERT
- DITCH OR STREAM
- POTENTIOMETRIC CONTOUR
- SURFACE WATER TREATMENT SYSTEM
- OVERBURDEN MONITORING WELL OR PIEZOMETER
- GETS EXTRACTION WELL
- STAFF GAUGE
- 591.56 GROUNDWATER LEVEL ELEVATION (FT AMSL)
- 589.71 SURFACE WATER LEVEL ELEVATION (FT AMSL)

**NOTES:**

1. WATER LEVELS WERE NOT MEASURED AT THE EXTRACTION WELLS (EX-1 TO EX-9) BUT EXTRACTION WELLS ARE SHOWN FOR REFERENCE PURPOSES.
2. AERIAL IMAGERY SOURCE: ESTRI, MAXAR, EARTHSTAR GEOGRAPHICS, AND THE GIS USER COMMUNITY.

**ACRONYMS:**  
 GETS - GROUNDWATER EXTRACTION AND TREATMENT SYSTEM  
 FT AMSL - FEET ABOVE MEAN SEA LEVEL



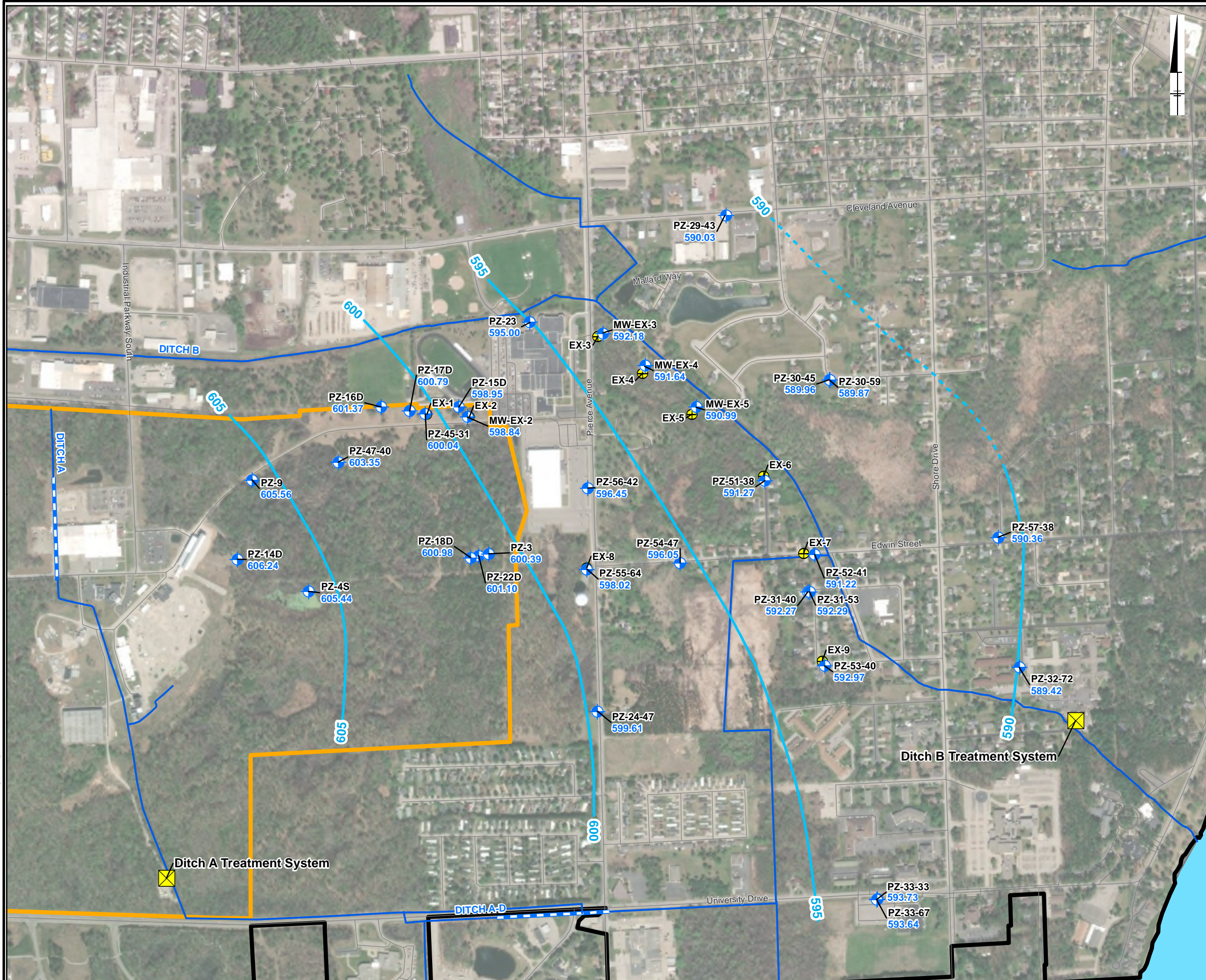
TYCO FIRE TECHNOLOGY CENTER  
 MARINETTE, WISCONSIN

**GETS PRE-STARTUP MONITORING DATA PACKAGE**

**POTENTIOMETRIC SURFACE IN SHALLOW SAND - APRIL 5, 2022**



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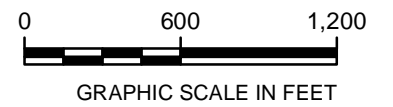


