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October 14, 2020

Mr. Michael J. Stefanic, P.G.
Pennsylvania Department of Environmental Protection
Environmental Cleanup Program
909 Elmerton Avenue
Harrisburg, PA 17110-8200

Re: Site Characterization Report
Sohail's Store
835 South Eisenhower Boulevard
Middletown, PA 17057
PADEP Facility ID #22-16012/PAUSTIF Claim #2020-0014

Dear Mr. Stefanic:

Letterle & Associates, Inc. is pleased to submit this Site Characterization Report for the above referenced site.

If you have any questions or comments regarding this report, please feel free to contact me at 814-355-2241.

Sincerely,

Jed Hill
Project Manager

Enclosure

cc: Mr. Sohail Riarh (via email)
Ms. Bethany Smith, ICF (via email)
L:\Operations\Projects\Project Files\Bellefonte\Independents\Sohails Store #817\Reports\SCR\Sohails SCR 2020.doc

SITE CHARACTERIZATION REPORT

PADEP Facility ID #22-16012
PAUSTIF Claim #2020-0014

Sohail's Store
835 South Eisenhower Boulevard
Middletown, PA 17057

Prepared for:

Mr. Sohail Riarh
835 South Eisenhower Boulevard
Middletown, PA 17057

Letterle & Associates, Inc.
2022 Axemann Road, Suite 201, Bellefonte, PA 16823

Jed Hill
Project Manager

Eric Itle, P.G.
Project Geologist

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC A. ITLE
GEOLOGIST
No. PG 004975

"By affixing my seal to this document, I am certifying that the information is true and correct to the best of my knowledge. I further certify I am licensed to practice in the Commonwealth of Pennsylvania and that it is within my professional expertise to verify the correctness of the information."

- Eric A. Itle, P.G., signed and sealed this day, October 14, 2020

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LIST OF ACRONYMS

- Act 2 – Pennsylvania Land Recycling and Remediation Standards Act
- ASTM – American Society for Testing and Materials
- BTEX – benzene, toluene, ethylbenzene, and xylenes
- ºC – temperature in Celsius degrees
- COC – chain-of-custody
- COI – Constituents of Interest
- DO – dissolved oxygen
- DOT – Department of Transportation
- EC – Environmental Covenant
- ft/ft – feet per foot
- ft–amsl – feet above mean sea level
- ft-bgs – feet below ground surface
- GAC – granular activated carbon
- Keystone – Keystone Petroleum Equipment, Ltd.
- Letterle – Letterle & Associates, Inc.
- MSC – Medium Specific Concentration
- MTBE – methyl tertiary-butyl ether
- MW – monitoring well (numerically designated)
- NOC – Notice of Contamination
- NRCS – Natural Resource Conservation Service
- PA – Pennsylvania
- PADEP – Pennsylvania Department of Environmental Protection
- PAGWIS – Pennsylvania Groundwater Information System
- PAH – polycyclic aromatic hydrocarbons
- PID – photoionization detector
- PNDI – Pennsylvania Natural Diversity Index
- POC – Point-of-Compliance
- PADEP short list constituents – PADEP Land Recycling Program Technical Guidance Manual, Table III-5: Short List of Petroleum Products, specifically unleaded gasoline constituents
- PVC – poly-vinyl chloride
- RAP – Remedial Action Plan
- SB – soil boring (numerically designated)
- SCR – Site Characterization Report
- SHS – Statewide Health Standard
- SPL – separate-phase liquid
- SV_{GW} – Groundwater Residential SHS Vapor Intrusion Screening Values
- SV_{SOIL} – Soil Residential SHS Vapor Intrusion Screening
- TDS – total dissolved solids
- TMB – Trimethylbenzene
- UARSHS – Used Aquifer Residential Statewide Health Standard
- USCS – Unified Soil Classification System
- USDA – United States Department of Agriculture
- USEPA – United States Environmental Protection Agency

- USGS – United States Geological Survey
- UST – underground storage tank
- Vapor Guidance – Land Recycling Program Technical Guidance Manual, Section IV: Vapor Intrusion
- VI – Vapor Intrusion
- VOC – volatile organic compound

1.0 INTRODUCTION

Letterle & Associates of Bellefonte, PA has been retained by Mr. Sohail Riarh, as the environmental consultant for the Sohail's Store (a.k.a., Zeeks Exxon) facility located at 835 South Eisenhower Boulevard in Lower Swatara Township, Dauphin County, Middletown, PA (the site).

The Sohail's Store facility is a retail fueling station and convenience store. On June 25, 2019, Crompco, a certified tank contractor, was performing the annual compliance testing and the premium line test (UST 007) failed. Crompco inspected the system and found approximately 3-inches of fuel/water mixture in the dispenser #3/4 sump and found the product line to be leaking at the coupling that connects to the "T" (within the sump containment). Keystone, a certified tank contractor, subsequently inspected the sump and informed the PADEP that a hydro test would fail due to issues with the Stage II piping (cracked entry boot). UST 007 (premium gas) remained shut down. On November 26, 2019, per PADEP directive, Keystone and Letterle completed a subsurface investigation in the vicinity of the dispenser #3/4 sump. The investigation involved core-drilling and hand-augering borings around the dispenser sump; however, pea gravel was encountered down to 8 feet below grade in each borehole and soil was not encountered for sample collection. Per PADEP directive, a groundwater sample was then collected from the nearest tank field observation well and the results reported impacts above the SHS for 1,3,5-TMB, 1,2,4-TMB, benzene, ethylbenzene, and naphthalene. The release was confirmed upon receiving/reviewing the analytical results on December 11, 2019 and a NOC for a confirmed release was submitted to the PADEP.

Due to the confirmed reportable release of a regulated substance, the PADEP issued a letter to Mr. Sohail Riarh (RR Corporation) dated January 7, 2020 for a violation of Section 1310 of the PA Storage Tank and Spill Prevention Act and mandated that a site characterization be performed (Chapter 245, Sections 309 and 310). As per the PADEP requirements, an environmental site characterization for the facility was conducted due to the confirmed reportable release in accordance with 25 PA Codes § 245.309 and § 245.310.

The regulated substance identified at the site was unleaded gasoline. Unleaded gasoline is composed of hydrocarbons and "additives" that are blended with the fuel to improve fuel performance and engine longevity. The hydrocarbons fall primarily in the C_4 to C_{12} range. The lightest of these hydrocarbons are highly volatile and rapidly evaporate from gasoline. The aromatic hydrocarbons in gasoline are BTEX. Some heavier aromatics are also present including low amounts of PAHs such as naphthalene and cumene. In addition, oxygenated compounds ("oxygenates") such as alcohols (for example, methanol or ethanol) are currently added. MTBE was historically added to gasoline as an octane booster and to reduce carbon monoxide emissions. MTBE was a common additive between 1980 and 2006.

This SCR includes all characterization activities conducted at the site to date by Letterle. In accordance with 25 PA Code § 245.309, the objectives of the site characterization were to accomplish the following:

- Describe the release, extent of contamination, and the interim remedial actions implemented to address the release;

- Determine whether additional interim remedial actions were necessary to abate an imminent hazard to human health or the environment;
- Determine whether additional site characterization work was required upon completion of an interim remedial action;
- Determine or confirm the sources of contamination;
- Provide sufficient physical data, through field investigations, to determine the regulated substances involved, and the extent of migration of those regulated substances in surface water, groundwater, soil, and/or sediment;
- Determine, from measurements at the site, values for input parameters including hydraulic conductivity, source dimensions, hydraulic gradient, and water table fluctuation necessary for fate and transport analysis;
- Provide sufficient information to select a remediation standard; and,
- Provide sufficient information to allow for completion of a remedial action plan.

This report was completed in accordance with 25 PA Code § 245.310 and demonstrates the objectives of a site characterization, as detailed in 25 PA Code § 245.309, have been accomplished. Based on the available soil and groundwater data collected to date, this SCR discusses the nature and extent of regulated substances in the soil and groundwater, and summarizes the potential risks to human health and the environment from the identified regulated substances at the site.

2.0 SITE BACKGROUND

2.1 Site Description/Physical Setting

The site location is depicted on the USGS 7.5-minute Topographical Quadrangle of Steelton, PA as presented in **Figure 1**. The latitude of the site is reported to be 40° 13' 08.50" N and the longitude is reported to be -76° 47' 28.85" W. The site reportedly exists at an approximate elevation of 395 ft-amsl. Site topography is generally flat. An aerial view of the site and surrounding area is presented as **Figure 2**. A more detailed site layout map, which fully depicts the site area, is presented as **Figure 3**.

The site (subject property) currently operates as a retail fueling station and convenience store. The site is located along South Eisenhower Boulevard in Lower Swatara Township within an area of mostly commercial development. The site is covered primarily with asphalt and concrete, with grass landscaping near the property boundaries. There is one onsite building centrally located on the property, which is the current station building and convenience store. There are two fuel island canopies; the diesel fuel canopy is located west of the onsite building and serves two dispenser islands, and the unleaded gasoline canopy is located east of the onsite building and serves four dispenser islands. The unleaded gasoline UST field is located immediately east of the onsite building, between the building and the unleaded gasoline fuel canopy, while the diesel UST field is located proximal to the diesel canopy along the western property boundary. The site is bordered to the north and west by the Pennsylvania Petroleum Association (main office) and bulk petroleum terminals (Pyramid Petroleum Terminals and Lucknow-Highspire Terminals, LLC), to the south by a Taco Bell restaurant, and to the east by South Eisenhower Boulevard.

The nearest surface water bodies are Buser Run and Tributary 10095 to the Susquehanna River. Buser Run is located approximately 0.25 miles west of the site and Tributary 10095 is located approximately 0.36 miles southwest of the site. Both streams have a southerly flow through the region until they confluence with the Susquehanna River approximately one-mile south of the site.

2.2 Site History/Project Summary

The subject property (the site) history has been compiled from a review of the: files/records provided by Mr. Sohail Riarh; the PADEP files (physical review of the files at the PADEP Southcentral Regional Office in Harrisburg, PA and eFACTS); and, online data searches.

The Sohail's Store (Zeeks Exxon) facility currently operates as a retail fueling station and convenience store. The facility is owned by Mr. Sohail Riarh (RR Corporation), and operates as an Exxon-branded retail fueling station. According to the PADEP files, historically only compliance/inspection violations were noted, which were subsequently corrected.

The current UST system onsite includes three registered USTs: one 10,000-gallon diesel fuel UST (006); one 8,000-gallon unleaded gasoline UST (007); and, one 12,000-gallon unleaded gasoline UST (008). All three USTs are single-walled fiberglass construction and were installed in 1996. USTs 007 and 008 are located in a common tank field east of the onsite building (between the building and the unleaded gasoline dispenser canopy (see **Figure 3**) and serve four dispenser islands via two-inch pressurized double-wall flexible product piping. UST 006 is located in a separate tank field west of the onsite building (near the diesel fuel dispenser canopy (see **Figure 3**)) and serves two dispenser islands via two-inch pressurized double-wall flexible product piping.

On June 25, 2019, Crompco, a certified tank contractor, was performing the annual compliance testing and the premium line test (UST 007) failed. Crompco inspected the system and found approximately 3-inches of fuel/water mixture in the dispenser #3/4 sump and found the product line to be leaking at the coupling that connects to the "T" (within the sump containment). Crompco noted that all liquid was below all dispenser penetration points in the sump. Crompco submitted a NOC for a suspected release. Following the failed line test, Mr. Riarh shut down dispensing from UST 007. Since the release was to the dispenser sump, the PADEP stated that no site characterization was necessary if the sump passes a hydro test. Keystone, a certified tank contractor, subsequently inspected the sump and informed the PADEP that a hydro test would fail due to issues with the Stage II piping (cracked entry boot). Keystone provided Mr. Riarh with a proposal for a full facility product line/dispenser upgrade. PADEP informed Keystone and Mr. Riarh they could sample below the sump during the upgrade as long as the premium lines remained shut down – and gave a 120-day timeline to complete the upgrades. In November 2019, the PADEP checked with Keystone to see if the facility upgrade occurred yet. Keystone had it on their schedule to start in January 2020, but PADEP wanted an investigation around the sump completed to see if there was actually a confirmed release.

On November 26, 2019, per PADEP directive, Keystone and Letterle completed a subsurface investigation in the vicinity of the dispenser #3/4 sump. The investigation involved core-drilling and hand-augering borings around the dispenser sump; however, pea gravel was encountered

down to 8 feet below grade in each borehole and soil was not encountered for sample collection. Per PADEP directive, a groundwater sample was then collected from the nearest tank field observation well (see **Figure 3**) and the results reported impacts above the SHS for 1,3,5-TMB, 1,2,4-TMB, benzene, ethylbenzene, and naphthalene (see **Table 1** for the tank field observation well groundwater analytical results). The release was confirmed upon receiving/reviewing the analytical results on December 11, 2019 and a NOC for a confirmed release was submitted to the PADEP.

Due to the confirmed reportable release of a regulated substance, the PADEP issued a letter to Mr. Riarh dated January 7, 2020 for a violation of Section 1310 of the PA Storage Tank and Spill Prevention Act and mandated that a site characterization be performed (Chapter 245, Sections 309 and 310). The PADEP letter also confirmed submission of a SCR by May 25, 2020. Letterle requested written approval from the PADEP to grant a 120-day extension to the May 25, 2020 due date for the submission of the SCR, which was subsequently approved by the PADEP.

In January-February 2020, Keystone completed the full facility product line/dispenser upgrade. The following UST system modifications were completed: all gasoline and diesel dispenser sumps were replaced; all product piping from USTs 006, 007, and 008 to all dispensers were replaced; the tank top sump on UST 006 was replaced; sump sensors were added to all gasoline and diesel dispenser sumps; the overfill valves on USTs 007 and 008 were replaced; and, the tank monitor and sensor shutdown system was reprogrammed. Dispenser sump and product line closure samples were collected per PADEP protocol (Closure Requirements for Underground Storage Tank Systems) and the analytical results reported no exceedances of the SHS (see **Table 2** for line closure analytical results).

The UST System Closure Report (Partial Line Closure) dated February 20, 2020 was also submitted to the PADEP. In accordance with 25 PA Code § 245.310(a)(8), a copy of the UST System Closure Report is included in **Appendix A**.

3.0 REGIONAL GEOLOGY AND SITE-SPECIFIC SOILS DESCRIPTION

3.1 Regional Geology

According to the Geologic Map of Pennsylvania, 1980, bedrock geology in the vicinity of the site is mapped as the Triassic-aged, Gettysburg Formation (Trg). The Gettysburg Formation is generally described as reddish-brown to maroon, silty mudstone and shale containing thin red sandstone interbeds; several thin beds of impure limestone. The bedrock geology underlying the site is illustrated in **Figure 4A**.

Only preliminary geologic mapping of the area has been completed and no published information was researched to approximate the basic local structural orientation (local strike and dip) of the underlying bedrock formation. No bedrock outcrops were observed, nor was bedrock identified during the site characterization activities.

3.2 Site Specific Soils Description

According to the USDA NRCS Web Soil Survey, the soils at the site are mapped as the Chavies fine sandy loam, 3 to 8 percent slopes, moderately eroded (CnB2) and Urban land, limestone materials (Ub).

The Chavies series consists of very deep, well drained soils formed in alluvium in river valleys derived from sandstone and siltstone. Permeability is moderately rapid. Slope ranges from 0 to 55 percent. Saturated hydraulic conductivity is high. Mean annual precipitation is about 400 to 500 inches and the mean annual air temperature is 50 to 55 degrees F. Most uses are for hayland, cropland, and pasture. Cultivated areas are used for grass-legume hay, corn, wheat, and soybeans. Wooded areas consist of oaks, hickories, birch, beech, maple, elm, yellow poplar, sycamore, gums, pines, and hemlock. The Chavis series are found in Kentucky, Ohio, West Virginia, Virginia, Maryland, and Pennsylvania.

Urban land is land mostly covered by streets, parking lots, buildings, and other structures of urban areas. Urban soils are found in watersheds that provide drinking water, food, waste utilization, and natural resources to communities. Urban soils also are located within cities in park areas, recreation areas, community gardens, green belts, lawns, septic absorption fields, sediment basins and other uses.

Additional information on the site soils is contained in the Custom Soil Resource Report produced by the USDA NRCS Web Soil Survey, which is included in **Appendix B**. The mapped soils underlying the site are illustrated on the USDA NRCS soils map presented as **Figure 4B**.

4.0 SENSITIVE RECEPTOR SURVEY

A sensitive receptor survey was performed during the site characterization to evaluate potential receptors in the area. The survey included a review of the surrounding land use, an assessment of underground conduits and utilities, an inventory of groundwater usage in the vicinity of the site, and identification of the nearest surface water bodies.

4.1 Surrounding Land Use

The results of the survey indicate the surrounding area is commercially developed to the north, south, east, and west; with some residential development to the west (see **Figure 2**). The following presents further details of the properties that border the site:

- To the north – Commercial development (Pennsylvania Petroleum Association main office and bulk petroleum terminals (Pyramid Petroleum Terminals and Lucknow-Highspire Terminals, LLC));
- To the west – Commercial development (southern end of the bulk plant) followed by residential development;
- To the south – Commercial development (Taco Bell followed by Holiday Inn and Wendy's); and,
- To the east – South Eisenhower Boulevard followed by commercial development and then the Route 283 interchange.

4.2 Underground and Overhead Conduits and Utilities

This section identifies the utilities and subsurface conduits at and in the vicinity of the site (see **Figure 3**) in order to identify potential preferred pathways for regulated constituents to migrate at and beyond the site. A review of the local utilities indicated the presence of water, sanitary sewer, natural gas, electric, and communications lines in the vicinity at the site. The following utilities identified at the subject property include:

Water: The subject property is serviced with public water from Suez Middletown Water. The water source enters the southeastern part of the property via underground lines.

Sanitary Sewer: The subject property is serviced with public sewer from Lower Swatara Township Municipal Authority, which enters the southeastern part of the property via underground lines.

Natural Gas: The subject property is not serviced with public gas; however, two natural gas main lines run parallel with South Eisenhower Boulevard within the property boundaries. One main gas line, owned by Buckeye Energy, is located just east of the unleaded gasoline fuel canopy; and, another main gas line, owned by UGI, is located along South Eisenhower Boulevard.

Electric: The subject property is serviced with electricity from PPL Electric Utilities Corporation, which enters the property via overhead lines.

Communications: The subject property is serviced with communications from Verizon, which enters the property via overhead lines.

No other subsurface utilities (conduits) are located at the subject property.

4.3 Groundwater Usage

The site and neighboring properties are served with public water provided by Suez Middletown Water. Lower Swatara Township has an ordinance in place that states the following: where a water main supply is within 1,000 feet of, or where plans approved by the Board of Commissioners provides for the installation of such public water facilities to within 1,000 feet of a proposed subdivision or land development, the developer shall provide the subdivision or land development with a complete water main supply system to be connected to the existing or proposed water main supply system in accordance with Township and/or utility specifications. Where installation of a public water main supply system is not required, the developer shall provide for each lot, at the time improvements are erected thereon, an individual water supply approved by the PADEP as to source, installation and quality of water. An ordinance restricting the installation and/or use of private water wells does not exist. A copy of the Lower Swatara Township ordinance (Ordinance No. 22-604) is included in **Appendix C**.

A water supply well search (PAGWIS) was performed to determine the potential for impacted groundwater beneath the site to be withdrawn from surrounding properties. The search revealed 38 registered wells within a half mile radius of the site. Fifteen of the registered wells are

environmental test/observation/monitoring wells used for shallow groundwater monitoring purposes (10 of these wells are located at the adjacent bulk petroleum terminal property to the north). Four of the registered wells are abandoned environmental test/observation/monitoring wells. Seven of the registered wells are commercial/industrial withdrawal wells. Six of the registered wells are domestic withdrawal wells. Six of the registered wells are destroyed. The results of the PAGWIS database search and an aerial view showing the locations of the nine commercial/industrial withdrawal wells and the six domestic withdrawal wells are included in **Appendix C**.

4.4 Surface Water Bodies

The nearest surface water bodies are Buser Run and Tributary 10095 to the Susquehanna River. Buser Run is located approximately 0.25 miles west of the site and Tributary 10095 is located approximately 0.36 miles southwest of the site. Both streams have a southerly flow through the region until they confluence with the Susquehanna River approximately one-mile south of the site. According to Chapter 93 of the PADEP Regulations, the water quality standard (water uses protected) designations for the Susquehanna River and Buser Run are Warm Water Fishes and Migratory Fishes.

The Susquehanna River is the major surface water feature in the vicinity of the site and the closest potential surface water receptor for site COI (PADEP short list constituents).

5.0 INVESTIGATION METHODS AND PROCEDURES

The site characterization was performed in accordance with generally recognized and accepted industry standards and PADEP technical guidance. Specifically, the site characterization was performed in accordance with the general site characterization requirements documented in Subchapter D of the Storage Tank and Spill Prevention Program and Chapters 245 and 250 of the PA Code.

The objective of the site characterization activities was to evaluate soil and groundwater chemical and physical characteristics and determine the extent of subsurface impact resulting from the December 2019 confirmed release at the site. The site characterization activities were completed using the following methods and procedures:

- Advancement of Soil Borings;
- Soil Sampling and Analysis;
- Soil Geotechnical Sampling and Analysis;
- Installation of Groundwater Monitoring Wells;
- Groundwater Monitoring Well Development;
- Licensed Professional Site Survey and Base Map;
- Groundwater Gauging;
- Groundwater Sampling and Analysis;
- Groundwater Slug Testing; and,
- Vapor Intrusion Assessment.

5.1 Advancement of Soil Borings

In response to the December 2019 confirmed release, a soil investigation was completed to identify and delineate (horizontal and vertical extent) potential soil impacts in the vicinity of the current UST system (specifically the dispenser #3/4 area). A total of 18 soil borings (SB-1 through SB-18) were advanced at the site during the soil investigation. Soil borings SB-1 through SB-16 were advanced on May 26-28, 2020; and, SB-17 and SB-18 were advanced on June 1, 2020.

The locations of all 18 soil borings are depicted on the map included as **Figure 3**.

Following utility clearance, each borehole was advanced using direct push technology methods utilizing a track-mounted Geoprobe® machine to a depth of approximately 15-20 ft-bgs (into the zone of permanent saturation). Soil samples were collected with macro-core sampling devices in accordance with ASTM D1586-99. Macro-core samplers were five feet in length with 1.75-inch diameter PVC liner inserts. The macro-core tubes were retrieved and the PVC liners opened to inspect the soil samples. A new disposable PVC liner was placed inside the macro-core tube for each sample interval. Soil samples were collected immediately beneath the surface for description of lithology, groundwater occurrence, and staining/odor indicative of potential petroleum impacts. Each soil sample was field-classified in accordance with the USCS and was field screened for VOC vapors with a properly calibrated PID in one-foot increments, using headspace analysis technique. The boring logs are included in **Appendix D**.

The soil borings were subsequently backfilled with bentonite chips/grout to approximately 0.5 ft-bgs and the original surface was restored to its previous condition (concrete or asphalt).

Soil cuttings and decontamination waste generated during the soil investigation activities were placed into 55-gallon DOT-approved and appropriately-labeled steel drums and staged onsite. Pick-up and disposal of the waste generated during the soil investigation activities was completed on July 29, 2020 with GemChem, Inc. of Lititz, PA (the waste disposal manifest is included in **Appendix E**).

5.2 Soil Sampling and Analysis

Criteria used to select soil samples for laboratory analysis from the various borings during the site characterization included the following:

- PID results;
- Visual evidence of staining;
- Petroleum odors;
- Soil-water interface; and,
- ‘Clean’ confirmation samples.

The soil samples were collected by field personnel, wearing nitrile disposable gloves. Each soil sample was collected using the Easy Draw Syringe or a similar syringe apparatus in general accordance with the USEPA Method 5035. Specifically, for each soil sample collected, two

five-gram samples of soil were deposited into two pre-preserved sodium bisulfate vials, one five-gram sample was deposited into a pre-preserved methanol vial, and a sample was placed in a four-ounce amber glass jar. The soil samples were deposited into pre-preserved laboratory supplied glassware, labeled, custody sealed, placed in an ice-filled cooler, and returned to the office. The samples were stored in a refrigerator (at 4 ºC) until they were delivered to the laboratory. The samples were submitted to Fairway Laboratories of Altoona, PA for analysis of the PADEP short list constituents via USEPA Method 8260B, and were accompanied by COC documentation.

One or two soil samples were collected from each soil boring location based on the above criteria. One soil sample was collected from the unsaturated interval with the highest PID reading and one soil sample was collected within the smear zone (if the highest PID reading was within the smear zone). If no VOC vapors were detected by the PID or no staining or odors were observed, a confirmatory soil sample was collected from just above the presumed soil-water interface.

The soil analytical laboratory reports from the soil investigation events are included in **Appendix F**. A discussion of the soil analytical results is provided in **Section 6.1**.

5.3 Soil Geotechnical Sampling and Analysis

A geotechnical soil sample was collected in order to evaluate site-specific geotechnical parameters that may affect groundwater and/or potential contaminant migration, and to potentially aid in fate-and-transport analysis (if necessary). One soil sample was collected near borehole MW-6 (10-15 ft-bgs interval) on June 1, 2020 based upon the stratigraphy and soil types observed during the soil investigation. One soil profile sample was submitted to CMT Laboratories, Inc. of State College, PA for analysis of the following parameters:

- Visual description
- Average specific gravity
- Moisture content
- Porosity
- Organic content
- Wet unit weight
- Average permeability coefficient

The geotechnical laboratory report from CMT Laboratories is included in **Appendix F**. A discussion of the soil geotechnical results is provided in **Section 6.2**.

5.4 Installation of Groundwater Monitoring Wells

In order to characterize groundwater and delineate confirmed groundwater impacts at the site, nine groundwater monitoring wells were installed during the site characterization. Monitoring wells MW-1 through MW-6 were installed on May 26 through June 1, 2020. Monitoring wells MW-7 through MW-9 were installed on August 31 and September 1, 2020.

5.4.1 May 26 – June 1, 2020 Groundwater Monitoring Well Installation

Six groundwater monitoring wells (MW-1 through MW-6) were initially installed at the site (initial characterization phase).

Each borehole location was advanced via auger drilling methods equipped with an 8¼-inch outside-diameter auger bit. Each borehole was logged in accordance with the USCS and field screened for VOC vapor concentrations with a PID using headspace analysis methods. During advancement, groundwater occurrence and any potential staining or odors indicative of hydrocarbon impacts was noted. Each borehole was advanced to a terminal depth of 20 ft-bgs.

The newly advanced boreholes were converted to monitoring wells. The monitoring wells were constructed with 2-inch diameter, threaded, flush-joint, schedule 40 PVC casing and 0.010-inch factory-slotted PVC well screen and in accordance with the PADEP Groundwater Monitoring Guidance Manual. The monitoring wells were screened from 5 to 20 ft-bgs.

In each borehole, the annular space spanning the length of the well screen interval was filled with clean filter silica sand and extended to approximately one to two feet above the top of the well screen. A hydrated bentonite seal was placed on top of the sand pack in each borehole and extended to near ground surface. The monitoring wells were completed with a locking expansion cap and protected with a flush-mount and traffic-rated steel manhole cover set in a two-foot square concrete pad. The boring logs are included in **Appendix D**.

Drill cuttings and decontamination waste generated during the well drilling activities on May 26 through June 1, 2020 were placed into 55-gallon DOT-approved and appropriately-labeled steel drums and staged onsite. Pick-up and disposal of the waste generated during the drilling activities was completed on July 29, 2020 with GemChem, Inc. of Lititz, PA (the waste disposal manifest is included in **Appendix E**).

5.4.2 August 31 – September 1, 2020 Groundwater Monitoring Well Installation

Three additional groundwater monitoring wells (MW-7 through MW-9) were installed at the site to further characterize groundwater.

Each borehole location was advanced via auger drilling methods equipped with an 8¼-inch outside-diameter auger bit. Each borehole was logged in accordance with the USCS and field screened for VOC vapor concentrations with a PID using headspace analysis methods. During advancement, groundwater occurrence and any potential staining or odors indicative of hydrocarbon impacts was noted. Each borehole was advanced to a terminal depth of 20 ft-bgs.

The newly advanced boreholes were converted to monitoring wells. The monitoring wells were constructed with 2-inch diameter, threaded, flush-joint, schedule 40 PVC casing and 0.010-inch factory-slotted PVC well screen and in accordance with the PADEP Groundwater Monitoring Guidance Manual. The monitoring wells were screened from 5 to 20 ft-bgs.

In each borehole, the annular space spanning the length of the well screen interval was filled with clean filter silica sand and extended to approximately one to two feet above the top of the

well screen. A hydrated bentonite seal was placed on top of the sand pack in each borehole and extended to near ground surface. The monitoring wells were completed with a locking expansion cap and protected with a flush-mount and traffic-rated steel manhole cover set in a two-foot square concrete pad. The boring logs are included in **Appendix D**.

Drill cuttings and decontamination waste generated during the well drilling activities on August 31 and September 1, 2020 were placed into 55-gallon DOT-approved and appropriately-labeled steel drums and staged onsite. Pick-up and disposal of the waste generated during the drilling activities is scheduled to be completed with GemChem, Inc. of Lititz, PA in October 2020.

Installed groundwater monitoring wells include:

- Two in the known source area (area proximal to the unleaded gasoline UST field and dispenser #3/4 (MW-2 and MW-5));
- Four down/side-gradient (at the property POC) from the current UST system area (MW-3, MW-4, MW-6, and MW-8);
- One down-gradient (off-site) from the MW-3/MW-6 impacts (MW-9); and,
- Two up-gradient from the current UST system area (MW-1 and MW-7).

As a result of the well installation activities completed during the site characterization, the current monitoring well network includes (see **Figure 3**):

- 9 wells in the shallow overburden groundwater monitoring well network: MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW7, MW-8, and MW-9.

5.5 Groundwater Monitoring Well Development

Following the well installations, the newly-installed monitoring wells were developed to remove fine-grained material that may have entered the wells during construction and to ensure proper hydraulic communication with the aquifer. The monitoring wells were developed with a surge block and purged of fine-grained materials with a submersible pump with controller and low-density polyethylene tubing. Each well was developed by purging groundwater until the water appeared clear and free of sediment. The volume of groundwater removed from each monitoring well during the development activities was noted, and a total depth to bottom measurement was collected after development to verify and determine sediment thickness removed from the bottom of each monitoring well. The development water was filtered through a mobile GAC vessel and then discharged to the ground surface onsite.

5.6 Licensed Professional Site Survey and Base Map

A survey of the entire monitoring well/borehole network and site (right-of-ways, property boundaries, site features, etc.) was completed by Kerry A. Uhler & Associates of Bellefonte, PA. Survey points were determined with Survey Grade Global Positioning System/Global Navigation Satellite System receivers and projected to the PA South (3702) State Plane Coordinate system based on the North American Datum of 1983 (NAD83) with post-processing via TOPCON Tools post-processing software. Site benchmarks are also referenced to this data.

The top of each well casing was survey located relative to the aforementioned datum. The surveyed top-of-casing elevations and depth-to-groundwater measurements were used to establish groundwater elevations in each well. The depth-to-groundwater in each well was subtracted from the measuring point elevation to obtain the elevation of groundwater. Additionally, well total depth measurements and the known screen intervals were used to establish the top-of-screen elevations in each well. A detailed site layout map (base map), which fully depicts the site area, is presented as **Figure 3**.

5.7 Groundwater Gauging

Depth-to-fluid and/or groundwater was measured in each well to monitor measured thickness of SPL (if present), determine groundwater elevations, and interpret the predominant direction of groundwater movement. Depth-to-fluid and/or groundwater measurements were recorded using an electronic oil-water level indicator capable of measuring to within 0.01 feet of accuracy. The oil-water level indicator was decontaminated between each well to prevent cross-contamination.

Groundwater gauging events were completed following the well installation activities completed at the site. Initial groundwater gauging events were completed on June 9, 2020 and July 9, 2020 (MW-1 through MW-6), and a confirmatory gauging event was completed on September 8, 2020 (all nine wells). A total of nine wells were gauged during the confirmatory event:

- 9 wells in the shallow overburden groundwater monitoring well network: MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, MW-8, and MW-9.

A discussion of the groundwater gauging results and site hydrogeology is provided in **Section 6.4**.

5.8 Groundwater Sampling and Analysis

Subsequent to gauging the fluid and/or groundwater level in each well, low-flow sampling was initiated. For site wells, a combination of polyethylene and silicon tubing were utilized in conjunction with a peristaltic pump. The peristaltic pump was then utilized to purge each well at a low flow rate of <0.5 liters (500 milliliters) per minute. The pump intake was placed approximately three feet below the measured water level. In general, each well was purged at a rate of 100-400 milliliters per minute to avoid creating drawdown. If a well was dewatered, a bailer was utilized to collect the sample after the well recovered.

During purging, the groundwater was passed through a flow-through cell that measures DO, pH, TDS, temperature, specific conductivity, and oxidation-reduction (redox) potential. Measurements of these parameters were recorded every 3 minutes. These measurements were recorded until three consecutive readings stabilized to the following: ± 0.1 for pH, ± 3% for conductivity, ± 10 millivolts for redox potential, and ± 10% for DO and TDS. Purging was considered complete upon parameter stabilization for three consecutive readings. Once stabilization was documented, the flow-through cell was disconnected and the sample was immediately collected from the discharge line.

The sampling equipment was decontaminated between each sampled well to prevent cross-contamination. The purged groundwater was filtered through a mobile GAC vessel and then discharged to the ground surface onsite.

The samples were sealed in pre-preserved laboratory supplied glassware, labeled, custody sealed, placed in an ice-filled cooler, and returned to Letterle's office. The samples were stored in a refrigerator (at 4 ºC) until they were delivered to the laboratory. The samples were submitted to Fairway Laboratories of Altoona, PA for analysis of the PADEP short list constituents via USEPA Method 8260B and were accompanied by COC documentation.

Groundwater sampling events were completed following the well installation activities completed at the site. Initial groundwater sampling events were completed on June 9, 2020 and July 9, 2020 (MW-1 through MW-6), and a confirmatory sampling event was completed on September 8, 2020 (all nine wells). A total of nine wells were sampled during the confirmatory event:

- 9 wells in the shallow overburden groundwater monitoring well network: MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, MW-8, and MW-9.

The groundwater analytical laboratory reports are included in **Appendix F**. A discussion of the groundwater analytical results is provided in **Section 6.5**.

5.9 Groundwater Slug Testing

Aquifer testing (groundwater slug testing) was conducted in order to estimate pertinent hydraulic properties (hydraulic conductivity, transmissivity, and storativity) of the overburden groundwater beneath the site for the potential purposes of contaminant fate and transport predictions and remedial feasibility analysis.

Groundwater slug testing consists of quickly lowering or raising the water level in a specific well or borehole from equilibrium (static) and measuring its subsequent rate of rise or fall with respect to time. Hydraulic conductivity of an aquifer around a specific well screen or otherwise portion of a well for fully- or partially-penetrating wells in unconfined aquifers can be measured utilizing this method. Groundwater slug testing was performed on groundwater monitoring wells MW-5, MW-7, and MW-9 on September 29, 2020.

There are two general methods of conducting groundwater slug tests, including the falling-head "slug-in" and rising-head "slug-out" tests. The tests conducted during this investigation consisted of both the falling-head "slug-in" and rising-head "slug-out" tests.

Prior to initiating each groundwater slug test, depth-to-groundwater was measured manually using an electronic water level indicator to record the presumably static groundwater elevation in each well. A pressure transducer (In-Situ Level TROLL® 700) was then installed in each well (MW-5, MW-7, and MW-9) and the groundwater level was allowed to stabilize. The pressure transducers were utilized to obtain true logarithmic groundwater level readings from each well during each groundwater slug test.

The groundwater "slug in" tests utilized a solid cylinder slug submerged (near instantaneous) in the wells. The water level measurements were collected until the water level returned to ninety percent recovery. The slug was then removed (near instantaneous) for the "slug out" test and water level measurements were collected until the water level returned to ninety percent recovery.

The data recorded by each pressure transducer was downloaded into a data logger. This data was uploaded from each data logger into WinSitu5® and AQTESOLV™ for Windows® programs. The WinSitu5® program takes the data stored in each data logger and allows it to be used by AQTESOLV™. This data, along with well construction and well location data was entered into the AQTESOLV™ software. AQTESOLV™ calculates an estimation of coefficient of storage (S) and coefficient of transmissivity (T) for each groundwater zone tested. The coefficient of storage (S) is mathematically dimensionless and represents an aquifer's ability to store water. The coefficient of transmissivity (T) is defined by Driscoll, (1986) as the rate at which water flows through a vertical strip of the aquifer one-foot wide and extending through the full saturated thickness, under a hydraulic gradient of one. The coefficient of transmissivity (T) is used to calculate the hydraulic conductivity (K). Hydraulic conductivity (K) is defined as a constant of proportionality relating the specific discharge of a porous medium under a unit hydraulic gradient in Darcy's Law where K=T/b (b = aquifer thickness).

A discussion of the groundwater slug testing results is provided in **Section 6.6**.

5.10 Vapor Intrusion Assessment

Groundwater impacts exceeding the applicable PADEP UARSHS MSCs were identified during the November 2019 subsurface investigation in the vicinity of the dispenser #3/4 sump (tank field observation well groundwater analytical results), and soil and groundwater impacts exceeding the applicable PADEP UARSHS MSCs were further characterized during the site characterization; therefore, an evaluation using the SHS Vapor Intrusion Assessment Process (Figure IV-6) found in the Vapor Guidance was completed. The soil and groundwater analytical results were screened against the SV_{SOIL} and SV_{GW}, respectively. The VI soil and groundwater screening data are summarized in **Tables 3 and 5,** respectively. Potential preferential pathways were also evaluated.

Soil impacts above the SV_{SOIL} are present within 30 horizontal feet of the onsite building; however, they are separated from the building's foundation by 5 vertical feet of soil-like material. The depth-to-groundwater is measured at greater than five ft-bgs. Groundwater impacts above the SV_{GW} are present within 30 horizontal feet of the onsite building; however, they are separated from the building's foundation by 5 vertical feet of soil-like material. Potential preferential pathways (sewer and water lines) do not penetrate the onsite building within 30 horizontal feet from the soil and groundwater source area. SPL is present at the site (MW-5) within 15-feet vertical proximity distance; therefore, the SHS Vapor Intrusion Assessment Process (Figure IV-6) recommends vapor sampling (near-source soil gas sampling, sub-slab soil gas sampling, indoor air sampling) to evaluate the VI pathway.

Near-source vapor point sampling was conducted in order to address the potential vapor exposure pathway.

5.10.1 Installation of Near-Source Vapor Points

As a result of the subsurface impacts identified during the site characterization activities, near-source soil gas sampling, in an attempt to eliminate or address the potential exposure pathway, was completed following the Vapor Guidance. Three near-source vapor points (SVP-1, SVP-2 and SVP-3) were installed at the site on September 1, 2020 (see **Figure 3** for the soil vapor point locations).

All three near-source vapor points (SVP-1, SVP-2, and SVP-3) were installed along the eastern side of the site building (in the asphalt between the UST field and the building). An air knife and vacuum truck were used to complete the near-source vapor point penetrations. Once the desired depth was achieved for each point (5.5 ft-bgs), 3/8-inch polyethylene tubing was attached (via barbed fitting) to each implant (6-inch double woven stainless steel wire screen) and each anchor, and then lowered down inside each penetration. Sand (#1) was then poured into each borehole to no more than two inches above the top of each implant (screen). Above the sand interval, bentonite chips were added to fill the remainder of each penetration up to near the asphalt surface and minimally hydrated to ensure a proper seal from the ambient atmosphere.

Once each near-source vapor point was installed, a 5-inch flush-mount protective manhole cover and a flush-mount concrete collar were installed around each vapor point. The sampling end of the polyethylene tubing was fitted with a plug and then secured inside each protective manhole cover until sampling was executed. The near-source vapor point construction logs are included in **Appendix D**.

5.10.2 Near-Source Soil Gas Sampling and Analysis

Near-source soil gas sampling was completed on September 23, 2020 (initial). During the soil gas sampling event, four total soil gas samples were collected, which included one sample from each soil vapor point (SVP-1, SVP-2 and SVP-3) and one duplicate sample.

At each near-source soil gas sampling location, tubing was used to connect the vapor point to the laboratory-provided near-source soil gas sampling equipment (laboratory-calibrated flow controllers, regulators, and summa canisters). The summa canisters were one-liter in size, allowed for a flow rate of less than 150 mL/min, and took approximately 10 minutes to fill each sample.

Summa canisters (supplied and calibrated by Pace Analytical Services, Inc.) were used to collect the near-source soil gas samples. The samples were submitted to Pace Analytical Services for analysis of the PADEP short list constituents via USEPA Method TO-15. The analytical laboratory report from September 23, 2020 (initial) near-source soil gas sampling event is included in **Appendix F**. Confirmatory sampling will be completed after 45 days from the initial sampling event.

A discussion of the near-source soil gas analytical results is provided in **Section 6.7**.

6.0 INVESTIGATION RESULTS

The following sections summarize the results that were obtained during the site characterization.

6.1 Soil Quality Evaluation

On November 26, 2019, Keystone and Letterle completed a subsurface investigation in the vicinity of the dispenser #3/4 sump. The investigation involved core-drilling and hand-augering borings around the dispenser sump; however, pea gravel was encountered down to 8 feet below grade in each borehole and soil was not encountered for sample collection.

The May/June 2020 soil investigations were completed to identify and delineate (horizontal and vertical extent) possible impacts in the vicinity of the current UST system (specifically the dispenser #3/4 area). The soil analytical results from the soil investigations indicated the following exceedances of the applicable PADEP UARSHS MSCs:

- 1,3,5-TMB in borings SB-3, SB-4, and SB-15;
- 1,2,4-TMB in borings SB-1, SB-3, SB-4, SB-9, SB-15, and SB-16;
- Benzene in borings SB-1, SB-4, and SB-6;
- Ethylbenzene in borings SB-1, SB-3, and SB-15; and,
- Naphthalene in borings SB-1, SB-3, SB-4, and SB-15.

The soil boring and sample locations are depicted on **Figure 3** and the soil analytical results from the May/June 2020 soil investigation events are presented in **Table 3**.

Based on the sample results and data collected during the soil investigations, an estimated area of impacted soil (unsaturated and smear zone) was identified and is presented in **Figure 5**.

As seen in **Figure 5**, unsaturated soil impacts are localized to the area near borings SB-1, SB-4, SB-9, and SB-16 (proximal to and immediately down-gradient of dispenser #3/4). Smear zone/saturated soil impacts are more widespread (dispenser #3/4 and the unleaded gasoline UST field area) and are considered a groundwater issue.

In summary, the results of the soil investigations confirm that soil impacts (unsaturated and smear zone) are localized to the area proximal to dispenser #3/4 and the unleaded gasoline UST field (see **Figure 5**). Impacts to subsurface soils have been fully delineated.

6.2 Soil Geotechnical Results/Summary

A geotechnical soil sample was collected near borehole MW-6 (10-15 ft-bgs interval) on June 1, 2020 in order to evaluate site-specific geotechnical parameters that may affect groundwater and/or potential contaminant migration, and to potentially aid in fate-and-transport analysis (if necessary). The results of the geotechnical analysis indicate the following:

- Visual description: brownish gray silty sand;
- Average specific gravity: 2.623;
- Moisture content: 15.4%;

- Porosity: 29.77%;
- Organic content: 0.29%;
- Wet unit weight: 132.6; and,
- Average permeability coefficient: 1.28 E-07 cm/sec.

The average permeability coefficient value is supported by the published values for the aquifer type (silty sand) (Freeze and Cherry, 1979).

Site specific fraction organic carbon data is necessary to aid in fate-and-transport analysis. The organic carbon content of a soil governs the adsorption of organic compounds to the soil, and is directly related to the mobility and retardation of organic contaminants in groundwater moving through a soil. Organic carbon content (TOC or Foc) can be used to predict the partitioning and bioavailability of organic contaminants when they interact with a soil or sediment.

Fraction Organic Carbon is simply its Total Organic Carbon content expressed as a decimal fraction (e.g., 1.0% TOC = 0.010 Foc). The site-specific fraction organic carbon is 0.0029.

6.3 Site Geology

The site-specific geology was interpreted from subsurface information that was generated during the site characterization. The basic lithology consists of concrete/asphalt at the surface underlain by pea gravel (in the vicinity of the current UST system) and brown/gray/orange silty clay and sandy soils to the base of the depths explored (approximately 20 ft-bgs). Competent bedrock was not encountered. Boring logs are included in **Appendix D**.

6.4 Site Hydrogeology

Groundwater at the site occurs in the overburden lithological unit. During site characterization activities, groundwater was encountered within the shallow overburden at depths ranging from 12.90 to 17.07 ft-bgs. Additionally, the Susquehanna River is the major surface water feature topographically down-gradient of the site and its elevation (ft-amsl) correlates with the reported groundwater depths at the site. Based on topography and groundwater elevation data, the shallow overburden aquifer likely discharges to the Susquehanna River. The Susquehanna River is likely the hydrogeologic drainage feature for the region.

Groundwater elevation data collected during the June 9, 2020 groundwater gauging event (initial event) indicates the following:

- Groundwater elevations in shallow overburden groundwater ranged from 383.62 feet in MW-6 to 386.00 feet in MW-1;
- The predominant direction of groundwater movement in the shallow overburden aquifer is interpreted to be southeasterly towards the Susquehanna River; and,
- Using the June 9, 2020 groundwater elevation data, a groundwater hydraulic gradient of 0.019 ft/ft between groundwater monitoring wells MW-1 and MW-6 was calculated.

Groundwater elevation data collected during the July 9, 2020 groundwater gauging event (initial event) indicates the following:

- Groundwater elevations in shallow overburden groundwater ranged from 382.44 feet in MW-3 to 384.18 feet in MW-1;
- The predominant direction of groundwater movement in the shallow overburden aquifer is interpreted to be southerly towards the Susquehanna River; and,
- Using the July 9, 2020 groundwater elevation data, a groundwater hydraulic gradient of 0.013 ft/ft between groundwater monitoring wells MW-1 and MW-3 was calculated.

Groundwater elevation data collected during the September 8, 2020 groundwater gauging event (confirmatory event) indicates the following:

- Groundwater elevations in shallow overburden groundwater ranged from 381.42 feet in MW-9 to 384.58 feet in MW-7;
- The predominant direction of groundwater movement in the shallow overburden aquifer is interpreted to be southeasterly towards the Susquehanna River; and,
- Using the September 8, 2020 groundwater elevation data, a groundwater hydraulic gradient of 0.013 ft/ft between groundwater monitoring wells MW-7 and MW-9 was calculated.

Table 4 presents the groundwater gauging/groundwater elevation data collected throughout the site characterization. Groundwater potentiometric surface contour maps were created for the shallow overburden aquifer. The groundwater potentiometric surface contour map for the September 8, 2020 (confirmatory event) groundwater gauging event, which includes all site wells, is presented as **Figure 6**.

6.5 Groundwater Quality Evaluation

On November 26, 2019, Keystone and Letterle completed a subsurface investigation in the vicinity of the dispenser #3/4 sump. The investigation involved core-drilling and hand-augering borings around the dispenser sump; however, pea gravel was encountered down to 8 feet below grade in each borehole and soil was not encountered for sample collection. Per PADEP directive, a groundwater sample was then collected from the nearest tank field observation well and the results reported impacts above the SHS for 1,3,5-TMB, 1,2,4-TMB, benzene, ethylbenzene, and naphthalene.

A groundwater investigation was completed during the site characterization to characterize groundwater and delineate confirmed groundwater impacts identified in the vicinity of the current UST system (specifically the dispenser #3/4 area). The groundwater analytical results obtained during the site characterization indicated the following exceedances of the applicable PADEP UARSHS MSCs:

- 1,3,5-TMB in well MW-5;
- 1,2,4-TMB in wells MW-1, MW-2, MW-5, and MW-6;
- Benzene in wells MW-1, MW-2, MW-3, MW-5, and MW-6;
- Ethylbenzene in well MW-5;
- Xylenes (total) in well MW-5; and,

- Naphthalene in wells MW-1, MW-2, MW-5, and MW-6.

Table 5 presents the historical groundwater analytical data collected throughout the site characterization. Groundwater analytical data collected throughout the site characterization confirms that 1,3,5-TMB, 1,2,4-TMB, benzene, ethylbenzene, xylenes (xylenes only in the initial sampling events), and naphthalene are present at concentrations greater than the applicable PADEP UARSHS MSCs in groundwater at the site within the vicinity of the source area (area proximal to dispenser #3/4) as well as within the unleaded gasoline UST field and immediately down-gradient (MW-3 and MW-6). Furthermore, as indicated in **Table 5**, measurable SPL (0.70 inches) was recorded in MW-5 during the July 9, 2020 groundwater gauging/sampling event.

The layout of the current groundwater monitoring well network is depicted on **Figure 3** and the groundwater analytical results are presented in **Table 5**. 1,3,5-TMB, 1,2,4-TMB, benzene, ethylbenzene, and naphthalene isoconcentration contour maps for the September 8, 2020 (confirmatory event) groundwater sampling event, which includes all site wells, are presented as **Figures 7 through 11**, respectively.

In summary, the results of the groundwater investigation confirm groundwater impacts (specifically 1,3,5-TMB, 1,2,4-TMB, benzene, ethylbenzene, xylenes (total), and naphthalene) at the site are most significant near the source area (dispenser #3/4 (MW-5 area)) and within the unleaded gasoline UST field (MW-2) and are migrating down-gradient (MW-3 and MW-6). Impacts to site groundwater are fully delineated.

6.6 Groundwater Slug Testing Results/Summary

The K values calculated for each well during slug testing are as follows:

	K (ft/day)	
Well ID	**Slug In**	**Slug Out**
MW-5	0.3597	3.165
MW-7	0.286	5.439
MW-9	18.36	19.38

The hydraulic conductivity values calculated for MW-9 appear to be an anomaly; therefore, only the values calculated for MW-5 and MW-7 were used to calculate the average hydraulic conductivity for the site. The results of aquifer testing indicated an average hydraulic conductivity of 2.312 feet/day in the shallow overburden aquifer, which will be the site-specific value used in the fate and transport analysis. The value was supported by the published values for the aquifer type (silty sand) (Freeze and Cherry, 1979). AQTESOLV™ results can be found in **Appendix G**.

6.7 Vapor Intrusion Investigation Results/Summary

The analytical results from the September 23, 2020 (initial) near-source soil gas sampling event (VI investigation) are presented in **Table 6** (the confirmatory sampling has not yet been completed). The near-source soil gas analytical results were screened against the near-source soil gas residential SHS VI screening values (SV_{NS}) found in Table 3 of the Vapor Guidance.

As indicated in **Table 6**, PADEP short list constituents were reported at non-detect concentrations; however, the laboratory reporting limits for 1,3,5-TMB, 1,2,4-TMB, benzene, ethylbenzene, and naphthalene were greater than their respective SV_{NS} as a result of the dilution factor during analysis.

Based on the near-source soil gas analytical results (laboratory reporting limits greater than the applicable SV_{NS}; however, non-detect results), the soil and groundwater impacts identified during the site characterization appear to not pose a VI risk, and therefore, a complete VI exposure pathway at the site likely does not exist.

7.0 RISK EVALUATION

7.1 Risk Exposure Pathways and Potential Receptors

An exposure pathway generally consists of four elements: a source and mechanism of chemical release; a retention or transport medium; a point of potential receptor contact with contaminated medium; and route at the exposure point.

The risk exposure pathways for the site were evaluated with respect to the regulated unleaded gasoline compounds detected in soil and groundwater at the site. Ingestion, inhalation, and dermal contact of chemical compounds typically pose the greatest risk to human health and ecological organisms.

7.1.1 Evaluation of Vapor Inhalation Pathways

The potential pathway for vapor inhalation includes volatilization of volatile organic compounds and certain semi-volatile organic compounds to indoor air, resulting in VI into buildings. Specifically, for this site, the potential pathway for vapor inhalation includes volatilization of PADEP short list constituents in soil and groundwater to indoor air.

There is one building of concern located on the subject property (the current station/convenience store), and the building structure is slab-on-grade construction and does not have a basement.

Soil and groundwater at the site have been impacted by PADEP short list constituents as a result of the confirmed release; therefore, an evaluation using the SHS Vapor Intrusion Assessment Process (Figure IV-6) found in the Vapor Guidance was completed.

Due to the presence of SPL at the site, the SHS Vapor Intrusion Assessment Process (Figure IV-6) recommended vapor sampling (near-source soil gas sampling, sub-slab soil gas sampling, indoor air sampling) to evaluate the VI pathway. Near-source vapor point sampling (VI investigation) was completed (see **Section 5.10**) and the potential vapor intrusion exposure pathway at the site appears to have been eliminated (see **Section 6.7**).

7.1.2 Evaluation of Soil Particle Inhalation, Dermal Contact, and Ingestion Pathways

Subsurface soils at the site are impacted with PADEP short list constituents at concentrations greater than their respective PADEP UARSHS MSCs as a result of the confirmed release.

However, exposure to impacted subsurface soil (soil particle inhalation, dermal contact and/or ingestion) would require intrusive activities (soil excavation) and therefore would limit the potential exposure to utility/construction workers. In summary, this exposure pathway is retained until the impacts to subsurface soils are addressed via remediation or an EC Agreement is instituted for the site which implements use restrictions and limitations for exposure to site soils.

7.1.3 Evaluation of Volatilization of Constituents from Groundwater, Dermal Contact, and Ingestion Pathways

Groundwater at the site is currently impacted with PADEP short list constituents at concentrations greater than the applicable PADEP UARSHS MSCs as a result of the confirmed release. However, exposure (volatilization of constituents from groundwater or dermal contact) to impacted groundwater would require intrusive activities and therefore would limit the potential exposure to utility/construction workers. In summary, the volatilization of constituents from groundwater or dermal contact exposure pathway is retained until groundwater impacts are addressed via remediation or an EC Agreement is instituted for the site which implements use restrictions and limitations for exposure to site groundwater.

Groundwater ingestion exposure pathways are limited to potable water supply wells. The subject property and surrounding properties are currently supplied with public (municipal) water by Suez Middletown Water and the dissolved-phase PADEP short list constituent concentrations observed in groundwater at the site appear to be fully delineated. Also, Lower Swatara Township has an ordinance in place that states the following: where a water main supply is within 1,000 feet of, or where plans approved by the Board of Commissioners provides for the installation of such public water facilities to within 1,000 feet of a proposed subdivision or land development, the developer shall provide the subdivision or land development with a complete water main supply system to be connected to the existing or proposed water main supply system in accordance with Township and/or utility specifications. Where installation of a public water main supply system is not required, the developer shall provide for each lot, at the time improvements are erected thereon, an individual water supply approved by the PADEP as to source, installation and quality of water. As a result, the ingestion exposure pathway is considered incomplete.

7.1.4 Evaluation of Diffuse Groundwater Discharge and Degradation of Surface Water Pathways

Groundwater at the site currently is impacted with PADEP short list constituents at concentrations greater than the applicable PADEP UARSHS MSCs as a result of the confirmed release.

The nearest surface water bodies are Buser Run and Tributary 10095 to the Susquehanna River. Buser Run is located approximately 0.25 miles west of the site and Tributary 10095 is located approximately 0.36 miles southwest of the site. Both streams have a southerly flow through the region until they confluence with the Susquehanna River approximately one-mile south of the site. The predominant direction of groundwater flow in the shallow overburden aquifer at the site is interpreted to be southeasterly towards the Susquehanna River.

Dissolved-phase PADEP short list constituent concentrations observed in groundwater at the site appear to be fully delineated; therefore, Buser Run, Tributary 10095, and the Susquehanna River appear to not be impacted. As a result, the diffuse groundwater discharge and degradation of surface water pathways are considered incomplete.

7.2 Ecological Screen

The ecological receptors at this site are Buser Run, Tributary 10095, and the Susquehanna River; and the associated ecosystems that may be affected by contact with impacted sediment and/or surface water. The potential pathway for these receptors is the migration of impacted groundwater to the Susquehanna River watershed and subsequent diffuse discharge. These receptors were evaluated in accordance with Chapters 245.310 and 250.311 of the regulations (PA Code, 2001a; PA Code, 2001b), which requires (1) a screening procedure and (2) an ecological database survey for the presence of endangered and/or threatened species or special habitats at or around the site. This site passes the PADEP SHS screening procedure because potential contamination is limited to light petroleum related constituents. Additionally, a PNDI Environmental Review for the site was completed. The PNDI review did not identify any known impacts and no further review is required. The results of the PNDI Environmental Review are included in **Appendix H**.

8.0 CONCEPTUAL SITE MODEL

On June 25, 2019, a NOC was submitted to the PADEP for a suspected release. A release was suspected due to a failed premium line test (UST 007) and; a leaking product line and approximately 3-inches of fuel/water mixture found in the dispenser #3/4 sump. The dispenser #3/4 sump was later inspected and found to have issues with the Stage II piping (cracked entry boot). UST 007 (premium gas) remained shut down. On November 26, 2019, per PADEP directive, a subsurface investigation in the vicinity of the dispenser #3/4 sump was completed and a groundwater sample was collected from the nearest tank field observation well.

The results of the groundwater sample collected from the nearest tank field observation well were received on December 11, 2019, which confirmed a reportable release. On December 11, 2019, the PADEP was notified of a reportable release of a regulated substance at the Sohail's Store facility.

The current UST system onsite includes three registered USTs: one 10,000-gallon diesel fuel UST (006); one 8,000-gallon unleaded gasoline UST (007); and, one 12,000-gallon unleaded gasoline UST (008). All three USTs are single-walled fiberglass construction and were installed in 1996. USTs 007 and 008 are located in a common tank field east of the onsite building (between the building and the unleaded gasoline dispenser canopy and serve four dispenser islands via two-inch pressurized double-wall flexible product piping). UST 006 is located in a separate tank field west of the onsite building (near the diesel fuel dispenser canopy and serves two dispenser islands via two-inch pressurized double-wall flexible product piping).

The analytical results from the groundwater sample collected during the subsurface investigation indicated PADEP short list constituent concentrations were above the applicable PADEP UARSHS MSCs within the nearest tank field observation well to dispenser #3/4.

The source of the confirmed release is presumed to be the leaking premium line (UST 007) into the dispenser #3/4 sump and the cracked entry boot. The release appears to be chronic in nature and the time frame of the release is presumed to have occurred between the annual compliance testing in 2018 and the annual compliance testing on June 25, 2019. The volume of product released to the subsurface is unknown. Interim remedial actions (full facility product line/dispenser upgrade) have been completed to eliminate the source, and a site characterization has been performed at the site to identify and evaluate the extent of impacts to the environment in relation to the reported release.

The site characterization was performed to evaluate soil and groundwater chemical and physical characteristics and determine the extent of subsurface impact resulting from the confirmed release on soil and groundwater at the site. The site characterization activities included the following tasks: a review of the PADEP files; a Geoprobe® soil investigation; installation of groundwater monitoring wells; a professional survey of the groundwater monitoring well network, property boundaries, and site infrastructure; groundwater gauging/sampling events; groundwater movement assessments; soil/groundwater impact assessments; aquifer testing; VI investigation, and, an evaluation of risk exposure pathways and potential receptors.

The results of the site characterization confirm the following:

- Subsurface soils at the site are impacted by adsorbed-phase PADEP short list constituents at concentrations greater than their respective PADEP UARSHS MSCs as a result of the confirmed release;
- Impacts to site soils (unsaturated and smear zone) are localized to the area proximal to dispenser #3/4 and the unleaded gasoline UST field (see **Figure 5** for a conceptual view of the estimated area of impacted soil);
- Impacts to site soils are fully delineated;
- Groundwater at the site has been impacted by dissolved-phase PADEP short list constituents at concentrations greater than their respective PADEP UARSHS MSCs as a result of the confirmed release;
- Impacts to site groundwater (specifically 1,3,5-TMB, 1,2,4-TMB, benzene, ethylbenzene, xylenes (total), and naphthalene) are most significant near the source area (dispenser #3/4 (MW-5 area)) and within the unleaded gasoline UST field (MW-2) and are migrating down-gradient (MW-3 and MW-6);
- Impacts to site groundwater are fully delineated;
- The predominant direction of groundwater movement in the shallow overburden aquifer is interpreted to be southeasterly towards the Susquehanna River;
- Measurable SPL (0.70 inches) was recorded in MW-5 during the July 9, 2020 groundwater gauging/sampling event; and,
- The potential vapor intrusion exposure from vapor inhalation, the groundwater ingestion, and the diffuse groundwater discharge and degradation of surface water pathways are incomplete; however, potentially-complete exposure pathways were identified through the risk evaluation (specifically soil particle inhalation, dermal contact, and/or ingestion pathways and volatilization of constituents from groundwater and/or dermal contact pathways).

Environmental impacts (biological, physical, and/or chemical processes) to the site are a result of the confirmed release that was reported on December 11, 2019. The COI at the site have been identified, the source of the COI has been identified/confirmed, the COI potential migration pathways have been evaluated, but not fully eliminated, potential environmental receptors have been identified and addressed, and the limits of the area of impacts have been fully delineated.

9.0 SITE CHARACTERIZATION SUMMARY

Subsurface soils at the site are impacted by PADEP short list constituents at concentrations greater than their respective PADEP UARSHS MSCs as a result of the December 2019 confirmed release. Impacts to subsurface soils are fully delineated; however, soil impacts (unsaturated and smear zone) are localized to the area proximal to dispenser #3/4 and the unleaded gasoline UST field (see **Figure 5**).

Shallow overburden groundwater at the site is impacted by PADEP short list constituents at concentrations greater than their respective PADEP UARSHS MSCs as a result of the confirmed release. Impacts to site groundwater are most significant near the source area (dispenser #3/4 (MW-5 area)) and within the unleaded gasoline UST field (MW-2) and are migrating down-gradient (MW-3 and MW-6). Additionally, overburden groundwater flow is interpreted to be southeasterly towards the Susquehanna River and impacts to site groundwater are fully delineated.

Furthermore, potentially-complete exposure pathways were identified and include the following:

- Soil particle inhalation pathway;
- Soil particle dermal contact pathway;
- Soil particle ingestion pathway;
- Volatilization of constituents from groundwater pathway; and,
- Groundwater dermal contact pathway.

10.0 SELECTION OF REMEDIAL STANDARDS

Selection of appropriate MSCs under the Act 2 program is based on current and future land use scenarios. Act 2 provides for a three-tiered procedure for selection of remediation standards for the purpose of eventually attaining a relief-of-liability for contamination related to those constituents identified in the characterization process. Remediation standards may be selected from any one, or a combination of, the following standards: 1) Background Standards, 2) SHS, and/or 3) Site-Specific Standards. SHS require minimal property use restrictions, if any.

Applicable MSCs under the SHS include values for both residential and non-residential use scenarios. Completion of the Act 2 process under a non-residential standard places a restriction on the future use of the land to ensure that property use is limited to non-residential. Completion of the Act 2 closure process utilizing residential standards will not require any property restrictions.

In addition to the residential and non-residential options, the remediator must select between MSCs for a used-aquifer or non-used aquifer setting, which is usually dependent upon whether potable water for the site and surrounding properties is provided by public (municipal) water service and what type of ordinance is in place regarding the use of supply wells.

Given these factors, the remedial standards selected for attainment of soil and groundwater at the Sohail's Store facility (PADEP Facility ID #22-16012) are the applicable PADEP UARSHS MSCs.

11.0 CONCLUSIONS AND RECOMMENDATIONS

The characterization of the site is complete; therefore, a RAP will be prepared in order to fully address the COI potential human health risk exposure pathways and the potential contaminant exposure to environmental receptors. In addition, the RAP will be designed to mitigate identified impacts to site soil and groundwater, and to demonstrate attainment of the applicable PADEP UARSHS MSCs for soil and groundwater at the site. Remedial technologies that will be evaluated include:

- Soil/Source Removal/Excavation;
- Total Phase Extraction, also known as multi-phase extraction or vacuum-enhanced extraction;
- Groundwater Extraction and Treatment;
- In-Situ Chemical Oxidation;
- In-Situ Sorption and Biodegradation;
- Monitored Natural Attenuation; and/or,
- A combination of the above technologies.

The following parameters will be considered in the evaluation of the remedial technologies:

- The nature and severity of the release and subsequent impacts to site media;
- The technology limitations imposed by the physical, chemical, hydrogeologic, and biological framework of the site;
- The concentrations of COI within each impacted media requiring remediation; and,
- The cost-effectiveness of each remedial technology.

12.0 REFERENCES

AQTESOLV™ for Windows Pro Version 4.5. HydroSOLVE, Inc., Reston, Virginia.

Berg, T.M., Edmunds, W.E., Geyer, A.R., and others, compilers, 1980, Geologic map of Pennsylvania (2nd ed.): Pennsylvania Geologic Survey, 4th ser., Map 1, 3 sheets, scale 1:250,000.

Commonwealth of Pennsylvania. 1989. Storage Tank and Spill Prevention Act, P.L. 169, No. 32, July 6, 1989.

Commonwealth of Pennsylvania, Pennsylvania Code. 1995. The Land Recycling Program, Land Recycling and Environmental Remediation Standards Act. Act 2. PADEP, Harrisburg, PA.

Commonwealth of Pennsylvania, Pennsylvania Code. 1997. Title 25. Environmental Protection. Chapter 250. Administration of Land Recycling Program, PADEP, Harrisburg, PA.

Commonwealth of Pennsylvania, Pennsylvania Code. 1999. Title 25. Environmental Protection. Chapter 245. Administration of the Storage Tank and Spill Prevention Program, PADEP, Harrisburg, PA.

Commonwealth of Pennsylvania, Pennsylvania Code. Pennsylvania Land Recycling Program Technical Guidance Manual. 2019. PADEP, Harrisburg, PA.

Freeze et al., 1979. Groundwater. Freeze, Allen R. and Cherry, John A. Prentice-Hall, Inc.

United States Department of Agriculture. Natural Resource Conservation Service. Web Soil Survey.

Win-Situ® 5 Version: 5.6.4.6. 2008. In-Situ, Inc., Ft. Collins, Colorado.

TABLES

TABLE 1
TANK FIELD OBSERVATION WELL GROUNDWATER ANALYTICAL RESULTS
Sohail's Store
835 South Eisenhower Boulevard
Middletown, PA 17057

Water Sample ID	1,3,5-TMB	1,2,4-TMB	Benzene	Toluene	Ethylbenzene	Xylenes (total)	Cumene	MTBE	Naphthalene
November 26, 2019									
OB-1	**832**	**1,780**	**560**	<50.0	**950**	**4,140**	<50.0	<50.0	**158**
PADEP UARSHS MSCs	**420**	**15**	**5**	**1,000**	**700**	**10,000**	**840**	**20**	**100**

Notes:
Results are reported in micrograms per liter (ug/L).
Bold values indicate a result greater than the laboratory reporting limit.
Bold and shaded values indicate a result greater than the PADEP UARSHS MSCs.

TABLE 2
LINE CLOSURE ANALYTICAL RESULTS
Sohail's Store
835 South Eisenhower Boulevard
Middletown, PA 17057

Soil Sample ID	1,3,5-TMB	1,2,4-TMB	Benzene	Toluene	Ethylbenzene	Xylenes (total)	Cumene	MTBE	Naphthalene
January 31, 2020									
01-Disp. 1/2 ~3'	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.014	<0.0046	<0.0046	<0.0046
02-Between 1/2-3/4 ~3'	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.014	<0.0046	<0.0046	<0.0046
03-Disp. 3/4 ~3'	<0.0047	<0.0047	<0.0047	<0.0047	<0.0047	<0.014	<0.0047	<0.0047	<0.0047
04-Between 3/4-5/6 ~3'	<0.0039	<0.0039	<0.0039	**0.0089**	<0.0039	**0.016**	<0.0039	<0.0039	<0.0039
05-Disp. 5/6 ~3'	<0.0041	**0.0047**	<0.0041	**0.010**	<0.0041	**0.017**	<0.0041	<0.0041	<0.0041
06-Between 5/6-7/8 ~3'	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.017	<0.0057	<0.0057	<0.0057
07-Disp. 7/8 ~3'	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.015	<0.0051	<0.0051	<0.0051
08-Between 7/8 & Tanks ~3'	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.014	<0.0046	<0.0046	<0.0046
February 4, 2020									
09-Diesel Disp. 1 ~3'	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	NA	<0.0048	<0.0048	<0.0048
10-Between D1 & D2 ~3'	**0.48**	**0.96**	<0.23	<0.23	<0.23	NA	<0.23	<0.23	<0.23
11-Diesel Disp. 2 ~3'	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	NA	<0.0052	<0.0052	<0.0052
12-Line to Tank ~3'	<0.0045	<0.0045	<0.0045	<0.0045	<0.0045	NA	<0.0045	<0.0045	<0.0045
PADEP UARSHS MSCs (Unsaturated)	**74**	**8.4**	**0.5**	**100**	**70**	**1,000**	**600**	**2**	**25**

Notes:
NA - Not analyzed.
Results are reported in milligrams per kilogram (mg/kg).
Bold values indicate a result greater than the laboratory reporting limit.
Bold and shaded values indicate a result greater than the PADEP UARSHS MSCs.

