



Monitoring Well Installation and Groundwater Monitoring Report

Former Fairfax I Site
230 Kindelberger Road
Kansas City, Kansas

Revitalizing Auto Communities
Environmental Responses
(RACER) Trust

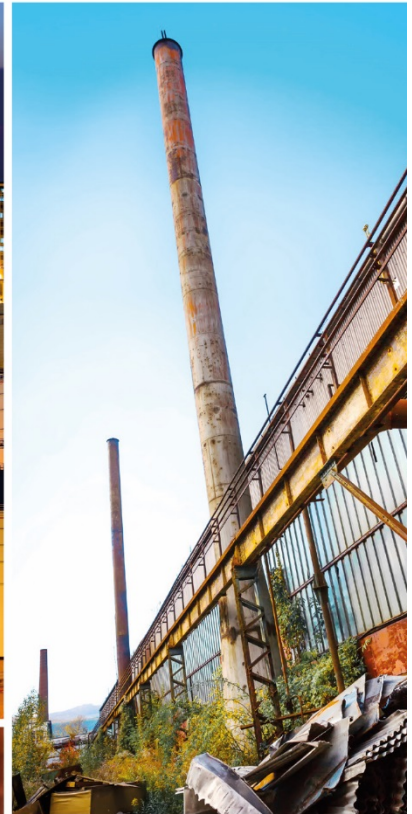
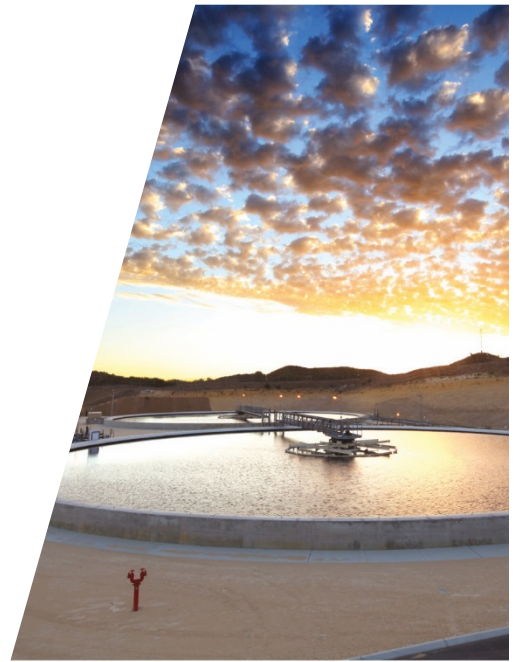




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1. Introduction

GHD Services Inc. (GHD) has prepared this Monitoring Well Installation and Groundwater Monitoring Report on behalf of the Revitalizing Auto Communities Environmental Responses (RACER) Trust for the Fairfax I Site (Site). The work was performed in accordance with the Corrective Action Plan (CAP) approved by the Kansas Department of Health and Environment (KDHE) in a letter dated September 19, 2018.

The selected remedy for the Site includes interim measures already performed, engineering controls, institutional controls, and long-term monitoring with contingencies for future remedial actions if monitoring results indicate significant increases in contaminant concentration and/or migration of the contaminant plume. This report summarizes field activities performed to install and sample monitoring wells to be used for long-term monitoring and establish down-gradient delineation for an Area of Concern (AOC) designated TMW-127.

2. Site Description and History

2.1 Site Description

The Fairfax I Site is located in a heavy industrial area known as the Fairfax District in Kansas City, Kansas at 230 Kindelberger Road, Kansas as shown on Figure 1. The Site was partially redeveloped starting in 2013, as discussed in the Site History in the following section, and includes a 74,000-square-foot building in the southeast corner of the Site, an 841,719-square-foot building in the west half, and vacant land planned for future development in the northeast section of the Site. As part of the redevelopment, the Site address was changed from 100 Kindelberger Road to 230 Kindelberger Road.

The properties to the west and south of the Site include industrial operations, chemical companies, and manufacturing facilities. The property to the east and southeast is operated by General Motors LLC (GM) as an automotive assembly plant known as the GM Fairfax Assembly Plant.

The Site is located on a bend in the Missouri River, with the river located north, east, and southeast of the Site. A levee is present between the Site and the Missouri River.

2.2 Site History

The U.S. Government constructed the Fairfax I plant in 1940 for use by North American Aviation for military aircraft assembly during World War II. In 1945, GM negotiated a lease for the plant from the U.S. Government and began assembling automobiles. During the Korean conflict in the 1950s, GM assembled military aircraft in addition to continuing to assemble automobiles.

GM purchased the property from the U.S. Government in 1960 and continued automobile assembly operations at the Site until the late 1980s, when production was moved to a new Fairfax II plant which was built to the southeast of the Fairfax I plant. The Fairfax I buildings were demolished by GM in 1987 and GM held the property vacant.



The Site has a long history of environmental investigations (since the late 1980s) and remedial activities. These were performed under a variety of regulatory programs with oversight by KDHE in anticipation of the sale of distinct land parcels under the KDHE Voluntary Cleanup and Property Redevelopment Program (VCPRP). A western portion of the Fairfax I property, which covered approximately 16 acres, was referred to as "Tract 2" and received an "NFA" from KDHE. Tract 2 was sold to a third party in 2008. The Fairfax I Site is approximately 91 acres of land.

In 2011 following GM's bankruptcy, the RACER Trust (RACER) was created through the bankruptcy settlement to conduct, manage, and fund cleanup activities at 89 former GM properties, including the Fairfax I Site. RACER and KDHE Bureau of Environmental Remediation (BER) entered into Consent Agreement and Final Order No. 11-E-109 BER dated November 21, 2011. The Order identified five AOCs which required further characterization and/or remediation:

The five AOCs as shown on Figure 2 are:

- S8 Area: The area around soil boring S-8 near the former baler room and underground storage tank area.
- SB-110 Area: The area around soil boring SB-110 northwest of the former main plant building.
- TMW-127 Area: Groundwater in an area around temporary monitoring well TMW-127.
- MW-103A Area: The area around monitoring well MW-103A near a former rail spur and an aboveground tank farm.
- TMW-130 Area: The area around temporary monitoring well TMW-130 in the southeast quadrant of the footprint of the former Fairfax I Plant.

In 2014, RACER completed Interim Measures that included excavation of 14,951 yd³ of petroleum-impacted soils from AOC TMW-130 and excavation of 4,966 yd³ of volatile organic compound (VOC)-impacted soils from AOC MW-103A. These Interim Measures effectively addressed the known significant source areas at the Site.

In a memorandum dated November 9, 2015, GHD presented a Groundwater Plume Stability Analysis for the TMW-127 Area. Based on the results of the plume stability analysis, which evaluated groundwater concentrations sampled over a limited data set between October 2013 and July 2015, at the 99 percent confidence level the groundwater plume area, average concentration, and mass appear to be stable in the TMW-127 Area.

In a meeting on May 11, 2016, KDHE requested the installation monitoring wells to validate the conclusions of the Groundwater Stability Analysis.

2.2.1 Property Redevelopment

RACER issued a Request For Proposals to solicit interest and offers from companies with the capacity for development projects of the type and scale envisioned for the former Fairfax I property and selected NorthPoint Development.

NorthPoint Development broke ground in December 2013 for a new industrial development called the Central Industrial Park. To facilitate construction and redevelopment of the property, Northpoint,



plugged and abandoned all but eleven monitoring wells in the monitoring well network with the understanding that the monitoring well network would be re-established after construction.

In 2015, construction was completed on the first building, a 74,000-square-foot manufacturing facility occupied by Inergy Automotive Systems, a global supplier of plastic fuel tank systems. In 2017, construction was completed on a second building, an 841,719-square-foot facility known as the Fairfax Logistics Center.

2.3 Geology and Hydrogeology

The Site is located in the floodplain of the Missouri River. Underlying geology typically consists of an upper layer of silty clay ranging in thickness from approximately 7 to 15 feet (ft). This silty clay is underlain by fine to medium sands to depths of 25 to 40 ft below ground surface (bgs), which grade into medium to coarse sands with some gravel and clay interbeds to depths of 60 to 80 ft bgs. This interbedded layer is underlain by medium to coarse sands and gravels to the top of the bedrock at approximately 102 to 117 ft bgs. The present Missouri River channel follows a deeper valley cut into the bedrock by the ancestral Missouri River. Depth to groundwater generally ranges from 20 to 25 ft bgs but greater variation has occurred.

Groundwater at the regional scale flows predominantly from the topographic upland area southwest of the Site (See Figure 1) towards the Missouri River Floodplain. The groundwater table within the flood plain is relatively flat and is in hydraulic connection with the Missouri River. Variability in Missouri River stage elevation causes variability in groundwater flow directions at the Site. Groundwater flow directions periodically reverse from being northerly towards the Missouri River under low river stage conditions to being southeasterly toward downstream portions of the Missouri River under high river stage conditions.

3. Monitoring Well Installation/Abandonment Activities

Field activities included the installation of 17 monitoring wells at the Site as described in the KDHE-approved CAP. The purpose of the monitoring wells is to re-establish the groundwater monitoring well network at the Site that was largely plugged and abandoned to facilitate the redevelopment of the Site as an industrial park, and to establish down-gradient delineation of the TMW-127 Area by installing MW-208A, MW-208B, and MW-208C. In addition three monitoring wells were plugged and abandoned at the Site as described in the CAP to facilitate future development of a remaining vacant parcel of land at the Site.

In September 2019, GHD supervised the installation and development of 14 replacement, on-site groundwater monitoring wells. The installation of the three off-site wells was delayed due to the GM property being closed temporarily. In January 2020, the off-site wells were installed and developed, and three historical monitoring wells located on GM property were abandoned as requested by GM as specified in a memorandum dated May 22, 2019 (Appendix A). Two of the wells proposed to be abandoned were not located and are assumed destroyed during past construction activities associated with GM projects.



GHD obtained permission from the Fairfax Drainage District of Wyandotte County to install, as well as plug and abandon, wells located within or in close proximity to the Army Corps of Engineers designated Critical Boundary, and agreed to specific installation and abandonment procedures (Appendix B).

The locations of monitoring wells are shown on Figure 2. Field documentation is provided in Appendix C.

3.1 Pre-Drilling Activities

Prior to drilling, GHD contracted Ground Penetrating Radar Services (GPRS) to perform utility locates using ground penetrating radar on July 26, 2019. Kansas One-Call was also notified by the contracted drilling company GeoCore, Inc. (GeoCore).

3.2 Monitoring Well Installation and Development

From September 11 through September 20, 2019, GeoCore, under the supervision of GHD, drilled 14 monitoring wells ranging from depths of 27 ft bgs to 90 ft bgs using a hollow-stem auger drilling rig equipped with 8-inch outside-diameter augers. On January 21 and 22, 2020, GHD and GeoCore returned to install the off-site monitoring wells located on GM property.

Groundwater was encountered between 15 and 22 ft bgs. Monitoring wells were constructed and screened across three zones within the aquifer. Table 1 summarizes well construction details for each well. Nine monitoring wells were constructed to a depth of approximately 27 ft bgs to account for the shallow aquifer zone, five monitoring wells were constructed to a depth of approximately 60 ft bgs to account for the intermediate aquifer zone, and three monitoring wells were constructed to a depth of approximately 90 ft bgs to account for the deep aquifer zone.

During monitoring well installation, GHD screened unsaturated soil samples at 2.5-foot intervals for VOCs using a photoionization detector (PID) equipped with a 10.6 eV lamp. Elevated readings on the PID were to be reported and soils containerized separately from clean soils, however, no elevated readings were encountered during drilling activities. Soils were containerized in a roll-off box, sampled for waste characterization, and disposed of at Johnson County Landfill.

GHD described and logged soil from each sample interval in accordance with the ASTM International Standard 2488, Standard Practice for Description and Identification of Soils (Visual-Manual Procedure, Unified Soil Classification System). Boring logs are included in Appendix D.

Drilling equipment was decontaminated between each sampling interval using a decontamination station that included a self-contained wash bin and hot water pressure washer (Hotsy) to decontaminate equipment.

Water Well Completion forms (WWC-5) were submitted by GeoCore to KDHE Bureau of Water as required.

3.3 Well Development

On September 23 and 24, 2019 and on January 23, 2020 GeoCore, under GHD supervision, used a 2-inch submersible pump to develop the shallow monitoring wells and an air compressor to air-lift



develop the intermediate and deep wells. A minimum of 10 well volumes was removed from each well and until water quality parameters temperature, conductivity, pH, and turbidity produced three consecutive readings from consecutive volumes within acceptable ranges of $\pm 10\%$ degrees, $\pm 10\%$ mS/cm, ± 0.1 units, and < 5 NTU, respectively. Development water was containerized, sampled for waste characterization and properly disposed of at Johnson County Landfill.

3.4 Plugging and Abandonment

On September 24, 2019, GHD and GeoCore located two of the three on-site monitoring wells planned for abandonment. All efforts to locate TMW-143 were unsuccessful. It appears the well has been buried by slumping debris from a large soil stockpile in the area. TMW-153 and TMW-154 were located, gauged for both groundwater depth and total depth of the well, grouted to surface using Portland cement delivered via a tremme pipe, and at least 3 ft of PVC riser removed.

On January 24, 2020, GHD and GeoCore located three of the five off-site monitoring wells proposed to be abandoned on GM property. GHD and GeoCore located MW-119A, MW-119B, and MW-160A. The wells were gauged for depth to groundwater and total depth, grouted to ground surface using Portland cement delivered via a tremme pipe, at least 3 ft of PVC riser removed, and protective casings removed. MW-121A and MW-121B could not be located and were likely destroyed during past activities associated with construction on GM property.

Water Well Plugging forms (WWC-5P) were submitted to KDHE Bureau of Water as required.

3.5 Well Surveying

GHD contracted Continental Engineering Services, Inc., a surveying company licensed by the Kansas Board of Technical Professions, to survey the top of casing elevations for newly installed monitoring wells. The elevation data is summarized on Table 2.

4. Groundwater Monitoring Activities

Groundwater monitoring activities were performed from January 28 to February 3, 2020. The monitoring network includes the seventeen newly installed monitoring wells and nine previously existing monitoring wells.

Groundwater within three zones within the underlying aquifer are monitored for VOCs. Monitoring wells for each zone are described below:

- **Shallow aquifer:** MW-1A, MW-110A, MW-124A, TMW-146, MW-200 through MW-203, and MW-204A through MW-208A.
- **Intermediate aquifer:** MW-1B, MW-124B, MW-146B, and MW-204B through MW-208B.
- **Deep aquifer:** MW-1C, MW-146C, MW-206C, MW-207C, and MW-208C.

Shallow groundwater in the vicinity of AOC TMW-130 is also monitoring for petroleum hydrocarbons and naphthalene. This includes monitoring wells TMW-146 and NW-207A.



4.1 Groundwater Elevation Data Collection

Prior to collecting groundwater samples, GHD measured the depth to fluid in each groundwater monitoring well using an oil-water interface probe. Measurements and observations were recorded in a field log to the nearest 0.01 foot. Measuring devices were decontaminated with a solution of Alconox™ and distilled water and rinsed with distilled water prior to use in each monitoring well. The recorded measurements are summarized in Table 2.

4.2 Monitoring Well Sampling Activities

Prior to sampling, each well was purged using low flow purging (LFP) methods. A pre-cleaned stainless steel submersible pump was positioned in each well so that the pump intake was set at the mid-point of the well screen.

During LFP, the pumping rate was maintained between 100 and 500 milliliters per minute (mL/min). During purging, the groundwater level was measured and the flow rate adjusted to maintain a maximum 0.4 foot (0.1 m) of drawdown. Field parameters of the purged water, including pH, temperature, specific conductance, oxidation reduction potential (ORP), dissolved oxygen (DO) and turbidity, were monitored with a calibrated YSI water quality meter. The field measurements were recorded at approximate 5-minute intervals.

Groundwater stabilization was considered achieved when three consecutive readings for each of the field parameters, measured at 5-minute intervals, were within the following limits:

- pH 0.1 pH units of the average value of the three readings
- Temperature 3 percent of the average value of the three readings
- Conductivity 0.005 milliSiemen per centimeter (mS/cm) of the average value of the three readings for conductivity <1 mS/cm or >0.01 mS/cm of the average value of the three readings for conductivity >1 mS/cm
- ORP 10 millivolts (mV) of the average value of the three readings
- DO 10 percent of the average value of the three readings
- Turbidity Visually clear

Once the purging was complete, GHD collected groundwater samples from the monitoring wells directly into laboratory-supplied containers, blind-labeled the sample containers with unique sample identifications, and placed the containers in a laboratory-supplied cooler with ice to maintain a sample temperature of no more than 4°C. The samples were shipped under chain-of-custody protocols to Pace Analytical Laboratories (Pace) located in Lenexa, Kansas.

4.3 Quality Control Samples

GHD collected two blind-labeled duplicate samples for laboratory analysis. The duplicate samples were collected from MW-1A and TMW-146. In addition, one trip blank per cooler of samples was stored, transported and analyzed with the groundwater monitoring samples.



4.4 Laboratory Analytical Methods

Pace analyzed the groundwater samples for the following parameters using the following specified laboratory methods:

- VOCs by SW-846 Method 8260B – All samples
- Total Petroleum Hydrocarbons (TPH) - Low-Range Hydrocarbons (LRH) by Kansas Method KS LRH – TMW-146 and MW-207A
- TPH - Mid-Range Hydrocarbons (MRH)/High-Range Hydrocarbons (HRH) by Kansas Method KS MRH/HRH – TMW-146 and MW-207A
- Naphthalene by SW 846 Method 8270-SIM – TMW-146 and MW-207A

5. Groundwater Monitoring Results

5.1 Groundwater Elevation Results

On January 28, 2020, depth to groundwater in monitoring wells screened in the shallow aquifer ranged from 15.80 ft below top of casing (btoc) (MW-203) to 21.83 ft btoc (MW-124). Groundwater elevations ranged from 727.60 ft above mean sea level (amsl) (MW-110A) to 725.39 ft amsl (MW-124A). Based on the groundwater elevations, the groundwater in the shallow aquifer flows from the south towards the Missouri River at a gradient of less than 0.01 ft/ft as shown on Figure 3.

The depth to groundwater in monitoring wells screened in the intermediate aquifer ranged from 15.8 ft btoc (MW-208B) to 19.16 ft btoc (MW-206B) ft btoc. Groundwater elevations ranged from 728.52 ft amsl (MW-204B) to 725.40 ft amsl (MW-124B). Based on the groundwater elevations, the groundwater in the intermediate aquifer flows to the north toward the Missouri River at a gradient of less than 0.01 ft/ft as shown on Figure 4.

The depth to groundwater measurements in wells screened in the deep aquifer ranged from 15.84 ft btoc (MW-208C) to 19.29 ft btoc (MW-1C). Groundwater elevations ranged from 726.84 ft btoc (MW-1C) to 728.23 ft btoc (MW-208C). Based on the groundwater elevations, groundwater in the deep aquifer flows to the northeast toward the Missouri River at a gradient of less than 0.01 ft/ft as shown on Figure 5.

5.2 Laboratory Analytical Results

Laboratory analytical reports provided by Pace are provided in Appendix E. The data are tabulated in summary in Table 3.

For discussion, the analytical results were compared to Tier 2 chemical-specific risk-based cleanup levels published by KDHE in Appendix A of *Risk-based Standards for Kansas RSK Manual – 5th Version (RSK) October 2010* (KDHE 2010) updated September 2015. The results were compared to the non-residential scenario, which is the current and anticipated future land use scenario for the property.



The laboratory analytical results for the collected samples during this groundwater monitoring event indicate that the all concentrations of the contaminants of concern (COCs) were less than their respective Tier 2 RSK standard with the exceptions of tetrachloroethene (PCE), trichloroethene (TCE) and vinyl chloride (VC).

PCE was detected above the Tier 2 RSK standard of 0.005 mg/L in the samples collected from MW-110A at a concentration of 0.0107 mg/L. PCE was detected at concentrations below the Tier 2 RSK standard in samples collected from MW-205A and MW-207A.

TCE was detected above the Tier 2 RSK standard of 0.005 mg/L in the sample collected from MW-204A at a concentration of 0.0116 mg/L. TCE was detected at concentrations below the Tier 2 RSK standard in samples collected from MW-110A and MW-207A.

VC concentrations were detected above the Tier 2 RSK standard of 0.002 mg/L in the groundwater samples collected from MW-1B (0.0025 mg/L), MW-146B (0.0213 mg/L), MW-206B (0.0022 mg/L), and MW-207B (0.0077 mg/L). VC was detected at concentrations below the Tier 2 RSK standard in samples collected from MW-124A, MW-124B, MW-204B, MW-205B, and MW-207C, and MW-208C.

The following analytes were detected in groundwater samples at concentrations less than their respective Tier 2 standards:

- acetone
- benzene
- chlorobenzene
- chloroform (trichloromethane)
- 1,1-dichloroethane (1,1-DCA)
- 1,2-dichloroethane (1,2-DCA)
- methyl ethyl ketone (MEK)
- methyl isobutyl ketone (MIBK)
- cis-1,2-dichloroethene (cis-1,2-DCE)
- cyclohexane
- methyl tert butyl ether (MTBE)
- toluene
- trans-1,2-dichloroethene (trans-1,2-DCE)
- trifluorotrichloroethane (CFC-113)
- mid-range hydrocarbons (MRH)

All other COCs were less than the laboratory detection limits.

5.3 Quality Control Sample Analytical Results

Quality assurance criteria which are consistent with guidance and QC procedures established by the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, EPA 540/R-99/008, October 1999, were applied to the analytical data by a GHD project chemist. The evaluation of the data was based upon information obtained from chain-of-custody forms, finished report forms, blank data, duplicate data and recovery data for matrix, laboratory control and surrogate spikes and based on criteria established in the *Site Quality Assurance Project Plan* (QAPP).

The results of the evaluation are reported in the quality assurance assessment and verification memorandum presented in Appendix F. The data were found to exhibit acceptable levels of



accuracy and precision based on the provided information and may be used with qualification as noted in the memorandum.

6. Discussion of Results

For comparison, historical data collected from the shallow aquifer, intermediate aquifer and deep aquifer during a quarterly groundwater monitoring program from 2013-2015 is summarized on Figure G-1, Figure G-2 and Figure G-3, respectively, in Appendix G. A complete record of historical groundwater analytical results from 1985 to 2015 is presented in Appendix A of the *Remedial Alternatives Evaluation Report*¹ submitted to KDHE in July 2016.

Figure 6 summarized the COCs detected in groundwater samples collected in January 2020 from the shallow aquifer. The results indicate that TCE and PCE are the only COCs that exceeded their respective Tier 2 RSK standards in the shallow aquifer on-site. PCE was detected above the Tier 2 RSK standard of 0.005 mg/L on-site in samples from MW-110A (0.0107 mg/L) which is consistent with historical concentrations. MW-110A has historically shown a stable consistent concentration of PCE since 1987. TCE was detected above the Tier 2 RSK standard of 0.005 mg/L in the samples from MW-204A (0.0116 mg/L). MW-204A is on-site and down-gradient (seasonally) from the S-8 Area. This concentration is consistent with TCE historically reported in groundwater samples collected from the S-8 Area (see historical data from plugged well TMW-146E). COCs were not detected in the groundwater samples collected from MW-208A indicating the extent of COCs down-gradient of the TMW-127 Area in the shallow aquifer is delineated within the Site boundaries.

Figure 7 summarizes the COCs detected in groundwater samples from the intermediate aquifer. The analytical results indicate VC is the only COC that exceeded Tier 2 RSK standard in the intermediate aquifer. The VC was reported in samples collected from monitoring wells historically associated with the TMW-127 Area. The concentrations of VC in groundwater exceeding the Tier 2 RSK standard are similar to the pre-redevelopment concentrations although the detection of 0.0025 mg/L in the sample from MW-1B is higher than the last result (2015) of 0.0011 mg/L which was below the Tier 2 RSK standard. COCs were not detected in the groundwater samples collected from MW-208B indicating the extent of COCs in the intermediate aquifer down-gradient of the TMW-127 Area is delineated within the Site boundaries.

Figure 8 summarized COCs detected in groundwater samples collected from the deep aquifer. The laboratory results indicate that no COCs were above the Tier 2 RSK standard. It should be noted, however, that MTBE, 1,2-DCE and VC were detected at concentrations below their respective Tier 2 RSK standard in the samples from the off-site deep monitoring well MW-208C down-gradient (seasonally) from the TMW-127 Area.

¹ Remedial Alternatives Evaluation Report, Former Fairfax I Site, Kansas City, Kansas, GHD Services Inc. Report 33, July 2016, Table A-8.



7. Conclusions and Recommendations

The monitoring well network for the Fairfax I Site has been re-established in accordance with the CAP. The laboratory analytical results for samples collected from the monitoring wells are consistent with pre-redevelopment concentrations. The extent of COCs have been delineated down-gradient (seasonally) and within Site boundaries from the TMW-127 Area in the shallow and intermediate aquifers as demonstrated by no detections in samples from MW-208A and MW-208B, but very low concentrations of MTBE, cis-1,2-DCE and VC were reported in the deep aquifer sample from off-site well MW-208C. The concentrations were well below their respective Tier 2 RSK standards. GHD recommends a Long Term Groundwater Monitoring Plan be prepared and implemented based upon the re-established monitoring well network locations. If the COC concentrations reported in MW-208C increase to concentrations greater than the Tier RSK standards in future monitoring events, further evaluation of those results, including pathway evaluations, will be performed. The second semi-annual 2020 groundwater monitoring event is anticipated in July 2020.

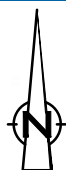
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GHD

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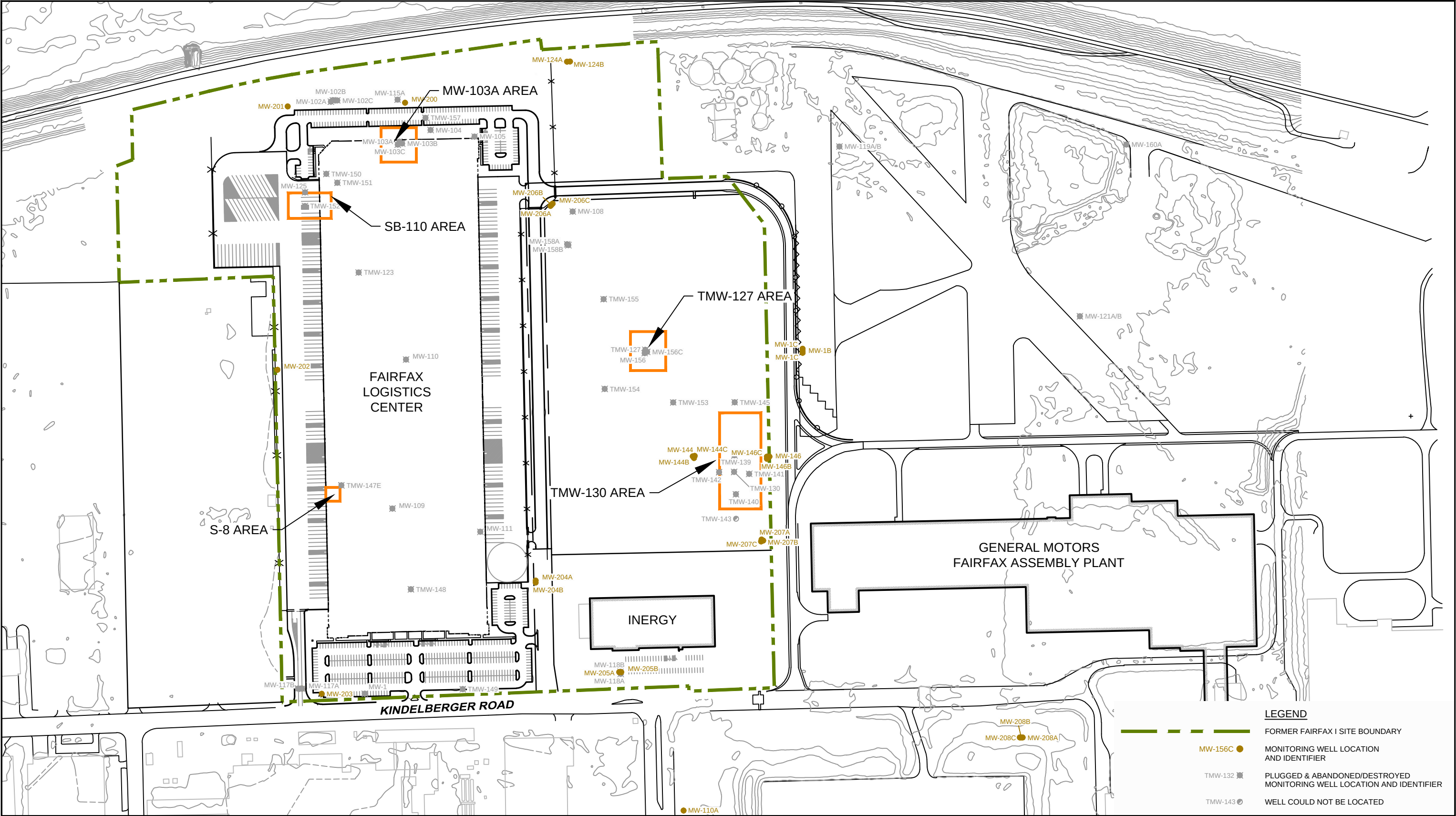
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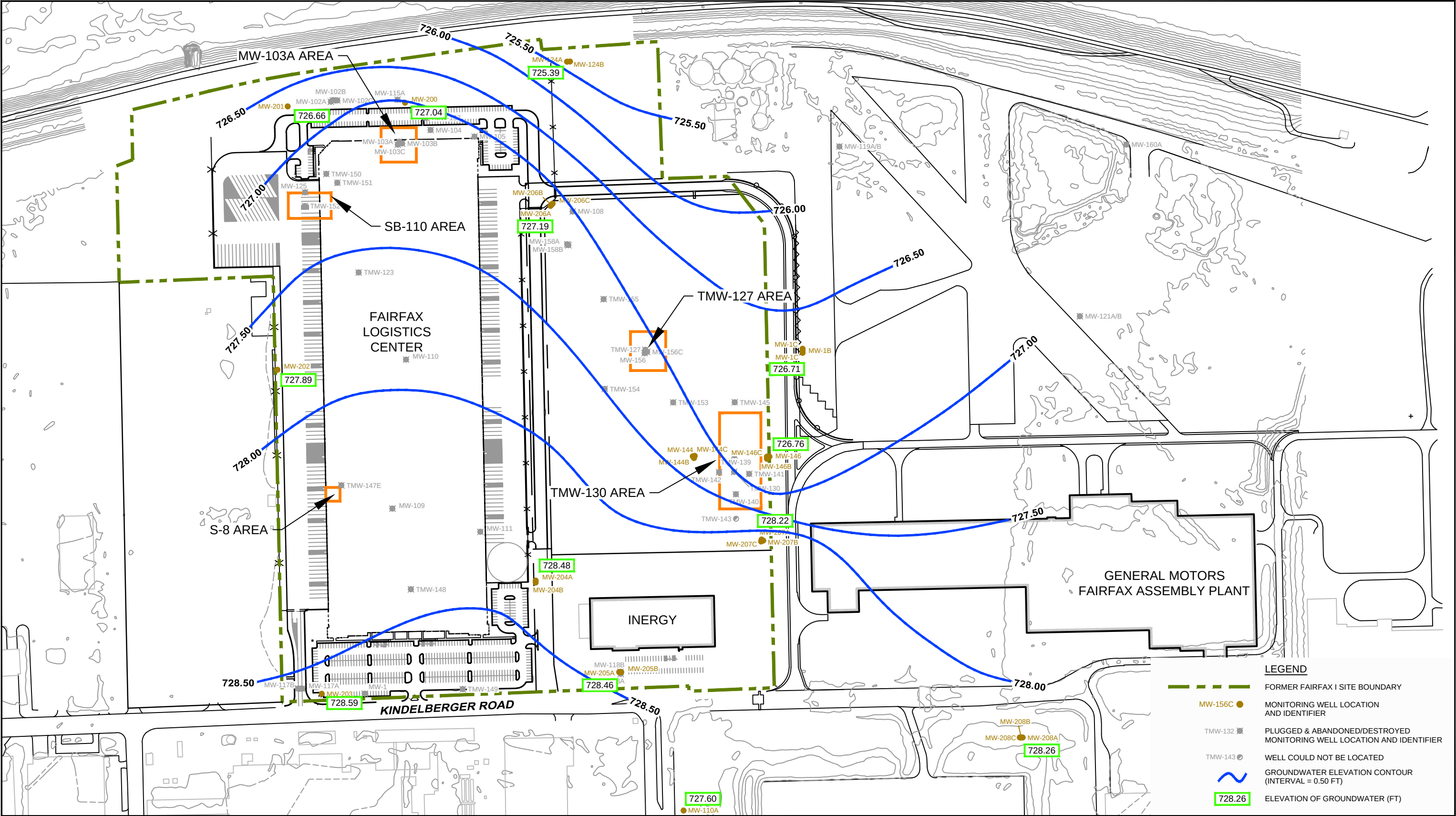
Figures

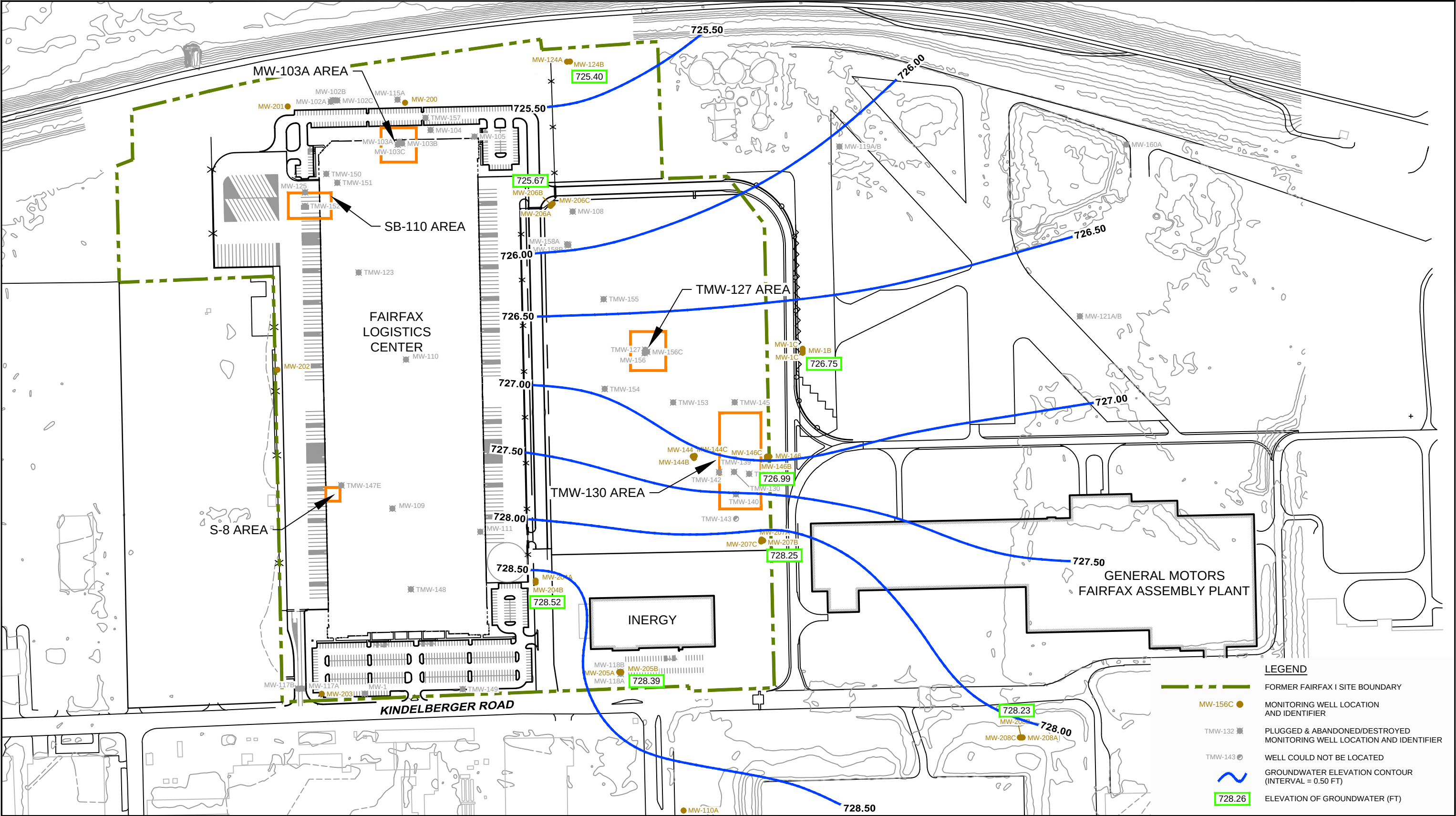


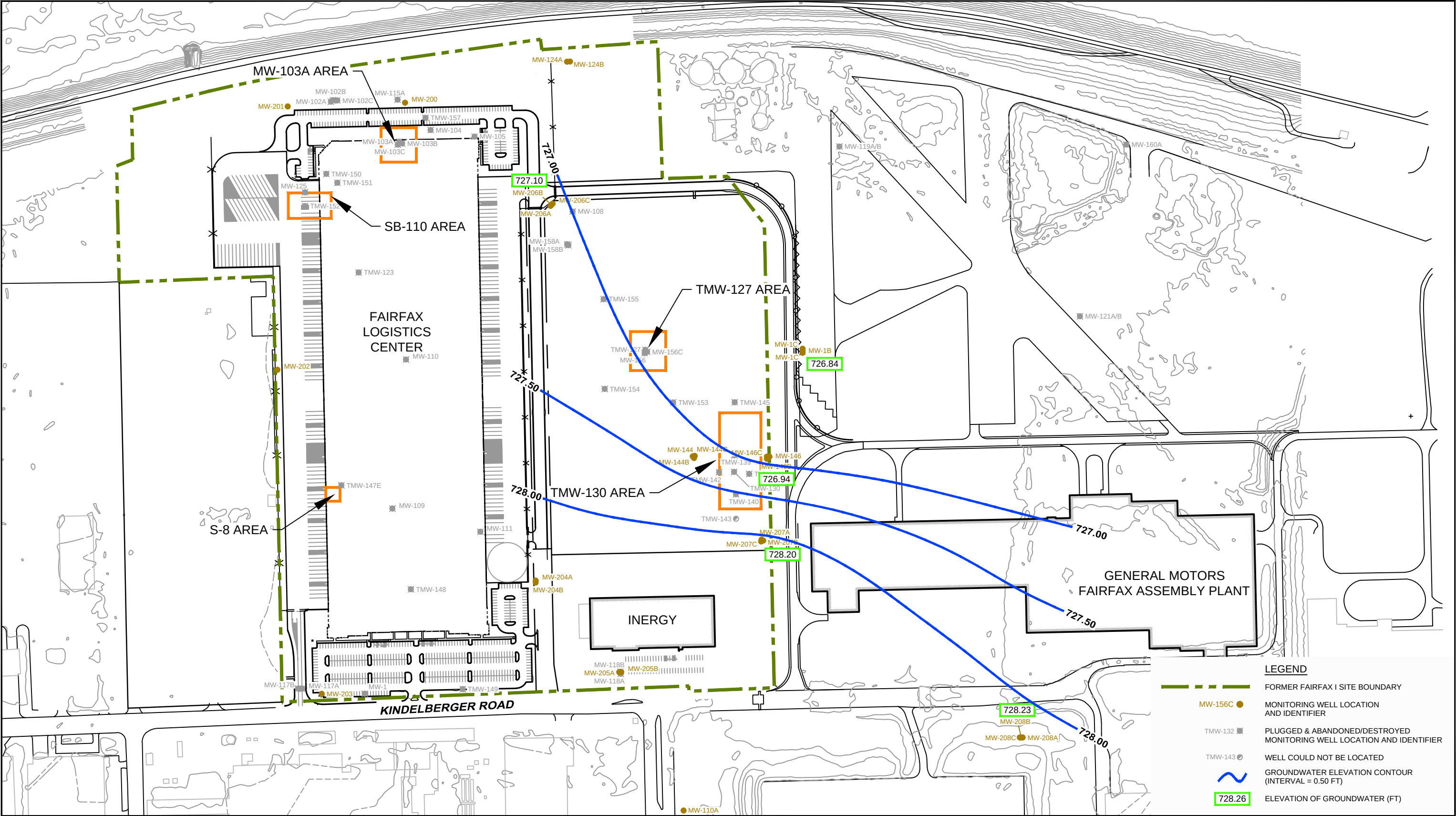
SITE LOCATION MAP

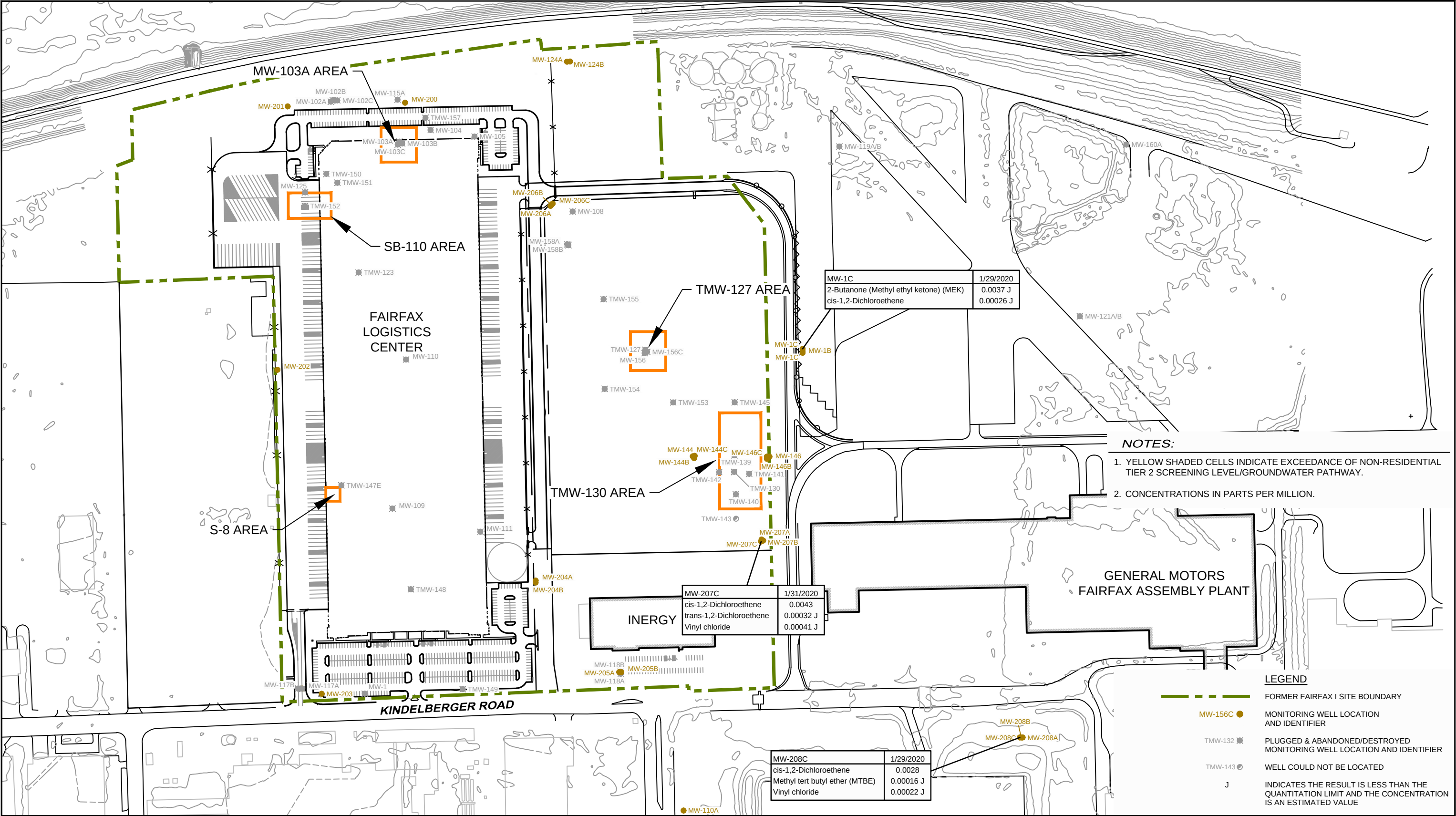
FIGURE 1











Tables

Table 1
Monitoring Well Construction Details
Former Fairfax I Site
Kansas City, Kansas