**LEGEND:**

- APPROXIMATE MARINETTE CITY BOUNDARY
- APPROXIMATE SITE PROPERTY BOUNDARY
- WATERBODY
- ROAD
- CULVERT
- DITCH OR STREAM
- POTENTIOMETRIC CONTOUR (DASHED WHERE INFERRED)
- SURFACE WATER TREATMENT SYSTEM
- OVERBURDEN MONITORING WELL OR PIEZOMETER
- GETS EXTRACTION WELL
- 590.36** GROUNDWATER LEVEL ELEVATION (FT AMSL)

**NOTES:**  
 1. WATER LEVELS WERE NOT MEASURED AT THE EXTRACTION WELLS (EX-1 TO EX-9) BUT EXTRACTION WELLS ARE SHOWN FOR REFERENCE PURPOSES.  
 2. AERIAL IMAGERY SOURCE: ESTRI, MAXAR, EARTHSTAR GEOGRAPHICS, AND THE GIS USER COMMUNITY.

**ACRONYMS:**  
 GETS - GROUNDWATER EXTRACTION AND TREATMENT SYSTEM  
 FT AMSL - FEET ABOVE MEAN SEA LEVEL



TYCO FIRE TECHNOLOGY CENTER  
 MARINETTE, WISCONSIN

**GETS PRE-STARTUP MONITORING DATA PACKAGE**

**POTENTIOMETRIC SURFACE IN DEEP SAND - APRIL 5, 2022**



# **Attachment 1**

**Soil Boring Logs, Well Construction Logs, and Well Development Logs**

Route to: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Tyco - GETS Installation</b>	Local Grid Location of Well ft. N. <input type="checkbox"/> ft. E. <input type="checkbox"/> ft. S. <input type="checkbox"/> ft. W. <input type="checkbox"/>	Well Name <b>MW-EX-02</b>
Facility License, Permit or Monitoring No. <b>438005590</b>	Local Grid Origin (estimated: <input type="checkbox"/> ) or Well Location Lat. <input type="checkbox"/> Long. <input type="checkbox"/>	Wis. Unique Well No. <input type="checkbox"/> DNR Well ID No. <input type="checkbox"/>
Facility ID <b>438005590</b>	St. Plane ft. N. <input type="checkbox"/> ft. E. <input type="checkbox"/> S. <input type="checkbox"/> C. <input type="checkbox"/> N. <input type="checkbox"/>	Date Well Installed <b>10/06/2021</b>
Type of Well Well Code <b>12</b> / <b>PZ</b>	Section Location of Waste/Source <b>SE</b> 1/4 of <b>SW</b> 1/4 of Sec <b>7</b> T. <b>30</b> N. R. <b>24</b> <input checked="" type="checkbox"/> E. <input type="checkbox"/> W. <input type="checkbox"/>	Well Installed By: Name (first, last) and Firm <b>AI Sizemore</b> <b>Cascade Drilling</b>
Distance from Waste/Source ft. <input type="checkbox"/>	Enf. Stds. Apply <input type="checkbox"/>	Gov. Lot Number <input type="checkbox"/>
Location of Well Relative to Well/Source u. Upgradient s. Sidegradient d. Downgradient n. Not Known		

