FACILITY NAME: Cook's Country Store

FACILITY ID #: 31-07856

REPORT/PLAN PREPARER: Mountain Research, LLC
(Name of Company, Michael R. Crowe, P.G.
Individual & Phone #) (814) 949-2034, Ext. 210

CORRECTIVE ACTION PROCESS REPORT/PLAN COVER SHEET

CHAPTER 245 STORAGE TANK ACT

- ☐ Site Characterization Report - Section 245.310(b)
- ☐ Site Characterization Report - Section 245.310(a)
- ☐ Site Characterization Report - Site-Specific Standard
- ■ Site Characterization Report - Statewide Health or Background Standard
- ☐ Remedial Action Plan - Statewide Health or Background Standard
- ☐ Remedial Action Plan - Site Specific Standard
- ☐ Remedial Action Progress Report
- ☐ Remedial Action Completion Report - Statewide Health or Background Standard
- ☐ Remedial Action Completion Report - Site-Specific Standard

(Check all that apply to the enclosed submission)

SITE CHARACTERIZATION REPORT

COOK'S COUNTRY STORE
21042 COOKS ROAD, ROBERTSDALE,
TODD TOWNSHIP, HUNTINGDON COUNTY, PENNSYLVANIA, 16674
PADEP FACILITY ID # 31-07856
USTIF CLAIM # 2014-0163(S)

PROFESSIONAL CERTIFICATION:

Professional Geologist:

Print or Type Name: **Michael R. Crowe, P.G.**

Signature:

Date: **February 11, 2016**

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COOKS COUNTY STORE\SCR REPORT\COOKS – SCR APX – FEB 2016
Project No. 4547.15.01

SITE CHARACTERIZATION REPORT

COOK'S COUNTRY STORE
21042 COOKS ROAD, ROBERTSDALE,
TODD TOWNSHIP, HUNTINGDON COUNTY, PENNSYLVANIA, 16674
PADEP FACILITY ID # 31-07856
USTIF CLAIM # 2014-0163(S)

Prepared for

MS. BETTY HESS
COOK'S COUNTRY STORE
JAMES CREEK, PENNSYLVANIA

Prepared by

MOUNTAIN RESEARCH, LLC
ALTOONA, PENNSYLVANIA

FEBRUARY 2016

Prepared by: Carolin Phi

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COOKS COUNTY STORE\SCR REPORT\COOKS – SCR APX – FEB 2016
Project No. 4547.15.01

February 11, 2016

Cynthia Stine, PG
Pennsylvania Department of Environmental Protection
Southcentral Regional Office
909 Elmerton Avenue
Harrisburg, Pennsylvania 17110

Re: Site Characterization Report
Cook's Country Store
21042 Cooks Road, Robertsdale,
Todd Township, Huntingdon County, Pennsylvania, 16674
PADEP Facility ID # 31-07856
USTIF Claim # 2014-0163(S)

Dear Ms. Stine:

Please find enclosed an original of the Site Characterization Report prepared by Mountain Research, LLC for the above-referenced site, for your review and approval.

Should you have any questions relative to the enclosed report or require any additional documentation in order to complete the report review and approval process, please contact the undersigned.

Sincerely,
MOUNTAIN RESEARCH, LLC

Michael R. Crowe, P.G.
Project Manager III

MRC:ll
Enclosure

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SITE CHARACTERIZATION REPORT

Cook's Country Store
21042 Cooks Road, Robertsdale,
Todd Township, Huntingdon County, Pennsylvania, 16674
PADEP Facility ID # 31-07856
USTIF Claim # 2014-0163(S)

1.0 EXECUTIVE SUMMARY

- One (1) 4,000-gallon tank (Tank 004), one (1) 3,000-gallon tank (Tank 005) and one (1) 2,000-gallon tank (Tank 006) and the associated product lines and dispensers, installed on the property in May 1997, were removed from the property in November 2014. All the underground storage tanks (USTs) were used for the storage of unleaded gasoline.

- Soils uncovered beneath the dispenser island were noted to be heavily impacted during UST removal. Unleaded gasoline-impacted soil beneath the dispensers was excavated three (3) feet in all directions for exploratory purposes, and impact was still evident.

- During UST closure, soil beneath the dispenser island was found to be impacted by petroleum compounds. Soil samples were collected from the tank field (two sidewalls), product piping (one), and dispenser island (two). Both dispenser island soil samples exceeded the Pennsylvania Department of Environmental Protection (PADEP) Residential Used Aquifer (RUA) soil to groundwater Medium Specific Concentrations (MSCs) for 1,3,5-trimethylbenzene (TMB), 1,2,4-TMB, benzene, and ethylbenzene, and one (1) of the dispenser island samples exceeded the PADEP RUA soil to groundwater MSC for toluene. The remaining tank field and product piping samples were below laboratory practical quantitation limits (PQLs) for all constituents.

- During UST closure, impacted groundwater was not identified. Two (2) groundwater samples were collected from the tank field, both samples were below laboratory PQLs for all constituents. However, the former tank field was determined to be situated far upgradient from the area of release.

- On August 18, 2015, monitoring wells MW-1 through MW-4 were installed in the vicinity of the former dispenser area. To further delineate impacted groundwater at the property, monitoring wells MW-5 through MW-8 were installed on October 13 and 15, 2015. Groundwater sampling was conducted on August 27, November 11, and December 9, 2015.

- Current overburden groundwater monitoring well analytical results indicate petroleum constituent concentrations detected above the PADEP RUA groundwater MSCs include 1,2,4-TMB, 1,3,5-TMB, benzene, toluene, ethylbenzene, total xylenes, MTBE, and naphthalene .

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1.0 EXECUTIVE SUMMARY (Continued)

- The identified dissolved phase benzene plume above the PADEP RUA groundwater MSC is located in the centered vicinity of monitoring wells MW-1 and MW-3. The 1,2,4-TMB and benzene plumes have extended to the east across Cook's Road and to the north to the yard in front of the on-site residential house. Note that the on-site house and former convenience store are currently unoccupied, but are planned for future use.

- A total of 29 soil borings have been advanced by Mountain Research at the property in order to characterize the site. A total of 43 soil samples were collected from soil borings MW-1 through MW-7 and SB-1 through SB-22 in August and October 2015.

- Based on analytical results from the soil boring investigation, the soil surrounding the former dispenser area is impacted with constituents at concentrations above the PADEP RUA soil to groundwater MSC, including 1,2,4-TMB, 1,3,5-TMB, benzene, toluene, ethylbenzene, total xylenes, and naphthalene. MTBE was not detected in any soil boring, but the laboratory PQL was greater than the PADEP RUA soil to groundwater MSC for several of the borings. Soil borings across Cook's Road and in front of the on-site house were not impacted with constituents at concentrations above the PADEP RUA soil to groundwater MSCs.

- The convenience store building and on-site house were found to be receptors for a risk of VIB from the impacted soil and groundwater. Five (5) soil vapor monitoring points are proposed to evaluate the VIB risk near the two (2) buildings.

- Ecological receptor screening was performed, and no ecological receptors were identified.

- Initial quantitative fate and transport modeling and a qualitative discussion of fate and transport are included in **Section 12.0**.

- A summary of proposed activities necessary to complete full characterization at the site and develop an enhanced understanding of site conditions is included in **Section 14.2**.

- Based on the current understanding of the site and the site owner's plan for the property, an active remediation based strategy is proposed subsequent to partial soil source removal. Total Phase Extraction (TPE) is the preferred active remedial strategy, pending results of a feasibility study. The goal of the remediation would be to remove all accessible source material and to remediate groundwater COC concentrations through a remediation system. Groundwater monitoring will continue on a quarterly basis until SHS closure for groundwater. After feasibility testing is completed, a Supplementary SCR (SSCR)-Remedial Action Plan (RAP) will be submitted to the PADEP.

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2.0 INTRODUCTION

Mountain Research has been retained by Cook's Country Store (Cook's) to complete site characterization, remediation, and ultimately site closure for the former Cook's store located in Todd Township, Huntingdon County, Pennsylvania. Based on visual and olfactory evidence of a petroleum release discovered on November 25, 2014, associated with soil beneath the gasoline dispenser island, a Pennsylvania Department of Environmental Protection (PADEP) site characterization was warranted.

Site characterization activities were conducted in accordance with Title 25, Chapter 245, Administration of Storage Tanks and Spill Prevention Program, Subchapter D, Section 309. This characterization report is submitted in accordance with Section 310(c), SCR.

The following site characterization objectives were developed by Mountain Research to meet the regulations mentioned above:

- Identify the extent of impacted groundwater.
- Identify the extent of impacted soil.
- Describe the study area geology, hydrogeology, aquifer characteristics, and physical parameters such that a remediation standard and strategy for the site can be selected.
- Develop a site conceptual model from which the fate and transport of constituents can be evaluated by modeling or analysis.
- Screen potential VIB risks.

The activities conducted at the subject property and used for characterization of the site include the following:

- Installation of a total of eight (8) overburden monitoring wells.
- Collection and analysis of groundwater samples from monitoring wells.
- Measurement of groundwater elevations and deriving direction of groundwater flow and gradient from these measurements.
- Advancement of a total of 29 soil borings.
- Collection and analysis of soil samples from soil borings.
- Collection and geotechnical analysis of a soil sample.
- Preliminary local water use assessment.
- Surveying the site infrastructure and monitoring wells.
- Aquifer testing.
- Geophysical survey of the site.
- Development of conceptual site model and petroleum impact fate and transport analysis.
- Identification of potential preferential pathways for groundwater and / or vapor migration.
- VIB risk evaluation.
- Ecological Receptor Screening
- Remedial Alternatives Analysis.

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2.0 INTRODUCTION (Continued)

Soil and groundwater analytical results are compared to the PADEP RUA MSCs throughout this report. The report develops site assumptions based on these comparisons as a starting point for remediation decision making.

2.1 Constituents of Concern

Groundwater samples have been analyzed for the following petroleum parameters: 1,2,4-TMB, 1,3,5-TMB, benzene, toluene, ethylbenzene, total xylenes, MTBE, isopropylbenzene (cumene), and naphthalene. Based on analytical results, the following parameters have been detected in groundwater, and are therefore identified as the Constituents of Concern (COCs) in groundwater: **1,2,4-TMB, 1,3,5-TMB**, **benzene, toluene, ethylbenzene, total xylenes, MTBE, cumene, and naphthalene**.

Soil samples have been analyzed for the following petroleum parameters; 1,2,4-TMB, 1,3,5-TMB, benzene, toluene, ethylbenzene, total xylenes, MTBE, cumene, and naphthalene. Based on analytical results, the following parameters have been identified at detectable levels in soil and are therefore identified as the COCs in soil: **1,2,4-TMB, 1,3,5-TMB**, **benzene, toluene, ethylbenzene, total xylenes, naphthalene, and cumene**. MTBE was not detected, but due to the high concentrations of other constituents, the soil samples were diluted to the point that the laboratory PQLs were above the PADEP RUA soil to groundwater MSCs. It is not known if MTBE concentrations are greater than the PADEP RUA soil to groundwater MSCs. Therefore, **MTBE** is also considered a COC.

2.2 Media of Concern

Soil and groundwater are identified to contain detectable concentrations of COCs and are therefore considered media of concern at the site.

2.3 Remediation Standard

The remediation standard goal for the property is the Statewide Health Standard (SHS) for soil and groundwater. SHS closure is sought due to the on-site residential home and the potential future use of domestic groundwater wells by the former store building and on-site residential home by a future occupant. Not that the home and former store building are currently unoccupied, the home is planned for future renovation and occupancy.

3.0 SITE DESCRIPTION

The study area (Site) is within an approximate 1.61 acre plot of land that lies on the west and east side of Cooks Road (State Route 3019), and the site encompasses the property on the west side of Cooks Road. The site includes the former Cook's Country Store and a residential house. The physical address is 21042 Cooks Road, Robertsdale, Todd Township, Huntingdon County, Pennsylvania, 16674. The Site is surrounded by residential and agricultural properties. The Site is located on the north-west portion of the USGS 7.5 Minute Series Saltillo, PA Topographic Quadrangle at an approximate Latitude 40° 12' 41.53" North and Longitude 78° 5' 18.29" West. The property has an approximate elevation of 1630 feet above mean sea level. Refer to **Figure 1** (Site Location Map), **Figure 2** (Site Map), and **Figure 3** (Aerial Site Map).

3.0 SITE DESCRIPTION (Continued)

The site is situated on the west side of Cooks Road immediately south of the intersection of Cooks Road and Old Plank Road (State Route 994). The site currently includes a nonoperational, one-story, slab-on-grade convenience store and a two-story residential dwelling located directly to the north-northeast of the convenience store.

It should be noted that the parcel itself (approximately 1.61 acres) occupies land on the west and east sides of Cooks Road; however, the developed portion of the parcel is exclusively on the west side. The portion of the parcel situated on the east side of Cooks Road consists of a grass and gravel lot, and contains a tower for high-tension electrical lines.

Refer to **Figure 4** for a wide site aerial map that illustrates surrounding properties. Refer to **Appendix A** for copies of site photographs taken during the site reconnaissance visits on December 23, 2014 and February 24, 2015.

3.1 Historical Operations

Historically, the property has been utilized as a gasoline fueling station with installation of the most recent tank system being conducted in 1997. The store has historically utilized USTs for the retail sale of unleaded gasoline. The USTs most recently at the property included one (1) 4,000-gallon unleaded gasoline tank (Tank 004), one (1) 3,000-gallon unleaded gasoline tank (Tank 005) and one (1) 2,000-gallon unleaded gasoline tank (Tank 006) which were installed in 1997. These tanks were located to the southwest of the convenience store. The tanks and associated dispensers and product piping were removed during closure activities in late November 2014. Prior to the installation of these USTs, three (3) other tanks had been utilized on the northeast side of the convenience store, one (1) 2,000-gallon (Tank 001), one (1) 3,000-gallon (Tank 002), and one (1) 4,000-gallon (Tank 003). All three (3) tanks were used to store unleaded gasoline. These tanks were installed prior to 1990 and were removed in 1997. An empty, unused above-ground kerosene storage tank (AST) was also present at the site. The kerosene AST was skid-mounted with secondary containment and have since been removed from the property. No additional documentation on this AST was available for review.

3.2 Current Operations

The subject property is owned by Betty Hess and contains the Cook's Country Store that is no longer operational.

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3.3 Site Features

The subject property currently contains two (2) permanent structures including a former convenience store and a residential house. The convenience store is one-story and slab-on-grade. The house is a two-story home with a basement. Additional site features include: a small pavilion next to the store on the northeastern side, a storage trailer next to the pavilion, and a canopy for the former fuel dispensers. The pavilion is an open wooden structure which previously housed the kerosene AST, and the storage trailer is set upon concrete blocks. Surface areas of the property consist of gravel, grass, or paved areas. To the best of Mountain Research's knowledge and based on conversations with owners of the property, no USTs currently exist on the subject property.

Land to the west of the site is occupied by a grassy field with Yellow Branch Creek beyond. Land to the north is occupied by Old Plank Road (State Route 994), then Yellow Branch Creek followed by residential and agricultural properties beyond. Cooks Road is located to the east followed by the eastern portion of the site parcel (vacant grass and gravel lot). An abandoned portion of the East Broad Top Railroad line and Great Trough Creek are located to the east of the site property. Land to the south includes agricultural fields and residential properties. Refer to **Figure 2** for a map showing property boundaries.

3.3.1 Utilities

The following information regarding locations of underground utilities at the property has been obtained through site visits and a geophysical survey performed by THG Geophysics, Ltd. (THG):

- Water for the site is provided by two (2) separate on-lot private supply wells. The water supply well for the convenience store is located inside the building and is accessible through an access panel into a crawl space beneath the building. The water supply well for the house is believed to be located approximately behind the house (northwest). THG thought they identified the supply well with a magnetometer. The property owner attempted to excavate the well by hand for his own purpose of accessing the well and pump; however, very shallow groundwater prevented him from digging deep enough to locate the wellhead. The supply well piping is accessible in the basement but is currently non-operational due to the power being off.

- A septic tank exists between the house and convenience store. Underground sewer service piping connects the septic tank to the house, but the connection to the convenience store is currently unknown. On-lot sewage may be present for the convenience store or an unidentified line may connect to the identified septic tank. The discharge pipe from the septic tank runs to east-southeast beneath the roadway to a leach area on the eastern portion of the parcel across Cooks Road.

3.3.1 Utilities (Continued)

- Electric service enters the property at the utility pole situated in the northeast corner of the parcel. Overhead electric enters the station building near the northeast corner.

- The house is also connected to an outdoor wood boiler behind the house. THG identified hot water lines connected to both the house and convenience store building. The hot water lines enter both the convenience store and the house on the northeastern facing walls.

- The presence of a natural gas utility was not identified.

Refer to **Figure 2** for approximate utility locations.

4.0 RELEASE HISTORY

4.1 Historical Tank Closure (May 1997)

On January 24, 1997, upgrade activities were initiated within the UST field on the northeast side of the convenience store at the site. During the upgrade, unleaded gasoline-impacted soil and groundwater were encountered. The PADEP was notified and Earthtech, Inc. was retained as an environmental consultant. Earthtech, Inc. arrived at the site on February 24, 1997 and through test pit excavations and sampling, determined that contamination was isolated to the tank field. The source of impact is believed to have originated from an elbow in the product piping of the 3,000-gallon tank (Tank 002) and, in general, the piping was reported to be in very bad condition.

The property owner decided to install new tanks (004, 005, and 006) on the southwest side of the building in a virgin excavation. After installation of new tanks, the old tanks were removed on May 29, 1997. Approximately 100 tons of impacted soil was removed for disposal and three (3) four-inch observation wells were placed into the backfilled area for future sampling.

A Closure Report for Country Crossroads was prepared by Earthtech, Inc. in August of 1997. The report documents previous site activities, including soil and groundwater sampling collection.

Two (2) dispenser soil samples (1 and 2) were reportedly collected on May 20, 1997 and analyzed on May 23, 1997 for unleaded gasoline parameters. The Dispenser 1 sample was found to contain 2,000 µg/kg of benzene; the Dispenser 2 sample was found to contain 3,090 µg/kg of benzene.

Five (5) confirmatory soil samples (A through E) were reportedly collected from the UST excavations on May 29, 1997. These samples were analyzed on June 4, 1997 by Norac Laboratory, Inc. of Johnstown, PA for unleaded and leaded gasoline parameters via EPA Methods 8260A and 8270B. Petroleum constituent concentrations were not detected above laboratory PQLs. Concentrations of lead were identified between 1.4 mg/kg and 27.0 mg/kg.

4.1 Historical Tank Closure (May 1997) (Continued)

Three (3) groundwater samples (OW-1, 2, and 3) were reportedly collected on July 24, 1997 and analyzed on July 28, 1997 for unleaded gasoline parameters. Toluene was identified within OW-1 at a concentration of 5.7 µg/L. Benzene was identified within OW-3 at a concentration of 3.7 µg/L. Remaining parameters were not identified above the laboratory PQLs.

4.2 Current Tank Closure (November 2014)

On November 25, 2014, UST closure activities were initiated for Tanks 004, 005, and 006 and associated product lines and dispensers. One (1) 4,000-gallon unleaded gasoline tank (Tank 004), one (1) 3,000-gallon unleaded gasoline tank (Tank 005) and one (1) 2,000-gallon unleaded gasoline tank (Tank 006) and the associated product lines and dispensers, installed on the property in May 1997, were removed from the property. The owner, Betty Hess, performed the tank removal activities with Pat McVicker of Petroleum Maintenance Service. Soils uncovered beneath the dispenser island were noted to be heavily impacted. Unleaded gasoline-impacted soil beneath the dispensers was excavated three (3) feet in all directions for exploratory purposes, and impact was still evident.

During UST closure, soil samples were collected from the tank field (two sidewalls), product piping (one), and dispenser island (two). Both dispenser island soil samples exceeded the PADEP RUA soil to groundwater MSCs for 1,3,5-TMB, 1,2,4-TMB, benzene, and ethylbenzene, and one (1) of the dispenser island samples exceeded the PADEP RUA soil to groundwater MSC for toluene. The remaining tank field and product piping samples were non-detect for all constituents. Two (2) groundwater samples were collected from the tank field, both samples were non-detect for all constituents. The excavation area was noted to have filled with water.

UST excavation soil sample analytical results are summarized in **Table 1** (UST Excavation Soil Sample Analytical Summary). UST excavation water sample analytical results are summarized in **Table 2** (UST Excavation Water Sample Analytical Summary). Laboratory analytical data sheets are included for reference in **Appendix B** (Laboratory Analytical Data Reports).

A PADEP Notice of Contamination (NOC) was prepared by Mr. McVicker and submitted to PADEP in November 2014. **Appendix C** contains a copy of the NOC.

4.3 Type & Volume Of Regulated Substance Removed

One (1) 4,000-gallon unleaded gasoline tank (Tank 004), one (1) 3,000-gallon unleaded gasoline tank (Tank 005) and one (1) 2,000-gallon unleaded gasoline tank (Tank 006) and the associated product lines and dispensers were removed.

4.4 Fire & Explosion Hazards

No fire and explosion hazards exist at the site.

4.5 Relocation of Affected Residents

Based on the nature of the impacts, relocation of affected residents was not deemed necessary.

4.6 Recovery of Free Product

Free product was not encountered during interim remedial excavation activities.

4.7 Excavation of Impacted Soil

Unleaded gasoline-impacted soil beneath the dispensers was excavated three (3) feet in all directions for exploratory purposes; however, the impacted soil was not removed from the hole.

4.8 Interim Remedial Action

Interim remedial actions have not yet been conducted at the site.

5.0 SOURCE OF PETROLEUM IMPACTS

Based on observation and confirmation of impacts beneath the dispenser island during UST system closure, the source of release is believed to be caused from faulty unleaded gasoline dispensing equipment and/or piping/connections immediately beneath the dispensing equipment. It should be noted that dispenser pans or dispenser sumps were not installed at this facility.

5.1 Characteristics of Regulated Substance

Site history, and soil and groundwater analytical data indicate that the regulated substances released at the facility consisted of unleaded gasoline. Analytical results from historical and recent soil samples indicate that 1,2,4-TMB, 1,3,5-TMB, benzene, toluene, ethylbenzene, total xylenes, and naphthalene are the only COCs that have been detected at concentrations exceeding PADEP RUA soil to groundwater MSCs. Analytical results from historical and recent groundwater samples indicate that 1,2,4-TMB, 1,3,5-TMB, benzene, toluene, ethylbenzene, total xylenes, MTBE, and naphthalene have been identified in groundwater at concentrations exceeding PADEP RUA groundwater MSCs. The characteristics of the aforementioned constituents are summarized in **Appendix D** (Characteristics of Regulated Substances).

6.0 WATER SUPPLIES

The site is currently unoccupied, and no water is being utilized; however, future occupation of the on-site residential dwelling is planned. However, water on the subject property is obtained via the use of two (2) potable supply wells. The supply well for the convenience store building is located inside the convenience store building. The well is upgradient but very close to the identified impacted groundwater plume. The well for the nearby house is located behind the house to the northwest and upgradient of soil and groundwater impacts. Neither well is currently in use. **Figure 2** illustrates the location of the potable well for the nearby house.

6.0 WATER SUPPLIES (Continued)

An Environmental Data Resources (EDR) report was reviewed to locate potential water supplies. Fourteen (14) potential wells were identified to be located within ½ of a mile of the property. When plotted, two (2) wells were determined to contain duplicates in the listings; reducing the total to 12 wells. The three (3) nearest wells listed in the EDR report that could be accurately mapped via coordinates are identified as A1, B4, and B6. Well A1 is located approximately 450 feet to the north (upgradient and across Yellow Branch [creek]). Well B4 is located approximately 985 feet to the southwest (sidegradient). Well B6 is located approximately 1,070 feet to the southwest (sidegradient). No wells were plotted within ½ of a mile of the property in the presumed downgradient direction. Wells A2, B3, B5, D9, and D14 were determined to be located approximately 6.3 miles to the south-southeast (downgradient) when plotted via coordinates. The on-site supply well was not identified in the EDR Report. Refer to **Appendix E** for the regulatory database report.

A review of the Pennsylvania Topographic and Geological Survey's, Pennsylvania Groundwater Information System (PaGWIS) was also completed to locate potential water supplies within ½ mile of the subject property. Review of the PaGWIS database identified eight (8) wells. All eight (8) wells were installed for domestic withdrawal. Total depths ranged from 88 to 123 feet deep. Seven (7) of the wells were duplicates of wells identified in the EDR report, and one (1) well was plotted at a distance of greater than ½ miles from the subject property. Refer to **Appendix F** for a copy of the PaGWIS database listings.

Neither of the on-site supply wells were identified in the PaGWIS database or the EDR report. Based on the information obtained from preliminary receptor evaluation, it appears that regulatory databases are incomplete in the vicinity of the site.

6.1 Restore or Replacement of Affected Supplies

Replacement and restoration of water supplies was not deemed necessary and were not performed at this time. The convenience store building and the nearby house are not currently in use.

6.2 Potentially Affected Supplies

Due to a natural shallow groundwater divide created by Yellow Branch and Great Trough Creek, a petroleum release emanating from the site is unlikely to affect the PaGWIS identified wells located on the opposite side of Yellow Branch. It is unlikely that supply wells located on most neighboring properties could be affected by the release due to the direction of the groundwater gradient; however, there is one (1) downgradient property that could potentially be affected by future plume migration. The property contains a slab on grade storage shed and operates seasonally as a small tree nursery. A door to door survey is planned for this property to determine if a groundwater supply well exists or is in use. It is not known if the groundwater impacts have affected the aquifer from which the supply wells on the property draw water. However, because the supply wells located on the subject property have not been analyzed for the presence of petroleum COCs, it cannot be stated with certainty that the aforementioned wells have not been affected by the petroleum release on the subject property. Once accessible, analytical results from the on-site supply wells will be reported to the PADEP in a quarterly Remedial Action Progress Reports (RAPRs).

7.0 METHODS AND EQUIPMENT

In order to delineate the extent and magnitude of impacts at the site, Cook's Country Store retained the services of Mountain Research in 2015 to conduct a site characterization on the subject property. Site characterization activities were conducted from January 2015 through the present by Mountain Research. The following site characterization activities were conducted:

- Installation of eight (8) overburden monitoring wells.
- Collection and analysis of groundwater samples from monitoring wells.
- Measurement of groundwater elevations and deriving direction of groundwater gradients from these measurements.
- Advancement of 29 soil borings.
- Collection and analysis of soil samples from soil borings.
- Collection and geotechnical analysis of a soil sample.
- Surveying the site infrastructure and monitoring wells.
- Preliminary local water use assessment.
- Aquifer testing.
- Geophysical survey of the site.
- Development of conceptual site model and petroleum impact fate and transport analysis.
- Identification of potential preferential pathways for groundwater and / or vapor migration.
- VIB risk evaluation.
- Ecological Receptor Screening.
- Remedial Alternatives Analysis.

Refer to **Figure 2** and **Figure 5** (Soil Boring Location Map) for maps illustrating the soil boring and monitoring well locations. Field methods for drilling, soil logging description, well installation, soil screening, and groundwater sample collection are described in **Appendix G** (Field Methods).

7.1 Characterization Plans

The *Health and Safety Plan* for the site characterization and *Quality Assurance / Quality Control Plan* are available to the PADEP upon request.

7.2 Soil Borings

A total of 29 soil borings have been advanced by Mountain Research at the property in order to fully characterize the site. Soil was visually inspected and scanned with a photo-ionization detector (PID) using the headspace method. One (1) soil sample was collected from each soil boring where the highest PID reading is encountered. If a specified interval of petroleum impacted soils is identified, a second and third sample will be collected immediately above and below the impacted interval as deemed necessary to vertically delineate the overall thickness of petroleum impacted soils. If no elevated organic vapor levels are measured along the length of a boring and no staining and / or odors are evident, the sample shall be obtained from the depth interval immediately above the soil/groundwater interface or, if no groundwater is encountered, at the overburden/bedrock interface. The following subsections summarize soil boring advancement activities.

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7.2.1 Monitoring Well Soil Borings MW-1 through MW-4 and Soil Borings SB-1 through SB-12

On August 18, 2015, two (2) soil samples were collected from soil borings advanced in the locations of MW-1, MW-2, and MW-3. One (1) soil sample was collected from the soil boring at MW-4. Soil samples were collected from the interval located 1 to 12 feet below ground surface (bgs). Monitoring well borings were advanced to refusal using hollow stem auger drilling methods. Total depths ranged from 13.5 to 15 feet bgs. Soil encountered during drilling activities consisted of clay, silt, weathered rock, sandstone cobbles, gravel, and sluff fill. Monitoring wells were installed in locations surrounding the former dispenser area in order to delineate groundwater impact and will be further discussed in **Section 7.3**.

Twelve (12) soil borings, identified as SB-1 through SB-12, were advanced in the area of the former dispensers by Mountain Research between August 18 and August 19, 2015. Two (2) soil samples were collected from SB-1, SB-3 through SB-6, and SB-9 through SB-12. Three (3) soil samples were collected from SB-2, and one (1) soil sample was collected from SB-7 and SB-8. Soil borings were advanced using direct push drilling methods to bedrock refusal. Soil boring depths ranged from 4 to 14 feet bgs; shale or sandstone bedrock was encountered at depths ranging from 7.5 to 15 feet bgs. Soil encountered during drilling activities consisted of clay, weathered shale or sandstone, silt, sandstone cobbles, rock backfill, sluff fill, gravel, and sand with saturation noted at depths of 5 to 10 feet bgs in 6 of the borings. A total of 23 soil samples were collected from the 12 soil borings described above.

Refer to **Figure 5** for soil boring and monitoring well locations; geologic logs and well construction diagrams are included for reference in **Appendix H** (Geologic Logs).

7.2.2 Monitoring Well Soil Borings MW-5 through MW-8 and Soil Borings SB-13 through SB-22

Based on the analytical results from soil samples obtained from soil borings MW-1 through MW-4 and SB-1 through SB-12, (further discussed in **Section 9.2.1**), additional soil borings MW-5 through MW-8 and SB-13 through SB-22 were installed between October 13 and 15, 2015.

On October 13 and 15, 2015, one (1) soil sample was collected from soil borings advanced in the locations of MW-5, MW-6, MW-7, and MW-8. Soil samples were collected from the interval located 4 to 6 feet bgs. Monitoring well borings were advanced to refusal using hollow stem auger drilling methods. Total depths ranged from 12.5 to 14 feet bgs. Soil encountered during drilling activities consisted of clay, sand, gravel fill, and topsoil. Monitoring wells were installed in locations downgradient, upgradient, and sidegradient to the former dispenser area where MW-1 through MW-4 are located in order to delineate groundwater impact and will be further discussed in **Section 7.3**.

7.2.2 Monitoring Well Soil Borings MW-5 through MW-8 and Soil Borings SB-13 through SB-22 (Continued)

Nine (9) soil borings, identified as SB-13 through SB-20 and SB-22, were advanced on October 13 through 15, 2015 in the area surrounding the previously installed SB-1 through SB-12 to delineate the soil impacts found in the former dispenser area. One (1) soil sample was collected from SB-13 through SB-22. It should be noted that the soil boring installed at MW-8 was identified at SB-21. Soil borings were advanced using direct push drilling methods to bedrock refusal. Soil boring depths ranged from 8.5 to 15 feet bgs where shale or sandstone bedrock was encountered. Soil encountered during drilling activities consisted of clay, topsoil, sand, gravel, limestone fill, and boulders with saturation noted at depths of three (3) to 10 feet bgs in all nine (9) of the borings.

Refer to **Figure 5** for soil boring locations, soil boring lithologic logs are included for reference in **Appendix H.**

7.2.3 Geotechnical Soil Sampling

One (1) soil sample (MW-3) was collected from an undisturbed/non-impacted area of the property in October 2015 to evaluate the geotechnical properties of the overburden aquifer identified at the site. The soil samples were collected from the depth interval of 3 to 5 feet bgs. The samples were analyzed by Geotechnical Testing Services of Coraopolis, PA for porosity, effective porosity, and bulk density. A sieve analysis was also conducted and subsequently used to obtain a laboratory determined USCS classification of the sampled overburden soils. Geotechnical results were later utilized for quantitative fate and transport analysis discussed in subsequent sections of this report. Geotechnical soil sample location for MW-3 is illustrated on **Figure 2**. A copy of the geotechnical report is included as **Appendix I** (Geotechnical Laboratory Reports).

7.3 Monitoring Wells

Over the course of the project a total of eight (8) overburden monitoring wells have been installed on the property. The following subsections summarize monitoring well installation activities conducted at different stages of the project.

7.3.1 Monitoring Wells MW-1 through MW-4

On August 18, 2015, monitoring wells MW-1 through MW-4 were advanced in the vicinity of the removed former dispenser area. The two-inch diameter overburden monitoring wells were installed using hollow stem auger drilling methods to depths ranging between 12 and 13.5 feet bgs.

Refer to **Figure 2** for monitoring well locations; geologic logs and well construction diagrams are included for reference in **Appendix H**.

7.3.2 Monitoring Wells MW-5 through MW-8

Based on the analytical results from groundwater samples obtained from monitoring wells MW-1 through MW-4 (further discussed in **Section 9.2.1**), additional monitoring wells MW-5 through MW-8 were installed on October 13 and 15, 2015. In order to delineate the groundwater plume, MW-5 and MW-6 were positioned downgradient from the existing monitoring wells, MW-7 was positioned to the sidegradient, and MW-8 was positioned upgradient. The two-inch diameter monitoring wells were installed using hollow stem auger drilling methods to depths ranging between 11 and 12 feet bgs.

The locations of the monitoring wells are illustrated on **Figure 2**. **Table 3** (Well Construction Summary) summarizes the installation dates and monitoring well construction details. Well construction and geologic logs are contained in **Appendix H**.

7.4 Aquifer Testing

In order to assist in fate and transport analysis, a quantitative understanding of the hydraulic properties of the underlying aquifer was required. On December 10, 2015, falling head and rising head slug testing was performed on overburden monitoring wells MW-1, MW-3, MW-5, and MW-7 to determine specific aquifer characteristics of the groundwater within the overburden. Prior to testing, transducers were placed in each monitoring well to collect measurements throughout each slug test to identify changing water levels over time.

7.4.1 Aquifer Test Results

The data gathered from each slug test was programmed into AQTESOLV for Windows (Version 3.5), along with individual monitoring well information to determine aquifer characteristics by the Bouwer and Rice Method (Bouwer and Rice, 1976). Refer to **Appendix J** for the slug test methods description, copies of the slug test data, corresponding displacement data, and displacement versus time graphs. Hydraulic conductivity values for the rising head slug tests are summarized in **Table 4**.

The Bouwer and Rice Method calculations yielded a geometric mean hydraulic conductivity value of **1.977 ft / day** for the **unconfined overburden** aquifer in the vicinity of the Property. Using the values of hydraulic conductivity (K) and an average aquifer thickness (b) of 6.20 feet, the calculated average transmissivity (T = Kb) is **34.99 ft^2 / day**.

7.5 Site Survey

On August 27, 2015, the subject property was surveyed by Geotec, Inc. of Hollidaysburg, Pennsylvania (Geotec). Geotec's land survey included property boundaries, roadways, infrastructure, soil boring locations, and the location and elevation of monitoring wells; all of the aforementioned features were illustrated on a base map. Additional monitoring wells and soil borings were surveyed by Mountain Research personnel and tied into the existing base map.

7.6 Characterization and Disposal of Waste

Soil cutting generated during the advancement of soil borings and monitoring well installation activities was staged in 55-gallon steel drums on the subject property prior to being disposed of by J & F Holdings, Inc. on December 9, 2015. One (1) soil disposal sample was collected on August 20, 2015 to facilitate disposal of soil cuttings. Laboratory analytical data sheets are included for reference in **Appendix B**.

Because groundwater concentrations were not yet characterized, purge water produced during initial well development was drummed in (1) 55-gallon drum. This drum of purge water was disposed of by J & F Holdings, Inc. on December 9, 2015. Subsequent groundwater produced during the sampling of site monitoring wells was filtered through granular activated carbon and discharged onto the ground surface near the former dispensers.

A copy of the soil and water disposal manifest is included as **Appendix K**.

7.7 Geophysical Survey

Due to the need to install soil borings and monitoring wells at the subject property, in addition to the uncertain location of on-site underground utilities including the water supply lines and sewage system, a geophysical survey was conducted by THG Geophysics, Ltd. on August 17, 2015. The geophysical survey consisted of a time domain electromagnetic (EM) and ground penetrating radar (GPR) surveys to identify underground utilities and/or other anomalies which could be encountered during drilling of monitoring wells and advancement of soil borings. The findings of the survey include utility lines which were described in **Section 3.3.1** and the location of the former product line trenches that connected the UST system to the dispensers (shown on **Figure 2**).

8.0 SITE GEOLOGY

The site is situated within the Appalachian Mountain Section, Ridge and Valley Physiographic Province of Pennsylvania.

8.1 Local Soils

Based on information provided by the United States Department of Agriculture (USDA) Soil Conservation Service (SCS), native soils at the property consist of the Philo and Basher silt loams (Ph) and Philo Basher silt loams, high bottom (Po). Ph and Po soils consist of coarse-loamy alluvium derived from sandstone and siltstone. Typical of flood plains, Ph and Po soils are moderately well drained with moderately high to high permeability, and are classified as prime farmland. Refer to **Appendix L** for a copy of the soil survey map.

Based on Geotechnical results, the soil on the subject property is classified as silty clayey sand and sandy loam. Soil encountered during drilling activities consisted of mostly silty, sandy, or gravelly clay, with some sandy silt; gravelly, clayey, silty, or course sand; gravel or sandstone cobbles; and weathered bedrock. Saturation was noted between 3 and 10 feet bgs.

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8.2 Bedrock Geology

Based on published geologic data, underlying bedrock at the site is classified as the Mississippian Age Mauch Chunk Formation. The Mauch Chunk Formation consists of shale, claystone, sandstone, and siltstone with a maximum thickness of 3,000 feet. Bedding is moderately well bedded, thin, and flaggy with cross-bedding, ripple marks, and rain marks common. Joints are abundant, moderately well formed, and regularly spaced; however, spacing distance if dependent upon rock type. Most joints are open and vertical. Porosity is generally low to moderate in sandstone and siltstone. Joints provide secondary porosity in shale, sandstone, and siltstone. Permeability is also moderate to low. Bedrock outcropping was not identified in the general vicinity of the property, therefore strike and dip determinations were not able to be recorded during initial site reconnaissance activities. Groundwater supply is extensively developed in the Mauch Chunk due to good yield; iron is often high, but water quality is generally good. Refer to **Figure 6** for a copy of the geologic map which depicts the subject property.

