

2022 Axemann Road, Suite 201, Bellefonte, PA 16823
P: 814.355.2241 F: 814.355.2410 www.letterleandassociates.com

July 13, 2015

Mr. Scott Ferguson, P.G.
Pennsylvania Department of Environmental Protection
Environmental Cleanup Program
208 West Third Street, Suite 101
Williamsport, PA 17701-6448

**Re: Site Characterization Report
United Refining Company of Pennsylvania
Kwik Fill M-90
1322 South 2nd Street
Clearfield, PA 16830
PADEP Facility ID #17-14821/PAUSTIF Claim #2015-0004(I)**

Dear Mr. Ferguson:

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

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

Sincerely,

A handwritten signature in black ink, appearing to read 'Jed Hill'.

Jed Hill
Project Manager

Enclosure

cc: Mr. Scott C. Wonsettler, P.G., United Refining Company of Pennsylvania (with CD)
Mr. Gerald Hawk, ICF International (via email)
Mr. Mitch Harvey, RES Coal, LLC
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SITE CHARACTERIZATION REPORT



2022 Axemann Road, Suite 201, Bellefonte, PA 16823



PADEP Facility ID #17-14821
PAUSTIF Claim #2015-0004(I)

Kwik Fill M-90
1322 South 2nd Street
Clearfield, PA 16830

Prepared for:

United Refining Company of Pennsylvania
15 Bradley Street
P.O. Box 688
Warren, PA 16365

A handwritten signature in black ink, appearing to read 'Jed Hill'.

Jed Hill
Project Manager

A handwritten signature in black ink, appearing to read 'George R. Hunzeker'.

George R. Hunzeker, P.G.
Vice President/Chief Technical Officer



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

-George R. Hunzeker, P.G., signed and sealed this day, July 13, 2015

TABLE OF CONTENTS

SECTION	PAGE
1.0 INTRODUCTION	1
2.0 SITE HISTORY/PROJECT SUMMARY.....	1
3.0 SITE DESCRIPTION	2
3.1 Site Location/Physical Setting	2
3.2 Subject Property Utilities.....	3
3.3 Geology and Soil Description	3
4.0 INTERIM REMEDIAL ACTION	4
5.0 SITE CHARACTERIZATION ACTIVITIES.....	5
5.1 Introduction.....	5
5.2 Soil Investigation	6
5.3 Groundwater Investigation.....	7
5.3.1 Hydrogeology.....	8
5.3.2 Licensed Professional Site Survey and Base Map	8
5.3.3 Groundwater Gauging/Sampling	8
5.3.3.1 Groundwater Gauging	8
5.3.3.2 Groundwater Sampling.....	9
5.4 Risk Evaluation.....	10
5.4.1 Risk Exposure Pathways and Potential Receptors.....	10
5.4.1.1 Evaluation of Vapor Inhalation Pathways	10
5.4.1.2 Evaluation of Soil Particle Inhalation, Dermal Contact, and Ingestion Pathways	11
5.4.1.3 Evaluation of Volatilization of Constituents from Groundwater, Dermal Contact, and Ingestion Pathways	11
5.4.1.4 Evaluation of Diffuse Groundwater Discharge and Degradation of Surface Water Pathways	12
5.4.2 Ecological Screen.....	13
5.4.3 Soil Gas Sampling.....	13
5.4.3.1 Soil Gas Sampling Protocol.....	13
5.4.3.2 Soil Gas Analytical Results	14
6.0 CONCEPTUAL SITE MODEL	14
7.0 SELECTION OF REMEDIAL STANDARDS.....	16
8.0 CONCLUSIONS AND RECOMMENDATIONS.....	16
9.0 REFERENCES.....	18

TABLES

Table 1 – Soil Analytical Results

Table 2 – Historic Groundwater Gauging and Analytical Data

Table 3 – Soil Gas Analytical Results

FIGURES

Figure 1 – Site Location Map

Figure 2 – Site Aerial Map

Figure 3 – Site Layout Map

Figure 4A – Preliminary Bedrock Geologic Map

Figure 4B – Unconsolidated Overburden Soils Identification Map

Figure 5 – Soil Boring Location/Estimated Area of Impacted Soil

Figure 6 – Groundwater Potentiometric Surface Contour Map – May 26, 2015

Figure 7 – 1,3,5-TMB Isoconcentration Contour Map – May 4, 2015

Figure 8 – 1,2,4-TMB Isoconcentration Contour Map – May 4, 2015

Figure 9 – Benzene Isoconcentration Contour Map – May 4, 2015

Figure 10 – 1,2,4-TMB Isoconcentration Contour Map – May 26, 2015

Figure 11 – Benzene Isoconcentration Contour Map – May 26, 2015

Figure 12 – Proposed Additional Soil Characterization Map

Figure 13 – Proposed Additional Groundwater Characterization Map

APPENDICES

Appendix A – Custom Soil Resource Report

Appendix B – Soil Boring Logs

Appendix C – Soil, Groundwater, and Soil Gas Analytical Laboratory Reports

Appendix D – Lawrence Township Ordinance

Appendix E – PAGWIS Database Search Results

Appendix F – PNDI Environmental Review

1.0 INTRODUCTION

Letterle & Associates, Inc. (Letterle) of Bellefonte, Pennsylvania (PA) has been contracted by United Refining Company of Pennsylvania (United), as the environmental consultant for the Kwik Fill M-90 facility located at 1322 South 2nd Street in Lawrence Township, Clearfield County, Clearfield, PA (the site).

The purpose of this Site Characterization Report (SCR) is to summarize the site characterization activities completed to investigate a diesel release discovered at the site in December 2014 (as further detailed in Section 2.0).

2.0 SITE HISTORY/PROJECT SUMMARY

The site is currently an active retail fueling (gasoline and diesel) station, which has two 10,000-gallon and one 8,000-gallon steel underground storage tanks (USTs). The two 10,000-gallon USTs were installed in 1969 and the 8,000-gallon UST was installed in 1974. One 10,000-gallon UST and one 8,000-gallon contain unleaded gasoline and the remaining 10,000-gallon UST (in the middle) contains diesel fuel.

On June 15, 1995, the 10,000-gallon unleaded gasoline UST (#002) failed a tightness test. The PA Department of Environmental Protection (PADEP) was notified of the failure and subsequently, Mountain Research, Inc. (MRI) was retained by United in May 1996 to perform site characterization activities. The results of the site characterization indicated several soil/groundwater samples contained unleaded gasoline constituents at concentrations above their respective Medium Specific Concentration (MSC) values.

MRI prepared a Remedial Action Plan (RAP) in July 1999 proposing a Matrix Trailer Mounted Oxygen Injection System. The PADEP approved the RAP in January 2000. System installation was initiated in February 2000 and the system commenced operation on April 12, 2000. The system was operational from April 12, 2000 until the first quarter of 2005.

From early 2005 through mid-2006, additional site investigations were initiated at the site to re-evaluate the remedial approach. In October 2006, a Supplemental SCR and RAP Addendum was submitted to the PADEP. The Supplemental SCR/RAP Addendum identified two separate source areas, one on-site and one off-site at the Cleveland Brothers/Beckwith Machinery Company property (now owned by KF Land Holdings, LLC). The on-site source area (Source Area #1) was found to have impacted groundwater beneath the site and down-gradient on the former Cleveland Brothers property. Impacted groundwater from Source Area #2 was found to be related to an off-site release and not associated with the Kwik Fill M-90 facility. The Supplemental SCR/RAP Addendum strategy included remediating groundwater via an air sparge/soil vapor extraction (AS/SVE) system. An additional RAP Addendum was submitted in December 2006. The PADEP approved the Supplemental SCR/RAP Addendum and additional RAP Addendum in January 2007, with modifications. An AS/SVE system was installed at the site and operated from November 2007 through the fourth quarter of 2008.

A second release of unleaded gasoline occurred at the site, and was reported in February 2008. Additional site characterization activities were initiated and an Additional SCR and RAP

Addendum was submitted in June 2011. The June 2011 Additional SCR/RAP Addendum included the selection of a dual phase extraction (DPE)/SVE system to address on-site soil and groundwater and enhanced in-situ bioremediation (EB) to address off-site groundwater. The June RAP Addendum was approved by the PADEP in July 2011.

The PA Underground Storage Tank Indemnification Fund (PAUSTIF) and their administrator, ICF International (ICFI), put the site remedial work out for competitive bid. The proposed scope of work was based upon the July 2011 approved RAP. Letterle was awarded the bid in March of 2012 and began implementation of the approved RAP.

A remedial system trailer was constructed and mobbed to the site during the third quarter of 2012 and began operation on October 30, 2012. In compliance with the PAUSTIF remediation agreement, the remediation system was to be operated for a total period of two years. Additionally, as specified in the remediation agreement, applicable PADEP Used-Aquifer (total dissolved solids (TDS) $\leq 2,500$ milligrams per liter (mg/L)) Residential Statewide Health Standard (UARSHS) MSCs in groundwater had to be attained within seven quarters of system operation. This criterion was met and the remediation system was shut down on October 10, 2014 and the groundwater attainment monitoring program was initiated in the fourth quarter of 2014. Additionally, the initial soil vapor attainment sampling event and the soil attainment sampling event were completed in the fourth quarter of 2014.

During the week of December 15, 2014, station personnel reported actuation of the diesel fuel line leak detector. All product piping was tightness tested on December 18, 2014 and diesel fuel piping failed the tightness test. The diesel UST system was removed from service and emptied of product. On December 19, 2014, existing monitoring wells in the vicinity of the UST/dispenser system area were gauged to check for separate-phase liquid (SPL), with no SPL or unusual odors detected. The PADEP was notified on December 18, 2014 and a Notification of Reportable Release (NORR) was filed on December 22, 2014. Due to the failed tightness test, the PADEP issued a letter to United dated January 2, 2015 for a violation of Section 1310 of the PA Storage Tank and Spill Prevention Act.

Quarterly groundwater attainment sampling as part of the previous release investigation was performed on March 31, 2015 (first quarter of 2015), which was to represent the second of eight required groundwater attainment sampling events to be performed at the site as part of the groundwater attainment monitoring program. However, the first quarter of 2015 groundwater sampling results revealed exceedances of the applicable PADEP UARSHS MSCs for benzene, toluene, and naphthalene in monitoring wells MW-28 and MW-31, which are immediately adjacent to the gasoline and diesel dispensers. The appearance of constituent concentrations above the applicable PADEP UARSHS MSCs in wells MW-28 and MW-31 is likely a result of the December 18, 2014 diesel fuel piping failed tightness test (subsurface release of diesel product in the vicinity of the dispensers).

3.0 SITE DESCRIPTION

3.1 Site Location/Physical Setting

The site location is depicted on the United States Geological Survey (USGS) 7.5 Minute Topographical Quadrangles of Clearfield and Glen Richey, PA as presented in **Figure 1**. The

latitude of the site is reported to be 41° 00' 18.02" N and the longitude is reported to be 78° 27' 19.69" W. An aerial view of the site and surrounding area is presented as **Figure 2**. A more detailed site layout map, which fully depicts the site area, is presented as **Figure 3**. The site reportedly exists at an approximate elevation of 1,116 feet above mean sea level (ft-amsl). Site topography gently slopes from southeast to northwest towards the West Branch of the Susquehanna River.

The site is covered primarily with asphalt and concrete with a grassy area to the rear of the property. There is one main building structure located on the subject property, which is the Kwik Fill convenience store. A retail unleaded gasoline/diesel fueling station (including a UST field) is also located at the subject property. The subject property is located within a commercially developed area of Clearfield. The nearest surface water body is the West Branch of the Susquehanna River, which is located topographically down-gradient approximately 275 feet directly northwest of the site across South 2nd Street at an approximate elevation of 1,100 ft-amsl. The West Branch of the Susquehanna River has a northeasterly flow through Clearfield County. According to Chapter 93 of the PADEP Regulations, the water quality standard for the West Branch of the Susquehanna River is Warm Water Fishes (WWF), Migratory Fishes (MF).

3.2 Subject Property Utilities

- Water: The subject property is serviced with public (municipal) water from Clearfield Municipal Authority (CMA), which enters the property via underground utility.
- Sanitary Sewer: The subject property is serviced with public (municipal) sewer from CMA, which enters the property via underground utility.
- Electric: The subject property is serviced with electricity from the Pennsylvania Electric Company, which enters the property via overhead lines.
- Telephone: The subject property is serviced with telephone from Verizon Pennsylvania LLC, which enters the property via overhead lines.
- Stormwater Stormwater collection systems are located on the subject property and surrounding properties, which are serviced by Lawrence Township and the PA Department of Transportation.
- Natural Gas: The subject property is serviced with natural gas from UGI Penn Natural Gas, Inc., which enters the property via underground utility.

No other utilities are known to exist at the subject property.

3.3 Geology and Soil Description

Bedrock geology in the vicinity of the site is preliminarily mapped as the Pottsville Group. The preliminary bedrock geology underlying the site is illustrated in **Figure 4A**. The rocks within this section are primarily composed of cyclic sequences of sedimentary rocks consisting primarily of sandstones, siltstones, shales, red beds, and limestone and thin beds of coal from the Pennsylvanian Period. Near the site, the dominant sedimentary rock types consist primarily of

sandstone and shale characteristic of the Allegheny and Pottsville Groups. The Pottsville Group is characterized by light to dark gray, fine grained to coarsely conglomeritic sandstone. Subordinate amounts of gray shale, siltstone, limestone, coal, and claystone occur within the formation. This group tends to have numerous, well formed joints with wide spacing in the sandstone and close in the shale. These joints are open and situated vertically within the formation. Shallow hydrogeologic conditions near the site may be characterized as a one or two component system. The water bearing system is generally comprised of a shallow surficial water-bearing system within the uppermost unconsolidated alluvial deposits and a deeper water-bearing system within the underlying Pottsville Group. When the thickness of the unconsolidated material is limited, a shallow water-bearing system exists within the Pottsville Group alone (Geyer, et al., 1982).

The Pottsville Group is massive in areal extent and is considered a good potential for the development of water. Based on specific capacity data collected from wells penetrating this formation, a median yield may be estimated to be approximately 50 gallons per minute. The sandstone beds have a high to moderate primary porosity. Within the higher yielding wells, water moves through the well-formed, wide spaced joints and fractures. Consequently, total effective porosity is high. General water quality contained within the Pottsville Group is generally good; however, iron and salt-water (at depth) concentrations may be high in localized areas (Geyer, et al., 1982).

Only preliminary geologic mapping of the area has been completed and no published information was available to approximate the basic local structural orientation (local strike and dip) of the underlying bedrock formation. Additionally, no bedrock outcrops were observed during site characterization activities.

The soils at the site have been mapped as Urban land (Ur) and Tyler silt loam (TyB), with Urban land making up the majority of the site. The Urban land unit consists of areas where 85 percent or more of the surface is covered by roads, railroads, sidewalks, parking areas, houses, factories, and other structures. Included with this unit in mapping are areas of fill material and small areas of soil where structures cover less than 85 percent of the surface, mainly in parks and small wooded areas. The Tyler series consists of very deep, somewhat poorly drained soils formed in silty alluvium and in a mantle of loess on high Illinoian age terraces and valley fills. Permeability is moderately slow above the fragipan, slow or very slow in the fragipan, and moderately slow in the substratum. Slope ranges from 0 to 8 percent. Mean annual precipitation is about 40 inches. Mean annual air temperature is about 55 degrees F.

Additional information on the site soil is contained in the Custom Soil Resource Report produced by the United States Department of Agriculture Natural Resource Conservation Service (USDA NRCS), which is included in **Appendix A**. The mapped soils underlying the site are illustrated on the USDA NRCS soils map presented as **Figure 4B**.

4.0 INTERIM REMEDIAL ACTION

As a result of the increased benzene, toluene, and naphthalene concentrations observed in wells MW-28 and MW-31, Letterle submitted a request to the PADEP dated May 4, 2015 to restart the existing remediation system as interim remedial action while the site characterization is being

completed. The PADEP subsequently approved this request in correspondence dated May 5, 2015. The remediation system was restarted on May 6, 2015.

The remediation system is a dual phase extraction (DPE) system, which was originally installed at the site in the third quarter of 2012 as part of the previous release investigation. DPE is a very effective remedial technology that utilizes a high vacuum system to remove various combinations of contaminated groundwater, SPL, and hydrocarbon vapor from the subsurface formation. DPE utilizes a strategic recovery well system to remove contaminants from above and below the water table. DPE lowers the water table around the recovery well (groundwater extraction), exposing more of the formation. Contaminants in the newly exposed vadose zone are then accessible to vapor extraction.

The DPE system components housed within the onsite trailer include:

- Two claw pumps;
- One air compressor;
- One air/water separator (AWS) tank;
- One equalization tank;
- Two transfer pumps and level controls;
- Six pneumatic groundwater pumps;
- Four 400-pound liquid-phase granular activated carbon (GAC) vessels (high pressure units);
- Two 600-pound vapor-phase GAC vessels; and,
- Control panel for the claw pumps, air compressor, and the transfer pumps (including all system interlocks).

The DPE system utilizes monitoring/recovery wells MW-1, MW-1A, MW-2, MW-28, MW-31, MW-34, MW-35, and MW-36. Only wells MW-28 and MW-31 were activated on May 6, 2015 for the interim remedial action phase.

The recovered groundwater is treated and discharged to the sanitary sewer under an issued permit from CMA. Under the terms of the permit, analytical reports and totalizer readings are reported in Discharge Monitoring Reports (DMR) on a monthly basis to the CMA. Petroleum impacted soil and groundwater remediation systems have been listed as exempt from the Plan Approval/Operating permit requirements by PADEP, Division of Air Quality. The remediation system is operated under the exemption requirements.

5.0 SITE CHARACTERIZATION ACTIVITIES

5.1 Introduction

The site characterization was performed in accordance with generally recognized and accepted industry standards and PADEP technical guidance. Specifically, the site characterization was performed in accordance with the general site characterization requirements documented in

Subchapter D of the Storage Tank and Spill Prevention Act (Act 32) and Chapter 245 of the PA Code.

The objective of the site characterization activities was to evaluate soil and groundwater chemical and physical characteristics and determine the extent of subsurface impact resulting from the December 2014 diesel release on soil and groundwater at the site. The site characterization activities included the following tasks: Geoprobe® soil investigations; a professional survey of the existing groundwater monitoring well network, property boundaries, and site infrastructure; groundwater monitoring/sampling events; groundwater movement assessments; soil/groundwater impact assessments; and, an evaluation of risk exposure pathways and potential receptors.

5.2 Soil Investigation

In response to the December 18, 2014 confirmed violation (failed tightness test), a soil investigation was conducted on May 6-7, 2015 to identify and delineate (horizontal and vertical extent) potential soil impacts in the vicinity of diesel UST system (dispenser, product lines, and tanks). An additional soil investigation was conducted on June 15, 2015 to further delineate (horizontal extent) identified soil impacts.

The soil investigations were aided by utilizing a Geoprobe® direct push machine. A Geoprobe® is a hydraulically powered percussion hammer system that advances small diameter probes into the subsurface for the purpose of collecting water samples, soil samples, and/or soil gas samples. For characterization soil sampling, the percussion hammer advances the macro-core sampler (fitted with a polyethylene liner) into the ground. The macro-core sampler is then retrieved from the ground and the polyethylene liner is removed. The macro-core is fitted with a new liner, advanced into the ground to the previous depth, and an extension rod is fitted on the end of the macro-core. This process is subsequently continued until the desired depth of the subsurface boring is reached (ASTM D1586-99).

Soil cores were retrieved from each subsurface boring interval via the macro-core soil sampler fitted with a polyethylene liner. The liner was replaced at each sample interval to prevent sample cross-contamination. The complete macro-core assembly was decontaminated (rinsed with water, washed with liquinox, and rinsed again with water) between each soil boring location.

After the macro-core liner was opened, the soils were described and screened for the presence or absence of petroleum impacts with a photo-ionization detector (PID) and visual/olfactory observations. At each sample interval, a portion of each sample was placed into sealable plastic bags and a "head space" analysis was conducted with the PID. The PID indicates a parts-per-million (ppm) readout of volatile organic compound vapor concentration and was calibrated prior to use each day. An environmental scientist recorded PID readings and recorded soil descriptions including texture, color, structure (if discernable), consistence, and saturated or unsaturated status. Specifically, each soil sample was field-classified in accordance with the United Soil Classification System (USCS). The soil boring logs are included in **Appendix B**.

One or two soil samples were collected from each soil boring location. One soil sample was collected from the interval with the highest PID reading and one soil sample was collected from

just above the soil-water interface. If no volatile organic compound vapors were detected by the PID, a confirmatory soil sample was collected from just above the soil-water interface.

The soil samples were collected by field personnel, wearing nitrile disposable gloves. Each soil sample was collected using the Easy Draw Syringe or a similar syringe apparatus in general accordance with United States Environmental Protection Agency (USEPA) Method 5035. Specifically, for each soil sample collected, two five-gram samples of soil were deposited into two pre-preserved sodium bisulfate vials, respectively, one five-gram sample was deposited into a pre-preserved methanol vial, and a sample was placed in a four-ounce amber glass jar. The soil samples were deposited into pre-preserved laboratory supplied glassware, labeled, custody sealed, placed in an ice-filled cooler, and returned to the office. The samples were stored in a refrigerator (at 4 °C) until they were collected by the laboratory. The samples were submitted to Fairway Laboratories of Altoona, PA (Fairway Labs), for analysis of the post-March 15, 2008 PADEP Land Recycling Program Technical Guidance Manual, Table IV-9 - Short List of Petroleum Products, specifically diesel constituents (post-March 2008 PADEP diesel short list constituents) via USEPA Method 8260B, and were accompanied by Chain-of-Custody documentation. The soil analytical laboratory reports are included in **Appendix C**.

The soil analytical results from the soil investigations conducted on May 6-7, 2015 and June 15, 2015 indicate the following exceedances of the applicable PADEP UARSHS MSCs:

- 1,3,5-Trimethylbenzene (TMB) in soil borings SB-1, SB-6, SB-8, SB-11, SB-12, and SB-16;
- 1,2,4-TMB in soil borings SB-1, SB-6, SB-8, SB-11, SB-12, and SB-16;
- Benzene in soil borings SB-6, SB-7, SB-8, and SB-11;
- Ethylbenzene in soil boring SB-11; and,
- Naphthalene in soil boring SB-11.

The locations of the soil borings and sample locations are depicted in the soil boring location map presented as **Figure 5** and the soil analytical results are presented in **Table 1**. Based on the data collected during the soil investigation, an estimated area of impacted soil (unsaturated) was developed and is presented in **Figure 5**.

All soil cores and decontamination waste generated during the soil boring activities were placed into 55-gallon DOT-approved and appropriately-labeled steel drums and staged onsite. Pick-up and disposal of the waste will be scheduled with GemChem, Inc. of Lititz, PA.

5.3 Groundwater Investigation

An investigation of the hydrogeology and groundwater chemistry beneath the site was completed in order to assess and delineate identified petroleum impacted groundwater. The investigation activities included: professional surveying the existing groundwater monitoring well network and site; fluid-level monitoring; measuring groundwater elevations in the existing groundwater monitoring wells to determine predominant groundwater flow direction and patterns; groundwater sampling events; and, groundwater movement/impact assessments.

5.3.1 Hydrogeology

Groundwater in the region occurs in both unconsolidated overburden materials and underlying bedrock. As observed during quarterly groundwater gauging activities associated with the previous release investigation and the completed site characterization, groundwater is encountered within the overburden soil materials at an approximate depth of two to six feet below ground surface (ft-bgs). This groundwater represents the shallow, unconsolidated overburden aquifer. Additionally, the West Branch of the Susquehanna River is the major surface water feature topographically down-gradient of the site and its elevation (ft-amsl) correlates with the reported groundwater depth at the site.

As observed during quarterly groundwater gauging activities associated with the previous release investigation and the completed site characterization, the predominant direction of groundwater movement in the shallow overburden aquifer is interpreted to be to the northwest (towards the West Branch of the Susquehanna River). Based on topography and groundwater elevation data, the shallow overburden groundwater likely discharges to the West Branch of the Susquehanna River. Bedrock was not encountered during the site characterization.

5.3.2 Licensed Professional Site Survey and Base Map

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

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

5.3.3 Groundwater Gauging/Sampling

Groundwater gauging/sampling was completed in order to assess the degree of groundwater impacts, monitor measured thickness of SPL (if present), determine groundwater elevations, and determine predominant groundwater flow direction and patterns. Initial and confirmatory groundwater gauging/sampling events were completed following groundwater monitoring well installation activities. Initial and confirmatory gauging/sampling was completed on existing on-site wells MW-1, MW-1A, MW-2, MW-2A, MW-28, MW-31, MW-32, MW-33, MW-34, MW-35, and MW-36 and existing off-site wells MW-3, MW-4, MW-7, MW-9, MW-10, MW-14, MW-15, MW-17, MW-21, MW-29, and MW-30.

5.3.3.1 Groundwater Gauging

Letterle completed an initial groundwater gauging event on May 4, 2015 and a confirmatory groundwater gauging event on May 26, 2015. A total of 22 wells in the shallow overburden

groundwater monitoring well network (MW-1, MW-1A, MW-2, MW-2A, MW-3, MW-4, MW-7, MW-9, MW-10, MW-14, MW-15, MW-17, MW-21, MW-28, MW-29, MW-30, MW-31, MW-32, MW-33, MW-34, MW-35, and MW-36) were attempted to be gauged.

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

Groundwater elevation data collected during the confirmatory groundwater gauging event (May 26, 2015) indicates the following:

- Groundwater elevations in shallow overburden groundwater ranged from 1,108.01 feet in MW-10 to 1,112.67 feet in MW-2A;
- The predominant direction of groundwater movement in the shallow overburden aquifer is interpreted to be to the north (towards the West Branch Susquehanna River); and,
- Using the May 26, 2015 groundwater elevation data, a groundwater hydraulic gradient of 0.013 feet per foot (ft/ft) between groundwater monitoring wells MW-2A and MW-10 was calculated.

Table 2 presents the resultant groundwater elevations from the May 4, 2015 and May 26, 2015 groundwater gauging events. A groundwater potentiometric surface contour map for the May 26, 2015 groundwater gauging event is presented as **Figures 6**.

5.3.3.2 Groundwater Sampling

Letterle completed an initial groundwater sampling event on May 4, 2015 and a confirmatory groundwater sampling event on May 26, 2015. A total of 19 wells in the shallow overburden groundwater monitoring well network (MW-1, MW-1A, MW-2, MW-2A, MW-3, MW-4, MW-7, MW-10, MW-14, MW-15, MW-21, MW-28, MW-29, MW-30, MW-31, MW-32, MW-34, MW-35, and MW-36) were sampled.

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

The purged groundwater was then passed through a flow-through cell that measures dissolved oxygen (DO), pH, TDS, temperature, specific conductivity, and oxidation-reduction potential (ORP). Measurements of these parameters were recorded every 5 minutes. These measurements were recorded until three consecutive readings stabilized to within 10% of one and other. Purging was considered to be complete upon parameter stabilization for three consecutive readings. Once stabilization was documented, the flow-through cell was disconnected and the

sample was immediately collected from the discharge line. The purged groundwater was filtered through a mobile GAC vessel and then discharged to the ground surface.

The samples were sealed in pre-preserved laboratory supplied glassware, labeled, custody sealed, placed in an ice-filled cooler, and returned to Letterle's office. The samples were stored in a refrigerator (at 4 °C) until they were collected by the laboratory. The samples were submitted to Fairway Labs for analysis of the post-March 2008 PADEP diesel short list constituents via USEPA Method 8260B and were accompanied by Chain-of-Custody documentation.

The groundwater analytical results from the initial and confirmatory groundwater sampling events indicate the following exceedances of the applicable PADEP UARSHS MSCs:

- 1,3,5-TMB in well MW-31;
- 1,2,4-TMB in wells MW-28, MW-30, and MW-31; and,
- Benzene in wells MW-28, MW-30, and MW-31.

Table 2 summarizes the historical groundwater analytical data obtained throughout the site characterization. Groundwater analytical laboratory reports are included in **Appendix C**.

1,3,5-TMB, 1,2,4-TMB, and benzene isoconcentration contour maps for the May 4, 2015 (initial) and May 26, 2015 (confirmatory) groundwater sampling events are presented as **Figures 7 through 11**, respectively.

5.4 Risk Evaluation

5.4.1 Risk Exposure Pathways and Potential Receptors

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

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

5.4.1.1 Evaluation of Vapor Inhalation Pathways

The potential pathway for vapor inhalation includes volatilization of chemicals of potential indoor air concern (COPIACs). Specifically for this site, the potential pathway for vapor inhalation includes volatilization of adsorbed-phase post-March 2008 PADEP diesel short list constituents from subsurface soils and volatilization of dissolved-phase post-March 2008 PADEP diesel short list constituents in groundwater to indoor air (vapor intrusion).

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

Subsurface soils at the site have been impacted by post-March 2008 PADEP diesel short list constituents as a result of the diesel release; therefore, an evaluation using the Soil Indoor Air Quality (IAQ) Decision Matrix (Figure 2) found in the Land Recycling Program Technical Guidance Manual-Section IV.A.4 - Vapor Intrusion into Buildings from Groundwater and Soil was completed. COPIACs and non-COPIACs present in subsurface soils exceed the PA Soil-Groundwater MSC Used Aquifer Residential Soil Screening Values in Table 4 of the Land Recycling Program Technical Guidance Manual-Section IV.A.4 - Vapor Intrusion into Buildings from Groundwater and Soil; therefore, the Soil IAQ Decision Matrix (Figure 2) recommends soil gas sampling, indoor air sampling, a site-specific analysis, and/or mitigation to eliminate or address the potential exposure pathway.

Groundwater at the site has been impacted by post-March 2008 PADEP diesel short list constituents as a result of the diesel release; therefore, an evaluation using the Groundwater IAQ Decision Matrix (Figure 1) found in the Land Recycling Program Technical Guidance Manual-Section IV.A.4 - Vapor Intrusion into Buildings from Groundwater and Soil was completed. COPIACs and non-COPIACs present in subsurface groundwater exceed the PA Groundwater MSC Used Aquifer Residential Groundwater Screening Values in Table 1 of the Land Recycling Program Technical Guidance Manual-Section IV.A.4 - Vapor Intrusion into Buildings from Groundwater and Soil; therefore, the Groundwater IAQ Decision Matrix (Figure 1) recommends soil gas sampling, indoor air sampling, a site-specific analysis, and/or mitigation to eliminate or address the potential exposure pathway.

On March 12, 2015, as part of the previous release investigation, confirmatory soil gas sampling (vapor intrusion investigation) was completed and the potential vapor intrusion exposure pathway at the site has been eliminated (see Section 5.4.3 – Soil Gas Sampling).

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

Subsurface soils at the site are impacted with post-March 2008 PADEP diesel short list constituents at concentrations greater than their respective PADEP UARSHS MSCs as a result of the confirmed diesel release. However, exposure to impacted subsurface soil (soil particle inhalation, dermal contact and/or ingestion) would require intrusive activities (asphalt/concrete removal and/or soil excavation) and therefore would limit the potential exposure to utility/construction workers. In summary, this exposure pathway is retained until the impacts to subsurface soils are addressed via remediation or an Environmental Covenant (EC) Agreement is instituted for the site which implements use restrictions and limitations for exposure to site soils.

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

Shallow overburden groundwater at the site is impacted with post-March 2008 PADEP diesel short list constituents at concentrations greater than their respective PADEP UARSHS MSCs as a result of the confirmed diesel release. However, exposure (volatilization of constituents from groundwater or dermal contact) to impacted groundwater would require intrusive activities and therefore would limit the potential exposure to utility/construction workers. In summary, the volatilization of constituents from groundwater or dermal contact exposure pathway is retained

until groundwater impacts are addressed via remediation or an EC Agreement is instituted for the site which implements use restrictions and limitations for exposure to site groundwater.

The area is commercially developed and no residential properties are located on the southern side of the Susquehanna River within a half mile radius of the site (a few residential properties within a half mile radius of the site are located on the northern side of the Susquehanna River) (see **Figure 2**). Additionally, the site and surrounding properties are supplied with public (municipal) water by CMA. CMA's primary source for public water supply is the Clearfield Reservoir, which is located in Pike Township approximately 3.5 miles northwest of the site. Lawrence Township enacted an ordinance requiring all property owners to connect to the public water supply system supplied by CMA. A copy of the Lawrence Township "Water Connection Required" ordinance is included in **Appendix D**.

A water supply well search (PA Ground Water Information System (PAGWIS)) was performed to determine the potential for impacted groundwater beneath the site to be withdrawn from surrounding properties. The search revealed 13 registered wells within a half mile radius of the site. 11 of the registered wells are environmental wells used for shallow groundwater monitoring purposes, one (American Mond Nickel Company) is unused and located 0.49 miles southwest of the site, and one (Crofts Food Market) is located approximately 0.50 miles southwest of the site. The results of the PAGWIS database search are included in **Appendix E**.

In addition, dissolved-phase post-March 2008 PADEP diesel short list constituent concentrations observed in groundwater at the site are fully delineated. Therefore, no exposure/ingestion pathways are deemed to be complete as a result of the ordinance restrictions, the database search, and the groundwater characterization results (groundwater delineation).

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

Shallow overburden groundwater at the site is impacted with post-March 2008 PADEP diesel short list constituents at concentrations greater than their respective PADEP UARSHS MSCs as a result of the confirmed diesel release.

No surface water body is located within the property boundaries; however, the West Branch of the Susquehanna River is the major surface water feature in the vicinity of the site. The West Branch of the Susquehanna River is located topographically down-gradient approximately 275 feet directly northwest of the site. The West Branch of the Susquehanna River is the closest potential surface water receptor for site constituents of interest (COI) and the predominant direction of groundwater flow in the shallow overburden aquifer at the site is interpreted to be to the northwest towards the West Branch of the Susquehanna River.

Dissolved-phase post-March 2008 PADEP diesel short list constituent concentrations observed in groundwater at the site are fully delineated; therefore, the West Branch of the Susquehanna River is unlikely to be impacted. As a result, the diffuse groundwater discharge and degradation of surface water pathways are considered incomplete.

5.4.2 Ecological Screen

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

5.4.3 Soil Gas Sampling

Evaluation of the IAQ Decision Matrix for groundwater (Figure 1) and soil (Figure 2) recommended soil gas sampling, indoor air sampling, a site-specific analysis, and/or mitigation to eliminate or address the potential vapor intrusion exposure pathway. Soil gas sampling was completed in an attempt to eliminate or address the potential exposure pathway.

As part of the previous release investigation, a vapor intrusion investigation was conducted consisting of two separate soil gas sampling events (initial and confirmatory). The initial soil gas sampling event was conducted on December 10, 2014 (prior to the December 18, 2014 confirmed violation (failed tightness test)) and the confirmatory soil gas sampling event was conducted on March 12, 2015 (after the December 18, 2014 confirmed violation (failed tightness test)). Soil gas sampling at the site utilized the existing soil gas points (SG-1 and SG-2).

5.4.3.1 Soil Gas Sampling Protocol

Three soil gas samples were collected at the site during each sampling event (initial and confirmatory), which included samples from each of the two soil gas points and one duplicate sample. At each soil gas sampling location, a combination of polyethylene and silicon tubing (installed in the soil gas point) was connected to the laboratory-provided soil gas sampling equipment (laboratory-calibrated flow controllers, regulators, and summa canisters). The summa canisters were one-liter in size, allowed for a flow rate of 50 mL/min, and took approximately 20 minutes to fill each sample.

Summa canisters (supplied and calibrated by Pace Analytical Services, Inc. (Pace)) were used to collect the soil gas samples. The samples were submitted to Pace for analysis of the post-March 2008 PADEP diesel short list constituents via USEPA Method TO-15.

The PADEP requests a duplicate soil gas sample to be taken from one of the sampling points. The results from both samples are to be within 30% of each other. The duplicate sample was collected simultaneous with another sample (utilization of a "T-junction") due to the fact that soil gas may undergo chemical variations between the first 20 minutes and the second 20 minutes of testing. By sampling at the same time there is less of a chance the soil gas could undergo these changes.

5.4.3.2 Soil Gas Analytical Results

The soil gas analytical results from the December 10, 2014 (initial) and March 12, 2015 (confirmatory) soil gas sampling events are presented in **Table 3**. The soil gas analytical results were screened against the Residential MSCs for Soil-Gas (MSC_{SG}) derived from the Indoor Air Criteria and Odor Thresholds, Residential MSC (mg/m^3), Table 3 of the Land Recycling Program Technical Guidance Manual-Section IV.A.4 - Vapor Intrusion into Buildings from Groundwater and Soil (each compound's MSC_{SG} was divided by 0.01, the transfer factor from soil gas to indoor air).

As indicated in **Table 3**, post-March 2008 PADEP diesel short list constituents were reported at concentrations below their respective PADEP Residential MSC_{SG} in soil gas samples collected during both events, specifically the March 12, 2015 (confirmatory) soil gas sampling event. As a result, the potential vapor intrusion exposure pathway has been eliminated and a complete vapor intrusion exposure pathway at the site does not exist.

The soil gas sample locations (SG-1 and SG-2) are depicted on the site layout map included as **Figure 3**. Soil gas analytical laboratory reports are included in **Appendix C**.

6.0 CONCEPTUAL SITE MODEL

The site had been remediated from the June 1995 and February 2008 reportable releases and was in the groundwater attainment monitoring phase. Quarterly groundwater attainment sampling was performed on December 17, 2014 (fourth quarter of 2014), which represented the first of eight required groundwater attainment sampling events to be performed at the site as part of the groundwater attainment monitoring program. The groundwater analytical results from the groundwater attainment sampling event conducted on December 17, 2014 indicated no exceedances of the applicable PADEP UARSHS MSCs.

During the week of December 15, 2014, station personnel reported actuation of the diesel fuel line leak detector. All product piping was tightness tested on December 18, 2014 and diesel fuel piping failed the tightness test indicating a possible leak to the subsurface. According to United, no inventory loss was reported; however, as a precautionary measurement, the diesel UST system was removed from service and emptied of product. On December 19, 2014, existing monitoring wells in the vicinity of the UST/dispenser system area were gauged to check for SPL, with no SPL or unusual odors detected.

Quarterly groundwater attainment sampling as part of the previous release investigation was performed on March 31, 2015 (first quarter of 2015), which was to represent the second of eight required groundwater attainment sampling events to be performed at the site as part of the groundwater attainment monitoring program. However, the first quarter of 2015 groundwater sampling results revealed exceedances of the applicable PADEP UARSHS MSCs for benzene, toluene, and naphthalene in monitoring wells MW-28 and MW-31, which are immediately adjacent to the gasoline and diesel dispensers (see **Table 2**). The appearance of constituent concentrations above the applicable PADEP UARSHS MSCs in wells MW-28 and MW-31 is likely a result of the December 18, 2014 diesel fuel piping failed tightness test (subsurface

release of diesel product in the vicinity of the dispensers). The cause and the timeframe of the release are unknown, but the suspected source is failure to the diesel product lines.

Interim remedial actions (operation of the existing DPE remediation system) have been implemented to remediate dissolved-phase and adsorbed-phase contaminants in the subsurface, and limit contaminant migration, and a site characterization has been performed at the site to identify and evaluate the extent of impacts to the environment in relation to the reported petroleum release.

The site characterization was performed to evaluate soil and groundwater chemical and physical characteristics and determine the extent of subsurface impact resulting from the December 2014 diesel release on soil and groundwater at the site. The site characterization activities included the following tasks: Geoprobe® soil investigations; a professional survey of the existing groundwater monitoring well network, property boundaries, and site infrastructure; groundwater monitoring/sampling events; groundwater movement assessments; soil/groundwater impact assessments; and, an evaluation of risk exposure pathways and potential receptors.

The results of the site characterization confirmed the following:

- Subsurface soils at the site have been impacted by adsorbed-phase post-March 2008 PADEP diesel short list constituents at concentrations greater than their respective PADEP UARSHS MSCs as a result of the diesel release;
- Impacts to subsurface soils have not been fully delineated (see **Figure 5** for a conceptual view of the estimated area of impacted soil);
- Adsorbed-phase soil impacts appear to be within the right-of-way of South 2nd Street;
- Groundwater at the site has been impacted by dissolved-phase post-March 2008 PADEP diesel short list constituents at concentrations greater than their respective PADEP UARSHS MSCs as a result of the diesel release;
- Dissolved-phase contaminants observed in groundwater appear to have migrated from the subject property underneath South 2nd Street onto the Cleveland Brothers property (currently owned by KF Land Holdings, LLC) (see MW-30 in **Table 2**);
- Impacts to site groundwater are fully delineated;
- Impacts to site groundwater appear to be localized to the MW-28, MW-30, and MW-31 area (vicinity of the dispenser island and immediately down-gradient); and,
- The potential vapor intrusion exposure, the diffuse groundwater discharge, degradation of surface water, and ingestion pathways are incomplete (via soil gas sampling and the groundwater characterization results (groundwater delineation)); however, potentially-complete exposure pathways were identified through the risk evaluation (specifically volatilization of constituents from groundwater, dermal contact, and soil particle inhalation pathways).

Environmental impacts (biological, physical, and/or chemical processes) to the site are a result of the diesel release that was suspected on December 18, 2014 and confirmed during the site characterization. The COI at the site have been identified, the source of the COI has been identified/confirmed, the COI potential migration pathways have been evaluated, but not fully

eliminated, potential environmental receptors have been identified and addressed, and the limits of the area of impacts have been fully delineated.

7.0 SELECTION OF REMEDIAL STANDARDS

Removal, closure, and remediation of USTs are regulated under the Storage Tank and Spill Prevention Act (Act 32) of August 5, 1989. These regulations were subsequently adopted and codified by PA under the PA Code as 25 PA Code, Chapter 245, Administration of the Storage Tank and Spill Prevention Program. Amendments to Chapter 245, Subchapters A, D, and E became effective on December 1, 2001 and were published in the PA Bulletin. The purpose of these amendments was to harmonize the corrective action process (Subchapter D) with PA's Land Recycling and Remediation Standards Act of 1995 (Act 2). The final rule-making for Act 2 was published in the PA Bulletin on August 16, 1997 as Annex A (Annex A), and subsequently codified as 25 PA Code, Chapter 250, Administration of Land Recycling Program, and modified/revised in November 2001.

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

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

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

Given these factors, the remedial standards selected for attainment of soil and groundwater at the United - Kwik Fill M-90 facility (PADEP Facility ID #17-14821) are the applicable PADEP UARSHS MSCs.

8.0 CONCLUSIONS AND RECOMMENDATIONS

Subsurface soils at the site have been impacted by adsorbed-phase post-March 2008 PADEP diesel short list constituents at concentrations greater than their respective PADEP UARSHS MSCs as a result of the diesel release; however, impacts to subsurface soils have not been fully delineated and appear to be within the right-of-way of South 2nd Street. Groundwater at the site has been impacted by dissolved-phase post-March 2008 PADEP diesel short list constituents at concentrations greater than their respective PADEP UARSHS MSCs as a result of the confirmed

diesel release; however, impacts to site groundwater are fully delineated. Furthermore, dissolved-phase contaminants observed in groundwater appear to have migrated from the subject property underneath South 2nd Street onto the Cleveland Brothers property (currently owned by KF Land Holdings, LLC). In addition, potentially-complete exposure pathways were identified.

Due to incomplete soil delineation, groundwater migration onto a third-party property, and potentially-complete exposure pathways, Letterle recommends (proposes) additional characterization activities as follows:

- Advance additional soil borings to the northeast and northwest of SB-16 and to the northwest (across South 2nd Street) of SB-11/SB-12 (the locations of the proposed soil borings (SB-19 through SB-22) are presented in **Figure 12**). Proposed borings SB-21/SB-22 must be placed across South 2nd Street due to utility conflicts immediately northwest of impacted borings SB-11/SB-12 (see **Figure 3**);
- Attempt to locate and sample groundwater monitoring wells MW-5 and MW-12 (these wells were not part of the groundwater sampling plan related to the previous release investigation) to further define the extent of off-site groundwater impacts (the approximate locations of groundwater monitoring wells MW-5 and MW-12 are presented in **Figure 13**;
- Update the professional survey that includes the locations of the proposed wells and soil borings and a property deed search so property boundaries can be added to the survey; and,
- Update the risk evaluation and the site conceptual model utilizing the additional data obtained from the activities proposed above and submission of an Additional SCR.

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

- DPE, which is currently installed and operating at the site;
- Soil Excavation;
- Groundwater Extraction and Treatment;
- In-Situ Chemical Oxidation (ISCO);
- Monitored Natural Attenuation (MNA); and/or,
- A combination of the above technologies.

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

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

- The cost-effectiveness of each remedial technology.

9.0 REFERENCES

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

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

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

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

Commonwealth of Pennsylvania, Pennsylvania Code. 2002. Pennsylvania Land Recycling Program Technical Guidance Manual, V.1. PADEP, Harrisburg, PA.

Geyer, et al., 1982. *Engineering Characteristics of the Rocks of Pennsylvania*. Environmental Geology Report 1. Geyer, Alan R. and Wilshusen, J. Peter. Department of Environmental Resources, Office of Resource Management, Bureau of Topography and Geological Survey, pp. 228-231.

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

TABLES

TABLE 1
SOIL ANALYTICAL RESULTS
Kwik Fill M-90
1322 South 2nd Street
Clearfield, PA 16830

Sample ID	1,3,5-TMB	1,2,4-TMB	Benzene	Toluene	Ethylbenzene	Xylenes (total)	Cumene	MTBE	Naphthalene
May 6 & 7, 2015									
SB-1 @ 4'	14.6	18.4	<1.88	<4.70	<4.70	<9.41	<4.70	<4.70	4.82
SB-2 @ 4'	<0.0038	0.0049	0.0149	0.0039	0.0056	0.0155	<0.0038	0.0039	<0.0038
SB-3 @ 4'	0.0075	0.0256	0.0123	<0.0039	0.0224	0.0236	<0.0039	<0.0039	<0.0039
SB-4 @ 5'	<0.0043	0.0053	0.0221	<0.0043	0.0053	0.0140	<0.0043	<0.0043	<0.0043
SB-5 @ 5'	<0.0042	0.0053	0.0138	<0.0042	0.0051	0.0113	<0.0042	<0.0042	<0.0042
SB-6 @ 2.5'	6.40	14.7	12.5	<0.975	26.3	14.3	2.56	<0.975	16.4
SB-6 @ 5'	0.0050	0.0127	0.0784	0.0045	0.0099	0.0297	<0.0044	<0.0044	<0.0044
SB-7 @ 4'	2.28	4.83	1.89	1.63	1.22	4.94	<1.03	<1.03	3.24
SB-8 @ 4'	59.1	182	1.51	<0.845	1.32	37.1	<0.845	<0.845	12.9
SB-9 @ 4.5'	<0.0039	0.0055	0.0351	<0.0039	<0.0039	0.0214	<0.0039	<0.0039	0.0059
SB-10 @ 4'	<0.0045	<0.0045	0.0053	<0.0045	<0.0045	<0.0090	<0.0045	<0.0045	<0.0045
SB-11 @ 2'	199	568	45.8	4.13	151	729	20.2	<0.976	101
SB-11 @ 4.5'	23.8	72.9	8.55	<0.932	12.7	57.7	1.86	<0.932	13.0
SB-12 @ 4'	91.7	148	0.0764	0.0097	0.0191	24.3	<0.0051	<0.0051	18.3
June 15, 2015									
SB-13	<0.0037	<0.0037	<0.0015	<0.0037	<0.0037	<0.0074	<0.0037	<0.0037	<0.0037
SB-14	<0.0042	<0.0042	<0.0017	<0.0042	<0.0042	<0.0084	<0.0042	<0.0042	<0.0042
SB-15	<0.0041	<0.0041	0.0099	<0.0041	<0.0041	<0.0082	<0.0041	<0.0041	<0.0041
SB-16	59.9	215	<0.358	<0.895	17.5	53.6	3.94	<0.895	18.0
SB-17	<0.0040	<0.0040	<0.0016	<0.0040	<0.0040	<0.0081	<0.0040	<0.0040	<0.0040
SB-18	<0.0039	<0.0039	<0.0016	<0.0039	<0.0039	<0.0079	<0.0039	<0.0039	<0.0039
PADEP UARSHS MSCs (Unsaturated)	2.3	8.4	0.5	100	70	1,000	600	2	25

Notes:

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

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

Bold and shaded values indicate a result greater than the PADEP UARSHS MSCs.

