

November 15, 2019

Ms. Jennifer Dodds
U.S. Environmental Protection Agency, Region 5
Land, Chemicals and Redevelopment Division
77 West Jackson Blvd, LR-16J
Chicago, IL 60604-3590

RE: Bi-Weekly Summary Report for Pump Down Program
Tyco Fire Products LP Site
Marinette, WI

Dear Ms. Dodds:

The information provided herein is a summary of activities conducted at the Tyco Fire Products LP (Tyco) site associated with the Pump Down Program (PDP) for the former Salt Vault and 8th Street Slip areas. The PDP is required as part of the Administrative Order on Consent between Tyco and the U.S. Environmental Protection Agency (USEPA). This summary report covers the period from October 26, 2019 through November 8, 2019.

Summary of Work during Reporting Period

Work conducted during the reporting period included:

- Manual water level readings at the designated monitoring points and extraction wells were collected at least weekly during the reporting period. The average water level, based on the most recent water level measurements (November 6, 2019) during the reporting period, in the former Salt Vault was 579.92 feet above mean seal level (ft. AMSL), or 2.02 feet above the target level. The average water level in the former 8th Street Slip was 574.76 ft. AMSL, or 3.14 feet below the target level. A cumulative summary of manual water level readings and corrected elevations is attached as Table 1.
- During pumping operations, total groundwater recovery rates in the former Salt Vault area averaged 2.29 gallons per minute (gpm) from the four extraction wells during the reporting period and 4.15 gpm from extraction well EW-8 and EW-9 in the former 8th Street Slip. During this reporting period, based on the water level within the former 8th Street Slip being below target level, extraction well EW-8 was

periodically operated while all other extraction wells operated continuously. Pumps for each of the other extraction wells in each area were reported to have operated continuously as planned into November 4, 2019, at which time all pumping operations were ceased due to winter conditions.

- Off-site transportation of recovered groundwater was conducted during the reporting period until November 6, 2019 at which time the holding tanks were emptied. Off-site disposal operations are limited to five days per week with generally one (1) to two (2) trucks (approximately 5,000 gallons) per day necessary to maintain tank levels allowing for continuous pumping from the extraction wells.

A summary of pumping and disposal operations for the 2019 season is provided below.

Summary of Pump Down Operations (November 8, 2019)

	Gallons Pumped	Gallons Treated at GWTS ¹	Gallons Transported for Off Site Disposal
This Period	~57,500	~0	~74,000
2019 Operations to Date	~1,124,100	~0	~1,124,100 ²

All quantities are estimated

Issues Encountered During Reporting Period

No operational issues occurred during the reporting period.

Issues To Be Resolved During Next Reporting Period

No issues that require resolution have been identified at this time.

Anticipated Work During Next Reporting Period

As noted previously, the temporary system was shut down on November 4, 2019 and modifications are currently being made to the system to allow the collection and storage system to operate for continued winter operation. Manual water level measurements will be collected from the designated monitoring wells and extraction wells on at least a

¹ GWTS – Groundwater Treatment System

² Volume includes stormwater recovered in secondary containment structure

monthly basis during the temporary shut down period and will revert to weekly once operation recommence.

If you have any questions regarding this report, please contact me at 414-524-3344 or jeffrey.howard.danko@jci.com.

Sincerely,



Jeffrey Danko
EHS Manager – Environmental Remediation

Attachments:

Table 1 –Pump Down Program Groundwater Elevation Monitoring

cc: Angela Carey – WDNR
Trevor Moen - WDNR
Joseph Janeczek – Johnson Controls
Ryan Suennen – Tyco Fire Products
Heather Ziegelbauer – Jacobs
Kirk Kapfhammer – Endpoint Solutions

Table 1. 2019 Pump Down Program Groundwater Elevation Monitoring
 Tyco Fire Products LP, Marinette, Wisconsin

