

# REMEDIAL ACTION PROGRESS REPORT

## 2nd QUARTER 2019

---

Shenango Township Municipal Building  
3439 Hubbard- West Middlesex Road, West  
Middlesex, PA 16159  
Shenango Township, Mercer County  
PADEP FACILITY ID #43-04177  
PAUSTIF CLAIM #2016-008

*Prepared For:*

Ms. Nancy Duerring  
Pennsylvania Department of Environmental Protection  
Northwest Region  
230 Chestnut Street  
Meadville, PA 16335

*Prepared on behalf of:*

Municipality of Shenango Township  
3439 Hubbard- West Middlesex Road  
West Middlesex, PA 16159  
Mercer County

July 31, 2019

*Prepared By:*



A handwritten signature in cursive script that reads "David E. Siekkinen".

David E. Siekkinen, P.G.  
Project Manager

A handwritten signature in cursive script that reads "Albert M. Richnafsky".

Albert M. Richnafsky, P.G.  
Technical Director



**COMPLIANCE ENVIRONMENTAL SERVICES**

P.O. Box 186 • West Middlesex, PA 16159 • Ph: 724-342-1990 • [www.ces-env.com](http://www.ces-env.com)

8/5/2019 2:55:30 PM



## TABLE OF CONTENTS

INTRODUCTION .....	1
SITE HISTORY / BACKGROUND .....	1
SITE DESCRIPTION .....	3
SITE ACTIVITIES THIS QUARTER .....	6
8 HOUR PUMPING TEST OF RW-1.....	6
HIGH VACUUM EXTRACTION EVENTS.....	7
GROUNDWATER SAMPLING, TESTING AND FLOW .....	7
OVERALL TRENDS .....	9
REMEDIAL ACTIONS PERFORMED.....	9
OFF-SITE WATER WELLS.....	10
SEPARATE PHASE LIQUID.....	11
CONCLUSIONS.....	12

## FIGURES

FIGURE 1 – TOPOGRAPHIC SITE LOCATION MAP .....	ATTACHED
FIGURE 2 – PARCEL MAP .....	ATTACHED
FIGURE 3 – AERIAL SITE MAP .....	ATTACHED
FIGURE 4 – SURVEYED BASE MAP .....	ATTACHED
FIGURE 5A – GROUNDWATER CONTOUR MAP FOR SHALLOW WELLS.....	ATTACHED
FIGURE 5B – GROUNDWATER CONTOUR MAP FOR DEEP WELLS .....	ATTACHED
FIGURE 6A – ISOCONCENTRATION MAP OF BENZENE IN SHALLOW WELLS .....	ATTACHED
FIGURE 6B – ISOCONCENTRATION MAP OF 1,2,4- TMB IN SHALLOW WELLS .....	ATTACHED
FIGURE 6C – ISOCONCENTRATION MAP OF 1,3,5-TMB IN SHALLOW WELLS .....	ATTACHED
FIGURE 6D – ISOCONCENTRATION MAP OF TOLUENE IN SHALLOW WELLS.....	ATTACHED
FIGURE 6E – ISOCONCENTRATION MAP OF ETHYLBENZENE IN SHALLOW WELLS.....	ATTACHED
FIGURE 6F – ISOCONCENTRATION MAP OF MTBE IN SHALLOW WELLS.....	ATTACHED
FIGURE 6G – ISOCONCENTRATION MAP OF NAPHTHALENE IN SHALLOW WELLS .....	ATTACHED
FIGURE 6H – ISOCONCENTRATION MAP OF XYLENES (TOTAL) IN SHALLOW WELLS .....	ATTACHED
FIGURE 6I – ISOCONCENTRATION MAP OF MTBE IN DEEP WELLS .....	ATTACHED
FIGURE 7A – TIME TREND OF BENZENE IN MW-3.....	ATTACHED
FIGURE 7B – TIME TREND OF 1,2,4-TRIMETHYLBENZENE IN MW-3.....	ATTACHED
FIGURE 7C – TIME TREND OF 1,3,5-TRIMETHYLBENZENE IN MW-3.....	ATTACHED
FIGURE 7D – TIME TREND OF TOLUENE IN MW-3.....	ATTACHED
FIGURE 7E – TIME TREND OF ETHYLBENZENE IN MW-3.....	ATTACHED
FIGURE 7F – TIME TREND OF MTBE IN MW-3.....	ATTACHED
FIGURE 7G – TIME TREND OF NAPHTHALENE IN MW-3.....	ATTACHED



## **FIGURES (Cont.)**

FIGURE 7H – TIME TREND OF TOTAL XYLENES IN MW-3.....ATTACHED  
FIGURE 7I – TIME TREND OF MTBE IN MW-23.....ATTACHED  
FIGURE 8 – PARCEL LOCATION MAP OF OFFSITE POTABLE WATER WELLS.....ATTACHED

## **TABLES**

TABLE 1 – MONITORING WELL GAUGING AND ANALYTICAL DATA.....ATTACHED  
TABLE 2 – MW-3 LNAPL GAUGING DATA.....ATTACHED

## **ATTACHMENTS**

ATTACHMENT 1 – ANALYTICAL REPORTS.....ATTACHED  
ATTACHMENT 2 – WASTE MANIFESTS.....ATTACHED



**REMEDIAL ACTION PROGRESS REPORT, 2<sup>nd</sup> QUARTER 2019**  
**SHENANGO TOWNSHIP MUNICIPAL BUILDING**  
**PA FACILITY ID NO. 43-04177**  
**PAUSTIF CLAIM NO. 2016-008**

## **INTRODUCTION**

---

Compliance Environmental Services (“CES”) is pleased to submit this Remedial Action Progress Report (“RAPR”) for the Second Quarter of 2019, prepared for the Shenango Township Municipal Building complex (the “Site”), which is located at 3439 Hubbard West Middlesex Road, West Middlesex, Mercer County, Pennsylvania. **Figure 1** shows a portion of the Sharon East, U.S. Geological Survey 7.5 Minute Topographic Quadrangle Map, illustrating the location of the site.

The Site is owned by the municipality of Shenango Township, Mercer County, Pennsylvania. The primary contact for the Township is Ms. Lynnett Beck (724) 528-9571.

## **SITE HISTORY / BACKGROUND**

---

**1966** – Property purchased by Shenango Township.

**1968** – Construction of the current Township municipal building was completed.

**1979** – Two underground storage tank (UST) systems were installed.

**December 4, 2015** – Discolored soil was evident at the location of the unleaded gasoline underground storage tank (UST) during removal of the UST. Soil and groundwater samples above PADEP Statewide Health Standards (SHS) were collected by the tank remover A. Graziani and Company, Inc. upon removal of the UST. PADEP representative Andrew Sepos was on-site during the removal of the tank and a Storage System Report Form was prepared that stated: “heavy dark staining and odors to 12’ depth. Staining was observed across top of tank on west end”. A diesel fuel UST, located adjacent to the north side of the unleaded gasoline UST was not removed at that time and is still in use.

**December 7, 2015** – The Notification of Reportable Release was submitted to PADEP. An estimated 30 gallons of unleaded gasoline were released.

**2016** – CES began Site Characterization activities.

**May 18-19, 2016** – CES collected soil samples (SB), installed monitor wells (MW) and soil vapor sampling probes (SV) at the following locations: SB-1 (MW-1); SB-2 (MW-2); SB-3 (MW-3); SB-4 (MW-4); SB-5; SB-6 (MW-6); SB-7; SB-8; SV-1; and SV-2.



**June 15, 2016** – Monitoring wells were gauged and sampled.

**July 11, 2016** – Soil vapor/air phase samples were collected.

**July 26, 2016** – Monitoring wells were gauged and sampled, and the on-site water well was sampled.

**August 2, 2016** – Soil vapor/air phase samples were collected.

**September 13, 2016** – CES collected the second round of soil samples and installed additional monitor wells at: SB-9 (MW-9); SB-10 (MW-10); SB-11 (MW-11); SB-12 (MW-12); SB-13; SB-14; SB-15; SB-16; and SB-17.

**September 26, 2016** – Monitoring wells were gauged and sampled.

**November 1, 2016** – Monitoring wells were gauged and sampled.

**December 22, 2016** – SCR was submitted to PADEP.

**January 19, 2017** – Soil vapor/air phase samples were collected.

**February 7, 2017** – CES collected the third round of soil samples and installed additional monitor wells at: SB-18 (MW-18); SB-19 (MW-19); SB-20 (MW-20); SB-21 (MW-21); SB-22 (MW-22); SB-23 (MW-23); SB-24 (MW-24); and RW-1.

**February 17, 2017** – Monitoring wells were gauged and sampled.

**February 24, 2017** – On-site water well was sampled.

**March 15, 2017** – SCR/RAP was submitted to PADEP.

**March 23, 2017** – On-site water well was sampled, and MW-23 was gauged and sampled.

**May 2, 2017** – SCR/RAP was approved by PADEP.

**May 23, 2017** – Monitoring wells were gauged and sampled.

**July 5-11, 2017** – Source removal remedial action was performed at the Site. RW-2 and RW-3 installed during backfilling to serve as potential recovery wells. 558.93 tons of contaminated soil and 1,900 gallons of impacted groundwater were removed.

**August 15, 2017** – Monitoring wells were gauged and sampled.

**September 5 & 6, 2017** – 3,800 gallons of groundwater was removed from RW-3 using vacuum trucks.

**September 22, 2017** – Point of Entry (POE) water treatment system was installed at an off-site property.

**October 10, 2017** – 2,800 gallons of groundwater was removed from RW-3 using a vacuum truck.

**December 5, 2017** – 3,500 gallons of groundwater was removed from RW-3 using vacuum trucks.

**December 6, 2017** – Monitoring wells were gauged and sampled.

**March 8, 2018** – CES directed the drilling of monitoring wells MW-25 and MW-26, located off the Shenango Township property along the west side of Jackson road.

**March 13, 2018** – Monitoring wells were gauged and sampled.

**June 8, 2018** – Monitoring wells were gauged and sampled.

**September 5, 2018** – Monitoring wells were gauged and sampled.



**December 3, 2018** – Monitoring wells were gauged and sampled.

**January 30, 2019** – Submitted a Combined RAPR-Proposed Revised RAP.

**February 7, 2019** – Water wells at two neighboring properties were sampled (3430 and 3429 Hubbard-Middlesex Road).

**February 18-19, 2019** – CES directed the drilling of monitoring wells MW-27, MW-28, and MW-29.

**March 15 and 18, 2019** – Monitoring wells were gauged and sampled. The Township Water Well and offsite water well were also sampled.

**April 18, 2019** – Monitoring Wells MW-27, MW-28, and MW-29 were sampled.

**April 22, 2019** – Flush mount concrete pads for Recovery Wells RW-2 and RW-3 were repaired.

**May 16, 2019** – An 8-hour pumping test was performed on RW-1.

**May 29, 2019** – A 6-hour High Vacuum Event was completed on RW-1 and MW-3.

**June 11, 2019** – A second 6-hour High Vacuum Event was completed on RW-1 and MW-3.

**June 25 and 26, 2019** – Monitoring wells were gauged and sampled. Township Water Well and offsite water well were also sampled.

## **SITE DESCRIPTION**

---

Shenango Township has utilized the property for various Township purposes such as administrative offices, meetings, police headquarters, fire station, and as the township maintenance garage and vehicle base since 1966. Prior to 1966, the property appears to have been used for agricultural purposes, as evident in aerial photographs provided in *Sheet Number 43 of Soil Survey, Mercer County, PA; U.S.D.A. Soil Conservation Service (1971)* dating back to the 1960s. The existing municipal building on the property was originally constructed in 1968. The Shenango Township Municipal Building complex property consists of one parcel of land containing 9.74 acres. The shape of the property and property boundary are shown on the Tax Parcel Map (**Figure 2**). Site features are shown on the Aerial Site Map (**Figure 3**). **Figure 4** is a surveyed site map showing monitoring well locations, the source removal excavation area, utilities, and other site features. The Site is located at the southeast corner of the intersection of Hubbard-Middlesex Road and Jackson Road. The property is somewhat irregular in shape, having approximately 668 feet fronting Jackson Road at the west side of the Site and approximately 285 feet fronting Hubbard-Middlesex Road to the north of the Site. The maximum east-west length of the Site is approximately 900 feet. The property is bordered by single family residences to the north, east, and south. A paving company and residential house are located to the northwest of the Site. Wooded property borders part of the Site to the south, and agricultural fields are located east and west of the Site. Approximately 8 acres of the property to the south and east of the USTs area are utilized as the Shenango Township Community Park. The Shenango Township Community Park (the “Park”) portion of the



property is hydraulically up-gradient and at a higher elevation than the former unleaded gasoline UST and no impact from the release has been recognized in the Park area. It should be noted that the Park utilizes the same water well as the municipal building. The Township Water Well is located hydraulically down-gradient from the former unleaded gasoline UST, at the west side of the building.

The two underground storage tank (UST) systems were installed in August 1979. Underground fiberglass piping extends/extended a short distance from the top of the tanks to the gasoline and diesel fuel dispensers that are/were located at the southeast corner of the municipal building (only the diesel fuel dispenser remains). The dispenser and the majority of the underground piping serving the former unleaded gasoline UST have been removed. The diesel fuel tank system is still active. The soil removal action was limited to the north by the presence of the diesel fuel UST. Site features are shown in **Figure 4** (Surveyed Base Map).

### Surface Soil Description (USDA)

The soil type occupying the entire area of concern for SC is listed in Soil Survey of Mercer County, PA (U.S.D.A Soil Conservation Service, 1971) as RaB2, Ravenna silt loam, 3-8% slopes, moderately eroded; and CdB2, Canfield silt loam, 3-8% slopes, moderately eroded. Both soil types are very similar. For both soil types, it is described that because of erosion the upper soil layer now consists partly of brighter colored subsoil but originally had a dark grayish-brown silt loam surface layer and mottled firm silt loam yellowish-brown subsoil. The water table is seasonally high with slow permeability. Both soil types are developed on firm glacial till that normally occurs at a depth of 6 to 9 feet, as has been documented by drilling. Much of the area containing both soil types is or has been cultivated in the area.

### Types of Unconsolidated Materials

The thickness of unconsolidated materials above bedrock, as determined by direct observation during drilling, ranges from approximately 6 to 11.7 feet.

Glacial Geology of Northwestern Pennsylvania (*Bulletin G-32, Pennsylvania Topographic and Geologic Survey, 1959*) shows that beneath the soil column the entire area is underlain by glacial till belonging to the Pleistocene Age Kent End Moraine system. This silt loam till is very dense in part and of low permeability. Where the till contains more sand and gravel, permeability can be moderately good within thin discontinuous lenses, as found at MW-4. In general, contaminants coming into contact with these lenses can migrate, mostly horizontally and typically only for short distances. Based on the writer's knowledge of the area, glacial till typically varies from 8 to 25 feet thick, with the bottom several feet containing a substantial percentage of weathered



bedrock. This weathered bedrock zone can also display higher permeability and conductivity than the glacial till.

### Bedrock Geology

The top of bedrock was found to occur at a depth of approximately 6 to 11.7 feet. There are no known geologic structures in the area that would have a bearing on the migration of any hydrocarbons. There are no significant karst features or faults in shallow bedrock strata. Bedrock over a short distance is relatively flat, having local dips of variable direction and typically less than 2 degrees. The regional dip is approximately 90 feet/mile or less to the south-southeast. The potential for migration of liquids within bedrock is dependent on the orientation, continuity and frequency of horizontal partings and vertical joint sets. Out of the seven monitoring wells that are screened entirely in bedrock (MW-9, MW-18, MW-20, MW-23, MW-25, MW-28 and MW-29) only MW-23 (located 35 feet from the USTs) has shown any groundwater exceedance of SHSs.

### Hydrogeology

The primary water source aquifers in the area are bedrock sandstone units of the Pottsville Group (lowermost Pennsylvanian System) and the Shenango Formation (uppermost Mississippian System). Most water wells in the area have a total depth of between 65 to 215 feet. It is possible to have shallow water supply wells in the unconsolidated glacial till deposits above bedrock where the till has an abundance of sand and gravel lenses, however, none are reported in the PAGWIS database within 0.5 mile of the Site. Wells completed in sandstone bedrock aquifers within 0.5 mile radius of the Site reportedly yield from 5 to 20 gallons per minute (gpm) as reported in the PAGWIS database. Wells completed within the unconsolidated deposits are of greatest concern for hydrocarbon impacts. The topography does not show any nearby features that appear suitable to contain sufficient sand and gravel deposits for a usable water source within the unconsolidated materials.

The shallowest groundwater flow at the Site, based on water table elevations from monitoring wells, is to the north-northwest at a hydraulic gradient of 2 to 3 percent, as shown in **Figures 5A** (for shallow overburden wells). **Figure 5B** shows groundwater flow for deeper/bedrock wells diverging to the northwest and to the northeast. This was the first quarter that groundwater flow in deeper wells displayed this divergence. Previously, deeper groundwater flow was to the northwest. Regional groundwater flow varies greatly and typically is in the direction of the regional and local surface water drainage systems. Deep groundwater movement (below the level of the major surface water drainage systems) has not been evaluated but would be expected to be to the south-southeast, the regional dip direction of bedrock. The Shenango River, the major regional



surface water body, is located within 2 miles to the north, east, and southeast of the Site. Shallow groundwater flow is typically toward the most local surface water drainage system where discharge of groundwater to surface water would be expected. The nearest surface water to the Site is an ephemeral stream that begins at the north side of Route 318 at an elevation of approximately 1,103 feet above sea level and has a well defined channel flowing in a north-northwesterly direction (before turning north-northeasterly). The location of the ephemeral stream is shown in **Figure 3**. This ephemeral stream becomes part of an unnamed perennial stream that is a tributary of Shenango River, entering the river approximately 1.5 miles from the Site.

## **SITE ACTIVITIES THIS QUARTER**

---

- **April 18, 2019** – Monitoring Wells MW-27, MW-28, and MW-29 were sampled.
- **April 22, 2019** – Flush mount concrete pads for Recovery Wells RW-2 and RW-3 were repaired.
- **May 16, 2019** – An 8 hour pumping test was performed on RW-1.
- **May 29, 2019** – A 6 hour High Vacuum Event was completed on RW-1 and MW-3.
- **June 11, 2019** – A second 6 hour High Vacuum Event was completed on RW-1 and MW-3.
- **June 25 and 26, 2019** – Monitoring wells were gauged and sampled. The Township Water Well and offsite water well were also sampled.

## **8 HOUR PUMPING TEST OF RW-1**

---

On May 16, 2019, a pumping test was performed on the recovery well RW-1 to determine the effectiveness of possible longer term pumping from RW-1.

A QED AP-4 bottom loading pneumatic pump designed to pump from 4 inch wells was used for the May 16, 2019 pumping test. RW-1 generated 75 gallons of water. No free product was observed but the water had a distinct gasoline odor. Water levels in the surrounding wells were not affected by the groundwater withdrawal from RW-1.



## HIGH VACUUM EXTRACTION EVENTS

---

Two High Vacuum Extraction events were completed at the Site during the second quarter of 2019 (May 29 and June 11). Sealed well caps (to prevent short-circuiting and loss of vacuum) were placed on MW-3 and RW-1, with drop pipes extending to near the bottom of each well. The drop pipes were connected with a T fitting, which then was connected to a vacuum truck.

During each of the events, both wells maintained 20 inches of mercury during the 6 hours of vacuum extraction. The vacuum truck operator estimated 200 gallons of water was generated during each of the two 6-hour extraction events.

## GROUNDWATER SAMPLING, TESTING AND FLOW

---

On June 25 and June 26, 2019, a groundwater sampling event for the Second Quarter of 2019 was performed. Water level measurements were collected from the top of well casing from each of the wells in the monitoring network on June 25, 2019. The municipal well was not used and was static prior to water level measurements being collected early in the morning. All personnel with the exception of the road department employees are currently relocated to a temporary office off-site in preparation for construction on the municipal building.

**Figure 5A** is a “shallow” groundwater elevation contour map and **Figure 5B** is a “deep wells” groundwater elevation contour map for the groundwater gauging data collected June 25, 2019. **Figure 5A** shows groundwater flow is generally to the northwest across the site in the “shallow” groundwater zone. **Figure 5B** shows groundwater flow is divergent to the northeast and northwest across the site in the “deeper” groundwater zone. A slight anomaly (reversal) in groundwater flow is shown in the shallow wells to the south of the former UST, explainable by a “bathtub effect” from excessive water accumulation in the former and existing UST cavities. The “shallow” wells are screened in unconsolidated materials above bedrock. The seventeen “Shallow” wells include MW-1; MW-2; MW-3; MW-4; MW-6; MW-10; MW-11; MW-12; MW-19; MW-21; MW-22; MW-24; MW-26; MW-27; RW-1; RW-2; and RW-3. Wells in the “deeper” groundwater zone are screened solely in bedrock and extend to a maximum depth of 40 feet. The seven “deeper” wells include MW-9; MW-18; MW-20; MW-23; MW-25; MW-28; and MW-29.

One water supply well is present within the Shenango Township Municipal Building complex property. This well is located west of the office section of the main building, down-gradient from the UST cavity (**Figure 4**). This well has a reported total depth of 125 feet with surface casing extending to 27 feet. This Township Water Well has been sampled 25 times since July



2016. No detectable COC concentrations have been reported with the exception of MTBE in the sample collected on March 24, 2017 (1.13 µg/L). The analytical results are provided in **Table 1**. The Township Water Well is not used for consumption purposes and signs have been posted at sinks advising not to drink the water. A water cooler is provided for drinking water within the main Township building. The Township water well was sampled approximately once per month from February 2017 through December 2018. Quarterly sampling (rather than monthly) of the Township Water Well began during the first quarter of 2019.

Groundwater samples were collected from monitoring wells MW-1, MW-2, MW-3, MW-4, MW-9, MW-10, MW-11, MW-12, MW-18, MW-19, MW-20, MW-21, MW-22, MW-23, MW-24, MW-25, MW-26, MW-27, MW-28, MW-29, RW-1, RW-2, and RW-3. Analytical testing data are provided in **Table 1**. Analytical results that were greater than the PADEP SHS, Used Aquifer Residential category are shaded.

**Attachment 1** contains a copy of the laboratory analytical reports from groundwater sampling of the new monitoring wells (MW-27, MW-28, and MW-29) collected on April 18, 2019; the May 20, 2019 groundwater sampling of RW-2 prior to the first High Vacuum Event; the June 25 and 26, 2019 quarterly groundwater sampling event; and the June 25, 2019 sampling of the Township Water Well and off-site water well. All water samples were analyzed for the PADEP's New Short List of Petroleum Products for Unleaded Gasoline parameters: Benzene; Toluene; Ethylbenzene; Isopropylbenzene (Cumene); MTBE; Naphthalene; 1,2,4-Trimethylbenzene; and 1,3,5-Trimethylbenzene. All water results were compared to the PADEP Statewide Health Standard (SHS) Residential Used Aquifer Medium-Specific Concentration ("MSCs") for Organic Regulated Substances in Groundwater, the remedial standard selected for groundwater at the site.

**Figures 6A through 6I** illustrate the horizontal extent of the individual constituents of concern (COC) plumes for the June 25 and 26, 2019 groundwater sampling event. The outermost isoconcentration line corresponds with the Used Aquifer, Residential SHS for the COC. The Isoconcentration Maps show the exceedances for Benzene, 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, Toluene, Ethylbenzene, MTBE, Naphthalene, and Xylenes (total) in the "shallow" groundwater zone (**Figures 6A through 6H**, respectively), and MTBE in the "deep" groundwater zone (**Figure 6I**). Seven of the sampled shallow monitoring/recovery wells had exceedances of the selected remedial standard in groundwater sampled at the site this quarter: MW-3 (Benzene, 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, Toluene, Ethylbenzene, MTBE, Naphthalene, and Total Xylenes); MW-4 (Benzene and MTBE); MW-21 (Benzene and 1,2,4-Trimethylbenzene); MW-27 (MTBE); RW-1 (Benzene, 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, Toluene, Ethylbenzene, MTBE, Naphthalene and Xylenes (total)); RW-2 (Benzene and 1,2,4-Trimethylbenzene); and RW-3 (Benzene). One of the deep monitoring wells



had an exceedance of the selected remedial standard in groundwater sampled at the Site this quarter: MW-23 (MTBE).

## OVERALL TRENDS

---

The COC concentrations in the groundwater samples collected from MW-3 have been trending upwards overall since the last vacuum truck event in December 2017 (**Figures 7A through 7I**), however, each of the nine tested COC were lower in the 2<sup>nd</sup> quarter 2019 groundwater samples (following the vacuum events). The MTBE concentration in MW-23 has displayed an upward trend overall after soil removal and the three 2017 vacuum truck events were completed. The COC concentrations in the other monitoring points have remained stable or have decreased based on the second quarter 2019 sampling results.

MW-3 and MW-23 are located approximately 20 feet apart, just north of the in-service diesel fuel tank and east of the Parks Garage building, within the heart of the approximately 40-foot diameter area of the greatest remaining COC concentrations. It should be noted that MW-3 has very poor hydraulic transmittal capability and the greatest concentrations of COC in groundwater above SHSs are found at MW-3 and RW-1 (very close to MW-3), and the two other recovery wells, RW-2 and RW-3, located within the former UST cavity. *Groundwater exceedances are concentrated within a relatively small area near the former gasoline UST and the existing diesel fuel UST.*

CES presented a proposal for additional remedial action in the fourth quarter 2018 RAPR/Revised RAP but it was disapproved by PADEP mainly because certain elements of the plan were not included but CES continues to believe that the remedial procedure presented represents a viable way to achieve attainment of groundwater standards while preventing further expansion of the COC plume, considering the diesel fuel tank is still in use.

## REMEDIAL ACTIONS PERFORMED

---

Soil removal remedial action was performed at the Site on July 5 through 11, 2017. 558.93 tons of contaminated soil were excavated and disposed at a licensed non-hazardous residual waste landfill. **FIGURE 4** shows the boundary of the source removal excavation of the former unleaded gasoline UST. Soil removal was restricted on the north side by the presence of an in-service diesel fuel UST. RW-2 and RW-3 were installed during backfilling for potential use as recovery or injection wells. These wells replaced MW-6 which was located within the excavated area. During the soil removal action, 1,900 gallons of impacted groundwater were removed from



the excavated area and properly disposed. A combination of vacuum trucks and trash pumps were used for dewatering the excavation.

In addition to the soil/source removal action and liquid removal event discussed in the previous paragraph, vacuum trucks removed 3,800 gallons of water from RW-2 and RW-3 on September 5 and 6, 2017 (Vac Event 1). During the groundwater removal event, MW-3, MW-4, MW-19, MW-21, MW-23, and RW-1 were all bailed by hand. The water bailed from these wells was added to the total load.

During a second vacuum event on October 10, 2017, a vacuum truck removed 2,800 gallons of water from RW-2 and RW-3 (Vac Event 2). During the groundwater removal event, MW-3, MW-4, MW-19, MW-21, MW-23, and RW-1 were all bailed by hand. The water bailed from these wells was added to the total load.

A third vacuum event was conducted on December 5, 2017 (Vac Event 3). Vacuum trucks removed 3,500 gallons of water from RW-2 and RW-3. Groundwater was also removed from MW-3, MW-4, MW-19, MW-21, MW-23, and RW-1 by hand bailing. The water bailed from these wells was added to the total load.

Two additional High Vacuum Extraction events were recently completed at the Site (May 29, 2019 and June 11, 2019). An estimated 200 gallons of groundwater was generated during each of the 6 hour extraction events.

Environmental Specialists, Inc. transported the water removed during all removal events to their licensed facility in Youngstown, Ohio for treatment.

Purge water generated during sampling events is being containerized in 55-gallon drums. 80 gallons of purge water was removed from the Site on May 29, 2019, as well as the 200 gallons generated from the High Vacuum Extraction events. Three drums of soil cuttings from the installation of MW-27, MW-28, and MW-29 were transported off-site this quarter. Copies of the 2<sup>nd</sup> quarter 2019 waste manifests are included in **Attachment 2**.

## OFF-SITE WATER WELLS

---

The off-site water well was previously referred to as “3706 Hubbard Middlesex Rd” because that is the address listed for the parcel owner. The physical address is 3462 Hubbard Middlesex Road. The location of this well is shown in **Figure 3**. The paving company located immediately west of this residence utilizes the same water well that supplies the residence. Analytical testing



of water samples (named “Raw Water”) from this offsite water well has shown a detection of MTBE in nineteen of the twenty samples collected as of March 15, 2019, none of which exceed the SHS.

During the ongoing evaluation and remedial action of the unleaded gasoline release at the Shenango Township Municipal property, a point-of-entry treatment (“POET”) system, installed at the off-site well on September 22, 2017, has been in operation to protect users of the well.

The POET system, which was installed in the basement of the house, consists of a pre-filter, a pair of 75 pound activated carbon vessels, and a flow totalizer.

Water samples were collected June 25, 2019 from before the carbon filters (“Raw Water”), and after the second carbon filter (“Discharge”). **Attachment 1** contains a copy of the laboratory analytical report from the June 25, 2019 sampling of the off-site water well. These off-site water well analytical results are provided in **Table 1**. Based on the consistent analytical results from the monthly sampling of the off-site potable water well, sampling and testing has been reduced to once per quarter.

Two other off-site potable water wells were sampled on February 7, 2019. The laboratory analytical results from these water samples show no detections of any of the tested COCs. The locations of the properties are illustrated on **Figure 8**.

A bedrock well, MW-25, was installed during the First Quarter of 2018 at the request of PADEP. This well has been sampled six times as of the date of this report, with MTBE detected in four of those samples but there has been no exceedance of the SHS. MW-25 is located directly between the former gasoline UST location and the off-site well (located at 3462 Hubbard Middlesex Road). MTBE was detected in the June 25, 2019 groundwater sample from MW-25 at 1.3 µg/L.

## SEPARATE PHASE LIQUID

---

The effective solubility of Benzene is reported to be 9,000 to 18,000 µg/L, according to Interstate Technology & Regulatory Council (“ITRC”) guidance. Analytical values of groundwater tested from MW-3 and RW-1 have fallen within this range, so extra attention has been given to SPL when monitoring these wells.

Separate phase liquid (“SPL”) was first noted in MW-3 during the December 3, 2018 groundwater sampling event and again during first quarter 2019 sampling on March 18, 2019. This light non-aqueous phase liquid (“LNAPL”) was measured to be less than 0.01 feet on top of



the water column within the monitoring well. MW-3 is located immediately north of the diesel UST as shown in **Figure 4**. It appears that as the backfilled excavated area of the former gasoline UST and the in-service diesel fuel UST fill with water during wet periods (“bathtub effect”) causing residual contamination to be forced from the diesel UST backfill towards MW-3. However, the tight nature of the shallow soil above bedrock to the north of the diesel fuel UST, as observed at MW-3, also serves to limit further migration of shallow contaminants to the north. The only notable exception is MTBE in bedrock, where it is found at MW-23 (screened in bedrock only) above the SHS. Some contaminants are depicted on Isoconcentration Maps in this report to have moved beneath the building in a northwesterly direction, though with the exception of Benzene at MW-21, there is no groundwater data to support this.

**Table 2** summarizes the gauging data for MW-3, the only well that has had a measurable amount of LNAPL as of the date of this report.

No other SPL has been encountered at the Site except as described above.