A. Protective pipe, top elevation \_\_\_\_\_ ft. MSL

B. Well casing, top elevation \_\_\_\_\_ ft. MSL

C. Land surface elevation \_\_\_\_\_ ft. MSL

D. Surface seal, bottom **0.00** ft. MSL or \_\_\_\_\_ ft.

12. USCS classification of soil near screen:  
 GP  GM  GC  GW  SW  SP   
 SM  SC  ML  MH  CL  CH   
 Bedrock

13. Sieve analysis performed?  Yes  No

14. Drilling method used: Rotary  50  
 Hollow stem auger  41  
**Rotasonic** Other

15. Drilling fluid used: Water  02 Air  01  
 Drilling Mud  03 None  99

16. Drilling additives used:  Yes  No  
 Describe \_\_\_\_\_

17. Source of water (attach analysis, if required): \_\_\_\_\_

E. Bentonite seal, top **0** ft. MSL or **0** ft.

F. Fine sand, top **-16.5** ft. MSL or **16.5** ft.

G. Filter pack, top **-18.5** ft. MSL or **18.5** ft.

H. Screen joint, top **-19.5** ft. MSL or **19.5** ft.

I. Well bottom **-29.5** ft. MSL or **29.5** ft.

J. Filter pack, bottom **-30** ft. MSL or **30** ft.

K. Borehole, bottom **-30** ft. MSL or **30** ft.

L. Borehole diameter **7** in.

M. O.D. well casing **2.375** in.

N. I.D. well casing **1.875** in.

1. Cap and lock?  Yes  No

2. Protective cover pipe:  
 a. Inside diameter: **4** in.  
 b. Length: **5** in.  
 c. Material: Steel  04  
 Other   
 d. Additional protection?  Yes  No  
 If yes, describe: \_\_\_\_\_

3. Surface seal: Bentonite  30  
 Concrete  01  
 Other

4. Material between well casing and protective pipe:  
 Bentonite  30  
**None** Other

5. Annular space seal:  
 a. Granular/Chipped Bentonite  33  
 b. \_\_\_\_\_ Lbs/gal mud weight... Bentonite sand-slurry  35  
 c. \_\_\_\_\_ Lbs/gal mud weight... Bentonite slurry  31  
 d. **1.0** % Bentonite... Bentonite-cement grout  50  
 e. \_\_\_\_\_ FT<sup>3</sup> volume added for any of the above  
 f. How installed: Tremie  01  
 Tremie pumped  02  
 Gravity  08

6. Bentonite seal:  
 a. Bentonite granules  33  
 b.  1/4 in.  3/8 in.  1/2 in. Bentonite chips  32  
 c. \_\_\_\_\_ Other

7. Fine sand material: Manufacturer, product name & mesh size  
 a. **Red Flint sand and gravel** Other **7**  
 b. Volume added **1 bag** ft<sup>3</sup>

8. Filter pack material: Manufacturer, product name & mesh size  
 a. **Red Flint sand and gravel** Other **10**  
 b. Volume added **2 bags** ft<sup>3</sup>

9. Well casing: Flush threaded PVC schedule 40  23  
 Flush threaded PVC schedule 80  24  
 Other

10. Screen material: **Flush thread PVC Sch 40**  
 a. Screen type: Factory cut  11  
 Continuous slot  01  
 Other   
 b. Manufacturer: **Johnson Screens**  
 c. Slot size: **0.010** in.  
 d. Slotted length: **10.0** ft.

11. Backfill material (below filter pack): None  01  
**Sand** Other

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: *[Signature]* Firm: **Geosyntec Consultants**

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

Route to: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Tyco - GETS Installation</b>	Local Grid Location of Well ft. N. <input type="checkbox"/> E. <input type="checkbox"/> ft. S. <input type="checkbox"/> W. <input type="checkbox"/>	Well Name <b>MW-EX-03</b>
Facility License, Permit or Monitoring No.	Local Grid Origin (estimated: <input type="checkbox"/> ) or Well Location <input type="checkbox"/> Lat. <input type="checkbox"/> Long. <input type="checkbox"/>	Wis. Unique Well No. <input type="checkbox"/> DNR Well ID No. <input type="checkbox"/>
Facility ID <b>438005590</b>	St. Plane ft. N. <input type="checkbox"/> E. <input checked="" type="checkbox"/> S. <input type="checkbox"/> C. <input type="checkbox"/> N. <input type="checkbox"/>	Date Well Installed <b>10/25/2021</b>
Type of Well Well Code <b>12 / PZ</b>	Section Location of Waste/Source <b>NW 1/4 of SE 1/4 of Sec. 7 T. 30 N. R. 24 W.</b>	Well Installed By: Name (first, last) and Firm <b>AI Sizemore Cascade Drilling</b>
Distance from Waste/Source ft. <input type="checkbox"/>	Location of Well Relative to Well/Source u <input type="checkbox"/> s <input type="checkbox"/> d <input type="checkbox"/> n <input type="checkbox"/> Upgradient Downgradient Sidegradient Not Known	Gov. Lot Number <input type="checkbox"/>