Target Elevation	577.9
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Well ID	May 21, 2019		May 23, 2019		May 28, 2019		May 30, 2019		June 4, 2019		June 6, 2019		June 11, 2019		June 13, 2019		June 18, 2019		June 20, 2019		June 24, 2019		June 27, 2019		July 2, 2019		July 9, 2019		
	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	
MW001M	8.64	578.53	8.72	578.45	6.79	580.38	8.56	578.61	8.39	578.78	8.87	578.30	5.45	581.72	8.56	578.61	8.8	578.37	8.76	578.41	8.63	578.54	9.01	578.16	8.7	578.47	8.39	578.78	
MW001S	7.56	579.70	7.63	579.63	5.7	581.56	7.56	579.70	7.31	579.95	7.83	579.43	5.51	581.75	7.52	579.74	7.81	579.45	7.88	579.38	7.64	579.62	8.01	579.25	7.75	579.51	7.41	579.85	
MW002M-R	10.6	580.13	10.64	580.09	8.5	582.27	10.66	580.07	10.38	580.35	10.94	579.78	8.68	582.08	10.55	580.18	10.89	579.83	10.85	579.87	10.72	580.00	11.23	579.48	10.89	579.83	10.46	580.27	
MW002S-R	10.53	579.79	10.56	579.76	8.4	581.92	10.49	579.83	10.33	579.99	10.86	579.46	8.55	581.77	10.46	579.86	10.8	579.52	10.71	579.61	10.62	579.70	11.01	579.31	10.72	579.60	10.39	579.93	
MW031M	7.69	580.34	8.17	579.86	5.78	582.26	8.01	580.02	7.73	580.30	8.33	579.70	6.25	581.79	7.93	580.10	8.38	579.65	8.3	579.73	8.23	579.80	8.58	579.45	8.29	579.74	7.75	580.28	
MW031S	8.88	580.02	9.04	579.86	6.65	582.25	9	579.90	8.82	580.08	9.35	579.55	7.19	581.71	8.95	579.95	9.22	579.68	9.33	579.57	9.32	579.58	9.59	579.31	9.38	579.52	8.78	580.12	
MW113S	10.53	579.76	10.57	579.72	8.42	581.87	10.53	579.76	10.25	580.04	10.82	579.47	8.56	581.73	10.41	579.88	10.75	579.54	10.75	579.54	10.58	579.71	11.02	579.27	10.74	579.55	10.31	579.98	
MW113M	9.69	580.61	9.39	580.91	7.55	582.75	9.72	580.58	9.69	580.61	9.99	580.31	7.8	582.50	9.76	580.54	9.92	580.38	9.91	580.39	9.87	580.43	10.11	580.19	9.96	580.34	9.82	580.48	
MW115P	6.53	582.57	6.55	582.55	6.23	582.87	6.79	582.31	7.45	581.65	7.67	581.42	7.17	581.93	7.7	581.39	8.11	580.98	8.15	580.94	8	581.09	8.51	580.58	8.25	580.84	8.14	580.95	
MW115S	9.71	579.29	9.68	579.32	7.97	581.03	9.64	579.36	9.44	579.56	9.95	579.05	7.23	581.77	9.56	579.44	9.84	579.16	9.77	579.23	9.63	579.37	9.99	579.01	9.65	579.35	9.31	579.69	
MW116P	8.33	581.59	8.39	581.53	8.01	581.91	8.2	581.72	8.21	581.71	8.51	581.41	8.3	581.62	8.32	581.60	8.77	581.15	8.8	581.12	8.78	581.14	9.15	580.77	9.06	580.86	8.96	580.96	
MW116S	10.3	579.61	10.31	579.60	8.4	581.52	10.26	579.65	10.04	579.87	10.54	579.37	7.82	582.10	10.15	579.76	10.46	579.45	10.42	579.49	10.24	579.67	10.68	579.23	10.36	579.55	9.99	579.92	
MW119D	7.64	581.10	7.59	581.15	7.49	581.25	7.45	581.29	7.41	581.33	7.39	581.35	7.33	581.41	7.29	581.45	7.23	581.51	7.19	581.55	7.18	581.56	7.14	581.60	7.07	581.67	7.01	581.73	
EW-3	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	-
EW-10	22.56	565.20	22.93	564.83	21.35	566.41	23.6	564.15	23.42	564.33	23.38	564.37	3.38	584.42	14.63	573.14	14.93	572.84	23.8	563.95	25.12	562.63	25.56	562.19	21.34	566.42	16.22	571.55	
EW-11	21.89	565.42	22.03	565.28	24.49	562.82	23.93	563.38	23.37	563.94	22.91	564.40	4.65	582.69	25.24	562.07	25.41	561.90	25.21	562.10	23.71	563.60	23.56	563.75	25.21	562.10	25.1	562.21	
EW-13	20.21	565.54	20.41	565.34	18.45	567.31	20.56	565.19	21.01	564.74	22.18	563.57	3.3	582.52	21.49	564.26	21.37	564.38	19.09	566.67	16.98	568.79	19.69	566.07	17.56	568.20	17.88	567.88	
EW-14	20.1	566.61	20.23	566.48	20.15	566.56	20.66	566.05	20.26	566.45	21.15	565.56	4.37	582.42	20.94	565.77	21.1	565.61	19.86	566.85	20.87	565.84	21.26	565.45	20.02	566.69	14.55	572.19	
