

Site Characterization Report

Bob Wark's Liberty Station
300 Montgomery Ave.
Merion Station, PA 19066

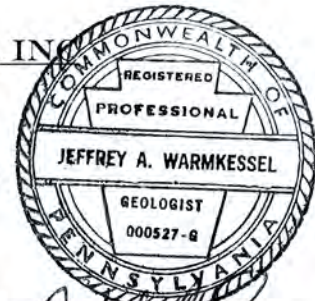
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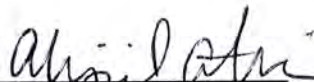
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By affixing my seal to this document, I am certifying that to the best of my knowledge the information is true and correct. I further certify that I am licensed to practice in the Commonwealth of Pennsylvania and that it is within my professional expertise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

July 2023

EXECUTIVE SUMMARY

Center Point Tank Services, Inc. (CPTS) on behalf of Wark's Liberty Station has prepared this Site Characterization Report (SCR) for their gasoline retail facility and automotive garage located at 300 Montgomery Avenue, Merion Station, PA. The contact on behalf of Wark's Liberty Station for this incident is Rich Wark, facility owner. This report includes available historical information and detailed site characterization activities, to delineate the potential gasoline impact by a release surrounding dispenser piping on site.

Under investigation is the potential environmental impact found while replacing two transition sumps and associated piping. The work was being completed by Center Point Tank Services, Inc. (CPTS). While removing the former sump, gasoline odors were observed and water was present in the excavation. Sheen was observed atop the perched water. Water was pumped out of the excavation, but more water kept entering the excavation.

Two soil samples and one water sample were collected from the bottom of the excavation. Laboratory analytical results indicate that 1,2,4-TMB was present at a level that exceeds SHS in both soil samples; and benzene, ethylbenzene, naphthalene, and 1,2,4-TMB exceeded their respective SHS in the water sample. A total of 21 soil samples and 4 water samples from temporary piezometers were collected over two Geoprobe events. Laboratory analytical results indicate that several samples exceeded SHS for several constituents. In addition to the soil sampling, a total of seven monitoring wells were installed over a period of approximately two years in order to delineate any impact from the release to the groundwater.

TABLE OF CONTENTS

1.0	INTRODUCTION	4
2.0	FACILITY DESCRIPTION AND BACKGROUND	5
2.1	Facility Description and Site History	
2.2	Local Land Use	
2.3	Site-Specific Geology and Hydrogeology	
2.4	Nature of the Release	
2.5	Potentially Sensitive Receptors	
3.0	SITE CHARACTERIZATION ACTIVITIES	9
3.1	Conceptual Site Model/ Soil Quality Investigation	
3.2	Separate Phase Hydrocarbons (SPH)	
3.3	Vapor Intrusion Assessment	
3.4	Baseline Risk Assessment	
4.0	SELECTION OF SOIL REMEDIATION STANDARDS	15
5.0	REMEDIAL ACTION PLAN	17

FIGURES

- Figure 1: Topographic Site Location Map
- Figure 2: Site Plan
- Figure 3: Geologic Map
- Figure 4: Area Map
- Figure 5: Soil Boring Location Map

TABLES

- Table 1: Soil Sampling Data Summary
- Table 2: Soil Boring Logs
- Table 3: Well Boring Logs
- Table 4: Soil Sampling Data Summary

APPENDICES

- Appendix A: Site Reconnaissance Summary
- Appendix B: Water Supply
- Appendix C: Geophysical Survey
- Appendix D: Soil Laboratory Analytical Data
- Appendix E: Groundwater Analytical Data
- Appendix F: Soil Disposal

1.0 INTRODUCTION

CPTS, on behalf of Wark's Liberty Station, prepared this Site Characterization Report for the facility located at 300 Montgomery Avenue, Merion Station, Lower Merion Township, Pennsylvania. The purpose of the investigation is to present a site characterization compliant with Title 25, Chapters §245.309 and §245.310(b), to efficiently address subsurface hydrocarbon compounds at the site.

During fieldwork, CPTS personnel followed all appropriate procedures as per United States Environmental Protection Agency (EPA) guidelines and Occupational Safety and Health Administration (OSHA) HAZWOPER regulations located in 29 CFR 1910.120. All operations were conducted using modified Level D protection measures with proper respiratory protection equipment and additional protective clothing readily available if site conditions warranted an upgrade to Level C protection.

2.0 FACILITY DESCRIPTION AND BACKGROUND INFORMATION

2.1 Facility Description and Site History

Bob Wark's Liberty Station, Merion Station, Pennsylvania (PA) is a gasoline retail facility with an automotive garage. The facility has previously operated as a Sunoco until 2006, when it switched to Ewing Oil, and finally to Liberty in 2008. In 1958, Bob Wark came to work at the station at the age of eighteen. Within four years, he became the day shift manager and remained as such until 1965, when Bob left to open his own business in Swarthmore, PA. After another three years, business was rapidly growing and his location was too small. Bob then purchased the original business once an opportunity arose in 1967. The building had a major addition in 1986, expanding to a total of eight bays and a second floor to accommodate a waiting room and office space. Following tradition, Bob's son, Rich, and daughter, Sandi, are part owners and continue to provide service to several generations of customers. Bob Wark's Liberty Station has been a staple of the community on the Main Line for over fifty years. Bob Wark's Liberty Station is a member of the Better Business Bureau, affiliated with AAA, and is a Napa Auto Care Center with A.S.E certified technicians. They also provide roadside assistance, towing, and shuttle services.

The facility currently has three 8,000 gallon registered underground storage tanks (USTs) storing gasoline (tanks 003, 004 and 005) and four dispensers at this facility. There are also two 550 gallon USTs storing used oil (USTs 001 and 002). The USTs storing gasoline were installed on November 11, 1971 and the USTs storing used oil were installed on March 1, 1987. There is no piping on the 550 gallon used oil USTs, the tanks are filled at the fill which is located directly above each tank located in the parking lot, in front of each garage. The product piping on two of the 8,000 gallon gasoline USTs (004 and 005) are flex and completely inside containment sumps at the tank ends, dispenser ends, and at transitions. Tank 003 has cathodically protected metallic piping, which is a siphon bar connecting it to tank 004. The piping manufacturer is A.O. Smith, APT model Red Thread/Poly Tech and the generation is APT XP. An automatic line leak detector is present, and annual line tightness testing is performed. A spill container is present at each tank, although tanks 001 and 002 do not require spill containers since they are waste oil tanks filled in less than 25 gallon increments; also these two tanks need no overfill protection for the same reason. The gasoline tanks have an overfill alarm located thirty feet from the furthest fill. There is an emergency stop located in the front office near the stereo and emergency procedures are located in the front office on the wall. The facility used annual tightness testing for piping release detection. The Regular product is a red Jacket FXIV and the Premium is a FE Petro MLD.

History of repairs and upgrades to tanks and lines have been properly documented. Each of the 8,000 gallon USTs were retrofitted with lining on January 01, 1994. The facility used to sell diesel fuel in addition to gasoline prior to July of 2006, when the facility decided to cease sales of diesel and retail only gasoline. Between July 10 and 21, 2016, a siphon bar was added, and tank 003 was manifolded to tank 004. These two were retrofitted with cathodic protection as of July 27, 2021. The week of November 1, 2021, the metal on the connecting siphon bar was isolated, so that the cathodic protection is only protecting the metal piping, since it is not needed on the lined tanks or flex piping. A complete history of tank components is attached.

There is a history of three previous releases onsite. Prior to the current incident, a Notification of Contamination (NOC) was submitted for the facility on August 8, 1994, January 14, 2013, and December 29, 2020. Unfortunately, not much is known about the 1994 release, but eFACTS states that a Site Characterization Report 310(b) was received and accepted on March 3, 1995.

On January 14, 2013, CPTS discovered that gasoline was present in the tank top sump and was entering the sump from the secondary piping connected to a transition sump located near the dispenser island. The product had traveled through the piping secondary containment back to the tank top sump where it was initially discovered.

CPTS opened the transition sump, pumped out the gas and stored the fuel in a drum for proper disposal at a later date. An investigation of the piping within the transition sump showed that a piping clamp on the primary piping was leaking. CPTS replaced the piping clamp and retested the line which tested tight. Additionally, on January 22nd and 23rd CPTS prepared the transition sump for a hydrostatic test which was also found to be successful. The sump was hydrostatically tested above the height of the piping entry boots by clamping the secondary test boots. The sump was stained from the gasoline at the height where it was tested. The test was conducted for approximately four hours. It was CPTS's opinion that the sump was tight to the level it was tested and that no further action was required, and DEP agreed with that decision on February 26, 2013 and deemed the cleanup as completed.

On December 30, 2020, a certified installer from CPTS mobilized to investigate the source of fuel vapors. The technician discovered a pinhole leak in a two-inch (2") pipe tee in the piping transition sump. There was also a combination of water and product in the sump, with the liquid level about halfway up the lowest entry fitting, which he pumped out. The defective tee was removed and replaced with a 2" union, which was tested successfully. At that point, the technician observed that the nipple before the union began to leak. The line was taken apart and the defective nipple was removed and replaced with a new nipple. The line was reconnected, air was purged from the system and the piping was pressurized to operating levels and checked for leaks. No leaks were observed. The technician then waited for one hour and checked again for leaks with no leaks observed.

On December 31, 2020, the technician returned to this facility and performed a hydrostatic test on the transition sump. The sump failed as documented on a PA DEP UST Spill Prevention Equipment/Containment Sump Integrity Testing Form. The installer then found there to be no hose clamp on the bulkhead on the line going to the dispenser. Water was pumped out of the transition sump and also from the premium tank top sump, which had traveled through the secondary piping. A boot was replaced in the tank top sump. The transition sump was refilled with water and all lower bulkheads were observed to be tight.

On January 4, 2021, the technician returned to this facility. He caulked around the bulkhead for piping going to the dispenser and installed a new hose clamp on same. He then rechecked all clamps and boots for tightness.

Once this work was completed, the transition sump was hydrostatically tested. Passing test results are documented on the Sump Integrity Testing Form.

Details of the current dispenser release are detailed in the "Nature of Release" section.

2.2 Local Land Use

The facility is located in Lower Merion Township, Montgomery County, Pennsylvania. The facility is an auto repair garage and retail gasoline station with four dual hose dispensers. **Figure 1** is a Topographic Site Location Map depicting the topography of the site and region. **Figure 2** is a Site Plan that illustrates notable site features. A geologic map is provided as **Figure 3**. The site is situated along Montgomery Avenue where it breaks off onto Old Lancaster Road and is in a primarily commercial use area. There are residential areas interspersed among the developed commercial properties in each direction. An Area Map is included as **Figure 4** to illustrate surrounding properties.

2.3 Site-Specific Geology and Hydrogeology

GEOLOGY

According to the PA Department of Conservation and Natural Resources' Web Mapping Application for Pennsylvania Geologic Data Exploration (www.gis.dcnr.state.pa.us/geology/index.html), and the geologic map provided as **Figure 3**, the subject site is underlain by granitic gneiss and granite. According to Geyer and Wilshusen, 1982, granitic gneiss and granite is light buff to light pink and fine to medium grained. Most of the mineral grains are about one millimeter (1 mm) in diameter. It contains quartz, microcline, hornblende, and some biotite. It has massive, poorly developed banding. It crops out in Delaware, Montgomery, and Philadelphia Counties. The unit includes the Springfield granodiorite in the Philadelphia area. Its thickness is unknown (Geyer and Wilshusen, 1982). Surrounding the strip of granitic gneiss and granite is the Wissahickon formation, which appears to dominate most of the surrounding area. The Wissahickon Formation is a schist metamorphosed to amphibolite facies. It contains garnet, staurolite, kyanite, and sillimanite. It includes oligoclase-mica schist, some hornblende gneiss, some augen gneiss, and some quartz-rich and feldspar-rich members due to various degrees of granitization. Its thickness is unknown (Berg and others, 1980; Kauffman, 1999).

Based on the U.S. Department of Agriculture's Natural Resource Conservation Service Web Soil Survey (websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx), the soil type underlying the site consists of primarily of Urban land-Gladstone complex and Urban Land. Urban land-Gladstone consists of deep, well drained soils formed in local colluvium and residuum weathered from granite and gneiss. The typical profile is gravelly loam to gravelly clay loam to bedrock. The area slope ranges from 0 to 8 percent. Permeability is moderate.

HYDROGEOLOGY

The site is located on the U.S. Geological Survey Germantown, PA 7.5 Minute Quadrangle. Figure 1 (Topographic Site Location Map) shows that the site is situated at an elevation of approximately 312 feet above mean sea level (msl). The site is fairly level with regional topography sloping to the southwest. The area southeast is approximately 300 feet above msl, while the area west of the area of impact is 312 feet above msl. As with most geologies of this area, groundwater flow

direction mirrors the downward slope of the topography. This would indicate that groundwater flows south, southwest toward the East Branch of the Indian Creek, which is located approximately 6,015 feet west and southwest of the subject location. Based upon the location of the creek, the groundwater flow would be expected to flow generally to the west and southwest toward the creek. The first depth to groundwater based on the wells that were installed is approximately nine feet below ground surface.

2.4 Nature of the Release

On July 21, 2021, CPTS was working on the site to replace two (2) transition sumps and associated piping. While removing the former transition sump that feeds into Dispenser #2, gasoline odors were observed. Water entered the excavation, and sheen was observed atop the perched water. It is believed that this is storm water which is held up in the excavation, and not groundwater. It was later discovered that groundwater is approximately 9 feet bgs (below ground surface). The soil beneath the perched or ponded water was dry, but water did return to the excavation minutes after being pumped out. A photoionization detector (PID) was used to determine the relative presence of petroleum hydrocarbons in site soils. PID readings from the presumably-impacted soil ranged from 40 parts per million (ppm) to 347 ppm.

Presumably impacted soil was excavated to the maximum extent practicable and temporarily placed on top of and below 6 mil poly sheeting, before being placed into drums by CPTS. The drums were later removed by Miller Environmental Group of Woodstown, NJ (see disposal manifests included in **Appendix F**).

Two soil samples were taken at the bottom of the excavation at five feet below ground surface (5' bgs) and one water sample was collected from the water that had returned to the excavation. Soil and water samples were placed into laboratory supplied bottle ware and submitted to Suburban Testing Laboratories of Reading, PA for laboratory analysis of PAUST unleaded gasoline constituents including benzene, ethylbenzene, toluene, methyl tertiary-butyl ether (MTBE), isopropylbenzene (cumene), naphthalene, 1,2,4-Trimethylbenzene (TMB), and 1,3,5-TMB via EPA Method 8260B. Suburban is accredited in the Commonwealth of Pennsylvania, ID# 06-00208. Laboratory analytical results indicated that all target constituents aside from benzene, toluene and MTBE were detected in N. Trans Sump/Disp. 2-E. At the time the samples were collected (July 21, 2021), 1,2,4-TMB was detected at a level above the statewide health standard (SHS) in both soil samples. Also at the time of collection, benzene, ethylbenzene, naphthalene, and 1,2,4-TMB exceeded their respective SHS in the sample collected from the water in the excavation. PA DEP published updated Land Recycling Program regulations on November 20, 2021. These published regulations included updated tables of the statewide health standard numeric values/medium-specific concentrations for soil and groundwater. With the newly published standards, 1,2,4-TMB no longer exceeds the SHS in either soil samples, collected at a depth of five feet. Regarding the water sample, the newly published standards also indicate that, in addition to the aforementioned constituents present above the SHS, 1,3,5-TMB is also present at a level that exceeds the SHS.

It should be noted that soil samples were also collected from the other sumps and dispensers, and many target constituents were detected from these samples, but not at a level above the SHS. A summary table of all samples, and a soil sample location map is included herein.

2.5 Potentially Sensitive Receptors

The site was evaluated for the potential to impact ecological receptors using the screening process described in PA Code §250.311. No additional evaluation for potential impacts to ecological receptors is required, as per PA Code §250.311(b)(1), because the only constituents on-site are those related to gasoline.

CPTS conducted a desktop sensitive receptor survey in the general area of the site to identify any potential receptors that could be impacted by petroleum hydrocarbons in the soil or groundwater. The following is a summary of CPTS's findings during the sensitive receptor survey:

- The site is located in a general commercial use area and the site building does not have a basement;
- Public water is supplied to the site by Lower Merion Township;
- There are zero wells located within a quarter mile of the site, according to the PA Ground Water Information System (PaGWIS) (www.dcnr.state.pa.us/topogeo/groundwater/pagwis/index.htm).
- The nearest surface water body to the site is the East Branch of the Indian Creek, which is located approximately 6,015 feet west of the site. The creek is at such a distance it is not considered a potential receptor of impact from the subject UST system;
- Water entered the excavation, but it is assumed to have been water held up from within the tank pit. Wells that were installed later indicate that the first depth to groundwater is approximately 9'.
- There is not an Ordinance in place prohibiting the installation of water wells; however, as per Ryan McCann of Lower Merion Township, the Township follows the International Plumbing Code, which states that you cannot have a private hookup if public water is available. Section 602.3, Individual Water Supply, states that where a potable public water supply is not available, individual sources of potable water supply shall be utilized. Additional correspondence with Joseph Mastronardo regarding water service and fire hydrants is also available, as well as a copy of the International Plumbing Code in **Appendix B**.

A site reconnaissance summary is included as **Appendix A**.

3.0 SITE CHARACTERIZATION ACTIVITIES

3.1 Conceptual Site Model and Soil Quality Investigation

Following the identification of the release on July 21st, 2022, a letter from PA DEP's Thomas D. Canigiani Jr. was sent to Rich Wark, facility owner, dated August 3rd, 2021. The letter stated that a Site Characterization Report (SCR) for this facility was due by

January 17th, 2022.

CPTS mobilized to the site with *Geo-Graf Geophysical Investigations* of West Chester, PA on November 29th, 2021, to perform a non-invasive subsurface investigation prior to drilling, and also to identify the exact location of the tank, piping, and other nearby utilities by conducting a geophysical investigation, which utilizes ground penetrating radar (GPR), radio frequency, magnetic and electromagnetic delineation techniques. Note that the estimated maximum GPR signal penetration achieved at this site is approximately six feet (6') below grade. Thus, features existing were field-marked with spray paint in standard identifying colors. A report package was also supplied by Geo-Graf which included a plan with the underground features found shown. The results of the Geophysical survey are included in **Appendix C**.

On December 16th, 2021, CPTS mobilized to the site with *Benner Environmental Services* of Sunbury, PA, Geoprobe® direct push driller. Eight soil borings were installed to ten to fifteen feet (10-15') in depth, with the exception of GP-7, which was installed to four feet (4') in depth. The soils from each boring were screened with a photoionization detector (PID) using a head-space analysis, in order to guide the process in determining if and where relative volatile organic compounds (VOCs) were present. The PID was also used to identify the depth of impact and to attempt to delineate vertically. Boring GP-1 was installed at the end of the canopy between dispensers 1 and 2 to a depth of fifteen feet (15') at the northwest edge of the site. GP-4 and GP-6 were installed to depths of approximately 10' close to the edge of the road on the northeast edge of the site. GP-2 and GP-3 were installed to depths of 10-15' around the dispenser of concern. GP-7 and GP-8 were installed on either side of the canopy in front of the garages to depths of 4' (GP-7) and 15' (GP-8). GP-5 was installed to a depth of 11' in the northern part of the parking lot. PID readings for all borings ranged from 0 to 1800 ppm. Samples were taken from borings at multiple spots and submitted for analysis.

A total of eleven soil samples and 3 water samples from temporary piezometers were collected during this event. Soil and water samples were placed into laboratory supplied bottle ware and submitted to Suburban Testing Laboratories of Reading, PA for laboratory analysis of PAUST diesel fuel constituents via EPA method 8260 including benzene, ethylbenzene, toluene, methyl tertiary-butyl ether (MTBE), isopropyl benzene (cumene), naphthalene, 1, 2, 4-Trimethylbenzene (TMB), and 1, 3, 5-TMB. Suburban is accredited in the Commonwealth of Pennsylvania, ID# 06-00208. Laboratory analytical results indicated that several samples were over standard for select constituents. GP-1 (7') was over SHS for Naphthalene, Ethylbenzene, 1,3,5-TMB, and 1,2,4-TMB. GP-2 (5.5') was over SHS for Naphthalene and 1,2,4-TMB. GP-3 (12.5') was over SHS for Naphthalene, Ethylbenzene, 1,3,5-TMB and 1,2,4-TMB. GP-4 (11') was over SHS for Naphthalene. GP-7 (4') was over SHS for Naphthalene, Benzene, Ethylbenzene, Toluene, and 1,2,4-TMB. GP-8 (9') was over SHS for Naphthalene and 1,2,4-TMB. Both TP-2 and TP-3 were over SHS for Benzene, Ethylbenzene, MTBE, Naphthalene, 1,3,5-TMB, 1,2,4-TMB, and Total Xylenes. TP-8 was over SHS for benzene only.

On March 10th, 2022, CPTS mobilized to the site with C.S. Garber to install additional soil

borings and monitoring wells. GP-9 was installed to a depth of nineteen feet (19') near the sidewalk on the northeast side of the site. MW-1 was also set in this boring at 19'. GP-10 was installed to a depth of 19.5'. GP-11 was installed to a depth of 19'. GP-12 was installed to a depth of 19.5' under the canopy at the northernmost dispenser, and a temporary piezometer was set and sampled at this boring. GP-13 was installed to a depth of 20' in front of the northern bays of the auto repair shop. MW-4 was set into this boring as well. GP-14 was installed to a depth of 5'. GP-15 was installed near the stairs on the outside of the building to a depth of 19', where MW-4 was set into the boring. GP-16 was installed to 7'. MW-3 was installed in front of the southern bays of the repair shop near the front door of the facility. PID readings for all borings ranged from 0 to 1163 ppm. Samples were taken from temporary piezometers and borings at multiple higher concentration spots based upon PID readings and submitted for analysis.

A total of ten soil samples and one water sample from a temporary piezometer were collected during this event. Soil and water samples were placed into laboratory supplied bottle ware and submitted to Suburban Testing Laboratories of Reading, PA for laboratory analysis of PAUST diesel fuel constituents via EPA method 8260 including benzene, ethylbenzene, toluene, methyl tertiary-butyl ether (MTBE), isopropyl benzene (cumene), naphthalene, 1, 2, 4-Trimethylbenzene (TMB), and 1, 3, 5-TMB. Suburban is accredited in the Commonwealth of Pennsylvania, ID# 06-00208. Laboratory analytical results indicated that several samples were over standard for select constituents. GP-11 (12') was over SHS for 1,2,4-TMB. GP-14 (5') was over SHS for Benzene, Naphthalene, 1,3,5-TMB, 1,2,4-TMB, and Toluene. GP-15 (11.5') was over SHS for Benzene, Naphthalene, 1,3,5-TMB, 1,2,4-TMB and Toluene. GP-16 was over SHS for Benzene, Naphthalene, ethylbenzene, 1,3,5-TMB and 1,2,4-TMB. TP-4 was over SHS for Benzene, Ethylbenzene, MTBE, Naphthalene, and 1,2,4-TMB.

An initial round of sampling was collected from MW-1, MW-2, MW-3 and MW-4, and then confirmatory results were collected shortly after. Three more rounds of quarterly sampling was done to monitor results. MW-2, MW-3 and MW-4 all had several constituents over SHS.

On January 14th, 2022, CPTS submitted an extension request letter to the DEP, requesting a new SCR due date of May 20, 2022. This extension request was disapproved by the DEP due to not having a technical reason for not completing the SCR. The DEP requested that the SCR be submitted as soon as possible.

On February 8th, 2023, CPTS mobilized to the site with C.S. Garber to install three additional monitoring wells to delineate any downstream impact. MW-5 was installed to 17.5', MW-6 was installed to 17.1', and MW-7 was installed to 17'. All three wells were installed in the back parking lot close to the curb line along the building. Initial and confirmation sampling results show very little to no detection of any constituents in MW-5, MW-6 or MW-7.

3.2 Separate-Phase Hydrocarbons (SPH)

Separate phase hydrocarbons (SPH) have been observed during CPTS' soil and groundwater investigations. GP-15/MW-4 was accessed via Geoprobe® direct-push drilling technology and was observed with SPH. The extent of SPH during Geoprobings was observed between 8-12 feet below grade and was observed as moist, blue-gray clay material with odors. MW-4 was installed into the same Geoprobe and a sock was placed. The sock has been replaced during each sampling event. No SPH has been observed in any other Geoprobe or well to date.

3.3 Vapor Intrusion Assessment

There are several considerations to determine if the vapor intrusion pathway is a potential concern:

- Inhabited buildings must be close (within 30 horizontal feet) to a volatile source;
- There must be at least five feet of soil-like material;
- The source concentration must be above some threshold or screening concentration;
- The presence of preferential pathways; and
- The presence of SPH

There is an occupied commercial building onsite, which is of slab-on-grade construction, acting as a repair shop, waiting room and front office. There are multiple neighboring properties but they are all more than 30 feet away from the release. It was observed during soil boring and monitoring well installations that at least five vertical feet of soil-like material does exist between the highest observation of impact and the surface or preferential pathways. The monitoring wells of concern for vapor intrusion are both located less than 30 feet from either repair garage. The repair garages constantly have cars coming in and out, with the doors being opened multiple times a day, if not staying open while the buildings are inhabited. Due to this fact, the fact that the garages are not air tight and that there are other sources of vapors due to the nature of the business, the groundwater to indoor air pathway is incomplete.

Regulated Substance	Maximum Observed Concentration (µg/L)	PA Defaults Non-Residential Volatilization to Indoor Air Screen (µg/L)	COPIAC
Benzene	1,080	350	Yes
Toluene	19,800	430,000	No
Ethylbenzene	3,230	860	Yes
Total Xylenes	21,000	12,000	Yes
MTBE	ND	96,000	No
Isopropylbenzene	174	24,000	No
Naphthalene	878	1,300	No
1,2,4 -TMB	3,700	6,400	No
1,3,5 -TMB	5,490	4,500	Yes
<i>NOC – not of concern, value above constituent water solubility</i>			

COPIAC - Constituent of Potential Indoor Air Concern

Some substances in the above chart do have a higher maximum observed concentration than the screening value, however, the garages are the only areas within regulated proximity distances and the garages have bay doors opened on a regular basis while inhabited as well as not being air tight like an office or other areas. The office and other areas of the building are more than 30 feet from the impacted wells. Therefore, vapor intrusion into buildings from groundwater is not an issue of concern at this location.

With regard to soil, most of the areas where soil impact remains are over 30 feet away from the buildings or have at least five vertical feet of soil-like material between the source and the surface or preferential pathways. There are two areas that are less than 30 feet away from an inhabited building and have less than five feet of soil between the source and the surface. Both of these areas are under the canopy near dispenser 5/6, and according to the geophysical survey map (**Appendix C**), subsurface utilities that could possibly serve as preferential pathways are located between the UST field and the entrance of the building. There is an electric line that runs underneath the building that could pose as a preferential pathway. However, there is more than 5 feet of soil like material between the impacted area and the preferential pathway, therefore this pathway is incomplete. There is also an electric line within 30 feet of the building and MW-4, but this can be ruled out as a pathway because this electric line runs underground and comes up along the side of the building into a sealed conduit. Therefore, this pathway is incomplete because any vapors that could potentially follow this pathway would be venting outside of the building.

Regulated Substance	Maximum Observed Concentration (µg/L)	PA Defaults Non-Residential Volatilization to Indoor Air Screen (µg/L)	COPIAC
Benzene	52,500	0.13	Yes
Toluene	305,000	44	Yes
Ethylbenzene	95,000	46	Yes
Total Xylenes	819,000	990	Yes
MTBE	370	1.4	Yes
Isopropylbenzene	3,140	2,500	Yes
Naphthalene	37,400	25	Yes
1,2,4 -TMB	318,000	300	Yes
1,3,5 -TMB	113,000	93	Yes
<i>NOC – not of concern, value above constituent water solubility</i>			
<i>COPIAC - Constituent of Potential Indoor Air Concern</i>			

Some substances above do have a higher maximum observed concentration than the screening value, however, no substances of concern are within the regulated proximity distances to the building and the one preferential pathway as discussed above (electric line) present, would vent outside the building prior to the electric line entering the building. Therefore, vapor intrusion is

not an issue of concern at this location.

3.4 Baseline Risk Assessment

Using DEP-approved EPA and ASTM guidance, this assessment identified potential current and future exposure pathways for human receptors, as per PA Code §250.402. Where appropriate, incomplete exposure pathways and constituents that were not found in environmental media exceeding the Statewide Health criteria were eliminated from further consideration. Risk was assessed under a non-residential scenario because the current and future property use is commercial. In this section all potential exposure pathways are reviewed, followed by a baseline risk assessment for the pathways applicable to the site.

EXPOSURE PATHWAY ASSESSMENT

Human or ecological receptors can be exposed to COCs through four major pathway categories: 1) air, 2) groundwater, 3) soil, and 4) surface water. Within each pathway category are specific exposure pathway scenarios. The following is a description of each possible exposure pathway. Pathways pertinent to the site are identified.

AIR EXPOSURE PATHWAYS

- Inhalation of vapors volatilized from subsurface soils to the ambient air: The portion of the subject property under investigation (i.e. the site) is covered with an impervious surface. Therefore, this pathway is not considered in the risk assessment.
- Inhalation of vapors volatilized from groundwater to the ambient air: In the most recent sampling events, MW-2 has benzene, ethylbenzene, naphthalene, toluene, 1,3,5-TMB, 1,2,4-TMB and total xylenes over standard. MW-3 has benzene and naphthalene over standard, and MW-4 has benzene, ethylbenzene, MTBE, naphthalene, toluene, 1,3,5-TMB, 1,2,4-TMB, and total xylenes over standard. MW-2, MW-3 and MW-4 are all within 30 horizontal feet of the building, but the source is more than five feet below the surface with soil material between the groundwater table and the surface. In addition, the site is covered with paving. Therefore, this pathway is not considered relevant for this site.
- Inhalation of vapors volatilized from subsurface soil into an enclosed space: This scenario includes vapors entering basements, crawl spaces or subsurface utility vaults, and in some situations, enclosed buildings. There are 3 Geoprobes where soil is impacted and within proximity distances of the enclosed building. However, the preferential pathway- the electric line- goes underground under the building and comes up through a conduit on the outside of the building. There is more than 5 feet of soil-like material between the source and pathway. Therefore, this pathway is not a concern at this site.

- Inhalation of vapors volatilized from groundwater into an enclosed space: The repair garages have constant air flow due to the nature of the business with the doors being opened constantly. The garages are not air tight, therefore this pathway is incomplete.

GROUNDWATER EXPOSURE PATHWAYS

- Ingestion of groundwater through a water supply well: Public water is supplied to the site by the municipality. Therefore, this pathway was not considered in the risk assessment.

SOIL EXPOSURE PATHWAYS

Dermal contact and direct ingestion of contaminated soils: All impacted soils are more than 5 feet away from any receptors. Additionally, impermeable materials that prevent contact with or ingestion of subsurface materials cover the site in areas of impact. Therefore, this pathway was not considered in the risk assessment.

SURFACE WATER EXPOSURE PATHWAYS

Contact with surface water contaminated by groundwater discharge: The closest surface water body is the East Branch Indian Creek, which is located approximately 6,015 feet west of the subject location. At such a distance, this pathway is not a concern, and therefore incomplete.

SUMMARY OF EXPOSURE SCENARIOS

After evaluating all of the potential exposure pathways for the site, no exposure pathways are deemed to be present or relevant as of the date of this report. These exposure pathways will continue to be evaluated as site conditions change and additional data is collected.

4.0 SELECTION OF REMEDIATION STANDARDS

GROUNDWATER

The SSS is being sought for site groundwater, with pathway elimination via an Environmental Covenant. If natural attenuation over the course of the next several sampling event shows an evident decrease in contamination in groundwater, the owner may opt to close under SHS attainment. Absorbent socks are being used to remove SPH on site. CPTS used the SHS values for comparison to characterize the presence of impact at this site. The applicable SHS values were determined based on the following criteria:

Non-Residential – Previous, current, and future use of the subject property is commercial; therefore, the non-residential standard has been selected.

Used aquifer – The site and several surrounding properties are provided with potable water via a local water utility company, therefore the used aquifer values have been selected.

Total Dissolved Solids – Total dissolved solids are assumed to be less than or equal to 2,500.

Based on the above criteria, the Non-Residential Used-Aquifer values were determined to be the applicable SHS for the compounds of concern.

Compound	Statewide Health Standard (µg/L)
Benzene	5
Toluene	1,000
Ethylbenzene	700
MTBE	20
Isopropylbenzene	3,500
Naphthalene	100
1,2,4-TMB	530
1,3,5-TMB	530
Xylenes, total	10,000

There are seven wells located within one quarter mile of the site, all of them being monitoring wells on the subject property site. According to Pennsylvania Groundwater Information Systems (PaGWIS), groundwater levels are approximately 11 feet below ground surface (bgs) in surrounding areas. Geoprobos for this site reached approximately 11-12 feet before hitting groundwater. Subsequently drilled wells are all to a depth of at least 17' with groundwater levels between 9' & 12' feet below grade.

SOIL

The SSS is being sought for site soils, with pathway elimination via an Environmental Covenant. CPTS used the SHS values for comparison to characterize the presence/extent of impact to soils at this site. The applicable SHS values were determined based on the following criteria:

Non-Residential – Previous, current, and future use of the site is commercial, therefore the non-residential standard has been selected.

Used Aquifer – The site is supplied with public water by the municipality. Therefore, the used-aquifer values have been selected.

Total Dissolved Solids – Total dissolved solids (TDS) are assumed to be less than or equal to 2,500 parts per million (ppm).

Sample Depth – Soil samples were collected from subsurface (>2') locations.

Soil Saturation – Soil samples were collected from unsaturated soil.

