

From: Byers, Harris <Harris.Byers@stantec.com>
Sent: Monday, May 6, 2019 9:27 AM
To: April Kroner; Paul Braun; kmcdaniel@manitowoc.org;
Vanderkloot.james@epa.gov
Cc: Beggs, Tauren R - DNR; Ramanauskas, Peter; Cull, Whitney; Choi, Christopher
Subject: Next Round of Groundwater Sampling at Mirro
Attachments: Figure 1 - Area 8.pdf; Figure 2 - Loading Dock.pdf; Figure 3 - Groundwater Wells.pdf

Team:

I wanted to send a project update email to everyone to cover a few topics. Please take a moment to review the "To" and "cc" lists and forward to others as necessary.

1. I wanted to send out a brief team introduction to Jim Vanderkloot, who will serve as the USEPA Brownfields Program Manager for the City of Manitowoc's Site-Specific Assessment Grant.
2. The geophysical survey went well. As noted on Figure 1, there is a large basement/void located immediately adjacent to and west of the "Area 8" PCB release area. So, we moved SB-57 to the east. Delineation of PCB impacts to the subsurface to the west of "Area 8" may need to occur after slab/basement removal.
3. Soil sampling went well on the 24/25. As initially proposed, the borings were primarily targeted to the "Loading Dock" and "Area 8" PCB release areas (see Figure 1 and Figure 2; attached).
4. Additional soil borings/monitoring wells were installed as illustrated in blue (Figure 3). Unfortunately, we did not get a piezometer installed.

We received the groundwater data back from the first round of sampling. Similar to soil results, detected constituents and concentrations in groundwater are similar to prior work. We are targeting an additional round of groundwater sampling for tomorrow to confirm initial detections and further delineate the horizontal extents of impacts.

Also tomorrow, we will survey the locations of the soil borings and monitoring wells with a sub-m GPS, as some were moved slightly due to access.

We anticipate receiving the groundwater data back ~15d after submittal to the lab (estimated May 29). I think this would be a logical time for us to prepare a written summary letter of the results and submit the letter to this team for review. We could schedule a technical assistance meeting in mid/late June to prioritize next steps for continued investigation in June/July.

Sincerely,

Harris Byers

Sr. Brownfields Project Manager

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Stantec



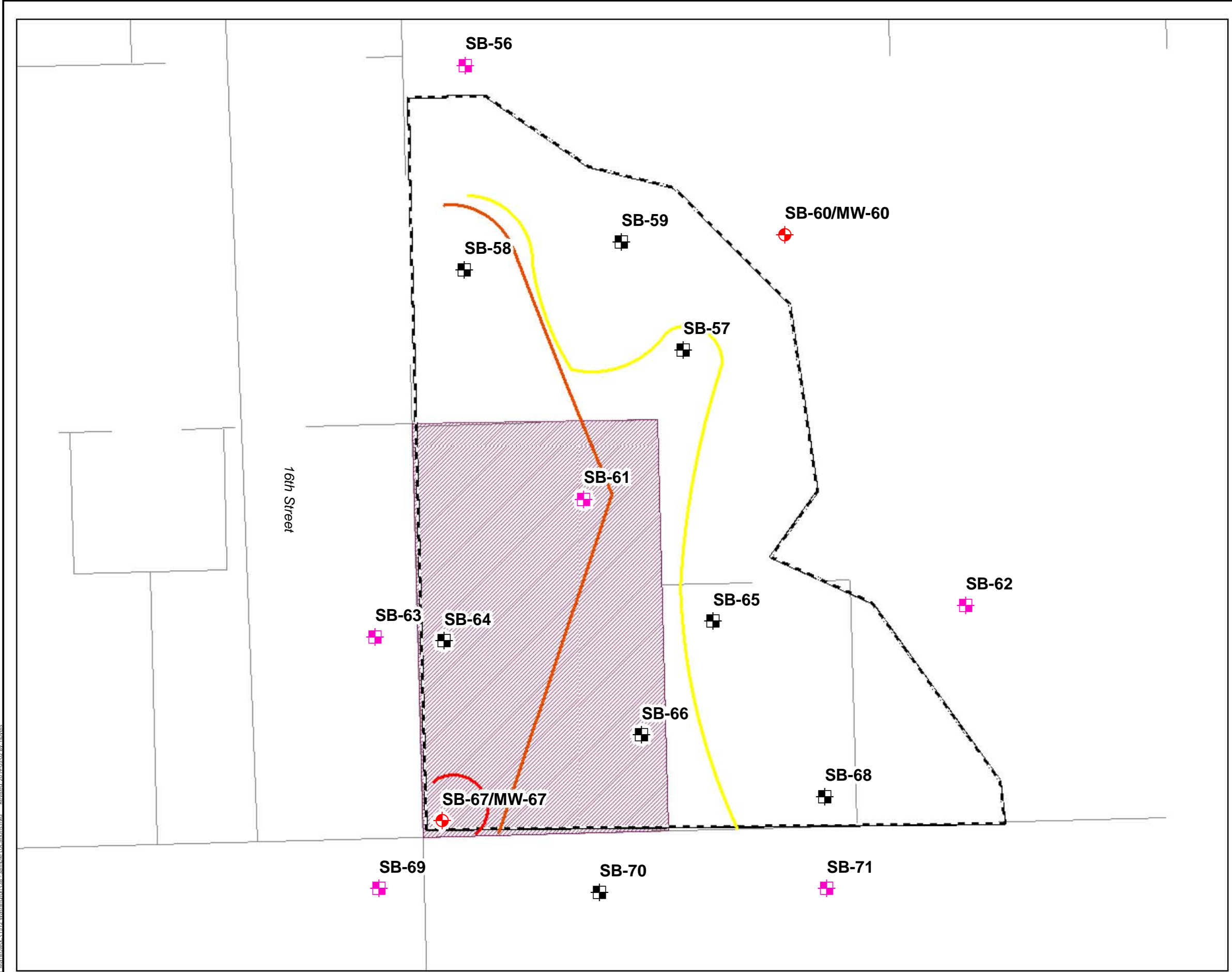
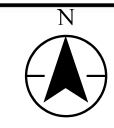


