

December 25, 2020

Mr. Christopher Black
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 Mr. Black:

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 December 5, 2020 through December 18, 2020.

Summary of Work during Reporting Period

Work conducted during the reporting period included:

- Collection of manual water level readings at the designated monitoring points and extraction wells on December 9th, 11th and 16th, 2020. The average water level, based on the most recent water level measurements (December 16th, 2020) during the reporting period, in the former Salt Vault was 579.37 feet above mean seal level (ft. AMSL), or 1.47 feet above the target level. The average water level in the former 8th Street Slip was 574.80 ft. AMSL, or 3.10 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 1.20 gallons per minute (gpm) from the four extraction wells and total recovery rates in the former 8th Street Slip area averaged 3.73 gpm from the two extraction wells when operated. The extraction wells within the former Salt Vault have been continuously operating during the reporting period. Also, during this reporting period, operation of the extraction wells within the 8th Street Slip area

have been on a more intermittent basis to maintain water levels which are presently below target levels.

- Off-site transportation of recovered groundwater was conducted during the reporting period Monday through Friday of each week.

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

Summary of Pump Down Operations (December 18, 2020)

	Gallons Pumped	Gallons Treated at GWTS ¹	Gallons Transported for Off Site Disposal
This Period	~38,850	~0	~38,850
2020 Operations to Date	~1,281,430	~0	~1,280,430

All quantities are estimated.

Issues Encountered During Reporting Period

No operational issues were encountered during this reporting period. Policies and procedures are being evaluated on an ongoing basis to address the COVID-19 outbreak. Otherwise, no issues were encountered during the reporting period that require resolution.

Issues To Be Resolved During Next Reporting Period

Pumping operations will be maximized in the area of the former Salt Vault to the extent possible. Finally, 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 former Salt Vault will be operated on a continuous basis. Extraction wells within the former 8th Street Slip will be operated on an intermittent basis to maintain water levels below target elevations. 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
Ryan Suennen – Tyco Fire Products
Heather Ziegelbauer – Jacobs
Kirk Kapfhammer – Endpoint Solutions Corp.