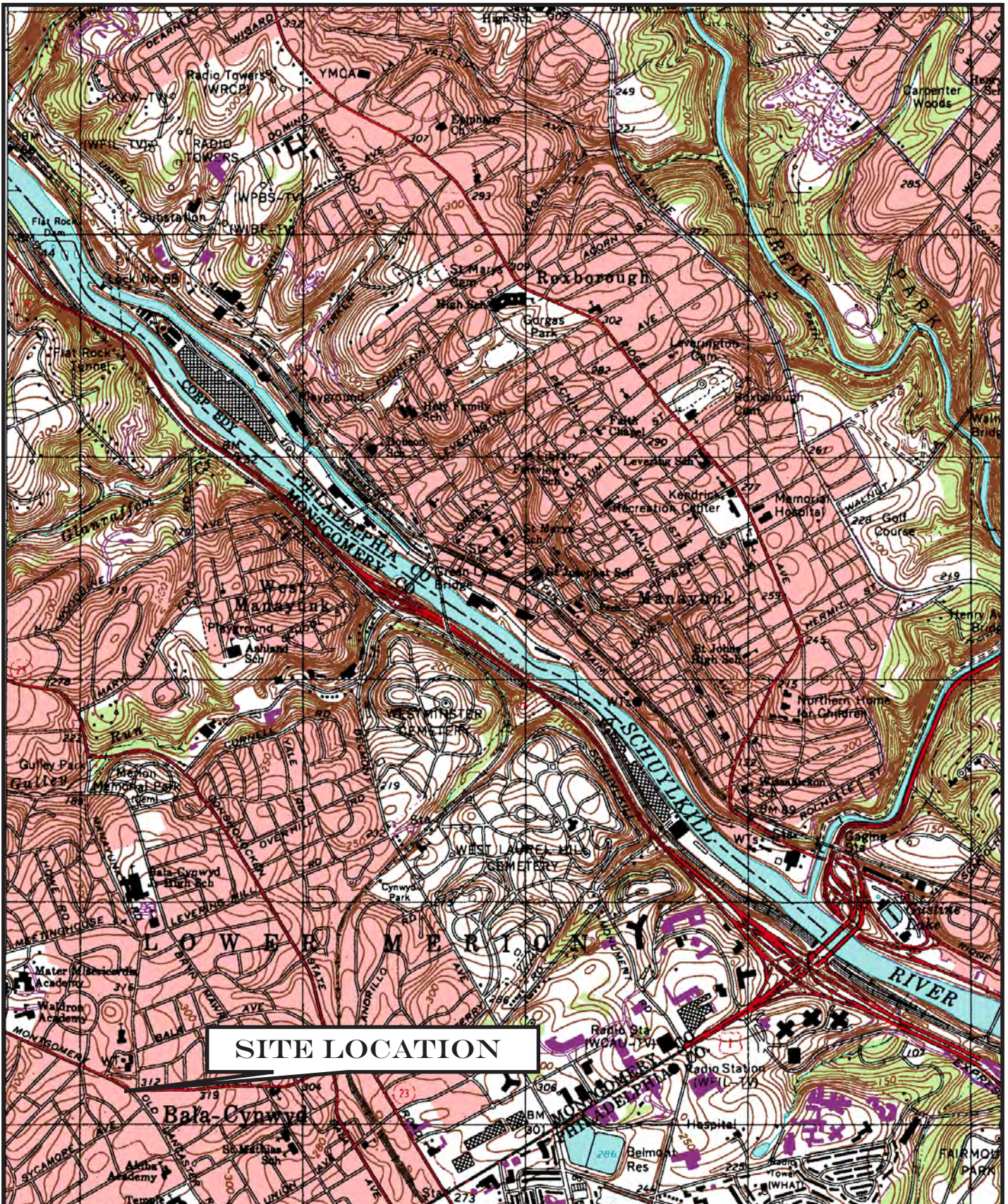
Based on the above criteria, the below-listed Non-Residential Soil to Groundwater (TDS less than or equal to 2,500 ppm) numeric values were determined to be the applicable Statewide Health Standards for the contaminants of concern. These standards are also included in **Table 1**.

Compound	Statewide Health Standard (µg/kg)
Benzene	500
Toluene	100,000
Ethylbenzene	70,000
Total Xylenes	1,000,000
MTBE	2,000
Isopropylbenzene	350,000
Naphthalene	10,000
1,2,4-Trimethylbenzene	53,000
1,3,5-Trimethylbenzene	53,000

5.0 REMEDIAL ACTION PLAN

Impact has been delineated by the installation and sampling of additional downgradient monitoring wells. After a discussion with the owner, we will be pursuing closure of the site under the Site Specific Standard (SSS) for both soil and groundwater. We will be sampling the entire network until eight consecutive quarters of decreasing trends is reached in groundwater. Please note that if a decrease in trends for all detected constituents becomes evident over the next few sampling events, the owner may want to close the site under SHS attainment for groundwater rather than SSS. The sock in MW-4 will continue to be changed during each sampling event.

FIGURES



SITE LOCATION




<p>CENTER POINT TANK SERVICES, INC. 536 E. BENJAMIN FRANKLIN HWY DOUGLASSVILLE, PA 19518</p>	<p>JOB NO. 21-11912</p>	<p>DATE: 9/29/2021</p>	<p>CHECKED BY: JAW</p>	<p>DRAWN BY: AG</p>	<p>SCALE: 1: 24,000</p>	<p>DRAWING NO. 1</p>
<p>BOB WARK'S LIBERTY 300 MONTGOMERY AVENUE MERION STATION, PA 19066</p>	<p>TITLE: TOPOGRAPHIC SITE LOCATION MAP GERMANTOWN, PA 7.5 MINUTE QUADRANGLE, 1997</p>					<p>NORTH </p>

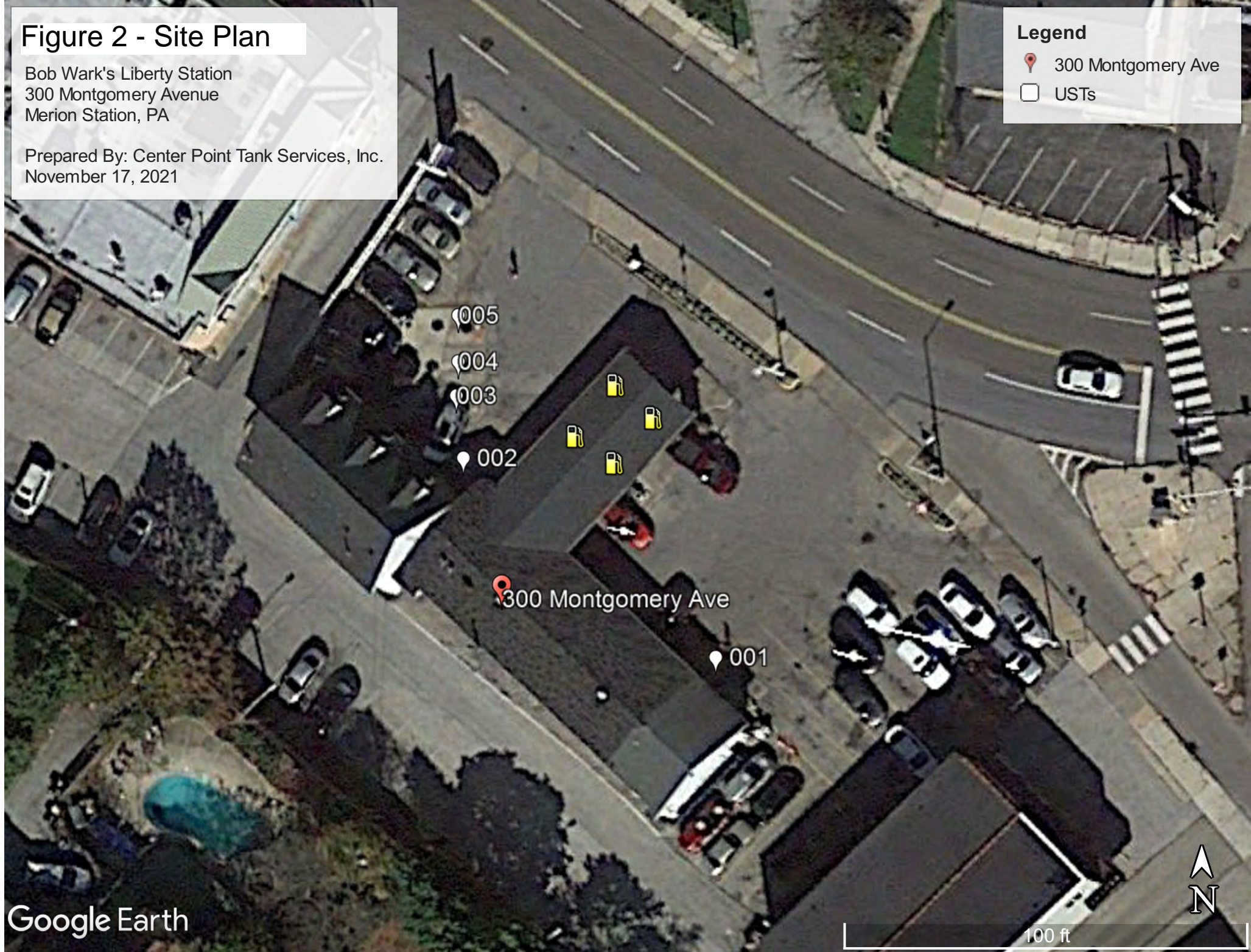
Figure 2 - Site Plan

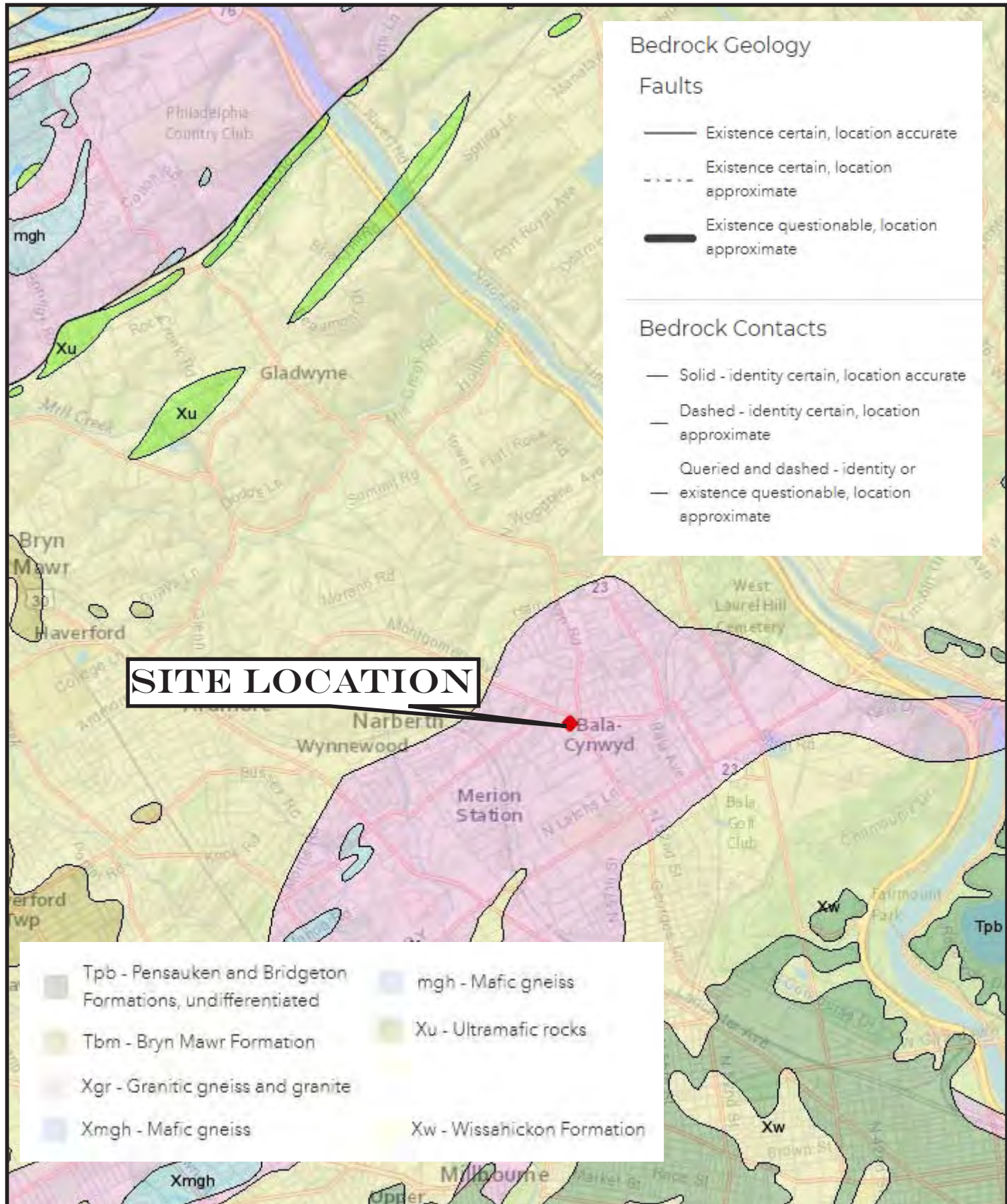
Bob Wark's Liberty Station
300 Montgomery Avenue
Merion Station, PA

Prepared By: Center Point Tank Services, Inc.
November 17, 2021

Legend

-  300 Montgomery Ave
-  USTs





Bedrock Geology

Faults

- Existence certain, location accurate
- - - Existence certain, location approximate
- Existence questionable, location approximate

Bedrock Contacts

- Solid - identity certain, location accurate
- - - Dashed - identity certain, location approximate
- Queried and dashed - identity or existence questionable, location approximate

SITE LOCATION

- Tpb - Pensauken and Bridgeton Formations, undifferentiated
- Tbm - Bryn Mawr Formation
- Xgr - Granitic gneiss and granite
- Xmgh - Mafic gneiss
- mgh - Mafic gneiss
- Xu - Ultramafic rocks
- Xw - Wissahickon Formation

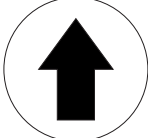
<p>CENTER POINT TANK SERVICES, INC. 536 BENJAMIN FRANKLIN HWY E DOUGLASSVILLE, PA 19518</p>	JOB NO.	DATE:	CHECKED BY:	DRAWN BY:	SCALE:	DRAWING NO.
	21-11912E	9/29/2021	JAW	AG	1: 72,224	3
<p>BOB WARK'S LIBERTY 300 MONTGOMERY AVENUE MERION STATION, PA 19066</p>	<p>SITE GEOLOGIC MAP PAGEODE MAP OF PA DEPT. OF NATURAL RESOURCES</p>					<p>NORTH</p> 

Figure 4: Area Map

1,000 foot radius shown

300 Montgomery Avenue
Merion Station, PA

Prepared by: CPTS
536 Ben. Franklin Hwy. E.
Douglassville, PA 19518

November 17, 2021



Residential Area

Commercial Area

SITE

Residential Area

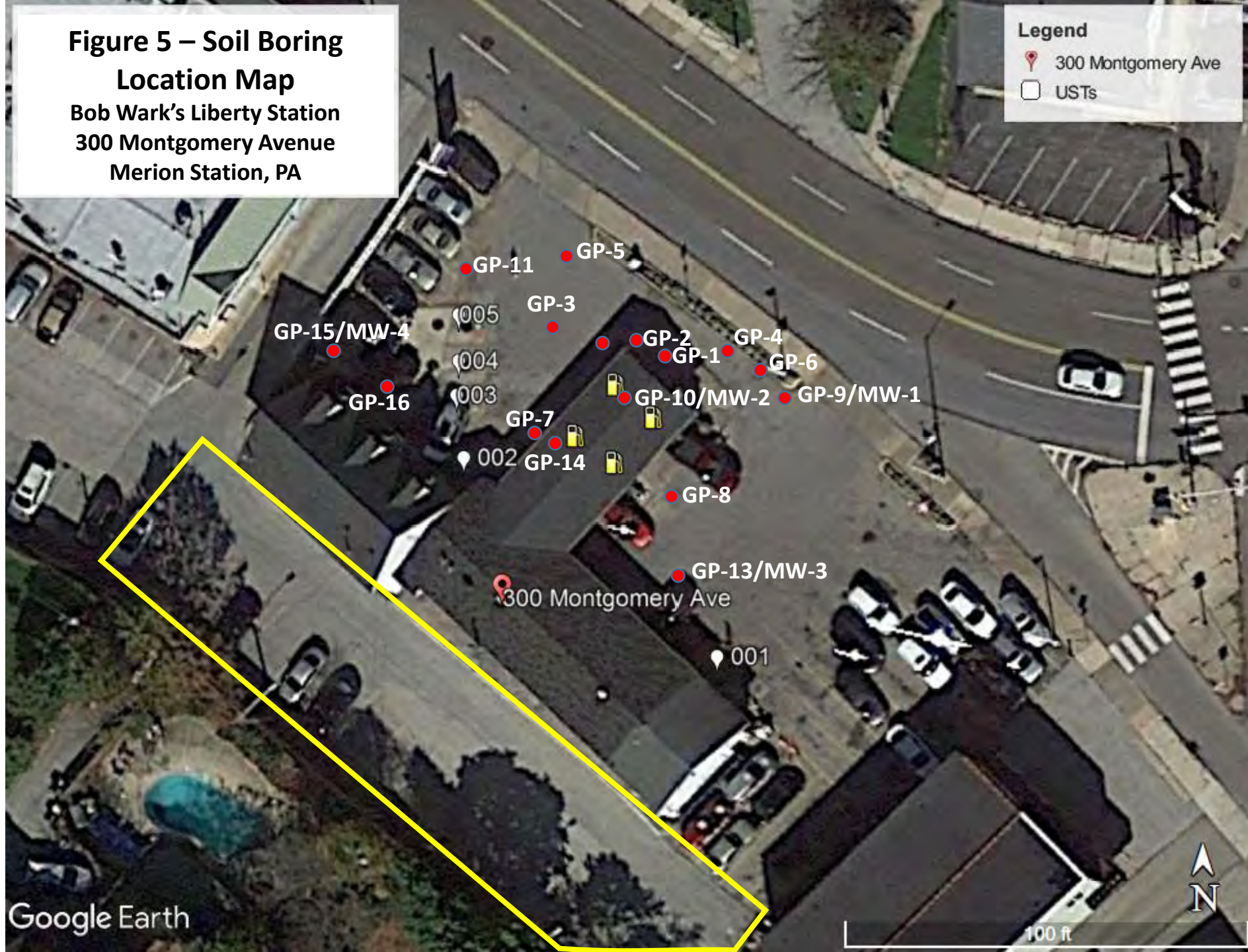


Figure 5 – Soil Boring Location Map

Bob Wark's Liberty Station
300 Montgomery Avenue
Merion Station, PA

Legend

- 📍 300 Montgomery Ave
- USTs



TABLES

TABLE 1

MONITORING WELL GROUNDWATER QUALITY DATA SUMMARY

BOB WARK'S LIBERTY STATION
FACILITY ID# 46-22635

300 MONTGOMERY AVENUE
MERION STATION, PA

Monitoring Well	Date	Top of Casing (ft)	Depth to Water (ft)	GW Elevation (ft)	Benzene (µg/L)	Ethyl benzene (µg/L)	Isopropyl benzene (µg/L)	MTBE (µg/L)	Naphthalene (µg/L)	Toluene (µg/L)	Xylenes (µg/L)	1,2,4-TMB (µg/L)	1,3,5-TMB (µg/L)
MSCs for Used, Non-Residential Aquifer					5	700	3,500	20	100	1,000	10,000	530	530
MW-1	4/21/2022	308.66	9.01	299.65	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5
	5/5/2022	308.66	9.12	299.54	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	2.1	<0.5	<0.5
	8/31/2022	308.66		308.66	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5
	12/21/2022	308.66	10.04	298.62	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5
	3/23/2023	308.66	10.10	298.56	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5
MW-2	4/21/2022	309.04	9.58	299.46	1,500	3,860	147	<0.5	665	27,800 E	23,800	3,180	657
	5/5/2022	309.04	10.82	298.22	1,060	3,940	140	<50.0	407	36,100	22,900	2,930	911
	8/31/2022	309.04		309.04	14.8	56.5	2.3	<0.5	11.6	170	306	54	14.5
	12/21/2022	309.04	10.55	298.49	1,410	3,900	161	<50.0	766	22,900	22,300	2,960	824
	3/23/2023	309.04	10.10	298.94	1,080	2,880	99	<0.5	485	19,800	16,300	1,950	740
MW-3	4/21/2022	309.66	11.45	298.21	309	379	12.6	14.9	95.8	13.7	557	233	87.4
	5/5/2022	309.66	10.58	299.08	285	301	8.8	<2.5	26.2	<2.5	294	94.6	37.2
	8/31/2022	309.66		309.66	15.5	59	2.7	<0.5	10	177	316	56.2	15
	12/21/2022	309.66	11.38	298.28	115	459	23.6	<2.5	138	<2.5	46.2	70.5	39.8
	3/23/2023	309.66	11.00	298.66	238	548	19.8	<0.5	122	17	64.5	31.7	27.4
MW-4	4/21/2022	309.37	10.61	298.76	584	3,470	132	<0.5	852	12,000	22,800	4,300	835
	5/5/2022	309.37	11.30	298.07	773	4,630	248	<50.0	904	13,900	24,200	5,450	1,740
	8/31/2022	309.37		309.37	978	4,630	131	<0.5	702	12,900	26,400	5,050	1,380
	12/21/2022	309.37	11.40	297.97	478	2,840	175	<50.0	783	6,940	19,400	3,910	1,050
	3/23/2023	309.37	11.50	297.87	508	3,230	174	<100	878	8,540	21,000	3,700	5,490
MW-5	3/23/2023		8.00		<0.5	<0.5	<0.5	1.9	<0.5	0.5	<1.0	<0.5	<0.5
MW-6	3/23/2023		9.20		0.7	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5
MW-7	3/23/2023		10.70		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5

TABLE 1

MONITORING WELL GROUNDWATER QUALITY DATA SUMMARY

BOB WARK'S LIBERTY STATION
FACILITY ID# 46-22635

300 MONTGOMERY AVENUE
MERION STATION, PA

Monitoring Well	Date	Top of Casing (ft)	Depth to Water (ft)	GW Elevation (ft)	Benzene (µg/L)	Ethyl benzene (µg/L)	Isopropyl benzene (µg/L)	MTBE (µg/L)	Naphthalene (µg/L)	Toluene (µg/L)	Xylenes (µg/L)	1,2,4-TMB (µg/L)	1,3,5-TMB (µg/L)
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NS = Not Sampled

<# = Less than the detection limit of #

bold indicates concentration exceeds PADEP Statewide Health Standard

**TABLE 2
GROUNDWATER QUALITY DATA**

**BOB WARK'S LIBERTY STATION
FACILITY ID# 46-22635**

**300 MONTGOMERY AVENUE
MERION STATION, PA**

Sample ID	Date	Benzene (µg/L)	Ethyl benzene (µg/L)	Isopropyl benzene (µg/L)	MTBE (µg/L)	Naphthalene (µg/L)	Toluene (µg/L)	Xylenes (µg/L)	1,2,4-TMB (µg/L)	1,3,5-TMB (µg/L)
MSCs for Used, Non-Residential Aquifer:		5	700	3,500	20	100	1,000	10,000	530	530
Exc. Water 1	7/21/2021	45.1	722	<u>Excavation Sampling Data</u>			335	3260	2970	730
				65.8	<0.5	882				
TP-2 TP-3 TP-8	12/16/2021	< 200	4,740	<u>Geoprobe Groundwater Sampling Data</u>			< 200	34,500	8,640	2,160
				444	< 200	1,220				
				524	< 200	2,180				
				25.5	< 0.5	19.2				
	12/16/2021	50.0	153			182	465	95.2	24.3	

na = Not applicable
 <# = Less than the detection limit of #
bold indicates concentration exceeds PADEP Statewide Health Standard
 J Result is less than the reporting limit but greater than or equal to the method detection limit & the concentration is an approximate value

TABLE 2
SOIL QUALITY DATA

WORKS LIBERTY STATION
FACILITY ID# 46-22635

300 MONTGOMERY AVENUE
MERION STATION, PA 19066

Sample ID	Date	Benzene (µg/kg)	Toluene (µg/kg)	Ethylbenzene (µg/kg)	Isopropylbenzene (µg/kg)	Naphthalene (µg/kg)	MTBE (µg/kg)	Total Xylenes (µg/kg)	1,2,4-TMB (µg/kg)	1,3,5-TMB (µg/kg)
Non-Residential MSCs for Organic Regulated Substances in Unsaturated Soil		500	100,000	70,000	350,000	10,000	2,000	1,000,000	53,000	53,000
GP-1 (7')	12/16/2021	435	57,900	86,200	5,490	36,000	<95.5	483,000	251,000	67,900
GP-1 (15')	12/16/2021	< 23.2	< 23.2	< 23.2	< 23.2	< 23.2	< 23.2	63.2	28.8	< 23.2
GP-2 (5.5')	12/16/2021	49.6	701	15,300	1,660	11,100	< 48.6	76,300	73,400	14,900
GP-2 (9')	12/16/2021	< 30.3	< 30.3	< 30.3	< 30.3	< 30.3	< 30.3	< 60.6	< 30.3	< 30.3
GP-3 (12.5')	12/16/2021	< 101	< 101	74,600	9,130	27,300	< 101	361,000	243,000	62,500
GP-4 (11')	12/16/2021	< 97.7	< 97.7	8,300	3,100	10,500	<97.7	5,140	17,900	2,900
GP-5 (11')	12/16/2021	< 26.4	< 26.4	< 26.4	< 26.4	337	< 26.4	61.8	91.8	27.4
GP-6 (11')	12/16/2021	< 25.7	< 25.7	50.9	132	899	< 25.7	63.2	204	105
GP-7 (4')	12/16/2021	52,500	305,000	95,000	7,160	17,200	< 106	523,000	197,000	36,900
GP-8 (9')	12/16/2021	379	18,300	30,200	1,590	11,300	< 97.1	153,000	63,300	15,200
GP-8 (15')	12/16/2021	< 23.5	< 23.5	< 23.5	< 23.5	< 23.5	< 23.5	< 46.9	32.8	< 23.5
GP-9 (6.5')	3/9/2022	< 28.0	< 28.0	< 28.0	< 28.0	< 28.0	< 28.0	< 55.9	< 28.0	< 28.0
GP-9 (12')	3/9/2022	< 24.3	< 24.3	< 24.3	< 24.3	< 24.3	< 24.3	< 48.6	< 24.3	< 24.3
GP-10 (15')	3/9/2022	30	298	1,000	37.3	105	< 25.9	3,750	464	162
GP-10 (19')	3/9/2022	< 26.9	31.7	< 26.9	< 26.9	< 26.9	< 26.9	< 53.7	< 26.9	< 26.9
GP-11 (12')	3/9/2022	< 275	1,100	45,600	3,140	8,380	< 275	165,000	85,200	15,900
GP-12 (9.5')	3/9/2022	< 25.7	< 25.7	< 25.7	< 25.7	< 25.7	370	< 51.5	< 25.7	< 25.7
GP-13 (9.5')	3/9/2022	< 239	< 239	7,350	564	3,040	< 239	150,000	23,100	7,810
GP-14 (5')	3/9/2022	44,000	166,000	67,900	4,780	12,500	< 475	387,000	148,000	55,500
GP-15 (11.5')	3/9/2022	3,040	223,000	< 489	14,600	37,400	< 489	819,000	318,000	113,000
GP-16 (7')	3/9/2022	3,570	47,300	103,000	18,800	59,000	< 251	566,000	562,000	205,000

MTBE = Methyl tertiary butyl ether
TMB = Trimethylbenzene
µg/kg = Micrograms/kilogram (parts per billion)
79,000 = Indicates concentration exceeds a DEP Statewide Health Standard
<# = Less than the detection limit of #

**TABLE 2
SOIL QUALITY DATA**

**WARKS LIBERTY STATION
FACILITY ID# 46-22635**

**300 MONTGOMERY AVENUE
MERION STATION, PA 19066**

All standards from "Soil to Groundwater Numeric Values, Saturated / Unsaturated, Residential / Non-residential"
DEP adopted new standards as of August 27, 2016

CENTER POINT TANK SERVICES
INC
Storage Tank Management Services

Boring ID GP-1

Site Name: Wark's Liberty Station	Date: December 16, 2021
Site/Boring Location: 300 Montgomery Avenue Merion Station, PA 19066	Subcontractor: Benner GeoServices, Inc.
Weather:	Drilling Method: Geoprobe
CPTS oversight: Alexandra Gibat	Borehole Dia.: 2"
	DTW: NA DTR: NA

Depth (feet)	Description	PID	Comments/Recovery
0	Concrete	19.2	
1			
2	Gray Sandy Loam	41	
3	Brown Sandy Loam	153	
4	Clayey brown sand	483 540	
5	Concrete-like fill	1500	
6	Gray/brown clayey sand Moist but not wet		
7			
8	Gray silty sandy clay Sample at 8'	907	
9		251	
10		32	
11		68	
12		71	
13		11.5 3.6	
14		5.7 2.2	
15	Sample at 15'		
16			
17			
18			
19			
20			
21			

CENTER POINT TANK SERVICES
INC
Storage Tank Management Services

Boring ID GP-2

Site Name: Wark's Liberty Station	Date: December 16, 2021
Site/Boring Location: 300 Montgomery Avenue Merion Station, PA 19066	Subcontractor: Benner GeoServices, Inc.
Weather:	Drilling Method: Geoprobe
CPTS oversight: Alexandra Gibat	Borehole Dia.: 2"
	DTW: NA DTR: NA

Depth (feet)	Description	PID	Comments/Recovery
0	Concrete		
1	Black sandy silty clay	212	
2	Brown sandy silty clay		
3		42.5	
4			
5	Gray sandy loam	620 647	
6		140	
7	Tan sand	363 304	
8		517	
9	Sample at 9'	206 304 938	
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			

CENTER POINT TANK SERVICES
INC
Storage Tank Management Services

Boring ID GP-3

Site Name: Wark's Liberty Station	Date: December 16, 2021
Site/Boring Location: 300 Montgomery Avenue Merion Station, PA 19066	Subcontractor: Benner GeoServices, Inc.
Weather:	Drilling Method: Geoprobe
CPTS oversight: Alexandra Gibat	Borehole Dia.: 2"
	DTW: NA DTR: NA

Depth (feet)	Description	PID	Comments/Recovery
0	Asphalt & Concrete		
1			
2	Brown sandy clay		
3		1.9	
4		0.2	
5		11.1	
6		1.2	
7	Grey sand with small round pebbles	6.9	
8		8.6	
9		22	
10		73	
11		451	
12		652	
13	Sample at 12.5'	557	
14		866	
15	Wet grey sand	36.9	
16			
17			
18			
19			
20			
21			

CENTER POINT TANK SERVICES
INC
Storage Tank Management Services

Boring ID GP-4

Site Name: Wark's Liberty Station	Date: December 16, 2021
Site/Boring Location: 300 Montgomery Avenue Merion Station, PA 19066	Subcontractor: Benner GeoServices, Inc.
Weather:	Drilling Method: Geoprobe
CPTS oversight: Alexandra Gibat	Borehole Dia.: 2"
	DTW: NA DTR: NA

Depth (feet)	Description	PID	Comments/Recovery
0			
1	Asphalt, light/tan concrete	1.5	
2		4.5	
3	Dark grey to light grey silty loam	7.8	
4			
5	Gray silty sand while sleeve with pebbles		
6	No clay	313-704	
7	ODOR		
8			
9		874	
10	Dry		
11	Sample at 11'		
12	Refusal at 11.3		
13			
14			
15			
16			
17			
18			
19			
20			
21			

CENTER POINT TANK SERVICES
INC
Storage Tank Management Services

Boring ID GP-5

Site Name: Wark's Liberty Station	Date: December 16, 2021
Site/Boring Location: 300 Montgomery Avenue Merion Station, PA 19066	Subcontractor: Benner GeoServices, Inc.
Weather:	Drilling Method: Geoprobe
CPTS oversight: Alexandra Gibat	Borehole Dia.: 2"
	DTW: NA DTR: NA

Depth (feet)	Description	PID	Comments/Recovery
0			
1	Whole sleeve light tan to medium grey sand		
2			
3			
4			
5			
6			
7			
8		Micaceous material	
9			
10			
11	Refusal at 11' Sample at 11'	0.2 4 0.4	
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			

CENTER POINT TANK SERVICES
INC
Storage Tank Management Services

Boring ID GP-6

Site Name: Wark's Liberty Station	Date: December 16, 2021
Site/Boring Location: 300 Montgomery Avenue Merion Station, PA 19066	Subcontractor: Benner GeoServices, Inc.
Weather:	Drilling Method: Geoprobe
CPTS oversight: Alexandra Gibat	Borehole Dia.: 2"
	DTW: NA DTR: NA

Depth (feet)	Description	PID	Comments/Recovery
0			
1	Asphalt and silty clayey	416	
2	Grey, very fine grained sand	363	
3		344	
4		368	
5			
6			
7			
8			
9			
10	Sample at 10'	576	
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			

CENTER POINT TANK SERVICES
INC
Storage Tank Management Services

Boring ID GP-7

Site Name: Wark's Liberty Station	Date: December 16, 2021
Site/Boring Location: 300 Montgomery Avenue Merion Station, PA 19066	Subcontractor: Benner GeoServices, Inc.
Weather:	Drilling Method: Geoprobe
CPTS oversight: Alexandra Gibat	Borehole Dia.: 2"
	DTW: NA DTR: NA

Depth (feet)	Description	PID	Comments/Recovery
0			
1	Asphalt	830	
2	Light brown grey sand with gravel Big piece of shale and quartzite pieces	1109	
3	Dark gray/ silty sand Soft/moist	1619	
4	Sample at 4'	1279	
5	Brown silty clay	1795	
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			

CENTER POINT TANK SERVICES

INC

Storage Tank Management Services

Boring ID GP-8

Site Name: Wark's Liberty Station	Date: December 16, 2021
Site/Boring Location: 300 Montgomery Avenue Merion Station, PA 19066	Subcontractor: Benner GeoServices, Inc.
Weather:	Drilling Method: Geoprobe
CPTS oversight: Alexandra Gibat	Borehole Dia.: 2"
	DTW: NA DTR: NA

Depth (feet)	Description	PID	Comments/Recovery
0	Grey rocky asphalt	10.9	
1	Dark brown to black silt with small rocks	18.6	
2		23	
3		7.1	
4	Reddish brown and grey silt	12.6	
5		124	
6		825	
7		1024	
8	Loamy clay gray	38	
9	Sample at 9' Micaceous silt	21 5	
10		2.4	
11			
12			
13			
14			
15	Sample at 15'		
16			
17			
18			
19			
20			
21			

CENTER POINT TANK SERVICES
INC
Storage Tank Management Services

Boring ID GP-9

Site Name: Wark's Liberty Station	Date: March 10th, 2022
Site/Boring Location: 300 Montgomery Avenue Merion Station, PA 19066	Subcontractor: Benner GeoServices, Inc.
Weather:	Drilling Method: Geoprobe
CPTS oversight: Alexandra Gibat	Borehole Dia.: 2"
	DTW: NA DTR: NA

Depth (feet)	Description	PID	Comments/Recovery
0			
1	Black asphalt	0.2	
2			
3	Dark gray/brown sandy silt Moist	2	
4			
5	Slightly odorous		
6	Sample at 6.5'	8.9	
7	More sand/lighter color	0.2	
8			
9	Light brown	0.1	
10	Wissahickon schist	0.1	
11			
12	Sample at 12'		
13	Sandy silty schist White quartz		
14			
15			
16			
17			
18			
19			
20			
21			