Table 2
Historic Groundwater Gauging and Analytical Data
Kwik Fill M-90
1322 South 2nd Street
Clearfield, PA 16830

Piezometer/Well	Date	Compound									Depth-to-Groundwater	Groundwater Elevation
		MTBE	Benzene	Toluene	Ethyl-benzene	Xylenes (Total)	Cumene	Naphthalene	1,3,5-TMB	1,2,4-TMB		
PADEP UARSHS MSCs		20	5	1,000	700	10,000	840	100	13	15		
MW-1	3/17/2010	10.9	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	2.26	1113.94
	6/8/2010	11.2	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	2.57	1113.63
	8/30/2010	18.6	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	4.78	1111.42
	11/17/2010	13.7	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	3.40	1112.80
	3/1/2011	6.6	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	1.78	1114.42
	5/31/2011	13.5	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	3.75	1112.45
	8/24/2011	12.1	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	4.12	1112.08
	3/28/2012	14.8	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	2.12	1114.08
	6/25/2012	Monitoring well converted to remedial extraction well.										
	12/17/2014	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	3.51	1112.69
	3/31/2015	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	2.64	1113.56
	5/4/2015	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	<1.00	<1.00	3.45	1112.75
	5/26/2015	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	<1.00	<1.00	6.65	1109.55
MW-1A	3/17/2010	7.1	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	2.57	1114.53
	6/8/2010	6.9	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	2.86	1114.24
	8/30/2010	16.3	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	5.32	1111.78
	11/17/2010	10.6	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	3.88	1113.22
	3/1/2011	<1.00	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	2.04	1115.06
	5/31/2011	4.2	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	4.29	1112.81
	8/24/2011	8.6	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	4.65	1112.45
	3/28/2012	<1.00	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	2.55	1114.55
	6/25/2012	Monitoring well converted to remedial extraction well.										
	12/17/2014	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	4.38	1112.72
	3/31/2015	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	3.62	1113.48
	5/4/2015	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	<1.00	<1.00	4.55	1112.55
	5/26/2015	2.16	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	<1.00	<1.00	7.26	1109.84

Table 2
Historic Groundwater Gauging and Analytical Data
Kwik Fill M-90
1322 South 2nd Street
Clearfield, PA 16830

Piezometer/Well	Date	Compound									Depth-to-Groundwater	Groundwater Elevation
		MTBE	Benzene	Toluene	Ethylbenzene	Xylenes (Total)	Cumene	Naphthalene	1,3,5-TMB	1,2,4-TMB		
PADEP UARSHS MSCs		20	5	1,000	700	10,000	840	100	13	15		
MW-2	3/17/2010	20.4	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	3.07	Not Surveyed
	6/8/2010	20.5	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	3.36	Not Surveyed
	8/30/2010	20.5	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	5.61	Not Surveyed
	11/17/2010	20.1	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	4.36	Not Surveyed
	3/1/2011	11.0	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	2.73	Not Surveyed
	5/31/2011	10.6	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	4.68	Not Surveyed
	8/24/2011	14.3	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	4.90	Not Surveyed
	3/28/2012	11.5	1.1	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	2.85	Not Surveyed
	6/25/2012	Monitoring well converted to remedial extraction well.										
	12/17/2014	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	3.79	Not Surveyed
	3/31/2015	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	3.10	Not Surveyed
	5/4/2015	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	<1.00	<1.00	4.01	Not Surveyed
	5/26/2015	1.41	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	<1.00	<1.00	7.00	Not Surveyed
MW-2A	3/17/2010	<1.00	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	1.21	1115.07
	6/8/2010	<1.00	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	1.27	1115.01
	8/30/2010	<1.00	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	3.23	1113.05
	11/17/2010	<1.00	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	2.25	1114.03
	3/1/2011	<1.00	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	0.91	1115.37
	5/31/2011	<1.00	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	2.16	1114.12
	8/24/2011	<1.00	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	2.52	1113.76
	3/28/2012	<1.00	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	0.45	1115.83
	6/25/2012	5.22	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	4.51	1111.77
	9/6/2012	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	3.21	1113.07
	12/14/2012	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	4.12	1112.16
	3/5/2013	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	4.30	1111.98
	5/28/2013	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	3.00	1113.28
	9/9/2013	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	4.06	1112.22
	12/2/2013	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	3.48	1112.80
	3/25/2014	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	3.67	1112.61
	6/11/2014	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	3.90	1112.38
	9/24/2014	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	4.20	1112.08
	12/17/2014	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	1.80	1114.48
	3/31/2015	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	1.38	1114.90
	5/4/2015	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	<1.00	<1.00	2.00	1114.28
	5/26/2015	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	<1.00	<1.00	3.61	1112.67

Table 2
Historic Groundwater Gauging and Analytical Data
Kwik Fill M-90
1322 South 2nd Street
Clearfield, PA 16830

Piezometer/Well	Date	Compound									Depth-to-Groundwater	Groundwater Elevation
		MTBE	Benzene	Toluene	Ethyl-benzene	Xylenes (Total)	Cumene	Naphthalene	1,3,5-TMB	1,2,4-TMB		
PADEP UARSHS MSCs		20	5	1,000	700	10,000	840	100	13	15		
MW-3	3/18/2010	43.2	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	2.43	1112.16
	6/7/2010	44.0	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	2.40	1112.19
	8/31/2010	41.4	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	3.92	1110.67
	11/17/2010	40.3	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	3.48	1111.11
	3/2/2011	33.2	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	1.81	1112.78
	5/31/2011	NS	NS	NS	NS	NS	NS	NS	NS	NS	NG	NG
	8/24/2011	32.3	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	3.38	1111.21
	3/28/2012	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.40	1113.19
	6/25/2012	21.9	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	3.17	1111.42
	9/6/2012	27.5	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	4.17	1110.42
	12/14/2012	18.4	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	5.63	1108.96
	3/5/2013	11.8	13.4	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	5.36	1109.23
	5/28/2013	12.6	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	4.40	1110.19
	9/9/2013	20.1	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	5.42	1109.17
	12/2/2013	17.2	<1.00	<1.00	1.55	<2.00	1.65	<1.00	NS	NS	5.45	1109.14
	3/25/2014	13.5	<2.00	<2.00	<2.00	<4.00	<2.00	<2.00	NS	NS	5.30	1109.29
	6/11/2014	15.9	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	5.47	1109.12
	9/24/2014	4.60	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	5.69	1108.90
	12/17/2014	8.51	<1.00	<1.00	2.57	2.35	1.36	1.10	NS	NS	3.90	1110.69
	3/31/2015	3.94	<1.00	<1.00	1.17	<2.00	<1.00	<1.00	NS	NS	2.62	1111.97
	5/4/2015	NS	NS	NS	NS	NS	NS	NS	NS	NS	NG	NG
	5/26/2015	7.32	<1.00	<1.00	4.03	3.74	1.56	1.14	<1.00	9.50	5.00	1109.59

Table 2
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Kwik Fill M-90
1322 South 2nd Street
Clearfield, PA 16830

Piezometer/Well	Date	Compound									Depth-to-Groundwater	Groundwater Elevation
		MTBE	Benzene	Toluene	Ethyl-benzene	Xylenes (Total)	Cumene	Naphthalene	1,3,5-TMB	1,2,4-TMB		
PADEP UARSHS MSCs		20	5	1,000	700	10,000	840	100	13	15		
MW-4	3/18/2010	<1.00	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	0.97	1111.60
	6/7/2010	<1.00	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	2.17	1110.40
	8/31/2010	<1.00	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	4.44	1108.13
	11/17/2010	<1.00	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	3.26	1109.31
	3/2/2011	<1.00	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	0.92	1111.65
	5/31/2011	NS	NS	NS	NS	NS	NS	NS	NS	NS	NG	NG
	8/24/2011	<1.00	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	3.24	1109.33
	3/28/2012	<1.00	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	1.20	1111.37
	6/25/2012	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	2.74	1109.83
	9/6/2012	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	4.11	1108.46
	12/14/2012	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	3.40	1109.17
	3/5/2013	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	2.58	1109.99
	5/28/2013	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	3.61	1108.96
	9/9/2013	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	5.00	1107.57
	12/2/2013	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	4.40	1108.17
	3/25/2014	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	2.90	1109.67
	6/11/2014	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	3.71	1108.86
	9/24/2014	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	4.85	1107.72
	12/17/2014	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	3.10	1109.47
	3/31/2015	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	1.12	1111.45
	5/4/2015	NS	NS	NS	NS	NS	NS	NS	NS	NS	NG	NG
	5/26/2015	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	<1.00	<1.00	4.35	1108.22

Table 2
Historic Groundwater Gauging and Analytical Data
Kwik Fill M-90
1322 South 2nd Street
Clearfield, PA 16830

Piezometer/Well	Date	Compound									Depth-to-Groundwater	Groundwater Elevation
		MTBE	Benzene	Toluene	Ethyl-benzene	Xylenes (Total)	Cumene	Naphthalene	1,3,5-TMB	1,2,4-TMB		
PADEP UARSHS MSCs		20	5	1,000	700	10,000	840	100	13	15		
MW-5	3/17/2010	5.4	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	1.16	Not Surveyed
	6/7/2010	4.8	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	1.53	Not Surveyed
	8/31/2010	3.8	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	3.18	Not Surveyed
	11/17/2010	2.6	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	2.80	Not Surveyed
	3/1/2011	1.2	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	0.43	Not Surveyed
	5/31/2011	NS	NS	NS	NS	NS	NS	NS	NS	NS	NG	Not Surveyed
	8/24/2011	5.7	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	2.64	Not Surveyed
	3/28/2012	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.04	Not Surveyed
Well not part of quarterly sampling program												
MW-6	3/17/2010	NS	NS	NS	NS	NS	NS	NS	NS	NS	NG	Not Surveyed
	6/7/2010	NS	NS	NS	NS	NS	NS	NS	NS	NS	NG	Not Surveyed
	8/31/2010	NS	NS	NS	NS	NS	NS	NS	NS	NS	NG	Not Surveyed
	11/17/2010	NS	NS	NS	NS	NS	NS	NS	NS	NS	NG	Not Surveyed
	3/1/2011	NS	NS	NS	NS	NS	NS	NS	NS	NS	NG	Not Surveyed
	5/31/2011	NS	NS	NS	NS	NS	NS	NS	NS	NS	NG	Not Surveyed
	8/24/2011	NS	NS	NS	NS	NS	NS	NS	NS	NS	NG	Not Surveyed
	3/28/2012	NS	NS	NS	NS	NS	NS	NS	NS	NS	NG	Not Surveyed
Well could not be located. Well not part of quarterly sampling program												

Table 2
Historic Groundwater Gauging and Analytical Data
Kwik Fill M-90
1322 South 2nd Street
Clearfield, PA 16830

Piezometer/Well	Date	Compound									Depth-to-Groundwater	Groundwater Elevation
		MTBE	Benzene	Toluene	Ethyl-benzene	Xylenes (Total)	Cumene	Naphthalene	1,3,5-TMB	1,2,4-TMB		
PADEP UARSHS MSCs		20	5	1,000	700	10,000	840	100	13	15		
MW-7	3/18/2010	3.6	59.5	11.5	44.4	54.7	25.6	44.5	NS	NS	2.60	1106.92
	6/7/2010	3.1	57.7	12.9	55.2	60.3	35.4	61.3	NS	NS	5.77	1103.75
	8/31/2010	6.8	104	14.4	47.9	49.2	29.3	38.7	NS	NS	7.92	1101.60
	11/17/2010	7.2	97.9	12.5	46.5	47.4	27.3	57.7	NS	NS	6.85	1102.67
	3/2/2011	4.1	51.9	8.8	39.3	27.7	22.4	20.9	NS	NS	3.93	1105.59
	5/31/2011	NS	NS	NS	NS	NS	NS	NS	NS	NS	NG	NG
	8/24/2011	7.7	73.8	10.2	25.8	28.5	31.3	40.7	NS	NS	7.21	1102.31
	3/28/2012	NS	NS	NS	NS	NS	NS	NS	NS	NS	7.15	1102.37
	6/25/2012	3.84	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	7.49	1102.03
	9/6/2012	10.6	NA	<2.00	<2.00	<4.00	<2.00	<2.00	NS	NS	7.76	1101.76
	12/14/2012	<2.00	NA	14.8	89.5	43.6	29.0	65.4	NS	NS	5.80	1103.72
	3/5/2013	<1.00	NA	2.29	5.67	5.16	2.25	3.28	NS	NS	6.55	1102.97
	5/28/2013	<1.00	NA	<1.00	1.07	<2.00	1.89	<1.00	NS	NS	6.30	1103.22
	9/9/2013	5.10	NA	<1.00	<1.00	<2.00	2.75	<1.00	NS	NS	7.80	1101.72
	12/2/2013	2.97	NA	9.81	29.3	17.1	17.0	38.6	NS	NS	7.08	1102.44
	3/25/2014	2.42	NA	<2.00	<2.00	<4.00	<2.00	<2.00	NS	NS	6.26	1103.26
	6/11/2014	2.58	NA	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	6.80	1102.72
	9/24/2014	2.09	NA	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	8.02	1101.50
	12/17/2014	2.93	NA	<1.00	<1.00	<2.00	1.60	<1.00	NS	NS	6.02	1103.50
	3/31/2015	NS	NS	NS	NS	NS	NS	NS	NS	NS	NG	NG
	5/4/2015	NS	NS	NS	NS	NS	NS	NS	NS	NS	NG	NG
	5/26/2015	NS	NS	NS	NS	NS	NS	NS	NS	NS	NG	NG

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Kwik Fill M-90
1322 South 2nd Street
Clearfield, PA 16830

Piezometer/Well	Date	Compound									Depth-to-Groundwater	Groundwater Elevation
		MTBE	Benzene	Toluene	Ethyl-benzene	Xylenes (Total)	Cumene	Naphthalene	1,3,5-TMB	1,2,4-TMB		
PADEP UARSHS MSCs		20	5	1,000	700	10,000	840	100	13	15		
MW-9	3/17/2010	NS	NS	NS	NS	NS	NS	NS	NS	NS	NG	Not Surveyed
	6/8/2010	32.8	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	0.00	Not Surveyed
	8/30/2010	NS	NS	NS	NS	NS	NS	NS	NS	NS	NG	Not Surveyed
	11/17/2010	NS	NS	NS	NS	NS	NS	NS	NS	NS	NG	Not Surveyed
	3/1/2011	NS	NS	NS	NS	NS	NS	NS	NS	NS	NG	Not Surveyed
	5/31/2011	NS	NS	NS	NS	NS	NS	NS	NS	NS	NG	Not Surveyed
	8/24/2011	NS	NS	NS	NS	NS	NS	NS	NS	NS	NG	Not Surveyed
	3/28/2012	NS	NS	NS	NS	NS	NS	NS	NS	NS	NG	Not Surveyed
Well could not be located.												
MW-10	3/17/2010	8.6	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	1.64	1108.37
	6/7/2010	8.8	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	0.78	1109.23
	8/31/2010	8.7	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	2.08	1107.93
	11/17/2010	7.7	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	2.50	1107.51
	3/2/2011	7.1	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	0.14	1109.87
	5/31/2011	NS	NS	NS	NS	NS	NS	NS	NS	NS	NG	NG
	8/24/2011	7.5	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	1.42	1108.59
	3/28/2012	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.42	1108.59
	6/25/2012	5.01	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	1.23	1108.78
	9/6/2012	6.16	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	2.10	1107.91
	12/14/2012	5.56	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	2.08	1107.93
	3/5/2013	5.80	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	1.81	1108.20
	5/28/2013	4.92	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	1.90	1108.11
	9/9/2013	6.87	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	2.70	1107.31
	12/2/2013	5.58	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	2.34	1107.67
	3/25/2014	<2.00	4.02	<2.00	<2.00	<4.00	<2.00	<2.00	NS	NS	1.70	1108.31
	6/11/2014	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	2.20	1107.81
	9/24/2014	4.06	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	3.00	1107.01
	12/17/2014	4.67	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	1.04	1108.97
	3/31/2015	4.13	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	0.80	1109.21
	5/4/2015	NS	NS	NS	NS	NS	NS	NS	NS	NS	NG	NG
	5/26/2015	3.85	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	<1.00	<1.00	2.00	1108.01

Table 2
Historic Groundwater Gauging and Analytical Data
Kwik Fill M-90
1322 South 2nd Street
Clearfield, PA 16830

Piezometer/Well	Date	Compound									Depth-to-Groundwater	Groundwater Elevation
		MTBE	Benzene	Toluene	Ethyl-benzene	Xylenes (Total)	Cumene	Naphthalene	1,3,5-TMB	1,2,4-TMB		
PADEP UARSHS MSCs		20	5	1,000	700	10,000	840	100	13	15		
MW-12	3/17/2010	NS	NS	NS	NS	NS	NS	NS	NS	NS	NG	Not Surveyed
	6/7/2010	NS	NS	NS	NS	NS	NS	NS	NS	NS	NG	Not Surveyed
	8/31/2010	NS	NS	NS	NS	NS	NS	NS	NS	NS	NG	Not Surveyed
	11/17/2010	30.3	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	3.28	Not Surveyed
	3/2/2011	NS	NS	NS	NS	NS	NS	NS	NS	NS	NG	Not Surveyed
	5/31/2011	NS	NS	NS	NS	NS	NS	NS	NS	NS	NG	Not Surveyed
	8/24/2011	NS	NS	NS	NS	NS	NS	NS	NS	NS	NG	Not Surveyed
	3/28/2012	NS	NS	NS	NS	NS	NS	NS	NS	NS	NG	Not Surveyed
Well not part of quarterly sampling program												
MW-14	3/17/2010	23.9	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	1.97	1114.16
	6/7/2010	18.7	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	2.22	1113.91
	8/31/2010	35.4	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	4.43	1111.70
	11/17/2010	21.3	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	3.40	1112.73
	3/2/2011	2.2	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	1.62	1114.51
	5/31/2011	21.4	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	3.44	1112.69
	8/24/2011	17.6	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	4.80	1111.33
	3/28/2012	<1.00	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	2.71	1113.42
	6/25/2012	8.80	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	3.59	1112.54
	9/6/2012	19.8	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	4.63	1111.50
	12/14/2012	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	6.89	1109.24
	3/5/2013	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	7.14	1108.99
	5/28/2013	1.38	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	4.80	1111.33
	9/9/2013	3.30	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	6.30	1109.83
	12/2/2013	1.52	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	6.00	1110.13
	3/25/2014	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	6.40	1109.73
	6/11/2014	1.45	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	6.16	1109.97
	9/24/2014	1.02	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	7.26	1108.87
	12/17/2014	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	1.66	1114.47
	3/31/2015	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	1.50	1114.63
	5/4/2015	NS	NS	NS	NS	NS	NS	NS	NS	NS	NG	NG
	5/26/2015	1.37	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	<1.00	<1.00	5.74	1110.39

Table 2
Historic Groundwater Gauging and Analytical Data
Kwik Fill M-90
1322 South 2nd Street
Clearfield, PA 16830

Piezometer/Well	Date	Compound									Depth-to-Groundwater	Groundwater Elevation
		MTBE	Benzene	Toluene	Ethyl-benzene	Xylenes (Total)	Cumene	Naphthalene	1,3,5-TMB	1,2,4-TMB		
PADEP UARSHS MSCs		20	5	1,000	700	10,000	840	100	13	15		
MW-15	3/18/2010	6.2	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	1.73	1113.03
	6/7/2010	6.8	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	2.08	1112.68
	8/31/2010	7.0	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	3.88	1110.88
	11/17/2010	6.3	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	3.44	1111.32
	3/2/2011	4.8	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	1.51	1113.25
	5/31/2011	NS	NS	NS	NS	NS	NS	NS	NS	NS	NG	NG
	8/24/2011	6.6	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	3.27	1111.49
	3/28/2012	NS	NS	NS	NS	NS	NS	NS	NS	NS	2.20	1112.56
	6/25/2012	6.98	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	3.11	1111.65
	9/6/2012	5.64	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	4.18	1110.58
	12/14/2012	2.23	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	5.45	1109.31
	3/5/2013	1.70	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	4.97	1109.79
	5/28/2013	1.09	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	4.30	1110.46
	9/9/2013	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	5.51	1109.25
	12/2/2013	1.76	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	5.52	1109.24
	3/25/2014	1.30	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	5.16	1109.60
	6/11/2014	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	5.65	1109.11
	9/24/2014	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	6.15	1108.61
	12/17/2014	1.69	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	3.30	1111.46
	3/31/2015	1.59	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	2.35	1112.41
	5/4/2015	NS	NS	NS	NS	NS	NS	NS	NS	NS	NG	NG
	5/26/2015	1.69	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	<1.00	<1.00	4.85	1109.91

Table 2
Historic Groundwater Gauging and Analytical Data
Kwik Fill M-90
1322 South 2nd Street
Clearfield, PA 16830

Piezometer/Well	Date	Compound									Depth-to-Groundwater	Groundwater Elevation
		MTBE	Benzene	Toluene	Ethyl-benzene	Xylenes (Total)	Cumene	Naphthalene	1,3,5-TMB	1,2,4-TMB		
PADEP UARSHS MSCs		20	5	1,000	700	10,000	840	100	13	15		
MW-17	3/18/2010	9.0	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	0.73	Not Surveyed
	6/7/2010	1.3	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	0.09	Not Surveyed
	8/31/2010	13.0	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	1.78	Not Surveyed
	11/17/2010	11.2	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	1.70	Not Surveyed
	3/1/2011	7.4	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	0.11	Not Surveyed
	5/31/2011	NS	NS	NS	NS	NS	NS	NS	NS	NS	NG	Not Surveyed
	8/24/2011	NS	NS	NS	NS	NS	NS	NS	NS	NS	NG	Not Surveyed
	3/28/2012	NS	NS	NS	NS	NS	NS	NS	NS	NS	NG	Not Surveyed
Well could not be located.												
MW-21	3/17/2010	41.3	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	1.86	1112.07
	6/7/2010	42.2	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	2.12	1111.81
	8/30/2010	40.0	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	3.43	1110.50
	11/17/2010	35.9	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	3.22	1110.71
	3/2/2011	33.9	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	1.50	1112.43
	5/31/2011	NS	NS	NS	NS	NS	NS	NS	NS	NS	NG	NG
	8/24/2011	37.5	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	3.05	1110.88
	3/28/2012	NS	NS	NS	NS	NS	NS	NS	NS	NS	2.10	1111.83
	6/25/2012	21.7	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	2.94	1110.99
	9/6/2012	42.1	<2.00	<2.00	<2.00	<4.00	<2.00	<2.00	NS	NS	3.79	1110.14
	12/14/2012	10.8	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	5.09	1108.84
	3/5/2013	12.7	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	4.61	1109.32
	5/28/2013	9.92	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	3.97	1109.96
	9/9/2013	31.2	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	4.90	1109.03
	12/2/2013	2.24	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	4.80	1109.13
	3/25/2014	4.71	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	4.50	1109.43
	6/11/2014	4.35	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	4.90	1109.03
	9/24/2014	8.24	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	5.44	1108.49
	12/17/2014	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	3.16	1110.77
	3/31/2015	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	2.29	1111.64
	5/4/2015	NS	NS	NS	NS	NS	NS	NS	NS	NS	NG	NG
	5/26/2015	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	<1.00	<1.00	4.16	1109.77

Table 2
Historic Groundwater Gauging and Analytical Data
Kwik Fill M-90
1322 South 2nd Street
Clearfield, PA 16830

Piezometer/Well	Date	Compound									Depth-to-Groundwater	Groundwater Elevation
		MTBE	Benzene	Toluene	Ethylbenzene	Xylenes (Total)	Cumene	Naphthalene	1,3,5-TMB	1,2,4-TMB		
PADEP UARSHS MSCs		20	5	1,000	700	10,000	840	100	13	15		
MW-22	3/17/2010	5.8	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	1.79	Not Surveyed
	6/7/2010	8.4	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	2.18	Not Surveyed
	8/30/2010	8.6	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	3.60	Not Surveyed
	11/17/2010	6.7	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	3.38	Not Surveyed
	3/2/2011	6.0	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	1.42	Not Surveyed
	5/31/2011	NS	NS	NS	NS	NS	NS	NS	NS	NS	NG	Not Surveyed
	8/24/2011	10.5	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	3.04	Not Surveyed
	3/28/2012	NS	NS	NS	NS	NS	NS	NS	NS	NS	2.11	Not Surveyed
Well not part of quarterly sampling program												
MW-23	3/17/2010	<1.00	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	2.51	Not Surveyed
	6/7/2010	<1.00	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	2.03	Not Surveyed
	8/31/2010	<1.00	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	4.63	Not Surveyed
	11/17/2010	<1.00	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	3.90	Not Surveyed
	3/2/2011	<1.00	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	2.02	Not Surveyed
	5/31/2011	NS	NS	NS	NS	NS	NS	NS	NS	NS	NG	Not Surveyed
	8/24/2011	<1.00	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	3.93	Not Surveyed
	3/28/2012	NS	NS	NS	NS	NS	NS	NS	NS	NS	2.80	Not Surveyed
Well not part of quarterly sampling program												
MW-28	3/17/2010	4.5	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	3.13	1113.61
	6/8/2010	3.4	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	3.44	1113.30
	8/30/2010	6.4	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	5.64	1111.10
	11/17/2010	4.1	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	4.46	1112.28
	3/1/2011	7.6	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	3.01	1113.73
	5/31/2011	3.4	NA	NA	NA	NA	NA	NA	NS	NS	4.82	1111.92
	8/24/2011	4.9	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	4.97	1111.77
	3/28/2012	14.6	NA	NA	NA	NA	NA	NA	NS	NS	2.88	1113.86
	6/25/2012	Monitoring well converted to remedial extraction well.										
	12/17/2014	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	3.97	1112.77
	3/31/2015	<1.00	56.4	244	13.4	196	<1.00	2.69	NS	NS	3.24	1113.50
	5/4/2015	2.55	42.0	5.10	12.9	44.6	1.58	4.34	5.76	18.9	4.11	1112.63
	5/26/2015	4.13	<1.00	<1.00	2.53	13.2	<1.00	1.32	2.35	3.83	6.85	1109.89

Table 2
Historic Groundwater Gauging and Analytical Data
Kwik Fill M-90
1322 South 2nd Street
Clearfield, PA 16830

Piezometer/Well	Date	Compound									Depth-to-Groundwater	Groundwater Elevation
		MTBE	Benzene	Toluene	Ethyl-benzene	Xylenes (Total)	Cumene	Naphthalene	1,3,5-TMB	1,2,4-TMB		
PADEP UARSHS MSCs		20	5	1,000	700	10,000	840	100	13	15		
MW-29	3/17/2010	35.0	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	2.61	1112.04
	6/7/2010	39.7	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	2.83	1111.82
	8/30/2010	39.0	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	4.95	1109.70
	11/17/2010	37.6	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	3.95	1110.70
	3/2/2011	9.8	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	2.23	1112.42
	5/31/2011	NS	NS	NS	NS	NS	NS	NS	NS	NS	NG	NG
	8/24/2011	37.1	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	3.81	1110.84
	3/28/2012	NS	NS	NS	NS	NS	NS	NS	NS	NS	2.71	1111.94
	6/25/2012	22.8	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	3.58	1111.07
	9/6/2012	25.0	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	4.58	1110.07
	12/14/2012	3.13	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	5.77	1108.88
	3/5/2013	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	5.36	1109.29
	5/28/2013	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	4.70	1109.95
	9/9/2013	1.39	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	5.65	1109.00
	12/2/2013	11.0	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	5.47	1109.18
	3/25/2014	4.06	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	5.25	1109.40
	6/11/2014	5.47	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	5.65	1109.00
	9/24/2014	2.20	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	6.17	1108.48
	12/17/2014	9.76	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	3.92	1110.73
	3/31/2015	2.73	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	3.03	1111.62
	5/4/2015	NS	NS	NS	NS	NS	NS	NS	NS	NS	NG	NG
	5/26/2015	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	<1.00	<1.00	4.90	1109.75

Table 2
Historic Groundwater Gauging and Analytical Data
Kwik Fill M-90
1322 South 2nd Street
Clearfield, PA 16830

Piezometer/Well	Date	Compound									Depth-to-Groundwater	Groundwater Elevation
		MTBE	Benzene	Toluene	Ethyl-benzene	Xylenes (Total)	Cumene	Naphthalene	1,3,5-TMB	1,2,4-TMB		
PADEP UARSHS MSCs		20	5	1,000	700	10,000	840	100	13	15		
MW-30	3/18/2010	17.0	23.9	<1.00	14.5	12.2	1.9	2.5	NS	NS	2.23	1112.55
	6/7/2010	20.1	17.9	<1.00	12.4	10.5	1.9	<2.00	NS	NS	2.41	1112.37
	8/31/2010	22.7	<1.00	<1.00	3.1	<3.00	<1.00	<2.00	NS	NS	4.07	1110.71
	11/17/2010	25.9	<1.00	<1.00	1.8	<3.00	<1.00	<2.00	NS	NS	3.61	1111.17
	3/2/2011	22.7	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	2.35	1112.43
	5/31/2011	NS	NS	NS	NS	NS	NS	NS	NS	NS	NG	NG
	8/24/2011	NS	NS	NS	NS	NS	NS	NS	NS	NS	NG	NG
	3/28/2012	NS	NS	NS	NS	NS	NS	NS	NS	NS	NG	NG
	6/25/2012	8.41	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	3.31	1111.47
	9/6/2012	10.8	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	4.30	1110.48
	12/14/2012	4.08	<2.00	<2.00	<2.00	<4.00	<2.00	<2.00	NS	NS	5.91	1108.87
	3/5/2013	6.13	1.80	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	5.50	1109.28
	5/28/2013	6.56	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	4.51	1110.27
	9/9/2013	6.28	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	5.68	1109.10
	12/2/2013	13.5	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	5.74	1109.04
	3/25/2014	7.18	<2.00	<2.00	<2.00	<4.00	<2.00	<2.00	NS	NS	5.39	1109.39
	6/11/2014	3.10	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	5.84	1108.94
	9/24/2014	8.54	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	6.40	1108.38
	12/17/2014	5.38	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	3.55	1111.23
	3/31/2015	<2.00	3.18	<2.00	<2.00	<4.00	<2.00	<2.00	NS	NS	2.58	1112.20
	5/4/2015	NS	NS	NS	NS	NS	NS	NS	NS	NS	NG	NG
	5/26/2015	5.50	17.9	<1.00	<1.00	<2.00	<1.00	<1.00	<1.00	22.9	5.00	1109.78

Table 2
Historic Groundwater Gauging and Analytical Data
Kwik Fill M-90
1322 South 2nd Street
Clearfield, PA 16830

Piezometer/Well	Date	Compound									Depth-to-Groundwater	Groundwater Elevation
		MTBE	Benzene	Toluene	Ethyl-benzene	Xylenes (Total)	Cumene	Naphthalene	1,3,5-TMB	1,2,4-TMB		
PADEP UARSHS MSCs		20	5	1,000	700	10,000	840	100	13	15		
MW-31	3/17/2010	7.8	668	783	265	2,700	26.4	119	NS	NS	3.16	1113.86
	6/8/2010	6.3	336	118	119	754	10.2	61.8	NS	NS	3.61	1113.41
	8/30/2010	8.0	18.8	1.1	10.5	34.1	1.3	3.3	NS	NS	5.73	1111.29
	11/17/2010	6.7	60.5	<1.00	20.6	20.4	1.8	4.3	NS	NS	4.73	1112.29
	3/1/2011	4.8	9.2	1.4	3.6	4.1	<1.00	<2.00	NS	NS	3.48	1113.54
	5/31/2011	6.3	66.1	<1.00	20.0	22.1	2.3	2.1	NS	NS	4.74	1112.28
	8/24/2011	14.3	439	7.2	135	272	12	35.7	NS	NS	5.03	1111.99
	3/28/2012	16.2	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	3.18	1113.84
	6/25/2012	Monitoring well converted to remedial extraction well.										
	12/17/2014	<1.00	<1.00	<1.00	<1.00	13.6	<1.00	<1.00	NS	NS	4.30	1112.72
	3/31/2015	5.95	938	3,540	370	3,170	45.4	224	NS	NS	3.59	1113.43
	5/4/2015	<10.0	157	71.7	36.8	422	<10.0	38.4	48.3	154	4.43	1112.59
	5/26/2015	3.91	8.17	<1.00	11.3	26.8	1.00	6.56	5.62	34.1	6.80	1110.22
MW-32	5/28/2010	4.1	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	4.22	1113.03
	6/8/2010	2.8	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	3.21	1114.04
	8/30/2010	1.6	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	5.16	1112.09
	11/17/2010	2.2	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	4.64	1112.61
	3/1/2011	2.7	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	2.94	1114.31
	5/31/2011	2.6	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	4.15	1113.10
	8/24/2011	2.8	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	4.58	1112.67
	3/28/2012	<1.00	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	2.49	1114.76
	6/25/2012	4.51	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	4.51	1112.74
	9/6/2012	4.07	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	5.51	1111.74
	12/14/2012	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	5.65	1111.60
	3/5/2013	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	5.50	1111.75
	5/28/2013	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	5.22	1112.03
	9/9/2013	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	6.50	1110.75
	12/2/2013	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	5.80	1111.45
	3/25/2014	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	5.45	1111.80
	6/11/2014	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	6.10	1111.15
	9/24/2014	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	6.39	1110.86
	12/17/2014	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	4.19	1113.06
	3/31/2015	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	3.70	1113.55
	5/4/2015	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	<1.00	<1.00	4.45	1112.80
	5/26/2015	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	<1.00	<1.00	6.21	1111.04

Table 2
Historic Groundwater Gauging and Analytical Data
Kwik Fill M-90
1322 South 2nd Street
Clearfield, PA 16830

Piezometer/Well	Date	Compound									Depth-to-Groundwater	Groundwater Elevation
		MTBE	Benzene	Toluene	Ethyl-benzene	Xylenes (Total)	Cumene	Naphthalene	1,3,5-TMB	1,2,4-TMB		
PADEP UARSHS MSCs		20	5	1,000	700	10,000	840	100	13	15		
MW-33	5/28/2010	<1.00	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	4.41	1113.17
	6/8/2010	<1.00	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	3.36	1114.22
	8/30/2010	<1.00	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	5.25	1112.33
	11/17/2010	<1.00	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	4.96	1112.62
	3/1/2011	<1.00	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	3.42	1114.16
	5/31/2011	<1.00	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	4.38	1113.20
	8/24/2011	<1.00	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	4.72	1112.86
	3/28/2012	<1.00	<1.00	<1.00	<1.00	<3.00	<1.00	<2.00	NS	NS	2.70	1114.88
	6/25/2012	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	4.66	1112.92
	9/6/2012	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	5.70	1111.88
	12/14/2012	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	4.72	1112.86
	3/5/2013	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	4.46	1113.12
	5/28/2013	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	4.15	1113.43
	9/9/2013	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	6.40	1111.18
	12/2/2013	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	5.56	1112.02
	3/25/2014	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	4.60	1112.98
	6/11/2014	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	5.32	1112.26
	9/24/2014	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	5.71	1111.87
	12/17/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	4.29	1113.29
	3/31/2015	NS	NS	NS	NS	NS	NS	NS	NS	NS	4.00	1113.58
	5/4/2015	NS	NS	NS	NS	NS	NS	NS	NS	NS	NG	NG
	5/26/2015	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	<1.00	<1.00	5.37	1112.21
MW-34	12/17/2014	2.94	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	4.39	1112.69
	3/31/2015	3.69	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	3.65	1113.43
	5/4/2015	4.54	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	<1.00	<1.00	4.50	1112.58
	5/26/2015	1.75	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	<1.00	<1.00	7.18	1109.90
MW-35	12/17/2014	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	4.66	1112.62
	3/31/2015	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	3.94	1113.34
	5/4/2015	1.53	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	<1.00	<1.00	4.79	1112.49
	5/26/2015	3.95	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	<1.00	<1.00	7.71	1109.57

Table 2
Historic Groundwater Gauging and Analytical Data
Kwik Fill M-90
1322 South 2nd Street
Clearfield, PA 16830

Piezometer/Well	Date	Compound									Depth-to-Groundwater	Groundwater Elevation
		MTBE	Benzene	Toluene	Ethyl-benzene	Xylenes (Total)	Cumene	Naphthalene	1,3,5-TMB	1,2,4-TMB		
PADEP UARSHS MSCs		20	5	1,000	700	10,000	840	100	13	15		
MW-36	12/17/2014	3.24	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	4.08	1112.60
	3/31/2015	4.94	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	NS	NS	1.65	1115.03
	5/4/2015	4.23	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	<1.00	<1.00	4.16	1112.52
	5/26/2015	4.45	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	<1.00	<1.00	7.22	1109.46

Notes:

Groundwater elevation data reported in feet (ft).

Depth-to-groundwater results are reported in feet below top-of-casing (ft-btoc).

All results reported in ug/l.

Bold values indicate levels above LRL.

Bold and shaded values indicate exceedance of PADEP UARSHS MSCs.

NG - Not Gauged. NA - Not Analyzed. NS - Not Sampled.

Well elevations were re-surveyed in June 2015.

TABLE 3
SOIL GAS ANALYTICAL RESULTS
Kwik Fill M-90
1322 South 2nd Street
Clearfield, PA 16830

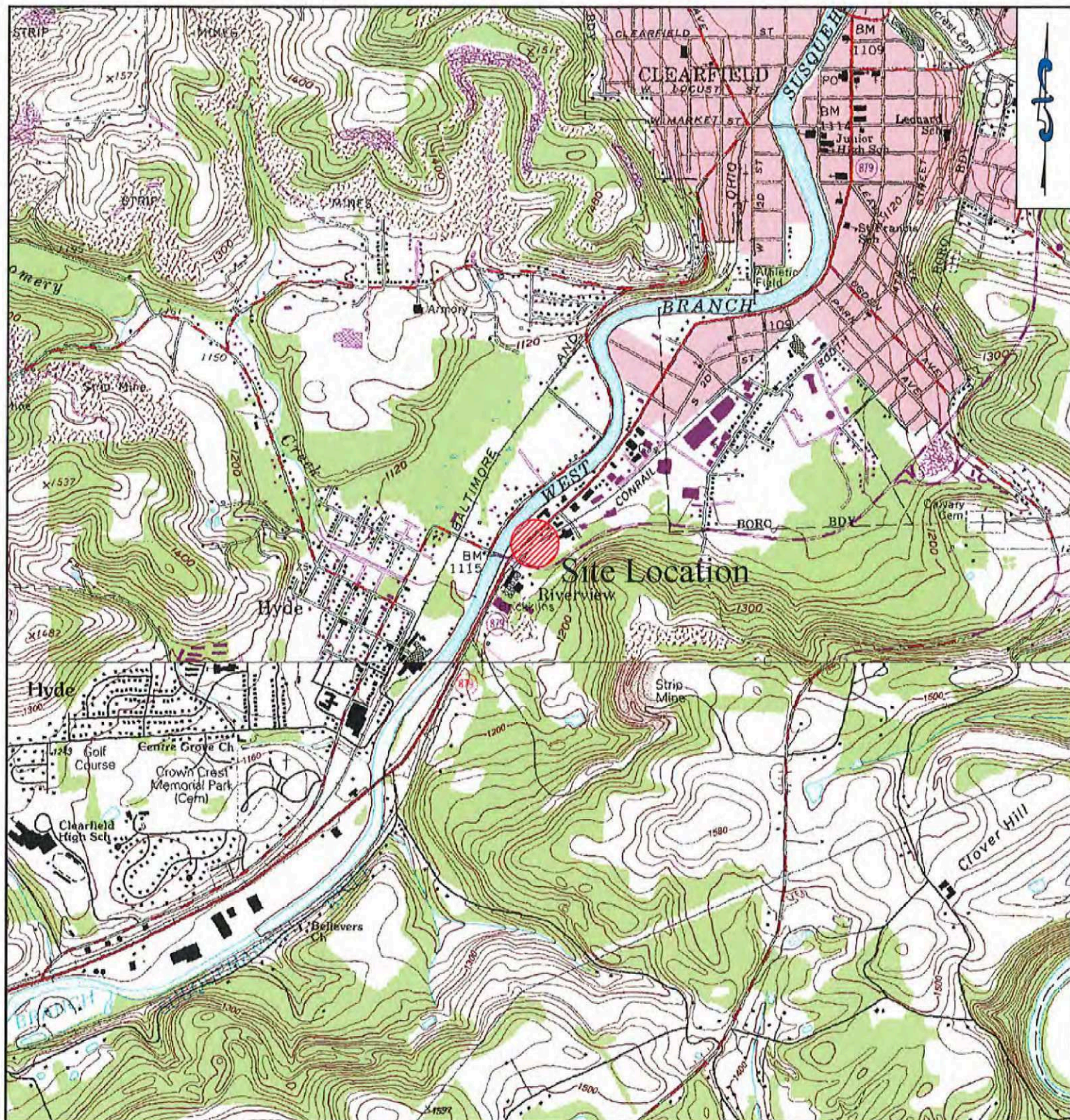
Sample ID	1,3,5-TMB	1,2,4-TMB	Benzene	Toluene	Ethylbenzene	m/p-Xylene	o-Xylene	Cumene	MTBE	Naphthalene
December 10, 2014										
SG-1	NS	NS	0.0014	0.0039	<0.0015	0.0049	0.0019	NS	<0.0013	<0.0046
SG-2	NS	NS	0.0014	0.0036	<0.0015	0.0048	0.0018	NS	<0.0013	<0.0046
Duplicate Grab	NS	NS	0.0011	0.0017	<0.0015	<0.0031	<0.0015	NS	<0.0013	<0.0046
March 12, 2015										
SG-1	<0.0019	<0.0019	<0.00063	<0.0015	<0.0017	<0.0034	<0.0017	<0.0048	<0.0014	<0.0052
SG-2	0.002	0.0071	0.0022	0.0048	0.0077	0.016	0.0028	<0.0039	<0.0011	<0.0042
Duplicate Grab	<0.0016	<0.0016	0.0016	0.0041	<0.0014	0.004	<0.0014	<0.0039	<0.0011	<0.0042
Residential MSC_{SG}	0.83	0.83	0.27	56	1.9	14 (Total Xylenes)	54	8.1	0.42	

Notes: Results are reported in milligrams per cubic meter (mg/m³).



Bold values indicate a result greater than the Method Detection Limit (MDL).

Residential Medium Specific Concentrations for Soil-Gas (MSC_{SG}) derived from the Indoor Air Criteria and Odor Thresholds, Residential MSC (mg/m³), Table 3 of the Land Recycling Program Technical Guidance Manual-Section IV.A.4 - Vapor Intrusion into Buildings from Groundwater and Soil.

FIGURES





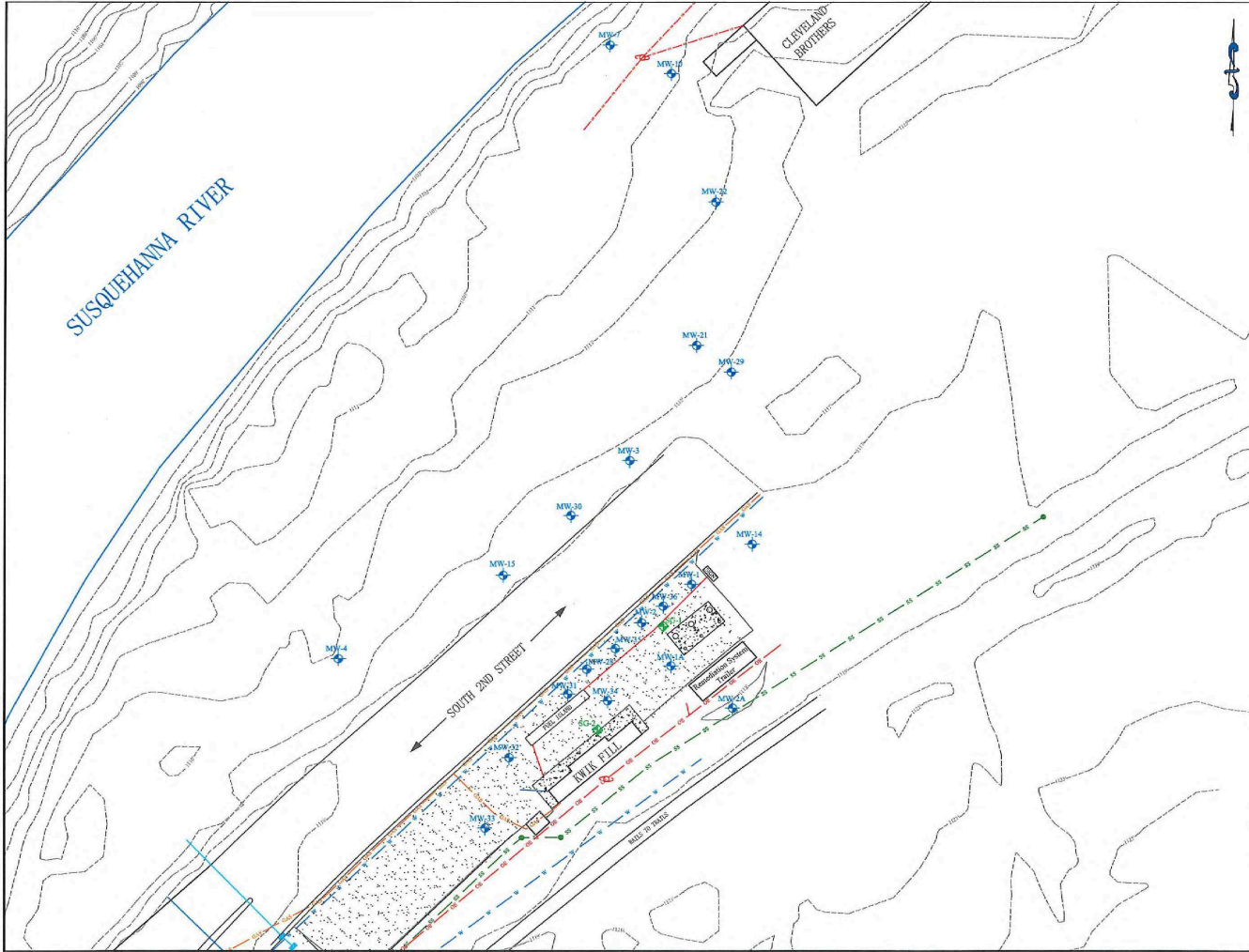
Reference: 7.5-minute United States Geological Survey Topographic Quadrangles of Clearfield and Glen Richey, Pennsylvania, DeLorme 3-D Topographic Quads Program.

Prepared For:	Project Information:	Prepared By:
Kwik Fill M-90 1322 South 2nd Street Clearfield, PA 16830	Project Manager: Jed Hill Project Geologist: George Hunzeker, P.G.	 Letterle & Associates 2022 Axemann Road, Suite 201 Bellefonte, PA 16823 P: 814-355-2241 F: 814-355-2410 www.letterleassociates.com
Title:	Scale (feet):	
Figure 1 Site Location Map	Scale: 1" = 2000' 	



Reference: Aerial Image dated March 26, 2015 taken from Google Earth Program.

<i>Prepared For:</i>	<i>Project Information:</i>	<i>Prepared By:</i>
<p>Kwik Fill M-90 1322 South 2nd Street Clearfield, PA 16830</p>	<p>Project Manager: Jed Hill Project Geologist: George Hunzeker, P.G.</p>	<p> Letterle & Associates</p> <p>2022 Axemann Road, Suite 201 Bellefonte, PA 16823 P: 814-355-2241 F: 814-355-2410 www.letterleassociates.com</p>
<i>Title:</i>	<i>Scale (feet):</i>	
<p>Figure 2 Site Aerial Map</p>	<p>Scale: 1" = 100'</p> 	



Prepared By:



2022 Axemann Road, Suite 201
Bellefonte, PA 16823
P: 814-355-2241
F: 814-355-2410
www.letterleassociates.com

Project Manager: Jed Hill
Project Geologist: George Hunzeker, P.G.