A. Protective pipe, top elevation \_\_\_\_\_ ft. MSL  Yes  No

B. Well casing, top elevation \_\_\_\_\_ ft. MSL

C. Land surface elevation \_\_\_\_\_ ft. MSL

D. Surface seal, bottom **0.00** ft. MSL or \_\_\_\_\_ ft.

12. USCS classification of soil near screen:  
GP  GM  GC  GW  SW  SP   
SM  SC  ML  MH  CL  CH   
Bedrock

13. Sieve analysis performed?  Yes  No

14. Drilling method used: Rotary  50  
Hollow stem auger  41  
**Rotasonic** Other  X

15. Drilling fluid used: Water  02 Air  01  
Drilling Mud  03 None  99

16. Drilling additives used:  Yes  No  
Describe \_\_\_\_\_

17. Source of water (attach analysis, if required): \_\_\_\_\_

E. Bentonite seal, top **0** ft. MSL or **0** ft.

F. Fine sand, top **-18** ft. MSL or **18** ft.

G. Filter pack, top **-20** ft. MSL or **20** ft.

H. Screen joint, top **-22** ft. MSL or **22** ft.

I. Well bottom **-27** ft. MSL or **27** ft.

J. Filter pack, bottom **-27** ft. MSL or **27** ft.

K. Borehole, bottom **-27** ft. MSL or **27** ft.

L. Borehole diameter **7** in.

M. O.D. well casing **2.375** in.

N. I.D. well casing **1.875** in.

1. Cap and lock?  Yes  No

2. Protective cover pipe:  
a. Inside diameter: **2** in.  
b. Length: **5** in.  
c. Material: Steel  04  
Other   
d. Additional protection?  Yes  No  
If yes, describe: \_\_\_\_\_

3. Surface seal: Bentonite  30  
Concrete  01  
Other

4. Material between well casing and protective pipe: Bentonite  30  
Other

5. Annular space seal: a. Granular/Chipped Bentonite  33  
b. \_\_\_\_\_ Lbs/gal mud weight... Bentonite sand-slurry  35  
c. \_\_\_\_\_ Lbs/gal mud weight... Bentonite slurry  31  
d. \_\_\_\_\_ % Bentonite... Bentonite-cement grout  50  
e. \_\_\_\_\_ FT<sup>3</sup> volume added for any of the above  
f. How installed: Tremie  01  
Tremie pumped  02  
Gravity  08

6. Bentonite seal: a. Bentonite granules  33  
b.  1/4 in.  3/8 in.  1/2 in. Bentonite chips  32  
c. \_\_\_\_\_ Other

7. Fine sand material: Manufacturer, product name & mesh size  
a. **Red Flint sand and gravel** Other  7  
b. Volume added **1 bag** ft<sup>3</sup>

8. Filter pack material: Manufacturer, product name & mesh size  
a. **Red Flint sand and gravel** Other  10  
b. Volume added **2.5 bags** ft<sup>3</sup>

9. Well casing: Flush threaded PVC schedule 40  23  
Flush threaded PVC schedule 80  24  
Other

10. Screen material: **Flush thread PVC Sch 40**  
a. Screen type: Factory cut  11  
Continuous slot  01  
Other   
b. Manufacturer: **Johnson Screens**  
c. Slot size: **0.010** in.  
d. Slotted length: **5.0** ft.

11. Backfill material (below filter pack): None  01  
Other

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature *[Signature]* Firm **Geosyntec Consultants**

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

Route to: Watershed/Wastewater  Waste Management

Remediation/Redevelopment  Other

Facility/Project Name <b>Tyco - GETS Installation</b>	Local Grid Location of Well N. _____ E. _____ ft. _____ ft. _____ S. _____ W. _____	Well Name <b>MW-EX-04</b>
Facility License, Permit or Monitoring No.	Local Grid Origin (estimated: <input type="checkbox"/> ) or Well Location <input type="checkbox"/> Lat. _____ Long. _____ or _____	Wis. Unique Well No. _____ DNR Well ID No. _____
Facility ID <b>438005590</b>	St. Plane _____ ft. N. _____ ft. E. S / C / N	Date Well Installed <b>10/25/2021</b>
Type of Well Well Code <b>12 / PZ</b>	Section Location of Waste/Source NW 1/4 of SE 1/4 of Sec. 7 T. 30 N. R. 24 <input checked="" type="checkbox"/> E. <input type="checkbox"/> W. <input type="checkbox"/>	Well Installed By: Name (first, last) and Firm <b>AI Sizemore Cascade Drilling</b>
Distance from Waste/Source ft. _____	Location of Well Relative to Well/Source u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known	Gov. Lot Number _____