CENTER POINT TANK SERVICES
INC
Storage Tank Management Services

Boring ID GP-10

Site Name: Wark's Liberty Station	Date: March 10th, 2022
Site/Boring Location: 300 Montgomery Avenue Merion Station, PA 19066	Subcontractor: Benner GeoServices, Inc.
Weather:	Drilling Method: Geoprobe
CPTS oversight: Alexandra Gibat	Borehole Dia.: 2"
	DTW: NA DTR: NA

Depth (feet)	Description	PID	Comments/Recovery
0	Concrete		
1	Brown sand		
2	Brown sandy shale		
3	Black sandy silt		
4	Gray Silty sandy		
5	Odorous		
6	Fine gravel		
7	Odors		
8	Odor continuously worse		
9	Sandier, less gravel		
10			
11			
12			
13			
14			
15	Sample at 15'		
16	Odors 4-16'		
17			
18			
19			
20			
21			

CENTER POINT TANK SERVICES
INC
Storage Tank Management Services

Boring ID GP-11

Site Name: Wark's Liberty Station	Date: March 10th, 2022
Site/Boring Location: 300 Montgomery Avenue Merion Station, PA 19066	Subcontractor: Benner GeoServices, Inc.
Weather:	Drilling Method: Geoprobe
CPTS oversight: Alexandra Gibat	Borehole Dia.: 2"
	DTW: NA DTR: NA

Depth (feet)	Description	PID	Comments/Recovery
0			
1	Asphalt/Silt	2.8	
2		13.5	
3			
4	Gray sandy silt	240	
5		177	
6			
7	Reddish clay	693	
8	Gray silty sand	648	
9			
10		953	
11			
12	Sample at 12'		
13			
14			
15			
16			
17			
18			
19			
20			
21			

CENTER POINT TANK SERVICES
INC
Storage Tank Management Services

Boring ID GP-12

Site Name: Wark's Liberty Station	Date: March 10th, 2022
Site/Boring Location: 300 Montgomery Avenue Merion Station, PA 19066	Subcontractor: Benner GeoServices, Inc.
Weather:	Drilling Method: Geoprobe
CPTS oversight: Alexandra Gibat	Borehole Dia.: 2"
	DTW: NA DTR: NA

Depth (feet)	Description	PID	Comments/Recovery
0			
1	Asphalt/concrete	2.5	
2			
3	Gray/black sandy silt	6.2	
4	Gray/black asphalt	2.3	
5	Wood	0.7	
6		2.4	
7	Dark brown/gray micaceous silty clay Ribboning	1.7 1.2	
8			
9	Less clayey-less ribbons more silt Brownish gray clayey sand with fine gravel Sample at 9.5'	60.7 3.2	
10	Wet	0.3 0.4	
11	Dry black silty sand	0.2	
12			
13	Wet		
14	Brownish gray shaley silty sand		
15			
16			
17	Moist, micaceous silty sand		
18			
19			
20			
21			

CENTER POINT TANK SERVICES
INC
Storage Tank Management Services

Boring ID GP-13

Site Name: Wark's Liberty Station	Date: December 16, 2021
Site/Boring Location: 300 Montgomery Avenue Merion Station, PA 19066	Subcontractor: Benner GeoServices, Inc.
Weather:	Drilling Method: Geoprobe
CPTS oversight: Alexandra Gibat	Borehole Dia.: 2"
	DTW: NA DTR: NA

Depth (feet)	Description	PID	Comments/Recovery
0			
1	Asphalt	3.4	
2	Clayey sand	9.2	
3			
4	Sandy gravel	165	
5	Sandy clay	361	
		230	
6	Brownish gray sand	35.9	
		378	
7			
8			
9	Gray silty clayey sand	11.9	
	Moist	0.2	
	Odors	0.6	
10			
11		27.6	
		3.2	
12	Dry to moist silty shaley sand gray		
13			
14			
15			
16			
17			
18			
19			
20	Sample at 20'		
21			

CENTER POINT TANK SERVICES
INC
Storage Tank Management Services

Boring ID GP-14

Site Name: Wark's Liberty Station	Date: March 10th, 2022
Site/Boring Location: 300 Montgomery Avenue Merion Station, PA 19066	Subcontractor: Benner GeoServices, Inc.
Weather:	Drilling Method: Geoprobe
CPTS oversight: Alexandra Gibat	Borehole Dia.: 2"
	DTW: NA DTR: NA

Depth (feet)	Description	PID	Comments/Recovery
0			
1			
2	Dry, sandy	>800	
3	Soil wet, almost gooey on bottom		
4	Gravel		
5	Sample at 5'		
6	Refusal at 5' hit something hard-like steel		
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			

CENTER POINT TANK SERVICES
INC
Storage Tank Management Services

Boring ID GP-15

Site Name: Wark's Liberty Station	Date: March 11th, 2022
Site/Boring Location: 300 Montgomery Avenue Merion Station, PA 19066	Subcontractor: Benner GeoServices, Inc.
Weather:	Drilling Method: Geoprobe
CPTS oversight: Alexandra Gibat	Borehole Dia.: 2"
	DTW: NA DTR: NA

Depth (feet)	Description	PID	Comments/Recovery
0	Asphalt to brown silty	0.2	
1			
2			
3			
4			
5	Brown/gray silty clay sand	0.2	
6	Moist	28 163	
7			
8	Blue-ish gray clay	28	
9	Moist	11	
10	Brown clay, moist		
11	Sample at 11.5'		
12			
13			
14			
15			
16			
17	Dark with quartz, clayey		
18			
19	Refusal at 19'		
20			
21			

CENTER POINT TANK SERVICES
INC
Storage Tank Management Services

Boring ID GP-16

Site Name: Wark's Liberty Station	Date: March 11th, 2022
Site/Boring Location: 300 Montgomery Avenue Merion Station, PA 19066	Subcontractor: Benner GeoServices, Inc.
Weather:	Drilling Method: Geoprobe
CPTS oversight: Alexandra Gibat	Borehole Dia.: 2"
	DTW: NA DTR: NA

Depth (feet)	Description	PID	Comments/Recovery
0	2.5' recovery		
1	sandy silt with medium sized gravel		
2			
3			
4			
5			
6			
7	Refusal at 7'		
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			

CENTER POINT TANK SERVICES
INC
Storage Tank Management Services

Boring ID MW-1

Site Name: Wark's Liberty Station	Date: March 10th, 2022
Site/Boring Location: 300 Montgomery Avenue Merion Station, PA 19066	Subcontractor: Benner GeoServices, Inc.
Weather:	Drilling Method: Geoprobe
CPTS oversight: Alexandra Gibat	Borehole Dia.: 2"
	DTW: NA DTR: NA

Depth (feet)	Description	PID	Comments/Recovery
0			
1	Black asphalt	0.2	
2			
3	Dark gray/brown sandy silt Moist	2	
4			
5	Slightly odorous		
6		8.9	
7	More sand/lighter color	0.2	
8			
9	Light brown	0.1	
10	Wissahickon schist	0.1	
11			
12			
13	Sandy silty schist White quartz		
14			
15	DTW: 12.65' but DTW meter stopped going down at 13.4' Water not sampled until after well development		
16			
17			
18			
19			
20			
21			

CENTER POINT TANK SERVICES
INC
Storage Tank Management Services

Boring ID MW-2

Site Name: Wark's Liberty Station	Date: March 10th, 2022
Site/Boring Location: 300 Montgomery Avenue Merion Station, PA 19066	Subcontractor: Benner GeoServices, Inc.
Weather:	Drilling Method: Geoprobe
CPTS oversight: Alexandra Gibat	Borehole Dia.: 2"
	DTW: NA DTR: NA

Depth (feet)	Description	PID	Comments/Recovery
0			
1	Asphalt/Silt	2.8	
2		13.5	
3			
4	Gray sandy silt	240	
5		177	
6			
7	Reddish clay	693	
8	Gray silty sand	648	
9			
10		953	
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			

CENTER POINT TANK SERVICES
INC
Storage Tank Management Services

Boring ID MW-3

Site Name: Wark's Liberty Station	Date: December 16, 2021
Site/Boring Location: 300 Montgomery Avenue Merion Station, PA 19066	Subcontractor: Benner GeoServices, Inc.
Weather:	Drilling Method: Geoprobe
CPTS oversight: Alexandra Gibat	Borehole Dia.: 2"
	DTW: NA DTR: NA

Depth (feet)	Description	PID	Comments/Recovery
0			
1	Asphalt	3.4	
2	Clayey sand	9.2	
3			
4	Sandy gravel	165	
5	Sandy clay	361	
		230	
6	Brownish gray sand	35.9	
		378	
7			
8			
9	Gray silty clayey sand	11.9	
	Moist	0.2	
	Odors	0.6	
10			
11		27.6	
		3.2	
12	Dry to moist silty shaley sand gray		
13			
14			
15			
16			
17			
18			
19			
20			
21			

CENTER POINT TANK SERVICES
INC
Storage Tank Management Services

Boring ID MW-4

Site Name: Wark's Liberty Station	Date: March 11th, 2022
Site/Boring Location: 300 Montgomery Avenue Merion Station, PA 19066	Subcontractor: Benner GeoServices, Inc.
Weather:	Drilling Method: Geoprobe
CPTS oversight: Alexandra Gibat	Borehole Dia.: 2"
	DTW: NA DTR: NA

Depth (feet)	Description	PID	Comments/Recovery
0	Asphalt to brown silty	0.2	
1			
2			
3			
4			
5	Brown/gray silty clay sand	0.2	
6	Moist	28 163	
7			
8	Blue-ish gray clay	28	
9	Moist	11	
10	Brown clay, moist		
11			
12			
13			
14			
15			
16			
17	Dark with quartz, clayey		
18			
19			
20	DTW:11.5		
21			

APPENDIX A:
SITE RECONNAISSANCE SUMMARY

APPENDIX A

The site, Bob Wark's Liberty Station, Merion Station, Montgomery County, Pennsylvania, is currently an auto repair garage and gasoline fueling station. The site is fairly level with the regional topography sloping primarily to the west and southwest of the site. Groundwater flow direction is anticipated to be west southwest toward the East Branch of the Indian Creek.

The site is situated on the eastern end of a fork in the road of Montgomery Avenue and Old Lancaster Road, and is located in a mixed use area consisting of commercial and residential properties. Properties immediately surrounding the subject property are commercial except along the west and southwest boundary are residences. The subject property is bounded to the north by Doggie Style Pets Bala Cynwyd, northeast and northwest by restaurants, and south by a jewelry store.

The property is rectangular, and one large building exists on site. The building had a major addition in 1986, expanding to a total of eight bays and a second floor to accommodate a waiting room and office space. A total of five underground storage tanks (USTs) are present on the subject property, including three 8,000 gallon underground storage tanks storing gasoline, and two 550 gallon waste oil tanks. The three large USTs are on the northeast corner of the property and situated in an east-west orientation. The waste oil tanks are located at the front of the building, on either side of the canopy.

East Branch of the Indian Creek, the closest body of water, is located approximately 6,015 feet from the UST system.



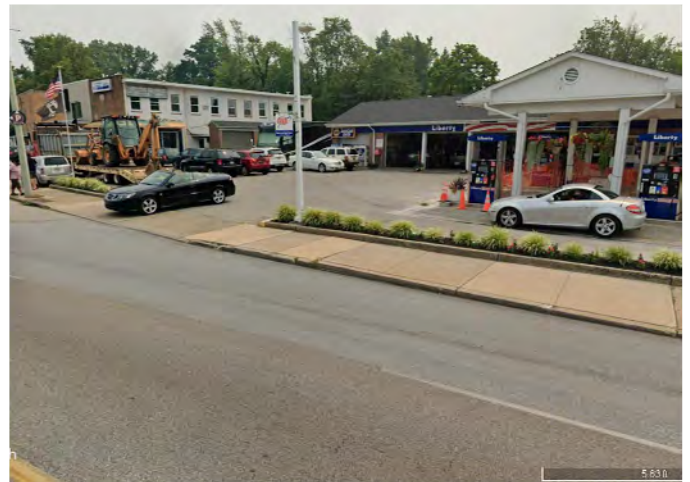
View facing north.
Source: Google Earth 2021



View facing northeast.
Source: Google Earth 2021



View facing northwest.
Source: Google Earth 2021



View facing south.
Source: Google Earth 2021



View facing southeast.
Source: Google Earth 2021



View facing west.
Source: Google Earth 2021

APPENDIX B:
WATER SUPPLY

APPENDIX B

There are no wells located within one quarter mile of the site.

During a phone call with Ryan McCann on Tuesday, July 23, 2021, he provided the knowledge that there are not any ordinances in place for the installation and use of private supply wells within one-quarter mile radius of the site. Mr. McCann noted that the township employs section 602.3 of the International Plumbing Code (2003) which states, "Where a potable public water supply is not available, individual sources of potable water supply shall be utilized." However, the site and area in a one-quarter mile radius is supplied water by the township and, therefore, cannot drill for a private water supply. Later on the same date, Joseph Mastronardo, from the Lower Merion Township Engineer's Office and Associate Vice President of Pennoni Associates, stated that the Township does not regulate the need to connect to public water, however a competent water supply is required for all subdivisions by either providing a will-serve letter from Aqua or other public utility, or wells. Email correspondence with Mr. Mastronardo, as well as the aforementioned International Plumbing Code is attached.

CHAPTER 6 WATER SUPPLY AND DISTRIBUTION

SECTION 601 GENERAL

601.1 Scope. This chapter shall govern the materials, design and installation of water supply systems, both hot and cold, for utilization in connection with human occupancy and habitation and shall govern the installation of individual water supply systems.

601.2 Solar energy utilization. Solar energy systems used for heating potable water or using an independent medium for heating potable water shall comply with the applicable requirements of this code. The use of solar energy shall not compromise the requirements for cross connection or protection of the potable water supply system required by this code.

601.3 Existing piping used for grounding. Existing metallic water service piping used for electrical grounding shall not be replaced with nonmetallic pipe or tubing until other approved means of grounding is provided.

601.4 Tests. The potable water distribution system shall be tested in accordance with Section 312.5.

SECTION 602 WATER REQUIRED

602.1 General. Every structure equipped with plumbing fixtures and utilized for human occupancy or habitation shall be provided with a potable supply of water in the amounts and at the pressures specified in this chapter.

602.2 Potable water required. Only potable water shall be supplied to plumbing fixtures that provide water for drinking, bathing or culinary purposes, or for the processing of food, medical or pharmaceutical products. Unless otherwise provided in this code, potable water shall be supplied to all plumbing fixtures.

602.3 Individual water supply. Where a potable public water supply is not available, individual sources of potable water supply shall be utilized.

602.3.1 Sources. Dependent on geological and soil conditions and the amount of rainfall, individual water supplies are of the following types: drilled well, driven well, dug well, bored well, spring, stream or cistern. Surface bodies of water and land cisterns shall not be sources of individual water supply unless properly treated by approved means to prevent contamination.

602.3.2 Minimum quantity. The combined capacity of the source and storage in an individual water supply system shall supply the fixtures with water at rates and pressures as required by this chapter.

602.3.3 Water quality. Water from an individual water supply shall be approved as potable by the authority having jurisdiction prior to connection to the plumbing system.

602.3.4 Disinfection of system. After construction or major repair, the individual water supply system shall be purged of deleterious matter and disinfected in accordance with Section 610.

602.3.5 Pumps. Pumps shall be rated for the transport of potable water. Pumps in an individual water supply system shall be constructed and installed so as to prevent contamination from entering a potable water supply through the pump units. Pumps shall be sealed to the well casing or covered with a water-tight seal. Pumps shall be designed to maintain a prime and installed such that ready access is provided to the pump parts of the entire assembly for repairs.

602.3.5.1 Pump enclosure. The pump room or enclosure around a well pump shall be drained and protected from freezing by heating or other approved means. Where pumps are installed in basements, such pumps shall be mounted on a block or shelf not less than 18 inches (457 mm) above the basement floor. Well pits shall be prohibited.

SECTION 603 WATER SERVICE

603.1 Size of water service pipe. The water service pipe shall be sized to supply water to the structure in the quantities and at the pressures required in this code. The minimum diameter of water service pipe shall be $\frac{3}{4}$ inch (19.1 mm).

603.2 Separation of water service and building sewer. Water service pipe and the building sewer shall be separated by 5 feet (1524 mm) of undisturbed or compacted earth.

Exceptions:

1. The required separation distance shall not apply where the bottom of the water service pipe within 5 feet (1524 mm) of the sewer is a minimum of 12 inches (305 mm) above the top of the highest point of the sewer and the pipe materials conform to Section 703.1.
2. Water service pipe is permitted to be located in the same trench with a building sewer, provided such sewer is constructed of materials listed in Table 702.2.
3. The required separation distance shall not apply where a water service pipe crosses a sewer pipe provided the water service pipe is sleeved to at least 5 feet (1524 mm) horizontally from the sewer pipe centerline, on both sides of such crossing with pipe materials listed in Table 605.3, Table 702.2 or Table 702.3.

603.2.1 Water service near sources of pollution. Potable water service pipes shall not be located in, under or above cesspools, septic tanks, septic tank drainage fields or seepage pits (see Section 605.1 for soil and groundwater conditions).

Allie

From: Joseph Mastronardo <JMastronardo@Pennoni.com>
Sent: Tuesday, November 23, 2021 2:18 PM
To: Thompson, Andrea; Multari, Pietro; Allie
Cc: McElhaney, Paul
Subject: RE: Question Regarding Ordinances

Hello All, the Township does not regulate the need to connect to public water, however a competent water supply is required for all subdivisions by either providing a will-serve letter from Aqua or other public utility, or wells. An excerpt from the Subdivision and Land Development Code follows:

§ 135-41.1. Water service and fire hydrants.

[Added 2-18-1981 by Ord. No. 1941]

A.
An adequate public water supply shall be provided by the developer for the proposed use and for fire control.

B.
Fire hydrants shall be provided by the developer and installed subject to approval of locations by the Township. Furthermore, in the event that a fire hydrant or hydrants are installed to service public or private streets in a subdivision or land development, the developer shall deposit funds or securities in escrow sufficient to cover the cost of the annual fire hydrant rental charge imposed by the water utility provider for a prospective period of 10 years of hydrant rental.

Please feel free to contact me with any further questions or concerns.

Thank you and have a Happy Thanksgiving,

Joseph Mastronardo, PE

(he/him/his)
Associate Vice President

Pennoni

1900 Market St, Suite 300 | Philadelphia, PA 19103
Direct: +1 (215) 254-7758 | **Mobile:** +1 (215) 239-4977
www.pennoni.com | JMastronardo@Pennoni.com

From: Thompson, Andrea <athompson@lowermerion.org>
Sent: Wednesday, November 17, 2021 2:57 PM
To: Multari, Pietro <pmultari@lowermerion.org>; Allie <allie@centerpointtank.com>
Cc: McElhaney, Paul <pmcelhaney@lowermerion.org>; Joseph Mastronardo <JMastronardo@Pennoni.com>
Subject: RE: Question Regarding Ordinances

I have copied Joe Mastronardo from the Township Engineer's Office.

Either Joe or the Building and Planning Department should be able to help with the request.

Thanks,

Andrea D. Thompson, P.E.
Township of Lower Merion
Asst. Director of Public Works

From: Multari, Pietro <pmultari@lowermerion.org>
Sent: Wednesday, November 17, 2021 2:33 PM
To: Allie <allie@centerpointtank.com>; Thompson, Andrea <athompson@lowermerion.org>
Cc: McElhaney, Paul <pmcelhaney@lowermerion.org>
Subject: RE: Question Regarding Ordinances

Andrea would this be something you can help with or point in a direction?

Pietro Multari

Fleet Equipment Division Supervisor
Township of Lower Merion
1300 N Woodbine Avenue
Penn Valley, PA 19072
Office Phone: 610 726 7126
Cell Phone: 610 574 2784
Fax: 610 667 9125
Pmultari@lowermerion.org



From: Allie <allie@centerpointtank.com>
Sent: Wednesday, November 17, 2021 2:31 PM
To: Staff <Staff@lowermerion.org>
Cc: Multari, Pietro <pmultari@lowermerion.org>
Subject: Question Regarding Ordinances

Good Afternoon,

I am performing an environmental site assessment at the Bob Wark's Liberty Station located at 300 Montgomery Avenue, Merion Station, PA. Part of doing this requires us to search and provide a copy of any ordinances that document restrictions for the installation and use of private supply wells, and also any "must connect" requirements within one-quarter mile radius of the site. In the event that no such ordinance exists, we must provide documentation that we have confirmed that with a local official.

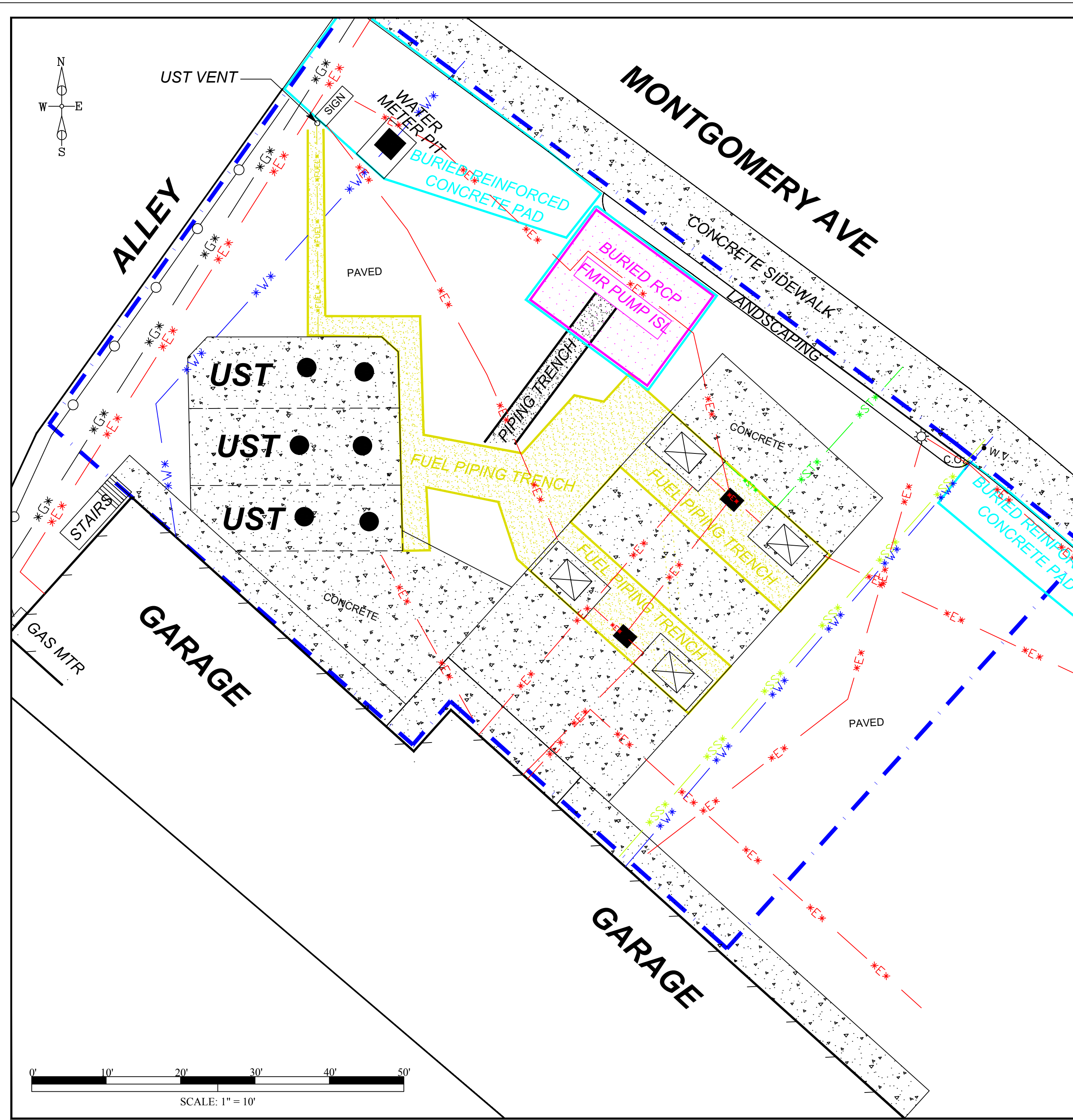
We have gone through your codes and have not found any such ordinance. Could you please confirm that no such ordinance exists within one-quarter mile of the above-mentioned address?

Pete, I am coping you in case you may know a better person I can direct this question to.

Thank you so much for your time and assistance,
Allie

Alexandra Gibat, Staff Geoscientist
Center Point Tank Services, Inc. (CPTS)
536 Benjamin Franklin Highway East/ Douglassville/ PA/ 19518
Office: 610-385-4977

APPENDIX C:
GEOPHYSICAL SURVEY



SUBSURFACE UTILITIES
 Subsurface utilities were detected and field-marked within the investigated areas. Utilities that could be identified were marked with standard identifying colors. Unidentified or unknown utilities were marked with white paint. All GGI-detected utilities are plotted on this map.

The estimated maximum GPR signal penetration achieved at this site is approximately 5' below grade. Thus, features existing at or below this depth will go undetected.

SUBSURFACE ANOMALIES
 Several areas indicative of buried reinforced concrete pads (RCP) were delineated by EM and GPR within the accessible search area. GGI suspects that one of the areas, located NW of the existing fuel dispensers, was a former pump island. A piping trench was detected extending from the area toward the building. The unknown piping are likely abandoned-in-place fuel lines. No USTs were detected associated with the lines.

GPR Anomalies
 Typically, subsurface anomalies delineated by GPR could be associated with utilities, isolated debris, foundational remnants, buried concrete, or certain identifiable features such as USTs, septic tanks, drums, buried reinforced concrete, etc.

EM Anomalies
 Typically, EM-detected subsurface anomalies can represent buried metallic features such as tanks, drums, foundations (containing rebar), utilities, and/or metallic debris. EM anomalies can represent areas containing conductive subsoil.

MAG Anomalies
 Typically, MAG-detected subsurface anomalies are representative of buried iron-containing features such as tanks, drums, foundations (containing rebar), metallic debris, certain utilities, buried valve, manhole, and/or well covers, etc.

The accessible sections of the search area, as shown, were investigated by Geo-Graf, Inc. (GGI) using Ground Penetrating Radar (GPR), Radio Frequency (RF), Electromagnetic (EM), and/or Magnetic (MAG) nonintrusive geophysical subsurface delineation techniques in an attempt to locate and map near-surface metallic and nonmetallic utilities and underground anomalies.

A nonintrusive geophysical investigation has inherent limitations. It should be understood that just because utilities or anomalies were not detected by the geophysical techniques used for this investigation it does not preclude the possibility that these features exist and went undetected. The utility markout and mapping produced by GGI should be considered one part of a larger process that includes a Public Utility markout ("one-call"); exhaustive search of site utility records, blue-prints, and/or as-builts; and ground-truthing via hand-digging or Soft-Dig (vacuum/air lance) test excavations. Completion of this multi-step utility locating process is strongly recommended by GGI.

Services, data interpretation, and investigation findings provided by Geo-Graf, Inc., shall be performed with our best professional effort. The detectability and location accuracy of underground features; as well as, the geophysical instruments' signal penetration depths are dependent upon the electrical properties and site-specific characteristics of the ground, soils, and/or materials scanned. Thus, the resulting data interpretations and investigation findings provided by Geo-Graf, Inc. are opinions based on inference from the acquired geophysical data and should be considered for "Informational Purposes Only" unless said data is properly verified via ground-truthing or other intrusive efforts, and is reviewed and sealed by a licensed professional engineer (PE). Geo-Graf, Inc., cannot and does not guarantee the desired signal penetration depth or accuracy/correctness of our interpretations and investigation findings. The lack of detected subsurface features or targets-of-concern within an investigated area does not preclude the possibility that these features exist and have gone undetected. Geo-Graf, Inc., will not accept liability or responsibility for any losses, damages or expenses that may be incurred or sustained by any services, data interpretations or investigation findings provided by Geo-Graf, Inc.

- *E* --- *E* --- *E* = ELECTRIC CABLING
- *FUEL* --- *FUEL* --- *FUEL* = FUEL (UST) PIPING
- *W* --- *W* --- *W* = WATER PIPING
- *SS* --- *SS* --- *SS* = SANITARY SEWER PIPING
- *ST* --- *ST* --- *ST* = STORM SEWER PIPING
- *UNK* --- *UNK* --- *UNK* = UNKNOWN UTILITY
- *G* --- *G* --- *G* = GAS PIPING
- *E* --- *E* --- *E* = GPR-DETECTED SUBSURFACE ANOMALY
- *E* --- *E* --- *E* = EM-DETECTED SUBSURFACE ANOMALY
- *E* --- *E* --- *E* = MAG-DETECTED SUBSURFACE ANOMALY
- *E* --- *E* --- *E* = GGI INVESTIGATED AREA

Utility Identities:
 Detected possible utilities either shown on this map, or field-marked by GGI, were identified based on inferences from surface features, archival mapping, and/or knowledge of local personnel. There are no nonintrusive geophysical delineation techniques that can identify a subsurface utility.

Unknown Utilities:
 Detected utility signatures that could not be identified in this fashion were labeled as unknown or "UNK". Unknown possible utilities could be associated with an underground utility or other subsurface feature that exhibits a utility-like signature.

GEO-GRAF Geophysical Investigations		SUBSURFACE UTILITY MAP	
Ground Penetrating Radar Specialists		GEOGRAPHICAL INVESTIGATION FINDINGS	
West Chester, PA www.geo-graf.com		300 MONTGOMERY AVENUE, MERION, PENNSYLVANIA	
PREPARED FOR:	SIZE:	BASE MAPPING FILE:	GEO-GRAF, INC. PROJECT NUMBER:
CENTER POINT TANK SERVICE	C		112921A
DATE:	SCALE:	FILE NAME:	SHEET
DECEMBER 8, 2021	1" = 10'	112921A-CPTS.DWG	1/1

APPENDIX D:
SOIL LABORATORY ANALYTICAL DATA



Results Report

Order ID: 1L03901

Center Point Tank Services
536 E. Benjamin Franklin Highway
Douglasville, PA 19518

Project: Warks Liberty Station

Merion Station, PA

Attn: Allie Gibat

Regulatory ID:

Sample Number: 1L03901-01

Site: GP-1 (7')

Sample ID:

Collector: AG

Collect Date: 12/16/2021 9:07 am

Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	By	Analysis Date	By
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Inorganics

Total Solids	84.9	%	SM 2540-G		1	12/21/21	CH	12/21/21 11:44	CH
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Volatiles

VOA, 8260, UST

Benzene	435	µg/Kg dry	SW846 5035A/8260D	95.5	200	12/21/21	LAS	12/21/21 13:05	LAS
Isopropylbenzene	5490	µg/Kg dry	SW846 5035A/8260D	95.5	200	12/21/21	LAS	12/21/21 13:05	LAS
Methyl-t-butyl ether (MTBE)	< 95.5	µg/Kg dry	SW846 5035A/8260D	95.5	200	12/21/21	LAS	12/21/21 13:05	LAS
Naphthalene	36000	µg/Kg dry	SW846 5035A/8260D	95.5	200	12/21/21	LAS	12/21/21 13:05	LAS
Ethyl Benzene	86200	µg/Kg dry	SW846 5035A/8260D	955	2000	12/22/21	LAS	12/22/21 14:53	MWS
Toluene	57900	µg/Kg dry	SW846 5035A/8260D	955	2000	12/22/21	LAS	12/22/21 14:53	MWS
1,3,5-Trimethylbenzene	67900	µg/Kg dry	SW846 5035A/8260D	955	2000	12/22/21	LAS	12/22/21 14:53	MWS
1,2,4-Trimethylbenzene	251000	µg/Kg dry	SW846 5035A/8260D	955	2000	12/22/21	LAS	12/22/21 14:53	MWS
Xylenes, Total	483000	µg/Kg dry	SW846 5035A/8260D	1910	2000	12/22/21	LAS	12/22/21 14:53	MWS

Surrogate Recoveries	Results	Units	Method	%Recovery	DF	Limits (%Recovery)	Analysis Date
Surrogate: Dibromofluoromethane	19.1	µg/L	SW846 5035A/8260D	96%	200	75-139	12/21/21 13:05
Surrogate: 1,2-Dichloroethane-d4	18.8	µg/L	SW846 5035A/8260D	94%	200	81-125	12/21/21 13:05
Surrogate: Toluene-d8	23.9	µg/L	SW846 5035A/8260D	120%	200	84-121	12/21/21 13:05
Surrogate: Bromofluorobenzene	20.8	µg/L	SW846 5035A/8260D	104%	200	72-136	12/21/21 13:05
Surrogate: Dibromofluoromethane	20.1	µg/L	SW846 5035A/8260D	101%	2000	75-139	12/22/21 14:53
Surrogate: 1,2-Dichloroethane-d4	19.7	µg/L	SW846 5035A/8260D	98%	2000	81-125	12/22/21 14:53
Surrogate: Toluene-d8	21.5	µg/L	SW846 5035A/8260D	107%	2000	84-121	12/22/21 14:53
Surrogate: Bromofluorobenzene	20.2	µg/L	SW846 5035A/8260D	101%	2000	72-136	12/22/21 14:53

Report Generated On: 12/28/2021 9:33 am

1L03901

STL_Results Revision #1.9

Effective: 04/16/2020





SUBURBAN TESTING LABS

Sample Number: 1L03901-02	Site: GP-1 (15')	Sample ID:
Collector: AG	Collect Date: 12/16/2021 9:24 am	Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	By	Analysis Date	By
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<u>Inorganics</u>									
Total Solids	83.2	%	SM 2540-G		1	12/21/21	CH	12/21/21 11:44	CH

<u>Volatiles</u>									
VOA, 8260, UST									
Benzene	< 23.2	M3	µg/Kg dry	SW846 5035A/8260D	23.2	50	12/21/21	LAS	12/21/21 11:39 LAS
Ethyl Benzene	< 23.2		µg/Kg dry	SW846 5035A/8260D	23.2	50	12/21/21	LAS	12/21/21 11:39 LAS
Isopropylbenzene	< 23.2		µg/Kg dry	SW846 5035A/8260D	23.2	50	12/21/21	LAS	12/21/21 11:39 LAS
Methyl-t-butyl ether (MTBE)	< 23.2		µg/Kg dry	SW846 5035A/8260D	23.2	50	12/21/21	LAS	12/21/21 11:39 LAS
Naphthalene	< 23.2		µg/Kg dry	SW846 5035A/8260D	23.2	50	12/21/21	LAS	12/21/21 11:39 LAS
Toluene	< 23.2	M3	µg/Kg dry	SW846 5035A/8260D	23.2	50	12/21/21	LAS	12/21/21 11:39 LAS
1,3,5-Trimethylbenzene	< 23.2		µg/Kg dry	SW846 5035A/8260D	23.2	50	12/21/21	LAS	12/21/21 11:39 LAS
1,2,4-Trimethylbenzene	28.8		µg/Kg dry	SW846 5035A/8260D	23.2	50	12/21/21	LAS	12/21/21 11:39 LAS
Xylenes, Total	63.2		µg/Kg dry	SW846 5035A/8260D	46.4	50	12/21/21	LAS	12/21/21 11:39 LAS

