

April 1, 2020

Mr. Stephen A. Brayman
Department of Public Works
Town of Cheverly
6401 Forest Road
Cheverly, MD 20785

Subject: **Limited Subsurface Investigation Report,
6401 Forest Road, Cheverly, Maryland
MDE Facility I.D. No. 4773
MDE OCP Case No. 2020-0399-PG**

Dear Mr. Brayman:

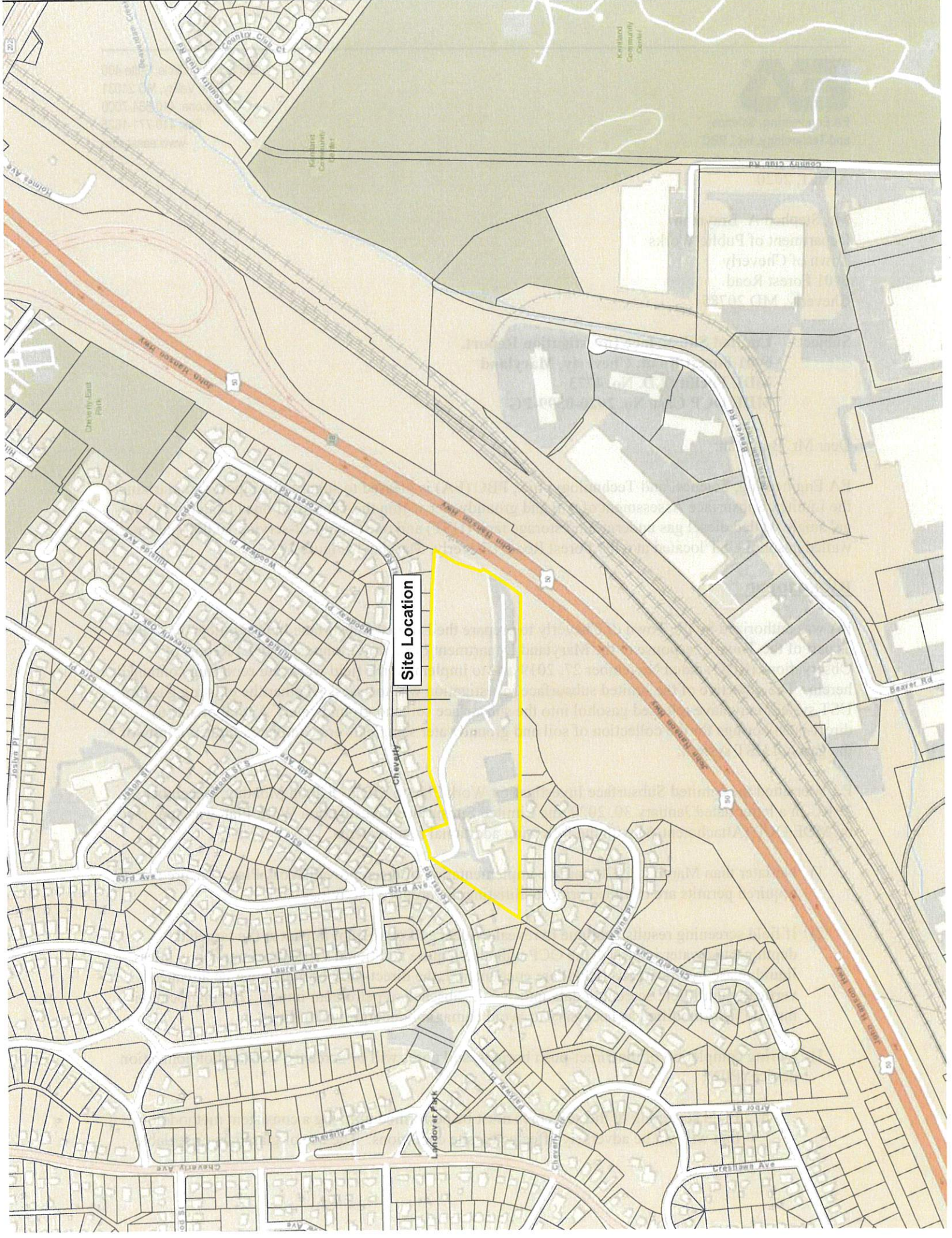
EA Engineering, Science, and Technology, Inc., PBC (EA) is pleased to submit this report summarizing the Limited Subsurface Assessment of soil and groundwater within the vicinity of one (1) active 10,000-gal single walled diesel gas underground storage tank (UST) and one (1) out-of-service 10,000-gal single-walled gasohol UST located at 6401 Forest Road, Cheverly, Maryland (Figure 1).

BACKGROUND

EA was authorized by the Town of Cheverly to prepare the Limited Subsurface Investigation Work Plan as part of the Town's response to the Maryland Department of the Environment (MDE) Report of Observations (ROO) dated November 27, 2019 and to implement the field work and reporting contained herein. The objective of the limited subsurface investigation was to assess whether the existing gasohol UST system may have released gasohol into the subsurface soil and groundwater. A total of six (6) direct-push borings for the collection of soil and groundwater samples were completed in the vicinity of the gasohol UST system.

EA submitted the Limited Subsurface Investigation Work Plan to MDE OCP on Monday, December 23, 2019. In a letter dated January 30, 2020, the Limited Subsurface Investigation Work Plan was approved by MDE OCP (Attachment A) with the following additional requirements:

- 1) No later than March 2, 2020, initiate implementation of the approved Work Plan. Ensure that all required permits are obtained prior to initiating the proposed activities.
- 2) If field screening results continue to reveal evidence of petroleum impact at the targeted depth/groundwater interface, the OCP will also require additional vertical delineation. Unless liquid phase hydrocarbons (LPH) are encountered, the direct-push borings must be advanced vertically until field screening data indicate the absence of petroleum impact. Boring locations may be field-modified as necessary to avoid damaging underground utilities.
- 3) During completion of the direct-push borings, soil cores will be screened with a photoionization device (PID).
 - a. Field screening of the soil cores must be performed utilizing a consistent methodology that will not be adversely affected by site conditions. The use of glass jars or sealable



Site Location

Map labels include: 63rd Ave, Chevreuil, John Hanson Hwy, Beaver Rd, Country Club Rd, Woodside Ave, Laurel Ave, and various residential streets like 5th St, 6th St, 7th St, 8th St, 9th St, 10th St, 11th St, 12th St, 13th St, 14th St, 15th St, 16th St, 17th St, 18th St, 19th St, 20th St, 21st St, 22nd St, 23rd St, 24th St, 25th St, 26th St, 27th St, 28th St, 29th St, 30th St, 31st St, 32nd St, 33rd St, 34th St, 35th St, 36th St, 37th St, 38th St, 39th St, 40th St, 41st St, 42nd St, 43rd St, 44th St, 45th St, 46th St, 47th St, 48th St, 49th St, 50th St, 51st St, 52nd St, 53rd St, 54th St, 55th St, 56th St, 57th St, 58th St, 59th St, 60th St, 61st St, 62nd St, 64th St, 65th St, 66th St, 67th St, 68th St, 69th St, 70th St, 71st St, 72nd St, 73rd St, 74th St, 75th St, 76th St, 77th St, 78th St, 79th St, 80th St, 81st St, 82nd St, 83rd St, 84th St, 85th St, 86th St, 87th St, 88th St, 89th St, 90th St, 91st St, 92nd St, 93rd St, 94th St, 95th St, 96th St, 97th St, 98th St, 99th St, 100th St.



plastic bags to store a portion of the sample material for screening purposes is recommended.

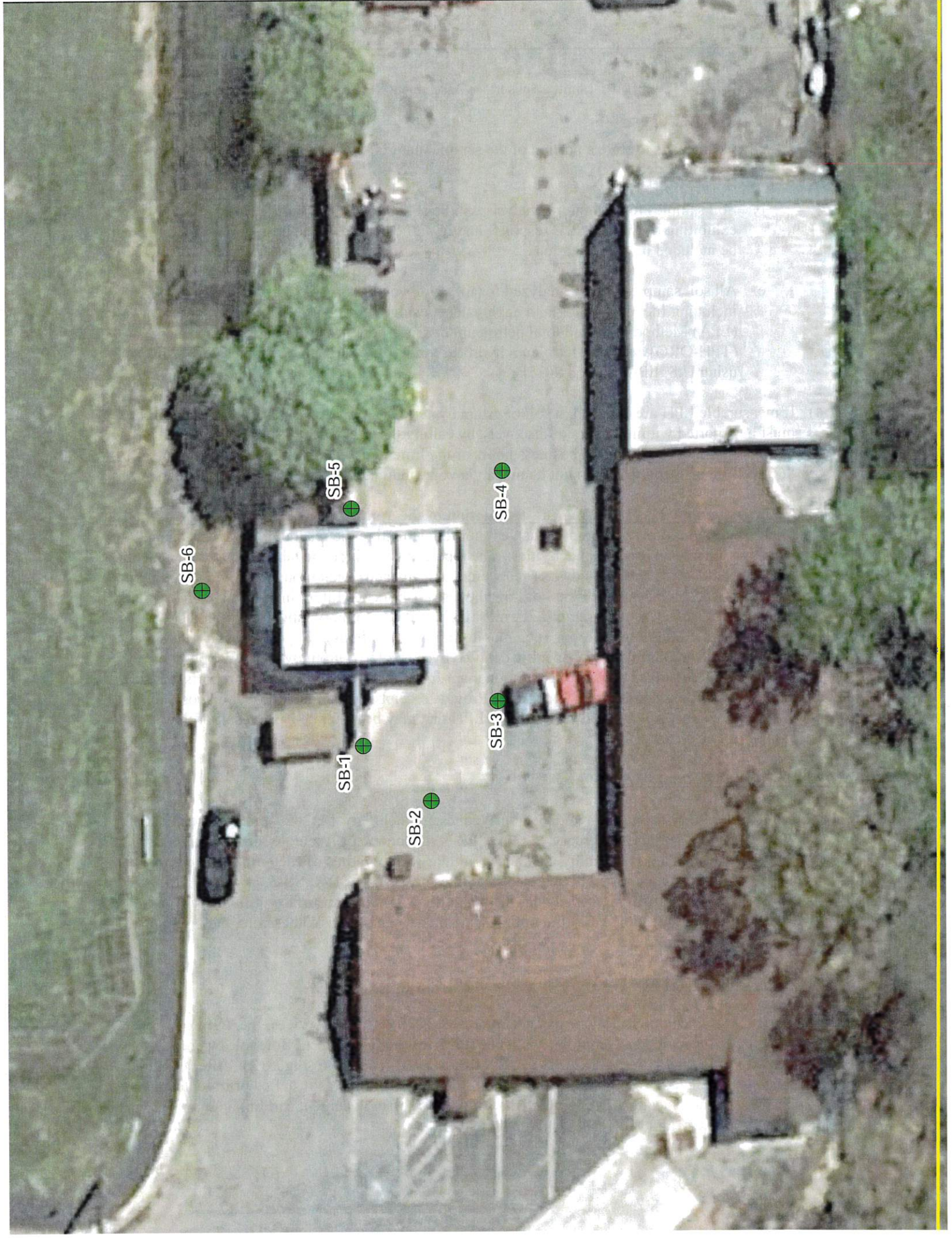
- b. Soil samples for laboratory analysis will be collected in each boring at the interval exhibiting the highest PID response and/or at the bottom of the boring. PID readings will be included in the boring logs.
 - c. All soil samples will be analyzed for full-suite volatile organic compounds (VOCs), including fuel oxygenates and naphthalene, using U.S. Environmental Protection Agency (EPA) Method 8260 and total petroleum hydrocarbons – diesel range hydrocarbons (TPH-DRO) and total petroleum hydrocarbons – gasoline range organics (TPH-GRO) using U.S. EPA Method 8015B.
- 4) If measurable LPH are detected in soil or groundwater during assessment activities, its presence must be reported within 2 hours of discovery by calling the OCP’s Baltimore Headquarters at 410-537-3442 during standard business hours or the Emergency Response Division hotline at 1-866-633-6866. Reports should not be made via voice mail message to OCP case managers.
 - 5) **No later than 60 days following the completion of the approved Work Plan activities**, MDE requires the submittal of a comprehensive report documenting the results of the subsurface investigation and any remedial activities. The report must include the tabulated data documenting any petroleum mass and groundwater recovered, and any additional monitoring and sampling data obtained. Include a discussion of how the results influence future investigative and remedial activities. When submitting sampling results, include data summary tables and scaled site maps showing actual sampling locations (i.e., monitoring well locations). Reports must also include groundwater contour maps, site-specific detailed hydrogeology, groundwater flow, product thickness and dissolved phase concentration maps, monitoring well completion reports, and qualitative and/or quantitative discussions. Provide receipts to document proper disposal of the petroleum contact soil, groundwater, and/or LPH that may be generated as a result of the assessment activities.

MOBILIZATION AND UTILITY AVOIDANCE

EA contacted Miss Utility for utility avoidance on Wednesday, February 12, 2020 and obtained ticket number 20090449. On Saturday, February 15, 2020, EA’s subcontractor Accurate Infrastructure Data, Inc. (A/I Data) performed a private utility clearance within a 15 foot radius of each of the six borings (Attachment B). A/I Data identified buried electrical lines near SB-1, SB-4, SB-5, and SB-6. In addition, storm drain piping was identified near SB-4 and SB-6. While subsurface utilities were identified near the boring locations, they did not present an unacceptable risk; therefore, the original boring locations were not moved.

SUBSURFACE INVESTIGATION

Drilling activities were completed in one day (February 18, 2020). Green Services, Inc. (GSI), subcontracted by EA, provided a Geoprobe Model 6620DT for the field effort. Boreholes were completed in the following order: SB-2, SB-3, SB-4, SB-5, SB-1, and SB-6 (Figure 2). After the direct push boring was completed, a temporary polyvinyl chloride (PVC) well was installed prior to advancing the next boring. At each location, EA completed a soil boring log to document soil lithology, noted visual and/or olfactory impacts, and PID readings (Attachment C).



SB-6

SB-5

SB-4

SB-1

SB-3

SB-2



Soil Sampling

Soil boring SB-1 was located to the south of the wall dividing the UST field from the used oil aboveground storage tank (AST). The soil boring started at ground surface and was terminated at 10 feet (ft) below ground surface (bgs). The borehole was composed primarily of clay with a thin lens of sand at 2.5 to 5 ft. LPH was not observed during this boring. A maximum PID reading of 2.4 parts per million (ppm) was recorded at the 1 to 2 ft bgs interval but was considered background. One soil sample was collected from the 5 to 6 ft bgs interval, placed in laboratory supplied bottleware, and labeled SB-1-5-6. Groundwater was encountered in this boring at 8.47 ft bgs.

Soil boring SB-2 was located approximately 4 ft southwest of SB-1 at the western edge of the concrete pad associated with the UST field. The soil boring started at ground surface and was terminated at 15 ft bgs. The lithology was similar to soil boring SB-1, with clay being the primary component of the material recovered from the borehole; little fine sand was observed. A maximum PID reading of 200 ppm was recorded at the 5 to 6 ft bgs interval. One soil sample was collected from the 5 to 6 ft bgs interval, placed into laboratory supplied bottleware, and labeled SB-2-5-6. Groundwater was encountered in this boring at 2.80 ft.

Soil boring SB-3 was located approximately 10 ft southeast of SB-1 near the edge of the concrete pad. The soil boring started at ground surface and was terminated at 15 ft bgs. The borehole was composed primarily of clay with a lens of sand with fine gravel at 1 to 4 ft bgs. A maximum PID reading of 300 ppm was recorded at the 5 to 6 ft interval. One soil sample was collected from the 5 to 6 ft bgs interval, placed into laboratory supplied bottleware, and labeled SB-3-5-6. Groundwater not encountered in this boring.

Soil boring SB-4 was located approximately 15 ft southeast of SB-1 in the asphalt approximately 1 ft northeast of the storm drain. The soil boring started at ground surface and was terminated at 10 ft bgs. The borehole was comprised mainly of clay and silt with an interbedded lens of sand. A maximum PID reading of 0.5 was recorded from the 3 to 4 foot interval. One soil sample was collected from the sand interval of 5 to 6 ft bgs, placed into laboratory supplied bottleware, and labeled SB-4-5-6. Groundwater was encountered in this boring at 3.33 ft bgs.

Soil boring SB-5 was located approximately 10 ft east of SB-1 in the asphalt approximately 0.5 ft north of the concrete pad. The soil boring started at ground surface and was terminated at 10 ft bgs. The borehole was comprised mainly of clay with an interbedded lens of sand and a small layer of pea gravel from the tank fill. No PID readings were observed greater than 0.0 ppm. One soil sample was collected from the sand interval of 5 to 6 ft bgs, placed into laboratory supplied bottleware, and labeled SB-5-5-6. Groundwater was encountered in this boring at 3.82 ft bgs.

Soil boring SB-6 was located approximately 10 ft northeast of SB-1 in the grass approximately 3 ft northeast of the used oil AST. The soil boring started at ground surface and was terminated at 14 ft bgs. The borehole was comprised mainly of clay with an interbedded lens of sand with gravel. No PID readings were observed greater than 0.0 ppm. One soil sample was collected from the sand interval of 5 to 6 ft bgs, placed into laboratory supplied bottleware, and labeled SB-6-5-6. Groundwater was encountered in this boring at 5.46 ft bgs.

Temporary Well Groundwater Gauging

EA gauged the temporary wells to determine depth to groundwater using an oil/water interface probe. The interface probe was lowered down each well, the groundwater was checked for petroleum, and the



depth to water was recorded in the field logbook. The oil/water interface probe was decontaminated between each gauging event. No petroleum light non-aqueous phase liquid (LNAPL) was observed in the temporary wells. Groundwater was not encountered in SB-3.

Groundwater Sampling

Groundwater samples were collected from temporary wells installed in SB-1, SB-2, SB-4, SB-5, and SB-6. Prior to sampling, each temporary well was purged using a dedicated polyethylene bailer. Groundwater quality parameters were not monitored as part of this limited investigation. Once the groundwater was visibly clear, groundwater samples were collected at each temporary well location. Groundwater samples were sealed immediately upon collection to prevent the loss of constituents of concern, packaged on ice, and delivered under standard chain-of-custody procedures to Eurofins Lancaster Laboratories, Inc. for analysis of VOCs plus fuel oxygenates and naphthalene by U.S. EPA Method 8260B, as well as TPH-GRO/DRO by U.S. EPA Method 8015B. For quality assurance purposes, a field duplicate was collected from SB-6 (Field Duplicate 1) and submitted for analysis for the same constituents as the other samples. Rinse blank samples were not required because disposable bailers were used during sample collection. The purged groundwater generated during the sampling event was pumped through a carbon filter and discharged to the ground surface.

Site Restoration

Subsequent to collection of groundwater samples, the temporary wells were removed from the ground, the boring was filled with a combination of drill cuttings, and bentonite chips and the surface repaired to match existing.

RESULTS

Local Groundwater Flow Direction Assessment

Groundwater depths differed by as much as 5.67 ft, with the deepest groundwater observed at SB-1 (8.47 ft bgs) and the shallowest groundwater observed at SB-2 (2.80 ft bgs). The locally high groundwater elevation is inconsistent with the topography and the presumed groundwater flow direction toward the stream. Complicating factors included the relatively short time frame that the temporary wells were in place and the clay lithology. Clay soil can result in inconsistent groundwater elevations since groundwater is often slow to recharge the well and furthermore could result in perched groundwater that is not consistent with the local and regional groundwater table and flow paths.

Laboratory Analytical Results - Soil

A total of six soil samples were collected from boring locations SB-1 through SB-6 (Figure 3). The parent sample for Duplicate 1 was SB-3-5-6. Where the reported concentrations differ between the parent and the duplicate, the higher of the detections will be included to represent soil at boring 3. Analytical results from the sampling event are summarized for comparison with the MDE Generic Numeric Cleanup Standards for Residential and Non-Residential Soil (MDE 2018) and the Maryland Environmental Assessment Technology for Leaking Underground Storage Tanks (MDE 2003) as provided in Table 1. Laboratory analytical results are included in Attachment D.

TPH-DRO was detected in the soil samples at reported concentrations ranging from 28 milligrams per kilogram (mg/kg) (SB-2-5-6) to 670 mg/kg (SB-3-5-6). Two of the reported concentrations exceeded the

(Depth 5-6ft) Soil
10-C28) 410 mg/kg

| | |
|---------|--|
| Soil | |
| 0 mg/kg | |
| 0 µg/kg | |
| 0 µg/kg | |
| 0 µg/kg | |
| 0 µg/kg | |
| 0 µg/L | |
| 0 µg/L | |
| 0 µg/L | |
| 0 µg/L | |

| | |
|--------------------------------|---------------|
| SB-03 (Depth 5-6 ft) Soil | |
| TPH-DRO (C10-C28) | 670 mg/kg |
| TPH-GRO (C6-C10) | 6,200 mg/kg |
| Benzene | 87,00 µg/kg |
| Chloroform | 560 µg/kg |
| Ethylbenzene | 79,000 µg/kg |
| Naphthalene | 36,000 µg/kg |
| Xylenes, total | 380,000 µg/kg |
| SB-03 -DUP (Depth 5-6 ft) Soil | |
| TPH-GRO (C6-C10) | 7,600 mg/kg |
| Benzene | 6,700 µg/kg |
| Ethylbenzene | 53,000 µg/kg |
| Naphthalene | 26,000 µg/kg |
| Xylenes, total | 270,000 µg/kg |

SB-04 (Depth 5-6 ft) Soil
TPH-DRO (C10-C28) 550 mg/kg

SB-6

SB-5





residential soil generic numeric cleanup standard of 230 mg/kg. One of the reported concentrations exceeded the residential and non-residential soil generic numeric cleanup standard of 620 mg/kg.

TPH-GRO was detected in the soil samples at reported concentrations ranging from 0.2 J mg/kg (SB-1-5-6) to 7,600 mg/kg (DUP-1). Two of the reported concentrations (SB-2-5-6 and DUP-1) exceeded the non-residential soil generic numeric cleanup standard of 620 mg/kg.

Benzene was detected in three of the soil samples at reported concentrations ranging from 0.7 J µg/kg (SB-5-5-6) to 8,700 µg/kg (SB-3-5-6). Two of the reported concentrations (SB-2-5-6 and SB-5-5-6) were less than the corresponding generic numeric cleanup standard. One of the reported concentrations (SB-3-5-6) exceeded the non-residential soil generic numeric cleanup standard of 5,100 µg/kg.

Chloroform was detected in two of the soil samples at reported concentrations ranging from 380 J µg/kg (SB-2-5-6) to 560 J µg/kg (SB-3-5-6). The results exceeded the residential soil generic numeric cleanup standard of 320 µg/kg.

Ethylbenzene was detected in two of the six soil samples at reported concentrations ranging from 18,000 µg/kg (SB-2-5-6) to 79,000 µg/kg (SB-3-5-6). The reported concentration detected in soil sample SB-2-5-6 exceeded the corresponding residential soil generic numeric cleanup standard of 5,800 µg/kg. The reported concentration detected in soil sample SB-3-5-6 exceeded the corresponding non-residential soil generic numeric cleanup standard of 25,000 µg/kg.

Naphthalene was detected in two of the six soil samples at reported concentrations ranging from 8,900 µg/kg (SB-2-5-6) to 36,000 µg/kg (SB-3-5-6). The reported concentration detected in soil sample SB-2-5-6 exceeded the corresponding residential soil generic numeric cleanup standard of 3,800 µg/kg. The reported concentration detected in soil sample SB-3-5-6 exceeded the corresponding non-residential soil generic numeric cleanup standard of 17,000 µg/kg.

Toluene was detected in three of the six soil samples at reported concentrations ranging from 0.9 J µg/kg (SB-5-5-6) to 180,000 µg/kg (SB-3-5-6). None of the detections exceeded either the residential or non-residential generic numeric screening criteria.

Total Xylenes were detected in two of the six soil samples at reported concentrations ranging from 96,000 µg/kg (SB-2-5-6) to 380,000 µg/kg (SB-3-5-6). The reported concentration detected in soil sample SB-2-5-6 exceeded the corresponding residential soil generic numeric cleanup standard of 58,000 µg/kg. The reported concentration detected in soil sample SB-3-5-6 exceeded the corresponding non-residential soil generic numeric cleanup standard of 250,000 µg/kg.

Additional volatile organic compounds were detected at concentrations greater than the laboratory's reporting limit; however, they did not exceed their corresponding soil standard; therefore, they are omitted from the results section for brevity. These included 1,2-Dichlorobenzene, 1,4-Dichlorobenzene, 2-Butanone, acetone, carbon disulfide, chlorobenzene, isopropylbenzene, methyl acetate, and methylcyclohexane.



Laboratory Analytical Results – Groundwater

A total of five groundwater samples were collected from boring location SB-1, SB-2, SB-4, SB-5, and SB-6. While a temporary well was installed in boring SB-3; however, groundwater was not observed in this boring location. Analytical results from the sampling event are summarized for comparison with the MDE Generic Numeric Groundwater Standards for Type I and II Aquifers (MDE 2018) as provided in Table 2. Laboratory analytical results are included in Attachment D.

TPH-DRO was detected in the groundwater samples at reported concentrations ranging from 290 micrograms per liter ($\mu\text{g/L}$) (DUP-GW) to 6,700 $\mu\text{g/L}$ (SB-4). There is no MDE screening level for TPH-DRO.

TPH-GRO was detected in two of the five groundwater samples at reported concentrations ranging from 28 J $\mu\text{g/L}$ (SB-5) to 18,000 $\mu\text{g/L}$ (SB-2). There is no MDE screening level for TPH-GRO.

Benzene was detected in SB-2 at a reported concentration of 28 $\mu\text{g/L}$, which exceeded the corresponding screening level of 5 $\mu\text{g/L}$.

Ethylbenzene was detected in two of the five groundwater samples at reported concentrations ranging from 0.5 J $\mu\text{g/L}$ (SB-4) to 760 $\mu\text{g/L}$ (SB-2) with the detection in SB-2 exceeding the corresponding screening level of 700 $\mu\text{g/L}$.

Isopropylbenzene was detected in SB-2 at a reported concentration of 48 $\mu\text{g/L}$, which exceeded the corresponding screening level of 45 $\mu\text{g/L}$.

Naphthalene was detected in SB-2 at a reported concentration of 220 $\mu\text{g/L}$, which exceeded the corresponding screening level of 0.17 $\mu\text{g/L}$.

Total Xylenes were detected in three of the five groundwater samples at reported concentrations ranging from 2 J $\mu\text{g/L}$ (SB-4 and SB-5) to 3,800 $\mu\text{g/L}$ (SB-2). The reported concentration detected in groundwater sample SB-2 exceeded the corresponding screening level of 1,000 $\mu\text{g/L}$.

Additional volatile organic compounds were detected at concentrations greater than the laboratory's reporting limit; however, they did not exceed their corresponding soil standard; therefore, they are omitted from the results section for brevity. These included 1,2-Dichloroethane, 2-Butanone, acetone, carbon disulfide, chlorobenzene, cyclohexane, methylcyclohexane, and toluene.

SEVEN RISK FACTORS

The MDE Maryland Environmental Assessment Technology (MEAT) guidelines (MDE, 2003) provided an approach to evaluate the physical, chemical, and biological integrity in order to protect human health and the environment. The "Seven Risk Factors" used to evaluate the potential impact to human health and the environment include:

1. **Liquid Phase Hydrocarbons (LPH):** LPH was not observed in soil collected from the soil borings or in groundwater collected from each temporary well.
2. **Current and Future Use of Impacted Groundwater:** The facility is in the Coastal Plane physiographic province. Based on the 1968 Geologic Map of Maryland the site is underlain by the Potomac Group including the Raritan and Patapsco Formations, Arundel Clay, and Patuxent



Formation. The Potomac Group consists of interbedded quartzose gravels; protoquartzitic to orthoquartzitic argillaceous sands, and white, dark gray, and multicolored slits and clays, thickness of 0 to 800 feet. However, due to the topographic location of the facility, the upper lithology is most likely comprised of Quarternary lowland deposits consisting of gravel, sand, slit, and clay. The lithology observed while inspecting the soil cores appears to confirm that the subsurface is composed of the sediments laid down by a meandering stream channel. Groundwater in these formations tends to flow through preferential pathways of sand/gravel and thus serve as the predominant mode of hydraulic transport for subsurface contaminants.

The facility is in a residential area and is serviced by public water and an onsite septic system. Residential areas are present to the north and west of the facility. There are no potable wells within 1/2-mile of the site. Therefore, groundwater is not a complete exposure pathway.

- 3. *Migration of Contamination:*** The migration of contamination is the potential ability for contaminated groundwater to migrate off site to a receptor. The subsurface investigation confirmed the presence of impacted soil and groundwater to the west and south of the gasohol UST system. Attempts were made to determine groundwater elevations and ultimately flow direction but the presence of significant quantities of clay and the temporary nature of the temporary wells made the effort impossible. However, given site topography and proximity to the stream, groundwater is assumed to flow towards the south and east eventually discharging as baseflow to the stream.

The subsurface lithology observed in SB-1, SB-2, and SB-3 is dominated by clay with low to medium plasticity. A sand lens was observed in SB-4 at approximately 4 to 6 ft bgs before transitioning back to silt and clay with increasing depth. Soil lithology observed in SB-5 and SB-6 tended to have coarse grained material near the groundwater depth before transitioning to silt/clay with increasing depth. These lithologies were anticipated given the proximity to the stream channel.

In summary, migration of contamination is impeded by the presence of low hydraulic conductivity soil present to the west and south of the leaking gasohol UST system. However, the more volatile petroleum constituents are expected to continue migration out from the tank field toward the office building, under the shop, and ultimately discharging to the stream.

- 4. *Human Exposure:*** Exposure to humans through ingestion or dermal contact is not expected; however, the inhalation pathway cannot be ruled out based on the data collected to date. Given that benzene was detected in groundwater collected from SB-2 at a reported concentration of 28 µg/L, the proximity of the sample location to the office, the shallow depth of groundwater, and that the concentration exceeds the U.S. EPA vapor intrusion screening calculator screening criteria of 6.9 µg/L, indoor air and sub-slab sampling is recommended after the source area is remediated.

As an interim measure, two (2) indoor air samples were collected on Saturday, March 7, 2020 to determine if workers were being exposed to concentrations of benzene that exceed the indoor air numeric screening criteria. The reported concentrations of chemicals detected in the two samples (break room and office) were compared to the U.S. EPA Regional Screening Levels (Nov19) for both resident and industrial air. All detections were less than the corresponding screening levels; therefore, there is no evidence of a completed exposure pathway between the gasoline constituents in the shallow groundwater and occupants of the one story office building.



5. ***Environmental Ecological Exposure:*** The nearest ecological exposure point would be the flora and fauna in and near the stream flowing to the south of the facility. The proximity of the stream to the impacted soil detected in SB-3 is approximately 100 feet. There is a potential that impacted groundwater could discharge to the stream before being diluted and transported downstream towards the Anacostia River. However, the lithology present around the tank field consists of low hydraulic permeability soil thus impeding groundwater flow.
6. ***Impact to Utilities and Other Buried Services:*** A 15-inch (in.) diameter storm drain line is located to the south of the UST field and runs from west to east, ultimately discharging to an outlet located on the southern edge of the property just east of the garage. The nearest inlet has an invert depth of 24-in. below grade. Depth to groundwater in SB-4 and SB-5 are 3.33 ft bgs and 3.82 ft bgs, respectively. While shallow, groundwater appears to be below the base of the stormwater inlet and the piping conveying stormwater to the stream.
7. ***Other Sensitive Receptors:*** No other receptors were identified during the evaluation.

DISCUSSION AND RECOMMENDATIONS

The objective of the limited subsurface investigation was to assess whether the existing gasohol UST system may have released gasohol into the subsurface soil and groundwater. It was not intended to completely delineate the horizontal and vertical nature and extent of the impacts. To accomplish the objective, a total of six borings were completed for the collection of soil and groundwater samples within proximity of the gasohol UST system. On February 18, 2020, EA performed the subsurface investigation in accordance with the approved Work Plan and MDE's approval letter. A total of six soil and five groundwater samples were collected and analyzed for petroleum constituents. During the field work, a PID was used to screen soil for any indication of petroleum impacts. Soil collected from SB-2 and SB-3 at the 4 to 5 ft bgs interval resulted in PID responses greater than 200 ppm. Soil sample analytical results indicated petroleum constituents at reported concentrations greater than MDE generic numeric screening criteria.

EA utilized the risk evaluation factors in MDE's MEAT guidance to evaluate the risks posed by the leaking UST. As a result, two of the seven risk factors were identified as meeting the threshold for follow-up including the potential for contaminant migration and ecological exposure. Contaminant migration has occurred as evidenced by detections in SB-2 and SB-3 and will continue to occur temporally by advection and dispersion. The ecological exposure pathway is potentially complete given the proximity of the impacted groundwater and soil to the perennial stream located to the south of the UST field/facility. Furthermore, it is possible that subsurface contaminants dissolved in groundwater may migrate to the stream through baseflow.



We look forward to our continued partnership with the Town of Cheverly. Should you have any questions or comments, please do not hesitate to call me directly at 410-329-5105.

Respectfully yours,
EA ENGINEERING, SCIENCE, AND TECHNOLOGY, INC., PBC

A handwritten signature in black ink, reading "Nelson Brooks", is positioned below the typed name.