Prepared For:

Kwik Fill M-90
1322 South 2nd Street
Clearfield, PA 16830

Title:

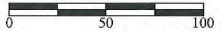
Figure 3
Site Layout Map

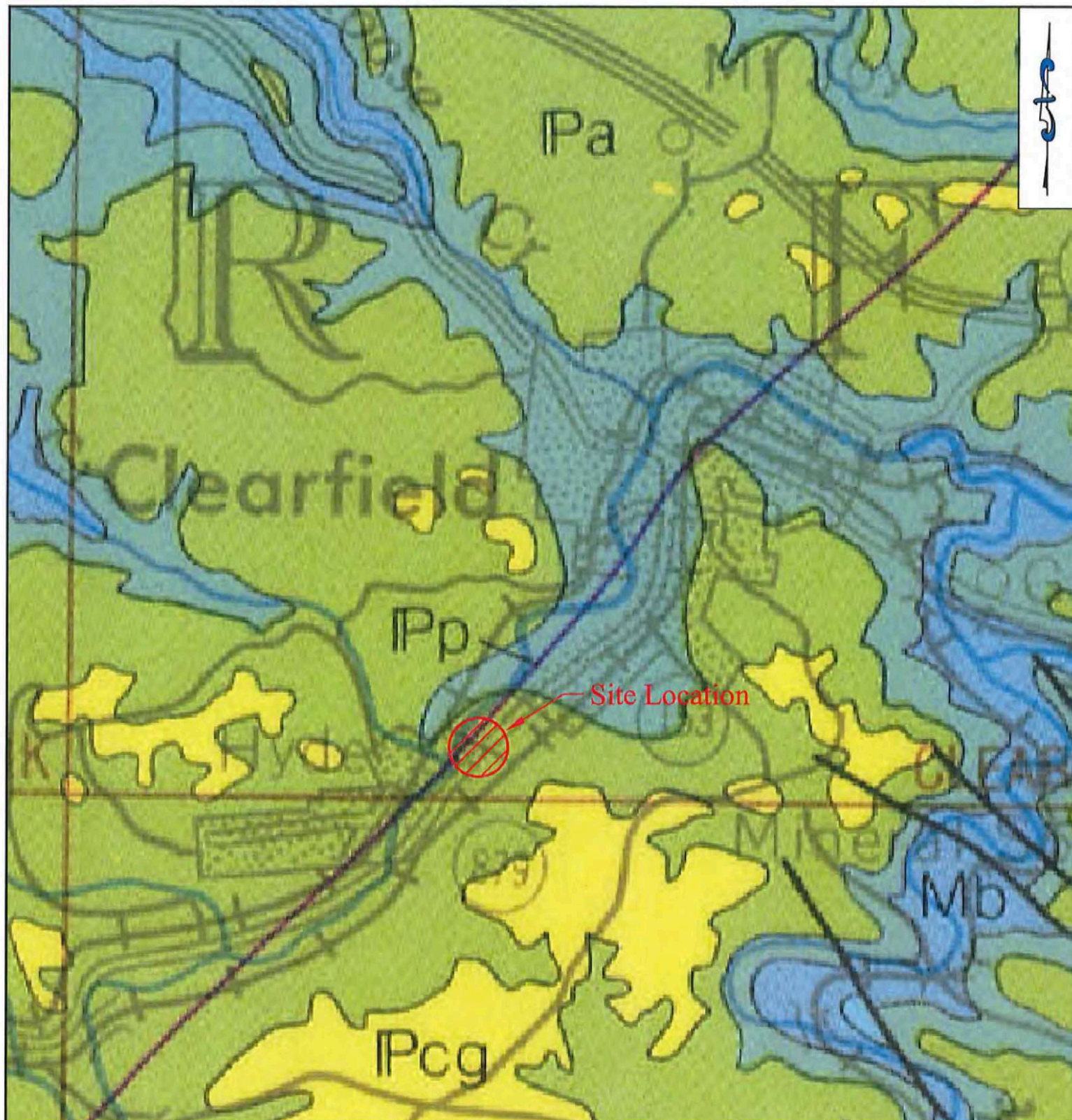
Legend:

- Groundwater Monitoring Well Location
- Soil Vapor Sample Point
- Surface Contour (feet above mean sea level)
- Overhead Utility Line
- Underground Utility Line
- Sanitary Sewer Line
- Stormwater Conveyance
- Water Line
- Gas Line
- Utility/Power Pole
- Sewer Manhole/Cleanout



Scale (ft):

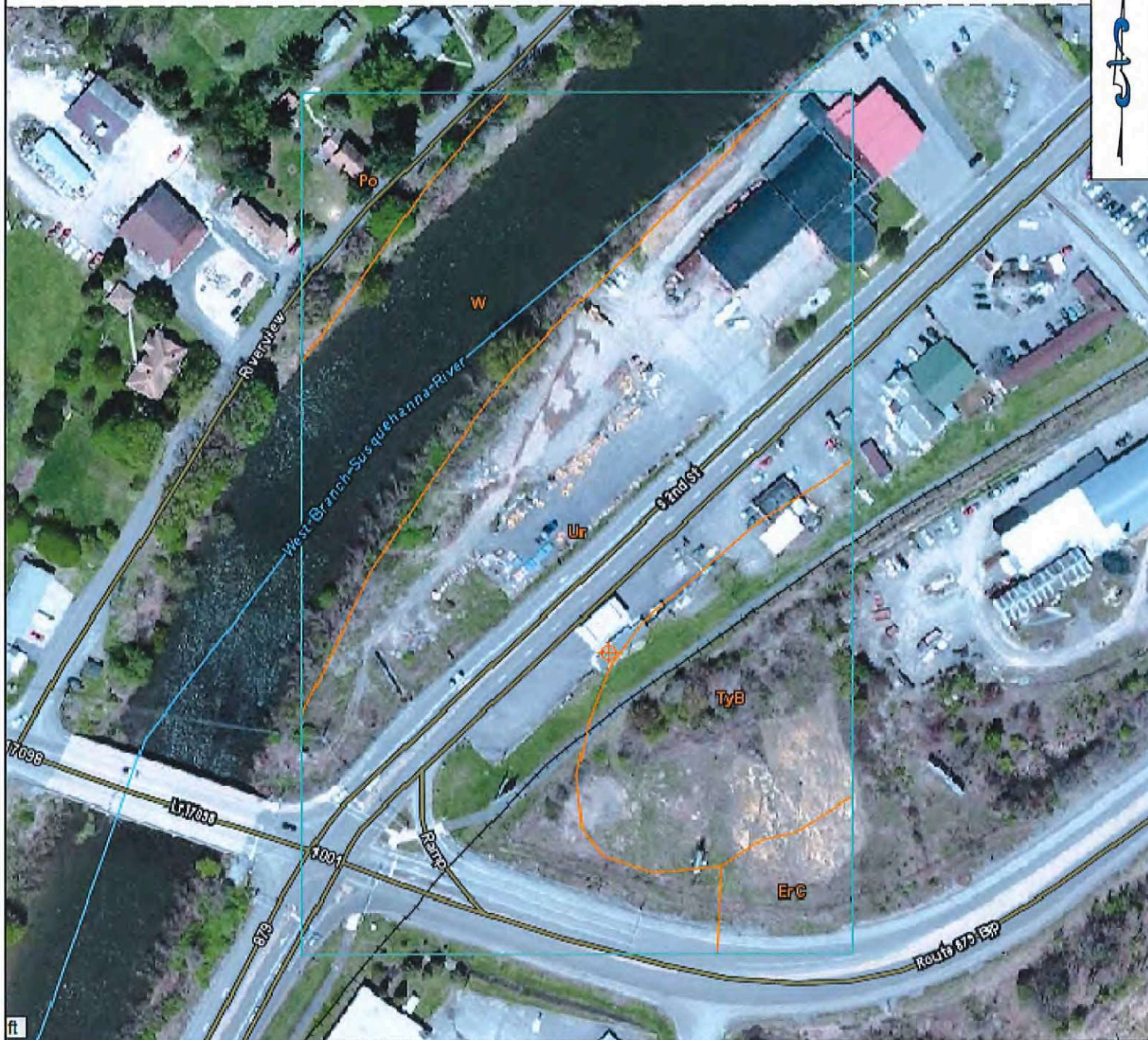
1" = 50'
One Inch Equals Fifty Feet





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

<i>Prepared For:</i>	<i>Project Information:</i>	<i>Prepared By:</i>
Kwik Fill M-90 1322 South 2nd Street Clearfield, PA 16830	Project Manager: Jed Hill Project Geologist: George Hunzeker, P.G.	 Letterle & Associates 2022 Axemann Road, Suite 201 Bellefonte, PA 16823 P: 814-355-2241 F: 814-355-2410 www.letterleassociates.com
<i>Title:</i>	<i>Scale (feet):</i>	
Figure 4A Preliminary Bedrock Geologic Map	NOT TO SCALE 	


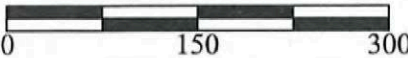


Site Soils:

Ur - Urban land

TyB - Tyler Silt Loam

Reference: United States Department of Agriculture, Natural Resources Conservation Service, Web Soil Survey, March 26, 2015

Prepared For:	Project Information:	Prepared By:
Kwik Fill M-90 1322 South 2nd Street Clearfield, PA 16830	Project Manager: Jed Hill Project Geologist: George Hunzeker, P.G.	 Letterle & Associates 2022 Axemann Road, Suite 201 Bellefonte, PA 16823 P: 814-355-2241 F: 814-355-2410 www.letterleassociates.com
Title:	Scale (feet):	
Figure 4B Unconsolidated Overburden Soils Identification Map	Scale: 1" = 150' 	

Prepared By:



2022 Axemann Road, Suite 201
Bellefonte, PA 16823
P: 814-355-2241
F: 814-355-2410
www.letterleassociates.com

Project Manager: Jed Hill
Project Geologist: George Hunzeker, P.G.

Prepared For:

Kwik Fill M-90
1322 South 2nd Street
Clearfield, PA 16830

Title:

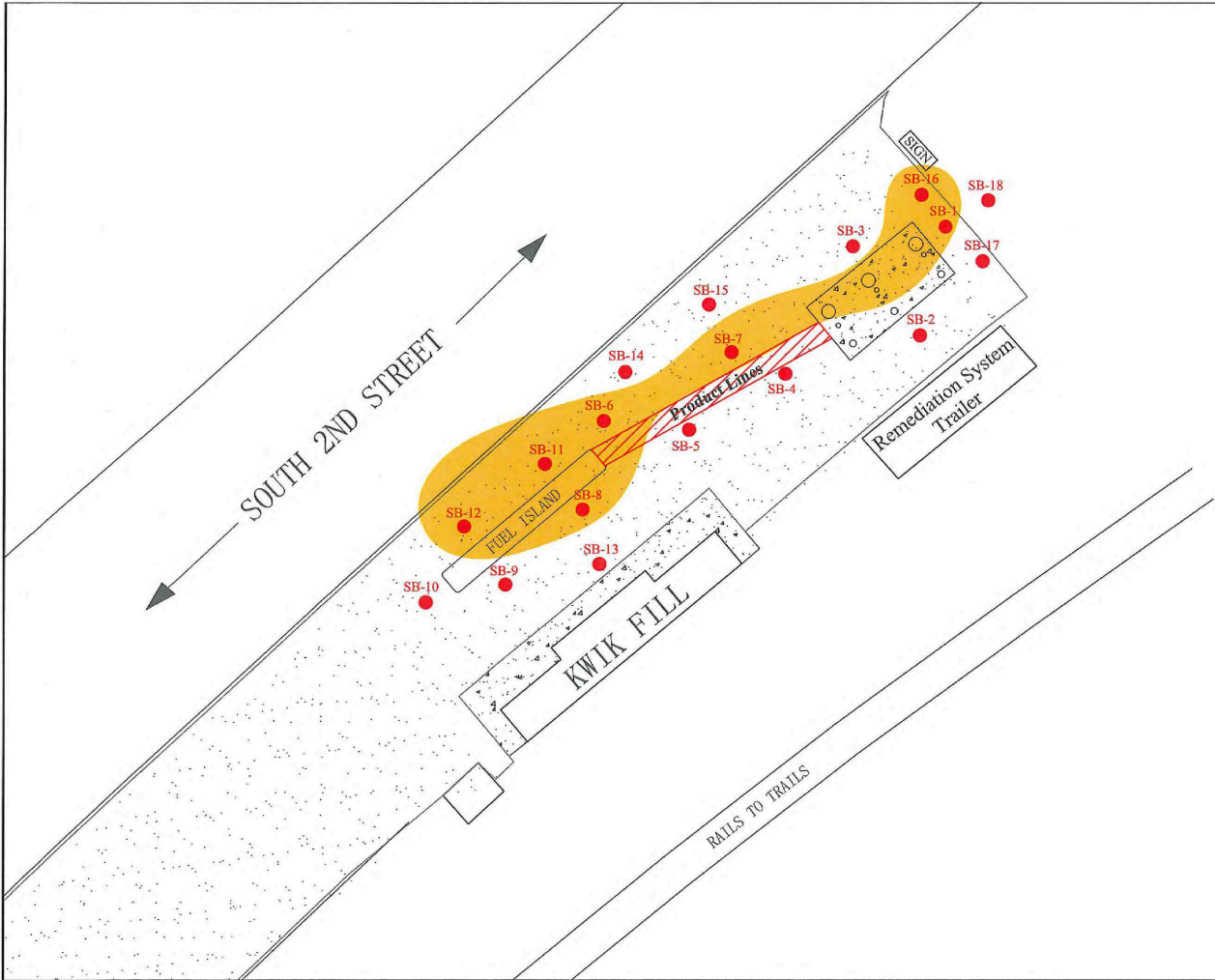
Figure 5
Soil Boring Location/Estimated
Area of Impacted Soil

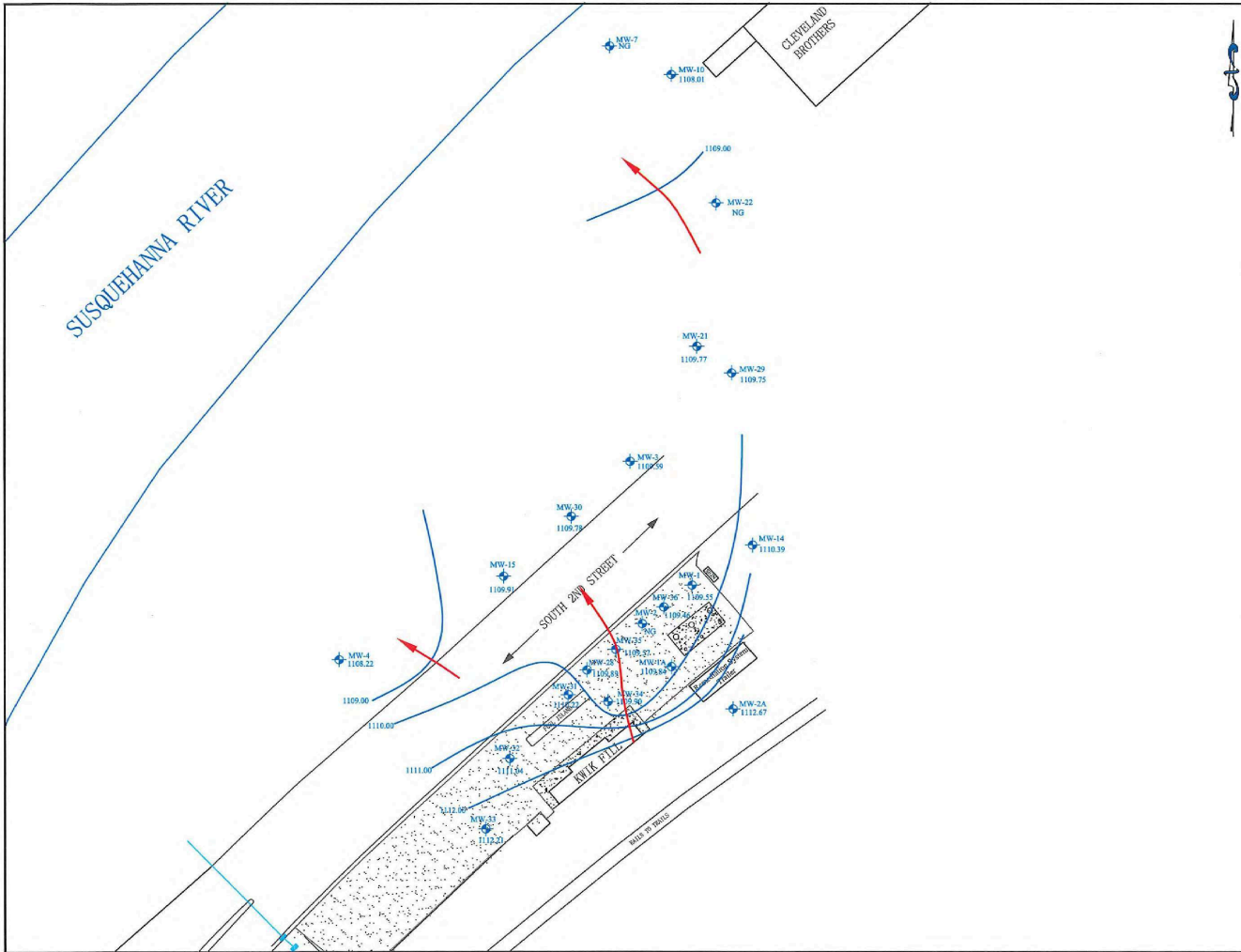
Legend:

- Soil Boring Location
- Estimated Area of Impacted Soil

Scale (ft.):

1" = 20'
One Inch Equals Twenty Feet





Prepared By:

Letterle & Associates

2022 Axemann Road, Suite 201
 Bellefonte, PA 16823
 P: 814-355-2241
 F: 814-355-2410
 www.letterleassociates.com

Project Manager: Jed Hill
Project Geologist: George Hunzeker, P.G.

Prepared For:

Kwik Fill M-90
 1322 South 2nd Street
 Clearfield, PA 16830

Title:

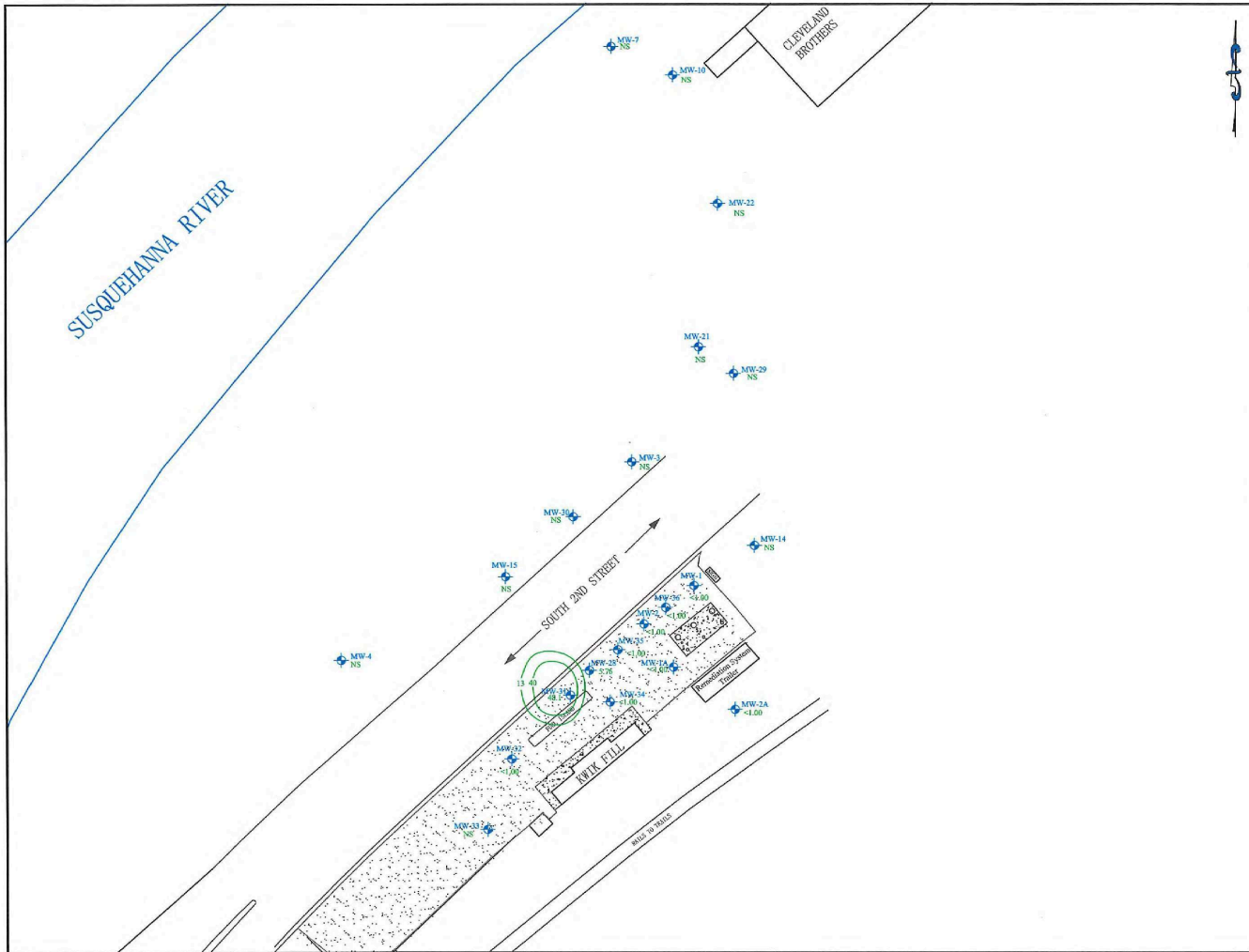
Figure 6
 Groundwater Potentiometric
 Surface Contour Map
 May 26, 2015

Legend:

- Groundwater Monitoring Well Location
- Groundwater Potentiometric Surface Contour Line (feet above mean sea level)
- Predominant Direction of Groundwater Flow

Scale (ft.):

1" = 50'
 One Inch Equals Fifty Feet



Prepared By:



2022 Axemann Road, Suite 201
 Bellefonte, PA 16823
 P: 814-355-2241
 F: 814-355-2410
 www.letterleassociates.com

Project Manager: Jed Hill
 Project Geologist: George Hunzeker, P.G.

Prepared For:

Kwik Fill M-90
 1322 South 2nd Street
 Clearfield, PA 16830

Title:

Figure 7
 1,3,5-TMB Isoconcentration
 Contour Map
 May 4, 2015

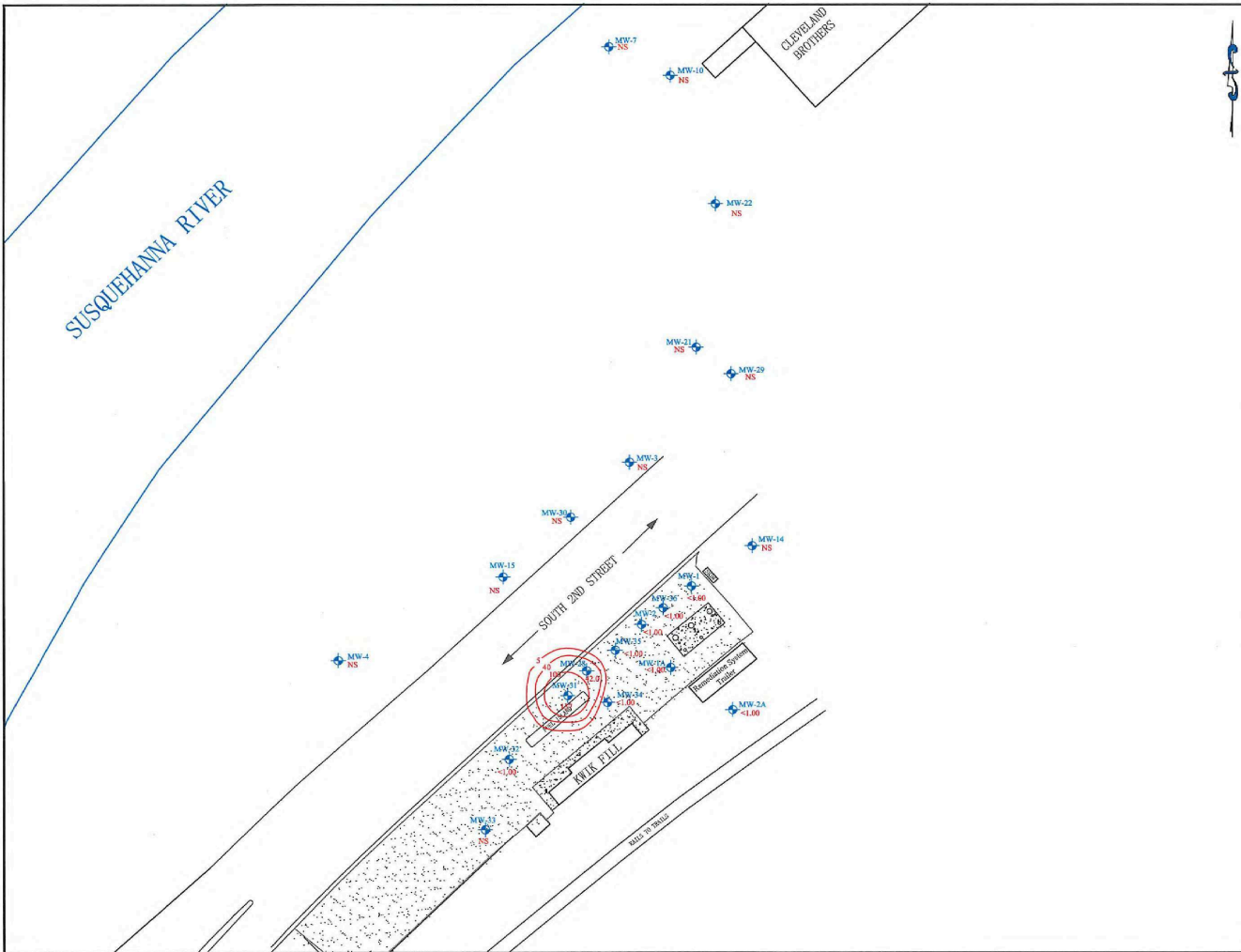
Legend:

- Groundwater Monitoring Well Location
- 1,3,5 TMB Isoconcentration Contour Line

Scale (ft.):

1" = 50'
 One Inch Equals Fifty Feet





Prepared By:

Letterle & Associates

2022 Axemann Road, Suite 201
 Bellefonte, PA 16823
 P: 814-355-2241
 F: 814-355-2410
 www.letterleassociates.com

Project Manager: Jed Hill
Project Geologist: George Hunzeker, P.G.

Prepared For:

Kwik Fill M-90
 1322 South 2nd Street
 Clearfield, PA 16830

Title:

Figure 9
 Benzene Isoconcentration
 Contour Map
 May 4, 2015

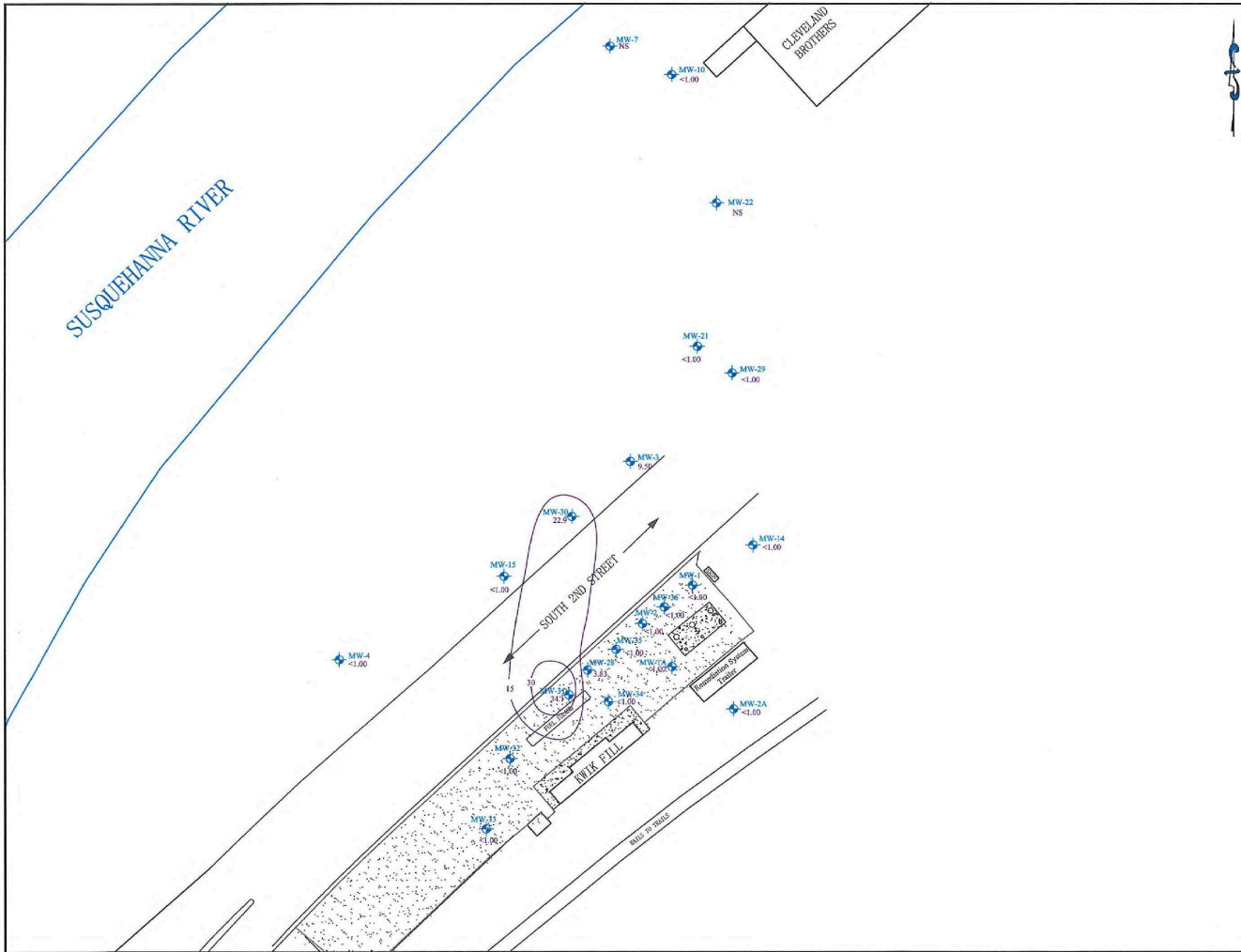
Legend:

- Groundwater Monitoring Well Location
- 5 Benzene Isoconcentration Contour Line

Scale (ft.):

1" = 50'
 One Inch Equals Fifty Feet

0 50 100



Prepared By:

Letterle & Associates

2022 Axemann Road, Suite 201
Bellefonte, PA 16823
P: 814-355-2241
F: 814-355-2410
www.letterleassociates.com

Project Manager: Jed Hill
Project Geologist: George Hunzeker, P.G.

Prepared For:

Kwik Fill M-90
1322 South 2nd Street
Clearfield, PA 16830

Title:

Figure 10
1,2,4-TMB Isoconcentration
Contour Map
May 26, 2015

Legend:

Groundwater Monitoring
Well Location

15
1,2,4 TMB Isoconcentration
Contour Line

Scale (ft.):

1" = 50'
One Inch Equals Fifty Feet

0 50 100

Prepared By:



2022 Axemann Road, Suite 201
Bellefonte, PA 16823
P: 814-355-2241
F: 814-355-2410
www.letterleassociates.com

Project Manager: Jed Hill
Project Geologist: George Hunzeker, P.G.

Prepared For:

Kwik Fill M-90
1322 South 2nd Street
Clearfield, PA 16830

Title:

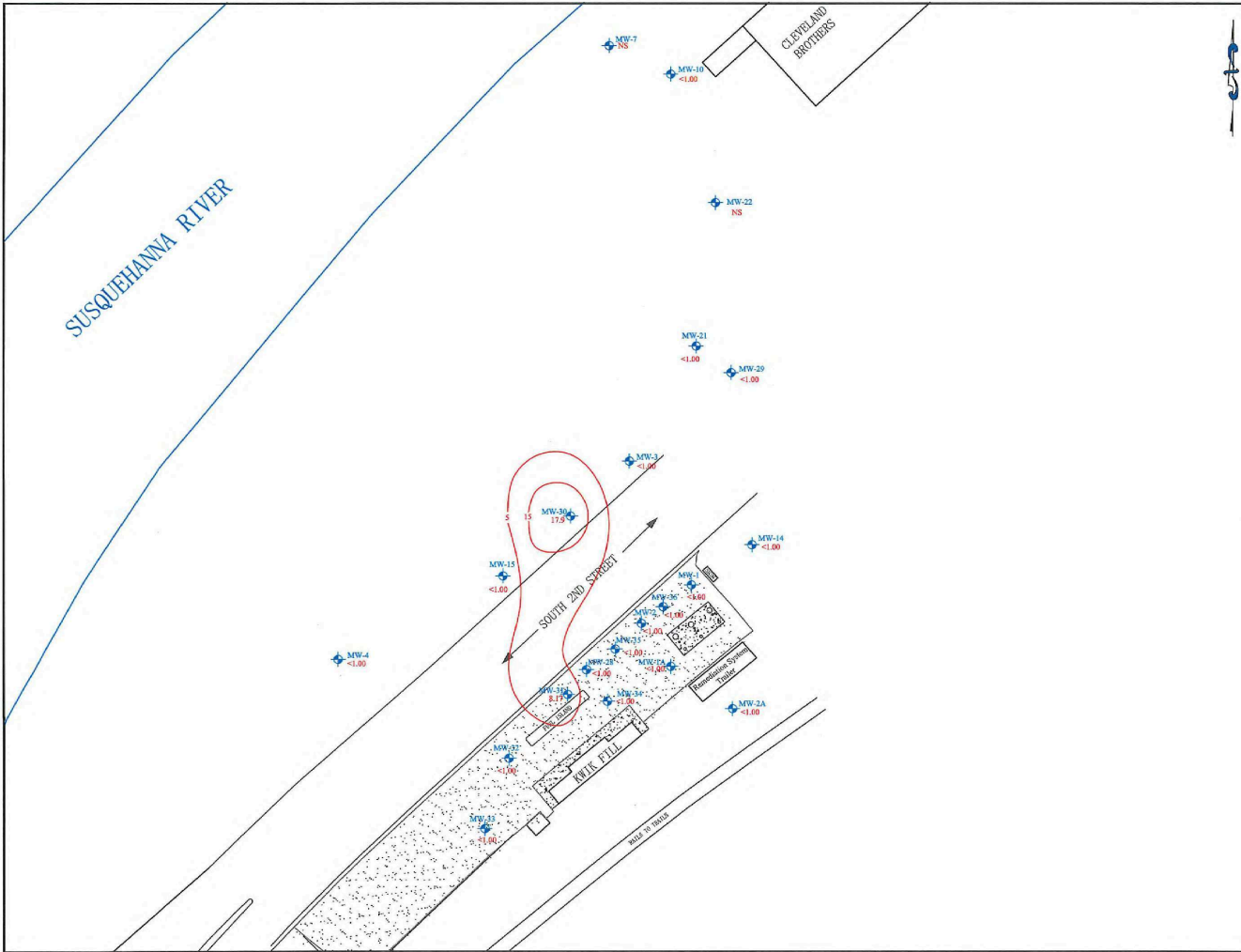
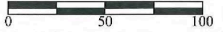
Figure 11
Benzene Isoconcentration
Contour Map
May 26, 2015

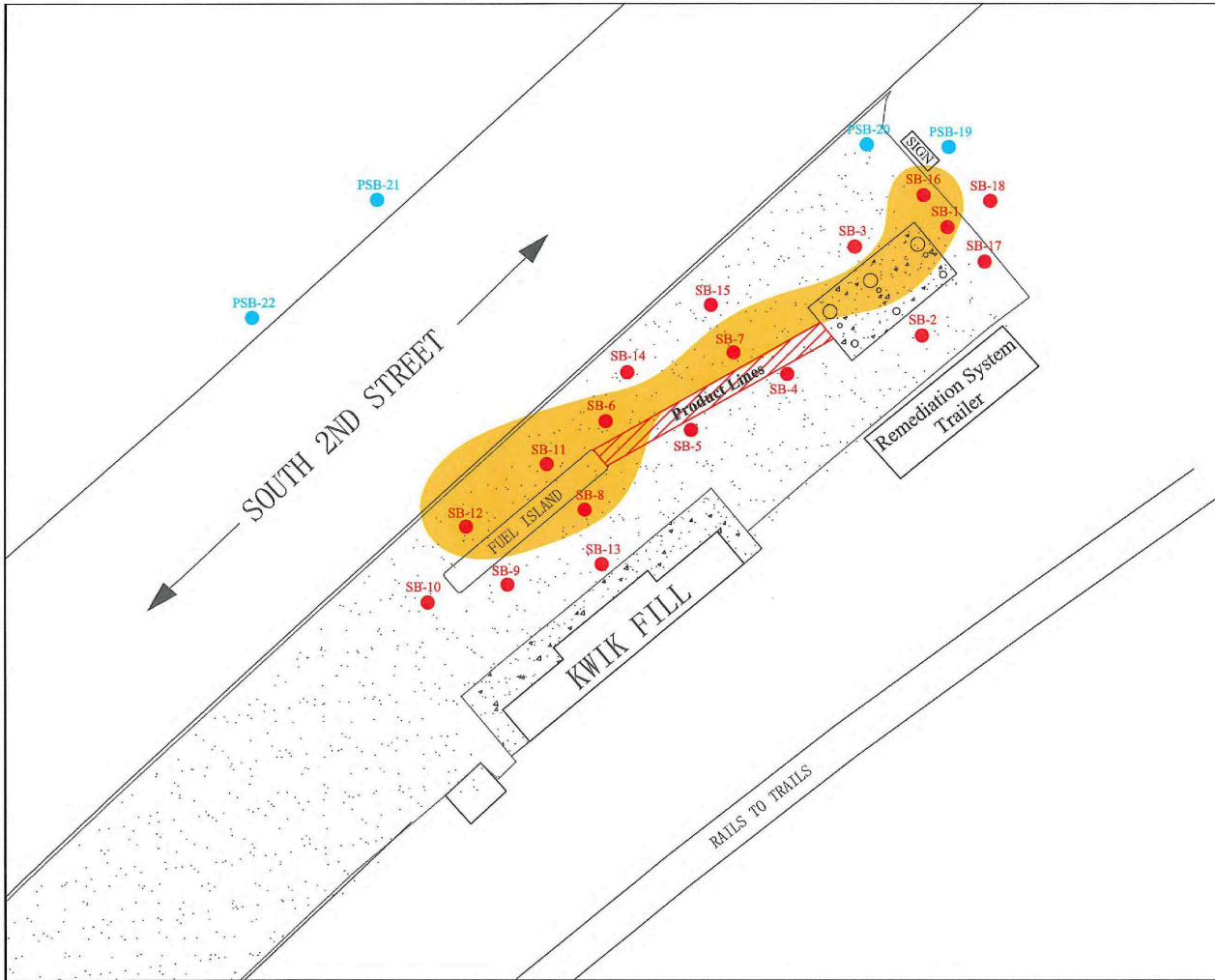
Legend:

- Groundwater Monitoring Well Location
- 5 Benzene Isoconcentration Contour Line

Scale (ft.):

1" = 50'
One Inch Equals Fifty Feet





Prepared By:



2022 Axemann Road, Suite 201
Bellefonte, PA 16823
P: 814-355-2241
F: 814-355-2410
www.letterlessassociates.com

Project Manager: Jed Hill
Project Geologist: George Hunzeker, P.G.

Prepared For:

Kwik Fill M-90
1322 South 2nd Street
Clearfield, PA 16830

Title:

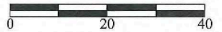
Figure 12
Proposed Additional Soil
Characterization Map

Legend:

- Soil Boring Location
- Proposed Soil Boring Location
- Estimated Area of Impacted Soil

Scale (ft.):

1" = 20'
One Inch Equals Twenty Feet





Prepared By:



2022 Axemann Road, Suite 201
 Bellefonte, PA 16823
 P: 814-355-2241
 F: 814-355-2410
 www.letterleassociates.com

Project Manager: Jed Hill
 Project Geologist: George Hunzeker, P.G.

Prepared For:

Kwik Fill M-90
 1322 South 2nd Street
 Clearfield, PA 16830

Title:

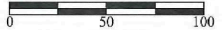
Figure 13
 Proposed Additional Groundwater
 Characterization Map

Legend:

- Groundwater Monitoring Well Location
- Proposed Groundwater Monitoring Well Location
- Soil Vapor Sample Point

Scale (ft.):

1" = 50'
 One Inch Equals Fifty Feet



APPENDICES

Appendix A

Custom Soil Resource Report



United States
Department of
Agriculture

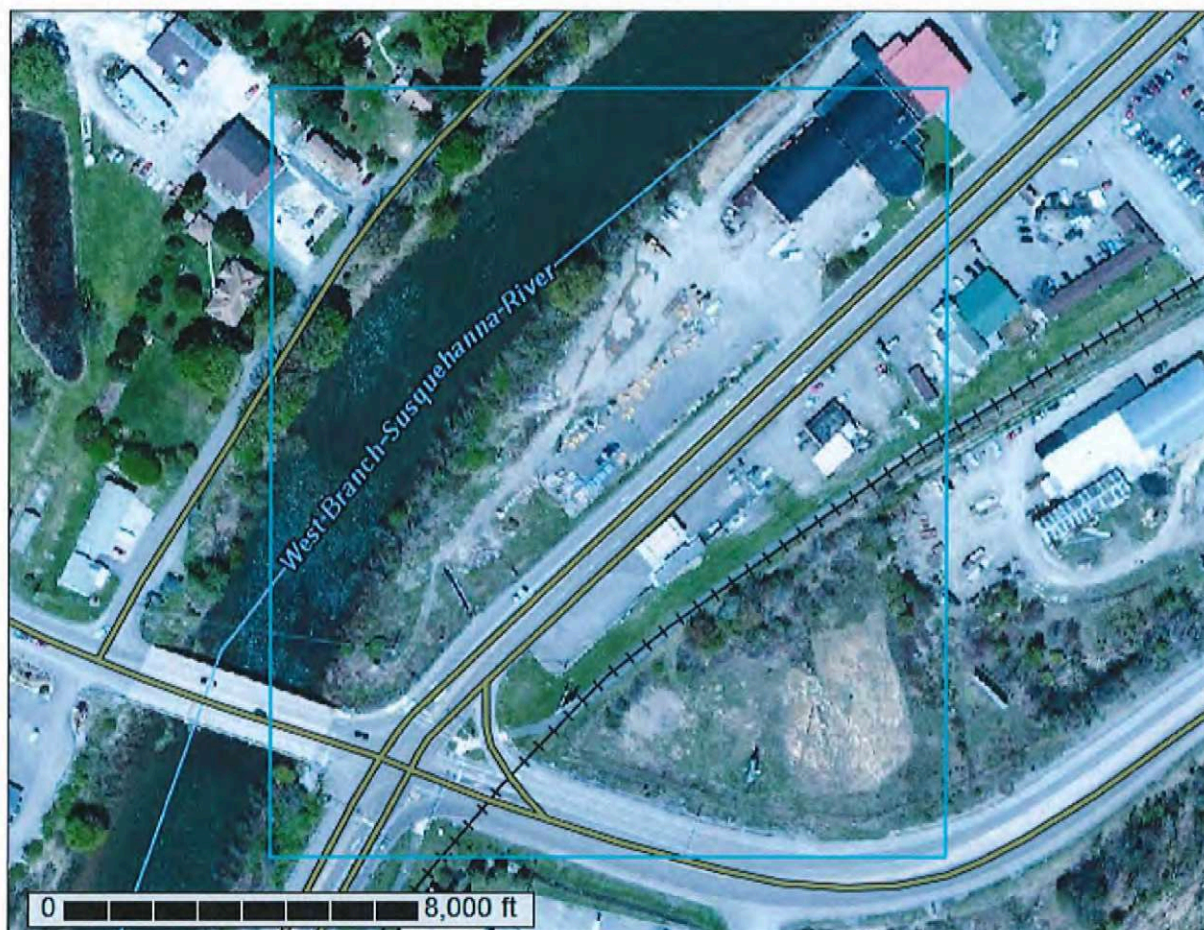
NRCS

Natural
Resources
Conservation
Service

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

Custom Soil Resource Report for Clearfield County, Pennsylvania

Kwik Fill M-90 Clearfield



March 13, 2015

Preface

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

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

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

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

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

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

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Contents

Preface.....	2
How Soil Surveys Are Made.....	5
Soil Map.....	7
Soil Map.....	8
Legend.....	9
Map Unit Legend.....	10
Map Unit Descriptions.....	10
Clearfield County, Pennsylvania.....	12
ErC—Ernest silt loam, 8 to 15 percent slopes.....	12
Po—Pope loam.....	13
TyB—Tyler silt loam, 3 to 6 percent slopes.....	14
Ur—Urban land.....	15
W—Water.....	16
References.....	18

How Soil Surveys Are Made

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

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

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

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

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

Custom Soil Resource Report

individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

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

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

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

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

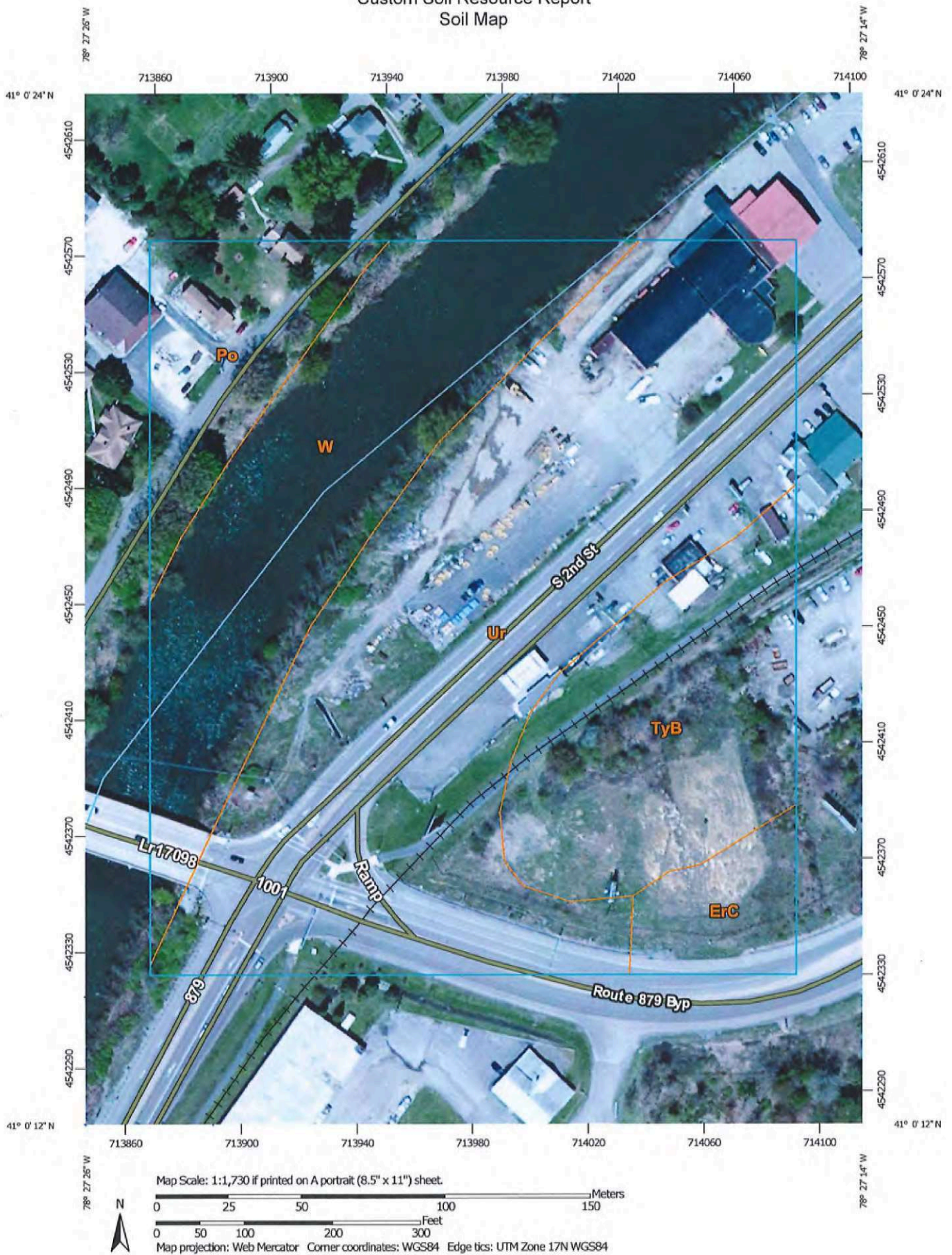
Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree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

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map




































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

Custom Soil Resource Report Soil Map



Custom Soil Resource Report

MAP LEGEND

Area of Interest (AOI)			Spoil Area
	Area of Interest (AOI)		Stony Spot
Soils			Very Stony Spot
	Soil Map Unit Polygons		Wet Spot
	Soil Map Unit Lines		Other
	Soil Map Unit Points		Special Line Features
Special Point Features		Water Features	
	Blowout		Streams and Canals
	Borrow Pit	Transportation	
	Clay Spot		Rails
	Closed Depression		Interstate Highways
	Gravel Pit		US Routes
	Gravelly Spot		Major Roads
	Landfill		Local Roads
	Lava Flow	Background	
	Marsh or swamp		Aerial Photography
	Mine or Quarry		
	Miscellaneous Water		
	Perennial Water		
	Rock Outcrop		
	Saline Spot		
	Sandy Spot		
	Severely Eroded Spot		
	Sinkhole		
	Slide or Slip		
	Sodic Spot		