Figure No. 1
 Title **Figure 1. Area 8 Sample Locations**

Client/Project
 City of Manitowoc
 USEPA Brownfield Assessment Grant
 Hazardous Substances

0 3 6 Feet
 193703931
 Prepared by HLB on 5-22-18



Legend

Completed - Monitoring Wells on April 24-25, 2019

- Soil Boring/Monitoring Well (0)
- Soil Boring (8)

Completed - Monitoring Wells on March 25-28, 2019

- Soil Boring/Monitoring Well (2)

Completed - Soil Borings on March 25-28, 2019

- Soil Boring (6)

- LNAPL (Stantec, 2019) (0)

- LNAPL (AES, 2010) (0)

- AMEC (2010) and AECOM (2018) (0)

- Tunnel System

PCBs in Area 8

PCBs in Surface Soil (mg/kg)

- 100
- 1,000
- 10,000

- Removed Concrete

- Former Transformer Pad

- Removed Concrete

PCBs in Surface Soil (mg/kg)

- 100
- 1000
- 10000

Notes

1. Coordinate System: NAD 1983 StatePlane Wisconsin South FIPS 4803 Feet
2. Data Sources Include:
 Orthophotography: 2017 City of Manitowoc
 Data Adapted From: Symbiont (2016) and AES (2011)



