

October 29, 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 8<sup>th</sup> 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 10, 2020 through October 23, 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 October 12<sup>th</sup> and October 20<sup>th</sup>, 2020. The average water level, based on the most recent water level measurements (October 20<sup>th</sup>, 2020) during the reporting period, in the former Salt Vault was 579.88 feet above mean seal level (ft. AMSL), or 1.98 feet above the target level. The average water level in the former 8<sup>th</sup> Street Slip was 574.83 ft. AMSL, or 3.07 feet below the target level. Average water levels in both areas remain below the current river 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 and 8<sup>th</sup> Street Slip areas averaged 4.18 gallons per minute (gpm) from the five extraction wells when operated. With the exception of EW-13, the extraction wells within the former Salt Vault have been continuously operating during the reporting period with periodic, short-term cessation during the week/weekends until the

holding tanks can be emptied. Also, during this reporting period, operation of the extraction wells within the 8<sup>th</sup> 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 (October 23, 2020)**

|                         | Gallons Pumped | Gallons Treated at GWTS <sup>1</sup> | Gallons Transported for Off Site Disposal |
|-------------------------|----------------|--------------------------------------|---|
| This Period             | ~52,800        | ~0                                   | ~60,800                                   |
| 2020 Operations to Date | ~1,116,280     | ~0                                   | ~1,115,280                                |

All quantities are estimated.

#### **Issues Encountered During Reporting Period**

During this reporting period, the primary disposal facility for the arsenic impacted groundwater, Waste Management's Vickery, Ohio facility, continues to limit capacity for accepting of wastes due to maintenance issues. Therefore, the overall volume of water pumped and transported off site for disposal has decreased until such time that disposal capacity is restored at the Waste Management facility. However, water levels in the former 8<sup>th</sup> Street Slip remain below target levels and water levels within the former Salt Vault are decreasing. Additionally, pumping of groundwater from extraction well EW-13 did not occur due to a mechanical issue with that well pump. Finally, 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 while Vickery disposal operations are limited. Additionally, modifications are being further developed to address the EW-13 operations such that it is anticipated that portion

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

of the system will become fully functioning within the next few weeks. Preparations for winter weather operating conditions have commenced. 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 8<sup>th</sup> 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.

If you have any questions regarding this report, please contact me at 262-349-2528 or [jeffrey.howard.danko@jci.com](mailto: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





**Table 1. 2020 Pump Down Program Groundwater Elevation Monitoring**  
 Tyco Fire Products LP, Marinette, Wisconsin

|                  |       |
|------------------|-------|
| Target Elevation | 577.9 |
|------------------|-------|

