MEMO

ARCADIS Design & Consultancy for natural and built assets

To:
Paul Owens, District Supervisor
EGLE Warren District Office
27700 Donald Court
Warren, Michigan 48092-2793
owensp@michigan.gov

Copies:
Ms. Beth Vens, EGLE
Mr. Brandon Alger, EGLE
Mr. Todd Walton, Ford

Arcadis of Michigan, LLC
28550 Cabot Drive
Suite 500
Novi
Michigan 48377
Tel 248 994 2240
Fax 248 994 2241

From:
Kris Hinskey

Date:
July 25, 2019

Arcadis Project No.:
30016352 (MI001454.0007)

Subject:
Livonia Transmission Plant
36200 Plymouth Road, Livonia, Wayne County, Michigan
EGLE Site ID No. 82002970
Response to EGLE Comments on Data from 12400 Belden Court and 11675 Belden Court Received July 17, 2019

On behalf of Ford Motor Company (Ford), Arcadis of Michigan, LLC (Arcadis) has prepared this response to comments regarding the letter received from the Michigan Department of Environment, Great Lakes, and Energy (EGLE) via email on July 17, 2019. The letter received from EGLE discusses two specific commercial properties located east of the Livonia Transmission Plant (LTP) site (the site).

The original comments from EGLE are listed below in italics with responses to each to follow.

Comment on 12400 Belden Court

There are multiple detections of trans-1,2-Dichloroethene (DCE) ranging from 6,600 to 14,000 µg/m^3 and detections of Trichloroethene (TCE) ranging from 4,900 to 10,000 µg/m^3 in indoor air samples which exceeds the Time-Sensitive Recommended Interim Action Screening Levels (TS-RIASL). Sub-slab concentrations are as high as 2,300 µg/m^3 for DCE and 2,900 µg/m^3 for TCE, in SSMP-11. The sub-slab concentrations are lower than the indoor air concentrations and the chemical inventory documented numerous chemicals used at the property including TCE, therefore, it appears there is a source of volatiles used within the business; however, due to the sub-slab soil-gas concentrations exceeding the site-specific non-residential criteria, there may be a source of the indoor air DCE and TCE exceedances and pose a risk for vapor intrusion. Ford is required to assess and address this potential vapor intrusion and identify the actions that will be undertaken at this property by July 25, 2019.

Response on 12400 Belden Court

Arcadis has evaluated the available information related to the property located at 12400 Belden Court and the surrounding properties based on EGLE's request. Multiple lines of evidence are available including chemical usage at this property, past and current vapor intrusion sampling results, groundwater sampling results, exterior soil vapor results, and vapor intrusion sampling results from neighboring properties. These multiple lines of evidence indicate that trans-1,2-dichlorethene (trans-1,2-DCE) and TCE identified in indoor air and sub-slab at 12400 Belden Court are the result of activities at the property and are not related to the Ford LTP site. Each line of evidence is discussed below.

Vapor intrusion sampling has occurred at 12400 Belden Court for two rounds: November 15, 2018 and April 9, 2019. Arcadis provided EGLE and the MDHHS a 24-hr notification email on November 30, 2018 and on May 28, 2019 due to exceedances of TCE and trans-1,2-DCE above the TS-RIASLs. A detailed memo was submitted to EGLE and MDHHS on December 13, 2018, that provided additional information related to the facility processes and chemical use. The emails and memo are included in **Attachment 1**.

During both rounds of sampling a detailed chemical inventory was completed, and a variety of chemicals being used inside the facility were inventoried and logged. These chemicals included aerosol canisters of chlorinated solvents including TCE, tetrachloroethene (PCE), and trans-1,2-DCE. Upon making their initial entry into this facility on November 13, 2018, Arcadis staff noted that the handheld PID showed readings of above 5 parts per million (ppm) present in the ambient air space. A second PID was used to confirm the initial findings and averaged between 6 to 14 ppm the ambient air space (PID readings up to 33 ppm were noted during the chemical inventory). Arcadis learned that the current occupant (Advanced Technology Services) repairs industrial equipment and has operated in the building for over 16 years. The current tenant uses chlorinated solvents in the workplace regularly, which includes degreasing equipment, scrap metal bins, and an aerosol recycler that captures excess liquid including chlorinated compounds in a drum. Based on the documented use of TCE and other industrial chemicals inside the building, MIOSHA standards for indoor air exposure are more appropriate for use than the RIASLs.

Photos documenting the presence of chlorinated compounds inside the building are presented below and include products containing TCE, PCE and trans-1,2-DCE. Additional photos show a degreaser, the aerosol can crusher, supplies of aerosols, a scrap metal bin (there were multiple) where chlorinated canisters are disposed of, and a waste solvent drum. Although Arcadis staff noted these items during their site visits, we have no knowledge of past chemical handling or waste disposal procedures at this property.

Groundwater and soil vapor sampling have occurred off site near 12400 Belden Court and west of the property. Multiple rounds (1 to 9 depending on the sample location) of groundwater samples have been collected from monitoring wells MW-52, MW-53, MW-54, MW-54S, MW-57, MW-72, MW-72S, MW-102, MW-102S, and MW-191S. Shallow monitoring wells MW-54S, MW-72S, MW-102S, and MW-191S were installed in the 4Q2018 and 2Q2019 in accordance with the approved Remedial Investigation Response Activity Plan and is related to groundwater delineation in the northeastern quadrant of the site. Monitoring wells MW-54S and MW-102S were installed directly west and east of the of 12400 Belden Court and no detections of TCE, PCE, or trans-1,2-DCE have been identified. Monitoring wells MW-72S and MW-191S located directly south and north east of 12400 Belden Court had detections of one of the following constituents: TCE, vinyl chloride, and/or cis-1,2-DCE. There have been no exceedances of TCE in groundwater as of to date in any of the monitoring wells presented in the northeast quadrant of the site, refer to **Figure 1** for the location of the monitoring wells. Refer to **Attachment 2**, which contains the most recent data and well screen intervals.

In addition, exterior soil vapor (SVMP-25S, SVMP-25D) data that was collected south of 12400 Belden Court has been evaluated. Eight rounds of soil vapor data have been collected from soil vapor monitoring points SVMP-25S and SVMP-25D. No TCE or trans-1,2-DCE have been detected. PCE has been detected at soil vapor monitoring point SVMP-25D (12 µg/m^3) once in 2017 and has been detected once in soil vapor monitoring point SVMP-25S (1.6J µg/m^3) in 2017. Refer to **Attachment 2**, for an updated table and **Figure 1** for SVMP locations.

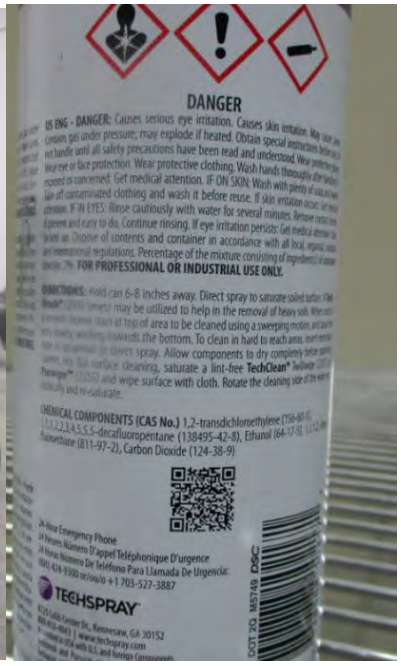
Henry's law can be used to estimate soil vapor concentrations when groundwater is suspected as the source as discussed in the USEPA 2015 vapor intrusion guidance (USEPA 2015 Appendix C). These calculations provide a useful line of evidence in evaluating potential vapor sources, based on assumed equilibrium conditions between groundwater and vapor phases. Based on Henry's law, and assuming a groundwater temperature of 15 degrees Celsius, to generate 2,300 µg/m^3 of trans-1,2-dichloroethene in soil vapor would take roughly 9.1 µg/L of trans-1,2-dichloroethene in groundwater. To generate 2,900 µg/m^3 of TCE in soil vapor would take approximately 12 µg/L of TCE in groundwater. As presented above these groundwater concentrations are not present near the building. Using the maximum detected concentration of TCE detected in groundwater of 0.2 µg/L (shallow monitoring well MW-72S), Henry's law would predict just 49 µg/m^3 in soil vapor. Trans-1,2-DCE has not been detected near 12400 Belden Court so the detection limit of 1 µg/L can be used in a Henry's law calculation; this would yield 253 µg/m^3 at 15 degrees Celsius.

Vapor intrusion sampling (indoor air and sub-slab soil vapor) has occurred at the two commercial properties located immediately to the west and south of 12400 Belden Court. Two rounds of indoor air and sub-slab vapor have been collected from each property. A total of 34 indoor air samples and 49 sub slab soil vapor samples have been collected thus far combined. There was one TCE exceedance documented at location 12555 Belden Court. The soil vapor sample was collected at sub-slab monitoring point SSMP-12555Belden-04 on November 27, 2018 and had a concentration of 620 µg/m^3. A 24-hour notification was submitted to EGLE and the MDHHS, which is provided in **Attachment 1**. In addition, during the same sampling event minor detections of cis-1,2-DCE and PCE were identified. No exceedances were identified during the second round of sampling that occurred at 12555 Belden Court. Only detections of 1,1-DCE, cis-1,2-DCE, TCE, PCE, and 1-4-Dioxane were observed in the indoor air and sub-slab soil vapor, but no exceedances were observed at property 12350 Belden Court. Analytical figures have been generated to show the distribution of constituents below and within the indoor air for the property located at 12400 Belden Court and the surrounding area, refer **Figures 2** through **Figure 5**.

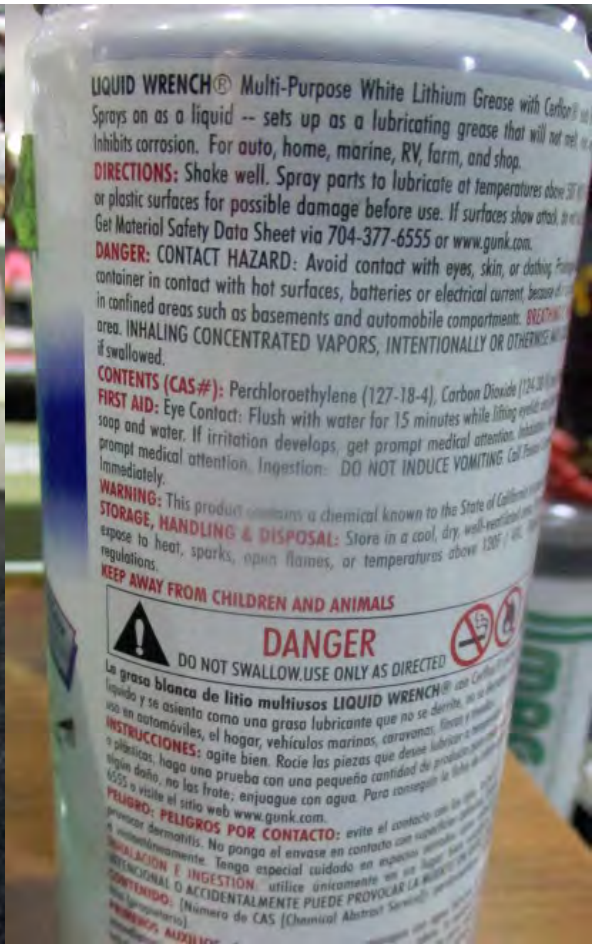
Multiple lines of evidence clearly indicate chemical use inside 12400 Belden Court is the source of TCE detected in indoor air and sub-slab soil vapor at this property. There is no evidence that the impacts noted in indoor air and sub-slab soil vapor are related to the Ford property.

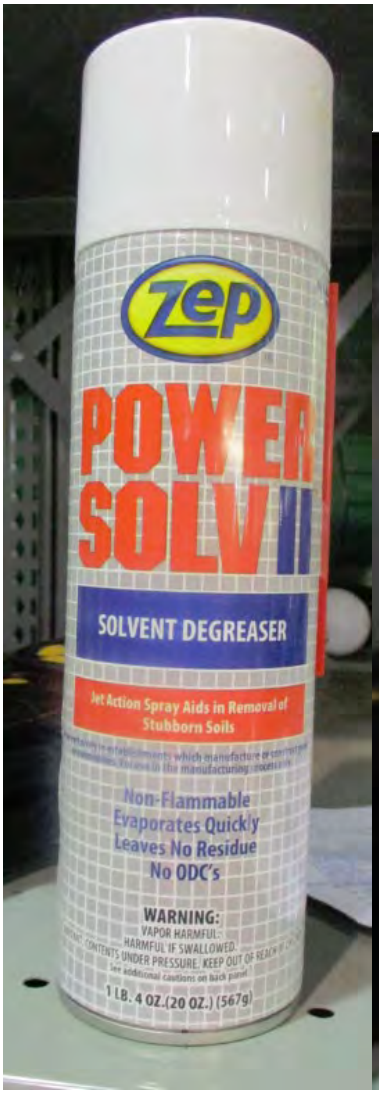
Photos from 12400 Belden Court presented below.

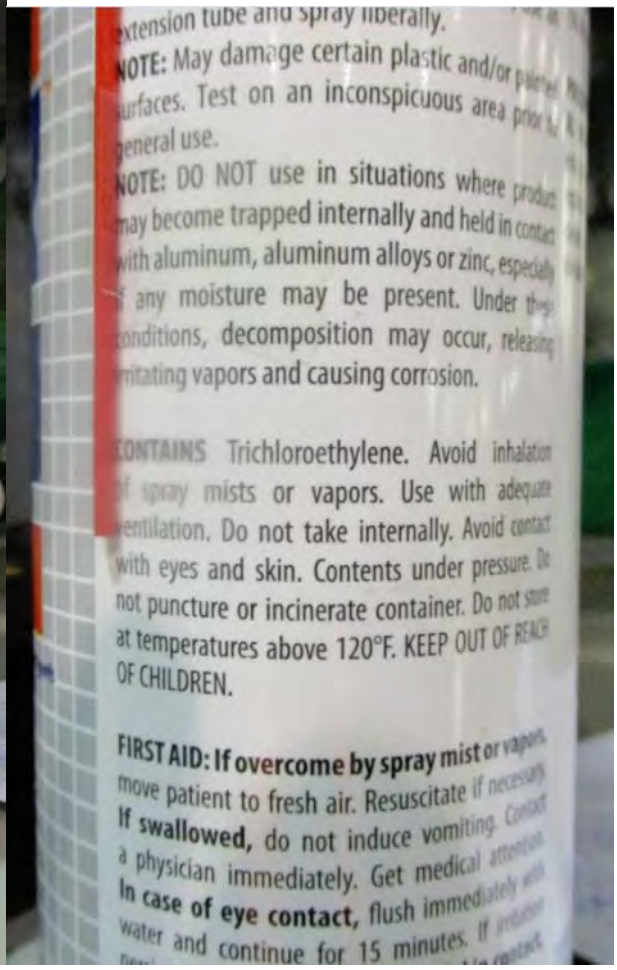

TECHSPRAY
G3
BLUE SHOWER
MAINTENANCE CLEANER
NON-OZONE DEPLETING
NON-FLAMMABLE
SAFE ON MOST PLASTICS


DANGER
FOR PROFESSIONAL OR INDUSTRIAL USE ONLY.
CHEMICAL COMPONENTS (CAS No.) 1,2-transdichloroethylene
Fluoropentane (811-97-2), Carbon Dioxide (124-38-9)
TECHSPRAY
DOT 2O M8710 DSC


GUNK
Liquid
WRENCH
MULTI-PURPOSE
White Lithium
Grease
Grasa Blanca de Litio Multiusos
For Auto, Home, Marine
Cuts Friction, Extends
Will Not Melt, Freeze
Inhibits Corrosion
CONT. NET 10.25 OZ


LIQUID WRENCH® Multi-Purpose White Lithium Grease with Carflon
Sprays on as a liquid -- sets up as a lubricating grease that will not melt
Inhibits corrosion. For auto, home, marine, RV, farm, and shop.
DIRECTIONS: Shake well. Spray parts to lubricate at temperatures above
or plastic surfaces for possible damage before use. If surfaces show attack,
Get Material Safety Data Sheet via 704-377-6555 or www.gunk.com.
DANGER: CONTACT HAZARD: Avoid contact with eyes, skin, or clothing.
container in contact with hot surfaces, batteries or electrical current, because
in confined areas such as basements and automobile compartments.
area. INHALING CONCENTRATED VAPORS, INTENTIONALLY OR OTHERWISE
if swallowed.
CONTENTS (CAS#): Perchloroethylene (127-18-4), Carbon Dioxide
FIRST AID: Eye Contact: Flush with water for 15 minutes while lifting
soap and water. If irritation develops, get prompt medical attention.
prompt medical attention. Ingestion: DO NOT INDUCE VOMITING. Call
Immediately.
WARNING: This product contains a chemical known to the State of California
STORAGE, HANDLING & DISPOSAL: Store in a cool, dry, well-ventilated
expose to heat, sparks, open flames, or temperatures above
regulations.
KEEP AWAY FROM CHILDREN AND ANIMALS
DANGER
DO NOT SWALLOW. USE ONLY AS DIRECTED
La grasa blanca de litio multiusos LIQUID WRENCH®
líquido y se asienta como una grasa lubricante que no se derrite,
uso en automóviles, el hogar, vehículos marinas, caravanas,
INSTRUCCIONES: agite bien. Rocíe las piezas que desee lubricar
o plásticas, haga una prueba con una pequeña cantidad de
algún daño, no las frote; enjuague con agua. Para conseguir la
6555, o visite el sitio web www.gunk.com.
PELIGRO: PELIGROS POR CONTACTO: evite el contacto
provocar dermatitis. No ponga el envase en contacto con
inmediatamente. Tenga especial cuidado en espacios
INHALACION E INGESTION: utilice únicamente en
INTENCIONAL O ACCIDENTALMENTE PUEDE PROVOCAR LA
CONTENIDO: [Número de CAS (Chemical Abstract


zep
POWER SOLV II
SOLVENT DEGREASER
Jet Action Spray Aids in Removal of Stubborn Soils
Non-Flammable
Evaporates Quickly
Leaves No Residue
No ODC's
WARNING:
VAPOR HARMFUL
HARMFUL IF SWALLOWED
CONTENTS UNDER PRESSURE. KEEP OUT OF REACH
1 LB. 4 OZ.(20 OZ.) (567g)


extension tube and spray liberally.
NOTE: May damage certain plastic and/or
surfaces. Test on an inconspicuous area prior
general use.
NOTE: DO NOT use in situations where
may become trapped internally and held in
with aluminum, aluminum alloys or zinc,
any moisture may be present. Under
conditions, decomposition may occur,
irritating vapors and causing corrosion.
CONTAINS Trichloroethylene. Avoid inhalation
spray mists or vapors. Use with adequate
ventilation. Do not take internally. Avoid
with eyes and skin. Contents under pressure.
not puncture or incinerate container. Do not
at temperatures above 120°F. KEEP OUT OF
OF CHILDREN.
FIRST AID: If overcome by spray mist or vapors,
move patient to fresh air. Resuscitate if
If swallowed, do not induce vomiting.
a physician immediately. Get medical
In case of eye contact, flush
water and continue for 15 minutes.