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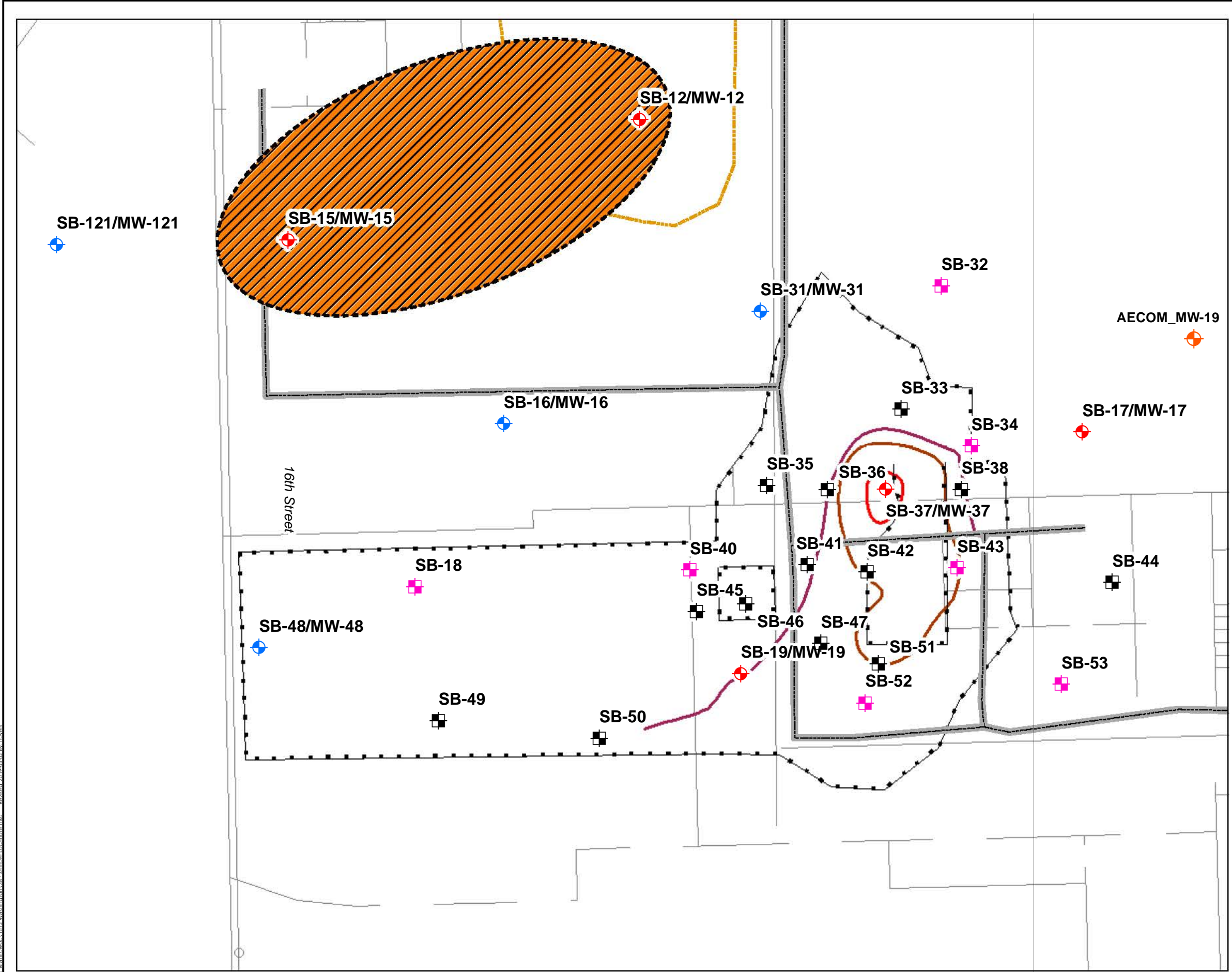


Figure No. **2**
 Title **Figure 2. Sample Locations in Loading Dock**
 Client/Project
 City of Manitowoc
 USEPA Brownfield Assessment Grant
 Hazardous Substances
 193703931
 Prepared by HLB on 5-22-18



Legend

- Completed - Monitoring Wells on April 24-25, 2019**
 - Soil Boring/Monitoring Well (4)
 - Soil Boring (13)
- Completed - Monitoring Wells on March 25-28, 2019**
 - Soil Boring/Monitoring Well (5)
- Completed - Soil Borings on March 25-28, 2019**
 - Soil Boring (7)
- LNAPL (Stantec, 2019) (1)
- LNAPL (AES, 2010) (1)
- AMEC (2010) and AECOM (2018) (1)
- Tunnel System
- PCBs in Area 8**
- PCBs in Surface Soil (mg/kg)**
 - 100
 - 1,000
 - 10,000
- Removed Concrete
- Former Transformer Pad
- Removed Concrete
- PCBs in Surface Soil (mg/kg)**
 - 100
 - 1000
 - 10000

Notes
 1. Coordinate System: NAD 1983 StatePlane Wisconsin South FIPS 4803 Feet
 2. Data Sources Include:
 Orthophotography: 2017 City of Manitowoc
 Data Adapted From: Symbiont (2016) and AES (2011)