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

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

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

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

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
Coordinate System: Web Mercator (EPSG:3857)

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

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

Soil Survey Area: Clearfield County, Pennsylvania
Survey Area Data: Version 8, Sep 15, 2014

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

Date(s) aerial images were photographed: Apr 29, 2010—Oct 17, 2011

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

Map Unit Legend

Clearfield County, Pennsylvania (PA033)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
ErC	Ernest silt loam, 8 to 15 percent slopes	0.6	4.3%
Po	Pope loam	1.2	8.4%
TyB	Tyler silt loam, 3 to 6 percent slopes	2.3	16.4%
Ur	Urban land	6.8	48.5%
W	Water	3.2	22.5%
Totals for Area of Interest		14.0	100.0%

Map Unit Descriptions

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

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

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic

classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

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

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

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

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

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

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

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

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

Clearfield County, Pennsylvania

ErC—Ernest silt loam, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2sgqy
Elevation: 720 to 3,030 feet
Mean annual precipitation: 38 to 50 inches
Mean annual air temperature: 45 to 49 degrees F
Frost-free period: 126 to 165 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Ernest and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ernest

Setting

Landform: Hillslopes
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope, head slope
Down-slope shape: Concave
Across-slope shape: Concave, linear
Parent material: Acid fine-loamy colluvium derived from shale and siltstone

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material
A - 1 to 4 inches: silt loam
E - 4 to 7 inches: silt loam
BE - 7 to 11 inches: silt loam
Bt - 11 to 23 inches: silty clay loam
Btx - 23 to 56 inches: channery loam
C - 56 to 65 inches: channery silt loam

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: 17 to 30 inches to fragipan
Natural drainage class: Moderately well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 15 to 20 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 3.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: D

Custom Soil Resource Report

Minor Components

Brinkerton, wooded

Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave, linear
Across-slope shape: Concave

Lobdell

Percent of map unit: 5 percent
Landform: Flood plains
Landform position (three-dimensional): Tail
Down-slope shape: Linear
Across-slope shape: Linear

Gilpin

Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Summit, backslope, shoulder
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear, convex

Po—Pope loam

Map Unit Setting

National map unit symbol: l2dg
Elevation: 600 to 3,000 feet
Mean annual precipitation: 35 to 51 inches
Mean annual air temperature: 46 to 55 degrees F
Frost-free period: 115 to 165 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Pope and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Pope

Setting

Landform: Flood plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Recent alluvium

Custom Soil Resource Report

Typical profile

H1 - 0 to 6 inches: loam
H2 - 6 to 41 inches: fine sandy loam
H3 - 41 to 65 inches: sandy loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Available water storage in profile: Moderate (about 8.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: B

Minor Components

Philo

Percent of map unit: 9 percent
Landform: Flood plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear

Atkins

Percent of map unit: 6 percent
Landform: Flood plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Linear

TyB—Tyler silt loam, 3 to 6 percent slopes

Map Unit Setting

National map unit symbol: l2dq
Elevation: 300 to 2,000 feet
Mean annual precipitation: 35 to 50 inches
Mean annual air temperature: 48 to 59 degrees F
Frost-free period: 130 to 180 days
Farmland classification: Farmland of statewide importance

Custom Soil Resource Report

Map Unit Composition

Tyler and similar soils: 90 percent

Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Tyler

Setting

Landform: Stream terraces

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Tread

Down-slope shape: Linear

Across-slope shape: Concave

Parent material: Alluvium derived from sedimentary rock

Typical profile

H1 - 0 to 7 inches: silt loam

H2 - 7 to 20 inches: silt loam

H3 - 20 to 61 inches: silty clay loam

H4 - 61 to 65 inches: stratified gravelly loam to silty clay loam

Properties and qualities

Slope: 3 to 6 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Somewhat poorly drained

Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)

Depth to water table: About 6 to 24 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Low (about 3.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3w

Hydrologic Soil Group: D

Minor Components

Purdy

Percent of map unit: 10 percent

Landform: Depressions

Down-slope shape: Linear

Across-slope shape: Concave

Ur—Urban land

Map Unit Setting

National map unit symbol: l2dv

Custom Soil Resource Report

Mean annual precipitation: 40 to 46 inches
Mean annual air temperature: 48 to 57 degrees F
Frost-free period: 161 to 215 days
Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Urban Land

Setting

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

Properties and qualities

Slope: 0 to 8 percent
Depth to restrictive feature: 10 inches to densic material
Runoff class: Very high

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8s

Minor Components

Steep areas

Percent of map unit: 10 percent

W—Water

Map Unit Setting

National map unit symbol: 12dw
Mean annual precipitation: 36 to 50 inches
Mean annual air temperature: 46 to 59 degrees F
Frost-free period: 120 to 214 days
Farmland classification: Not prime farmland

Map Unit Composition

Water: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Water

Setting

Parent material: Rivers streams ponds

Properties and qualities

Runoff class: Negligible
Frequency of ponding: Frequent

Custom Soil Resource Report

References

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

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

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

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

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

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

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

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

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

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

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

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

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

United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. <http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelpdb1043084>

Custom Soil Resource Report

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

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

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

Appendix B
Soil Boring Logs



2022 Axemann Road, Suite 201
Bellefonte, PA 16823

Soil Boring Log: SB-1

Project No.: 479

Project: Clearfield GW Gauging

Client: United Refining

Location: Clearfield, PA

Project Manager: Jed Hill

SUBSURFACE PROFILE			SAMPLE			Lab Analysis
Depth	Symbol	Description	Recovery	Symbol	VOC Concentration	
					ppm	
					500 1000 1500 2000	
0		Ground Surface				
1		Asphalt Asphalt, gravel, fill	35"			
2						
3		CL Dark brown silty clay Moist Petro odors	48"			
4						
5		CL Light brown silty clay Very moist Some gravels				
6						
7						
8		End Borehole @ 8'				
9						
10						

Sample @ 4' @ 1254

Drilled By: Letterle (J. Thorn)

Drill Method: Geoprobe 54DT

Drill Date: May 6, 2015

Hole Size: 2-inch

Logged By: J. Attig

Sheet: 1 of 1



2022 Axemann Road, Suite 201
Bellefonte, PA 16823

Soil Boring Log: SB-2

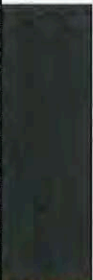

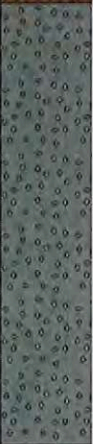
Project No.: 479

Project: Clearfield GW Gauging

Client: United Refining

Location: Clearfield, PA

Project Manager: Jed Hill

SUBSURFACE PROFILE				SAMPLE					Lab Analysis
Depth	Symbol	Description	Recovery	Symbol	VOC Concentration ppm				
					500	1000	1500	2000	
0		Ground Surface							Sample @ 4' @ 1305
1		Asphalt Asphalt, gravel, fill	34"						
2									
3		CL Dark brown silty clay Very gravelly Slight petro odor							
4		GW Small gravel fill Moist/Wet	25"						
5									
6									
7									
8		End Borehole @ 8'							
9									
10									

Drilled By: Letterle (J. Thorn)

Drill Method: Geoprobe 54DT

Drill Date: May 6, 2015

Hole Size: 2-inch

Logged By: J. Attig

Sheet: 1 of 1



2022 Axemann Road, Suite 201
Bellefonte, PA 16823

Soil Boring Log: SB-3

Project No.: 479

Project: Clearfield GW Gauging

Client: United Refining

Location: Clearfield, PA

Project Manager: Jed Hill

SUBSURFACE PROFILE			SAMPLE			Lab Analysis
Depth	Symbol	Description	Recovery	Symbol	VOC Concentration	
					ppm	
					500 1000 1500 2000	
0		Ground Surface				
0		Asphalt Asphalt, gravel, fill				
1						
2		CL Brown silty clay Very gravelly	30"			
3		CL Dark brown silty clay Moist				
4		Strong petro odor			528	Sample @ 4' @ 1330
5		CL Light brown/mottled silty clay Moist				
6			48"			
7						
8		End Borehole @ 8'				
9						
10						

Drilled By: Letterle (J. Thorn)

Drill Method: Geoprobe 54DT

Drill Date: May 6, 2015

Hole Size: 2-inch

Logged By: J. Attig

Sheet: 1 of 1



2022 Axemann Road, Suite 201
Bellefonte, PA 16823

Soil Boring Log: SB-4

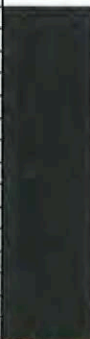


Project No.: 479

Project: Clearfield GW Gauging

Client: United Refining

Location: Clearfield, PA

Project Manager: Jed Hill

SUBSURFACE PROFILE			SAMPLE			Lab Analysis
Depth	Symbol	Description	Recovery	Symbol	VOC Concentration	
					ppm	
					500 1000 1500 2000	
0		Ground Surface				Sample @ 5' @ 1420
0		Asphalt Asphalt, gravel, fill	30"			
1						
2						
3						
3		CL Brown silty clay Very gravelly/mixed gravel fill No odors	37"			
4						
5						
6		CL Brown silty clay Very moist/wet No odors	37"			
7						
8		End Borehole @ 8'				
9						
10						

Drilled By: Letterle (J. Thorn)

Drill Method: Geoprobe 54DT

Drill Date: May 6, 2015

Hole Size: 2-inch

Logged By: J. Attig

Sheet: 1 of 1



2022 Axemann Road, Suite 201
Bellefonte, PA 16823

Soil Boring Log: SB-5

Project No.: 479

Project: Clearfield GW Gauging

Client: United Refining

Location: Clearfield, PA

Project Manager: Jed Hill

SUBSURFACE PROFILE				SAMPLE				Lab Analysis	
Depth	Symbol	Description	Recovery	Symbol	VOC Concentration				
					ppm				
					500	1000	1500	2000	
Ground Surface									
0		Asphalt Asphalt, gravel, fill	30"						Sample @ 5' @ 1430
1									
2		CL Brown sandy clay No odors							
3									
4		CL Dark brown silty clay Moist	48"						
5									
6		CL Light brown/mottled silty clay Moist							
7									
8		End Borehole @ 8'							
9									
10									

Drilled By: Letterle (J. Thorn)

Drill Method: Geoprobe 54DT

Drill Date: May 6, 2015

Hole Size: 2-inch

Logged By: J. Attig

Sheet: 1 of 1



2022 Axemann Road, Suite 201
Bellefonte, PA 16823

Soil Boring Log: SB-6

Project No.: 479

Project: Clearfield GW Gauging

Client: United Refining

Location: Clearfield, PA

Project Manager: Jed Hill

SUBSURFACE PROFILE			SAMPLE			Lab Analysis	
Depth	Symbol	Description	Recovery	Symbol	VOC Concentration		
					ppm 500 1000 1500 2000		
Ground Surface						Sample @ 2.5' @ 1615	
0		Asphalt Asphalt, gravel, fill	42"				
1							
2							
3		CL Brown silty clay Some gravel Moist Strong petro odor	48"				Sample @ 5' @ 1620
4							
5							
6		CL Brown silty clay Moist/wet Slight petro odor					
7							
8		End Borehole @ 8'					
9							
10							

Drilled By: Letterle (J. Thorn)

Drill Method: Geoprobe 54DT

Drill Date: May 6, 2015

Hole Size: 2-inch

Logged By: J. Attig

Sheet: 1 of 1

Drilled By: Letterle (J. Thorn)

Drill Method: Geoprobe 54DT

Drill Date: May 6, 2015

Hole Size: 2-inch

Logged By: J. Attig

Sheet: 1 of 1



2022 Axemann Road, Suite 201
Bellefonte, PA 16823

Soil Boring Log: SB-7

Project No.: 479

Project: Clearfield GW Gauging

Client: United Refining

Location: Clearfield, PA

Project Manager: Jed Hill

SUBSURFACE PROFILE				SAMPLE				Lab Analysis	
Depth	Symbol	Description	Recovery	Symbol	VOC Concentration ppm				
					500	1000	1500		2000
0		Ground Surface							Sample @ 4' @ 1645
1		Asphalt Asphalt, gravel, fill							
2		CL Brown silty clay Some gravel Strong petro odor	41"		21	30			
3					99				
4		CL Light brown silty clay Moist			5				
5					2				
6			48"		4				
7									
8		End Borehole @ 8'							
9									
10									
Drilled By: Letterle (J. Thorn)					Hole Size: 2-inch				
Drill Method: Geoprobe 54DT					Logged By: J. Attig				
Drill Date: May 6, 2015					Sheet: 1 of 1				



2022 Axemann Road, Suite 201
Bellefonte, PA 16823

Soil Boring Log: SB-8

Project No.: 479

Project: Clearfield GW Gauging

Client: United Refining

Location: Clearfield, PA

Project Manager: Jed Hill

SUBSURFACE PROFILE			SAMPLE			Lab Analysis
Depth	Symbol	Description	Recovery	Symbol	VOC Concentration ppm 500 1000 1500 2000	
0		Ground Surface				
0		Concrete Concrete, fill				
1						
2		CL Brown silty clay Gravelly Moist Strong petro odor	34"		84	
3					475	
4						Sample @ 4' @ 0945
5		CL Light brown silty clay Some gravel Moist Petro odor	48"		20	
6					31	
7					76	
8		End Borehole @ 8'				
9						
10						
Drilled By: Letterle (J. Thorn) Drill Method: Geoprobe 54DT Drill Date: May 7, 2015			Hole Size: 2-inch Logged By: J. Attig Sheet: 1 of 1			



2022 Axemann Road, Suite 201
Bellefonte, PA 16823

Soil Boring Log: SB-9

Project No.: 479

Project: Clearfield GW Gauging

Client: United Refining

Location: Clearfield, PA

Project Manager: Jed Hill

SUBSURFACE PROFILE			SAMPLE			Lab Analysis
Depth	Symbol	Description	Recovery	Symbol	VOC Concentration	
					ppm	
					500 1000 1500 2000	
0		Ground Surface				
0		Concrete Concrete, fill				
1						
2			30"			
2		CL Brown silty clay Gravelly Slight petro odor				
3						
4						
4						
5						
5		CL Light brown silty clay Moist				
6			48"			
7						
8		End Borehole @ 8'				
9						
10						

Sample @ 4.5' @ 1000

Drilled By: Letterle (J. Thorn)

Drill Method: Geoprobe 54DT

Drill Date: May 7, 2015

Hole Size: 2-inch

Logged By: J. Attig

Sheet: 1 of 1



2022 Axemann Road, Suite 201
Bellefonte, PA 16823

Soil Boring Log: SB-10

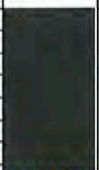



Project No.: 479

Project: Clearfield GW Gauging

Client: United Refining

Location: Clearfield, PA

Project Manager: Jed Hill

SUBSURFACE PROFILE			SAMPLE			Lab Analysis
Depth	Symbol	Description	Recovery	Symbol	VOC Concentration	
					ppm	
					500 1000 1500 2000	
Ground Surface						Sample @ 4' @ 1010
0		Asphalt Asphalt, gravel, fill	43"		0	
1						
2		CL Light brown silty clay Gravelly			0	
3					0	
4		CL Dark brown silty clay Moist No odors			0	
5					0	
6		CL Light brown/olive silty clay Very moist/wet	48"		0	
7					0	
8		End Borehole @ 8'				
9						
10						

Drilled By: Letterle (J. Thorn)

Drill Method: Geoprobe 54DT

Drill Date: May 7, 2015

Hole Size: 2-inch

Logged By: J. Attig

Sheet: 1 of 1

Drilled By: Letterle (J. Thorn)

Drill Method: Geoprobe 54DT

Drill Date: May 7, 2015

Hole Size: 2-inch

Logged By: J. Attig

Sheet: 1 of 1



2022 Axemann Road, Suite 201
Bellefonte, PA 16823

Soil Boring Log: SB-11

Project No.: 479

Project: Clearfield GW Gauging

Client: United Refining

Location: Clearfield, PA

Project Manager: Jed Hill

SUBSURFACE PROFILE				SAMPLE				Lab Analysis	
Depth	Symbol	Description	Recovery	Symbol	VOC Concentration				
					ppm				
					500	1000	1500	2000	
Ground Surface									
0		Concrete	34"			122			Sample @ 2' @ 1235
		Concrete, gravel							
1									
2		CL	43"			31			Sample @ 4.5' @ 1240
		Dark brown silty clay							
3		Some gravel							
4		Strong petro odor							
5		CL	43"			579			
		Light brown silty clay							
6		Very moist/wet							
7		Petro odor							
8		End Borehole @ 8'							
9									
10									

Drilled By: Letterle (J. Thorn)

Drill Method: Geoprobe 54DT

Drill Date: May 7, 2015

Hole Size: 2-inch

Logged By: J. Attig

Sheet: 1 of 1



2022 Axemann Road, Suite 201
Bellefonte, PA 16823

Soil Boring Log: SB-12

Project No.: 479

Project: Clearfield GW Gauging

Client: United Refining

Location: Clearfield, PA

Project Manager: Jed Hill

SUBSURFACE PROFILE			SAMPLE			Lab Analysis
Depth	Symbol	Description	Recovery	Symbol	VOC Concentration ppm 500 1000 1500 2000	
0		Ground Surface				Sample @ 4' @ 1255
0		Concrete Concrete, gravel				
1						
2		CL Brown silty clay Gravelly Petro odor	38"		5	
3						
4					37 5	
5						
6		CL Light brown/gray silty clay Wet Strong petro odor	42"		312	
7						
8		End Borehole @ 8'				
9						
10						

Drilled By: Letterle (J. Thorn)

Drill Method: Geoprobe 54DT

Drill Date: May 7, 2015

Hole Size: 2-inch

Logged By: J. Attig

Sheet: 1 of 1



2022 Axemann Road, Suite 201
Bellefonte, PA 16823

Soil Boring Log: SB-13

Project No.: 479

Project: Clearfield GW Gauging

Client: United Refining

Location: Clearfield, PA

Project Manager: Jed Hill

SUBSURFACE PROFILE				SAMPLE					
Depth	Symbol	Description	Recovery	Symbol	VOC Concentration				Lab Analysis
					ppm				
					500	1000	1500	2000	
0		Ground Surface							
0		Concrete							
		Concrete, gravel							
1									
2		CL	35"						
		Brown silty clay							
		Some gravel							
		No odors							
3									
4		CL							
		Black silty clay							
		Some gravel							
		Slight petro odor							
5									
6		CL	48"						
		Light brown silty clay							
		Moist							
8		End Borehole @ 8'							
9									
10									

Drilled By: Eichelbergers

Drill Method: Geoprobe 54DT

Drill Date: June 15, 2015

Hole Size: 2-inch

Logged By: J. Attig

Sheet: 1 of 1



2022 Axemann Road, Suite 201
Bellefonte, PA 16823

Soil Boring Log: SB-14

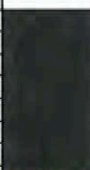
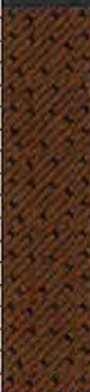

Project No.: 479

Project: Clearfield GW Gauging

Client: United Refining

Location: Clearfield, PA

Project Manager: Jed Hill

SUBSURFACE PROFILE				SAMPLE					Lab Analysis
Depth	Symbol	Description	Recovery	Symbol	VOC Concentration ppm				
					500	1000	1500	2000	
0		Ground Surface							Sample @ 4.5' @ 1215
0		Asphalt Asphalt, fill							
1									
2		CL Brown silty clay Gravelly	48"		0				
3					0				
4					0				
5		CL Light brown silty clay Very moist Petro odor	46"		51				
6									
7									
8		End Borehole @ 8'							
9									
10									

Drilled By: Eichelbergers

Drill Method: Geoprobe 54DT

Drill Date: June 15, 2015

Hole Size: 2-inch

Logged By: J. Attig

Sheet: 1 of 1



2022 Axemann Road, Suite 201
Bellefonte, PA 16823

Soil Boring Log: SB-15

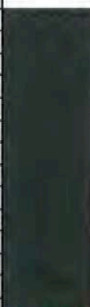


Project No.: 479

Project: Clearfield GW Gauging

Client: United Refining

Location: Clearfield, PA

Project Manager: Jed Hill

SUBSURFACE PROFILE				SAMPLE				Lab Analysis	
Depth	Symbol	Description	Recovery	Symbol	VOC Concentration				
					ppm				
					500	1000	1500		2000
0		Ground Surface							
0		Asphalt Asphalt, gravel, fill	38"						
1									
2									
3		CL Brown silty clay Some gravel No odor							
4			42"						
5		CL Light brown silty clay Moist Slight petro odor below 6'							
6									
7									
8		End Borehole @ 8'							
9									
10									

Drilled By: Eichelbergers

Drill Method: Geoprobe 54DT

Drill Date: June 15, 2015

Hole Size: 2-inch

Logged By: J. Attig

Sheet: 1 of 1



2022 Axemann Road, Suite 201
Bellefonte, PA 16823

Soil Boring Log: SB-16

Project No.: 479

Project: Clearfield GW Gauging

Client: United Refining

Location: Clearfield, PA

Project Manager: Jed Hill

SUBSURFACE PROFILE			SAMPLE			Lab Analysis
Depth	Symbol	Description	Recovery	Symbol	VOC Concentration	
					ppm	
					500 1000 1500 2000	
0		Ground Surface				
0		Asphalt Asphalt, gravel, fill				
1						
2		ML Dark brown silt	37"		0	
3		CL Brown silty clay Gravelly Strong petro odor			0	
4					204	
5						
6		CL Light brown/gray silty clay Moist	48"		2	
7						
8		End Borehole @ 8'			1	
9						
10						

Sample @ 4.5' @ 1230

Drilled By: Eichelbergers

Drill Method: Geoprobe 54DT

Drill Date: June 15, 2015

Hole Size: 2-inch

Logged By: J. Attig

Sheet: 1 of 1



2022 Axemann Road, Suite 201
Bellefonte, PA 16823

Soil Boring Log: SB-17





Project No.: 479

Project: Clearfield GW Gauging

Client: United Refining

Location: Clearfield, PA

Project Manager: Jed Hill

SUBSURFACE PROFILE				SAMPLE				Lab Analysis	
Depth	Symbol	Description	Recovery	Symbol	VOC Concentration ppm				
					500	1000	1500		2000
0		Ground Surface							Sample @ 4.5' @ 1255
0		Asphalt Asphalt, fill	43"						
1									
2									
2		ML Dark brown silt							
3			48"						
3		CL Brown silty clay Gravelly Slight odor @ 4-5'							
4									
5		CL Light brown silty clay No odors							
6									
7									
8		End Borehole @ 8'							
9									
10									

Drilled By: Eichelbergers

Drill Method: Geoprobe 54DT

Drill Date: June 15, 2015

Hole Size: 2-inch

Logged By: J. Attig

Sheet: 1 of 1

2022 Axemann Road, Suite 201
Bellefonte, PA 16823

Soil Boring Log: SB-18

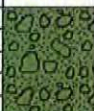
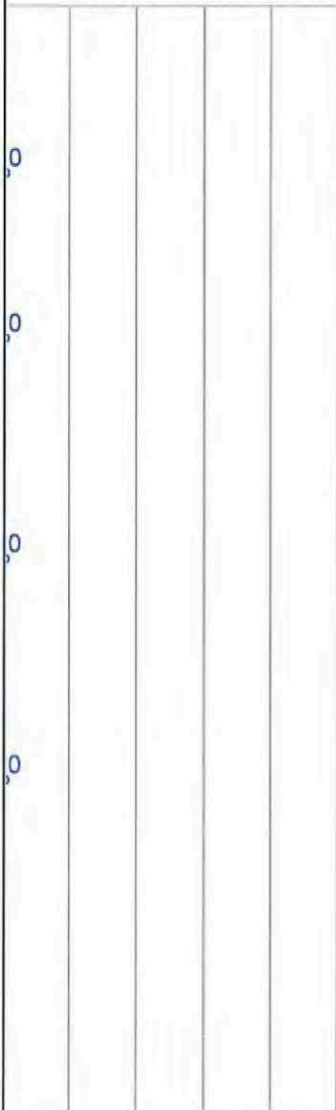


Project No.: 479

Project: Clearfield GW Gauging

Client: United Refining

Location: Clearfield, PA

Project Manager: Jed Hill

SUBSURFACE PROFILE			SAMPLE		Lab Analysis
Depth	Symbol	Description	Recovery	Symbol	
0		Ground Surface			
0		Grass/Topsoil Grass, gravel	36"		Sample @ 4' @ 1325
1		CL Brown silty clay Gravelly No odors			
2					
3					
4					
5					
6		CL Light brown silty clay Moist No odors	48"		
7					
8		End Borehole @ 8'			
9					
10					

Drilled By: Eichelbergers

Drill Method: Geoprobe 54DT

Drill Date: June 15, 2015

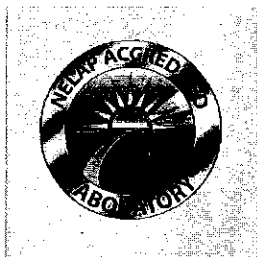
Hole Size: 2-inch

Logged By: J. Attig

Sheet: 1 of 1

Appendix C

Soil, Groundwater, and Soil Gas Analytical Laboratory Reports



2019 Ninth Avenue
PO Box 1925
Altoona, PA 16603
(814) 946-4306
NELAP: PA 07-062, VA 460212

89 Kristi Road
Pennssdale, PA 17756
(570) 494-6380
PaDEP: PA 41-04684



www.fairwaylaboratories.com

State Certifications: MD 275, WV 364

Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: UR CLEARFIELD
Project Number: [none]
Collector: CLIENT
Number of Containers: 68
Reported: 05/20/15 10:32

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Sample Type	Date Sampled	Date Received
SB-1 @ 4'	5E08060-01	Solid	Grab	05/06/15 12:54	05/08/15 14:10
SB-2 @ 4'	5E08060-02	Solid	Grab	05/06/15 13:05	05/08/15 14:10
SB-3 @ 4'	5E08060-03	Solid	Grab	05/06/15 13:30	05/08/15 14:10
SB-4 @ 5'	5E08060-04	Solid	Grab	05/06/15 14:20	05/08/15 14:10
SB-5 @ 5'	5E08060-05	Solid	Grab	05/06/15 14:30	05/08/15 14:10
SB-6 @ 2.5'	5E08060-06	Solid	Grab	05/06/15 16:15	05/08/15 14:10
SB-6 @ 5'	5E08060-07	Solid	Grab	05/06/15 16:20	05/08/15 14:10
SB-7 @ 4'	5E08060-08	Solid	Grab	05/06/15 16:45	05/08/15 14:10
SB-8 @ 4'	5E08060-09	Solid	Grab	05/07/15 09:45	05/08/15 14:10
SB-9 @ 4.5'	5E08060-10	Solid	Grab	05/07/15 10:00	05/08/15 14:10
SB-10 @ 4'	5E08060-11	Solid	Grab	05/07/15 10:10	05/08/15 14:10
SB-11 @ 2'	5E08060-12	Solid	Grab	05/07/15 12:35	05/08/15 14:10
SB-11 @ 4.5'	5E08060-13	Solid	Grab	05/07/15 12:40	05/08/15 14:10
SB-12 @ 4'	5E08060-14	Solid	Grab	05/07/15 12:55	05/08/15 14:10

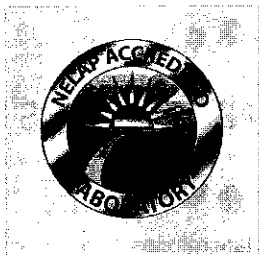
Fairway Laboratories, Inc.

Reviewed and Submitted by:

Michael P. Tyler
Laboratory Director

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PaDEP: PA 41-04684



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State Certifications: MD 275, WV 364

Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: UR CLEARFIELD
Project Number: [none]
Collector: CLIENT
Number of Containers: 68
Reported: 05/20/15 10:32

Client Sample ID: SB-1 @ 4'

Date/Time Sampled: 05/06/15 12:54

Laboratory Sample ID: 5E08060-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Method	* Analyst	Note
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Volatile Organic Compounds by EPA Method 8260B

1,3,5-Trimethylbenzene	14.6		4.70	mg/kg dry	05/13/15 17:51	EPA 8260B	wlm	
1,2,4-Trimethylbenzene	18.4		4.70	mg/kg dry	05/13/15 17:51	EPA 8260B	wlm	
Benzene	<1.88		1.88	mg/kg dry	05/13/15 17:51	EPA 8260B	wlm	
Toluene	<4.70		4.70	mg/kg dry	05/13/15 17:51	EPA 8260B	wlm	
Ethylbenzene	<4.70		4.70	mg/kg dry	05/13/15 17:51	EPA 8260B	wlm	
Xylenes (total)	<9.41		9.41	mg/kg dry	05/13/15 17:51	EPA 8260B	wlm	
Isopropylbenzene	<4.70		4.70	mg/kg dry	05/13/15 17:51	EPA 8260B	wlm	
Methyl tert-butyl ether	<4.70		4.70	mg/kg dry	05/13/15 17:51	EPA 8260B	wlm	
Naphthalene	4.82		4.70	mg/kg dry	05/13/15 17:51	EPA 8260B	wlm	
Surrogate: 4-Bromofluorobenzene	104 %		70-130		05/13/15 17:51	EPA 8260B	wlm	
Surrogate: 1,2-Dichloroethane-d4	94 %		70-130		05/13/15 17:51	EPA 8260B	wlm	
Surrogate: Fluorobenzene	99 %		70-130		05/13/15 17:51	EPA 8260B	wlm	

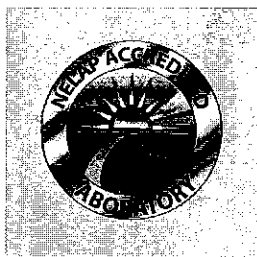
Conventional Chemistry Parameters by SM/EPA Methods

% Solids	18.8		0.100	%	05/11/15 15:04	SM 2540 G-97	arr	
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PaDEP: PA 41-04684



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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: UR CLEARFIELD
Project Number: [none]
Collector: CLIENT
Number of Containers: 68
Reported: 05/20/15 10:32

Client Sample ID: SB-2 @ 4'

Date/Time Sampled: 05/06/15 13:05

Laboratory Sample ID: 5E08060-02 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Method	* Analyst	Note
Volatile Organic Compounds by EPA Method 8260B								
1,3,5-Trimethylbenzene	<0.0038	0.0038	mg/kg dry	05/13/15 04:11	EPA 8260B	wlm		
1,2,4-Trimethylbenzene	0.0049	0.0038	mg/kg dry	05/13/15 04:11	EPA 8260B	wlm		
Benzene	0.0149	0.0015	mg/kg dry	05/13/15 04:11	EPA 8260B	wlm		
Toluene	0.0039	0.0038	mg/kg dry	05/13/15 04:11	EPA 8260B	wlm		
Ethylbenzene	0.0056	0.0038	mg/kg dry	05/13/15 04:11	EPA 8260B	wlm		
Xylenes (total)	0.0155	0.0075	mg/kg dry	05/13/15 04:11	EPA 8260B	wlm		
Isopropylbenzene	<0.0038	0.0038	mg/kg dry	05/13/15 04:11	EPA 8260B	wlm		
Methyl tert-butyl ether	0.0039	0.0038	mg/kg dry	05/13/15 04:11	EPA 8260B	wlm		
Naphthalene	<0.0038	0.0038	mg/kg dry	05/13/15 04:11	EPA 8260B	wlm		
Surrogate: 4-Bromofluorobenzene	100 %	70-130	05/13/15 04:11	EPA 8260B	wlm			
Surrogate: 1,2-Dichloroethane-d4	118 %	70-130	05/13/15 04:11	EPA 8260B	wlm			
Surrogate: Fluorobenzene	103 %	70-130	05/13/15 04:11	EPA 8260B	wlm			

Conventional Chemistry Parameters by SM/EPA Methods

% Solids	87.0	0.100	%	05/11/15 15:04	SM 2540 G-97	arr	
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2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: UR CLEARFIELD
Project Number: [none]
Collector: CLIENT
Number of Containers: 68

Reported:
05/20/15 10:32

Client Sample ID: SB-3 @ 4'

Date/Time Sampled: 05/06/15 13:30

Laboratory Sample ID: 5E08060-03 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Method	* Analyst	Note
Volatile Organic Compounds by EPA Method 8260B								
1,3,5-Trimethylbenzene	0.0075		0.0039	mg/kg dry	05/13/15 04:48	EPA 8260B	wlm	
1,2,4-Trimethylbenzene	0.0256		0.0039	mg/kg dry	05/13/15 04:48	EPA 8260B	wlm	
Benzene	0.0123		0.0016	mg/kg dry	05/13/15 04:48	EPA 8260B	wlm	
Toluene	<0.0039		0.0039	mg/kg dry	05/13/15 04:48	EPA 8260B	wlm	
Ethylbenzene	0.0224		0.0039	mg/kg dry	05/13/15 04:48	EPA 8260B	wlm	
Xylenes (total)	0.0236		0.0078	mg/kg dry	05/13/15 04:48	EPA 8260B	wlm	
Isopropylbenzene	<0.0039		0.0039	mg/kg dry	05/13/15 04:48	EPA 8260B	wlm	
Methyl tert-butyl ether	<0.0039		0.0039	mg/kg dry	05/13/15 04:48	EPA 8260B	wlm	
Naphthalene	<0.0039		0.0039	mg/kg dry	05/13/15 04:48	EPA 8260B	wlm	
Surrogate: 4-Bromofluorobenzene	107 %		70-130		05/13/15 04:48	EPA 8260B	wlm	
Surrogate: 1,2-Dichloroethane-d4	113 %		70-130		05/13/15 04:48	EPA 8260B	wlm	
Surrogate: Fluorobenzene	100 %		70-130		05/13/15 04:48	EPA 8260B	wlm	
Conventional Chemistry Parameters by SM/EPA Methods								
% Solids	84.7		0.100	%	05/11/15 15:04	SM 2540 G-97	arr	

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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: UR CLEARFIELD
Project Number: [none]
Collector: CLIENT
Number of Containers: 68
Reported: 05/20/15 10:32

Client Sample ID: SB-4 @ 5'

Date/Time Sampled: 05/06/15 14:20

Laboratory Sample ID: 5E08060-04 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Method	* Analyst	Note
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Volatile Organic Compounds by EPA Method 8260B

9c

1,3,5-Trimethylbenzene	<0.0043	0.0043	mg/kg dry	05/13/15 05:27	EPA 8260B	wlm
1,2,4-Trimethylbenzene	0.0053	0.0043	mg/kg dry	05/13/15 05:27	EPA 8260B	wlm
Benzene	0.0221	0.0017	mg/kg dry	05/13/15 05:27	EPA 8260B	wlm
Toluene	<0.0043	0.0043	mg/kg dry	05/13/15 05:27	EPA 8260B	wlm
Ethylbenzene	0.0053	0.0043	mg/kg dry	05/13/15 05:27	EPA 8260B	wlm
Xylenes (total)	0.0140	0.0085	mg/kg dry	05/13/15 05:27	EPA 8260B	wlm
Isopropylbenzene	<0.0043	0.0043	mg/kg dry	05/13/15 05:27	EPA 8260B	wlm
Methyl tert-butyl ether	<0.0043	0.0043	mg/kg dry	05/13/15 05:27	EPA 8260B	wlm
Naphthalene	<0.0043	0.0043	mg/kg dry	05/13/15 05:27	EPA 8260B	wlm
Surrogate: 4-Bromofluorobenzene	99 %	70-130		05/13/15 05:27	EPA 8260B	wlm
Surrogate: 1,2-Dichloroethane-d4	116 %	70-130		05/13/15 05:27	EPA 8260B	wlm
Surrogate: Fluorobenzene	103 %	70-130		05/13/15 05:27	EPA 8260B	wlm

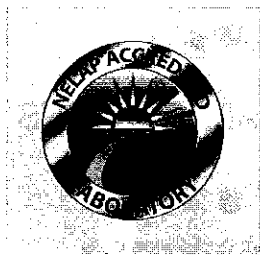
Conventional Chemistry Parameters by SM/EPA Methods

% Solids	83.4	0.100	%	05/11/15 15:04	SM 2540 G-97	arr
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2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: UR CLEARFIELD
Project Number: [none]
Collector: CLIENT
Number of Containers: 68

Reported:
05/20/15 10:32

Client Sample ID: SB-5 @ 5'

Date/Time Sampled: 05/06/15 14:30

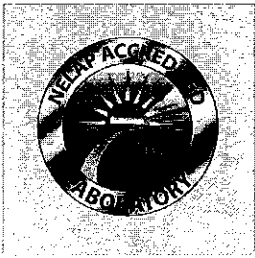
Laboratory Sample ID: 5E08060-05 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Method	* Analyst	Note
Volatile Organic Compounds by EPA Method 8260B								
1,3,5-Trimethylbenzene	<0.0042		0.0042	mg/kg dry	05/13/15 06:05	EPA 8260B	wlm	
1,2,4-Trimethylbenzene	0.0053		0.0042	mg/kg dry	05/13/15 06:05	EPA 8260B	wlm	
Benzene	0.0138		0.0017	mg/kg dry	05/13/15 06:05	EPA 8260B	wlm	
Toluene	<0.0042		0.0042	mg/kg dry	05/13/15 06:05	EPA 8260B	wlm	
Ethylbenzene	0.0051		0.0042	mg/kg dry	05/13/15 06:05	EPA 8260B	wlm	
Xylenes (total)	0.0113		0.0083	mg/kg dry	05/13/15 06:05	EPA 8260B	wlm	
Isopropylbenzene	<0.0042		0.0042	mg/kg dry	05/13/15 06:05	EPA 8260B	wlm	
Methyl tert-butyl ether	<0.0042		0.0042	mg/kg dry	05/13/15 06:05	EPA 8260B	wlm	
Naphthalene	<0.0042		0.0042	mg/kg dry	05/13/15 06:05	EPA 8260B	wlm	
Surrogate: 4-Bromofluorobenzene	96 %		70-130		05/13/15 06:05	EPA 8260B	wlm	
Surrogate: 1,2-Dichloroethane-d4	112 %		70-130		05/13/15 06:05	EPA 8260B	wlm	
Surrogate: Fluorobenzene	100 %		70-130		05/13/15 06:05	EPA 8260B	wlm	
Conventional Chemistry Parameters by SM/EPA Methods								
% Solids	75.5		0.100	%	05/11/15 15:04	SM 2540 G-97	arr	

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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: UR CLEARFIELD
Project Number: [none]
Collector: CLIENT
Number of Containers: 68
Reported: 05/20/15 10:32

Client Sample ID: SB-6 @ 2.5'

Date/Time Sampled: 05/06/15 16:15

Laboratory Sample ID: 5E08060-06 (Solid/Grab)

Analyte	Result	MDL	RI	Units	Date / Time Analyzed	Method	* Analyst	Note
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Volatile Organic Compounds by EPA Method 8260B

1,3,5-Trimethylbenzene	6.40	0.975	mg/kg dry	05/13/15 18:30	EPA 8260B	wlm
1,2,4-Trimethylbenzene	14.7	0.975	mg/kg dry	05/13/15 18:30	EPA 8260B	wlm
Benzene	12.5	0.390	mg/kg dry	05/13/15 18:30	EPA 8260B	wlm
Toluene	<0.975	0.975	mg/kg dry	05/13/15 18:30	EPA 8260B	wlm
Ethylbenzene	26.3	4.88	mg/kg dry	05/14/15 16:13	EPA 8260B	wlm
Xylenes (total)	14.3	1.95	mg/kg dry	05/13/15 18:30	EPA 8260B	wlm
Isopropylbenzene	2.56	0.975	mg/kg dry	05/13/15 18:30	EPA 8260B	wlm
Methyl tert-butyl ether	<0.975	0.975	mg/kg dry	05/13/15 18:30	EPA 8260B	wlm
Naphthalene	16.4	0.975	mg/kg dry	05/13/15 18:30	EPA 8260B	wlm
Surrogate: 4-Bromofluorobenzene	100 %	70-130		05/13/15 18:30	EPA 8260B	wlm
Surrogate: 1,2-Dichloroethane-d4	95 %	70-130		05/13/15 18:30	EPA 8260B	wlm
Surrogate: Fluorobenzene	99 %	70-130		05/13/15 18:30	EPA 8260B	wlm

Conventional Chemistry Parameters by SM/EPA Methods

% Solids	84.7	0.100	%	05/11/15 15:04	SM 2540 G-97	arr
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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: UR CLEARFIELD
Project Number: [none]
Collector: CLIENT
Number of Containers: 68
Reported: 05/20/15 10:32

Client Sample ID: SB-6 @ 5'

Date/Time Sampled: 05/06/15 16:20

Laboratory Sample ID: SE08060-07 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Method	* Analyst	Note
Volatile Organic Compounds by EPA Method 8260B								
1,3,5-Trimethylbenzene	0.0050		0.0044	mg/kg dry	05/13/15 06:42	EPA 8260B	wlm	
1,2,4-Trimethylbenzene	0.0127		0.0044	mg/kg dry	05/13/15 06:42	EPA 8260B	wlm	
Benzene	0.0784		0.0018	mg/kg dry	05/13/15 06:42	EPA 8260B	wlm	
Toluene	0.0045		0.0044	mg/kg dry	05/13/15 06:42	EPA 8260B	wlm	
Ethylbenzene	0.0099		0.0044	mg/kg dry	05/13/15 06:42	EPA 8260B	wlm	
Xylenes (total)	0.0297		0.0088	mg/kg dry	05/13/15 06:42	EPA 8260B	wlm	
Isopropylbenzene	<0.0044		0.0044	mg/kg dry	05/13/15 06:42	EPA 8260B	wlm	
Methyl tert-butyl ether	<0.0044		0.0044	mg/kg dry	05/13/15 06:42	EPA 8260B	wlm	
Naphthalene	<0.0044		0.0044	mg/kg dry	05/13/15 06:42	EPA 8260B	wlm	
Surrogate: 4-Bromofluorobenzene	100 %		70-130		05/13/15 06:42	EPA 8260B	wlm	
Surrogate: 1,2-Dichloroethane-d4	115 %		70-130		05/13/15 06:42	EPA 8260B	wlm	
Surrogate: Fluorobenzene	101 %		70-130		05/13/15 06:42	EPA 8260B	wlm	
Conventional Chemistry Parameters by SM/EPA Methods								
% Solids	79.3		0.100	%	05/11/15 15:04	SM 2540 G-97	arr	

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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: UR CLEARFIELD
Project Number: [none]
Collector: CLIENT
Number of Containers: 68
Reported: 05/20/15 10:32

Client Sample ID: SB-7 @ 4'

Date/Time Sampled: 05/06/15 16:45

Laboratory Sample ID: 5E08060-08 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Method	* Analyst	Note
Volatile Organic Compounds by EPA Method 8260B								
1,3,5-Trimethylbenzene	2.28		1.03	mg/kg dry	05/13/15 19:34	EPA 8260B	wlm	
1,2,4-Trimethylbenzene	4.83		1.03	mg/kg dry	05/13/15 19:34	EPA 8260B	wlm	
Benzene	1.89		0.411	mg/kg dry	05/13/15 19:34	EPA 8260B	wlm	
Toluene	1.63		1.03	mg/kg dry	05/13/15 19:34	EPA 8260B	wlm	
Ethylbenzene	1.22		1.03	mg/kg dry	05/13/15 19:34	EPA 8260B	wlm	
Xylenes (total)	4.94		2.05	mg/kg dry	05/13/15 19:34	EPA 8260B	wlm	
Isopropylbenzene	<1.03		1.03	mg/kg dry	05/13/15 19:34	EPA 8260B	wlm	
Methyl tert-butyl ether	<1.03		1.03	mg/kg dry	05/13/15 19:34	EPA 8260B	wlm	
Naphthalene	3.24		1.03	mg/kg dry	05/13/15 19:34	EPA 8260B	wlm	
Surrogate: 4-Bromofluorobenzene	98 %		70-130		05/13/15 19:34	EPA 8260B	wlm	
Surrogate: 1,2-Dichloroethane-d4	96 %		70-130		05/13/15 19:34	EPA 8260B	wlm	
Surrogate: Fluorobenzene	101 %		70-130		05/13/15 19:34	EPA 8260B	wlm	

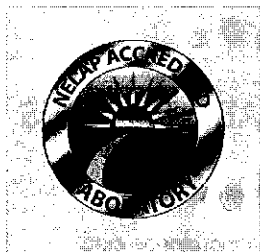
Conventional Chemistry Parameters by SM/EPA Methods

% Solids	78.0	0.100	%	05/11/15 15:04	SM 2540 G-97	arr
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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: UR CLEARFIELD
Project Number: [none]
Collector: CLIENT
Number of Containers: 68
Reported: 05/20/15 10:32

Client Sample ID: SB-8 @ 4'

Date/Time Sampled: 05/07/15 09:45

Laboratory Sample ID: 5E08060-09 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Method	* Analyst	Note
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Volatile Organic Compounds by EPA Method 8260B

9c

1,3,5-Trimethylbenzene	59.1		8.45	mg/kg dry	05/14/15 14:54	EPA 8260B	wlm	
1,2,4-Trimethylbenzene	182		8.45	mg/kg dry	05/14/15 14:54	EPA 8260B	wlm	
Benzene	1.51		0.338	mg/kg dry	05/13/15 20:12	EPA 8260B	wlm	
Toluene	<0.845		0.845	mg/kg dry	05/13/15 20:12	EPA 8260B	wlm	
Ethylbenzene	1.32		0.845	mg/kg dry	05/13/15 20:12	EPA 8260B	wlm	
Xylenes (total)	37.1		1.69	mg/kg dry	05/13/15 20:12	EPA 8260B	wlm	
Isopropylbenzene	<0.845		0.845	mg/kg dry	05/13/15 20:12	EPA 8260B	wlm	
Methyl tert-butyl ether	<0.845		0.845	mg/kg dry	05/13/15 20:12	EPA 8260B	wlm	
Naphthalene	12.9		0.845	mg/kg dry	05/13/15 20:12	EPA 8260B	wlm	
Surrogate: 4-Bromofluorobenzene	103 %		70-130		05/13/15 20:12	EPA 8260B	wlm	
Surrogate: 1,2-Dichloroethane-d4	93 %		70-130		05/13/15 20:12	EPA 8260B	wlm	
Surrogate: Fluorobenzene	99 %		70-130		05/13/15 20:12	EPA 8260B	wlm	

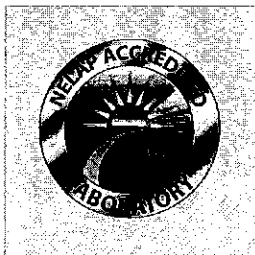
Conventional Chemistry Parameters by SM/EPA Methods

% Solids	84.5		0.100	%	05/11/15 15:04	SM 2540 G-97	arr	
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Fairway Laboratories, Inc.