Nelson C. Brooks, P.E., P.G.
Senior Project Manager

Cc: Mr. Jim Richmond, MDE OCP
Mr. Dylan Galloway, Town of Cheverly

Attachments:

- A: MDE Work Plan Approval, Dated January 30, 2020
- B: Accurate Infrastructure Data, Inc. – Utility Mark-out
- C: Soil Boring Logs
- D: Laboratory Analytical Report

Table 1: Soil Sample Results
Town of Cheverly - Limited Subsurface Investigation

| Analyte | Location ID | | | SB-01 | SB-02 | SB-03 | SB-03 | SB-04 | SB-05 | SB-06 |
|---|--------------------------|------------------------------|-------|-------------|-----------|-----------|-----------|-----------|-----------|-----------|
| | MDE Residential Soil SLs | MDE Non-Residential Soil SLs | Unit | SB-1-5-6 | SB-2-5-6 | SB-3-5-6 | DUP-1 | SB-4-5-6 | SB-5-5-6 | SB-6-5-6 |
| | | | | Sample Date | 2/18/2020 | 2/18/2020 | 2/18/2020 | 2/18/2020 | 2/18/2020 | 2/18/2020 |
| | Parent Sample | | | | | | SB-3-5-6 | | | |
| Total Petroleum Hydrocarbons (SW8015C) | | | | | | | | | | |
| TPH-DR0 (C10-C28) | 230* | 620* | mg/kg | 410 | 28 | 270 | 170 | 550 | 44 | 110 |
| TPH-GRO (C6-C10) | 230* | 620* | mg/kg | 0.2 J | 1900 | 6200 | 7600 | 32 | 0.7 J | 0.3 J |
| VOCs (SW8260C) | | | | | | | | | | |
| 1,1,1-Trichloroethane | 810000 | 3600000 | µg/kg | < 0.5 U | < 130 U | < 260 U | < 230 U | < 0.5 U | < 0.7 U | < 0.6 U |
| 1,1,2,2-Tetrachloroethane | 600 | 2700 | µg/kg | < 0.3 U | < 88 U | < 180 U | < 150 U | < 0.3 U | < 0.5 U | < 0.4 U |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | NSL | NSL | µg/kg | < 0.5 U | < 130 U | < 260 U | < 230 U | < 0.5 U | < 0.7 U | < 0.6 U |
| 1,1,2-Trichloroethane | 150 | 630 | µg/kg | < 0.4 U | < 110 U | < 220 U | < 190 U | < 0.4 U | < 0.6 U | < 0.5 U |
| 1,1-Dichloroethane | 3600 | 16000 | µg/kg | < 0.4 U | < 110 U | < 220 U | < 190 U | < 0.4 U | < 0.6 U | < 0.5 U |
| 1,1-Dichloroethene | 23000 | 100000 | µg/kg | < 0.4 U | < 110 U | < 220 U | < 190 U | < 0.4 U | < 0.6 U | < 0.5 U |
| 1,2,4-Trichlorobenzene | 5800 | 26000 | µg/kg | < 4 U | < 1100 U | < 2200 U | < 1900 U | < 4 U | < 6 U | < 5 U |
| 1,2-Dibromo-3-chloropropane | 5.3 | 64 | µg/kg | < 0.4 U | < 110 U | < 220 U | < 190 U | < 0.4 U | < 0.6 U | < 0.5 U |
| 1,2-Dibromoethane | 36 | 160 | µg/kg | < 0.3 U | < 88 U | < 180 U | < 150 U | < 0.3 U | < 0.5 U | < 0.4 U |
| 1,2-Dichlorobenzene | 180000 | 930000 | µg/kg | 1 J | < 110 U | < 220 U | < 190 U | < 0.4 U | 0.9 J | < 0.5 U |
| 1,2-Dichloroethane | 460 | 2000 | µg/kg | < 0.5 U | < 130 U | < 260 U | < 230 U | < 0.5 U | < 0.7 U | < 0.6 U |
| 1,2-Dichloropropane | 1600 | 6600 | µg/kg | < 0.4 U | < 110 U | < 220 U | < 190 U | < 0.4 U | < 0.6 U | < 0.5 U |
| 1,3-Dichlorobenzene | NSL | NSL | µg/kg | < 0.4 U | < 110 U | < 220 U | < 190 U | < 0.4 U | < 0.6 U | < 0.5 U |
| 1,4-Dichlorobenzene | 2600 | 11000 | µg/kg | 1 J | < 88 U | < 180 U | < 150 U | < 0.3 U | 1 J | < 0.4 U |
| 2-Butanone | 2700000 | 19000000 | µg/kg | < 2 U | < 440 U | < 880 U | < 750 U | < 2 U | 3 J | 6 J |
| 2-Hexanone | NSL | NSL | µg/kg | < 0.8 U | < 220 U | < 440 U | < 380 U | < 0.8 U | < 1 U | < 1 U |
| 4-Methyl-2-pentanone | 3300000 | 14000000 | µg/kg | < 0.8 U | < 220 U | < 440 U | < 380 U | < 0.8 U | < 1 U | < 1 U |
| Acetone | 6100000 | 61000000 | µg/kg | 18 | < 1300 U | < 2600 U | < 2300 U | 22 | 40 | 72 |
| Benzene | 1200 | 5100 | µg/kg | < 0.4 U | 190 J | 4700 | 6700 | < 0.4 U | 0.7 J | < 0.5 U |
| Bromodichloromethane | 290 | 1300 | µg/kg | < 0.3 U | < 88 U | < 180 U | < 150 U | < 0.3 U | < 0.5 U | < 0.4 U |
| Bromoform | 19000 | 86000 | µg/kg | < 4 U | < 1100 U | < 2200 U | < 1900 U | < 4 U | < 6 U | < 5 U |
| Bromomethane | 680 | 3000 | µg/kg | < 0.6 U | < 150 U | < 310 U | < 260 U | < 0.6 U | < 0.8 U | < 0.8 U |
| Butyl alcohol, tert- | NSL | NSL | µg/kg | < 12 U | < 3300 U | < 6600 U | < 5600 U | < 13 U | < 18 U | < 16 U |
| Carbon disulfide | 77000 | 350000 | µg/kg | 5 | < 130 U | < 260 U | < 230 U | 1 J | 4 J | 3 J |
| Carbon tetrachloride | 650 | 2900 | µg/kg | < 0.4 U | < 110 U | < 220 U | < 190 U | < 0.4 U | < 0.6 U | < 0.5 U |
| Chlorobenzene | 28000 | 130000 | µg/kg | 8 | < 110 U | < 220 U | < 190 U | < 0.4 U | 13 | < 0.5 U |
| Chloroethane | 1400000 | 5700000 | µg/kg | < 0.8 U | < 220 U | < 440 U | < 380 U | < 0.8 U | < 1 U | < 1 U |
| Chloroform | 320 | 1400 | µg/kg | < 0.5 U | 380 J | 560 J | < 230 U | < 0.5 U | < 0.7 U | < 0.6 U |
| Chloromethane | 11000 | 46000 | µg/kg | < 0.5 U | < 130 U | < 260 U | < 230 U | < 0.5 U | < 0.7 U | < 0.6 U |
| Cis-1,2-Dichloroethene | 16000 | 230000 | µg/kg | < 0.4 U | < 110 U | < 220 U | < 190 U | < 0.4 U | < 0.6 U | < 0.5 U |
| Cis-1,3-dichloropropene | NSL | NSL | µg/kg | < 0.3 U | < 88 U | < 180 U | < 150 U | < 0.3 U | < 0.5 U | < 0.4 U |
| Cyclohexane | NSL | NSL | µg/kg | < 0.4 U | < 110 U | < 220 U | < 190 U | < 0.4 U | < 0.6 U | < 0.5 U |
| Dibromochloromethane | 8300 | 39000 | µg/kg | < 0.4 U | < 110 U | < 220 U | < 190 U | < 0.4 U | < 0.6 U | < 0.5 U |
| Dichlorodifluoromethane | NSL | NSL | µg/kg | < 0.5 U | < 130 U | < 260 U | < 230 U | < 0.5 U | < 0.7 U | < 0.6 U |
| Diisopropyl ether | NSL | NSL | µg/kg | < 0.4 U | < 110 U | < 220 U | < 190 U | < 0.4 U | < 0.6 U | < 0.5 U |
| Ethyl tert-butyl ether | NSL | NSL | µg/kg | < 0.4 U | < 110 U | < 220 U | < 190 U | < 0.4 U | < 0.6 U | < 0.5 U |
| Ethylbenzene | 5800 | 25000 | µg/kg | < 0.3 U | 18000 | 79000 | 53000 | < 0.3 U | < 0.5 U | < 0.4 U |
| Isopropylbenzene | 190000 | 990000 | µg/kg | < 0.3 U | 2300 | 8800 | 5400 | < 0.3 U | < 0.5 U | < 0.4 U |
| Methyl acetate | NSL | NSL | µg/kg | < 0.8 U | < 220 U | < 440 U | < 380 U | < 0.8 U | < 1 U | 3 J |
| Methyl tert-butyl ether | 47000 | 210000 | µg/kg | < 0.4 U | < 110 U | < 220 U | < 190 U | < 0.4 U | < 0.6 U | < 0.5 U |
| Methylcyclohexane | NSL | NSL | µg/kg | < 0.5 U | 8600 | 26000 | 13000 | < 0.5 U | < 0.7 U | < 0.6 U |
| Methylene chloride | 35000 | 320000 | µg/kg | < 2 U | < 440 U | < 880 U | < 750 U | < 2 U | < 2 U | < 2 U |
| Naphthalene | 3800 | 17000 | µg/kg | < 2 U | 8900 | 36000 | 26000 | < 2 U | < 2 U | < 2 U |
| Styrene | 600000 | 3500000 | µg/kg | < 0.3 U | < 88 U | < 180 U | < 150 U | < 0.3 U | < 0.5 U | < 0.4 U |
| tert-Amyl methyl ether | NSL | NSL | µg/kg | < 0.6 U | < 180 U | < 350 U | < 300 U | < 0.7 U | < 0.9 U | < 0.9 U |
| Tetrachloroethene | 8100 | 39000 | µg/kg | < 0.4 U | < 110 U | < 220 U | < 190 U | < 0.4 U | < 0.6 U | < 0.5 U |
| Toluene | 490000 | 4700000 | µg/kg | < 0.5 U | 5800 | 180000 | 140000 | < 0.5 U | 0.9 J | < 0.6 U |
| Trans-1,2-Dichloroethene | 160000 | 2300000 | µg/kg | < 0.4 U | < 110 U | < 220 U | < 190 U | < 0.4 U | < 0.6 U | < 0.5 U |
| Trans-1,3-dichloropropene | NSL | NSL | µg/kg | < 0.4 U | < 110 U | < 220 U | < 190 U | < 0.4 U | < 0.6 U | < 0.5 U |
| Trichloroethene | 410 | 1900 | µg/kg | < 0.4 U | < 110 U | < 220 U | < 190 U | < 0.4 U | < 0.6 U | < 0.5 U |
| Trichlorofluoromethane | NSL | NSL | µg/kg | < 0.6 U | < 150 U | < 310 U | < 260 U | < 0.6 U | < 0.8 U | < 0.8 U |
| Vinyl chloride | 59 | 1700 | µg/kg | < 0.5 U | < 130 U | < 260 U | < 230 U | < 0.5 U | < 0.7 U | < 0.6 U |
| Xylenes, total | 58000 | 250000 | µg/kg | < 1 U | 96000 | 380000 | 270000 | < 1 U | < 2 U | < 2 U |

Notes:
 U = Compound was analyzed but not detected.
 J = Estimated value.
 µg/kg = micrograms per kilogram
 mg/kg = milligrams per kilogram
 Maryland Dept. of Environment October 2018 Soil Standards Residential Clean-up Standard
 Maryland Dept. of Environment October 2018 Soil Standards Non-Residential Clean-up Standard
 *Maryland Dept. of Environment MEAT Guidance, 2003
 Cells exceeding the MDE Residential Screening Criteria are boldfaced
 Cells exceeding the MDE Non-Residential Screening Criteria are shaded gray

Table 2: Groundwater Sample Results
Town of Cheverly - Limited Subsurface Investigation

| Analyte | MDE Groundwater SLs | Unit | Location ID | SB-01 | SB-02 | SB-04 | SB-05 | SB-06 | SB-06 |
|---|------------------------|------|---------------|-----------|-----------|-----------|-----------|-----------|-----------|
| | | | Sample Name | SB-1 | SB-2 | SB-4 | SB-5 | SB-6 | DUP-GW |
| | | | Sample Date | 2/18/2020 | 2/18/2020 | 2/18/2020 | 2/18/2020 | 2/18/2020 | 2/18/2020 |
| | | | Parent Sample | | | | | | SB-6 |
| Total Petroleum Hydrocarbons (SW8015C) | | | | | | | | | |
| TPH-DRO (C10-C28) | NSL | µg/L | 600 | 4300 | 6700 | 1100 | 350 | 290 | |
| TPH-GRO (C6-C10) | NSL | µg/L | < 23 U | 18000 | < 23 U | 28 J | < 23 U | < 23 U | |
| VOCs (SW8260C) | | | | | | | | | |
| 1,1,1-Trichloroethane | 200 | µg/L | < 0.3 U | < 2 U | < 0.3 U | < 0.3 U | < 0.3 U | < 0.3 U | |
| 1,1,2,2-Tetrachloroethane | 0.076 | µg/L | < 0.2 U | < 1 U | < 0.2 U | < 0.2 U | < 0.2 U | < 0.2 U | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | NSL | µg/L | < 0.2 U | < 1 U | < 0.2 U | < 0.2 U | < 0.2 U | < 0.2 U | |
| 1,1,2-Trichloroethane | 5 | µg/L | < 0.2 U | < 1 U | < 0.2 U | < 0.2 U | < 0.2 U | < 0.2 U | |
| 1,1-Dichloroethane | 2.8 | µg/L | < 0.2 U | < 1 U | < 0.2 U | < 0.2 U | < 0.2 U | < 0.2 U | |
| 1,1-Dichloroethene | 7 | µg/L | < 0.2 U | < 1 U | < 0.2 U | < 0.2 U | < 0.2 U | < 0.2 U | |
| 1,2,4-Trichlorobenzene | 70 | µg/L | < 0.3 U | < 2 U | < 0.3 U | < 0.3 U | < 0.3 U | < 0.3 U | |
| 1,2-Dibromo-3-chloropropane | 0.2 | µg/L | < 0.3 U | < 2 U | < 0.3 U | < 0.3 U | < 0.3 U | < 0.3 U | |
| 1,2-Dibromoethane | 0.05 | µg/L | < 0.2 U | < 1 U | < 0.2 U | < 0.2 U | < 0.2 U | < 0.2 U | |
| 1,2-Dichlorobenzene | 600 | µg/L | < 0.2 U | < 1 U | < 0.2 U | < 0.2 U | < 0.2 U | < 0.2 U | |
| 1,2-Dichloroethane | 5 | µg/L | < 0.3 U | 2 J | < 0.3 U | < 0.3 U | < 0.3 U | < 0.3 U | |
| 1,2-Dichloropropane | 5 | µg/L | < 0.2 U | < 1 U | < 0.2 U | < 0.2 U | < 0.2 U | < 0.2 U | |
| 1,3-Dichlorobenzene | NSL | µg/L | < 0.2 U | < 1 U | < 0.2 U | < 0.2 U | < 0.2 U | < 0.2 U | |
| 1,4-Dichlorobenzene | 75 | µg/L | < 0.2 U | < 1 U | < 0.2 U | < 0.2 U | < 0.2 U | < 0.2 U | |
| 2-Butanone | 560 | µg/L | 2 J | 12 J | 0.3 J | < 0.3 U | 0.4 J | 0.4 J | |
| 2-Hexanone | NSL | µg/L | < 0.3 U | < 2 U | < 0.3 U | < 0.3 U | < 0.3 U | < 0.3 U | |
| 4-Methyl-2-pentanone | 630 | µg/L | < 0.5 U | < 3 U | < 0.5 U | < 0.5 U | < 0.5 U | < 0.5 U | |
| Acetone | 1400 | µg/L | 15 J | 40 J | 2 J | 2 J | 4 J | 3 J | |
| Benzene | 5 | µg/L | < 0.2 U | 2 J | < 0.2 U | < 0.2 U | < 0.2 U | < 0.2 U | |
| Bromodichloromethane | 80 | µg/L | < 0.2 U | < 1 U | < 0.2 U | < 0.2 U | < 0.2 U | < 0.2 U | |
| Bromoform | 80 | µg/L | < 1 U | < 5 U | < 1 U | < 1 U | < 1 U | < 1 U | |
| Bromomethane | 0.75 | µg/L | < 0.3 U | < 2 U | < 0.3 U | < 0.3 U | < 0.3 U | < 0.3 U | |
| Butyl alcohol, tert- | NSL | µg/L | < 12 U | < 60 U | < 12 U | < 12 U | < 12 U | < 12 U | |
| Carbon disulfide | 81 | µg/L | < 0.2 U | < 1 U | < 0.2 U | 0.5 J | 0.4 J | 0.3 J | |
| Carbon tetrachloride | 5 | µg/L | < 0.2 U | < 1 U | < 0.2 U | < 0.2 U | < 0.2 U | < 0.2 U | |
| Chlorobenzene | 100 | µg/L | 2 | < 1 U | < 0.2 U | 0.5 J | < 0.2 U | < 0.2 U | |
| Chloroethane | 2100 | µg/L | < 0.2 U | < 1 U | < 0.2 U | < 0.2 U | < 0.2 U | < 0.2 U | |
| Chloroform | 80 | µg/L | < 0.2 U | < 1 U | < 0.2 U | < 0.2 U | < 0.2 U | < 0.2 U | |
| Chloromethane | 19 | µg/L | < 0.2 U | < 1 U | < 0.2 U | < 0.2 U | < 0.2 U | < 0.2 U | |
| Cis-1,2-Dichloroethene | 70 | µg/L | < 0.2 U | < 1 U | < 0.2 U | < 0.2 U | < 0.2 U | < 0.2 U | |
| Cis-1,3-dichloropropene | NSL | µg/L | < 0.2 U | < 1 U | < 0.2 U | < 0.2 U | < 0.2 U | < 0.2 U | |
| Cyclohexane | NSL | µg/L | < 1 U | 75 | < 1 U | < 1 U | < 1 U | < 1 U | |
| Dibromochloromethane | 80 | µg/L | < 0.2 U | < 1 U | < 0.2 U | < 0.2 U | < 0.2 U | < 0.2 U | |
| Dichlorodifluoromethane | NSL | µg/L | < 0.2 U | < 1 U | < 0.2 U | < 0.2 U | < 0.2 U | < 0.2 U | |
| Diisopropyl ether | NSL | µg/L | < 0.2 U | < 1 U | < 0.2 U | < 0.2 U | < 0.2 U | < 0.2 U | |
| Ethyl tert-butyl ether | NSL | µg/L | < 0.2 U | < 1 U | < 0.2 U | < 0.2 U | < 0.2 U | < 0.2 U | |
| Ethylbenzene | 700 | µg/L | < 0.4 U | 760 | < 0.4 U | 0.5 J | < 0.4 U | < 0.4 U | |
| Isopropylbenzene | 45 | µg/L | < 0.2 U | 48 | < 0.2 U | < 0.2 U | < 0.2 U | < 0.2 U | |
| Methyl acetate | NSL | µg/L | < 0.3 U | < 2 U | < 0.3 U | < 0.3 U | < 0.3 U | < 0.3 U | |
| Methyl tert-butyl ether | 20 | µg/L | < 0.2 U | < 1 U | < 0.2 U | < 0.2 U | < 0.2 U | < 0.2 U | |
| Methylocyclohexane | NSL | µg/L | < 0.5 U | 74 | < 0.5 U | < 0.5 U | < 0.5 U | < 0.5 U | |
| Methylene chloride | 5 | µg/L | < 0.3 U | < 2 U | < 0.3 U | < 0.3 U | < 0.3 U | < 0.3 U | |
| Naphthalene | 0.17 | µg/L | < 1 U | 20 | < 1 U | < 1 U | < 1 U | < 1 U | |
| Styrene | 100 | µg/L | < 0.2 U | < 1 U | < 0.2 U | < 0.2 U | < 0.2 U | < 0.2 U | |
| tert-Amyl methyl ether | NSL | µg/L | < 0.8 U | < 4 U | < 0.8 U | < 0.8 U | < 0.8 U | < 0.8 U | |
| Tetrachloroethene | 5 | µg/L | < 0.2 U | < 1 U | < 0.2 U | < 0.2 U | < 0.2 U | < 0.2 U | |
| Toluene | 1000 | µg/L | < 0.2 U | 370 | 0.5 J | 0.3 J | < 0.2 U | < 0.2 U | |
| Trans-1,2-Dichloroethene | 100 | µg/L | < 0.2 U | < 1 U | < 0.2 U | < 0.2 U | < 0.2 U | < 0.2 U | |
| Trans-1,3-dichloropropene | NSL | µg/L | < 0.2 U | < 1 U | < 0.2 U | < 0.2 U | < 0.2 U | < 0.2 U | |
| Trichloroethene | 5 | µg/L | < 0.2 U | < 1 U | < 0.2 U | < 0.2 U | < 0.2 U | < 0.2 U | |
| Trichlorofluoromethane | NSL | µg/L | < 0.2 U | < 1 U | < 0.2 U | < 0.2 U | < 0.2 U | < 0.2 U | |
| Vinyl chloride | 2 | µg/L | < 0.2 U | < 1 U | < 0.2 U | < 0.2 U | < 0.2 U | < 0.2 U | |
| Xylenes, total | 1000 | µg/L | < 1 U | 3800 | 2 J | 2 J | < 1 U | < 1 U | |

Notes:

U = Compound was analyzed but not detected.

J = Estimated value.

µg/L = micrograms/liter

Maryland Dept. of Environment October 2018 Groundwater Standards Type I and II Aquifers

Cells exceeding the MDE Groundwater Standards are shaded gray.

ATTACHMENT A: MDE WORK PLAN APPROVAL LETTER, DATED JANUARY 30, 2020

LIMITED SUBSURFACE INVESTIGATION

TOWN OF CHEVERLY, MD



Maryland

Department of the Environment

Larry Hogan, Governor
Boyd K. Rutherford, Lt. Governor

Ben Grumbles, Secretary
Horacio Tablada, Deputy Secretary

January 30, 2020

Mr. Steve Brayman
Town of Cheverly
6401 Forest Road
Cheverly, MD 20785

RE: WORK PLAN APPROVAL
Case No. 2020-0399-PG
Department of Public Works
6401 Forest Road, Cheverly
Prince George's County, Maryland
Facility I.D. No. 4773

Dear Mr. Brayman:

The Maryland Department of the Environment's (MDE) Oil Control Program (OCP) completed a review of the case file for the above-referenced property, including the *Limited Subsurface Investigation Work Plan*, dated December 2019, prepared by EA Engineering, Science, and Technology, Inc. The *Work Plan* was submitted in response to the OCP's *Report of Observations*, dated November 27, 2019, to further investigate soil and groundwater conditions in the area of the active 10,000-gallon diesel underground storage tank (UST) system and the temporarily out-of-service 10,000-gallon gasohol UST system. The gasohol UST system was recently taken out of service following a failed precision tightness test. The OCP understands that all product has been removed from the gasohol UST system.

The *Work Plan* proposes the advancement of up to six soil borings at specified locations as discussed with your environmental consultant. If petroleum contamination is encountered, additional borings will be installed to delineate the horizontal extent of petroleum impact. Each boring will be completed to a depth at which groundwater is encountered using direct-push technology. Continuous soil cores will be collected at each boring to allow for logging of subsurface lithology. Subsurface soils will be field-screened at regular intervals with a photo-ionization detector (PID). A dye shaker test will be used as necessary to confirm the PID response.

At least one soil sample will be collected from each boring. Additional soil samples will be collected in at either the highest PID reading and/or near the groundwater interface. The soil samples will be field-preserved in accordance with EPA Method 5035. The borings will be completed as temporary 1-inch diameter monitoring wells to allow for the collection of representative groundwater samples. The OCP understands the temporary monitoring wells will be constructed to prevent the infiltration of surface water. All soil and groundwater samples will be analyzed for full-suite volatile organic compounds (VOCs), including fuel oxygenates and naphthalene, using EPA Method 8260 and total petroleum hydrocarbons - diesel and gasoline range organics (TPH-DRO and TPH-GRO) using EPA Method 8015.

Based on our review of the information provided, the OCP hereby approves the proposed *Work Plan* for immediate implementation, contingent upon the following comments/modifications:

- 1) No later than March 2, 2020, initiate implementation of the approved *Work Plan*. Ensure that all required permits are obtained prior to initiating the proposed activities.
- 2) If field screening results continue to reveal evidence of petroleum impact at the targeted depth/groundwater interface, the OCP will also require additional vertical delineation. Unless liquid phase hydrocarbons (LPH) are encountered, the direct-push borings must be advanced vertically until field screening data indicate the absence of petroleum impact. Boring locations may be field-modified as necessary to avoid damaging underground utilities.
- 3) During completion of the direct-push borings, soil cores will be screened with a PID.
 - a. Field screening of the soil cores must be performed utilizing a consistent methodology that will not be adversely affected by site conditions. The use of glass jars or sealable plastic bags to store a portion of the sample material for screening purposes is recommended.
 - b. Soil samples for laboratory analysis will be collected in each boring at the interval exhibiting the highest PID response and/or at the bottom of the boring. PID readings will be included in the boring logs.
 - c. All soil samples will be collected and field preserved in accordance with EPA Method 5035 and analyzed for full-suite VOCs, including fuel oxygenates and naphthalene, using EPA Method 8260 and TPH-DRO and TPH-GRO using EPA Method 8015B.
- 4) If measurable LPH are detected in soil or groundwater during assessment activities, its presence must be reported within 2 hours of discovery by calling the OCP's Baltimore Headquarters at 410-537-3442 during standard business hours or the Emergency Response Division hotline at 1-866-633-686. Reports should not be made via voice mail messages to OCP case managers.
- 5) No later than 60 days following the completion of approved *Work Plan* activities, MDE requires the submittal of a comprehensive report documenting the results of the subsurface investigation and any remedial activities. The report must include the tabulated data documenting any petroleum mass and groundwater recovered, and any additional monitoring and sampling data obtained. Include a discussion of how the results influence future investigative and remedial activities. When submitting sampling results, include data summary tables and scaled site maps showing actual sampling locations (i.e., monitoring well locations). Reports must also include groundwater contour maps, site-specific detailed hydrogeology, groundwater flow, product thickness and dissolved phase concentration maps, monitoring well completion reports, and qualitative and/or quantitative discussions. Provide receipts to document proper disposal of the petroleum contact soil, groundwater, and/or LPH that may be generated as a result of the assessment activities.

Mr. Steve Brayman
Case No. 2020-0399-PG
Page 3

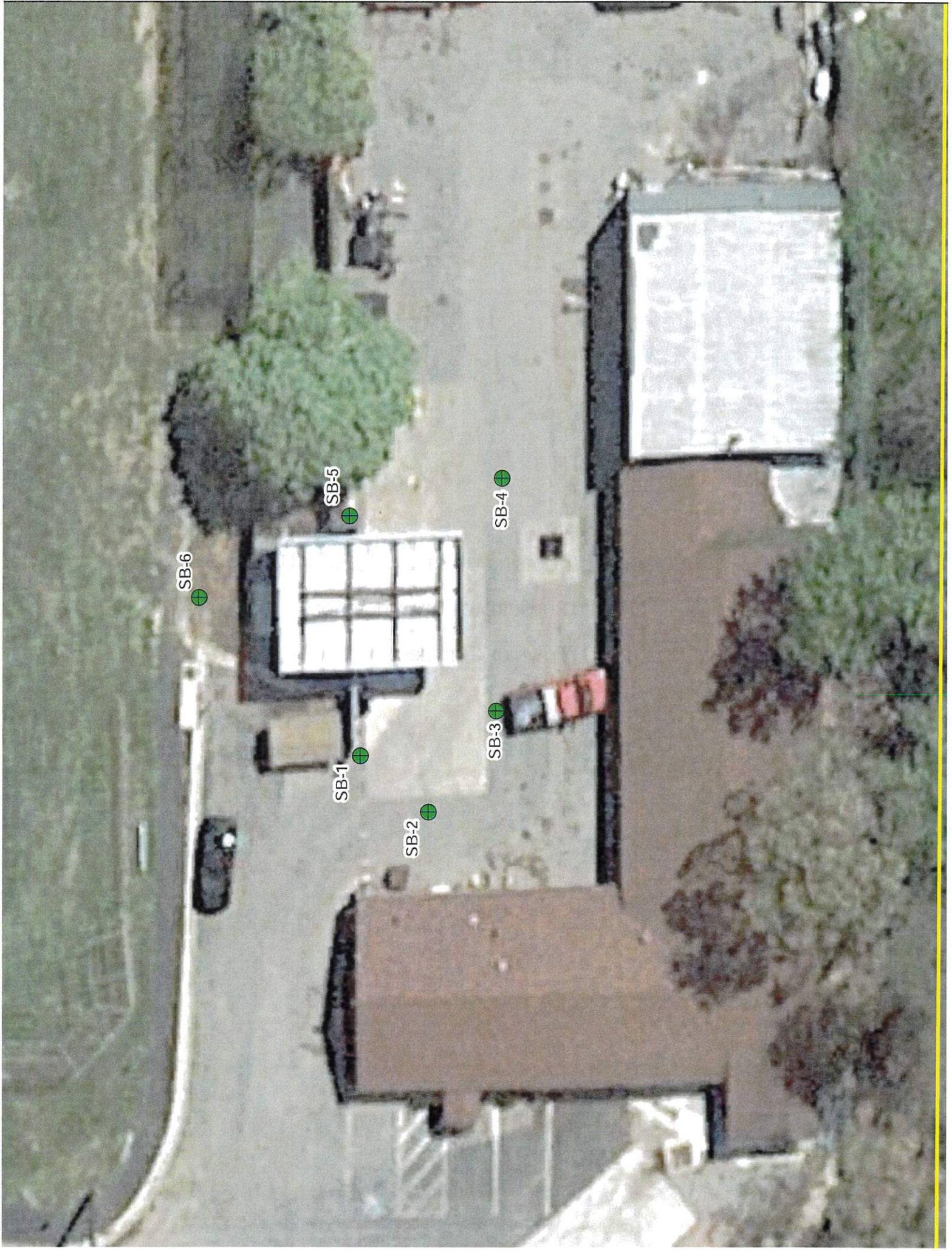
Notify the OCP at least five working days prior to initiating the subsurface investigation so we can be on site to observe field activities. When submitting documentation, submit two hard copies and an electronic copy on a labeled compact disc (CD) or via email. If you have any questions, please contact Mr. Jim Richmond at 410-537-3337 or jim.richmond@maryland.gov.

Sincerely,



Mr. Andrew B. Miller, Chief
Remediation Division
Oil Control Program

cc: Mr. Nelson Brooks, EA Engineering, Science, and Technology, Inc.
Mr. Joseph Gill, Director, Prince George's County Department of Environment
Mr. Jim Richmond, Case Manager, Remediation Division, Oil Control Program
Mr. Christopher H. Ralston, Program Manager, Oil Control Program



SB-6

SB-5

SB-4

SB-1

SB-3

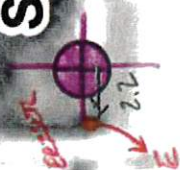
SB-2

ATTACHMENT B: ACCURATE INFRASTRUCTURE DATA, INC. – UTILITY MARK-OUT

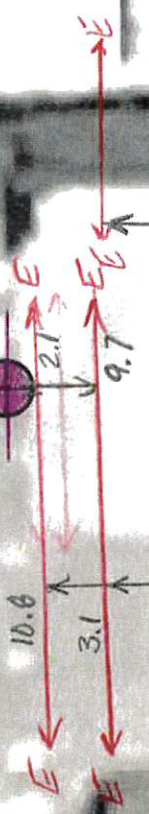
LIMITED SUBSURFACE INVESTIGATION

TOWN OF CHEVERLY

SB-5



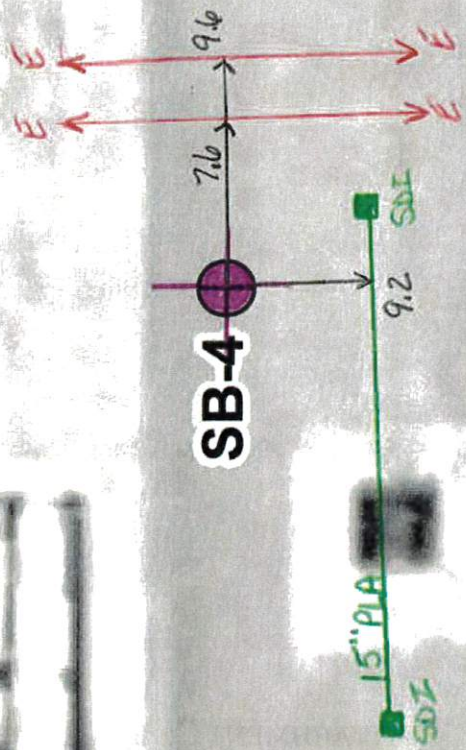
SB-1



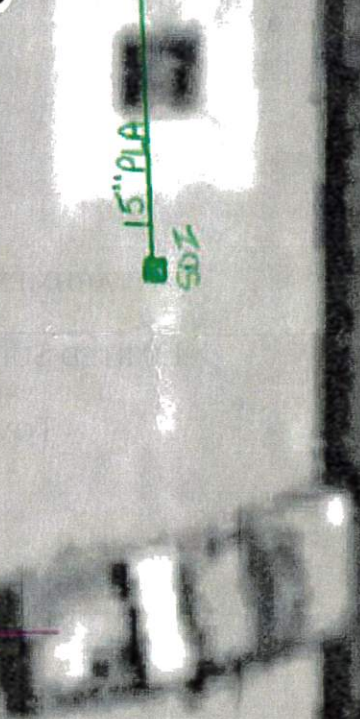
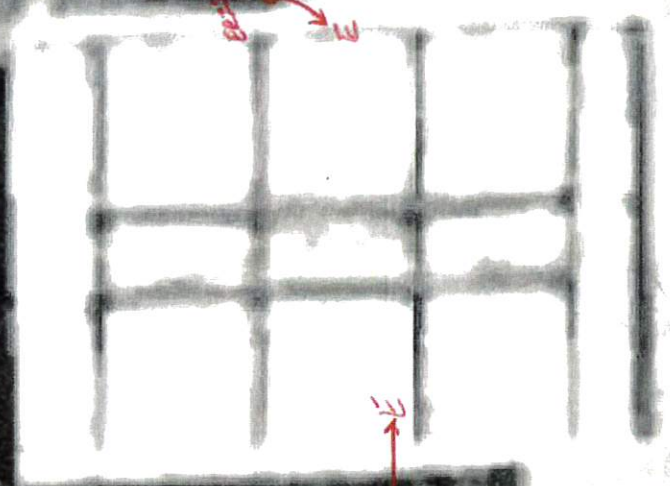
SB-2



SB-4



SB-3



ATTACHMENT C: SOIL BORING LOGS
LIMITED SUBSURFACE INVESTIGATION
TOWN OF CHEVERLY



EA Engineering, Science,
and Technology, Inc.

EA Engineering, Science,
and Technology, Inc.

LOG OF SOIL/ROCK BORING

Coordinates: _____
 Surface Elevation: _____
 Casing Below Surface: _____
 Reference Elevation: _____
 Reference Desc: _____

| | | |
|----------------------------------|-----------------------------|------------------------------|
| Job. No. | Client: <u>Cheverly DPW</u> | Location: <u>Cheverly MD</u> |
| Drilling Method: <u>Caugreba</u> | Boring No. <u>SB-1</u> | |
| Sampling Method: <u>5' Core</u> | Sheet 1 of 1 | |
| Water Level | | Start |
| Time | - | Finish |
| Date | | <u>1020</u> |
| Reference | | <u>1040</u> |

| Sample Type | Inches Drvn/In. Recvrd | Dpth. Csg. | Sample No. | PID ppm | Blows per 6 in. | Depth in Feet | USCS Log |
|-------------|------------------------|------------|------------|---------|-----------------|---------------|----------|
| | ↑ | N/A | | 0 | | 1 | |
| | 58/60 | | | 2.4 | | 2 | CH |
| | | | | 0 | | 3 | SP |
| | | | | 0 | | 4 | |
| | | | SB-1-5-6 | 0 | | 5 | CL |
| | | | (1050) | 0 | | 6 | |
| | 59/60 | | | 0 | | 7 | |
| | | | | 0 | | 8 | |
| | | | | 0 | | 9 | |
| | | | | 0 | | 10 | |
| | | | | | | 11 | |
| | | | | | | 12 | |
| | | | | | | 13 | |
| | | | | | | 14 | |
| | | | | | | 15 | |
| | | | | | | 16 | |
| | | | | | | 17 | |
| | | | | | | 18 | |
| | | | | | | 19 | |
| | | | | | | 20 | |
| | | | | | | 21 | |

Surface Conditions:
Asphalt

0-1' Asphalt; aggregate

1-2.5' Lt Brown CLAY; some sand; v. soft; medium plasticity; v moist.

2.5-5' Lt Brown / white medium SAND; some gravel; little clay; dense; moist.

5-10' Dark brown to light brown CLAY; v soft to stiff; medium plasticity; wet to moist.

boh 10' temp well 5' screen.

Logged by: Bill Harvey

Date: 2/18/20

Drilling Contractor: CSI

Driller: J. Croon



EA Engineering, Science,
and Technology, Inc.

EA Engineering, Science,
and Technology, Inc.

LOG OF SOIL/ROCK BORING

Coordinates: _____
 Surface Elevation: _____
 Casing Below Surface: _____
 Reference Elevation: _____
 Reference Desc: _____

| | | |
|-----------------------------------|-----------------------------|-------------------------------|
| Job No. | Client: <u>Cheverly DPW</u> | Location: <u>Cheverly, MD</u> |
| Drilling Method: <u>Loopprobe</u> | Boring No. <u>SB-2</u> | |
| Sampling Method: <u>5' Core</u> | Sheet 1 of 1 | |
| Drilling | | |
| Water Level | | Start |
| Time | - | Finish |
| Date | | <u>0900</u> |
| Reference | | <u>0920</u> |

| Sample Type | Inches Drvn/In. Recvrd | Dpth. Csg. | Sample No. | PID ppm | Blows per 6 in. | Depth in Feet | USCS Log | Surface Conditions: |
|-------------|------------------------|------------|------------|---------|-----------------|---------------|----------|--|
| | | N/A | 0 | | | 1 | | Asphalt |
| | 36 | | 0 | | | 2 | CL | 0-1' Asphalt; aggregate. |
| | 40 | | 2.5 | | | 3 | CL | 1-5' Brown CLAY; little medium sand; high plasticity; soft; moist-wet. |
| | | | 10 | | | 4 | CL | 5-6' Gray to brown CLAY; little fine sand; medium plasticity; soft; wet. |
| | | | SB-2 58 | | | 5 | LL | 6-15' Mottled brown, red, gray CLAY; low plasticity; soft to stiff; moist. |
| | | | -5.6 200 | | | 6 | | |
| | | | (915) 46 | | | 7 | | |
| | 49 | | 0 | | | 8 | | |
| | 60 | | 0 | | | 9 | | |
| | | | 0 | | | 10 | | |
| | | | 0 | | | 11 | | |
| | | | 0 | | | 12 | | |
| | 60 | | 0 | | | 13 | | |
| | 80 | | 0 | | | 14 | | |
| | | | 0 | | | 15 | | |
| | | | 0 | | | 16 | | |
| | | | | | | 17 | | |
| | | | | | | 18 | | |
| | | | | | | 19 | | |
| | | | | | | 20 | | |
| | | | | | | 21 | | |

beh 15' temp well 10' screen

Logged by: Bill Harvey

Drilling Contractor: CSI

Date: 2/18/20

Driller: J. Green



EA Engineering, Science,
and Technology, Inc.