| Well ID                         | July 29, 2020 |  | August 5, 2020 |  | August 13, 2020 |  | August 18, 2020 |  | August 26, 2020 |  | September 1, 2020 |  | September 8, 2020 |  | September 15, 2020 |  | September 23, 2020 |  | September 29, 2020 |  | October 7, 2020 |  | October 12, 2020 |  | October 20, 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) | DTW              | Corrected Groundwater Elevation (for equivalent fresh water) | DTW | Corrected Groundwater Elevation (for equivalent fresh water) |
| MW001M                          | 6.65          | 580.52   | 7.02           | 580.15   | 7.28            | 579.89   | 7.34            | 579.83   | 7.36            | 579.81   | 7.51              | 579.66   | 7.20              | 579.97   | 7.61               | 579.56   | 7.82               | 579.35   | 7.62               | 579.55   | 6.95            | 580.22   | 7.47             | 579.70   | 8.21             | 578.96   |     |  |
| MW001S                          | 5.62          | 581.64   | 5.98           | 581.28   | 6.39            | 580.87   | 6.39            | 580.87   | 6.55            | 580.71   | 6.63              | 580.63   | 6.06              | 581.20   | 6.77               | 580.49   | 7.05               | 580.21   | 6.75               | 580.51   | 6.67            | 580.59   | 6.59             | 580.67   | 7.42             | 579.84   |     |  |
| MW002M-R                        | 8.77          | 581.81   | 9.17           | 581.40   | 9.54            | 581.03   | 9.53            | 581.04   | 9.70            | 580.87   | 9.80              | 580.77   | 9.35              | 581.22   | 9.96               | 580.60   | 10.22              | 580.34   | 9.95               | 580.61   | 9.84            | 580.73   | 9.78             | 580.79   | 10.57            | 579.99   |     |  |
| MW002S-R                        | 8.66          | 581.66   | 9.00           | 581.32   | 9.40            | 580.92   | 9.40            | 580.92   | 8.94            | 581.38   | 9.63              | 580.69   | 8.64              | 581.68   | 8.95               | 581.37   | 9.01               | 581.31   | 9.02               | 581.30   | 9.10            | 581.22   | 9.53             | 580.79   | 10.43            | 579.89   |     |  |
| MW031M                          | 6.01          | 582.05   | 6.48           | 581.57   | 6.93            | 581.12   | 6.89            | 581.16   | 7.13            | 580.92   | 7.10              | 580.95   | 6.68              | 581.37   | 7.43               | 580.62   | 7.55               | 580.50   | 7.24               | 580.81   | 7.20            | 580.85   | 7.28             | 580.77   | 7.89             | 580.15   |     |  |
| MW031S                          | 6.69          | 582.21   | 7.18           | 581.72   | 7.67            | 581.23   | 6.85            | 582.05   | 7.97            | 580.93   | 7.94              | 580.96   | 7.70              | 581.20   | 8.44               | 580.46   | 8.60               | 580.30   | 8.24               | 580.66   | 8.29            | 580.61   | 8.37             | 580.53   | 8.96             | 579.94   |     |  |
| MW113S                          | 8.63          | 581.66   | 9.01           | 581.28   | 9.39            | 580.90   | 9.40            | 580.89   | 9.55            | 580.74   | 9.66              | 580.63   | 9.24              | 581.05   | 9.74               | 580.55   | 10.08              | 580.21   | 9.80               | 580.49   | 9.70            | 580.59   | 9.61             | 580.68   | 10.24            | 580.05   |     |  |
| MW113M                          | 9.14          | 581.16   | 9.53           | 580.77   | 9.76            | 580.54   | 9.78            | 580.52   | 9.84            | 580.46   | 10.40             | 579.90   | 9.99              | 580.31   | 10.04              | 580.26   | 10.32              | 579.98   | 10.25              | 580.05   | 9.50            | 580.80   | 9.21             | 581.09   | 10.24            | 580.06   |     |  |
| MW115P                          | 6.68          | 582.41   | 7.08           | 582.01   | 7.38            | 581.71   | 7.48            | 581.61   | 7.58            | 581.51   | 7.84              | 581.25   | 7.96              | 581.13   | 8.00               | 581.09   | 8.25               | 580.84   | 8.20               | 580.89   | 8.38            | 580.71   | 8.23             | 580.86   | 8.99             | 580.10   |     |  |
| MW115S                          | 7.75          | 581.25   | 7.79           | 581.21   | 8.42            | 580.58   | 8.44            | 580.56   | 7.60            | 581.40   | 8.58              | 580.42   | 8.05              | 580.95   | 8.86               | 580.14   | 9.07               | 579.93   | 8.41               | 580.59   | 8.37            | 580.63   | 8.33             | 580.67   | 8.99             | 580.01   |     |  |