MW034M	12.22	576.03	12.26	575.99	11.66	576.59	11.23	577.02	12.3	575.95	12.49	575.76	11.16	577.09	12.19	576.06	12.24	576.01	12.53	575.72	12.55	575.70	12.84	575.41	12.93	575.32	12.83	575.42	
MW034S	12.41	575.81	12.52	575.70	11.76	576.46	11.65	576.57	12.44	575.78	12.77	575.45	11.56	576.66	12.4	575.82	12.49	575.73	12.75	575.47	12.83	575.39	13.1	575.12	13.2	575.02	13	575.22	
MW036M	12.25	576.34	12.44	576.15	11.75	576.85	11.95	576.65	12.34	576.25	12.74	575.84	11.95	576.65	12.45	576.14	12.57	576.02	12.93	575.65	12.67	575.91	13.32	575.25	13.42	575.15	13.2	575.37	
MW036S	11.61	576.66	11.84	576.43	11.14	577.13	NM	-	11.74	576.53	12.15	576.12	11.4	576.87	11.81	576.46	11.93	576.34	12.3	575.97	12.09	576.18	12.73	575.54	12.85	575.42	12.65	575.62	
MW038M	10.85	576.84	11.05	576.64	10.38	577.31	10.42	577.27	11.09	576.60	11.6	576.09	10.58	577.11	11.31	576.38	11.41	576.28	11.89	575.80	11.4	576.29	12.36	575.33	12.44	575.25	12.19	575.50	
MW038S	10.81	576.90	11.08	576.63	10.4	577.31	10.38	577.33	11.13	576.58	11.68	576.03	10.57	577.14	11.38	576.33	11.49	576.22	12	575.71	11.49	576.22	12.48	575.22	12.56	575.14	12.3	575.40	
MW120D	6.49	582.35	6.09	582.75	6.09	582.75	6.42	582.42	6.27	582.57	6.32	582.52	6.34	582.50	6.24	582.60	6	582.84	6.01	582.83	5.83	583.01	6.13	582.71	6.09	582.75	6.01	582.83	
MW120M	12.11	576.84	12.16	576.79	11.79	577.17	11.9	577.06	12.19	576.76	12.42	576.53	12.08	576.87	12.16	576.79	12.22	576.73	12.4	576.55	12.48	576.47	12.88	576.06	12.99	575.95	12.94	576.00	
MW120S	11.44	577.16	11.41	577.19	11.3	577.30	11.35	577.25	11.41	577.19	11.71	576.88	11.71	576.88	11.5	577.10	11.45	577.15	11.56	577.03	11.7	576.89	12.06	576.53	12.1	576.49	12.17	576.42	
EW-2	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	-
EW-8	18.16	568.60	18.65	568.11	12.2	574.57	8.44	578.34	10.78	576.00	10.82	575.96	8.59	578.19	13.17	573.60	13.21	573.56	13.81	572.96	12.83	573.94	14.24	572.53	14.12	572.65	13.72	573.05	
EW-9	18.33	567.35	18.28	567.40	15.7	569.99	8.61	577.09	17.91	567.77	18.22	567.46	8.47	577.23	16.72	568.97	16.43	569.26	18.88	566.80	20.2	565.48	19.92	565.76	19.93	565.75	19.91	565.77	
MW004M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	-
MW004S	3.94	584.64	3.79	584.79	3.69	584.89	3.84	584.74	4.23	584.35	4.42	584.16	4.64	583.94	4.26	584.32	4.24	584.34	4.41	584.17	4.67	583.91	4.76	583.82	4.62	583.96	4.94	583.64	
MW032M	4.93	583.30	4.62	583.61	4.55	583.68	4.74	583.49	5.05	583.18	5.18	583.05	5.28	582.95	5.03	583.20	4.95	583.28	5.04	583.19	5.11	583.12	5.29	582.94	5.57	582.66	5.35	582.88	
MW032S	4.34	584.02	4.17	584.19	4.19	584.17	4.05	584.31	4.4	583.96	4.6	583.76	4.86	583.50	4.69	583.67	4.48	583.88	4.5	583.86	4.81	583.55	4.87	583.49	5.9	582.46	5	583.36	
MW033M	2.97	585.86	2.73	586.11	2.79	586.04	2.57	586.27	3.31	585.52	3.45	585.37	3.7	585.12	3.38	585.44	3.27	585.56	3.44	585.38	3.69	585.13	3.82	585.00	3.7	585.12	3.97	584.84	
MW033S	2.6	584.57	2.38	584.79	2.47	584.70	2.49	584.68	3.2	583.97	3.1	584.07	3.39	583.78	3.02	584.15	3.08	584.09	3.1	584.07	3.38	583.79	3.47	583.70	3.46	583.71	3.65	583.52	
MW039M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	-
MW039S	1.39	584.70	1.24	584.85	1.11	584.98	1.3	584.79	1.69	584.40	1.84	584.25	2.08	584.01	1.69	584.40	1.69	584.40	1.87	584.22	2.11	583.98	2.24	583.85	2.03	584.06	2.37	583.72	
MW035M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	-
MW035S	5.45	582.22	5.21	582.46	5.55	582.12	5.36	582.31	5.27	582.40	5.28	582.39	5.26	582.41	5.11	582.56	4.99	582.68	5.1	582.57	4.91	582.76	5.12	582.55	4.96	582.71	5.06	582.61	
MW037M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	-
MW037S	4.8	582.28	4.62	582.46	4.5																								