EA Engineering, Science,
and Technology, Inc.

LOG OF SOIL/ROCK BORING

Coordinates: _____
 Surface Elevation: _____
 Casing Below Surface: _____
 Reference Elevation: _____
 Reference Desc: _____

| | | |
|---------------------------------|-----------------------------|-------------------------------|
| Job. No. | Client: <u>Choverly DPW</u> | Location: <u>Choverly, MD</u> |
| Drilling Method: <u>Core</u> | Boring No. <u>SIS-3</u> | |
| Sampling Method: <u>5' Core</u> | Sheet 1 of 1 | |
| Water Level | | Start |
| Time | - | Finish |
| Date | | <u>0935</u> <u>0155</u> |
| Reference | | |

| Sample Type | Inches Drvn/In. Recvrd | Dpth. Csg. | Sample No. | PID ppm | Blows per 6 in. | Depth in Feet | USCS Log | Surface Conditions: |
|-------------|------------------------|------------|-----------------|------------|-----------------|---------------|--------------|---|
| | | <u>N/A</u> | | <u>0</u> | | <u>1</u> | | <u>Asphalt</u> |
| | | | | <u>3</u> | | <u>2</u> | <u>SP/LP</u> | <u>0-1' Asphalt; aggregate</u> |
| | <u>31</u> | | | <u>4</u> | | <u>3</u> | <u>CL</u> | <u>1-4' Dark brown coarse SAND and fine GRAVEL; little clay; mod dens; Dry.</u> |
| | <u>60</u> | | | <u>5</u> | | <u>4</u> | | <u>4-5' Reddish brown CLAY; medium plasticity; soft; moist.</u> |
| | | | <u>SB-3-5-6</u> | <u>300</u> | | <u>5</u> | <u>CL</u> | <u>5-7' Brown to gray CLAY; low plasticity; very soft; moist to wet; w/ strong gas odor.</u> |
| | | | <u>(#45)</u> | <u>150</u> | | <u>6</u> | | |
| | <u>48</u> | | <u>DUP-1</u> | <u>110</u> | | <u>7</u> | <u>CL</u> | <u>7-15' Brown to orange CLAY; little fine sand; mod stiff to stiff; low plasticity; st. moist.</u> |
| | <u>60</u> | | | <u>7</u> | | <u>8</u> | | |
| | | | | <u>1.2</u> | | <u>9</u> | | |
| | | | | <u>0</u> | | <u>10</u> | | |
| | <u>60</u> | | | <u>0</u> | | <u>11</u> | | |
| | <u>60</u> | | | <u>0</u> | | <u>12</u> | | |
| | | | | <u>0</u> | | <u>13</u> | | |
| | | | | <u>0</u> | | <u>14</u> | | |
| | | | | <u>0</u> | | <u>15</u> | | |
| | | | | | | <u>16</u> | | |
| | | | | | | <u>17</u> | | <u>betn 15' temp well 10' screen</u> |
| | | | | | | <u>18</u> | | |
| | | | | | | <u>19</u> | | |
| | | | | | | <u>20</u> | | |
| | | | | | | <u>21</u> | | |

Logged by: Bill Harvey
 Drilling Contractor: GSI

Date: 2/18/20
 Driller: S. Green



EA Engineering, Science,
and Technology, Inc.

LOG OF SOIL/ROCK BORING

Coordinates: _____
 Surface Elevation: _____
 Casing Below Surface: _____
 Reference Elevation: _____
 Reference Desc: _____

| | | |
|----------------------------------|-----------------------------|-------------------------------|
| Job No. | Client: <u>Cheverly DPW</u> | Location: <u>Cheverly, MD</u> |
| Drilling Method: <u>Couprobe</u> | Boring No: <u>SB-4</u> | |
| Sampling Method: <u>5' Core</u> | Sheet 1 of <u>1</u> | |
| Water Level | | Drilling Start |
| Time | - | Finish |
| Date | | <u>0950</u> |
| Reference | | <u>1005</u> |

| Sample Type | Inches Drvn/In. Recvrd | Dpth. Csg. | Sample No. | PID ppm | Blows per 6 in. | Depth in Feet | USCS Log | Surface Conditions: |
|-------------|------------------------|------------|---------------|------------|-----------------|---------------|-----------|--|
| | | <u>N/A</u> | | <u>0</u> | | 1 | | <u>Asphalt</u> |
| | | | | <u>1</u> | | 2 | | <u>0-1' Asphalt; aggregate</u> |
| | <u>34</u> | | | <u>0.1</u> | | 3 | | <u>1-4' FILL: (coarse sand, clay, silt); moist to v. moist.</u> |
| | <u>60</u> | | | <u>0.5</u> | | 4 | <u>SC</u> | <u>4-6' Light brown to dark brown SAND and CLAY; soft/loose; moist to wet.</u> |
| | | | <u>SB-4</u> | <u>0.1</u> | | 5 | | <u>6-7' Dark brown SILT (peat?); organic; soft; moist.</u> |
| | | | <u>-5-6</u> | <u>0.2</u> | | 6 | <u>OL</u> | |
| | | | <u>(1000)</u> | <u>0.1</u> | | 7 | | <u>7-10' Light brown CLAY; medium plasticity; soft; v. moist.</u> |
| | <u>60</u> | | | <u>0</u> | | 8 | <u>CL</u> | |
| | <u>60</u> | | | <u>0</u> | | 9 | | |
| | | | | <u>0</u> | | 10 | | |
| | | | | <u>0</u> | | 11 | | <u>Boh 10' temp with 5' screen</u> |
| | | | | | | 12 | | |
| | | | | | | 13 | | |
| | | | | | | 14 | | |
| | | | | | | 15 | | |
| | | | | | | 16 | | |
| | | | | | | 17 | | |
| | | | | | | 18 | | |
| | | | | | | 19 | | |
| | | | | | | 20 | | |
| | | | | | | 21 | | |

Logged by: Bill Harvey

Date: 2/18/20

Drilling Contractor: GSI

Driller: J. Green



EA Engineering, Science,
and Technology, Inc.

EA Engineering, Science,
and Technology, Inc.

LOG OF SOIL/ROCK BORING

Coordinates: _____
 Surface Elevation: _____
 Casing Below Surface: _____
 Reference Elevation: _____
 Reference Desc: _____

| | | |
|-----------------------------------|----------------------------|------------------------------|
| Job. No. | Client: <u>Chesley DPW</u> | Location: <u>Chesley, MD</u> |
| Drilling Method: <u>loopprobe</u> | Boring No. <u>SB-5</u> | |
| Sampling Method: <u>5' core</u> | Sheet 1 of 1 | |
| Drilling | | |
| Water Level | | Start |
| Time | - | Finish |
| Date | | <u>1005</u> |
| Reference | | <u>1025</u> |

| Sample Type | Inches Drvn/In. Recvrd | Dpth. Csg. | Sample No. | PID ppm | Blows per 6 in. | Depth in Feet | USCS Log | Surface Conditions: |
|-------------|------------------------|------------|------------|---------|-----------------|---------------|----------|--|
| | | N/A | | 0 | | 1 | | Asphalt |
| | 34/40 | | | 0 | | 2 | BP | 0-1' Asphalt/aggregate. |
| | 40 | | | 0 | | 3 | | 1-4' Lt Brown coarse-fine GRAVEL (per gravel from tank field); loose; wet. |
| | | | | 0 | | 4 | CL/SC | 4-7' Brown CLAY; some fine sand; low plastic; soft; wet. |
| | | | 8-5 | 0 | | 5 | | 7-10' Lt Brown to Brown CLAY; soft to medium stiff; low plasticity; 1 cl. |
| | | | 5-6 | 0 | | 6 | CL | |
| | 51/40 | | (1015) | 0 | | 7 | | |
| | | | | 0 | | 8 | | |
| | | | | 0 | | 9 | | |
| | | | | 0 | | 10 | | |
| | | | | 0 | | 11 | | boh to' temp will 5' screen |
| | | | | 0 | | 12 | | |
| | | | | 0 | | 13 | | |
| | | | | 0 | | 14 | | |
| | | | | 0 | | 15 | | |
| | | | | 0 | | 16 | | |
| | | | | 0 | | 17 | | |
| | | | | 0 | | 18 | | |
| | | | | 0 | | 19 | | |
| | | | | 0 | | 20 | | |
| | | | | 0 | | 21 | | |

Logged by: Bill Harvey

Date: 2/18/20

Drilling Contractor: GSI

Driller: J. Green



EA Engineering, Science, and Technology, Inc.

LOG OF SOIL/ROCK BORING

Coordinates: _____
 Surface Elevation: _____
 Casing Below Surface: _____
 Reference Elevation: _____
 Reference Desc: _____

| | | |
|----------------------------------|-----------------------------|-------------------------------|
| Job. No. | Client: <u>Choverly DPW</u> | Location: <u>Choverly, MD</u> |
| Drilling Method: <u>Geoprobe</u> | Boring No. <u>SB-6</u> | |
| Sampling Method: <u>5' Core</u> | Sheet 1 of 1 | |
| Water Level | | Drilling Start |
| Time | - | Finish |
| Date | | <u>1055</u> <u>1120</u> |
| Reference | | |

| Sample Type | Inches Drvn/In. Recvrd | Dpth. Csg. | Sample No. | PID ppm | Blows per 6 in. | Depth in Feet | USCS Log | Surface Conditions: |
|-------------|------------------------|------------|------------|---------|-----------------|---------------|----------|---|
| | | N/A | | 0 | | 1 | | 0-1' Grass; organics. |
| | <u>38</u> <u>60</u> | | | 0 | | 2 | CL | 1-4' Brown CLAY; little sand; low-medium plasticity; 1 stiff; moist. |
| | | | | 0 | | 3 | | |
| | | | | 0 | | 4 | SP | 4-6' Orange to brown medium SAND; little fine gravel; trace clay; 1 dense; moist to v. moist. |
| | | | SB-6 | 0 | | 5 | | |
| | | | 5-6 | 0 | | 6 | CL | 6-10' Dark gray to beige CLAY; medium plasticity; 1 v. soft; trace fine gravel; wet. |
| | | | (1100) | 0 | | 7 | | |
| | <u>56</u> <u>60</u> | | (1100) | 0 | | 8 | CL | 10-14' Beige to yellowish brown CLAY; medium plasticity; stiff; little medium sand; moist. |
| | | | (1100) | 0 | | 9 | | |
| | | | | 0 | | 10 | | |
| | | | | 0 | | 11 | | |
| | <u>47</u> <u>48</u> | | | 0 | | 12 | | |
| | | | | 0 | | 13 | | |
| | | | | 0 | | 14 | | |
| | | | | 0 | | 15 | | back 14'; 10' screen on temp well. |
| | | | | 0 | | 16 | | |
| | | | | 0 | | 17 | | |
| | | | | 0 | | 18 | | |
| | | | | 0 | | 19 | | |
| | | | | 0 | | 20 | | |
| | | | | 0 | | 21 | | |

Logged by: Bill Harvey
 Drilling Contractor: GS I

Date: 2/18/20
 Driller: J. Green

ATTACHMENT D: LABORATORY ANALYTICAL REPORT
LIMITED SUBSURFACE INVESTIGATION
TOWN OF CHEVERLY



ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

EA Engineering
225 Schilling Circle
Suite 400
Hunt Valley MD 21031

Report Date: February 28, 2020 16:13

Project: Town of Cheverly

Account #: 10784
Group Number: 2088718
SDG: CEH01
PO Number: 20277
State of Sample Origin: MD

Electronic Copy To EA Engineering

Attn: Nelson Brooks

Respectfully Submitted,



Kay Hower

(717) 556-7364

To view our laboratory's current scopes of accreditation please go to <https://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/>. Historical copies may be requested through your project manager.



SAMPLE INFORMATION

| <u>Client Sample Description</u> | <u>Sample Collection Date/Time</u> | <u>ELLE#</u> |
|----------------------------------|--|--------------|
| SB-1-5-6 Grab Soil | 02/18/2020 10:30 | 1263509 |
| SB-2-5-6 Grab Soil | 02/18/2020 09:15 | 1263510 |
| SB-3-5-6 Grab Soil | 02/18/2020 09:45 | 1263511 |
| DUP-1 Grab Soil | 02/18/2020 | 1263512 |
| SB-4-5-6 Grab Soil | 02/18/2020 10:00 | 1263513 |
| SB-5-5-6 Grab Soil | 02/18/2020 10:15 | 1263514 |
| SB-6-5-6 Grab Soil | 02/18/2020 11:00 | 1263515 |
| SB-6 Grab Groundwater | 02/18/2020 11:20 | 1263516 |
| DUP-GW Grab Groundwater | 02/18/2020 | 1263517 |
| SB-1 Grab Groundwater | 02/18/2020 11:40 | 1263518 |
| SB-2 Grab Groundwater | 02/18/2020 12:00 | 1263519 |
| SB-5 Grab Groundwater | 02/18/2020 12:15 | 1263520 |
| SB-5 MS Grab Groundwater | 02/18/2020 12:15 | 1263521 |
| SB-5 MSD Grab Groundwater | 02/18/2020 12:15 | 1263522 |
| SB-4 Grab Groundwater | 02/18/2020 12:30 | 1263523 |
| TB Water | 02/18/2020 | 1263524 |

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Sample Description: SB-1-5-6 Grab Soil
Cheverly DPW/1600401

EA Engineering
ELLE Sample #: SW 1263509
ELLE Group #: 2088718
Matrix: Soil

Project Name: Town of Cheverly

Submittal Date/Time: 02/19/2020 17:27
Collection Date/Time: 02/18/2020 10:30
SDG#: CEH01-01

| CAT No. | Analysis Name | CAS Number | Dry Result | Dry Method Detection Limit | Dilution Factor |
|------------------------|-----------------------------|------------|--------------|----------------------------|-----------------|
| GC/MS Volatiles | | | ug/kg | ug/kg | |
| 11995 | Acetone | 67-64-1 | 18 | 5 | 0.65 |
| 11995 | t-Amyl methyl ether | 994-05-8 | N.D. | 0.6 | 0.65 |
| 11995 | Benzene | 71-43-2 | N.D. | 0.4 | 0.65 |
| 11995 | Bromodichloromethane | 75-27-4 | N.D. | 0.3 | 0.65 |
| 11995 | Bromoform | 75-25-2 | N.D. | 4 | 0.65 |
| 11995 | Bromomethane | 74-83-9 | N.D. | 0.6 | 0.65 |
| 11995 | 2-Butanone | 78-93-3 | N.D. | 2 | 0.65 |
| 11995 | t-Butyl alcohol | 75-65-0 | N.D. | 12 | 0.65 |
| 11995 | Carbon Disulfide | 75-15-0 | 5 | 0.5 | 0.65 |
| 11995 | Carbon Tetrachloride | 56-23-5 | N.D. | 0.4 | 0.65 |
| 11995 | Chlorobenzene | 108-90-7 | 8 | 0.4 | 0.65 |
| 11995 | Chloroethane | 75-00-3 | N.D. | 0.8 | 0.65 |
| 11995 | Chloroform | 67-66-3 | N.D. | 0.5 | 0.65 |
| 11995 | Chloromethane | 74-87-3 | N.D. | 0.5 | 0.65 |
| 11995 | Cyclohexane | 110-82-7 | N.D. | 0.4 | 0.65 |
| 11995 | 1,2-Dibromo-3-chloropropane | 96-12-8 | N.D. | 0.4 | 0.65 |
| 11995 | Dibromochloromethane | 124-48-1 | N.D. | 0.4 | 0.65 |
| 11995 | 1,2-Dibromoethane | 106-93-4 | N.D. | 0.3 | 0.65 |
| 11995 | 1,2-Dichlorobenzene | 95-50-1 | 1 J | 0.4 | 0.65 |
| 11995 | 1,3-Dichlorobenzene | 541-73-1 | N.D. | 0.4 | 0.65 |
| 11995 | 1,4-Dichlorobenzene | 106-46-7 | 1 J | 0.3 | 0.65 |
| 11995 | Dichlorodifluoromethane | 75-71-8 | N.D. | 0.5 | 0.65 |
| 11995 | 1,1-Dichloroethane | 75-34-3 | N.D. | 0.4 | 0.65 |
| 11995 | 1,2-Dichloroethane | 107-06-2 | N.D. | 0.5 | 0.65 |
| 11995 | 1,1-Dichloroethene | 75-35-4 | N.D. | 0.4 | 0.65 |
| 11995 | cis-1,2-Dichloroethene | 156-59-2 | N.D. | 0.4 | 0.65 |
| 11995 | trans-1,2-Dichloroethene | 156-60-5 | N.D. | 0.4 | 0.65 |
| 11995 | 1,2-Dichloropropane | 78-87-5 | N.D. | 0.4 | 0.65 |
| 11995 | cis-1,3-Dichloropropene | 10061-01-5 | N.D. | 0.3 | 0.65 |
| 11995 | trans-1,3-Dichloropropene | 10061-02-6 | N.D. | 0.4 | 0.65 |
| 11995 | Ethyl t-butyl ether | 637-92-3 | N.D. | 0.4 | 0.65 |
| 11995 | Ethylbenzene | 100-41-4 | N.D. | 0.3 | 0.65 |
| 11995 | Freon 113 | 76-13-1 | N.D. | 0.5 | 0.65 |
| 11995 | 2-Hexanone | 591-78-6 | N.D. | 0.8 | 0.65 |
| 11995 | di-Isopropyl ether | 108-20-3 | N.D. | 0.4 | 0.65 |
| 11995 | Isopropylbenzene | 98-82-8 | N.D. | 0.3 | 0.65 |
| 11995 | Methyl Acetate | 79-20-9 | N.D. | 0.8 | 0.65 |
| 11995 | Methyl Tertiary Butyl Ether | 1634-04-4 | N.D. | 0.4 | 0.65 |
| 11995 | 4-Methyl-2-pentanone | 108-10-1 | N.D. | 0.8 | 0.65 |
| 11995 | Methylcyclohexane | 108-87-2 | N.D. | 0.5 | 0.65 |
| 11995 | Methylene Chloride | 75-09-2 | N.D. | 2 | 0.65 |
| 11995 | Naphthalene | 91-20-3 | N.D. | 2 | 0.65 |
| 11995 | Styrene | 100-42-5 | N.D. | 0.3 | 0.65 |
| 11995 | 1,1,2,2-Tetrachloroethane | 79-34-5 | N.D. | 0.3 | 0.65 |
| 11995 | Tetrachloroethene | 127-18-4 | N.D. | 0.4 | 0.65 |
| 11995 | Toluene | 108-88-3 | N.D. | 0.5 | 0.65 |
| 11995 | 1,2,4-Trichlorobenzene | 120-82-1 | N.D. | 4 | 0.65 |
| 11995 | 1,1,1-Trichloroethane | 71-55-6 | N.D. | 0.5 | 0.65 |
| 11995 | 1,1,2-Trichloroethane | 79-00-5 | N.D. | 0.4 | 0.65 |

Sample Description: SB-1-5-6 Grab Soil
Cheverly DPW/1600401

EA Engineering
ELLE Sample #: SW 1263509
ELLE Group #: 2088718
Matrix: Soil

Project Name: Town of Cheverly

Submission Date/Time: 02/19/2020 17:27
Collection Date/Time: 02/18/2020 10:30
SDG#: CEH01-01

| CAT No. | Analysis Name | CAS Number | Dry Result | Dry Method Detection Limit | Dilution Factor |
|----------------------------------|---|-----------------------|--------------|----------------------------|-----------------|
| GC/MS Volatiles | | | | | |
| | | SW-846 8260C | ug/kg | ug/kg | |
| 11995 | Trichloroethene | 79-01-6 | N.D. | 0.4 | 0.65 |
| 11995 | Trichlorofluoromethane | 75-69-4 | N.D. | 0.6 | 0.65 |
| 11995 | Vinyl Chloride | 75-01-4 | N.D. | 0.5 | 0.65 |
| 11995 | Xylene (Total) | 1330-20-7 | N.D. | 1 | 0.65 |
| GC Volatiles | | | | | |
| | | SW-846 8015C | mg/kg | mg/kg | |
| 10599 | TPH-GRO soil C6-C10 | n.a. | 0.2 J | 0.1 | 16.4 |
| GC Petroleum Hydrocarbons | | | | | |
| | | SW-846 8015C | mg/kg | mg/kg | |
| 12838 | DRO C10-C28 8015C/D (Microwv) The surrogate data is outside the QC limits due to unresolvable matrix problems. | n.a. | 410 | 6.6 | 1 |
| Wet Chemistry | | | | | |
| | | SM 2540 G-2011 | % | % | |
| | | %Moisture Calc | | | |
| 00111 | Moisture Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis. | n.a. | 19.2 | 0.50 | 1 |

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|--------------------------------|-------------------------------|--------|--------------|------------------------|-----------------|-----------------|
| 11995 | TCL VOC + Naph + Oxys | SW-846 8260C | 1 | A200551AA | 02/24/2020 11:26 | Linda C Pape | 0.65 |
| 02392 | GC/MS - Field Preserved NaHSO4 | SW-846 5035A | 1 | 202005256240 | 02/18/2020 10:30 | Client Supplied | 1 |
| 02392 | GC/MS - Field Preserved NaHSO4 | SW-846 5035A | 2 | 202005256240 | 02/18/2020 10:30 | Client Supplied | 1 |
| 07579 | GC/MS-5g Field Preserv.MeOH-NC | SW-846 5035A | 1 | 202005256240 | 02/18/2020 10:30 | Client Supplied | 1 |
| 10599 | TPH-GRO soils C6-C10 | SW-846 8015C | 1 | 20055A31A | 02/25/2020 00:08 | Jeremy C Giffin | 16.4 |
| 06647 | GC-5g Field Preserved MeOH | SW-846 5035A | 1 | 202005256240 | 02/18/2020 10:30 | Client Supplied | n.a. |
| 12838 | DRO C10-C28 8015C/D (Microwv) | SW-846 8015C | 1 | 200550014A | 02/25/2020 12:21 | Bridget Kovacs | 1 |
| 12837 | DRO 8015C/D Microwave Ext. | SW-846 3546 | 1 | 200550014A | 02/24/2020 16:25 | Scott Crawford | 1 |
| 00111 | Moisture | SM 2540 G-2011 %Moisture Calc | 1 | 20052820002A | 02/21/2020 11:39 | Larry E Bevins | 1 |

Sample Description: SB-2-5-6 Grab Soil
Cheverly DPW/1600401

EA Engineering
ELLE Sample #: SW 1263510
ELLE Group #: 2088718
Matrix: Soil

Project Name: Town of Cheverly

Submittal Date/Time: 02/19/2020 17:27
Collection Date/Time: 02/18/2020 09:15
SDG#: CEH01-02

| CAT No. | Analysis Name | CAS Number | Dry Result | Dry Method Detection Limit | Dilution Factor |
|------------------------|-----------------------------|---------------------|--------------|----------------------------|-----------------|
| GC/MS Volatiles | | SW-846 8260C | ug/kg | ug/kg | |
| 11995 | Acetone | 67-64-1 | N.D. | 1,300 | 183.55 |
| 11995 | t-Amyl methyl ether | 994-05-8 | N.D. | 180 | 183.55 |
| 11995 | Benzene | 71-43-2 | 190 J | 110 | 183.55 |
| 11995 | Bromodichloromethane | 75-27-4 | N.D. | 88 | 183.55 |
| 11995 | Bromoform | 75-25-2 | N.D. | 1,100 | 183.55 |
| 11995 | Bromomethane | 74-83-9 | N.D. | 150 | 183.55 |
| 11995 | 2-Butanone | 78-93-3 | N.D. | 440 | 183.55 |
| 11995 | t-Butyl alcohol | 75-65-0 | N.D. | 3,300 | 183.55 |
| 11995 | Carbon Disulfide | 75-15-0 | N.D. | 130 | 183.55 |
| 11995 | Carbon Tetrachloride | 56-23-5 | N.D. | 110 | 183.55 |
| 11995 | Chlorobenzene | 108-90-7 | N.D. | 110 | 183.55 |
| 11995 | Chloroethane | 75-00-3 | N.D. | 220 | 183.55 |
| 11995 | Chloroform | 67-66-3 | 380 J | 130 | 183.55 |
| 11995 | Chloromethane | 74-87-3 | N.D. | 130 | 183.55 |
| 11995 | Cyclohexane | 110-82-7 | N.D. | 110 | 183.55 |
| 11995 | 1,2-Dibromo-3-chloropropane | 96-12-8 | N.D. | 110 | 183.55 |
| 11995 | Dibromochloromethane | 124-48-1 | N.D. | 110 | 183.55 |
| 11995 | 1,2-Dibromoethane | 106-93-4 | N.D. | 88 | 183.55 |
| 11995 | 1,2-Dichlorobenzene | 95-50-1 | N.D. | 110 | 183.55 |
| 11995 | 1,3-Dichlorobenzene | 541-73-1 | N.D. | 110 | 183.55 |
| 11995 | 1,4-Dichlorobenzene | 106-46-7 | N.D. | 88 | 183.55 |
| 11995 | Dichlorodifluoromethane | 75-71-8 | N.D. | 130 | 183.55 |
| 11995 | 1,1-Dichloroethane | 75-34-3 | N.D. | 110 | 183.55 |
| 11995 | 1,2-Dichloroethane | 107-06-2 | N.D. | 130 | 183.55 |
| 11995 | 1,1-Dichloroethene | 75-35-4 | N.D. | 110 | 183.55 |
| 11995 | cis-1,2-Dichloroethene | 156-59-2 | N.D. | 110 | 183.55 |
| 11995 | trans-1,2-Dichloroethene | 156-60-5 | N.D. | 110 | 183.55 |
| 11995 | 1,2-Dichloropropane | 78-87-5 | N.D. | 110 | 183.55 |
| 11995 | cis-1,3-Dichloropropene | 10061-01-5 | N.D. | 88 | 183.55 |
| 11995 | trans-1,3-Dichloropropene | 10061-02-6 | N.D. | 110 | 183.55 |
| 11995 | Ethyl t-butyl ether | 637-92-3 | N.D. | 110 | 183.55 |
| 11995 | Ethylbenzene | 100-41-4 | 18,000 | 88 | 183.55 |
| 11995 | Freon 113 | 76-13-1 | N.D. | 130 | 183.55 |
| 11995 | 2-Hexanone | 591-78-6 | N.D. | 220 | 183.55 |
| 11995 | di-Isopropyl ether | 108-20-3 | N.D. | 110 | 183.55 |
| 11995 | Isopropylbenzene | 98-82-8 | 2,300 | 88 | 183.55 |
| 11995 | Methyl Acetate | 79-20-9 | N.D. | 220 | 183.55 |
| 11995 | Methyl Tertiary Butyl Ether | 1634-04-4 | N.D. | 110 | 183.55 |
| 11995 | 4-Methyl-2-pentanone | 108-10-1 | N.D. | 220 | 183.55 |
| 11995 | Methylcyclohexane | 108-87-2 | 8,600 | 130 | 183.55 |
| 11995 | Methylene Chloride | 75-09-2 | N.D. | 440 | 183.55 |
| 11995 | Naphthalene | 91-20-3 | 8,900 | 440 | 183.55 |
| 11995 | Styrene | 100-42-5 | N.D. | 88 | 183.55 |
| 11995 | 1,1,2,2-Tetrachloroethane | 79-34-5 | N.D. | 88 | 183.55 |
| 11995 | Tetrachloroethene | 127-18-4 | N.D. | 110 | 183.55 |
| 11995 | Toluene | 108-88-3 | 5,800 | 130 | 183.55 |
| 11995 | 1,2,4-Trichlorobenzene | 120-82-1 | N.D. | 1,100 | 183.55 |
| 11995 | 1,1,1-Trichloroethane | 71-55-6 | N.D. | 130 | 183.55 |
| 11995 | 1,1,2-Trichloroethane | 79-00-5 | N.D. | 110 | 183.55 |

Sample Description: SB-2-5-6 Grab Soil
Cheverly DPW/1600401

EA Engineering
ELLE Sample #: SW 1263510
ELLE Group #: 2088718
Matrix: Soil

Project Name: Town of Cheverly

Submittal Date/Time: 02/19/2020 17:27
Collection Date/Time: 02/18/2020 09:15
SDG#: CEH01-02

| CAT No. | Analysis Name | CAS Number | Dry Result | Dry Method Detection Limit | Dilution Factor |
|--|---|-----------------------|--------------|----------------------------|-----------------|
| GC/MS Volatiles | | SW-846 8260C | ug/kg | ug/kg | |
| 11995 | Trichloroethene | 79-01-6 | N.D. | 110 | 183.55 |
| 11995 | Trichlorofluoromethane | 75-69-4 | N.D. | 150 | 183.55 |
| 11995 | Vinyl Chloride | 75-01-4 | N.D. | 130 | 183.55 |
| 11995 | Xylene (Total) | 1330-20-7 | 96,000 | 310 | 183.55 |
| <p>A Report Limit Verification (RLV) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The RLV standard shows adequate sensitivity at or below the reporting limit.</p> | | | | | |
| GC Volatiles | | SW-846 8015C | mg/kg | mg/kg | |
| 10599 | TPH-GRO soil C6-C10 | n.a. | 1,900 | 130 | 14836.8 |
| GC Petroleum Hydrocarbons | | SW-846 8015C | mg/kg | mg/kg | |
| 12838 | DRO C10-C28 8015C/D (Microwv) The surrogate data is outside the QC limits due to unresolvable matrix problems. | n.a. | 28 | 6.3 | 1 |
| Wet Chemistry | | SM 2540 G-2011 | % | % | |
| %Moisture Calc | | | | | |
| 00111 | Moisture Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis. | n.a. | 16.5 | 0.50 | 1 |

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|--------------------------------|-------------------------------|--------|--------------|------------------------|-----------------|-----------------|
| 11995 | TCL VOC + Naph + Oxys | SW-846 8260C | 1 | R200561AA | 02/26/2020 00:59 | Joel Trout | 183.55 |
| 02392 | GC/MS - Field Preserved NaHSO4 | SW-846 5035A | 1 | 202005256240 | 02/18/2020 09:15 | Client Supplied | 1 |
| 02392 | GC/MS - Field Preserved NaHSO4 | SW-846 5035A | 2 | 202005256240 | 02/18/2020 09:15 | Client Supplied | 1 |
| 07579 | GC/MS-5g Field Preserv.MeOH-NC | SW-846 5035A | 1 | 202005256240 | 02/18/2020 09:15 | Client Supplied | 1 |
| 10599 | TPH-GRO soils C6-C10 | SW-846 8015C | 1 | 20055A31A | 02/25/2020 03:51 | Jeremy C Giffin | 14836.8 |
| 06647 | GC-5g Field Preserved MeOH | SW-846 5035A | 1 | 202005256240 | 02/18/2020 09:15 | Client Supplied | n.a. |
| 12838 | DRO C10-C28 8015C/D (Microwv) | SW-846 8015C | 1 | 200550014A | 02/25/2020 08:43 | Bridget Kovacs | 1 |
| 12837 | DRO 8015C/D Microwave Ext. | SW-846 3546 | 1 | 200550014A | 02/24/2020 16:25 | Scott Crawford | 1 |
| 00111 | Moisture | SM 2540 G-2011 %Moisture Calc | 1 | 20052820002A | 02/21/2020 11:39 | Larry E Bevins | 1 |

Sample Description: SB-3-5-6 Grab Soil
Cheverly DPW/1600401

EA Engineering
ELLE Sample #: SW 1263511
ELLE Group #: 2088718
Matrix: Soil

Project Name: Town of Cheverly

Submittal Date/Time: 02/19/2020 17:27
Collection Date/Time: 02/18/2020 09:45
SDG#: CEH01-03

| CAT No. | Analysis Name | CAS Number | Dry Result | Dry Method Detection Limit | Dilution Factor |
|------------------------|-----------------------------|------------|---------------------|----------------------------|-----------------|
| GC/MS Volatiles | | | SW-846 8260C | ug/kg | |
| 11995 | Acetone | 67-64-1 | N.D. | 2,600 | 360.75 |
| 11995 | t-Amyl methyl ether | 994-05-8 | N.D. | 350 | 360.75 |
| 11995 | Benzene | 71-43-2 | 8,700 | 220 | 360.75 |
| 11995 | Bromodichloromethane | 75-27-4 | N.D. | 180 | 360.75 |
| 11995 | Bromoform | 75-25-2 | N.D. | 2,200 | 360.75 |
| 11995 | Bromomethane | 74-83-9 | N.D. | 310 | 360.75 |
| 11995 | 2-Butanone | 78-93-3 | N.D. | 880 | 360.75 |
| 11995 | t-Butyl alcohol | 75-65-0 | N.D. | 6,600 | 360.75 |
| 11995 | Carbon Disulfide | 75-15-0 | N.D. | 260 | 360.75 |
| 11995 | Carbon Tetrachloride | 56-23-5 | N.D. | 220 | 360.75 |
| 11995 | Chlorobenzene | 108-90-7 | N.D. | 220 | 360.75 |
| 11995 | Chloroethane | 75-00-3 | N.D. | 440 | 360.75 |
| 11995 | Chloroform | 67-66-3 | 560 J | 260 | 360.75 |
| 11995 | Chloromethane | 74-87-3 | N.D. | 260 | 360.75 |
| 11995 | Cyclohexane | 110-82-7 | N.D. | 220 | 360.75 |
| 11995 | 1,2-Dibromo-3-chloropropane | 96-12-8 | N.D. | 220 | 360.75 |
| 11995 | Dibromochloromethane | 124-48-1 | N.D. | 220 | 360.75 |
| 11995 | 1,2-Dibromoethane | 106-93-4 | N.D. | 180 | 360.75 |
| 11995 | 1,2-Dichlorobenzene | 95-50-1 | N.D. | 220 | 360.75 |
| 11995 | 1,3-Dichlorobenzene | 541-73-1 | N.D. | 220 | 360.75 |
| 11995 | 1,4-Dichlorobenzene | 106-46-7 | N.D. | 180 | 360.75 |
| 11995 | Dichlorodifluoromethane | 75-71-8 | N.D. | 260 | 360.75 |
| 11995 | 1,1-Dichloroethane | 75-34-3 | N.D. | 220 | 360.75 |
| 11995 | 1,2-Dichloroethane | 107-06-2 | N.D. | 260 | 360.75 |
| 11995 | 1,1-Dichloroethene | 75-35-4 | N.D. | 220 | 360.75 |
| 11995 | cis-1,2-Dichloroethene | 156-59-2 | N.D. | 220 | 360.75 |
| 11995 | trans-1,2-Dichloroethene | 156-60-5 | N.D. | 220 | 360.75 |
| 11995 | 1,2-Dichloropropane | 78-87-5 | N.D. | 220 | 360.75 |
| 11995 | cis-1,3-Dichloropropene | 10061-01-5 | N.D. | 180 | 360.75 |
| 11995 | trans-1,3-Dichloropropene | 10061-02-6 | N.D. | 220 | 360.75 |
| 11995 | Ethyl t-butyl ether | 637-92-3 | N.D. | 220 | 360.75 |
| 11995 | Ethylbenzene | 100-41-4 | 79,000 | 180 | 360.75 |
| 11995 | Freon 113 | 76-13-1 | N.D. | 260 | 360.75 |
| 11995 | 2-Hexanone | 591-78-6 | N.D. | 440 | 360.75 |
| 11995 | di-Isopropyl ether | 108-20-3 | N.D. | 220 | 360.75 |
| 11995 | Isopropylbenzene | 98-82-8 | 8,800 | 180 | 360.75 |
| 11995 | Methyl Acetate | 79-20-9 | N.D. | 440 | 360.75 |
| 11995 | Methyl Tertiary Butyl Ether | 1634-04-4 | N.D. | 220 | 360.75 |
| 11995 | 4-Methyl-2-pentanone | 108-10-1 | N.D. | 440 | 360.75 |
| 11995 | Methylcyclohexane | 108-87-2 | 26,000 | 260 | 360.75 |
| 11995 | Methylene Chloride | 75-09-2 | N.D. | 880 | 360.75 |
| 11995 | Naphthalene | 91-20-3 | 36,000 | 880 | 360.75 |
| 11995 | Styrene | 100-42-5 | N.D. | 180 | 360.75 |
| 11995 | 1,1,2,2-Tetrachloroethane | 79-34-5 | N.D. | 180 | 360.75 |
| 11995 | Tetrachloroethene | 127-18-4 | N.D. | 220 | 360.75 |
| 11995 | Toluene | 108-88-3 | 180,000 | 2,600 | 3607.5 |
| 11995 | 1,2,4-Trichlorobenzene | 120-82-1 | N.D. | 2,200 | 360.75 |
| 11995 | 1,1,1-Trichloroethane | 71-55-6 | N.D. | 260 | 360.75 |
| 11995 | 1,1,2-Trichloroethane | 79-00-5 | N.D. | 220 | 360.75 |