Based on observations made during drilling activities, the bedrock is shale and sandstone encountered at depths ranging from 7.5 to 15 feet bgs.

Figure 7 (Cross Section Location Map), **Figure 8** (Cross Section A-A'), **Figure 9** (Cross Section B-B'), and **Figure 10** (Cross Section C-C') are included to illustrate subject property. Refer to **Appendix H** for geologic logs and **Appendix I** for the geotechnical laboratory reports.

8.3 Hydrogeology

The hydraulic gradient at the site has been observed to be generally to the east. Based on an assessment of the topographic features of the local vicinity, Yellow Branch Creek is located approximately 150 feet west of the site at the nearest. Yellow Branch Creek is a tributary to Great Trough Creek. Yellow Branch Creek flows northerly behind the property from southwest of the property to north of the property. It then flows to the east to southeast, connecting with Great Trough Creek approximately 800 feet to the southeast of the site. Great Trough Creek flows east from the Yellow Branch tributary for several hundred feet before turning north. Groundwater flow direction at the site appears to be to the east toward the Great Trough Creek. No storm sewer utilities were found at or near the property. Refer to **Figure 1** site location map for an identification of the nearby surface water bodies.

Depth to saturation at the site is at three (3) feet below ground surface (bgs) to 10 ft bgs. According to data obtained from groundwater sampling events conducted from August to December 2015, static water level measurements range from 1.08 feet below top of casing at MW-7 and 2.90 feet below top of casing at MW-4. Calculated from the groundwater monitoring events in November and December 2015, the average groundwater gradient between monitoring wells MW-1 and MW-5 is 0.011 feet / foot.

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8.3 Hydrogeology (Continued)

Static groundwater level measurements and groundwater elevations are summarized in **Table 5** (Groundwater Elevation Summary). Groundwater contour maps were constructed using the survey data and the static water levels measured during three (3) monitoring events between August and December 2015. Groundwater elevation contour maps are included as **Figures 11** through **13**.

9.0 ANALYTICAL RESULTS

Soil and groundwater samples were analyzed using U.S. Environmental Protection Agency (USEPA) approved methods for the regulated substances related to the release of unleaded gasoline.

9.1 Soil Borings

A total of 29 soil borings were advanced at the property. The following subsections summarize soil sample analytical results.

9.1.1 Soil Boring Analytical Results

A total of 43 soil samples were collected from soil borings MW-1 through MW-7 and SB-1 through SB-22 in August and October 2015. Soil samples were analyzed for 1,2,4-TMB, 1,3,5-TMB, benzene, toluene, ethylbenzene, total xylenes, MTBE, cumene, and naphthalene via EPA method 8260B. Analytical results identified the following constituents at concentrations above the PADEP RUA soil to groundwater MSCs for unsaturated soil: 1,2,4-TMB, 1,3,5-TMB benzene, toluene, ethylbenzene, total xylenes, and naphthalene. Soil impacts were identified between 1 and 7.5 feet bgs.

The following table summarizes the constituents identified in soil at concentrations above each constituent's respective PADEP RUA soil to groundwater MSC.

COCs Exceeding PADEP RUA MSC	Soil Borings Containing COC Exceedance of PADEP RUA MSC
1,2,4-TMB	MW-1, MW-2, MW-3, MW-4, SB-1, SB-2, SB-3, SB-4, SB-5, SB-6, SB-7, SB-8, SB-9, SB-10, SB-11, SB-12, SB-13, SB-14
1,3,5-TMB	MW-1, MW-2, MW-3, MW-4, SB-1, SB-2, SB-3, SB-4, SB-5, SB-6, SB-7, SB-8, SB-9, SB-10, SB-11, SB-12, SB-13, SB-14
Benzene	MW-1, MW-2, MW-3, SB-1, SB-2, SB-3, SB-4, SB-5, SB-6, SB-8, SB-11, SB-12, SB-14
Toluene	MW-1, MW-3, SB-1, SB-2, SB-3, SB-5, SB-6, SB-11, SB-12
Ethylbenzene	MW-1, MW-3, SB-1, SB-2, SB-3, SB-5, SB-6, SB-11, SB-12, SB-14
Total Xylenes	MW-3, SB-1, SB-2, SB-5, SB-6
Naphthalene	MW-2, MW-3, SB-1, SB-3, SB-5, SB-6, SB-11

9.1.1 Soil Boring Analytical Results (Continued)

Concentrations of remaining analyzed constituents were either below laboratory PQLs, or below PADEP RUA MSCs. It should be noted that the laboratory PQLs are above the PADEP RUA soil to groundwater MSCs for benzene for samples taken from SB-7, SB-9, SB-10 and for MTBE for samples taken from MW-1 to MW-3, SB-1 to SB-7, SB-9 to SB-12, and SB-14. Refer to **Appendix B** for soil sample laboratory analytical data reports, which is summarized in **Table 6**. The location of soil impacts are depicted on **Figure 14**. Refer to **Appendix M** for isoconcentration maps of COC concentrations above PADEP RUA soil to groundwater MSCs in soil.

9.2 Groundwater

9.2.1 Monitoring Well Analytical Results

Groundwater monitoring has been conducted three (3) times in 2015. Groundwater samples were collected from all monitoring wells in August, November, and December 2015. Groundwater samples were analyzed for 1,2,4-TMB, 1,3,5-TMB, benzene, toluene, ethylbenzene, total xylenes, MTBE, cumene, and naphthalene via EPA method 8260B. The following table summarizes the constituents identified in groundwater at concentrations above each constituent's respective PADEP RUA groundwater MSC.

COCs Exceeding PADEP RUA MSC	Wells Containing COC Exceedance of PADEP RUA MSC
1,2,4-TMB	MW-1, MW-2, MW-3, MW-4, MW-5, MW-7
1,3,5-TMB	MW-1, MW-2, MW-3, MW-4
Benzene	MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7
Toluene	MW-1, MW-3
Ethylbenzene	MW-1
Total Xylenes	MW-1
MTBE	MW-1, MW-3
Naphthalene	MW-1, MW-2, MW-3, MW-4

All other constituents / wells were below laboratory PQLs or detected at concentrations below PADEP RUA groundwater MSCs. Refer to **Appendix B** (Laboratory Analytical Data Reports) for laboratory analytical data reports for groundwater. Groundwater analytical results obtained to the present are summarized in **Table 7** (Groundwater Analytical Summary).

Based on the groundwater sampling events conducted in 2015, the highest concentrations of constituents identified above PADEP RUA groundwater MSCs have been detected in monitoring wells MW-1 and MW-3 which are situated near and downgradient from the former dispenser area and the greatest identified soil impacts (**Figure 14**). Refer to **Appendix N** for groundwater isoconcentration maps of COC concentrations above PADEP RUA groundwater MSCs.

10.0 VAPOR INTRUSION INTO BUILDINGS

The Land Recycling Program Technical Guidance Manual-Vapor Intrusion into Buildings (VIB) from Groundwater and Soil under the Act 2 Statewide Health Standard (January, 2004) provides additional attainment screening requirements to prevent the occurrence of unacceptable risks resulting from intrusion of vapors from soil and / or groundwater into buildings. The guidance identifies chemicals of potential indoor air concern (COPIACs) and determines if additional characterization or remedial actions are required to mitigate vapor impacts to sensitive receptors.

Certain compounds typically associated with a release of leaded gasoline, unleaded gasoline, and diesel are identified as COPIACs, and may represent a concern even at concentrations below RUA soil to groundwater pathway MSCs or RUA groundwater MSCs. The guidance provides for utilizing the Indoor Air Quality Decision Matrix for statewide health standard (SHS) flow charts to determine if additional evaluation is necessary.

Potential vapor exposure (inhalation) pathways relating to soil and groundwater impacts were evaluated. Results of the evaluation are presented in the following subsections.

10.1 Soil and Groundwater Analytical Screening for VIB

Based on the criteria outlined in the guidance document, when the following conditions exist, contamination is *not* considered to pose a VIB risk:

- Contamination is at concentrations less than PADEP PQL.
- Contamination at or below the media specific concentrations (MSC) is separated vertically by a minimum of five (5) feet of soil-like material; sand, gravel, and bedrock are *not* considered soil-like material.
- Contamination exceeding MSC is greater than 100 feet laterally from any building receptors.
- Any preferential pathways are greater than 30 feet laterally from contamination exceeding MSCs.

The VIB guidance document generally defines an exposure pathway as the course a regulated substance(s) takes from the source area(s) to a species of concern. Potential preferential pathways listed in the document include "shallow rock or vertically fractured soil, or manmade (e.g. buried utilities) features that create a sufficiently direct pathway from a source to a receptor". Pathways must pass through or within 30 feet of a source to constitute a preferred pathway.

10.2 Site Preferential Pathways

Overburden encountered on-site consists mainly of sand, silt, clay, gravel, and sandstone cobbles. The clay is considered to be a soil-like material according to the VIB guidance document and, hence, the clay-containing soils would not be a preferential pathway for soil vapor. However, areas of gravel fill used to backfill excavated areas on the property would be considered a preferential pathway for soil vapor migration.

10.2 Site Preferential Pathways (Continued)

Underground utilities consist of on-lot septic, on-site water, electric, and hot water heating lines. Site utilities such as the septic system piping are presumed to be located within 30 feet of soil and / or groundwater impacted with COCs at concentrations that are above PADEP RUA MSCs. Due to the close proximity of underground utilities to the soil and groundwater impacts, underground utilities are considered potential preferential pathways for vapor migration from unsaturated soil and overburden groundwater. Refer to **Figure 2** for approximate underground utility locations.

Based on site characterization data, 1,2,4-TMB, 1,3,5-TMB, benzene, toluene, ethylbenzene, total xylenes, and naphthalene are identified at concentrations above PADEP RUA soil to groundwater MSCs in soil, and 1,2,4-TMB, 1,3,5-TMB, benzene, toluene, ethylbenzene, total xylenes, MTBE, and naphthalene are currently above PADEP RUA MSCs for groundwater. The convenience store building, the nearby residence, and the storage trailer are all located within 100 lateral feet of soil and groundwater impacts above PADEP RUA MSCs. Based on the location of the soil and groundwater impacts with regard to the buildings at the site, each building is considered a potential receptor in regards to VIB.

No other buildings are found to be near the identified impacts causing VIB concerns.

10.3 Soil Vapor Inhalation

The inhalation of soil vapors potentially generated from existing adsorbed phase soil concentrations and dissolved phase groundwater at the site was evaluated. Due to the exceedances of the PADEP RUA MSCs in soil and groundwater within 100 feet of building receptors and 30 feet of utilities, the soil and groundwater impacts pose VIB risk that requires further evaluation. Vapor monitoring points will be installed at the site to determine if the concentrations of COCs in the soil vapor exceed PADEP Residential Soil Vapor MSCs.

10.4 Vapor Monitoring Point Installation

To assess the potential for vapor intrusion emanating from petroleum impacts partitioning from site soil and site groundwater, five (5) vapor monitoring points will be installed by Mountain Research pursuant to the requirements, guidance, and decision matrices in the *Land Recycling Program Technical Guidance Manual - Section IV.A.4, Vapor Intrusion into Buildings from Soil and Groundwater.* To determine impacts to the two (2) buildings (convenience store and nearby house), vapor monitoring points will be installed as close as possible to the buildings. Two (2) vapor monitoring points will be installed in front of the convenience store building near the eastern wall, and two (2) vapor monitoring points will be installed to near the northern wall of the building. A vapor monitoring point will be installed near the corner of the house closest to the soil impacts.

Refer to **Figure 15** for the locations of the proposed soil vapor monitoring points.

Direct push will be used to advance 1.5-inch diameter hollow tubes with an expendable point to the specified sampling depth (6 feet below grade). The drill string will be then lifted approximately 6-inches and the expendable point released. A thin layer (approximately two-inches) of sand will be then placed at the bottom of the borehole.

10.4 Vapor Monitoring Point Installation (Continued)

A 6-inch long by 0.5-inch diameter, cylindrical, stainless steel sampling screen (Geoprobe® Model AT86) will be attached to medium-density polyethylene (MDPE) tubing and placed at the specified sampling depth. Sand will be placed around the implant and to 6-inches above the implant. Granular bentonite pellets will be used to complete the backfill of the borehole to within one (1) foot of the ground surface. The bentonite will be incrementally hydrated throughout the process to provide an adequate seal and the remaining borehole was filled with concrete to grade to complete the seal. The hollow drilling tube will be lifted from the borehole throughout the implant installation process to ensure that no / minimal borehole cave-in occurred. The borehole will be ultimately capped with a steel 5-inch diameter manway to provide access to the tubing.

Two (2) complete rounds of soil vapor sampling will be performed by Mountain Research personnel. Because the soil vapor points are anticipated to be shallow, prior to each round of soil gas sampling, a leak test will be completed at each point to determine whether short-circuiting to outdoor air is occurring. During purging of the soil vapor point, a Mylar tent will be set-up around the point; the Mylar tent will be filled with inert helium. A helium detector will be used to monitor the air sampling/purging pump effluent stream for the presence of helium. Meter readings will be recorded within the field notes. If helium is detected, measures will be taken to identify and correct the leak prior to retesting.

Each soil vapor monitoring point will be purged in advance of sampling. Following the vapor purge, laboratory certified 6-liter Summa canisters will be fitted with properly calibrated regulators to allow for an approximate two (2) hour draw, representing a flow rate of 100 mL/minute. This flow rate will be used to limit the potential for surface short circuiting. Each sample will be terminated while the Summa canister is still under vacuum conditions. Additional information that will be documented for each sample included: purge volume, ambient air temperature, sample start and end time, canister identification, and restrictor identification.

The Summa canisters will be labeled for transport to a National Environmental Laboratory Accreditation Conference (NELAC) accredited laboratory while maintaining proper chain of custody protocol. Soil vapor samples will be analyzed for the following parameters: 1,2,4-TMB, 1,3,5-TMB, benzene, toluene, ethylbenzene, total xylenes, MTBE, cumene, naphthalene via EPA method TO-15.

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10.5 Soil Vapor Sample Analytical Results

Laboratory analytical data sheets for soil vapor samples and a summary of the results will be included in future RAPRs. Detectable concentrations will initially compared to the PADEP Residential MSC for soil vapor, derived by dividing the corresponding indoor air MSC by a transfer factor of 0.01:

$$\text{PADEP Soil Vapor MSC} = \frac{\text{PADEP Indoor Air MSC}}{0.01}$$

11.0 SITE CONCEPTUAL MODEL

The analytical results from soil and groundwater samples collected during site characterization activities indicate that petroleum hydrocarbon constituents typically associated with a release of unleaded gasoline are present at concentrations exceeding the current PADEP RUA MSCs. The nature and extent of the unleaded gasoline release and potential migration pathways were evaluated through the comparison of current soil and groundwater analytical data in relation to the geologic and hydrogeologic settings of the facility. The conceptual site model (CSM) developed from the evaluation is discussed in the following sections.

11.1 Aquifer System

Overburden soil extends to depths ranging between 7.5 and 15 feet bgs where shale or sandstone bedrock is encountered. Overburden material consists of a sand, silt, clay, gravel, and sandstone cobbles. Initial saturation was observed between 3 and 10 feet bgs during the advancement of soil borings. According to data obtained from groundwater sampling events conducted from August to December 2015, static water level measurements range from 1.08 feet below top of casing at MW-7 and 2.90 feet below top of casing at MW-4.

Groundwater on the subject property flows in a northeasterly direction toward Yellow Branch Creek at an average gradient of 0.011 feet / foot. Refer to **Figures 7** through **10** for a Cross Section Location Map, and Cross Sections A-A', B-B', C-C'. **Figures 11** through **13** illustrate groundwater flow contours for the previous three (3) rounds of monitoring.

11.2 Source Area and Contaminants of Concern

The source area consists of impacted soil in the vicinity of the former dispensers for the UST system removed from the property in November 2014. One (1) 4,000-gallon unleaded gasoline tank (Tank 004), one (1) 3,000-gallon unleaded gasoline tank (Tank 005) and one (1) 2,000-gallon unleaded gasoline tank (Tank 006) and the associated product lines and dispensers, installed on the property in May 1997, were removed from the property. The source of release is believed to be caused from faulty gasoline dispensing equipment and/or piping/connections immediately beneath the dispensing equipment.

11.2 Source Area and Contaminants of Concern (Continued)

Soils uncovered beneath the dispenser island were noted to be heavily impacted. Unleaded gasoline-impacted soil beneath the dispensers was excavated three (3) feet in all directions for exploratory purposes, and impact was still evident. During UST closure, soil samples were collected from the tank field (two sidewalls), product piping (one), and dispenser island (two). Both dispenser island soil samples exceeded the PADEP RUA soil to groundwater MSCs for 1,3,5-TMB, 1,2,4-TMB, benzene, and ethylbenzene, and one (1) of the dispenser island samples exceeded the PADEP RUA soil to groundwater MSC for toluene.

Analytical results from a soil boring investigation indicate that 1,2,4-TMB, 1,3,5-TMB, benzene, toluene, ethylbenzene, total xylenes, and naphthalene have been detected at concentrations exceeding PADEP RUA soil to groundwater MSCs and are the COCs for soil. MTBE was not detected, but the laboratory PQLs were greater than the PADEP RUA soil to groundwater MSCs, so MTBE remains a COC for soil. Analytical results from recent groundwater samples indicate that 1,2,4-TMB, 1,3,5-TMB, benzene, toluene, ethylbenzene, total xylenes, MTBE, and naphthalene have been identified in groundwater at concentrations exceeding PADEP RUA groundwater MSCs and are the COCs for groundwater. An additional COC, cumene, was detected in soil and groundwater above the laboratory PQLs but below the PADEP RUA MSCs.

11.3 Groundwater Flow and Constituent of Concern Migration

COC migration in the overburden aquifer occurs via diffusion and advective transport. Diffusion is a process where dissolved phase contaminants move from areas of higher concentration to areas of lower concentration. The diffusion of constituents in groundwater at the subject property is evidenced by the detections of constituents in monitoring well MW-7 located laterally to the source area.

Advective transport is a process where dissolved phase contaminants are carried through an aquifer at a velocity proportional to groundwater flow in the same direction as the groundwater gradient. Advective transport of dissolved phase constituents as the subject property is evidenced by the detection of COCs in monitoring well MW-6 located downgradient of the source area. Refer to **Appendix N** for groundwater isoconcentration maps illustrating the extent of dissolved phase constituent concentrations in excess of the PADEP RUA groundwater MSC during the previous three (3) groundwater sampling events.

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12.0 PETROLEUM IMPACTED GROUNDWATER FATE AND TRANSPORT MODELING

A quantitative fate and transport model was produced for the transport of dissolved phase COCs within the overburden aquifer.

12.1 Computer Model and Description

The model chosen for the quantification of 1,2,4-TMB, 1,3,5-TMB, benzene, toluene, ethylbenzene, total xylenes, MTBE, and naphthalene was the New Quick Domenico (QD) model, a Microsoft Excel spreadsheet application of *An Analytical Model For Multidimensional Transport of a Decaying Contaminant Species*, by P.A. Domenico, Journal of Hydrology, 91 (1987), pp 49-58. The *PADEP User's Manual for the Quick Domenico Groundwater Fate and Transport Manual, February 2014* was followed for setup of the models.

The QD model calculates concentrations of organic substances at any point and time down-gradient of a source area of known size and concentration. The model allows for first order decay, retardation and three-dimensional dispersion. This model is intended for dissolved organic constituents whose fate and transport can be described or influenced by first order decay and reaction with organic carbon in the soil. Site-specific data and published chemical properties of site COCs were used to construct and calibrate the empirical predictive simulation.

12.2 Input Parameters and Calibration / Sensitivity and Analysis

The QD spreadsheet allows for the use of a single source concentration which is applied across the entire width and thickness of the source area perpendicular to groundwater flow. The spreadsheet assumes that the source area concentration is continuous, therefore QD is inherently conservative.

Since the November 2014 UST system closure, monitoring well MW-1 has exhibited the highest concentrations of 1,2,4-TMB, 1,3,5-TMB, benzene, toluene, ethylbenzene, total xylenes, MTBE, and naphthalene, therefore, to produce a worst case scenario, MW-1 was used as the source well in the models. Because not all monitoring wells that currently exist at the site were present when the highest COC concentrations were observed, two (2) different flow paths were utilized (MW-1 to MW-5 and MW-1 to MW-3).

Refer to **Appendix O** for an illustration of the plume centerline, the shape of the dissolved phase 1,2,4-TMB, 1,3,5-TMB, benzene, toluene, ethylbenzene, total xylenes, MTBE, and naphthalene plumes (planiform), and the calibration points used in each model.

The calibration wells used in each model include the following:

Source Well	Calibration Well
MW-1	MW-5
MW-1	MW-3

12.2 Input Parameters and Calibration / Sensitivity and Analysis (Continued)

The source concentration value and calibration well concentration values used in each calibrated model follows;

Constituent	Date	MW-1	MW-5
1,2,4-TMB	12/9/2015	2,350 µg/L	9.04 µg/L
1,3,5-TMB	12/9/2015	705 µg/L	2.26 µg/L
Benzene	12/9/2015	5,590 µg/L	13.2 µg/L
Toluene	12/9/2015	18,600 µg/L	1 µg/L
Ethylbenzene	12/9/2015	1,980 µg/L	1 µg/L
Total Xylenes	12/9/2015	10,400 µg/L	5 µg/L

Constituent	Date	MW-1	MW-3
MTBE	8/27/2015	57.2 µg/L	30.5 µg/L
Naphthalene	11/19/2015	495 µg/L	119 µg/L

When using the QD spreadsheet, site-specific and PADEP default baseline parameters were utilized as a first step in model set up. A calibration model parameter range evaluation was established to explore the range of model simulation outputs for sensitive parameters. Three (3) sensitive parameters (hydraulic conductivity, longitudinal dispersivity, and degradation coefficient) were evaluated through nine (9) models having changes of 10x and 1/10x values of the baseline parameters for hydraulic conductivity and longitudinal dispersivity.

Each model was calibrated using changes in degradation coefficient. The models that were able to be calibrated were then used to determine the furthest distance of the petroleum plume migration to a SHS value. This information was then used to determine which model represented the most conservative projection.

Presented in **Appendix O** is an evaluation table of each modeled parameter and a second table explaining all input parameters (initial and final) and a sensitivity evaluation.

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12.3 Fate and Transport Summary and Conclusions

The fate and transport of 1,2,4-TMB, 1,3,5-TMB, benzene, toluene, ethylbenzene, total xylenes, MTBE, and naphthalene in the overburden aquifer was modeled through use of the New QD groundwater modeling program. Simulations were calibrated to existing conditions for the aforementioned COCs within monitoring wells MW-1, MW-3, and MW-5 in the overburden aquifer. Once input parameters were calibrated, a 30-year predictive simulation was completed for each modeled COC. The results from each predictive simulation are included as **Appendix O** and are summarized below:

1,2,4-TMB
The results of the 30 year worst case predictive simulation indicates that 1,2,4-TMB would migrate beyond MW-1 to the east toward MW-5 67 feet before attenuating to the PADEP RUA MSC (15 µg/L).

1,3,5-TMB
The results of the 30 year worst case predictive simulation indicates that 1,3,5-TMB would migrate beyond MW-1 to the east toward MW-5 60 feet before attenuating to the PADEP RUA MSC (13 µg/L).

Benzene
The results of the 30 year worst case predictive simulation indicates that benzene would migrate 12 feet beyond MW-5 to the east from MW-1 before attenuating to the PADEP RUA MSC (5 µg/L).

Toluene
The results of the 30 year worst case predictive simulation indicates that toluene would migrate beyond MW-1 to the east toward MW-5 22.5 feet before attenuating to the PADEP RUA MSC (1,000 µg/L).

Ethylbenzene
The results of the 30 year worst case predictive simulation indicates that ethylbenzene would migrate beyond MW-1 to the east toward MW-5 10.5 feet before attenuating to the PADEP RUA MSC (700 µg/L).

Total Xylenes
The results of the 30 year worst case predictive simulation indicates that total xylenes would migrate beyond MW-1 to the east toward MW-5 0.5 feet before attenuating to the PADEP RUA MSC (10,000 µg/L).

MTBE
The results of the 30 year worst case predictive simulation indicates that MTBE would migrate 21 feet beyond MW-3 to the southeast from MW-1 before attenuating to the PADEP RUA MSC (20 µg/L).

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12.3 Fate and Transport Summary and Conclusions (Continued)

Naphthalene

The results of the 30 year worst case predictive simulation indicates that naphthalene would migrate 3 feet beyond MW-3 to the southeast from MW-1 before attenuating to the PADEP RUA MSC (700 µg/L).

Refer to **Appendix O** for the QD model results and an illustration of the predicted migration distances for each constituent.

12.4 Qualitative Fate and Transport Discussion

Constituents 1,2,4-TMB, 1,3,5-TMB, benzene, toluene, ethylbenzene, total xylenes, MTBE, and naphthalene have been identified in the overburden aquifer at concentrations exceeding the PADEP RUA groundwater MSCs. The fate and transport of these compounds are controlled by their specific chemical characteristic and by the characteristics of the aquifer.

As described in **Section 11.3**, the transport of dissolved phase overburden groundwater impacts is predominately controlled by diffusion and advective transport along groundwater flow direction and gradient. Constituents 1,2,4-TMB and benzene appear to migrate in an east to northeast direction with groundwater flow; however, 1,3,5-TMB, toluene, ethylbenzene, total xylenes, MTBE, and naphthalene above the PADEP RUA groundwater MSCs have remained within the source area (**Figure 14**) and have not yet migrated toward the downgradient wells MW-5, MW-6, and/or MW-7. Constituents 1,3,5-TMB, ethylbenzene, and cumene have been detected below PADEP RUA groundwater MSCs at MW-5 and MW-7, as well as naphthalene in MW-7. Only benzene has been detected in the farthest downgradient well MW-6. Refer to **Appendix N** for groundwater isoconcentration maps.

Dissolved phase COCs will likely continue to migrate in an east to northeast direction along with the gradient. The migration of COCs may be inhibited due to adsorption to clay-rich soils and other retardation factors such as natural attenuation; however, several additional observations should be noted:

- Dissolved phase concentrations within the source area (MW-1) have generally increased since commencement of groundwater sampling. Because of increasing concentrations, a continuous concentration source cannot be assumed for quantitative fate and transport analysis discussed in **Section 12.1** through **12.3**.
- An initial qualitative review of plume stability based on source and periphery wells indicates highly fluctuating concentrations, which could be indicative plume instability. The fluctuations could also be attributed to smear zone flushing during the rise and fall of groundwater elevations in the very shallow overburden aquifer.
- Low-level benzene has been identified in the farthest downgradient monitoring well MW-6. If benzene concentrations in MW-6 continue to increase, it is possible that benzene may migrate beneath Old Plank Road and impact overburden groundwater beneath an off-site property.

12.4 Qualitative Fate and Transport Discussion (Continued)

The property line at the time of release is considered the point of compliance (POC). The current monitoring well network is contained with the property boundaries. Mountain Research believes that additional dissolved phase horizontal delineation is required. The following monitoring wells are recommended:

- One (1) additional on-site monitoring well should be installed northwest of MW-1 to further delineate the source area to the northwest.
- One (1) additional on-site upgradient monitoring well should be installed to the south of MW-2 and MW-3, along Cooks Road, to further delineate the size of the plume dimensions to the south.
- One (1) additional on-site monitoring well should be installed north of MW-7 to further delineate the groundwater plume to the north.
- One (1) additional on-site monitoring well should be installed between the source area (MW-1) and the residential supply well.
- If benzene concentrations in MW-6 continue to increase, one (1) off-site downgradient monitoring well should be installed for downgradient delineation.
- One (1) shallow bedrock monitoring well should be installed in the source area to confirm vertical delineation of the overburden aquifer.

13.0 ECOLOGICAL RECEPTOR EVALUATION

Guidance under Title 25 §250.311 (Evaluation of Ecological Receptors) was followed for purposes of assessing potential impacts to ecological receptor(s) as a result of petroleum impacted soil and groundwater at the property. Direct impacts to the following receptors are considered when following the screening process provided within the guidance:

1. Individuals of threatened or endangered species as designated by the United States Fish and Wildlife Service under the Endangered Species Act (16 U.S.C.A. §§ 1531-1544).
2. Exceptional value wetlands as defined in § 105.17 (relating to wetlands).
3. Habitats of concern.
4. Species of concern.

13.1 Receptor Identification

The following subsections describe methods used to identify potential receptors as part of the ecological receptor evaluation for the property. It should be noted that the entire site or area of concern based upon site characterization was considered in this assessment.

PNDI Search and Results

The Pennsylvania Natural Diversity Inventory Environmental Review Tool (PNDI ER Tool) was used to identify threatened, endangered or special concern species or special concern resources at the site. In terms of this assessment, the PNDI ER Tool was used to identify potential ecological receptors specified under item 1, 2 and 3 as listed above.

13.1 Receptor Identification (Continued)

PNDI Search and Results (Continued)

A copy of the PNDI search results is included for reference as **Appendix P** (PNDI Environmental Review Receipt). Results of the search identified no known impact to an endangered or threatened species. Because Mountain Research uses the PNDI database only as a tool to identify whether or not threatened, endangered, or special concern species have been identified in the area of concern, further investigation into the specific species of concern was not performed.

13.2 Exceptional Value Wetlands

The receptor assessment performed to identify exceptional value wetlands follows judgment outlined within Title 25 § 105.17 which define exceptional value wetlands as wetlands that exhibit one (1) or more of the following characteristics;

i. Wetlands which serve as habitat for fauna or flora listed as "threatened" or "endangered" under the Endangered Species Act of 1973 (7 U.S.C.A. § 136; 16 U.S.C.A. § § 4601-9, 460k-1, 668dd, 715i, 715a, 1362, 1371, 1372, 1402 and 1531—1543), the Wild Resource Conservation Act (32 P. S. § § 5301—5314), 30 Pa.C.S. (relating to the Fish and Boat Code) or 34 Pa.C.S. (relating to the Game and Wildlife Code).

ii. Wetlands that are hydrogeologically connected to or located within 1/2-mile of wetlands identified under subparagraph (i) and that maintain the habitat of the threatened or endangered species within the wetland identified under subparagraph (i).

iii. Wetlands that are located in or along the floodplain of the reach of a wild trout stream or waters listed as exceptional value under Chapter 93 (relating to water quality standards) and the floodplain of streams tributary thereto, or wetlands within the corridor of a watercourse or body of water that has been designated as a National wild or scenic river in accordance with the Wild and Scenic Rivers Act of 1968 (16 U.S.C.A. § § 1271—1287) or designated as wild or scenic under the Pennsylvania Scenic Rivers Act (32 P. S. § § 820.21—820.29).

iv. Wetlands located along an existing public or private drinking water supply, including both surface water and groundwater sources, that maintain the quality or quantity of the drinking water supply.

13.2 Exceptional Value Wetlands (Continued)

v. Wetlands located in areas designated by the Department as "natural" or "wild" areas within State forest or park lands, wetlands located in areas designated as Federal wilderness areas under the Wilderness Act (16 U.S.C.A. § § 1131—1136) or the Federal Eastern Wilderness Act of 1975 (16 U.S.C.A. § 1132) or wetlands located in areas designated as National natural landmarks by the Secretary of the Interior under the Historic Sites Act of 1935 (16 U.S.C.A. § § 461—467).

Characteristics of the property were considered against those characteristics which define exceptional value wetlands, as referenced above. Results of this assessment are discussed below, addressing each characteristic above in respective order.

- Characteristics (i) and (ii): Results of the PNDI search indicate that the site region is not known to support an endangered or threatened species.

Characteristic (iii): The closest surface water body to the property is Yellow Branch Creek, located approximately 150 feet west of the property, which joins Great Trough Creek nearby.

- The Pennsylvania Fish and Boat Commission Class A Wild Trout Waters list (created December 16, 2013) was referenced to identify surface waters that support a population of natural trout. Yellow Branch Creek and Great Trough Creek are not listed as a Class A Wild Trout Waters.

- Title 25 Chapter 93 was referenced to identify surface waters of exceptional value. Yellow Branch Creek and Great Trough Creek are not listed as exceptional value surface waters.

- Yellow Branch Creek and Great Trough Creek are not listed as a National wild or scenic river under the National Wild and Scenic Rivers System database for Pennsylvania[1].

- Yellow Branch Creek and Great Trough Creek are not classified as wild or scenic under the Pennsylvania Scenic Rivers Act[2].

Characteristic (iv): Potable supply wells of unknown depths are located on the subject property; however, there is no evidence that the well is dependent on any potential nearby wetland to maintain its water quality.

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[1] Source: National Wild and Scenic Rivers System website; http://www.rivers.gov/map.php.
[2] Source: Pennsylvania Department of Conservation and Natural Resources website; http://www.dcnr.state.pa.us/brc/conservation/rivers/scenicrivers/index.htm.

13.2 Exceptional Value Wetlands (Continued)

Characteristic (v):

- The property does not lie within State Forest or park lands.
- The property does not lie within an area designated as a Federal Wilderness Area under the Wilderness Act or the Federal Eastern Wilderness Act.
- The property does not lie within an area designated as a National Natural Landmark by the Secretary of the Interior under the Historic Sites Act of 1935.

Based upon the results above, it is unlikely an exceptional quality wetland would be defined at the property.

In summary, it is unlikely that an exceptional value wetland would be defined within the property based upon property characteristics and following classifications listed within the regulatory definition of an exceptional value wetland. Therefore, the probability of impact to an exceptional value wetland is considered negligible.

13.3 Ecological Screening Guidance

The guidance states the following must be considered to address potential impact(s) to ecological receptors. If any of the following criteria are met, no additional evaluation into ecological receptor impact(s) is required;

- Jet fuel, gasoline, kerosene, #2 fuel oil or diesel fuel are the only constituents detected onsite.
- The area of contaminated soil is less than two (2) acres and the area of contaminated sediment is less than 1,000 square feet.
- The site has features such as buildings, parking lots consisting of gavel or pavement areas, which would obviously eliminate the specific exposure pathways, such as soil exposure.

The site meets the criteria contained the ecological screening guidance

The screening criteria has been met because the only constituents detected on-site are due to a release of unleaded gasoline; additional evaluation into ecological receptor impact(s) is not required.

14.0 CHARACTERIZATION OBJECTIVES

The following site characterization objectives were developed for site characterization:

- Identify the extent of impacted groundwater and soils
- Describe study area geology, hydrogeology, aquifer characteristics, and physical parameters such that a remediation standard and strategy for the site can be selected
- Begin the development of a site conceptual model from which the fate and transport of contaminants can be evaluated by modeling or analysis
- Investigate groundwater supplies on the subject property and surrounding properties
- Evaluate VIB potential
- Evaluate the potential for ecological receptor exposure pathways

14.1 Characterization Conclusions

Based on site characterization activities, the following conclusions have been made:

- On August 18, 2015, monitoring wells MW-1 through MW-4 were installed in the vicinity of the former dispenser area. To further delineate impacted groundwater at the property, monitoring wells MW-5 through MW-8 were installed on October 13 and 15, 2015.

- Groundwater monitoring events were conducted on August 27, November 11, and December 9, 2015.

- Current overburden groundwater monitoring well analytical results indicate petroleum constituent concentrations detected above the PADEP RUA groundwater MSCs include 1,2,4-TMB, 1,3,5-TMB, benzene, toluene, ethylbenzene, total xylenes, MTBE, and naphthalene.

- The identified dissolved phase benzene plume above the PADEP RUA groundwater MSC is located in the centered vicinity of monitoring wells MW-1 and MW-3. The 1,2,4-TMB and benzene plumes have extended to the east across Cook's Road and to the north to the yard in front of the on-site residential house.

- A total of 29 soil borings have been advanced by Mountain Research at the property in order to fully characterize the site. A total of 43 soil samples were collected from soil borings MW-1 through MW-7 and SB-1 through SB-22 in August and October 2015.

- Based on analytical results from the soil boring investigation, the soil surrounding the former dispenser area is impacted with constituents at concentrations above the PADEP RUA soil to groundwater MSC, including 1,2,4-TMB, 1,3,5-TMB, benzene, toluene, ethylbenzene, total xylenes, and naphthalene. MTBE was not detected in any soil boring, but the laboratory PQL was greater than the PADEP RUA soil to groundwater MSC for several of the borings. Soil borings across Cook's Road and in front of the on-site residential house were not impacted with constituents at concentrations above the PADEP RUA soil to groundwater MSCs.

14.1 Characterization Conclusions (Continued)

- The convenience store building and on-site residential house were determined to be receptors at risk of VIB from impacted soil and groundwater. Five (5) soil vapor monitoring points close to the two (2) buildings are proposed to evaluate the VIB risk.

- Ecological receptor screening was performed; no ecological receptors were identified.

- Initial quantitative fate and transport modeling was completed for an initial assessment of migrations. Qualitatively, the plume appears unstable and source area groundwater concentrations are increasing. Downgradient benzene concentrations identified in MW-6 may continue to migrate downgradient without remedial action.

- Based on the current understanding of the site and the site owner's plan for the property, an active remediation based strategy is proposed subsequent to partial soil source removal. TPE is the preferred active remedial strategy, pending results of a feasibility study. The goal of the remediation would be to remove all accessible source material and to remediate groundwater COC concentrations via remediation system. After the applicable feasibility testing is completed, a SSCR-RAP will be submitted to the PADEP.