## CONCLUSIONS

---

The current source area is backfill located within the active diesel UST cavity. The groundwater contamination plume follows the groundwater flow direction to the northwest. MW-23 is the only monitoring well which is screened entirely within bedrock that has had an exceedance of COCs (Benzene on May 23, 2017 and MTBE in each of the ten times sampled). The remaining wells that have had exceedances of SHSs in groundwater are shallow wells screened within the glacial till. The water well on the Site has been sampled twenty-five times and has not had any detection of COC with the exception of MTBE on March 24, 2017, which followed a 4 hour pumping test. The 1.13 µg/L MTBE value at the Township Water Well is well below the SHS. This well had been tested monthly, as previously described. Signs are posted at sinks stating that the water is “non-potable”. Given the consistent results of monthly samples from this well, CES has reduced the on-site water well sampling to once per quarter.

The water well of the adjoining, down-gradient property located at 3462 Hubbard Middlesex Road (Off-site Water Well) has been sampled 21 times and had a POET system installed in September 2017. This well has been sampled once each month before and after the treatment system, but given the consistent analytical results, samples are currently being collected once per quarter.

Neighboring properties located at 3430 and 3429 Hubbard-Middlesex Road were sampled on February 7, 2019. Neither of the water samples from the two wells had detections of any of the



tested parameters. The remaining adjoining properties with water wells are abandoned or refused access for sampling.

The primary remedial option that has been performed to date is Source Removal, involving both soil and groundwater. The excavation phase of the remedial action was completed in July 2017. 558.93 tons of soil and approximately 1,900 gallons of water were removed from the Site during the excavation activities. Three Vacuum Truck Liquid Removal events have taken place as of the date of this report, which removed another 10,100 gallons of contaminated water. Two additional High Vacuum Extraction events were conducted on May 29 and June 11, 2019, which removed soil vapors and approximately 200 gallons of groundwater during each of the two events.

The concentrations of COC in groundwater had been trending downward after the soil removal event in July 2017 and the three vacuum truck water removal events that were completed in September, October, and December 2017. Many of the concentrations have been trending back upward since that time. Measurable SPL was observed in MW-3 during the December 3, 2018 and March 15 & 18, 2019 groundwater sampling events. MW-3 was purged three times in December to remove any SPL that may have accumulated. Monitoring for SPL was conducted six times following the initial discovery of SPL during the Fourth Quarter 2018 groundwater monitoring event. No measurable SPL was observed during any of these monitoring events. The amount of SPL measured on March 15, 2019 was less than 0.01 feet.

Each of the COCs in the second quarter groundwater sample from MW-3 was lower than the previous quarter, possibly due to the pair of High Vacuum Extraction events completed in the weeks prior to collecting the sample.

The Township water well and the off-site water well located at 3462 Hubbard Middlesex Road will be sampled quarterly. The next groundwater sampling event is scheduled for the Third Quarter of 2019. A RAPR will be submitted to the PADEP following this groundwater sampling event.



# **FIGURES**



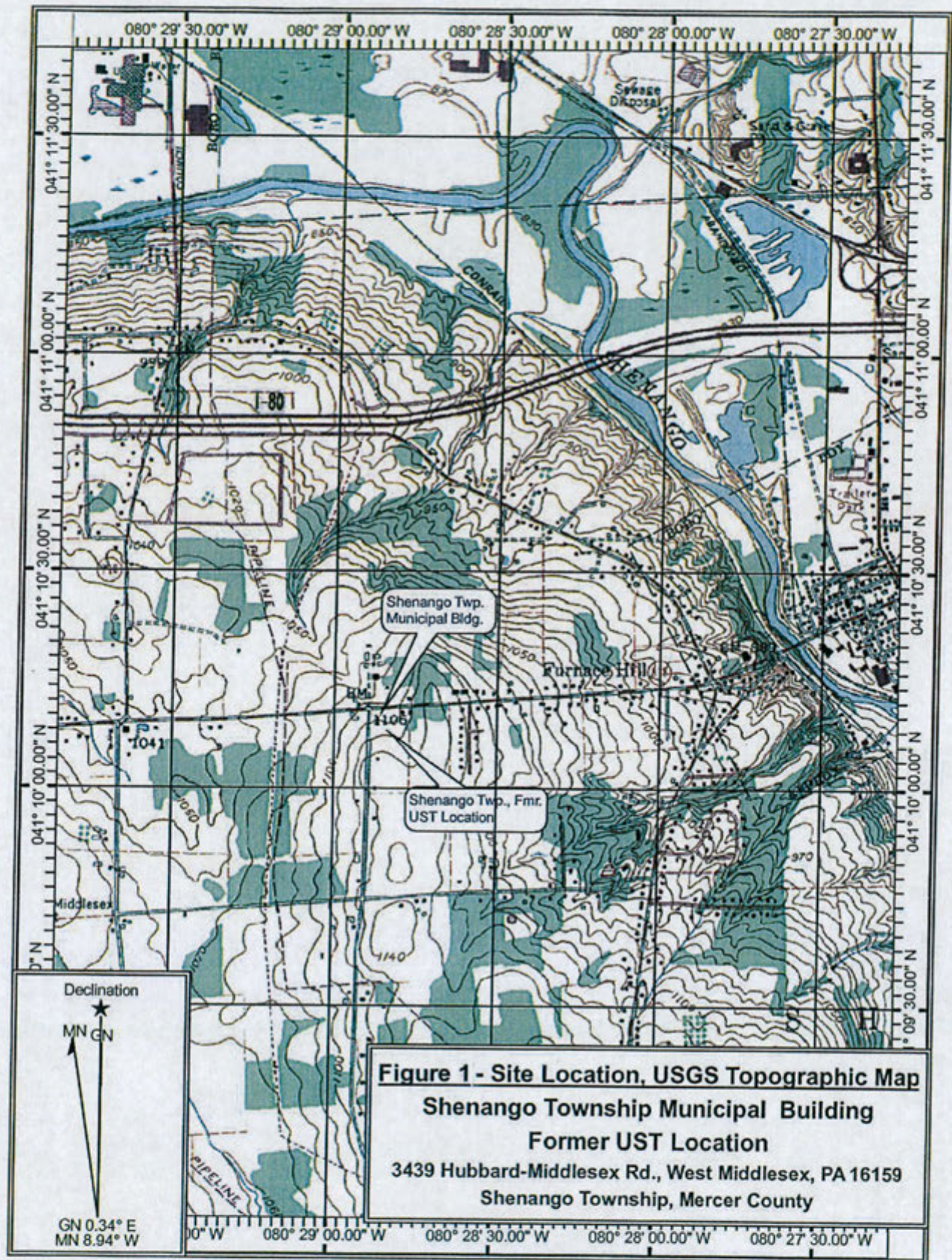



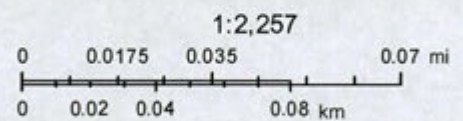


Figure 2 - Shenango Township Parcel Map



October 26, 2017

 Building Footprints 2017  
TaxParcels\_10\_2017



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

8/5/2019 2:55:50 PM



Figure 3 - Shenango Twp Aerial Map

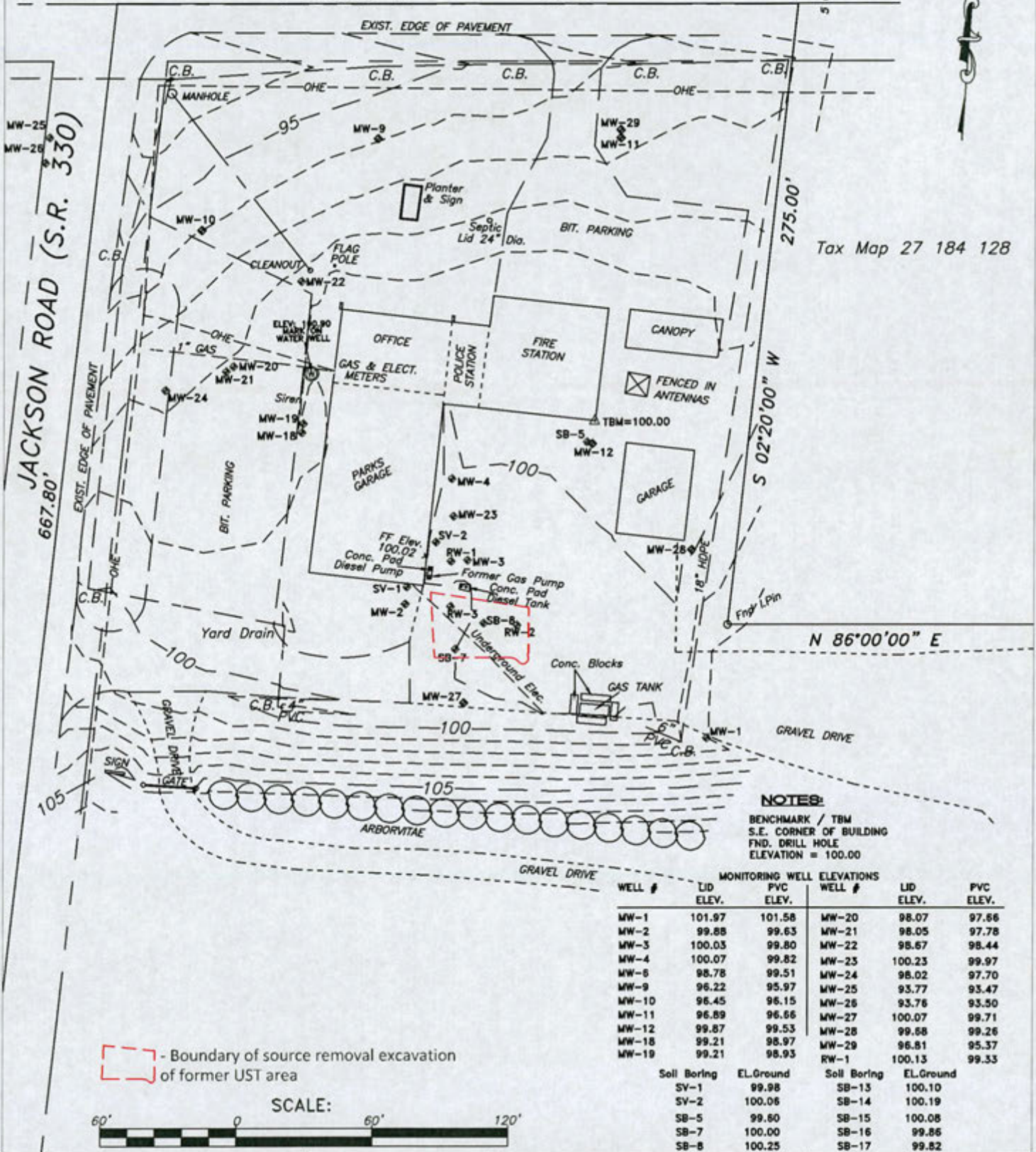




# HUBBARD / MIDDLESEX ROAD (S.R. 318)

N 86°00'00" E

300.00'



Compliance Environmental Services, Inc.  
2700 Kirlia Blvd.  
Hermitage, PA 16148  
(724) 342-1990

Base Map Provided  
By: Henry T. Welka  
& Associates  
Surveying and  
Engineering  
(814)833-3000

Shenango Township Municipal Building  
3439 Hubbard-West Middlesex Road  
West Middlesex, Pa. 16159  
Shenango Twp., Mercer County  
PADEP Facility No. 43-04177  
USTIF Claim No. 2016-008  
Mercer County Tax Map 27 184 131  
9.74 Acres

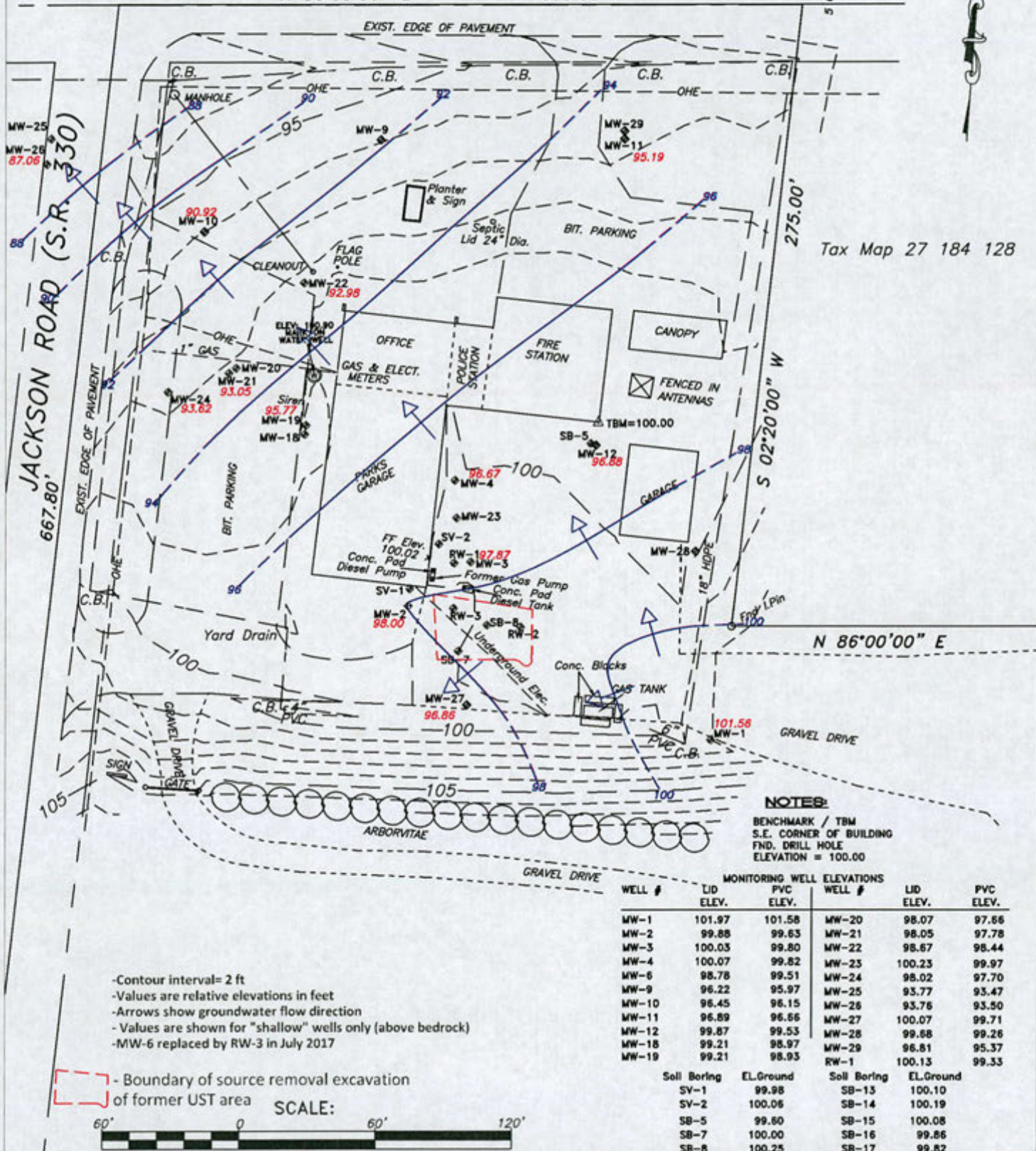
Figure 4  
Surveyed Base Map



# HUBBARD / MIDDLESEX ROAD (S.R. 318)

N 86°00'00" E

300.00'



Compliance Environmental Services, Inc.  
 2700 Kirlia Blvd.  
 Hermitage, PA 16148  
 (724) 342-1990

Base Map Provided  
 By: Henry T. Welka  
 & Associates  
 Surveying and  
 Engineering  
 (814) 833-3000

Shenango Township Municipal Building  
 3439 Hubbard-West Middlesex Road  
 West Middlesex, Pa. 16159  
 Shenango Twp., Mercer County  
 PADEP Facility No. 43-04177  
 USTIF Claim No. 2016-008  
 Mercer County Tax Map 27 184 131  
 9.74 Acres

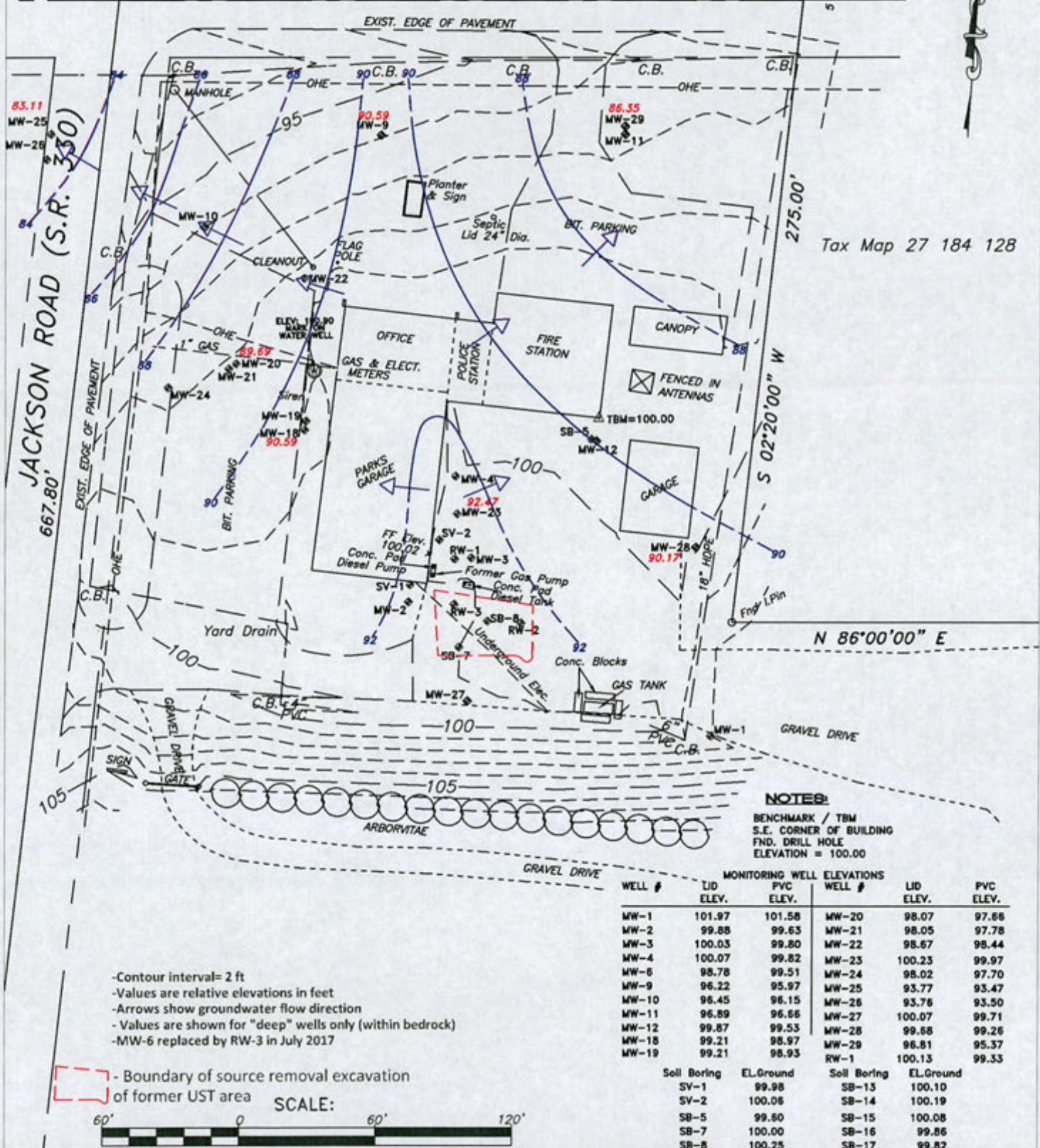
Figure 5A  
 Groundwater Contour Map  
 Shallow Wells  
 June 25, 2019



# HUBBARD / MIDDLESEX ROAD (S.R. 318)

N 86°00'00" E

300.00'



Compliance Environmental Services, Inc.  
2700 Kirlia Blvd.  
Hermitage, PA 16148  
(724) 342-1990

Base Map Provided  
By: Henry T. Welka  
& Associates  
Surveying and  
Engineering  
(814)833-3000

Shenango Township Municipal Building  
3439 Hubbard-West Middlesex Road  
West Middlesex, Pa. 16159  
Shenango Twp., Mercer County  
PADEP Facility No. 43-04177  
USTIF Claim No. 2016-008  
Mercer County Tax Map 27 184 131  
9.74 Acres

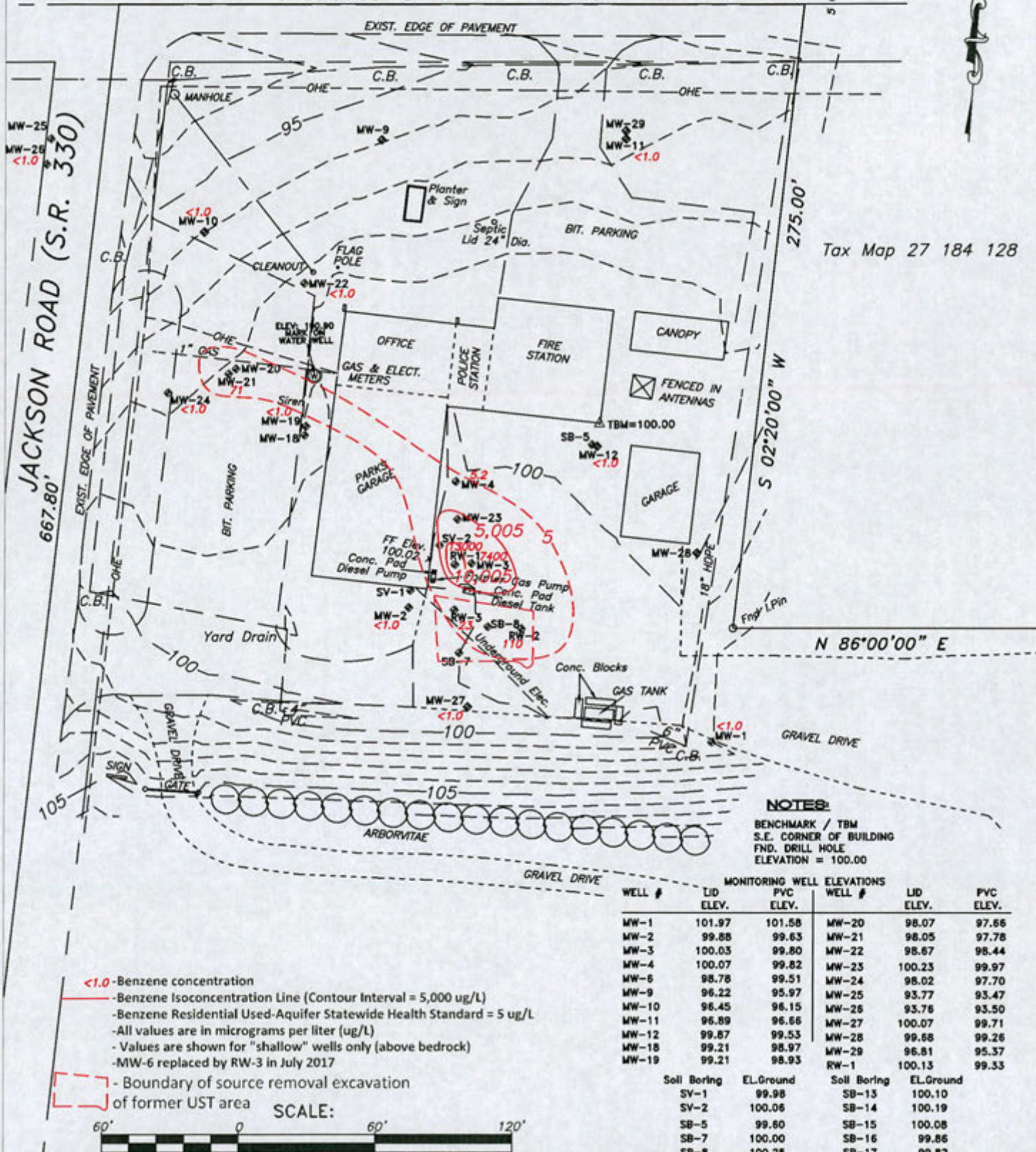
Figure SB  
Groundwater Contour Map  
Deep Wells  
June 25, 2019



# HUBBARD / MIDDLESEX ROAD (S.R. 318)

N 86°00'00" E

300.00'



Tax Map 27 184 128

## NOTES:

BENCHMARK / TBM  
S.E. CORNER OF BUILDING  
FND. DRILL HOLE  
ELEVATION = 100.00

<1.0 - Benzene concentration

- Benzene Isoconcentration Line (Contour Interval = 5,000 ug/L)

- Benzene Residential Used-Aquifer Statewide Health Standard = 5 ug/L

- All values are in micrograms per liter (ug/L)

- Values are shown for "shallow" wells only (above bedrock)

- MW-6 replaced by RW-3 in July 2017

- Boundary of source removal excavation  
of former UST area

SCALE:

## MONITORING WELL ELEVATIONS

WELL #	LID ELEV.	PVC ELEV.	WELL #	LID ELEV.	PVC ELEV.
MW-1	101.97	101.58	MW-20	98.07	97.66
MW-2	99.88	99.63	MW-21	98.05	97.78
MW-3	100.03	99.80	MW-22	98.67	98.44
MW-4	100.07	99.82	MW-23	100.23	99.97
MW-6	98.78	99.51	MW-24	98.02	97.70
MW-9	96.22	95.97	MW-25	93.77	93.47
MW-10	96.45	96.15	MW-26	93.76	93.50
MW-11	96.89	96.66	MW-27	100.07	99.71
MW-12	99.87	99.53	MW-28	99.68	99.26
MW-18	99.21	98.97	MW-29	96.81	95.37
MW-19	99.21	98.93	RW-1	100.13	99.33
Soil Boring	EL.Ground		Soil Boring	EL.Ground	
SV-1	99.98		SB-13	100.10	
SV-2	100.06		SB-14	100.19	
SB-5	99.80		SB-15	100.08	
SB-7	100.00		SB-16	99.86	
SB-8	100.25		SB-17	99.82	

Compliance Environmental Services, Inc.  
2700 Kirlila Blvd.  
Hermitage, PA 16148  
(724) 342-1990

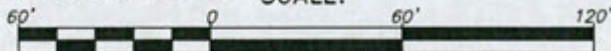
Base Map Provided  
By: Henry T. Welka  
& Associates  
Surveying and  
Engineering  
(814)833-3000

Shenango Township Municipal Building  
3439 Hubbard-West Middlesex Road  
West Middlesex, Pa. 16159  
Shenango Twp., Mercer County  
PADEP Facility No. 43-04177  
USTIF Claim No. 2016-008  
Mercer County Tax Map 27 184 131  
9.74 Acres

Figure 6A  
Benzene Isoconcentration  
Groundwater  
Shallow Wells  
June 25, 2019



## 300.00'

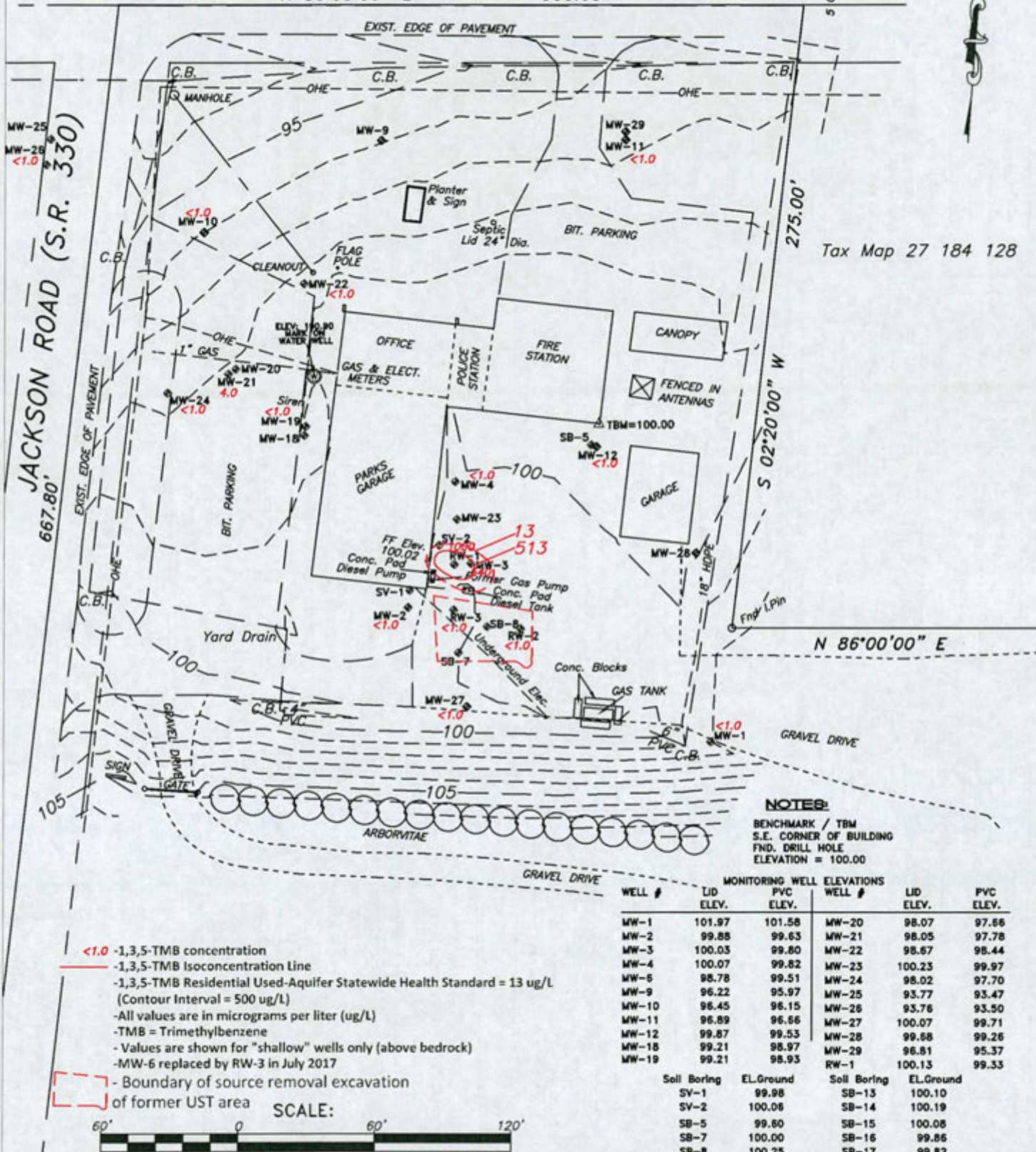




# HUBBARD / MIDDLESEX ROAD (S.R. 318)

N 86°00'00" E

300.00'

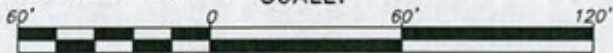


Tax Map 27 184 128

**NOTES:**  
BENCHMARK / TBM  
S.E. CORNER OF BUILDING  
FND. DRILL HOLE  
ELEVATION = 100.00

- <1.0 - 1,3,5-TMB concentration
- 1,3,5-TMB Isoconcentration Line
- 1,3,5-TMB Residential Used-Aquifer Statewide Health Standard = 13 ug/L (Contour Interval = 500 ug/L)
- All values are in micrograms per liter (ug/L)
- TMB = Trimethylbenzene
- Values are shown for "shallow" wells only (above bedrock)
- MW-6 replaced by RW-3 in July 2017
- Boundary of source removal excavation of former UST area