Table 1. 2019 Pump Down Program Groundwater Elevation Monitoring
 Tyco Fire Products LP, Marinette, Wisconsin

Target Elevation	577.9
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Well ID	July 11, 2019		July 16, 2019		July 18, 2019		July 23, 2019		July 25, 2019		July 30, 2019		August 1, 2019		August 6, 2019		August 8, 2019		August 13, 2019		August 15, 2019		August 20, 2019		August 22, 2019		August 27, 2019		
	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	
MW001M	8.7	578.47	5.56	581.61	7.39	579.78	7.43	579.74	8.12	579.05	8.1	579.07	8.42	578.75	7.2	579.97	7.36	579.81	7.38	579.79	8.61	578.56	8.79	578.38	8.74	578.43	8.44	578.73	
MW001S	7.52	579.74	5.7	581.56	6.17	581.09	6.21	581.05	6.91	580.35	7.14	580.12	7.44	579.82	7.25	580.01	7.29	579.97	7.31	579.95	7.63	579.63	7.71	579.55	7.8	579.46	7.47	579.79	
MW002M-R	10.81	579.91	8.85	581.91	9.29	581.46	9.35	581.40	10.21	580.52	10.1	580.64	10.45	580.28	10.37	580.36	10.41	580.32	10.4	580.33	10.74	579.98	10.92	579.80	10.94	579.78	10.59	580.14	
MW002S-R	10.64	579.68	8.68	581.64	9.17	581.15	9.21	581.11	10.31	580.01	9.94	580.38	10.3	580.02	10.19	580.13	10.27	580.05	10.29	580.03	10.62	579.70	10.79	579.53	10.83	579.49	10.13	580.19	
MW0031M	8.12	579.91	6.36	581.68	6.59	581.45	6.66	581.38	7.45	580.58	7.32	580.71	7.81	580.22	7.77	580.26	7.77	580.26	7.79	580.24	8.14	579.89	8.32	579.71	8.31	579.72	7.99	580.04	
MW0031S	9.11	579.79	7.07	581.83	7.57	581.33	7.63	581.27	8.5	580.40	8.35	580.55	8.38	580.52	8.72	580.18	8.72	580.18	8.74	580.16	9.12	579.78	9.29	579.61	9.29	579.61	9.05	579.85	
MW113S	10.62	579.67	8.61	581.68	9.12	581.17	9.17	581.12	10.09	580.20	9.93	580.36	10.32	579.97	10.18	580.11	10.25	580.04	10.29	580.00	10.53	579.76	10.71	579.58	10.8	579.49	10.43	579.86	
MW113M	10	580.30	7.84	582.46	9.19	581.11	8.63	581.67	9.69	580.61	9.53	580.77	9.77	580.53	9.75	580.55	9.76	580.54	9.75	580.55	9.98	580.32	10.14	580.16	10.17	580.13	9.91	580.39	
MW115P	8.29	580.80	7.66	581.43	7.25	581.85	7.38	581.72	7.7	581.39	7.71	581.38	7.76	581.33	7.85	581.24	7.93	581.16	7.89	581.20	8.4	580.69	8.55	580.54	8.6	580.49	8.35	580.74	
MW115S	9.58	579.42	7.27	581.73	8.13	580.87	8.25	580.75	9.02	579.98	8.94	580.06	9.27	579.73	9.13	579.87	9.24	579.76	9.23	579.77	9.58	579.42	9.68	579.32	10.42	578.58	9.42	579.58	
MW116P	9	580.92	8.76	581.16	8.37	581.55	8.35	581.57	8.44	581.48	8.46	581.46	8.64	581.28	8.66	581.26	8.73	581.19	8.71	581.21	9.11	580.81	9.33	580.59	9.36	580.56	9.18	580.74	
