

REMEDIAL ACTION PROGRESS REPORT

1st 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

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3439 Hubbard- West Middlesex Road
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REMEDIAL ACTION PROGRESS REPORT, 1st QUARTER 2019
SHENANGO TOWNSHIP MUNICIPAL BUILDING
PA FACILITY I.D. - 43-04177
PAUSTIF CLAIM NO. – 2016-008

INTRODUCTION

Compliance Environmental Services (“CES”) is pleased to submit this Remedial Action Progress Report (“RAPR”) for the First 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 this location 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”.

December 7, 2015 – The Notification of Reportable Release was submitted to PADEP, estimated that 30 gallons of product were released.

2016 – CES began Site Characterization activities.

May 18-19, 2016 – CES collected the first round of soil samples and 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 were installed.

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

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

September 13, 2016 – CES collected the second round of soil samples and 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 were installed.

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

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

December 22, 2016 – SCR submitted to PADEP.

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

February 7, 2017 – CES collected the third round of soil samples and 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 were installed.

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

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

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

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

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

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

July 5-11, 2017 – Soil removal remedial action performed at the Site. RW-2 & RW-3 installed during backfilling. 558.93 tons of contaminated soil and 1,900 gallons of impacted groundwater removed.

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

September 5 & 6, 2017 – 3,800 gallons of water removed from RW-3 with vacuum trucks.

September 22, 2017 – Point of Entry water treatment system installed at offsite property.

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

December 5, 2017 – 3,500 gallons of water 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 Combined RAPR-Proposed Revised RAP.

February 7, 2019 – Water wells at two neighboring properties 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. Township Water Well and offsite water well were also sampled.

SITE DESCRIPTION

Shenango Township utilizes 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, 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 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 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 is anticipated 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 down-gradient from the former unleaded gasoline UST.

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. 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.

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 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.

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). 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

- February 7, 2019 – Water samples from neighboring properties located at 3430 and 3429 Hubbard-Middlesex Road were sampled and tested.
- February 18 and 19, 2019 – Monitoring wells 27, 28, and 29 were installed.

- March 15 and 18, 2019 – Monitoring wells were gauged and sampled. Slight SPL detected at MW-3 (<0.01 feet).
- The Township water well and the off-site water well (“3706 Hubbard-West Middlesex Road”) were sampled on March 15, 2019. Analytical results are provided in **TABLE 1**. Only low level MTBE was detected and only at the off-site well.

SOIL BORING AND MONITORING WELL INSTALLATION

One additional overburden and two bedrock monitoring wells were installed at the Site in order to further delineate groundwater contamination, as requested by PAUSTIF. MW-27 is located approximately 20 feet south of the former gasoline UST cavity. MW-28 is located approximately 80 feet west-northwest of the former gasoline UST cavity. MW-29 is located immediately adjacent to the north of MW-11, approximately 220 feet north of the former gasoline UST cavity in the northeast portion of the Township property. The locations of the monitoring wells are illustrated on **FIGURE 4**.

These three additional monitoring wells (MW-27, MW-28, and MW-29) were drilled and constructed on February 18 and 19, 2019. A soil sample was collected from the MW-27 boring from the 5-5.5 foot bgl interval and from the MW-28 boring from the 3-5.5 foot bgl interval. A sample was not collected from the MW-29 boring since it is located directly adjacent to MW-11 which was sampled on September 4, 2016. The soil analytical report is included in **ATTACHMENT 1** and the results are summarized in **TABLE 2**. None of the tested parameters were above laboratory detection limits.

PUMPING TEST OF TOWNSHIP WATER WELL

On March 24, 2017, a pumping test was performed of the Township Water Well to determine if there is any influence of from the water well to the monitoring well network. **ATTACHMENT 2** contains tabulated and graphical data from this pumping test.

A slight influence was observed in MW-18 and MW-23. None of the other monitoring wells which were gauged displayed any influence.

MW-18 is a bedrock well located approximately 25 feet south of the water well on the west side of the township building. It has a total depth of 25 feet and is screened entirely in bedrock from 20 to 25 feet.

MW-23 is a bedrock well located approximately 25 feet north of the diesel tank UST on the east side of the township garage. It has a total depth of 25.5 feet and is screened entirely in bedrock from 20.5 to 25.5 feet.

Both of these affected monitoring wells showed an approximate half foot change in water levels through the four hour pumping test. A slight rebound in water levels occurred following the end of pumping.

Groundwater samples from both MW-18 and MW-23 consistently have MTBE in them (8.7 µg/L and 110 µg/L respectively). Of the 24 water samples tested from the Township Water Well, only 1 sample has shown a detection of any of the tested parameters (MTBE of 1.13 µg/L on March 24, 2017).

A slight influence was shown between the pumping of the Township Water Well and two of the bedrock monitoring wells. With the regular testing of water from the Township Water Well, it has been shown that there hasn't been mixing of the impacted groundwater and the aquifer that is being utilized by the Township Building. CES recommends continuing the regular testing of water from the Township Water well to verify that this remains true.

GROUNDWATER SAMPLING, TESTING AND FLOW

On March 15 and March 18, 2019, a groundwater sampling event for the First 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 March 15, 2019. **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 March 15, 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. This is the first time that groundwater flow to the southeast has been observed in this limited area. 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 on 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 24 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 has been sampled approximately once per month from February 2017 through December 2018. Quarterly sampling of the Township Water Well began during the first quarter of 2019 (rather than monthly).

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 the sampling of water wells at two neighboring properties (3430 and 3429 Hubbard-Middlesex Road); the March 15, 2019 quarterly groundwater sampling event; and the March 15, 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 plumes for the March 15, 2019 groundwater sampling event. The outermost isoconcentration line corresponds with the Used Aquifer, Residential SHS for the corresponding constituents of concern. 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**). Four 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-21 (Benzene); RW-1 (Benzene, 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, Toluene, Ethylbenzene, MTBE, Naphthalene and Xylenes (total)), and RW-3 (Benzene, 1,2,4-Trimethylbenzene, and 1,3,5-Trimethylbenzene. 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 since the last vacuum truck event in December 2017 (**FIGURES 7A through 7I**). The MTBE concentration in MW-23 is down for the second consecutive quarter, but it has displayed an upward trend overall after soil removal and the three vacuum truck events were completed. The COC concentrations in the other monitoring points have remained stable or have decreased based on the first 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. This is the area to focus additional remedial actions as proposed in the January 31, 2019 RAPR and Revised Remedial Action Plan. 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.

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 initial soil 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.

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. Upon filling, the drums are being transported from the site for proper treatment and disposal. No waste was transported off-site this quarter.

OFF-SITE WATER WELL

The offsite 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 of whether or not the gasoline release at the Shenango Township Municipal property has affected this offsite well, a point-of-entry treatment (“POET”) system was installed on September 22, 2017 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 March 15, 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 March 15, 2019 sampling of the off-site water well. These offsite water well analytical results are summarized in **TABLE 1**.

A bedrock well, MW-25, was installed during the First Quarter of 2018 at the request of PADEP. MTBE was previously detected in the samples collected on 6/8/2018 (1.2 µg/L) and 9/5/18 (1.2 µg/L). This well has been sampled five times as of the date of this report, with MTBE detected in three of those samples. MW-25 is located directly between the former gasoline UST location and the offsite well. MTBE was detected in the March 15, 2019 groundwater sample (1.1 µg/L).

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.

SEPARATE PHASE LIQUID

Separate phase liquid ("SPL") was 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"), residual contamination from the gasoline UST is being conveyed 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.

The volume of SPL generated during the purging of the monitoring well on March 18, 2019 was ≤ 1 ounce.

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; MTBE each of the ten times sampled). The remaining wells that have had exceedances are shallow wells screened within the glacial till. The water well on the site has been sampled twenty-four times and has not had any detection of COC with the exception of MTBE on March 24, 2017 following a 4 hour pumping test. The 1.13 $\mu\text{g/L}$ result for MTBE is well below the SHS. This well has been on a monthly sampling schedule and 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 (Offsite Water Well) has been sampled twenty 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 will be collected once per quarter beginning in the First Quarter 2019.

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.

The concentrations 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 following the last of the vacuum truck events. 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.

Two new bedrock monitoring wells and one shallow groundwater monitoring well were installed in February 2019 in order to further delineate the impacted groundwater plume and refine the groundwater flow direction in the bedrock aquifer. Soil samples tested from the new borings showed no detections of the tested parameters. Two rounds of water samples have been collected from the three new monitoring wells. The bedrock wells (MW-28 and MW-29) have had no detections of the tested parameters. The shallow monitoring well (MW-27), located just upgradient from the former gasoline UST, had an exceedance of MTBE in each of the two groundwater samples collected from this well.

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

CES's proposal for additional remedial action that was presented in the 4th Quarter RAPR was disapproved by PADEP in a Revised Remedial Action Plan Disapproval letter dated March 27, 2019. CES's addressing of the four deficiencies listed in PADEP's Disapproval letter is pending USTIF's evaluation of the remedial measures that were proposed.

FIGURES

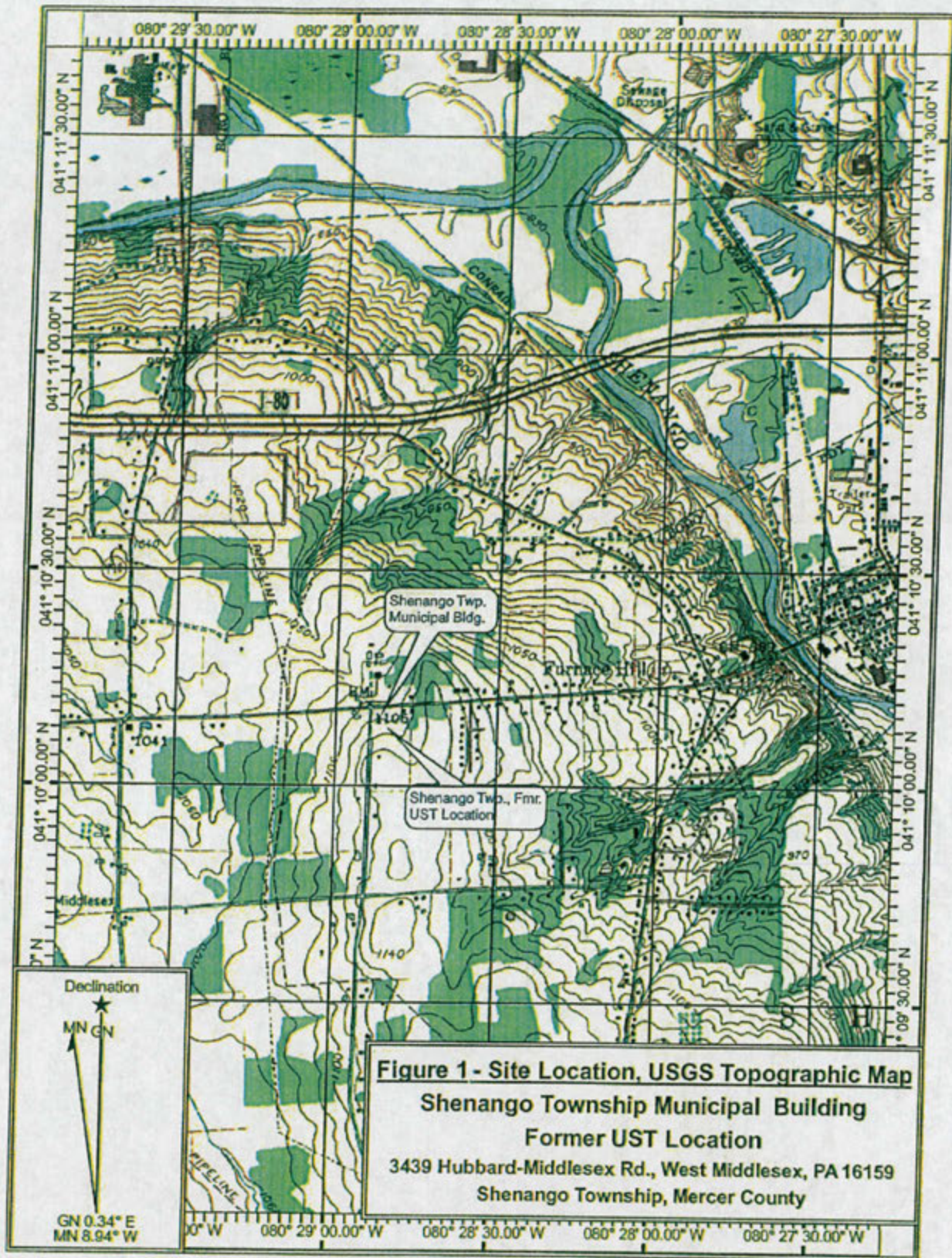


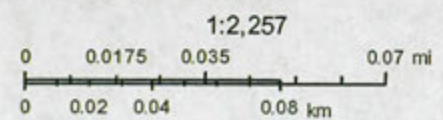
Figure 2 - Shenango Township Parcel Map



October 26, 2017

 Building Footprints 2017

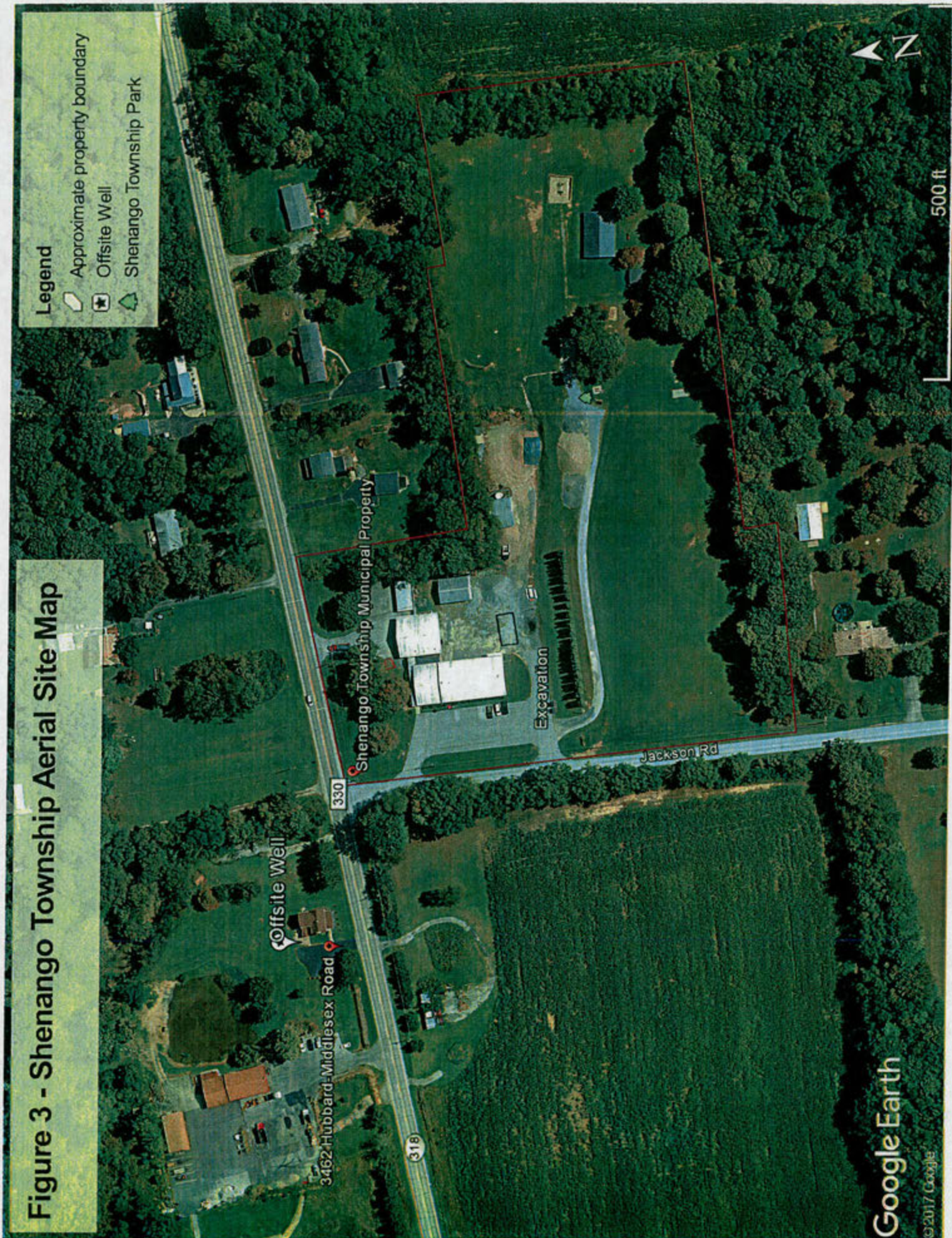
TaxParcels_10_2017



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

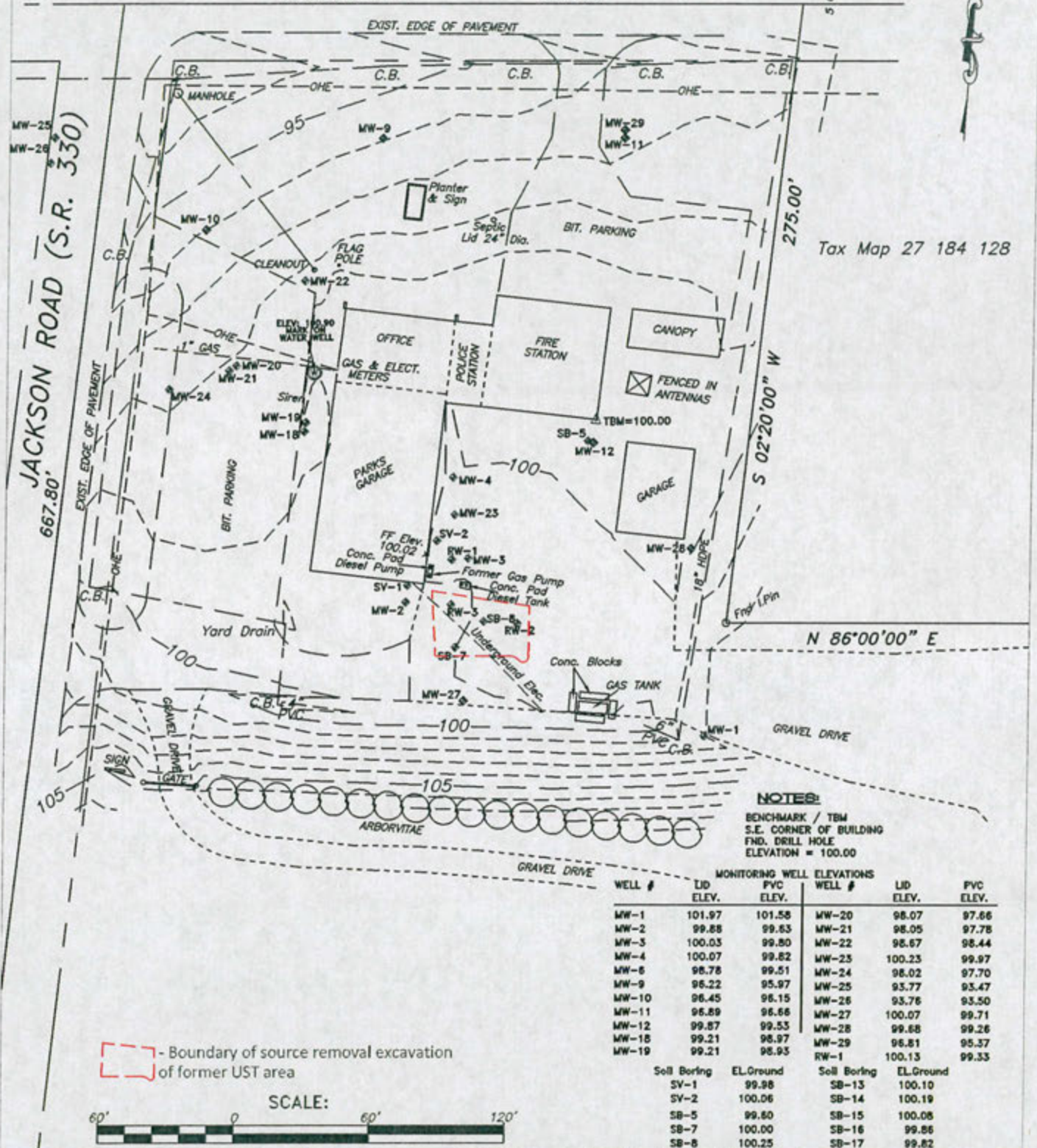
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Figure 3 - Shenango Township Aerial Site Map



HUBBARD / MIDDLESEX ROAD (S.R. 318)

N 86°00'00" E 300.00'



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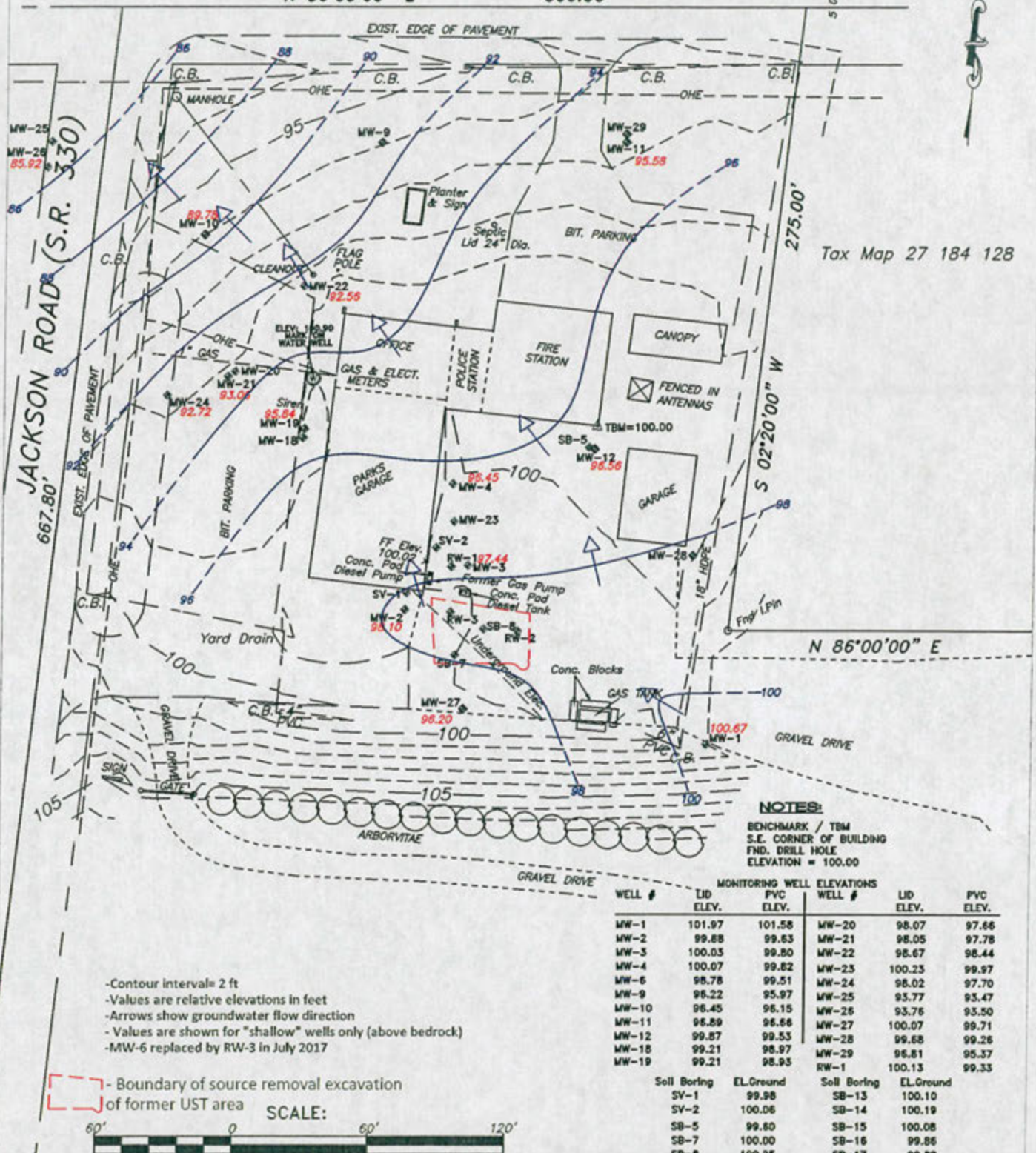
Base Map Provided
By: Henry T. Welka
& Associates
Surveying and
Engineering
(814)833-3000

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

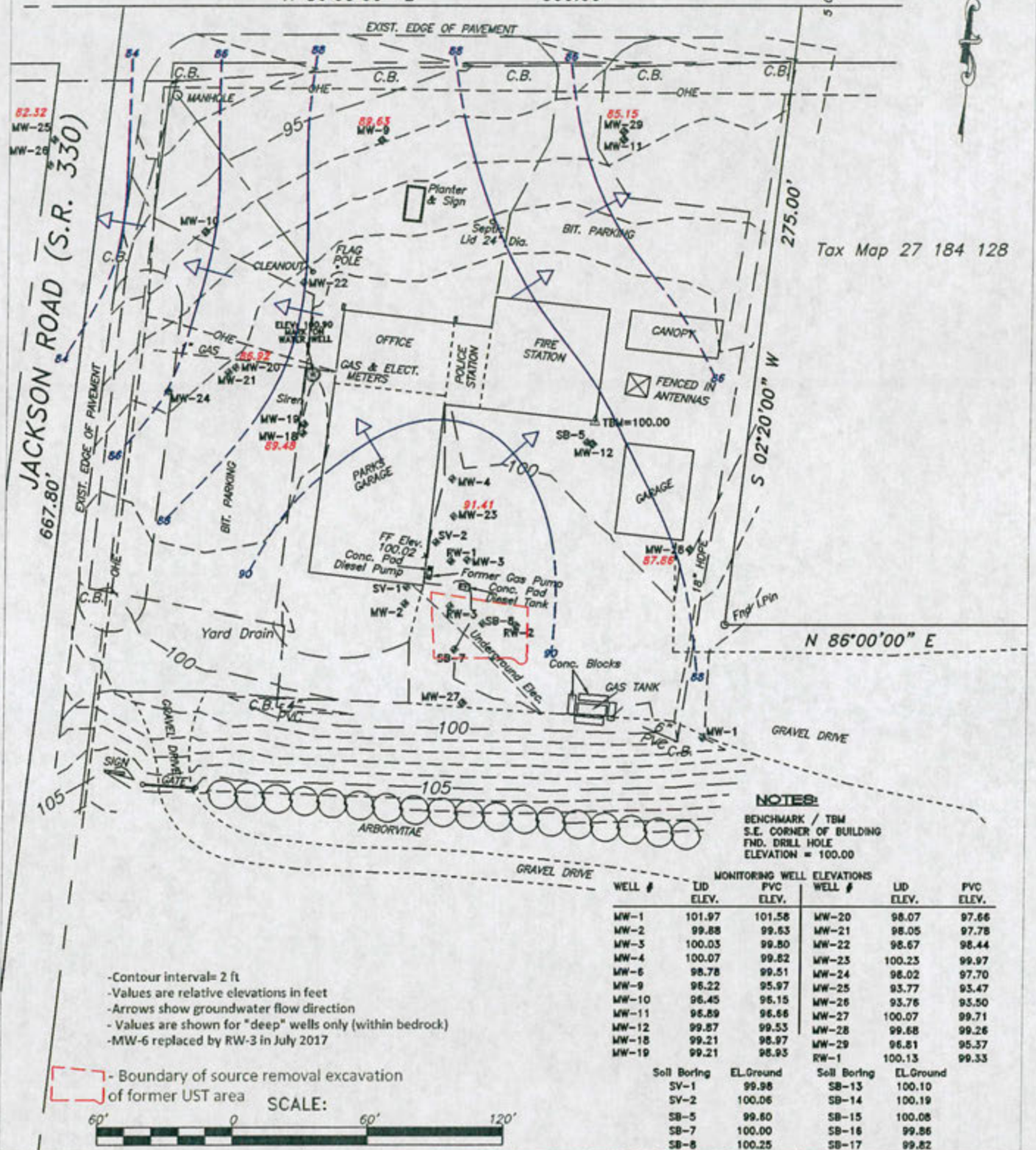
HUBBARD / MIDDLESEX ROAD (S.R. 318)

