

# MEMO

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From:  
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Date:  
May 4, 2021

Arcadis Project No.:  
30050315

Subject:  
Response to EGLE - CSM and Requested Property Specific Monitoring Program for Five Offsite Mitigation Properties related to the Ford Livonia Transmission Plant, 36200 Plymouth Road, Wayne County, Michigan EGLE Site ID No.: 82002970

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On behalf of Ford Motor Company (Ford), this memo has been prepared by Arcadis of Michigan, LLC for the Livonia Transmission Plant (LTP) site (the site). This memo is a response to the April 14, 2021 letter from the Michigan Department of Environmental, Great Lakes, and Energy (EGLE), approving with modifications of the “CSM (*Conceptual Site Model*) and Requested Property Specific Monitoring Program for Five Offsite Mitigation Properties” memorandum, submitted by Arcadis of Michigan, LLC (Arcadis) on behalf of Ford Motor Company (Ford), on February 22, 2021.

- *At 12091 Brewster, Ford should reference Section 5.3 of the VI Guidance and either show why a single point is acceptable or install a 2nd soil-gas point which will be monitored for 4 quarters. In the interim period, continued monitoring should be performed to determine need for mitigation.*

## Response:

Section 5.3 of the VI Guidance (MDEQ 2013) allows for a reduction in the number of sampling locations at large scale sites where groundwater is the primary VOC source, since groundwater tends to be more homogeneous than soil sources and contaminant concentrations within larger plumes are more spatially uniform. Additionally, the detached garage is a small structure, approximately 490 square feet. This is

less than half the 1,000 foot maximum area allowed to be covered by two sampling locations. Therefore, one sub-slab sampling location is appropriate to represent the sub-slab vapor concentrations beneath this structure.

- *Additionally, EGLE Guidance for VIAP Section 5.4.2 reads, "For sites where a known source of vapors remains and the intent is to show that there is no risk of those vapors causing a vapor intrusion condition, four additional sampling events would be needed to adequately address the seasonal and temporal variability." As noted in the memo, Ford has not completed a 4th sampling event at any sub-slab monitoring point at 12091 Brewster. Ford will need to complete an additional sampling event for SSMP-01.*

**Response:**

The 4<sup>th</sup> sub-slab sample at SSMP-01 will be collected during the 3<sup>rd</sup> quarter 2021 to target a season that had yet been sampled.

- *EGLE requires that the garage be monitored for use as interim response may need to be adjusted if evidence of occupancy is observed.*

**Response:**

The garage usage will be monitored during routine annual O&M inspections of the sub-membrane depressurization system at the property.

- *At 34682 Beacon, MW-155S will be included as a conditional well, along with proposed wells MW-115S and MW-154S.*

**Response:**

MW-155S will be included as a conditional well.

- *At 12100 Boston Post, MW-156S will be included as a conditional well, along with proposed wells MW-115S and MW-19SR.*

**Response:**

MW-156S and MW-79SR will be included as conditional wells. Note, it is assumed that EGLE intended to request MW-79SR be included as a conditional well rather than MW-19SR, which is not an existing monitoring well in the network.

- *At 34424 Capitol Ford should reference Section 5.3 of the VI Guidance and either show why a single point is acceptable or install at least 2 soil-gas points for each structure. These will be monitored for 4 quarters. In the interim period, continued monitoring should be performed to determine need for mitigation. MW-148S and MW-90S will be included as conditional wells, along with proposed wells MW-103S, MW136S, and MW-169S.*

**Response:**

Section 5.3 of the VI Guidance (MDEQ 2013) allows for a reduction in the number of sampling locations at large scale sites where groundwater is the primary VOC source, since groundwater tends to be more homogeneous than soil sources and contaminant concentrations within larger plumes are more spatially uniform. Therefore, one sub-slab sampling location within the approximately 700 square foot detached garage is appropriate to represent the sub-slab vapor concentrations beneath this structure.

Additionally, Arcadis will install one sub-slab sampling point within the slab on grade portion of the home, at a minimum distance of 5 feet from the exterior walls, to represent the sub-slab vapor concentration beneath this area. Arcadis will complete four rounds of sub-slab sampling at this location. The existing sub-slab depressurization system will be turned off to the slab on grade area of the home a minimum of 30 days prior to collecting the first sub-slab sample and will remain off unless any sub-slab sample exceeds Residential Sub-Slab Volatilization to Indoor Air Criteria (VIAC) of 54 µg/m<sup>3</sup> residential sub-slab VIAC for vinyl chloride.

MW-148S and MW-90S will be included as conditional wells.

- *At 34450 Capitol, MW-108S will be included as a conditional well, along with proposed wells MW-137S, MW168S, and MW-169S.*

**Response:**

MW-108S will be included as a conditional well.

- *In addition to the above adjustments, it is required that all soil-vapor points which are used in updating CSMs adhere to the 2013 EGLE VI Guidance Document regarding placement. Vapor pin placement must be 5-feet or more from exterior walls. Ford should verify this and reinstall and resample any pins which do not meet placement requirements.*

**Response:**

Arcadis will verify the distance of the sub-slab sample ports from exterior walls.