Monitoring Well	Area of Concern	Designation	Completion	Completion Date	Well Material²	Top (ft bgs)³	Bottom (ft bgs)
MW-1A	Perimeter	Shallow	Stick-up	3/27/1985	PVC	15.0	35.0
MW-1B	Perimeter	Intermediate	Stick-up	3/27/1985	PVC	65.0	85.0
MW-1C	Perimeter	Deep	Stick-up	4/1/1985	PVC	87.0	107.0
MW-110A	Off-Site	Shallow	Stick-up	--	PVC	--	--
MW-124A	NA	Shallow	Stick-up	11/10/2006	PVC	25.0	35.0
MW-124B	NA	Intermediate	Stick-up	11/10/2006	PVC	50.0	60.0
TMW-146	TMW-130	Shallow	Stick-up	10/30/2007	PVC	19.0	29.0
MW-146B	TMW-130	Intermediate	Stick-up	5/15/2013	PVC	49.7	59.7
MW-146C	TMW-130	Deep	Stick-up	5/15/2013	PVC	79.9	89.9
MW-200	MW-103A	Shallow	Flush Mount	9/12/2019	PVC	17.0	27.0
MW-201	SB-110	Shallow	Flush Mount	9/11/2019	PVC	17.0	27.0
MW-202	S-8	Shallow	Flush Mount	9/19/2019	PVC	17.0	27.0
MW-203	Perimeter	Shallow	Flush Mount	9/13/2019	PVC	17.0	27.0
MW-204A	S-8	Shallow	Flush Mount	9/12/2019	PVC	17.0	27.0
MW-204B	S-8	Intermediate	Flush Mount	9/13/2019	PVC	50.0	60.0
MW-205A	S-8, perimeter	Shallow	Flush Mount	9/18/2019	PVC	17.0	27.0
MW-205B	S-8, perimeter	Intermediate	Flush Mount	9/18/2019	PVC	50.0	60.0
MW-206A	TMW-103A, TMW-127	Shallow	Flush Mount	9/11/2019	PVC	17.0	27.0
MW-206B	TMW-103A, TMW-127	Intermediate	Flush Mount	9/16/2019	PVC	50.0	60.0
MW-206C	TMW-103A, TMW-127	Deep	Flush Mount	9/17/1919	PVC	80.0	90.0
MW-207A	TMW-127, TMW-130	Shallow	Stick-up	9/17/2019	PVC	17.0	27.0
MW-207B	TMW-127, TMW-130	Intermediate	Stick-up	9/18/2019	PVC	50.0	60.0
MW-207C	TMW-127, TMW-130	Deep	Stick-up	9/19/2019	PVC	80.0	90.0
MW-208A	TMW-127, off-site	Shallow	Flush Mount	1/21/2020	PVC	17.0	27.0
MW-208B	TMW-127, off-site	Intermediate	Flush Mount	1/21/1920	PVC	50.0	60.0
MW-208C	TMW-127, off-site	Deep	Flush Mount	1/22/1920	PVC	80.0	90.0

ft AMSL - feet above mean sea level

PVC - polyvinyl chloride

ft bgs - feet below ground surface

-- information not available

Table 2
Groundwater Elevation Data
Former Fairfax I Site
Kansas City, Kansas

Location	Designation	Date	TOC Elevation (Feet amsl)	Depth to Depth (Feet)	Groundwater Elevation (Feet amsl)
MW-110A	Shallow	01/28/20	743.89	16.29	727.60
MW-124A	Shallow	01/28/20	747.22	21.83	725.39
MW-124B	Intermediate	01/28/20	747.15	21.75	725.40
TMW-146	Shallow	01/28/20	744.93	18.17	726.76
MW-146B	Intermediate	01/28/20	745.44	18.45	726.99
MW-146C	Deep	01/28/20	745.73	18.79	726.94
MW-1A	Shallow	01/28/20	745.93	19.22	726.71
MW-1B	Intermediate	01/28/20	745.40	18.65	726.75
MW-1C	Deep	01/28/20	746.13	19.29	726.84
MW-200	Shallow	01/28/20	744.52	17.48	727.04
MW-201	Shallow	01/28/20	746.62	19.96	726.66
MW-202	Shallow	01/28/20	743.96	16.07	727.89
MW-203	Shallow	01/28/20	744.39	15.80	728.59
MW-204A	Shallow	01/28/20	745.76	17.28	728.48
MW-204B	Intermediate	01/28/20	745.80	17.28	728.52
MW-205A	Shallow	01/28/20	744.84	16.38	728.46
MW-205B	Intermediate	01/28/20	744.94	16.55	728.39
MW-206A	Shallow	01/28/20	744.85	17.66	727.19
MW-206B	Intermediate	01/28/20	744.83	19.16	725.67
MW-206C	Deep	01/28/20	744.86	17.76	727.10
MW-207A	Shallow	01/28/20	746.62	18.40	728.22
MW-207B	Intermediate	01/28/20	746.63	18.38	728.25
MW-207C	Deep	01/28/20	746.57	18.37	728.20
MW-208A	Shallow	01/28/20	744.16	15.90	728.26
MW-208B	Intermediate	01/28/20	744.03	15.80	728.23
MW-208C	Deep	01/28/20	744.07	15.84	728.23

Notes

amsl - above mean sea level

TOC - top of casing

Table 3
Groundwater Ananalytical Results
Former Fairfax I Site
Kansas City, Kansas

Sample Location:			MW-1A	MW-1A	MW-1B	MW-1C	MW-110A	MW-124A	MW-124B	MW-146B	MW-146C	MW-200
Sample ID:			WG-012920-NL-005	WG-012920-NL-006	WG-012920-NL-007	WG-012920-NL-008	WG-020320-NL-028	WG-013020-NL-014	WG-013020-NL-015	WG-013120-NL-018	WG-013120-NL-017	WG-020320-NL-026
Sample Date:			1/29/2020	1/29/2020 Duplicate	1/29/2020	1/29/2020	2/3/2020	1/30/2020	1/30/2020	1/31/2020	1/31/2020	2/3/2020
Parameters	Units	Tier 2 Standard										
Petroleum Products												
High-Range Hydrocarbons (HRH)	mg/L	2500	--	--	--	--	--	--	--	--	--	--
Low-Range Hydrocarbons (LRH)	mg/L	950	--	--	--	--	--	--	--	--	--	--
Mid-Range Hydrocarbons (MRH)	mg/L	400	--	--	--	--	--	--	--	--	--	--
SVOCs - SIM												
Naphthalene	mg/L	0.00211	--	--	--	--	--	--	--	--	--	--
VOCs												
1,1,1-Trichloroethane	mg/L	0.2	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,2,2-Tetrachloroethane	mg/L	0.00128	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,2-Trichloroethane	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-Dichloroethane	mg/L	0.0461	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.00019 J	<0.001	<0.001
1,1-Dichloroethene	mg/L	0.007	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2,4-Trichlorobenzene	mg/L	0.07	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.00005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dichlorobenzene	mg/L	0.6	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dichloroethane	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	0.00016 J	<0.001	<0.001	<0.001	<0.001
1,2-Dichloropropane	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,3-Dichlorobenzene	mg/L	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,4-Dichlorobenzene	mg/L	0.075	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	<0.01	<0.01	<0.01	0.0037 J	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2-Hexanone	mg/L	--	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
4-Methyl-2-pentanone	mg/L	4.17	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Acetone	mg/L	45.5	<0.01	<0.01	<0.01	<0.01	<0.01	0.0094 J	<0.01	<0.01	<0.01	<0.01
Benzene	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0012	<0.001	<0.001
Bromodichloromethane	mg/L	0.08	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Bromoform	mg/L	0.08	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Bromomethane (Methyl bromide)	mg/L	0.0132	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Carbon disulfide	mg/L	1.66	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Carbon tetrachloride	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chlorobenzene	mg/L	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.00016 J	<0.001	<0.001	<0.001
Chloroethane	mg/L	26.4	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloroform (Trichloromethane)	mg/L	0.08	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloromethane (Methyl chloride)	mg/L	0.238	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
cis-1,2-Dichloroethene	mg/L	0.07	<0.001	<0.001	0.007	0.00026 J	<0.001	0.00043 J	<0.001	0.0504	<0.001	<0.001
cis-1,3-Dichloropropene	mg/L	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Cyclohexane	mg/L	14.7	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.00021 J	<0.001	<0.001
Dibromochloromethane	mg/L	0.08	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Dichlorodifluoromethane (CFC-12)	mg/L	0.567	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Ethylbenzene	mg/L	0.7	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Isopropyl benzene	mg/L	0.968	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Methyl acetate	mg/L	--	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Methyl cyclohexane	mg/L	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Methyl tert butyl ether (MTBE)	mg/L	0.262	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.00017 J	<0.001	<0.001	<0.001
Methylene chloride	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Styrene	mg/L	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Tetrachloroethene	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	0.0107	<0.001	<0.001	<0.001	<0.001	<0.001
Toluene	mg/L	1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
trans-1,2-Dichloroethene	mg/L	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0021	<0.001	<0.001
trans-1,3-Dichloropropene	mg/L	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Trichloroethene	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	0.0003 J	<0.001	<0.001	<0.001	<0.001	<0.001
Trichlorofluoromethane (CFC-11)	mg/L	1.9	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Trifluorotrichloroethane (CFC-113)	mg/L	20.3	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Vinyl chloride	mg/L	0.002	<0.001	<0.001	0.0025	<0.001	<0.001	0.0002 J	0.0014	0.0213	<0.001	<0.001
Xylenes (total)	mg/L	10	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003

Footnotes:
J - Estimated concentration.
R - Rejected.

Table 3
Groundwater Ananalytical Results
Former Fairfax I Site
Kansas City, Kansas

Sample Location:		MW-201	MW-202	MW-203	MW-204A	MW-204B	MW-205A	MW-205B	MW-206A	MW-206B	MW-206C	MW-207A
Sample ID:		WG-012820-NL-004	WG-020320-NL-027	WG-012820-NL-003	WG-012820-NL-001	WG-012820-NL-002	WG-020320-NL-025	WG-020320-NL-024	WG-013020-NL-013	WG-013020-NL-012	WG-013020-NL-011	WG-013120-NL-023
Sample Date:		1/28/2020	2/3/2020	1/28/2020	1/28/2020	1/28/2020	2/3/2020	2/3/2020	1/30/2020	1/30/2020	1/30/2020	1/31/2020
Parameters	Units											
Petroleum Products												
High-Range Hydrocarbons (HRH)	mg/L	--	--	--	--	--	--	--	--	--	--	<0.20 J
Low-Range Hydrocarbons (LRH)	mg/L	--	--	--	--	--	--	--	--	--	--	<0.050
Mid-Range Hydrocarbons (MRH)	mg/L	--	--	--	--	--	--	--	--	--	--	<0.059 J
SVOCs - SIM												
Naphthalene	mg/L	--	--	--	--	--	--	--	--	--	--	<0.00045
VOCs												
1,1,1-Trichloroethane	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,2,2-Tetrachloroethane	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,2-Trichloroethane	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-Dichloroethane	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-Dichloroethene	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2,4-Trichlorobenzene	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
1,2-Dibromoethane (Ethylene dibromide)	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dichlorobenzene	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dichloroethane	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dichloropropane	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,3-Dichlorobenzene	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,4-Dichlorobenzene	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2-Hexanone	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
4-Methyl-2-pentanone	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Acetone	mg/L	<0.01	<0.01	0.0034 J	<0.01	0.0044 J	0.0037 J	<0.01	<0.01	<0.01	<0.01	<0.01
Benzene	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Bromodichloromethane	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Bromoform	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Bromomethane (Methyl bromide)	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Carbon disulfide	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Carbon tetrachloride	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chlorobenzene	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloroethane	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloroform (Trichloromethane)	mg/L	<0.001	0.0001 J	0.00017 J	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloromethane (Methyl chloride)	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
cis-1,2-Dichloroethene	mg/L	<0.001	<0.001	<0.001	0.00038 J	0.0134	<0.001	0.0058	<0.001	0.0012	<0.001	0.0007 J
cis-1,3-Dichloropropene	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Cyclohexane	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Dibromochloromethane	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Dichlorodifluoromethane (CFC-12)	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Ethylbenzene	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Isopropyl benzene	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Methyl acetate	mg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Methyl cyclohexane	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Methyl tert butyl ether (MTBE)	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Methylene chloride	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Styrene	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Tetrachloroethene	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	0.00033 J	<0.001	<0.001	<0.001	<0.001	0.0032
Toluene	mg/L	<0.001	0.0014	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
trans-1,2-Dichloroethene	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.00038 J	<0.001	<0.001	<0.001	<0.001
trans-1,3-Dichloropropene	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Trichloroethene	mg/L	<0.001	<0.001	<0.001	0.0116	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0005 J
Trichlorofluoromethane (CFC-11)	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Trifluorotrichloroethane (CFC-113)	mg/L	<0.001	<0.001	<0.001	0.0136	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Vinyl chloride	mg/L	<0.001	<0.001	<0.001	<0.001	0.0015	<0.001	0.00047 J	<0.001	0.0022	<0.001	<0.001
Xylenes (total)	mg/L	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003

Footnotes:
J - Estimated concentration.
R - Rejected.

Table 3
Groundwater Ananalytical Results
Former Fairfax I Site
Kansas City, Kansas

Sample Location:		MW-207B	MW-207C	MW-208A	MW-208B	MW-208C	TMW-146	TMW-146
Sample ID:		WG-013120-NL-022	WG-013120-NL-021	WG-012920-NL-009	WG-012920-NL-016	WG-012920-NL-010	WG-013120-NL-019	WG-013120-NL-020
Sample Date:		1/31/2020	1/31/2020	1/29/2020	1/29/2020	1/29/2020	1/31/2020	1/31/2020
Parameters	Units							Duplicate
Petroleum Products								
High-Range Hydrocarbons (HRH)	mg/L	--	--	--	--	--	<0.20 J	<0.20 J
Low-Range Hydrocarbons (LRH)	mg/L	--	--	--	--	--	<0.050	<0.050
Mid-Range Hydrocarbons (MRH)	mg/L	--	--	--	--	--	0.078 J-	0.070 J-
SVOCs - SIM								
Naphthalene	mg/L	--	--	--	--	--	<0.0005	<0.00048
VOCs								
1,1,1-Trichloroethane	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,2,2-Tetrachloroethane	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,2-Trichloroethane	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-Dichloroethane	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-Dichloroethene	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2,4-Trichlorobenzene	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
1,2-Dibromoethane (Ethylene dibromide)	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dichlorobenzene	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dichloroethane	mg/L	0.00014 J	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dichloropropane	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,3-Dichlorobenzene	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,4-Dichlorobenzene	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2-Hexanone	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
4-Methyl-2-pentanone	mg/L	0.0014 J	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Acetone	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Benzene	mg/L	0.00012 J	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Bromodichloromethane	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Bromoform	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Bromomethane (Methyl bromide)	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Carbon disulfide	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Carbon tetrachloride	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chlorobenzene	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloroethane	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloroform (Trichloromethane)	mg/L	<0.001	<0.001	<0.001	0.00024 J	<0.001	<0.001	<0.001
Chloromethane (Methyl chloride)	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
cis-1,2-Dichloroethene	mg/L	0.0169	0.0043	<0.001	<0.001	0.0028	0.00029 J	<0.001
cis-1,3-Dichloropropene	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Cyclohexane	mg/L	0.00049 J	<0.001	<0.001	<0.001	<0.001	<0.001	0.0001 J
Dibromochloromethane	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Dichlorodifluoromethane (CFC-12)	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Ethylbenzene	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Isopropyl benzene	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Methyl acetate	mg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Methyl cyclohexane	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Methyl tert butyl ether (MTBE)	mg/L	<0.001	<0.001	<0.001	<0.001	0.00016 J	<0.001	<0.001
Methylene chloride	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Styrene	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Tetrachloroethene	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Toluene	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
trans-1,2-Dichloroethene	mg/L	0.0011	0.00032 J	<0.001	<0.001	<0.001	<0.001	<0.001
trans-1,3-Dichloropropene	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Trichloroethene	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Trichlorofluoromethane (CFC-11)	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Trifluorotrichloroethane (CFC-113)	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Vinyl chloride	mg/L	0.0077	0.00041 J	<0.001	<0.001	0.00022 J	<0.001	<0.001
Xylenes (total)	mg/L	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003

Footnotes:
J - Estimated concentration.
R - Rejected.

Appendices

Appendix A

GM Property Monitoring Well Abandonment Memorandum



Memorandum

May 22, 2019

To: Robert Hare
Cleanup Manager

Ref. No.: 012559A

From: Travis Kogl

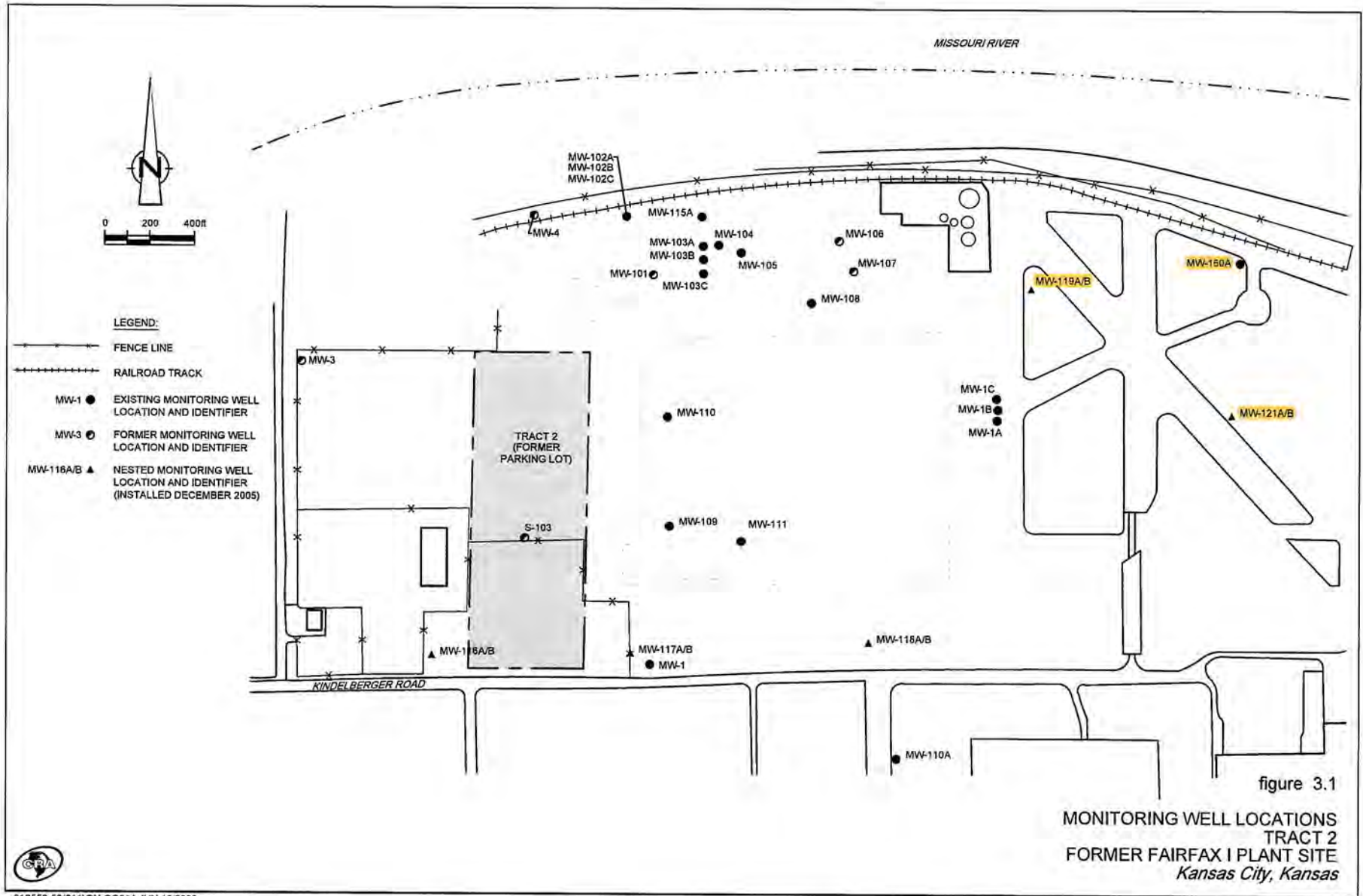
Tel: 785-783-8982

Subject: Monitoring Well Plugging Work Plan

GHD, on behalf of the RACER Trust, has prepared this memorandum to serve as a work plan to provide a procedure to plug and abandon monitoring wells at the General Motors Fairfax Assembly Plant in Kansas City, Kansas. GHD will coordinate with local GM plant staff to locate and verify monitoring wells to be plugged and abandoned. The monitoring wells to be plugged and abandoned are identified as MW-119A, MW-119B, MW-121A, MW-121B and MW-160A.

GHD will contract a Kansas-licensed drilling company to plug and abandon monitoring wells in accordance with Kansas Department of Health and Environment (KDHE) Procedure WWP-19 "Procedure for Plugging a Groundwater Monitoring Well". The procedure will be as follows:

1. Measure and record the static water level in the well for reporting purposes.
2. Measure the depth of the well to verify there are no obstructions that could interfere with the proper plugging of the well.
3. Remove the well vault or protective cover.
4. Fill the well casing from the drilled total depth up to 3 feet below ground level with a KDHE-approved grout listed in KDHE regulation K.A.R. 28-30-2 by a grout tremie pipe or method approved by KDHE.
5. Verify that the volume of the grout placed during plugging operations is equal to or exceeds the volume calculated as necessary to properly plug the well and that no bridging of the grout material has occurred.
6. Cut off and remove the well casing at 3 feet below ground level. Backfill from the top of the remaining casing to the surface with clean compacted surface silts or clays.
7. Submit to KDHE within 30 days of plugging a completed water well plugging record (WWC-5P Form) describing the plugging of the well.
8. The ground surface will be restored to match surrounding conditions (i.e. grass, asphalt, concrete) to the satisfaction of General Motors, LLC after the monitoring wells have been plugged and abandoned.
9. Dispose of concrete rubble, casing, vault and disposable personal protective equipment as solid waste.



Appendix B

Authorization from Fairfax Drainage District of Wyandotte County

**FAIRFAX DRAINAGE DISTRICT OF
WYANDOTTE COUNTY, KANSAS
1620 Fairfax Trafficway
Kansas City, Kansas 66115-1408
(913) 321-2260
FAX (913) 321-1129**

May 23, 2019

GHD
1502 Southwest 41st Street
Topeka, KS 66609

Attention: Mr. Travis Kogl, P.G.

Subject: Monitoring Well Replacement
Former GM Fairfax I Facility
Levee Stations 191+00 through 221+00

Gentlemen:

We are in receipt of correspondence and supporting documentation from your firm describing proposed subsurface work adjacent to and landward of the Fairfax Drainage District levee as part of an ongoing groundwater monitoring program on the former GM Fairfax I Facility.

Based on the information submitted, it is our understanding that three (3) approximately 27 ft. deep monitoring wells (TMW-143, TMW-153 and TMW-154) are to be plugged and abandoned as part of this project, and that 17 new monitoring wells ranging in depth from 27 ft. to 90 ft. are to be installed at the locations indicated on Figure 1. Please be advised that, because five (5) of the proposed monitoring wells (MW-200, MW-201, MW-206A, MW206-B & MW-206C) are located within or very close to the limits of the critical area boundary (500 ft. landward toe of the Fairfax levee), a review from the Corps of Engineers of these installations was required and their comments, which I believe are self explanatory, are attached hereto.

It is also our understanding that monitoring well abandonment will be according to KDHE regulation K.A.R 28-30-7 and KDHE procedure WWP-19 and consist of:

1. Measuring and recording the SWL's; and measuring the total depths to assure there are no obstructions prior to plugging (original depths are 27.0 ft.).
2. Removal of the vaults/protective covers.
3. Tremie grout filling of wells from their original depth to three (3) ft. below ground level assuring the volume of grout utilized is at least equal to the calculated volume of the well (note: nominal well casing diameter is 2 inch).
4. Cut off and remove the upper three (3) ft. of well casing and backfill and compact the disturbed areas with clean silt or clay material at each well location.

It is further understood that the new monitoring wells will be constructed as follows:

1. Bore holes will be drilled by advancing 8-1/4 inch hollow stem augers to the depths indicated on Table 1 and left in place during installation of the wells.
2. Well construction will consist of concentrically placing two inch Schedule 40 PVC casing and .010" slot Schedule 40 PVC screen according to the values in Table 1.
3. Properly sized silica gravel pack will be placed in the annular space between the screen and bore hole of each well from total depth to two ft. above the top of the screen.
4. A minimum two ft. seal consisting of bentonite chips or pellets will be placed on top of the gravel pack in each well to prevent grout from infiltrating into the well screen.
5. Each well will be grouted from the top of the bentonite seal to ground level.
6. Surface completion for each well will consist of a minimum six inch diameter flush mount steel cover at grade with a cast iron bolted water tight cap set within a minimum 2 ft. x 2 ft. x 6 inch thick concrete pad and equipped with a locking device.

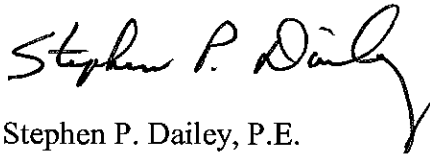
Based on our review and understanding of the project, the Corps of Engineers and Fairfax Drainage District do not believe the proposed work will have a negative impact on the flood protection facilities in Fairfax as long as the following conditions are met:

1. All other permits required by federal, state and/or local agencies, utilities, etc. are secured before proceeding.
2. The FDD requires that, for wells abandoned in place, the interior of the well casing/screen be grouted with a tremie pipe from the bottom of the well upwards with cement/bentonite grout to at least three (3) ft. below grade where the well casing will be cut off and natural soil placed and compacted to grade. The grout mix shall consist of 3 to 5 pounds of bentonite and 6.5 gallons of water per 94# sack of Portland cement. Note: if wells to be abandoned are to be removed by extraction then grouted, GDP is to submit a detailed plan for approval by the FDD prior to commencing.
3. Since the wells are to be constructed in unconsolidated soils, in order to prevent collapse of the bore holes during placement of gravel pack, bentonite seal and grout, it is imperative that a positive head of these respective materials always be standing inside the hollow stem augers as they are withdrawn.
4. It is also imperative that wells be grouted from the top of the bentonite seal upwards utilizing a suitable tremie pipe extending to the bottom of the grout zone while maintaining a positive head of grout inside the hollow stem augers at all times during withdrawal of the auger flights.
5. Well caps shall be of suitable design to seal and withstand top of levee above ground head pressures due to elevated river stages. Note: the vertical distance from ground elevation to the top of the levee is approximately 25 ft.

6. The Fairfax Drainage District must be notified at least 24 hours in advance of beginning the project for inspection purposes.
7. No drilling activities will be allowed if the Missouri River reaches or is expected to reach stage 25.0 as measured on the Hannibal Bridge Gauging Station.
8. Complete "as built" drawings are furnished to the Fairfax Drainage District upon immediate completion of the project showing the location of all wells with respect to existing landmarks along with profile sketches illustrating the actual well construction and abandonment details.
9. If a change in scope occurs, the Fairfax Drainage District must be notified immediately.

The Fairfax Drainage District appreciates your adherence to the above requirements as the levee system integrity is vital to all of the many industries who are located in this section of the Missouri River flood plain. If you should have any questions, please advise.

Respectfully yours,



Stephen P. Dailey, P.E.
General Manager

cc: US Army Corps of Engineers
Attention: Jim Mehnert, P.E.



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, KANSAS CITY DISTRICT
635 FEDERAL BLDG
601 E 12TH STREET
KANSAS CITY, MISSOURI 64106-2824

MAY 16 2019

Geotechnical Design and Dam Safety Section
Geotechnical Branch

Subject: Installation of Monitoring Wells within the levee critical zone
Upper Fairfax Segment, Fairfax-Jersey Creek Unit
Levee Stations 211+00 – 221+00, LS 220' to 300'
COE Job No. 2019-39

Mr. Stephen Dailey, P.E.
Fairfax Drainage District
1620 Fairfax Trafficway
Kansas City, Kansas 66115

Dear Mr. Dailey:

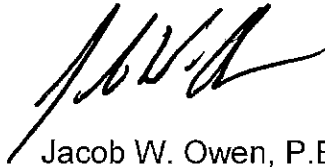
Reference is made to plans to install two monitoring wells within the critical zone that were submitted to our office via e-mail on March 29, 2019. The proposed two new monitoring well locations within the levee critical zone are between levee station 216+00 and 221+00 and are 220 feet to 300 feet landside of the levee centerline. Because the location of the proposed work is outside of the levee right-of-way it does not require Corps of Engineers permission pursuant to 33 USC 408.

We have reviewed the submittal and have the following comments:

- a. Clearly note that wells are to be set within the augers prior to construction.
- b. Filter pack and seal should be placed in conjunction with pulling the augers.
- c. The driller must use a method to assure that the well does not move up while pulling the augers. Measurements made to provide this assurance must be included with the well installation documentation.

Review of the submittal has found that the proposed work will not adversely affect the functioning of the levee unit. A resubmittal is not required. A copy of the as-built plans should be provided to the Corps upon completion. The Sponsor should retain a copy of the boring logs and well installation documentation and ensure that the work is accomplished in accordance with the details approved by this letter. If there are any questions, please contact Jim Mehnert at 816-389-3538.

Sincerely,

A handwritten signature in black ink, appearing to read 'JWO', is written over the printed name.

Jacob W. Owen, P.E.
Chief, Geotechnical Branch

Appendix C

Field Documentation

9/11/2019

RACER

012559A

0830 - on-site

→ TASM (see HASP)

Task: MW Installation

Personnel: N. LASKARIS - EHA

Equip: Truck #565; KS-PID-01;
KS-IP-05;

Weather: Sunny; 95°F; Humid

PPE: LEVEL D

08:50 - GeoCore on-site w/

Drill Rig, skid-steer;
Grout mixing machine;
drum pit, etc.0900 - M. PRINR (TRADERBOT) on-site.
Discuss plan & scope & obtain
access to gates to stage
equip.

1000 - M. PRINR off site

1015 - Access to gates given
(lock combo) EHA locks to
be placed in-line w/ combo lock.

9/11/19

RACER

012559A

10:25 - Called HAZ-MAT about
delivery of Roll-off Mini-
fract. will be here 9/12/19.- Soils to be collected in
skid-steer bucket until then.10:40 - Blake ? w/ Magellan ppl
on-site to discuss moving
MW-201 due to proximity
to pipeline.→ MW-201 moved
north.

→ to be GPS'd later

10:55 - Begin Setup on MW-201
(see ~~QSF~~ SP-014 for)
boring logs

- Calibrate PID (see QSF-259A)

11:15 - Magellan personnel to arrive
on-site to see install of
MW-201.*Rite in the Rain*

8 9/11/2019

RACER

012559A

11:20 - Begin Drilling MW-201
 WATER: ~13'

12:15 - TD: 27'

Construction:

Sand pack: 27'-15'

Bentonite (hydrated): 15'-3'

Grout: 3'-0.5'

Screen: 27'-17'

Riser: 17'-0.5'

Flush mount completion to
 be done a later date

12:50 - GEDCORE off-site to get
 water

13:50 - GEDCORE RETURN

14:40 - Set-up & begin drilling on
 MW-206A

WATER: ~13'

TD: 27'

Construction:

Sand: 14.5'-27' Riser: 0.5'-17'

Bentonite: 3'-15' Screen: 17'-27'

Grout: 0.5'-3'

9/11/19

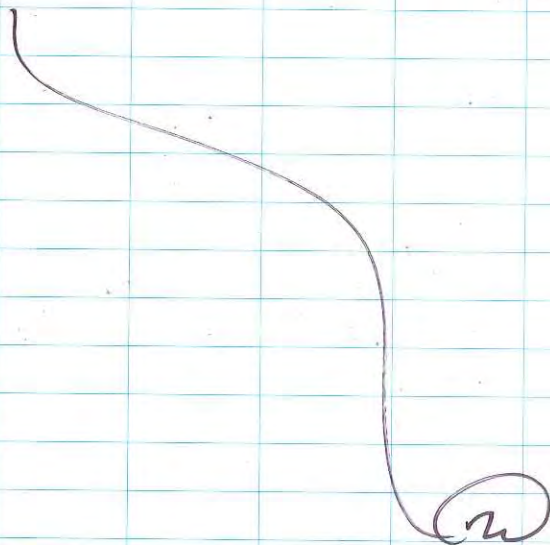
RACER

012559A

9

- Due to limitations in soil
 storage until roll-off arrives
 9/12/19 a.m., cannot complete
 MW-206A. Will leave auger
 in ground (above water table)
 & finish completion 9/12.

1635 - Housekeeping & off-site



Rite in the Rain

10/9/12/19

RACER

012559A

0815 - on-site
→ TGSN (see HASP)

TASK: MW Installation

Personnel: N. LASKARES - GHD

Equip: see pg 6

Weather: partly sunny; 86°F; potential
p.m. storms

PPE: LEVEL D

0815 - Geocore on-site w/ GHD

0815 - Call From HAZ-MAT. Roll off
to arrive ~ 07:00.

0830 - Begin completing MW-206A.
(data on pg 8). Soils placed on
poly sheeting until roll-off
arrives.

0915 - Roll-off box on-site

0930 - HAZ-MAT off-site to get Minifrac

9/12/2019

RACER

012559A

- well completions to be done later
well drilled & set.

1000 - Well set.

10:15 - Geocore set-up decon station
& decon Augers

10:30 - S. Murphy on-site

11:15 - Begin Drilling & set-up on
MW-200

Construction:

TD: 27'

Screen: 18' - 27'

Sand: 14.5' - 27'

Bentonite: 3' - 14.5'

Grout: 0.5' - 3' * to be done
e later time

1300 - Completed

12:00 - Mini-Frac delivered by HAZMAT

Rite in the Rain

9/12/19

RACER

012559

13:50 - Begin set-up on MW-204A

14:00 - Begin Drilling

Water: 12.5' TD: 27'

Screen: 17-27' Sand: 27-15'

Riser: 0.5'-17' Bentonite: 15'-2'

Grout: 2'-0.5'

14:00 - Completed. Needed to re-drill
w/ wood plug due to sand-
locked Rcds while setting
well.

16:20 - Geocore to dump soils,
demon Augers

17:15 - Housekeeping & off-site.

9/13/19

RACER

012559 13

0800 - on-site w/ Geocore
→ TISM (see HASP)

TASK: MW Installation

Personnel: N. LASKAKIS - GHID

D. Summers

M. RYAN

C. Robl

Geocore

Equipment: KS-PID-01; KS-IP-04; Truck
#565; Skin-Steer; Geot Machine;
Truck-mount Drill Rig; Support
truck

Weather: Overcast; 70°F; windy (w)
PPE: Level D

0830 - Set up on MW-203 & begin
drilling. (See SP-14 forms for
boring logs).

0835 - Calibrate PID (see QSF form)

0840 - M. Ryan off-site to get
portland Cement.

1000 - Returned.

Rite in the Rain

14 9/13/19

RACER

012559A

11:00 - Completed:

TD: 27' DTW: 12.5'
Screen: 77-77' Sand: 15'-27'
Bentonite: 15'-2' Riser 0 - 117'

11:15 - Geocore to decon Augers &
Set-up on MW-204B

11:50 - Begin Drilling MW-204B

14:00 - Completed:

TD: 60' DTW: 12.5'
SCREEN: 50-60' SAND: 48'-60'
RISER: 0'-50' Grout: 0-45'
Bentonite* 45'-48'

* Bentonite pellets - not chip.

14:15 - Geocore to Decon Augers &
equip

14:40 - Grout previously drilled wells
to level for FM completions
later.

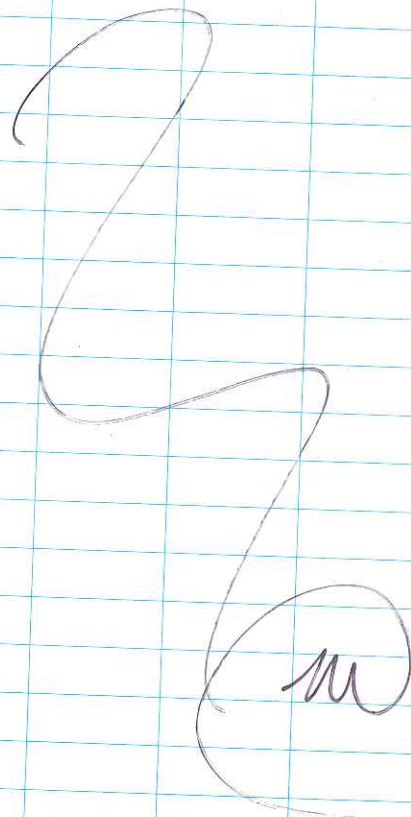
9/13/19

RACER

012559A 15

11:15 - Geocore off site.

11:20 - Site Secured, Housekeeping &
off-site.