USED AEROSOL CAN
COLLECTION AREA


DANGER
FLAMMABLE
VAPORS


NO SMOKING
THIS UNIT
CONTAINS
COMBUSTIBLE
MATERIALS

Comment on 11675 Belden Court

TCE was detected in all 5 recent indoor air samples with concentrations ranging from 3.8 to 14 µg/m^3 which exceeds the TS-RIASL. TCE in sub-slab soil gas was detected at 250 µg/m^3. Sources of chemicals such as TCE were removed prior to and during the sampling event. The sub-slab soil gas concentration and indoor air concentrations exceed the site specific non-residential criteria and the sub-slab soil gas is present at higher concentrations than the indoor air detections; it appears that the TCE detected in indoor air may be attributable to the TCE present in the sub-slab soil gas. Therefore, Ford is required to assess and address this vapor intrusion and identify the actions that will be undertaken at this property by July 25, 2019.

Response on 11675 Belden Court

Arcadis has reviewed available date from 11675 Belden Court and surrounding properties based on the request detailed above. Multiple lines of evidence are available including chemical usage at this property, past vapor intrusion sampling results, groundwater sampling results, exterior soil vapor results, and vapor intrusion sampling results from neighboring properties. These multiple lines of evidence indicate the TCE noted below 11675 Belden Court is the result of activities at the property and are not related to the Ford LTP site. Each line of evidence is discussed below.

Vapor intrusion sampling has occurred at 11675 Belden Court for two rounds: November 29, 2018 and March 28, 2019. Arcadis provided EGLE and the MDHHS a 24-hr notification email on December 11, 2018 and on June 13, 2019 due to exceedances of TCE above the TS-RIASLs. A detailed memo was submitted to EGLE and MDHHS on December 13, 2018, that provided additional information related to the facility processes and chemical use. The emails and memo are included in **Attachment 1**.

During the initial building survey conducted at the site on November 21, 2018, Arcadis staff observed the presence of a drum of TCE. The drum was located in the warehouse portion of the building. The tenant indicated TCE was used in the processing of asphalt samples. Two drums of TCE were noted during the building survey and are shown in the photographs below. TCE was listed on the safety data sheet (SDS) inventory which was provided by the tenant for Arcadis to review. During the building survey conducted in March 2019, the tenant indicated the use of TCE had been terminated. Additionally, all obvious volatile organic compounds were removed from the site during the second round of sampling and stored in either the radioactive storage room or in company vehicles in the parking lot. TCE was noted at higher concentrations in the first round of sampling than in the second round. TCE was noted in sub-slab soil gas at similar concentrations in both rounds of sampling.

Arcadis learned that the current occupant (NTH Consultants, Ltd.) is an environmental consultant who has an on-site lab for the testing of asphalt samples. NTH has operated in this space for over 10 years. Although Arcadis staff noted the use of TCE and other chemicals during the November 2018 site visit, we have no knowledge of past chemical handling or waste disposal procedures at this property.

Three rounds of groundwater sampling from well MW-100S have been collected directly east of 11675 Belden Court; all samples have been non-detect for TCE. Only one estimated detection of VC (0.22 J µg/L) has been identified. Nine rounds of upgradient groundwater sampling has been completed onsite. Analytical results from the three monitoring wells (MW-30, MW-31, and MW-71) show no detections or exceedances of TCE. Exterior soil vapor has been collected nearby from sample point SVMP-28 and nine consecutive samples are non-detect for TCE, refer to **Figure 1** for the location of the monitoring wells. Refer to **Attachment 2**, which contains most recent data and screen intervals.

Henry's law has again been used to estimate concentrations in soil vapor that could be present if groundwater were the source. Based on Henry's law, and assuming a groundwater temperature of 15 degrees Celsius, to generate 250 µg/m^3 of TCE in soil vapor would take approximately 1 µg/L in groundwater. As presented above, these groundwater concentrations are not present near this building nor are these estimated soil vapor concentrations present in sub-slab soil vapor at any locations from surrounding properties as discussed below.

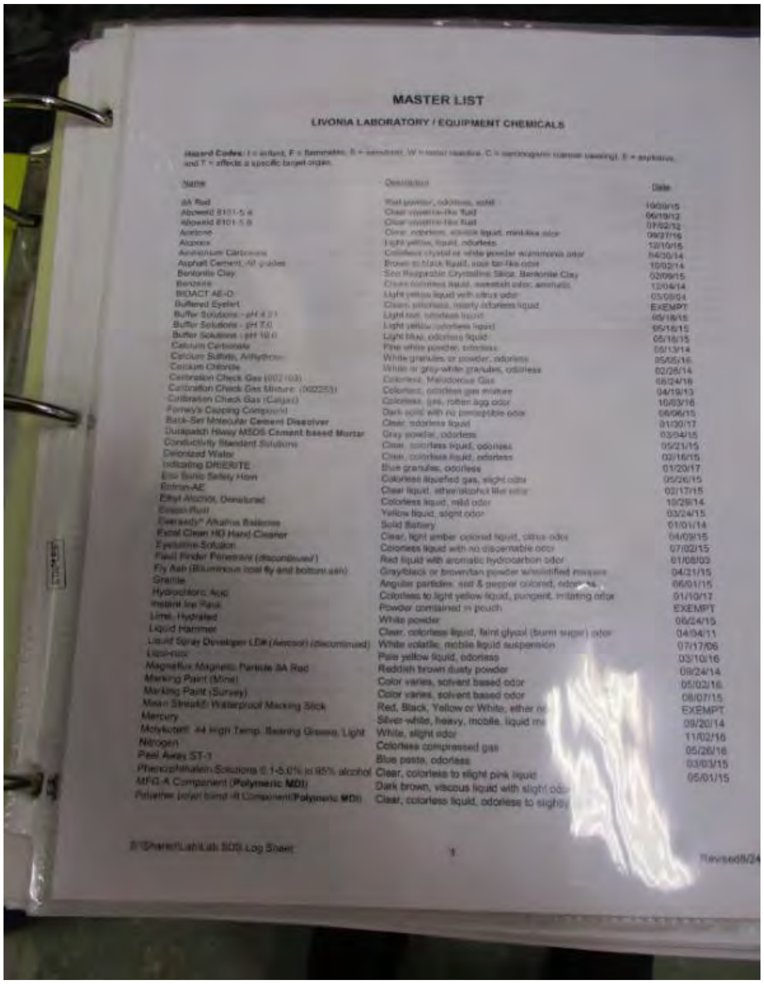
Vapor intrusion sampling (indoor air and sub-slab soil vapor) has occurred at four commercial properties located immediately to the north, east, and south of 11675 Belden Court. Two rounds of indoor air and sub-slab vapor have been collected from each property. A total of 52 indoor air samples and 67 sub slab soil vapor samples have been collected thus far combined. There were no TCE exceedances in indoor air or soil vapor in both rounds of sampling at each surrounding building. Analytical figures have been generated to show the distribution of constituents below and within the indoor air for the property located at 11675 Belden Court and the surrounding area, refer **Figure 6** through **Figure 7**.

Multiple lines of evidence clearly indicate chemical use inside 11675 Belden Court is the source of TCE detected in indoor air and sub-slab soil vapor at this property. There is no evidence that the impacts noted in indoor air and sub-slab soil vapor are related to the Ford property.

Photos documenting TCE use at 11675 Belden Court presented below.


TECHTRIDE® - TCE
WARNING!
Precautions
First Aid
PARTS CLEANING
TRICHLOROETHYLENE,
UN1710, 6.1, PG III


TRICHLOROETHYLENE
TECHNICAL
UNIVAR
Danger!
PG III
6
RQ ,UN1710,
PRODUCT NO: 807322



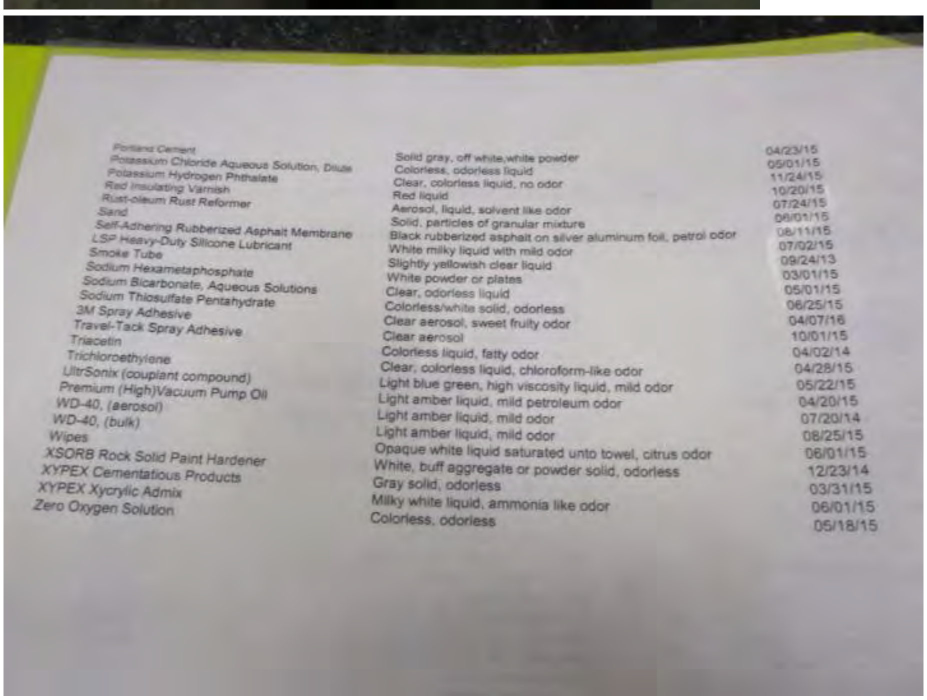
MASTER LIST

LIVONIA LABORATORY / EQUIPMENT CHEMICALS

Hazard Codes: I = irritant, F = flammable, [illegible], W = water reactive, C = carcinogenic (cancer causing), E = explosive, and T = affects a specific target organ.

Name	Description	Date
4A Rod	[illegible] powder, odorless, solid	10/09/15
Aboweld 8101-5 A	Clear [illegible] fluid	06/19/12
Aboweld 8101-5 B	Clear [illegible] fluid	07/02/12
Acetone	Clear, colorless, volatile liquid, mint-like odor	09/27/16
Alconox	Light yellow, liquid, odorless	12/10/15
Ammonium Carbonate	Colorless crystal or white powder ammonia odor	04/30/14
Asphalt Cement, All grades	Brown to black liquid, mild tar-like odor	10/02/14
Bentonite Clay	See Respirable Crystalline Silica, Bentonite Clay	02/09/15
Benzene	Clear colorless liquid, sweetish odor, aromatic	12/04/14
BIOACT AE-D	Light yellow liquid with citrus odor	05/08/04
Buffered Eyelert	Clear, colorless, nearly odorless liquid	EXEMPT
Buffer Solutions - pH 4.01	Light [illegible], odorless liquid	05/18/15
Buffer Solutions - pH 7.0	Light yellow, odorless liquid	05/18/15
Buffer Solutions - pH 10.0	Light blue, odorless liquid	05/18/15
Calcium Carbonate	Fine white powder, odorless	05/13/14
Calcium Sulfate, Anhydrous	White granules or powder, odorless	05/05/16
Calcium Chloride	White or gray-white granules, odorless	02/26/14
Calibration Check Gas [illegible]	Colorless, Malodorous Gas	08/24/16
Calibration Check Gas Mixture [illegible]	Colorless, odorless gas mixture	04/19/13
Calibration Check Gas (Calgaz)	Colorless, gas, rotten egg odor	10/03/16
Forney's Capping Compound	Dark solid with no perceptible odor	06/06/15
Back-Set Molecular Cement Dissolver	Clear, odorless liquid	01/30/17
Durapatch Hiway MSDS Cement based Mortar	Gray powder, odorless	03/04/15
Conductivity Standard Solutions	Clear, colorless liquid, odorless	05/21/15
Deionized Water	Clear, colorless liquid, odorless	02/16/15
Indicating DRIERITE	Blue granules, odorless	01/20/17
[illegible] Safety Horn	Colorless liquefied gas, slight odor	05/26/15
Enfron-AE	Clear liquid, ether/alcohol like odor	02/17/15
Ethyl Alcohol, Denatured	Colorless liquid, mild odor	10/29/14
[illegible] Rust	Yellow liquid, slight odor	03/24/15
Eveready® Alkaline Batteries	Solid Battery	01/01/14
Excel Clean HD Hand Cleaner	Clear, light amber colored liquid, citrus odor	04/09/15
Eyewash Solution	Colorless liquid with no discernable odor	07/02/15
Flaw Finder Penetrant (discontinued)	Red liquid with aromatic hydrocarbon odor	01/08/03
Fly Ash (Bituminous coal fly and bottom ash)	Gray/black or brown/tan powder w/solidified masses	04/21/15
Granite	Angular particles, salt & pepper colored, odorless	06/01/15
Hydrochloric Acid	Colorless to light yellow liquid, pungent, irritating odor	01/10/17
Instant Ice Pack	Powder contained in pouch	EXEMPT
Lime, Hydrated	White powder	06/24/15
Liquid Hammer	Clear, colorless liquid, faint glycol (burnt sugar) odor	04/04/11
Liquid Spray Developer LD4 (Aerosol) (discontinued)	White volatile, mobile liquid suspension	07/17/06
Liquinox	Pale yellow liquid, odorless	03/10/16
Magnaflux Magnetic Particle 8A Red	Reddish brown dusty powder	09/24/14
Marking Paint (Mine)	Color varies, solvent based odor	05/02/16
Marking Paint (Survey)	Color varies, solvent based odor	08/07/15
Mean Streak® Waterproof Marking Stick	Red, Black, Yellow or White, ether [illegible]	EXEMPT
Mercury	Silver-white, heavy, mobile, liquid [illegible]	09/20/14
Molykote® 44 High Temp. Bearing Grease, Light	White, slight odor	11/02/16
Nitrogen	Colorless compressed gas	05/26/16
Peel Away ST-1	Blue paste, odorless	03/03/15
Phenolphthalein Solutions 0.1-5.0% in 95% alcohol	Clear, colorless to slight pink liquid	05/01/15
MFG-A Component (Polymeric MDI)	Dark brown, viscous liquid with slight [illegible]	[illegible]
Polyether polyol blend -R Component/Polymeric MDI	Clear, colorless liquid, odorless to slight [illegible]	[illegible]