TABLE 3
SOIL ANALYTICAL RESULTS
Sohail's Store
835 South Eisenhower Boulevard
Middletown, PA 17057

Soil Sample ID	1,3,5-TMB	1,2,4-TMB	Benzene	Toluene	Ethylbenzene	Xylenes (total)	Cumene	MTBE	Naphthalene
May 26-28, 2020									
SB-1 @ 12-13'	**52.1**	**183**	<0.188	<0.471	**10.7**	**22.5**	**6.20**	<0.471	**30.0**
SB-1 @ 17-18'	**70.6**	**207**	**0.578**	<0.452	**48.7**	**204**	**8.93**	<0.452	**20.8**
SB-2 @ 9-10'	<0.495	<0.495	<0.198	<0.495	<0.495	<0.989	<0.495	<0.495	<0.495
SB-2 @ 14-15'	<0.344	**0.344**	<0.138	<0.344	<0.344	<0.689	<0.344	<0.344	<0.344
SB-3 @ 14-15'	<0.485	**0.816**	<0.194	<0.485	<0.485	<0.969	<0.485	<0.485	<0.485
SB-3 @ 18-19'	**78.6**	**247**	<0.283	<0.708	**58.1**	**156**	**12.2**	<0.708	**32.9**
SB-4 @ 9-10'	**1.51**	**12.2**	<0.137	<0.344	**6.41**	**1.65**	**3.15**	<0.344	**10.7**
SB-4 @ 14-15'	**74.7**	**224**	**1.05**	**5.06**	**25.8**	**210**	**7.22**	<0.452	**27.3**
SB-5 @ 9-10'	**66.9**	**3.26**	<0.201	<0.502	**21.7**	**1.13**	**28.4**	<0.502	**21.4**
SB-6 @ 14-15'	<0.483	<0.483	**0.627**	<0.483	**2.10**	**2.67**	**3.49**	<0.483	**1.63**
SB-7 @ 9-10'	<0.0032	**0.0042**	**0.0014**	<0.0032	<0.0032	<0.0064	<0.0032	<0.0032	**0.0042**
SB-7 @ 14-15'	<0.404	<0.404	<0.161	<0.404	<0.404	<0.807	0.625	<0.404	<0.404
SB-8 @ 13-14'	**0.804**	**1.86**	<0.174	<0.435	<0.435	<0.871	<0.435	<0.435	<0.435
SB-9 @ 11-12'	**9.13**	**24.3**	<0.156	<0.391	**4.17**	**17.9**	**1.13**	<0.391	**3.25**
SB-9 @ 14-15'	**36.4**	**100**	<0.195	**2.19**	**13.6**	**123**	**4.59**	<0.486	**17.3**
SB-10 @ 15-20'	<0.486	<0.486	<0.194	<0.486	<0.486	<0.972	<0.486	<0.486	**0.512**
SB-11 @ 4-5'	**0.0178**	<0.577	**0.0443**	<0.0039	**0.0461**	**0.0348**	<0.577	<0.0039	**1.02**
SB-12 @ 10-11'	<0.538	<0.538	<0.215	<0.538	<0.538	<1.08	<0.538	<0.538	<0.538
SB-13 @ 7-8'	<0.442	<0.442	<0.177	<0.442	<0.442	<0.884	**0.604**	<0.442	<0.442
SB-14 @ 4-5'	**1.74**	**1.95**	<0.179	<0.447	<0.447	**1.06**	<0.447	<0.447	<0.447
SB-15 @ 13-14'	**119**	**378**	<0.173	**3.65**	**100**	**568**	**19.0**	<0.432	**57.7**
SB-16 @ 9-10'	**4.79**	**16.4**	**0.357**	<0.464	**1.57**	<0.929	**2.32**	<0.464	**4.48**
June 1, 2020									
SB-17 @ 3-4'	<0.0035	**0.0118**	**0.0046**	**0.0050**	**0.0040**	**0.0231**	**0.0134**	<0.0035	**0.0135**
SB-18 @ 14-15'	<0.458	**0.799**	**0.381**	**1.79**	**0.589**	**2.27**	<0.458	<0.458	<0.458
PADEP UARSHS MSCs (Unsaturated)	**74**	**8.4**	**0.5**	**100**	**70**	**1,000**	**600**	**2**	**25**
Soil SHS VI Screening Values (SV_{SOIL})	**74**	**8.4**	**0.13**	**44**	**46**	**990**	**600**	**0.28**	**25**

Notes:

Results are reported in milligrams per kilogram (mg/kg).

Bold values indicate a result greater than the laboratory reporting limit.

Bold and shaded values indicate a result greater than the PADEP UARSHS MSCs and/or the SV_{SOIL}.

TABLE 4
GROUNDWATER ELEVATION DATA
Sohail's Store
835 South Eisenhower Boulevard
Middletown, PA 17057

Well ID	Date	Top of Casing Elevation	Bottom of Screen Elevation	Top of Screen Elevation	Depth to SPL	Depth to Groundwater	Groundwater Elevation	Measured SPL Thickness	SPL Corrected Groundwater Elevation
MW-1	08-Sep-20				NMSPL	15.50	383.40	0.00	383.40
	09-Jul-20				NMSPL	14.72	384.18	0.00	384.18
	09-Jun-20	398.90	379.04	394.04	NMSPL	12.90	386.00	0.00	386.00
MW-2	08-Sep-20				NMSPL	16.40	382.28	0.00	382.28
	09-Jul-20				NMSPL	15.38	383.30	0.00	383.30
	09-Jun-20	398.68	378.83	393.83	NMSPL	13.81	384.87	0.00	384.87
MW-3	08-Sep-20				NMSPL	17.07	381.63	0.00	381.63
	09-Jul-20				NMSPL	16.26	382.44	0.00	382.44
	09-Jun-20	398.70	378.69	393.69	NMSPL	14.95	383.75	0.00	383.75
MW-4	08-Sep-20				NMSPL	17.05	382.53	0.00	382.53
	09-Jul-20				NMSPL	16.64	382.94	0.00	382.94
	09-Jun-20	399.58	379.48	394.48	NMSPL	15.03	384.55	0.00	384.55
MW-5	08-Sep-20				NMSPL	15.32	383.42	0.00	383.42
	09-Jul-20				15.05	15.75	382.99	0.70	383.51
	09-Jun-20	398.74	378.69	393.69	NMSPL	13.66	385.08	0.00	385.08
MW-6	08-Sep-20				NMSPL	15.60	381.84	0.00	381.84
	09-Jul-20				NMSPL	14.58	382.86	0.00	382.86
	09-Jun-20	397.44	377.43	392.43	NMSPL	13.82	383.62	0.00	383.62
MW-7	08-Sep-20	399.79	379.64	394.64	NMSPL	15.21	384.58	0.00	384.58
MW-8	08-Sep-20	397.89	378.01	393.01	NMSPL	15.65	382.24	0.00	382.24
MW-9	08-Sep-20	397.40	377.38	392.38	NMSPL	15.98	381.42	0.00	381.42

Notes:
Results are reported in feet (ft).
Depth to SPL/groundwater results are reported in feet below top of casing (ft-btoc).
SPL - Separate-Phase Liquid.
NMSPL - No Measurable SPL Present.

TABLE 5
GROUNDWATER ANALYTICAL DATA
Sohail's Store
835 South Eisenhower Boulevard
Middletown, PA 17057

Well ID	Date	1,3,5-TMB	1,2,4-TMB	Benzene	Toluene	Ethylbenzene	Xylenes (total)	Cumene	MTBE	Naphthalene
MW-1	08-Sep-20	**85.8**	**165**	**23.1**	<10.0	**389**	**74.0**	**58.1**	<3.50	**208**
	09-Jul-20	**137**	**310**	**20.1**	<10.0	**402**	**305**	**62.4**	<10.0	**189**
	09-Jun-20	**169**	**437**	**26.8**	<5.00	**310**	**433**	**46.8**	<5.00	**104**
MW-2	08-Sep-20	**28.1**	**192**	**262**	<10.0	**165**	**56.0**	**80.0**	<3.50	**497**
	09-Jul-20	**69.8**	**334**	**157**	**8.85**	**193**	**183**	**52.3**	<5.00	**274**
	09-Jun-20	**63.6**	**134**	**186**	<5.00	**31.6**	**106**	**8.95**	<5.00	**48.4**
MW-3	08-Sep-20	<1.00	<1.00	**17.2**	<1.00	<1.00	<2.00	**9.20**	**2.66**	**15.2**
	09-Jul-20	<1.00	**1.26**	<1.00	<1.00	<1.00	**2.56**	**2.37**	**1.69**	**1.74**
	09-Jun-20	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	**3.15**	**1.51**	**1.98**
MW-4	08-Sep-20	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	**3.26**	**1.88**
	09-Jul-20	<1.00	**1.31**	<1.00	<1.00	<1.00	**6.41**	<1.00	**2.51**	<1.00
	09-Jun-20	**1.00**	**1.24**	<1.00	<1.00	<1.00	**3.83**	<1.00	**2.99**	<1.00
MW-5	08-Sep-20	**432**	**1,610**	**226**	**504**	**1,110**	**6,840**	**59.2**	<8.75	**566**
	09-Jul-20	**367**	**1,380**	**236**	**460**	**846**	**10,700**	**37.5**	<8.75	**447**
	09-Jun-20	**602**	**2,340**	**268**	**433**	**1,440**	**16,800**	**63.5**	<8.75	**666**
MW-6	08-Sep-20	<10.0	<10.0	**190**	<10.0	<10.0	<20.0	**17.3**	<3.50	**113**
	09-Jul-20	<5.00	**5.20**	**44.3**	<5.00	**10.6**	**10.6**	**15.4**	**16.4**	**66.4**
	09-Jun-20	<50.0	**55.0**	**82.0**	<50.0	**56.0**	**223**	<50.0	<50.0	**238**
MW-7	08-Sep-20	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	<1.00
MW-8	08-Sep-20	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	**1.08**	<1.00
MW-9	08-Sep-20	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	<1.00
PADEP UARSHS MSCs		**420**	**15**	**5**	**1,000**	**700**	**10,000**	**840**	**20**	**100**
Groundwater SHS VI Screening Values (SV_{GW})		**420**	**59**	**23**	**34,000**	**700**	**10,000**	**1,900**	**6,300**	**100**

Notes:
Results are reported in micrograms per liter (µg/L).
Bold values indicate a result greater than the laboratory reporting limit.
Bold and shaded values indicate a result greater than the PADEP UARSHS MSCs and/or the SV_{GW}.

TABLE 6
SOIL-GAS ANALYTICAL RESULTS
Sohail's Store
835 South Eisenhower Boulevard
Middletown, PA 17057

Soil-Gas Sample ID	1,3,5-TMB	1,2,4-TMB	Benzene	Toluene	Ethylbenzene	Xylenes (total)	Cumene	MTBE	Naphthalene
September 23, 2020									
SVP-1	<4.3	<4.3	<1.4	<3.29	<3.8	<11.4	<10.8	<15.7	<11.4
SVP-2	<4.3	<4.3	<1.4	<3.29	<3.8	<11.4	<10.8	<15.7	<11.4
SVP-3	<4.3	<4.3	<1.4	<3.29	<3.8	<11.4	<10.8	<15.7	<11.4
Residential SHS Near-Source SG Screening Values	**1.5**	**1.5**	**0.62**	**1,000**	**1.9**	**21**	**83**	**19**	**0.14**

Notes:
Results are reported in milligrams per cubic meter (mg/m^3).
Bold values indicate a result greater than the laboratory reporting limit.
Shaded values indicate a result greater than the Residential SHS Near-Source SG Screening Values.
SG - Soil-Gas.
Near-Source Soil-Gas Statewide Health Standard Vapor Intrusion Screening Values (mg/m^3), Table 3 of the Land Recycling Program Technical Guidance Manual for Vapor Intrusion into Buildings from Groundwater and Soil under Act 2.

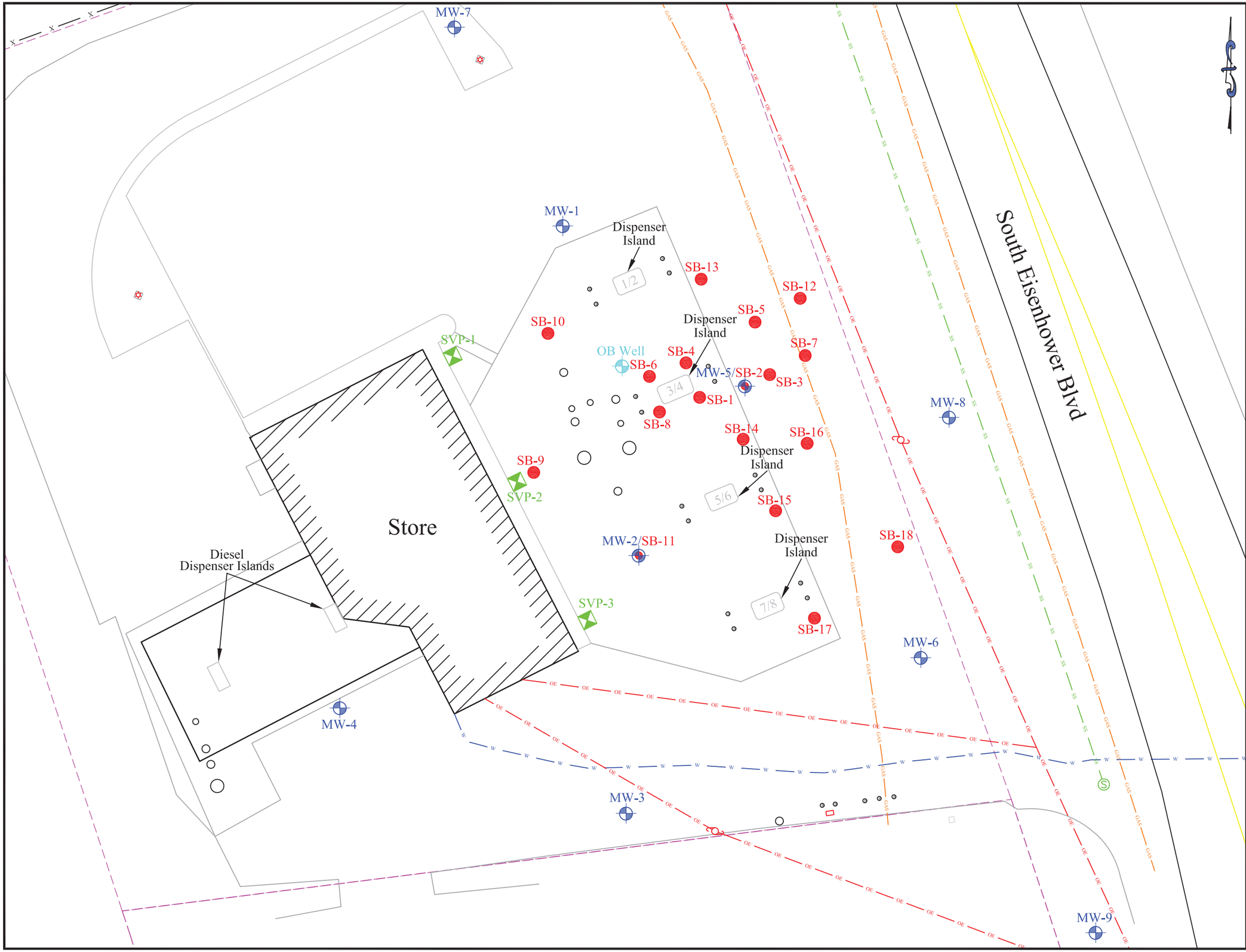
FIGURES

Reference: United States Geological Survey Topographic Quadrangle of Steelton, PA 2019.

Prepared For:	*Project Information:*	*Prepared By:*
Sohail's Store 835 South Eisenhower Boulevard Middletown, PA 17057	Project Manager: Jed Hill Project Geologist: Eric Itle, P.G.	Letterle & Associates 2022 Axemann Road, Suite 201 Bellefonte, PA 16823 P: 814-355-2241 F: 814-355-2410
Title:	*Scale (feet):*	
Figure 1 Topographic Site Location Map	Scale: 1" = 3000' 0 3000 6000	

Reference: Mapping based upon aerial image taken from Google Earth. Date of aerial image is April 2, 2020.

Prepared For:	*Project Information:*	*Prepared By:*
Sohail's Store 835 South Eisenhower Boulevard Middletown, PA 17057	Project Manager: Jed Hill Project Geologist: Eric Itle, P.G.	Letterle & Associates 2022 Axemann Road, Suite 201 Bellefonte, PA 16823 P: 814-355-2241 F: 814-355-2410
Title:	*Scale (feet):*	
Figure 2 Regional Aerial Map	Scale: 1" = 400' 0 400 800	



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Project Geologist: Eric Itle, P.G.

Prepared For:

Sohail's Store
835 South Eisenhower Boulevard
Middletown, PA 17057

Title:

Figure 3
Site Layout Map

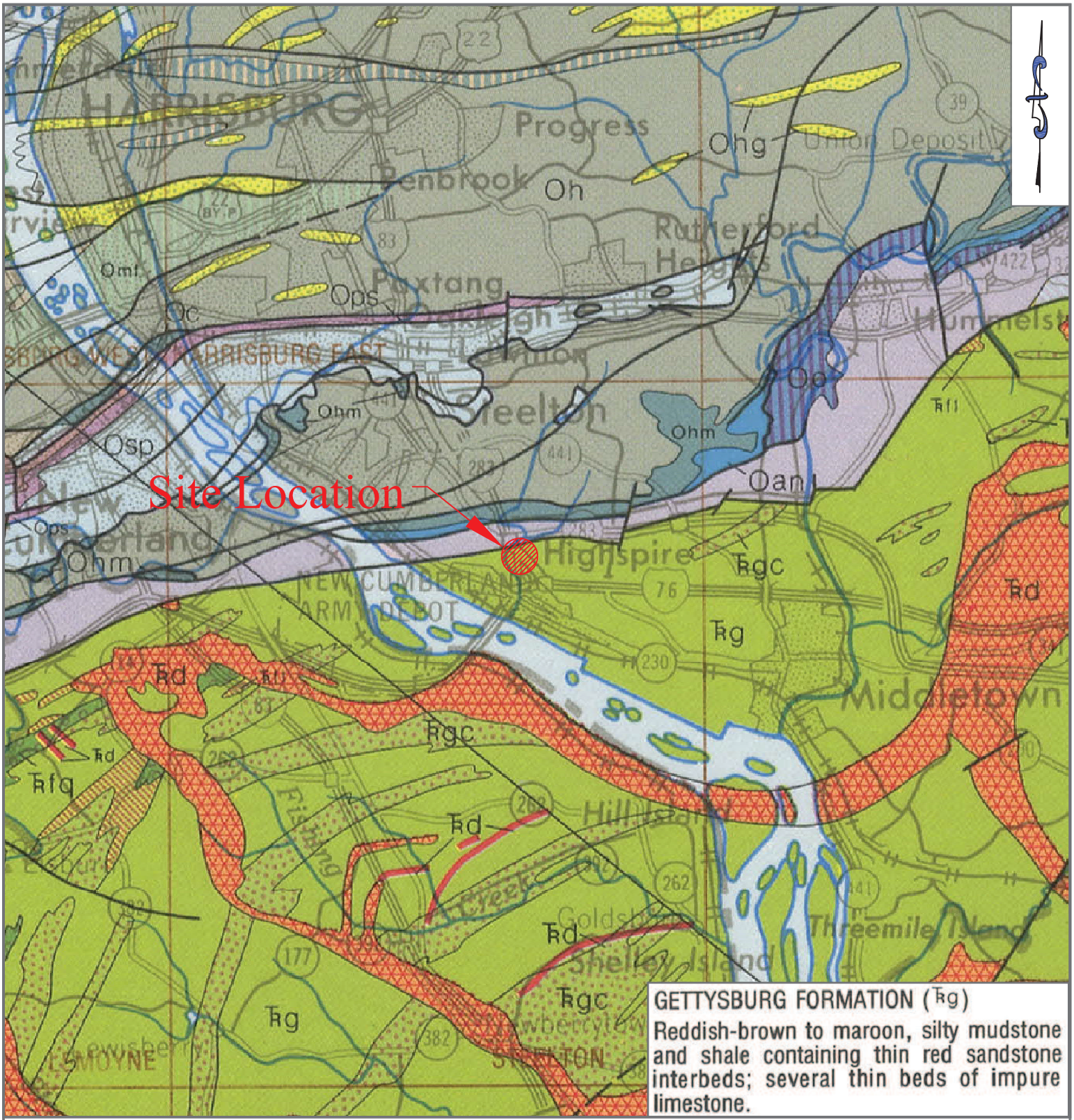
Legend:

- Groundwater Monitoring Well Location
- Soil Boring Location
- Soil Vapor Sample Points
- Tank Field Observation Well
- UST System Manholes
- Property Boundary
- Overhead Utility Line
- Gas Utility Line
- Sanitary Sewer Line
- Stormwater Conveyance
- Fence
- Utility/Power Pole
- Sewer Manhole/Cleanout
- Bollard
- Water Valve
- Fire Hydrant
- Light Pole

Scale (ft.):

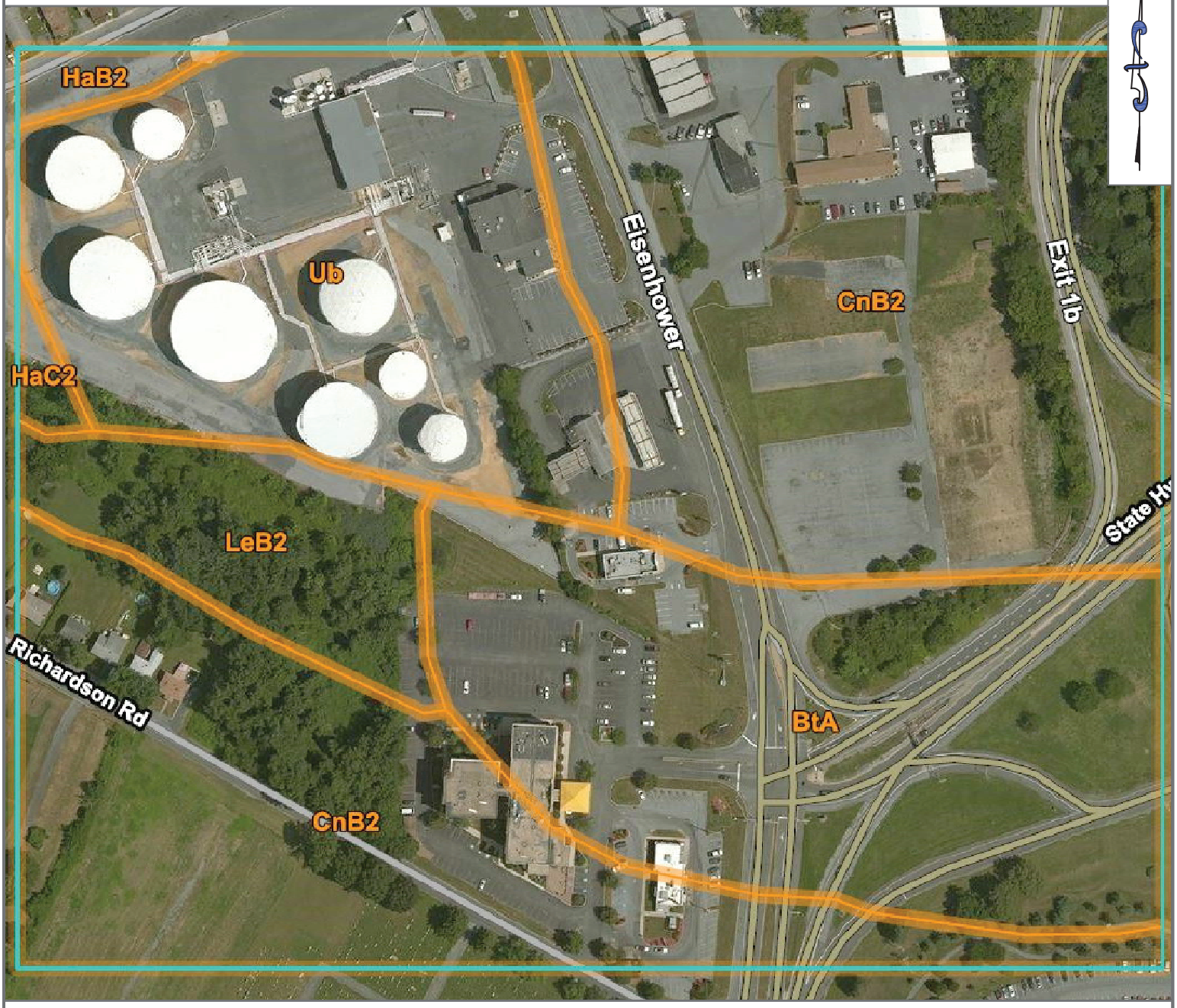
1" = 20'
One Inch Equals Twenty Feet

0 20 40



Reference: Commonwealth of Pennsylvania, Department of Environmental Resources, Bureau of Topographic and Geologic Survey, Geologic Map of Pennsylvania 1980.

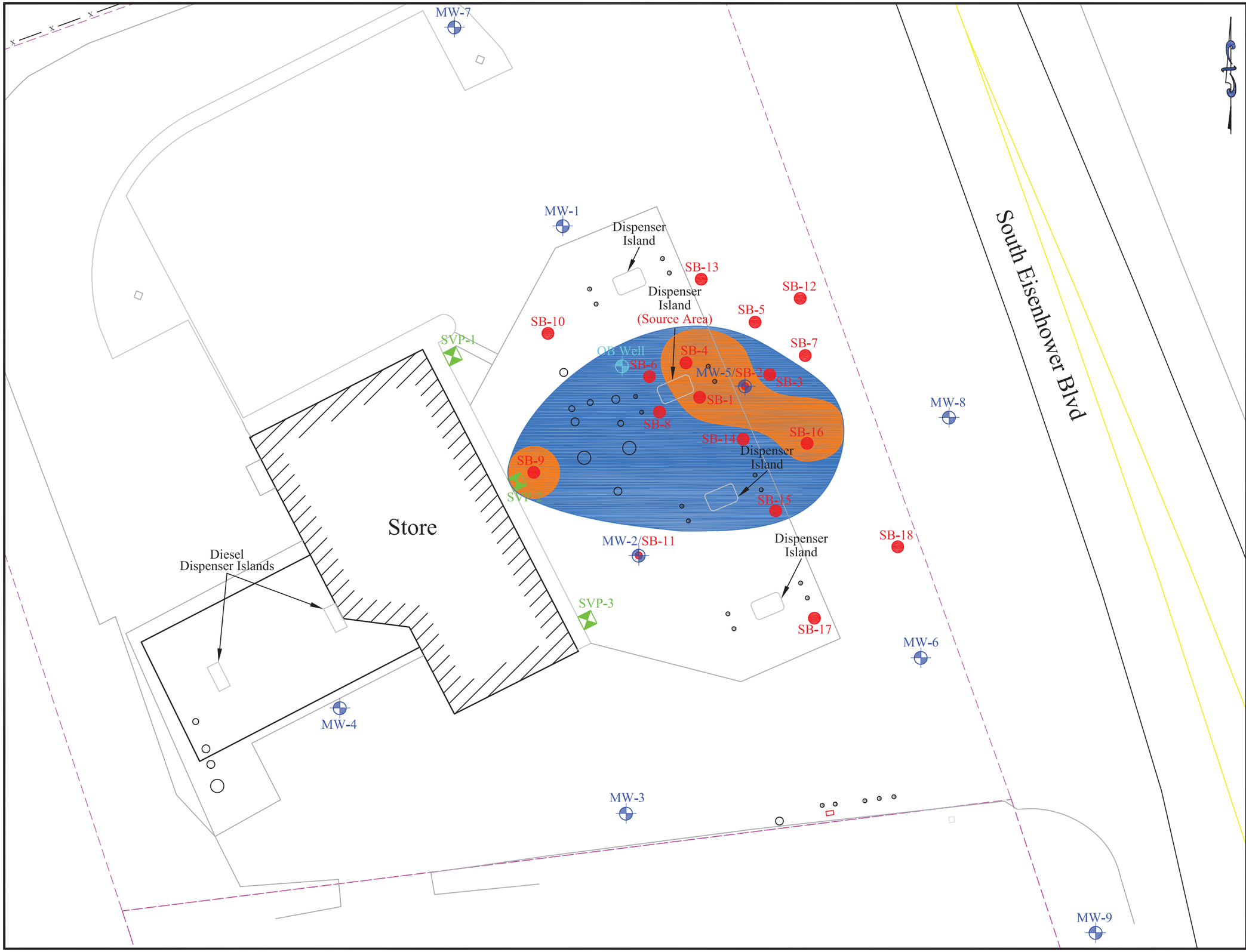
Prepared For:	*Project Information:*	*Prepared By:*
Sohail's Store 835 South Eisenhower Boulevard Middletown, PA 17057	Project Manager: Jed Hill Project Geologist: Eric Itle, P.G.	Letterle & Associates 2022 Axemann Road, Suite 201 Bellefonte, PA 16823 P: 814-355-2241 F: 814-355-2410
Title:	*Scale (feet):*	
Figure 4A Bedrock Geologic Map	Not to Scale	



BtA - Brinkerton and Armagh silt loam, 0 to 3 percent slopes
CnB2 - Chavies fine sandy loam, 3 to 8 percent slopes, moderately eroded
HaB2 - Hagerstown silt loam, 3 to 8 percent slopes, moderately eroded
HaC2 - Hagerstown silt loam, 8 to 15 percent slopes, moderately eroded
LeB2 - Lawrenceville very fine sandy loam, 2 to 8 percent slopes, moderately eroded
Ub - Urban Land, limestone materials

Reference: United States Department of Agriculture, Natural Resources Conservation Service, Web Soil Survey, March 24, 2020.

Prepared For:	*Project Information:*	*Prepared By:*
Sohail's Store 835 South Eisenhower Boulevard Middletown, PA 17057	Project Manager: Jed Hill Project Geologist: Eric Itle, P.G.	Letterle & Associates 2022 Axemann Road, Suite 201 Bellefonte, PA 16823 P: 814-355-2241 F: 814-355-2410
Title:	*Scale (feet):*	
Figure 4B Unconsolidated Overburden/Soils Identification Map	Not to Scale	



Prepared By:

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Project Geologist: Eric Itle, P.G.

Prepared For:

Sohail's Store
835 South Eisenhower Boulevard
Middletown, PA 17057

Title:

Figure 5
Estimated Area of Impacted Soils Area Map

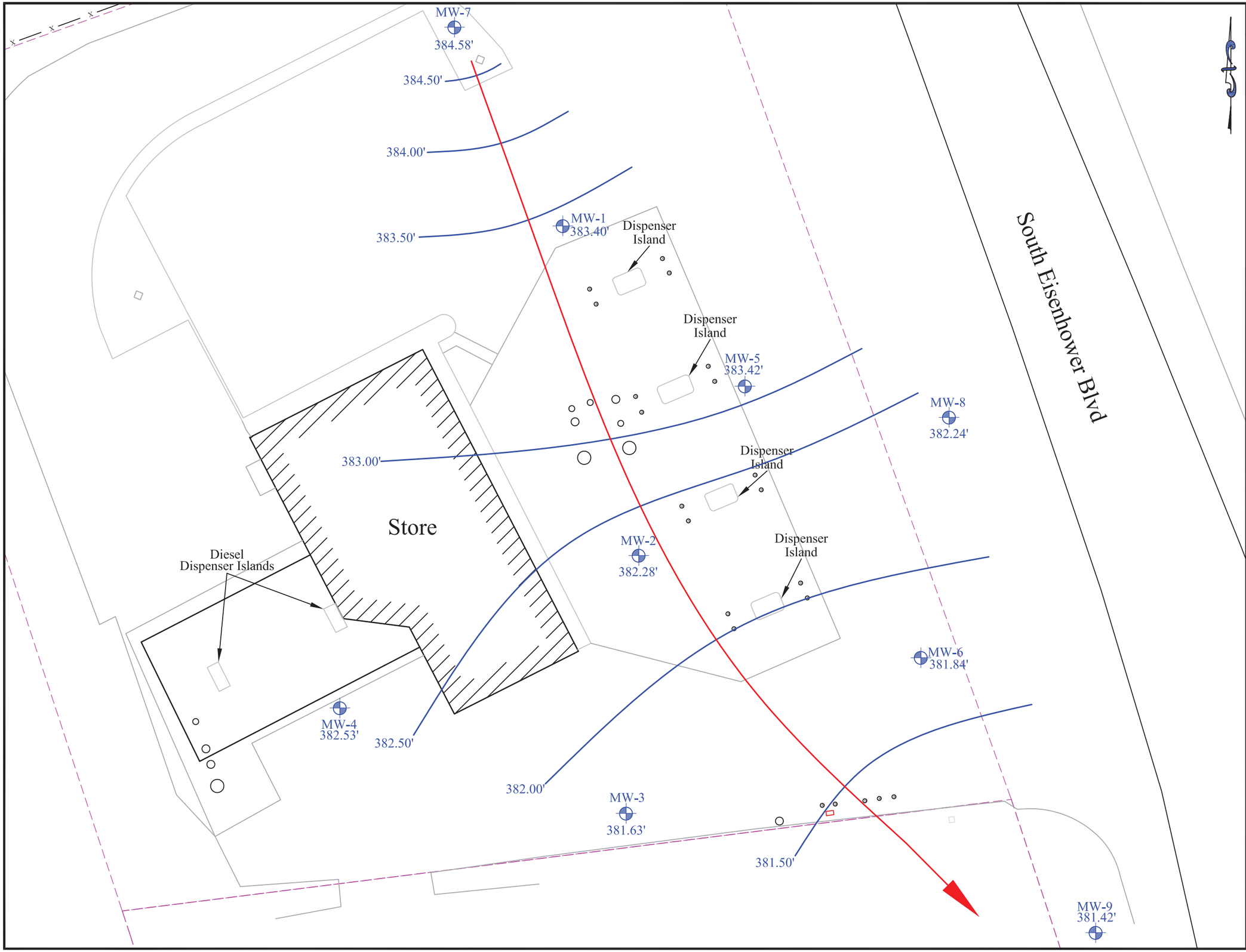
Legend:

- Groundwater Monitoring Well Location
- Soil Boring Location
- Soil Vapor Sample Points
- Tank Field Observation Well
- UST System Manholes
- Property Boundary
- Fence
- Bollard
- Estimated Area of Impacted Soil (Unsaturated)
- Estimated Area of Impacted Soil (Saturated/Smear Zone)

Scale (ft.):

1" = 20'
One Inch Equals Twenty Feet

0 20 40



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Project Geologist: Eric Itle, P.G.

Prepared For:

Sohail's Store
835 South Eisenhower Boulevard
Middletown, PA 17057

Title:

Figure 6
Groundwater Potentiometric
Surface Contour Map
September 8, 2020

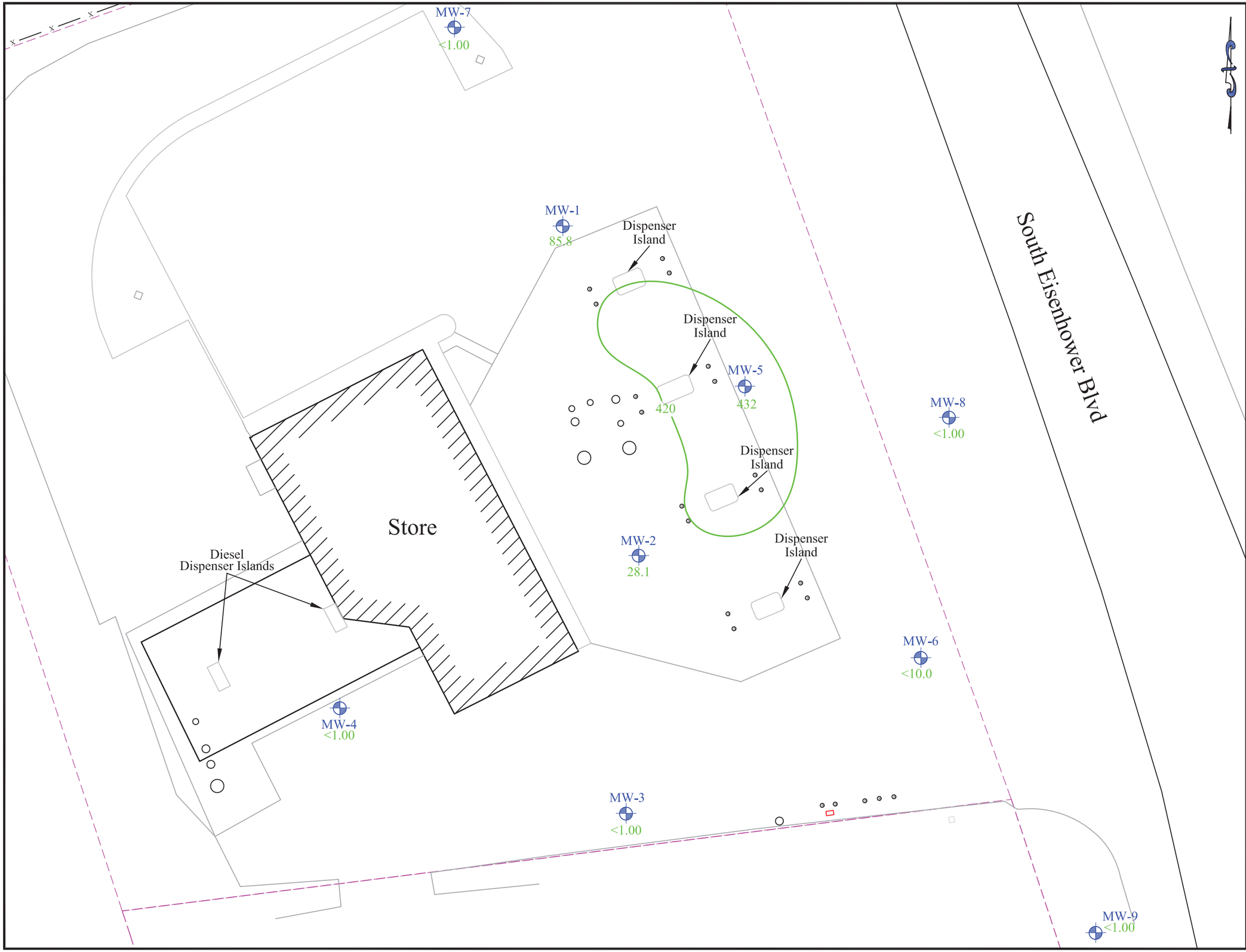
Legend:

- Groundwater Monitoring Well Location
- UST System Manholes
- Property Boundary
- Fence
- Bollard
- Groundwater Potentiometric Surface Contour Line (feet above mean sea level)
- Predominant Direction of Groundwater Flow

Scale (ft.):

1" = 20'
One Inch Equals Twenty Feet

0 20 40



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Project Geologist: Eric Itle, P.G.

Prepared For:

Sohail's Store
835 South Eisenhower Boulevard
Middletown, PA 17057

Title:

Figure 7
1,3,5-TMB Isoconcentration Contour Map
September 8, 2020

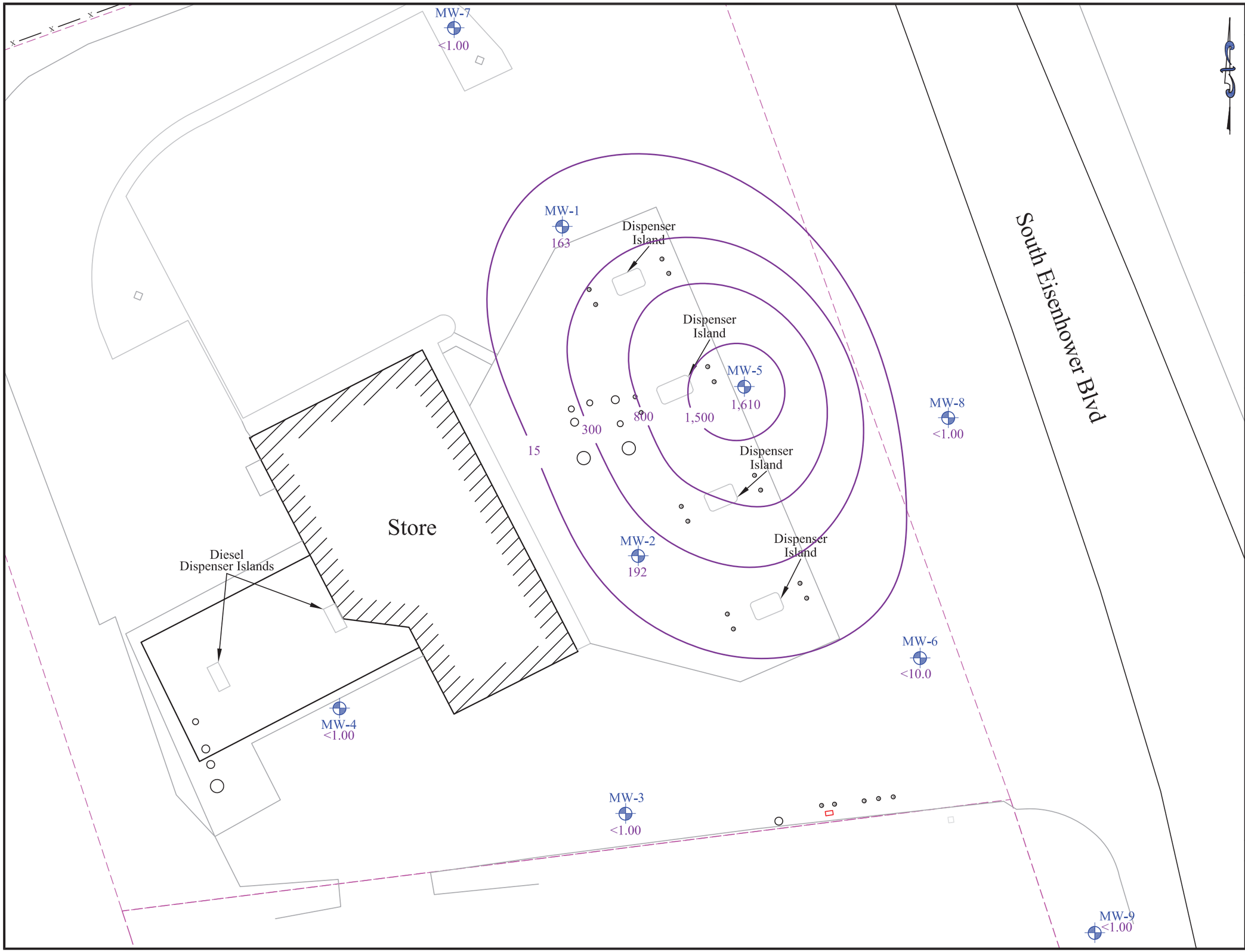
Legend:

- Groundwater Monitoring Well Location
- UST System Manholes
- Property Boundary
- Fence
- Bollard
- 420 — 1,3,5-TMB Isoconcentration Contour Line

Scale (ft.):

1" = 20'
One Inch Equals Twenty Feet

0 20 40



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Project Geologist: Eric Itle, P.G.

Prepared For:

Sohail's Store
835 South Eisenhower Boulevard
Middletown, PA 17057

Title:

Figure 8
1,2,4-TMB Isoconcentration Contour Map
September 8, 2020

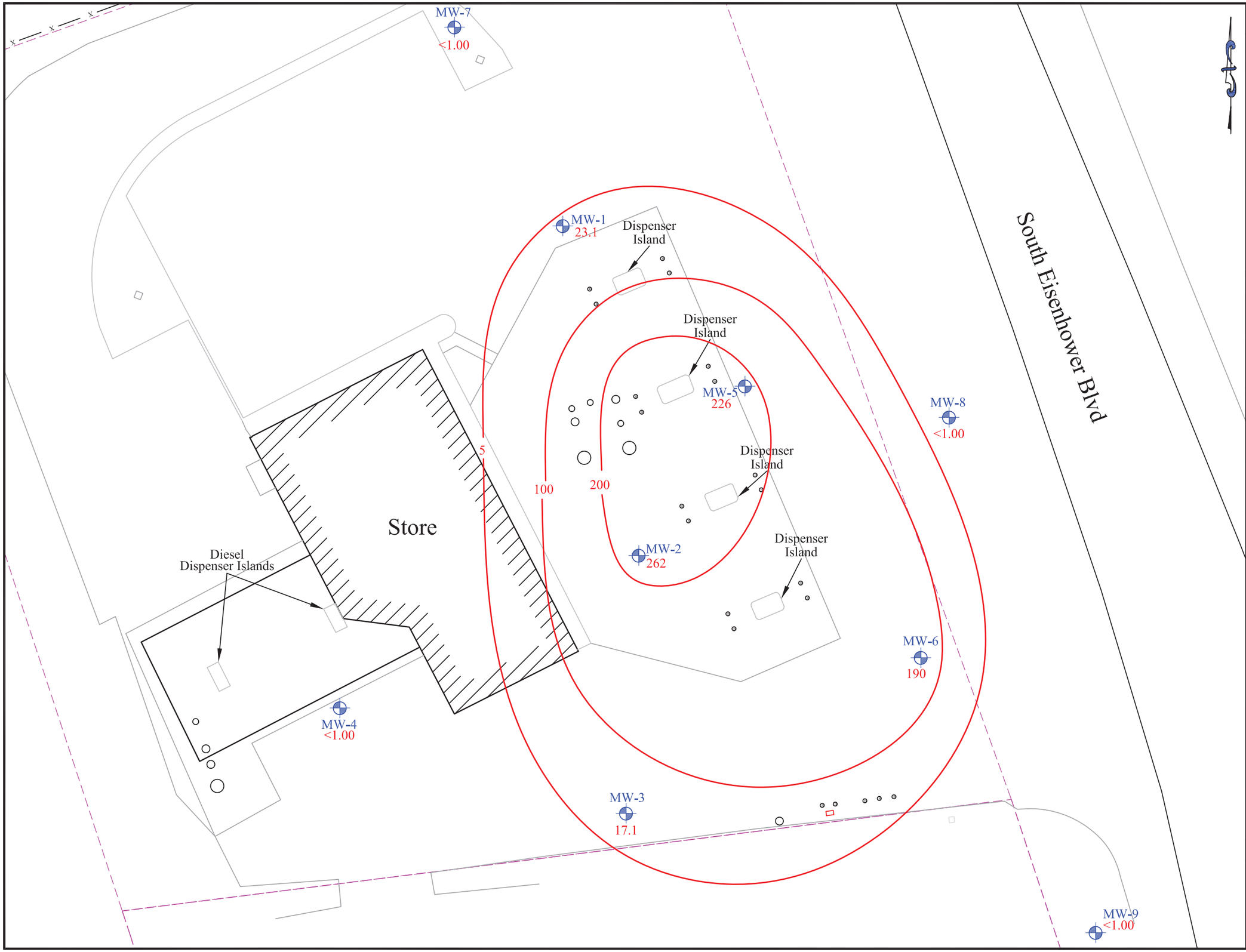
Legend:

- Groundwater Monitoring Well Location
- UST System Manholes
- Property Boundary
- Fence
- Bollard
- 15 — 1,2,4-TMB Isoconcentration Contour Line

Scale (ft.):

1" = 20'
One Inch Equals Twenty Feet

0 20 40



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Project Geologist: Eric Itle, P.G.

Prepared For:

Sohail's Store
835 South Eisenhower Boulevard
Middletown, PA 17057

Title:

Figure 9
Benzene Isoconcentration
Contour Map
September 8, 2020

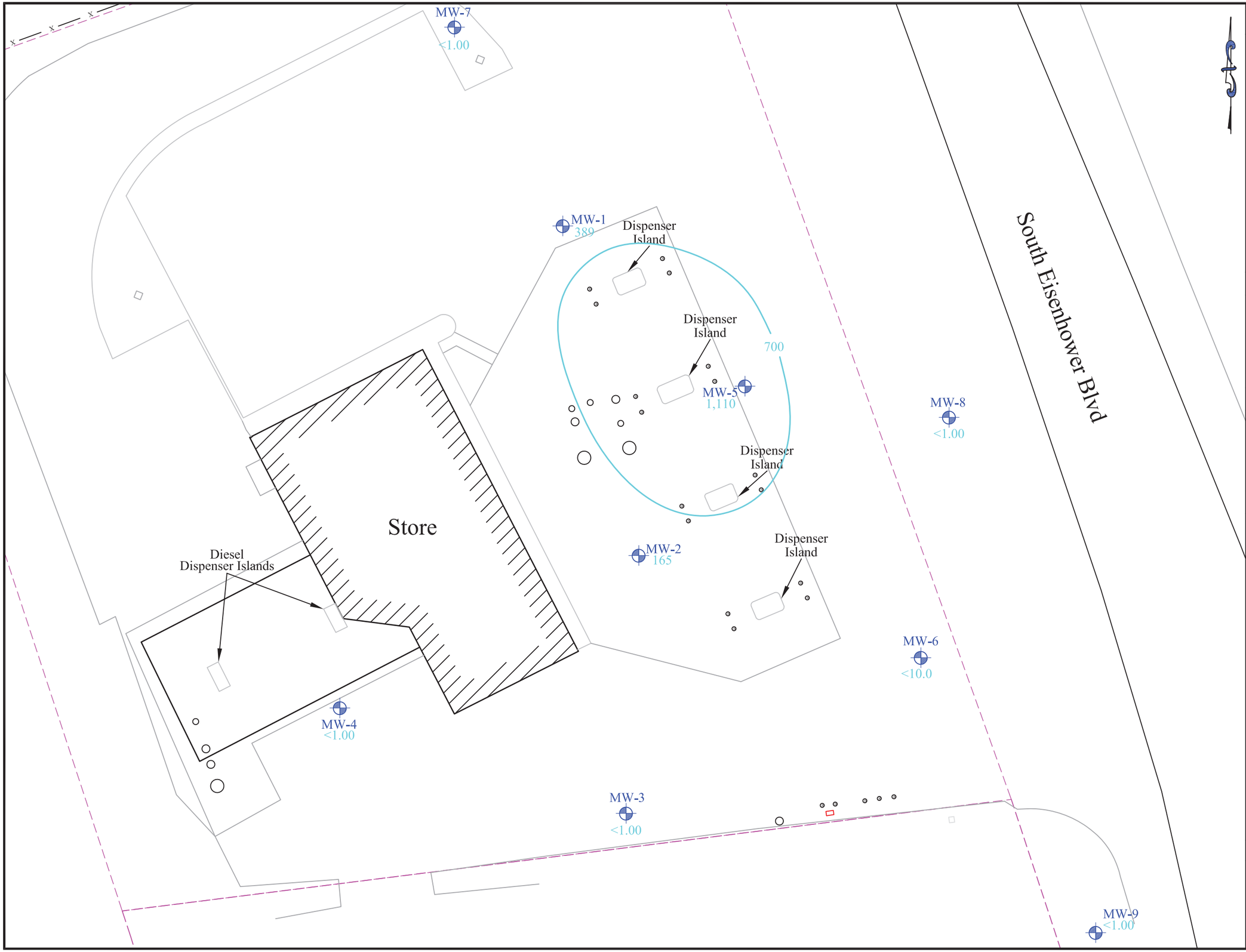
Legend:

- Groundwater Monitoring Well Location
- UST System Manholes
- Property Boundary
- Fence
- Bollard
- 5 — Benzene Isoconcentration Contour Line

Scale (ft.):

1" = 20'
One Inch Equals Twenty Feet

0 20 40



Prepared By:

Letterle & Associates

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Project Manager: Jed Hill
Project Geologist: Eric Itle, P.G.

Prepared For:

Sohail's Store
835 South Eisenhower Boulevard
Middletown, PA 17057

Title:

Figure 10
Ethylbenzene Isoconcentration
Contour Map
September 8, 2020

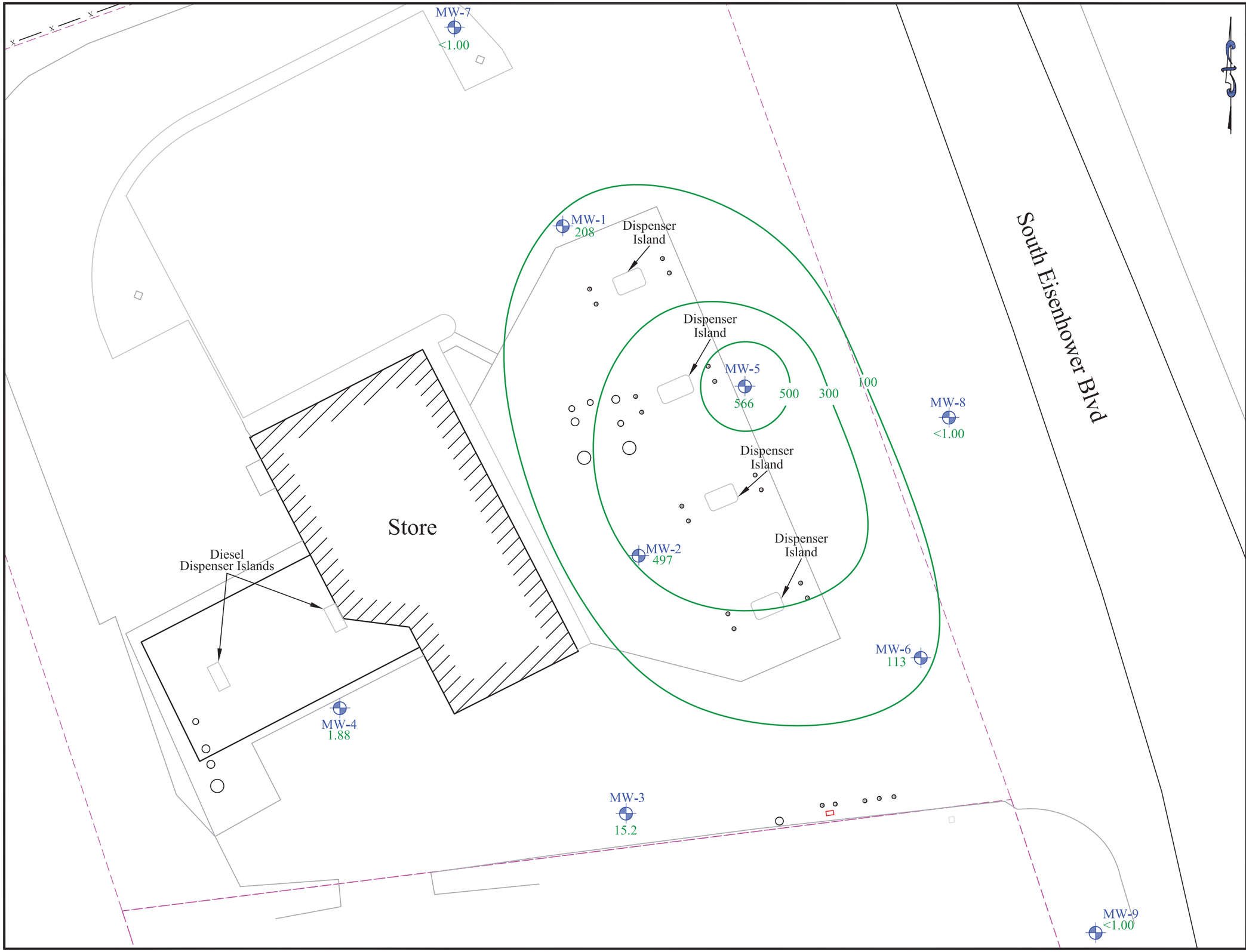
Legend:

- Groundwater Monitoring Well Location
- UST System Manholes
- Property Boundary
- Fence
- Bollard
- 700 — Ethylbenzene Isoconcentration Contour Line

Scale (ft.):

1" = 20'
One Inch Equals Twenty Feet

0 20 40



Letterle & Associates

2022 Axemann Road, Suite 201
Bellefonte, PA 16823
P: 814-355-2241
F: 814-355-2410
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Project Manager: Jed Hill
Project Geologist: Eric Itle, P.G.

Prepared For:

Sohail's Store
835 South Eisenhower Boulevard
Middletown, PA 17057

Title:

Figure 11
Naphthalene Isoconcentration
Contour Map
September 8, 2020

Legend:

- Groundwater Monitoring Well Location
- UST System Manholes
- Property Boundary
- Fence
- Bollard
- 100 — Naphthalene Isoconcentration Contour Line

Scale (ft.):

1" = 20'
One Inch Equals Twenty Feet

0 20 40

APPENDICES

Appendix A

February 2020 UST System Closure Report

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL CLEANUP AND BROWNFIELDS

UNDERGROUND STORAGE TANK SYSTEM CLOSURE REPORT FORM

22-16012
Facility I.D.

Sohails Store
Facility Name

Lower Swatara Twp — Municipality
Dauphin — County

02/20/2020
Date Prepared

Doug Kassay
Name of Person Submitting Report
(Please Print)

Keystone Petroleum Equipment, Ltd.
Company Name
(If Applicable)

Operations Specialist
Title

Closure Method*(Check all that apply):

- ☐ UST Removal
- ☐ UST Closure-In-Place
- ☐ UST Change-In-Service

* Partial Closure - Lines and Dispenser Sumps

Site Assessment Results (Check all that apply):

- ☒ No Obvious Contamination - Sample Results Meet Standards/Levels
- ☐ No Obvious Contamination - Sample Results Do Not Meet Standards/Levels
- ☐ Obvious, Localized Contamination - Sample Results Meet Standards/Levels
- ☐ Obvious, Localized Contamination - Sample Results Do Not Meet Standards/Levels
- ☐ Obvious, Extensive Contamination

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL CLEANUP AND BROWNFIELDS

DATE RECEIVED: _____

UNDERGROUND STORAGE TANK SYSTEM CLOSURE REPORT FORM

Owners who are permanently closing underground storage tank systems may use this form to demonstrate that a storage tank system closure was performed in accordance with technical guidance document 263-4500-601 "Closure Requirements for Underground Storage Tank Systems". PLEASE PRINT OR TYPE. COMPLETE ALL QUESTIONS.

SECTION I. Owner/Facility/Tank/Waste Management and Disposal Information

1. Facility ID Number 22-16012
2. Facility Name Sohails Store
3. Facility County Dauphin
4. Facility Municipality Lower Swatara Twp
5. Facility Address 835 S. Eishenhower Blvd
6. Facility Contact Person Sohail Riarah
7. Facility Telephone Number 717-939-9225
8. Owner Name Riarh Sohail A
9. Owner Mailing Address 835 S. Eishenhower Blvd
10. Description of Underground Storage Tank Systems (Complete for each tank system closed)

DATE OF TANK SYSTEM CLOSURE (Month/Day/Year)		02- 04 -2020	01 - 31 - 2020	01- 31 -2020	- -
Description of Underground Storage Tank System (Complete for each tank system undergoing closure)					
DEP Tank ID Number		006	007	008	
Total Capacity (Gallons)		10,000	8,000	12,000	
Substance(s) Stored Throughout Operating Life of Tank System (Check All That Apply)	**a. Petroleum**				
	Unleaded Gasoline	☐	☒	☒	☐
	Leaded Gasoline	☐	☐	☐	☐
	Aviation Gasoline	☐	☐	☐	☐
	Pure Ethanol	☐	☐	☐	☐
	Blended Ethanol _____%	☐	☐	☐	☐
	Kerosene	☐	☐	☐	☐
	Jet Fuel	☐	☐	☐	☐
	Diesel Fuel	☒	☐	☐	☐
	Biodiesel _____%	☐	☐	☐	☐
	Fuel Oil No. 1	☐	☐	☐	☐
	Fuel Oil No. 2	☐	☐	☐	☐
	Fuel Oil No. 4	☐	☐	☐	☐
	Fuel Oil No. 5	☐	☐	☐	☐
	Fuel Oil No. 6	☐	☐	☐	☐
	New Motor Oil	☐	☐	☐	☐
	Used Motor Oil	☐	☐	☐	☐
	Nonpetroleum Oil, Specify				
	Other, Specify				
NOTE: If Hazardous Substance Block is Checked, Attach Safety Data Sheets (SDS)	**b. Hazardous Substance**	☐	☐	☐	☐
	Name of Principal CERCLA Substance				
	AND				
	Chemical Abstract Service (CAS) No.				
	c. Unknown	☐	☐	☐	☐

CLOSURE METHOD(s):	DEP Tank ID Number:	006	007	008	
Partial Storage Tank System Closure		☒	☒	☒	☐
Tank ☒ N/A	a. Removal	☐	☐	☐	☐
	b. Closure-in-Place	☐	☐	☐	☐
	c. Change-in-Service	☐	☐	☐	☐
Piping ☐ N/A	a. Removal	☒	☒	☒	☐
	b. Closure-in-Place	☐	☐	☐	☐
	c. Change-in-Service	☐	☐	☐	☐
Dispenser ☒ N/A	a. Removal	☐	☐	☐	☐
	b. Closure-in-Place	☐	☐	☐	☐
	c. Change-in-Service	☐	☐	☐	☐
Other _____	a. Removal	☐	☐	☐	☐
	b. Closure-in-Place	☐	☐	☐	☐
	c. Change-in-Service	☐	☐	☐	☐

Describe Closure Activities:

Replaced all piping from tanks: 006, 007, 008 to dispensers. Also replaced all dispenser sumps.

Yes **N/A**

11. Briefly describe the storage tank facility and the nature of the operations which were conducted at the facility (both historical and present) **including use of the storage tank systems:**

Convenience store that sells fuel to public.

☒ ☐ 12. A site location and sampling map of the site, drawn to scale, is attached. See page 11 of 11.

☒ ☐ 13. Original, color photographs of the closure process are attached (i.e., inside of excavation/piping runs, pit water, tanks showing condition).

☐ ☒ 14. An amended "Storage Tanks Registration/Permitting Application" Form was submitted to the DEP, Bureau of Environmental Cleanup and Brownfields, Division of Storage Tanks, P.O. Box 8762, Harrisburg, PA 17105-8762.
Date: _____

☒ ☐ 15. If a release was confirmed, the appropriate regional office of DEP was notified by the owner or operator.
Date: 01/31/2020 Office: South Central Office

Yes N/A

☐ ☒ 16. If tanks were cleaned on-site:

a. Briefly describe the disposition of usable product: N/A

b. Briefly describe the disposal of unusable product, sludges, sediments, and wastewater generated during cleaning. Provide the name and permit number of the processing, treatment, storage or disposal facility. (Attach documentation of proper disposal): N/A

c. If tank contents were determined/deemed to be hazardous waste, provide:

(1) Generator ID Number:

(2) Licensed Hazardous Waste Transporter Name and ID Number:

Piping was drained back to the tank and completely removed by excavation. The piping, approximately 1' appeared to be in good condition with no holes or leaks observed.

☐ ☒ 17. If tanks were removed from the site for cleaning:

a. Provide the name and permit number of the processing, treatment, storage or disposal facility performing the tank cleaning:

b. If tank contents were determined/deemed to be hazardous waste, provide:

(1) Generator ID Number:

(2) Licensed Hazardous Waste Transporter Name and ID Number:

18. Briefly describe the disposition of tanks/piping (Attach documentation of proper disposal):
Piping was drained back to the tanks and completely removed by excavation. The piping appeared to be in good condition with no holes or leaks observed.

☐ ☒ 19. If contaminated soil is excavated:

a. Briefly describe the disposition and amount N/A (tons) of contaminated soil. Provide the name and permit number of the processing, treatment, storage or disposal facility. (Attach documentation of proper disposal):

b. If contaminated soil is determined/deemed to be hazardous waste, provide:

(1) Generator ID Number:

(2) Licensed Hazardous Waste Transporter Name and ID Number:

Yes	N/A		
☐	☒	20.	Briefly describe the disposition of and amount _____ (tons) of uncontaminated soil and debris (attach analyses):

_____

_____

_____

☐	☒	21.	If the tanks were "Closed-in-Place" provide information below:

a. Briefly describe the tank cleaning process: _____

_____

b. Describe the inert, non-shrinking material placed into the tanks:

_____

I, Sohail Riarah, hereby certify, under penalty of law as provided in 18 Pa. C.S. §4904 (relating
(Print Name)
to unsworn falsification to authorities) that I am the owner of the above referenced storage tank system(s) and that the information provided by me in this closure report (Section I) is true, accurate and complete to the best of my knowledge and belief.

Sohail Riarah (Feb 21, 2020)

Signature of Tank Owner

Feb 21, 2020

Date

Sohails Store

Company Name
(If applicable)

Owner

Title

UNDERGROUND STORAGE TANK SYSTEM CLOSURE REPORT FORM

SECTION II. Tank Handling Information

Facility ID Number 22-16012
DEP Tank ID Number(s) 006, 007, 008

Yes N/A

1. Briefly describe the excavation and initial on-site staging of uncontaminated/contaminated soil and debris:
   N/A

2. Briefly describe the method of piping system closure and the closure of the piping systems, including the quantity and condition of the piping:
   Piping was drained back to the tank and completely removed by excavation. The piping, approximately 120' appeared to be in good condition with no holes or leaks observed.

3. Briefly describe the condition of the tanks and any problems encountered during tank handling or tank removal activities:
   N/A

4. Briefly describe the method used to purge the tanks of and monitor for hazardous or explosive vapors:
   N/A

☐ ☒ 5. If tanks were cleaned on-site:
   a. Briefly describe the tank cleaning process:
   N/A
   b. If subcontracted, name and address of company that performed the tank cleaning:
   N/A

☐ ☒ 6. If tanks were "Closed-in-Place", briefly describe the tank fill material:
   N/A

☒ ☐ 7. If contamination was suspected or observed, the "Notification of Contamination" form was submitted.

I, Kyle Isenberg (Print Name), hereby certify, under penalty of law as provided in 18 Pa. C.S. §4904 (relating to unsworn falsification to authorities) that I am the certified remover who performed the tank handling activities associated with the closure of the above referenced storage tank system(s) and that the information provided by me in this closure report (Section I) is true, accurate and complete to the best of my knowledge and belief.

Kyle Isenberg (Feb 21, 2020)

Signature of Certified Remover

Feb 21, 2020

Date

5995

Remover Certification Number

37

Company Certification Number

Keystone Petroleum Equipment, Ltd.

Company Name

981 West Trindle Road

Street

Mechanicsburg, PA 17055

City/Town, State, Zip

717-697-1651

Phone

UNDERGROUND STORAGE TANK SYSTEM CLOSURE REPORT FORM

SECTION III. Site Assessment Information

Tank Registration #006,007,008 (complete one sheet for EACH tank system and attach ALL laboratory sheets pertaining to that system)

Facility ID Number 22-16012

A. Provide depth of *BEDROCK* and *WATER* IF encountered during excavation or soil boring (write "N/A": if NOT encountered).

Bedrock N/A feet below land surface Water N/A feet below land surface

B. Provide Length of *PIPING* IF piping was closed-in-place (write "N/A" if NOT closed-in-place).

Length of piping N/A feet

C. **TANK SYSTEM REMOVED FROM THE GROUND/SITE** N/A

1.) Was obvious contamination observed while excavating, sampling or removing the tank system?

☐ NO ------→ Conduct confirmatory sampling ------→ See end of this section for options on submission and maintenance of closure records ------→ Do not complete item C.2. below.

☒ YES ------→ Report release to DEP within 24 hours ----→ Describe contamination observed and likely source(s) (tank, piping, dispenser, spills, overfills): Suspected contamination in two areas of the line trench. Sample results came back below action levels.

----→ Complete item C.2. below.

2.) Was contamination localized (within three feet of the tank system in every direction with no obvious water contamination)?

☐ YES ----→ Remove or remediate contaminated soil ----→ Conduct confirmatory sampling ----→ See end of this section for options on submission and maintenance of closure records ----→ Call Indemnification Fund (717-787-0763).

☐ NO ----→ Continue Interim Remedial Actions ----→ See end of this section for options on submission and maintenance of closure records ----→ Call Indemnification Fund (717-787-0763).

D. **TANK SYSTEM CLOSED-IN-PLACE OR CHANGED-IN-SERVICE** N/A

Was obvious contamination observed during sampling, boring or assessing water depths?

☐ NO ----→ Conduct confirmatory sampling ----→ See end of this section for options on submission and maintenance of closure records.

☐ YES ----→ Report release to DEP within 24 hours ----→ Describe contamination observed and likely source(s) (tank, piping, dispenser, spills, overfills):

Continue with corrective action ----→ See end of this section for options on submission and maintenance of closure records ----→ Call Indemnification Fund (717-787-0763).

E. If the answer to C.1. is "no", the answer to C.2. is "yes" or the answer to D. is "no", confirmatory samples are required. Use the sample/analysis information sheet on page 10 of 11 to provide the information on confirmatory sampling and complete the diagram on Page 11 of 11.

Options for Submission and Maintenance of Closure Site Assessment Records

Records of the site assessment must be maintained for at least three years after completion of permanent closure or change-in-service in one of the following ways:

(a) By the owners and operators who took the tank system out of service;
(b) By the current owners and operators of the tank system site; or
(c) By mailing these records to the DEP regional office responsible for the county in which the tank is located if they cannot be maintained at the closed facility.

Where the results of the site assessment indicate that obvious, localized soil contamination was encountered and the analytical results of the confirmatory sampling show levels below the statewide standard/action levels, this closure report form (Sections I, II, and III) or some other acceptable site characterization report must be received by the Department within 180 days of verbally reporting the release.

Where the results of the site assessment indicate that no obvious contamination or obvious, localized contamination was encountered, but the analytical results of the confirmatory sampling show levels above the statewide standard/action levels, or where there is obvious, extensive contamination, Section 245.310(a)(8) of the Corrective Action Process (CAP) regulations requires that details of removal from service be included in the site characterization report. A copy of the completed closure report form should be submitted as part of the site characterization report to satisfy the requirements of Section 245.310(a)(8) of the CAP regulations.

I, Doug Kassay (Print Name), hereby certify, under penalty of law as provided in 18 Pa. C.S. §4904 (relating to unsworn falsification to authorities) that I am the person who performed the site assessment activities associated with the closure of the above referenced storage tank system(s) and that the information provided by me in this closure report (Section III) is true, accurate and complete to the best of my knowledge and belief.