16 9-16-2019

RACER

012559

11:20 - on-site

→ TEGSM (see HASP)

TASK: Monitoring Well Installation

Personnel: N. LASKAKES - GHD

D. Summers

C. Robl

M. Ryan

S. Murphy - GHD

} Geacore

Equip: see pg 13

WEATHER: Sunny; 92°F

PPE: Level D

11:20 - Geacore on-site

11:35 - S. Murphy on-site

- Strike at the GM plant
might cause access issues
later in the week/event

12:05 - Begun set-up on MW-206B
↑ start drilling

9-16-2019

RACER

0125594

1215 - SWA: A wasp nest ~~is~~ was
found in the drilling
nest.

→ off-site to get
WASP SPRAY
→ treated nest &
resumed work

15:30 - Completed Drilling.

Construction:

DTW: 12.5' Screen: 60'-50'

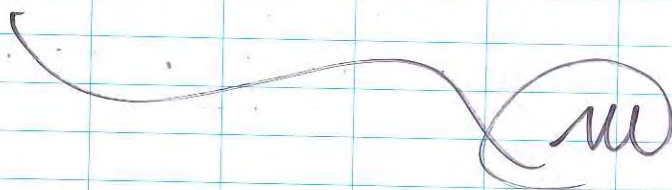
TD: 60' Riser: 50'-0'

Sand: 48' Pellets: 43'

Grout: 43'1"

15:45 - Geacore to decon augers &
dump soils.

16:45 - Housekeeping & off-site



Rite in the Rain

18 9-17-2019

RACER

012559A

0730 - on-site

→ TGS (see HASP)

TASK: MW Installation

Personnel: N. LASKAKIS - GHD

D. Summers

M. Ryan

C. Robl

} Geocore

Equip: see pg 13

Weather: Overcast, 71°F; Humid

PPE: Level D

0800 - Setup & Start on MW-206C

0805 - Calibrate PID

0800 - Start Drilling MW-206C
to 90' bgs0825 - Called Simon Jovan (OMNI)
to schedule/discuss property
access to drill MW-205A/B
→ to meet @ 10:00

9-17-2019

RACER

012559A 19

0830 - S. Murphy on-site

- Completed

TD: 90'

DTW: 12.5'

Screen: 80' - 90'

Sand: ~~90'~~ 78' - 90'

Pellets: 74' - 78'

Grout: 1' - 74'

1140: Well completed

1200: GeoCore decons augers
& dumps soil in roll off1340: Start Drilling MW-207A
to 27'

Completed: TD: 27'

DTW: 12'

Screen: 27 - 17

Sand: 27 - 14.5

Pellets: 3'

1525: Well completed. GeoCore decon
augers & dumps soil in roll off.

16:45 - Housekeeping, Site Secured, off-site

209-18-19

RACER

012559

0800 - on-site

→ TQSM (see HASP)

TASK: MW installations

Personnel: N. LASKARIS

D. Summers

C. Robl

M. Ryan

Equip: see pg 13

Weather: Humid, 92°F, Sunny

PPE: LEVEL D

0815 - Confirmation From PM
that client (Bob Horze - RACER)
has given 'OK' to begin
drilling on OMNI Leased
property

0830 - Setup on MW-205 cluster

0900 - Begin drilling MW-205A

- CALIBRATE PID (see QSF form)

9-18-19

RACER

012559A

10:45 - Completed:

TD: 27'

Screen: 17' - 27'

Sand: 15' - 27'

Riser: 0' - 18'

Bentonite: 2' - 15'

Grout: 0' - 2'

10:50 - Setup & begin drilling on
MW-205B

14:10 - Completed:

TD: 60' ^{me}Screen: ~~20'~~ 50' - 60'

Sand: 47' - 60'

Pellets: 43' - 47'

Grout: 2' - 43'

Riser: 0' - 50'

14:20 - Go over to Decon Augers &
equip.15:10 - Setup & Begin drilling
on MW-207B

Rite in the Rain

22 9-18-2019

RACER

012559A

17:45 - Completed:

TD: 60'

Screen 50' - 60'

Sand 46.5' - 60'

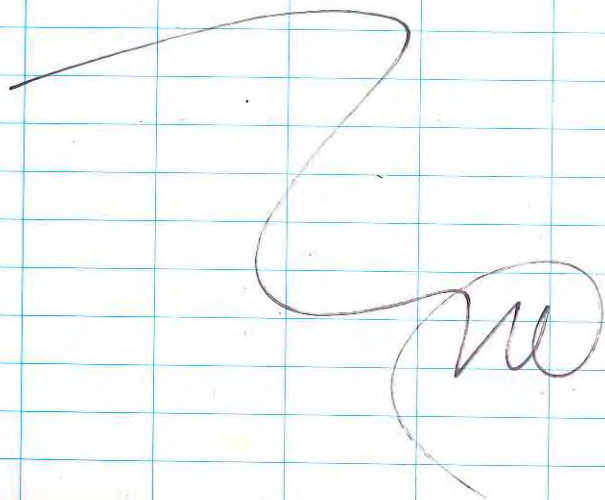
Riser: 0' - 50'

Pellets: 42.5' - 46.5'

Grout: 0' - 42.5'

17:55 - Geocore to decom Augers' equipment

18:30 - Housekeeping, Site Secured, OFF-SITE



012559A

RACER

9/19/19

23

0740: On Site

Tailgate Safety Meeting

TASK: MW installation

Personnel: Sean Murphy GHD

Geolone - Summers, B Robles
Ryan.Equipment: KS-RID-01, KS-IP-04,
Truck 432, Skid Steer, Grout
injector, Truck drill rig,
Support Truck.

Weather: Sunny 82° F (Am)

PPE: Level D

0805: Move Equipment into place.

0835: Begin drilling MW-207c.

0905: Meet with Amerifence to
remove sections of fence for
MW-202.

Rite in the Rain ✓

9/19/19

Racer

012559A

1230

Completed-TD: 90'

Screen: 90'-80'

Sand: 75'-90'

Pellets: 70'-75'

Grout: 70'-2'

1240: GeoCore decons augers and equipment.

1350: Start Drill MW-202

1600: Completed TD: 27'

Screen: 17' to 27'

Sand: 15' to 27'

Pellets: 15' to 2'

1605: GeoCore to Decon augers.
Dig Rig breaks down. GeoCore calls for a tow in the morning.1705: Housekeeping, secure site & equipment
Let security know Rig is going to sit over night.

Zigzag

012559A

Racer

9/20/19 25

0740: On Site

Task: Pour well pads, Secure drill Rig, Housekeeping, sample cuttings.

Personnel: Sean Murphy (GHD)

Summers, Robles, Ryan (GeoCore)

Equipment: Truck 432, Support Trail, Rig, Grout Truck, Skid Steer,

Weather: Overcast: 80°F

PPE: Level D

0900: Wrecker on site to tow rig.

0940: GeoCore starts pouring pads.

1100: Sample cuttings in roll off
SD-092019-SM-001 @ 1100

9-23-2019 RACER 012559A

On-site @ 11:30
 → T&SM (see HASP)

TASK: Well development & Well Completion

Personnel: N. LASKARES - EHM

Equip: D. Summers } Geocore
 C. Robl }
 M. RYAN }
 C. Cook }

~~Personnel~~ Equip: Generator;
 Air-lift set-up; 12 volt pump;
 KS-451-01 Air Compressor

Weather: Sunny; 88°F;
 PPE: LEVEL D

11:45 - Geocore to Arride up &
 complete monitoring
 wells & develop others.

12:00 - Calibrate Water Meter.

- To develop wells until
 turbidity is visually clear
 then take readings every
 2-3 well volumes. (As per CAP)

9-23-19

RACER

012559A

1330 - Begin development of
 206C:

14:00 - Stop pumping to dump
 tank (400 gal) water still
 slightly turbid

Time	°C	Cond	FT	Gallons
14:30	16.4	1.002	7.31	550
14:35	16.5	1.001	7.40	560
14:40	15.5	0.991	7.47	570
14:45	15.2	0.990	7.49	580

$$*PV = (TD - DTW)(0.163) = (90 - 10.66)(0.163) = 12.98$$

14:30 - Begin Purging NW-206A

$$2.68 = PV = (TD - DTW)(0.163) = (27 - 10.63)(0.163)$$

TIME	°C	Cond	FT	GALLONS
14:50	17.7°C	1.293	6.70	50
14:55	16.9°C	1.310	6.79	60
15:00	16.9°C	1.315	6.85	70
15:05	17.1°C	1.317	6.84	75

*TD & DTW are estimated from ground
 surface.

Rite in the Rain

9-23-2019

RACER

012559A

1520 - Begin developing MW-206B

$$DV = (TD - DTW)(0.163) =$$

$$(60 - 10.69)(0.163) = 8.03 \text{ gal}$$

Time	°C	Cond	pH	Gallons
15:30	—	clear water		225
15:35	16.3	1.064	7.50	230
15:40	16.4	1.056	7.57	240
15:45	16.0	1.058	7.59	255

- SE corner of property where MW-207 cluster is located is underwater.
 → Geocone to attempt to divert water from crest w/ skidsteer.

- Move to MW-204 cluster & develop wells:

15:45 - Purge water Dumped into Mini-FRAC.

9-23-2019

RACER

012559A

16:00 - Set up on MW-~~204A~~
205B

$$PV = (TD - DTW)(0.163) = 8.10 \text{ gallons}$$

$$DTW = 10.28$$

TIME:	OC	Cond	pH	Gallons
— water turb clear @ 70' gal				
16:30	18.7	1.074	7.27	75
35	17.8	1.063	7.27	80
40	17.5	1.064	7.31	85
45	17.4	1.066	7.31	90

17:00

~~16:00~~ Set-up on MW-205A

$$DV = (TD - DTW)(0.163) = (27 - 10.28)(0.163)$$

$$PV = 2.73 \text{ gallons}$$

TIME	°C	COND	pH	GALLONS
17:40	18.4	1.105	6.89	75 gallons
45	18.2	1.101	6.88	~77
50	18.0	1.104	6.85	82

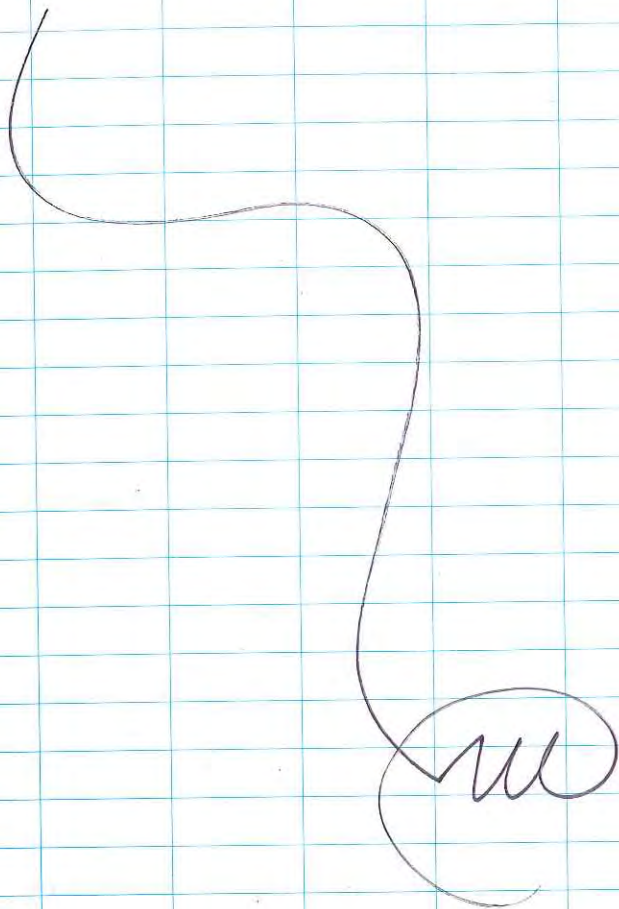
- All development water stacked in on-site Mini-FRAC to be tested & sent for waste CHAR. After develop.

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RACER

012559A

18:30 - Housekeeping, staging equip,
off-site



9-24-2019

RACER

012559A³¹

0730 - on-site

→ TISM (see HASP)

TASK: MW development, well completions,
MW P & A

Equip: see pg 26

Weather: Sunny: Clear

PPE: LEVEL D

Personnel: N. LASKARIS - LHM

D. Summers

C. Robl

M. Ryan

C. Cook

} Geocore

0750 - Set-up & begin MW-develop-
ment

0800 - C. Robl & C. Cook to plug &
Abandon TMW-154 & 153.
LHM will continue to search
for TMW-143. Locating well
is unlikely. The well was
probably burned by slumping
spoil piles from construction
of warehouse building.

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RACER

012559A

TMW-154: DTW: 11.69 TD: 30.04
 TMW-153: DTW: 12.15 TD: 30.00

- Wells to be grouted to near surface w/ bentonite slurry; top 3' of casing removed (minimum) before being grouted to grade.

0830 - begin development of MWs. Shallow w/ 2" sub. Deep w/ Air lift system.

MW-204A @ 0830

DTW: 11.19

$$PV = (27 - 11.19)(0.163) = 2.58 \text{ gal}$$

Time	°C	Cond	pH	Gal
10:05	—	visually	clear	175
10	16.7	1.824	6.72	180
15	17.6	1.819	6.75	185
20	17.4	1.810	6.76	190

- All development & decon water stored in on-site - Mini-FRAC tank

9-24-19

RACER

012559A³³

MW-204B @ 0845

DTW: 11.25

$$PV = (60 - 11.25)(0.163) = 7.95 \text{ gal}$$

Time	°C	Cond	pH	Gallons
0930	—	visually	clear	700
35	16.7	1.111	7.30	725
40	16.3	1.120	7.31	750
45	16.3	1.117	7.29	760
50	16.2	1.114	7.30	775

MW-207C @ 11:50

DTW = 8.90

$$PV = (90 - 8.90)(0.163) = 13.22 \text{ gal}$$

Time	°C	Cond	pH	Gallons
12:10	—	visually	clear	525
15	15.6	0.106	7.48	530
20	15.3	0.971	7.47	550
25	15.3	1.038	7.46	575
30	15.1	1.045	7.47	600
35	15.2	1.047	7.48	625

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RACER

012559A

MW-207B @ 12:40

DTW: 9.83

TD: 60.45

$$PV = (60.45 - 9.83)(0.163) = 8.25 \text{ gal}$$

Time	°C	COND	PH	Gallons
				600
	Visually	Clear		
16.3	1.177	5.19		625
16.1	1.095	7.34		650
16.0	1.112	7.35		675
15.8	1.111	7.37		700

MW-207A @ 13:30

DTW: 9.07

DTW: 27.27

$$PV = (27.27 - 9.07)(0.163) = 2.97 \text{ gal}$$

Time	°C	COND	PH	GALLONS
14:05	-	Visually	Clear -	325
10	16.3	1.126	7.55	335
15	16.3	1.138	7.53	350
20	15.9	1.136	7.52	375
25	16.0	1.139	7.51	400

1-24-19

RACER

012559A

35

MW-201 @ 14:50

DTW: 9.07

TD: 27.24

$$PV = (27.24 - 9.07)(0.163) = 2.96$$

Time	°C	COND	PH	Gallons
15:35	~~18.3~~	Visually	Clear -	175
45	17.1	0.687	7.95	185
50	17.2	0.670	7.89	190
55	17.2	0.670	7.88	195
16:00	16.9	0.670	7.87	200

MW-202 @ 15:15

DTW: 8.75

TD: 27.35

$$PV = (27.35 - 8.75)(0.163) = 3.03$$

Time	°C	COND	PH	GALLONS
16:20	-	Visually	Clear -	150
25	18.3	1.097	6.79	155
30	18.1	1.099	6.84	160
35	17.9	1.106	6.86	165

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RACER

012559A

MW-200 @ 16:30

DTW: 9.24 9.24 TD: 27.15

PV = (27.15 - 9.24) (0.163) = 2.91 gal

Time	°C	Cond	pH	Gallons
17:35	VISUALLY	CLEAR		310
40	17.0	1.317	7.45	325
45	15.0	1.313	7.48	340
50	15.7	1.309	7.50	350

MW-203 @ 16:50

DTW: 9.62 TD: 27.30

PV = (27.30 - 9.62) (0.163) =

Time	°C	Cond	pH	Gallons
18:00	VISUALLY	CLEAR		150
05	19.2	1.022	7.19	155
10	18.8	1.009	7.09	160
15	18.8	1.023	7.07	165

18:40 - Geocore demob & off-site

18:50 - WW-092419-NL-001

- for waste characterization

19:15 - Housekeeping, site secured, off-site. (m)

10-15-19

RACER

012559A 37

08:00 - on-site

→ T&E M (see HAZOP)

TASK: Waste Removal Oversight

Personnel: N-CASKAR

HAZ-MAT

Equip: Truck #515; power-washer;
Flat bed truck, etc.

Weather: Sunny; breezy;

PRE: LEVEL 1

0830 - Hazmat off-site w/ full
VAC-truck to landfill (Johnson
Co)

1040 - Hazmat Return

1050 - Additional HAZ-MAT
personnel on-site to
washout empty FRAE tank12:50 - Hazmat off-site w/ mini-
FRAE tank.1500 - Hazmat on-site w/ Flatbed
to haul off roll-off box. ✓
Rite in the Rain

10-15-19

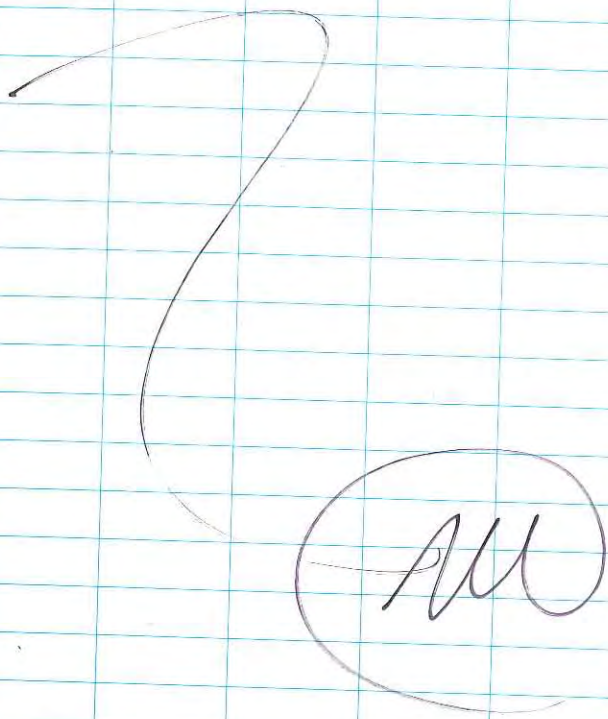
RACER

012559A

15:15- Hazmat off-site

15:20- Called property owner
to update on removals

15:35- Site secured & off-site.

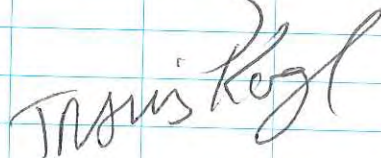


✓

12-9-2019

RACER PAIRFA, 012559A³⁹0830 Travis Kogl (GHD) met with Carol
Murphy (Tri Hydro) @ KC Public
Library @ 625 Minnesota Ave.
to review the project for 94
Audit.11:30 Completed Audit Interview.
Mobilized to the site
for inspection11:45 Onsite (Kogl, Murphy)
GHD TRUCK 696
Tail gate Safety Review
Carol Murphy took several photos.
Discussed ownership - Trade bot.
Observed some piles of debris
on the undeveloped lot.

12:15 Off-site



40 01-21-2019 ²⁰²⁰ RACER 012559A

0950 - on-site

→ N. LASKAKIS } GHD
S. Murphy }

0955 - Contact G. Behr (G.M. environmental)
i schedule training video

10:30 - Geocore on-site

C. Robl

M. Ryan

E. Nunez

10:40 - Watch training video
TASK: Continuation of MW installs
on G.M. property

Personnel: N. LASKAKIS } GHD

S. Murphy }

C. Robl }

M. Ryan }

E. Nunez }

G. Behr - GHD

Equip: KS-PID-01; Truck #565;
Truck #432; Geocore: GP-1100P;
SKID steer; support truck;
grout machine;

Weather: 21°F; pty cloudy;
PPE: LEVEL D

1/21/2020 RACER 012559A⁴¹

- Meet w/ G. Behr (G.M.) to
discuss H's, sloping
area; etc → G.M. will not be
available 1/22, but Matt RICE
will be.

Gate: 913.954.2137

Matt:

- Calibrate PID (see QSF form)

- G.M. off-site

1250 - Begin set-up on 208A

1310 - Begin drilling:

- SP sampling to H₂O
then Auger to 27' bgs

TD: 27'

Sand: 27'-15'

bentonite: 15'-3'

grout: 3'-0'

Water: 15'

1530 - Well set (sans grout)

1415 - HAZ-MAT on site i deliver
Roll-offs box i 3000 gal pty

1/21/19

RACER

0125594

then stopped in NE corner
of visitor lot (w/ GM permission)

1430 - HAZ-Mat off-site.

1540 - Off set j starts set-up
on MW-208B (60')
(see SP-16 for logs)

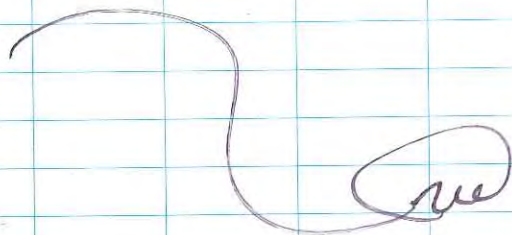
1620 - completed Field screening soils

1635 - G. Behr on-site to check progress

1645 - G Behr off-site

1700 - Geocore set up decon pit &
begin housekeeping

1715 - off-site



1/22/19

RACER

0125594⁴³

0830 - on-site

→ TASHU (see 1 SP)

TASK: GM property well install

Personnel: N. LASKARIS } G.H.

S. Murphy } G.H.

M. Ryan } Geocore

C. Robl } Geocore

E. Nunez } Geocore

Equip: see p 40

W₁ - W₂: 35°F; skoling

FE: LEVEL 1

08:50 - Called Mike Rice (GM) to
report work to begin & give
contact info to security.

- Geocore to begin drilling MW-208B
(60') from stopping point 1/21.

- Calibrate PID (see OSF form)

12:00 - Completed drilling

TD: 60'

water: ~17'

Screen: 60'-50'

Riser: 50'-0'

sand: 60'-47'

Carbonite: 47'-45'

slurry: 45'-0'

Rite in the Rain

1/22/19

RACER

012569A

- 12:05 - grouting, decon of augers
 12:15 - M. Ryan off-site to get more water
 12:35 - Begin setup on MW-208A (90'). See SP-site for log data.
 12:40 - Begin drilling:
 TB: 90' water: ~17'
 Screen: 90'-80' slurry: 75'-0'
 sand: 90'-78' bentonite: 78'-75'
 16:45 - Drilling & grouting completed start decon
 16:55 - Housekeeping activities
 17:15 - Geocore off-site
 17:25 - Called M. Rice (GM) & G. Behr (GM) to inform of offsite & update on work completed.
 17:40 - OFF site



1/23/19

RACER

012569A

0740 - on-site

→ TGS M (see HASP)

Task: Monitoring Well Development

Personnel: N. Laskarey > GHD

S. Murphy

C. Robl

C. Nunez

M. Ryan

Geocore

Weather: Fog; 35°F; light rain mist

Equip: see pg 40 + 2" submersible pump;

Air lift setup

PPE: LEVEL D

0835 - Begin completions on MWs & start development.

MWID	DTW	TD
208A	15.41	26.66
208B	15.40	~~59.19~~ 59.42
208C	15.42	~~59.94~~

1/23/2020

RACER

012559A

10:28 = start

$$PV = (TD - NTW) (0.163) = (1.89 \text{ gal/vol})$$

MW-208A

Time	°C	Cond	pH	gallons
	Visually Clear			
	14.60	.887	5.97	
	14.70	.885	6.00	
	14.84	.890	6.02	
1320	14.91	.895	6.05	

10:45 - Start MW-208B

$$PV = (59.42 - 15.40) (0.163) = 7.18 \text{ gal/vol}$$

Time	°C	Cond	pH	gallons
	Visually Clear			
	14.79	1.304	6.56	
	14.92	1.503	6.62	
	14.21	1.432	6.58	
	14.63	1.481	6.59	
	14.78	1.484	6.57	
1331	14.67	1.481	6.62	

1/23/2020

RACER

Trust

012801A

208C

TD: 89.94

Start: 1349

Time	C	Cond	pH	gallons
	Visually Clear			
	13.71	.845	6.34	
	14.93	.859	6.44	
	15.07	.866	6.46	
1438	15.14	.870	6.52	

1/24/2020

Racer

012589A

0825: On Site

Task: Abandon wells

Personnel: Sean Murphy + Nick Laskaris GAO
Charles Robi, Matt Ryan, E. Nunez

Weather: 32°F Snow

Equipment: See pg. 40

PPE: Level D

0837: Tailgate Safety Meeting

Wells to be Abandoned: (photos taken)

MW-119A

DTW-20.98 TD-36.06

MW-119B

DTW 20.96 TD 60.32

MW-160A

DTW-20.80 TD 37.50

Client gave permission to leave
pad and casing near well. of MW-101A-wells grouted to ~3' bgs &
+3' of PVC casing removed
from each well (before/after
photos in field file)

12:15 - Geocore to demob equip

12:30 - Client informed of tasks
completed.

12:35 - OFF site



USE WET OR DRY
most pens stop writing when wet

- ALL PENCILS
- RITE IN THE RAIN PENS
- WAX MARKERS
- CRAYONS
- OIL PASTELS / PAINT

WHEN DRY ONLY
what you write won't wash off

- PERMANENT MARKERS
- STANDARD BALLPOINTS

WON'T WORK
water-based inks bead off sheet

- GEL PENS
- MOST HIGHLIGHTERS
- FOUNTAIN PENS
- WATER COLORS
- ACRYLIC PAINT

MADE IN TACOMA
— SINCE 1916 —

Rite in the Rain
— DEFYING MOTHER NATURE —

Yes, Rite in the Rain
is a wood-based & recyclable
paper, but unlike plain paper...
it won't turn to mush
when exposed to:

**ALL-WEATHER TOUGH!**

The Rite in the Rain story began a century ago in the forests of the Great Pacific Northwest. Entrepreneur Jerry Darling recognized the logging industry's need for a durable material that could be written on and survive in poor weather conditions. Jerry developed a special coating that created a unique moisture shield on the hand-dipped sheets of paper that he and his wife, Mary, processed at their home.

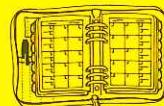
From these humble beginnings our first all-weather paper was born. Over the many years we've perfected and patented our environmentally responsible coating process. Still located in Tacoma, our continued mission is to provide innovative products for professionals and enthusiasts who brave the outdoors.

EQUIPPING MULTIPLE INDUSTRIES WORLD-WIDE

products available



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2 1-28-2020 RACER FAIRFAX 012559A

0835 - on-site

→ TGSM (see HASP)

TASK: Semi-Annual Sampling event

PERSONNEL: N. LASKARES

WEATHER: 32°F; Overcast; wet

EQUIP: TRUCK #565; YSI (SN#54965);
Monsoon pump; KS-IP-04; empty
drum;

PPE: LEVEL D

0845 - Check equip & calibrate
(see QSF forms)

0850 - Set purge water drum up
near pull-off across from
speed limit sign. Non-HAZ
label placed on drum

0900 - Begin gauging Monitoring
wells. (see next page)

- All down-well equipment decont
w/ distilled water & Alconox.

- All INW to be containerized in
on-site drum.

1-28-2020 RACER FAIRFAX 012559A³

MWID	NTW	TD	Analytes	Notes
MW-204A	17.28	27.27	VOCs	
MW-204B	17.28	59.81	VOCs	
MW-205A	16.38	26.98	VOCs	
MW-205B	16.55	59.73	VOCs	positive pressure
~~MW-124A~~ ~~MW-205C~~	21.83	37.08	VOCs	
MW-200	17.48	26.97	VOCs	
MW-201	19.96	27.27	VOCs	
MW-202	16.07	27.21	VOCs	
MW-203	15.80	26.90	VOCs	
MW-206A	17.66	26.87	VOCs	
MW-206B	19.16	59.73	VOCs	
MW-206C	17.76	89.74	VOCs	
MW-207A	18.40	30.23	VOCs/LRH/met /HCH/naph	
MW-207B	18.38	62.66	VOCs	
MW-207C	18.37	92.44	VOCs	
MW-208A	15.90	26.66	VOCs	
MW-208B	15.80	59.39	VOCs	
MW-208C	15.84	59.89	VOCs	
MW-146B	18.45	62.31	VOCs	
MW-146C	18.79	94.01	VOCs	
TW-146	18.17	31.24	VOCs/LRH met/HCH/naphthalene	
MW-1A	19.22	37.29	VOCs	
MW-1B	18.65	86.93	VOCs	
~~MW-124B~~	21.75	61.74	VOCs	
MW-1C	19.29	107.27	VOCs	
MW-110A	16.27	36.50	VOCs	

Rite in the Rain

4 1-28-2019²⁰ RACER FAIRFAX 012559A
2020

12:45 - begin sampling MWs. See
~~ASF~~ at ~~the~~ SA-09 forms
for stabilization info.

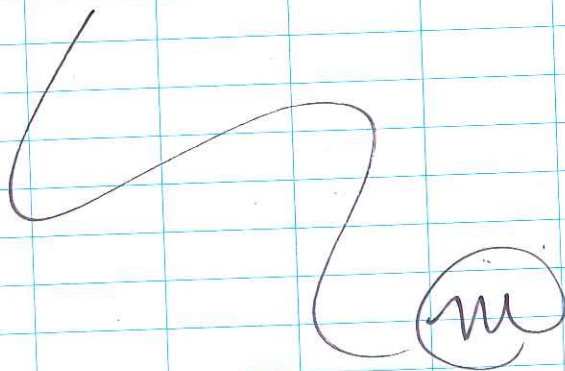
- Duplicates @ 1/20 samples.

- New tubing (1/2") - dedicated -
deployed in each well

~~MWHA - DIN TO Analytical Notes~~ (M)

17:15 - Purge water Added to drum.

17:30 - Housekeeping & off-site



1-29-19²⁰ RACER FAIRFAX 012559A

08:45 - on-site
→ TGSN (see HASP)

TASK: Semi-Annual Sampling Event

PERSONNEL: N. LASKAPES

EQUIP: see pg 2 + 35 gal poly tank,
generator;

WEATHER: 30°F; light snow

PPE: LEVEL D

0910 - check-in w/ GM security →
access allowed

0945 - Calibrate Equip (see ASF forms)

1000 - Set-up & begin sampling MWs
(same procedures as 1/20)

11:20 - MW-1A duplicated (005/006)
→ MW-1A, 1B, & 1C need repairs.
will need additional supplies to
repair. Will return 1/30 to repair.

13:45 - Continental Survey onsite.

Rite in the Rain

6 1-29-²⁰²⁰~~2019~~ RACER FAIRFAX 012559A

1400 - Check-in w/ GM security & watch videos & T&SM

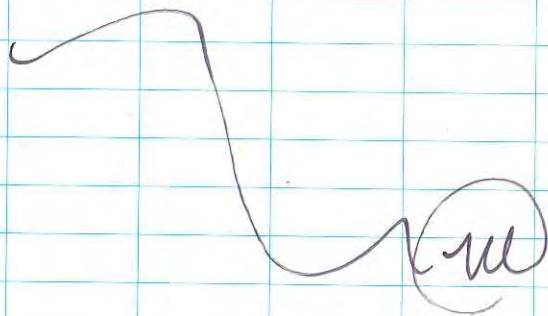
15:00 - Continental off-site

15:10 - Resume sampling monitoring wells.

- Ambient odors of Nodular Gels & Anti-freeze are strong in the back of MW-70S cluster

18:50 - IDW stopped in on-site drum

19:05 - Housekeeping & off-site



1-30-2020 RACER FAIRFAX 012559A⁷

1000 - on-site

→ T&SM (see H&SP)

TASK: Semi-Annual Sampling Event

Personnel: N. LASKARIS - EIT/D

Equip: see pg 2

Weather: 40°F; Overcast

PPE: LEVEL D

10/5 - CALIBRATE Equip (see QSF form)

- Same decor & IDW procedures as before

11:30 - Continue sampling monitoring well as before.

- Muddy/wet conditions ~~prevent~~ ^{prevent} using truck to access wells.
⇒ Access on foot.

17:50 - IDW put in on-site drum.

18:05 - Samples packed, Housekeeping & off-site (u) *Site in the Rain*

8 1-31-2020 RACER FAIRFAX 012559A

12:00 - ON-site

→ TCSM (see HASP)

TASK: Semi-Annual Sampling Event

Personnel: N. LASKARET > E.H.
S. Murphy

Equip: see pg 2 + 35 gal poly & marine battery

Weather: 31°F; light Rain

PPE: LEVEL D

12:15 - Conditions too wet to drive to some wells. Access on foot

12:25 - CALIBRATE Equip (see QSF-1830)

12:35 - Continue sampling N/W's
(see SP-09 for stabilization data)

15:35 - S. FARRIS (PALE) on-site to pick up samples collected thus far (001 - 016)

18:15 - IDN placed in on-site drum

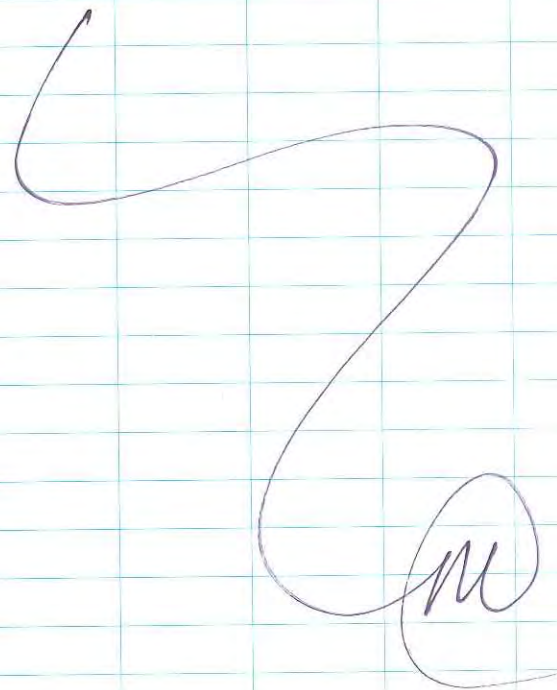
1-31-2020
~~2-3~~

RACER FAIRFAX 012559A 9

18:30 - Southern gate to ~~RACE~~^{FW}
Tradebot property unlocked & lock won't shut. Called M. Prior (Tradebot) to report findings

18:45 - Housekeeping & secure drum.

18:55 - OFF-site



10 2-3-2020 RACER FAIRFAX 012559A

11:30 - on-site
→ TGSM (see HASP)

TASK: Continue Sampling MW's

Personnel: N-LASKARIS

Equip: see pg 8

WEATHER: Sunny; 38°F; breezy

PPE: Level D

11:45 - Calibrate Equip (see QSF form)

- SAME IDW & Decon procedures
as before

12:20 - ^{at} Continue Sampling MW's
(see SP-09 for stabilization
data.)

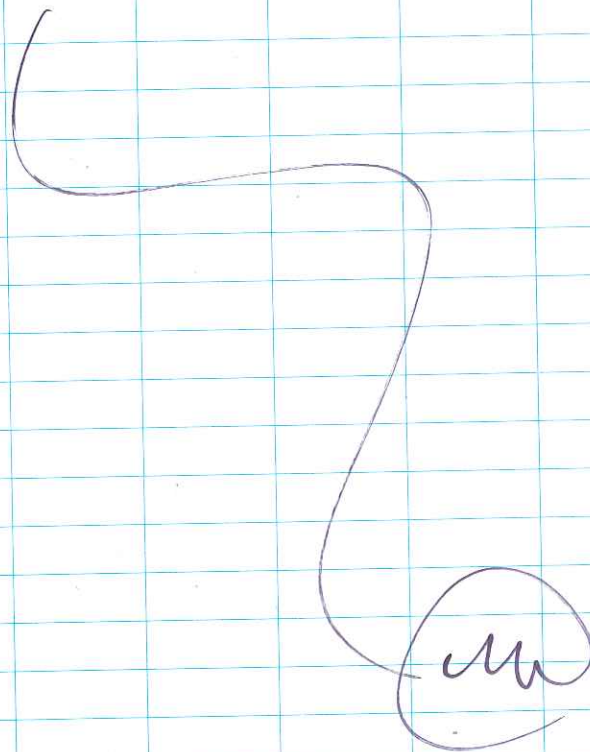
17:30 - Samples collected & iced
immediately

17:45 - IDW poured into on-site drum.
Drum secured & Housekeeping
activities.

2-3-2020 RACER FAIRFAX 012559A

17:50 - OFF-site to return Rental
equipment before C.O.B.

- Samples to be collected via
currier 2/4



2-3-20 RACER FANFAX 012554

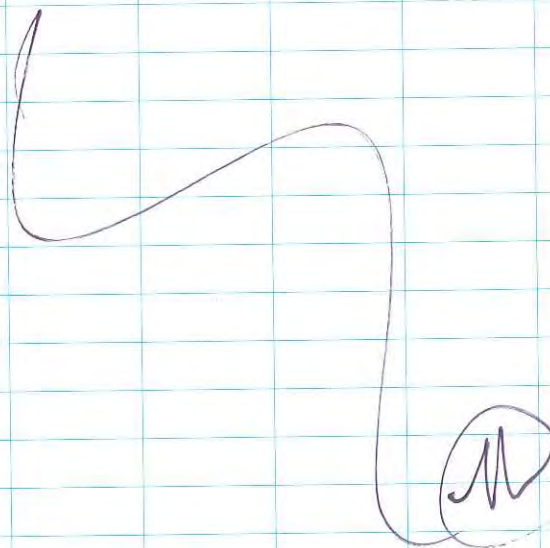
Sample Summary

MWID	SAMPLE NAME	Time	Analyses
204A	WG-012820-NL-001	13:40	1
204B	WG-012820-NL-002	14:30	1
203	WG-012820-NL-003	15:50	1
201	WG-012820-NL-004	16:55	1
1A	WG-012920-NL-005	11:10	1
1B 1A ₂	WG-012920-NL-006	11:20	1
1B	WG-012920-NL-007	12:45	1
1C	WG-012920-NL-008	13:50	1
208A	WG-012920-NL-009	16:40	1
208B	WG-012920-NL-016	17:45	1
208C	WG-012920-NL-010	18:45	1
206C	WG-013020-NL-011	12:30	1
206B	WG-013020-NL-012	13:40	1
206A	WG-013020-NL-013	14:45	1
124A	WG-013020-NL-014	16:00	1
124B	WG-013020-NL-015	17:20	1
146C	WG-013120-NL-017	13:30	1
146B	WG-013120-NL-018	14:35	1
TW-146	WG-013120-NL-019	15:10	1, 2
TW-146 Camp	WG-013120-NL-020	15:25	1, 2
207C	WG-013120-NL-021	16:20	1
207B	WG-013120-NL-022	17:05	1
207A	WG-013120-NL-023	17:50	1, 2

2-3-20 RACER FANFAX 012554¹³

MWID	SAMPLE NAME	Time	Analyses
205B	WG-020320-NL-024	13:35	1
205A	WG-020320-NL-025	14:55	1
200	WG-020320-NL-026	15:45	1
202	WG-020320-NL-027	16:35	1
110A	WG-020320-NL-028	17:30	1

1 = VOCs (full list)

2 = TPH, LPH, MTH, HTH, & 70
naphthalene

Monitoring Well Record for Low-Flow Purging
(Form SP-09)

Project Data:

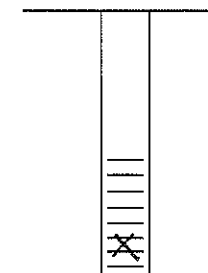
Project Name: RACER FAIRFAX
Ref. No.: 012559A

Date: 1-28-2020
Personnel: N. LASKARES

Monitoring Well Data:

Well No.: MW-204A
Vapour PID (ppm):
Measurement Point: T.O.C.
Constructed Well Depth (m/ft):
Measured Well Depth (m/ft): 27.27
Depth of Sediment (m/ft):

Saturated Screen Length (m/ft): 2 10'
Depth to Pump Intake (m/ft)⁽¹⁾: ~20'
Well Diameter, D (cm/in): 2"
Well Screen Volume, V_s (L)⁽²⁾:
Initial Depth to Water (m/ft): 17.28



Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level ⁽³⁾ (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, V _p (L)	No. of Well Screen Volumes Purged ⁽⁴⁾
Precision Required ⁽⁶⁾ :				±3 %	±0.005 or 0.01 ⁽⁶⁾	±10 %	±10 %	±0.1 Units	±10 mV		
13:10	275	17.31	0.03	15.32	1.849	CLEAR	3.42	6.31	33.3		
15	"	"	"	17.16	1.947	"	1.22	6.22	-17.3		
20	"	"	"	17.32	1.958	"	0.85	6.25	-12.0		
25	"	"	"	17.31	1.961	"	0.71	6.28	-16.5		
30	275	17.31	0.03	17.33	1.959	CLEAR	0.66	6.30	-4.4		

Sample ID:

WG-0128²⁰-NL-001

Sample Time:

13:40

Notes:

VOCs

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- (2) The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s = \pi \cdot (r^2) \cdot L$ in mL, where r ($r = D/2$) and L are in cm. For Imperial units, $V_s = \pi \cdot (r^2) \cdot L \cdot (2.54)^3$, where r and L are in inches
- (3) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 500 mL/min.
- (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged = V_p/V_s .
- (5) For conductivity, the average value of three readings < 1 mS/cm ± 0.005 mS/cm or where conductivity > 1 mS/cm ± 0.01 mS/cm.