Surrogate Recoveries	Results	Units	Method	%Recovery	DF	Limits (%Recovery)	Analysis Date
Surrogate: Dibromofluoromethane	22.1	µg/L	SW846 5035A/8260D	110%	50	75-139	12/21/21 11:39
Surrogate: 1,2-Dichloroethane-d4	22.2	µg/L	SW846 5035A/8260D	111%	50	81-125	12/21/21 11:39
Surrogate: Toluene-d8	20.8	µg/L	SW846 5035A/8260D	104%	50	84-121	12/21/21 11:39
Surrogate: Bromofluorobenzene	18.8	µg/L	SW846 5035A/8260D	94%	50	72-136	12/21/21 11:39

Report Generated On: 12/28/2021 9:33 am 1L03901
 STL_Results Revision #1.9 Effective: 04/16/2020





SUBURBAN TESTING LABS

Sample Number: 1L03901-03	Site: GP-2 (5.5')	Sample ID:
Collector: AG	Collect Date: 12/16/2021 9:38 am	Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	By	Analysis Date	By
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Inorganics

Total Solids	81.8	%	SM 2540-G		1	12/21/21	CH	12/21/21 11:44	CH
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Volatiles

VOA, 8260, UST

Benzene	49.6	µg/Kg dry	SW846 5035A/8260D	48.6	100	12/21/21	LAS	12/21/21 12:36	LAS
Ethyl Benzene	15300	µg/Kg dry	SW846 5035A/8260D	48.6	100	12/21/21	LAS	12/21/21 12:36	LAS
Isopropylbenzene	1660	µg/Kg dry	SW846 5035A/8260D	48.6	100	12/21/21	LAS	12/21/21 12:36	LAS
Methyl-t-butyl ether (MTBE)	< 48.6	µg/Kg dry	SW846 5035A/8260D	48.6	100	12/21/21	LAS	12/21/21 12:36	LAS
Naphthalene	11100	µg/Kg dry	SW846 5035A/8260D	48.6	100	12/21/21	LAS	12/21/21 12:36	LAS
Toluene	701	µg/Kg dry	SW846 5035A/8260D	48.6	100	12/21/21	LAS	12/21/21 12:36	LAS
1,3,5-Trimethylbenzene	14900	µg/Kg dry	SW846 5035A/8260D	48.6	100	12/21/21	LAS	12/21/21 12:36	LAS
1,2,4-Trimethylbenzene	73400	µg/Kg dry	SW846 5035A/8260D	243	500	12/22/21	LAS	12/22/21 15:22	MWS
Xylenes, Total	76300	µg/Kg dry	SW846 5035A/8260D	486	500	12/22/21	LAS	12/22/21 15:22	MWS

Surrogate Recoveries	Results	Units	Method	%Recovery	DF	Limits (%Recovery)	Analysis Date
Surrogate: Dibromofluoromethane	18.9	µg/L	SW846 5035A/8260D	94%	100	75-139	12/21/21 12:36
Surrogate: 1,2-Dichloroethane-d4	18.9	µg/L	SW846 5035A/8260D	95%	100	81-125	12/21/21 12:36
Surrogate: Toluene-d8	22.8	µg/L	SW846 5035A/8260D	114%	100	84-121	12/21/21 12:36
Surrogate: Bromofluorobenzene	20.7	µg/L	SW846 5035A/8260D	103%	100	72-136	12/21/21 12:36
Surrogate: Dibromofluoromethane	19.6	µg/L	SW846 5035A/8260D	98%	500	75-139	12/22/21 15:22
Surrogate: 1,2-Dichloroethane-d4	19.2	µg/L	SW846 5035A/8260D	96%	500	81-125	12/22/21 15:22
Surrogate: Toluene-d8	22.0	µg/L	SW846 5035A/8260D	110%	500	84-121	12/22/21 15:22
Surrogate: Bromofluorobenzene	19.7	µg/L	SW846 5035A/8260D	98%	500	72-136	12/22/21 15:22

Report Generated On: 12/28/2021 9:33 am 1L03901
 STL_Results Revision #1.9 Effective: 04/16/2020





SUBURBAN TESTING LABS

Sample Number: 1L03901-04 Site: GP-2 (9') Sample ID:
 Collector: AG Collect Date: 12/16/2021 9:58 am Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	By	Analysis Date	By
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Inorganics

Total Solids	79.4	%	SM 2540-G		1	12/21/21	CH	12/21/21 11:44	CH
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Volatiles

VOA, 8260, UST

Benzene	< 30.3	µg/Kg dry	SW846 5035A/8260D	30.3	50	12/21/21	LAS	12/21/21 12:07	LAS
Ethyl Benzene	< 30.3	µg/Kg dry	SW846 5035A/8260D	30.3	50	12/21/21	LAS	12/21/21 12:07	LAS
Isopropylbenzene	< 30.3	µg/Kg dry	SW846 5035A/8260D	30.3	50	12/21/21	LAS	12/21/21 12:07	LAS
Methyl-t-butyl ether (MTBE)	< 30.3	µg/Kg dry	SW846 5035A/8260D	30.3	50	12/21/21	LAS	12/21/21 12:07	LAS
Naphthalene	< 30.3	µg/Kg dry	SW846 5035A/8260D	30.3	50	12/21/21	LAS	12/21/21 12:07	LAS
Toluene	< 30.3	µg/Kg dry	SW846 5035A/8260D	30.3	50	12/21/21	LAS	12/21/21 12:07	LAS
1,3,5-Trimethylbenzene	< 30.3	µg/Kg dry	SW846 5035A/8260D	30.3	50	12/21/21	LAS	12/21/21 12:07	LAS
1,2,4-Trimethylbenzene	< 30.3	µg/Kg dry	SW846 5035A/8260D	30.3	50	12/21/21	LAS	12/21/21 12:07	LAS
Xylenes, Total	< 60.6	µg/Kg dry	SW846 5035A/8260D	60.6	50	12/21/21	LAS	12/21/21 12:07	LAS

Surrogate Recoveries	Results	Units	Method	%Recovery	DF	Limits (%Recovery)	Analysis Date
Surrogate: Dibromofluoromethane	21.9	µg/L	SW846 5035A/8260D	110%	50	75-139	12/21/21 12:07
Surrogate: 1,2-Dichloroethane-d4	21.9	µg/L	SW846 5035A/8260D	110%	50	81-125	12/21/21 12:07
Surrogate: Toluene-d8	21.3	µg/L	SW846 5035A/8260D	107%	50	84-121	12/21/21 12:07
Surrogate: Bromofluorobenzene	18.7	µg/L	SW846 5035A/8260D	93%	50	72-136	12/21/21 12:07

Sample Number: 1L03901-05 Site: TP-2 Sample ID:
 Collector: AG Collect Date: 12/16/2021 10:05 am Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	By	Analysis Date	By
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Volatiles

VOA, 8260, UST

Benzene	< 200	µg/L	SW846 5030C/8260D	200	400	12/21/21	MWS	12/21/21 2:17	LAS
Ethyl Benzene	4740	µg/L	SW846 5030C/8260D	200	400	12/21/21	MWS	12/21/21 2:17	LAS
Isopropylbenzene	444	µg/L	SW846 5030C/8260D	200	400	12/21/21	MWS	12/21/21 2:17	LAS
Methyl-t-butyl ether (MTBE)	< 200	µg/L	SW846 5030C/8260D	200	400	12/21/21	MWS	12/21/21 2:17	LAS
Naphthalene	1220	µg/L	SW846 5030C/8260D	200	400	12/21/21	MWS	12/21/21 2:17	LAS
Toluene	< 200	µg/L	SW846 5030C/8260D	200	400	12/21/21	MWS	12/21/21 2:17	LAS
1,3,5-Trimethylbenzene	2160	µg/L	SW846 5030C/8260D	200	400	12/21/21	MWS	12/21/21 2:17	LAS
1,2,4-Trimethylbenzene	8640	µg/L	SW846 5030C/8260D	200	400	12/21/21	MWS	12/21/21 2:17	LAS
Xylenes, Total	34500	µg/L	SW846 5030C/8260D	400	400	12/21/21	MWS	12/21/21 2:17	LAS

Surrogate Recoveries	Results	Units	Method	%Recovery	DF	Limits (%Recovery)	Analysis Date
Surrogate: Dibromofluoromethane	22.0	µg/L	SW846 5030C/8260D	110%	400	72-136	12/21/21 2:17
Surrogate: 1,2-Dichloroethane-d4	21.4	µg/L	SW846 5030C/8260D	107%	400	79-135	12/21/21 2:17
Surrogate: Toluene-d8	19.8	µg/L	SW846 5030C/8260D	99%	400	88-112	12/21/21 2:17
Surrogate: Bromofluorobenzene	20.5	µg/L	SW846 5030C/8260D	102%	400	75-117	12/21/21 2:17

Report Generated On: 12/28/2021 9:33 am 1L03901
 STL_Results Revision #1.9 Effective: 04/16/2020





SUBURBAN TESTING LABS

Sample Number: 1L03901-06 Site: GP-3 (12.5') Sample ID:
 Collector: AG Collect Date: 12/16/2021 10:32 am Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	By	Analysis Date	By
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Inorganics

Total Solids	79.2	%	SM 2540-G		1	12/21/21	CH	12/21/21 11:44	CH
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Volatiles

VOA, 8260, UST

Benzene	< 101	µg/Kg dry	SW846 5035A/8260D	101	200	12/21/21	LAS	12/21/21 13:34	LAS
Isopropylbenzene	9130	µg/Kg dry	SW846 5035A/8260D	101	200	12/21/21	LAS	12/21/21 13:34	LAS
Methyl-t-butyl ether (MTBE)	< 101	µg/Kg dry	SW846 5035A/8260D	101	200	12/21/21	LAS	12/21/21 13:34	LAS
Naphthalene	27300	µg/Kg dry	SW846 5035A/8260D	101	200	12/21/21	LAS	12/21/21 13:34	LAS
Toluene	< 101	µg/Kg dry	SW846 5035A/8260D	101	200	12/21/21	LAS	12/21/21 13:34	LAS
Ethyl Benzene	74600	µg/Kg dry	SW846 5035A/8260D	1010	2000	12/22/21	LAS	12/22/21 15:51	MWS
1,3,5-Trimethylbenzene	62500	µg/Kg dry	SW846 5035A/8260D	1010	2000	12/22/21	LAS	12/22/21 15:51	MWS
1,2,4-Trimethylbenzene	243000	µg/Kg dry	SW846 5035A/8260D	1010	2000	12/22/21	LAS	12/22/21 15:51	MWS
Xylenes, Total	361000	µg/Kg dry	SW846 5035A/8260D	2010	2000	12/22/21	LAS	12/22/21 15:51	MWS

Surrogate Recoveries	Results	Units	Method	%Recovery	DF	Limits (%Recovery)	Analysis Date
Surrogate: Dibromofluoromethane	18.9	µg/L	SW846 5035A/8260D	94%	200	75-139	12/21/21 13:34
Surrogate: 1,2-Dichloroethane-d4	18.0	µg/L	SW846 5035A/8260D	90%	200	81-125	12/21/21 13:34
Surrogate: Toluene-d8	21.6	µg/L	SW846 5035A/8260D	108%	200	84-121	12/21/21 13:34
Surrogate: Bromofluorobenzene	20.2	µg/L	SW846 5035A/8260D	101%	200	72-136	12/21/21 13:34
Surrogate: Dibromofluoromethane	19.6	µg/L	SW846 5035A/8260D	98%	2000	75-139	12/22/21 15:51
Surrogate: 1,2-Dichloroethane-d4	18.7	µg/L	SW846 5035A/8260D	93%	2000	81-125	12/22/21 15:51
Surrogate: Toluene-d8	21.2	µg/L	SW846 5035A/8260D	106%	2000	84-121	12/22/21 15:51
Surrogate: Bromofluorobenzene	20.1	µg/L	SW846 5035A/8260D	101%	2000	72-136	12/22/21 15:51

Report Generated On: 12/28/2021 9:33 am 1L03901
 STL_Results Revision #1.9 Effective: 04/16/2020





Sample Number: 1L03901-07	Site: TP-3	Sample ID:
Collector: AG	Collect Date: 12/16/2021 10:58 am	Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	By	Analysis Date	By
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Volatiles

VOA, 8260, UST (V1)

Benzene	< 200	µg/L	SW846 5030C/8260D	200	400	12/21/21	MWS	12/21/21 1:48	LAS
Ethyl Benzene	8690	µg/L	SW846 5030C/8260D	200	400	12/21/21	MWS	12/21/21 1:48	LAS
Isopropylbenzene	524	µg/L	SW846 5030C/8260D	200	400	12/21/21	MWS	12/21/21 1:48	LAS
Methyl-t-butyl ether (MTBE)	< 200	µg/L	SW846 5030C/8260D	200	400	12/21/21	MWS	12/21/21 1:48	LAS
Naphthalene	2180	µg/L	SW846 5030C/8260D	200	400	12/21/21	MWS	12/21/21 1:48	LAS
Toluene	< 200	µg/L	SW846 5030C/8260D	200	400	12/21/21	MWS	12/21/21 1:48	LAS
1,3,5-Trimethylbenzene	2660	µg/L	SW846 5030C/8260D	200	400	12/21/21	MWS	12/21/21 1:48	LAS
1,2,4-Trimethylbenzene	10900	µg/L	SW846 5030C/8260D	200	400	12/21/21	MWS	12/21/21 1:48	LAS
Xylenes, Total	45000	µg/L	SW846 5030C/8260D	400	400	12/21/21	MWS	12/21/21 1:48	LAS

Surrogate Recoveries	Results	Units	Method	%Recovery	DF	Limits (%Recovery)	Analysis Date
Surrogate: Dibromofluoromethane	21.2	µg/L	SW846 5030C/8260D	106%	400	72-136	12/21/21 1:48
Surrogate: 1,2-Dichloroethane-d4	20.8	µg/L	SW846 5030C/8260D	104%	400	79-135	12/21/21 1:48
Surrogate: Toluene-d8	20.0	µg/L	SW846 5030C/8260D	100%	400	88-112	12/21/21 1:48
Surrogate: Bromofluorobenzene	20.2	µg/L	SW846 5030C/8260D	101%	400	75-117	12/21/21 1:48

Sample Number: 1L03901-08	Site: GP-4 (11')	Sample ID:
Collector: AG	Collect Date: 12/16/2021 11:32 am	Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	By	Analysis Date	By
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Inorganics

Total Solids	86.6	%	SM 2540-G		1	12/21/21	CH	12/21/21 11:44	CH
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Volatiles

VOA, 8260, UST

Benzene	< 97.7	µg/Kg dry	SW846 5035A/8260D	97.7	200	12/21/21	LAS	12/21/21 14:03	LAS
Ethyl Benzene	8300	µg/Kg dry	SW846 5035A/8260D	97.7	200	12/21/21	LAS	12/21/21 14:03	LAS
Isopropylbenzene	3100	µg/Kg dry	SW846 5035A/8260D	97.7	200	12/21/21	LAS	12/21/21 14:03	LAS
Methyl-t-butyl ether (MTBE)	< 97.7	µg/Kg dry	SW846 5035A/8260D	97.7	200	12/21/21	LAS	12/21/21 14:03	LAS
Naphthalene	10500	µg/Kg dry	SW846 5035A/8260D	97.7	200	12/21/21	LAS	12/21/21 14:03	LAS
Toluene	< 97.7	µg/Kg dry	SW846 5035A/8260D	97.7	200	12/21/21	LAS	12/21/21 14:03	LAS
1,3,5-Trimethylbenzene	2900	µg/Kg dry	SW846 5035A/8260D	97.7	200	12/21/21	LAS	12/21/21 14:03	LAS
1,2,4-Trimethylbenzene	17900	µg/Kg dry	SW846 5035A/8260D	97.7	200	12/21/21	LAS	12/21/21 14:03	LAS
Xylenes, Total	5140	µg/Kg dry	SW846 5035A/8260D	195	200	12/21/21	LAS	12/21/21 14:03	LAS

Surrogate Recoveries	Results	Units	Method	%Recovery	DF	Limits (%Recovery)	Analysis Date
Surrogate: Dibromofluoromethane	18.4	µg/L	SW846 5035A/8260D	92%	200	75-139	12/21/21 14:03
Surrogate: 1,2-Dichloroethane-d4	18.2	µg/L	SW846 5035A/8260D	91%	200	81-125	12/21/21 14:03
Surrogate: Toluene-d8	40.0	V3 µg/L	SW846 5035A/8260D	200%	200	84-121	12/21/21 14:03
Surrogate: Bromofluorobenzene	23.2	µg/L	SW846 5035A/8260D	116%	200	72-136	12/21/21 14:03

Report Generated On: 12/28/2021 9:33 am 1L03901
 STL_Results Revision #1.9 Effective: 04/16/2020





SUBURBAN TESTING LABS

Sample Number: 1L03901-09	Site: GP-5 (11')	Sample ID:
Collector: AG	Collect Date: 12/16/2021 11:45 am	Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	By	Analysis Date	By
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Inorganics

Total Solids	76.4	%	SM 2540-G		1	12/21/21	CH	12/21/21 11:44	CH
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Volatiles

VOA, 8260, UST

Benzene	< 26.4	µg/Kg dry	SW846 5035A/8260D	26.4	50	12/21/21	LAS	12/21/21 14:32	LAS
Ethyl Benzene	< 26.4	µg/Kg dry	SW846 5035A/8260D	26.4	50	12/21/21	LAS	12/21/21 14:32	LAS
Isopropylbenzene	< 26.4	µg/Kg dry	SW846 5035A/8260D	26.4	50	12/21/21	LAS	12/21/21 14:32	LAS
Methyl-t-butyl ether (MTBE)	< 26.4	µg/Kg dry	SW846 5035A/8260D	26.4	50	12/21/21	LAS	12/21/21 14:32	LAS
Naphthalene	337	µg/Kg dry	SW846 5035A/8260D	26.4	50	12/21/21	LAS	12/21/21 14:32	LAS
Toluene	< 26.4	µg/Kg dry	SW846 5035A/8260D	26.4	50	12/21/21	LAS	12/21/21 14:32	LAS
1,3,5-Trimethylbenzene	27.4	µg/Kg dry	SW846 5035A/8260D	26.4	50	12/21/21	LAS	12/21/21 14:32	LAS
1,2,4-Trimethylbenzene	91.8	µg/Kg dry	SW846 5035A/8260D	26.4	50	12/21/21	LAS	12/21/21 14:32	LAS
Xylenes, Total	61.8	µg/Kg dry	SW846 5035A/8260D	52.8	50	12/21/21	LAS	12/21/21 14:32	LAS

Surrogate Recoveries	Results	Units	Method	%Recovery	DF	Limits (%Recovery)	Analysis Date
Surrogate: Dibromofluoromethane	19.8	µg/L	SW846 5035A/8260D	99%	50	75-139	12/21/21 14:32
Surrogate: 1,2-Dichloroethane-d4	19.6	µg/L	SW846 5035A/8260D	98%	50	81-125	12/21/21 14:32
Surrogate: Toluene-d8	21.1	µg/L	SW846 5035A/8260D	106%	50	84-121	12/21/21 14:32
Surrogate: Bromofluorobenzene	21.3	µg/L	SW846 5035A/8260D	107%	50	72-136	12/21/21 14:32

Sample Number: 1L03901-10	Site: GP-6 (11')	Sample ID:
Collector: AG	Collect Date: 12/16/2021 12:05 pm	Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	By	Analysis Date	By
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Inorganics

Total Solids	86.4	%	SM 2540-G		1	12/21/21	CH	12/21/21 11:44	CH
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Volatiles

VOA, 8260, UST

Benzene	< 25.7	µg/Kg dry	SW846 5035A/8260D	25.7	50	12/21/21	LAS	12/21/21 15:01	LAS
Ethyl Benzene	50.9	µg/Kg dry	SW846 5035A/8260D	25.7	50	12/21/21	LAS	12/21/21 15:01	LAS
Isopropylbenzene	132	µg/Kg dry	SW846 5035A/8260D	25.7	50	12/21/21	LAS	12/21/21 15:01	LAS
Methyl-t-butyl ether (MTBE)	< 25.7	µg/Kg dry	SW846 5035A/8260D	25.7	50	12/21/21	LAS	12/21/21 15:01	LAS
Naphthalene	899	µg/Kg dry	SW846 5035A/8260D	25.7	50	12/21/21	LAS	12/21/21 15:01	LAS
Toluene	< 25.7	µg/Kg dry	SW846 5035A/8260D	25.7	50	12/21/21	LAS	12/21/21 15:01	LAS
1,3,5-Trimethylbenzene	105	µg/Kg dry	SW846 5035A/8260D	25.7	50	12/21/21	LAS	12/21/21 15:01	LAS
1,2,4-Trimethylbenzene	204	µg/Kg dry	SW846 5035A/8260D	25.7	50	12/21/21	LAS	12/21/21 15:01	LAS
Xylenes, Total	63.2	µg/Kg dry	SW846 5035A/8260D	51.4	50	12/21/21	LAS	12/21/21 15:01	LAS

Surrogate Recoveries	Results	Units	Method	%Recovery	DF	Limits (%Recovery)	Analysis Date
Surrogate: Dibromofluoromethane	19.4	µg/L	SW846 5035A/8260D	97%	50	75-139	12/21/21 15:01
Surrogate: 1,2-Dichloroethane-d4	19.6	µg/L	SW846 5035A/8260D	98%	50	81-125	12/21/21 15:01
Surrogate: Toluene-d8	22.5	µg/L	SW846 5035A/8260D	112%	50	84-121	12/21/21 15:01
Surrogate: Bromofluorobenzene	22.1	µg/L	SW846 5035A/8260D	110%	50	72-136	12/21/21 15:01

Report Generated On: 12/28/2021 9:33 am 1L03901
 STL_Results Revision #1.9 Effective: 04/16/2020





SUBURBAN TESTING LABS

Sample Number: 1L03901-11	Site: GP-7 (4')	Sample ID:
Collector: AG	Collect Date: 12/16/2021 1:11 pm	Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	By	Analysis Date	By
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Inorganics

Total Solids	78.2	%	SM 2540-G		1	12/21/21	CH	12/21/21 11:44	CH
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Volatiles

VOA, 8260, UST

Isopropylbenzene	7160	µg/Kg dry	SW846 5035A/8260D	106	200	12/21/21	LAS	12/21/21 15:29	LAS
Methyl-t-butyl ether (MTBE)	< 106	µg/Kg dry	SW846 5035A/8260D	106	200	12/21/21	LAS	12/21/21 15:29	LAS
Naphthalene	17200	µg/Kg dry	SW846 5035A/8260D	106	200	12/21/21	LAS	12/21/21 15:29	LAS
1,3,5-Trimethylbenzene	36900	µg/Kg dry	SW846 5035A/8260D	106	200	12/21/21	LAS	12/21/21 15:29	LAS
Benzene	52500	µg/Kg dry	SW846 5035A/8260D	2110	4000	12/22/21	LAS	12/22/21 16:20	MWS
Ethyl Benzene	95000	µg/Kg dry	SW846 5035A/8260D	2110	4000	12/22/21	LAS	12/22/21 16:20	MWS
Toluene	305000	µg/Kg dry	SW846 5035A/8260D	2110	4000	12/22/21	LAS	12/22/21 16:20	MWS
1,2,4-Trimethylbenzene	197000	µg/Kg dry	SW846 5035A/8260D	2110	4000	12/22/21	LAS	12/22/21 16:20	MWS
Xylenes, Total	523000	µg/Kg dry	SW846 5035A/8260D	4230	4000	12/22/21	LAS	12/22/21 16:20	MWS

Surrogate Recoveries	Results	Units	Method	%Recovery	DF	Limits (%Recovery)	Analysis Date
Surrogate: Dibromofluoromethane	18.8	µg/L	SW846 5035A/8260D	94%	200	75-139	12/21/21 15:29
Surrogate: 1,2-Dichloroethane-d4	17.8	µg/L	SW846 5035A/8260D	89%	200	81-125	12/21/21 15:29
Surrogate: Toluene-d8	22.8	µg/L	SW846 5035A/8260D	114%	200	84-121	12/21/21 15:29
Surrogate: Bromofluorobenzene	20.2	µg/L	SW846 5035A/8260D	101%	200	72-136	12/21/21 15:29
Surrogate: Dibromofluoromethane	19.7	µg/L	SW846 5035A/8260D	99%	4000	75-139	12/22/21 16:20
Surrogate: 1,2-Dichloroethane-d4	18.5	µg/L	SW846 5035A/8260D	92%	4000	81-125	12/22/21 16:20
Surrogate: Toluene-d8	21.1	µg/L	SW846 5035A/8260D	105%	4000	84-121	12/22/21 16:20
Surrogate: Bromofluorobenzene	19.8	µg/L	SW846 5035A/8260D	99%	4000	72-136	12/22/21 16:20

Report Generated On: 12/28/2021 9:33 am 1L03901
 STL_Results Revision #1.9 Effective: 04/16/2020





SUBURBAN TESTING LABS

Sample Number: 1L03901-12	Site: GP-8 (9')	Sample ID:
Collector: AG	Collect Date: 12/16/2021 1:35 pm	Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	By	Analysis Date	By
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Inorganics

Total Solids	79.8	%	SM 2540-G		1	12/21/21	CH	12/21/21 11:44	CH
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Volatiles

VOA, 8260, UST

Benzene	379	µg/Kg dry	SW846 5035A/8260D	97.1	200	12/21/21	LAS	12/21/21 15:57	LAS
Ethyl Benzene	30200	µg/Kg dry	SW846 5035A/8260D	97.1	200	12/21/21	LAS	12/21/21 15:57	LAS
Isopropylbenzene	1590	µg/Kg dry	SW846 5035A/8260D	97.1	200	12/21/21	LAS	12/21/21 15:57	LAS
Methyl-t-butyl ether (MTBE)	< 97.1	µg/Kg dry	SW846 5035A/8260D	97.1	200	12/21/21	LAS	12/21/21 15:57	LAS
Naphthalene	11300	µg/Kg dry	SW846 5035A/8260D	97.1	200	12/21/21	LAS	12/21/21 15:57	LAS
Toluene	18300	µg/Kg dry	SW846 5035A/8260D	97.1	200	12/21/21	LAS	12/21/21 15:57	LAS
1,3,5-Trimethylbenzene	15200	µg/Kg dry	SW846 5035A/8260D	97.1	200	12/21/21	LAS	12/21/21 15:57	LAS
1,2,4-Trimethylbenzene	63300	µg/Kg dry	SW846 5035A/8260D	486	1000	12/22/21	LAS	12/22/21 16:49	MWS
Xylenes, Total	153000	µg/Kg dry	SW846 5035A/8260D	971	1000	12/22/21	LAS	12/22/21 16:49	MWS

Surrogate Recoveries	Results	Units	Method	%Recovery	DF	Limits (%Recovery)	Analysis Date
Surrogate: Dibromofluoromethane	18.8	µg/L	SW846 5035A/8260D	94%	200	75-139	12/21/21 15:57
Surrogate: 1,2-Dichloroethane-d4	18.3	µg/L	SW846 5035A/8260D	92%	200	81-125	12/21/21 15:57
Surrogate: Toluene-d8	21.8	µg/L	SW846 5035A/8260D	109%	200	84-121	12/21/21 15:57
Surrogate: Bromofluorobenzene	20.2	µg/L	SW846 5035A/8260D	101%	200	72-136	12/21/21 15:57
Surrogate: Dibromofluoromethane	19.4	µg/L	SW846 5035A/8260D	97%	1000	75-139	12/22/21 16:49
Surrogate: 1,2-Dichloroethane-d4	19.0	µg/L	SW846 5035A/8260D	95%	1000	81-125	12/22/21 16:49
Surrogate: Toluene-d8	21.2	µg/L	SW846 5035A/8260D	106%	1000	84-121	12/22/21 16:49
Surrogate: Bromofluorobenzene	19.8	µg/L	SW846 5035A/8260D	99%	1000	72-136	12/22/21 16:49

Report Generated On: 12/28/2021 9:33 am 1L03901
 STL_Results Revision #1.9 Effective: 04/16/2020





SUBURBAN TESTING LABS

Sample Number: 1L03901-13	Site: GP-8 (15')	Sample ID:
Collector: AG	Collect Date: 12/16/2021 1:40 pm	Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	By	Analysis Date	By
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Inorganics

Total Solids	84.2	%	SM 2540-G		1	12/21/21	CH	12/21/21 11:44	CH
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Volatiles

VOA, 8260, UST

Benzene	< 23.5	M3	µg/Kg dry	SW846 5035A/8260D	23.5	50	12/22/21	LAS	12/22/21 17:46	MWS
Ethyl Benzene	< 23.5		µg/Kg dry	SW846 5035A/8260D	23.5	50	12/22/21	LAS	12/22/21 17:46	MWS
Isopropylbenzene	< 23.5		µg/Kg dry	SW846 5035A/8260D	23.5	50	12/22/21	LAS	12/22/21 17:46	MWS
Methyl-t-butyl ether (MTBE)	< 23.5		µg/Kg dry	SW846 5035A/8260D	23.5	50	12/22/21	LAS	12/22/21 17:46	MWS
Naphthalene	< 23.5		µg/Kg dry	SW846 5035A/8260D	23.5	50	12/22/21	LAS	12/22/21 17:46	MWS
Toluene	< 23.5		µg/Kg dry	SW846 5035A/8260D	23.5	50	12/22/21	LAS	12/22/21 17:46	MWS
1,3,5-Trimethylbenzene	< 23.5		µg/Kg dry	SW846 5035A/8260D	23.5	50	12/22/21	LAS	12/22/21 17:46	MWS
1,2,4-Trimethylbenzene	32.8		µg/Kg dry	SW846 5035A/8260D	23.5	50	12/22/21	LAS	12/22/21 17:46	MWS
Xylenes, Total	< 46.9		µg/Kg dry	SW846 5035A/8260D	46.9	50	12/22/21	LAS	12/22/21 17:46	MWS

Surrogate Recoveries	Results	Units	Method	%Recovery	DF	Limits (%Recovery)	Analysis Date
Surrogate: Dibromofluoromethane	20.8	µg/L	SW846 5035A/8260D	104%	50	75-139	12/22/21 17:46
Surrogate: 1,2-Dichloroethane-d4	20.8	µg/L	SW846 5035A/8260D	104%	50	81-125	12/22/21 17:46
Surrogate: Toluene-d8	21.1	µg/L	SW846 5035A/8260D	106%	50	84-121	12/22/21 17:46
Surrogate: Bromofluorobenzene	19.1	µg/L	SW846 5035A/8260D	96%	50	72-136	12/22/21 17:46

Report Generated On: 12/28/2021 9:33 am 1L03901
 STL_Results Revision #1.9 Effective: 04/16/2020





Sample Number: 1L03901-14 Site: TP-8 Sample ID:
Collector: AG Collect Date: 12/16/2021 1:45 pm Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	By	Analysis Date	By
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Volatiles

VOA, 8260, UST

Xylenes, Total	465	µg/L	SW846 5030C/8260D	1.0	1	12/17/21	MWS	12/17/21 20:41	MWS
Benzene	50.0	µg/L	SW846 5030C/8260D	0.5	1	12/21/21	MWS	12/21/21 1:18	LAS
Ethyl Benzene	153	µg/L	SW846 5030C/8260D	0.5	1	12/21/21	MWS	12/21/21 1:18	LAS
Isopropylbenzene	25.5	µg/L	SW846 5030C/8260D	0.5	1	12/21/21	MWS	12/21/21 1:18	LAS
Methyl-t-butyl ether (MTBE)	< 0.5	µg/L	SW846 5030C/8260D	0.5	1	12/21/21	MWS	12/21/21 1:18	LAS
Naphthalene	19.2	µg/L	SW846 5030C/8260D	0.5	1	12/21/21	MWS	12/21/21 1:18	LAS
Toluene	182	µg/L	SW846 5030C/8260D	0.5	1	12/21/21	MWS	12/21/21 1:18	LAS
1,3,5-Trimethylbenzene	24.3	µg/L	SW846 5030C/8260D	0.5	1	12/21/21	MWS	12/21/21 1:18	LAS
1,2,4-Trimethylbenzene	95.2	µg/L	SW846 5030C/8260D	0.5	1	12/21/21	MWS	12/21/21 1:18	LAS

Surrogate Recoveries	Results	Units	Method	%Recovery	DF	Limits (%Recovery)	Analysis Date
Surrogate: Dibromofluoromethane	18.9	µg/L	SW846 5030C/8260D	95%	1	72-136	12/17/21 20:41
Surrogate: 1,2-Dichloroethane-d4	21.6	µg/L	SW846 5030C/8260D	108%	1	79-135	12/17/21 20:41
Surrogate: Toluene-d8	21.9	µg/L	SW846 5030C/8260D	109%	1	88-112	12/17/21 20:41
Surrogate: Bromofluorobenzene	18.4	µg/L	SW846 5030C/8260D	92%	1	75-117	12/17/21 20:41
Surrogate: Dibromofluoromethane	20.3	µg/L	SW846 5030C/8260D	101%	1	72-136	12/21/21 1:18
Surrogate: 1,2-Dichloroethane-d4	19.9	µg/L	SW846 5030C/8260D	100%	1	79-135	12/21/21 1:18
Surrogate: Toluene-d8	23.6	V3 µg/L	SW846 5030C/8260D	118%	1	88-112	12/21/21 1:18
Surrogate: Bromofluorobenzene	21.2	µg/L	SW846 5030C/8260D	106%	1	75-117	12/21/21 1:18

Data Qualifiers:

- M3 The Matrix Spike associated with this sample is above established acceptance criteria, indicating potential matrix interference. Results of this sample may be biased high.
- V3 The surrogate associated with this sample was above established acceptance criteria. Data may be biased high.

Sample Receipt Conditions:

One or more VOA vials for VOA analysis was received with headspace, if analysis was performed out of affected containers results will be reported with a (V1) qualifier.