Sample Description: SB-3-5-6 Grab Soil
Cheverly DPW/1600401

EA Engineering
ELLE Sample #: SW 1263511
ELLE Group #: 2088718
Matrix: Soil

Project Name: Town of Cheverly

Submission Date/Time: 02/19/2020 17:27
Collection Date/Time: 02/18/2020 09:45
SDG#: CEH01-03

| CAT No. | Analysis Name | CAS Number | Dry Result | Dry Method Detection Limit | Dilution Factor |
|---|-------------------------------|------------|-----------------------|----------------------------|-----------------|
| GC/MS Volatiles | | | SW-846 8260C | ug/kg | |
| 11995 | Trichloroethene | 79-01-6 | N.D. | 220 | 360.75 |
| 11995 | Trichlorofluoromethane | 75-69-4 | N.D. | 310 | 360.75 |
| 11995 | Vinyl Chloride | 75-01-4 | N.D. | 260 | 360.75 |
| 11995 | Xylene (Total) | 1330-20-7 | 380,000 | 610 | 360.75 |
| A Report Limit Verification (RLV) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The RLV standard shows adequate sensitivity at or below the reporting limit. | | | | | |
| GC Volatiles | | | SW-846 8015C | mg/kg | |
| 10599 | TPH-GRO soil C6-C10 | n.a. | 6,200 | 320 | 36231.88 |
| GC Petroleum Hydrocarbons | | | SW-846 8015C | mg/kg | |
| 12838 | DRO C10-C28 8015C/D (Microwv) | n.a. | 670 | 6.4 | 1 |
| Wet Chemistry | | | SM 2540 G-2011 | % | |
| | | | %Moisture Calc | | |
| 00111 | Moisture | n.a. | 17.8 | 0.50 | 1 |
| Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis. | | | | | |

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|--------------------------------|-------------------------------|--------|--------------|------------------------|-----------------|-----------------|
| 11995 | TCL VOC + Naph + Oxys 8260C | SW-846 8260C | 1 | R200561AA | 02/26/2020 01:40 | Joel Trout | 360.75 |
| 11995 | TCL VOC + Naph + Oxys 8260C | SW-846 8260C | 1 | R200561AA | 02/26/2020 02:01 | Joel Trout | 3607.5 |
| 02392 | GC/MS - Field Preserved NaHSO4 | SW-846 5035A | 1 | 202005256240 | 02/18/2020 09:45 | Client Supplied | 1 |
| 02392 | GC/MS - Field Preserved NaHSO4 | SW-846 5035A | 2 | 202005256240 | 02/18/2020 09:45 | Client Supplied | 1 |
| 07579 | GC/MS-5g Field Preserv.MeOH-NC | SW-846 5035A | 1 | 202005256240 | 02/18/2020 09:45 | Client Supplied | 1 |
| 10599 | TPH-GRO soils C6-C10 | SW-846 8015C | 1 | 20055A31A | 02/25/2020 04:26 | Jeremy C Giffin | 36231.88 |
| 06647 | GC-5g Field Preserved MeOH | SW-846 5035A | 1 | 202005256240 | 02/18/2020 09:45 | Client Supplied | n.a. |
| 12838 | DRO C10-C28 8015C/D (Microwv) | SW-846 8015C | 1 | 200550014A | 02/25/2020 09:05 | Bridget Kovacs | 1 |
| 12837 | DRO 8015C/D Microwave Ext. | SW-846 3546 | 1 | 200550014A | 02/24/2020 16:25 | Scott Crawford | 1 |
| 00111 | Moisture | SM 2540 G-2011 %Moisture Calc | 1 | 20052820002A | 02/21/2020 11:39 | Larry E Bevins | 1 |

Sample Description: DUP-1 Grab Soil
Cheverly DPW/1600401

EA Engineering
ELLE Sample #: SW 1263512
ELLE Group #: 2088718
Matrix: Soil

Project Name: Town of Cheverly

Submittal Date/Time: 02/19/2020 17:27
Collection Date/Time: 02/18/2020
SDG#: CEH01-04FD

| CAT No. | Analysis Name | CAS Number | Dry Result | Dry Method Detection Limit | Dilution Factor |
|------------------------|-----------------------------|---------------------|--------------|----------------------------|-----------------|
| GC/MS Volatiles | | SW-846 8260C | ug/kg | ug/kg | |
| 11995 | Acetone | 67-64-1 | N.D. | 2,300 | 308.64 |
| 11995 | t-Amyl methyl ether | 994-05-8 | N.D. | 300 | 308.64 |
| 11995 | Benzene | 71-43-2 | 6,700 | 190 | 308.64 |
| 11995 | Bromodichloromethane | 75-27-4 | N.D. | 150 | 308.64 |
| 11995 | Bromoform | 75-25-2 | N.D. | 1,900 | 308.64 |
| 11995 | Bromomethane | 74-83-9 | N.D. | 260 | 308.64 |
| 11995 | 2-Butanone | 78-93-3 | N.D. | 750 | 308.64 |
| 11995 | t-Butyl alcohol | 75-65-0 | N.D. | 5,600 | 308.64 |
| 11995 | Carbon Disulfide | 75-15-0 | N.D. | 230 | 308.64 |
| 11995 | Carbon Tetrachloride | 56-23-5 | N.D. | 190 | 308.64 |
| 11995 | Chlorobenzene | 108-90-7 | N.D. | 190 | 308.64 |
| 11995 | Chloroethane | 75-00-3 | N.D. | 380 | 308.64 |
| 11995 | Chloroform | 67-66-3 | N.D. | 230 | 308.64 |
| 11995 | Chloromethane | 74-87-3 | N.D. | 230 | 308.64 |
| 11995 | Cyclohexane | 110-82-7 | N.D. | 190 | 308.64 |
| 11995 | 1,2-Dibromo-3-chloropropane | 96-12-8 | N.D. | 190 | 308.64 |
| 11995 | Dibromochloromethane | 124-48-1 | N.D. | 190 | 308.64 |
| 11995 | 1,2-Dibromoethane | 106-93-4 | N.D. | 150 | 308.64 |
| 11995 | 1,2-Dichlorobenzene | 95-50-1 | N.D. | 190 | 308.64 |
| 11995 | 1,3-Dichlorobenzene | 541-73-1 | N.D. | 190 | 308.64 |
| 11995 | 1,4-Dichlorobenzene | 106-46-7 | N.D. | 150 | 308.64 |
| 11995 | Dichlorodifluoromethane | 75-71-8 | N.D. | 230 | 308.64 |
| 11995 | 1,1-Dichloroethane | 75-34-3 | N.D. | 190 | 308.64 |
| 11995 | 1,2-Dichloroethane | 107-06-2 | N.D. | 230 | 308.64 |
| 11995 | 1,1-Dichloroethene | 75-35-4 | N.D. | 190 | 308.64 |
| 11995 | cis-1,2-Dichloroethene | 156-59-2 | N.D. | 190 | 308.64 |
| 11995 | trans-1,2-Dichloroethene | 156-60-5 | N.D. | 190 | 308.64 |
| 11995 | 1,2-Dichloropropane | 78-87-5 | N.D. | 190 | 308.64 |
| 11995 | cis-1,3-Dichloropropene | 10061-01-5 | N.D. | 150 | 308.64 |
| 11995 | trans-1,3-Dichloropropene | 10061-02-6 | N.D. | 190 | 308.64 |
| 11995 | Ethyl t-butyl ether | 637-92-3 | N.D. | 190 | 308.64 |
| 11995 | Ethylbenzene | 100-41-4 | 53,000 | 150 | 308.64 |
| 11995 | Freon 113 | 76-13-1 | N.D. | 230 | 308.64 |
| 11995 | 2-Hexanone | 591-78-6 | N.D. | 380 | 308.64 |
| 11995 | di-Isopropyl ether | 108-20-3 | N.D. | 190 | 308.64 |
| 11995 | Isopropylbenzene | 98-82-8 | 5,400 | 150 | 308.64 |
| 11995 | Methyl Acetate | 79-20-9 | N.D. | 380 | 308.64 |
| 11995 | Methyl Tertiary Butyl Ether | 1634-04-4 | N.D. | 190 | 308.64 |
| 11995 | 4-Methyl-2-pentanone | 108-10-1 | N.D. | 380 | 308.64 |
| 11995 | Methylcyclohexane | 108-87-2 | 13,000 | 230 | 308.64 |
| 11995 | Methylene Chloride | 75-09-2 | N.D. | 750 | 308.64 |
| 11995 | Naphthalene | 91-20-3 | 26,000 | 750 | 308.64 |
| 11995 | Styrene | 100-42-5 | N.D. | 150 | 308.64 |
| 11995 | 1,1,2,2-Tetrachloroethane | 79-34-5 | N.D. | 150 | 308.64 |
| 11995 | Tetrachloroethene | 127-18-4 | N.D. | 190 | 308.64 |
| 11995 | Toluene | 108-88-3 | 140,000 | 2,300 | 3086.42 |
| 11995 | 1,2,4-Trichlorobenzene | 120-82-1 | N.D. | 1,900 | 308.64 |
| 11995 | 1,1,1-Trichloroethane | 71-55-6 | N.D. | 230 | 308.64 |
| 11995 | 1,1,2-Trichloroethane | 79-00-5 | N.D. | 190 | 308.64 |

Sample Description: DUP-1 Grab Soil
Cheverly DPW/1600401

EA Engineering
ELLE Sample #: SW 1263512
ELLE Group #: 2088718
Matrix: Soil

Project Name: Town of Cheverly

Submittal Date/Time: 02/19/2020 17:27
Collection Date/Time: 02/18/2020
SDG#: CEH01-04FD

| CAT No. | Analysis Name | CAS Number | Dry Result | Dry Method Detection Limit | Dilution Factor |
|--|-------------------------------|------------|-----------------------|----------------------------|-----------------|
| GC/MS Volatiles | | | SW-846 8260C | ug/kg | |
| 11995 | Trichloroethene | 79-01-6 | N.D. | 190 | 308.64 |
| 11995 | Trichlorofluoromethane | 75-69-4 | N.D. | 260 | 308.64 |
| 11995 | Vinyl Chloride | 75-01-4 | N.D. | 230 | 308.64 |
| 11995 | Xylene (Total) | 1330-20-7 | 270,000 | 530 | 308.64 |
| <p>A Report Limit Verification (RLV) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The RLV standard shows adequate sensitivity at or below the reporting limit.</p> | | | | | |
| GC Volatiles | | | SW-846 8015C | mg/kg | |
| 10599 | TPH-GRO soil C6-C10 | n.a. | 7,600 | 250 | 28636.88 |
| GC Petroleum Hydrocarbons | | | SW-846 8015C | mg/kg | |
| 12838 | DRO C10-C28 8015C/D (Microwv) | n.a. | 170 | 6.4 | 1 |
| Wet Chemistry | | | SM 2540 G-2011 | % | |
| | | | %Moisture Calc | | |
| 00111 | Moisture | n.a. | 17.8 | 0.50 | 1 |
| <p>Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.</p> | | | | | |

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|--------------------------------|-------------------------------|--------|--------------|------------------------|-----------------|-----------------|
| 11995 | TCL VOC + Naph + Oxys 8260C | SW-846 8260C | 1 | R200561AA | 02/26/2020 02:21 | Joel Trout | 308.64 |
| 11995 | TCL VOC + Naph + Oxys 8260C | SW-846 8260C | 1 | R200561AA | 02/26/2020 02:42 | Joel Trout | 3086.42 |
| 02392 | GC/MS - Field Preserved NaHSO4 | SW-846 5035A | 1 | 202005256240 | 02/18/2020 00:00 | Client Supplied | 1 |
| 02392 | GC/MS - Field Preserved NaHSO4 | SW-846 5035A | 2 | 202005256240 | 02/18/2020 00:00 | Client Supplied | 1 |
| 07579 | GC/MS-5g Field Preserv.MeOH-NC | SW-846 5035A | 1 | 202005256240 | 02/18/2020 00:00 | Client Supplied | 1 |
| 10599 | TPH-GRO soils C6-C10 | SW-846 8015C | 1 | 20055A31A | 02/25/2020 05:45 | Jeremy C Giffin | 28636.88 |
| 06647 | GC-5g Field Preserved MeOH | SW-846 5035A | 1 | 202005256240 | 02/18/2020 00:00 | Client Supplied | n.a. |
| 12838 | DRO C10-C28 8015C/D (Microwv) | SW-846 8015C | 1 | 200550014A | 02/25/2020 09:27 | Bridget Kovacs | 1 |
| 12837 | DRO 8015C/D Microwave Ext. | SW-846 3546 | 1 | 200550014A | 02/24/2020 16:25 | Scott Crawford | 1 |
| 00111 | Moisture | SM 2540 G-2011 %Moisture Calc | 1 | 20052820002A | 02/21/2020 11:39 | Larry E Bevins | 1 |

Sample Description: SB-4-5-6 Grab Soil
Cheverly DPW/1600401

EA Engineering
ELLE Sample #: SW 1263513
ELLE Group #: 2088718
Matrix: Soil

Project Name: Town of Cheverly

Submittal Date/Time: 02/19/2020 17:27
Collection Date/Time: 02/18/2020 10:00
SDG#: CEH01-05

| CAT No. | Analysis Name | CAS Number | Dry Result | Dry Method Detection Limit | Dilution Factor |
|------------------------|-----------------------------|---------------------|--------------|----------------------------|-----------------|
| GC/MS Volatiles | | | | | |
| | | SW-846 8260C | ug/kg | ug/kg | |
| 11995 | Acetone | 67-64-1 | 22 | 5 | 0.69 |
| 11995 | t-Amyl methyl ether | 994-05-8 | N.D. | 0.7 | 0.69 |
| 11995 | Benzene | 71-43-2 | N.D. | 0.4 | 0.69 |
| 11995 | Bromodichloromethane | 75-27-4 | N.D. | 0.3 | 0.69 |
| 11995 | Bromoform | 75-25-2 | N.D. | 4 | 0.69 |
| 11995 | Bromomethane | 74-83-9 | N.D. | 0.6 | 0.69 |
| 11995 | 2-Butanone | 78-93-3 | N.D. | 2 | 0.69 |
| 11995 | t-Butyl alcohol | 75-65-0 | N.D. | 13 | 0.69 |
| 11995 | Carbon Disulfide | 75-15-0 | 1 J | 0.5 | 0.69 |
| 11995 | Carbon Tetrachloride | 56-23-5 | N.D. | 0.4 | 0.69 |
| 11995 | Chlorobenzene | 108-90-7 | N.D. | 0.4 | 0.69 |
| 11995 | Chloroethane | 75-00-3 | N.D. | 0.8 | 0.69 |
| 11995 | Chloroform | 67-66-3 | N.D. | 0.5 | 0.69 |
| 11995 | Chloromethane | 74-87-3 | N.D. | 0.5 | 0.69 |
| 11995 | Cyclohexane | 110-82-7 | N.D. | 0.4 | 0.69 |
| 11995 | 1,2-Dibromo-3-chloropropane | 96-12-8 | N.D. | 0.4 | 0.69 |
| 11995 | Dibromochloromethane | 124-48-1 | N.D. | 0.4 | 0.69 |
| 11995 | 1,2-Dibromoethane | 106-93-4 | N.D. | 0.3 | 0.69 |
| 11995 | 1,2-Dichlorobenzene | 95-50-1 | N.D. | 0.4 | 0.69 |
| 11995 | 1,3-Dichlorobenzene | 541-73-1 | N.D. | 0.4 | 0.69 |
| 11995 | 1,4-Dichlorobenzene | 106-46-7 | N.D. | 0.3 | 0.69 |
| 11995 | Dichlorodifluoromethane | 75-71-8 | N.D. | 0.5 | 0.69 |
| 11995 | 1,1-Dichloroethane | 75-34-3 | N.D. | 0.4 | 0.69 |
| 11995 | 1,2-Dichloroethane | 107-06-2 | N.D. | 0.5 | 0.69 |
| 11995 | 1,1-Dichloroethene | 75-35-4 | N.D. | 0.4 | 0.69 |
| 11995 | cis-1,2-Dichloroethene | 156-59-2 | N.D. | 0.4 | 0.69 |
| 11995 | trans-1,2-Dichloroethene | 156-60-5 | N.D. | 0.4 | 0.69 |
| 11995 | 1,2-Dichloropropane | 78-87-5 | N.D. | 0.4 | 0.69 |
| 11995 | cis-1,3-Dichloropropene | 10061-01-5 | N.D. | 0.3 | 0.69 |
| 11995 | trans-1,3-Dichloropropene | 10061-02-6 | N.D. | 0.4 | 0.69 |
| 11995 | Ethyl t-butyl ether | 637-92-3 | N.D. | 0.4 | 0.69 |
| 11995 | Ethylbenzene | 100-41-4 | N.D. | 0.3 | 0.69 |
| 11995 | Freon 113 | 76-13-1 | N.D. | 0.5 | 0.69 |
| 11995 | 2-Hexanone | 591-78-6 | N.D. | 0.8 | 0.69 |
| 11995 | di-Isopropyl ether | 108-20-3 | N.D. | 0.4 | 0.69 |
| 11995 | Isopropylbenzene | 98-82-8 | N.D. | 0.3 | 0.69 |
| 11995 | Methyl Acetate | 79-20-9 | N.D. | 0.8 | 0.69 |
| 11995 | Methyl Tertiary Butyl Ether | 1634-04-4 | N.D. | 0.4 | 0.69 |
| 11995 | 4-Methyl-2-pentanone | 108-10-1 | N.D. | 0.8 | 0.69 |
| 11995 | Methylcyclohexane | 108-87-2 | N.D. | 0.5 | 0.69 |
| 11995 | Methylene Chloride | 75-09-2 | N.D. | 2 | 0.69 |
| 11995 | Naphthalene | 91-20-3 | N.D. | 2 | 0.69 |
| 11995 | Styrene | 100-42-5 | N.D. | 0.3 | 0.69 |
| 11995 | 1,1,2,2-Tetrachloroethane | 79-34-5 | N.D. | 0.3 | 0.69 |
| 11995 | Tetrachloroethene | 127-18-4 | N.D. | 0.4 | 0.69 |
| 11995 | Toluene | 108-88-3 | N.D. | 0.5 | 0.69 |
| 11995 | 1,2,4-Trichlorobenzene | 120-82-1 | N.D. | 4 | 0.69 |
| 11995 | 1,1,1-Trichloroethane | 71-55-6 | N.D. | 0.5 | 0.69 |
| 11995 | 1,1,2-Trichloroethane | 79-00-5 | N.D. | 0.4 | 0.69 |

Sample Description: SB-4-5-6 Grab Soil
Cheverly DPW/1600401

EA Engineering
ELLE Sample #: SW 1263513
ELLE Group #: 2088718
Matrix: Soil

Project Name: Town of Cheverly

Submittal Date/Time: 02/19/2020 17:27
Collection Date/Time: 02/18/2020 10:00
SDG#: CEH01-05

| CAT No. | Analysis Name | CAS Number | Dry Result | Dry Method Detection Limit | Dilution Factor |
|----------------------------------|---|-----------------------|--------------|----------------------------|-----------------|
| GC/MS Volatiles | | | | | |
| | | SW-846 8260C | ug/kg | ug/kg | |
| 11995 | Trichloroethene | 79-01-6 | N.D. | 0.4 | 0.69 |
| 11995 | Trichlorofluoromethane | 75-69-4 | N.D. | 0.6 | 0.69 |
| 11995 | Vinyl Chloride | 75-01-4 | N.D. | 0.5 | 0.69 |
| 11995 | Xylene (Total) | 1330-20-7 | N.D. | 1 | 0.69 |
| GC Volatiles | | | | | |
| | | SW-846 8015C | mg/kg | mg/kg | |
| 10599 | TPH-GRO soil C6-C10 | n.a. | 32 | 0.9 | 100 |
| GC Petroleum Hydrocarbons | | | | | |
| | | SW-846 8015C | mg/kg | mg/kg | |
| 12838 | DRO C10-C28 8015C/D (Microwv) | n.a. | 550 | 6.5 | 1 |
| Wet Chemistry | | | | | |
| | | SM 2540 G-2011 | % | % | |
| | | %Moisture Calc | | | |
| 00111 | Moisture | n.a. | 18.6 | 0.50 | 1 |
| | Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis. | | | | |

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|--------------------------------|-------------------------------|--------|--------------|------------------------|-----------------|-----------------|
| 11995 | TCL VOC + Naph + Oxys | SW-846 8260C | 1 | A200571AA | 02/27/2020 00:00 | Laura Green | 0.69 |
| 02392 | GC/MS - Field Preserved NaHSO4 | SW-846 5035A | 1 | 202005256240 | 02/18/2020 10:00 | Client Supplied | 1 |
| 02392 | GC/MS - Field Preserved NaHSO4 | SW-846 5035A | 2 | 202005256240 | 02/18/2020 10:00 | Client Supplied | 1 |
| 07579 | GC/MS-5g Field Preserv.MeOH-NC | SW-846 5035A | 1 | 202005256240 | 02/18/2020 10:00 | Client Supplied | 1 |
| 10599 | TPH-GRO soils C6-C10 | SW-846 8015C | 1 | 20055A31A | 02/25/2020 02:39 | Jeremy C Giffin | 100 |
| 06647 | GC-5g Field Preserved MeOH | SW-846 5035A | 1 | 202005256240 | 02/18/2020 10:00 | Client Supplied | n.a. |
| 12838 | DRO C10-C28 8015C/D (Microwv) | SW-846 8015C | 1 | 200550014A | 02/25/2020 13:49 | Bridget Kovacs | 1 |
| 12837 | DRO 8015C/D Microwave Ext. | SW-846 3546 | 1 | 200550014A | 02/24/2020 16:25 | Scott Crawford | 1 |
| 00111 | Moisture | SM 2540 G-2011 %Moisture Calc | 1 | 20052820002A | 02/21/2020 11:39 | Larry E Bevins | 1 |

Sample Description: SB-5-5-6 Grab Soil
Cheverly DPW/1600401

EA Engineering
ELLE Sample #: SW 1263514
ELLE Group #: 2088718
Matrix: Soil

Project Name: Town of Cheverly

Submittal Date/Time: 02/19/2020 17:27
Collection Date/Time: 02/18/2020 10:15
SDG#: CEH01-06

| CAT No. | Analysis Name | CAS Number | Dry Result | Dry Method Detection Limit | Dilution Factor |
|------------------------|-----------------------------|---------------------|--------------|----------------------------|-----------------|
| GC/MS Volatiles | | SW-846 8260C | ug/kg | ug/kg | |
| 11995 | Acetone | 67-64-1 | 40 | 7 | 0.82 |
| 11995 | t-Amyl methyl ether | 994-05-8 | N.D. | 0.9 | 0.82 |
| 11995 | Benzene | 71-43-2 | 0.7 J | 0.6 | 0.82 |
| 11995 | Bromodichloromethane | 75-27-4 | N.D. | 0.5 | 0.82 |
| 11995 | Bromoform | 75-25-2 | N.D. | 6 | 0.82 |
| 11995 | Bromomethane | 74-83-9 | N.D. | 0.8 | 0.82 |
| 11995 | 2-Butanone | 78-93-3 | 3 J | 2 | 0.82 |
| 11995 | t-Butyl alcohol | 75-65-0 | N.D. | 18 | 0.82 |
| 11995 | Carbon Disulfide | 75-15-0 | 4 J | 0.7 | 0.82 |
| 11995 | Carbon Tetrachloride | 56-23-5 | N.D. | 0.6 | 0.82 |
| 11995 | Chlorobenzene | 108-90-7 | 13 | 0.6 | 0.82 |
| 11995 | Chloroethane | 75-00-3 | N.D. | 1 | 0.82 |
| 11995 | Chloroform | 67-66-3 | N.D. | 0.7 | 0.82 |
| 11995 | Chloromethane | 74-87-3 | N.D. | 0.7 | 0.82 |
| 11995 | Cyclohexane | 110-82-7 | N.D. | 0.6 | 0.82 |
| 11995 | 1,2-Dibromo-3-chloropropane | 96-12-8 | N.D. | 0.6 | 0.82 |
| 11995 | Dibromochloromethane | 124-48-1 | N.D. | 0.6 | 0.82 |
| 11995 | 1,2-Dibromoethane | 106-93-4 | N.D. | 0.5 | 0.82 |
| 11995 | 1,2-Dichlorobenzene | 95-50-1 | 0.9 J | 0.6 | 0.82 |
| 11995 | 1,3-Dichlorobenzene | 541-73-1 | N.D. | 0.6 | 0.82 |
| 11995 | 1,4-Dichlorobenzene | 106-46-7 | 1 J | 0.5 | 0.82 |
| 11995 | Dichlorodifluoromethane | 75-71-8 | N.D. | 0.7 | 0.82 |
| 11995 | 1,1-Dichloroethane | 75-34-3 | N.D. | 0.6 | 0.82 |
| 11995 | 1,2-Dichloroethane | 107-06-2 | N.D. | 0.7 | 0.82 |
| 11995 | 1,1-Dichloroethene | 75-35-4 | N.D. | 0.6 | 0.82 |
| 11995 | cis-1,2-Dichloroethene | 156-59-2 | N.D. | 0.6 | 0.82 |
| 11995 | trans-1,2-Dichloroethene | 156-60-5 | N.D. | 0.6 | 0.82 |
| 11995 | 1,2-Dichloropropane | 78-87-5 | N.D. | 0.6 | 0.82 |
| 11995 | cis-1,3-Dichloropropene | 10061-01-5 | N.D. | 0.5 | 0.82 |
| 11995 | trans-1,3-Dichloropropene | 10061-02-6 | N.D. | 0.6 | 0.82 |
| 11995 | Ethyl t-butyl ether | 637-92-3 | N.D. | 0.6 | 0.82 |
| 11995 | Ethylbenzene | 100-41-4 | N.D. | 0.5 | 0.82 |
| 11995 | Freon 113 | 76-13-1 | N.D. | 0.7 | 0.82 |
| 11995 | 2-Hexanone | 591-78-6 | N.D. | 1 | 0.82 |
| 11995 | di-Isopropyl ether | 108-20-3 | N.D. | 0.6 | 0.82 |
| 11995 | Isopropylbenzene | 98-82-8 | N.D. | 0.5 | 0.82 |
| 11995 | Methyl Acetate | 79-20-9 | N.D. | 1 | 0.82 |
| 11995 | Methyl Tertiary Butyl Ether | 1634-04-4 | N.D. | 0.6 | 0.82 |
| 11995 | 4-Methyl-2-pentanone | 108-10-1 | N.D. | 1 | 0.82 |
| 11995 | Methylcyclohexane | 108-87-2 | N.D. | 0.7 | 0.82 |
| 11995 | Methylene Chloride | 75-09-2 | N.D. | 2 | 0.82 |
| 11995 | Naphthalene | 91-20-3 | N.D. | 2 | 0.82 |
| 11995 | Styrene | 100-42-5 | N.D. | 0.5 | 0.82 |
| 11995 | 1,1,2,2-Tetrachloroethane | 79-34-5 | N.D. | 0.5 | 0.82 |
| 11995 | Tetrachloroethene | 127-18-4 | N.D. | 0.6 | 0.82 |
| 11995 | Toluene | 108-88-3 | 0.9 J | 0.7 | 0.82 |
| 11995 | 1,2,4-Trichlorobenzene | 120-82-1 | N.D. | 6 | 0.82 |
| 11995 | 1,1,1-Trichloroethane | 71-55-6 | N.D. | 0.7 | 0.82 |
| 11995 | 1,1,2-Trichloroethane | 79-00-5 | N.D. | 0.6 | 0.82 |

Sample Description: SB-5-5-6 Grab Soil
Cheverly DPW/1600401

EA Engineering
ELLE Sample #: SW 1263514
ELLE Group #: 2088718
Matrix: Soil

Project Name: Town of Cheverly

Submittal Date/Time: 02/19/2020 17:27
Collection Date/Time: 02/18/2020 10:15
SDG#: CEH01-06

| CAT No. | Analysis Name | CAS Number | Dry Result | Dry Method Detection Limit | Dilution Factor |
|--|-------------------------------|-----------------------|--------------|----------------------------|-----------------|
| GC/MS Volatiles | | | | | |
| | | SW-846 8260C | ug/kg | ug/kg | |
| 11995 | Trichloroethene | 79-01-6 | N.D. | 0.6 | 0.82 |
| 11995 | Trichlorofluoromethane | 75-69-4 | N.D. | 0.8 | 0.82 |
| 11995 | Vinyl Chloride | 75-01-4 | N.D. | 0.7 | 0.82 |
| 11995 | Xylene (Total) | 1330-20-7 | N.D. | 2 | 0.82 |
| GC Volatiles | | | | | |
| | | SW-846 8015C | mg/kg | mg/kg | |
| 10599 | TPH-GRO soil C6-C10 | n.a. | 0.7 J | 0.3 | 26.6 |
| The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. Sufficient sample was not available to repeat the analysis. | | | | | |
| GC Petroleum Hydrocarbons | | | | | |
| | | SW-846 8015C | mg/kg | mg/kg | |
| 12838 | DRO C10-C28 8015C/D (Microwv) | n.a. | 44 | 7.5 | 1 |
| Wet Chemistry | | | | | |
| | | SM 2540 G-2011 | % | % | |
| | | %Moisture Calc | | | |
| 00111 | Moisture | n.a. | 29.9 | 0.50 | 1 |
| Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis. | | | | | |

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|--------------------------------|-------------------------------|--------|--------------|------------------------|-----------------|-----------------|
| 11995 | TCL VOC + Naph + Oxys | SW-846 8260C | 1 | A200571AA | 02/27/2020 00:22 | Laura Green | 0.82 |
| 02392 | GC/MS - Field Preserved NaHSO4 | SW-846 5035A | 1 | 202005256240 | 02/18/2020 10:15 | Client Supplied | 1 |
| 02392 | GC/MS - Field Preserved NaHSO4 | SW-846 5035A | 2 | 202005256240 | 02/18/2020 10:15 | Client Supplied | 1 |
| 07579 | GC/MS-5g Field Preserv.MeOH-NC | SW-846 5035A | 1 | 202005256240 | 02/18/2020 10:15 | Client Supplied | 1 |
| 10599 | TPH-GRO soils C6-C10 | SW-846 8015C | 1 | 20055A31B | 02/25/2020 12:25 | Jeremy C Giffin | 26.6 |
| 06647 | GC-5g Field Preserved MeOH | SW-846 5035A | 1 | 202005256240 | 02/18/2020 10:15 | Client Supplied | n.a. |
| 12838 | DRO C10-C28 8015C/D (Microwv) | SW-846 8015C | 1 | 200550014A | 02/25/2020 09:49 | Bridget Kovacs | 1 |
| 12837 | DRO 8015C/D Microwave Ext. | SW-846 3546 | 1 | 200550014A | 02/24/2020 16:25 | Scott Crawford | 1 |
| 00111 | Moisture | SM 2540 G-2011 %Moisture Calc | 1 | 20052820002A | 02/21/2020 11:39 | Larry E Bevins | 1 |

Sample Description: SB-6-5-6 Grab Soil
Cheverly DPW/1600401

EA Engineering
ELLE Sample #: SW 1263515
ELLE Group #: 2088718
Matrix: Soil

Project Name: Town of Cheverly

Submittal Date/Time: 02/19/2020 17:27
Collection Date/Time: 02/18/2020 11:00
SDG#: CEH01-07

| CAT No. | Analysis Name | CAS Number | Dry Result | Dry Method Detection Limit | Dilution Factor |
|------------------------|-----------------------------|---------------------|--------------|----------------------------|-----------------|
| GC/MS Volatiles | | SW-846 8260C | ug/kg | ug/kg | |
| 11995 | Acetone | 67-64-1 | 72 | 6 | 0.9 |
| 11995 | t-Amyl methyl ether | 994-05-8 | N.D. | 0.9 | 0.9 |
| 11995 | Benzene | 71-43-2 | N.D. | 0.5 | 0.9 |
| 11995 | Bromodichloromethane | 75-27-4 | N.D. | 0.4 | 0.9 |
| 11995 | Bromoform | 75-25-2 | N.D. | 5 | 0.9 |
| 11995 | Bromomethane | 74-83-9 | N.D. | 0.8 | 0.9 |
| 11995 | 2-Butanone | 78-93-3 | 6 J | 2 | 0.9 |
| 11995 | t-Butyl alcohol | 75-65-0 | N.D. | 16 | 0.9 |
| 11995 | Carbon Disulfide | 75-15-0 | 3 J | 0.6 | 0.9 |
| 11995 | Carbon Tetrachloride | 56-23-5 | N.D. | 0.5 | 0.9 |
| 11995 | Chlorobenzene | 108-90-7 | N.D. | 0.5 | 0.9 |
| 11995 | Chloroethane | 75-00-3 | N.D. | 1 | 0.9 |
| 11995 | Chloroform | 67-66-3 | N.D. | 0.6 | 0.9 |
| 11995 | Chloromethane | 74-87-3 | N.D. | 0.6 | 0.9 |
| 11995 | Cyclohexane | 110-82-7 | N.D. | 0.5 | 0.9 |
| 11995 | 1,2-Dibromo-3-chloropropane | 96-12-8 | N.D. | 0.5 | 0.9 |
| 11995 | Dibromochloromethane | 124-48-1 | N.D. | 0.5 | 0.9 |
| 11995 | 1,2-Dibromoethane | 106-93-4 | N.D. | 0.4 | 0.9 |
| 11995 | 1,2-Dichlorobenzene | 95-50-1 | N.D. | 0.5 | 0.9 |
| 11995 | 1,3-Dichlorobenzene | 541-73-1 | N.D. | 0.5 | 0.9 |
| 11995 | 1,4-Dichlorobenzene | 106-46-7 | N.D. | 0.4 | 0.9 |
| 11995 | Dichlorodifluoromethane | 75-71-8 | N.D. | 0.6 | 0.9 |
| 11995 | 1,1-Dichloroethane | 75-34-3 | N.D. | 0.5 | 0.9 |
| 11995 | 1,2-Dichloroethane | 107-06-2 | N.D. | 0.6 | 0.9 |
| 11995 | 1,1-Dichloroethene | 75-35-4 | N.D. | 0.5 | 0.9 |
| 11995 | cis-1,2-Dichloroethene | 156-59-2 | N.D. | 0.5 | 0.9 |
| 11995 | trans-1,2-Dichloroethene | 156-60-5 | N.D. | 0.5 | 0.9 |
| 11995 | 1,2-Dichloropropane | 78-87-5 | N.D. | 0.5 | 0.9 |
| 11995 | cis-1,3-Dichloropropene | 10061-01-5 | N.D. | 0.4 | 0.9 |
| 11995 | trans-1,3-Dichloropropene | 10061-02-6 | N.D. | 0.5 | 0.9 |
| 11995 | Ethyl t-butyl ether | 637-92-3 | N.D. | 0.5 | 0.9 |
| 11995 | Ethylbenzene | 100-41-4 | N.D. | 0.4 | 0.9 |
| 11995 | Freon 113 | 76-13-1 | N.D. | 0.6 | 0.9 |
| 11995 | 2-Hexanone | 591-78-6 | N.D. | 1 | 0.9 |
| 11995 | di-Isopropyl ether | 108-20-3 | N.D. | 0.5 | 0.9 |
| 11995 | Isopropylbenzene | 98-82-8 | N.D. | 0.4 | 0.9 |
| 11995 | Methyl Acetate | 79-20-9 | 3 J | 1 | 0.9 |
| 11995 | Methyl Tertiary Butyl Ether | 1634-04-4 | N.D. | 0.5 | 0.9 |
| 11995 | 4-Methyl-2-pentanone | 108-10-1 | N.D. | 1 | 0.9 |
| 11995 | Methylcyclohexane | 108-87-2 | N.D. | 0.6 | 0.9 |
| 11995 | Methylene Chloride | 75-09-2 | N.D. | 2 | 0.9 |
| 11995 | Naphthalene | 91-20-3 | N.D. | 2 | 0.9 |
| 11995 | Styrene | 100-42-5 | N.D. | 0.4 | 0.9 |
| 11995 | 1,1,2,2-Tetrachloroethane | 79-34-5 | N.D. | 0.4 | 0.9 |
| 11995 | Tetrachloroethene | 127-18-4 | N.D. | 0.5 | 0.9 |
| 11995 | Toluene | 108-88-3 | N.D. | 0.6 | 0.9 |
| 11995 | 1,2,4-Trichlorobenzene | 120-82-1 | N.D. | 5 | 0.9 |
| 11995 | 1,1,1-Trichloroethane | 71-55-6 | N.D. | 0.6 | 0.9 |
| 11995 | 1,1,2-Trichloroethane | 79-00-5 | N.D. | 0.5 | 0.9 |