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2019 Ninth Avenue
PO Box 1925
Altoona, PA 16603
(814) 946-4306
NELAP: PA 07-062, VA 460212

89 Kristi Road
Pennssdale, PA 17756
(570) 494-6380
PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

www.fairwaylaboratories.com

Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: UR CLEARFIELD
Project Number: [none]
Collector: CLIENT
Number of Containers: 68
Reported: 05/20/15 10:32

Client Sample ID: SB-9 @ 4.5'

Date/Time Sampled: 05/07/15 10:00

Laboratory Sample ID: 5E08060-10 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Method	* Analyst	Note
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Volatile Organic Compounds by EPA Method 8260B

9c

1,3,5-Trimethylbenzene	<0.0039	0.0039	mg/kg dry	05/13/15 07:21	EPA 8260B	wlm
1,2,4-Trimethylbenzene	0.0055	0.0039	mg/kg dry	05/13/15 07:21	EPA 8260B	wlm
Benzene	0.0351	0.0015	mg/kg dry	05/13/15 07:21	EPA 8260B	wlm
Toluene	<0.0039	0.0039	mg/kg dry	05/13/15 07:21	EPA 8260B	wlm
Ethylbenzene	<0.0039	0.0039	mg/kg dry	05/13/15 07:21	EPA 8260B	wlm
Xylenes (total)	0.0214	0.0077	mg/kg dry	05/13/15 07:21	EPA 8260B	wlm
Isopropylbenzene	<0.0039	0.0039	mg/kg dry	05/13/15 07:21	EPA 8260B	wlm
Methyl tert-butyl ether	<0.0039	0.0039	mg/kg dry	05/13/15 07:21	EPA 8260B	wlm
Naphthalene	0.0059	0.0039	mg/kg dry	05/13/15 07:21	EPA 8260B	wlm
Surrogate: 4-Bromofluorobenzene	100 %	70-130		05/13/15 07:21	EPA 8260B	wlm
Surrogate: 1,2-Dichloroethane-d4	113 %	70-130		05/13/15 07:21	EPA 8260B	wlm
Surrogate: Fluorobenzene	99 %	70-130		05/13/15 07:21	EPA 8260B	wlm

Conventional Chemistry Parameters by SM/EPA Methods

% Solids	87.3	0.100	%	05/11/15 15:04	SM 2540 G-97	arr
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PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: UR CLEARFIELD
Project Number: [none]
Collector: CLIENT
Number of Containers: 68

Reported:
05/20/15 10:32

Client Sample ID: SB-10 @ 4'

Date/Time Sampled: 05/07/15 10:10

Laboratory Sample ID: 5E08060-11 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Method	* Analyst	Note
Volatile Organic Compounds by EPA Method 8260B								
1,3,5-Trimethylbenzene	<0.0045	0.0045		mg/kg dry	05/13/15 07:59	EPA 8260B	wlm	
1,2,4-Trimethylbenzene	<0.0045	0.0045		mg/kg dry	05/13/15 07:59	EPA 8260B	wlm	
Benzene	0.0053	0.0018		mg/kg dry	05/13/15 07:59	EPA 8260B	wlm	
Toluene	<0.0045	0.0045		mg/kg dry	05/13/15 07:59	EPA 8260B	wlm	
Ethylbenzene	<0.0045	0.0045		mg/kg dry	05/13/15 07:59	EPA 8260B	wlm	
Xylenes (total)	<0.0090	0.0090		mg/kg dry	05/13/15 07:59	EPA 8260B	wlm	
Isopropylbenzene	<0.0045	0.0045		mg/kg dry	05/13/15 07:59	EPA 8260B	wlm	
Methyl tert-butyl ether	<0.0045	0.0045		mg/kg dry	05/13/15 07:59	EPA 8260B	wlm	
Naphthalene	<0.0045	0.0045		mg/kg dry	05/13/15 07:59	EPA 8260B	wlm	
Surrogate: 4-Bromofluorobenzene	98 %		70-130		05/13/15 07:59	EPA 8260B	wlm	
Surrogate: 1,2-Dichloroethane-d4	119 %		70-130		05/13/15 07:59	EPA 8260B	wlm	
Surrogate: Fluorobenzene	103 %		70-130		05/13/15 07:59	EPA 8260B	wlm	
Conventional Chemistry Parameters by SM/EPA Methods								
% Solids	76.1		0.100	%	05/11/15 15:04	SM 2540 G-97	arr	

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PaDEP: PA 41-04684



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State Certifications: MD 275, WV 364

Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: UR CLEARFIELD
Project Number: [none]
Collector: CLIENT
Number of Containers: 68
Reported: 05/20/15 10:32

Client Sample ID: SB-11 @ 2'

Date/Time Sampled: 05/07/15 12:35

Laboratory Sample ID: 5E08060-12 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Method	* Analyst	Note
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Volatile Organic Compounds by EPA Method 8260B

1,3,5-Trimethylbenzene	199		24.4	mg/kg dry	05/14/15 15:35	EPA 8260B	wlm	
1,2,4-Trimethylbenzene	568		48.8	mg/kg dry	05/15/15 15:02	EPA 8260B	wlm	
Benzene	45.8		9.76	mg/kg dry	05/14/15 15:35	EPA 8260B	wlm	
Toluene	4.13		0.976	mg/kg dry	05/13/15 20:51	EPA 8260B	wlm	
Ethylbenzene	151		24.4	mg/kg dry	05/14/15 15:35	EPA 8260B	wlm	
Xylenes (total)	729		48.8	mg/kg dry	05/14/15 15:35	EPA 8260B	wlm	
Isopropylbenzene	20.2		0.976	mg/kg dry	05/13/15 20:51	EPA 8260B	wlm	
Methyl tert-butyl ether	<0.976		0.976	mg/kg dry	05/13/15 20:51	EPA 8260B	wlm	
Naphthalene	101		24.4	mg/kg dry	05/14/15 15:35	EPA 8260B	wlm	
Surrogate: 4-Bromofluorobenzene	115 %		70-130		05/13/15 20:51	EPA 8260B	wlm	
Surrogate: 1,2-Dichloroethane-d4	94 %		70-130		05/13/15 20:51	EPA 8260B	wlm	
Surrogate: Fluorobenzene	100 %		70-130		05/13/15 20:51	EPA 8260B	wlm	

Conventional Chemistry Parameters by SM/EPA Methods

% Solids	84.9		0.100	%	05/11/15 15:04	SM 2540 G-97	arr	
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State Certifications: MD 275, WV 364

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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: UR CLEARFIELD
Project Number: [none]
Collector: CLIENT
Number of Containers: 68

Reported:
05/20/15 10:32

Client Sample ID: SB-11 @ 4.5'

Date/Time Sampled: 05/07/15 12:40

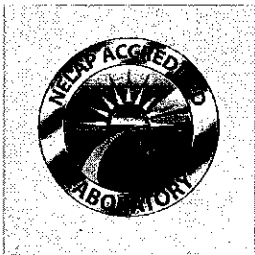
Laboratory Sample ID: 5E08060-13 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Method	* Analyst	Note
Volatile Organic Compounds by EPA Method 8260B								
1,3,5-Trimethylbenzene	23.8		4.66	mg/kg dry	05/14/15 16:52	EPA 8260B	wlm	
1,2,4-Trimethylbenzene	72.9		4.66	mg/kg dry	05/14/15 16:52	EPA 8260B	wlm	
Benzene	8.55		0.373	mg/kg dry	05/13/15 21:29	EPA 8260B	wlm	
Toluene	<0.932		0.932	mg/kg dry	05/13/15 21:29	EPA 8260B	wlm	
Ethylbenzene	12.7		0.932	mg/kg dry	05/13/15 21:29	EPA 8260B	wlm	
Xylenes (total)	57.7		9.32	mg/kg dry	05/14/15 16:52	EPA 8260B	wlm	
Isopropylbenzene	1.86		0.932	mg/kg dry	05/13/15 21:29	EPA 8260B	wlm	
Methyl tert-butyl ether	<0.932		0.932	mg/kg dry	05/13/15 21:29	EPA 8260B	wlm	
Naphthalene	13.0		0.932	mg/kg dry	05/13/15 21:29	EPA 8260B	wlm	
Surrogate: 4-Bromofluorobenzene	102 %		70-130		05/13/15 21:29	EPA 8260B	wlm	
Surrogate: 1,2-Dichloroethane-d4	91 %		70-130		05/13/15 21:29	EPA 8260B	wlm	
Surrogate: Fluorobenzene	99 %		70-130		05/13/15 21:29	EPA 8260B	wlm	
Conventional Chemistry Parameters by SM/EPA Methods								
% Solids	81.0		0.100	%	05/11/15 15:04	SM 2540 G-97	arr	

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(570) 494-6380
PaDEP: PA 41-04684



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State Certifications: MD 275, WV 364

Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: UR CLEARFIELD
Project Number: [none]
Collector: CLIENT
Number of Containers: 68
Reported: 05/20/15 10:32

Client Sample ID: SB-12 @ 4'

Date/Time Sampled: 05/07/15 12:55

Laboratory Sample ID: 5E08060-14 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Method	* Analyst	Note
Volatile Organic Compounds by EPA Method 8260B								
1,3,5-Trimethylbenzene	91.7		9.70	mg/kg dry	05/15/15 17:17	EPA 8260B	wlm	
1,2,4-Trimethylbenzene	148		9.70	mg/kg dry	05/15/15 17:17	EPA 8260B	wlm	
Xylenes (total)	24.3		0.970	mg/kg dry	05/14/15 14:35	EPA 8260B	wlm	
Naphthalene	18.3		9.70	mg/kg dry	05/15/15 17:17	EPA 8260B	wlm	
Benzene	0.0764		0.0020	mg/kg dry	05/13/15 08:37	EPA 8260B	wlm	
Toluene	0.0097		0.0051	mg/kg dry	05/13/15 08:37	EPA 8260B	wlm	
Ethylbenzene	0.0191		0.0051	mg/kg dry	05/13/15 08:37	EPA 8260B	wlm	
Isopropylbenzene	<0.0051		0.0051	mg/kg dry	05/13/15 08:37	EPA 8260B	wlm	
Methyl tert-butyl ether	<0.0051		0.0051	mg/kg dry	05/13/15 08:37	EPA 8260B	wlm	
Surrogate: 4-Bromofluorobenzene	111 %		70-130		05/13/15 08:37	EPA 8260B	wlm	
Surrogate: 1,2-Dichloroethane-d4	115 %		70-130		05/13/15 08:37	EPA 8260B	wlm	
Surrogate: Fluorobenzene	101 %		70-130		05/13/15 08:37	EPA 8260B	wlm	

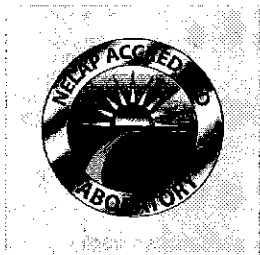
Conventional Chemistry Parameters by SM/EPA Methods

% Solids	84.8	0.100	%	05/11/15 15:04	SM 2540 G-97	arr
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Pennsdale, PA 17756
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PaDEP: PA 41-04684



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State Certifications: MD 275, WV 364

Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: UR CLEARFIELD
Project Number: [none]
Collector: CLIENT
Number of Containers: 68

Reported:
05/20/15 10:32

Notes

9c Vial contained more than the EPA recommended amount of soil.

Definitions

If surrogate values are not within the indicated range, then the results are considered to be estimated.

Reporting limits are adjusted accordingly when samples are analyzed at a dilution due to the matrix.

The following analyses are to be performed immediately upon sampling: pH, sulfite, chlorine residual, dissolved oxygen, filtration for ortho phosphorus, and ferrous iron. The date and time reported reflect the time the samples were analyzed at the laboratory.

MBAS, calculated as LAS, mol wt 348

If the solid sample weight for VOC analysis does not fall within the 3.5-6.5 gram range, the results are considered estimated values.

Unless otherwise noted, all results for solids are reported on a dry weight basis.

Samples collected by Fairway Laboratories' personnel are done so in accordance with Standard Operating Procedures established by Fairway Laboratories.

* P indicates analysis performed by Fairway Laboratories, Inc. at the Pennsdale location. This location is PaDEP Chapter 252 certified.

< Represents "less than" - indicates that the result was less than the reporting limit.

MDL Method Detection Limit - is the lowest or minimum level that provides 99% confidence level that the analyte is detected. Any reported result values that are less than the RL are considered estimated values.

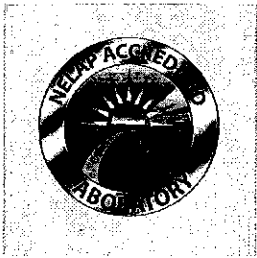
RL Reporting Limit - is the lowest or minimum level at which the analyte can be quantified.

[CALC] Indicates a calculated result. Calculations use results from other analyses performed under accredited methods.

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Letterle & Associates Inc.

2022 Axemann Road Suite 201

Bellefonte PA, 16823

Project Manager: Jed Hill

Project: UR CLEARFIELD

Project Number: [none]

Collector: CLIENT

Number of Containers: 68

Reported:

05/20/15 10:32

Terms & Conditions

Services provided by Fairway Laboratories Inc. are limited to the terms and conditions stated herein, unless otherwise agreed to in a formal contract.

CHAIN OF CUSTODY Fairway Laboratories Inc. ("Fairway," "us" or "we") will initiate a chain-of-custody/request for analysis upon sample receipt unless the client includes a completed form with the received sample(s). Upon request, Fairway will provide chain-of-custody forms for use.

CONFIDENTIALITY Fairway maintains confidentiality in all of our client interactions. The client's consent will be required before releasing information about the services provided.

CONTRACTS All contracts are subject to review and approval by Fairway's legal council. Each contract must be signed by a corporate officer.

PAYMENT/BILLING Unless otherwise set forth in a signed contract or purchase order, terms of payment are "NET 30 Days." The time allowed for payment shall begin based on the invoice date. A 1.5% per month service charge may be added to all unpaid balances beyond the initial 30 days. In its sole discretion, Fairway reserves the right to request payment before services and hold sample results for payment of due balances. We will not bill a third party without prior agreement among all parties acknowledging and accepting responsibility for payment.

SAMPLE COLLECTION AND SUBMISSION Clients not requesting collection services from Fairway are responsible for proper collection, preservation, packaging, and delivery of samples to the laboratory in accordance with current law and commercial practice. Fairway shall have no responsibility for sample integrity prior to the receipt of the sample(s) and/or for any inaccuracy in test or analyses results as a result of the failure of the client or any third party to maintain the integrity of samples prior to delivery to Fairway. All samples submitted must be accompanied by a completed chain of custody or similar document clearly noting the requested analyses, dates/time sampled, client contact information, and trail of custody.

SUBCONTRACTING Some analyses may require subcontracting to another laboratory. Unless the client indicates otherwise, this decision will be made by Fairway. Subcontracted work will be identified on the final report in accordance with NELAC requirements.

RETURN OF RESULTS Fairway routinely provides faxed or verbal results within 10 working days of receipt of sample(s) and a hard copy of the data results is routinely received via US Postal Service within 15 working days. At the request of the client, Fairway may offer expedited return of sample results. Surcharges may apply to rush requests. All rush requests must be pre-approved by Fairway. We reserve the right to charge an archive retrieval fee for results older than one (1) year from the date of the request. All records will be maintained by Fairway for 5 years, after which, they will be destroyed.

SAMPLE DISPOSAL Fairway will maintain samples for four (4) weeks after the sample receipt date. Fairway will dispose of samples which are not and/or do not contain hazardous wastes (as such term is defined by applicable federal or state law), unless prior arrangements have been made for long-term storage. Fairway reserves the right to charge a disposal fee for the proper disposal of samples found or suspected to contain hazardous waste. A return shipping charge will be invoiced for samples returned to the client at their request.

HAZARD COMMUNICATION The client has the responsibility to inform the laboratory of any hazardous characteristics known or suspected about the sample, and to provide information on hazard prevention and personal protection as necessary or otherwise required by applicable law.

WARRANTY AND LIMITATION OF LIABILITY For services rendered, Fairway warrants that it will apply its best scientific knowledge and judgment and to employ its best level of effort consistent with professional standards within the environmental testing industry in performing the analytical services requested by its clients. We disclaim any other warranties, expressed or implied by law. Fairway does not accept any legal responsibility for the purposes for which client uses the test results.

LITIGATION All costs associated with compliance to any subpoena for documents, for testimony in a court of law, or for any other purpose relating to work performed by Fairway Laboratories, Inc. shall be invoiced by Fairway and paid by client. These costs shall include, but are not limited to, hourly charges for the persons involved, travel, mileage, and accommodations and for any and all other expenses associated with said litigation.

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2019 9th Ave.
P.O. Box 1925
Altoona, PA 16602
Phone: (814) 946-4306
Fax: (814) 946-8791

FAIRWAY LABORATORIES Ph
Environmental Laboratory

89 Kristi Rd
Pennsdale, PA 17756
Phone: (570) 494-6380
10/23/03

5E08060 #4
COC #
Page 1 of 2

Client Name: Letterle & Associates					
Address: 2022 Axemann Road Bellefonte, PA 16823					
Contact: Ted Hill					
Phone #: 814-355-2241					
Fax #: 814-355-2410					
Project Name: DR Classified					
Quote/PO #:					
TAT: Normal <input checked="" type="checkbox"/> Rush <input type="checkbox"/>					
Rush TAT subject to pre-approval and surcharge					
Date Required: ___/___/___	GRAB	Composite			
Sample Description/Location			Composite Start	GRAB -or- Composite End	Matrix
			Start Date	End Date	Solid Water Other
SA-1 @ 4'	X			5-6 1254	X
SA-2 @ 4'				1305	
SA-3 @ 4'				1330	
SA-4 @ 5'				1420	
SA-5 @ 5'				1430	
SA-6 @ 2.5'				1615	
SA-6 @ 5'			V	1620	
SA-7 @ 4'				1645	
SA-8 @ 4'				5-7 0945	
SA-9 @ 4.5'				5-7 1020	V
SA-10 @ 9'				5-7 1010	V
Sampled by: JWC	Date	Time	Received by: JH Kleber	Date	Time
5-8	1000		5-8-15	1030	
Retinquished by: JH Kleber	Date	Time	Received by: JH Kleber	Date	Time
5-8-15	1200		5-8-15	1300	
Relinquished by: JH Kleber	Date	Time	Received by: JH Kleber	Date	Time
5-8-15	1410		5-8-15	1410	
Relinquished by: JH Kleber	Date	Time	Received by: JH Kleber	Date	Time
5-8-15	1410		5-8-15	1410	
Remarks					
Analyses Requested					
LAB USE ONLY					
FedEx USPS UPS Other					
Tracking #					
Bottle Type/Comments					

By relinquishing my sample to Fairway Laboratories, Inc., I hereby agree to the terms and conditions printed on the reverse.

White Original - FLI File Canary - FLI Copy Pink - Customer Receipt Copy

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Please print. See back of COC for instructions/terms and conditions.

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P.O. Box 1925
Altoona, PA 16602
Phone: (814) 946-4306
Fax: (814) 946-8791

FAIRWAY LABORATORIES
Environmental Laboratory
89 Kristi Rd
Pennsdale, PA 17756
Phone: (570) 494-6380

5608060 #2
COC #
Page 2 of 2

Client Name: <u>Lettlerle & Associates</u>		Received on ice? Y <input type="checkbox"/> N <input type="checkbox"/>		Reportable to PADEP? Yes <input type="checkbox"/>		Analyses Requested		LAB USE ONLY FedEx USPS UPS Other	
Address: <u>2022 Axemann Road</u> <u>Belleville, PA 16823</u>		Sample Temp: _____		PWSID # _____		2008 Dnl. Gas		Tracking # _____	
Contact: <u>320 H111</u>									
Phone #: <u>814-355-2241</u>									
Fax #: <u>814-355-2410</u>									
Project Name: <u>122 Clearfield</u>									
Quote/PO #: _____									
TAT: Normal <input checked="" type="checkbox"/> Rush <input type="checkbox"/>		GRAB <input type="checkbox"/> Composite <input type="checkbox"/>							
Rush TAT subject to pre-approval and surcharge									
Date Required: <u>1/1/11</u>									
Sample Description/Location		Start Date	Start Time	End Date	End Time	Solid	Water	Other	# of Containers
12	5-11 @ 2'	5-7	12:35	5-7	12:40	X			4
13	5-11 @ 4.5'	5-7	12:40	5-7	12:55	X			4
14	5-12 @ 4'	5-7	12:55	5-7	1:00	X			4
Sampled by: <u>MA</u>		Date	Time	Received by: <u>MA</u>	Date	Time	Remarks		
Relinquished by: <u>MA</u>		5-8	1:00	5-8	10:30				
Relinquished by: <u>MA</u>		5-8	1:30	5-8	1:30				
Relinquished by: <u>MA</u>		5-8	1:30	5-8	1:30				
Relinquished by: <u>MA</u>		5-8	1:30	5-8	1:30				
Relinquished by: <u>MA</u>		5-8	1:30	5-8	1:30				

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Canary - FLI Copy Pink - Customer Receipt Copy

34

Lab # 5E08060

Custody Seals? Y Intact? Y

Correct containers for all the analysis requested? Y

[illegible]

* DEVIATION PRESENT: <input type="radio"/> No Ice () <input type="radio"/> Not at Proper Temperature () <input type="radio"/> Wrong Container () <input type="radio"/> Missing Information: ()	CLIENT CALLED: YES () By Whom: _____ Date: _____	CLIENT RESPONSE: Proceed with analysis; quality data () Will Resample () Provided Information () No Response; Proceed and qualified () Client Contact: _____ Date: _____
--	--	---

***Comments:**



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(570) 494-6380
PaDEP: PA 41-04684



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State Certifications: MD 275, WV 364

Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: UR CLEARFIELD
Project Number: [none]
Collector: CLIENT
Number of Containers: 24
Reported: 06/29/15 10:19

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Sample Type	Date Sampled	Date Received
SB-13	5F16032-01	Solid	Grab	06/15/15 12:05	06/16/15 13:50
SB-14	5F16032-02	Solid	Grab	06/15/15 12:15	06/16/15 13:50
SB-15	5F16032-03	Solid	Grab	06/15/15 12:25	06/16/15 13:50
SB-16	5F16032-04	Solid	Grab	06/15/15 12:30	06/16/15 13:50
SB-17	5F16032-05	Solid	Grab	06/15/15 12:55	06/16/15 13:50
SB-18	5F16032-06	Solid	Grab	06/15/15 13:25	06/16/15 13:50

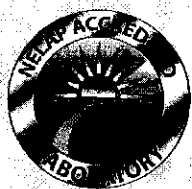
Fairway Laboratories, Inc.

Reviewed and Submitted by:

Michael P. Tyler
Laboratory Director

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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: UR CLEARFIELD
Project Number: [none]
Collector: CLIENT
Number of Containers: 24

Reported:
06/29/15 10:19

Client Sample ID: SB-13

Date/Time Sampled: 06/15/15 12:05

Laboratory Sample ID: 5F16032-01 (Solid/Grab)

Analyte	Result	MDL	RI	Units	Date / Time Analyzed	Method	* Analyst	Note
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Volatile Organic Compounds by EPA Method 8260B

9c

1,3,5-Trimethylbenzene	<0.0037	0.0037	mg/kg dry	06/18/15 07:05	EPA 8260B	wlm
1,2,4-Trimethylbenzene	<0.0037	0.0037	mg/kg dry	06/18/15 07:05	EPA 8260B	wlm
Benzene	<0.0015	0.0015	mg/kg dry	06/18/15 07:05	EPA 8260B	wlm
Toluene	<0.0037	0.0037	mg/kg dry	06/18/15 07:05	EPA 8260B	wlm
Ethylbenzene	<0.0037	0.0037	mg/kg dry	06/18/15 07:05	EPA 8260B	wlm
Xylenes (total)	<0.0074	0.0074	mg/kg dry	06/18/15 07:05	EPA 8260B	wlm
Isopropylbenzene	<0.0037	0.0037	mg/kg dry	06/18/15 07:05	EPA 8260B	wlm
Methyl tert-butyl ether	<0.0037	0.0037	mg/kg dry	06/18/15 07:05	EPA 8260B	wlm
Naphthalene	<0.0037	0.0037	mg/kg dry	06/18/15 07:05	EPA 8260B	wlm
Surrogate: 4-Bromofluorobenzene	106 %	70-130		06/18/15 07:05	EPA 8260B	wlm
Surrogate: 1,2-Dichloroethane-d4	116 %	70-130		06/18/15 07:05	EPA 8260B	wlm
Surrogate: Fluorobenzene	90 %	70-130		06/18/15 07:05	EPA 8260B	wlm

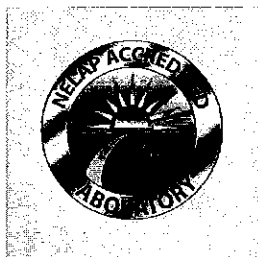
Conventional Chemistry Parameters by SM/EPA Methods

% Solids	75.7	0.100	%	06/17/15 15:28	SM 2540 G-97	arr
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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: UR CLEARFIELD
Project Number: [none]
Collector: CLIENT
Number of Containers: 24
Reported: 06/29/15 10:19

Client Sample ID: SB-14

Date/Time Sampled: 06/15/15 12:15

Laboratory Sample ID: 5F16032-02 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Method	* Analyst	Note
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Volatile Organic Compounds by EPA Method 8260B

9c

1,3,5-Trimethylbenzene	<0.0042	0.0042	mg/kg dry	06/18/15 07:43	EPA 8260B	wlm
1,2,4-Trimethylbenzene	<0.0042	0.0042	mg/kg dry	06/18/15 07:43	EPA 8260B	wlm
Benzene	<0.0017	0.0017	mg/kg dry	06/18/15 07:43	EPA 8260B	wlm
Toluene	<0.0042	0.0042	mg/kg dry	06/18/15 07:43	EPA 8260B	wlm
Ethylbenzene	<0.0042	0.0042	mg/kg dry	06/18/15 07:43	EPA 8260B	wlm
Xylenes (total)	<0.0084	0.0084	mg/kg dry	06/18/15 07:43	EPA 8260B	wlm
Isopropylbenzene	<0.0042	0.0042	mg/kg dry	06/18/15 07:43	EPA 8260B	wlm
Methyl tert-butyl ether	<0.0042	0.0042	mg/kg dry	06/18/15 07:43	EPA 8260B	wlm
Naphthalene	<0.0042	0.0042	mg/kg dry	06/18/15 07:43	EPA 8260B	wlm
Surrogate: 4-Bromofluorobenzene	100 %	70-130		06/18/15 07:43	EPA 8260B	wlm
Surrogate: 1,2-Dichloroethane-d4	118 %	70-130		06/18/15 07:43	EPA 8260B	wlm
Surrogate: Fluorobenzene	93 %	70-130		06/18/15 07:43	EPA 8260B	wlm

Conventional Chemistry Parameters by SM/EPA Methods

% Solids	74.2	0.100	%	06/17/15 15:28	SM 2540 G-97	arr
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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Beilefonte PA, 16823
Project Manager: Jed Hill

Project: UR CLEARFIELD
Project Number: [none]
Collector: CLIENT
Number of Containers: 24
Reported: 06/29/15 10:19

Client Sample ID: SB-15

Date/Time Sampled: 06/15/15 12:25

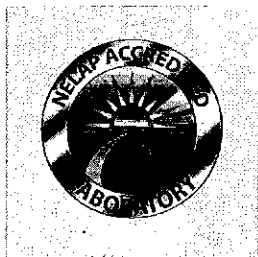
Laboratory Sample ID: 5F16032-03 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Method	* Analyst	Note
Volatile Organic Compounds by EPA Method 8260B								9c
1,3,5-Trimethylbenzene	<0.0041	0.0041	mg/kg dry	06/18/15 08:21	EPA 8260B	wlm		2a
1,2,4-Trimethylbenzene	<0.0041	0.0041	mg/kg dry	06/18/15 08:21	EPA 8260B	wlm		2a
Benzene	0.0099	0.0016	mg/kg dry	06/18/15 08:21	EPA 8260B	wlm		2a
Toluene	<0.0041	0.0041	mg/kg dry	06/18/15 08:21	EPA 8260B	wlm		2a
Ethylbenzene	<0.0041	0.0041	mg/kg dry	06/18/15 08:21	EPA 8260B	wlm		2a
Xylenes (total)	<0.0082	0.0082	mg/kg dry	06/18/15 08:21	EPA 8260B	wlm		2a
Isopropylbenzene	<0.0041	0.0041	mg/kg dry	06/18/15 08:21	EPA 8260B	wlm		
Methyl tert-butyl ether	<0.0041	0.0041	mg/kg dry	06/18/15 08:21	EPA 8260B	wlm		
Naphthalene	<0.0041	0.0041	mg/kg dry	06/18/15 08:21	EPA 8260B	wlm		
Surrogate: 4-Bromofluorobenzene	101 %	70-130		06/18/15 08:21	EPA 8260B	wlm		
Surrogate: 1,2-Dichloroethane-d4	115 %	70-130		06/18/15 08:21	EPA 8260B	wlm		
Surrogate: Fluorobenzene	91 %	70-130		06/18/15 08:21	EPA 8260B	wlm		
Conventional Chemistry Parameters by SM/EPA Methods								
% Solids	85.1	0.100	%	06/17/15 15:28	SM 2540	arr		
						G-97		

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PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: UR CLEARFIELD
Project Number: [none]
Collector: CLIENT
Number of Containers: 24
Reported: 06/29/15 10:19

Client Sample ID: SB-16

Date/Time Sampled: 06/15/15 12:30

Laboratory Sample ID: 5F16032-04 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Method	* Analyst	Note
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Volatile Organic Compounds by EPA Method 8260B

9c

1,3,5-Trimethylbenzene	59.9		8.95	mg/kg dry	06/23/15 19:42	EPA 8260B	wlm	
1,2,4-Trimethylbenzene	215		8.95	mg/kg dry	06/23/15 19:42	EPA 8260B	wlm	
Benzene	<0.358		0.358	mg/kg dry	06/23/15 02:36	EPA 8260B	wlm	
Toluene	<0.895		0.895	mg/kg dry	06/23/15 02:36	EPA 8260B	wlm	
Ethylbenzene	17.5		0.895	mg/kg dry	06/23/15 02:36	EPA 8260B	wlm	
Xylenes (total)	53.6		17.9	mg/kg dry	06/23/15 19:42	EPA 8260B	wlm	
Isopropylbenzene	3.94		0.895	mg/kg dry	06/23/15 02:36	EPA 8260B	wlm	
Methyl tert-butyl ether	<0.895		0.895	mg/kg dry	06/23/15 02:36	EPA 8260B	wlm	
Naphthalene	18.0		0.895	mg/kg dry	06/23/15 02:36	EPA 8260B	wlm	
Surrogate: 4-Bromofluorobenzene		105 %	70-130		06/23/15 02:36	EPA 8260B	wlm	
Surrogate: 1,2-Dichloroethane-d4		93 %	70-130		06/23/15 02:36	EPA 8260B	wlm	
Surrogate: Fluorobenzene		90 %	70-130		06/23/15 02:36	EPA 8260B	wlm	

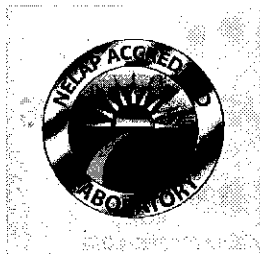
Conventional Chemistry Parameters by SM/EPA Methods

% Solids	77.7		0.100	%	06/17/15 15:28	SM 2540 G-97	arr	
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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: UR CLEARFIELD
Project Number: [none]
Collector: CLIENT
Number of Containers: 24

Reported:
06/29/15 10:19

Client Sample ID: SB-17

Date/Time Sampled: 06/15/15 12:55

Laboratory Sample ID: 5F16032-05 (Solid/Grab)

Analyte	Result	MDL	RI	Units	Date / Time Analyzed	Method	* Analyst	Note
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Volatile Organic Compounds by EPA Method 8260B

9c

1,3,5-Trimethylbenzene	<0.0040	0.0040	mg/kg dry	06/19/15 00:21	EPA 8260B	wlm
1,2,4-Trimethylbenzene	<0.0040	0.0040	mg/kg dry	06/19/15 00:21	EPA 8260B	wlm
Benzene	<0.0016	0.0016	mg/kg dry	06/19/15 00:21	EPA 8260B	wlm
Toluene	<0.0040	0.0040	mg/kg dry	06/19/15 00:21	EPA 8260B	wlm
Ethylbenzene	<0.0040	0.0040	mg/kg dry	06/19/15 00:21	EPA 8260B	wlm
Xylenes (total)	<0.0081	0.0081	mg/kg dry	06/19/15 00:21	EPA 8260B	wlm
Isopropylbenzene	<0.0040	0.0040	mg/kg dry	06/19/15 00:21	EPA 8260B	wlm
Methyl tert-butyl ether	<0.0040	0.0040	mg/kg dry	06/19/15 00:21	EPA 8260B	wlm
Naphthalene	<0.0040	0.0040	mg/kg dry	06/19/15 00:21	EPA 8260B	wlm
Surrogate: 4-Bromofluorobenzene	102 %	70-130		06/19/15 00:21	EPA 8260B	wlm
Surrogate: 1,2-Dichloroethane-d4	115 %	70-130		06/19/15 00:21	EPA 8260B	wlm
Surrogate: Fluorobenzene	91 %	70-130		06/19/15 00:21	EPA 8260B	wlm

Conventional Chemistry Parameters by SM/EPA Methods

% Solids	76.0	0.100	%	06/17/15 15:28	SM 2540 G-97	arr
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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: UR CLEARFIELD
Project Number: [none]
Collector: CLIENT
Number of Containers: 24
Reported: 06/29/15 10:19

Client Sample ID: SB-18

Date/Time Sampled: 06/15/15 13:25

Laboratory Sample ID: 5F16032-06 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Method	* Analyst	Note
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Volatile Organic Compounds by EPA Method 8260B

9c

1,3,5-Trimethylbenzene	<0.0039	0.0039	mg/kg dry	06/19/15 00:59	EPA 8260B	wlm
1,2,4-Trimethylbenzene	<0.0039	0.0039	mg/kg dry	06/19/15 00:59	EPA 8260B	wlm
Benzene	<0.0016	0.0016	mg/kg dry	06/19/15 00:59	EPA 8260B	wlm
Toluene	<0.0039	0.0039	mg/kg dry	06/19/15 00:59	EPA 8260B	wlm
Ethylbenzene	<0.0039	0.0039	mg/kg dry	06/19/15 00:59	EPA 8260B	wlm
Xylenes (total)	<0.0079	0.0079	mg/kg dry	06/19/15 00:59	EPA 8260B	wlm
Isopropylbenzene	<0.0039	0.0039	mg/kg dry	06/19/15 00:59	EPA 8260B	wlm
Methyl tert-butyl ether	<0.0039	0.0039	mg/kg dry	06/19/15 00:59	EPA 8260B	wlm
Naphthalene	<0.0039	0.0039	mg/kg dry	06/19/15 00:59	EPA 8260B	wlm
Surrogate: 4-Bromofluorobenzene	104 %	70-130		06/19/15 00:59	EPA 8260B	wlm
Surrogate: 1,2-Dichloroethane-d4	123 %	70-130		06/19/15 00:59	EPA 8260B	wlm
Surrogate: Fluorobenzene	92 %	70-130		06/19/15 00:59	EPA 8260B	wlm

Conventional Chemistry Parameters by SM/EPA Methods

% Solids	79.5	0.100	%	06/17/15 15:28	SM 2540 G-97	arr
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State Certifications: MD 275, WV 364

Letterle & Associates Inc.
2022 Axemann Road Suite 201
Belleville PA, 16823
Project Manager: Jed Hill

Project: UR CLEARFIELD
Project Number: [none]
Collector: CLIENT
Number of Containers: 24

Reported:
06/29/15 10:19

Notes

- 2a The RPD result exceeded the QC control limits for the duplicate, LCSD or MSD sample analyzed.
- 9c Vial contained more than the EPA recommended amount of soil.

Definitions

If surrogate values are not within the indicated range, then the results are considered to be estimated.

Reporting limits are adjusted accordingly when samples are analyzed at a dilution due to the matrix.

The following analyses are to be performed immediately upon sampling: pH, sulfite, chlorine residual, dissolved oxygen, filtration for ortho phosphorus, and ferrous iron. The date and time reported reflect the time the samples were analyzed at the laboratory.

MBAS, calculated as LAS, mol wt 348

If the solid sample weight for VOC analysis does not fall within the 3.5-6.5 gram range, the results are considered estimated values.

Unless otherwise noted, all results for solids are reported on a dry weight basis.

Samples collected by Fairway Laboratories' personnel are done so in accordance with Standard Operating Procedures established by Fairway Laboratories.

- * P indicates analysis performed by Fairway Laboratories, Inc. at the Pennsdale location. This location is PaDEP Chapter 252 certified.

- < Represents "less than" - indicates that the result was less than the reporting limit.

- MDL Method Detection Limit - is the lowest or minimum level that provides 99% confidence level that the analyte is detected. Any reported result values that are less than the RL are considered estimated values.

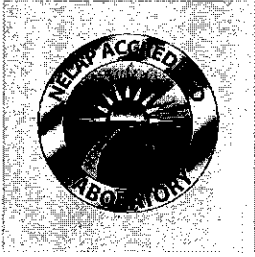
- RL Reporting Limit - is the lowest or minimum level at which the analyte can be quantified.

- [CALC] Indicates a calculated result. Calculations use results from other analyses performed under accredited methods.

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Pennssdale, PA 17756
(570) 494-6380
PaDEP: PA 41-04684



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State Certifications: MD 275, WV 364

Letterle & Associates Inc.
2022 Axemann Road Suite 201
Beliefonte PA, 16823
Project Manager: Jed Hill

Project: UR CLEARFIELD
Project Number: [none]
Collector: CLIENT
Number of Containers: 24

Reported:
06/29/15 10:19

Terms & Conditions

Services provided by Fairway Laboratories Inc. are limited to the terms and conditions stated herein, unless otherwise agreed to in a formal contract.

CHAIN OF CUSTODY Fairway Laboratories Inc. ("Fairway," "us" or "we") will initiate a chain-of-custody/request for analysis upon sample receipt unless the client includes a completed form with the received sample(s). Upon request, Fairway will provide chain-of-custody forms for use.

CONFIDENTIALITY Fairway maintains confidentiality in all of our client interactions. The client's consent will be required before releasing information about the services provided.

CONTRACTS All contracts are subject to review and approval by Fairway's legal council. Each contract must be signed by a corporate officer.

PAYMENT/BILLING Unless otherwise set forth in a signed contract or purchase order, terms of payment are "NET 30 Days." The time allowed for payment shall begin based on the invoice date. A 1.5% per month service charge may be added to all unpaid balances beyond the initial 30 days. In its sole discretion, Fairway reserves the right to request payment before services and hold sample results for payment of due balances. We will not bill a third party without prior agreement among all parties acknowledging and accepting responsibility for payment.

SAMPLE COLLECTION AND SUBMISSION Clients not requesting collection services from Fairway are responsible for proper collection, preservation, packaging, and delivery of samples to the laboratory in accordance with current law and commercial practice. Fairway shall have no responsibility for sample integrity prior to the receipt of the sample(s) and/or for any inaccuracy in test or analyses results as a result of the failure of the client or any third party to maintain the integrity of samples prior to delivery to Fairway. All samples submitted must be accompanied by a completed chain of custody or similar document clearly noting the requested analyses, dates/time sampled, client contact information, and trail of custody.

SUBCONTRACTING Some analyses may require subcontracting to another laboratory. Unless the client indicates otherwise, this decision will be made by Fairway. Subcontracted work will be identified on the final report in accordance with NELAP requirements.

RETURN OF RESULTS Fairway routinely provides faxed or verbal results within 10 working days of receipt of sample(s) and a hard copy of the data results is routinely received via US Postal Service within 15 working days. At the request of the client, Fairway may offer expedited return of sample results. Surcharges may apply to rush requests. All rush requests must be pre-approved by Fairway. We reserve the right to charge an archive retrieval fee for results older than one (1) year from the date of the request. All records will be maintained by Fairway for 5 years, after which, they will be destroyed.

SAMPLE DISPOSAL Fairway will maintain samples for four (4) weeks after the sample receipt date. Fairway will dispose of samples which are not and/or do not contain hazardous wastes (as such term is defined by applicable federal or state law), unless prior arrangements have been made for long-term storage. Fairway reserves the right to charge a disposal fee for the proper disposal of samples found or suspected to contain hazardous waste. A return shipping charge will be invoiced for samples returned to the client at their request.

HAZARD COMMUNICATION The client has the responsibility to inform the laboratory of any hazardous characteristics known or suspected about the sample, and to provide information on hazard prevention and personal protection as necessary or otherwise required by applicable law.

WARRANTY AND LIMITATION OF LIABILITY For services rendered, Fairway warrants that it will apply its best scientific knowledge and judgment and to employ its best level of effort consistent with professional standards within the environmental testing industry in performing the analytical services requested by its clients. We disclaim any other warranties, expressed or implied by law. Fairway does not accept any legal responsibility for the purposes for which client uses the test results.

LITIGATION All costs associated with compliance to any subpoena for documents, for testimony in a court of law, or for any other purpose relating to work performed by Fairway Laboratories, Inc. shall be invoiced by Fairway and paid by client. These costs shall include, but are not limited to, hourly charges for the persons involved, travel, mileage, and accommodations and for any and all other expenses associated with said litigation.

Fairway Laboratories, Inc.

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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Please print. See back of COC for instructions/terms and conditions.



2019 9th Ave.
P.O. Box 1925
Altoona, PA 16602
Phone: (814) 946-4306
Fax: (814) 946-8791

Client Page # 1 of 1

Client Name: Letterle & Associates Address: 2022 Axemann Road Bellefonte, PA 16823 Contact: Ted H. Hill Phone #: 814-355-2241 Fax #: 814-355-2410 Project Name: 02 Clarified Quote/PO #:		Received on ice? Y N Reportable to PADEP? Yes <input type="checkbox"/> Sample Temp: _____ PWSD #: _____		Analyses Requested		LAB USE ONLY Work Order # 516032 Attach # 1 FLI Page # 1 of 2 Tracking # Bottle Type/Comments	
TAT: Normal <input checked="" type="checkbox"/> Rush <input type="checkbox"/> Rush TAT subject to pre-approval and surcharge Date Required: ____/____/____		GRAB Composite		Composite Start		GRAB -or- Composite End	
Sample Description/Location		Start Date	Start Time	End Date	End Time	Solid	Water
1 SB-13				6-15	1205	<input checked="" type="checkbox"/>	
2 SB-14				1215	1215	<input checked="" type="checkbox"/>	
3 SB-15				1225	1225	<input checked="" type="checkbox"/>	
4 SB-16				1230	1230	<input checked="" type="checkbox"/>	
5 SB-17				1255	1255	<input checked="" type="checkbox"/>	
6 SB-18				1325	1325	<input checked="" type="checkbox"/>	
Sampled by: [Signature]		Received by: [Signature]		Date: 6/16/15		Time: 9:15	
Relinquished by: [Signature]		Received by: [Signature]		Date: 6/16/15		Time: 12:15	
Relinquished by: [Signature]		Received by: [Signature]		Date: 6/16/15		Time: 13:50	
Relinquished by: [Signature]		Received by: [Signature]		Date: 6/16/15		Time: 13:50	
Remarks							

By relinquishing my sample to Fairway Laboratories, Inc., I hereby agree to the terms and conditions printed on the reverse. White Original - FLI File Canary - FLI Copy Pink - Customer Receipt Copy

Chain of Custody Receiving Document

Page

of 2

Receiver: JD

Date/Time of this check: 6/14/15 14:05 client: letterle & Assoc Lab # 5F16032

Lab # 5F16032

Received on ICE? Y ☐ * Sample Temperature when delivered to the Lab: 0.3 Acceptable? Y ☐ * or In cool down process? ☐ *

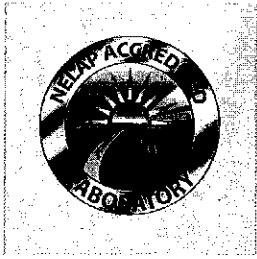
Custody Seals? Y Intact? Y

COC/Labels on bottles agree? ☒ * Correct containers for all the analysis requested? ☒ * Matrix: Soil

[illegible]

* DEVIATION PRESENT:	CLIENT CALLED:	CLIENT RESPONSE:
<input type="radio"/> No Ice () <input type="radio"/> Not at Proper Temperature () <input type="radio"/> Wrong Container () <input type="radio"/> Missing Information: ()	YES () By Whom: _____ Date: _____	Proceed with analysis; quality data () Will Resample () Provided Information () No Response; Proceed and qualified () Client Contact: _____ Date: _____

***Comments:**



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State Certifications: MD 275, WV 364

Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: UNITED CLEARFIELD GW G
Project Number: [none] Reported: 05/13/15 11:50
Collector: I.C.
Number of Containers: 20

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Sample Type	Date Sampled	Date Received
MW-1	5E04068-01	Water	Grab	05/04/15 09:18	05/04/15 17:45
MW-1A	5E04068-02	Water	Grab	05/04/15 11:30	05/04/15 17:45
MW-2	5E04068-03	Water	Grab	05/04/15 09:51	05/04/15 17:45
MW-2A	5E04068-04	Water	Grab	05/04/15 11:24	05/04/15 17:45
MW-28	5E04068-05	Water	Grab	05/04/15 10:23	05/04/15 17:45
MW-31	5E04068-06	Water	Grab	05/04/15 10:40	05/04/15 17:45
MW-32	5E04068-07	Water	Grab	05/04/15 10:56	05/04/15 17:45
MW-34	5E04068-08	Water	Grab	05/04/15 11:12	05/04/15 17:45
MW-35	5E04068-09	Water	Grab	05/04/15 10:05	05/04/15 17:45
MW-36	5E04068-10	Water	Grab	05/04/15 09:36	05/04/15 17:45

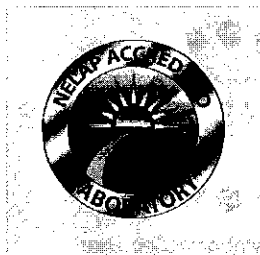
Fairway Laboratories, Inc.