N 86°00'00" E 300.00'



HUBBARD / MIDDLESEX ROAD (S.R. 318)

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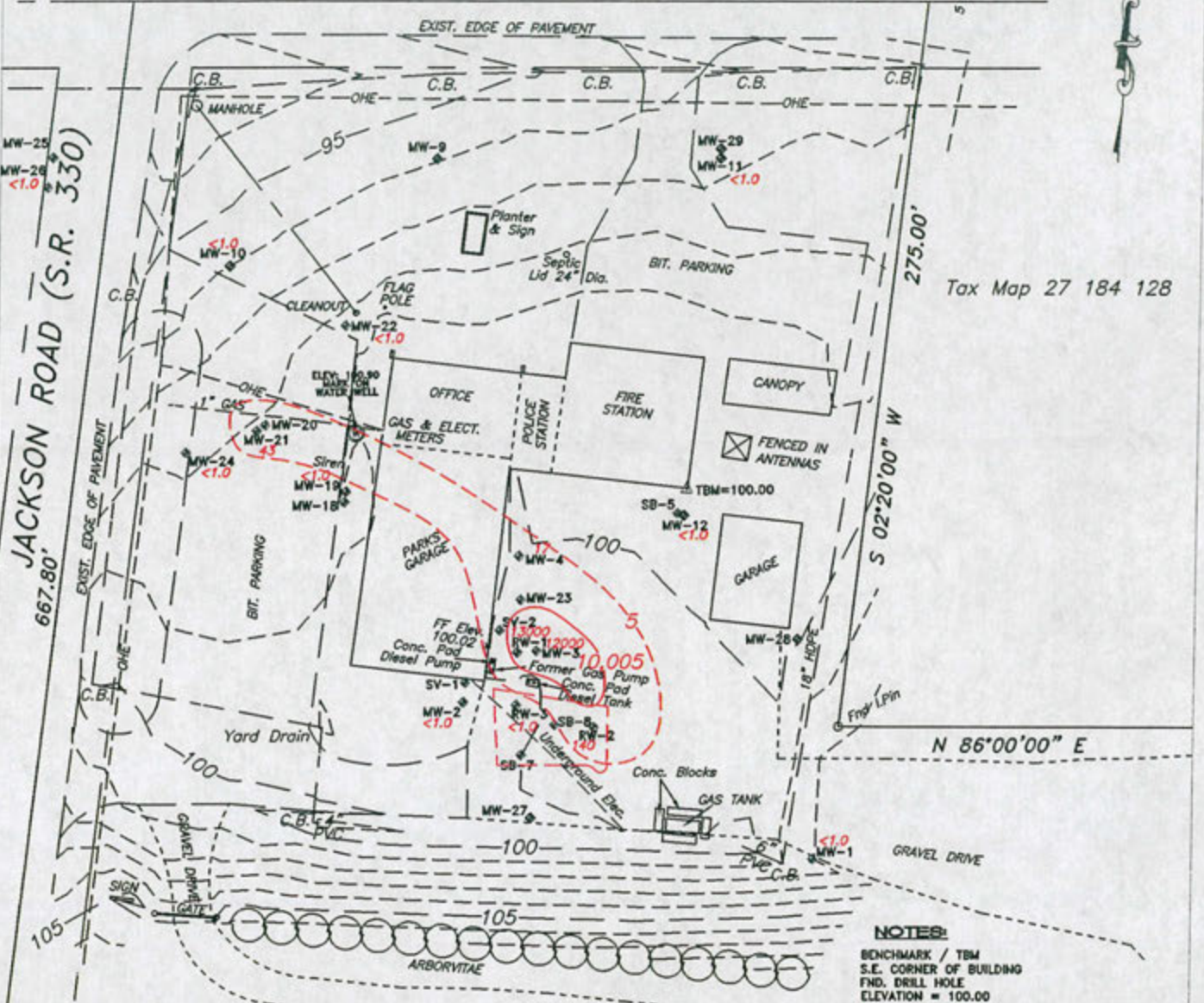
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 9.74 Acres

Figure 5B
 Groundwater Contour Map
 Deep Wells
 March 15, 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 = 10,000 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.	WELL #	LID ELEV.	WELL #	LID ELEV.	WELL #	LID ELEV.
MW-1	101.97	MW-20	98.07	MW-20	98.07	MW-20	98.07
MW-2	99.88	MW-21	98.05	MW-21	98.05	MW-21	98.05
MW-3	100.03	MW-22	98.67	MW-22	98.67	MW-22	98.67
MW-4	100.07	MW-23	100.23	MW-23	100.23	MW-23	100.23
MW-6	98.78	MW-24	98.02	MW-24	98.02	MW-24	98.02
MW-9	98.22	MW-25	93.77	MW-25	93.77	MW-25	93.77
MW-10	96.45	MW-26	93.76	MW-26	93.76	MW-26	93.76
MW-11	96.89	MW-27	100.07	MW-27	100.07	MW-27	100.07
MW-12	99.87	MW-28	99.68	MW-28	99.68	MW-28	99.68
MW-18	99.21	MW-29	98.81	MW-29	98.81	MW-29	98.81
MW-19	99.21	RW-1	100.13	RW-1	100.13	RW-1	100.13
Soil Boring	EL.Ground	Soil Boring	EL.Ground	Soil Boring	EL.Ground	Soil Boring	EL.Ground
SV-1	99.98	SB-13	100.10	SB-13	100.10	SB-13	100.10
SV-2	100.06	SB-14	100.19	SB-14	100.19	SB-14	100.19
SB-5	99.80	SB-15	100.08	SB-15	100.08	SB-15	100.08
SB-7	100.00	SB-16	99.86	SB-16	99.86	SB-16	99.86
SB-8	100.25	SB-17	99.82	SB-17	99.82	SB-17	99.82

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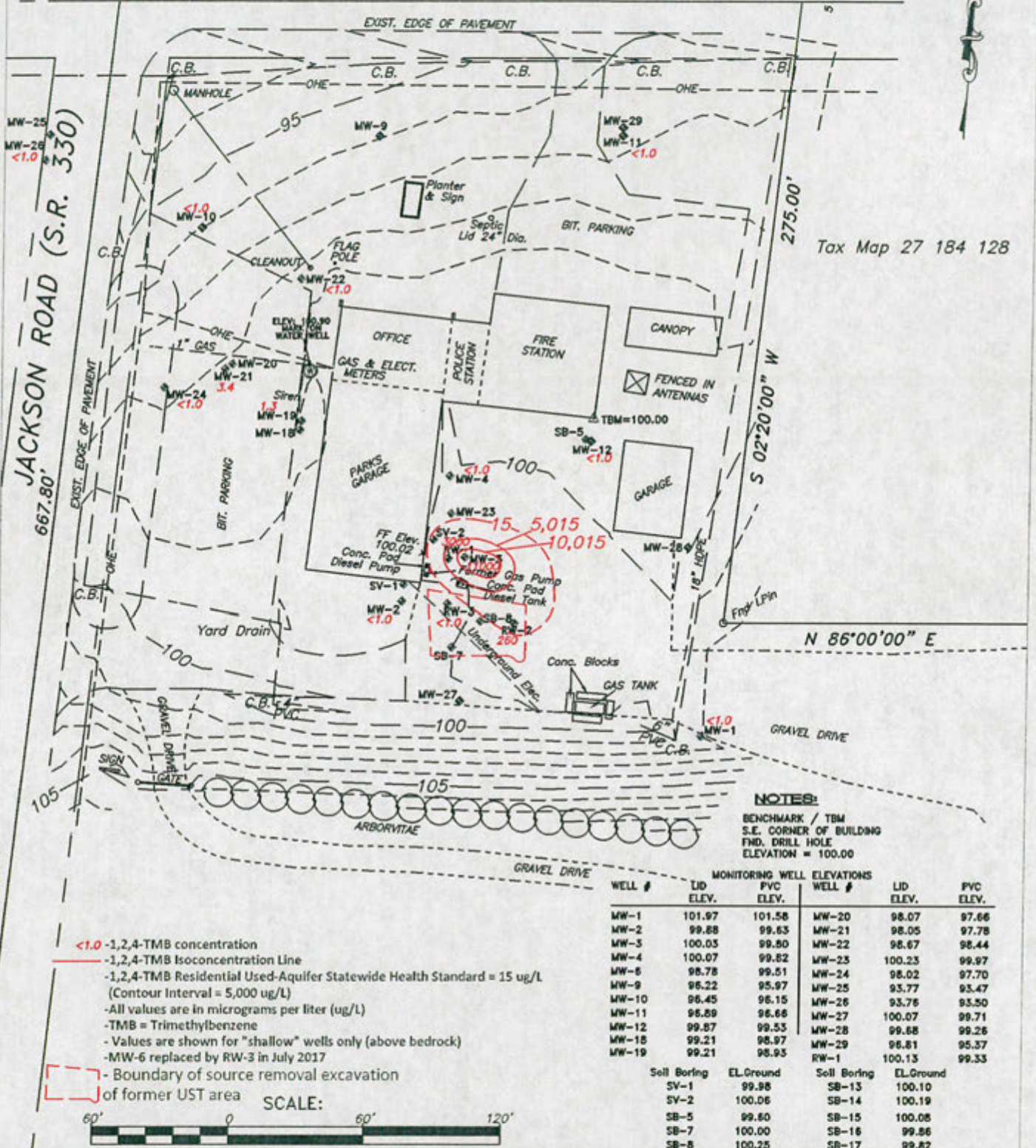
Shenango Township Municipal Building
3439 Hubbard-West Middlesex Road
West Middlesex, Pa. 16159
Shenango Twp., Mercer County
PADEP Facility No. 43-04177
USTIF Claim No. 2016-008
Mercer County Tax Map 27 184 131
9.74 Acres

Figure 6A
Benzene Isoconcentration
Groundwater
Shallow Wells
March 15, 2019

HUBBARD / MIDDLESEX ROAD (S.R. 318)

N 86°00'00" E 300.00'

Tax Map 27 184 128



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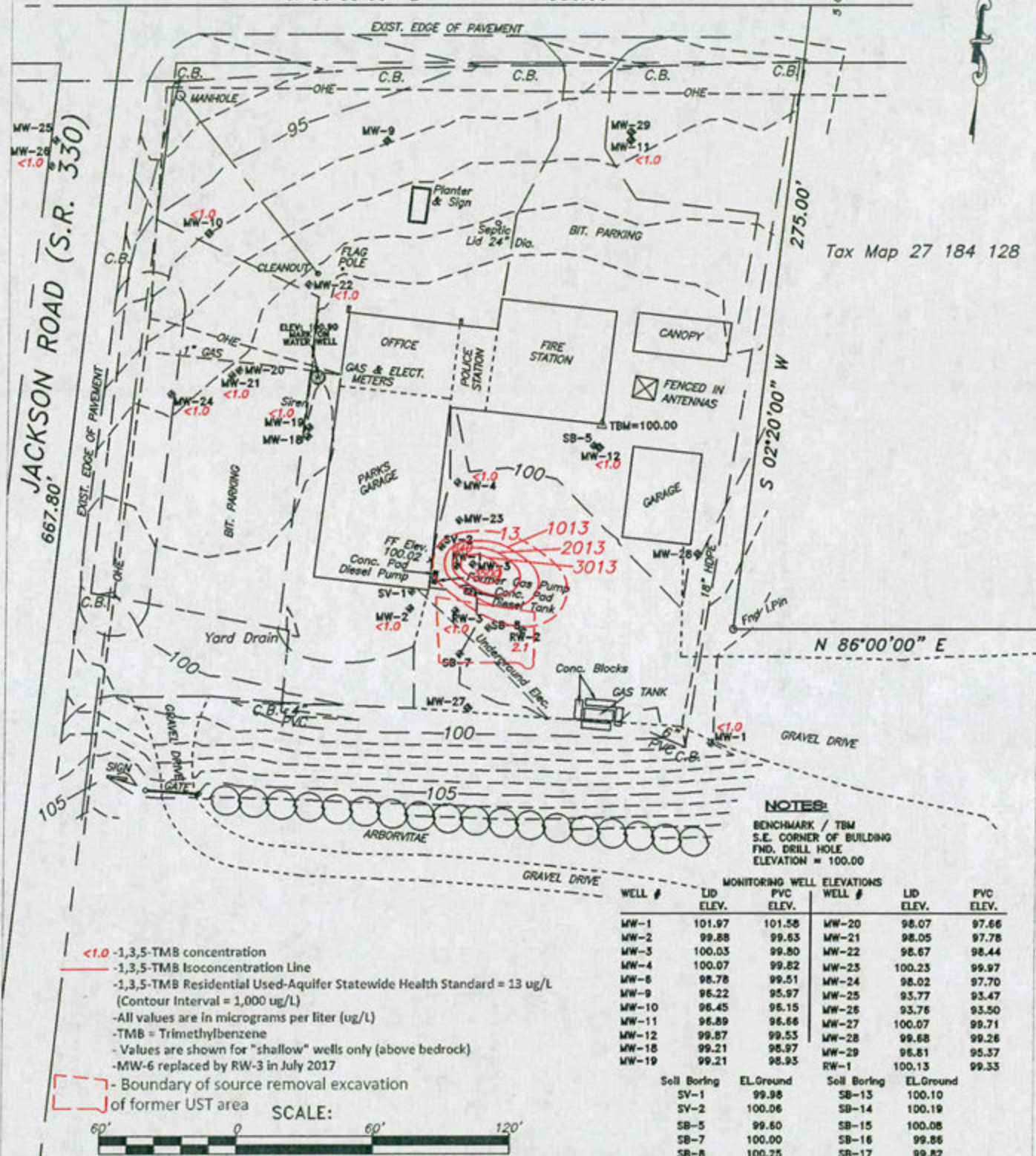
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 9.74 Acres

Figure 6B
 1,2,4-TMB Isoconcentration
 Groundwater
 Shallow Wells
 March 15, 2019

HUBBARD / MIDDLESEX ROAD (S.R. 318)

N 86°00'00" E 300.00'



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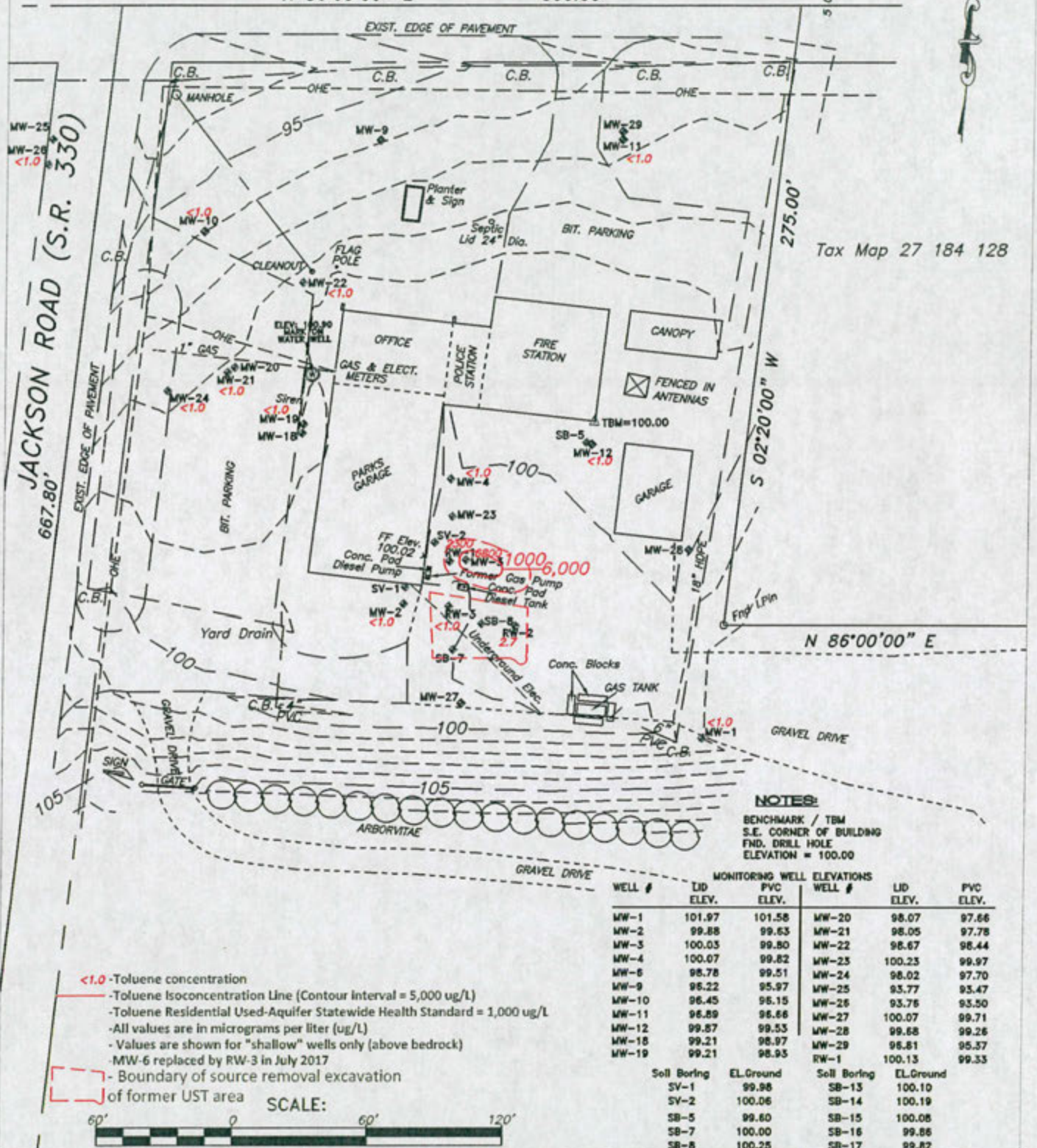
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Shenango Twp., Mercer County
PADEP Facility No. 43-04177
USTIF Claim No. 2016-008
Mercer County Tax Map 27 184 131
9.74 Acres

Figure 6C
1,3,5-TMB Isoconcentration
Groundwater
Shallow Wells
March 15, 2019

HUBBARD / MIDDLESEX ROAD (S.R. 318)

N 86°00'00" E 300.00'



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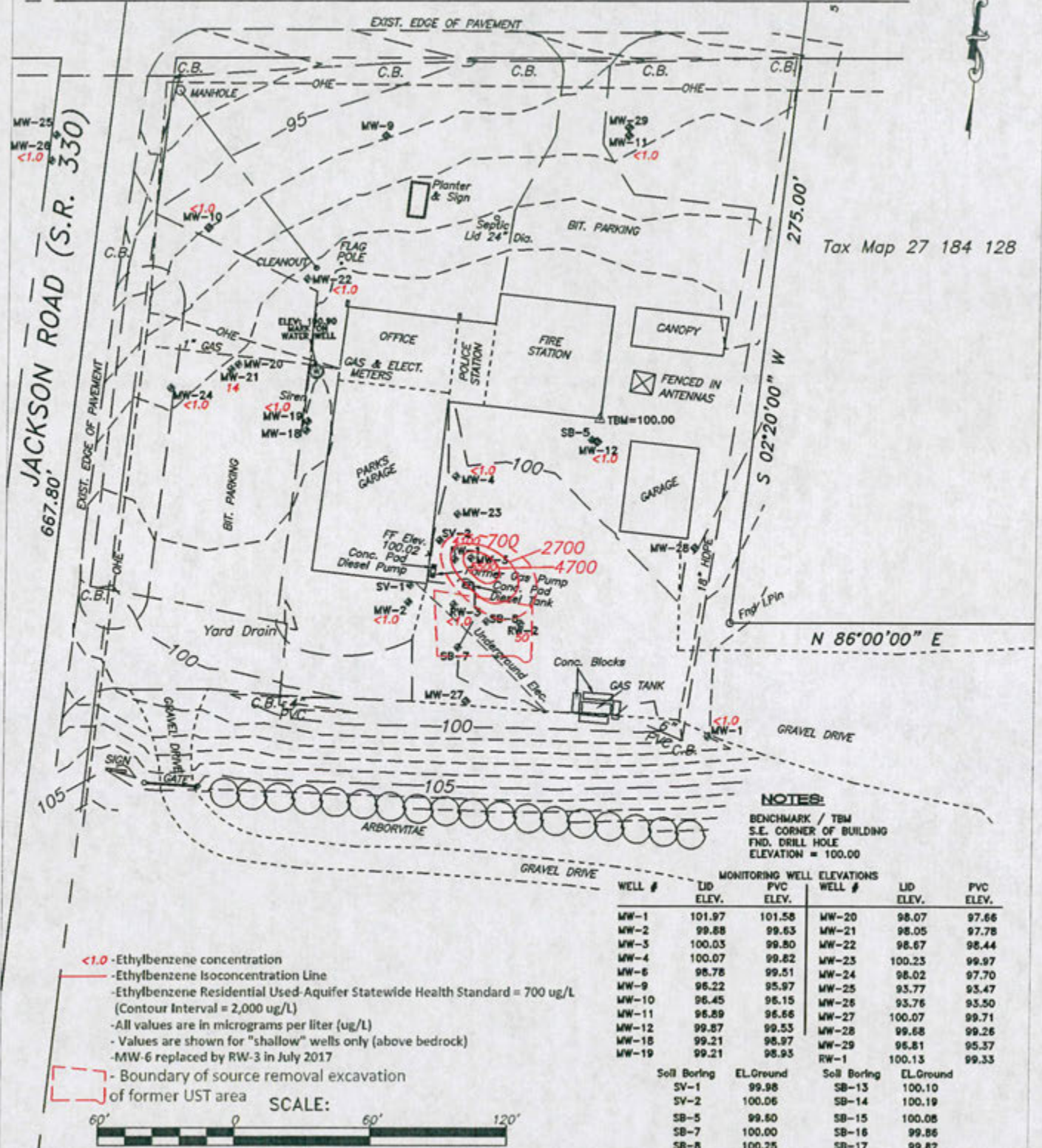
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Mercer County Tax Map 27 184 131
9.74 Acres

Figure 6D
Toluene Isoconcentration
Groundwater
Shallow Wells
March 15, 2019

HUBBARD / MIDDLESEX ROAD (S.R. 318)

N 86°00'00" E 300.00'



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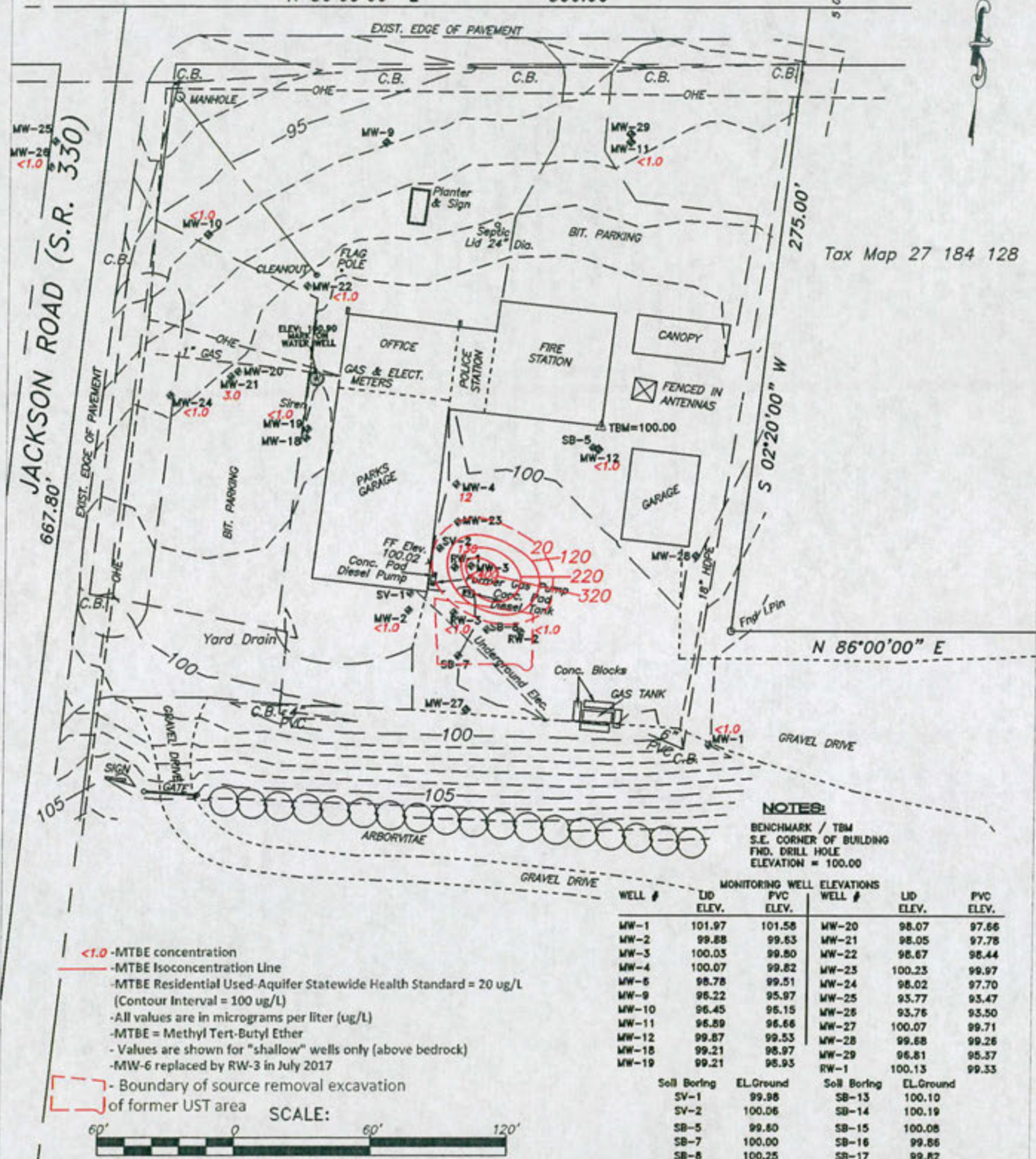
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 PADEP Facility No. 43-04177
 USTIF Claim No. 2016-008
 Mercer County Tax Map 27 184 131
 9.74 Acres

