

SUBJECT

Livonia Transmission Plant
36200 Plymouth Road, Livonia, Wayne County, Michigan
EGLE Site ID No. 82002970
Offsite Interim Preemptive Mitigation Installation Quarterly Update

TO

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DATE

July 29, 2022

PROJECT NUMBER

30080642

COPIES TO

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On behalf of Ford Motor Company (Ford), Arcadis of Michigan, LLC (Arcadis) has prepared this quarterly update to the interim preemptive mitigation system installation for the Livonia Transmission Plant (LTP) site (the site) as requested by Michigan Department of Environment, Great Lakes, and Energy (EGLE) via email on May 26, 2019 and on July 26, 2019. As discussed during the meeting with EGLE on October 22, 2020 and documented in the November 30, 2020 letter from EGLE, Ford is providing the mitigation updates on a quarterly basis, with this quarterly update covering the quarter of April through June 2022.

As of June 30, 2022, the following progress has been made at 33 residential properties in the Alden Village subdivision:

- 33 of 33 IPM systems are designed. 31 of 33 are installed and operating. The status of the remaining 2 are described below:
 - Arcadis is in discussion with EGLE regarding an alternative monitoring plan for 12124 Boston Post and 12121 Boston Post in lieu of mitigation.
- 10 of 10 sheds where Retro-Coat™ has been proposed have had it applied to the floor. One shed was removed from the proposed list during the second quarter of 2021 as described below:
 - Arcadis requested an alternative monitoring plan for the remaining shed at 12100 Boston Post which was approved and documented in a letter from EGLE dated April 14, 2021.
- 10 of 10 garages have had Retro-Coat™ applied to the floor.
 - Arcadis requested an alternative monitoring plan for the 3 garages located at 34424 Capitol, 34450 Capitol, and 12091 Brewster which was approved and documented in a letter from EGLE dated April 14, 2021.

Ford has established an Electrical Reimbursement Program to reimburse residents for the electrical costs associated with the operation of interim preemptive mitigation systems. The Electrical Reimbursement Program is administrated by Arcadis on behalf of Ford. Arcadis continues to work with the residents, new and existing, to

assist them with the paperwork (W-9) needed to process as required by the federal tax laws. Electrical reimbursements will continue to be processed and distributed on a quarterly basis.

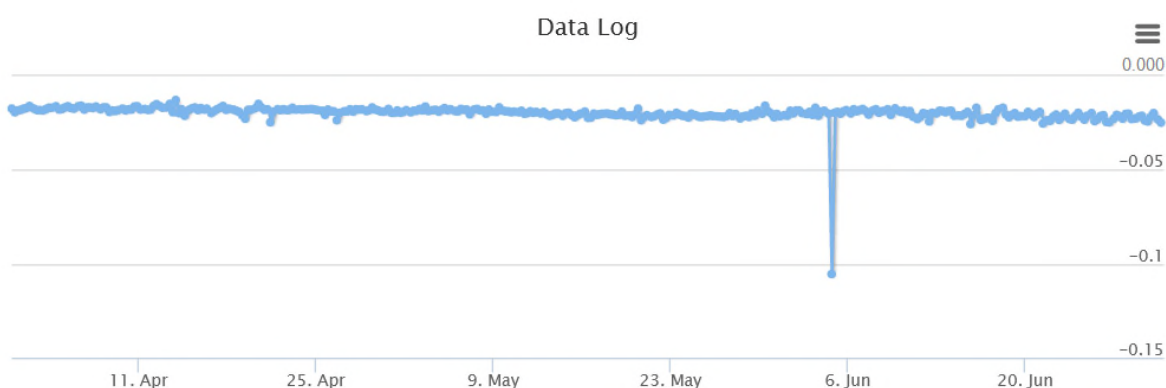
On October 5, 2021, a meeting was held with EGLE to review individual conceptual site models (CSM's) for 11 of the off-site properties. Arcadis on behalf of Ford submitted the second offsite residential CSM memo to EGLE on February 28, 2022. EGLE (Matt Williams) provided additional guidance to Arcadis on April 8, 2022, regarding the memo which is currently in development.