Report Generated On: 12/28/2021 9:33 am 1L03901
STL_Results Revision #1.9 Effective: 04/16/2020





SUBURBAN TESTING LABS

The test *pH, Lab* is performed in the Laboratory as soon as possible. These results are not appropriate for compliance with NPDES, SDWA, or other regulatory programs that require analysis within 15 minutes of sample collection and should be considered for informational purposes only.

**pH, Final* for ASTM leachate is performed by method SM 4500-H-B.

All results meet the requirements of STL's TNI (NELAC) Accredited Quality System unless otherwise noted. If your results contain any data qualifiers or comments, you should evaluate useability relative to your needs.

If collectors initials include "STL", samples have been collected in accordance with STL SOP SL0015.

All results reported on an As Received (Wet Weight) basis unless otherwise noted.

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

Results are considered Preliminary unless report is signed by authorized representative of STL.

Reviewed and Released By:

Ryan F Knerr
Project Manager II

Report Generated On: 12/28/2021 9:33 am 1L03901
STL_Results Revision #1.9 Effective: 04/16/2020





SUBURBAN TESTING LABS



1L03901
Ryan F Knerr

TAT (Circle One): Standard 24hr / 48hr / 72hr / Other
(Additional charges may apply for rush TAT. If not specified, standard TAT will apply)

Order ID: _____

Client Name: Center Point Tank Services, Inc Project Name: WORKS
 Address: 5316 Benjamin Franklin Hwy E. Duncansville, PA 19538 Phone: (717) 885-4977 Address: 300 Montgomery Ave Menon Station, PA
 Contact Name: Alice Cibul Fax: NA Email: alice@centerpointtank.com Payment / P.O. Info: _____

Comments:

STL Sample Number	Date Sampled	Time Sampled	Samplers Initials	Test(s) Requested:	Bottle Quantity	See Codes Below				Comments / Field Data:
						Matrix	Sample Type	Bottle Type	Preservative	
(6) 60ML GA (6) 40ML VOA + MECH (6) 40ML VOA + HCL Sample Description / Site ID:										
GP-1 (17)	12/14/21	9:07	AG	PAUS GAS. SIA list 9260	2	SIA	G	G	C	
GP-1 (13)		9:24			2		G	G	C	
GP-2 (55)		9:38			2		G	G	C	
GP-2 (49)		9:58			2		G	G	C	
TP-2		10:05			3	NPW	G	G	C	
GP-3 (125)		10:32			2	SIA	G	G	C	
TP-3		10:58			3	NPW	G	G	C	
GP-4 (11)		11:34			2	SIA	G	G	C	

Relinquished By: <u>[Signature]</u>	Date: <u>12/14/21</u>	Temp °C: _____ Acceptable: Y / N	Submitted with COC? <input checked="" type="checkbox"/> Y / <input type="checkbox"/> N	Matrix Key NPW = Non-Potable Water Solid = Raw Sludge, Dewatered sludge, soil, etc. (reported as mg/kg) PW = Potable Water (not for SDWA compliance) SDWA = Safe Drinking Water Act Potable Sample	Bottle Type Key P = Plastic G = Glass O = Other	Reporting Options <input type="checkbox"/> SDWA Reporting PWSID: _____ <input type="checkbox"/> Fax <input type="checkbox"/> Email <input type="checkbox"/> Other _____ <input type="checkbox"/> Return a copy of this form with Report
Received By:	Date: _____ Time: _____					
Relinquished By:	Date: _____ Time: _____	Temp °C: _____ Acceptable: Y / N	All containers in tact? <input checked="" type="checkbox"/> Y / <input type="checkbox"/> N	Sample Type Key G = Grab 8HC = 8 Hr. Composite 24HC = 24 Hr. Composite	SDWA Sample Types D=Distribution E=Entry Point R=Raw C=Check S=Special M=Maximum Residence	Preservative Key N = Sodium Thiosulfate A = Ascorbic Acid H = HNO ₃ C = HCl S = H ₂ SO ₄ OH = NaOH O = Other NA = None Required
Received in Lab By: <u>CB</u>	Date: <u>12-16-21</u> Time: <u>17:58</u>	Temp °C: <u>4.6°C</u> Acceptable: <input checked="" type="checkbox"/> Y / <input type="checkbox"/> N	Tests within holding times? <input checked="" type="checkbox"/> Y / <input type="checkbox"/> N			



1L03901
Ryan F Knerr

TAT (Circle One): Standard 24hr / 48hr / 72hr / Other _____
(Additional charges may apply for rush TAT. If not specified, standard TAT will apply)

Order ID: _____

Client Name: Center Point Tank Services, Inc
Address: 536 Benjamin Franklin Hwy
Douglasville PA 19578
Contact Name: Allie Gilbert

Phone: (410) 385-4977
Fax: NA
Email: allie@centerpointtank.com

Project Name: WAKES
Address: 300 Montgomery Ave
Marion Station PA
Payment / P.O. Info: _____

Comments:

STL Sample Number	Sample Description / Site ID:	Date Sampled	Time Sampled	Samplers Initials	Test(s) Requested:	Bottle Quantity	See Codes Below				Comments / Field Data:	
							Matrix	Sample Type	Bottle Type	Preservative		
(5) 60mL GA (5) 40mL VOA + MEQH (3) 40mL VOA + HCL												
	CIP-5 (11)	12/10/21	0145	AK	PAUST GAS. SWA / 1st size	2	solid	G	G	O		
	CIP-6 (11)		1205									
	CIP-7 (4)		1311									
	CIP-8 (9)		1335									
	CIP-8 (15)		1340									
	T.P-8		1345									

Relinquished By:	Date: <u>12/11/21</u>	Temp °C: _____ Acceptable: Y / N	Sample Conditions		Matrix Key		Bottle Type Key		Reporting Options	
	Time: <u>1756</u>		Submitted with COC? <input checked="" type="checkbox"/> Y / <input type="checkbox"/> N	NPW = Non-Potable Water Solid = Raw Sludge, Dewatered sludge, soil, etc. (reported as mg/kg)		P = Plastic G = Glass O = Other		[] SDWA Reporting PWSID: _____		
Received By:	Date:	Temp °C: _____ Acceptable: Y / N	Number of containers match number on COC? <input checked="" type="checkbox"/> Y / <input type="checkbox"/> N		PW = Potable Water (not for SDWA compliance) SDWA = Safe Drinking Water Act Potable Sample		Preservative Key		[] Fax [] Email [] Other: _____	
	Time:		All containers in tact? <input checked="" type="checkbox"/> Y / <input type="checkbox"/> N	Tests within holding times <input checked="" type="checkbox"/> Y / <input type="checkbox"/> N		Sample Type Key		SDWA Sample Types		[] Return a copy of this form with Report
Relinquished By:	Date:	Temp °C: _____ Acceptable: Y / N	40 mL VOA vials free of headspace? <input checked="" type="checkbox"/> Y / <input type="checkbox"/> N		G = Grab 8HC = 8 Hr. Composite 24HC = 24 Hr. Composite		D=Distribution E=Entry Point R=Raw C=Check S=Special M=Maximum Residence		N = Sodium Thiosulfate A = Ascorbic Acid H = HNO ₃ C = HCl S = H ₂ SO ₄ OH = NaOH O = Other NA = None Required	
	Time:		Received in Lab By: <u>CB 13</u>	Date: <u>12-16-21</u>	Temp °C: <u>4.60</u>	Acceptable: <input checked="" type="checkbox"/> Y / <input type="checkbox"/> N				



Results Report

Order ID: 2C03798

Center Point Tank Services
536 E. Benjamin Franklin Highway
Douglasville, PA 19518

Project: Warks Liberty Station

Merion Station, PA

Attn: Allie Gibat

Regulatory ID:

Sample Number: 2C03798-01

Site: GP-9 (6.5')

Sample ID:

Collector: AG

Collect Date: 03/09/2022 9:45 am

Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	By	Analysis Date	By
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Inorganics

Total Solids (T)	77.5	%	SM 2540-G		1	03/16/22	CH	03/17/22 9:15	CH
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Volatiles

VOA, 8260, UST (T)

Benzene	< 28.0	µg/Kg dry	SW846 5035A/8260D	28.0	50	03/18/22	LAS	03/21/22 15:48	LAS
1,2-Dibromoethane (EDB), SIM	< 1.12	µg/Kg dry	SW846 5035A/8260D	1.12	50	03/18/22	LAS	03/21/22 15:48	LAS
1,2-Dichloroethane	< 44.6	µg/Kg dry	SW846 5035A/8260D	44.6	50	03/18/22	LAS	03/21/22 15:48	LAS
Ethyl Benzene	< 28.0	µg/Kg dry	SW846 5035A/8260D	28.0	50	03/18/22	LAS	03/21/22 15:48	LAS
Isopropylbenzene	< 28.0	µg/Kg dry	SW846 5035A/8260D	28.0	50	03/18/22	LAS	03/21/22 15:48	LAS
Methyl-t-butyl ether (MTBE)	< 28.0	µg/Kg dry	SW846 5035A/8260D	28.0	50	03/18/22	LAS	03/21/22 15:48	LAS
Naphthalene	< 28.0	µg/Kg dry	SW846 5035A/8260D	28.0	50	03/18/22	LAS	03/21/22 15:48	LAS
Toluene	< 28.0	µg/Kg dry	SW846 5035A/8260D	28.0	50	03/18/22	LAS	03/21/22 15:48	LAS
1,3,5-Trimethylbenzene	< 28.0	µg/Kg dry	SW846 5035A/8260D	28.0	50	03/18/22	LAS	03/21/22 15:48	LAS
1,2,4-Trimethylbenzene	< 28.0	µg/Kg dry	SW846 5035A/8260D	28.0	50	03/18/22	LAS	03/21/22 15:48	LAS
Xylenes, Total	< 55.9	µg/Kg dry	SW846 5035A/8260D	55.9	50	03/18/22	LAS	03/21/22 15:48	LAS

Surrogate Recoveries	Results	Units	Method	%Recovery	DF	Limits (%Recovery)	Analysis Date
Surrogate: Dibromofluoromethane	17.8	µg/L	SW846 5035A/8260D	89%	50	75-139	03/21/22 15:48
Surrogate: 1,2-Dichloroethane-d4	19.0	µg/L	SW846 5035A/8260D	95%	50	81-125	03/21/22 15:48
Surrogate: Toluene-d8	20.1	µg/L	SW846 5035A/8260D	101%	50	84-121	03/21/22 15:48
Surrogate: Bromofluorobenzene	19.5	µg/L	SW846 5035A/8260D	98%	50	72-136	03/21/22 15:48

Report Generated On: 04/14/2022 9:38 am

2C03798

STL_Results Revision #1.9

Effective: 04/16/2020





SUBURBAN TESTING LABS

Sample Number: 2C03798-02	Site: GP-9 (12')	Sample ID:
Collector: AG	Collect Date: 03/09/2022 9:50 am	Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	By	Analysis Date	By
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<u>Inorganics</u>									
Total Solids (T)	86.0	%	SM 2540-G		1	03/16/22	CH	03/17/22 9:15	CH

<u>Volatiles</u>									
VOA, 8260, UST (T)									
Benzene	< 24.3	µg/Kg dry	SW846 5035A/8260D	24.3	50	03/18/22	LAS	03/21/22 16:16	LAS
1,2-Dibromoethane (EDB), SIM	< 0.972	µg/Kg dry	SW846 5035A/8260D	0.972	50	03/18/22	LAS	03/21/22 16:16	LAS
1,2-Dichloroethane	< 38.7	µg/Kg dry	SW846 5035A/8260D	38.7	50	03/18/22	LAS	03/21/22 16:16	LAS
Ethyl Benzene	< 24.3	µg/Kg dry	SW846 5035A/8260D	24.3	50	03/18/22	LAS	03/21/22 16:16	LAS
Isopropylbenzene	< 24.3	µg/Kg dry	SW846 5035A/8260D	24.3	50	03/18/22	LAS	03/21/22 16:16	LAS
Methyl-t-butyl ether (MTBE)	< 24.3	µg/Kg dry	SW846 5035A/8260D	24.3	50	03/18/22	LAS	03/21/22 16:16	LAS
Naphthalene	< 24.3	µg/Kg dry	SW846 5035A/8260D	24.3	50	03/18/22	LAS	03/21/22 16:16	LAS
Toluene	< 24.3	µg/Kg dry	SW846 5035A/8260D	24.3	50	03/18/22	LAS	03/21/22 16:16	LAS
1,3,5-Trimethylbenzene	< 24.3	µg/Kg dry	SW846 5035A/8260D	24.3	50	03/18/22	LAS	03/21/22 16:16	LAS
1,2,4-Trimethylbenzene	< 24.3	µg/Kg dry	SW846 5035A/8260D	24.3	50	03/18/22	LAS	03/21/22 16:16	LAS
Xylenes, Total	< 48.6	µg/Kg dry	SW846 5035A/8260D	48.6	50	03/18/22	LAS	03/21/22 16:16	LAS

Surrogate Recoveries	Results	Units	Method	%Recovery	DF	Limits (%Recovery)	Analysis Date
Surrogate: Dibromofluoromethane	18.0	µg/L	SW846 5035A/8260D	90%	50	75-139	03/21/22 16:16
Surrogate: 1,2-Dichloroethane-d4	19.1	µg/L	SW846 5035A/8260D	96%	50	81-125	03/21/22 16:16
Surrogate: Toluene-d8	20.4	µg/L	SW846 5035A/8260D	102%	50	84-121	03/21/22 16:16
Surrogate: Bromofluorobenzene	19.6	µg/L	SW846 5035A/8260D	98%	50	72-136	03/21/22 16:16

Report Generated On: 04/14/2022 9:38 am 2C03798
 STL_Results Revision #1.9 Effective: 04/16/2020





SUBURBAN TESTING LABS

Sample Number: 2C03798-03	Site: GP-10 (15')	Sample ID:
Collector: AG	Collect Date: 03/09/2022 1:06 pm	Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	By	Analysis Date	By
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Inorganics

Total Solids (T)	82.4	%	SM 2540-G		1	03/16/22	CH	03/17/22 9:15	CH
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Volatiles

VOA, 8260, UST (T)

Benzene	30.0	µg/Kg dry	SW846 5035A/8260D	25.9	50	03/18/22	LAS	03/21/22 16:43	LAS
1,2-Dibromoethane (EDB), SIM	< 1.04	µg/Kg dry	SW846 5035A/8260D	1.04	50	03/18/22	LAS	03/21/22 16:43	LAS
1,2-Dichloroethane	< 41.3	µg/Kg dry	SW846 5035A/8260D	41.3	50	03/18/22	LAS	03/21/22 16:43	LAS
Ethyl Benzene	1000	µg/Kg dry	SW846 5035A/8260D	25.9	50	03/18/22	LAS	03/21/22 16:43	LAS
Isopropylbenzene	37.3	µg/Kg dry	SW846 5035A/8260D	25.9	50	03/18/22	LAS	03/21/22 16:43	LAS
Methyl-t-butyl ether (MTBE)	< 25.9	µg/Kg dry	SW846 5035A/8260D	25.9	50	03/18/22	LAS	03/21/22 16:43	LAS
Naphthalene	105	µg/Kg dry	SW846 5035A/8260D	25.9	50	03/18/22	LAS	03/21/22 16:43	LAS
Toluene	298	µg/Kg dry	SW846 5035A/8260D	25.9	50	03/18/22	LAS	03/21/22 16:43	LAS
1,3,5-Trimethylbenzene	162	µg/Kg dry	SW846 5035A/8260D	25.9	50	03/18/22	LAS	03/21/22 16:43	LAS
1,2,4-Trimethylbenzene	464	µg/Kg dry	SW846 5035A/8260D	25.9	50	03/18/22	LAS	03/21/22 16:43	LAS
Xylenes, Total	3750	µg/Kg dry	SW846 5035A/8260D	51.8	50	03/18/22	LAS	03/21/22 16:43	LAS

Surrogate Recoveries	Results	Units	Method	%Recovery	DF	Limits (%Recovery)	Analysis Date
Surrogate: Dibromofluoromethane	17.5	µg/L	SW846 5035A/8260D	87%	50	75-139	03/21/22 16:43
Surrogate: 1,2-Dichloroethane-d4	18.9	µg/L	SW846 5035A/8260D	95%	50	81-125	03/21/22 16:43
Surrogate: Toluene-d8	20.3	µg/L	SW846 5035A/8260D	102%	50	84-121	03/21/22 16:43
Surrogate: Bromofluorobenzene	19.9	µg/L	SW846 5035A/8260D	99%	50	72-136	03/21/22 16:43

Report Generated On: 04/14/2022 9:38 am 2C03798
 STL_Results Revision #1.9 Effective: 04/16/2020





SUBURBAN TESTING LABS

Sample Number: 2C03798-04	Site: GP-10 (19')	Sample ID:
Collector: AG	Collect Date: 03/09/2022 1:19 pm	Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	By	Analysis Date	By
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<u>Inorganics</u>									
Total Solids (T)	85.2	%	SM 2540-G		1	03/16/22	CH	03/17/22 9:15	CH

<u>Volatiles</u>									
VOA, 8260, UST (T)									
Benzene	< 26.9	µg/Kg dry	SW846 5035A/8260D	26.9	50	03/18/22	LAS	03/21/22 17:10	LAS
1,2-Dibromoethane (EDB), SIM	< 1.07	µg/Kg dry	SW846 5035A/8260D	1.07	50	03/18/22	LAS	03/21/22 17:10	LAS
1,2-Dichloroethane	< 42.8	µg/Kg dry	SW846 5035A/8260D	42.8	50	03/18/22	LAS	03/21/22 17:10	LAS
Ethyl Benzene	< 26.9	µg/Kg dry	SW846 5035A/8260D	26.9	50	03/18/22	LAS	03/21/22 17:10	LAS
Isopropylbenzene	< 26.9	µg/Kg dry	SW846 5035A/8260D	26.9	50	03/18/22	LAS	03/21/22 17:10	LAS
Methyl-t-butyl ether (MTBE)	< 26.9	µg/Kg dry	SW846 5035A/8260D	26.9	50	03/18/22	LAS	03/21/22 17:10	LAS
Naphthalene	< 26.9	µg/Kg dry	SW846 5035A/8260D	26.9	50	03/18/22	LAS	03/21/22 17:10	LAS
Toluene	31.7	µg/Kg dry	SW846 5035A/8260D	26.9	50	03/18/22	LAS	03/21/22 17:10	LAS
1,3,5-Trimethylbenzene	< 26.9	µg/Kg dry	SW846 5035A/8260D	26.9	50	03/18/22	LAS	03/21/22 17:10	LAS
1,2,4-Trimethylbenzene	< 26.9	µg/Kg dry	SW846 5035A/8260D	26.9	50	03/18/22	LAS	03/21/22 17:10	LAS
Xylenes, Total	< 53.7	µg/Kg dry	SW846 5035A/8260D	53.7	50	03/18/22	LAS	03/21/22 17:10	LAS

Surrogate Recoveries	Results	Units	Method	%Recovery	DF	Limits (%Recovery)	Analysis Date
Surrogate: Dibromofluoromethane	17.6	µg/L	SW846 5035A/8260D	88%	50	75-139	03/21/22 17:10
Surrogate: 1,2-Dichloroethane-d4	19.2	µg/L	SW846 5035A/8260D	96%	50	81-125	03/21/22 17:10
Surrogate: Toluene-d8	20.2	µg/L	SW846 5035A/8260D	101%	50	84-121	03/21/22 17:10
Surrogate: Bromofluorobenzene	19.3	µg/L	SW846 5035A/8260D	97%	50	72-136	03/21/22 17:10

Report Generated On: 04/14/2022 9:38 am 2C03798
 STL_Results Revision #1.9 Effective: 04/16/2020





SUBURBAN TESTING LABS

Sample Number: 2C03798-05	Site: GP-11 (12')	Sample ID:
Collector: AG	Collect Date: 03/09/2022 1:56 pm	Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	By	Analysis Date	By
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Inorganics

Total Solids (T)	80.9	%	SM 2540-G		1	03/16/22	CH	03/17/22 9:15	CH
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Volatiles

VOA, 8260, UST (T)

Benzene	< 275	µg/Kg dry	SW846 5035A/8260D	275	500	03/18/22	LAS	03/21/22 19:54	LAS
1,2-Dibromoethane (EDB), SIM	< 11.0	µg/Kg dry	SW846 5035A/8260D	11.0	500	03/18/22	LAS	03/21/22 19:54	LAS
1,2-Dichloroethane	< 439	µg/Kg dry	SW846 5035A/8260D	439	500	03/18/22	LAS	03/21/22 19:54	LAS
Ethyl Benzene	45600	µg/Kg dry	SW846 5035A/8260D	275	500	03/18/22	LAS	03/21/22 19:54	LAS
Isopropylbenzene	3140	µg/Kg dry	SW846 5035A/8260D	275	500	03/18/22	LAS	03/21/22 19:54	LAS
Methyl-t-butyl ether (MTBE)	< 275	µg/Kg dry	SW846 5035A/8260D	275	500	03/18/22	LAS	03/21/22 19:54	LAS
Naphthalene	8380	µg/Kg dry	SW846 5035A/8260D	275	500	03/18/22	LAS	03/21/22 19:54	LAS
Toluene	1100	µg/Kg dry	SW846 5035A/8260D	275	500	03/18/22	LAS	03/21/22 19:54	LAS
1,3,5-Trimethylbenzene	15900	µg/Kg dry	SW846 5035A/8260D	275	500	03/18/22	LAS	03/21/22 19:54	LAS
1,2,4-Trimethylbenzene	85200	µg/Kg dry	SW846 5035A/8260D	275	500	03/18/22	LAS	03/21/22 19:54	LAS
Xylenes, Total	165000	µg/Kg dry	SW846 5035A/8260D	5510	5000	03/22/22	LAS	03/23/22 21:53	LAS

Surrogate Recoveries	Results	Units	Method	%Recovery	DF	Limits (%Recovery)	Analysis Date
Surrogate: Dibromofluoromethane	17.8	µg/L	SW846 5035A/8260D	89%	500	75-139	03/21/22 19:54
Surrogate: 1,2-Dichloroethane-d4	17.8	µg/L	SW846 5035A/8260D	89%	500	81-125	03/21/22 19:54
Surrogate: Toluene-d8	20.6	µg/L	SW846 5035A/8260D	103%	500	84-121	03/21/22 19:54
Surrogate: Bromofluorobenzene	19.7	µg/L	SW846 5035A/8260D	98%	500	72-136	03/21/22 19:54
Surrogate: Dibromofluoromethane	17.9	µg/L	SW846 5035A/8260D	90%	5000	75-139	03/23/22 21:53
Surrogate: 1,2-Dichloroethane-d4	19.2	µg/L	SW846 5035A/8260D	96%	5000	81-125	03/23/22 21:53
Surrogate: Toluene-d8	19.6	µg/L	SW846 5035A/8260D	98%	5000	84-121	03/23/22 21:53
Surrogate: Bromofluorobenzene	18.9	µg/L	SW846 5035A/8260D	94%	5000	72-136	03/23/22 21:53

Report Generated On: 04/14/2022 9:38 am 2C03798
 STL_Results Revision #1.9 Effective: 04/16/2020





SUBURBAN TESTING LABS

Sample Number: 2C03798-06	Site: GP-12 (9.5')	Sample ID:
Collector: AG	Collect Date: 03/10/2022 10:25 am	Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	By	Analysis Date	By
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Inorganics

Total Solids (T)	78.2	%	SM 2540-G		1	03/16/22	CH	03/17/22 9:15	CH
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Volatiles

VOA, 8260, UST (T)

Benzene	< 25.7	µg/Kg dry	SW846 5035A/8260D	25.7	50	03/18/22	LAS	03/21/22 17:38	LAS
1,2-Dibromoethane (EDB), SIM	< 1.03	µg/Kg dry	SW846 5035A/8260D	1.03	50	03/18/22	LAS	03/21/22 17:38	LAS
1,2-Dichloroethane	< 41.0	µg/Kg dry	SW846 5035A/8260D	41.0	50	03/18/22	LAS	03/21/22 17:38	LAS
Ethyl Benzene	< 25.7	µg/Kg dry	SW846 5035A/8260D	25.7	50	03/18/22	LAS	03/21/22 17:38	LAS
Isopropylbenzene	< 25.7	µg/Kg dry	SW846 5035A/8260D	25.7	50	03/18/22	LAS	03/21/22 17:38	LAS
Methyl-t-butyl ether (MTBE)	370	µg/Kg dry	SW846 5035A/8260D	25.7	50	03/18/22	LAS	03/21/22 17:38	LAS
Naphthalene	< 25.7	µg/Kg dry	SW846 5035A/8260D	25.7	50	03/18/22	LAS	03/21/22 17:38	LAS
Toluene	< 25.7	µg/Kg dry	SW846 5035A/8260D	25.7	50	03/18/22	LAS	03/21/22 17:38	LAS
1,3,5-Trimethylbenzene	< 25.7	µg/Kg dry	SW846 5035A/8260D	25.7	50	03/18/22	LAS	03/21/22 17:38	LAS
1,2,4-Trimethylbenzene	< 25.7	µg/Kg dry	SW846 5035A/8260D	25.7	50	03/18/22	LAS	03/21/22 17:38	LAS
Xylenes, Total	< 51.5	µg/Kg dry	SW846 5035A/8260D	51.5	50	03/18/22	LAS	03/21/22 17:38	LAS

Surrogate Recoveries	Results	Units	Method	%Recovery	DF	Limits (%Recovery)	Analysis Date
Surrogate: Dibromofluoromethane	17.6	µg/L	SW846 5035A/8260D	88%	50	75-139	03/21/22 17:38
Surrogate: 1,2-Dichloroethane-d4	19.0	µg/L	SW846 5035A/8260D	95%	50	81-125	03/21/22 17:38
Surrogate: Toluene-d8	20.3	µg/L	SW846 5035A/8260D	101%	50	84-121	03/21/22 17:38
Surrogate: Bromofluorobenzene	19.6	µg/L	SW846 5035A/8260D	98%	50	72-136	03/21/22 17:38

Report Generated On: 04/14/2022 9:38 am 2C03798
 STL_Results Revision #1.9 Effective: 04/16/2020





SUBURBAN TESTING LABS

Sample Number: 2C03798-07	Site: GP-13 (9.5')	Sample ID:
Collector: AG	Collect Date: 03/10/2022 11:34 am	Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	By	Analysis Date	By
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<u>Inorganics</u>									
Total Solids (T)	83.3	%	SM 2540-G		1	03/16/22	CH	03/17/22 9:15	CH

<u>Volatiles</u>									
VOA, 8260, UST (T)									
Benzene	< 239	µg/Kg dry	SW846 5035A/8260D	239	500	03/18/22	LAS	03/21/22 20:22	LAS
1,2-Dibromoethane (EDB), SIM	< 9.56	µg/Kg dry	SW846 5035A/8260D	9.56	500	03/18/22	LAS	03/21/22 20:22	LAS
1,2-Dichloroethane	< 381	µg/Kg dry	SW846 5035A/8260D	381	500	03/18/22	LAS	03/21/22 20:22	LAS
Ethyl Benzene	7350	µg/Kg dry	SW846 5035A/8260D	239	500	03/18/22	LAS	03/21/22 20:22	LAS
Isopropylbenzene	564	µg/Kg dry	SW846 5035A/8260D	239	500	03/18/22	LAS	03/21/22 20:22	LAS
Methyl-t-butyl ether (MTBE)	< 239	µg/Kg dry	SW846 5035A/8260D	239	500	03/18/22	LAS	03/21/22 20:22	LAS
Naphthalene	3040	µg/Kg dry	SW846 5035A/8260D	239	500	03/18/22	LAS	03/21/22 20:22	LAS
Toluene	< 239	µg/Kg dry	SW846 5035A/8260D	239	500	03/18/22	LAS	03/21/22 20:22	LAS
1,3,5-Trimethylbenzene	7810	µg/Kg dry	SW846 5035A/8260D	239	500	03/18/22	LAS	03/21/22 20:22	LAS
1,2,4-Trimethylbenzene	23100	µg/Kg dry	SW846 5035A/8260D	239	500	03/18/22	LAS	03/21/22 20:22	LAS
Xylenes, Total	15000	µg/Kg dry	SW846 5035A/8260D	478	500	03/18/22	LAS	03/21/22 20:22	LAS

Surrogate Recoveries	Results	Units	Method	%Recovery	DF	Limits (%Recovery)	Analysis Date
Surrogate: Dibromofluoromethane	18.2	µg/L	SW846 5035A/8260D	91%	500	75-139	03/21/22 20:22
Surrogate: 1,2-Dichloroethane-d4	18.5	µg/L	SW846 5035A/8260D	92%	500	81-125	03/21/22 20:22
Surrogate: Toluene-d8	20.6	µg/L	SW846 5035A/8260D	103%	500	84-121	03/21/22 20:22
Surrogate: Bromofluorobenzene	19.3	µg/L	SW846 5035A/8260D	96%	500	72-136	03/21/22 20:22

Report Generated On: 04/14/2022 9:38 am 2C03798
 STL_Results Revision #1.9 Effective: 04/16/2020





SUBURBAN TESTING LABS

Sample Number: 2C03798-08	Site: GP-14 (5')	Sample ID:
Collector: AG	Collect Date: 03/10/2022 1:31 pm	Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	By	Analysis Date	By
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<u>Inorganics</u>									
Total Solids (T)	80.5	%	SM 2540-G		1	03/16/22	CH	03/17/22 9:15	CH

<u>Volatiles</u>									
VOA, 8260, UST (T)									
Benzene	44000	µg/Kg dry	SW846 5035A/8260D	475	1000	03/18/22	LAS	03/21/22 20:50	LAS
1,2-Dibromoethane (EDB), SIM	< 19.0	µg/Kg dry	SW846 5035A/8260D	19.0	1000	03/18/22	LAS	03/21/22 20:50	LAS
1,2-Dichloroethane	< 757	µg/Kg dry	SW846 5035A/8260D	757	1000	03/18/22	LAS	03/21/22 20:50	LAS
Isopropylbenzene	4780	µg/Kg dry	SW846 5035A/8260D	475	1000	03/18/22	LAS	03/21/22 20:50	LAS
Methyl-t-butyl ether (MTBE)	< 475	µg/Kg dry	SW846 5035A/8260D	475	1000	03/18/22	LAS	03/21/22 20:50	LAS
Naphthalene	12500	µg/Kg dry	SW846 5035A/8260D	475	1000	03/18/22	LAS	03/21/22 20:50	LAS
1,3,5-Trimethylbenzene	55500	µg/Kg dry	SW846 5035A/8260D	475	1000	03/18/22	LAS	03/21/22 20:50	LAS
Ethyl Benzene	67900	µg/Kg dry	SW846 5035A/8260D	2370	5000	03/18/22	LAS	03/23/22 19:08	LAS
Toluene	166000	µg/Kg dry	SW846 5035A/8260D	2370	5000	03/18/22	LAS	03/23/22 19:08	LAS
1,2,4-Trimethylbenzene	148000	µg/Kg dry	SW846 5035A/8260D	2370	5000	03/18/22	LAS	03/23/22 19:08	LAS
Xylenes, Total	387000	µg/Kg dry	SW846 5035A/8260D	4750	5000	03/18/22	LAS	03/23/22 19:08	LAS

Surrogate Recoveries	Results	Units	Method	%Recovery	DF	Limits (%Recovery)	Analysis Date
Surrogate: Dibromofluoromethane	18.3	µg/L	SW846 5035A/8260D	91%	1000	75-139	03/21/22 20:50
Surrogate: 1,2-Dichloroethane-d4	17.9	µg/L	SW846 5035A/8260D	89%	1000	81-125	03/21/22 20:50
Surrogate: Toluene-d8	21.3	µg/L	SW846 5035A/8260D	107%	1000	84-121	03/21/22 20:50
Surrogate: Bromofluorobenzene	19.7	µg/L	SW846 5035A/8260D	99%	1000	72-136	03/21/22 20:50
Surrogate: Dibromofluoromethane	18.2	µg/L	SW846 5035A/8260D	91%	5000	75-139	03/23/22 19:08
Surrogate: 1,2-Dichloroethane-d4	19.4	µg/L	SW846 5035A/8260D	97%	5000	81-125	03/23/22 19:08
Surrogate: Toluene-d8	20.3	µg/L	SW846 5035A/8260D	102%	5000	84-121	03/23/22 19:08
Surrogate: Bromofluorobenzene	19.1	µg/L	SW846 5035A/8260D	95%	5000	72-136	03/23/22 19:08

Report Generated On: 04/14/2022 9:38 am 2C03798
 STL_Results Revision #1.9 Effective: 04/16/2020





SUBURBAN TESTING LABS

Sample Number: 2C03798-09 Site: GP-15 (11.5') Sample ID:
 Collector: AG Collect Date: 03/10/2022 2:26 pm Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	By	Analysis Date	By
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Inorganics

Total Solids (T)	83.5	%	SM 2540-G		1	03/16/22	CH	03/17/22 9:15	CH
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Volatiles

VOA, 8260, UST (T)

Benzene	3040	µg/Kg dry	SW846 5035A/8260D	489	1000	03/18/22	LAS	03/21/22 21:18	LAS
1,2-Dibromoethane (EDB), SIM	< 19.6	µg/Kg dry	SW846 5035A/8260D	19.6	1000	03/18/22	LAS	03/21/22 21:18	LAS
1,2-Dichloroethane	< 780	µg/Kg dry	SW846 5035A/8260D	780	1000	03/18/22	LAS	03/21/22 21:18	LAS
Ethyl Benzene	< 489	µg/Kg dry	SW846 5035A/8260D	489	1000	03/18/22	LAS	03/21/22 21:18	LAS
Isopropylbenzene	14600	µg/Kg dry	SW846 5035A/8260D	489	1000	03/18/22	LAS	03/21/22 21:18	LAS
Methyl-t-butyl ether (MTBE)	< 489	µg/Kg dry	SW846 5035A/8260D	489	1000	03/18/22	LAS	03/21/22 21:18	LAS
Naphthalene	37400	µg/Kg dry	SW846 5035A/8260D	489	1000	03/18/22	LAS	03/21/22 21:18	LAS
1,3,5-Trimethylbenzene	113000	µg/Kg dry	SW846 5035A/8260D	489	1000	03/18/22	LAS	03/21/22 21:18	LAS
Toluene	223000	µg/Kg dry	SW846 5035A/8260D	2450	5000	03/18/22	LAS	03/23/22 19:36	LAS
1,2,4-Trimethylbenzene	318000	µg/Kg dry	SW846 5035A/8260D	2450	5000	03/18/22	LAS	03/23/22 19:36	LAS
Xylenes, Total	819000	µg/Kg dry	SW846 5035A/8260D	4890	5000	03/18/22	LAS	03/23/22 19:36	LAS