Figure 6E
 Ethylbenzene Isoconcentration
 Groundwater
 Shallow Wells
 March 15, 2019

HUBBARD / MIDDLESEX ROAD (S.R. 318)

N 86°00'00" E 300.00'



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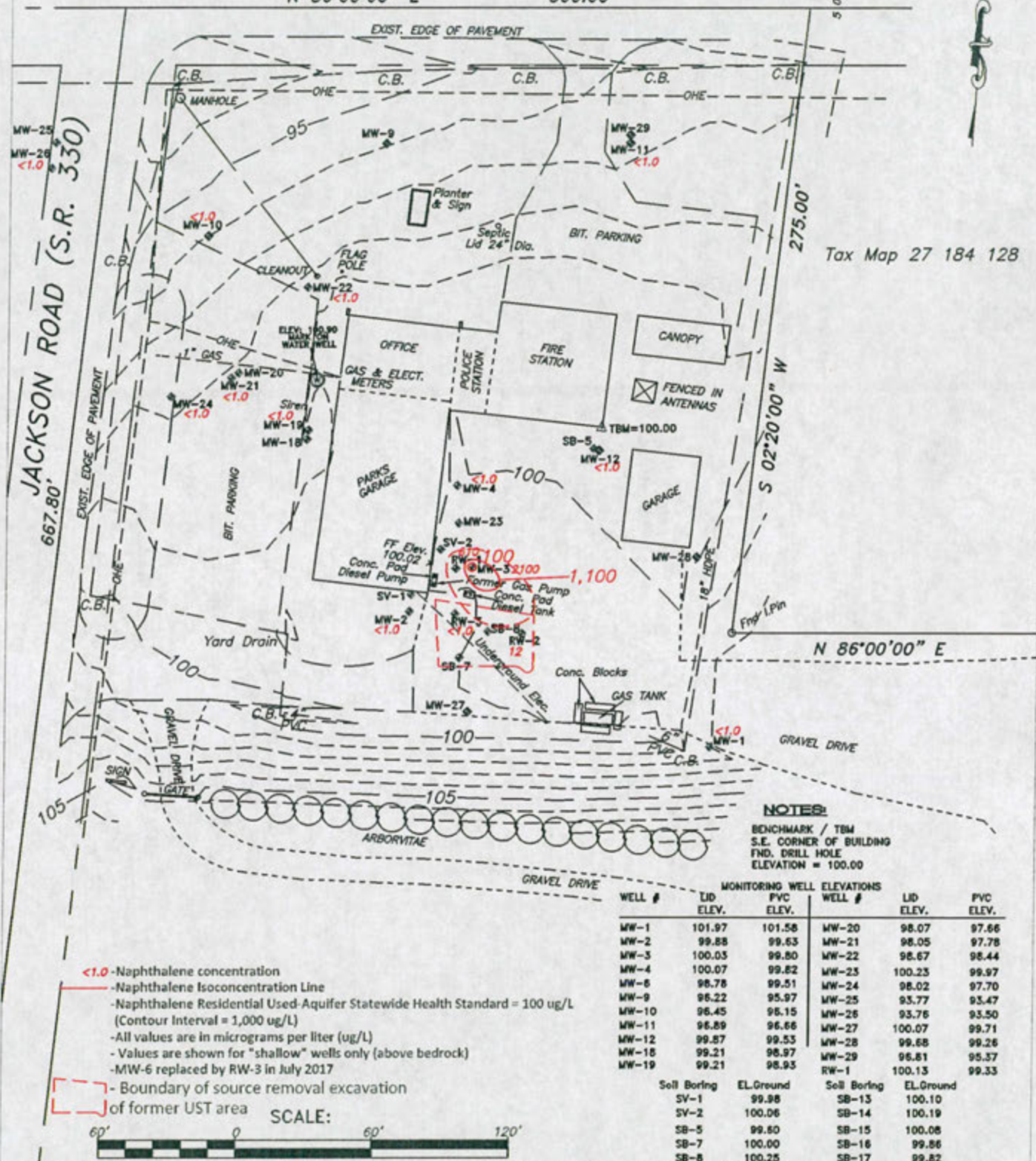
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 9.74 Acres

Figure 6F
 MTBE Isoconcentration
 Groundwater
 Shallow Wells
 March 15, 2019

HUBBARD / MIDDLESEX ROAD (S.R. 318)

N 86°00'00" E 300.00'



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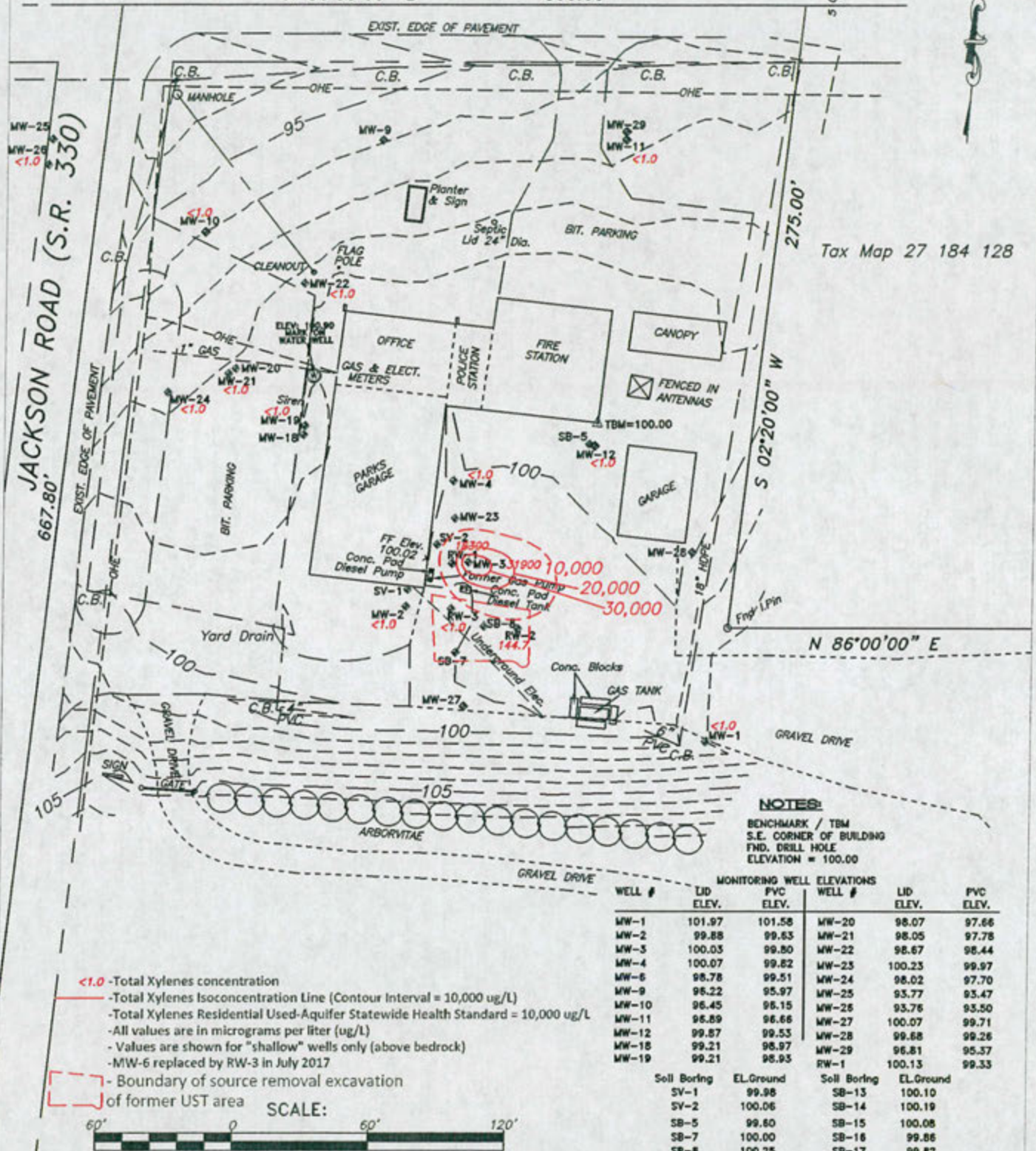
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 9.74 Acres

Figure 6G
 Naphthalene Isoconcentration
 Groundwater
 Shallow Wells
 March 15, 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

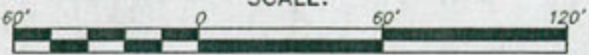
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MW-1	101.97	101.58	MW-20	98.07	97.66
MW-2	99.88	99.53	MW-21	98.05	97.78
MW-3	100.03	99.80	MW-22	98.67	98.44
MW-4	100.07	99.82	MW-25	100.23	99.97
MW-6	98.78	99.51	MW-24	98.02	97.70
MW-9	95.22	95.97	MW-25	93.77	93.47
MW-10	96.45	96.15	MW-26	93.76	93.50
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	95.57
MW-19	99.21	98.93	RW-1	100.13	99.33
Soll Boring	EL.Ground		Soll 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	

<1.0 - Total Xylenes concentration

- Total Xylenes Isoconcentration Line (Contour Interval = 10,000 ug/L)
- Total Xylenes Residential Used-Aquifer Statewide Health Standard = 10,000 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:



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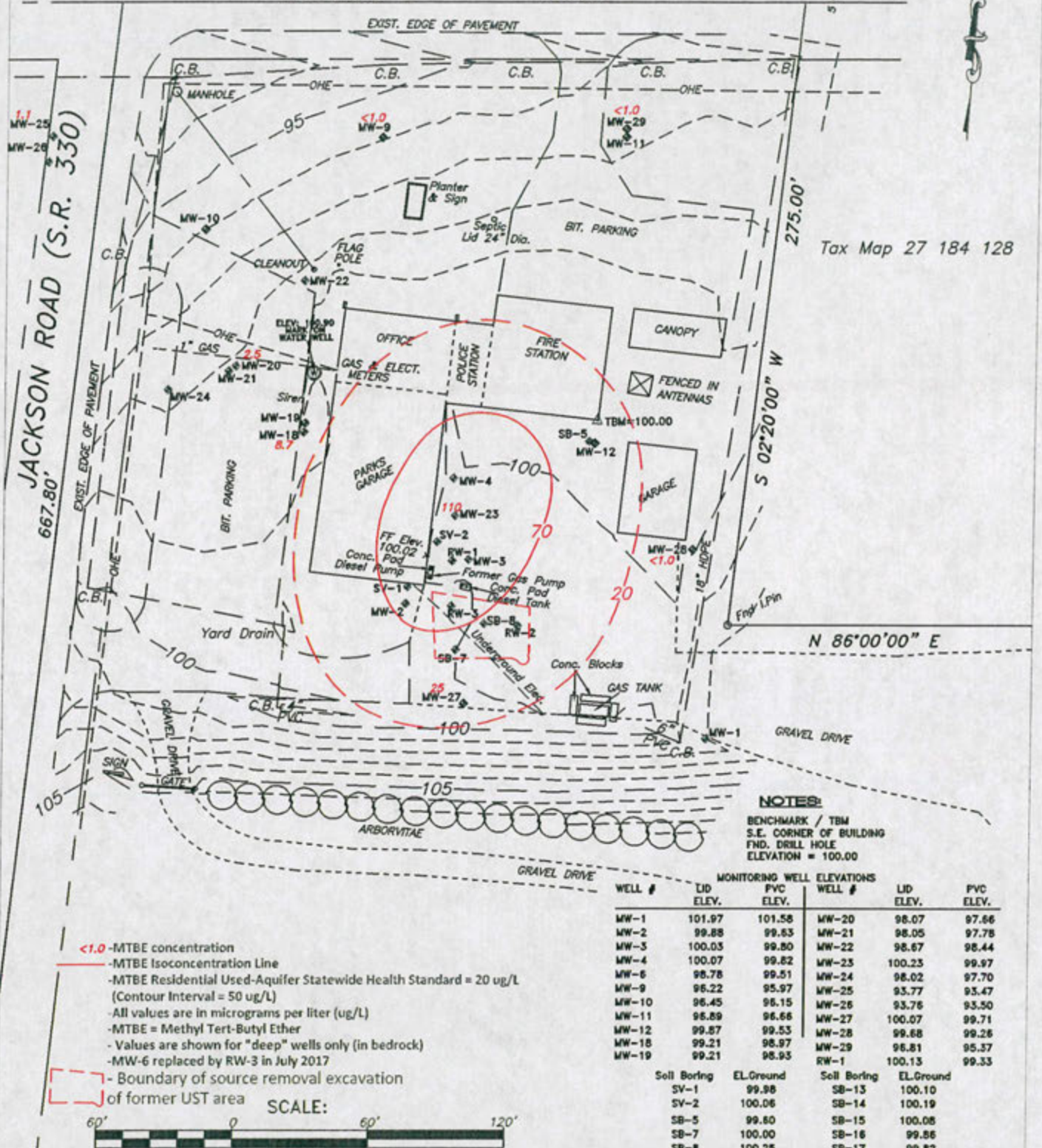
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PADEP Facility No. 43-04177
USTIF Claim No. 2016-008
Mercer County Tax Map 27 184 131
9.74 Acres

Figure 6H
Total Xylenes Isoconcentration
Groundwater
Shallow Wells
March 15, 2019

HUBBARD / MIDDLESEX ROAD (S.R. 318)

N 86°00'00" E 300.00'



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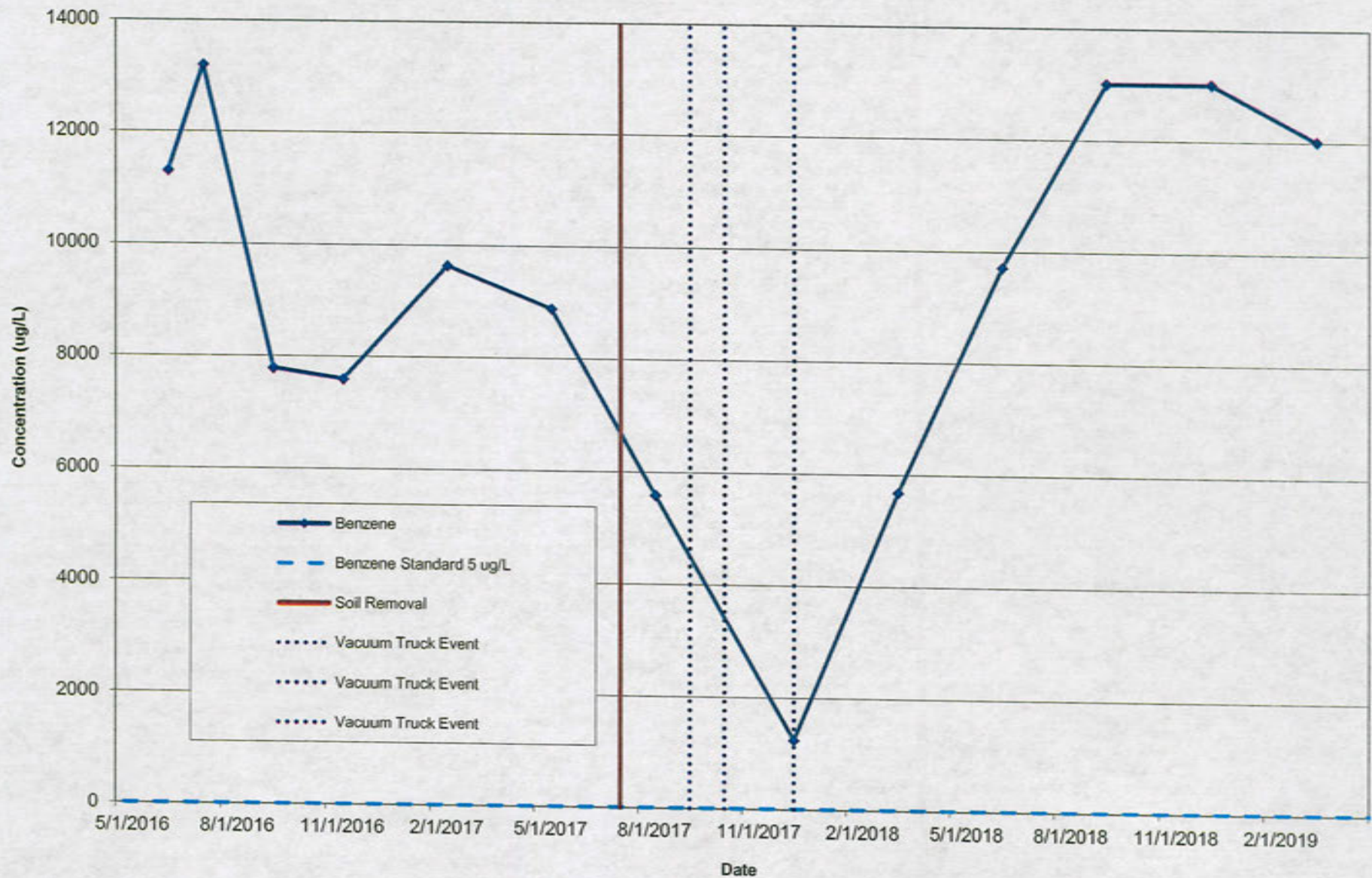
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 Shenango Twp., Mercer County
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 Mercer County Tax Map 27 184 131
 9.74 Acres

Figure 61
 MTBE Isoconcentration
 Groundwater
 Deep Wells
 March 15, 2019

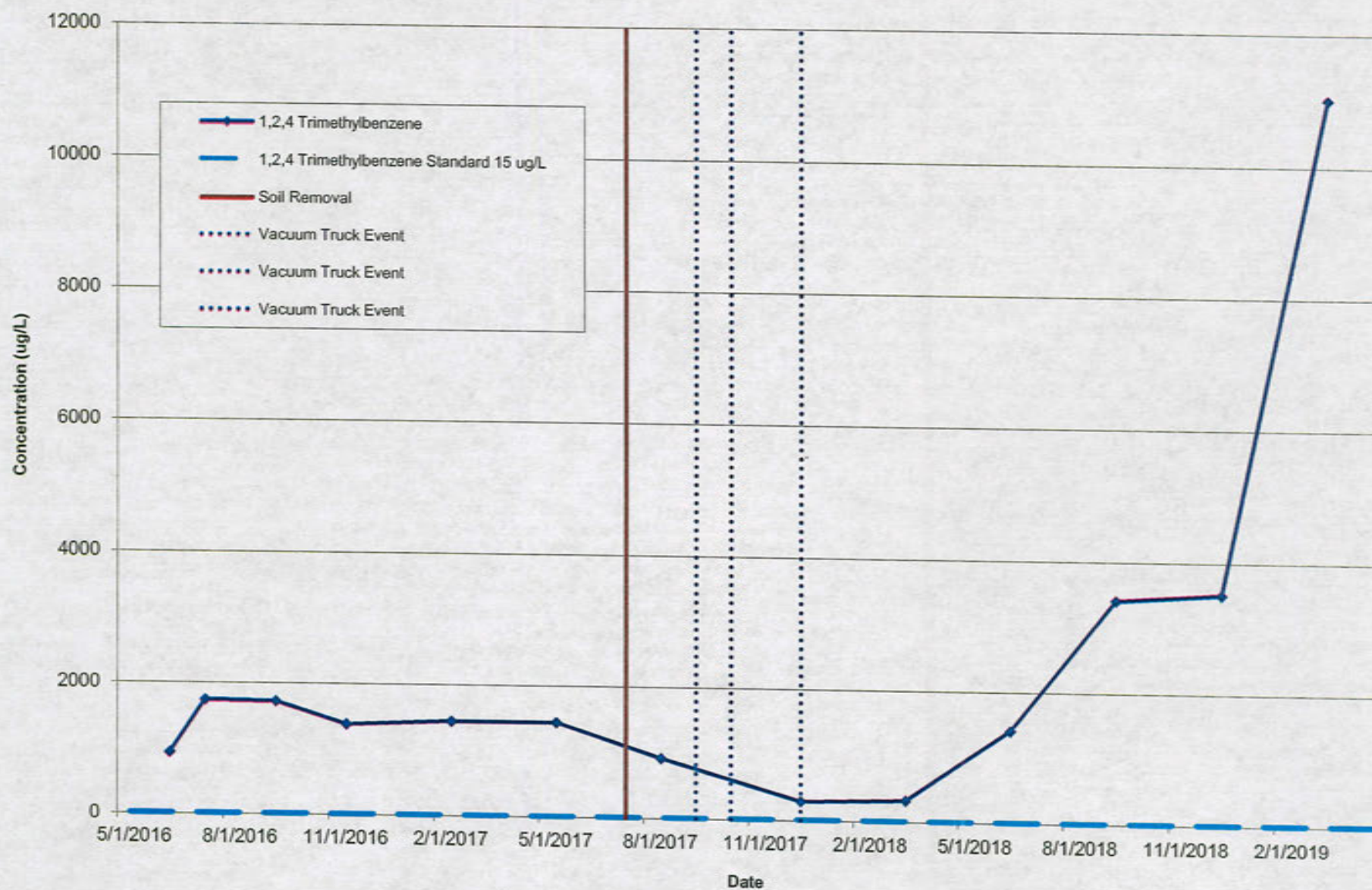
Shenango Township Municipal Building
Mercer County
Time Trend Analysis for Benzene in MW-3

Figure 7A



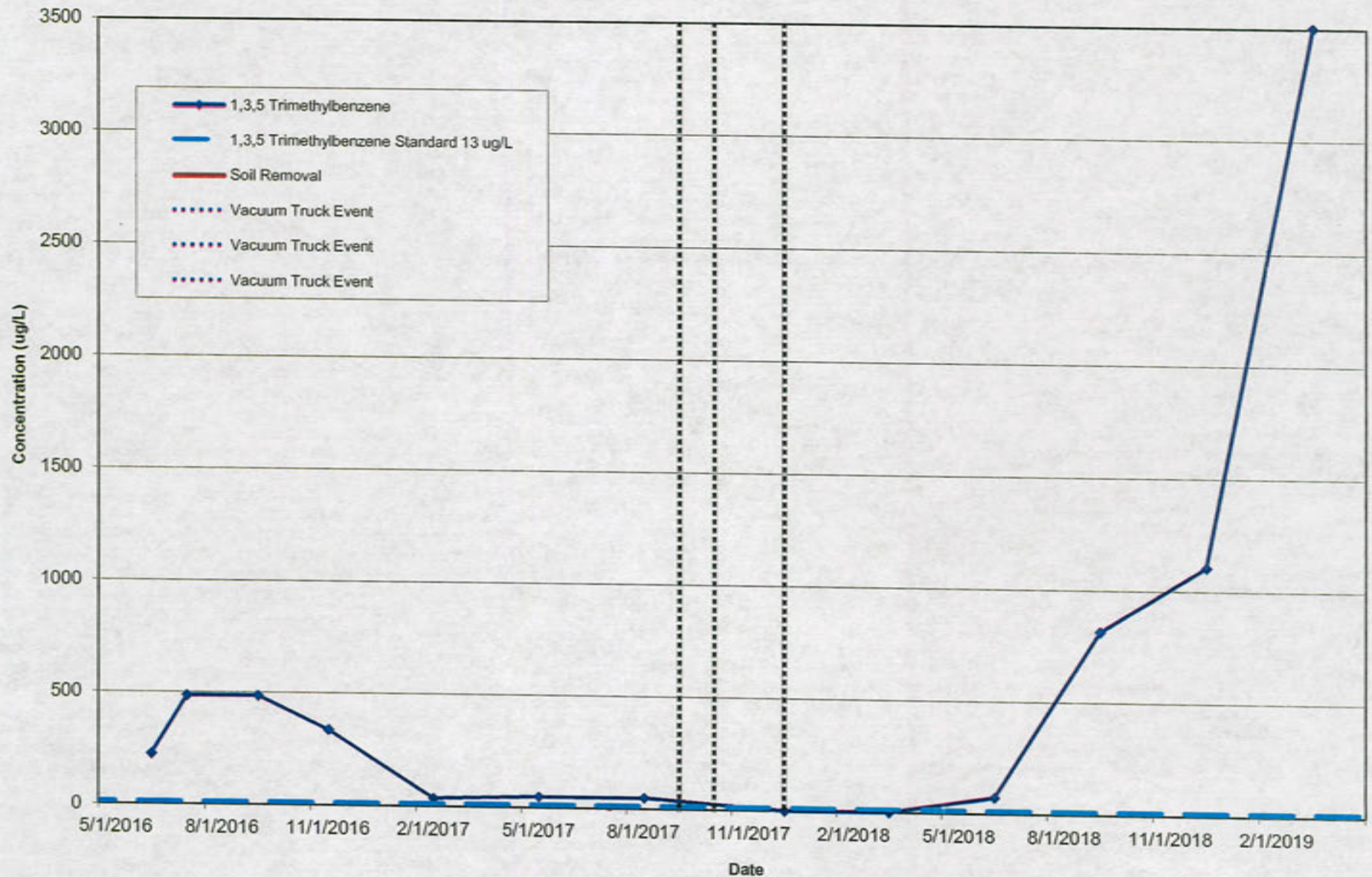
Shenango Township Municipal Building
Mercer County
Time Trend Analysis for 1,2,4-Trimethylbenzene in MW-3

