

April 15, 2020

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 March 28, 2020 through April 10, 2020.

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 April 1, 2020 and April 8, 2020. The average water level, based on the most recent water level measurements (April 8, 2020) during the reporting period, in the former Salt Vault was 581.19 feet above mean seal level (ft. AMSL), or 3.29 feet above the target level. The average water level in the former 8th Street Slip was 579.45 ft. AMSL, or 1.55 feet above 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 1.5 gallons per minute (gpm) from the four extraction wells which have been operating continuously during the reporting period. At this time, no water is being extracted from the wells within the former 8th Street Slip, however

we are moving forward with initiating operations within that area to address the rise in water levels.

- Off-site transportation of recovered groundwater was conducted during the reporting period primarily on Monday, Wednesday and Friday of each week or as needed to allowing for continuous pumping from the extraction wells.

A summary of pumping and disposal operations for the 2020 season is provided below.

Summary of Pump Down Operations (April 8, 2020)

	Gallons Pumped	Gallons Treated at GWTS ¹	Gallons Transported for Off Site Disposal
This Period	~30,200	~0	~25,200
2020 Operations to Date	~137,100	~0	~132,100

All quantities are estimated

Issues Encountered During Reporting Period

During pumping operations, the four extraction wells within the Salt Vault operated continuously.

Issues To Be Resolved During Next Reporting Period

No issues that require resolution have been identified at this time with the exception that policies and procedures are being evaluated on an ongoing basis to address the COVID-19 outbreak.

Anticipated Work During Next Reporting Period

The PDP extraction system consisting of the wells within the Salt Vault will continue to be operated on a continuous basis. Also, plans and designs are being finalized to reinstate pumping from the extraction wells within the 8th Street Slip with operations anticipated to begin by the end of April. Finally, manual water level measurements will continue to be collected from the designated monitoring wells and extraction wells on a weekly basis.

¹ GWTS – Groundwater Treatment System

If you have any questions regarding this report, please contact me at 262-349-2528 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
Rick Bethel – Johnson Controls
Ryan Suennen – Tyco Fire Products
Heather Ziegelbauer – Jacobs
Kirk Kapfhammer – Endpoint Solutions