Monitoring Well Record for Low-Flow Purging
(Form SP-09)

Project Data:

Project Name: RACER TRUST
Ref. No.: 012559A

Date: 1-28-2020
Personnel: N. LASKARES

Monitoring Well Data:

Well No.: MW-204B
Vapour PID (ppm):
Measurement Point: T.O.C.
Constructed Well Depth (m/ft):
Measured Well Depth (m/ft): 59.81
Depth of Sediment (m/ft):

Saturated Screen Length (m/ft): 10'
Depth to Pump Intake (m/ft)⁽¹⁾: ~50'
Well Diameter, D (cm/in): 2"
Well Screen Volume, V_s (L)⁽²⁾:
Initial Depth to Water (m/ft): 17.28

Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level ⁽³⁾ (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, Vp (L)	No. of Well Screen Volumes Purged ⁽⁴⁾
Precision Required ⁽⁵⁾ :				±3 %	±0.005 or 0.01 ⁽⁶⁾	±10 %	±10 %	±0.1 Units	±10 mV		
13:55	300	17.30	0.02	12.43	0.908	CLEAR	5.71	6.73	18.8		
14:00	"	"	"	15.82	0.992	"	8.55	6.35	-79.3		
05	"	"	"	15.78	1.013	"	7.36	6.39	-125.0		
10	"	"	"	15.63	1.010	"	7.00	6.39	-128.3		
15	"	"	"	15.73	1.013	"	6.07	6.41	-132.9		
20	300	17.30	0.02	15.71	1.012	CLEAR	5.75	6.38	-134.0		

Sample ID: WG-0128²⁰-NL-002

Sample Time: 14:30

Notes:

VOCs

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- (2) The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s = \pi \cdot (r^2) \cdot L$ in mL, where r (r=D/2) and L are in cm. For Imperial units, $V_s = \pi \cdot (r^2) \cdot L \cdot (2.54)^3$, where r and L are in inches
- (3) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 500 mL/min.
- (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged= Vp/Vs.
- (5) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

Monitoring Well Record for Low-Flow Purging
(Form SP-09)

Project Data:

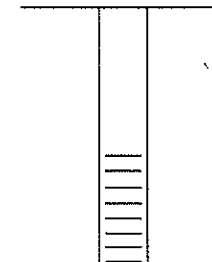
Project Name: RALER FAIRFAX
Ref. No.: 012559A

Date: 1-28-2020 ²⁰²⁰ ~~2019~~ ⁸²
Personnel: N. LASKAKES

Monitoring Well Data:

Well No.: MW-203
Vapour PID (ppm): -
Measurement Point: T.O.C.
Constructed Well Depth (m/ft): -
Measured Well Depth (m/ft): 26.90
Depth of Sediment (m/ft): -

Saturated Screen Length (m/ft): 10'
Depth to Pump Intake (m/ft)⁽¹⁾: ~20'
Well Diameter, D (cm/in): 2"
Well Screen Volume, V_s (L)⁽²⁾: -
Initial Depth to Water (m/ft): 15.80



Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level ⁽³⁾ (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, V _p (L)	No. of Well Screen Volumes Purged ⁽⁴⁾
Precision Required ⁽⁵⁾ : ±3 % ±0.005 or 0.01 ⁽⁶⁾ ±10 % ±10 % ±0.1 Units ±10 mV											
15:10	275	15.81	0.01	16.23	2.175	CLOUDY	1.81	6.31	47.4		
:15	"	"	"	15.90	2.165	CLEAR	1.19	6.36	35.9		
:20	"	"	"	15.98	2.245	"	0.95	6.35	40.5		
:25	"	"	"	16.22	2.315	"	0.82	6.33	43.6		
:30	"	"	"	16.27	2.364	"	0.67	6.32	49.6		
:35	"	"	"	15.90	2.364	"	0.62	6.34	53.7		
:40	275	15.81	0.01	15.77	2.366	CLEAR	0.61	6.35	55.9		

Sample ID: WG-0128²⁰-NL-003

Sample Time: 15:50

Notes:

VOLs

- The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s = \pi \cdot (r^2) \cdot L$ in mL, where r ($r = D/2$) and L are in cm. For Imperial units, $V_s = \pi \cdot (r^2) \cdot L \cdot (2.54)^3$, where r and L are in inches.
- The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 500 mL/min.
- Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing). No. of Well Screen Volumes Purged = V_p/V_s .
- For conductivity, the average value of three readings $< 1 \text{ mS/cm} \pm 0.005 \text{ mS/cm}$ or where conductivity $> 1 \text{ mS/cm} \pm 0.01 \text{ mS/cm}$.

Monitoring Well Record for Low-Flow Purging
(Form SP-09)

Project Data:

Project Name: RACER FAIRFOX
Ref. No.: 012559A

Date: 1-28-2020
Personnel: N. LASKARES

Monitoring Well Data:

Well No.: MW-201
Vapour PID (ppm): _____
Measurement Point: T.O.C.
Constructed Well Depth (m/ft): _____
Measured Well Depth (m/ft): 27.27
Depth of Sediment (m/ft): _____

Saturated Screen Length (m/ft): 10'
Depth to Pump Intake (m/ft)⁽¹⁾: 123'
Well Diameter, D (cm/in): 2"
Well Screen Volume, V_s (L)⁽²⁾: _____
Initial Depth to Water (m/ft): 19.96

Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level ⁽³⁾ (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, V _p (L)	No. of Well Screen Volumes Purged ⁽⁴⁾
Precision Required ⁽⁵⁾ :				±3 %	±0.005 or 0.01 ⁽⁶⁾	±10 %	±10 %	±0.1 Units	±10 mV		
16:15	300	19.99	0.03	14.57	0.592	Cloudy	2.24	6.06	21.1		
:20	"	"	"	16.09	0.614	Clearing	1.28	6.23	24.8		
:25	"	"	"	16.05	0.613	Clear	1.19	6.41	30.7		
:30	"	"	"	16.01	0.613	"	0.93	6.62	35.2		
:35	300	"	"	16.03	0.614	Clear	0.68	6.52	40.1		
:40	300	19.99	0.03	16.07	0.613	Clear	0.59	6.49	45.3		

Sample ID:

WG-0128²⁰-NL-004

Sample Time:

16:55

Notes:

VOCs

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- (2) The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s = \pi \cdot (r^2) \cdot L$ in mL, where r (r=D/2) and L are in cm.
For Imperial units, $V_s = \pi \cdot (r^2) \cdot L \cdot (2.54)^3$, where r and L are in inches
- (3) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 500 mL/min.
- (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged= V_p/V_s.
- (5) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

Monitoring Well Record for Low-Flow Purging
(Form SP-09)

Project Data:

Project Name: RACER TRUST FAIRFAX
Ref. No.: 012559A

Date: 1-29-2020
Personnel: N. LASKARIS

Monitoring Well Data:

Well No.: MW-1A
Vapour PID (ppm): -
Measurement Point: T.O.C.
Constructed Well Depth (m/ft): -
Measured Well Depth (m/ft): 37.29
Depth of Sediment (m/ft): -

Saturated Screen Length (m/ft): unknown
Depth to Pump Intake (m/ft)⁽¹⁾: 1.33
Well Diameter, D (cm/in): 2"
Well Screen Volume, V_s (L)⁽²⁾: -
Initial Depth to Water (m/ft): 19.22

Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level ⁽³⁾ (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, V _p (L)	No. of Well Screen Volumes Purged ⁽⁴⁾ notes
Precision Required ⁽⁵⁾ :				±3 %	±0.005 or 0.01 ⁽⁶⁾	±10 %	±10 %	±0.1 Units	±10 mV		
10:30	300	19.24	0.02	13.02	1.063	TURBID*	2.92	5.98	35.8		Rust-red water
:35	"	"	"	16.09	1.057	"	1.45	6.27	13.4		
:40	"	"	"	15.01	0.910	CLEARING	1.04	5.20	-7.7		
:45	"	"	"	15.04	0.899	"	1.00	6.41	-14.9		
:50	"	"	"	15.07	0.904	"	0.83	6.39	-16.8		
:55	"	"	"	14.97	0.907	"	0.80	6.39	-16.1		
11:00	300	19.24	0.02	14.68	0.906	CLEARISH	0.75	6.38	-12.9		

Sample ID:

WG-012919-NL-005

Sample Time:

11:10

Notes:

Dup: WG-012919-NL-006 VOCs

11:20

- The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s = \pi \cdot (r^2) \cdot L$ in mL, where $r = (D/2)$ and L are in cm. For Imperial units, $V_s = \pi \cdot (r^2) \cdot L \cdot (2.54)^3$, where r and L are in inches.
- The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 500 mL/min.
- Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged = V_p/V_s .
- For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

Monitoring Well Record for Low-Flow Purging
(Form SP-09)

Project Data:

Project Name: RACER FAIRFAX
Ref. No.: 012594

Date: 1-29-2020
Personnel: N. LASKARES

Monitoring Well Data:

Well No.: MW-1B
Vapour PID (ppm): -
Measurement Point: T.O.C.
Constructed Well Depth (m/ft): -
Measured Well Depth (m/ft): 86.93
Depth of Sediment (m/ft): -

Saturated Screen Length (m/ft): unknown
Depth to Pump Intake (m/ft)⁽¹⁾: 184'
Well Diameter, D (cm/in): 2"
Well Screen Volume, V_s (L)⁽²⁾: -
Initial Depth to Water (m/ft): 18.45

Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level ⁽³⁾ (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, V _p (L)	No. of Well Screen Volumes Purged ⁽⁴⁾
Precision Required ⁽⁵⁾ :				±3 %	±0.005 or 0.01 ⁽⁶⁾	±10 %	±10 %	±0.1 Units	±10 mV		
12:05	275	18.66	0.01	13.43	0.760	CLEAR	0.66	6.96	-37.9		
:10	"	"	"	12.20	0.679	"	0.68	6.93	-50.5		
:15	"	"	"	8.68	0.615	"	0.76	6.88	-76.9		
:20	"	"	"	10.66	0.644	"	0.71	6.84	-77.1		
:25	"	"	"	11.15	0.655	"	0.72	6.78	-72.7		
:30	"	"	"	11.00	0.656	"	0.65	6.73	-69.4		
:35	275	18.66	0.01	11.09	0.654	CLEAR	0.60	6.71	-69.2		

Sample ID:

WG-012919-20-NL-007

Sample Time:

12:45

Notes:

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- (2) The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s = \pi * (r^2) * L$ in mL, where $r = (D/2)$ and L are in cm. For Imperial units, $V_s = \pi * (r^2) * L * (2.54)^3$, where r and L are in inches
- (3) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 500 mL/min.
- (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged = V_p/V_s .
- (5) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

Monitoring Well Record for Low-Flow Purging
(Form SP-09)

Project Data:

Project Name: RACER FAIRFAX
Ref. No.: 012559A

Date: 1-29-2020
Personnel: N. LASKARIS

Monitoring Well Data:

Well No.: MW-1C
Vapour PID (ppm): -
Measurement Point: T.O.C.
Constructed Well Depth (m/ft): -
Measured Well Depth (m/ft): 107.27
Depth of Sediment (m/ft): -

Saturated Screen Length (m/ft): unknown
Depth to Pump Intake (m/ft)⁽¹⁾: ~100'
Well Diameter, D (cm/in): 2"
Well Screen Volume, V_s (L)⁽²⁾: -
Initial Depth to Water (m/ft): 19.29

Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level ⁽³⁾ (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, V _p (L)	No. of Well Screen Volumes Purged ⁽⁴⁾
Precision Required ⁽⁵⁾ :				±3 %	±0.005 or 0.01 ⁽⁶⁾	±10 %	±10 %	±0.1 Units	±10 mV		
13:10	300	19.32	0.03	13.36	0.310	CLOUDY	2.41	7.53	2.1		
15	"	"	"	12.86	0.305	CLEARING	1.55	7.94	-32.6		
20	"	"	"	12.49	0.301	"	1.09	6.59	-85.6		
25	"	"	"	11.35	0.295	"	1.00	6.67	-73.2		
30	"	"	"	10.11	0.291	CLEAR	0.93	6.90	-46.5		
35	"	"	"	9.87	0.285	"	0.85	6.95	-40.5		
40	300	19.32	0.03	9.35	0.280	CLEAR	0.80	7.07	-58.7		

Sample ID:

WG-0129²⁰-NL-008

Sample Time:

13:50

Notes:

VOCs

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- (2) The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s = \pi \cdot (r^2) \cdot L$ in mL, where r ($r = D/2$) and L are in cm. For Imperial units, $V_s = \pi \cdot (r^2) \cdot L \cdot (2.54)^3$, where r and L are in inches.
- (3) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 500 mL/min.
- (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged = V_p/V_s .
- (5) For conductivity, the average value of three readings < 1 mS/cm ± 0.005 mS/cm or where conductivity > 1 mS/cm ± 0.01 mS/cm.

Monitoring Well Record for Low-Flow Purging
(Form SP-09)

Project Data:

Project Name: Racer Fairfax
Ref. No.: 012559A

Date: 1-29-2020
Personnel: N. LASKARES

Monitoring Well Data:

Well No.: MW-208A
Vapour PID (ppm): -
Measurement Point: T.O.C.
Constructed Well Depth (m/ft): -
Measured Well Depth (m/ft): 26.66
Depth of Sediment (m/ft): -

Saturated Screen Length (m/ft): 10'
Depth to Pump Intake (m/ft)⁽¹⁾: 22'
Well Diameter, D (cm/in): 2"
Well Screen Volume, V_s (L)⁽²⁾: -
Initial Depth to Water (m/ft): 15.90

Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level ⁽³⁾ (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, V _p (L)	No. of Well Screen Volumes Purged ⁽⁴⁾
Precision Required ⁽⁵⁾ :				±3 %	±0.005 or 0.01 ⁽⁶⁾	±10 %	±10 %	±0.1 Units	±10 mV		
15:55	300	15.94	0.04	12.67	0.986	Sl. Cloudy	3.86	5.60	62.7		
16:00	"	"	"	11.54	1.007	"	2.16	5.83	55.5		
:05	"	"	"	10.21	0.983	"	2.10	5.85	56.0		
:10	"	"	"	9.52	0.950	"	2.04	5.86	57.5		
:15	"	"	"	15.64	1.101	"	1.17	6.06	43.8		
:20	"	"	"	15.60	1.100	CLEAR	0.99	6.11	41.1		
:25	"	"	"	15.52	1.093	"	0.73	6.17	40.6		
:30	300	15.94	0.04	15.57	1.085	CLEAR	0.65	6.21	38.5		

Sample ID:

WG-012919²⁰-NL-009

Sample Time:

16:40

Notes:

VOCs

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- (2) The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s = \pi \cdot (r^2) \cdot L$ in mL, where r ($r=D/2$) and L are in cm.
For Imperial units, $V_s = \pi \cdot (r^2) \cdot L \cdot (2.54)^3$, where r and L are in inches
- (3) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 500 mL/min.
- (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged = V_p/V_s .
- (5) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

Monitoring Well Record for Low-Flow Purging
(Form SP-09)

Project Data:

Project Name: RACER FAIRFAX
Ref. No.: 012559A

Date: 1-29-2020
Personnel: N. LASKARES

Monitoring Well Data:

Well No.: MW-208B
Vapour PID (ppm): -
Measurement Point: T.O.C
Constructed Well Depth (m/ft): -
Measured Well Depth (m/ft): 59.39
Depth of Sediment (m/ft): -

Saturated Screen Length (m/ft): 10'
Depth to Pump Intake (m/ft)⁽¹⁾: 1.52'
Well Diameter, D (cm/in): 2"
Well Screen Volume, V_s (L)⁽²⁾: -
Initial Depth to Water (m/ft): 15.80

Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level ⁽³⁾ (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, V _p (L)	No. of Well Screen Volumes Purged ⁽⁴⁾
Precision Required ⁽⁵⁾ :				±3 %	±0.005 or 0.01 ⁽⁶⁾	±10 %	±10 %	±0.1 Units	±10 mV		
17:10	300	15.82	0.02	15.27	1.616	SL. CLOUDY	1.12	6.45	-29.9		
:15	"	"	"	15.42	1.615	"	0.68	6.53	-101.8		
:20	"	"	"	15.47	1.602	"	0.60	6.55	-111.1		
:25	"	"	"	15.50	1.590	CLEAR	0.52	6.56	-117.3		
:30	"	"	"	15.49	1.587	"	0.41	6.58	-120.5		
:35	300	15.82	0.02	15.48	1.585	CLEAR	0.37	6.59	-127.4		

Sample ID:

WG-012919-20 NL-001 016
VOLs

Sample Time:

17:45

Notes:

- The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s = \pi(r^2)L$ in mL, where $r = (D/2)$ and L are in cm. For Imperial units, $V_s = \pi(r^2)L * (2.54)^3$, where r and L are in inches
- The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 500 mL/min.
- Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged = V_p/V_s .
- For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

Monitoring Well Record for Low-Flow Purging
(Form SP-09)

Project Data:

Project Name: RACER FAIRFAX
Ref. No.: 012559A

Date: 1-29-2020
Personnel: N. LASKARES

Monitoring Well Data:

Well No.: MW-208C
Vapour PID (ppm): -
Measurement Point: T.O.C.
Constructed Well Depth (m/ft): -
Measured Well Depth (m/ft): 89.89
Depth of Sediment (m/ft): -

Saturated Screen Length (m/ft): 10'
Depth to Pump Intake (m/ft)⁽¹⁾: 182'
Well Diameter, D (cm/in): 2"
Well Screen Volume, V_s (L)⁽²⁾: -
Initial Depth to Water (m/ft): 15.84

Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level ⁽³⁾ (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, V _p (L)	No. of Well Screen Volumes Purged ⁽⁴⁾
Precision Required ⁽⁵⁾ :				±3 %	±0.005 or 0.01 ⁽⁶⁾	±10 %	±10 %	±0.1 Units	±10 mV		
18:05	300	15.85	0.01	15.15	0.880	SL. CLOUDY	3.86	6.64	-72.3		
10	"	"	"	13.16	0.854	"	3.84	6.60	-69.9		
15	"	"	"	14.21	0.793	CLEARING	3.81	6.58	-61.2		
20	"	"	"	12.51	0.788	"	3.79	6.57	-53.9		
25	"	"	"	10.23	0.769	CLEAR	3.62	6.50	-47.3		
30	"	"	"	10.00	0.766	"	3.51	6.48	-45.9		
35	300	15.85	0.01	9.49	0.765	CLEAR	3.40	6.46	-44.5		

Sample ID:

WG-0129120-NL-0/0

Sample Time:

18:45

Notes:

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- (2) The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s = \pi \cdot (r^2) \cdot L$ in mL, where $r = (D/2)$ and L are in cm. For Imperial units, $V_s = \pi \cdot (r^2) \cdot L \cdot (2.54)^3$, where r and L are in inches
- (3) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 500 mL/min.
- (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged = V_p/V_s .
- (5) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

Monitoring Well Record for Low-Flow Purging
(Form SP-09)

Project Data:

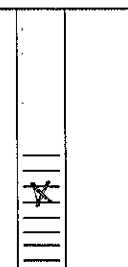
Project Name: RACER FAIRFAX
Ref. No.: 012559A

Date: 1-30-2020
Personnel: N. LASKARES

Monitoring Well Data:

Well No.: MW-206C
Vapour PID (ppm): -
Measurement Point: T.O.C.
Constructed Well Depth (m/ft): -
Measured Well Depth (m/ft): 89.74
Depth of Sediment (m/ft): -

Saturated Screen Length (m/ft): 10'
Depth to Pump Intake (m/ft)⁽¹⁾: ~33'
Well Diameter, D (cm/in): 2"
Well Screen Volume, V_s (L)⁽²⁾: -
Initial Depth to Water (m/ft): 17.76



Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level ⁽³⁾ (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, V _p (L)	No. of Well Screen Volumes Purged ⁽⁴⁾
Precision Required ⁽⁵⁾ :				±3 %	±0.005 or 0.01 ⁽⁶⁾	±10 %	±10 %	±0.1 Units	±10 mV		
11:30	325	17.78	0.02	14.16	0.802	SL. CLOUDY	2.81	6.02	17.4		
55	"	17.76	0.00	14.60	0.816	"	1.32	6.64	-88.2		
12:00	"	"	"	14.64	0.813	CLEARING	1.03	6.76	-110.6		
05	"	"	"	14.59	0.810	"	0.83	6.79	-113.3		
10	"	"	"	14.56	0.809	CLEAR	0.69	6.86	-127.9		
15	"	"	"	14.53	0.808	"	0.65	6.87	-129.4		
20	325	17.76	0.00	14.61	0.810	CLEAR	0.60	6.88	-129.8		

Sample ID:

WG-0130²⁰ - NL-011

Sample Time:

12:30

Notes:

VOCs

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- (2) The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s = \pi \cdot (r^2) \cdot L$ in mL, where $r = (D/2)$ and L are in cm. For Imperial units, $V_s = \pi \cdot (r^2) \cdot L \cdot (2.54)^3$, where r and L are in inches
- (3) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 500 mL/min.
- (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged = V_p/V_s .
- (5) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

Monitoring Well Record for Low-Flow Purging
(Form SP-09)

Project Data:

Project Name: RACER FAIRFAX
Ref. No.: 012559A

Date: 1-30-2020
Personnel: N. LASKAKES

Monitoring Well Data:

Well No.: NW-206B
Vapour PID (ppm): -
Measurement Point: T.O.C.
Constructed Well Depth (m/ft): -
Measured Well Depth (m/ft): 59.73
Depth of Sediment (m/ft): -

Saturated Screen Length (m/ft): 10
Depth to Pump Intake (m/ft)⁽¹⁾: 155'
Well Diameter, D (cm/in): 2"
Well Screen Volume, V_s (L)⁽²⁾: -
Initial Depth to Water (m/ft): 19.16

Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level ⁽³⁾ (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, V _p (L)	No. of Well Screen Volumes Purged ⁽⁴⁾
Precision Required ⁽⁵⁾ :				±3 %	±0.005 or 0.01 ⁽⁶⁾	±10 %	±10 %	±0.1 Units	±10 mV		
13:00	320	19.20	0.04	14.68	0.563	SL. CLOUDY	3.82	8.26	-122.3		
:05	"	"	"	14.98	0.710	"	2.40	7.55	-103.0		
:10	"	"	"	15.20	0.936	CLEARING	1.86	7.32	-107.9		
:15	"	"	"	15.16	0.994	"	1.22	7.13	-111.3		
:20	"	"	"	15.14	1.019	CLEAR	0.81	6.99	-125.6		
:25	"	"	"	15.19	1.020	"	0.69	6.96	-130.2		
:30	300	19.20	0.04	15.22	1.024	CLEAR	0.44	6.94	-133.4		

Sample ID:

WG-013019-NL-012

Sample Time:

13:40

Notes:

VOLs

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- (2) The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s = \pi \cdot (r^2) \cdot L$ in mL, where $r = (D/2)$ and L are in cm. For Imperial units, $V_s = \pi \cdot (r^2) \cdot L \cdot (2.54)^3$, where r and L are in inches
- (3) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 500 mL/min.
- (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged = V_p/V_s .
- (5) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

Monitoring Well Record for Low-Flow Purging
(Form SP-09)

Project Data:

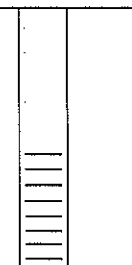
Project Name: RACER FAIRFAX
Ref. No.: 012559A

Date: 1-30-2020
Personnel: N. LASKARES

Monitoring Well Data:

Well No.: MW-206A
Vapour PID (ppm): -
Measurement Point: T.O.C.
Constructed Well Depth (m/ft): -
Measured Well Depth (m/ft): 26.87
Depth of Sediment (m/ft): -

Saturated Screen Length (m/ft): 10'
Depth to Pump Intake (m/ft)⁽¹⁾: ~23'
Well Diameter, D (cm/in): 2"
Well Screen Volume, V_s (L)⁽²⁾: -
Initial Depth to Water (m/ft): 17.66



Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level ⁽³⁾ (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, V _p (L)	No. of Well Screen Volumes Purged ⁽⁴⁾
Precision Required ⁽⁵⁾ :				±3 %	±0.005 or 0.01 ⁽⁶⁾	±10 %	±10 %	±0.1 Units	±10 mV		
14:05	300	17.67	0.01	12.93	2.176	Sl. Cloudy	6.43	6.43	-20.0		
16	"	17.70	0.04	16.23	2.458	"	0.78	6.26	-9.5		
19	"	"	"	16.31	2.463	CLEARING	0.102	6.28	-8.1		
20	"	"	"	16.35	2.477	"	0.51	6.29	-5.5		
25	"	"	"	16.45	2.485	CLEAR	0.45	6.30	-1.6		
30	"	"	"	16.47	2.482	"	0.46	6.30	-0.9		
35	300	17.71	0.05	16.49	2.480	CLEAR	0.44	6.30	-0.6		

Sample ID:

WG-013019-NL-013

Sample Time:

14:45

Notes:

VOCs

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- (2) The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s = \pi \cdot (r^2) \cdot L$ in mL, where $r = (D/2)$ and L are in cm. For Imperial units, $V_s = \pi \cdot (r^2) \cdot L \cdot (2.54)^3$, where r and L are in inches
- (3) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 500 mL/min.
- (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged = V_p/V_s .
- (5) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

Monitoring Well Record for Low-Flow Purging
(Form SP-09)

Project Data:

Project Name: RALPH FAIRFAX
Ref. No.: 012559A

Date: 1-30-2020
Personnel: N. LASVARES

Monitoring Well Data:

Well No.: MW-124A
Vapour PID (ppm): -
Measurement Point: T.D.C.
Constructed Well Depth (m/ft): -
Measured Well Depth (m/ft): 31.08
Depth of Sediment (m/ft): -

Saturated Screen Length (m/ft): unknown
Depth to Pump Intake (m/ft)⁽¹⁾: -33'
Well Diameter, D (cm/in): 2"
Well Screen Volume, V_s (L)⁽²⁾: -
Initial Depth to Water (m/ft): 21.83

Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level ⁽³⁾ (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, Vp (L)	No. of Well Screen Volumes Purged ⁽⁴⁾
Precision Required ⁽⁵⁾ :				±3 %	±0.005 or 0.01 ⁽⁶⁾	±10 %	±10 %	±0.1 Units	±10 mV		
15:15	300	21.85	0.02	12.61	0.922	CLEAR	11.73	6.44	-0.9		
:20	"	"	"	13.17	0.957	"	6.74	6.45	-13.7		
:25	"	"	"	13.75	0.963	"	6.01	6.46	-21.6		
:30	"	"	"	13.87	0.994	"	5.93	6.46	-57.6		
:35	"	"	"	14.02	1.053	"	5.21	6.45	-82.1		
:40	"	"	"	14.16	1.053	"	2.07	6.46	-87.4		
:45	300	21.85	0.02	14.20	1.056	CLEAR	1.81	6.45	-91.9		

Sample ID: WG-013020-NL-014

Sample Time: 16:00

Notes:

VOCs

- The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s = \pi \cdot (r^2) \cdot L$ in mL, where r ($r = D/2$) and L are in cm. For Imperial units, $V_s = \pi \cdot (r^2) \cdot L \cdot (2.54)^3$, where r and L are in inches
- The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 500 mL/min.
- Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged = V_p/V_s .
- For conductivity, the average value of three readings < 1 mS/cm ± 0.005 mS/cm or where conductivity > 1 mS/cm ± 0.01 mS/cm.

Monitoring Well Record for Low-Flow Purging
(Form SP-09)

Project Data:

Project Name: RACER TRAIL FAX
Ref. No.: 012554A

Date: 1-30-2020
Personnel: N. LASKALES

Monitoring Well Data:

Well No.: MW-124B
Vapour PID (ppm): -
Measurement Point: T.O.C.
Constructed Well Depth (m/ft): -
Measured Well Depth (m/ft): 61.74
Depth of Sediment (m/ft): -

Saturated Screen Length (m/ft): unknown
Depth to Pump Intake (m/ft)⁽¹⁾: ~55'
Well Diameter, D (cm/in): 2"
Well Screen Volume, V_s (L)⁽²⁾: -
Initial Depth to Water (m/ft): 21.75

Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level ⁽³⁾ (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, Vp (L)	No. of Well Screen Volumes Purged ⁽⁴⁾
Precision Required ⁽⁵⁾ :				±3 %	±0.005 or 0.01 ⁽⁶⁾	±10 %	±10 %	±0.1 Units	±10 mV		
16:40	300	21.77	0.02	13.34	0.906	CLOUDY	4.50	7.20	-112.0		
45	"	"	"	13.41	0.951	"	3.29	7.07	-115.1		
50	"	"	"	13.69	1.111	CLEARING	2.22	7.00	-117.9		
55	"	"	"	14.60	1.127	"	1.89	6.85	-118.2		
17:00	"	"	"	14.73	1.141	CLEAR	1.73	6.60	-119.7		
05	"	"	"	15.07	1.146	"	1.28	6.54	-120.6		
10	300	21.77	0.02	15.29	1.157	CLEAR	0.72	6.60	-122.9		

Sample ID: WG-013020-NL-015

Sample Time: 17:20

Notes:

VOCs

- The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s = \pi(r^2)L$ in mL, where r ($r=D/2$) and L are in cm. For Imperial units, $V_s = \pi(r^2)L \cdot (2.54)^3$, where r and L are in inches.
- The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 500 mL/min.
- Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged = V_p/V_s .
- For conductivity, the average value of three readings <1 mS/cm ± 0.005 mS/cm or where conductivity >1 mS/cm ± 0.01 mS/cm.

Monitoring Well Record for Low-Flow Purging
(Form SP-09)

Project Data:

Project Name: RACER FAIRFAX
Ref. No.: 012559A

Date: 1-31-20
Personnel: N. LASKARIS

Monitoring Well Data:

Well No.: MW-146C
Vapour PID (ppm): -
Measurement Point: T.O.C.
Constructed Well Depth (m/ft): -
Measured Well Depth (m/ft): 94.01
Depth of Sediment (m/ft): -

Saturated Screen Length (m/ft): unknown
Depth to Pump Intake (m/ft)⁽¹⁾: -90'
Well Diameter, D (cm/in): 2"
Well Screen Volume, V_s (L)⁽²⁾: -
Initial Depth to Water (m/ft): 18.79

Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level ⁽³⁾ (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, V _p (L)	No. of Well Screen Volumes Purged ⁽⁴⁾
Precision Required ⁽⁵⁾ :				±3 %	±0.005 or 0.01 ⁽⁶⁾	±10 %	±10 %	±0.1 Units	±10 mV		
13:00	275	18.83	0.04	12.39	0.636	Clear	4.25	7.18	8.9		
05	"	"	"	12.65	0.639	"	2.74	7.17	-3.7		
10	"	"	"	13.02	0.644	"	2.33	7.24	-6.0		
15	"	"	"	12.02	0.649	"	2.13	7.21	-5.9		
20	275	18.83	0.04	13.08	0.652	Clear	2.10	7.21	-5.4		

Sample ID:

NG-013120-NL-017

Sample Time:

1330

Notes:

VOCs

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- (2) The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s = \pi \cdot (r^2) \cdot L$ in mL, where r ($r=D/2$) and L are in cm. For Imperial units, $V_s = \pi \cdot (r^2) \cdot L \cdot (2.54)^3$, where r and L are in inches
- (3) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 500 mL/min.
- (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged = V_p/V_s .
- (5) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

Monitoring Well Record for Low-Flow Purging
(Form SP-09)

Project Data:

Project Name: Raccoon Ferry
Ref. No.: 0125594

Date: 1-31-2020
Personnel: N. LABAKES

Monitoring Well Data:

Well No.: NW-146B
Vapour PID (ppm): -
Measurement Point: T.O.C.
Constructed Well Depth (m/ft): -
Measured Well Depth (m/ft): 62.31
Depth of Sediment (m/ft): -

Saturated Screen Length (m/ft): unknown
Depth to Pump Intake (m/ft)⁽¹⁾: 1.59'
Well Diameter, D (cm/in): 2"
Well Screen Volume, V_s (L)⁽²⁾: -
Initial Depth to Water (m/ft): 18.45

Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level ⁽³⁾ (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, V _p (L)	No. of Well Screen Volumes Purged ⁽⁴⁾
Precision Required ⁽⁵⁾ :				±3 %	±0.005 or 0.01 ⁽⁶⁾	±10 %	±10 %	±0.1 Units	±10 mV		
13:55	225	18.47	0.02	13.04	0.952	clear	5.63	6.79	-5.1		
14:00	"	"	"	12.36	1.028	"	2.99	6.59	-50.8		
14:05	"	"	"	12.05	1.035	"	1.41	6.56	-83.0		
14:10	"	"	"	12.44	1.042	"	1.14	6.58	-88.5		
14:15	"	"	"	12.74	1.054	"	.93	6.60	-89.2		
14:20	"	"	"	12.81	1.057	"	.93	6.58	-90.9		
14:25	225	18.47	0.02	12.84	1.062	clear	.90	6.58	-93.6		

Sample ID:

W6-013120-NL-018

Sample Time:

14:35

Notes:

VOCs

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- (2) The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s = \pi \cdot (r^2) \cdot L$ in mL, where $r = (D/2)$ and L are in cm.
For Imperial units, $V_s = \pi \cdot (r^2) \cdot L \cdot (2.54)^3$, where r and L are in inches
- (3) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 500 mL/min.
- (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged = V_p/V_s .
- (5) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

Monitoring Well Record for Low-Flow Purging
(Form SP-09)

Project Data:

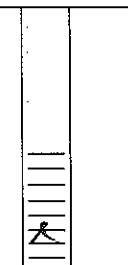
Project Name: Rgeer
Ref. No.: 012559A

Date: 1/31/20
Personnel: C. Murphy
N. Castanos

Monitoring Well Data:

Well No.: TWM-146
Vapour PID (ppm): -
Measurement Point: T.O.C.
Constructed Well Depth (m/ft): -
Measured Well Depth (m/ft): 3.24
Depth of Sediment (m/ft): -

Saturated Screen Length (m/ft): Unknown
Depth to Pump Intake (m/ft)⁽¹⁾: ~27'
Well Diameter, D (cm/in): 2"
Well Screen Volume, V_s (L)⁽²⁾: -
Initial Depth to Water (m/ft): 18.17



Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level ⁽³⁾ (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, V _p (L)	No. of Well Screen Volumes Purged ⁽⁴⁾
Precision Required ⁽⁵⁾ :				±3 %	±0.005 or 0.01 ⁽⁶⁾	±10 %	±10 %	±0.1 Units	±10 mV		
1445	225	18.17	0.00	13.72	.062	Clear	1.60	6.68	-101.8		
1450	"	"	"	14.52	.755	"	.72	6.47	-92.0		
1455	"	"	"	14.59	.757	"	.71	6.45	-92.2		
1500	225	18.17	0.00	14.60	.758	Clear	.69	6.45	-96.4		

Sample ID:

W6-013120-NL-019

Sample Time:

1510

Notes:

Sup * W6-013120-NL-020

* 1525

- The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s = \pi \cdot (r^2) \cdot L$ in mL, where $r = (D/2)$ and L are in cm. For Imperial units, $V_s = \pi \cdot (r^2) \cdot L \cdot (2.54)^3$, where r and L are in inches
- The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 500 mL/min.
- Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged= V_p/V_s.
- For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

(Fall)
VOCs
TPH LPH/MPH/APH
8270 naphthalene

Monitoring Well Record for Low-Flow Purging
(Form SP-09)

Project Data:

Project Name: Races
Ref. No.: 012559A

Date: 1/31/20
Personnel: S. Murphy
N. Laskaris

Monitoring Well Data:

Well No.: MW 207-C
Vapour PID (ppm): -
Measurement Point: T.O.C.
Constructed Well Depth (m/ft): -
Measured Well Depth (m/ft): 92.44
Depth of Sediment (m/ft): -

Saturated Screen Length (m/ft): 10'
Depth to Pump Intake (m/ft)⁽¹⁾: ~89'
Well Diameter, D (cm/in): 2"
Well Screen Volume, V_s (L)⁽²⁾: -
Initial Depth to Water (m/ft): 18.37
TD - 92.44

Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level ⁽³⁾ (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, V _p (L)	No. of Well Screen Volumes Purged ⁽⁴⁾
Precision Required ⁽⁵⁾ :				±3 %	±0.005 or 0.01 ⁽⁶⁾	±10 %	±10 %	±0.1 Units	±10 mV		
1550	300	18.39	0.02	13.79	.848	CLOUDY	2.83	6.77	28.4		
1555	"	"	"	14.46	.886	SL. CLOUDY	.96	6.68	-91.8		
1600	"	"	"	13.71	.869	CLEARING	.81	6.68	-98.0		
1605	"	"	"	13.84	.865	CLEAR	.77	6.68	-100.9		
1610	300	18.39	0.02	13.68	.864	CLEAR	.73	6.68	-105.9		

Sample ID:

WG-013120-NL-021

Sample Time:

1620

Notes:

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- (2) The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s = \pi * (r^2) * L$ in mL, where $r = (D/2)$ and L are in cm.
For Imperial units, $V_s = \pi * (r^2) * L * (2.54)^3$, where r and L are in inches
- (3) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 500 mL/min.
- (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged = V_p/V_s .
- (5) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

Monitoring Well Record for Low-Flow Purging
(Form SP-09)

Project Data:

Project Name: RACER FAIRFAX
Ref. No.: 0125574

Date: 1-31-2020
Personnel: N. LASKARIS

Monitoring Well Data:

Well No.: NW-207B⁷
Vapour PID (ppm):
Measurement Point: T.O.C.
Constructed Well Depth (m/ft):
Measured Well Depth (m/ft): 62.16
Depth of Sediment (m/ft):

Saturated Screen Length (m/ft): 10'
Depth to Pump Intake (m/ft)⁽¹⁾: -58'
Well Diameter, D (cm/in): 2"
Well Screen Volume, V_s (L)⁽²⁾:
Initial Depth to Water (m/ft): 18.38

Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level ⁽³⁾ (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, V _p (L)	No. of Well Screen Volumes Purged ⁽⁴⁾
Precision Required ⁽⁵⁾ :				±3 %	±0.005 or 0.01 ⁽⁵⁾	±10 %	±10 %	±0.1 Units	±10 mV		
16:25	300	18.39	0.01	13.11	0.940	CLOUDY	2.85	7.56	-79.6		
30	"	"	"	14.52	1.005	SLIGHTLY	0.90	6.51	-57.3		
35	"	"	"	14.57	1.011	CLEAR	0.75	6.49	-74.7		
40	"	"	"	14.73	1.008	"	0.67	6.50	-85.2		
45	"	"	"	14.81	1.031	"	0.53	6.50	-105.4		
50	"	"	"	14.79	1.033	CLEAR	0.47	6.52	-113.6		
55	200	18.39	0.01	14.83	1.034	CLEAR	0.40	6.52	-114.5		

Sample ID:

NG-013120-NL-022

Sample Time:

17:05

Notes:

- VOLs
- The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
 - The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s = \pi \cdot (r^2) \cdot L$ in mL, where r (r=D/2) and L are in cm. For Imperial units, $V_s = \pi \cdot (r^2) \cdot L \cdot (2.54)^3$, where r and L are in inches
 - The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 500 mL/min.
 - Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged= V_p/V_s.
 - For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

Monitoring Well Record for Low-Flow Purging
(Form SP-09)

Project Data:

Project Name: Racer Fairfax
Ref. No.: 012559A

Date: 2-3-2020
Personnel: N. LASKARES

Monitoring Well Data:

Well No.: MW-205B
Vapour PID (ppm): _____
Measurement Point: T.O.C.
Constructed Well Depth (m/ft): _____
Measured Well Depth (m/ft): 59.73
Depth of Sediment (m/ft): _____