Figure 7B



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

Figure 7C

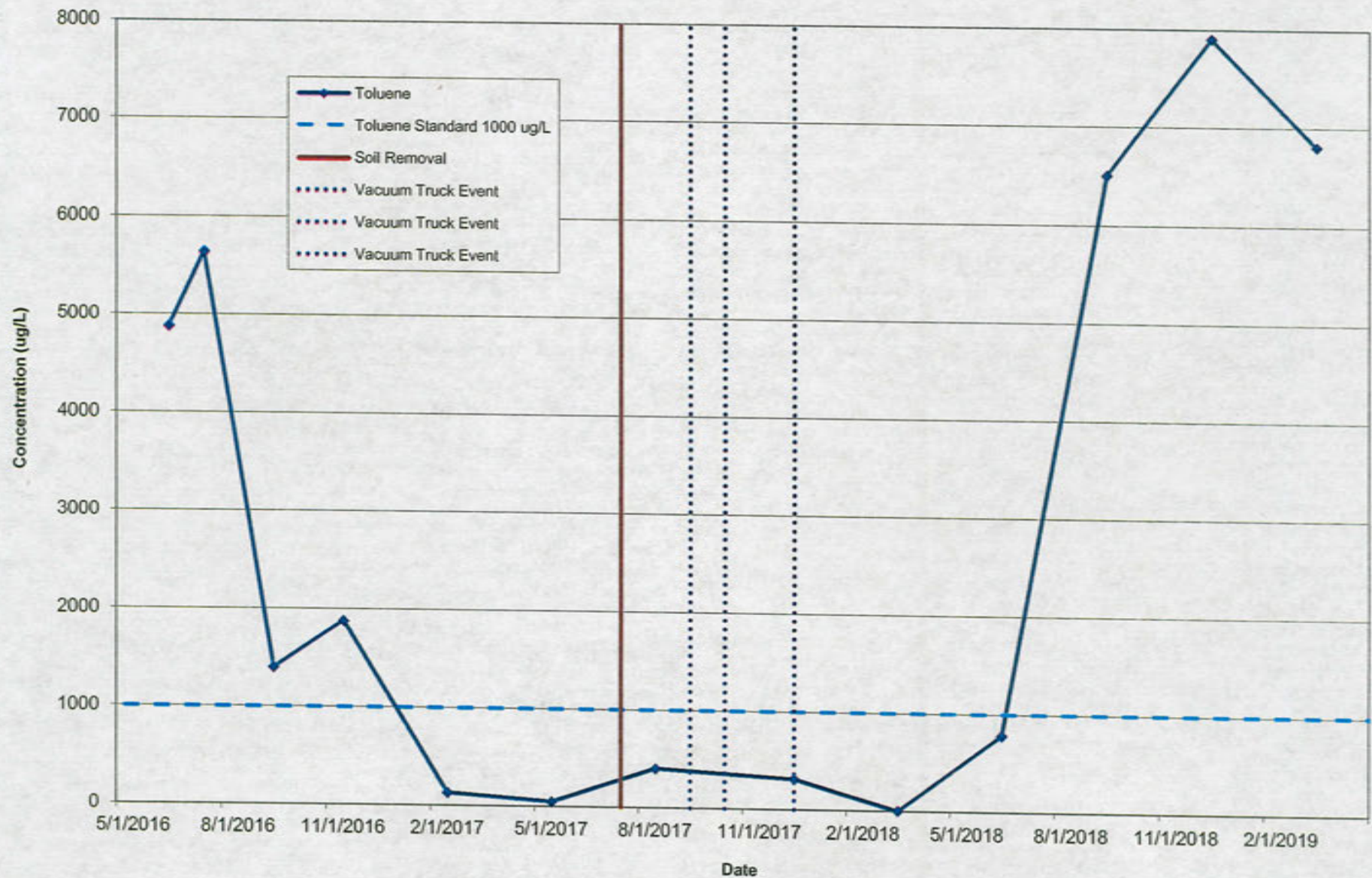


Prepared by CES

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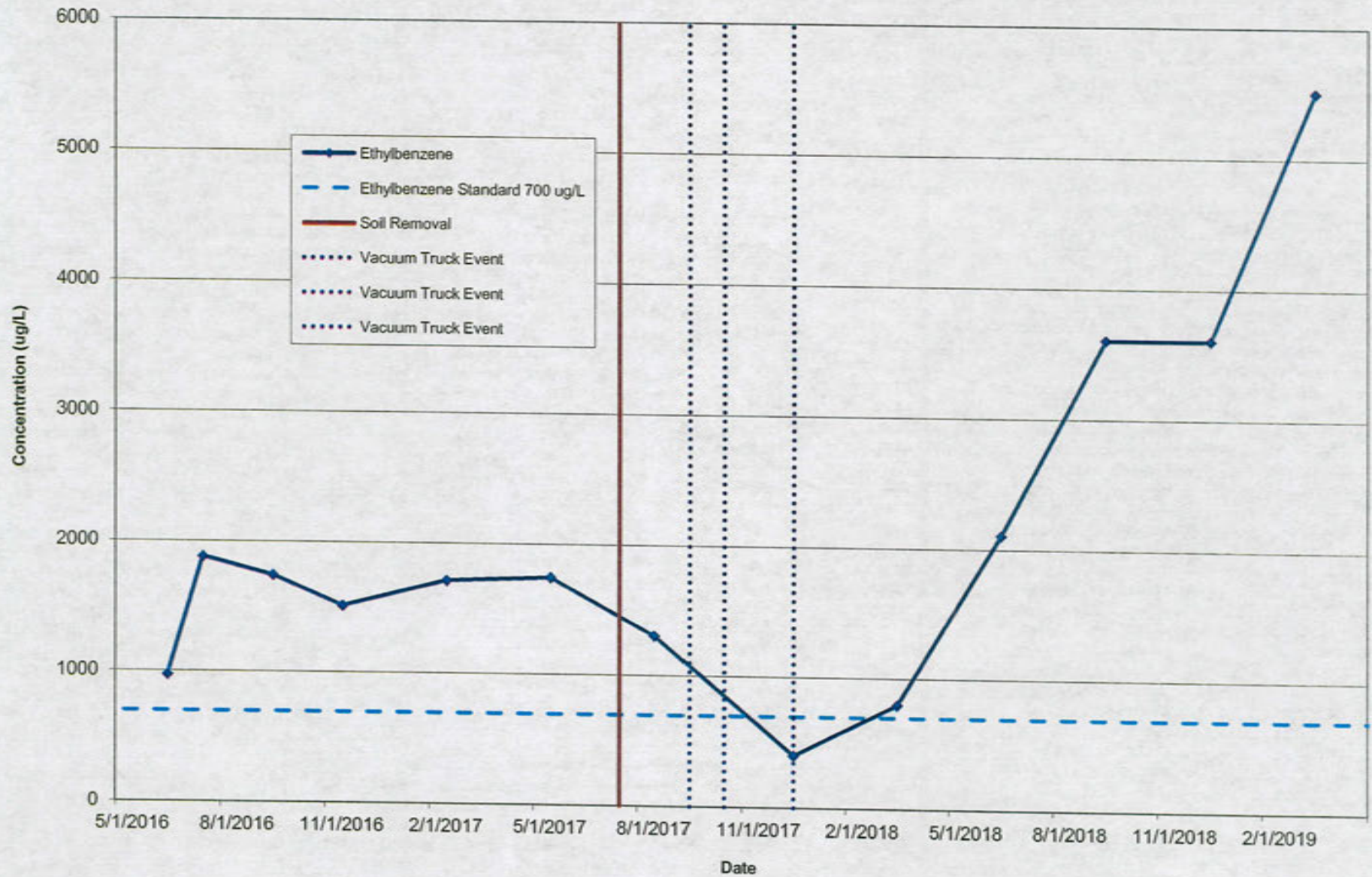
Shenango Township Municipal Building
Mercer County
Time Trend Analysis for Toluene in MW-3

Figure 7D



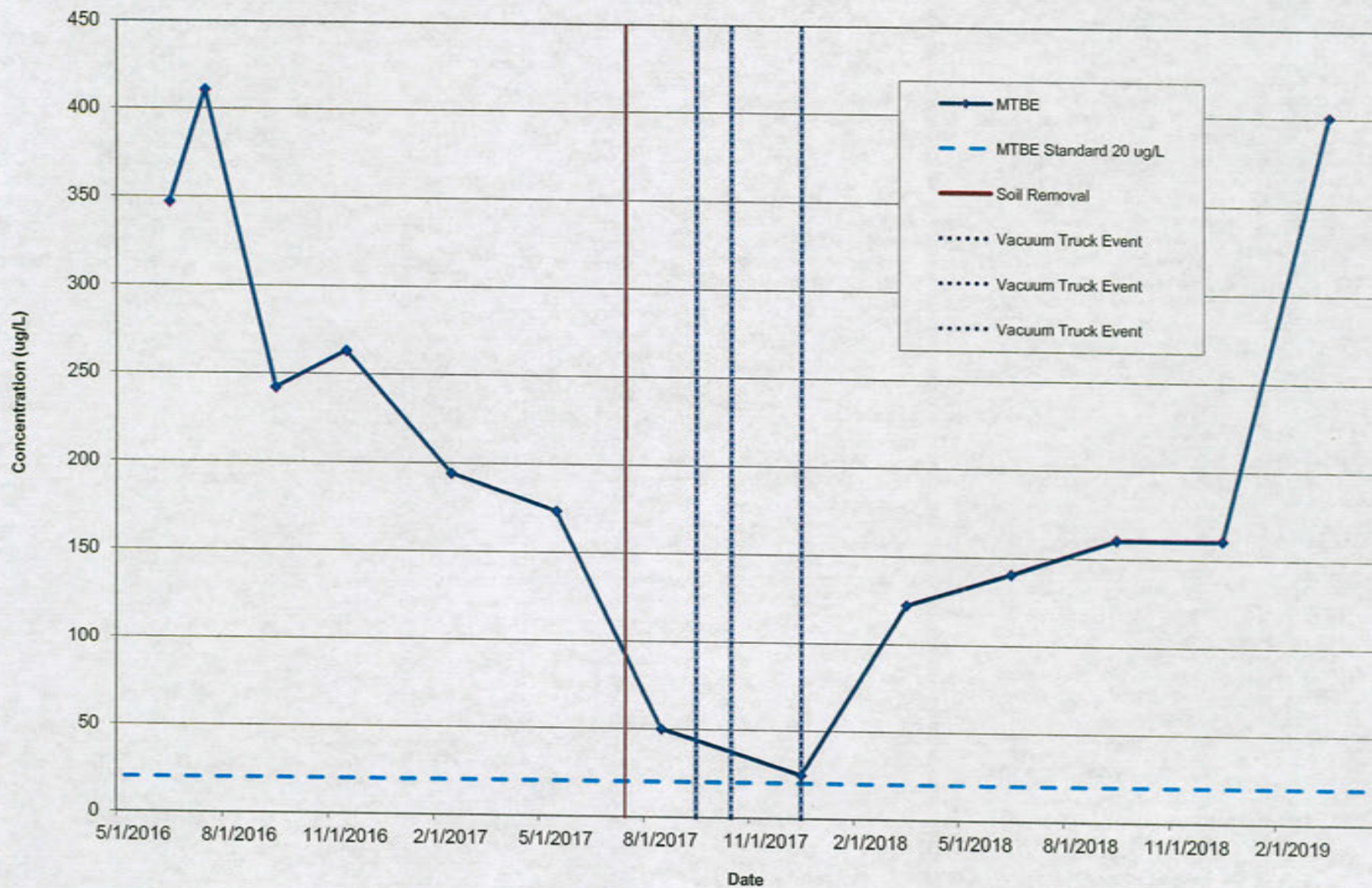
Shenango Township Municipal Building
Mercer County
Time Trend Analysis for Ethylbenzene in MW-3

Figure 7E



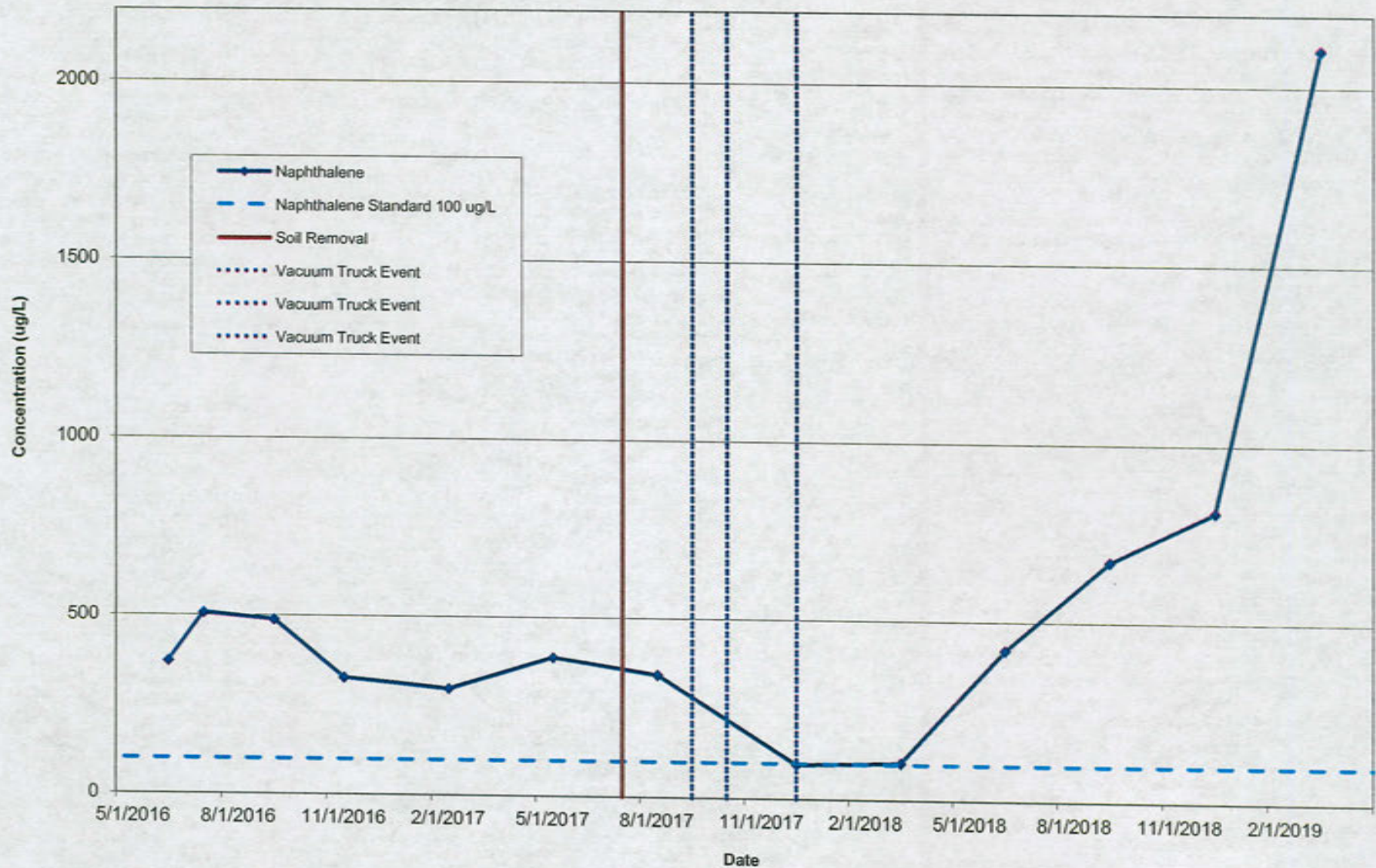
Shenango Township Municipal Building
Mercer County
Time Trend Analysis for MTBE in MW-3

Figure 7F



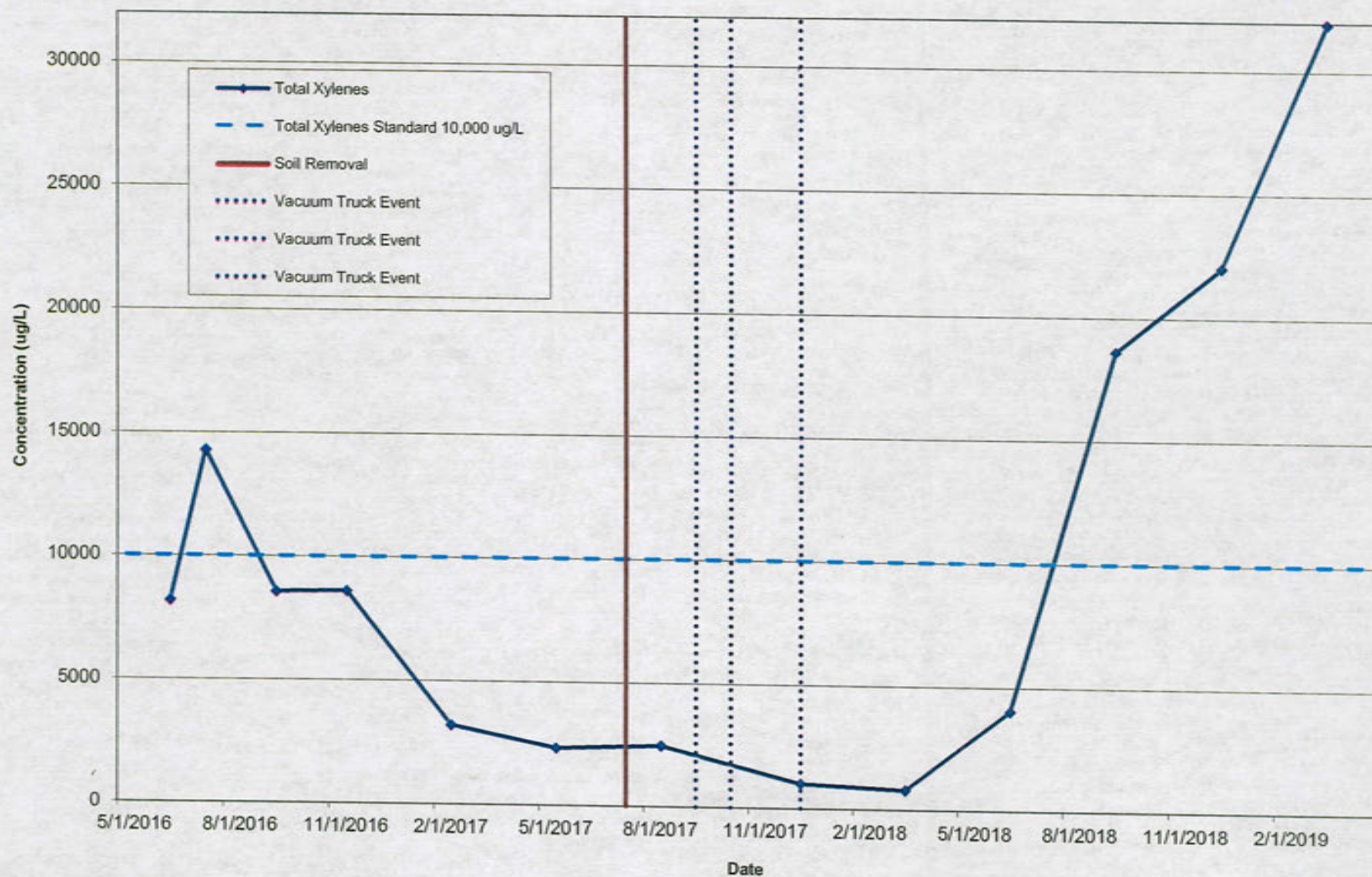
Shenango Township Municipal Building
Mercer County
Time Trend Analysis for Naphthalene in MW-3

Figure 7G



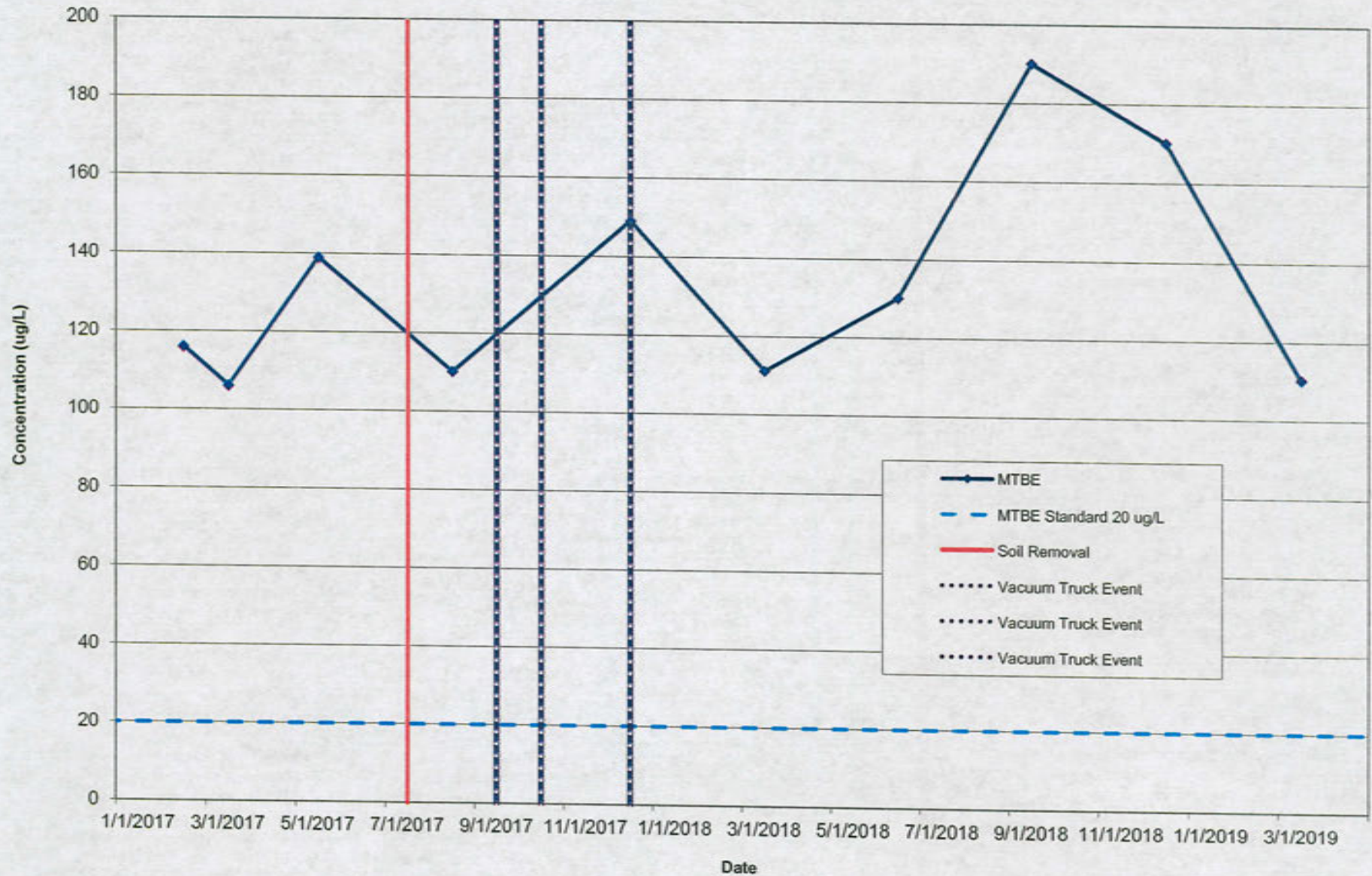
Shenango Township Municipal Building
Mercer County
Time Trend Analysis for Xylenes in MW-3

Figure 7H



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

Figure 7I



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
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
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
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
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
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
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
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
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	8.7	<1.0	<1.0	<1.0
MW-19 ("shallow")	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
	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
MW-20 ("deep")	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
	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
MW-21 ("shallow")	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	3.0	<1.0	<1.0	11
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
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
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")	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")	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
MW-27 ("shallow")	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
	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
MW-28 ("deep")	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
	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
MW-29 ("deep")	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
	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
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
RW-2	3/18/2019	15.5	99.33	2.57	NM	13000	3000	840	2300	4100	130	610	18300	130
	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
RW-3 (located at former MW-6 location)	3/18/2019	10.52	NM	1.73	NM	140	260	2.1	2.7	50	<1.0	12	144.7	2.0
	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
Township Water Well	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
	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
Used Aquifer Resid SHS		N/A	N/A	N/A	N/A	5	15	13	1,000	700	20	100	10,000	840

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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	Ethyl-benzene	MTBE	Naphthalene	Xylenes (total)	Cumene (isopropyl-benzene)
		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
Discharge (3462 Hubbard Middlesex Rd)	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
	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
	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
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
Laboratory Analytical Results for Soil
Shenango Twp

3439 Hubbard-West Middlesex Rd., West Middlesex, PA 16519 (Shenango Twp., Mercer County)
PADEP Facility ID No. 43-04177; USTIF Claim No. 2016-008(S)

Sample ID (Depth, ft.)	Date	Benzene	1,2,4-TMB	1,3,5-TMB	Toluene	Ethylbenzene	Cumene	MTBE	Naphthalene	Xylenes (total)
SB-1 (5.5-6.0)	05/18/16	<0.0016	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0080
SB-2 (3.0-3.5)	05/18/16	<0.0015	<0.0038	<0.0038	<0.0038	<0.0038	<0.0038	<0.0038	<0.0038	<0.0077
SB-3 (3.2-3.6)	05/18/16	1.49	1.25	<0.460	<0.460	0.696	<0.460	<0.460	0.898	1.98
SB-4 (2.7-3.2)	05/19/16	<0.0015	<0.0037	<0.0037	<0.0037	<0.0037	<0.0037	<0.0037	<0.0037	<0.0073
SB-5 (4.3-4.8)	05/19/16	<0.0019	<0.0047	<0.0047	<0.0047	<0.0047	<0.0047	<0.0047	<0.0047	<0.0095
SB-6 (2.8-3.3)	05/19/16	0.262	25.1	8.13	<0.474	<0.474	<0.474	<0.474	5.92	16.7
SB-7 (3.0-3.7)	05/19/16	0.220	0.0119	0.0364	<0.0048	<0.474	0.0106	0.0469	0.0454	0.0647
SB-8 (3.0-3.5)	05/19/16	0.731	0.0811	0.0433	0.0456	1.63	0.0150	<0.0047	<0.0047	6.80
MW-9 (2-4)	09/13/16	<0.0016	<0.0041	<0.0041	<0.0041	<0.0041	<0.0041	<0.0041	<0.0041	<0.0082
MW-10 (4-6)	09/13/16	<0.0014	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036	<0.0072
MW-11 (2-4)	09/14/16	<0.0016	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0081
MW-12 (2-4)	09/14/16	<0.0015	<0.0037	<0.0037	<0.0037	<0.0037	<0.0037	<0.0037	<0.0037	<0.0075
SB-13 (2-4)	09/14/16	0.0438	0.0044	<0.0037	<0.0037	<0.0037	<0.0037	<0.0037	<0.0037	<0.0074
SB-14 (2-4)	09/14/16	0.960	1.33	<0.392	1.70	0.487	<0.392	<0.392	0.589	3.15
SB-15 (2-4)	09/14/16	0.0130	0.0779	0.0311	0.0099	0.0364	0.0238	<0.0044	<0.0044	0.0721
SB-16 (2-4)	09/14/16	0.0043	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.0411	<0.0040	<0.0081
SB-17 (2-4)	09/14/16	0.0016	<0.0037	<0.0037	<0.0037	<0.0037	<0.0037	<0.0037	<0.0037	<0.0074
SB-18 (4.0-4.5)	02/07/17	<0.0015	<0.0037	<0.0037	<0.0037	<0.0037	0.0055	<0.0037	<0.0037	<0.0075
SB-20 (5.0-7.0)	02/08/17	<0.0016	<0.0040	<0.0040	<0.0040	<0.0040	0.0071	<0.0040	<0.0040	<0.0080
SB-22 (7.0-7.5)	02/09/17	<0.0015	<0.0038	<0.0038	<0.0038	<0.0038	0.0082	<0.0038	<0.0038	<0.0076
SB-23 (3.0-4.0)	02/10/17	<0.0016	<0.0039	<0.0039	<0.0039	<0.0039	<0.0039	<0.0039	<0.0039	<0.0078
SB-24 (5.0-6.0)	02/10/17	<0.0017	<0.0042	<0.0042	<0.0042	<0.0042	<0.0042	<0.0042	<0.0042	<0.0084
MW-25 (6-8)	03/08/18	<0.0015	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036	<0.0073
MW-27 (5-5.5)	02/18/19	<0.0047	<0.0047	<0.0047	<0.0047	<0.0047	<0.0047	<0.0047	<0.0047	<0.0047
MW-28 (3-3.5)	02/18/19	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048
*DEP Direct Contact Numeric Values		57	130	110	10,000	180	7,700	620	160	1,900
**DEP Soil to Groundwater Numeric Values		0.5	8.4	2.3	100	70	600	2	25	1,000

Soil results are reported in milligrams per kilogram (mg/kg) to significant figures as reported by the testing laboratory.
Depths are in feet.