MW116S	10.31	579.60	8.23	581.69	8.79	581.13	8.91	581.01	9.69	580.22	9.58	580.33	9.93	579.98	9.83	580.08	9.9	580.01	9.88	580.03	10.23	579.68	10.44	579.47	9.75	580.16	10.04	579.87	
MW119D	7.02	581.72	7.01	581.73	7	581.74	6.96	581.78	6.95	581.79	6.92	581.82	6.86	581.88	6.84	581.90	6.83	581.91	6.81	581.93	6.83	581.91	6.89	581.85	6.82	581.92	6.78	581.96	
EW-3	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM
EW-10	16.67	571.10	5.42	582.37	23.28	564.47	23.322	564.43	19.72	568.04	20.89	566.87	20.8	566.96	18.79	568.97	18.98	568.78	18.79	568.97	18.81	568.95	18.3	569.47	23.81	563.94	23.78	563.97	
EW-11	25.15	562.16	4.73	582.61	25.12	562.19	25.2	562.11	23.95	563.36	25.65	561.66	25.62	561.69	25.25	562.06	25.26	562.05	25.63	561.68	25.32	561.99	25.02	562.29	25.09	562.22	24.85	562.46	
EW-13	16.95	568.82	3.14	582.68	20.91	564.84	20.79	564.96	18.33	567.43	19.89	565.87	21.3	564.45	16.8	568.97	16.91	568.86	16.83	568.94	17.13	568.64	18.12	567.64	20.74	565.01	20.71	565.04	
EW-14	13.67	573.07	4.72	582.06	21.28	565.43	21.33	565.38	19.95	566.76	21.43	565.28	21.41	565.30	21.48	565.23	21.44	565.27	21.46	565.25	21.71	564.99	21.43	565.28	21.42	565.29	21.46	565.25	
MW034M	13	575.25	12.2	576.05	12.98	575.27	12.99	575.26	13.23	575.02	13.15	575.10	13.3	574.95	13.22	575.03	13.36	574.89	13.36	574.89	13.5	574.75	13.64	574.61	13.68	574.57	13.63	574.62	
MW034S	13.24	574.98	12.74	575.48	13.24	574.98	13.15	575.07	13.5	574.72	13.38	574.84	13.6	574.62	13.46	574.76	13.65	574.57	13.72	574.50	13.81	574.41	13.95	574.27	13.99	574.23	13.98	574.24	
MW036M	13.52	575.05	13.41	575.16	13.65	574.92	13.64	574.93	13.95	574.61	13.82	574.74	14.04	574.52	13.92	574.64	14.17	574.39	14.2	574.36	14.3	574.26	14.4	574.15	13.46	575.11	14.1	574.46	
MW036S	12.96	575.31	12.9	575.37	13.1	575.17	13.1	575.17	13.39	574.88	13.92	574.35	13.5	574.77	13.88	574.39	13.61	574.66	13.56	574.71	13.75	574.52	13.84	574.43	13.94	574.33	13.68	574.59	
MW038M	12.62	575.07	12.43	575.26	12.8	574.89	12.7	574.99	13.11	574.58	12.91	574.78	13.23	574.46	13.05	574.64	13.34	574.35	13.36	574.33	13.56	574.13	13.48	574.21	13.69	574.00	13.09	574.60	
MW038S	12.77	574.93	12.54	575.16	12.97	574.73	12.82	574.88	13.25	574.45	13.03	574.67	13.39	574.31	13.2	574.50	13.53	574.17	13.51	574.19	13.72	573.98	13.59	574.11	13.89	573.81	13.19	574.51	
MW120D	6.19	582.65	5.94	582.90	6.01	582.83	6.08	582.76	6.08	582.76	6.08	582.76	5.89	582.95	6.25	582.59	6.18	582.66	6.2	582.64	6.03	582.81	6.58	582.26	6.35	582.49	6.11	582.73	