SCALE:



MONITORING WELL ELEVATIONS		
WELL #	LID ELEV.	PVC ELEV.
MW-1	101.97	101.58
MW-2	99.88	99.63
MW-3	100.03	99.80
MW-4	100.07	99.82
MW-5	98.78	99.51
MW-9	96.22	95.97
MW-10	96.45	96.15
MW-11	96.89	96.66
MW-12	99.87	99.53
MW-18	99.21	98.97
MW-19	99.21	98.93

WELL #		LID ELEV.	PVC ELEV.
MW-20		98.07	97.66
MW-21		98.05	97.78
MW-22		98.67	98.44
MW-23	100.23		99.97
MW-24	98.02		97.70
MW-25	93.77		93.47
MW-26	93.76		93.50
MW-27	100.07		99.71
MW-28	99.58		99.26
MW-29	96.81		95.37
RW-1	100.13		99.33

Soil Boring		EL.Ground	
SV-1		99.98	
SV-2		100.06	
SB-5		99.60	
SB-7		100.00	
SB-8		100.25	
SB-13		100.10	
SB-14		100.19	
SB-15		100.08	
SB-16		99.86	
SB-17		99.82	

Compliance Environmental Services, INC.  
2700 Kirlila Blvd.  
Hermitage, PA 16148  
(724) 342-1990

Base Map Provided  
By: Henry T. Welka  
& Associates  
Surveying and  
Engineering  
(814)833-3000

Shenango Township Municipal Building  
3439 Hubbard-West Middlesex Road  
West Middlesex, Pa. 16159  
Shenango Twp., Mercer County  
PADEP Facility No. 43-04177  
USTIF Claim No. 2016-008  
Mercer County Tax Map 27 184 131  
9.74 Acres

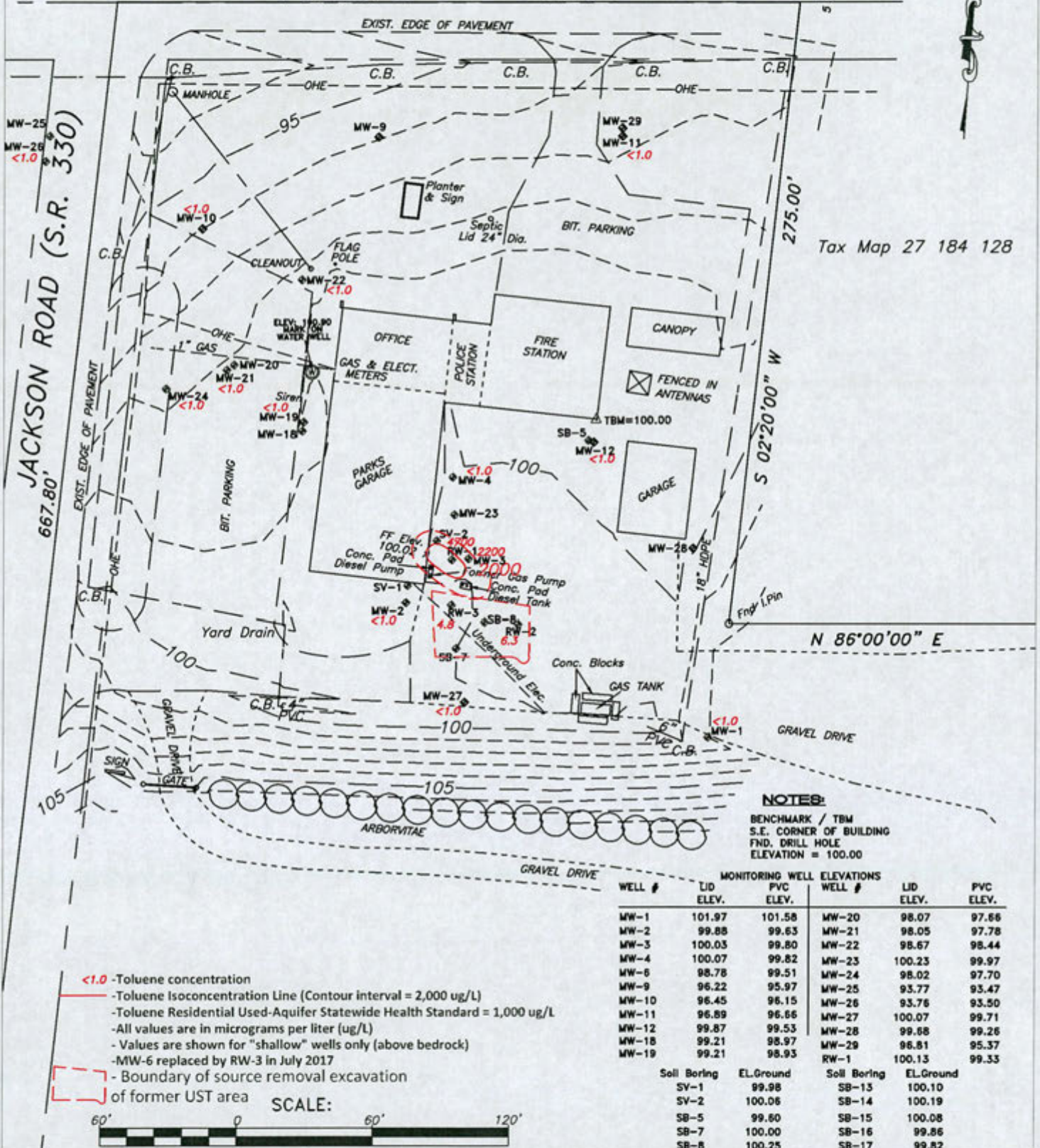
Figure 6C  
1,3,5-TMB Isoconcentration  
Groundwater  
Shallow Wells  
June 25, 2019



# HUBBARD / MIDDLESEX ROAD (S.R. 318)

N 86°00'00" E

300.00'



Compliance Environmental Services, INC.  
 2700 Kirila Blvd.  
 Hermitage, PA 16148  
 (724) 342-1990

Base Map Provided  
 By: Henry T. Welka  
 & Associates  
 Surveying and  
 Engineering  
 (814)833-3000

Shenango Township Municipal Building  
 3439 Hubbard-West Middlesex Road  
 West Middlesex, Pa. 16159  
 Shenango Twp., Mercer County  
 PADEP Facility No. 43-04177  
 USTIF Claim No. 2016-008  
 Mercer County Tax Map 27 184 131  
 9.74 Acres

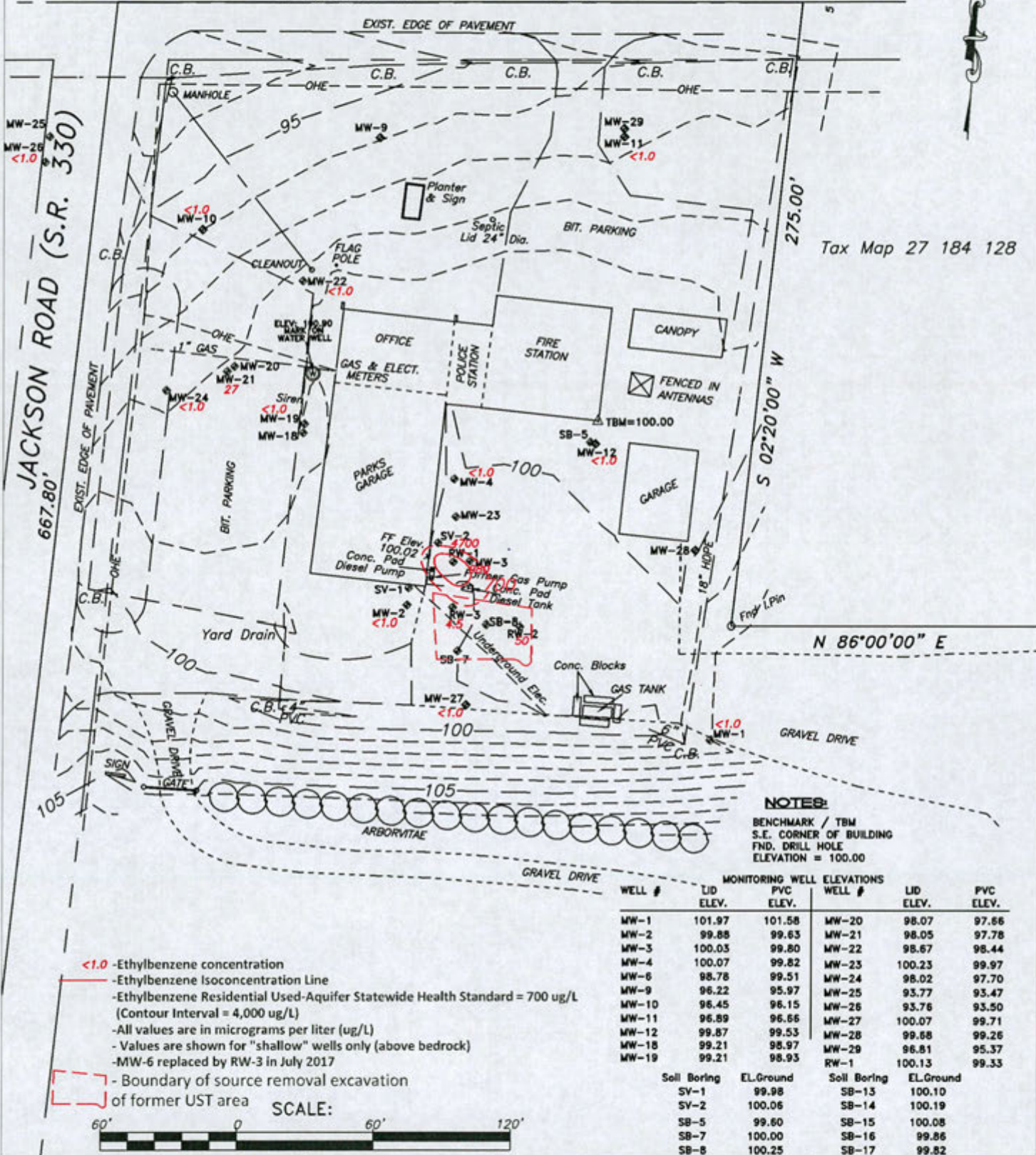
Figure 6D  
 Toluene Isoconcentration  
 Groundwater  
 Shallow Wells  
 June 25, 2019



# HUBBARD / MIDDLESEX ROAD (S.R. 318)

N 86°00'00" E

300.00'



Compliance Environmental Services, INC.  
 2700 Kirlia Blvd.  
 Hermitage, PA 16148  
 (724) 342-1990

Base Map Provided  
 By: Henry T. Welka  
 & Associates  
 Surveying and  
 Engineering  
 (814)833-3000

Shenango Township Municipal Building  
 3439 Hubbard-West Middlesex Road  
 West Middlesex, Pa. 16159  
 Shenango Twp., Mercer County  
 PADEP Facility No. 43-04177  
 USTIF Claim No. 2016-008  
 Mercer County Tax Map 27 184 131  
 9.74 Acres

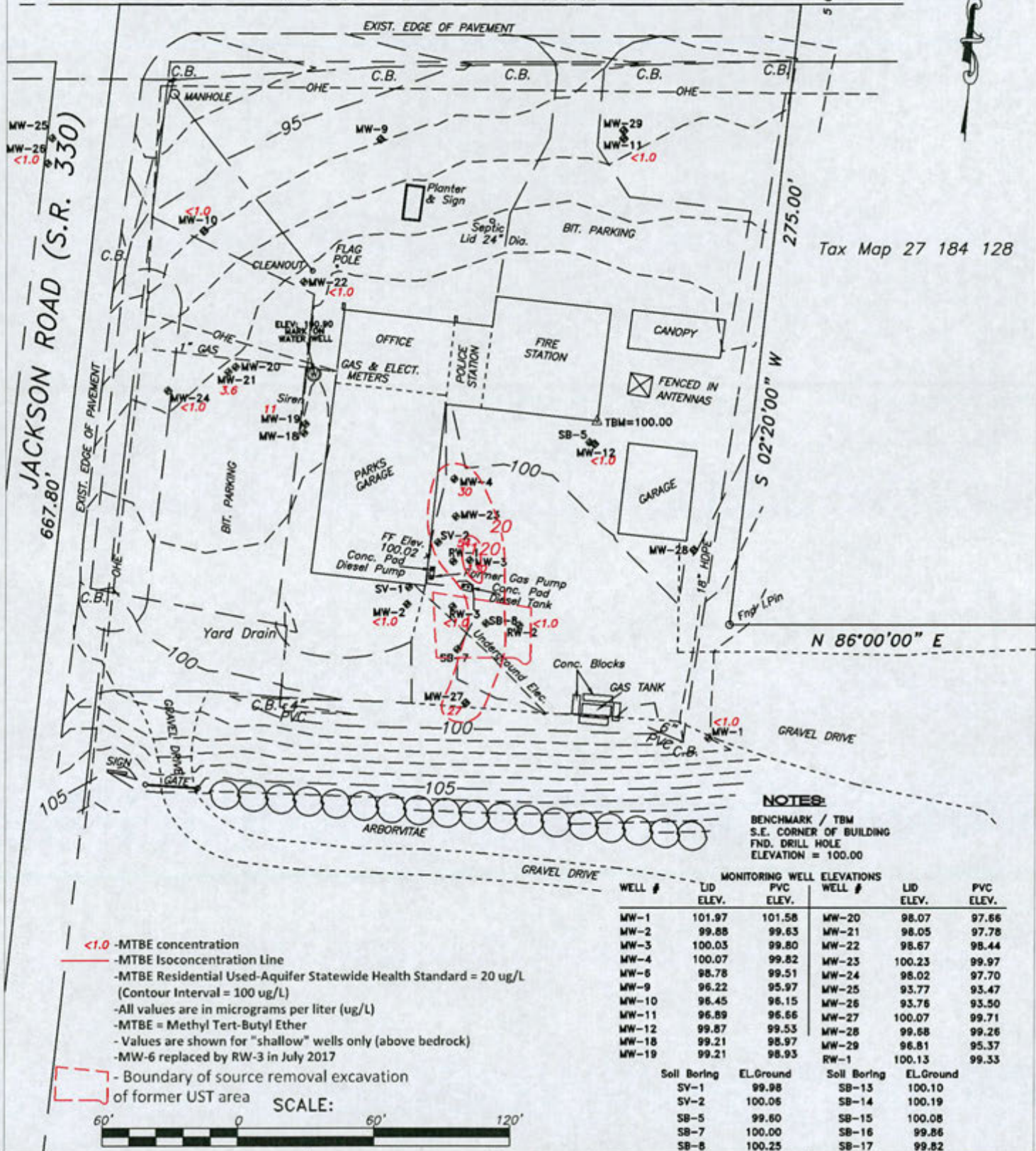
Figure 6E  
 Ethylbenzene Isoconcentration  
 Groundwater  
 Shallow Wells  
 June 25, 2019



# HUBBARD / MIDDLESEX ROAD (S.R. 318)

N 86°00'00" E

300.00'



Compliance Environmental Services, INC.  
2700 Kirlila Blvd.  
Hermitage, PA 16148  
(724) 342-1990

Base Map Provided  
By: Henry T. Welka  
& Associates  
Surveying and  
Engineering  
(814)833-3000

Shenango Township Municipal Building  
3439 Hubbard-West Middlesex Road  
West Middlesex, Pa. 16159  
Shenango Twp., Mercer County  
PADEP Facility No. 43-04177  
USTIF Claim No. 2016-008  
Mercer County Tax Map 27 184 131  
9.74 Acres

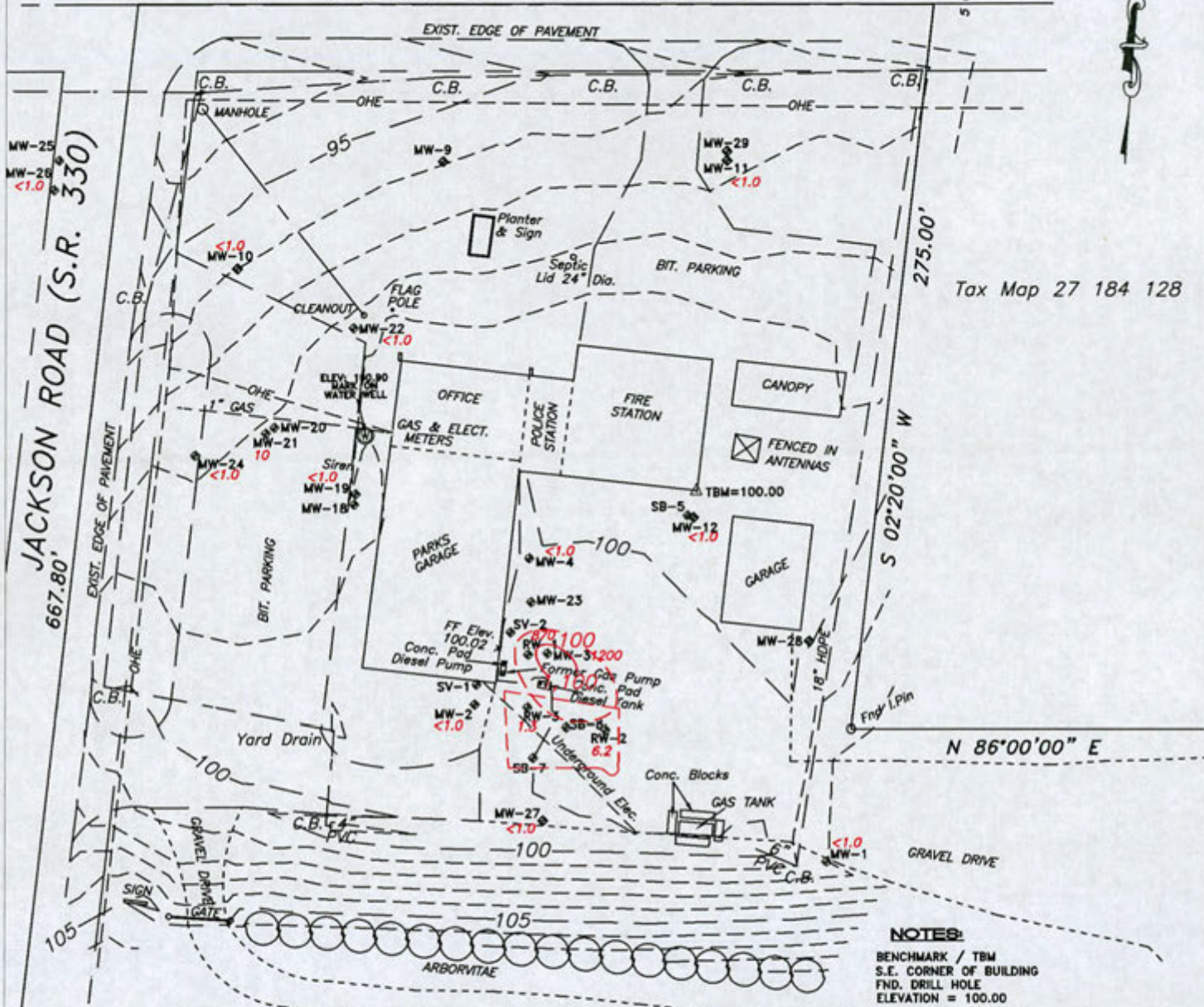
Figure 6F  
MTBE Isoconcentration  
Groundwater  
Shallow Wells  
June 25, 2019



# HUBBARD / MIDDLESEX ROAD (S.R. 318)

N 86°00'00" E

300.00'



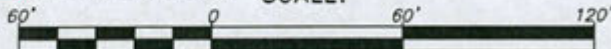
Tax Map 27 184 128

## NOTES:

BENCHMARK / TBM  
S.E. CORNER OF BUILDING  
FND. DRILL HOLE  
ELEVATION = 100.00

- <1.0 - Naphthalene concentration
- Naphthalene Isoconcentration Line
- Naphthalene Residential Used-Aquifer Statewide Health Standard = 100 ug/L (Contour Interval = 1,000 ug/L)
- All values are in micrograms per liter (ug/L)
- Values are shown for "shallow" wells only (above bedrock)
- MW-6 replaced by RW-3 in July 2017
- Boundary of source removal excavation of former UST area

SCALE:



WELL #	MONITORING WELL		ELEVATIONS WELL #	ELEVATIONS	
	LID ELEV.	PVC ELEV.		LID ELEV.	PVC ELEV.
MW-1	101.97	101.58	MW-20	98.07	97.66
MW-2	99.88	99.63	MW-21	98.05	97.78
MW-3	100.03	99.80	MW-22	98.67	98.44
MW-4	100.07	99.82	MW-23	100.23	99.97
MW-5	98.78	99.51	MW-24	98.02	97.70
MW-9	96.22	95.97	MW-25	93.77	93.47
MW-10	96.45	96.15	MW-26	93.76	93.50
MW-11	96.89	96.66	MW-27	100.07	99.71
MW-12	99.87	99.53	MW-28	99.68	99.26
MW-18	99.21	98.97	MW-29	96.81	95.37
MW-19	99.21	98.93	RW-1	100.13	99.33
Soil Boring		EL.Ground	Soil Boring		EL.Ground
SV-1		99.98	SB-13		100.10
SV-2		100.06	SB-14		100.19
SB-5		99.60	SB-15		100.08
SB-7		100.00	SB-16		99.86
SB-8		100.25	SB-17		99.82

Compliance Environmental Services, INC.  
2700 Kirlila Blvd.  
Hermittage, PA 16148  
(724) 342-1990

Base Map Provided  
By: Henry T. Welka  
& Associates  
Surveying and  
Engineering  
(814)833-3000

Shenango Township Municipal Building  
3439 Hubbard-West Middlesex Road  
West Middlesex, Pa. 16159  
Shenango Twp., Mercer County  
PADEP Facility No. 43-04177  
USTIF Claim No. 2016-008  
Mercer County Tax Map 27 184 131  
9.74 Acres

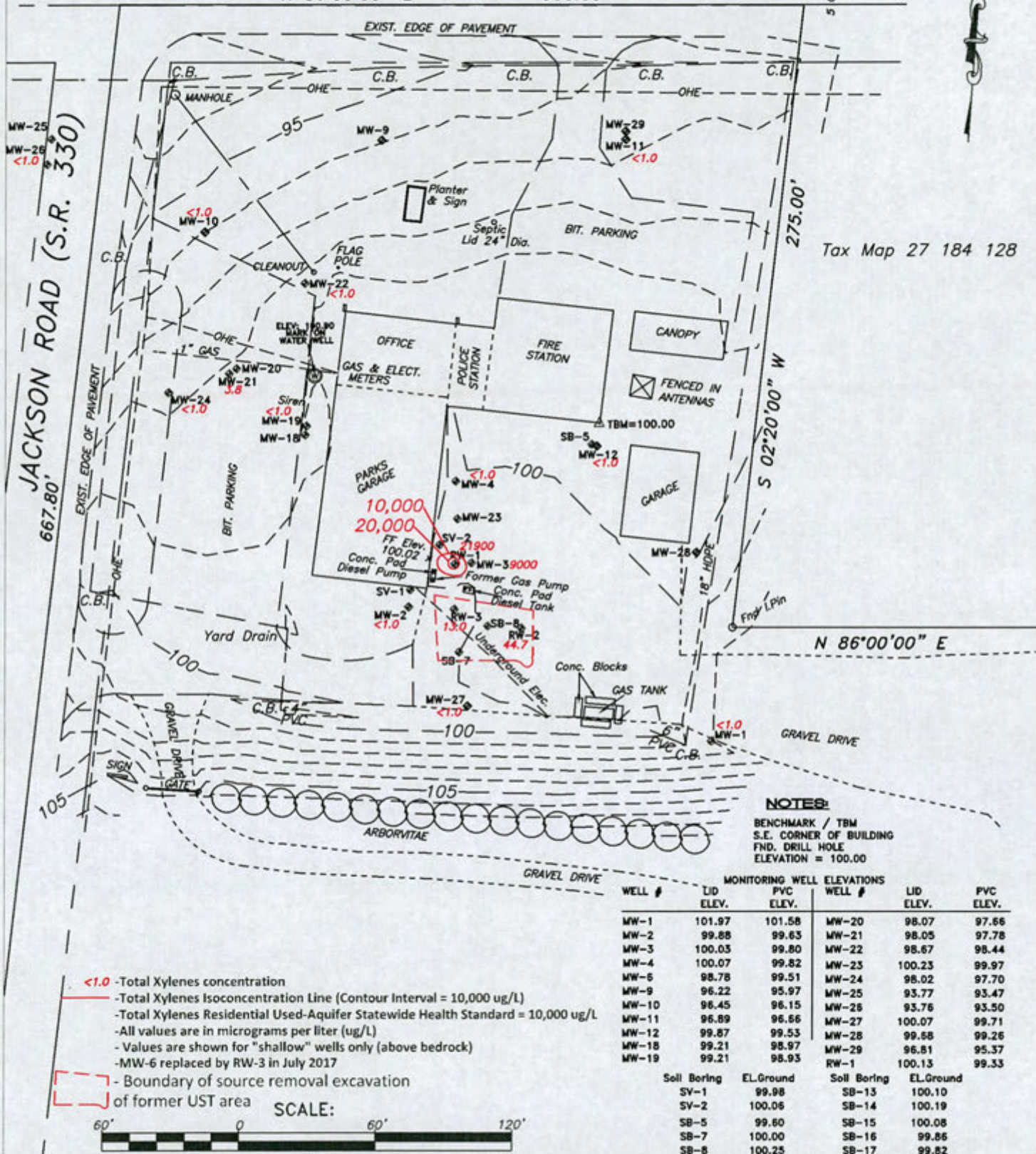
Figure 6G  
Naphthalene Isoconcentration  
Groundwater  
Shallow Wells  
June 25, 2019



# HUBBARD / MIDDLESEX ROAD (S.R. 318)

N 86°00'00" E

300.00'



Compliance Environmental Services, INC.  
2700 Kirlia Blvd.  
Hermitage, PA 16148  
(724) 342-1990

Base Map Provided  
By: Henry T. Welka  
& Associates  
Surveying and  
Engineering  
(814)833-3000

Shenango Township Municipal Building  
3439 Hubbard-West Middlesex Road  
West Middlesex, Pa. 16159  
Shenango Twp., Mercer County  
PADEP Facility No. 43-04177  
USTIF Claim No. 2016-008  
Mercer County Tax Map 27 184 131  
9.74 Acres

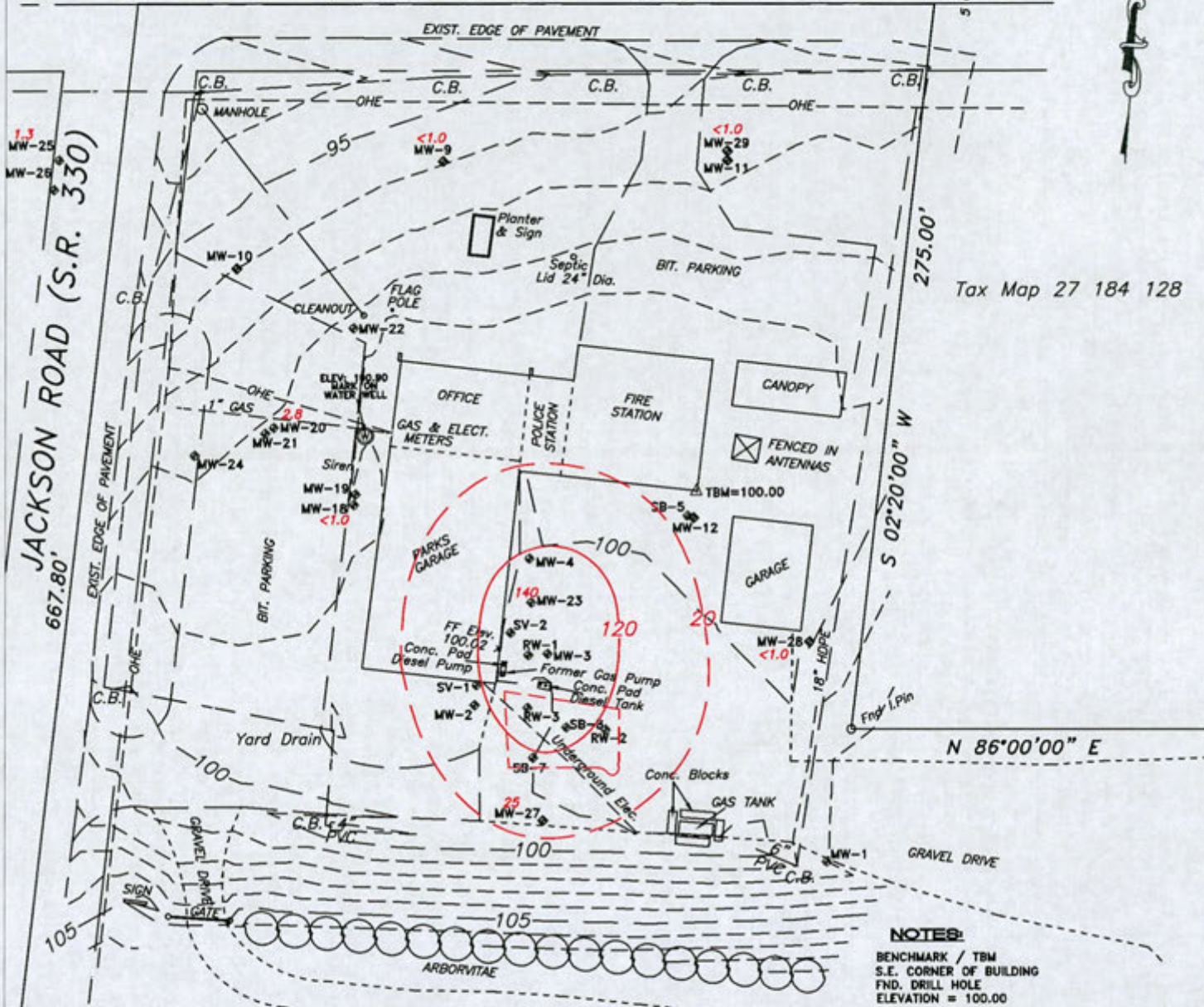
Figure 6H  
Total Xylenes Isoconcentration  
Groundwater  
Shallow Wells  
June 25, 2019



# HUBBARD / MIDDLESEX ROAD (S.R. 318)

N 86°00'00" E

300.00'



Tax Map 27 184 128

## NOTES:

BENCHMARK / TBM  
S.E. CORNER OF BUILDING  
FND. DRILL HOLE  
ELEVATION = 100.00

<1.0 -MTBE concentration

-MTBE Isoconcentration Line

-MTBE Residential Used-Aquifer Statewide Health Standard = 20 ug/L  
(Contour Interval = 100 ug/L)

-All values are in micrograms per liter (ug/L)

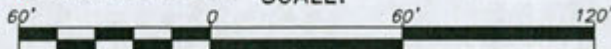
-MTBE = Methyl Tert-Butyl Ether

-Values are shown for "deep" wells only (in bedrock)

-MW-6 replaced by RW-3 in July 2017

-Boundary of source removal excavation  
of former UST area

SCALE:



MONITORING WELL ELEVATIONS			ELEVATIONS		
WELL #	LID ELEV.	PVC ELEV.	WELL #	LID ELEV.	PVC ELEV.
MW-1	101.97	101.58	MW-20	98.07	97.66
MW-2	99.88	99.63	MW-21	98.05	97.78
MW-3	100.03	99.80	MW-22	98.67	98.44
MW-4	100.07	99.82	MW-23	100.23	99.97
MW-5	98.78	99.51	MW-24	98.02	97.70
MW-6	96.22	95.97	MW-25	93.77	93.47
MW-7	96.45	96.15	MW-26	93.76	93.50
MW-8	96.89	96.66	MW-27	100.07	99.71
MW-9	99.87	99.53	MW-28	99.68	99.26
MW-10	99.21	98.97	MW-29	96.81	95.37
MW-11	99.21	98.93	RW-1	100.13	99.33
Soil Boring			Soil Boring		
SV-1	99.98		SB-13	100.10	
SV-2	100.06		SB-14	100.19	
SB-5	99.60		SB-15	100.08	
SB-7	100.00		SB-16	99.86	
SB-8	100.25		SB-17	99.82	

Compliance Environmental Services, INC.  
2700 Kirlia Blvd.  
Hermilite, PA 16148  
(724) 342-1990

Base Map Provided  
By: Henry T. Welka  
& Associates  
Surveying and  
Engineering  
(814)833-3000

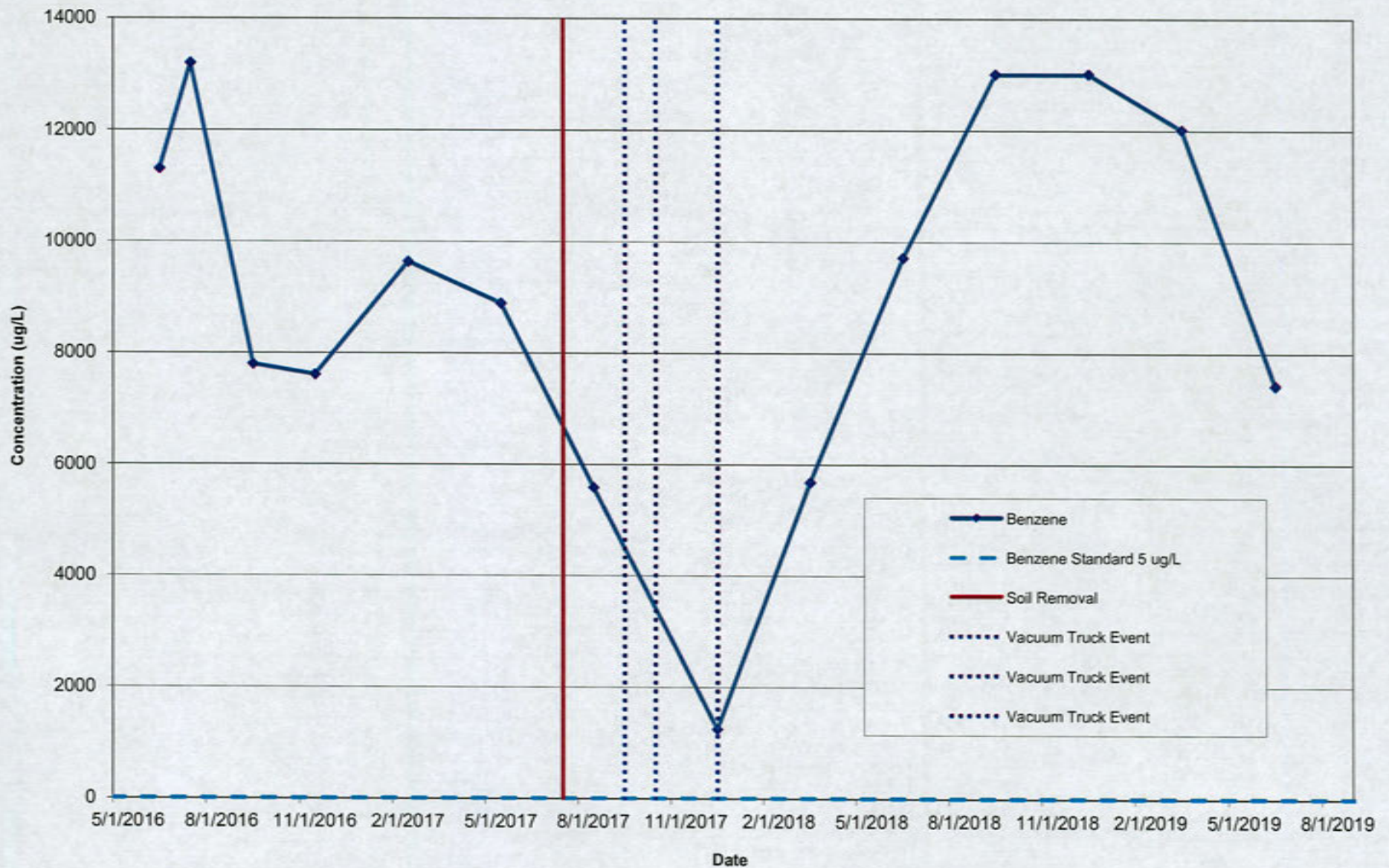
Shenango Township Municipal Building  
3439 Hubbard-West Middlesex Road  
West Middlesex, Pa. 16159  
Shenango Twp., Mercer County  
PADEP Facility No. 43-04177  
USTIF Claim No. 2016-008  
Mercer County Tax Map 27 184 131  
9.74 Acres

Figure 61  
MTBE Isoconcentration  
Groundwater  
Deep Wells  
June 25, 2019



Shenango Township Municipal Building  
Mercer County  
Time Trend Analysis for Benzene in MW-3

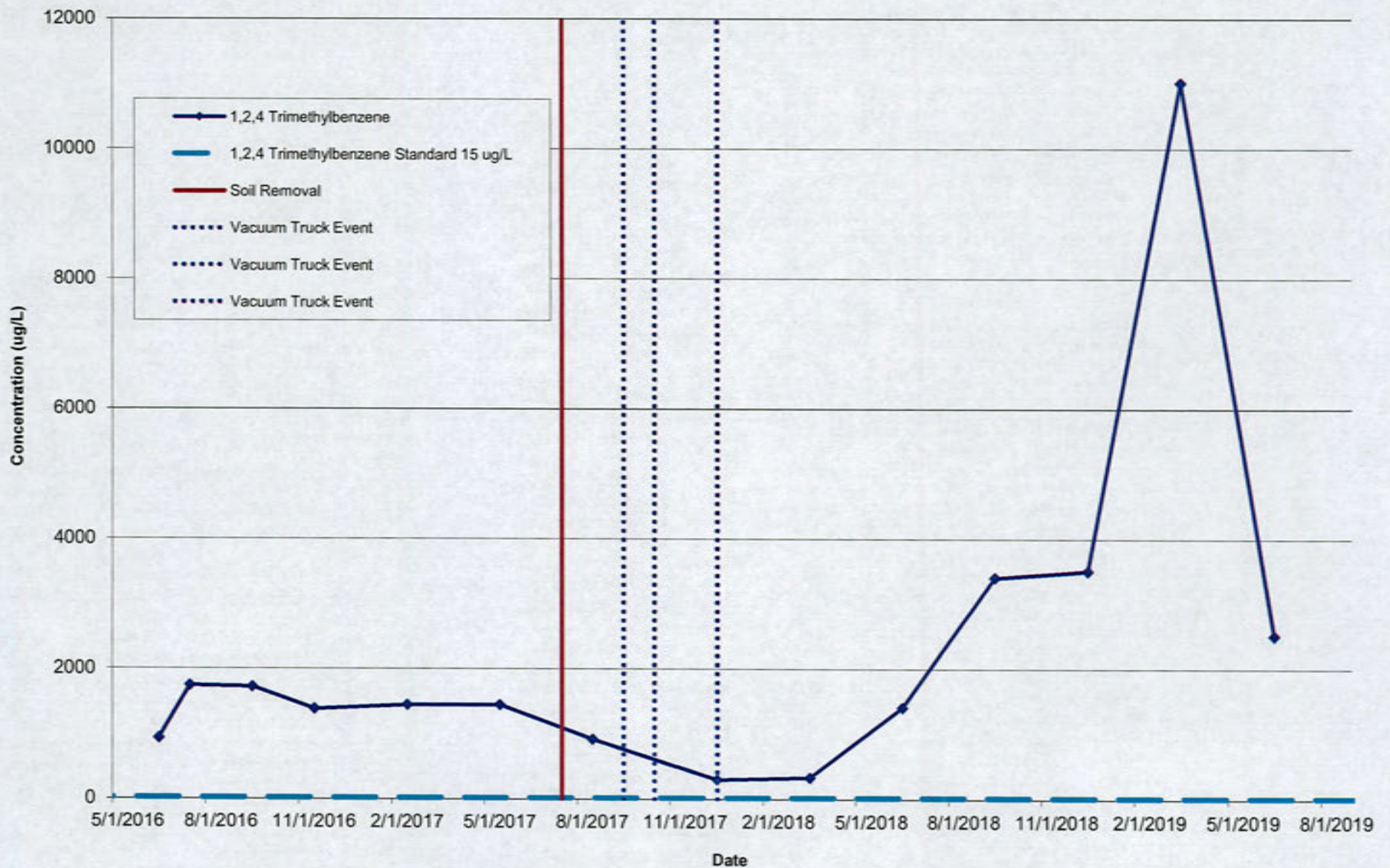
Figure 7A





Shenango Township Municipal Building  
Mercer County  
Time Trend Analysis for 1,2,4-Trimethylbenzene in MW-3

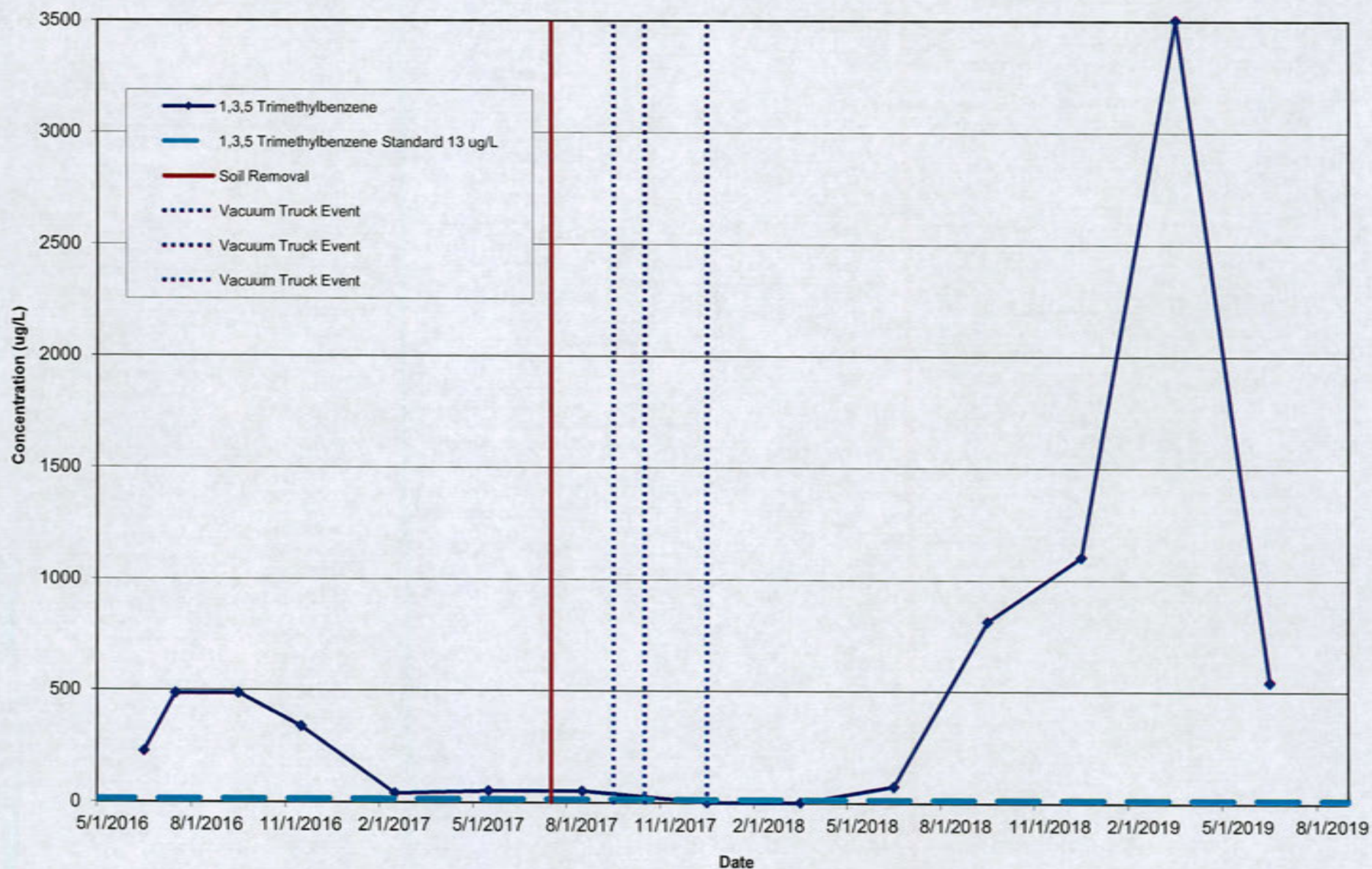
Figure 7B





Shenango Township Municipal Building  
Mercer County  
Time Trend Analysis for 1,3,5-Trimethylbenzene in MW-3

Figure 7C



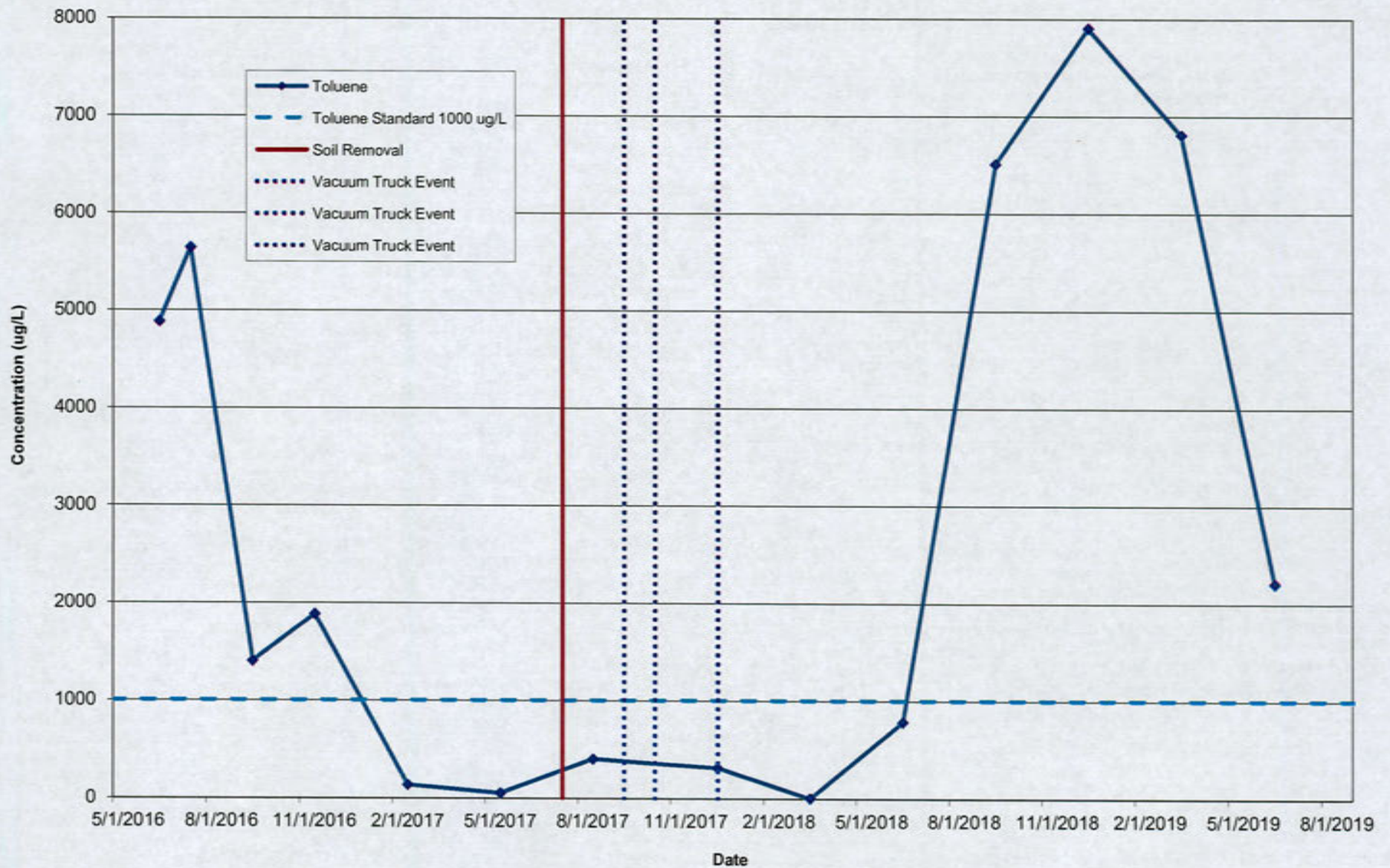
Prepared by CES

8/5/2019 2:56:08 PM



Shenango Township Municipal Building  
Mercer County  
Time Trend Analysis for Toluene in MW-3

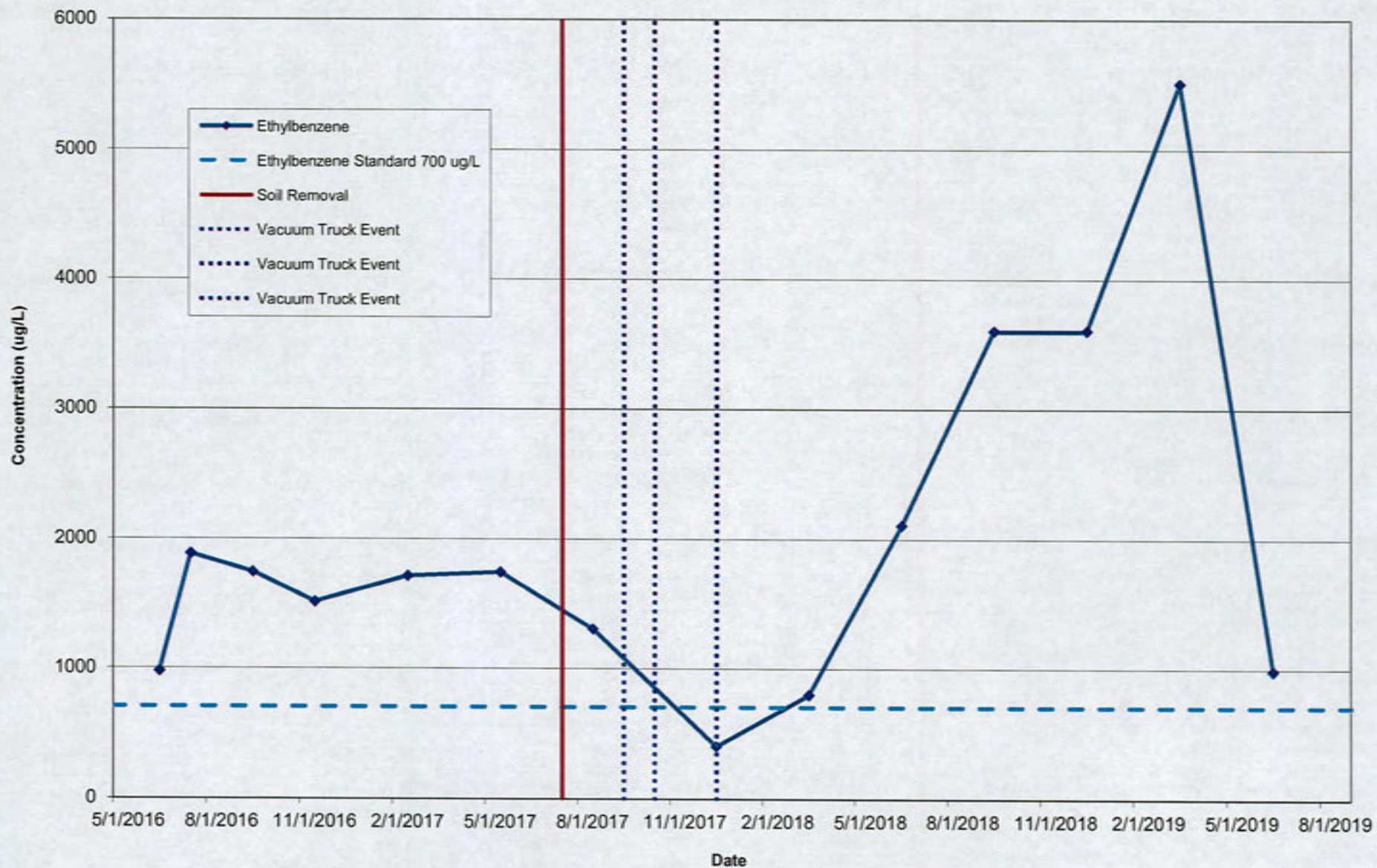
Figure 7D





Shenango Township Municipal Building  
Mercer County  
Time Trend Analysis for Ethylbenzene in MW-3

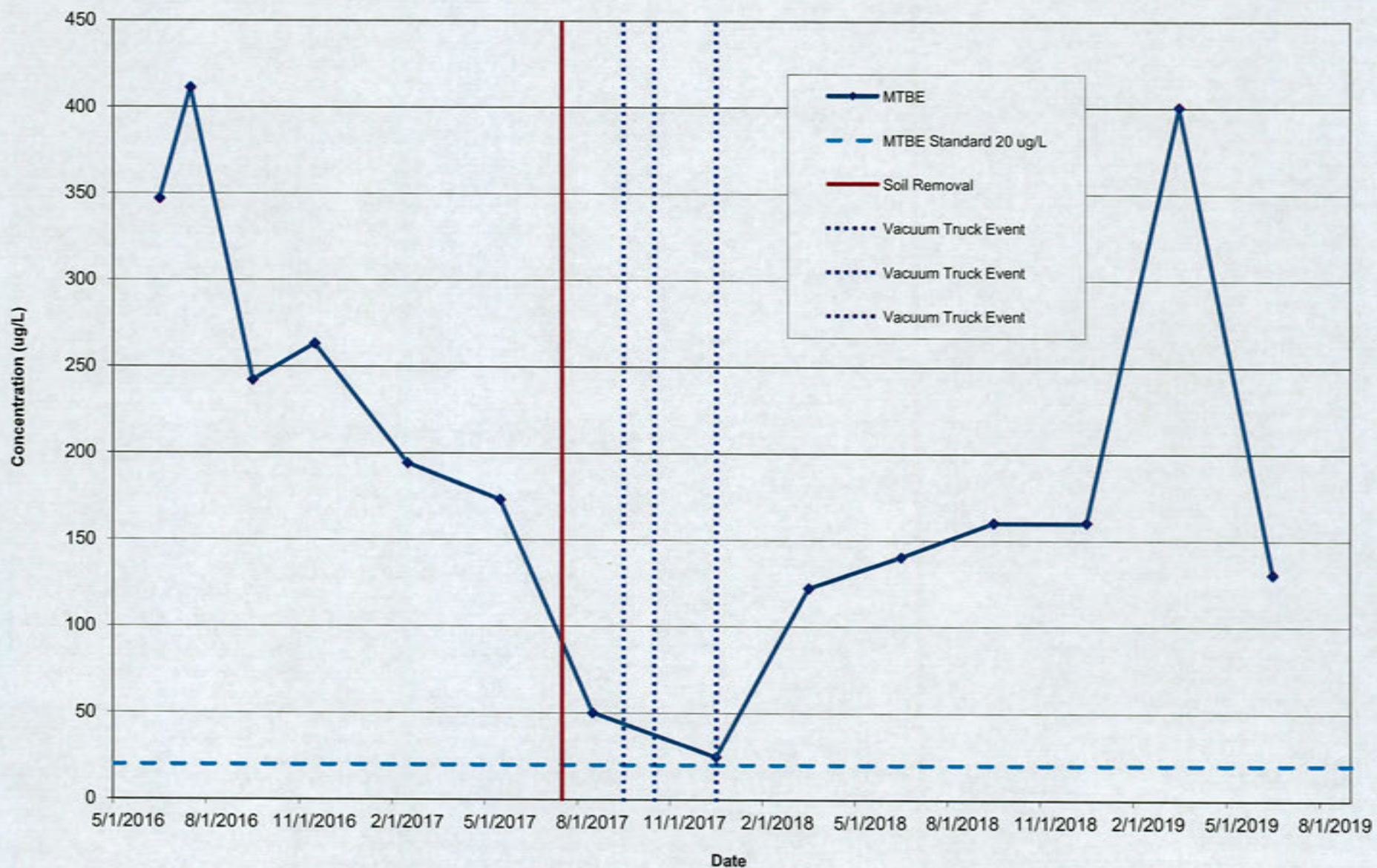
Figure 7E





Shenango Township Municipal Building  
Mercer County  
Time Trend Analysis for MTBE in MW-3

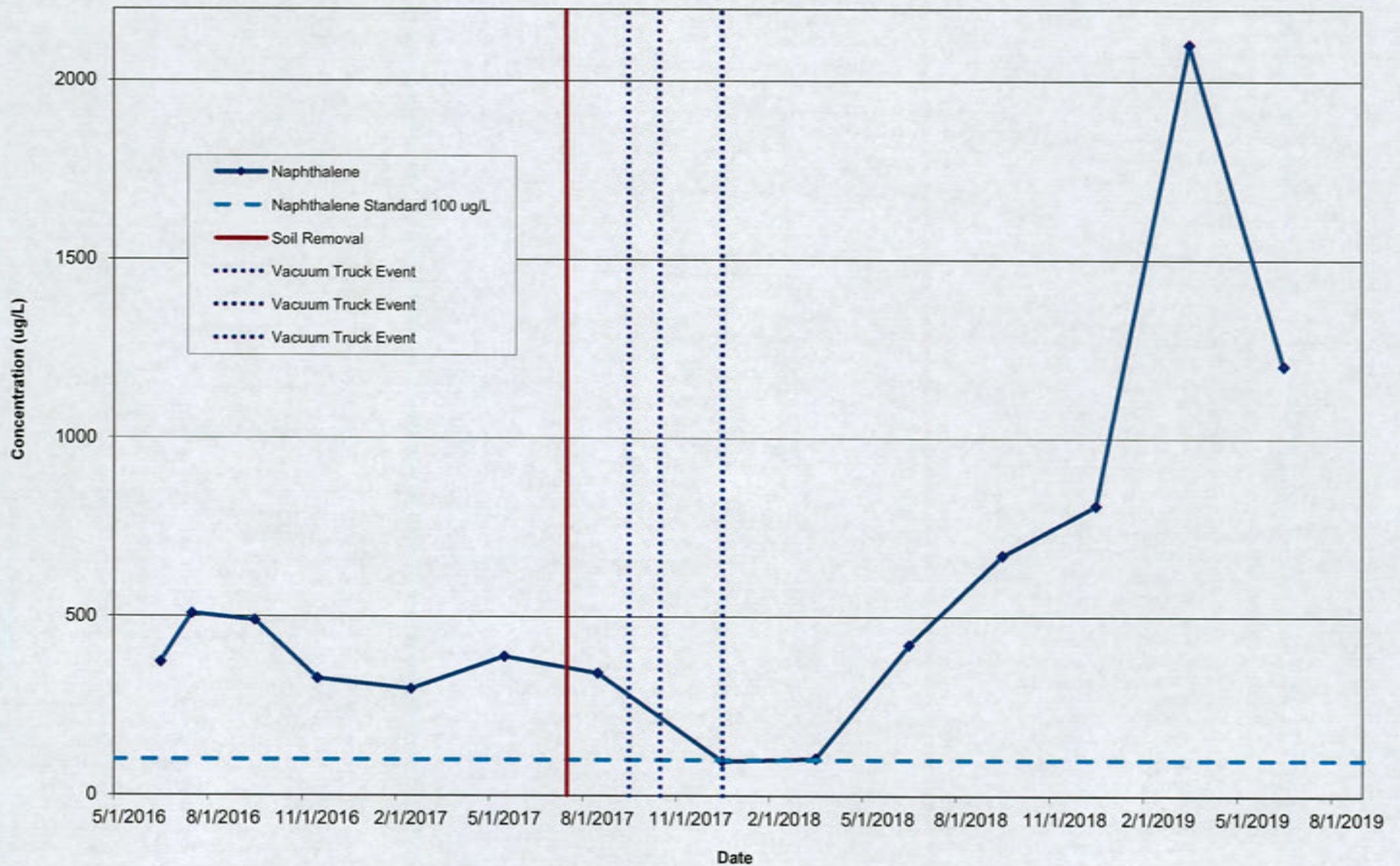
Figure 7F





Shenango Township Municipal Building  
Mercer County  
Time Trend Analysis for Naphthalene in MW-3

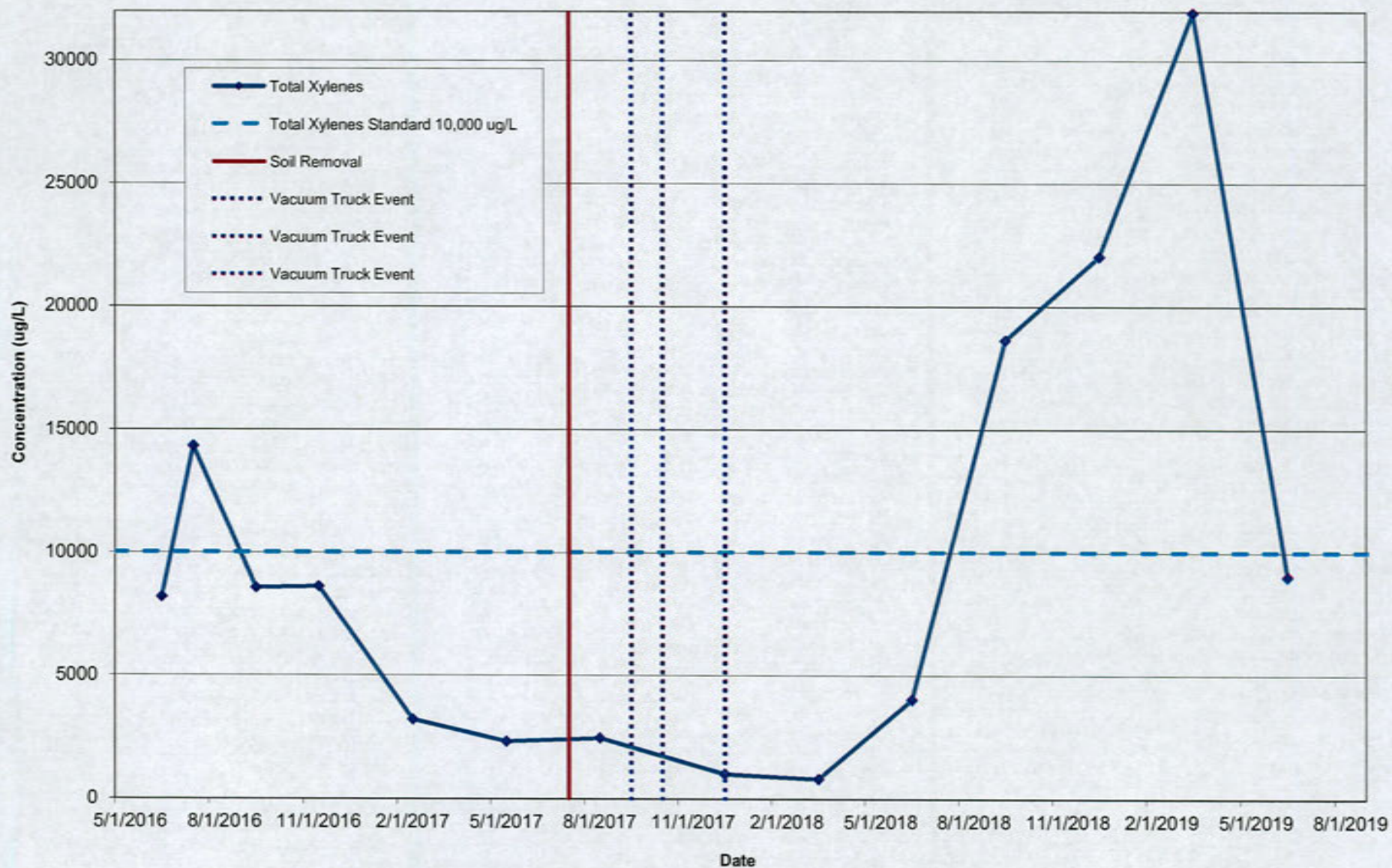
Figure 7G





Shenango Township Municipal Building  
Mercer County  
Time Trend Analysis for Xylenes in MW-3