14.2 Description of Further Site Characterization Needed

The following activities are recommended to fully characterize the site develop a better understanding of site conditions:

- Installation of one (1) additional on-site monitoring well northwest of MW-1 to further delineate the source area to the northwest.
- Installation of one (1) additional on-site upgradient monitoring well to the south of MW-2 and MW-3, along Cooks Road, to further delineate the size of the plume dimensions to the south.
- Installation of one (1) additional on-site monitoring well north of MW-7 to further delineate the groundwater plume to the north.
- Installation of one (1) additional on-site monitoring well between the source area (MW-1) and the residential supply well.
- If benzene concentrations in MW-6 continue to increase, installation of one (1) off-site downgradient monitoring well for far downgradient delineation.
- Installation of one (1) shallow bedrock monitoring well in the source area to confirm vertical delineation of the overburden aquifer.
- Installation of nine (9) additional on-site and off-site soil borings for additional delineation along Cooks Road and to fill data gaps within the currently delineated area of soil impact.
- Installation of five (5) soil vapor monitoring points and two (2) rounds of subsequent soil gas sampling. Future sub-slab, crawl space, and/or indoor air sampling may be warranted once the on-site structures become operational.

14.2 Description of Further Site Characterization Needed (Continued)

- An investigation of both on-site supply wells is warranted. The investigation will include location and excavation of the supply wellhead that feeds that on-site residential home. Once unearthed, both on-site supply wells must be video-logged to determine total depths and screened intervals (or open rock interval).
- Once the two (2) on-site supply wells are accessed, they will be added to the quarterly groundwater monitoring schedule.
- Completion of a door to door survey at the downgradient property that operates seasonally as a small tree nursery. This survey will be performed to determine if a groundwater supply well exists or is in use on this property, if so, what are the well construction details and attempt to gain access to collect samples from the potential well.

Soil vapor monitoring points will be installed as described in **Section 10.4** to evaluate VIB concerns. Refer to **Figure 15** for the locations of the proposed soil borings, groundwater monitoring wells, and soil vapor monitoring points. Any additional characterization activities will be documented in subsequent Remedial Action Plan (RAP) or RAPRs.

15.0 SELECTION OF A REMEDIAL STANDARD

The remediation standard goal for the property is the SHS for soil and groundwater. The SHS will be sought due to the primary future use of the property as residential with no other source of potable water other than on-lot supply wells. The house is currently not inhabited, but the owner plans on occupying the house in the future.

16.0 REMEDIAL ACTION OPTION EVALUATION

The following remedial technologies or approaches were considered for this site:

- No Remediation
- *Groundwater extraction*
- *Enhanced bioremediation*
- *Vacuum Enhanced Groundwater Extraction / Dual Phase Extraction (DPE)*
- *Air sparging/SVE*
- *Soil Excavation*
- *Monitored Natural Attenuation*
- *Risk Based closure having limited active remediation*

Although each of the technologies could be applied to the site, several technologies were considered inappropriate. The following is an evaluation of each technique.

No Remediation

No active remediation is not considered a viable remedial approach. Concentrations of constituents in soil and groundwater are well above PADEP RUA MSCs, and the SHS closure is sought due to the future residential use of the property and the presence of two (2) on-lot groundwater supply wells.

16.0 REMEDIAL ACTION OPTION EVALUATION (Continued)

Groundwater Extraction

Groundwater extraction and treatment involves the removal of impacted groundwater through mechanical pumping to a surface treatment system. The impacted water is treated to remove site COCs and either discharged under permit to surface, sanitary sewer system, or injected into the ground.

Although initial capital costs are low, the time to reach remedial goals could be extensive or not attainable because of the diminishing COC removal capability of groundwater extraction over time. Due to the high concentrations of COCs in soil, including areas of impacted soil that may not be accessible to soil excavation under the roadways and under the convenience store building, the soil would remain a source of impacts to the groundwater. Continued long term operation and maintenance costs would become significant over the duration of the project, and could match or exceed the cost of other technologies or methods. Based on budget considerations, groundwater extraction is not a viable remedial option on its own.

Enhanced Bioremediation

In-situ bioremediation requires the extraction of groundwater and injection of augmented water into an aquifer.

Enhanced bioremediation essentially builds upon extraction and treatment by reinjecting the extracted / treated water after adding nutrients, bacteria and dissolved oxygen. This process enhances the remediation by promoting in-situ bacteria degradation of COCs both in dissolved and sorbed phases. The objective is to significantly shorten the operation and maintenance period of an extraction and treatment only system. The added cost of the bioenhancement can be offset by shorter operation time of the system, and can result in overall remedial savings.

Due to the high concentrations of COCs in soil, including areas of impacted soil that may not be accessible to soil excavation under the roadways and under the convenience store building, enhanced bioremediation might not be an effective remedial option because the soil could remain a source of impacts to the groundwater. Based on budget considerations, groundwater extraction with enhanced bioremediation is not a viable remedial option on its own.

Soil Vapor Extraction (SVE)

SVE is a technology that extracts VOCs from unsaturated soil in vapor phase. SVE can be used to remediate sorbed phase soil impacts and mitigate soil gas. The technology involves placing negative pressure (vacuum) through a system of vertical extraction wells screened within the vadoze zone. The vacuum placed on the subsurface soils creates an environment where the adsorbed soil impacts are partitioned into vapor phase and removed with the vacuum stream along with soil gas stored in the pore spaces of the soils. Vacuum is placed on the extraction wells through above ground vacuum pumps, whose effluent air stream is treated for VOC with activated carbon prior to discharge to atmosphere.

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16.0 REMEDIAL ACTION OPTION EVALUATION (Continued)

Soil Vapor Extraction (SVE) (Continued)

SVE is not appropriate in soils that are saturated within 3 feet of the surface or having thickness less than 10 feet above saturated soils. In addition, SVE is not appropriate to mitigate soil impacts less than 3 feet below surface. The vacuum placed upon the extraction well has the potential to cause upwelling of the groundwater surface, therefore consideration of this mounding affect is required while designing the extraction well. Wells installed too close to the surface or too close to preferential pathways may short circuit and loose vacuum, thus limiting ability to extract VOCs.

Due to the water table being less than 3 feet bgs and saturated soils encountered between 3 and 10 feet bgs, SVE is not a viable option on its own.

Total Phase Extraction (TPE)

TPE is a process that includes extracting both groundwater and soil vapor continuously from the overburden aquifer. Groundwater extraction through either vacuum drop tubes or submersible pumps is enhanced by a pressure gradient created by a vacuum placed on the well head. Dual phase extraction is best suited for aquifers with low groundwater yield to increase groundwater recovery rates. In addition, soil petroleum impact mass is removed from soils at the same time via the vacuum system.

TPE is a viable remedial option for the site due to the dewatering of the site which allows the soil vapor extraction to remediate the saturated soils. TPE would be effective at removing impacts from both soil and groundwater.

TPE feasibility testing is required do determine if the radius of influence of vacuum wells can include the entire impacted area. The feasibility test results will indicated what level of vacuum best fits the site.

The current and future use of the property will not be affected by this form of remediation because the remediation system will be contained within a mobile trailer, with conveyance of treated groundwater to an appropriate discharge site within shallow trenching. A National Pollutant Discharge Elimination System (NPDES) permit may be required to discharge the treated groundwater due to the lack of a public sanitary sewer system.

Capital costs are high for this type of system but may off-set the time to reach remedial goals, especially if there are significant soil impacts present. Because of the need to treat both soil and groundwater impacts, dual phase extraction is a viable remedial option.

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16.0 REMEDIAL ACTION OPTION EVALUATION (Continued)

Air Sparging with SVE

Air sparging involves injecting VOC-free air into groundwater within an aquifer impacted with dissolved phase VOC. Compressed air generated by a surface air compressor is delivered to the aquifer through vertical injection wells. Consideration of groundwater fluctuations must be considered when installing air sparge injection wells. Screened intervals of the air injection wells will need to be permanently saturated as to prevent short circuiting of injected air into vadoze zone.

Dissolved phase volatile petroleum constituents transfer to vapor phase within the injected air bubbles. The now VOC laden air bubbles migrate upward through the saturated zone and are vented into the pore spaces of the vadose zone. Air sparging also raises dissolved oxygen levels in the groundwater enhancing natural aerobic biodegradation potential of dissolved phase constituents. Without further mitigation the VOCs stripped from the groundwater and now in volatile phase migrate into the vadose zone and become part of the soil gas environment. The increased concentrations of VOC soil gas may migrate into enclosed space of buildings, especially if basements are located near the treatment area. VOC concentrations in enclosed spaces may create an unacceptable risk to human receptors within the buildings. To eliminate this risk, Soil Vapor Extraction (SVE) within the vadoze zone may be employed.

Air sparge is best employed in unconfined groundwater aquifer environments that have no product or preferential pathways. A confined aquifer is not desirable because the VOC laden vapors vertical migration may be impeded by the confining layer. Product is not desirable because mounding can occur with the application of air to the groundwater potentially causing product to migrate away from the source. If air sparging is conducted within the vicinity of preferential pathways or structures, vapor intrusion considerations need to be made and in many cases address through SVE capture.

Due to possible channelization of the air in the saturated soil, air sparging can have limited effectiveness at remediating groundwater impacts in aquifers with preferential pathways. Air sparging with SVE requires a feasibility study to determine if the air is successfully diffused throughout the aquifer.

Because the water table is within 1 to 3 feet of the ground surface, most of the soil impacts are within the aquifer. Soil impacts were identified between 1 and 7.5 feet bgs, and saturation was encountered between 3 and 10 feet bgs. SVE is not appropriate in soils that are saturated within 3 feet of the surface or having thickness less than 10 feet above saturated soils.

Due to the water table being less than 3 feet bgs and saturated soils being encountered between 3 and 10 feet bgs, air sparging with SVE is not considered a viable remedial option.

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16.0 REMEDIAL ACTION OPTION EVALUATION (Continued)

Ozone Injection/SVE

Ozone (O3) is a relatively unstable, highly reactive compound that can be utilized to breakdown petroleum compounds through oxidation in-situ. Ozone is typically injected into the subsurface using techniques similar to those used in air sparging. Ozone gas is typically generated on-site using a membrane filtration system and typically delivered to the subsurface through sparge wells. Sparge wells generally need to be spaced in close proximity to the target remedial area. Ozone typically oxidizes petroleum constituents directly or through the formation of hydroxyl radicals.

Heat and VOC vapors may be generated as a result of ozone sparging. As a result, vapor control mechanisms (e.g. soil vapor extraction) are often used in conjunction with ozone sparging to capture and prevent the vapors from migrating to or entering preferential migratory pathways or nearby structures. Ozone is also a beneficial catalyst of in-situ bio-remedial process as most ozone molecules break down to pure oxygen molecules rapidly, thus increasing dissolved oxygen levels in groundwater. As with air sparging, ozone injection feasibility testing is suggested and results of SVE feasibility testing should be analyzed in conjunction with the results of any ozone feasibility testing. Groundwater mounding concerns are not as prominent with ozone injections as they are with air sparging or other forms of media injection alternatives because ozone can be effectively applied to the subsurface at lower and more readily controlled flow rates.

Like air sparge/SVE, ozone injection is not considered a viable option for the remediation of groundwater at the site because of the water table being less than 3 feet bgs and saturated soils being encountered between 3 and 10 feet bgs.

Soil Excavation

Soil excavation and disposal involves the mechanical excavation of impacted soils and disposal of these impacted soils to an appropriate disposal facility. The excavation is then brought back up to grade with replacement clean backfill material. Typical soil excavation address' unsaturated soils only, however saturated soils may be extracted when dewatering of the soils is addressed. The backfill material should take into consideration the future site development requirements and remedial goals for other media such that no preferential pathways are created.

Soil excavation and disposal is typically the most direct and cost effective means of remediating source area impacts. Removal of all or a part of the source area sorbed soils will eliminate the source loading to other media such as groundwater and lower the amount of source contributing to soil gas that may cause a vapor intrusion issue.

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16.0 REMEDIAL ACTION OPTION EVALUATION (Continued)

Soil Excavation (Continued)

Site constraints, site usage activities, and depth to soil impacts need to be evaluated when considering soil excavation and disposal. Underground utilities, structure footers, and roadway access all need to be identified and evaluated with reference to excavation. Other considerations are accessibility to mechanical excavation equipment that may be limited by overhead utilities and structures (where impacted soils are located under structures).

Based on site characterization, unsaturated soil impacts are identified between 1 and 7.5 feet bgs on the source property. The soil impacts are located between the east side of the convenience store building and Cook's Road in the vicinity of the removed dispenser island. It is interpreted that additional unquantified soil impacts are located underneath Cook's Road and under the former convenience store building. A portion of the soil impacts are situated underneath the canopy for the former dispenser area; therefore, the canopy would need to be removed.

Excavation constraints include: potentially the septic discharge line. Overhead constraints include the building canopy (which the owner will allow to be removed) and communication/cable/electric overhead lines. Other constraints include the building footers and the roadway. Access to excavate soils under Cook's Road would require significant planning with PennDOT and is not currently considered feasible. Access to excavate soils under the former convenience store building may not be possible without removing the building first which is not currently considered as a possibility.

The initial capital costs for excavation and disposal are significant as compared to in-situ remedial technologies; however, these costs are off-set by the time frame to meet remedial goals. Disruption to the site is significant over the short term but no long term maintenance is required. In many instances soil excavation is limited by site constraints and not all impacted soils are removed, however removal of some or most of the soil source mass can greatly accelerate the remediation of groundwater impacts.

Soil excavation may be considered as a remedial option for the impacted soil located near the former dispenser island because of the cost and duration time when compared to other technologies or methods for soil remediation. Soil excavation is currently not possible under the convenience store building or the roadway. Soil excavation will remove a portion of the source of the groundwater contamination thus limiting future groundwater impacts. Soil excavation is considered a viable remedial option for the site.

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16.0 REMEDIAL ACTION OPTION EVALUATION (Continued)

Monitored Natural Attenuation (MNA)

MNA includes the evaluation of potential degradation factors and indicators in an aquifer such as plume stability, oxygen reduction potential, and the presence of petroleum degrading bacteria. MNA is only viable when no source area is present or only a minor source remains. MNA can not currently be considered because soil sources are above the PADEP RUA soil to groundwater MSCs. If most of the soil source is removed through excavation, MNA would most likely remain impracticable because of the high concentrations of groundwater impacts and the possibility of soil impacts in areas that cannot be excavated (beneath the convenience store building and the roadway).

Risk Based Closure

Risk based closure or SSS includes the identification of impacts and the current and future risks that the impacts may pose to human health and the environment. Once an exposure risk is identified, the pathway to a receptor may be eliminated through institutional or engineering controls. Institutional and engineering controls would be implemented by placing an activity use limitation in the form of an environmental covenant on the property deed that follows through to all property ownership requiring controls to limit exposure pathways. A risk based closure may be obtained in a relatively short period of time and with relatively low capital costs.

Risk based closure is not currently a viable remedial option because SHS closure is sought due to the proximity of the on-site residential house and the presence of two (2) on-site groundwater supply wells.

17.0 INITIAL PROPOSED REMEDIAL ACTION

Based on the current understanding of the site and the site owner's plan for the property, an active remedial strategy is proposed subsequent to partial soil source removal. TPE is the preferred active remedial strategy, pending results of a feasibility study. The goal of the remediation would be to remove all accessible source material and to remediate groundwater COC concentrations via remediation system.

Subsequent to soil source removal and active groundwater remediation, groundwater monitoring will occur on a quarterly basis to obtain SHS closure for groundwater. After the applicable feasibility testing is completed, a RAP will be submitted to the PADEP.

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18.0 PLANNED ACTIVITIES AND SCHEDULE

Feasibility testing for TPE remediation is planned for the 1st or 2nd Quarter 2016. The feasibility study will include the installation four-inch diameter groundwater recovery test wells in with testing soon to follow. The data obtained from the feasibility testing will be used to develop the engineering design parameters for soil and groundwater remediation. Additional site characterization activities will continue as outlined in **Section 14.2**. Updates to the progress of the characterization and feasibility testing will be provided to the PADEP through verbal or electronic correspondence. A quarterly groundwater monitoring program was implemented by Mountain Research in August 2015. This program will continue on a quarterly basis through the remediation and attainment process. A SSCR-RAP including full design of source property soil and groundwater remediation and monitoring schedule will be submitted to the PADEP.

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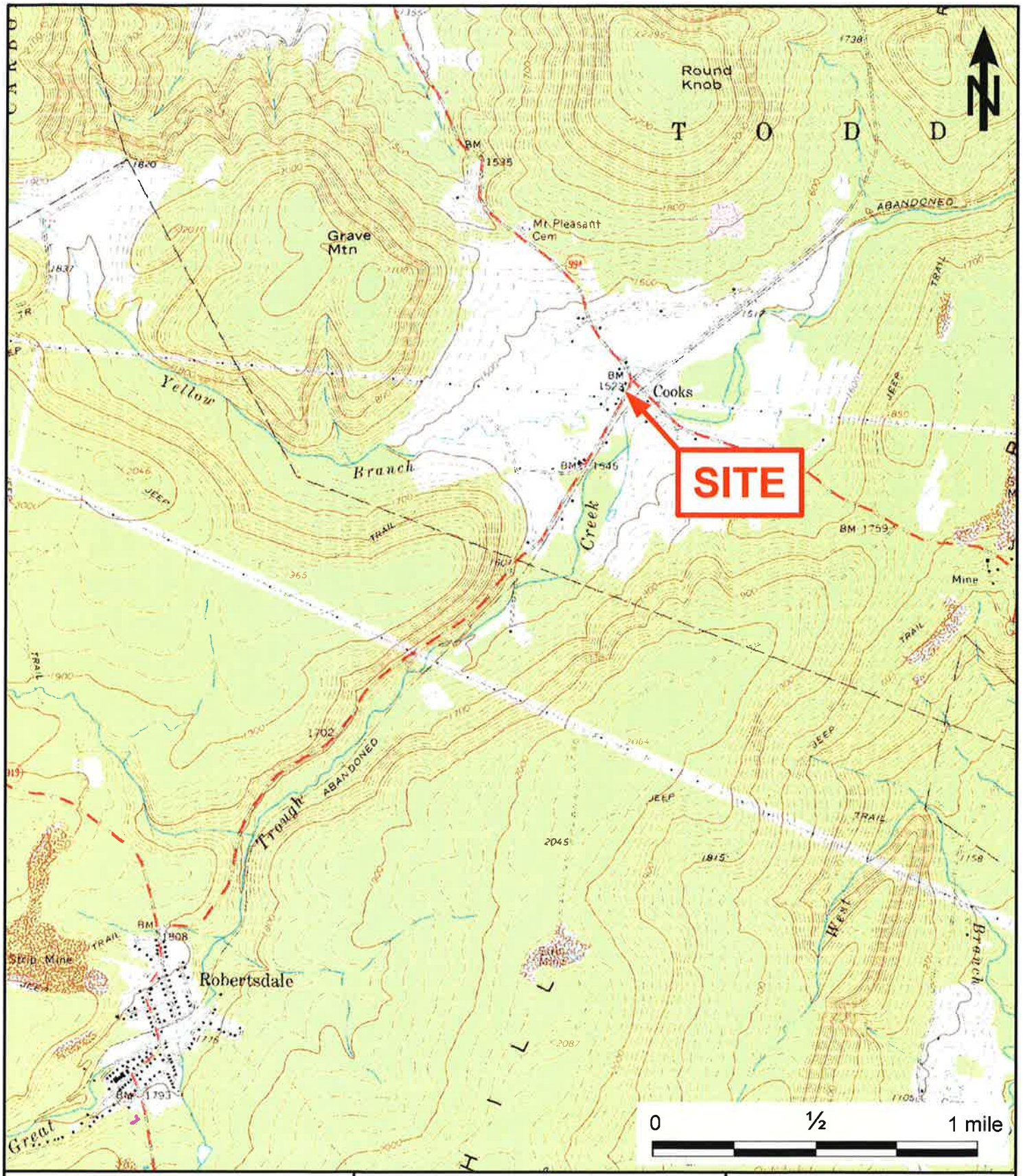
FIGURES



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N40.211490° W78.088350°
Saltillo, PA 7.5 Minute Topographical Quadrangle

Drawn By: MTF Checked By: MRC Date: 1-16-15

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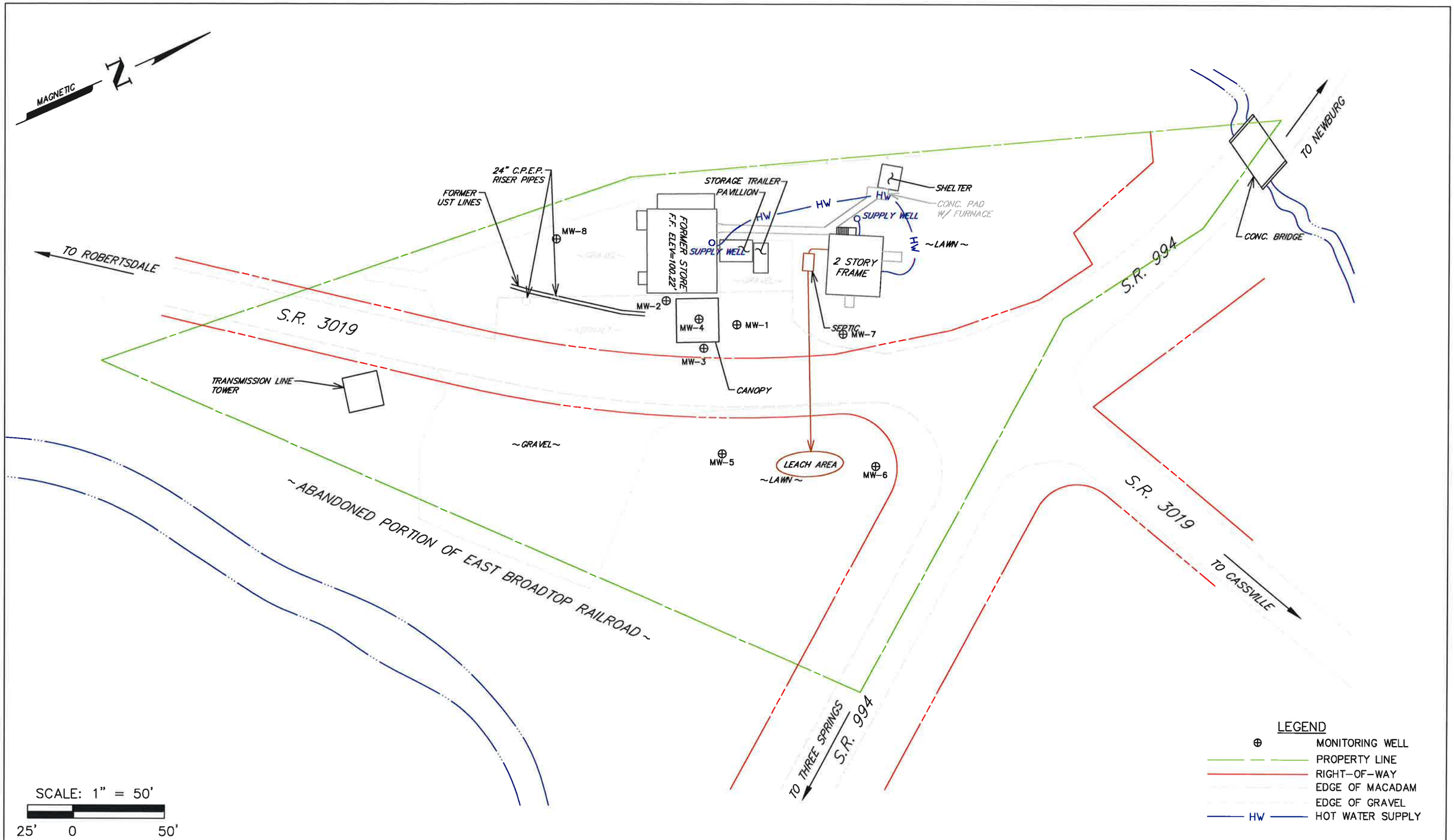
Cooks Country Store
21042 Cooks Road
Todd Township (Robertsdale),
Huntingdon County, PA

SITE LOCATION MAP

Figure 1



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Project Manager: M.C.
Checked By: MRC

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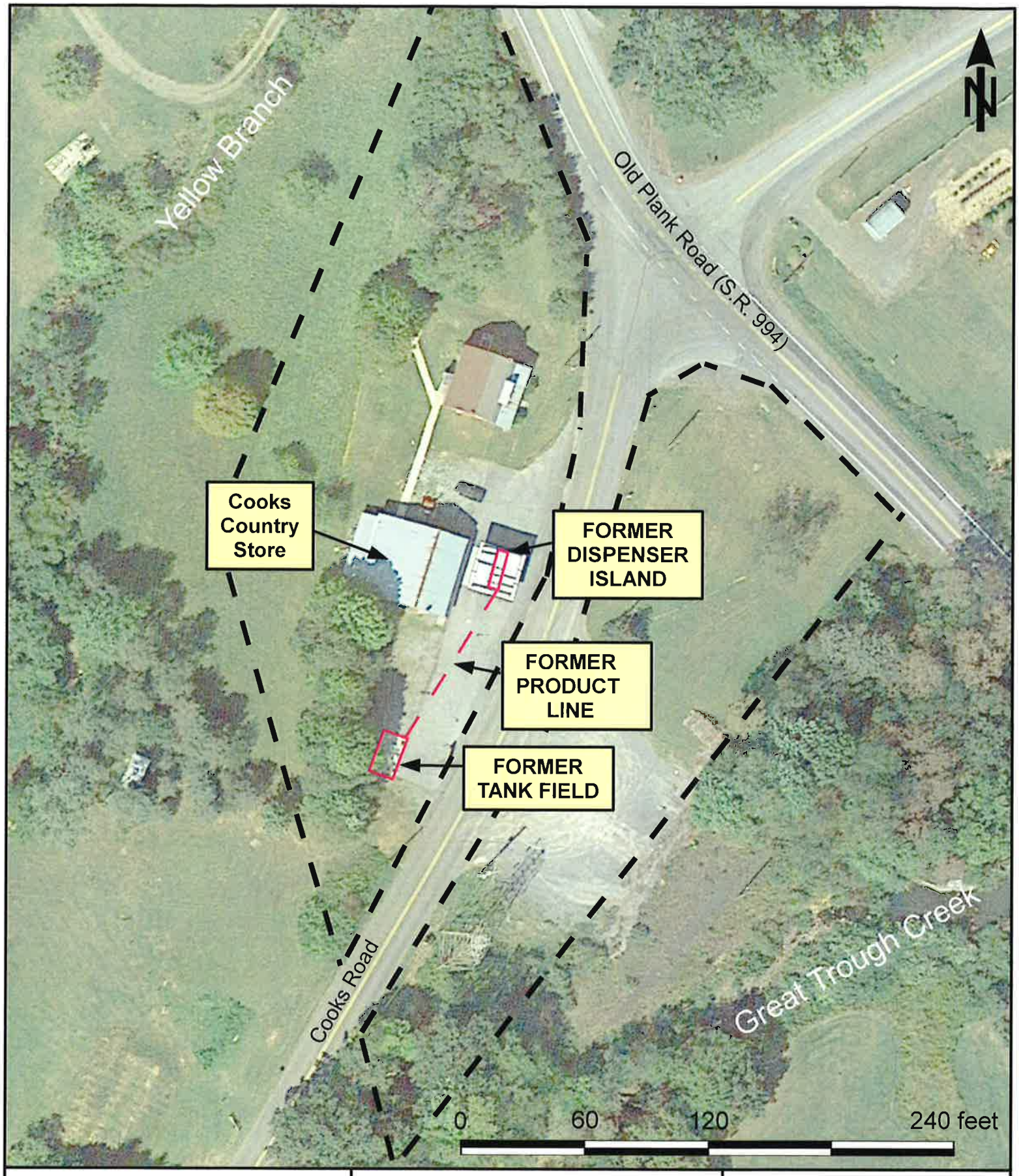
COOK'S COUNTY STORE
Robertsdale, PA

SITE MAP
Figure 2



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Approximate Property Boundary

Gasoline Dispensers, Piping & USTs

Image © Google, 2012

Drawn By: MTF Checked By: MRC Date: 2-24-15
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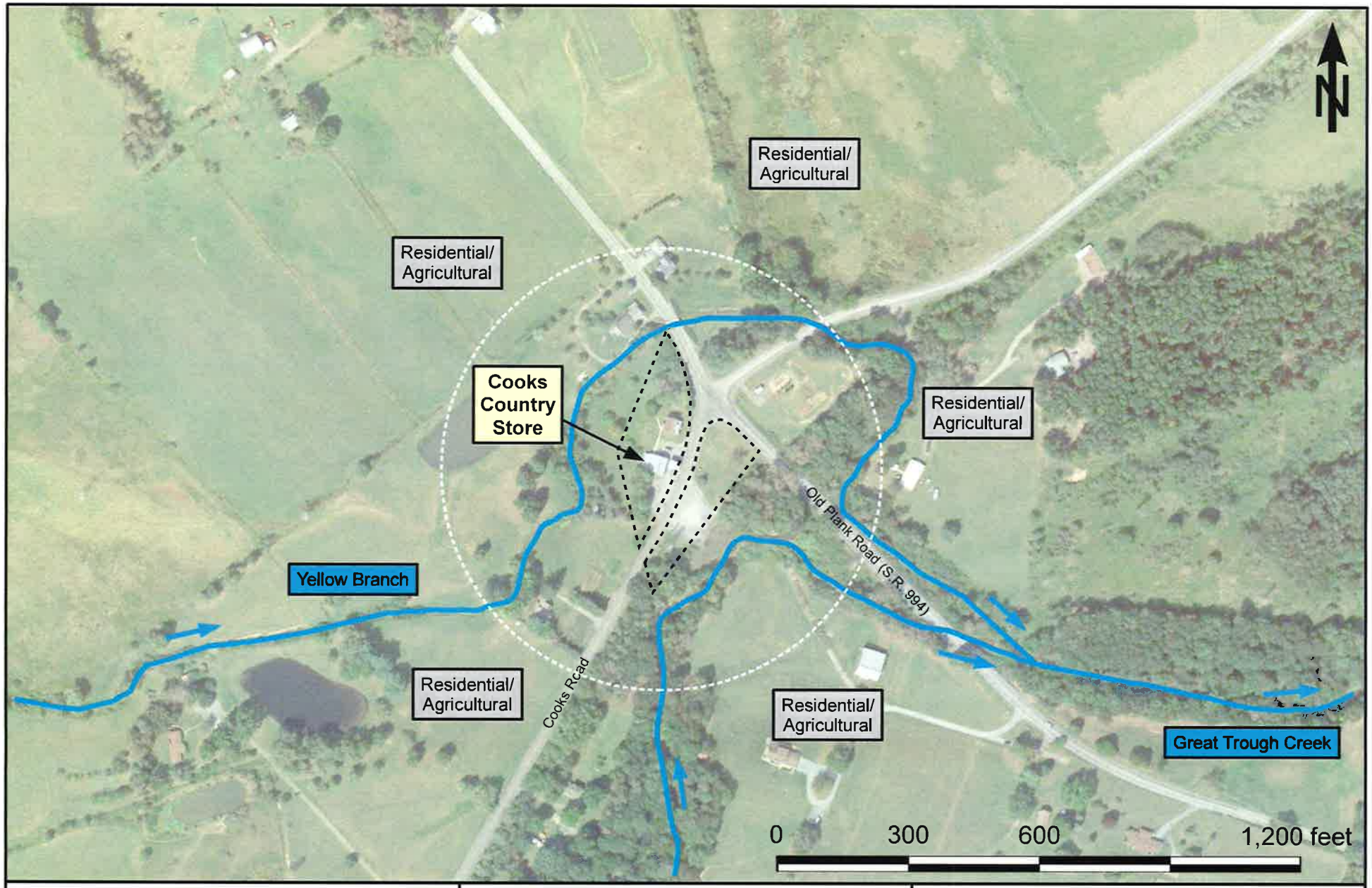
Cooks Country Store
21042 Cooks Road
Todd Township (Robertsdale),
Huntingdon County, PA

SITE AERIAL MAP
Figure 3



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Approximate Property Boundary

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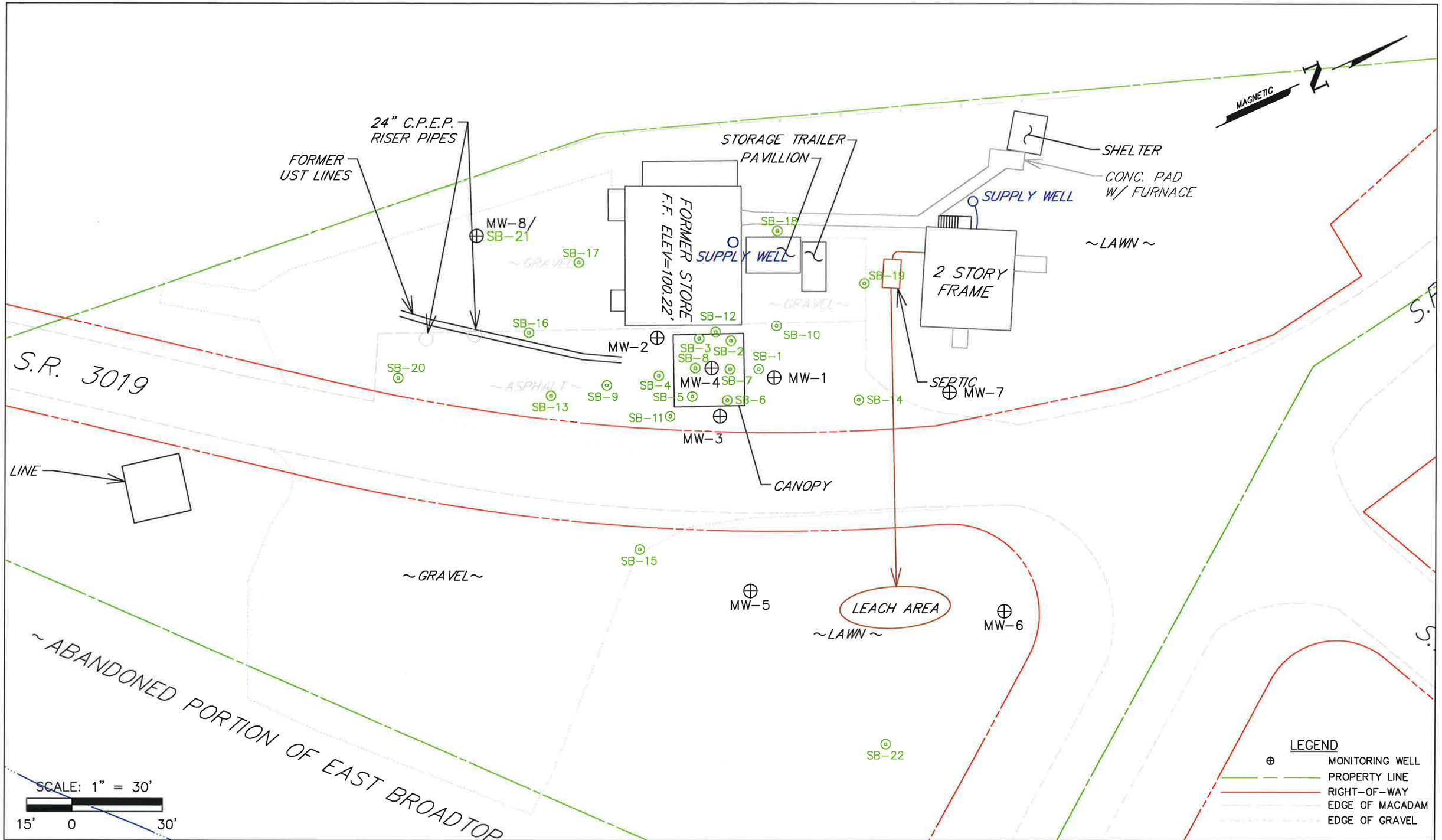
Todd Township (Robertsdale),
Huntingdon County, PA

WIDE SITE AERIAL MAP – 1,000 FOOT RADIUS

Figure 4



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COOK'S COUNTY STORE
Robertsdale, PA

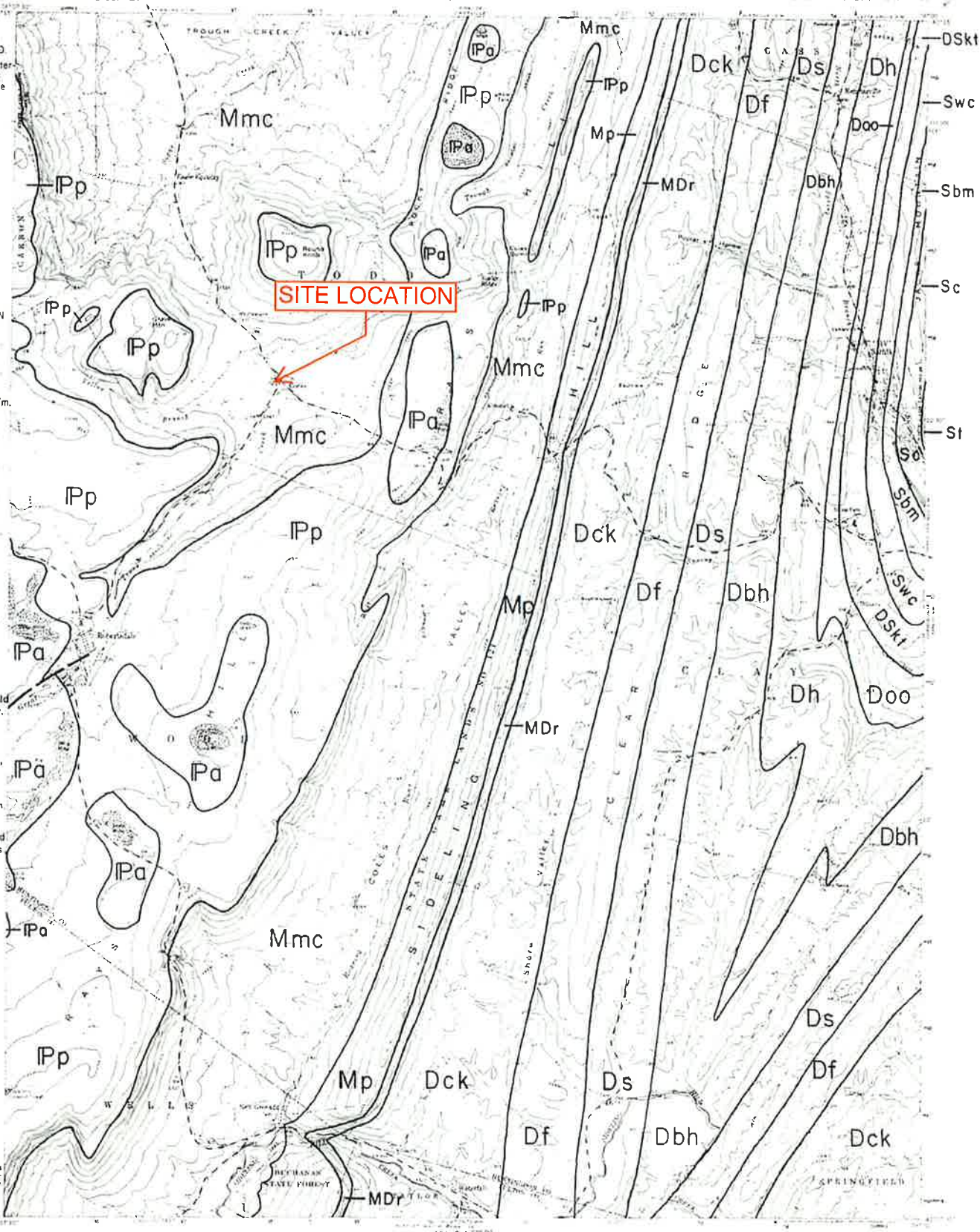
SOIL BORING LOCATION MAP
Figure 5

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SALTILLO QUADRANGLE
PENNSYLVANIA
7.5 MINUTE SERIES (TOPOGRAPHIC)

SOURCE
(1) Pa Third Geol Survey Rept. 10.
(2) Aerial photo interpretation and reconnaissance field check by Hoskins.