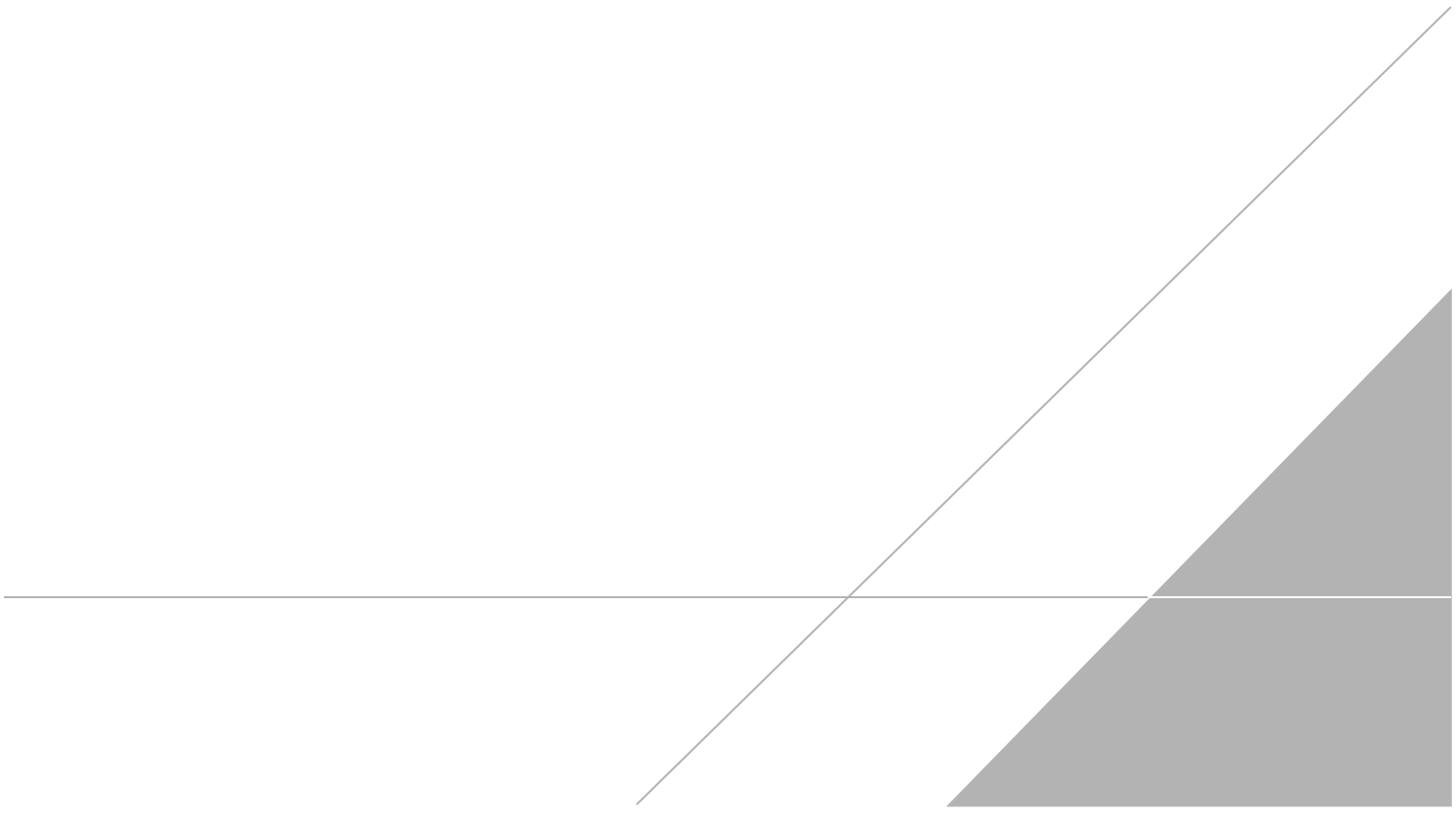
S:\Shared\Lab\Lab SDS Log Sheet 1 Revised 8/24



Portland Cement	Solid gray, off white,white powder	04/23/15
Potassium Chloride Aqueous Solution, Dilute	Colorless, odorless liquid	05/01/15
Potassium Hydrogen Phthalate	Clear, colorless liquid, no odor	11/24/15
Red Insulating Varnish	Red liquid	10/20/15
Rust-oleum Rust Reformer	Aerosol, liquid, solvent like odor	07/24/15
Sand	Solid, particles of granular mixture	06/01/15
Self-Adhering Rubberized Asphalt Membrane	Black rubberized asphalt on silver aluminum foil, petrol odor	08/11/15
LSP Heavy-Duty Silicone Lubricant	White milky liquid with mild odor	07/02/15
Smoke Tube	Slightly yellowish clear liquid	09/24/13
Sodium Hexametaphosphate	White powder or plates	03/01/15
Sodium Bicarbonate, Aqueous Solutions	Clear, odorless liquid	05/01/15
Sodium Thiosulfate Pentahydrate	Colorless/white solid, odorless	06/25/15
3M Spray Adhesive	Clear aerosol, sweet fruity odor	04/07/16
Travel-Tack Spray Adhesive	Clear aerosol	10/01/15
Triacetin	Colorless liquid, fatty odor	04/02/14
Trichloroethylene	Clear, colorless liquid, chloroform-like odor	04/28/15
UltrSonix (couplant compound)	Light blue green, high viscosity liquid, mild odor	05/22/15
Premium (High)Vacuum Pump Oil	Light amber liquid, mild petroleum odor	04/20/15
WD-40, (aerosol)	Light amber liquid, mild odor	07/20/14
WD-40, (bulk)	Light amber liquid, mild odor	08/25/15
Wipes	Opaque white liquid saturated unto towel, citrus odor	06/01/15
XSORB Rock Solid Paint Hardener	White, buff aggregate or powder solid, odorless	12/23/14
XYPEX Cementatious Products	Gray solid, odorless	03/31/15
XYPEX Xycrylic Admix	Milky white liquid, ammonia like odor	06/01/15
Zero Oxygen Solution	Colorless, odorless	05/18/15

ATTACHMENT 1

24-Hour Notifications and Memos



From:	Hinskey, Kristoffer
To:	Brandon Alger (AlgerB@michigan.gov)
Cc:	Vens, Beth (DEQ); Quiggle, Lisa (DHHS); RafalskiA@michigan.gov; CoochA@michigan.gov; Walton, Todd (T.M.); Pinter, Chuck (C.H.); Quinnan, Joseph
Subject:	Livonia Transmission Plant - 24 Hr Notice
Date:	Friday, November 30, 2018 2:50:00 PM
Attachments:	image001.jpg image006.png image007.png

Brandon –

This email serves as the 24-hour notification for an exceedance as it relates to offsite vapor intrusion assessment conducted under the approval letter provided by the MDEQ for the VI RespAP.

Analytical results within a commercial building located at 12400 Belden Court indicated that detections were present for trans-1,2-Dichloroethene (trans-1,2-DCE), cis-1,2-Dichloroethene, 1,1-Dichloroethene, and vinyl chloride in the soil gas collected from the sub-slab monitoring points (SSMP) beneath the building. Soil gas results also indicated exceedances above the screening criteria that has been provided by the MDEQ for Trichloroethene (TCE). TCE exceeded the criteria at 10 of 12 locations and ranged from 160 - 3300 ug/m^3.

Indoor air analytical results were compared to the *Volatilization to Indoor Air Recommendations of Interim Action Screening Levels and Time Sensitive Interim Action Screening Level* and indicated an exceedance for TCE and detections of trans-1,2-Dichloroethene. The concentration of TCE for the 12 indoor air samples that exceeded was 270 - 340 ug/m^3.

A detailed chemical inventory was completed at the facility. The team identified a large variety of chemicals that are being used inside the facility including aerosol canisters of chlorinated solvents, which the contents contain TCE, Tetrachloroethene, and trans-1,2-DCE . Based on the documented use of TCE and other industrial chlorinated compounds inside the space, MIOSHA standards for indoor air exposure may be more appropriate for use than the RIASLs. In addition, TCE has not been detected in groundwater or soil gas collected near 12400 Belden Court facility.

Arcadis will be provide a response memo providing additional information for the property, similar to previous submittals. The property owners has been provided the data package, that contained the analytical results.

Thank you

Pictures are provided below.

From:	Hinskey, Kristoffer
To:	Brandon Alger (AlgerB@michigan.gov)
Cc:	Vens, Beth (DEQ); Quiggle, Lisa (DHHS); Rafalski, Alexandra (DHHS); Cooch, Aaron (DHHS-Contractor); Walton, Todd (T.M.); Pinter, Chuck (C.H.); Quinnan, Joseph
Subject:	Livonia Transmission Plant - 24-hr Notification 12400 Belden Court
Date:	Tuesday, May 28, 2019 3:35:00 PM
Attachments:	image001.jpg 12400 Belden Data Package.pdf

Brandon –

This email serves as the notification for an exceedance as it relates to offsite vapor intrusion assessment conducted under the approval letter provided by the MDEQ for the VI RespAP.

Analytical results from the commercial property at 12400 Belden Court indicated that TCE was detected in indoor air collected from the property above the *Volatilization to Indoor Air Interim Action Screening Levels and Time Sensitive Interim Action Screening Level* presented by MDEQ in the Consent Decree. TCE was detected in all 12 indoor air samples collected with concentrations ranging from 4,900 to 10,000 µg/m^3. TCE was detected in the concurrently collected ambient air sample and ambient air duplicate sample at concentrations of 3.2 and 55 µg/m^3, respectively. Trans-1,2-dichloroethene was also detected in all 12 indoor air samples at a range of concentrations from 6,600 to 14,000 µg/m^3, all exceeding the RIASL of 790 µg/m^3. Sub-slab soil gas results for TCE exceeded the soil gas criteria of 130 µg/m^3 in all 12 collected samples. Sub-slab TCE concentrations ranged from 170 µg/m^3 to 2,900 µg/m^3. Although other chlorinated compounds were detected in sub-slab soil vapor, no other exceedances of the screening levels provided by the MDEQ were noted.

This property was originally sampled in December 2018 and exceedances of the TCE screening level were noted in the first round of sampling.

A detailed chemical inventory was completed in this property. The current occupant of the space repairs industrial equipment and has operated in this space for 16 years. The current tenant uses chlorinated solvents in the workplace regularly, has degreasing equipment, and an aerosol recycler that captures excess liquid including chlorinated compounds in a drum.

Based on the documented use of TCE and other industrial chemicals inside the space, MIOSHA standards for indoor air exposure may be more appropriate for use than the RIASLs. Arcadis will provide a response memo providing additional information for the property, similar to previous submittals. The property owner has been provided the data package (attached), that contains the analytical results.

Thank you

Kris Hinskey | Certified Project Manager | kristoffer.hinskey@arcadis.com
Arcadis | Arcadis of Michigan, LLC
28550 Cabot Drive Suite 500 Novi MI | 48377 | USA
T. +1 269 579 5402

From:	Hinskey, Kristoffer
To:	Brandon Alger (AlgerB@michigan.gov)
Cc:	"Vens, Beth (DEQ)"; "Quiggle, Lisa (DHHS)"; "RafalskiA@michigan.gov"; "CoochA@michigan.gov"; Walton, Todd (T.M.); Pinter, Chuck (C.H.); Quinnan, Joseph
Subject:	Livonia Transmission Plant - 24 Hr Notice
Date:	Tuesday, December 11, 2018 2:44:00 PM
Attachments:	E203631_1812015_20181129_report.pdf E203631_1812015_MI001454.0002_3_4.00002_2B_3B_2018-12-10_verification.pdf E203631_1812016_20181129_report.pdf E203631_1812016_MI001454.0002_3_4.00002_2B_3B_2018-12-10_verification.pdf image002.jpg image003.jpg image004.jpg image005.jpg image006.jpg

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Brandon –

This email serves as the 24-hour notification for an exceedance as it relates to offsite vapor intrusion assessment conducted under the approval letter provided by the MDEQ for the VI RespAP.

Analytical results within a commercial building located at 11675 Belden Court indicated that detections were present for TCE and PCE collected from the sub-slab monitoring points (SSMP) beneath the building. Sub-slab soil gas results for TCE exceeded the soil gas criteria of 130 µg/m^3 in 1 of 6 collected samples. TCE was detected in all 6 of the sub-slab soil vapor samples at concentrations ranging from 34 µg/m^3 to 280 µg/m^3. Tetrachloroethene (PCE) was the only other chlorinated compound detected in sub-slab soil vapor. PCE was detected in 2 of 6 samples at concentrations of 1.5J and 1.6J µg/m^3, which is below the screening level of 2,700 µg/m^3 provided by the MDEQ were noted.

Indoor air analytical results were compared to the *Volatilization to Indoor Air Recommendations of Interim Action Screening Levels and Time Sensitive Interim Action Screening Level* and indicated exceedances for TCE. TCE was detected in all 5 indoor air samples collected with concentrations ranging from 350 to 730 µg/m^3. The Time-Sensitive Recommended Interim Action Screening Level ($TRIASL_{12}$) for a commercial building for TCE is 12 µg/m^3.

A detailed chemical inventory was completed at the facility. The team identified the use of TCE inside the facility during the processing of asphalt sampling in support of civil engineering work conducted in the building. Based on the documented use of TCE inside the space, MIOSHA standards for indoor air exposure may be more appropriate for use than the RIASLs. In addition, TCE has not been detected in groundwater or soil gas collected near 11675 Belden Court.

Arcadis will be provide a response memo providing additional information for the property, similar to previous submittals. The property owner is being provided the data package, that contained the analytical results.

Thank you

From:	Hinskey, Kristoffer
To:	Brandon Alger (AlgerB@michigan.gov)
Cc:	Vens, Beth (DEQ); Quiggle, Lisa (DHHS); Rafalski, Alexandra (DHHS); Cooch, Aaron (DHHS-Contractor); Walton, Todd (T.M.); Pinter, Chuck (C.H.); Quinnan, Joseph
Subject:	Livonia Transmission Plant - 24-hr Notification 12400 Belden Court
Date:	Tuesday, May 28, 2019 3:35:00 PM
Attachments:	image001.jpg 12400 Belden Data Package.pdf

Brandon –

This email serves as the notification for an exceedance as it relates to offsite vapor intrusion assessment conducted under the approval letter provided by the MDEQ for the VI RespAP.

Analytical results from the commercial property at 12400 Belden Court indicated that TCE was detected in indoor air collected from the property above the *Volatilization to Indoor Air Interim Action Screening Levels and Time Sensitive Interim Action Screening Level* presented by MDEQ in the Consent Decree. TCE was detected in all 12 indoor air samples collected with concentrations ranging from 4,900 to 10,000 µg/m^3. TCE was detected in the concurrently collected ambient air sample and ambient air duplicate sample at concentrations of 3.2 and 55 µg/m^3, respectively. Trans-1,2-dichloroethene was also detected in all 12 indoor air samples at a range of concentrations from 6,600 to 14,000 µg/m^3, all exceeding the RIASL of 790 µg/m^3. Sub-slab soil gas results for TCE exceeded the soil gas criteria of 130 µg/m^3 in all 12 collected samples. Sub-slab TCE concentrations ranged from 170 µg/m^3 to 2,900 µg/m^3. Although other chlorinated compounds were detected in sub-slab soil vapor, no other exceedances of the screening levels provided by the MDEQ were noted.

This property was originally sampled in December 2018 and exceedances of the TCE screening level were noted in the first round of sampling.

A detailed chemical inventory was completed in this property. The current occupant of the space repairs industrial equipment and has operated in this space for 16 years. The current tenant uses chlorinated solvents in the workplace regularly, has degreasing equipment, and an aerosol recycler that captures excess liquid including chlorinated compounds in a drum.

Based on the documented use of TCE and other industrial chemicals inside the space, MIOSHA standards for indoor air exposure may be more appropriate for use than the RIASLs. Arcadis will provide a response memo providing additional information for the property, similar to previous submittals. The property owner has been provided the data package (attached), that contains the analytical results.

Thank you

Kris Hinskey | Certified Project Manager | kristoffer.hinskey@arcadis.com
Arcadis | Arcadis of Michigan, LLC
28550 Cabot Drive Suite 500 Novi MI | 48377 | USA
T. +1 269 579 5402

From:	Hinskey, Kristoffer
To:	Brandon Alger (AlgerB@michigan.gov)
Cc:	Vens, Beth (DEQ); Quiggle, Lisa (DHHS); RafalskiA@michigan.gov; CoochA@michigan.gov; Walton, Todd (T.M.); Pinter, Chuck (C.H.); Quinnan, Joseph
Subject:	Livonia Transmission Plant - 24 hr Notification
Date:	Friday, December 7, 2018 4:24:00 PM
Attachments:	image001.jpg E203631_1811603_20181127_report.pdf E203631_1811603_MI001454.0002_3_4.00002_2B_3B_2018-12-06_verification.pdf E203631_1811606_20181127_report.pdf E203631_1811606_MI001454.0002_3_4.00002_2B_3B_2018-12-05_verification.pdf

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Brandon –

This email serves as the 24-hour notification for an exceedance as it relates to offsite vapor intrusion assessment conducted under the approval letter provided by the MDEQ for the VI RespAP.

Analytical results within a commercial building located at 12555 Belden Court, indicated that detections were present for cis-1,2-dichloroethene, tetrachloroethene, and trichloroethene (TCE) in one or more sub-slab monitoring points (SSMP). The sub-slab soil gas data was compared to Table 5 (12-hour work day, slab-on-grade, <50,000 sqft) from the screening criteria package provided by the MDEQ on 10/30/2018 and shows **one exceedance** for TCE in sub-slab sample SSMP-12555Belden-04_112718. TCE was not detected in any of the five indoor air samples collected from this property.

The property owner is being notified of the exceedance. We will follow up with a response memo detailing additional information related to the sampling event.

Thank you

Kris Hinskey | Certified Project Manager | kristoffer.hinskey@arcadis.com
Arcadis | Arcadis of Michigan, LLC
28550 Cabot Drive Suite 500 Novi MI | 48377 | USA
T. +1 269 579 5402

MEMO

To:
Mr. Brandon Alger, Quality Analyst
Southeast Michigan District Office
Department of Environmental Quality
Remediation and Redevelopment Division
2700 Donald Court, Warren MI 48902

Copies:
Todd Walton, Ford
Chuck Pinter, Ford

Arcadis of Michigan, LLC
28550 Cabot Drive
Suite 500
Novi
Michigan 48377
Tel 248 994 2240
Fax 248 994 2241

From:
Mitch Wacksman and Kris Hinskey

Date:
December 13, 2018

Arcadis Project No.:
MI000453.0003

Subject:
Additional Information Regarding 12400 Belden Court

This memorandum provides additional information regarding the commercial property located at 12400 Belden Court. Sampling was completed at this property on November 15, 2018 and the analytical reports are attached to this memorandum.