Sample Description: SB-6-5-6 Grab Soil
Cheverly DPW/1600401

EA Engineering
ELLE Sample #: SW 1263515
ELLE Group #: 2088718
Matrix: Soil

Project Name: Town of Cheverly

Submittal Date/Time: 02/19/2020 17:27
Collection Date/Time: 02/18/2020 11:00
SDG#: CEH01-07

| CAT No. | Analysis Name | CAS Number | Dry Result | Dry Method Detection Limit | Dilution Factor |
|---|-------------------------------|-----------------------|--------------|----------------------------|-----------------|
| GC/MS Volatiles | | SW-846 8260C | ug/kg | ug/kg | |
| 11995 | Trichloroethene | 79-01-6 | N.D. | 0.5 | 0.9 |
| 11995 | Trichlorofluoromethane | 75-69-4 | N.D. | 0.8 | 0.9 |
| 11995 | Vinyl Chloride | 75-01-4 | N.D. | 0.6 | 0.9 |
| 11995 | Xylene (Total) | 1330-20-7 | N.D. | 2 | 0.9 |
| <p>The recovery for the sample internal standard is outside the QC acceptance limits. The following action was taken: The sample was re-analyzed and the QC is again outside of the acceptance limits, indicating a matrix effect. The data is reported from the initial trial.</p> | | | | | |
| GC Volatiles | | SW-846 8015C | mg/kg | mg/kg | |
| 10599 | TPH-GRO soil C6-C10 | n.a. | 0.3 J | 0.2 | 25.46 |
| GC Petroleum Hydrocarbons | | SW-846 8015C | mg/kg | mg/kg | |
| 12838 | DRO C10-C28 8015C/D (Microwv) | n.a. | 110 | 6.2 | 1 |
| Wet Chemistry | | SM 2540 G-2011 | % | % | |
| | | %Moisture Calc | | | |
| 00111 | Moisture | n.a. | 15.8 | 0.50 | 1 |
| <p>Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.</p> | | | | | |

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|--------------------------------|--------------|--------|--------------|------------------------|-----------------|-----------------|
| 11995 | TCL VOC + Naph + Oxys 8260C | SW-846 8260C | 1 | A200551AA | 02/24/2020 11:49 | Linda C Pape | 0.9 |
| 02392 | GC/MS - Field Preserved NaHSO4 | SW-846 5035A | 1 | 202005256240 | 02/18/2020 11:00 | Client Supplied | 1 |
| 02392 | GC/MS - Field Preserved NaHSO4 | SW-846 5035A | 2 | 202005256240 | 02/18/2020 11:00 | Client Supplied | 1 |
| 02392 | GC/MS - Field Preserved NaHSO4 | SW-846 5035A | 3 | 202005256240 | 02/18/2020 11:00 | Client Supplied | 1 |
| 02392 | GC/MS - Field Preserved NaHSO4 | SW-846 5035A | 4 | 202005256240 | 02/18/2020 11:00 | Client Supplied | 1 |
| 07579 | GC/MS-5g Field Preserv.MeOH-NC | SW-846 5035A | 1 | 202005256240 | 02/18/2020 11:00 | Client Supplied | 1 |
| 07579 | GC/MS-5g Field Preserv.MeOH-NC | SW-846 5035A | 2 | 202005256240 | 02/18/2020 11:00 | Client Supplied | 1 |
| 10599 | TPH-GRO soils C6-C10 | SW-846 8015C | 1 | 20055A31A | 02/25/2020 00:44 | Jeremy C Giffin | 25.46 |
| 06647 | GC-5g Field Preserved MeOH | SW-846 5035A | 1 | 202005256240 | 02/18/2020 11:00 | Client Supplied | n.a. |
| 06647 | GC-5g Field Preserved MeOH | SW-846 5035A | 2 | 202005256240 | 02/18/2020 11:00 | Client Supplied | n.a. |
| 12838 | DRO C10-C28 8015C/D (Microwv) | SW-846 8015C | 1 | 200550014A | 02/25/2020 13:05 | Bridget Kovacs | 1 |
| 12837 | DRO 8015C/D Microwave Ext. | SW-846 3546 | 1 | 200550014A | 02/24/2020 16:25 | Scott Crawford | 1 |

Sample Description: SB-6-5-6 Grab Soil
Cheverly DPW/1600401

EA Engineering
ELLE Sample #: SW 1263515
ELLE Group #: 2088718
Matrix: Soil

Project Name: Town of Cheverly

Submittal Date/Time: 02/19/2020 17:27
Collection Date/Time: 02/18/2020 11:00
SDG#: CEH01-07

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|---------------|----------------------------------|--------|--------------|------------------------|----------------|-----------------|
| 00111 | Moisture | SM 2540 G-2011 %Moisture Calc | 1 | 20052820002A | 02/21/2020 11:39 | Larry E Bevins | 1 |

Sample Description: SB-6 Grab Groundwater
Cheverly DPW/1600401

EA Engineering
ELLE Sample #: GW 1263516
ELLE Group #: 2088718
Matrix: Groundwater

Project Name: Town of Cheverly

Submittal Date/Time: 02/19/2020 17:27
Collection Date/Time: 02/18/2020 11:20
SDG#: CEH01-08

| CAT No. | Analysis Name | CAS Number | Result | Method Detection Limit | Dilution Factor |
|------------------------|-----------------------------|---------------------|-------------|------------------------|-----------------|
| GC/MS Volatiles | | SW-846 8260C | ug/l | ug/l | |
| 11997 | Acetone | 67-64-1 | 4 J | 0.7 | 1 |
| 11997 | t-Amyl methyl ether | 994-05-8 | N.D. | 0.8 | 1 |
| 11997 | Benzene | 71-43-2 | N.D. | 0.2 | 1 |
| 11997 | Bromodichloromethane | 75-27-4 | N.D. | 0.2 | 1 |
| 11997 | Bromoform | 75-25-2 | N.D. | 1 | 1 |
| 11997 | Bromomethane | 74-83-9 | N.D. | 0.3 | 1 |
| 11997 | 2-Butanone | 78-93-3 | 0.4 J | 0.3 | 1 |
| 11997 | t-Butyl alcohol | 75-65-0 | N.D. | 12 | 1 |
| 11997 | Carbon Disulfide | 75-15-0 | 0.4 J | 0.2 | 1 |
| 11997 | Carbon Tetrachloride | 56-23-5 | N.D. | 0.2 | 1 |
| 11997 | Chlorobenzene | 108-90-7 | N.D. | 0.2 | 1 |
| 11997 | Chloroethane | 75-00-3 | N.D. | 0.2 | 1 |
| 11997 | Chloroform | 67-66-3 | N.D. | 0.2 | 1 |
| 11997 | Chloromethane | 74-87-3 | N.D. | 0.2 | 1 |
| 11997 | Cyclohexane | 110-82-7 | N.D. | 1 | 1 |
| 11997 | 1,2-Dibromo-3-chloropropane | 96-12-8 | N.D. | 0.3 | 1 |
| 11997 | Dibromochloromethane | 124-48-1 | N.D. | 0.2 | 1 |
| 11997 | 1,2-Dibromoethane | 106-93-4 | N.D. | 0.2 | 1 |
| 11997 | 1,2-Dichlorobenzene | 95-50-1 | N.D. | 0.2 | 1 |
| 11997 | 1,3-Dichlorobenzene | 541-73-1 | N.D. | 0.2 | 1 |
| 11997 | 1,4-Dichlorobenzene | 106-46-7 | N.D. | 0.2 | 1 |
| 11997 | Dichlorodifluoromethane | 75-71-8 | N.D. | 0.2 | 1 |
| 11997 | 1,1-Dichloroethane | 75-34-3 | N.D. | 0.2 | 1 |
| 11997 | 1,2-Dichloroethane | 107-06-2 | N.D. | 0.3 | 1 |
| 11997 | 1,1-Dichloroethene | 75-35-4 | N.D. | 0.2 | 1 |
| 11997 | cis-1,2-Dichloroethene | 156-59-2 | N.D. | 0.2 | 1 |
| 11997 | trans-1,2-Dichloroethene | 156-60-5 | N.D. | 0.2 | 1 |
| 11997 | 1,2-Dichloropropane | 78-87-5 | N.D. | 0.2 | 1 |
| 11997 | cis-1,3-Dichloropropene | 10061-01-5 | N.D. | 0.2 | 1 |
| 11997 | trans-1,3-Dichloropropene | 10061-02-6 | N.D. | 0.2 | 1 |
| 11997 | Ethyl t-butyl ether | 637-92-3 | N.D. | 0.2 | 1 |
| 11997 | Ethylbenzene | 100-41-4 | N.D. | 0.4 | 1 |
| 11997 | Freon 113 | 76-13-1 | N.D. | 0.2 | 1 |
| 11997 | 2-Hexanone | 591-78-6 | N.D. | 0.3 | 1 |
| 11997 | di-Isopropyl ether | 108-20-3 | N.D. | 0.2 | 1 |
| 11997 | Isopropylbenzene | 98-82-8 | N.D. | 0.2 | 1 |
| 11997 | Methyl Acetate | 79-20-9 | N.D. | 0.3 | 1 |
| 11997 | Methyl Tertiary Butyl Ether | 1634-04-4 | N.D. | 0.2 | 1 |
| 11997 | 4-Methyl-2-pentanone | 108-10-1 | N.D. | 0.5 | 1 |
| 11997 | Methylcyclohexane | 108-87-2 | N.D. | 0.5 | 1 |
| 11997 | Methylene Chloride | 75-09-2 | N.D. | 0.3 | 1 |
| 11997 | Naphthalene | 91-20-3 | N.D. | 1 | 1 |
| 11997 | Styrene | 100-42-5 | N.D. | 0.2 | 1 |
| 11997 | 1,1,2,2-Tetrachloroethane | 79-34-5 | N.D. | 0.2 | 1 |
| 11997 | Tetrachloroethene | 127-18-4 | N.D. | 0.2 | 1 |
| 11997 | Toluene | 108-88-3 | N.D. | 0.2 | 1 |
| 11997 | 1,2,4-Trichlorobenzene | 120-82-1 | N.D. | 0.3 | 1 |
| 11997 | 1,1,1-Trichloroethane | 71-55-6 | N.D. | 0.3 | 1 |
| 11997 | 1,1,2-Trichloroethane | 79-00-5 | N.D. | 0.2 | 1 |

Sample Description: SB-6 Grab Groundwater
Cheverly DPW/1600401

EA Engineering
ELLE Sample #: GW 1263516
ELLE Group #: 2088718
Matrix: Groundwater

Project Name: Town of Cheverly

Submittal Date/Time: 02/19/2020 17:27
Collection Date/Time: 02/18/2020 11:20
SDG#: CEH01-08

| CAT No. | Analysis Name | CAS Number | Result | Method Detection Limit | Dilution Factor |
|----------------------------------|------------------------|------------------------------------|-------------|------------------------|-----------------|
| GC/MS Volatiles | | SW-846 8260C | ug/l | ug/l | |
| 11997 | Trichloroethene | 79-01-6 | N.D. | 0.2 | 1 |
| 11997 | Trichlorofluoromethane | 75-69-4 | N.D. | 0.2 | 1 |
| 11997 | Vinyl Chloride | 75-01-4 | N.D. | 0.2 | 1 |
| 11997 | Xylene (Total) | 1330-20-7 | N.D. | 1 | 1 |
| GC Volatiles | | SW-846 8015C | ug/l | ug/l | |
| 10598 | TPH-GRO water C6-C10 | n.a. | N.D. | 23 | 1 |
| GC Petroleum Hydrocarbons | | SW-846 8015C Feb 2007 Rev 3 | ug/l | ug/l | |
| 13579 | DRO C10-C28 | n.a. | 350 | 49 | 1 |

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|------------------------------|-----------------------------|--------|------------|------------------------|------------------|-----------------|
| 11997 | TCL VOC + Naph + Oxys | SW-846 8260C | 1 | E200581AA | 02/27/2020 15:29 | Don V Viray | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030C | 1 | E200581AA | 02/27/2020 15:28 | Don V Viray | 1 |
| 10598 | TPH-GRO water C6-C10 | SW-846 8015C | 1 | 20051B20A | 02/20/2020 20:03 | Erin E Durkaj | 1 |
| 01146 | GC VOA Water Prep | SW-846 5030C | 1 | 20051B20A | 02/20/2020 20:02 | Erin E Durkaj | 1 |
| 13579 | DRO 8015C/D(Mini) | SW-846 8015C Feb 2007 Rev 3 | 1 | 200510027A | 02/22/2020 01:09 | Timothy M Emrick | 1 |
| 12906 | Mini-extraction DRO (waters) | SW-846 3510C | 1 | 200510027A | 02/21/2020 08:30 | Bojan Milinic | 1 |

Sample Description: DUP-GW Grab Groundwater
Cheverly DPW/1600401

EA Engineering
ELLE Sample #: GW 1263517
ELLE Group #: 2088718
Matrix: Groundwater

Project Name: Town of Cheverly

Submission Date/Time: 02/19/2020 17:27
Collection Date/Time: 02/18/2020
SDG#: CEH01-09FD

| CAT No. | Analysis Name | CAS Number | Result | Method Detection Limit | Dilution Factor |
|------------------------|-----------------------------|---------------------|-------------|------------------------|-----------------|
| GC/MS Volatiles | | SW-846 8260C | ug/l | ug/l | |
| 11997 | Acetone | 67-64-1 | 3 J | 0.7 | 1 |
| 11997 | t-Amyl methyl ether | 994-05-8 | N.D. | 0.8 | 1 |
| 11997 | Benzene | 71-43-2 | N.D. | 0.2 | 1 |
| 11997 | Bromodichloromethane | 75-27-4 | N.D. | 0.2 | 1 |
| 11997 | Bromoform | 75-25-2 | N.D. | 1 | 1 |
| 11997 | Bromomethane | 74-83-9 | N.D. | 0.3 | 1 |
| 11997 | 2-Butanone | 78-93-3 | 0.4 J | 0.3 | 1 |
| 11997 | t-Butyl alcohol | 75-65-0 | N.D. | 12 | 1 |
| 11997 | Carbon Disulfide | 75-15-0 | 0.3 J | 0.2 | 1 |
| 11997 | Carbon Tetrachloride | 56-23-5 | N.D. | 0.2 | 1 |
| 11997 | Chlorobenzene | 108-90-7 | N.D. | 0.2 | 1 |
| 11997 | Chloroethane | 75-00-3 | N.D. | 0.2 | 1 |
| 11997 | Chloroform | 67-66-3 | N.D. | 0.2 | 1 |
| 11997 | Chloromethane | 74-87-3 | N.D. | 0.2 | 1 |
| 11997 | Cyclohexane | 110-82-7 | N.D. | 1 | 1 |
| 11997 | 1,2-Dibromo-3-chloropropane | 96-12-8 | N.D. | 0.3 | 1 |
| 11997 | Dibromochloromethane | 124-48-1 | N.D. | 0.2 | 1 |
| 11997 | 1,2-Dibromoethane | 106-93-4 | N.D. | 0.2 | 1 |
| 11997 | 1,2-Dichlorobenzene | 95-50-1 | N.D. | 0.2 | 1 |
| 11997 | 1,3-Dichlorobenzene | 541-73-1 | N.D. | 0.2 | 1 |
| 11997 | 1,4-Dichlorobenzene | 106-46-7 | N.D. | 0.2 | 1 |
| 11997 | Dichlorodifluoromethane | 75-71-8 | N.D. | 0.2 | 1 |
| 11997 | 1,1-Dichloroethane | 75-34-3 | N.D. | 0.2 | 1 |
| 11997 | 1,2-Dichloroethane | 107-06-2 | N.D. | 0.3 | 1 |
| 11997 | 1,1-Dichloroethene | 75-35-4 | N.D. | 0.2 | 1 |
| 11997 | cis-1,2-Dichloroethene | 156-59-2 | N.D. | 0.2 | 1 |
| 11997 | trans-1,2-Dichloroethene | 156-60-5 | N.D. | 0.2 | 1 |
| 11997 | 1,2-Dichloropropane | 78-87-5 | N.D. | 0.2 | 1 |
| 11997 | cis-1,3-Dichloropropene | 10061-01-5 | N.D. | 0.2 | 1 |
| 11997 | trans-1,3-Dichloropropene | 10061-02-6 | N.D. | 0.2 | 1 |
| 11997 | Ethyl t-butyl ether | 637-92-3 | N.D. | 0.2 | 1 |
| 11997 | Ethylbenzene | 100-41-4 | N.D. | 0.4 | 1 |
| 11997 | Freon 113 | 76-13-1 | N.D. | 0.2 | 1 |
| 11997 | 2-Hexanone | 591-78-6 | N.D. | 0.3 | 1 |
| 11997 | di-Isopropyl ether | 108-20-3 | N.D. | 0.2 | 1 |
| 11997 | Isopropylbenzene | 98-82-8 | N.D. | 0.2 | 1 |
| 11997 | Methyl Acetate | 79-20-9 | N.D. | 0.3 | 1 |
| 11997 | Methyl Tertiary Butyl Ether | 1634-04-4 | N.D. | 0.2 | 1 |
| 11997 | 4-Methyl-2-pentanone | 108-10-1 | N.D. | 0.5 | 1 |
| 11997 | Methylcyclohexane | 108-87-2 | N.D. | 0.5 | 1 |
| 11997 | Methylene Chloride | 75-09-2 | N.D. | 0.3 | 1 |
| 11997 | Naphthalene | 91-20-3 | N.D. | 1 | 1 |
| 11997 | Styrene | 100-42-5 | N.D. | 0.2 | 1 |
| 11997 | 1,1,2,2-Tetrachloroethane | 79-34-5 | N.D. | 0.2 | 1 |
| 11997 | Tetrachloroethene | 127-18-4 | N.D. | 0.2 | 1 |
| 11997 | Toluene | 108-88-3 | N.D. | 0.2 | 1 |
| 11997 | 1,2,4-Trichlorobenzene | 120-82-1 | N.D. | 0.3 | 1 |
| 11997 | 1,1,1-Trichloroethane | 71-55-6 | N.D. | 0.3 | 1 |
| 11997 | 1,1,2-Trichloroethane | 79-00-5 | N.D. | 0.2 | 1 |

Sample Description: DUP-GW Grab Groundwater
Cheverly DPW/1600401

EA Engineering
ELLE Sample #: GW 1263517
ELLE Group #: 2088718
Matrix: Groundwater

Project Name: Town of Cheverly

Submittal Date/Time: 02/19/2020 17:27
Collection Date/Time: 02/18/2020
SDG#: CEH01-09FD

| CAT No. | Analysis Name | CAS Number | Result | Method Detection Limit | Dilution Factor |
|----------------------------------|------------------------|------------------------------------|-------------|------------------------|-----------------|
| GC/MS Volatiles | | SW-846 8260C | ug/l | ug/l | |
| 11997 | Trichloroethene | 79-01-6 | N.D. | 0.2 | 1 |
| 11997 | Trichlorofluoromethane | 75-69-4 | N.D. | 0.2 | 1 |
| 11997 | Vinyl Chloride | 75-01-4 | N.D. | 0.2 | 1 |
| 11997 | Xylene (Total) | 1330-20-7 | N.D. | 1 | 1 |
| GC Volatiles | | SW-846 8015C | ug/l | ug/l | |
| 10598 | TPH-GRO water C6-C10 | n.a. | N.D. | 23 | 1 |
| GC Petroleum Hydrocarbons | | SW-846 8015C Feb 2007 Rev 3 | ug/l | ug/l | |
| 13579 | DRO C10-C28 | n.a. | 290 | 48 | 1 |

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|------------------------------|-----------------------------|--------|------------|------------------------|------------------|-----------------|
| 11997 | TCL VOC + Naph + Oxys | SW-846 8260C | 1 | E200581AA | 02/27/2020 15:49 | Don V Viray | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030C | 1 | E200581AA | 02/27/2020 15:48 | Don V Viray | 1 |
| 10598 | TPH-GRO water C6-C10 | SW-846 8015C | 1 | 20051B20A | 02/20/2020 20:27 | Erin E Durkaj | 1 |
| 01146 | GC VOA Water Prep | SW-846 5030C | 1 | 20051B20A | 02/20/2020 20:26 | Erin E Durkaj | 1 |
| 13579 | DRO 8015C/D(Mini) | SW-846 8015C Feb 2007 Rev 3 | 1 | 200510027A | 02/22/2020 00:46 | Timothy M Emrick | 1 |
| 12906 | Mini-extraction DRO (waters) | SW-846 3510C | 1 | 200510027A | 02/21/2020 08:30 | Bojan Milinic | 1 |

Sample Description: SB-1 Grab Groundwater
Cheverly DPW/1600401

EA Engineering
ELLE Sample #: GW 1263518
ELLE Group #: 2088718
Matrix: Groundwater

Project Name: Town of Cheverly

Submission Date/Time: 02/19/2020 17:27
Collection Date/Time: 02/18/2020 11:40
SDG#: CEH01-10

| CAT No. | Analysis Name | CAS Number | Result | Method Detection Limit | Dilution Factor |
|------------------------|-----------------------------|---------------------|-------------|------------------------|-----------------|
| GC/MS Volatiles | | SW-846 8260C | ug/l | ug/l | |
| 11997 | Acetone | 67-64-1 | 15 J | 0.7 | 1 |
| 11997 | t-Amyl methyl ether | 994-05-8 | N.D. | 0.8 | 1 |
| 11997 | Benzene | 71-43-2 | N.D. | 0.2 | 1 |
| 11997 | Bromodichloromethane | 75-27-4 | N.D. | 0.2 | 1 |
| 11997 | Bromoform | 75-25-2 | N.D. | 1 | 1 |
| 11997 | Bromomethane | 74-83-9 | N.D. | 0.3 | 1 |
| 11997 | 2-Butanone | 78-93-3 | 2 J | 0.3 | 1 |
| 11997 | t-Butyl alcohol | 75-65-0 | N.D. | 12 | 1 |
| 11997 | Carbon Disulfide | 75-15-0 | N.D. | 0.2 | 1 |
| 11997 | Carbon Tetrachloride | 56-23-5 | N.D. | 0.2 | 1 |
| 11997 | Chlorobenzene | 108-90-7 | 2 | 0.2 | 1 |
| 11997 | Chloroethane | 75-00-3 | N.D. | 0.2 | 1 |
| 11997 | Chloroform | 67-66-3 | N.D. | 0.2 | 1 |
| 11997 | Chloromethane | 74-87-3 | N.D. | 0.2 | 1 |
| 11997 | Cyclohexane | 110-82-7 | N.D. | 1 | 1 |
| 11997 | 1,2-Dibromo-3-chloropropane | 96-12-8 | N.D. | 0.3 | 1 |
| 11997 | Dibromochloromethane | 124-48-1 | N.D. | 0.2 | 1 |
| 11997 | 1,2-Dibromoethane | 106-93-4 | N.D. | 0.2 | 1 |
| 11997 | 1,2-Dichlorobenzene | 95-50-1 | N.D. | 0.2 | 1 |
| 11997 | 1,3-Dichlorobenzene | 541-73-1 | N.D. | 0.2 | 1 |
| 11997 | 1,4-Dichlorobenzene | 106-46-7 | N.D. | 0.2 | 1 |
| 11997 | Dichlorodifluoromethane | 75-71-8 | N.D. | 0.2 | 1 |
| 11997 | 1,1-Dichloroethane | 75-34-3 | N.D. | 0.2 | 1 |
| 11997 | 1,2-Dichloroethane | 107-06-2 | N.D. | 0.3 | 1 |
| 11997 | 1,1-Dichloroethene | 75-35-4 | N.D. | 0.2 | 1 |
| 11997 | cis-1,2-Dichloroethene | 156-59-2 | N.D. | 0.2 | 1 |
| 11997 | trans-1,2-Dichloroethene | 156-60-5 | N.D. | 0.2 | 1 |
| 11997 | 1,2-Dichloropropane | 78-87-5 | N.D. | 0.2 | 1 |
| 11997 | cis-1,3-Dichloropropene | 10061-01-5 | N.D. | 0.2 | 1 |
| 11997 | trans-1,3-Dichloropropene | 10061-02-6 | N.D. | 0.2 | 1 |
| 11997 | Ethyl t-butyl ether | 637-92-3 | N.D. | 0.2 | 1 |
| 11997 | Ethylbenzene | 100-41-4 | N.D. | 0.4 | 1 |
| 11997 | Freon 113 | 76-13-1 | N.D. | 0.2 | 1 |
| 11997 | 2-Hexanone | 591-78-6 | N.D. | 0.3 | 1 |
| 11997 | di-Isopropyl ether | 108-20-3 | N.D. | 0.2 | 1 |
| 11997 | Isopropylbenzene | 98-82-8 | N.D. | 0.2 | 1 |
| 11997 | Methyl Acetate | 79-20-9 | N.D. | 0.3 | 1 |
| 11997 | Methyl Tertiary Butyl Ether | 1634-04-4 | N.D. | 0.2 | 1 |
| 11997 | 4-Methyl-2-pentanone | 108-10-1 | N.D. | 0.5 | 1 |
| 11997 | Methylcyclohexane | 108-87-2 | N.D. | 0.5 | 1 |
| 11997 | Methylene Chloride | 75-09-2 | N.D. | 0.3 | 1 |
| 11997 | Naphthalene | 91-20-3 | N.D. | 1 | 1 |
| 11997 | Styrene | 100-42-5 | N.D. | 0.2 | 1 |
| 11997 | 1,1,2,2-Tetrachloroethane | 79-34-5 | N.D. | 0.2 | 1 |
| 11997 | Tetrachloroethene | 127-18-4 | N.D. | 0.2 | 1 |
| 11997 | Toluene | 108-88-3 | N.D. | 0.2 | 1 |
| 11997 | 1,2,4-Trichlorobenzene | 120-82-1 | N.D. | 0.3 | 1 |
| 11997 | 1,1,1-Trichloroethane | 71-55-6 | N.D. | 0.3 | 1 |
| 11997 | 1,1,2-Trichloroethane | 79-00-5 | N.D. | 0.2 | 1 |

Sample Description: SB-1 Grab Groundwater
Cheverly DPW/1600401

EA Engineering
ELLE Sample #: GW 1263518
ELLE Group #: 2088718
Matrix: Groundwater

Project Name: Town of Cheverly

Submittal Date/Time: 02/19/2020 17:27
Collection Date/Time: 02/18/2020 11:40
SDG#: CEH01-10

| CAT No. | Analysis Name | CAS Number | Result | Method Detection Limit | Dilution Factor |
|----------------------------------|------------------------|------------------------------------|-------------|------------------------|-----------------|
| GC/MS Volatiles | | SW-846 8260C | ug/l | ug/l | |
| 11997 | Trichloroethene | 79-01-6 | N.D. | 0.2 | 1 |
| 11997 | Trichlorofluoromethane | 75-69-4 | N.D. | 0.2 | 1 |
| 11997 | Vinyl Chloride | 75-01-4 | N.D. | 0.2 | 1 |
| 11997 | Xylene (Total) | 1330-20-7 | N.D. | 1 | 1 |
| GC Volatiles | | SW-846 8015C | ug/l | ug/l | |
| 10598 | TPH-GRO water C6-C10 | n.a. | N.D. | 23 | 1 |
| GC Petroleum Hydrocarbons | | SW-846 8015C Feb 2007 Rev 3 | ug/l | ug/l | |
| 13579 | DRO C10-C28 | n.a. | 600 | 50 | 1 |

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|------------------------------|-----------------------------|--------|------------|------------------------|------------------|-----------------|
| 11997 | TCL VOC + Naph + Oxys | SW-846 8260C | 1 | E200581AA | 02/27/2020 16:09 | Don V Viray | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030C | 1 | E200581AA | 02/27/2020 16:08 | Don V Viray | 1 |
| 10598 | TPH-GRO water C6-C10 | SW-846 8015C | 1 | 20051B20A | 02/20/2020 20:50 | Erin E Durkaj | 1 |
| 01146 | GC VOA Water Prep | SW-846 5030C | 1 | 20051B20A | 02/20/2020 20:49 | Erin E Durkaj | 1 |
| 13579 | DRO 8015C/D(Mini) | SW-846 8015C Feb 2007 Rev 3 | 1 | 200510027A | 02/22/2020 00:24 | Timothy M Emrick | 1 |
| 12906 | Mini-extraction DRO (waters) | SW-846 3510C | 1 | 200510027A | 02/21/2020 08:30 | Bojan Milinic | 1 |

Sample Description: SB-2 Grab Groundwater
Cheverly DPW/1600401

EA Engineering
ELLE Sample #: GW 1263519
ELLE Group #: 2088718
Matrix: Groundwater

Project Name: Town of Cheverly

Submittal Date/Time: 02/19/2020 17:27
Collection Date/Time: 02/18/2020 12:00
SDG#: CEH01-11

| CAT No. | Analysis Name | CAS Number | Result | Method Detection Limit | Dilution Factor |
|------------------------|-----------------------------|---------------------|-------------|------------------------|-----------------|
| GC/MS Volatiles | | SW-846 8260C | ug/l | ug/l | |
| 11997 | Acetone | 67-64-1 | 40 J | 4 | 5 |
| 11997 | t-Amyl methyl ether | 994-05-8 | N.D. | 4 | 5 |
| 11997 | Benzene | 71-43-2 | 28 | 1 | 5 |
| 11997 | Bromodichloromethane | 75-27-4 | N.D. | 1 | 5 |
| 11997 | Bromoform | 75-25-2 | N.D. | 5 | 5 |
| 11997 | Bromomethane | 74-83-9 | N.D. | 2 | 5 |
| 11997 | 2-Butanone | 78-93-3 | 12 J | 2 | 5 |
| 11997 | t-Butyl alcohol | 75-65-0 | N.D. | 60 | 5 |
| 11997 | Carbon Disulfide | 75-15-0 | N.D. | 1 | 5 |
| 11997 | Carbon Tetrachloride | 56-23-5 | N.D. | 1 | 5 |
| 11997 | Chlorobenzene | 108-90-7 | N.D. | 1 | 5 |
| 11997 | Chloroethane | 75-00-3 | N.D. | 1 | 5 |
| 11997 | Chloroform | 67-66-3 | N.D. | 1 | 5 |
| 11997 | Chloromethane | 74-87-3 | N.D. | 1 | 5 |
| 11997 | Cyclohexane | 110-82-7 | 75 | 5 | 5 |
| 11997 | 1,2-Dibromo-3-chloropropane | 96-12-8 | N.D. | 2 | 5 |
| 11997 | Dibromochloromethane | 124-48-1 | N.D. | 1 | 5 |
| 11997 | 1,2-Dibromoethane | 106-93-4 | N.D. | 1 | 5 |
| 11997 | 1,2-Dichlorobenzene | 95-50-1 | N.D. | 1 | 5 |
| 11997 | 1,3-Dichlorobenzene | 541-73-1 | N.D. | 1 | 5 |
| 11997 | 1,4-Dichlorobenzene | 106-46-7 | N.D. | 1 | 5 |
| 11997 | Dichlorodifluoromethane | 75-71-8 | N.D. | 1 | 5 |
| 11997 | 1,1-Dichloroethane | 75-34-3 | N.D. | 1 | 5 |
| 11997 | 1,2-Dichloroethane | 107-06-2 | 2 J | 2 | 5 |
| 11997 | 1,1-Dichloroethene | 75-35-4 | N.D. | 1 | 5 |
| 11997 | cis-1,2-Dichloroethene | 156-59-2 | N.D. | 1 | 5 |
| 11997 | trans-1,2-Dichloroethene | 156-60-5 | N.D. | 1 | 5 |
| 11997 | 1,2-Dichloropropane | 78-87-5 | N.D. | 1 | 5 |
| 11997 | cis-1,3-Dichloropropene | 10061-01-5 | N.D. | 1 | 5 |
| 11997 | trans-1,3-Dichloropropene | 10061-02-6 | N.D. | 1 | 5 |
| 11997 | Ethyl t-butyl ether | 637-92-3 | N.D. | 1 | 5 |
| 11997 | Ethylbenzene | 100-41-4 | 760 | 2 | 5 |
| 11997 | Freon 113 | 76-13-1 | N.D. | 1 | 5 |
| 11997 | 2-Hexanone | 591-78-6 | N.D. | 2 | 5 |
| 11997 | di-Isopropyl ether | 108-20-3 | N.D. | 1 | 5 |
| 11997 | Isopropylbenzene | 98-82-8 | 48 | 1 | 5 |
| 11997 | Methyl Acetate | 79-20-9 | N.D. | 2 | 5 |
| 11997 | Methyl Tertiary Butyl Ether | 1634-04-4 | N.D. | 1 | 5 |
| 11997 | 4-Methyl-2-pentanone | 108-10-1 | N.D. | 3 | 5 |
| 11997 | Methylcyclohexane | 108-87-2 | 74 | 3 | 5 |
| 11997 | Methylene Chloride | 75-09-2 | N.D. | 2 | 5 |
| 11997 | Naphthalene | 91-20-3 | 220 | 5 | 5 |
| 11997 | Styrene | 100-42-5 | N.D. | 1 | 5 |
| 11997 | 1,1,2,2-Tetrachloroethane | 79-34-5 | N.D. | 1 | 5 |
| 11997 | Tetrachloroethene | 127-18-4 | N.D. | 1 | 5 |
| 11997 | Toluene | 108-88-3 | 370 | 1 | 5 |
| 11997 | 1,2,4-Trichlorobenzene | 120-82-1 | N.D. | 2 | 5 |
| 11997 | 1,1,1-Trichloroethane | 71-55-6 | N.D. | 2 | 5 |
| 11997 | 1,1,2-Trichloroethane | 79-00-5 | N.D. | 1 | 5 |

Sample Description: SB-2 Grab Groundwater
Cheverly DPW/1600401

EA Engineering
ELLE Sample #: GW 1263519
ELLE Group #: 2088718
Matrix: Groundwater

Project Name: Town of Cheverly

Submission Date/Time: 02/19/2020 17:27
Collection Date/Time: 02/18/2020 12:00
SDG#: CEH01-11

| CAT No. | Analysis Name | CAS Number | Result | Method Detection Limit | Dilution Factor |
|--|------------------------|------------------------------------|-------------|------------------------|-----------------|
| GC/MS Volatiles | | SW-846 8260C | ug/l | ug/l | |
| 11997 | Trichloroethene | 79-01-6 | N.D. | 1 | 5 |
| 11997 | Trichlorofluoromethane | 75-69-4 | N.D. | 1 | 5 |
| 11997 | Vinyl Chloride | 75-01-4 | N.D. | 1 | 5 |
| 11997 | Xylene (Total) | 1330-20-7 | 3,800 | 7 | 5 |
| Reporting limits were raised due to interference from the sample matrix. | | | | | |
| GC Volatiles | | SW-846 8015C | ug/l | ug/l | |
| 10598 | TPH-GRO water C6-C10 | n.a. | 18,000 | 120 | 5 |
| GC Petroleum Hydrocarbons | | SW-846 8015C Feb 2007 Rev 3 | ug/l | ug/l | |
| 13579 | DRO C10-C28 | n.a. | 4,300 | 47 | 1 |

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|------------------------------|-----------------------------|--------|------------|------------------------|------------------|-----------------|
| 11997 | TCL VOC + Naph + Oxys | SW-846 8260C | 1 | E200581AA | 02/27/2020 16:50 | Don V Viray | 5 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030C | 1 | E200581AA | 02/27/2020 16:49 | Don V Viray | 5 |
| 10598 | TPH-GRO water C6-C10 | SW-846 8015C | 1 | 20051B20A | 02/20/2020 22:47 | Erin E Durkaj | 5 |
| 01146 | GC VOA Water Prep | SW-846 5030C | 1 | 20051B20A | 02/20/2020 22:46 | Erin E Durkaj | 5 |
| 13579 | DRO 8015C/D(Mini) | SW-846 8015C Feb 2007 Rev 3 | 1 | 200510027A | 02/22/2020 01:32 | Timothy M Emrick | 1 |
| 12906 | Mini-extraction DRO (waters) | SW-846 3510C | 1 | 200510027A | 02/21/2020 08:30 | Bojan Milinic | 1 |