Saturated Screen Length (m/ft): 10'
Depth to Pump Intake (m/ft)⁽¹⁾: 53'
Well Diameter, D (cm/in): 2"
Well Screen Volume, V_s (L)⁽²⁾: _____
Initial Depth to Water (m/ft): 16.55

Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level ⁽³⁾ (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, V _p (L)	No. of Well Screen Volumes Purged ⁽⁴⁾
Precision Required ⁽⁵⁾ :				±3 %	±0.005 or 0.01 ⁽⁶⁾	±10 %	±10 %	±0.1 Units	±10 mV		
13:00	300	16.57	0.02	17.20	0.982	CLOUDY	2.35	6.79	-105.1		
:05	"	"	"	17.23	0.980	"	1.39	6.72	-128.4		
:10	"	16.58	0.03	17.16	0.990 ^{0.972}	CLEARING	0.94	6.69	-138.6		
:15	"	"	"	16.90	0.976	"	0.61	6.68	-134.9		
:20	"	16.57	0.02	17.17	0.981	CLEAR	0.57	6.68	-138.3		
:25	300	16.57	0.02	17.15	0.982	CLEAR	0.49	6.67	-137.5		

Sample ID: WQ-020320-NL-024

Sample Time: 13:35

Notes:

VOCs

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- (2) The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s = \pi * (r^2) * L$ in mL, where $r = (D/2)$ and L are in cm. For Imperial units, $V_s = \pi * (r^2) * L * (2.54)^3$, where r and L are in inches
- (3) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 500 mL/min.
- (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged= V_p/V_s.
- (5) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

Monitoring Well Record for Low-Flow Purging
(Form SP-09)

Project Data:

Project Name: RACER FAIRFAX
Ref. No.: 012559A

Date: 2-3-2020
Personnel: N. LASKARES

Monitoring Well Data:

Well No.: MW-205A
Vapour PID (ppm): -
Measurement Point: T.O.C.
Constructed Well Depth (m/ft): -
Measured Well Depth (m/ft): 26.98
Depth of Sediment (m/ft): -

Saturated Screen Length (m/ft): 10'
Depth to Pump Intake (m/ft)⁽¹⁾: 22'
Well Diameter, D (cm/in): 2"
Well Screen Volume, V_s (L)⁽²⁾: -
Initial Depth to Water (m/ft): 16.38

Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level ⁽³⁾ (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, V _p (L)	No. of Well Screen Volumes Purged ⁽⁴⁾
Precision Required ⁽⁵⁾ :				±3 %	±0.005 or 0.01 ⁽⁶⁾	±10 %	±10 %	±0.1 Units	±10 mV		
14:05	275	16.40	0.02	17.32	1.699	SL. CLOUDY	2.35	6.10	-86.3		
10	"	"	"	17.85	1.777	"	1.40	6.13	-64.9		
15	"	16.41	0.03	17.87	1.773	CLEARING	1.25	6.26	-41.2		
20	"	"	"	17.91	1.786	"	1.20	6.28	-37.5		
25	"	"	"	17.92	1.795	CLEAR	1.15	5.49	-31.7		
30	"	"	"	17.93	1.799	"	1.09	5.69	-27.3		
35	"	16.42	0.04	17.92	1.799	"	1.09	5.74	-26.4		
40	"	"	"	17.91	1.796	"	1.08	5.80	-24.1		
45	275	16.42	0.04	17.91	1.795	CLEAR	1.07	5.85	-22.9		

Sample ID:

WG-020320-NL-025

Sample Time:

14:55

Notes:

VOCs

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- (2) The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s = \pi \cdot (r^2) \cdot L$ in mL, where r ($r=D/2$) and L are in cm. For Imperial units, $V_s = \pi \cdot (r^2) \cdot L \cdot (2.54)^3$, where r and L are in inches
- (3) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 500 mL/min.
- (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged = V_p/V_s .
- (5) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

Monitoring Well Record for Low-Flow Purging
(Form SP-09)

Project Data:

Project Name: RACE FAIRFAX
Ref. No.: 025594

Date: 2-3-2020
Personnel: N. LASKARIS

Monitoring Well Data:

Well No.: MW-200
Vapour PID (ppm):
Measurement Point: T.O.C.
Constructed Well Depth (m/ft):
Measured Well Depth (m/ft): 26.97
Depth of Sediment (m/ft):

Saturated Screen Length (m/ft): 10'
Depth to Pump Intake (m/ft)⁽¹⁾: 123'
Well Diameter, D (cm/in): 2"
Well Screen Volume, V_s (L)⁽²⁾:
Initial Depth to Water (m/ft): 17.48

Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level ⁽³⁾ (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, Vp (L)	No. of Well Screen Volumes Purged ⁽⁴⁾
Precision Required ⁽⁵⁾ :				±3 %	±0.005 or 0.01 ⁽⁶⁾	±10 %	±10 %	±0.1 Units	±10 mV		
15:10	300	17.49	0.01	15.08	1.353	SL. CLOUDY	3.76	5.60	-9.6		
15	"	17.50	0.02	15.83	1.370	CLEARING	0.80	6.10	-84.3		
20	"	"	"	15.85	1.373	"	0.65	6.20	-91.6		
25	"	17.49	0.01	15.83	1.371	CLEAR	0.56	6.25	-95.3		
30	"	"	"	15.86	1.370	"	0.54	6.24	-95.7		
35	300	17.49	0.01	15.87	1.369	CLEAR	0.52	6.25	-96.9		

Sample ID:

WEG-020320-NL-026
VOLs

Sample Time:

15:45

Notes:

- The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s = \pi \cdot (r^2) \cdot L$ in mL, where $r = (D/2)$ and L are in cm. For Imperial units, $V_s = \pi \cdot (r^2) \cdot L \cdot (2.54)^3$, where r and L are in inches
- The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 500 mL/min.
- Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged = V_p/V_s .
- For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

Monitoring Well Record for Low-Flow Purging
(Form SP-09)

Project Data:

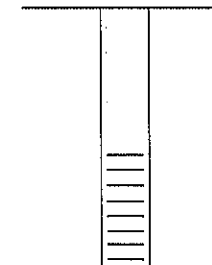
Project Name: RACER FAIRFAX
Ref. No.: 012559A

Date: 2-3-2020
Personnel: N. LARSEN

Monitoring Well Data:

Well No.: MW-203202
Vapour PID (ppm): -
Measurement Point: T.O.C.
Constructed Well Depth (m/ft): -
Measured Well Depth (m/ft): 27.21
Depth of Sediment (m/ft): -

Saturated Screen Length (m/ft): 10'
Depth to Pump Intake (m/ft)⁽¹⁾: -25'
Well Diameter, D (cm/in): 2"
Well Screen Volume, V_s (L)⁽²⁾: -
Initial Depth to Water (m/ft): 16.07



Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level ⁽³⁾ (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, V _p (L)	No. of Well Screen Volumes Purged ⁽⁴⁾
Precision Required ⁽⁵⁾ :				±3 %	±0.005 or 0.01 ⁽⁶⁾	±10 %	±10 %	±0.1 Units	±10 mV		
16:00	300	16.09	0.02	16.19	1.235	CLOUDY	8.91	6.30	-17.9		
:05	"	"	"	16.35	1.233	CLEARING	2.15	6.13	-6.6		
:10	"	"	"	16.14	1.199	"	1.35	6.17	-5.7		
:15	"	"	"	16.25	1.210	CLEAR	1.10	6.18	-7.6		
:20	"	"	"	16.45	1.221	"	0.96	6.19	-12.5		
:25	300	16.09	0.02	16.44	1.227	CLEAR	0.93	6.19	-13.5		

Sample ID:

WGA-020320-NL-027

Sample Time:

16:35

Notes:

VOCs

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- (2) The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s = \pi \cdot (r^2) \cdot L$ in mL, where $r = (D/2)$ and L are in cm. For Imperial units, $V_s = \pi \cdot (r^2) \cdot L \cdot (2.54)^3$, where r and L are in inches
- (3) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 500 mL/min.
- (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged = V_p/V_s .
- (5) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

Monitoring Well Record for Low-Flow Purging
(Form SP-09)

Project Data:

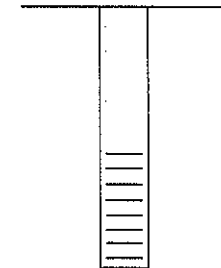
Project Name: 012559A ←
Ref. No.: RAGER FAIRWAY ←

Date: 2-3-2020
Personnel: N. LASKAKIS

Monitoring Well Data:

Well No.: MW-110A
Vapour PID (ppm): -
Measurement Point: T.O.C.
Constructed Well Depth (m/ft): -
Measured Well Depth (m/ft): 36.50
Depth of Sediment (m/ft): -

Saturated Screen Length (m/ft): 10'
Depth to Pump Intake (m/ft)⁽¹⁾: -30'
Well Diameter, D (cm/in): 2" (sewed. 80)
Well Screen Volume, V_s (L)⁽²⁾: -
Initial Depth to Water (m/ft): 16.29



Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level ⁽³⁾ (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, V _p (L)	No. of Well Screen Volumes Purged ⁽⁴⁾
Precision Required ⁽⁵⁾ :				±3 %	±0.005 or 0.01 ⁽⁶⁾	±10 %	±10 %	±0.1 Units	±10 mV		
16:55	250	16.29	0.00	15.04	0.775	CLEAR	10.05	6.54	3.4		
17:00	"	16.30	0.01	15.33	0.792	"	5.75	6.40	6.7		
05	"	"	"	15.65	0.760	"	5.50	6.38	8.5		
10	"	16.31	0.02	15.81	0.750	"	5.32	6.36	11.3		
15	"	16.32	0.03	15.87	0.747	"	5.11	6.36	13.3		
20	250	16.33	0.04	15.95	0.744	CLEAR	5.02	6.36	15.8		

Sample ID: WGA-020320-NL-00029
Notes: 028 VOCs

Sample Time: 17:30

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- (2) The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s = \pi * (r^2) * L$ in mL, where r ($r = D/2$) and L are in cm.
For Imperial units, $V_s = \pi * (r^2) * L * (2.54)^3$, where r and L are in inches
- (3) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 500 mL/min.
- (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged = V_p/V_s .
- (5) For conductivity, the average value of three readings < 1 mS/cm ± 0.005 mS/cm or where conductivity > 1 mS/cm ± 0.01 mS/cm.

Appendix D

Monitoring Well Logs



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: RACER: Fairfax I Plant

HOLE DESIGNATION: MW200

PROJECT NUMBER: 012559A

DATE COMPLETED: September 12, 2019

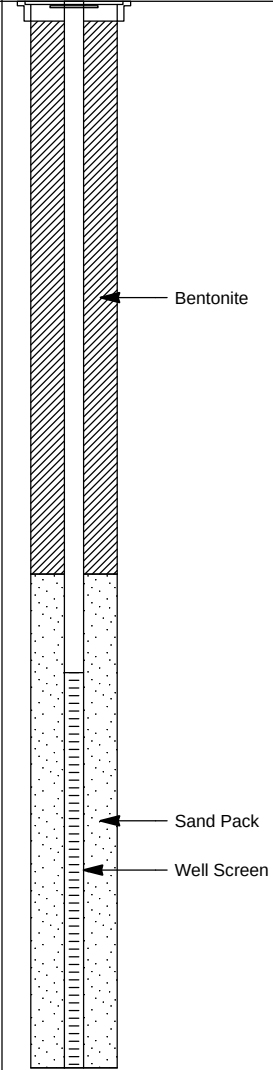
CLIENT: RACER Trust

DRILLING METHOD: HSA

LOCATION: 100 Kindelberger Road, Kansas City, KS

FIELD PERSONNEL: N. Laskares

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE				
				NUMBER	INTERVAL	REC (ft)	N' VALUE	
2	No Recovery							
4	CL-SANDY CLAY, with silt, no plasticity, blocky, soft, dark brown, dry	2.50		001	0.8			
6	CL-CLAY, with silt, moderately plastic, blocky, soft, brown-grey, dry	5.00		002	0.8			
8	CL-SILTY CLAY, with trace fine sand, blocky, fine laminations, soft, no plasticity, grey-brown, damp	7.50		003	1.0			
10	CL-SILTY SANDY CLAY, no plasticity, grey, damp	10.00		004	1.2			
12	CL-SILTY CLAY, with fine sand, soft, homogeneous, no plasticity, grey, damp	12.50						
14	MH-SANDY SILT, trace clay, fine to medium grained, loose, low cohesive, red-brown and grey layers, wet	13.00						
16	SM-SAND, fine to medium grained, trace silt, micaceous, grey, wet	14.00		005	1.5			
18								
20								
22								
24								
26								
28	END OF BOREHOLE @ 27.0ft BGS	27.00						
30								
32								
34								



WELL DETAILS
 Screened interval:
 17.00 to 27.00ft BGS
 Length: 10ft
 Diameter: 2in
 Slot Size: #10
 Material: PVC
 Sand Pack:
 14.50 to 27.00ft BGS

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 012559.GPJ CRA_CORP.GDT 10/23/19



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: RACER: Fairfax I Plant

HOLE DESIGNATION: MW201

PROJECT NUMBER: 012559A

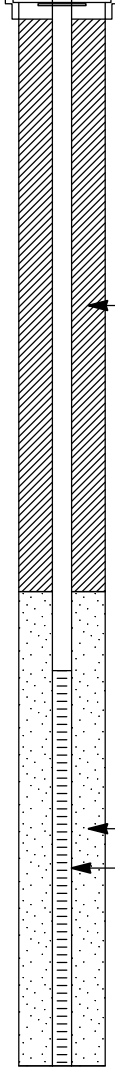
DATE COMPLETED: September 11, 2019

CLIENT: RACER Trust

DRILLING METHOD: HSA

LOCATION: 100 Kindelberger Road, Kansas City, KS

FIELD PERSONNEL: N. Laskares

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE				
				NUMBER	INTERVAL	REC (ft)	N' VALUE	PID (ppm)
2	CL-SANDY CLAY, with gravel		 Bentonite	001		0.3		0.0
4	SANDY SILTY CLAY, non plastic, loose, brown and tan, dry	2.50		002		0.8		0.1
6	CLAYEY SAND, low cohesion, homogeneous, fine grained, light brown, dry	5.00		003		1.2		0.3
8	CL-SANDY CLAY, medium to fine grained sand, non plastic, soft, dark brown, damp	7.50		004		1.0		1.9
10	CL-SANDY CLAY, fine grained sand, fine laminations, non plastic, soft, brown, damp	10.00		005		1.8		2.7
14	SM-SAND, fine to medium grained, homogeneous, brown, wet - some micaceous silt at 15.0ft BGS	13.00		006		0.8		13.9
16				007				-
20	SAND, medium to fine grained, subangular to sub-rounded, some mica flecks, homogeneous, grey-white, wet	20.00		008				-
22				009				-
26								
28	END OF BOREHOLE @ 27.0ft BGS	27.00						
30								
32								
34								

WELL DETAILS

Screened interval:

17.00 to 27.00ft BGS

Length: 10ft

Diameter: 2in

Slot Size: #10

Material: PVC

Sand Pack:

15.00 to 27.00ft BGS

Material: Silica

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 012559.GPJ CRA_CORP.GDT 10/23/19



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: RACER: Fairfax I Plant

PROJECT NUMBER: 012559A

CLIENT: RACER Trust

LOCATION: 100 Kindelberger Road, Kansas City, KS

HOLE DESIGNATION: MW202

DATE COMPLETED: September 19, 2019

DRILLING METHOD: HSA

FIELD PERSONNEL: N. Laskares

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE				
				NUMBER	INTERVAL	REC (ft)	'N' VALUE	
2	FILL, gravel, clay, roots, sand			001		0.5		
4	SM-SILTY SAND, fine grained, homogeneous, no cohesion, loose, grey-brown, dry	2.50		002		1.8		
6	CL-SILTY CLAY, blocky, soft, no plasticity, brown, dry	4.00		003		1.8		
8	CL-SILTY CLAY, with fine sand, blocky, soft, no plasticity, brown, dry	5.00		004		1.5		
10	SM-SILTY SAND, fine grained, some clay, homogeneous, no cohesion, loose, grey-brown, dry	5.50		005		1.8		
12	CL-SILTY CLAY, blocky, soft, no plasticity, brown, moist	7.50		006		0.8		
14	SW-SAND, fine to medium grained, homogeneous, no cohesion, loose, dark black stained	9.00						
16	SW-SAND, medium grained, homogeneous, no cohesion, loose, wet	10.00						
18	SP-SAND, with gravel, fine to coarse grained, very loose, no cohesion, brown-grey, orange	12.50						
20								
22								
24								
26								
28	END OF BOREHOLE @ 27.0ft BGS	27.00						
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 012559.GPJ CRA_CORP.GDT 10/23/19



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: RACER: Fairfax I Plant

PROJECT NUMBER: 012559A

CLIENT: RACER Trust

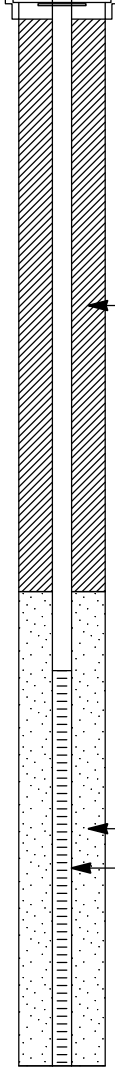
LOCATION: 100 Kindelberger Road, Kansas City, KS

HOLE DESIGNATION: MW203

DATE COMPLETED: September 13, 2019

DRILLING METHOD: HSA

FIELD PERSONNEL: N. Laskares

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE				
				NUMBER	INTERVAL	REC (ft)	N' VALUE	PID (ppm)
2	CL-CLAY, with silt, sand and trace angular gravel, roots, non plastic, blocky, dark brown, dry		 Bentonite	001		0.2		0.3
4	FILL, with brick and concrete, cobbles, dry	2.50		002		0.4		0.7
6	CL-CLAY, with silt and fine sand, some angular concrete, gravel, soft, low plasticity, blocky, dark brown, dry - large steel and concrete pieces at 5.5ft BGS	5.00		003		0.5		0.6
8	FILL, gravel/soil	7.50		004		0.0		
10	CL-SILTY CLAY, soft, non plastic, layered, grey-brown, damp	10.00		005		0.8		1.9
12	MH-SILTY SAND, fine to medium grained, micaceous, loose, homogeneous, dark grey, wet	12.50		006		1.5		3.5
14								
16								
18								
20								
22								
24								
26								
28	END OF BOREHOLE @ 27.0ft BGS	27.00						
30								
32								
34								

WELL DETAILS

Screened interval:

17.00 to 27.00ft BGS

Length: 10ft

Diameter: 2in

Slot Size: #10

Material: PVC

Sand Pack:

15.00 to 27.00ft BGS

Material: Silica

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 012559.GPJ CRA_CORP.GDT 10/23/19



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: RACER: Fairfax I Plant

PROJECT NUMBER: 012559A

CLIENT: RACER Trust

LOCATION: 100 Kindelberger Road, Kansas City, KS

HOLE DESIGNATION: MW204A

DATE COMPLETED: September 12, 2019

DRILLING METHOD: HSA

FIELD PERSONNEL: N. Laskares

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE				
				NUMBER	INTERVAL	REC (ft)	N' VALUE	
2	FILL							
4	CL-CLAY, with sand, silt, firm, no plasticity, blocky, brown, dry	2.50		001	1.0			
6				002	0.2			
8	CL-CLAY, with fine sand and silt, trace fine gravel, soft, no plasticity, blocky, brown, dry	7.50		003	1.8			
10	CL-CLAY, with sand and silt, trace gravel, no plasticity, blocky, soft, brown, dry	10.00		004	0.8			
12				005	1.0			
14	SC-SAND, with clay, soft, homogeneous, cohesive, grey-brown, wet	12.50						
16								
18								
20								
22								
24								
26								
28	END OF BOREHOLE @ 27.0ft BGS	27.00						
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 012559.GPJ CRA_CORP.GDT 10/23/19



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 2

PROJECT NAME: RACER: Fairfax I Plant

PROJECT NUMBER: 012559A

CLIENT: RACER Trust

LOCATION: 100 Kindelberger Road, Kansas City, KS

HOLE DESIGNATION: MW204B

DATE COMPLETED: September 13, 2019

DRILLING METHOD: HSA

FIELD PERSONNEL: N. Laskares

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE				
				NUMBER	INTERVAL	REC (ft)	N' VALUE	PID (ppm)
2	FILL, gravelly, sandy, silty clay, dry			001		0.3		1.2
4	CL-SANDY CLAY, some medium gravel, angular, dry	2.50		002		0.8		0.9
6				003		0.5		0.2
8				004		0.4		0.7
10	CL-CLAY, with sand and silt, non plastic, soft, blocky, brown, dry	10.00		005		1.0		1.9
12	SC-SAND, with clay, trace silt, low cohesion, homogeneous, micaceous, grey, wet	12.50		006		1.5		2.8
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 012559.GPJ CRA_CORP.GDT 10/23/19



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 2 of 2

PROJECT NAME: RACER: Fairfax I Plant

PROJECT NUMBER: 012559A

CLIENT: RACER Trust

LOCATION: 100 Kindelberger Road, Kansas City, KS

HOLE DESIGNATION: MW204B

DATE COMPLETED: September 13, 2019

DRILLING METHOD: HSA

FIELD PERSONNEL: N. Laskares

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE				
				NUMBER	INTERVAL	REC (ft)	N' VALUE	PID (ppm)
36								
38								
40								
42								
44								
46								
48								
50								
52								
54								
56								
58								
60	END OF BOREHOLE @ 60.0ft BGS	60.00						
62								
64								
66								
68								

WELL DETAILS

Screened interval:

50.00 to 60.00ft BGS

Length: 10ft

Diameter: 2in

Slot Size: #10

Material: PVC

Sand Pack:

48.00 to 60.00ft BGS

Material: Silica

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 012559.GPJ CRA_CORP.GDT 10/23/19

PROJECT NAME: RACER: Fairfax I Plant

HOLE DESIGNATION: MW205A

PROJECT NUMBER: 012559A

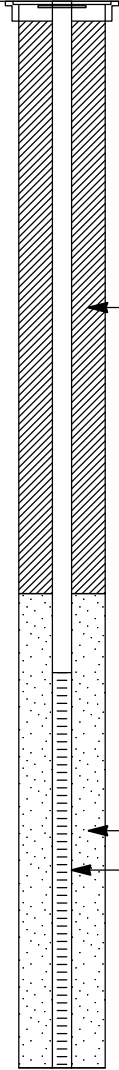
DATE COMPLETED: September 18, 2019

CLIENT: RACER Trust

DRILLING METHOD: HSA

LOCATION: 100 Kindelberger Road, Kansas City, KS

FIELD PERSONNEL: N. Laskares

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE				
				NUMBER	INTERVAL	REC (ft)	N' VALUE	PID (ppm)
2	CL-CLAY, with silt, fine to medium sand, trace fine sub-angular gravel, firm, no plastic, blocky, brown, dry		 Bentonite	001		1.0		0.3
4	CL-CLAY, with silt and fine sand, soft, non plastic, blocky, dark brown, dry	2.50		002		1.8		1.2
6	SC-SAND, wiht trace clay, fine grained, low ccohesion, laminations, tan, dry	5.00		003		1.5		0.7
8	CL-CLAYEY SILT, fine sand, soft, layered, grey-brown, damp - wet at 11.5ft BGS - wet at 12.5ft BGS	7.50		004		2.0		2.7
10		005			1.5			
12		006			0.5			
14								
16								
18								
20								
22								
24								
26								
28	END OF BOREHOLE @ 27.0ft BGS	27.00	<u>WELL DETAILS</u> Screened interval: 17.00 to 27.00ft BGS Length: 10ft Diameter: 2in Slot Size: #10 Material: PVC Sand Pack: 15.00 to 27.00ft BGS Material: Silica					
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 2

PROJECT NAME: RACER: Fairfax I Plant

HOLE DESIGNATION: MW205B

PROJECT NUMBER: 012559A

DATE COMPLETED: September 18, 2019

CLIENT: RACER Trust

DRILLING METHOD: HSA

LOCATION: 100 Kindelberger Road, Kansas City, KS

FIELD PERSONNEL: N. Laskares

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE				
				NUMBER	INTERVAL	REC (ft)	N' VALUE	
2	CL-CLAY, with silt, fine to medium sand, trace fine sub-angular gravel, firm, non plastic, blocky, brown, dry							
4	CL-CLAY, with silty fine sand, soft, non plastic, blocky, dark brown, dry	2.50						
6	SC-SAND, fine grained, with trace clay, low cohesion, laminated, tan, dry	5.00						
8	CL-CLAY, with silt and fine sand, soft, layered, grey-brown, damp	7.50						
10								
12	- damp at 11.5ft BGS - wet at 12.5ft BGS							
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 012559.GPJ CRA_CORP.GDT 10/23/19



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 2 of 2

PROJECT NAME: RACER: Fairfax I Plant

PROJECT NUMBER: 012559A

CLIENT: RACER Trust

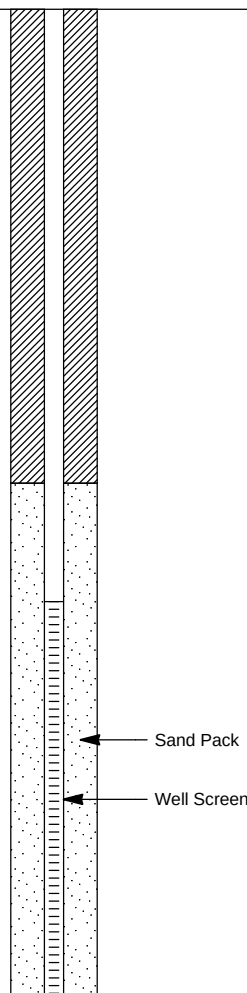
LOCATION: 100 Kindelberger Road, Kansas City, KS

HOLE DESIGNATION: MW205B

DATE COMPLETED: September 18, 2019

DRILLING METHOD: HSA

FIELD PERSONNEL: N. Laskares

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE				
				NUMBER	INTERVAL	REC (ft)	'N' VALUE	
36								
38								
40								
42								
44								
46								
48								
50								
52								
54								
56								
58								
60	END OF BOREHOLE @ 60.0ft BGS	60.00						
62								
64								
66								
68								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 012559.GPJ CRA_CORP.GDT 10/23/19



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: RACER: Fairfax I Plant

HOLE DESIGNATION: MW206A

PROJECT NUMBER: 012559A

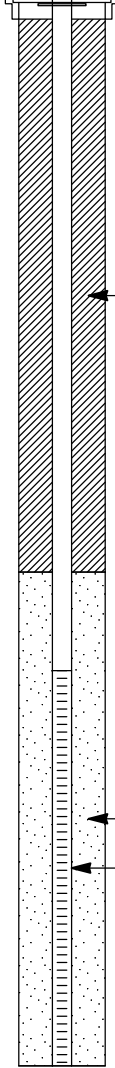
DATE COMPLETED: September 11, 2019

CLIENT: RACER Trust

DRILLING METHOD: HSA

LOCATION: 100 Kindelberger Road, Kansas City, KS

FIELD PERSONNEL: N. Laskares

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE				
				NUMBER	INTERVAL	REC (ft)	N' VALUE	PID (ppm)
2	TOPSOIL, with gravel	2.50	 Bentonite	001		0.3		0.0
4	CL-CLAY, with silt, trace fine sand, firm, blocky, non plastic, brown, dry	5.00		002		0.5		0.9
6	No recovery	7.50		003		0.0		-
8	CL-SILTY CLAY, with trace fine sand, soft, non plastic, slightly laminated, dark brown/grey, damp	10.00		004		1.5		0.9
10	CL-SANDY CLAY, medium to fine grained, soft, homogeneous, non plastic, brown, wet	12.50		005		1.5		2.1
12	SM-SILTY SAND, fine grained, homogeneous, non cohesive, brown, wet	27.00		006		0.3		-
14								
16								
18								
20								
22								
24								
26								
28	END OF BOREHOLE @ 27.0ft BGS							
30								
32								
34								

WELL DETAILS

Screened interval:

17.00 to 27.00ft BGS

Length: 10ft

Diameter: 2in

Slot Size: #10

Material: PVC

Sand Pack:

14.50 to 27.00ft BGS

Material: Silica

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 012559.GPJ CRA_CORP.GDT 10/23/19



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 2

PROJECT NAME: RACER: Fairfax I Plant

PROJECT NUMBER: 012559A

CLIENT: RACER Trust

LOCATION: 100 Kindelberger Road, Kansas City, KS

HOLE DESIGNATION: MW206B

DATE COMPLETED: September 16, 2019

DRILLING METHOD: HSA

FIELD PERSONNEL: N. Laskares

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE				
				NUMBER	INTERVAL	REC (ft)	N' VALUE	PID (ppm)
2	FILL, gravel, sandy, silty, clay, dry			001		0.3		.3
4	CL-SILTY CLAY, with sand, fine grained, some gravel, no plasticity, firm, blocky, brown, dry	2.50		002		0.8		1.7
6	SC-CLAYEY SAND, no plasticity, soft, homogeneous, grey-brown	5.00		003		2.0		1.5
8	CL-SILTY CLAY, with fine sand, soft, no plasticity, blocky, grey/brown with red, dry	6.00		004		2.0		2.8
10	CL-SANDY CLAY, fine grained, no plasticity, soft, blocky, red brown with grey, dry	7.50		005		2.0		2.7
12	SC-CLAYEY SAND, fine to medium sand, with clay, some silt, low cohesion, gray-brown, wet	10.00		006		0.5		3.1
14	SC-SILTY CLAY, no cohesion, loose, homogeneous, soft, brown/grey	12.50						
16	SAND, fine to coarse grained, sub rounded-sub angular, grey-black, wet	15.00						
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 012559.GPJ CRA_CORP.GDT 10/23/19



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 2 of 2

PROJECT NAME: RACER: Fairfax I Plant

PROJECT NUMBER: 012559A

CLIENT: RACER Trust

LOCATION: 100 Kindelberger Road, Kansas City, KS

HOLE DESIGNATION: MW206B

DATE COMPLETED: September 16, 2019

DRILLING METHOD: HSA

FIELD PERSONNEL: N. Laskares

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE				
				NUMBER	INTERVAL	REC (ft)	N' VALUE	PID (ppm)
36								
38								
40								
42								
44								
46								
48								
50								
52								
54								
56								
58								
60	END OF BOREHOLE @ 60.0ft BGS	60.00						
62								
64								
66								
68								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 012559.GPJ CRA_CORP.GDT 10/23/19

WELL DETAILS

Screened interval:

50.00 to 60.00ft BGS

Length: 10ft

Diameter: 2in

Slot Size: #10

Material: PVC

Sand Pack:

48.00 to 60.00ft BGS

Material: Silica



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 3

PROJECT NAME: RACER: Fairfax I Plant

HOLE DESIGNATION: MW206C

PROJECT NUMBER: 012559A

DATE COMPLETED: September 17, 2019

CLIENT: RACER Trust

DRILLING METHOD: HSA

LOCATION: 100 Kindelberger Road, Kansas City, KS

FIELD PERSONNEL: N. Laskares

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE				
				NUMBER	INTERVAL	REC (ft)	N' VALUE	PID (ppm)
2	FILL, sandy clay with medium gravel (subangular)			001		0.5		0.7
4	CL-CLAY, with silt and trace fine sand, soft, blocky, non plastic, brown, dry	2.50		002		0.8		1.3
6				003		0.8		2.5
8	CL-SILTY CLAY, with fine sand, soft, no plastic, laminated, brownish dark grey, damp	7.50		004		1.0		28.3
10	CL-SANDY CLAY, medium to fine grained, soft, no plastic, homogeneous, brown, damp	10.00		005		1.5		1.9
12	SM-SILTY SAND, fine grained, homogeneous, no cohesion, loose, grey-brown, wet	12.50		006		0.8		3.8
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 012559.GPJ CRA_CORP.GDT 10/23/19



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 2 of 3

PROJECT NAME: RACER: Fairfax I Plant

HOLE DESIGNATION: MW206C

PROJECT NUMBER: 012559A

DATE COMPLETED: September 17, 2019

CLIENT: RACER Trust

DRILLING METHOD: HSA

LOCATION: 100 Kindelberger Road, Kansas City, KS

FIELD PERSONNEL: N. Laskares

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE				
				NUMBER	INTERVAL	REC (ft)	N' VALUE	PID (ppm)
36								
38								
40								
42								
44								
46								
48								
50								
52								
54								
56								
58								
60								
62								
64								
66								
68								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 012559.GPJ CRA_CORP.GDT 10/23/19



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 3 of 3

PROJECT NAME: RACER: Fairfax I Plant

HOLE DESIGNATION: MW206C

PROJECT NUMBER: 012559A

DATE COMPLETED: September 17, 2019

CLIENT: RACER Trust

DRILLING METHOD: HSA

LOCATION: 100 Kindelberger Road, Kansas City, KS

FIELD PERSONNEL: N. Laskares

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE				
				NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
72								
74								
76								
78	END OF BOREHOLE @ 78.0ft BGS	78.00						
80								
82								
84								
86								
88								
90								
92								
94								
96								
98								
100								
102								
104								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 012559.GPJ CRA_CORP.GDT 10/23/19

WELL DETAILS

Screened interval:

80.00 to 90.00ft BGS

Length: 10ft

Diameter: 2in

Slot Size: #10

Material: PVC

Sand Pack:

78.00 to 90.00ft BGS

Material: Silica



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: RACER: Fairfax I Plant

HOLE DESIGNATION: MW207A

PROJECT NUMBER: 012559A

DATE COMPLETED: September 17, 2019

CLIENT: RACER Trust

DRILLING METHOD: HSA

LOCATION: 100 Kindelberger Road, Kansas City, KS

FIELD PERSONNEL: N. Laskares

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE				
				NUMBER	INTERVAL	REC (ft)	N' VALUE	
2	FILL, sandy clay, with gravel, brown			001		1.8		
4	CL-SILTY CLAY, with little fine sand, soft, blocky, no plasticity, brown, dry	2.50		002		1.8		
6	CL-SILTY CLAY, with fine sand, soft, blocky, no plasticity, brown, dry	5.00		003		1.0		
8	SM-SILTY SAND, fine grained, homogeneous, non cohesive, loose, grey-brown, dry	6.00		004				
10			Bentonite					
12	SM-SILTY SAND, fine grained, homogeneous, no cohesion, loose, grey-brown, wet	12.00		005		2.0		
14	SP-SAND, fine to medium grained, homogeneous, no cohesion, loose, subrounded and subangular, grey-brown, wet	12.50		006		0.8		
16								
18								
20								
22			Sand Pack					
24			Well Screen					
26								
28	END OF BOREHOLE @ 27.0ft BGS	27.00						
30								
32								
34								

WELL DETAILS

Screened interval:

17.00 to 27.00ft BGS

Length: 10ft

Diameter: 2in

Slot Size: #10

Material: PVC

Sand Pack:

14.50 to 27.00ft BGS

Material: Silica

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 012559.GPJ CRA_CORP.GDT 10/23/19



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 2

PROJECT NAME: RACER: Fairfax I Plant

PROJECT NUMBER: 012559A

CLIENT: RACER Trust

LOCATION: 100 Kindelberger Road, Kansas City, KS

HOLE DESIGNATION: MW207B

DATE COMPLETED: September 18, 2019

DRILLING METHOD: HSA

FIELD PERSONNEL: N. Laskares

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE				
				NUMBER	INTERVAL	REC (ft)	N' VALUE	PID (ppm)
2	FILL, sandy clay, with gravel, brick, dry			001		0.8		0.7
4	CL-SILTY CLAY, with some fine sand, soft, non plastic, blocky, brown, dry	2.50		002		1.8		1.2
6				003				1.5
8	SM-SAND, with silt, fine grained, loose, no cohesion, homogeneous, grey-brown, dry - layered at 7.5ft BGS	6.00		004		1.0		0.7
10				005		1.8		1.1
12				006		0.8		2.8
14	SP-SAND, with trace fine subangular to subrounded gravel, loose, grey-brown, wet	12.50		007		0.8		3.7
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

Bentonite

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 012559.GPJ CRA_CORP.GDT 10/23/19



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 2 of 2

PROJECT NAME: RACER: Fairfax I Plant

PROJECT NUMBER: 012559A

CLIENT: RACER Trust

LOCATION: 100 Kindelberger Road, Kansas City, KS

HOLE DESIGNATION: MW207B

DATE COMPLETED: September 18, 2019

DRILLING METHOD: HSA

FIELD PERSONNEL: N. Laskares

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE				
				NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
36								
38								
40								
42								
44								
46								
48								
50								
52								
54								
56								
58								
60	END OF BOREHOLE @ 60.0ft BGS	60.00						
62								
64								
66								
68								

WELL DETAILS

Screened interval:

50.00 to 60.00ft BGS

Length: 10ft

Diameter: 2in

Slot Size: #10

Material: PVC

Sand Pack:

46.50 to 60.00ft BGS

Material: Silica

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 012559.GPJ CRA_CORP.GDT 10/23/19



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 3

PROJECT NAME: RACER: Fairfax I Plant

PROJECT NUMBER: 012559A

CLIENT: RACER Trust

LOCATION: 100 Kindelberger Road, Kansas City, KS

HOLE DESIGNATION: MW207C

DATE COMPLETED: September 19, 2019

DRILLING METHOD: HSA

FIELD PERSONNEL: N. Laskares

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE				
				NUMBER	INTERVAL	REC (ft)	N' VALUE	
2	FILL, sandy clay, with gravel, brown			001		1.8		
4	CL-SILTY CLAY, with little fine sand, soft, blocky, no plasticity, brown, dry	2.50		002		1.5		
6	CL-SILTY CLAY, with fine sand, soft, blocky, no plasticity, brown, dry	5.00		003		0.8		
8	SM-SILTY SAND, fine grained, homogeneous, no cohesion, loose, grey-brown, dry	6.50						
	SM-SILTY SAND, fine grained, homogeneous, no cohesion, loose, grey-brown, dry	7.50		004		0.8		
10								
12								
14								
16	END OF BOREHOLE @ 15.0ft BGS	15.00						
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 012559.GPJ CRA_CORP.GDT 10/23/19



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 2 of 3

PROJECT NAME: RACER: Fairfax I Plant

HOLE DESIGNATION: MW207C

PROJECT NUMBER: 012559A

DATE COMPLETED: September 19, 2019

CLIENT: RACER Trust

DRILLING METHOD: HSA

LOCATION: 100 Kindelberger Road, Kansas City, KS

FIELD PERSONNEL: N. Laskares

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE				
				NUMBER	INTERVAL	REC (ft)	'N' VALUE	
36								
38								
40								
42								
44								
46								
48								
50								
52								
54								
56								
58								
60								
62								
64								
66								
68								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 012559.GPJ CRA_CORP.GDT 10/23/19



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 3 of 3

PROJECT NAME: RACER: Fairfax I Plant

HOLE DESIGNATION: MW207C

PROJECT NUMBER: 012559A

DATE COMPLETED: September 19, 2019

CLIENT: RACER Trust

DRILLING METHOD: HSA

LOCATION: 100 Kindelberger Road, Kansas City, KS

FIELD PERSONNEL: N. Laskares

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE				
				NUMBER	INTERVAL	REC (ft)	'N' VALUE	
72								
74								
76								
78								
80								
82								
84								
86								
88								
90								
92								
94								
96								
98								
100								
102								
104								

WELL DETAILS

Screened interval:

80.00 to 90.00ft BGS

Length: 10ft

Diameter: 2in

Slot Size: #10

Material: PVC

Sand Pack:

75.00 to 90.00ft BGS

Material: Silica

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 012559.GPJ CRA_CORP.GDT 10/23/19

Appendix E

Laboratory Analytical Report

February 07, 2020

Travis Kogl
GHD Services, Inc.
1502 SW 41st St.
Topeka, KS 66609

RE: Project: 012559A GM RACER FAIRFAX
Pace Project No.: 60327953

Dear Travis Kogl:

Enclosed are the analytical results for sample(s) received by the laboratory on January 31, 2020. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Nolie Wood
nolie.wood@pacelabs.com
1(913)563-1401
Project Manager

Enclosures

cc: Angela Bown, GHD Services, Inc.
Nick Laskares, GHD Services, Inc.
Angela McManus, Pace Analytical