Arcadis continues to work diligently maintain the interim preemptive mitigation systems. Details are provided below for all 33 locations.

Arcadis is preparing the transmittal of the annual operations, maintenance, and monitoring (OM&M) field logs for each property. The field logs document all activities completed at each property.

Interim Preemptive Mitigation Systems Currently Operating

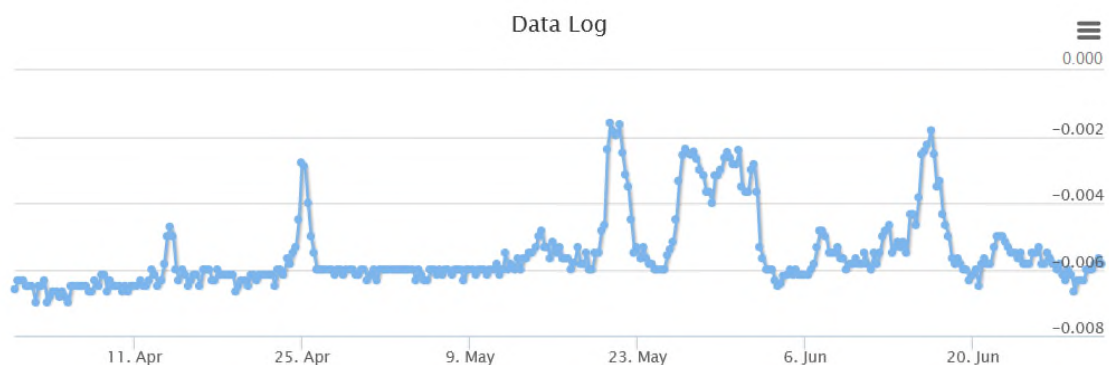
- **34380 Beacon** – The system is currently in operation and maintenance. The second annual OM&M event was completed on April 22, 2022. All monitoring points achieved the performance metric established by EGLE of -0.02 inches water column (in wc).
- **34424 Beacon** – The system is currently in operation and maintenance.
- **34450 Beacon** – The system is currently in operation and maintenance.
- **34550 Beacon** – The system is currently in operation and maintenance.
- **34591 Beacon** – The system is currently in operation and maintenance. An update of the data logged by the vacuum transmitter connected to SSMP-1 is presented below demonstrating that the system continues to operate effectively.



In June 2022 Arcadis was contacted by the homeowner regarding an electrical issue. Arcadis completed an inspection on June 30, 2022, all monitoring points achieved the performance metric established by EGLE of -0.02 inches water column (in wc). Arcadis confirmed the IPM was operational and therefore not anticipated to be the cause of the electrical issue. Arcadis coordinated to have an electrician diagnose the breaker issue, the electrician was scheduled for July 13, 2022. The electrician resolved the electrical issue, further details will be detailed in the Q3 update memo.

- **34600 Beacon** – The system is currently in operation and maintenance.

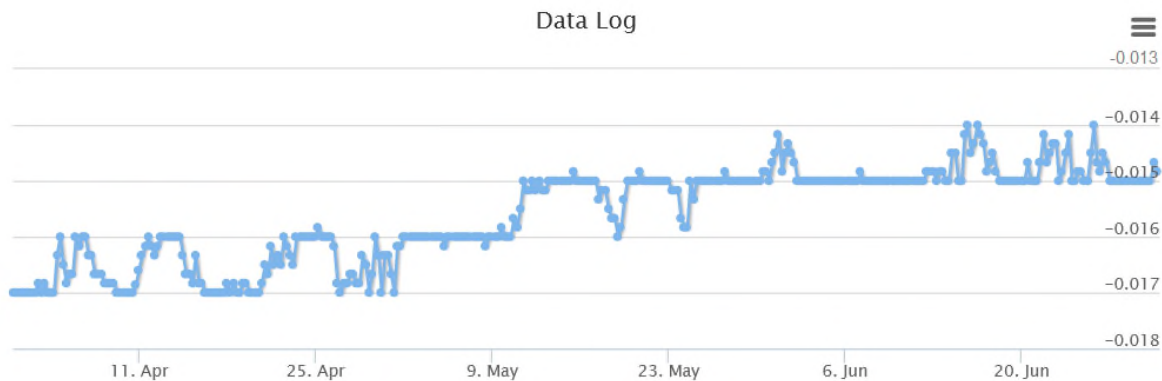
- **34644 Beacon** – The system is currently in operation and maintenance. The annual OM&M event was completed on April 22, 2022. All monitoring points achieved the performance metric established by EGLE of -0.02 inches water column (in wc).
- **34682 Beacon** – The system is currently in operation and maintenance. An update of the data logged by the continuously monitored vacuum transmitter connected to sub-membrane monitoring point MP-5 is presented below indicating that the system continues to operate effectively. The transmitter data provided within previous monthly updates has also shown that vacuum in the area being monitored by the transmitter has been maintained.