EXPLANATION
Pa Allegheny Gp.
Pp Pottsville Gp.
Mmc Mauch Chunk Fm.
Mp Pocono Fm.
MDr Rockwell Fm.
Dck Catskill Fm.
Df Foreknobs Fm.
Ds Scherr Fm.
Dbh Brallier and Harrell Fms., undiv.
Dh Hamilton Gp.
Doo Onondaga and Old Port Fms., undiv.
DSkt Keyser and Tonoloway Fms., undiv.
Swc Wills Creek Fm.
Sbm Bloomsburg and Mifflintown Fms. undiv.
Sc Clinton Gp.
St Tuscarora Fm.



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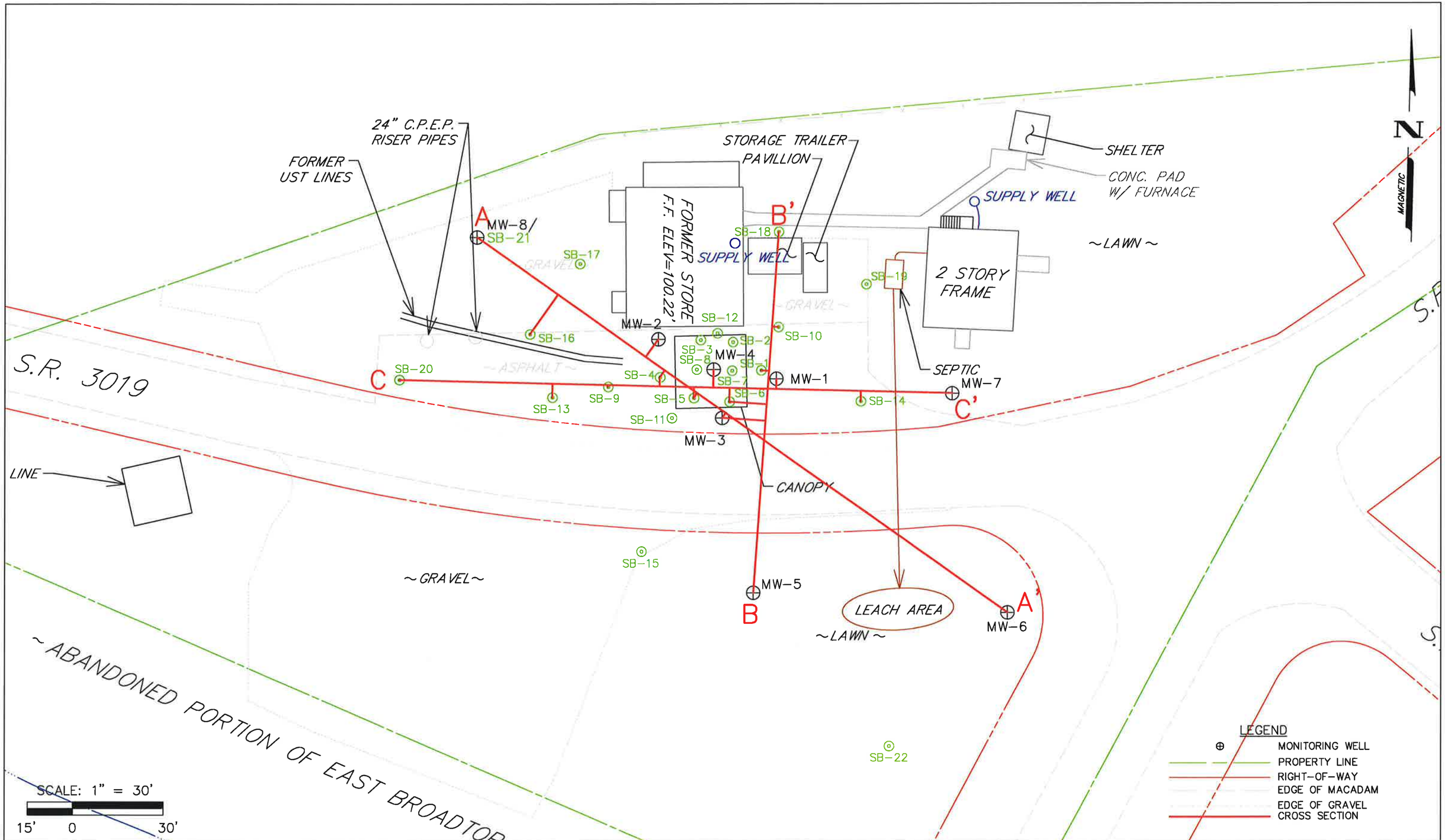
Compiled by D. M. HOSKINS, 1976

SALTILLO
FIGURE 6



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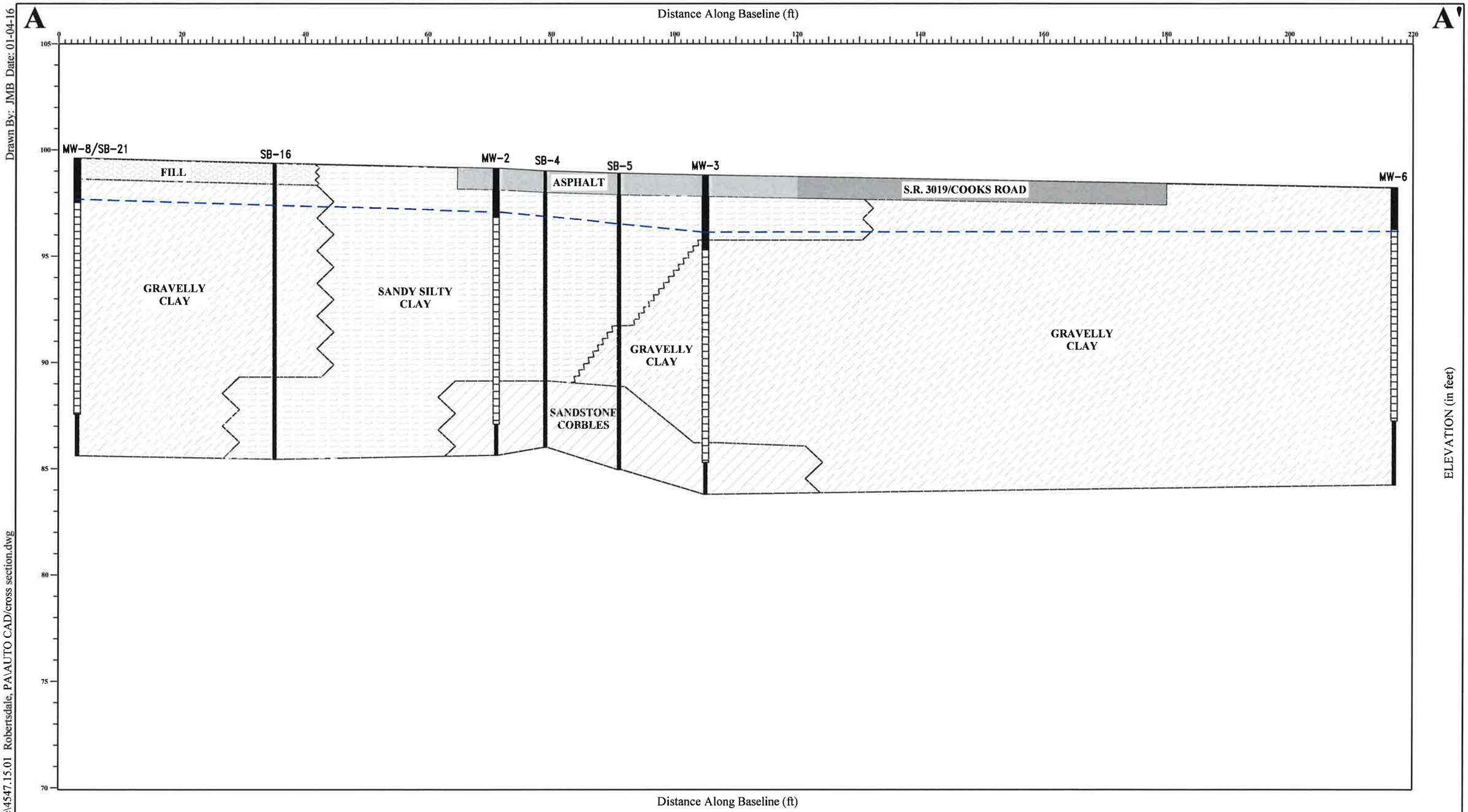
COOK'S COUNTY STORE
Robertsdale, PA

CROSS SECTION LOCATION MAP
Figure 7

Drawn By: JMB Date: 01-04-16



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LEGEND

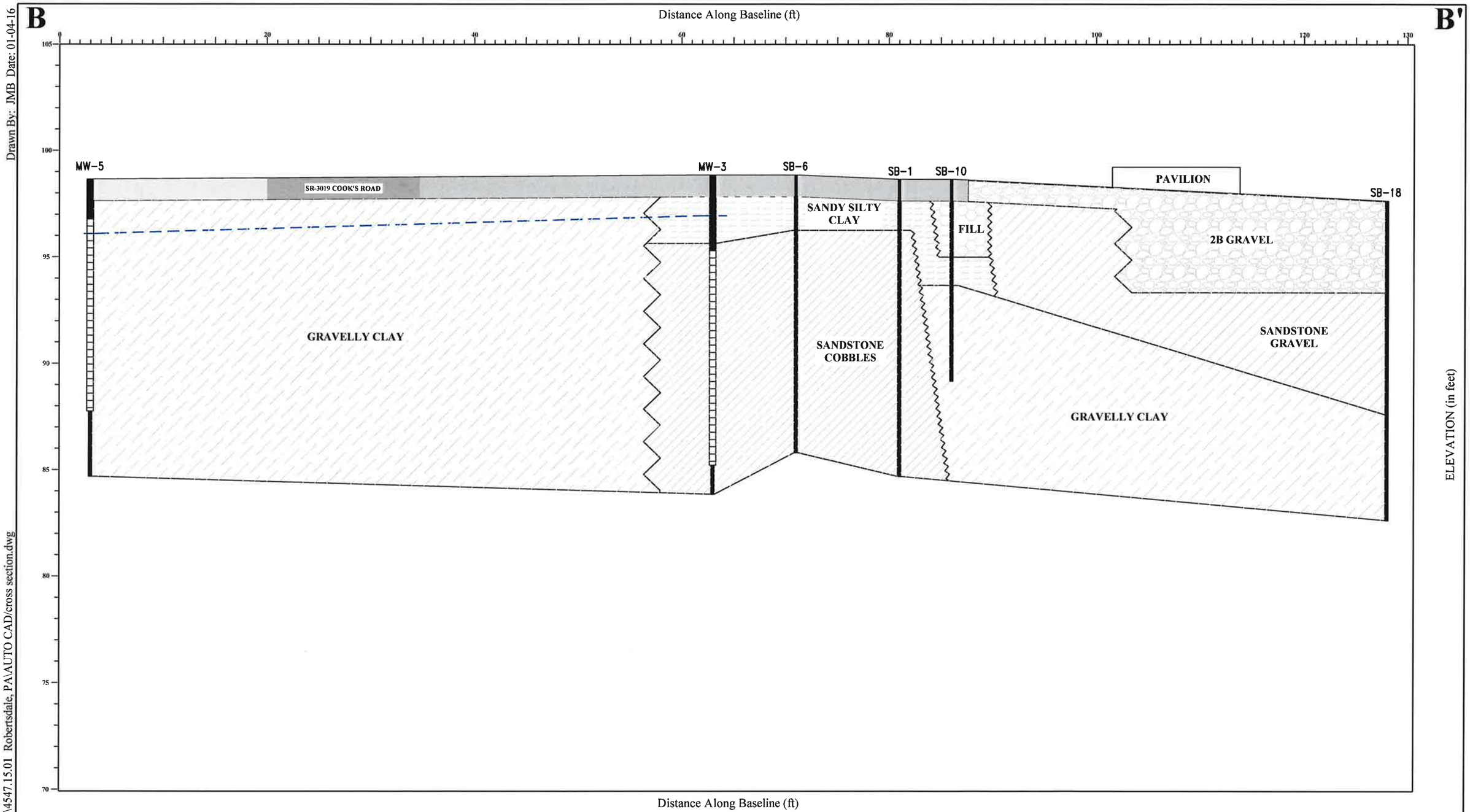
- Road Way
- Fill Material
- Sandy Silty Clay
- Sandstone Cobbles
- Asphalt
- Gravelly Clay
- GWE 12-9-15 — STATIC WATER LEVEL
- Underground Utility (APPROX DEPTH (IN FEET) BGS)

COOK'S COUNTY STORE

Robertsdale, PA

CROSS SECTION MAP
A-A'

Figure 8



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LEGEND

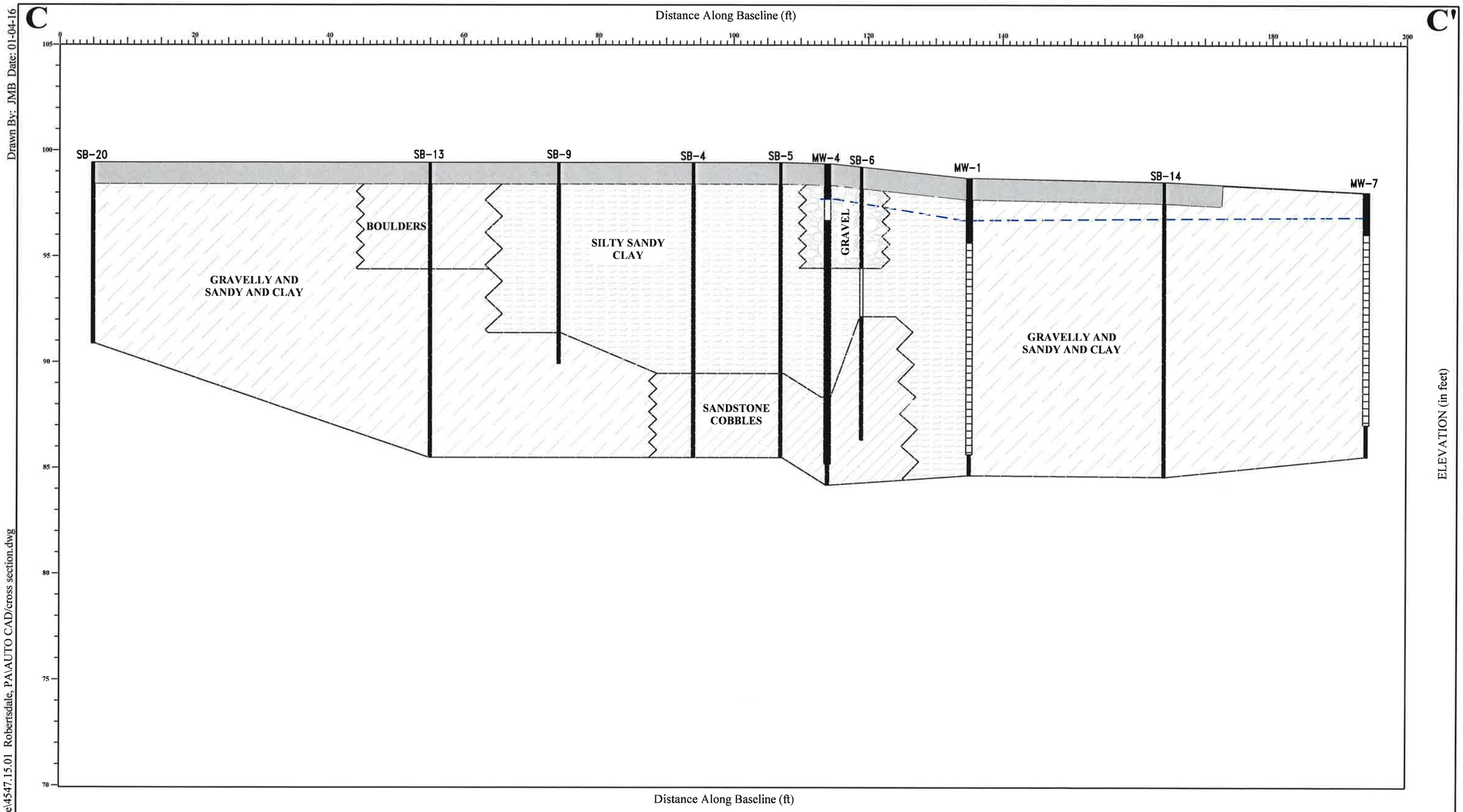
- Road Way
- Fill Material
- Sandy Silty Clay
- Sandstone Cobbles
- Asphalt
- 2B Gravel
- Sandstone Gravel
- Gravelly Clay
- Topsoil
- GWE 12-9-15 STATIC WATER LEVEL
- Underground Utility

COOK'S COUNTY STORE

Robertsdale, PA

CROSS SECTION MAP
B-B'

Figure 9



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LEGEND

- Ashpalt
- Fill Material
- Sandy Silty Clay
- Sandstone Cobbles
- Gravel
- Boulders
- Gravelly Sandy Clay

GWE 12-9-15
STATIC WATER LEVEL

Underground Utility

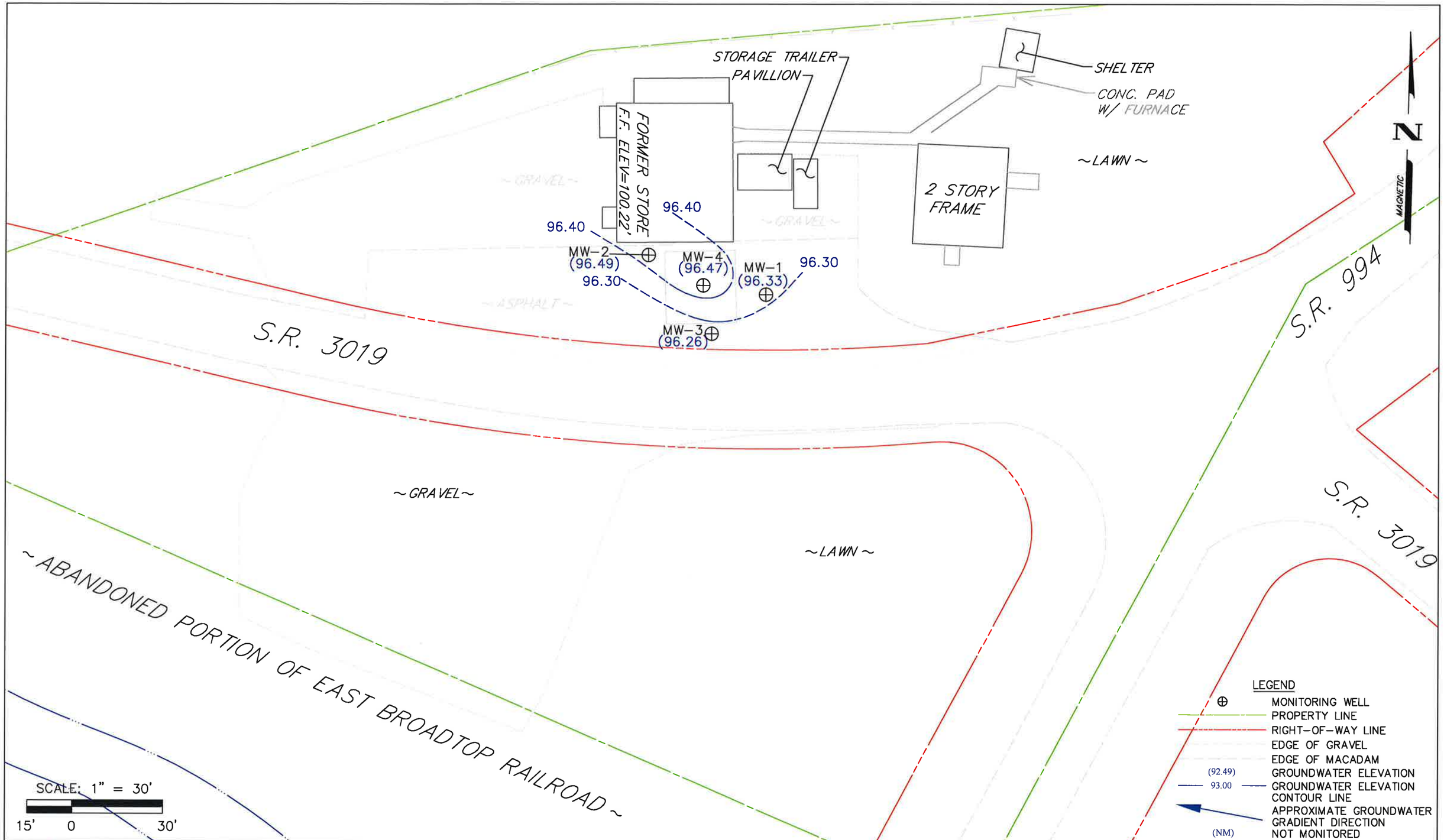
APPROX DEPTH (IN FEET)

COOK'S COUNTY STORE

Robertsdale, PA

CROSS SECTION MAP
C-C'

Figure 10



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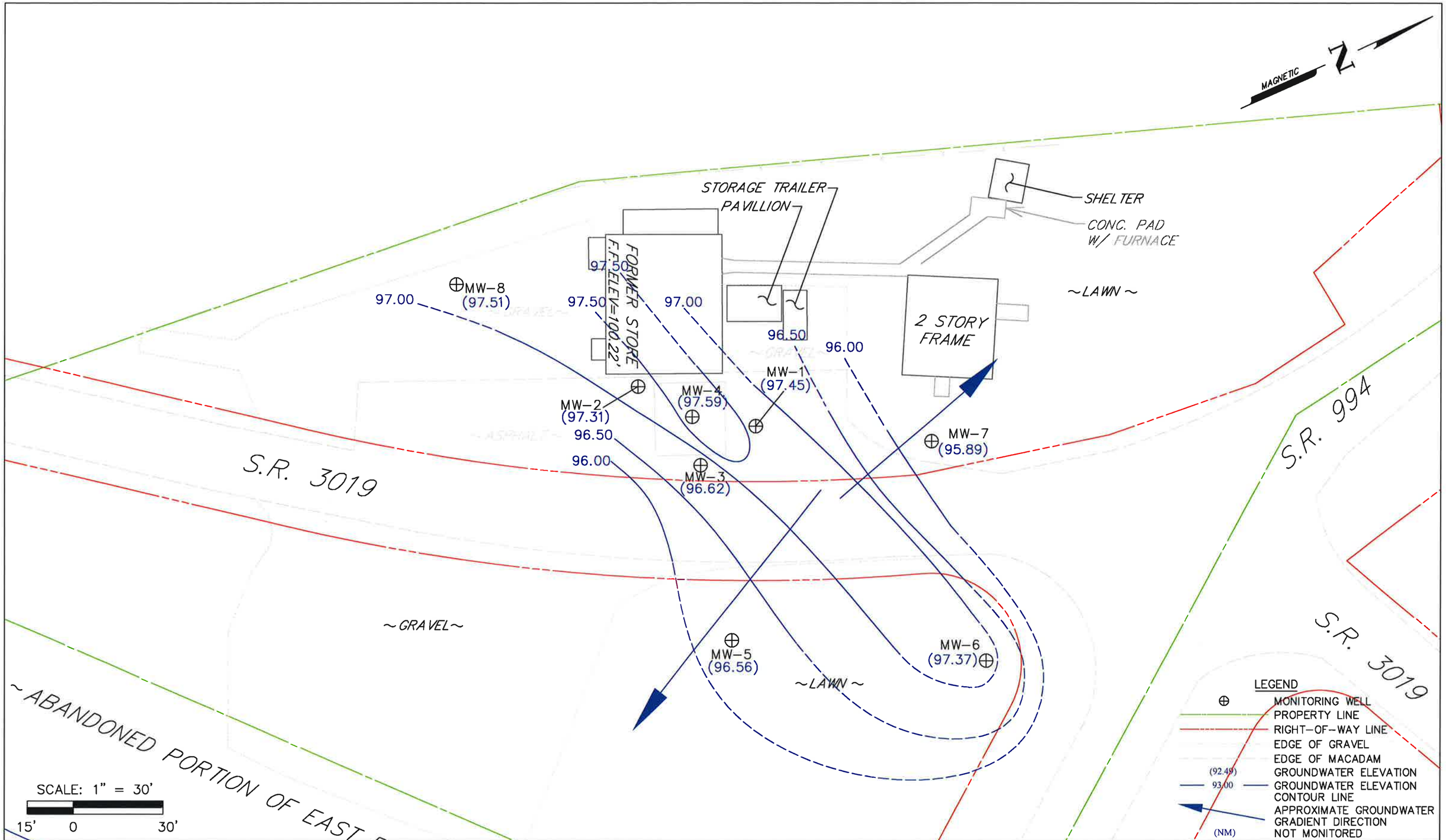
COOK'S COUNTY STORE
Robertsdale, PA

GROUNDWATER ELEVATION CONTOUR MAP

August 27, 2015
Figure 11



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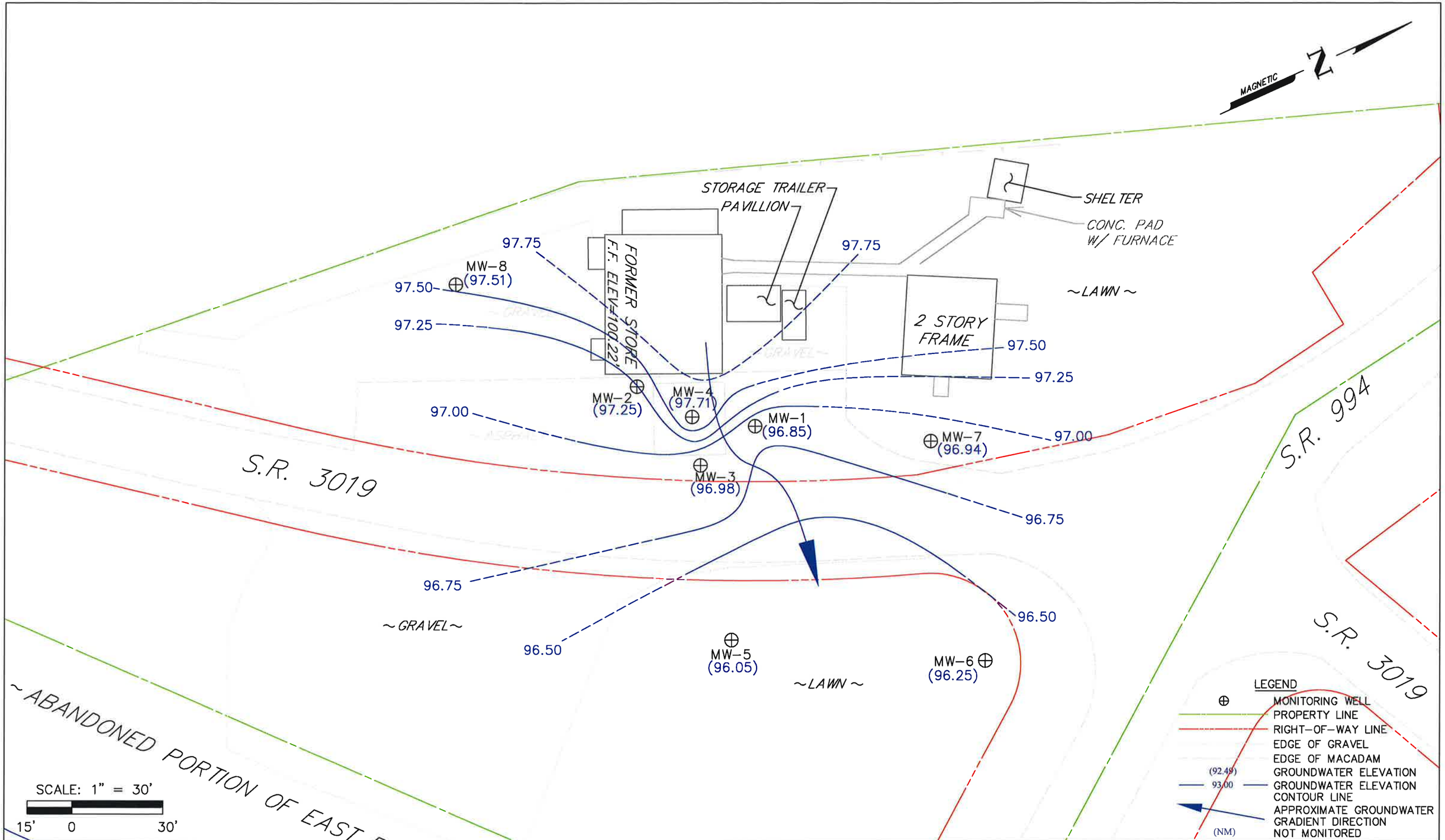
COOK'S COUNTY STORE
Robertsdale, PA

GROUNDWATER ELEVATION CONTOUR MAP

November 19, 2015
Figure 12



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Drawn By: JMB 01-06-16
Submitted By: MRC
Project Manager: M.C.
Checked By: MRC

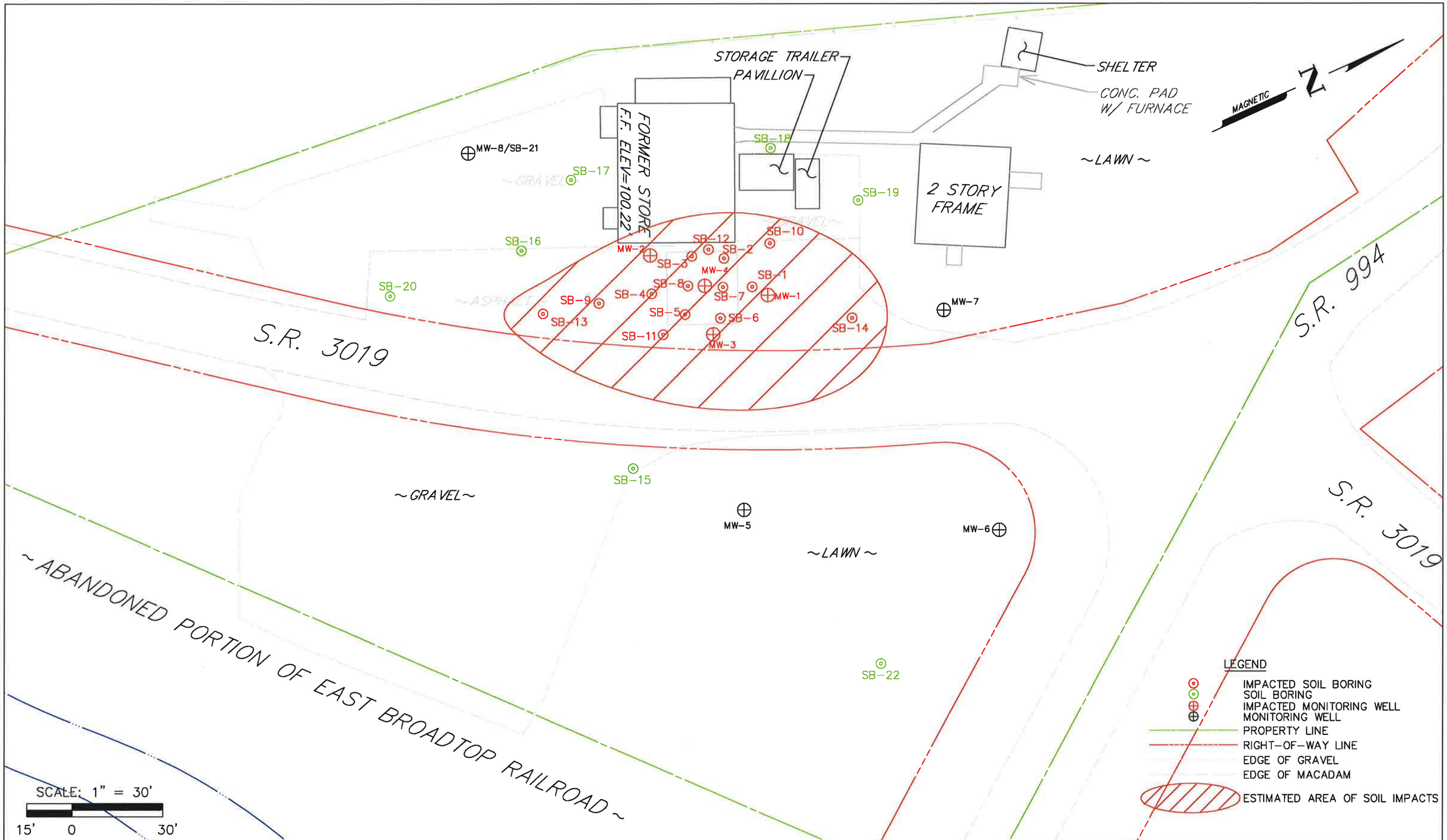
4547.15.01

H:\C\Cooks Country Store\4547.15.01 Robertsdale, PA\AUTO CAD\2015\GWEC(12-09-15).dwg

COOK'S COUNTY STORE
Robertsdale, PA

GROUNDWATER ELEVATION CONTOUR MAP

December 9, 2015
Figure 13



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Drawn By: JMB 01-08-16
Submitted By: MRL
Project Manager: M.C.
Checked By: MRL

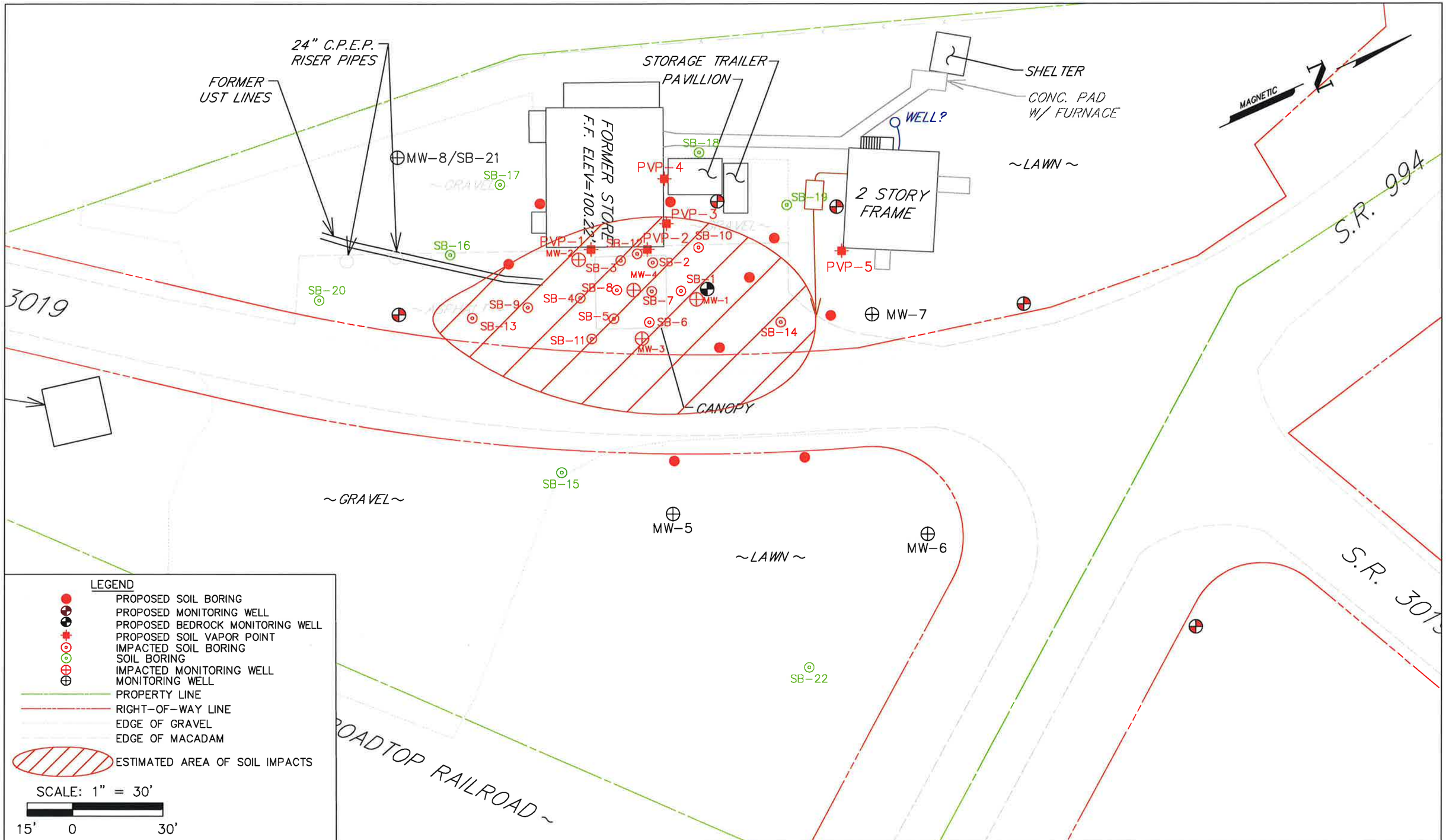
4547.15.01

H:\C\Cooks Country Store\4547.15.01 Robertsdale, PA\AUTO CAD\AREA OF REMAINING IMPACTS.dwg