Table 1. 2020 Pump Down Program Groundwater Elevation Monitoring

Tyco Fire Products LP, Marinette, Wisconsin

Target Elevation	577.9
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Well ID	January 8, 2020		January 15, 2020		January 31, 2020		February 5, 2020		February 12, 2020		February 19, 2020		February 28, 2020		March 4, 2020		March 11, 2020		March 17, 2020		April 1, 2020		April 8, 2020			
	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	5.02	582.15	7.81	579.36	8.33	578.84	8.27	578.90	8.32	578.85	8.92	578.25	8.72	578.45	8.68	578.49	8.42	578.75	8.30	578.87	7.35	579.82	6.90	580.27		
MW001S	5.06	582.20	NM	-	NM	-	7.21	580.05	7.34	579.92	7.94	579.32	7.79	579.47	7.63	579.63	7.55	579.71	7.43	579.83	6.26	581.00	5.89	581.37		
MW002M-R	8.26	582.32	9.93	580.63	10.53	580.03	10.51	580.05	10.52	580.04	11.14	579.41	10.97	579.58	10.85	579.70	10.69	579.87	10.64	579.92	9.50	581.07	9.11	581.46		
MW002S-R	8.11	582.21	9.78	580.54	10.08	580.24	10.30	580.02	10.04	580.28	10.98	579.34	10.81	579.51	10.79	579.53	10.56	579.76	10.52	579.80	9.31	581.01	8.95	581.37		
MW031M	5.54	582.52	7.29	580.76	7.91	580.13	7.95	580.09	7.99	580.05	8.46	579.58	8.38	579.66	8.32	579.72	8.16	579.88	7.96	580.08	6.96	581.09	6.52	581.53		
MW031S	6.37	582.53	8.40	580.50	8.85	580.05	8.84	580.06	8.95	579.95	9.46	579.44	9.28	579.62	8.91	579.99	9.04	579.86	8.71	580.19	7.83	581.07	7.34	581.56		
MW113S	8.03	582.26	9.76	580.53	10.31	579.98	10.33	579.96	10.34	579.95	10.97	579.32	10.44	579.85	10.34	579.95	10.52	579.77	10.41	579.88	9.27	581.02	9.90	580.39		
MW113M	7.57	582.73	9.79	580.51	10.07	580.23	10.07	580.23	10.09	580.21	10.51	579.79	10.77	579.53	10.48	579.82	10.11	580.19	9.98	580.32	8.95	581.35	9.12	581.18		
MW115P	6.35	582.74	7.09	582.00	8.12	580.97	8.16	580.93	8.34	580.75	9.15	579.94	8.75	580.34	8.56	580.53	7.51	581.58	7.50	581.59	6.54	582.55	6.29	582.80		
MW115S	6.68	582.32	8.38	580.62	9.44	579.56	9.26	579.74	9.41	579.59	9.65	579.35	9.91	579.09	9.84	579.16	9.64	579.36	9.50	579.50	7.91	581.09	7.60	581.40		
MW116P	7.68	582.24	8.39	581.53	8.91	581.01	8.98	580.94	9.01	580.91	9.62	580.30	9.52	580.40	9.45	580.47	9.28	580.64	9.02	580.90	7.94	581.98	7.75	582.17		
MW116S	7.63	582.29	9.24	580.67	9.97	579.94	9.90	580.01	9.02	580.90	10.55	579.36	10.48	579.43	10.38	579.53	10.15	579.76	10.02	579.89	8.93	580.99	8.55	581.37		
MW119D	6.69	582.05	6.66	582.08	6.69	582.05	6.75	581.99	6.75	581.99	6.80	581.94	6.80	581.94	6.76	581.98	6.88	581.86	7.00	581.74	6.92	581.82	6.89	581.85		
EW-3	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
EW-10	4.91	582.88	24.64	563.11	23.64	564.11	20.28	567.48	12.62	575.16	17.35	570.42	22.46	565.30	22.62	565.14	22.26	565.50	24.73	563.02	24.49	563.26	24.63	563.12		
EW-11	4.23	583.11	27.06	560.24	26.97	560.33	27.09	560.21	27.02	560.28	28.02	559.28	22.24	565.07	23.03	564.28	27.18	560.12	27.24	560.06	27.22	560.08	22.82	564.49		
EW-13	2.85	582.97	4.46	581.35	24.18	561.56	8.07	577.73	25.32	560.42	5.91	579.90	22.37	563.38	22.41	563.34	24.63	561.11	22.14	563.61	24.24	561.50	13.72	572.06		
EW-14	4.51	582.27	5.31	581.47	21.93	564.77	22.44	576.74	6.23	580.55	22.17	564.53	18.72	568.00	16.83	569.90	20.12	566.59	22.02	564.68	21.63	565.07	14.42	572.32		
MW034M	11.51	576.74	11.33	576.92	11.14	577.11	11.14	577.11	10.95	577.30	11.15	577.10	10.89	577.36	10.90	577.35	10.39	577.86	10.03	578.22	9.29	578.96	9.02	579.23		
MW034S	11.82	576.40	11.64	576.58	11.47	576.75	11.45	576.77	11.35	576.87	11.42	576.80	11.24	576.98	11.10	577.12	10.77	577.45	10.43	577.79	9.65	578.57	9.32	579.90		
MW036M	12.50	576.09	12.24	576.35	12.02	576.58	12.01	576.59	10.01	576.82	11.91	576.69	11.80	576.80	12.04	576.56	11.52	577.09	11.30	577.31	10.10	578.53	8.91	579.74		