On April 14, 2021, EGLE approved a property specific monitoring program for the slab living area and garage consisting of quarterly groundwater sampling at MW-115S, MW-154S, and MW-155S in accordance with the EGLE approval letter. Recent quarterly groundwater sampling results for vinyl chloride at MW-115S have not exceeded the historic high of 3.9 µg/L observed in November 2019 and have not exceeded the groundwater screening level of 1.0 µg/L at MW-154S and MW-155S. Therefore, additional sub-slab sampling was not required. Arcadis was unable to collect a groundwater sample during the first quarter of 2022 at MW-154S. The monitoring well was obstructed by a parked car. Arcadis contacted the homeowner multiple times in an attempt to have the car moved. Arcadis will be working proactively with the homeowner to gain access during 3Q 2022 groundwater sampling event.

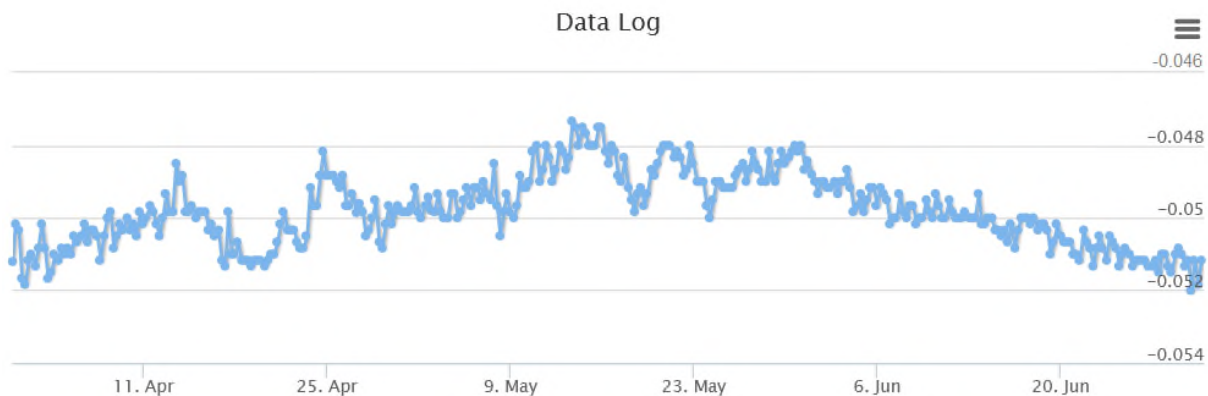
- **34920 Beacon** – The system is currently in operation and maintenance.
- **34940 Beacon** – The system is currently in operation and maintenance. On February 1, 2022, Arcadis inspected the Retro-Coat™ in the basement and no damage was observed on the basement walls, but damage was observed on the basement floor. The Retro-Coat on the floor had several large cracks and appeared to be coming up off the floor. Arcadis offered the property owner an air purifying unit, but the property owner declined. On March 28, 2022, Arcadis deployed two concrete moisture tests on the exposed concrete basement floor where the Retro-Coat™ was removed for the test. On March 31, 2022, Arcadis collected the two moisture tests and provided results to the manufacturer to determine the root cause. Arcadis is in discussions with the manufacturer to determine what will be the best primer to add to the basement floor prior to applying the Retro-Coat™. In addition, Arcadis is developing a path forward to discuss with EGLE in lieu of reapplying the Retro-Coat..
- **34950 Beacon** – The system is currently in operation and maintenance.