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	November 3, 2020		November 9, 2020		November 18, 2020		November 23, 2020		December 2, 2020		December 9, 2020		December 11, 2020		December 16, 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)
MW001M	7.92	579.20	8.46	578.66	8.65	578.47	8.65	578.47	8.62	578.50	7.20	579.92	7.65	579.47	7.85	579.27
MW001S	7.17	580.03	7.80	579.40	8.01	579.19	8.00	579.20	7.97	579.23	7.22	579.98	8.33	578.87	7.98	579.22
MW002M-R	10.25	580.28	10.94	579.58	11.13	579.39	11.20	579.32	11.25	579.27	10.44	580.09	10.80	579.72	11.00	579.52
MW002S-R	10.48	579.80	10.85	579.43	11.02	579.26	11.08	579.20	10.95	579.33	10.00	580.28	10.68	579.60	10.89	579.39
MW031M	7.67	580.36	8.40	579.63	8.55	579.48	8.49	579.54	8.63	579.40	7.87	580.16	8.02	580.01	8.47	579.56
MW031S	8.71	580.16	9.45	579.42	9.60	579.27	9.51	579.36	9.57	579.30	8.85	580.02	9.18	579.69	9.49	579.38
MW113S	10.27	580.01	10.81	579.47	10.85	579.43	11.04	579.24	11.12	579.16	10.30	579.98	10.65	579.63	10.84	579.44
MW113M	10.57	579.71	10.85	579.42	10.87	579.40	10.80	579.48	10.90	579.37	10.00	580.28	10.42	579.86	10.80	579.48
MW115P	8.81	580.27	9.07	580.01	9.30	579.78	9.34	579.74	9.42	579.66	9.00	580.08	9.30	579.78	9.29	579.79
MW115S	9.10	579.87	9.85	579.12	9.96	579.01	10.01	578.96	10.13	578.84	10.03	578.94	9.61	579.36	9.89	579.08
MW116P	9.57	580.30	9.72	580.15	9.82	580.04	9.90	579.96	9.97	579.89	9.83	580.03	10.02	579.84	9.93	579.93
MW116S	10.08	579.79	10.41	579.46	10.52	579.35	10.64	579.23	10.73	579.14	9.62	580.25	10.26	579.61	10.46	579.41
MW119D	6.69	582.03	6.72	582.00	6.81	581.91	6.84	581.88	6.86	581.86	6.93	581.79	6.95	581.77	6.96	581.76
EW-3	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
EW-10	24.89	562.13	24.62	562.40	24.32	562.70	24.92	562.10	24.86	562.16	8.45	578.61	24.64	562.38	24.34	562.68
EW-11	22.89	563.77	27.31	559.34	26.87	559.78	27.51	559.14	26.72	559.93	7.44	579.24	27.41	559.24	26.92	559.73
EW-13	5.28	579.84	26.26	558.78	25.93	559.11	22.61	562.45	22.73	562.33	6.73	578.38	24.95	560.10	24.71	560.34
EW-14	21.22	564.80	21.66	564.35	22.07	563.94	22.26	563.75	17.62	568.41	11.43	574.63	18.21	567.82	18.45	567.58
MW034M	13.30	574.92	13.51	574.71	13.33	574.89	13.76	574.46	13.72	574.50	13.31	574.91	13.90	574.32	12.96	575.26
MW034S	13.53	574.65	13.75	574.43	13.52	574.66	13.81	574.37	14.02	574.16	13.91	574.27	14.22	573.96	13.47	574.71
MW036M	14.16	574.38	14.19	574.35	14.01	574.53	14.00	574.54	13.99	574.55	14.41	574.12	14.44	574.09	14.05	574.49
MW036S	13.69	574.56	13.70	574.55	13.55	574.70	13.58	574.67	13.57	574.68	13.91	574.34	13.99	574.26	13.61	574.64
MW038M	11.73	574.41	11.60	574.54	11.30	574.84	11.21	574.93	11.18	574.96	11.84	574.30	11.98	574.16	11.45	574.69
MW038S	13.58	574.24	13.40	574.42	13.08	574.74	13.00	574.82	12.94	574.88	13.70	574.12	13.81	574.01	13.23	574.59
MW120D	6.51	582.09	6.50	582.10	6.41	582.19	6.64	581.96	6.97	581.63	7.16	581.44	6.81	581.79	6.61	581.99
MW120M	13.65	575.27	13.78	575.14	13.80	575.12	13.98	574.93	14.01	574.90	14.12	574.79	14.12	574.79	13.93	574.98
MW120S	13.05	575.47	13.18	575.34	13.22	575.30	13.39	575.13	13.39	575.13	13.45	575.07	13.55	574.97	13.50	575.02
EW-2	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
EW-8	19.28	566.36	17.20	568.44	11.78	573.87	10.93	574.73	13.27	572.38	11.62	574.03	15.52	570.13	11.05	574.60
EW-9	10.07	574.94	20.67	564.32	14.77	570.23	19.62	565.37	19.35	565.64	10.71	574.30	19.94	565.05	10.31	574.70
MW004M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW004S	5.88	582.86	6.00	582.74	5.41	583.33	5.46	583.28	5.51	583.23	4.63	584.11	5.77	582.97	5.82	582.92
MW032M	5.83	582.53	5.97	582.39	5.74	582.62	5.75	582.61	5.86	582.50	5.96	582.40	6.01	582.35	6.03	582.33
MW032S	5.76	582.74	5.92	582.58	5.33	583.17	5.41	583.09	5.50	583.00	5.56	582.94	5.74	582.76	5.92	582.58
MW033M	4.83	582.91	4.92	582.82	4.33	583.42	4.41	583.34	4.46	583.28	4.56	583.18	4.70	583.04	4.83	582.91
MW033S	4.55	582.78	4.66	582.67	4.05	583.28	4.09	583.24	4.14	583.19	4.29	583.04	4.45	582.88	4.55	582.78
MW039M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW039S	3.33	582.87	3.43	582.77	3.13	583.07	2.91	583.29	2.91	583.29	3.10	583.10	3.23	582.97	3.28	582.92
MW035M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW035S	5.52	582.13	5.46	582.19	5.40	582.25	5.48	582.17	5.58	582.07	5.62	582.03	5.98	581.67	5.70	581.95
MW037M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW037S	4.86	582.21	4.89	582.18	4.79	582.28	4.89	582.18	4.93	582.14	5.00	582.07	5.02	582.05	5.08	581.99
SG4	5.30	582.15	5.30	582.15	5.25	582.20	5.50	581.95	5.70	581.75	6.00	581.45	5.70	581.75	5.38	582.07
Rough Target Elevation Calc SV*		579.92		579.36		579.22		579.20		579.15		579.99		579.58		579.37
Rough Target Elevation Calc 8S*		574.74		574.68		574.85		574.73		574.72		574.49		574.32		574.80
Target Elevation (NAVD88)		577.90		577.90		577.90		577.90		577.90		577.90		577.90		577.90
SV Variance		2.02		1.46		1.32		1.30		1.25		2.09		1.68		1.47
8S Variance		-3.16		-3.22		-3.05		-3.17		-3.18		-3.41		-3.58		-3.10

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

- = 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.

ID = identification; DTW = depth to water

NM = Not Measured; MW = Monitoring Well