COOK'S COUNTY STORE
Robertsdale, PA

AREA OF SOIL IMPACTS MAP

August 8, 2015 - October 15, 2015
Figure 14



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Drawn By: JMB 10-05-15
Submitted By: MRC
Project Manager: M.C.
Checked By: MRC

4547.15.01

H:\C\Cooks Country Store\4547.15.01 Robertsdale, PA\AUTO CAD\BASE MAP.dwg

COOK'S COUNTY STORE
Robertsdale, PA

PROPOSED SOIL BORING, MONITORING WELL, AND SOIL VAPOR POINT LOCATION MAP
Figure 15

TABLES

TABLE 1

UST EXCAVATION SOIL SAMPLE ANALYTICAL SUMMARY
COOK'S COUNTRY STORE
ROBERTSDALE, PENNSYLVANIA

MRLLC Project No. 4547.15.01

		PADEP Residential Statewide Health Standards (SHS)								
Unsaturated Soils (U)		8,400	2,300	500	100,000	70,000	1,000,000	2,000	600,000	25,000
Direct Contact, Surface Soil 0-2 feet		560,000	480,000	290,000	10,000,000	10,000,000	8,000,000	3,200,000	10,000,000	56,000,000
Direct Contact, Sub-surface Soil 2-15 feet		640,000	550,000	330,000	10,000,000	10,000,000	9,100,000	3,700,000	10,000,000	190,000,000
		Sample Parameters								
Sample Location/Sample Depth	Sample Date	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Cumene	Naphthalene
#1 Soil	11/24/2014	<250	<250	<250	<250	<250	<750	<250	<250	<250
#2 Soil	11/24/2014	<251	<251	<251	<251	<251	<754	<251	<251	<251
#3 Product Piping	11/24/2014	<245	<245	<245	<245	<245	<735	<245	<245	<245
#4 North Island	11/25/2015	**181,000**	**59,200**	**3,040**	**202,000**	**90,300**	**423,000**	<240	**7,270**	**16,500**
#5 South Island	11/25/2015	**42,100**	**152,000**	**3,340**	**85,800**	**72,000**	**604,000**	<248	**11,300**	**24,600**

All concentrations and standards expressed in µg/kg
Bold = Detected Concentration
Shaded and Bold = Concentration exceeds PADEP RUA MSC

Prepared By: CLP 1/14/16
Checked By: MRC 2/11/16

TABLE 2

UST EXCAVATION AQUEOUS SAMPLE ANALYTICAL SUMMARY
COOK'S COUNTRY STORE
ROBERTSDALE, PENNSYLVANIA

MRLLC Project No. 4547.15.01

		PADEP Residential Used Aquifer Statewide Health Standards (SHS)								
		15	13	5	1,000	700	10,000	20	840	100
		Sample Parameter								
Sample ID	Sample Date	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Cumene	Naphthalene
Water #1	11/24/2014	<2	<2	<2	<2	<2	<6	<2	<2	<2
Water #2	11/24/2014	<2	<2	<2	<2	<2	<6	<2	<2	<2

All concentrations and standards expressed in µg/L
Bold = Detected Concentration
Shaded and Bold = Concentration exceeds PADEP RUA MSC

Prepared By: CLP 1/14/16
Checked By: MRC 2/11/16

TABLE 3

MONITORING WELL CONSTRUCTION SUMMARY
COOK'S COUNTRY STORE
ROBERTSDALE, PENNSYLVANIA

MRLLC Project No. 4547.15.01

Monitoring Well	Date Drilled	Total Depth (ft)	Casing Size (in) & Material	Slot Size (in) / Screened Interval (ft)	Drilling Method	Casing Elevation (ft)	Well Type
MW-1	**8/18/2015**	13.0	2" PVC	0.010/3-13'	Direct Push	98.78	Overburden Well
MW-2	**8/18/2015**	12.0	2" PVC	0.010/2-12'	Direct Push	99.14	Overburden Well
MW-3	**8/18/2015**	13.5	2" PVC	0.010/3.5-13.5'	Direct Push	98.78	Overburden Well
MW-4	**8/18/2015**	13.0	2" PVC	0.010/3-13'	Direct Push	99.37	Overburden Well
MW-5	**10/13/2015**	11.0	2" PVC	0.010/2-11'	Direct Push	98.70	Overburden Well
MW-6	**10/13/2015**	11.0	2" PVC	0.010/2-11'	Direct Push	98.26	Overburden Well
MW-7	**10/14/2015**	11.0	2" PVC	0.010/2-11'	Direct Push	98.02	Overburden Well
MW-8	**10/15/2015**	12.0	2" PVC	0.010/2-12'	Direct Push	99.66	Overburden Well

Prepared By: MF 12/22/2015

Checked By: CLP 1/14/16

TABLE 4

AQUIFER HYDRAULIC VALUES FROM SLUG TESTS
COOK'S COUNTRY STORE
ROBERTSDALE, PENNSYLVANIA

MRLLC Project No. 4547.15.01

Summary of Aquifer Test Responses and Analyses

Zoned Screened: Overburden

Test Type	Well	Test Phase	Analysis Method	Transmissivity (ft2/d)	b (ft)	K (ft/d)	ln (K)
Slug	MW-1	Rising Head	Bouwer & Rice	21.47	16.58	1.295	0.2585
		Falling Head		20.64	16.58	1.245	0.2191
	MW-3	Rising Head	Bouwer & Rice	63.04	16.95	3.719	1.3135
		Falling Head		66.70	16.95	3.935	1.3699
	MW-5	Rising Head	Bouwer & Rice	16.60	13.30	1.248	0.2215
		Falling Head		16.19	13.30	1.217	0.1964
	MW-7	Rising Head	Bouwer & Rice	34.84	14.72	2.367	0.8616
		Falling Head		40.45	14.72	2.748	1.0109
			Slug Test Median:	**28.16**		**1.831**	
			Slug Test Average:	**34.99**	**15.39**	**2.222**	
			Average ln (K):				**0.681**
			Geometric Mean of K:				**1.977**

TABLE 5

HISTORICAL GROUNDWATER ELEVATIONS
COOK'S COUNTRY STORE
ROBERTSDALE, PENNSYLVANIA
MRLLC Project No. 4547.15.01

Well Name Well Type Date Installed	Date Measured	Static Water Level (ft)	Casing Elevation (ft)	Groundwater Elevation (ft)	Comments
MW-1	**8/27/2015**	2.45	98.78	96.33	
	11/19/2015	1.33	98.78	97.45	
	12/9/2015	1.93	98.78	96.85	Odor and Sheen
MW-2	**8/27/2015**	2.65	99.14	96.49	
	11/19/2015	1.83	99.14	97.31	
	12/9/2015	1.89	99.14	97.25	Odor
MW-3	**8/27/2015**	2.52	98.78	96.26	
	11/19/2015	2.16	98.78	96.62	
	12/9/2015	1.80	98.78	96.98	
MW-4	**8/27/2015**	2.90	99.37	96.47	
	11/19/2015	1.78	99.37	97.59	
	12/9/2015	1.66	99.37	97.71	
MW-5	**11/19/2015**	2.14	98.70	96.56	
	12/9/2015	2.65	98.70	96.05	
MW-6	**11/19/2015**	0.89	98.26	97.37	
	12/9/2015	2.01	98.26	96.25	
MW-7	**11/19/2015**	2.13	98.02	95.89	
	12/9/2015	1.08	98.02	96.94	
MW-8	**11/19/2015**	2.15	99.66	97.51	
	12/9/2015	2.15	99.66	97.51	

Prepared By: LML 12/10/2015
Checked By: CLP 1/14/16

NM - Not Measured
UK - Unknown

TABLE 6

SOIL SAMPLE ANALYTICAL SUMMARY
COOK'S COUNTRY STORE
ROBERTSDALE, PA

MRLLC Project No. 4547.15.01

		PADEP Residential Statewide Health Standards (SHS)								
Unsaturated Soils (U)		8,400	2,300	500	100,000	70,000	1,000,000	2,000	600,000	25,000
Direct Contact, Surface Soil 0-2 feet		560,000	480,000	280,000	10,000,000	10,000,000	8,000,000	3,200,000	10,000,000	66,000,000
Direct Contact, Sub-surface Soil 2-15 feet		640,000	550,000	330,000	10,000,000	10,000,000	9,100,000	3,700,000	10,000,000	190,000,000
		Sample Parameters								
Sample Location/Sample Depth	Sample Date	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Cumene	Naphthalene
SB-1 (2') US	8/18/2015	556,000	65,000	9,610	1,170,000	347,000	2,350,000	<2,330	12,900	28,100
SB-1 (8') US	8/18/2015	3,940	1,240	<227	243	722	3,600	<227	<227	997
MW-1 (3') US	8/18/2015	164,000	42,600	8,270	231,000	82,100	566,000	<2,320	9,010	18,500
MW-1 (8') US	8/18/2015	<241	<241	439	<241	<241	<722	<241	<241	<241
SB-2 (2') US	8/18/2015	590,000	196,000	3,670	648,000	298,000	1,610,000	<232	4,250	8,150
SB-2 (4') US	8/18/2015	80,800	25,300	2,660	29,400	29,800	136,000	<252	6,020	13,400
SB-2 (6') US	8/18/2015	68,100	21,400	6,060	63,900	33,000	148,000	<2,350	4,630	12,200
SB-3 (2') US	8/18/2015	241,000	80,000	30,000	50,600	88,500	428,000	<2,320	40,900	73,700
SB-3 (4') US	8/18/2015	179,000	51,100	9,830	116,000	83,700	435,000	<2,560	12,000	24,000
MW-2 (3') US	8/18/2015	211,000	69,400	5,180	9,810	60,700	323,000	<2,280	14,800	28,500
MW-2 (12') US	8/18/2015	891	318	<240	<240	336	1,450	<240	<240	<240
SB-4 (2') US	8/18/2015	251,000	65,100	8,140	14,500	45,400	221,000	<2,280	11,400	23,300
SB-4 (4') US	8/18/2015	5,480	1,910	1,320	381	1,870	9,150	<257	650	1,290
SB-5 (2') US	8/18/2015	513,000	205,000	10,800	38,700	110,000	534,000	<228	26,000	55,500
SB-5 (4') US	8/18/2015	590,000	216,000	120,000	1,520,000	400,000	2,040,000	<5,390	47,000	92,800
SB-6 (2') US	8/18/2015	399,000	123,000	116,000	1,450,000	245,000	1,150,000	<11,800	24,800	59,300
SB-6 (8') US	8/18/2015	<222	<222	<222	<222	<222	<666	<222	<222	<222
MW-3 (2') US	8/18/2015	457,000	142,000	174,000	1,090,000	273,000	1,240,000	<11,600	28,600	54,300
MW-3 (4') US	8/18/2015	508,000	161,000	195,000	1,260,000	318,000	1,430,000	<11,800	33,600	65,400
MW-4 (4') US	8/18/2015	21,700	6,720	473	1,780	13,000	52,700	<253	<1,260	2,810
SB-7 (3') US	8/19/2015	130,000	48,800	<2,420	19,300	45,500	216,000	<2,420	<2,420	15,200
SB-8 (3') US	8/19/2015	25,300	8,880	2,870	3,560	12,900	53,700	<501	<501	3,820
SB-9 (3') US	8/19/2015	66,400	26,100	<1,180	<1,180	21,400	57,800	<1,180	9,810	10,500
SB-9 (4') US	8/19/2015	95,700	36,800	<2,440	<2,440	26,700	75,100	<2,440	13,000	13,900
SB-10 (7.5') US	8/19/2015	236,000	157,000	<2,360	<2,360	10,200	278,000	<2,360	<2,360	21,800
SB-10 (9') US	8/19/2015	<230	<230	<230	<230	<230	<690	<230	<230	<230
SB-11 (1') US	8/19/2015	317,000	107,000	53,700	365,000	161,000	742,000	<21,900	22,800	37,000
SB-11 (4') US	8/19/2015	12,100	5,030	1,480	8,000	6,940	24,100	<435	1,690	1,640
SB-12 (3') US	8/19/2015	94,800	33,700	3,910	5,880	43,900	171,000	<2,560	10,400	15,400
SB-12 (5') US	8/19/2015	8,810	3,020	5,920	<746	2,680	22,900	<746	906	3,160
SB-13 (2') US	10/13/2015	23,700	9,050	<228	<228	882	3,150	<228	2,200	2,160
SB-14 (3') US	10/15/2015	147,000	51,800	3,780	40,500	75,400	303,000	<2,210	13,800	22,200
SB-15 (9.5') US	10/15/2015	<221	<221	<221	<221	<221	<664	<221	<221	<221
SB-16 (5') US	10/14/2015	<239	<239	<239	<239	<239	<717	<239	<239	<239
SB-17 (5') US	10/14/2015	714	259	<232	<232	<232	<695	<232	<232	603
SB-18 (10') US	10/14/2015	<235	<235	<235	<235	<235	<704	<235	<235	<235
SB-19 (5') US	10/14/2015	<241	<241	<241	<241	<241	<722	<241	<241	<241
SB-20 (5') US	10/15/2015	<217	<217	<217	<217	<217	<650	<217	<217	<217
SB-21 (4') US	10/15/2015	<252	<252	<252	<252	<252	<757	<252	<252	<252
SB-22 (10') US	10/15/2015	<234	<234	<234	<234	<234	<702	<234	<234	<234
MW-5 (6') US	10/13/2015	<230	<230	<230	<230	<230	<689	<230	<230	<230
MW-6 (5') US	10/15/2015	<241	<241	<241	265	<241	<722	<241	<241	<241
MW-7 (6') US	10/15/2015	1,120	358	<233	<233	<233	<699	<233	243	254

All concentrations and standards expressed in µg/kg
Red Text = PQL > PADEP RUA MSC
Blue Shaded = Concentration exceeds Direct Contact Value
Bold = Detected Concentration
Shaded and Bold = Concentration exceeds PADEP RUA MSC

(S) indicates saturated soil conditions
(U) indicates unsaturated soil conditions
(M) indicates moist soil conditions

Prepared By: LML 10/23/15
Checked By: CLP 1/14/16

TABLE 7

AQUEOUS SAMPLE ANALYTICAL SUMMARY
COOK'S COUNTRY STORE
ROBERTSDALE, PENNSYLVANIA

MRLLC Project No. 4547.15.01

		PADEP Residential Used Aquifer Statewide Health Standards (SHS)								
		15	13	5	1,000	700	10,000	20	840	100
		Sample Parameter								
Sample ID	Sample Date	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Cumene	Naphthalene
MW-1	8/27/2015	**937**	**262**	**1,830**	**1,900**	**795**	**3,470**	**57.2**	**96.9**	**301**
	11/19/2015	**1,320**	**640**	**2,450**	**4,350**	**1,030**	**4,650**	<20	**114**	**495**
	12/9/2015	**2,350**	**705**	**5,590**	**18,600**	**1,980**	**10,400**	**10.3**	**89.7**	**328**
MW-1 Duplicate	12/9/2015	**2,280**	**656**	**5,280**	**17,900**	**1,910**	**10,000**	**10.0**	**88.9**	**342**
MW-2	8/27/2015	**445**	**146**	**376**	**64.3**	**176**	**1,160**	<2	**47.0**	**101**
	11/19/2015	**200**	**81.2**	**1,820**	**39.1**	**94.2**	**1,090**	**2.49**	**36.1**	**50.6**
	12/9/2015	**291**	**98.5**	**1,850**	**80.4**	**174**	**1,790**	**2.25**	**48.6**	**67.7**
MW-3	8/27/2015	**442**	**133**	**1,320**	**1,490**	**414**	**1,750**	**30.5**	**67.8**	**154**
	11/19/2015	**370**	**115**	**552**	**303**	**402**	**952**	**17.5**	**45.7**	**119**
	12/9/2015	**481**	**136**	**1,500**	**1,830**	**408**	**1,420**	**15.2**	**35.6**	**90.2**
MW-4	8/27/2015	**504**	**145**	**82.1**	**553**	**422**	**1,910**	<2	**54.2**	**121**
	11/19/2015	**21.3**	**7.46**	<2	**5.46**	**7.91**	**38.3**	<2	<2	<2
	12/9/2015	**80.8**	**28.1**	<2	**14.3**	**31.5**	**149**	<2	**4.62**	**7.43**
MW-5	11/19/2015	**22.3**	**5.92**	**25.2**	<2	**2.50**	<6	<2	**4.68**	<2
	12/9/2015	**9.04**	**2.26**	**13.2**	<2	<2	<6	<2	**2.44**	<2
MW-6	11/19/2015	<2	<2	**5.03**	<2	<2	<6	<2	<2	<2
	12/9/2015	<2	<2	**11.2**	<2	<2	<6	<2	<2	<2
MW-7	11/19/2015	**19.6**	**5.99**	**46.8**	<2	**12.9**	<6	<2	**14.5**	**6.46**
	12/9/2015	**17.6**	**4.07**	**51.4**	<2	**10.4**	<6	<2	**12.3**	**2.57**
MW-8	11/19/2015	<2	<2	<2	<2	<2	<6	<2	<2	<2
	12/9/2015	<2	<2	<2	<2	<2	<6	<2	<2	<2
Duplicate (MW-1)	8/27/2015	**1,790**	**519**	**2,070**	**3,110**	**1,260**	**6,120**	**45.9**	**76.6**	**465**
Duplicate (MW-6)	11/19/2015	<2	<2	**5.22**	<2	<2	<6	<2	<2	<2

All concentrations and standards expressed in µg/L
Bold = Detected Concentration
Shaded and Bold = Concentration exceeds PADEP RUA MSC

Prepared By: LL 12/17/15
Checked By: _____

APPENDIX A

SITE PHOTOGRAPHS

Cooks Country Store at 21042 Cooks Road, Todd Township (Robertsdale), Huntingdon County, PA – facing northwest from across Cooks Road

Southwest side of the facility in the vicinity of the recently (November, 2014) removed UST system

Photograph (taken 12/23/14) of this same southwestern area shortly after UST closure activities

Former gasoline dispenser island located in front of the store – the canopy remains; however, all components have been removed

Items on the north/northeast side of the facility – an older, unused kerosene AST and dispenser as well as what is potentially part of a UST vent pipe from the original USTs located on this side of the building

Detail view of the kerosene AST within a secondary containment basin

Detail view of the kerosene AST and dispenser

View (facing west/southwest) of the rear of the facility; Yellow Branch (creek) is located beyond the line of trees in the background

View of the front of the facility facing south

Land and properties to the east/southeast of the site across Cooks Road – facing east

APPENDIX B

LABORATORY ANALYTICAL DATA REPORTS

MOUNTAIN RESEARCH, LLC

Corporate Office and Laboratory
825 25th Street
Altoona, PA 16601
814.949.2034 Phone
800.837.4674 Toll Free
814.949.9591 Fax
PADEP #07-00418
EPA Lab #PA00165

DuBois Office and Laboratory
110 McCracken Run Road
DuBois, PA 15801
814.371.6030 Phone
814.375.0823 Fax
PADEP #33-00258
EPA Lab #PA00155

12 December 2014

Lab ID #: 1411371

Pat McVicker
Petroleum Maintenance
1464 Briar Valley Road
Bedford, PA 15522

RE: Miscellaneous Laboratory Analysis

Enclosed are the results of analyses for samples received by the laboratory on 11/25/14 14:06. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Stephen Gampe

Stephen Gampe
Analyst

Authorized Reviewer

MOUNTAIN RESEARCH, LLC

Corporate Office and Laboratory
825 25th Street
Altoona, PA 16601
814.949.2034 Phone
800.837.4674 Toll Free
814.949.9591 Fax

DuBois Office and Laboratory
110 McCracken Run Road
DuBois, PA 15801
814.371.6030 Phone
814.375.0823 Fax

Petroleum Maintenance 1464 Briar Valley Road Bedford PA, 15522	Project Name: Miscellaneous Laboratory Analysis Project Number: 1307.98.01 Lab Project Manager: Amanda Dutko	**Lab ID#:** 1411371 **Reported:** 12/12/14 10:04

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Sample Type	Date Sampled	Date Received
#1 Soil	1411371-01	Soil	Grab	11/24/14 14:30	11/25/14 14:06
#2 Soil	1411371-02	Soil	Grab	11/24/14 14:30	11/25/14 14:06
#3 Prod Piping	1411371-03	Soil	Grab	11/24/14 15:00	11/25/14 14:06
#4 North Island	1411371-04	Soil	Grab	11/25/14 10:00	11/25/14 14:06
#5 South Island	1411371-05	Soil	Grab	11/25/14 10:30	11/25/14 14:06
Water #1	1411371-06	Aqueous	Grab	11/24/14 14:00	11/25/14 14:06
Water #2	1411371-07	Aqueous	Grab	11/24/14 14:15	11/25/14 14:06

Mountain Research, LLC

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Stephen Gampe

Stephen Gampe, Analyst

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Petroleum Maintenance 1464 Briar Valley Road Bedford PA, 15522	Project Name: Miscellaneous Laboratory Analysis Project Number: 1307.98.01 Lab Project Manager: Amanda Dutko	**Lab ID#:** 1411371 **Reported:** 12/12/14 10:04

#1 Soil

1411371-01 (Soil) Sampled: 11/24/14 14:30

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
General Chemistry by Standard/EPA/ASTM Methods											
Percent Solids	**80.0**	0.100	NA	NA	wt%	11/25/14 15:45	11/25/14 15:45	SM 2540 G	A	JMD	
Volatile Organic Compounds by GC/MS											**VOCM**
1,2,4-Trimethylbenzene	<250	250	115	NA	µg/Kg dry	11/26/14 18:50	11/26/14 18:50	EPA 8260	A	JMG	
1,3,5-Trimethylbenzene	<250	250	242	NA	µg/Kg dry	11/26/14 18:50	11/26/14 18:50	EPA 8260	A	JMG	
Benzene	<250	250	132	NA	µg/Kg dry	11/26/14 18:50	11/26/14 18:50	EPA 8260	A	JMG	
Ethylbenzene	<250	250	167	NA	µg/Kg dry	11/26/14 18:50	11/26/14 18:50	EPA 8260	A	JMG	
Isopropylbenzene (Cumene)	<250	250	64.1	NA	µg/Kg dry	11/26/14 18:50	11/26/14 18:50	EPA 8260	A	JMG	
MTBE	<250	250	56.2	NA	µg/Kg dry	11/26/14 18:50	11/26/14 18:50	EPA 8260	A	JMG	
Naphthalene	<250	250	52.7	NA	µg/Kg dry	11/26/14 18:50	11/26/14 18:50	EPA 8260	A	JMG	
Toluene	<250	250	171	NA	µg/Kg dry	11/26/14 18:50	11/26/14 18:50	EPA 8260	A	JMG	
Xylene o	<250	250	158	NA	µg/Kg dry	11/26/14 18:50	11/26/14 18:50	EPA 8260	A	JMG	
Xylene p/m	<500	500	92.4	NA	µg/Kg dry	11/26/14 18:50	11/26/14 18:50	EPA 8260	A	JMG	
Xylenes, Total	<750	750	NA	NA	µg/Kg dry	11/26/14 18:50	11/26/14 18:50	EPA 8260	A	JMG	Calc

Mountain Research, LLC

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Petroleum Maintenance 1464 Briar Valley Road Bedford PA, 15522	Project Name: Miscellaneous Laboratory Analysis Project Number: 1307.98.01 Lab Project Manager: Amanda Dutko	**Lab ID#:** 1411371 **Reported:** 12/12/14 10:04

#2 Soil

1411371-02 (Soil) Sampled: 11/24/14 14:30

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
General Chemistry by Standard/EPA/ASTM Methods											
Percent Solids	**79.6**	0.100	NA	NA	wt%	11/25/14 15:45	11/25/14 15:45	SM 2540 G	A	JMD	
Volatile Organic Compounds by GC/MS										**VOCM**	
1,2,4-Trimethylbenzene	<251	251	115	NA	µg/Kg dry	11/26/14 19:16	11/26/14 19:16	EPA 8260	A	JMG	
1,3,5-Trimethylbenzene	<251	251	243	NA	µg/Kg dry	11/26/14 19:16	11/26/14 19:16	EPA 8260	A	JMG	
Benzene	<251	251	133	NA	µg/Kg dry	11/26/14 19:16	11/26/14 19:16	EPA 8260	A	JMG	
Ethylbenzene	<251	251	168	NA	µg/Kg dry	11/26/14 19:16	11/26/14 19:16	EPA 8260	A	JMG	
Isopropylbenzene (Cumene)	<251	251	64.4	NA	µg/Kg dry	11/26/14 19:16	11/26/14 19:16	EPA 8260	A	JMG	
MTBE	<251	251	56.5	NA	µg/Kg dry	11/26/14 19:16	11/26/14 19:16	EPA 8260	A	JMG	
Naphthalene	<251	251	53.0	NA	µg/Kg dry	11/26/14 19:16	11/26/14 19:16	EPA 8260	A	JMG	
Toluene	<251	251	172	NA	µg/Kg dry	11/26/14 19:16	11/26/14 19:16	EPA 8260	A	JMG	
Xylene o	<251	251	158	NA	µg/Kg dry	11/26/14 19:16	11/26/14 19:16	EPA 8260	A	JMG	
Xylene p/m	<503	503	92.9	NA	µg/Kg dry	11/26/14 19:16	11/26/14 19:16	EPA 8260	A	JMG	
Xylenes, Total	<754	754	NA	NA	µg/Kg dry	11/26/14 19:16	11/26/14 19:16	EPA 8260	A	JMG	Calc

Mountain Research, LLC

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Petroleum Maintenance 1464 Briar Valley Road Bedford PA, 15522	Project Name: Miscellaneous Laboratory Analysis Project Number: 1307.98.01 Lab Project Manager: Amanda Dutko	**Lab ID#:** 1411371 **Reported:** 12/12/14 10:04

#3 Prod Piping

1411371-03 (Soil) Sampled: 11/24/14 15:00

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
General Chemistry by Standard/EPA/ASTM Methods											
Percent Solids	**81.6**	0.100	NA	NA	wt%	11/25/14 15:45	11/25/14 15:45	SM 2540 G	A	JMD	
Volatile Organic Compounds by GC/MS											**VOCM**
1,2,4-Trimethylbenzene	<245	245	113	NA	µg/Kg dry	11/26/14 19:42	11/26/14 19:42	EPA 8260	A	JMG	
1,3,5-Trimethylbenzene	<245	245	237	NA	µg/Kg dry	11/26/14 19:42	11/26/14 19:42	EPA 8260	A	JMG	
Benzene	<245	245	129	NA	µg/Kg dry	11/26/14 19:42	11/26/14 19:42	EPA 8260	A	JMG	
Ethylbenzene	<245	245	164	NA	µg/Kg dry	11/26/14 19:42	11/26/14 19:42	EPA 8260	A	JMG	
Isopropylbenzene (Cumene)	<245	245	62.9	NA	µg/Kg dry	11/26/14 19:42	11/26/14 19:42	EPA 8260	A	JMG	
MTBE	<245	245	55.1	NA	µg/Kg dry	11/26/14 19:42	11/26/14 19:42	EPA 8260	A	JMG	
Naphthalene	<245	245	51.7	NA	µg/Kg dry	11/26/14 19:42	11/26/14 19:42	EPA 8260	A	JMG	
Toluene	<245	245	168	NA	µg/Kg dry	11/26/14 19:42	11/26/14 19:42	EPA 8260	A	JMG	
Xylene o	<245	245	155	NA	µg/Kg dry	11/26/14 19:42	11/26/14 19:42	EPA 8260	A	JMG	
Xylene p/m	<490	490	90.6	NA	µg/Kg dry	11/26/14 19:42	11/26/14 19:42	EPA 8260	A	JMG	
Xylenes, Total	<735	735	NA	NA	µg/Kg dry	11/26/14 19:42	11/26/14 19:42	EPA 8260	A	JMG	Calc

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Petroleum Maintenance 1464 Briar Valley Road Bedford PA, 15522	Project Name: Miscellaneous Laboratory Analysis Project Number: 1307.98.01 Lab Project Manager: Amanda Dutko	**Lab ID#:** 1411371 **Reported:** 12/12/14 10:04

#4 North Island

1411371-04 (Soil) Sampled: 11/25/14 10:00

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
General Chemistry by Standard/EPA/ASTM Methods											
Percent Solids	**83.3**	0.100	NA	NA	wt%	11/25/14 15:45	11/25/14 15:45	SM 2540 G	A	JMD	
Volatile Organic Compounds by GC/MS											**VOCM**
1,2,4-Trimethylbenzene	**181000**	12000	5520	NA	µg/Kg dry	11/26/14 21:27	11/29/14 00:00	EPA 8260	A	JMG	Dilut
1,3,5-Trimethylbenzene	**59200**	12000	11600	NA	µg/Kg dry	11/26/14 21:27	11/29/14 00:00	EPA 8260	A	JMG	Dilut
Benzene	**3040**	240	127	NA	µg/Kg dry	11/26/14 21:27	11/26/14 21:27	EPA 8260	A	JMG	
Ethylbenzene	**90300**	12000	8020	NA	µg/Kg dry	11/26/14 21:27	11/29/14 00:00	EPA 8260	A	JMG	Dilut
Isopropylbenzene (Cumene)	**7270**	240	61.6	NA	µg/Kg dry	11/26/14 21:27	11/26/14 21:27	EPA 8260	A	JMG	
MTBE	<240	240	54.0	NA	µg/Kg dry	11/26/14 21:27	11/26/14 21:27	EPA 8260	A	JMG	
Naphthalene	**16500**	12000	2530	NA	µg/Kg dry	11/26/14 21:27	11/29/14 00:00	EPA 8260	A	JMG	Dilut
Toluene	**202000**	12000	8210	NA	µg/Kg dry	11/26/14 21:27	11/29/14 00:00	EPA 8260	A	JMG	Dilut
Xylene o	**113000**	12000	7570	NA	µg/Kg dry	11/26/14 21:27	11/29/14 00:00	EPA 8260	A	JMG	Dilut
Xylene p/m	**310000**	24000	4440	NA	µg/Kg dry	11/26/14 21:27	11/29/14 00:00	EPA 8260	A	JMG	Dilut
Xylenes, Total	**423000**	36000	NA	NA	µg/Kg dry	11/26/14 21:27	11/29/14 00:00	EPA 8260	A	JMG	Calc, Dilut

Mountain Research, LLC

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Petroleum Maintenance 1464 Briar Valley Road Bedford PA, 15522	Project Name: Miscellaneous Laboratory Analysis Project Number: 1307.98.01 Lab Project Manager: Amanda Dutko	**Lab ID#:** 1411371 **Reported:** 12/12/14 10:04

#5 South Island

1411371-05 (Soil) Sampled: 11/25/14 10:30

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
General Chemistry by Standard/EPA/ASTM Methods											
Percent Solids	**80.6**	0.100	NA	NA	wt%	11/25/14 15:45	11/25/14 15:45	SM 2540 G	A	JMD	
Volatile Organic Compounds by GC/MS											**VOCM**
1,2,4-Trimethylbenzene	**421000**	12400	5700	NA	µg/Kg dry	11/26/14 21:53	11/29/14 00:26	EPA 8260	A	JMG	Dilut
1,3,5-Trimethylbenzene	**152000**	12400	12000	NA	µg/Kg dry	11/26/14 21:53	11/29/14 00:26	EPA 8260	A	JMG	Dilut
Benzene	**3340**	248	131	NA	µg/Kg dry	11/26/14 21:53	11/26/14 21:53	EPA 8260	A	JMG	
Ethylbenzene	**72000**	12400	8290	NA	µg/Kg dry	11/26/14 21:53	11/29/14 00:26	EPA 8260	A	JMG	Dilut
Isopropylbenzene (Cumene)	**11300**	248	63.6	NA	µg/Kg dry	11/26/14 21:53	11/26/14 21:53	EPA 8260	A	JMG	
MTBE	<248	248	55.7	NA	µg/Kg dry	11/26/14 21:53	11/26/14 21:53	EPA 8260	A	JMG	
Naphthalene	**24600**	12400	2620	NA	µg/Kg dry	11/26/14 21:53	11/29/14 00:26	EPA 8260	A	JMG	Dilut
Toluene	**85800**	12400	8480	NA	µg/Kg dry	11/26/14 21:53	11/29/14 00:26	EPA 8260	A	JMG	Dilut
Xylene o	**178000**	12400	7820	NA	µg/Kg dry	11/26/14 21:53	11/29/14 00:26	EPA 8260	A	JMG	Dilut
Xylene p/m	**425000**	24800	4590	NA	µg/Kg dry	11/26/14 21:53	11/29/14 00:26	EPA 8260	A	JMG	Dilut
Xylenes, Total	**604000**	37200	NA	NA	µg/Kg dry	11/26/14 21:53	11/29/14 00:26	EPA 8260	A	JMG	Calc, Dilut

Mountain Research, LLC

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Petroleum Maintenance	Project Name: Miscellaneous Laboratory Analysis	**Lab ID#:** 1411371
1464 Briar Valley Road	Project Number: 1307.98.01	**Reported:**
Bedford PA, 15522	Lab Project Manager: Amanda Dutko	12/12/14 10:04

Water #1

1411371-06 (Aqueous) Sampled: 11/24/14 14:00

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
Volatile Organic Compounds by GC/MS											
1,2,4-Trimethylbenzene	<2.00	2.00	0.770	NA	µg/L	11/26/14 06:53	11/26/14 06:53	EPA 8260	A	JMG	
1,3,5-Trimethylbenzene	<2.00	2.00	0.726	NA	µg/L	11/26/14 06:53	11/26/14 06:53	EPA 8260	A	JMG	
Benzene	<2.00	2.00	0.666	NA	µg/L	11/26/14 06:53	11/26/14 06:53	EPA 8260	A	JMG	
Ethylbenzene	<2.00	2.00	0.719	NA	µg/L	11/26/14 06:53	11/26/14 06:53	EPA 8260	A	JMG	
Isopropylbenzene (Cumene)	<2.00	2.00	0.561	NA	µg/L	11/26/14 06:53	11/26/14 06:53	EPA 8260	A	JMG	
MTBE	<2.00	2.00	0.558	NA	µg/L	11/26/14 06:53	11/26/14 06:53	EPA 8260	A	JMG	
Naphthalene	<2.00	2.00	0.353	NA	µg/L	11/26/14 06:53	11/26/14 06:53	EPA 8260	A	JMG	
Toluene	<2.00	2.00	0.746	NA	µg/L	11/26/14 06:53	11/26/14 06:53	EPA 8260	A	JMG	
Xylene o	<2.00	2.00	0.656	NA	µg/L	11/26/14 06:53	11/26/14 06:53	EPA 8260	A	JMG	
Xylene p/m	<4.00	4.00	1.29	NA	µg/L	11/26/14 06:53	11/26/14 06:53	EPA 8260	A	JMG	
Xylenes, Total	<6.00	6.00	NA	NA	µg/L	11/26/14 06:53	11/26/14 06:53	EPA 8260	A	JMG	Calc

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Petroleum Maintenance 1464 Briar Valley Road Bedford PA, 15522	Project Name: Miscellaneous Laboratory Analysis Project Number: 1307.98.01 Lab Project Manager: Amanda Dutko	**Lab ID#:** 1411371 **Reported:** 12/12/14 10:04

Water #2

1411371-07 (Aqueous) Sampled: 11/24/14 14:15

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
Volatile Organic Compounds by GC/MS											
1,2,4-Trimethylbenzene	<2.00	2.00	0.770	NA	µg/L	11/26/14 07:19	11/26/14 07:19	EPA 8260	A	JMG	
1,3,5-Trimethylbenzene	<2.00	2.00	0.726	NA	µg/L	11/26/14 07:19	11/26/14 07:19	EPA 8260	A	JMG	
Benzene	<2.00	2.00	0.666	NA	µg/L	11/26/14 07:19	11/26/14 07:19	EPA 8260	A	JMG	
Ethylbenzene	<2.00	2.00	0.719	NA	µg/L	11/26/14 07:19	11/26/14 07:19	EPA 8260	A	JMG	
Isopropylbenzene (Cumene)	<2.00	2.00	0.561	NA	µg/L	11/26/14 07:19	11/26/14 07:19	EPA 8260	A	JMG	
MTBE	<2.00	2.00	0.558	NA	µg/L	11/26/14 07:19	11/26/14 07:19	EPA 8260	A	JMG	
Naphthalene	<2.00	2.00	0.353	NA	µg/L	11/26/14 07:19	11/26/14 07:19	EPA 8260	A	JMG	
Toluene	<2.00	2.00	0.746	NA	µg/L	11/26/14 07:19	11/26/14 07:19	EPA 8260	A	JMG	
Xylene o	<2.00	2.00	0.656	NA	µg/L	11/26/14 07:19	11/26/14 07:19	EPA 8260	A	JMG	
Xylene p/m	<4.00	4.00	1.29	NA	µg/L	11/26/14 07:19	11/26/14 07:19	EPA 8260	A	JMG	
Xylenes, Total	<6.00	6.00	NA	NA	µg/L	11/26/14 07:19	11/26/14 07:19	EPA 8260	A	JMG	Calc

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Petroleum Maintenance 1464 Briar Valley Road Bedford PA, 15522	Project Name: Miscellaneous Laboratory Analysis Project Number: 1307.98.01 Lab Project Manager: Amanda Dutko	**Lab ID#:** 1411371 **Reported:** 12/12/14 10:04

Certifications

Code	Description	Number	Expires
MDDOE	Maryland Department of the Environment	257	06/30/2015
PADEP-Altoona	Pennsylvania Department of Environmental Protection	009	03/31/2015
WVDEP	West Virginia Department of Environmental Protection	225	10/31/2014
PADEP-DuBois	Pennsylvania Department of Environmental Protection	008	09/30/2015

Notes and Definitions

VOCM	VOC vial contained more than the EPA recommended amount of soil.
Dilut	This sample was analyzed at a dilution.
Calc	[Calc] - Calculated analytes are reported based on unrounded results of the individual analytes used in the calculation. Therefore, using the rounded values of the analytes as reported may lead to a result that varies slightly from the reported result.
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
dry	Sample results reported on a dry weight basis
A	Analysis Performed by Mountain Research Altoona Laboratory - PADEP #07-00418
D	Analysis Performed by Mountain Research DuBois Laboratory - PADEP # 33-00258

Mountain Research, LLC

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BLACK BALL POINT PEN ONLY

00001

Billing Group: | Phase:

PROJECT NAME: Cooks Country Store

MR Project #: 1307.98.01

SITE LOCATION: Cook's PA

CLIENT: Petroleum Maintenance

SAMPLER(S): Client

NOTES:

Received On Ice: (Y) / N

Sample Temp: 5.6°C

Cell 285-0485

MOUNTAIN RESEARCH LLC

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110 McCracken Run Road, Dubois, PA 15801 (814) 371-6030 Fax (814) 375-0823

CHAIN OF CUSTODY RECORD

MR PROJ. MGR.