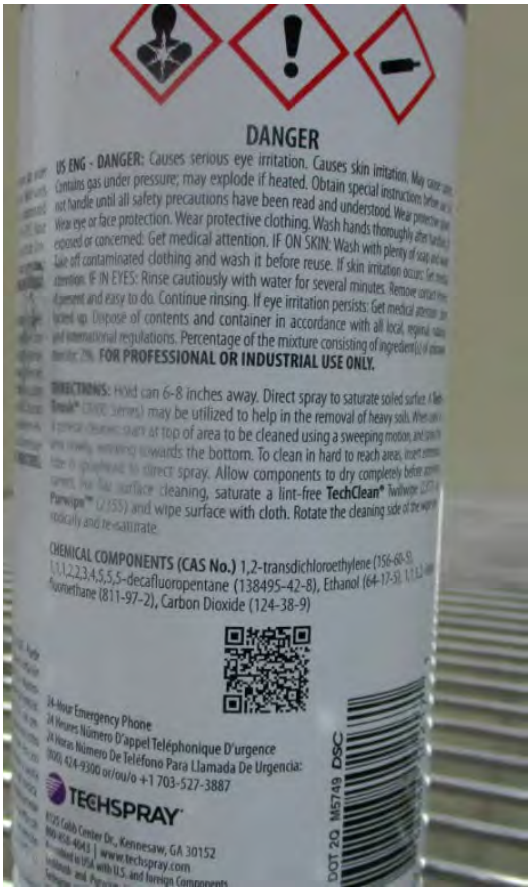
Indoor air analytical results for 12400 Belden Court were compared to the *Volatilization to Indoor Air Interim Action Screening Levels and Time Sensitive Interim Action Screening Level* and indicated an exceedance of the Recommended Interim Action Screening Level (RIASL) and Time-Sensitive Recommended Interim Action Screening Level ($TRIASL_{12}$) for a commercial building for trichloroethene (TCE) of 2 micrograms per cubic meter (µg/m^3), and 12 µg/m^3, respectively. TCE was detected in all 12 indoor air samples collected with concentrations ranging from 270 to 340 µg/m^3. TCE was not detected in the concurrently collected ambient air sample. Trans-1,2-dichloroethene was also detected in all 12 indoor air samples at a range of concentrations from 190 to 240 µg/m^3, but no concentrations in indoor air exceeded the RIASL of 790 µg/m^3. Based on the documented use of TCE and other industrial chemicals inside the space, MIOSHA standards for indoor air exposure may be more appropriate for use than the RIASLs. For reference the MIOSHA short term exposure level (STEL) for TCE is 535,000 µg/m^3.

Sub-slab soil gas data from 12400 Belden Court was compared to site-specific screening values for commercial buildings provided by MDEQ for this project on October 30, 2018. Based on the size of the building (~30,000 square feet), the slab-on-grade construction, and the typical work day reported by the tenant (10.5 hours) the nonresidential volatilization to indoor air criteria (VIAC) presented in Table 5 of the October 30, 2018 correspondence were used for data screening. Sub-slab soil gas results for TCE exceeded the soil gas criteria in 10 of 12 collected samples. TCE was detected in all 12 of the sub-slab soil vapor samples at concentrations ranging from 55 µg/m^3 to 3,300 µg/m^3 Although other chlorinated compounds were detected in sub-slab soil vapor, no other exceedances of the screening levels provided by the MDEQ were noted.

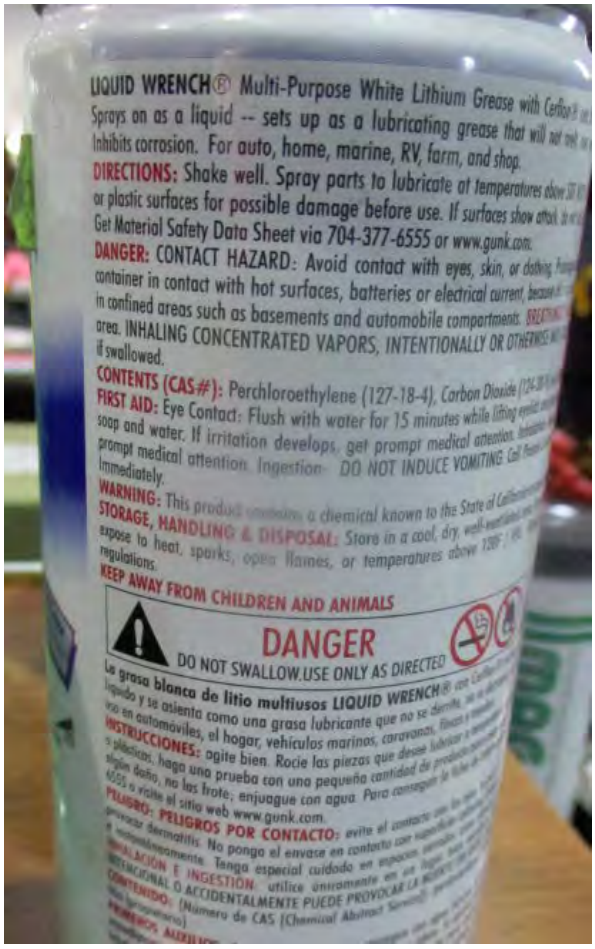
Upon making their initial entry into this facility on November 13, 2018, Arcadis staff noted the hand held PID showed readings of above 5 parts per million (ppm) present in the building. A second PID was used to confirm this with readings of 6 to 14 ppm noted in the space (PID readings up to 33 ppm were noted during the chemical inventory). Arcadis learned from the building tenant (Advanced Technology Services) that the current occupant of the space repairs industrial equipment and has operated in this space for 16 years. The current tenant uses chlorinated solvents in the workplace regularly, has degreasing equipment, and an aerosol recycler that captures excess liquid including chlorinated compounds in a drum. A member of the tenant's staff requested her employees not use chlorinated products during Arcadis's sampling via email.

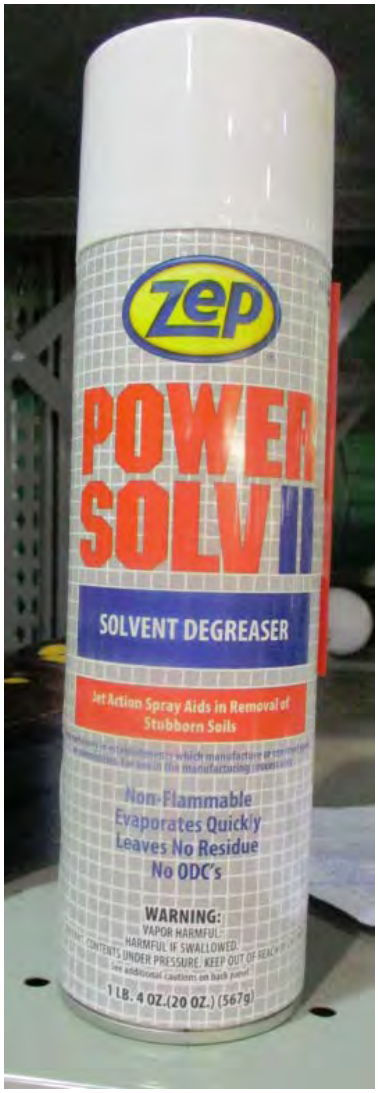
Photos documenting the presence of chlorinated compounds inside the space are presented below and include products containing TCE, tetrachloroethene (PCE) and trans-1,2-dichlroethene. Additional photos show a degreaser (there were multiple), the aerosol can crusher, supplies of aerosols, a scrap metal bin (there were multiple) where chlorinated canisters were disposed of, and a waste solvent drum.


TECHSPRA
G3
BLUE SHOWER
MAINTENANCE CLEAN
NON-OZONE DEPLET
NON-FLAMMABLE
SAFE ON MOST PLA
1630-165


DANGER
US ENG - DANGER: Causes serious eye irritation. Causes skin irritation.
Contains gas under pressure; may explode if heated. Obtain special instructions
not handle until all safety precautions have been read and understood. Wear
Wear eye or face protection. Wear protective clothing. Wash hands thoroughly
exposed or concerned: Get medical attention. IF ON SKIN: Wash with plenty of
Take off contaminated clothing and wash it before reuse. If skin irritation occurs:
attention. IF IN EYES: Rinse cautiously with water for several minutes.
if present and easy to do. Continue rinsing. If eye irritation persists: Get
locked up. Dispose of contents and container in accordance with all local,
and international regulations. Percentage of the mixture consisting of
FOR PROFESSIONAL OR INDUSTRIAL USE ONLY.
DIRECTIONS: Hold can 6-8 inches away. Direct spray to saturate soiled surface.
may be utilized to help in the removal of heavy soils.
area to be cleaned using a sweeping motion,
towards the bottom. To clean in hard to reach areas,
to direct spray. Allow components to dry completely
surface cleaning, saturate a lint-free TechClean®
(2155) and wipe surface with cloth. Rotate the cleaning side of the
and re-saturate.
CHEMICAL COMPONENTS (CAS No.) 1,2-transdichloroethylene (156-60-5),
1,1,1,2,3,4,4,5,5,5-decafluoropentane (138495-42-8), Ethanol (64-17-5),
Fluoroethane (811-97-2), Carbon Dioxide (124-38-9)
24-Hour Emergency Phone
24 Heures Numéro D'appel Téléphonique D'urgence
24 Horas Número De Teléfono Para Llamada De Urgencia:
(800) 424-9300 or/ou/o +1 703-527-3887
TECHSPRAY
8125 Cobb Center Dr., Kennesaw, GA 30152
(800) 858-4043 | www.techspray.com
Assembled in USA with U.S. and foreign Components
DOT 2D M5749 DSC


GUNK
Liquid
WRENCH
MULTI-PURPOSE
White Lithium
Grease
Grasa Blanca de Litio Multiusos
For Auto, Home, Marine
Cuts Friction, Extends
Will Not Melt, Free
Inhibits Corrosion
CONT. NET. 10.25 OZ


LIQUID WRENCH® Multi-Purpose White Lithium Grease with
Sprays on as a liquid -- sets up as a lubricating grease that will
Inhibits corrosion. For auto, home, marine, RV, farm, and shop.
DIRECTIONS: Shake well. Spray parts to lubricate at temperatures
or plastic surfaces for possible damage before use. If surfaces show
Get Material Safety Data Sheet via 704-377-6555 or www.gunk.com.
DANGER: CONTACT HAZARD: Avoid contact with eyes, skin, or
container in contact with hot surfaces, batteries or electrical current,
in confined areas such as basements and automobile compartments.
area. INHALING CONCENTRATED VAPORS, INTENTIONALLY OR
if swallowed.
CONTENTS (CAS#): Perchloroethylene (127-18-4), Carbon Dioxide
FIRST AID: Eye Contact: Flush with water for 15 minutes while
soap and water. If irritation develops, get prompt medical attention.
prompt medical attention. Ingestion: DO NOT INDUCE VOMITING.
immediately.
WARNING: This product contains a chemical known to the State of
STORAGE, HANDLING & DISPOSAL: Store in a cool, dry,
expose to heat, sparks, open flames, or temperatures above
regulations.
KEEP AWAY FROM CHILDREN AND ANIMALS
DANGER
DO NOT SWALLOW. USE ONLY AS DIRECTED
La grasa blanca de litio multiusos LIQUID WRENCH®
líquido y se asienta como una grasa lubricante que no se derrite,
uso en automóviles, el hogar, vehículos marinos, caravanas,
INSTRUCCIONES: agite bien. Rocíe las piezas que desea lubricar
o plásticas, haga una prueba con una pequeña cantidad de
algún daño, no las frote; enjuague con agua. Para conseguir la
6555 o visite el sitio web www.gunk.com.
PELIGRO: PELIGROS POR CONTACTO: evite el
provocar dermatitis. No ponga el envase en contacto
e inmediatamente. Tenga especial cuidado en
INHALACIÓN E INGESTIÓN: utilice únicamente
INTENCIONAL O ACCIDENTALMENTE PUEDE PROVOCAR
CONTENIDO: (Número de CAS [Chemical Abstract


Zep
POWER SOLV II
SOLVENT DEGREASER
Jet Action Spray Aids in Removal of Stubborn Soils
Non-Flammable
Evaporates Quickly
Leaves No Residue
No ODC's
WARNING:
VAPOR HARMFUL
HARMFUL IF SWALLOWED
CONTENTS UNDER PRESSURE. KEEP OUT OF REACH
1 LB. 4 OZ.(20 OZ.) (567g)


extension tube and spray liberally.
NOTE: May damage certain plastic and/or painted surfaces. Test on an inconspicuous area prior to general use.
NOTE: DO NOT use in situations where product may become trapped internally and held in contact with aluminum, aluminum alloys or zinc, especially if any moisture may be present. Under these conditions, decomposition may occur, releasing irritating vapors and causing corrosion.
CONTAINS Trichloroethylene. Avoid inhalation of spray mists or vapors. Use with adequate ventilation. Do not take internally. Avoid contact with eyes and skin. Contents under pressure. Do not puncture or incinerate container. Do not store at temperatures above 120°F. KEEP OUT OF REACH OF CHILDREN.
FIRST AID: If overcome by spray mist or vapors, move patient to fresh air. Resuscitate if necessary. If swallowed, do not induce vomiting. Contact a physician immediately. Get medical attention. In case of eye contact, flush immediately with water and continue for 15 minutes. If irritation


DANGER
FLAMMABLE
VAPORS

Additional information for the property is presented below.

MDEQ Question 1: What is the nature of use of the commercial property?

Arcadis Response 1: Repair of industrial equipment

MDEQ Question 2: What maximum occupancy period would be expected of a person in this structure?

Arcadis Response 2: The tenant reported working one 10.5-hour work shift per day.

MDEQ Question 3: What did you find in the building?

Arcadis Response 3: Aerosol canisters containing chlorinated solvents, degreasers, an aerosol canister crusher, metal waste bins where used solvent cans were disposed of, and solvent drums.

MDEQ Question 4: Were, or are, there any potential direct volatilization sources present? Were they removed during sampling?

Arcadis Response 4: Yes. Multiple sources of chlorinated solvents were present in the space. Many were containerized and removed prior to sampling. Used aerosol canisters in the can recycler and scrap bins were not removed from the site prior to sampling. Degreasers and waste solvent drums were also not removed.

MDEQ Question 5: Is there any groundwater, from any source, present within the occupiable space?
Arcadis Response 5: No.

MDEQ Question 6: Are there any floor drains, sumps, or similar features in the building?
Arcadis Response 6: Yes. The tenant reported floor drains are present and tie into the municipal sewer system.

MDEQ Question 7: Is the building constructed as slab-on-grade?
Arcadis Response 7: Yes.

MDEQ Question 8: What is the separation distance from the deepest portion of the building to groundwater?
Arcadis Response 8: Groundwater was encountered at 8 feet below grade in a soil boring advanced during the sampling event.

After reviewing the multiple lines of evidence available for the area surrounding this property (groundwater and exterior soil vapor) as presented in past quarterly progress reports, a groundwater source of TCE is not present in this area. Groundwater and exterior soil vapor data have been non-detect for TCE for six consecutive quarters in this area. Chlorinated solvents are currently used by the tenant occupying 12400 Belden Court, with the tenant having been at this location for 16 years. Based on the documented use of TCE and other industrial chemicals inside the space, MIOSHA standards for indoor air exposure may be more appropriate for use than the RIASLs.

MEMO

To:
Mr. Brandon Alger, Quality Analyst
Southeast Michigan District Office
Department of Environmental Quality
Remediation and Redevelopment Division
2700 Donald Court, Warren MI 48902

Copies:
Todd Walton, Ford
Chuck Pinter, Ford

Arcadis of Michigan, LLC
28550 Cabot Drive
Suite 500
Novi
Michigan 48377
Tel 248 994 2240
Fax 248 994 2241

From:
Mitch Wacksman and Kris Hinskey

Date:
December 13, 2018

Arcadis Project No.:
MI001454.0003

Subject:
Additional Information Regarding 11675 Belden Court

This memorandum provides additional information regarding the commercial property located at 11675 Belden Court. Sampling was completed at this property on November 29, 2018 and the analytical reports are attached to this memorandum.

Indoor air analytical results for 11675 Belden Court were compared to the *Volatilization to Indoor Air Interim Action Screening Levels and Time Sensitive Interim Action Screening Level* and indicated an exceedance of the Recommended Interim Action Screening Level (RIASL) and Time-Sensitive Recommended Interim Action Screening Level ($TRIASL_{12}$) for a commercial building for trichloroethene (TCE) of 2 micrograms per cubic meter ($\mu g/m^3$) and 12 $\mu g/m^3$, respectively. TCE was detected in all 5 indoor air samples collected with concentrations ranging from 350 to 730 $\mu g/m^3$. TCE was not detected in the concurrently collected ambient air sample. No other compounds were detected in the indoor air samples. Based on the documented use of TCE and other industrial chemicals inside the space, MIOSHA standards for indoor air exposure may be more appropriate for use than the RIASLs. For reference the MIOSHA short term exposure level (STEL) for TCE is 535,000 $\mu g/m^3$.