Bold and shaded values indicate an exceedance of the Statewide Health Standard (SHS).

*Statewide Health Standard, Direct Contact, Residential

** Statewide Health Standard, Soil to Groundwater, Residential (Higher of 100xGW or Generic value).

TMB - Trimethylbenzene

SB number corresponds with MW number

Prepared by CES

5/2/2019 2:11:24 PM

ATTACHMENT 1

Analytical Reports

- 02/07/19 – 3430 and 3429 *Hubbard-Middlesex Rd* Water Samples
- 02/18/19 - Soil Boring Samples
- 03/15/19 & 03/18/19 - 1st QTR 2019 Groundwater Sampling
- 03/15/19 - Township Water Well and Offsite Well
- 04/18/19 - Groundwater Sampling MW-27, MW-28, & MW-29



Thursday, February 14, 2019

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

Project ID: SHENANGO TOWNSHIP
SDG ID: GCC50361
Sample ID#s: CC50361 - CC50362

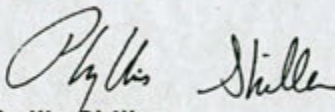
This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

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 have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,


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

February 14, 2019

SDG I.D.: GCC50361

Project ID: SHENANGO TOWNSHIP

Client Id	Lab Id	Matrix
3430 HUBBARD- MIDDLESEX	CC50361	GROUND WATER
3429 HUBBARD- MIDDLESEX	CC50362	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

February 14, 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

02/07/19

Time

13:50

02/12/19

10:06

Laboratory Data

SDG ID: GCC50361
Phoenix ID: CC50361

Project ID: SHENANGO TOWNSHIP
Client ID: 3430 HUBBARD- MIDDLESEX

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles (Unleaded Gasoline)</u>							
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	02/13/19	HM	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	02/13/19	HM	SW8260C
Benzene	ND	1.0	ug/L	1	02/13/19	HM	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	02/13/19	HM	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	02/13/19	HM	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	02/13/19	HM	SW8260C
Methyl t-Butyl Ether (MTBE)	ND	1.0	ug/L	1	02/13/19	HM	SW8260C
Naphthalene	ND	1.0	ug/L	1	02/13/19	HM	SW8260C
o-Xylene	ND	1.0	ug/L	1	02/13/19	HM	SW8260C
Toluene	ND	1.0	ug/L	1	02/13/19	HM	SW8260C
Xylenes (Total)	ND	1.0	ug/L	1	02/13/19	HM	SW8260C
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	106		%	1	02/13/19	HM	70 - 130 %
% Bromofluorobenzene	87		%	1	02/13/19	HM	70 - 130 %
% Dibromofluoromethane	99		%	1	02/13/19	HM	70 - 130 %
% Toluene-d8	88		%	1	02/13/19	HM	70 - 130 %

Project ID: SHENANGO TOWNSHIP
Client ID: 3430 HUBBARD- MIDDLESEX

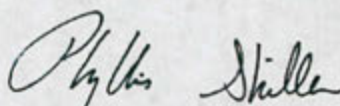
Phoenix I.D.: CC50361

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 there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director

February 14, 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

February 14, 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

02/07/19

Time

16:00

02/12/19

10:06

Laboratory Data

SDG ID: GCC50361

Phoenix ID: CC50362

Project ID: SHENANGO TOWNSHIP
Client ID: 3429 HUBBARD- MIDDLESEX

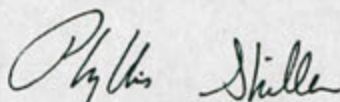
Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles (Unleaded Gasoline)</u>							
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	02/13/19	HM	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	02/13/19	HM	SW8260C
Benzene	ND	1.0	ug/L	1	02/13/19	HM	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	02/13/19	HM	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	02/13/19	HM	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	02/13/19	HM	SW8260C
Methyl t-Butyl Ether (MTBE)	ND	1.0	ug/L	1	02/13/19	HM	SW8260C
Naphthalene	ND	1.0	ug/L	1	02/13/19	HM	SW8260C
o-Xylene	ND	1.0	ug/L	1	02/13/19	HM	SW8260C
Toluene	ND	1.0	ug/L	1	02/13/19	HM	SW8260C
Xylenes (Total)	ND	1.0	ug/L	1	02/13/19	HM	SW8260C
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	106		%	1	02/13/19	HM	70 - 130 %
% Bromofluorobenzene	86		%	1	02/13/19	HM	70 - 130 %
% Dibromofluoromethane	106		%	1	02/13/19	HM	70 - 130 %
% Toluene-d8	87		%	1	02/13/19	HM	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 there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director

February 14, 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

February 14, 2019

QA/QC Data

SDG I.D.: GCC50361

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 466915 (ug/L), QC Sample No: CC50764 (CC50361, CC50362)										
<u>Volatiles - Ground Water</u>										
1,2,4-Trimethylbenzene	ND	1.0	97	99	2.0				70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	94	97	3.1				70 - 130	30
Benzene	ND	0.70	96	99	3.1				70 - 130	30
Ethylbenzene	ND	1.0	100	102	2.0				70 - 130	30
Isopropylbenzene	ND	1.0	97	99	2.0				70 - 130	30
m&p-Xylene	ND	1.0	94	100	6.2				70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	103	99	4.0				70 - 130	30
Naphthalene	ND	1.0	101	106	4.8				70 - 130	30
o-Xylene	ND	1.0	92	104	12.2				70 - 130	30
Toluene	ND	1.0	94	99	5.2				70 - 130	30
% 1,2-dichlorobenzene-d4	101	%	101	100	1.0				70 - 130	30
% Bromofluorobenzene	85	%	98	99	1.0				70 - 130	30
% Dibromofluoromethane	103	%	100	104	3.9				70 - 130	30
% Toluene-d8	88	%	96	100	4.1				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

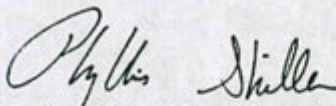
LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference


Phyllis Shiller, Laboratory Director
February 14, 2019

Thursday, February 14, 2019

Criteria: None

State: PA

Sample Criteria Exceedances Report

GCC50361 - COMPENV-PA

SampleNo	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

February 14, 2019

SDG I.D.: GCC50361

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



Monday, February 25, 2019

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

Project ID: SHENANGO TOWNSHIP
SDG ID: GCC55684
Sample ID#s: CC55684 - CC55685

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

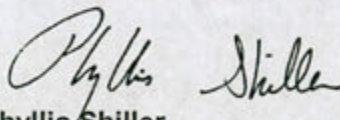
This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,


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.
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Tel. (860) 645-1102 Fax (860) 645-0823



Sample Id Cross Reference

February 25, 2019

SDG I.D.: GCC55684

Project ID: SHENANGO TOWNSHIP

Client Id	Lab Id	Matrix
MW-27 (5-5.5)	CC55684	SOIL
MW-28 (3-3.5)	CC55685	SOIL



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Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Report

February 25, 2019

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

Sample Information

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

Custody Information

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

Date Time

02/18/19 11:30
02/21/19 10:47

Laboratory Data

SDG ID: GCC55684
Phoenix ID: CC55684

Project ID: SHENANGO TOWNSHIP
Client ID: MW-27 (5-5.5)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	87		%		02/21/19	AK	SW846-%Solid

Volatiles (Unleaded Gasoline)

1,2,4-Trimethylbenzene	ND	4.7	ug/Kg	1	02/22/19	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	4.7	ug/Kg	1	02/22/19	JLI	SW8260C
Benzene	ND	4.7	ug/Kg	1	02/22/19	JLI	SW8260C
Ethylbenzene	ND	4.7	ug/Kg	1	02/22/19	JLI	SW8260C
Isopropylbenzene	ND	4.7	ug/Kg	1	02/22/19	JLI	SW8260C
m&p-Xylene	ND	4.7	ug/Kg	1	02/22/19	JLI	SW8260C
Methyl t-Butyl Ether (MTBE)	ND	4.7	ug/Kg	1	02/22/19	JLI	SW8260C
Naphthalene	ND	4.7	ug/Kg	1	02/22/19	JLI	SW8260C
o-Xylene	ND	4.7	ug/Kg	1	02/22/19	JLI	SW8260C
Toluene	ND	4.7	ug/Kg	1	02/22/19	JLI	SW8260C
Xylenes (Total)	ND	4.7	ug/Kg	1	02/22/19	JLI	SW8260C

QA/QC Surrogates

% 1,2-dichlorobenzene-d4	100		%	1	02/22/19	JLI	70 - 130 %
% Bromofluorobenzene	97		%	1	02/22/19	JLI	70 - 130 %
% Dibromofluoromethane	91		%	1	02/22/19	JLI	70 - 130 %
% Toluene-d8	99		%	1	02/22/19	JLI	70 - 130 %

Project ID: SHENANGO TOWNSHIP
Client ID: MW-27 (5-5.5)

Phoenix I.D.: CC55684

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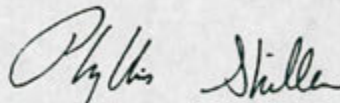
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed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

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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

This report must not be reproduced except in full as defined by the attached chain of custody.



Phyllis Shiller, Laboratory Director

February 25, 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

February 25, 2019

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

Sample Information

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

Custody Information

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

Date

02/18/19 13:00
02/21/19 10:47

Time

Laboratory Data

SDG ID: GCC55684
Phoenix ID: CC55685

Project ID: SHENANGO TOWNSHIP
Client ID: MW-28 (3-3.5)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	87		%		02/21/19	AK	SW846-%Solid

Volatiles (Unleaded Gasoline)

1,2,4-Trimethylbenzene	ND	4.8	ug/Kg	1	02/22/19	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	4.8	ug/Kg	1	02/22/19	JLI	SW8260C
Benzene	ND	4.8	ug/Kg	1	02/22/19	JLI	SW8260C
Ethylbenzene	ND	4.8	ug/Kg	1	02/22/19	JLI	SW8260C
Isopropylbenzene	ND	4.8	ug/Kg	1	02/22/19	JLI	SW8260C
m&p-Xylene	ND	4.8	ug/Kg	1	02/22/19	JLI	SW8260C
Methyl t-Butyl Ether (MTBE)	ND	4.8	ug/Kg	1	02/22/19	JLI	SW8260C
Naphthalene	ND	4.8	ug/Kg	1	02/22/19	JLI	SW8260C
o-Xylene	ND	4.8	ug/Kg	1	02/22/19	JLI	SW8260C
Toluene	ND	4.8	ug/Kg	1	02/22/19	JLI	SW8260C
Xylenes (Total)	ND	4.8	ug/Kg	1	02/22/19	JLI	SW8260C

QA/QC Surrogates

% 1,2-dichlorobenzene-d4	101		%	1	02/22/19	JLI	70 - 130 %
% Bromofluorobenzene	95		%	1	02/22/19	JLI	70 - 130 %
% Dibromofluoromethane	95		%	1	02/22/19	JLI	70 - 130 %
% Toluene-d8	101		%	1	02/22/19	JLI	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

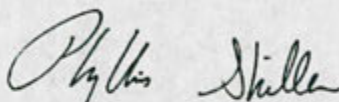
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Phyllis Shiller, Laboratory Director

February 25, 2019

Reviewed and Released by: Greg Lawrence, Assistant Lab Director



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Tel. (860) 645-1102 Fax (860) 645-0823



QA/QC Report

February 25, 2019

QA/QC Data

SDG I.D.: GCC55684

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 468108 (ug/kg), QC Sample No: CC56048 (CC55684, CC55685)										
<u>Volatiles - Soil</u>										
1,2,4-Trimethylbenzene	ND	1.0	93	90	3.3	101	98	3.0	70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	101	98	3.0	110	107	2.8	70 - 130	30
Benzene	ND	1.0	92	90	2.2	98	96	2.1	70 - 130	30
Ethylbenzene	ND	1.0	92	90	2.2	99	97	2.0	70 - 130	30
Isopropylbenzene	ND	1.0	102	100	2.0	113	109	3.6	70 - 130	30
m&p-Xylene	ND	2.0	92	89	3.3	99	97	2.0	70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	84	79	6.1	86	87	1.2	70 - 130	30
Naphthalene	ND	5.0	94	88	6.6	95	96	1.0	70 - 130	30
o-Xylene	ND	2.0	92	90	2.2	98	98	0.0	70 - 130	30
Toluene	ND	1.0	93	89	4.4	98	96	2.1	70 - 130	30
% 1,2-dichlorobenzene-d4	103	%	103	101	2.0	101	99	2.0	70 - 130	30
% Bromofluorobenzene	95	%	99	100	1.0	96	97	1.0	70 - 130	30
% Dibromofluoromethane	95	%	99	99	0.0	102	101	1.0	70 - 130	30
% Toluene-d8	101	%	102	101	1.0	101	100	1.0	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%.

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

February 25, 2019

Monday, February 25, 2019

Criteria: None

State: PA

Sample Criteria Exceedances Report

GCC55684 - 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.



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Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Comments

February 25, 2019

SDG I.D.: GCC55684

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



NY/NJ CHAIN OF CUSTODY RECORD

597 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: info@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-8726

Customer: CES

Address: 2700 Kiriola Dr.
Hermitage, PA 16148

Soil Samples

Client Sample - Information - Identification

Sampler's Signature David Siekkinen

Date: 2/18/19

Matrix Code:
DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water
RW=Raw Water SE=Sediment SL=Sludge S=Soil SD=Solid W=Wipe
OIL=Oil B=Bulk L=Liquid

PHOENIX USE ONLY. SAMPLE #

Customer Sample Identification

Sample Matrix

Date Sampled

Time Sampled

555684 MW-27(5-5.5) S 2/18/19 1130

555685 MW-28(3-3.5) S 2/18/19 1300

Analysis Request

PADEP Short List (2 MCL)
Unleaded Gasoline

Project P.O.:

Project: Shenando Township

Report to: Dave Siekkinen

Invoice to: Jan Mazzocchia

This section MUST be completed with Bottle Quantities.

Soil VOA Vials () or
GL Soil container () or
GL 40 ml VOA Vial () or
GL Amber 1000ml () or
PL AAs () 250ml () 500ml () 1000ml
PL H2SO4 () 250ml () 500ml () 1000ml
PL HNO3 250ml () 500ml () 1000ml
Bacteria Bottles as is

3 1

3 1

Relinquished by: David Siekkinen

Accepted by: David Siekkinen

Date:

Time:

Turnaround:

NJ

Res. Criteria
Non-Res. Criteria
Impact to GW Soil
Cleanup Criteria
Impact to GW
soil screen
Criteria
GW Criteria

NY

TOGS GW
CP-51 SOIL
375SSCO
Unrestricted Soil
375SSCO
Residential Soil
375SSCO
Residential
375SSCO
Commercial Soil
375SSCO
Industrial Soil
Subpart 5 DW

Data Format

Phoenix Std Report
Excel
PDF
GIS/Key
EQUIS
NJ Hazmat EDD
NY EZ EDD (ASP)
Other

What State were samples collected?

PA

Data Package

NJ Reduced Deliv.
NY Enhanced (ASP B)
Other

Comments, Special Requirements or Regulations:



Tuesday, March 26, 2019

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

Project ID: SHENANGO TOWNSHIP
SDG ID: GCC71072
Sample ID#s: CC71072 - CC71095

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.
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Tel. (860) 645-1102 Fax (860) 645-0823



Sample Id Cross Reference

March 26, 2019

SDG I.D.: GCC71072

Project ID: SHENANGO TOWNSHIP

Client Id	Lab Id	Matrix
MW-1	CC71072	GROUND WATER
MW-2	CC71073	GROUND WATER
MW-3	CC71074	GROUND WATER
MW-4	CC71075	GROUND WATER
MW-9	CC71076	GROUND WATER
MW-10	CC71077	GROUND WATER
MW-11	CC71078	GROUND WATER
MW-12	CC71079	GROUND WATER
MW-18	CC71080	GROUND WATER
MW-19	CC71081	GROUND WATER
MW-20	CC71082	GROUND WATER
MW-21	CC71083	GROUND WATER
MW-22	CC71084	GROUND WATER
MW-23	CC71085	GROUND WATER
MW-23 DUPLICATE	CC71086	GROUND WATER
MW-24	CC71087	GROUND WATER
MW-25	CC71088	GROUND WATER
MW-26	CC71089	GROUND WATER
MW-27	CC71090	GROUND WATER
MW-28	CC71091	GROUND WATER
MW-29	CC71092	GROUND WATER
RW-1	CC71093	GROUND WATER
RW-2	CC71094	GROUND WATER
RW-3	CC71095	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

March 26, 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

03/18/19 10:05
03/20/19 10:27

Laboratory Data

SDG ID: GCC71072
Phoenix ID: CC71072

Project ID: SHENANGO TOWNSHIP
Client ID: MW-1

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles (Unleaded Gasoline)</u>							
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
Benzene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
Toluene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
Xylenes (Total)	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	95		%	1	03/21/19	MH	70 - 130 %
% Bromofluorobenzene	96		%	1	03/21/19	MH	70 - 130 %
% Dibromofluoromethane	86		%	1	03/21/19	MH	70 - 130 %
% Toluene-d8	93		%	1	03/21/19	MH	70 - 130 %

Project ID: SHENANGO TOWNSHIP
Client ID: MW-1

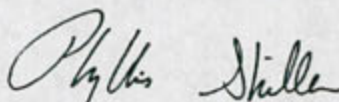
Phoenix I.D.: CC71072

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

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Phyllis Shiller, Laboratory Director

March 26, 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

March 26, 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

03/18/19

9:30

03/20/19 10:27

Laboratory Data

SDG ID: GCC71072

Phoenix ID: CC71073

Project ID: SHENANGO TOWNSHIP

Client ID: MW-2

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles (Unleaded Gasoline)</u>							
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Benzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Toluene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Xylenes (Total)	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	93		%	1	03/22/19	MH	70 - 130 %
% Bromofluorobenzene	97		%	1	03/22/19	MH	70 - 130 %
% Dibromofluoromethane	95		%	1	03/22/19	MH	70 - 130 %
% Toluene-d8	92		%	1	03/22/19	MH	70 - 130 %

Project ID: SHENANGO TOWNSHIP
Client ID: MW-2

Phoenix I.D.: CC71073

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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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
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Phyllis Shiller, Laboratory Director

March 26, 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

March 26, 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
03/18/19 14:10
03/20/19 10:27

Laboratory Data

SDG ID: GCC71072
Phoenix ID: CC71074

Project ID: SHENANGO TOWNSHIP
Client ID: MW-3

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles (Unleaded Gasoline)</u>							
1,2,4-Trimethylbenzene	11000	400	ug/L	400	03/21/19	MH	SW8260C
1,3,5-Trimethylbenzene	3500	400	ug/L	400	03/21/19	MH	SW8260C
Benzene	12000	400	ug/L	400	03/21/19	MH	SW8260C
Ethylbenzene	5500	400	ug/L	400	03/21/19	MH	SW8260C
Isopropylbenzene	420	400	ug/L	400	03/21/19	MH	SW8260C
m&p-Xylene	23000	400	ug/L	400	03/21/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	ND	400	ug/L	400	03/21/19	MH	SW8260C
Naphthalene	2100	400	ug/L	400	03/21/19	MH	SW8260C
o-Xylene	8900	400	ug/L	400	03/21/19	MH	SW8260C
Toluene	6800	400	ug/L	400	03/21/19	MH	SW8260C
Xylenes (Total)	31900	400	ug/L	400	03/21/19	MH	SW8260C
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4 (400x)	94		%	400	03/21/19	MH	70 - 130 %
% Bromofluorobenzene (400x)	94		%	400	03/21/19	MH	70 - 130 %
% Dibromofluoromethane (400x)	102		%	400	03/21/19	MH	70 - 130 %
% Toluene-d8 (400x)	95		%	400	03/21/19	MH	70 - 130 %

Project ID: SHENANGO TOWNSHIP
Client ID: MW-3

Phoenix I.D.: CC71074

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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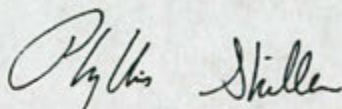
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed 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.

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The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

March 26, 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

March 26, 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
03/18/19 12:50
03/20/19 10:27

Laboratory Data

SDG ID: GCC71072
Phoenix ID: CC71075

Project ID: SHENANGO TOWNSHIP
Client ID: MW-4

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles (Unleaded Gasoline)</u>							
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
Benzene	17	1.0	ug/L	1	03/21/19	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	12	1.0	ug/L	1	03/21/19	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
Toluene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
Xylenes (Total)	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	94		%	1	03/21/19	MH	70 - 130 %
% Bromofluorobenzene	97		%	1	03/21/19	MH	70 - 130 %
% Dibromofluoromethane	99		%	1	03/21/19	MH	70 - 130 %
% Toluene-d8	95		%	1	03/21/19	MH	70 - 130 %

Project ID: SHENANGO TOWNSHIP
Client ID: MW-4

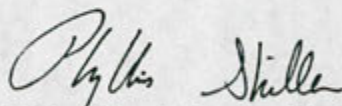
Phoenix I.D.: CC71075

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

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Phyllis Shiller, Laboratory Director

March 26, 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

March 26, 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
03/15/19 12:15
03/20/19 10:27

Laboratory Data

SDG ID: GCC71072
Phoenix ID: CC71076

Project ID: SHENANGO TOWNSHIP
Client ID: MW-9

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles (Unleaded Gasoline)</u>							
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Benzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Toluene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Xylenes (Total)	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	95		%	1	03/22/19	MH	70 - 130 %
% Bromofluorobenzene	98		%	1	03/22/19	MH	70 - 130 %
% Dibromofluoromethane	95		%	1	03/22/19	MH	70 - 130 %
% Toluene-d8	93		%	1	03/22/19	MH	70 - 130 %

Project ID: SHENANGO TOWNSHIP
Client ID: MW-9

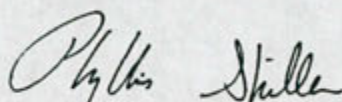
Phoenix I.D.: CC71076

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

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Phyllis Shiller, Laboratory Director

March 26, 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

March 26, 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

03/15/19 11:05
03/20/19 10:27

Laboratory Data

SDG ID: GCC71072
Phoenix ID: CC71077

Project ID: SHENANGO TOWNSHIP
Client ID: MW-10

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles (Unleaded Gasoline)</u>							
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
Benzene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
Toluene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
Xylenes (Total)	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	96		%	1	03/21/19	MH	70 - 130 %
% Bromofluorobenzene	99		%	1	03/21/19	MH	70 - 130 %
% Dibromofluoromethane	92		%	1	03/21/19	MH	70 - 130 %
% Toluene-d8	94		%	1	03/21/19	MH	70 - 130 %

Project ID: SHENANGO TOWNSHIP
Client ID: MW-10

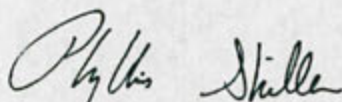
Phoenix I.D.: CC71077

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

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Phyllis Shiller, Laboratory Director

March 26, 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

March 26, 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

03/15/19 12:55
03/20/19 10:27

Laboratory Data

SDG ID: GCC71072
Phoenix ID: CC71078

Project ID: SHENANGO TOWNSHIP
Client ID: MW-11

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles (Unleaded Gasoline)</u>							
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
Benzene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
Toluene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
Xylenes (Total)	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	95		%	1	03/21/19	MH	70 - 130 %
% Bromofluorobenzene	98		%	1	03/21/19	MH	70 - 130 %
% Dibromofluoromethane	101		%	1	03/21/19	MH	70 - 130 %
% Toluene-d8	93		%	1	03/21/19	MH	70 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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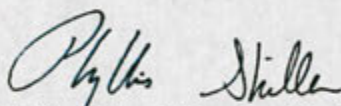
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL

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:

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Phyllis Shiller, Laboratory Director

March 26, 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

March 26, 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
03/18/19 10:45
03/20/19 10:27

Laboratory Data

SDG ID: GCC71072
Phoenix ID: CC71079

Project ID: SHENANGO TOWNSHIP
Client ID: MW-12

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles (Unleaded Gasoline)</u>							
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
Benzene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
Toluene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
Xylenes (Total)	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	95		%	1	03/21/19	MH	70 - 130 %
% Bromofluorobenzene	98		%	1	03/21/19	MH	70 - 130 %
% Dibromofluoromethane	93		%	1	03/21/19	MH	70 - 130 %
% Toluene-d8	92		%	1	03/21/19	MH	70 - 130 %

Project ID: SHENANGO TOWNSHIP
Client ID: MW-12

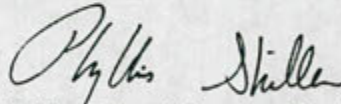
Phoenix I.D.: CC71079

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

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Phyllis Shiller, Laboratory Director

March 26, 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

March 26, 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>
03/15/19	15:30
03/20/19	10:27

Laboratory Data

SDG ID: GCC71072
Phoenix ID: CC71080

Project ID: SHENANGO TOWNSHIP
Client ID: MW-18

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles (Unleaded Gasoline)</u>							
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
Benzene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	8.7	1.0	ug/L	1	03/21/19	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
Toluene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
Xylenes (Total)	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	96		%	1	03/21/19	MH	70 - 130 %
% Bromofluorobenzene	99		%	1	03/21/19	MH	70 - 130 %
% Dibromofluoromethane	89		%	1	03/21/19	MH	70 - 130 %
% Toluene-d8	93		%	1	03/21/19	MH	70 - 130 %

Project ID: SHENANGO TOWNSHIP
Client ID: MW-18

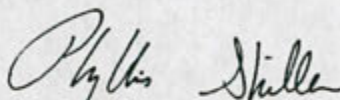
Phoenix I.D.: CC71080

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

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Phyllis Shiller, Laboratory Director

March 26, 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

March 26, 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
03/15/19 16:00
03/20/19 10:27

Laboratory Data

SDG ID: GCC71072
Phoenix ID: CC71081

Project ID: SHENANGO TOWNSHIP
Client ID: MW-19

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles (Unleaded Gasoline)</u>							
1,2,4-Trimethylbenzene	1.3	1.0	ug/L	1	03/21/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
Benzene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
Toluene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
Xylenes (Total)	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	94		%	1	03/21/19	MH	70 - 130 %
% Bromofluorobenzene	97		%	1	03/21/19	MH	70 - 130 %
% Dibromofluoromethane	89		%	1	03/21/19	MH	70 - 130 %
% Toluene-d8	94		%	1	03/21/19	MH	70 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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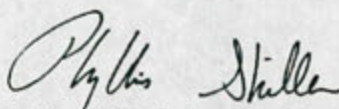
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL

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:

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Phyllis Shiller, Laboratory Director

March 26, 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

March 26, 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

03/15/19 14:20
03/20/19 10:27

Laboratory Data

SDG ID: GCC71072
Phoenix ID: CC71082

Project ID: SHENANGO TOWNSHIP
Client ID: MW-20

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles (Unleaded Gasoline)</u>							
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
Benzene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	2.5	1.0	ug/L	1	03/21/19	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
Toluene	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
Xylenes (Total)	ND	1.0	ug/L	1	03/21/19	MH	SW8260C
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	94		%	1	03/21/19	MH	70 - 130 %
% Bromofluorobenzene	97		%	1	03/21/19	MH	70 - 130 %
% Dibromofluoromethane	91		%	1	03/21/19	MH	70 - 130 %
% Toluene-d8	92		%	1	03/21/19	MH	70 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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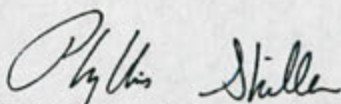
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL

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:

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Phyllis Shiller, Laboratory Director

March 26, 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

March 26, 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

03/15/19 14:50
03/20/19 10:27

Laboratory Data

SDG ID: GCC71072
Phoenix ID: CC71083

Project ID: SHENANGO TOWNSHIP
Client ID: MW-21

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles (Unleaded Gasoline)</u>							
1,2,4-Trimethylbenzene	3.4	1.0	ug/L	1	03/22/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Benzene	43	5.0	ug/L	5	03/24/19	MH	SW8260C
Ethylbenzene	14	1.0	ug/L	1	03/22/19	MH	SW8260C
Isopropylbenzene	11	1.0	ug/L	1	03/22/19	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	3.0	1.0	ug/L	1	03/22/19	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Toluene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Xylenes (Total)	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	91		%	1	03/22/19	MH	70 - 130 %
% Bromofluorobenzene	97		%	1	03/22/19	MH	70 - 130 %
% Dibromofluoromethane	87		%	1	03/22/19	MH	70 - 130 %
% Toluene-d8	99		%	1	03/22/19	MH	70 - 130 %
% 1,2-dichlorobenzene-d4 (5x)	92		%	5	03/24/19	MH	70 - 130 %
% Bromofluorobenzene (5x)	93		%	5	03/24/19	MH	70 - 130 %
% Dibromofluoromethane (5x)	100		%	5	03/24/19	MH	70 - 130 %
% Toluene-d8 (5x)	98		%	5	03/24/19	MH	70 - 130 %

Project ID: SHENANGO TOWNSHIP
Client ID: MW-21

Phoenix I.D.: CC71083

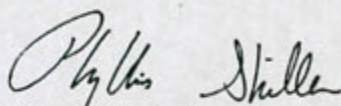
Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low

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.