Shipping Carrier:

Turn Around Time:
10 Day X
3 Day
1 Day

Comments:

SAMPLE ID.NO.	DATE	TIME	GRAB	COMP	MATRIX	NUMBER OF CONTAINERS	PRODUCT CODE	8260	% SOLID						Preserve	LAB NUMBER
#1 Soil	11/24	2:30P	X		Soil	1 8oz	2A NA		X						None	01
#1 Soil	11/24	2:30				1 40mL VOA	2A	X							MEOH	
#2 Soil	11/24	2:30				1 8oz GL			X						None	02
						1 40mL VOA	2A	X							MEOH	
#3 Prod Piping	11/24	3:00				1 8oz GL			X						None	03
						1 40mL VOA	2A	X							MEOH	
#4 North Island	11/25 ~~11/24~~	10:00 A				1 8oz GL			X						None	04
						1 40mL VOA	2A	X							MEOH	

RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE	TIME	Lab WO #:	Log In Time:
Pete Mullen	11/25	2:00	A Decker	11/25	14:00	1411371	1502
RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE	TIME	Labeled By:	Staff: KD
							Date: 11-25-14

Pg 1 of 2

White - Lab; Blue - File; Yellow - Project Manager; Pink - Staff

H:\ADMIN\FORMS\HYDRO\C.O.C\NEW\CHAIN OF CUSTODY

BLACK BALL POINT PEN ONLY

00001

Billing Group:	Phase:	PROJECT NAME: Cooks Country Store
MR Project #:		SITE LOCATION: Cooks PA
CLIENT: Petroleum Maintenance		SAMPLER(S): Client

NOTES:

Received On Ice: (Y) / N

Sample Temp: 5.6°C

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CHAIN OF CUSTODY RECORD

MR PROJ. MGR.

Shipping Carrier:

Turn Around Time:
10 Day
3 Day
1 Day

Comments:

SAMPLE ID.NO.	DATE	TIME	GRAB	COMP	MATRIX	NUMBER OF CONTAINERS	PRODUCT CODE	8260	% Solid						Preserve	LAB NUMBER
#5 South Island	11/25	10:30	X		Soil	1-8oz GL	NA		X						None	05
↓	↓	↓	↓		↓	1-40mL VOA	2A	X							MEOH	↓
Water #1	11/24	2:00p	X		Aq	2-40mL VOA	2A								HCL	06
Water #2	11/24	2:15p	X		Aq	2-40mL VOA	2A								HCL	07

RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE	TIME	Lab WO #:	Log In Time:
Pat Mullen	11/25	2:00	K Deker	11/25	14:06	1411371	15:02
RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE	TIME	Labeled By:	Staff: KD
							Date: 11-25-14

Pg 2 of 2

White - Lab; Blue - File; Yellow - Project Manager; Pink - Staff

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PADEP #33-00258
EPA Lab #PA00155

27 August 2015

Lab ID #: 1508355

Betty Hess
Cook's Country Store
16570 Hell Lane
James Creek, PA 16657

RE: Site Characterization

Enclosed are the results of analyses for samples received by the laboratory on 08/19/15 14:20. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tegan Schott
Technical Specialist II

Authorized Reviewer

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Cook's Country Store	Project Name: Site Characterization	**Lab ID#:** 1508355
16570 Hell Lane	Project Number: 4547.15.01	**Reported:**
James Creek PA, 16657	Lab Project Manager: Tegan Schott	08/27/15 17:00

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Sample Type	Date Sampled	Date Received
SB-1 (2') US	1508355-01	Soil	Grab	08/18/15 09:34	08/19/15 14:20
SB-1 (8') US	1508355-02	Soil	Grab	08/18/15 09:34	08/19/15 14:20
MW-1 (3') US	1508355-03	Soil	Grab	08/18/15 09:05	08/19/15 14:20
MW-1 (8') US	1508355-04	Soil	Grab	08/18/15 09:05	08/19/15 14:20
SB-2 (2') US	1508355-05	Soil	Grab	08/18/15 10:06	08/19/15 14:20
SB-2 (4') US	1508355-06	Soil	Grab	08/18/15 10:06	08/19/15 14:20
SB-2 (6') US	1508355-07	Soil	Grab	08/18/15 10:06	08/19/15 14:20
SB-3 (2') US	1508355-08	Soil	Grab	08/18/15 10:31	08/19/15 14:20
SB-3 (4') US	1508355-09	Soil	Grab	08/18/15 10:31	08/19/15 14:20
MW-2 (3') US	1508355-10	Soil	Grab	08/18/15 10:59	08/19/15 14:20
MW-2 (12') US	1508355-11	Soil	Grab	08/18/15 10:59	08/19/15 14:20
SB-4 (2') US	1508355-12	Soil	Grab	08/18/15 11:29	08/19/15 14:20
SB-4 (4') US	1508355-13	Soil	Grab	08/18/15 11:29	08/19/15 14:20
SB-5 (2') US	1508355-14	Soil	Grab	08/18/15 11:58	08/19/15 14:20
SB-5 (4') US	1508355-15	Soil	Grab	08/18/15 11:58	08/19/15 14:20
SB-6 (2') US	1508355-16	Soil	Grab	08/18/15 12:23	08/19/15 14:20
SB-6 (8') US	1508355-17	Soil	Grab	08/18/15 12:23	08/19/15 14:20
MW-3 (2') US	1508355-18	Soil	Grab	08/18/15 13:36	08/19/15 14:20
MW-3 (4') US	1508355-19	Soil	Grab	08/18/15 13:36	08/19/15 14:20
MW-4 (4') US	1508355-20	Soil	Grab	08/18/15 14:28	08/19/15 14:20
SB-7 (3') US	1508355-21	Soil	Grab	08/19/15 09:08	08/19/15 14:20
SB-8 (3') US	1508355-22	Soil	Grab	08/19/15 09:44	08/19/15 14:20
SB-9 (3') US	1508355-23	Soil	Grab	08/19/15 09:23	08/19/15 14:20
SB-9 (4') US	1508355-24	Soil	Grab	08/19/15 09:23	08/19/15 14:20
SB-10 (7.5') US	1508355-25	Soil	Grab	08/19/15 10:44	08/19/15 14:20
SB-10 (9') US	1508355-26	Soil	Grab	08/19/15 10:44	08/19/15 14:20

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Tegan Schott, Technical Specialist II

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Cook's Country Store	Project Name: Site Characterization	**Lab ID#:** 1508355
16570 Hell Lane	Project Number: 4547.15.01	**Reported:**
James Creek PA, 16657	Lab Project Manager: Tegan Schott	08/27/15 17:00

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Sample Type	Date Sampled	Date Received
SB-11 (1') US	1508355-27	Soil	Grab	08/19/15 11:19	08/19/15 14:20
SB-11 (4') US	1508355-28	Soil	Grab	08/19/15 11:19	08/19/15 14:20
SB-12 (3') US	1508355-29	Soil	Grab	08/19/15 11:51	08/19/15 14:20
SB-12 (5') US	1508355-30	Soil	Grab	08/19/15 11:51	08/19/15 14:20

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Cook's Country Store 16570 Hell Lane James Creek PA, 16657	Project Name: Site Characterization Project Number: 4547.15.01 Lab Project Manager: Tegan Schott	**Lab ID#:** 1508355 **Reported:** 08/27/15 17:00

SB-1 (2') US

1508355-01 (Soil) Sampled: 08/18/15 09:34

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
General Chemistry by Standard/EPA/ASTM Methods											
Percent Solids	**85.7**	0.100	NA	NA	wt%	08/24/15 08:07	08/24/15 08:07	SM 2540 G	A	JMD	
Volatile Organic Compounds by GC/MS											**VOCM**
1,2,4-Trimethylbenzene	**556000**	11700	5360	NA	µg/Kg dry	08/22/15 02:39	08/25/15 05:27	EPA 8260	A	JMG	Dilut
1,3,5-Trimethylbenzene	**65000**	2330	2260	NA	µg/Kg dry	08/22/15 02:39	08/22/15 02:39	EPA 8260	A	JMG	Dilut
Benzene	**9610**	2330	1230	NA	µg/Kg dry	08/22/15 02:39	08/22/15 02:39	EPA 8260	A	JMG	Dilut
Ethylbenzene	**347000**	11700	7800	NA	µg/Kg dry	08/22/15 02:39	08/25/15 05:27	EPA 8260	A	JMG	Dilut
Isopropylbenzene (Cumene)	**12900**	2330	599	NA	µg/Kg dry	08/22/15 02:39	08/22/15 02:39	EPA 8260	A	JMG	Dilut
MTBE	<2330	2330	525	NA	µg/Kg dry	08/22/15 02:39	08/22/15 02:39	EPA 8260	A	JMG	Dilut
Naphthalene	**28100**	2330	492	NA	µg/Kg dry	08/22/15 02:39	08/22/15 02:39	EPA 8260	A	JMG	Dilut
Toluene	**1170000**	23300	16000	NA	µg/Kg dry	08/22/15 02:39	08/26/15 04:55	EPA 8260	A	JMG	Calib, Dilut
Xylene o	**503000**	11700	7360	NA	µg/Kg dry	08/22/15 02:39	08/25/15 05:27	EPA 8260	A	JMG	Dilut
Xylene p/m	**1840000**	46700	8630	NA	µg/Kg dry	08/22/15 02:39	08/26/15 04:55	EPA 8260	A	JMG	Dilut
Xylenes, Total	**2350000**	58400	NA	NA	µg/Kg dry	08/22/15 02:39	08/26/15 04:55	EPA 8260	A	JMG	Calc, Dilut

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Cook's Country Store 16570 Hell Lane James Creek PA, 16657	Project Name: Site Characterization Project Number: 4547.15.01 Lab Project Manager: Tegan Schott	**Lab ID#:** 1508355 **Reported:** 08/27/15 17:00

SB-1 (8') US

1508355-02 (Soil) Sampled: 08/18/15 09:34

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
General Chemistry by Standard/EPA/ASTM Methods											
Percent Solids	**88.3**	0.100	NA	NA	wt%	08/24/15 08:07	08/24/15 08:07	SM 2540 G	A	JMD	
Volatile Organic Compounds by GC/MS											**VOCL**
1,2,4-Trimethylbenzene	**3940**	227	104	NA	µg/Kg dry	08/22/15 03:05	08/22/15 03:05	EPA 8260	A	JMG	
1,3,5-Trimethylbenzene	**1240**	227	219	NA	µg/Kg dry	08/22/15 03:05	08/22/15 03:05	EPA 8260	A	JMG	
Benzene	<227	227	120	NA	µg/Kg dry	08/22/15 03:05	08/22/15 03:05	EPA 8260	A	JMG	
Ethylbenzene	**722**	227	151	NA	µg/Kg dry	08/22/15 03:05	08/22/15 03:05	EPA 8260	A	JMG	
Isopropylbenzene (Cumene)	<227	227	58.1	NA	µg/Kg dry	08/22/15 03:05	08/22/15 03:05	EPA 8260	A	JMG	
MTBE	<227	227	50.9	NA	µg/Kg dry	08/22/15 03:05	08/22/15 03:05	EPA 8260	A	JMG	
Naphthalene	**997**	227	47.8	NA	µg/Kg dry	08/22/15 03:05	08/22/15 03:05	EPA 8260	A	JMG	
Toluene	**243**	227	155	NA	µg/Kg dry	08/22/15 03:05	08/22/15 03:05	EPA 8260	A	JMG	
Xylene o	**290**	227	143	NA	µg/Kg dry	08/22/15 03:05	08/22/15 03:05	EPA 8260	A	JMG	
Xylene p/m	**3310**	453	83.7	NA	µg/Kg dry	08/22/15 03:05	08/22/15 03:05	EPA 8260	A	JMG	
Xylenes, Total	**3600**	680	NA	NA	µg/Kg dry	08/22/15 03:05	08/22/15 03:05	EPA 8260	A	JMG	Calc

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Cook's Country Store 16570 Hell Lane James Creek PA, 16657	Project Name: Site Characterization Project Number: 4547.15.01 Lab Project Manager: Tegan Schott	**Lab ID#:** 1508355 **Reported:** 08/27/15 17:00

MW-1 (3') US

1508355-03 (Soil) Sampled: 08/18/15 09:05

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
General Chemistry by Standard/EPA/ASTM Methods											
Percent Solids	**86.4**	0.100	NA	NA	wt%	08/24/15 08:07	08/24/15 08:07	SM 2540 G	A	JMD	
Volatile Organic Compounds by GC/MS											**VOCM**
1,2,4-Trimethylbenzene	**164000**	11600	5320	NA	µg/Kg dry	08/22/15 03:31	08/22/15 05:53	EPA 8260	A	JMG	Dilut
1,3,5-Trimethylbenzene	**42600**	2320	2240	NA	µg/Kg dry	08/22/15 03:31	08/22/15 03:31	EPA 8260	A	JMG	Dilut
Benzene	**8270**	2320	1220	NA	µg/Kg dry	08/22/15 03:31	08/22/15 03:31	EPA 8260	A	JMG	Dilut
Ethylbenzene	**82100**	2320	1550	NA	µg/Kg dry	08/22/15 03:31	08/22/15 03:31	EPA 8260	A	JMG	Dilut
Isopropylbenzene (Cumene)	**9010**	2320	594	NA	µg/Kg dry	08/22/15 03:31	08/22/15 03:31	EPA 8260	A	JMG	Dilut
MTBE	<2320	2320	520	NA	µg/Kg dry	08/22/15 03:31	08/22/15 03:31	EPA 8260	A	JMG	Dilut
Naphthalene	**18500**	2320	488	NA	µg/Kg dry	08/22/15 03:31	08/22/15 03:31	EPA 8260	A	JMG	Dilut
Toluene	**231000**	11600	7910	NA	µg/Kg dry	08/22/15 03:31	08/25/15 05:53	EPA 8260	A	JMG	Dilut
Xylene o	**159000**	11600	7300	NA	µg/Kg dry	08/22/15 03:31	08/25/15 05:53	EPA 8260	A	JMG	Dilut
Xylene p/m	**407000**	23200	4280	NA	µg/Kg dry	08/22/15 03:31	08/25/15 05:53	EPA 8260	A	JMG	Dilut
Xylenes, Total	**566000**	34700	NA	NA	µg/Kg dry	08/22/15 03:31	08/25/15 05:53	EPA 8260	A	JMG	Calc, Dilut

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Cook's Country Store 16570 Hell Lane James Creek PA, 16657	Project Name: Site Characterization Project Number: 4547.15.01 Lab Project Manager: Tegan Schott	**Lab ID#:** 1508355 **Reported:** 08/27/15 17:00

MW-1 (8') US

1508355-04 (Soil) Sampled: 08/18/15 09:05

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
General Chemistry by Standard/EPA/ASTM Methods											
Percent Solids	**83.1**	0.100	NA	NA	wt%	08/24/15 08:07	08/24/15 08:07	SM 2540 G	A	JMD	
Volatile Organic Compounds by GC/MS											**VOCL**
1,2,4-Trimethylbenzene	<241	241	111	NA	µg/Kg dry	08/22/15 03:58	08/22/15 03:58	EPA 8260	A	JMG	
1,3,5-Trimethylbenzene	<241	241	233	NA	µg/Kg dry	08/22/15 03:58	08/22/15 03:58	EPA 8260	A	JMG	
Benzene	**439**	241	127	NA	µg/Kg dry	08/22/15 03:58	08/22/15 03:58	EPA 8260	A	JMG	
Ethylbenzene	<241	241	161	NA	µg/Kg dry	08/22/15 03:58	08/22/15 03:58	EPA 8260	A	JMG	
Isopropylbenzene (Cumene)	<241	241	61.7	NA	µg/Kg dry	08/22/15 03:58	08/22/15 03:58	EPA 8260	A	JMG	
MTBE	<241	241	54.1	NA	µg/Kg dry	08/22/15 03:58	08/22/15 03:58	EPA 8260	A	JMG	
Naphthalene	<241	241	50.8	NA	µg/Kg dry	08/22/15 03:58	08/22/15 03:58	EPA 8260	A	JMG	
Toluene	<241	241	165	NA	µg/Kg dry	08/22/15 03:58	08/22/15 03:58	EPA 8260	A	JMG	
Xylene o	<241	241	152	NA	µg/Kg dry	08/22/15 03:58	08/22/15 03:58	EPA 8260	A	JMG	
Xylene p/m	<481	481	89.0	NA	µg/Kg dry	08/22/15 03:58	08/22/15 03:58	EPA 8260	A	JMG	
Xylenes, Total	<722	722	NA	NA	µg/Kg dry	08/22/15 03:58	08/22/15 03:58	EPA 8260	A	JMG	Calc

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Tegan Schott, Technical Specialist II

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Cook's Country Store	Project Name: Site Characterization	**Lab ID#:** 1508355
16570 Hell Lane	Project Number: 4547.15.01	**Reported:**
James Creek PA, 16657	Lab Project Manager: Tegan Schott	08/27/15 17:00

SB-2 (2') US

1508355-05 (Soil) Sampled: 08/18/15 10:06

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
General Chemistry by Standard/EPA/ASTM Methods											
Percent Solids	**86.2**	0.100	NA	NA	wt%	08/24/15 08:07	08/24/15 08:07	SM 2540 G	A	JMD	
Volatile Organic Compounds by GC/MS											**VOCM**
1,2,4-Trimethylbenzene	**590000**	23200	10700	NA	µg/Kg dry	08/22/15 04:24	08/26/15 05:21	EPA 8260	A	JMG	
1,3,5-Trimethylbenzene	**196000**	4640	4490	NA	µg/Kg dry	08/22/15 04:24	08/25/15 06:19	EPA 8260	A	JMG	Dilut
Benzene	**3670**	232	123	NA	µg/Kg dry	08/22/15 04:24	08/22/15 04:24	EPA 8260	A	JMG	
Ethylbenzene	**298000**	23200	15500	NA	µg/Kg dry	08/22/15 04:24	08/26/15 05:21	EPA 8260	A	JMG	Dilut
Isopropylbenzene (Cumene)	**4250**	232	59.5	NA	µg/Kg dry	08/22/15 04:24	08/22/15 04:24	EPA 8260	A	JMG	
MTBE	<232	232	52.2	NA	µg/Kg dry	08/22/15 04:24	08/22/15 04:24	EPA 8260	A	JMG	
Naphthalene	**8150**	232	48.9	NA	µg/Kg dry	08/22/15 04:24	08/22/15 04:24	EPA 8260	A	JMG	
Toluene	**648000**	23200	15900	NA	µg/Kg dry	08/22/15 04:24	08/26/15 05:21	EPA 8260	A	JMG	Dilut
Xylene o	**457000**	23200	14600	NA	µg/Kg dry	08/22/15 04:24	08/26/15 05:21	EPA 8260	A	JMG	
Xylene p/m	**1160000**	46400	8580	NA	µg/Kg dry	08/22/15 04:24	08/26/15 05:21	EPA 8260	A	JMG	
Xylenes, Total	**1610000**	69600	NA	NA	µg/Kg dry	08/22/15 04:24	08/26/15 05:21	EPA 8260	A	JMG	Calc

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Tegan Schott

Tegan Schott, Technical Specialist II

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Cook's Country Store	Project Name: Site Characterization	**Lab ID#:** 1508355
16570 Hell Lane	Project Number: 4547.15.01	**Reported:**
James Creek PA, 16657	Lab Project Manager: Tegan Schott	08/27/15 17:00

SB-2 (4') US

1508355-06 (Soil) Sampled: 08/18/15 10:06

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
General Chemistry by Standard/EPA/ASTM Methods											
Percent Solids	**79.4**	0.100	NA	NA	wt%	08/24/15 08:07	08/24/15 08:07	SM 2540 G	A	JMD	
Volatile Organic Compounds by GC/MS											**VOCM**
1,2,4-Trimethylbenzene	**80800**	2520	1160	NA	µg/Kg dry	08/22/15 04:50	08/25/15 06:46	EPA 8260	A	JMG	Dilut
1,3,5-Trimethylbenzene	**25300**	2520	2440	NA	µg/Kg dry	08/22/15 04:50	08/25/15 06:46	EPA 8260	A	JMG	Dilut
Benzene	**2660**	252	133	NA	µg/Kg dry	08/22/15 04:50	08/22/15 04:50	EPA 8260	A	JMG	
Ethylbenzene	**29800**	2520	1680	NA	µg/Kg dry	08/22/15 04:50	08/25/15 06:46	EPA 8260	A	JMG	Dilut
Isopropylbenzene (Cumene)	**6020**	252	64.6	NA	µg/Kg dry	08/22/15 04:50	08/22/15 04:50	EPA 8260	A	JMG	
MTBE	<252	252	56.6	NA	µg/Kg dry	08/22/15 04:50	08/22/15 04:50	EPA 8260	A	JMG	
Naphthalene	**13400**	2520	531	NA	µg/Kg dry	08/22/15 04:50	08/25/15 06:46	EPA 8260	A	JMG	Dilut
Toluene	**29400**	2520	1720	NA	µg/Kg dry	08/22/15 04:50	08/25/15 06:46	EPA 8260	A	JMG	Dilut
Xylene o	**34200**	2520	1590	NA	µg/Kg dry	08/22/15 04:50	08/25/15 06:46	EPA 8260	A	JMG	Dilut
Xylene p/m	**102000**	5040	931	NA	µg/Kg dry	08/22/15 04:50	08/25/15 06:46	EPA 8260	A	JMG	Dilut
Xylenes, Total	**136000**	7560	NA	NA	µg/Kg dry	08/22/15 04:50	08/25/15 06:46	EPA 8260	A	JMG	Calc, Dilut

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Cook's Country Store 16570 Hell Lane James Creek PA, 16657	Project Name: Site Characterization Project Number: 4547.15.01 Lab Project Manager: Tegan Schott	**Lab ID#:** 1508355 **Reported:** 08/27/15 17:00

SB-2 (6') US

1508355-07 (Soil) Sampled: 08/18/15 10:06

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
General Chemistry by Standard/EPA/ASTM Methods											
Percent Solids	**85.0**	0.100	NA	NA	wt%	08/24/15 08:07	08/24/15 08:07	SM 2540 G	A	JMD	
Volatile Organic Compounds by GC/MS											
1,2,4-Trimethylbenzene	**68100**	2350	1080	NA	µg/Kg dry	08/22/15 05:16	08/22/15 05:16	EPA 8260	A	JMG	Dilut
1,3,5-Trimethylbenzene	**21400**	2350	2280	NA	µg/Kg dry	08/22/15 05:16	08/22/15 05:16	EPA 8260	A	JMG	Dilut
Benzene	**6060**	2350	1240	NA	µg/Kg dry	08/22/15 05:16	08/22/15 05:16	EPA 8260	A	JMG	Dilut
Ethylbenzene	**33000**	2350	1570	NA	µg/Kg dry	08/22/15 05:16	08/22/15 05:16	EPA 8260	A	JMG	Dilut
Isopropylbenzene (Cumene)	**4630**	2350	604	NA	µg/Kg dry	08/22/15 05:16	08/22/15 05:16	EPA 8260	A	JMG	Dilut
MTBE	<2350	2350	529	NA	µg/Kg dry	08/22/15 05:16	08/22/15 05:16	EPA 8260	A	JMG	Dilut
Naphthalene	**12200**	2350	496	NA	µg/Kg dry	08/22/15 05:16	08/22/15 05:16	EPA 8260	A	JMG	Dilut
Toluene	**63900**	2350	1610	NA	µg/Kg dry	08/22/15 05:16	08/22/15 05:16	EPA 8260	A	JMG	Dilut
Xylene o	**35900**	2350	1480	NA	µg/Kg dry	08/22/15 05:16	08/22/15 05:16	EPA 8260	A	JMG	Dilut
Xylene p/m	**112000**	4710	870	NA	µg/Kg dry	08/22/15 05:16	08/22/15 05:16	EPA 8260	A	JMG	Dilut
Xylenes, Total	**148000**	4940	NA	NA	µg/Kg dry	08/22/15 05:16	08/22/15 05:16	EPA 8260	A	JMG	Calc, Dilut

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Cook's Country Store	Project Name: Site Characterization	**Lab ID#:** 1508355
16570 Hell Lane	Project Number: 4547.15.01	**Reported:**
James Creek PA, 16657	Lab Project Manager: Tegan Schott	08/27/15 17:00

SB-3 (2') US

1508355-08 (Soil) Sampled: 08/18/15 10:31

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
General Chemistry by Standard/EPA/ASTM Methods											
Percent Solids	**86.2**	0.100	NA	NA	wt%	08/24/15 08:07	08/24/15 08:07	SM 2540 G	A	JMD	
Volatile Organic Compounds by GC/MS											**VOCL**
1,2,4-Trimethylbenzene	**241000**	23200	10700	NA	µg/Kg dry	08/22/15 05:43	08/25/15 07:12	EPA 8260	A	JMG	Dilut
1,3,5-Trimethylbenzene	**80000**	23200	22500	NA	µg/Kg dry	08/22/15 05:43	08/25/15 07:12	EPA 8260	A	JMG	Dilut
Benzene	**30000**	2320	1230	NA	µg/Kg dry	08/22/15 05:43	08/22/15 05:43	EPA 8260	A	JMG	Dilut
Ethylbenzene	**88500**	23200	15500	NA	µg/Kg dry	08/22/15 05:43	08/25/15 07:12	EPA 8260	A	JMG	Dilut
Isopropylbenzene (Cumene)	**40900**	2320	595	NA	µg/Kg dry	08/22/15 05:43	08/22/15 05:43	EPA 8260	A	JMG	Dilut
MTBE	<2320	2320	522	NA	µg/Kg dry	08/22/15 05:43	08/22/15 05:43	EPA 8260	A	JMG	Dilut
Naphthalene	**73700**	2320	489	NA	µg/Kg dry	08/22/15 05:43	08/22/15 05:43	EPA 8260	A	JMG	Dilut
Toluene	**50600**	2320	1590	NA	µg/Kg dry	08/22/15 05:43	08/22/15 05:43	EPA 8260	A	JMG	Dilut
Xylene o	**72600**	2320	1460	NA	µg/Kg dry	08/22/15 05:43	08/22/15 05:43	EPA 8260	A	JMG	Dilut
Xylene p/m	**355000**	46400	8580	NA	µg/Kg dry	08/22/15 05:43	08/25/15 07:12	EPA 8260	A	JMG	Dilut
Xylenes, Total	**428000**	69600	NA	NA	µg/Kg dry	08/22/15 05:43	08/25/15 07:12	EPA 8260	A	JMG	Calc, Dilut

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Tegan Schott

Tegan Schott, Technical Specialist II

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Cook's Country Store	Project Name: Site Characterization	**Lab ID#:** 1508355
16570 Hell Lane	Project Number: 4547.15.01	**Reported:**
James Creek PA, 16657	Lab Project Manager: Tegan Schott	08/27/15 17:00

SB-3 (4') US

1508355-09 (Soil) Sampled: 08/18/15 10:31

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
General Chemistry by Standard/EPA/ASTM Methods											
Percent Solids	**78.3**	0.100	NA	NA	wt%	08/24/15 08:07	08/24/15 08:07	SM 2540 G	A	JMD	
Volatile Organic Compounds by GC/MS											**VOCM**
1,2,4-Trimethylbenzene	**179000**	12800	5870	NA	µg/Kg dry	08/22/15 06:09	08/25/15 07:39	EPA 8260	A	JMG	Dilut
1,3,5-Trimethylbenzene	**51100**	2560	2470	NA	µg/Kg dry	08/22/15 06:09	08/22/15 06:09	EPA 8260	A	JMG	Dilut
Benzene	**9830**	2560	1350	NA	µg/Kg dry	08/22/15 06:09	08/22/15 06:09	EPA 8260	A	JMG	Dilut
Ethylbenzene	**83700**	2560	1710	NA	µg/Kg dry	08/22/15 06:09	08/22/15 06:09	EPA 8260	A	JMG	Dilut
Isopropylbenzene (Cumene)	**12000**	2560	655	NA	µg/Kg dry	08/22/15 06:09	08/22/15 06:09	EPA 8260	A	JMG	Dilut
MTBE	<2560	2560	574	NA	µg/Kg dry	08/22/15 06:09	08/22/15 06:09	EPA 8260	A	JMG	Dilut
Naphthalene	**24000**	2560	539	NA	µg/Kg dry	08/22/15 06:09	08/22/15 06:09	EPA 8260	A	JMG	Dilut
Toluene	**116000**	2560	1750	NA	µg/Kg dry	08/22/15 06:09	08/22/15 06:09	EPA 8260	A	JMG	Dilut
Xylene o	**110000**	2560	1610	NA	µg/Kg dry	08/22/15 06:09	08/22/15 06:09	EPA 8260	A	JMG	Dilut
Xylene p/m	**325000**	25600	4720	NA	µg/Kg dry	08/22/15 06:09	08/25/15 07:39	EPA 8260	A	JMG	Dilut
Xylenes, Total	**435000**	28100	NA	NA	µg/Kg dry	08/22/15 06:09	08/25/15 07:39	EPA 8260	A	JMG	Calc, Dilut

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Cook's Country Store 16570 Hell Lane James Creek PA, 16657	Project Name: Site Characterization Project Number: 4547.15.01 Lab Project Manager: Tegan Schott	**Lab ID#:** 1508355 **Reported:** 08/27/15 17:00

MW-2 (3') US

1508355-10 (Soil) Sampled: 08/18/15 10:59

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
General Chemistry by Standard/EPA/ASTM Methods											
Percent Solids	**87.7**	0.100	NA	NA	wt%	08/24/15 08:07	08/24/15 08:07	SM 2540 G	A	JMD	
Volatile Organic Compounds by GC/MS											**VOCM**
1,2,4-Trimethylbenzene	**211000**	11400	5240	NA	µg/Kg dry	08/22/15 06:35	08/25/15 08:05	EPA 8260	A	JMG	Dilut
1,3,5-Trimethylbenzene	**69400**	2280	2210	NA	µg/Kg dry	08/22/15 06:35	08/22/15 06:35	EPA 8260	A	JMG	Dilut
Benzene	**5180**	2280	1200	NA	µg/Kg dry	08/22/15 06:35	08/22/15 06:35	EPA 8260	A	JMG	Dilut
Ethylbenzene	**60700**	2280	1520	NA	µg/Kg dry	08/22/15 06:35	08/22/15 06:35	EPA 8260	A	JMG	Dilut
Isopropylbenzene (Cumene)	**14800**	2280	585	NA	µg/Kg dry	08/22/15 06:35	08/22/15 06:35	EPA 8260	A	JMG	Dilut
MTBE	<2280	2280	513	NA	µg/Kg dry	08/22/15 06:35	08/22/15 06:35	EPA 8260	A	JMG	Dilut
Naphthalene	**28500**	2280	481	NA	µg/Kg dry	08/22/15 06:35	08/22/15 06:35	EPA 8260	A	JMG	Dilut
Toluene	**9810**	2280	1560	NA	µg/Kg dry	08/22/15 06:35	08/22/15 06:35	EPA 8260	A	JMG	Dilut
Xylene o	**54400**	2280	1440	NA	µg/Kg dry	08/22/15 06:35	08/22/15 06:35	EPA 8260	A	JMG	Dilut
Xylene p/m	**269000**	22800	4220	NA	µg/Kg dry	08/22/15 06:35	08/25/15 08:05	EPA 8260	A	JMG	Dilut
Xylenes, Total	**323000**	25100	NA	NA	µg/Kg dry	08/22/15 06:35	08/25/15 08:05	EPA 8260	A	JMG	Calc, Dilut

Mountain Research, LLC

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Tegan Schott

Tegan Schott, Technical Specialist II

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Cook's Country Store	Project Name: Site Characterization	**Lab ID#:** 1508355
16570 Hell Lane	Project Number: 4547.15.01	**Reported:**
James Creek PA, 16657	Lab Project Manager: Tegan Schott	08/27/15 17:00

MW-2 (12') US

1508355-11 (Soil) Sampled: 08/18/15 10:59

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
General Chemistry by Standard/EPA/ASTM Methods											
Percent Solids	**83.4**	0.100	NA	NA	wt%	08/24/15 08:07	08/24/15 08:07	SM 2540 G	A	JMD	
Volatile Organic Compounds by GC/MS											**VOCM**
1,2,4-Trimethylbenzene	**891**	240	110	NA	µg/Kg dry	08/22/15 07:01	08/22/15 07:01	EPA 8260	A	JMG	
1,3,5-Trimethylbenzene	**318**	240	232	NA	µg/Kg dry	08/22/15 07:01	08/22/15 07:01	EPA 8260	A	JMG	
Benzene	<240	240	127	NA	µg/Kg dry	08/22/15 07:01	08/22/15 07:01	EPA 8260	A	JMG	
Ethylbenzene	**336**	240	160	NA	µg/Kg dry	08/22/15 07:01	08/22/15 07:01	EPA 8260	A	JMG	
Isopropylbenzene (Cumene)	<240	240	61.5	NA	µg/Kg dry	08/22/15 07:01	08/22/15 07:01	EPA 8260	A	JMG	
MTBE	<240	240	53.9	NA	µg/Kg dry	08/22/15 07:01	08/22/15 07:01	EPA 8260	A	JMG	
Naphthalene	<240	240	50.6	NA	µg/Kg dry	08/22/15 07:01	08/22/15 07:01	EPA 8260	A	JMG	
Toluene	<240	240	164	NA	µg/Kg dry	08/22/15 07:01	08/22/15 07:01	EPA 8260	A	JMG	
Xylene o	<240	240	151	NA	µg/Kg dry	08/22/15 07:01	08/22/15 07:01	EPA 8260	A	JMG	
Xylene p/m	**1450**	480	88.7	NA	µg/Kg dry	08/22/15 07:01	08/22/15 07:01	EPA 8260	A	JMG	
Xylenes, Total	**1450**	720	NA	NA	µg/Kg dry	08/22/15 07:01	08/22/15 07:01	EPA 8260	A	JMG	Calc

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Cook's Country Store	Project Name: Site Characterization	**Lab ID#:** 1508355
16570 Hell Lane	Project Number: 4547.15.01	**Reported:**
James Creek PA, 16657	Lab Project Manager: Tegan Schott	08/27/15 17:00

SB-4 (2') US

1508355-12 (Soil) Sampled: 08/18/15 11:29

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
General Chemistry by Standard/EPA/ASTM Methods											
Percent Solids	**87.8**	0.100	NA	NA	wt%	08/24/15 08:07	08/24/15 08:07	SM 2540 G	A	JMD	
Volatile Organic Compounds by GC/MS											**VOCL**
1,2,4-Trimethylbenzene	**251000**	11400	5230	NA	µg/Kg dry	08/22/15 07:28	08/26/15 05:47	EPA 8260	A	JMG	Dilut
1,3,5-Trimethylbenzene	**65100**	2280	2200	NA	µg/Kg dry	08/22/15 07:28	08/22/15 07:28	EPA 8260	A	JMG	Dilut
Benzene	**8140**	2280	1200	NA	µg/Kg dry	08/22/15 07:28	08/22/15 07:28	EPA 8260	A	JMG	Dilut
Ethylbenzene	**45400**	2280	1520	NA	µg/Kg dry	08/22/15 07:28	08/22/15 07:28	EPA 8260	A	JMG	Dilut
Isopropylbenzene (Cumene)	**11400**	2280	584	NA	µg/Kg dry	08/22/15 07:28	08/22/15 07:28	EPA 8260	A	JMG	Dilut
MTBE	<2280	2280	512	NA	µg/Kg dry	08/22/15 07:28	08/22/15 07:28	EPA 8260	A	JMG	Dilut
Naphthalene	**23300**	2280	480	NA	µg/Kg dry	08/22/15 07:28	08/22/15 07:28	EPA 8260	A	JMG	Dilut
Toluene	**14500**	2280	1560	NA	µg/Kg dry	08/22/15 07:28	08/22/15 07:28	EPA 8260	A	JMG	Dilut
Xylene o	**13800**	2280	1440	NA	µg/Kg dry	08/22/15 07:28	08/22/15 07:28	EPA 8260	A	JMG	Dilut
Xylene p/m	**207000**	4550	842	NA	µg/Kg dry	08/22/15 07:28	08/22/15 07:28	EPA 8260	A	JMG	Dilut
Xylenes, Total	**221000**	6830	NA	NA	µg/Kg dry	08/22/15 07:28	08/22/15 07:28	EPA 8260	A	JMG	Calc, Dilut

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Cook's Country Store	Project Name: Site Characterization	**Lab ID#:** 1508355
16570 Hell Lane	Project Number: 4547.15.01	**Reported:**
James Creek PA, 16657	Lab Project Manager: Tegan Schott	08/27/15 17:00