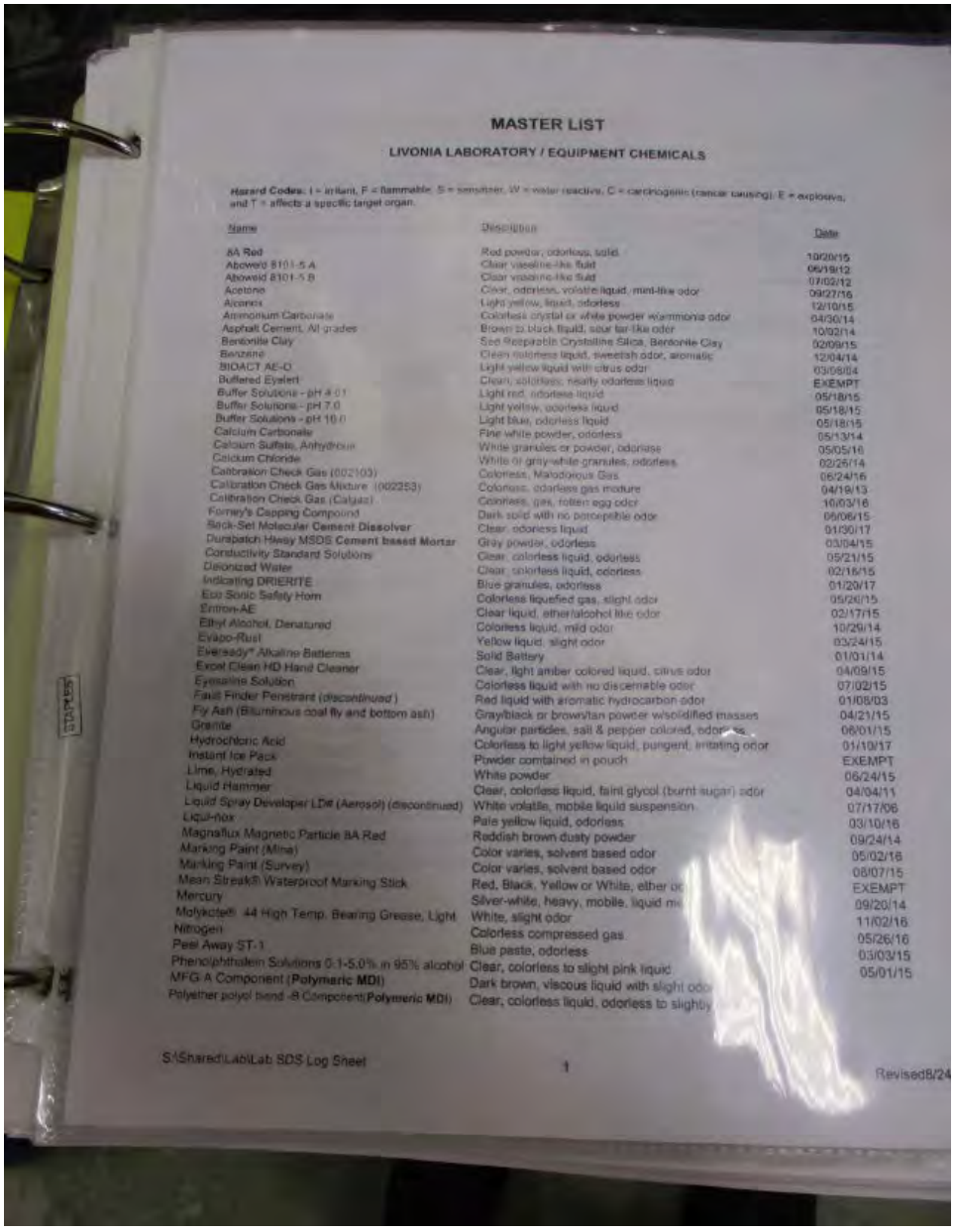
Sub-slab soil gas data from 11675 Belden Court was compared to site-specific screening values for commercial buildings provided by MDEQ for this project on October 30, 2018. Based on the size of the building (8,440 square feet), the slab-on-grade construction, and the typical work day reported by the

tenant (~8 hours), the nonresidential volatilization to indoor air criteria (VIAC) presented in Table 5 of the October 30, 2018 correspondence were used for data screening. Sub-slab soil gas results for TCE exceeded the soil gas criteria of 130 µg/m^3 in 1 of 6 collected samples. TCE was detected in all 6 of the sub-slab soil vapor samples at concentrations ranging from 34 µg/m^3 to 280 µg/m^3. Tetrachloroethene (PCE) was the only other chlorinated compound detected in sub-slab soil vapor. PCE was detected in 2 of 6 samples at concentrations of 1.5J and 1.6J µg/m^3, which is below the screening level of 2,700 µg/m^3 provided by the MDEQ.

During the building survey Arcadis staff noted TCE was in use in the warehouse portion of the building. The tenant (a civil/environmental consultant) indicated TCE was used in the processing of asphalt samples and would likely be in use during indoor air sampling. Drums of TCE were noted during the building survey and are shown in photographs below. TCE was listed on the safety data sheet (SDS) inventory Arcadis was provided for review.

Photos documenting the presence of TCE are presented below.


TRICHLOROETHYLENE
TECHNICAL
UNIVAR
Danger!
PG III
6
RQ ,UN1710,
LOT NO:
PRODUCT NO: 807322



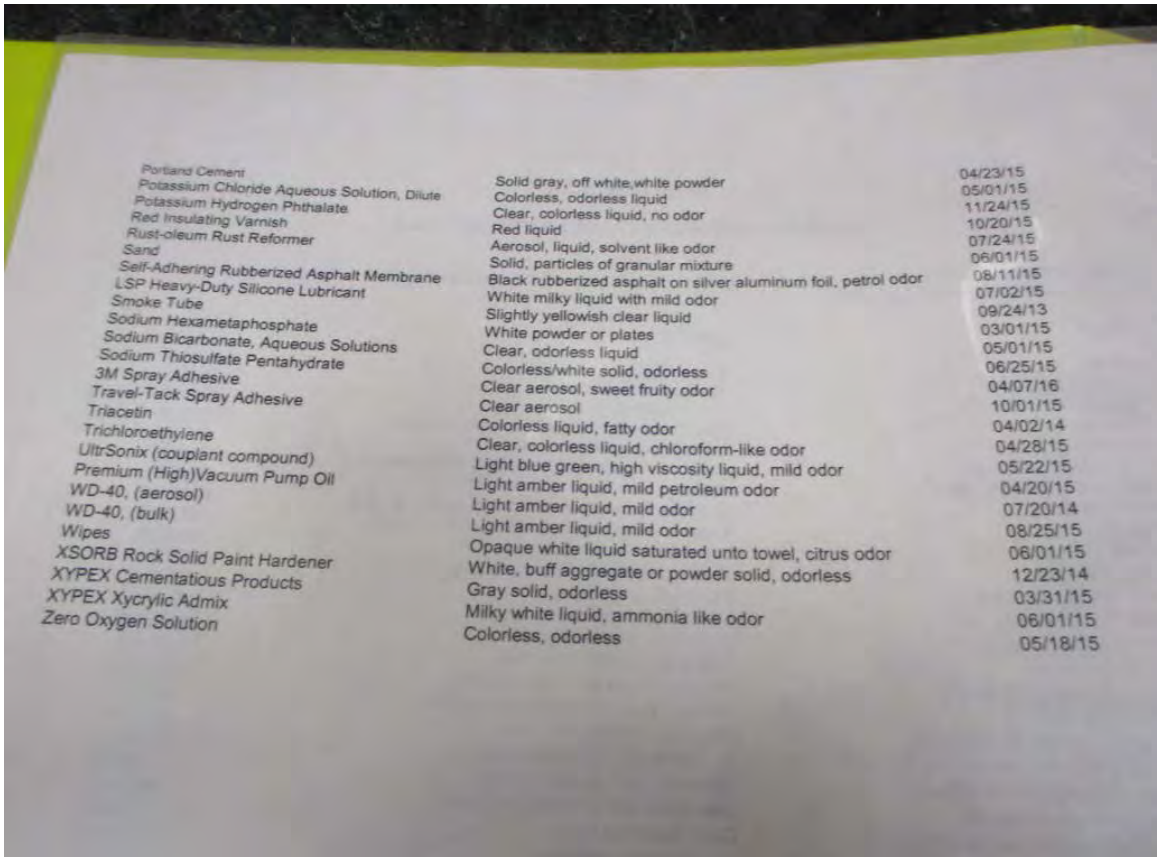
MASTER LIST

LIVONIA LABORATORY / EQUIPMENT CHEMICALS

Hazard Codes: I = irritant, F = flammable, S = sensitizer, W = water reactive, C = carcinogenic (cancer causing), E = explosive, and T = affects a specific target organ.

Name	Description	Date
8A Red	Red powder, odorless, solid	10/20/15
Abowerd 8101-5 A	Clear vaseline-like fluid	06/19/12
Abowerd 8101-5 B	Clear vaseline-like fluid	07/02/12
Acetone	Clear, odorless, volatile liquid, mint-like odor	09/27/16
Alconox	Light yellow, liquid, odorless	12/10/15
Ammonium Carbonate	Colorless crystal or white powder w/ammonia odor	04/30/14
Asphalt Cement, All grades	Brown to black liquid, sour tar-like oder	10/02/14
Bentonite Clay	See Respirable Crystalline Silica, Bentonite Clay	02/09/15
Benzene	Clear colorless liquid, sweetish odor, aromatic	12/04/14
BIOACT AE-O	Light yellow liquid with citrus odor	03/06/14
Buffered Eyelert	Clear, colorless, nearly odorless liquid	EXEMPT
Buffer Solutions - pH 4.01	Light red, odorless liquid	05/18/15
Buffer Solutions - pH 7.0	Light yellow, odorless liquid	05/18/15
Buffer Solutions - pH 10.0	Light blue, odorless liquid	05/18/15
Calcium Carbonate	Fine white powder, odorless	05/13/14
Calcium Sulfate, Anhydrous	White granules or powder, odorless	05/05/16
Calcium Chloride	White or gray-white granules, odorless	02/26/14
Calibration Check Gas (002103)	Colorless, Malodorous Gas	06/24/16
Calibration Check Gas Mixture (002253)	Colorless, odorless gas mixture	04/19/13
Calibration Check Gas (Calgaz)	Colorless, gas, rotten egg odor	10/03/16
Forney's Capping Compound	Dark solid with no perceptible odor	09/06/15
Sack-Set Molecular Cement Dissolver	Clear, odorless liquid	01/30/17
Dunpatch Hiway MSDS Cement based Mortar	Gray powder, odorless	03/04/15
Conductivity Standard Solutions	Clear, colorless liquid, odorless	05/21/15
Deionized Water	Clear, colorless liquid, odorless	02/16/15
Indicating DRIERITE	Blue granules, odorless	01/20/17
Eco Sonic Safety Horn	Colorless liquefied gas, slight odor	05/26/15
Emtron-AE	Clear liquid, ether/alcohol like odor	02/17/15
Ethyl Alcohol, Denatured	Colorless liquid, mild odor	10/29/14
Evapo-Rust	Yellow liquid, slight odor	03/24/15
Eveready® Alkaline Batteries	Solid Battery	01/01/14
Excel Clean HD Hand Cleaner	Clear, light amber colored liquid, citrus odor	04/09/15
Eyesaline Solution	Colorless liquid with no discernable odor	07/02/15
Fault Finder Penetrant (discontinued)	Red liquid with aromatic hydrocarbon odor	01/08/03
Fly Ash (Bituminous coal fly and bottom ash)	Gray/black or brown/tan powder w/solidified masses	04/21/15
Granite	Angular particles, salt & pepper colored, odorless	06/01/15
Hydrochloric Acid	Colorless to light yellow liquid, pungent, irritating odor	01/10/17
Instant Ice Pack	Powder contained in pouch	EXEMPT
Lime, Hydrated	White powder	06/24/15
Liquid Hammer	Clear, colorless liquid, faint glycol (burnt sugar) odor	04/04/11
Liquid Spray Developer LDI (Aerosol) (discontinued)	White volatile, mobile liquid suspension	07/17/06
Liqui-nox	Pale yellow liquid, odorless	03/10/16
Magnaflux Magnetic Particle 8A Red	Reddish brown dusty powder	09/24/14
Marking Paint (Mine)	Color varies, solvent based odor	05/02/16
Marking Paint (Survey)	Color varies, solvent based odor	08/07/15
Mean Streak® Waterproof Marking Stick	Red, Black, Yellow or White, ether o	EXEMPT
Mercury	Silver-white, heavy, mobile, liquid m	09/20/14
Molykote® 44 High Temp. Bearing Grease, Light	White, slight odor	11/02/16
Nitrogen	Colorless compressed gas	05/26/16
Peel Away ST-1	Blue paste, odorless	03/03/15
Phenolphthalein Solutions 0.1-5.0% in 95% alcohol	Clear, colorless to slight pink liquid	05/01/15
MFG A Component (Polymeric MDI)	Dark brown, viscous liquid with slight odo	
Polyether polyol blend -B Component Polymeric MDI)	Clear, colorless liquid, odorless to slightly	

S:\Shared\Lab\Lab SDS Log Sheet 1 Revised8/24



Portland Cement	Solid gray, off white,white powder	04/23/15
Potassium Chloride Aqueous Solution, Dilute	Colorless, odorless liquid	05/01/15
Potassium Hydrogen Phthalate	Clear, colorless liquid, no odor	11/24/15
Red Insulating Varnish	Red liquid	10/20/15
Rust-oleum Rust Reformer	Aerosol, liquid, solvent like odor	07/24/15
Sand	Solid, particles of granular mixture	06/01/15
Self-Adhering Rubberized Asphalt Membrane	Black rubberized asphalt on silver aluminum foil, petrol odor	08/11/15
LSP Heavy-Duty Silicone Lubricant	White milky liquid with mild odor	07/02/15
Smoke Tube	Slightly yellowish clear liquid	09/24/13
Sodium Hexametaphosphate	White powder or plates	03/01/15
Sodium Bicarbonate, Aqueous Solutions	Clear, odorless liquid	05/01/15
Sodium Thiosulfate Pentahydrate	Colorless/white solid, odorless	06/25/15
3M Spray Adhesive	Clear aerosol, sweet fruity odor	04/07/16
Travel-Tack Spray Adhesive	Clear aerosol	10/01/15
Triacetin	Colorless liquid, fatty odor	04/02/14
Trichloroethylene	Clear, colorless liquid, chloroform-like odor	04/28/15
UltrSonix (couplant compound)	Light blue green, high viscosity liquid, mild odor	05/22/15
Premium (High)Vacuum Pump Oil	Light amber liquid, mild petroleum odor	04/20/15
WD-40, (aerosol)	Light amber liquid, mild odor	07/20/14
WD-40, (bulk)	Light amber liquid, mild odor	08/25/15
Wipes	Opaque white liquid saturated unto towel, citrus odor	06/01/15
XSORB Rock Solid Paint Hardener	White, buff aggregate or powder solid, odorless	12/23/14
XYPEX Cementatious Products	Gray solid, odorless	03/31/15
XYPEX Xycrylic Admix	Milky white liquid, ammonia like odor	06/01/15
Zero Oxygen Solution	Colorless, odorless	05/18/15

Additional information for the property is presented below.

MDEQ Question 1: What is the nature of use of the commercial property?

Arcadis Response 1: Office and laboratory space for a civil/engineering consultant.

MDEQ Question 2: What maximum occupancy period would be expected of a person in this structure?

Arcadis Response 2: The tenant reported working 8-hours per day.

MDEQ Question 3: What did you find in the building?

Arcadis Response 3: Multiple drums of TCE, a fume hood, aerosol canisters containing paint, pesticides, and cleaners.

MDEQ Question 4: Were, or are, there any potential direct volatilization sources present? Were they removed during sampling?

Arcadis Response 4: Yes. Multiple sources of TCE were present in the space and reported to be in use during sampling.

MDEQ Question 5: Is there any groundwater, from any source, present within the occupiable space?

Arcadis Response 5: No.

MDEQ Question 6: Are there any floor drains, sumps, or similar features in the building?

Arcadis Response 6: Yes. Floor drains were noted in the bathrooms.

MDEQ Question 7: Is the building constructed as slab-on-grade?

Arcadis Response 7: Yes.

MDEQ Question 8: What is the separation distance from the deepest portion of the building to groundwater?

Arcadis Response 8: Groundwater in the area is encountered at approximately 7 feet below grade.

After reviewing the multiple lines of evidence available for the area surrounding this property (groundwater and exterior soil vapor) as presented in past quarterly progress reports, a groundwater source of TCE is not present in this area. Groundwater and exterior soil vapor data from sample locations just north of 11675 Belden Court have been non-detect for TCE for six consecutive quarters. TCE is currently used by the tenant occupying 11675 Belden Court. Based on the documented use of TCE inside the space, MIOSHA standards for indoor air exposure may be more appropriate for use than the RIASLs.