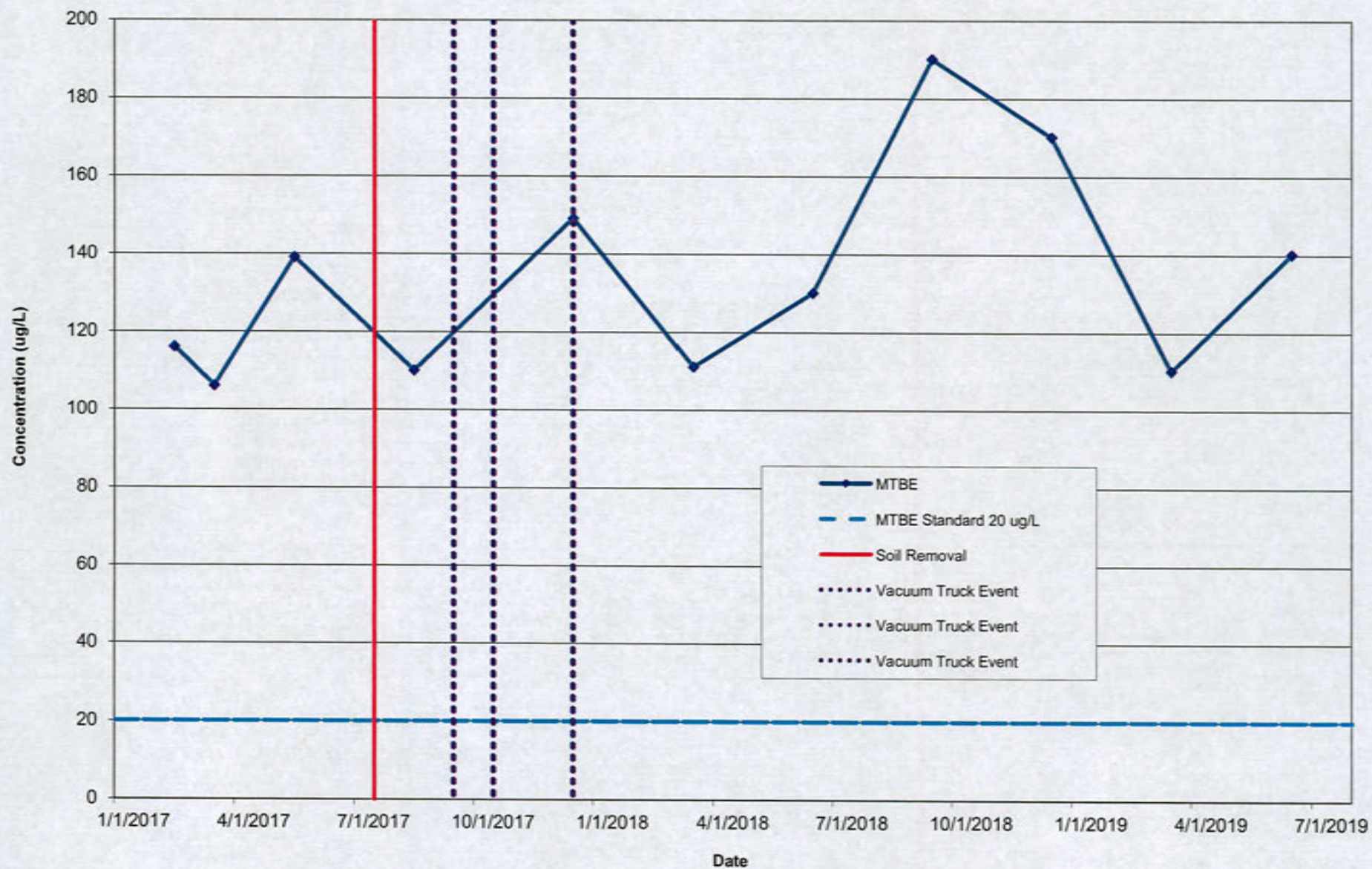
Figure 7H



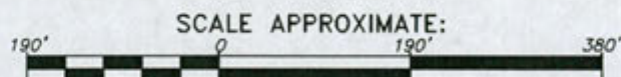


Shenango Township Municipal Building  
Mercer County  
Time Trend Analysis for MTBE in MW-23

Figure 71







Compliance Environmental Services, Inc.  
2700 Kirila Blvd.  
Hermitage, PA 16148  
(724) 342-1990

Aerial Photo With  
Property Boundaries  
Obtained From Mercer  
County (PA) Tax  
Parcel Viewer.

Shenango Township Municipal Building  
3439 Hubbard-West Middlesex Road  
West Middlesex, Pa. 16159  
Shenango Twp., Mercer County  
PADEP Facility No. 43-04177  
USTIF Claim No. 2016-008  
Mercer County Tax Map 27 184 131  
9.74 Acres

Figure 8  
Tax Map / Parcel Locations  
Aerial Photograph



# **TABLES**



**Table 1**  
**Monitoring Well Gauging and Analytical Data**  
 Shenango Township  
 Shenango Twp., Mercer Co., PA  
 PADEP Facility ID No. 43-04177  
 USTIF Claim No. 2016-008(S)

Well ID	Date	Gauging Data				Analytical Data								
		Depth of Well	* Top of Casing Elevation	Depth To Water	Corrected GW Elevation	Benzene	1,2,4-TMB	1,3,5-TMB	Toluene	Ethylbenzene	MTBE	Naphthalene	Xylenes (total)	Cumene (isopropylbenzene)
		feet	feet	feet	feet	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
MW-1 ("shallow")	6/15/2016	11.0	101.58	4.28	97.30	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	7/26/2016	11.0	101.58	5.40	96.18	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	9/26/2016	11.0	101.58	5.38	96.20	4.32	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	11/1/2016	11.0	101.58	5.36	96.22	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	2/17/2017	11.0	101.58	2.71	98.87	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	5/23/2017	11.0	101.58	2.98	98.60	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	8/15/2017	11.0	101.58	6.00	95.58	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	12/6/2017	11.0	101.58	7.22	94.36	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	3/13/2018	11.0	101.58	0.50	101.08	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	6/8/2018	11.0	101.58	0.95	100.63	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	9/5/2018	11.0	101.58	8.40	93.18	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	12/3/2018	11.0	101.58	7.89	93.69	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	3/18/2019	11.0	101.58	0.91	100.67	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	6/25/2019	11.0	101.58	0.02	101.56	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
MW-2 ("shallow")	6/15/2016	11.8	99.63	4.66	94.97	<1.00	<1.00	<1.00	<1.00	<1.00	1.45	<1.00	<2.00	<1.00
	7/26/2016	11.8	99.63	3.63	96.01	<1.00	<1.00	<1.00	<1.00	<1.00	4.26	<1.00	<2.00	<1.00
	9/26/2016	11.8	99.63	5.03	94.60	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	11/1/2016	11.8	99.63	6.44	93.20	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	2/17/2017	11.8	99.63	2.10	97.53	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	5/23/2017	11.8	99.63	5.74	93.89	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	8/15/2017	11.8	99.63	5.38	94.25	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	12/6/2017	11.8	99.63	5.25	94.38	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	3/13/2018	11.8	99.63	2.04	97.59	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	6/8/2018	11.8	99.63	2.05	97.58	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	9/5/2018	11.8	99.63	5.26	94.37	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	12/3/2018	11.8	99.63	1.75	97.88	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	3/18/2019	11.8	99.63	1.53	98.10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	6/25/2019	11.8	99.63	1.63	98.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
MW-3 ("shallow")	6/15/2016	11.0	99.80	4.69	95.11	11300	933	227	4880	974	347	372	8190	80.4
	7/26/2016	11.0	99.80	4.15	95.65	13200	1740	486	5640	1880	411	508	14300	54.5
	9/26/2016	11.0	99.80	4.87	94.93	7790	1720	486	1400	1740	242	489	8560	54.8
	11/1/2016	11.0	99.80	4.86	94.94	7600	1380	338	1880	1510	263	327	8610	52.9
	2/17/2017	11.0	99.80	2.53	97.27	9630	1440	<38.0	133	1710	194	298	3200	<46.0
	5/23/2017	11.0	99.80	2.69	97.11	8880	1440	<50.0	<50.0	1740	173	388	2310	54.5
	8/15/2017	11.0	99.80	5.94	93.86	5580	913	<50.0	401	1300	<50.0	342	2450	<50.0
	12/6/2017	11.0	99.80	6.91	92.89	1240	294	<50.0	313	400	24.5	96	998	<50.0
	12/6/2017D	11.0	99.80	6.91	92.89	1220	234	<50.0	281	399	32	77	928	<50.0
	3/13/2018	11.0	99.80	2.05	97.75	5670	326	<50.0	<50.0	794	122	103	790	<50.0
	6/8/2018	11.0	99.80	2.03	97.77	9700	1400	72	780	2100	140	420	4010	67
	9/5/2018	11.0	99.80	4.59	95.21	13000	3400	810	6500	3600	160	670	18600	120
	12/3/2018	11.0	99.80	2.04	97.76	13000	3500	1100	7900	3600	160	810	22000	160
	12/3/2018D	11.0	99.80	2.04	97.76	13000	3700	970	7800	3500	160	750	21900	140
	3/18/2019	11.0	99.80	2.36	97.44	12000	11000	3500	6800	5500	<400	2100	31900	420
	6/25/2019	11.0	99.80	2.36	97.44	7400	2500	540	2200	980	130	1200	9000	44
	6/25/2019D	11.0	99.80	1.93	97.87	8300	2700	560	2200	1000	120	1200	9300	44
MW-4 ("shallow")	6/15/2016	13.0	99.82	6.03	93.79	31.6	3.91	1.93	<1.00	2.54	28.8	<1.00	<2.00	1.51
	7/26/2016	13.0	99.82	6.42	93.40	13.6	<1.00	<1.00	<1.00	<1.00	20.3	<1.00	<2.00	<1.00
	7/26/16 D	13.0	99.82	6.42	93.40	14.0	<1.00	<1.00	<1.00	<1.00	20.9	<1.00	<2.00	<1.00
	9/26/2016	13.0	99.82	6.95	92.87	13.1	2.01	1.75	1.72	2.29	35.0	2.00	6.85	1.79
	11/1/2016	13.0	99.82	5.84	93.98	<1.00	<1.00	<1.00	<1.00	<1.00	7.43	<1.00	<2.00	<1.00
	2/17/2017	13.0	99.82	3.67	96.15	<1.00	<1.00	<1.00	<1.00	<1.00	4.36	<1.00	<2.00	<1.00
	5/23/2017	13.0	99.82	4.32	95.50	66.2	1.22	<1	<1	3.22	35.4	<1.00	3.90	<1.00
	8/15/2017	13.0	99.82	6.31	93.51	<1.00	<1.00	<1.00	<1.00	<1.00	23.9	<1.00	<2.00	<1.00
	12/6/2017	13.0	99.82	5.96	93.86	<1.00	5.3	<1.00	<1.00	<1.00	1.3	<1.00	<2.00	1.13
	3/13/2018	13.0	99.82	3.63	96.19	<1.00	<1.00	<1.00	<1.00	<1.00	7.25	<1.00	<2.00	<1.00
	6/8/2018	13.0	99.82	4.22	95.60	<1.0	<1.0	<1.0	<1.0	<1.0	25	<1.0	<1.0	<1.0
	9/5/2018	13.0	99.82	6.98	92.84	<1.0	<1.0	<1.0	<1.0	<1.0	34	<1.0	<1.0	<1.0
	12/3/2018	13.0	99.82	3.71	96.11	<1.0	<1.0	<1.0	<1.0	<1.0	8.8	<1.0	<1.0	<1.0
	3/18/2019	13.0	99.82	3.37	96.45	17	<1.0	<1.0	<1.0	<1.0	12	<1.0	<1.0	<1.0
	6/25/2019	13.0	99.82	3.15	96.67	5.2	<1.0	<1.0	<1.0	<1.0	30	<1.0	<1.0	<1.0
Used Aquifer Resid SHS		N/A	N/A	N/A	N/A	5	15	13	1,000	700	20	100	10,000	840



**Table 1**  
**Monitoring Well Gauging and Analytical Data**  
 Shenango Township  
 Shenango Twp., Mercer Co., PA  
 PADEP Facility ID No. 43-04177  
 USTIF Claim No. 2016-008(S)

Well ID	Date	Gauging Data				Analytical Data								
		Depth of Well	* Top of Casing Elevation	Depth To Water	Corrected GW Elevation	Benzene	1,2,4-TMB	1,3,5-TMB	Toluene	Ethylbenzene	MTBE	Naphthalene	Xylenes (total)	Cumene (isopropylbenzene)
		feet	feet	feet	feet	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
MW-6 ("shallow") removed July 2017	6/15/2016	12.0	99.51	2.91	96.60	131	183	12.2	55.4	221	<5.00	157	374	13.0
	6/15/2016 D	12.0	99.51	2.91	96.60	168	332	27.6	85.8	363	<1.00	171	596	33.4
	7/26/2016	12.0	99.51	3.68	95.83	529	314	13.2	308	683	18.8	227	784	40.7
	9/26/2016	12.0	99.51	4.41	95.10	747	348	<5.00	40.4	917	7.85	73.6	336	54.2
	9/26/16 D	12.0	99.51	4.41	95.10	802	360	<5.00	43.6	910	6.85	78.0	346	54.8
	11/1/2016	12.0	99.51	4.15	95.36	677	569	12.9	102	1050	<1.00	54.3	497	97.7
	2/17/2017	12.0	99.51	2.49	97.02	617	103	<10.0	<10.0	205	<10.0	10.7	127	14.5
	5/23/2017	12.0	99.51	2.28	97.23	348	49.5	<10.0	<10.0	220	<10.0	<10.0	33.4	24.1
	5/23/2017 D	12.0	99.51	2.28	97.23	344	47.3	<10.0	<10.0	219	<10.0	<10.0	33.6	24.0
MW-9 ("deep")	9/26/2016	24.9	95.97	10.13	85.84	2.46	1.60	<1.00	<1.00	<1.00	<1.00	1.88	<2.00	<1.00
	11/1/2016	24.9	95.97	12.11	83.86	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	2/17/2017	24.9	95.97	8.99	86.98	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	5/23/2017	24.9	95.97	7.14	88.83	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	8/15/2017	24.9	95.97	7.50	88.47	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	12/6/2017	24.9	95.97	9.35	86.62	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	3/13/2018	24.9	95.97	7.55	88.42	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	6/8/2018	24.9	95.97	6.50	89.47	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	9/5/2018	24.9	95.97	8.08	87.89	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	12/3/2018	24.9	95.97	12.21	83.76	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	3/15/2019	24.9	95.97	6.34	89.63	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	6/25/2019	24.9	95.97	5.38	90.59	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
MW-10 ("shallow")	9/26/2016	14.5	96.15	8.87	87.28	2.34	1.44	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	11/1/2016	14.5	96.15	8.25	87.90	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	2/17/2017	14.5	96.15	6.83	89.32	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	5/23/2017	14.5	96.15	6.56	89.59	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	8/15/2017	14.5	96.15	7.95	88.20	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	12/6/2017	14.5	96.15	7.78	88.37	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	3/13/2018	14.5	96.15	5.06	91.09	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	6/8/2018	14.5	96.15	5.91	90.24	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	9/5/2018	14.5	96.15	8.86	87.29	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	12/3/2018	14.5	96.15	6.55	89.60	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	3/15/2019	14.5	96.15	6.37	89.78	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	6/25/2019	14.5	96.15	5.23	90.92	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
MW-11 ("shallow")	9/26/2016	9.5	96.66	4.83	91.83	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	11/1/2016	9.5	96.66	3.24	93.42	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	2/17/2017	9.5	96.66	1.84	94.82	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	5/23/2017	9.5	96.66	2.01	94.65	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	8/15/2017	9.5	96.66	3.72	92.94	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	12/6/2017	9.5	96.66	3.03	93.63	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	3/13/2018	9.5	96.66	1.73	94.93	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	6/8/2018	9.5	96.66	2.03	94.63	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	9/5/2018	9.5	96.66	4.21	92.45	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	12/3/2018	9.5	96.66	1.84	94.82	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	3/15/2019	9.5	96.66	1.08	95.58	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	6/25/2019	9.5	96.66	1.47	95.19	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Used Aquifer Resid SHS		N/A	N/A	N/A	N/A	5	15	13	1,000	700	20	100	10,000	840



**Table 1**  
**Monitoring Well Gauging and Analytical Data**  
 Shenango Township  
 Shenango Twp., Mercer Co., PA  
 PADEP Facility ID No. 43-04177  
 USTIF Claim No. 2016-008(S)

Well ID	Date	Gauging Data				Analytical Data								
		Depth of Well	* Top of Casing Elevation	Depth To Water	Corrected GW Elevation	Benzene	1,2,4-TMB	1,3,5-TMB	Toluene	Ethylbenzene	MTBE	Naphthalene	Xylenes (total)	Cumene (isopropylbenzene)
		feet	feet	feet	feet	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
MW-12 ("shallow")	9/26/2016	8.8	99.53	6.72	92.81	3.75	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	11/1/2016	8.8	99.53	5.40	94.13	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	11/1/2016 D	8.8	99.53	5.40	94.13	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	2/17/2017	8.8	99.53	3.41	96.12	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	5/23/2017	8.8	99.53	3.68	95.85	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	8/15/2017	8.8	99.53	5.82	93.71	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	12/6/2017	8.8	99.53	5.47	94.06	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	3/13/2018	8.8	99.53	2.99	96.54	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	6/8/2018	8.8	99.53	3.57	95.96	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	9/5/2018	8.8	99.53	6.68	92.85	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	12/3/2018	8.8	99.53	3.12	96.41	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	3/18/2019	8.8	99.53	2.97	96.56	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	6/25/2019	8.8	99.53	2.65	96.88	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
MW-18 ("deep")	2/17/2017	25.0	98.97	9.79	89.18	<1.00	<1.00	<1.00	<1.00	<1.00	7.25	<1.00	<2.00	<1.00
	5/23/2017	25.0	98.97	9.90	89.07	<1.00	<1.00	<1.00	<1.00	<1.00	6.49	<1.00	<2.00	<1.00
	8/15/2017	25.0	98.97	11.16	87.81	<1.00	11.8	<1.00	<1.00	8.20	<1.00	<1.00	<2.00	36.7
	12/6/2017	25.0	98.97	11.99	86.98	<1.00	<1.00	<1.00	<1.00	<1.00	7.58	<1.00	<2.00	<1.00
	3/13/2018	25.0	98.97	9.48	89.49	<1.00	<1.00	<1.00	<1.00	<1.00	9.66	<1.00	<2.00	<1.00
	6/8/2018	25.0	98.97	10.00	88.97	<1.0	<1.0	<1.0	<1.0	<1.0	11	<1.0	<1.0	<1.0
	9/5/2018	25.0	98.97	12.13	86.84	<1.0	<1.0	<1.0	<1.0	<1.0	11	<1.0	<1.0	<1.0
	12/3/2018	25.0	98.97	9.59	89.38	<1.0	<1.0	<1.0	<1.0	<1.0	13	<1.0	<1.0	<1.0
	3/15/2019	25.0	98.97	9.49	89.48	<1.0	<1.0	<1.0	<1.0	<1.0	9	<1.0	<1.0	<1.0
	6/25/2019	25.0	98.97	8.38	90.59	<1.0	1.9	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	4.3
	2/17/2017	12.5	98.93	3.98	94.95	<1.00	212	21.3	<1.00	87.4	1.25	20.6	20.3	46.5
	5/23/2017	12.5	98.93	4.49	94.44	<1.00	116	1.02	<1.00	24.1	3.36	<1.00	5.47	23.6
	8/15/2017	12.5	98.93	6.65	92.28	<1.00	<1.00	<1.00	<1.00	<1.00	7.42	<1.00	<2.00	<1.00
MW-19 ("shallow")	12/6/2017	12.5	98.93	6.32	92.61	5.69	27.5	<1.00	<1.00	11.4	6.12	<1.00	<2.00	28.2
	3/13/2018	12.5	98.93	4.04	94.89	<1.00	3.32	<1.00	<1.00	2.59	<1.00	<1.00	<2.00	4.69
	6/8/2018	12.5	98.93	4.65	94.28	2.7	5.7	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	11
	9/5/2018	12.5	98.93	7.21	91.72	<1.0	4.7	<1.0	<1.0	1.5	3.0	<1.0	<1.0	27
	12/3/2018	12.5	98.93	3.88	95.05	<1.0	6.8	<1.0	<1.0	1.6	<1.0	<1.0	<1.0	7.3
	3/15/2019	12.5	98.93	3.09	95.84	<1.0	1.3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	6/25/2019	12.5	98.93	3.16	95.77	<1.0	<1.0	<1.0	<1.0	<1.0	11	<1.0	<1.0	<1.0
	2/17/2017	25.0	97.66	8.94	88.72	<1.00	<1.00	<1.00	<1.00	<1.00	2.41	<1.00	<2.00	<1.00
	5/23/2017	25.0	97.66	8.82	88.84	<1.00	<1.00	<1.00	<1.00	<1.00	1.81	<1.00	<2.00	<1.00
	8/15/2017	25.0	97.66	9.16	88.5	<1.00	<1.00	<1.00	<1.00	<1.00	2.11	<1.00	<2.00	<1.00
	12/6/2017	25.0	97.66	10.33	87.33	<1.00	<1.00	<1.00	<1.00	<1.00	1.71	<1.00	<2.00	<1.00
	3/13/2018	25.0	97.66	13.70	83.96	<1.00	<1.00	<1.00	<1.00	<1.00	2.12	<1.00	<2.00	<1.00
	6/8/2018	25.0	97.66	11.58	86.08	<1.0	<1.0	<1.0	<1.0	<1.0	3.1	<1.0	<1.0	<1.0
MW-20 ("deep")	9/5/2018	25.0	97.66	10.45	87.21	<1.0	<1.0	<1.0	<1.0	<1.0	3.3	<1.0	<1.0	<1.0
	12/3/2018	25.0	97.66	10.11	87.55	<1.0	<1.0	<1.0	<1.0	<1.0	2.4	<1.0	<1.0	<1.0
	3/15/2019	25.0	97.66	10.74	86.92	<1.0	<1.0	<1.0	<1.0	<1.0	2.5	<1.0	<1.0	<1.0
	6/25/2019	25.0	97.66	7.97	89.69	<1.0	<1.0	<1.0	<1.0	<1.0	2.8	<1.0	<1.0	<1.0
	2/17/2017	11.5	97.78	4.86	92.92	81.0	27.2	18.9	<5.00	38.8	<5.00	12.2	<10.0	22.2
	5/23/2017	11.5	97.78	5.9	91.88	70.7	10.9	10.6	<1.00	46.0	3.83	9.89	3.08	14.9
	8/15/2017	11.5	97.78	7.54	90.24	27.2	1.22	<1.00	<1.00	1.56	<1.00	<1.00	<2.00	7.07
	12/6/2017	11.5	97.78	7.55	90.23	111	11.9	15.7	<1.00	30.2	6.17	12.2	2.29	20.0
	3/13/2018	11.5	97.78	4.94	92.84	47.1	53.0	11.7	<1.00	76.0	3.05	11.2	3.67	12.2
	6/8/2018	11.5	97.78	5.81	91.97	53	7.7	<1.0	<1.0	45	4.0	3.3	1.4	15
	9/5/2018	11.5	97.78	7.95	89.83	43	3.7	<1.0	<1.0	<1.0	3.5	2.6	<1.0	7.0
	12/3/2018	11.5	97.78	5.56	92.22	29	<1.0	<1.0	<1.0	1.6	3.7	<1.0	<1.0	5.1
	3/15/2019	11.5	97.78	4.72	93.06	43	3.4	<1.0	<1.0	14.0	3.0	<1.0	<1.0	11.0
	6/25/2019	11.5	97.78	4.73	93.05	71	16	4.0	<1.0	27	3.6	10	3.8	16
Used Aquifer Resid SHS		N/A	N/A	N/A	N/A	5	15	13	1,000	700	20	100	10,000	840



**Table 1**  
**Monitoring Well Gauging and Analytical Data**  
 Shenango Township  
 Shenango Twp., Mercer Co., PA  
 PADEP Facility ID No. 43-04177  
 USTIF Claim No. 2016-008(S)

Well ID	Date	Gauging Data				Analytical Data								
		Depth of Well	* Top of Casing Elevation	Depth To Water	Corrected GW Elevation	Benzene	1,2,4-TMB	1,3,5-TMB	Toluene	Ethylbenzene	MTBE	Naphthalene	Xylenes (total)	Cumene (isopropylbenzene)
		feet	feet	feet	feet	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
MW-22 ("shallow")	2/17/2017	11.0	98.44	5.50	92.94	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	5/23/2017	11.0	98.44	6.55	91.89	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	8/15/2017	11.0	98.44	8.88	89.56	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	12/6/2017	11.0	98.44	8.15	90.29	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	3/13/2018	11.0	98.44	5.29	93.15	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	6/8/2018	11.0	98.44	5.34	93.10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	9/5/2018	11.0	98.44	9.37	89.07	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	12/3/2018	11.0	98.44	6.61	91.83	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	3/15/2019	11.0	98.44	5.88	92.56	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	6/25/2019	11.0	98.44	5.46	92.98	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
MW-23 ("deep")	2/17/2017	25.5	99.97	8.27	91.70	<1.00	<1.00	<1.00	<1.00	<1.00	116	<1.00	<2.00	<1.00
	3/24/2017	25.5	99.97	8.85	91.12	<1.00	<1.00	<1.00	<1.00	<1.00	106	<1.00	<2.00	<1.00
	5/23/2017	25.5	99.97	8.73	91.24	10.8	<1.00	<1.00	<1.00	1.72	139	<1.00	2.05	<1.00
	8/15/2017	25.5	99.97	10.08	89.89	<1.00	<1.00	<1.00	<1.00	<1.00	110	<1.00	<2.00	<1.00
	12/6/2017	25.5	99.97	11.49	88.48	<1.00	<1.00	<1.00	<1.00	<1.00	149	<1.00	<2.00	<1.00
	3/13/2018	25.5	99.97	8.18	91.79	<1.00	<1.00	<1.00	<1.00	<1.00	111	<1.00	<2.00	<1.00
	6/8/2018	25.5	99.97	8.62	91.35	<1.0	<1.0	<1.0	<1.0	<1.0	130	<1.0	<1.0	<1.0
	9/5/2018	25.5	99.97	11.45	88.52	<1.0	<1.0	<1.0	<1.0	<1.0	190	<1.0	<1.0	<1.0
	9/5/2018 D	25.5	99.97	11.45	88.52	<1.0	<1.0	<1.0	<1.0	<1.0	200	<1.0	<1.0	<1.0
	12/3/2018	25.5	99.97	8.43	91.54	<1.0	<1.0	<1.0	<1.0	<1.0	170	<1.0	<1.0	<1.0
	3/18/2019	25.5	99.97	8.56	91.41	<1.0	<1.0	<1.0	<1.0	<1.0	110	<1.0	<1.0	<1.0
	3/18/2019 D	25.5	99.97	8.56	91.41	<1.0	<1.0	<1.0	<1.0	<1.0	110	<1.0	<1.0	<1.0
	6/25/2019	25.5	99.97	7.50	92.47	<1.0	<1.0	<1.0	<1.0	<1.0	140	<1.0	<1.0	<1.0
MW-24 ("shallow")	2/17/2017	12.5	97.70	5.04	92.66	<1.00	<1.00	1.31	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	5/23/2017	12.5	97.70	5.72	91.98	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	8/15/2017	12.5	97.70	7.89	89.81	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	12/6/2017	12.5	97.70	7.85	89.85	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	3/13/2018	12.5	97.70	5.13	92.57	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	6/8/2018	12.5	97.70	6.53	91.17	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	9/5/2018	12.5	97.70	8.88	88.82	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	12/3/2018	12.5	97.70	6.44	91.26	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	3/15/2019	12.5	97.70	4.98	92.72	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
MW-25 ("deep")	6/25/2019	12.5	97.70	4.08	93.62	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	3/13/2018	40.0	93.47	11.54	81.93	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	6/8/2018	40.0	93.47	11.80	81.67	<1.0	<1.0	<1.0	<1.0	<1.0	1.2	<1.0	<1.0	<1.0
	9/5/2018	40.0	93.47	14.26	79.21	<1.0	<1.0	<1.0	<1.0	<1.0	1.2	<1.0	<1.0	<1.0
	12/3/2018	40.0	93.47	12.33	81.14	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	3/15/2019	40.0	93.47	11.15	82.32	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	<1.0	<1.0	<1.0
MW-26 ("shallow")	6/25/2019	40.0	93.47	10.36	83.11	<1.0	<1.0	<1.0	<1.0	<1.0	1.3	<1.0	<1.0	<1.0
	3/13/2018	10.5	93.50	6.94	86.56	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	6/8/2018	10.5	93.50	7.08	86.42	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	9/5/2018	10.5	93.50	8.67	84.83	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	12/3/2018	10.5	93.50	7.55	85.95	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	3/15/2019	10.5	93.50	7.58	85.92	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
MW-27 ("shallow")	6/25/2019	10.5	93.50	6.44	87.06	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	3/18/2019	11.0	99.71	3.51	96.20	<1.0	<1.0	<1.0	<1.0	<1.0	25	<1.0	<1.0	<1.0
	4/18/2019	11.0	99.71	3.39	96.32	<1.0	<1.0	<1.0	<1.0	<1.0	86	<1.0	<1.0	<1.0
	6/25/2019	11.0	99.71	2.85	96.86	<1.0	<1.0	<1.0	<1.0	<1.0	27	<1.0	<1.0	<1.0
MW-28 ("deep")	3/18/2019	25.0	99.26	11.40	87.86	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	4/18/2019	25.0	99.26	11.27	87.99	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	6/25/2019	25.0	99.26	9.09	90.17	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
MW-29 ("deep")	3/15/2019	38.0	95.37	10.22	85.15	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	4/18/2019	38.0	95.37	10.15	85.22	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	6/25/2019	38.0	95.37	9.02	86.35	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Used Aquifer Resid SHS		N/A	N/A	N/A	N/A	5	15	13	1,000	700	20	100	10,000	840