Sample Description: SB-5 Grab Groundwater
Cheverly DPW/1600401

EA Engineering
ELLE Sample #: GW 1263520
ELLE Group #: 2088718
Matrix: Groundwater

Project Name: Town of Cheverly

Submittal Date/Time: 02/19/2020 17:27
Collection Date/Time: 02/18/2020 12:15
SDG#: CEH01-12BKG

| CAT No. | Analysis Name | CAS Number | Result | Method Detection Limit | Dilution Factor |
|------------------------|-----------------------------|---------------------|-------------|------------------------|-----------------|
| GC/MS Volatiles | | SW-846 8260C | ug/l | ug/l | |
| 11997 | Acetone | 67-64-1 | 2 J | 0.7 | 1 |
| 11997 | t-Amyl methyl ether | 994-05-8 | N.D. | 0.8 | 1 |
| 11997 | Benzene | 71-43-2 | N.D. | 0.2 | 1 |
| 11997 | Bromodichloromethane | 75-27-4 | N.D. | 0.2 | 1 |
| 11997 | Bromoform | 75-25-2 | N.D. | 1 | 1 |
| 11997 | Bromomethane | 74-83-9 | N.D. | 0.3 | 1 |
| 11997 | 2-Butanone | 78-93-3 | N.D. | 0.3 | 1 |
| 11997 | t-Butyl alcohol | 75-65-0 | N.D. | 12 | 1 |
| 11997 | Carbon Disulfide | 75-15-0 | 0.5 J | 0.2 | 1 |
| 11997 | Carbon Tetrachloride | 56-23-5 | N.D. | 0.2 | 1 |
| 11997 | Chlorobenzene | 108-90-7 | 0.5 J | 0.2 | 1 |
| 11997 | Chloroethane | 75-00-3 | N.D. | 0.2 | 1 |
| 11997 | Chloroform | 67-66-3 | N.D. | 0.2 | 1 |
| 11997 | Chloromethane | 74-87-3 | N.D. | 0.2 | 1 |
| 11997 | Cyclohexane | 110-82-7 | N.D. | 1 | 1 |
| 11997 | 1,2-Dibromo-3-chloropropane | 96-12-8 | N.D. | 0.3 | 1 |
| 11997 | Dibromochloromethane | 124-48-1 | N.D. | 0.2 | 1 |
| 11997 | 1,2-Dibromoethane | 106-93-4 | N.D. | 0.2 | 1 |
| 11997 | 1,2-Dichlorobenzene | 95-50-1 | N.D. | 0.2 | 1 |
| 11997 | 1,3-Dichlorobenzene | 541-73-1 | N.D. | 0.2 | 1 |
| 11997 | 1,4-Dichlorobenzene | 106-46-7 | N.D. | 0.2 | 1 |
| 11997 | Dichlorodifluoromethane | 75-71-8 | N.D. | 0.2 | 1 |
| 11997 | 1,1-Dichloroethane | 75-34-3 | N.D. | 0.2 | 1 |
| 11997 | 1,2-Dichloroethane | 107-06-2 | N.D. | 0.3 | 1 |
| 11997 | 1,1-Dichloroethene | 75-35-4 | N.D. | 0.2 | 1 |
| 11997 | cis-1,2-Dichloroethene | 156-59-2 | N.D. | 0.2 | 1 |
| 11997 | trans-1,2-Dichloroethene | 156-60-5 | N.D. | 0.2 | 1 |
| 11997 | 1,2-Dichloropropane | 78-87-5 | N.D. | 0.2 | 1 |
| 11997 | cis-1,3-Dichloropropene | 10061-01-5 | N.D. | 0.2 | 1 |
| 11997 | trans-1,3-Dichloropropene | 10061-02-6 | N.D. | 0.2 | 1 |
| 11997 | Ethyl t-butyl ether | 637-92-3 | N.D. | 0.2 | 1 |
| 11997 | Ethylbenzene | 100-41-4 | 0.5 J | 0.4 | 1 |
| 11997 | Freon 113 | 76-13-1 | N.D. | 0.2 | 1 |
| 11997 | 2-Hexanone | 591-78-6 | N.D. | 0.3 | 1 |
| 11997 | di-Isopropyl ether | 108-20-3 | N.D. | 0.2 | 1 |
| 11997 | Isopropylbenzene | 98-82-8 | N.D. | 0.2 | 1 |
| 11997 | Methyl Acetate | 79-20-9 | N.D. | 0.3 | 1 |
| 11997 | Methyl Tertiary Butyl Ether | 1634-04-4 | N.D. | 0.2 | 1 |
| 11997 | 4-Methyl-2-pentanone | 108-10-1 | N.D. | 0.5 | 1 |
| 11997 | Methylcyclohexane | 108-87-2 | N.D. | 0.5 | 1 |
| 11997 | Methylene Chloride | 75-09-2 | N.D. | 0.3 | 1 |
| 11997 | Naphthalene | 91-20-3 | N.D. | 1 | 1 |
| 11997 | Styrene | 100-42-5 | N.D. | 0.2 | 1 |
| 11997 | 1,1,2,2-Tetrachloroethane | 79-34-5 | N.D. | 0.2 | 1 |
| 11997 | Tetrachloroethene | 127-18-4 | N.D. | 0.2 | 1 |
| 11997 | Toluene | 108-88-3 | 0.3 J | 0.2 | 1 |
| 11997 | 1,2,4-Trichlorobenzene | 120-82-1 | N.D. | 0.3 | 1 |
| 11997 | 1,1,1-Trichloroethane | 71-55-6 | N.D. | 0.3 | 1 |
| 11997 | 1,1,2-Trichloroethane | 79-00-5 | N.D. | 0.2 | 1 |

Sample Description: SB-5 Grab Groundwater
Cheverly DPW/1600401

EA Engineering
ELLE Sample #: GW 1263520
ELLE Group #: 2088718
Matrix: Groundwater

Project Name: Town of Cheverly

Submission Date/Time: 02/19/2020 17:27
Collection Date/Time: 02/18/2020 12:15
SDG#: CEH01-12BKG

| CAT No. | Analysis Name | CAS Number | Result | Method Detection Limit | Dilution Factor |
|----------------------------------|------------------------|------------------------------------|-------------|------------------------|-----------------|
| GC/MS Volatiles | | SW-846 8260C | ug/l | ug/l | |
| 11997 | Trichloroethene | 79-01-6 | N.D. | 0.2 | 1 |
| 11997 | Trichlorofluoromethane | 75-69-4 | N.D. | 0.2 | 1 |
| 11997 | Vinyl Chloride | 75-01-4 | N.D. | 0.2 | 1 |
| 11997 | Xylene (Total) | 1330-20-7 | 2 J | 1 | 1 |
| GC Volatiles | | SW-846 8015C | ug/l | ug/l | |
| 10598 | TPH-GRO water C6-C10 | n.a. | 28 J | 23 | 1 |
| GC Petroleum Hydrocarbons | | SW-846 8015C Feb 2007 Rev 3 | ug/l | ug/l | |
| 13579 | DRO C10-C28 | n.a. | 1,100 | 49 | 1 |

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|------------------------------|-----------------------------|--------|------------|------------------------|------------------|-----------------|
| 11997 | TCL VOC + Naph + Oxys | SW-846 8260C | 1 | E200581AA | 02/27/2020 14:08 | Don V Viray | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030C | 1 | E200581AA | 02/27/2020 14:07 | Don V Viray | 1 |
| 10598 | TPH-GRO water C6-C10 | SW-846 8015C | 1 | 20051B20A | 02/20/2020 21:13 | Erin E Durkaj | 1 |
| 01146 | GC VOA Water Prep | SW-846 5030C | 1 | 20051B20A | 02/20/2020 21:12 | Erin E Durkaj | 1 |
| 13579 | DRO 8015C/D(Mini) | SW-846 8015C Feb 2007 Rev 3 | 1 | 200510027A | 02/22/2020 02:17 | Timothy M Emrick | 1 |
| 12906 | Mini-extraction DRO (waters) | SW-846 3510C | 1 | 200510027A | 02/21/2020 08:30 | Bojan Milinic | 1 |

Sample Description: SB-5 MS Grab Groundwater
Cheverly DPW/1600401

EA Engineering
ELLE Sample #: GW 1263521
ELLE Group #: 2088718
Matrix: Groundwater

Project Name: Town of Cheverly

Submission Date/Time: 02/19/2020 17:27
Collection Date/Time: 02/18/2020 12:15
SDG#: CEH01-12MS

| CAT No. | Analysis Name | CAS Number | Result | Method Detection Limit | Dilution Factor |
|------------------------|-----------------------------|---------------------|-------------|------------------------|-----------------|
| GC/MS Volatiles | | SW-846 8260C | ug/l | ug/l | |
| 11997 | Acetone | 67-64-1 | 170 | 0.7 | 1 |
| 11997 | t-Amyl methyl ether | 994-05-8 | 21 | 0.8 | 1 |
| 11997 | Benzene | 71-43-2 | 24 | 0.2 | 1 |
| 11997 | Bromodichloromethane | 75-27-4 | 24 | 0.2 | 1 |
| 11997 | Bromoform | 75-25-2 | 25 | 1 | 1 |
| 11997 | Bromomethane | 74-83-9 | 20 | 0.3 | 1 |
| 11997 | 2-Butanone | 78-93-3 | 140 | 0.3 | 1 |
| 11997 | t-Butyl alcohol | 75-65-0 | 210 | 12 | 1 |
| 11997 | Carbon Disulfide | 75-15-0 | 25 | 0.2 | 1 |
| 11997 | Carbon Tetrachloride | 56-23-5 | 28 | 0.2 | 1 |
| 11997 | Chlorobenzene | 108-90-7 | 24 | 0.2 | 1 |
| 11997 | Chloroethane | 75-00-3 | 20 | 0.2 | 1 |
| 11997 | Chloroform | 67-66-3 | 24 | 0.2 | 1 |
| 11997 | Chloromethane | 74-87-3 | 19 | 0.2 | 1 |
| 11997 | Cyclohexane | 110-82-7 | 22 | 1 | 1 |
| 11997 | 1,2-Dibromo-3-chloropropane | 96-12-8 | 19 | 0.3 | 1 |
| 11997 | Dibromochloromethane | 124-48-1 | 25 | 0.2 | 1 |
| 11997 | 1,2-Dibromoethane | 106-93-4 | 22 | 0.2 | 1 |
| 11997 | 1,2-Dichlorobenzene | 95-50-1 | 22 | 0.2 | 1 |
| 11997 | 1,3-Dichlorobenzene | 541-73-1 | 22 | 0.2 | 1 |
| 11997 | 1,4-Dichlorobenzene | 106-46-7 | 22 | 0.2 | 1 |
| 11997 | Dichlorodifluoromethane | 75-71-8 | 19 | 0.2 | 1 |
| 11997 | 1,1-Dichloroethane | 75-34-3 | 24 | 0.2 | 1 |
| 11997 | 1,2-Dichloroethane | 107-06-2 | 23 | 0.3 | 1 |
| 11997 | 1,1-Dichloroethene | 75-35-4 | 27 | 0.2 | 1 |
| 11997 | cis-1,2-Dichloroethene | 156-59-2 | 26 | 0.2 | 1 |
| 11997 | trans-1,2-Dichloroethene | 156-60-5 | 25 | 0.2 | 1 |
| 11997 | 1,2-Dichloropropane | 78-87-5 | 23 | 0.2 | 1 |
| 11997 | cis-1,3-Dichloropropene | 10061-01-5 | 22 | 0.2 | 1 |
| 11997 | trans-1,3-Dichloropropene | 10061-02-6 | 21 | 0.2 | 1 |
| 11997 | Ethyl t-butyl ether | 637-92-3 | 21 | 0.2 | 1 |
| 11997 | Ethylbenzene | 100-41-4 | 23 | 0.4 | 1 |
| 11997 | Freon 113 | 76-13-1 | 25 | 0.2 | 1 |
| 11997 | 2-Hexanone | 591-78-6 | 94 | 0.3 | 1 |
| 11997 | di-Isopropyl ether | 108-20-3 | 21 | 0.2 | 1 |
| 11997 | Isopropylbenzene | 98-82-8 | 23 | 0.2 | 1 |
| 11997 | Methyl Acetate | 79-20-9 | 7 | 0.3 | 1 |
| 11997 | Methyl Tertiary Butyl Ether | 1634-04-4 | 21 | 0.2 | 1 |
| 11997 | 4-Methyl-2-pentanone | 108-10-1 | 97 | 0.5 | 1 |
| 11997 | Methylcyclohexane | 108-87-2 | 22 | 0.5 | 1 |
| 11997 | Methylene Chloride | 75-09-2 | 24 | 0.3 | 1 |
| 11997 | Naphthalene | 91-20-3 | 18 | 1 | 1 |
| 11997 | Styrene | 100-42-5 | 22 | 0.2 | 1 |
| 11997 | 1,1,2,2-Tetrachloroethane | 79-34-5 | 20 | 0.2 | 1 |
| 11997 | Tetrachloroethene | 127-18-4 | 24 | 0.2 | 1 |
| 11997 | Toluene | 108-88-3 | 23 | 0.2 | 1 |
| 11997 | 1,2,4-Trichlorobenzene | 120-82-1 | 20 | 0.3 | 1 |
| 11997 | 1,1,1-Trichloroethane | 71-55-6 | 26 | 0.3 | 1 |
| 11997 | 1,1,2-Trichloroethane | 79-00-5 | 24 | 0.2 | 1 |

Sample Description: SB-5 MS Grab Groundwater
Cheverly DPW/1600401

EA Engineering
ELLE Sample #: GW 1263521
ELLE Group #: 2088718
Matrix: Groundwater

Project Name: Town of Cheverly

Submission Date/Time: 02/19/2020 17:27
Collection Date/Time: 02/18/2020 12:15
SDG#: CEH01-12MS

| CAT No. | Analysis Name | CAS Number | Result | Method Detection Limit | Dilution Factor |
|----------------------------------|------------------------|------------------------------------|-------------|------------------------|-----------------|
| GC/MS Volatiles | | SW-846 8260C | ug/l | ug/l | |
| 11997 | Trichloroethene | 79-01-6 | 25 | 0.2 | 1 |
| 11997 | Trichlorofluoromethane | 75-69-4 | 25 | 0.2 | 1 |
| 11997 | Vinyl Chloride | 75-01-4 | 20 | 0.2 | 1 |
| 11997 | Xylene (Total) | 1330-20-7 | 72 | 1 | 1 |
| GC Volatiles | | SW-846 8015C | ug/l | ug/l | |
| 10598 | TPH-GRO water C6-C10 | n.a. | 910 | 23 | 1 |
| GC Petroleum Hydrocarbons | | SW-846 8015C Feb 2007 Rev 3 | ug/l | ug/l | |
| 13579 | DRO C10-C28 | n.a. | 1,000 | 47 | 1 |

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|------------------------------|-----------------------------|--------|------------|------------------------|------------------|-----------------|
| 11997 | TCL VOC + Naph + Oxys | SW-846 8260C | 1 | E200581AA | 02/27/2020 14:28 | Don V Viray | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030C | 1 | E200581AA | 02/27/2020 14:27 | Don V Viray | 1 |
| 10598 | TPH-GRO water C6-C10 | SW-846 8015C | 1 | 20051B20A | 02/20/2020 21:37 | Erin E Durkaj | 1 |
| 01146 | GC VOA Water Prep | SW-846 5030C | 1 | 20051B20A | 02/20/2020 21:36 | Erin E Durkaj | 1 |
| 13579 | DRO 8015C/D(Mini) | SW-846 8015C Feb 2007 Rev 3 | 1 | 200510027A | 02/22/2020 02:40 | Timothy M Emrick | 1 |
| 12906 | Mini-extraction DRO (waters) | SW-846 3510C | 1 | 200510027A | 02/21/2020 08:30 | Bojan Milinic | 1 |

Sample Description: SB-5 MSD Grab Groundwater
Cheverly DPW/1600401

EA Engineering
ELLE Sample #: GW 1263522
ELLE Group #: 2088718
Matrix: Groundwater

Project Name: Town of Cheverly

Submission Date/Time: 02/19/2020 17:27
Collection Date/Time: 02/18/2020 12:15
SDG#: CEH01-12MSD

| CAT No. | Analysis Name | CAS Number | Result | Method Detection Limit | Dilution Factor |
|------------------------|-----------------------------|---------------------|-------------|------------------------|-----------------|
| GC/MS Volatiles | | SW-846 8260C | ug/l | ug/l | |
| 11997 | Acetone | 67-64-1 | 160 | 0.7 | 1 |
| 11997 | t-Amyl methyl ether | 994-05-8 | 20 | 0.8 | 1 |
| 11997 | Benzene | 71-43-2 | 22 | 0.2 | 1 |
| 11997 | Bromodichloromethane | 75-27-4 | 23 | 0.2 | 1 |
| 11997 | Bromoform | 75-25-2 | 24 | 1 | 1 |
| 11997 | Bromomethane | 74-83-9 | 18 | 0.3 | 1 |
| 11997 | 2-Butanone | 78-93-3 | 130 | 0.3 | 1 |
| 11997 | t-Butyl alcohol | 75-65-0 | 190 | 12 | 1 |
| 11997 | Carbon Disulfide | 75-15-0 | 22 | 0.2 | 1 |
| 11997 | Carbon Tetrachloride | 56-23-5 | 26 | 0.2 | 1 |
| 11997 | Chlorobenzene | 108-90-7 | 22 | 0.2 | 1 |
| 11997 | Chloroethane | 75-00-3 | 18 | 0.2 | 1 |
| 11997 | Chloroform | 67-66-3 | 23 | 0.2 | 1 |
| 11997 | Chloromethane | 74-87-3 | 18 | 0.2 | 1 |
| 11997 | Cyclohexane | 110-82-7 | 21 | 1 | 1 |
| 11997 | 1,2-Dibromo-3-chloropropane | 96-12-8 | 19 | 0.3 | 1 |
| 11997 | Dibromochloromethane | 124-48-1 | 23 | 0.2 | 1 |
| 11997 | 1,2-Dibromoethane | 106-93-4 | 21 | 0.2 | 1 |
| 11997 | 1,2-Dichlorobenzene | 95-50-1 | 21 | 0.2 | 1 |
| 11997 | 1,3-Dichlorobenzene | 541-73-1 | 20 | 0.2 | 1 |
| 11997 | 1,4-Dichlorobenzene | 106-46-7 | 21 | 0.2 | 1 |
| 11997 | Dichlorodifluoromethane | 75-71-8 | 18 | 0.2 | 1 |
| 11997 | 1,1-Dichloroethane | 75-34-3 | 22 | 0.2 | 1 |
| 11997 | 1,2-Dichloroethane | 107-06-2 | 21 | 0.3 | 1 |
| 11997 | 1,1-Dichloroethene | 75-35-4 | 25 | 0.2 | 1 |
| 11997 | cis-1,2-Dichloroethene | 156-59-2 | 24 | 0.2 | 1 |
| 11997 | trans-1,2-Dichloroethene | 156-60-5 | 23 | 0.2 | 1 |
| 11997 | 1,2-Dichloropropane | 78-87-5 | 22 | 0.2 | 1 |
| 11997 | cis-1,3-Dichloropropene | 10061-01-5 | 21 | 0.2 | 1 |
| 11997 | trans-1,3-Dichloropropene | 10061-02-6 | 20 | 0.2 | 1 |
| 11997 | Ethyl t-butyl ether | 637-92-3 | 20 | 0.2 | 1 |
| 11997 | Ethylbenzene | 100-41-4 | 22 | 0.4 | 1 |
| 11997 | Freon 113 | 76-13-1 | 23 | 0.2 | 1 |
| 11997 | 2-Hexanone | 591-78-6 | 88 | 0.3 | 1 |
| 11997 | di-Isopropyl ether | 108-20-3 | 20 | 0.2 | 1 |
| 11997 | Isopropylbenzene | 98-82-8 | 22 | 0.2 | 1 |
| 11997 | Methyl Acetate | 79-20-9 | 19 | 0.3 | 1 |
| 11997 | Methyl Tertiary Butyl Ether | 1634-04-4 | 20 | 0.2 | 1 |
| 11997 | 4-Methyl-2-pentanone | 108-10-1 | 91 | 0.5 | 1 |
| 11997 | Methylcyclohexane | 108-87-2 | 22 | 0.5 | 1 |
| 11997 | Methylene Chloride | 75-09-2 | 23 | 0.3 | 1 |
| 11997 | Naphthalene | 91-20-3 | 18 | 1 | 1 |
| 11997 | Styrene | 100-42-5 | 21 | 0.2 | 1 |
| 11997 | 1,1,2,2-Tetrachloroethane | 79-34-5 | 19 | 0.2 | 1 |
| 11997 | Tetrachloroethene | 127-18-4 | 23 | 0.2 | 1 |
| 11997 | Toluene | 108-88-3 | 22 | 0.2 | 1 |
| 11997 | 1,2,4-Trichlorobenzene | 120-82-1 | 20 | 0.3 | 1 |
| 11997 | 1,1,1-Trichloroethane | 71-55-6 | 24 | 0.3 | 1 |
| 11997 | 1,1,2-Trichloroethane | 79-00-5 | 22 | 0.2 | 1 |

Sample Description: SB-5 MSD Grab Groundwater
Cheverly DPW/1600401

EA Engineering
ELLE Sample #: GW 1263522
ELLE Group #: 2088718
Matrix: Groundwater

Project Name: Town of Cheverly

Submission Date/Time: 02/19/2020 17:27
Collection Date/Time: 02/18/2020 12:15
SDG#: CEH01-12MSD

| CAT No. | Analysis Name | CAS Number | Result | Method Detection Limit | Dilution Factor |
|----------------------------------|------------------------|------------------------------------|-------------|------------------------|-----------------|
| GC/MS Volatiles | | SW-846 8260C | ug/l | ug/l | |
| 11997 | Trichloroethene | 79-01-6 | 23 | 0.2 | 1 |
| 11997 | Trichlorofluoromethane | 75-69-4 | 23 | 0.2 | 1 |
| 11997 | Vinyl Chloride | 75-01-4 | 20 | 0.2 | 1 |
| 11997 | Xylene (Total) | 1330-20-7 | 67 | 1 | 1 |
| GC Volatiles | | SW-846 8015C | ug/l | ug/l | |
| 10598 | TPH-GRO water C6-C10 | n.a. | 970 | 23 | 1 |
| GC Petroleum Hydrocarbons | | SW-846 8015C Feb 2007 Rev 3 | ug/l | ug/l | |
| 13579 | DRO C10-C28 | n.a. | 6,500 | 52 | 1 |

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|------------------------------|-----------------------------|--------|------------|------------------------|------------------|-----------------|
| 11997 | TCL VOC + Naph + Oxys | SW-846 8260C | 1 | E200581AA | 02/27/2020 14:48 | Don V Viray | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030C | 1 | E200581AA | 02/27/2020 14:47 | Don V Viray | 1 |
| 10598 | TPH-GRO water C6-C10 | SW-846 8015C | 1 | 20051B20A | 02/20/2020 22:00 | Erin E Durkaj | 1 |
| 01146 | GC VOA Water Prep | SW-846 5030C | 1 | 20051B20A | 02/20/2020 21:59 | Erin E Durkaj | 1 |
| 13579 | DRO 8015C/D(Mini) | SW-846 8015C Feb 2007 Rev 3 | 1 | 200510027A | 02/22/2020 03:02 | Timothy M Emrick | 1 |
| 12906 | Mini-extraction DRO (waters) | SW-846 3510C | 1 | 200510027A | 02/21/2020 08:30 | Bojan Milinic | 1 |

Sample Description: SB-4 Grab Groundwater
Cheverly DPW/1600401

EA Engineering
ELLE Sample #: GW 1263523
ELLE Group #: 2088718
Matrix: Groundwater

Project Name: Town of Cheverly

Submission Date/Time: 02/19/2020 17:27
Collection Date/Time: 02/18/2020 12:30
SDG#: CEH01-13

| CAT No. | Analysis Name | CAS Number | Result | Method Detection Limit | Dilution Factor |
|------------------------|-----------------------------|---------------------|-------------|------------------------|-----------------|
| GC/MS Volatiles | | SW-846 8260C | ug/l | ug/l | |
| 11997 | Acetone | 67-64-1 | 2 J | 0.7 | 1 |
| 11997 | t-Amyl methyl ether | 994-05-8 | N.D. | 0.8 | 1 |
| 11997 | Benzene | 71-43-2 | N.D. | 0.2 | 1 |
| 11997 | Bromodichloromethane | 75-27-4 | N.D. | 0.2 | 1 |
| 11997 | Bromoform | 75-25-2 | N.D. | 1 | 1 |
| 11997 | Bromomethane | 74-83-9 | N.D. | 0.3 | 1 |
| 11997 | 2-Butanone | 78-93-3 | 0.3 J | 0.3 | 1 |
| 11997 | t-Butyl alcohol | 75-65-0 | N.D. | 12 | 1 |
| 11997 | Carbon Disulfide | 75-15-0 | N.D. | 0.2 | 1 |
| 11997 | Carbon Tetrachloride | 56-23-5 | N.D. | 0.2 | 1 |
| 11997 | Chlorobenzene | 108-90-7 | N.D. | 0.2 | 1 |
| 11997 | Chloroethane | 75-00-3 | N.D. | 0.2 | 1 |
| 11997 | Chloroform | 67-66-3 | N.D. | 0.2 | 1 |
| 11997 | Chloromethane | 74-87-3 | N.D. | 0.2 | 1 |
| 11997 | Cyclohexane | 110-82-7 | N.D. | 1 | 1 |
| 11997 | 1,2-Dibromo-3-chloropropane | 96-12-8 | N.D. | 0.3 | 1 |
| 11997 | Dibromochloromethane | 124-48-1 | N.D. | 0.2 | 1 |
| 11997 | 1,2-Dibromoethane | 106-93-4 | N.D. | 0.2 | 1 |
| 11997 | 1,2-Dichlorobenzene | 95-50-1 | N.D. | 0.2 | 1 |
| 11997 | 1,3-Dichlorobenzene | 541-73-1 | N.D. | 0.2 | 1 |
| 11997 | 1,4-Dichlorobenzene | 106-46-7 | N.D. | 0.2 | 1 |
| 11997 | Dichlorodifluoromethane | 75-71-8 | N.D. | 0.2 | 1 |
| 11997 | 1,1-Dichloroethane | 75-34-3 | N.D. | 0.2 | 1 |
| 11997 | 1,2-Dichloroethane | 107-06-2 | N.D. | 0.3 | 1 |
| 11997 | 1,1-Dichloroethene | 75-35-4 | N.D. | 0.2 | 1 |
| 11997 | cis-1,2-Dichloroethene | 156-59-2 | N.D. | 0.2 | 1 |
| 11997 | trans-1,2-Dichloroethene | 156-60-5 | N.D. | 0.2 | 1 |
| 11997 | 1,2-Dichloropropane | 78-87-5 | N.D. | 0.2 | 1 |
| 11997 | cis-1,3-Dichloropropene | 10061-01-5 | N.D. | 0.2 | 1 |
| 11997 | trans-1,3-Dichloropropene | 10061-02-6 | N.D. | 0.2 | 1 |
| 11997 | Ethyl t-butyl ether | 637-92-3 | N.D. | 0.2 | 1 |
| 11997 | Ethylbenzene | 100-41-4 | N.D. | 0.4 | 1 |
| 11997 | Freon 113 | 76-13-1 | N.D. | 0.2 | 1 |
| 11997 | 2-Hexanone | 591-78-6 | N.D. | 0.3 | 1 |
| 11997 | di-Isopropyl ether | 108-20-3 | N.D. | 0.2 | 1 |
| 11997 | Isopropylbenzene | 98-82-8 | N.D. | 0.2 | 1 |
| 11997 | Methyl Acetate | 79-20-9 | N.D. | 0.3 | 1 |
| 11997 | Methyl Tertiary Butyl Ether | 1634-04-4 | N.D. | 0.2 | 1 |
| 11997 | 4-Methyl-2-pentanone | 108-10-1 | N.D. | 0.5 | 1 |
| 11997 | Methylcyclohexane | 108-87-2 | N.D. | 0.5 | 1 |
| 11997 | Methylene Chloride | 75-09-2 | N.D. | 0.3 | 1 |
| 11997 | Naphthalene | 91-20-3 | N.D. | 1 | 1 |
| 11997 | Styrene | 100-42-5 | N.D. | 0.2 | 1 |
| 11997 | 1,1,2,2-Tetrachloroethane | 79-34-5 | N.D. | 0.2 | 1 |
| 11997 | Tetrachloroethene | 127-18-4 | N.D. | 0.2 | 1 |
| 11997 | Toluene | 108-88-3 | 0.5 J | 0.2 | 1 |
| 11997 | 1,2,4-Trichlorobenzene | 120-82-1 | N.D. | 0.3 | 1 |
| 11997 | 1,1,1-Trichloroethane | 71-55-6 | N.D. | 0.3 | 1 |
| 11997 | 1,1,2-Trichloroethane | 79-00-5 | N.D. | 0.2 | 1 |

Sample Description: SB-4 Grab Groundwater
Cheverly DPW/1600401

EA Engineering
ELLE Sample #: GW 1263523
ELLE Group #: 2088718
Matrix: Groundwater

Project Name: Town of Cheverly

Submission Date/Time: 02/19/2020 17:27
Collection Date/Time: 02/18/2020 12:30
SDG#: CEH01-13

| CAT No. | Analysis Name | CAS Number | Result | Method Detection Limit | Dilution Factor |
|--|------------------------|------------------------------------|-------------|------------------------|-----------------|
| GC/MS Volatiles | | SW-846 8260C | ug/l | ug/l | |
| 11997 | Trichloroethene | 79-01-6 | N.D. | 0.2 | 1 |
| 11997 | Trichlorofluoromethane | 75-69-4 | N.D. | 0.2 | 1 |
| 11997 | Vinyl Chloride | 75-01-4 | N.D. | 0.2 | 1 |
| 11997 | Xylene (Total) | 1330-20-7 | 2 J | 1 | 1 |
| Preservation requirements were not met. A preserved vial was submitted for analysis. However, the pH at the time of analysis was 3. | | | | | |
| GC Volatiles | | SW-846 8015C | ug/l | ug/l | |
| 10598 | TPH-GRO water C6-C10 | n.a. | N.D. | 23 | 1 |
| GC Petroleum Hydrocarbons | | SW-846 8015C Feb 2007 Rev 3 | ug/l | ug/l | |
| 13579 | DRO C10-C28 | n.a. | 6,700 | 48 | 1 |

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|------------------------------|-----------------------------|--------|------------|------------------------|------------------|-----------------|
| 11997 | TCL VOC + Naph + Oxys | SW-846 8260C | 1 | E200581AA | 02/27/2020 16:30 | Don V Viray | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030C | 1 | E200581AA | 02/27/2020 16:29 | Don V Viray | 1 |
| 10598 | TPH-GRO water C6-C10 | SW-846 8015C | 1 | 20051B20A | 02/20/2020 22:23 | Erin E Durkaj | 1 |
| 01146 | GC VOA Water Prep | SW-846 5030C | 1 | 20051B20A | 02/20/2020 22:22 | Erin E Durkaj | 1 |
| 13579 | DRO 8015C/D(Mini) | SW-846 8015C Feb 2007 Rev 3 | 1 | 200510027A | 02/22/2020 00:01 | Timothy M Emrick | 1 |
| 12906 | Mini-extraction DRO (waters) | SW-846 3510C | 1 | 200510027A | 02/21/2020 08:30 | Bojan Milinic | 1 |

Sample Description: TB Water
Cheverly DPW/1600401

EA Engineering
ELLE Sample #: GW 1263524
ELLE Group #: 2088718
Matrix: Water

Project Name: Town of Cheverly

Submittal Date/Time: 02/19/2020 17:27
Collection Date/Time: 02/18/2020
SDG#: CEH01-14TB

| CAT No. | Analysis Name | CAS Number | Result | Method Detection Limit | Dilution Factor |
|------------------------|-----------------------------|---------------------|-------------|------------------------|-----------------|
| GC/MS Volatiles | | SW-846 8260C | ug/l | ug/l | |
| 11997 | Acetone | 67-64-1 | 18 J | 0.7 | 1 |
| 11997 | t-Amyl methyl ether | 994-05-8 | N.D. | 0.8 | 1 |
| 11997 | Benzene | 71-43-2 | N.D. | 0.2 | 1 |
| 11997 | Bromodichloromethane | 75-27-4 | N.D. | 0.2 | 1 |
| 11997 | Bromoform | 75-25-2 | N.D. | 1 | 1 |
| 11997 | Bromomethane | 74-83-9 | N.D. | 0.3 | 1 |
| 11997 | 2-Butanone | 78-93-3 | 1 J | 0.3 | 1 |
| 11997 | t-Butyl alcohol | 75-65-0 | 130 | 12 | 1 |
| 11997 | Carbon Disulfide | 75-15-0 | N.D. | 0.2 | 1 |
| 11997 | Carbon Tetrachloride | 56-23-5 | N.D. | 0.2 | 1 |
| 11997 | Chlorobenzene | 108-90-7 | N.D. | 0.2 | 1 |
| 11997 | Chloroethane | 75-00-3 | N.D. | 0.2 | 1 |
| 11997 | Chloroform | 67-66-3 | N.D. | 0.2 | 1 |
| 11997 | Chloromethane | 74-87-3 | N.D. | 0.2 | 1 |
| 11997 | Cyclohexane | 110-82-7 | N.D. | 1 | 1 |
| 11997 | 1,2-Dibromo-3-chloropropane | 96-12-8 | N.D. | 0.3 | 1 |
| 11997 | Dibromochloromethane | 124-48-1 | N.D. | 0.2 | 1 |
| 11997 | 1,2-Dibromoethane | 106-93-4 | N.D. | 0.2 | 1 |
| 11997 | 1,2-Dichlorobenzene | 95-50-1 | N.D. | 0.2 | 1 |
| 11997 | 1,3-Dichlorobenzene | 541-73-1 | N.D. | 0.2 | 1 |
| 11997 | 1,4-Dichlorobenzene | 106-46-7 | N.D. | 0.2 | 1 |
| 11997 | Dichlorodifluoromethane | 75-71-8 | N.D. | 0.2 | 1 |
| 11997 | 1,1-Dichloroethane | 75-34-3 | N.D. | 0.2 | 1 |
| 11997 | 1,2-Dichloroethane | 107-06-2 | N.D. | 0.3 | 1 |
| 11997 | 1,1-Dichloroethene | 75-35-4 | N.D. | 0.2 | 1 |
| 11997 | cis-1,2-Dichloroethene | 156-59-2 | N.D. | 0.2 | 1 |
| 11997 | trans-1,2-Dichloroethene | 156-60-5 | N.D. | 0.2 | 1 |
| 11997 | 1,2-Dichloropropane | 78-87-5 | N.D. | 0.2 | 1 |
| 11997 | cis-1,3-Dichloropropene | 10061-01-5 | N.D. | 0.2 | 1 |
| 11997 | trans-1,3-Dichloropropene | 10061-02-6 | N.D. | 0.2 | 1 |
| 11997 | Ethyl t-butyl ether | 637-92-3 | N.D. | 0.2 | 1 |
| 11997 | Ethylbenzene | 100-41-4 | N.D. | 0.4 | 1 |
| 11997 | Freon 113 | 76-13-1 | N.D. | 0.2 | 1 |
| 11997 | 2-Hexanone | 591-78-6 | N.D. | 0.3 | 1 |
| 11997 | di-Isopropyl ether | 108-20-3 | N.D. | 0.2 | 1 |
| 11997 | Isopropylbenzene | 98-82-8 | N.D. | 0.2 | 1 |
| 11997 | Methyl Acetate | 79-20-9 | N.D. | 0.3 | 1 |
| 11997 | Methyl Tertiary Butyl Ether | 1634-04-4 | N.D. | 0.2 | 1 |
| 11997 | 4-Methyl-2-pentanone | 108-10-1 | N.D. | 0.5 | 1 |
| 11997 | Methylcyclohexane | 108-87-2 | N.D. | 0.5 | 1 |
| 11997 | Methylene Chloride | 75-09-2 | N.D. | 0.3 | 1 |
| 11997 | Naphthalene | 91-20-3 | N.D. | 1 | 1 |
| 11997 | Styrene | 100-42-5 | N.D. | 0.2 | 1 |
| 11997 | 1,1,2,2-Tetrachloroethane | 79-34-5 | N.D. | 0.2 | 1 |
| 11997 | Tetrachloroethene | 127-18-4 | N.D. | 0.2 | 1 |
| 11997 | Toluene | 108-88-3 | N.D. | 0.2 | 1 |
| 11997 | 1,2,4-Trichlorobenzene | 120-82-1 | N.D. | 0.3 | 1 |
| 11997 | 1,1,1-Trichloroethane | 71-55-6 | N.D. | 0.3 | 1 |
| 11997 | 1,1,2-Trichloroethane | 79-00-5 | N.D. | 0.2 | 1 |