Surrogate Recoveries	Results	Units	Method	%Recovery	DF	Limits (%Recovery)	Analysis Date
Surrogate: Dibromofluoromethane	18.1	µg/L	SW846 5035A/8260D	90%	1000	75-139	03/21/22 21:18
Surrogate: 1,2-Dichloroethane-d4	17.2	µg/L	SW846 5035A/8260D	86%	1000	81-125	03/21/22 21:18
Surrogate: Toluene-d8	22.1	µg/L	SW846 5035A/8260D	110%	1000	84-121	03/21/22 21:18
Surrogate: Bromofluorobenzene	18.9	µg/L	SW846 5035A/8260D	95%	1000	72-136	03/21/22 21:18
Surrogate: Dibromofluoromethane	18.1	µg/L	SW846 5035A/8260D	90%	5000	75-139	03/23/22 19:36
Surrogate: 1,2-Dichloroethane-d4	19.0	µg/L	SW846 5035A/8260D	95%	5000	81-125	03/23/22 19:36
Surrogate: Toluene-d8	20.0	µg/L	SW846 5035A/8260D	100%	5000	84-121	03/23/22 19:36
Surrogate: Bromofluorobenzene	19.3	µg/L	SW846 5035A/8260D	96%	5000	72-136	03/23/22 19:36

Report Generated On: 04/14/2022 9:38 am 2C03798
 STL_Results Revision #1.9 Effective: 04/16/2020





SUBURBAN TESTING LABS

Sample Number: 2C03798-10	Site: GP-16 (7')	Sample ID:
Collector: AG	Collect Date: 03/10/2022 9:35 am	Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	By	Analysis Date	By
Inorganics									
Total Solids (T)	84.0	%	SM 2540-G		1	03/16/22	CH	03/17/22 9:15	CH
Volatiles									
<i>VOA, 8260, UST (T)</i>									
Benzene	3570	µg/Kg dry	SW846 5035A/8260D	251	500	03/18/22	LAS	03/21/22 21:45	LAS
1,2-Dibromoethane (EDB), SIM	< 10.0	µg/Kg dry	SW846 5035A/8260D	10.0	500	03/18/22	LAS	03/21/22 21:45	LAS
1,2-Dichloroethane	< 400	µg/Kg dry	SW846 5035A/8260D	400	500	03/18/22	LAS	03/21/22 21:45	LAS
Isopropylbenzene	18800	µg/Kg dry	SW846 5035A/8260D	251	500	03/18/22	LAS	03/21/22 21:45	LAS
Methyl-t-butyl ether (MTBE)	< 251	µg/Kg dry	SW846 5035A/8260D	251	500	03/18/22	LAS	03/21/22 21:45	LAS
Naphthalene	59000	µg/Kg dry	SW846 5035A/8260D	251	500	03/18/22	LAS	03/21/22 21:45	LAS
Toluene	47300	µg/Kg dry	SW846 5035A/8260D	251	500	03/18/22	LAS	03/21/22 21:45	LAS
Ethyl Benzene	103000	µg/Kg dry	SW846 5035A/8260D	2510	5000	03/18/22	LAS	03/23/22 20:03	LAS
1,3,5-Trimethylbenzene	205000	µg/Kg dry	SW846 5035A/8260D	2510	5000	03/18/22	LAS	03/23/22 20:03	LAS
1,2,4-Trimethylbenzene	562000	µg/Kg dry	SW846 5035A/8260D	2510	5000	03/18/22	LAS	03/23/22 20:03	LAS
Xylenes, Total	566000	µg/Kg dry	SW846 5035A/8260D	5020	5000	03/18/22	LAS	03/23/22 20:03	LAS

Surrogate Recoveries	Results	Units	Method	%Recovery	DF	Limits (%Recovery)	Analysis Date
Surrogate: Dibromofluoromethane	17.5	µg/L	SW846 5035A/8260D	87%	500	75-139	03/21/22 21:45
Surrogate: 1,2-Dichloroethane-d4	17.1	µg/L	SW846 5035A/8260D	85%	500	81-125	03/21/22 21:45
Surrogate: Toluene-d8	23.1	µg/L	SW846 5035A/8260D	116%	500	84-121	03/21/22 21:45
Surrogate: Bromofluorobenzene	19.9	µg/L	SW846 5035A/8260D	100%	500	72-136	03/21/22 21:45
Surrogate: Dibromofluoromethane	18.3	µg/L	SW846 5035A/8260D	92%	5000	75-139	03/23/22 20:03
Surrogate: 1,2-Dichloroethane-d4	19.3	µg/L	SW846 5035A/8260D	96%	5000	81-125	03/23/22 20:03
Surrogate: Toluene-d8	20.6	µg/L	SW846 5035A/8260D	103%	5000	84-121	03/23/22 20:03
Surrogate: Bromofluorobenzene	19.4	µg/L	SW846 5035A/8260D	97%	5000	72-136	03/23/22 20:03

Report Generated On: 04/14/2022 9:38 am 2C03798
 STL_Results Revision #1.9 Effective: 04/16/2020





Sample Number: 2C03798-11	Site: TP-4	Sample ID:
Collector: AG	Collect Date: 03/10/2022 10:30 am	Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	By	Analysis Date	By
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Volatiles

VOA, 8260, UST (T)

Benzene	5.1	µg/L	SW846 5030C/8260D	0.5	1	03/16/22	LAS	03/16/22 18:02	MWS
1,2-Dibromoethane (EDB)	< 0.5	µg/L	SW846 5030C/8260D	0.5	1	03/16/22	LAS	03/16/22 18:02	MWS
1,2-Dichloroethane	< 0.5	µg/L	SW846 5030C/8260D	0.5	1	03/16/22	LAS	03/16/22 18:02	MWS
Toluene	2.5	µg/L	SW846 5030C/8260D	0.5	1	03/16/22	LAS	03/16/22 18:02	MWS
Ethyl Benzene	2130	µg/L	SW846 5030C/8260D	10.0	20	03/24/22	LAS	03/24/22 15:27	MWS
Methyl-t-butyl ether (MTBE)	530	µg/L	SW846 5030C/8260D	10.0	20	03/24/22	LAS	03/24/22 15:27	MWS
Naphthalene	282	µg/L	SW846 5030C/8260D	10.0	20	03/24/22	LAS	03/24/22 15:27	MWS
1,3,5-Trimethylbenzene	227	µg/L	SW846 5030C/8260D	10.0	20	03/24/22	LAS	03/24/22 15:27	MWS
1,2,4-Trimethylbenzene	942	µg/L	SW846 5030C/8260D	10.0	20	03/24/22	LAS	03/24/22 15:27	MWS
Xylenes, Total	6100	µg/L	SW846 5030C/8260D	20.0	20	03/24/22	LAS	03/24/22 15:27	MWS

Surrogate Recoveries	Results	Units	Method	%Recovery	DF	Limits (%Recovery)	Analysis Date
Surrogate: Dibromofluoromethane	19.2	µg/L	SW846 5030C/8260D	96%	1	72-136	03/16/22 18:02
Surrogate: 1,2-Dichloroethane-d4	19.4	µg/L	SW846 5030C/8260D	97%	1	79-135	03/16/22 18:02
Surrogate: Toluene-d8	20.4	µg/L	SW846 5030C/8260D	102%	1	88-112	03/16/22 18:02
Surrogate: Bromofluorobenzene	20.8	µg/L	SW846 5030C/8260D	104%	1	75-117	03/16/22 18:02
Surrogate: Dibromofluoromethane	19.4	µg/L	SW846 5030C/8260D	97%	20	72-136	03/24/22 15:27
Surrogate: 1,2-Dichloroethane-d4	19.9	µg/L	SW846 5030C/8260D	99%	20	79-135	03/24/22 15:27
Surrogate: Toluene-d8	19.2	µg/L	SW846 5030C/8260D	96%	20	88-112	03/24/22 15:27
Surrogate: Bromofluorobenzene	19.8	µg/L	SW846 5030C/8260D	99%	20	75-117	03/24/22 15:27

Sample Receipt Conditions:

· Sample(s) received outside of the acceptable temperature limits for one or more analyses. Affected analyses are reported with the (T) qualifier.

The test *pH, Lab* is performed in the Laboratory as soon as possible. These results are not appropriate for compliance with NPDES, SDWA, or other regulatory programs that require analysis within 15 minutes of sample collection and should be considered for informational purposes only.

**pH, Final* for ASTM leachate is performed by method SM 4500-H-B.

All results meet the requirements of STL's TNI (NELAC) Accredited Quality System unless otherwise noted. If your results contain any data qualifiers or comments, you should evaluate useability relative to your needs.

If collectors initials include "STL", samples have been collected in accordance with STL SOP SL0015.

All results reported on an As Received (Wet Weight) basis unless otherwise noted.

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

Results are considered Preliminary unless report is signed by authorized representative of STL.

Reviewed and Released By:

Ryan F Knerr
Project Manager II

Report Generated On: 04/14/2022 9:38 am 2C03798
STL_Results Revision #1.9 Effective: 04/16/2020





610-



2C03798
Ryan F Knerr

TAT (Circle One) Standard 24hr / 48hr / 72hr / Other
(Additional charges may apply for rush TAT. If not specified, standard TAT will apply)

Order ID: _____

Client Name: Center Point Tank Sales Inc

Address: 531e Ben Franklin Hwy E
Dougllassville PA 19518

Phone: 610 385 4977

Address: _____

Contact Name: Allie Gibbet

Fax: _____

Merion Station, PA

Email: allie@centerpointtank.com

Payment / P.O. Info: _____

Comments:

STL Sample Number	Sample Description / Site ID:	Date Sampled	Time Sampled	Samplers Initials	Test(s) Requested:	Bottle Quantity	See Codes Below				Comments / Field Data:	
							Matrix	Sample Type	Bottle Type	Preservative		
	(8) 60 mL GA (8) VOA MEOH											
	GP-9 (1.5')	3/9/22	945	AG	PAUST gasoline short list 8260	2	solid	G	G	C		
	GP-9 (12')	↓	950	↓	↓	↓	↓	↓	↓	↓	↓	↓
	GP-10 (15')		1304									
	GP-10 (19')		1319									
	GP-11 (12')		1356									
	GP-12 (9.5')	3/10/22	1025	↓	↓	↓	↓	↓	↓	↓	↓	↓
	GP-13 (9.5')	1804										
	GP-14 (5')	↓	1331	↓	↓	↓	↓	↓	↓	↓	↓	↓

Relinquished By: <i>Allie Gibbet</i>	Date: <u>3/15/22</u>	Temp °C: _____ Acceptable: Y / N	Submitted with COC? <u>Y</u> / N	Matrix Key NPW = Non-Potable Water Solid = Raw Sludge, Dewatered sludge, soil, etc. (reported as mg/kg) PW = Potable Water (not for SDWA compliance) SDWA = Safe Drinking Water Act Potable Sample	Bottle Type Key P = Plastic G = Glass O = Other	Reporting Options [] SDWA Reporting PWSID: _____ [] Fax [] Email [] Other [] Return a copy of this form with Report
	Time: <u>1514</u>					
Received By:	Date: _____	Temp °C: _____ Acceptable: Y / N	All containers in tact? <u>Y</u> / N	SDWA Sample Types D=Distribution E=Entry Point R=Raw C=Check S=Special M=Maximum Residence		
Relinquished By:	Date: _____		Time: _____			
Received in Lab By:	Date: <u>3-15-22</u>	Temp °C: <u>6.5C</u>	40 mL VOA vials free of headspace? <u>Y / N</u>			
	Time: <u>1516</u>	Acceptable: <u>Y / N</u>				

Signing this form indicates your agreement with STL's Standard Terms and Conditions unless otherwise specified in writing. SLF059 Rev. 1.3 Effective May 16, 2013. Shaded areas are for STL use only.



2C03798
Ryan F Knerr

TAT(Check One): Standard 24hr 48hr 72hr Other
(Additional charges may apply for rush TAT. If not specified, standard TAT will apply)

Order ID: _____

Client Name: CPTS
Address: 531e Ben Franklin Hwy
Contact Name: Allie Sabat

Phone: 410-385-4977
Email: allie@centerpoint-tx.com
P.O. Info: _____

Project Name: WALKS Liberty
Address: _____
Regulatory ID (SDWA/Permit #): _____

Comments:

STL Sample Number	Sample Description / Site ID:	Date Sampled	Time Sampled	Samplers Initials	Test(s) Requested:	Bottle Quantity	See Codes Below				Comments / Field Data:	
							Matrix	Sample Type	Bottle Type	Preservative		
	(2) 60 mL G1A (2) VOA MeOH (3) VOA HCl											
	GP-15 (11.5)	3/10/22	1426	AG	PAUST Short list gasoline ⁸²⁴⁰	2	solid	G	G	O	MeOH	
	GP-16 (7')	↓	935		↓	2	solid	G	G	O	MeOH	
	TP-4	↓	1030		↓	3	NPW	G	G	C		

Relinquished By: <u>[Signature]</u>	Count	Date: <u>3/15/22</u>	Temp °C: _____	Sample Conditions Submitted with COC? <u>(Y) / N</u>	Matrix Key NPW = Non-Potable Water Solid = Raw Sludge, Dewatered sludge, soil, etc. (reported as mg/kg) PW = Potable Water (not for SDWA compliance) SDWA = Safe Drinking Water Act Potable Sample	Bottle Type Key P = Plastic G = Glass GA = Glass Amber VOA = 40mL G or GA PP = Sterile Polypropylene PS = Sterile Polystyrene HDPE = High Density Polyethylene O = Other
Received By:		Time: <u>1516</u>	Temp °C: _____ Acceptable: Y / N			
Relinquished By:		Date:	Temp °C: _____	All containers in tact? <u>(Y) / N</u> Tests within holding times? <u>(Y) / N</u> 40 mL VOA vials free of headspace? <u>(Y) / N</u>	Sample Type Key G = Grab C = Composite 8HC = 8 Hr. Composite 24HC = 24 Hr. Composite	SDWA Sample Types D=Distribution E=Entry Point R=Raw C=Check S=Special M=Maximum Residence
Received in Lab By: <u>[Signature]</u>		Date: <u>3-15-22</u>	Temp °C: <u>6.5</u> Acceptable: <u>(Y) / N</u>			

APPENDIX E:
GROUNDWATER ANALYTICAL DATA



Results Report

Order ID: 2D05160

Center Point Tank Services
536 E. Benjamin Franklin Highway
Douglasville, PA 19518

Project: Warks Liberty Station

Merion Station, PA

Attn: Allie Gibat

Regulatory ID:

Sample Number: 2D05160-01
Collector: AG

Site: MW-1
Collect Date: 04/21/2022 9:43 am

Sample ID:
Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	By	Analysis Date	By
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Volatiles

VOA, 8260, UST

Benzene	< 0.5	µg/L	SW846 5030C/8260D	0.5	1	04/25/22	MWS	04/25/22 16:42	MWS
Ethyl Benzene	< 0.5	µg/L	SW846 5030C/8260D	0.5	1	04/25/22	MWS	04/25/22 16:42	MWS
Isopropylbenzene	< 0.5	µg/L	SW846 5030C/8260D	0.5	1	04/25/22	MWS	04/25/22 16:42	MWS
Methyl-t-butyl ether (MTBE)	< 0.5	µg/L	SW846 5030C/8260D	0.5	1	04/25/22	MWS	04/25/22 16:42	MWS
Naphthalene	< 0.5	µg/L	SW846 5030C/8260D	0.5	1	04/25/22	MWS	04/25/22 16:42	MWS
Toluene	< 0.5	µg/L	SW846 5030C/8260D	0.5	1	04/25/22	MWS	04/25/22 16:42	MWS
1,3,5-Trimethylbenzene	< 0.5	µg/L	SW846 5030C/8260D	0.5	1	04/25/22	MWS	04/25/22 16:42	MWS
1,2,4-Trimethylbenzene	< 0.5	µg/L	SW846 5030C/8260D	0.5	1	04/25/22	MWS	04/25/22 16:42	MWS
Xylenes, Total	< 1.0	µg/L	SW846 5030C/8260D	1.0	1	04/25/22	MWS	04/25/22 16:42	MWS

Surrogate Recoveries	Results	Units	Method	%Recovery	DF	Limits (%Recovery)	Analysis Date
Surrogate: Dibromofluoromethane	20.2	µg/L	SW846 5030C/8260D	101%	1	72-136	04/25/22 16:42
Surrogate: 1,2-Dichloroethane-d4	21.2	µg/L	SW846 5030C/8260D	106%	1	79-135	04/25/22 16:42
Surrogate: Toluene-d8	19.5	µg/L	SW846 5030C/8260D	97%	1	88-112	04/25/22 16:42
Surrogate: Bromofluorobenzene	18.6	µg/L	SW846 5030C/8260D	93%	1	75-117	04/25/22 16:42

Report Generated On: 05/02/2022 3:37 pm 2D05160
STL_Results Revision #2.0 Effective: 04/20/2022





Sample Number: 2D05160-02	Site: MW-2	Sample ID:
Collector: AG	Collect Date: 04/21/2022 10:39 am	Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	By	Analysis Date	By
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Volatiles

VOA, 8260, UST

Isopropylbenzene	147	µg/L	SW846 5030C/8260D	0.5	1	04/25/22	MWS	04/25/22 17:09	MWS
Methyl-t-butyl ether (MTBE)	< 0.5	µg/L	SW846 5030C/8260D	0.5	1	04/25/22	MWS	04/25/22 17:09	MWS
Benzene	1500	µg/L	SW846 5030C/8260D	50.0	100	04/28/22	MWS	04/28/22 15:58	MWS
Ethyl Benzene	3860	µg/L	SW846 5030C/8260D	50.0	100	04/28/22	MWS	04/28/22 15:58	MWS
Naphthalene	665	µg/L	SW846 5030C/8260D	50.0	100	04/28/22	MWS	04/28/22 15:58	MWS
Toluene	27800	E µg/L	SW846 5030C/8260D	50.0	100	04/28/22	MWS	04/28/22 15:58	MWS
1,3,5-Trimethylbenzene	657	µg/L	SW846 5030C/8260D	50.0	100	04/28/22	MWS	04/28/22 15:58	MWS
1,2,4-Trimethylbenzene	3180	µg/L	SW846 5030C/8260D	50.0	100	04/28/22	MWS	04/28/22 15:58	MWS
Xylenes, Total	23800	µg/L	SW846 5030C/8260D	100	100	04/28/22	MWS	04/28/22 15:58	MWS

Surrogate Recoveries	Results	Units	Method	%Recovery	DF	Limits (%Recovery)	Analysis Date
Surrogate: Dibromofluoromethane	17.5	µg/L	SW846 5030C/8260D	88%	1	72-136	04/25/22 17:09
Surrogate: 1,2-Dichloroethane-d4	17.7	µg/L	SW846 5030C/8260D	88%	1	79-135	04/25/22 17:09
Surrogate: Toluene-d8	17.8	µg/L	SW846 5030C/8260D	89%	1	88-112	04/25/22 17:09
Surrogate: Bromofluorobenzene	20.2	µg/L	SW846 5030C/8260D	101%	1	75-117	04/25/22 17:09
Surrogate: Dibromofluoromethane	19.6	µg/L	SW846 5030C/8260D	98%	100	72-136	04/28/22 15:58
Surrogate: 1,2-Dichloroethane-d4	19.7	µg/L	SW846 5030C/8260D	99%	100	79-135	04/28/22 15:58
Surrogate: Toluene-d8	18.5	µg/L	SW846 5030C/8260D	92%	100	88-112	04/28/22 15:58
Surrogate: Bromofluorobenzene	18.6	µg/L	SW846 5030C/8260D	93%	100	75-117	04/28/22 15:58

Report Generated On: 05/02/2022 3:37 pm 2D05160
 STL_Results Revision #2.0 Effective: 04/20/2022





Sample Number: 2D05160-03	Site: MW-3	Sample ID:
Collector: AG	Collect Date: 04/21/2022 11:53 am	Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	By	Analysis Date	By
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Volatiles

VOA, 8260, UST

Isopropylbenzene	12.6	µg/L	SW846 5030C/8260D	0.5	1	04/25/22	MWS	04/25/22 17:36	MWS
Methyl-t-butyl ether (MTBE)	14.9	µg/L	SW846 5030C/8260D	0.5	1	04/25/22	MWS	04/25/22 17:36	MWS
Naphthalene	95.8	µg/L	SW846 5030C/8260D	0.5	1	04/25/22	MWS	04/25/22 17:36	MWS
Toluene	13.7	µg/L	SW846 5030C/8260D	0.5	1	04/25/22	MWS	04/25/22 17:36	MWS
1,3,5-Trimethylbenzene	87.4	µg/L	SW846 5030C/8260D	0.5	1	04/25/22	MWS	04/25/22 17:36	MWS
Benzene	309	µg/L	SW846 5030C/8260D	2.5	5	04/28/22	MWS	04/28/22 12:18	MWS
Ethyl Benzene	379	µg/L	SW846 5030C/8260D	2.5	5	04/28/22	MWS	04/28/22 12:18	MWS
1,2,4-Trimethylbenzene	233	µg/L	SW846 5030C/8260D	2.5	5	04/28/22	MWS	04/28/22 12:18	MWS
Xylenes, Total	557	µg/L	SW846 5030C/8260D	5.0	5	04/28/22	MWS	04/28/22 12:18	MWS

Surrogate Recoveries	Results	Units	Method	%Recovery	DF	Limits (%Recovery)	Analysis Date
Surrogate: Dibromofluoromethane	18.6	µg/L	SW846 5030C/8260D	93%	1	72-136	04/25/22 17:36
Surrogate: 1,2-Dichloroethane-d4	19.0	µg/L	SW846 5030C/8260D	95%	1	79-135	04/25/22 17:36
Surrogate: Toluene-d8	19.4	µg/L	SW846 5030C/8260D	97%	1	88-112	04/25/22 17:36
Surrogate: Bromofluorobenzene	19.5	µg/L	SW846 5030C/8260D	97%	1	75-117	04/25/22 17:36
Surrogate: Dibromofluoromethane	19.9	µg/L	SW846 5030C/8260D	99%	5	72-136	04/28/22 12:18
Surrogate: 1,2-Dichloroethane-d4	20.4	µg/L	SW846 5030C/8260D	102%	5	79-135	04/28/22 12:18
Surrogate: Toluene-d8	19.0	µg/L	SW846 5030C/8260D	95%	5	88-112	04/28/22 12:18
Surrogate: Bromofluorobenzene	18.4	µg/L	SW846 5030C/8260D	92%	5	75-117	04/28/22 12:18

Report Generated On: 05/02/2022 3:37 pm 2D05160
 STL_Results Revision #2.0 Effective: 04/20/2022





Sample Number: 2D05160-04	Site: MW-4	Sample ID:
Collector: AG	Collect Date: 04/21/2022 1:42 pm	Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	By	Analysis Date	By
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Volatiles

VOA, 8260, UST

Isopropylbenzene	132	µg/L	SW846 5030C/8260D	0.5	1	04/25/22	MWS	04/25/22 18:04	MWS
Methyl-t-butyl ether (MTBE)	< 0.5	µg/L	SW846 5030C/8260D	0.5	1	04/25/22	MWS	04/25/22 18:04	MWS
Benzene	584	µg/L	SW846 5030C/8260D	50.0	100	04/28/22	MWS	04/28/22 16:26	MWS
Ethyl Benzene	3470	µg/L	SW846 5030C/8260D	50.0	100	04/28/22	MWS	04/28/22 16:26	MWS
Naphthalene	852	µg/L	SW846 5030C/8260D	50.0	100	04/28/22	MWS	04/28/22 16:26	MWS
Toluene	12000	µg/L	SW846 5030C/8260D	50.0	100	04/28/22	MWS	04/28/22 16:26	MWS
1,3,5-Trimethylbenzene	835	µg/L	SW846 5030C/8260D	50.0	100	04/28/22	MWS	04/28/22 16:26	MWS
1,2,4-Trimethylbenzene	4300	µg/L	SW846 5030C/8260D	50.0	100	04/28/22	MWS	04/28/22 16:26	MWS
Xylenes, Total	22800	µg/L	SW846 5030C/8260D	100	100	04/28/22	MWS	04/28/22 16:26	MWS

Surrogate Recoveries	Results	Units	Method	%Recovery	DF	Limits (%Recovery)	Analysis Date
Surrogate: Dibromofluoromethane	17.6	µg/L	SW846 5030C/8260D	88%	1	72-136	04/25/22 18:04
Surrogate: 1,2-Dichloroethane-d4	18.0	µg/L	SW846 5030C/8260D	90%	1	79-135	04/25/22 18:04
Surrogate: Toluene-d8	19.8	µg/L	SW846 5030C/8260D	99%	1	88-112	04/25/22 18:04
Surrogate: Bromofluorobenzene	18.1	µg/L	SW846 5030C/8260D	90%	1	75-117	04/25/22 18:04
Surrogate: Dibromofluoromethane	19.8	µg/L	SW846 5030C/8260D	99%	100	72-136	04/28/22 16:26
Surrogate: 1,2-Dichloroethane-d4	20.0	µg/L	SW846 5030C/8260D	100%	100	79-135	04/28/22 16:26
Surrogate: Toluene-d8	19.2	µg/L	SW846 5030C/8260D	96%	100	88-112	04/28/22 16:26
Surrogate: Bromofluorobenzene	18.7	µg/L	SW846 5030C/8260D	93%	100	75-117	04/28/22 16:26

Data Qualifiers:

E The concentration exceeds the calibration range and has greater uncertainty.

Sample Receipt Conditions:

One or more containers was received broken or leaking. Analyses performed from these containers (if applicable) are reported with a comment.

Units P/A = Present/Absent
Units P/F = Pass/Fail

Report Generated On: 05/02/2022 3:37 pm 2D05160
STL_Results Revision #2.0 Effective: 04/20/2022





SUBURBAN TESTING LABS

The test *pH, Lab* is performed in the Laboratory as soon as possible. These results are not appropriate for compliance with NPDES, SDWA, or other regulatory programs that require analysis within 15 minutes of sample collection and should be considered for informational purposes only.

**pH, Final* for ASTM leachate is performed by method SM 4500-H-B.

All results meet the requirements of STL's TNI (NELAC) Accredited Quality System unless otherwise noted. If your results contain any data qualifiers or comments, you should evaluate useability relative to your needs.

If collectors initials include "STL", samples have been collected in accordance with STL SOP SL0015.

All results reported on an As Received (Wet Weight) basis unless otherwise noted.

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

Results are considered Preliminary unless report is signed by authorized representative of STL.

Reviewed and Released By:

Ryan F Knerr
Project Manager II

Report Generated On: 05/02/2022 3:37 pm 2D05160
STL_Results Revision #2.0 Effective: 04/20/2022





2D05160
Ryan F Knerr

TAT (Circle One): Standard 24hr / 48hr / 72hr / Other
(Additional charges may apply for rush-TAT. If not specified, standard TAT will apply)

page 1 of 1

Order ID: _____

Client Name: Center Point Tank Services, Inc. Project Name: Wark's Liberty
 Address: 530 E. Benjamin Franklin Hwy Phone: (610) 385-4977 Address: 300 Montgomery Ave
Douglasville, PA 19518 Fax: NA Merion Station, PA
 Contact Name: Alexandra Gibat / Jeff Warmus Email: allie@centerpointtank.com Payment / P.O. Info: 21-11912 E

Comments: Sample Pick-up Standard X

STL Sample Number	Sample Description / Site ID:	Date Sampled	Time Sampled	Samplers Initials	Test(s) Requested:	Bottle Quantity	See Codes Below				Comments / Field Data:
							Matrix	Sample Type	Bottle Type	Preservative	
	MW-1	4/21/22	09143	AG	PAUST unvented gas snort list 8260	3	NPW	G	G	C	
	MW-2	4/21/22	1039	AG	↓	3	NPW	G	G	C	
	MW-3	4/21/22	1153	AG	↓	3	NPW	G	G	C	
	* MW-4	4/21/22	1342	AG	↓	3	NPW	G	G	C	
	(12) VOA HCl										
					* one VOA had cracked lid.						
					pmf 4-22-22						

Relinquished By: <u>[Signature]</u> (12)	Date: <u>4/22/22</u>	Time: <u>1429</u>	Temp °C: <u>3°</u>	Acceptable: <u>Y/N Ref</u>	Sample Conditions	Matrix Key	Bottle Type Key	Reporting Options
Received By: <u>Ralph Kuspa</u> (12)	Date: <u>4-22-22</u>	Time: <u>14:30</u>	Temp °C: <u>2°</u>	Acceptable: <u>Y/N Ref</u>	Submitted with COC? <u>Y</u> / N	NPW = Non-Potable Water Solid = Raw Sludge, Dewatered sludge, soil, etc. (reported as mg/kg)	P = Plastic G = Glass O = Other	[] SDWA Reporting PWSID: _____
Relinquished By: <u>Ralph Kuspa</u>	Date: <u>4-22-22</u>	Time: <u>18:50</u>	Temp °C: <u>2.0°</u>	Acceptable: <u>Y/N Ref</u>	Number of containers match number on COC? <u>Y</u> / N	PW = Potable Water (not for SDWA compliance) SDWA = Safe Drinking Water Act Potable Sample	Preservative Key	[] Fax [] Email [] Other
Received in Lab By: <u>[Signature]</u> (12)	Date: <u>4-22-22</u>	Time: <u>1850</u>	Temp °C: <u>2.0°</u>	Acceptable: <u>Y/N Ref</u>	All containers in tact? <u>Y</u> / N	Sample Type Key	N = Sodium Thiosulfate A = Ascorbic Acid H = HNO ₃ C = HCl S = H ₂ SO ₄ OH = NaOH O = Other NA = None Required	[] Return a copy of this form with Report
					Tests within holding times <u>Y</u> / N	SDWA Sample Types		
					40 mL VOA vials free of headspace? <u>Y</u> / N	G = Grab 8HC = 8 Hr. Composite 24HC = 24 Hr. Composite		



Amended Results Report

Order ID: 2E02597

Center Point Tank Services
536 E. Benjamin Franklin Highway
Douglasville, PA 19518

Project: Warks Liberty Station

Merion Station, PA

Attn: Allie Gibat

Regulatory ID:

Sample Number: 2E02597-01

Site: MW-1

Sample ID:

Collector: AG

Collect Date: 05/05/2022 9:33 am

Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	By	Analysis Date	By
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Volatiles

VOA, 8260, UST

Benzene	< 0.5	µg/L	SW846 5030C/8260D	0.5	1	05/13/22	LAS	05/13/22 21:35	LAS
Ethyl Benzene	< 0.5	µg/L	SW846 5030C/8260D	0.5	1	05/13/22	LAS	05/13/22 21:35	LAS
Isopropylbenzene	< 0.5	µg/L	SW846 5030C/8260D	0.5	1	05/13/22	LAS	05/13/22 21:35	LAS
Methyl-t-butyl ether (MTBE)	< 0.5	µg/L	SW846 5030C/8260D	0.5	1	05/13/22	LAS	05/13/22 21:35	LAS
Naphthalene	< 0.5	µg/L	SW846 5030C/8260D	0.5	1	05/13/22	LAS	05/13/22 21:35	LAS
Toluene	< 0.5	µg/L	SW846 5030C/8260D	0.5	1	05/13/22	LAS	05/13/22 21:35	LAS
1,3,5-Trimethylbenzene	< 0.5	µg/L	SW846 5030C/8260D	0.5	1	05/13/22	LAS	05/13/22 21:35	LAS
1,2,4-Trimethylbenzene	< 0.5	µg/L	SW846 5030C/8260D	0.5	1	05/13/22	LAS	05/13/22 21:35	LAS
Xylenes, Total	2.1	µg/L	SW846 5030C/8260D	1.0	1	05/13/22	LAS	05/13/22 21:35	LAS

<i>Surrogate Recoveries</i>	<i>Results</i>	<i>Units</i>	<i>Method</i>	<i>%Recovery</i>	<i>DF</i>	<i>Limits (%Recovery)</i>	<i>Analysis Date</i>
Surrogate: Dibromofluoromethane	23.0	µg/L	SW846 5030C/8260D	115%	1	72-136	05/13/22 21:35
Surrogate: 1,2-Dichloroethane-d4	23.1	µg/L	SW846 5030C/8260D	115%	1	79-135	05/13/22 21:35
Surrogate: Toluene-d8	20.1	µg/L	SW846 5030C/8260D	100%	1	88-112	05/13/22 21:35
Surrogate: Bromofluorobenzene	18.0	µg/L	SW846 5030C/8260D	90%	1	75-117	05/13/22 21:35

Report Generated On: 05/23/2022 4:10 pm
STL_Results Revision #2.0

2E02597
Effective: 04/20/2022



Sample Number: 2E02597-02	Site: MW-2	Sample ID:
Collector: AG	Collect Date: 05/05/2022 10:41 am	Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	By	Analysis Date	By
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Volatiles

VOA, 8260, UST

Benzene	1060	µg/L	SW846 5030C/8260D	50.0	100	05/13/22	LAS	05/13/22 22:58	LAS
Ethyl Benzene	3940	µg/L	SW846 5030C/8260D	50.0	100	05/13/22	LAS	05/13/22 22:58	LAS
Isopropylbenzene	140	µg/L	SW846 5030C/8260D	50.0	100	05/13/22	LAS	05/13/22 22:58	LAS
Methyl-t-butyl ether (MTBE)	< 50.0	µg/L	SW846 5030C/8260D	50.0	100	05/13/22	LAS	05/13/22 22:58	LAS
Naphthalene	407	µg/L	SW846 5030C/8260D	50.0	100	05/13/22	LAS	05/13/22 22:58	LAS
1,3,5-Trimethylbenzene	911	µg/L	SW846 5030C/8260D	50.0	100	05/13/22	LAS	05/13/22 22:58	LAS
1,2,4-Trimethylbenzene	2930	µg/L	SW846 5030C/8260D	50.0	100	05/13/22	LAS	05/13/22 22:58	LAS
Xylenes, Total	22900	µg/L	SW846 5030C/8260D	100	100	05/13/22	LAS	05/13/22 22:58	LAS
Toluene	36100	µg/L	SW846 5030C/8260D	100	200	05/18/22	LAS	05/18/22 14:55	LAS

Surrogate Recoveries	Results	Units	Method	%Recovery	DF	Limits (%Recovery)	Analysis Date
Surrogate: Dibromofluoromethane	19.9	µg/L	SW846 5030C/8260D	100%	100	72-136	05/13/22 22:58
Surrogate: 1,2-Dichloroethane-d4	20.0	µg/L	SW846 5030C/8260D	100%	100	79-135	05/13/22 22:58
Surrogate: Toluene-d8	18.3	µg/L	SW846 5030C/8260D	92%	100	88-112	05/13/22 22:58
Surrogate: Bromofluorobenzene	20.8	µg/L	SW846 5030C/8260D	104%	100	75-117	05/13/22 22:58
Surrogate: Dibromofluoromethane	20.7	µg/L	SW846 5030C/8260D	103%	200	72-136	05/18/22 14:55
Surrogate: 1,2-Dichloroethane-d4	20.1	µg/L	SW846 5030C/8260D	101%	200	79-135	05/18/22 14:55
Surrogate: Toluene-d8	18.6	µg/L	SW846 5030C/8260D	93%	200	88-112	05/18/22 14:55
Surrogate: Bromofluorobenzene	20.5	µg/L	SW846 5030C/8260D	102%	200	75-117	05/18/22 14:55