MW120M	13.08	575.86	12.98	575.96	12.99	575.95	13.12	575.82	13.32	575.61	13.42	575.61	13.42	575.51	13.35	575.58	13.46	575.47	13.33	575.60	13.61	575.32	13.8	575.12	13.8	575.12	13.82	575.10	
MW120S	12.25	576.34	12.26	576.33	12.1	576.49	12.36	576.23	12.48	576.11	12.54	576.05	12.56	576.03	12.55	576.04	12.61	575.98	12.57	576.02	12.77	575.82	12.89	575.70	12.89	575.70	13.04	575.55	
EW-2	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM
EW-8	14.45	572.32	10.4	576.38	14.84	571.93	14.73	572.04	15.39	571.38	15.16	571.61	15.82	570.94	15.75	571.01	15.91	570.85	15.87	570.89	16.01	570.75	18.55	568.21	18.93	567.83	10.99	575.78	
EW-9	19.92	565.76	9.49	576.21	19.58	566.10	19.62	566.06	20.09	565.59	20.13	565.55	19.09	566.59	20.61	565.07	20.81	564.87	20.74	564.94	20.83	564.85	20.81	564.87	20.81	564.87	20.79	564.89	
MW004M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM
MW004S	5.02	583.56	4.66	583.92	4.61	583.97	4.65	583.93	4.59	583.99	4.7	583.88	4.89	583.69	4.92	583.66	4.83	583.75	4.82	583.76	5.23	583.35	5.32	583.26	5.43	583.15	5.2	583.38	
MW032M	5.54	582.69	5.01	583.22	5.03	583.20	5.02	583.21	5.15	583.08	5.21	583.02	5.36	582.87	5.26	582.97	5.21	583.02	5.23	583.00	5.49	582.74	5.69	582.54	5.72	582.51	5.43	582.80	
MW032S	5.09	583.27	4.92	583.44	4.82	583.54	4.68	583.68	4.97	583.39	4.79	583.57	4.97	583.39	5.06	583.30	5.03	583.33	5.03	583.33	5.26	583.10	5.36	583.00	5.38	582.98	5.41	582.95	
MW033M	3.71	585.11	3.7	585.12	3.69	585.13	3.65	585.17	3.66	585.16	3.79	585.03	3.91	584.90	3.92	584.89	4.05	584.76	4.01	584.80	4.19	584.62	4.37	584.44	4.41	584.40	4.23	584.58	
MW033S	4.08	583.09	3.43	583.74	3.43	583.74	3.31	583.86	3.31	583.86	3.4	583.77	3.65	583.52	3.82	583.35	3.72	583.45	3.89	583.28	4.01	583.16	4.09	583.08	4.18	582.99	-	-	
MW039M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM
MW039S	2.42	583.67	2.04	584.05	2.17	583.92	2.2	583.89	2	584.09	2.13	583.96	2.3	583.79	2.34	583.75	2.38	583.71	2.35	583.74	2.68	583.41	2.75	583.34	2.85	583.24	2.62	583.47	
MW035M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM
MW035S	5.09	582.58	4.91	582.76	4.91	582.76	5.11	582.56	5.03	582.64	5.16	582.51	5.08	582.59	5.08	582.59	5.06	582.61	5.08	582.59	5.09	582.58	5.26	582.41	5.3	582.37	5.37	582.30	
MW037M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM
MW037S	4.49	582.59	4.27																										