| MW116P                          | 8.27          | 581.65   | 7.84           | 582.08   | 8.12            | 581.80   | 8.17            | 581.75   | 8.29            | 581.63   | 8.49              | 581.43   | 8.73              | 581.19   | 8.78               | 581.14   | 8.96               | 580.96   | 8.99               | 580.93   | 9.20            | 580.72   | 9.07             | 580.85   | 9.55             | 580.37   |     |  |
| MW116S                          | 7.57          | 582.35   | 8.54           | 581.38   | 9.02            | 580.90   | 9.02            | 580.90   | 9.15            | 580.76   | 9.26              | 580.65   | 8.85              | 581.07   | 9.39               | 580.52   | 9.67               | 580.24   | 9.63               | 580.28   | 9.34            | 580.57   | 9.20             | 580.71   | 9.95             | 579.96   |     |  |
| MW119D                          | 6.30          | 582.44   | 6.28           | 582.46   | 6.28            | 582.46   | 6.28            | 582.46   | 6.30            | 582.44   | 6.30              | 582.44   | 6.39              | 582.35   | 6.40               | 582.34   | 6.42               | 582.32   | 6.45               | 582.29   | 6.53            | 582.21   | 6.54             | 582.20   | 6.65             | 582.09   |     |  |
| EW-3                            | NM            | -  | NM             | -  | NM              | -  | NM              | -  | NM              | -  | NM                | -  | NM                | -  | NM                 | -  | NM                 | -  | NM                 | -  | NM              | -  | NM               | -  | NM               | -  | NM  | -  |
| EW-10                           | 24.58         | 563.17   | 24.66          | 563.09   | 24.66           | 563.09   | 24.66           | 563.09   | 24.68           | 563.07   | 24.60             | 563.15   | 5.92              | 581.87   | 11.05              | 576.73   | 24.62              | 563.13   | 11.92              | 575.86   | 6.52            | 581.27   | 22.85            | 564.91   | 25.53            | 562.22   |     |  |
| EW-11                           | 24.03         | 563.28   | 22.99          | 564.32   | 27.56           | 559.74   | 27.47           | 559.83   | 25.14           | 562.17   | 23.83             | 563.48   | 22.00             | 565.31   | 21.82              | 565.49   | 23.00              | 564.31   | 22.83              | 564.48   | 5.75            | 581.59   | 25.78            | 561.52   | 26.13            | 561.17   |     |  |
| EW-13                           | 24.98         | 560.76   | 4.60           | 581.21   | 22.24           | 563.51   | 25.46           | 560.27   | 22.08           | 563.67   | 18.46             | 567.30   | 23.70             | 562.04   | 19.43              | 566.33   | 21.42              | 564.33   | 4.53               | 581.28   | 4.55            | 581.26   | 4.43             | 581.38   | 4.71             | 581.10   |     |  |
| EW-14                           | 21.56         | 565.15   | 9.47           | 577.29   | 21.31           | 565.40   | 21.61           | 565.10   | 21.75           | 564.95   | 21.40             | 565.31   | 20.45             | 566.26   | 25.94              | 560.74   | 25.12              | 561.57   | 18.51              | 568.21   | 26.64           | 560.04   | 21.14            | 565.57   | 21.60            | 565.11   |     |  |
| MW034M                          | 11.11         | 577.14   | 12.02          | 576.23   | 12.29           | 575.96   | 12.38           | 575.87   | 12.75           | 575.50   | 12.94             | 575.31   | 12.79             | 575.46   | 12.01              | 576.24   | 13.03              | 575.22   | 13.06              | 575.19   | 12.28           | 575.97   | 12.18            | 576.07   | 13.16            | 575.09   |     |  |
| MW034S                          | 11.54         | 576.68   | 12.19          | 576.03   | 12.52           | 575.70   | 12.63           | 575.59   | 13.05           | 575.17   | 13.25             | 574.97   | 12.90             | 575.32   | 12.71              | 575.51   | 13.31              | 574.91   | 13.26              | 574.96   | 12.77           | 575.45   | 12.72            | 575.50   | 13.49            | 574.73   |     |  |
| MW036M                          | 12.18         | 576.41   | 12.29          | 576.30   | 12.78           | 575.80   | 12.95           | 575.63   | 12.15           | 576.44   | 12.68             | 575.90   | 13.40             | 575.17   | 13.50              | 575.07   | 13.72              | 574.85   | 13.70              | 574.87   | 13.51           | 575.06   | 13.43            | 575.14   | 14.10            | 574.46   |     |  |
