

September 26, 2018

Mr. Conor Neal  
Hydrogeologist  
Land & Chemicals Division  
US Environmental Protection Agency, Mail Code LU-9J  
77 West Jackson Blvd  
Chicago, IL 60604-3590

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

Dear Mr. Neal:

The information provided herein is a summary of activities conducted at the Tyco Fire Products LP (Tyco) site associated with the Pump Down Program for the former Salt Vault and 8<sup>th</sup> Street Slip areas. The Pump Down Program is required as part of the Administrative Order on Consent between Tyco and U.S. Environmental Protection Agency (USEPA). This summary report covers the period from September 8, 2018 through September 21, 2018.

### **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 during the reporting period, in the former Salt Vault was 578.45 feet above mean seal level (ft. AMSL), or 0.55 feet above the target level. The average water level in the former 8<sup>th</sup> Street Slip was 574.53 ft. AMSL, or 3.37 feet below the target level. A cumulative summary of manual water level readings and corrected elevations is attached as Table 1.
- Total groundwater recovery rates in the former Salt Vault area averaged 0.77 gallons per minute (gpm) per well from the four extraction wells during the reporting period or an average of 0.55 gpm assuming continuous operation during the reporting period (Note – pumping from extraction wells EW-13 and EW-14 was temporarily halted on September 8, 2018 in preparation of well clean out activities). Total groundwater recovery rates in the former 8<sup>th</sup> Street Slip averaged 2.77 gpm per well

from the two extraction wells during pumping operations or an average of 1.78 gpm assuming continuous operation during the reporting period.

- Clean out of extraction wells EW-13 and EW-14, located in the former Salt Vault, was conducted between September 18 -20, 2018 in an attempt to enhance communication between the aquifer and the well. Following clean out, the wells recommenced pumping on September 20, 2018.
- Off-site transportation of recovered groundwater was conducted during the reporting period. Off-site disposal operations are limited to five days per week with generally 1-2 trucks (approximately 5,000-10,000 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 2018 season is provided below.

#### **Summary of Pump Down Operations (through September 21, 2018)**

	Gallons Pumped	Gallons Treated at GWTS <sup>1</sup>	Gallons Transported for Off Site Disposal
This Period	~70,120	~0	~74420
2018 Operations To Date	~1,096,570	~0	~1,100,460 <sup>2</sup>

All quantities are estimated

#### **Issues Encountered during Reporting Period**

The groundwater elevation within the former Salt Vault remains above the target elevation and experienced a relative rise in average water levels during the period of temporary shutdown of extraction wells EW-13 and EW-14. However, the average water level remains well below the Menominee River elevation and the main plant cell indicating that an inward gradient is present, reducing the risk of a release from the area. .

The natural reduction in pumping rates has eliminated the need for the temporary system shut downs. However, because the water level within the former 8<sup>th</sup> Street Slip is well below the target elevation, extraction well EW-8 is periodically shut down to minimize unnecessary water withdrawal from the area.

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<sup>1</sup> GWTS – Groundwater Treatment System

<sup>2</sup> Volume includes stormwater recovered in secondary containment structure

### **Issues To Be Resolved During Next Reporting Period**

Groundwater recovery and water level monitoring will continue in the former Salt Vault area, with the intent to achieve the target elevation during the reporting period. Evaluation of the extraction well clean out results will be conducted. We will continue to evaluate the conditions in the pump down area and address necessary actions.

### **Anticipated Work During Next Reporting Period**

Manual water level measurements will be collected from the designated monitoring wells on a weekly basis. Groundwater elevation data will be provided in the next bi-weekly summary report. Extracted groundwater will continue to be transported to Vickery for disposal.

If you have any questions regarding this report, please contact Jeff Danko at 262-951-6888 or [jeff.danko-ext@jci.com](mailto:jeff.danko-ext@jci.com).

Sincerely,



Jeffrey Danko  
Environmental Project Geologist

#### Attachments:

Table 1 –Pump Down Program Groundwater Elevation Monitoring

cc: Angela Carey – WDNR  
Trevor Moen - WDNR  
Joseph Janeczek – Johnson Controls  
Richard Mator – Johnson Controls  
Ryan Suennen – Tyco Fire Products

TABLE 1  
2016-2018 Pump Down Program Groundwater Elevation Monitoring  
Tyco Fire Products LP  
Marquette, Wisconsin

Table with columns for Well ID, Date (from June 14, 2016 to September 27, 2016), Corrected Groundwater Elevation (for equivalent fresh water), DTW, Target Elevation (577.9), and 85 Variance.

Table with columns for Well ID, Date (from September 10, 2016 to March 2, 2017), Corrected Groundwater Elevation (for equivalent fresh water), DTW, Target Elevation (577.9), and 85 Variance.