Sample Number: 2E02597-03	Site: MW-3	Sample ID:
Collector: AG	Collect Date: 05/05/2022 11:29 am	Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	By	Analysis Date	By
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Volatiles

VOA, 8260, UST

Benzene	285	µg/L	SW846 5030C/8260D	2.5	5	05/13/22	LAS	05/13/22 22:02	LAS
Ethyl Benzene	301	µg/L	SW846 5030C/8260D	2.5	5	05/13/22	LAS	05/13/22 22:02	LAS
Isopropylbenzene	8.8	µg/L	SW846 5030C/8260D	2.5	5	05/13/22	LAS	05/13/22 22:02	LAS
Methyl-t-butyl ether (MTBE)	< 2.5	µg/L	SW846 5030C/8260D	2.5	5	05/13/22	LAS	05/13/22 22:02	LAS
Naphthalene	26.2	µg/L	SW846 5030C/8260D	2.5	5	05/13/22	LAS	05/13/22 22:02	LAS
Toluene	< 2.5	µg/L	SW846 5030C/8260D	2.5	5	05/13/22	LAS	05/13/22 22:02	LAS
1,3,5-Trimethylbenzene	37.2	µg/L	SW846 5030C/8260D	2.5	5	05/13/22	LAS	05/13/22 22:02	LAS
1,2,4-Trimethylbenzene	94.6	µg/L	SW846 5030C/8260D	2.5	5	05/13/22	LAS	05/13/22 22:02	LAS
Xylenes, Total	294	µg/L	SW846 5030C/8260D	5.0	5	05/13/22	LAS	05/13/22 22:02	LAS

Surrogate Recoveries	Results	Units	Method	%Recovery	DF	Limits (%Recovery)	Analysis Date
Surrogate: Dibromofluoromethane	19.2	µg/L	SW846 5030C/8260D	96%	5	72-136	05/13/22 22:02
Surrogate: 1,2-Dichloroethane-d4	19.5	µg/L	SW846 5030C/8260D	98%	5	79-135	05/13/22 22:02
Surrogate: Toluene-d8	19.6	µg/L	SW846 5030C/8260D	98%	5	88-112	05/13/22 22:02
Surrogate: Bromofluorobenzene	19.3	µg/L	SW846 5030C/8260D	97%	5	75-117	05/13/22 22:02



Sample Number: 2E02597-04	Site: MW-4	Sample ID:
Collector: AG	Collect Date: 05/05/2022 12:50 pm	Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	By	Analysis Date	By
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Volatiles

VOA, 8260, UST

Benzene	773	µg/L	SW846 5030C/8260D	50.0	100	05/13/22	LAS	05/13/22 23:26	LAS
1,2-Dichloroethane	< 50.0	µg/L	SW846 5030C/8260D	50.0	100	05/13/22	LAS	05/13/22 23:26	LAS
Ethyl Benzene	4630	µg/L	SW846 5030C/8260D	50.0	100	05/13/22	LAS	05/13/22 23:26	LAS
Isopropylbenzene	248	µg/L	SW846 5030C/8260D	50.0	100	05/13/22	LAS	05/13/22 23:26	LAS
Methyl-t-butyl ether (MTBE)	< 50.0	µg/L	SW846 5030C/8260D	50.0	100	05/13/22	LAS	05/13/22 23:26	LAS
Naphthalene	904	µg/L	SW846 5030C/8260D	50.0	100	05/13/22	LAS	05/13/22 23:26	LAS
Toluene	13900	µg/L	SW846 5030C/8260D	50.0	100	05/13/22	LAS	05/13/22 23:26	LAS
1,3,5-Trimethylbenzene	1740	µg/L	SW846 5030C/8260D	50.0	100	05/13/22	LAS	05/13/22 23:26	LAS
1,2,4-Trimethylbenzene	5450	µg/L	SW846 5030C/8260D	50.0	100	05/13/22	LAS	05/13/22 23:26	LAS
Xylenes, Total	24200	µg/L	SW846 5030C/8260D	100	100	05/13/22	LAS	05/13/22 23:26	LAS

Surrogate Recoveries	Results	Units	Method	%Recovery	DF	Limits (%Recovery)	Analysis Date
Surrogate: Dibromofluoromethane	18.4	µg/L	SW846 5030C/8260D	92%	100	72-136	05/13/22 23:26
Surrogate: 1,2-Dichloroethane-d4	18.3	µg/L	SW846 5030C/8260D	92%	100	79-135	05/13/22 23:26
Surrogate: Toluene-d8	19.7	µg/L	SW846 5030C/8260D	99%	100	88-112	05/13/22 23:26
Surrogate: Bromofluorobenzene	20.2	µg/L	SW846 5030C/8260D	101%	100	75-117	05/13/22 23:26

Sample Receipt Conditions:

All samples met the sample receipt requirements for the relevant analyses.

Units P/A = Present/Absent
Units P/F = Pass/Fail

**** This report has been Amended (Rev1) and replaces all previous reports for this order ID ****

The test *pH, Lab* is performed in the Laboratory as soon as possible. These results are not appropriate for compliance with NPDES, SDWA, or other regulatory programs that require analysis within 15 minutes of sample collection and should be considered for informational purposes only.

**pH, Final* for ASTM leachate is performed by method SM 4500-H-B.

All results meet the requirements of STL's TNI (NELAC) Accredited Quality System unless otherwise noted. If your results contain any data qualifiers or comments, you should evaluate useability relative to your needs.

If collectors initials include "STL", samples have been collected in accordance with STL SOP SL0015.

All results reported on an As Received (Wet Weight) basis unless otherwise noted.

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

Results are considered Preliminary unless report is signed by authorized representative of STL.

Reviewed and Released By:

Ryan F Knerr
Project Manager II

Report Generated On: 05/23/2022 4:10 pm 2E02597
STL_Results Revision #2.0 Effective: 04/20/2022



2E02597
Ryan F Knerr

TAT (Circle One): Standard 24hr / 48hr / 72hr / Other
(Additional charges may apply for rush TAT. If not specified, standard TAT will apply)

Order ID: _____

page 1 of 1

Client Name: Center Point Tank Svcs, Inc.
 Address: 536 Benjamin Franklin Hwy East
Douglasville, PA 19518
 Contact Name: Allie Gibet / Jeff Warmkesel
 Phone: (610) 385-4977
 Fax: NA
 Email: allie/mark/jeff/roger
 Project Name: Mark's Liberty Station
 Address: 300 Montgomery Ave
Merion Station, PA
 Payment / P.O. Info: 21-11912 E
 Comments: all emails above @centerpointtank.com

STL Sample Number	Sample Description / Site ID:	Date Sampled	Time Sampled	Samplers Initials	Test(s) Requested:	Bottle Quantity	See Codes Below				Comments / Field Data:
							Matrix	Sample Type	Bottle Type	Preservative	
(12) 40mL VOA + HCL											
MW-1		5/5/22	09:33	AG	PAUST gasoline short list	3	NPW	G	G	C	
MW-2		5/5/22	10:41	AG	↓	↓	↓	↓	↓		
MW-3		5/5/22	11:29	AG							
MW-4		5/5/22	12:50	AG							

Relinquished By: <u>[Signature]</u> (12)	Date: <u>5/16/22</u>	Temp °C: <u>90</u>	Sample Conditions	Matrix Key	Bottle Type Key	Reporting Options
Received By: <u>Ralph Kusza</u> (12)	Date: <u>5-06-22</u>	Acceptable: <u>Y/N Ref</u>	Submitted with COC? <u>(Y) N</u>	NPW = Non-Potable Water	P = Plastic	[] SDWA Reporting
Relinquished By: <u>Ralph Kusza</u>	Date: <u>5-06-22</u>	Acceptable: <u>(Y) N ICE</u>	Number of containers match number on COC? <u>(Y) N</u>	Solid = Raw Sludge, Dewatered sludge, soil, etc. (reported as mg/kg)	G = Glass	PWSID: _____
Received in Lab By: <u>CTB 12</u>	Date: <u>5-6-22</u>	Acceptable: <u>(Y) N ICE</u>	All containers in tact? <u>(Y) N</u>	PW = Potable Water (not for SDWA compliance)	O = Other	[] Fax
	Date: <u>5-6-22</u>	Temp °C: <u>10</u>	Tests within holding times <u>(Y) N</u>	SDWA = Safe Drinking Water Act Potable Sample	Preservative Key	[] Email
	Date: <u>5-6-22</u>	Temp °C: <u>10</u>	40 mL VOA vials free of headspace? <u>(Y) N</u>	Sample Type Key	N = Sodium Thiosulfate	[] Other _____
	Date: <u>5-6-22</u>	Acceptable: <u>(Y) N ICE</u>		SDWA Sample Types	A = Ascorbic Acid	[] Return a copy of this form with Report
	Date: <u>5-6-22</u>	Acceptable: <u>(Y) N ICE</u>		G = Grab	H = HNO ₃	
	Date: <u>5-6-22</u>	Acceptable: <u>(Y) N ICE</u>		8HC = 8 Hr. Composite	C = HCl	
	Date: <u>5-6-22</u>	Acceptable: <u>(Y) N ICE</u>		24HC = 24 Hr. Composite	S = H ₂ SO ₄	
	Date: <u>5-6-22</u>	Acceptable: <u>(Y) N ICE</u>			OH = NaOH	
	Date: <u>5-6-22</u>	Acceptable: <u>(Y) N ICE</u>			O = Other	
	Date: <u>5-6-22</u>	Acceptable: <u>(Y) N ICE</u>			NA = None Required	



Amended Results Report

Order ID: 2102865

Center Point Tank Services
536 E. Benjamin Franklin Highway
Douglasville, PA 19518

Project: Warks Liberty Station

Merion Station, PA

Attn: Allie Gibat

Regulatory ID:

Sample Number: 2102865-01

Site: MW-1

Sample ID:

Collector: AG

Collect Date: 08/31/2022 10:02 am

Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	By	Analysis Date	By
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Volatiles

VOA, 8260, USTUnleaded

Benzene	< 0.5	(T)	µg/L	SW846 5030C/8260D	0.5	1	09/13/22	MWS	09/13/22 13:51	MWS
Ethyl Benzene	< 0.5	(T)	µg/L	SW846 5030C/8260D	0.5	1	09/13/22	MWS	09/13/22 13:51	MWS
Isopropylbenzene	< 0.5	(T)	µg/L	SW846 5030C/8260D	0.5	1	09/13/22	MWS	09/13/22 13:51	MWS
Methyl-t-butyl ether (MTBE)	< 0.5	(T)	µg/L	SW846 5030C/8260D	0.5	1	09/13/22	MWS	09/13/22 13:51	MWS
Naphthalene	< 0.5	(T)	µg/L	SW846 5030C/8260D	0.5	1	09/13/22	MWS	09/13/22 13:51	MWS
Toluene	< 0.5	(T)	µg/L	SW846 5030C/8260D	0.5	1	09/13/22	MWS	09/13/22 13:51	MWS
1,3,5-Trimethylbenzene	< 0.5	(T)	µg/L	SW846 5030C/8260D	0.5	1	09/13/22	MWS	09/13/22 13:51	MWS
1,2,4-Trimethylbenzene	< 0.5	(T)	µg/L	SW846 5030C/8260D	0.5	1	09/13/22	MWS	09/13/22 13:51	MWS
Xylenes, Total	< 1.0	(T)	µg/L	SW846 5030C/8260D	1.0	1	09/13/22	MWS	09/13/22 13:51	MWS

Surrogate Recoveries	Results	Units	Method	%Recovery	DF	Limits (%Recovery)	Analysis Date
Surrogate: Dibromofluoromethane	19.3	(T)	µg/L	SW846 5030C/8260D	96%	72-136	09/13/22 13:51
Surrogate: 1,2-Dichloroethane-d4	20.2	(T)	µg/L	SW846 5030C/8260D	101%	79-135	09/13/22 13:51
Surrogate: Toluene-d8	19.8	(T)	µg/L	SW846 5030C/8260D	99%	88-112	09/13/22 13:51
Surrogate: Bromofluorobenzene	19.3	(T)	µg/L	SW846 5030C/8260D	97%	75-117	09/13/22 13:51

Report Generated On: 09/30/2022 4:29 pm
STL_Results Revision #2.1

2102865
Effective: 09/01/2022





SUBURBAN TESTING LABS

Sample Number: 2102865-02	Site: MW-2	Sample ID:
Collector: AG	Collect Date: 08/31/2022 10:58 am	Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	By	Analysis Date	By
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Volatiles

VOA, 8260, USTUnleaded

Benzene	9.0	(T)	µg/L	SW846 5030C/8260D	0.5	1	09/13/22	MWS	09/13/22 14:18	MWS
Ethyl Benzene	53.9	(T)	µg/L	SW846 5030C/8260D	0.5	1	09/13/22	MWS	09/13/22 14:18	MWS
Isopropylbenzene	3.2	(T)	µg/L	SW846 5030C/8260D	0.5	1	09/13/22	MWS	09/13/22 14:18	MWS
Methyl-t-butyl ether (MTBE)	< 0.5	(T)	µg/L	SW846 5030C/8260D	0.5	1	09/13/22	MWS	09/13/22 14:18	MWS
Naphthalene	6.9	(T)	µg/L	SW846 5030C/8260D	0.5	1	09/13/22	MWS	09/13/22 14:18	MWS
Toluene	131	(T)	µg/L	SW846 5030C/8260D	0.5	1	09/13/22	MWS	09/13/22 14:18	MWS
1,3,5-Trimethylbenzene	18.3	(T)	µg/L	SW846 5030C/8260D	0.5	1	09/13/22	MWS	09/13/22 14:18	MWS
1,2,4-Trimethylbenzene	69.6	(T)	µg/L	SW846 5030C/8260D	0.5	1	09/13/22	MWS	09/13/22 14:18	MWS
Xylenes, Total	312	(T)	µg/L	SW846 5030C/8260D	1.0	1	09/13/22	MWS	09/13/22 14:18	MWS
Benzene	14.8	(T), X	µg/L	SW846 5030C/8260D	0.5	1	09/14/22	MWS	09/14/22 13:59	MWS
Ethyl Benzene	56.5	(T), X	µg/L	SW846 5030C/8260D	0.5	1	09/14/22	MWS	09/14/22 13:59	MWS
Isopropylbenzene	2.3	(T), X	µg/L	SW846 5030C/8260D	0.5	1	09/14/22	MWS	09/14/22 13:59	MWS
Methyl-t-butyl ether (MTBE)	< 0.5	(T), X	µg/L	SW846 5030C/8260D	0.5	1	09/14/22	MWS	09/14/22 13:59	MWS
Naphthalene	11.6	(T), X	µg/L	SW846 5030C/8260D	0.5	1	09/14/22	MWS	09/14/22 13:59	MWS
Toluene	170	(T), X	µg/L	SW846 5030C/8260D	0.5	1	09/14/22	MWS	09/14/22 13:59	MWS
1,3,5-Trimethylbenzene	14.5	(T), X	µg/L	SW846 5030C/8260D	0.5	1	09/14/22	MWS	09/14/22 13:59	MWS
1,2,4-Trimethylbenzene	54.0	(T), X	µg/L	SW846 5030C/8260D	0.5	1	09/14/22	MWS	09/14/22 13:59	MWS
Xylenes, Total	306	(T), X	µg/L	SW846 5030C/8260D	1.0	1	09/14/22	MWS	09/14/22 13:59	MWS

Surrogate Recoveries	Results	Units	Method	%Recovery	DF	Limits (%Recovery)	Analysis Date
Surrogate: Dibromofluoromethane	18.6	(T)	µg/L	SW846 5030C/8260D	93%	72-136	09/13/22 14:18
Surrogate: 1,2-Dichloroethane-d4	19.4	(T)	µg/L	SW846 5030C/8260D	97%	79-135	09/13/22 14:18
Surrogate: Toluene-d8	19.4	(T)	µg/L	SW846 5030C/8260D	97%	88-112	09/13/22 14:18
Surrogate: Bromofluorobenzene	19.4	(T)	µg/L	SW846 5030C/8260D	97%	75-117	09/13/22 14:18
Surrogate: Dibromofluoromethane	18.7	(T)	µg/L	SW846 5030C/8260D	94%	72-136	09/14/22 13:59
Surrogate: 1,2-Dichloroethane-d4	19.3	(T)	µg/L	SW846 5030C/8260D	96%	79-135	09/14/22 13:59
Surrogate: Toluene-d8	19.7	(T)	µg/L	SW846 5030C/8260D	98%	88-112	09/14/22 13:59
Surrogate: Bromofluorobenzene	19.2	(T)	µg/L	SW846 5030C/8260D	96%	75-117	09/14/22 13:59

Report Generated On: 09/30/2022 4:29 pm 2102865
 STL_Results Revision #2.1 Effective: 09/01/2022





Sample Number: 2102865-03	Site: MW-3	Sample ID:
Collector: AG	Collect Date: 08/31/2022 11:43 am	Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	By	Analysis Date	By
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Volatiles

VOA, 8260, USTUnleaded

Benzene	< 0.5	(T), M3	µg/L	SW846 5030C/8260D	0.5	1	09/13/22	MWS	09/13/22 14:45	MWS
Ethyl Benzene	< 0.5	(T), M3	µg/L	SW846 5030C/8260D	0.5	1	09/13/22	MWS	09/13/22 14:45	MWS
Isopropylbenzene	< 0.5	(T)	µg/L	SW846 5030C/8260D	0.5	1	09/13/22	MWS	09/13/22 14:45	MWS
Methyl-t-butyl ether (MTBE)	< 0.5	(T)	µg/L	SW846 5030C/8260D	0.5	1	09/13/22	MWS	09/13/22 14:45	MWS
Naphthalene	1.7	(T), D1	µg/L	SW846 5030C/8260D	0.5	1	09/13/22	MWS	09/13/22 14:45	MWS
Toluene	< 0.5	(T), M3	µg/L	SW846 5030C/8260D	0.5	1	09/13/22	MWS	09/13/22 14:45	MWS
1,3,5-Trimethylbenzene	< 0.5	(T), M3	µg/L	SW846 5030C/8260D	0.5	1	09/13/22	MWS	09/13/22 14:45	MWS
1,2,4-Trimethylbenzene	< 0.5	(T), M3	µg/L	SW846 5030C/8260D	0.5	1	09/13/22	MWS	09/13/22 14:45	MWS
Xylenes, Total	< 1.0	(T), M3	µg/L	SW846 5030C/8260D	1.0	1	09/13/22	MWS	09/13/22 14:45	MWS
Benzene	15.5	(T), X	µg/L	SW846 5030C/8260D	0.5	1	09/14/22	MWS	09/14/22 13:31	MWS
Ethyl Benzene	59.0	(T), X	µg/L	SW846 5030C/8260D	0.5	1	09/14/22	MWS	09/14/22 13:31	MWS
Isopropylbenzene	2.7	(T), X	µg/L	SW846 5030C/8260D	0.5	1	09/14/22	MWS	09/14/22 13:31	MWS
Methyl-t-butyl ether (MTBE)	< 0.5	(T), X	µg/L	SW846 5030C/8260D	0.5	1	09/14/22	MWS	09/14/22 13:31	MWS
Naphthalene	10.0	(T), X	µg/L	SW846 5030C/8260D	0.5	1	09/14/22	MWS	09/14/22 13:31	MWS
Toluene	177	(T), X	µg/L	SW846 5030C/8260D	0.5	1	09/14/22	MWS	09/14/22 13:31	MWS
1,3,5-Trimethylbenzene	15.0	(T), X	µg/L	SW846 5030C/8260D	0.5	1	09/14/22	MWS	09/14/22 13:31	MWS
1,2,4-Trimethylbenzene	56.2	(T), X	µg/L	SW846 5030C/8260D	0.5	1	09/14/22	MWS	09/14/22 13:31	MWS
Xylenes, Total	316	(T), X	µg/L	SW846 5030C/8260D	1.0	1	09/14/22	MWS	09/14/22 13:31	MWS

Surrogate Recoveries	Results	Units	Method	%Recovery	DF	Limits (%Recovery)	Analysis Date
Surrogate: Dibromofluoromethane	19.2	(T)	µg/L	SW846 5030C/8260D	96%	72-136	09/13/22 14:45
Surrogate: 1,2-Dichloroethane-d4	20.2	(T)	µg/L	SW846 5030C/8260D	101%	79-135	09/13/22 14:45
Surrogate: Toluene-d8	19.7	(T)	µg/L	SW846 5030C/8260D	98%	88-112	09/13/22 14:45
Surrogate: Bromofluorobenzene	19.2	(T)	µg/L	SW846 5030C/8260D	96%	75-117	09/13/22 14:45
Surrogate: Dibromofluoromethane	18.9	(T)	µg/L	SW846 5030C/8260D	95%	72-136	09/14/22 13:31
Surrogate: 1,2-Dichloroethane-d4	19.2	(T)	µg/L	SW846 5030C/8260D	96%	79-135	09/14/22 13:31
Surrogate: Toluene-d8	19.8	(T)	µg/L	SW846 5030C/8260D	99%	88-112	09/14/22 13:31
Surrogate: Bromofluorobenzene	18.9	(T)	µg/L	SW846 5030C/8260D	94%	75-117	09/14/22 13:31

Report Generated On: 09/30/2022 4:29 pm 2102865
 STL_Results Revision #2.1 Effective: 09/01/2022





Sample Number: 2102865-04 Site: MW-4 Sample ID:
Collector: AG Collect Date: 08/31/2022 12:22 pm Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	By	Analysis Date	By
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Volatiles

VOA, 8260, USTUnleaded

Isopropylbenzene	131	(T)	µg/L	SW846 5030C/8260D	0.5	1	09/13/22	MWS	09/13/22 15:13	MWS
Methyl-t-butyl ether (MTBE)	< 0.5	(T)	µg/L	SW846 5030C/8260D	0.5	1	09/13/22	MWS	09/13/22 15:13	MWS
Benzene	978	(T)	µg/L	SW846 5030C/8260D	100	200	09/13/22	MWS	09/13/22 20:46	MWS
Ethyl Benzene	4630	(T)	µg/L	SW846 5030C/8260D	100	200	09/13/22	MWS	09/13/22 20:46	MWS
Naphthalene	702	(T)	µg/L	SW846 5030C/8260D	100	200	09/13/22	MWS	09/13/22 20:46	MWS
Toluene	12900	(T)	µg/L	SW846 5030C/8260D	100	200	09/13/22	MWS	09/13/22 20:46	MWS
1,3,5-Trimethylbenzene	1380	(T)	µg/L	SW846 5030C/8260D	100	200	09/13/22	MWS	09/13/22 20:46	MWS
1,2,4-Trimethylbenzene	5050	(T)	µg/L	SW846 5030C/8260D	100	200	09/13/22	MWS	09/13/22 20:46	MWS
Xylenes, Total	26400	(T)	µg/L	SW846 5030C/8260D	200	200	09/13/22	MWS	09/13/22 20:46	MWS

Surrogate Recoveries	Results	Units	Method	%Recovery	DF	Limits (%Recovery)	Analysis Date
Surrogate: Dibromofluoromethane	17.6	(T)	µg/L	SW846 5030C/8260D	88%	1	72-136 09/13/22 15:13
Surrogate: 1,2-Dichloroethane-d4	17.5	(T)	µg/L	SW846 5030C/8260D	87%	1	79-135 09/13/22 15:13
Surrogate: Toluene-d8	21.0	(T)	µg/L	SW846 5030C/8260D	105%	1	88-112 09/13/22 15:13
Surrogate: Bromofluorobenzene	18.0	(T)	µg/L	SW846 5030C/8260D	90%	1	75-117 09/13/22 15:13
Surrogate: Dibromofluoromethane	18.7	(T)	µg/L	SW846 5030C/8260D	93%	200	72-136 09/13/22 20:46
Surrogate: 1,2-Dichloroethane-d4	19.9	(T)	µg/L	SW846 5030C/8260D	100%	200	79-135 09/13/22 20:46
Surrogate: Toluene-d8	19.5	(T)	µg/L	SW846 5030C/8260D	98%	200	88-112 09/13/22 20:46
Surrogate: Bromofluorobenzene	19.0	(T)	µg/L	SW846 5030C/8260D	95%	200	75-117 09/13/22 20:46

Data Qualifiers:

- D1 The Duplicate for this sample was not within the established acceptance criteria.
- M3 The Matrix Spike associated with this sample is above established acceptance criteria, indicating potential matrix interference. Results of this sample may be biased high.
- X Sample re-analyzed for confirmation of original results. No sequence or batch QC was analyzed.

Sample Receipt Conditions:

· Sample(s) received outside of the acceptable temperature limits for one or more analyses. Affected analyses are reported with the (T) qualifier.

Units P/A = Present/Absent
Units P/F = Pass/Fail

** This report has been Amended (Rev1) and replaces all previous reports for this order ID **

Report Generated On: 09/30/2022 4:29 pm 2102865
STL_Results Revision #2.1 Effective: 09/01/2022





SUBURBAN TESTING LABS

The test *pH, Lab* is performed in the Laboratory as soon as possible. These results are not appropriate for compliance with NPDES, SDWA, or other regulatory programs that require analysis within 15 minutes of sample collection and should be considered for informational purposes only.

**pH, Final* for ASTM leachate is performed by method SM 4500-H-B.

All results meet the requirements of STL's TNI (NELAC) Accredited Quality System unless otherwise noted. If your results contain any data qualifiers or comments, you should evaluate useability relative to your needs.

If collectors initials include "STL", samples have been collected in accordance with STL SOP SL0015.

All results reported on an As Received (Wet Weight) basis unless otherwise noted.

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

Results are considered Preliminary unless report is signed by authorized representative of STL.

Reviewed and Released By:

Ryan F Knerr
Project Manager II

Report Generated On: 09/30/2022 4:29 pm 2102865
STL_Results Revision #2.1 Effective: 09/01/2022





2102865
Ryan F Knerr

TAT (Check One): Standard 24hr 48hr 72hr Other _____
(Additional charges may apply for rush TAT. If not specified, standard TAT will apply)

Order ID: _____

Client Name: CPTS Project Name: works
 Address: 536 Ben Franklin Hwy Phone: 410 411 2433 Address: _____
 Contact Name: Allie Rubat Email: allie@centerpointtank.com Regulatory ID (SDWA/Permit #): _____
 P.O. Info: _____

Comments:

STL Sample Number	Sample Description / Site ID:	Date Sampled	Time Sampled	Samplers Initials	Test(s) Requested:	Bottle Quantity	See Codes Below				Comments / Field Data:
							Matrix	Sample Type	Bottle Type	Preservative	
	MW-1	8/3/22	1002	ACR	PAUST gasoline sheet list	3	NPW	G	G	C	
	MW-2	↓	1058	↓	↓	3	↓	↓	↓	↓	
	MW-3	↓	1143	↓	↓	3	↓	↓	↓	↓	
	MW-4	↓	1222	↓	↓	3	↓	↓	↓	↓	
	(12) VOA HCl										

Relinquished By:	Count: _____	Date: <u>9/9/22</u>	Temp °C: _____	Sample Conditions Submitted with COC? <input checked="" type="checkbox"/> Y / N	Matrix Key NPW = Non-Potable Water Solid = Raw Sludge, Dewatered sludge, soil, etc. (reported as mg/kg) PW = Potable Water (not for SDWA compliance) SDWA = Safe Drinking Water Act Potable Sample	Bottle Type Key P = Plastic G = Glass GA = Glass Amber VOA = 40mL G or GA PP = Sterile Polypropylene PS = Sterile Polystyrene HDPE = High Density Polyethylene O = Other	
Received By:		Date: _____	Temp °C: _____				Number of containers match number on COC? <input checked="" type="checkbox"/> Y / N
Relinquished By:		Date: _____	Temp °C: _____	All containers in tact? <input checked="" type="checkbox"/> Y / N	Sample Type Key G = Grab C = Composite 8HC = 8 Hr. Composite 24HC = 24 Hr. Composite	SDWA Sample Types D=Distribution E=Entry Point R=Raw C=Check S=Special M=Maximum Residence	Preservative Key A = Ascorbic Acid C = HCl H = HNO ₃ N = Sodium Thiosulfate OH = NaOH S = H ₂ SO ₄ O = Other NA = None Required
Received In Lab By:	12	Date: <u>9.9.22</u>	Temp °C: <u>16.2</u>	Tests within holding times? <input checked="" type="checkbox"/> Y / N 40 mL VOA vials free of headspace? <input checked="" type="checkbox"/> Y / N			

Signing this form indicates your agreement with STL's Standard Terms and Conditions unless otherwise specified in writing. ST-050 Rev. 1.0 Effective April 24, 2020. Shaded areas are for STL use only.



Results Report

Order ID: 2L04452

Center Point Tank Services
536 E. Benjamin Franklin Highway
Douglasville, PA 19518

Project: Liberty Station
300 Montgomery Ave
Marion Station, PA

Attn: Jeff Warmkessel

Regulatory ID:

Sample Number: 2L04452-01

Site: MW-1

Sample ID:

Collector: DLK

Collect Date: 12/21/2022 9:00 am

Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	By	Analysis Date	By
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Volatiles

VOA, 8260, UST

Benzene	< 0.5	µg/L	SW846 5030C/8260D	0.5	1	12/27/22	MWS	12/27/22 20:54	MWS
Ethyl Benzene	< 0.5	µg/L	SW846 5030C/8260D	0.5	1	12/27/22	MWS	12/27/22 20:54	MWS
Isopropylbenzene	< 0.5	µg/L	SW846 5030C/8260D	0.5	1	12/27/22	MWS	12/27/22 20:54	MWS
Methyl-t-butyl ether (MTBE)	< 0.5	µg/L	SW846 5030C/8260D	0.5	1	12/27/22	MWS	12/27/22 20:54	MWS
Naphthalene	< 0.5	µg/L	SW846 5030C/8260D	0.5	1	12/27/22	MWS	12/27/22 20:54	MWS
Toluene	< 0.5	µg/L	SW846 5030C/8260D	0.5	1	12/27/22	MWS	12/27/22 20:54	MWS
1,3,5-Trimethylbenzene	< 0.5	µg/L	SW846 5030C/8260D	0.5	1	12/27/22	MWS	12/27/22 20:54	MWS
1,2,4-Trimethylbenzene	< 0.5	µg/L	SW846 5030C/8260D	0.5	1	12/27/22	MWS	12/27/22 20:54	MWS
Xylenes, Total	< 1.0	µg/L	SW846 5030C/8260D	1.0	1	12/27/22	MWS	12/27/22 20:54	MWS

Surrogate Recoveries	Results	Units	Method	%Recovery	DF	Limits (%Recovery)	Analysis Date
Surrogate: Dibromofluoromethane	20.1	µg/L	SW846 5030C/8260D	100%	1	72-136	12/27/22 20:54
Surrogate: 1,2-Dichloroethane-d4	21.6	µg/L	SW846 5030C/8260D	108%	1	79-135	12/27/22 20:54
Surrogate: Toluene-d8	19.3	µg/L	SW846 5030C/8260D	96%	1	88-112	12/27/22 20:54
Surrogate: Bromofluorobenzene	18.4	µg/L	SW846 5030C/8260D	92%	1	75-117	12/27/22 20:54

Report Generated On: 12/28/2022 7:20 pm
STL_Results Revision #2.1

2L04452
Effective: 09/01/2022





SUBURBAN TESTING LABS

Sample Number: 2L04452-02	Site: MW-2	Sample ID:
Collector: DLK	Collect Date: 12/21/2022 10:00 am	Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	By	Analysis Date	By
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Volatiles

VOA, 8260, UST

Benzene	1410	µg/L	SW846 5030C/8260D	50.0	100	12/27/22	MWS	12/27/22 21:50	MWS
Ethyl Benzene	3900	µg/L	SW846 5030C/8260D	50.0	100	12/27/22	MWS	12/27/22 21:50	MWS
Isopropylbenzene	161	µg/L	SW846 5030C/8260D	50.0	100	12/27/22	MWS	12/27/22 21:50	MWS
Methyl-t-butyl ether (MTBE)	< 50.0	µg/L	SW846 5030C/8260D	50.0	100	12/27/22	MWS	12/27/22 21:50	MWS
Naphthalene	766	µg/L	SW846 5030C/8260D	50.0	100	12/27/22	MWS	12/27/22 21:50	MWS
Toluene	22900	E µg/L	SW846 5030C/8260D	50.0	100	12/27/22	MWS	12/27/22 21:50	MWS
1,3,5-Trimethylbenzene	824	µg/L	SW846 5030C/8260D	50.0	100	12/27/22	MWS	12/27/22 21:50	MWS
1,2,4-Trimethylbenzene	2960	µg/L	SW846 5030C/8260D	50.0	100	12/27/22	MWS	12/27/22 21:50	MWS
Xylenes, Total	22300	µg/L	SW846 5030C/8260D	100	100	12/27/22	MWS	12/27/22 21:50	MWS

Surrogate Recoveries	Results	Units	Method	%Recovery	DF	Limits (%Recovery)	Analysis Date
Surrogate: Dibromofluoromethane	19.8	µg/L	SW846 5030C/8260D	99%	100	72-136	12/27/22 21:50
Surrogate: 1,2-Dichloroethane-d4	20.7	µg/L	SW846 5030C/8260D	103%	100	79-135	12/27/22 21:50
Surrogate: Toluene-d8	19.2	µg/L	SW846 5030C/8260D	96%	100	88-112	12/27/22 21:50
Surrogate: Bromofluorobenzene	19.0	µg/L	SW846 5030C/8260D	95%	100	75-117	12/27/22 21:50

Sample Number: 2L04452-03	Site: MW-3	Sample ID:
Collector: DLK	Collect Date: 12/21/2022 9:35 am	Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	By	Analysis Date	By
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Volatiles

VOA, 8260, UST

Benzene	115	µg/L	SW846 5030C/8260D	2.5	5	12/27/22	MWS	12/27/22 21:22	MWS
Ethyl Benzene	459	µg/L	SW846 5030C/8260D	2.5	5	12/27/22	MWS	12/27/22 21:22	MWS
Isopropylbenzene	23.6	µg/L	SW846 5030C/8260D	2.5	5	12/27/22	MWS	12/27/22 21:22	MWS
Methyl-t-butyl ether (MTBE)	< 2.5	µg/L	SW846 5030C/8260D	2.5	5	12/27/22	MWS	12/27/22 21:22	MWS
Naphthalene	138	µg/L	SW846 5030C/8260D	2.5	5	12/27/22	MWS	12/27/22 21:22	MWS
Toluene	< 2.5	µg/L	SW846 5030C/8260D	2.5	5	12/27/22	MWS	12/27/22 21:22	MWS
1,3,5-Trimethylbenzene	39.8	µg/L	SW846 5030C/8260D	2.5	5	12/27/22	MWS	12/27/22 21:22	MWS
1,2,4-Trimethylbenzene	70.5	µg/L	SW846 5030C/8260D	2.5	5	12/27/22	MWS	12/27/22 21:22	MWS
Xylenes, Total	46.2	µg/L	SW846 5030C/8260D	5.0	5	12/27/22	MWS	12/27/22 21:22	MWS

Surrogate Recoveries	Results	Units	Method	%Recovery	DF	Limits (%Recovery)	Analysis Date
Surrogate: Dibromofluoromethane	19.8	µg/L	SW846 5030C/8260D	99%	5	72-136	12/27/22 21:22
Surrogate: 1,2-Dichloroethane-d4	20.8	µg/L	SW846 5030C/8260D	104%	5	79-135	12/27/22 21:22
Surrogate: Toluene-d8	19.3	µg/L	SW846 5030C/8260D	97%	5	88-112	12/27/22 21:22
Surrogate: Bromofluorobenzene	18.4	µg/L	SW846 5030C/8260D	92%	5	75-117	12/27/22 21:22

Report Generated On: 12/28/2022 7:20 pm 2L04452
 STL_Results Revision #2.1 Effective: 09/01/2022





Sample Number: 2L04452-04	Site: MW-4	Sample ID:
Collector: DLK	Collect Date: 12/21/2022 10:35 am	Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	By	Analysis Date	By
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Volatiles

VOA, 8260, UST

Benzene	478	µg/L	SW846 5030C/8260D	50.0	100	12/27/22	MWS	12/27/22 22:17	MWS
Ethyl Benzene	2840	µg/L	SW846 5030C/8260D	50.0	100	12/27/22	MWS	12/27/22 22:17	MWS
Isopropylbenzene	175	µg/L	SW846 5030C/8260D	50.0	100	12/27/22	MWS	12/27/22 22:17	MWS
Methyl-t-butyl ether (MTBE)	< 50.0	µg/L	SW846 5030C/8260D	50.0	100	12/27/22	MWS	12/27/22 22:17	MWS
Naphthalene	783	µg/L	SW846 5030C/8260D	50.0	100	12/27/22	MWS	12/27/22 22:17	MWS
Toluene	6940	µg/L	SW846 5030C/8260D	50.0	100	12/27/22	MWS	12/27/22 22:17	MWS
1,3,5-Trimethylbenzene	1050	µg/L	SW846 5030C/8260D	50.0	100	12/27/22	MWS	12/27/22 22:17	MWS
1,2,4-Trimethylbenzene	3910	µg/L	SW846 5030C/8260D	50.0	100	12/27/22	MWS	12/27/22 22:17	MWS
Xylenes, Total	19400	µg/L	SW846 5030C/8260D	100	100	12/27/22	MWS	12/27/22 22:17	MWS

Surrogate Recoveries	Results	Units	Method	%Recovery	DF	Limits (%Recovery)	Analysis Date
Surrogate: Dibromofluoromethane	19.3	µg/L	SW846 5030C/8260D	96%	100	72-136	12/27/22 22:17
Surrogate: 1,2-Dichloroethane-d4	20.3	µg/L	SW846 5030C/8260D	101%	100	79-135	12/27/22 22:17
Surrogate: Toluene-d8	19.0	µg/L	SW846 5030C/8260D	95%	100	88-112	12/27/22 22:17
Surrogate: Bromofluorobenzene	18.8	µg/L	SW846 5030C/8260D	94%	100	75-117	12/27/22 22:17

Data Qualifiers:

E The concentration exceeds the calibration range and has greater uncertainty.