Doug Kassay (Feb 24, 2020)
Signature of Person Performing Site Assessment

Feb 24, 2020
Date

Operations Specialist
Title of Person Performing Site Assessment

Keystone Petroleum Equipment, Ltd.
Name of Company Performing Site Assessment

717.591.4016
Telephone Number of Person Performing Site Assessment

DEP-UST Closure Report Sohails Store Middletown

Final Audit Report 2020-02-24

Created:	2020-02-20
By:	Tina Bohn (tina.bohn@kpeltd.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAAR6_mMNYfODW2ZbQJ_nWBQDRCGq2qfgYi

"DEP-UST Closure Report Sohails Store Middletown" History

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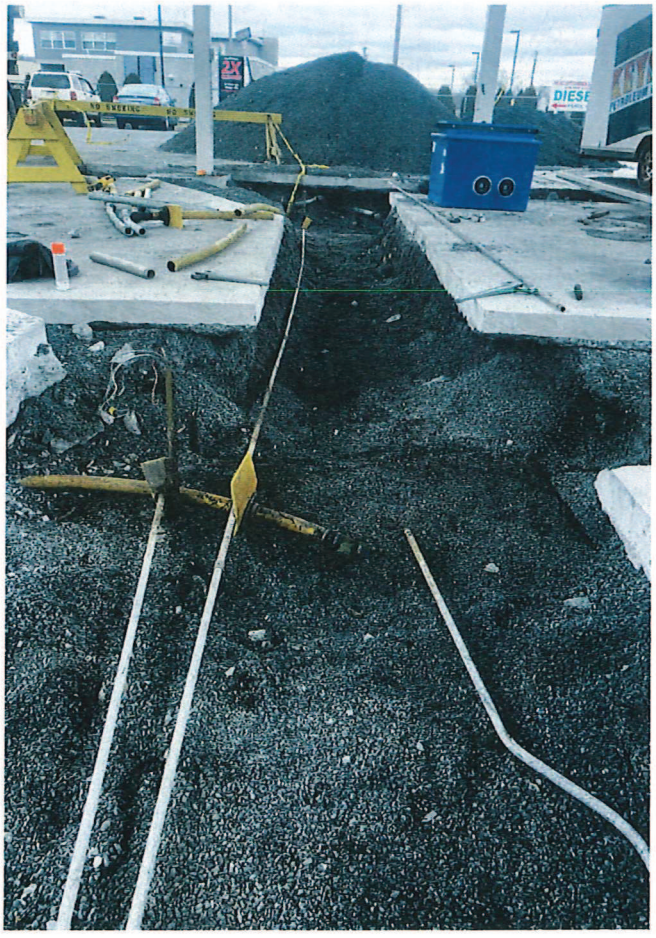
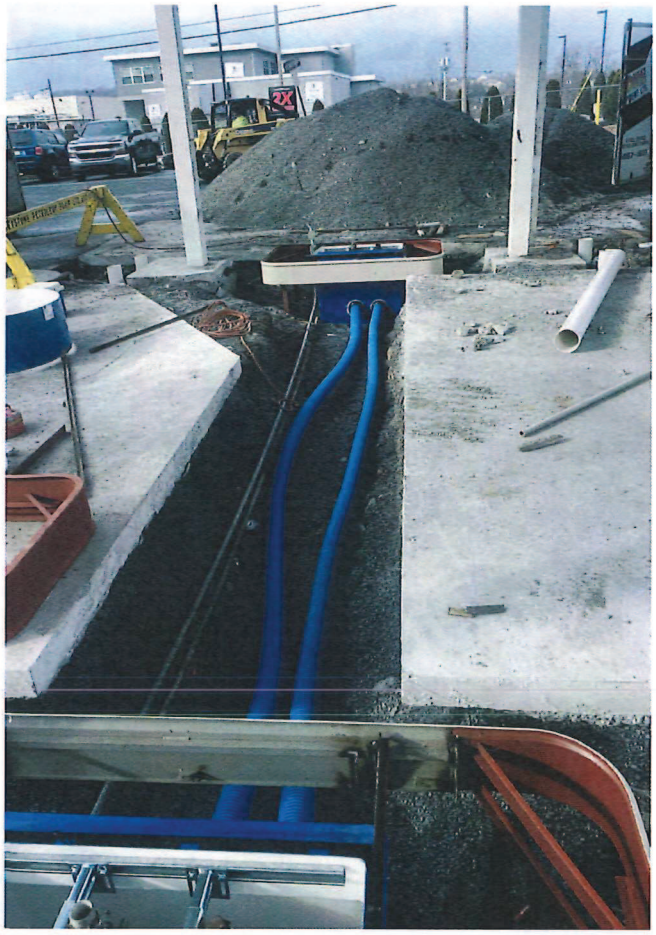
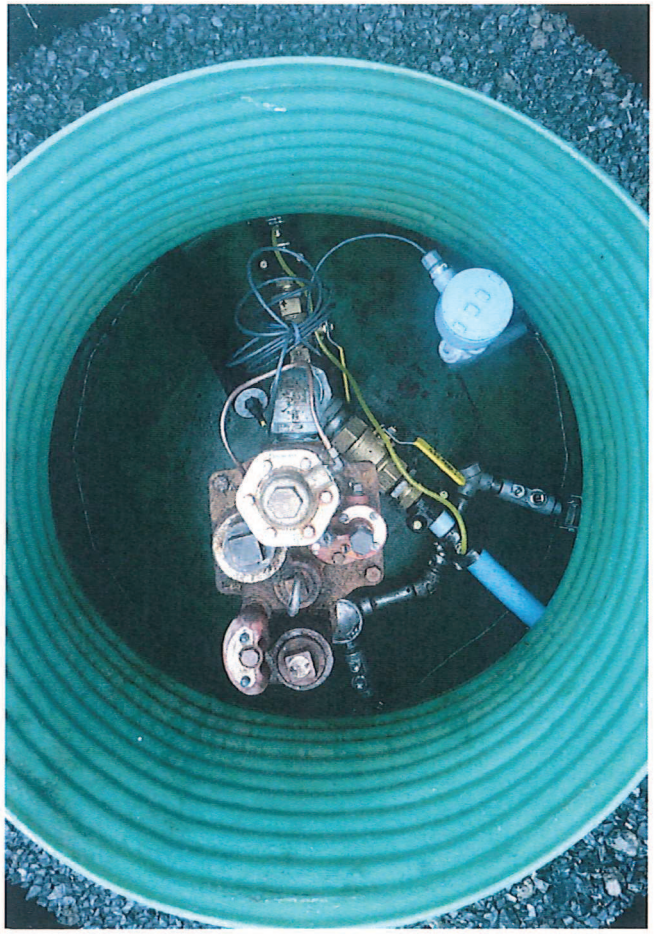
Signed document emailed to Tina Bohn (tina.bohn@kpeltd.com), Sohail Riarh (sohailriar@hotmail.com), Kyle Isenberg (kyle.isenberg@aol.com), and Doug Kassay (doug@kpeltd.com)

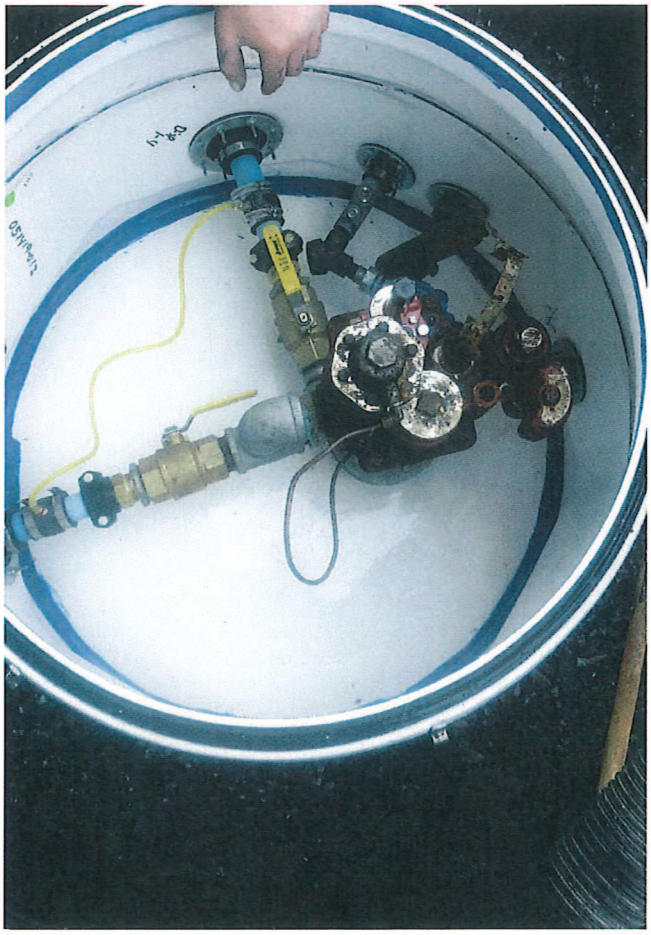
2020-02-24 - 12:13:55 PM GMT

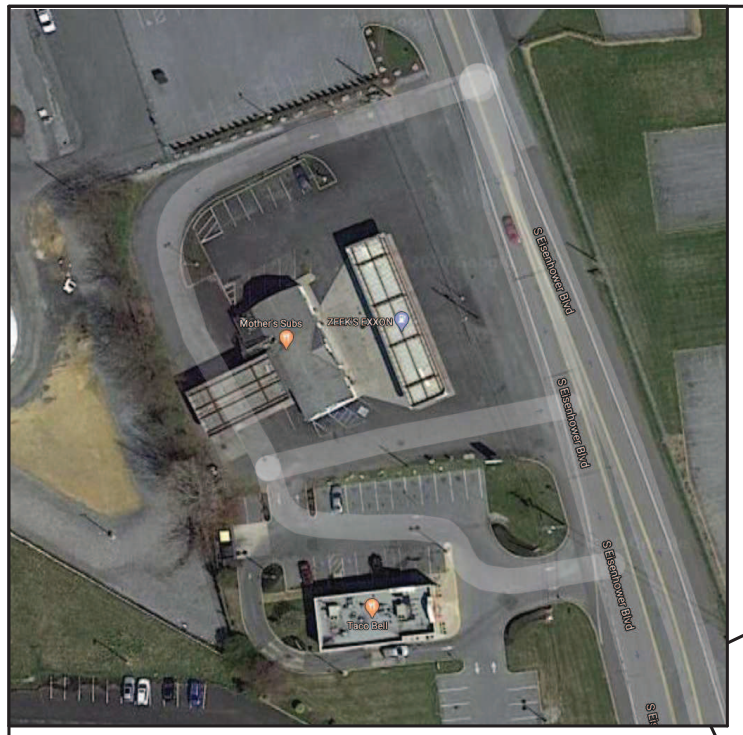



ZEEKS









SITE SATELLITE PHOTO

N

S. EISENHOWER BLVD.

EXISTING 12K SWFG GAS TANK

EXISTING 8K SWFG GAS TANK

EXISTING 10K SWFG DIESEL TANK

C-STORE

1
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11
12

FRONT GAS SAMPLES TAKEN: 1/31/2020
REAR DIESEL SAMPLES TAKEN: 2/4/2020

X - SAMPLE LOCATION

REVISION HISTORY

DESCRIPTION:

PURPOSE: LINE & DISPENSER CLOSURE/REPLACMENT

SOHAIL'S STORE
835 S. EISENHOWER BLVD
LOWER SWATARA TWP\DAUPHIN COUNTY

DWG. BY: doug@kpeltd.com

LAI PERMIT #: N/A

DWG. NO.: 01

DATE: 2/4/2020

PADEP ID #: 22-16012

KEYSTONE
PETROLEUM EQUIPMENT LTD
981 Tringle Road West
Mechanicsburg, PA 17055
Phone: 717.697.1561 | Fax: 717.697.4991

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

February 19, 2020

Doug Kassay
Keystone Petroleum Equipment
981 Trindle Road West
Mechanicsburg, PA 17055

RE: Project: 1350-SOHAIL'S EXXON GAS
Pace Project No.: 30348542

Dear Doug Kassay:
Enclosed are the analytical results for sample(s) received by the laboratory on February 05, 2020. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Megan Smetanka

Megan J. Smetanka
megan.smetanka@pacelabs.com
(724)850-5600
Project Manager

Enclosures

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

CERTIFICATIONS

Project: 1350-SOHAIL'S EXXON GAS
Pace Project No.: 30348542

Pace Analytical Services Pennsylvania
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Florida: Cert E871149 SEKS WET
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

SAMPLE ANALYTE COUNT

Project: 1350-SOHAIL'S EXXON GAS
Pace Project No.: 30348542

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30348542001	**01-Disp. 1/2~3'**	EPA 8260B	ARG	13	PASI-PA
		ASTM D2974-87	NLD	1	PASI-PA
30348542002	**02- BETWEEN 1/2-3/4~3'**	EPA 8260B	ARG	13	PASI-PA
		ASTM D2974-87	NLD	1	PASI-PA
30348542003	**03-Disp. 3/4~3'**	EPA 8260B	ARG	13	PASI-PA
		ASTM D2974-87	NLD	1	PASI-PA
30348542004	**04-BETWEEN 3/4-5/6~3'**	EPA 8260B	ARG	13	PASI-PA
		ASTM D2974-87	NLD	1	PASI-PA
30348542005	**05-Disp. 5/6~3'**	EPA 8260B	ARG	13	PASI-PA
		ASTM D2974-87	NLD	1	PASI-PA
30348542006	**06-BETWEEN 5/6-7/8~3'**	EPA 8260B	ARG	13	PASI-PA
		ASTM D2974-87	NLD	1	PASI-PA
30348542007	**07-Disp. 7/8~3'**	EPA 8260B	ARG	13	PASI-PA
		ASTM D2974-87	NLD	1	PASI-PA
30348542008	**08-BETWEEN 7/8&TANKS~3'**	EPA 8260B	ARG	13	PASI-PA
		ASTM D2974-87	NLD	1	PASI-PA
30348542009	**TRIP BLANK**	EPA 8260B	KAC	13	PASI-PA

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: 1350-SOHAIL'S EXXON GAS
Pace Project No.: 30348542

Method: **EPA 8260B**
Description: 8260B MSV
Client: Keystone Petroleum Equipment
Date: February 19, 2020

General Information:
9 samples were analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 5035A with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 1350-SOHAIL'S EXXON GAS
Pace Project No.: 30348542

Sample: 01-Disp. 1/2~3' **Lab ID: 30348542001** Collected: 01/31/20 08:00 Received: 02/05/20 21:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Sample ID, collection dates, and times were not present on the sample containers. Samples were numbered to match the COC.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV	Analytical Method: EPA 8260B Preparation Method: EPA 5035A							
Benzene	ND	mg/kg	0.0046	1	02/11/20 13:50	02/11/20 22:04	71-43-2	
Ethylbenzene	ND	mg/kg	0.0046	1	02/11/20 13:50	02/11/20 22:04	100-41-4	
Isopropylbenzene (Cumene)	ND	mg/kg	0.0046	1	02/11/20 13:50	02/11/20 22:04	98-82-8	
Methyl-tert-butyl ether	ND	mg/kg	0.0046	1	02/11/20 13:50	02/11/20 22:04	1634-04-4	
Naphthalene	ND	mg/kg	0.0046	1	02/11/20 13:50	02/11/20 22:04	91-20-3	
Toluene	ND	mg/kg	0.0046	1	02/11/20 13:50	02/11/20 22:04	108-88-3	
1,2,4-Trimethylbenzene	ND	mg/kg	0.0046	1	02/11/20 13:50	02/11/20 22:04	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.0046	1	02/11/20 13:50	02/11/20 22:04	108-67-8	
Xylene (Total)	ND	mg/kg	0.014	1	02/11/20 13:50	02/11/20 22:04	1330-20-7	
Surrogates								
Toluene-d8 (S)	96	%.	70-130	1	02/11/20 13:50	02/11/20 22:04	2037-26-5	
4-Bromofluorobenzene (S)	104	%.	70-130	1	02/11/20 13:50	02/11/20 22:04	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%.	70-130	1	02/11/20 13:50	02/11/20 22:04	17060-07-0	
Dibromofluoromethane (S)	99	%.	70-130	1	02/11/20 13:50	02/11/20 22:04	1868-53-7	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**19.0**	%	0.10	1		02/18/20 15:57		

Sample: 02- BETWEEN 1/2-3/4~3' **Lab ID: 30348542002** Collected: 01/31/20 08:15 Received: 02/05/20 21:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Sample ID, collection dates, and times were not present on the sample containers. Samples were numbered to match the COC.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV	Analytical Method: EPA 8260B Preparation Method: EPA 5035A							
Benzene	ND	mg/kg	0.0046	1	02/11/20 13:50	02/11/20 22:24	71-43-2	
Ethylbenzene	ND	mg/kg	0.0046	1	02/11/20 13:50	02/11/20 22:24	100-41-4	
Isopropylbenzene (Cumene)	ND	mg/kg	0.0046	1	02/11/20 13:50	02/11/20 22:24	98-82-8	
Methyl-tert-butyl ether	ND	mg/kg	0.0046	1	02/11/20 13:50	02/11/20 22:24	1634-04-4	
Naphthalene	ND	mg/kg	0.0046	1	02/11/20 13:50	02/11/20 22:24	91-20-3	
Toluene	ND	mg/kg	0.0046	1	02/11/20 13:50	02/11/20 22:24	108-88-3	
1,2,4-Trimethylbenzene	ND	mg/kg	0.0046	1	02/11/20 13:50	02/11/20 22:24	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.0046	1	02/11/20 13:50	02/11/20 22:24	108-67-8	
Xylene (Total)	ND	mg/kg	0.014	1	02/11/20 13:50	02/11/20 22:24	1330-20-7	
Surrogates								
Toluene-d8 (S)	97	%.	70-130	1	02/11/20 13:50	02/11/20 22:24	2037-26-5	
4-Bromofluorobenzene (S)	100	%.	70-130	1	02/11/20 13:50	02/11/20 22:24	460-00-4	
1,2-Dichloroethane-d4 (S)	115	%.	70-130	1	02/11/20 13:50	02/11/20 22:24	17060-07-0	
Dibromofluoromethane (S)	102	%.	70-130	1	02/11/20 13:50	02/11/20 22:24	1868-53-7	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**18.8**	%	0.10	1		02/18/20 15:57		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 1350-SOHAIL'S EXXON GAS
Pace Project No.: 30348542

Sample: 03-Disp. 3/4~3' **Lab ID: 30348542003** Collected: 01/31/20 08:30 Received: 02/05/20 21:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Sample ID, collection dates, and times were not present on the sample containers. Samples were numbered to match the COC.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV	Analytical Method: EPA 8260B Preparation Method: EPA 5035A							
Benzene	ND	mg/kg	0.0047	1	02/11/20 13:50	02/11/20 22:44	71-43-2	
Ethylbenzene	ND	mg/kg	0.0047	1	02/11/20 13:50	02/11/20 22:44	100-41-4	
Isopropylbenzene (Cumene)	ND	mg/kg	0.0047	1	02/11/20 13:50	02/11/20 22:44	98-82-8	
Methyl-tert-butyl ether	ND	mg/kg	0.0047	1	02/11/20 13:50	02/11/20 22:44	1634-04-4	
Naphthalene	ND	mg/kg	0.0047	1	02/11/20 13:50	02/11/20 22:44	91-20-3	
Toluene	ND	mg/kg	0.0047	1	02/11/20 13:50	02/11/20 22:44	108-88-3	
1,2,4-Trimethylbenzene	ND	mg/kg	0.0047	1	02/11/20 13:50	02/11/20 22:44	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.0047	1	02/11/20 13:50	02/11/20 22:44	108-67-8	
Xylene (Total)	ND	mg/kg	0.014	1	02/11/20 13:50	02/11/20 22:44	1330-20-7	
Surrogates								
Toluene-d8 (S)	97	%.	70-130	1	02/11/20 13:50	02/11/20 22:44	2037-26-5	
4-Bromofluorobenzene (S)	101	%.	70-130	1	02/11/20 13:50	02/11/20 22:44	460-00-4	
1,2-Dichloroethane-d4 (S)	112	%.	70-130	1	02/11/20 13:50	02/11/20 22:44	17060-07-0	
Dibromofluoromethane (S)	100	%.	70-130	1	02/11/20 13:50	02/11/20 22:44	1868-53-7	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**19.2**	%	0.10	1		02/18/20 15:57		

Sample: 04-BETWEEN 3/4-5/6~3' **Lab ID: 30348542004** Collected: 01/31/20 08:45 Received: 02/05/20 21:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Sample ID, collection dates, and times were not present on the sample containers. Samples were numbered to match the COC.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV	Analytical Method: EPA 8260B Preparation Method: EPA 5035A							
Benzene	ND	mg/kg	0.0039	1	02/11/20 13:50	02/11/20 23:04	71-43-2	
Ethylbenzene	ND	mg/kg	0.0039	1	02/11/20 13:50	02/11/20 23:04	100-41-4	
Isopropylbenzene (Cumene)	ND	mg/kg	0.0039	1	02/11/20 13:50	02/11/20 23:04	98-82-8	
Methyl-tert-butyl ether	ND	mg/kg	0.0039	1	02/11/20 13:50	02/11/20 23:04	1634-04-4	
Naphthalene	ND	mg/kg	0.0039	1	02/11/20 13:50	02/11/20 23:04	91-20-3	
Toluene	**0.0089**	mg/kg	0.0039	1	02/11/20 13:50	02/11/20 23:04	108-88-3	
1,2,4-Trimethylbenzene	ND	mg/kg	0.0039	1	02/11/20 13:50	02/11/20 23:04	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.0039	1	02/11/20 13:50	02/11/20 23:04	108-67-8	
Xylene (Total)	**0.016**	mg/kg	0.012	1	02/11/20 13:50	02/11/20 23:04	1330-20-7	
Surrogates								
Toluene-d8 (S)	99	%.	70-130	1	02/11/20 13:50	02/11/20 23:04	2037-26-5	
4-Bromofluorobenzene (S)	99	%.	70-130	1	02/11/20 13:50	02/11/20 23:04	460-00-4	
1,2-Dichloroethane-d4 (S)	114	%.	70-130	1	02/11/20 13:50	02/11/20 23:04	17060-07-0	
Dibromofluoromethane (S)	99	%.	70-130	1	02/11/20 13:50	02/11/20 23:04	1868-53-7	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**15.8**	%	0.10	1		02/18/20 15:59		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 1350-SOHAIL'S EXXON GAS
Pace Project No.: 30348542

Sample: 05-Disp. 5/6~3' **Lab ID: 30348542005** Collected: 01/31/20 09:00 Received: 02/05/20 21:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Sample ID, collection dates, and times were not present on the sample containers. Samples were numbered to match the COC.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV	Analytical Method: EPA 8260B Preparation Method: EPA 5035A							
Benzene	ND	mg/kg	0.0041	1	02/11/20 13:50	02/11/20 23:24	71-43-2	
Ethylbenzene	ND	mg/kg	0.0041	1	02/11/20 13:50	02/11/20 23:24	100-41-4	
Isopropylbenzene (Cumene)	ND	mg/kg	0.0041	1	02/11/20 13:50	02/11/20 23:24	98-82-8	
Methyl-tert-butyl ether	ND	mg/kg	0.0041	1	02/11/20 13:50	02/11/20 23:24	1634-04-4	
Naphthalene	ND	mg/kg	0.0041	1	02/11/20 13:50	02/11/20 23:24	91-20-3	
Toluene	**0.010**	mg/kg	0.0041	1	02/11/20 13:50	02/11/20 23:24	108-88-3	
1,2,4-Trimethylbenzene	**0.0047**	mg/kg	0.0041	1	02/11/20 13:50	02/11/20 23:24	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.0041	1	02/11/20 13:50	02/11/20 23:24	108-67-8	
Xylene (Total)	**0.017**	mg/kg	0.012	1	02/11/20 13:50	02/11/20 23:24	1330-20-7	
Surrogates								
Toluene-d8 (S)	96	%.	70-130	1	02/11/20 13:50	02/11/20 23:24	2037-26-5	
4-Bromofluorobenzene (S)	101	%.	70-130	1	02/11/20 13:50	02/11/20 23:24	460-00-4	
1,2-Dichloroethane-d4 (S)	113	%.	70-130	1	02/11/20 13:50	02/11/20 23:24	17060-07-0	
Dibromofluoromethane (S)	100	%.	70-130	1	02/11/20 13:50	02/11/20 23:24	1868-53-7	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**14.5**	%	0.10	1		02/18/20 15:59		

Sample: 06-BETWEEN 5/6-7/8~3' **Lab ID: 30348542006** Collected: 01/31/20 09:15 Received: 02/05/20 21:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Sample ID, collection dates, and times were not present on the sample containers. Samples were numbered to match the COC.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV	Analytical Method: EPA 8260B Preparation Method: EPA 5035A							
Benzene	ND	mg/kg	0.0057	1	02/11/20 13:50	02/11/20 23:44	71-43-2	
Ethylbenzene	ND	mg/kg	0.0057	1	02/11/20 13:50	02/11/20 23:44	100-41-4	
Isopropylbenzene (Cumene)	ND	mg/kg	0.0057	1	02/11/20 13:50	02/11/20 23:44	98-82-8	
Methyl-tert-butyl ether	ND	mg/kg	0.0057	1	02/11/20 13:50	02/11/20 23:44	1634-04-4	
Naphthalene	ND	mg/kg	0.0057	1	02/11/20 13:50	02/11/20 23:44	91-20-3	
Toluene	ND	mg/kg	0.0057	1	02/11/20 13:50	02/11/20 23:44	108-88-3	
1,2,4-Trimethylbenzene	ND	mg/kg	0.0057	1	02/11/20 13:50	02/11/20 23:44	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.0057	1	02/11/20 13:50	02/11/20 23:44	108-67-8	
Xylene (Total)	ND	mg/kg	0.017	1	02/11/20 13:50	02/11/20 23:44	1330-20-7	
Surrogates								
Toluene-d8 (S)	95	%.	70-130	1	02/11/20 13:50	02/11/20 23:44	2037-26-5	
4-Bromofluorobenzene (S)	102	%.	70-130	1	02/11/20 13:50	02/11/20 23:44	460-00-4	
1,2-Dichloroethane-d4 (S)	117	%.	70-130	1	02/11/20 13:50	02/11/20 23:44	17060-07-0	
Dibromofluoromethane (S)	101	%.	70-130	1	02/11/20 13:50	02/11/20 23:44	1868-53-7	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**24.7**	%	0.10	1		02/18/20 15:59		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 1350-SOHAIL'S EXXON GAS
Pace Project No.: 30348542

Sample: 07-Disp. 7/8~3' **Lab ID: 30348542007** Collected: 01/31/20 09:30 Received: 02/05/20 21:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Sample ID, collection dates, and times were not present on the sample containers. Samples were numbered to match the COC.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV	Analytical Method: EPA 8260B Preparation Method: EPA 5035A							
Benzene	ND	mg/kg	0.0051	1	02/11/20 13:50	02/12/20 00:04	71-43-2	
Ethylbenzene	ND	mg/kg	0.0051	1	02/11/20 13:50	02/12/20 00:04	100-41-4	
Isopropylbenzene (Cumene)	ND	mg/kg	0.0051	1	02/11/20 13:50	02/12/20 00:04	98-82-8	
Methyl-tert-butyl ether	ND	mg/kg	0.0051	1	02/11/20 13:50	02/12/20 00:04	1634-04-4	
Naphthalene	ND	mg/kg	0.0051	1	02/11/20 13:50	02/12/20 00:04	91-20-3	
Toluene	ND	mg/kg	0.0051	1	02/11/20 13:50	02/12/20 00:04	108-88-3	
1,2,4-Trimethylbenzene	ND	mg/kg	0.0051	1	02/11/20 13:50	02/12/20 00:04	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.0051	1	02/11/20 13:50	02/12/20 00:04	108-67-8	
Xylene (Total)	ND	mg/kg	0.015	1	02/11/20 13:50	02/12/20 00:04	1330-20-7	
Surrogates								
Toluene-d8 (S)	96	%.	70-130	1	02/11/20 13:50	02/12/20 00:04	2037-26-5	
4-Bromofluorobenzene (S)	102	%.	70-130	1	02/11/20 13:50	02/12/20 00:04	460-00-4	
1,2-Dichloroethane-d4 (S)	114	%.	70-130	1	02/11/20 13:50	02/12/20 00:04	17060-07-0	
Dibromofluoromethane (S)	100	%.	70-130	1	02/11/20 13:50	02/12/20 00:04	1868-53-7	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**19.2**	%	0.10	1		02/18/20 15:59		

Sample: 08-BETWEEN 7/8&TANKS~3' **Lab ID: 30348542008** Collected: 01/31/20 09:45 Received: 02/05/20 21:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Sample ID, collection dates, and times were not present on the sample containers. Samples were numbered to match the COC.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV	Analytical Method: EPA 8260B Preparation Method: EPA 5035A							
Benzene	ND	mg/kg	0.0046	1	02/11/20 13:50	02/12/20 00:24	71-43-2	
Ethylbenzene	ND	mg/kg	0.0046	1	02/11/20 13:50	02/12/20 00:24	100-41-4	
Isopropylbenzene (Cumene)	ND	mg/kg	0.0046	1	02/11/20 13:50	02/12/20 00:24	98-82-8	
Methyl-tert-butyl ether	ND	mg/kg	0.0046	1	02/11/20 13:50	02/12/20 00:24	1634-04-4	
Naphthalene	ND	mg/kg	0.0046	1	02/11/20 13:50	02/12/20 00:24	91-20-3	
Toluene	ND	mg/kg	0.0046	1	02/11/20 13:50	02/12/20 00:24	108-88-3	
1,2,4-Trimethylbenzene	ND	mg/kg	0.0046	1	02/11/20 13:50	02/12/20 00:24	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.0046	1	02/11/20 13:50	02/12/20 00:24	108-67-8	
Xylene (Total)	ND	mg/kg	0.014	1	02/11/20 13:50	02/12/20 00:24	1330-20-7	
Surrogates								
Toluene-d8 (S)	95	%.	70-130	1	02/11/20 13:50	02/12/20 00:24	2037-26-5	
4-Bromofluorobenzene (S)	101	%.	70-130	1	02/11/20 13:50	02/12/20 00:24	460-00-4	
1,2-Dichloroethane-d4 (S)	115	%.	70-130	1	02/11/20 13:50	02/12/20 00:24	17060-07-0	
Dibromofluoromethane (S)	103	%.	70-130	1	02/11/20 13:50	02/12/20 00:24	1868-53-7	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**19.7**	%	0.10	1		02/18/20 16:00		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 1350-SOHAIL'S EXXON GAS
Pace Project No.: 30348542

Sample: TRIP BLANK **Lab ID: 30348542009** Collected: 01/31/20 00:01 Received: 02/05/20 21:30 Matrix: Water
Comments: •

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV	Analytical Method: EPA 8260B							
Benzene	ND	ug/L	1.0	1		02/06/20 14:54	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		02/06/20 14:54	100-41-4	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		02/06/20 14:54	98-82-8	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		02/06/20 14:54	1634-04-4	
Naphthalene	ND	ug/L	2.0	1		02/06/20 14:54	91-20-3	
Toluene	**1.5**	ug/L	1.0	1		02/06/20 14:54	108-88-3	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		02/06/20 14:54	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		02/06/20 14:54	108-67-8	
Xylene (Total)	ND	ug/L	3.0	1		02/06/20 14:54	1330-20-7	
Surrogates								
Toluene-d8 (S)	99	%.	70-130	1		02/06/20 14:54	2037-26-5	
4-Bromofluorobenzene (S)	104	%.	70-130	1		02/06/20 14:54	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%.	70-130	1		02/06/20 14:54	17060-07-0	
Dibromofluoromethane (S)	95	%.	70-130	1		02/06/20 14:54	1868-53-7	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 1350-SOHAIL'S EXXON GAS
Pace Project No.: 30348542

QC Batch: 383360 Analysis Method: EPA 8260B
QC Batch Method: EPA 5035A Analysis Description: 8260B MSV UST-SOIL
Associated Lab Samples: 30348542001, 30348542002, 30348542003, 30348542004, 30348542005, 30348542006, 30348542007, 30348542008

METHOD BLANK: 1857740 Matrix: Solid
Associated Lab Samples: 30348542001, 30348542002, 30348542003, 30348542004, 30348542005, 30348542006, 30348542007, 30348542008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	mg/kg	ND	0.0050	02/11/20 20:03	
1,3,5-Trimethylbenzene	mg/kg	ND	0.0050	02/11/20 20:03	
Benzene	mg/kg	ND	0.0050	02/11/20 20:03	
Ethylbenzene	mg/kg	ND	0.0050	02/11/20 20:03	
Isopropylbenzene (Cumene)	mg/kg	ND	0.0050	02/11/20 20:03	
Methyl-tert-butyl ether	mg/kg	ND	0.0050	02/11/20 20:03	
Naphthalene	mg/kg	ND	0.0050	02/11/20 20:03	
Toluene	mg/kg	ND	0.0050	02/11/20 20:03	
Xylene (Total)	mg/kg	ND	0.015	02/11/20 20:03	
1,2-Dichloroethane-d4 (S)	%.	107	70-130	02/11/20 20:03	
4-Bromofluorobenzene (S)	%.	100	70-130	02/11/20 20:03	
Dibromofluoromethane (S)	%.	100	70-130	02/11/20 20:03	
Toluene-d8 (S)	%.	97	70-130	02/11/20 20:03	

LABORATORY CONTROL SAMPLE: 1857741

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	mg/kg	0.02	0.015	73	58-126	
1,3,5-Trimethylbenzene	mg/kg	0.02	0.015	74	56-124	
Benzene	mg/kg	0.02	0.016	82	51-123	
Ethylbenzene	mg/kg	0.02	0.016	79	61-123	
Isopropylbenzene (Cumene)	mg/kg	0.02	0.018	88	62-136	
Methyl-tert-butyl ether	mg/kg	0.02	0.019	94	60-108	
Naphthalene	mg/kg	0.02	0.018	88	65-110	
Toluene	mg/kg	0.02	0.016	78	56-120	
Xylene (Total)	mg/kg	0.06	0.045	74	57-125	
1,2-Dichloroethane-d4 (S)	%.			104	70-130	
4-Bromofluorobenzene (S)	%.			99	70-130	
Dibromofluoromethane (S)	%.			99	70-130	
Toluene-d8 (S)	%.			98	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1857742 1857743

Parameter	Units	30349012001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,2,4-Trimethylbenzene	mg/kg	ND	0.021	0.025	0.0092	0.0095	43	38	10-150	3	
1,3,5-Trimethylbenzene	mg/kg	ND	0.021	0.025	0.0098	0.0099	46	40	10-129	1	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: 1350-SOHAIL'S EXXON GAS
Pace Project No.: 30348542

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1857742 1857743

Parameter	Units	30349012001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Benzene	mg/kg	ND	0.021	0.025	0.012	0.013	54	51	29-120	9	
Ethylbenzene	mg/kg	ND	0.021	0.025	0.011	0.011	50	46	10-136	6	
Isopropylbenzene (Cumene)	mg/kg	ND	0.021	0.025	0.012	0.013	58	53	10-145	5	
Methyl-tert-butyl ether	mg/kg	ND	0.021	0.025	0.013	0.014	60	56	30-110	6	
Naphthalene	mg/kg	ND	0.021	0.025	.0049J	.0046J	23	18	10-154		
Toluene	mg/kg	ND	0.021	0.025	0.011	0.012	50	48	13-132	10	
Xylene (Total)	mg/kg	ND	0.064	0.074	0.030	0.032	46	43	12-128	7	
1,2-Dichloroethane-d4 (S)	%.						113	115	70-130		
4-Bromofluorobenzene (S)	%.						103	100	70-130		
Dibromofluoromethane (S)	%.						103	105	70-130		
Toluene-d8 (S)	%.						97	98	70-130		

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Greensburg, PA 15601
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QUALITY CONTROL DATA

Project: 1350-SOHAIL'S EXXON GAS
Pace Project No.: 30348542

QC Batch: 382739
QC Batch Method: EPA 8260B
Analysis Method: EPA 8260B
Analysis Description: 8260B MSV UST-WATER
Associated Lab Samples: 30348542009

METHOD BLANK: 1854823 Matrix: Water
Associated Lab Samples: 30348542009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/L	ND	1.0	02/06/20 13:14	
1,3,5-Trimethylbenzene	ug/L	ND	1.0	02/06/20 13:14	
Benzene	ug/L	ND	1.0	02/06/20 13:14	
Ethylbenzene	ug/L	ND	1.0	02/06/20 13:14	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	02/06/20 13:14	
Methyl-tert-butyl ether	ug/L	ND	1.0	02/06/20 13:14	
Naphthalene	ug/L	ND	2.0	02/06/20 13:14	
Toluene	ug/L	ND	1.0	02/06/20 13:14	
Xylene (Total)	ug/L	ND	3.0	02/06/20 13:14	
1,2-Dichloroethane-d4 (S)	%.	101	70-130	02/06/20 13:14	
4-Bromofluorobenzene (S)	%.	100	70-130	02/06/20 13:14	
Dibromofluoromethane (S)	%.	95	70-130	02/06/20 13:14	
Toluene-d8 (S)	%.	99	70-130	02/06/20 13:14	

LABORATORY CONTROL SAMPLE: 1854824

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/L	20	20.6	103	70-130	
1,3,5-Trimethylbenzene	ug/L	20	20.9	105	70-130	
Benzene	ug/L	20	20.2	101	70-130	
Ethylbenzene	ug/L	20	20.9	105	70-130	
Isopropylbenzene (Cumene)	ug/L	20	22.8	114	70-130	
Methyl-tert-butyl ether	ug/L	20	20.0	100	70-130	
Naphthalene	ug/L	20	26.1	131	55-160	
Toluene	ug/L	20	20.9	104	70-130	
Xylene (Total)	ug/L	60	61.6	103	70-130	
1,2-Dichloroethane-d4 (S)	%.			99	70-130	
4-Bromofluorobenzene (S)	%.			100	70-130	
Dibromofluoromethane (S)	%.			96	70-130	
Toluene-d8 (S)	%.			101	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1854882 1854883

Parameter	Units	30348499003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,2,4-Trimethylbenzene	ug/L	ND	20	20	23.6	19.7	118	98	52-151	18	
1,3,5-Trimethylbenzene	ug/L	ND	20	20	23.4	19.8	117	99	53-142	16	
Benzene	ug/L	ND	20	20	23.3	19.1	116	96	50-149	19	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(724)850-5600

QUALITY CONTROL DATA

Project: 1350-SOHAIL'S EXXON GAS
Pace Project No.: 30348542

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1854882 1854883

Parameter	Units	30348499003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Ethylbenzene	ug/L	ND	20	20	23.7	19.4	118	97	63-135	20	
Isopropylbenzene (Cumene)	ug/L	ND	20	20	25.5	21.8	127	109	50-167	16	
Methyl-tert-butyl ether	ug/L	ND	20	20	21.9	21.2	110	106	53-123	3	
Naphthalene	ug/L	ND	20	20	29.6	23.3	148	117	30-157	24	
Toluene	ug/L	ND	20	20	22.8	19.7	114	99	59-139	15	
Xylene (Total)	ug/L	ND	60	60	69.6	57.2	116	95	63-135	20	
1,2-Dichloroethane-d4 (S)	%.						100	101	70-130		
4-Bromofluorobenzene (S)	%.						100	99	70-130		
Dibromofluoromethane (S)	%.						97	95	70-130		
Toluene-d8 (S)	%.						100	101	70-130		

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 1350-SOHAIL'S EXXON GAS
Pace Project No.: 30348542

QC Batch: 384390 Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 30348542001, 30348542002, 30348542003, 30348542004, 30348542005, 30348542006, 30348542007, 30348542008

SAMPLE DUPLICATE: 1862511

Parameter	Units	30348540001 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	16.9	17.2	2	

SAMPLE DUPLICATE: 1862512

Parameter	Units	30348541001 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	21.0	21.6	3	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALIFIERS

Project: 1350-SOHAIL'S EXXON GAS
Pace Project No.: 30348542

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 1350-SOHAIL'S EXXON GAS
Pace Project No.: 30348542

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30348542001	**01-Disp. 1/2~3'**	EPA 5035A	383360	EPA 8260B	383375
30348542002	**02- BETWEEN 1/2-3/4~3'**	EPA 5035A	383360	EPA 8260B	383375
30348542003	**03-Disp. 3/4~3'**	EPA 5035A	383360	EPA 8260B	383375
30348542004	**04-BETWEEN 3/4-5/6~3'**	EPA 5035A	383360	EPA 8260B	383375
30348542005	**05-Disp. 5/6~3'**	EPA 5035A	383360	EPA 8260B	383375
30348542006	**06-BETWEEN 5/6-7/8~3'**	EPA 5035A	383360	EPA 8260B	383375
30348542007	**07-Disp. 7/8~3'**	EPA 5035A	383360	EPA 8260B	383375
30348542008	**08-BETWEEN 7/8&TANKS~3'**	EPA 5035A	383360	EPA 8260B	383375
30348542009	**TRIP BLANK**	EPA 8260B	382739		
30348542001	**01-Disp. 1/2~3'**	ASTM D2974-87	384390		
30348542002	**02- BETWEEN 1/2-3/4~3'**	ASTM D2974-87	384390		
30348542003	**03-Disp. 3/4~3'**	ASTM D2974-87	384390		
30348542004	**04-BETWEEN 3/4-5/6~3'**	ASTM D2974-87	384390		
30348542005	**05-Disp. 5/6~3'**	ASTM D2974-87	384390		
30348542006	**06-BETWEEN 5/6-7/8~3'**	ASTM D2974-87	384390		
30348542007	**07-Disp. 7/8~3'**	ASTM D2974-87	384390		
30348542008	**08-BETWEEN 7/8&TANKS~3'**	ASTM D2974-87	384390		

CHAIN-OF-CUSTODY Analytical Request Document

Pace Analytical®

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

WO# : 30348542

30348542

LAB U … Number or

Company: KEYSTONE PETROLEUM	Billing Information:
Address:	
Report To: DOUG KASSAY	Email To:
Copy To:	Site Collection Info/Address:
Customer Project Name/Number: 1350 - SOHAIL'S EXXON GAS	State: / County/City: Time Zone Collected: [ ] PT [ ] MT [ ] CT [ ] ET
Phone: Email:	Site/Facility ID #: 22-16012
Collected By (print): KYLE ISENBERG	Purchase Order #: Quote #:
Collected By (signature):	Turnaround Date Required: STANDARD
Sample Disposal: [X] Dispose as appropriate [ ] Return [ ] Archive: _____ [ ] Hold: _____	Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply)

Compliance Monitoring? [ ] Yes [X] No

DW PWS ID #:

DW Location Code:

Immediately Packed on Ice: [X] Yes [ ] No

Field Filtered (if applicable): [ ] Yes [X] No

Analysis: _____

Container Preservative Type **

Lab Project Manager:

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other _____

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Collected (or Composite Start) Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	Analyses: U2 LEADED GAS	Lab Sample #
01 - DISP. 1/2 ~3'	SL	G			11/21/2020	0800		4	X	001
02 - BETWEEN 1/2 - 3/4 ~3'	"	"			"	0815		"	X	002
03 - DISP. 3/4 ~3'						0830			X	003
04 - BETWEEN 3/4 - 5/6 ~3'						0845			X	004
05 - DISP. 5/6 ~3'						0900			X	005
06 - BETWEEN 5/6 - 7/8 ~3'						0915			X	006
07 - DISP. 7/8 ~3'						0930			X	007
08 - BETWEEN 7/8 & TANKS ~3'		G			11/21/2020	0945		4	X	008
TRIP BLANK										009

Lab Profile/Line:

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	Y	N	NA
Custody Signatures Present	Y	N	NA
Collector Signature Present	Y	N	NA
Bottles Intact	Y	N	NA
Correct Bottles	Y	N	NA
Sufficient Volume	Y	N	NA
Samples Received on Ice	Y	N	NA
VOA - Headspace Acceptable	Y	N	NA
USDA Regulated Soils	Y	N	NA
Samples in Holding Time	Y	N	NA
Residual Chlorine Present	Y	N	NA
Cl Strips:			
Sample pH Acceptable	Y	N	NA
pH Strips:			
Sulfide Present	Y	N	NA
Lead Acetate Strips:			

LAB USE ONLY:

Lab Sample # / Comments:

MLC / MLC

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: (Wet) Blue Dry None

Packing Material Used: Foam / bubble wrap

Radchem sample(s) screened (<500 cpm): Y N (NA)

SHORT HOLDS PRESENT (<72 hours): Y N (N/A)

Lab Tracking #: N/A 2374219

Samples received via: FEDEX UPS Client Courier (Pace Courier)

Lab Sample Temperature Info:

Temp Blank Received: Y N (NA)

Therm ID#: 10

Cooler 1 Temp Upon Receipt: 3.2 oC

Cooler 1 Therm Corr. Factor: 0 oC

Cooler 1 Corrected Temp: 3.2 oC

Comments:

MLC 2-6-20

	Date/Time:	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature) KYLE ISENBERG	11/21/2020 @ 1700	DOUG KASSAY	11/21/2020 @ 1700
Relinquished by/Company: (Signature) DOUG KASSAY	2/5/20 0915	MS / PACE	2/5/20 0915
Relinquished by/Company: (Signature) MS / PACE	2/5/20 1815	RDS / PACE	2-5-20 1815

MTJL LAB USE ONLY

Table #:

Acctnum:

Template:

Prelogin:

PM:

PB:

Trip Blank Received: (Y) N NA

(HCl) MeOH TSP Other

Non Conformance(s): (YES) / NO

Page: 1 of: 1

RDS / PACE 2-5-20 2130 Marnie J (May) 2-5-20 2130

Page 17 of 18

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Sample Receiving Non-Conformance Form (NCF)

Date: 2-6-20	Evaluated by: MC
Client: Keystone Petroleum	

WO# : 30348542

PM: MS1 Due Date: 02/15/20

CLIENT: KEY PET EQP

1. If Chain-of-Custody (COC) is not received: contact client and if necessary, fill out a COC and indicate that it was filled out by lab personnel. Note issues on this NCF.

2. If COC is incomplete, check applicable issues below and add details where appropriate:

X	Collection date/time missing or incorrect		Analyses or analytes: missing or clarification needed		Samples listed on COC do not match samples received (missing, additional, etc.)
X	Sample IDs on COC do not match sample labels		Required trip blanks were not received	X	Required signatures are missing

Comments/Details/Other Issues not listed above: no time, date or sample ID on sample labels
no collector signature on COC

3. Sample integrity issues: check applicable issues below and add details where appropriate:

	Samples: Past holding time		Samples: Condition needs to be brought to lab personnel's attention (details below)		Preservation: Improper
	Samples: Not field filtered		Containers: Broken or compromised		Temperature: not within acceptance criteria (typically 0-6C)
	Samples: Insufficient volume received		Containers: Incorrect		Temperature: Samples arrived frozen
	Samples: Cooler damaged or compromised		Custody Seals: Missing or compromised on samples, trip blanks or coolers		Vials received with improper headspace
	Samples: contain chlorine or sulfides		Packing Material: Insufficient/Improper		Other:

Comments/Details:

4. If Samples not preserved properly and Sample Receiving adjusts pH, add details below:

Sample ID:	Date/Time:	Amount/type pres added:
Preserved by:	Initial and Final pH:	Lot # of pres added:
Sample ID:	Date/Time:	Amount/type pres added:
Preserved by:	Initial and Final pH:	Lot # of pres added:
Sample ID:	Date/Time:	Amount/type pres added:
Preserved by:	Initial and Final pH:	Lot # of pres added:

5. Client Contact: If client is contacted for any issue listed above, fill in details below:

Client:	Contacted per:	
PM Initials:	Date/Time:	

Client Comments/Instructions:

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

February 19, 2020

Doug Kassay
Keystone Petroleum Equipment
981 Trindle Road West
Mechanicsburg, PA 17055

RE: Project: 1350-SOHAIL DIESEL
Pace Project No.: 30348541

Dear Doug Kassay:
Enclosed are the analytical results for sample(s) received by the laboratory on February 05, 2020. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Megan Smetanka

Megan J. Smetanka
megan.smetanka@pacelabs.com
(724)850-5600
Project Manager

Enclosures

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

CERTIFICATIONS

Project: 1350-SOHAIL DIESEL
Pace Project No.: 30348541

Pace Analytical Services Pennsylvania
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Florida: Cert E871149 SEKS WET
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

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SAMPLE ANALYTE COUNT

Project: 1350-SOHAIL DIESEL
Pace Project No.: 30348541

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30348541001	**09-DIESEL DISP 1~3'**	EPA 8260B	JEW	12	PASI-PA
		ASTM D2974-87	NLD	1	PASI-PA
30348541002	**10-BETWEEN D1&D2~3'**	EPA 8260B	JEW	12	PASI-PA
		ASTM D2974-87	NLD	1	PASI-PA
30348541003	**11-DIESEL DISP2~3'**	EPA 8260B	JEW	12	PASI-PA
		ASTM D2974-87	NLD	1	PASI-PA
30348541004	**12-LINE TO TANK~3'**	EPA 8260B	JEW	12	PASI-PA
		ASTM D2974-87	NLD	1	PASI-PA
30348541005	**TRIP BLANK**	EPA 8260B	KAC	12	PASI-PA

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: 1350-SOHAIL DIESEL
Pace Project No.: 30348541

Method: **EPA 8260B**
Description: 8260B MSV
Client: Keystone Petroleum Equipment
Date: February 19, 2020

General Information:
5 samples were analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 5035A with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 383726

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30349530001

ML: Matrix spike recovery and/or matrix spike duplicate recovery was below laboratory control limits. Result may be biased low.

- MS (Lab ID: 1859408)
  - 1,2,4-Trimethylbenzene
  - 1,3,5-Trimethylbenzene
  - Ethylbenzene
  - Isopropylbenzene (Cumene)
  - Naphthalene
  - Toluene
- MSD (Lab ID: 1859409)
  - 1,2,4-Trimethylbenzene
  - 1,3,5-Trimethylbenzene

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PROJECT NARRATIVE

Project: 1350-SOHAIL DIESEL
Pace Project No.: 30348541

Method: **EPA 8260B**
Description: 8260B MSV
Client: Keystone Petroleum Equipment
Date: February 19, 2020

QC Batch: 383726

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30349530001

ML: Matrix spike recovery and/or matrix spike duplicate recovery was below laboratory control limits. Result may be biased low.

- Ethylbenzene
- Isopropylbenzene (Cumene)
- Naphthalene
- Toluene

R1: RPD value was outside control limits.

- MSD (Lab ID: 1859409)
  - 1,2,4-Trimethylbenzene
  - 1,3,5-Trimethylbenzene
  - Ethylbenzene
  - Isopropylbenzene (Cumene)
  - Naphthalene

QC Batch: 383728

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

Analyte Comments:

QC Batch: 383728

1c: A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

- 10-BETWEEN D1&D2~3' (Lab ID: 30348541002)
  - 1,2,4-Trimethylbenzene
  - 1,3,5-Trimethylbenzene
  - Benzene
  - Ethylbenzene
  - Isopropylbenzene (Cumene)
  - Methyl-tert-butyl ether
  - Naphthalene
  - Toluene

This data package has been reviewed for quality and completeness and is approved for release.

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 1350-SOHAIL DIESEL
Pace Project No.: 30348541

Sample: 09-DIESEL DISP 1~3' **Lab ID: 30348541001** Collected: 02/04/20 15:30 Received: 02/05/20 21:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Sample ID, collection dates, and times were not present on the sample containers. Samples were numbered to match the COC.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV	Analytical Method: EPA 8260B Preparation Method: EPA 5035A							
Benzene	ND	mg/kg	0.0048	1	02/13/20 11:30	02/13/20 12:13	71-43-2	
Ethylbenzene	ND	mg/kg	0.0048	1	02/13/20 11:30	02/13/20 12:13	100-41-4	
Isopropylbenzene (Cumene)	ND	mg/kg	0.0048	1	02/13/20 11:30	02/13/20 12:13	98-82-8	
Methyl-tert-butyl ether	ND	mg/kg	0.0048	1	02/13/20 11:30	02/13/20 12:13	1634-04-4	
Naphthalene	ND	mg/kg	0.0048	1	02/13/20 11:30	02/13/20 12:13	91-20-3	
Toluene	ND	mg/kg	0.0048	1	02/13/20 11:30	02/13/20 12:13	108-88-3	
1,2,4-Trimethylbenzene	ND	mg/kg	0.0048	1	02/13/20 11:30	02/13/20 12:13	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.0048	1	02/13/20 11:30	02/13/20 12:13	108-67-8	
Surrogates								
Toluene-d8 (S)	91	%.	70-130	1	02/13/20 11:30	02/13/20 12:13	2037-26-5	
4-Bromofluorobenzene (S)	98	%.	70-130	1	02/13/20 11:30	02/13/20 12:13	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%.	70-130	1	02/13/20 11:30	02/13/20 12:13	17060-07-0	
Dibromofluoromethane (S)	101	%.	70-130	1	02/13/20 11:30	02/13/20 12:13	1868-53-7	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**21.0**	%	0.10	1		02/18/20 15:57		

Sample: 10-BETWEEN D1&D2~3' **Lab ID: 30348541002** Collected: 02/04/20 15:40 Received: 02/05/20 21:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Sample ID, collection dates, and times were not present on the sample containers. Samples were numbered to match the COC.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV	Analytical Method: EPA 8260B Preparation Method: EPA 5035A							
Benzene	ND	mg/kg	0.23	50	02/13/20 12:08	02/14/20 15:47	71-43-2	1c
Ethylbenzene	ND	mg/kg	0.23	50	02/13/20 12:08	02/14/20 15:47	100-41-4	1c
Isopropylbenzene (Cumene)	ND	mg/kg	0.23	50	02/13/20 12:08	02/14/20 15:47	98-82-8	1c
Methyl-tert-butyl ether	ND	mg/kg	0.23	50	02/13/20 12:08	02/14/20 15:47	1634-04-4	1c
Naphthalene	ND	mg/kg	0.23	50	02/13/20 12:08	02/14/20 15:47	91-20-3	1c
Toluene	ND	mg/kg	0.23	50	02/13/20 12:08	02/14/20 15:47	108-88-3	1c
1,2,4-Trimethylbenzene	**0.96**	mg/kg	0.23	50	02/13/20 12:08	02/14/20 15:47	95-63-6	1c
1,3,5-Trimethylbenzene	**0.48**	mg/kg	0.23	50	02/13/20 12:08	02/14/20 15:47	108-67-8	1c
Surrogates								
Toluene-d8 (S)	98	%.	70-130	50	02/13/20 12:08	02/14/20 15:47	2037-26-5	
4-Bromofluorobenzene (S)	95	%.	70-130	50	02/13/20 12:08	02/14/20 15:47	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%.	70-130	50	02/13/20 12:08	02/14/20 15:47	17060-07-0	
Dibromofluoromethane (S)	95	%.	70-130	50	02/13/20 12:08	02/14/20 15:47	1868-53-7	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**14.0**	%	0.10	1		02/18/20 15:57		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 1350-SOHAIL DIESEL
Pace Project No.: 30348541

Sample: 11-DIESEL DISP2~3' **Lab ID: 30348541003** Collected: 02/04/20 15:50 Received: 02/05/20 21:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Sample ID, collection dates, and times were not present on the sample containers. Samples were numbered to match the COC.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV	Analytical Method: EPA 8260B Preparation Method: EPA 5035A							
Benzene	ND	mg/kg	0.0052	1	02/13/20 11:30	02/13/20 12:40	71-43-2	
Ethylbenzene	ND	mg/kg	0.0052	1	02/13/20 11:30	02/13/20 12:40	100-41-4	
Isopropylbenzene (Cumene)	ND	mg/kg	0.0052	1	02/13/20 11:30	02/13/20 12:40	98-82-8	
Methyl-tert-butyl ether	ND	mg/kg	0.0052	1	02/13/20 11:30	02/13/20 12:40	1634-04-4	
Naphthalene	ND	mg/kg	0.0052	1	02/13/20 11:30	02/13/20 12:40	91-20-3	
Toluene	ND	mg/kg	0.0052	1	02/13/20 11:30	02/13/20 12:40	108-88-3	
1,2,4-Trimethylbenzene	ND	mg/kg	0.0052	1	02/13/20 11:30	02/13/20 12:40	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.0052	1	02/13/20 11:30	02/13/20 12:40	108-67-8	
Surrogates								
Toluene-d8 (S)	97	%.	70-130	1	02/13/20 11:30	02/13/20 12:40	2037-26-5	
4-Bromofluorobenzene (S)	95	%.	70-130	1	02/13/20 11:30	02/13/20 12:40	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%.	70-130	1	02/13/20 11:30	02/13/20 12:40	17060-07-0	
Dibromofluoromethane (S)	100	%.	70-130	1	02/13/20 11:30	02/13/20 12:40	1868-53-7	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**14.2**	%	0.10	1		02/18/20 15:57		

Sample: 12-LINE TO TANK~3' **Lab ID: 30348541004** Collected: 02/04/20 16:00 Received: 02/05/20 21:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Sample ID, collection dates, and times were not present on the sample containers. Samples were numbered to match the COC.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV	Analytical Method: EPA 8260B Preparation Method: EPA 5035A							
Benzene	ND	mg/kg	0.0045	1	02/13/20 11:30	02/13/20 13:06	71-43-2	
Ethylbenzene	ND	mg/kg	0.0045	1	02/13/20 11:30	02/13/20 13:06	100-41-4	
Isopropylbenzene (Cumene)	ND	mg/kg	0.0045	1	02/13/20 11:30	02/13/20 13:06	98-82-8	
Methyl-tert-butyl ether	ND	mg/kg	0.0045	1	02/13/20 11:30	02/13/20 13:06	1634-04-4	
Naphthalene	ND	mg/kg	0.0045	1	02/13/20 11:30	02/13/20 13:06	91-20-3	
Toluene	ND	mg/kg	0.0045	1	02/13/20 11:30	02/13/20 13:06	108-88-3	
1,2,4-Trimethylbenzene	ND	mg/kg	0.0045	1	02/13/20 11:30	02/13/20 13:06	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.0045	1	02/13/20 11:30	02/13/20 13:06	108-67-8	
Surrogates								
Toluene-d8 (S)	97	%.	70-130	1	02/13/20 11:30	02/13/20 13:06	2037-26-5	
4-Bromofluorobenzene (S)	93	%.	70-130	1	02/13/20 11:30	02/13/20 13:06	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%.	70-130	1	02/13/20 11:30	02/13/20 13:06	17060-07-0	
Dibromofluoromethane (S)	99	%.	70-130	1	02/13/20 11:30	02/13/20 13:06	1868-53-7	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**11.5**	%	0.10	1		02/18/20 15:57		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 1350-SOHAIL DIESEL
Pace Project No.: 30348541

Sample: TRIP BLANK **Lab ID: 30348541005** Collected: 02/04/20 00:01 Received: 02/05/20 21:30 Matrix: Water
Comments: • 2 40mL HCL vials contian headspace

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV	Analytical Method: EPA 8260B							
Benzene	ND	ug/L	1.0	1		02/06/20 14:29	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		02/06/20 14:29	100-41-4	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		02/06/20 14:29	98-82-8	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		02/06/20 14:29	1634-04-4	
Naphthalene	ND	ug/L	2.0	1		02/06/20 14:29	91-20-3	
Toluene	ND	ug/L	1.0	1		02/06/20 14:29	108-88-3	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		02/06/20 14:29	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		02/06/20 14:29	108-67-8	
Surrogates								
Toluene-d8 (S)	100	%.	70-130	1		02/06/20 14:29	2037-26-5	
4-Bromofluorobenzene (S)	105	%.	70-130	1		02/06/20 14:29	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%.	70-130	1		02/06/20 14:29	17060-07-0	
Dibromofluoromethane (S)	96	%.	70-130	1		02/06/20 14:29	1868-53-7	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 1350-SOHAIL DIESEL
Pace Project No.: 30348541

QC Batch: 383726 Analysis Method: EPA 8260B
QC Batch Method: EPA 5035A Analysis Description: 8260B MSV UST-SOIL
Associated Lab Samples: 30348541001, 30348541003, 30348541004

METHOD BLANK: 1859406 Matrix: Solid
Associated Lab Samples: 30348541001, 30348541003, 30348541004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	mg/kg	ND	0.0050	02/13/20 11:47	
1,3,5-Trimethylbenzene	mg/kg	ND	0.0050	02/13/20 11:47	
Benzene	mg/kg	ND	0.0050	02/13/20 11:47	
Ethylbenzene	mg/kg	ND	0.0050	02/13/20 11:47	
Isopropylbenzene (Cumene)	mg/kg	ND	0.0050	02/13/20 11:47	
Methyl-tert-butyl ether	mg/kg	ND	0.0050	02/13/20 11:47	
Naphthalene	mg/kg	ND	0.0050	02/13/20 11:47	
Toluene	mg/kg	ND	0.0050	02/13/20 11:47	
1,2-Dichloroethane-d4 (S)	%.	100	70-130	02/13/20 11:47	
4-Bromofluorobenzene (S)	%.	93	70-130	02/13/20 11:47	
Dibromofluoromethane (S)	%.	97	70-130	02/13/20 11:47	
Toluene-d8 (S)	%.	96	70-130	02/13/20 11:47	

LABORATORY CONTROL SAMPLE: 1859407

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	mg/kg	0.02	0.019	95	58-126	
1,3,5-Trimethylbenzene	mg/kg	0.02	0.019	93	56-124	
Benzene	mg/kg	0.02	0.019	95	51-123	
Ethylbenzene	mg/kg	0.02	0.019	93	61-123	
Isopropylbenzene (Cumene)	mg/kg	0.02	0.020	100	62-136	
Methyl-tert-butyl ether	mg/kg	0.02	0.019	94	60-108	
Naphthalene	mg/kg	0.02	0.017	83	65-110	
Toluene	mg/kg	0.02	0.018	88	56-120	
1,2-Dichloroethane-d4 (S)	%.			99	70-130	
4-Bromofluorobenzene (S)	%.			97	70-130	
Dibromofluoromethane (S)	%.			99	70-130	
Toluene-d8 (S)	%.			96	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1859408 1859409

Parameter	Units	30349530001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,2,4-Trimethylbenzene	mg/kg	902 ug/kg	0.026	0.031	0.50	0.23	-1500	-2200	10-150	73	ML,R1
1,3,5-Trimethylbenzene	mg/kg	272 ug/kg	0.026	0.031	0.16	0.078	-424	-636	10-129	68	ML,R1
Benzene	mg/kg	7.9 ug/kg	0.026	0.031	0.024	0.027	58	62	29-120	13	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 1350-SOHAIL DIESEL
Pace Project No.: 30348541

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1859408 1859409

Parameter	Units	30349530001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Ethylbenzene	mg/kg	241 ug/kg	0.026	0.031	0.14	0.096	-377	-475	10-136	37	ML,R1
Isopropylbenzene (Cumene)	mg/kg	64.9 ug/kg	0.026	0.031	0.052	0.035	-50	-98	10-145	38	ML,R1
Methyl-tert-butyl ether	mg/kg	ND	0.026	0.031	0.018	0.021	69	69	30-110	13	
Naphthalene	mg/kg	82.1 ug/kg	0.026	0.031	0.056	0.025	-99	-188	10-154	77	ML,R1
Toluene	mg/kg	189 ug/kg	0.026	0.031	0.12	0.11	-245	-269	13-132	14	ML
1,2-Dichloroethane-d4 (S)	%.						105	105	70-130		
4-Bromofluorobenzene (S)	%.						106	108	70-130		
Dibromofluoromethane (S)	%.						103	103	70-130		
Toluene-d8 (S)	%.						114	106	70-130		

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 1350-SOHAIL DIESEL
Pace Project No.: 30348541

QC Batch: 383728
QC Batch Method: EPA 5035A
Associated Lab Samples: 30348541002

Analysis Method: EPA 8260B
Analysis Description: 8260B MSV UST-SOIL

METHOD BLANK: 1859416
Matrix: Solid
Associated Lab Samples: 30348541002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	mg/kg	ND	0.25	02/14/20 10:07	
1,3,5-Trimethylbenzene	mg/kg	ND	0.25	02/14/20 10:07	
Benzene	mg/kg	ND	0.25	02/14/20 10:07	
Ethylbenzene	mg/kg	ND	0.25	02/14/20 10:07	
Isopropylbenzene (Cumene)	mg/kg	ND	0.25	02/14/20 10:07	
Methyl-tert-butyl ether	mg/kg	ND	0.25	02/14/20 10:07	
Naphthalene	mg/kg	ND	0.25	02/14/20 10:07	
Toluene	mg/kg	ND	0.25	02/14/20 10:07	
1,2-Dichloroethane-d4 (S)	%.	107	70-130	02/14/20 10:07	
4-Bromofluorobenzene (S)	%.	98	70-130	02/14/20 10:07	
Dibromofluoromethane (S)	%.	98	70-130	02/14/20 10:07	
Toluene-d8 (S)	%.	98	70-130	02/14/20 10:07	

LABORATORY CONTROL SAMPLE: 1859417

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	mg/kg	0.02	0.018	89	58-126	
1,3,5-Trimethylbenzene	mg/kg	0.02	0.018	89	56-124	
Benzene	mg/kg	0.02	0.017	86	51-123	
Ethylbenzene	mg/kg	0.02	0.017	85	61-123	
Isopropylbenzene (Cumene)	mg/kg	0.02	0.020	101	62-136	
Methyl-tert-butyl ether	mg/kg	0.02	0.018	90	60-108	
Naphthalene	mg/kg	0.02	0.015	74	65-110	
Toluene	mg/kg	0.02	0.017	84	56-120	
1,2-Dichloroethane-d4 (S)	%.			107	70-130	
4-Bromofluorobenzene (S)	%.			103	70-130	
Dibromofluoromethane (S)	%.			98	70-130	
Toluene-d8 (S)	%.			99	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 1350-SOHAIL DIESEL
Pace Project No.: 30348541

QC Batch: 382739 Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B Analysis Description: 8260B MSV UST-WATER
Associated Lab Samples: 30348541005

METHOD BLANK: 1854823 Matrix: Water
Associated Lab Samples: 30348541005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/L	ND	1.0	02/06/20 13:14	
1,3,5-Trimethylbenzene	ug/L	ND	1.0	02/06/20 13:14	
Benzene	ug/L	ND	1.0	02/06/20 13:14	
Ethylbenzene	ug/L	ND	1.0	02/06/20 13:14	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	02/06/20 13:14	
Methyl-tert-butyl ether	ug/L	ND	1.0	02/06/20 13:14	
Naphthalene	ug/L	ND	2.0	02/06/20 13:14	
Toluene	ug/L	ND	1.0	02/06/20 13:14	
1,2-Dichloroethane-d4 (S)	%.	101	70-130	02/06/20 13:14	
4-Bromofluorobenzene (S)	%.	100	70-130	02/06/20 13:14	
Dibromofluoromethane (S)	%.	95	70-130	02/06/20 13:14	
Toluene-d8 (S)	%.	99	70-130	02/06/20 13:14	

LABORATORY CONTROL SAMPLE: 1854824

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/L	20	20.6	103	70-130	
1,3,5-Trimethylbenzene	ug/L	20	20.9	105	70-130	
Benzene	ug/L	20	20.2	101	70-130	
Ethylbenzene	ug/L	20	20.9	105	70-130	
Isopropylbenzene (Cumene)	ug/L	20	22.8	114	70-130	
Methyl-tert-butyl ether	ug/L	20	20.0	100	70-130	
Naphthalene	ug/L	20	26.1	131	55-160	
Toluene	ug/L	20	20.9	104	70-130	
1,2-Dichloroethane-d4 (S)	%.			99	70-130	
4-Bromofluorobenzene (S)	%.			100	70-130	
Dibromofluoromethane (S)	%.			96	70-130	
Toluene-d8 (S)	%.			101	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1854882 1854883

Parameter	Units	30348499003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,2,4-Trimethylbenzene	ug/L	ND	20	20	23.6	19.7	118	98	52-151	18	
1,3,5-Trimethylbenzene	ug/L	ND	20	20	23.4	19.8	117	99	53-142	16	
Benzene	ug/L	ND	20	20	23.3	19.1	116	96	50-149	19	
Ethylbenzene	ug/L	ND	20	20	23.7	19.4	118	97	63-135	20	
Isopropylbenzene (Cumene)	ug/L	ND	20	20	25.5	21.8	127	109	50-167	16	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 1350-SOHAIL DIESEL
Pace Project No.: 30348541

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1854882 1854883

Parameter	Units	30348499003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Methyl-tert-butyl ether	ug/L	ND	20	20	21.9	21.2	110	106	53-123	3	
Naphthalene	ug/L	ND	20	20	29.6	23.3	148	117	30-157	24	
Toluene	ug/L	ND	20	20	22.8	19.7	114	99	59-139	15	
1,2-Dichloroethane-d4 (S)	%.						100	101	70-130		
4-Bromofluorobenzene (S)	%.						100	99	70-130		
Dibromofluoromethane (S)	%.						97	95	70-130		
Toluene-d8 (S)	%.						100	101	70-130		

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 1350-SOHAIL DIESEL
Pace Project No.: 30348541

QC Batch: 384390 Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 30348541001, 30348541002, 30348541003, 30348541004

SAMPLE DUPLICATE: 1862511

Parameter	Units	30348540001 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	16.9	17.2	2	

SAMPLE DUPLICATE: 1862512

Parameter	Units	30348541001 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	21.0	21.6	3	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALIFIERS

Project: 1350-SOHAIL DIESEL
Pace Project No.: 30348541

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-PA	Pace Analytical Services - Greensburg

BATCH QUALIFIERS

Batch: 383728

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

ANALYTE QUALIFIERS

1c	A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.
ML	Matrix spike recovery and/or matrix spike duplicate recovery was below laboratory control limits. Result may be biased low.
R1	RPD value was outside control limits.

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 1350-SOHAIL DIESEL
Pace Project No.: 30348541

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30348541001	**09-DIESEL DISP 1~3'**	EPA 5035A	383726	EPA 8260B	383746
30348541002	**10-BETWEEN D1&D2~3'**	EPA 5035A	383728	EPA 8260B	383761
30348541003	**11-DIESEL DISP2~3'**	EPA 5035A	383726	EPA 8260B	383746
30348541004	**12-LINE TO TANK~3'**	EPA 5035A	383726	EPA 8260B	383746
30348541005	**TRIP BLANK**	EPA 8260B	382739		
30348541001	**09-DIESEL DISP 1~3'**	ASTM D2974-87	384390		
30348541002	**10-BETWEEN D1&D2~3'**	ASTM D2974-87	384390		
30348541003	**11-DIESEL DISP2~3'**	ASTM D2974-87	384390		
30348541004	**12-LINE TO TANK~3'**	ASTM D2974-87	384390		

CHAIN-OF-CUSTODY Analytical Request Document

Pace Analytical

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

WO# : 30348541

30348541

Company: KEYSTONE PETROLEUM	Billing Information:
Address:	
Report To: DOUG KASSAY	Email To:
Copy To:	Site Collection Info/Address:
Customer Project Name/Number: 1350 - SCHAIL DIESEL	State: / County/City: Time Zone Collected: [ ] PT [ ] MT [ ] CT [ ] ET
Phone: Email:	Site/Facility ID #: 22-16017 — Compliance Monitoring? [ ] Yes [X] No
Collected By (print): KYLE ISENBERG	Purchase Order #: Quote #: — DW PWS ID #: DW Location Code:
Collected By (signature):	Turnaround Date Required: STANDARD — Immediately Packed on Ice: [X] Yes [ ] No
Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: _____ [ ] Hold: _____	Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply) — Field Filtered (if applicable): [ ] Yes [X] No Analysis: _____

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Collected (or Composite Start) Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	Analyses: DIESEL	Lab Profile/Line
01 - DIESEL DISP 1 N	SL	G			2/4/2020	1530		4	X	001
10 - BETWEEN 1 & 2 N	SL	G			"	1540		4	X	002
11 - DIESEL DISP. 2 N	SL	G			"	1550		4	X	003
12 - NEED TANK N	SL	G			2/4/2020	1600		4	X	004
TRIP BLANK										

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other _____

Container Preservative Type

Lab Project Manager:

Lab Profile/Line:

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	Y	N	NA
Custody Signatures Present	Y	N	NA
Collector Signature Present	Y	N	NA
Bottles Intact	Y	N	NA
Correct Bottles	Y	N	NA
Sufficient Volume	Y	N	NA
Samples Received on Ice	Y	N	NA
VOA - Headspace Acceptable	Y	N	NA
USDA Regulated Soils	Y	N	NA
Samples in Holding Time	Y	N	NA
Residual Chlorine Present	Y	N	NA
Cl Strips: _____			
Sample pH Acceptable	Y	N	NA
pH Strips: _____			
Sulfide Present	Y	N	NA
Lead Acetate Strips: _____			

LAB USE ONLY:
Lab Sample # / Comments:

MLC 1 MLC

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: (Wet) Blue Dry None

Packing Material Used: Foam / bubble wrap

Radchem sample(s) screened (<500 cpm): Y N (NA)

SHORT HOLDS PRESENT (<72 hours): Y N (N/A)

Lab Tracking #: MA 2374221

Samples received via: FEDEX UPS Client Courier (Pace Courier)

Lab Sample Temperature Info:
Temp Blank Received: Y N (NA)
Therm ID#: 10
Cooler 1 Temp Upon Receipt: 3.9 oC
Cooler 1 Therm Corr. Factor: 0 oC
Cooler 1 Corrected Temp: 3.9 oC
Comments: MLC 2-6-20

	Date/Time		Date/Time
Relinquished by/Company: (Signature) KYLE ISENBERG	2/4/2020 @ 1700	Received by/Company: (Signature) DOUG KASSAY	2/4/2020 @ 1700
Relinquished by/Company: (Signature) DOUG KASSAY	2/5/20 09:45	Received by/Company: (Signature) MS/PACE	2/5/20 09:45
Relinquished by/Company: (Signature) MS/PACE	2/5/20 18:15	Received by/Company: (Signature) RDS PACE	2/5/20 1820

MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

Trip Blank Received: (Y) N NA
(HCL) MeOH TSP Other

Non Conformance(s): (YES) NO

Page: 1 of: 1

RDS PACE 2/5/20 2130 Manuel L [illegible] 2-5-20 2130

Page 17 of 18

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Sample Receiving Non-Conformance Form (NCF)

Date: 2-6-20	Evaluated by: MLC
Client: Keystone Petroleum	

WO# : 30348541

PM: MS1 **Due Date: 02/20/20**

CLIENT: KEY PET EQP

1. If Chain-of-Custody (COC) is not received: contact client and if necessary, fill out a COC and indicate that it was filled out by lab personnel. Note issues on this NCF.