SB-4 (4') US

1508355-13 (Soil) Sampled: 08/18/15 11:29

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
General Chemistry by Standard/EPA/ASTM Methods											
Percent Solids	**77.8**	0.100	NA	NA	wt%	08/24/15 08:07	08/24/15 08:07	SM 2540 G	A	JMD	
Volatile Organic Compounds by GC/MS											**VOCL**
1,2,4-Trimethylbenzene	**5480**	257	118	NA	µg/Kg dry	08/22/15 07:54	08/22/15 07:54	EPA 8260	A	JMG	
1,3,5-Trimethylbenzene	**1910**	257	249	NA	µg/Kg dry	08/22/15 07:54	08/22/15 07:54	EPA 8260	A	JMG	
Benzene	**1320**	257	136	NA	µg/Kg dry	08/22/15 07:54	08/22/15 07:54	EPA 8260	A	JMG	
Ethylbenzene	**1870**	257	172	NA	µg/Kg dry	08/22/15 07:54	08/22/15 07:54	EPA 8260	A	JMG	
Isopropylbenzene (Cumene)	**650**	257	65.9	NA	µg/Kg dry	08/22/15 07:54	08/22/15 07:54	EPA 8260	A	JMG	
MTBE	<257	257	57.8	NA	µg/Kg dry	08/22/15 07:54	08/22/15 07:54	EPA 8260	A	JMG	
Naphthalene	**1290**	257	54.2	NA	µg/Kg dry	08/22/15 07:54	08/22/15 07:54	EPA 8260	A	JMG	
Toluene	**381**	257	176	NA	µg/Kg dry	08/22/15 07:54	08/22/15 07:54	EPA 8260	A	JMG	
Xylene o	**1130**	257	162	NA	µg/Kg dry	08/22/15 07:54	08/22/15 07:54	EPA 8260	A	JMG	
Xylene p/m	**8010**	514	95.1	NA	µg/Kg dry	08/22/15 07:54	08/22/15 07:54	EPA 8260	A	JMG	
Xylenes, Total	**9150**	772	NA	NA	µg/Kg dry	08/22/15 07:54	08/22/15 07:54	EPA 8260	A	JMG	Calc

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Cook's Country Store 16570 Hell Lane James Creek PA, 16657	Project Name: Site Characterization Project Number: 4547.15.01 Lab Project Manager: Tegan Schott	**Lab ID#:** 1508355 **Reported:** 08/27/15 17:00

SB-5 (2') US

1508355-14 (Soil) Sampled: 08/18/15 11:58

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
General Chemistry by Standard/EPA/ASTM Methods											
Percent Solids	**87.5**	0.100	NA	NA	wt%	08/24/15 08:07	08/24/15 08:07	SM 2540 G	A	JMD	
Volatile Organic Compounds by GC/MS											**LSurr, VOCL**
1,2,4-Trimethylbenzene	**513000**	11400	5250	NA	µg/Kg dry	08/22/15 08:20	08/25/15 08:58	EPA 8260	A	JMG	Dilut
1,3,5-Trimethylbenzene	**205000**	11400	11100	NA	µg/Kg dry	08/22/15 08:20	08/25/15 08:58	EPA 8260	A	JMG	Dilut
Benzene	**10800**	228	121	NA	µg/Kg dry	08/22/15 08:20	08/22/15 08:20	EPA 8260	A	JMG	
Ethylbenzene	**110000**	11400	7630	NA	µg/Kg dry	08/22/15 08:20	08/25/15 08:58	EPA 8260	A	JMG	Dilut
Isopropylbenzene (Cumene)	**26000**	11400	2930	NA	µg/Kg dry	08/22/15 08:20	08/25/15 08:58	EPA 8260	A	JMG	Dilut
MTBE	<228	228	51.3	NA	µg/Kg dry	08/22/15 08:20	08/22/15 08:20	EPA 8260	A	JMG	
Naphthalene	**55500**	11400	2410	NA	µg/Kg dry	08/22/15 08:20	08/25/15 08:58	EPA 8260	A	JMG	Dilut
Toluene	**38700**	11400	7810	NA	µg/Kg dry	08/22/15 08:20	08/25/15 08:58	EPA 8260	A	JMG	Dilut
Xylene o	**13700**	11400	7200	NA	µg/Kg dry	08/22/15 08:20	08/25/15 08:58	EPA 8260	A	JMG	Dilut
Xylene p/m	**521000**	22800	4220	NA	µg/Kg dry	08/22/15 08:20	08/25/15 08:58	EPA 8260	A	JMG	Dilut
Xylenes, Total	**534000**	34300	NA	NA	µg/Kg dry	08/22/15 08:20	08/25/15 08:58	EPA 8260	A	JMG	Calc, Dilut

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Cook's Country Store	Project Name: Site Characterization	**Lab ID#:** 1508355
16570 Hell Lane	Project Number: 4547.15.01	**Reported:**
James Creek PA, 16657	Lab Project Manager: Tegan Schott	08/27/15 17:00

SB-5 (4') US

1508355-15 (Soil) Sampled: 08/18/15 11:58

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
General Chemistry by Standard/EPA/ASTM Methods											
Percent Solids	**74.2**	0.100	NA	NA	wt%	08/24/15 08:07	08/24/15 08:07	SM 2540 G	A	JMD	
Volatile Organic Compounds by GC/MS											**VOCM**
1,2,4-Trimethylbenzene	**690000**	53900	24800	NA	µg/Kg dry	08/24/15 17:37	08/25/15 18:25	EPA 8260	A	JMG	Dilut
1,3,5-Trimethylbenzene	**216000**	5390	5220	NA	µg/Kg dry	08/24/15 17:37	08/24/15 17:37	EPA 8260	A	JMG	Dilut
Benzene	**120000**	5390	2850	NA	µg/Kg dry	08/24/15 17:37	08/24/15 17:37	EPA 8260	A	JMG	Dilut
Ethylbenzene	**400000**	53900	36000	NA	µg/Kg dry	08/24/15 17:37	08/25/15 18:25	EPA 8260	A	JMG	Dilut
Isopropylbenzene (Cumene)	**47000**	5390	1380	NA	µg/Kg dry	08/24/15 17:37	08/24/15 17:37	EPA 8260	A	JMG	Dilut
MTBE	<5390	5390	1210	NA	µg/Kg dry	08/24/15 17:37	08/24/15 17:37	EPA 8260	A	JMG	Dilut
Naphthalene	**92800**	5390	1140	NA	µg/Kg dry	08/24/15 17:37	08/24/15 17:37	EPA 8260	A	JMG	Dilut
Toluene	**1520000**	53900	36900	NA	µg/Kg dry	08/24/15 17:37	08/25/15 18:25	EPA 8260	A	JMG	Dilut
Xylene o	**561000**	53900	34000	NA	µg/Kg dry	08/24/15 17:37	08/25/15 18:25	EPA 8260	A	JMG	Dilut
Xylene p/m	**1480000**	108000	19900	NA	µg/Kg dry	08/24/15 17:37	08/25/15 18:25	EPA 8260	A	JMG	Dilut
Xylenes, Total	**2040000**	162000	NA	NA	µg/Kg dry	08/24/15 17:37	08/25/15 18:25	EPA 8260	A	JMG	Calc, Dilut

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Cook's Country Store	Project Name: Site Characterization	**Lab ID#:** 1508355
16570 Hell Lane	Project Number: 4547.15.01	**Reported:**
James Creek PA, 16657	Lab Project Manager: Tegan Schott	08/27/15 17:00

SB-6 (2') US

1508355-16 (Soil) Sampled: 08/18/15 12:23

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
General Chemistry by Standard/EPA/ASTM Methods											
Percent Solids	**85.0**	0.100	NA	NA	wt%	08/24/15 08:07	08/24/15 08:07	SM 2540 G	A	JMD	
Volatile Organic Compounds by GC/MS											**VOCM**
1,2,4-Trimethylbenzene	**399000**	11800	5400	NA	µg/Kg dry	08/24/15 18:04	08/24/15 18:04	EPA 8260	A	JMG	Dilut
1,3,5-Trimethylbenzene	**123000**	11800	11400	NA	µg/Kg dry	08/24/15 18:04	08/24/15 18:04	EPA 8260	A	JMG	Dilut
Benzene	**116000**	11800	6210	NA	µg/Kg dry	08/24/15 18:04	08/24/15 18:04	EPA 8260	A	JMG	Dilut
Ethylbenzene	**245000**	11800	7860	NA	µg/Kg dry	08/24/15 18:04	08/24/15 18:04	EPA 8260	A	JMG	Dilut
Isopropylbenzene (Cumene)	**24800**	11800	3020	NA	µg/Kg dry	08/24/15 18:04	08/24/15 18:04	EPA 8260	A	JMG	Dilut
MTBE	<11800	11800	2640	NA	µg/Kg dry	08/24/15 18:04	08/24/15 18:04	EPA 8260	A	JMG	Dilut
Naphthalene	**59300**	11800	2480	NA	µg/Kg dry	08/24/15 18:04	08/24/15 18:04	EPA 8260	A	JMG	Dilut
Toluene	**1450000**	23500	16100	NA	µg/Kg dry	08/24/15 18:04	08/25/15 18:51	EPA 8260	A	JMG	Dilut
Xylene o	**320000**	11800	7420	NA	µg/Kg dry	08/24/15 18:04	08/24/15 18:04	EPA 8260	A	JMG	Dilut
Xylene p/m	**829000**	23500	4350	NA	µg/Kg dry	08/24/15 18:04	08/24/15 18:04	EPA 8260	A	JMG	Dilut
Xylenes, Total	**1150000**	35300	NA	NA	µg/Kg dry	08/24/15 18:04	08/24/15 18:04	EPA 8260	A	JMG	Dilut, Calc

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Cook's Country Store	Project Name: Site Characterization	**Lab ID#:** 1508355
16570 Hell Lane	Project Number: 4547.15.01	**Reported:**
James Creek PA, 16657	Lab Project Manager: Tegan Schott	08/27/15 17:00

SB-6 (8') US

1508355-17 (Soil) Sampled: 08/18/15 12:23

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
General Chemistry by Standard/EPA/ASTM Methods											
Percent Solids	**90.2**	0.100	NA	NA	wt%	08/24/15 08:07	08/24/15 08:07	SM 2540 G	A	JMD	
Volatile Organic Compounds by GC/MS											**VOCL**
1,2,4-Trimethylbenzene	<222	222	102	NA	µg/Kg dry	08/25/15 19:17	08/25/15 19:17	EPA 8260	A	JMG	
1,3,5-Trimethylbenzene	<222	222	215	NA	µg/Kg dry	08/25/15 19:17	08/25/15 19:17	EPA 8260	A	JMG	
Benzene	<222	222	117	NA	µg/Kg dry	08/25/15 19:17	08/25/15 19:17	EPA 8260	A	JMG	
Ethylbenzene	<222	222	148	NA	µg/Kg dry	08/25/15 19:17	08/25/15 19:17	EPA 8260	A	JMG	
Isopropylbenzene (Cumene)	<222	222	56.9	NA	µg/Kg dry	08/25/15 19:17	08/25/15 19:17	EPA 8260	A	JMG	
MTBE	<222	222	49.9	NA	µg/Kg dry	08/25/15 19:17	08/25/15 19:17	EPA 8260	A	JMG	
Naphthalene	<222	222	46.8	NA	µg/Kg dry	08/25/15 19:17	08/25/15 19:17	EPA 8260	A	JMG	
Toluene	<222	222	152	NA	µg/Kg dry	08/25/15 19:17	08/25/15 19:17	EPA 8260	A	JMG	
Xylene o	<222	222	140	NA	µg/Kg dry	08/25/15 19:17	08/25/15 19:17	EPA 8260	A	JMG	
Xylene p/m	<444	444	82.0	NA	µg/Kg dry	08/25/15 19:17	08/25/15 19:17	EPA 8260	A	JMG	
Xylenes, Total	<666	666	NA	NA	µg/Kg dry	08/25/15 19:17	08/25/15 19:17	EPA 8260	A	JMG	Calc

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Cook's Country Store	Project Name: Site Characterization	**Lab ID#:** 1508355
16570 Hell Lane	Project Number: 4547.15.01	**Reported:**
James Creek PA, 16657	Lab Project Manager: Tegan Schott	08/27/15 17:00

MW-3 (2') US

1508355-18 (Soil) Sampled: 08/18/15 13:36

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
General Chemistry by Standard/EPA/ASTM Methods											
Percent Solids	**86.6**	0.100	NA	NA	wt%	08/24/15 08:07	08/24/15 08:07	SM 2540 G	A	JMD	
Volatile Organic Compounds by GC/MS											
1,2,4-Trimethylbenzene	**457000**	11600	5310	NA	µg/Kg dry	08/24/15 18:56	08/24/15 18:56	EPA 8260	A	JMG	Dilut
1,3,5-Trimethylbenzene	**142000**	11600	11200	NA	µg/Kg dry	08/24/15 18:56	08/24/15 18:56	EPA 8260	A	JMG	Dilut
Benzene	**174000**	11600	6100	NA	µg/Kg dry	08/24/15 18:56	08/24/15 18:56	EPA 8260	A	JMG	Dilut
Ethylbenzene	**273000**	11600	7720	NA	µg/Kg dry	08/24/15 18:56	08/24/15 18:56	EPA 8260	A	JMG	Dilut
Isopropylbenzene (Cumene)	**28600**	11600	2960	NA	µg/Kg dry	08/24/15 18:56	08/24/15 18:56	EPA 8260	A	JMG	Dilut
MTBE	<11600	11600	2600	NA	µg/Kg dry	08/24/15 18:56	08/24/15 18:56	EPA 8260	A	JMG	Dilut
Naphthalene	**54300**	11600	2440	NA	µg/Kg dry	08/24/15 18:56	08/24/15 18:56	EPA 8260	A	JMG	Dilut
Toluene	**1090000**	23100	15800	NA	µg/Kg dry	08/24/15 18:56	08/25/15 19:44	EPA 8260	A	JMG	Dilut
Xylene o	**347000**	11600	7280	NA	µg/Kg dry	08/24/15 18:56	08/24/15 18:56	EPA 8260	A	JMG	Dilut
Xylene p/m	**893000**	23100	4270	NA	µg/Kg dry	08/24/15 18:56	08/24/15 18:56	EPA 8260	A	JMG	Dilut
Xylenes, Total	**1240000**	34700	NA	NA	µg/Kg dry	08/24/15 18:56	08/24/15 18:56	EPA 8260	A	JMG	Calc, Dilut

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Cook's Country Store	Project Name: Site Characterization	**Lab ID#:** 1508355
16570 Hell Lane	Project Number: 4547.15.01	**Reported:**
James Creek PA, 16657	Lab Project Manager: Tegan Schott	08/27/15 17:00

MW-3 (4') US

1508355-19 (Soil) Sampled: 08/18/15 13:36

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
General Chemistry by Standard/EPA/ASTM Methods											
Percent Solids	**84.7**	0.100	NA	NA	wt%	08/24/15 08:07	08/24/15 08:07	SM 2540 G	A	JMD	
Volatile Organic Compounds by GC/MS											**VOCM**
1,2,4-Trimethylbenzene	**508000**	11800	5420	NA	µg/Kg dry	08/24/15 19:22	08/24/15 19:22	EPA 8260	A	JMG	Dilut
1,3,5-Trimethylbenzene	**161000**	11800	11400	NA	µg/Kg dry	08/24/15 19:22	08/24/15 19:22	EPA 8260	A	JMG	Dilut
Benzene	**195000**	11800	6230	NA	µg/Kg dry	08/24/15 19:22	08/24/15 19:22	EPA 8260	A	JMG	Dilut
Ethylbenzene	**318000**	11800	7890	NA	µg/Kg dry	08/24/15 19:22	08/24/15 19:22	EPA 8260	A	JMG	Dilut
Isopropylbenzene (Cumene)	**33600**	11800	3030	NA	µg/Kg dry	08/24/15 19:22	08/24/15 19:22	EPA 8260	A	JMG	Dilut
MTBE	<11800	11800	2650	NA	µg/Kg dry	08/24/15 19:22	08/24/15 19:22	EPA 8260	A	JMG	Dilut
Naphthalene	**65400**	11800	2490	NA	µg/Kg dry	08/24/15 19:22	08/24/15 19:22	EPA 8260	A	JMG	Dilut
Toluene	**1260000**	47200	32300	NA	µg/Kg dry	08/24/15 19:22	08/25/15 20:10	EPA 8260	A	JMG	Dilut
Xylene o	**402000**	11800	7440	NA	µg/Kg dry	08/24/15 19:22	08/24/15 19:22	EPA 8260	A	JMG	Dilut
Xylene p/m	**1030000**	23600	4360	NA	µg/Kg dry	08/24/15 19:22	08/24/15 19:22	EPA 8260	A	JMG	Dilut
Xylenes, Total	**1430000**	35400	NA	NA	µg/Kg dry	08/24/15 19:22	08/24/15 19:22	EPA 8260	A	JMG	Calc, Dilut

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Cook's Country Store	Project Name: Site Characterization	**Lab ID#:** 1508355
16570 Hell Lane	Project Number: 4547.15.01	**Reported:**
James Creek PA, 16657	Lab Project Manager: Tegan Schott	08/27/15 17:00

MW-4 (4') US

1508355-20 (Soil) Sampled: 08/18/15 14:28

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
General Chemistry by Standard/EPA/ASTM Methods											
Percent Solids	**79.2**	0.100	NA	NA	wt%	08/24/15 08:07	08/24/15 08:07	SM 2540 G	A	JMD	
Volatile Organic Compounds by GC/MS											**VOCM**
1,2,4-Trimethylbenzene	**21700**	1260	580	NA	µg/Kg dry	08/24/15 19:49	08/24/15 19:49	EPA 8260	A	JMG	Dilut
1,3,5-Trimethylbenzene	**6720**	1260	1220	NA	µg/Kg dry	08/24/15 19:49	08/24/15 19:49	EPA 8260	A	JMG	Dilut
Benzene	**473**	253	133	NA	µg/Kg dry	08/24/15 19:49	08/25/15 20:36	EPA 8260	A	JMG	
Ethylbenzene	**13000**	1260	844	NA	µg/Kg dry	08/24/15 19:49	08/24/15 19:49	EPA 8260	A	JMG	Dilut
Isopropylbenzene (Cumene)	<1260	1260	324	NA	µg/Kg dry	08/24/15 19:49	08/24/15 19:49	EPA 8260	A	JMG	Dilut
MTBE	<253	253	56.8	NA	µg/Kg dry	08/24/15 19:49	08/25/15 20:36	EPA 8260	A	JMG	
Naphthalene	**2810**	1260	266	NA	µg/Kg dry	08/24/15 19:49	08/24/15 19:49	EPA 8260	A	JMG	Dilut
Toluene	**1780**	1260	863	NA	µg/Kg dry	08/24/15 19:49	08/24/15 19:49	EPA 8260	A	JMG	Dilut
Xylene o	**2000**	1260	796	NA	µg/Kg dry	08/24/15 19:49	08/24/15 19:49	EPA 8260	A	JMG	Dilut
Xylene p/m	**50700**	2530	467	NA	µg/Kg dry	08/24/15 19:49	08/24/15 19:49	EPA 8260	A	JMG	Dilut
Xylenes, Total	**52700**	3790	NA	NA	µg/Kg dry	08/24/15 19:49	08/24/15 19:49	EPA 8260	A	JMG	Calc, Dilut

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Cook's Country Store	Project Name: Site Characterization	**Lab ID#:** 1508355
16570 Hell Lane	Project Number: 4547.15.01	**Reported:**
James Creek PA, 16657	Lab Project Manager: Tegan Schott	08/27/15 17:00

SB-7 (3') US

1508355-21 (Soil) Sampled: 08/19/15 09:08

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
General Chemistry by Standard/EPA/ASTM Methods											
Percent Solids	**82.6**	0.100	NA	NA	wt%	08/24/15 08:07	08/24/15 08:07	SM 2540 G	A	JMD	
Volatile Organic Compounds by GC/MS											**VOCM**
1,2,4-Trimethylbenzene	**130000**	12100	5560	NA	µg/Kg dry	08/24/15 20:15	08/25/15 21:02	EPA 8260	A	JMG	Dilut
1,3,5-Trimethylbenzene	**48800**	2420	2340	NA	µg/Kg dry	08/24/15 20:15	08/24/15 20:15	EPA 8260	A	JMG	Dilut
Benzene	<2420	2420	1280	NA	µg/Kg dry	08/24/15 20:15	08/24/15 20:15	EPA 8260	A	JMG	Dilut
Ethylbenzene	**45500**	2420	1620	NA	µg/Kg dry	08/24/15 20:15	08/24/15 20:15	EPA 8260	A	JMG	Dilut
Isopropylbenzene (Cumene)	<2420	2420	621	NA	µg/Kg dry	08/24/15 20:15	08/24/15 20:15	EPA 8260	A	JMG	Dilut
MTBE	<2420	2420	544	NA	µg/Kg dry	08/24/15 20:15	08/24/15 20:15	EPA 8260	A	JMG	Dilut
Naphthalene	**15200**	2420	510	NA	µg/Kg dry	08/24/15 20:15	08/24/15 20:15	EPA 8260	A	JMG	Dilut
Toluene	**19300**	2420	1650	NA	µg/Kg dry	08/24/15 20:15	08/24/15 20:15	EPA 8260	A	JMG	Dilut
Xylene o	**44600**	2420	1530	NA	µg/Kg dry	08/24/15 20:15	08/24/15 20:15	EPA 8260	A	JMG	Dilut
Xylene p/m	**172000**	4840	895	NA	µg/Kg dry	08/24/15 20:15	08/24/15 20:15	EPA 8260	A	JMG	Dilut
Xylenes, Total	**216000**	7260	NA	NA	µg/Kg dry	08/24/15 20:15	08/24/15 20:15	EPA 8260	A	JMG	Calc, Dilut

Mountain Research, LLC

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Cook's Country Store	Project Name: Site Characterization	**Lab ID#:** 1508355
16570 Hell Lane	Project Number: 4547.15.01	**Reported:**
James Creek PA, 16657	Lab Project Manager: Tegan Schott	08/27/15 17:00

SB-8 (3') US

1508355-22 (Soil) Sampled: 08/19/15 09:44

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
General Chemistry by Standard/EPA/ASTM Methods											
Percent Solids	**79.9**	0.100	NA	NA	wt%	08/24/15 08:07	08/24/15 08:07	SM 2540 G	A	JMD	
Volatile Organic Compounds by GC/MS											**VOCM**
1,2,4-Trimethylbenzene	**25300**	1250	575	NA	µg/Kg dry	08/24/15 20:41	08/25/15 21:28	EPA 8260	A	JMG	Dilut
1,3,5-Trimethylbenzene	**8880**	501	485	NA	µg/Kg dry	08/24/15 20:41	08/24/15 20:41	EPA 8260	A	JMG	Dilut
Benzene	**2870**	501	264	NA	µg/Kg dry	08/24/15 20:41	08/24/15 20:41	EPA 8260	A	JMG	Dilut
Ethylbenzene	**12900**	501	335	NA	µg/Kg dry	08/24/15 20:41	08/24/15 20:41	EPA 8260	A	JMG	Dilut
Isopropylbenzene (Cumene)	<501	501	128	NA	µg/Kg dry	08/24/15 20:41	08/24/15 20:41	EPA 8260	A	JMG	Dilut
MTBE	<501	501	113	NA	µg/Kg dry	08/24/15 20:41	08/24/15 20:41	EPA 8260	A	JMG	Dilut
Naphthalene	**3820**	501	106	NA	µg/Kg dry	08/24/15 20:41	08/24/15 20:41	EPA 8260	A	JMG	Dilut
Toluene	**3560**	501	342	NA	µg/Kg dry	08/24/15 20:41	08/24/15 20:41	EPA 8260	A	JMG	Dilut
Xylene o	**4680**	501	316	NA	µg/Kg dry	08/24/15 20:41	08/24/15 20:41	EPA 8260	A	JMG	Dilut
Xylene p/m	**49000**	1000	185	NA	µg/Kg dry	08/24/15 20:41	08/24/15 20:41	EPA 8260	A	JMG	Dilut
Xylenes, Total	**53700**	1500	NA	NA	µg/Kg dry	08/24/15 20:41	08/24/15 20:41	EPA 8260	A	JMG	Calc, Dilut

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Cook's Country Store	Project Name: Site Characterization	**Lab ID#:** 1508355
16570 Hell Lane	Project Number: 4547.15.01	**Reported:**
James Creek PA, 16657	Lab Project Manager: Tegan Schott	08/27/15 17:00

SB-9 (3') US

1508355-23 (Soil) Sampled: 08/19/15 09:23

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
General Chemistry by Standard/EPA/ASTM Methods											
Percent Solids	**84.5**	0.100	NA	NA	wt%	08/24/15 08:07	08/24/15 08:07	SM 2540 G	A	JMD	
Volatile Organic Compounds by GC/MS											**VOCM**
1,2,4-Trimethylbenzene	**66400**	1180	544	NA	µg/Kg dry	08/25/15 21:54	08/25/15 21:54	EPA 8260	A	JMG	Dilut
1,3,5-Trimethylbenzene	**26100**	1180	1150	NA	µg/Kg dry	08/25/15 21:54	08/25/15 21:54	EPA 8260	A	JMG	Dilut
Benzene	<1180	1180	625	NA	µg/Kg dry	08/25/15 21:54	08/25/15 21:54	EPA 8260	A	JMG	Dilut
Ethylbenzene	**21400**	1180	791	NA	µg/Kg dry	08/25/15 21:54	08/25/15 21:54	EPA 8260	A	JMG	Dilut
Isopropylbenzene (Cumene)	**9810**	1180	303	NA	µg/Kg dry	08/25/15 21:54	08/25/15 21:54	EPA 8260	A	JMG	Dilut
MTBE	<1180	1180	266	NA	µg/Kg dry	08/25/15 21:54	08/25/15 21:54	EPA 8260	A	JMG	Dilut
Naphthalene	**10500**	1180	250	NA	µg/Kg dry	08/25/15 21:54	08/25/15 21:54	EPA 8260	A	JMG	Dilut
Toluene	<1180	1180	809	NA	µg/Kg dry	08/25/15 21:54	08/25/15 21:54	EPA 8260	A	JMG	Dilut
Xylene o	**1880**	1180	746	NA	µg/Kg dry	08/25/15 21:54	08/25/15 21:54	EPA 8260	A	JMG	Dilut
Xylene p/m	**55900**	2370	438	NA	µg/Kg dry	08/25/15 21:54	08/25/15 21:54	EPA 8260	A	JMG	Dilut
Xylenes, Total	**57800**	3550	NA	NA	µg/Kg dry	08/25/15 21:54	08/25/15 21:54	EPA 8260	A	JMG	Calc, Dilut

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Cook's Country Store	Project Name: Site Characterization	**Lab ID#:** 1508355
16570 Hell Lane	Project Number: 4547.15.01	**Reported:**
James Creek PA, 16657	Lab Project Manager: Tegan Schott	08/27/15 17:00

SB-9 (4') US

1508355-24 (Soil) Sampled: 08/19/15 09:23

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
General Chemistry by Standard/EPA/ASTM Methods											
Percent Solids	**81.9**	0.100	NA	NA	wt%	08/24/15 08:07	08/24/15 08:07	SM 2540 G	A	JMD	
Volatile Organic Compounds by GC/MS											
1,2,4-Trimethylbenzene	**95700**	2440	1120	NA	µg/Kg dry	08/26/15 02:43	08/26/15 02:43	EPA 8260	A	JMG	
1,3,5-Trimethylbenzene	**36800**	2440	2360	NA	µg/Kg dry	08/26/15 02:43	08/26/15 02:43	EPA 8260	A	JMG	
Benzene	<2440	2440	1290	NA	µg/Kg dry	08/26/15 02:43	08/26/15 02:43	EPA 8260	A	JMG	
Ethylbenzene	**26700**	2440	1630	NA	µg/Kg dry	08/26/15 02:43	08/26/15 02:43	EPA 8260	A	JMG	
Isopropylbenzene (Cumene)	**13000**	2440	626	NA	µg/Kg dry	08/26/15 02:43	08/26/15 02:43	EPA 8260	A	JMG	
MTBE	<2440	2440	549	NA	µg/Kg dry	08/26/15 02:43	08/26/15 02:43	EPA 8260	A	JMG	
Naphthalene	**13900**	2440	515	NA	µg/Kg dry	08/26/15 02:43	08/26/15 02:43	EPA 8260	A	JMG	
Toluene	<2440	2440	1670	NA	µg/Kg dry	08/26/15 02:43	08/26/15 02:43	EPA 8260	A	JMG	
Xylene o	**3510**	2440	1540	NA	µg/Kg dry	08/26/15 02:43	08/26/15 02:43	EPA 8260	A	JMG	
Xylene p/m	**71600**	4880	903	NA	µg/Kg dry	08/26/15 02:43	08/26/15 02:43	EPA 8260	A	JMG	
Xylenes, Total	**75100**	7330	NA	NA	µg/Kg dry	08/26/15 02:43	08/26/15 02:43	EPA 8260	A	JMG	Calc

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Cook's Country Store	Project Name: Site Characterization	**Lab ID#:** 1508355
16570 Hell Lane	Project Number: 4547.15.01	**Reported:**
James Creek PA, 16657	Lab Project Manager: Tegan Schott	08/27/15 17:00

SB-10 (7.5') US

1508355-25 (Soil) Sampled: 08/19/15 10:44

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
General Chemistry by Standard/EPA/ASTM Methods											
Percent Solids	**84.7**	0.100	NA	NA	wt%	08/24/15 08:07	08/24/15 08:07	SM 2540 G	A	JMD	
Volatile Organic Compounds by GC/MS											**VOCM**
1,2,4-Trimethylbenzene	**236000**	11800	5420	NA	µg/Kg dry	08/25/15 02:49	08/26/15 03:10	EPA 8260	A	JMG	Dilut
1,3,5-Trimethylbenzene	**157000**	11800	11400	NA	µg/Kg dry	08/25/15 02:49	08/26/15 03:10	EPA 8260	A	JMG	Dilut
Benzene	<2360	2360	1250	NA	µg/Kg dry	08/25/15 02:49	08/25/15 02:49	EPA 8260	A	JMG	Dilut
Ethylbenzene	**10200**	2360	1580	NA	µg/Kg dry	08/25/15 02:49	08/25/15 02:49	EPA 8260	A	JMG	Dilut
Isopropylbenzene (Cumene)	<2360	2360	606	NA	µg/Kg dry	08/25/15 02:49	08/25/15 02:49	EPA 8260	A	JMG	Dilut
MTBE	<2360	2360	531	NA	µg/Kg dry	08/25/15 02:49	08/25/15 02:49	EPA 8260	A	JMG	Dilut
Naphthalene	**21800**	2360	498	NA	µg/Kg dry	08/25/15 02:49	08/25/15 02:49	EPA 8260	A	JMG	Dilut
Toluene	<2360	2360	1610	NA	µg/Kg dry	08/25/15 02:49	08/25/15 02:49	EPA 8260	A	JMG	Dilut
Xylene o	<2360	2360	1490	NA	µg/Kg dry	08/25/15 02:49	08/25/15 02:49	EPA 8260	A	JMG	Dilut
Xylene p/m	**278000**	23600	4370	NA	µg/Kg dry	08/25/15 02:49	08/26/15 03:10	EPA 8260	A	JMG	Dilut
Xylenes, Total	**278000**	26000	NA	NA	µg/Kg dry	08/25/15 02:49	08/26/15 03:10	EPA 8260	A	JMG	Calc, Dilut

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Cook's Country Store	Project Name: Site Characterization	**Lab ID#:** 1508355
16570 Hell Lane	Project Number: 4547.15.01	**Reported:**
James Creek PA, 16657	Lab Project Manager: Tegan Schott	08/27/15 17:00

SB-10 (9') US

1508355-26 (Soil) Sampled: 08/19/15 10:44

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
General Chemistry by Standard/EPA/ASTM Methods											
Percent Solids	**87.0**	0.100	NA	NA	wt%	08/24/15 08:07	08/24/15 08:07	SM 2540 G	A	JMD	
Volatile Organic Compounds by GC/MS											
1,2,4-Trimethylbenzene	<230	230	106	NA	µg/Kg dry	08/26/15 03:36	08/26/15 03:36	EPA 8260	A	JMG	
1,3,5-Trimethylbenzene	<230	230	223	NA	µg/Kg dry	08/26/15 03:36	08/26/15 03:36	EPA 8260	A	JMG	
Benzene	<230	230	121	NA	µg/Kg dry	08/26/15 03:36	08/26/15 03:36	EPA 8260	A	JMG	
Ethylbenzene	<230	230	154	NA	µg/Kg dry	08/26/15 03:36	08/26/15 03:36	EPA 8260	A	JMG	
Isopropylbenzene (Cumene)	<230	230	59.0	NA	µg/Kg dry	08/26/15 03:36	08/26/15 03:36	EPA 8260	A	JMG	
MTBE	<230	230	51.7	NA	µg/Kg dry	08/26/15 03:36	08/26/15 03:36	EPA 8260	A	JMG	
Naphthalene	<230	230	48.5	NA	µg/Kg dry	08/26/15 03:36	08/26/15 03:36	EPA 8260	A	JMG	
Toluene	<230	230	157	NA	µg/Kg dry	08/26/15 03:36	08/26/15 03:36	EPA 8260	A	JMG	
Xylene o	<230	230	145	NA	µg/Kg dry	08/26/15 03:36	08/26/15 03:36	EPA 8260	A	JMG	
Xylene p/m	<460	460	85.0	NA	µg/Kg dry	08/26/15 03:36	08/26/15 03:36	EPA 8260	A	JMG	
Xylenes, Total	<690	690	NA	NA	µg/Kg dry	08/26/15 03:36	08/26/15 03:36	EPA 8260	A	JMG	Calc

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Cook's Country Store	Project Name: Site Characterization	**Lab ID#:** 1508355
16570 Hell Lane	Project Number: 4547.15.01	**Reported:**
James Creek PA, 16657	Lab Project Manager: Tegan Schott	08/27/15 17:00

SB-11 (1') US

1508355-27 (Soil) Sampled: 08/19/15 11:19

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
General Chemistry by Standard/EPA/ASTM Methods											
Percent Solids	**91.4**	0.100	NA	NA	wt%	08/24/15 08:07	08/24/15 08:07	SM 2540 G	A	JMD	
Volatile Organic Compounds by GC/MS											
1,2,4-Trimethylbenzene	**317000**	21900	10000	NA	µg/Kg dry	08/26/15 04:02	08/26/15 04:02	EPA 8260	A	JMG	
1,3,5-Trimethylbenzene	**107000**	21900	21200	NA	µg/Kg dry	08/26/15 04:02	08/26/15 04:02	EPA 8260	A	JMG	
Benzene	**53700**	21900	11500	NA	µg/Kg dry	08/26/15 04:02	08/26/15 04:02	EPA 8260	A	JMG	
Ethylbenzene	**161000**	21900	14600	NA	µg/Kg dry	08/26/15 04:02	08/26/15 04:02	EPA 8260	A	JMG	
Isopropylbenzene (Cumene)	**22800**	21900	5610	NA	µg/Kg dry	08/26/15 04:02	08/26/15 04:02	EPA 8260	A	JMG	
MTBE	<21900	21900	4910	NA	µg/Kg dry	08/26/15 04:02	08/26/15 04:02	EPA 8260	A	JMG	
Naphthalene	**37000**	21900	4610	NA	µg/Kg dry	08/26/15 04:02	08/26/15 04:02	EPA 8260	A	JMG	
Toluene	**365000**	21900	14900	NA	µg/Kg dry	08/26/15 04:02	08/26/15 04:02	EPA 8260	A	JMG	
Xylene o	**195000**	21900	13800	NA	µg/Kg dry	08/26/15 04:02	08/26/15 04:02	EPA 8260	A	JMG	
Xylene p/m	**547000**	43700	8090	NA	µg/Kg dry	08/26/15 04:02	08/26/15 04:02	EPA 8260	A	JMG	
Xylenes, Total	**742000**	65600	NA	NA	µg/Kg dry	08/26/15 04:02	08/26/15 04:02	EPA 8260	A	JMG	Calc

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Cook's Country Store	Project Name: Site Characterization	**Lab ID#:** 1508355
16570 Hell Lane	Project Number: 4547.15.01	**Reported:**
James Creek PA, 16657	Lab Project Manager: Tegan Schott	08/27/15 17:00

SB-11 (4') US

1508355-28 (Soil) Sampled: 08/19/15 11:19

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
General Chemistry by Standard/EPA/ASTM Methods											
Percent Solids	**92.0**	0.100	NA	NA	wt%	08/24/15 08:07	08/24/15 08:07	SM 2540 G	A	JMD	
Volatile Organic Compounds by GC/MS											**VOCM**
1,2,4-Trimethylbenzene	**12100**	435	200	NA	µg/Kg dry	08/25/15 04:08	08/25/15 04:08	EPA 8260	A	JMG	Dilut
1,3,5-Trimethylbenzene	**5030**	435	421	NA	µg/Kg dry	08/25/15 04:08	08/25/15 04:08	EPA 8260	A	JMG	Dilut
Benzene	**1480**	435	230	NA	µg/Kg dry	08/25/15 04:08	08/25/15 04:08	EPA 8260	A	JMG	Dilut
Ethylbenzene	**6940**	435	291	NA	µg/Kg dry	08/25/15 04:08	08/25/15 04:08	EPA 8260	A	JMG	Dilut
Isopropylbenzene (Cumene)	**1690**	435	112	NA	µg/Kg dry	08/25/15 04:08	08/25/15 04:08	EPA 8260	A	JMG	Dilut
MTBE	<435	435	97.7	NA	µg/Kg dry	08/25/15 04:08	08/25/15 04:08	EPA 8260	A	JMG	Dilut
Naphthalene	**1640**	435	91.7	NA	µg/Kg dry	08/25/15 04:08	08/25/15 04:08	EPA 8260	A	JMG	Dilut
Toluene	**8000**	435	297	NA	µg/Kg dry	08/25/15 04:08	08/25/15 04:08	EPA 8260	A	JMG	Dilut
Xylene o	**5730**	435	274	NA	µg/Kg dry	08/25/15 04:08	08/25/15 04:08	EPA 8260	A	JMG	Dilut
Xylene p/m	**18300**	870	161	NA	µg/Kg dry	08/25/15 04:08	08/25/15 04:08	EPA 8260	A	JMG	Dilut
Xylenes, Total	**24100**	1300	NA	NA	µg/Kg dry	08/25/15 04:08	08/25/15 04:08	EPA 8260	A	JMG	Calc, Dilut

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Cook's Country Store 16570 Hell Lane James Creek PA, 16657	Project Name: Site Characterization Project Number: 4547.15.01 Lab Project Manager: Tegan Schott	**Lab ID#:** 1508355 **Reported:** 08/27/15 17:00