ATTACHMENT 2

Tables and Figures

Table 1
On-Site Groundwater Analytical Results
Ford Livonia Transmission Plant
36200 Plymouth Road
Livonia, Michigan

Location:			MW-30									MW-31									MW-52			
Screen Interval (ft. bgs):	Unit	MDEQ Non-Residential Drinking Water Criteria	19-24									17-22									15-20			
Date:			4/25/2017	7/27/2017	11/9/2017	2/13/2018	5/8/2018	8/10/2018	11/1/2018	03/02/2019	6/15/2019	4/21/2017	7/28/2017	11/10/2017	2/14/2018	5/8/2018	8/10/2018	11/1/2018	03/02/2019	6/15/2019	7/27/2017	11/10/2017	2/13/2018	5/9/2018
Semi-volatile Organic Compounds (SVOCs)																								
1,4-Dioxane	µg/l	350	10	11	13	12	14	15	15	15	13	< 2.0	0.47 J	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	1.3 J	0.68 J	1.2 J	0.30 J
Volatile Organic Compounds (VOCs)																								
1,1,1-Trichloroethane	µg/l	200	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2,2-Tetrachloroethane	µg/l	35	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-trichloro-1,2,2-trifluoroethane	µg/l	170,000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	µg/l	5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	µg/l	2,500	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	µg/l	7.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2,3-Trimethylbenzene	µg/l	NS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	NA	< 5.0	< 5.0	< 5.0	< 5.0
1,2,4-Trichlorobenzene	µg/l	70	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	1.1	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0
1,2,4-Trimethylbenzene	µg/l	63	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dibromo-3-chloropropane	µg/l	0.2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dibromoethane	µg/l	0.05	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichlorobenzene	µg/l	600	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	µg/l	5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	µg/l	5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0
1,3,5-Trimethylbenzene	µg/l	72	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene	µg/l	19	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.18 J	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	µg/l	75	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0
2-Butanone (MEK)	µg/l	38,000	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	NA	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	NA	< 10	< 10	< 10	< 10
4-Methyl-2-Pentanone (MIBK)	µg/l	5,200	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	NA	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	NA	< 10	< 10	< 10	< 10
Acetone	µg/l	2,100	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	NA	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	NA	2.2 J	< 10	< 10	2.7 J
Benzene	µg/l	5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0
Bromodichloromethane	µg/l	80	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0
Bromoform	µg/l	80	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane	µg/l	29	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0
Carbon Disulfide	µg/l	2,300	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	NA	< 5.0	< 5.0	< 5.0	< 5.0
Carbon Tetrachloride	µg/l	5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0
CFC-11	µg/l	7,300	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0
CFC-12	µg/l	4,800	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	µg/l	100	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0
Chlorodibromomethane	µg/l	80	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0
Chloroethane	µg/l	1,700	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform	µg/l	80	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0
Chloromethane	µg/l	1,100	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0

See Notes on Last Page.

Table 1
On-Site Groundwater Analytical Results
Ford Livonia Transmission Plant
36200 Plymouth Road
Livonia, Michigan

Location:	Unit	MDEQ Non-Residential Drinking Water Criteria	MW-52				MW-53									MW-54								MW-54S
Screen Interval (ft. bgs):			15-20				16-21									16-21								4.5-9.5
Date:			8/10/2018	10/31/2018	03/02/2019	6/15/2019	4/24/2017	7/27/2017	11/8/2017	2/7/2018	5/9/2018	8/13/2018	10/31/2018	02/28/2019	6/10/2019	7/27/2017	11/8/2017	2/7/2018	5/9/2018	8/13/2018	10/31/2018	2/25/2019	6/10/2019	6/10/2019
Semi-volatile Organic Compounds (SVOCs)																								
1,4-Dioxane	µg/l	350	1.8 J	2.7	1.9 J	1.2 J	1.1 J	2.0	0.61 J	1.1 J	1.4 J	1.6 J	1.8 J	1.7 J	2.5	1.5 J	2.0	2.7	1.7 J	1.4 J	2.6	NS	3.0	< 2.0
Volatile Organic Compounds (VOCs)																								
1,1,1-Trichloroethane	µg/l	200	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NS	NA	NA
1,1,2,2-Tetrachloroethane	µg/l	35	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NS	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	µg/l	170,000	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NS	NA	NA
1,1,2-Trichloroethane	µg/l	5.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NS	NA	NA
1,1-Dichloroethane	µg/l	2,500	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NS	NA	NA
1,1-Dichloroethene	µg/l	7.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NS	< 1.0	< 1.0
1,2,3-Trimethylbenzene	µg/l	NS	< 5.0	< 5.0	< 5.0	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0 J	< 5.0	< 5.0	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	NS	NA	NA
1,2,4-Trichlorobenzene	µg/l	70	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NS	NA	NA
1,2,4-Trimethylbenzene	µg/l	63	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NS	NA	NA
1,2-Dibromo-3-chloropropane	µg/l	0.2	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NS	NA	NA
1,2-Dibromoethane	µg/l	0.05	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NS	NA	NA
1,2-Dichlorobenzene	µg/l	600	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NS	NA	NA
1,2-Dichloroethane	µg/l	5.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NS	NA	NA
1,2-Dichloropropane	µg/l	5.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NS	NA	NA
1,3,5-Trimethylbenzene	µg/l	72	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NS	NA	NA
1,3-Dichlorobenzene	µg/l	19	< 1.0	0.18 J	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.26 J	NS	NA	NA
1,4-Dichlorobenzene	µg/l	75	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J	0.18 J	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NS	NA	NA
2-Butanone (MEK)	µg/l	38,000	< 10	< 10	< 10	NA	< 10	< 10	< 10	< 10	< 10	< 10 J	< 10	< 10	NA	< 10	< 10	< 10	< 10	< 10	< 10	NS	NA	NA
4-Methyl-2-Pentanone (MIBK)	µg/l	5,200	< 10	< 10	< 10	NA	< 10	< 10	< 10	< 10	< 10	< 10 J	< 10	< 10	NA	< 10	< 10	< 10	< 10	< 10	< 10	NS	NA	NA
Acetone	µg/l	2,100	< 10	< 10	< 10	NA	< 10	< 10	< 10	< 10	< 10	< 10 J	< 10	< 10	NA	< 10	< 10	< 10	< 10	< 10	< 10	NS	NA	NA
Benzene	µg/l	5.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NS	NA	NA
Bromodichloromethane	µg/l	80	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NS	NA	NA
Bromoform	µg/l	80	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NS	NA	NA
Bromomethane	µg/l	29	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NS	NA	NA
Carbon Disulfide	µg/l	2,300	< 5.0	< 5.0	< 5.0	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0 J	< 5.0	< 5.0	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	NS	NA	NA
Carbon Tetrachloride	µg/l	5.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NS	NA	NA
CFC-11	µg/l	7,300	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NS	NA	NA
CFC-12	µg/l	4,800	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NS	NA	NA
Chlorobenzene	µg/l	100	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NS	NA	NA
Chlorodibromomethane	µg/l	80	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NS	NA	NA
Chloroethane	µg/l	1,700	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NS	NA	NA
Chloroform	µg/l	80	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NS	NA	NA
Chloromethane	µg/l	1,100	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NS	NA	NA

See Notes on Last Page.

Table 1
On-Site Groundwater Analytical Results
Ford Livonia Transmission Plant
36200 Plymouth Road
Livonia, Michigan

Location:			MW-55								MW-57								MW-71							
Screen Interval (ft. bgs):	Unit	MDEQ Non-Residential Drinking Water Criteria	15-20								17-22								15-20							
Date:			7/27/2017	11/8/2017	2/7/2018	5/10/2018	8/13/2018	10/31/2018	02/27/2019	6/11/2019	7/27/2017	11/7/2017	2/9/2018	5/9/2018	8/6/2018	10/25/2018	02/28/2019	6/11/2019	4/24/2017	8/1/2017	11/13/2017	2/12/2018	5/8/2018	8/9/2018	11/6/2018	02/27/2019	6/11/2019
Semi-volatile Organic Compounds (SVOCs)																										
1,4-Dioxane	µg/l	350	1.2 J	1.4 J	0.96 J	1.2 J	1.1 J	1.6 J	< 2.0	1.2 J	4.6	4.9	4.9	3.9	4.5	4.6	3.1	3.6	4.3	1.4 J	0.72 J	0.57 J	0.38 J	0.95 J	1.1 J	< 2.0	1.6 J
Volatile Organic Compounds (VOCs)																										
1,1,1-Trichloroethane	µg/l	200	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA
1,1,2,2-Tetrachloroethane	µg/l	35	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA
1,1,2-trichloro-1,2,2-trifluoroethane	µg/l	170,000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA
1,1,2-Trichloroethane	µg/l	5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA
1,1-Dichloroethane	µg/l	2,500	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA
1,1-Dichloroethene	µg/l	7.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2,3-Trimethylbenzene	µg/l	NS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	NA
1,2,4-Trichlorobenzene	µg/l	70	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA
1,2,4-Trimethylbenzene	µg/l	63	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA
1,2-Dibromo-3-chloropropane	µg/l	0.2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA
1,2-Dibromoethane	µg/l	0.05	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA
1,2-Dichlorobenzene	µg/l	600	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA
1,2-Dichloroethane	µg/l	5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA
1,2-Dichloropropane	µg/l	5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA
1,3,5-Trimethylbenzene	µg/l	72	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA
1,3-Dichlorobenzene	µg/l	19	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.16 J	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.16 J	< 1.0	NA
1,4-Dichlorobenzene	µg/l	75	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.25 J	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA
2-Butanone (MEK)	µg/l	38,000	< 10	< 10	< 10	< 10	< 10	< 10	< 10	NA	< 10	< 10	< 10	< 10	< 10	< 10	2.7 J	NA	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	NA
4-Methyl-2-Pentanone (MIBK)	µg/l	5,200	< 10	< 10	< 10	< 10	< 10	< 10	< 10	NA	< 10	< 10	< 10	< 10	< 10	< 10	< 10	NA	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	NA
Acetone	µg/l	2,100	< 10	< 10	< 10	2.7 J	< 10	< 10	< 10	NA	1.8 J	< 10	< 10	< 10	< 10	< 10	12	NA	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	NA
Benzene	µg/l	5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA
Bromodichloromethane	µg/l	80	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA
Bromoform	µg/l	80	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA
Bromomethane	µg/l	29	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA
Carbon Disulfide	µg/l	2,300	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	NA
Carbon Tetrachloride	µg/l	5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA
CFC-11	µg/l	7,300	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA
CFC-12	µg/l	4,800	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA
Chlorobenzene	µg/l	100	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA
Chlorodibromomethane	µg/l	80	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA
Chloroethane	µg/l	1,700	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA
Chloroform	µg/l	80	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA
Chloromethane	µg/l	1,100	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA

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Table 1
On-Site Groundwater Analytical Results
Ford Livonia Transmission Plant
36200 Plymouth Road
Livonia, Michigan

Location:	Unit	MDEQ Non-Residential Drinking Water Criteria	MW-30									MW-31									MW-52			
Screen Interval (ft. bgs):			19-24									17-22									15-20			
Date:			4/25/2017	7/27/2017	11/9/2017	2/13/2018	5/8/2018	8/10/2018	11/1/2018	03/02/2019	6/15/2019	4/21/2017	7/28/2017	11/10/2017	2/14/2018	5/8/2018	8/10/2018	11/1/2018	03/02/2019	6/15/2019	7/27/2017	11/10/2017	2/13/2018	5/9/2018
cis-1,2-Dichloroethene	µg/l	70	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,3-Dichloropropene	µg/l	NS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0
Cyclohexane	µg/l	NS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0
Dichloromethane	µg/l	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	NA	< 5.0	< 5.0	< 5.0	< 5.0
Diethyl ether	µg/l	10	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	NA	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	NA	< 2.0	< 2.0	< 2.0	< 2.0
Ethylbenzene	µg/l	74	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0
Isopropylbenzene	µg/l	2,300	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Acetate	µg/l	NS	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	NA	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	NA	< 10	< 10	< 10	< 10
Methyl N-Butyl Ketone (2-Hexanone)	µg/l	2,900	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	NA	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	NA	< 10	< 10	< 10	< 10
Methylcyclohexane	µg/l	NS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0
Methyl-tert-butylether	µg/l	40	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0
Styrene (Monomer)	µg/l	100	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	µg/l	5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/l	790	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0
Total Xylenes	µg/l	280	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	NA	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	NA	< 2.0	< 2.0	< 2.0	< 2.0
trans-1,2-Dichloroethene	µg/l	100	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene	µg/l	NS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	µg/l	5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vinyl chloride	µg/l	2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.68 J	0.84 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**7.0**	**9.1**	**4.0**	**4.3**
Gases																								
Ethane	µg/l	NS	< 0.50	NA	0.31 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	µg/l	NS	< 0.50	NA	< 1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	µg/l	NS	65	NA	360	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Other																								
Carbon, Dissolved	mg/l	NS	2.6	NA	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate-N	mg/l	10	< 1.0	NA	< 0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	mg/l	250	52	NA	53	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	mg/l	NS	2.1	NA	2.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals																								
Iron, Dissolved	µg/l	300	< 100	NA	**3,700**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	µg/l	300	**630**	NA	**3,700**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese, Dissolved	µg/l	50	**77**	NA	**150**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	µg/l	50	**70**	NA	**150**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Table 1
On-Site Groundwater Analytical Results
Ford Livonia Transmission Plant
36200 Plymouth Road
Livonia, Michigan

Location:	Unit	MDEQ Non-Residential Drinking Water Criteria	MW-52				MW-53									MW-54								MW-54S
Screen Interval (ft. bgs):			15-20				16-21									16-21								4.5-9.5
Date:			8/10/2018	10/31/2018	03/02/2019	6/15/2019	4/24/2017	7/27/2017	11/8/2017	2/7/2018	5/9/2018	8/13/2018	10/31/2018	02/28/2019	6/10/2019	7/27/2017	11/8/2017	2/7/2018	5/9/2018	8/13/2018	10/31/2018	2/25/2019	6/10/2019	6/10/2019
cis-1,2-Dichloroethene	µg/l	70	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NS	< 1.0	< 1.0
cis-1,3-Dichloropropene	µg/l	NS	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NS	NA	NA
Cyclohexane	µg/l	NS	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NS	NA	NA
Dichloromethane	µg/l	5.0	< 5.0	< 5.0	< 5.0	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0 J	< 5.0	< 5.0	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	NS	NA	NA
Diethyl ether	µg/l	10	< 2.0	< 2.0	< 2.0	NA	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0 J	< 2.0	< 2.0	NA	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	NS	NA	NA
Ethylbenzene	µg/l	74	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NS	NA	NA
Isopropylbenzene	µg/l	2,300	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NS	NA	NA
Methyl Acetate	µg/l	NS	< 10	< 10	< 10	NA	< 10	< 10	< 10	< 10	< 10	< 10 J	< 10	< 10	NA	< 10	< 10	< 10	< 10	< 10	< 10	NS	NA	NA
Methyl N-Butyl Ketone (2-Hexanone)	µg/l	2,900	< 10	< 10	< 10	NA	< 10	< 10	< 10	< 10	< 10	< 10 J	< 10	< 10	NA	< 10	< 10	< 10	< 10	< 10	< 10	NS	NA	NA
Methylcyclohexane	µg/l	NS	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NS	NA	NA
Methyl-tert-butylether	µg/l	40	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NS	NA	NA
Styrene (Monomer)	µg/l	100	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NS	NA	NA
Tetrachloroethene	µg/l	5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NS	< 1.0	< 1.0
Toluene	µg/l	790	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NS	NA	NA
Total Xylenes	µg/l	280	< 2.0	< 2.0	< 2.0	NA	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0 J	< 2.0	< 2.0	NA	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	NS	NA	NA
trans-1,2-Dichloroethene	µg/l	100	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NS	< 1.0	< 1.0
trans-1,3-Dichloropropene	µg/l	NS	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NS	NA	NA
Trichloroethene	µg/l	5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NS	< 1.0	< 1.0
Vinyl chloride	µg/l	2.0	**4.5**	**5.0**	**3.9**	**3.4**	< 1.0	0.63 J	< 1.0	< 1.0	< 1.0	0.45 J	0.60 J	< 1.0	< 1.0	0.88 J	1.5	1.2	0.98 J	0.34 J	0.85 J	NS	0.87 J	< 1.0
Gases																								
Ethane	µg/l	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	µg/l	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	µg/l	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Other																								
Carbon, Dissolved	mg/l	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate-N	mg/l	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	mg/l	250	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	mg/l	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals																								
Iron, Dissolved	µg/l	300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	µg/l	300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese, Dissolved	µg/l	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	µg/l	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Table 1
On-Site Groundwater Analytical Results
Ford Livonia Transmission Plant
36200 Plymouth Road
Livonia, Michigan

Location:			MW-55								MW-57								MW-71							
Screen Interval (ft. bgs):	Unit	MDEQ Non-Residential Drinking Water Criteria	15-20								17-22								15-20							
Date:			7/27/2017	11/8/2017	2/7/2018	5/10/2018	8/13/2018	10/31/2018	02/27/2019	6/11/2019	7/27/2017	11/7/2017	2/9/2018	5/9/2018	8/6/2018	10/25/2018	02/28/2019	6/11/2019	4/24/2017	8/1/2017	11/13/2017	2/12/2018	5/8/2018	8/9/2018	11/6/2018	02/27/2019	6/11/2019
cis-1,2-Dichloroethene	µg/l	70	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.19 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.39 J	0.37 J	0.40 J	0.34 J	0.36 J	0.30 J	0.42 J
cis-1,3-Dichloropropene	µg/l	NS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA
Cyclohexane	µg/l	NS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA
Dichloromethane	µg/l	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	2.6 J	< 5.0	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	NA
Diethyl ether	µg/l	10	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	NA	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	NA	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	NA
Ethylbenzene	µg/l	74	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA
Isopropylbenzene	µg/l	2,300	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA
Methyl Acetate	µg/l	NS	< 10	< 10	< 10	< 10	< 10	< 10	< 10	NA	< 10	< 10	< 10	< 10	< 10	< 10	< 10	NA	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	NA
Methyl N-Butyl Ketone (2-Hexanone)	µg/l	2,900	< 10	< 10	< 10	< 10	< 10	< 10	< 10	NA	< 10	< 10	< 10	< 10	< 10	< 10	< 10	NA	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	NA
Methylcyclohexane	µg/l	NS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA
Methyl-tert-butylether	µg/l	40	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA
Styrene (Monomer)	µg/l	100	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA
Tetrachloroethene	µg/l	5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/l	790	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA
Total Xylenes	µg/l	280	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	NA	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	NA	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	NA
trans-1,2-Dichloroethene	µg/l	100	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene	µg/l	NS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA
Trichloroethene	µg/l	5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vinyl chloride	µg/l	2.0	0.84 J	0.65 J	< 1.0	0.48 J	0.39 J	0.57 J	0.54 J	0.48 J	< 1.0	< 1.0	0.59 J	0.56 J	0.39 J	0.64 J	0.88 J	0.77 J	< 1.0	0.68 J	0.83 J	0.59 J	0.59 J	< 1.0	0.31 J	0.40 J	0.77 J
Gases																											
Ethane	µg/l	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	µg/l	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	µg/l	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Other																											
Carbon, Dissolved	mg/l	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate-N	mg/l	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	mg/l	250	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	mg/l	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals																											
Iron, Dissolved	µg/l	300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	µg/l	300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese, Dissolved	µg/l	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	µg/l	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Last Page.