2. If COC is incomplete, check applicable issues below and add details where appropriate:

X	Collection date/time missing or incorrect		Analyses or analytes: missing or clarification needed		Samples listed on COC do not match samples received (missing, additional, etc.)
X	Sample IDs on COC do not match sample labels		Required trip blanks were not received	X	Required signatures are missing

Comments/Details/Other Issues not listed above: no date, time or sample ID on sample labels
no collector signature on COC

3. Sample integrity issues: check applicable issues below and add details where appropriate:

	Samples: Past holding time		Samples: Condition needs to be brought to lab personnel's attention (details below)		Preservation: Improper
	Samples: Not field filtered		Containers: Broken or compromised		Temperature: not within acceptance criteria (typically 0-6C)
	Samples: Insufficient volume received		Containers: Incorrect		Temperature: Samples arrived frozen
	Samples: Cooler damaged or compromised		Custody Seals: Missing or compromised on samples, trip blanks or coolers	X	Vials received with improper headspace
	Samples: contain chlorine or sulfides		Packing Material: Insufficient/Improper		Other:

Comments/Details: Both Trip Blanks have Headspace > 6mm

4. If Samples not preserved properly and Sample Receiving adjusts pH, add details below:

Sample ID:	Date/Time:	Amount/type pres added:
Preserved by:	Initial and Final pH:	Lot # of pres added:
Sample ID:	Date/Time:	Amount/type pres added:
Preserved by:	Initial and Final pH:	Lot # of pres added:
Sample ID:	Date/Time:	Amount/type pres added:
Preserved by:	Initial and Final pH:	Lot # of pres added:

5. Client Contact: If client is contacted for any issue listed above, fill in details below:

Client:	Contacted per:	
PM Initials:	Date/Time:	

Client Comments/Instructions:

Appendix B

Custom Soil Resource Report

United States Department of Agriculture

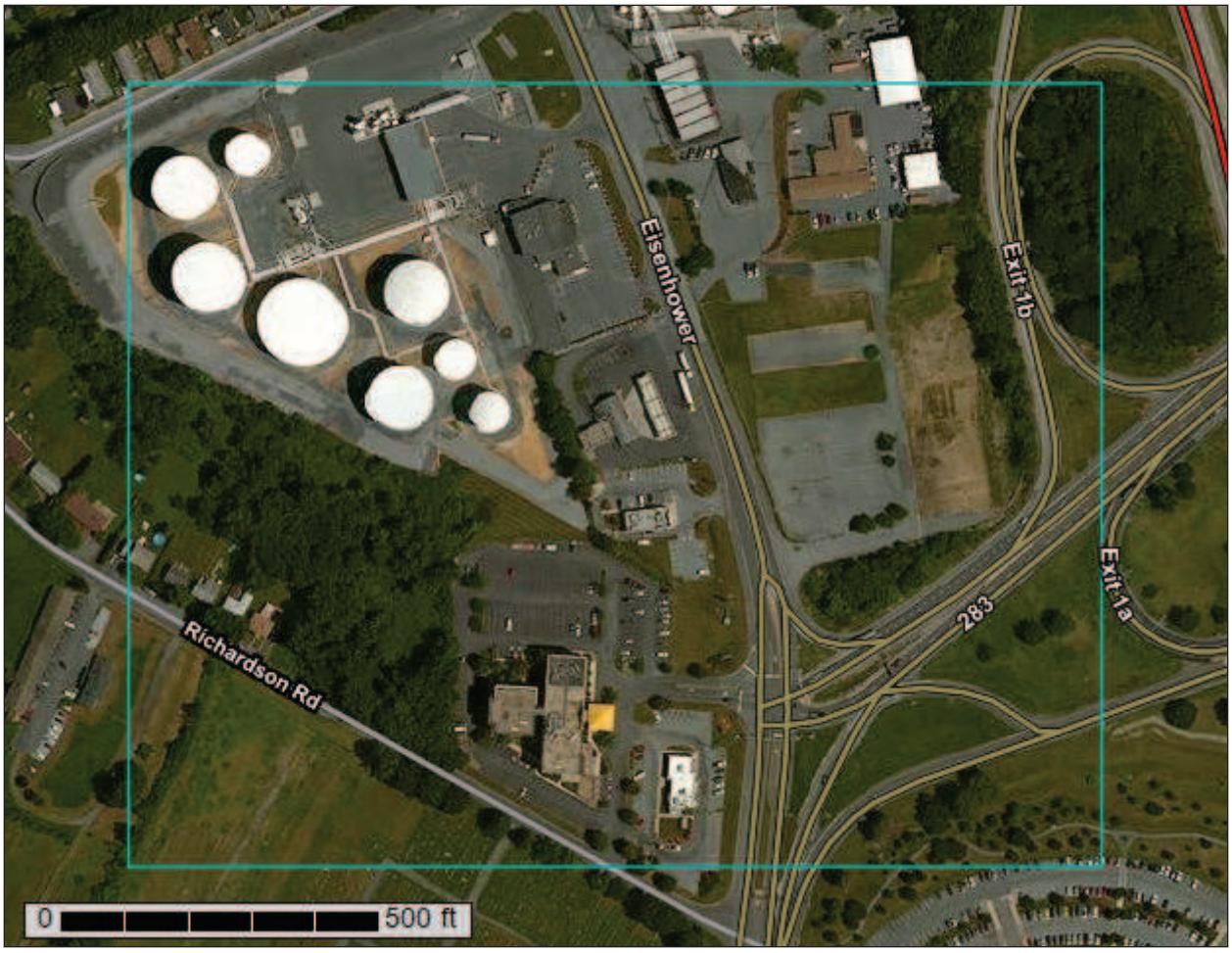
NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Dauphin County, Pennsylvania

Sohail's Store



March 24, 2020

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

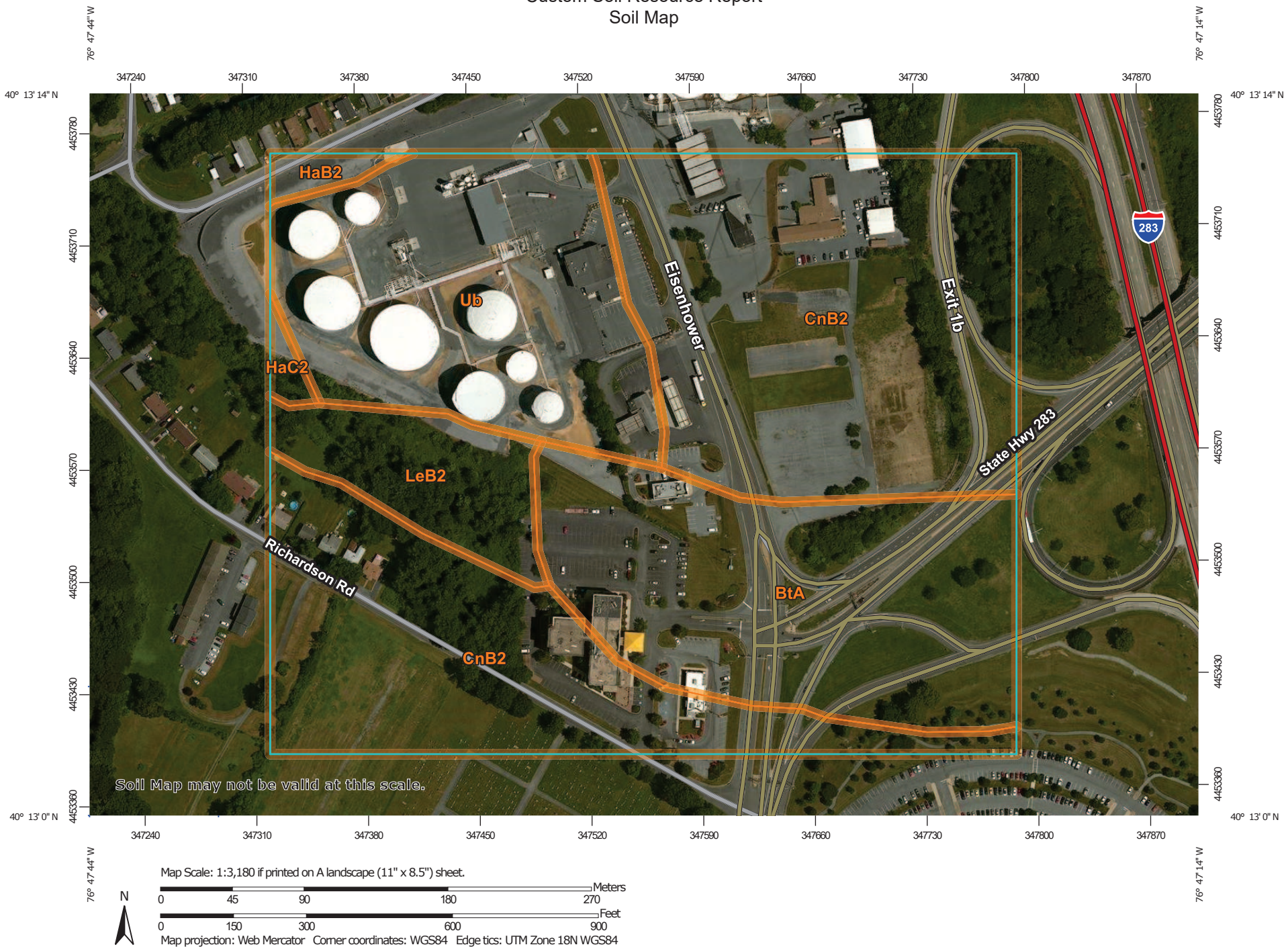
After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Dauphin County, Pennsylvania
Survey Area Data: Version 16, Sep 17, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 15, 2013—Aug 15, 2013

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BtA	Brinkerton and Armagh silt loams, 0 to 3 percent slopes	9.8	22.5%
CnB2	Chavies fine sandy loam, 3 to 8 percent slopes, moderately eroded	21.4	49.2%
HaB2	Hagerstown silt loam, 3 to 8 percent slopes, moderately eroded	0.4	0.9%
HaC2	Hagerstown silt loam, 8 to 15 percent slopes, moderately eroded	0.3	0.6%
LeB2	Lawrenceville very fine sandy loam, 2 to 8 percent slopes, moderately eroded	2.8	6.4%
Ub	Urban land, limestone materials	8.8	20.3%
Totals for Area of Interest		**43.5**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit

descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Dauphin County, Pennsylvania

BtA—Brinkerton and Armagh silt loams, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: l4n5
Elevation: 300 to 1,400 feet
Mean annual precipitation: 35 to 50 inches
Mean annual air temperature: 46 to 57 degrees F
Frost-free period: 120 to 214 days
Farmland classification: Not prime farmland

Map Unit Composition

Brinkerton and similar soils: 45 percent
Armagh and similar soils: 45 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Brinkerton

Setting

Landform: Depressions
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Fine-silty colluvium derived from shale and siltstone

Typical profile

H1 - 0 to 7 inches: silt loam
H2 - 7 to 30 inches: silty clay loam
H3 - 30 to 40 inches: channery silty clay loam
H4 - 40 to 47 inches: channery silt loam
H5 - 47 to 51 inches: bedrock

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 11 to 30 inches to fragipan; 40 to 99 inches to lithic bedrock
Natural drainage class: Poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 0 to 6 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 5.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: C/D
Hydric soil rating: Yes

Description of Armagh

Setting

Landform: Depressions on hills
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Clayey residuum weathered from acid shale

Typical profile

H1 - 0 to 8 inches: silt loam
H2 - 8 to 40 inches: channery clay loam
H3 - 40 to 44 inches: very channery silty clay loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 40 to 72 inches to lithic bedrock
Natural drainage class: Poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 0 to 6 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 5.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: C/D
Hydric soil rating: Yes

Minor Components

Comly

Percent of map unit: 10 percent
Hydric soil rating: No

CnB2—Chavies fine sandy loam, 3 to 8 percent slopes, moderately eroded

Map Unit Setting

National map unit symbol: l4nm
Elevation: 300 to 1,000 feet
Mean annual precipitation: 35 to 55 inches
Mean annual air temperature: 45 to 59 degrees F
Frost-free period: 120 to 205 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Chavies and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Chavies

Setting

Landform: Terraces
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from sandstone and siltstone

Typical profile

H1 - 0 to 9 inches: fine sandy loam
H2 - 9 to 30 inches: fine sandy loam
H3 - 30 to 66 inches: gravelly fine sandy loam

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Moderate (about 8.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: A
Hydric soil rating: No

Minor Components

Captina

Percent of map unit: 5 percent
Hydric soil rating: No

Tioga, high bottom

Percent of map unit: 5 percent
Hydric soil rating: No

HaB2—Hagerstown silt loam, 3 to 8 percent slopes, moderately eroded

Map Unit Setting

National map unit symbol: l4p1
Elevation: 310 to 3,000 feet
Mean annual precipitation: 38 to 46 inches
Mean annual air temperature: 46 to 57 degrees F
Frost-free period: 140 to 180 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Hagerstown and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hagerstown

Setting

Landform: Ridges on valleys
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Residuum weathered from limestone

Typical profile

Ap - 0 to 8 inches: silt loam
Bt - 8 to 45 inches: clay
C - 45 to 75 inches: clay loam

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: 40 to 84 inches to lithic bedrock
Natural drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: High (about 10.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Opequon

Percent of map unit: 7 percent
Hydric soil rating: No

Nolin

Percent of map unit: 3 percent
Hydric soil rating: No

HaC2—Hagerstown silt loam, 8 to 15 percent slopes, moderately eroded

Map Unit Setting

National map unit symbol: l4p2
Elevation: 400 to 3,000 feet
Mean annual precipitation: 30 to 46 inches
Mean annual air temperature: 45 to 57 degrees F
Frost-free period: 140 to 210 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Hagerstown and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hagerstown

Setting

Landform: Ridges on valleys
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Residuum weathered from limestone

Typical profile

Ap - 0 to 8 inches: silt loam
Bt - 8 to 45 inches: clay
C - 45 to 75 inches: clay loam

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: 40 to 84 inches to lithic bedrock
Natural drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None

Available water storage in profile: High (about 10.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Opequon

Percent of map unit: 5 percent
Hydric soil rating: No

Edom

Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

LeB2—Lawrenceville very fine sandy loam, 2 to 8 percent slopes, moderately eroded

Map Unit Setting

National map unit symbol: l4pd
Elevation: 300 to 850 feet
Mean annual precipitation: 40 to 52 inches
Mean annual air temperature: 50 to 57 degrees F
Frost-free period: 140 to 205 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Lawrenceville and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Lawrenceville

Setting

Landform: Upland slopes
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear, concave
Across-slope shape: Linear, concave
Parent material: Silty eolian deposits

Typical profile

H1 - 0 to 8 inches: very fine sandy loam

H2 - 8 to 25 inches: silt loam
H3 - 25 to 44 inches: silt loam
H4 - 44 to 74 inches: channery silt loam

Properties and qualities

Slope: 2 to 8 percent
Depth to restrictive feature: 24 to 38 inches to fragipan; 72 to 96 inches to paralithic bedrock
Natural drainage class: Moderately well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: About 18 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 4.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Duncannon

Percent of map unit: 5 percent
Hydric soil rating: No

Tioga, high bottom

Percent of map unit: 5 percent
Hydric soil rating: No

Ub—Urban land, limestone materials

Map Unit Setting

National map unit symbol: l4q5
Elevation: 460 to 1,500 feet
Mean annual precipitation: 30 to 46 inches
Mean annual air temperature: 44 to 57 degrees F
Frost-free period: 130 to 200 days
Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 90 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Urban Land

Setting

Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Pavement, buildings and other artifically covered areas

Minor Components

Hagerstown

Percent of map unit: 5 percent
Hydric soil rating: No

References

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

National Research Council. 1995. Wetlands: Characteristics and boundaries.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_054262

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053577

Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053580

Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.

United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.

United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374

United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

Appendix C

Lower Swatara Township Ordinance & PAGWIS Database Search Results

Township of Lower Swatara, PA
Monday, August 26, 2019

Chapter 22. Subdivision and Land Development

Part 6. IMPROVEMENTS AND CONSTRUCTION REQUIREMENTS

§ 22-604. Sewer and Water Systems.

[Ord. 284, 9/11/1985, § 604; as amended by Ord. 332, 2/10/1988, § 1; and by Ord. 448, 11/15/2000]

1. Sewers.

   A. Where a public sanitary sewerage system is located within 1,000 feet of, or where plans approved by the Board of Commissioners provides for the installation of such public sewer facilities to within 1,000 feet of a proposed subdivision or land development, the developer shall provide the subdivision or land development with a complete sanitary sewerage system to be connected to the existing or proposed sanitary sewerage system in accordance with Township specifications. If such a system is not available but will, in the opinion of the Board of Commissioners, become available within a reasonable time, then the developer shall install a complete sanitary sewerage system including a collector main installed in the street bed or approved right-of-way; lateral installations shall be to the rights-of-way lines of streets, lot or parcel property lines or sewer easement rights-of-way lines, whichever pertains to individual situations. All termini shall be capped in a manner that will insure that all collector mains, laterals and house connections shall be water tight pending connections with a public sanitary sewerage system. The system shall be designed by a registered engineer and approved by the Township Municipal Authority Engineer. The Township Municipal Authority Engineer shall also inspect construction of all sanitary sewers to insure that said sewers will coordinate and have congruity with the Township's overall comprehensive sewerage plan. All sewage pumping stations, interceptors and treatment plants to be installed by the developer shall be reviewed and approved by the Township Municipal Authority Engineer who shall inspect the construction thereof.

   B. Where installation of a public sanitary sewerage system is not required, the developer shall provide for each lot, at the time improvements are erected thereon, a private sewage disposal system consisting of a septic tank and tile absorption field or other approved sewage disposal system and constructed in accordance with the rules and regulations of the Pennsylvania Department of Environmental Protection and any applicable Township regulations and shall be approved by the Township Engineer.

   C. Capped Sewers. When trunk sewers are not available or not available within the required distance but will become available within a reasonable time, the collection system and the required laterals extending from the main to the curb shall be installed and capped by the developer. The developer may also install onsite disposal; provided, that the system is designed to permit connection to the public sewer when it becomes operable.

   D. Design, approval of design, supervision and inspection fees for services rendered on behalf of the developer by the Township Municipal Authority Engineer shall by paid by the developer in accordance with the fee schedule submitted to the Board by the Township Municipal Authority

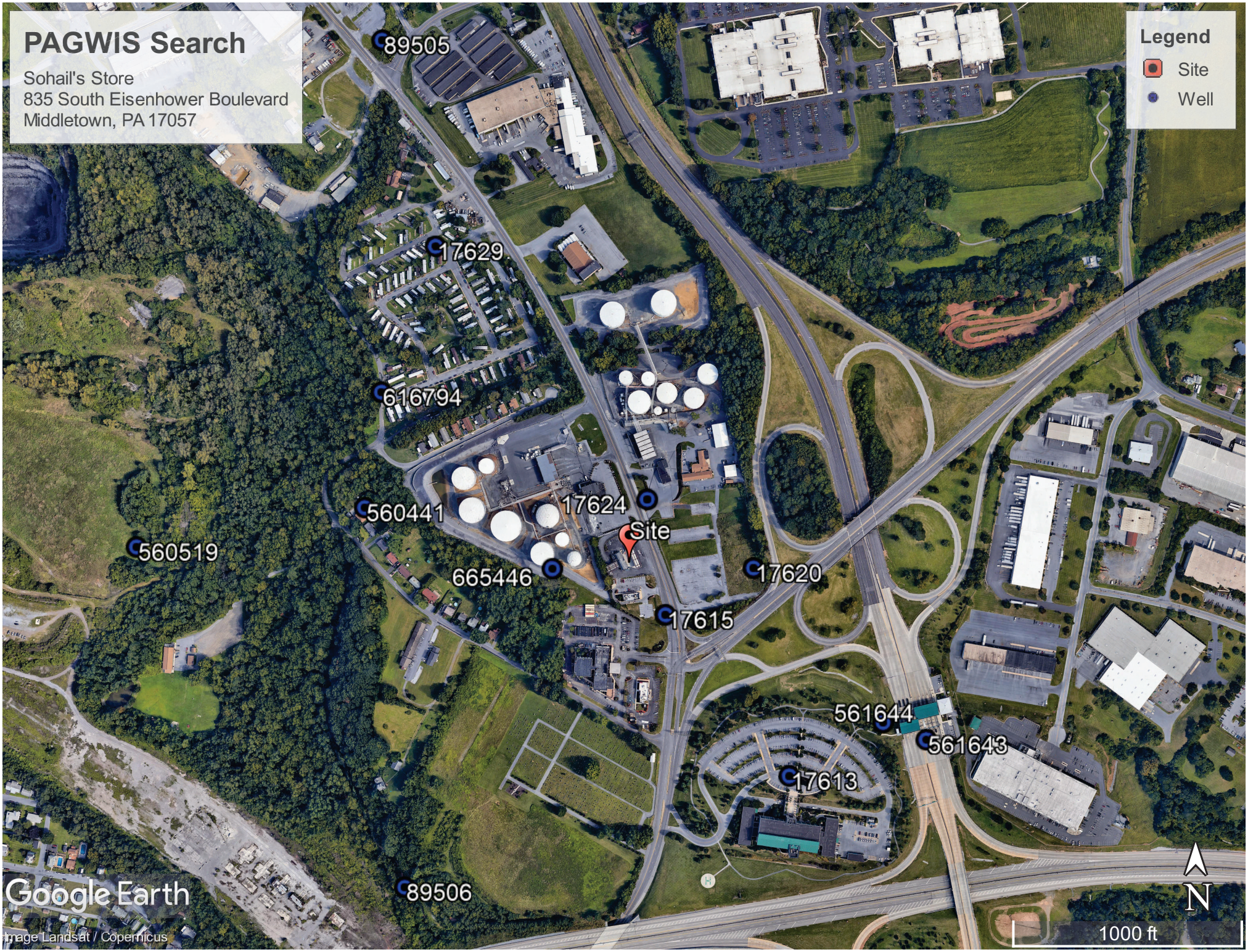
Engineer, which schedule shall be available for review in the Township office by any developer.

E. Sanitary sewers and sewage disposal systems shall not be combined with stormwater sewers, and shall not be constructed to receive effluents from any stormwater collection system.

2. Water.

A. Where a water main supply is within 1,000 feet of, or where plans approved by the Board of Commissioners provides for the installation of such public water facilities to within 1,000 feet of a proposed subdivision or land development, the developer shall provide the subdivision or land development with a complete water main supply system to be connected to the existing or proposed water main supply system in accordance with Township and/or utility specifications.

B. Where installation of a public water main supply system is not required, the developer shall provide for each lot, at the time improvements are erected thereon, an individual water supply approved by the Pennsylvania Department of Environmental Protection as to source, installation and quality of water.


PAGWIS Search
Sohail's Store
835 South Eisenhower Boulevard
Middletown, PA 17057
Legend
Site
Well
89505
17629
616794
560441
17624
Site
560519
665446
17620
17615
561644
561643
17613
89506
N
1000 ft
Google Earth
Image Landsat / Copernicus

Pennsylvania Groundwater Information System

Pennsylvania has more than a million domestic water wells, plus an unknown number of other types of water wells, boreholes, and springs. Water well and spring data are available through the Pennsylvania Groundwater Information System (PaGWIS), which is maintained by the DCNR Bureau of Geological Survey.

PaGWIS holds hundreds of thousands of water well records and more than 2,000 spring records, making it an important source of groundwater, water well, and spring data. On average, more than 8,000 new records are added each year.

View or download data for a particular well or spring, or for multiple wells or springs. Searches can be based on specific criteria or geographic areas. Details about the use of PaGWIS and the data it contains are included in
A Guide to Using the Pennsylvania Groundwater Information System (PaGWIS) (PDF)
(http://www.iframeapps.dcnr.state.pa.us/topogeo/PaGWIS_Search/Images/PaGWIS_Instructions_April_2016.pdf)
.

Water Well Data

The Water Well Drillers License Act of 1955 (Act 610 passed on May 29, 1956) began the statewide process of collecting groundwater data through the licensing of water well drillers. Most of the well data in PaGWIS are from completion reports submitted by the water well drillers, and more than 55,000 records of field-located wells came from a U.S. Geological Survey (USGS) database.

Starting in the mid-1960s, drillers were sending paper water-well completion reports to the bureau. In the 1980s, bureau staff were scanning reports and entering data into a digital database. Since the 1990s, water well drillers have had the option to submit their records through an online application called WebDriller (/Business/WaterWellDrillersLicensing) . The number of records submitted electronically has been growing proportionately ever since.

The details of water well records vary with each generation of data entry. Some records have only the digital image of the paper report and basic data (e.g., owner, address, county, municipality, driller, and date drilled) entered. The absence of coordinates means that map-based searches will not find such records unless you opt to “include unlocated wells within intersected municipalities.”

Spring Data

Most spring records were obtained from the USGS database and Pennsylvania Geological Survey publications. Staff of the Bureau of Geological Survey field checked some of the locations and continue to collect spring data to add to PaGWIS.

Questions?

For more information about PaGWIS, contact the DCNR Bureau of Geological Survey (mailto:RA-NR-PAGWIS@PA.GOV) at 717-702-2017.

PaGWIS Map Search

You must be zoomed to the level where municipality names appear to search.

Multiple Criteria Map

Wells Springs

Data Packages: General Info Site Info Well Construction Hydrogeologic Geologic

ZIP/city/address... Go 40 -79 Jump to Point

40.216, -76.778 Include unlocated wells within intersected municipalities Explain

Download Data Package Clear Selections Contact Us

'Download Data Package' creates a data package-specific CSV file that you may open or download. If you choose to open the file, it may open in Excel (if you have Microsoft Office installed). Because of the relational nature of the database, there may be more than 1 line per well in the downloaded data. For data on public water supply wells, or water quality data, please see instructions.

Instructions

Total Records To Download : 40 Records

View Items Below

'View Items Below' creates a general list (not data package-specific) that contains links to individual well information. It is based on the search criteria entered. Not all of the records displayed below will necessarily have data corresponding to the data package you have selected.

For correct record counts after changing any search criteria or data package, you must click again on the "View Items Below" button.

Total Records Returned : 38 Records **Click on the column headers to sort the Search Results.**

Shows rows: 20 Page 1 of 2

PA Well ID	Driller	Driller Ref	Date Drilled	Owner	County	Municipality	Image
616794	MYERS BROS DRILLING CONTRACTORS INC	19/89-2015	6/16/2015	Boger Concrete	DAUPHIN	LOWER SWATARA TWP.	
496396	AMERIDRILL, INC.	9302-1	11/11/2009	Getty	DAUPHIN	MIDDLETOWN BORO	
496403	AMERIDRILL, INC.	9302-2	11/11/2009	Getty	DAUPHIN	MIDDLETOWN BORO	
416620	EICHELBERGERS INC.	DK6102-MW1	4/12/2006	RITA'S ITALIAN ICE	DAUPHIN	LOWER SWATARA TWP.	
416619	EICHELBERGERS INC.	DK06102-MW2R	4/12/2006	RITA'S ITALIAN ICE	DAUPHIN	LOWER SWATARA TWP.	
416637	EICHELBERGERS INC.	DK06102-MW3R	4/12/2006	RITA ITALIAN ICE	DAUPHIN	LOWER SWATARA TWP.	
665446	MYERS BROS DRILLING CONTRACTORS INC	7-193/2005	9/21/2005	HIGHSPIRE HOMES	DAUPHIN	LOWER SWATARA TWP.	
632393	EICHELBERGERS INC.	DK04260-MW1	11/15/2004	PPC	DAUPHIN	LOWER SWATARA TWP.	
636541	EICHELBERGERS INC.	JM04199-MW1	7/12/2004	GETTY	DAUPHIN	LOWER SWATARA TWP.	
635347	EICHELBERGERS INC.	SV02100(MW7)	10/14/2002	GETTY	DAUPHIN	LOWER SWATARA TWP.	
634988	EICHELBERGERS INC.	SV02100(MW9)	10/14/2002	GETTY	DAUPHIN	LOWER SWATARA TWP.	
630006	EICHELBERGERS INC.	DK01101(MW4)	11/27/2001	GETTY OIL	DAUPHIN	LOWER SWATARA TWP.	
630204	EICHELBERGERS INC.	DK01101(MW5)	11/27/2001	GETTY OIL	DAUPHIN	LOWER SWATARA TWP.	
630004	EICHELBERGERS INC.	DK01101(MW2)	11/27/2001	GETTY OIL	DAUPHIN	LOWER SWATARA TWP.	
	EICHELBERGERS						

630005	INC.	DK01101(MW3)	11/27/2001	GETTY OIL	DAUPHIN	LOWER SWATARA TWP.	
630203	EICHELBERGERS INC.	DK01101(MW1)	11/27/2001	GETTY OIL	DAUPHIN	LOWER SWATARA TWP.	
560441	SENSENIG & WEAVER WELL DRILLING		11/13/1996	daly express	DAUPHIN	LOWER SWATARA TWP.	View
561643	B. L. MYERS BROS OF MD,LLC		6/23/1994	pa turnpike	DAUPHIN	LOWER SWATARA TWP.	View
561644	B. L. MYERS BROS OF MD,LLC		6/23/1994	pa turnpike	DAUPHIN	LOWER SWATARA TWP.	View
260573		DY03158B	4/16/1993	PA. Turnpike,	DAUPHIN	LOWER SWATARA TWP.	

'Download Data Package' creates a data package-specific CSV file that you may open or download. If you choose to open the file, it may open in Excel (if you have Microsoft Office installed). Because of the relational nature of the database, there may be more than 1 line per well in the downloaded data. For data on public water supply wells, or water quality data, please see instructions.

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Shows rows: 20 Page 2 of 2

PA Well ID	Driller	Driller Ref	Date Drilled	Owner	County	Municipality	Image
260574		DY03158C	4/15/1993	PA. Turnpike,	DAUPHIN	LOWER SWATARA TWP.	
259993		DY03158	4/15/1993	PA. Turnpike,	DAUPHIN	LOWER SWATARA TWP.	
260572		DY03158A	4/14/1993	PA. Turnpike,	DAUPHIN	LOWER SWATARA TWP.	
560519	EICHELBERGERS INC.		8/1/1990	bethlehem steel corp.	DAUPHIN	UNKNOWN	View
89446	EICHELBERGERS INC.		8/1/1983	BETHLEHEM STEEL	DAUPHIN	SWATARA TWP.	
17620	EICHELBERGERS INC.		11/1/1975	HOLIDAY EAST MOTEL	DAUPHIN	LOWER SWATARA TWP.	
17624	HARRISBURG'S KOHL BROS INC		9/15/1969	SHELL OIL CO.	DAUPHIN	LOWER SWATARA TWP.	
17615	EICHELBERGERS INC.		1/1/1968	HOLIDAY EAST MOTEL	DAUPHIN	LOWER SWATARA TWP.	
17622	HARRISBURG'S KOHL BROS INC		11/30/1960	HOLIDAY EAST MOTEL	DAUPHIN	LOWER SWATARA TWP.	
17621	HARRISBURG'S KOHL BROS INC		6/27/1957	HOLIDAY EAST MOTEL	DAUPHIN	LOWER SWATARA TWP.	
17618	HARRISBURG'S KOHL BROS INC		5/25/1957	HOLIDAY EAST MOTEL	DAUPHIN	LOWER SWATARA TWP.	
17619	HARRISBURG'S KOHL BROS INC		5/20/1957	HOLIDAY EAST MOTEL	DAUPHIN	LOWER SWATARA TWP.	
17623	HARRISBURG'S KOHL BROS INC		4/23/1957	HOLIDAY EAST MOTEL	DAUPHIN	LOWER SWATARA TWP.	
17629	HARRISBURG'S KOHL BROS INC		6/12/1956	AMOCO STATION	DAUPHIN	LOWER SWATARA TWP.	
17625	HARRISBURG'S		2/29/1956	HOLIDAY EAST MOTEL	DAUPHIN	LOWER SWATARA TWP.	

17625	KOHL BROS INC		2/28/1951	HOLIDAY EAST MOTEL	DAUPHIN	LOWER SWATARA TWP.	
17613	UNKNOWN		1/1/1950	PA TURNPIKE	DAUPHIN	LOWER SWATARA TWP.	
89505	HARRISBURG'S KOHL BROS INC			PA SEAL SOCIETY	DAUPHIN	SWATARA TWP.	
89506	HARRISBURG'S KOHL BROS INC			SHELL OIL CO	DAUPHIN	SWATARA TWP.	

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WATER WELL PROGRAM
3240 Schoolhouse Rd
Middletown, PA 17057
717-702-2017

WATER WELL INFORMATION REPORT

PA Well ID: **17613** Local Well ID: **DA 496** Local Permit #:

LOCATION INFORMATION

Owner:	**PA TURNPIKE**	Original Paper Record Image Available:	**No**
Address of Well:			
County:	**DAUPHIN**		
Municipality:	**LOWER SWATARA TWP.**		
Latitude:	**40.21639**	Coordinate Method:	
Longitude:	**-76.78889**	Data Reliability:	**NOT FLD CHECKED, RPRTING AGENCY CONSIDERS IT OK (DEP WSM, WWI web)**
Description of Well Location and Other Notes:			

WELL CONSTRUCTION INFORMATION

Well Driller:	**UNKNOWN**	License:	**1**	Driller Well ID:	
Type of Activity:		Date Drilled:	**1/1/1950**	Drilling Method:	**CABLE TOOL**
Well Depth (ft):	**102**	Well Finish:	**OPEN HOLE**		

WELL SIZE

Top (ft)	Bottom (ft)	Diameter (in)
0	**102**	**8**

CASING

Top (ft)	Bottom (ft)	Diameter (in)	Casing Material	Seal Top	Seal Bottom	Seal Type
0		**8**	**UNKNOWN**			

GROUNDWATER AND GEOLOGICAL INFORMATION

Well Yield (GPM - gal per min):	**5**	Yield Measurement Method:	
Water Level when not pumped: (ft below land surface)		Water Level after yield test: (ft below land surface)	**40**
Length of Yield Test (minutes):	**24**	Saltwater Zone (ft):	
Use of Well:	**WITHDRAWAL**	Use of Water:	**COMMERCIAL**
Depth to Bedrock (ft):		Was Well Drilled Into Bedrock?	**Yes**

Date Printed: **3/24/2020**

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WATER WELL INFORMATION REPORT

PA Well ID: **17615** Local Well ID: **DA 519** Local Permit #:

LOCATION INFORMATION

Owner: **HOLIDAY EAST MOTEL**
Original Paper Record Image Available: **No**
Address of Well:
County: **DAUPHIN**
Municipality: **LOWER SWATARA TWP.**
Latitude: **40.21833**
Coordinate Method:
Longitude: **-76.79083**
Data Reliability: **FIELD CHECKED BY REPORTING AGENCY (PaDAg pest. survey)**
Description of Well Location and Other Notes:

WELL CONSTRUCTION INFORMATION

Well Driller: **EICHELBERGERS INC.** License: **0198** Driller Well ID:
Type of Activity: Date Drilled: **1/1/1968** Drilling Method: **AIR ROTARY**
Well Depth (ft): **710** Well Finish: **OPEN HOLE**

WELL SIZE

Top (ft)	Bottom (ft)	Diameter (in)
0	**710**	**6.3**

CASING

Top (ft)	Bottom (ft)	Diameter (in)	Casing Material	Seal Top	Seal Bottom	Seal Type
0		**6.3**	**UNKNOWN**			

GROUNDWATER AND GEOLOGICAL INFORMATION

Well Yield (GPM - gal per min): **40**
Yield Measurement Method:
Water Level when not pumped: (ft below land surface) **28**
Water Level after yield test: (ft below land surface) **95**
Length of Yield Test (minutes): **14**
Saltwater Zone (ft):
Use of Well: **WITHDRAWAL**
Use of Water: **COMMERCIAL**

LEVELS WHERE WATER ENTERS WELL

Top (ft)	Bottom (ft)	Yield (GPM)
263		
700		

Depth to Bedrock (ft):
Was Well Drilled Into Bedrock? **Yes**

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WATER WELL INFORMATION REPORT

PA Well ID: **17620** Local Well ID: **DA 520** Local Permit #:

LOCATION INFORMATION

Owner: **HOLIDAY EAST MOTEL**
Original Paper Record Image Available: **No**
Address of Well:
County: **DAUPHIN**
Municipality: **LOWER SWATARA TWP.**
Latitude: **40.21889**
Coordinate Method:
Longitude: **-76.78944**
Data Reliability: **FIELD CHECKED BY REPORTING AGENCY (PaDAg pest. survey)**
Description of Well Location and Other Notes:

WELL CONSTRUCTION INFORMATION

Well Driller: **EICHELBERGERS INC.** License: **0198** Driller Well ID:
Type of Activity: Date Drilled: **11/1/1975** Drilling Method: **AIR ROTARY**
Well Depth (ft): **725** Well Finish: **OPEN HOLE**

WELL SIZE

Top (ft)	Bottom (ft)	Diameter (in)
0	**40**	**12**
0	**725**	**8**

CASING

Top (ft)	Bottom (ft)	Diameter (in)	Casing Material	Seal Top	Seal Bottom	Seal Type
0	**87**	**8**	**UNKNOWN**			

GROUNDWATER AND GEOLOGICAL INFORMATION

Well Yield (GPM - gal per min): **300**
Yield Measurement Method:
Water Level when not pumped: (ft below land surface) **38**
Water Level after yield test: (ft below land surface) **279**
Length of Yield Test (minutes): **1**
Saltwater Zone (ft):
Use of Well: **WITHDRAWAL**
Use of Water: **COMMERCIAL**

LEVELS WHERE WATER ENTERS WELL

Top (ft)	Bottom (ft)	Yield (GPM)
648		
655		

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WATER WELL INFORMATION REPORT

PA Well ID: **17624** Local Well ID: **DA 494** Local Permit #:

LOCATION INFORMATION

Owner:	**SHELL OIL CO.**	Original Paper Record Image Available:	**No**
Address of Well:			
County:	**DAUPHIN**		
Municipality:	**LOWER SWATARA TWP.**		
Latitude:	**40.21972**	Coordinate Method:	
Longitude:	**-76.79111**	Data Reliability:	**FIELD CHECKED BY REPORTING AGENCY (PaDAg pest. survey)**

Description of Well Location and Other Notes:

WELL CONSTRUCTION INFORMATION

Well Driller:	**HARRISBURG'S KOHL BROS INC**	License:	**0180**	Driller Well ID:	
Type of Activity:		Date Drilled:	**9/15/1969**	Drilling Method:	**AIR ROTARY**
Well Depth (ft): **500**		Well Finish:	**OPEN HOLE**		

WELL SIZE

Top (ft)	Bottom (ft)	Diameter (in)
0	**500**	**6**

CASING

Top (ft)	Bottom (ft)	Diameter (in)	Casing Material	Seal Top	Seal Bottom	Seal Type
0	**62**	**6**	**UNKNOWN**			

GROUNDWATER AND GEOLOGICAL INFORMATION

Well Yield (GPM - gal per min):	**15**	Yield Measurement Method:	
Water Level when not pumped: (ft below land surface)	**50**	Water Level after yield test: (ft below land surface)	
Length of Yield Test (minutes):	**12**	Saltwater Zone (ft):	
Use of Well:	**WITHDRAWAL**	Use of Water:	**COMMERCIAL**

LEVELS WHERE WATER ENTERS WELL

Top (ft)	Bottom (ft)	Yield (GPM)

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WATER WELL INFORMATION REPORT

PA Well ID: **17629** Local Well ID: **DA 495** Local Permit #:

LOCATION INFORMATION

Owner:	**AMOCO STATION**	Original Paper Record Image Available:	**No**
Address of Well:			
County:	**DAUPHIN**		
Municipality:	**LOWER SWATARA TWP.**		
Latitude:	**40.22278**	Coordinate Method:	
Longitude:	**-76.79444**	Data Reliability:	**NOT FLD CHECKED, RPRTING AGENCY CONSIDERS IT OK (DEP WSM, WWI web)**
Description of Well Location and Other Notes:			

WELL CONSTRUCTION INFORMATION

Well Driller:	**HARRISBURG'S KOHL BROS INC**	License:	**0180**	Driller Well ID:	
Type of Activity:		Date Drilled:	**6/12/1956**	Drilling Method:	**CABLE TOOL**
Well Depth (ft):	**215**	Well Finish:	**OPEN HOLE**		

WELL SIZE

Top (ft)	Bottom (ft)	Diameter (in)
0	**215**	**6**

CASING

Top (ft)	Bottom (ft)	Diameter (in)	Casing Material	Seal Top	Seal Bottom	Seal Type
0	**29**	**6**	**UNKNOWN**			

GROUNDWATER AND GEOLOGICAL INFORMATION

Well Yield (GPM - gal per min):	**10**	Yield Measurement Method:	
Water Level when not pumped: (ft below land surface)	**25**	Water Level after yield test: (ft below land surface)	
Length of Yield Test (minutes):		Saltwater Zone (ft):	
Use of Well:	**WITHDRAWAL**	Use of Water:	**COMMERCIAL**
Depth to Bedrock (ft):		Was Well Drilled Into Bedrock?	**Yes**

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717-702-2017

WATER WELL INFORMATION REPORT

PA Well ID: **89505** Local Well ID: **X 1652** Local Permit #:

LOCATION INFORMATION

Owner:	**PA SEAL SOCIETY**	Original Paper Record Image Available:	**No**
Address of Well:			
County:	**DAUPHIN**		
Municipality:	**SWATARA TWP.**		
Latitude:	**40.22528**	Coordinate Method:	
Longitude:	**-76.79528**	Data Reliability:	**LOCATION MAY NOT BE ACCURATE (WWI paper)**
Description of Well Location and Other Notes:			

WELL CONSTRUCTION INFORMATION

Well Driller:	**HARRISBURG'S KOHL BROS INC**	License:	**0180**	Driller Well ID:	
Type of Activity:	**New Well**	Date Drilled:		Drilling Method:	
Well Depth (ft):	**320**	Well Finish:	**OPEN HOLE**		

CASING

Top (ft)	Bottom (ft)	Diameter (in)	Casing Material	Seal Top	Seal Bottom	Seal Type
0	**45**	**6**				

GROUNDWATER AND GEOLOGICAL INFORMATION

Well Yield (GPM - gal per min):	**13**	Yield Measurement Method:	**UNKNOWN**
Water Level when not pumped: (ft below land surface)	**30**	Water Level after yield test: (ft below land surface)	
Length of Yield Test (minutes):	**40**	Saltwater Zone (ft):	
Use of Well:	**WITHDRAWAL**	Use of Water:	**INDUSTRIAL**

LEVELS WHERE WATER ENTERS WELL

Top (ft)	Bottom (ft)	Yield (GPM)
100		
180		

Depth to Bedrock (ft): **40** Was Well Drilled Into Bedrock? **Yes**

Date Printed: **3/24/2020**

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3240 Schoolhouse Rd
Middletown, PA 17057
717-702-2017

WATER WELL INFORMATION REPORT

PA Well ID: **89506** Local Well ID: **X 1654** Local Permit #:

LOCATION INFORMATION

Owner: **SHELL OIL CO**
Original Paper Record Image Available: **No**
Address of Well:
County: **DAUPHIN**
Municipality: **SWATARA TWP.**
Latitude: **40.21500** Coordinate Method:
Longitude: **-76.79500** Data Reliability: **LOCATION MAY NOT BE ACCURATE (WWI paper)**
Description of Well Location and Other Notes:

WELL CONSTRUCTION INFORMATION

Well Driller: **HARRISBURG'S KOHL BROS INC** License: **0180** Driller Well ID:
Type of Activity: **New Well** Date Drilled: Drilling Method:
Well Depth (ft): **500** Well Finish: **OPEN HOLE**

CASING

Top (ft)	Bottom (ft)	Diameter (in)	Casing Material	Seal Top	Seal Bottom	Seal Type
0	**62**	**6**				

GROUNDWATER AND GEOLOGICAL INFORMATION

Well Yield (GPM - gal per min): **15**
Yield Measurement Method: **UNKNOWN**
Water Level when not pumped: (ft below land surface) **50**
Water Level after yield test: (ft below land surface)
Length of Yield Test (minutes): **10**
Saltwater Zone (ft):
Use of Well: **WITHDRAWAL**
Use of Water: **INDUSTRIAL**

LEVELS WHERE WATER ENTERS WELL

Top (ft)	Bottom (ft)	Yield (GPM)
300		
490		

Depth to Bedrock (ft): **50** Was Well Drilled Into Bedrock? **Yes**
Date Printed: **3/24/2020**

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WATER WELL PROGRAM
3240 Schoolhouse Rd
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717-702-2017

WATER WELL INFORMATION REPORT

PA Well ID: **560441** Local Well ID: Local Permit #:

LOCATION INFORMATION

Owner: **daly express**

Original Paper Record Image Available: **Yes**

Address of Well:

County: **DAUPHIN**

Municipality: **LOWER SWATARA TWP.**

Latitude: **40.21963**

Coordinate Method: **Commercial Street Atlas Program**

Longitude: **-76.79558**

Data Reliability: **LOCATION MAY NOT BE ACCURATE (WWI paper)**

Description of Well Location and Other Notes: **Note: Coordinates are approximate. A second location based on the driller sketch was placed more than 2,000 feet away from this location.**

WELL CONSTRUCTION INFORMATION

Well Driller: **SENSENIG & WEAVER WELL DRILLING**

License: **1539**

Driller Well ID:

Type of Activity: **New Well**

Date Drilled: **11/13/1996**

Drilling Method: **AIR ROTARY**

Well Depth (ft):

Well Finish: **OPEN HOLE**

GROUNDWATER AND GEOLOGICAL INFORMATION

Well Yield (GPM - gal per min):

Yield Measurement Method:

Water Level when not pumped: (ft below land surface)

Water Level after yield test: (ft below land surface)

Length of Yield Test (minutes):

Saltwater Zone (ft):

Use of Well: **WITHDRAWAL**

Use of Water: **DOMESTIC**

Depth to Bedrock (ft):

Was Well Drilled Into Bedrock? **Yes**

Date Printed: **3/24/2020**

DEPARTMENT OF CONSERVATION & NATURAL RESOURCES
BUREAU OF TOPOGRAPHIC AND GEOLOGIC SURVEY
WATER WELL PROGRAM
3240 Schoolhouse Rd
Middletown, PA 17057
717-702-2017

WATER WELL INFORMATION REPORT

PA Well ID: **560519** Local Well ID: Local Permit #:

LOCATION INFORMATION

Owner:	**bethlehem steel corp.**	Original Paper Record Image Available:	**Yes**
Address of Well:			
County:	**DAUPHIN**		
Municipality:	**UNKNOWN**		
Latitude:	**40.21917**	Coordinate Method:	**Commercial Street Atlas Program**
Longitude:	**-76.79916**	Data Reliability:	**LOCATION MAY NOT BE ACCURATE (WWI paper)**
Description of Well Location and Other Notes:			

WELL CONSTRUCTION INFORMATION

Well Driller:	**EICHELBERGERS INC.**	License:	**0198**	Driller Well ID:	
Type of Activity:	**New Well**	Date Drilled:	**8/1/1990**	Drilling Method:	**AIR ROTARY**
Well Depth (ft):		Well Finish:	**OPEN HOLE**		

GROUNDWATER AND GEOLOGICAL INFORMATION

Well Yield (GPM - gal per min):		Yield Measurement Method:	
Water Level when not pumped: (ft below land surface)		Water Level after yield test: (ft below land surface)	
Length of Yield Test (minutes):		Saltwater Zone (ft):	
Use of Well:	**WITHDRAWAL**	Use of Water:	**DOMESTIC**
Depth to Bedrock (ft):	Was Well Drilled Into Bedrock?	**Yes**	
		Date Printed: **3/24/2020**	

DEPARTMENT OF CONSERVATION & NATURAL RESOURCES
BUREAU OF TOPOGRAPHIC AND GEOLOGIC SURVEY
WATER WELL PROGRAM
3240 Schoolhouse Rd
Middletown, PA 17057
717-702-2017

WATER WELL INFORMATION REPORT

PA Well ID: **561643** Local Well ID: Local Permit #:

LOCATION INFORMATION

Owner:	**pa turnpike**	Original Paper Record Image Available:	**Yes**
Address of Well:			
County:	**DAUPHIN**		
Municipality:	**LOWER SWATARA TWP.**		
Latitude:	**40.21681**	Coordinate Method:	**Commercial Street Atlas Program**
Longitude:	**-76.78672**	Data Reliability:	**LOCATION MAY NOT BE ACCURATE (WWI paper)**

Description of Well Location and Other Notes:

WELL CONSTRUCTION INFORMATION

Well Driller:	**B. L. MYERS BROS OF MD,LLC**	License:	**1290**	Driller Well ID:	
Type of Activity:	**New Well**	Date Drilled:	**6/23/1994**	Drilling Method:	**AIR ROTARY**
Well Depth (ft):		Well Finish:	**OPEN HOLE**		

GROUNDWATER AND GEOLOGICAL INFORMATION

Well Yield (GPM - gal per min):		Yield Measurement Method:	
Water Level when not pumped: (ft below land surface)		Water Level after yield test: (ft below land surface)	
Length of Yield Test (minutes):		Saltwater Zone (ft):	
Use of Well:	**WITHDRAWAL**	Use of Water:	**DOMESTIC**
Depth to Bedrock (ft):		Was Well Drilled Into Bedrock?	**Yes**

Date Printed: **3/24/2020**

DEPARTMENT OF CONSERVATION & NATURAL RESOURCES
BUREAU OF TOPOGRAPHIC AND GEOLOGIC SURVEY
WATER WELL PROGRAM
3240 Schoolhouse Rd
Middletown, PA 17057
717-702-2017

WATER WELL INFORMATION REPORT

PA Well ID: **561644** Local Well ID: Local Permit #:

LOCATION INFORMATION

Owner:	**pa turnpike**	Original Paper Record Image Available:	**Yes**
Address of Well:			
County:	**DAUPHIN**		
Municipality:	**LOWER SWATARA TWP.**		
Latitude:	**40.21702**	Coordinate Method:	**Commercial Street Atlas Program**
Longitude:	**-76.78740**	Data Reliability:	**LOCATION MAY NOT BE ACCURATE (WWI paper)**
Description of Well Location and Other Notes:			

WELL CONSTRUCTION INFORMATION

Well Driller:	**B. L. MYERS BROS OF MD,LLC**	License:	**1290**	Driller Well ID:	
Type of Activity:	**New Well**	Date Drilled:	**6/23/1994**	Drilling Method:	**AIR ROTARY**
Well Depth (ft):		Well Finish:	**OPEN HOLE**		

GROUNDWATER AND GEOLOGICAL INFORMATION

Well Yield (GPM - gal per min):		Yield Measurement Method:	
Water Level when not pumped: (ft below land surface)		Water Level after yield test: (ft below land surface)	
Length of Yield Test (minutes):		Saltwater Zone (ft):	
Use of Well:	**WITHDRAWAL**	Use of Water:	**DOMESTIC**
Depth to Bedrock (ft):		Was Well Drilled Into Bedrock?	**Yes**

Date Printed: **3/24/2020**

DEPARTMENT OF CONSERVATION & NATURAL RESOURCES
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WATER WELL PROGRAM
3240 Schoolhouse Rd
Middletown, PA 17057
717-702-2017

WATER WELL INFORMATION REPORT

PA Well ID: **616794** Local Well ID: Local Permit #:

LOCATION INFORMATION

Owner:	**Boger Concrete**	Original Paper Record Image Available:	**No**
Address of Well:	**401 RIchardson Drive**		
County:	**DAUPHIN**		
Municipality:	**LOWER SWATARA TWP.**		
Latitude:	**40.22103**	Coordinate Method:	**Commercial Street Atlas Program**
Longitude:	**-76.79533**	Data Reliability:	
Description of Well Location and Other Notes:			

WELL CONSTRUCTION INFORMATION

Well Driller:	**MYERS BROS DRILLING CONTRACTORS INC**	License:	**0319**	Driller Well ID:	**19/89-2015**
Type of Activity:	**New Well**	Date Drilled:	**6/16/2015**	Drilling Method:	**AIR ROTARY**
Well Depth (ft):	**200**	Well Finish:	**OPEN HOLE**		

WELL SIZE

Top (ft)	Bottom (ft)	Diameter (in)
0	**20**	**9**
20	**200**	**6**

CASING

Top (ft)	Bottom (ft)	Diameter (in)	Casing Material	Seal Top	Seal Bottom	Seal Type
0	**20**	**6**	**STEEL**	**0**	**20**	**NONE**

GROUNDWATER AND GEOLOGICAL INFORMATION

Well Yield (GPM - gal per min):	**100**	Yield Measurement Method:	**VOLUMETRIC, WATCH & BUCKET**
Water Level when not pumped: (ft below land surface)		Water Level after yield test: (ft below land surface)	
Length of Yield Test (minutes):		Saltwater Zone (ft):	
Use of Well:	**WITHDRAWAL**	Use of Water:	**DOMESTIC**

MATERIALS WELL PENETRATES	LEVELS WHERE WATER ENTERS WELL

DEPARTMENT OF CONSERVATION & NATURAL RESOURCES
BUREAU OF TOPOGRAPHIC AND GEOLOGIC SURVEY
WATER WELL PROGRAM
3240 Schoolhouse Rd
Middletown, PA 17057
717-702-2017

WATER WELL INFORMATION REPORT

PA Well ID: **665446** Local Well ID: Local Permit #:

LOCATION INFORMATION

Owner:	**HIGHSPIRE HOMES**	Original Paper Record Image Available:	**No**
Address of Well:	**FREDERICK STREET 17057**		
County:	**DAUPHIN**		
Municipality:	**LOWER SWATARA TWP.**		
Latitude:	**40.21889**	Coordinate Method:	**Commercial Street Atlas Program**
Longitude:	**-76.79057**	Data Reliability:	
Description of Well Location and Other Notes:			

WELL CONSTRUCTION INFORMATION

Well Driller:	**MYERS BROS DRILLING CONTRACTORS INC**	License:	**0319**	Driller Well ID:	**7-193/2005**
Type of Activity:	**New Well**	Date Drilled:	**9/21/2005**	Drilling Method:	**AIR ROTARY**
Well Depth (ft):	**250**	Well Finish:	**OPEN HOLE**		

WELL SIZE

Top (ft)	Bottom (ft)	Diameter (in)
0	**104**	**8.75**
104	**250**	**6.125**

CASING

Top (ft)	Bottom (ft)	Diameter (in)	Casing Material	Seal Top	Seal Bottom	Seal Type
0	**104**	**6.25**	**PVC OR OTHER PLASTIC**			

GROUNDWATER AND GEOLOGICAL INFORMATION

Well Yield (GPM - gal per min):	**20**	Yield Measurement Method:	**VOLUMETRIC, WATCH & BUCKET**
Water Level when not pumped: (ft below land surface)		Water Level after yield test: (ft below land surface)	
Length of Yield Test (minutes):		Saltwater Zone (ft):	
Use of Well:	**WITHDRAWAL**	Use of Water:	**DOMESTIC**

MATERIALS WELL PENETRATES	LEVELS WHERE WATER ENTERS WELL

Appendix D

Boring/Construction Logs

Letterle & Associates, Inc.
2022 Axemann Road, Suite 201
Bellefonte, Pennsylvania 16823

Project: Sohail's Store
Location: 835 S. Eisenhower Blvd., Middletown, PA 17057
Client: Sohail Riarh
Drill Date(s): May 26, 2020

Soil Boring
SB-1

DEPTH (feet)	DESCRIPTION	SAMPLES Number	SAMPLES Type	SAMPLES Recovery	SAMPLES Blows (per 6-inches)	PID (ppm)	DETAILS
0–2	**Concrete**						
2–5	**Pea Gravel**	1	MC			18.2	
5–10	Pea gravel, wet, odor	2	MC			145.0	
10–11	**CL:** Sandy clay, gray					78.7	
11–12	Clay, tight, tan/gray						
12–13	**SW:** Sand, well graded, mod., saturated, gray green	*3	MC			715.1	Sampled @ 12-13'
13–15	**CL:** Clay, tight, gray/orange/tan					468.0	
15–16	Sandy clay, wet, brown, some silt, odor					32.0	
16–17	Silty clay, brown/red, moist, some gravel, odor					958.2	
17–18	Saturated silty clay, brown, odor	*4	MC				Sampled @ 17-18'
18–20						340.5	
20	Borehole Terminated @ 20'						

PID (ppm) scale: 0, 1,000, 2,000

Total Depth: 20 feet
Borehole Diameter: 2-inch
Drill Method: Geoprobe

Drilled By: Eichelbergers, Inc.
Logged By: C. Illig

Surface Elevation: NA

* Sample Submitted for Laboratory Analysis

Letterle & Associates, Inc.
2022 Axemann Road, Suite 201
Bellefonte, Pennsylvania 16823

Project: Sohail's Store
Location: 835 S. Eisenhower Blvd., Middletown, PA 17057
Client: Sohail Riarh
Drill Date(s): May 26, 2020

Soil Boring
SB-2

DEPTH (feet)	DESCRIPTION	SAMPLES Number	SAMPLES Type	SAMPLES Recovery	SAMPLES Blows (per 6-inches)	PID (ppm)	DETAILS
0–1	**Asphalt:** Gravel subbase						
1–5	**CL:** Tight silty clay, brown/red to gray, no odor/staining, dry	1	MC			1.3; 4.6	
5–9	Clay, soft, brown/tan, slightly moist, odor					77.4; 390.2	
9–10	**SW:** Sand, mod, some gravel fragments, moist, tan/brown, odor	*2	MC			834.4	Sampled @ 9-10'
10–13	**CL:** Clay, tight, gray/orange, wet, odor					429.1	
13–14	**SW:** Sand, wet						
14–15	**CL:** Sandy and silty clay, gray/brown	*3	MC			729.0	Sampled @ 14-15'
15	Borehole Terminated @ 15'						

PID (ppm) scale: 0, 1,000, 2,000

Total Depth: 15 feet
Borehole Diameter: 2-inch
Drill Method: Geoprobe

Drilled By: Eichelbergers, Inc.
Logged By: C. Illig

Surface Elevation: NA

* Sample Submitted for Laboratory Analysis

Letterle & Associates, Inc.
2022 Axemann Road, Suite 201
Bellefonte, Pennsylvania 16823

Project: Sohail's Store
Location: 835 S. Eisenhower Blvd., Middletown, PA 17057
Client: Sohail Riarh
Drill Date(s): May 26, 2020

Soil Boring
SB-3

DEPTH (feet)	DESCRIPTION	SAMPLES Number	Type	Recovery	Blows (per 6-inches)	PID (ppm)	DETAILS
0–1	**Asphalt:** Gravel subbase						
1–5	**CL:** Silty clay, some gray gravel, brown/red, dry, no odor/staining	1	MC			0.9; 1.0	
5–9	Tight clay, brown, slight odor, slightly moist	2	MC			5.0; 47.7	
9–10	**SW:** Sand, wet, tan/brown, odor					2.9	
10–11	**CL:** Clay, tight, red/gray, dry					12.3	
11–13	**SW:** Sand, mod., some clay, well graded, gray/red					59.0	
13–14	**CL:** Clay, soft, moist, brown						
14–15	Gravelly clay, brown, odor, wet	*3	MC			130.9	Sampled @ 14-15'
15–17	**SW:** Saturated sand and clay, brown					11.2; 325.1	
17–20	**CL:** Gravelly clay, brown/red, wet, strong odor	*4	MC			416.0	Sampled @ 18-19'
20	Borehole Terminated @ 20'						

Total Depth: 20 feet
Borehole Diameter: 2-inch
Drill Method: Geoprobe

Drilled By: Eichelbergers, Inc.
Logged By: C. Illig

Surface Elevation: NA

* Sample Submitted for Laboratory Analysis

Letterle & Associates, Inc.
2022 Axemann Road, Suite 201
Bellefonte, Pennsylvania 16823

Project: Sohail's Store
Location: 835 S. Eisenhower Blvd., Middletown, PA 17057
Client: Sohail Riarh
Drill Date(s): May 26, 2020

Soil Boring
SB-4

DEPTH (feet)	DESCRIPTION	SAMPLES Number	SAMPLES Type	SAMPLES Recovery	SAMPLES Blows (per 6-inches)	PID (ppm)	DETAILS
0–1	**Asphalt:** Subbase						
1–5	**GW:** Pea Gravel, saturated	1	MC				
5–9	No Recovery						
9–11	**SW:** Sand, tan/gray/black, saturated, odor	*2	MC			343.3; 411.0	Sampled @ 9-10'
11–14	**CL:** Clay, tight, moist, tan/red					59.6	
14–15	**SW:** Sand, gray, strong odor, wet	*3	MC	100%		759.0	Sampled @ 14-15'
15	Borehole Terminated @ 15'						

PID (ppm) scale: 0 – 1,000 – 2,000

Total Depth: 15 feet
Borehole Diameter: 2-inch
Drill Method: Geoprobe

Drilled By: Eichelbergers, Inc.
Logged By: C. Illig

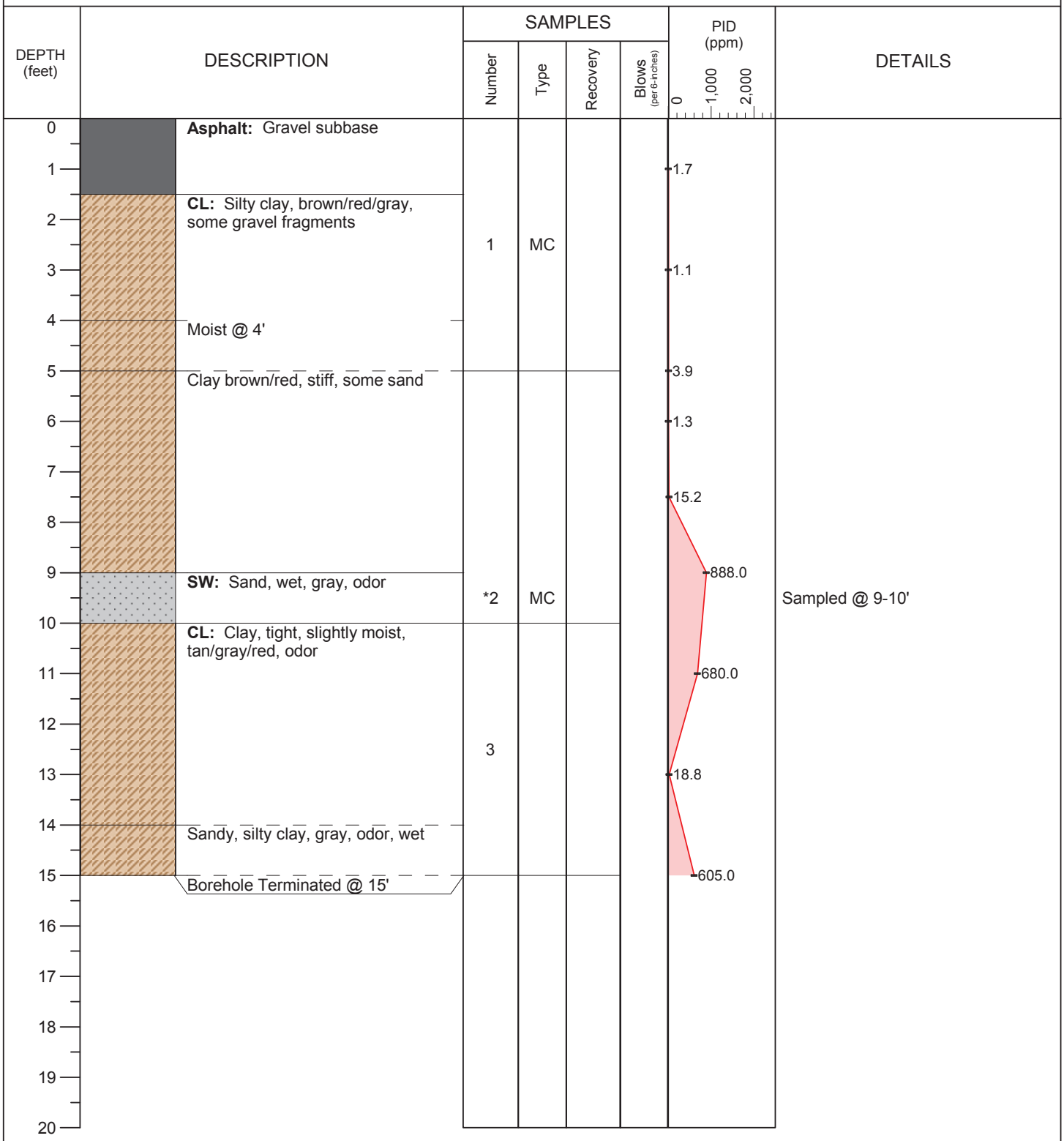
Surface Elevation: NA

* Sample Submitted for Laboratory Analysis

Letterle & Associates, Inc.
2022 Axemann Road, Suite 201
Bellefonte, Pennsylvania 16823

Project: Sohail's Store
Location: 835 S. Eisenhower Blvd., Middletown, PA 17057
Client: Sohail Riarh
Drill Date(s): May 26 - 27, 2020

Soil Boring
SB-5



Total Depth: 15 feet
Borehole Diameter: 2-inch
Drill Method: Geoprobe

Drilled By: Eichelbergers, Inc.
Logged By: C. Illig

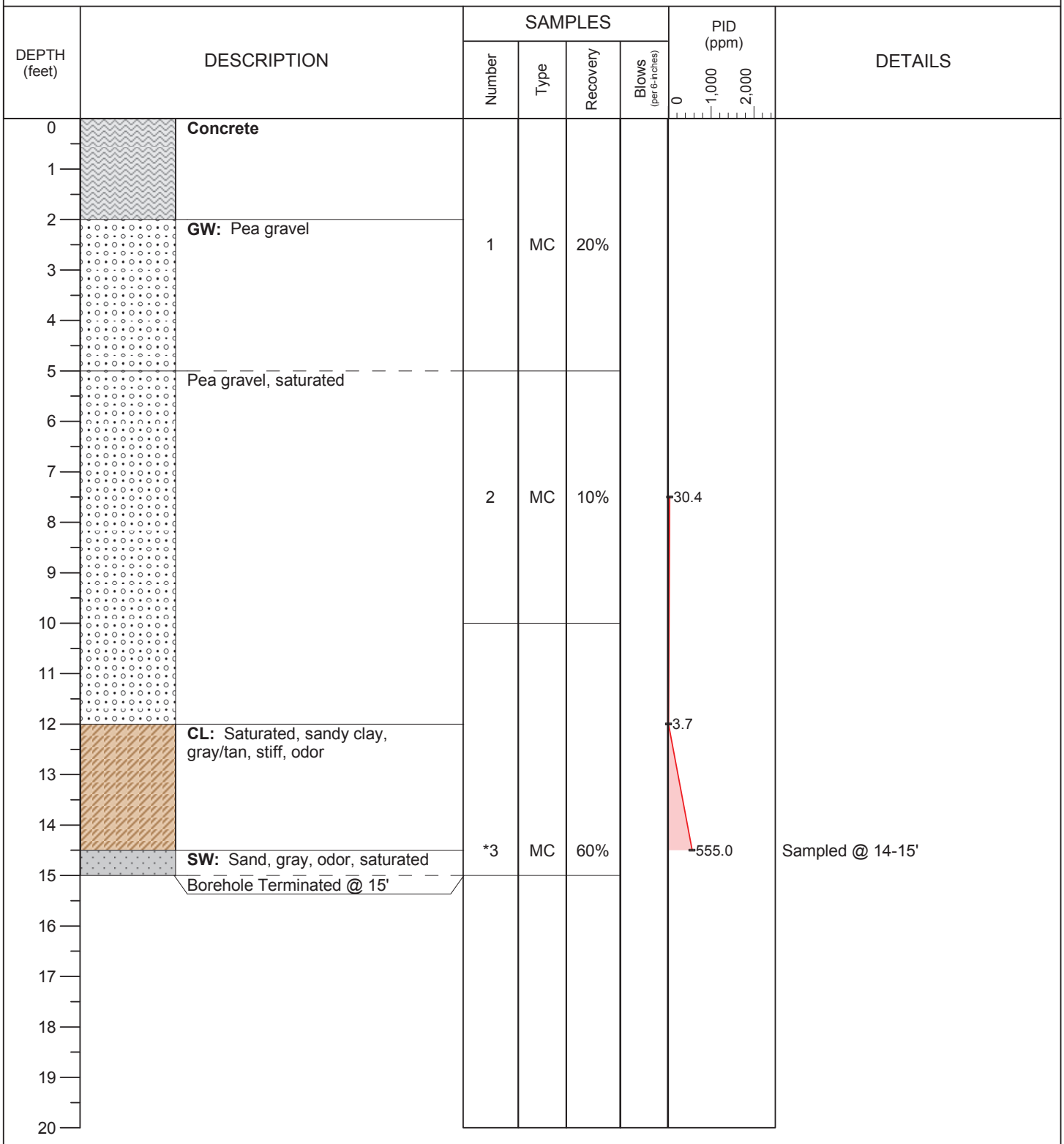
Surface Elevation: NA

* Sample Submitted for Laboratory Analysis

Letterle & Associates, Inc.
2022 Axemann Road, Suite 201
Bellefonte, Pennsylvania 16823

Project: Sohail's Store
Location: 835 S. Eisenhower Blvd., Middletown, PA 17057
Client: Sohail Riarh
Drill Date(s): May 26, 2020

Soil Boring
SB-6



Total Depth: 15 feet
Borehole Diameter: 2-inch
Drill Method: Geoprobe

Drilled By: Eichelbergers, Inc.
Logged By: C. Illig

Surface Elevation: NA

* Sample Submitted for Laboratory Analysis

Letterle & Associates, Inc.
2022 Axemann Road, Suite 201
Bellefonte, Pennsylvania 16823

Project: Sohail's Store
Location: 835 S. Eisenhower Blvd., Middletown, PA 17057
Client: Sohail Riarh
Drill Date(s): May 26, 2020

Soil Boring
SB-7

DEPTH (feet)	DESCRIPTION	SAMPLES Number	SAMPLES Type	SAMPLES Recovery	SAMPLES Blows (per 6-inches)	PID (ppm)	DETAILS
0	**Asphalt:** Gravel subbase						
1						0.2	
2	**CL:** Clay, tight, brown/red, no odor/staining, slightly moist	1	MC				
3						7.4	
4							
5						1.2	
6							
7						0.6	
8							
9	**SW:** Sand, wet, gray/brown, odor	*2	MC			8.5	Sampled @ 9-10'
10							
11	**CL:** Silty clay, gray/brown, slight odor, moist					5.0	
12							
13						9.8	
14							
15	**SW:** Sand, brown/gray, wet, odor Borehole Terminated @ 15'	*3	MC			266.0	Sampled @ 14-15'
16							
17							
18							
19							
20							