Sample Description: TB Water
Cheverly DPW/1600401

EA Engineering
ELLE Sample #: GW 1263524
ELLE Group #: 2088718
Matrix: Water

Project Name: Town of Cheverly

Submittal Date/Time: 02/19/2020 17:27
Collection Date/Time: 02/18/2020
SDG#: CEH01-14TB

| CAT No. | Analysis Name | CAS Number | Result | Method Detection Limit | Dilution Factor |
|------------------------|------------------------|---------------------|-------------|------------------------|-----------------|
| GC/MS Volatiles | | SW-846 8260C | ug/l | ug/l | |
| 11997 | Trichloroethene | 79-01-6 | N.D. | 0.2 | 1 |
| 11997 | Trichlorofluoromethane | 75-69-4 | N.D. | 0.2 | 1 |
| 11997 | Vinyl Chloride | 75-01-4 | N.D. | 0.2 | 1 |
| 11997 | Xylene (Total) | 1330-20-7 | N.D. | 1 | 1 |

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|-----------------------|--------------|--------|-----------|------------------------|-------------|-----------------|
| 11997 | TCL VOC + Naph + Oxys | SW-846 8260C | 1 | E200581AA | 02/27/2020 13:47 | Don V Viray | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030C | 1 | E200581AA | 02/27/2020 13:46 | Don V Viray | 1 |

Quality Control Summary

Client Name: EA Engineering
Reported: 02/28/2020 16:13

Group Number: 2088718

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

| Analysis Name | Result | MDL |
|-----------------------------|-----------------------------------|-------|
| | ug/kg | ug/kg |
| Batch number: A200551AA | Sample number(s): 1263509,1263515 | |
| Acetone | N.D. | 6 |
| t-Amyl methyl ether | N.D. | 0.8 |
| Benzene | N.D. | 0.5 |
| Bromodichloromethane | N.D. | 0.4 |
| Bromoform | N.D. | 5 |
| Bromomethane | N.D. | 0.7 |
| 2-Butanone | N.D. | 2 |
| t-Butyl alcohol | N.D. | 15 |
| Carbon Disulfide | N.D. | 0.6 |
| Carbon Tetrachloride | N.D. | 0.5 |
| Chlorobenzene | N.D. | 0.5 |
| Chloroethane | N.D. | 1 |
| Chloroform | N.D. | 0.6 |
| Chloromethane | N.D. | 0.6 |
| Cyclohexane | N.D. | 0.5 |
| 1,2-Dibromo-3-chloropropane | N.D. | 0.5 |
| Dibromochloromethane | N.D. | 0.5 |
| 1,2-Dibromoethane | N.D. | 0.4 |
| 1,2-Dichlorobenzene | N.D. | 0.5 |
| 1,3-Dichlorobenzene | N.D. | 0.5 |
| 1,4-Dichlorobenzene | N.D. | 0.4 |
| Dichlorodifluoromethane | N.D. | 0.6 |
| 1,1-Dichloroethane | N.D. | 0.5 |
| 1,2-Dichloroethane | N.D. | 0.6 |
| 1,1-Dichloroethene | N.D. | 0.5 |
| cis-1,2-Dichloroethene | N.D. | 0.5 |
| trans-1,2-Dichloroethene | N.D. | 0.5 |
| 1,2-Dichloropropane | N.D. | 0.5 |
| cis-1,3-Dichloropropene | N.D. | 0.4 |
| trans-1,3-Dichloropropene | N.D. | 0.5 |
| Ethyl t-butyl ether | N.D. | 0.5 |
| Ethylbenzene | N.D. | 0.4 |
| Freon 113 | N.D. | 0.6 |
| 2-Hexanone | N.D. | 1 |
| di-Isopropyl ether | N.D. | 0.5 |
| Isopropylbenzene | N.D. | 0.4 |
| Methyl Acetate | N.D. | 1 |
| Methyl Tertiary Butyl Ether | N.D. | 0.5 |
| 4-Methyl-2-pentanone | N.D. | 1 |

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: EA Engineering
Reported: 02/28/2020 16:13

Group Number: 2088718

Method Blank (continued)

| Analysis Name | Result | MDL |
|-----------------------------|-----------------------------------|-------|
| | ug/kg | ug/kg |
| Methylcyclohexane | N.D. | 0.6 |
| Methylene Chloride | N.D. | 2 |
| Naphthalene | N.D. | 2 |
| Styrene | N.D. | 0.4 |
| 1,1,2,2-Tetrachloroethane | N.D. | 0.4 |
| Tetrachloroethene | N.D. | 0.5 |
| Toluene | N.D. | 0.6 |
| 1,2,4-Trichlorobenzene | N.D. | 5 |
| 1,1,1-Trichloroethane | N.D. | 0.6 |
| 1,1,2-Trichloroethane | N.D. | 0.5 |
| Trichloroethene | N.D. | 0.5 |
| Trichlorofluoromethane | N.D. | 0.7 |
| Vinyl Chloride | N.D. | 0.6 |
| Xylene (Total) | N.D. | 1 |
| Batch number: A200571AA | Sample number(s): 1263513-1263514 | |
| Acetone | N.D. | 6 |
| t-Amyl methyl ether | N.D. | 0.8 |
| Benzene | N.D. | 0.5 |
| Bromodichloromethane | N.D. | 0.4 |
| Bromoform | N.D. | 5 |
| Bromomethane | N.D. | 0.7 |
| 2-Butanone | N.D. | 2 |
| t-Butyl alcohol | N.D. | 15 |
| Carbon Disulfide | N.D. | 0.6 |
| Carbon Tetrachloride | N.D. | 0.5 |
| Chlorobenzene | N.D. | 0.5 |
| Chloroethane | N.D. | 1 |
| Chloroform | N.D. | 0.6 |
| Chloromethane | N.D. | 0.6 |
| Cyclohexane | N.D. | 0.5 |
| 1,2-Dibromo-3-chloropropane | N.D. | 0.5 |
| Dibromochloromethane | N.D. | 0.5 |
| 1,2-Dibromoethane | N.D. | 0.4 |
| 1,2-Dichlorobenzene | N.D. | 0.5 |
| 1,3-Dichlorobenzene | N.D. | 0.5 |
| 1,4-Dichlorobenzene | N.D. | 0.4 |
| Dichlorodifluoromethane | N.D. | 0.6 |
| 1,1-Dichloroethane | N.D. | 0.5 |
| 1,2-Dichloroethane | N.D. | 0.6 |
| 1,1-Dichloroethene | N.D. | 0.5 |
| cis-1,2-Dichloroethene | N.D. | 0.5 |
| trans-1,2-Dichloroethene | N.D. | 0.5 |
| 1,2-Dichloropropane | N.D. | 0.5 |
| cis-1,3-Dichloropropene | N.D. | 0.4 |

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: EA Engineering
Reported: 02/28/2020 16:13

Group Number: 2088718

Method Blank (continued)

| Analysis Name | Result | MDL |
|-----------------------------|-----------------------------------|-------|
| | ug/kg | ug/kg |
| trans-1,3-Dichloropropene | N.D. | 0.5 |
| Ethyl t-butyl ether | N.D. | 0.5 |
| Ethylbenzene | N.D. | 0.4 |
| Freon 113 | N.D. | 0.6 |
| 2-Hexanone | N.D. | 1 |
| di-Isopropyl ether | N.D. | 0.5 |
| Isopropylbenzene | N.D. | 0.4 |
| Methyl Acetate | N.D. | 1 |
| Methyl Tertiary Butyl Ether | N.D. | 0.5 |
| 4-Methyl-2-pentanone | N.D. | 1 |
| Methylcyclohexane | N.D. | 0.6 |
| Methylene Chloride | N.D. | 2 |
| Naphthalene | N.D. | 2 |
| Styrene | N.D. | 0.4 |
| 1,1,2,2-Tetrachloroethane | N.D. | 0.4 |
| Tetrachloroethene | N.D. | 0.5 |
| Toluene | N.D. | 0.6 |
| 1,2,4-Trichlorobenzene | N.D. | 5 |
| 1,1,1-Trichloroethane | N.D. | 0.6 |
| 1,1,2-Trichloroethane | N.D. | 0.5 |
| Trichloroethene | N.D. | 0.5 |
| Trichlorofluoromethane | N.D. | 0.7 |
| Vinyl Chloride | N.D. | 0.6 |
| Xylene (Total) | N.D. | 1 |
| Batch number: R200561AA | Sample number(s): 1263510-1263512 | |
| Acetone | N.D. | 300 |
| t-Amyl methyl ether | N.D. | 40 |
| Benzene | N.D. | 25 |
| Bromodichloromethane | N.D. | 20 |
| Bromoform | N.D. | 250 |
| Bromomethane | N.D. | 35 |
| 2-Butanone | N.D. | 100 |
| t-Butyl alcohol | N.D. | 750 |
| Carbon Disulfide | N.D. | 30 |
| Carbon Tetrachloride | N.D. | 25 |
| Chlorobenzene | N.D. | 25 |
| Chloroethane | N.D. | 50 |
| Chloroform | N.D. | 30 |
| Chloromethane | N.D. | 30 |
| Cyclohexane | N.D. | 25 |
| 1,2-Dibromo-3-chloropropane | N.D. | 25 |
| Dibromochloromethane | N.D. | 25 |
| 1,2-Dibromoethane | N.D. | 20 |
| 1,2-Dichlorobenzene | N.D. | 25 |

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: EA Engineering
Reported: 02/28/2020 16:13

Group Number: 2088718

Method Blank (continued)

| Analysis Name | Result | MDL |
|-----------------------------|-----------------------------------|-------|
| | ug/kg | ug/kg |
| 1,3-Dichlorobenzene | N.D. | 25 |
| 1,4-Dichlorobenzene | N.D. | 20 |
| Dichlorodifluoromethane | N.D. | 30 |
| 1,1-Dichloroethane | N.D. | 25 |
| 1,2-Dichloroethane | N.D. | 30 |
| 1,1-Dichloroethene | N.D. | 25 |
| cis-1,2-Dichloroethene | N.D. | 25 |
| trans-1,2-Dichloroethene | N.D. | 25 |
| 1,2-Dichloropropane | N.D. | 25 |
| cis-1,3-Dichloropropene | N.D. | 20 |
| trans-1,3-Dichloropropene | N.D. | 25 |
| Ethyl t-butyl ether | N.D. | 25 |
| Ethylbenzene | N.D. | 20 |
| Freon 113 | N.D. | 30 |
| 2-Hexanone | N.D. | 50 |
| di-Isopropyl ether | N.D. | 25 |
| Isopropylbenzene | N.D. | 20 |
| Methyl Acetate | N.D. | 50 |
| Methyl Tertiary Butyl Ether | N.D. | 25 |
| 4-Methyl-2-pentanone | N.D. | 50 |
| Methylcyclohexane | N.D. | 30 |
| Methylene Chloride | N.D. | 100 |
| Naphthalene | N.D. | 100 |
| Styrene | N.D. | 20 |
| 1,1,2,2-Tetrachloroethane | N.D. | 20 |
| Tetrachloroethene | N.D. | 25 |
| Toluene | N.D. | 30 |
| 1,2,4-Trichlorobenzene | N.D. | 250 |
| 1,1,1-Trichloroethane | N.D. | 30 |
| 1,1,2-Trichloroethane | N.D. | 25 |
| Trichloroethene | N.D. | 25 |
| Trichlorofluoromethane | N.D. | 35 |
| Vinyl Chloride | N.D. | 30 |
| Xylene (Total) | N.D. | 70 |
| | ug/l | ug/l |
| Batch number: E200581AA | Sample number(s): 1263516-1263524 | |
| Acetone | N.D. | 0.7 |
| t-Amyl methyl ether | N.D. | 0.8 |
| Benzene | N.D. | 0.2 |
| Bromodichloromethane | N.D. | 0.2 |
| Bromoform | N.D. | 1 |
| Bromomethane | N.D. | 0.3 |
| 2-Butanone | N.D. | 0.3 |
| t-Butyl alcohol | N.D. | 12 |

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: EA Engineering
Reported: 02/28/2020 16:13

Group Number: 2088718

Method Blank (continued)

| Analysis Name | Result | MDL |
|-----------------------------|--------|------|
| | ug/l | ug/l |
| Carbon Disulfide | N.D. | 0.2 |
| Carbon Tetrachloride | N.D. | 0.2 |
| Chlorobenzene | N.D. | 0.2 |
| Chloroethane | N.D. | 0.2 |
| Chloroform | N.D. | 0.2 |
| Chloromethane | N.D. | 0.2 |
| Cyclohexane | N.D. | 1 |
| 1,2-Dibromo-3-chloropropane | N.D. | 0.3 |
| Dibromochloromethane | N.D. | 0.2 |
| 1,2-Dibromoethane | N.D. | 0.2 |
| 1,2-Dichlorobenzene | N.D. | 0.2 |
| 1,3-Dichlorobenzene | N.D. | 0.2 |
| 1,4-Dichlorobenzene | N.D. | 0.2 |
| Dichlorodifluoromethane | N.D. | 0.2 |
| 1,1-Dichloroethane | N.D. | 0.2 |
| 1,2-Dichloroethane | N.D. | 0.3 |
| 1,1-Dichloroethene | N.D. | 0.2 |
| cis-1,2-Dichloroethene | N.D. | 0.2 |
| trans-1,2-Dichloroethene | N.D. | 0.2 |
| 1,2-Dichloropropane | N.D. | 0.2 |
| cis-1,3-Dichloropropene | N.D. | 0.2 |
| trans-1,3-Dichloropropene | N.D. | 0.2 |
| Ethyl t-butyl ether | N.D. | 0.2 |
| Ethylbenzene | N.D. | 0.4 |
| Freon 113 | N.D. | 0.2 |
| 2-Hexanone | N.D. | 0.3 |
| di-Isopropyl ether | N.D. | 0.2 |
| Isopropylbenzene | N.D. | 0.2 |
| Methyl Acetate | N.D. | 0.3 |
| Methyl Tertiary Butyl Ether | N.D. | 0.2 |
| 4-Methyl-2-pentanone | N.D. | 0.5 |
| Methylcyclohexane | N.D. | 0.5 |
| Methylene Chloride | N.D. | 0.3 |
| Naphthalene | N.D. | 1 |
| Styrene | N.D. | 0.2 |
| 1,1,2,2-Tetrachloroethane | N.D. | 0.2 |
| Tetrachloroethene | N.D. | 0.2 |
| Toluene | N.D. | 0.2 |
| 1,2,4-Trichlorobenzene | N.D. | 0.3 |
| 1,1,1-Trichloroethane | N.D. | 0.3 |
| 1,1,2-Trichloroethane | N.D. | 0.2 |
| Trichloroethene | N.D. | 0.2 |
| Trichlorofluoromethane | N.D. | 0.2 |
| Vinyl Chloride | N.D. | 0.2 |
| Xylene (Total) | N.D. | 1 |

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: EA Engineering
Reported: 02/28/2020 16:13

Group Number: 2088718

Method Blank (continued)

| Analysis Name | Result | MDL |
|---|---|-------|
| | ug/l | ug/l |
| | mg/kg | mg/kg |
| Batch number: 20055A31A TPH-GRO soil C6-C10 | Sample number(s): 1263509-1263513,1263515 N.D. | 0.2 |
| Batch number: 20055A31B TPH-GRO soil C6-C10 | Sample number(s): 1263514 N.D. | 0.2 |
| Batch number: 20051B20A TPH-GRO water C6-C10 | Sample number(s): 1263516-1263523 N.D. | 23 |
| Batch number: 200550014A DRO C10-C28 8015C/D (Microwv) | Sample number(s): 1263509-1263515 N.D. | 5.3 |
| Batch number: 200510027A DRO C10-C28 | Sample number(s): 1263516-1263523 N.D. | 45 |

LCS/LCSD

| Analysis Name | LCS Spike Added | LCS Conc | LCSD Spike Added | LCSD Conc | LCS %REC | LCSD %REC | LCS/LCSD Limits | RPD | RPD Max |
|-----------------------------|-----------------------------------|----------|------------------|-----------|----------|-----------|-----------------|-----|---------|
| | ug/kg | ug/kg | ug/kg | ug/kg | | | | | |
| Batch number: A200551AA | Sample number(s): 1263509,1263515 | | | | | | | | |
| Acetone | 150 | 137.81 | 150 | 132.4 | 92 | 88 | 41-150 | 4 | 30 |
| t-Amyl methyl ether | 20 | 17.57 | 20 | 16.66 | 88 | 83 | 45-146 | 5 | 30 |
| Benzene | 20 | 18.09 | 20 | 17.01 | 90 | 85 | 80-120 | 6 | 30 |
| Bromodichloromethane | 20 | 20.68 | 20 | 18.96 | 103 | 95 | 70-120 | 9 | 30 |
| Bromoform | 20 | 19.53 | 20 | 17.91 | 98 | 90 | 51-127 | 9 | 30 |
| Bromomethane | 20 | 11.89 | 20 | 13.35 | 59 | 67 | 45-140 | 12 | 30 |
| 2-Butanone | 150 | 133.19 | 150 | 125.73 | 89 | 84 | 57-128 | 6 | 30 |
| t-Butyl alcohol | 200 | 196.4 | 200 | 183.2 | 98 | 92 | 74-121 | 7 | 30 |
| Carbon Disulfide | 20 | 18.63 | 20 | 17.8 | 93 | 89 | 64-133 | 5 | 30 |
| Carbon Tetrachloride | 20 | 22.43 | 20 | 20.88 | 112 | 104 | 64-134 | 7 | 30 |
| Chlorobenzene | 20 | 19.43 | 20 | 18.46 | 97 | 92 | 80-120 | 5 | 30 |
| Chloroethane | 20 | 11.24 | 20 | 12.21 | 56 | 61 | 43-135 | 8 | 30 |
| Chloroform | 20 | 20.45 | 20 | 18.91 | 102 | 95 | 80-120 | 8 | 30 |
| Chloromethane | 20 | 13.78 | 20 | 13.44 | 69 | 67 | 56-120 | 3 | 30 |
| Cyclohexane | 20 | 16.93 | 20 | 16.19 | 85 | 81 | 58-126 | 4 | 30 |
| 1,2-Dibromo-3-chloropropane | 20 | 19.1 | 20 | 16.61 | 95 | 83 | 48-134 | 14 | 30 |
| Dibromochloromethane | 20 | 20.63 | 20 | 19.39 | 103 | 97 | 69-125 | 6 | 30 |

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: EA Engineering
Reported: 02/28/2020 16:13

Group Number: 2088718

LCS/LCSD (continued)

| Analysis Name | LCS Spike Added ug/kg | LCS Conc ug/kg | LCSD Spike Added ug/kg | LCSD Conc ug/kg | LCS %REC | LCSD %REC | LCS/LCSD Limits | RPD | RPD Max |
|-----------------------------|-----------------------------------|----------------|------------------------|-----------------|----------|-----------|-----------------|-----|---------|
| 1,2-Dibromoethane | 20 | 19.01 | 20 | 17.94 | 95 | 90 | 76-120 | 6 | 30 |
| 1,2-Dichlorobenzene | 20 | 19.16 | 20 | 18.17 | 96 | 91 | 76-120 | 5 | 30 |
| 1,3-Dichlorobenzene | 20 | 18.52 | 20 | 17.74 | 93 | 89 | 75-120 | 4 | 30 |
| 1,4-Dichlorobenzene | 20 | 18.9 | 20 | 17.95 | 94 | 90 | 80-120 | 5 | 30 |
| Dichlorodifluoromethane | 20 | 12.09 | 20 | 11.08 | 60 | 55 | 21-127 | 9 | 30 |
| 1,1-Dichloroethane | 20 | 18.46 | 20 | 17.48 | 92 | 87 | 79-120 | 5 | 30 |
| 1,2-Dichloroethane | 20 | 22.57 | 20 | 20.92 | 113 | 105 | 71-128 | 8 | 30 |
| 1,1-Dichloroethene | 20 | 18.64 | 20 | 17.79 | 93 | 89 | 73-129 | 5 | 30 |
| cis-1,2-Dichloroethene | 20 | 19.79 | 20 | 18.22 | 99 | 91 | 80-125 | 8 | 30 |
| trans-1,2-Dichloroethene | 20 | 18.35 | 20 | 17.31 | 92 | 87 | 80-126 | 6 | 30 |
| 1,2-Dichloropropane | 20 | 18.02 | 20 | 16.97 | 90 | 85 | 80-120 | 6 | 30 |
| cis-1,3-Dichloropropene | 20 | 17.53 | 20 | 16.61 | 88 | 83 | 68-120 | 5 | 30 |
| trans-1,3-Dichloropropene | 20 | 18.09 | 20 | 17.27 | 90 | 86 | 68-122 | 5 | 30 |
| Ethyl t-butyl ether | 20 | 16.98 | 20 | 16.06 | 85 | 80 | 60-128 | 6 | 30 |
| Ethylbenzene | 20 | 19.19 | 20 | 18.28 | 96 | 91 | 78-120 | 5 | 30 |
| Freon 113 | 20 | 20.75 | 20 | 19.26 | 104 | 96 | 64-135 | 7 | 30 |
| 2-Hexanone | 100 | 88.78 | 100 | 80.12 | 89 | 80 | 54-140 | 10 | 30 |
| di-Isopropyl ether | 20 | 17.06 | 20 | 16.2 | 85 | 81 | 72-126 | 5 | 30 |
| Isopropylbenzene | 20 | 19.52 | 20 | 18.45 | 98 | 92 | 77-120 | 6 | 30 |
| Methyl Acetate | 20 | 19.32 | 20 | 18.24 | 97 | 91 | 67-128 | 6 | 30 |
| Methyl Tertiary Butyl Ether | 20 | 18.46 | 20 | 17.49 | 92 | 87 | 72-120 | 5 | 30 |
| 4-Methyl-2-pentanone | 100 | 89.55 | 100 | 79.99 | 90 | 80 | 67-128 | 11 | 30 |
| Methylcyclohexane | 20 | 17.36 | 20 | 16.31 | 87 | 82 | 61-124 | 6 | 30 |
| Methylene Chloride | 20 | 18.71 | 20 | 17.6 | 94 | 88 | 76-122 | 6 | 30 |
| Naphthalene | 20 | 16.73 | 20 | 15.57 | 84 | 78 | 48-130 | 7 | 30 |
| Styrene | 20 | 18.18 | 20 | 17.31 | 91 | 87 | 76-120 | 5 | 30 |
| 1,1,2,2-Tetrachloroethane | 20 | 18.12 | 20 | 16.86 | 91 | 84 | 69-125 | 7 | 30 |
| Tetrachloroethene | 20 | 20.29 | 20 | 19.45 | 101 | 97 | 73-120 | 4 | 30 |
| Toluene | 20 | 18.21 | 20 | 17.25 | 91 | 86 | 80-120 | 5 | 30 |
| 1,2,4-Trichlorobenzene | 20 | 17.16 | 20 | 16.64 | 86 | 83 | 56-130 | 3 | 30 |
| 1,1,1-Trichloroethane | 20 | 21.08 | 20 | 19.51 | 105 | 98 | 69-123 | 8 | 30 |
| 1,1,2-Trichloroethane | 20 | 19.46 | 20 | 17.89 | 97 | 89 | 80-120 | 8 | 30 |
| Trichloroethene | 20 | 19.15 | 20 | 18.17 | 96 | 91 | 80-120 | 5 | 30 |
| Trichlorofluoromethane | 20 | 15.68 | 20 | 19.92 | 78 | 100 | 55-134 | 24 | 30 |
| Vinyl Chloride | 20 | 12.18 | 20 | 13.1 | 61 | 66 | 52-120 | 7 | 30 |
| Xylene (Total) | 60 | 57.27 | 60 | 54.49 | 95 | 91 | 75-120 | 5 | 30 |
| Batch number: A200571AA | Sample number(s): 1263513-1263514 | | | | | | | | |
| Acetone | 150 | 133.35 | 150 | 143.37 | 89 | 96 | 41-150 | 7 | 30 |
| t-Amyl methyl ether | 20 | 19.24 | 20 | 17.71 | 96 | 89 | 45-146 | 8 | 30 |
| Benzene | 20 | 19.11 | 20 | 18.76 | 96 | 94 | 80-120 | 2 | 30 |
| Bromodichloromethane | 20 | 23.3 | 20 | 21.98 | 116 | 110 | 70-120 | 6 | 30 |
| Bromoform | 20 | 21.08 | 20 | 19.43 | 105 | 97 | 51-127 | 8 | 30 |
| Bromomethane | 20 | 17.16 | 20 | 15.87 | 86 | 79 | 45-140 | 8 | 30 |

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: EA Engineering
Reported: 02/28/2020 16:13

Group Number: 2088718

LCS/LCSD (continued)

| Analysis Name | LCS Spike Added ug/kg | LCS Conc ug/kg | LCSD Spike Added ug/kg | LCSD Conc ug/kg | LCS %REC | LCSD %REC | LCS/LCSD Limits | RPD | RPD Max |
|-----------------------------|--------------------------|-------------------|---------------------------|--------------------|----------|-----------|-----------------|-----|---------|
| 2-Butanone | 150 | 133.37 | 150 | 139.93 | 89 | 93 | 57-128 | 5 | 30 |
| t-Butyl alcohol | 200 | 218.12 | 200 | 204.87 | 109 | 102 | 74-121 | 6 | 30 |
| Carbon Disulfide | 20 | 20.12 | 20 | 19.7 | 101 | 99 | 64-133 | 2 | 30 |
| Carbon Tetrachloride | 20 | 26.85 | 20 | 25.22 | 134 | 126 | 64-134 | 6 | 30 |
| Chlorobenzene | 20 | 20.41 | 20 | 20.28 | 102 | 101 | 80-120 | 1 | 30 |
| Chloroethane | 20 | 14.12 | 20 | 16.2 | 71 | 81 | 43-135 | 14 | 30 |
| Chloroform | 20 | 23.29 | 20 | 22.39 | 116 | 112 | 80-120 | 4 | 30 |
| Chloromethane | 20 | 17.48 | 20 | 17.76 | 87 | 89 | 56-120 | 2 | 30 |
| Cyclohexane | 20 | 17.58 | 20 | 17.16 | 88 | 86 | 58-126 | 2 | 30 |
| 1,2-Dibromo-3-chloropropane | 20 | 20.84 | 20 | 17.15 | 104 | 86 | 48-134 | 19 | 30 |
| Dibromochloromethane | 20 | 21.81 | 20 | 20.85 | 109 | 104 | 69-125 | 4 | 30 |
| 1,2-Dibromoethane | 20 | 19.38 | 20 | 18.57 | 97 | 93 | 76-120 | 4 | 30 |
| 1,2-Dichlorobenzene | 20 | 20.46 | 20 | 20.21 | 102 | 101 | 76-120 | 1 | 30 |
| 1,3-Dichlorobenzene | 20 | 19.97 | 20 | 19.91 | 100 | 100 | 75-120 | 0 | 30 |
| 1,4-Dichlorobenzene | 20 | 20.31 | 20 | 20.27 | 102 | 101 | 80-120 | 0 | 30 |
| Dichlorodifluoromethane | 20 | 17.24 | 20 | 16.37 | 86 | 82 | 21-127 | 5 | 30 |
| 1,1-Dichloroethane | 20 | 20.33 | 20 | 19.48 | 102 | 97 | 79-120 | 4 | 30 |
| 1,2-Dichloroethane | 20 | 25.85 | 20 | 23.71 | 129* | 119 | 71-128 | 9 | 30 |
| 1,1-Dichloroethene | 20 | 19.88 | 20 | 19.15 | 99 | 96 | 73-129 | 4 | 30 |
| cis-1,2-Dichloroethene | 20 | 20.99 | 20 | 20.61 | 105 | 103 | 80-125 | 2 | 30 |
| trans-1,2-Dichloroethene | 20 | 19.87 | 20 | 19.15 | 99 | 96 | 80-126 | 4 | 30 |
| 1,2-Dichloropropane | 20 | 18.99 | 20 | 18.46 | 95 | 92 | 80-120 | 3 | 30 |
| cis-1,3-Dichloropropene | 20 | 19.66 | 20 | 18.21 | 98 | 91 | 66-120 | 8 | 30 |
| trans-1,3-Dichloropropene | 20 | 19.41 | 20 | 18.69 | 97 | 93 | 68-122 | 4 | 30 |
| Ethyl t-butyl ether | 20 | 18.29 | 20 | 17.3 | 91 | 86 | 60-128 | 6 | 30 |
| Ethylbenzene | 20 | 20.35 | 20 | 20.45 | 102 | 102 | 78-120 | 0 | 30 |
| Freon 113 | 20 | 22.63 | 20 | 21.24 | 113 | 106 | 64-135 | 6 | 30 |
| 2-Hexanone | 100 | 85.76 | 100 | 70.75 | 86 | 71 | 54-140 | 19 | 30 |
| di-Isopropyl ether | 20 | 17.6 | 20 | 16.94 | 88 | 85 | 72-126 | 4 | 30 |
| Isopropylbenzene | 20 | 21.05 | 20 | 20.97 | 105 | 105 | 77-120 | 0 | 30 |
| Methyl Acetate | 20 | 19.26 | 20 | 16.27 | 96 | 81 | 67-128 | 17 | 30 |
| Methyl Tertiary Butyl Ether | 20 | 19.97 | 20 | 18.24 | 100 | 91 | 72-120 | 9 | 30 |
| 4-Methyl-2-pentanone | 100 | 89.35 | 100 | 72.7 | 89 | 73 | 67-128 | 21 | 30 |
| Methylcyclohexane | 20 | 18.73 | 20 | 17.85 | 94 | 89 | 61-124 | 5 | 30 |
| Methylene Chloride | 20 | 20.12 | 20 | 18.86 | 101 | 94 | 76-122 | 6 | 30 |
| Naphthalene | 20 | 17.98 | 20 | 16.28 | 90 | 81 | 48-130 | 10 | 30 |
| Styrene | 20 | 19.29 | 20 | 19.31 | 96 | 97 | 76-120 | 0 | 30 |
| 1,1,2,2-Tetrachloroethane | 20 | 17.54 | 20 | 16.3 | 88 | 82 | 69-125 | 7 | 30 |
| Tetrachloroethene | 20 | 21.8 | 20 | 21.63 | 109 | 108 | 73-120 | 1 | 30 |
| Toluene | 20 | 18.64 | 20 | 18.61 | 93 | 93 | 80-120 | 0 | 30 |
| 1,2,4-Trichlorobenzene | 20 | 19.52 | 20 | 19.42 | 98 | 97 | 56-130 | 0 | 30 |
| 1,1,1-Trichloroethane | 20 | 24.98 | 20 | 23.48 | 125* | 117 | 69-123 | 6 | 30 |
| 1,1,2-Trichloroethane | 20 | 19.76 | 20 | 18.53 | 99 | 93 | 80-120 | 6 | 30 |
| Trichloroethene | 20 | 21.06 | 20 | 20.12 | 105 | 101 | 80-120 | 5 | 30 |

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: EA Engineering
Reported: 02/28/2020 16:13

Group Number: 2088718

LCS/LCSD (continued)

| Analysis Name | LCS Spike Added ug/kg | LCS Conc ug/kg | LCSD Spike Added ug/kg | LCSD Conc ug/kg | LCS %REC | LCSD %REC | LCS/LCSD Limits | RPD | RPD Max |
|-----------------------------|-----------------------------------|-------------------|---------------------------|--------------------|----------|-----------|-----------------|-----|---------|
| Trichlorofluoromethane | 20 | 21.28 | 20 | 25.69 | 106 | 128 | 55-134 | 19 | 30 |
| Vinyl Chloride | 20 | 18.54 | 20 | 17.89 | 93 | 89 | 52-120 | 4 | 30 |
| Xylene (Total) | 60 | 60.85 | 60 | 60.73 | 101 | 101 | 75-120 | 0 | 30 |
| Batch number: R200561AA | Sample number(s): 1263510-1263512 | | | | | | | | |
| Acetone | 7500 | 6881 | 7500 | 7432.51 | 92 | 99 | 41-150 | 8 | 30 |
| t-Amyl methyl ether | 1000 | 957.84 | 1000 | 959.68 | 96 | 96 | 45-146 | 0 | 30 |
| Benzene | 1000 | 1023.7 | 1000 | 1036.75 | 102 | 104 | 80-120 | 1 | 30 |
| Bromodichloromethane | 1000 | 964.57 | 1000 | 985.83 | 96 | 99 | 70-120 | 2 | 30 |
| Bromoform | 1000 | 795.83 | 1000 | 843.58 | 80 | 84 | 51-127 | 6 | 30 |
| Bromomethane | 1000 | 675.58 | 1000 | 1224.13 | 68 | 122 | 45-140 | 58* | 30 |
| 2-Butanone | 7500 | 4737.87 | 7500 | 5814.15 | 63 | 78 | 57-128 | 20 | 30 |
| t-Butyl alcohol | 10000 | 8566.32 | 10000 | 8211.84 | 86 | 82 | 74-121 | 4 | 30 |
| Carbon Disulfide | 1000 | 1031.1 | 1000 | 1042.05 | 103 | 104 | 64-133 | 1 | 30 |
| Carbon Tetrachloride | 1000 | 922.16 | 1000 | 943.3 | 92 | 94 | 64-134 | 2 | 30 |
| Chlorobenzene | 1000 | 964.16 | 1000 | 968.01 | 96 | 97 | 80-120 | 0 | 30 |
| Chloroethane | 1000 | 1390.23 | 1000 | 1113.52 | 139* | 111 | 43-135 | 22 | 30 |
| Chloroform | 1000 | 975.48 | 1000 | 992.98 | 98 | 99 | 80-120 | 2 | 30 |
| Chloromethane | 1000 | 750.12 | 1000 | 742.3 | 75 | 74 | 56-120 | 1 | 30 |
| Cyclohexane | 1000 | 852.35 | 1000 | 901.12 | 85 | 90 | 58-126 | 6 | 30 |
| 1,2-Dibromo-3-chloropropane | 1000 | 806.02 | 1000 | 832.61 | 81 | 83 | 48-134 | 3 | 30 |
| Dibromochloromethane | 1000 | 934.71 | 1000 | 956.84 | 93 | 96 | 69-125 | 2 | 30 |
| 1,2-Dibromoethane | 1000 | 928.01 | 1000 | 961.58 | 93 | 96 | 76-120 | 4 | 30 |
| 1,2-Dichlorobenzene | 1000 | 953.2 | 1000 | 947.76 | 95 | 95 | 76-120 | 1 | 30 |
| 1,3-Dichlorobenzene | 1000 | 943.28 | 1000 | 957.99 | 94 | 96 | 75-120 | 2 | 30 |
| 1,4-Dichlorobenzene | 1000 | 948.64 | 1000 | 960.48 | 95 | 96 | 80-120 | 1 | 30 |
| Dichlorodifluoromethane | 1000 | 595.61 | 1000 | 656.82 | 60 | 66 | 21-127 | 10 | 30 |
| 1,1-Dichloroethane | 1000 | 1004.76 | 1000 | 1020.49 | 100 | 102 | 79-120 | 2 | 30 |
| 1,2-Dichloroethane | 1000 | 914.99 | 1000 | 952.18 | 91 | 95 | 71-128 | 4 | 30 |
| 1,1-Dichloroethene | 1000 | 1087.61 | 1000 | 1114.57 | 109 | 111 | 73-129 | 2 | 30 |
| cis-1,2-Dichloroethene | 1000 | 1080.65 | 1000 | 1101.24 | 108 | 110 | 80-125 | 2 | 30 |
| trans-1,2-Dichloroethene | 1000 | 1030.97 | 1000 | 1053.63 | 103 | 105 | 80-126 | 2 | 30 |
| 1,2-Dichloropropane | 1000 | 1012.37 | 1000 | 1033.44 | 101 | 103 | 80-120 | 2 | 30 |
| cis-1,3-Dichloropropene | 1000 | 994.85 | 1000 | 1032.14 | 99 | 103 | 66-120 | 4 | 30 |
| trans-1,3-Dichloropropene | 1000 | 939.95 | 1000 | 959.69 | 94 | 96 | 68-122 | 2 | 30 |
| Ethyl t-butyl ether | 1000 | 934.9 | 1000 | 932.17 | 93 | 93 | 60-128 | 0 | 30 |
| Ethylbenzene | 1000 | 976.78 | 1000 | 986.84 | 98 | 99 | 78-120 | 1 | 30 |
| Freon 113 | 1000 | 792.6 | 1000 | 858.64 | 79 | 86 | 64-135 | 8 | 30 |
| 2-Hexanone | 5000 | 3316.14 | 5000 | 3854.91 | 66 | 77 | 54-140 | 15 | 30 |
| di-Isopropyl ether | 1000 | 928.27 | 1000 | 948.59 | 93 | 95 | 72-126 | 2 | 30 |
| Isopropylbenzene | 1000 | 994.68 | 1000 | 994.85 | 99 | 99 | 77-120 | 0 | 30 |
| Methyl Acetate | 1000 | 765.44 | 1000 | 842.47 | 77 | 84 | 67-128 | 10 | 30 |
| Methyl Tertiary Butyl Ether | 1000 | 889.89 | 1000 | 906.16 | 89 | 91 | 72-120 | 2 | 30 |
| 4-Methyl-2-pentanone | 5000 | 3656.35 | 5000 | 4127.85 | 73 | 83 | 67-128 | 12 | 30 |