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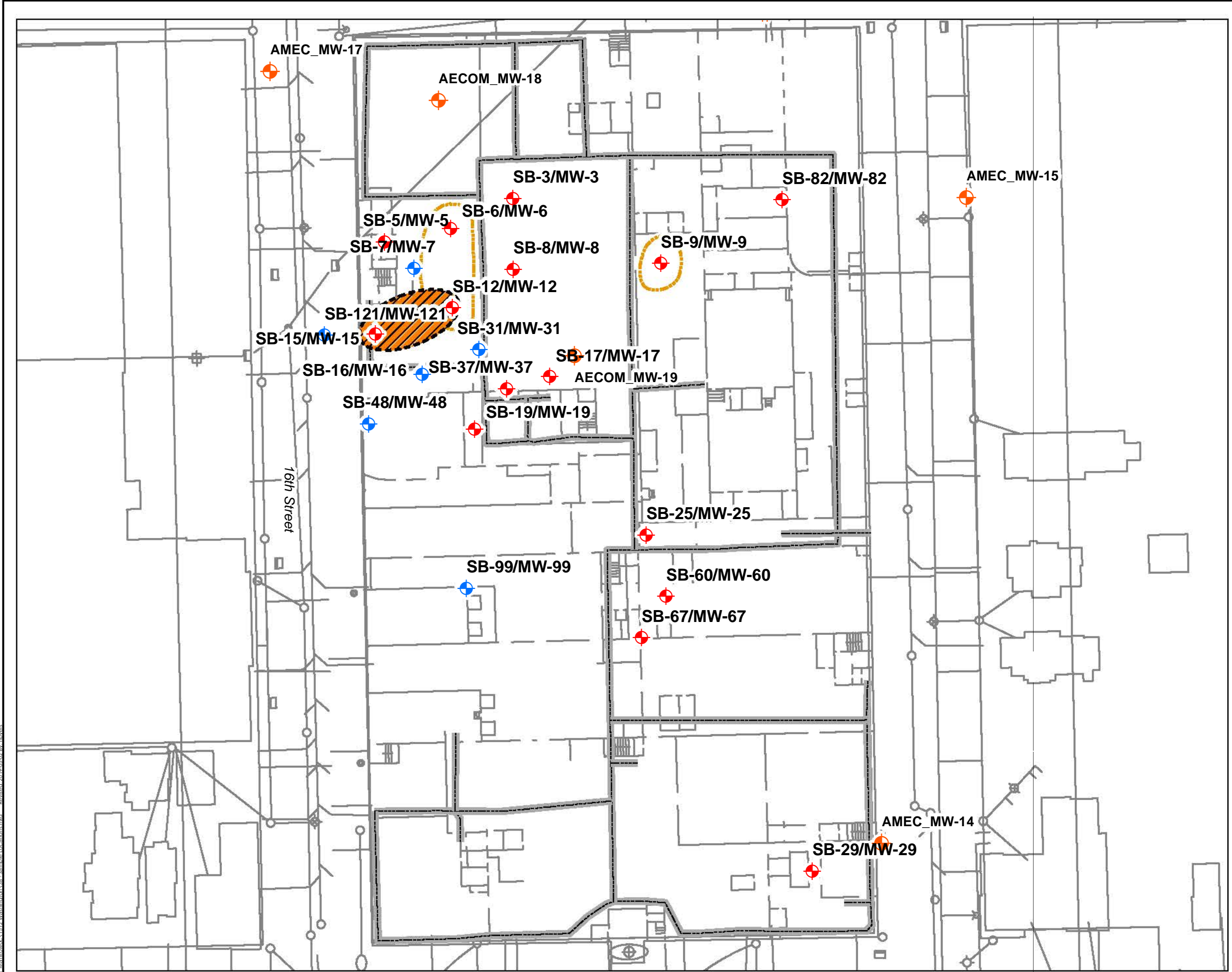


Figure No. **3**
 Title **Figure 3. Monitoring Well Locations**

Client/Project
 City of Manitowoc
 USEPA Brownfield Assessment Grant
 Hazardous Substances

0 40 80 Feet
 193703931
 Prepared by HLB on 5-22-18

Legend

- Completed - Monitoring Wells on April 24-25, 2019
 - Soil Boring/Monitoring Well (6)
- Completed - Monitoring Wells on March 25-28, 2019
 - Soil Boring/Monitoring Well (15)
 - LNAPL (Stantec, 2019) (1)
 - LNAPL (AES, 2010) (2)
 - AMEC (2010) and AECOM (2018) (7)
 - Tunnel System

Notes

1. Coordinate System: NAD 1983 StatePlane Wisconsin South FIPS 4803 Feet
2. Data Sources Include:
 Orthophotography: 2017 City of Manitowoc
 Data Adapted From: Symbiont (2016) and AES (2011)



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