PID (ppm) scale: 0, 1,000, 2,000

Total Depth: 15 feet
Borehole Diameter: 2-inch
Drill Method: Geoprobe

Drilled By: Eichelbergers, Inc.
Logged By: C. Illig

Surface Elevation: NA

* Sample Submitted for Laboratory Analysis

Letterle & Associates, Inc.
2022 Axemann Road, Suite 201
Bellefonte, Pennsylvania 16823

Project: Sohail's Store
Location: 835 S. Eisenhower Blvd., Middletown, PA 17057
Client: Sohail Riarh
Drill Date(s): May 26, 2020

Soil Boring
SB-8

DEPTH (feet)	DESCRIPTION	SAMPLES Number	Type	Recovery	Blows (per 6-inches)	PID (ppm) 0 / 1,000 / 2,000	DETAILS
0	**Concrete**						
2	**GW:** Pea gravel	1	MC	10%			
5	No Recovery	2	MC				
10	Pea gravel, saturated						
13	**CL:** Saturated, clay, gray, odor	*3	MC			119.2	Sampled @ 13-14'
14	**SW:** Sand, mod., saturated, gray, odor						
	CL: Clay, stiff, gray/tan						
15	Borehole Terminated @ 15'					17.0	
20							

Total Depth: 15 feet
Borehole Diameter: 2-inch
Drill Method: Geoprobe

Drilled By: Eichelbergers, Inc.
Logged By: C. Illig

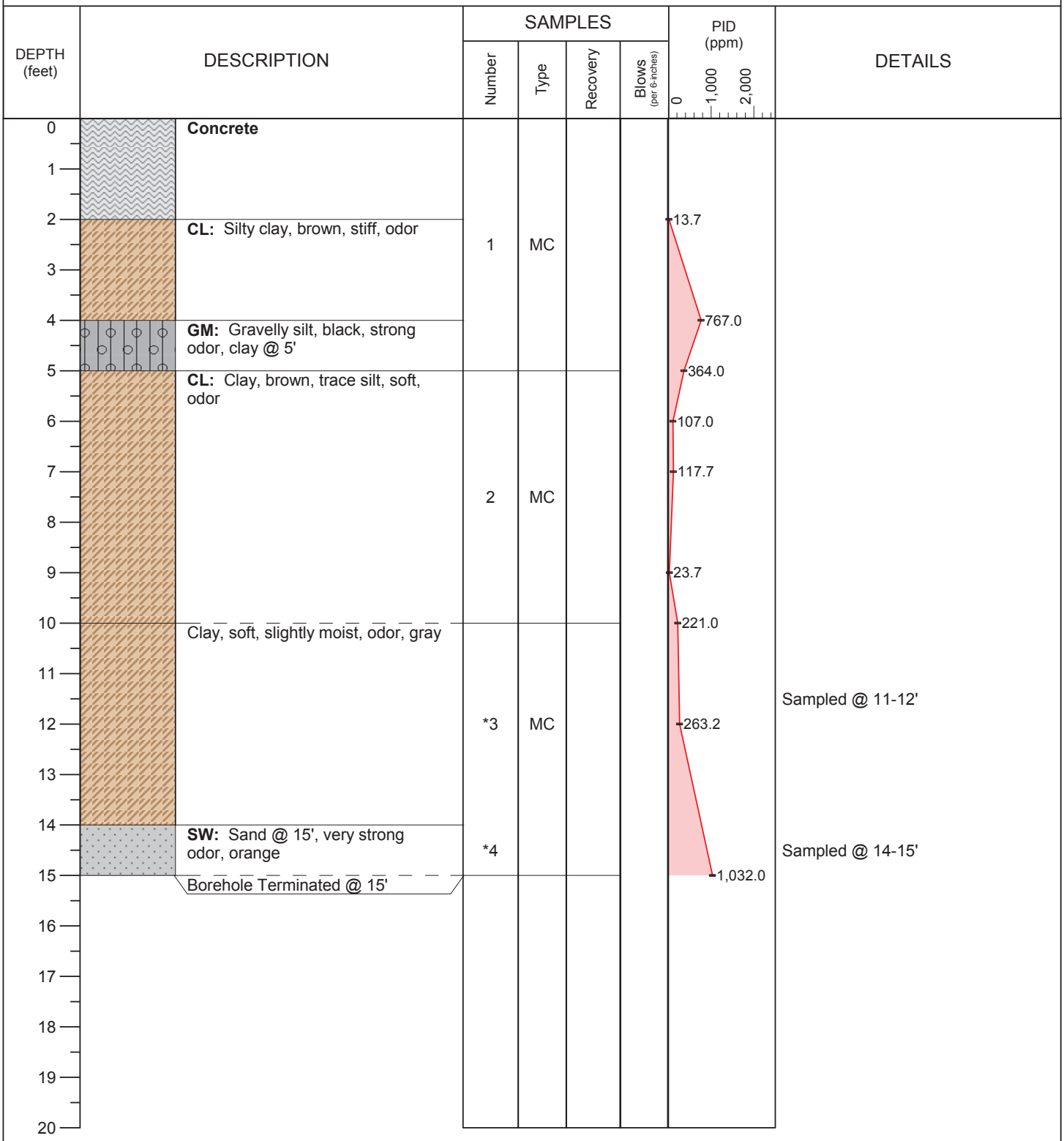
Surface Elevation: NA

* Sample Submitted for Laboratory Analysis

Letterle & Associates, Inc.
2022 Axemann Road, Suite 201
Bellefonte, Pennsylvania 16823

Project: Sohail's Store
Location: 835 S. Eisenhower Blvd., Middletown, PA 17057
Client: Sohail Riarh
Drill Date(s): May 26, 2020

Soil Boring
SB-9



Total Depth: 15 feet
Borehole Diameter: 2-inch
Drill Method: Geoprobe

Drilled By: Eichelbergers, Inc.
Logged By: C. Illig

Surface Elevation: NA

* Sample Submitted for Laboratory Analysis

Letterle & Associates, Inc.
2022 Axemann Road, Suite 201
Bellefonte, Pennsylvania 16823

Project: Sohail's Store
Location: 835 S. Eisenhower Blvd., Middletown, PA 17057
Client: Sohail Riarh
Drill Date(s): May 26, 2020

Soil Boring
SB-10

DEPTH (feet)	DESCRIPTION	SAMPLES Number	Type	Recovery	Blows (per 6-inches)	PID (ppm) 0 / 1,000 / 2,000	DETAILS
0	**Concrete**						
1							
2	**GW:** Pea gravel	1	MC	10%			
3							
4							
5							
6		2	MC	10%			
7							
8							
9							
10	No Recovery						
11							
12		3	MC	0%			
13							
14							
15	**CL:** Saturated, gravelly clay, brown/red, odor						
16							
17		*4	MC	72%			Sampled @ 15-20'
18							
19	**SW:** Black stained sand, coarse						
20	Borehole Terminated @ 20'						

Total Depth: 20 feet
Borehole Diameter: 2-inch
Drill Method: Geoprobe

Drilled By: Eichelbergers, Inc.
Logged By: C. Illig

Surface Elevation: NA

* Sample Submitted for Laboratory Analysis

Letterle & Associates, Inc.
2022 Axemann Road, Suite 201
Bellefonte, Pennsylvania 16823

Project: Sohail's Store
Location: 835 S. Eisenhower Blvd., Middletown, PA 17057
Client: Sohail Riarh
Drill Date(s): May 27, 2020

Soil Boring
SB-11

DEPTH (feet)	DESCRIPTION	SAMPLES Number	Type	Recovery	Blows (per 6-inches)	PID (ppm)	DETAILS
0	**Asphalt:** Gravel subbase						
1						1.1	
2	**GW:** Silty clay, red brown, dry, large cobbles/brick						
3							
4	**CL:** Black silty clay, dry, odor					7.9	
5		*1	AK			104.4	Sampled @ 4-5'
6	Clay, tight, brown, slightly moist, no odor					9.7	
7						0.3	
8		2	MC	100%			
9							
10	Moist @ 9.5', sandy clay, brown/gray					10.4	
11	Sandy clay, light brown/gray, moist, odor					59.2	
12						6.4	
13	Gray/tan clay, tight, slightly moist	3	MC	80%			
14							
15	Clayey, silty sand, moist, gray, odor Borehole Terminated @ 15'					45.5	
16							
17							
18							
19							
20							

Total Depth: 15 feet
Borehole Diameter: 2-inch
Drill Method: Geoprobe

Drilled By: Eichelbergers, Inc.
Logged By: C. Illig

Surface Elevation: NA

* Sample Submitted for Laboratory Analysis

Letterle & Associates, Inc.
2022 Axemann Road, Suite 201
Bellefonte, Pennsylvania 16823

Project: Sohail's Store
Location: 835 S. Eisenhower Blvd., Middletown, PA 17057
Client: Sohail Riarh
Drill Date(s): May 28, 2020

Soil Boring
SB-12

DEPTH (feet)	DESCRIPTION	SAMPLES Number	SAMPLES Type	SAMPLES Recovery	SAMPLES Blows (per 6-inches)	PID (ppm)	DETAILS
0	**Asphalt:** Gravel subbase						
1	**CL:** Silty clay, brown, some gravel, no odor/staining, slightly moist	1	MC			1.5	
4						3.8	
5	Silty clay, orange/gray, slightly moist, plastic, trace odor	2	MC			1.1	
9						1.4	
10	Sandy clay, gray, moist, slight odor	*3	MC			15.9	Sampled @ 10-11'
13	Silty clay, gray, slight odor, moist					0.0	
14						0.0	
15	Borehole Terminated @ 15'						
20							

Total Depth: 15 feet
Borehole Diameter: 2-inch
Drill Method: Geoprobe

Drilled By: Eichelbergers, Inc.
Logged By: C. Illig

Surface Elevation: NA

* Sample Submitted for Laboratory Analysis

Letterle & Associates, Inc.
2022 Axemann Road, Suite 201
Bellefonte, Pennsylvania 16823

Project: Sohail's Store
Location: 835 S. Eisenhower Blvd., Middletown, PA 17057
Client: Sohail Riarh
Drill Date(s): May 28, 2020

Soil Boring
SB-13

DEPTH (feet)	DESCRIPTION	SAMPLES Number	SAMPLES Type	SAMPLES Recovery	SAMPLES Blows (per 6-inches)	PID (ppm)	DETAILS
0	**Asphalt:** Gravel subbase						
2	**GW:** Silty clay, orange, no odor, dry	1	MC			0.0	
4	**CL:** Brown/gray silty clay, soft, slight odor					3.4	
5	Brown/orange clay, some silt, some sand, slight odor, dry	*2	MC			67.9	Sampled @ 7-8'
8						0.0	
9	**SW:** Sand, wet, gray/tan, odor						
10	**CL:** Clay, gray/orange, soft						
11						0.3	
12	Clay, soft, gray, no odor, moist	3	MC				
14						6.8	
15	Borehole Terminated @ 15'						

PID (ppm) scale: 0 | 1,000 | 2,000

Total Depth: 15 feet
Borehole Diameter: 2-inch
Drill Method: Geoprobe

Drilled By: Eichelbergers, Inc.
Logged By: C. Illig

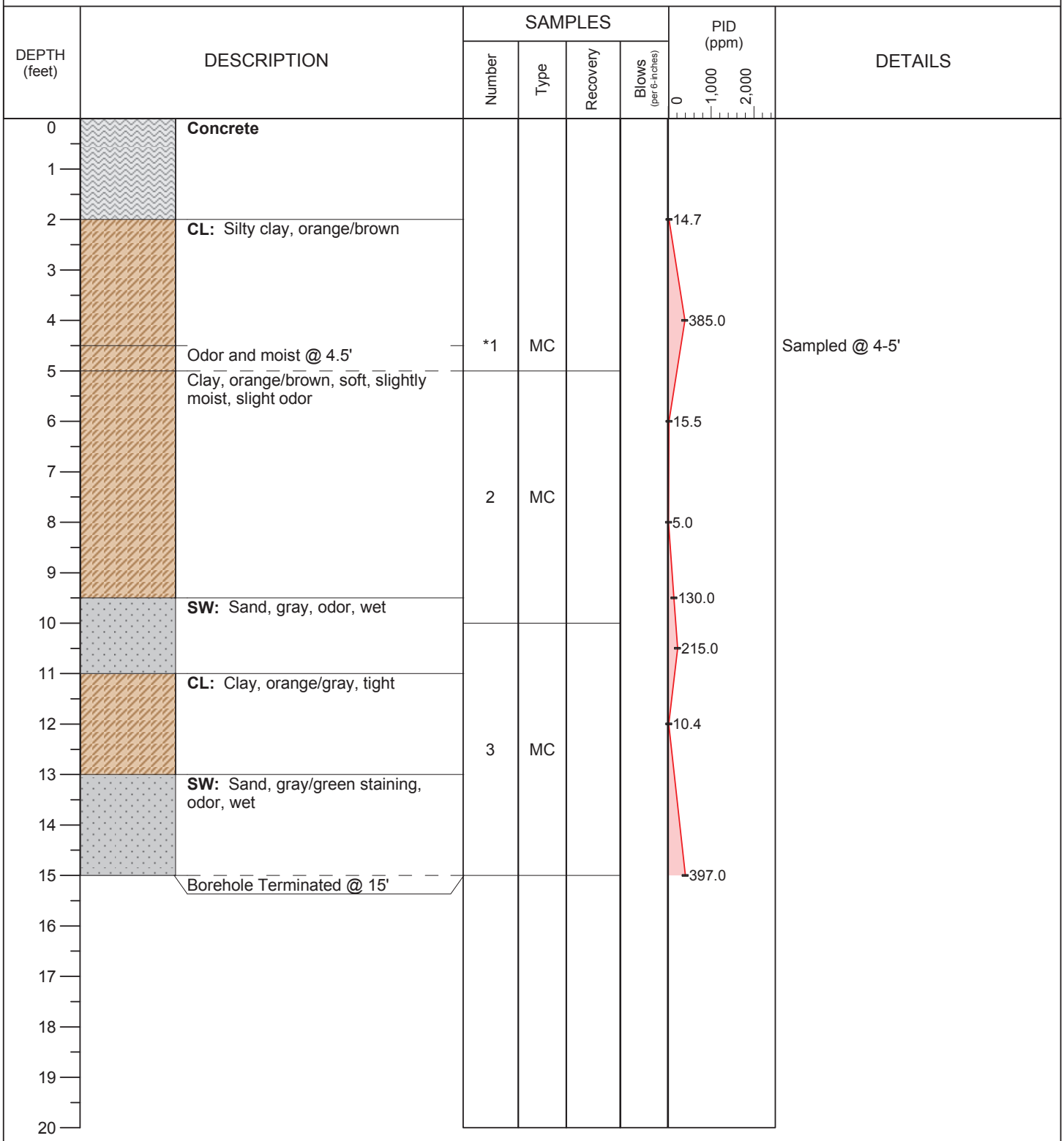
Surface Elevation: NA

* Sample Submitted for Laboratory Analysis

Letterle & Associates, Inc.
2022 Axemann Road, Suite 201
Bellefonte, Pennsylvania 16823

Project: Sohail's Store
Location: 835 S. Eisenhower Blvd., Middletown, PA 17057
Client: Sohail Riarh
Drill Date(s): May 28, 2020

Soil Boring
SB-14



Total Depth: 15 feet
Borehole Diameter: 2-inch
Drill Method: Geoprobe

Drilled By: Eichelbergers, Inc.
Logged By: C. Illig

Surface Elevation: NA

* Sample Submitted for Laboratory Analysis

Letterle & Associates, Inc.
2022 Axemann Road, Suite 201
Bellefonte, Pennsylvania 16823

Project: Sohail's Store
Location: 835 S. Eisenhower Blvd., Middletown, PA 17057
Client: Sohail Riarh
Drill Date(s): May 28, 2020

Soil Boring
SB-15

DEPTH (feet)	DESCRIPTION	SAMPLES Number	SAMPLES Type	SAMPLES Recovery	SAMPLES Blows (per 6-inches)	PID (ppm)	DETAILS
0	**Concrete**						
1							
2	**CL:** Silty clay, soft, brown, slightly moist, no odor	1	MC			0.2	
3							
4							
5	Silty clay, brown/orange, tight, odor, slightly moist					3.6	
6						28.7	
7		2	MC				
8						16.3	
9							
10	Sandy clay, gray/orange, odor, moist					146.7	
11						743.0	
12							
13		*3	MC			1,186.0	Sampled @ 13-14'
14							
15	Borehole Terminated @ 15'					1,016.0	
16							
17							
18							
19							
20							

PID (ppm) scale: 0, 1,000, 2,000

Total Depth: 15 feet
Borehole Diameter: 2-inch
Drill Method: Geoprobe

Drilled By: Eichelbergers, Inc.
Logged By: C. Illig

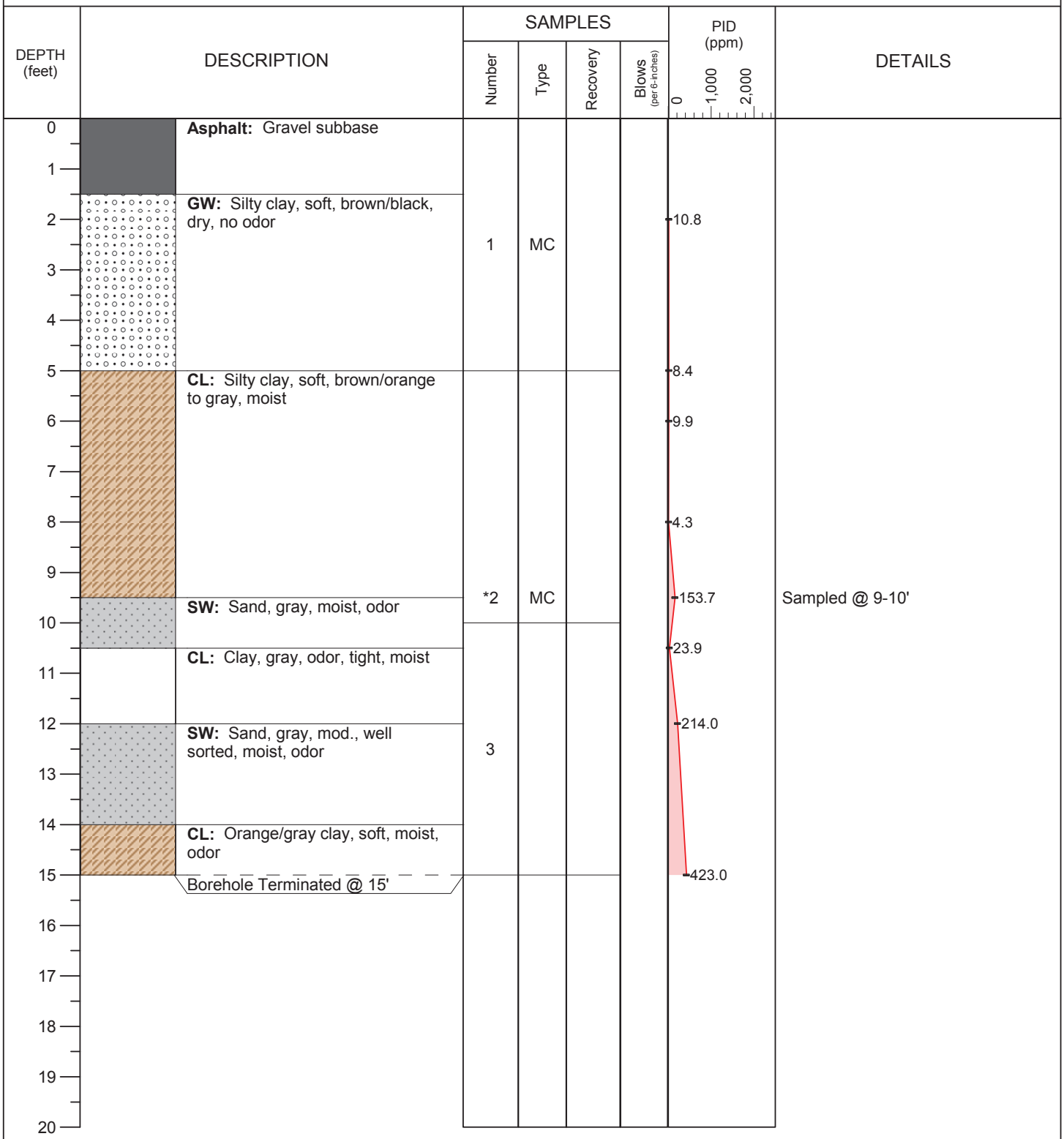
Surface Elevation: NA

* Sample Submitted for Laboratory Analysis

Letterle & Associates, Inc.
2022 Axemann Road, Suite 201
Bellefonte, Pennsylvania 16823

Project: Sohail's Store
Location: 835 S. Eisenhower Blvd., Middletown, PA 17057
Client: Sohail Riarh
Drill Date(s): May 28, 2020

Soil Boring
SB-16



Total Depth: 15 feet
Borehole Diameter: 2-inch
Drill Method: Geoprobe

Drilled By: Eichelbergers, Inc.
Logged By: C. Illig

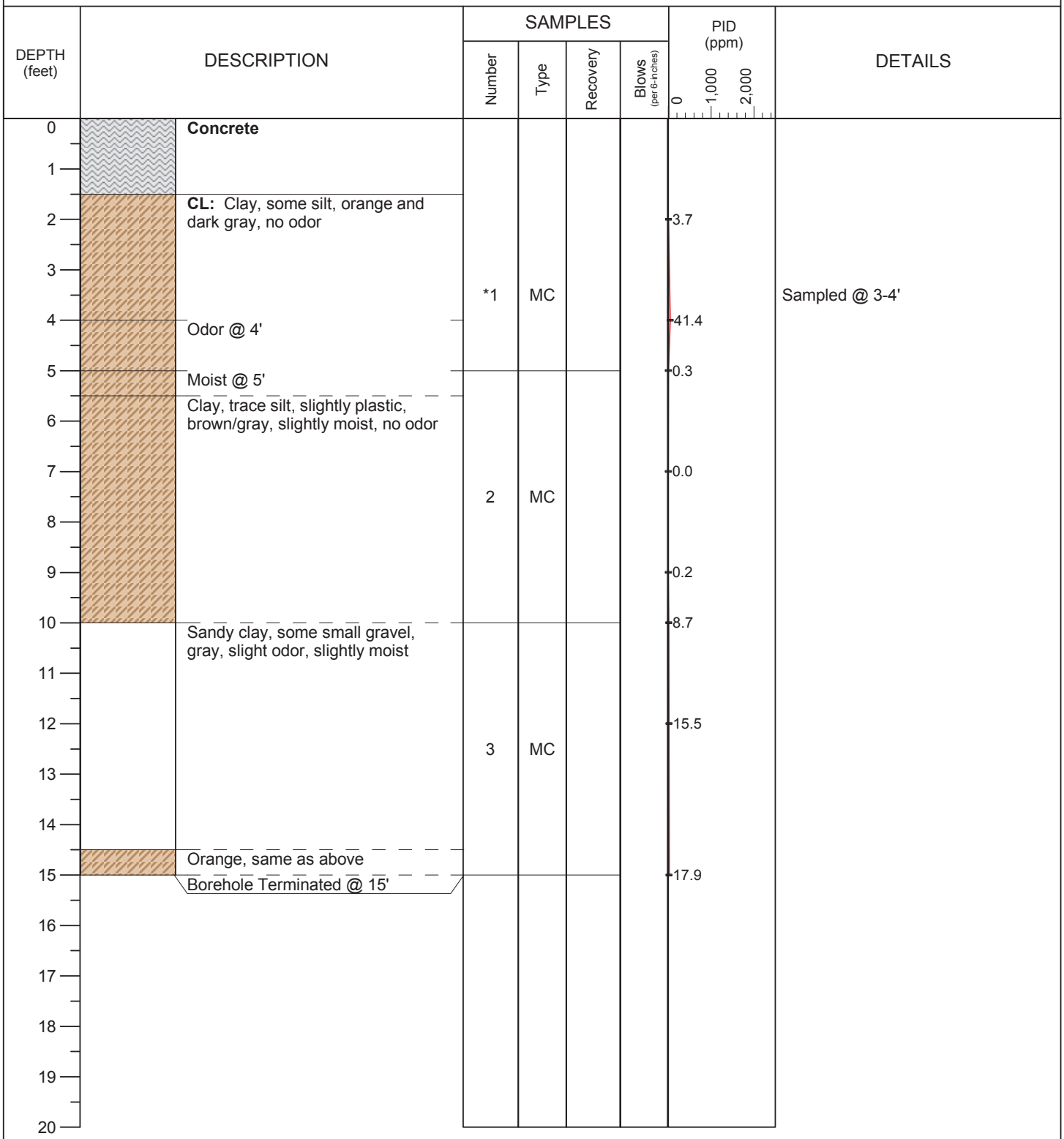
Surface Elevation: NA

* Sample Submitted for Laboratory Analysis

Letterle & Associates, Inc.
2022 Axemann Road, Suite 201
Bellefonte, Pennsylvania 16823

Project: Sohail's Store
Location: 835 S. Eisenhower Blvd., Middletown, PA 17057
Client: Sohail Riarh
Drill Date(s): June 1, 2020

Soil Boring **SB-17**



Total Depth: 15 feet
Borehole Diameter: 2-inch
Drill Method: Geoprobe

Drilled By: Eichelbergers, Inc.
Logged By: C. Illig

Surface Elevation: NA

* Sample Submitted for Laboratory Analysis

Letterle & Associates, Inc.
2022 Axemann Road, Suite 201
Bellefonte, Pennsylvania 16823

Project: Sohail's Store
Location: 835 S. Eisenhower Blvd., Middletown, PA 17057
Client: Sohail Riarh
Drill Date(s): June 1, 2020

Soil Boring
SB-18

DEPTH (feet)	DESCRIPTION	SAMPLES Number	SAMPLES Type	SAMPLES Recovery	SAMPLES Blows (per 6-inches)	PID (ppm)	DETAILS
0	**Asphalt**						
1	**GW:** Gravel subbase						
2	**CL:** Silty clay, soft, slightly moist, brown/black, no odor	1	MC			0.0	
3							
4						3.0	
5	Silty clay, soft, brown, no odor					0.3	
6						0.0	
7	Moist @ 7-8'	2	MC				
8	Tight silty clay, gray with brown/orange, no odor, slightly moist					2.6	
9							
10	**SM:** Sandy silt, trace clay, gray, slightly moist, stale odor					0.0	
11						2.7	
12							
13						6.9	
14							
15	**CL:** Sandy clay, with gravel, gray/brown, slightly moist, no odor Borehole Terminated @ 15'	*3	MC			27.6	Sampled @ 14-15'
16							
17							
18							
19							
20							

PID (ppm) scale: 0 — 1,000 — 2,000

Total Depth: 15 feet
Borehole Diameter: 2-inch
Drill Method: Geoprobe

Drilled By: Eichelbergers, Inc.
Logged By: C. Illig

Surface Elevation: NA

* Sample Submitted for Laboratory Analysis

Letterle & Associates, Inc.
2022 Axemann Road, Suite 201
Bellefonte, Pennsylvania 16823

Project: Sohail's Store
Location: 835 S. Eisenhower Blvd., Middletown, PA 17057
Client: Sohail Riarh
Drill Date: May 28, 2020

Monitoring Well ***MW-1***

DEPTH (feet)	DESCRIPTION	SAMPLES Number	Type	Recovery	Blows (per 6-inches)	PID (ppm) 0 / 500 / 1,000 / 1,500 / 2,000	WELL CONSTRUCTION DETAILS
0–1	**Asphalt:** Gravel subbase						Traffic Rated Steel Manhole Cover
1–5	**CL:** Silty clay, some sand, orange, dry	1	HSA			0.1	Bentonite Chip Seal; Schedule 40 PVC Casing
5–9		2	HSA				8 1/4-inch Diameter Borehole; Sand Pack
9–10	Silty clay and sand, orange/brown, moist						
10–15		3	HSA			0.0	Schedule 40 PVC Screen
15–20		4	HSA			0.0	Schedule 40 PVC End Cap
20	Borehole Terminated @ 20'						

Total Depth: 20 feet
Borehole Diameter: 8 1/4-inch
Drill Method: Hollow Stem Auger
Drilled By: Eichelbergers, Inc.
Logged By: C. Illig

Well Diameter: 2-inch
Casing Length: 5 feet
Screen Length: 15 feet
Screen Slot Size: 0.010-inch

Surface Elevation: NA
Casing Elevation: NA
Depth to Water - Static: NA
Gauging Date: NA

* Sample Submitted for Laboratory Analysis

Letterle & Associates, Inc.
2022 Axemann Road, Suite 201
Bellefonte, Pennsylvania 16823

Project: Sohail's Store
Location: 835 S. Eisenhower Blvd., Middletown, PA 17057
Client: Sohail Riarh
Drill Date: May 27, 2020

Monitoring Well ***MW-2***

DEPTH (feet)	DESCRIPTION	SAMPLES Number	Type	Recovery	Blows (per 6-inches)	PID (ppm)	WELL CONSTRUCTION DETAILS
0	**Asphalt:** Gravel subbase						Traffic Rated Steel Manhole Cover
1						1.1	Bentonite Chip Seal
2	**GW:** Silty clay, red brown, dry, large cobbles/brick	1	HSA				
3							
4	**CL:** Black silty clay, dry, odor					7.9	Schedule 40 PVC Casing
5						104.4	
6	Clay, tight, brown, slightly moist, no odor					9.7	
7		2	HSA			0.3	
8							8 1/4-inch Diameter Borehole
9							Sand Pack
10	Moist @ 9.5', sandy clay, brown/gray					10.4	
11	Sandy clay, light brown/gray, moist, odor					59.2	
12		3	HSA			6.4	
13	Gray/tan clay, tight, slightly moist						Schedule 40 PVC Screen
14							
15	Clayey, silty sand, moist, gray, odor					45.5	
16							
17		4	HSA				
18							
19							Schedule 40 PVC End Cap
20	Borehole Terminated @ 20'						

Total Depth: 20 feet
Borehole Diameter: 8 1/4-inch
Drill Method: Hollow Stem Auger
Drilled By: Eichelbergers, Inc.
Logged By: C. Illig

Well Diameter: 2-inch
Casing Length: 5 feet
Screen Length: 15 feet
Screen Slot Size: 0.010-inch

Surface Elevation: NA
Casing Elevation: NA
Depth to Water - Static: NA
Gauging Date: NA

* Sample Submitted for Laboratory Analysis

Letterle & Associates, Inc.
2022 Axemann Road, Suite 201
Bellefonte, Pennsylvania 16823

Project: Sohail's Store
Location: 835 S. Eisenhower Blvd., Middletown, PA 17057
Client: Sohail Riarh
Drill Date: May 26 - 27, 2020

Monitoring Well ***MW-3***

DEPTH (feet)	DESCRIPTION	SAMPLES Number	Type	Recovery	Blows (per 6-inches)	PID (ppm) 0 500 1,000 1,500 2,000	WELL CONSTRUCTION DETAILS
0–1	**Asphalt:** Gravel subbase						Traffic Rated Steel Manhole Cover
1–2	**CL:** Brown/orange silty clay, dry, no odor/staining	1	HSA				Bentonite Chip Seal
2–3							
3–4							Schedule 40 PVC Casing
4–5							
5–6							
6–7							
7–8		2	HSA				
8–9							8 1/4-inch Diameter Borehole
9–10	Brown/tan silty clay, moist, no odor/staining						Sand Pack
10–11							
11–12							
12–13		3	HSA				
13–14							Schedule 40 PVC Screen
14–15							
15–16							
16–17		4	HSA				
17–18							
18–19							
19–20							Schedule 40 PVC End Cap
20	Borehole Terminated @ 20'						

Total Depth: 20 feet
Borehole Diameter: 8 1/4-inch
Drill Method: Hollow Stem Auger
Drilled By: Eichelbergers, Inc.
Logged By: C. Illig

Well Diameter: 2-inch
Casing Length: 5 feet
Screen Length: 15 feet
Screen Slot Size: 0.010-inch

Surface Elevation: NA
Casing Elevation: NA
Depth to Water - Static: NA
Gauging Date: NA

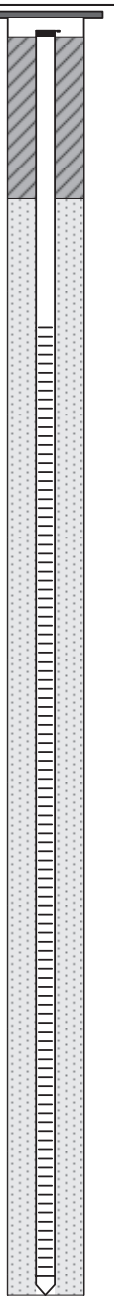
* Sample Submitted for Laboratory Analysis

Letterle & Associates, Inc.
2022 Axemann Road, Suite 201
Bellefonte, Pennsylvania 16823

Project: Sohail's Store
Location: 835 S. Eisenhower Blvd., Middletown, PA 17057
Client: Sohail Riarh
Drill Date: May 27, 2020

Monitoring Well ***MW-4***

DEPTH (feet)	DESCRIPTION	SAMPLES Number	Type	Recovery	Blows (per 6-inches)	PID (ppm) 0 500 1,000 1,500 2,000	WELL CONSTRUCTION DETAILS
0	**Asphalt:** Gravel subbase						Traffic Rated Steel Manhole Cover
2	**CL:** Large cobbles, orange silty clay, no odor/staining, dry	1	HSA				Bentonite Chip Seal
5	Brown/orange silty clay, no odor/staining	2	HSA				Schedule 40 PVC Casing
10	Moist @ 10'	3	HSA				8 1/4-inch Diameter Borehole
15		4	HSA				Sand Pack
20	Borehole Terminated @ 20'						Schedule 40 PVC Screen
							Schedule 40 PVC End Cap



Total Depth: 20 feet
Borehole Diameter: 8 1/4-inch
Drill Method: Hollow Stem Auger
Drilled By: Eichelbergers, Inc.
Logged By: C. Illig

Well Diameter: 2-inch
Casing Length: 5 feet
Screen Length: 15 feet
Screen Slot Size: 0.010-inch

Surface Elevation: NA
Casing Elevation: NA
Depth to Water - Static: NA
Gauging Date: NA

* Sample Submitted for Laboratory Analysis

Letterle & Associates, Inc.
2022 Axemann Road, Suite 201
Bellefonte, Pennsylvania 16823

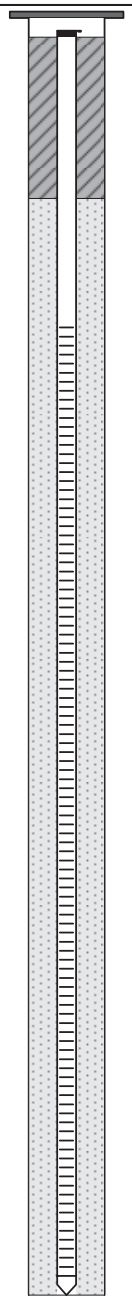
Project: Sohail's Store
Location: 835 S. Eisenhower Blvd., Middletown, PA 17057
Client: Sohail Riarh
Drill Date: May 26, 2020

Monitoring Well ***MW-5***

DEPTH (feet)	DESCRIPTION	SAMPLES Number	Type	Recovery	Blows (per 6-inches)	PID (ppm)
0	**Asphalt:** Gravel subbase					
2	**CL:** Tight silty clay, brown/red to gray, no odor/staining, dry	1	HSA			1.3
5	Clay, soft, brown/tan, slightly moist, odor					4.6
7		2	HSA			77.4
9	**SW:** Sand, mod, some gravel fragments, moist, tan/brown, odor					390.2
10	**CL:** Clay, tight, gray/orange, wet, odor					834.4
12		3	HSA			429.1
13	**SW:** Sand, wet					
14	**CL:** Sandy and silty clay, gray/brown					729.0
17		4	HSA			
20	Borehole Terminated @ 20'					

PID (ppm) scale: 0, 500, 1,000, 1,500, 2,000

WELL CONSTRUCTION DETAILS



Total Depth: 20 feet
Borehole Diameter: 8 1/4-inch
Drill Method: Hollow Stem Auger
Drilled By: Eichelbergers, Inc.
Logged By: C. Illig

Well Diameter: 2-inch
Casing Length: 5 feet
Screen Length: 15 feet
Screen Slot Size: 0.010-inch

Surface Elevation: NA
Casing Elevation: NA
Depth to Water - Static: NA
Gauging Date: NA

* Sample Submitted for Laboratory Analysis

Letterle & Associates, Inc.
2022 Axemann Road, Suite 201
Bellefonte, Pennsylvania 16823

Project: Sohail's Store
Location: 835 S. Eisenhower Blvd., Middletown, PA 17057
Client: Sohail Riarh
Drill Date: May 28, 2020

Monitoring Well ***MW-6***

DEPTH (feet)	DESCRIPTION	SAMPLES Number	Type	Recovery	Blows (per 6-inches)	PID (ppm) 0 500 1,000 1,500 2,000	WELL CONSTRUCTION DETAILS
0–1	**Asphalt:** Gravel subbase						Traffic Rated Steel Manhole Cover
2–7	**GW:** Silty clay, brown/orange, large cobbles, dry, no odor/staining	1	HSA				Bentonite Chip Seal; Schedule 40 PVC Casing
7–8		2	HSA				
8–20	**CL:** Silty clay, gray/brown, tight, slightly moist, no odor/staining	*3	HSA				8 1/4-inch Diameter Borehole; Sand Pack; Schedule 40 PVC Screen
15–20		4	HSA				Schedule 40 PVC End Cap
20	Borehole Terminated @ 20'						

Total Depth: 20 feet
Borehole Diameter: 8 1/4-inch
Drill Method: Hollow Stem Auger
Drilled By: Eichelbergers, Inc.
Logged By: C. Illig

Well Diameter: 2-inch
Casing Length: 5 feet
Screen Length: 15 feet
Screen Slot Size: 0.010-inch

Surface Elevation: NA
Casing Elevation: NA
Depth to Water - Static: NA
Gauging Date: NA

* Sample Submitted for Laboratory Analysis

Letterle & Associates, Inc.
2022 Axemann Road, Suite 201
Bellefonte, Pennsylvania 16823

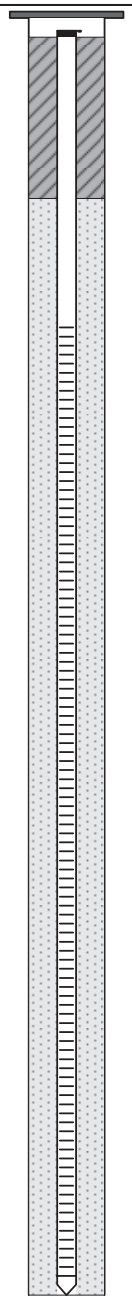
Project: Sohail's Store
Location: 835 S. Eisenhower Blvd., Middletown, PA 17057
Client: Sohail Riarh
Drill Date: August 31, 2020

Monitoring Well ***MW-7***

DEPTH (feet)	DESCRIPTION	SAMPLES Number	Type	Recovery	Blows (per 6-inches)	PID (ppm)
0	Grass, brown/tan silt and gravel, stiff					
1	**CL:** Slate fill, gray					
2		1	HC			0.0
3						
4	Brown silty clay, soft, roots					
5						0.0
6						
7		2	HSA			
8						
9						
10						0.1
11						
12		3	HSA			
13						
14						
15						0.1
16						
17		4	HSA			
18						
19						
20	Borehole Terminated @ 20'					0.3

PID (ppm) scale: 0, 500, 1,000, 1,500, 2,000

WELL CONSTRUCTION DETAILS



Total Depth: 20 feet
Borehole Diameter: 8 1/2-inch
Drill Method: Hollow Stem Auger
Drilled By: Eichelbergers, Inc.
Logged By: C. Illig

Well Diameter: 2-inch
Casing Length: 5 feet
Screen Length: 15 feet
Screen Slot Size: 0.010-inch

Surface Elevation: NA
Casing Elevation: NA
Depth to Water - Static: NA
Gauging Date: NA

* Sample Submitted for Laboratory Analysis

Letterle & Associates, Inc.
2022 Axemann Road, Suite 201
Bellefonte, Pennsylvania 16823

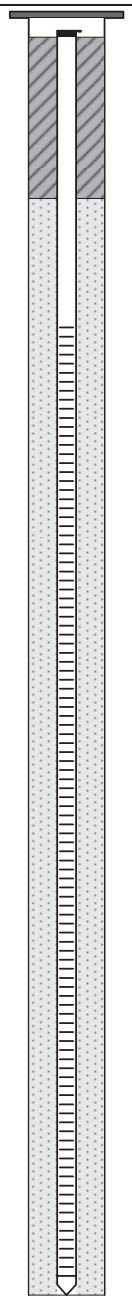
Project: Sohail's Store
Location: 835 S. Eisenhower Blvd., Middletown, PA 17057
Client: Sohail Riarh
Drill Date: August 31, 2020

Monitoring Well ***MW-8***

DEPTH (feet)	DESCRIPTION	SAMPLES Number	Type	Recovery	Blows (per 6-inches)	PID (ppm)
0	**Asphalt**					
1	**CL:** Rock subbase					
2	Clay and rock, tight, brown	1	HC			0.0
3	**Asphalt**					
4	**CL:** Brown silty clay					
5						0.1
6		2	HSA			
7						
8						
9						
10						0.0
11						
12		3	HSA			
13						
14						
15	Sandy clay, coarse, moist, gray/tan, no odor/staining					0.4
16						
17		4	HSA			
18						
19						
20	Borehole Terminated @ 20'					0.1

PID (ppm) scale: 0, 500, 1,000, 1,500, 2,000

WELL CONSTRUCTION DETAILS



Total Depth: 20 feet
Borehole Diameter: 8 1/2-inch
Drill Method: Hollow Stem Auger
Drilled By: Eichelbergers, Inc.
Logged By: C. Illig

Well Diameter: 2-inch
Casing Length: 5 feet
Screen Length: 15 feet
Screen Slot Size: 0.010-inch

Surface Elevation: NA
Casing Elevation: NA
Depth to Water - Static: NA
Gauging Date: NA

* Sample Submitted for Laboratory Analysis

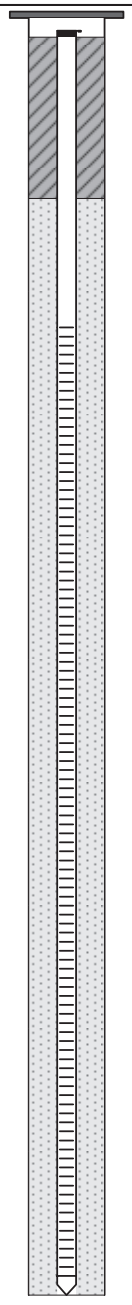
Letterle & Associates, Inc.
2022 Axemann Road, Suite 201
Bellefonte, Pennsylvania 16823

Project: Sohail's Store
Location: 835 S. Eisenhower Blvd., Middletown, PA 17057
Client: Sohail Riarh
Drill Date: September 1, 2020

Monitoring Well ***MW-9***

DEPTH (feet)	DESCRIPTION	SAMPLES Number	Type	Recovery	Blows (per 6-inches)	PID (ppm)
0	Grass/topsoil					
1						
2	**CL:** Brown silty clay, some large cobbles	1	HC			
3						
4						
5						0.1
6						
7		2	HSA			
8						
9						
10						0.3
11						
12		3	HSA			
13						
14	Silty clay, brown, moist, no odor/staining					
15						0.1
16						
17		4	HSA			
18						
19						
20	Borehole Terminated @ 20'					0.2

PID (ppm) scale: 0, 500, 1,000, 1,500, 2,000



Total Depth: 20 feet
Borehole Diameter: 8 1/2-inch
Drill Method: Hollow Stem Auger
Drilled By: Eichelbergers, Inc.
Logged By: C. Illig

Well Diameter: 2-inch
Casing Length: 5 feet
Screen Length: 15 feet
Screen Slot Size: 0.010-inch

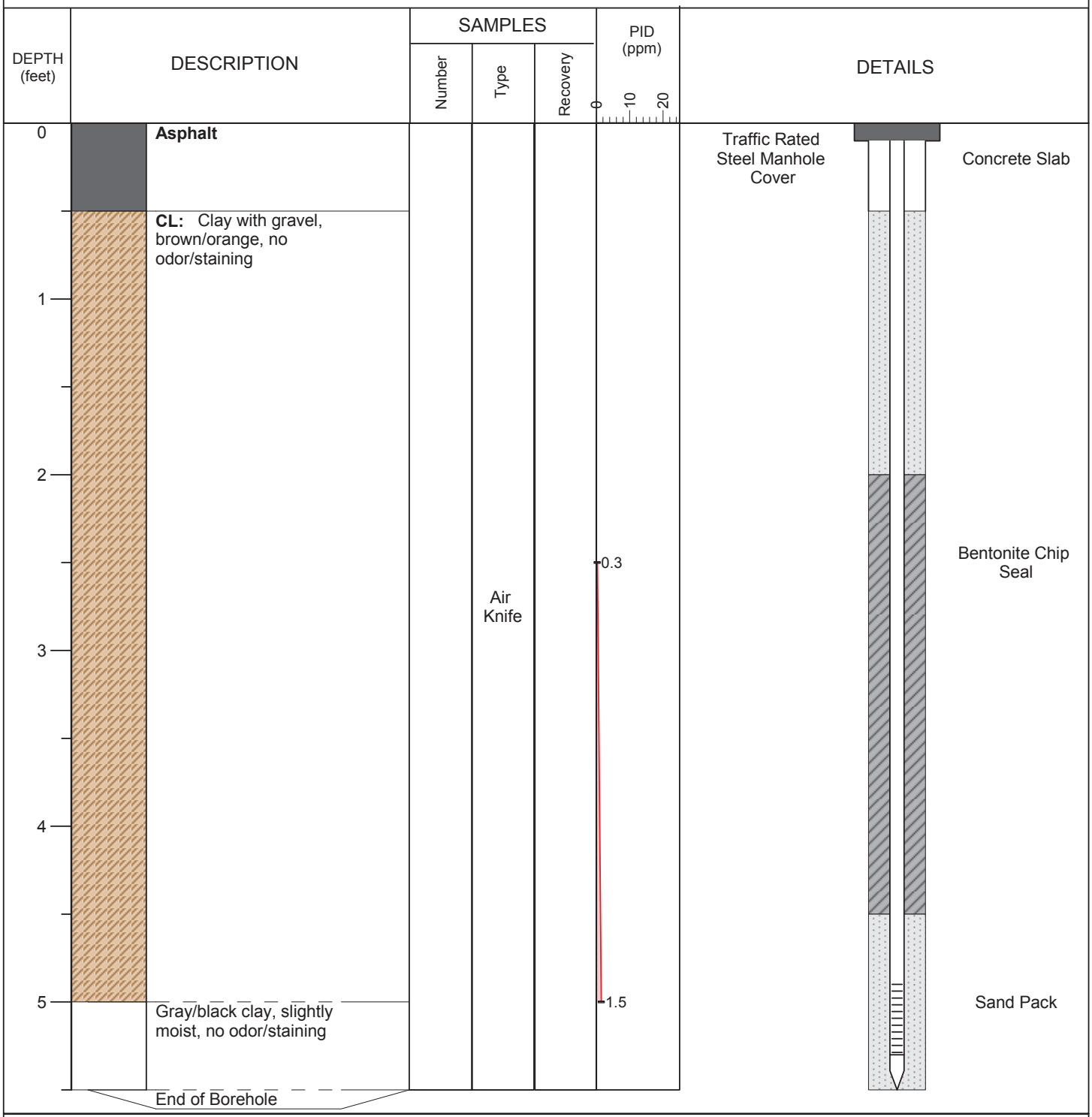
Surface Elevation: NA
Casing Elevation: NA
Depth to Water - Static: NA
Gauging Date: NA

* Sample Submitted for Laboratory Analysis

Letterle & Associates, Inc.
2022 Axemann Road, Suite 201
Bellefonte, Pennsylvania 16823

Project: Sohail's Store
Location: 835 S. Eisenhour Blvd., Middletown, PA 17057
Client: Sohail Riarh
Install Date: September 1, 2020

Soil Vapor Point
SVP-1



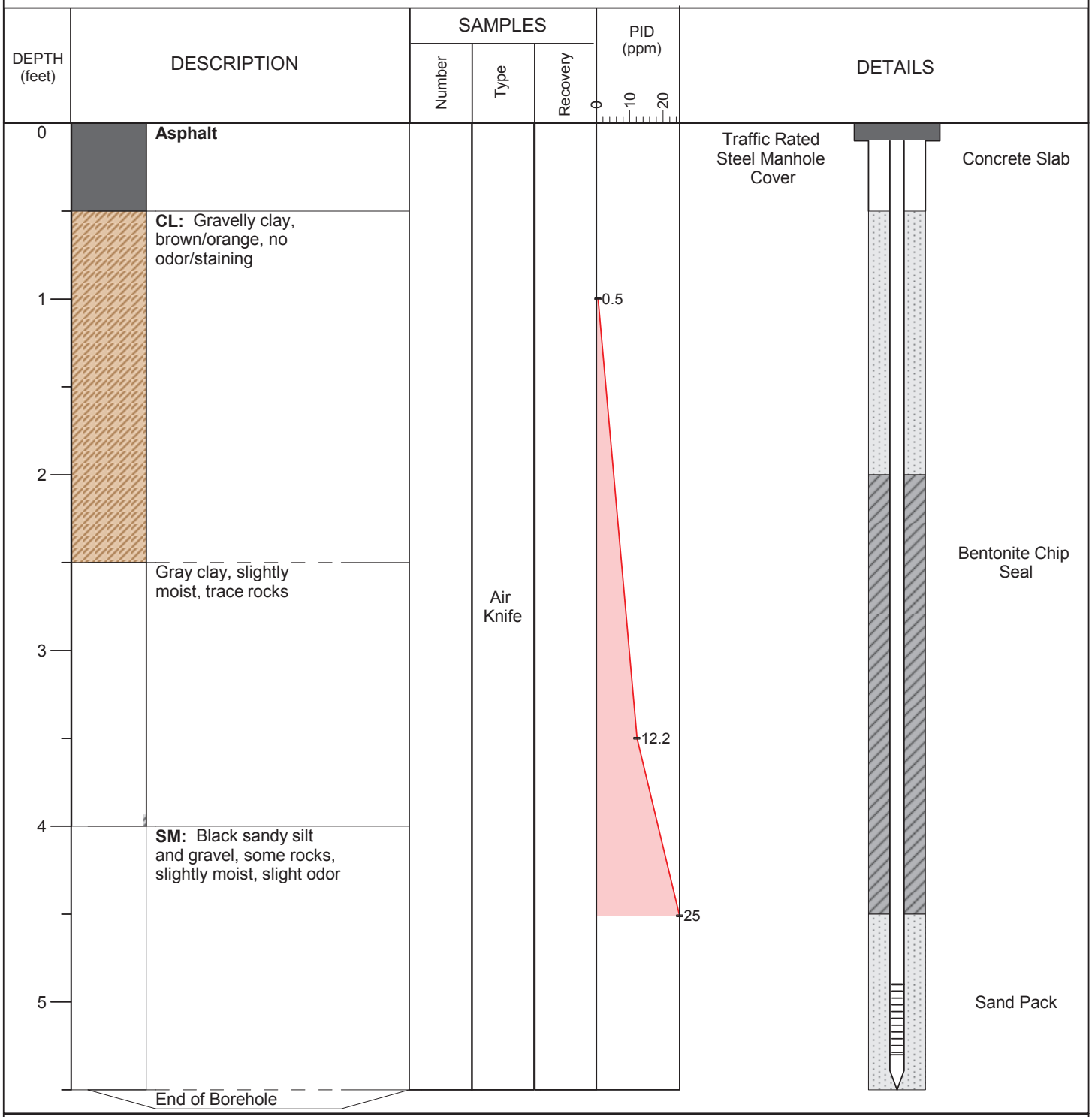
Total Depth: 5.5 feet
Borehole Diameter: 8-inch
Drill Method: Air Knife
Drilled By: Eichelberger, Inc.
Logged By: C. Illig

Casing Type: 1/4" Tubing
Casing Length: 4.9 feet
Screen Length: 6-inch
Screen Type: Stainless Steel Implant
Sand Size: #1

Letterle & Associates, Inc.
2022 Axemann Road, Suite 201
Bellefonte, Pennsylvania 16823

Project: Sohail's Store
Location: 835 S. Eisenhour Blvd., Middletown, PA 17057
Client: Sohail Riarh
Install Date: September 1, 2020

Soil Vapor Point
SVP-2



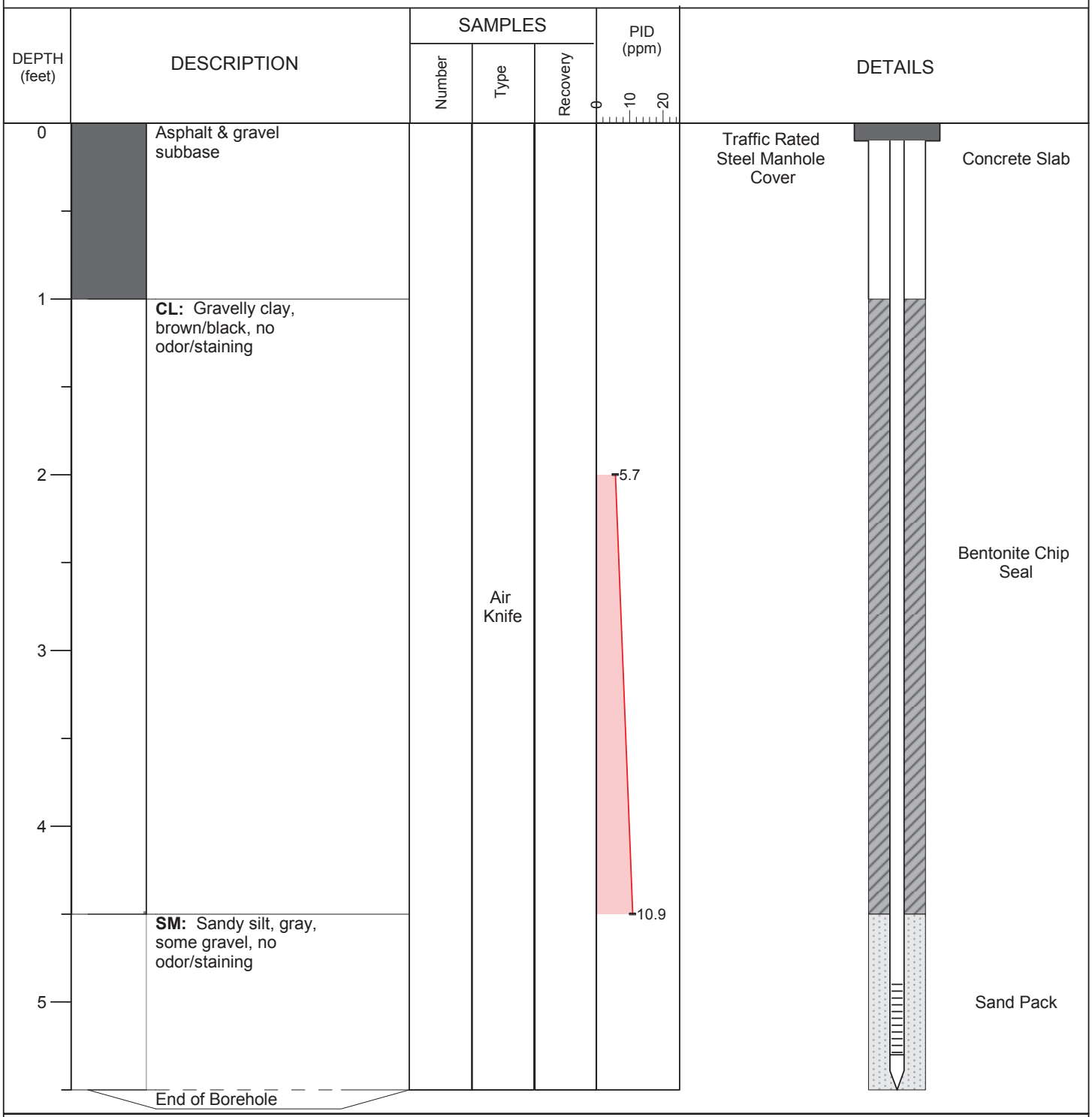
Total Depth: 5.5 feet
Borehole Diameter: 8-inch
Drill Method: Air Knife
Drilled By: Eichelberger, Inc.
Logged By: C. Illig

Casing Type: 1/4" Tubing
Casing Length: 4.9 feet
Screen Length: 6-inch
Screen Type: Stainless Steel Implant
Sand Size: #1

Letterle & Associates, Inc.
2022 Axemann Road, Suite 201
Bellefonte, Pennsylvania 16823

Project: Sohail's Store
Location: 835 S. Eisenhour Blvd., Middletown, PA 17057
Client: Sohail Riarh
Install Date: September 1, 2020

Soil Vapor Point
SVP-3



Total Depth: 5.5 feet
Borehole Diameter: 8-inch
Drill Method: Air Knife
Drilled By: Eichelberger, Inc.
Logged By: C. Illig

Casing Type: 1/4" Tubing
Casing Length: 4.9 feet
Screen Length: 6-inch
Screen Type: Stainless Steel Implant
Sand Size: #1

Appendix E

Waste Disposal Manifest

GemChem INC
ENVIRONMENTAL MANAGEMENT

53 N. Cedar Street Lititz, PA 17543
717-626-3900
www.gemchemsolutions.com

Non-Hazardous/Residual Waste Certificate of Disposal

Issued to: Letterle & Assoc., Inc. **Generator Name:** Sohail's Store (Zeek's Exxon)

Generator Address: 835 S Eisenhower Blvd, Middletown, PA 17057

Waste Description: (12) Drums of Soil/Rock Cuttings

And Shipped to GemChem, Inc. on: July 29th, 2020

on Non-Hazardous Waste Manifest(s) No. 072920SS-L

has been disposed of in accordance with the PA Solid Waste Management Act.

August 10th, 2020
Date

Gordon Young, President

Please print or type
(Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
N / A	1	717-587-7850	072920SS - L

5. Generator's Name and Mailing Address
Sohails Store (Zeeks Exxon)
835 S. Eisenhower Blvd
Middletown PA 17057
Generator's Phone: 814 355-2241

Att: Jed Hill, Letterle
Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name
GemChem, Inc.
U.S. EPA ID Number: PAD009439662

7. Transporter 2 Company Name
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
GemChem, Inc.
53 North Cedar Street
Lititz PA 17543
Facility's Phone: 717 626-3900
U.S. EPA ID Number: PAD009439662

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
GENERATOR	1 Non-Regulated Material, N.O.S. (Soil Cuttings)	12	DM	6000	P	
	2.					
	3.					
	4.					

13. Special Handling Instructions and Additional Information
1) Non-RCRA/Non-DOT Regulated Waste Billing/Contact: Jed Hill, Letterle
Generator: RR Corporation

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Jed Hill signing for Mr. Sohail Riarh
Signature:
Month: 07 Day: 23 Year: 20

INT'L
15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER
16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Chris Miller
Signature:
Month: 07 Day: 29 Year: 20

Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY
17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Suzie Young
Signature:
Month: 7 Day: 29 Year: 20

GC Labels • Printed in the USA
1-800-997-6966

DESIGNATED FACILITY TO GENERATOR

Reorder Part# MANIFEST-C6NHWC
913-897-6966

Appendix F

Soil, Groundwater, and Soil Gas Analytical Laboratory Reports

2019 Ninth Avenue
PO Box 1925
Altoona, PA 16603
(814) 946-4306

NELAP: PA 07-062, VA 460212
State Certifications: MD 275, WV 364

FAIRWAY LABORATORIES
www.fairwaylaboratories.com

Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 88

Reported:
06/11/20 09:39

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Sample Type	Date Sampled	Date Received
SB-1 12-13'	0E29130-01	Solid	Grab	05/26/20 10:00	05/29/20 14:35
SB-1 17-18'	0E29130-02	Solid	Grab	05/26/20 10:05	05/29/20 14:35
SB-2 9-10'	0E29130-03	Solid	Grab	05/26/20 10:10	05/29/20 14:35
SB-2 14-15'	0E29130-04	Solid	Grab	05/26/20 10:15	05/29/20 14:35
SB-3 14-15'	0E29130-05	Solid	Grab	05/26/20 10:40	05/29/20 14:35
SB-3 18-19'	0E29130-06	Solid	Grab	05/26/20 10:45	05/29/20 14:35
SB-4 9-10'	0E29130-07	Solid	Grab	05/26/20 11:09	05/29/20 14:35
SB-4 14-15'	0E29130-08	Solid	Grab	05/26/20 11:17	05/29/20 14:35
SB-5 9-10'	0E29130-09	Solid	Grab	05/26/20 11:45	05/29/20 14:35
SB-6 14-15'	0E29130-10	Solid	Grab	05/26/20 12:05	05/29/20 14:35
SB-7 9-10'	0E29130-11	Solid	Grab	05/26/20 13:40	05/29/20 14:35
SB-7 14-15'	0E29130-12	Solid	Grab	05/26/20 13:47	05/29/20 14:35
SB-8 13-14'	0E29130-13	Solid	Grab	05/26/20 14:20	05/29/20 14:35
SB-9 11-12'	0E29130-14	Solid	Grab	05/26/20 14:50	05/29/20 14:35
SB-9 14-15'	0E29130-15	Solid	Grab	05/26/20 14:55	05/29/20 14:35
SB-10 15-20'	0E29130-16	Solid	Grab	05/26/20 15:52	05/29/20 14:35
SB-11 4-5'	0E29130-17	Solid	Grab	05/27/20 11:48	05/29/20 14:35
SB-12 10-11'	0E29130-18	Solid	Grab	05/28/20 11:33	05/29/20 14:35
SB-13 7-8'	0E29130-19	Solid	Grab	05/28/20 11:47	05/29/20 14:35
SB-14 4-5'	0E29130-20	Solid	Grab	05/28/20 12:35	05/29/20 14:35
SB-15 13-14'	0E29130-21	Solid	Grab	05/28/20 16:05	05/29/20 14:35
SB-16 9-10'	0E29130-22	Solid	Grab	05/28/20 16:25	05/29/20 14:35

Fairway Laboratories, Inc.