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: EA Engineering
Reported: 02/28/2020 16:13

Group Number: 2088718

LCS/LCSD (continued)

| Analysis Name | LCS Spike Added ug/kg | LCS Conc ug/kg | LCSD Spike Added ug/kg | LCSD Conc ug/kg | LCS %REC | LCSD %REC | LCS/LCSD Limits | RPD | RPD Max |
|-----------------------------|-----------------------------------|-------------------|---------------------------|--------------------|----------|-----------|-----------------|-----|---------|
| Methylcyclohexane | 1000 | 801.76 | 1000 | 873.64 | 80 | 87 | 61-124 | 9 | 30 |
| Methylene Chloride | 1000 | 1080.54 | 1000 | 1089.94 | 108 | 109 | 76-122 | 1 | 30 |
| Naphthalene | 1000 | 963.69 | 1000 | 964.15 | 96 | 96 | 48-130 | 0 | 30 |
| Styrene | 1000 | 990.22 | 1000 | 999.21 | 99 | 100 | 76-120 | 1 | 30 |
| 1,1,2,2-Tetrachloroethane | 1000 | 913.16 | 1000 | 970.96 | 91 | 97 | 69-125 | 6 | 30 |
| Tetrachloroethene | 1000 | 914.61 | 1000 | 928.96 | 91 | 93 | 73-120 | 2 | 30 |
| Toluene | 1000 | 998.43 | 1000 | 998.24 | 100 | 100 | 80-120 | 0 | 30 |
| 1,2,4-Trichlorobenzene | 1000 | 958.92 | 1000 | 928.47 | 96 | 93 | 56-130 | 3 | 30 |
| 1,1,1-Trichloroethane | 1000 | 941.28 | 1000 | 960.12 | 94 | 96 | 69-123 | 2 | 30 |
| 1,1,2-Trichloroethane | 1000 | 985.87 | 1000 | 1023.69 | 99 | 102 | 80-120 | 4 | 30 |
| Trichloroethene | 1000 | 970.16 | 1000 | 1000.78 | 97 | 100 | 80-120 | 3 | 30 |
| Trichlorofluoromethane | 1000 | 836.82 | 1000 | 872.49 | 84 | 87 | 55-134 | 4 | 30 |
| Vinyl Chloride | 1000 | 764.4 | 1000 | 762.26 | 76 | 76 | 52-120 | 0 | 30 |
| Xylene (Total) | 3000 | 2982.51 | 3000 | 2993.57 | 99 | 100 | 75-120 | 0 | 30 |
| | ug/l | ug/l | ug/l | ug/l | | | | | |
| Batch number: E200581AA | Sample number(s): 1263516-1263524 | | | | | | | | |
| Acetone | 150 | 150.7 | 150 | 152.04 | 100 | 101 | 54-157 | 1 | 30 |
| t-Amyl methyl ether | 20 | 19.21 | 20 | 19.98 | 96 | 100 | 66-120 | 4 | 30 |
| Benzene | 20 | 20.82 | 20 | 21.49 | 104 | 107 | 80-120 | 3 | 30 |
| Bromodichloromethane | 20 | 21.9 | 20 | 22.36 | 110 | 112 | 71-120 | 2 | 30 |
| Bromoform | 20 | 23.9 | 20 | 24.45 | 119 | 122* | 51-120 | 2 | 30 |
| Bromomethane | 20 | 16.94 | 20 | 17.16 | 85 | 86 | 53-128 | 1 | 30 |
| 2-Butanone | 150 | 129.3 | 150 | 134.19 | 86 | 89 | 59-135 | 4 | 30 |
| t-Butyl alcohol | 200 | 191.41 | 200 | 198.92 | 96 | 99 | 60-130 | 4 | 30 |
| Carbon Disulfide | 20 | 20.09 | 20 | 20.55 | 100 | 103 | 65-128 | 2 | 30 |
| Carbon Tetrachloride | 20 | 23.35 | 20 | 24.29 | 117 | 121 | 64-134 | 4 | 30 |
| Chlorobenzene | 20 | 20.93 | 20 | 21.47 | 105 | 107 | 80-120 | 3 | 30 |
| Chloroethane | 20 | 15.83 | 20 | 16.35 | 79 | 82 | 55-123 | 3 | 30 |
| Chloroform | 20 | 21.43 | 20 | 21.99 | 107 | 110 | 80-120 | 3 | 30 |
| Chloromethane | 20 | 15.96 | 20 | 16.34 | 80 | 82 | 56-121 | 2 | 30 |
| Cyclohexane | 20 | 18.18 | 20 | 18.54 | 91 | 93 | 68-126 | 2 | 30 |
| 1,2-Dibromo-3-chloropropane | 20 | 18.2 | 20 | 18.32 | 91 | 92 | 47-131 | 1 | 30 |
| Dibromochloromethane | 20 | 23.08 | 20 | 23.84 | 115 | 119 | 71-120 | 3 | 30 |
| 1,2-Dibromoethane | 20 | 20.61 | 20 | 21.08 | 103 | 105 | 77-120 | 2 | 30 |
| 1,2-Dichlorobenzene | 20 | 21.02 | 20 | 21.91 | 105 | 110 | 80-120 | 4 | 30 |
| 1,3-Dichlorobenzene | 20 | 20.26 | 20 | 21.31 | 101 | 107 | 80-120 | 5 | 30 |
| 1,4-Dichlorobenzene | 20 | 20.91 | 20 | 21.76 | 105 | 109 | 80-120 | 4 | 30 |
| Dichlorodifluoromethane | 20 | 14.16 | 20 | 14.87 | 71 | 74 | 41-127 | 5 | 30 |
| 1,1-Dichloroethane | 20 | 20.71 | 20 | 21.41 | 104 | 107 | 80-120 | 3 | 30 |
| 1,2-Dichloroethane | 20 | 20.79 | 20 | 21.47 | 104 | 107 | 73-124 | 3 | 30 |
| 1,1-Dichloroethene | 20 | 22.83 | 20 | 23.32 | 114 | 117 | 80-131 | 2 | 30 |
| cis-1,2-Dichloroethene | 20 | 22.82 | 20 | 23.37 | 114 | 117 | 80-125 | 2 | 30 |
| trans-1,2-Dichloroethene | 20 | 21.65 | 20 | 22.56 | 108 | 113 | 80-126 | 4 | 30 |

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: EA Engineering
Reported: 02/28/2020 16:13

Group Number: 2088718

LCS/LCSD (continued)

| Analysis Name | LCS Spike Added ug/l | LCS Conc ug/l | LCSD Spike Added ug/l | LCSD Conc ug/l | LCS %REC | LCSD %REC | LCS/LCSD Limits | RPD | RPD Max |
|---|---|---------------|-----------------------|----------------|----------|-----------|-----------------|-----|---------|
| 1,2-Dichloropropane | 20 | 20.95 | 20 | 21.77 | 105 | 109 | 80-120 | 4 | 30 |
| cis-1,3-Dichloropropene | 20 | 20.77 | 20 | 21.6 | 104 | 108 | 75-120 | 4 | 30 |
| trans-1,3-Dichloropropene | 20 | 19.61 | 20 | 20.29 | 98 | 101 | 67-120 | 3 | 30 |
| Ethyl t-butyl ether | 20 | 19.39 | 20 | 20.37 | 97 | 102 | 68-121 | 5 | 30 |
| Ethylbenzene | 20 | 20.3 | 20 | 20.66 | 102 | 103 | 80-120 | 2 | 30 |
| Freon 113 | 20 | 20.17 | 20 | 20.84 | 101 | 104 | 73-139 | 3 | 30 |
| 2-Hexanone | 100 | 86.19 | 100 | 90.3 | 86 | 90 | 56-135 | 5 | 30 |
| di-Isopropyl ether | 20 | 19.04 | 20 | 19.71 | 95 | 99 | 70-124 | 3 | 30 |
| Isopropylbenzene | 20 | 20.85 | 20 | 21.47 | 104 | 107 | 80-120 | 3 | 30 |
| Methyl Acetate | 20 | 18.32 | 20 | 19.37 | 92 | 97 | 54-136 | 6 | 30 |
| Methyl Tertiary Butyl Ether | 20 | 19.54 | 20 | 20.39 | 98 | 102 | 69-122 | 4 | 30 |
| 4-Methyl-2-pentanone | 100 | 87.67 | 100 | 90.95 | 88 | 91 | 62-133 | 4 | 30 |
| Methylcyclohexane | 20 | 18.86 | 20 | 19.28 | 94 | 96 | 67-121 | 2 | 30 |
| Methylene Chloride | 20 | 21.7 | 20 | 22.15 | 108 | 111 | 80-120 | 2 | 30 |
| Naphthalene | 20 | 17.94 | 20 | 19.28 | 90 | 96 | 53-124 | 7 | 30 |
| Styrene | 20 | 20.92 | 20 | 21.33 | 105 | 107 | 80-120 | 2 | 30 |
| 1,1,2,2-Tetrachloroethane | 20 | 18.96 | 20 | 19.58 | 95 | 98 | 72-120 | 3 | 30 |
| Tetrachloroethene | 20 | 21.07 | 20 | 21.47 | 105 | 107 | 80-120 | 2 | 30 |
| Toluene | 20 | 20.59 | 20 | 20.82 | 103 | 104 | 80-120 | 1 | 30 |
| 1,2,4-Trichlorobenzene | 20 | 20.89 | 20 | 22.37 | 104 | 112 | 63-120 | 7 | 30 |
| 1,1,1-Trichloroethane | 20 | 22.44 | 20 | 22.94 | 112 | 115 | 67-126 | 2 | 30 |
| 1,1,2-Trichloroethane | 20 | 21.58 | 20 | 22.02 | 108 | 110 | 80-120 | 2 | 30 |
| Trichloroethene | 20 | 21.55 | 20 | 22.02 | 108 | 110 | 80-120 | 2 | 30 |
| Trichlorofluoromethane | 20 | 19.14 | 20 | 19.74 | 96 | 99 | 55-135 | 3 | 30 |
| Vinyl Chloride | 20 | 16.24 | 20 | 16.95 | 81 | 85 | 56-120 | 4 | 30 |
| Xylene (Total) | 60 | 63.24 | 60 | 65.3 | 105 | 109 | 80-120 | 3 | 30 |
| | mg/kg | mg/kg | mg/kg | mg/kg | | | | | |
| Batch number: 20055A31A TPH-GRO soil C6-C10 | Sample number(s): 1263509-1263513,1263515 | | | | | | | | |
| | 11 | 11.48 | 11 | 11.46 | 104 | 104 | 60-132 | 0 | 30 |
| Batch number: 20055A31B TPH-GRO soil C6-C10 | Sample number(s): 1263514 | | | | | | | | |
| | 11 | 11.48 | 11 | 11.46 | 104 | 104 | 60-132 | 0 | 30 |
| | ug/l | ug/l | ug/l | ug/l | | | | | |
| Batch number: 20051B20A TPH-GRO water C6-C10 | Sample number(s): 1263516-1263523 | | | | | | | | |
| | 1100 | 988.38 | | | 90 | | 70-123 | | |
| | mg/kg | mg/kg | mg/kg | mg/kg | | | | | |
| Batch number: 200550014A DRO C10-C28 8015C/D (Microwv) | Sample number(s): 1263509-1263515 | | | | | | | | |
| | 133.34 | 126.38 | | | 95 | | 81-121 | | |
| | ug/l | ug/l | ug/l | ug/l | | | | | |
| Batch number: 200510027A | Sample number(s): 1263516-1263523 | | | | | | | | |

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: EA Engineering
Reported: 02/28/2020 16:13

Group Number: 2088718

LCS/LCSD (continued)

| Analysis Name | LCS Spike Added ug/l | LCS Conc ug/l | LCSD Spike Added ug/l | LCSD Conc ug/l | LCS %REC | LCSD %REC | LCS/LCSD Limits | RPD | RPD Max |
|----------------------------|-----------------------------------|---------------|-----------------------|----------------|----------|-----------|-----------------|-----|---------|
| DRO C10-C28 | 600.05 | 289.22 | | | 48 | | 20-118 | | |
| | % | % | % | % | | | | | |
| Batch number: 20052820002A | Sample number(s): 1263509-1263515 | | | | | | | | |
| Moisture | 89.5 | 89.46 | | | 100 | | 99-101 | | |

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

| Analysis Name | Unspiked Conc ug/l | MS Spike Added ug/l | MS Conc ug/l | MSD Spike Added ug/l | MSD Conc ug/l | MS %Rec | MSD %Rec | MS/MSD Limits | RPD | RPD Max |
|-----------------------------|--|---------------------|--------------|----------------------|---------------|---------|----------|---------------|-----|---------|
| Batch number: E200581AA | Sample number(s): 1263516-1263524 UNSPK: 1263520 | | | | | | | | | |
| Acetone | 2.22 | 150 | 173.79 | 150 | 158.92 | 114 | 104 | 54-157 | 9 | 30 |
| t-Amyl methyl ether | N.D. | 20 | 20.89 | 20 | 19.65 | 104 | 98 | 66-120 | 6 | 30 |
| Benzene | N.D. | 20 | 23.62 | 20 | 21.96 | 118 | 110 | 80-120 | 7 | 30 |
| Bromodichloromethane | N.D. | 20 | 24.2 | 20 | 22.54 | 121* | 113 | 71-120 | 7 | 30 |
| Bromoform | N.D. | 20 | 25.04 | 20 | 24.04 | 125* | 120 | 51-120 | 4 | 30 |
| Bromomethane | N.D. | 20 | 19.85 | 20 | 18.44 | 99 | 92 | 53-128 | 7 | 30 |
| 2-Butanone | N.D. | 150 | 140.55 | 150 | 131.13 | 94 | 87 | 59-135 | 7 | 30 |
| t-Butyl alcohol | N.D. | 200 | 208.01 | 200 | 190.74 | 104 | 95 | 60-130 | 9 | 30 |
| Carbon Disulfide | 0.477 | 20 | 24.68 | 20 | 21.71 | 121 | 106 | 65-128 | 13 | 30 |
| Carbon Tetrachloride | N.D. | 20 | 27.64 | 20 | 25.95 | 138* | 130 | 64-134 | 6 | 30 |
| Chlorobenzene | 0.500 | 20 | 23.8 | 20 | 21.91 | 116 | 107 | 80-120 | 8 | 30 |
| Chloroethane | N.D. | 20 | 20.04 | 20 | 17.81 | 100 | 89 | 55-123 | 12 | 30 |
| Chloroform | N.D. | 20 | 23.86 | 20 | 22.52 | 119 | 113 | 80-120 | 6 | 30 |
| Chloromethane | N.D. | 20 | 18.84 | 20 | 18.21 | 94 | 91 | 56-121 | 3 | 30 |
| Cyclohexane | N.D. | 20 | 22.35 | 20 | 20.89 | 112 | 104 | 68-126 | 7 | 30 |
| 1,2-Dibromo-3-chloropropane | N.D. | 20 | 19.08 | 20 | 18.7 | 95 | 94 | 47-131 | 2 | 30 |
| Dibromochloromethane | N.D. | 20 | 24.87 | 20 | 23.41 | 124* | 117 | 71-120 | 6 | 30 |
| 1,2-Dibromoethane | N.D. | 20 | 22.12 | 20 | 20.53 | 111 | 103 | 77-120 | 7 | 30 |
| 1,2-Dichlorobenzene | N.D. | 20 | 22.11 | 20 | 21.08 | 111 | 105 | 80-120 | 5 | 30 |
| 1,3-Dichlorobenzene | N.D. | 20 | 21.57 | 20 | 20.43 | 108 | 102 | 80-120 | 5 | 30 |
| 1,4-Dichlorobenzene | N.D. | 20 | 21.89 | 20 | 20.99 | 109 | 105 | 80-120 | 4 | 30 |
| Dichlorodifluoromethane | N.D. | 20 | 19.18 | 20 | 17.93 | 96 | 90 | 41-127 | 7 | 30 |
| 1,1-Dichloroethane | N.D. | 20 | 23.8 | 20 | 21.7 | 119 | 109 | 80-120 | 9 | 30 |
| 1,2-Dichloroethane | N.D. | 20 | 22.79 | 20 | 21 | 114 | 105 | 73-124 | 8 | 30 |
| 1,1-Dichloroethene | N.D. | 20 | 27.25 | 20 | 24.65 | 136* | 123 | 80-131 | 10 | 30 |
| cis-1,2-Dichloroethene | N.D. | 20 | 25.68 | 20 | 23.91 | 128* | 120 | 80-120 | 7 | 30 |
| trans-1,2-Dichloroethene | N.D. | 20 | 25.4 | 20 | 23.2 | 127* | 116 | 80-120 | 9 | 30 |
| 1,2-Dichloropropane | N.D. | 20 | 23.12 | 20 | 21.71 | 116 | 109 | 80-120 | 6 | 30 |

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: EA Engineering
Reported: 02/28/2020 16:13

Group Number: 2088718

MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

| Analysis Name | Unspiked Conc ug/l | MS Spike Added ug/l | MS Conc ug/l | MSD Spike Added ug/l | MSD Conc ug/l | MS %Rec | MSD %Rec | MS/MSD Limits | RPD | RPD Max |
|---|--|---------------------------|--------------------|----------------------------|---------------------|------------|-------------|------------------|------|------------|
| cis-1,3-Dichloropropene | N.D. | 20 | 22.2 | 20 | 20.96 | 111 | 105 | 75-120 | 6 | 30 |
| trans-1,3-Dichloropropene | N.D. | 20 | 20.88 | 20 | 19.71 | 104 | 99 | 67-120 | 6 | 30 |
| Ethyl t-butyl ether | N.D. | 20 | 21.42 | 20 | 19.99 | 107 | 100 | 68-121 | 7 | 30 |
| Ethylbenzene | 0.480 | 20 | 23.02 | 20 | 21.66 | 113 | 106 | 80-120 | 6 | 30 |
| Freon 113 | N.D. | 20 | 25.14 | 20 | 23.28 | 126 | 116 | 73-139 | 8 | 30 |
| 2-Hexanone | N.D. | 100 | 94.38 | 100 | 87.78 | 94 | 88 | 56-135 | 7 | 30 |
| di-Isopropyl ether | N.D. | 20 | 21.24 | 20 | 19.91 | 106 | 100 | 70-124 | 6 | 30 |
| Isopropylbenzene | N.D. | 20 | 22.91 | 20 | 21.88 | 115 | 109 | 80-120 | 5 | 30 |
| Methyl Acetate | N.D. | 20 | 7.41 | 20 | 19.13 | 37* | 96 | 54-136 | 88* | 30 |
| Methyl Tertiary Butyl Ether | N.D. | 20 | 21.28 | 20 | 20.17 | 106 | 101 | 69-122 | 5 | 30 |
| 4-Methyl-2-pentanone | N.D. | 100 | 96.65 | 100 | 91.09 | 97 | 91 | 62-133 | 6 | 30 |
| Methylcyclohexane | N.D. | 20 | 21.79 | 20 | 21.73 | 109 | 109 | 67-121 | 0 | 30 |
| Methylene Chloride | N.D. | 20 | 24.34 | 20 | 22.51 | 122* | 113 | 80-120 | 8 | 30 |
| Naphthalene | N.D. | 20 | 18.47 | 20 | 18.49 | 92 | 92 | 53-124 | 0 | 30 |
| Styrene | N.D. | 20 | 22.19 | 20 | 20.86 | 111 | 104 | 80-120 | 6 | 30 |
| 1,1,2,2-Tetrachloroethane | N.D. | 20 | 19.83 | 20 | 19.08 | 99 | 95 | 72-120 | 4 | 30 |
| Tetrachloroethene | N.D. | 20 | 23.54 | 20 | 22.53 | 118 | 113 | 80-120 | 4 | 30 |
| Toluene | 0.323 | 20 | 23.12 | 20 | 21.69 | 114 | 107 | 80-120 | 6 | 30 |
| 1,2,4-Trichlorobenzene | N.D. | 20 | 19.96 | 20 | 20.13 | 100 | 101 | 63-120 | 1 | 30 |
| 1,1,1-Trichloroethane | N.D. | 20 | 25.5 | 20 | 23.87 | 128* | 119 | 67-126 | 7 | 30 |
| 1,1,2-Trichloroethane | N.D. | 20 | 23.63 | 20 | 21.84 | 118 | 109 | 80-120 | 8 | 30 |
| Trichloroethene | N.D. | 20 | 24.56 | 20 | 22.54 | 123* | 113 | 80-120 | 9 | 30 |
| Trichlorofluoromethane | N.D. | 20 | 24.61 | 20 | 23.14 | 123 | 116 | 55-135 | 6 | 30 |
| Vinyl Chloride | N.D. | 20 | 20.3 | 20 | 19.55 | 102 | 98 | 56-120 | 4 | 30 |
| Xylene (Total) | 1.95 | 60 | 71.85 | 60 | 67.28 | 117 | 109 | 80-120 | 7 | 30 |
| | ug/l | ug/l | ug/l | ug/l | ug/l | | | | | |
| Batch number: 20051B20A TPH-GRO water C6-C10 | Sample number(s): 1263516-1263523 UNSPK: 1263520 28.47 | 1100 | 911.62 | 1100 | 971.8 | 80 | 86 | 70-123 | 6 | 30 |
| | ug/l | ug/l | ug/l | ug/l | ug/l | | | | | |
| Batch number: 200510027A DRO C10-C28 | Sample number(s): 1263516-1263523 UNSPK: 1263520 1058.5 | 632.96 | 1037.82 | 697.73 | 6496.5 | -2* | 779* | 20-118 | 145* | 20 |

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: EA Engineering
Reported: 02/28/2020 16:13

Group Number: 2088718

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: TCL VOC + Naph + Oxys 8260C

Batch number: A200551AA

| | Dibromofluoromethane | 1,2-Dichloroethane-d4 | Toluene-d8 | 4-Bromofluorobenzene |
|---------|----------------------|-----------------------|------------|----------------------|
| 1263509 | 101 | 104 | 97 | 92 |
| 1263515 | 108 | 108 | 120 | 68 |
| Blank | 109 | 104 | 94 | 92 |
| LCS | 105 | 99 | 97 | 100 |
| LCSD | 104 | 100 | 98 | 100 |
| Limits: | 50-141 | 54-135 | 52-141 | 50-131 |

Analysis Name: TCL VOC + Naph + Oxys 8260C

Batch number: A200571AA

| | Dibromofluoromethane | 1,2-Dichloroethane-d4 | Toluene-d8 | 4-Bromofluorobenzene |
|---------|----------------------|-----------------------|------------|----------------------|
| 1263513 | 111 | 104 | 97 | 88 |
| 1263514 | 114 | 110 | 95 | 88 |
| Blank | 113 | 104 | 91 | 93 |
| LCS | 111 | 102 | 95 | 101 |
| LCSD | 107 | 95 | 96 | 100 |
| Limits: | 50-141 | 54-135 | 52-141 | 50-131 |

Analysis Name: TCL VOC + Naph + Oxys

Batch number: E200581AA

| | Dibromofluoromethane | 1,2-Dichloroethane-d4 | Toluene-d8 | 4-Bromofluorobenzene |
|---------|----------------------|-----------------------|------------|----------------------|
| 1263516 | 103 | 101 | 96 | 96 |
| 1263517 | 104 | 104 | 97 | 95 |
| 1263518 | 102 | 101 | 97 | 96 |
| 1263519 | 104 | 100 | 97 | 97 |
| 1263520 | 104 | 103 | 97 | 96 |
| 1263521 | 106 | 103 | 97 | 97 |
| 1263522 | 105 | 103 | 96 | 96 |
| 1263523 | 105 | 104 | 96 | 96 |
| 1263524 | 105 | 102 | 97 | 95 |
| Blank | 105 | 104 | 96 | 96 |
| LCS | 105 | 103 | 97 | 96 |
| LCSD | 104 | 103 | 97 | 96 |
| MS | 106 | 103 | 97 | 97 |
| MSD | 105 | 103 | 96 | 96 |
| Limits: | 80-120 | 80-120 | 80-120 | 80-120 |

Analysis Name: TCL VOC + Naph + Oxys 8260C

Batch number: R200561AA

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: EA Engineering
Reported: 02/28/2020 16:13

Group Number: 2088718

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: TCL VOC + Naph + Oxys 8260C
Batch number: R200561AA

| | Dibromofluoromethane | 1,2-Dichloroethane-d4 | Toluene-d8 | 4-Bromofluorobenzene |
|---------|----------------------|-----------------------|------------|----------------------|
| 1263510 | 80 | 88 | 92 | 95 |
| 1263511 | 83 | 90 | 105 | 118 |
| 1263512 | 97 | 110 | 112 | 117 |
| Blank | 81 | 86 | 82 | 80 |
| LCS | 81 | 84 | 81 | 80 |
| LCSD | 82 | 85 | 81 | 81 |
| Limits: | 50-141 | 54-135 | 52-141 | 50-131 |

Analysis Name: TPH-GRO water C6-C10
Batch number: 20051B20A

| | Trifluorotoluene-F |
|---------|--------------------|
| 1263516 | 71 |
| 1263517 | 65 |
| 1263518 | 72 |
| 1263519 | 102 |
| 1263520 | 79 |
| 1263521 | 83 |
| 1263522 | 89 |
| 1263523 | 82 |
| Blank | 79 |
| LCS | 90 |
| MS | 83 |
| MSD | 89 |

Limits: 63-135

Analysis Name: TPH-GRO soils C6-C10
Batch number: 20055A31A

| | Trifluorotoluene-F |
|---------|--------------------|
| 1263509 | 81 |
| 1263510 | 1838* |
| 1263511 | 2757* |
| 1263512 | 212059* |
| 1263513 | 134 |
| 1263515 | 72 |
| Blank | 100 |
| LCS | 109 |
| LCSD | 106 |

Limits: 50-142

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: EA Engineering
Reported: 02/28/2020 16:13

Group Number: 2088718

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: TPH-GRO soils C6-C10
Batch number: 20055A31B

| Trifluorotoluene-F | |
|--------------------|-----|
| 1263514 | 25* |
| Blank | 100 |
| LCS | 109 |
| LCSD | 106 |

Limits: 50-142

Analysis Name: DRO 8015C/D(Mini)
Batch number: 200510027A

| Orthoterphenyl | |
|----------------|-----|
| 1263516 | 55 |
| 1263517 | 57 |
| 1263518 | 75 |
| 1263519 | 85 |
| 1263520 | 48* |
| 1263521 | 58 |
| 1263522 | 37* |
| 1263523 | 78 |
| Blank | 88 |
| LCS | 86 |
| MS | 58 |
| MSD | 37* |

Limits: 50-150

Analysis Name: DRO C10-C28 8015C/D (Microw)
Batch number: 200550014A

| Orthoterphenyl | |
|----------------|-----|
| 1263509 | 33* |
| 1263510 | 26* |
| 1263511 | 100 |
| 1263512 | 50 |
| 1263513 | 88 |
| 1263514 | 46 |
| 1263515 | 57 |
| Blank | 100 |
| LCS | 101 |

Limits: 42-143

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

19 1 of 2

Environmental Analysis Request/Chain of Custody

eurofins Lancaster Laboratories Environmental
 Acct. # 10784 Group # 2088718 Sample # 1263509-24
 For Eurofins Lancaster Laboratories Environmental use only
COC # 602496

| Client Information | | | Matrix | | | Analysis and Filtration Codes | | | For Lab Use Only | | | |
|--|-----------|------|--|-----------|-----------------------|---|---|---|--|--|--|--|
| Client: EA Engineering Project Name: Choverly DN/1600401 Project Manager: Nelson Brooks Sampler: S. Harvey Quote #: MD State where samples were collected: MD | | | Matrix: <input type="checkbox"/> Tissue <input type="checkbox"/> Sediment <input checked="" type="checkbox"/> Soil <input type="checkbox"/> Potable Water <input checked="" type="checkbox"/> Ground Surface <input type="checkbox"/> NPDES <input type="checkbox"/> Other: | | | Preservation and Filtration Codes: H=HCl T=Thiosulfate N=HNO ₃ B=NaOH S=H ₂ SO ₄ P=H ₂ PO ₄ F=Field Filtered O=Other | | | FSC: 255699 SCR#: 255699 | | | |
| Sample Identification | Collected | | Grab | Composite | Total # of Containers | Analysis and Filtration Codes | | | Remarks | | | |
| | Date | Time | | | | H | F | F | | | | |
| SB-1-5-6 | 2/18/20 | 1030 | X | X | 5 | X | X | X | NA (2200g soil, 100g dry + 100g) | | | |
| SB-2-5-6 | | 0915 | X | X | 5 | X | X | X | TPH 600 (8015C) | | | |
| SB-3-5-6 | | 0945 | X | X | 5 | X | X | X | TPH 600 (8015C) | | | |
| DUP-1 | | | X | X | 5 | X | X | X | | | | |
| SB-4-5-6 | | 1000 | X | X | 5 | X | X | X | | | | |
| SB-5-5-6 | | 1015 | X | X | 5 | X | X | X | | | | |
| SB-6-5-6 | | 1100 | X | X | 10 | X | X | X | | | | |
| SB-6 | | 1120 | X | X | 8 | X | X | X | | | | |
| DUP-6W | | | X | X | 8 | X | X | X | | | | |
| SB-1 | | 1140 | X | X | 8 | X | X | X | | | | |
| Turnaround Time (TAT) Requested (please circle) Standard <input checked="" type="radio"/> Rush <input type="radio"/> (Rush TAT is subject to laboratory approval and surcharge.) | | | Relinquished by: [Signature] Date: 2/19/20 Time: 12:09 | | | Relinquished by: [Signature] Date: 2/19/20 Time: 11:52 | | | Relinquished by: [Signature] Date: 2/19/20 Time: 11:52 | | | |
| Requested TAT in business days: NBanks@eurofins.com | | | Relinquished by: [Signature] Date: 2/18/20 Time: 16:50 | | | Relinquished by: [Signature] Date: 2/18/20 Time: 16:50 | | | Relinquished by: [Signature] Date: 2/18/20 Time: 16:50 | | | |
| Data Package Options (circle if required) Type I (EPA Level 3 Equivalent/non-CLP) Type III (Reduced non-CLP) NYSDEC Category A or B | | | Relinquished by: [Signature] Date: [] Time: [] | | | Relinquished by: [Signature] Date: [] Time: [] | | | Relinquished by: [Signature] Date: [] Time: [] | | | |
| E-mail address: NBanks@eurofins.com | | | EDD Required? <input checked="" type="radio"/> Yes <input type="radio"/> No If yes, format: EQUIS | | | Relinquished by: [Signature] Date: [] Time: [] | | | Relinquished by: [Signature] Date: [] Time: [] | | | |
| NJ DKQP MA MCP CT RCP | | | Site-Specific QC (MS/MSD/Dup)? Yes No (if yes, indicate QC sample and submit triplicate sample volume.) | | | Relinquished by: [Signature] Date: [] Time: [] | | | Relinquished by: [Signature] Date: [] Time: [] | | | |
| Temperature upon receipt: 52.8 °C | | | Relinquished by: [Signature] Date: [] Time: [] | | | Relinquished by: [Signature] Date: [] Time: [] | | | Relinquished by: [Signature] Date: [] Time: [] | | | |



Client: EA Engineering

Delivery and Receipt Information

Delivery Method: ELLE Courier Arrival Date: 02/19/2020
 Number of Packages: 2 Number of Projects: 1
 State/Province of Origin: MD

Arrival Condition Summary

| | | | |
|--------------------------------------|-----|-------------------------------------|-----|
| Shipping Container Sealed: | Yes | Sample IDs on COC match Containers: | Yes |
| Custody Seal Present: | No | Sample Date/Times match COC: | No |
| Samples Chilled: | Yes | Total Trip Blank Qty: | 2 |
| Paperwork Enclosed: | Yes | Trip Blank Type: | HCl |
| Samples Intact: | Yes | Air Quality Samples Present: | No |
| Missing Samples: | No | | |
| Extra Samples: | No | | |
| Discrepancy in Container Qty on COC: | Yes | | |

Unpacked by Melvin Sanchez

Samples Chilled Details

Thermometer Types: *DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.*

| Cooler # | Matrix | Thermometer ID | Corrected Temp | Therm. Type | Ice Type | Ice Present? | Ice Container | Elevated Temp? |
|----------|--------|----------------|----------------|-------------|----------|--------------|---------------|----------------|
| 1 | Water | DT42-03 | 2.8 | DT | Wet | Y | Loose | N |
| 2 | Water | DT42-03 | 2.5 | DT | Wet | Y | Loose | N |

Container Quantity Discrepancy Details

| Sample ID on COC | Container Qty. Received | Container Qty. on COC | Comments |
|--------------------|-------------------------|-----------------------|----------|
| SB-1-5-6 | 6 | 5 | |
| SB-2-5-6 | 6 | 5 | |
| SB-3-5-6 | 6 | 5 | |
| Dup-1 | 6 | 5 | |
| SB-4-5-6 | 6 | 5 | |
| SB-5-5-6 | 6 | 5 | |
| SB-6-5-6 (MS/ MSD) | 12 | 10 | |

Sample Date/Time Discrepancy Details

| Sample ID on COC | Date/Time on Label | Comments |
|------------------|--------------------|----------|
| Dup_GW | 2/18/2020 11:20 | |
| Dup-1 | 2/18/2020 09:45 | |

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

| | | | |
|-------------------------|--|-----------------|-------------------------------|
| BMQL | Below Minimum Quantitation Level | mL | milliliter(s) |
| C | degrees Celsius | MPN | Most Probable Number |
| cfu | colony forming units | N.D. | non-detect |
| CP Units | cobalt-chloroplatinate units | ng | nanogram(s) |
| F | degrees Fahrenheit | NTU | nephelometric turbidity units |
| g | gram(s) | pg/L | picogram/liter |
| IU | International Units | RL | Reporting Limit |
| kg | kilogram(s) | TNTC | Too Numerous To Count |
| L | liter(s) | µg | microgram(s) |
| lb. | pound(s) | µL | microliter(s) |
| m³ | cubic meter(s) | umhos/cm | micromhos/cm |
| meq | milliequivalents | MCL | Maximum Contamination Limit |
| mg | milligram(s) | | |
| < | less than | | |
| > | greater than | | |
| ppm | parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas. | | |
| ppb | parts per billion | | |
| Dry weight basis | Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis. | | |

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

Data Qualifiers

| Qualifier | Definition |
|----------------|---|
| C | Result confirmed by reanalysis |
| D1 | Indicates for dual column analyses that the result is reported from column 1 |
| D2 | Indicates for dual column analyses that the result is reported from column 2 |
| E | Concentration exceeds the calibration range |
| K1 | Initial Calibration Blank is above the QC limit and the sample result is ND |
| K2 | Continuing Calibration Blank is above the QC limit and the sample result is ND |
| K3 | Initial Calibration Verification is above the QC limit and the sample result is ND |
| K4 | Continuing Calibration Verification is above the QC limit and the sample result is ND |
| J (or G, I, X) | Estimated value \geq the Method Detection Limit (MDL or DL) and $<$ the Limit of Quantitation (LOQ or RL) |
| P | Concentration difference between the primary and confirmation column $>40\%$. The lower result is reported. |
| P [^] | Concentration difference between the primary and confirmation column $>40\%$. The higher result is reported. |
| U | Analyte was not detected at the value indicated |
| V | Concentration difference between the primary and confirmation column $>100\%$. The reporting limit is raised due to this disparity and evident interference. |
| W | The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L. |
| Z | Laboratory Defined - see analysis report |

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.

Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