**Table 1**  
**Monitoring Well Gauging and Analytical Data**  
 Shenango Township  
 Shenango Twp., Mercer Co., PA  
 PADEP Facility ID No. 43-04177  
 USTIF Claim No. 2016-008(S)

Well ID	Date	Gauging Data				Analytical Data								
		Depth of Well	* Top of Casing Elevation	Depth To Water	Corrected GW Elevation	Benzene	1,2,4-TMB	1,3,5-TMB	Toluene	Ethylbenzene	MTBE	Naphthalene	Xylenes (total)	Cumene (Isopropylbenzene)
		feet	feet	feet	feet	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
RW-1	2/17/2017	15.5	99.33	4.10	95.23	10000	2500	599	8100	3800	111	595	19500	89.9
	2/17/2017 D	15.5	99.33	4.10	95.23	10100	2160	573	1980	2320	305	372	9510	92.9
	5/23/2017	15.5	99.33	3.63	95.71	11700	2140	554	6100	3180	194	655	16000	102
	8/15/2017	15.5	99.33	6.30	93.03	6210	1870	472	1480	1760	614	398	9260	87.0
	12/6/2017	15.5	99.33	6.82	92.51	8470	2490	706	1910	1780	434	482	9360	100.0
	3/13/2018	15.5	99.33	4.61	94.72	9680	2700	742	3850	3460	189	609	17600	110.0
	3/13/2018 D	15.5	99.33	4.61	94.72	9500	2900	809	4090	3600	184	649	17200	119.0
	6/8/2018	15.5	99.33	NM	NM	10000	2300	630	4500	3300	<400	470	13700	<400
	6/8/2018 D	15.5	99.33	NM	NM	11000	2500	680	4800	3500	<400	500	13800	<400
	9/5/2018	15.5	99.33	6.08	93.25	11000	2900	800	4200	3800	140	670	21500	110.0
	12/3/2018	15.5	99.33	NM	NM	11000	2600	650	1800	3600	160	660	18200	99.0
	3/18/2019	15.5	99.33	2.57	NM	13000	3000	840	2300	4100	130	610	18300	130.0
6/25/2019	15.5	99.33	2.30	NM	13000	3900	1000	4700	4700	54	870	21900	140	
RW-2	8/15/2017	10.52	NM	6.05	NM	5820	2130	599	4230	1830	180	554	9330	93.2
	8/15/2017 D	10.52	NM	6.05	NM	5120	2100	565	4040	1830	<25.0	536	10100	90.5
	12/6/2017	10.52	NM	8.07	NM	13500	2240	616	6630	2400	255	756	12400	103.0
	3/13/2018	10.52	NM	2.45	NM	3200	1480	420	232	1560	58.2	348	5170	64.5
	3/18/2019	10.52	NM	1.73	NM	140	260	2.1	2.7	50	<1.0	12	144.7	2.0
	5/20/2019	10.52	NM	NM	NM	140	210	<1.0	1.5	130	<1.0	14	90.9	10.0
	6/25/2019	10.52	NM	1.83	NM	110	120	<1.0	6.3	50	<1.0	6.2	44.7	4.7
RW-3 (located at former MW-6 location)	8/15/2017	11.93	NM	5.48	NM	4250	1940	464	654	1440	294	532	8140	78.0
	12/6/2017	11.93	NM	7.46	NM	2430	664	150	2220	914	42.0	229	4210	28.8
	3/13/2018	11.93	NM	1.92	NM	2860	1360	214	166	1320	65.5	314	2350	64.0
	6/8/2018	11.93	NM	1.77	NM	260	120	2.1	2	88	5.4	15	97	7.1
	12/3/2018	11.93	NM	1.34	NM	770	740	31	170	600	<1.0	73	650	33.0
	3/18/2019	11.93	NM	1.18	NM	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	6/25/2019	11.93	NM	1.29	NM	23	4.5	<1.0	4.8	4.5	<1.0	1.3	13.0	<1.0
Township Water Well	7/26/2016	125*	NM	NM	NM	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	2/24/2017	125*	NM	NM	NM	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	3/24/2017	125*	100.90	14.69	86.21	<1.00	<1.00	<1.00	<1.00	<1.00	1.13	<1.00	<2.00	<1.00
	5/23/2017	125*	100.90	14.42	86.48	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	6/20/2017	125*	100.90	NM	NM	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	7/31/2017	125*	100.90	NM	NM	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	8/15/2017	125*	100.90	NM	NM	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	10/3/2017	125*	100.90	NM	NM	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	10/31/2017	125*	100.90	NM	NM	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	11/29/2017	125*	100.90	NM	NM	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	12/19/2017	125*	100.90	NM	NM	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	1/30/2018	125*	100.90	NM	NM	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	2/26/2018	125*	100.90	NM	NM	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	3/21/2018	125*	100.90	NM	NM	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	4/25/2018	125*	100.90	NM	NM	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	6/1/2018	125*	100.90	NM	NM	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	7/2/2018	125*	100.90	NM	NM	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	7/26/2018	125*	100.90	NM	NM	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	8/30/2018	125*	100.90	NM	NM	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	9/25/2018	125*	100.90	NM	NM	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	10/26/2018	125*	100.90	NM	NM	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	11/30/2018	125*	100.90	NM	NM	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	12/20/2018	125*	100.90	NM	NM	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	3/15/2019	125*	100.90	NM	NM	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	6/25/2019	125*	100.90	NM	NM	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Used Aquifer Resid SHS		N/A	N/A	N/A	N/A	5	15	13	1,000	700	20	100	10,000	840



**Table 1**  
**Monitoring Well Gauging and Analytical Data**  
 Shenango Township  
 Shenango Twp., Mercer Co., PA  
 PADEP Facility ID No. 43-04177  
 USTIF Claim No. 2016-008(S)

Well ID	Date	Gauging Data				Analytical Data								
		Depth of Well	* Top of Casing Elevation	Depth To Water	Corrected GW Elevation	Benzene	1,2,4-TMB	1,3,5-TMB	Toluene	Ethylbenzene	MTBE	Naphthalene	Xylenes (total)	Cumene (Isopropylbenzene)
		feet	feet	feet	feet	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Raw Water (3462 Hubbard Middlesex Rd)	5/23/2017	NM	NM	NM	NM	<1.00	<1.00	<1.00	<1.00	<1.00	3.50	<1.00	<2.00	<1.00
	6/20/2017	NM	NM	NM	NM	<1.00	<1.00	<1.00	<1.00	<1.00	3.97	<1.00	<2.00	<1.00
	8/18/2017	NM	NM	NM	NM	<1.00	<1.00	<1.00	<1.00	<1.00	4.25	<1.00	<2.00	<1.00
	10/3/2017	NM	NM	NM	NM	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	10/31/2017	NM	NM	NM	NM	<1.00	<1.00	<1.00	<1.00	<1.00	4.49	<1.00	<2.00	<1.00
	11/29/2017	NM	NM	NM	NM	<1.00	<1.00	<1.00	<1.00	<1.00	2.84	<1.00	<2.00	<1.00
	12/19/2017	NM	NM	NM	NM	<1.00	<1.00	<1.00	<1.00	<1.00	4.28	<1.00	<2.00	<1.00
	1/30/2018	NM	NM	NM	NM	<1.00	<1.00	<1.00	<1.00	<1.00	3.41	<1.00	<2.00	<1.00
	2/26/2018	NM	NM	NM	NM	<1.00	<1.00	<1.00	<1.00	<1.00	3.94	<1.00	<2.00	<1.00
	3/21/2018	NM	NM	NM	NM	<1.00	<1.00	<1.00	<1.00	<1.00	3.69	<1.00	<2.00	<1.00
	4/25/2018	NM	NM	NM	NM	<1.00	<1.00	<1.00	<1.00	<1.00	3.68	<1.00	<2.00	<1.00
	6/1/2018	NM	NM	NM	NM	<1.0	<1.0	<1.0	<1.0	<1.0	3.1	<1.0	<1.0	<1.0
	7/2/2018	NM	NM	NM	NM	<1.0	<1.0	<1.0	<1.0	<1.0	4.1	<1.0	<1.0	<1.0
	7/24/2018	NM	NM	NM	NM	<1.0	<1.0	<1.0	<1.0	<1.0	3.9	<1.0	<1.0	<1.0
	8/30/2018	NM	NM	NM	NM	<1.0	<1.0	<1.0	<1.0	<1.0	3.7	<1.0	<1.0	<1.0
	9/25/2018	NM	NM	NM	NM	<1.0	<1.0	<1.0	<1.0	<1.0	3.3	<1.0	<1.0	<1.0
	10/26/2018	NM	NM	NM	NM	<1.0	<1.0	<1.0	<1.0	<1.0	3.3	<1.0	<1.0	<1.0
	11/30/2018	NM	NM	NM	NM	<1.0	<1.0	<1.0	<1.0	<1.0	3.3	<1.0	1.3	<1.0
	12/20/2018	NM	NM	NM	NM	<1.0	<1.0	<1.0	<1.0	<1.0	3.6	<1.0	1.0	<1.0
Discharge (3462 Hubbard Middlesex Rd)	3/15/2019	NM	NM	NM	NM	<1.0	<1.0	<1.0	<1.0	<1.0	2.4	<1.0	1.0	<1.0
	6/25/2019	NM	NM	NM	NM	<1.0	<1.0	<1.0	<1.0	<1.0	3.3	<1.0	1.0	<1.0
	10/3/2017	NM	NM	NM	NM	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	10/31/2017	NM	NM	NM	NM	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	11/29/2017	NM	NM	NM	NM	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	12/19/2017	NM	NM	NM	NM	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	1/30/2018	NM	NM	NM	NM	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	2/26/2018	NM	NM	NM	NM	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	3/21/2018	NM	NM	NM	NM	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	4/25/2018	NM	NM	NM	NM	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00
	6/1/2018	NM	NM	NM	NM	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	7/2/2018	NM	NM	NM	NM	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	7/24/2018	NM	NM	NM	NM	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	8/30/2018	NM	NM	NM	NM	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	9/25/2018	NM	NM	NM	NM	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	10/26/2018	NM	NM	NM	NM	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	11/30/2018	NM	NM	NM	NM	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	12/20/2018	NM	NM	NM	NM	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	3/15/2019	NM	NM	NM	NM	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	6/25/2019	NM	NM	NM	NM	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Used Aquifer Resid SHS		N/A	N/A	N/A	N/A	5	15	13	1,000	700	20	100	10,000	840
NOTES: NA - Not Analyzed N/A - Not Applicable NS - Not Sampled NM - Not Monitored D - Indicates Duplicate Sample * - reported depth, not measured "shallow" - indicates well completed in unconsolidated material "deep" - indicates well is screened entirely in bedrock < - Less than the Reporting Limit. Number shown is the Reporting Limit														
Analytical Methods: EPA Method 8260B for all analytes.  SHS - Statewide Health Standards (PADEP)  Shaded values exceed Statewide Health Standards.  All results are in micrograms per liter (ug/l). Wells have been surveyed by Henry T. Welka & Assoc., Erie, PA. * Elevations Are Relative To An Arbitrary Datum of 100.00 feet (located at the SE corner of the Fire Department building)														



**TABLE 2**  
**MW-3 Light Non-Aqueous Phase Liquid (LNAPL) Gauging**  
**Shenango Township**  
**Shenango Twp., Mercer Co., PA**  
**PADEP Facility ID No. 43-04177**  
**USTIF Claim No. 2016-008(S)**

Date	LNAPL Thickness
	feet
6/15/2016	0.00
7/26/2016	0.00
9/26/2016	0.00
11/1/2016	0.00
2/17/2017	0.00
5/23/2017	0.00
8/15/2017	0.00
12/6/2017	0.00
3/13/2018	0.00
6/8/2018	0.00
9/5/2018	0.00
12/3/2018	<b>0.01</b>
12/7/2018	0.00
12/10/2018	0.00
12/20/2018	0.00
12/27/2018	0.00
1/4/2019	0.00
1/10/2019	0.00
3/18/2019	<b>0.01</b>
4/18/2019	0.00
5/16/2019	0.00
5/29/2019	0.00
6/11/2019	0.00
6/25/2019	0.00



# **ATTACHMENT 1**

## Analytical Reports

- 04/18/19 – Groundwater Sampling MW-27, MW-28, & MW-29
- 05/20/19 – Groundwater Sampling RW-2
- 06/25/19 & 06/26/19 – 2<sup>nd</sup> QTR 2019 Groundwater Sampling
- 06/25/19 - Township Water Well and Offsite Well





Wednesday, April 24, 2019

Attn: Dave Siekkinen  
Compliance Env Services Inc  
2700 Kirila Drive  
Hermitage, PA 16148

Project ID: SHENANGO TWP  
SDG ID: GCC97920  
Sample ID#s: CC97920 - CC97922

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Phyllis Shiller".

Phyllis Shiller  
Laboratory Director

NELAC - #NY11301  
CT Lab Registration #PH-0618  
MA Lab Registration #M-CT007  
ME Lab Registration #CT-007  
NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003  
NY Lab Registration #11301  
PA Lab Registration #68-03530  
RI Lab Registration #63  
UT Lab Registration #CT00007  
VT Lab Registration #VT11301





Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## Sample Id Cross Reference

April 24, 2019

SDG I.D.: GCC97920

Project ID: SHENANGO TWP

---

Client Id	Lab Id	Matrix
MW-27	CC97920	GROUND WATER
MW-28	CC97921	GROUND WATER
MW-29	CC97922	GROUND WATER





Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## Analysis Report

April 24, 2019

FOR: Attn: Dave Siekkinen  
Compliance Env Services Inc  
2700 Kirila Drive  
Hermitage, PA 16148

### Sample Information

Matrix: GROUND WATER  
Location Code: COMPENV-PA  
Rush Request: Standard  
P.O.#:

### Custody Information

Collected by: DS  
Received by: CP  
Analyzed by: see "By" below

Date	Time
04/18/19	11:20
04/19/19	10:32

### Laboratory Data

SDG ID: GCC97920  
Phoenix ID: CC97920

Project ID: SHENANGO TWP  
Client ID: MW-27

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<b><u>Volatiles (Unleaded Gasoline)</u></b>							
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	04/20/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	04/20/19	MH	SW8260C
Benzene	ND	1.0	ug/L	1	04/20/19	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	04/20/19	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	04/20/19	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	04/20/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	86	10	ug/L	10	04/22/19	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	04/20/19	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	04/20/19	MH	SW8260C
Toluene	ND	1.0	ug/L	1	04/20/19	MH	SW8260C
Xylenes (Total)	ND	1.0	ug/L	1	04/20/19	MH	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	99		%	1	04/20/19	MH	70 - 130 %
% Bromofluorobenzene	111		%	1	04/20/19	MH	70 - 130 %
% Dibromofluoromethane	103		%	1	04/20/19	MH	70 - 130 %
% Toluene-d8	97		%	1	04/20/19	MH	70 - 130 %
% 1,2-dichlorobenzene-d4 (10x)	101		%	10	04/22/19	MH	70 - 130 %
% Bromofluorobenzene (10x)	91		%	10	04/22/19	MH	70 - 130 %
% Dibromofluoromethane (10x)	100		%	10	04/22/19	MH	70 - 130 %
% Toluene-d8 (10x)	98		%	10	04/22/19	MH	70 - 130 %



Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
-----------	--------	------------	-------	----------	-----------	----	-----------

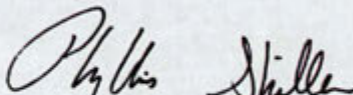
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL

BRL=Below Reporting Level L=Biased Low

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.  
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

April 24, 2019

Reviewed and Released by: Greg Lawrence, Assistant Lab Director





Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## Analysis Report

April 24, 2019

FOR: Attn: Dave Siekkinen  
Compliance Env Services Inc  
2700 Kirila Drive  
Hermitage, PA 16148

### Sample Information

Matrix: GROUND WATER  
Location Code: COMPENV-PA  
Rush Request: Standard  
P.O.#:

### Custody Information

Collected by: DS  
Received by: CP  
Analyzed by: see "By" below

### Date

04/18/19 12:15  
04/19/19 10:32

### Time

## Laboratory Data

SDG ID: GCC97920  
Phoenix ID: CC97921

Project ID: SHENANGO TWP  
Client ID: MW-28

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<b><u>Volatiles (Unleaded Gasoline)</u></b>							
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	04/20/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	04/20/19	MH	SW8260C
Benzene	ND	1.0	ug/L	1	04/20/19	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	04/20/19	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	04/20/19	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	04/20/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	ND	1.0	ug/L	1	04/20/19	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	04/20/19	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	04/20/19	MH	SW8260C
Toluene	ND	1.0	ug/L	1	04/20/19	MH	SW8260C
Xylenes (Total)	ND	1.0	ug/L	1	04/20/19	MH	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	100		%	1	04/20/19	MH	70 - 130 %
% Bromofluorobenzene	110		%	1	04/20/19	MH	70 - 130 %
% Dibromofluoromethane	104		%	1	04/20/19	MH	70 - 130 %
% Toluene-d8	92		%	1	04/20/19	MH	70 - 130 %



Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
-----------	--------	------------	-------	----------	-----------	----	-----------

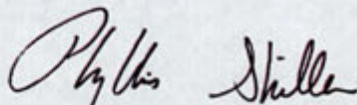
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL

BRL=Below Reporting Level L=Biased Low

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.  
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

April 24, 2019

Reviewed and Released by: Greg Lawrence, Assistant Lab Director





Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## Analysis Report

April 24, 2019

FOR: Attn: Dave Siekkinen  
Compliance Env Services Inc  
2700 Kirila Drive  
Hermitage, PA 16148

### Sample Information

Matrix: GROUND WATER  
Location Code: COMPENV-PA  
Rush Request: Standard  
P.O.#:

### Custody Information

Collected by: DS  
Received by: CP  
Analyzed by: see "By" below

<u>Date</u>	<u>Time</u>
04/18/19	10:30
04/19/19	10:32

### Laboratory Data

SDG ID: GCC97920  
Phoenix ID: CC97922

Project ID: SHENANGO TWP  
Client ID: MW-29

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<b><u>Volatiles (Unleaded Gasoline)</u></b>							
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	04/20/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	04/20/19	MH	SW8260C
Benzene	ND	1.0	ug/L	1	04/20/19	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	04/20/19	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	04/20/19	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	04/20/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	ND	1.0	ug/L	1	04/20/19	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	04/20/19	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	04/20/19	MH	SW8260C
Toluene	ND	1.0	ug/L	1	04/20/19	MH	SW8260C
Xylenes (Total)	ND	1.0	ug/L	1	04/20/19	MH	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	98		%	1	04/20/19	MH	70 - 130 %
% Bromofluorobenzene	109		%	1	04/20/19	MH	70 - 130 %
% Dibromofluoromethane	103		%	1	04/20/19	MH	70 - 130 %
% Toluene-d8	94		%	1	04/20/19	MH	70 - 130 %



Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
-----------	--------	------------	-------	----------	-----------	----	-----------

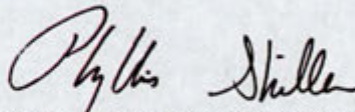
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL

BRL=Below Reporting Level L=Biased Low

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

April 24, 2019

Reviewed and Released by: Greg Lawrence, Assistant Lab Director





Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## QA/QC Report

April 24, 2019

### QA/QC Data

SDG I.D.: GCC97920

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
-----------	-------	-----------	----------	-----------	------------	---------	----------	-----------	--------------------	--------------------

QA/QC Batch 475917 (ug/L), QC Sample No: CC95957 (CC97920 (10X) )

#### Volatiles - Ground Water

Methyl t-butyl ether (MTBE)	ND	1.0	101	96	5.1				70 - 130	30
% 1,2-dichlorobenzene-d4	101	%	101	101	0.0				70 - 130	30
% Bromofluorobenzene	92	%	100	99	1.0				70 - 130	30
% Dibromofluoromethane	105	%	101	99	2.0				70 - 130	30
% Toluene-d8	99	%	100	99	1.0				70 - 130	30

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

QA/QC Batch 475736 (ug/L), QC Sample No: CC97532 (CC97920, CC97921, CC97922)

#### Volatiles - Ground Water

1,2,4-Trimethylbenzene	ND	1.0	91	96	5.3				70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	90	94	4.3				70 - 130	30
Benzene	ND	0.70	87	88	1.1				70 - 130	30
Ethylbenzene	ND	1.0	90	93	3.3				70 - 130	30
Isopropylbenzene	ND	1.0	87	90	3.4				70 - 130	30
m&p-Xylene	ND	1.0	88	91	3.4				70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	112	110	1.8				70 - 130	30
Naphthalene	ND	1.0	119	123	3.3				70 - 130	30
o-Xylene	ND	1.0	91	95	4.3				70 - 130	30
Toluene	ND	1.0	91	93	2.2				70 - 130	30
% 1,2-dichlorobenzene-d4	99	%	102	101	1.0				70 - 130	30
% Bromofluorobenzene	107	%	103	102	1.0				70 - 130	30
% Dibromofluoromethane	104	%	102	98	4.0				70 - 130	30
% Toluene-d8	86	%	99	100	1.0				70 - 130	30

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference

Phyllis Shiller, Laboratory Director  
April 24, 2019



Wednesday, April 24, 2019

Criteria: None

State: PA

## Sample Criteria Exceedances Report

### GCC97920 - COMPENV-PA

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL	Analysis Units
*** No Data to Display ***								

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedances. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedance information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.





**Environmental Laboratories, Inc.**  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## Analysis Comments

April 24, 2019

SDG I.D.: GCC97920

---

The following analysis comments are made regarding exceptions to criteria not already noted in the Analysis Report or QA/QC Report: None.









Tuesday, May 28, 2019

Attn: Dave Siekkinen  
Compliance Env Services Inc  
2700 Kirila Drive  
Hermitage, PA 16148

Project ID: SHENANGO TWP  
SDG ID: GCD18130  
Sample ID#s: CD18130

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Phyllis Shiller".

Phyllis Shiller

Laboratory Director

NELAC - #NY11301  
CT Lab Registration #PH-0618  
MA Lab Registration #M-CT007  
ME Lab Registration #CT-007  
NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003  
NY Lab Registration #11301  
PA Lab Registration #68-03530  
RI Lab Registration #63  
UT Lab Registration #CT00007  
VT Lab Registration #VT11301





Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## Sample Id Cross Reference

May 28, 2019

SDG I.D.: GCD18130

Project ID: SHENANGO TWP

---

Client Id	Lab Id	Matrix
RW-2	CD18130	GROUND WATER





Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## Analysis Report

May 28, 2019

FOR: Attn: Dave Siekkinen  
Compliance Env Services Inc  
2700 Kirila Drive  
Hermitage, PA 16148

### Sample Information

Matrix: GROUND WATER  
Location Code: COMPENV-PA  
Rush Request: Standard  
P.O.#:

### Custody Information

Collected by: DS  
Received by: CP  
Analyzed by: see "By" below

<u>Date</u>	<u>Time</u>
05/20/19	14:00
05/21/19	10:09

### Laboratory Data

SDG ID: GCD18130  
Phoenix ID: CD18130

Project ID: SHENANGO TWP  
Client ID: RW-2

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<b><u>Volatiles (Unleaded Gasoline)</u></b>							
1,2,4-Trimethylbenzene	210	50	ug/L	50	05/23/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/22/19	MH	SW8260C
Benzene	140	50	ug/L	50	05/23/19	MH	SW8260C
Ethylbenzene	130	50	ug/L	50	05/23/19	MH	SW8260C
Isopropylbenzene	10	1.0	ug/L	1	05/22/19	MH	SW8260C
m&p-Xylene	89	1.0	ug/L	1	05/22/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	ND	1.0	ug/L	1	05/22/19	MH	SW8260C
Naphthalene	14	1.0	ug/L	1	05/22/19	MH	SW8260C
o-Xylene	1.9	1.0	ug/L	1	05/22/19	MH	SW8260C
Toluene	1.5	1.0	ug/L	1	05/22/19	MH	SW8260C
Xylenes (Total)	90.9	1.0	ug/L	1	05/22/19	MH	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	102		%	1	05/22/19	MH	70 - 130 %
% Bromofluorobenzene	101		%	1	05/22/19	MH	70 - 130 %
% Dibromofluoromethane	97		%	1	05/22/19	MH	70 - 130 %
% Toluene-d8	101		%	1	05/22/19	MH	70 - 130 %
% 1,2-dichlorobenzene-d4 (50x)	100		%	50	05/23/19	MH	70 - 130 %
% Bromofluorobenzene (50x)	94		%	50	05/23/19	MH	70 - 130 %
% Dibromofluoromethane (50x)	98		%	50	05/23/19	MH	70 - 130 %
% Toluene-d8 (50x)	100		%	50	05/23/19	MH	70 - 130 %



Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
-----------	--------	------------	-------	----------	-----------	----	-----------

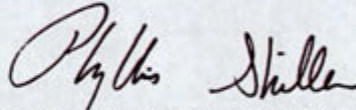
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL

BRL=Below Reporting Level L=Biased Low

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.  
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

May 28, 2019

Reviewed and Released by: Greg Lawrence, Assistant Lab Director





Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## QA/QC Report

May 28, 2019

### QA/QC Data

SDG I.D.: GCD18130

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
-----------	-------	-----------	----------	-----------	------------	---------	----------	-----------	--------------------	--------------------

QA/QC Batch 479998 (ug/L), QC Sample No: CD17404 (CD18130)

#### Volatiles - Ground Water

1,3,5-Trimethylbenzene	ND	1.0	96	101	5.1				70 - 130	30
Isopropylbenzene	ND	1.0	93	99	6.3				70 - 130	30
m&p-Xylene	ND	1.0	96	99	3.1				70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	87	89	2.3				70 - 130	30
Naphthalene	ND	1.0	94	98	4.2				70 - 130	30
o-Xylene	ND	1.0	98	98	0.0				70 - 130	30
Toluene	ND	1.0	92	99	7.3				70 - 130	30
% 1,2-dichlorobenzene-d4	104	%	104	103	1.0				70 - 130	30
% Bromofluorobenzene	92	%	103	105	1.9				70 - 130	30
% Dibromofluoromethane	102	%	98	102	4.0				70 - 130	30
% Toluene-d8	102	%	99	100	1.0				70 - 130	30

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

QA/QC Batch 480366 (ug/L), QC Sample No: CD17547 (CD18130 (50X) )

#### Volatiles - Ground Water

1,2,4-Trimethylbenzene	ND	1.0	86	85	1.2				70 - 130	30
Benzene	ND	0.70	89	86	3.4				70 - 130	30
Ethylbenzene	ND	1.0	85	85	0.0				70 - 130	30
% 1,2-dichlorobenzene-d4	105	%	99	101	2.0				70 - 130	30
% Bromofluorobenzene	91	%	102	102	0.0				70 - 130	30
% Dibromofluoromethane	91	%	104	98	5.9				70 - 130	30
% Toluene-d8	102	%	100	99	1.0				70 - 130	30

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference

Phyllis Shiller, Laboratory Director  
May 28, 2019



Tuesday, May 28, 2019

Criteria: None

State: PA

## Sample Criteria Exceedances Report

### GCD18130 - COMPENV-PA

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL	Analysis Units
--------	-------	-----------------	----------	--------	----	----------	----	----------------

\*\*\* No Data to Display \*\*\*

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedances. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedance information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

8/5/2019 2:56:59 PM





**Environmental Laboratories, Inc.**  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## Analysis Comments

May 28, 2019

SDG I.D.: GCD18130

---

The following analysis comments are made regarding exceptions to criteria not already noted in the Analysis Report or QA/QC Report: None.









Wednesday, July 03, 2019

Attn: Dave Siekkinen  
Compliance Env Services Inc  
2700 Kirila Drive  
Hermitage, PA 16148

Project ID: SHENANGO TOWNSHIP  
SDG ID: GCD45900  
Sample ID#s: CD45900 - CD45927

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Phyllis Shiller".