Reviewed and Submitted by:

Michael P. Tyler
Laboratory Director

Fairway Labs in Altoona, PA is a NELAP (National Environmental Laboratory Accreditation Program) accredited lab, and as such, certifies that all applicable test results meet the requirements of NELAP, unless otherwise stated on the analytical report.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 88

Reported:
06/11/20 09:39

Client Sample ID: **SB-1 12-13'**

Date/Time Sampled: 05/26/20 10:00

Laboratory Sample ID: **0E29130-01 (Solid/Grab)**

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Conventional Chemistry Parameters by SM/EPA Methods								
% Solids	80.0		0.100	%	05/30/20 16:00	SM 2540 G-11	EEV	
Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035								I5
1,3,5-Trimethylbenzene	52.1		9.42	mg/kg dry	06/03/20 19:03	EPA 8260B	mtc	
1,2,4-Trimethylbenzene	183		9.42	mg/kg dry	06/03/20 19:03	EPA 8260B	mtc	
Benzene	<0.188		0.188	mg/kg dry	06/03/20 02:46	EPA 8260B	mtc	
Toluene	<0.471		0.471	mg/kg dry	06/03/20 02:46	EPA 8260B	mtc	
Ethylbenzene	10.7		9.42	mg/kg dry	06/03/20 19:03	EPA 8260B	mtc	
Xylenes (total)	22.5		18.8	mg/kg dry	06/03/20 19:03	EPA 8260B	mtc	
Isopropylbenzene	6.20		0.471	mg/kg dry	06/03/20 02:46	EPA 8260B	mtc	
Methyl tert-butyl ether	<0.471		0.471	mg/kg dry	06/03/20 02:46	EPA 8260B	mtc	
Naphthalene	30.0		9.42	mg/kg dry	06/03/20 19:03	EPA 8260B	mtc	
Surrogate: 4-Bromofluorobenzene		*103 %*	*70-130*		*06/03/20 02:46*	*EPA 8260B*	mtc	
Surrogate: 1,2-Dichloroethane-d4		*88 %*	*70-130*		*06/03/20 02:46*	*EPA 8260B*	mtc	
Surrogate: Fluorobenzene		*96 %*	*70-130*		*06/03/20 02:46*	*EPA 8260B*	mtc	

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2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 88

Reported: 06/11/20 09:39

Client Sample ID: SB-1 17-18'

Date/Time Sampled: 05/26/20 10:05

Laboratory Sample ID: 0E29130-02 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Conventional Chemistry Parameters by SM/EPA Methods								
% Solids	81.0		0.100	%	05/30/20 16:00	SM 2540 G-11	EEV	
Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035								I5
1,3,5-Trimethylbenzene	70.6		11.3	mg/kg dry	06/03/20 19:43	EPA 8260B	mtc	
1,2,4-Trimethylbenzene	207		11.3	mg/kg dry	06/03/20 19:43	EPA 8260B	mtc	
Benzene	0.578		0.181	mg/kg dry	06/03/20 03:14	EPA 8260B	mtc	
Toluene	<0.452		0.452	mg/kg dry	06/03/20 03:14	EPA 8260B	mtc	
Ethylbenzene	48.7		11.3	mg/kg dry	06/03/20 19:43	EPA 8260B	mtc	
Xylenes (total)	204		22.6	mg/kg dry	06/03/20 19:43	EPA 8260B	mtc	
Isopropylbenzene	8.93		0.452	mg/kg dry	06/03/20 03:14	EPA 8260B	mtc	
Methyl tert-butyl ether	<0.452		0.452	mg/kg dry	06/03/20 03:14	EPA 8260B	mtc	
Naphthalene	20.8		11.3	mg/kg dry	06/03/20 19:43	EPA 8260B	mtc	
Surrogate: 4-Bromofluorobenzene		*101 %*	*70-130*		*06/03/20 03:14*	*EPA 8260B*	mtc	
Surrogate: 1,2-Dichloroethane-d4		*84 %*	*70-130*		*06/03/20 03:14*	*EPA 8260B*	mtc	
Surrogate: Fluorobenzene		*93 %*	*70-130*		*06/03/20 03:14*	*EPA 8260B*	mtc	

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2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 88

Reported:
06/11/20 09:39

Client Sample ID: SB-2 9-10'

Date/Time Sampled: 05/26/20 10:10

Laboratory Sample ID: 0E29130-03 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Conventional Chemistry Parameters by SM/EPA Methods								
% Solids	86.1		0.100	%	05/30/20 16:00	SM 2540 G-11	EEV	
Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035								
1,3,5-Trimethylbenzene	<0.495		0.495	mg/kg dry	06/04/20 06:01	EPA 8260B	mtc	
1,2,4-Trimethylbenzene	<0.495		0.495	mg/kg dry	06/04/20 06:01	EPA 8260B	mtc	
Benzene	<0.198		0.198	mg/kg dry	06/04/20 06:01	EPA 8260B	mtc	
Toluene	<0.495		0.495	mg/kg dry	06/04/20 06:01	EPA 8260B	mtc	
Ethylbenzene	<0.495		0.495	mg/kg dry	06/04/20 06:01	EPA 8260B	mtc	
Xylenes (total)	<0.989		0.989	mg/kg dry	06/04/20 06:01	EPA 8260B	mtc	
Isopropylbenzene	<0.495		0.495	mg/kg dry	06/04/20 06:01	EPA 8260B	mtc	
Methyl tert-butyl ether	<0.495		0.495	mg/kg dry	06/04/20 06:01	EPA 8260B	mtc	
Naphthalene	<0.495		0.495	mg/kg dry	06/04/20 06:01	EPA 8260B	mtc	
Surrogate: 4-Bromofluorobenzene		*94 %*	*70-130*		*06/04/20 06:01*	*EPA 8260B*	mtc	
Surrogate: 1,2-Dichloroethane-d4		*80 %*	*70-130*		*06/04/20 06:01*	*EPA 8260B*	mtc	
Surrogate: Fluorobenzene		*92 %*	*70-130*		*06/04/20 06:01*	*EPA 8260B*	mtc	

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Project Manager: Jed Hill

Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 88

Reported:
06/11/20 09:39

Client Sample ID: SB-2 14-15'

Date/Time Sampled: 05/26/20 10:15

Laboratory Sample ID: 0E29130-04 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Conventional Chemistry Parameters by SM/EPA Methods								
% Solids	87.7		0.100	%	05/30/20 16:00	SM 2540 G-11	EEV	
Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035								I5
1,3,5-Trimethylbenzene	<0.344		0.344	mg/kg dry	06/04/20 06:29	EPA 8260B	mtc	
1,2,4-Trimethylbenzene	0.344		0.344	mg/kg dry	06/04/20 06:29	EPA 8260B	mtc	
Benzene	<0.138		0.138	mg/kg dry	06/04/20 06:29	EPA 8260B	mtc	
Toluene	<0.344		0.344	mg/kg dry	06/04/20 06:29	EPA 8260B	mtc	
Ethylbenzene	<0.344		0.344	mg/kg dry	06/04/20 06:29	EPA 8260B	mtc	
Xylenes (total)	<0.689		0.689	mg/kg dry	06/04/20 06:29	EPA 8260B	mtc	
Isopropylbenzene	<0.344		0.344	mg/kg dry	06/04/20 06:29	EPA 8260B	mtc	
Methyl tert-butyl ether	<0.344		0.344	mg/kg dry	06/04/20 06:29	EPA 8260B	mtc	
Naphthalene	<0.344		0.344	mg/kg dry	06/04/20 06:29	EPA 8260B	mtc	
Surrogate: 4-Bromofluorobenzene		*91 %*	*70-130*		*06/04/20 06:29*	*EPA 8260B*	mtc	
Surrogate: 1,2-Dichloroethane-d4		*77 %*	*70-130*		*06/04/20 06:29*	*EPA 8260B*	mtc	
Surrogate: Fluorobenzene		*88 %*	*70-130*		*06/04/20 06:29*	*EPA 8260B*	mtc	

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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 88

Reported: 06/11/20 09:39

Client Sample ID: SB-3 14-15'

Date/Time Sampled: 05/26/20 10:40

Laboratory Sample ID: 0E29130-05 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Conventional Chemistry Parameters by SM/EPA Methods								
% Solids	70.8		0.100	%	05/30/20 16:00	SM 2540 G-11	EEV	
Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035								I5
1,3,5-Trimethylbenzene	<0.485		0.485	mg/kg dry	06/04/20 06:57	EPA 8260B	mtc	
1,2,4-Trimethylbenzene	0.816		0.485	mg/kg dry	06/04/20 06:57	EPA 8260B	mtc	
Benzene	<0.194		0.194	mg/kg dry	06/04/20 06:57	EPA 8260B	mtc	
Toluene	<0.485		0.485	mg/kg dry	06/04/20 06:57	EPA 8260B	mtc	
Ethylbenzene	<0.485		0.485	mg/kg dry	06/04/20 06:57	EPA 8260B	mtc	
Xylenes (total)	<0.969		0.969	mg/kg dry	06/04/20 06:57	EPA 8260B	mtc	
Isopropylbenzene	<0.485		0.485	mg/kg dry	06/04/20 06:57	EPA 8260B	mtc	
Methyl tert-butyl ether	<0.485		0.485	mg/kg dry	06/04/20 06:57	EPA 8260B	mtc	
Naphthalene	<0.485		0.485	mg/kg dry	06/04/20 06:57	EPA 8260B	mtc	
Surrogate: 4-Bromofluorobenzene		*98 %*	*70-130*		*06/04/20 06:57*	*EPA 8260B*	mtc	
Surrogate: 1,2-Dichloroethane-d4		*82 %*	*70-130*		*06/04/20 06:57*	*EPA 8260B*	mtc	
Surrogate: Fluorobenzene		*91 %*	*70-130*		*06/04/20 06:57*	*EPA 8260B*	mtc	

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Project Manager: Jed Hill

Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 88

Reported:
06/11/20 09:39

Client Sample ID: **SB-3 18-19'**

Date/Time Sampled: 05/26/20 10:45

Laboratory Sample ID: **0E29130-06 (Solid/Grab)**

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Conventional Chemistry Parameters by SM/EPA Methods								
% Solids	79.5		0.100	%	05/30/20 16:00	SM 2540 G-11	EEV	
Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035								
1,3,5-Trimethylbenzene	78.6		17.7	mg/kg dry	06/08/20 22:19	EPA 8260B	mtc	
1,2,4-Trimethylbenzene	247		17.7	mg/kg dry	06/08/20 22:19	EPA 8260B	mtc	
Benzene	<0.283		0.283	mg/kg dry	06/04/20 07:24	EPA 8260B	mtc	
Toluene	<0.708		0.708	mg/kg dry	06/04/20 07:24	EPA 8260B	mtc	
Ethylbenzene	58.1		17.7	mg/kg dry	06/08/20 22:19	EPA 8260B	mtc	
Xylenes (total)	156		35.4	mg/kg dry	06/08/20 22:19	EPA 8260B	mtc	
Isopropylbenzene	12.2		0.708	mg/kg dry	06/04/20 07:24	EPA 8260B	mtc	
Methyl tert-butyl ether	<0.708		0.708	mg/kg dry	06/04/20 07:24	EPA 8260B	mtc	
Naphthalene	32.9		17.7	mg/kg dry	06/08/20 22:19	EPA 8260B	mtc	
Surrogate: 4-Bromofluorobenzene		*104 %*	*70-130*		*06/04/20 07:24*	*EPA 8260B*	mtc	
Surrogate: 1,2-Dichloroethane-d4		*80 %*	*70-130*		*06/04/20 07:24*	*EPA 8260B*	mtc	
Surrogate: Fluorobenzene		*90 %*	*70-130*		*06/04/20 07:24*	*EPA 8260B*	mtc	

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2022 Axemann Road Suite 201
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Project Manager: Jed Hill

Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 88

Reported: 06/11/20 09:39

Client Sample ID: SB-4 9-10'

Date/Time Sampled: 05/26/20 11:09

Laboratory Sample ID: 0E29130-07 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Conventional Chemistry Parameters by SM/EPA Methods								
% Solids	89.7		0.100	%	05/30/20 16:00	SM 2540 G-11	EEV	
Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035								I5
1,3,5-Trimethylbenzene	1.51		0.344	mg/kg dry	06/04/20 07:52	EPA 8260B	mtc	
1,2,4-Trimethylbenzene	12.2		3.44	mg/kg dry	06/08/20 22:47	EPA 8260B	mtc	
Benzene	<0.137		0.137	mg/kg dry	06/04/20 07:52	EPA 8260B	mtc	
Toluene	<0.344		0.344	mg/kg dry	06/04/20 07:52	EPA 8260B	mtc	
Ethylbenzene	6.41		0.344	mg/kg dry	06/04/20 07:52	EPA 8260B	mtc	
Xylenes (total)	1.65		0.687	mg/kg dry	06/04/20 07:52	EPA 8260B	mtc	
Isopropylbenzene	3.15		0.344	mg/kg dry	06/04/20 07:52	EPA 8260B	mtc	
Methyl tert-butyl ether	<0.344		0.344	mg/kg dry	06/04/20 07:52	EPA 8260B	mtc	
Naphthalene	10.7		3.44	mg/kg dry	06/08/20 22:47	EPA 8260B	mtc	
Surrogate: 4-Bromofluorobenzene		*103 %*	*70-130*		*06/04/20 07:52*	*EPA 8260B*	mtc	
Surrogate: 1,2-Dichloroethane-d4		*82 %*	*70-130*		*06/04/20 07:52*	*EPA 8260B*	mtc	
Surrogate: Fluorobenzene		*92 %*	*70-130*		*06/04/20 07:52*	*EPA 8260B*	mtc	

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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 88

Reported:
06/11/20 09:39

Client Sample ID: **SB-4 14-15'**

Date/Time Sampled: 05/26/20 11:17

Laboratory Sample ID: **0E29130-08 (Solid/Grab)**

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Conventional Chemistry Parameters by SM/EPA Methods								
% Solids	83.6		0.100	%	05/30/20 16:00	SM 2540 G-11	EEV	
Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035								I5
1,3,5-Trimethylbenzene	74.7		11.3	mg/kg dry	06/08/20 23:15	EPA 8260B	mtc	
1,2,4-Trimethylbenzene	224		11.3	mg/kg dry	06/08/20 23:15	EPA 8260B	mtc	
Benzene	1.05		0.181	mg/kg dry	06/04/20 08:20	EPA 8260B	mtc	
Toluene	5.06		0.452	mg/kg dry	06/04/20 08:20	EPA 8260B	mtc	
Ethylbenzene	25.8		11.3	mg/kg dry	06/08/20 23:15	EPA 8260B	mtc	
Xylenes (total)	210		22.6	mg/kg dry	06/08/20 23:15	EPA 8260B	mtc	
Isopropylbenzene	7.22		0.452	mg/kg dry	06/04/20 08:20	EPA 8260B	mtc	
Methyl tert-butyl ether	<0.452		0.452	mg/kg dry	06/04/20 08:20	EPA 8260B	mtc	
Naphthalene	27.3		11.3	mg/kg dry	06/08/20 23:15	EPA 8260B	mtc	
Surrogate: 4-Bromofluorobenzene		*106 %*	*70-130*		*06/04/20 08:20*	*EPA 8260B*	mtc	
Surrogate: 1,2-Dichloroethane-d4		*83 %*	*70-130*		*06/04/20 08:20*	*EPA 8260B*	mtc	
Surrogate: Fluorobenzene		*95 %*	*70-130*		*06/04/20 08:20*	*EPA 8260B*	mtc	

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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 88

Reported:
06/11/20 09:39

Client Sample ID: **SB-5 9-10'**

Date/Time Sampled: 05/26/20 11:45

Laboratory Sample ID: **0E29130-09 (Solid/Grab)**

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Conventional Chemistry Parameters by SM/EPA Methods								
% Solids	79.0		0.100	%	05/30/20 16:00	SM 2540 G-11	EEV	
Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035								
1,3,5-Trimethylbenzene	66.9		10.0	mg/kg dry	06/08/20 23:42	EPA 8260B	mtc	
1,2,4-Trimethylbenzene	3.26		0.502	mg/kg dry	06/04/20 08:48	EPA 8260B	mtc	
Benzene	<0.201		0.201	mg/kg dry	06/04/20 08:48	EPA 8260B	mtc	
Toluene	<0.502		0.502	mg/kg dry	06/04/20 08:48	EPA 8260B	mtc	
Ethylbenzene	21.7		10.0	mg/kg dry	06/08/20 23:42	EPA 8260B	mtc	
Xylenes (total)	1.13		1.00	mg/kg dry	06/04/20 08:48	EPA 8260B	mtc	
Isopropylbenzene	28.4		10.0	mg/kg dry	06/08/20 23:42	EPA 8260B	mtc	
Methyl tert-butyl ether	<0.502		0.502	mg/kg dry	06/04/20 08:48	EPA 8260B	mtc	
Naphthalene	21.4		10.0	mg/kg dry	06/08/20 23:42	EPA 8260B	mtc	
Surrogate: 4-Bromofluorobenzene		*126 %*	*70-130*		*06/04/20 08:48*	*EPA 8260B*	mtc	
Surrogate: 1,2-Dichloroethane-d4		*85 %*	*70-130*		*06/04/20 08:48*	*EPA 8260B*	mtc	
Surrogate: Fluorobenzene		*94 %*	*70-130*		*06/04/20 08:48*	*EPA 8260B*	mtc	

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Project Manager: Jed Hill

Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 88

Reported: 06/11/20 09:39

Client Sample ID: SB-6 14-15'

Date/Time Sampled: 05/26/20 12:05

Laboratory Sample ID: 0E29130-10 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Conventional Chemistry Parameters by SM/EPA Methods								
% Solids	81.0		0.100	%	05/30/20 16:00	SM 2540 G-11	EEV	
Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035								
1,3,5-Trimethylbenzene	<0.483		0.483	mg/kg dry	06/04/20 09:16	EPA 8260B	mtc	
1,2,4-Trimethylbenzene	<0.483		0.483	mg/kg dry	06/04/20 09:16	EPA 8260B	mtc	
Benzene	0.627		0.193	mg/kg dry	06/04/20 09:16	EPA 8260B	mtc	
Toluene	<0.483		0.483	mg/kg dry	06/04/20 09:16	EPA 8260B	mtc	
Ethylbenzene	2.10		0.483	mg/kg dry	06/04/20 09:16	EPA 8260B	mtc	
Xylenes (total)	2.67		0.967	mg/kg dry	06/04/20 09:16	EPA 8260B	mtc	
Isopropylbenzene	3.49		0.483	mg/kg dry	06/04/20 09:16	EPA 8260B	mtc	
Methyl tert-butyl ether	<0.483		0.483	mg/kg dry	06/04/20 09:16	EPA 8260B	mtc	
Naphthalene	1.63		0.483	mg/kg dry	06/04/20 09:16	EPA 8260B	mtc	
Surrogate: 4-Bromofluorobenzene		*105 %*	*70-130*		*06/04/20 09:16*	*EPA 8260B*	mtc	
Surrogate: 1,2-Dichloroethane-d4		*84 %*	*70-130*		*06/04/20 09:16*	*EPA 8260B*	mtc	
Surrogate: Fluorobenzene		*93 %*	*70-130*		*06/04/20 09:16*	*EPA 8260B*	mtc	

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Project Manager: Jed Hill

Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 88

Reported:
06/11/20 09:39

Client Sample ID: SB-7 9-10'

Date/Time Sampled: 05/26/20 13:40

Laboratory Sample ID: 0E29130-11 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Conventional Chemistry Parameters by SM/EPA Methods								
% Solids	87.6		0.100	%	05/30/20 16:00	SM 2540 G-11	EEV	
Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035								I5
1,3,5-Trimethylbenzene	<0.0032		0.0032	mg/kg dry	06/03/20 23:04	EPA 8260B	mtc	
1,2,4-Trimethylbenzene	0.0042		0.0032	mg/kg dry	06/03/20 23:04	EPA 8260B	mtc	
Benzene	0.0014		0.0013	mg/kg dry	06/03/20 23:04	EPA 8260B	mtc	
Toluene	<0.0032		0.0032	mg/kg dry	06/03/20 23:04	EPA 8260B	mtc	
Ethylbenzene	<0.0032		0.0032	mg/kg dry	06/03/20 23:04	EPA 8260B	mtc	
Xylenes (total)	<0.0064		0.0064	mg/kg dry	06/03/20 23:04	EPA 8260B	mtc	
Isopropylbenzene	<0.0032		0.0032	mg/kg dry	06/03/20 23:04	EPA 8260B	mtc	
Methyl tert-butyl ether	<0.0032		0.0032	mg/kg dry	06/03/20 23:04	EPA 8260B	mtc	
Naphthalene	0.0042		0.0032	mg/kg dry	06/03/20 23:04	EPA 8260B	mtc	
Surrogate: 4-Bromofluorobenzene		*95 %*	*70-130*		*06/03/20 23:04*	*EPA 8260B*	mtc	
Surrogate: 1,2-Dichloroethane-d4		*91 %*	*70-130*		*06/03/20 23:04*	*EPA 8260B*	mtc	
Surrogate: Fluorobenzene		*91 %*	*70-130*		*06/03/20 23:04*	*EPA 8260B*	mtc	

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Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 88

Reported: 06/11/20 09:39

Client Sample ID: SB-7 14-15'

Date/Time Sampled: 05/26/20 13:47

Laboratory Sample ID: 0E29130-12 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Conventional Chemistry Parameters by SM/EPA Methods								
% Solids	75.7		0.100	%	05/30/20 16:00	SM 2540 G-11	EEV	
Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035								I5
1,3,5-Trimethylbenzene	<0.404		0.404	mg/kg dry	06/04/20 09:45	EPA 8260B	mtc	
1,2,4-Trimethylbenzene	<0.404		0.404	mg/kg dry	06/04/20 09:45	EPA 8260B	mtc	
Benzene	<0.161		0.161	mg/kg dry	06/04/20 09:45	EPA 8260B	mtc	
Toluene	<0.404		0.404	mg/kg dry	06/04/20 09:45	EPA 8260B	mtc	
Ethylbenzene	<0.404		0.404	mg/kg dry	06/04/20 09:45	EPA 8260B	mtc	
Xylenes (total)	<0.807		0.807	mg/kg dry	06/04/20 09:45	EPA 8260B	mtc	
Isopropylbenzene	0.625		0.404	mg/kg dry	06/04/20 09:45	EPA 8260B	mtc	
Methyl tert-butyl ether	<0.404		0.404	mg/kg dry	06/04/20 09:45	EPA 8260B	mtc	
Naphthalene	<0.404		0.404	mg/kg dry	06/04/20 09:45	EPA 8260B	mtc	
Surrogate: 4-Bromofluorobenzene		*102 %*	*70-130*		*06/04/20 09:45*	*EPA 8260B*	mtc	
Surrogate: 1,2-Dichloroethane-d4		*81 %*	*70-130*		*06/04/20 09:45*	*EPA 8260B*	mtc	
Surrogate: Fluorobenzene		*94 %*	*70-130*		*06/04/20 09:45*	*EPA 8260B*	mtc	

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Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 88

Reported:
06/11/20 09:39

Client Sample ID: SB-8 13-14'

Date/Time Sampled: 05/26/20 14:20

Laboratory Sample ID: 0E29130-13 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Conventional Chemistry Parameters by SM/EPA Methods								
% Solids	75.0		0.100	%	05/30/20 16:00	SM 2540 G-11	EEV	
Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035								I5
1,3,5-Trimethylbenzene	0.804		0.435	mg/kg dry	06/04/20 10:13	EPA 8260B	mtc	
1,2,4-Trimethylbenzene	1.86		0.435	mg/kg dry	06/04/20 10:13	EPA 8260B	mtc	
Benzene	<0.174		0.174	mg/kg dry	06/04/20 10:13	EPA 8260B	mtc	
Toluene	<0.435		0.435	mg/kg dry	06/04/20 10:13	EPA 8260B	mtc	
Ethylbenzene	<0.435		0.435	mg/kg dry	06/04/20 10:13	EPA 8260B	mtc	
Xylenes (total)	<0.871		0.871	mg/kg dry	06/04/20 10:13	EPA 8260B	mtc	
Isopropylbenzene	<0.435		0.435	mg/kg dry	06/04/20 10:13	EPA 8260B	mtc	
Methyl tert-butyl ether	<0.435		0.435	mg/kg dry	06/04/20 10:13	EPA 8260B	mtc	
Naphthalene	<0.435		0.435	mg/kg dry	06/04/20 10:13	EPA 8260B	mtc	
Surrogate: 4-Bromofluorobenzene		*95 %*	*70-130*		*06/04/20 10:13*	*EPA 8260B*	mtc	
Surrogate: 1,2-Dichloroethane-d4		*81 %*	*70-130*		*06/04/20 10:13*	*EPA 8260B*	mtc	
Surrogate: Fluorobenzene		*92 %*	*70-130*		*06/04/20 10:13*	*EPA 8260B*	mtc	

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Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 88

Reported: 06/11/20 09:39

Client Sample ID: SB-9 11-12'

Date/Time Sampled: 05/26/20 14:50

Laboratory Sample ID: 0E29130-14 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Conventional Chemistry Parameters by SM/EPA Methods								
% Solids	80.9		0.100	%	05/30/20 16:00	SM 2540 G-11	EEV	
Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035								I5
1,3,5-Trimethylbenzene	9.13		3.91	mg/kg dry	06/09/20 00:10	EPA 8260B	mtc	
1,2,4-Trimethylbenzene	24.3		3.91	mg/kg dry	06/09/20 00:10	EPA 8260B	mtc	
Benzene	<0.156		0.156	mg/kg dry	06/04/20 10:41	EPA 8260B	mtc	
Toluene	<0.391		0.391	mg/kg dry	06/04/20 10:41	EPA 8260B	mtc	
Ethylbenzene	4.17		0.391	mg/kg dry	06/04/20 10:41	EPA 8260B	mtc	
Xylenes (total)	17.9		0.782	mg/kg dry	06/04/20 10:41	EPA 8260B	mtc	
Isopropylbenzene	1.13		0.391	mg/kg dry	06/04/20 10:41	EPA 8260B	mtc	
Methyl tert-butyl ether	<0.391		0.391	mg/kg dry	06/04/20 10:41	EPA 8260B	mtc	
Naphthalene	3.25		0.391	mg/kg dry	06/04/20 10:41	EPA 8260B	mtc	
Surrogate: 4-Bromofluorobenzene		*103 %*	*70-130*		*06/04/20 10:41*	*EPA 8260B*	mtc	
Surrogate: 1,2-Dichloroethane-d4		*82 %*	*70-130*		*06/04/20 10:41*	*EPA 8260B*	mtc	
Surrogate: Fluorobenzene		*93 %*	*70-130*		*06/04/20 10:41*	*EPA 8260B*	mtc	

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Project Manager: Jed Hill

Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 88

Reported:
06/11/20 09:39

Client Sample ID: **SB-9 14-15'**

Date/Time Sampled: 05/26/20 14:55

Laboratory Sample ID: **0E29130-15 (Solid/Grab)**

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Conventional Chemistry Parameters by SM/EPA Methods								
% Solids	76.7		0.100	%	05/30/20 16:00	SM 2540 G-11	EEV	
Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035								I5
1,3,5-Trimethylbenzene	36.4		12.2	mg/kg dry	06/09/20 00:38	EPA 8260B	mtc	
1,2,4-Trimethylbenzene	100		12.2	mg/kg dry	06/09/20 00:38	EPA 8260B	mtc	
Benzene	<0.195		0.195	mg/kg dry	06/04/20 11:09	EPA 8260B	mtc	
Toluene	2.19		0.486	mg/kg dry	06/04/20 11:09	EPA 8260B	mtc	
Ethylbenzene	13.6		12.2	mg/kg dry	06/09/20 00:38	EPA 8260B	mtc	
Xylenes (total)	123		24.3	mg/kg dry	06/09/20 00:38	EPA 8260B	mtc	
Isopropylbenzene	4.59		0.486	mg/kg dry	06/04/20 11:09	EPA 8260B	mtc	
Methyl tert-butyl ether	<0.486		0.486	mg/kg dry	06/04/20 11:09	EPA 8260B	mtc	
Naphthalene	17.3		12.2	mg/kg dry	06/09/20 00:38	EPA 8260B	mtc	
Surrogate: 4-Bromofluorobenzene		*108 %*	*70-130*		*06/04/20 11:09*	*EPA 8260B*	mtc	
Surrogate: 1,2-Dichloroethane-d4		*80 %*	*70-130*		*06/04/20 11:09*	*EPA 8260B*	mtc	
Surrogate: Fluorobenzene		*89 %*	*70-130*		*06/04/20 11:09*	*EPA 8260B*	mtc	

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Project Manager: Jed Hill

Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 88

Reported: 06/11/20 09:39

Client Sample ID: SB-10 15-20'

Date/Time Sampled: 05/26/20 15:52

Laboratory Sample ID: 0E29130-16 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Conventional Chemistry Parameters by SM/EPA Methods								
% Solids	74.3		0.100	%	05/30/20 16:00	SM 2540 G-11	EEV	
Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035								R
1,3,5-Trimethylbenzene	<0.486		0.486	mg/kg dry	06/06/20 03:29	EPA 8260B	mtc	
1,2,4-Trimethylbenzene	<0.486		0.486	mg/kg dry	06/06/20 03:29	EPA 8260B	mtc	
Benzene	<0.194		0.194	mg/kg dry	06/06/20 03:29	EPA 8260B	mtc	
Toluene	<0.486		0.486	mg/kg dry	06/06/20 03:29	EPA 8260B	mtc	
Ethylbenzene	<0.486		0.486	mg/kg dry	06/06/20 03:29	EPA 8260B	mtc	
Xylenes (total)	<0.972		0.972	mg/kg dry	06/06/20 03:29	EPA 8260B	mtc	
Isopropylbenzene	<0.486		0.486	mg/kg dry	06/06/20 03:29	EPA 8260B	mtc	
Methyl tert-butyl ether	<0.486		0.486	mg/kg dry	06/06/20 03:29	EPA 8260B	mtc	
Naphthalene	0.512		0.486	mg/kg dry	06/06/20 03:29	EPA 8260B	mtc	
Surrogate: 4-Bromofluorobenzene		*96 %*	*70-130*		*06/06/20 03:29*	*EPA 8260B*	mtc	
Surrogate: 1,2-Dichloroethane-d4		*74 %*	*70-130*		*06/06/20 03:29*	*EPA 8260B*	mtc	
Surrogate: Fluorobenzene		*86 %*	*70-130*		*06/06/20 03:29*	*EPA 8260B*	mtc	

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Project Manager: Jed Hill

Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 88

Reported:
06/11/20 09:39

Client Sample ID: SB-11 4-5'

Date/Time Sampled: 05/27/20 11:48

Laboratory Sample ID: 0E29130-17 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Conventional Chemistry Parameters by SM/EPA Methods								
% Solids	81.2		0.100	%	05/30/20 16:00	SM 2540 G-11	EEV	
Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035								
1,2,4-Trimethylbenzene	<0.577		0.577	mg/kg dry	06/05/20 15:50	EPA 8260B	mtc	
Isopropylbenzene	<0.577		0.577	mg/kg dry	06/05/20 15:50	EPA 8260B	mtc	
Naphthalene	1.02		0.577	mg/kg dry	06/05/20 15:50	EPA 8260B	mtc	
1,3,5-Trimethylbenzene	0.0178		0.0039	mg/kg dry	06/03/20 22:24	EPA 8260B	mtc	
Benzene	0.0443		0.0016	mg/kg dry	06/03/20 22:24	EPA 8260B	mtc	
Toluene	<0.0039		0.0039	mg/kg dry	06/03/20 22:24	EPA 8260B	mtc	
Ethylbenzene	0.0461		0.0039	mg/kg dry	06/03/20 22:24	EPA 8260B	mtc	
Xylenes (total)	0.0348		0.0078	mg/kg dry	06/03/20 22:24	EPA 8260B	mtc	
Methyl tert-butyl ether	<0.0039		0.0039	mg/kg dry	06/03/20 22:24	EPA 8260B	mtc	
Surrogate: 4-Bromofluorobenzene		*111 %*	*70-130*		*06/03/20 22:24*	*EPA 8260B*	mtc	
Surrogate: 1,2-Dichloroethane-d4		*89 %*	*70-130*		*06/03/20 22:24*	*EPA 8260B*	mtc	
Surrogate: Fluorobenzene		*91 %*	*70-130*		*06/03/20 22:24*	*EPA 8260B*	mtc	

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Project Manager: Jed Hill

Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 88

Reported:
06/11/20 09:39

Client Sample ID: **SB-12 10-11'**

Date/Time Sampled: 05/28/20 11:33

Laboratory Sample ID: **0E29130-18 (Solid/Grab)**

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Conventional Chemistry Parameters by SM/EPA Methods								
% Solids	87.8		0.100	%	06/04/20 16:00	SM 2540 G-11	EEV	
Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035								
1,3,5-Trimethylbenzene	<0.538		0.538	mg/kg dry	06/06/20 03:56	EPA 8260B	mtc	
1,2,4-Trimethylbenzene	<0.538		0.538	mg/kg dry	06/06/20 03:56	EPA 8260B	mtc	
Benzene	<0.215		0.215	mg/kg dry	06/06/20 03:56	EPA 8260B	mtc	
Toluene	<0.538		0.538	mg/kg dry	06/06/20 03:56	EPA 8260B	mtc	
Ethylbenzene	<0.538		0.538	mg/kg dry	06/06/20 03:56	EPA 8260B	mtc	
Xylenes (total)	<1.08		1.08	mg/kg dry	06/06/20 03:56	EPA 8260B	mtc	
Isopropylbenzene	<0.538		0.538	mg/kg dry	06/06/20 03:56	EPA 8260B	mtc	
Methyl tert-butyl ether	<0.538		0.538	mg/kg dry	06/06/20 03:56	EPA 8260B	mtc	
Naphthalene	<0.538		0.538	mg/kg dry	06/06/20 03:56	EPA 8260B	mtc	
Surrogate: 4-Bromofluorobenzene		*86 %*	*70-130*		*06/06/20 03:56*	*EPA 8260B*	mtc	
Surrogate: 1,2-Dichloroethane-d4		*71 %*	*70-130*		*06/06/20 03:56*	*EPA 8260B*	mtc	
Surrogate: Fluorobenzene		*86 %*	*70-130*		*06/06/20 03:56*	*EPA 8260B*	mtc	

2019 Ninth Avenue
PO Box 1925
Altoona, PA 16603
(814) 946-4306

NELAP: PA 07-062, VA 460212
State Certifications: MD 275, WV 364

FAIRWAY LABORATORIES
www.fairwaylaboratories.com

Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 88

Reported:
06/11/20 09:39

Client Sample ID: **SB-13 7-8'**

Date/Time Sampled: 05/28/20 11:47

Laboratory Sample ID: **0E29130-19 (Solid/Grab)**

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Conventional Chemistry Parameters by SM/EPA Methods								
% Solids	83.7		0.100	%	06/04/20 16:00	SM 2540 G-11	EEV	
Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035								I5
1,3,5-Trimethylbenzene	<0.442		0.442	mg/kg dry	06/06/20 04:24	EPA 8260B	mtc	
1,2,4-Trimethylbenzene	<0.442		0.442	mg/kg dry	06/06/20 04:24	EPA 8260B	mtc	
Benzene	<0.177		0.177	mg/kg dry	06/06/20 04:24	EPA 8260B	mtc	
Toluene	<0.442		0.442	mg/kg dry	06/06/20 04:24	EPA 8260B	mtc	
Ethylbenzene	<0.442		0.442	mg/kg dry	06/06/20 04:24	EPA 8260B	mtc	
Xylenes (total)	<0.884		0.884	mg/kg dry	06/06/20 04:24	EPA 8260B	mtc	
Isopropylbenzene	0.604		0.442	mg/kg dry	06/06/20 04:24	EPA 8260B	mtc	
Methyl tert-butyl ether	<0.442		0.442	mg/kg dry	06/06/20 04:24	EPA 8260B	mtc	
Naphthalene	<0.442		0.442	mg/kg dry	06/06/20 04:24	EPA 8260B	mtc	
Surrogate: 4-Bromofluorobenzene		*93 %*	*70-130*		*06/06/20 04:24*	*EPA 8260B*	mtc	
Surrogate: 1,2-Dichloroethane-d4		*72 %*	*70-130*		*06/06/20 04:24*	*EPA 8260B*	mtc	
Surrogate: Fluorobenzene		*85 %*	*70-130*		*06/06/20 04:24*	*EPA 8260B*	mtc	

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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 88

Reported: 06/11/20 09:39

Client Sample ID: SB-14 4-5'

Date/Time Sampled: 05/28/20 12:35

Laboratory Sample ID: 0E29130-20 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Conventional Chemistry Parameters by SM/EPA Methods								
% Solids	82.8		0.100	%	06/04/20 16:00	SM 2540 G-11	EEV	
Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035								I5
1,3,5-Trimethylbenzene	1.74		0.447	mg/kg dry	06/06/20 04:52	EPA 8260B	mtc	
1,2,4-Trimethylbenzene	1.95		0.447	mg/kg dry	06/06/20 04:52	EPA 8260B	mtc	
Benzene	<0.179		0.179	mg/kg dry	06/06/20 04:52	EPA 8260B	mtc	
Toluene	<0.447		0.447	mg/kg dry	06/06/20 04:52	EPA 8260B	mtc	
Ethylbenzene	<0.447		0.447	mg/kg dry	06/06/20 04:52	EPA 8260B	mtc	
Xylenes (total)	1.06		0.894	mg/kg dry	06/06/20 04:52	EPA 8260B	mtc	
Isopropylbenzene	<0.447		0.447	mg/kg dry	06/06/20 04:52	EPA 8260B	mtc	
Methyl tert-butyl ether	<0.447		0.447	mg/kg dry	06/06/20 04:52	EPA 8260B	mtc	
Naphthalene	<0.447		0.447	mg/kg dry	06/06/20 04:52	EPA 8260B	mtc	
Surrogate: 4-Bromofluorobenzene		*88 %*	*70-130*		*06/06/20 04:52*	*EPA 8260B*	mtc	
Surrogate: 1,2-Dichloroethane-d4		*72 %*	*70-130*		*06/06/20 04:52*	*EPA 8260B*	mtc	
Surrogate: Fluorobenzene		*89 %*	*70-130*		*06/06/20 04:52*	*EPA 8260B*	mtc	

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2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 88

Reported:
06/11/20 09:39

Client Sample ID: **SB-15 13-14'**

Date/Time Sampled: 05/28/20 16:05

Laboratory Sample ID: **0E29130-21 (Solid/Grab)**

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Conventional Chemistry Parameters by SM/EPA Methods								
% Solids	89.0		0.100	%	06/04/20 16:00	SM 2540 G-11	EEV	
Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035								I5
1,3,5-Trimethylbenzene	119		43.2	mg/kg dry	06/09/20 01:05	EPA 8260B	mtc	
1,2,4-Trimethylbenzene	378		43.2	mg/kg dry	06/09/20 01:05	EPA 8260B	mtc	
Benzene	<0.173		0.173	mg/kg dry	06/06/20 05:19	EPA 8260B	mtc	
Toluene	3.65		0.432	mg/kg dry	06/06/20 05:19	EPA 8260B	mtc	
Ethylbenzene	100		43.2	mg/kg dry	06/09/20 01:05	EPA 8260B	mtc	
Xylenes (total)	568		86.3	mg/kg dry	06/09/20 01:05	EPA 8260B	mtc	
Isopropylbenzene	19.0		4.32	mg/kg dry	06/06/20 05:47	EPA 8260B	mtc	
Methyl tert-butyl ether	<0.432		0.432	mg/kg dry	06/06/20 05:19	EPA 8260B	mtc	
Naphthalene	57.7		4.32	mg/kg dry	06/06/20 05:47	EPA 8260B	mtc	
Surrogate: 4-Bromofluorobenzene		*122 %*	*70-130*		*06/06/20 05:19*	*EPA 8260B*	mtc	
Surrogate: 1,2-Dichloroethane-d4		*76 %*	*70-130*		*06/06/20 05:19*	*EPA 8260B*	mtc	
Surrogate: Fluorobenzene		*88 %*	*70-130*		*06/06/20 05:19*	*EPA 8260B*	mtc	

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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 88

Reported: 06/11/20 09:39

Client Sample ID: SB-16 9-10'

Date/Time Sampled: 05/28/20 16:25

Laboratory Sample ID: 0E29130-22 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Conventional Chemistry Parameters by SM/EPA Methods								
% Solids	86.0		0.100	%	06/04/20 16:00	SM 2540 G-11	EEV	
Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035								
1,3,5-Trimethylbenzene	4.79		0.464	mg/kg dry	06/06/20 06:14	EPA 8260B	mtc	
1,2,4-Trimethylbenzene	16.4		4.64	mg/kg dry	06/09/20 01:33	EPA 8260B	mtc	
Benzene	0.357		0.186	mg/kg dry	06/06/20 06:14	EPA 8260B	mtc	
Toluene	<0.464		0.464	mg/kg dry	06/06/20 06:14	EPA 8260B	mtc	
Ethylbenzene	1.57		0.464	mg/kg dry	06/06/20 06:14	EPA 8260B	mtc	
Xylenes (total)	<0.929		0.929	mg/kg dry	06/06/20 06:14	EPA 8260B	mtc	
Isopropylbenzene	2.32		0.464	mg/kg dry	06/06/20 06:14	EPA 8260B	mtc	
Methyl tert-butyl ether	<0.464		0.464	mg/kg dry	06/06/20 06:14	EPA 8260B	mtc	
Naphthalene	4.48		0.464	mg/kg dry	06/06/20 06:14	EPA 8260B	mtc	
Surrogate: 4-Bromofluorobenzene		*100 %*	*70-130*		*06/06/20 06:14*	*EPA 8260B*	mtc	
Surrogate: 1,2-Dichloroethane-d4		*73 %*	*70-130*		*06/06/20 06:14*	*EPA 8260B*	mtc	
Surrogate: Fluorobenzene		*84 %*	*70-130*		*06/06/20 06:14*	*EPA 8260B*	mtc	

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Letterle & Associates Inc.	Project:	SOHAILS	
2022 Axemann Road Suite 201	Project Number:	[none]	**Reported:**
Bellefonte PA, 16823	Collector:	CLIENT	06/11/20 09:39
Project Manager: Jed Hill	Number of Containers:	88	

Notes

I5	The vial provided contained preservative for 5 grams of sample; however, the vial was received with greater than 130% of this amount of sample.
R	The result was above the calibration range for the noted analyte; therefore it is an estimated value.

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Letterle & Associates Inc.	Project:	SOHAILS	
2022 Axemann Road Suite 201	Project Number:	[none]	**Reported:**
Bellefonte PA, 16823	Collector:	CLIENT	06/11/20 09:39
Project Manager: Jed Hill	Number of Containers:	88	

Definitions:

If surrogate values are not within the indicated range, then the results are considered to be estimated.

Reporting limits are adjusted accordingly when samples are analyzed at a dilution due to the matrix.

MBAS, calculated as LAS, mol wt 348

If the solid sample weight for VOC analysis does not fall within the 3.5-6.5 gram range, the results are considered estimated values.

Unless otherwise noted, all results for solids are reported on a dry weight basis.

Samples collected by Fairway Laboratories' personnel are done so in accordance with Standard Operating Procedures established by Fairway Laboratories.

#	The following analyses are to be performed immediately upon sampling: pH, sulfite, chlorine residual, dissolved oxygen, filtration for ortho phosphorus, and ferrous iron. The date and time reported reflect the time the samples were analyzed at the laboratory; and should be considered as analyzed outside the EPA holding time.
^	The following analytes are to be filtered immediately upon sampling: Hexavalent Chromium. Filtration through a 0.45 micron filter within 15 minutes of sampling is required for compliance with the Clean Water Act (CWA) for reporting of hexavalent chromium to prevent interconversion of chromium species.
*	**Analysis location indicator:** **D**: Indicates analysis performed by Fairway Laboratories, Inc., 110 McCracken Run Rd., DuBois, PA 15801. PA DEP Chapter 252 certification: PA 33-00258. **E**: Indicates analysis performed by Fairway Laboratories, Inc., 1920 East 38th Street, Erie, PA 16510. PA Registered Laboratory: PA 25-05907. **G**: Indicates analysis performed by Fairway Laboratories, Inc., 4727 Route 30 Ste 204, Greensburg, PA 15601. PA DEP Chapter 252 certification: PA 65-00392. **P**: Indicates analysis performed by Fairway Laboratories, Inc., 89 Kristi Rd., Pennsdale, PA 17756. PA DEP Chapter 252 certification: PA 41-04684. **W**: Indicates analysis performed by Fairway Laboratories, Inc., 1980 Golden Mile Rd., Wysox, PA 18854. NELAP certification: PA 08-05622 and NY 12127.
<	Represents "less than" - indicates that the result was less than the RL, or the MDL if indicated for the parameter.
MDL	Method Detection Limit - is the lowest or minimum level that provides 99% confidence level that the analyte is detected. Any reported result values that are less than the RL are considered estimated values. If Radiological results are reported, the MDC - Minimum Detectable Concentration is shown in the MDL column.
RL	Reporting Limit - is the lowest or minimum level at which the analyte can be quantified.
[CALC]	Indicates a calculated result. Calculations use results from other analyses performed under accredited methods.

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Letterle & Associates Inc.	Project:	SOHAILS	
2022 Axemann Road Suite 201	Project Number:	[none]	**Reported:**
Bellefonte PA, 16823	Collector:	CLIENT	06/11/20 09:39
Project Manager: Jed Hill	Number of Containers:	88	

Terms & Conditions

Services provided by Fairway Laboratories Inc. are limited to the terms and conditions stated herein, unless otherwise agreed to in a formal contract.

CHAIN OF CUSTODY Fairway Laboratories Inc. ("Fairway," "us" or "we") will initiate a chain-of-custody/request for analysis upon sample receipt unless the client includes a completed form with the received sample(s). Upon request, Fairway will provide chain-of-custody forms for use.

CONFIDENTIALITY Fairway maintains confidentiality in all of our client interactions. The client's consent will be required before releasing information about the services provided.

CONTRACTS All contracts are subject to review and approval by Fairway's legal council. Each contract must be signed by a corporate officer.

PAYMENT/BILLING Unless otherwise set forth in a signed contract or purchase order, terms of payment are "NET 30 Days." The time allowed for payment shall begin based on the invoice date. A 1.5% per month service charge may be added to all unpaid balances beyond the initial 30 days. In its sole discretion, Fairway reserves the right to request payment before services and hold sample results for payment of due balances. We will not bill a third party without prior agreement among all parties acknowledging and accepting responsibility for payment.

SAMPLE COLLECTION AND SUBMISSION Clients not requesting collection services from Fairway are responsible for proper collection, preservation, packaging, and delivery of samples to the laboratory in accordance with current law and commercial practice. Fairway shall have no responsibility for sample integrity prior to the receipt of the sample(s) and/or for any inaccuracy in test or analyses results as a result of the failure of the client or any third party to maintain the integrity of samples prior to delivery to Fairway. All samples submitted must be accompanied by a completed chain of custody or similar document clearly noting the requested analyses, dates/time sampled, client contact information, and trail of custody. Samples received at the laboratory after business hours are verified on the next business day. Discrepancies are documented on the Receiving Document.

SUBCONTRACTING Some analyses may require subcontracting to another laboratory. Unless the client indicates otherwise, this decision will be made by Fairway. Subcontracted work will be identified on the final report in accordance with NELAC requirements.

RETURN OF RESULTS Fairway routinely provides faxed or verbal results within 10 working days of receipt of sample(s) and a hard copy of the data results is routinely received via US Postal Service within 15 working days. At the request of the client, Fairway may offer expedited return of sample results. Surcharges may apply to rush requests. All rush requests must be pre-approved by Fairway. We reserve the right to charge an archive retrieval fee for results older than one (1) year from the date of the request. All records will be maintained by Fairway for 5 years, after which, they will be destroyed.

SAMPLE DISPOSAL Fairway will maintain samples for four (4) weeks after the sample receipt date. Fairway will dispose of samples which are not and/or do not contain hazardous wastes (as such term is defined by applicable federal or state law), unless prior arrangements have been made for long-term storage. Fairway reserves the right to charge a disposal fee for the proper disposal of samples found or suspected to contain hazardous waste. A return shipping charge will be invoiced for samples returned to the client at their request.

HAZARD COMMUNICATION The client has the responsibility to inform the laboratory of any hazardous characteristics known or suspected about the sample, and to provide information on hazard prevention and personal protection as necessary or otherwise required by applicable law.

WARRANTY AND LIMITATION OF LIABILITY For services rendered, Fairway warrants that it will apply its best scientific knowledge and judgment and to employ its best level of effort consistent with professional standards within the environmental testing industry in performing the analytical services requested by its clients. We disclaim any other warranties, expressed or implied by law. Fairway does not accept any legal responsibility for the purposes for which client uses the test results.

LITIGATION All costs associated with compliance to any subpoena for documents, for testimony in a court of law, or for any other purpose relating to work performed by Fairway Laboratories, Inc. shall be invoiced by Fairway and paid by client. These costs shall include, but are not limited to, hourly charges for the persons involved, travel, mileage, and accommodations and for any and all other expenses associated with said litigation.

Fairway Laboratories, Inc.

Fairway Labs in Altoona, PA is a NELAP (National Environmental Laboratory Accreditation Program) accredited lab, and as such, certifies that all applicable test results meet the requirements of NELAP, unless otherwise stated on the analytical report.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Please print. See back of COC for instructions/terms and conditions.

FAIRWAY LABORATORIES
Environmental Laboratory
2019 9th Ave.
P.O. Box 1925
Altoona, PA 16602
Phone: (814) 946-4306
Fax: (814) 946-8791

Client Page # 1 of 2

Client Name: Letterle & Associates
Address: 2022 Axemann Road
Bellefonte, PA 16823
Contact: JED Hill
Phone #: 814-355-2241
Fax #: 814-355-2410
Project Name: SOHALIS
Quote/PO #:

Received on ice? Y N
Sample Temp:

Reportable to PADEP? Yes ☐
PWSID #

TAT: Normal ☒ Rush ☐
Rush TAT subject to pre-approval and surcharge.
Date Required: ___/___/___

Analyses Requested

LAB USE ONLY
Work Order # 0E29130
Attach # 1
FLI Page # 1 of 3
Tracking #

	Sample Description/Location		GRAB	Composite	Composite Start Start Date	Composite Start Start Time	GRAB -or- Composite End End Date	GRAB -or- Composite End End Time	Matrix: Solid	Matrix: Water	Matrix: Other ___	# of Containers	PA UNIFIED CAS 2008	Bottle Type/Comments
1	SB-1	12-13' 5.8C	X				5/26/20	1000	X			4	X	
2	SB-1	17-18' 5.2C	X					1005	X			4	X	
3	SB-2	9-10' 5.6C	X					1010	X			4	X	
4	SB-2	14-15' 5.0C	X					1015	X			4	X	
5	SB-3	14-15' 5.7C	X					1040	X			4	X	
6	SB-3	18-19' 5.8C	X					1045	X			4	X	
7	SB-4	9-10' 5.8C	X					1109	X			4	X	
8	SB-4	14-15' 6.0C	X					1117	X			4	X	
9	SB-5	9-10' 4.9C	X					1145	X			4	X	
10	SB-6	14-15' 6.0C	X					1205	X			4	X	
11	SB-7	9-10' 5.5C	X					1310	X			4	X	

Military or AM/PM required

	Sampled by: (Signature)	Date	Time
Relinquished by:		5-29-20	1435
Relinquished by:		Date	Time
Relinquished by:		Date	Time

	Date	Time
Received by:		
Received by:	Date	Time
Received by:	Date	Time
Received by:	5/29/20	17:35

Remarks

By relinquishing my sample to Fairway Laboratories, Inc., I hereby agree to the terms and conditions printed on the reverse.

White Original - FLI File Canary - FLI Copy Pink - Customer Receipt Copy

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Please print. See back of COC for instructions/terms and conditions.

FAIRWAY LABORATORIES
Environmental Laboratory

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P.O. Box 1925
Altoona, PA 16602
Phone: (814) 946-4306
Fax: (814) 946-8791

Client Page # 2 of 2

Client Name: Letterle & Associates
Address: 2022 Axemann Road
Bellefonte, PA 16823
Contact: JBD Hill
Phone #: 814-355-2241
Fax #: 814-355-2410
Project Name: Sohaus
Quote/PO #:

Received on ice? Y N
Sample Temp:

Reportable to PADEP? Yes ☐
PWSID #

TAT: Normal ☒ Rush ☐
Rush TAT subject to pre-approval and surcharge.
Date Required: ___/___/___

LAB USE ONLY
Work Order # 0E29130
Attach # 2
FLI Page # 2 of 3
Tracking #

	Sample Description/Location			GRAB	Composite	Composite Start Start Date	Composite Start Start Time	GRAB -or- Composite End End Date	GRAB -or- Composite End End Time	Matrix: Solid	Matrix: Water	Matrix: Other	# of Containers	Analyses Requested: PA Unwound GRO Only	Bottle Type/Comments
12	SB-7	14-15'	5.7°C	X				5/26/20	1347	X			4	X	
13	SB-8	13-14'	5.9	X					1420	X			4	X	
14	SB-9	11-12'	5.4°C	X					1450	X			4	X	
15	SB-9	14-15'	5.8°C	X					1455	X			4	X	
16	SB-10	15-20'	6.0°C	X				↓	1552	X			4	X	
17	SB-11	4-5'	6.0°C	X				5/27/20	1148	X			4	X	
18	SB-12	10-11'	6.0°C	X				5/28/20	1133	X			4	X	
19	SB-13	7-8'	5.8°C	X				5/28/20	1147	X			4	X	
20	SB-14	4-5'	6.0°C	X				5/28/20	1235	X			4	X	
21	SB-15	13-14'	6.0°C	X				5/28/20	1605	X			4	X	
22	SB-16	9-10'	6.0°C	X				↓	1625	X			4	X	

		Date	Time
Sampled by: (Signature)			
Relinquished by:		5-27-20	1435
Relinquished by:			
Relinquished by:			

		Date	Time
Received by:			
Received by:			
Received by:			
Received by:		5/29/20	14:35

Remarks

By relinquishing my sample to Fairway Laboratories, Inc., I hereby agree to the terms and conditions printed on the reverse.

White Original - FLI File Canary - FLI Copy Pink - Customer Receipt Copy

SOP FLI0601-002 Attachment G Revision 26 Date: May 22, 2019 Page of

Chain of Custody Receiving Document

Page 3 of 3

Receiver: GR

Date/Time of this check: 5/29/20 15:55 Client: Letterle & Assoc Lab # 0E29130 #3

Received on ICE? Y ☐ * **Sample Temperature when delivered to the Lab:** 6.0 °C **Acceptable?** Y ☐ * **or In cool down process?** ☐ *

(Not applicable for WV compliance)

Custody Seals? Y Intact? Y **Morning Temperature Verification <6°C (if applicable):** ☐

COC/Labels on bottles agree? Y ☐ * Correct containers for all the analysis requested? Y ☐ * Matrix: Solid

COC #	Number and Type of BOTTLES										Comments
	Poly Non-Pres.	Poly H2SO4	Poly HNO3	Amber H2SO4	Amber Non-Pres.	Poly NaOH	VOCS (Head space?)	Other ☐ *	Properly Preserved ☐ *	Bacti	* Internal notification completed for deviations
1							2	4 oz jar	N/A		
22											

* DEVIATION PRESENT:		CLIENT CALLED:	CLIENT RESPONSE:	
☹ No Ice	( )	YES ( )	Proceed with analysis; qualify data	( )
☹ Not at Proper Temperature	( )	By Whom:	Will Resample	( )
☹ Wrong Container	( )		Provided Information	( )
☹ Missing Information:	( )	_____ Date: _____	No Response; Proceed and qualified	( )
			Client Contact: _____ Date: _____	

* Comments: _____

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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 8

Reported:
06/16/20 14:34

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Sample Type	Date Sampled	Date Received
SB-17 3-4'	0F02072-01	Solid	Grab	06/01/20 09:52	06/02/20 11:10
SB-18 14-15'	0F02072-02	Solid	Grab	06/01/20 10:20	06/02/20 11:10

Fairway Laboratories, Inc.

Reviewed and Submitted by:

Michael P. Tyler
Laboratory Director

Fairway Labs in Altoona, PA is a NELAP (National Environmental Laboratory Accreditation Program) accredited lab, and as such, certifies that all applicable test results meet the requirements of NELAP, unless otherwise stated on the analytical report.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

2019 Ninth Avenue
PO Box 1925
Altoona, PA 16603
(814) 946-4306

NELAP: PA 07-062, VA 460212
State Certifications: MD 275, WV 364

FAIRWAY LABORATORIES
www.fairwaylaboratories.com

Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 8

Reported:
06/16/20 14:34

Client Sample ID: **SB-17 3-4'**

Date/Time Sampled: 06/01/20 09:52

Laboratory Sample ID: **0F02072-01 (Solid/Grab)**

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Conventional Chemistry Parameters by SM/EPA Methods								
% Solids	86.6		0.100	%	06/04/20 16:00	SM 2540 G-11	EEV	
Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035								I5
1,3,5-Trimethylbenzene	<0.0035		0.0035	mg/kg dry	06/07/20 21:26	EPA 8260B	mtc	
1,2,4-Trimethylbenzene	0.0118		0.0035	mg/kg dry	06/07/20 21:26	EPA 8260B	mtc	
Benzene	0.0046		0.0014	mg/kg dry	06/07/20 21:26	EPA 8260B	mtc	
Toluene	0.0050		0.0035	mg/kg dry	06/07/20 21:26	EPA 8260B	mtc	
Ethylbenzene	0.0040		0.0035	mg/kg dry	06/07/20 21:26	EPA 8260B	mtc	
Xylenes (total)	0.0231		0.0069	mg/kg dry	06/07/20 21:26	EPA 8260B	mtc	
Isopropylbenzene	0.0134		0.0035	mg/kg dry	06/07/20 21:26	EPA 8260B	mtc	
Methyl tert-butyl ether	<0.0035		0.0035	mg/kg dry	06/07/20 21:26	EPA 8260B	mtc	
Naphthalene	0.0135		0.0035	mg/kg dry	06/07/20 21:26	EPA 8260B	mtc	
Surrogate: 4-Bromofluorobenzene		*93 %*	*70-130*		*06/07/20 21:26*	*EPA 8260B*	mtc	
Surrogate: 1,2-Dichloroethane-d4		*81 %*	*70-130*		*06/07/20 21:26*	*EPA 8260B*	mtc	
Surrogate: Fluorobenzene		*87 %*	*70-130*		*06/07/20 21:26*	*EPA 8260B*	mtc	

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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 8

Reported:
06/16/20 14:34

Client Sample ID: **SB-18 14-15'**

Date/Time Sampled: 06/01/20 10:20

Laboratory Sample ID: **0F02072-02 (Solid/Grab)**

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Conventional Chemistry Parameters by SM/EPA Methods								
% Solids	85.3		0.100	%	06/04/20 16:00	SM 2540 G-11	EEV	
Volatile Organic Compounds by EPA Method 8260B/Prep Method 5035								
1,3,5-Trimethylbenzene	<0.458		0.458	mg/kg dry	06/12/20 21:57	EPA 8260B	mtc	
1,2,4-Trimethylbenzene	0.799		0.458	mg/kg dry	06/12/20 21:57	EPA 8260B	mtc	
Benzene	0.381		0.183	mg/kg dry	06/12/20 21:57	EPA 8260B	mtc	
Toluene	1.79		0.458	mg/kg dry	06/12/20 21:57	EPA 8260B	mtc	
Ethylbenzene	0.589		0.458	mg/kg dry	06/12/20 21:57	EPA 8260B	mtc	
Xylenes (total)	2.27		0.916	mg/kg dry	06/12/20 21:57	EPA 8260B	mtc	
Isopropylbenzene	<0.458		0.458	mg/kg dry	06/12/20 21:57	EPA 8260B	mtc	
Methyl tert-butyl ether	<0.458		0.458	mg/kg dry	06/12/20 21:57	EPA 8260B	mtc	
Naphthalene	<0.458		0.458	mg/kg dry	06/12/20 21:57	EPA 8260B	mtc	
Surrogate: 4-Bromofluorobenzene		*95 %*	*70-130*		*06/12/20 21:57*	*EPA 8260B*	mtc	
Surrogate: 1,2-Dichloroethane-d4		*91 %*	*70-130*		*06/12/20 21:57*	*EPA 8260B*	mtc	
Surrogate: Fluorobenzene		*91 %*	*70-130*		*06/12/20 21:57*	*EPA 8260B*	mtc	

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Letterle & Associates Inc.	Project:	SOHAILS	
2022 Axemann Road Suite 201	Project Number:	[none]	**Reported:**
Bellefonte PA, 16823	Collector:	CLIENT	06/16/20 14:34
Project Manager: Jed Hill	Number of Containers:	8	

Notes

I5 The vial provided contained preservative for 5 grams of sample; however, the vial was received with greater than 130% of this amount of sample.

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Letterle & Associates Inc.	Project:	SOHAILS	
2022 Axemann Road Suite 201	Project Number:	[none]	**Reported:**
Bellefonte PA, 16823	Collector:	CLIENT	06/16/20 14:34
Project Manager: Jed Hill	Number of Containers:	8	

Definitions:

If surrogate values are not within the indicated range, then the results are considered to be estimated.

Reporting limits are adjusted accordingly when samples are analyzed at a dilution due to the matrix.

MBAS, calculated as LAS, mol wt 348

If the solid sample weight for VOC analysis does not fall within the 3.5-6.5 gram range, the results are considered estimated values.

Unless otherwise noted, all results for solids are reported on a dry weight basis.

Samples collected by Fairway Laboratories' personnel are done so in accordance with Standard Operating Procedures established by Fairway Laboratories.

#	The following analyses are to be performed immediately upon sampling: pH, sulfite, chlorine residual, dissolved oxygen, filtration for ortho phosphorus, and ferrous iron. The date and time reported reflect the time the samples were analyzed at the laboratory; and should be considered as analyzed outside the EPA holding time.
^	The following analytes are to be filtered immediately upon sampling: Hexavalent Chromium. Filtration through a 0.45 micron filter within 15 minutes of sampling is required for compliance with the Clean Water Act (CWA) for reporting of hexavalent chromium to prevent interconversion of chromium species.
*	**Analysis location indicator:** **D**: Indicates analysis performed by Fairway Laboratories, Inc., 110 McCracken Run Rd., DuBois, PA 15801. PA DEP Chapter 252 certification: PA 33-00258. **E**: Indicates analysis performed by Fairway Laboratories, Inc., 1920 East 38th Street, Erie, PA 16510. PA Registered Laboratory: PA 25-05907. **G**: Indicates analysis performed by Fairway Laboratories, Inc., 4727 Route 30 Ste 204, Greensburg, PA 15601. PA DEP Chapter 252 certification: PA 65-00392. **P**: Indicates analysis performed by Fairway Laboratories, Inc., 89 Kristi Rd., Pennsdale, PA 17756. PA DEP Chapter 252 certification: PA 41-04684. **W**: Indicates analysis performed by Fairway Laboratories, Inc., 1980 Golden Mile Rd., Wysox, PA 18854. NELAP certification: PA 08-05622 and NY 12127.
<	Represents "less than" - indicates that the result was less than the RL, or the MDL if indicated for the parameter.
MDL	Method Detection Limit - is the lowest or minimum level that provides 99% confidence level that the analyte is detected. Any reported result values that are less than the RL are considered estimated values. If Radiological results are reported, the MDC - Minimum Detectable Concentration is shown in the MDL column.
RL	Reporting Limit - is the lowest or minimum level at which the analyte can be quantified.
[CALC]	Indicates a calculated result. Calculations use results from other analyses performed under accredited methods.

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Letterle & Associates Inc.	Project:	SOHAILS	
2022 Axemann Road Suite 201	Project Number:	[none]	**Reported:**
Bellefonte PA, 16823	Collector:	CLIENT	06/16/20 14:34
Project Manager: Jed Hill	Number of Containers:	8	

Terms & Conditions

Services provided by Fairway Laboratories Inc. are limited to the terms and conditions stated herein, unless otherwise agreed to in a formal contract.

CHAIN OF CUSTODY Fairway Laboratories Inc. ("Fairway," "us" or "we") will initiate a chain-of-custody/request for analysis upon sample receipt unless the client includes a completed form with the received sample(s). Upon request, Fairway will provide chain-of-custody forms for use.

CONFIDENTIALITY Fairway maintains confidentiality in all of our client interactions. The client's consent will be required before releasing information about the services provided.

CONTRACTS All contracts are subject to review and approval by Fairway's legal council. Each contract must be signed by a corporate officer.

PAYMENT/BILLING Unless otherwise set forth in a signed contract or purchase order, terms of payment are "NET 30 Days." The time allowed for payment shall begin based on the invoice date. A 1.5% per month service charge may be added to all unpaid balances beyond the initial 30 days. In its sole discretion, Fairway reserves the right to request payment before services and hold sample results for payment of due balances. We will not bill a third party without prior agreement among all parties acknowledging and accepting responsibility for payment.

SAMPLE COLLECTION AND SUBMISSION Clients not requesting collection services from Fairway are responsible for proper collection, preservation, packaging, and delivery of samples to the laboratory in accordance with current law and commercial practice. Fairway shall have no responsibility for sample integrity prior to the receipt of the sample(s) and/or for any inaccuracy in test or analyses results as a result of the failure of the client or any third party to maintain the integrity of samples prior to delivery to Fairway. All samples submitted must be accompanied by a completed chain of custody or similar document clearly noting the requested analyses, dates/time sampled, client contact information, and trail of custody. Samples received at the laboratory after business hours are verified on the next business day. Discrepancies are documented on the Receiving Document.

SUBCONTRACTING Some analyses may require subcontracting to another laboratory. Unless the client indicates otherwise, this decision will be made by Fairway. Subcontracted work will be identified on the final report in accordance with NELAC requirements.

RETURN OF RESULTS Fairway routinely provides faxed or verbal results within 10 working days of receipt of sample(s) and a hard copy of the data results is routinely received via US Postal Service within 15 working days. At the request of the client, Fairway may offer expedited return of sample results. Surcharges may apply to rush requests. All rush requests must be pre-approved by Fairway. We reserve the right to charge an archive retrieval fee for results older than one (1) year from the date of the request. All records will be maintained by Fairway for 5 years, after which, they will be destroyed.

SAMPLE DISPOSAL Fairway will maintain samples for four (4) weeks after the sample receipt date. Fairway will dispose of samples which are not and/or do not contain hazardous wastes (as such term is defined by applicable federal or state law), unless prior arrangements have been made for long-term storage. Fairway reserves the right to charge a disposal fee for the proper disposal of samples found or suspected to contain hazardous waste. A return shipping charge will be invoiced for samples returned to the client at their request.

HAZARD COMMUNICATION The client has the responsibility to inform the laboratory of any hazardous characteristics known or suspected about the sample, and to provide information on hazard prevention and personal protection as necessary or otherwise required by applicable law.

WARRANTY AND LIMITATION OF LIABILITY For services rendered, Fairway warrants that it will apply its best scientific knowledge and judgment and to employ its best level of effort consistent with professional standards within the environmental testing industry in performing the analytical services requested by its clients. We disclaim any other warranties, expressed or implied by law. Fairway does not accept any legal responsibility for the purposes for which client uses the test results.

LITIGATION All costs associated with compliance to any subpoena for documents, for testimony in a court of law, or for any other purpose relating to work performed by Fairway Laboratories, Inc. shall be invoiced by Fairway and paid by client. These costs shall include, but are not limited to, hourly charges for the persons involved, travel, mileage, and accommodations and for any and all other expenses associated with said litigation.

Fairway Laboratories, Inc.

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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Please print. See back of COC for instructions/terms and conditions.

FAIRWAY LABORATORIES
Environmental Laboratory
2019 9th Ave.
P.O. Box 1925
Altoona, PA 16602
Phone: (814) 946-4306
Fax: (814) 946-8791

Client Page # 1 of 1
#1

Client Name: Letterle & Associates
Address: 2022 Axemann Road
Bellefonte, PA 16823
Contact: JED HILL
Phone #: 814-355-2241
Fax #: 814-355-2410
Project Name: SOHAILS
Quote/PO #:

Received on ice? Y N
Sample Temp:

Reportable to PADEP? Yes ❑
PWSID #

TAT: Normal ☒ Rush ❑
Rush TAT subject to pre-approval and surcharge.
Date Required: ___/___/___

Analyses Requested

PA UNLEADED GAS 2008

LAB USE ONLY
Work Order # OF072
Attach # OF072
FLI Page # 1 of 2
Tracking #

Sample Description/Location	GRAB	Composite	Composite Start Start Date	Composite Start Start Time	GRAB -or- Composite End End Date	GRAB -or- Composite End End Time	Matrix Solid	Matrix Water	Matrix Other	# of Containers	Bottle Type/Comments
SB-17 3-4'	X				6-1-20	0952	X			4	5 6
SB-18 14-15'	X				↓	1020	X			4	7 2

Military or AM/PM required

Sampled by: (Signature)		Received by:	Date / Time
Relinquished by:	Date 6/2/20 Time 11:10	Received by:	Date 6/2/20 Time 11:10
Relinquished by:	Date / Time	Received by:	Date / Time
Relinquished by:	Date / Time	Received by:	Date / Time

Remarks

By relinquishing my sample to Fairway Laboratories, Inc., I hereby agree to the terms and conditions printed on the reverse.

White Original - FLI File Canary - FLI Copy Pink - Customer Receipt Copy

SOP FLI0601-002 Attachment G | Revision 26 | Date: May 22, 2019 | Page of #2

Chain of Custody Receiving Document

Page 2 of 2

Receiver: BJG

Date/Time of this check: 6/2/20 1202 Client: Letterle Lab # 0F02072

Received on ICE? Y ☐ * **Sample Temperature when delivered to the Lab:** 7.2 °C **Acceptable?** Y ☐ * **or In cool down process?** ☐ *

(Not applicable for WV compliance)

Custody Seals? Y Intact? Y

Morning Temperature Verification <6°C (if applicable): ☐

COC/Labels on bottles agree? Y ☐* Correct containers for all the analysis requested? Y ☐ * Matrix: Solid

COC #	Number and Type of BOTTLES										Comments
	Poly Non-Pres.	Poly H2SO4	Poly HNO3	Amber H2SO4	Amber Non-Pres.	Poly NaOH	VOCS (Head space?)	Other ☐ *	Properly Preserved ☐ *	Bacti	☐ * Internal notification completed for deviations.
17							1-methyl-2-N-BS 1	4 0Z/10 1	NA 1		
18											

*** DEVIATION PRESENT:**
- ☹ **No Ice** ( )
- ☹ **Not at Proper Temperature** ( )
- ☹ **Wrong Container** ( )
- ☹ **Missing Information:** ( )

CLIENT CALLED:
YES ( )
By Whom:
_____ **Date:** _____

CLIENT RESPONSE:
- **Proceed with analysis; qualify data** ( )
- **Will Resample** ( )
- **Provided Information** ( )
- **No Response; Proceed and qualified** ( )

Client Contact: _____ **Date:** _____

* Comments: _____

Project:	Sohails Store	File Number:	2014500
Location:	Middletown, PA	Date:	7-Jul-20
Client:	Letterle & Associates, Inc.	CMT I. D. No.:	16612

Summary of Laboratory Analysis

Sample Location	Sample Description	Organic Content	Natural Moisture	Wet Unit Weight (pcf)	Specific Gravity	Porosity
06-01-20 @ 1050 MW-6, 10'-15'	Brownish Gray Silty Sand	0.29%	15.4%	132.6	2.623	29.77%

Note: 1) The sample was extruded from a geoprobe sleeve provided by the client.

CMT Laboratories, Inc.

Project:	Sohails Store	File Number:	2014500
Location:	Middletown, PA	Date:	07-Jul-20
Client:	Letterle & Associates, Inc.	CMT I. D. No.:	16612

ASTM D5084 (Method C): Test Method for Measurement of Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter

Sample Location: 06-01-20 @ 1050 MW-6, 10'-15'

Material Description: Brownish Gray Silty Sand

Compaction Method: per unit weight

Initial Specimen Dimensions:

Average Height: 5.08 centimeters

Average Diameter: 7.19 centimeters

Average Area: 40.58 cm^2

Moisture Content (ω) : 15.7 percent

Wet Unit Weight (γ_w): 133.1 lb/ft^3

Dry Unit Weight (γ_d): 115.0 lb/ft^3

Type of Permeant Liquid: Deaired Water

Total Back Pressure: 10.00 psi

Effective Consolidation Pressure: 10.00 psi

Saturation "B value": 100.0%

Notes:
1) Test performed utilizing a Karol-Warner Logic Panel, Model No. 3230, and a Karol-Warner Flexwall Permeability test Chamber, Model No. 3300.
2) Sample tested at approximate natural unit weight & moisture content.
3) Test conducted on portion of sample passing No. 4 sieve.

CMT Laboratories, Inc.
2701 Carolean Industrial Drive, State College, PA 16801 Phone: (814) 231-8845 Fax: (814) 231-8846
www.cmtlabsinc.com

Report of Permeability Testing (cont.) CMT I.D. No.: 16612

Trial 1

Initial Head (cm):	154.68	Finish Head (cm):	152.27	Initial Gradient:	30.45
Elapsed Time (sec):	7200	Temperature (°C):	20.0	Final Gradient:	29.97

Permeability coefficient: 1.25 E-07 cm/sec

Trial 2

Initial Head (cm):	154.68	Finish Head (cm):	152.05	Initial Gradient:	30.45
Elapsed Time (sec):	7200	Temperature (°C):	20.0	Final Gradient:	29.93

Permeability coefficient: 1.36 E-07 cm/sec

Trial 3

Initial Head (cm):	154.68	Finish Head (cm):	152.27	Initial Gradient:	30.45
Elapsed Time (sec):	7200	Temperature (°C):	20.0	Final Gradient:	29.97

Permeability coefficient: 1.25 E-07 cm/sec

Trial 4

Initial Head (cm):	154.68	Finish Head (cm):	152.27	Initial Gradient:	30.45
Elapsed Time (sec):	7200	Temperature (°C):	20.0	Final Gradient:	29.97

Permeability coefficient: 1.25 E-07 cm/sec

$$k = \frac{a_{in} \times a_{out} \times L}{A \times t \ (a_{in} + a_{out})} \quad [\ln (h_o / h_1)]$$

a_{in} = cross - sectional area of influent reservoir burette (0.915 square centimeters)

a_{out} = cross - sectional area of effluent reservoir burette (0.915 square centimeters)

A = cross - sectional area of soil specimen (centimeters)

L = compacted length of soil specimen (centimeters)

t = elapsed time between head movements t_0 & t_1 (seconds)

h_o = Head across specimen at t(zero) (centimeters)

h_1 = Head across specimen at t_1 (centimeters)

Corrected Average Permeability Coefficient (k_{20})* = 1.28 E-07 cm/sec

*** k_{20} corrected to water at 20°C**

CMT Laboratories, Inc.

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Letterle & Associates Inc.	Project:	KEYSTONE-MIDDLETOWN	
2022 Axemann Road Suite 201	Project Number:	[none]	**Reported:**
Bellefonte PA, 16823	Collector:	CLIENT	12/11/19 13:07
Project Manager: Jed Hill	Number of Containers:	2	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Sample Type	Date Sampled	Date Received
OB-1	9K29041-01	Water	Grab	11/26/19 11:50	11/27/19 14:00

Client Sample ID: OB-1 **Date/Time Sampled:** 11/26/19 11:50

Laboratory Sample ID: 9K29041-01 (Water/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Volatile Organic Compounds by EPA Method 8260B/Prep Method 5030B								Q
1,3,5-Trimethylbenzene	832		50.0	ug/l	12/04/19 14:12	EPA 8260B	jmg	
1,2,4-Trimethylbenzene	1780		50.0	ug/l	12/04/19 14:12	EPA 8260B	jmg	
Benzene	560		50.0	ug/l	12/04/19 14:12	EPA 8260B	jmg	
Toluene	<50.0		50.0	ug/l	12/04/19 14:12	EPA 8260B	jmg	
Ethylbenzene	950		50.0	ug/l	12/04/19 14:12	EPA 8260B	jmg	
Xylenes (total)	4140		100	ug/l	12/04/19 14:12	EPA 8260B	jmg	
Isopropylbenzene	<50.0		50.0	ug/l	12/04/19 14:12	EPA 8260B	jmg	
Methyl tert-butyl ether	<50.0		50.0	ug/l	12/04/19 14:12	EPA 8260B	jmg	
Naphthalene	158		50.0	ug/l	12/04/19 14:12	EPA 8260B	jmg	
Surrogate: 4-Bromofluorobenzene		*97.8 %*	*70-130*		*12/04/19 14:12*	*EPA 8260B*	jmg	
Surrogate: 1,2-Dichloroethane-d4		*87.4 %*	*70-130*		*12/04/19 14:12*	*EPA 8260B*	jmg	
Surrogate: Fluorobenzene		*86.9 %*	*70-130*		*12/04/19 14:12*	*EPA 8260B*	jmg	

Fairway Laboratories, Inc.

Reviewed and Submitted by:

Michael P. Tyler
Laboratory Director

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Letterle & Associates Inc.		Project:	KEYSTONE-MIDDLETOWN
2022 Axemann Road Suite 201		Project Number:	[none]
Bellefonte PA, 16823		Collector:	CLIENT
Project Manager:	Jed Hill	Number of Containers:	2

Reported:
12/11/19 13:07

Notes

Q Sample was analyzed at a dilution. Reporting limits were adjusted accordingly.

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Letterle & Associates Inc.		Project:	KEYSTONE-MIDDLETOWN
2022 Axemann Road Suite 201		Project Number:	[none]
Bellefonte PA, 16823		Collector:	CLIENT
Project Manager:	Jed Hill	Number of Containers:	2

Reported:
12/11/19 13:07

Definitions:

If surrogate values are not within the indicated range, then the results are considered to be estimated.

Reporting limits are adjusted accordingly when samples are analyzed at a dilution due to the matrix.

MBAS, calculated as LAS, mol wt 348

If the solid sample weight for VOC analysis does not fall within the 3.5-6.5 gram range, the results are considered estimated values.

Unless otherwise noted, all results for solids are reported on a dry weight basis.

Samples collected by Fairway Laboratories' personnel are done so in accordance with Standard Operating Procedures established by Fairway Laboratories.

\# The following analyses are to be performed immediately upon sampling: pH, sulfite, chlorine residual, dissolved oxygen, filtration for ortho phosphorus, and ferrous iron. The date and time reported reflect the time the samples were analyzed at the laboratory; and should be considered as analyzed outside the EPA holding time.

^ The following analytes are to be filtered immediately upon sampling: Hexavalent Chromium. Filtration through a 0.45 micron filter within 15 minutes of sampling is required for compliance with the Clean Water Act (CWA) for reporting of hexavalent chromium to prevent interconversion of chromium species.

* **Analysis location indicator:**
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G: Indicates analysis performed by Fairway Laboratories, Inc., 4727 Route 30 Ste 204, Greensburg, PA 15601. PA DEP Chapter 252 certification: PA 65-00392.
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W: Indicates analysis performed by Fairway Laboratories, Inc., 1950 Golden Mile Rd., Wysox, PA 18854. NELAP certification: PA 08-05622.

< Represents "less than" - indicates that the result was less than the reporting limit.

MDL Method Detection Limit - is the lowest or minimum level that provides 99% confidence level that the analyte is detected. Any reported result values that are less than the RL are considered estimated values. If Radiological results are reported, the MDC - Minimum Detectable Concentration is shown in the MDL column.

RL Reporting Limit - is the lowest or minimum level at which the analyte can be quantified.

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PO Box 1925
Altoona, PA 16603
(814) 946-4306

NELAP: PA 07-062, VA 460212
State Certifications: MD 275, WV 364

FAIRWAY LABORATORIES
www.fairwaylaboratories.com

Letterle & Associates Inc.	Project:	KEYSTONE-MIDDLETOWN	
2022 Axemann Road Suite 201	Project Number:	[none]	**Reported:**
Bellefonte PA, 16823	Collector:	CLIENT	12/11/19 13:07
Project Manager: Jed Hill	Number of Containers:	2	

Terms & Conditions

Services provided by Fairway Laboratories Inc. are limited to the terms and conditions stated herein, unless otherwise agreed to in a formal contract.