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 012559A GM RACER FAIRFAX

Pace Project No.: 60327953

Pace Analytical Services Kansas

9608 Loiret Boulevard, Lenexa, KS 66219

Missouri Inorganic Drinking Water Certification #: 10090

Arkansas Drinking Water

Arkansas Certification #: 19-016-0

Arkansas Drinking Water

Illinois Certification #: 004455

Iowa Certification #: 118

Kansas/NELAP Certification #: E-10116

Louisiana Certification #: 03055

Nevada Certification #: KS000212020-2

Oklahoma Certification #: 9205/9935

Florida: Cert E871149 SEKS WET

Texas Certification #: T104704407-19-12

Utah Certification #: KS000212018-8

Illinois Certification #: 004592

Kansas Field Laboratory Accreditation: # E-92587

Missouri SEKS Micro Certification: 10070

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 012559A GM RACER FAIRFAX

Pace Project No.: 60327953

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60327953001	WG-012820-NL-001	Water	01/28/20 13:40	01/31/20 17:06
60327953002	WG-012820-NL-002	Water	01/28/20 14:30	01/31/20 17:06
60327953003	WG-012820-NL-003	Water	01/28/20 15:50	01/31/20 17:06
60327953004	WG-012820-NL-004	Water	01/28/20 16:55	01/31/20 17:06
60327953005	WG-012920-NL-005	Water	01/29/20 11:10	01/31/20 17:06
60327953006	WG-012920-NL-006	Water	01/29/20 11:20	01/31/20 17:06
60327953007	WG-012920-NL-007	Water	01/29/20 12:45	01/31/20 17:06
60327953008	WG-012920-NL-008	Water	01/29/20 13:50	01/31/20 17:06
60327953009	WG-012920-NL-009	Water	01/29/20 16:40	01/31/20 17:06
60327953010	WG-012920-NL-016	Water	01/29/20 17:45	01/31/20 17:06
60327953011	WG-012920-NL-010	Water	01/29/20 18:45	01/31/20 17:06
60327953012	WG-013020-NL-011	Water	01/30/20 12:30	01/31/20 17:06
60327953013	WG-013020-NL-012	Water	01/30/20 13:40	01/31/20 17:06
60327953014	WG-013020-NL-013	Water	01/30/20 14:45	01/31/20 17:06
60327953015	WG-013020-NL-014	Water	01/30/20 16:00	01/31/20 17:06
60327953016	WG-013020-NL-015	Water	01/30/20 17:20	01/31/20 17:06

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 012559A GM RACER FAIRFAX

Pace Project No.: 60327953

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60327953001	WG-012820-NL-001	EPA 5030B/8260	PGH	52	PASI-K
60327953002	WG-012820-NL-002	EPA 5030B/8260	PGH	52	PASI-K
60327953003	WG-012820-NL-003	EPA 5030B/8260	PGH	52	PASI-K
60327953004	WG-012820-NL-004	EPA 5030B/8260	PGH	52	PASI-K
60327953005	WG-012920-NL-005	EPA 5030B/8260	PGH	52	PASI-K
60327953006	WG-012920-NL-006	EPA 5030B/8260	PGH	52	PASI-K
60327953007	WG-012920-NL-007	EPA 5030B/8260	PGH	52	PASI-K
60327953008	WG-012920-NL-008	EPA 5030B/8260	PGH	52	PASI-K
60327953009	WG-012920-NL-009	EPA 5030B/8260	PGH	52	PASI-K
60327953010	WG-012920-NL-016	EPA 5030B/8260	PGH	52	PASI-K
60327953011	WG-012920-NL-010	EPA 5030B/8260	PGH	52	PASI-K
60327953012	WG-013020-NL-011	EPA 5030B/8260	PGH	52	PASI-K
60327953013	WG-013020-NL-012	EPA 5030B/8260	PGH	52	PASI-K
60327953014	WG-013020-NL-013	EPA 5030B/8260	PGH	52	PASI-K
60327953015	WG-013020-NL-014	EPA 5030B/8260	PGH	52	PASI-K
60327953016	WG-013020-NL-015	EPA 5030B/8260	PGH	52	PASI-K

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 012559A GM RACER FAIRFAX

Pace Project No.: 60327953

Sample: WG-012820-NL-001 **Lab ID: 60327953001** Collected: 01/28/20 13:40 Received: 01/31/20 17:06 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 5030B/8260							
Acetone	ND	ug/L	10.0	3.3	1		02/05/20 10:20	67-64-1	
Benzene	ND	ug/L	1.0	0.079	1		02/04/20 12:48	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.17	1		02/04/20 12:48	75-27-4	
Bromoform	ND	ug/L	1.0	0.21	1		02/04/20 12:48	75-25-2	
Bromomethane	ND	ug/L	5.0	0.32	1		02/04/20 12:48	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.70	1		02/04/20 12:48	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.16	1		02/04/20 12:48	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.084	1		02/04/20 12:48	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.13	1		02/04/20 12:48	108-90-7	
Chloroethane	ND	ug/L	1.0	0.42	1		02/04/20 12:48	75-00-3	
Chloroform	ND	ug/L	1.0	0.10	1		02/04/20 12:48	67-66-3	
Chloromethane	ND	ug/L	1.0	0.16	1		02/04/20 12:48	74-87-3	
Cyclohexane	ND	ug/L	1.0	0.079	1		02/04/20 12:48	110-82-7	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.5	0.83	1		02/04/20 12:48	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.15	1		02/04/20 12:48	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.18	1		02/04/20 12:48	106-93-4	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.28	1		02/04/20 12:48	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.21	1		02/04/20 12:48	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.23	1		02/04/20 12:48	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.098	1		02/04/20 12:48	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.097	1		02/04/20 12:48	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.14	1		02/04/20 12:48	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.22	1		02/04/20 12:48	75-35-4	
cis-1,2-Dichloroethene	0.38J	ug/L	1.0	0.17	1		02/04/20 12:48	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.17	1		02/04/20 12:48	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.080	1		02/04/20 12:48	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.087	1		02/04/20 12:48	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		02/04/20 12:48	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.12	1		02/04/20 12:48	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.0	1		02/04/20 12:48	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.20	1		02/04/20 12:48	98-82-8	
Methyl acetate	ND	ug/L	20.0	0.49	1		02/04/20 12:48	79-20-9	
Methylcyclohexane	ND	ug/L	1.0	0.10	1		02/04/20 12:48	108-87-2	
Methylene Chloride	ND	ug/L	1.0	0.27	1		02/04/20 12:48	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.56	1		02/04/20 12:48	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.16	1		02/04/20 12:48	1634-04-4	
Styrene	ND	ug/L	1.0	0.15	1		02/04/20 12:48	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.31	1		02/04/20 12:48	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.22	1		02/04/20 12:48	127-18-4	
Toluene	ND	ug/L	1.0	0.14	1		02/04/20 12:48	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.20	1		02/04/20 12:48	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.12	1		02/04/20 12:48	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.10	1		02/04/20 12:48	79-00-5	
Trichloroethene	11.6	ug/L	1.0	0.17	1		02/04/20 12:48	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.13	1		02/04/20 12:48	75-69-4	
1,1,2-Trichlorotrifluoroethane	13.6	ug/L	1.0	0.12	1		02/04/20 12:48	76-13-1	N2

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ANALYTICAL RESULTS

Project: 012559A GM RACER FAIRFAX

Pace Project No.: 60327953

Sample: WG-012820-NL-001		Lab ID: 60327953001		Collected: 01/28/20 13:40		Received: 01/31/20 17:06		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 5030B/8260									
Vinyl chloride	ND	ug/L	1.0	0.11	1		02/04/20 12:48	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.34	1		02/04/20 12:48	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	98	%	80-120		1		02/04/20 12:48	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	77-122		1		02/04/20 12:48	17060-07-0	
Toluene-d8 (S)	100	%	80-120		1		02/04/20 12:48	2037-26-5	
Preservation pH	1.0		0.10	0.10	1		02/04/20 12:48		

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ANALYTICAL RESULTS

Project: 012559A GM RACER FAIRFAX

Pace Project No.: 60327953

Sample: **WG-012820-NL-002** Lab ID: **60327953002** Collected: 01/28/20 14:30 Received: 01/31/20 17:06 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 5030B/8260							
Acetone	4.4J	ug/L	10.0	3.3	1		02/04/20 13:02	67-64-1	
Benzene	ND	ug/L	1.0	0.079	1		02/04/20 13:02	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.17	1		02/04/20 13:02	75-27-4	
Bromoform	ND	ug/L	1.0	0.21	1		02/04/20 13:02	75-25-2	
Bromomethane	ND	ug/L	5.0	0.32	1		02/04/20 13:02	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.70	1		02/04/20 13:02	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.16	1		02/04/20 13:02	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.084	1		02/04/20 13:02	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.13	1		02/04/20 13:02	108-90-7	
Chloroethane	ND	ug/L	1.0	0.42	1		02/04/20 13:02	75-00-3	
Chloroform	ND	ug/L	1.0	0.10	1		02/04/20 13:02	67-66-3	
Chloromethane	ND	ug/L	1.0	0.16	1		02/04/20 13:02	74-87-3	
Cyclohexane	ND	ug/L	1.0	0.079	1		02/04/20 13:02	110-82-7	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.5	0.83	1		02/04/20 13:02	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.15	1		02/04/20 13:02	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.18	1		02/04/20 13:02	106-93-4	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.28	1		02/04/20 13:02	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.21	1		02/04/20 13:02	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.23	1		02/04/20 13:02	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.098	1		02/04/20 13:02	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.097	1		02/04/20 13:02	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.14	1		02/04/20 13:02	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.22	1		02/04/20 13:02	75-35-4	
cis-1,2-Dichloroethene	13.4	ug/L	1.0	0.17	1		02/04/20 13:02	156-59-2	
trans-1,2-Dichloroethene	1.4	ug/L	1.0	0.17	1		02/04/20 13:02	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.080	1		02/04/20 13:02	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.087	1		02/04/20 13:02	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		02/04/20 13:02	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.12	1		02/04/20 13:02	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.0	1		02/04/20 13:02	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.20	1		02/04/20 13:02	98-82-8	
Methyl acetate	ND	ug/L	20.0	0.49	1		02/04/20 13:02	79-20-9	
Methylcyclohexane	ND	ug/L	1.0	0.10	1		02/04/20 13:02	108-87-2	
Methylene Chloride	ND	ug/L	1.0	0.27	1		02/04/20 13:02	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.56	1		02/04/20 13:02	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.16	1		02/04/20 13:02	1634-04-4	
Styrene	ND	ug/L	1.0	0.15	1		02/04/20 13:02	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.31	1		02/04/20 13:02	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.22	1		02/04/20 13:02	127-18-4	
Toluene	ND	ug/L	1.0	0.14	1		02/04/20 13:02	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.20	1		02/04/20 13:02	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.12	1		02/04/20 13:02	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.10	1		02/04/20 13:02	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		02/04/20 13:02	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.13	1		02/04/20 13:02	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	0.12	1		02/04/20 13:02	76-13-1	N2

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ANALYTICAL RESULTS

Project: 012559A GM RACER FAIRFAX

Pace Project No.: 60327953

Sample: WG-012820-NL-002		Lab ID: 60327953002		Collected: 01/28/20 14:30		Received: 01/31/20 17:06		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 5030B/8260									
Vinyl chloride	1.5	ug/L	1.0	0.11	1		02/04/20 13:02	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.34	1		02/04/20 13:02	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	101	%	80-120		1		02/04/20 13:02	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	77-122		1		02/04/20 13:02	17060-07-0	
Toluene-d8 (S)	99	%	80-120		1		02/04/20 13:02	2037-26-5	
Preservation pH	1.0		0.10	0.10	1		02/04/20 13:02		

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ANALYTICAL RESULTS

Project: 012559A GM RACER FAIRFAX

Pace Project No.: 60327953

Sample: WG-012820-NL-003 **Lab ID: 60327953003** Collected: 01/28/20 15:50 Received: 01/31/20 17:06 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	3.4J	ug/L	10.0	3.3	1		02/04/20 13:16	67-64-1	
Benzene	ND	ug/L	1.0	0.079	1		02/04/20 13:16	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.17	1		02/04/20 13:16	75-27-4	
Bromoform	ND	ug/L	1.0	0.21	1		02/04/20 13:16	75-25-2	
Bromomethane	ND	ug/L	5.0	0.32	1		02/04/20 13:16	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.70	1		02/04/20 13:16	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.16	1		02/04/20 13:16	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.084	1		02/04/20 13:16	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.13	1		02/04/20 13:16	108-90-7	
Chloroethane	ND	ug/L	1.0	0.42	1		02/04/20 13:16	75-00-3	
Chloroform	0.17J	ug/L	1.0	0.10	1		02/04/20 13:16	67-66-3	
Chloromethane	ND	ug/L	1.0	0.16	1		02/04/20 13:16	74-87-3	
Cyclohexane	ND	ug/L	1.0	0.079	1		02/04/20 13:16	110-82-7	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.5	0.83	1		02/04/20 13:16	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.15	1		02/04/20 13:16	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.18	1		02/04/20 13:16	106-93-4	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.28	1		02/04/20 13:16	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.21	1		02/04/20 13:16	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.23	1		02/04/20 13:16	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.098	1		02/04/20 13:16	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.097	1		02/04/20 13:16	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.14	1		02/04/20 13:16	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.22	1		02/04/20 13:16	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.17	1		02/04/20 13:16	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.17	1		02/04/20 13:16	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.080	1		02/04/20 13:16	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.087	1		02/04/20 13:16	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		02/04/20 13:16	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.12	1		02/04/20 13:16	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.0	1		02/04/20 13:16	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.20	1		02/04/20 13:16	98-82-8	
Methyl acetate	ND	ug/L	20.0	0.49	1		02/04/20 13:16	79-20-9	
Methylcyclohexane	ND	ug/L	1.0	0.10	1		02/04/20 13:16	108-87-2	
Methylene Chloride	ND	ug/L	1.0	0.27	1		02/04/20 13:16	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.56	1		02/04/20 13:16	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.16	1		02/04/20 13:16	1634-04-4	
Styrene	ND	ug/L	1.0	0.15	1		02/04/20 13:16	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.31	1		02/04/20 13:16	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.22	1		02/04/20 13:16	127-18-4	
Toluene	ND	ug/L	1.0	0.14	1		02/04/20 13:16	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.20	1		02/04/20 13:16	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.12	1		02/04/20 13:16	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.10	1		02/04/20 13:16	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		02/04/20 13:16	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.13	1		02/04/20 13:16	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	0.12	1		02/04/20 13:16	76-13-1	N2

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ANALYTICAL RESULTS

Project: 012559A GM RACER FAIRFAX

Pace Project No.: 60327953

Sample: WG-012820-NL-003		Lab ID: 60327953003		Collected: 01/28/20 15:50		Received: 01/31/20 17:06		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 5030B/8260									
Vinyl chloride	ND	ug/L	1.0	0.11	1		02/04/20 13:16	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.34	1		02/04/20 13:16	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	99	%	80-120		1		02/04/20 13:16	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	77-122		1		02/04/20 13:16	17060-07-0	
Toluene-d8 (S)	103	%	80-120		1		02/04/20 13:16	2037-26-5	
Preservation pH	1.0		0.10	0.10	1		02/04/20 13:16		

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ANALYTICAL RESULTS

Project: 012559A GM RACER FAIRFAX

Pace Project No.: 60327953

Sample: WG-012820-NL-004 **Lab ID: 60327953004** Collected: 01/28/20 16:55 Received: 01/31/20 17:06 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	3.3	1		02/04/20 13:30	67-64-1	
Benzene	ND	ug/L	1.0	0.079	1		02/04/20 13:30	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.17	1		02/04/20 13:30	75-27-4	
Bromoform	ND	ug/L	1.0	0.21	1		02/04/20 13:30	75-25-2	
Bromomethane	ND	ug/L	5.0	0.32	1		02/04/20 13:30	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.70	1		02/04/20 13:30	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.16	1		02/04/20 13:30	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.084	1		02/04/20 13:30	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.13	1		02/04/20 13:30	108-90-7	
Chloroethane	ND	ug/L	1.0	0.42	1		02/04/20 13:30	75-00-3	
Chloroform	ND	ug/L	1.0	0.10	1		02/04/20 13:30	67-66-3	
Chloromethane	ND	ug/L	1.0	0.16	1		02/04/20 13:30	74-87-3	
Cyclohexane	ND	ug/L	1.0	0.079	1		02/04/20 13:30	110-82-7	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.5	0.83	1		02/04/20 13:30	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.15	1		02/04/20 13:30	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.18	1		02/04/20 13:30	106-93-4	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.28	1		02/04/20 13:30	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.21	1		02/04/20 13:30	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.23	1		02/04/20 13:30	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.098	1		02/04/20 13:30	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.097	1		02/04/20 13:30	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.14	1		02/04/20 13:30	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.22	1		02/04/20 13:30	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.17	1		02/04/20 13:30	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.17	1		02/04/20 13:30	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.080	1		02/04/20 13:30	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.087	1		02/04/20 13:30	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		02/04/20 13:30	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.12	1		02/04/20 13:30	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.0	1		02/04/20 13:30	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.20	1		02/04/20 13:30	98-82-8	
Methyl acetate	ND	ug/L	20.0	0.49	1		02/04/20 13:30	79-20-9	
Methylcyclohexane	ND	ug/L	1.0	0.10	1		02/04/20 13:30	108-87-2	
Methylene Chloride	ND	ug/L	1.0	0.27	1		02/04/20 13:30	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.56	1		02/04/20 13:30	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.16	1		02/04/20 13:30	1634-04-4	
Styrene	ND	ug/L	1.0	0.15	1		02/04/20 13:30	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.31	1		02/04/20 13:30	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.22	1		02/04/20 13:30	127-18-4	
Toluene	ND	ug/L	1.0	0.14	1		02/04/20 13:30	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.20	1		02/04/20 13:30	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.12	1		02/04/20 13:30	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.10	1		02/04/20 13:30	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		02/04/20 13:30	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.13	1		02/04/20 13:30	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	0.12	1		02/04/20 13:30	76-13-1	N2

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ANALYTICAL RESULTS

Project: 012559A GM RACER FAIRFAX

Pace Project No.: 60327953

Sample: WG-012820-NL-004		Lab ID: 60327953004		Collected: 01/28/20 16:55		Received: 01/31/20 17:06		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 5030B/8260									
Vinyl chloride	ND	ug/L	1.0	0.11	1		02/04/20 13:30	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.34	1		02/04/20 13:30	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	102	%	80-120		1		02/04/20 13:30	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	77-122		1		02/04/20 13:30	17060-07-0	
Toluene-d8 (S)	103	%	80-120		1		02/04/20 13:30	2037-26-5	
Preservation pH	1.0		0.10	0.10	1		02/04/20 13:30		

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ANALYTICAL RESULTS

Project: 012559A GM RACER FAIRFAX

Pace Project No.: 60327953

Sample: **WG-012920-NL-005** Lab ID: **60327953005** Collected: 01/29/20 11:10 Received: 01/31/20 17:06 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 5030B/8260							
Acetone	ND	ug/L	10.0	3.3	1		02/04/20 13:44	67-64-1	
Benzene	ND	ug/L	1.0	0.079	1		02/04/20 13:44	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.17	1		02/04/20 13:44	75-27-4	
Bromoform	ND	ug/L	1.0	0.21	1		02/04/20 13:44	75-25-2	
Bromomethane	ND	ug/L	5.0	0.32	1		02/04/20 13:44	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.70	1		02/04/20 13:44	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.16	1		02/04/20 13:44	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.084	1		02/04/20 13:44	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.13	1		02/04/20 13:44	108-90-7	
Chloroethane	ND	ug/L	1.0	0.42	1		02/04/20 13:44	75-00-3	
Chloroform	ND	ug/L	1.0	0.10	1		02/04/20 13:44	67-66-3	
Chloromethane	ND	ug/L	1.0	0.16	1		02/04/20 13:44	74-87-3	
Cyclohexane	ND	ug/L	1.0	0.079	1		02/04/20 13:44	110-82-7	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.5	0.83	1		02/04/20 13:44	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.15	1		02/04/20 13:44	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.18	1		02/04/20 13:44	106-93-4	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.28	1		02/04/20 13:44	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.21	1		02/04/20 13:44	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.23	1		02/04/20 13:44	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.098	1		02/04/20 13:44	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.097	1		02/04/20 13:44	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.14	1		02/04/20 13:44	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.22	1		02/04/20 13:44	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.17	1		02/04/20 13:44	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.17	1		02/04/20 13:44	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.080	1		02/04/20 13:44	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.087	1		02/04/20 13:44	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		02/04/20 13:44	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.12	1		02/04/20 13:44	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.0	1		02/04/20 13:44	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.20	1		02/04/20 13:44	98-82-8	
Methyl acetate	ND	ug/L	20.0	0.49	1		02/04/20 13:44	79-20-9	
Methylcyclohexane	ND	ug/L	1.0	0.10	1		02/04/20 13:44	108-87-2	
Methylene Chloride	ND	ug/L	1.0	0.27	1		02/04/20 13:44	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.56	1		02/04/20 13:44	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.16	1		02/04/20 13:44	1634-04-4	
Styrene	ND	ug/L	1.0	0.15	1		02/04/20 13:44	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.31	1		02/04/20 13:44	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.22	1		02/04/20 13:44	127-18-4	
Toluene	ND	ug/L	1.0	0.14	1		02/04/20 13:44	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.20	1		02/04/20 13:44	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.12	1		02/04/20 13:44	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.10	1		02/04/20 13:44	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		02/04/20 13:44	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.13	1		02/04/20 13:44	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	0.12	1		02/04/20 13:44	76-13-1	N2

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ANALYTICAL RESULTS

Project: 012559A GM RACER FAIRFAX

Pace Project No.: 60327953

Sample: WG-012920-NL-005		Lab ID: 60327953005		Collected: 01/29/20 11:10		Received: 01/31/20 17:06		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 5030B/8260									
Vinyl chloride	ND	ug/L	1.0	0.11	1		02/04/20 13:44	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.34	1		02/04/20 13:44	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	103	%	80-120		1		02/04/20 13:44	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	77-122		1		02/04/20 13:44	17060-07-0	
Toluene-d8 (S)	100	%	80-120		1		02/04/20 13:44	2037-26-5	
Preservation pH	1.0		0.10	0.10	1		02/04/20 13:44		

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ANALYTICAL RESULTS

Project: 012559A GM RACER FAIRFAX

Pace Project No.: 60327953

Sample: **WG-012920-NL-006** Lab ID: **60327953006** Collected: 01/29/20 11:20 Received: 01/31/20 17:06 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 5030B/8260							
Acetone	ND	ug/L	10.0	3.3	1		02/04/20 13:58	67-64-1	
Benzene	ND	ug/L	1.0	0.079	1		02/04/20 13:58	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.17	1		02/04/20 13:58	75-27-4	
Bromoform	ND	ug/L	1.0	0.21	1		02/04/20 13:58	75-25-2	
Bromomethane	ND	ug/L	5.0	0.32	1		02/04/20 13:58	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.70	1		02/04/20 13:58	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.16	1		02/04/20 13:58	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.084	1		02/04/20 13:58	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.13	1		02/04/20 13:58	108-90-7	
Chloroethane	ND	ug/L	1.0	0.42	1		02/04/20 13:58	75-00-3	
Chloroform	ND	ug/L	1.0	0.10	1		02/04/20 13:58	67-66-3	
Chloromethane	ND	ug/L	1.0	0.16	1		02/04/20 13:58	74-87-3	
Cyclohexane	ND	ug/L	1.0	0.079	1		02/04/20 13:58	110-82-7	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.5	0.83	1		02/04/20 13:58	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.15	1		02/04/20 13:58	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.18	1		02/04/20 13:58	106-93-4	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.28	1		02/04/20 13:58	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.21	1		02/04/20 13:58	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.23	1		02/04/20 13:58	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.098	1		02/04/20 13:58	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.097	1		02/04/20 13:58	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.14	1		02/04/20 13:58	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.22	1		02/04/20 13:58	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.17	1		02/04/20 13:58	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.17	1		02/04/20 13:58	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.080	1		02/04/20 13:58	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.087	1		02/04/20 13:58	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		02/04/20 13:58	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.12	1		02/04/20 13:58	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.0	1		02/04/20 13:58	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.20	1		02/04/20 13:58	98-82-8	
Methyl acetate	ND	ug/L	20.0	0.49	1		02/04/20 13:58	79-20-9	
Methylcyclohexane	ND	ug/L	1.0	0.10	1		02/04/20 13:58	108-87-2	
Methylene Chloride	ND	ug/L	1.0	0.27	1		02/04/20 13:58	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.56	1		02/04/20 13:58	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.16	1		02/04/20 13:58	1634-04-4	
Styrene	ND	ug/L	1.0	0.15	1		02/04/20 13:58	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.31	1		02/04/20 13:58	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.22	1		02/04/20 13:58	127-18-4	
Toluene	ND	ug/L	1.0	0.14	1		02/04/20 13:58	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.20	1		02/04/20 13:58	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.12	1		02/04/20 13:58	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.10	1		02/04/20 13:58	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		02/04/20 13:58	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.13	1		02/04/20 13:58	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	0.12	1		02/04/20 13:58	76-13-1	N2

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ANALYTICAL RESULTS

Project: 012559A GM RACER FAIRFAX

Pace Project No.: 60327953

Sample: WG-012920-NL-006		Lab ID: 60327953006		Collected: 01/29/20 11:20		Received: 01/31/20 17:06		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 5030B/8260									
Vinyl chloride	ND	ug/L	1.0	0.11	1		02/04/20 13:58	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.34	1		02/04/20 13:58	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	97	%	80-120		1		02/04/20 13:58	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	77-122		1		02/04/20 13:58	17060-07-0	
Toluene-d8 (S)	102	%	80-120		1		02/04/20 13:58	2037-26-5	
Preservation pH	1.0		0.10	0.10	1		02/04/20 13:58		

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ANALYTICAL RESULTS

Project: 012559A GM RACER FAIRFAX

Pace Project No.: 60327953

Sample: **WG-012920-NL-007** Lab ID: **60327953007** Collected: 01/29/20 12:45 Received: 01/31/20 17:06 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 5030B/8260							
Acetone	ND	ug/L	10.0	3.3	1		02/04/20 14:12	67-64-1	
Benzene	ND	ug/L	1.0	0.079	1		02/04/20 14:12	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.17	1		02/04/20 14:12	75-27-4	
Bromoform	ND	ug/L	1.0	0.21	1		02/04/20 14:12	75-25-2	
Bromomethane	ND	ug/L	5.0	0.32	1		02/04/20 14:12	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.70	1		02/04/20 14:12	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.16	1		02/04/20 14:12	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.084	1		02/04/20 14:12	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.13	1		02/04/20 14:12	108-90-7	
Chloroethane	ND	ug/L	1.0	0.42	1		02/04/20 14:12	75-00-3	
Chloroform	ND	ug/L	1.0	0.10	1		02/04/20 14:12	67-66-3	
Chloromethane	ND	ug/L	1.0	0.16	1		02/04/20 14:12	74-87-3	
Cyclohexane	ND	ug/L	1.0	0.079	1		02/04/20 14:12	110-82-7	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.5	0.83	1		02/04/20 14:12	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.15	1		02/04/20 14:12	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.18	1		02/04/20 14:12	106-93-4	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.28	1		02/04/20 14:12	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.21	1		02/04/20 14:12	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.23	1		02/04/20 14:12	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.098	1		02/04/20 14:12	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.097	1		02/04/20 14:12	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.14	1		02/04/20 14:12	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.22	1		02/04/20 14:12	75-35-4	
cis-1,2-Dichloroethene	7.0	ug/L	1.0	0.17	1		02/04/20 14:12	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.17	1		02/04/20 14:12	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.080	1		02/04/20 14:12	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.087	1		02/04/20 14:12	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		02/04/20 14:12	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.12	1		02/04/20 14:12	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.0	1		02/04/20 14:12	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.20	1		02/04/20 14:12	98-82-8	
Methyl acetate	ND	ug/L	20.0	0.49	1		02/04/20 14:12	79-20-9	
Methylcyclohexane	ND	ug/L	1.0	0.10	1		02/04/20 14:12	108-87-2	
Methylene Chloride	ND	ug/L	1.0	0.27	1		02/04/20 14:12	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.56	1		02/04/20 14:12	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.16	1		02/04/20 14:12	1634-04-4	
Styrene	ND	ug/L	1.0	0.15	1		02/04/20 14:12	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.31	1		02/04/20 14:12	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.22	1		02/04/20 14:12	127-18-4	
Toluene	ND	ug/L	1.0	0.14	1		02/04/20 14:12	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.20	1		02/04/20 14:12	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.12	1		02/04/20 14:12	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.10	1		02/04/20 14:12	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		02/04/20 14:12	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.13	1		02/04/20 14:12	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	0.12	1		02/04/20 14:12	76-13-1	N2

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ANALYTICAL RESULTS

Project: 012559A GM RACER FAIRFAX

Pace Project No.: 60327953

Sample: WG-012920-NL-007		Lab ID: 60327953007		Collected: 01/29/20 12:45		Received: 01/31/20 17:06		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 5030B/8260									
Vinyl chloride	2.5	ug/L	1.0	0.11	1		02/04/20 14:12	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.34	1		02/04/20 14:12	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	101	%	80-120		1		02/04/20 14:12	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	77-122		1		02/04/20 14:12	17060-07-0	
Toluene-d8 (S)	99	%	80-120		1		02/04/20 14:12	2037-26-5	
Preservation pH	1.0		0.10	0.10	1		02/04/20 14:12		

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ANALYTICAL RESULTS

Project: 012559A GM RACER FAIRFAX

Pace Project No.: 60327953

Sample: WG-012920-NL-008 **Lab ID: 60327953008** Collected: 01/29/20 13:50 Received: 01/31/20 17:06 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	3.3	1		02/05/20 10:34	67-64-1	
Benzene	ND	ug/L	1.0	0.079	1		02/05/20 10:34	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.17	1		02/05/20 10:34	75-27-4	
Bromoform	ND	ug/L	1.0	0.21	1		02/05/20 10:34	75-25-2	
Bromomethane	ND	ug/L	5.0	0.32	1		02/05/20 10:34	74-83-9	
2-Butanone (MEK)	3.7J	ug/L	10.0	0.70	1		02/05/20 10:34	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.16	1		02/05/20 10:34	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.084	1		02/05/20 10:34	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.13	1		02/05/20 10:34	108-90-7	
Chloroethane	ND	ug/L	1.0	0.42	1		02/05/20 10:34	75-00-3	
Chloroform	ND	ug/L	1.0	0.10	1		02/05/20 10:34	67-66-3	
Chloromethane	ND	ug/L	1.0	0.16	1		02/05/20 10:34	74-87-3	
Cyclohexane	ND	ug/L	1.0	0.079	1		02/05/20 10:34	110-82-7	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.5	0.83	1		02/05/20 10:34	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.15	1		02/05/20 10:34	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.18	1		02/05/20 10:34	106-93-4	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.28	1		02/05/20 10:34	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.21	1		02/05/20 10:34	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.23	1		02/05/20 10:34	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.098	1		02/05/20 10:34	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.097	1		02/05/20 10:34	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.14	1		02/05/20 10:34	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.22	1		02/05/20 10:34	75-35-4	
cis-1,2-Dichloroethene	0.26J	ug/L	1.0	0.17	1		02/05/20 10:34	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.17	1		02/05/20 10:34	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.080	1		02/05/20 10:34	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.087	1		02/05/20 10:34	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		02/05/20 10:34	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.12	1		02/05/20 10:34	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.0	1		02/05/20 10:34	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.20	1		02/05/20 10:34	98-82-8	
Methyl acetate	ND	ug/L	20.0	0.49	1		02/05/20 10:34	79-20-9	
Methylcyclohexane	ND	ug/L	1.0	0.10	1		02/05/20 10:34	108-87-2	
Methylene Chloride	ND	ug/L	1.0	0.27	1		02/05/20 10:34	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.56	1		02/05/20 10:34	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.16	1		02/05/20 10:34	1634-04-4	
Styrene	ND	ug/L	1.0	0.15	1		02/05/20 10:34	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.31	1		02/05/20 10:34	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.22	1		02/05/20 10:34	127-18-4	
Toluene	ND	ug/L	1.0	0.14	1		02/05/20 10:34	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.20	1		02/05/20 10:34	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.12	1		02/05/20 10:34	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.10	1		02/05/20 10:34	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		02/05/20 10:34	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.13	1		02/05/20 10:34	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	0.12	1		02/05/20 10:34	76-13-1	N2

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ANALYTICAL RESULTS

Project: 012559A GM RACER FAIRFAX

Pace Project No.: 60327953

Sample: WG-012920-NL-008		Lab ID: 60327953008		Collected: 01/29/20 13:50		Received: 01/31/20 17:06		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 5030B/8260									
Vinyl chloride	ND	ug/L	1.0	0.11	1		02/05/20 10:34	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.34	1		02/05/20 10:34	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	97	%	80-120		1		02/05/20 10:34	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	77-122		1		02/05/20 10:34	17060-07-0	
Toluene-d8 (S)	105	%	80-120		1		02/05/20 10:34	2037-26-5	
Preservation pH	1.0		0.10	0.10	1		02/05/20 10:34		

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ANALYTICAL RESULTS

Project: 012559A GM RACER FAIRFAX

Pace Project No.: 60327953

Sample: WG-012920-NL-009 **Lab ID: 60327953009** Collected: 01/29/20 16:40 Received: 01/31/20 17:06 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	3.3	1		02/04/20 14:27	67-64-1	
Benzene	ND	ug/L	1.0	0.079	1		02/04/20 14:27	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.17	1		02/04/20 14:27	75-27-4	
Bromoform	ND	ug/L	1.0	0.21	1		02/04/20 14:27	75-25-2	
Bromomethane	ND	ug/L	5.0	0.32	1		02/04/20 14:27	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.70	1		02/04/20 14:27	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.16	1		02/04/20 14:27	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.084	1		02/04/20 14:27	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.13	1		02/04/20 14:27	108-90-7	
Chloroethane	ND	ug/L	1.0	0.42	1		02/04/20 14:27	75-00-3	
Chloroform	ND	ug/L	1.0	0.10	1		02/04/20 14:27	67-66-3	
Chloromethane	ND	ug/L	1.0	0.16	1		02/04/20 14:27	74-87-3	
Cyclohexane	ND	ug/L	1.0	0.079	1		02/04/20 14:27	110-82-7	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.5	0.83	1		02/04/20 14:27	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.15	1		02/04/20 14:27	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.18	1		02/04/20 14:27	106-93-4	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.28	1		02/04/20 14:27	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.21	1		02/04/20 14:27	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.23	1		02/04/20 14:27	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.098	1		02/04/20 14:27	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.097	1		02/04/20 14:27	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.14	1		02/04/20 14:27	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.22	1		02/04/20 14:27	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.17	1		02/04/20 14:27	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.17	1		02/04/20 14:27	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.080	1		02/04/20 14:27	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.087	1		02/04/20 14:27	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		02/04/20 14:27	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.12	1		02/04/20 14:27	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.0	1		02/04/20 14:27	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.20	1		02/04/20 14:27	98-82-8	
Methyl acetate	ND	ug/L	20.0	0.49	1		02/04/20 14:27	79-20-9	
Methylcyclohexane	ND	ug/L	1.0	0.10	1		02/04/20 14:27	108-87-2	
Methylene Chloride	ND	ug/L	1.0	0.27	1		02/04/20 14:27	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.56	1		02/04/20 14:27	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.16	1		02/04/20 14:27	1634-04-4	
Styrene	ND	ug/L	1.0	0.15	1		02/04/20 14:27	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.31	1		02/04/20 14:27	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.22	1		02/04/20 14:27	127-18-4	
Toluene	ND	ug/L	1.0	0.14	1		02/04/20 14:27	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.20	1		02/04/20 14:27	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.12	1		02/04/20 14:27	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.10	1		02/04/20 14:27	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		02/04/20 14:27	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.13	1		02/04/20 14:27	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	0.12	1		02/04/20 14:27	76-13-1	N2

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ANALYTICAL RESULTS

Project: 012559A GM RACER FAIRFAX

Pace Project No.: 60327953

Sample: WG-012920-NL-009		Lab ID: 60327953009		Collected: 01/29/20 16:40		Received: 01/31/20 17:06		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 5030B/8260									
Vinyl chloride	ND	ug/L	1.0	0.11	1		02/04/20 14:27	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.34	1		02/04/20 14:27	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	99	%	80-120		1		02/04/20 14:27	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	77-122		1		02/04/20 14:27	17060-07-0	
Toluene-d8 (S)	102	%	80-120		1		02/04/20 14:27	2037-26-5	
Preservation pH	1.0		0.10	0.10	1		02/04/20 14:27		

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ANALYTICAL RESULTS

Project: 012559A GM RACER FAIRFAX

Pace Project No.: 60327953

Sample: WG-012920-NL-016 **Lab ID: 60327953010** Collected: 01/29/20 17:45 Received: 01/31/20 17:06 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	3.3	1		02/04/20 14:41	67-64-1	
Benzene	ND	ug/L	1.0	0.079	1		02/04/20 14:41	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.17	1		02/04/20 14:41	75-27-4	
Bromoform	ND	ug/L	1.0	0.21	1		02/04/20 14:41	75-25-2	
Bromomethane	ND	ug/L	5.0	0.32	1		02/04/20 14:41	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.70	1		02/04/20 14:41	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.16	1		02/04/20 14:41	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.084	1		02/04/20 14:41	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.13	1		02/04/20 14:41	108-90-7	
Chloroethane	ND	ug/L	1.0	0.42	1		02/04/20 14:41	75-00-3	
Chloroform	0.24J	ug/L	1.0	0.10	1		02/04/20 14:41	67-66-3	
Chloromethane	ND	ug/L	1.0	0.16	1		02/04/20 14:41	74-87-3	
Cyclohexane	ND	ug/L	1.0	0.079	1		02/04/20 14:41	110-82-7	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.5	0.83	1		02/04/20 14:41	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.15	1		02/04/20 14:41	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.18	1		02/04/20 14:41	106-93-4	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.28	1		02/04/20 14:41	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.21	1		02/04/20 14:41	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.23	1		02/04/20 14:41	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.098	1		02/04/20 14:41	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.097	1		02/04/20 14:41	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.14	1		02/04/20 14:41	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.22	1		02/04/20 14:41	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.17	1		02/04/20 14:41	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.17	1		02/04/20 14:41	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.080	1		02/04/20 14:41	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.087	1		02/04/20 14:41	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		02/04/20 14:41	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.12	1		02/04/20 14:41	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.0	1		02/04/20 14:41	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.20	1		02/04/20 14:41	98-82-8	
Methyl acetate	ND	ug/L	20.0	0.49	1		02/04/20 14:41	79-20-9	
Methylcyclohexane	ND	ug/L	1.0	0.10	1		02/04/20 14:41	108-87-2	
Methylene Chloride	ND	ug/L	1.0	0.27	1		02/04/20 14:41	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.56	1		02/04/20 14:41	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.16	1		02/04/20 14:41	1634-04-4	
Styrene	ND	ug/L	1.0	0.15	1		02/04/20 14:41	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.31	1		02/04/20 14:41	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.22	1		02/04/20 14:41	127-18-4	
Toluene	ND	ug/L	1.0	0.14	1		02/04/20 14:41	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.20	1		02/04/20 14:41	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.12	1		02/04/20 14:41	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.10	1		02/04/20 14:41	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		02/04/20 14:41	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.13	1		02/04/20 14:41	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	0.12	1		02/04/20 14:41	76-13-1	N2

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ANALYTICAL RESULTS

Project: 012559A GM RACER FAIRFAX

Pace Project No.: 60327953

Sample: WG-012920-NL-016		Lab ID: 60327953010		Collected: 01/29/20 17:45		Received: 01/31/20 17:06		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 5030B/8260									
Vinyl chloride	ND	ug/L	1.0	0.11	1		02/04/20 14:41	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.34	1		02/04/20 14:41	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	104	%	80-120		1		02/04/20 14:41	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	77-122		1		02/04/20 14:41	17060-07-0	
Toluene-d8 (S)	102	%	80-120		1		02/04/20 14:41	2037-26-5	
Preservation pH	1.0		0.10	0.10	1		02/04/20 14:41		