A. Protective pipe, top elevation \_\_\_\_\_ ft. MSL

B. Well casing, top elevation \_\_\_\_\_ ft. MSL

C. Land surface elevation \_\_\_\_\_ ft. MSL

D. Surface seal, bottom **0.00** ft. MSL or \_\_\_\_\_ ft.

12. USCS classification of soil near screen:  
 GP  GM  GC  GW  SW  SP   
 SM  SC  ML  MH  CL  CH   
 Bedrock

13. Sieve analysis performed?  Yes  No

14. Drilling method used:  
 Rotary  50  
 Hollow stem auger  41  
**Rotasonic** Other

15. Drilling fluid used: Water  02 Air  01  
 Drilling Mud  03 None  99

16. Drilling additives used:  Yes  No  
 Describe \_\_\_\_\_

17. Source of water (attach analysis, if required): \_\_\_\_\_

E. Bentonite seal, top **0** ft. MSL or **0** ft.

F. Fine sand, top **-18** ft. MSL or **18** ft.

G. Filter pack, top **-20** ft. MSL or **20** ft.

H. Screen joint, top **-22** ft. MSL or **22** ft.

I. Well bottom **-27** ft. MSL or **27** ft.

J. Filter pack, bottom **-27** ft. MSL or **27** ft.

K. Borehole, bottom **-27** ft. MSL or **27** ft.

L. Borehole diameter **7** in.

M. O.D. well casing **2.375** in.

N. I.D. well casing **1.875** in.

1. Cap and lock?  Yes  No

2. Protective cover pipe:  
 a. Inside diameter: \_\_\_\_\_ in.  
 b. Length: **5** in.  
 c. Material: Steel  04  
 Other   
 d. Additional protection?  Yes  No  
 If yes, describe: \_\_\_\_\_

3. Surface seal: Bentonite  30  
 Concrete  01  
 Other

4. Material between well casing and protective pipe: Bentonite  30  
 Other

5. Annular space seal:  
 a. Granular/Chipped Bentonite  33  
 b. \_\_\_\_\_ Lbs/gal mud weight... Bentonite sand-slurry  35  
 c. \_\_\_\_\_ Lbs/gal mud weight... Bentonite slurry  31  
 d. \_\_\_\_\_ % Bentonite... Bentonite-cement grout  50  
 e. \_\_\_\_\_ FT<sup>3</sup> volume added for any of the above  
 f. How installed: Tremie  01  
 Tremie pumped  02  
 Gravity  08

6. Bentonite seal:  
 a. Bentonite granules  33  
 b.  1/4 in.  3/8 in.  1/2 in. Bentonite chips  32  
 c. Other

7. Fine sand material: Manufacturer, product name & mesh size  
 a. **Red Flint sand and gravel** Other  7  
 b. Volume added **1.5 bags** ft<sup>3</sup>

8. Filter pack material: Manufacturer, product name & mesh size  
 a. **Red Flint sand and gravel** Other  10  
 b. Volume added **3.5 bags** ft<sup>3</sup>

9. Well casing: Flush threaded PVC schedule 40  23  
 Flush threaded PVC schedule 80  24  
 Other

10. Screen material: **Flush thread PVC Sch 40**  
 a. Screen type: Factory cut  11  
 Continuous slot  01  
 Other   
 b. Manufacturer: **Johnson Screens**  
 c. Slot size: **0.010** in.  
 d. Slotted length: **5.0** ft.

11. Backfill material (below filter pack): None  01  
 Other

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature *[Signature]* Firm **Geosyntec Consultants**



Route to: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Tyco - GETS Installation</b>	Local Grid Location of Well ft. N. <input type="checkbox"/> E. <input type="checkbox"/> ft. S. <input type="checkbox"/> W. <input type="checkbox"/>	Well Name <b>MW-EX-05</b>
Facility License, Permit or Monitoring No.	Local Grid Origin (estimated: ) or Well Location Lat. Long. or	Wis. Unique Well No. DNR Well ID No.
Facility ID <b>438005590</b>	St. Plane ft. N. ft. E. S / C / N Section Location of Waste/Source <input checked="" type="checkbox"/> E.	Date Well Installed <b>10/23/2021</b>
Type of Well Well Code <b>12 / PZ</b>	SW 1/4 of SE 1/4 of Sec. <b>7</b> T. <b>30</b> N. R. <b>24</b> W. Location of Well Relative to Well/Source u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known	Well Installed By: Name (first, last) and Firm <b>Al Sizemore Cascade Drilling</b>
Distance from Waste/Source ft.	Gov. Lot Number	

A. Protective pipe, top elevation \_\_\_\_\_ ft. MSL  
B. Well casing, top elevation \_\_\_\_\_ ft. MSL  
C. Land surface elevation \_\_\_\_\_ ft. MSL  
D. Surface seal, bottom **0.00** ft. MSL or \_\_\_\_\_ ft.