Reviewed and Submitted by:

Michael P. Tyler
Laboratory Director

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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: UNITED CLEARFIELD GW G
Project Number: [none]
Collector: LC
Number of Containers: 20
Reported: 05/13/15 11:50

Client Sample ID: MW-1

Date/Time Sampled: 05/04/15 09:18

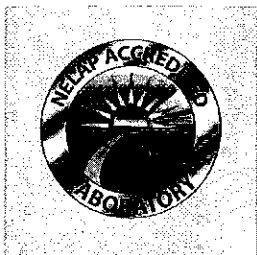
Laboratory Sample ID: 5E04068-01 (Water/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Method	* Analyst	Note
Volatile Organic Compounds by EPA Method 8260B								
1,3,5-Trimethylbenzene	<1.00		1.00	ug/l	05/05/15 16:09	EPA 8260B	mtc	
1,2,4-Trimethylbenzene	<1.00		1.00	ug/l	05/05/15 16:09	EPA 8260B	mtc	
Benzene	<1.00		1.00	ug/l	05/05/15 16:09	EPA 8260B	mtc	
Toluene	<1.00		1.00	ug/l	05/05/15 16:09	EPA 8260B	mtc	
Ethylbenzene	<1.00		1.00	ug/l	05/05/15 16:09	EPA 8260B	mtc	
Xylenes (total)	<2.00		2.00	ug/l	05/05/15 16:09	EPA 8260B	mtc	
Isopropylbenzene	<1.00		1.00	ug/l	05/05/15 16:09	EPA 8260B	mtc	
Methyl tert-butyl ether	<1.00		1.00	ug/l	05/05/15 16:09	EPA 8260B	mtc	
Naphthalene	<1.00		1.00	ug/l	05/05/15 16:09	EPA 8260B	mtc	
Surrogate: 4-Bromofluorobenzene	99.1 %		70-130		05/05/15 16:09	EPA 8260B	mtc	
Surrogate: 1,2-Dichloroethane-d4	106 %		70-130		05/05/15 16:09	EPA 8260B	mtc	
Surrogate: Fluorobenzene	106 %		70-130		05/05/15 16:09	EPA 8260B	mtc	

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PaDEP: PA 41-04684



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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: UNITED CLEARFIELD GW G
Project Number: [none] **Reported:**
Collector: LC 05/13/15 11:50
Number of Containers: 20

Client Sample ID: MW-1A

Date/Time Sampled: 05/04/15 11:30

Laboratory Sample ID: 5E04068-02 (Water/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Method	* Analyst	Note
Volatile Organic Compounds by EPA Method 8260B								
1,3,5-Trimethylbenzene	<1.00		1.00	ug/l	05/05/15 16:35	EPA 8260B	mtc	
1,2,4-Trimethylbenzene	<1.00		1.00	ug/l	05/05/15 16:35	EPA 8260B	mtc	
Benzene	<1.00		1.00	ug/l	05/05/15 16:35	EPA 8260B	mtc	
Toluene	<1.00		1.00	ug/l	05/05/15 16:35	EPA 8260B	mtc	
Ethylbenzene	<1.00		1.00	ug/l	05/05/15 16:35	EPA 8260B	mtc	
Xylenes (total)	<2.00		2.00	ug/l	05/05/15 16:35	EPA 8260B	mtc	
Isopropylbenzene	<1.00		1.00	ug/l	05/05/15 16:35	EPA 8260B	mtc	
Methyl tert-butyl ether	<1.00		1.00	ug/l	05/05/15 16:35	EPA 8260B	mtc	
Naphthalene	<1.00		1.00	ug/l	05/05/15 16:35	EPA 8260B	mtc	
Surrogate: 4-Bromofluorobenzene	98.8 %		70-130		05/05/15 16:35	EPA 8260B	mtc	
Surrogate: 1,2-Dichloroethane-d4	108 %		70-130		05/05/15 16:35	EPA 8260B	mtc	
Surrogate: Fluorobenzene	105 %		70-130		05/05/15 16:35	EPA 8260B	mtc	

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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: UNITED CLEARFIELD GW G
Project Number: [none]
Collector: LC
Number of Containers: 20
Reported: 05/13/15 11:50

Client Sample ID: MW-2

Date/Time Sampled: 05/04/15 09:51

Laboratory Sample ID: 5E04068-03 (Water/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Method	* Analyst	Note
Volatile Organic Compounds by EPA Method 8260B								
1,3,5-Trimethylbenzene	<1.00		1.00	ug/l	05/05/15 18:11	EPA 8260B	wlm	
1,2,4-Trimethylbenzene	<1.00		1.00	ug/l	05/05/15 18:11	EPA 8260B	wlm	
Benzene	<1.00		1.00	ug/l	05/05/15 18:11	EPA 8260B	wlm	
Toluene	<1.00		1.00	ug/l	05/05/15 18:11	EPA 8260B	wlm	
Ethylbenzene	<1.00		1.00	ug/l	05/05/15 18:11	EPA 8260B	wlm	
Xylenes (total)	<2.00		2.00	ug/l	05/05/15 18:11	EPA 8260B	wlm	
Isopropylbenzene	<1.00		1.00	ug/l	05/05/15 18:11	EPA 8260B	wlm	
Methyl tert-butyl ether	<1.00		1.00	ug/l	05/05/15 18:11	EPA 8260B	wlm	
Naphthalene	<1.00		1.00	ug/l	05/05/15 18:11	EPA 8260B	wlm	
Surrogate: 4-Bromofluorobenzene	97.0 %		70-130		05/05/15 18:11	EPA 8260B	wlm	
Surrogate: 1,2-Dichloroethane-d4	110 %		70-130		05/05/15 18:11	EPA 8260B	wlm	
Surrogate: Fluorobenzene	105 %		70-130		05/05/15 18:11	EPA 8260B	wlm	

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2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: UNITED CLEARFIELD GW G
Project Number: [none] Reported: 05/13/15 11:50
Collector: I.C.
Number of Containers: 20

Client Sample ID: MW-2A

Date/Time Sampled: 05/04/15 11:24

Laboratory Sample ID: 5E04068-04 (Water/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Method	* Analyst	Note
Volatile Organic Compounds by EPA Method 8260B								
1,3,5-Trimethylbenzene	<1.00		1.00	ug/l	05/05/15 18:39	EPA 8260B	wlm	
1,2,4-Trimethylbenzene	<1.00		1.00	ug/l	05/05/15 18:39	EPA 8260B	wlm	
Benzene	<1.00		1.00	ug/l	05/05/15 18:39	EPA 8260B	wlm	
Toluene	<1.00		1.00	ug/l	05/05/15 18:39	EPA 8260B	wlm	
Ethylbenzene	<1.00		1.00	ug/l	05/05/15 18:39	EPA 8260B	wlm	
Xylenes (total)	<2.00		2.00	ug/l	05/05/15 18:39	EPA 8260B	wlm	
Isopropylbenzene	<1.00		1.00	ug/l	05/05/15 18:39	EPA 8260B	wlm	
Methyl tert-butyl ether	<1.00		1.00	ug/l	05/05/15 18:39	EPA 8260B	wlm	
Naphthalene	<1.00		1.00	ug/l	05/05/15 18:39	EPA 8260B	wlm	
Surrogate: 4-Bromofluorobenzene	97.1 %		70-130		05/05/15 18:39	EPA 8260B	wlm	
Surrogate: 1,2-Dichloroethane-d4	111 %		70-130		05/05/15 18:39	EPA 8260B	wlm	
Surrogate: Fluorobenzene	106 %		70-130		05/05/15 18:39	EPA 8260B	wlm	

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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: UNITED CLEARFIELD GW G
Project Number: [none] **Reported:**
Collector: LC 05/13/15 11:50
Number of Containers: 20

Client Sample ID: MW-28

Date/Time Sampled: 05/04/15 10:23

Laboratory Sample ID: 5E04068-05 (Water/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Method	* Analyst	Note
Volatile Organic Compounds by EPA Method 8260B								
1,3,5-Trimethylbenzene	5.76		1.00	ug/l	05/05/15 17:15	EPA 8260B	wlm	
1,2,4-Trimethylbenzene	18.9		1.00	ug/l	05/05/15 17:15	EPA 8260B	wlm	
Benzene	42.0		1.00	ug/l	05/05/15 17:15	EPA 8260B	wlm	
Toluene	5.10		1.00	ug/l	05/05/15 17:15	EPA 8260B	wlm	
Ethylbenzene	12.9		1.00	ug/l	05/05/15 17:15	EPA 8260B	wlm	
Xylenes (total)	44.6		2.00	ug/l	05/05/15 17:15	EPA 8260B	wlm	
Isopropylbenzene	1.58		1.00	ug/l	05/05/15 17:15	EPA 8260B	wlm	
Methyl tert-butyl ether	2.55		1.00	ug/l	05/05/15 17:15	EPA 8260B	wlm	
Naphthalene	4.34		1.00	ug/l	05/05/15 17:15	EPA 8260B	wlm	
Surrogate: 4-Bromofluorobenzene	98.7 %		70-130		05/05/15 17:15	EPA 8260B	wlm	
Surrogate: 1,2-Dichloroethane-d4	110 %		70-130		05/05/15 17:15	EPA 8260B	wlm	
Surrogate: Fluorobenzene	106 %		70-130		05/05/15 17:15	EPA 8260B	wlm	

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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: UNITED CLEARFIELD GW G
Project Number: [none]
Collector: LC
Number of Containers: 20
Reported: 05/13/15 11:50

Client Sample ID: MW-31

Date/Time Sampled: 05/04/15 10:40

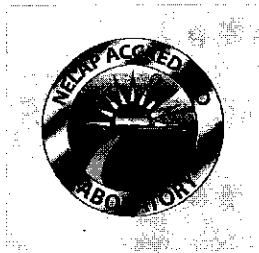
Laboratory Sample ID: 5E04068-06 (Water/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Method	* Analyst	Note
Volatile Organic Compounds by EPA Method 8260B								
1,3,5-Trimethylbenzene	48.3		10.0	ug/l	05/05/15 15:16	EPA 8260B	mtc	
1,2,4-Trimethylbenzene	154		10.0	ug/l	05/05/15 15:16	EPA 8260B	mtc	
Benzene	157		10.0	ug/l	05/05/15 15:16	EPA 8260B	mtc	
Toluene	71.7		10.0	ug/l	05/05/15 15:16	EPA 8260B	mtc	
Ethylbenzene	36.8		10.0	ug/l	05/05/15 15:16	EPA 8260B	mtc	
Xylenes (total)	422		20.0	ug/l	05/05/15 15:16	EPA 8260B	mtc	
Isopropylbenzene	<10.0		10.0	ug/l	05/05/15 15:16	EPA 8260B	mtc	
Methyl tert-butyl ether	<10.0		10.0	ug/l	05/05/15 15:16	EPA 8260B	mtc	
Naphthalene	38.4		10.0	ug/l	05/05/15 15:16	EPA 8260B	mtc	
Surrogate: 4-Bromofluorobenzene	98.5 %		70-130		05/05/15 15:16	EPA 8260B	mtc	
Surrogate: 1,2-Dichloroethane-d4	107 %		70-130		05/05/15 15:16	EPA 8260B	mtc	
Surrogate: Fluorobenzene	106 %		70-130		05/05/15 15:16	EPA 8260B	mtc	

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Pennsdale, PA 17756
(570) 494-6380
PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

www.fairwaylaboratories.com

Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jod Hill

Project: UNITED CLEARFIELD GW G
Project Number: [none]
Collector: LC
Number of Containers: 20
Reported: 05/13/15 11:50

Client Sample ID: MW-32

Date/Time Sampled: 05/04/15 10:56

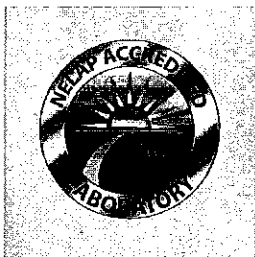
Laboratory Sample ID: 5E04068-07 (Water/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Method	* Analyst	Note
Volatile Organic Compounds by EPA Method 8260B								
1,3,5-Trimethylbenzene	<1.00		1.00	ug/l	05/05/15 19:07	EPA 8260B	wlm	
1,2,4-Trimethylbenzene	<1.00		1.00	ug/l	05/05/15 19:07	EPA 8260B	wlm	
Benzene	<1.00		1.00	ug/l	05/05/15 19:07	EPA 8260B	wlm	
Toluene	<1.00		1.00	ug/l	05/05/15 19:07	EPA 8260B	wlm	
Ethylbenzene	<1.00		1.00	ug/l	05/05/15 19:07	EPA 8260B	wlm	
Xylenes (total)	<2.00		2.00	ug/l	05/05/15 19:07	EPA 8260B	wlm	
Isopropylbenzene	<1.00		1.00	ug/l	05/05/15 19:07	EPA 8260B	wlm	
Methyl tert-butyl ether	<1.00		1.00	ug/l	05/05/15 19:07	EPA 8260B	wlm	
Naphthalene	<1.00		1.00	ug/l	05/05/15 19:07	EPA 8260B	wlm	
Surrogate: 4-Bromofluorobenzene	97.7 %		70-130		05/05/15 19:07	EPA 8260B	wlm	
Surrogate: 1,2-Dichloroethane-d4	113 %		70-130		05/05/15 19:07	EPA 8260B	wlm	
Surrogate: Fluorobenzene	106 %		70-130		05/05/15 19:07	EPA 8260B	wlm	

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2019 Ninth Avenue
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Altoona, PA 16603
(814) 946-4306
NELAP: PA 07-062, VA 460212

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PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: UNITED CLEARFIELD GW G
Project Number: [none] **Reported:**
Collector: LC 05/13/15 11:50
Number of Containers: 20

Client Sample ID: MW-34

Date/Time Sampled: 05/04/15 11:12

Laboratory Sample ID: 5E04068-08 (Water/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Method	* Analyst	Note
Volatile Organic Compounds by EPA Method 8260B								
1,3,5-Trimethylbenzene	<1.00		1.00	ug/l	05/05/15 19:36	EPA 8260B	wlm	
1,2,4-Trimethylbenzene	<1.00		1.00	ug/l	05/05/15 19:36	EPA 8260B	wlm	
Benzene	<1.00		1.00	ug/l	05/05/15 19:36	EPA 8260B	wlm	
Toluene	<1.00		1.00	ug/l	05/05/15 19:36	EPA 8260B	wlm	
Ethylbenzene	<1.00		1.00	ug/l	05/05/15 19:36	EPA 8260B	wlm	
Xylenes (total)	<2.00		2.00	ug/l	05/05/15 19:36	EPA 8260B	wlm	
Isopropylbenzene	<1.00		1.00	ug/l	05/05/15 19:36	EPA 8260B	wlm	
Methyl tert-butyl ether	4.54		1.00	ug/l	05/05/15 19:36	EPA 8260B	wlm	
Naphthalene	<1.00		1.00	ug/l	05/05/15 19:36	EPA 8260B	wlm	
Surrogate: 4-Bromofluorobenzene	96.5 %		70-130		05/05/15 19:36	EPA 8260B	wlm	
Surrogate: 1,2-Dichloroethane-d4	111 %		70-130		05/05/15 19:36	EPA 8260B	wlm	
Surrogate: Fluorobenzene	104 %		70-130		05/05/15 19:36	EPA 8260B	wlm	

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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: UNITED CLEARFIELD GW G
Project Number: [none]
Collector: LC
Number of Containers: 20
Reported: 05/13/15 11:50

Client Sample ID: MW-35

Date/Time Sampled: 05/04/15 10:05

Laboratory Sample ID: 5E04068-09 (Water/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Method	* Analyst	Note
Volatile Organic Compounds by EPA Method 8260B								
1,3,5-Trimethylbenzene	<1.00		1.00	ug/l	05/05/15 20:32	EPA 8260B	wlm	
1,2,4-Trimethylbenzene	<1.00		1.00	ug/l	05/05/15 20:32	EPA 8260B	wlm	
Benzene	<1.00		1.00	ug/l	05/05/15 20:32	EPA 8260B	wlm	
Toluene	<1.00		1.00	ug/l	05/05/15 20:32	EPA 8260B	wlm	
Ethylbenzene	<1.00		1.00	ug/l	05/05/15 20:32	EPA 8260B	wlm	
Xylenes (total)	<2.00		2.00	ug/l	05/05/15 20:32	EPA 8260B	wlm	
Isopropylbenzene	<1.00		1.00	ug/l	05/05/15 20:32	EPA 8260B	wlm	
Methyl tert-butyl ether	1.53		1.00	ug/l	05/05/15 20:32	EPA 8260B	wlm	
Naphthalene	<1.00		1.00	ug/l	05/05/15 20:32	EPA 8260B	wlm	
Surrogate: 4-Bromofluorobenzene	97.3 %		70-130		05/05/15 20:32	EPA 8260B	wlm	
Surrogate: 1,2-Dichloroethane-d4	113 %		70-130		05/05/15 20:32	EPA 8260B	wlm	
Surrogate: Fluorobenzene	107 %		70-130		05/05/15 20:32	EPA 8260B	wlm	

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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: UNITED CLEARFIELD GW G
Project Number: [none] Reported:
Collector: LC 05/13/15 11:50
Number of Containers: 20

Client Sample ID: MW-36

Date/Time Sampled: 05/04/15 09:36

Laboratory Sample ID: 5E04068-10 (Water/Grab)

Analyte	Result	MDL	RI	Units	Date / Time Analyzed	Method	* Analyst	Note
Volatile Organic Compounds by EPA Method 8260B								
1,3,5-Trimethylbenzene	<1.00		1.00	ug/l	05/06/15 17:00	EPA 8260B	mtc	
1,2,4-Trimethylbenzene	<1.00		1.00	ug/l	05/06/15 17:00	EPA 8260B	mtc	
Benzene	<1.00		1.00	ug/l	05/06/15 17:00	EPA 8260B	mtc	
Toluene	<1.00		1.00	ug/l	05/06/15 17:00	EPA 8260B	mtc	
Ethylbenzene	<1.00		1.00	ug/l	05/06/15 17:00	EPA 8260B	mtc	
Xylenes (total)	<2.00		2.00	ug/l	05/06/15 17:00	EPA 8260B	mtc	
Isopropylbenzene	<1.00		1.00	ug/l	05/06/15 17:00	EPA 8260B	mtc	
Methyl tert-butyl ether	4.23		1.00	ug/l	05/06/15 17:00	EPA 8260B	mtc	
Naphthalene	<1.00		1.00	ug/l	05/06/15 17:00	EPA 8260B	mtc	
Surrogate: 4-Bromofluorobenzene	97.5 %		70-130		05/06/15 17:00	EPA 8260B	mtc	
Surrogate: 1,2-Dichloroethane-d4	109 %		70-130		05/06/15 17:00	EPA 8260B	mtc	
Surrogate: Fluorobenzene	106 %		70-130		05/06/15 17:00	EPA 8260B	mtc	

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Project Manager: Jed Hill

Project: UNITED CLEARFIELD GW G
Project Number: [none]
Collector: LC
Number of Containers: 20
Reported: 05/13/15 11:50

Definitions

If surrogate values are not within the indicated range, then the results are considered to be estimated.

Reporting limits are adjusted accordingly when samples are analyzed at a dilution due to the matrix.

The following analyses are to be performed immediately upon sampling: pH, sulfite, chlorine residual, dissolved oxygen, filtration for ortho phosphorus, and ferrous iron. The date and time reported reflect the time the samples were analyzed at the laboratory.

MBAS, calculated as LAS, mol wt 348

If the solid sample weight for VOC analysis does not fall within the 3.5-6.5 gram range, the results are considered estimated values.

Unless otherwise noted, all results for solids are reported on a dry weight basis.

Samples collected by Fairway Laboratories' personnel are done so in accordance with Standard Operating Procedures established by Fairway Laboratories.

* P indicates analysis performed by Fairway Laboratories, Inc. at the Pennsdale location. This location is PaDEP Chapter 252 certified.

< Represents "less than" - indicates that the result was less than the reporting limit.

MDL Method Detection Limit - is the lowest or minimum level that provides 99% confidence level that the analyte is detected. Any reported result values that are less than the RL are considered estimated values.

RL Reporting Limit - is the lowest or minimum level at which the analyte can be quantified.

[CALC] Indicates a calculated result. Calculations use results from other analyses performed under accredited methods.



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Project Manager: Jed Hill

Project: UNITED CLEARFIELD GW G
Project Number: [none] Reported:
Collector: LC 05/13/15 11:50
Number of Containers: 20

Terms & Conditions

Services provided by Fairway Laboratories Inc. are limited to the terms and conditions stated herein, unless otherwise agreed to in a formal contract.

CHAIN OF CUSTODY Fairway Laboratories Inc. ("Fairway," "us" or "we") will initiate a chain-of-custody/request for analysis upon sample receipt unless the client includes a completed form with the received sample(s). Upon request, Fairway will provide chain-of-custody forms for use.

CONFIDENTIALITY Fairway maintains confidentiality in all of our client interactions. The client's consent will be required before releasing information about the services provided.

CONTRACTS All contracts are subject to review and approval by Fairway's legal council. Each contract must be signed by a corporate officer.

PAYMENT/BILLING Unless otherwise set forth in a signed contract or purchase order, terms of payment are "NET 30 Days." The time allowed for payment shall begin based on the invoice date. A 1.5% per month service charge may be added to all unpaid balances beyond the initial 30 days. In its sole discretion, Fairway reserves the right to request payment before services and hold sample results for payment of due balances. We will not bill a third party without prior agreement among all parties acknowledging and accepting responsibility for payment.

SAMPLE COLLECTION AND SUBMISSION Clients not requesting collection services from Fairway are responsible for proper collection, preservation, packaging, and delivery of samples to the laboratory in accordance with current law and commercial practice. Fairway shall have no responsibility for sample integrity prior to the receipt of the sample(s) and/or for any inaccuracy in test or analyses results as a result of the failure of the client or any third party to maintain the integrity of samples prior to delivery to Fairway. All samples submitted must be accompanied by a completed chain of custody or similar document clearly noting the requested analyses, dates/time sampled, client contact information, and trail of custody.

SUBCONTRACTING Some analyses may require subcontracting to another laboratory. Unless the client indicates otherwise, this decision will be made by Fairway. Subcontracted work will be identified on the final report in accordance with NELAC requirements.

RETURN OF RESULTS Fairway routinely provides faxed or verbal results within 10 working days of receipt of sample(s) and a hard copy of the data results is routinely received via US Postal Service within 15 working days. At the request of the client, Fairway may offer expedited return of sample results. Surcharges may apply to rush requests. All rush requests must be pre-approved by Fairway. We reserve the right to charge an archive retrieval fee for results older than one (1) year from the date of the request. All records will be maintained by Fairway for 5 years, after which, they will be destroyed.

SAMPLE DISPOSAL Fairway will maintain samples for four (4) weeks after the sample receipt date. Fairway will dispose of samples which are not and/or do not contain hazardous wastes (as such term is defined by applicable federal or state law), unless prior arrangements have been made for long-term storage. Fairway reserves the right to charge a disposal fee for the proper disposal of samples found or suspected to contain hazardous waste. A return shipping charge will be invoiced for samples returned to the client at their request.

HAZARD COMMUNICATION The client has the responsibility to inform the laboratory of any hazardous characteristics known or suspected about the sample, and to provide information on hazard prevention and personal protection as necessary or otherwise required by applicable law.

WARRANTY AND LIMITATION OF LIABILITY For services rendered, Fairway warrants that it will apply its best scientific knowledge and judgment and to employ its best level of effort consistent with professional standards within the environmental testing industry in performing the analytical services requested by its clients. We disclaim any other warranties, expressed or implied by law. Fairway does not accept any legal responsibility for the purposes for which client uses the test results.

LITIGATION All costs associated with compliance to any subpoena for documents, for testimony in a court of law, or for any other purpose relating to work performed by Fairway Laboratories, Inc. shall be invoiced by Fairway and paid by client. These costs shall include, but are not limited to, hourly charges for the persons involved, travel, mileage, and accommodations and for any and all other expenses associated with said litigation.

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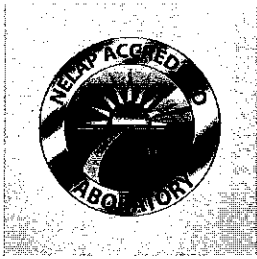
Please print. See back of COC for instructions/terms and conditions

Environmental Laboratory

Client Page # 1 of 1

Page 14 of 15

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State Certifications: MD 275, WV 364

Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: UR CLEARFIELD
Project Number: [none]
Collector: CLIENT
Number of Containers: 38
Reported: 06/05/15 11:03

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Sample Type	Date Sampled	Date Received
MW-1	5E27047-01	Water	Grab	05/26/15 10:00	05/27/15 13:00
MW-1A	5E27047-02	Water	Grab	05/26/15 12:41	05/27/15 13:00
MW-2	5E27047-03	Water	Grab	05/26/15 10:30	05/27/15 13:00
MW-2A	5E27047-04	Water	Grab	05/26/15 13:01	05/27/15 13:00
MW-3	5E27047-05	Water	Grab	05/26/15 13:57	05/27/15 13:00
MW-4	5E27047-06	Water	Grab	05/26/15 14:45	05/27/15 13:00
MW-10	5E27047-07	Water	Grab	05/26/15 15:07	05/27/15 13:00
MW-14	5E27047-08	Water	Grab	05/26/15 09:44	05/27/15 13:00
MW-15	5E27047-09	Water	Grab	05/26/15 14:27	05/27/15 13:00
MW-21	5E27047-10	Water	Grab	05/26/15 13:25	05/27/15 13:00
MW-28	5E27047-11	Water	Grab	05/26/15 10:59	05/27/15 13:00
MW-29	5E27047-12	Water	Grab	05/26/15 13:38	05/27/15 13:00
MW-30	5E27047-13	Water	Grab	05/26/15 14:12	05/27/15 13:00
MW-31	5E27047-14	Water	Grab	05/26/15 11:23	05/27/15 13:00
MW-32	5E27047-15	Water	Grab	05/26/15 11:37	05/27/15 13:00
MW-33	5E27047-16	Water	Grab	05/26/15 11:56	05/27/15 13:00
MW-34	5E27047-17	Water	Grab	05/26/15 12:23	05/27/15 13:00
MW-35	5E27047-18	Water	Grab	05/26/15 10:44	05/27/15 13:00

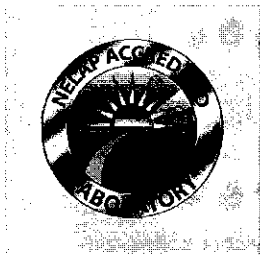
Fairway Laboratories, Inc.

Reviewed and Submitted by:

Michael P. Tyler
Laboratory Director

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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: UR CLEARFIELD
Project Number: [none]
Collector: CLIENT
Number of Containers: 38
Reported: 06/05/15 11:03

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Sample Type	Date Sampled	Date Received
MW-36	5E27047-19	Water	Grab	05/26/15 10:16	05/27/15 13:00

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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: UR CLEARFIELD
Project Number: [none]
Collector: CLIENT
Number of Containers: 38
Reported: 06/05/15 11:03

Client Sample ID: MW-1

Date/Time Sampled: 05/26/15 10:00

Laboratory Sample ID: 5E27047-01 (Water/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Method	* Analyst	Note
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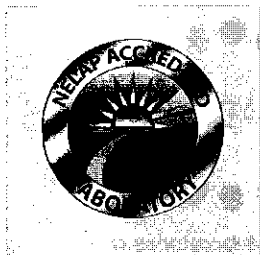
Volatile Organic Compounds by EPA Method 8260B

1,3,5-Trimethylbenzene	<1.00		1.00	ug/l	05/28/15 19:29	EPA 8260B	mtc	
1,2,4-Trimethylbenzene	<1.00		1.00	ug/l	05/28/15 19:29	EPA 8260B	mtc	
Benzene	<1.00		1.00	ug/l	05/28/15 19:29	EPA 8260B	mtc	
Toluene	<1.00		1.00	ug/l	05/28/15 19:29	EPA 8260B	mtc	
Ethylbenzene	<1.00		1.00	ug/l	05/28/15 19:29	EPA 8260B	mtc	
Xylenes (total)	<2.00		2.00	ug/l	05/28/15 19:29	EPA 8260B	mtc	
Isopropylbenzene	<1.00		1.00	ug/l	05/28/15 19:29	EPA 8260B	mtc	
Methyl tert-butyl ether	<1.00		1.00	ug/l	05/28/15 19:29	EPA 8260B	mtc	
Naphthalene	<1.00		1.00	ug/l	05/28/15 19:29	EPA 8260B	mtc	
Surrogate: 4-Bromofluorobenzene	96.0 %		70-130		05/28/15 19:29	EPA 8260B	mtc	
Surrogate: 1,2-Dichloroethane-d4	96.3 %		70-130		05/28/15 19:29	EPA 8260B	mtc	
Surrogate: Fluorobenzene	96.5 %		70-130		05/28/15 19:29	EPA 8260B	mtc	

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2022 Axemann Road Suite 201
Bellefonte, PA, 16823
Project Manager: Jed Hill

Project: UR CLEARFIELD
Project Number: [none]
Collector: CLIENT
Number of Containers: 38
Reported: 06/05/15 11:03

Client Sample ID: MW-1A

Date/Time Sampled: 05/26/15 12:41

Laboratory Sample ID: 5E27047-02 (Water/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Method	* Analyst	Note
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Volatile Organic Compounds by EPA Method 8260B

1,3,5-Trimethylbenzene	<1.00	1.00	ug/l	05/28/15 20:46	EPA 8260B	mtc
1,2,4-Trimethylbenzene	<1.00	1.00	ug/l	05/28/15 20:46	EPA 8260B	mtc
Benzene	<1.00	1.00	ug/l	05/28/15 20:46	EPA 8260B	mtc
Toluene	<1.00	1.00	ug/l	05/28/15 20:46	EPA 8260B	mtc
Ethylbenzene	<1.00	1.00	ug/l	05/28/15 20:46	EPA 8260B	mtc
Xylenes (total)	<2.00	2.00	ug/l	05/28/15 20:46	EPA 8260B	mtc
Isopropylbenzene	<1.00	1.00	ug/l	05/28/15 20:46	EPA 8260B	mtc
Methyl tert-butyl ether	2.16	1.00	ug/l	05/28/15 20:46	EPA 8260B	mtc
Naphthalene	<1.00	1.00	ug/l	05/28/15 20:46	EPA 8260B	mtc
Surrogate: 4-Bromofluorobenzene	95.9 %	70-130		05/28/15 20:46	EPA 8260B	mtc
Surrogate: 1,2-Dichloroethane-d4	95.4 %	70-130		05/28/15 20:46	EPA 8260B	mtc
Surrogate: Fluorobenzene	96.8 %	70-130		05/28/15 20:46	EPA 8260B	mtc

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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: UR CLEARFIELD
Project Number: [none]
Collector: CLIENT
Number of Containers: 38
Reported: 06/05/15 11:03

Client Sample ID: MW-2

Date/Time Sampled: 05/26/15 10:30

Laboratory Sample ID: 5E27047-03 (Water/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Method	* Analyst	Note
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Volatile Organic Compounds by EPA Method 8260B

1,3,5-Trimethylbenzene	<1.00	1.00	ug/l	05/28/15 15:24	EPA 8260B	mtc
1,2,4-Trimethylbenzene	<1.00	1.00	ug/l	05/28/15 15:24	EPA 8260B	mtc
Benzene	<1.00	1.00	ug/l	05/28/15 15:24	EPA 8260B	mtc
Toluene	<1.00	1.00	ug/l	05/28/15 15:24	EPA 8260B	mtc
Ethylbenzene	<1.00	1.00	ug/l	05/28/15 15:24	EPA 8260B	mtc
Xylenes (total)	<2.00	2.00	ug/l	05/28/15 15:24	EPA 8260B	mtc
Isopropylbenzene	<1.00	1.00	ug/l	05/28/15 15:24	EPA 8260B	mtc
Methyl tert-butyl ether	1.41	1.00	ug/l	05/28/15 15:24	EPA 8260B	mtc
Naphthalene	<1.00	1.00	ug/l	05/28/15 15:24	EPA 8260B	mtc
Surrogate: 4-Bromofluorobenzene	95.7 %	70-130		05/28/15 15:24	EPA 8260B	mtc
Surrogate: 1,2-Dichloroethane-d4	96.2 %	70-130		05/28/15 15:24	EPA 8260B	mtc
Surrogate: Fluorobenzene	97.5 %	70-130		05/28/15 15:24	EPA 8260B	mtc

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Bellefonte PA, 16823
Project Manager: Jed Hill

Project: UR CLEARFIELD
Project Number: [none]
Collector: CLIENT
Number of Containers: 38
Reported: 06/05/15 11:03

Client Sample ID: MW-2A

Date/Time Sampled: 05/26/15 13:01

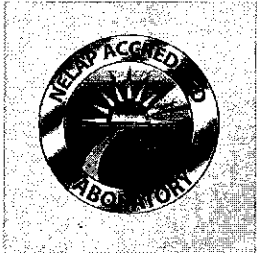
Laboratory Sample ID: 5E27047-04 (Water/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Method	* Analyst	Note
Volatile Organic Compounds by EPA Method 8260B								
1,3,5-Trimethylbenzene	<1.00		1.00	ug/l	05/28/15 16:02	EPA 8260B	mtc	
1,2,4-Trimethylbenzene	<1.00		1.00	ug/l	05/28/15 16:02	EPA 8260B	mtc	
Benzene	<1.00		1.00	ug/l	05/28/15 16:02	EPA 8260B	mtc	
Toluene	<1.00		1.00	ug/l	05/28/15 16:02	EPA 8260B	mtc	
Ethylbenzene	<1.00		1.00	ug/l	05/28/15 16:02	EPA 8260B	mtc	
Xylenes (total)	<2.00		2.00	ug/l	05/28/15 16:02	EPA 8260B	mtc	
Isopropylbenzene	<1.00		1.00	ug/l	05/28/15 16:02	EPA 8260B	mtc	
Methyl tert-butyl ether	<1.00		1.00	ug/l	05/28/15 16:02	EPA 8260B	mtc	
Naphthalene	<1.00		1.00	ug/l	05/28/15 16:02	EPA 8260B	mtc	
Surrogate: 4-Bromofluorobenzene	96.5 %		70-130		05/28/15 16:02	EPA 8260B	mtc	
Surrogate: 1,2-Dichloroethane-d4	97.3 %		70-130		05/28/15 16:02	EPA 8260B	mtc	
Surrogate: Fluorobenzene	96.9 %		70-130		05/28/15 16:02	EPA 8260B	mtc	

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Project Manager: Jed Hill

Project: UR CLEARFIELD
Project Number: [none]
Collector: CLIENT
Number of Containers: 38
Reported: 06/05/15 11:03

Client Sample ID: MW-3

Date/Time Sampled: 05/26/15 13:57

Laboratory Sample ID: 5E27047-05 (Water/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Method	* Analyst	Note
Volatile Organic Compounds by EPA Method 8260B								
1,3,5-Trimethylbenzene	<1.00		1.00	ug/l	05/28/15 16:40	EPA 8260B	mtc	
1,2,4-Trimethylbenzene	9.50		1.00	ug/l	05/28/15 16:40	EPA 8260B	mtc	
Benzene	<1.00		1.00	ug/l	05/28/15 16:40	EPA 8260B	mtc	
Toluene	<1.00		1.00	ug/l	05/28/15 16:40	EPA 8260B	mtc	
Ethylbenzene	4.03		1.00	ug/l	05/28/15 16:40	EPA 8260B	mtc	
Xylenes (total)	3.74		2.00	ug/l	05/28/15 16:40	EPA 8260B	mtc	
Isopropylbenzene	1.56		1.00	ug/l	05/28/15 16:40	EPA 8260B	mtc	
Methyl tert-butyl ether	7.32		1.00	ug/l	05/28/15 16:40	EPA 8260B	mtc	
Naphthalene	1.14		1.00	ug/l	05/28/15 16:40	EPA 8260B	mtc	
Surrogate: 4-Bromofluorobenzene	97.9 %		70-130		05/28/15 16:40	EPA 8260B	mtc	
Surrogate: 1,2-Dichloroethane-d4	96.6 %		70-130		05/28/15 16:40	EPA 8260B	mtc	
Surrogate: Fluorobenzene	96.9 %		70-130		05/28/15 16:40	EPA 8260B	mtc	

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Project: UR CLEARFIELD
Project Number: [none]
Collector: CLIENT
Number of Containers: 38
Reported: 06/05/15 11:03

Client Sample ID: MW-4

Date/Time Sampled: 05/26/15 14:45

Laboratory Sample ID: 5E27047-06 (Water/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Method	* Analyst	Note
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Volatile Organic Compounds by EPA Method 8260B

1,3,5-Trimethylbenzene	<1.00	1.00	ug/l	05/28/15 17:17	EPA 8260B	mtc
1,2,4-Trimethylbenzene	<1.00	1.00	ug/l	05/28/15 17:17	EPA 8260B	mtc
Benzene	<1.00	1.00	ug/l	05/28/15 17:17	EPA 8260B	mtc
Toluene	<1.00	1.00	ug/l	05/28/15 17:17	EPA 8260B	mtc
Ethylbenzene	<1.00	1.00	ug/l	05/28/15 17:17	EPA 8260B	mtc
Xylenes (total)	<2.00	2.00	ug/l	05/28/15 17:17	EPA 8260B	mtc
Isopropylbenzene	<1.00	1.00	ug/l	05/28/15 17:17	EPA 8260B	mtc
Methyl tert-butyl ether	<1.00	1.00	ug/l	05/28/15 17:17	EPA 8260B	mtc
Naphthalene	<1.00	1.00	ug/l	05/28/15 17:17	EPA 8260B	mtc
Surrogate: 4-Bromofluorobenzene	95.6 %	70-130		05/28/15 17:17	EPA 8260B	mtc
Surrogate: 1,2-Dichloroethane-d4	95.4 %	70-130		05/28/15 17:17	EPA 8260B	mtc
Surrogate: Fluorobenzene	95.9 %	70-130		05/28/15 17:17	EPA 8260B	mtc

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Project Manager: Jed Hill

Project: UR CLEARFIELD
Project Number: [none]
Collector: CLIENT
Number of Containers: 38
Reported: 06/05/15 11:03

Client Sample ID: MW-10

Date/Time Sampled: 05/26/15 15:07

Laboratory Sample ID: 5E27047-07 (Water/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Method	* Analyst	Note
Volatile Organic Compounds by EPA Method 8260B								
1,3,5-Trimethylbenzene	<1.00		1.00	ug/l	05/28/15 17:55	EPA 8260B	mtc	
1,2,4-Trimethylbenzene	<1.00		1.00	ug/l	05/28/15 17:55	EPA 8260B	mtc	
Benzene	<1.00		1.00	ug/l	05/28/15 17:55	EPA 8260B	mtc	
Toluene	<1.00		1.00	ug/l	05/28/15 17:55	EPA 8260B	mtc	
Ethylbenzene	<1.00		1.00	ug/l	05/28/15 17:55	EPA 8260B	mtc	
Xylenes (total)	<2.00		2.00	ug/l	05/28/15 17:55	EPA 8260B	mtc	
Isopropylbenzene	<1.00		1.00	ug/l	05/28/15 17:55	EPA 8260B	mtc	
Methyl tert-butyl ether	3.85		1.00	ug/l	05/28/15 17:55	EPA 8260B	mtc	
Naphthalene	<1.00		1.00	ug/l	05/28/15 17:55	EPA 8260B	mtc	
Surrogate: 4-Bromofluorobenzene	95.9 %		70-130		05/28/15 17:55	EPA 8260B	mtc	
Surrogate: 1,2-Dichloroethane-d4	94.6 %		70-130		05/28/15 17:55	EPA 8260B	mtc	
Surrogate: Fluorobenzene	96.0 %		70-130		05/28/15 17:55	EPA 8260B	mtc	

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Project Manager: Jed Hill

Project: UR CLEARFIELD
Project Number: [none]
Collector: CLIENT
Number of Containers: 38
Reported: 06/05/15 11:03

Client Sample ID: MW-14

Date/Time Sampled: 05/26/15 09:44

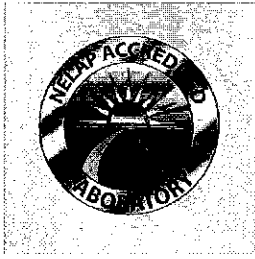
Laboratory Sample ID: 5E27047-08 (Water/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Method	* Analyst	Note
Volatile Organic Compounds by EPA Method 8260B								
1,3,5-Trimethylbenzene	<1.00		1.00	ug/l	05/28/15 18:32	EPA 8260B	mtc	
1,2,4-Trimethylbenzene	<1.00		1.00	ug/l	05/28/15 18:32	EPA 8260B	mtc	
Benzene	<1.00		1.00	ug/l	05/28/15 18:32	EPA 8260B	mtc	
Toluene	<1.00		1.00	ug/l	05/28/15 18:32	EPA 8260B	mtc	
Ethylbenzene	<1.00		1.00	ug/l	05/28/15 18:32	EPA 8260B	mtc	
Xylenes (total)	<2.00		2.00	ug/l	05/28/15 18:32	EPA 8260B	mtc	
Isopropylbenzene	<1.00		1.00	ug/l	05/28/15 18:32	EPA 8260B	mtc	
Methyl tert-butyl ether	1.37		1.00	ug/l	05/28/15 18:32	EPA 8260B	mtc	
Naphthalene	<1.00		1.00	ug/l	05/28/15 18:32	EPA 8260B	mtc	
Surrogate: 4-Bromofluorobenzene	95.8 %		70-130		05/28/15 18:32	EPA 8260B	mtc	
Surrogate: 1,2-Dichloroethane-d4	96.1 %		70-130		05/28/15 18:32	EPA 8260B	mtc	
Surrogate: Fluorobenzene	95.6 %		70-130		05/28/15 18:32	EPA 8260B	mtc	

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Bellefonte PA, 16823
Project Manager: Jed Hill

Project: UR CLEARFIELD
Project Number: [none]
Collector: CLIENT
Number of Containers: 38
Reported: 06/05/15 11:03

Client Sample ID: MW-15

Date/Time Sampled: 05/26/15 14:27

Laboratory Sample ID: SE27047-09 (Water/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Method	* Analyst	Note
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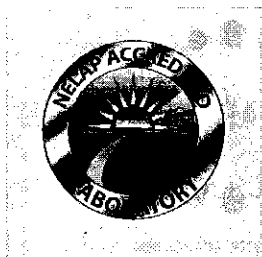
Volatile Organic Compounds by EPA Method 8260B

1,3,5-Trimethylbenzene	<1.00	1.00	ug/l	05/28/15 19:10	EPA 8260B	mtc
1,2,4-Trimethylbenzene	<1.00	1.00	ug/l	05/28/15 19:10	EPA 8260B	mtc
Benzene	<1.00	1.00	ug/l	05/28/15 19:10	EPA 8260B	mtc
Toluene	<1.00	1.00	ug/l	05/28/15 19:10	EPA 8260B	mtc
Ethylbenzene	<1.00	1.00	ug/l	05/28/15 19:10	EPA 8260B	mtc
Xylenes (total)	<2.00	2.00	ug/l	05/28/15 19:10	EPA 8260B	mtc
Isopropylbenzene	<1.00	1.00	ug/l	05/28/15 19:10	EPA 8260B	mtc
Methyl tert-butyl ether	1.69	1.00	ug/l	05/28/15 19:10	EPA 8260B	mtc
Naphthalene	<1.00	1.00	ug/l	05/28/15 19:10	EPA 8260B	mtc
Surrogate: 4-Bromofluorobenzene	96.0 %	70-130		05/28/15 19:10	EPA 8260B	mtc
Surrogate: 1,2-Dichloroethane-d4	96.3 %	70-130		05/28/15 19:10	EPA 8260B	mtc
Surrogate: Fluorobenzene	97.3 %	70-130		05/28/15 19:10	EPA 8260B	mtc

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Project Manager: Jed Hill

Project: UR CLEARFIELD
Project Number: [none]
Collector: CLIENT
Number of Containers: 38
Reported: 06/05/15 11:03

Client Sample ID: MW-21

Date/Time Sampled: 05/26/15 13:25

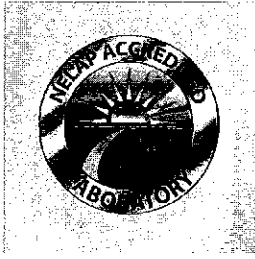
Laboratory Sample ID: 5E27047-10 (Water/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Method	* Analyst	Note
Volatile Organic Compounds by EPA Method 8260B								
1,3,5-Trimethylbenzene	<1.00		1.00	ug/l	05/28/15 19:48	EPA 8260B	mtc	
1,2,4-Trimethylbenzene	<1.00		1.00	ug/l	05/28/15 19:48	EPA 8260B	mtc	
Benzene	<1.00		1.00	ug/l	05/28/15 19:48	EPA 8260B	mtc	
Toluene	<1.00		1.00	ug/l	05/28/15 19:48	EPA 8260B	mtc	
Ethylbenzene	<1.00		1.00	ug/l	05/28/15 19:48	EPA 8260B	mtc	
Xylenes (total)	<2.00		2.00	ug/l	05/28/15 19:48	EPA 8260B	mtc	
Isopropylbenzene	<1.00		1.00	ug/l	05/28/15 19:48	EPA 8260B	mtc	
Methyl tert-butyl ether	<1.00		1.00	ug/l	05/28/15 19:48	EPA 8260B	mtc	
Naphthalene	<1.00		1.00	ug/l	05/28/15 19:48	EPA 8260B	mtc	
Surrogate: 4-Bromofluorobenzene	95.5 %		70-130		05/28/15 19:48	EPA 8260B	mtc	
Surrogate: 1,2-Dichloroethane-d4	95.7 %		70-130		05/28/15 19:48	EPA 8260B	mtc	
Surrogate: Fluorobenzene	96.2 %		70-130		05/28/15 19:48	EPA 8260B	mtc	

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2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: UR CLEARFIELD
Project Number: [none]
Collector: CLIENT
Number of Containers: 38
Reported: 06/05/15 11:03

Client Sample ID: MW-28

Date/Time Sampled: 05/26/15 10:59

Laboratory Sample ID: 5E27047-11 (Water/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Method	* Analyst	Note
Volatile Organic Compounds by EPA Method 8260B								
1,3,5-Trimethylbenzene	2.35		1.00	ug/l	05/28/15 21:05	EPA 8260B	mtc	
1,2,4-Trimethylbenzene	3.83		1.00	ug/l	05/28/15 21:05	EPA 8260B	mtc	
Benzene	<1.00		1.00	ug/l	05/28/15 21:05	EPA 8260B	mtc	
Toluene	<1.00		1.00	ug/l	05/28/15 21:05	EPA 8260B	mtc	
Ethylbenzene	2.53		1.00	ug/l	05/28/15 21:05	EPA 8260B	mtc	
Xylenes (total)	13.2		2.00	ug/l	05/28/15 21:05	EPA 8260B	mtc	
Isopropylbenzene	<1.00		1.00	ug/l	05/28/15 21:05	EPA 8260B	mtc	
Methyl tert-butyl ether	4.13		1.00	ug/l	05/28/15 21:05	EPA 8260B	mtc	
Naphthalene	1.32		1.00	ug/l	05/28/15 21:05	EPA 8260B	mtc	
Surrogate: 4-Bromofluorobenzene	96.1 %		70-130		05/28/15 21:05	EPA 8260B	mtc	
Surrogate: 1,2-Dichloroethane-d4	95.2 %		70-130		05/28/15 21:05	EPA 8260B	mtc	
Surrogate: Fluorobenzene	96.6 %		70-130		05/28/15 21:05	EPA 8260B	mtc	

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(814) 946-4306
NELAP: PA 07-062, VA 460212

89 Kristi Road
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(570) 494-6380
PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: UR CLEARFIELD
Project Number: [none]
Collector: CLIENT
Number of Containers: 38
Reported: 06/05/15 11:03

Client Sample ID: MW-29

Date/Time Sampled: 05/26/15 13:38

Laboratory Sample ID: 5E27047-12 (Water/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Method	* Analyst	Note
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Volatile Organic Compounds by EPA Method 8260B

1,3,5-Trimethylbenzene	<1.00		1.00	ug/l	05/29/15 02:29	EPA 8260B	mtc	
1,2,4-Trimethylbenzene	<1.00		1.00	ug/l	05/29/15 02:29	EPA 8260B	mtc	
Benzene	<1.00		1.00	ug/l	05/29/15 02:29	EPA 8260B	mtc	
Toluene	<1.00		1.00	ug/l	05/29/15 02:29	EPA 8260B	mtc	
Ethylbenzene	<1.00		1.00	ug/l	05/29/15 02:29	EPA 8260B	mtc	
Xylenes (total)	<2.00		2.00	ug/l	05/29/15 02:29	EPA 8260B	mtc	
Isopropylbenzene	<1.00		1.00	ug/l	05/29/15 02:29	EPA 8260B	mtc	
Methyl tert-butyl ether	<1.00		1.00	ug/l	05/29/15 02:29	EPA 8260B	mtc	
Naphthalene	<1.00		1.00	ug/l	05/29/15 02:29	EPA 8260B	mtc	
Surrogate: 4-Bromofluorobenzene	95.6 %		70-130		05/29/15 02:29	EPA 8260B	mtc	
Surrogate: 1,2-Dichloroethane-d4	93.4 %		70-130		05/29/15 02:29	EPA 8260B	mtc	
Surrogate: Fluorobenzene	95.6 %		70-130		05/29/15 02:29	EPA 8260B	mtc	

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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: UR CLEARFIELD
Project Number: [none]
Collector: CLIENT
Number of Containers: 38
Reported: 06/05/15 11:03

Client Sample ID: MW-30

Date/Time Sampled: 05/26/15 14:12

Laboratory Sample ID: 5E27047-13 (Water/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Method	* Analyst	Note
Volatile Organic Compounds by EPA Method 8260B								
1,3,5-Trimethylbenzene	<1.00		1.00	ug/l	05/29/15 03:08	EPA 8260B	mtc	
1,2,4-Trimethylbenzene	22.9		1.00	ug/l	05/29/15 03:08	EPA 8260B	mtc	
Benzene	17.9		1.00	ug/l	05/29/15 03:08	EPA 8260B	mtc	
Toluene	<1.00		1.00	ug/l	05/29/15 03:08	EPA 8260B	mtc	
Ethylbenzene	<1.00		1.00	ug/l	05/29/15 03:08	EPA 8260B	mtc	
Xylenes (total)	<2.00		2.00	ug/l	05/29/15 03:08	EPA 8260B	mtc	
Isopropylbenzene	<1.00		1.00	ug/l	05/29/15 03:08	EPA 8260B	mtc	
Methyl tert-butyl ether	5.50		1.00	ug/l	05/29/15 03:08	EPA 8260B	mtc	
Naphthalene	<1.00		1.00	ug/l	05/29/15 03:08	EPA 8260B	mtc	
Surrogate: 4-Bromofluorobenzene	96.6 %		70-130		05/29/15 03:08	EPA 8260B	mtc	
Surrogate: 1,2-Dichloroethane-d4	93.4 %		70-130		05/29/15 03:08	EPA 8260B	mtc	
Surrogate: Fluorobenzene	93.9 %		70-130		05/29/15 03:08	EPA 8260B	mtc	

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Project Manager: Jed Hill

Project: UR CLEARFIELD
Project Number: [none]
Collector: CLIENT
Number of Containers: 38
Reported: 06/05/15 11:03

Client Sample ID: MW-31

Date/Time Sampled: 05/26/15 11:23

Laboratory Sample ID: 5E27047-14 (Water/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Method	* Analyst	Note
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Volatile Organic Compounds by EPA Method 8260B