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ANALYTICAL RESULTS

Project: 012559A GM RACER FAIRFAX

Pace Project No.: 60327953

Sample: WG-012920-NL-010 **Lab ID: 60327953011** Collected: 01/29/20 18:45 Received: 01/31/20 17:06 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	3.3	1		02/04/20 14:55	67-64-1	
Benzene	ND	ug/L	1.0	0.079	1		02/04/20 14:55	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.17	1		02/04/20 14:55	75-27-4	
Bromoform	ND	ug/L	1.0	0.21	1		02/04/20 14:55	75-25-2	
Bromomethane	ND	ug/L	5.0	0.32	1		02/04/20 14:55	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.70	1		02/04/20 14:55	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.16	1		02/04/20 14:55	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.084	1		02/04/20 14:55	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.13	1		02/04/20 14:55	108-90-7	
Chloroethane	ND	ug/L	1.0	0.42	1		02/04/20 14:55	75-00-3	
Chloroform	ND	ug/L	1.0	0.10	1		02/04/20 14:55	67-66-3	
Chloromethane	ND	ug/L	1.0	0.16	1		02/04/20 14:55	74-87-3	
Cyclohexane	ND	ug/L	1.0	0.079	1		02/04/20 14:55	110-82-7	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.5	0.83	1		02/04/20 14:55	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.15	1		02/04/20 14:55	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.18	1		02/04/20 14:55	106-93-4	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.28	1		02/04/20 14:55	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.21	1		02/04/20 14:55	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.23	1		02/04/20 14:55	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.098	1		02/04/20 14:55	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.097	1		02/04/20 14:55	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.14	1		02/04/20 14:55	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.22	1		02/04/20 14:55	75-35-4	
cis-1,2-Dichloroethene	2.8	ug/L	1.0	0.17	1		02/04/20 14:55	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.17	1		02/04/20 14:55	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.080	1		02/04/20 14:55	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.087	1		02/04/20 14:55	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		02/04/20 14:55	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.12	1		02/04/20 14:55	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.0	1		02/04/20 14:55	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.20	1		02/04/20 14:55	98-82-8	
Methyl acetate	ND	ug/L	20.0	0.49	1		02/04/20 14:55	79-20-9	
Methylcyclohexane	ND	ug/L	1.0	0.10	1		02/04/20 14:55	108-87-2	
Methylene Chloride	ND	ug/L	1.0	0.27	1		02/04/20 14:55	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.56	1		02/04/20 14:55	108-10-1	
Methyl-tert-butyl ether	0.16J	ug/L	1.0	0.16	1		02/04/20 14:55	1634-04-4	
Styrene	ND	ug/L	1.0	0.15	1		02/04/20 14:55	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.31	1		02/04/20 14:55	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.22	1		02/04/20 14:55	127-18-4	
Toluene	ND	ug/L	1.0	0.14	1		02/04/20 14:55	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.20	1		02/04/20 14:55	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.12	1		02/04/20 14:55	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.10	1		02/04/20 14:55	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		02/04/20 14:55	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.13	1		02/04/20 14:55	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	0.12	1		02/04/20 14:55	76-13-1	N2

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ANALYTICAL RESULTS

Project: 012559A GM RACER FAIRFAX

Pace Project No.: 60327953

Sample: WG-012920-NL-010		Lab ID: 60327953011		Collected: 01/29/20 18:45		Received: 01/31/20 17:06		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 5030B/8260									
Vinyl chloride	0.22J	ug/L	1.0	0.11	1		02/04/20 14:55	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.34	1		02/04/20 14:55	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	100	%	80-120		1		02/04/20 14:55	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	77-122		1		02/04/20 14:55	17060-07-0	
Toluene-d8 (S)	103	%	80-120		1		02/04/20 14:55	2037-26-5	
Preservation pH	1.0		0.10	0.10	1		02/04/20 14:55		

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ANALYTICAL RESULTS

Project: 012559A GM RACER FAIRFAX

Pace Project No.: 60327953

Sample: WG-013020-NL-011 **Lab ID: 60327953012** Collected: 01/30/20 12:30 Received: 01/31/20 17:06 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	3.3	1		02/04/20 17:30	67-64-1	
Benzene	ND	ug/L	1.0	0.079	1		02/04/20 17:30	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.17	1		02/04/20 17:30	75-27-4	
Bromoform	ND	ug/L	1.0	0.21	1		02/04/20 17:30	75-25-2	
Bromomethane	ND	ug/L	5.0	0.32	1		02/04/20 17:30	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.70	1		02/04/20 17:30	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.16	1		02/04/20 17:30	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.084	1		02/04/20 17:30	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.13	1		02/04/20 17:30	108-90-7	
Chloroethane	ND	ug/L	1.0	0.42	1		02/04/20 17:30	75-00-3	
Chloroform	ND	ug/L	1.0	0.10	1		02/04/20 17:30	67-66-3	
Chloromethane	ND	ug/L	1.0	0.16	1		02/04/20 17:30	74-87-3	
Cyclohexane	ND	ug/L	1.0	0.079	1		02/04/20 17:30	110-82-7	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.5	0.83	1		02/04/20 17:30	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.15	1		02/04/20 17:30	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.18	1		02/04/20 17:30	106-93-4	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.28	1		02/04/20 17:30	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.21	1		02/04/20 17:30	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.23	1		02/04/20 17:30	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.098	1		02/04/20 17:30	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.097	1		02/04/20 17:30	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.14	1		02/04/20 17:30	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.22	1		02/04/20 17:30	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.17	1		02/04/20 17:30	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.17	1		02/04/20 17:30	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.080	1		02/04/20 17:30	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.087	1		02/04/20 17:30	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		02/04/20 17:30	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.12	1		02/04/20 17:30	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.0	1		02/04/20 17:30	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.20	1		02/04/20 17:30	98-82-8	
Methyl acetate	ND	ug/L	20.0	0.49	1		02/04/20 17:30	79-20-9	
Methylcyclohexane	ND	ug/L	1.0	0.10	1		02/04/20 17:30	108-87-2	
Methylene Chloride	ND	ug/L	1.0	0.27	1		02/04/20 17:30	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.56	1		02/04/20 17:30	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.16	1		02/04/20 17:30	1634-04-4	
Styrene	ND	ug/L	1.0	0.15	1		02/04/20 17:30	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.31	1		02/04/20 17:30	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.22	1		02/04/20 17:30	127-18-4	
Toluene	ND	ug/L	1.0	0.14	1		02/04/20 17:30	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.20	1		02/04/20 17:30	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.12	1		02/04/20 17:30	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.10	1		02/04/20 17:30	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		02/04/20 17:30	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.13	1		02/04/20 17:30	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	0.12	1		02/04/20 17:30	76-13-1	N2

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ANALYTICAL RESULTS

Project: 012559A GM RACER FAIRFAX

Pace Project No.: 60327953

Sample: WG-013020-NL-011		Lab ID: 60327953012		Collected: 01/30/20 12:30		Received: 01/31/20 17:06		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 5030B/8260									
Vinyl chloride	ND	ug/L	1.0	0.11	1		02/04/20 17:30	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.34	1		02/04/20 17:30	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	99	%	80-120		1		02/04/20 17:30	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	77-122		1		02/04/20 17:30	17060-07-0	
Toluene-d8 (S)	99	%	80-120		1		02/04/20 17:30	2037-26-5	
Preservation pH	1.0		0.10	0.10	1		02/04/20 17:30		

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ANALYTICAL RESULTS

Project: 012559A GM RACER FAIRFAX

Pace Project No.: 60327953

Sample: WG-013020-NL-012 **Lab ID: 60327953013** Collected: 01/30/20 13:40 Received: 01/31/20 17:06 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	3.3	1		02/04/20 17:44	67-64-1	
Benzene	ND	ug/L	1.0	0.079	1		02/04/20 17:44	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.17	1		02/04/20 17:44	75-27-4	
Bromoform	ND	ug/L	1.0	0.21	1		02/04/20 17:44	75-25-2	
Bromomethane	ND	ug/L	5.0	0.32	1		02/04/20 17:44	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.70	1		02/04/20 17:44	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.16	1		02/04/20 17:44	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.084	1		02/04/20 17:44	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.13	1		02/04/20 17:44	108-90-7	
Chloroethane	ND	ug/L	1.0	0.42	1		02/04/20 17:44	75-00-3	
Chloroform	ND	ug/L	1.0	0.10	1		02/04/20 17:44	67-66-3	
Chloromethane	ND	ug/L	1.0	0.16	1		02/04/20 17:44	74-87-3	
Cyclohexane	ND	ug/L	1.0	0.079	1		02/04/20 17:44	110-82-7	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.5	0.83	1		02/04/20 17:44	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.15	1		02/04/20 17:44	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.18	1		02/04/20 17:44	106-93-4	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.28	1		02/04/20 17:44	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.21	1		02/04/20 17:44	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.23	1		02/04/20 17:44	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.098	1		02/04/20 17:44	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.097	1		02/04/20 17:44	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.14	1		02/04/20 17:44	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.22	1		02/04/20 17:44	75-35-4	
cis-1,2-Dichloroethene	1.2	ug/L	1.0	0.17	1		02/04/20 17:44	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.17	1		02/04/20 17:44	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.080	1		02/04/20 17:44	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.087	1		02/04/20 17:44	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		02/04/20 17:44	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.12	1		02/04/20 17:44	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.0	1		02/04/20 17:44	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.20	1		02/04/20 17:44	98-82-8	
Methyl acetate	ND	ug/L	20.0	0.49	1		02/04/20 17:44	79-20-9	
Methylcyclohexane	ND	ug/L	1.0	0.10	1		02/04/20 17:44	108-87-2	
Methylene Chloride	ND	ug/L	1.0	0.27	1		02/04/20 17:44	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.56	1		02/04/20 17:44	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.16	1		02/04/20 17:44	1634-04-4	
Styrene	ND	ug/L	1.0	0.15	1		02/04/20 17:44	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.31	1		02/04/20 17:44	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.22	1		02/04/20 17:44	127-18-4	
Toluene	ND	ug/L	1.0	0.14	1		02/04/20 17:44	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.20	1		02/04/20 17:44	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.12	1		02/04/20 17:44	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.10	1		02/04/20 17:44	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		02/04/20 17:44	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.13	1		02/04/20 17:44	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	0.12	1		02/04/20 17:44	76-13-1	N2

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ANALYTICAL RESULTS

Project: 012559A GM RACER FAIRFAX

Pace Project No.: 60327953

Sample: WG-013020-NL-012		Lab ID: 60327953013		Collected: 01/30/20 13:40		Received: 01/31/20 17:06		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 5030B/8260									
Vinyl chloride	2.2	ug/L	1.0	0.11	1		02/04/20 17:44	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.34	1		02/04/20 17:44	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	97	%	80-120		1		02/04/20 17:44	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	77-122		1		02/04/20 17:44	17060-07-0	
Toluene-d8 (S)	102	%	80-120		1		02/04/20 17:44	2037-26-5	
Preservation pH	1.0		0.10	0.10	1		02/04/20 17:44		

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ANALYTICAL RESULTS

Project: 012559A GM RACER FAIRFAX

Pace Project No.: 60327953

Sample: **WG-013020-NL-013** Lab ID: **60327953014** Collected: 01/30/20 14:45 Received: 01/31/20 17:06 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Analytical Method: EPA 5030B/8260									
Acetone	ND	ug/L	10.0	3.3	1		02/04/20 17:58	67-64-1	
Benzene	ND	ug/L	1.0	0.079	1		02/04/20 17:58	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.17	1		02/04/20 17:58	75-27-4	
Bromoform	ND	ug/L	1.0	0.21	1		02/04/20 17:58	75-25-2	
Bromomethane	ND	ug/L	5.0	0.32	1		02/04/20 17:58	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.70	1		02/04/20 17:58	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.16	1		02/04/20 17:58	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.084	1		02/04/20 17:58	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.13	1		02/04/20 17:58	108-90-7	
Chloroethane	ND	ug/L	1.0	0.42	1		02/04/20 17:58	75-00-3	
Chloroform	ND	ug/L	1.0	0.10	1		02/04/20 17:58	67-66-3	
Chloromethane	ND	ug/L	1.0	0.16	1		02/04/20 17:58	74-87-3	
Cyclohexane	ND	ug/L	1.0	0.079	1		02/04/20 17:58	110-82-7	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.5	0.83	1		02/04/20 17:58	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.15	1		02/04/20 17:58	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.18	1		02/04/20 17:58	106-93-4	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.28	1		02/04/20 17:58	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.21	1		02/04/20 17:58	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.23	1		02/04/20 17:58	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.098	1		02/04/20 17:58	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.097	1		02/04/20 17:58	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.14	1		02/04/20 17:58	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.22	1		02/04/20 17:58	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.17	1		02/04/20 17:58	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.17	1		02/04/20 17:58	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.080	1		02/04/20 17:58	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.087	1		02/04/20 17:58	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		02/04/20 17:58	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.12	1		02/04/20 17:58	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.0	1		02/04/20 17:58	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.20	1		02/04/20 17:58	98-82-8	
Methyl acetate	ND	ug/L	20.0	0.49	1		02/04/20 17:58	79-20-9	
Methylcyclohexane	ND	ug/L	1.0	0.10	1		02/04/20 17:58	108-87-2	
Methylene Chloride	ND	ug/L	1.0	0.27	1		02/04/20 17:58	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.56	1		02/04/20 17:58	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.16	1		02/04/20 17:58	1634-04-4	
Styrene	ND	ug/L	1.0	0.15	1		02/04/20 17:58	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.31	1		02/04/20 17:58	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.22	1		02/04/20 17:58	127-18-4	
Toluene	ND	ug/L	1.0	0.14	1		02/04/20 17:58	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.20	1		02/04/20 17:58	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.12	1		02/04/20 17:58	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.10	1		02/04/20 17:58	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		02/04/20 17:58	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.13	1		02/04/20 17:58	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	0.12	1		02/04/20 17:58	76-13-1	N2

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ANALYTICAL RESULTS

Project: 012559A GM RACER FAIRFAX

Pace Project No.: 60327953

Sample: WG-013020-NL-013		Lab ID: 60327953014		Collected: 01/30/20 14:45		Received: 01/31/20 17:06		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 5030B/8260									
Vinyl chloride	ND	ug/L	1.0	0.11	1		02/04/20 17:58	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.34	1		02/04/20 17:58	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	104	%	80-120		1		02/04/20 17:58	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	77-122		1		02/04/20 17:58	17060-07-0	
Toluene-d8 (S)	100	%	80-120		1		02/04/20 17:58	2037-26-5	
Preservation pH	1.0		0.10	0.10	1		02/04/20 17:58		

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ANALYTICAL RESULTS

Project: 012559A GM RACER FAIRFAX

Pace Project No.: 60327953

Sample: **WG-013020-NL-014** Lab ID: **60327953015** Collected: 01/30/20 16:00 Received: 01/31/20 17:06 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 5030B/8260							
Acetone	9.4J	ug/L	10.0	3.3	1		02/04/20 18:12	67-64-1	
Benzene	ND	ug/L	1.0	0.079	1		02/04/20 18:12	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.17	1		02/04/20 18:12	75-27-4	
Bromoform	ND	ug/L	1.0	0.21	1		02/04/20 18:12	75-25-2	
Bromomethane	ND	ug/L	5.0	0.32	1		02/04/20 18:12	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.70	1		02/04/20 18:12	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.16	1		02/04/20 18:12	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.084	1		02/04/20 18:12	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.13	1		02/04/20 18:12	108-90-7	
Chloroethane	ND	ug/L	1.0	0.42	1		02/04/20 18:12	75-00-3	
Chloroform	ND	ug/L	1.0	0.10	1		02/04/20 18:12	67-66-3	
Chloromethane	ND	ug/L	1.0	0.16	1		02/04/20 18:12	74-87-3	
Cyclohexane	ND	ug/L	1.0	0.079	1		02/04/20 18:12	110-82-7	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.5	0.83	1		02/04/20 18:12	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.15	1		02/04/20 18:12	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.18	1		02/04/20 18:12	106-93-4	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.28	1		02/04/20 18:12	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.21	1		02/04/20 18:12	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.23	1		02/04/20 18:12	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.098	1		02/04/20 18:12	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.097	1		02/04/20 18:12	75-34-3	
1,2-Dichloroethane	0.16J	ug/L	1.0	0.14	1		02/04/20 18:12	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.22	1		02/04/20 18:12	75-35-4	
cis-1,2-Dichloroethene	0.43J	ug/L	1.0	0.17	1		02/04/20 18:12	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.17	1		02/04/20 18:12	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.080	1		02/04/20 18:12	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.087	1		02/04/20 18:12	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		02/04/20 18:12	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.12	1		02/04/20 18:12	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.0	1		02/04/20 18:12	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.20	1		02/04/20 18:12	98-82-8	
Methyl acetate	ND	ug/L	20.0	0.49	1		02/04/20 18:12	79-20-9	
Methylcyclohexane	ND	ug/L	1.0	0.10	1		02/04/20 18:12	108-87-2	
Methylene Chloride	ND	ug/L	1.0	0.27	1		02/04/20 18:12	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.56	1		02/04/20 18:12	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.16	1		02/04/20 18:12	1634-04-4	
Styrene	ND	ug/L	1.0	0.15	1		02/04/20 18:12	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.31	1		02/04/20 18:12	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.22	1		02/04/20 18:12	127-18-4	
Toluene	ND	ug/L	1.0	0.14	1		02/04/20 18:12	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.20	1		02/04/20 18:12	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.12	1		02/04/20 18:12	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.10	1		02/04/20 18:12	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		02/04/20 18:12	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.13	1		02/04/20 18:12	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	0.12	1		02/04/20 18:12	76-13-1	N2

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ANALYTICAL RESULTS

Project: 012559A GM RACER FAIRFAX

Pace Project No.: 60327953

Sample: WG-013020-NL-014		Lab ID: 60327953015		Collected: 01/30/20 16:00		Received: 01/31/20 17:06		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 5030B/8260									
Vinyl chloride	0.20J	ug/L	1.0	0.11	1		02/04/20 18:12	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.34	1		02/04/20 18:12	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	101	%	80-120		1		02/04/20 18:12	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	77-122		1		02/04/20 18:12	17060-07-0	
Toluene-d8 (S)	104	%	80-120		1		02/04/20 18:12	2037-26-5	
Preservation pH	1.0		0.10	0.10	1		02/04/20 18:12		

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ANALYTICAL RESULTS

Project: 012559A GM RACER FAIRFAX

Pace Project No.: 60327953

Sample: WG-013020-NL-015 **Lab ID: 60327953016** Collected: 01/30/20 17:20 Received: 01/31/20 17:06 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	3.3	1		02/04/20 18:26	67-64-1	
Benzene	ND	ug/L	1.0	0.079	1		02/04/20 18:26	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.17	1		02/04/20 18:26	75-27-4	
Bromoform	ND	ug/L	1.0	0.21	1		02/04/20 18:26	75-25-2	
Bromomethane	ND	ug/L	5.0	0.32	1		02/04/20 18:26	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.70	1		02/04/20 18:26	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.16	1		02/04/20 18:26	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.084	1		02/04/20 18:26	56-23-5	
Chlorobenzene	0.16J	ug/L	1.0	0.13	1		02/04/20 18:26	108-90-7	
Chloroethane	ND	ug/L	1.0	0.42	1		02/04/20 18:26	75-00-3	
Chloroform	ND	ug/L	1.0	0.10	1		02/04/20 18:26	67-66-3	
Chloromethane	ND	ug/L	1.0	0.16	1		02/04/20 18:26	74-87-3	
Cyclohexane	ND	ug/L	1.0	0.079	1		02/04/20 18:26	110-82-7	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.5	0.83	1		02/04/20 18:26	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.15	1		02/04/20 18:26	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.18	1		02/04/20 18:26	106-93-4	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.28	1		02/04/20 18:26	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.21	1		02/04/20 18:26	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.23	1		02/04/20 18:26	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.098	1		02/04/20 18:26	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.097	1		02/04/20 18:26	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.14	1		02/04/20 18:26	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.22	1		02/04/20 18:26	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.17	1		02/04/20 18:26	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.17	1		02/04/20 18:26	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.080	1		02/04/20 18:26	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.087	1		02/04/20 18:26	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		02/04/20 18:26	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.12	1		02/04/20 18:26	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.0	1		02/04/20 18:26	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.20	1		02/04/20 18:26	98-82-8	
Methyl acetate	ND	ug/L	20.0	0.49	1		02/04/20 18:26	79-20-9	
Methylcyclohexane	ND	ug/L	1.0	0.10	1		02/04/20 18:26	108-87-2	
Methylene Chloride	ND	ug/L	1.0	0.27	1		02/04/20 18:26	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.56	1		02/04/20 18:26	108-10-1	
Methyl-tert-butyl ether	0.17J	ug/L	1.0	0.16	1		02/04/20 18:26	1634-04-4	
Styrene	ND	ug/L	1.0	0.15	1		02/04/20 18:26	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.31	1		02/04/20 18:26	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.22	1		02/04/20 18:26	127-18-4	
Toluene	ND	ug/L	1.0	0.14	1		02/04/20 18:26	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.20	1		02/04/20 18:26	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.12	1		02/04/20 18:26	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.10	1		02/04/20 18:26	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		02/04/20 18:26	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.13	1		02/04/20 18:26	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	0.12	1		02/04/20 18:26	76-13-1	N2

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ANALYTICAL RESULTS

Project: 012559A GM RACER FAIRFAX

Pace Project No.: 60327953

Sample: WG-013020-NL-015		Lab ID: 60327953016		Collected: 01/30/20 17:20		Received: 01/31/20 17:06		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 5030B/8260									
Vinyl chloride	1.4	ug/L	1.0	0.11	1		02/04/20 18:26	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.34	1		02/04/20 18:26	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	99	%	80-120		1		02/04/20 18:26	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	77-122		1		02/04/20 18:26	17060-07-0	
Toluene-d8 (S)	100	%	80-120		1		02/04/20 18:26	2037-26-5	
Preservation pH	1.0		0.10	0.10	1		02/04/20 18:26		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 012559A GM RACER FAIRFAX

Pace Project No.: 60327953

QC Batch:	636432	Analysis Method:	EPA 5030B/8260
QC Batch Method:	EPA 5030B/8260	Analysis Description:	8260 MSV Water 10 mL Purge
Associated Lab Samples:	60327953001, 60327953002, 60327953003, 60327953004, 60327953005, 60327953006, 60327953007, 60327953009, 60327953010, 60327953011		

METHOD BLANK:	2589290	Matrix:	Water
Associated Lab Samples:	60327953001, 60327953002, 60327953003, 60327953004, 60327953005, 60327953006, 60327953007, 60327953009, 60327953010, 60327953011		

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	0.12	02/04/20 10:26	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.31	02/04/20 10:26	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.10	02/04/20 10:26	
1,1,2-Trichlorotrifluoroethane	ug/L	ND	1.0	0.12	02/04/20 10:26	N2
1,1-Dichloroethane	ug/L	ND	1.0	0.097	02/04/20 10:26	
1,1-Dichloroethene	ug/L	ND	1.0	0.22	02/04/20 10:26	
1,2,4-Trichlorobenzene	ug/L	0.23J	1.0	0.20	02/04/20 10:26	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.5	0.83	02/04/20 10:26	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	0.18	02/04/20 10:26	
1,2-Dichlorobenzene	ug/L	ND	1.0	0.28	02/04/20 10:26	
1,2-Dichloroethane	ug/L	ND	1.0	0.14	02/04/20 10:26	
1,2-Dichloropropane	ug/L	ND	1.0	0.080	02/04/20 10:26	
1,3-Dichlorobenzene	ug/L	ND	1.0	0.21	02/04/20 10:26	
1,4-Dichlorobenzene	ug/L	ND	1.0	0.23	02/04/20 10:26	
2-Butanone (MEK)	ug/L	ND	10.0	0.70	02/04/20 10:26	
2-Hexanone	ug/L	ND	10.0	1.0	02/04/20 10:26	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	0.56	02/04/20 10:26	
Acetone	ug/L	ND	10.0	3.3	02/04/20 10:26	
Benzene	ug/L	ND	1.0	0.079	02/04/20 10:26	
Bromodichloromethane	ug/L	ND	1.0	0.17	02/04/20 10:26	
Bromoform	ug/L	ND	1.0	0.21	02/04/20 10:26	
Bromomethane	ug/L	0.37J	5.0	0.32	02/04/20 10:26	
Carbon disulfide	ug/L	ND	5.0	0.16	02/04/20 10:26	
Carbon tetrachloride	ug/L	ND	1.0	0.084	02/04/20 10:26	
Chlorobenzene	ug/L	ND	1.0	0.13	02/04/20 10:26	
Chloroethane	ug/L	ND	1.0	0.42	02/04/20 10:26	
Chloroform	ug/L	ND	1.0	0.10	02/04/20 10:26	
Chloromethane	ug/L	ND	1.0	0.16	02/04/20 10:26	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.17	02/04/20 10:26	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.087	02/04/20 10:26	
Cyclohexane	ug/L	ND	1.0	0.079	02/04/20 10:26	
Dibromochloromethane	ug/L	ND	1.0	0.15	02/04/20 10:26	
Dichlorodifluoromethane	ug/L	ND	1.0	0.098	02/04/20 10:26	
Ethylbenzene	ug/L	ND	1.0	0.12	02/04/20 10:26	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	0.20	02/04/20 10:26	
Methyl acetate	ug/L	ND	20.0	0.49	02/04/20 10:26	
Methyl-tert-butyl ether	ug/L	ND	1.0	0.16	02/04/20 10:26	
Methylcyclohexane	ug/L	ND	1.0	0.10	02/04/20 10:26	
Methylene Chloride	ug/L	ND	1.0	0.27	02/04/20 10:26	
Styrene	ug/L	ND	1.0	0.15	02/04/20 10:26	

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QUALITY CONTROL DATA

Project: 012559A GM RACER FAIRFAX

Pace Project No.: 60327953

METHOD BLANK: 2589290

Matrix: Water

Associated Lab Samples: 60327953001, 60327953002, 60327953003, 60327953004, 60327953005, 60327953006, 60327953007, 60327953009, 60327953010, 60327953011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Tetrachloroethene	ug/L	ND	1.0	0.22	02/04/20 10:26	
Toluene	ug/L	ND	1.0	0.14	02/04/20 10:26	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.17	02/04/20 10:26	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.12	02/04/20 10:26	
Trichloroethene	ug/L	ND	1.0	0.17	02/04/20 10:26	
Trichlorofluoromethane	ug/L	ND	1.0	0.13	02/04/20 10:26	
Vinyl chloride	ug/L	ND	1.0	0.11	02/04/20 10:26	
Xylene (Total)	ug/L	ND	3.0	0.34	02/04/20 10:26	
1,2-Dichloroethane-d4 (S)	%	101	77-122		02/04/20 10:26	
4-Bromofluorobenzene (S)	%	100	80-120		02/04/20 10:26	
Toluene-d8 (S)	%	100	80-120		02/04/20 10:26	

LABORATORY CONTROL SAMPLE: 2589291

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	20.7	103	79-120	
1,1,2,2-Tetrachloroethane	ug/L	20	20.7	104	71-122	
1,1,2-Trichloroethane	ug/L	20	19.0	95	76-123	
1,1,2-Trichlorotrifluoroethane	ug/L	20	19.1	95	69-132	N2
1,1-Dichloroethane	ug/L	20	20.5	103	78-117	
1,1-Dichloroethene	ug/L	20	20.2	101	74-122	
1,2,4-Trichlorobenzene	ug/L	20	19.6	98	76-122	
1,2-Dibromo-3-chloropropane	ug/L	20	19.7	98	65-133	
1,2-Dibromoethane (EDB)	ug/L	20	20.6	103	80-118	
1,2-Dichlorobenzene	ug/L	20	20.3	102	84-118	
1,2-Dichloroethane	ug/L	20	20.3	101	73-120	
1,2-Dichloropropane	ug/L	20	21.3	107	78-115	
1,3-Dichlorobenzene	ug/L	20	19.9	99	84-116	
1,4-Dichlorobenzene	ug/L	20	20.1	101	83-115	
2-Butanone (MEK)	ug/L	100	100	100	54-133	
2-Hexanone	ug/L	100	111	111	60-133	
4-Methyl-2-pentanone (MIBK)	ug/L	100	108	108	62-130	
Acetone	ug/L	100	94.2	94	54-130	
Benzene	ug/L	20	20.1	100	80-120	
Bromodichloromethane	ug/L	20	18.1	91	78-121	
Bromoform	ug/L	20	22.3	111	62-137	
Bromomethane	ug/L	20	21.3	107	41-145	
Carbon disulfide	ug/L	20	19.7	98	64-119	
Carbon tetrachloride	ug/L	20	20.4	102	77-122	
Chlorobenzene	ug/L	20	20.5	102	80-123	
Chloroethane	ug/L	20	22.3	111	60-146	
Chloroform	ug/L	20	20.3	101	81-116	
Chloromethane	ug/L	20	20.0	100	29-154	

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QUALITY CONTROL DATA

Project: 012559A GM RACER FAIRFAX

Pace Project No.: 60327953

LABORATORY CONTROL SAMPLE: 2589291

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
cis-1,2-Dichloroethene	ug/L	20	19.9	100	80-120	
cis-1,3-Dichloropropene	ug/L	20	21.5	108	78-118	
Cyclohexane	ug/L	20	20.1	101	78-129	
Dibromochloromethane	ug/L	20	19.2	96	73-128	
Dichlorodifluoromethane	ug/L	20	19.7	98	13-185	
Ethylbenzene	ug/L	20	19.3	97	80-120	
Isopropylbenzene (Cumene)	ug/L	20	20.9	105	81-115	
Methyl acetate	ug/L	20	18.7J	93	71-129	
Methyl-tert-butyl ether	ug/L	20	22.5	112	67-125	
Methylcyclohexane	ug/L	20	21.1	106	83-127	
Methylene Chloride	ug/L	20	20.1	100	80-126	
Styrene	ug/L	20	20.3	102	85-120	
Tetrachloroethene	ug/L	20	20.1	100	77-121	
Toluene	ug/L	20	20.7	104	80-120	
trans-1,2-Dichloroethene	ug/L	20	20.3	102	80-120	
trans-1,3-Dichloropropene	ug/L	20	19.0	95	76-123	
Trichloroethene	ug/L	20	21.2	106	80-121	
Trichlorofluoromethane	ug/L	20	21.3	106	64-124	
Vinyl chloride	ug/L	20	21.3	107	46-162	
Xylene (Total)	ug/L	60	61.0	102	80-120	
1,2-Dichloroethane-d4 (S)	%			102	77-122	
4-Bromofluorobenzene (S)	%			101	80-120	
Toluene-d8 (S)	%			102	80-120	

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QUALITY CONTROL DATA

Project: 012559A GM RACER FAIRFAX

Pace Project No.: 60327953

QC Batch: 636493 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 60327953012, 60327953013, 60327953014, 60327953015, 60327953016

METHOD BLANK: 2589533 Matrix: Water
Associated Lab Samples: 60327953012, 60327953013, 60327953014, 60327953015, 60327953016

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	0.12	02/04/20 16:05	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.31	02/04/20 16:05	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.10	02/04/20 16:05	
1,1,2-Trichlorotrifluoroethane	ug/L	ND	1.0	0.12	02/04/20 16:05	N2
1,1-Dichloroethane	ug/L	ND	1.0	0.097	02/04/20 16:05	
1,1-Dichloroethene	ug/L	ND	1.0	0.22	02/04/20 16:05	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	0.20	02/04/20 16:05	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.5	0.83	02/04/20 16:05	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	0.18	02/04/20 16:05	
1,2-Dichlorobenzene	ug/L	ND	1.0	0.28	02/04/20 16:05	
1,2-Dichloroethane	ug/L	ND	1.0	0.14	02/04/20 16:05	
1,2-Dichloropropane	ug/L	ND	1.0	0.080	02/04/20 16:05	
1,3-Dichlorobenzene	ug/L	ND	1.0	0.21	02/04/20 16:05	
1,4-Dichlorobenzene	ug/L	ND	1.0	0.23	02/04/20 16:05	
2-Butanone (MEK)	ug/L	ND	10.0	0.70	02/04/20 16:05	
2-Hexanone	ug/L	ND	10.0	1.0	02/04/20 16:05	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	0.56	02/04/20 16:05	
Acetone	ug/L	ND	10.0	3.3	02/04/20 16:05	
Benzene	ug/L	ND	1.0	0.079	02/04/20 16:05	
Bromodichloromethane	ug/L	ND	1.0	0.17	02/04/20 16:05	
Bromoform	ug/L	ND	1.0	0.21	02/04/20 16:05	
Bromomethane	ug/L	ND	5.0	0.32	02/04/20 16:05	
Carbon disulfide	ug/L	ND	5.0	0.16	02/04/20 16:05	
Carbon tetrachloride	ug/L	ND	1.0	0.084	02/04/20 16:05	
Chlorobenzene	ug/L	ND	1.0	0.13	02/04/20 16:05	
Chloroethane	ug/L	ND	1.0	0.42	02/04/20 16:05	
Chloroform	ug/L	ND	1.0	0.10	02/04/20 16:05	
Chloromethane	ug/L	ND	1.0	0.16	02/04/20 16:05	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.17	02/04/20 16:05	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.087	02/04/20 16:05	
Cyclohexane	ug/L	ND	1.0	0.079	02/04/20 16:05	
Dibromochloromethane	ug/L	ND	1.0	0.15	02/04/20 16:05	
Dichlorodifluoromethane	ug/L	ND	1.0	0.098	02/04/20 16:05	
Ethylbenzene	ug/L	ND	1.0	0.12	02/04/20 16:05	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	0.20	02/04/20 16:05	
Methyl acetate	ug/L	ND	20.0	0.49	02/04/20 16:05	
Methyl-tert-butyl ether	ug/L	ND	1.0	0.16	02/04/20 16:05	
Methylcyclohexane	ug/L	ND	1.0	0.10	02/04/20 16:05	
Methylene Chloride	ug/L	ND	1.0	0.27	02/04/20 16:05	
Styrene	ug/L	ND	1.0	0.15	02/04/20 16:05	
Tetrachloroethene	ug/L	ND	1.0	0.22	02/04/20 16:05	

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QUALITY CONTROL DATA

Project: 012559A GM RACER FAIRFAX

Pace Project No.: 60327953

METHOD BLANK: 2589533

Matrix: Water

Associated Lab Samples: 60327953012, 60327953013, 60327953014, 60327953015, 60327953016

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Toluene	ug/L	ND	1.0	0.14	02/04/20 16:05	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.17	02/04/20 16:05	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.12	02/04/20 16:05	
Trichloroethene	ug/L	ND	1.0	0.17	02/04/20 16:05	
Trichlorofluoromethane	ug/L	ND	1.0	0.13	02/04/20 16:05	
Vinyl chloride	ug/L	ND	1.0	0.11	02/04/20 16:05	
Xylene (Total)	ug/L	ND	3.0	0.34	02/04/20 16:05	
1,2-Dichloroethane-d4 (S)	%	100	77-122		02/04/20 16:05	
4-Bromofluorobenzene (S)	%	102	80-120		02/04/20 16:05	
Toluene-d8 (S)	%	102	80-120		02/04/20 16:05	

LABORATORY CONTROL SAMPLE: 2589534

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	19.6	98	79-120	
1,1,2,2-Tetrachloroethane	ug/L	20	20.0	100	71-122	
1,1,2-Trichloroethane	ug/L	20	19.3	97	76-123	
1,1,2-Trichlorotrifluoroethane	ug/L	20	18.9	94	69-132	N2
1,1-Dichloroethane	ug/L	20	19.9	99	78-117	
1,1-Dichloroethene	ug/L	20	18.8	94	74-122	
1,2,4-Trichlorobenzene	ug/L	20	18.1	91	76-122	
1,2-Dibromo-3-chloropropane	ug/L	20	18.5	93	65-133	
1,2-Dibromoethane (EDB)	ug/L	20	20.2	101	80-118	
1,2-Dichlorobenzene	ug/L	20	19.5	98	84-118	
1,2-Dichloroethane	ug/L	20	19.5	97	73-120	
1,2-Dichloropropane	ug/L	20	20.0	100	78-115	
1,3-Dichlorobenzene	ug/L	20	19.5	98	84-116	
1,4-Dichlorobenzene	ug/L	20	19.6	98	83-115	
2-Butanone (MEK)	ug/L	100	106	106	54-133	
2-Hexanone	ug/L	100	108	108	60-133	
4-Methyl-2-pentanone (MIBK)	ug/L	100	105	105	62-130	
Acetone	ug/L	100	98.3	98	54-130	
Benzene	ug/L	20	19.5	98	80-120	
Bromodichloromethane	ug/L	20	18.2	91	78-121	
Bromoform	ug/L	20	19.0	95	62-137	
Bromomethane	ug/L	20	17.5	88	41-145	
Carbon disulfide	ug/L	20	18.9	95	64-119	
Carbon tetrachloride	ug/L	20	19.5	98	77-122	
Chlorobenzene	ug/L	20	20.1	100	80-123	
Chloroethane	ug/L	20	21.9	109	60-146	
Chloroform	ug/L	20	19.8	99	81-116	
Chloromethane	ug/L	20	20.3	101	29-154	
cis-1,2-Dichloroethene	ug/L	20	19.5	98	80-120	
cis-1,3-Dichloropropene	ug/L	20	21.1	105	78-118	

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QUALITY CONTROL DATA

Project: 012559A GM RACER FAIRFAX

Pace Project No.: 60327953

LABORATORY CONTROL SAMPLE: 2589534

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyclohexane	ug/L	20	19.9	99	78-129	
Dibromochloromethane	ug/L	20	18.3	91	73-128	
Dichlorodifluoromethane	ug/L	20	19.4	97	13-185	
Ethylbenzene	ug/L	20	19.2	96	80-120	
Isopropylbenzene (Cumene)	ug/L	20	20.7	103	81-115	
Methyl acetate	ug/L	20	18.6J	93	71-129	
Methyl-tert-butyl ether	ug/L	20	21.1	106	67-125	
Methylcyclohexane	ug/L	20	20.2	101	83-127	
Methylene Chloride	ug/L	20	18.8	94	80-126	
Styrene	ug/L	20	20.4	102	85-120	
Tetrachloroethene	ug/L	20	19.6	98	77-121	
Toluene	ug/L	20	19.4	97	80-120	
trans-1,2-Dichloroethene	ug/L	20	19.5	98	80-120	
trans-1,3-Dichloropropene	ug/L	20	19.1	96	76-123	
Trichloroethene	ug/L	20	20.1	100	80-121	
Trichlorofluoromethane	ug/L	20	21.3	106	64-124	
Vinyl chloride	ug/L	20	21.4	107	46-162	
Xylene (Total)	ug/L	60	60.6	101	80-120	
1,2-Dichloroethane-d4 (S)	%			104	77-122	
4-Bromofluorobenzene (S)	%			97	80-120	
Toluene-d8 (S)	%			101	80-120	

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QUALITY CONTROL DATA

Project: 012559A GM RACER FAIRFAX

Pace Project No.: 60327953

QC Batch: 636651

Analysis Method: EPA 5030B/8260

QC Batch Method: EPA 5030B/8260

Analysis Description: 8260 MSV Water 10 mL Purge

Associated Lab Samples: 60327953001, 60327953008

METHOD BLANK: 2590014

Matrix: Water

Associated Lab Samples: 60327953001, 60327953008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	0.12	02/05/20 08:26	N2
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.31	02/05/20 08:26	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.10	02/05/20 08:26	
1,1,2-Trichlorotrifluoroethane	ug/L	ND	1.0	0.12	02/05/20 08:26	
1,1-Dichloroethane	ug/L	ND	1.0	0.097	02/05/20 08:26	
1,1-Dichloroethene	ug/L	ND	1.0	0.22	02/05/20 08:26	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	0.20	02/05/20 08:26	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.5	0.83	02/05/20 08:26	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	0.18	02/05/20 08:26	
1,2-Dichlorobenzene	ug/L	ND	1.0	0.28	02/05/20 08:26	
1,2-Dichloroethane	ug/L	ND	1.0	0.14	02/05/20 08:26	
1,2-Dichloropropane	ug/L	ND	1.0	0.080	02/05/20 08:26	
1,3-Dichlorobenzene	ug/L	ND	1.0	0.21	02/05/20 08:26	
1,4-Dichlorobenzene	ug/L	ND	1.0	0.23	02/05/20 08:26	
2-Butanone (MEK)	ug/L	ND	10.0	0.70	02/05/20 08:26	
2-Hexanone	ug/L	ND	10.0	1.0	02/05/20 08:26	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	0.56	02/05/20 08:26	
Acetone	ug/L	ND	10.0	3.3	02/05/20 08:26	
Benzene	ug/L	ND	1.0	0.079	02/05/20 08:26	
Bromodichloromethane	ug/L	ND	1.0	0.17	02/05/20 08:26	
Bromoform	ug/L	ND	1.0	0.21	02/05/20 08:26	
Bromomethane	ug/L	ND	5.0	0.32	02/05/20 08:26	
Carbon disulfide	ug/L	ND	5.0	0.16	02/05/20 08:26	
Carbon tetrachloride	ug/L	ND	1.0	0.084	02/05/20 08:26	
Chlorobenzene	ug/L	ND	1.0	0.13	02/05/20 08:26	
Chloroethane	ug/L	ND	1.0	0.42	02/05/20 08:26	
Chloroform	ug/L	ND	1.0	0.10	02/05/20 08:26	
Chloromethane	ug/L	ND	1.0	0.16	02/05/20 08:26	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.17	02/05/20 08:26	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.087	02/05/20 08:26	
Cyclohexane	ug/L	ND	1.0	0.079	02/05/20 08:26	
Dibromochloromethane	ug/L	ND	1.0	0.15	02/05/20 08:26	
Dichlorodifluoromethane	ug/L	ND	1.0	0.098	02/05/20 08:26	
Ethylbenzene	ug/L	ND	1.0	0.12	02/05/20 08:26	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	0.20	02/05/20 08:26	
Methyl acetate	ug/L	ND	20.0	0.49	02/05/20 08:26	
Methyl-tert-butyl ether	ug/L	ND	1.0	0.16	02/05/20 08:26	
Methylcyclohexane	ug/L	ND	1.0	0.10	02/05/20 08:26	
Methylene Chloride	ug/L	ND	1.0	0.27	02/05/20 08:26	
Styrene	ug/L	ND	1.0	0.15	02/05/20 08:26	
Tetrachloroethene	ug/L	ND	1.0	0.22	02/05/20 08:26	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 012559A GM RACER FAIRFAX