MW036S	11.96	576.31	11.66	576.61	11.43	576.84	11.43	576.84	11.32	576.95	11.40	576.87	11.22	577.05	11.42	576.85	10.83	577.44	10.55	577.72	9.46	578.81	9.10	579.17		
MW038M	11.34	576.35	11.01	576.68	10.84	576.85	10.78	576.91	10.58	577.11	10.82	576.87	10.62	577.07	10.53	577.16	10.26	577.43	9.78	577.91	8.42	579.27	8.00	579.69		
MW038S	11.33	576.38	11.00	576.71	10.85	576.86	10.80	576.91	10.59	577.12	10.82	576.89	10.55	577.16	10.46	577.25	10.24	577.47	9.71	578.00	8.30	579.41	7.89	579.82		
MW120D	6.94	581.71	6.26	582.39	6.25	582.40	6.59	582.06	6.66	581.99	6.91	581.74	6.74	581.91	6.61	582.04	6.63	582.02	6.80	581.85	6.14	582.51	6.10	582.55		
MW120M	12.47	576.52	12.30	576.69	12.21	576.79	12.21	576.79	12.00	577.00	12.20	576.80	11.98	577.02	12.04	576.96	11.43	577.58	11.12	577.90	9.37	579.68	9.13	579.93		
MW120S	12.02	576.57	11.85	576.74	11.85	576.74	11.73	576.86	11.69	576.90	11.81	576.78	11.61	576.98	11.77	576.82	11.04	577.56	10.55	578.05	9.63	578.97	9.46	579.14		
EW-2	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
EW-8	9.23	577.55	8.90	577.88	8.77	578.01	8.65	578.13	7.50	579.28	8.87	577.91	8.47	578.31	8.61	578.17	8.14	578.64	7.72	579.06	6.45	580.33	6.01	580.78		
EW-9	8.63	577.07	8.42	577.28	8.33	577.37	8.25	577.45	8.10	577.60	8.24	577.46	8.02	577.68	8.37	577.33	7.53	578.17	7.27	578.44	6.45	579.26	6.13	579.58		
MW004M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW004S	4.45	584.13	4.78	583.80	5.01	583.57	4.71	583.87	5.01	583.57	5.35	583.23	5.00	583.58	4.97	583.61	4.50	584.08	4.31	584.27	3.88	584.70	3.88	584.70		
MW032M	5.29	582.94	5.29	582.94	5.34	582.89	5.29	582.94	5.43	582.80	5.92	582.31	5.61	582.62	5.34	582.89	5.02	583.21	5.12	583.11	4.88	583.35	4.76	583.47		
MW032S	4.71	583.65	4.36	584.00	4.94	583.42	4.81	583.55	4.94	583.42	5.39	582.97	5.15	583.21	5.10	583.26	4.57	583.79	4.60	583.76	4.37	583.99	4.28	584.08		
MW033M	3.51	585.31	3.79	585.03	3.97	584.84	3.73	585.09	3.95	584.86	4.00	584.81	4.23	584.58	4.01	584.80	3.51	585.31	3.36	585.46	2.87	585.96	2.91	585.92		
MW033S	3.11	584.06	3.46	583.71	3.64	583.53	3.40	583.77	3.67	583.50	4.33	582.84	3.89	583.28	3.87	583.30	3.20	583.97	2.93	584.24	2.50	584.67	2.62	584.55		
MW039M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW039S	1.92	584.17	2.22	583.87	2.42	583.67	2.15	583.94	2.45	583.64	2.82	583.27	2.64	583.45	2.31	583.78	1.89	584.20	1.78	584.31	1.35	584.74	1.33	584.76		
MW035M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW035S	5.44	582.23	5.32	582.35	5.26	582.41	5.29	582.38	5.32	582.35	5.33	582.34	5.34	582.33	5.27	582.40	5.09	582.58	5.36	582.31	5.20	582.47	5.11	582.56		
MW037M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW037S	4.69	582.39	4.70	582.38	4.70	582.38	4.69	582.39	4.69	582.39	4.85	582.23	4.75	582.33	4.67	582.41	4.51	582.57	4.69	582.39	4.61	582.47	4.50	582.58		
SG4	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
Rough Target Elevation Calc SV*		582.36		580.46		579.89		579.91		579.97		579.31		579.42		579.55		579.69		579.83		580.95		581.19		581.19
Rough Target Elevation Calc 8S*		576.42		576.66		576.81		576.85		577.23		576.85		577.05		577.01		577.48		577.86		579.03		579.45		579.45
Target Elevation (NAVD88)		577.90		577.90		577.90		577.90		577.90		577.90		577.90		577.90		577.90		577.90		577.90		577.90		577.90
SV Variance		4.46		2.56		1.99		2.01		2.07		1.41		1.52		1.65		1.79		1.93		3.05		3.29		3.29
8S Variance		-1.48		-1.24		-1.09		-1.05		-0.67		-1.05		-0.85		-0.89		-0.42		-0.04		1.13		1.55		1.55

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 to the North American Vertical Datum - 1988 (NAVD88)

Shaded = Well part of evaluation during Drawdown and Interim Phases

Bold = Well part of Target Elevation calculation