1,3,5-Trimethylbenzene	5.62		1.00	ug/l	05/29/15 03:45	EPA 8260B	mtc	
1,2,4-Trimethylbenzene	34.1		1.00	ug/l	05/29/15 03:45	EPA 8260B	mtc	
Benzene	8.17		1.00	ug/l	05/29/15 03:45	EPA 8260B	mtc	
Toluene	<1.00		1.00	ug/l	05/29/15 03:45	EPA 8260B	mtc	
Ethylbenzene	11.3		1.00	ug/l	05/29/15 03:45	EPA 8260B	mtc	
Xylenes (total)	26.8		2.00	ug/l	05/29/15 03:45	EPA 8260B	mtc	
Isopropylbenzene	1.00		1.00	ug/l	05/29/15 03:45	EPA 8260B	mtc	
Methyl tert-butyl ether	3.91		1.00	ug/l	05/29/15 03:45	EPA 8260B	mtc	
Naphthalene	6.56		1.00	ug/l	05/29/15 03:45	EPA 8260B	mtc	
Surrogate: 4-Bromofluorobenzene	97.0 %		70-130		05/29/15 03:45	EPA 8260B	mtc	
Surrogate: 1,2-Dichloroethane-d4	94.0 %		70-130		05/29/15 03:45	EPA 8260B	mtc	
Surrogate: Fluorobenzene	93.9 %		70-130		05/29/15 03:45	EPA 8260B	mtc	

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Bellefonte PA, 16823
Project Manager: Jed Hill

Project: UR CLEARFIELD
Project Number: [none]
Collector: CLIENT
Number of Containers: 38
Reported: 06/05/15 11:03

Client Sample ID: MW-32

Date/Time Sampled: 05/26/15 11:37

Laboratory Sample ID: 5E27047-15 (Water/Grab)

Analyte	Result	MDL	RI	Units	Date / Time Analyzed	Method	* Analyst	Note
Volatile Organic Compounds by EPA Method 8260B								
1,3,5-Trimethylbenzene	<1.00		1.00	ug/l	05/29/15 04:23	EPA 8260B	mtc	
1,2,4-Trimethylbenzene	<1.00		1.00	ug/l	05/29/15 04:23	EPA 8260B	mtc	
Benzene	<1.00		1.00	ug/l	05/29/15 04:23	EPA 8260B	mtc	
Toluene	<1.00		1.00	ug/l	05/29/15 04:23	EPA 8260B	mtc	
Ethylbenzene	<1.00		1.00	ug/l	05/29/15 04:23	EPA 8260B	mtc	
Xylenes (total)	<2.00		2.00	ug/l	05/29/15 04:23	EPA 8260B	mtc	
Isopropylbenzene	<1.00		1.00	ug/l	05/29/15 04:23	EPA 8260B	mtc	
Methyl tert-butyl ether	<1.00		1.00	ug/l	05/29/15 04:23	EPA 8260B	mtc	
Naphthalene	<1.00		1.00	ug/l	05/29/15 04:23	EPA 8260B	mtc	
Surrogate: 4-Bromofluorobenzene	96.0 %		70-130		05/29/15 04:23	EPA 8260B	mtc	
Surrogate: 1,2-Dichloroethane-d4	93.8 %		70-130		05/29/15 04:23	EPA 8260B	mtc	
Surrogate: Fluorobenzene	94.4 %		70-130		05/29/15 04:23	EPA 8260B	mtc	

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Project Manager: Jed Hill

Project: UR CLEARFIELD
Project Number: [none]
Collector: CLIENT
Number of Containers: 38
Reported: 06/05/15 11:03

Client Sample ID: MW-33

Date/Time Sampled: 05/26/15 11:56

Laboratory Sample ID: 5E27047-16 (Water/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Method	* Analyst	Note
Volatile Organic Compounds by EPA Method 8260B								
1,3,5-Trimethylbenzene	<1.00		1.00	ug/l	05/29/15 05:00	EPA 8260B	mtc	
1,2,4-Trimethylbenzene	<1.00		1.00	ug/l	05/29/15 05:00	EPA 8260B	mtc	
Benzene	<1.00		1.00	ug/l	05/29/15 05:00	EPA 8260B	mtc	
Toluene	<1.00		1.00	ug/l	05/29/15 05:00	EPA 8260B	mtc	
Ethylbenzene	<1.00		1.00	ug/l	05/29/15 05:00	EPA 8260B	mtc	
Xylenes (total)	<2.00		2.00	ug/l	05/29/15 05:00	EPA 8260B	mtc	
Isopropylbenzene	<1.00		1.00	ug/l	05/29/15 05:00	EPA 8260B	mtc	
Methyl tert-butyl ether	<1.00		1.00	ug/l	05/29/15 05:00	EPA 8260B	mtc	
Naphthalene	<1.00		1.00	ug/l	05/29/15 05:00	EPA 8260B	mtc	
Surrogate: 4-Bromofluorobenzene	95.7 %		70-130		05/29/15 05:00	EPA 8260B	mtc	
Surrogate: 1,2-Dichloroethane-d4	93.0 %		70-130		05/29/15 05:00	EPA 8260B	mtc	
Surrogate: Fluorobenzene	93.8 %		70-130		05/29/15 05:00	EPA 8260B	mtc	

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Project Manager: Jed Illi

Project: UR CLEARFIELD
Project Number: [none]
Collector: CLIENT
Number of Containers: 38
Reported: 06/05/15 11:03

Client Sample ID: MW-34

Date/Time Sampled: 05/26/15 12:23

Laboratory Sample ID: 5E27047-17 (Water/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Method	* Analyst	Note
Volatile Organic Compounds by EPA Method 8260B								
1,3,5-Trimethylbenzene	<1.00		1.00	ug/l	05/29/15 05:38	EPA 8260B	mtc	
1,2,4-Trimethylbenzene	<1.00		1.00	ug/l	05/29/15 05:38	EPA 8260B	mtc	
Benzene	<1.00		1.00	ug/l	05/29/15 05:38	EPA 8260B	mtc	
Toluene	<1.00		1.00	ug/l	05/29/15 05:38	EPA 8260B	mtc	
Ethylbenzene	<1.00		1.00	ug/l	05/29/15 05:38	EPA 8260B	mtc	
Xylenes (total)	<2.00		2.00	ug/l	05/29/15 05:38	EPA 8260B	mtc	
Isopropylbenzene	<1.00		1.00	ug/l	05/29/15 05:38	EPA 8260B	mtc	
Methyl tert-butyl ether	1.75		1.00	ug/l	05/29/15 05:38	EPA 8260B	mtc	
Naphthalene	<1.00		1.00	ug/l	05/29/15 05:38	EPA 8260B	mtc	
Surrogate: 4-Bromofluorobenzene	96.3 %		70-130		05/29/15 05:38	EPA 8260B	mtc	
Surrogate: 1,2-Dichloroethane-d4	92.9 %		70-130		05/29/15 05:38	EPA 8260B	mtc	
Surrogate: Fluorobenzene	94.3 %		70-130		05/29/15 05:38	EPA 8260B	mtc	

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Bellefonte PA, 16823
Project Manager: Jed Hill

Project: UR CLEARFIELD
Project Number: [none]
Collector: CLIENT
Number of Containers: 38
Reported: 06/05/15 11:03

Client Sample ID: MW-35

Date/Time Sampled: 05/26/15 10:44

Laboratory Sample ID: 5E27047-18 (Water/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Method	* Analyst	Note
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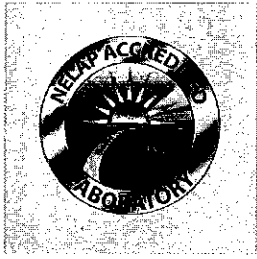
Volatile Organic Compounds by EPA Method 8260B

1,3,5-Trimethylbenzene	<1.00	1.00	ug/l	05/29/15 06:16	EPA 8260B	mtc
1,2,4-Trimethylbenzene	<1.00	1.00	ug/l	05/29/15 06:16	EPA 8260B	mtc
Benzene	<1.00	1.00	ug/l	05/29/15 06:16	EPA 8260B	mtc
Toluene	<1.00	1.00	ug/l	05/29/15 06:16	EPA 8260B	mtc
Ethylbenzene	<1.00	1.00	ug/l	05/29/15 06:16	EPA 8260B	mtc
Xylenes (total)	<2.00	2.00	ug/l	05/29/15 06:16	EPA 8260B	mtc
Isopropylbenzene	<1.00	1.00	ug/l	05/29/15 06:16	EPA 8260B	mtc
Methyl tert-butyl ether	3.95	1.00	ug/l	05/29/15 06:16	EPA 8260B	mtc
Naphthalene	<1.00	1.00	ug/l	05/29/15 06:16	EPA 8260B	mtc
Surrogate: 4-Bromofluorobenzene	95.7 %	70-130		05/29/15 06:16	EPA 8260B	mtc
Surrogate: 1,2-Dichloroethane-d4	92.7 %	70-130		05/29/15 06:16	EPA 8260B	mtc
Surrogate: Fluorobenzene	92.7 %	70-130		05/29/15 06:16	EPA 8260B	mtc

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Bellefonte PA, 16823
Project Manager: Jed Hill

Project: UR CLEARFIELD
Project Number: [none]
Collector: CLIENT
Number of Containers: 38
Reported: 06/05/15 11:03

Client Sample ID: MW-36

Date/Time Sampled: 05/26/15 10:16

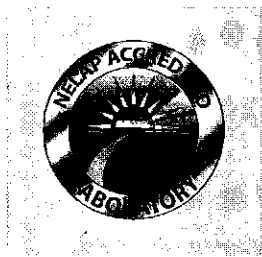
Laboratory Sample ID: 5E27047-19 (Water/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Method	* Analyst	Note
Volatile Organic Compounds by EPA Method 8260B								
1,3,5-Trimethylbenzene	<1.00		1.00	ug/l	05/29/15 06:53	EPA 8260B	mtc	
1,2,4-Trimethylbenzene	<1.00		1.00	ug/l	05/29/15 06:53	EPA 8260B	mtc	
Benzene	<1.00		1.00	ug/l	05/29/15 06:53	EPA 8260B	mtc	
Toluene	<1.00		1.00	ug/l	05/29/15 06:53	EPA 8260B	mtc	
Ethylbenzene	<1.00		1.00	ug/l	05/29/15 06:53	EPA 8260B	mtc	
Xylenes (total)	<2.00		2.00	ug/l	05/29/15 06:53	EPA 8260B	mtc	
Isopropylbenzene	<1.00		1.00	ug/l	05/29/15 06:53	EPA 8260B	mtc	
Methyl tert-butyl ether	4.45		1.00	ug/l	05/29/15 06:53	EPA 8260B	mtc	
Naphthalene	<1.00		1.00	ug/l	05/29/15 06:53	EPA 8260B	mtc	
Surrogate: 4-Bromofluorobenzene	96.5 %		70-130		05/29/15 06:53	EPA 8260B	mtc	
Surrogate: 1,2-Dichloroethane-d4	92.8 %		70-130		05/29/15 06:53	EPA 8260B	mtc	
Surrogate: Fluorobenzene	92.6 %		70-130		05/29/15 06:53	EPA 8260B	mtc	

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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jed Hill

Project: UR CLEARFIELD
Project Number: [none]
Collector: CLIENT
Number of Containers: 38

Reported:
06/05/15 11:03

Definitions

If surrogate values are not within the indicated range, then the results are considered to be estimated.

Reporting limits are adjusted accordingly when samples are analyzed at a dilution due to the matrix.

The following analyses are to be performed immediately upon sampling: pH, sulfite, chlorine residual, dissolved oxygen, filtration for ortho phosphorus, and ferrous iron. The date and time reported reflect the time the samples were analyzed at the laboratory.

MBAS, calculated as LAS, mol wt 348

If the solid sample weight for VOC analysis does not fall within the 3.5-6.5 gram range, the results are considered estimated values.

Unless otherwise noted, all results for solids are reported on a dry weight basis.

Samples collected by Fairway Laboratories' personnel are done so in accordance with Standard Operating Procedures established by Fairway Laboratories.

* P indicates analysis performed by Fairway Laboratories, Inc. at the Pennsdale location. This location is PaDEP Chapter 252 certified.

< Represents "less than" - indicates that the result was less than the reporting limit.

MDL Method Detection Limit - is the lowest or minimum level that provides 99% confidence level that the analyte is detected. Any reported result values that are less than the RL are considered estimated values.

RI. Reporting Limit - is the lowest or minimum level at which the analyte can be quantified.

[CALC] Indicates a calculated result. Calculations use results from other analyses performed under accredited methods.



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Letterle & Associates Inc.
2022 Axemann Road Suite 201
Bellefonte PA, 16823
Project Manager: Jcd Hill

Project: UR CLEARFIELD
Project Number: [none]
Collector: CLIENT
Number of Containers: 38

Reported:
06/05/15 11:03

Terms & Conditions

Services provided by Fairway Laboratories Inc. are limited to the terms and conditions stated herein, unless otherwise agreed to in a formal contract.

CHAIN OF CUSTODY Fairway Laboratories Inc. ("Fairway," "us" or "we") will initiate a chain-of-custody/request for analysis upon sample receipt unless the client includes a completed form with the received sample(s). Upon request, Fairway will provide chain-of-custody forms for use.

CONFIDENTIALITY Fairway maintains confidentiality in all of our client interactions. The client's consent will be required before releasing information about the services provided.

CONTRACTS All contracts are subject to review and approval by Fairway's legal council. Each contract must be signed by a corporate officer.

PAYMENT/BILLING Unless otherwise set forth in a signed contract or purchase order, terms of payment are "NET 30 Days." The time allowed for payment shall begin based on the invoice date. A 1.5% per month service charge may be added to all unpaid balances beyond the initial 30 days. In its sole discretion, Fairway reserves the right to request payment before services and hold sample results for payment of due balances. We will not bill a third party without prior agreement among all parties acknowledging and accepting responsibility for payment.

SAMPLE COLLECTION AND SUBMISSION Clients not requesting collection services from Fairway are responsible for proper collection, preservation, packaging, and delivery of samples to the laboratory in accordance with current law and commercial practice. Fairway shall have no responsibility for sample integrity prior to the receipt of the sample(s) and/or for any inaccuracy in test or analyses results as a result of the failure of the client or any third party to maintain the integrity of samples prior to delivery to Fairway. All samples submitted must be accompanied by a completed chain of custody or similar document clearly noting the requested analyses, dates/time sampled, client contact information, and trail of custody.

SUBCONTRACTING Some analyses may require subcontracting to another laboratory. Unless the client indicates otherwise, this decision will be made by Fairway. Subcontracted work will be identified on the final report in accordance with NELAC requirements.

RETURN OF RESULTS Fairway routinely provides faxed or verbal results within 10 working days of receipt of sample(s) and a hard copy of the data results is routinely received via US Postal Service within 15 working days. At the request of the client, Fairway may offer expedited return of sample results. Surcharges may apply to rush requests. All rush requests must be pre-approved by Fairway. We reserve the right to charge an archive retrieval fee for results older than one (1) year from the date of the request. All records will be maintained by Fairway for 5 years, after which, they will be destroyed.

SAMPLE DISPOSAL Fairway will maintain samples for four (4) weeks after the sample receipt date. Fairway will dispose of samples which are not and/or do not contain hazardous wastes (as such term is defined by applicable federal or state law), unless prior arrangements have been made for long-term storage. Fairway reserves the right to charge a disposal fee for the proper disposal of samples found or suspected to contain hazardous waste. A return shipping charge will be invoiced for samples returned to the client at their request.

HAZARD COMMUNICATION The client has the responsibility to inform the laboratory of any hazardous characteristics known or suspected about the sample, and to provide information on hazard prevention and personal protection as necessary or otherwise required by applicable law.

WARRANTY AND LIMITATION OF LIABILITY For services rendered, Fairway warrants that it will apply its best scientific knowledge and judgment and to employ its best level of effort consistent with professional standards within the environmental testing industry in performing the analytical services requested by its clients. We disclaim any other warranties, expressed or implied by law. Fairway does not accept any legal responsibility for the purposes for which client uses the test results.

LITIGATION All costs associated with compliance to any subpoena for documents, for testimony in a court of law, or for any other purpose relating to work performed by Fairway Laboratories, Inc. shall be invoiced by Fairway and paid by client. These costs shall include, but are not limited to, hourly charges for the persons involved, travel, mileage, and accommodations and for any and all other expenses associated with said litigation.

Fairway Laboratories, Inc.

Fairway Labs in Altoona, PA is a NELAP (National Environmental Laboratory Accreditation Program) accredited lab, and as such, certifies that all applicable test results meet the requirements of NELAP, unless otherwise stated on the analytical report.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

FAIRWAY LABORATORIES

Environmental Laboratory

2019 9th Ave.
P.O. Box 1925
Alltona, PA 16602
Phone: (814) 946-4306
Fax: (814) 946-8791

Client Page # 1 of 2

Please print. See back of COC for instructions/terms and conditions.

Client Name: Letterle & Associates		Received on ice? Y N		Reportable to PADEP? Yes <input type="checkbox"/>		Analyses Requested		LAB USE ONLY	
Address: 2022 Axemann Road		Sample Temp: _____		PW/SID # _____				Work Order # 527047	
Contact: 322 424								Attach # 1	
Phone #: 814-355-2241								FLI Page # 1 of 3	
Fax #: 814-355-2410								Tracking #	
Project Name: V.R. Clark Field								Bottle Type/Comments	
Quote/PO #: _____									
TAT: Normal <input checked="" type="checkbox"/> Rush <input type="checkbox"/>		GRAB Composite		GRAB Composite -or- Composite		Matrix Solid Water Other			
Rush TAT subject to pre-approval and surcharge									
Date Required: ____/____/____									
Sample Description/Location		Start Date		Start Time		End Date		End Time	
MW-1		5/27		12:00		5/27		12:00	
MW-14		5/27		12:41		5/27		12:41	
MW-2		5/27		10:30		5/27		10:30	
MW-24		5/27		13:01		5/27		13:01	
MW-3		5/27		13:57		5/27		13:57	
MW-4		5/27		14:45		5/27		14:45	
MW-10		5/27		15:07		5/27		15:07	
MW-14		5/27		09:49		5/27		09:49	
MW-15		5/27		14:27		5/27		14:27	
MW-21		5/27		13:25		5/27		13:25	
MW-28		5/27		10:59		5/27		10:59	
Sampled by: J. M. Clark		Received by: J. M. Clark		Date: 5/27		Time: 11:00		Remarks	
Relinquished by: J. M. Clark		Received by: J. M. Clark		Date: 5/27		Time: 12:00			
Relinquished by: J. M. Clark		Received by: J. M. Clark		Date: 5/27		Time: 13:30			

Please print. See back of COC for instructions/terms and conditions.

LABORATORIES
Environmental Laboratory

Client Page # 2 of 2

Page 25 of 26

December 30, 2014

Mr. Jed Hill
Letterle & Associates, LLC
629 Rolling Ridge Drive
Bellefonte, PA 16823

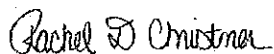
RE: Project: United Clearfield Kwik Fill
Pace Project No.: 30137112

Dear Mr. Hill:

Enclosed are the analytical results for sample(s) received by the laboratory on December 18, 2014. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,



Rachel Christner
rachel.christner@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: United Clearfield Kwik Fill
Pace Project No.: 30137112

Minnesota Certification IDs

1700 Elm Street SE Suite 200, Minneapolis, MN 55414
A2LA Certification #: 2926.01
Alaska Certification #: UST-078
Alaska Certification #MN00064
Alabama Certification #40770
Arizona Certification #: AZ-0014
Arkansas Certification #: 88-0680
California Certification #: 01155CA
Colorado Certification #Pace
Connecticut Certification #: PH-0256
EPA Region 8 Certification #: 8TMS-L
Florida/NELAP Certification #: E87605
Guam Certification #:14-008r
Georgia Certification #: 959
Georgia EPD #: Pace
Idaho Certification #: MN00064
Hawaii Certification #MN00064
Illinois Certification #: 200011
Indiana Certification#C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky Dept of Envi. Protection - DW #90062
Kentucky Dept of Envi. Protection - VWW #:90062
Louisiana DEQ Certification #: 3086
Louisiana DHH #: LA140001
Maine Certification #: 2013011
Maryland Certification #: 322
Michigan DEPH Certification #: 9909

Minnesota Certification #: 027-053-137
Mississippi Certification #: Pace
Montana Certification #: MT0092
Nevada Certification #: MN_00064
Nebraska Certification #: Pace
New Jersey Certification #: MN-002
New York Certification #: 11647
North Carolina Certification #: 530
North Carolina State Public Health #: 27700
North Dakota Certification #: R-036
Ohio EPA #: 4150
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Certification #: MN200001
Oregon Certification #: MN300001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification
Saipan (CNMI) #:MP0003
South Carolina #:74003001
Texas Certification #: T104704192
Tennessee Certification #: 02818
Utah Certification #: MN000642013-4
Virginia DGS Certification #: 251
Virginia/VELAP Certification #: Pace
Washington Certification #: C486
West Virginia Certification #: 382
West Virginia DHHR #:9952C
Wisconsin Certification #: 999407970

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: United Clearfield Kwik Fill

Pace Project No.: 30137112

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30137112001	SG-1	Air	12/10/14 14:42	12/18/14 09:35
30137112002	SG-2	Air	12/10/14 14:50	12/18/14 09:35
30137112003	SG-2 Dup.	Air	12/10/14 14:50	12/18/14 09:35

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SAMPLE ANALYTE COUNT

Project: United Clearfield Kwik Fill
Pace Project No.: 30137112

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30137112001	SG-1	TO-15	DL1	7	PASI-M
30137112002	SG-2	TO-15	DL1	7	PASI-M
30137112003	SG-2 Dup.	TO-15	DL1	7	PASI-M

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: United Clearfield Kwik Fill

Pace Project No.: 30137112

Sample: SG-1 Lab ID: 30137112001 Collected: 12/10/14 14:42 Received: 12/18/14 09:35 Matrix: Air									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR Analytical Method: TO-15									
Benzene	1.4	ug/m3	0.57	0.21	1.74		12/22/14 05:57	71-43-2	
Ethylbenzene	ND	ug/m3	1.5	0.31	1.74		12/22/14 05:57	100-41-4	
Methyl-tert-butyl ether	ND	ug/m3	1.3	0.15	1.74		12/22/14 05:57	1634-04-4	
Naphthalene	ND	ug/m3	4.6	0.45	1.74		12/22/14 05:57	91-20-3	
Toluene	3.9	ug/m3	1.3	0.23	1.74		12/22/14 05:57	108-88-3	
m&p-Xylene	4.9	ug/m3	3.1	0.24	1.74		12/22/14 05:57	179601-23-1	
o-Xylene	1.9	ug/m3	1.5	0.77	1.74		12/22/14 05:57	95-47-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: United Clearfield Kwik Fill
Pace Project No.: 30137112

Sample: SG-2		Lab ID: 30137112002	Collected: 12/10/14 14:50	Received: 12/18/14 09:35	Matrix: Air				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR		Analytical Method: TO-15							
Benzene	1.4 ug/m3		0.57	0.21	1.74		12/22/14 06:21	71-43-2	
Ethylbenzene	ND ug/m3		1.5	0.31	1.74		12/22/14 06:21	100-41-4	
Methyl-tert-butyl ether	ND ug/m3		1.3	0.15	1.74		12/22/14 06:21	1634-04-4	
Naphthalene	ND ug/m3		4.6	0.45	1.74		12/22/14 06:21	91-20-3	
Toluene	3.6 ug/m3		1.3	0.23	1.74		12/22/14 06:21	108-88-3	
m&p-Xylene	4.8 ug/m3		3.1	0.24	1.74		12/22/14 06:21	179601-23-1	
o-Xylene	1.8 ug/m3		1.5	0.77	1.74		12/22/14 06:21	95-47-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: United Clearfield Kwik Fill
Pace Project No.: 30137112

Sample: SG-2 Dup.		Lab ID: 30137112003	Collected: 12/10/14 14:50	Received: 12/18/14 09:35	Matrix: Air				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR		Analytical Method: TO-15							
Benzene	1.1 ug/m3		0.57	0.21	1.74		12/22/14 06:45	71-43-2	
Ethylbenzene	ND ug/m3		1.5	0.31	1.74		12/22/14 06:45	100-41-4	
Methyl-tert-butyl ether	ND ug/m3		1.3	0.15	1.74		12/22/14 06:45	1634-04-4	
Naphthalene	ND ug/m3		4.6	0.45	1.74		12/22/14 06:45	91-20-3	
Toluene	1.7 ug/m3		1.3	0.23	1.74		12/22/14 06:45	108-88-3	
m&p-Xylene	ND ug/m3		3.1	0.24	1.74		12/22/14 06:45	179601-23-1	
o-Xylene	ND ug/m3		1.5	0.77	1.74		12/22/14 06:45	95-47-6	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: United Clearfield Kwik Fill
Pace Project No.: 30137112

QC Batch: AIR/22116 Analysis Method: TO-15
QC Batch Method: TO-15 Analysis Description: TO15 MSV AIR Low Level
Associated Lab Samples: 30137112001, 30137112002, 30137112003

METHOD BLANK: 1870338 Matrix: Air
Associated Lab Samples: 30137112001, 30137112002, 30137112003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/m3	ND	0.32	12/21/14 17:13	
Ethylbenzene	ug/m3	ND	0.88	12/21/14 17:13	
m&p-Xylene	ug/m3	ND	1.8	12/21/14 17:13	
Methyl-tert-butyl ether	ug/m3	ND	0.73	12/21/14 17:13	
Naphthalene	ug/m3	ND	2.7	12/21/14 17:13	
o-Xylene	ug/m3	ND	0.88	12/21/14 17:13	
Toluene	ug/m3	ND	0.77	12/21/14 17:13	

LABORATORY CONTROL SAMPLE: 1870339

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/m3	32.5	31.7	98	69-134	
Ethylbenzene	ug/m3	44.2	46.5	105	73-139	
m&p-Xylene	ug/m3	88.3	94.6	107	73-139	
Methyl-tert-butyl ether	ug/m3	36.7	39.3	107	72-132	
Naphthalene	ug/m3	53.3	49.3	92	61-150	
o-Xylene	ug/m3	44.2	46.5	105	71-138	
Toluene	ug/m3	38.3	39.8	104	67-133	

SAMPLE DUPLICATE: 1871275

Parameter	Units	10291976001 Result	Dup Result	RPD	Max RPD	Qualifiers
Benzene	ug/m3	0.48	0.56	15	25	
Ethylbenzene	ug/m3	ND	.83J		25	
m&p-Xylene	ug/m3	2.7	2.8	4	25	
Methyl-tert-butyl ether	ug/m3	ND	ND		25	
Naphthalene	ug/m3	ND	1.6J		25	
o-Xylene	ug/m3	ND	1J		25	
Toluene	ug/m3	3.5	3.3	5	25	

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

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: United Clearfield Kwik Fill
Pace Project No.: 30137112

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-M Pace Analytical Services - Minneapolis

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: United Clearfield Kwik Fill
Pace Project No.: 30137112

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30137112001	SG-1	TO-15	AIR/22116		
30137112002	SG-2	TO-15	AIR/22116		
30137112003	SG-2 Dup.	TO-15	AIR/22116		

REPORT OF LABORATORY ANALYSIS

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The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A

Section A
Required Client Information:

Section B
Required Project Information:

Section C
Initiative Information:

Section C
Initiating Information

16358

Page: 1 of 1

1

Company: <u>Leithner + Associates</u>	Report To: <u>Sam Hill</u>	Invoice Number: _____
Address: <u>2022 Anderson Rd Suite 201</u>	Copy To: _____	
<u>Bethesda, PA 16823</u>		
Email To: <u>leithner@leithnerassociates.com</u>	Purchase Order No.: _____	
Phone: <u>819-355-2341</u> Fax: _____	Project Range: <u>Unit 202 Clearfield Knite F.M.</u>	
Requested Due Date/FAT: <u>5/14/2005-2310</u>	Project Number: _____	

Attention: _____	
Company Name: <u>Leithner + Associates</u>	
Address: <u>2022 Anderson Rd Suite 201, Bethesda, PA 15104</u>	
Place Quote Reference: _____	
Place Project Management/Sales Rep: <u>Sam Hill</u>	
Place Profile #: _____	

Program	
DUST <input type="checkbox"/> Superfund <input type="checkbox"/> Emissions <input type="checkbox"/> Clean Air Act	
<input type="checkbox"/> Voluntary Clean Up <input type="checkbox"/> Dry Clean <input type="checkbox"/> RCRA <input type="checkbox"/> Other _____	
Location of Sampling by State	Reporting Units
PA	ug/m ³ <input checked="" type="checkbox"/> mg/m ³ <input checked="" type="checkbox"/>
	PPBV <input type="checkbox"/> PPMV <input type="checkbox"/>
	Other _____
Report Level I. II. III. IV. Other	

[illegible]

Comments :	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
BTEX, Cumene, mBE, and naphthalene	gle	11-15	0700	[Signature]	12/18/14	0755	amb ② N/A
							N/A
							N/A
							N/A

SAMPLER NAME AND SIGNATURE

PRINT NAME of SAMPLER: Dr. Ray A. Hagg

SIGNATURE of SAMPLER: [Signature]

DATE Spent (MM/DD/YY) 12/15/14

Temp in °C

Received on

Sealed Cooler

Samples intact

ORIGINAL

1700 Elm Street SE, Suite 200, Minneapolis, MN 55414 Air Technical Phone: 612.607.6386

FC046Rev.01, 03Feb2010

Sample Condition Upon Receipt



Client Name: Letterie

Project # 30137112

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☐ no Seals intact: ☐ yes ☐ no

Optional:

Proj. Due Date:

Proj. Name:

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____

Thermometer Used NA Type of Ice: Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature NA

Biological Tissue is Frozen: Yes No

Date and initials of person examining contents: _____

Temp should be above freezing to 6°C

Comments:

Chain of Custody Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11.
Sample Labels match COC:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis	Matrix: _____	
All containers needing preservation have been checked:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Exceptions: VOA, coliform, TOC, O&G, WI-DBO (water)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Initial when completed
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Lot # of added preservative
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	14.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	16.
Pace Trip Blank Lot # (if purchased):	_____	

Client Notification/Resolution:

Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

Samples were delivered directly to subcontracting laboratory. No sample received at Pace Pgh to check condition of receipt.

Project Manager Review:

Rachel Schmitt

Date:

12/18/14



Pace Analytical Services, Inc.
1700 Elm Street – Suite 200
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

ANALYTICAL RESULTS

Client: PASI PITTSBURGH
Phone: 724-850-5600

Lab Project Number: 10292120
Project Name: 30137112 Letterie & Associates

Lab Sample No: 30137112001
Client Sample ID: SG-1

ProjSampleNum: 30137112001
Matrix: Air

Date Collected: 12/10/14 14:42
Date Received: 12/18/14 9:35

Parameters	Results	Units	Report Limit	DF	Analyzed	CAS No.	Qualifiers
------------	---------	-------	--------------	----	----------	---------	------------

Air TO-15

Benzene	0.0014	mg/m3	0.00057	1.74	12/22/14 5:57 DL1	71-43-2	
Ethylbenzene	ND	mg/m3	0.0015	1.74	12/22/14 5:57 DL1	100-41-4	
m&p-Xylene	0.0049	mg/m3	0.0031	1.74	12/22/14 5:57 DL1	179601-23-1	
Methyl-tert-butyl ether	ND	mg/m3	0.0013	1.74	12/22/14 5:57 DL1	1634-04-4	
Naphthalene	ND	mg/m3	0.0046	1.74	12/22/14 5:57 DL1	91-20-3	
o-Xylene	0.0019	mg/m3	0.0015	1.74	12/22/14 5:57 DL1	95-47-6	
Toluene	0.0039	mg/m3	0.0013	1.74	12/22/14 5:57 DL1	108-88-3	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

SUPPLEMENTAL REPORT

Units Conversion Request

Date: 12/29/2014

Page 1



Pace Analytical Services, Inc.
1700 Elm Street – Suite 200
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

ANALYTICAL RESULTS

Client: PASI PITTSBURGH
Phone: 724-850-5600

Lab Project Number: 10292120
Project Name: 30137112 Letterle & Associates

Lab Sample No: 30137112002
Client Sample ID: SG-2

ProjSampleNum: 30137112002
Matrix: Air

Date Collected: 12/10/14 14:50
Date Received: 12/18/14 9:35

Parameters	Results	Units	Report Limit	DF	Analyzed	CAS No.	Qualifiers
------------	---------	-------	--------------	----	----------	---------	------------

Air TO-15

Benzene	0.0014	mg/m3	0.00057	1.74	12/22/14 6:21 DL1	71-43-2	
Ethylbenzene	ND	mg/m3	0.0015	1.74	12/22/14 6:21 DL1	100-41-4	
m&p-Xylene	0.0048	mg/m3	0.0031	1.74	12/22/14 6:21 DL1	179601-23-1	
Methyl-tert-butyl ether	ND	mg/m3	0.0013	1.74	12/22/14 6:21 DL1	1634-04-4	
Naphthalene	ND	mg/m3	0.0046	1.74	12/22/14 6:21 DL1	91-20-3	
o-Xylene	0.0018	mg/m3	0.0015	1.74	12/22/14 6:21 DL1	95-47-6	
Toluene	0.0036	mg/m3	0.0013	1.74	12/22/14 6:21 DL1	108-88-3	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

SUPPLEMENTAL REPORT

Units Conversion Request

Date: 12/29/2014

Page 2



Pace Analytical Services, Inc.
1700 Elm Street – Suite 200
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

ANALYTICAL RESULTS

Client: PASI PITTSBURGH
Phone: 724-850-5600

Lab Project Number: 10292120
Project Name: 30137112 Letterle & Associates

Lab Sample No: 30137112003 ProjSampleNum: 30137112003 Date Collected: 12/10/14 14:50
Client Sample ID: SG-2 Dup Matrix: Air Date Received: 12/18/14 9:35

Parameters	Results	Units	Report Limit	DF	Analyzed	CAS No.	Qualifiers
------------	---------	-------	--------------	----	----------	---------	------------

Air TO-15

Benzene	0.0011	mg/m3	0.00057	1.74	12/22/14 6:45 DL1	71-43-2	
Ethylbenzene	ND	mg/m3	0.0015	1.74	12/22/14 6:45 DL1	100-41-4	
m&p-Xylene	ND	mg/m3	0.0031	1.74	12/22/14 6:45 DL1	179601-23-1	
Methyl-tert-butyl ether	ND	mg/m3	0.0013	1.74	12/22/14 6:45 DL1	1634-04-4	
Naphthalene	ND	mg/m3	0.0046	1.74	12/22/14 6:45 DL1	91-20-3	
o-Xylene	ND	mg/m3	0.0015	1.74	12/22/14 6:45 DL1	95-47-6	
Toluene	0.0017	mg/m3	0.0013	1.74	12/22/14 6:45 DL1	108-88-3	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

SUPPLEMENTAL REPORT

Units Conversion Request

Date: 12/29/2014

Page 3



Pace Analytical Services, Inc.
1700 Elm Street – Suite 200
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

ANALYTICAL RESULTS

Client: PASI PITTSBURGH
Phone: 724-850-5600

Lab Project Number: 10292120
Project Name: 30137112 Letterle & Associates

PARAMETER FOOTNOTES

March 24, 2015

Mr. Jed Hill
Letterle & Associates, LLC
629 Rolling Ridge Drive
Bellefonte, PA 16823

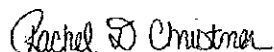
RE: Project: 277 United Clearfield Kwik Fil
Pace Project No.: 30143067

Dear Mr. Hill:

Enclosed are the analytical results for sample(s) received by the laboratory on March 17, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,



Rachel Christner
rachel.christner@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 277 United Clearfield Kwik Fil
Pace Project No.: 30143067

Minnesota Certification IDs

1700 Elm Street SE Suite 200, Minneapolis, MN 55414
A2LA Certification #: 2926.01
Alaska Certification #: UST-078
Alaska Certification #MN00064
Alabama Certification #40770
Arizona Certification #: AZ-0014
Arkansas Certification #: 88-0680
California Certification #: 01155CA
Colorado Certification #Pace
Connecticut Certification #: PH-0256
EPA Region 8 Certification #: 8TMS-L
Florida/NELAP Certification #: E87605
Guam Certification #:14-008r
Georgia Certification #: 959
Georgia EPD #: Pace
Idaho Certification #: MN00064
Hawaii Certification #MN00064
Illinois Certification #: 200011
Indiana Certification#C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky Dept of Envi. Protection - DW #90062
Kentucky Dept of Envi. Protection - VWW #:90062
Louisiana DEQ Certification #: 3086
Louisiana DHH #: LA140001
Maine Certification #: 2013011
Maryland Certification #: 322
Michigan DEPH Certification #: 9909

Minnesota Certification #: 027-053-137
Mississippi Certification #: Pace
Montana Certification #: MT0092
Nevada Certification #: MN_00064
Nebraska Certification #: Pace
New Jersey Certification #: MN-002
New York Certification #: 11647
North Carolina Certification #: 530
North Carolina State Public Health #: 27700
North Dakota Certification #: R-036
Ohio EPA #: 4150
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Certification #: MN200001
Oregon Certification #: MN300001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification
Saipan (CNMI) #:MP0003
South Carolina #:74003001
Texas Certification #: T104704192
Tennessee Certification #: 02818
Utah Certification #: MN000642013-4
Virginia DGS Certification #: 251
Virginia/VELAP Certification #: Pace
Washington Certification #: C486
West Virginia Certification #: 382
West Virginia DHHR #:9952C
Wisconsin Certification #: 999407970

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 277 United Clearfield Kwik Fil
Pace Project No.: 30143067

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30143067001	SG-1	Air	03/12/15 10:38	03/17/15 09:45
30143067002	SG-2	Air	03/12/15 11:16	03/17/15 09:45
30143067003	SG-2 Dup	Air	03/12/15 11:16	03/17/15 09:45

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SAMPLE ANALYTE COUNT

Project: 277 United Clearfield Kwik Fil
Pace Project No.: 30143067

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30143067001	SG-1	TO-15	MJL	10	PASI-M
30143067002	SG-2	TO-15	MJL	10	PASI-M
30143067003	SG-2 Dup	TO-15	MJL	10	PASI-M

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 277 United Clearfield Kwik Fil
Pace Project No.: 30143067

Sample: SG-1		Lab ID: 30143067001		Collected: 03/12/15 10:38		Received: 03/17/15 09:45		Matrix: Air	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR		Analytical Method: TO-15							
Benzene	ND	ug/m3	0.63	0.23	1.94		03/22/15 17:39	71-43-2	
Ethylbenzene	ND	ug/m3	1.7	0.35	1.94		03/22/15 17:39	100-41-4	
Isopropylbenzene (Cumene)	ND	ug/m3	4.8	0.97	1.94		03/22/15 17:39	98-82-8	
Methyl-tert-butyl ether	ND	ug/m3	1.4	0.17	1.94		03/22/15 17:39	1634-04-4	
Naphthalene	ND	ug/m3	5.2	0.50	1.94		03/22/15 17:39	91-20-3	
Toluene	ND	ug/m3	1.5	0.26	1.94		03/22/15 17:39	108-88-3	
1,2,4-Trimethylbenzene	ND	ug/m3	1.9	0.24	1.94		03/22/15 17:39	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.9	0.40	1.94		03/22/15 17:39	108-67-8	
m&p-Xylene	ND	ug/m3	3.4	0.27	1.94		03/22/15 17:39	179601-23-1	
o-Xylene	ND	ug/m3	1.7	0.86	1.94		03/22/15 17:39	95-47-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 277 United Clearfield Kwik Fill
Pace Project No.: 30143067

Sample: SG-2		Lab ID: 30143067002		Collected: 03/12/15 11:16		Received: 03/17/15 09:45		Matrix: Air	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR		Analytical Method: TO-15							
Benzene	2.2	ug/m3	0.51	0.19	1.57		03/22/15 18:10	71-43-2	
Ethylbenzene	7.7	ug/m3	1.4	0.28	1.57		03/22/15 18:10	100-41-4	
Isopropylbenzene (Cumene)	ND	ug/m3	3.9	0.78	1.57		03/22/15 18:10	98-82-8	
Methyl-tert-butyl ether	ND	ug/m3	1.1	0.14	1.57		03/22/15 18:10	1634-04-4	
Naphthalene	ND	ug/m3	4.2	0.41	1.57		03/22/15 18:10	91-20-3	
Toluene	4.8	ug/m3	1.2	0.21	1.57		03/22/15 18:10	108-88-3	
1,2,4-Trimethylbenzene	7.1	ug/m3	1.6	0.19	1.57		03/22/15 18:10	95-63-6	
1,3,5-Trimethylbenzene	2.0	ug/m3	1.6	0.32	1.57		03/22/15 18:10	108-67-8	
m&p-Xylene	15.6	ug/m3	2.8	0.22	1.57		03/22/15 18:10	179601-23-1	
o-Xylene	2.8	ug/m3	1.4	0.69	1.57		03/22/15 18:10	95-47-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 277 United Clearfield Kwik Fil
Pace Project No.: 30143067

Sample: SG-2 Dup		Lab ID: 30143067003		Collected: 03/12/15 11:16		Received: 03/17/15 09:45		Matrix: Air	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR		Analytical Method: TO-15							
Benzene	1.6	ug/m3	0.51	0.19	1.57		03/22/15 18:41	71-43-2	
Ethylbenzene	ND	ug/m3	1.4	0.28	1.57		03/22/15 18:41	100-41-4	
Isopropylbenzene (Cumene)	ND	ug/m3	3.9	0.78	1.57		03/22/15 18:41	98-82-8	
Methyl-tert-butyl ether	ND	ug/m3	1.1	0.14	1.57		03/22/15 18:41	1634-04-4	
Naphthalene	ND	ug/m3	4.2	0.41	1.57		03/22/15 18:41	91-20-3	
Toluene	4.1	ug/m3	1.2	0.21	1.57		03/22/15 18:41	108-88-3	
1,2,4-Trimethylbenzene	ND	ug/m3	1.6	0.19	1.57		03/22/15 18:41	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.6	0.32	1.57		03/22/15 18:41	108-67-8	
m&p-Xylene	4.0	ug/m3	2.8	0.22	1.57		03/22/15 18:41	179601-23-1	
o-Xylene	ND	ug/m3	1.4	0.69	1.57		03/22/15 18:41	95-47-6	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 277 United Clearfield Kwik Fil
Pace Project No.: 30143067

QC Batch: AIR/22800 Analysis Method: TO-15
QC Batch Method: TO-15 Analysis Description: TO15 MSV AIR Low Level
Associated Lab Samples: 30143067001, 30143067002, 30143067003

METHOD BLANK: 1923240 Matrix: Air
Associated Lab Samples: 30143067001, 30143067002, 30143067003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/m3	ND	1.0	03/22/15 13:29	
1,3,5-Trimethylbenzene	ug/m3	ND	1.0	03/22/15 13:29	
Benzene	ug/m3	ND	0.32	03/22/15 13:29	
Ethylbenzene	ug/m3	ND	0.88	03/22/15 13:29	
Isopropylbenzene (Cumene)	ug/m3	ND	2.5	03/22/15 13:29	
m&p-Xylene	ug/m3	ND	1.8	03/22/15 13:29	
Methyl-tert-butyl ether	ug/m3	ND	0.73	03/22/15 13:29	
Naphthalene	ug/m3	ND	2.7	03/22/15 13:29	
o-Xylene	ug/m3	ND	0.88	03/22/15 13:29	
Toluene	ug/m3	ND	0.77	03/22/15 13:29	

LABORATORY CONTROL SAMPLE: 1923241

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/m3	50	46.0	92	75-134	
1,3,5-Trimethylbenzene	ug/m3	50	44.7	89	75-133	
Benzene	ug/m3	32.5	25.4	78	64-139	
Ethylbenzene	ug/m3	44.2	41.0	93	71-136	
Isopropylbenzene (Cumene)	ug/m3	50	43.5	87	72-139	
m&p-Xylene	ug/m3	88.3	83.0	94	71-134	
Methyl-tert-butyl ether	ug/m3	36.7	26.6	73	73-134	
Naphthalene	ug/m3	53.3	46.2	87	43-150	
o-Xylene	ug/m3	44.2	38.2	86	75-134	
Toluene	ug/m3	38.3	29.5	77	70-129	

SAMPLE DUPLICATE: 1923313

Parameter	Units	10300161003 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2,4-Trimethylbenzene	ug/m3		39.7	9	25	
1,3,5-Trimethylbenzene	ug/m3		26.5	6	25	
Benzene	ug/m3		12.3	8	25	
Ethylbenzene	ug/m3		53.9	5	25	
Isopropylbenzene (Cumene)	ug/m3		7.2	3	25	
m&p-Xylene	ug/m3		296	4	25	
Methyl-tert-butyl ether	ug/m3		ND		25	
Naphthalene	ug/m3		ND		25	
o-Xylene	ug/m3		162	5	25	
Toluene	ug/m3		118	2	25	

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 277 United Clearfield Kwik Fil
Pace Project No.: 30143067

SAMPLE DUPLICATE: 1923314

Parameter	Units	10299723001 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2,4-Trimethylbenzene	ug/m3	1.6 U	ND		25	
1,3,5-Trimethylbenzene	ug/m3	1.6 U	ND		25	
Benzene	ug/m3	0.52 U	ND		25	
Ethylbenzene	ug/m3	1.4 U	ND		25	
Isopropylbenzene (Cumene)	ug/m3	4.0 U	ND		25	
m&p-Xylene	ug/m3	2.8 U	ND		25	
Methyl-tert-butyl ether	ug/m3	1.2 U	ND		25	
Naphthalene	ug/m3	4.3 U	ND		25	
o-Xylene	ug/m3	1.4 U	ND		25	
Toluene	ug/m3	0.73J	.72J		25	

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

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 277 United Clearfield Kwik Fil
Pace Project No.: 30143067

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.
ND - Not Detected at or above adjusted reporting limit.
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
MDL - Adjusted Method Detection Limit.
PQL - Practical Quantitation Limit.
RL - Reporting Limit.
S - Surrogate
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.
LCS(D) - Laboratory Control Sample (Duplicate)
MS(D) - Matrix Spike (Duplicate)
DUP - Sample Duplicate
RPD - Relative Percent Difference
NC - Not Calculable.
SG - Silica Gel - Clean-Up
U - Indicates the compound was analyzed for, but not detected.
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.
TNI - The NELAC Institute.

LABORATORIES

PASI-M Pace Analytical Services - Minneapolis

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

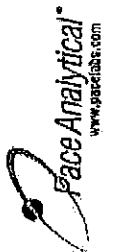
Project: 277 United Clearfield Kwik Fil

Pace Project No.: 30143067

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30143067001	SG-1	TO-15	AIR/22800		
30143067002	SG-2	TO-15	AIR/22800		
30143067003	SG-2 Dup	TO-15	AIR/22800		

REPORT OF LABORATORY ANALYSIS

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AIR: CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Page: 1 of 1	
Company: <u>Lethecia + Associates</u>		Report To: <u>Seb Hill</u>		Attention: <u>Program</u>		14285	
Address: <u>2022 American Rd, Suite 201</u>		Copy To:		Company Name: <u>Lethecia + Associates Inc.</u>		Program: <u>Superfund</u> <input type="checkbox"/> <u>Explosions</u> <input type="checkbox"/> <u>Clean Air Act</u> <input type="checkbox"/>	
City/State: <u>Bethesda, MD 16822</u>		Purchase Order No:		Address: <u>2859 Oakridge Blvd</u>		<input type="checkbox"/> Voluntary Clean Up <input type="checkbox"/> Dry Clean <input type="checkbox"/> Other <input type="checkbox"/>	
Email To: <u>will@letheciaassociates.com</u>		Project Name: <u>Painted (Lead) X-ray Cell</u>		State: <u>DA</u>		Location of Sampling by State: <u>DA</u>	
Phone: <u>814-355-2291</u>		Project Number: <u>277</u>		Pace Quote Reference:		Reporting Unit: <u>mg/m³</u> <input type="checkbox"/> <u>ppmv</u> <input type="checkbox"/> <u>ppbw</u> <input type="checkbox"/> <u>Other</u> <input type="checkbox"/>	
Requested Due Date/TAT:		Pace Profile #:		Pace Project Manager/Sales Rep:		Report Level: <u>II</u> <u>III</u> <u>IV</u> <u>Other</u>	
Section D Required Client Information		Section E Required Project Information		Section F Required Analytical Information		Section G Required Custody Information	
AIR SAMPLE ID		MEDIA CODE		DATE		DATE	
Sample IDs MUST BE UNIQUE		TIME		TIME		TIME	
1		3-12 1008		3-12 1038		3-12 0945	
2		3-12 1045		3-12 1116		3-12 0945	
3		3-12 1045		3-12 1116		3-12 0945	
4							
5							
6							
7							
8							
9							
10							
11							
12							
Comments: <u>DTED, Curren, MTOE, and Nephthalene</u>		RELINQUISHED BY / AFFILIATION: <u>Lethecia + Associates</u>		DATE: <u>3-12</u>		DATE: <u>3-12</u>	
		TIME: <u>1500</u>		TIME: <u>1500</u>		TIME: <u>0945</u>	
		ACCEPTED BY / AFFILIATION: <u>Lethecia + Associates</u>		DATE: <u>3-12</u>		DATE: <u>3-12</u>	
		TIME: <u>1500</u>		TIME: <u>1500</u>		TIME: <u>0945</u>	
		SAMPLER NAME AND SIGNATURE: <u>Seb Hill</u>		SAMPLER NAME AND SIGNATURE: <u>Seb Hill</u>		SAMPLER NAME AND SIGNATURE: <u>Seb Hill</u>	
		PRINT Name of SAMPLER: <u>Seb Hill</u>		PRINT Name of SAMPLER: <u>Seb Hill</u>		PRINT Name of SAMPLER: <u>Seb Hill</u>	
		SIGNATURE of SAMPLER: <u>Seb Hill</u>		SIGNATURE of SAMPLER: <u>Seb Hill</u>		SIGNATURE of SAMPLER: <u>Seb Hill</u>	
		DATE SIGNED: <u>3/12/15</u>		DATE SIGNED: <u>3/12/15</u>		DATE SIGNED: <u>3/12/15</u>	

ORIGINAL

Sample Condition Upon Receipt



Client Name: Letterk Project # 30143067

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other Optional:
Proj. Due Date:
Proj. Name:
Tracking #: _____
Custody Seal on Cooler/Box Present: ☐ yes ☐ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____
Thermometer Used NA Type of Ice: Wet Blue None ☐ Samples on Ice: cooling process has begun

Cooler Temperature NA Biological Tissue is Frozen: Yes No
Temp should be above freezing to 6°C Comments: _____
Date and initials of person examining contents: _____

Chain of Custody Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Containers Intact:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11.
Filtered volume received for Dissolved tests:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
Sample Labels match COC:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	13.
-Includes date/time/ID/Analysis Matrix:		
All containers needing preservation have been checked:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	14.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	15.
Exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input type="checkbox"/> No	16.
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Trip Blank Custody Seals Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

RC
3/17/15

Client Notification/Resolution: _____ Field Data Required? Y / N
Person Contacted: _____ Date/Time: _____
Comments/Resolution: _____

Samples were delivered directly to subcontracting laboratory. No sample received at Pace Pgh to check condition of receipt.