- **34990 Beacon** – The system is currently in operation and maintenance. An update of the data logged by the vacuum transmitter connected to MP-7 is presented below demonstrating that the system continues to operate effectively.

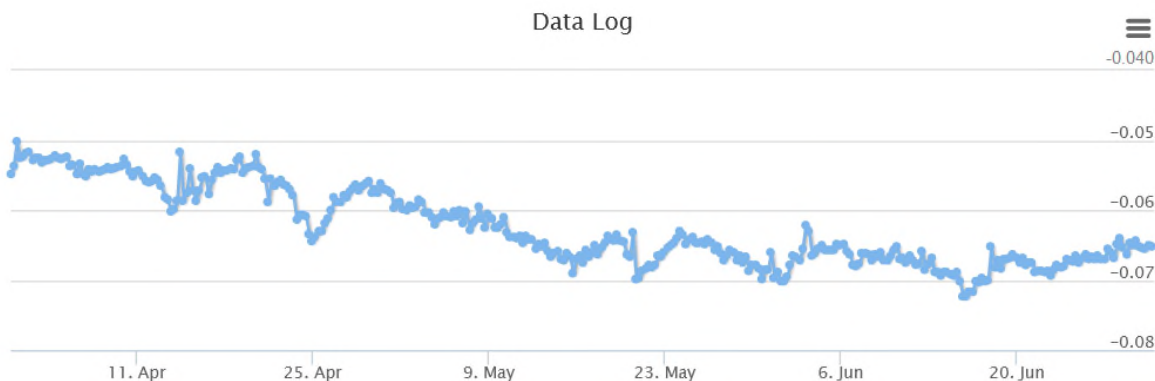


This home was sold in June of 2021 and the new owner provided access to the property on July 27, 2021. The previous property owner had denied the application of Retro-Coat™ in the detached garage since the floor has an existing epoxy coating and imbedded tubing for radiant heat. Arcadis is in discussions with EGLE to develop a monitoring program to assess vapor intrusion potential associated with the slab at this property.

- **12066 Boston Post** – The system is currently in operation and maintenance.
- **12067 Boston Post** – The system is currently in operation and maintenance. An update of the data logged by the vacuum transmitter connected to MP-1 is presented below demonstrating that the system continues to operate effectively.

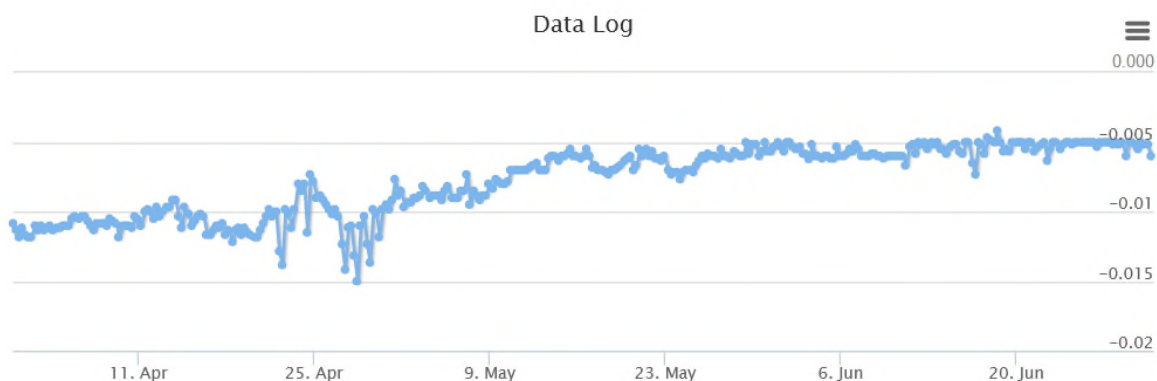


- **12070 Boston Post** – The system is currently in operation and maintenance.
- **12089 Boston Post** – The system is currently in operation and maintenance.
- **12100 Boston Post** – The system is currently in operation and maintenance. An update of the data logged by the vacuum transmitter connected to sub-slab monitoring point SSMP-4 is presented below demonstrating the system continues to operate effectively.