CHAIN OF CUSTODY Fairway Laboratories Inc. ("Fairway," "us" or "we") will initiate a chain-of-custody/request for analysis upon sample receipt unless the client includes a completed form with the received sample(s). Upon request, Fairway will provide chain-of-custody forms for use.

CONFIDENTIALITY Fairway maintains confidentiality in all of our client interactions. The client's consent will be required before releasing information about the services provided.

CONTRACTS All contracts are subject to review and approval by Fairway's legal council. Each contract must be signed by a corporate officer.

PAYMENT/BILLING Unless otherwise set forth in a signed contract or purchase order, terms of payment are "NET 30 Days." The time allowed for payment shall begin based on the invoice date. A 1.5% per month service charge may be added to all unpaid balances beyond the initial 30 days. In its sole discretion, Fairway reserves the right to request payment before services and hold sample results for payment of due balances. We will not bill a third party without prior agreement among all parties acknowledging and accepting responsibility for payment.

SAMPLE COLLECTION AND SUBMISSION Clients not requesting collection services from Fairway are responsible for proper collection, preservation, packaging, and delivery of samples to the laboratory in accordance with current law and commercial practice. Fairway shall have no responsibility for sample integrity prior to the receipt of the sample(s) and/or for any inaccuracy in test or analyses results as a result of the failure of the client or any third party to maintain the integrity of samples prior to delivery to Fairway. All samples submitted must be accompanied by a completed chain of custody or similar document clearly noting the requested analyses, dates/time sampled, client contact information, and trail of custody. Samples received at the laboratory after business hours are verified on the next business day. Discrepancies are documented on the Receiving Document.

SUBCONTRACTING Some analyses may require subcontracting to another laboratory. Unless the client indicates otherwise, this decision will be made by Fairway. Subcontracted work will be identified on the final report in accordance with NELAC requirements.

RETURN OF RESULTS Fairway routinely provides faxed or verbal results within 10 working days of receipt of sample(s) and a hard copy of the data results is routinely received via US Postal Service within 15 working days. At the request of the client, Fairway may offer expedited return of sample results. Surcharges may apply to rush requests. All rush requests must be pre-approved by Fairway. We reserve the right to charge an archive retrieval fee for results older than one (1) year from the date of the request. All records will be maintained by Fairway for 5 years, after which, they will be destroyed.

SAMPLE DISPOSAL Fairway will maintain samples for four (4) weeks after the sample receipt date. Fairway will dispose of samples which are not and/or do not contain hazardous wastes (as such term is defined by applicable federal or state law), unless prior arrangements have been made for long-term storage. Fairway reserves the right to charge a disposal fee for the proper disposal of samples found or suspected to contain hazardous waste. A return shipping charge will be invoiced for samples returned to the client at their request.

HAZARD COMMUNICATION The client has the responsibility to inform the laboratory of any hazardous characteristics known or suspected about the sample, and to provide information on hazard prevention and personal protection as necessary or otherwise required by applicable law.

WARRANTY AND LIMITATION OF LIABILITY For services rendered, Fairway warrants that it will apply its best scientific knowledge and judgment and to employ its best level of effort consistent with professional standards within the environmental testing industry in performing the analytical services requested by its clients. We disclaim any other warranties, expressed or implied by law. Fairway does not accept any legal responsibility for the purposes for which client uses the test results.

LITIGATION All costs associated with compliance to any subpoena for documents, for testimony in a court of law, or for any other purpose relating to work performed by Fairway Laboratories, Inc. shall be invoiced by Fairway and paid by client. These costs shall include, but are not limited to, hourly charges for the persons involved, travel, mileage, and accommodations and for any and all other expenses associated with said litigation.

Fairway Labs in Altoona, PA is a NELAP (National Environmental Laboratory Accreditation Program) accredited lab, and as such, certifies that all applicable test results meet the requirements of NELAP, unless otherwise stated on the analytical report.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

CHAIN OF CUSTODY / REQUEST FOR ANALYSIS

Please print. See back of COC for instructions/terms and conditions.

FAIRWAY LABORATORIES
Environmental Laboratory
2019 9th Ave.
P.O. Box 1925
Altoona, PA 16602
Phone: (814) 946-4306
Fax: (814) 946-8791

Client Page # 1 of 1

Client Name: Letterle & Associates
Address: 2022 Axemann Road
Bellefonte, PA 16823
Contact: JPD Hill
Phone #: 814-355-2241
Fax #: 814-355-2410
Project Name: KEYSTONE - MIDDLETOWN
Quote/PO #:

Received on ice? Y N
Sample Temp:

Reportable to PADEP? Yes ☐
PWSID #

TAT: Normal ☒ Rush ☐
Rush TAT subject to pre-approval and surcharge.
Date Required: ___/___/___

LAB USE ONLY
Work Order # 9112904
Attach #
FLI Page # 1 of 2
Tracking #

Sample Description/Location	GRAB	Composite	Composite Start: Start Date	Composite Start: Start Time	GRAB -or- Composite End: End Date	GRAB -or- Composite End: End Time	Matrix: Solid	Matrix: Water	Matrix: Other	# of Containers	Analyses Requested: PA UNLEADED 8008	Bottle Type/Comments
OB-1	X				11-26-19			X		2	X	0

	Date	Time
Sampled by (Signature)		
Relinquished by:	11-26-19	1400
Relinquished by:	11/27/19	1210
Relinquished by:	11/27/19	1400

	Date	Time
Received by:		
Received by:	11/27/19	0959
Received by:	11/27/19	1210
Received by:	11/27/19	1400

Remarks

By relinquishing my sample to Fairway Laboratories, Inc., I hereby agree to the terms and conditions printed on the reverse.

White Original - FLI File Canary - FLI Copy Pink - Customer Receipt Copy

SOP FLI0601-002 Attachment G Revision 26 Date: May 22, 2019 Page of

Chain of Custody Receiving Document

Receiver: M Page 2 of 2

Date/Time of this check: 4/29/19 820 Client: Letkeke Lab # 9042904

Received on ICE? Y ☐ * **Sample Temperature when delivered to the Lab:** 0 **°C Acceptable?** Y ☐ * **or In cool down process?** ☐ *

(Not applicable for WV compliance)

Custody Seals? Y Intact? Y **Morning Temperature Verification <6°C (if applicable):** ✓

COC/Labels on bottles agree? Y ☐ * Correct containers for all the analysis requested? Y ☐ * Matrix: water

COC #	Number and Type of BOTTLES										Comments
	Poly Non-Pres.	Poly H2SO4	Poly HNO3	Amber H2SO4	Amber Non-Pres.	Poly NaOH	VOCS (Head space?)	Other ☐ *	Properly Preserved ☐ *	Bacti	Internal notification completed for deviations
1							2HC		NA		

* DEVIATION PRESENT:		CLIENT CALLED:	CLIENT RESPONSE:	
⊗ No Ice	( )	YES ( )	Proceed with analysis; qualify data	( )
⊗ Not at Proper Temperature	( )	By Whom:	Will Resample	( )
⊗ Wrong Container	( )		Provided Information	( )
⊗ Missing Information:	( )	Date:	No Response; Proceed and qualified	( )
			Client Contact: Date:	

* Comments: No sampled time on chain. Vials say 1150

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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 24

Reported:
06/25/20 13:56

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Sample Type	Date Sampled	Date Received
MW-1	0F16070-01	Water	Grab	06/09/20 09:21	06/12/20 12:15
MW-2	0F16070-02	Water	Grab	06/09/20 10:40	06/12/20 12:15
MW-2DUP	0F16070-03	Water	Grab	06/09/20 10:40	06/12/20 12:15
MW-3	0F16070-04	Water	Grab	06/09/20 11:10	06/12/20 12:15
MW-4	0F16070-05	Water	Grab	06/09/20 11:34	06/12/20 12:15
MW-5	0F16070-06	Water	Grab	06/09/20 09:49	06/12/20 12:15
MW-6	0F16070-07	Water	Grab	06/09/20 10:17	06/12/20 12:15
TRIP BLANK	0F16070-08	Water	Grab	06/09/20 11:50	06/12/20 12:15

Fairway Laboratories, Inc.

Reviewed and Submitted by:

Michael P. Tyler
Laboratory Director

Fairway Labs in Altoona, PA is a NELAP (National Environmental Laboratory Accreditation Program) accredited lab, and as such, certifies that all applicable test results meet the requirements of NELAP, unless otherwise stated on the analytical report.

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2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 24

Reported:
06/25/20 13:56

Client Sample ID: MW-1

Date/Time Sampled: 06/09/20 09:21

Laboratory Sample ID: 0F16070-01 (Water/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Conventional Chemistry Parameters by SM/EPA Methods								
Total Dissolved Solids	364		40.0	mg/l	06/18/20 16:00	SM 2540C-11	EEV	AA Q
Volatile Organic Compounds by EPA Method 8260B/Prep Method 5030B								
1,3,5-Trimethylbenzene	169		5.00	ug/l	06/23/20 16:38	EPA 8260B	jmg	
1,2,4-Trimethylbenzene	437		5.00	ug/l	06/23/20 16:38	EPA 8260B	jmg	
Benzene	26.8		5.00	ug/l	06/23/20 16:38	EPA 8260B	jmg	
Toluene	<5.00		5.00	ug/l	06/23/20 16:38	EPA 8260B	jmg	
Ethylbenzene	310		5.00	ug/l	06/23/20 16:38	EPA 8260B	jmg	
Xylenes (total)	433		10.0	ug/l	06/23/20 16:38	EPA 8260B	jmg	
Isopropylbenzene	46.8		5.00	ug/l	06/23/20 16:38	EPA 8260B	jmg	
Methyl tert-butyl ether	<5.00		5.00	ug/l	06/23/20 16:38	EPA 8260B	jmg	
Naphthalene	104		5.00	ug/l	06/23/20 16:38	EPA 8260B	jmg	
Surrogate: 4-Bromofluorobenzene		*111 %*	*70-130*		*06/23/20 16:38*	*EPA 8260B*	jmg	
Surrogate: 1,2-Dichloroethane-d4		*94.1 %*	*70-130*		*06/23/20 16:38*	*EPA 8260B*	jmg	
Surrogate: Fluorobenzene		*96.7 %*	*70-130*		*06/23/20 16:38*	*EPA 8260B*	jmg	

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Bellefonte PA, 16823
Project Manager: Jed Hill

Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 24

Reported:
06/25/20 13:56

Client Sample ID: MW-2

Date/Time Sampled: 06/09/20 10:40

Laboratory Sample ID: 0F16070-02 (Water/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Conventional Chemistry Parameters by SM/EPA Methods								
Total Dissolved Solids	480		20.0	mg/l	06/18/20 16:00	SM 2540C-11	EEV	AA Q
Volatile Organic Compounds by EPA Method 8260B/Prep Method 5030B								
1,3,5-Trimethylbenzene	63.6		5.00	ug/l	06/23/20 17:07	EPA 8260B	jmg	
1,2,4-Trimethylbenzene	134		5.00	ug/l	06/23/20 17:07	EPA 8260B	jmg	
Benzene	186		5.00	ug/l	06/23/20 17:07	EPA 8260B	jmg	
Toluene	<5.00		5.00	ug/l	06/23/20 17:07	EPA 8260B	jmg	
Ethylbenzene	31.6		5.00	ug/l	06/23/20 17:07	EPA 8260B	jmg	
Xylenes (total)	106		10.0	ug/l	06/23/20 17:07	EPA 8260B	jmg	
Isopropylbenzene	8.95		5.00	ug/l	06/23/20 17:07	EPA 8260B	jmg	
Methyl tert-butyl ether	<5.00		5.00	ug/l	06/23/20 17:07	EPA 8260B	jmg	
Naphthalene	48.4		5.00	ug/l	06/23/20 17:07	EPA 8260B	jmg	
Surrogate: 4-Bromofluorobenzene		*106 %*	*70-130*		*06/23/20 17:07*	*EPA 8260B*	jmg	
Surrogate: 1,2-Dichloroethane-d4		*97.2 %*	*70-130*		*06/23/20 17:07*	*EPA 8260B*	jmg	
Surrogate: Fluorobenzene		*102 %*	*70-130*		*06/23/20 17:07*	*EPA 8260B*	jmg	

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2022 Axemann Road Suite 201
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Project Manager: Jed Hill

Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 24

Reported:
06/25/20 13:56

Client Sample ID: MW-2DUP

Date/Time Sampled: 06/09/20 10:40

Laboratory Sample ID: 0F16070-03 (Water/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Conventional Chemistry Parameters by SM/EPA Methods								
Total Dissolved Solids	148		20.0	mg/l	06/18/20 16:00	SM 2540C-11	EEV	AA, K Q
Volatile Organic Compounds by EPA Method 8260B/Prep Method 5030B								
1,3,5-Trimethylbenzene	52.2		25.0	ug/l	06/23/20 15:13	EPA 8260B	jmg	
1,2,4-Trimethylbenzene	126		25.0	ug/l	06/23/20 15:13	EPA 8260B	jmg	
Benzene	123		25.0	ug/l	06/23/20 15:13	EPA 8260B	jmg	
Toluene	<25.0		25.0	ug/l	06/23/20 15:13	EPA 8260B	jmg	
Ethylbenzene	25.5		25.0	ug/l	06/23/20 15:13	EPA 8260B	jmg	
Xylenes (total)	87.0		50.0	ug/l	06/23/20 15:13	EPA 8260B	jmg	
Isopropylbenzene	<25.0		25.0	ug/l	06/23/20 15:13	EPA 8260B	jmg	
Methyl tert-butyl ether	<8.75		8.75	ug/l	06/23/20 15:13	EPA 8260B	jmg	S
Naphthalene	64.8		25.0	ug/l	06/23/20 15:13	EPA 8260B	jmg	
Surrogate: 4-Bromofluorobenzene		*105 %*	*70-130*		*06/23/20 15:13*	*EPA 8260B*	jmg	
Surrogate: 1,2-Dichloroethane-d4		*84.5 %*	*70-130*		*06/23/20 15:13*	*EPA 8260B*	jmg	
Surrogate: Fluorobenzene		*98.0 %*	*70-130*		*06/23/20 15:13*	*EPA 8260B*	jmg	

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Bellefonte PA, 16823
Project Manager: Jed Hill

Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 24

Reported:
06/25/20 13:56

Client Sample ID: **MW-3**

Date/Time Sampled: 06/09/20 11:10

Laboratory Sample ID: **0F16070-04 (Water/Grab)**

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Conventional Chemistry Parameters by SM/EPA Methods								
Total Dissolved Solids	956		40.0	mg/l	06/18/20 16:00	SM 2540C-11	EEV	AA
Volatile Organic Compounds by EPA Method 8260B/Prep Method 5030B								
1,3,5-Trimethylbenzene	<1.00		1.00	ug/l	06/21/20 15:13	EPA 8260B	jmg	
1,2,4-Trimethylbenzene	<1.00		1.00	ug/l	06/21/20 15:13	EPA 8260B	jmg	
Benzene	<1.00		1.00	ug/l	06/21/20 15:13	EPA 8260B	jmg	
Toluene	<1.00		1.00	ug/l	06/21/20 15:13	EPA 8260B	jmg	
Ethylbenzene	<1.00		1.00	ug/l	06/21/20 15:13	EPA 8260B	jmg	
Xylenes (total)	<2.00		2.00	ug/l	06/21/20 15:13	EPA 8260B	jmg	
Isopropylbenzene	3.15		1.00	ug/l	06/21/20 15:13	EPA 8260B	jmg	
Methyl tert-butyl ether	1.51		1.00	ug/l	06/21/20 15:13	EPA 8260B	jmg	
Naphthalene	1.98		1.00	ug/l	06/21/20 15:13	EPA 8260B	jmg	
Surrogate: 4-Bromofluorobenzene		*96.1 %*	*70-130*		*06/21/20 15:13*	*EPA 8260B*	jmg	
Surrogate: 1,2-Dichloroethane-d4		*94.1 %*	*70-130*		*06/21/20 15:13*	*EPA 8260B*	jmg	
Surrogate: Fluorobenzene		*93.5 %*	*70-130*		*06/21/20 15:13*	*EPA 8260B*	jmg	

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2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 24

Reported:
06/25/20 13:56

Client Sample ID: MW-4

Date/Time Sampled: 06/09/20 11:34

Laboratory Sample ID: 0F16070-05 (Water/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Conventional Chemistry Parameters by SM/EPA Methods								
Total Dissolved Solids	212		20.0	mg/l	06/18/20 16:00	SM 2540C-11	EEV	AA
Volatile Organic Compounds by EPA Method 8260B/Prep Method 5030B								
1,3,5-Trimethylbenzene	1.00		1.00	ug/l	06/21/20 15:53	EPA 8260B	jmg	
1,2,4-Trimethylbenzene	1.24		1.00	ug/l	06/21/20 15:53	EPA 8260B	jmg	
Benzene	<1.00		1.00	ug/l	06/21/20 15:53	EPA 8260B	jmg	
Toluene	<1.00		1.00	ug/l	06/21/20 15:53	EPA 8260B	jmg	
Ethylbenzene	<1.00		1.00	ug/l	06/21/20 15:53	EPA 8260B	jmg	
Xylenes (total)	3.83		2.00	ug/l	06/21/20 15:53	EPA 8260B	jmg	
Isopropylbenzene	<1.00		1.00	ug/l	06/21/20 15:53	EPA 8260B	jmg	
Methyl tert-butyl ether	2.99		1.00	ug/l	06/21/20 15:53	EPA 8260B	jmg	
Naphthalene	<1.00		1.00	ug/l	06/21/20 15:53	EPA 8260B	jmg	
Surrogate: 4-Bromofluorobenzene		*91.9 %*	*70-130*		*06/21/20 15:53*	*EPA 8260B*	jmg	
Surrogate: 1,2-Dichloroethane-d4		*95.1 %*	*70-130*		*06/21/20 15:53*	*EPA 8260B*	jmg	
Surrogate: Fluorobenzene		*92.8 %*	*70-130*		*06/21/20 15:53*	*EPA 8260B*	jmg	

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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 24

Reported:
06/25/20 13:56

Client Sample ID: **MW-5**

Date/Time Sampled: 06/09/20 09:49

Laboratory Sample ID: **0F16070-06 (Water/Grab)**

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Conventional Chemistry Parameters by SM/EPA Methods								
Total Dissolved Solids	820		40.0	mg/l	06/18/20 16:00	SM 2540C-11	EEV	AA Q
Volatile Organic Compounds by EPA Method 8260B/Prep Method 5030B								
1,3,5-Trimethylbenzene	602		25.0	ug/l	06/23/20 15:42	EPA 8260B	jmg	
1,2,4-Trimethylbenzene	2340		25.0	ug/l	06/23/20 15:42	EPA 8260B	jmg	
Benzene	268		25.0	ug/l	06/23/20 15:42	EPA 8260B	jmg	
Toluene	433		25.0	ug/l	06/23/20 15:42	EPA 8260B	jmg	
Ethylbenzene	1440		25.0	ug/l	06/23/20 15:42	EPA 8260B	jmg	
Xylenes (total)	16800		200	ug/l	06/23/20 17:35	EPA 8260B	jmg	
Isopropylbenzene	63.5		25.0	ug/l	06/23/20 15:42	EPA 8260B	jmg	
Methyl tert-butyl ether	<8.75		8.75	ug/l	06/23/20 15:42	EPA 8260B	jmg	S
Naphthalene	666		25.0	ug/l	06/23/20 15:42	EPA 8260B	jmg	
Surrogate: 4-Bromofluorobenzene		*102 %*	*70-130*		*06/23/20 15:42*	*EPA 8260B*	jmg	
Surrogate: 1,2-Dichloroethane-d4		*83.9 %*	*70-130*		*06/23/20 15:42*	*EPA 8260B*	jmg	
Surrogate: Fluorobenzene		*96.6 %*	*70-130*		*06/23/20 15:42*	*EPA 8260B*	jmg	

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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 24

Reported:
06/25/20 13:56

Client Sample ID: MW-6

Date/Time Sampled: 06/09/20 10:17

Laboratory Sample ID: 0F16070-07 (Water/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Conventional Chemistry Parameters by SM/EPA Methods								
Total Dissolved Solids	480		40.0	mg/l	06/18/20 16:00	SM 2540C-11	EEV	AA Q
Volatile Organic Compounds by EPA Method 8260B/Prep Method 5030B								
1,3,5-Trimethylbenzene	<50.0		50.0	ug/l	06/23/20 16:10	EPA 8260B	jmg	
1,2,4-Trimethylbenzene	55.0		50.0	ug/l	06/23/20 16:10	EPA 8260B	jmg	
Benzene	82.0		50.0	ug/l	06/23/20 16:10	EPA 8260B	jmg	
Toluene	<50.0		50.0	ug/l	06/23/20 16:10	EPA 8260B	jmg	
Ethylbenzene	56.0		50.0	ug/l	06/23/20 16:10	EPA 8260B	jmg	
Xylenes (total)	223		100	ug/l	06/23/20 16:10	EPA 8260B	jmg	
Isopropylbenzene	<50.0		50.0	ug/l	06/23/20 16:10	EPA 8260B	jmg	
Methyl tert-butyl ether	<50.0		50.0	ug/l	06/23/20 16:10	EPA 8260B	jmg	
Naphthalene	238		50.0	ug/l	06/23/20 16:10	EPA 8260B	jmg	
Surrogate: 4-Bromofluorobenzene		*104 %*	*70-130*		*06/23/20 16:10*	*EPA 8260B*	jmg	
Surrogate: 1,2-Dichloroethane-d4		*103 %*	*70-130*		*06/23/20 16:10*	*EPA 8260B*	jmg	
Surrogate: Fluorobenzene		*95.7 %*	*70-130*		*06/23/20 16:10*	*EPA 8260B*	jmg	

2019 Ninth Avenue
PO Box 1925
Altoona, PA 16603
(814) 946-4306

NELAP: PA 07-062, VA 460212
State Certifications: MD 275, WV 364

FAIRWAY LABORATORIES
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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 24

Reported:
06/25/20 13:56

Client Sample ID: **TRIP BLANK**

Date/Time Sampled: 06/09/20 11:50

Laboratory Sample ID: **0F16070-08 (Water/Grab)**

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Conventional Chemistry Parameters by SM/EPA Methods								
Total Dissolved Solids	<20.0		20.0	mg/l	06/24/20 15:18	SM 2540C-11	EEV	AA
Volatile Organic Compounds by EPA Method 8260B/Prep Method 5030B								
1,3,5-Trimethylbenzene	<1.00		1.00	ug/l	06/21/20 16:33	EPA 8260B	jmg	
1,2,4-Trimethylbenzene	<1.00		1.00	ug/l	06/21/20 16:33	EPA 8260B	jmg	
Benzene	<1.00		1.00	ug/l	06/21/20 16:33	EPA 8260B	jmg	
Toluene	<1.00		1.00	ug/l	06/21/20 16:33	EPA 8260B	jmg	
Ethylbenzene	<1.00		1.00	ug/l	06/21/20 16:33	EPA 8260B	jmg	
Xylenes (total)	<2.00		2.00	ug/l	06/21/20 16:33	EPA 8260B	jmg	
Isopropylbenzene	<1.00		1.00	ug/l	06/21/20 16:33	EPA 8260B	jmg	
Methyl tert-butyl ether	<1.00		1.00	ug/l	06/21/20 16:33	EPA 8260B	jmg	
Naphthalene	<1.00		1.00	ug/l	06/21/20 16:33	EPA 8260B	jmg	
Surrogate: 4-Bromofluorobenzene		*92.3 %*	*70-130*		*06/21/20 16:33*	*EPA 8260B*	jmg	
Surrogate: 1,2-Dichloroethane-d4		*95.8 %*	*70-130*		*06/21/20 16:33*	*EPA 8260B*	jmg	
Surrogate: Fluorobenzene		*93.5 %*	*70-130*		*06/21/20 16:33*	*EPA 8260B*	jmg	

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Letterle & Associates Inc.	Project:	SOHAILS	
2022 Axemann Road Suite 201	Project Number:	[none]	**Reported:**
Bellefonte PA, 16823	Collector:	CLIENT	06/25/20 13:56
Project Manager: Jed Hill	Number of Containers:	24	

Notes

AA	The sample was received with limited holding time and was analyzed past hold.
K	The RPD result exceeded the quality control limits for the duplicate, Laboratory Control Sample Duplicate (LCSD), or Matrix Spike Duplicate (MSD) sample analyzed with the preparation batch.
Q	Sample was analyzed at a dilution. Reporting limits were adjusted accordingly.
S	This analysis has been reported to the MDL; therefore it is an estimated value.

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Letterle & Associates Inc.	Project:	SOHAILS	
2022 Axemann Road Suite 201	Project Number:	[none]	**Reported:**
Bellefonte PA, 16823	Collector:	CLIENT	06/25/20 13:56
Project Manager: Jed Hill	Number of Containers:	24	

Definitions:

If surrogate values are not within the indicated range, then the results are considered to be estimated.

Reporting limits are adjusted accordingly when samples are analyzed at a dilution due to the matrix.

MBAS, calculated as LAS, mol wt 348

If the solid sample weight for VOC analysis does not fall within the 3.5-6.5 gram range, the results are considered estimated values.

Unless otherwise noted, all results for solids are reported on a dry weight basis.

Samples collected by Fairway Laboratories' personnel are done so in accordance with Standard Operating Procedures established by Fairway Laboratories.

#	The following analyses are to be performed immediately upon sampling: pH, sulfite, chlorine residual, dissolved oxygen, filtration for ortho phosphorus, and ferrous iron. The date and time reported reflect the time the samples were analyzed at the laboratory; and should be considered as analyzed outside the EPA holding time.
^	The following analytes are to be filtered immediately upon sampling: Hexavalent Chromium. Filtration through a 0.45 micron filter within 15 minutes of sampling is required for compliance with the Clean Water Act (CWA) for reporting of hexavalent chromium to prevent interconversion of chromium species.
*	**Analysis location indicator:** **D**: Indicates analysis performed by Fairway Laboratories, Inc., 110 McCracken Run Rd., DuBois, PA 15801. PA DEP Chapter 252 certification: PA 33-00258. **E**: Indicates analysis performed by Fairway Laboratories, Inc., 1920 East 38th Street, Erie, PA 16510. PA Registered Laboratory: PA 25-05907. **G**: Indicates analysis performed by Fairway Laboratories, Inc., 4727 Route 30 Ste 204, Greensburg, PA 15601. PA DEP Chapter 252 certification: PA 65-00392. **P**: Indicates analysis performed by Fairway Laboratories, Inc., 89 Kristi Rd., Pennsdale, PA 17756. PA DEP Chapter 252 certification: PA 41-04684. **W**: Indicates analysis performed by Fairway Laboratories, Inc., 1980 Golden Mile Rd., Wysox, PA 18854. NELAP certification: PA 08-05622 and NY 12127.
<	Represents "less than" - indicates that the result was less than the RL, or the MDL if indicated for the parameter.
MDL	Method Detection Limit - is the lowest or minimum level that provides 99% confidence level that the analyte is detected. Any reported result values that are less than the RL are considered estimated values. If Radiological results are reported, the MDC - Minimum Detectable Concentration is shown in the MDL column.
RL	Reporting Limit - is the lowest or minimum level at which the analyte can be quantified.
[CALC]	Indicates a calculated result. Calculations use results from other analyses performed under accredited methods.

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Letterle & Associates Inc.	Project:	SOHAILS	
2022 Axemann Road Suite 201	Project Number:	[none]	**Reported:**
Bellefonte PA, 16823	Collector:	CLIENT	06/25/20 13:56
Project Manager: Jed Hill	Number of Containers:	24	

Terms & Conditions

Services provided by Fairway Laboratories Inc. are limited to the terms and conditions stated herein, unless otherwise agreed to in a formal contract.

CHAIN OF CUSTODY Fairway Laboratories Inc. ("Fairway," "us" or "we") will initiate a chain-of-custody/request for analysis upon sample receipt unless the client includes a completed form with the received sample(s). Upon request, Fairway will provide chain-of-custody forms for use.

CONFIDENTIALITY Fairway maintains confidentiality in all of our client interactions. The client's consent will be required before releasing information about the services provided.

CONTRACTS All contracts are subject to review and approval by Fairway's legal council. Each contract must be signed by a corporate officer.

PAYMENT/BILLING Unless otherwise set forth in a signed contract or purchase order, terms of payment are "NET 30 Days." The time allowed for payment shall begin based on the invoice date. A 1.5% per month service charge may be added to all unpaid balances beyond the initial 30 days. In its sole discretion, Fairway reserves the right to request payment before services and hold sample results for payment of due balances. We will not bill a third party without prior agreement among all parties acknowledging and accepting responsibility for payment.

SAMPLE COLLECTION AND SUBMISSION Clients not requesting collection services from Fairway are responsible for proper collection, preservation, packaging, and delivery of samples to the laboratory in accordance with current law and commercial practice. Fairway shall have no responsibility for sample integrity prior to the receipt of the sample(s) and/or for any inaccuracy in test or analyses results as a result of the failure of the client or any third party to maintain the integrity of samples prior to delivery to Fairway. All samples submitted must be accompanied by a completed chain of custody or similar document clearly noting the requested analyses, dates/time sampled, client contact information, and trail of custody. Samples received at the laboratory after business hours are verified on the next business day. Discrepancies are documented on the Receiving Document.

SUBCONTRACTING Some analyses may require subcontracting to another laboratory. Unless the client indicates otherwise, this decision will be made by Fairway. Subcontracted work will be identified on the final report in accordance with NELAC requirements.

RETURN OF RESULTS Fairway routinely provides faxed or verbal results within 10 working days of receipt of sample(s) and a hard copy of the data results is routinely received via US Postal Service within 15 working days. At the request of the client, Fairway may offer expedited return of sample results. Surcharges may apply to rush requests. All rush requests must be pre-approved by Fairway. We reserve the right to charge an archive retrieval fee for results older than one (1) year from the date of the request. All records will be maintained by Fairway for 5 years, after which, they will be destroyed.

SAMPLE DISPOSAL Fairway will maintain samples for four (4) weeks after the sample receipt date. Fairway will dispose of samples which are not and/or do not contain hazardous wastes (as such term is defined by applicable federal or state law), unless prior arrangements have been made for long-term storage. Fairway reserves the right to charge a disposal fee for the proper disposal of samples found or suspected to contain hazardous waste. A return shipping charge will be invoiced for samples returned to the client at their request.

HAZARD COMMUNICATION The client has the responsibility to inform the laboratory of any hazardous characteristics known or suspected about the sample, and to provide information on hazard prevention and personal protection as necessary or otherwise required by applicable law.

WARRANTY AND LIMITATION OF LIABILITY For services rendered, Fairway warrants that it will apply its best scientific knowledge and judgment and to employ its best level of effort consistent with professional standards within the environmental testing industry in performing the analytical services requested by its clients. We disclaim any other warranties, expressed or implied by law. Fairway does not accept any legal responsibility for the purposes for which client uses the test results.

LITIGATION All costs associated with compliance to any subpoena for documents, for testimony in a court of law, or for any other purpose relating to work performed by Fairway Laboratories, Inc. shall be invoiced by Fairway and paid by client. These costs shall include, but are not limited to, hourly charges for the persons involved, travel, mileage, and accommodations and for any and all other expenses associated with said litigation.

Fairway Labs in Altoona, PA is a NELAP (National Environmental Laboratory Accreditation Program) accredited lab, and as such, certifies that all applicable test results meet the requirements of NELAP, unless otherwise stated on the analytical report.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Please print. See back of COC for instructions/terms and conditions.

FAIRWAY LABORATORIES
Environmental Laboratory

2019 9th Ave.
P.O. Box 1925
Altoona, PA 16602
Phone: (814) 946-4306
Fax: (814) 946-8791

Client Page # 1 of 1

Client Name: Letterle & Associates
Address: 2022 Axemann Road
Bellefonte, PA 16823
Contact: Jed Hill
Phone #: 814-355-2241
Fax #: 814-355-2410
Project Name: Sohail's Store
Quote/PO #:

Received on ice? Y N
Sample Temp:

Reportable to PADEP? Yes ❑
PWSID #

TAT: Normal ❑ Rush ❑
Rush TAT subject to pre-approval and surcharge.
Date Required: ___/___/___

LAB USE ONLY
Work Order # OF16070
Attach #
FLI Page # 1 of 2
Tracking #

	Sample Description/Location	GRAB	Composite	Composite Start / GRAB -or- Composite End: Start Date	Start Time	End Date	End Time	Matrix: Solid	Water	Other	# of Containers	Analyses Requested: 2008 Unleaded Gas	Total Dissolved Solids (TDS)	Bottle Type/Comments
1	MW-1	X				6-9	9:21		X		3	X	X	0.3°C
2	MW-2						10:40				1			1.3 °C
3	MW-2DUP						10:40				1			0.0°C
4	MW-3						11:10				1			0.8°C
5	MW-4						11:34				1			0.6°C
6	MW-5						9:49				1			2.0°C
7	MW-6						10:17				1			0.0°C
8	Trip Blank						11:50				1			0.0°C

Military or AM/PM required

Sampled by: (Signature)	Date	Time
	6/9/20	14:00
Relinquished by:	Date	Time
Relinquished by:	Date	Time
Relinquished by:	Date	Time

Received by:	Date	Time
Received by:	Date	Time
Received by:	Date	Time
Received by: (BNL)	6/12/20	1215

Remarks

By relinquishing my sample to Fairway Laboratories, Inc., I hereby agree to the terms and conditions printed on the reverse.

White Original - FLI File Canary - FLI Copy Pink - Customer Receipt Copy

SOP FLI0601-002 Attachment G Revision 26 Date: May 22, 2019 Page of

Chain of Custody Receiving Document

Page 2 of 2

Receiver: BNG

Date/Time of this check: 6/10/20 1200 Client: Letterle Lab # 8F16070

Received on ICE? Y ☐ * **Sample Temperature when delivered to the Lab:** 2.6 °C **Acceptable?** Y ☐ * **or In cool down process?** ☐ *

(Not applicable for WV compliance)

Custody Seals? Y Intact? Y

Morning Temperature Verification <6°C (if applicable): ☒

COC/Labels on bottles agree? Y ☐* Correct containers for all the analysis requested? Y ☐ * Matrix: Water

COC #	Number and Type of BOTTLES										Comments
	Poly Non-Pres.	Poly H2SO4	Poly HNO3	Amber H2SO4	Amber Non-Pres.	Poly NaOH	VOCS (Head space?)	Other ☐ *	Properly Preserved ☐ *	Bacti	☐ * Internal notification completed for deviations.
1	1						2-HCl		NA		
2											
3											
4											
5											
6											
7 TB8 @BNG 6/10/20											

* DEVIATION PRESENT:		CLIENT CALLED:	CLIENT RESPONSE:	
☹ No Ice	( )	YES ( )	Proceed with analysis; qualify data	( )
☹ Not at Proper Temperature	( )	By Whom:	Will Resample	( )
☹ Wrong Container	( )		Provided Information	( )
☹ Missing Information:	( )	_____ Date: _____	No Response; Proceed and qualified	( )
			Client Contact: _____ Date: _____	

* Comments: _____

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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 16

Reported:
07/22/20 15:45

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Sample Type	Date Sampled	Date Received
MW-1	0G13201-01	Water	Grab	07/09/20 11:15	07/10/20 14:30
MW-2	0G13201-02	Water	Grab	07/09/20 12:10	07/10/20 14:30
MW-2 DUP	0G13201-03	Water	Grab	07/09/20 12:10	07/10/20 14:30
MW-3	0G13201-04	Water	Grab	07/09/20 13:07	07/10/20 14:30
MW-4	0G13201-05	Water	Grab	07/09/20 12:38	07/10/20 14:30
MW-5	0G13201-06	Water	Grab	07/09/20 11:41	07/10/20 14:30
MW-6	0G13201-07	Water	Grab	07/09/20 13:15	07/10/20 14:30
TRIP BLANK	0G13201-08	Water	Trip Blank	07/09/20 13:30	07/10/20 14:30

Fairway Laboratories, Inc.

Reviewed and Submitted by:

Michael P. Tyler
Laboratory Director

Fairway Labs in Altoona, PA is a NELAP (National Environmental Laboratory Accreditation Program) accredited lab, and as such, certifies that all applicable test results meet the requirements of NELAP, unless otherwise stated on the analytical report.

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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 16

Reported: 07/22/20 15:45

Client Sample ID: MW-1

Date/Time Sampled: 07/09/20 11:15

Laboratory Sample ID: 0G13201-01 (Water/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Volatile Organic Compounds by EPA Method 8260B/Prep Method 5030B								Q
1,3,5-Trimethylbenzene	137		10.0	ug/l	07/19/20 04:52	EPA 8260B	JMG	
1,2,4-Trimethylbenzene	310		10.0	ug/l	07/19/20 04:52	EPA 8260B	JMG	
Benzene	20.1		10.0	ug/l	07/19/20 04:52	EPA 8260B	JMG	
Toluene	<10.0		10.0	ug/l	07/19/20 04:52	EPA 8260B	JMG	
Ethylbenzene	402		10.0	ug/l	07/19/20 04:52	EPA 8260B	JMG	
Xylenes (total)	305		20.0	ug/l	07/19/20 04:52	EPA 8260B	JMG	
Isopropylbenzene	62.4		10.0	ug/l	07/19/20 04:52	EPA 8260B	JMG	
Methyl tert-butyl ether	<10.0		10.0	ug/l	07/19/20 04:52	EPA 8260B	JMG	
Naphthalene	189		10.0	ug/l	07/19/20 04:52	EPA 8260B	JMG	
Surrogate: 4-Bromofluorobenzene		*108 %*	*70-130*		*07/19/20 04:52*	*EPA 8260B*	JMG	
Surrogate: 1,2-Dichloroethane-d4		*90.8 %*	*70-130*		*07/19/20 04:52*	*EPA 8260B*	JMG	
Surrogate: Fluorobenzene		*98.8 %*	*70-130*		*07/19/20 04:52*	*EPA 8260B*	JMG	

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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 16

Reported: 07/22/20 15:45

Client Sample ID: MW-2

Date/Time Sampled: 07/09/20 12:10

Laboratory Sample ID: 0G13201-02 (Water/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Volatile Organic Compounds by EPA Method 8260B/Prep Method 5030B								Q
1,3,5-Trimethylbenzene	69.8		5.00	ug/l	07/19/20 05:20	EPA 8260B	JMG	
1,2,4-Trimethylbenzene	334		5.00	ug/l	07/19/20 05:20	EPA 8260B	JMG	
Benzene	157		5.00	ug/l	07/19/20 05:20	EPA 8260B	JMG	
Toluene	8.85		5.00	ug/l	07/19/20 05:20	EPA 8260B	JMG	
Ethylbenzene	193		5.00	ug/l	07/19/20 05:20	EPA 8260B	JMG	
Xylenes (total)	183		10.0	ug/l	07/19/20 05:20	EPA 8260B	JMG	
Isopropylbenzene	52.3		5.00	ug/l	07/19/20 05:20	EPA 8260B	JMG	
Methyl tert-butyl ether	<5.00		5.00	ug/l	07/19/20 05:20	EPA 8260B	JMG	
Naphthalene	274		5.00	ug/l	07/19/20 05:20	EPA 8260B	JMG	
Surrogate: 4-Bromofluorobenzene		*108 %*	*70-130*		*07/19/20 05:20*	*EPA 8260B*	JMG	
Surrogate: 1,2-Dichloroethane-d4		*94.7 %*	*70-130*		*07/19/20 05:20*	*EPA 8260B*	JMG	
Surrogate: Fluorobenzene		*99.1 %*	*70-130*		*07/19/20 05:20*	*EPA 8260B*	JMG	

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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 16

Reported: 07/22/20 15:45

Client Sample ID: MW-2 DUP

Date/Time Sampled: 07/09/20 12:10

Laboratory Sample ID: 0G13201-03 (Water/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Volatile Organic Compounds by EPA Method 8260B/Prep Method 5030B								Q
1,3,5-Trimethylbenzene	72.1		5.00	ug/l	07/19/20 05:48	EPA 8260B	JMG	
1,2,4-Trimethylbenzene	350		5.00	ug/l	07/19/20 05:48	EPA 8260B	JMG	
Benzene	161		5.00	ug/l	07/19/20 05:48	EPA 8260B	JMG	
Toluene	9.50		5.00	ug/l	07/19/20 05:48	EPA 8260B	JMG	
Ethylbenzene	207		5.00	ug/l	07/19/20 05:48	EPA 8260B	JMG	
Xylenes (total)	191		10.0	ug/l	07/19/20 05:48	EPA 8260B	JMG	
Isopropylbenzene	56.0		5.00	ug/l	07/19/20 05:48	EPA 8260B	JMG	
Methyl tert-butyl ether	<5.00		5.00	ug/l	07/19/20 05:48	EPA 8260B	JMG	
Naphthalene	278		5.00	ug/l	07/19/20 05:48	EPA 8260B	JMG	
Surrogate: 4-Bromofluorobenzene		*105 %*	*70-130*		*07/19/20 05:48*	*EPA 8260B*	JMG	
Surrogate: 1,2-Dichloroethane-d4		*96.5 %*	*70-130*		*07/19/20 05:48*	*EPA 8260B*	JMG	
Surrogate: Fluorobenzene		*96.7 %*	*70-130*		*07/19/20 05:48*	*EPA 8260B*	JMG	

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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 16

Reported: 07/22/20 15:45

Client Sample ID: MW-3

Date/Time Sampled: 07/09/20 13:07

Laboratory Sample ID: 0G13201-04 (Water/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Volatile Organic Compounds by EPA Method 8260B/Prep Method 5030B								
1,3,5-Trimethylbenzene	<1.00		1.00	ug/l	07/19/20 08:09	EPA 8260B	JMG	
1,2,4-Trimethylbenzene	1.26		1.00	ug/l	07/19/20 08:09	EPA 8260B	JMG	
Benzene	<1.00		1.00	ug/l	07/19/20 08:09	EPA 8260B	JMG	
Toluene	<1.00		1.00	ug/l	07/19/20 08:09	EPA 8260B	JMG	
Ethylbenzene	<1.00		1.00	ug/l	07/19/20 08:09	EPA 8260B	JMG	
Xylenes (total)	2.56		2.00	ug/l	07/19/20 08:09	EPA 8260B	JMG	
Isopropylbenzene	2.37		1.00	ug/l	07/19/20 08:09	EPA 8260B	JMG	
Methyl tert-butyl ether	1.69		1.00	ug/l	07/19/20 08:09	EPA 8260B	JMG	
Naphthalene	1.74		1.00	ug/l	07/19/20 08:09	EPA 8260B	JMG	
Surrogate: 4-Bromofluorobenzene		*112 %*	*70-130*		*07/19/20 08:09*	*EPA 8260B*	JMG	
Surrogate: 1,2-Dichloroethane-d4		*93.7 %*	*70-130*		*07/19/20 08:09*	*EPA 8260B*	JMG	
Surrogate: Fluorobenzene		*97.5 %*	*70-130*		*07/19/20 08:09*	*EPA 8260B*	JMG	

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Altoona, PA 16603
(814) 946-4306

NELAP: PA 07-062, VA 460212
State Certifications: MD 275, WV 364

FAIRWAY LABORATORIES
www.fairwaylaboratories.com

Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 16

Reported: 07/22/20 15:45

Client Sample ID: MW-4

Date/Time Sampled: 07/09/20 12:38

Laboratory Sample ID: 0G13201-05 (Water/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Volatile Organic Compounds by EPA Method 8260B/Prep Method 5030B								
1,3,5-Trimethylbenzene	<1.00		1.00	ug/l	07/19/20 08:37	EPA 8260B	JMG	
1,2,4-Trimethylbenzene	1.31		1.00	ug/l	07/19/20 08:37	EPA 8260B	JMG	
Benzene	<1.00		1.00	ug/l	07/19/20 08:37	EPA 8260B	JMG	
Toluene	<1.00		1.00	ug/l	07/19/20 08:37	EPA 8260B	JMG	
Ethylbenzene	<1.00		1.00	ug/l	07/19/20 08:37	EPA 8260B	JMG	
Xylenes (total)	6.41		2.00	ug/l	07/19/20 08:37	EPA 8260B	JMG	
Isopropylbenzene	<1.00		1.00	ug/l	07/19/20 08:37	EPA 8260B	JMG	
Methyl tert-butyl ether	2.51		1.00	ug/l	07/19/20 08:37	EPA 8260B	JMG	
Naphthalene	<1.00		1.00	ug/l	07/19/20 08:37	EPA 8260B	JMG	
Surrogate: 4-Bromofluorobenzene		*108 %*	*70-130*		*07/19/20 08:37*	*EPA 8260B*	JMG	
Surrogate: 1,2-Dichloroethane-d4		*87.4 %*	*70-130*		*07/19/20 08:37*	*EPA 8260B*	JMG	
Surrogate: Fluorobenzene		*95.4 %*	*70-130*		*07/19/20 08:37*	*EPA 8260B*	JMG	

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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 16

Reported: 07/22/20 15:45

Client Sample ID: MW-5

Date/Time Sampled: 07/09/20 11:41

Laboratory Sample ID: 0G13201-06 (Water/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Volatile Organic Compounds by EPA Method 8260B/Prep Method 5030B								Q
1,3,5-Trimethylbenzene	367		25.0	ug/l	07/19/20 06:44	EPA 8260B	JMG	
1,2,4-Trimethylbenzene	1380		25.0	ug/l	07/19/20 06:44	EPA 8260B	JMG	
Benzene	236		25.0	ug/l	07/19/20 06:44	EPA 8260B	JMG	
Toluene	460		25.0	ug/l	07/19/20 06:44	EPA 8260B	JMG	
Ethylbenzene	846		25.0	ug/l	07/19/20 06:44	EPA 8260B	JMG	
Xylenes (total)	10700		200	ug/l	07/19/20 07:12	EPA 8260B	JMG	
Isopropylbenzene	37.5		25.0	ug/l	07/19/20 06:44	EPA 8260B	JMG	
Methyl tert-butyl ether	<8.75		8.75	ug/l	07/19/20 06:44	EPA 8260B	JMG	S
Naphthalene	447		25.0	ug/l	07/19/20 06:44	EPA 8260B	JMG	
Surrogate: 4-Bromofluorobenzene		*111 %*	*70-130*		*07/19/20 06:44*	*EPA 8260B*	JMG	
Surrogate: 1,2-Dichloroethane-d4		*88.1 %*	*70-130*		*07/19/20 06:44*	*EPA 8260B*	JMG	
Surrogate: Fluorobenzene		*95.4 %*	*70-130*		*07/19/20 06:44*	*EPA 8260B*	JMG	

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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 16

Reported: 07/22/20 15:45

Client Sample ID: **MW-6**

Date/Time Sampled: 07/09/20 13:15

Laboratory Sample ID: **0G13201-07 (Water/Grab)**

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Volatile Organic Compounds by EPA Method 8260B/Prep Method 5030B								Q
1,3,5-Trimethylbenzene	<5.00		5.00	ug/l	07/19/20 06:16	EPA 8260B	JMG	
1,2,4-Trimethylbenzene	5.20		5.00	ug/l	07/19/20 06:16	EPA 8260B	JMG	
Benzene	44.3		5.00	ug/l	07/19/20 06:16	EPA 8260B	JMG	
Toluene	<5.00		5.00	ug/l	07/19/20 06:16	EPA 8260B	JMG	
Ethylbenzene	10.6		5.00	ug/l	07/19/20 06:16	EPA 8260B	JMG	
Xylenes (total)	10.6		10.0	ug/l	07/19/20 06:16	EPA 8260B	JMG	
Isopropylbenzene	15.4		5.00	ug/l	07/19/20 06:16	EPA 8260B	JMG	
Methyl tert-butyl ether	16.4		5.00	ug/l	07/19/20 06:16	EPA 8260B	JMG	
Naphthalene	66.4		5.00	ug/l	07/19/20 06:16	EPA 8260B	JMG	
Surrogate: 4-Bromofluorobenzene		*108 %*	*70-130*		*07/19/20 06:16*	*EPA 8260B*	JMG	
Surrogate: 1,2-Dichloroethane-d4		*95.3 %*	*70-130*		*07/19/20 06:16*	*EPA 8260B*	JMG	
Surrogate: Fluorobenzene		*96.9 %*	*70-130*		*07/19/20 06:16*	*EPA 8260B*	JMG	

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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 16

Reported: 07/22/20 15:45

Client Sample ID: **TRIP BLANK**

Date/Time Sampled: 07/09/20 13:30

Laboratory Sample ID: **0G13201-08 (Water/Trip Blank)**

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Volatile Organic Compounds by EPA Method 8260B/Prep Method 5030B								
1,3,5-Trimethylbenzene	<1.00		1.00	ug/l	07/19/20 09:05	EPA 8260B	JMG	
1,2,4-Trimethylbenzene	<1.00		1.00	ug/l	07/19/20 09:05	EPA 8260B	JMG	
Benzene	<1.00		1.00	ug/l	07/19/20 09:05	EPA 8260B	JMG	
Toluene	<1.00		1.00	ug/l	07/19/20 09:05	EPA 8260B	JMG	
Ethylbenzene	<1.00		1.00	ug/l	07/19/20 09:05	EPA 8260B	JMG	
Xylenes (total)	<2.00		2.00	ug/l	07/19/20 09:05	EPA 8260B	JMG	
Isopropylbenzene	<1.00		1.00	ug/l	07/19/20 09:05	EPA 8260B	JMG	
Methyl tert-butyl ether	<1.00		1.00	ug/l	07/19/20 09:05	EPA 8260B	JMG	
Naphthalene	<1.00		1.00	ug/l	07/19/20 09:05	EPA 8260B	JMG	
Surrogate: 4-Bromofluorobenzene		*108 %*	*70-130*		*07/19/20 09:05*	*EPA 8260B*	JMG	
Surrogate: 1,2-Dichloroethane-d4		*86.9 %*	*70-130*		*07/19/20 09:05*	*EPA 8260B*	JMG	
Surrogate: Fluorobenzene		*97.5 %*	*70-130*		*07/19/20 09:05*	*EPA 8260B*	JMG	

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Letterle & Associates Inc.	Project:	SOHAILS	
2022 Axemann Road Suite 201	Project Number:	[none]	**Reported:**
Bellefonte PA, 16823	Collector:	CLIENT	07/22/20 15:45
Project Manager: Jed Hill	Number of Containers:	16	

Notes

Q	Sample was analyzed at a dilution. Reporting limits were adjusted accordingly.
S	This analysis has been reported to the MDL; therefore it is an estimated value.

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Letterle & Associates Inc.	Project:	SOHAILS	
2022 Axemann Road Suite 201	Project Number:	[none]	**Reported:**
Bellefonte PA, 16823	Collector:	CLIENT	07/22/20 15:45
Project Manager: Jed Hill	Number of Containers:	16	

Definitions:

If surrogate values are not within the indicated range, then the results are considered to be estimated.

Reporting limits are adjusted accordingly when samples are analyzed at a dilution due to the matrix.

MBAS, calculated as LAS, mol wt 348

If the solid sample weight for VOC analysis does not fall within the 3.5-6.5 gram range, the results are considered estimated values.

Unless otherwise noted, all results for solids are reported on a dry weight basis.

Samples collected by Fairway Laboratories' personnel are done so in accordance with Standard Operating Procedures established by Fairway Laboratories.

#	The following analyses are to be performed immediately upon sampling: pH, sulfite, chlorine residual, dissolved oxygen, filtration for ortho phosphorus, and ferrous iron. The date and time reported reflect the time the samples were analyzed at the laboratory; and should be considered as analyzed outside the EPA holding time.
^	The following analytes are to be filtered immediately upon sampling: Hexavalent Chromium. Filtration through a 0.45 micron filter within 15 minutes of sampling is required for compliance with the Clean Water Act (CWA) for reporting of hexavalent chromium to prevent interconversion of chromium species.
*	**Analysis location indicator:** **D**: Indicates analysis performed by Fairway Laboratories, Inc., 110 McCracken Run Rd., DuBois, PA 15801. PA DEP Chapter 252 certification: PA 33-00258. **E**: Indicates analysis performed by Fairway Laboratories, Inc., 1920 East 38th Street, Erie, PA 16510. PA Registered Laboratory: PA 25-05907. **G**: Indicates analysis performed by Fairway Laboratories, Inc., 4727 Route 30 Ste 204, Greensburg, PA 15601. PA DEP Chapter 252 certification: PA 65-00392. **P**: Indicates analysis performed by Fairway Laboratories, Inc., 89 Kristi Rd., Pennsdale, PA 17756. PA DEP Chapter 252 certification: PA 41-04684. **W**: Indicates analysis performed by Fairway Laboratories, Inc., 1980 Golden Mile Rd., Wysox, PA 18854. NELAP certification: PA 08-05622 and NY 12127.
<	Represents "less than" - indicates that the result was less than the RL, or the MDL if indicated for the parameter.
MDL	Method Detection Limit - is the lowest or minimum level that provides 99% confidence level that the analyte is detected. Any reported result values that are less than the RL are considered estimated values. If Radiological results are reported, the MDC - Minimum Detectable Concentration is shown in the MDL column.
RL	Reporting Limit - is the lowest or minimum level at which the analyte can be quantified.
[CALC]	Indicates a calculated result. Calculations use results from other analyses performed under accredited methods.

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Letterle & Associates Inc.	Project:	SOHAILS	
2022 Axemann Road Suite 201	Project Number:	[none]	**Reported:**
Bellefonte PA, 16823	Collector:	CLIENT	07/22/20 15:45
Project Manager: Jed Hill	Number of Containers:	16	

Terms & Conditions

Services provided by Fairway Laboratories Inc. are limited to the terms and conditions stated herein, unless otherwise agreed to in a formal contract.

CHAIN OF CUSTODY Fairway Laboratories Inc. ("Fairway," "us" or "we") will initiate a chain-of-custody/request for analysis upon sample receipt unless the client includes a completed form with the received sample(s). Upon request, Fairway will provide chain-of-custody forms for use.

CONFIDENTIALITY Fairway maintains confidentiality in all of our client interactions. The client's consent will be required before releasing information about the services provided.

CONTRACTS All contracts are subject to review and approval by Fairway's legal council. Each contract must be signed by a corporate officer.

PAYMENT/BILLING Unless otherwise set forth in a signed contract or purchase order, terms of payment are "NET 30 Days." The time allowed for payment shall begin based on the invoice date. A 1.5% per month service charge may be added to all unpaid balances beyond the initial 30 days. In its sole discretion, Fairway reserves the right to request payment before services and hold sample results for payment of due balances. We will not bill a third party without prior agreement among all parties acknowledging and accepting responsibility for payment.

SAMPLE COLLECTION AND SUBMISSION Clients not requesting collection services from Fairway are responsible for proper collection, preservation, packaging, and delivery of samples to the laboratory in accordance with current law and commercial practice. Fairway shall have no responsibility for sample integrity prior to the receipt of the sample(s) and/or for any inaccuracy in test or analyses results as a result of the failure of the client or any third party to maintain the integrity of samples prior to delivery to Fairway. All samples submitted must be accompanied by a completed chain of custody or similar document clearly noting the requested analyses, dates/time sampled, client contact information, and trail of custody. Samples received at the laboratory after business hours are verified on the next business day. Discrepancies are documented on the Receiving Document.

SUBCONTRACTING Some analyses may require subcontracting to another laboratory. Unless the client indicates otherwise, this decision will be made by Fairway. Subcontracted work will be identified on the final report in accordance with NELAC requirements.

RETURN OF RESULTS Fairway routinely provides faxed or verbal results within 10 working days of receipt of sample(s) and a hard copy of the data results is routinely received via US Postal Service within 15 working days. At the request of the client, Fairway may offer expedited return of sample results. Surcharges may apply to rush requests. All rush requests must be pre-approved by Fairway. We reserve the right to charge an archive retrieval fee for results older than one (1) year from the date of the request. All records will be maintained by Fairway for 5 years, after which, they will be destroyed.

SAMPLE DISPOSAL Fairway will maintain samples for four (4) weeks after the sample receipt date. Fairway will dispose of samples which are not and/or do not contain hazardous wastes (as such term is defined by applicable federal or state law), unless prior arrangements have been made for long-term storage. Fairway reserves the right to charge a disposal fee for the proper disposal of samples found or suspected to contain hazardous waste. A return shipping charge will be invoiced for samples returned to the client at their request.

HAZARD COMMUNICATION The client has the responsibility to inform the laboratory of any hazardous characteristics known or suspected about the sample, and to provide information on hazard prevention and personal protection as necessary or otherwise required by applicable law.

WARRANTY AND LIMITATION OF LIABILITY For services rendered, Fairway warrants that it will apply its best scientific knowledge and judgment and to employ its best level of effort consistent with professional standards within the environmental testing industry in performing the analytical services requested by its clients. We disclaim any other warranties, expressed or implied by law. Fairway does not accept any legal responsibility for the purposes for which client uses the test results.

LITIGATION All costs associated with compliance to any subpoena for documents, for testimony in a court of law, or for any other purpose relating to work performed by Fairway Laboratories, Inc. shall be invoiced by Fairway and paid by client. These costs shall include, but are not limited to, hourly charges for the persons involved, travel, mileage, and accommodations and for any and all other expenses associated with said litigation.

Fairway Laboratories, Inc.

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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Please print. See back of COC for instructions/terms and conditions.

FAIRWAY LABORATORIES
Environmental Laboratory
2019 9th Ave.
P.O. Box 1925
Altoona, PA 16602
Phone: (814) 946-4306
Fax: (814) 946-8791

Client Page # 1 of 1

Client Name: Letterle & Associates
Address: 2022 Axemann Road
Bellefonte, PA 16823
Contact: Jed Hall
Phone #: 814-355-2241
Fax #: 814-355-2410
Project Name: Sohail's Store
Quote/PO #:

Received on ice? Y N
Sample Temp:

Reportable to PADEP? Yes ☐
PWSID #

LAB USE ONLY
Work Order # OG13201
Attach # 1
FLI Page # 1 of 2
Tracking #

TAT: Normal ☒ Rush ☐
Rush TAT subject to pre-approval and surcharge.
Date Required: ____/____/____

	Sample Description/Location	GRAB	Composite	Composite Start / GRAB -or- Composite End: Start Date	Start Time	End Date	End Time	Matrix: Solid	Water	Other	# of Containers	Analyses Requested: 2008 Unleaded Gas							Bottle Type/Comments
1	MW-1	X				7-9	11:15		X		2	X	08						
2	MW-2						12:10						4.0						
3	MW-2DUP						12:10						3.1						
4	MW-3						13:07						4.4	3.8					
5	MW-4						12:38						3.1						
6	MW-5						11:41						1.2*						
7	MW-6						13:15							4.9					
8	Trip Blank						13:30												

Military or AM/PM required

		Date	Time
Sampled by: (Signature)		7/9/20	15:45
Relinquished by:		7/9/20	1305
Relinquished by:		7/10/20	1430
Relinquished by:			
Received by:		7/10/20	1225
Received by:		7/10/20	1245
Received by:		7/10/20	1430
Received by: agami		7/10/20	1430

Remarks

By relinquishing my sample to Fairway Laboratories, Inc., I hereby agree to the terms and conditions printed on the reverse.

White Original - FLI File Canary - FLI Copy Pink - Customer Receipt Copy

Chain of Custody Receiving Document

Receiver: AI Page 2 of 2

Date/Time of this check: 7.13.20 1959 Client: Letterle Lab # OG13201

Received on ICE? Y ☐ * **Sample Temperature when delivered to the Lab:** 4.9°C **Acceptable?** Y ☐ * **or In cool down process?** ☐ *

(Not applicable for WV compliance)

Custody Seals? Y Intact? Y

Morning Temperature Verification <6°C (if applicable): —

COC/Labels on bottles agree? Y ☐ * Correct containers for all the analysis requested? Y ☐ * Matrix: Water

COC #	Number and Type of BOTTLES										Comments
	Poly Non-Pres.	Poly H2SO4	Poly HNO3	Amber H2SO4	Amber Non-Pres.	Poly NaOH	VOCS (Head space?)	Other ☐ *	Properly Preserved ☐ *	Bacti	☐ * Internal notification completed for deviations.
1							7 HCl		NA		
8											
. . .		. .	.	.	. .		. .	. .	. .		. . .

* DEVIATION PRESENT:	CLIENT CALLED:	CLIENT RESPONSE:
☹ No Ice ( )	YES ( )	Proceed with analysis; qualify data ( )
☹ Not at Proper Temperature ( )	By Whom:	Will Resample ( )
☹ Wrong Container ( )		Provided Information ( )
☹ Missing Information: ( )	_____ Date: _____	No Response; Proceed and qualified ( )
		Client Contact: _____ Date: _____

* Comments: _____

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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 22

Reported:
09/15/20 17:16

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Sample Type	Date Sampled	Date Received
MW-1	0I08175-01	Water	Grab	09/08/20 10:14	09/08/20 15:15
MW-2	0I08175-02	Water	Grab	09/08/20 09:27	09/08/20 15:15
MW-2DUP	0I08175-03	Water	Grab	09/08/20 09:27	09/08/20 15:15
MW-3	0I08175-04	Water	Grab	09/08/20 12:11	09/08/20 15:15
MW-4	0I08175-05	Water	Grab	09/08/20 12:34	09/08/20 15:15
MW-5	0I08175-06	Water	Grab	09/08/20 10:41	09/08/20 15:15
MW-6	0I08175-07	Water	Grab	09/08/20 11:27	09/08/20 15:15
MW-7	0I08175-08	Water	Grab	09/08/20 09:51	09/08/20 15:15
MW-8	0I08175-09	Water	Grab	09/08/20 11:05	09/08/20 15:15
MW-9	0I08175-10	Water	Grab	09/08/20 11:49	09/08/20 15:15
TRIP BLANK	0I08175-11	Water	Trip Blank	09/08/20 12:50	09/08/20 15:15

Fairway Laboratories, Inc.