Table 1. 2019 Pump Down Program Groundwater Elevation Monitoring
 Tyco Fire Products LP, Marinette, Wisconsin

Target Elevation	577.9
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Well ID	October 17, 2019		October 22, 2019		October 24, 2019		October 29, 2019		October 31, 2019		November 6, 2019	
	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)
MW001M	8.8	578.37	8.46	578.71	8.75	578.42	9.02	578.15	8.82	578.35	7.48	579.69
MW001S	7.94	579.32	7.55	579.71	7.79	579.47	8.17	579.09	7.88	579.38	7.61	579.65
MW002M-R	11.11	579.61	10.69	580.03	11.4	579.31	11.34	579.37	11.07	579.65	10.68	580.05
MW002S-R	10.93	579.39	9.18	581.14	11.36	578.96	11.19	579.13	10.91	579.41	10.54	579.78
MW031M	8.4	579.63	8.02	580.01	8.34	579.69	8.63	579.40	8.51	579.52	8.18	579.85
MW031S	9.48	579.42	9.11	579.79	9.45	579.45	9.69	579.21	9.63	579.27	9.21	579.69
MW113S	10.91	579.38	10.53	579.76	11.28	579.01	11.18	579.11	10.87	579.42	10.58	579.71
MW113M	10.09	580.21	9.76	580.54	10.33	579.97	10.27	580.03	10.18	580.12	9.05	581.25
MW115P	8.84	580.25	8.58	580.51	9.43	579.66	9.05	580.04	8.93	580.16	9.22	579.87
MW115S	9.88	579.12	9.51	579.49	9.38	579.62	10.07	578.93	9.85	579.15	9.29	579.71
MW116P	10.54	579.37	9.64	580.28	9.73	580.19	10.02	579.89	9.81	580.10	10.1	579.81
MW116S	9.87	580.04	10.18	579.73	9.91	580.00	10.76	579.15	10.49	579.42	10.11	579.80
MW119D	6.83	581.91	6.78	581.96	6.82	581.92	6.82	581.92	6.83	581.91	6.75	581.99
EW-3	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
EW-10	23.92	563.83	22.06	565.70	21.83	565.93	22.52	565.24	18.74	569.02	7.4	580.39
EW-11	26.91	560.39	25.69	561.61	26.19	561.11	25.49	561.82	23.89	563.42	5.5	581.84
EW-13	19.24	566.52	20.27	565.48	20.91	564.84	18.61	567.15	19.32	566.44	5.44	580.37
EW-14	20.82	565.89	21.02	565.69	21.25	565.46	20.89	565.82	19.12	567.60	6.45	580.33
MW034M	13.54	574.71	13.44	574.81	13.38	574.87	13.59	574.66	13.63	574.62	13.1	575.15
MW034S	13.83	574.39	13.76	574.46	13.73	574.49	13.96	574.26	13.99	574.23	13.68	574.54
MW036M	14.09	574.47	13.61	574.96	13.9	574.66	14.02	574.54	14.22	574.34	13.26	575.31
MW036S	13.52	574.75	13.18	575.09	13.45	574.82	13.49	574.78	13.66	574.61	13.8	574.47
MW038M	13.04	574.65	12.3	575.39	12.74	574.95	12.92	574.77	13.24	574.45	13.31	574.38
MW038S	13.16	574.54	12.33	575.37	12.82	574.88	13.02	574.68	13.37	574.33	13.41	574.29
MW120D	6.19	582.65	6.2	582.64	6.19	582.65	6.27	582.57	6.24	582.60	6.44	582.40
MW120M	13.83	575.09	13.81	575.11	13.76	575.16	13.96	574.96	14.02	574.90	14.05	574.87
MW120S	13.18	575.41	13.19	575.40	13.03	575.56	13.43	575.16	13.35	575.24	13.51	575.08
EW-2	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
EW-8	11.58	575.19	14.53	572.24	14.86	571.91	14.66	572.11	15.42	571.35	11.25	575.52