Table 1
On-Site Groundwater Analytical Results
Ford Livonia Transmission Plant
36200 Plymouth Road
Livonia, Michigan

Notes:
Results are compared to the MDEQ Part 201 Generic Cleanup Criteria, December 31, 2013.
Bold Result denotes exceedance of MDEQ Non-Residential Drinking Water Criteria.
< Denotes not detected above reporting limit.

Abbreviations:

EGLE	Michigan Department of Environment, Great Lakes, and Energy
MDEQ	Michigan Department of Environmental Quality
ft. bgs	feet below ground surface
J	estimated result
NA	not analyzed/not available
NA*	result not reported due to laboratory instrument calibration
NS	no standard
mg/l	milligrams per liter
µg/l	micrograms per liter

This document is a DRAFT document that has not received approval from the Michigan Department of Environment, Great Lakes, and Energy (EGLE). This document was prepared pursuant to a court Consent Decree. The opinions, findings, and conclusions expressed are those of the authors and not those of the EGLE.

Table 2
Off-Site Groundwater Analytical Results
Ford Livonia Transmission Plant
36200 Plymouth Road
Livonia, Michigan

Location:	Unit	Residential Drinking Water Criteria	MW-72									MW-72S			MW-102			MW-102S			MW-191S
Screen Interval (ft. bgs):			15-20									3-13			10-15			2.5-12.5			2.5-7.5
Date:			5/22/2017	7/26/2017	11/7/2017	2/6/2018	5/9/2018	8/10/2018	10/22/2018	3/5/2019	5/17/2019	12/17/2018	3/5/2019	5/8/2019	12/19/2018	2/25/2019	5/17/2019	12/19/2018	2/25/2019	5/14/2019	4/22/2019
Semi-volatile Organic Compounds (SVOCs)																					
1,4-Dioxane	µg/l	7.2	1.1 J	0.53 J	0.97 J	0.78 J	0.32 J	1.1 J	1.4 J	0.91 J	< 2.0	< 2.0	< 2.0	< 2.0	1.7 J	1.3 J	1.1 J	< 2.0	< 2.0	< 2.0	< 2.0
Volatile Organic Compounds (VOCs)																					
1,1-Dichloroethene	µg/l	7.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	µg/l	70	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	2.3
Tetrachloroethene	µg/l	5.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-Dichloroethene	µg/l	100	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.20 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.57 J
Vinyl chloride	µg/l	1.0	**3.9**	**2.9**	**1.6**	**1.3**	**1.5 J**	**1.2**	**1.1**	**1.9**	**1.7**	< 1.0	0.24 J	< 1.0	**1.6**	**1.7**	**1.8**	< 1.0	< 1.0	< 1.0	< 1.0
Metals																					
Iron, Dissolved	µg/l	300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron, Total	µg/l	300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese, Dissolved	µg/l	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese, Total	µg/l	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anions																					
Nitrate-N	mg/l	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	mg/l	250	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)																					
Carbon, Dissolved	mg/l	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	mg/l	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gases																					
Ethane	µg/l	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	µg/l	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	µg/l	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
All results are compared to the MDEQ Part 201 Generic Cleanup Criteria, December 31, 2013.
Bolded Result exceeds residential Drinking Water criteria
< Result not detected above reporting limit.

Footnote:
* Residential Drinking Water Criteria for 1,4-dioxane is derived from the MDEQ Proposed Rule Changes (September 2016) and Emergency Rules (October 27, 2016).
** Groundwater results for Trichloroethene and Vinyl Chloride are compared to the published MDEQ Remediation and Redevelopment Division Target Detection Limit of 1.0 µg/l.

Abbreviations:
EGLE Michigan Department of Environment, Great Lakes, and Energy
ft. bgs feet below ground surface
J estimated result
MDEQ Michigan Department of Environmental Quality
mg/l milligrams per liter
NA not analyzed
NS no standard
µg/l micrograms per liter

Table 3
Off-Site Soil Vapor Monitoring Point Results
Ford Livonia Transmission Plant
36200 Plymouth Road
Livonia, Michigan

Location:	Residential RIASL	SVMP-25S								
Sample Depth (ft. bgs):		3								
Sample Date:		6/19/2017	9/21/2017	11/21/2017	2/21/2018	5/29/2018	8/23/2018	11/6/2018	3/21/2019	6/24/2019
VOCs (Method TO-15) µg/m^3										
1,1-Dichloroethene	7,000	NA	< 4.7	< 4.5	< 4.4	< 5.0	< 5.0	< 4.6	< 5.0	< 5.1
1,4-Dioxane	170	NA	< 17	< 16	< 16	< 18	< 18	< 17	< 18	< 18
cis-1,2-Dichloroethene	280	NA	< 4.7	< 4.5	< 4.4	< 5.0	< 5.0	< 4.6	< 5.0	< 5.1
Tetrachloroethene	1,400	NA	< 8.1	< 7.7	< 7.6	< 8.5	< 8.5	**1.6 J**	< 8.5	**4.1 J**
trans-1,2-Dichloroethene	2,800	NA	< 4.7	< 4.5	< 4.4	< 5.0	< 5.0	< 4.6	< 5.0	< 5.1
Trichloroethene	67	< 6.2	< 6.4	< 6.1	< 6.0	< 6.7	< 6.7	< 6.2	< 6.7	**1.3 J**
Vinyl Chloride	54	< 3.0	< 3.0	< 2.9	< 2.9	< 3.2	< 3.2	< 3.0	< 3.2	< 3.3

Location:	Residential RIASL	SVMP-25D								
Sample Depth (ft. bgs):		6								
Sample Date:		6/19/2017	9/21/2017	11/21/2017	2/21/2018	5/29/2018	8/23/2018	11/6/2018	3/21/2019	6/24/2019
VOCs (Method TO-15) µg/m^3										
1,1-Dichloroethene	7,000	NA	< 4.4	< 4.7	< 4.4	< 5.1	< 4.7	< 4.7	< 5.2	< 4.9
1,4-Dioxane	170	NA	< 16	< 17	< 16	< 19	< 17	< 17	< 19	< 18
cis-1,2-Dichloroethene	280	NA	< 4.4	< 4.7	< 4.4	< 5.1	< 4.7	< 4.7	< 5.2	< 4.9
Tetrachloroethene	1,400	NA	**12**	< 8.1	< 7.6	< 8.8	< 8.1	**2.5 J**	< 8.8	**1.4 J**
trans-1,2-Dichloroethene	2,800	NA	< 4.4	< 4.7	< 4.4	< 5.1	< 4.7	< 4.7	< 5.2	< 4.9
Trichloroethene	67	< 6.4	< 6.0	< 6.4	< 6.0	< 7.0	< 6.4	< 6.4	< 7.0	< 6.6
Vinyl Chloride	54	< 3.0	< 2.9	< 3.0	< 2.9	< 3.3	< 3.0	< 3.0	< 3.3	< 3.2

Notes:

The residential RIASLs apply to a residential structure with a basement.

SVMP-11 abandoned after the initial sampling event per the adjacent property owner's request.

SVMP-29 through SVMP-37 are located on residential properties, and therefore, were only sampled during the initial sampling event.

SVMP-17 and SVMP-20 were not sampled during the November 2017 sampling event due to saturated screens.

SVMP-13 through SVMP-17, SVMP-20, and SVMP-21 were not sampled during the February 2018 sampling event due to saturated screens.

SVMP-10, SVMP-13 through SVMP-16, SVMP-19, SVMP-22, and SVMP-23 were not sampled during the May 2018 sampling event due to saturated screens.

SVMP-20 was not sampled during the May 2018 sampling event due to a blockage in the tubing.

SVMP-13 through SVMP-17, and SVMP-19 through SVMP-21 were not sampled during the November 2018 sampling event due to saturated screens.

SVMP-10, SVMP-13, SVMP-15, SVMP-16, SVMP-20, and SVMP-23 were not sampled during the March 2019 sampling event due to saturated screens.

SVMP-03S was not sampled during the March 2019 sampling event due to technical difficulties with the canister.

SVMP-10, SVMP-13, SVMP-14, SVMP-15, SVMP-16, SVMP-19, and SVMP-20 were not sampled during the June 2019 sampling event due to saturated screens.

SVMP-26 sample was cancelled due to a high canister vacuum reading of 10.5 Hg during the June 2019 sampling event.

Bold Concentration was detected above reporting limit.

Abbreviations:

<	denotes not detected above reporting limit
µg/m^3	micrograms per cubic meter
ft. bgs	feet below ground surface
J	reported value is estimated
NA	not analyzed
NS	not sampled
RIASL	recommended interim action screening levels

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ON-SITE AREA

OFF-SITE AREA

LIVONIA TRANSMISSION PLANT

TEST TRACK

ATNPC BUILDING

SSDS Building

HCS Building

VERONICA AVE
GLENDALE ST
AMRHEIN RD
LEVAN RD
PLYMOUTH RD
ROSATI AVE
CONCORD ST
CAPITOL ST
BEACON ST
STARK RD
WADSWORTH ST
STANDISH ST
BELDEN CT
PRISCILLA LN
YALE ST
YALE AVE
LAUREL ST
PARKDALE AVE

LEGEND

- MONITORING WELL
- TEST WELL
- VAULT
- SUCTION PITS
- PIEZOMETER
- WELL SCREEN (4-INCH SDR-11 HDPE, CUSTOM SLOTTED)
- WELL BLANK CASING
- SSDS CONVEYANCE PIPING
- FORD PROPERTY BOUNDARY
- COMMERCIAL/RESIDENTIAL PROPERTY BOUNDARY
- AREA OF CONCERN
- CARRIER PIPES CP-ESD-1/2 (4-INCH SDR-11 HDPE)
- ELECTRICAL CARRIER PIPE CP-ESD-3 (3-INCH SDR-13.5 HDPE)
- ELECTRICAL CARRIER PIPE (3-INCH CPVC)
- EDC DISCHARGE LINE
- SYSTEM DISCHARGE LINE

NOTES:

ATNPC - AUTOMATIC TRANSMISSION NEW PRODUCT CENTER

EGLE = MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

HDPE = HIGH-DENSITY POLYETHYLENE

SSDS = SUB-SLAB DEPRESSURIZATION SYSTEM

HCS = HYDRAULIC CONTROL SYSTEM

0 400 800
SCALE IN FEET

FORD MOTOR COMPANY
LIVONIA TRANSMISSION PLANT
LIVONIA, MICHIGAN

SITE LAYOUT GROUNDWATER SAMPLING

ARCADIS Design & Consultancy for natural and built assets

FIGURE 1

CITY: Novi DIV: ENV DB: MG PIC: R. ELLIS PM: K. HINSKEY PROJECT NUMBER: MI001454.0007 COORDINATE SYSTEM: NAD 1983 StatePlane Michigan South FIPS 2113 Feet
Z:\GISProjects_ENV\NoviBrighton_MIFordLivoniaGIS\docs\2019-07\Figure 2 - Site Layout On-site and Off-site MW 07222019.mxd PLOTTED: 7/22/2019 12:46:08 PM BY: msmiller

LEGEND:

- INDOOR AIR LOCATION
- AMBIENT AIR LOCATION
- BUILDING
- PROPERTY BOUNDARIES

NOTES:
µg/m3 = Microgram per cubic meter
J = Estimated result
< = Denotes not detected above reporting limit
Bold = Result exceeds the Non-Residential Volatilization to Indoor Air RIASL12 (Indoor/Ambient Air) - MDEQ August 2017 Table (commercial)
TCE = trichloroethene

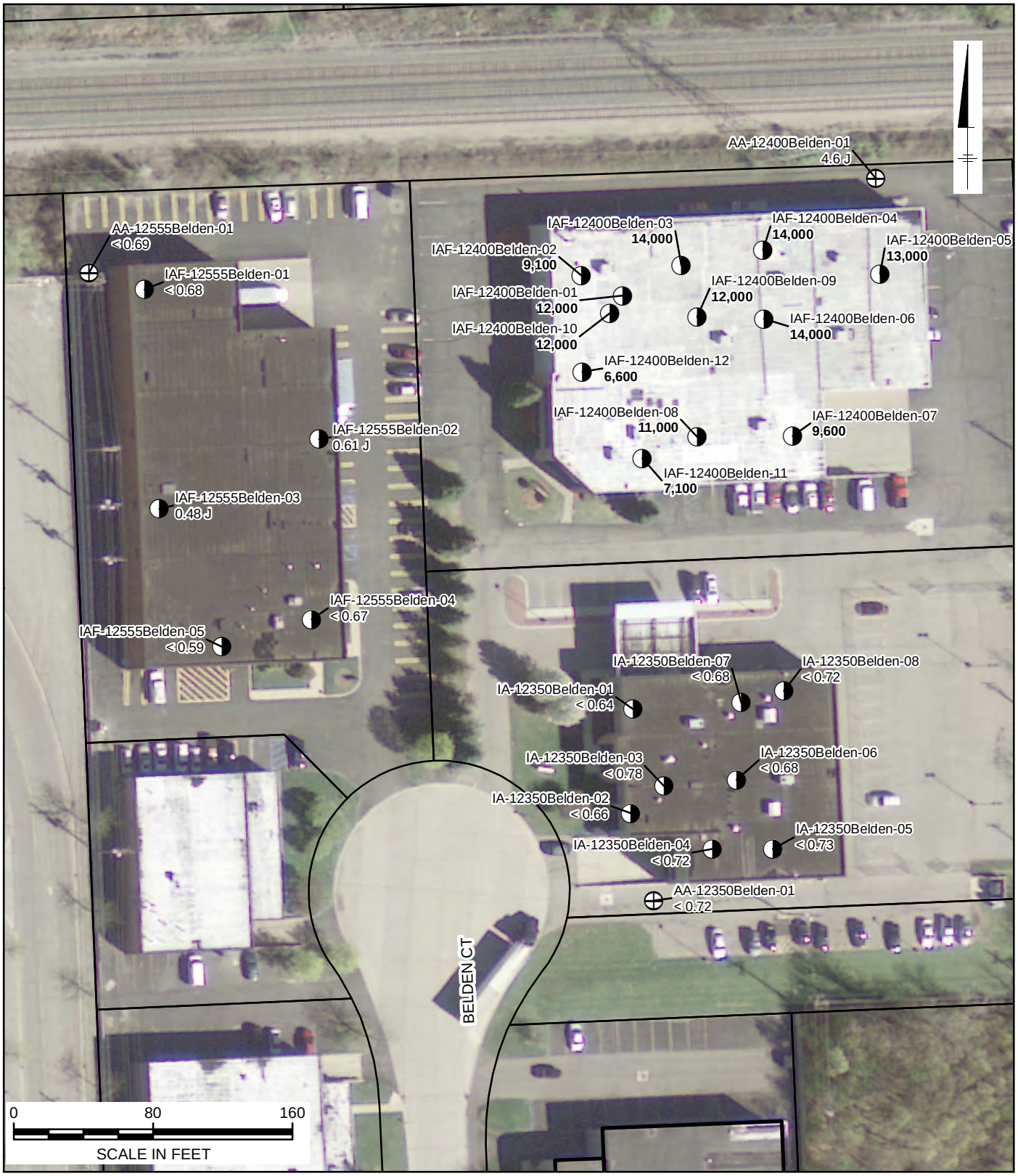
FORD MOTOR COMPANY
LIVONIA TRANSMISSION PLANT
LIVONIA, MICHIGAN

12400 Belden Court
Indoor Air: Trichloroethene

ARCADIS Design & Consultancy for natural and built assets

FIGURE 2

CITY: NOVI DIV: ENV DB: MG PIC: R. ELLIS PM: K. HINSKEY TM: A. PAULSON TR: M.WACKSMAN PROJECT NUMBER: MI001454.0003.00001 COORDINATE SYSTEM: NAD 1983 StatePlane Michigan South FIPS 2113 Feet
Z:\GISProjects_ENV\Novi\Brighton_MI\Ford\Livonia\GIS\docs\GEC\2Q_2019\Commercial Isocontour Basemaps\Figure 3 - 12400 Belden IA TCE.mxd PLOTTED: 7/24/2019 5:19:21 AM BY: mayyar7350



LEGEND:

- INDOOR AIR LOCATION
- AMBIENT AIR LOCATION
- BUILDING
- PROPERTY BOUNDARIES

NOTES:
µg/m3 = Microgram per cubic meter
J = Estimated result
< = Denotes not detected above reporting limit
Bold = Result exceeds the Non-Residential Volatilization to Indoor Air RIASL12 (Indoor/Ambient Air) from EGLE August 2017 Table (commercial)
Trans DCE = trans-1,2-dichloroethene