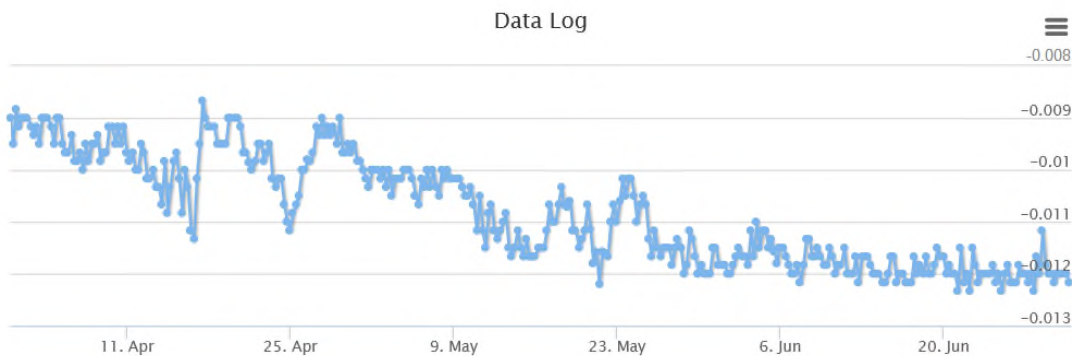


On April 14, 2021, EGLE approved a property specific monitoring program for the slab living area, attached garage, and shed consisting of quarterly groundwater sampling at MW-79SR, MW-115S, and MW-155S in accordance with the EGLE approval letter. Recent quarterly groundwater sampling results for vinyl chloride at MW-115S have not exceeded the historic high of 3.9 µg/L observed in November 2019 and have not exceeded the groundwater screening level of 1.0 µg/L at MW-79SR and MW-155S. Therefore, sub-slab sampling was not required.

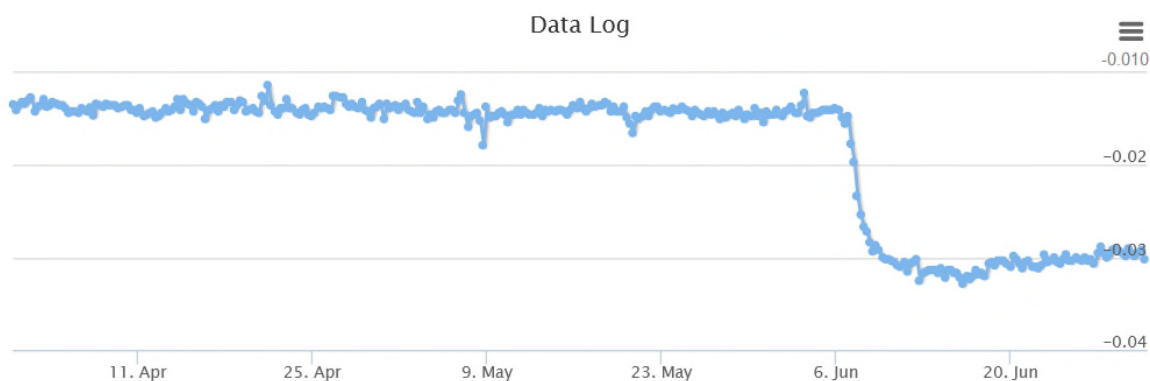
- 12131 Boston Post** –The system is currently in operation and maintenance. An update of the data logged by the vacuum transmitter connected to MP-4 is presented below demonstrating that the system continues to operate effectively. The area being monitored by the transmitter is located beneath a small breezeway between the attached garage and the home. The transmitter data provided within previous quarterly updates has also shown that vacuum in the area being monitored by the transmitter has been maintained.



- 12141 Boston Post** – The system is currently in operation and maintenance. An update of the data logged by the vacuum transmitter connected to MP-4 is presented below demonstrating that the system continues to operate effectively. The transmitter data provided within previous quarterly updates has also shown that vacuum in the area being monitored by the transmitter has been maintained.