| MW036S                          | 11.62         | 576.65   | 11.70          | 576.57   | 12.18           | 576.09   | 12.36           | 575.91   | 12.89           | 575.38   | 13.14             | 575.13   | 12.91             | 575.36   | 13.06              | 575.21   | 13.18              | 575.09   | 13.19              | 575.08   | 13.05           | 575.22   | 12.93            | 575.34   | 13.59            | 574.68   |     |  |
| MW038M                          | 9.27          | 576.76   | 9.49           | 576.54   | 10.07           | 575.96   | 10.34           | 575.69   | 11.09           | 574.94   | 11.28             | 574.75   | 10.88             | 575.15   | 10.91              | 575.12   | 11.26              | 574.77   | 11.20              | 574.83   | 10.96           | 575.07   | 11.00            | 575.03   | 11.62            | 574.41   |     |  |
| MW038S                          | 10.98         | 576.73   | 11.24          | 576.47   | 11.89           | 575.82   | 12.19           | 575.51   | 12.97           | 574.73   | 13.14             | 574.56   | 12.69             | 575.01   | 12.71              | 574.99   | 13.13              | 574.57   | 13.05              | 574.65   | 12.76           | 574.94   | 12.85            | 574.85   | 13.48            | 574.22   |     |  |
| MW120D                          | 5.97          | 582.68   | 5.73           | 582.92   | 5.93            | 582.72   | 5.93            | 582.72   | 5.89            | 582.76   | 5.90              | 582.75   | 6.06              | 582.59   | 6.26               | 582.39   | 6.23               | 582.42   | 6.47               | 582.18   | 6.64            | 582.01   | 6.18             | 582.47   | 6.32             | 582.33   |     |  |
| MW120M                          | 11.96         | 577.04   | 12.12          | 576.88   | 12.18           | 576.88   | 12.48           | 576.51   | 12.75           | 576.24   | 12.94             | 576.04   | 12.99             | 575.99   | 13.02              | 575.96   | 13.16              | 575.82   | 13.22              | 575.76   | 13.16           | 575.82   | 13.12            | 575.86   | 13.63            | 575.34   |     |  |
| MW120S                          | 11.43         | 577.16   | 11.40          | 577.19   | 11.66           | 576.93   | 11.77           | 576.82   | 11.90           | 576.69   | 12.18             | 576.41   | 12.45             | 576.14   | 12.26              | 576.33   | 12.44              | 576.15   | 12.55              | 576.04   | 12.69           | 575.90   | 12.54            | 576.05   | 12.92            | 575.67   |     |  |
| EW-2                            | NM            | -  | NM             | -  | NM              | -  | NM              | -  | NM              | -  | NM                | -  | NM                | -  | NM                 | -  | NM                 | -  | NM                 | -  | NM              | -  | NM               | -  | NM               | -  | NM  | -  |
| EW-8                            | 8.90          | 577.88   | 9.37           | 577.41   | 14.03           | 572.74   | 14.44           | 572.33   | 16.50           | 570.26   | 19.09             | 567.67   | 16.90             | 569.86   | 10.52              | 576.26   | 19.66              | 567.10   | 19.73              | 567.03   | 10.60           | 576.18   | 19.04            | 567.72   | 18.91            | 567.85   |     |  |
| EW-9                            | 8.31          | 577.39   | 19.42          | 566.26   | 20.25           | 565.43   | 19.34           | 566.34   | 19.50           | 566.18   | 19.30             | 566.38   | 19.02             | 566.66   | 9.51               | 576.19   | 19.60              | 566.08   | 19.86              | 565.82   | 9.55            | 576.15   | 9.52             | 576.18   | 19.73            | 565.95   |     |  |
| MW004M                          | NM            | -  | NM             | -  | NM              | -  | NM              | -  | NM              | -  | NM                | -  | NM                | -  | NM                 | -  | NM                 | -  | NM                 | -  | NM              | -  | NM               | -  | NM               | -  | NM  | -  |
| MW004S                          | 4.39          | 584.19   | 4.94           | 583.64   | 5.05            | 583.53   | 5.17            | 583.41   | 5.34            | 583.24   | 5.53              | 583.05   | 5.78              | 582.80   | 5.37               | 583.21   | 5.75               | 582.83   | 5.83               | 582.75   | 5.99            | 582.59   | 6.02             | 582.56   | 6.23             | 582.35   |     |  |
| MW032M                          | 4.89          | 583.34   | 5.24           | 582.99   | 5.39            | 582.84   | 5.41            | 582.82   | 5.49            | 582.74   | 5.63              | 582.60   | 5.86              | 582.37   | 5.50               | 582.73   | 5.85               | 582.38   | 5.89               | 582.34   | 6.01            | 582.22   | 5.91             | 582.32   | 6.20             | 582.03   |     |  |