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Phyllis Shiller, Laboratory Director

March 26, 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

March 26, 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

03/15/19 11:40
03/20/19 10:27

Time

Laboratory Data

SDG ID: GCC71072
Phoenix ID: CC71084

Project ID: SHENANGO TOWNSHIP
Client ID: MW-22

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles (Unleaded Gasoline)</u>							
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Benzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Toluene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Xylenes (Total)	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	94		%	1	03/22/19	MH	70 - 130 %
% Bromofluorobenzene	97		%	1	03/22/19	MH	70 - 130 %
% Dibromofluoromethane	87		%	1	03/22/19	MH	70 - 130 %
% Toluene-d8	91		%	1	03/22/19	MH	70 - 130 %

Project ID: SHENANGO TOWNSHIP

Client ID: MW-22

Phoenix I.D.: CC71084

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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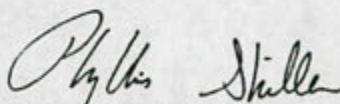
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL

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:

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Phyllis Shiller, Laboratory Director

March 26, 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

March 26, 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

03/18/19 13:30
03/20/19 10:27

Time

Laboratory Data

SDG ID: GCC71072
Phoenix ID: CC71085

Project ID: SHENANGO TOWNSHIP
Client ID: MW-23

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles (Unleaded Gasoline)</u>							
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Benzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	110	10	ug/L	10	03/24/19	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Toluene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Xylenes (Total)	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	95		%	1	03/22/19	MH	70 - 130 %
% Bromofluorobenzene	97		%	1	03/22/19	MH	70 - 130 %
% Dibromofluoromethane	85		%	1	03/22/19	MH	70 - 130 %
% Toluene-d8	94		%	1	03/22/19	MH	70 - 130 %
% 1,2-dichlorobenzene-d4 (10x)	91		%	10	03/24/19	MH	70 - 130 %
% Bromofluorobenzene (10x)	95		%	10	03/24/19	MH	70 - 130 %
% Dibromofluoromethane (10x)	98		%	10	03/24/19	MH	70 - 130 %
% Toluene-d8 (10x)	95		%	10	03/24/19	MH	70 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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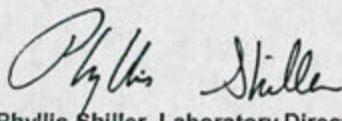
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL

BRL=Below Reporting Level L=Biased Low

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Phyllis Shiller, Laboratory Director

March 26, 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

March 26, 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

03/18/19 13:30
03/20/19 10:27

Time

Laboratory Data

SDG ID: GCC71072
Phoenix ID: CC71086

Project ID: SHENANGO TOWNSHIP
Client ID: MW-23 DUPLICATE

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles (Unleaded Gasoline)</u>							
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Benzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	110	10	ug/L	10	03/24/19	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Toluene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Xylenes (Total)	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	93		%	1	03/22/19	MH	70 - 130 %
% Bromofluorobenzene	96		%	1	03/22/19	MH	70 - 130 %
% Dibromofluoromethane	86		%	1	03/22/19	MH	70 - 130 %
% Toluene-d8	92		%	1	03/22/19	MH	70 - 130 %
% 1,2-dichlorobenzene-d4 (10x)	91		%	10	03/24/19	MH	70 - 130 %
% Bromofluorobenzene (10x)	93		%	10	03/24/19	MH	70 - 130 %
% Dibromofluoromethane (10x)	98		%	10	03/24/19	MH	70 - 130 %
% Toluene-d8 (10x)	94		%	10	03/24/19	MH	70 - 130 %

Project ID: SHENANGO TOWNSHIP
Client ID: MW-23 DUPLICATE

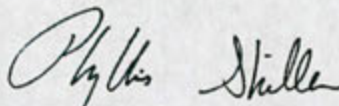
Phoenix I.D.: CC71086

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

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Phyllis Shiller, Laboratory Director

March 26, 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

March 26, 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

03/15/19 10:30
03/20/19 10:27

Time

Laboratory Data

SDG ID: GCC71072
Phoenix ID: CC71087

Project ID: SHENANGO TOWNSHIP
Client ID: MW-24

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles (Unleaded Gasoline)</u>							
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Benzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Toluene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Xylenes (Total)	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	93		%	1	03/22/19	MH	70 - 130 %
% Bromofluorobenzene	97		%	1	03/22/19	MH	70 - 130 %
% Dibromofluoromethane	86		%	1	03/22/19	MH	70 - 130 %
% Toluene-d8	93		%	1	03/22/19	MH	70 - 130 %

Project ID: SHENANGO TOWNSHIP
Client ID: MW-24

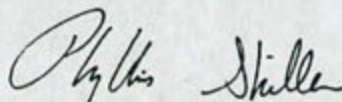
Phoenix I.D.: CC71087

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

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Phyllis Shiller, Laboratory Director

March 26, 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

March 26, 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

03/15/19 10:00
03/20/19 10:27

Time

Laboratory Data

SDG ID: GCC71072
Phoenix ID: CC71088

Project ID: SHENANGO TOWNSHIP
Client ID: MW-25

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles (Unleaded Gasoline)</u>							
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Benzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	1.1	1.0	ug/L	1	03/22/19	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Toluene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Xylenes (Total)	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	95		%	1	03/22/19	MH	70 - 130 %
% Bromofluorobenzene	99		%	1	03/22/19	MH	70 - 130 %
% Dibromofluoromethane	91		%	1	03/22/19	MH	70 - 130 %
% Toluene-d8	92		%	1	03/22/19	MH	70 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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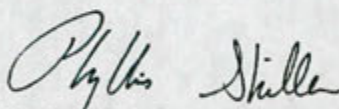
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL

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:

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Phyllis Shiller, Laboratory Director

March 26, 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

March 26, 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
03/15/19	9:35
03/20/19	10:27

Laboratory Data

SDG ID: GCC71072
Phoenix ID: CC71089

Project ID: SHENANGO TOWNSHIP
Client ID: MW-26

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles (Unleaded Gasoline)</u>							
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Benzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Toluene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Xylenes (Total)	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	96		%	1	03/22/19	MH	70 - 130 %
% Bromofluorobenzene	98		%	1	03/22/19	MH	70 - 130 %
% Dibromofluoromethane	83		%	1	03/22/19	MH	70 - 130 %
% Toluene-d8	92		%	1	03/22/19	MH	70 - 130 %

Project ID: SHENANGO TOWNSHIP
Client ID: MW-26

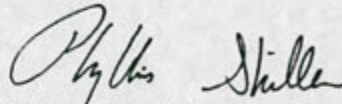
Phoenix I.D.: CC71089

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

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Phyllis Shiller, Laboratory Director

March 26, 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

March 26, 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

03/18/19 12:10
03/20/19 10:27

Laboratory Data

SDG ID: GCC71072
Phoenix ID: CC71090

Project ID: SHENANGO TOWNSHIP
Client ID: MW-27

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles (Unleaded Gasoline)</u>							
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Benzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	25	1.0	ug/L	1	03/22/19	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Toluene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Xylenes (Total)	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	94		%	1	03/22/19	MH	70 - 130 %
% Bromofluorobenzene	100		%	1	03/22/19	MH	70 - 130 %
% Dibromofluoromethane	87		%	1	03/22/19	MH	70 - 130 %
% Toluene-d8	93		%	1	03/22/19	MH	70 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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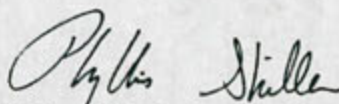
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL

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:

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Phyllis Shiller, Laboratory Director

March 26, 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

March 26, 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

03/18/19
03/20/19

Time

11:20
10:27

Laboratory Data

SDG ID: GCC71072
Phoenix ID: CC71091

Project ID: SHENANGO TOWNSHIP
Client ID: MW-28

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles (Unleaded Gasoline)</u>							
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Benzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Toluene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Xylenes (Total)	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	94		%	1	03/22/19	MH	70 - 130 %
% Bromofluorobenzene	100		%	1	03/22/19	MH	70 - 130 %
% Dibromofluoromethane	94		%	1	03/22/19	MH	70 - 130 %
% Toluene-d8	91		%	1	03/22/19	MH	70 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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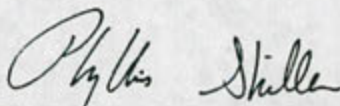
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL

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:

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Phyllis Shiller, Laboratory Director

March 26, 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

March 26, 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

03/15/19
03/20/19

Time

13:40
10:27

Laboratory Data

SDG ID: GCC71072
Phoenix ID: CC71092

Project ID: SHENANGO TOWNSHIP
Client ID: MW-29

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles (Unleaded Gasoline)</u>							
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Benzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Toluene	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Xylenes (Total)	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	94		%	1	03/22/19	MH	70 - 130 %
% Bromofluorobenzene	99		%	1	03/22/19	MH	70 - 130 %
% Dibromofluoromethane	93		%	1	03/22/19	MH	70 - 130 %
% Toluene-d8	92		%	1	03/22/19	MH	70 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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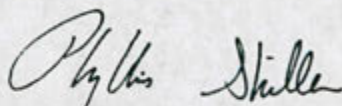
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL

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:

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Phyllis Shiller, Laboratory Director

March 26, 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

March 26, 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

03/18/19 14:50
03/20/19 10:27

Time

Laboratory Data

SDG ID: GCC71072
Phoenix ID: CC71093

Project ID: SHENANGO TOWNSHIP
Client ID: RW-1

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles (Unleaded Gasoline)</u>							
1,2,4-Trimethylbenzene	3000	200	ug/L	200	03/25/19	MH	SW8260C
1,3,5-Trimethylbenzene	840	200	ug/L	200	03/25/19	MH	SW8260C
Benzene	13000	1000	ug/L	1000	03/24/19	MH	SW8260C
Ethylbenzene	4100	200	ug/L	200	03/25/19	MH	SW8260C
Isopropylbenzene	130	20	ug/L	20	03/22/19	MH	SW8260C
m&p-Xylene	15000	1000	ug/L	1000	03/24/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	130	20	ug/L	20	03/22/19	MH	SW8260C
Naphthalene	610	200	ug/L	200	03/25/19	MH	SW8260C
o-Xylene	3300	200	ug/L	200	03/25/19	MH	SW8260C
Toluene	2300	200	ug/L	200	03/25/19	MH	SW8260C
Xylenes (Total)	18300	200	ug/L	200	03/24/19	MH	SW8260C
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4 (20x)	95		%	20	03/22/19	MH	70 - 130 %
% Bromofluorobenzene (20x)	99		%	20	03/22/19	MH	70 - 130 %
% Dibromofluoromethane (20x)	98		%	20	03/22/19	MH	70 - 130 %
% Toluene-d8 (20x)	97		%	20	03/22/19	MH	70 - 130 %
% 1,2-dichlorobenzene-d4 (200x)	96		%	200	03/25/19	MH	70 - 130 %
% Bromofluorobenzene (200x)	97		%	200	03/25/19	MH	70 - 130 %
% Dibromofluoromethane (200x)	117		%	200	03/25/19	MH	70 - 130 %
% Toluene-d8 (200x)	97		%	200	03/25/19	MH	70 - 130 %
% 1,2-dichlorobenzene-d4 (1000x)	94		%	1000	03/24/19	MH	70 - 130 %
% Bromofluorobenzene (1000x)	89		%	1000	03/24/19	MH	70 - 130 %
% Dibromofluoromethane (1000x)	103		%	1000	03/24/19	MH	70 - 130 %
% Toluene-d8 (1000x)	96		%	1000	03/24/19	MH	70 - 130 %

Project ID: SHENANGO TOWNSHIP
Client ID: RW-1

Phoenix I.D.: CC71093

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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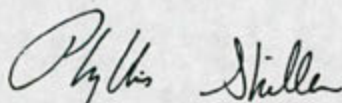
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed 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.

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Phyllis Shiller, Laboratory Director

March 26, 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

March 26, 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

03/18/19 15:30
03/20/19 10:27

Time

Laboratory Data

SDG ID: GCC71072
Phoenix ID: CC71094

Project ID: SHENANGO TOWNSHIP
Client ID: RW-2

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles (Unleaded Gasoline)</u>							
1,2,4-Trimethylbenzene	260	10	ug/L	10	03/25/19	MH	SW8260C
1,3,5-Trimethylbenzene	2.1	1.0	ug/L	1	03/22/19	MH	SW8260C
Benzene	140	10	ug/L	10	03/25/19	MH	SW8260C
Ethylbenzene	50	10	ug/L	10	03/25/19	MH	SW8260C
Isopropylbenzene	2.0	1.0	ug/L	1	03/22/19	MH	SW8260C
m&p-Xylene	140	10	ug/L	10	03/25/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	ND	1.0	ug/L	1	03/22/19	MH	SW8260C
Naphthalene	12	1.0	ug/L	1	03/22/19	MH	SW8260C
o-Xylene	4.7	1.0	ug/L	1	03/22/19	MH	SW8260C
Toluene	2.7	1.0	ug/L	1	03/22/19	MH	SW8260C
Xylenes (Total)	144.7	1.0	ug/L	1	03/22/19	MH	SW8260C
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	96		%	1	03/22/19	MH	70 - 130 %
% Bromofluorobenzene	100		%	1	03/22/19	MH	70 - 130 %
% Dibromofluoromethane	97		%	1	03/22/19	MH	70 - 130 %
% Toluene-d8	100		%	1	03/22/19	MH	70 - 130 %
% 1,2-dichlorobenzene-d4 (10x)	95		%	10	03/25/19	MH	70 - 130 %
% Bromofluorobenzene (10x)	93		%	10	03/25/19	MH	70 - 130 %
% Dibromofluoromethane (10x)	102		%	10	03/25/19	MH	70 - 130 %
% Toluene-d8 (10x)	98		%	10	03/25/19	MH	70 - 130 %

Project ID: SHENANGO TOWNSHIP
Client ID: RW-2

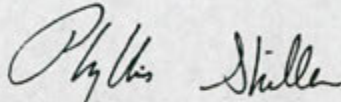
Phoenix I.D.: CC71094

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

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Phyllis Shiller, Laboratory Director

March 26, 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

March 26, 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

03/18/19 16:00
03/20/19 10:27

Time

Laboratory Data

SDG ID: GCC71072
Phoenix ID: CC71095

Project ID: SHENANGO TOWNSHIP
Client ID: RW-3

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles (Unleaded Gasoline)</u>							
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	03/26/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	03/26/19	MH	SW8260C
Benzene	ND	1.0	ug/L	1	03/26/19	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	03/26/19	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	03/26/19	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	03/26/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	ND	1.0	ug/L	1	03/26/19	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	03/26/19	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	03/26/19	MH	SW8260C
Toluene	ND	1.0	ug/L	1	03/26/19	MH	SW8260C
Xylenes (Total)	ND	1.0	ug/L	1	03/26/19	MH	SW8260C
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	97		%	1	03/26/19	MH	70 - 130 %
% Bromofluorobenzene	101		%	1	03/26/19	MH	70 - 130 %
% Dibromofluoromethane	103		%	1	03/26/19	MH	70 - 130 %
% Toluene-d8	94		%	1	03/26/19	MH	70 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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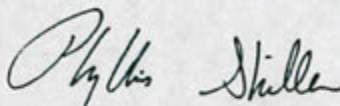
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL

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

March 26, 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

March 26, 2019

QA/QC Data

SDG I.D.: GCC71072

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 471474 (ug/L), QC Sample No: CC70724 (CC71073, CC71076)										
<u>Volatiles - Ground Water</u>										
1,2,4-Trimethylbenzene	ND	1.0	95	94	1.1				70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	94	91	3.2				70 - 130	30
Benzene	ND	0.70	108	102	5.7				70 - 130	30
Ethylbenzene	ND	1.0	97	91	6.4				70 - 130	30
Isopropylbenzene	ND	1.0	95	91	4.3				70 - 130	30
m&p-Xylene	ND	1.0	97	90	7.5				70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	90	72	22.2				70 - 130	30
Naphthalene	ND	1.0	118	103	13.6				70 - 130	30
o-Xylene	ND	1.0	100	93	7.3				70 - 130	30
Toluene	ND	1.0	100	92	8.3				70 - 130	30
% 1,2-dichlorobenzene-d4	96	%	102	100	2.0				70 - 130	30
% Bromofluorobenzene	97	%	99	97	2.0				70 - 130	30
% Dibromofluoromethane	100	%	94	86	8.9				70 - 130	30
% Toluene-d8	90	%	100	100	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%.

QA/QC Batch 471171 (ug/L), QC Sample No: CC70984 (CC71072, CC71074 (400X), CC71075, CC71077, CC71078, CC71079, CC71080, CC71081, CC71082)

Volatiles - Ground Water

1,2,4-Trimethylbenzene	ND	1.0	88	92	4.4				70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	87	91	4.5				70 - 130	30
Benzene	ND	0.70	100	101	1.0				70 - 130	30
Ethylbenzene	ND	1.0	89	90	1.1				70 - 130	30
Isopropylbenzene	ND	1.0	90	91	1.1				70 - 130	30
m&p-Xylene	ND	1.0	89	89	0.0				70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	75	74	1.3				70 - 130	30
Naphthalene	ND	1.0	89	99	10.6				70 - 130	30
o-Xylene	ND	1.0	91	91	0.0				70 - 130	30
Toluene	ND	1.0	86	91	5.6				70 - 130	30
% 1,2-dichlorobenzene-d4	98	%	100	99	1.0				70 - 130	30
% Bromofluorobenzene	99	%	98	97	1.0				70 - 130	30
% Dibromofluoromethane	93	%	86	86	0.0				70 - 130	30
% Toluene-d8	92	%	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 Data

SDG I.D.: GCC71072

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
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QA/QC Batch 471832 (ug/L), QC Sample No: CC71578 (CC71093 (200X) , CC71095)

Volatiles - Ground Water

1,2,4-Trimethylbenzene	ND	1.0	97	94	3.1				70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	97	95	2.1				70 - 130	30
Benzene	ND	0.70	96	95	1.0				70 - 130	30
Ethylbenzene	ND	1.0	97	95	2.1				70 - 130	30
Isopropylbenzene	ND	1.0	101	96	5.1				70 - 130	30
m&p-Xylene	ND	1.0	96	94	2.1				70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	92	92	0.0				70 - 130	30
Naphthalene	ND	1.0	99	97	2.0				70 - 130	30
o-Xylene	ND	1.0	98	97	1.0				70 - 130	30
Toluene	ND	1.0	99	96	3.1				70 - 130	30
% 1,2-dichlorobenzene-d4	93	%	101	99	2.0				70 - 130	30
% Bromofluorobenzene	95	%	98	97	1.0				70 - 130	30
% Dibromofluoromethane	95	%	97	96	1.0				70 - 130	30
% Toluene-d8	92	%	101	101	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%.

QA/QC Batch 471649 (ug/L), QC Sample No: CC71636 (CC71083, CC71084, CC71085, CC71086, CC71087, CC71088, CC71089, CC71090, CC71091, CC71092, CC71093 (20X) , CC71094)

Volatiles - Ground Water

1,2,4-Trimethylbenzene	ND	1.0	103	102	1.0				70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	103	99	4.0				70 - 130	30
Benzene	ND	0.70	119	116	2.6				70 - 130	30
Ethylbenzene	ND	1.0	103	103	0.0				70 - 130	30
Isopropylbenzene	ND	1.0	106	101	4.8				70 - 130	30
m&p-Xylene	ND	1.0	103	101	2.0				70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	89	88	1.1				70 - 130	30
Naphthalene	ND	1.0	105	108	2.8				70 - 130	30
o-Xylene	ND	1.0	106	105	0.9				70 - 130	30
Toluene	ND	1.0	105	104	1.0				70 - 130	30
% 1,2-dichlorobenzene-d4	96	%	102	99	3.0				70 - 130	30
% Bromofluorobenzene	97	%	98	100	2.0				70 - 130	30
% Dibromofluoromethane	92	%	89	92	3.3				70 - 130	30
% Toluene-d8	92	%	100	100	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%.

QA/QC Batch 471718 (ug/L), QC Sample No: CC72414 (CC71083 (5X) , CC71085 (10X) , CC71086 (10X) , CC71093 (1000X) , CC71094 (10X))

Volatiles - Ground Water

1,2,4-Trimethylbenzene	ND	1.0	91	85	6.8				70 - 130	30
Benzene	ND	0.70	77	74	4.0				70 - 130	30
Ethylbenzene	ND	1.0	85	82	3.6				70 - 130	30
m&p-Xylene	ND	1.0	85	80	6.1				70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	71	69	2.9				70 - 130	30
% 1,2-dichlorobenzene-d4	93	%	97	99	2.0				70 - 130	30
% Bromofluorobenzene	93	%	93	94	1.1				70 - 130	30
% Dibromofluoromethane	103	%	99	97	2.0				70 - 130	30

QA/QC Data

SDG I.D.: GCC71072

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
% Toluene-d8	93	%	102	102	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%.

I = This parameter is outside laboratory LCS/LCSD specified recovery limits.

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
March 26, 2019

Tuesday, March 26, 2019

Criteria: None

State: PA

Sample Criteria Exceedances Report

GCC71072 - COMPENV-PA

SampleNo	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.