- **12017 Brewster** – The system is currently in operation and maintenance. The annual OM&M event was completed on April 15, 2022. All monitoring points achieved the performance metric established by EGLE of -0.02 in wc.
- **12036 Brewster** – The system is currently in operation and maintenance. An update of the data logged by the vacuum transmitter connected to SSMP-2 is presented below demonstrating that the system continues to operate effectively.



- **12075 Brewster** – The system is currently in operation and maintenance.
- **12088 Brewster** – The system is currently in operation and maintenance.
- **12091 Brewster** – The system is currently in operation and maintenance.

On April 14, 2021, EGLE approved a property specific monitoring program for the detached garage consisting of quarterly groundwater sampling at MW-123S and MW-151S and collection of one additional sub-slab sample in accordance with the EGLE approval letter.

On September 30, 2021, Arcadis collected the SSMP sample at the sub-slab sample port, SSMP-01 located in the detached garage. Following receipt and validation of the data package from the sampling event completed on September 30, 2021, Arcadis distributed the data package on November 5, 2021, to all parties following the access agreement. The analytical results from SSMP-01 were non detect for the seven site constituents.

Quarterly groundwater sampling results for vinyl chloride at MW-123S and MW-151S have not exceeded the historic high of 4.6 µg/L observed in December 2018. Therefore, sub-slab sampling was not required.

- **12101 Brewster** – The system is currently in operation and maintenance.
- **34367 Capitol Avenue** – The system is currently in operation and maintenance.
- **34380 Capitol Avenue** – The system is currently in operation and maintenance.
- **34401 Capitol Avenue** – The system is currently in operation and maintenance.
- **34424 Capitol Avenue** – The system is currently in operation and maintenance. The annual OM&M event was completed on January 31, 2022. All monitoring points achieved the performance metric established by EGLE of -0.02 in wc.

On April 14, 2021, EGLE approved a property specific monitoring program for the slab living area and detached garage consisting of quarterly groundwater sampling at MW-90S, MW-103S, MW-136S, MW-148S, and MW-169S and collection of four quarterly sub-slab samples at one new location within the slab portion of the home in accordance with the EGLE approval letter.

On August 26, 2021, Arcadis installed a new sub-slab monitoring point (SSMP-03) in the northwest corner of the concrete slab portion of the home. The sub-slab monitoring point SSMP-03 was installed as part of the approved alternative monitoring plan. The SSMP was placed five feet away from the exterior edge of the concrete slab. Following the installation of SSMP-03, Arcadis turned off the two sub-slab suction points. The first quarterly sampling event was completed on September 30, 2021. Following receipt and validation of the data package, Arcadis distributed the data package on November 5, 2021, to all parties following the access agreement. The analytical results from SSMP-03 were non detect for the seven site constituents.

On December 16, 2021, Arcadis completed the second quarterly SSMP sampling at the sub-slab sample port, SSMP-03 per the alternative monitoring plan. Following receipt and validation of the data package, Arcadis distributed the data package on January 21, 2022, to all parties following the access agreement. The analytical results from SSMP-03 were non detect for the seven site constituents.

On February 1, 2022, Arcadis completed the third quarterly SSMP sampling at the sub-slab sample port, SSMP-03 per the alternative monitoring plan. Following receipt and validation of the data package, Arcadis distributed the data package on March 29, 2022, to all parties following the access agreement. The analytical results from SSMP-03 were non detect for five of the seven site constituents. Tetrachloroethene returned an estimated value of 4.0 µg/m³ which was under the reporting limit of 7.4 µg/m³ and trichloroethene returned a value of 7.1 µg/m³. Neither detection exceeded the residential VIAC criteria.

Quarterly groundwater sampling results for vinyl chloride at MW-136S have not exceeded the historic high of 1.4 µg/L observed in November 2020; at MW-148S have not exceeded the historic high of 2.3 µg/L observed in November 2020; and have not exceeded the groundwater screening level of 1.0 µg/L at MW-90S, MW-103S, and MW-169S. Therefore, additional sub-slab sampling was not required at the existing detached garage sub-slab sample port.