| MW032S                          | 6.47          | 581.89   | 6.27           | 582.09   | 6.12            | 582.24   | 6.06            | 582.30   | 5.97            | 582.39   | 5.94              | 582.42   | 5.92              | 582.44   | 5.89               | 582.47   | 5.79               | 582.57   | 5.89               | 582.47   | 6.03            | 582.33   | 6.15             | 582.21   | 6.26             | 582.10   |     |  |
| MW033M                          | 3.42          | 585.40   | 3.98           | 584.83   | 4.06            | 584.75   | 4.17            | 584.64   | 4.35            | 584.46   | 4.55              | 584.25   | 4.73              | 584.07   | 4.33               | 584.48   | 4.71               | 584.09   | 4.80               | 584.00   | 4.94            | 583.86   | 4.97             | 583.83   | 5.17             | 583.62   |     |  |
| MW033S                          | 3.11          | 584.06   | 3.69           | 583.48   | 3.80            | 583.37   | 3.89            | 583.28   | 4.06            | 583.11   | 4.25              | 582.92   | 4.49              | 582.68   | 4.10               | 583.07   | 4.43               | 582.74   | 4.55               | 582.62   | 4.67            | 582.50   | 4.73             | 582.44   | 4.93             | 582.24   |     |  |
| MW039M                          | NM            | -  | NM             | -  | NM              | -  | NM              | -  | NM              | -  | NM                | -  | NM                | -  | NM                 | -  | NM                 | -  | NM                 | -  | NM              | -  | NM               | -  | NM               | -  | NM  | -  |
| MW039S                          | 1.85          | 584.24   | 2.39           | 583.70   | 2.49            | 583.60   | 2.61            | 583.48   | 2.79            | 583.30   | 2.98              | 583.11   | 3.22              | 582.87   | 2.71               | 583.38   | 3.20               | 582.89   | 3.28               | 582.81   | 3.42            | 582.67   | 3.91             | 582.18   | 3.65             | 582.44   |     |  |
| MW035M                          | NM            | -  | NM             | -  | NM              | -  | NM              | -  | NM              | -  | NM                | -  | NM                | -  | NM                 | -  | NM                 | -  | NM                 | -  | NM              | -  | NM               | -  | NM               | -  | NM  | -  |
| MW035S                          | 4.89          | 582.78   | 4.84           | 582.83   | 4.89            | 582.78   | 4.93            | 582.74   | 4.87            | 582.80   | 4.99              | 582.68   | 5.24              | 582.43   | 5.04               | 582.63   | 5.25               | 582.42   | 5.29               | 582.38   | 5.43            | 582.24   | 5.02             | 582.65   | 5.36             | 582.31   |     |  |
| MW037M                          | NM            | -  | NM             | -  | NM              | -  | NM              | -  | NM              | -  | NM                | -  | NM                | -  | NM                 | -  | NM                 | -  | NM                 | -  | NM              | -  | NM               | -  | NM               | -  | NM  | -  |
| MW037S                          | 4.33          | 582.75   | 4.20           | 582.88   | 4.31            | 582.77   | 4.33            | 582.75   | 4.30            | 582.78   | 4.37              | 582.71   | 4.62              | 582.46   | 4.46               | 582.62   | 4.71               | 582.37   | 4.70               | 582.38   | 4.79            | 582.29   | 4.48             | 582.60   | 4.81             | 582.27   |     |  |
| SG4                             | 6.04          | 582.81   | 5.96           | 582.89   | 5.91            | 582.94   | 6.15            | 582.70   | 6.20            | 582.65   | 4.80              | 582.54   | 4.91              | 582.54   | 5.10               | 582.35   | 5.12               | 582.33   | 5.28               | 582.17   | 5.52            | 581.93   | 5.01             | 582.44   | 5.18             | 582.27   |     |  |
| Rough Target Elevation Calc SV* |               | 581.63   |                | 581.21   |                 | 580.80   |                 | 580.87   |                 | 580.80   |                   | 580.53   |                   | 581.00   |                    | 580.46   |                    | 580.24   |                    | 580.49   |                 | 580.68   |                  | 580.64   |                  | 579.88   |     |  |
| Rough Target Elevation Calc 8S* |               | 5  |                |  |                 |  |                 |  |                 |  |                   |  |                   |  |                    |  |                    |  |                    |  |                 |  |                  |  |                  |  |     |  |