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Analysis Comments

March 26, 2019

SDG I.D.: GCC71072

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



Thursday, March 21, 2019

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

Project ID: SHENANGO TOWNSHIP
SDG ID: GCC71069
Sample ID#s: CC71069 - CC71071

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 cursive script that reads "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

March 21, 2019

SDG I.D.: GCC71069

Project ID: SHENANGO TOWNSHIP

Client Id	Lab Id	Matrix
WATER WELL	CC71069	GROUND WATER
DISCHARGE	CC71070	GROUND WATER
RAW WATER	CC71071	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

March 21, 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
03/15/19 8:30
03/20/19 10:27

Laboratory Data

SDG ID: GCC71069
Phoenix ID: CC71069

Project ID: SHENANGO TOWNSHIP
Client ID: WATER WELL

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles (Unleaded Gasoline)</u>							
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
Benzene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
Toluene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
Xylenes (Total)	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	96		%	1	03/20/19	MH	70 - 130 %
% Bromofluorobenzene	96		%	1	03/20/19	MH	70 - 130 %
% Dibromofluoromethane	89		%	1	03/20/19	MH	70 - 130 %
% Toluene-d8	92		%	1	03/20/19	MH	70 - 130 %

Project ID: SHENANGO TOWNSHIP
Client ID: WATER WELL

Phoenix I.D.: CC71069

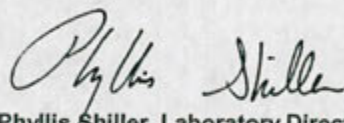
Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low

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:

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Phyllis Shiller, Laboratory Director

March 21, 2019

Reviewed and Released by: Bobbi Aloisa, Vice President



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



Analysis Report

March 21, 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
03/15/19 9:00
03/20/19 10:27

Laboratory Data

SDG ID: GCC71069
Phoenix ID: CC71070

Project ID: SHENANGO TOWNSHIP
Client ID: DISCHARGE

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles (Unleaded Gasoline)</u>							
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
Benzene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
Toluene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
Xylenes (Total)	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	96		%	1	03/20/19	MH	70 - 130 %
% Bromofluorobenzene	97		%	1	03/20/19	MH	70 - 130 %
% Dibromofluoromethane	89		%	1	03/20/19	MH	70 - 130 %
% Toluene-d8	93		%	1	03/20/19	MH	70 - 130 %

Project ID: SHENANGO TOWNSHIP
Client ID: DISCHARGE

Phoenix I.D.: CC71070

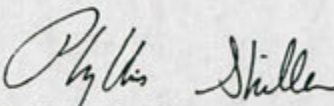
Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low

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:

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Phyllis Shiller, Laboratory Director

March 21, 2019

Reviewed and Released by: Bobbi Aloisa, Vice President



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



Analysis Report

March 21, 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
03/15/19 9:05
03/20/19 10:27

Laboratory Data

SDG ID: GCC71069
Phoenix ID: CC71071

Project ID: SHENANGO TOWNSHIP
Client ID: RAW WATER

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles (Unleaded Gasoline)</u>							
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
Benzene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
Methyl t-Butyl Ether (MTBE)	2.4	1.0	ug/L	1	03/20/19	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
Toluene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
Xylenes (Total)	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	95		%	1	03/20/19	MH	70 - 130 %
% Bromofluorobenzene	98		%	1	03/20/19	MH	70 - 130 %
% Dibromofluoromethane	91		%	1	03/20/19	MH	70 - 130 %
% Toluene-d8	92		%	1	03/20/19	MH	70 - 130 %

Project ID: SHENANGO TOWNSHIP

Client ID: RAW WATER

Phoenix I.D.: CC71071

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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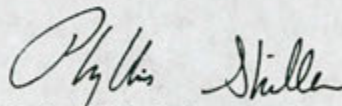
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL

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

March 21, 2019

Reviewed and Released by: Bobbi Aloisa, Vice President



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

March 21, 2019

QA/QC Data

SDG I.D.: GCC71069

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 471171 (ug/L), QC Sample No: CC70984 (CC71069, CC71070, CC71071)										
<u>Volatiles - Ground Water</u>										
1,2,4-Trimethylbenzene	ND	1.0	88	92	4.4				70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	87	91	4.5				70 - 130	30
Benzene	ND	0.70	100	101	1.0				70 - 130	30
Ethylbenzene	ND	1.0	89	90	1.1				70 - 130	30
Isopropylbenzene	ND	1.0	90	91	1.1				70 - 130	30
m&p-Xylene	ND	1.0	89	89	0.0				70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	75	74	1.3				70 - 130	30
Naphthalene	ND	1.0	89	99	10.6				70 - 130	30
o-Xylene	ND	1.0	91	91	0.0				70 - 130	30
Toluene	ND	1.0	86	91	5.6				70 - 130	30
% 1,2-dichlorobenzene-d4	98	%	100	99	1.0				70 - 130	30
% Bromofluorobenzene	99	%	98	97	1.0				70 - 130	30
% Dibromofluoromethane	93	%	86	86	0.0				70 - 130	30
% Toluene-d8	92	%	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

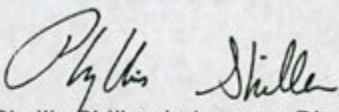
LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference


Phyllis Shiller, Laboratory Director
March 21, 2019

Thursday, March 21, 2019

Criteria: None

State: PA

SampNo Acode

Phoenix Analyte

Criteria

Result

RL

Criteria

RL
Criteria

Analysis
Units

Sample Criteria Exceedances Report

GCC71069 - COMPENV-PA

*** 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

March 21, 2019

SDG I.D.: GCC71069

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



NY/NJ CHAIN OF CUSTODY RECORD

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: info@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-8726

Customer: CES

Address: 2700 Kiriya Dr.
Hermitage, PA 16148

Water Well Sampling

Project: Shenango Township
Report to: Dave Siekkinen
Invoice to: Jan Mozzacchi

Project P.O.:

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

Client Sample Information - Identification

Sampler's Signature: Dave Siekkinen Date: 3-15-19

Matrix Code:
DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water
RW=Raw Water SE=Sediment SL=Sludge S=Soil SD=Solid W=Wipe
OIL=Oil B=Bulk L=Liquid

PHOENIX USE ONLY: SAMPLE #

Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled
71069 Water Well	GW	3-15-19	830
71070 Discharge	↓	↓	900
71071 Raw Water	↓	↓	905

Analysis Request

PHOENIX USE ONLY: ANALYSIS REQUEST

Relinquished by: Dave Siekkinen

Accepted by: Water

Date:

Time:

Turnaround:

NY

Res. Criteria

TOGS GW

Data Format

Phoenix Std Report

Excel

PDF

GIS/Key

EQUS

NJ Hazle EDO

NY EZ EDO (ASP)

Other

Data Package

NJ Reduced Deliv. *

NY Enhanced (ASP B) *

Other

Commercial Soil

375SCO

Industrial Soil

Subpart 5 DW

375SCO

Residential

375SCO

Commercial Soil

375SCO

Industrial Soil

Subpart 5 DW

375SCO

Residential

375SCO

Commercial Soil

375SCO

Industrial Soil

Subpart 5 DW

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Industrial Soil

Subpart 5 DW

375SCO



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

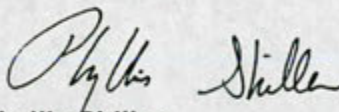
This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

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,


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

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

Time

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
Volatiles (Unleaded Gasoline)							
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
QA/QC Surrogates							
% 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 %

Project ID: SHENANGO TWP
Client ID: MW-27

Phoenix I.D.: CC97920

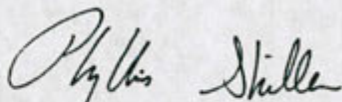
Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low

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 Time

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

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
<u>Volatiles (Unleaded Gasoline)</u>							
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
<u>QA/QC Surrogates</u>							
% 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 %

Project ID: SHENANGO TWP
Client ID: MW-28

Phoenix I.D.: CC97921

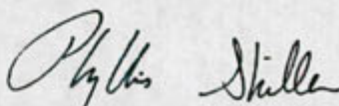
Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
-----------	--------	------------	-------	----------	-----------	----	-----------

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 Time

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
<u>Volatiles (Unleaded Gasoline)</u>							
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
<u>QA/QC Surrogates</u>							
% 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 %

Project ID: SHENANGO TWP
Client ID: MW-29

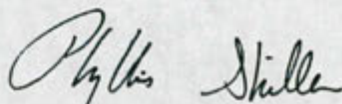
Phoenix I.D.: CC97922

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	Bik 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

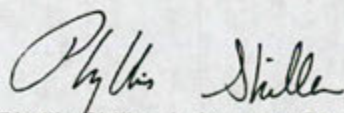
LCSD - Laboratory Control Sample Duplicate

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

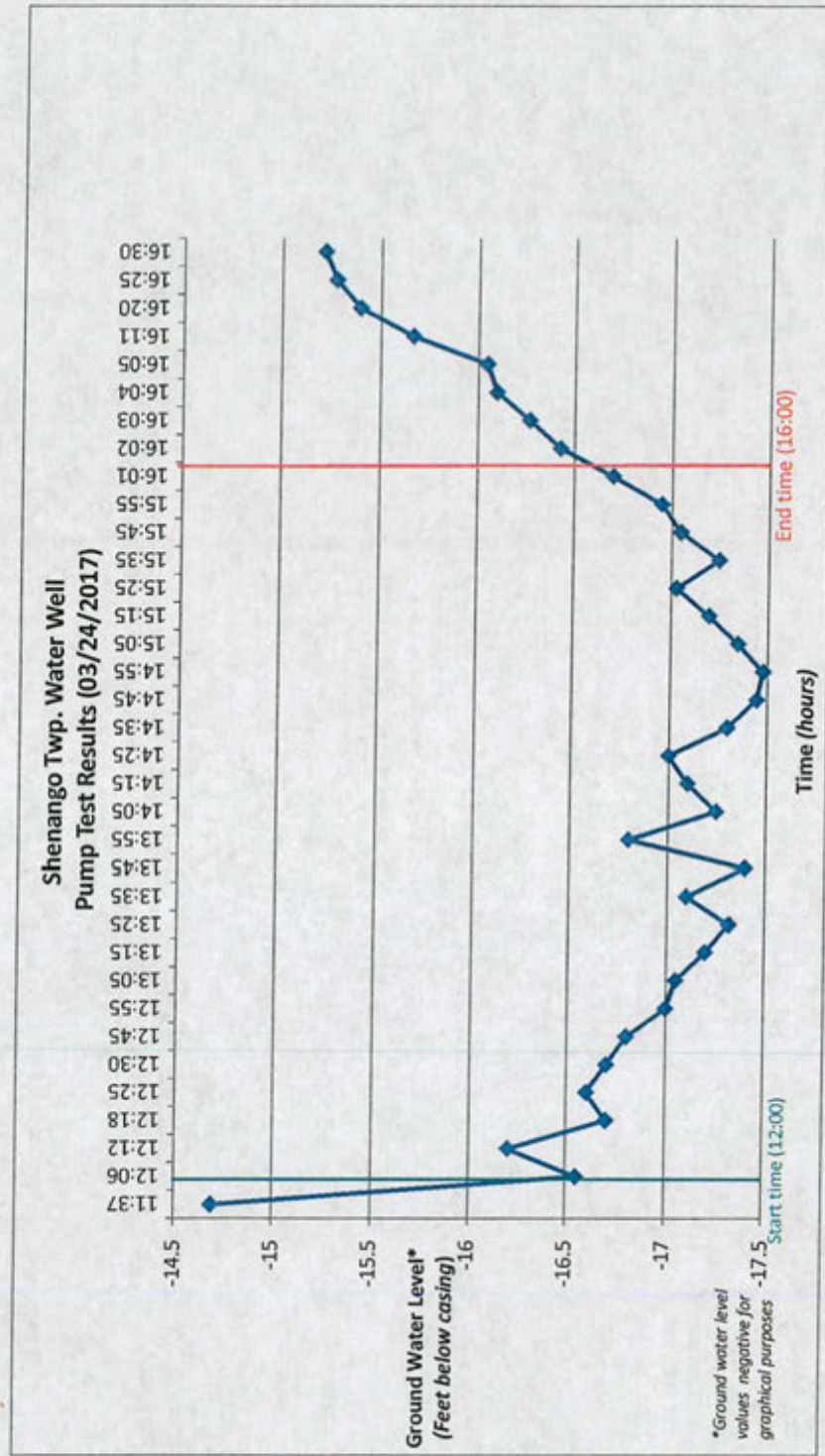
SDG I.D.: GCC97920

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

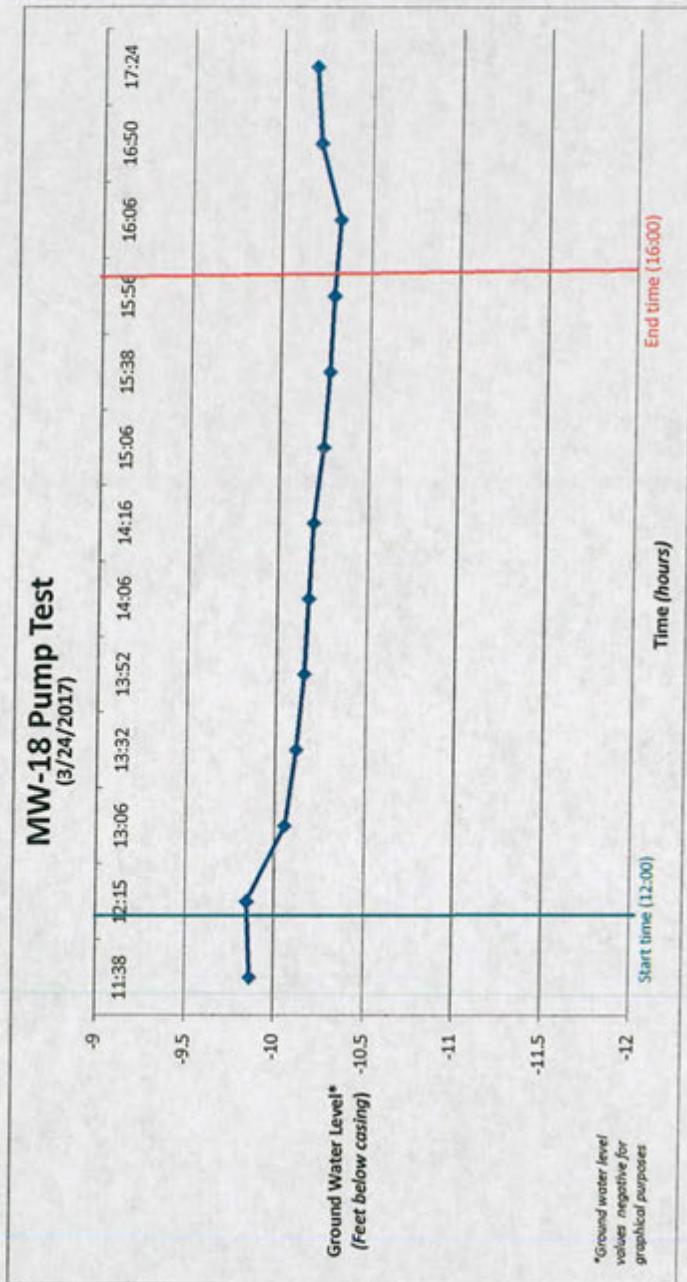
ATTACHMENT 2

March 24, 2017 Pumping Test Data

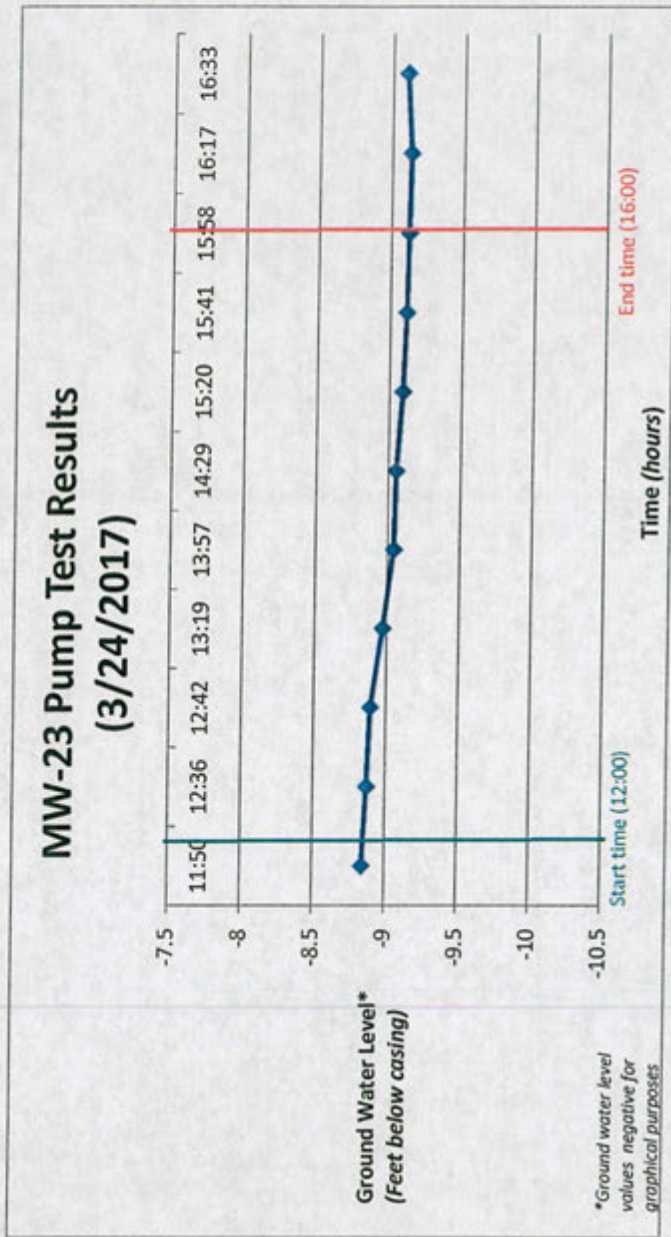
11:37	-14.69
12:06	-16.55
12:12	-16.2
12:18	-16.7
12:25	-16.6
12:30	-16.7
12:45	-16.8
12:55	-17
13:05	-17.05
13:15	-17.2
13:25	-17.32
13:35	-17.1
13:45	-17.4
13:55	-16.8
14:05	-17.25
14:15	-17.1
14:25	-17
14:35	-17.3
14:45	-17.45
14:55	-17.48
15:05	-17.35
15:15	-17.2
15:25	-17.03
15:35	-17.25
15:45	-17.05
15:55	-16.95
16:01	-16.7
16:02	-16.43
16:03	-16.27
16:04	-16.1
16:05	-16.05
16:11	-15.67
16:20	-15.4
16:25	-15.28
16:30	-15.22



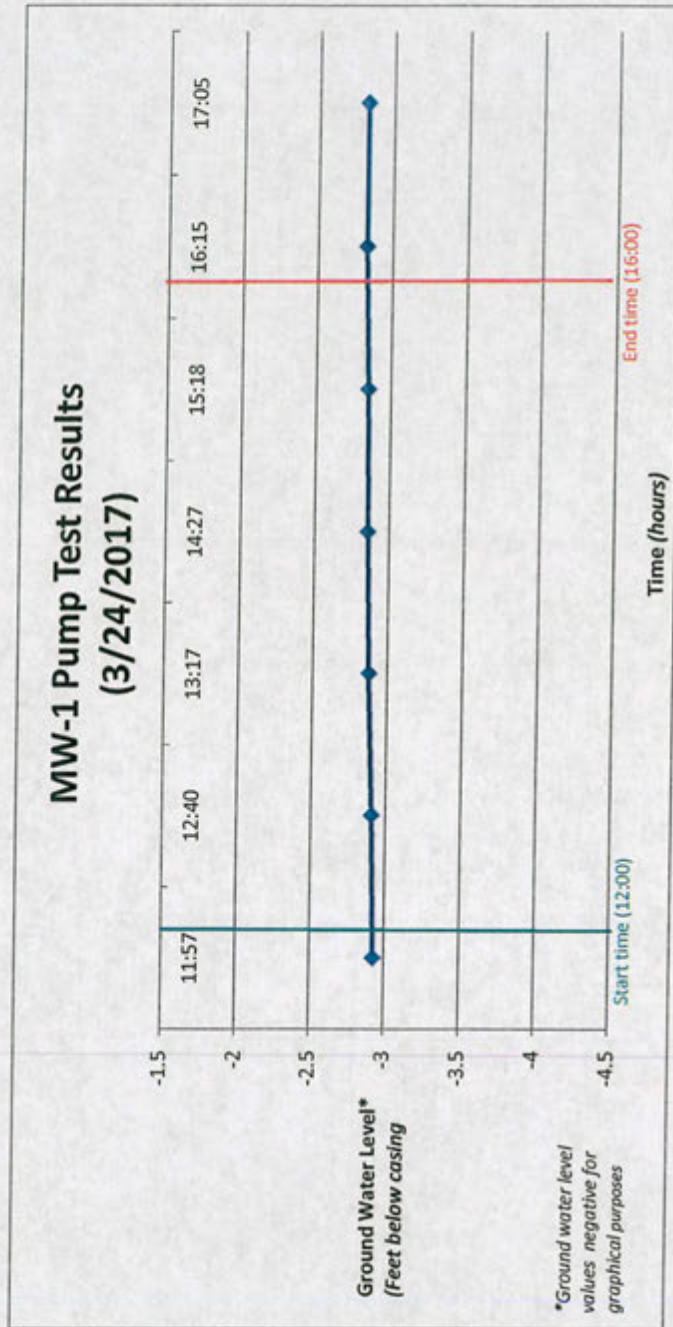
Well	Time	SWL (feet)
MW-18	11:38	-9.87
	12:15	-9.85
	13:06	-10.06
	13:32	-10.12
	13:52	-10.16
	14:06	-10.18
	14:16	-10.2
	15:06	-10.25
	15:38	-10.28
	15:56	-10.3
	16:06	-10.33
	16:50	-10.22
	17:24	-10.19



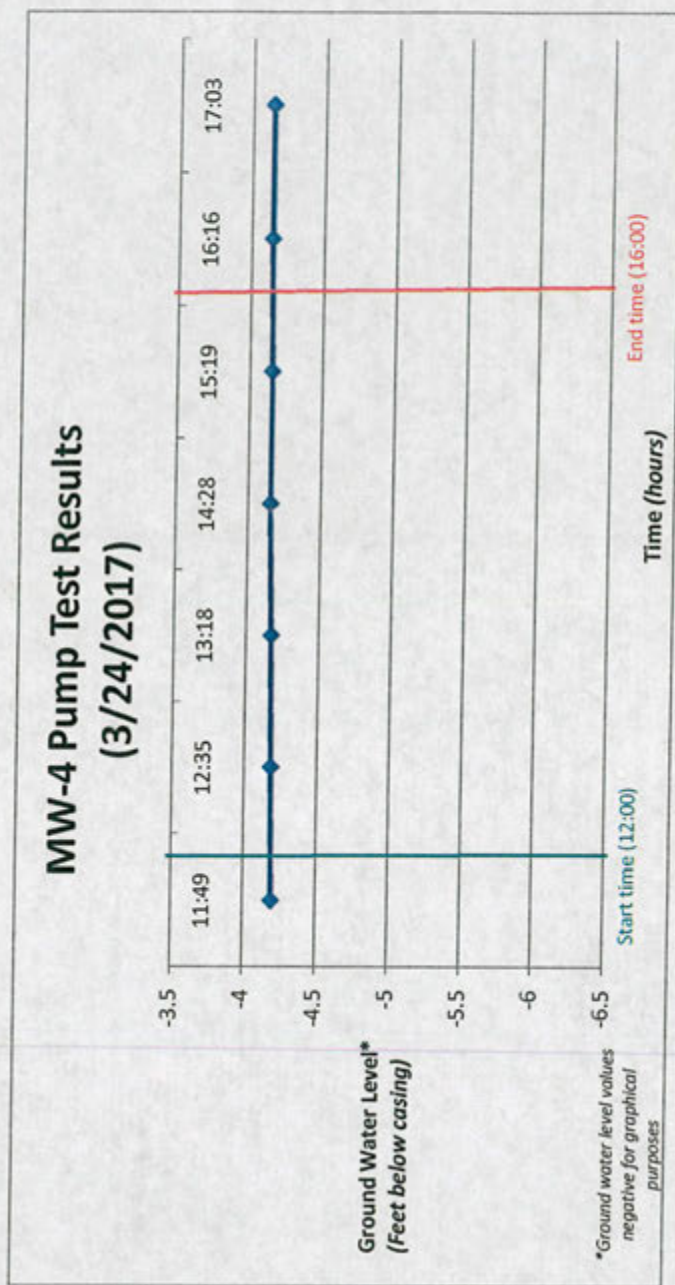
Well	Time	Ground Water
MW-23	11:50	-8.85
	12:36	-8.88
	12:42	-8.9
	13:19	-8.98
	13:57	-9.05
	14:29	-9.06
	15:20	-9.1
	15:41	-9.12
	15:58	-9.13
	16:17	-9.14
	16:33	-9.11



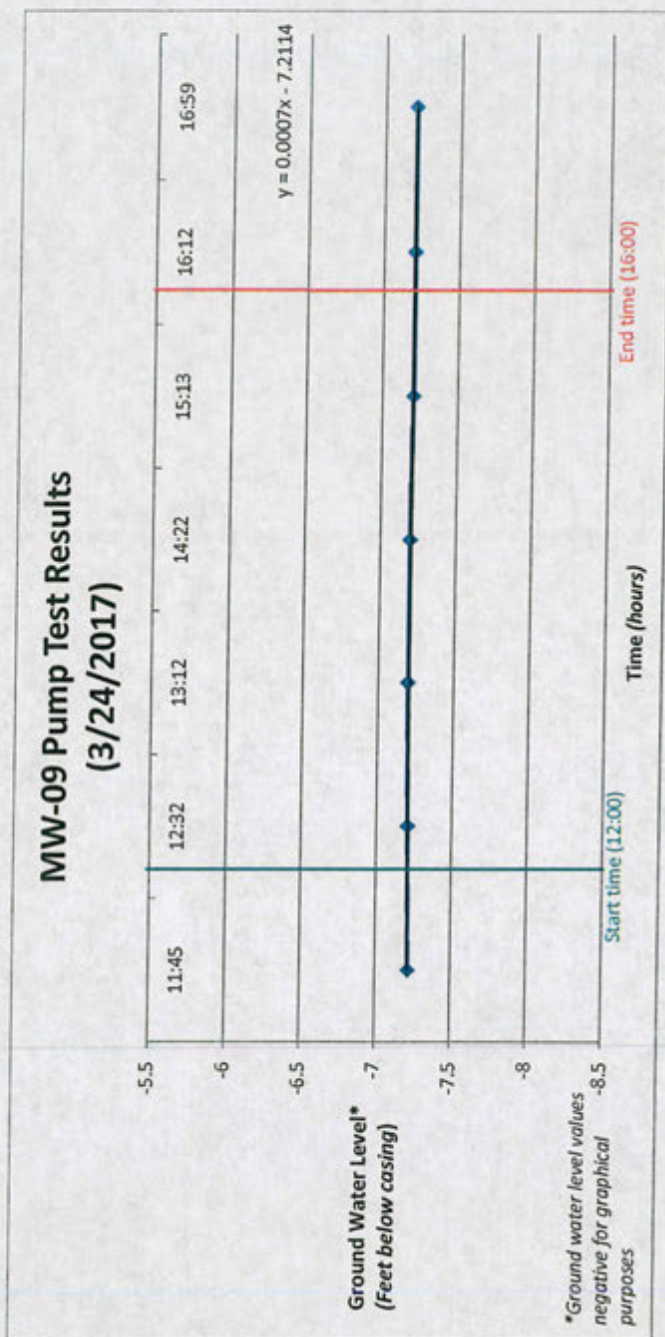
Well	Time	Ground Water
MW-1	11:57	-2.93
	12:40	-2.91
	13:17	-2.88
	14:27	-2.86
	15:18	-2.85
	16:15	-2.83
	17:05	-2.83