Reviewed and Submitted by:

Michael P. Tyler
Laboratory Director

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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 22

Reported: 09/15/20 17:16

Client Sample ID: MW-1

Date/Time Sampled: 09/08/20 10:14

Laboratory Sample ID: 0I08175-01 (Water/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Volatile Organic Compounds by EPA Method 8260B/Prep Method 5030B								Q
1,3,5-Trimethylbenzene	85.8		10.0	ug/l	09/15/20 00:13	EPA 8260B	JMG	
1,2,4-Trimethylbenzene	165		10.0	ug/l	09/15/20 00:13	EPA 8260B	JMG	
Benzene	23.1		10.0	ug/l	09/15/20 00:13	EPA 8260B	JMG	
Toluene	<10.0		10.0	ug/l	09/15/20 00:13	EPA 8260B	JMG	
Ethylbenzene	389		10.0	ug/l	09/15/20 00:13	EPA 8260B	JMG	
Xylenes (total)	74.0		20.0	ug/l	09/15/20 00:13	EPA 8260B	JMG	
Isopropylbenzene	58.1		10.0	ug/l	09/15/20 00:13	EPA 8260B	JMG	
Methyl tert-butyl ether	<3.50		3.50	ug/l	09/15/20 00:13	EPA 8260B	JMG	S
Naphthalene	208		10.0	ug/l	09/15/20 00:13	EPA 8260B	JMG	
Surrogate: 4-Bromofluorobenzene		*103 %*	*70-130*		*09/15/20 00:13*	*EPA 8260B*	JMG	
Surrogate: 1,2-Dichloroethane-d4		*105 %*	*70-130*		*09/15/20 00:13*	*EPA 8260B*	JMG	
Surrogate: Fluorobenzene		*102 %*	*70-130*		*09/15/20 00:13*	*EPA 8260B*	JMG	

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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 22

Reported: 09/15/20 17:16

Client Sample ID: MW-2

Date/Time Sampled: 09/08/20 09:27

Laboratory Sample ID: 0I08175-02 (Water/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Volatile Organic Compounds by EPA Method 8260B/Prep Method 5030B								Q
1,3,5-Trimethylbenzene	28.1		10.0	ug/l	09/15/20 00:41	EPA 8260B	JMG	
1,2,4-Trimethylbenzene	192		10.0	ug/l	09/15/20 00:41	EPA 8260B	JMG	
Benzene	262		10.0	ug/l	09/15/20 00:41	EPA 8260B	JMG	
Toluene	<10.0		10.0	ug/l	09/15/20 00:41	EPA 8260B	JMG	
Ethylbenzene	165		10.0	ug/l	09/15/20 00:41	EPA 8260B	JMG	
Xylenes (total)	56.0		20.0	ug/l	09/15/20 00:41	EPA 8260B	JMG	
Isopropylbenzene	80.0		10.0	ug/l	09/15/20 00:41	EPA 8260B	JMG	
Methyl tert-butyl ether	<3.50		3.50	ug/l	09/15/20 00:41	EPA 8260B	JMG	S
Naphthalene	497		10.0	ug/l	09/15/20 00:41	EPA 8260B	JMG	
Surrogate: 4-Bromofluorobenzene		*101 %*	*70-130*		*09/15/20 00:41*	*EPA 8260B*	JMG	
Surrogate: 1,2-Dichloroethane-d4		*105 %*	*70-130*		*09/15/20 00:41*	*EPA 8260B*	JMG	
Surrogate: Fluorobenzene		*99.8 %*	*70-130*		*09/15/20 00:41*	*EPA 8260B*	JMG	

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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 22

Reported: 09/15/20 17:16

Client Sample ID: MW-2DUP

Date/Time Sampled: 09/08/20 09:27

Laboratory Sample ID: 0I08175-03 (Water/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Volatile Organic Compounds by EPA Method 8260B/Prep Method 5030B								Q
1,3,5-Trimethylbenzene	24.7		10.0	ug/l	09/15/20 01:08	EPA 8260B	JMG	
1,2,4-Trimethylbenzene	175		10.0	ug/l	09/15/20 01:08	EPA 8260B	JMG	
Benzene	272		10.0	ug/l	09/15/20 01:08	EPA 8260B	JMG	
Toluene	<10.0		10.0	ug/l	09/15/20 01:08	EPA 8260B	JMG	
Ethylbenzene	154		10.0	ug/l	09/15/20 01:08	EPA 8260B	JMG	
Xylenes (total)	54.2		20.0	ug/l	09/15/20 01:08	EPA 8260B	JMG	
Isopropylbenzene	80.1		10.0	ug/l	09/15/20 01:08	EPA 8260B	JMG	
Methyl tert-butyl ether	<3.50		3.50	ug/l	09/15/20 01:08	EPA 8260B	JMG	S
Naphthalene	532		10.0	ug/l	09/15/20 01:08	EPA 8260B	JMG	
Surrogate: 4-Bromofluorobenzene		*103 %*	*70-130*		*09/15/20 01:08*	*EPA 8260B*	JMG	
Surrogate: 1,2-Dichloroethane-d4		*97.2 %*	*70-130*		*09/15/20 01:08*	*EPA 8260B*	JMG	
Surrogate: Fluorobenzene		*103 %*	*70-130*		*09/15/20 01:08*	*EPA 8260B*	JMG	

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2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 22

Reported: 09/15/20 17:16

Client Sample ID: MW-3

Date/Time Sampled: 09/08/20 12:11

Laboratory Sample ID: 0I08175-04 (Water/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Volatile Organic Compounds by EPA Method 8260B/Prep Method 5030B								
1,3,5-Trimethylbenzene	<1.00		1.00	ug/l	09/15/20 03:00	EPA 8260B	JMG	
1,2,4-Trimethylbenzene	<1.00		1.00	ug/l	09/15/20 03:00	EPA 8260B	JMG	
Benzene	17.2		1.00	ug/l	09/15/20 03:00	EPA 8260B	JMG	
Toluene	<1.00		1.00	ug/l	09/15/20 03:00	EPA 8260B	JMG	
Ethylbenzene	<1.00		1.00	ug/l	09/15/20 03:00	EPA 8260B	JMG	
Xylenes (total)	<2.00		2.00	ug/l	09/15/20 03:00	EPA 8260B	JMG	
Isopropylbenzene	9.20		1.00	ug/l	09/15/20 03:00	EPA 8260B	JMG	
Methyl tert-butyl ether	2.66		1.00	ug/l	09/15/20 03:00	EPA 8260B	JMG	
Naphthalene	15.2		1.00	ug/l	09/15/20 03:00	EPA 8260B	JMG	
Surrogate: 4-Bromofluorobenzene		*103 %*	*70-130*		*09/15/20 03:00*	*EPA 8260B*	JMG	
Surrogate: 1,2-Dichloroethane-d4		*111 %*	*70-130*		*09/15/20 03:00*	*EPA 8260B*	JMG	
Surrogate: Fluorobenzene		*103 %*	*70-130*		*09/15/20 03:00*	*EPA 8260B*	JMG	

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Project Manager: Jed Hill

Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 22

Reported: 09/15/20 17:16

Client Sample ID: MW-4

Date/Time Sampled: 09/08/20 12:34

Laboratory Sample ID: 0I08175-05 (Water/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Volatile Organic Compounds by EPA Method 8260B/Prep Method 5030B								
1,3,5-Trimethylbenzene	<1.00		1.00	ug/l	09/15/20 03:27	EPA 8260B	JMG	
1,2,4-Trimethylbenzene	<1.00		1.00	ug/l	09/15/20 03:27	EPA 8260B	JMG	
Benzene	<1.00		1.00	ug/l	09/15/20 03:27	EPA 8260B	JMG	
Toluene	<1.00		1.00	ug/l	09/15/20 03:27	EPA 8260B	JMG	
Ethylbenzene	<1.00		1.00	ug/l	09/15/20 03:27	EPA 8260B	JMG	
Xylenes (total)	<2.00		2.00	ug/l	09/15/20 03:27	EPA 8260B	JMG	
Isopropylbenzene	<1.00		1.00	ug/l	09/15/20 03:27	EPA 8260B	JMG	
Methyl tert-butyl ether	3.26		1.00	ug/l	09/15/20 03:27	EPA 8260B	JMG	
Naphthalene	1.88		1.00	ug/l	09/15/20 03:27	EPA 8260B	JMG	
Surrogate: 4-Bromofluorobenzene		*100 %*	*70-130*		*09/15/20 03:27*	*EPA 8260B*	JMG	
Surrogate: 1,2-Dichloroethane-d4		*99.7 %*	*70-130*		*09/15/20 03:27*	*EPA 8260B*	JMG	
Surrogate: Fluorobenzene		*106 %*	*70-130*		*09/15/20 03:27*	*EPA 8260B*	JMG	

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Bellefonte PA, 16823
Project Manager: Jed Hill

Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 22

Reported: 09/15/20 17:16

Client Sample ID: MW-5

Date/Time Sampled: 09/08/20 10:41

Laboratory Sample ID: 0I08175-06 (Water/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Volatile Organic Compounds by EPA Method 8260B/Prep Method 5030B								Q
1,3,5-Trimethylbenzene	432		25.0	ug/l	09/15/20 01:36	EPA 8260B	JMG	
1,2,4-Trimethylbenzene	1610		25.0	ug/l	09/15/20 01:36	EPA 8260B	JMG	
Benzene	226		25.0	ug/l	09/15/20 01:36	EPA 8260B	JMG	
Toluene	504		25.0	ug/l	09/15/20 01:36	EPA 8260B	JMG	
Ethylbenzene	1110		25.0	ug/l	09/15/20 01:36	EPA 8260B	JMG	
Xylenes (total)	6840		50.0	ug/l	09/15/20 01:36	EPA 8260B	JMG	R
Isopropylbenzene	59.2		25.0	ug/l	09/15/20 01:36	EPA 8260B	JMG	
Methyl tert-butyl ether	<8.75		8.75	ug/l	09/15/20 01:36	EPA 8260B	JMG	S
Naphthalene	566		25.0	ug/l	09/15/20 01:36	EPA 8260B	JMG	
Surrogate: 4-Bromofluorobenzene		*101 %*	*70-130*		*09/15/20 01:36*	*EPA 8260B*	JMG	
Surrogate: 1,2-Dichloroethane-d4		*118 %*	*70-130*		*09/15/20 01:36*	*EPA 8260B*	JMG	
Surrogate: Fluorobenzene		*103 %*	*70-130*		*09/15/20 01:36*	*EPA 8260B*	JMG	

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Project Manager: Jed Hill

Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 22

Reported: 09/15/20 17:16

Client Sample ID: MW-6

Date/Time Sampled: 09/08/20 11:27

Laboratory Sample ID: 0I08175-07 (Water/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Volatile Organic Compounds by EPA Method 8260B/Prep Method 5030B								Q
1,3,5-Trimethylbenzene	<10.0		10.0	ug/l	09/15/20 02:04	EPA 8260B	JMG	
1,2,4-Trimethylbenzene	<10.0		10.0	ug/l	09/15/20 02:04	EPA 8260B	JMG	
Benzene	190		10.0	ug/l	09/15/20 02:04	EPA 8260B	JMG	
Toluene	<10.0		10.0	ug/l	09/15/20 02:04	EPA 8260B	JMG	
Ethylbenzene	<10.0		10.0	ug/l	09/15/20 02:04	EPA 8260B	JMG	
Xylenes (total)	<20.0		20.0	ug/l	09/15/20 02:04	EPA 8260B	JMG	
Isopropylbenzene	17.3		10.0	ug/l	09/15/20 02:04	EPA 8260B	JMG	
Methyl tert-butyl ether	<3.50		3.50	ug/l	09/15/20 02:04	EPA 8260B	JMG	S
Naphthalene	113		10.0	ug/l	09/15/20 02:04	EPA 8260B	JMG	
Surrogate: 4-Bromofluorobenzene		*101 %*	*70-130*		*09/15/20 02:04*	*EPA 8260B*	JMG	
Surrogate: 1,2-Dichloroethane-d4		*101 %*	*70-130*		*09/15/20 02:04*	*EPA 8260B*	JMG	
Surrogate: Fluorobenzene		*102 %*	*70-130*		*09/15/20 02:04*	*EPA 8260B*	JMG	

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Project Manager: Jed Hill

Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 22

Reported: 09/15/20 17:16

Client Sample ID: MW-7

Date/Time Sampled: 09/08/20 09:51

Laboratory Sample ID: 0I08175-08 (Water/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Volatile Organic Compounds by EPA Method 8260B/Prep Method 5030B								
1,3,5-Trimethylbenzene	<1.00		1.00	ug/l	09/15/20 03:55	EPA 8260B	JMG	
1,2,4-Trimethylbenzene	<1.00		1.00	ug/l	09/15/20 03:55	EPA 8260B	JMG	
Benzene	<1.00		1.00	ug/l	09/15/20 03:55	EPA 8260B	JMG	
Toluene	<1.00		1.00	ug/l	09/15/20 03:55	EPA 8260B	JMG	
Ethylbenzene	<1.00		1.00	ug/l	09/15/20 03:55	EPA 8260B	JMG	
Xylenes (total)	<2.00		2.00	ug/l	09/15/20 03:55	EPA 8260B	JMG	
Isopropylbenzene	<1.00		1.00	ug/l	09/15/20 03:55	EPA 8260B	JMG	
Methyl tert-butyl ether	<1.00		1.00	ug/l	09/15/20 03:55	EPA 8260B	JMG	
Naphthalene	<1.00		1.00	ug/l	09/15/20 03:55	EPA 8260B	JMG	
Surrogate: 4-Bromofluorobenzene		*101 %*	*70-130*		*09/15/20 03:55*	*EPA 8260B*	JMG	
Surrogate: 1,2-Dichloroethane-d4		*105 %*	*70-130*		*09/15/20 03:55*	*EPA 8260B*	JMG	
Surrogate: Fluorobenzene		*101 %*	*70-130*		*09/15/20 03:55*	*EPA 8260B*	JMG	

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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 22

Reported: 09/15/20 17:16

Client Sample ID: MW-8

Date/Time Sampled: 09/08/20 11:05

Laboratory Sample ID: 0I08175-09 (Water/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Volatile Organic Compounds by EPA Method 8260B/Prep Method 5030B								
1,3,5-Trimethylbenzene	<1.00		1.00	ug/l	09/15/20 04:23	EPA 8260B	JMG	
1,2,4-Trimethylbenzene	<1.00		1.00	ug/l	09/15/20 04:23	EPA 8260B	JMG	
Benzene	<1.00		1.00	ug/l	09/15/20 04:23	EPA 8260B	JMG	
Toluene	<1.00		1.00	ug/l	09/15/20 04:23	EPA 8260B	JMG	
Ethylbenzene	<1.00		1.00	ug/l	09/15/20 04:23	EPA 8260B	JMG	
Xylenes (total)	<2.00		2.00	ug/l	09/15/20 04:23	EPA 8260B	JMG	
Isopropylbenzene	<1.00		1.00	ug/l	09/15/20 04:23	EPA 8260B	JMG	
Methyl tert-butyl ether	1.08		1.00	ug/l	09/15/20 04:23	EPA 8260B	JMG	
Naphthalene	<1.00		1.00	ug/l	09/15/20 04:23	EPA 8260B	JMG	
Surrogate: 4-Bromofluorobenzene		*101 %*	*70-130*		*09/15/20 04:23*	*EPA 8260B*	JMG	
Surrogate: 1,2-Dichloroethane-d4		*101 %*	*70-130*		*09/15/20 04:23*	*EPA 8260B*	JMG	
Surrogate: Fluorobenzene		*99.4 %*	*70-130*		*09/15/20 04:23*	*EPA 8260B*	JMG	

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2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 22

Reported: 09/15/20 17:16

Client Sample ID: MW-9

Date/Time Sampled: 09/08/20 11:49

Laboratory Sample ID: 0I08175-10 (Water/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Volatile Organic Compounds by EPA Method 8260B/Prep Method 5030B								
1,3,5-Trimethylbenzene	<1.00		1.00	ug/l	09/15/20 04:51	EPA 8260B	JMG	
1,2,4-Trimethylbenzene	<1.00		1.00	ug/l	09/15/20 04:51	EPA 8260B	JMG	
Benzene	<1.00		1.00	ug/l	09/15/20 04:51	EPA 8260B	JMG	
Toluene	<1.00		1.00	ug/l	09/15/20 04:51	EPA 8260B	JMG	
Ethylbenzene	<1.00		1.00	ug/l	09/15/20 04:51	EPA 8260B	JMG	
Xylenes (total)	<2.00		2.00	ug/l	09/15/20 04:51	EPA 8260B	JMG	
Isopropylbenzene	<1.00		1.00	ug/l	09/15/20 04:51	EPA 8260B	JMG	
Methyl tert-butyl ether	<1.00		1.00	ug/l	09/15/20 04:51	EPA 8260B	JMG	
Naphthalene	<1.00		1.00	ug/l	09/15/20 04:51	EPA 8260B	JMG	
Surrogate: 4-Bromofluorobenzene		*99.1 %*	*70-130*		*09/15/20 04:51*	*EPA 8260B*	JMG	
Surrogate: 1,2-Dichloroethane-d4		*111 %*	*70-130*		*09/15/20 04:51*	*EPA 8260B*	JMG	
Surrogate: Fluorobenzene		*105 %*	*70-130*		*09/15/20 04:51*	*EPA 8260B*	JMG	

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2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: SOHAILS
Project Number: [none]
Collector: CLIENT
Number of Containers: 22

Reported:
09/15/20 17:16

Client Sample ID: **TRIP BLANK**

Date/Time Sampled: 09/08/20 12:50

Laboratory Sample ID: **0I08175-11 (Water/Trip Blank)**

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
Volatile Organic Compounds by EPA Method 8260B/Prep Method 5030B								
1,3,5-Trimethylbenzene	<1.00		1.00	ug/l	09/15/20 05:18	EPA 8260B	JMG	
1,2,4-Trimethylbenzene	<1.00		1.00	ug/l	09/15/20 05:18	EPA 8260B	JMG	
Benzene	<1.00		1.00	ug/l	09/15/20 05:18	EPA 8260B	JMG	
Toluene	<1.00		1.00	ug/l	09/15/20 05:18	EPA 8260B	JMG	
Ethylbenzene	<1.00		1.00	ug/l	09/15/20 05:18	EPA 8260B	JMG	
Xylenes (total)	<2.00		2.00	ug/l	09/15/20 05:18	EPA 8260B	JMG	
Isopropylbenzene	<1.00		1.00	ug/l	09/15/20 05:18	EPA 8260B	JMG	
Methyl tert-butyl ether	<1.00		1.00	ug/l	09/15/20 05:18	EPA 8260B	JMG	
Naphthalene	<1.00		1.00	ug/l	09/15/20 05:18	EPA 8260B	JMG	
Surrogate: 4-Bromofluorobenzene		*104 %*	*70-130*		*09/15/20 05:18*	*EPA 8260B*	JMG	
Surrogate: 1,2-Dichloroethane-d4		*113 %*	*70-130*		*09/15/20 05:18*	*EPA 8260B*	JMG	
Surrogate: Fluorobenzene		*103 %*	*70-130*		*09/15/20 05:18*	*EPA 8260B*	JMG	

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Letterle & Associates Inc.	Project:	SOHAILS	
2022 Axemann Road Suite 201	Project Number:	[none]	**Reported:**
Bellefonte PA, 16823	Collector:	CLIENT	09/15/20 17:16
Project Manager: Jed Hill	Number of Containers:	22	

Notes

Q	Sample was analyzed at a dilution. Reporting limits were adjusted accordingly.
R	The result was above the calibration range for the noted analyte; therefore it is an estimated value.
S	This analysis has been reported to the MDL; therefore it is an estimated value.

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Letterle & Associates Inc.	Project:	SOHAILS	
2022 Axemann Road Suite 201	Project Number:	[none]	**Reported:**
Bellefonte PA, 16823	Collector:	CLIENT	09/15/20 17:16
Project Manager: Jed Hill	Number of Containers:	22	

Definitions:

If surrogate values are not within the indicated range, then the results are considered to be estimated.

Reporting limits are adjusted accordingly when samples are analyzed at a dilution due to the matrix.

\+ MBAS, calculated as LAS, mol wt 348

If the solid sample weight for VOC analysis does not fall within the 3.5-6.5 gram range, the results are considered estimated values.

Unless otherwise noted, all results for solids are reported on a dry weight basis.

Samples collected by Fairway Laboratories' personnel are done so in accordance with Standard Operating Procedures established by Fairway Laboratories.

\# The following analyses are to be performed immediately upon sampling: pH, sulfite, chlorine residual, dissolved oxygen, filtration for ortho phosphorus, and ferrous iron. The date and time reported reflect the time the samples were analyzed at the laboratory; and should be considered as analyzed outside the EPA holding time.

^ The following analytes are to be filtered immediately upon sampling: Hexavalent Chromium. Filtration through a 0.45 micron filter within 15 minutes of sampling is required for compliance with the Clean Water Act (CWA) for reporting of hexavalent chromium to prevent interconversion of chromium species.

* **Analysis location indicator:**
D: Indicates analysis performed by Fairway Laboratories, Inc., 110 McCracken Run Rd., DuBois, PA 15801. PA DEP Chapter 252 certification: PA 33-00258.
E: Indicates analysis performed by Fairway Laboratories, Inc., 1920 East 38th Street, Erie, PA 16510. PA Registered Laboratory: PA 25-05907.
G: Indicates analysis performed by Fairway Laboratories, Inc., 4727 Route 30 Ste 204, Greensburg, PA 15601. PA DEP Chapter 252 certification: PA 65-00392.
P: Indicates analysis performed by Fairway Laboratories, Inc., 89 Kristi Rd., Pennsdale, PA 17756. PA DEP Chapter 252 certification: PA 41-04684.
W: Indicates analysis performed by Fairway Laboratories, Inc., 1980 Golden Mile Rd., Wysox, PA 18854. NELAP certification: PA 08-05622 and NY 12127.

< Represents "less than" - indicates that the result was less than the RL, or the MDL if indicated for the parameter.

MDL Method Detection Limit - is the lowest or minimum level that provides 99% confidence level that the analyte is detected. Any reported result values that are less than the RL are considered estimated values. If Radiological results are reported, the MDC - Minimum Detectable Concentration is shown in the MDL column.

RL Reporting Limit - is the lowest or minimum level at which the analyte can be quantified.

[CALC] Indicates a calculated result. Calculations use results from other analyses performed under accredited methods.

2019 Ninth Avenue
PO Box 1925
Altoona, PA 16603
(814) 946-4306

NELAP: PA 07-062, VA 460212
State Certifications: MD 275, WV 364

FAIRWAY LABORATORIES
www.fairwaylaboratories.com

Letterle & Associates Inc.	Project:	SOHAILS	
2022 Axemann Road Suite 201	Project Number:	[none]	**Reported:**
Bellefonte PA, 16823	Collector:	CLIENT	09/15/20 17:16
Project Manager: Jed Hill	Number of Containers:	22	

Terms & Conditions

Services provided by Fairway Laboratories Inc. are limited to the terms and conditions stated herein, unless otherwise agreed to in a formal contract.

CHAIN OF CUSTODY Fairway Laboratories Inc. ("Fairway," "us" or "we") will initiate a chain-of-custody/request for analysis upon sample receipt unless the client includes a completed form with the received sample(s). Upon request, Fairway will provide chain-of-custody forms for use.

CONFIDENTIALITY Fairway maintains confidentiality in all of our client interactions. The client's consent will be required before releasing information about the services provided.

CONTRACTS All contracts are subject to review and approval by Fairway's legal council. Each contract must be signed by a corporate officer.

PAYMENT/BILLING Unless otherwise set forth in a signed contract or purchase order, terms of payment are "NET 30 Days." The time allowed for payment shall begin based on the invoice date. A 1.5% per month service charge may be added to all unpaid balances beyond the initial 30 days. In its sole discretion, Fairway reserves the right to request payment before services and hold sample results for payment of due balances. We will not bill a third party without prior agreement among all parties acknowledging and accepting responsibility for payment.

SAMPLE COLLECTION AND SUBMISSION Clients not requesting collection services from Fairway are responsible for proper collection, preservation, packaging, and delivery of samples to the laboratory in accordance with current law and commercial practice. Fairway shall have no responsibility for sample integrity prior to the receipt of the sample(s) and/or for any inaccuracy in test or analyses results as a result of the failure of the client or any third party to maintain the integrity of samples prior to delivery to Fairway. All samples submitted must be accompanied by a completed chain of custody or similar document clearly noting the requested analyses, dates/time sampled, client contact information, and trail of custody. Samples received at the laboratory after business hours are verified on the next business day. Discrepancies are documented on the Receiving Document.

SUBCONTRACTING Some analyses may require subcontracting to another laboratory. Unless the client indicates otherwise, this decision will be made by Fairway. Subcontracted work will be identified on the final report in accordance with NELAC requirements.

RETURN OF RESULTS Fairway routinely provides faxed or verbal results within 10 working days of receipt of sample(s) and a hard copy of the data results is routinely received via US Postal Service within 15 working days. At the request of the client, Fairway may offer expedited return of sample results. Surcharges may apply to rush requests. All rush requests must be pre-approved by Fairway. We reserve the right to charge an archive retrieval fee for results older than one (1) year from the date of the request. All records will be maintained by Fairway for 5 years, after which, they will be destroyed.

SAMPLE DISPOSAL Fairway will maintain samples for four (4) weeks after the sample receipt date. Fairway will dispose of samples which are not and/or do not contain hazardous wastes (as such term is defined by applicable federal or state law), unless prior arrangements have been made for long-term storage. Fairway reserves the right to charge a disposal fee for the proper disposal of samples found or suspected to contain hazardous waste. A return shipping charge will be invoiced for samples returned to the client at their request.

HAZARD COMMUNICATION The client has the responsibility to inform the laboratory of any hazardous characteristics known or suspected about the sample, and to provide information on hazard prevention and personal protection as necessary or otherwise required by applicable law.

WARRANTY AND LIMITATION OF LIABILITY For services rendered, Fairway warrants that it will apply its best scientific knowledge and judgment and to employ its best level of effort consistent with professional standards within the environmental testing industry in performing the analytical services requested by its clients. We disclaim any other warranties, expressed or implied by law. Fairway does not accept any legal responsibility for the purposes for which client uses the test results.

LITIGATION All costs associated with compliance to any subpoena for documents, for testimony in a court of law, or for any other purpose relating to work performed by Fairway Laboratories, Inc. shall be invoiced by Fairway and paid by client. These costs shall include, but are not limited to, hourly charges for the persons involved, travel, mileage, and accommodations and for any and all other expenses associated with said litigation.

Fairway Laboratories, Inc.

Fairway Labs in Altoona, PA is a NELAP (National Environmental Laboratory Accreditation Program) accredited lab, and as such, certifies that all applicable test results meet the requirements of NELAP, unless otherwise stated on the analytical report.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Please print. See back of COC for instructions/terms and conditions.

FAIRWAY LABORATORIES
Environmental Laboratory

2019 9th Ave.
P.O. Box 1925
Altoona, PA 16602
Phone: (814) 946-4306
Fax: (814) 946-8791

Client Page # 1 of 1

Client Name: Letterle & Associates
Address: 2022 Axemann Road
Bellefonte, PA 16823
Contact: Jed Hill
Phone #: 814-355-2241
Fax #: 814-355-2410
Project Name: Sheets Store
Quote/PO #:

Received on ice? Y N
Sample Temp:

Reportable to PADEP? Yes ☐
PWSID #

TAT: Normal ☐ Rush ☒
Rush TAT subject to pre-approval and surcharge.
Date Required: 9/11/20

LAB USE ONLY
Work Order # 0C08175
Attach # 1
FLI Page # 1 of 2
Tracking #

Analyses Requested

	Sample Description/Location	GRAB	Composite	Composite Start Start Date	Composite Start Start Time	GRAB -or- Composite End End Date	GRAB -or- Composite End End Time	Matrix: Solid	Matrix: Water	Matrix: Other	# of Containers	2008 Unleaded Gas	Bottle Type/Comments
1	MW-1 4°C	X				9-8	10:14		X		7	X	
2	MW-2 4.4°C						9:27						
3	MW-2 DUP 4.4°C						9:27						
4	MW-3 4.6°C	9:52					12:11						
5	MW-4 5.8°C						12:34						
6	MW-5 4.2°C						16:41						
7	MW-6 5.6°C						11:27						
8	MW-7 5.7°C						9:51						
9	MW-8 5.0°C						11:05						
10	MW-9 5.8°C						11:49						
	Trip Blank 5.7°C						12:50						

Military or AM/PM required

	Date	Time
Sampled by: (Signature)	9/8/20	12:55
Relinquished by:	9/8/20	15:15
Relinquished by:		
Relinquished by:		

	Date	Time
Received by:		
Received by:		
Received by:		
Received by:	9/8/20	15:15

Remarks

By relinquishing my sample to Fairway Laboratories, Inc., I hereby agree to the terms and conditions printed on the reverse.

White Original - FLI File Canary - FLI Copy Pink - Customer Receipt Copy

SOP FLI0601-002 Attachment G | Revision 26 | Date: May 22, 2019 | Page of

Chain of Custody Receiving Document

Page 2 of 2

Receiver: CL

Date/Time of this check: 9/5/20 16:15 Client: Letts & Assoc. Lab # OI08175 #2

Received on ICE? Y ☐ * **Sample Temperature when delivered to the Lab:** 5-8°C **Acceptable?** Y ☐ * **or In cool down process?** ☐ *

(Not applicable for WV compliance)

Custody Seals? Y Intact? Y

Morning Temperature Verification <6°C (if applicable): ☐

COC/Labels on bottles agree? Y ☐* Correct containers for all the analysis requested? Y ☐ * Matrix: Water

COC #	Number and Type of BOTTLES										Comments
	Poly Non-Pres.	Poly H2SO4	Poly HNO3	Amber H2SO4	Amber Non-Pres.	Poly NaOH	VOCS (Head space?)	Other ☐ *	Properly Preserved ☐ *	Bacti	☐ * Internal notification completed for deviations.
1							2 HCl		Y		
10											
TOB											

* DEVIATION PRESENT:		CLIENT CALLED:	CLIENT RESPONSE:	
☹ No Ice	( )	YES ( )	Proceed with analysis; qualify data	( )
☹ Not at Proper Temperature	( )	By Whom:	Will Resample	( )
☹ Wrong Container	( )		Provided Information	( )
☹ Missing Information:	( )	Date:	No Response; Proceed and qualified	( )
			Client Contact: Date:	

* Comments: _____

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

October 12, 2020

Mr. Jed Hill
Letterle & Associates, LLC
2022 Axemann Road
Suite 201
Bellefonte, PA 16823

RE: Project: Bellefonte, PA-Revised Report
Pace Project No.: 30384708

Dear Mr. Hill:

Enclosed are the analytical results for sample(s) received by the laboratory on September 29, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Minneapolis

Revision 1 - This report replaces the October 6, 2020 report. This project was revised on October 12, 2020 to include BTEX per client's request. (Greensburg, PA)

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

Sincerely,

Rachel D Christner

Rachel Christner
rachel.christner@pacelabs.com
724-850-5611
Project Manager

Enclosures

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

CERTIFICATIONS

Project: Bellefonte, PA-Revised Report
Pace Project No.: 30384708

Pace Analytical Services - Minneapolis MN
1700 Elm Street SE, Minneapolis, MN 55414
A2LA Certification #: 2926.01
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
EPA Region 8+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: AI-03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Massachusetts DWP Certification #: via MN 027-053-137
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Minnesota Dept of Ag Certifcation #: via MN 027-053-137
Minnesota Petrofund Certification #: 1240
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Vermont Certification #: VT-027053137
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification #: via A2LA 2926.01
USDA Permit #: P330-19-00208

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

SAMPLE SUMMARY

Project: Bellefonte, PA-Revised Report
Pace Project No.: 30384708

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30384708001	**SVP-1**	Air	09/23/20 09:24	09/29/20 11:25
30384708002	**SVP-2**	Air	09/23/20 09:12	09/29/20 11:25
30384708003	**SVP-3**	Air	09/23/20 09:19	09/29/20 11:25

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

SAMPLE ANALYTE COUNT

Project: Bellefonte, PA-Revised Report
Pace Project No.: 30384708

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30384708001	**SVP-1**	TO-15	CH1	9	PASI-M
30384708002	**SVP-2**	TO-15	CH1	9	PASI-M
30384708003	**SVP-3**	TO-15	CH1	9	PASI-M

PASI-M = Pace Analytical Services - Minneapolis

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: Bellefonte, PA-Revised Report
Pace Project No.: 30384708

Sample: SVP-1 **Lab ID: 30384708001** Collected: 09/23/20 09:24 Received: 09/29/20 11:25 Matrix: Air

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15 Pace Analytical Services - Minneapolis								
Benzene	ND	ug/m3	1400	555	4301		10/03/20 03:19	71-43-2	D3
Ethylbenzene	ND	ug/m3	3800	778	4301		10/03/20 03:19	100-41-4	
Isopropylbenzene (Cumene)	ND	ug/m3	10800	1030	4301		10/03/20 03:19	98-82-8	
Methyl-tert-butyl ether	ND	ug/m3	15700	594	4301		10/03/20 03:19	1634-04-4	
Naphthalene	ND	ug/m3	11400	5330	4301		10/03/20 03:19	91-20-3	
Toluene	ND	ug/m3	3290	714	4301		10/03/20 03:19	108-88-3	
1,2,4-Trimethylbenzene	ND	ug/m3	4300	1750	4301		10/03/20 03:19	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	4300	1290	4301		10/03/20 03:19	108-67-8	
Xylene (Total)	ND	ug/m3	11400	1830	4301		10/03/20 03:19	1330-20-7	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: Bellefonte, PA-Revised Report
Pace Project No.: 30384708

Sample: SVP-2 **Lab ID: 30384708002** Collected: 09/23/20 09:12 Received: 09/29/20 11:25 Matrix: Air

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15 Pace Analytical Services - Minneapolis								
Benzene	ND	ug/m3	1400	555	4301		10/03/20 02:52	71-43-2	D3
Ethylbenzene	ND	ug/m3	3800	778	4301		10/03/20 02:52	100-41-4	
Isopropylbenzene (Cumene)	ND	ug/m3	10800	1030	4301		10/03/20 02:52	98-82-8	
Methyl-tert-butyl ether	ND	ug/m3	15700	594	4301		10/03/20 02:52	1634-04-4	
Naphthalene	ND	ug/m3	11400	5330	4301		10/03/20 02:52	91-20-3	
Toluene	ND	ug/m3	3290	714	4301		10/03/20 02:52	108-88-3	
1,2,4-Trimethylbenzene	ND	ug/m3	4300	1750	4301		10/03/20 02:52	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	4300	1290	4301		10/03/20 02:52	108-67-8	
Xylene (Total)	ND	ug/m3	11400	1830	4301		10/03/20 02:52	1330-20-7	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: Bellefonte, PA-Revised Report
Pace Project No.: 30384708

Sample: SVP-3 **Lab ID: 30384708003** Collected: 09/23/20 09:19 Received: 09/29/20 11:25 Matrix: Air

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15 Pace Analytical Services - Minneapolis								
Benzene	ND	ug/m3	1400	555	4301		10/03/20 02:26	71-43-2	D3
Ethylbenzene	ND	ug/m3	3800	778	4301		10/03/20 02:26	100-41-4	
Isopropylbenzene (Cumene)	ND	ug/m3	10800	1030	4301		10/03/20 02:26	98-82-8	
Methyl-tert-butyl ether	ND	ug/m3	15700	594	4301		10/03/20 02:26	1634-04-4	
Naphthalene	ND	ug/m3	11400	5330	4301		10/03/20 02:26	91-20-3	
Toluene	ND	ug/m3	3290	714	4301		10/03/20 02:26	108-88-3	
1,2,4-Trimethylbenzene	ND	ug/m3	4300	1750	4301		10/03/20 02:26	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	4300	1290	4301		10/03/20 02:26	108-67-8	
Xylene (Total)	ND	ug/m3	11400	1830	4301		10/03/20 02:26	1330-20-7	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: Bellefonte, PA-Revised Report
Pace Project No.: 30384708

QC Batch: 702209
QC Batch Method: TO-15
Analysis Method: TO-15
Analysis Description: TO15 MSV AIR Low Level
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 30384708001, 30384708002, 30384708003

METHOD BLANK: 3751440 Matrix: Air
Associated Lab Samples: 30384708001, 30384708002, 30384708003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/m3	ND	0.50	0.20	10/02/20 14:53	
1,3,5-Trimethylbenzene	ug/m3	ND	0.50	0.15	10/02/20 14:53	
Benzene	ug/m3	ND	0.16	0.064	10/02/20 14:53	
Ethylbenzene	ug/m3	ND	0.44	0.090	10/02/20 14:53	
Isopropylbenzene (Cumene)	ug/m3	ND	1.2	0.12	10/02/20 14:53	
Methyl-tert-butyl ether	ug/m3	ND	1.8	0.069	10/02/20 14:53	
Naphthalene	ug/m3	ND	1.3	0.62	10/02/20 14:53	
Toluene	ug/m3	ND	0.38	0.083	10/02/20 14:53	
Xylene (Total)	ug/m3	ND	1.3	0.21	10/02/20 14:53	

LABORATORY CONTROL SAMPLE: 3751441

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/m3	51.5	45.7	89	70-137	
1,3,5-Trimethylbenzene	ug/m3	51.6	45.4	88	70-136	
Benzene	ug/m3	33.5	30.6	91	70-133	
Ethylbenzene	ug/m3	45.6	41.8	92	70-142	
Isopropylbenzene (Cumene)	ug/m3	52	49.2	95	70-135	
Methyl-tert-butyl ether	ug/m3	38.4	36.8	96	70-131	
Naphthalene	ug/m3	57.7	53.0	92	63-130	
Toluene	ug/m3	39.5	36.3	92	70-136	
Xylene (Total)	ug/m3	137	126	92	70-135	

SAMPLE DUPLICATE: 3752053

Parameter	Units	10532939001 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2,4-Trimethylbenzene	ug/m3	ND	ND		25	
1,3,5-Trimethylbenzene	ug/m3	ND	ND		25	
Benzene	ug/m3	1.1	1.3	19	25	
Ethylbenzene	ug/m3	ND	ND		25	
Isopropylbenzene (Cumene)	ug/m3	ND	ND		25	
Methyl-tert-butyl ether	ug/m3	ND	ND		25	
Naphthalene	ug/m3	ND	ND		25	
Toluene	ug/m3	ND	.91J		25	
Xylene (Total)	ug/m3	ND	ND		25	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALIFIERS

Project: Bellefonte, PA-Revised Report
Pace Project No.: 30384708

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Bellefonte, PA-Revised Report
Pace Project No.: 30384708

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30384708001	**SVP-1**	TO-15	702209		
30384708002	**SVP-2**	TO-15	702209		
30384708003	**SVP-3**	TO-15	702209		

Pace Analytical®
www.pacelabs.com

AIR: CHAIN-OF-CUSTODY / Analytical Request Document

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

49424

Page: 1 of 1

Section A Required Client Information:

Company: Letterle & Associates
Address: 2022 Axeman Road
Bellefonte, PA 16823
Email To: jhill@letterlassociates.com
Phone: 814-355-2241 Fax:
Requested Due Date/TAT: October 1, 2020

Section B Required Project Information:

Report To: Jed Hill
Copy To:
Purchase Order No.:
Project Name:
Project Number:

Section C Invoice Information:

Attention:
Company Name: Letterle & Associates
Address: 2859 Oxford Blvd., Suite 110, Allison Park PA 15101
Pace Quote Reference:
Pace Project Manager/Sales Rep.
Pace Profile #: 21189

Program: ☐ UST ☐ Superfund ☐ Emissions ☐ Clean Air Act ☐ Voluntary Clean Up ☐ Dry Clean ☐ RCRA ☐ Other

Location of Sampling by State:

Reporting Units: ug/m³ ___ mg/m³ ___ PPBV ___ PPMV ___ Other ___

Report Level: II. ___ III. ___ IV. ___ Other ___

Section D Required Client Information

AIR SAMPLE ID
Sample IDs MUST BE UNIQUE

Valid Media Codes

MEDIA	CODE
Tedlar Bag	TB
1 Liter Summa Can	1LC
6 Liter Summa Can	6LC
Low Volume Puff	LVP
High Volume Puff	HVP
Other	PM10

ITEM #	AIR SAMPLE ID	MEDIA CODE	PID Reading (Client only)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	Canister Pressure (Initial Field - in Hg)	Canister Pressure (Final Field - in Hg)	Summa Can Number	Flow Control Number	Method: PM10	3C - Fixed Gas (%)	TO-3 BTEX	TO-3M (Methane)	TO-14	TO-15 Full List VOCs	TO-15 Short List BTEX	TO-15 Short List Chlorinated	TO-15 Short List (other)	Pace Lab ID
1	SVP-1	1LC		9-23	9:15	9-23	9:24	30	0	2218									X		30384708-001
2	SVP-2	1LC		9-23	9:04	9-23	9:12	28	0	2468									X		002
3	SVP-3	1LC		9-23	9:09	9-23	9:19	30	0	3698									X		003
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

Method: MTBE Cumene Naphthalene TMBs

Comments:

Please email these results to Jed Hill @ jhill@letterlassociates.com

Could not collect DUP Sample because T-Fitting was sent

ORIGINAL

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Logan Corbin / Letterle & Ass	9/23	9:40	Matt Jay / Pace	9/29/20	11:25

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Logan Corbin

SIGNATURE of SAMPLER: [signature] DATE Signed (MM / DD / YY): 09/23/20

SAMPLE CONDITIONS	Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
—		Y/N/NA	Y/N	Y/N
		Y/N	Y/N	Y/N
		Y/N	Y/N	Y/N
		Y/N	Y/N	Y/N

1700 Elm Street SE, Suite 200, Minneapolis, MN 55414 Air Technical Phone: 612.607.6386

Pace Analytical®	Document Name: **Sample Condition Upon Receipt (SCUR) - Air**	Document Revised: 24Mar2020 **Page 1 of 1**
	Document No.: **ENV-FRM-MIN4-0113 Rev.00**	Pace Analytical Services - **Minneapolis**

Air Sample Condition Upon Receipt

Client Name: Letterle & Assoc. **Project #:**

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Pace ☐ SpeeDee ☐ Commercial **See Exception** ☐

Tracking Number: 1723 2545 7736

Custody Seal on Cooler/Box Present? ☐ Yes ☒ No **Seals Intact?** ☐ Yes ☐ No

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☒ Foam ☐ None ☐ Tin Can ☐ Other:_____ **Temp Blank rec:** ☐ Yes ☒ No

Temp. (TO17 and TO13 samples only) (°C): ____ **Corrected Temp (°C):** ____ **Thermometer Used:** ☐ G87A9170600254 ☐ G87A9155100842

Temp should be above freezing to 6°C **Correction Factor:** ____ **Date & Initials of Person Examining Contents:** 9-29-20 MT

Type of ice Received ☐ Blue ☐ Wet ☒ None

				Comments:
Chain of Custody Present?	☒ Yes	☐ No		1.
Chain of Custody Filled Out?	☒ Yes	☐ No		2.
Chain of Custody Relinquished?	☒ Yes	☐ No		3.
Sampler Name and/or Signature on COC?	☒ Yes	☐ No	☐ N/A	4.
Samples Arrived within Hold Time?	☒ Yes	☐ No		5.
Short Hold Time Analysis (<72 hr)?	☐ Yes	☒ No		6.
Rush Turn Around Time Requested?	☒ Yes	☐ No		7. 2-DAY?
Sufficient Volume?	☒ Yes	☐ No		8.
Correct Containers Used? **(Tedlar bags not acceptable container for TO-14, TO-15 or APH)** -Pace Containers Used?	☒ Yes ☒ Yes	☐ No ☐ No		9.
Containers Intact? **(visual inspection/no leaks when pressurized)**	☒ Yes	☐ No		10.
Media: Air Can / Airbag Filter TDT Passive				11. Individually Certified Cans Y (N) (list which samples)
Is sufficient information available to reconcile samples to the COC?	☒ Yes	☐ No		12. NO FC's on COC. No tee fitting sent per note on COC.
Do cans need to be pressurized? **(DO NOT PRESSURIZE 3C or ASTM 1946!!!)**	☐ Yes	☒ No		13. No ID on tags match by can #.

Gauge # ☒ 10AIR26 ☐ 10AIR34 ☐ 10AIR35 ☐ 4097

Canisters					Canisters				
Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure	Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure
SVP-1	2218	2653	0	+10					
SVP-2	2468	1598	0	+10					
SVP-3	3698	692	0	+10					
Unused	3745	2630	0	–					

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

Project Manager Review: _____ **Date:** _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical®	Document Name: **Pending Log-in Process**	Document Revised: 26Mar2020 **Page 1 of 1**
	Document No.: **ENV-FRM-MIN4-0126 Rev.00**	Pace Analytical Services - **Minneapolis**

SR Tech M.I. Date Initiated 9/29/20 PM JDD Client Name Letherle Profile # 21189 Pink shelf ☑ #1 ☐ #2

Issue Type (check all that apply)*	**Client Name/Project Name on containers (if no COC)**
[X] **COC Issue** IR Paperwork **Date/Time Received** 9-29-20 11:25	
EPIC Issue (check one) [ ] Client not in Epic [ ] Profile not in Epic [ ] Add acode [ ] Other	**Resolution** PM/Date _____

Sample Line Item	BP1U	BP2U	BP3U	BP3S	BP3N	AG1U	AG1H	AG3S	AGIT	JGFU	JGCU	BJFU	WPDU	VG9M	VG9H	GN	SP5T	DWC
	Check the box to the left to indicate that the container(s) received for line items - are identical to the container(s) documented for line item 1 for this																	
1	☑																	
2	☑																	
3	☑																	
4	☑																	
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		

Comments:

_____

_____

_____

Logged in by (initial) _____ **Date** _____ **WO** _____

Internal Transfer Chain of Custody

Pace Analytical®
www.pacelabs.com

☐ Samples Pre-Logged into eCOC.

State Of Origin: PA
Cert. Needed: [x] Yes ☐ No
Owner Received Date: 9/29/2020 **Results Requested By:** 10/1/2020

Workorder: 30384708 **Workorder Name:** Bellefonte, PA

Report To	Subcontract To
Rachel Christner Pace Analytical Pittsburgh 1638 Roseytown Road Suites 2,3,4 Greensburg, PA 15601 Phone 724-850-5611	Pace Analytical Minnesota 1700 Elm Street SE Suite 200 Minneapolis, MN 55414 Phone (612)607-1700

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: Other	TO-15 MTBE, Cumene, Naph, TMBs	LAB USE ONLY
1	SVP-1	PS	9/23/2020 09:24	30384708001	Air	1	X	001
2	SVP-2	PS	9/23/2020 09:12	30384708002	Air	1	X	002
3	SVP-3	PS	9/23/2020 09:19	30384708003	Air	1	X	003
4								
5								

Transfers	Released By	Date/Time	Received By	Date/Time
1			Matthew Place	9/29/20 11:25
2				
3				

Comments

Cooler Temperature on Receipt ~ °C | **Custody Seal** Y or (N) | **Received on Ice** Y or (N) | **Samples Intact** (Y) or N

****In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document. This chain of custody is considered complete as is since this information is available in the owner laboratory.*

WO# : 10533754

10533754

Pace Analytical®	Document Name: Sample Condition Upon Receipt (SCUR) - Air	Document Revised: 24Mar2020 Page 1 of 1
	Document No.: ENV-FRM-MIN4-0113 Rev.00	Pace Analytical Services - Minneapolis

Air Sample Condition Upon Receipt

Client Name: Lefferle & Assoc. **Project #:** **WO#: 10533754**

PM: JDD Due Date: 10/06/20

CLIENT: PASI-PITT

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Pace ☐ SpeeDee ☐ Commercial **See Exception** ☐

Tracking Number: 1723 2545 7736

Custody Seal on Cooler/Box Present? ☐ Yes ☒ No **Seals Intact?** ☐ Yes ☐ No

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☒ Foam ☐ None ☐ Tin Can ☐ Other: _____ **Temp Blank rec:** ☐ Yes ☒ No

Temp. (TO17 and TO13 samples only) (°C): ____ **Corrected Temp (°C):** ____ **Thermometer Used:** ☐ G87A9170600254 ☐ G87A9155100842

Temp should be above freezing to 6°C **Correction Factor:** ____ **Date & Initials of Person Examining Contents:** 9-29-20 MJ

Type of ice Received ☐ Blue ☐ Wet ☒ None

			Comments:
Chain of Custody Present?	☒ Yes	☐ No	1.
Chain of Custody Filled Out?	☒ Yes	☐ No	2.
Chain of Custody Relinquished?	☒ Yes	☐ No	3.
Sampler Name and/or Signature on COC?	☒ Yes	☐ No ☐ N/A	4.
Samples Arrived within Hold Time?	☒ Yes	☐ No	5.
Short Hold Time Analysis (<72 hr)?	☐ Yes	☒ No	6.
Rush Turn Around Time Requested?	☒ Yes	☐ No	7. 2-DAY?
Sufficient Volume?	☒ Yes	☐ No	8.
Correct Containers Used? **(Tedlar bags not acceptable container for TO-14, TO-15 or APH)** -Pace Containers Used?	☒ Yes ☒ Yes	☐ No ☐ No	9.
Containers Intact? **(visual inspection/no leaks when pressurized)**	☒ Yes	☐ No	10.
Media: Air Can / Airbag Filter TDT Passive			11. Individually Certified Cans Y (N) (list which samples)
Is sufficient information available to reconcile samples to the COC?	☒ Yes	☐ No	12. NO FC's on COC. No tee fitting sent per note on COC.
Do cans need to be pressurized? **(DO NOT PRESSURIZE 3C or ASTM 1946!!!)**	☐ Yes	☒ No	13. No ID on tags match by can #.

Gauge # ☒ 10AIR26 ☐ 10AIR34 ☐ 10AIR35 ☐ 4097

Canisters					Canisters				
Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure	Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure
SVP-1	2218	2653	0	+10					
SVP-2	2468	1598	0	+10					
SVP-3	3698	692	0	+10					
Unused	3745	2630	0	—					

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: _____ Date/Time: _____

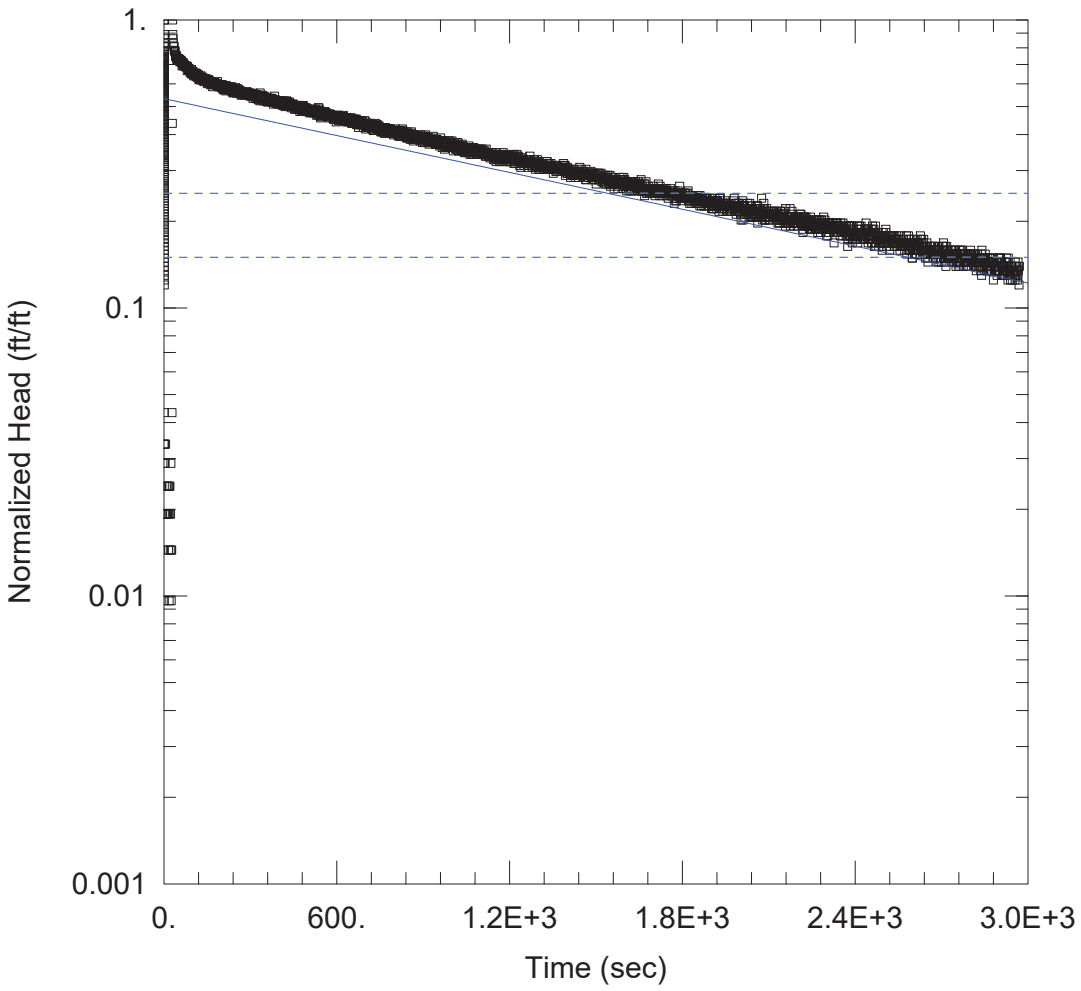
Comments/Resolution: _____

Project Manager Review: _____ **Date:** 9/30/20

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Appendix G

AQTESOLV™ Results



WELL TEST ANALYSIS

Data Set: C:\Users\Cillig\Desktop\Aqtesolve Data\Sohails\MW-5 In.aqt
Date: 09/30/20 Time: 21:20:12

PROJECT INFORMATION

Company: Letterle & Associates
Client: Sohails
Test Well: MW-5
Test Date: 9-29-20

AQUIFER DATA

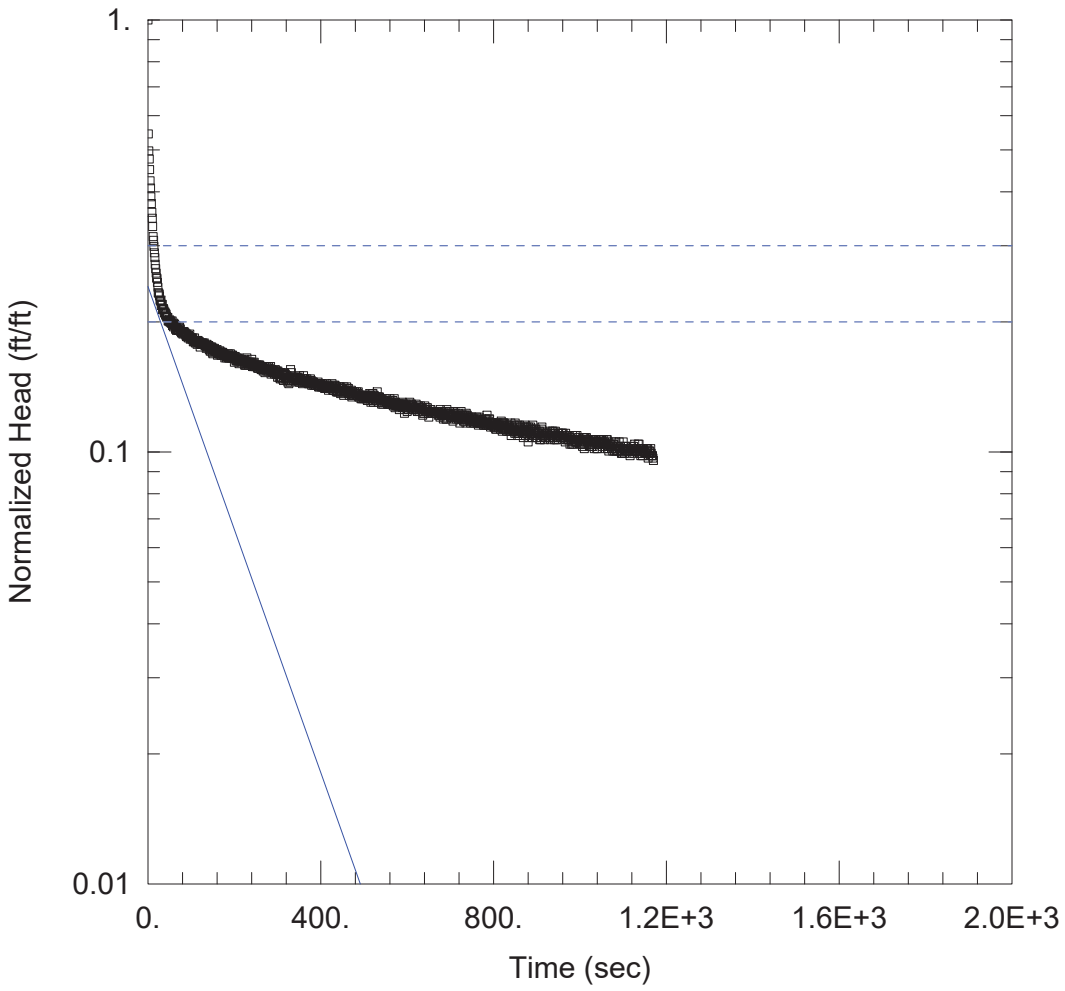
Saturated Thickness: 2.3 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-5 In)

Initial Displacement: 0.208 ft
Total Well Penetration Depth: 15. ft
Casing Radius: 0.086 ft
Static Water Column Height: 2.3 ft
Screen Length: 15. ft
Well Radius: 0.086 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Hvorslev
K = 0.3597 ft/day
y0 = 0.1108 ft



WELL TEST ANALYSIS

Data Set: C:\Users\Cillig\Desktop\Aqtesolve Data\Sohails\MW-5 Out.aqt
Date: 09/30/20 Time: 21:20:26

PROJECT INFORMATION

Company: Letterle & Associates
Client: Sohails
Test Well: MW-5
Test Date: 9-29-20

AQUIFER DATA

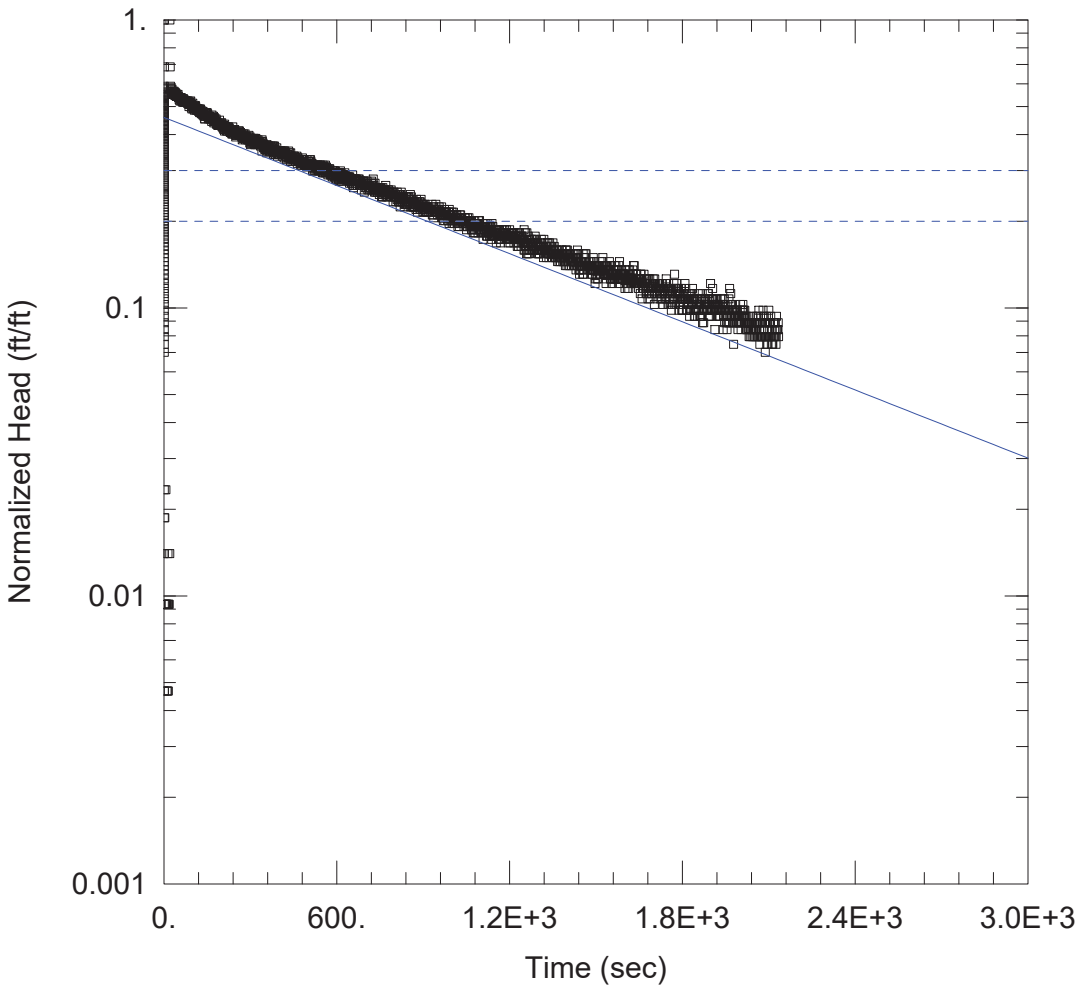
Saturated Thickness: 2.3 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-5 Out)

Initial Displacement: -0.806 ft
Total Well Penetration Depth: 15. ft
Casing Radius: 0.086 ft
Static Water Column Height: 2.3 ft
Screen Length: 15. ft
Well Radius: 0.086 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 3.165 ft/day
y0 = -0.1945 ft



WELL TEST ANALYSIS

Data Set: C:\Users\Cillig\Desktop\Aqtesolve Data\Sohails\MW-7 In.aqt
Date: 09/30/20 Time: 21:19:28

PROJECT INFORMATION

Company: Letterle & Associates
Client: Sohails
Test Well: MW-7
Test Date: 9-29-20

AQUIFER DATA

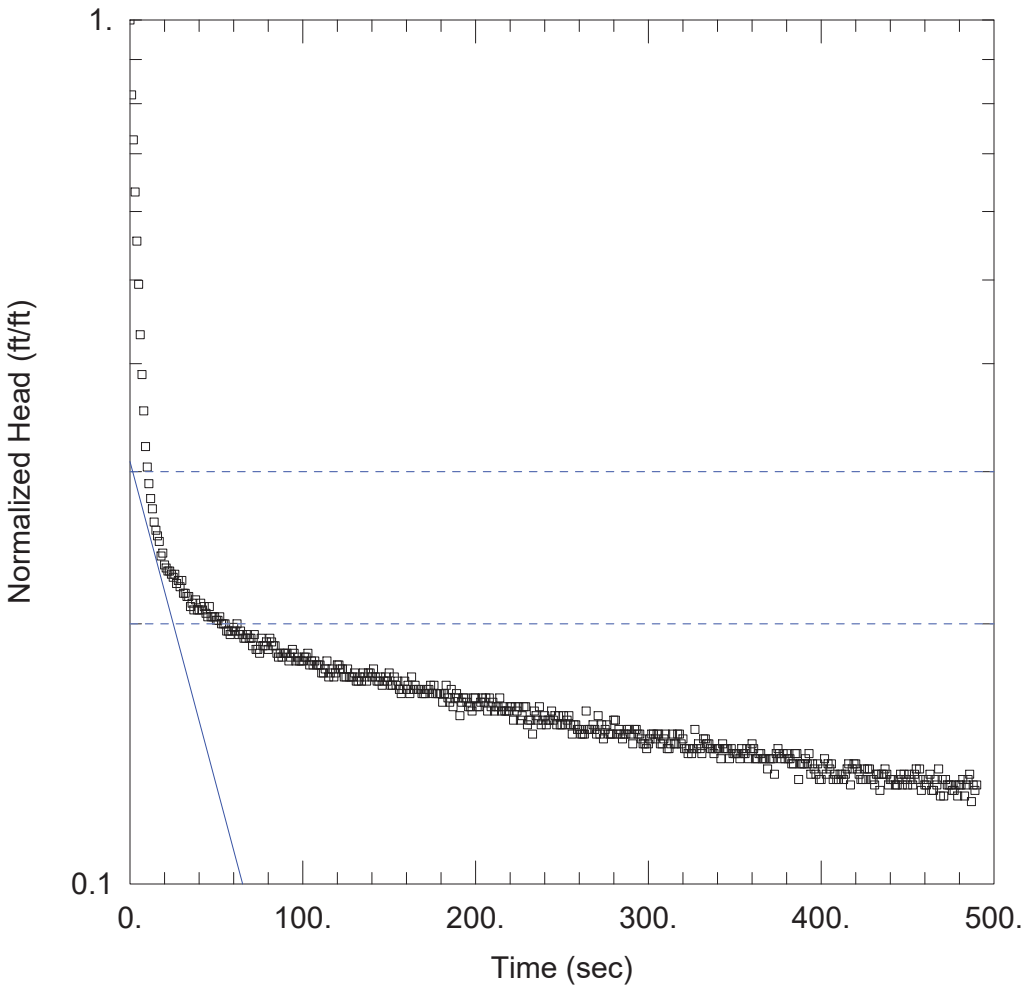
Saturated Thickness: 3.76 ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-7 In)

Initial Displacement: 0.214 ft
Total Well Penetration Depth: 15. ft
Casing Radius: 0.086 ft
Static Water Column Height: 3.76 ft
Screen Length: 15. ft
Well Radius: 0.086 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.286 ft/day
y0 = 0.09819 ft



WELL TEST ANALYSIS

Data Set: C:\Users\Cillig\Desktop\Aqtesolve Data\Sohails\Mw-7 Out.aqt
Date: 09/30/20 Time: 21:19:46

PROJECT INFORMATION

Company: Letterle & Associates
Client: Sohails
Test Well: MW-7
Test Date: 9-29-20

AQUIFER DATA

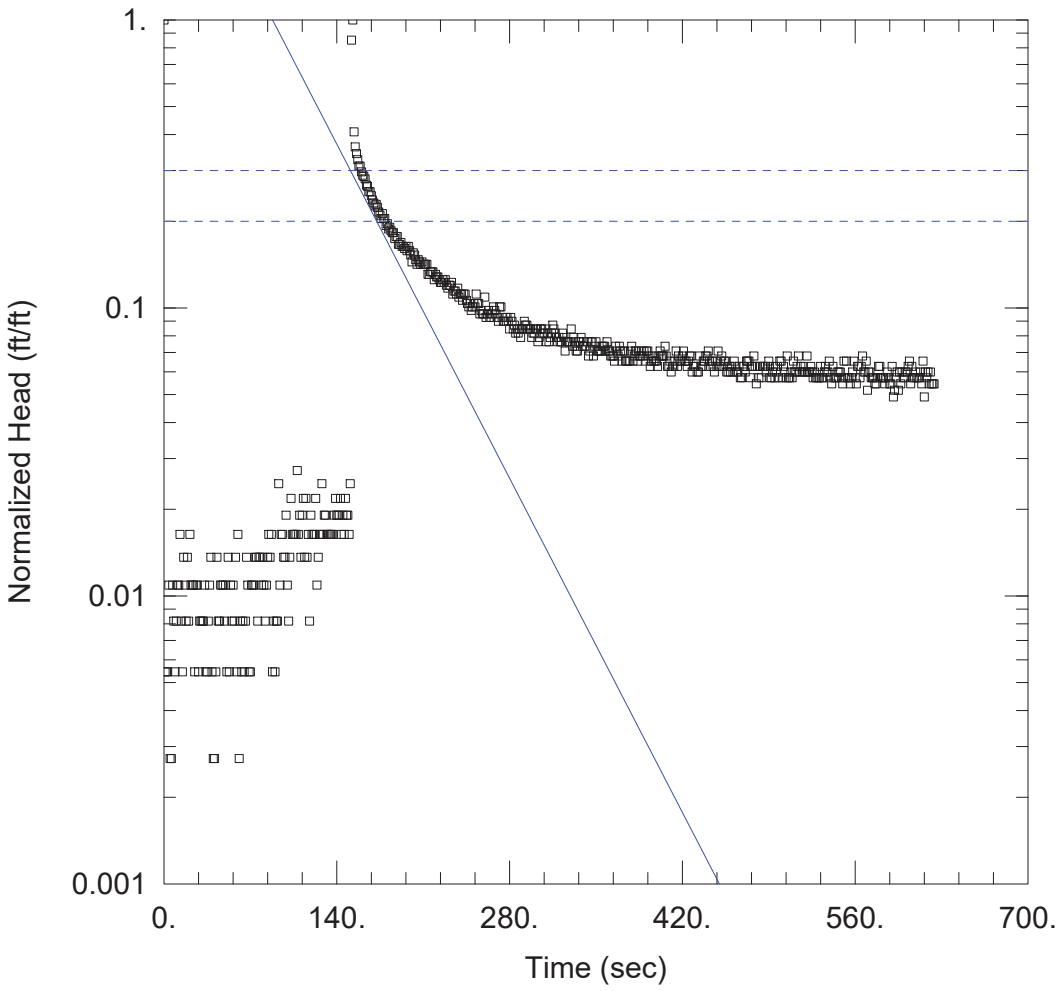
Saturated Thickness: 3.76 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-7 Out)

Initial Displacement: -0.53 ft
Total Well Penetration Depth: 15. ft
Casing Radius: 0.086 ft
Static Water Column Height: 3.76 ft
Screen Length: 15. ft
Well Radius: 0.086 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 5.439 ft/day
y0 = -0.1634 ft



WELL TEST ANALYSIS

Data Set: C:\Users\Cillig\Desktop\Aqtesolve Data\Sohails\MW-9 In.aqt
Date: 09/30/20 Time: 21:19:15

PROJECT INFORMATION

Company: Letterle & Associates
Client: Sohails
Test Well: MW-9
Test Date: 9-29-20

AQUIFER DATA

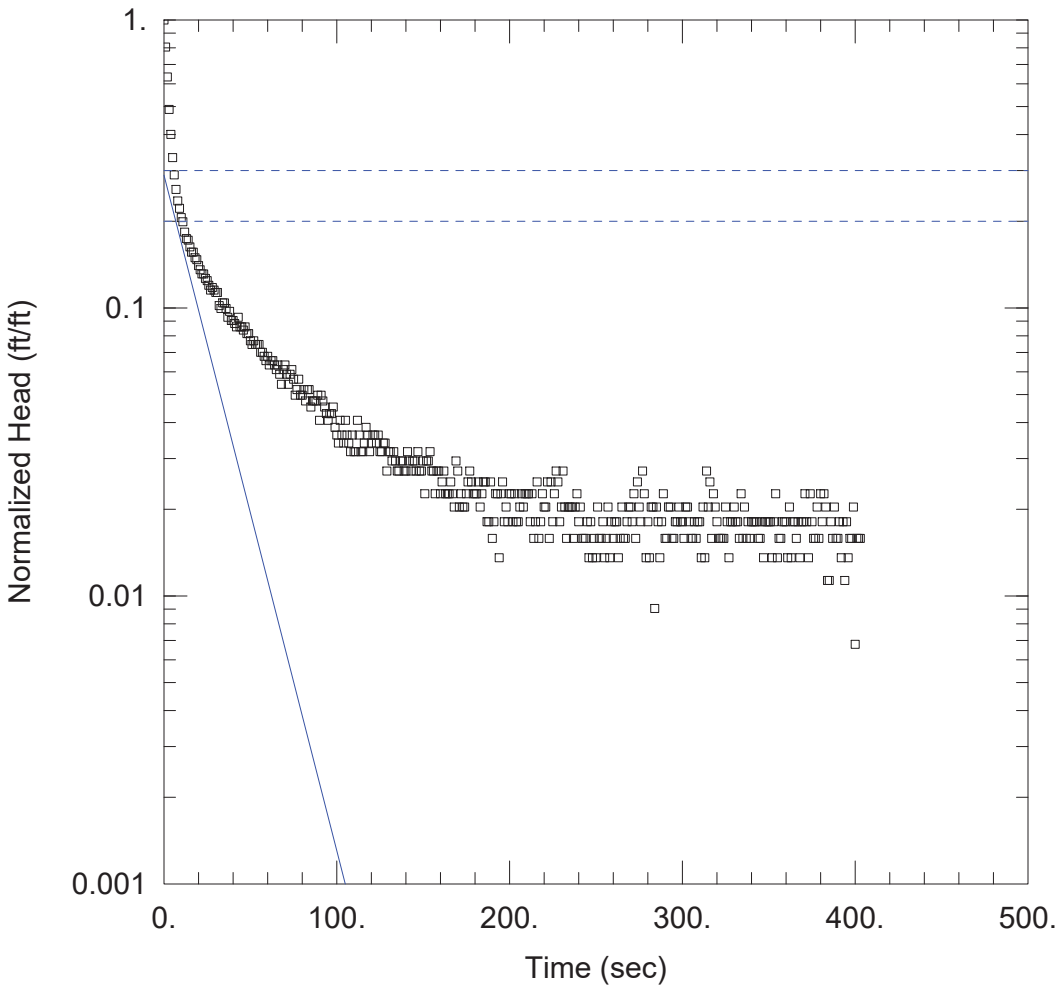
Saturated Thickness: 1. ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-9 In)

Initial Displacement: 0.367 ft
Total Well Penetration Depth: 15. ft
Casing Radius: 0.086 ft
Static Water Column Height: 3.26 ft
Screen Length: 15. ft
Well Radius: 0.086 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 18.36 ft/day
y0 = 1.966 ft



WELL TEST ANALYSIS

Data Set: C:\Users\Cillig\Desktop\Aqtesolve Data\Sohails\MW-9 Out.aqt
Date: 09/30/20 Time: 21:18:39

PROJECT INFORMATION

Company: Letterle & Associates
Client: Sohails
Test Well: MW-9
Test Date: 9-29-20

AQUIFER DATA

Saturated Thickness: 3.26 ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-9 Out)

Initial Displacement: -0.442 ft
Total Well Penetration Depth: 15. ft
Casing Radius: 0.086 ft
Static Water Column Height: 3.26 ft
Screen Length: 15. ft
Well Radius: 0.086 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 19.38 ft/day
y0 = -0.1278 ft

Appendix H

PNDI Environmental Review

1. PROJECT INFORMATION

Project Name: **Sohail's Store**
Date of Review: **3/24/2020 01:20:31 PM**
Project Category: **Hazardous Waste Clean-up, Site Remediation, and Reclamation, Spill (e.g., oil, chemical)**
Project Area: **1.09 acres**
County(s): **Dauphin**
Township/Municipality(s): **LOWER SWATARA**
ZIP Code: **17057**
Quadrangle Name(s): **STEELTON**
Watersheds HUC 8: **Lower Susquehanna-Swatara**
Watersheds HUC 12: **Laurel Run-Susquehanna River**
Decimal Degrees: **40.219049, -76.791496**
Degrees Minutes Seconds: **40° 13' 8.5772" N, 76° 47' 29.3854" W**

2. SEARCH RESULTS

Agency	Results	Response
PA Game Commission	No Known Impact	No Further Review Required
PA Department of Conservation and Natural Resources	No Known Impact	No Further Review Required
PA Fish and Boat Commission	No Known Impact	No Further Review Required
U.S. Fish and Wildlife Service	No Known Impact	No Further Review Required

As summarized above, Pennsylvania Natural Diversity Inventory (PNDI) records indicate no known impacts to threatened and endangered species and/or special concern species and resources within the project area. Therefore, based on the information you provided, no further coordination is required with the jurisdictional agencies. This response does not reflect potential agency concerns regarding impacts to other ecological resources, such as wetlands.

Sohail's Store

Project Boundary

Buffered Project Boundary

Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community

Sohail's Store

Project Boundary

Buffered Project Boundary

Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS,

3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

These agency determinations and responses are **valid for two years** (from the date of the review), and are based on the project information that was provided, including the exact project location; the project type, description, and features; and any responses to questions that were generated during this search. If any of the following change: 1) project location, 2) project size or configuration, 3) project type, or 4) responses to the questions that were asked during the online review, the results of this review are not valid, and the review must be searched again via the PNDI Environmental Review Tool and resubmitted to the jurisdictional agencies. The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer impacts than what is listed on this PNDI receipt. The jursidictional agencies **strongly advise against** conducting surveys for the species listed on the receipt prior to consultation with the agencies.

PA Game Commission
RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Department of Conservation and Natural Resources
RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Fish and Boat Commission
RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

U.S. Fish and Wildlife Service
RESPONSE:

No impacts to **federally** listed or proposed species are anticipated. Therefore, no further consultation/coordination under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq. is required. Because no take of federally listed species is anticipated, none is authorized. This response does not reflect potential Fish and Wildlife Service concerns under the Fish and Wildlife Coordination Act or other authorities.

4. DEP INFORMATION

The Pa Department of Environmental Protection (DEP) requires that a signed copy of this receipt, along with any required documentation from jurisdictional agencies concerning resolution of potential impacts, be submitted with applications for permits requiring PNDI review. Two review options are available to permit applicants for handling PNDI coordination in conjunction with DEP's permit review process involving either T&E Species or species of special concern. Under sequential review, the permit applicant performs a PNDI screening and completes all coordination with the appropriate jurisdictional agencies prior to submitting the permit application. The applicant will include with its application, both a PNDI receipt and/or a clearance letter from the jurisdictional agency if the PNDI Receipt shows a Potential Impact to a species or the applicant chooses to obtain letters directly from the jurisdictional agencies. Under concurrent review, DEP, where feasible, will allow technical review of the permit to occur concurrently with the T&E species consultation with the jurisdictional agency. The applicant must still supply a copy of the PNDI Receipt with its permit application. The PNDI Receipt should also be submitted to the appropriate agency according to directions on the PNDI Receipt. The applicant and the jurisdictional agency will work together to resolve the potential impact(s). See the DEP PNDI policy at https://conservationexplorer.dcnr.pa.gov/content/resources.

5. ADDITIONAL INFORMATION

The PNDI environmental review website is a preliminary screening tool. There are often delays in updating species status classifications. Because the proposed status represents the best available information regarding the conservation status of the species, state jurisdictional agency staff give the proposed statuses at least the same consideration as the current legal status. If surveys or further information reveal that a threatened and endangered and/or special concern species and resources exist in your project area, contact the appropriate jurisdictional agency/agencies immediately to identify and resolve any impacts.

For a list of species known to occur in the county where your project is located, please see the species lists by county found on the PA Natural Heritage Program (PNHP) home page (www.naturalheritage.state.pa.us). Also note that the PNDI Environmental Review Tool only contains information about species occurrences that have actually been reported to the PNHP.

6. AGENCY CONTACT INFORMATION

PA Department of Conservation and Natural Resources
Bureau of Forestry, Ecological Services Section
400 Market Street, PO Box 8552
Harrisburg, PA 17105-8552
Email: RA-HeritageReview@pa.gov

U.S. Fish and Wildlife Service
Pennsylvania Field Office
Endangered Species Section
110 Radnor Rd; Suite 101
State College, PA 16801
Email: IR1_ESPenn@fws.gov
NO Faxes Please

PA Fish and Boat Commission
Division of Environmental Services
595 E. Rolling Ridge Dr., Bellefonte, PA 16823
Email: RA-FBPACENOTIFY@pa.gov

PA Game Commission
Bureau of Wildlife Habitat Management
Division of Environmental Planning and Habitat Protection
2001 Elmerton Avenue, Harrisburg, PA 17110-9797
Email: RA-PGC_PNDI@pa.gov
NO Faxes Please

7. PROJECT CONTACT INFORMATION

Name: Jed Hill
Company/Business Name: Letterle & Associates, Inc.
Address: 2022 Axemann Road, Suite 201
City, State, Zip: Bellefonte, PA 16823
Phone: (814) 355-2241 Fax: (814) 355-2410
Email: jhill@letterleassociates.com

8. CERTIFICATION

I certify that ALL of the project information contained in this receipt (including project location, project size/configuration, project type, answers to questions) is true, accurate and complete. In addition, if the project type, location, size or configuration changes, or if the answers to any questions that were asked during this online review change, I agree to re-do the online environmental review.

applicant/project proponent signature

03/24/20
date