Project Manager Review: [Signature]

Date: 3/17/15



Pace Analytical Services, Inc.
1700 Elm Street – Suite 200
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

ANALYTICAL RESULTS

Client: PASI PITTSBURGH
Phone: 724-850-5600

Lab Project Number: 10299871
Project Name: 30143067 Letterle & Associates

Lab Sample No: 30143067001
Client Sample ID: SG-1

ProjSampleNum: 30143067001
Matrix: Air

Date Collected: 03/12/15 10:38
Date Received: 03/17/15 9:45

Parameters	Results	Units	Report Limit	DF	Analyzed	CAS No.	Qualifiers
------------	---------	-------	--------------	----	----------	---------	------------

Air TO-15

1,2,4-Trimethylbenzene	ND	mg/m3	0.0019	1.94	03/22/15 17:39 MJL	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/m3	0.0019	1.94	03/22/15 17:39 MJL	108-67-8	
Benzene	ND	mg/m3	0.00063	1.94	03/22/15 17:39 MJL	71-43-2	
Ethylbenzene	ND	mg/m3	0.0017	1.94	03/22/15 17:39 MJL	100-41-4	
Isopropylbenzene (Cumene)	ND	mg/m3	0.0048	1.94	03/22/15 17:39 MJL	98-82-8	
m&p-Xylene	ND	mg/m3	0.0034	1.94	03/22/15 17:39 MJL	179601-23-1	
Methyl-tert-butyl ether	ND	mg/m3	0.0014	1.94	03/22/15 17:39 MJL	1634-04-4	
Naphthalene	ND	mg/m3	0.0052	1.94	03/22/15 17:39 MJL	91-20-3	
o-Xylene	ND	mg/m3	0.0017	1.94	03/22/15 17:39 MJL	95-47-6	
Toluene	ND	mg/m3	0.0015	1.94	03/22/15 17:39 MJL	108-88-3	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

SUPPLEMENTAL REPORT

Units Conversion Request

Date: 3/23/2015

Page 1



Pace Analytical Services, Inc.
1700 Elm Street – Suite 200
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

ANALYTICAL RESULTS

Client: PASI PITTSBURGH
Phone: 724-850-5600

Lab Project Number: 10299871
Project Name: 30143067 Letterie & Associates

Lab Sample No: 30143067002
Client Sample ID: SG-2

ProjSampleNum: 30143067002
Matrix: Air
Date Collected: 03/12/15 11:16
Date Received: 03/17/15 9:45

Parameters	Results	Units	Report Limit	DF	Analyzed	CAS No.	Qualifiers
------------	---------	-------	--------------	----	----------	---------	------------

Air TO-15

1,2,4-Trimethylbenzene	0.0071	mg/m3	0.0016	1.57	03/22/15 18:10 MJL	95-63-6	
1,3,5-Trimethylbenzene	0.002	mg/m3	0.0016	1.57	03/22/15 18:10 MJL	108-67-8	
Benzene	0.0022	mg/m3	0.00051	1.57	03/22/15 18:10 MJL	71-43-2	
Ethylbenzene	0.0077	mg/m3	0.0014	1.57	03/22/15 18:10 MJL	100-41-4	
Isopropylbenzene (Cumene)	ND	mg/m3	0.0039	1.57	03/22/15 18:10 MJL	98-82-8	
m&p-Xylene	0.016	mg/m3	0.0028	1.57	03/22/15 18:10 MJL	179601-23-1	
Methyl-tert-butyl ether	ND	mg/m3	0.0011	1.57	03/22/15 18:10 MJL	1634-04-4	
Naphthalene	ND	mg/m3	0.0042	1.57	03/22/15 18:10 MJL	91-20-3	
o-Xylene	0.0028	mg/m3	0.0014	1.57	03/22/15 18:10 MJL	95-47-6	
Toluene	0.0048	mg/m3	0.0012	1.57	03/22/15 18:10 MJL	108-88-3	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

SUPPLEMENTAL REPORT

Units Conversion Request

Date: 3/23/2015

Page 2



Pace Analytical Services, Inc.
1700 Elm Street – Suite 200
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

ANALYTICAL RESULTS

Client: PASI PITTSBURGH
Phone: 724-850-5600

Lab Project Number: 10299871
Project Name: 30143067 Letterle & Associates

Lab Sample No: 30143067003
Client Sample ID: SG-2 Dup

ProjSampleNum: 30143067003
Matrix: Air

Date Collected: 03/12/15 11:16
Date Received: 03/17/15 9:45

Parameters	Results	Units	Report Limit	DF	Analyzed	CAS No.	Qualifiers
Air							
TO-15							
1,2,4-Trimethylbenzene	ND	mg/m3	0.0016	1.57	03/22/15 18:41 MJL	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/m3	0.0016	1.57	03/22/15 18:41 MJL	108-67-8	
Benzene	0.0016	mg/m3	0.00051	1.57	03/22/15 18:41 MJL	71-43-2	
Ethylbenzene	ND	mg/m3	0.0014	1.57	03/22/15 18:41 MJL	100-41-4	
Isopropylbenzene (Cumene)	ND	mg/m3	0.0039	1.57	03/22/15 18:41 MJL	98-82-8	
m&p-Xylene	0.004	mg/m3	0.0028	1.57	03/22/15 18:41 MJL	179601-23-1	
Methyl-tert-butyl ether	ND	mg/m3	0.0011	1.57	03/22/15 18:41 MJL	1634-04-4	
Naphthalene	ND	mg/m3	0.0042	1.57	03/22/15 18:41 MJL	91-20-3	
o-Xylene	ND	mg/m3	0.0014	1.57	03/22/15 18:41 MJL	95-47-6	
Toluene	0.0041	mg/m3	0.0012	1.57	03/22/15 18:41 MJL	108-88-3	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

SUPPLEMENTAL REPORT

Units Conversion Request

Date: 3/23/2015

Page 3



Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

ANALYTICAL RESULTS

Client: PASI PITTSBURGH
Phone: 724-850-5600

Lab Project Number: 10299871
Project Name: 30143067 Letterle & Associates

PARAMETER FOOTNOTES

SUPPLEMENTAL REPORT

Units Conversion Request

Date: 3/23/2015

Page 4

Appendix D

Lawrence Township Ordinance

*Township of Lawrence, PA
Thursday, July 18, 2013*

Chapter 96. SEWER AND WATER

Article VI. Water Connection Required

[Adopted by Ord. No. 96-2]

§ 96-23. Definitions.

As used in this article, the following terms shall have the meanings indicated, unless a different meaning clearly appears from the context:

AUTHORITY SERVICE LINE

Part of the water system extending from a main to the curbline or, if there shall be no curbline, extending to the property line or other location on public property where the Clearfield Municipal Authority or the Pike Township Municipal Authority shall terminate its service line.

BUILDING SERVICE

Extension from the water system of any structure to the Clearfield Municipal Authority or the Pike Township Municipal Authority service line.

CLEARFIELD MUNICIPAL AUTHORITY

A body corporate and politic organized under the Municipality Authorities Act of 1945
Editor's Note: See 53 P.S. § 301 et seq. incorporated by Lawrence Township and Clearfield Borough.

IMPROVED PROPERTY

Any property within Lawrence Township upon which there is erected a structure intended for continuous or periodic habitation, occupancy or use by human beings or animals.

INDUSTRIAL ESTABLISHMENT

Any improved property located within Lawrence Township and used or intended for use, wholly or in part, for the manufacturing, processing, cleaning, laundering or assembling of any product, commodity or article.

MAIN

Any pipe or conduit constituting a part of the water system used or usable for water distribution purposes.

OWNER

Any person vested with ownership, legal or equitable, sole or partial, of any improved property.

PERSON

Any individual, partnership, company, association, society, trust, corporation, municipality, municipal authority or other group or entity.

PIKE TOWNSHIP MUNICIPAL AUTHORITY

A body corporate and politic organized under the Municipality Authorities Act of 1945 incorporated by Pike Township.

WATER SYSTEM

All facilities, as of any particular time, for production, transmission, storage and distribution of water in Lawrence Township owned by the Clearfield Municipal Authority or the Pike Township Municipal Authority.

§ 96-24. Use of public water system required.

- A. The owner of any improved property abutting upon the water system, except a farm which has its own supply of water for uses other than human consumption, shall connect such improved property with and shall use such water system in such manner as Lawrence Township and may require, within 90 days after notice to such owner from Lawrence Township to make such connection; subject to such limitations and restrictions as shall be established herein or otherwise shall be established by Lawrence Township.
- B. The notice by Lawrence Township to make connection to a main referred to in Subsection A shall consist of a copy of this article, including any amendments and/or supplements at the time in effect, or a summary of each section thereof, and a written or printed document requiring the connection in accordance with the provisions of this article and specifying that such connection shall be made within 90 days after the date such notice is given or served. Such notice may be given or served at any time after a main is in place which can deliver water to the particular improved property. Such notice shall be given or served upon the owner in accordance with law.

§ 96-25. Building service and connections.

- A. No person shall uncover, connect with, make any opening into, use, alter or disturb, in any manner, any part of the water system operated by the Authority(ies) without first paying the appropriate tap fees and receiving a receipt for such in writing from the Authority(ies).
- B. Application for a permit required under Subsection A of this section shall be made by the owner of the improved property served or to be served with notice as provided in § 96-24A, or by the duly authorized agent of such owner.
- C. No person shall make or shall cause to be made a connection of any type to an Authority service line until such person fulfills each of the following conditions:

- (1) Notify the Clearfield Municipal Authority or the Pike Township Municipal Authority of the desire and intention to connect such improved property to a main;
 - (2) Apply for and pay for the appropriate tap fee as required by Subsection A of this section; and
 - (3) Give the Clearfield Municipal Authority or the Pike Township Municipal Authority at least five working days' notice before a paid service tap needs to be installed, and at least 24 hours' notice for inspection before the building service will be connected to the Authority service line in order that the Clearfield Municipal Authority or the Pike Township Municipal Authority may supervise and inspect or may cause to be supervised and inspected the work of connection and necessary testing.
- D. Except as otherwise provided in this Subsection D, each improved property shall be connected separately and independently with a main through a building service. Grouping of more than one improved property on one building service shall not be permitted, except under special circumstances and for good cause shown, but then only after special permission of the Clearfield Municipal Authority or the Pike Township Municipal Authority, in writing, shall have been secured and only subject to such rules, regulations and conditions as may be prescribed by the Clearfield Municipal Authority or the Pike Township Municipal Authority.
- E. All costs and expenses of construction of a building service and all costs and expenses of connection of a building service to the Clearfield Municipal Authority or the Pike Township Municipal Authority service line shall be borne by the owner of the improved property to be connected; and such owner shall indemnify and shall save harmless the Clearfield Municipal Authority or the Pike Township Municipal Authority from all loss or damage that may be occasioned, directly or indirectly, as a result of construction of a building service or of connection of a building service to an Authority service line.
- F. A building service main shall be connected to an Authority service line at a place designated by the Clearfield Municipal Authority or the Pike Township Municipal Authority. A smooth, neat joint shall be made and the connection of a building main to the lateral shall be made secure and watertight.
- G. If the owner of any improved property located within the Clearfield Municipal Authority or the Pike Township Municipal Authority and abutting upon the water system, subject to the exception provided for in § 96-24A, after 90 days' notice from the Clearfield Municipal Authority or the Pike Township Municipal Authority in accordance with § 96-24A, shall fail to connect such improved property, the Clearfield Municipal Authority or the Pike Township Municipal Authority may construct such connection and collect from such owner the costs and expenses thereof in any manner permitted by law.

§ 96-26. Building mains and connections to mains.

- A. No building service shall be covered until it has been inspected and approved by the Clearfield Municipal Authority or the Pike Township Municipal Authority. If any part of a

Township of Lawrence, PA

- building service is covered before so being inspected and approved, it shall be uncovered for inspection, at the cost and expense of the owner of the improved property to be connected to an Authority service line.
- B. Every building service of any improved property shall be maintained in a sanitary and safe operating condition by the owner of such improved property.
- C. Every excavation for a building service shall be guarded adequately with barricades and lights to protect all persons from damage and injury. Any street, sidewalk or other public property disturbed in the course of installation of a building service shall be restored, at the cost and expense of the owner of the improved property being connected, in a manner satisfactory to the Clearfield Municipal Authority or the Pike Township Municipal Authority.
- D. If any person shall fail or shall refuse, upon receipt of a notice in writing of the Clearfield Municipal Authority or the Pike Township Municipal Authority, to remedy any unsatisfactory condition with respect to a building service within 60 days of receipt of such notice, the Clearfield Municipal Authority or the Pike Township Municipal Authority may refuse to permit such person to be served by the water system until such unsatisfactory condition shall have been remedied to the satisfaction of the Clearfield Municipal Authority or the Pike Township Municipal Authority.
- E. The Clearfield Municipal Authority or the Pike Township Municipal Authority reserves the right to adopt, from time to time, additional rules and regulations it shall deem necessary and proper relating to connections of a building service with the Authority(ies) water system, which additional rules and regulations, to the extent appropriate, shall be and shall be construed as part of this article.

§ 96-27. Appeals; hardship.

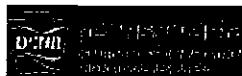
In the event any person shall deem the requirement to connect as provided in this article a hardship, such person may appeal to the Clearfield Municipal Authority or the Pike Township Municipal Authority for relief from such connection requirement, which appeal shall be heard in accordance with provisions of the Pennsylvania Local Agency Law. *Editor's Note: See 2 Pa.C.S.A. § 551 et seq. and § 751 et seq.*

§ 96-28. Violations and penalties.

[Amended 5-2-2000 by Ord. No. 2000-2] Any person who violates or permits a violation of this article shall, upon conviction in a summary proceeding brought before a District Justice under the Pennsylvania Rules of Criminal Procedure, be guilty of a summary offense and shall be punishable by a fine of not less than \$50 nor more than \$1,000, plus costs of prosecution. In default of payment thereof, the defendant may be sentenced to imprisonment for a term not exceeding 30 days. Each day or portion thereof that such violation continues or is permitted to continue shall constitute a separate offense, and each section of this article that is violated shall also constitute a separate offense.

Appendix E

PAGWIS Database Search Results



PA STATE AGENCIES

ONLINE SERVICES

Search PA

Tom Wolf, Governor Cindy Adams Dunn, Acting Secretary

DCNR Home : Geological Survey : Groundwater : PaGWIS : Records

PaGWIS Records

Geological Survey

About the Survey

Classroom

Collecting

Economic Resources

Geology of PA

Geologic Hazards

Groundwater

Library

Web-Mapping
ApplicationPublications and
Digital Data

Geolinks

Contact the Survey

Search DCNR



Radial Search	
This retrieval approximates a radial search around a fixed location. the results will include wells in the "corners" of this figure.	
Enter the coordinates of the center in decimal-degree format and the radius of the search in miles. All fields must be filled in to perform the search. The longitude must be a negative number.	
<input type="radio"/> Multiple Criteria <input type="radio"/> Polygon Search <input checked="" type="radio"/> Radial Search	
Longitude :	-78.455469
Latitude :	41.005005
Radius In Miles :	0.5

[Preview List](#)[Create List](#)[Clear Selections](#)

"Preview List" creates a list which contains links to individual well information. You can choose to create a comma separated list from the preview.

"Create List" creates a comma separated list without viewing the selection first. If you choose to open the file it may open in Excel if you have Microsoft Office installed.

Total Records Returned : 13 Records Click on the column headers to sort the Search Results.

PA Well ID	Driller	Driller Ref	Date Drilled	Owner	County	Municipality	Image
507595	DMS ENVIRONMENTAL SERVICES, LLC	LT MW-01	6/18/2013	LAWRENCE TOWNSHIP MUNICIPAL GARAGE	CLEARFIELD	LAWRENCE TWP.	
507596	DMS ENVIRONMENTAL SERVICES, LLC	LT MW-02	6/18/2013	LAWRENCE TOWNSHIP MUNICIPAL GARAGE	CLEARFIELD	LAWRENCE TWP.	
507597	DMS ENVIRONMENTAL SERVICES, LLC	LT MW-03	6/18/2013	LAWRENCE TOWNSHIP MUNICIPAL GARAGE	CLEARFIELD	LAWRENCE TWP.	
507598	DMS ENVIRONMENTAL SERVICES, LLC	LT MW-04	6/18/2013	LAWRENCE TOWNSHIP MUNICIPAL GARAGE	CLEARFIELD	LAWRENCE TWP.	
507599	DMS ENVIRONMENTAL SERVICES, LLC	LT MW-05	6/18/2013	LAWRENCE TOWNSHIP MUNICIPAL GARAGE	CLEARFIELD	LAWRENCE TWP.	
505232	PARRATT-WOLFF INC	MW-01 (13710)	2/14/2013	LAWRENCE TOWNSHIP	CLEARFIELD	LAWRENCE TWP.	
505233	PARRATT-WOLFF INC	MW-02 (13710)	2/14/2013	LAWRENCE TOWNSHIP	CLEARFIELD	LAWRENCE TWP.	
505276	PARRATT-WOLFF INC	MW-03 (13710)	2/14/2013	LAWRENCE TOWNSHIP	CLEARFIELD	LAWRENCE TWP.	
505277	PARRATT-WOLFF INC	MW-04 (13710)	2/14/2013	LAWRENCE TOWNSHIP	CLEARFIELD	LAWRENCE TWP.	
505278	PARRATT-WOLFF INC	MW-05 (13710)	2/14/2013	LAWRENCE TOWNSHIP	CLEARFIELD	LAWRENCE TWP.	
497324	JM2 ENVIRONMENTAL INC DBA KODIAK FIELD SERVICES	623 MW-31R	8/26/2010	KWIK FILL #M-90	CLEARFIELD	LAWRENCE TWP.	
13463	ROBERT L CRYSTER JR		2/10/1975	CROFTS FOOD MKRT	CLEARFIELD	LAWRENCE TWP.	
13464	D L GILKEY			AMERICAN MOND NICKEL COMPANY	CLEARFIELD	LAWRENCE TWP.	

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

WATER WELL DETAILS

DMS		
Well Driller:	ENVIRONMENTAL SERVICES, LLC	PA Well ID: 507595
Driller License:	2529	Driller Well ID: LT MW-01
Type of Activity:	Well Abandonment	Local Permit #:
Reason for Abandonment:	Well was unused	Original Well By: UNKNOWN
Date Drilled:	6/18/2013	Drilling Method: BORED OR AUGERED
Owner: Lawrence Township Municipal Garage		
Address of Well: 508 George Street		Zipcode:
County: CLEARFIELD		
Municipality: LAWRENCE TWP.		
Coordinate Method: Commercial Street Atlas Program		
Quadrangle:	CLEARFIELD	Latitude: 41.005 Longitude: -78.452
Well Depth (ft): 21.61		Well Finish:
Depth to Bedrock (ft):	Did Not Encounter Bedrock:	
Well Yield (gpm):	Yield Measure Method:	
Static Water Level: (ft below land surface)	Water level after yield test: (ft below land surface)	
Length of Yield Test: (minutes)	Saltwater Zone (ft):	
Use of Well:	MONITORING	Use of Water: UNUSED

DRILLER'S LOG

<u>UNIT TOP</u>	<u>UNIT BOTTOM</u>	<u>DESCRIPTION OF UNITS PENETRATED</u>
-----------------	--------------------	--

BOREHOLE

CASING

SCREEN/SLOT

WELL LINER

PACKER

WATER BEARING ZONE

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

WATER WELL DETAILS

DMS		
Well Driller:	ENVIRONMENTAL SERVICES, LLC	PA Well ID: 507596
Driller License:	2529	Driller Well ID: LT MW-02
Type of Activity:	Well Abandonment	Local Permit #:
Reason for Abandonment:	Well was unused	Original Well By: UNKNOWN
Date Drilled:	6/18/2013	Drilling Method: BORED OR AUGERED
Owner: Lawrence Township Municipal Garage		
Address of Well:	508 George Street	Zipcode:
County:	CLEARFIELD	
Municipality:	LAWRENCE TWP.	
Coordinate Method: Commercial Street Atlas Program		
Quadrangle:	CLEARFIELD	Latitude: 41.005 Longitude: -78.452
Well Depth (ft):	13.59	Well Finish:
Depth to Bedrock (ft):		Did Not Encounter Bedrock:
Well Yield (gpm):		Yield Measure Method:
Static Water Level: (ft below land surface)		Water level after yield test: (ft below land surface)
Length of Yield Test: (minutes)		Saltwater Zone (ft):
Use of Well:	MONITORING	Use of Water: UNUSED

DRILLER'S LOG

<u>UNIT TOP</u>	<u>UNIT BOTTOM</u>	<u>DESCRIPTION OF UNITS PENETRATED</u>
-----------------	--------------------	--

BOREHOLE

CASING

SCREEN/SLOT

WELL LINER

PACKER

WATER BEARING ZONE

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

WATER WELL DETAILS

DMS		
Well Driller:	ENVIRONMENTAL SERVICES, LLC	PA Well ID: 507597
Driller License:	2529	Driller Well ID: LT MW-03
Type of Activity:	Well Abandonment	Local Permit #:
Reason for Abandonment:	Well was unused	Original Well By: UNKNOWN
Date Drilled:	6/18/2013	Drilling Method: BORED OR AUGERED
Owner: Lawrence Township Municipal Garage		
Address of Well:	508 George Street	Zipcode:
County:	CLEARFIELD	
Municipality:	LAWRENCE TWP.	
Coordinate Method:	Commercial Street Atlas Program	
Quadrangle:	CLEARFIELD	Latitude: 41.005 Longitude: -78.452
Well Depth (ft):	13.52	Well Finish:
Depth to Bedrock (ft):		Did Not Encounter Bedrock:
Well Yield (gpm):		Yield Measure Method:
Static Water Level: (ft below land surface)		Water level after yield test: (ft below land surface)
Length of Yield Test: (minutes)		Saltwater Zone (ft):
Use of Well:	MONITORING	Use of Water: UNUSED

DRILLER'S LOG

<u>UNIT TOP</u>	<u>UNIT BOTTOM</u>	<u>DESCRIPTION OF UNITS PENETRATED</u>
-----------------	--------------------	--

BOREHOLE

CASING

SCREEN/SLOT

WELL LINER

PACKER

WATER BEARING ZONE

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

WATER WELL DETAILS

DMS		
Well Driller:	ENVIRONMENTAL SERVICES, LLC	PA Well ID: 507598
Driller License:	2529	Driller Well ID: LT MW-04
Type of Activity:	Well Abandonment	Local Permit #:
Reason for Abandonment:	Well was unused	Original Well By: UNKNOWN
Date Drilled:	6/18/2013	Drilling Method: BORED OR AUGERED
Owner: Lawrence Township Municipal Garage		
Address of Well: 508 George Street		Zipcode:
County: CLEARFIELD		
Municipality: LAWRENCE TWP.		
Coordinate Method: Commercial Street Atlas Program		
Quadrangle:	CLEARFIELD	Latitude: 41.005 Longitude: -78.452
Well Depth (ft): 18.62		Well Finish:
Depth to Bedrock (ft):		Did Not Encounter Bedrock:
Well Yield (gpm):		Yield Measure Method:
Static Water Level: (ft below land surface)		Water level after yield test: (ft below land surface)
Length of Yield Test: (minutes)		Saltwater Zone (ft):
Use of Well: MONITORING		Use of Water: UNUSED

DRILLER'S LOG

UNIT TOP	UNIT BOTTOM	DESCRIPTION OF UNITS PENETRATED
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BOREHOLE

CASING

SCREEN/SLOT

WELL LINER

PACKER

WATER BEARING ZONE

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

WATER WELL DETAILS

DMS	
Well Driller: ENVIRONMENTAL SERVICES, LLC	PA Well ID: 507599
Driller License: 2529	Driller Well ID: LT MW-05
Type of Activity: Well Abandonment	Local Permit #:
Reason for Abandonment: Well was unused	Original Well By: UNKNOWN
Date Drilled: 6/18/2013	Drilling Method: BORED OR AUGERED
Owner: Lawrence Township Municipal Garage	
Address of Well: 508 George Street	Zipcode:
County: CLEARFIELD	
Municipality: LAWRENCE TWP.	
Coordinate Method: Commercial Street Atlas Program	
Quadrangle: CLEARFIELD	Latitude: 41.005 Longitude: -78.452
Well Depth (ft): 18.8	Well Finish:
Depth to Bedrock (ft):	Did Not Encounter Bedrock:
Well Yield (gpm):	Yield Measure Method:
Static Water Level: (ft below land surface)	Water level after yield test: (ft below land surface)
Length of Yield Test: (minutes)	Saltwater Zone (ft):
Use of Well: MONITORING	Use of Water: UNUSED

DRILLER'S LOG

<u>UNIT TOP</u>	<u>UNIT BOTTOM</u>	<u>DESCRIPTION OF UNITS PENETRATED</u>
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BOREHOLE

CASING

SCREEN/SLOT

WELL LINER

PACKER

WATER BEARING ZONE

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

WATER WELL DETAILS

Well Driller: **PARRATT-WOLFF
INC**

PA Well ID: **505232**

Driller License: **2186**

Driller Well ID: **MW-01 (13710)**

Type of Activity: **New Well**

Local Permit #:

Original Well By: **CURRENT DRILLER**

Date Drilled: **2/14/2013**

Drilling Method: **OTHER/UNKNOWN**

Owner: **Lawrence Township**

Address of Well:

Zipcode:

County: **CLEARFIELD**

Municipality: **LAWRENCE TWP.**

Coordinate Method: **Commercial Street Atlas Program**

Quadrangle:

Latitude: **41.00553** Longitude: **-78.45244**

Well Depth (ft): **22**

Well Finish: **SCREEN**

Depth to Bedrock (ft):

Did Not Encounter Bedrock: **X**

Well Yield (gpm):

Yield Measure Method:

Static Water Level:
(ft below land surface)

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

Length of Yield Test:
(minutes)

Saltwater Zone (ft):

Use of Well: **MONITORING**

Use of Water: **OTHER**

DRILLER'S LOG

UNIT TOP

UNIT BOTTOM

DESCRIPTION OF UNITS PENETRATED

Unit Top 1: **0** Unit Bottom 1: **4** Unit 1: **Gray moist silt and clay**

Unit Top 2: **4** Unit Bottom 2: **17** Unit 2: **Gray brown wet silt and clay, little fine gravel**

Unit Top 3: 17 Unit Bottom 3: 24 Unit 3: Gray wet sand and silt
--

BOREHOLE

Section 1: Top: 0 Bottom: 24 Diameter: 3

CASING

Casing 1:

Top: 0 Bottom: 7 Diameter: 1.25 Material: PVC OR OTHER PLASTIC

Seal(Grout) 1:

Top: 0 Bottom: 7 Type: BENTONITE CHIPS OR PELLETS
--

SCREEN/SLOT

Screen 1: Top: 7 Bottom: 22 Diameter: 1.25

Type: SCREEN

Material: PLASTIC

Slot Size: 0.01

Packing: SAND - SCREENED

WELL LINER

PACKER

WATER BEARING ZONE

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

WATER WELL DETAILS

Well Driller: **PARRATT-WOLFF
INC**

PA Well ID: **505233**

Driller License: **2186**

Driller Well ID: **MW-02 (13710)**

Type of Activity: **New Well**

Local Permit #:

Original Well By: **CURRENT DRILLER**

Date Drilled: **2/14/2013**

Drilling Method: **OTHER/UNKNOWN**

Owner: **Lawrence Township**

Address of Well:

Zipcode:

County: **CLEARFIELD**

Municipality: **LAWRENCE TWP.**

Coordinate Method: **Commercial Street Atlas Program**

Quadrangle:

Latitude: **41.00553** Longitude: **-78.45244**

Well Depth (ft): **14**

Well Finish: **SCREEN**

Depth to Bedrock (ft):

Did Not Encounter Bedrock: **X**

Well Yield (gpm):

Yield Measure Method:

Static Water Level:
(ft below land surface)

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

Length of Yield Test:
(minutes)

Saltwater Zone (ft):

Use of Well: **MONITORING**

Use of Water: **OTHER**

DRILLER'S LOG

<u>UNIT TOP</u>	<u>UNIT BOTTOM</u>	<u>DESCRIPTION OF UNITS PENETRATED</u>
-----------------	--------------------	--

Unit Top 1: 0	Unit Bottom 1: 4	Unit 1: Gray Moist silt and clay
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Unit Top 2: 4	Unit Bottom 2: 13	Unit 2: Gray wet silt and clay
----------------------	--------------------------	---------------------------------------

Unit Top 3: 13	Unit Bottom 3: 16	Unit 3: Gray wet sand and silt
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BOREHOLE

Section 1:	Top: 0	Bottom: 16	Diameter: 3
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CASING**Casing 1:**

Top: 0	Bottom: 4	Diameter: 1.25	Material: PVC OR OTHER PLASTIC
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Seal(Grout) 1:

Top: 0	Bottom: 4	Type: BENTONITE CHIPS OR PELLETS
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SCREEN/SLOT

Screen 1:	Top: 4	Bottom: 14	Diameter: 1.25
	Type: SCREEN		
	Material: PLASTIC		Slot Size: 0.01
	Packing: SAND - SCREENED		

WELL LINER**PACKER****WATER BEARING ZONE**

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

WATER WELL DETAILS

Well Driller: **PARRATT-WOLFF
INC**

PA Well ID: **505276**

Driller License: **2186**

Driller Well ID: **MW-03 (13710)**

Type of Activity: **New Well**

Local Permit #:

Original Well By: **CURRENT DRILLER**

Date Drilled: **2/14/2013**

Drilling Method: **OTHER/UNKNOWN**

Owner: **Lawrence Township**

Address of Well:

Zipcode:

County: **CLEARFIELD**

Municipality: **LAWRENCE TWP.**

Coordinate Method: **Commercial Street Atlas Program**

Quadrangle:

Latitude: **41.00553** Longitude: **-78.45244**

Well Depth (ft): **14**

Well Finish: **SCREEN**

Depth to Bedrock (ft):

Did Not Encounter Bedrock: **X**

Well Yield (gpm):

Yield Measure Method:

Static Water Level:
(ft below land surface)

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

Length of Yield Test:
(minutes)

Saltwater Zone (ft):

Use of Well: **MONITORING**

Use of Water: **OTHER**

DRILLER'S LOG

<u>UNIT TOP</u>	<u>UNIT BOTTOM</u>	<u>DESCRIPTION OF UNITS PENETRATED</u>
-----------------	--------------------	--

Unit Top 1: 0	Unit Bottom 1: 4	Unit 1: Gray Moist silt and clay
----------------------	-------------------------	---

Unit Top 2: 4	Unit Bottom 2: 8	Unit 2: Gray wet silt and clay
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Unit Top 3: 8	Unit Bottom 3: 14	Unit 3: Gray wet silt and clay
Unit Top 4: 14	Unit Bottom 4: 16	Unit 4: Gray wet sand and silt

BOREHOLE

Section 1: Top: 0 Bottom: 16 Diameter: 3

CASING**Casing 1:**

Top: 0 Bottom: 4 Diameter: 1.25 Material: **PVC OR OTHER
PLASTIC**

Seal(Grout) 1:

Top: 0 Bottom: 4 Type: **BENTONITE CHIPS OR PELLETS**

SCREEN/SLOT

Screen 1: Top: 4 Bottom: 14 Diameter: 1.25
Type: **SCREEN**
Material: **PLASTIC** Slot Size: 0.01
Packing: **SAND - SCREENED**

WELL LINER**PACKER****WATER BEARING ZONE**

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

WATER WELL DETAILS

Well Driller: **PARRATT-WOLFF
INC**

PA Well ID: **505277**

Driller License: **2186**

Driller Well ID: **MW-04 (13710)**

Type of Activity: **New Well**

Local Permit #:

Original Well By: **CURRENT DRILLER**

Date Drilled: **2/14/2013**

Drilling Method: **OTHER/UNKNOWN**

Owner: **Lawrence Township**

Address of Well:

Zipcode:

County: **CLEARFIELD**

Municipality: **LAWRENCE TWP.**

Coordinate Method: **Commercial Street Atlas Program**

Quadrangle:

Latitude: **41.00553** Longitude: **-78.45243**

Well Depth (ft): **19**

Well Finish: **SCREEN**

Depth to Bedrock (ft):

Did Not Encounter Bedrock: **X**

Well Yield (gpm):

Yield Measure Method:

Static Water Level:
(ft below land surface)

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

Length of Yield Test:
(minutes)

Saltwater Zone (ft):

Use of Well: **MONITORING**

Use of Water: **OTHER**

DRILLER'S LOG

UNIT TOP

UNIT BOTTOM

DESCRIPTION OF UNITS PENETRATED

Unit Top 1: **0** Unit Bottom 1: **4** Unit 1: **Gray Moist silt and clay**

Unit Top 2: **4** Unit Bottom 2: **17** Unit 2: **Gray wet silt and clay, some small gravel**

Unit Top 3: 17 Unit Bottom 3: 20 Unit 3: Gray wet sand
--

BOREHOLE

Section 1: Top: 0 Bottom: 20 Diameter: 3
--

CASING

Casing 1:

Top: 0 Bottom: 4 Diameter: 1.25 Material: PVC OR OTHER PLASTIC

Seal(Grout) 1:

Top: 0 Bottom: 4 Type: BENTONITE CHIPS OR PELLETS
--

SCREEN/SLOT

Screen 1: Top: 4 Bottom: 19 Diameter: 1.25
--

Type: SCREEN

Material: PLASTIC

Slot Size: 0.01

Packing: SAND - SCREENED

WELL LINER

PACKER

WATER BEARING ZONE

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

WATER WELL DETAILS

Well Driller: **PARRATT-WOLFF
INC**

PA Well ID: **505278**

Driller License: **2186**

Driller Well ID: **MW-05 (13710)**

Type of Activity: **New Well**

Local Permit #:

Original Well By: **CURRENT DRILLER**

Date Drilled: **2/14/2013**

Drilling Method: **OTHER/UNKNOWN**

Owner: **Lawrence Township**

Address of Well:

Zipcode:

County: **CLEARFIELD**

Municipality: **LAWRENCE TWP.**

Coordinate Method: **Commercial Street Atlas Program**

Quadrangle:

Latitude: **41.00553** Longitude: **-78.45244**

Well Depth (ft): **19**

Well Finish: **SCREEN**

Depth to Bedrock (ft):

Did Not Encounter Bedrock: **X**

Well Yield (gpm):

Yield Measure Method:

Static Water Level:
(ft below land surface)

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

Length of Yield Test:
(minutes)

Saltwater Zone (ft):

Use of Well: **MONITORING**

Use of Water: **STOCK**

DRILLER'S LOG

UNIT TOP

UNIT BOTTOM

DESCRIPTION OF UNITS PENETRATED

Unit Top
1: **0**

Unit Bottom
1: **4**

Unit 1: **gray Moist silt and clay**

Unit Top 4 2:	Unit Bottom 18 2:	Unit 2: Gray wet silt and clay, little fine to medium gravel
Unit Top 18 3:	Unit Bottom 20 3:	Unit 3: Gray wet sand and silt

BOREHOLE

Section 1: Top: 0 Bottom: 20 Diameter: 3

CASING**Casing 1:**

Top: 0 Bottom: 4 Diameter: 1.25 Material: PVC OR OTHER PLASTIC

Seal(Grout) 1:

Top: 0 Bottom: 4 Type: BENTONITE CHIPS OR PELLETS

SCREEN/SLOT

Screen 1: Top: 4 Bottom: 19 Diameter: 1.25
Type: SAND POINT
Material: PLASTIC Slot Size: 0.01
Packing: SAND - SCREENED

WELL LINER**PACKER****WATER BEARING ZONE**

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

WATER WELL DETAILS

Well Driller: **JM2
ENVIRONMENTAL
INC DBA KODIAK
FIELD SERVICES**

PA Well ID: **497324**

Driller License: **2471**

Driller Well ID: **623 MW-31R**

Type of Activity: **New Well**

Local Permit #:

Original Well By: **CURRENT DRILLER**

Date Drilled: **8/26/2010**

Drilling Method: **BORED OR AUGERED**

Owner: **Kwik Fill #M-90**

Address of Well: **1322 South Second, Clearfield**

Zipcode: **16830**

County: **CLEARFIELD**

Municipality: **LAWRENCE TWP.**

Coordinate Method: **Commercial Street Atlas Program**

Quadrangle:

Latitude: **41.005**

Longitude: **-78.45555**

Well Depth (ft): **19**

Well Finish: **GRAVEL PACK
W/SCREEN**

Depth to Bedrock (ft):

Did Not Encounter Bedrock: **X**

Well Yield (gpm):

Yield Measure Method:

Static Water Level:
(ft below land surface)

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

Length of Yield Test:
(minutes)

Saltwater Zone (ft):

Use of Well: **MONITORING**

Use of Water: **UNUSED**

DRILLER'S LOG

<u>UNIT TOP</u>	<u>UNIT BOTTOM</u>	<u>DESCRIPTION OF UNITS PENETRATED</u>
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Unit Top 1: 0	Unit Bottom 1: 5	Unit 1: CLAY
Unit Top 2: 5	Unit Bottom 2: 10	Unit 2: SAND/CLAY/GRAVEL
Unit Top 3: 10	Unit Bottom 3: 19	Unit 3: GRAVEL/SHALE

BOREHOLE

Section 1: Top: 0 Bottom: 19 Diameter: 8.5
--

CASING**Casing 1:**

Top: 0 Bottom: 5 Diameter: 4 Material: PVC OR OTHER PLASTIC
--

Seal(Grout) 1:

Top: 1 Bottom: 3 Type: BENTONITE CHIPS OR PELLETS

SCREEN/SLOT

Screen 1: Top: 3 Bottom: 14 Diameter: 4
Type: SCREEN
Material: PLASTIC Slot Size: 0.02
Packing: SAND - SCREENED

WELL LINER**PACKER****WATER BEARING ZONE**

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

WATER WELL DETAILS

Well Driller: D L GILKEY	PA Well ID: 13464
Driller License: 0311	Driller Well ID:
Type of Activity:	Local Permit #:
	Original Well By: UNKNOWN
Date Drilled:	Drilling Method: CABLE TOOL

Owner: AMERICAN MOND NICKEL COMPANY		
Address of Well:	Zipcode:	
County: CLEARFIELD		
Municipality: LAWRENCE TWP.		
Coordinate Method:		
Quadrangle: LUTHERSBURG	Latitude: 41	Longitude: -78.46167

Well Depth (ft): 107	Well Finish: OPEN HOLE
Depth to Bedrock (ft):	Did Not Encounter Bedrock:
Well Yield (gpm): 832	Yield Measure Method: BAILER
Static Water Level: 10 (ft below land surface)	Water level after yield test: 35 (ft below land surface)
Length of Yield Test: 8 (minutes)	Saltwater Zone (ft):
Use of Well: UNUSED	Use of Water: UNUSED

DRILLER'S LOG

<u>UNIT TOP</u>	<u>UNIT BOTTOM</u>	<u>DESCRIPTION OF UNITS PENETRATED</u>
-----------------	--------------------	--

BOREHOLE

Section 1: Top: 0 Bottom: 107 Diameter: 0
--

CASING**Casing 1:**

Top: 0 Bottom: 50 Diameter: 12 Material: UNKNOWN

Seal(Grout) 1:

Top: Bottom: Type:

SCREEN/SLOT**WELL LINER****PACKER****WATER BEARING ZONE**

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

WATER WELL DETAILS

Well Driller: **ROBERT L
CRYSTER JR**

PA Well ID: **13463**

Driller License: **0042**

Driller Well ID:

Type of Activity:

Local Permit #:

Original Well By: **UNKNOWN**

Date Drilled: **2/10/1975**

Drilling Method: **OTHER/UNKNOWN**

Owner: **CROFTS FOOD MRKT**

Address of Well:

Zipcode:

County: **CLEARFIELD**

Municipality: **LAWRENCE TWP.**

Coordinate Method:

Quadrangle: **GLEN RICHEY**

Latitude: **40.99917**

Longitude: **-78.46056**

Well Depth (ft): **72**

Well Finish: **OPEN HOLE**

Depth to Bedrock (ft):

Did Not Encounter Bedrock:

Well Yield (gpm): **40**

Yield Measure Method: **BAILER**

Static Water Level: **22**
(ft below land surface)

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

Length of Yield Test: **3**
(minutes)

Saltwater Zone (ft):

Use of Well: **WITHDRAWAL**

Use of Water: **DOMESTIC**

DRILLER'S LOG

<u>UNIT TOP</u>	<u>UNIT BOTTOM</u>	<u>DESCRIPTION OF UNITS PENETRATED</u>
-----------------	--------------------	--

BOREHOLE

Section 1: Top: 0 Bottom: 72 Diameter: 6

CASING

Casing 1:

Top: 0 Bottom: 24 Diameter: 6 Material: UNKNOWN
--

Seal(Grout) 1:

Top: Bottom: Type:
--

SCREEN/SLOT

WELL LINER

PACKER

WATER BEARING ZONE

Zone 1:	Top: 45	Bottom:	Yield:
----------------	---------	---------	--------

Zone 2:	Top: 60	Bottom:	Yield:
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Appendix F

PNDI Environmental Review

1. PROJECT INFORMATION

Project Name: **United Refining - Kwik Fill M-90**

Date of review: **3/19/2015 11:59:10 AM**

Project Category: **Hazardous Waste Clean-up, Site Remediation, and Reclamation, Other**

Project Area: **N/A**

County: **Clearfield** Township/Municipality: **Lawrence**

Quadrangle Name: **CLEARFIELD** ~ ZIP Code: **16830**

Decimal Degrees: **41.005 N, -78.455500 W**

Degrees Minutes Seconds: **41° 0' 18" N, -78° 27' 19.8" W**



2. SEARCH RESULTS

Agency	Results	Response
PA Game Commission	No Known Impact	No Further Review Required
PA Department of Conservation and Natural Resources	No Known Impact	No Further Review Required
PA Fish and Boat Commission	No Known Impact	No Further Review Required
U.S. Fish and Wildlife Service	No Known Impact	No Further Review Required

As summarized above, Pennsylvania Natural Diversity Inventory (PNDI) records indicate no known impacts to threatened and endangered species and/or special concern species and resources within the project area. Therefore, based on the information you provided, no further coordination is required with the jurisdictional agencies. This response does not reflect potential agency concerns regarding impacts to other ecological resources, such as wetlands.

3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

These agency determinations and responses are **valid for two years** (from the date of the review), and are based on the project information that was provided, including the exact project location; the project type, description, and features; and any responses to questions that were generated during this search. If any of the following change: 1) project location, 2) project size or configuration, 3) project type, or 4) responses to the questions that were asked during the online review, the results of this review are not valid, and the review must be searched again via the PNDI Environmental Review Tool and resubmitted to the jurisdictional agencies. The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer impacts than what is listed on this PNDI receipt. The jurisdictional agencies **strongly advise against** conducting surveys for the species listed on the receipt prior to consultation with the agencies.

PA Game Commission

RESPONSE: No impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Department of Conservation and Natural Resources

RESPONSE: No impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Fish and Boat Commission

RESPONSE: No impact is anticipated to threatened and endangered species and/or special concern species and resources.

U.S. Fish and Wildlife Service

RESPONSE: No impacts to federally listed or proposed species are anticipated. Therefore, no further consultation/coordination under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) is required. Because no take of federally listed species is anticipated, none is authorized. This response does not reflect potential Fish and Wildlife Service concerns under the Fish and Wildlife Coordination Act or other authorities.

4. DEP INFORMATION

The Pa Department of Environmental Protection (DEP) requires that a signed copy of this receipt, along with any required documentation from jurisdictional agencies concerning resolution of potential impacts, be submitted with applications for permits requiring PNDI review. For cases where a "Potential Impact" to threatened and endangered species has been identified before the application has been submitted to DEP, the application should not be submitted until the impact has been resolved. For cases where "Potential Impact" to special concern species and resources has been identified before the application has been submitted, the application should be submitted to DEP along with the PNDI receipt. The PNDI Receipt should also be submitted to the appropriate agency according to directions on the PNDI Receipt. DEP and the jurisdictional agency will work together to resolve the potential impact(s). See the DEP PNDI policy at <http://www.naturalheritage.state.pa.us>.

5. ADDITIONAL INFORMATION

The PNDI environmental review website is a **preliminary** screening tool. There are often delays in updating species status classifications. Because the proposed status represents the best available information regarding the conservation status of the species, state jurisdictional agency staff give the proposed statuses at least the same consideration as the current legal status. If surveys or further information reveal that a threatened and endangered and/or special concern species and resources exist in your project area, contact the appropriate jurisdictional agency/agencies immediately to identify and resolve any impacts.

For a list of species known to occur in the county where your project is located, please see the species lists by county found on the PA Natural Heritage Program (PNHP) home page (www.naturalheritage.state.pa.us). Also note that the PNDI Environmental Review Tool only contains information about species occurrences that have actually been reported to the PNHP.

6. AGENCY CONTACT INFORMATION

PA Department of Conservation and Natural Resources

Bureau of Forestry, Ecological Services Section
400 Market Street, PO Box 8552, Harrisburg, PA.
17105-8552
Fax: (717) 772-0271

U.S. Fish and Wildlife Service

Pennsylvania Field Office
110 Radnor Rd; Suite 101, State College, PA 16801
NO Faxes Please.

PA Fish and Boat Commission

Division of Environmental Services
450 Robinson Lane, Bellefonte, PA. 16823-7437
NO Faxes Please

PA Game Commission

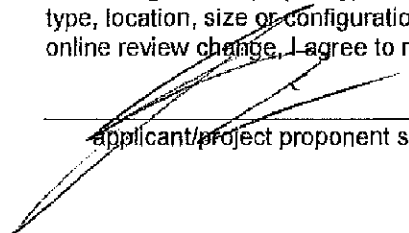
Bureau of Wildlife Habitat Management
Division of Environmental Planning and Habitat Protection
2001 Elmerton Avenue, Harrisburg, PA. 17110-9797
Fax: (717) 787-6957

7. PROJECT CONTACT INFORMATION

Name: Jed Hill
Company/Business Name: Lutterch & Associates, Inc.
Address: 2022 Axemann Road, Suite 201
City, State, Zip: Bellefonte, PA 16823
Phone: (814) 355-2241 Fax: (814) 355-2410
Email: jhill@lutterchassociates.com

8. CERTIFICATION

I certify that ALL of the project information contained in this receipt (including project location, project size/configuration, project type, answers to questions) is true, accurate and complete. In addition, if the project type, location, size or configuration changes, or if the answers to any questions that were asked during this online review change, I agree to re-do the online environmental review.


applicant/project proponent signature

3-19-15
date