Phyllis Shiller

Laboratory Director

NELAC - #NY11301  
CT Lab Registration #PH-0618  
MA Lab Registration #M-CT007  
ME Lab Registration #CT-007  
NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003  
NY Lab Registration #11301  
PA Lab Registration #68-03530  
RI Lab Registration #63  
UT Lab Registration #CT00007  
VT Lab Registration #VT11301





Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## Sample Id Cross Reference

July 03, 2019

SDG I.D.: GCD45900

Project ID: SHENANGO TOWNSHIP

Client Id	Lab Id	Matrix
MW-1	CD45900	GROUND WATER
MW-2	CD45901	GROUND WATER
MW-3	CD45902	GROUND WATER
MW-3 DUP	CD45903	GROUND WATER
MW-4	CD45904	GROUND WATER
MW-9	CD45905	GROUND WATER
MW-10	CD45906	GROUND WATER
MW-11	CD45907	GROUND WATER
MW-12	CD45908	GROUND WATER
MW-18	CD45909	GROUND WATER
MW-19	CD45910	GROUND WATER
MW-20	CD45911	GROUND WATER
MW-21	CD45912	GROUND WATER
MW-22	CD45913	GROUND WATER
MW-23	CD45914	GROUND WATER
MW-24	CD45915	GROUND WATER
MW-25	CD45916	GROUND WATER
MW-26	CD45917	GROUND WATER
MW-27	CD45918	GROUND WATER
MW-28	CD45919	GROUND WATER
MW-29	CD45920	GROUND WATER
RW-1	CD45921	GROUND WATER
RW-2	CD45922	GROUND WATER
RW-3	CD45923	GROUND WATER
WATER WELL	CD45924	GROUND WATER
DISCHARGE	CD45925	GROUND WATER
RAW WATER	CD45926	GROUND WATER
TRIP BLANK	CD45927	GROUND WATER





Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## Analysis Report

July 03, 2019

FOR: Attn: Dave Siekkinen  
Compliance Env Services Inc  
2700 Kirila Drive  
Hermitage, PA 16148

### Sample Information

Matrix: GROUND WATER  
Location Code: COMPENV-PA  
Rush Request: Standard  
P.O.#:

### Custody Information

Collected by: DS  
Received by: LB  
Analyzed by: see "By" below

Date	Time
06/25/19	15:45
06/27/19	11:13

## Laboratory Data

SDG ID: GCD45900  
Phoenix ID: CD45900

Project ID: SHENANGO TOWNSHIP  
Client ID: MW-1

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<b><u>Volatiles (Unleaded Gasoline)</u></b>							
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Benzene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Toluene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Xylenes (Total)	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	95		%	1	06/29/19	MH	70 - 130 %
% Bromofluorobenzene	95		%	1	06/29/19	MH	70 - 130 %
% Dibromofluoromethane	101		%	1	06/29/19	MH	70 - 130 %
% Toluene-d8	92		%	1	06/29/19	MH	70 - 130 %



Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
-----------	--------	------------	-------	----------	-----------	----	-----------

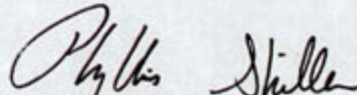
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL

BRL=Below Reporting Level L=Biased Low

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.  
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

July 03, 2019

Reviewed and Released by: Greg Lawrence, Assistant Lab Director





Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## Analysis Report

July 03, 2019

FOR: Attn: Dave Siekkinen  
Compliance Env Services Inc  
2700 Kirila Drive  
Hermitage, PA 16148

### Sample Information

Matrix: GROUND WATER  
Location Code: COMPENV-PA  
Rush Request: Standard  
P.O.#:

### Custody Information

Collected by: DS  
Received by: LB  
Analyzed by: see "By" below

### Date

06/25/19  
06/27/19

### Time

9:50  
11:13

## Laboratory Data

SDG ID: GCD45900  
Phoenix ID: CD45901

Project ID: SHENANGO TOWNSHIP  
Client ID: MW-2

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<b><u>Volatiles (Unleaded Gasoline)</u></b>							
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Benzene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Toluene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Xylenes (Total)	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	96		%	1	06/29/19	MH	70 - 130 %
% Bromofluorobenzene	96		%	1	06/29/19	MH	70 - 130 %
% Dibromofluoromethane	99		%	1	06/29/19	MH	70 - 130 %
% Toluene-d8	92		%	1	06/29/19	MH	70 - 130 %

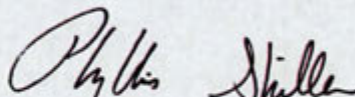


Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
-----------	--------	------------	-------	----------	-----------	----	-----------

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL  
BRL=Below Reporting Level L=Biased Low  
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.  
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

July 03, 2019

Reviewed and Released by: Greg Lawrence, Assistant Lab Director





Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## Analysis Report

July 03, 2019

FOR: Attn: Dave Siekkinen  
Compliance Env Services Inc  
2700 Kirila Drive  
Hermitage, PA 16148

### Sample Information

Matrix: GROUND WATER  
Location Code: COMPENV-PA  
Rush Request: Standard  
P.O.#:

### Custody Information

Collected by: DS  
Received by: LB  
Analyzed by: see "By" below

### Date

06/25/19  
06/27/19

### Time

12:30  
11:13

## Laboratory Data

SDG ID: GCD45900  
Phoenix ID: CD45902

Project ID: SHENANGO TOWNSHIP  
Client ID: MW-3

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<b>Volatiles (Unleaded Gasoline)</b>							
1,2,4-Trimethylbenzene	2500	200	ug/L	200	07/01/19	MH	SW8260C
1,3,5-Trimethylbenzene	540	20	ug/L	20	06/29/19	MH	SW8260C
Benzene	7400	1000	ug/L	1000	07/02/19	MH	SW8260C
Ethylbenzene	980	200	ug/L	200	07/01/19	MH	SW8260C
Isopropylbenzene	44	20	ug/L	20	06/29/19	MH	SW8260C
m&p-Xylene	6300	200	ug/L	200	07/01/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	130	20	ug/L	20	06/29/19	MH	SW8260C
Naphthalene	1200	200	ug/L	200	07/01/19	MH	SW8260C
o-Xylene	2700	200	ug/L	200	07/01/19	MH	SW8260C
Toluene	2200	200	ug/L	200	07/01/19	MH	SW8260C
Xylenes (Total)	9000	200	ug/L	200	07/01/19	MH	SW8260C
<b>QA/QC Surrogates</b>							
% 1,2-dichlorobenzene-d4 (20x)	96		%	20	06/29/19	MH	70 - 130 %
% Bromofluorobenzene (20x)	97		%	20	06/29/19	MH	70 - 130 %
% Dibromofluoromethane (20x)	128		%	20	06/29/19	MH	70 - 130 %
% Toluene-d8 (20x)	94		%	20	06/29/19	MH	70 - 130 %
% 1,2-dichlorobenzene-d4 (200x)	97		%	200	07/01/19	MH	70 - 130 %
% Bromofluorobenzene (200x)	96		%	200	07/01/19	MH	70 - 130 %
% Dibromofluoromethane (200x)	123		%	200	07/01/19	MH	70 - 130 %
% Toluene-d8 (200x)	93		%	200	07/01/19	MH	70 - 130 %
% 1,2-dichlorobenzene-d4 (1000x)	96		%	1000	07/02/19	MH	70 - 130 %
% Bromofluorobenzene (1000x)	90		%	1000	07/02/19	MH	70 - 130 %
% Dibromofluoromethane (1000x)	95		%	1000	07/02/19	MH	70 - 130 %
% Toluene-d8 (1000x)	91		%	1000	07/02/19	MH	70 - 130 %



Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
-----------	--------	------------	-------	----------	-----------	----	-----------

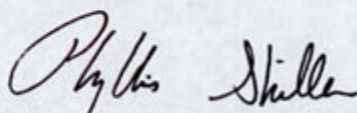
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL  
BRL=Below Reporting Level L=Biased Low  
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

Volatile Comment:

Elevated reporting limits for volatiles due to the presence of target and/or non-target compounds.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.  
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

July 03, 2019

Reviewed and Released by: Greg Lawrence, Assistant Lab Director





Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## Analysis Report

July 03, 2019

FOR: Attn: Dave Siekkinen  
Compliance Env Services Inc  
2700 Kirila Drive  
Hermitage, PA 16148

### Sample Information

Matrix: GROUND WATER  
Location Code: COMPENV-PA  
Rush Request: Standard  
P.O.#:

### Custody Information

Collected by: DS  
Received by: LB  
Analyzed by: see "By" below

### Date

06/25/19  
06/27/19

### Time

12:30  
11:13

## Laboratory Data

SDG ID: GCD45900  
Phoenix ID: CD45903

Project ID: SHENANGO TOWNSHIP  
Client ID: MW-3 DUP

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<b>Volatiles (Unleaded Gasoline)</b>							
1,2,4-Trimethylbenzene	2700	200	ug/L	200	07/01/19	MH	SW8260C
1,3,5-Trimethylbenzene	560	20	ug/L	20	06/29/19	MH	SW8260C
Benzene	8300	1000	ug/L	1000	07/02/19	MH	SW8260C
Ethylbenzene	1000	200	ug/L	200	07/01/19	MH	SW8260C
Isopropylbenzene	44	20	ug/L	20	06/29/19	MH	SW8260C
m&p-Xylene	6600	200	ug/L	200	07/01/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	120	20	ug/L	20	06/29/19	MH	SW8260C
Naphthalene	1200	200	ug/L	200	07/01/19	MH	SW8260C
o-Xylene	2700	200	ug/L	200	07/01/19	MH	SW8260C
Toluene	2200	200	ug/L	200	07/01/19	MH	SW8260C
Xylenes (Total)	9300	200	ug/L	200	07/01/19	MH	SW8260C
<b>QA/QC Surrogates</b>							
% 1,2-dichlorobenzene-d4 (20x)	96		%	20	06/29/19	MH	70 - 130 %
% Bromofluorobenzene (20x)	96		%	20	06/29/19	MH	70 - 130 %
% Dibromofluoromethane (20x)	123		%	20	06/29/19	MH	70 - 130 %
% Toluene-d8 (20x)	93		%	20	06/29/19	MH	70 - 130 %
% 1,2-dichlorobenzene-d4 (200x)	95		%	200	07/01/19	MH	70 - 130 %
% Bromofluorobenzene (200x)	96		%	200	07/01/19	MH	70 - 130 %
% Dibromofluoromethane (200x)	119		%	200	07/01/19	MH	70 - 130 %
% Toluene-d8 (200x)	93		%	200	07/01/19	MH	70 - 130 %
% 1,2-dichlorobenzene-d4 (1000x)	98		%	1000	07/02/19	MH	70 - 130 %
% Bromofluorobenzene (1000x)	95		%	1000	07/02/19	MH	70 - 130 %
% Dibromofluoromethane (1000x)	108		%	1000	07/02/19	MH	70 - 130 %
% Toluene-d8 (1000x)	91		%	1000	07/02/19	MH	70 - 130 %



Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
-----------	--------	------------	-------	----------	-----------	----	-----------

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL

BRL=Below Reporting Level L=Biased Low

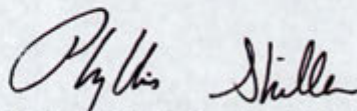
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

Volatile Comment:

Elevated reporting limits for volatiles due to the presence of target and/or non-target compounds.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

July 03, 2019

Reviewed and Released by: Greg Lawrence, Assistant Lab Director





Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## Analysis Report

July 03, 2019

FOR: Attn: Dave Siekkinen  
Compliance Env Services Inc  
2700 Kirila Drive  
Hermitage, PA 16148

### Sample Information

Matrix: GROUND WATER  
Location Code: COMPENV-PA  
Rush Request: Standard  
P.O.#:

### Custody Information

Collected by: DS  
Received by: LB  
Analyzed by: see "By" below

<u>Date</u>	<u>Time</u>
06/25/19	10:30
06/27/19	11:13

### Laboratory Data

SDG ID: GCD45900  
Phoenix ID: CD45904

Project ID: SHENANGO TOWNSHIP  
Client ID: MW-4

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<b><u>Volatiles (Unleaded Gasoline)</u></b>							
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Benzene	5.2	1.0	ug/L	1	06/29/19	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	30	1.0	ug/L	1	06/29/19	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Toluene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Xylenes (Total)	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	96		%	1	06/29/19	MH	70 - 130 %
% Bromofluorobenzene	97		%	1	06/29/19	MH	70 - 130 %
% Dibromofluoromethane	102		%	1	06/29/19	MH	70 - 130 %
% Toluene-d8	93		%	1	06/29/19	MH	70 - 130 %

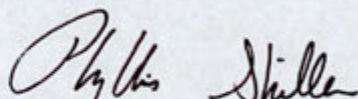


Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
-----------	--------	------------	-------	----------	-----------	----	-----------

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL  
BRL=Below Reporting Level L=Biased Low  
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.  
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

July 03, 2019

Reviewed and Released by: Greg Lawrence, Assistant Lab Director





Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## Analysis Report

July 03, 2019

FOR: Attn: Dave Siekkinen  
Compliance Env Services Inc  
2700 Kirila Drive  
Hermitage, PA 16148

### Sample Information

Matrix: GROUND WATER  
Location Code: COMPENV-PA  
Rush Request: Standard  
P.O.#:

### Custody Information

Collected by: DS  
Received by: LB  
Analyzed by: see "By" below

<u>Date</u>	<u>Time</u>
06/25/19	11:00
06/27/19	11:13

## Laboratory Data

SDG ID: GCD45900  
Phoenix ID: CD45905

Project ID: SHENANGO TOWNSHIP  
Client ID: MW-9

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<b><u>Volatiles (Unleaded Gasoline)</u></b>							
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Benzene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Toluene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Xylenes (Total)	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	96		%	1	06/29/19	MH	70 - 130 %
% Bromofluorobenzene	97		%	1	06/29/19	MH	70 - 130 %
% Dibromofluoromethane	99		%	1	06/29/19	MH	70 - 130 %
% Toluene-d8	92		%	1	06/29/19	MH	70 - 130 %



Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
-----------	--------	------------	-------	----------	-----------	----	-----------

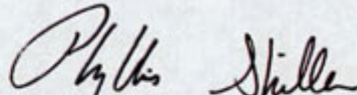
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL

BRL=Below Reporting Level L=Biased Low

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.  
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

July 03, 2019

Reviewed and Released by: Greg Lawrence, Assistant Lab Director





Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## Analysis Report

July 03, 2019

FOR: Attn: Dave Siekkinen  
Compliance Env Services Inc  
2700 Kirila Drive  
Hermitage, PA 16148

### Sample Information

Matrix: GROUND WATER  
Location Code: COMPENV-PA  
Rush Request: Standard  
P.O.#:

### Custody Information

Collected by: DS  
Received by: LB  
Analyzed by: see "By" below

### Date

06/25/19  
06/27/19

### Time

9:55  
11:13

## Laboratory Data

SDG ID: GCD45900  
Phoenix ID: CD45906

Project ID: SHENANGO TOWNSHIP  
Client ID: MW-10

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<b><u>Volatiles (Unleaded Gasoline)</u></b>							
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Benzene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Toluene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Xylenes (Total)	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	96		%	1	06/29/19	MH	70 - 130 %
% Bromofluorobenzene	96		%	1	06/29/19	MH	70 - 130 %
% Dibromofluoromethane	95		%	1	06/29/19	MH	70 - 130 %
% Toluene-d8	91		%	1	06/29/19	MH	70 - 130 %



Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
-----------	--------	------------	-------	----------	-----------	----	-----------

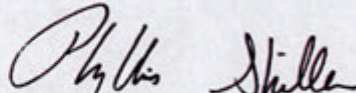
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL

BRL=Below Reporting Level L=Biased Low

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.  
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

July 03, 2019

Reviewed and Released by: Greg Lawrence, Assistant Lab Director





Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## Analysis Report

July 03, 2019

FOR: Attn: Dave Siekkinen  
Compliance Env Services Inc  
2700 Kirila Drive  
Hermitage, PA 16148

### Sample Information

Matrix: GROUND WATER  
Location Code: COMPENV-PA  
Rush Request: Standard  
P.O.#:

### Custody Information

Collected by: DS  
Received by: LB  
Analyzed by: see "By" below

### Date

06/25/19  
06/27/19

### Time

11:40  
11:13

## Laboratory Data

SDG ID: GCD45900  
Phoenix ID: CD45907

Project ID: SHENANGO TOWNSHIP  
Client ID: MW-11

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<b><u>Volatiles (Unleaded Gasoline)</u></b>							
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Benzene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Toluene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Xylenes (Total)	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	95		%	1	06/29/19	MH	70 - 130 %
% Bromofluorobenzene	97		%	1	06/29/19	MH	70 - 130 %
% Dibromofluoromethane	101		%	1	06/29/19	MH	70 - 130 %
% Toluene-d8	92		%	1	06/29/19	MH	70 - 130 %



Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
-----------	--------	------------	-------	----------	-----------	----	-----------

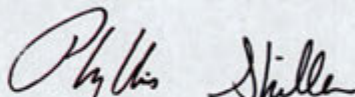
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL

BRL=Below Reporting Level L=Biased Low

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.  
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

July 03, 2019

Reviewed and Released by: Greg Lawrence, Assistant Lab Director





Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## Analysis Report

July 03, 2019

FOR: Attn: Dave Siekkinen  
Compliance Env Services Inc  
2700 Kirila Drive  
Hermitage, PA 16148

### Sample Information

Matrix: GROUND WATER  
Location Code: COMPENV-PA  
Rush Request: Standard  
P.O.#:

### Custody Information

Collected by: DS  
Received by: LB  
Analyzed by: see "By" below

### Date

06/25/19  
06/27/19

### Time

9:15  
11:13

## Laboratory Data

SDG ID: GCD45900  
Phoenix ID: CD45908

Project ID: SHENANGO TOWNSHIP  
Client ID: MW-12

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<b><u>Volatiles (Unleaded Gasoline)</u></b>							
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Benzene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Toluene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Xylenes (Total)	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	95		%	1	06/29/19	MH	70 - 130 %
% Bromofluorobenzene	97		%	1	06/29/19	MH	70 - 130 %
% Dibromofluoromethane	97		%	1	06/29/19	MH	70 - 130 %
% Toluene-d8	93		%	1	06/29/19	MH	70 - 130 %



Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
-----------	--------	------------	-------	----------	-----------	----	-----------

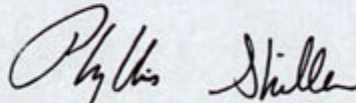
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL

BRL=Below Reporting Level L=Biased Low

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.  
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

July 03, 2019

Reviewed and Released by: Greg Lawrence, Assistant Lab Director





Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## Analysis Report

July 03, 2019

FOR: Attn: Dave Siekkinen  
Compliance Env Services Inc  
2700 Kirila Drive  
Hermitage, PA 16148

### Sample Information

Matrix: GROUND WATER  
Location Code: COMPENV-PA  
Rush Request: Standard  
P.O.#:

### Custody Information

Collected by: DS  
Received by: LB  
Analyzed by: see "By" below

<u>Date</u>	<u>Time</u>
06/25/19	14:45
06/27/19	11:13

### Laboratory Data

SDG ID: GCD45900  
Phoenix ID: CD45909

Project ID: SHENANGO TOWNSHIP  
Client ID: MW-18

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<b><u>Volatiles (Unleaded Gasoline)</u></b>							
1,2,4-Trimethylbenzene	1.9	1.0	ug/L	1	06/29/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Benzene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Isopropylbenzene	4.3	1.0	ug/L	1	06/29/19	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Toluene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Xylenes (Total)	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	93		%	1	06/29/19	MH	70 - 130 %
% Bromofluorobenzene	96		%	1	06/29/19	MH	70 - 130 %
% Dibromofluoromethane	93		%	1	06/29/19	MH	70 - 130 %
% Toluene-d8	93		%	1	06/29/19	MH	70 - 130 %



Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
-----------	--------	------------	-------	----------	-----------	----	-----------

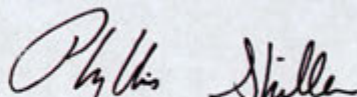
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL

BRL=Below Reporting Level L=Biased Low

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.  
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

July 03, 2019

Reviewed and Released by: Greg Lawrence, Assistant Lab Director





Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## Analysis Report

July 03, 2019

FOR: Attn: Dave Siekkinen  
Compliance Env Services Inc  
2700 Kirila Drive  
Hermitage, PA 16148

### Sample Information

Matrix: GROUND WATER  
Location Code: COMPENV-PA  
Rush Request: Standard  
P.O.#:

### Custody Information

Collected by: DS  
Received by: LB  
Analyzed by: see "By" below

<u>Date</u>	<u>Time</u>
06/25/19	14:15
06/27/19	11:13

## Laboratory Data

SDG ID: GCD45900  
Phoenix ID: CD45910

Project ID: SHENANGO TOWNSHIP  
Client ID: MW-19

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<b><u>Volatiles (Unleaded Gasoline)</u></b>							
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Benzene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	11	1.0	ug/L	1	06/29/19	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Toluene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Xylenes (Total)	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	94		%	1	06/29/19	MH	70 - 130 %
% Bromofluorobenzene	96		%	1	06/29/19	MH	70 - 130 %
% Dibromofluoromethane	101		%	1	06/29/19	MH	70 - 130 %
% Toluene-d8	92		%	1	06/29/19	MH	70 - 130 %



Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
-----------	--------	------------	-------	----------	-----------	----	-----------

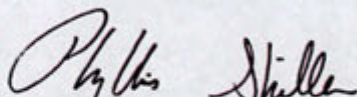
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL

BRL=Below Reporting Level L=Biased Low

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.  
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

July 03, 2019

Reviewed and Released by: Greg Lawrence, Assistant Lab Director





Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## Analysis Report

July 03, 2019

FOR: Attn: Dave Siekkinen  
Compliance Env Services Inc  
2700 Kirila Drive  
Hermitage, PA 16148

### Sample Information

Matrix: GROUND WATER  
Location Code: COMPENV-PA  
Rush Request: Standard  
P.O.#:

### Custody Information

Collected by: DS  
Received by: LB  
Analyzed by: see "By" below

### Date

06/25/19  
06/27/19

### Time

13:15  
11:13

## Laboratory Data

SDG ID: GCD45900  
Phoenix ID: CD45911

Project ID: SHENANGO TOWNSHIP  
Client ID: MW-20

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<b><u>Volatiles (Unleaded Gasoline)</u></b>							
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	07/02/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	07/02/19	MH	SW8260C
Benzene	ND	1.0	ug/L	1	07/02/19	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	07/02/19	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	07/02/19	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	07/02/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	2.8	1.0	ug/L	1	07/02/19	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	07/02/19	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	07/02/19	MH	SW8260C
Toluene	ND	1.0	ug/L	1	07/02/19	MH	SW8260C
Xylenes (Total)	ND	1.0	ug/L	1	07/02/19	MH	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	94		%	1	07/02/19	MH	70 - 130 %
% Bromofluorobenzene	98		%	1	07/02/19	MH	70 - 130 %
% Dibromofluoromethane	93		%	1	07/02/19	MH	70 - 130 %
% Toluene-d8	91		%	1	07/02/19	MH	70 - 130 %

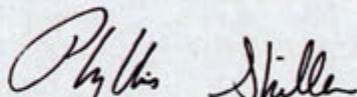


Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
-----------	--------	------------	-------	----------	-----------	----	-----------

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL  
BRL=Below Reporting Level L=Biased Low  
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.  
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

July 03, 2019

Reviewed and Released by: Greg Lawrence, Assistant Lab Director





Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## Analysis Report

July 03, 2019

FOR: Attn: Dave Siekkinen  
Compliance Env Services Inc  
2700 Kirila Drive  
Hermitage, PA 16148

### Sample Information

Matrix: GROUND WATER  
Location Code: COMPENV-PA  
Rush Request: Standard  
P.O.#:

### Custody Information

Collected by: DS  
Received by: LB  
Analyzed by: see "By" below

### Date

06/25/19  
06/27/19

### Time

13:45  
11:13

## Laboratory Data

SDG ID: GCD45900  
Phoenix ID: CD45912

Project ID: SHENANGO TOWNSHIP  
Client ID: MW-21

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<b><u>Volatiles (Unleaded Gasoline)</u></b>							
1,2,4-Trimethylbenzene	16	1.0	ug/L	1	06/29/19	MH	SW8260C
1,3,5-Trimethylbenzene	4.0	1.0	ug/L	1	06/29/19	MH	SW8260C
Benzene	71	5.0	ug/L	5	07/01/19	MH	SW8260C
Ethylbenzene	27	1.0	ug/L	1	06/29/19	MH	SW8260C
Isopropylbenzene	16	1.0	ug/L	1	06/29/19	MH	SW8260C
m&p-Xylene	3.8	1.0	ug/L	1	06/29/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	3.6	1.0	ug/L	1	06/29/19	MH	SW8260C
Naphthalene	10	1.0	ug/L	1	06/29/19	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Toluene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Xylenes (Total)	3.8	1.0	ug/L	1	06/29/19	MH	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	96		%	1	06/29/19	MH	70 - 130 %
% Bromofluorobenzene	97		%	1	06/29/19	MH	70 - 130 %
% Dibromofluoromethane	97		%	1	06/29/19	MH	70 - 130 %
% Toluene-d8	97		%	1	06/29/19	MH	70 - 130 %
% 1,2-dichlorobenzene-d4 (5x)	95		%	5	07/01/19	MH	70 - 130 %
% Bromofluorobenzene (5x)	98		%	5	07/01/19	MH	70 - 130 %
% Dibromofluoromethane (5x)	103		%	5	07/01/19	MH	70 - 130 %
% Toluene-d8 (5x)	95		%	5	07/01/19	MH	70 - 130 %



Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
-----------	--------	------------	-------	----------	-----------	----	-----------

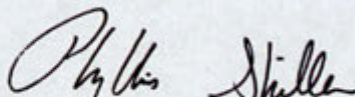
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL

BRL=Below Reporting Level L=Biased Low

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.  
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

July 03, 2019

Reviewed and Released by: Greg Lawrence, Assistant Lab Director





Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## Analysis Report

July 03, 2019

FOR: Attn: Dave Siekkinen  
Compliance Env Services Inc  
2700 Kirila Drive  
Hermitage, PA 16148

### Sample Information

Matrix: GROUND WATER  
Location Code: COMPENV-PA  
Rush Request: Standard  
P.O.#:

### Custody Information

Collected by: DS  
Received by: LB  
Analyzed by: see "By" below

Date	Time
06/25/19	10:30
06/27/19	11:13

### Laboratory Data

SDG ID: GCD45900  
Phoenix ID: CD45913

Project ID: SHENANGO TOWNSHIP  
Client ID: MW-22

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<b><u>Volatiles (Unleaded Gasoline)</u></b>							
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
Benzene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
Toluene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
Xylenes (Total)	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	98		%	1	06/30/19	MH	70 - 130 %
% Bromofluorobenzene	100		%	1	06/30/19	MH	70 - 130 %
% Dibromofluoromethane	107		%	1	06/30/19	MH	70 - 130 %
% Toluene-d8	91		%	1	06/30/19	MH	70 - 130 %



Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
-----------	--------	------------	-------	----------	-----------	----	-----------

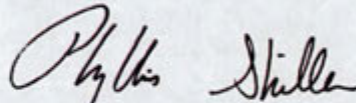
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL

BRL=Below Reporting Level L=Biased Low

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.  
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

July 03, 2019

Reviewed and Released by: Greg Lawrence, Assistant Lab Director





Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## Analysis Report

July 03, 2019

FOR: Attn: Dave Siekkinen  
Compliance Env Services Inc  
2700 Kirila Drive  
Hermitage, PA 16148

### Sample Information

Matrix: GROUND WATER  
Location Code: COMPENV-PA  
Rush Request: Standard  
P.O.#:

### Custody Information

Collected by: DS  
Received by: LB  
Analyzed by: see "By" below

### Date

06/25/19  
06/27/19

### Time

11:05  
11:13

## Laboratory Data

SDG ID: GCD45900  
Phoenix ID: CD45914

Project ID: SHENANGO TOWNSHIP  
Client ID: MW-23

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<b><u>Volatiles (Unleaded Gasoline)</u></b>							
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
Benzene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	140	10	ug/L	10	07/01/19	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
Toluene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
Xylenes (Total)	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	98		%	1	06/30/19	MH	70 - 130 %
% Bromofluorobenzene	99		%	1	06/30/19	MH	70 - 130 %
% Dibromofluoromethane	99		%	1	06/30/19	MH	70 - 130 %
% Toluene-d8	93		%	1	06/30/19	MH	70 - 130 %
% 1,2-dichlorobenzene-d4 (10x)	97		%	10	07/01/19	MH	70 - 130 %
% Bromofluorobenzene (10x)	98		%	10	07/01/19	MH	70 - 130 %
% Dibromofluoromethane (10x)	97		%	10	07/01/19	MH	70 - 130 %
% Toluene-d8 (10x)	91		%	10	07/01/19	MH	70 - 130 %



Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
-----------	--------	------------	-------	----------	-----------	----	-----------

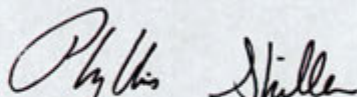
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL

BRL=Below Reporting Level L=Biased Low

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.  
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

July 03, 2019

Reviewed and Released by: Greg Lawrence, Assistant Lab Director





Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## Analysis Report

July 03, 2019

FOR: Attn: Dave Siekkinen  
Compliance Env Services Inc  
2700 Kirila Drive  
Hermitage, PA 16148

### Sample Information

Matrix: GROUND WATER  
Location Code: COMPENV-PA  
Rush Request: Standard  
P.O.#:

### Custody Information

Collected by: DS  
Received by: LB  
Analyzed by: see "By" below

### Date

06/25/19  
06/27/19

### Time

12:45  
11:13

## Laboratory Data

SDG ID: GCD45900  
Phoenix ID: CD45915

Project ID: SHENANGO TOWNSHIP  
Client ID: MW-24

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<b><u>Volatiles (Unleaded Gasoline)</u></b>							
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
Benzene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
Toluene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
Xylenes (Total)	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	96		%	1	06/30/19	MH	70 - 130 %
% Bromofluorobenzene	97		%	1	06/30/19	MH	70 - 130 %
% Dibromofluoromethane	99		%	1	06/30/19	MH	70 - 130 %
% Toluene-d8	91		%	1	06/30/19	MH	70 - 130 %

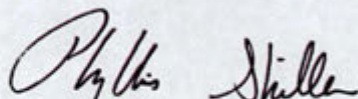


Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
-----------	--------	------------	-------	----------	-----------	----	-----------

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL  
BRL=Below Reporting Level L=Biased Low  
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.  
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

July 03, 2019

Reviewed and Released by: Greg Lawrence, Assistant Lab Director





Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## Analysis Report

July 03, 2019

FOR: Attn: Dave Siekkinen  
Compliance Env Services Inc  
2700 Kirila Drive  
Hermitage, PA 16148

### Sample Information

Matrix: GROUND WATER  
Location Code: COMPENV-PA  
Rush Request: Standard  
P.O.#:

### Custody Information

Collected by: DS  
Received by: LB  
Analyzed by: see "By" below

### Date

06/25/19  
06/27/19

### Time

9:20  
11:13

## Laboratory Data

SDG ID: GCD45900  
Phoenix ID: CD45916

Project ID: SHENANGO TOWNSHIP  
Client ID: MW-25

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<b><u>Volatiles (Unleaded Gasoline)</u></b>							
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
Benzene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	1.3	1.0	ug/L	1	06/30/19	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
Toluene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
Xylenes (Total)	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	97		%	1	06/30/19	MH	70 - 130 %
% Bromofluorobenzene	98		%	1	06/30/19	MH	70 - 130 %
% Dibromofluoromethane	102		%	1	06/30/19	MH	70 - 130 %
% Toluene-d8	91		%	1	06/30/19	MH	70 - 130 %



Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
-----------	--------	------------	-------	----------	-----------	----	-----------

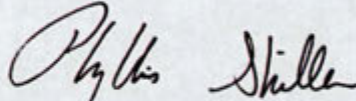
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL

BRL=Below Reporting Level L=Biased Low

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.  
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

July 03, 2019

Reviewed and Released by: Greg Lawrence, Assistant Lab Director





Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## Analysis Report

July 03, 2019

FOR: Attn: Dave Siekkinen  
Compliance Env Services Inc  
2700 Kirila Drive  
Hermitage, PA 16148

### Sample Information

Matrix: GROUND WATER  
Location Code: COMPENV-PA  
Rush Request: Standard  
P.O.#:

### Custody Information

Collected by: DS  
Received by: LB  
Analyzed by: see "By" below

### Date

06/25/19  
06/27/19

### Time

8:52  
11:13

## Laboratory Data

SDG ID: GCD45900  
Phoenix ID: CD45917

Project ID: SHENANGO TOWNSHIP  
Client ID: MW-26

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<b>Volatiles (Unleaded Gasoline)</b>							
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
Benzene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
Toluene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
Xylenes (Total)	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
<b>QA/QC Surrogates</b>							
% 1,2-dichlorobenzene-d4	98		%	1	06/30/19	MH	70 - 130 %
% Bromofluorobenzene	101		%	1	06/30/19	MH	70 - 130 %
% Dibromofluoromethane	104		%	1	06/30/19	MH	70 - 130 %
% Toluene-d8	90		%	1	06/30/19	MH	70 - 130 %

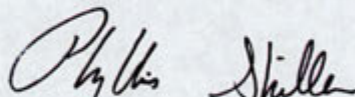


Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
-----------	--------	------------	-------	----------	-----------	----	-----------

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL  
BRL=Below Reporting Level L=Biased Low  
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.  
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

July 03, 2019

Reviewed and Released by: Greg Lawrence, Assistant Lab Director





Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## Analysis Report

July 03, 2019

FOR: Attn: Dave Siekkinen  
Compliance Env Services Inc  
2700 Kirila Drive  
Hermitage, PA 16148

### Sample Information

Matrix: GROUND WATER  
Location Code: COMPENV-PA  
Rush Request: Standard  
P.O.#:

### Custody Information

Collected by: DS  
Received by: LB  
Analyzed by: see "By" below

Date Time  
06/25/19 11:30  
06/27/19 11:13

### Laboratory Data

SDG ID: GCD45900  
Phoenix ID: CD45918

Project ID: SHENANGO TOWNSHIP  
Client ID: MW-27

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<b>Volatiles (Unleaded Gasoline)</b>							
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
Benzene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	27	5.0	ug/L	5	07/01/19	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
Toluene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
Xylenes (Total)	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
<b>QA/QC Surrogates</b>							
% 1,2-dichlorobenzene-d4	99		%	1	06/30/19	MH	70 - 130 %
% Bromofluorobenzene	99		%	1	06/30/19	MH	70 - 130 %
% Dibromofluoromethane	104		%	1	06/30/19	MH	70 - 130 %
% Toluene-d8	92		%	1	06/30/19	MH	70 - 130 %
% 1,2-dichlorobenzene-d4 (5x)	95		%	5	07/01/19	MH	70 - 130 %
% Bromofluorobenzene (5x)	97		%	5	07/01/19	MH	70 - 130 %
% Dibromofluoromethane (5x)	101		%	5	07/01/19	MH	70 - 130 %
% Toluene-d8 (5x)	91		%	5	07/01/19	MH	70 - 130 %



Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
-----------	--------	------------	-------	----------	-----------	----	-----------

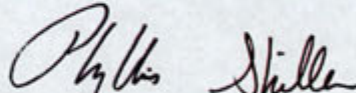
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL

BRL=Below Reporting Level L=Biased Low

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.  
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

July 03, 2019

Reviewed and Released by: Greg Lawrence, Assistant Lab Director





Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## Analysis Report

July 03, 2019

FOR: Attn: Dave Siekkinen  
Compliance Env Services Inc  
2700 Kirila Drive  
Hermitage, PA 16148

### Sample Information

Matrix: GROUND WATER  
Location Code: COMPENV-PA  
Rush Request: Standard  
P.O.#:

### Custody Information

Collected by: DS  
Received by: LB  
Analyzed by: see "By" below

### Date

06/25/19  
06/27/19

### Time

16:20  
11:13

## Laboratory Data

SDG ID: GCD45900  
Phoenix ID: CD45919

Project ID: SHENANGO TOWNSHIP  
Client ID: MW-28

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<b><u>Volatiles (Unleaded Gasoline)</u></b>							
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
Benzene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
Toluene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
Xylenes (Total)	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	96		%	1	06/30/19	MH	70 - 130 %
% Bromofluorobenzene	99		%	1	06/30/19	MH	70 - 130 %
% Dibromofluoromethane	103		%	1	06/30/19	MH	70 - 130 %
% Toluene-d8	91		%	1	06/30/19	MH	70 - 130 %



Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
-----------	--------	------------	-------	----------	-----------	----	-----------

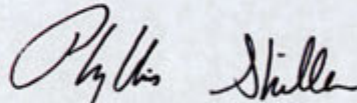
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL

BRL=Below Reporting Level L=Biased Low

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.  
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

July 03, 2019

Reviewed and Released by: Greg Lawrence, Assistant Lab Director





Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## Analysis Report

July 03, 2019

FOR: Attn: Dave Siekkinen  
Compliance Env Services Inc  
2700 Kirila Drive  
Hermitage, PA 16148

### Sample Information

Matrix: GROUND WATER  
Location Code: COMPENV-PA  
Rush Request: Standard  
P.O.#:

### Custody Information

Collected by: DS  
Received by: LB  
Analyzed by: see "By" below

<u>Date</u>	<u>Time</u>
06/25/19	12:05
06/27/19	11:13

## Laboratory Data

SDG ID: GCD45900  
Phoenix ID: CD45920

Project ID: SHENANGO TOWNSHIP  
Client ID: MW-29

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<b><u>Volatiles (Unleaded Gasoline)</u></b>							
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
Benzene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
Toluene	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
Xylenes (Total)	ND	1.0	ug/L	1	06/30/19	MH	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	95		%	1	06/30/19	MH	70 - 130 %
% Bromofluorobenzene	98		%	1	06/30/19	MH	70 - 130 %
% Dibromofluoromethane	104		%	1	06/30/19	MH	70 - 130 %
% Toluene-d8	91		%	1	06/30/19	MH	70 - 130 %



Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
-----------	--------	------------	-------	----------	-----------	----	-----------

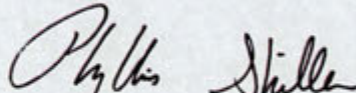
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL

BRL=Below Reporting Level L=Biased Low

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.  
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

July 03, 2019

Reviewed and Released by: Greg Lawrence, Assistant Lab Director





Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## Analysis Report

July 03, 2019

FOR: Attn: Dave Siekkinen  
Compliance Env Services Inc  
2700 Kirila Drive  
Hermitage, PA 16148

### Sample Information

Matrix: GROUND WATER  
Location Code: COMPENV-PA  
Rush Request: Standard  
P.O.#:

### Custody Information

Collected by: DS  
Received by: LB  
Analyzed by: see "By" below

Date Time  
06/25/19 13:00  
06/27/19 11:13

### Laboratory Data

SDG ID: GCD45900  
Phoenix ID: CD45921

Project ID: SHENANGO TOWNSHIP  
Client ID: RW-1

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<b>Volatiles (Unleaded Gasoline)</b>							
1,2,4-Trimethylbenzene	3900	250	ug/L	250	07/02/19	MH	SW8260C
1,3,5-Trimethylbenzene	1000	100	ug/L	100	07/01/19	MH	SW8260C
Benzene	13000	1000	ug/L	1000	07/02/19	MH	SW8260C
Ethylbenzene	4700	250	ug/L	250	07/02/19	MH	SW8260C
Isopropylbenzene	140	20	ug/L	20	07/02/19	MH	SW8260C
m&p-Xylene	18000	1000	ug/L	1000	07/02/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	54	20	ug/L	20	07/02/19	MH	SW8260C
Naphthalene	870	250	ug/L	250	07/02/19	MH	SW8260C
o-Xylene	3900	250	ug/L	250	07/02/19	MH	SW8260C
Toluene	4700	250	ug/L	250	07/02/19	MH	SW8260C
Xylenes (Total)	21900	250	ug/L	250	07/02/19	MH	SW8260C
<b>QA/QC Surrogates</b>							
% 1,2-dichlorobenzene-d4 (20x)	96		%	20	07/02/19	MH	70 - 130 %
% Bromofluorobenzene (20x)	98		%	20	07/02/19	MH	70 - 130 %
% Dibromofluoromethane (20x)	114		%	20	07/02/19	MH	70 - 130 %
% Toluene-d8 (20x)	95		%	20	07/02/19	MH	70 - 130 %
% 1,2-dichlorobenzene-d4 (100x)	97		%	100	07/01/19	MH	70 - 130 %
% Bromofluorobenzene (100x)	97		%	100	07/01/19	MH	70 - 130 %
% Dibromofluoromethane (100x)	116		%	100	07/01/19	MH	70 - 130 %
% Toluene-d8 (100x)	94		%	100	07/01/19	MH	70 - 130 %
% 1,2-dichlorobenzene-d4 (250x)	99		%	250	07/02/19	MH	70 - 130 %
% Bromofluorobenzene (250x)	97		%	250	07/02/19	MH	70 - 130 %
% Dibromofluoromethane (250x)	116		%	250	07/02/19	MH	70 - 130 %
% Toluene-d8 (250x)	95		%	250	07/02/19	MH	70 - 130 %
% 1,2-dichlorobenzene-d4 (1000x)	95		%	1000	07/02/19	MH	70 - 130 %
% Bromofluorobenzene (1000x)	96		%	1000	07/02/19	MH	70 - 130 %



Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Dibromofluoromethane (1000x)	111		%	1000	07/02/19	MH	70 - 130 %
% Toluene-d8 (1000x)	93		%	1000	07/02/19	MH	70 - 130 %

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL

BRL=Below Reporting Level L=Biased Low

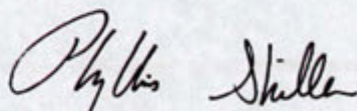
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

#### Comments:

##### Volatile Comment:

Elevated reporting limits for volatiles due to the presence of target and/or non-target compounds.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.  
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

July 03, 2019

Reviewed and Released by: Greg Lawrence, Assistant Lab Director





Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## Analysis Report

July 03, 2019

FOR: Attn: Dave Siekkinen  
Compliance Env Services Inc  
2700 Kirila Drive  
Hermitage, PA 16148

### Sample Information

Matrix: GROUND WATER  
Location Code: COMPENV-PA  
Rush Request: Standard  
P.O.#:

### Custody Information

Collected by: DS  
Received by: LB  
Analyzed by: see "By" below

### Date

06/25/19  
06/27/19

### Time

13:30  
11:13

## Laboratory Data

SDG ID: GCD45900  
Phoenix ID: CD45922

Project ID: SHENANGO TOWNSHIP  
Client ID: RW-2

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<b><u>Volatiles (Unleaded Gasoline)</u></b>							
1,2,4-Trimethylbenzene	120	10	ug/L	10	07/02/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	07/02/19	MH	SW8260C
Benzene	110	10	ug/L	10	07/02/19	MH	SW8260C
Ethylbenzene	50	10	ug/L	10	07/02/19	MH	SW8260C
Isopropylbenzene	4.7	1.0	ug/L	1	07/02/19	MH	SW8260C
m&p-Xylene	39	1.0	ug/L	1	07/02/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	ND	1.0	ug/L	1	07/02/19	MH	SW8260C
Naphthalene	6.2	1.0	ug/L	1	07/02/19	MH	SW8260C
o-Xylene	5.7	1.0	ug/L	1	07/02/19	MH	SW8260C
Toluene	6.3	1.0	ug/L	1	07/02/19	MH	SW8260C
Xylenes (Total)	44.7	1.0	ug/L	1	07/02/19	MH	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	95		%	1	07/02/19	MH	70 - 130 %
% Bromofluorobenzene	97		%	1	07/02/19	MH	70 - 130 %
% Dibromofluoromethane	107		%	1	07/02/19	MH	70 - 130 %
% Toluene-d8	99		%	1	07/02/19	MH	70 - 130 %
% 1,2-dichlorobenzene-d4 (10x)	100		%	10	07/02/19	MH	70 - 130 %
% Bromofluorobenzene (10x)	96		%	10	07/02/19	MH	70 - 130 %
% Dibromofluoromethane (10x)	102		%	10	07/02/19	MH	70 - 130 %
% Toluene-d8 (10x)	93		%	10	07/02/19	MH	70 - 130 %



Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
-----------	--------	------------	-------	----------	-----------	----	-----------

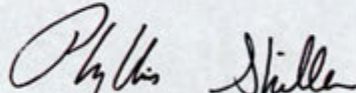
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL

BRL=Below Reporting Level L=Biased Low

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.  
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

July 03, 2019

Reviewed and Released by: Greg Lawrence, Assistant Lab Director





Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## Analysis Report

July 03, 2019

FOR: Attn: Dave Siekkinen  
Compliance Env Services Inc  
2700 Kirila Drive  
Hermitage, PA 16148

### Sample Information

Matrix: GROUND WATER  
Location Code: COMPENV-PA  
Rush Request: Standard  
P.O.#:

### Custody Information

Collected by: DS  
Received by: LB  
Analyzed by: see "By" below

### Date

06/25/19  
06/27/19

### Time

14:00  
11:13

## Laboratory Data

SDG ID: GCD45900  
Phoenix ID: CD45923

Project ID: SHENANGO TOWNSHIP  
Client ID: RW-3

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<b><u>Volatiles (Unleaded Gasoline)</u></b>							
1,2,4-Trimethylbenzene	4.5	1.0	ug/L	1	07/02/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	07/02/19	MH	SW8260C
Benzene	23	1.0	ug/L	1	07/02/19	MH	SW8260C
Ethylbenzene	4.5	1.0	ug/L	1	07/02/19	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	07/02/19	MH	SW8260C
m&p-Xylene	9.0	1.0	ug/L	1	07/02/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	ND	1.0	ug/L	1	07/02/19	MH	SW8260C
Naphthalene	1.3	1.0	ug/L	1	07/02/19	MH	SW8260C
o-Xylene	4.0	1.0	ug/L	1	07/02/19	MH	SW8260C
Toluene	4.8	1.0	ug/L	1	07/02/19	MH	SW8260C
Xylenes (Total)	13.0	1.0	ug/L	1	07/02/19	MH	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	96		%	1	07/02/19	MH	70 - 130 %
% Bromofluorobenzene	95		%	1	07/02/19	MH	70 - 130 %
% Dibromofluoromethane	103		%	1	07/02/19	MH	70 - 130 %
% Toluene-d8	93		%	1	07/02/19	MH	70 - 130 %



Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
-----------	--------	------------	-------	----------	-----------	----	-----------

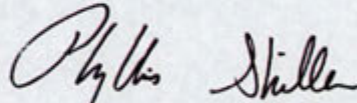
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL

BRL=Below Reporting Level L=Biased Low

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.  
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

July 03, 2019

Reviewed and Released by: Greg Lawrence, Assistant Lab Director





Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## Analysis Report

July 03, 2019

FOR: Attn: Dave Siekkinen  
Compliance Env Services Inc  
2700 Kirila Drive  
Hermitage, PA 16148

### Sample Information

Matrix: GROUND WATER  
Location Code: COMPENV-PA  
Rush Request: Standard  
P.O.#:

### Custody Information

Collected by: DS  
Received by: LB  
Analyzed by: see "By" below

<u>Date</u>	<u>Time</u>
06/25/19	12:25
06/27/19	11:13

## Laboratory Data

SDG ID: GCD45900  
Phoenix ID: CD45924

Project ID: SHENANGO TOWNSHIP  
Client ID: WATER WELL

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<b><u>Volatiles (Unleaded Gasoline)</u></b>							
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	07/02/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	07/02/19	MH	SW8260C
Benzene	ND	1.0	ug/L	1	07/02/19	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	07/02/19	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	07/02/19	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	07/02/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	ND	1.0	ug/L	1	07/02/19	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	07/02/19	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	07/02/19	MH	SW8260C
Toluene	ND	1.0	ug/L	1	07/02/19	MH	SW8260C
Xylenes (Total)	ND	1.0	ug/L	1	07/02/19	MH	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	97		%	1	07/02/19	MH	70 - 130 %
% Bromofluorobenzene	97		%	1	07/02/19	MH	70 - 130 %
% Dibromofluoromethane	95		%	1	07/02/19	MH	70 - 130 %
% Toluene-d8	91		%	1	07/02/19	MH	70 - 130 %



Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
-----------	--------	------------	-------	----------	-----------	----	-----------

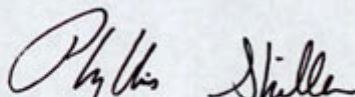
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL

BRL=Below Reporting Level L=Biased Low

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.  
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

July 03, 2019

Reviewed and Released by: Greg Lawrence, Assistant Lab Director





Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## Analysis Report

July 03, 2019

FOR: Attn: Dave Siekkinen  
Compliance Env Services Inc  
2700 Kirila Drive  
Hermitage, PA 16148

### Sample Information

Matrix: GROUND WATER  
Location Code: COMPENV-PA  
Rush Request: Standard  
P.O.#:

### Custody Information

Collected by: DS  
Received by: LB  
Analyzed by: see "By" below

### Date

06/25/19  
06/27/19

### Time

15:01  
11:13

## Laboratory Data

SDG ID: GCD45900  
Phoenix ID: CD45925

Project ID: SHENANGO TOWNSHIP  
Client ID: DISCHARGE

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<b><u>Volatiles (Unleaded Gasoline)</u></b>							
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	07/01/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	07/01/19	MH	SW8260C
Benzene	ND	1.0	ug/L	1	07/01/19	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	07/01/19	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	07/01/19	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	07/01/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	ND	1.0	ug/L	1	07/01/19	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	07/01/19	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	07/01/19	MH	SW8260C
Toluene	ND	1.0	ug/L	1	07/01/19	MH	SW8260C
Xylenes (Total)	ND	1.0	ug/L	1	07/01/19	MH	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	96		%	1	07/01/19	MH	70 - 130 %
% Bromofluorobenzene	96		%	1	07/01/19	MH	70 - 130 %
% Dibromofluoromethane	102		%	1	07/01/19	MH	70 - 130 %
% Toluene-d8	89		%	1	07/01/19	MH	70 - 130 %

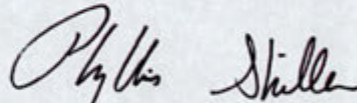


Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
-----------	--------	------------	-------	----------	-----------	----	-----------

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL  
BRL=Below Reporting Level L=Biased Low  
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.  
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

July 03, 2019

Reviewed and Released by: Greg Lawrence, Assistant Lab Director





Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## Analysis Report

July 03, 2019

FOR: Attn: Dave Siekkinen  
Compliance Env Services Inc  
2700 Kirila Drive  
Hermitage, PA 16148

### Sample Information

Matrix: GROUND WATER  
Location Code: COMPENV-PA  
Rush Request: Standard  
P.O.#:

### Custody Information

Collected by: DS  
Received by: LB  
Analyzed by: see "By" below

<u>Date</u>	<u>Time</u>
06/25/19	15:05
06/27/19	11:13

### Laboratory Data

SDG ID: GCD45900  
Phoenix ID: CD45926

Project ID: SHENANGO TOWNSHIP  
Client ID: RAW WATER

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<b><u>Volatiles (Unleaded Gasoline)</u></b>							
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	07/01/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	07/01/19	MH	SW8260C
Benzene	ND	1.0	ug/L	1	07/01/19	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	07/01/19	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	07/01/19	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	07/01/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	3.3	1.0	ug/L	1	07/01/19	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	07/01/19	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	07/01/19	MH	SW8260C
Toluene	ND	1.0	ug/L	1	07/01/19	MH	SW8260C
Xylenes (Total)	ND	1.0	ug/L	1	07/01/19	MH	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	97		%	1	07/01/19	MH	70 - 130 %
% Bromofluorobenzene	97		%	1	07/01/19	MH	70 - 130 %
% Dibromofluoromethane	96		%	1	07/01/19	MH	70 - 130 %
% Toluene-d8	90		%	1	07/01/19	MH	70 - 130 %



Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
-----------	--------	------------	-------	----------	-----------	----	-----------

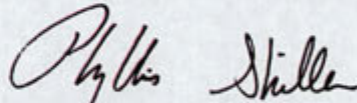
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL

BRL=Below Reporting Level L=Biased Low

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.  
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

July 03, 2019

Reviewed and Released by: Greg Lawrence, Assistant Lab Director





Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## Analysis Report

July 03, 2019

FOR: Attn: Dave Siekkinen  
Compliance Env Services Inc  
2700 Kirila Drive  
Hermitage, PA 16148

### Sample Information

Matrix: GROUND WATER  
Location Code: COMPENV-PA  
Rush Request: Standard  
P.O.#:

### Custody Information

Collected by: DS  
Received by: LB  
Analyzed by: see "By" below

### Date

06/25/19  
06/27/19

### Time

11:13

## Laboratory Data

SDG ID: GCD45900  
Phoenix ID: CD45927

Project ID: SHENANGO TOWNSHIP  
Client ID: TRIP BLANK

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<b><u>Volatiles (Unleaded Gasoline)</u></b>							
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Benzene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Toluene	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
Xylenes (Total)	ND	1.0	ug/L	1	06/29/19	MH	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	93		%	1	06/29/19	MH	70 - 130 %
% Bromofluorobenzene	93		%	1	06/29/19	MH	70 - 130 %
% Dibromofluoromethane	95		%	1	06/29/19	MH	70 - 130 %
% Toluene-d8	90		%	1	06/29/19	MH	70 - 130 %



Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
-----------	--------	------------	-------	----------	-----------	----	-----------

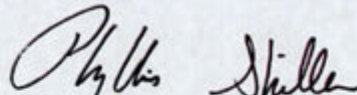
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL

BRL=Below Reporting Level L=Biased Low

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.  
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

July 03, 2019

Reviewed and Released by: Greg Lawrence, Assistant Lab Director





Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## QA/QC Report

July 03, 2019

### QA/QC Data

SDG I.D.: GCD45900

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
-----------	-------	-----------	----------	-----------	------------	---------	----------	-----------	--------------------	--------------------

QA/QC Batch 485797 (ug/L), QC Sample No: CD42434 (CD45900, CD45901, CD45902 (20X), CD45903 (20X), CD45904, CD45905, CD45906, CD45907, CD45908, CD45909, CD45910, CD45912, CD45927)

#### Volatiles - Ground Water

1,2,4-Trimethylbenzene	ND	1.0	103	99	4.0	100	101	1.0	70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	103	98	5.0	101	102	1.0	70 - 130	30
Benzene	ND	0.70	106	98	7.8	113	113	0.0	70 - 130	30
Ethylbenzene	ND	1.0	101	97	4.0	106	107	0.9	70 - 130	30
Isopropylbenzene	ND	1.0	101	99	2.0	109	110	0.9	70 - 130	30
m&p-Xylene	ND	1.0	101	97	4.0	103	105	1.9	70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	121	109	10.4	104	99	4.9	70 - 130	30
Naphthalene	ND	1.0	119	108	9.7	107	106	0.9	70 - 130	30
o-Xylene	ND	1.0	104	100	3.9	106	106	0.0	70 - 130	30
Toluene	ND	1.0	106	100	5.8	107	108	0.9	70 - 130	30
% 1,2-dichlorobenzene-d4	96	%	104	101	2.9	102	99	3.0	70 - 130	30
% Bromofluorobenzene	99	%	102	101	1.0	100	99	1.0	70 - 130	30
% Dibromofluoromethane	101	%	105	101	3.9	98	100	2.0	70 - 130	30
% Toluene-d8	91	%	101	100	1.0	100	100	0.0	70 - 130	30

Comment:

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%, 25-160% for Chloroethane-HL and Trichlorofluoromethane-HL.

QA/QC Batch 486237 (ug/L), QC Sample No: CD45924 (CD45902 (1000X), CD45903 (1000X), CD45921 (250X, 1000X), CD45924)

#### Volatiles - Ground Water

1,2,4-Trimethylbenzene	ND	1.0	101	99	2.0				70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	99	98	1.0				70 - 130	30
Benzene	ND	0.70	99	95	4.1				70 - 130	30
Ethylbenzene	ND	1.0	103	99	4.0				70 - 130	30
Isopropylbenzene	ND	1.0	103	100	3.0				70 - 130	30
m&p-Xylene	ND	1.0	100	97	3.0				70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	98	96	2.1				70 - 130	30
Naphthalene	ND	1.0	89	92	3.3				70 - 130	30
o-Xylene	ND	1.0	104	100	3.9				70 - 130	30
Toluene	ND	1.0	103	98	5.0				70 - 130	30
% 1,2-dichlorobenzene-d4	94	%	99	100	1.0				70 - 130	30
% Bromofluorobenzene	98	%	98	98	0.0				70 - 130	30
% Dibromofluoromethane	103	%	93	96	3.2				70 - 130	30
% Toluene-d8	90	%	99	100	1.0				70 - 130	30

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%, 25-160% for Chloroethane-HL and Trichlorofluoromethane-HL.



# QA/QC Data

SDG I.D.: GCD45900

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
-----------	-------	-----------	----------	-----------	------------	---------	----------	-----------	--------------------	--------------------

QA/QC Batch 485851 (ug/L), QC Sample No: CD47137 (CD45913, CD45914, CD45915, CD45916, CD45917, CD45918, CD45919, CD45920, CD45925, CD45926)

## Volatiles - Ground Water

1,2,4-Trimethylbenzene	ND	1.0	91	92	1.1				70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	90	92	2.2				70 - 130	30
Benzene	ND	0.70	92	96	4.3				70 - 130	30
Ethylbenzene	ND	1.0	90	93	3.3				70 - 130	30
Isopropylbenzene	ND	1.0	91	93	2.2				70 - 130	30
m&p-Xylene	ND	1.0	89	92	3.3				70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	96	108	11.8				70 - 130	30
Naphthalene	ND	1.0	113	126	10.9				70 - 130	30
o-Xylene	ND	1.0	92	94	2.2				70 - 130	30
Toluene	ND	1.0	91	96	5.3				70 - 130	30
% 1,2-dichlorobenzene-d4	97	%	100	103	3.0				70 - 130	30
% Bromofluorobenzene	99	%	98	100	2.0				70 - 130	30
% Dibromofluoromethane	105	%	94	95	1.1				70 - 130	30
% Toluene-d8	90	%	99	101	2.0				70 - 130	30

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%, 25-160% for Chloroethane-HL and Trichlorofluoromethane-HL.

QA/QC Batch 486075 (ug/L), QC Sample No: CD48526 (CD45902 (200X), CD45903 (200X), CD45911, CD45912 (5X), CD45914 (10X), CD45918 (5X), CD45921 (20X, 100X), CD45922 (1X, 10X), CD45923)

## Volatiles - Ground Water

1,2,4-Trimethylbenzene	ND	1.0	100	97	3.0				70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	99	97	2.0				70 - 130	30
Benzene	ND	0.70	101	99	2.0				70 - 130	30
Ethylbenzene	ND	1.0	105	101	3.9				70 - 130	30
Isopropylbenzene	ND	1.0	100	101	1.0				70 - 130	30
m&p-Xylene	ND	1.0	102	99	3.0				70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	107	107	0.0				70 - 130	30
Naphthalene	ND	1.0	109	113	3.6				70 - 130	30
o-Xylene	ND	1.0	107	104	2.8				70 - 130	30
Toluene	ND	1.0	104	103	1.0				70 - 130	30
% 1,2-dichlorobenzene-d4	96	%	102	102	0.0				70 - 130	30
% Bromofluorobenzene	96	%	102	102	0.0				70 - 130	30
% Dibromofluoromethane	100	%	100	102	2.0				70 - 130	30
% Toluene-d8	90	%	99	99	0.0				70 - 130	30

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%, 25-160% for Chloroethane-HL and Trichlorofluoromethane-HL.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

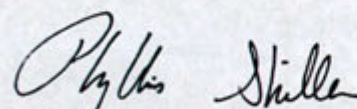
LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference



Phyllis Shiller, Laboratory Director

July 03, 2019



Wednesday, July 03, 2019

Criteria: None

State: PA

## Sample Criteria Exceedances Report

GCD45900 - COMPENV-PA

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL	Analysis Units
--------	-------	-----------------	----------	--------	----	----------	----	----------------

\*\*\* No Data to Display \*\*\*

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedances. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedance information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

8/5/2019 2:58:23 PM





**Environmental Laboratories, Inc.**  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## Analysis Comments

July 03, 2019

SDG I.D.: GCD45900

---

The following analysis comments are made regarding exceptions to criteria not already noted in the Analysis Report or QA/QC Report: None.







☐ Other \_\_\_\_\_ \* SURCHARGE \_\_\_\_\_

QUOTE #

**THIS SECTION MUST BE COMPLETED WITH**

**This section MUST be completed with Bottle Quantities.**

Analysis Request

Analysis Request



11000ml  
H2504

☐ Other \_\_\_\_\_ \* SURCHARGE \_\_\_\_\_

8/5/2019 2:58:27 PM

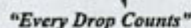






**ATTACHMENT 2**  
2<sup>nd</sup> Quarter Waste Manifests





1000 Andrews Ave.  
Youngstown, Ohio 44505

Fax: (330) 746-8175 [www.esrecycling.com](http://www.esrecycling.com)



19037

Preprint

Name Shoens & Township Municipal

Address 3479 Hullabal-Middlesex Rd

City/State/Zip Westbury, NY 11591

Phone 714-381-4532

U.S.E.P.A. ID#

Name Constance E. Evans

Address \_\_\_\_\_

City/State/Zip \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

P.O. Number \_\_\_\_\_

Sales Rep. ID D.A.A. Pick-up Date 5-29-19

1. DS (Initials) I certify that our used oil has not been mixed with listed hazardous waste as specified in 40 CFR part 261 and that it contains  $\leq$  1000 ppm total Halogens and no amount of PCBs.  
This certification is based on ✓ Generator Knowledge        Analysis        Generator Status CESQG ☐ SQG ☐ LQG ☐  
Note: Used oil containing > 1000 ppm total Halogens must have a successful rebuttal on file and attached to this service document before collecting.

**Transporter:** Environmental Specialists, Inc., OHD000816868, Phone (888) 331-3443  
**Destination Facility:** Environmental Specialists, Inc., 1101 Andrews Avenue, Youngstown, Ohio 44505  
 OHD000816868, Phone (330) 746-8174, 24 Hour Emergency Response Phone (800) 633-8253.

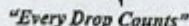
Charge to my account the amount shown for this transaction unless payment is noted by the payment received. All invoices not paid within 30 days will be subject to an interest rate of 1-1/2% per month. (18% per annum) on unpaid invoices. In the event of default, Environmental Specialist, Inc. Shall be entitled to recover the cost of collection and reasonable attorney's fee. I certify that the materials described in the "Bill of Lading" section and/or the accompanying manifest have been properly classified, packaged and labeled according to all local, State and Federal regulations. I further agree to the terms and conditions on the reverse side.

Print Name \_\_\_\_\_

**Customer Signature**

8/5/2019 2:58:29 PM GOL01-082103





1000 Andrews Ave.  
Youngstown, Ohio 44505

Phone: (330) 746-8174 / Toll Free (888) 331-3443  
Fax: (330) 746-8175 [www.esrecycling.com](http://www.esrecycling.com)



240265

CJ 6/5/2019

Name SHENANGO TWP BLDG- COMPLIANCE

Address 3439 HUBBARD-MIDDLESEX ROAD

City/State/Zip WEST MIDDLESEX / PA / 16150

Phone 724-342-1990

U.S.E.P.A. ID# CESQG

Name COMPLIANCE ENVI SERVICE

Address 2700 KRILA BLVD

City/State/Zip HERMITAGE / PA / 16142

P.O. Number

Sales Rep. ID AK Pick-up Date 6-5-10

Total Payment Due	Payment Received	Applied To

☐ Cash    ☐ Check No.

DO NOT PAY FROM THIS DOCUMENT  
INVOICE TO FOLLOW

Amount:

1. JD (initials) I certify that our used oil has not been mixed with listed hazardous waste as specified in 40 CFR part 261 and that it contains  $\leq 1000$  ppm total Halogens and no amount of PCBs.

This certification is based on ✓ Generator Knowledge          Analysis Generator Status CESQG ☐ SQG ☐ LQG ☐

Note: Used oil containing > 1000 ppm total Halogens must have a successful rebuttal on file and attached to this service document before collecting.

### Non Hazardous Waste Information and/or Bill of Lading

**Transporter:** Environmental Specialists, Inc., OHD000816868, Phone (888) 331-3443

**Destination Facility:** Environmental Specialists, Inc., 1101 Andrews Avenue, Youngstown, Ohio 44505

OHD000816868, Phone (330) 746-8174, 24 Hour Emergency Response Phone (800) 633-8253.

Charge to my account the amount shown for this transaction unless payment is noted by the payment received. All invoices not paid within 30 days will be subject to an interest rate of 1-1/2% per month. (18% per annum) on unpaid invoices. In the event of default, Environmental Specialist, Inc. Shall be entitled to recover the cost of collection and reasonable attorney's fee. I certify that the materials described in the "Bill of Lading" section and/or the accompanying manifest have been properly classified, packaged and labeled according to all local, State and Federal regulations. I further agree to the terms and conditions on the reverse side.

\* DAN Rupert

*Adrian R. R. R.*

8/5/2019 2:58:30 PM



8/5/2019 2:58:31 PM