12. USCS classification of soil near screen:  
GP  GM  GC  GW  SW  SP   
SM  SC  ML  MH  CL  CH   
Bedrock

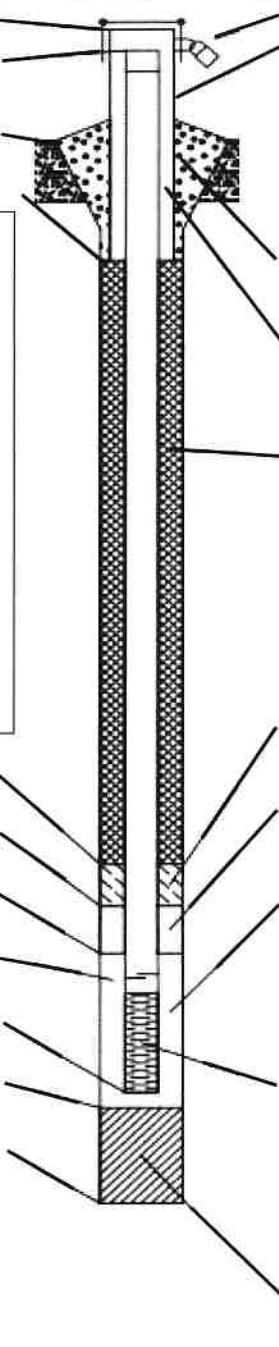
13. Sieve analysis performed?  Yes  No

14. Drilling method used:  
Rotary  50  
Hollow stem auger  41  
**Rotasonic** Other  X

15. Drilling fluid used: Water  02 Air  01  
Drilling Mud  03 None  99

16. Drilling additives used:  Yes  No  
Describe \_\_\_\_\_

17. Source of water (attach analysis, if required):



1. Cap and lock?  Yes  No

2. Protective cover pipe:  
a. Inside diameter: **2** in.  
b. Length: **5** in.  
c. Material: Steel  04  
Other   
d. Additional protection?  Yes  No

3. Surface seal: Bentonite  30  
Concrete  01  
Other

4. Material between well casing and protective pipe: Bentonite  30  
Other

5. Annular space seal: a. Granular/Chipped Bentonite  33  
b. \_\_\_\_\_ Lbs/gal mud weight... Bentonite sand-slurry  35  
c. \_\_\_\_\_ Lbs/gal mud weight... Bentonite slurry  31  
d. \_\_\_\_\_ % Bentonite... Bentonite-cement grout  50  
e. \_\_\_\_\_ FT<sup>3</sup> volume added for any of the above  
f. How installed: Tremie  01  
Tremie pumped  02  
Gravity  08  
Bentonite seal: a. Bentonite granules  33  
b.  1/4 in.  3/8 in.  1/2 in. Bentonite chips  32  
c. \_\_\_\_\_ Other

7. Fine sand material: Manufacturer, product name & mesh size  
a. **Red Flint sand and gravel** Other  7  
b. Volume added **1.5 bags** ft<sup>3</sup>

8. Filter pack material: Manufacturer, product name & mesh size  
a. **Red Flint sand and gravel** Other  10  
b. Volume added **4 bags** ft<sup>3</sup>

9. Well casing: Flush threaded PVC schedule 40  23  
Flush threaded PVC schedule 80  24  
Other

10. Screen material: **Flush thread PVC Sch 40**  
a. Screen type: Factory cut  11  
Continuous slot  01  
Other   
b. Manufacturer: **Johnson Screens**  
c. Slot size: **0.010** in.  
d. Slotted length: **5.0** ft.

11. Backfill material (below filter pack): None  01  
Sand  X

E. Bentonite seal, top **-1** ft. MSL or **1** ft.  
F. Fine sand, top **-41** ft. MSL or **41** ft.  
G. Filter pack, top **-43.5** ft. MSL or **43.5** ft.  
H. Screen joint, top **-45** ft. MSL or **45** ft.  
I. Well bottom **-50** ft. MSL or **50** ft.  
J. Filter pack, bottom **-54** ft. MSL or **54** ft.  
K. Borehole, bottom **-54** ft. MSL or **54** ft.  
L. Borehole diameter **7** in.  
M. O.D. well casing **2.375** in.  
N. I.D. well casing **1.875** in.

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: *[Handwritten Signature]* Firm: **Geosyntec Consultants**

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295 and 299, Wis. Stats.; and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

Route to: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <u>Tyco GETS Installation</u>	County Name <u>Marinette</u>	Well Name <u>MW-EX-2</u>
Facility License, Permit or Monitoring Number <u>438 005 520</u>	County Code <u>38</u>	Wis. Unique Well Number _____
		DNR Well ID Number _____

1. Can this well be purged dry?  Yes  No

2. Well development method pump
- surged with bailer and bailed  41
  - surged with bailer and pumped  61
  - surged with block and bailed  42
  - surged with block and pumped  62
  - surged with block, bailed and pumped  70
  - compressed air  20
  - bailed only  10
  - pumped only  51
  - pumped slowly  50
  - Other \_\_\_\_\_

3. Time spent developing well 93 min.

4. Depth of well (from top of well casing) 30 ft.

5. Inside diameter of well 2 in.

6. Volume of water in filter pack and well casing 1.5 gal.

7. Volume of water removed from well 125 gal.

8. Volume of water added (if any) NONE gal.

9. Source of water added \_\_\_\_\_

10. Analysis performed on water added?  Yes  No  
(If yes, attach results) N/A

17. Additional comments on development:

Before Development After Development

11. Depth to Water (from top of well casing)
- a. 10.35 ft. 10.95 ft.
- Date b. 10/07/2021 10/07/2021  
m m d d y y y y m m d d y y y y
- Time c. 7:28  a.m. 08:58  a.m.  
 p.m.  p.m.