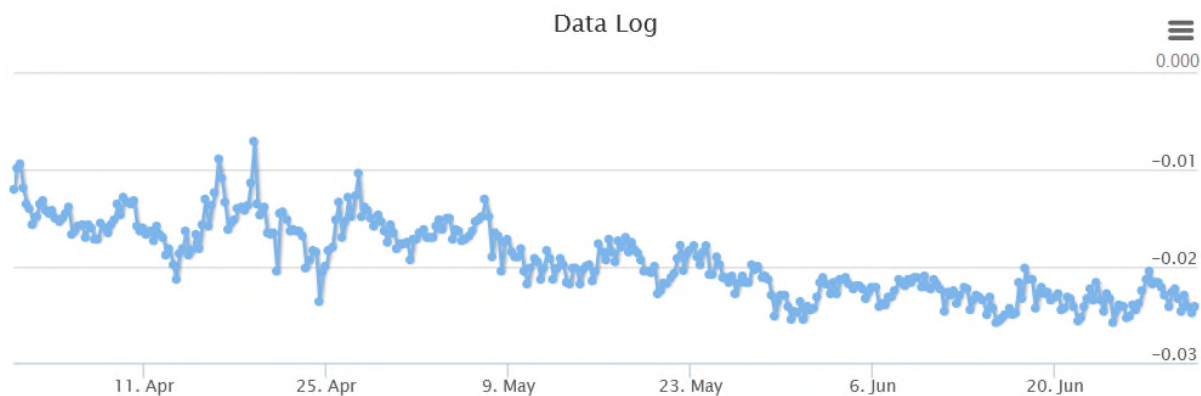
One additional round of sub-slab soil gas sample will be collected in 3Q2022.

- **34450 Capitol Avenue** – The system is currently in operation and maintenance.

On April 14, 2021, EGLE approved a property specific monitoring program for the slab living area and attached garage consisting of quarterly groundwater sampling at MW-108S, MW-137S, MW-168S, and MW-169S in accordance with the EGLE approval letter. Quarterly groundwater sampling results for vinyl chloride at MW-137S have not exceeded the historic high of 1.1 µg/L observed in September 2019 and have not exceeded the groundwater screening level of 1.0 µg/L at MW-108S, MW-168S, and MW-169S. Therefore, sub-slab sampling was not required.

- **34480 Capitol Avenue** – The system is currently in operation and maintenance.

An update of the data logged by the vacuum transmitter connected to SSMP-2 is presented below demonstrating that the system continues to operate effectively.



Interim Preemptive Mitigation Systems – Extension Requested

- **12124 Boston Post** – The property owner has declined an air purifier unit in the past and continues to decline. On October 6, 2020, the homeowner told Arcadis he really did not want a mitigation system installed in his home and he stated that if there was anything that can be done to prevent the installation, he would be very happy. Three rounds of pre-mitigation IA and SS data have been completed. No detections of vinyl chloride were reported in any of the samples. Additionally, all groundwater samples from the closest upgradient monitoring wells, MW-118S (7 rounds) and MW-79SR (8 rounds) have been below the groundwater screening level of 1.0 µg/L. On October 5, 2021, a meeting was held with EGLE to review the CSM data which demonstrates that mitigation is not required at this location and to propose an alternative monitoring plan for 12124 Boston Post. EGLE has reviewed the plan and requested additional information. Arcadis is currently working on providing the additional information.
- **12121 Boston Post** – The property owner was presented with an air purifier on March 21, 2019, as part of the initial preemptive mitigation approach. The air purifier remained on the front porch until March 24, 2019, when an Arcadis employee retrieved the unit. The draft design for the preemptive mitigation system was provided on March 29, 2019. On April 16, 2019, the property owners sent an email indicating that neither Ford nor Arcadis had access to the property any longer. A complaint was filed on July 10, 2019, in the Michigan state court to gain access to this home to complete the installation of the interim preemptive mitigation system.

The suit seeking access to the property at 12121 Boston Post was removed by those property owners to federal court. Ford moved to remand that lawsuit to state court, and it was remanded on January 7, 2020.

Jeanne Schlaufman
Michigan Department of EGLE
July 29, 2022

Under the supervision of EGLE, Ford is continuing to monitor groundwater proximate to the home to accommodate the homeowners' refusal to grant access to their property for other investigation, characterization, or mitigation activities.