Sample Receipt Conditions:

All samples met the sample receipt requirements for the relevant analyses.

Units P/A = Present/Absent
Units P/F = Pass/Fail

The test *pH, Lab* is performed in the Laboratory as soon as possible. These results are not appropriate for compliance with NPDES, SDWA, or other regulatory programs that require analysis within 15 minutes of sample collection and should be considered for informational purposes only.

**pH, Final* for ASTM leachate is performed by method SM 4500-H-B.

All results meet the requirements of STL's TNI (NELAC) Accredited Quality System unless otherwise noted. If your results contain any data qualifiers or comments, you should evaluate useability relative to your needs.

If collectors initials include "STL", samples have been collected in accordance with STL SOP SL0015.

All results reported on an As Received (Wet Weight) basis unless otherwise noted.

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

Results are considered Preliminary unless report is signed by authorized representative of STL.

Report Generated On: 12/28/2022 7:20 pm 2L04452
STL_Results Revision #2.1 Effective: 09/01/2022





SUBURBAN
TESTING LABS

Reviewed and Released By:

Ann Keppel
Project Manager I

Report Generated On: 12/28/2022 7:20 pm 2L04452
STL_Results Revision #2.1 Effective: 09/01/2022





SUBURBAN TESTING LABS



2L04452
Ann Keppel

TAT(Check One): Standard 24hr 48hr 72hr Other
(Additional charges may apply for rush TAT. If not specified, standard TAT will apply)

Order ID: _____

Client Name: Center Point Tank Services

Address: 536 Ben Franklin Hwy E
Douglasville, PA 19518

Phone: 610-385-4977

Email: _____

Contact Name: Jeff Warmkessel

P.O. Info: _____

Project Name: Liberty Station

Address: 300 Montgomery Ave
Marion Station, PA

Regulatory ID (SDWA/Permit #): _____

Comments:

↳ Jeff @centerpointtank.com

STL Sample Number	Sample Description / Site ID:	Date Sampled	Time Sampled	Samplers Initials	Test(s) Requested:	Bottle Quantity	See Codes Below				Comments / Field Data:
							Matrix	Sample Type	Bottle Type	Preservative	
	(1-) 40mL VOA + HCL										
	MW-1	12/21/22	0900	DLK	PAUST Shortlist gasoline 8260	3	NPW	G	G	G	
	MW-2		1000								
	MW-3		0935								
	MW-4		1035								

Relinquished By: <u>DLK</u>	Count	Date: <u>12/21/22</u>	Temp °C: _____	Sample Conditions Submitted with COC? <input checked="" type="checkbox"/> Y / <input type="checkbox"/> N	Matrix Key NPW = Non-Potable Water Solid = Raw Sludge, Dewatered sludge, soil, etc. (reported as mg/kg) PW = Potable Water (not for SDWA compliance) SDWA = Safe Drinking Water Act Potable Sample	Bottle Type Key P = Plastic G = Glass GA = Glass Amber VOA = 40mL G or GA PP = Sterile Polypropylene PS = Sterile Polystyrene HDPE = High Density Polyethylene O = Other
Received By:		Date:	Temp °C: _____			
Relinquished By:		Date:	Temp °C: _____	All containers in tact? <input checked="" type="checkbox"/> Y / <input type="checkbox"/> N Tests within holding times? <input checked="" type="checkbox"/> Y / <input type="checkbox"/> N 40 mL VOA vials free of headspace? <input checked="" type="checkbox"/> Y / <input type="checkbox"/> N	Sample Type Key G = Grab C = Composite 8HC = 8 Hr. Composite 24HC = 24 Hr. Composite	SDWA Sample Types D=Distribution E=Entry Point R=Raw C=Check S=Special M=Maximum Residence
Received in Lab By: <u>Bruce Retana</u>	12	Date: <u>12/21/22</u>	Temp °C: <u>2.8°C</u>			



Results Report

Order ID: 3C04910

Center Point Tank Services
536 E. Benjamin Franklin Highway
Douglasville, PA 19518

Project: Warks Liberty Station

Merion Station, PA

Attn: Jeff Warmkessel

Regulatory ID:

Sample Number: 3C04910-01
Collector: AA

Site: MW-1
Collect Date: 03/23/2023 9:56 am

Sample ID:
Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	By	Analysis Date	By
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Volatiles

VOA, 8260, USTUnleaded

Benzene	< 0.5	(T)	µg/L	SW846 5030C/8260D	0.5	1	04/03/23	LAS	04/03/23 19:15	MWS
Ethyl Benzene	< 0.5	(T)	µg/L	SW846 5030C/8260D	0.5	1	04/03/23	LAS	04/03/23 19:15	MWS
Isopropylbenzene	< 0.5	(T)	µg/L	SW846 5030C/8260D	0.5	1	04/03/23	LAS	04/03/23 19:15	MWS
Methyl-t-butyl ether (MTBE)	< 0.5	(T)	µg/L	SW846 5030C/8260D	0.5	1	04/03/23	LAS	04/03/23 19:15	MWS
Naphthalene	< 0.5	(T)	µg/L	SW846 5030C/8260D	0.5	1	04/03/23	LAS	04/03/23 19:15	MWS
Toluene	< 0.5	(T)	µg/L	SW846 5030C/8260D	0.5	1	04/03/23	LAS	04/03/23 19:15	MWS
1,3,5-Trimethylbenzene	< 0.5	(T)	µg/L	SW846 5030C/8260D	0.5	1	04/03/23	LAS	04/03/23 19:15	MWS
1,2,4-Trimethylbenzene	< 0.5	(T)	µg/L	SW846 5030C/8260D	0.5	1	04/03/23	LAS	04/03/23 19:15	MWS
Xylenes, Total	< 1.0	(T)	µg/L	SW846 5030C/8260D	1.0	1	04/03/23	LAS	04/03/23 19:15	MWS

Surrogate Recoveries	Results	Units	Method	%Recovery	DF	Limits (%Recovery)	Analysis Date
Surrogate: Dibromofluoromethane	21.6	(T)	µg/L	SW846 5030C/8260D	108%	72-136	04/03/23 19:15
Surrogate: 1,2-Dichloroethane-d4	22.4	(T)	µg/L	SW846 5030C/8260D	112%	79-135	04/03/23 19:15
Surrogate: Toluene-d8	19.3	(T)	µg/L	SW846 5030C/8260D	97%	88-112	04/03/23 19:15
Surrogate: Bromofluorobenzene	18.5	(T)	µg/L	SW846 5030C/8260D	93%	75-117	04/03/23 19:15

Report Generated On: 04/10/2023 10:13 am
STL_Results Revision #2.1

3C04910
Effective: 09/01/2022





Sample Number: 3C04910-02	Site: MW-2	Sample ID:
Collector: AA	Collect Date: 03/23/2023 10:33 am	Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	By	Analysis Date	By
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Volatiles

VOA, 8260, USTUnleaded

Isopropylbenzene	99.0	(T)	µg/L	SW846 5030C/8260D	0.5	1	04/03/23	LAS	04/03/23 21:04	MWS
Methyl-t-butyl ether (MTBE)	< 0.5	(T)	µg/L	SW846 5030C/8260D	0.5	1	04/03/23	LAS	04/03/23 21:04	MWS
Benzene	1080	(T)	µg/L	SW846 5030C/8260D	50.0	100	04/04/23	MWS	04/04/23 15:33	MWS
Ethyl Benzene	2880	(T)	µg/L	SW846 5030C/8260D	50.0	100	04/04/23	MWS	04/04/23 15:33	MWS
Naphthalene	485	(T)	µg/L	SW846 5030C/8260D	50.0	100	04/04/23	MWS	04/04/23 15:33	MWS
Toluene	19800	(T)	µg/L	SW846 5030C/8260D	50.0	100	04/04/23	MWS	04/04/23 15:33	MWS
1,3,5-Trimethylbenzene	740	(T)	µg/L	SW846 5030C/8260D	50.0	100	04/04/23	MWS	04/04/23 15:33	MWS
1,2,4-Trimethylbenzene	1950	(T)	µg/L	SW846 5030C/8260D	50.0	100	04/04/23	MWS	04/04/23 15:33	MWS
Xylenes, Total	16300	(T)	µg/L	SW846 5030C/8260D	100	100	04/04/23	MWS	04/04/23 15:33	MWS

Surrogate Recoveries	Results		Units	Method	%Recovery	DF	Limits (%Recovery)	Analysis Date
Surrogate: Dibromofluoromethane	17.8	(T)	µg/L	SW846 5030C/8260D	89%	1	72-136	04/03/23 21:04
Surrogate: 1,2-Dichloroethane-d4	18.7	(T)	µg/L	SW846 5030C/8260D	94%	1	79-135	04/03/23 21:04
Surrogate: Toluene-d8	19.4	(T)	µg/L	SW846 5030C/8260D	97%	1	88-112	04/03/23 21:04
Surrogate: Bromofluorobenzene	24.1	(T), V3	µg/L	SW846 5030C/8260D	120%	1	75-117	04/03/23 21:04
Surrogate: Dibromofluoromethane	19.8	(T)	µg/L	SW846 5030C/8260D	99%	100	72-136	04/04/23 15:33
Surrogate: 1,2-Dichloroethane-d4	20.1	(T)	µg/L	SW846 5030C/8260D	101%	100	79-135	04/04/23 15:33
Surrogate: Toluene-d8	18.5	(T)	µg/L	SW846 5030C/8260D	92%	100	88-112	04/04/23 15:33
Surrogate: Bromofluorobenzene	21.1	(T)	µg/L	SW846 5030C/8260D	105%	100	75-117	04/04/23 15:33

Report Generated On: 04/10/2023 10:13 am 3C04910
 STL_Results Revision #2.1 Effective: 09/01/2022





Sample Number: 3C04910-03	Site: MW-3	Sample ID:
Collector: AA	Collect Date: 03/23/2023 11:06 am	Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	By	Analysis Date	By
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Volatiles

VOA, 8260, USTUnleaded

Isopropylbenzene	19.8	(T)	µg/L	SW846 5030C/8260D	0.5	1	04/03/23	LAS	04/03/23 21:32	MWS
Methyl-t-butyl ether (MTBE)	< 0.5	(T)	µg/L	SW846 5030C/8260D	0.5	1	04/03/23	LAS	04/03/23 21:32	MWS
Naphthalene	122	(T)	µg/L	SW846 5030C/8260D	0.5	1	04/03/23	LAS	04/03/23 21:32	MWS
Toluene	17.0	(T)	µg/L	SW846 5030C/8260D	0.5	1	04/03/23	LAS	04/03/23 21:32	MWS
1,3,5-Trimethylbenzene	27.4	(T)	µg/L	SW846 5030C/8260D	0.5	1	04/03/23	LAS	04/03/23 21:32	MWS
1,2,4-Trimethylbenzene	31.7	(T)	µg/L	SW846 5030C/8260D	0.5	1	04/03/23	LAS	04/03/23 21:32	MWS
Xylenes, Total	64.5	(T)	µg/L	SW846 5030C/8260D	1.0	1	04/03/23	LAS	04/03/23 21:32	MWS
Benzene	238	(T)	µg/L	SW846 5030C/8260D	1.0	2	04/04/23	MWS	04/04/23 15:05	MWS
Ethyl Benzene	548	(T)	µg/L	SW846 5030C/8260D	10.0	20	04/04/23	MWS	04/04/23 16:02	MWS

Surrogate Recoveries	Results		Units	Method	%Recovery	DF	Limits (%Recovery)	Analysis Date
Surrogate: Dibromofluoromethane	19.0	(T)	µg/L	SW846 5030C/8260D	95%	1	72-136	04/03/23 21:32
Surrogate: 1,2-Dichloroethane-d4	18.6	(T)	µg/L	SW846 5030C/8260D	93%	1	79-135	04/03/23 21:32
Surrogate: Toluene-d8	19.8	(T)	µg/L	SW846 5030C/8260D	99%	1	88-112	04/03/23 21:32
Surrogate: Bromofluorobenzene	20.6	(T)	µg/L	SW846 5030C/8260D	103%	1	75-117	04/03/23 21:32
Surrogate: Dibromofluoromethane	19.3	(T)	µg/L	SW846 5030C/8260D	96%	2	72-136	04/04/23 15:05
Surrogate: 1,2-Dichloroethane-d4	19.2	(T)	µg/L	SW846 5030C/8260D	96%	2	79-135	04/04/23 15:05
Surrogate: Toluene-d8	19.9	(T)	µg/L	SW846 5030C/8260D	99%	2	88-112	04/04/23 15:05
Surrogate: Bromofluorobenzene	20.4	(T)	µg/L	SW846 5030C/8260D	102%	2	75-117	04/04/23 15:05
Surrogate: Dibromofluoromethane	19.2	(T)	µg/L	SW846 5030C/8260D	96%	20	72-136	04/04/23 16:02
Surrogate: 1,2-Dichloroethane-d4	19.8	(T)	µg/L	SW846 5030C/8260D	99%	20	79-135	04/04/23 16:02
Surrogate: Toluene-d8	18.7	(T)	µg/L	SW846 5030C/8260D	94%	20	88-112	04/04/23 16:02
Surrogate: Bromofluorobenzene	20.9	(T)	µg/L	SW846 5030C/8260D	104%	20	75-117	04/04/23 16:02

Report Generated On: 04/10/2023 10:13 am 3C04910
 STL_Results Revision #2.1 Effective: 09/01/2022





SUBURBAN TESTING LABS

Sample Number: 3C04910-04 Site: MW-4 Sample ID:
 Collector: AA Collect Date: 03/23/2023 1:30 pm Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	By	Analysis Date	By
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Volatiles

VOA, 8260, USTUnleaded

Benzene	508	(T)	µg/L	SW846 5030C/8260D	100	200	04/03/23	LAS	04/03/23 22:28	MWS
Ethyl Benzene	3230	(T)	µg/L	SW846 5030C/8260D	100	200	04/03/23	LAS	04/03/23 22:28	MWS
Isopropylbenzene	174	(T)	µg/L	SW846 5030C/8260D	100	200	04/03/23	LAS	04/03/23 22:28	MWS
Methyl-t-butyl ether (MTBE)	< 100	(T)	µg/L	SW846 5030C/8260D	100	200	04/03/23	LAS	04/03/23 22:28	MWS
Naphthalene	878	(T)	µg/L	SW846 5030C/8260D	100	200	04/03/23	LAS	04/03/23 22:28	MWS
Toluene	8540	(T)	µg/L	SW846 5030C/8260D	100	200	04/03/23	LAS	04/03/23 22:28	MWS
1,3,5-Trimethylbenzene	5490	(T)	µg/L	SW846 5030C/8260D	100	200	04/03/23	LAS	04/03/23 22:28	MWS
1,2,4-Trimethylbenzene	3700	(T)	µg/L	SW846 5030C/8260D	100	200	04/03/23	LAS	04/03/23 22:28	MWS
Xylenes, Total	21000	(T)	µg/L	SW846 5030C/8260D	200	200	04/03/23	LAS	04/03/23 22:28	MWS

Surrogate Recoveries	Results	Units	Method	%Recovery	DF	Limits (%Recovery)	Analysis Date
Surrogate: Dibromofluoromethane	19.1	(T)	µg/L	SW846 5030C/8260D	95%	200 72-136	04/03/23 22:28
Surrogate: 1,2-Dichloroethane-d4	18.2	(T)	µg/L	SW846 5030C/8260D	91%	200 79-135	04/03/23 22:28
Surrogate: Toluene-d8	18.3	(T)	µg/L	SW846 5030C/8260D	91%	200 88-112	04/03/23 22:28
Surrogate: Bromofluorobenzene	20.8	(T)	µg/L	SW846 5030C/8260D	104%	200 75-117	04/03/23 22:28

Sample Number: 3C04910-05 Site: MW-5 Sample ID:
 Collector: AA Collect Date: 03/23/2023 11:42 am Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	By	Analysis Date	By
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Volatiles

VOA, 8260, USTUnleaded

Benzene	< 0.5	(T)	µg/L	SW846 5030C/8260D	0.5	1	04/03/23	LAS	04/03/23 19:42	MWS
Ethyl Benzene	< 0.5	(T)	µg/L	SW846 5030C/8260D	0.5	1	04/03/23	LAS	04/03/23 19:42	MWS
Isopropylbenzene	< 0.5	(T)	µg/L	SW846 5030C/8260D	0.5	1	04/03/23	LAS	04/03/23 19:42	MWS
Methyl-t-butyl ether (MTBE)	1.9	(T)	µg/L	SW846 5030C/8260D	0.5	1	04/03/23	LAS	04/03/23 19:42	MWS
Naphthalene	< 0.5	(T)	µg/L	SW846 5030C/8260D	0.5	1	04/03/23	LAS	04/03/23 19:42	MWS
Toluene	0.5	(T)	µg/L	SW846 5030C/8260D	0.5	1	04/03/23	LAS	04/03/23 19:42	MWS
1,2,4-Trimethylbenzene	< 0.5	(T)	µg/L	SW846 5030C/8260D	0.5	1	04/03/23	LAS	04/03/23 19:42	MWS
Xylenes, Total	< 1.0	(T)	µg/L	SW846 5030C/8260D	1.0	1	04/03/23	LAS	04/03/23 19:42	MWS

Surrogate Recoveries	Results	Units	Method	%Recovery	DF	Limits (%Recovery)	Analysis Date
Surrogate: Dibromofluoromethane	21.2	(T)	µg/L	SW846 5030C/8260D	106%	1 72-136	04/03/23 19:42
Surrogate: 1,2-Dichloroethane-d4	21.5	(T)	µg/L	SW846 5030C/8260D	107%	1 79-135	04/03/23 19:42
Surrogate: Toluene-d8	19.5	(T)	µg/L	SW846 5030C/8260D	98%	1 88-112	04/03/23 19:42
Surrogate: Bromofluorobenzene	18.1	(T)	µg/L	SW846 5030C/8260D	91%	1 75-117	04/03/23 19:42

Report Generated On: 04/10/2023 10:13 am 3C04910
 STL_Results Revision #2.1 Effective: 09/01/2022





Sample Number: 3C04910-06	Site: MW-6	Sample ID:
Collector: AA	Collect Date: 03/23/2023 12:18 pm	Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	By	Analysis Date	By
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Volatiles

VOA, 8260, USTUnleaded

Benzene	0.7	(T)	µg/L	SW846 5030C/8260D	0.5	1	04/03/23	LAS	04/03/23 20:09	MWS
Ethyl Benzene	< 0.5	(T)	µg/L	SW846 5030C/8260D	0.5	1	04/03/23	LAS	04/03/23 20:09	MWS
Isopropylbenzene	< 0.5	(T)	µg/L	SW846 5030C/8260D	0.5	1	04/03/23	LAS	04/03/23 20:09	MWS
Methyl-t-butyl ether (MTBE)	< 0.5	(T)	µg/L	SW846 5030C/8260D	0.5	1	04/03/23	LAS	04/03/23 20:09	MWS
Naphthalene	< 0.5	(T)	µg/L	SW846 5030C/8260D	0.5	1	04/03/23	LAS	04/03/23 20:09	MWS
Toluene	< 0.5	(T)	µg/L	SW846 5030C/8260D	0.5	1	04/03/23	LAS	04/03/23 20:09	MWS
1,3,5-Trimethylbenzene	< 0.5	(T)	µg/L	SW846 5030C/8260D	0.5	1	04/03/23	LAS	04/03/23 20:09	MWS
1,2,4-Trimethylbenzene	< 0.5	(T)	µg/L	SW846 5030C/8260D	0.5	1	04/03/23	LAS	04/03/23 20:09	MWS
Xylenes, Total	< 1.0	(T)	µg/L	SW846 5030C/8260D	1.0	1	04/03/23	LAS	04/03/23 20:09	MWS

Surrogate Recoveries	Results	Units	Method	%Recovery	DF	Limits (%Recovery)	Analysis Date
Surrogate: Dibromofluoromethane	21.4	(T)	µg/L	SW846 5030C/8260D	107%	72-136	04/03/23 20:09
Surrogate: 1,2-Dichloroethane-d4	21.2	(T)	µg/L	SW846 5030C/8260D	106%	79-135	04/03/23 20:09
Surrogate: Toluene-d8	19.0	(T)	µg/L	SW846 5030C/8260D	95%	88-112	04/03/23 20:09
Surrogate: Bromofluorobenzene	18.8	(T)	µg/L	SW846 5030C/8260D	94%	75-117	04/03/23 20:09

Sample Number: 3C04910-07	Site: MW-7	Sample ID:
Collector: AA	Collect Date: 03/23/2023 12:50 pm	Sample Type: Grab

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	By	Analysis Date	By
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Volatiles

VOA, 8260, USTUnleaded

Benzene	< 0.5	(T)	µg/L	SW846 5030C/8260D	0.5	1	04/03/23	LAS	04/03/23 20:37	MWS
Ethyl Benzene	< 0.5	(T)	µg/L	SW846 5030C/8260D	0.5	1	04/03/23	LAS	04/03/23 20:37	MWS
Isopropylbenzene	< 0.5	(T)	µg/L	SW846 5030C/8260D	0.5	1	04/03/23	LAS	04/03/23 20:37	MWS
Methyl-t-butyl ether (MTBE)	< 0.5	(T)	µg/L	SW846 5030C/8260D	0.5	1	04/03/23	LAS	04/03/23 20:37	MWS
Naphthalene	< 0.5	(T)	µg/L	SW846 5030C/8260D	0.5	1	04/03/23	LAS	04/03/23 20:37	MWS
Toluene	< 0.5	(T)	µg/L	SW846 5030C/8260D	0.5	1	04/03/23	LAS	04/03/23 20:37	MWS
1,3,5-Trimethylbenzene	< 0.5	(T)	µg/L	SW846 5030C/8260D	0.5	1	04/03/23	LAS	04/03/23 20:37	MWS
1,2,4-Trimethylbenzene	< 0.5	(T)	µg/L	SW846 5030C/8260D	0.5	1	04/03/23	LAS	04/03/23 20:37	MWS
Xylenes, Total	< 1.0	(T)	µg/L	SW846 5030C/8260D	1.0	1	04/03/23	LAS	04/03/23 20:37	MWS

Surrogate Recoveries	Results	Units	Method	%Recovery	DF	Limits (%Recovery)	Analysis Date
Surrogate: Dibromofluoromethane	21.5	(T)	µg/L	SW846 5030C/8260D	108%	72-136	04/03/23 20:37
Surrogate: 1,2-Dichloroethane-d4	22.1	(T)	µg/L	SW846 5030C/8260D	111%	79-135	04/03/23 20:37
Surrogate: Toluene-d8	19.2	(T)	µg/L	SW846 5030C/8260D	96%	88-112	04/03/23 20:37
Surrogate: Bromofluorobenzene	18.3	(T)	µg/L	SW846 5030C/8260D	91%	75-117	04/03/23 20:37

Report Generated On: 04/10/2023 10:13 am 3C04910
 STL_Results Revision #2.1 Effective: 09/01/2022





Data Qualifiers:

V3 The surrogate associated with this sample was above established acceptance criteria. Data may be biased high.

Sample Receipt Conditions:

· Sample(s) received outside of the acceptable temperature limits for one or more analyses. Affected analyses are reported with the (T) qualifier.

Units P/A = Present/Absent
Units P/F = Pass/Fail

The test *pH, Lab* is performed in the Laboratory as soon as possible. These results are not appropriate for compliance with NPDES, SDWA, or other regulatory programs that require analysis within 15 minutes of sample collection and should be considered for informational purposes only.

**pH, Final* for ASTM leachate is performed by method SM 4500-H-B.

All results meet the requirements of STL's TNI (NELAC) Accredited Quality System unless otherwise noted. If your results contain any data qualifiers or comments, you should evaluate useability relative to your needs.

If collectors initials include "STL", samples have been collected in accordance with STL SOP SL0015.

All results reported on an As Received (Wet Weight) basis unless otherwise noted.

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

Results are considered Preliminary unless report is signed by authorized representative of STL.

Reviewed and Released By:

Timothy Swavely
Senior Project Manager

Report Generated On: 04/10/2023 10:13 am 3C04910
STL_Results Revision #2.1 Effective: 09/01/2022





61C

3C04910
Timothy Swavely

TAT (Circle One): Standard / 24hr / 48hr / 72hr / Other
(Additional charges may apply for rush TAT. If not specified, standard TAT will apply)

Order ID: _____

Client Name: Center Point Tank Services
 Address: 536 E Benjamin Franklin Hwy
Douglasville, PA 19518
 Contact Name: Abbey Atkinson
 Phone: 410-385-4977
 Fax: _____
 Email: abbey@centerpointtank.com

Project Name: WALK'S Liberty Station
 Address: 300 Montgomery Ave
Merion Station, PA 19066
 Payment / P.O. Info: _____

Comments: _____

STL Sample Number	Sample Description / Site ID:	Date Sampled	Time Sampled	Samplers Initials	Test(s) Requested:	Bottle Quantity	See Codes Below				Comments / Field Data:
							Matrix	Sample Type	Bottle Type	Preservative	
	(35) VOA HCl										
	MW-1	3/23/23	9:56am	aw	PAVST unleaded gasoline shortlist	3	NPW	G	G	G	
	MW-2		10:33am	aw							
	MW-3		11:06am	aw							
	MW-4		1:30pm	aw							
	MW-5		11:42am	aw							
	MW-6		12:18pm	aw							
	MW-7		12:50pm	aw							
Samples received out of temp pmf 3-24-23						client dropoff					

Relinquished By: <i>Abbey Atkinson</i>	Date: 3/24/23	Temp °C: _____ Acceptable: Y / N	Sample Conditions		Matrix Key		Bottle Type Key		Reporting Options	
	Time: 10:20 am		Submitted with COC? <input checked="" type="checkbox"/> N	NPW = Non-Potable Water Solid = Raw Sludge, Dewatered sludge, soil, etc. (reported as mg/kg)		P = Plastic G = Glass O = Other		[] SDWA Reporting PWSID: _____		
Received By:	Date:	Temp °C: _____ Acceptable: Y / N	Number of containers match number on COC? <input checked="" type="checkbox"/> N		PW = Potable Water (not for SDWA compliance) SDWA = Safe Drinking Water Act Potable Sample		Preservative Key		[] Fax [] Email	
	Time:		All containers in tact? <input checked="" type="checkbox"/> N	Sample Type Key		N = Sodium Thiosulfate A = Ascorbic Acid H = HNO ₃ C = HCl S = H ₂ SO ₄ OH = NaOH O = Other NA = None Required		[] Other [] Return a copy of this form with Report		
Relinquished By:	Date:	Temp °C: _____ Acceptable: Y / N	Tests within holding times <input checked="" type="checkbox"/> N		SDWA Sample Types					
	Time:		All containers in tact? <input checked="" type="checkbox"/> N	G = Grab 8HC = 8 Hr. Composite 24HC = 24 Hr. Composite		D=Distribution E=Entry Point R=Raw C=Check S=Special M=Maximum Residence				
Received in Lab By: <i>pmf (35)</i>	Date: 3-24-23	Temp °C: <u>6.6</u> Acceptable: <u>Y/N</u>	40 mL VOA vials free of headspace? <input checked="" type="checkbox"/> N							
	Time: 1020									

Signing this form indicates your agreement with STL's Standard Terms and Conditions unless otherwise specified in writing. SLF059 Rev. 1.3 Effective May 16, 2013. Shaded areas are for STL use only.

APPENDIX F:
DISPOSAL MANIFEST

Invoice

Payment Instructions - All payments must be in USD & Reference Invoice #

NEW Remit to Address:
MILLER ENVIRONMENTAL GROUP INC
P.O. Box 23481
New York, NY 10087



Bill to:

Attn: Accounts Payable
Center Point Tank Service
536 E. Benjamin Franklin Hwy
Douglassville PA 19518
United States

Job Site:

Attn: Accounts Payable
Mark's Liberty Station
300 Montgomery Ave
Merion Station PA 19066
United States

Services provided by: MEG Mannington Operations Center. Questions please call us 856-769-9022.

Invoice #:	10040264	Date:	2/25/2022
PO#:		Terms:	Net 30
Job:	NJ28220519	Due Date:	3/27/2022

Service Date	Description	Quantity	Units	Rate	Amount
2/18/2022	Service Charge	1	Each	\$262.00	\$262.00
2/18/2022	Disposal - Drums - Solids / Soil	6	Drum	\$65.00	\$390.00
2/18/2022	Fuel Surcharge			\$58.00	\$58.00
2/18/2022	Load Verificate Charge	1	Load	\$80.00	\$80.00
2/18/2022	Insurance, Security & Training	1		\$71.10	\$71.10
	BOL # MAN1214 T. Grimes				

Subtotal	\$861.10
Tax (%)	\$0.00
Total	\$861.10
Amount Paid	\$861.10
Amount Due	\$0.00

Please Print

BLL OF LADING

Generator EPA ID #

1. Document No.

2. Page 1 of 1

3. Generator's Name and Mailing Address

NA

MAN1214
Site Address

MAK'S LIBERTY STATION
300 MONTGOMERY AVE
MEIGON STATION, PA 19068
610-737-5436

6. Transporter 1 Company Name

6. EPA ID #

A. State Transporter's ID

MILLER ENVIRONMENTAL GROUP, INC

NYD988908085

B. Transporter 1 Phone

7. Transporter 2 Company Name

8. EPA ID #

C. State Transporter's ID 800-394-8606

9. Designated Facility Name and Site Address

10. EPA ID #

D. Transporter 2 Phone

MEG WOODSTOWN
108 EST LAKE RD
WOODSTOWN, NJ 08088

NJD011881174

E. State Facility's ID

F. Facility's Phone

856-789-9022

11. Shipping Name

12. Containers

13. Total Quantity

14. Unit Wt./Vol.

a. NON-RCRA, NON-DOT SOLIDS, N.O.S. (PETROLEUM CONTAMINATED SOLIDS)

6

DM

3000

P

b.

c.

d.

G. Additional Descriptions for Materials Listed Above

Document # D25449 Job #: NJ28220519 PO #:

1) APPROVAL#

Pick up (6) soil drums. Site Contact Rich 610-737-5436

profile 2241

15. Special Handling Instructions and Additional Information

ARRIVAL 1:45

Departure 2:15

cust: Center Point Tank

16. GENERATOR'S CERTIFICATION: I hereby certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulation of the Department of Transportation. The materials described on this document are not subject to federal uniform hazardous waste manifest requirements

Printed/Typed Name

Tony

Signature

Date

Month Day Year
2/18/22

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name

Taurus Grimes

Signature

Date

Month Day Year
2/18/22

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Date

Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator; Certification of receipt of the materials covered by this bill of lading except as noted in Item 19.

Printed/Typed Name

Karen Kohut

Signature

Date

Month Day Year
2/18/22

GENERATOR

BILL OF LADING

TRANSPORTER

FACILITY