12. Sediment in well bottom \_\_\_\_\_ inches \_\_\_\_\_ inches

13. Water clarity
- |                                               |                                              |
|-----------------------------------------------|----------------------------------------------|
| Clear <input type="checkbox"/> 10             | Clear <input checked="" type="checkbox"/> 20 |
| Turbid <input checked="" type="checkbox"/> 15 | Turbid <input type="checkbox"/> 25           |
| (Describe)                                    | (Describe)                                   |
| <u>cloudy</u>                                 | <u>Clean</u>                                 |
| <u>slightly turbid</u>                        |                                              |
| <u>cleared in 1 minute</u>                    |                                              |

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids \_\_\_\_\_ mg/l \_\_\_\_\_ mg/l

15. COD \_\_\_\_\_ mg/l \_\_\_\_\_ mg/l

16. Well developed by: Name (first, last) and Firm

First Name: Al Last Name: Sizemore

Firm: Cascade Drilling

240 gals

Name and Address of Facility Contact/Owner/Responsible Party

First Name: Scott Last Name: Wahl

Facility/Firm: Tyco Fire Products, LP

Street: 2700 Industrial Pkwy South

City/State/Zip: Marinette, WI 54143

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: [Signature]

Print Name: Scott Wahl

Firm: Geosyntek Consultants

Route to: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <u>Tyco GETS Installation</u>	County Name <u>Marinette</u>	Well Name <u>MW-EX-3</u>	
Facility License, Permit or Monitoring Number <u>438005590</u>	County Code <u>38</u>	Wis. Unique Well Number _____	DNR Well ID Number _____

1. Can this well be purged dry?  Yes  No

2. Well development method
- surged with bailer and bailed  41
  - surged with bailer and pumped  61
  - surged with block and bailed  42
  - surged with block and pumped  62
  - surged with block, bailed and pumped  70
  - compressed air  20
  - bailed only  10
  - pumped only  51
  - pumped slowly  50
  - Other Surge with pump

3. Time spent developing well 90 min.

4. Depth of well (from top of well casing) 22 ft.

5. Inside diameter of well 2 in.

6. Volume of water in filter pack and well casing 3 gal.

7. Volume of water removed from well 125 gal.

8. Volume of water added (if any) 0 gal.

9. Source of water added \_\_\_\_\_

10. Analysis performed on water added?  Yes  No  
(If yes, attach results)

17. Additional comments on development:

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. <u>5.6</u> ft.	<u>585</u> ft.
Date	b. <u>10/26/2021</u>	<u>10/26/2021</u>
Time	c. <u>11:10</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.	<u>12:40</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.
12. Sediment in well bottom	_____ inches	_____ inches
13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) <u>Turbidity clears quickly</u>	Clear <input checked="" type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) <u>Water has slip</u>

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids \_\_\_\_\_ mg/l \_\_\_\_\_ mg/l

15. COD \_\_\_\_\_ mg/l \_\_\_\_\_ mg/l

16. Well developed by: Name (first, last) and Firm

First Name: Al Last Name: Sizemore

Firm: Cascade Drilling

Name and Address of Facility Contact/Owner/Responsible Party

First Name: Scott Last Name: Wahl

Facility/Firm: Tyco Fire Products, LP

Street: 2700 Industrial Pkwy South

City/State/Zip: Marinette, WI 54143

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: [Signature]

Print Name: Jeff Tracy

Firm: Geospatial Consultants

Route to: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <u>Tyco GETS Installation</u>	County Name <u>Marinette</u>	Well Name <u>MW-EX-4</u>	
Facility License, Permit or Monitoring Number <u>438005590</u>	County Code <u>3B</u>	Wis. Unique Well Number _____	DNR Well ID Number _____