FORD MOTOR COMPANY
LIVONIA TRANSMISSION PLANT
LIVONIA, MICHIGAN

12400 Belden Court

Indoor Air: Trans-1,2-dichloroethene

ARCADIS Design & Consultancy for natural and built assets

FIGURE 3

CITY: NOVI DIV: ENV DB: MG PIC: R. ELLIS PM: K. HINSKEY TM: A. PAULSON TR: M.WACKSMAN PROJECT NUMBER: MI001454.0003.00001 COORDINATE SYSTEM: NAD 1983 StatePlane Michigan South FIPS 2113 Feet
Z:\GISProjects_ENV\NoviBrighton_MIFordLivonia\GIS\docs\GEC\2Q_2019\Commercial Isocontour Basemaps\Figure 4 - 12400 Belden IA trans DCE.mxd PLOTTED: 7/24/2019 5:24:45 AM BY: mayyar7350

LEGEND:

- SUB-SLAB MONITORING POINT LOCATION
- BUILDING
- PROPERTY BOUNDARIES

NOTES:
µg/m3 = Microgram per cubic meter
< = Denotes not detected above reporting limit
Bold = Result exceeds Nonresidential Volatilization to Indoor Air Criteria adjusted for 12 hour work-day exposure. Slab-on-grade, <50,000 sqft. Provided by EGLE.
TCE = trichloroethene

FORD MOTOR COMPANY
LIVONIA TRANSMISSION PLANT
LIVONIA, MICHIGAN

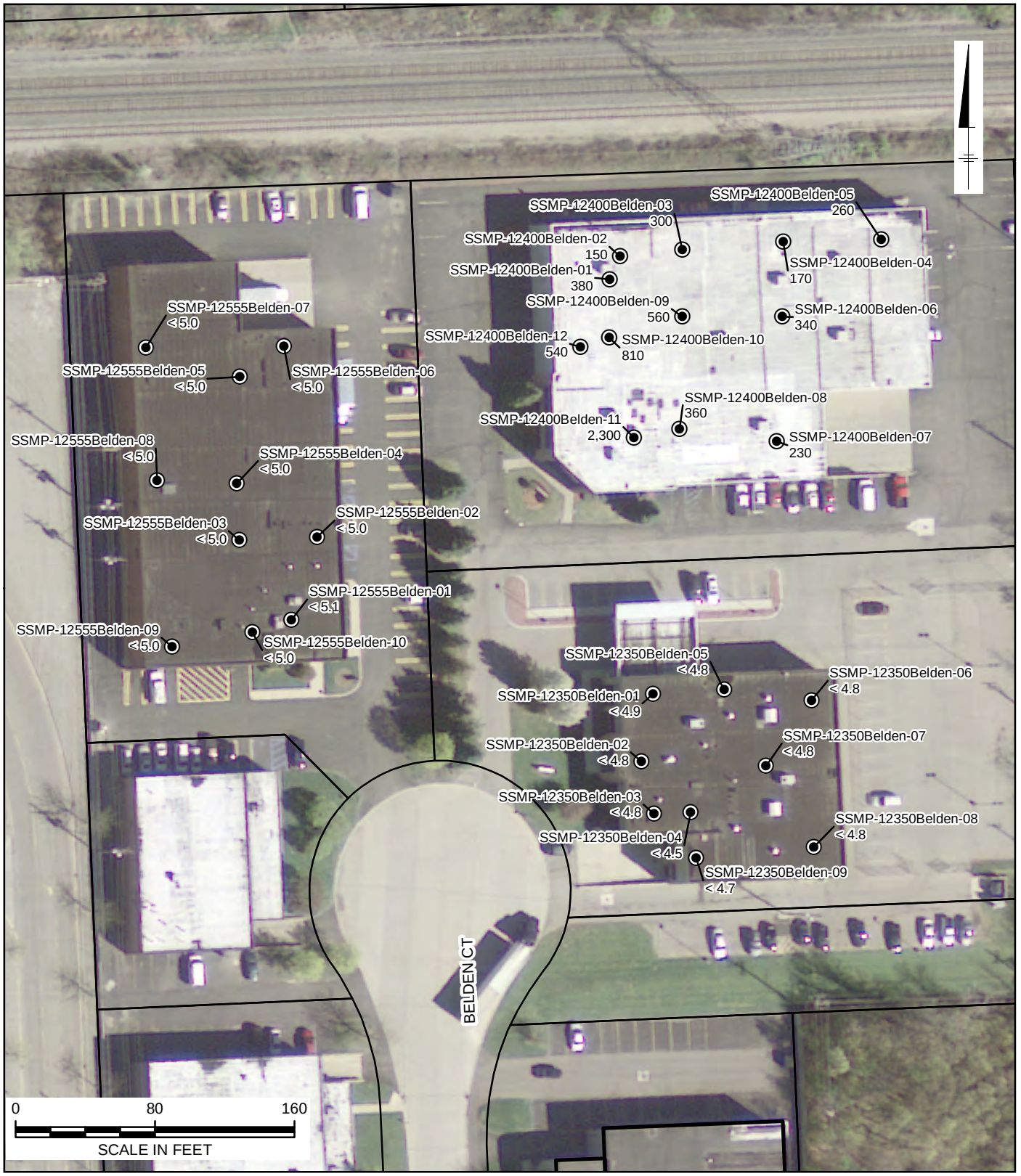
12400 Belden Court

Sub-Slab Monitoring: Trichloroethene

ARCADIS Design & Consultancy for natural and built assets

FIGURE 4

CITY: NOVI DIV: ENV DB: MG PIC: R. ELLIS PM: K. HINSKEY TM: A. PAULSON TR: M.WACKSMAN PROJECT NUMBER: MI001454.0003.00001 COORDINATE SYSTEM: NAD 1983 StatePlane Michigan South FIPS 2113 Feet
Z:\GISProjects_ENV\Novi\Brighton_MI\Ford\Livonia\GIS\docs\GEC\2Q_2019\Commercial Isocontour Basemaps\Figure 5 - 12400 Belden SSMP TCE.mxd PLOTTED: 7/24/2019 5:26:47 AM BY: msi01059



LEGEND:

- SUB-SLAB MONITORING POINT LOCATION
- BUILDING
- PROPERTY BOUNDARIES

NOTES:
µg/m3 = Microgram per cubic meter
< = Denotes not detected above reporting limit
Trans DCE = trans-1,2-dichloroethene

FORD MOTOR COMPANY
LIVONIA TRANSMISSION PLANT
LIVONIA, MICHIGAN

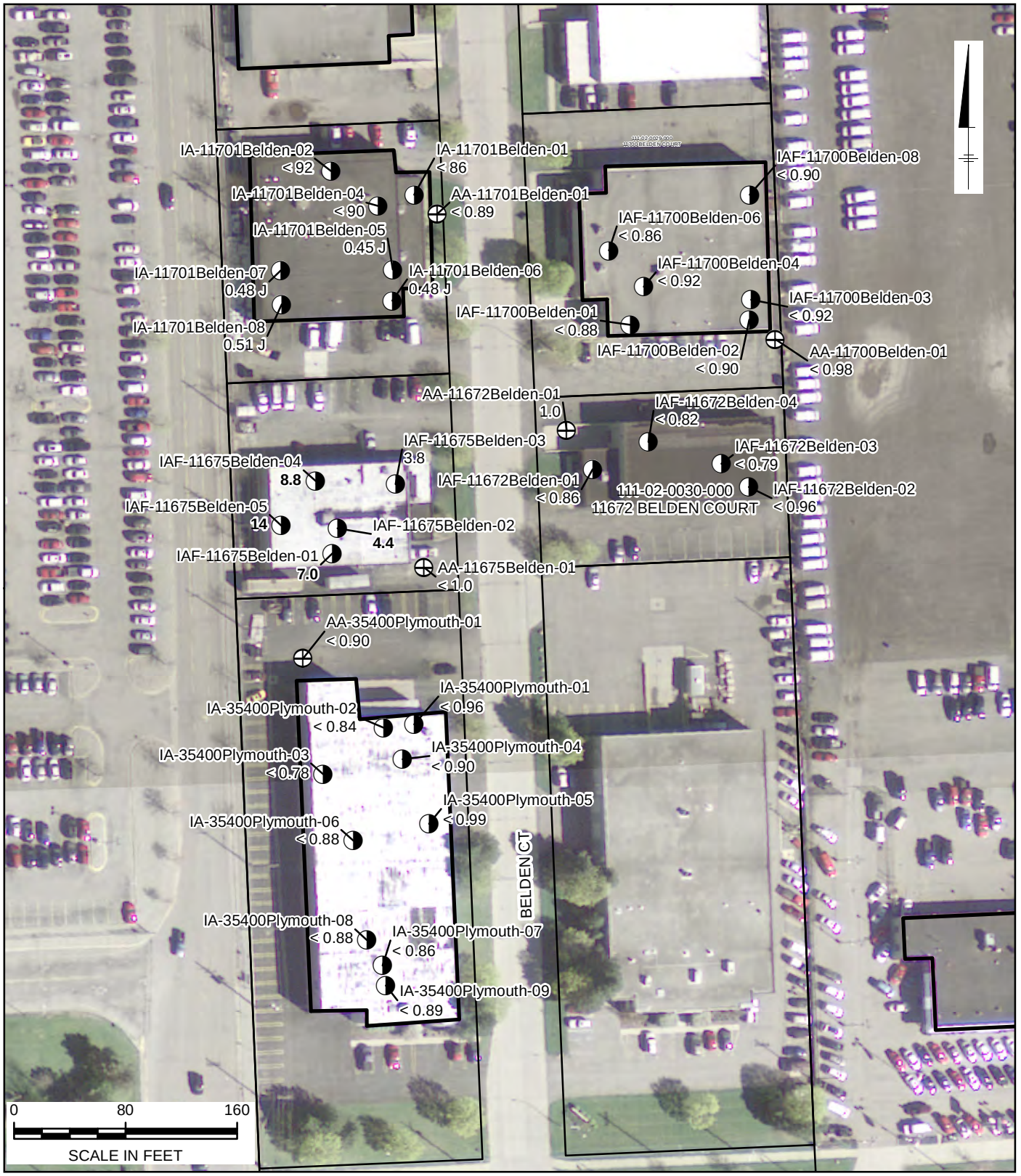
12400 Belden Court

Sub-Slab Monitoring: Trans-1,2-dichloroethene

ARCADIS Design & Consultancy for natural and built assets

FIGURE 5

CITY: NOVI DIV: ENV DB: MG PIC: R. ELLIS PM: K. HINSKEY TM: A. PAULSON TR: M.WACKSMAN PROJECT NUMBER: MI001454.0003.00001 COORDINATE SYSTEM: NAD 1983 StatePlane Michigan South FIPS 2113 Feet
Z:\GISProjects_ENV\Novi\Brighton_MI\Ford\Livonia\GIS\docs\GEC\2Q_2019\Commercial Isocontour Basemaps\Figure 6 - 12400 Belden SSMP trans DCE.mxd PLOTTED: 7/24/2019 4:25:46 AM BY: mayyar7350



LEGEND:

- INDOOR AIR LOCATION
- AMBIENT AIR LOCATION
- BUILDING
- PROPERTY BOUNDARIES

NOTES:
µg/m3 = Microgram per cubic meter
J = Estimated result
< = Denotes not detected above reporting limit
Bold = Result exceeds the Non-Residential Volatilization to Indoor Air RIASL12 (Indoor/Ambient Air) - MDEQ August 2017 Table (commercial)
TCE = trichloroethene

FORD MOTOR COMPANY
LIVONIA TRANSMISSION PLANT
LIVONIA, MICHIGAN

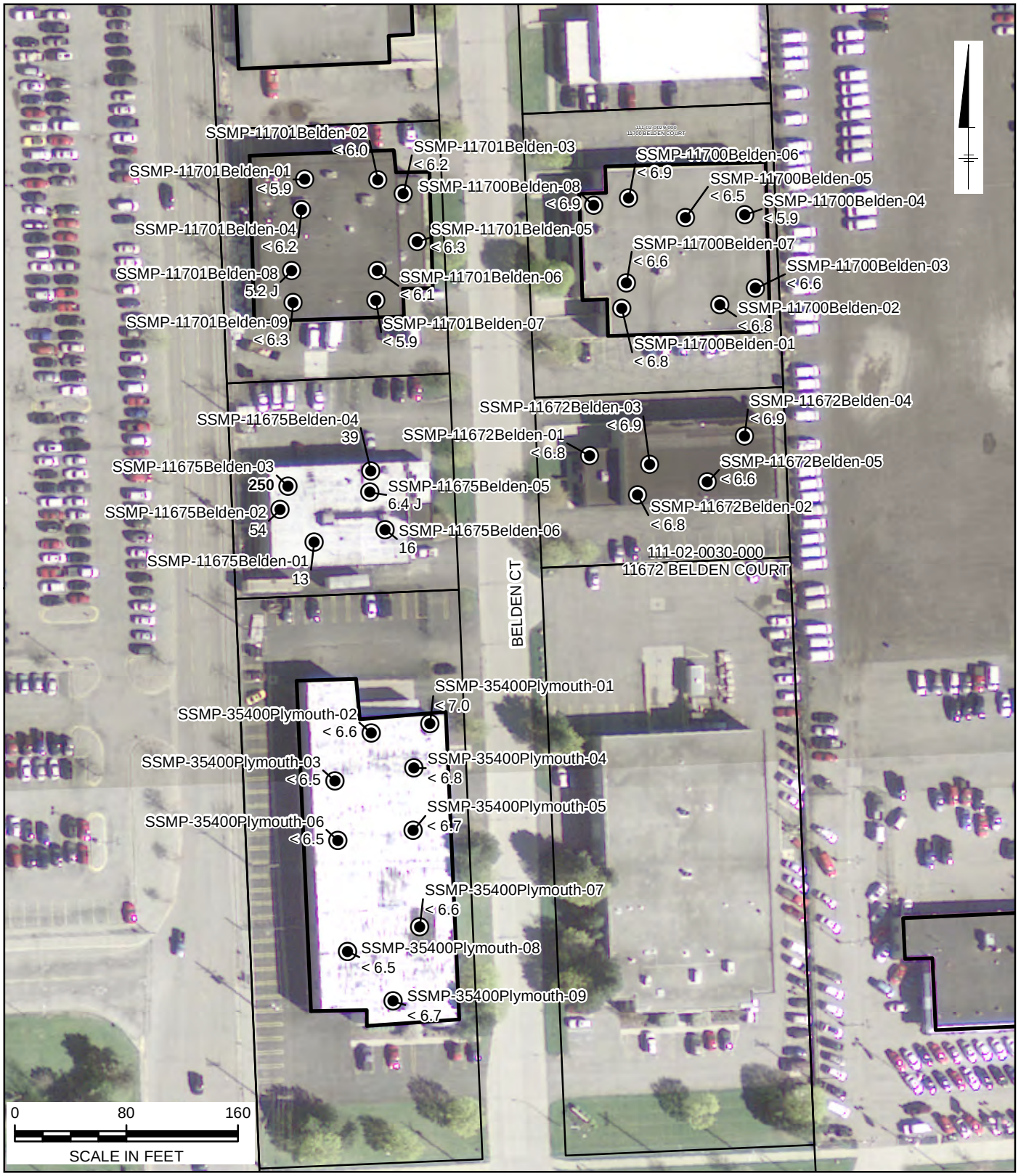
11675 Belden Court

Indoor Air: Trichloroethene

ARCADIS Design & Consultancy for natural and built assets

FIGURE 6

CITY: NOVI DIV: ENV DB: MG PIC: R. ELLIS PM: K. HINSKEY TM: A. PAULSON TR: M.WACKSMAN PROJECT NUMBER: MI001454.0003.00001 COORDINATE SYSTEM: NAD 1983 StatePlane Michigan South FIPS 2113 Feet
Z:\GISProjects_ENV\Novi\Brighton_MI\Ford\Livonia\GIS\docs\GEC\2Q_2019\Commercial Isocontour Basemaps\Figure 1 - 11675 Belden IA TCE.mxd PLOTTED: 7/24/2019 5:09:14 AM BY: mayyar7350



LEGEND:

- SUB-SLAB MONITORING POINT LOCATION
- BUILDING
- PROPERTY BOUNDARIES

NOTES:
µg/m3 = Microgram per cubic meter
< = Denotes not detected above reporting limit
Bold = Result exceeds Nonresidential Volatilization to Indoor Air Criteria adjusted for 12 hour work-day exposure. Slab-on-grade, <50,000 sqft. Provided by EGLE.
TCE = trichloroethene

FORD MOTOR COMPANY
LIVONIA TRANSMISSION PLANT
LIVONIA, MICHIGAN

11675 Belden Court

Sub-Slab Monitoring: Trichloroethene

ARCADIS Design & Consultancy for natural and built assets

FIGURE 7

CITY: NOVI DIV: ENV DB: MG PIC: R. ELLIS PM: K. HINSKEY TM: A. PAULSON TR: M.WACKSMAN PROJECT NUMBER: MI001454.0003.00001 COORDINATE SYSTEM: NAD 1983 StatePlane Michigan South FIPS 2113 Feet
Z:\GISProjects_ENV\Novi\Brighton_MI\Ford\Livonia\GIS\docs\GEC\2Q_2019\Commercial Isocontour Basemaps\Figure 2 - 11675 Belden SSMP TCE.mxd PLOTTED: 7/24/2019 5:14:05 AM BY: mayyar7350