EW-9	22.05	563.62	20.87	564.81	20.65	565.03	20.86	564.82	20.51	565.17	10.44	575.26
MW004M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW004S	4.24	584.34	4.22	584.36	4.52	584.06	4.64	583.94	4.66	583.92	4.98	583.60
MW032M	4.98	583.25	4.75	583.48	5.12	583.11	5.04	583.19	5.21	583.02	5.55	582.68
MW032S	4.5	583.86	4.49	583.87	4.6	583.76	4.78	583.58	4.82	583.54	5.12	583.24
MW033M	3.33	585.49	3.26	585.57	3.47	585.35	3.71	585.11	3.64	585.18	3.97	584.84
MW033S	2.96	584.21	2.93	584.24	3.12	584.05	3.39	583.78	3.38	583.79	3.69	583.48
MW039M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW039S	1.68	584.41	1.64	584.45	1.95	584.14	2.1	583.99	2.08	584.01	2.4	583.69
MW035M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW035S	5.23	582.44	5.05	582.62	5.11	582.56	5.22	582.45	5.19	582.48	5.44	582.23
MW037M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW037S	4.63	582.45	4.59	582.49	4.6	582.48	4.59	582.49	4.63	582.45	4.76	582.32
SG4	6.52	582.33	6.51	582.34	6.89	581.96	6.62	582.23	6.55	582.30	6.74	582.11
Rough Target Elevation Calc SV*		579.45		579.89		579.39		579.16		579.37		579.92
Rough Target Elevation Calc 8SS*		574.75		575.07		574.93		574.73		574.59		574.76
Target Elevation (NAVD88)		577.90		577.90		577.90		577.90		577.90		577.90
SV Variance		1.55		1.99		1.49		1.26		1.47		2.02
8SS Variance		-3.15		-2.83		-2.97		-3.17		-3.31		-3.14

Notes:

Measurements were collected from top of casing (TOC). All depth measurements are in feet.
 Elevations are reported in feet above mean sea level (AMSL) relative top the North American Vertical Datum 1988 (NAVD88)

Shaded = Well part of evaluation during Drawdown and Interim Phases

Bold = Well part of Target Elevation calculation

- = Information not applicable or not collected

Area Definitions - SV - Salt Vault, 8SS - 8th Street Slip

*Wells identified for target elevation calculation are for during the drawdown and interim phases. Only wells outside the steepest portion of the cone of depression will be included in the calculation of the average elevations. The average elevation of all suitable measured wells will be considered the calculated elevation to compare against the target elevation. The number of post-drawdown phase wells used for this calculation may be reduced and will be determined based on results observed during the drawdown phase.

**Staff gauge damaged; Re-installed and elevations updated from July 2, 2019 and forward after re-surveyed in August 22, 2019

Elevations for MW004S, MW032S, MW032M, MW038S and MW038M were corrected from 4/16/2019 to present - the temporary well extensions were inadvertently removed from the database and needed to be added back in

ID = identification; DTW = depth to water

NM = Not Measured; MW = Monitoring Well