Pace Project No.: 60327953

METHOD BLANK: 2590014

Matrix: Water

Associated Lab Samples: 60327953001, 60327953008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Toluene	ug/L	ND	1.0	0.14	02/05/20 08:26	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.17	02/05/20 08:26	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.12	02/05/20 08:26	
Trichloroethene	ug/L	ND	1.0	0.17	02/05/20 08:26	
Trichlorofluoromethane	ug/L	ND	1.0	0.13	02/05/20 08:26	
Vinyl chloride	ug/L	ND	1.0	0.11	02/05/20 08:26	
Xylene (Total)	ug/L	ND	3.0	0.34	02/05/20 08:26	
1,2-Dichloroethane-d4 (S)	%	99	77-122		02/05/20 08:26	
4-Bromofluorobenzene (S)	%	99	80-120		02/05/20 08:26	
Toluene-d8 (S)	%	100	80-120		02/05/20 08:26	

LABORATORY CONTROL SAMPLE: 2590015

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	19.7	99	79-120	
1,1,2,2-Tetrachloroethane	ug/L	20	19.4	97	71-122	
1,1,2-Trichloroethane	ug/L	20	19.0	95	76-123	
1,1,2-Trichlorotrifluoroethane	ug/L	20	19.7	99	69-132	N2
1,1-Dichloroethane	ug/L	20	20.7	103	78-117	
1,1-Dichloroethene	ug/L	20	19.9	100	74-122	
1,2,4-Trichlorobenzene	ug/L	20	19.2	96	76-122	
1,2-Dibromo-3-chloropropane	ug/L	20	16.0	80	65-133	
1,2-Dibromoethane (EDB)	ug/L	20	19.6	98	80-118	
1,2-Dichlorobenzene	ug/L	20	19.4	97	84-118	
1,2-Dichloroethane	ug/L	20	19.7	98	73-120	
1,2-Dichloropropane	ug/L	20	21.1	105	78-115	
1,3-Dichlorobenzene	ug/L	20	20.1	101	84-116	
1,4-Dichlorobenzene	ug/L	20	19.9	99	83-115	
2-Butanone (MEK)	ug/L	100	105	105	54-133	
2-Hexanone	ug/L	100	101	101	60-133	
4-Methyl-2-pentanone (MIBK)	ug/L	100	98.4	98	62-130	
Acetone	ug/L	100	103	103	54-130	
Benzene	ug/L	20	20.1	101	80-120	
Bromodichloromethane	ug/L	20	17.9	90	78-121	
Bromoform	ug/L	20	18.8	94	62-137	
Bromomethane	ug/L	20	19.4	97	41-145	
Carbon disulfide	ug/L	20	19.4	97	64-119	
Carbon tetrachloride	ug/L	20	19.5	97	77-122	
Chlorobenzene	ug/L	20	20.5	103	80-123	
Chloroethane	ug/L	20	21.1	105	60-146	
Chloroform	ug/L	20	20.0	100	81-116	
Chloromethane	ug/L	20	20.8	104	29-154	
cis-1,2-Dichloroethene	ug/L	20	20.1	101	80-120	
cis-1,3-Dichloropropene	ug/L	20	20.2	101	78-118	

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QUALITY CONTROL DATA

Project: 012559A GM RACER FAIRFAX

Pace Project No.: 60327953

LABORATORY CONTROL SAMPLE: 2590015

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyclohexane	ug/L	20	20.2	101	78-129	
Dibromochloromethane	ug/L	20	17.3	86	73-128	
Dichlorodifluoromethane	ug/L	20	18.2	91	13-185	
Ethylbenzene	ug/L	20	19.0	95	80-120	
Isopropylbenzene (Cumene)	ug/L	20	20.4	102	81-115	
Methyl acetate	ug/L	20	18J	90	71-129	
Methyl-tert-butyl ether	ug/L	20	20.1	100	67-125	
Methylcyclohexane	ug/L	20	20.9	104	83-127	
Methylene Chloride	ug/L	20	18.9	95	80-126	
Styrene	ug/L	20	20.6	103	85-120	
Tetrachloroethene	ug/L	20	19.8	99	77-121	
Toluene	ug/L	20	19.6	98	80-120	
trans-1,2-Dichloroethene	ug/L	20	20.1	101	80-120	
trans-1,3-Dichloropropene	ug/L	20	17.1	85	76-123	
Trichloroethene	ug/L	20	21.3	107	80-121	
Trichlorofluoromethane	ug/L	20	22.0	110	64-124	
Vinyl chloride	ug/L	20	21.5	108	46-162	
Xylene (Total)	ug/L	60	59.5	99	80-120	
1,2-Dichloroethane-d4 (S)	%			100	77-122	
4-Bromofluorobenzene (S)	%			99	80-120	
Toluene-d8 (S)	%			100	80-120	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 012559A GM RACER FAIRFAX

Pace Project No.: 60327953

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-K Pace Analytical Services - Kansas City

BATCH QUALIFIERS

Batch: 636432

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: 636493

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: 636651

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 012559A GM RACER FAIRFAX

Pace Project No.: 60327953

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60327953001	WG-012820-NL-001	EPA 5030B/8260	636432		
60327953001	WG-012820-NL-001	EPA 5030B/8260	636651		
60327953002	WG-012820-NL-002	EPA 5030B/8260	636432		
60327953003	WG-012820-NL-003	EPA 5030B/8260	636432		
60327953004	WG-012820-NL-004	EPA 5030B/8260	636432		
60327953005	WG-012920-NL-005	EPA 5030B/8260	636432		
60327953006	WG-012920-NL-006	EPA 5030B/8260	636432		
60327953007	WG-012920-NL-007	EPA 5030B/8260	636432		
60327953008	WG-012920-NL-008	EPA 5030B/8260	636651		
60327953009	WG-012920-NL-009	EPA 5030B/8260	636432		
60327953010	WG-012920-NL-016	EPA 5030B/8260	636432		
60327953011	WG-012920-NL-010	EPA 5030B/8260	636432		
60327953012	WG-013020-NL-011	EPA 5030B/8260	636493		
60327953013	WG-013020-NL-012	EPA 5030B/8260	636493		
60327953014	WG-013020-NL-013	EPA 5030B/8260	636493		
60327953015	WG-013020-NL-014	EPA 5030B/8260	636493		
60327953016	WG-013020-NL-015	EPA 5030B/8260	636493		

REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt

WO# : 60327953Client Name: GHICourier: FedEx ☐ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☒ Xroads ☐ Client ☐ Other ☐

Tracking #: _____

Pace Shipping Label Used? Yes ☐ No ☒Custody Seal on Cooler/Box Present: Yes ☒ No ☐ Seals intact: Yes ☒ No ☐Packing Material: Bubble Wrap ☐ Bubble Bags ☒ Foam ☐ None ☐ Other ☐Thermometer Used: T-296 Type of Ice: Wet Blue ☐ None ☐Cooler Temperature (°C): As-read 2.5 Corr. Factor 0.1 Corrected 2.6Date and initials of person
examining contents: 1/31/26

Temperature should be above freezing to 6°C

Chain of Custody present:	☒ Yes ☐ No ☐ N/A	
Chain of Custody relinquished:	☒ Yes ☐ No ☐ N/A	
Samples arrived within holding time:	☒ Yes ☐ No ☐ N/A	
Short Hold Time analyses (<72hr):	☒ Yes ☐ No ☐ N/A	
Rush Turn Around Time requested:	☒ Yes ☐ No ☐ N/A	
Sufficient volume:	☒ Yes ☐ No ☐ N/A	
Correct containers used:	☒ Yes ☐ No ☐ N/A	
Pace containers used:	☒ Yes ☐ No ☐ N/A	
Containers intact:	☒ Yes ☐ No ☐ N/A	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	☐ Yes ☐ No ☒ N/A	
Filtered volume received for dissolved tests?	☐ Yes ☐ No ☒ N/A	
Sample labels match COC: Date / time / ID / analyses	☒ Yes ☐ No ☐ N/A	
Samples contain multiple phases? Matrix: <u>LN</u>	☒ Yes ☐ No ☐ N/A	
Containers requiring pH preservation in compliance? (HNO ₃ , H ₂ SO ₄ , HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO)	☐ Yes ☐ No ☒ N/A	List sample IDs, volumes, lot #'s of preservative and the date/time added.
Cyanide water sample checks:		
Lead acetate strip turns dark? (Record only)	☐ Yes ☐ No	
Potassium iodide test strip turns blue/purple? (Preserve)	☐ Yes ☐ No	
Trip Blank present:	☐ Yes ☐ No ☒ N/A	
Headspace in VOA vials (>6mm):	☐ Yes ☒ No ☐ N/A	
Samples from USDA Regulated Area: State:	☐ Yes ☐ No ☒ N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	☐ Yes ☐ No ☒ N/A	

Client Notification/ Resolution:

Copy COC to Client? Y ☒ N ☐Field Data Required? Y ☐ N ☒

Person Contacted: _____

Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____

Date: _____

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information: Company: GHD Address: _____ Email To: Nick Baskardes Phone: _____ Requested Due Date/TAT: STANDARD		Section B Required Project Information: Report To: Travis Kroll / N. Baskardes Copy To: Angela Babin Purchase Order No.: _____ Project Name: 0125594 GM River Project Number: _____		Section C Invoice Information: Company Name: _____ Address: _____ Pace Quote Reference: _____ Pace Project Manager: _____ Site Location: KS STATE: _____	
Section D Required Client Information: Valid Matrix Codes MATRIX CODE DRINKING WATER DW WASTE WATER WW PRODUCT P SOIL/SOLID SL OIL OL WP AR OT TS		REGULATORY AGENCY ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☐ OTHER _____			

Page: **2** of **2**

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP) (see valid codes to left)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	Preservatives							Analysis Test ↑	Y/N	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
				COMPOSITE START	COMPOSITE END/GRAB				DATE	TIME	DATE	TIME	H ₂ SO ₄	HNO ₃	HCl					
1		WG-013020-NL-012	WG	1/20	1340		3											013		
2		WG-013020-NL-013	WG	1/20	1415		3											014		
3		WG-013020-NL-014	WG	1/20	1600		3											015		
4		WG-013020-NL-015	WG	1/20	1720		3											016		
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				
ADDITIONAL COMMENTS _____																				
RELINQUISHED BY / AFFILIATION _____																				
DATE _____																				
TIME _____																				
ACCEPTED BY / AFFILIATION _____																				
DATE _____																				
TIME _____																				
SAMPLE CONDITIONS _____																				
Temp in °C _____ Received on _____ Ice (Y/N) _____ Custody Sealed _____ Samples Intact (Y/N) _____																				

Appendix F

Reduced Data Validation Memo



Memorandum

February 19, 2020

To:	Travis Kogl	Ref. No.:	012559A
From:	 Angela Bown/cs/10-NF	Tel:	513-285-1102
cc:	Nick Laskares		
Subject:	Analytical Results and Reduced Validation Semiannual Groundwater Monitoring Program Former RACER Fairfax Site Kansas City, Kansas January-February 2020		

1. Introduction

This document details a reduced validation of analytical results for water samples collected in support of the Semiannual Groundwater Monitoring Program at the Former RACER Fairfax site during January-February 2020. Samples were submitted to Pace Analytical (Pace) located in Lenexa, Kansas. A sample collection and analysis summary is presented in Table 1. The validated analytical results are summarized in Table 2. A summary of the analytical methodology is presented in Table 3.

Standard GHD report deliverables were submitted by the laboratory. The final results and supporting quality assurance/quality control (QA/QC) data were assessed. Evaluation of the data was based on information obtained from the chain of custody forms, finished report forms, method blank data, recovery data from surrogate spikes, laboratory control samples (LCS), and field quality assurance/quality control (QA/QC) samples.

The QA/QC criteria by which these data have been assessed are outlined in the analytical methods referenced in Table 3 and applicable guidance from the document entitled, "USEPA National Functional Guidelines for Superfund Organic Methods Data Review", USEPA 540-R-2016-002, September 2016.

This item will subsequently be referred to as the "Guidelines" in this Memorandum.

2. Sample Holding Time and Preservation

The sample holding time criteria for the analyses are summarized in Table 3. Sample chain of custody documents and analytical reports were used to determine sample holding times. All samples were prepared and analyzed within the required holding times.



All samples were properly preserved, delivered on ice, and stored by the laboratory at the required temperature (0-6°C).

3. Laboratory Method Blank Analyses

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures.

For this study, laboratory method blanks were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

Low-levels of target analytes were detected in some method blanks for volatile organic compounds (VOC) analyses. All associated sample results were either non-detect or were significantly greater than the method blank values. Qualification of the sample results was not necessary on this basis.

All remaining method blank results were non-detect, indicating that laboratory contamination was not a factor for this investigation.

4. Surrogate Spike Recoveries - Organic Analyses

In accordance with the methods employed, all samples, blanks, and QC samples analyzed for organics are spiked with surrogate compounds prior to sample extraction and/or analysis. Surrogate recoveries provide a means to evaluate the effects of laboratory performance on individual sample matrices.

All samples submitted for organic determinations were spiked with the appropriate number of surrogate compounds prior to sample extraction and/or analysis.

Each individual surrogate compound is expected to meet the laboratory control limits with the exception of semi-volatile organic compound (SVOC) analyses. According to the "Guidelines" for SVOC analyses, up to one outlying surrogate in the base/neutral or acid fractions is acceptable as long as the recovery is at least 10 percent.

Surrogate recoveries were assessed against laboratory control limits. Most surrogate recoveries were within the laboratory control limits. Table 4 presents the sample results that were qualified due to outlying surrogate recoveries.

5. Laboratory Control Sample Analyses

LCS or LCS/laboratory control sample duplicates (LCSD) are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects. The relative percent difference (RPD) of the LCS/LCSD recoveries is used to evaluate analytical precision.

For this study, LCS or LCS/LCSD were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.



The LCS/LCSD contained all compounds or carbon ranges of interest. All LCS recoveries and RPDs were within the laboratory control limits, demonstrating acceptable analytical accuracy and precision, where applicable.

6. Field QA/QC Samples

The field QA/QC consisted of one trip blank sample and two field duplicate sample sets.

Trip Blank Sample Analysis

To evaluate contamination from sample collection, transportation, storage, and analytical activities, one trip blank was submitted to the laboratory for VOC analysis. All results were non-detect for the compounds of interest.

Field Duplicate Sample Analysis

To assess the analytical and sampling protocol precision, two field duplicate sample sets were collected and submitted "blind" to the laboratory, as specified in Table 1. The RPDs associated with these duplicate samples must be less than 50 percent for water samples. If the reported concentration in either the investigative sample or its duplicate is less than five times the reporting limit (RL), the evaluation criterion is one times the RL value for water samples.

All field duplicate results were within acceptable agreement, demonstrating acceptable sampling and analytical precision.

7. Analyte Reporting

The laboratory reported detected results down to the laboratory's method detection limit (MDL) for each analyte. Positive analyte detections less than the RL but greater than the MDL were qualified as estimated (J) in Table 2 unless qualified otherwise in this memorandum.

Non-detect results were presented as non-detect at the RL in Table 2.

8. Conclusion

Based on the assessment detailed in the foregoing, the data summarized in Table 2 are acceptable with the specific qualifications noted herein.

Table 1

Sample Collection and Analysis Summary
Semiannual Groundwater Monitoring Program
Former RACER Fairfax Site
Kansas City, Kansas
January-February 2020

Sample Identification	Location	Matrix	Collection Date (mm/dd/yyyy)	Collection Time (hr:min)	Analysis/Parameters				Comments
					VOCs	TPH-LRH	TPH-MRH/HRH	Naphthalene	
WG-012820-NL-001	MW-204A	Water	01/28/2020	13:40	X				
WG-012820-NL-002	MW-204B	Water	01/28/2020	14:30	X				
WG-012820-NL-003	MW-203	Water	01/28/2020	15:50	X				
WG-012820-NL-004	MW-201	Water	01/28/2020	16:55	X				
WG-012920-NL-005	MW-1A	Water	01/29/2020	11:10	X				FD(WG-012920-NL-005)
WG-012920-NL-006	MW-1A	Water	01/29/2020	11:20	X				
WG-012920-NL-007	MW-1B	Water	01/29/2020	12:45	X				
WG-012920-NL-008	MW-1C	Water	01/29/2020	13:50	X				
WG-012920-NL-009	MW-208A	Water	01/29/2020	16:40	X				
WG-012920-NL-016	MW-208B	Water	01/29/2020	17:45	X				
WG-012920-NL-010	MW-208C	Water	01/29/2020	18:45	X				
WG-013020-NL-011	MW-206C	Water	01/30/2020	12:30	X				
WG-013020-NL-012	MW-206B	Water	01/30/2020	13:40	X				
WG-013020-NL-013	MW-206A	Water	01/30/2020	14:45	X				
WG-013020-NL-014	MW-124A	Water	01/30/2020	16:00	X				
WG-013020-NL-015	MW-124B	Water	01/30/2020	17:20	X				
WG-013120-NL-017	MW146C	Water	01/31/2020	13:30	X				
WG-013120-NL-018	MW-146B	Water	01/31/2020	14:35	X				
WG-013120-NL-019	TMW-146	Water	01/31/2020	15:10	X	X	X	X	

Table 1

Sample Collection and Analysis Summary
Semiannual Groundwater Monitoring Program
Former RACER Fairfax Site
Kansas City, Kansas
January-February 2020

Sample Identification	Location	Matrix	Collection Date (mm/dd/yyyy)	Collection Time (hr:min)	Analysis/Parameters				Comments
					VOCs	TPH-LRH	TPH-MRH/HRH	Naphthalene	
WG-013120-NL-020	TMW-146	Water	01/31/2020	15:25	X	X	X	X	FD(WG-013120-NL-019)
WG-013120-NL-021	MW-207C	Water	01/31/2020	16:20	X				
WG-013120-NL-022	MW-207B	Water	01/31/2020	17:05	X				
WG-013120-NL-023	MW-207A	Water	01/31/2020	17:50	X	X	X	X	
WG-020320-NL-024	MW-205B	Water	02/03/2020	13:35	X				
WG-020320-NL-025	MW-205A	Water	02/03/2020	14:55	X				
WG-020320-NL-026	MW-200	Water	02/03/2020	15:45	X				
WG-020320-NL-027	MW-202	Water	02/03/2020	16:35	X				
WG-020320-NL-028	MW-110A	Water	02/03/2020	17:30	X				
Trip Blank	-	Water	02/03/2020	-	X				Trip Blank

Notes:

- - Not Applicable
- FD - Field Duplicate sample of sample in parenthesis
- LRH - Low Range Hydrocarbons
- MRH/HRH - Mid Range Hydrocarbons/High Range Hydrocarbons
- TPH - Total Petroleum Hydrocarbons
- VOCs - Volatile Organic Compounds

Table 2

Analytical Results Summary
Semiannual Groundwater Monitoring Program
Former RACER Fairfax Site
Kansas City, Kansas
January-February 2020

Location ID:	MW-1A	MW-1A	MW-1B	MW-1C	MW-110A
Sample Name:	WG-012920-NL-005	WG-012920-NL-006	WG-012920-NL-007	WG-012920-NL-008	WG-020320-NL-028
Sample Date:	01/29/2020	01/29/2020	01/29/2020	01/29/2020	02/03/2020
		Duplicate			
Parameters	Unit				
Volatile Organic Compounds					
1,1,1-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene dibromide)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10.0 U	10.0 U	3.7 J	10.0 U
2-Hexanone	µg/L	10.0 U	10.0 U	10.0 U	10.0 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10.0 U	10.0 U	10.0 U	10.0 U
Acetone	µg/L	10.0 U	10.0 U	10.0 U	10.0 U
Benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	1.0 U	1.0 U	7.0	0.26 J
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U

Table 2

Analytical Results Summary
Semiannual Groundwater Monitoring Program
Former RACER Fairfax Site
Kansas City, Kansas
January-February 2020

	Location ID:	MW-1A	MW-1A	MW-1B	MW-1C	MW-110A
	Sample Name:	WG-012920-NL-005	WG-012920-NL-006	WG-012920-NL-007	WG-012920-NL-008	WG-020320-NL-028
	Sample Date:	01/29/2020	01/29/2020 Duplicate	01/29/2020	01/29/2020	02/03/2020
Parameters	Unit					
Volatile Organic Compounds						
Dibromochloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	µg/L	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
Methyl cyclohexane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	10.7
Toluene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	0.30 J
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	µg/L	1.0 U	1.0 U	2.5	1.0 U	1.0 U
Xylenes (total)	µg/L	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Semivolatile Organic Compounds, SIM						
Naphthalene	µg/L	--	--	--	--	--
Total Petroleum Hydrocarbons (TPH)						
High-Range Hydrocarbons (HRH) (C19-C35)	mg/L	--	--	--	--	--
Low-Range Hydrocarbons (LRH) (C5-C8)	mg/L	--	--	--	--	--
Mid-Range Hydrocarbons (MRH) (C9-C18)	mg/L	--	--	--	--	--

Notes:

SIM - Selective Ion Monitoring

U - Not detected at the associated reporting limit

-- - Not applicable

J - Estimated concentration

UJ - Not detected; associated reporting limit is estimated

J- - Estimated concentration; result may be biased low

Table 2

Analytical Results Summary
Semiannual Groundwater Monitoring Program
Former RACER Fairfax Site
Kansas City, Kansas
January-February 2020

Location ID:		MW-124A	MW-124B	MW-146B	MW-146C	MW-200
Sample Name:		WG-013020-NL-014	WG-013020-NL-015	WG-013120-NL-018	WG-013120-NL-017	WG-020320-NL-026
Sample Date:		01/30/2020	01/30/2020	01/31/2020	01/31/2020	02/03/2020
Parameters	Unit					
Volatile Organic Compounds						
1,1,1-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	1.0 U	1.0 U	0.19 J	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene dibromide)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	0.16 J	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
2-Hexanone	µg/L	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Acetone	µg/L	9.4 J	10.0 U	10.0 U	10.0 U	10.0 U
Benzene	µg/L	1.0 U	1.0 U	1.2	1.0 U	1.0 U
Bromodichloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	1.0 U	0.16 J	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	0.43 J	1.0 U	50.4	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	µg/L	1.0 U	1.0 U	0.21 J	1.0 U	1.0 U

Table 2

Analytical Results Summary
Semiannual Groundwater Monitoring Program
Former RACER Fairfax Site
Kansas City, Kansas
January-February 2020

Location ID:		MW-124A	MW-124B	MW-146B	MW-146C	MW-200
Sample Name:		WG-013020-NL-014	WG-013020-NL-015	WG-013120-NL-018	WG-013120-NL-017	WG-020320-NL-026
Sample Date:		01/30/2020	01/30/2020	01/31/2020	01/31/2020	02/03/2020
Parameters	Unit					
Volatile Organic Compounds						
Dibromochloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	µg/L	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
Methyl cyclohexane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	µg/L	1.0 U	0.17 J	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	1.0 U	1.0 U	2.1	1.0 U	1.0 U
trans-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	µg/L	0.20 J	1.4	21.3	1.0 U	1.0 U
Xylenes (total)	µg/L	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Semivolatile Organic Compounds, SIM						
Naphthalene	µg/L	--	--	--	--	--
Total Petroleum Hydrocarbons (TPH)						
High-Range Hydrocarbons (HRH) (C19-C35)	mg/L	--	--	--	--	--
Low-Range Hydrocarbons (LRH) (C5-C8)	mg/L	--	--	--	--	--
Mid-Range Hydrocarbons (MRH) (C9-C18)	mg/L	--	--	--	--	--

Notes:

SIM - Selective Ion Monitoring

U - Not detected at the associated reporting limit

-- - Not applicable

J - Estimated concentration

UJ - Not detected; associated reporting limit is estimated

J- - Estimated concentration; result may be biased low

Table 2

Analytical Results Summary
Semiannual Groundwater Monitoring Program
Former RACER Fairfax Site
Kansas City, Kansas
January-February 2020

Location ID:		MW-201	MW-202	MW-203	MW-204A	MW-204B
Sample Name:		WG-012820-NL-004	WG-020320-NL-027	WG-012820-NL-003	WG-012820-NL-001	WG-012820-NL-002
Sample Date:		01/28/2020	02/03/2020	01/28/2020	01/28/2020	01/28/2020
Parameters	Unit					
Volatile Organic Compounds						
1,1,1-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene dibromide)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
2-Hexanone	µg/L	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Acetone	µg/L	10.0 U	10.0 U	3.4 J	10.0 U	4.4 J
Benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	1.0 U	0.10 J	0.17 J	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	0.38 J	13.4
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 2

Analytical Results Summary
Semiannual Groundwater Monitoring Program
Former RACER Fairfax Site
Kansas City, Kansas
January-February 2020

Location ID:	MW-201	MW-202	MW-203	MW-204A	MW-204B
Sample Name:	WG-012820-NL-004	WG-020320-NL-027	WG-012820-NL-003	WG-012820-NL-001	WG-012820-NL-002
Sample Date:	01/28/2020	02/03/2020	01/28/2020	01/28/2020	01/28/2020
Parameters	Unit				
Volatile Organic Compounds					
Dibromochloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	µg/L	20.0 U	20.0 U	20.0 U	20.0 U
Methyl cyclohexane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	µg/L	1.0 U	1.4	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.4
trans-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	1.0 U	1.0 U	1.0 U	11.6
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	1.0 U	1.0 U	1.0 U	13.6
Vinyl chloride	µg/L	1.0 U	1.0 U	1.0 U	1.5
Xylenes (total)	µg/L	3.0 U	3.0 U	3.0 U	3.0 U
Semivolatile Organic Compounds, SIM					
Naphthalene	µg/L	--	--	--	--
Total Petroleum Hydrocarbons (TPH)					
High-Range Hydrocarbons (HRH) (C19-C35)	mg/L	--	--	--	--
Low-Range Hydrocarbons (LRH) (C5-C8)	mg/L	--	--	--	--
Mid-Range Hydrocarbons (MRH) (C9-C18)	mg/L	--	--	--	--

Notes:

SIM - Selective Ion Monitoring

U - Not detected at the associated reporting limit

-- - Not applicable

J - Estimated concentration

UJ - Not detected; associated reporting limit is estimated

J- - Estimated concentration; result may be biased low

Table 2

Analytical Results Summary
Semiannual Groundwater Monitoring Program
Former RACER Fairfax Site
Kansas City, Kansas
January-February 2020

Location ID:		MW-205A	MW-205B	MW-206A	MW-206B	MW-206C
Sample Name:		WG-020320-NL-025	WG-020320-NL-024	WG-013020-NL-013	WG-013020-NL-012	WG-013020-NL-011
Sample Date:		02/03/2020	02/03/2020	01/30/2020	01/30/2020	01/30/2020
Parameters	Unit					
Volatile Organic Compounds						
1,1,1-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene dibromide)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
2-Hexanone	µg/L	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Acetone	µg/L	3.7 J	10.0 U	10.0 U	10.0 U	10.0 U
Benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	1.0 U	5.8	1.0 U	1.2	1.0 U
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 2

Analytical Results Summary
Semiannual Groundwater Monitoring Program
Former RACER Fairfax Site
Kansas City, Kansas
January-February 2020

Location ID:		MW-205A	MW-205B	MW-206A	MW-206B	MW-206C
Sample Name:		WG-020320-NL-025	WG-020320-NL-024	WG-013020-NL-013	WG-013020-NL-012	WG-013020-NL-011
Sample Date:		02/03/2020	02/03/2020	01/30/2020	01/30/2020	01/30/2020
Parameters	Unit					
Volatile Organic Compounds						
Dibromochloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	µg/L	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
Methyl cyclohexane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	0.33 J	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	1.0 U	0.38 J	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	µg/L	1.0 U	0.47 J	1.0 U	2.2	1.0 U
Xylenes (total)	µg/L	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Semivolatile Organic Compounds, SIM						
Naphthalene	µg/L	--	--	--	--	--
Total Petroleum Hydrocarbons (TPH)						
High-Range Hydrocarbons (HRH) (C19-C35)	mg/L	--	--	--	--	--
Low-Range Hydrocarbons (LRH) (C5-C8)	mg/L	--	--	--	--	--
Mid-Range Hydrocarbons (MRH) (C9-C18)	mg/L	--	--	--	--	--

Notes:

SIM - Selective Ion Monitoring

U - Not detected at the associated reporting limit

-- - Not applicable

J - Estimated concentration

UJ - Not detected; associated reporting limit is estimated

J- - Estimated concentration; result may be biased low

Table 2

Analytical Results Summary
Semiannual Groundwater Monitoring Program
Former RACER Fairfax Site
Kansas City, Kansas
January-February 2020

Location ID:	MW-207A	MW-207B	MW-207C	MW-208A	MW-208B
Sample Name:	WG-013120-NL-023	WG-013120-NL-022	WG-013120-NL-021	WG-012920-NL-009	WG-012920-NL-016
Sample Date:	01/31/2020	01/31/2020	01/31/2020	01/29/2020	01/29/2020
Parameters	Unit				
Volatile Organic Compounds					
1,1,1-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene dibromide)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	1.0 U	0.14 J	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10.0 U	10.0 U	10.0 U	10.0 U
2-Hexanone	µg/L	10.0 U	10.0 U	10.0 U	10.0 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10.0 U	1.4 J	10.0 U	10.0 U
Acetone	µg/L	10.0 U	10.0 U	10.0 U	10.0 U
Benzene	µg/L	1.0 U	0.12 J	1.0 U	1.0 U
Bromodichloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	1.0 U	1.0 U	1.0 U	0.24 J
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	0.70 J	16.9	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	µg/L	1.0 U	0.49 J	1.0 U	1.0 U

Table 2

Analytical Results Summary
Semiannual Groundwater Monitoring Program
Former RACER Fairfax Site
Kansas City, Kansas
January-February 2020

Location ID:	MW-207A	MW-207B	MW-207C	MW-208A	MW-208B
Sample Name:	WG-013120-NL-023	WG-013120-NL-022	WG-013120-NL-021	WG-012920-NL-009	WG-012920-NL-016
Sample Date:	01/31/2020	01/31/2020	01/31/2020	01/29/2020	01/29/2020
Parameters	Unit				
Volatile Organic Compounds					
Dibromochloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	µg/L	20.0 U	20.0 U	20.0 U	20.0 U
Methyl cyclohexane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	3.2	1.0 U	1.0 U	1.0 U
Toluene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	1.0 U	1.1	0.32 J	1.0 U
trans-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	0.50 J	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	µg/L	1.0 U	7.7	0.41 J	1.0 U
Xylenes (total)	µg/L	3.0 U	3.0 U	3.0 U	3.0 U
Semivolatile Organic Compounds, SIM					
Naphthalene	µg/L	0.45 U	--	--	--
Total Petroleum Hydrocarbons (TPH)					
High-Range Hydrocarbons (HRH) (C19-C35)	mg/L	0.20 UJ	--	--	--
Low-Range Hydrocarbons (LRH) (C5-C8)	mg/L	0.050 U	--	--	--
Mid-Range Hydrocarbons (MRH) (C9-C18)	mg/L	0.059 UJ	--	--	--

Notes:

SIM - Selective Ion Monitoring

U - Not detected at the associated reporting limit

-- - Not applicable

J - Estimated concentration

UJ - Not detected; associated reporting limit is estimated

J- - Estimated concentration; result may be biased low

Analytical Results Summary
Semiannual Groundwater Monitoring Program
Former RACER Fairfax Site
Kansas City, Kansas
January-February 2020

Location ID:		MW-208C	TMW-146	TMW-146	Trip Blank
Sample Name:		WG-012920-NL-010	WG-013120-NL-019	WG-013120-NL-020	TRIP BLANK
Sample Date:		01/29/2020	01/31/2020	01/31/2020 Duplicate	02/03/2020
Parameters	Unit				
Volatile Organic Compounds					
1,1,1-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene dibromide)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10.0 U	10.0 U	10.0 U	10.0 U
2-Hexanone	µg/L	10.0 U	10.0 U	10.0 U	10.0 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10.0 U	10.0 U	10.0 U	10.0 U
Acetone	µg/L	10.0 U	10.0 U	10.0 U	10.0 U
Benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	2.8	0.29 J	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	µg/L	1.0 U	1.0 U	0.10 J	1.0 U

Table 2

Analytical Results Summary
Semiannual Groundwater Monitoring Program
Former RACER Fairfax Site
Kansas City, Kansas
January-February 2020

	Location ID:	MW-208C	TMW-146	TMW-146	Trip Blank
	Sample Name:	WG-012920-NL-010	WG-013120-NL-019	WG-013120-NL-020	TRIP BLANK
	Sample Date:	01/29/2020	01/31/2020	01/31/2020 Duplicate	02/03/2020
Parameters	Unit				
Volatile Organic Compounds					
Dibromochloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	µg/L	20.0 U	20.0 U	20.0 U	20.0 U
Methyl cyclohexane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	µg/L	0.16 J	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	µg/L	0.22 J	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	3.0 U	3.0 U	3.0 U	3.0 U
Semivolatile Organic Compounds, SIM					
Naphthalene	µg/L	--	0.50 U	0.48 U	--
Total Petroleum Hydrocarbons (TPH)					
High-Range Hydrocarbons (HRH) (C19-C35)	mg/L	--	0.20 UJ	0.20 UJ	--
Low-Range Hydrocarbons (LRH) (C5-C8)	mg/L	--	0.050 U	0.050 U	--
Mid-Range Hydrocarbons (MRH) (C9-C18)	mg/L	--	0.078 J-	0.070 J-	--

Notes:

SIM - Selective Ion Monitoring

U - Not detected at the associated reporting limit

-- - Not applicable

J - Estimated concentration

UJ - Not detected; associated reporting limit is estimated

J- - Estimated concentration; result may be biased low

Table 3

Analytical Methods
Semiannual Groundwater Monitoring Program
Former RACER Fairfax Site
Kansas City, Kansas
January-February 2020

Parameter	Method	Matrix	Holding Time	
			Collection to Extraction (Days)	Collection or Extraction to Analysis (Days)
Volatile Organic Compounds (VOCs)	SW-846 8260B ¹	Water	-	14
TPH-LRH	M8015/8021LKS ²	Water	-	14
TPH-MRH/HRH	M8015MHKS ³	Water	14	40
Naphthalene	SW-846 8270C-SIM ¹	Water	7	40

Notes:

- ¹ - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, 1986, with subsequent revisions
- ² - "Kansas Method for the Determination of Low-Range Hydrocarbons (LRH)", Revision 1.0, November 2015
- ³ - "Kansas Method for the Determination of Mid-Range Hydrocarbons (MRH) and High-Range Hydrocarbons (HRH)", Revision 1.0, November 2015
- TPH - Total Petroleum Hydrocarbons
- LRH - Low Range Hydrocarbons
- MRH/HRH - Mid Range Hydrocarbons/High Range Hydrocarbons
- SIM - Selected Ion Monitoring
- - Not Applicable

Table 4

Qualified Sample Data Due to Outlying of Surrogate Recoveries
Semiannual Groundwater Monitoring Program
Former RACER Fairfax Site
Kansas City, Kansas
January-February 2020

Parameter	Sample ID	Surrogate	Surrogate % Recovery	Control Limits % Recovery	Analyte	Qualified Result	Units
TPH-MRH/HRH	WG-013120-NL-019	1-Chloro-octadecane	28	40-140	HRH (C19-C35) MRH (C9-C18)	0.20 UJ 0.078 J-	µg/L µg/L
TPH-MRH/HRH	WG-013120-NL-020	1-Chloro-octadecane	23	40-140	HRH (C19-C35) MRH (C9-C18)	0.20 UJ 0.070 J-	µg/L µg/L
TPH-MRH/HRH	WG-013120-NL-023	1-Chloro-octadecane	22	40-140	HRH (C19-C35) MRH (C9-C18)	0.20 UJ 0.059 UJ	µg/L µg/L

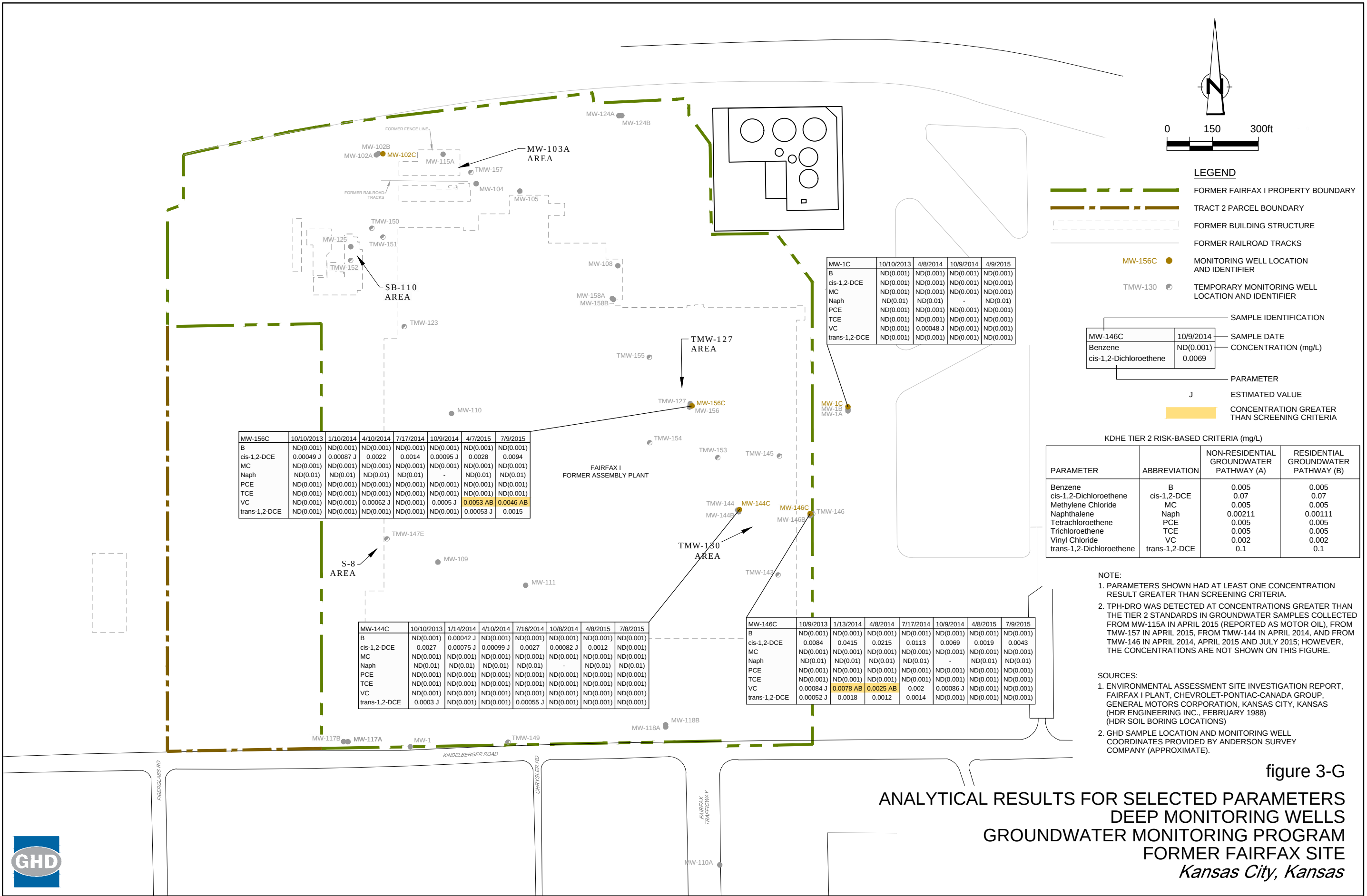
Notes:

- J- - Estimated concentration, result may be biased low
MRH/HRH - Mid Range Hydrocarbons/High Range Hydrocarbons
TPH - Total Petroleum Hydrocarbons
UJ - Not detected; associated reporting limit is estimated

Appendix G

Groundwater Monitoring Data 2012-2015







about GHD

GHD is one of the world's leading professional services companies operating in the global markets of water, energy and resources, environment, property and buildings, and transportation. We provide engineering, environmental, and construction services to private and public sector clients.

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