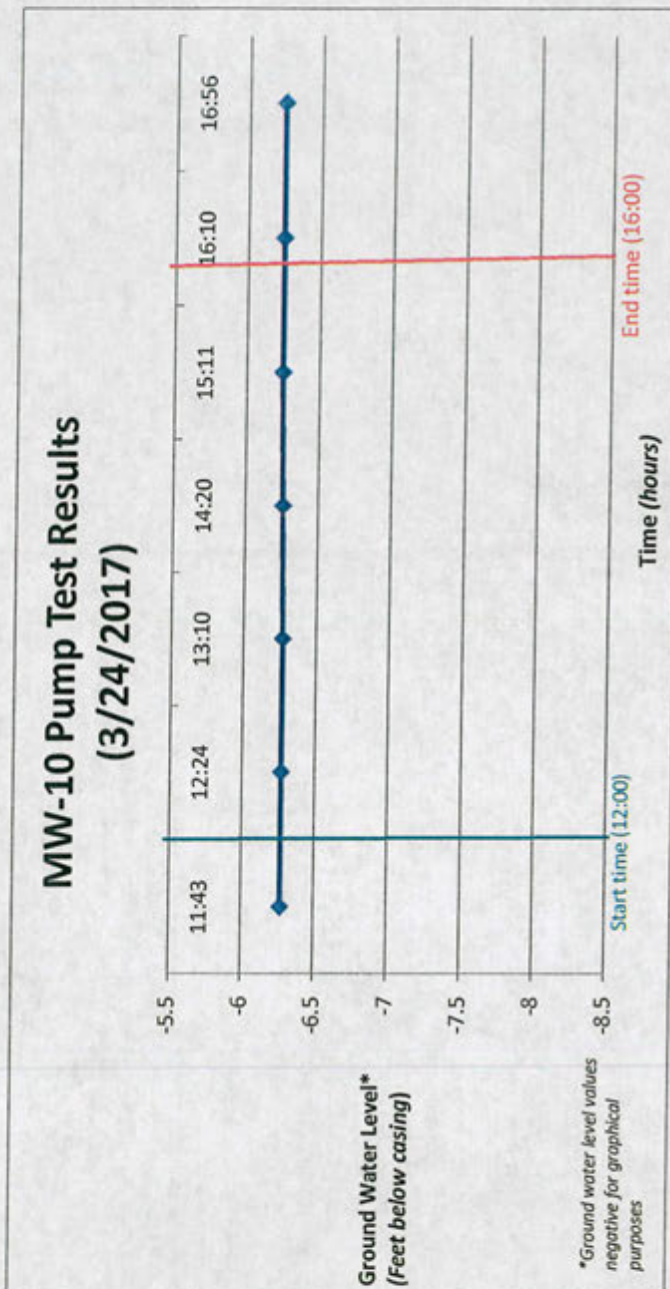
Well	Time	Ground Water
MW-4	11:49	-4.2
	12:35	-4.19
	13:18	-4.18
	14:28	-4.16
	15:19	-4.16
	16:16	-4.15
	17:03	-4.15



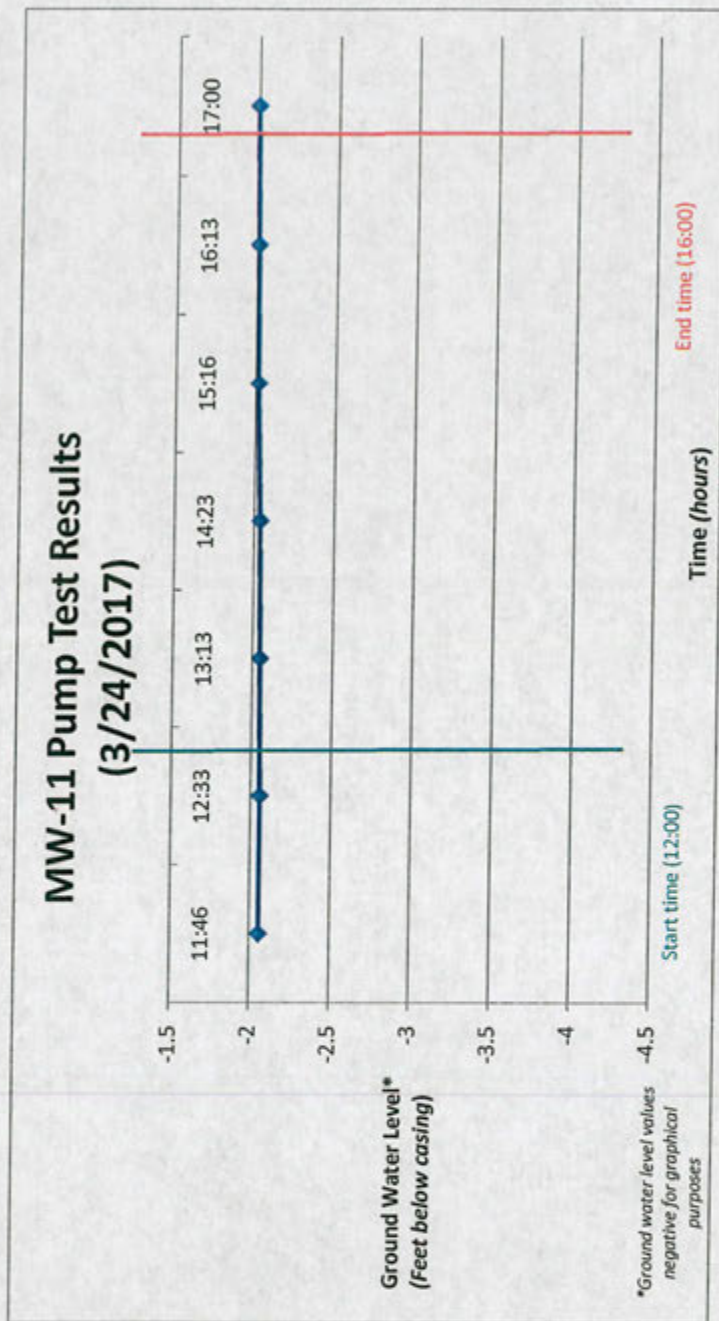
Well	Time	Ground Water
MW-9	11:45	-7.22
	12:32	-7.21
	13:12	-7.2
	14:22	-7.2
	15:13	-7.21
	16:12	-7.21
	16:59	-7.21



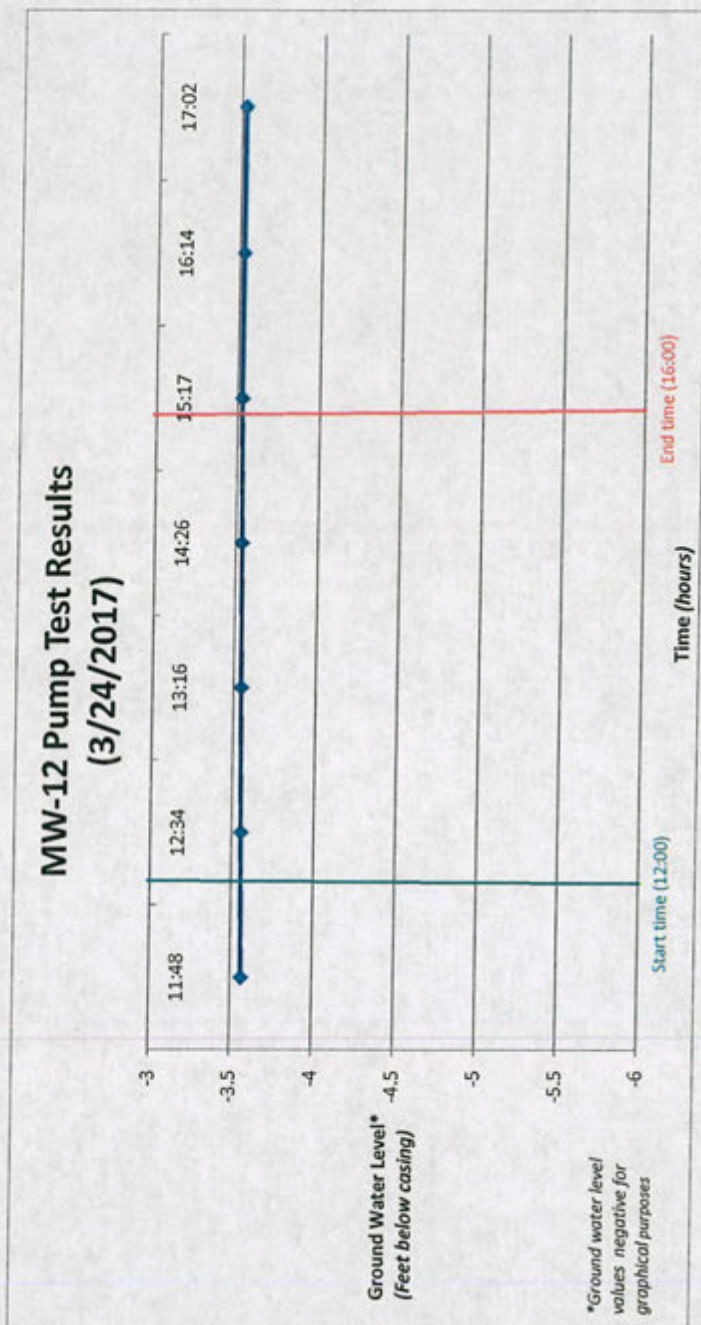
Well	Time	Ground Water
MW-10	11:43	-6.27
	12:24	-6.27
	13:10	-6.27
	14:20	-6.26
	15:11	-6.25
	16:10	-6.25
	16:56	-6.25



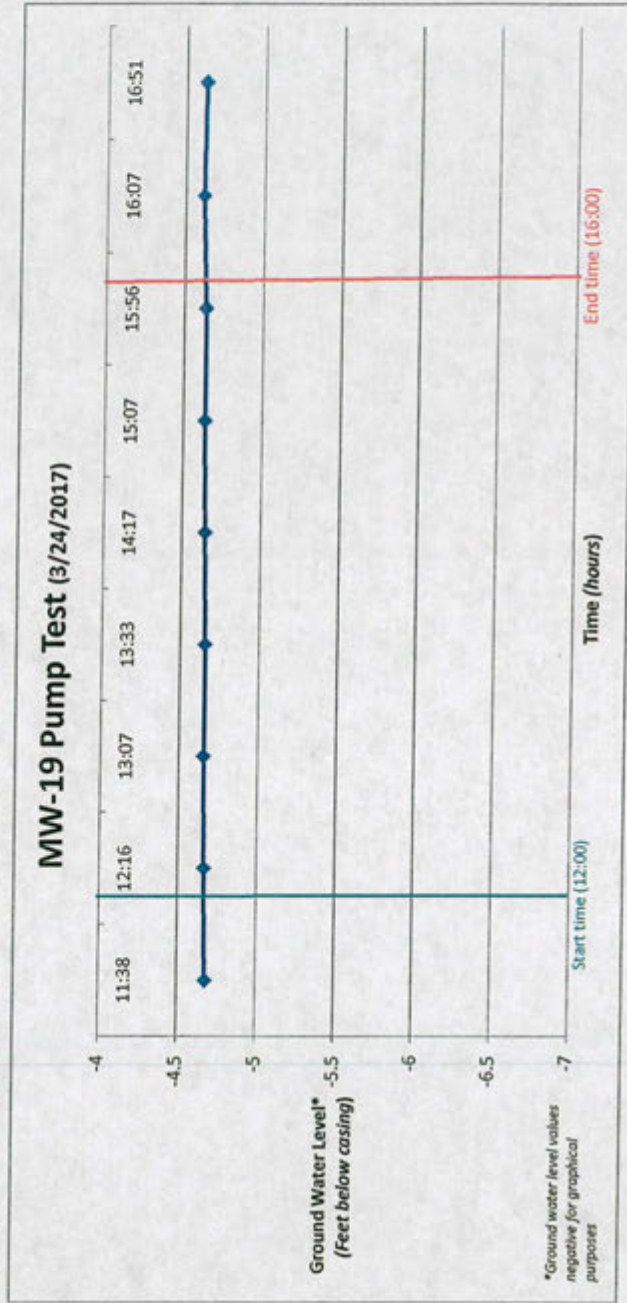
Well	Time	Ground Water
MW-11	11:46	-2.06
	12:33	-2.06
	13:13	-2.05
	14:23	-2.04
	15:16	-2.02
	16:13	-2.01
	17:00	-2



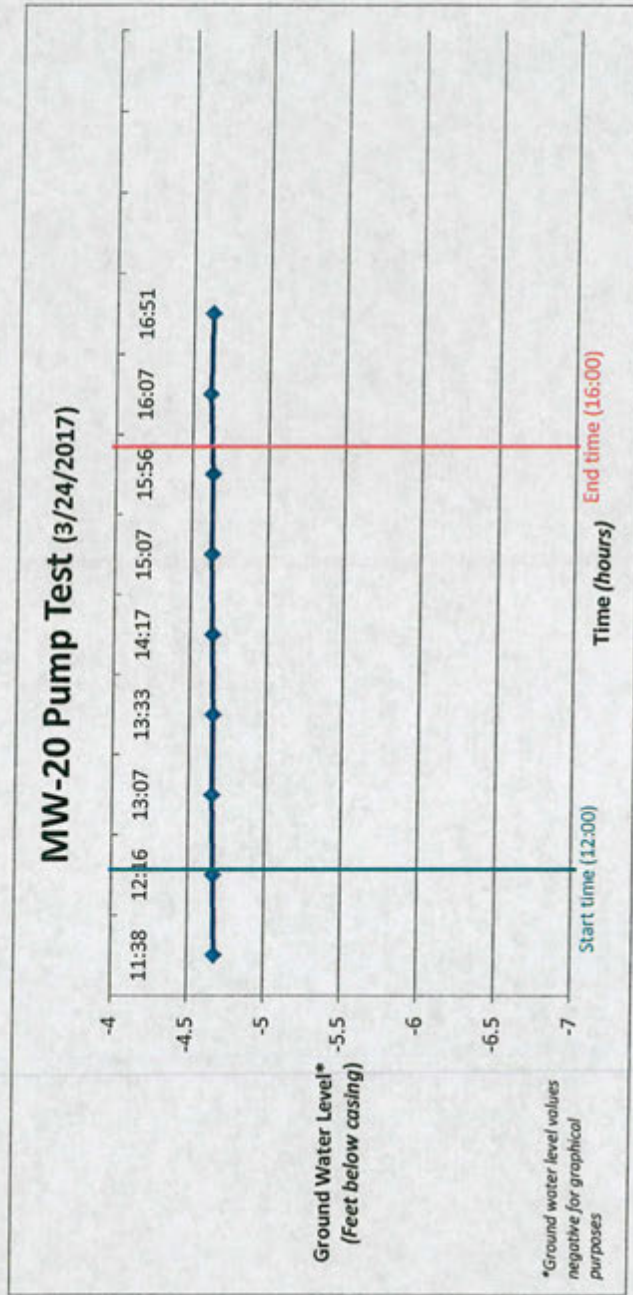
Well	Time	Ground Water
MW-12	11:48	-3.57
	12:34	-3.56
	13:16	-3.55
	14:26	-3.54
	15:17	-3.53
	16:14	-3.53
	17:02	-3.53



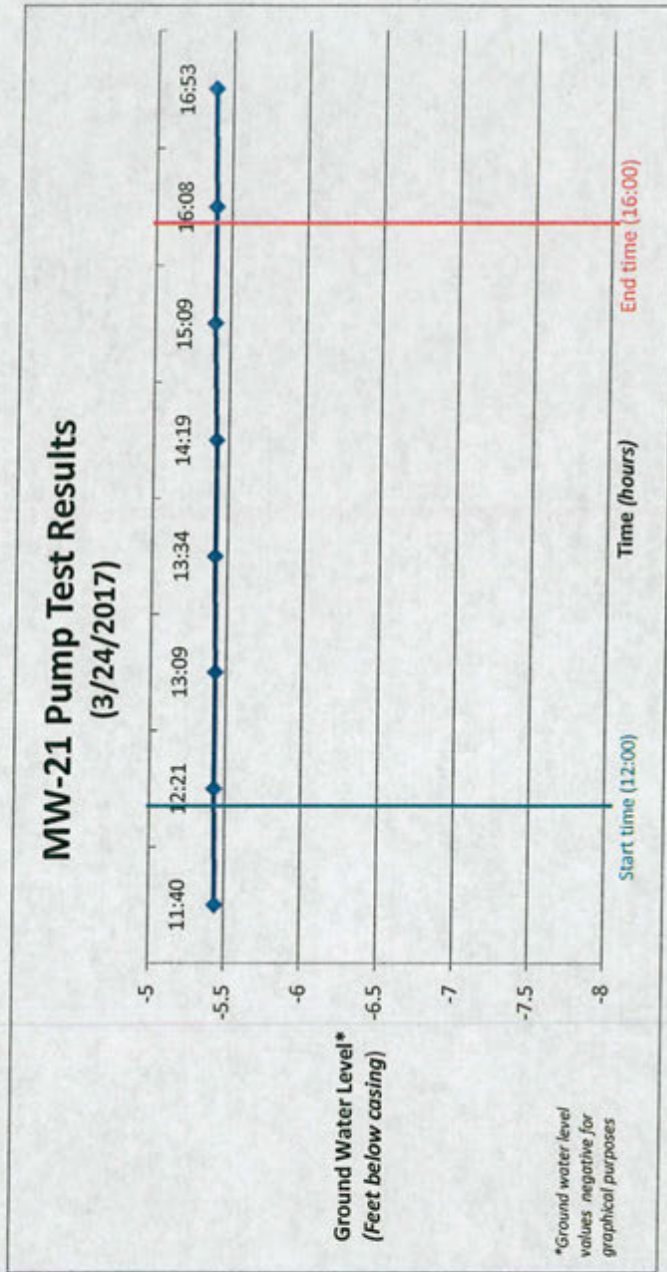
Well	Time	SWL (ft agl)
MW-19	11:38	-4.68
	12:16	-4.67
	13:07	-4.66
	13:33	-4.66
	14:17	-4.65
	15:07	-4.64
	15:56	-4.64
	16:07	-4.62
	16:51	-4.63



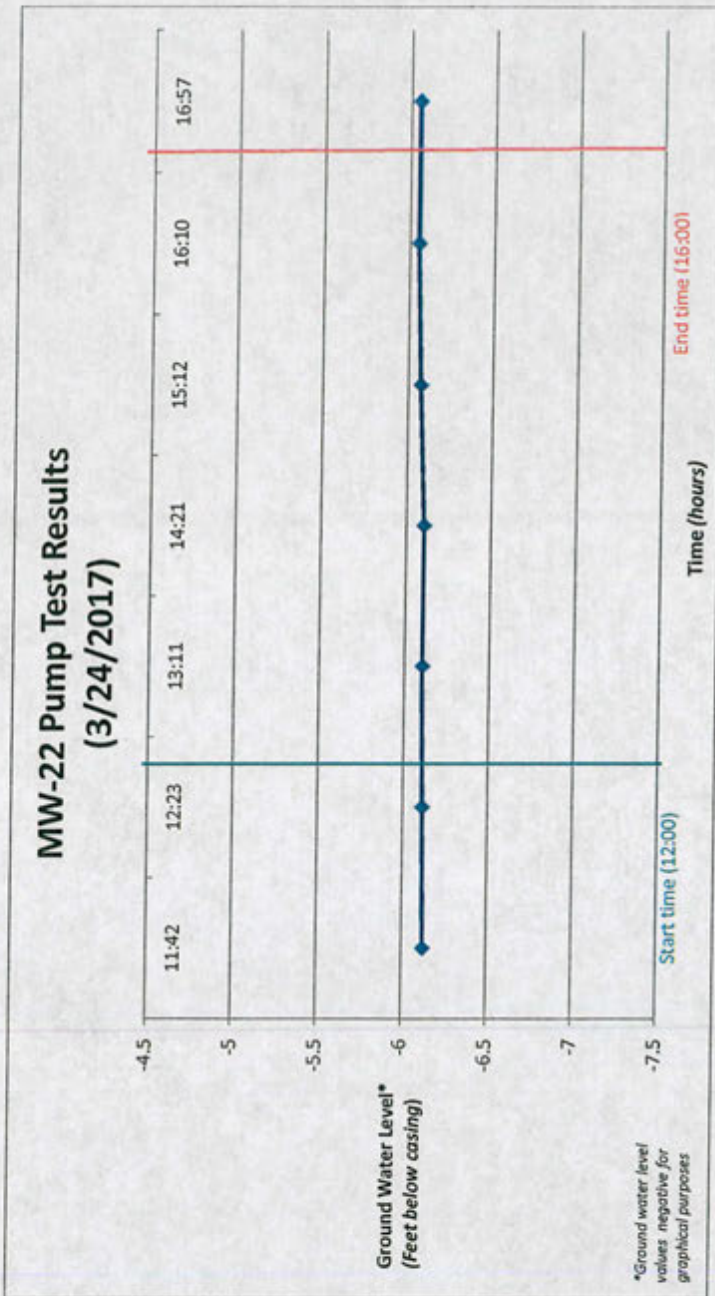
Well	Time	Ground Water Level (feet)
MW-20	11:40	-8.95
	12:21	-8.91
	13:08	-8.97
	13:34	-9.02
	13:54	-9.06
	14:18	-9.11
	15:07	-9.2
	15:39	-9.25
	15:57	-9.27
	16:08	-9.29
	16:52	-9.28
	17:25	-9.24



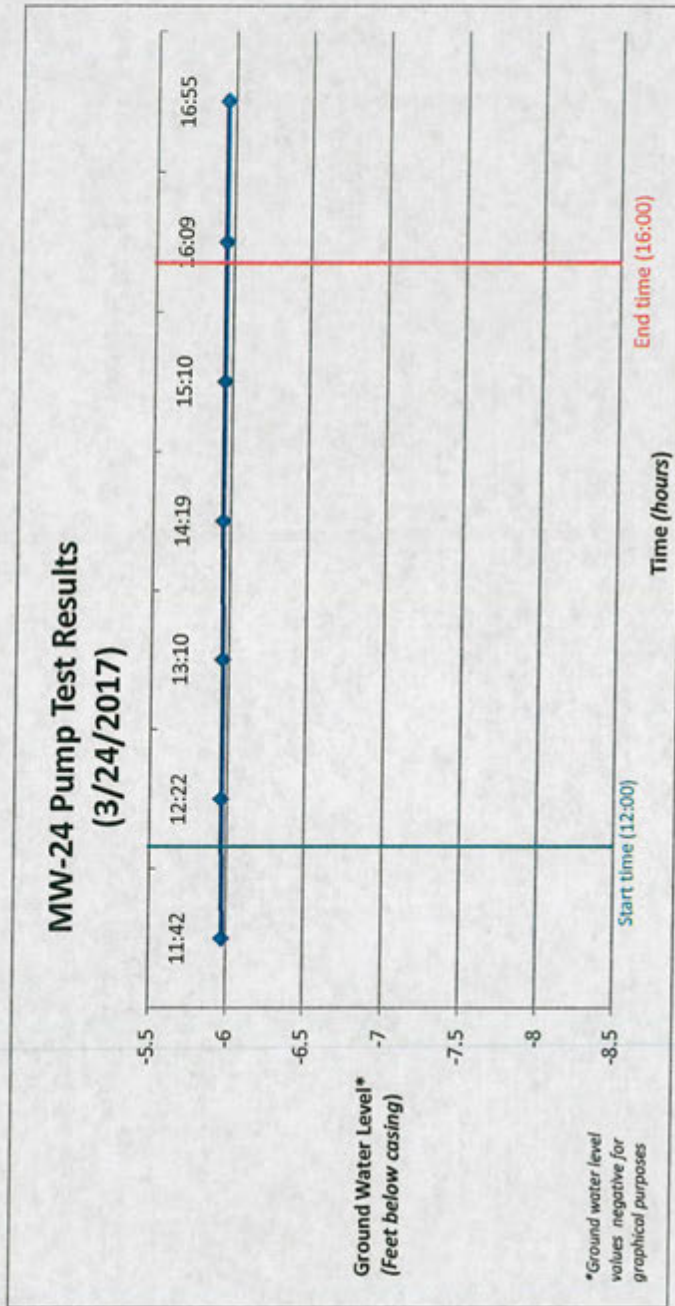
Well	Time	Ground Water Level
MW-21	11:40	-5.44
	12:21	-5.43
	13:09	-5.43
	13:34	-5.42
	14:19	-5.42
	15:09	-5.4
	16:08	-5.4
	16:53	-5.39



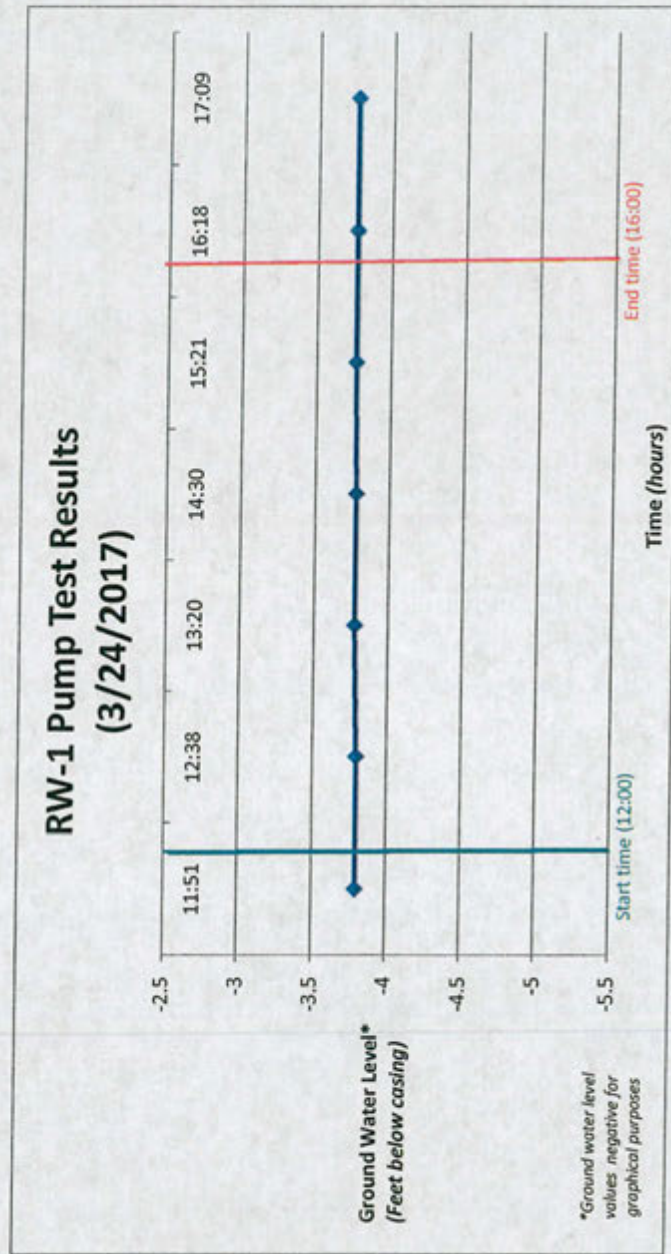
Well	Time	Ground Water Level
MW-22	11:42	-6.13
	12:23	-6.12
	13:11	-6.11
	14:21	-6.11
	15:12	-6.08
	16:10	-6.06
	16:57	-6.06



Well	Time	Ground Water
MW-24	11:42	-5.97
	12:22	-5.96
	13:10	-5.96
	14:19	-5.95
	15:10	-5.95
	16:09	-5.95
	16:55	-5.95



Well	Time	Ground Water
RW-1	11:51	-3.8
	12:38	-3.8
	13:20	-3.78
	14:30	-3.78
	15:21	-3.77
	16:18	-3.77
	17:09	-3.77



Well	Time	Ground Water
MW-2	11:52	-2.49
	12:39	-2.48
	13:21	-2.48
	14:31	-2.47
	15:22	-2.47
	16:19	-2.47
	17:07	-2.47