1. Can this well be purged dry?  Yes  No
2. Well development method
- surged with bailer and bailed  41
  - surged with bailer and pumped  61
  - surged with block and bailed  42
  - surged with block and pumped  62
  - surged with block, bailed and pumped  70
  - compressed air  20
  - bailed only  10
  - pumped only  51
  - pumped slowly  50
  - Other Surge with pump
3. Time spent developing well 90 min.
4. Depth of well (from top of well casing) 27 ft.
5. Inside diameter of well 1.875 in.
6. Volume of water in filter pack and well casing 4.1 gal.
7. Volume of water removed from well 125 gal.
8. Volume of water added (if any) — gal.
9. Source of water added \_\_\_\_\_
10. Analysis performed on water added?  Yes  No  
(If yes, attach results)

- |                                                                           | Before Development                                                                                                     | After Development                                                                                       |
|---------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| 11. Depth to Water (from top of well casing)                              | a. <u>4.8</u> ft.                                                                                                      | <u>5.15</u> ft.                                                                                         |
| Date                                                                      | b. <u>10/26/2021</u>                                                                                                   | <u>10/26/2021</u>                                                                                       |
| Time                                                                      | c. <u>08:50</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.                                 | <u>10:20</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.                     |
| 12. Sediment in well bottom                                               | <u>0</u> inches                                                                                                        | <u>0</u> inches                                                                                         |
| 13. Water clarity                                                         | Clear <input type="checkbox"/> 10<br>Turbid <input checked="" type="checkbox"/> 15<br>(Describe) <u>Clears quickly</u> | Clear <input type="checkbox"/> 20<br>Turbid <input type="checkbox"/> 25<br>(Describe) <u>Brown tint</u> |
| Fill in if drilling fluids were used and well is at solid waste facility: |                                                                                                                        |                                                                                                         |
| 14. Total suspended solids                                                | _____ mg/l                                                                                                             | _____ mg/l                                                                                              |
| 15. COD                                                                   | _____ mg/l                                                                                                             | _____ mg/l                                                                                              |
| 16. Well developed by: Name (first, last) and Firm                        |                                                                                                                        |                                                                                                         |
| First Name:                                                               | <u>Al</u>                                                                                                              | Last Name: <u>Sizemore</u>                                                                              |
| Firm:                                                                     | <u>Cascade Drilling</u>                                                                                                |                                                                                                         |

17. Additional comments on development:

Name and Address of Facility Contact /Owner/Responsible Party

First Name: Scott Last Name: Wahl

Facility/Firm: Tyco Fire Products, LP

Street: 2700 Industrial Pkwy South

City/State/Zip: Marinette, WI 54143

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: [Signature]

Print Name: Scott Wahl

Firm: Cascade Drilling

Route to: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <u>Tyco - GETS Installation</u>	County Name	Well Name <u>MW-EX-5</u>	
Facility License, Permit or Monitoring Number <u>438 005 590</u>	County Code <u>38</u>	Wis. Unique Well Number	DNR Well ID Number

1. Can this well be purged dry?  Yes  No
2. Well development method
- surged with bailer and bailed  41
  - surged with bailer and pumped  61
  - surged with block and bailed  42
  - surged with block and pumped  62
  - surged with block, bailed and pumped  70
  - compressed air  20
  - bailed only  10
  - pumped only  51
  - pumped slowly  50
  - Other Surge with pump
3. Time spent developing well 60 min.
4. Depth of well (from top of well casing) 50 ft.
5. Inside diameter of well 1.875 in.
6. Volume of water in filter pack and well casing 78 gal.
7. Volume of water removed from well 100 gal.
8. Volume of water added (if any) - gal.
9. Source of water added \_\_\_\_\_
10. Analysis performed on water added?  Yes  No  
(If yes, attach results)

- |  |                           |                          |
|--|---------------------------|--------------------------|
|  | <u>Before Development</u> | <u>After Development</u> |
|--|---------------------------|--------------------------|
11. Depth to Water (from top of well casing)
- a. 3.5 ft. 4.1 ft.
- Date b. 10/25/2021 10/25/2021  
m m d d y y y y m m d d y y y y
- Time c. 14:15  a.m.  p.m. 15:15  a.m.  p.m.
12. Sediment in well bottom 0 inches 0 inches
13. Water clarity Clear  10 Turbid  15  
(Describe) (Describe)
14. Total suspended solids \_\_\_\_\_ mg/l \_\_\_\_\_ mg/l
15. COD \_\_\_\_\_ mg/l \_\_\_\_\_ mg/l
16. Well developed by: Name (first, last) and Firm  
First Name: Al Last Name: Sizemore  
Firm: Cascade Drilling

17. Additional comments on development:

Name and Address of Facility Contact /Owner/Responsible Party

First Name: Scott Last Name: Wahl

Facility/Firm: Tyco Fire Products, LP

Street: 2700 Industrial Pkwy South

City/State/Zip: Marinette, WI 54143

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: [Signature]

Print Name: Scott Tracy

Firm: Crosswater Consultants