SB-12 (3') US

1508355-29 (Soil) Sampled: 08/19/15 11:51

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
General Chemistry by Standard/EPA/ASTM Methods											
Percent Solids	**78.2**	0.100	NA	NA	wt%	08/24/15 08:07	08/24/15 08:07	SM 2540 G	A	JMD	
Volatile Organic Compounds by GC/MS											
1,2,4-Trimethylbenzene	**94800**	2560	1170	NA	µg/Kg dry	08/26/15 04:28	08/26/15 04:28	EPA 8260	A	JMG	
1,3,5-Trimethylbenzene	**33700**	2560	2470	NA	µg/Kg dry	08/26/15 04:28	08/26/15 04:28	EPA 8260	A	JMG	
Benzene	**3910**	2560	1350	NA	µg/Kg dry	08/26/15 04:28	08/26/15 04:28	EPA 8260	A	JMG	
Ethylbenzene	**43900**	2560	1710	NA	µg/Kg dry	08/26/15 04:28	08/26/15 04:28	EPA 8260	A	JMG	
Isopropylbenzene (Cumene)	**10400**	2560	655	NA	µg/Kg dry	08/26/15 04:28	08/26/15 04:28	EPA 8260	A	JMG	
MTBE	<2560	2560	574	NA	µg/Kg dry	08/26/15 04:28	08/26/15 04:28	EPA 8260	A	JMG	
Naphthalene	**15400**	2560	539	NA	µg/Kg dry	08/26/15 04:28	08/26/15 04:28	EPA 8260	A	JMG	
Toluene	**5880**	2560	1750	NA	µg/Kg dry	08/26/15 04:28	08/26/15 04:28	EPA 8260	A	JMG	
Xylene o	**28500**	2560	1610	NA	µg/Kg dry	08/26/15 04:28	08/26/15 04:28	EPA 8260	A	JMG	
Xylene p/m	**142000**	5110	945	NA	µg/Kg dry	08/26/15 04:28	08/26/15 04:28	EPA 8260	A	JMG	
Xylenes, Total	**171000**	7670	NA	NA	µg/Kg dry	08/26/15 04:28	08/26/15 04:28	EPA 8260	A	JMG	Calc

Mountain Research, LLC

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Cook's Country Store 16570 Hell Lane James Creek PA, 16657	Project Name: Site Characterization Project Number: 4547.15.01 Lab Project Manager: Tegan Schott	**Lab ID#:** 1508355 **Reported:** 08/27/15 17:00

SB-12 (5') US

1508355-30 (Soil) Sampled: 08/19/15 11:51

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
General Chemistry by Standard/EPA/ASTM Methods											
Percent Solids	**53.6**	0.100	NA	NA	wt%	08/24/15 08:07	08/24/15 08:07	SM 2540 G	A	JMD	
Volatile Organic Compounds by GC/MS											
1,2,4-Trimethylbenzene	**8810**	746	343	NA	µg/Kg dry	08/25/15 05:01	08/25/15 05:01	EPA 8260	A	JMG	Dilut
1,3,5-Trimethylbenzene	**3020**	746	722	NA	µg/Kg dry	08/25/15 05:01	08/25/15 05:01	EPA 8260	A	JMG	Dilut
Benzene	**5920**	746	394	NA	µg/Kg dry	08/25/15 05:01	08/25/15 05:01	EPA 8260	A	JMG	Dilut
Ethylbenzene	**2680**	746	498	NA	µg/Kg dry	08/25/15 05:01	08/25/15 05:01	EPA 8260	A	JMG	Dilut
Isopropylbenzene (Cumene)	**906**	746	191	NA	µg/Kg dry	08/25/15 05:01	08/25/15 05:01	EPA 8260	A	JMG	Dilut
MTBE	<746	746	168	NA	µg/Kg dry	08/25/15 05:01	08/25/15 05:01	EPA 8260	A	JMG	Dilut
Naphthalene	**3160**	746	157	NA	µg/Kg dry	08/25/15 05:01	08/25/15 05:01	EPA 8260	A	JMG	Dilut
Toluene	<746	746	510	NA	µg/Kg dry	08/25/15 05:01	08/25/15 05:01	EPA 8260	A	JMG	Dilut
Xylene o	<746	746	470	NA	µg/Kg dry	08/25/15 05:01	08/25/15 05:01	EPA 8260	A	JMG	Dilut
Xylene p/m	**22900**	1490	276	NA	µg/Kg dry	08/25/15 05:01	08/25/15 05:01	EPA 8260	A	JMG	Dilut
Xylenes, Total	**22900**	2240	NA	NA	µg/Kg dry	08/25/15 05:01	08/25/15 05:01	EPA 8260	A	JMG	Calc, Dilut

Mountain Research, LLC

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Cook's Country Store 16570 Hell Lane James Creek PA, 16657	Project Name: Site Characterization Project Number: 4547.15.01 Lab Project Manager: Tegan Schott	**Lab ID#:** 1508355 **Reported:** 08/27/15 17:00

Certifications

Code	Description	Number	Expires
MDDOE	Maryland Department of the Environment	257	09/30/2015
PADEP-Altoona	Pennsylvania Department of Environmental Protection	009	03/31/2015
WVDEP	West Virginia Department of Environmental Protection	225	10/31/2015
PADEP-DuBois	Pennsylvania Department of Environmental Protection	008	09/30/2015

Notes and Definitions

VOCM	VOC vial contained more than the EPA recommended amount of soil.
VOCL	VOC vial contained less than the EPA recommended amount of soil.
LSurr	Sample had a low surrogate recovery for Dibromofluoromethane.
Dilut	This sample was analyzed at a dilution.
Calib	Sample was above calibration range.
Calc	[Calc] - Calculated analytes are reported based on unrounded results of the individual analytes used in the calculation. Therefore, using the rounded values of the analytes as reported may lead to a result that varies slightly from the reported result.
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
dry	Sample results reported on a dry weight basis
A	Analysis Performed by Mountain Research Altoona Laboratory - PADEP #07-00418
D	Analysis Performed by Mountain Research DuBois Laboratory - PADEP # 33-00258

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BLACK BALL POINT PEN ONLY

Billing Group:	Phase: Soil Boring	PROJECT NAME: Soil Boring
MR Project #: 4547.15.01	SITE LOCATION: Robertsdale, PA	
CLIENT: Cooks Country Store	SAMPLER(S): HL	

NOTES:
Received On Ice: (Y) / N
Sample Temp: 6.1 °C

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CHAIN OF CUSTODY RECORD

MR PROJ. MGR. MC

Shipping Carrier:

Turn Around Time:
10 Day ✓
3 Day
1 Day

Comments:

SAMPLE ID.NO.	DATE	TIME	GRAB	COMP	MATRIX	NUMBER OF CONTAINERS	PRODUCT CODE	8260B	Percent Solid						Preserve	LAB NUMBER
SB-1(2')US	8-18-15	0934	X		Soil	2-40ml VOA's	2A	X							MEOH	01
↓						1 4 oz. Jar			X						None	01
SB-1 (8')US						1 40ml VOA	2A	X							MEOH	02
↓						1 4 oz Jar			X						None	↓
MW-1(3')US		0905				1 40ml VOA	2A	X							MEOH	03
↓						1 4oz Jar			X						None	↓
MW-1(8')US						1 40ml VOA	2A	X							MEOH	04
↓						1 4 oz. Jar			X						None	↓

RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE	TIME	Lab WO #: 1508355	Log In Time: 1006
	8-19-15	1420	T. Schott	8/20/15	1420		Staff: EC
RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE	TIME	Labeled By:	Date: 8/21/15

Pg 1 of 8

White - Lab; Blue - File; Yellow - Project Manager; Pink - Staff

C:\Documents and Settings\kderose\Desktop\Blank Chain

BLACK BALL POINT PEN ONLY

00001

Billing Group:	Phase: Soil Boring	PROJECT NAME: Soil Boring
MR Project #: 4547.15.01		SITE LOCATION: Robertsdale, PA
CLIENT: Cooks Country Store		SAMPLER(S): HL

NOTES:
Received On Ice: (Y) / N
Sample Temp: 6.1 °C

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CHAIN OF CUSTODY RECORD

MR PROJ. MGR.

Shipping Carrier:

Turn Around Time:
10 Day ✓
3 Day
1 Day

Comments:

SAMPLE ID.NO.	DATE	TIME	GRAB	COMP	MATRIX	NUMBER OF CONTAINERS	PRODUCT CODE	8260B	Percent Solid						Preserve	LAB NUMBER
SB-2 (2')US	8-18-15	1006	X		Soil	1 40ml VOA	2A	X							MEOH	05
↓						1 4 oz. jar			X						None	↓
SB-2 (4')US						1 40ml VOA	2A	X							MEOH	06
↓						1 4 oz. jar			X						None	↓
SB-2 (6')US						1 40ml VOA	2A	X							MEOH	07
↓		↓				1 4 oz. jar			X						None	↓
SB-3 (2')US		1031				1 40ml VOA	2A	X							MEOH	08
↓	↓	↓				1 4 oz jar			X						None	↓

RELINQUISHED BY:	DATE: 8-19-15	TIME: 1420	ACCEPTED BY: T. Schott	DATE: 8/19/15	TIME: 1420	Lab WO #: 1508355	Log In Time: 1006
RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE	TIME	Labeled By:	Staff:
							Date: 8/21/15

Pg 2 of 8

White - Lab; Blue - File; Yellow - Project Manager; Pink - Staff

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00001

Billing Group:	Phase: Soil Bonny	PROJECT NAME: Soil Bonny
MR Project #: 4547.15.01		SITE LOCATION: Robertsdale, PA
CLIENT: Cooks Country Store		SAMPLER(S): HC

NOTES:
Received On Ice: (Y) / N
Sample Temp: 6.1°C

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CHAIN OF CUSTODY RECORD

MR PROJ. MGR.: MC

Shipping Carrier:

Turn Around Time:
10 Day ✓
3 Day
1 Day

Comments:

SAMPLE ID.NO.	DATE	TIME	GRAB	COMP	MATRIX	NUMBER OF CONTAINERS	PRODUCT CODE	8260B	Percent Solid						Preserve	LAB NUMBER
SB-3(4')US	8-18-15	1031	X		Soil	1 40ml VOA	2A	X							MEOH	09
↓		↓				1 4oz jar			X						none	↓
MW-2(3')US		1059				1 40ml VOA	2A	X							MEOH	10
↓						1 4oz jar			X						none	↓
MW-2(12')US						1 40ml VOA	2A	X							MEOH	11
↓		↓				1 4oz Jar			X						none	↓
SB-4(2')US		1129				1 40ml VOA	2A	X							MEOH	12
↓		↓				1 4oz Jar			X						none	↓

RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE	TIME	Lab WO #:	Log In Time:
[illegible]	8-19-15	1420	T. Schott	8/19/15	1420	1508355	1006
RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE	TIME	Labeled By:	Staff: KL
							Date: 8/21/15

PJ 3 of 8

White - Lab; Blue - File; Yellow - Project Manager; Pink - Staff

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00001

Billing Group:	Phase: Soil Boring	PROJECT NAME: Soil Boring
MR Project #: 4547.15.01	SITE LOCATION: Robertsdale, PA	
CLIENT: Cooks Country Store	SAMPLER(S): HL	

NOTES:
Received On Ice: (Y) / N
Sample Temp: 6.1°C

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CHAIN OF CUSTODY RECORD

MR PROJ. MGR. MC

Shipping Carrier:

Turn Around Time:
10 Day ✓
3 Day
1 Day

Comments:

Analyses Requested: 8260B; Percent Solid

SAMPLE ID.NO.	DATE	TIME	GRAB	COMP	MATRIX	NUMBER OF CONTAINERS	PRODUCT CODE	8260B	Percent Solid						Preserve	LAB NUMBER
SB-4(4')US	8-18-15	1129	X		Soil	1 40ml VOA	2A	X							MEOH	13
↓	↓	↓				1 4oz jar			X						None	↓
SB-5(2')US		1158				1 40ml VOA	2A	X							MEOH	14
↓						1 4oz jar			X						None	↓
SB-5(4)US						1 40ml VOA	2A	X							MEOH	15
↓		↓				1 4oz jar			X						None	↓
SB-6(2')US		1223				1 40ml VOA	2A	X							MEOH	16
↓	↓	↓				1 4oz. Jar			X						None	↓

RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE	TIME	Lab WO #:	Log In Time: 1006
[signature]	8-19-15	1420	T. Schott	8/19/15	1420	1508355	Staff: KJ
RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE	TIME	Labeled By:	Date: 8/21/15

pg 4 of 8

White - Lab; Blue - File; Yellow - Project Manager; Pink - Staff

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BLACK BALL POINT PEN ONLY

00001

Billing Group: | Phase: Soil Barry | PROJECT NAME: Soil Barry

MR Project #: 4547.15.01 | SITE LOCATION: Robertsdale, PA

CLIENT: Cooks Country Store | SAMPLER(S): HL

NOTES:

Received On Ice: (Y) / N

Sample Temp: 6 / °C

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CHAIN OF CUSTODY RECORD

MR PROJ. MGR. MC

Shipping Carrier:

Turn Around Time:
10 Day ✓
3 Day
1 Day

Comments:

SAMPLE ID.NO.	DATE	TIME	GRAB	COMP	MATRIX	NUMBER OF CONTAINERS	PRODUCT CODE	8260B	Percent Solid						Preserve	LAB NUMBER
SB-6(8')US	8-18-15	1223	X		Soil	1 40ml VOA	2A	X							MEOH	17
↓		↓				1 4oz jar			X						None	↓
MW-3(2')US		1336				1 40ml VOA	2A	X							MEOH	18
↓		↓				1 4oz jar			X						None	↓
MW-3(4')US		↓				1 40ml VOA	2A	X							MEOH	19
↓		↓				1 4oz jar			X						None	↓
MW-4(4')US		1428				1 40ml VOA	2A	X							MEOH	20
↓		↓				1 4oz jar			X						None	↓

RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE	TIME	Lab WO #:	Log In Time:
[signature]	8-19-15	1420	J. Schott	8/19/15	1420	1508355	1006
RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE	TIME	Labeled By:	Staff: KD
							Date: 8/20/15

PG 5 of 8

White - Lab; Blue - File; Yellow - Project Manager; Pink - Staff

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BALL POINT PEN ONLY

00001

Billing Group:	Phase: Soil Borrow	PROJECT NAME: Soil Borrow
MR Project #: 4547.15.01		SITE LOCATION: Robertsdale, PA
CLIENT: Cook's Country Store		SAMPLER(S): HC

NOTES:
Received On Ice: (Y) / N
Sample Temp: 6.1°C
PWSID #:
Seal In Tack: Y / N
Other:
Comments:

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CHAIN OF CUSTODY RECORD

MR PROJ. MGR.: MC

Shipping Carrier:

Turn Around Time:
10 Day ✓
3 Day
1 Day

Comments:

SAMPLE ID.NO.	DATE	TIME	GRAB	COMP	MATRIX	NUMBER OF CONTAINERS	PRODUCT CODE	8260B	Percent Solid						Preserve	LAB NUMBER
SB-7(3') US	8-19-15	0908	X		Soil	1 40ml VOA	2A	X							MEOH	21
↓		↓				1 4oz. jar			X						none	↓
SB-8(3') US		0944				1 40ml VOA	2A	X							MEOH	22
↓		↓				1 4oz. jar			X						none	↓
SB-9(3') US		0923				1 40ml VOA	2A	X							MEOH	23
↓						1 4oz jar			X						none	↓
SB-9(4') US						1 40ml VOA	2A	X							MEOH	24
↓		↓				1 4oz jar			X						none	↓

RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE	TIME	Lab WO #:	Log In Time: 1006
[signature]	8-19-15	1420	T. Schott	8/19/15	1420	1508355	Staff: HC
RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE	TIME	Labeled By:	Date: 8/21/15

PJ 6 of 8

White - Lab; Blue - File; Yellow - Project Manager; Pink - Staff

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BALL POINT PEN ONLY

00001

Billing Group: | Phase: Soil Boring | PROJECT NAME: Soil Borings

MR Project #: 4547.15.01 | SITE LOCATION: Robertsdale, PA

CLIENT: Cooks Country Store | SAMPLER(S): HC

NOTES:
Received On Ice: (Y) / N
Sample Temp: 6.1°C
PWSID #:
Seal In Tack: Y / N
Other:
Comments:

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CHAIN OF CUSTODY RECORD

MR PROJ. MGR. MC

Shipping Carrier:

Turn Around Time:
10 Day ✓
3 Day
1 Day

Comments:

SAMPLE ID.NO.	DATE	TIME	GRAB	COMP	MATRIX	NUMBER OF CONTAINERS	PRODUCT CODE	8260B	Percent Solid						Preserve	LAB NUMBER
SB-10(7.5')US	8-19-15	1044	X		Soil	1 40ml VOA	2A	X							Meoh	25
↓						1 4oz jar			X						none	↓
SB-10(4')US						1 40ml VOA	2A	X							Meoh	26
↓		↓				1 4oz jar			X						none	↓
SB-11(1')US		1119				1 40ml VOA	2A	X							Meoh	27
↓						1 4oz jar			X						none	↓
SB-11(4')US						1 40ml VOA	2A	X							Meoh	28
↓		↓				1 4oz jar			X						none	↓

RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE	TIME	Lab WO #:	Log In Time:
[signature]	8-19-15	1420	T. Schott	8/19/15	1420	1508353	1006
RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE	TIME	Labeled By:	Staff: CE
							Date: 8/21/15

PJ 7 of 8

White - Lab; Blue - File; Yellow - Project Manager; Pink - Staff

BALL POINT PEN ONLY

00001

Billing Group:	Phase: Soil Boring	PROJECT NAME: Soil Boring
MR Project #: 4547.15.01		SITE LOCATION: Robertsdale, PA
CLIENT: Cooks Country Store		SAMPLER(S): HC

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CHAIN OF CUSTODY RECORD

NOTES:

Received On Ice: (Y) / N

Sample Temp: 6.1°C

PWSID #:

Seal In Tack: Y / N

Other:

Comments:

MR PROJ. MGR. MC

Shipping Carrier:

Turn Around Time:
10 Day ✓
3 Day
1 Day

Comments:

SAMPLE ID.NO.	DATE	TIME	GRAB	COMP	MATRIX	NUMBER OF CONTAINERS	PRODUCT CODE	8260B	Percent Solid						Preserve	LAB NUMBER
SB-12(3')US	8-19-15	1151	X		Soil	1 40ml VOA	2A	X							MeOH	29
↓	↓	↓	↓		↓	1 4oz Jar			X						None	↓
SB-12(5')US	↓	↓	↓		↓	1 40ml VOA	2A	X							MeOH	30
↓		↓	↓		↓	1 4oz Jar			X						None	↓

RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE	TIME	Lab WO #:	Log In Time: 1006
[signature]	8-19-15	1420	T. Schott	8/19/15	1420	1508355	Staff: [initials]
RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE	TIME	Labeled By:	Date: 8/21/15

pg 8 of 8

White - Lab; Blue - File; Yellow - Project Manager; Pink - Staff

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PADEP #07-00418
EPA Lab #PA00165

DuBois Office and Laboratory
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DuBois, PA 15801
814.371.6030 Phone
814.375.0823 Fax
PADEP #33-00258
EPA Lab #PA00155

08 September 2015

Lab ID #: 1508473

Betty Hess
Cook's Country Store
16570 Hell Lane
James Creek, PA 16657

RE: Site Characterization

Enclosed are the results of analyses for samples received by the laboratory on 08/27/15 16:49. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tegan Schott
Technical Specialist II

Authorized Reviewer

MOUNTAIN RESEARCH, LLC

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Cook's Country Store	Project Name: Site Characterization	**Lab ID#:** 1508473
16570 Hell Lane	Project Number: 4547.15.01	**Reported:**
James Creek PA, 16657	Lab Project Manager: Tegan Schott	09/08/15 14:01

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Sample Type	Date Sampled	Date Received
Duplicate	1508473-01	Aqueous	Grab	08/27/15 14:50	08/27/15 16:49
Post GAC	1508473-02	Aqueous	Grab	08/27/15 14:30	08/27/15 16:49
MW-1	1508473-03	Aqueous	Grab	08/27/15 14:40	08/27/15 16:49
MW-2	1508473-04	Aqueous	Grab	08/27/15 14:35	08/27/15 16:49
MW-3	1508473-05	Aqueous	Grab	08/27/15 14:11	08/27/15 16:49
MW-4	1508473-06	Aqueous	Grab	08/27/15 14:08	08/27/15 16:49
Trip Blank	1508473-07	Aqueous	Grab	08/27/15 10:30	08/27/15 16:49

Mountain Research, LLC

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.

Tegan Schott

Tegan Schott, Technical Specialist II

MOUNTAIN RESEARCH, LLC

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110 McCracken Run Road
DuBois, PA 15801
814.371.6030 Phone
814.375.0823 Fax

Cook's Country Store	Project Name: Site Characterization	**Lab ID#:** 1508473
16570 Hell Lane	Project Number: 4547.15.01	**Reported:**
James Creek PA, 16657	Lab Project Manager: Tegan Schott	09/08/15 14:01

Duplicate

1508473-01 (Aqueous) Sampled: 08/27/15 14:50

Mountain Research, LLC

Volatile Organic Compounds by GC/MS — **LSurr**

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
1,2,4-Trimethylbenzene	**1790**	100	38.5	NA	µg/L	09/01/15 19:22	09/02/15 13:33	EPA 8260	A	JMG	Dilut
1,3,5-Trimethylbenzene	**519**	100	36.3	NA	µg/L	09/01/15 19:22	09/02/15 13:33	EPA 8260	A	JMG	Dilut
Benzene	**2070**	100	33.3	NA	µg/L	09/01/15 19:22	09/02/15 13:33	EPA 8260	A	JMG	Dilut
Ethylbenzene	**1260**	100	36.0	NA	µg/L	09/01/15 19:22	09/02/15 13:33	EPA 8260	A	JMG	Dilut
Isopropylbenzene (Cumene)	**76.6**	50.0	28.0	NA	µg/L	09/01/15 19:22	09/02/15 13:33	EPA 8260	A	JMG	Dilut
MTBE	**45.9**	2.00	0.558	NA	µg/L	09/01/15 19:22	09/01/15 19:22	EPA 8260	A	JMG	
Naphthalene	**465**	100	17.6	NA	µg/L	09/01/15 19:22	09/02/15 13:33	EPA 8260	A	JMG	Dilut
Toluene	**3110**	100	37.3	NA	µg/L	09/01/15 19:22	09/02/15 13:33	EPA 8260	A	JMG	Dilut
Xylene o	**1410**	100	32.8	NA	µg/L	09/01/15 19:22	09/02/15 13:33	EPA 8260	A	JMG	Dilut
Xylene p/m	**4710**	200	64.6	NA	µg/L	09/01/15 19:22	09/02/15 13:33	EPA 8260	A	JMG	Dilut
Xylenes, Total	**6120**	300	NA	NA	µg/L	09/01/15 19:22	09/02/15 13:33	EPA 8260	A	JMG	Calc, Dilut

MOUNTAIN RESEARCH, LLC

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110 McCracken Run Road
DuBois, PA 15801
814.371.6030 Phone
814.375.0823 Fax

Cook's Country Store	Project Name: Site Characterization	**Lab ID#:** 1508473
16570 Hell Lane	Project Number: 4547.15.01	**Reported:**
James Creek PA, 16657	Lab Project Manager: Tegan Schott	09/08/15 14:01

Post GAC

1508473-02 (Aqueous) Sampled: 08/27/15 14:30

Mountain Research, LLC

Volatile Organic Compounds by GC/MS

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
1,2,4-Trimethylbenzene	**90.2**	10.0	3.85	NA	µg/L	09/02/15 13:07	09/02/15 20:34	EPA 8260	A	JMG	Dilut
1,3,5-Trimethylbenzene	**43.3**	2.00	0.726	NA	µg/L	09/02/15 13:07	09/02/15 13:07	EPA 8260	A	JMG	
Benzene	**25.2**	2.00	0.666	NA	µg/L	09/02/15 13:07	09/02/15 13:07	EPA 8260	A	JMG	
Ethylbenzene	**29.5**	2.00	0.719	NA	µg/L	09/02/15 13:07	09/02/15 13:07	EPA 8260	A	JMG	
Isopropylbenzene (Cumene)	**7.83**	2.00	0.561	NA	µg/L	09/02/15 13:07	09/02/15 13:07	EPA 8260	A	JMG	
MTBE	<2.00	2.00	0.558	NA	µg/L	09/02/15 13:07	09/02/15 13:07	EPA 8260	A	JMG	
Naphthalene	**15.6**	2.00	0.353	NA	µg/L	09/02/15 13:07	09/02/15 13:07	EPA 8260	A	JMG	HLCS
Toluene	**10.9**	2.00	0.746	NA	µg/L	09/02/15 13:07	09/02/15 13:07	EPA 8260	A	JMG	
Xylene o	**15.3**	2.00	0.656	NA	µg/L	09/02/15 13:07	09/02/15 13:07	EPA 8260	A	JMG	
Xylene p/m	**155**	4.00	1.29	NA	µg/L	09/02/15 13:07	09/02/15 13:07	EPA 8260	A	JMG	
Xylenes, Total	**170**	6.00	NA	NA	µg/L	09/02/15 13:07	09/02/15 13:07	EPA 8260	A	JMG	Calc

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DuBois Office and Laboratory
110 McCracken Run Road
DuBois, PA 15801
814.371.6030 Phone
814.375.0823 Fax

Cook's Country Store	Project Name: Site Characterization	**Lab ID#:** 1508473
16570 Hell Lane	Project Number: 4547.15.01	**Reported:**
James Creek PA, 16657	Lab Project Manager: Tegan Schott	09/08/15 14:01

MW-1

1508473-03 (Aqueous) Sampled: 08/27/15 14:40

Mountain Research, LLC

Volatile Organic Compounds by GC/MS — **LSurr**

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
1,2,4-Trimethylbenzene	**937**	100	38.5	NA	µg/L	09/01/15 20:15	09/02/15 13:59	EPA 8260	A	JMG	Dilut
1,3,5-Trimethylbenzene	**262**	100	36.3	NA	µg/L	09/01/15 20:15	09/02/15 13:59	EPA 8260	A	JMG	Dilut
Benzene	**1830**	100	33.3	NA	µg/L	09/01/15 20:15	09/02/15 13:59	EPA 8260	A	JMG	Dilut
Ethylbenzene	**795**	100	36.0	NA	µg/L	09/01/15 20:15	09/02/15 13:59	EPA 8260	A	JMG	Dilut
Isopropylbenzene (Cumene)	**96.9**	2.00	0.561	NA	µg/L	09/01/15 20:15	09/01/15 20:15	EPA 8260	A	JMG	
MTBE	**57.2**	2.00	0.558	NA	µg/L	09/01/15 20:15	09/01/15 20:15	EPA 8260	A	JMG	
Naphthalene	**301**	100	17.6	NA	µg/L	09/01/15 20:15	09/02/15 13:59	EPA 8260	A	JMG	Dilut
Toluene	**1900**	100	37.3	NA	µg/L	09/01/15 20:15	09/02/15 13:59	EPA 8260	A	JMG	Dilut
Xylene o	**846**	100	32.8	NA	µg/L	09/01/15 20:15	09/02/15 13:59	EPA 8260	A	JMG	Dilut
Xylene p/m	**2630**	200	64.6	NA	µg/L	09/01/15 20:15	09/02/15 13:59	EPA 8260	A	JMG	Dilut
Xylenes, Total	**3470**	300	NA	NA	µg/L	09/01/15 20:15	09/02/15 13:59	EPA 8260	A	JMG	Calc, Dilut

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Tegan Schott, Technical Specialist II

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Cook's Country Store	Project Name: Site Characterization	**Lab ID#:** 1508473
16570 Hell Lane	Project Number: 4547.15.01	**Reported:**
James Creek PA, 16657	Lab Project Manager: Tegan Schott	09/08/15 14:01

MW-2

1508473-04 (Aqueous) Sampled: 08/27/15 14:35

Mountain Research, LLC

Volatile Organic Compounds by GC/MS

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
1,2,4-Trimethylbenzene	**445**	20.0	7.70	NA	µg/L	09/01/15 20:42	09/02/15 14:26	EPA 8260	A	JMG	Dilut
1,3,5-Trimethylbenzene	**146**	20.0	7.26	NA	µg/L	09/01/15 20:42	09/02/15 14:26	EPA 8260	A	JMG	Dilut
Benzene	**376**	20.0	6.66	NA	µg/L	09/01/15 20:42	09/02/15 14:26	EPA 8260	A	JMG	Dilut
Ethylbenzene	**176**	20.0	7.19	NA	µg/L	09/01/15 20:42	09/02/15 14:26	EPA 8260	A	JMG	Dilut
Isopropylbenzene (Cumene)	**47.0**	2.00	0.561	NA	µg/L	09/01/15 20:42	09/01/15 20:42	EPA 8260	A	JMG	
MTBE	<2.00	2.00	0.558	NA	µg/L	09/01/15 20:42	09/01/15 20:42	EPA 8260	A	JMG	
Naphthalene	**101**	20.0	3.53	NA	µg/L	09/01/15 20:42	09/02/15 14:26	EPA 8260	A	JMG	Dilut
Toluene	**64.3**	2.00	0.746	NA	µg/L	09/01/15 20:42	09/01/15 20:42	EPA 8260	A	JMG	
Xylene o	**74.7**	20.0	6.56	NA	µg/L	09/01/15 20:42	09/02/15 14:26	EPA 8260	A	JMG	Dilut
Xylene p/m	**1080**	40.0	12.9	NA	µg/L	09/01/15 20:42	09/02/15 14:26	EPA 8260	A	JMG	Dilut
Xylenes, Total	**1160**	60.0	NA	NA	µg/L	09/01/15 20:42	09/02/15 14:26	EPA 8260	A	JMG	Calc, Dilut

Mountain Research, LLC

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Cook's Country Store 16570 Hell Lane James Creek PA, 16657	Project Name: Site Characterization Project Number: 4547.15.01 Lab Project Manager: Tegan Schott	**Lab ID#:** 1508473 **Reported:** 09/08/15 14:01

MW-3

1508473-05 (Aqueous) Sampled: 08/27/15 14:11

Mountain Research, LLC

Volatile Organic Compounds by GC/MS — **LSurr**

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
1,2,4-Trimethylbenzene	**442**	50.0	19.2	NA	µg/L	09/02/15 14:52	09/03/15 14:20	EPA 8260	A	JMG	Dilut
1,3,5-Trimethylbenzene	**133**	50.0	18.2	NA	µg/L	09/02/15 14:52	09/03/15 14:20	EPA 8260	A	JMG	Dilut
Benzene	**1320**	50.0	16.6	NA	µg/L	09/02/15 14:52	09/03/15 14:20	EPA 8260	A	JMG	Dilut
Ethylbenzene	**414**	50.0	18.0	NA	µg/L	09/02/15 14:52	09/03/15 14:20	EPA 8260	A	JMG	Dilut
Isopropylbenzene (Cumene)	**67.8**	2.00	0.561	NA	µg/L	09/02/15 14:52	09/02/15 14:52	EPA 8260	A	JMG	
MTBE	**30.5**	2.00	0.558	NA	µg/L	09/02/15 14:52	09/02/15 14:52	EPA 8260	A	JMG	
Naphthalene	**154**	50.0	8.82	NA	µg/L	09/02/15 14:52	09/03/15 14:20	EPA 8260	A	JMG	Dilut, HLCS
Toluene	**1490**	50.0	18.6	NA	µg/L	09/02/15 14:52	09/03/15 14:20	EPA 8260	A	JMG	Dilut
Xylene o	**310**	50.0	16.4	NA	µg/L	09/02/15 14:52	09/03/15 14:20	EPA 8260	A	JMG	Dilut
Xylene p/m	**1440**	100	32.3	NA	µg/L	09/02/15 14:52	09/03/15 14:20	EPA 8260	A	JMG	Dilut
Xylenes, Total	**1750**	150	NA	NA	µg/L	09/02/15 14:52	09/03/15 14:20	EPA 8260	A	JMG	Calc, Dilut

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Cook's Country Store 16570 Hell Lane James Creek PA, 16657	Project Name: Site Characterization Project Number: 4547.15.01 Lab Project Manager: Tegan Schott	**Lab ID#:** 1508473 **Reported:** 09/08/15 14:01

MW-4

1508473-06 (Aqueous) Sampled: 08/27/15 14:08

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
Volatile Organic Compounds by GC/MS											
1,2,4-Trimethylbenzene	**504**	50.0	19.2	NA	µg/L	09/02/15 15:18	09/03/15 13:54	EPA 8260	A	JMG	Dilut
1,3,5-Trimethylbenzene	**145**	50.0	18.2	NA	µg/L	09/02/15 15:18	09/03/15 13:54	EPA 8260	A	JMG	Dilut
Benzene	**82.1**	50.0	16.6	NA	µg/L	09/02/15 15:18	09/03/15 13:54	EPA 8260	A	JMG	Dilut
Ethylbenzene	**422**	50.0	18.0	NA	µg/L	09/02/15 15:18	09/03/15 13:54	EPA 8260	A	JMG	Dilut
Isopropylbenzene (Cumene)	**54.2**	2.00	0.561	NA	µg/L	09/02/15 15:18	09/02/15 15:18	EPA 8260	A	JMG	
MTBE	<2.00	2.00	0.558	NA	µg/L	09/02/15 15:18	09/02/15 15:18	EPA 8260	A	JMG	
Naphthalene	**121**	50.0	8.82	NA	µg/L	09/02/15 15:18	09/03/15 13:54	EPA 8260	A	JMG	Dilut, HLCS
Toluene	**553**	50.0	18.6	NA	µg/L	09/02/15 15:18	09/03/15 13:54	EPA 8260	A	JMG	Dilut
Xylene o	**339**	50.0	16.4	NA	µg/L	09/02/15 15:18	09/03/15 13:54	EPA 8260	A	JMG	Dilut
Xylene p/m	**1570**	100	32.3	NA	µg/L	09/02/15 15:18	09/03/15 13:54	EPA 8260	A	JMG	Dilut
Xylenes, Total	**1910**	150	NA	NA	µg/L	09/02/15 15:18	09/03/15 13:54	EPA 8260	A	JMG	Calc, Dilut

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Cook's Country Store 16570 Hell Lane James Creek PA, 16657	Project Name: Site Characterization Project Number: 4547.15.01 Lab Project Manager: Tegan Schott	**Lab ID#:** 1508473 **Reported:** 09/08/15 14:01

Trip Blank

1508473-07 (Aqueous) Sampled: 08/27/15 10:30

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
Volatile Organic Compounds by GC/MS											
1,2,4-Trimethylbenzene	<2.00	2.00	0.770	NA	µg/L	09/03/15 13:27	09/03/15 13:27	EPA 8260	A	JMG	
1,3,5-Trimethylbenzene	<2.00	2.00	0.726	NA	µg/L	09/03/15 13:27	09/03/15 13:27	EPA 8260	A	JMG	
Benzene	<2.00	2.00	0.666	NA	µg/L	09/03/15 13:27	09/03/15 13:27	EPA 8260	A	JMG	
Ethylbenzene	<2.00	2.00	0.719	NA	µg/L	09/03/15 13:27	09/03/15 13:27	EPA 8260	A	JMG	
Isopropylbenzene (Cumene)	<2.00	2.00	0.561	NA	µg/L	09/03/15 13:27	09/03/15 13:27	EPA 8260	A	JMG	
MTBE	<2.00	2.00	0.558	NA	µg/L	09/03/15 13:27	09/03/15 13:27	EPA 8260	A	JMG	
Naphthalene	<2.00	2.00	0.353	NA	µg/L	09/03/15 13:27	09/03/15 13:27	EPA 8260	A	JMG	
Toluene	<2.00	2.00	0.746	NA	µg/L	09/03/15 13:27	09/03/15 13:27	EPA 8260	A	JMG	
Xylene o	<2.00	2.00	0.656	NA	µg/L	09/03/15 13:27	09/03/15 13:27	EPA 8260	A	JMG	
Xylene p/m	<4.00	4.00	1.29	NA	µg/L	09/03/15 13:27	09/03/15 13:27	EPA 8260	A	JMG	
Xylenes, Total	<6.00	6.00	NA	NA	µg/L	09/03/15 13:27	09/03/15 13:27	EPA 8260	A	JMG	Calc

Mountain Research, LLC

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Cook's Country Store 16570 Hell Lane James Creek PA, 16657	Project Name: Site Characterization Project Number: 4547.15.01 Lab Project Manager: Tegan Schott	**Lab ID#:** 1508473 **Reported:** 09/08/15 14:01

Certifications

Code	Description	Number	Expires
MDDOE	Maryland Department of the Environment	257	09/30/2015
PADEP-Altoona	Pennsylvania Department of Environmental Protection	009	03/31/2015
WVDEP	West Virginia Department of Environmental Protection	225	10/31/2015
PADEP-DuBois	Pennsylvania Department of Environmental Protection	008	09/30/2015

Notes and Definitions

LSurr	Sample had a low surrogate recovery for 1,2-Dichloroethane-d4.
HLCS	This sample had a high laboratory control sample.
Dilut	This sample was analyzed at a dilution.
Calc	[Calc] - Calculated analytes are reported based on unrounded results of the individual analytes used in the calculation. Therefore, using the rounded values of the analytes as reported may lead to a result that varies slightly from the reported result.
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
dry	Sample results reported on a dry weight basis
A	Analysis Performed by Mountain Research Altoona Laboratory - PADEP #07-00418
D	Analysis Performed by Mountain Research DuBois Laboratory - PADEP # 33-00258

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Tegan Schott, Technical Specialist II

BALL POINT PEN ONLY

Billing Group:	Phase: GW Sampling	PROJECT NAME GW Sampling Coolts County Store
MR Project # 4547.15.01		SITE LOCATION Robertsdale PA
CLIENT Coolts County Store		SAMPLER(S) JB

NOTES:
Received On Ice: (Y) / N
Sample Temp: 1.2 gOC
PWSID #:
Seal In Tack: Y / N
Other:
Comments:

MOUNTAIN RESEARCH LLC
825 25th Street, Altoona, PA 16601 (814) 949-2034 (800
110 McCracken Run Road, Dubois, PA 15801 (814) 371-6030 Fax (814) 375-0823

CHAIN OF CUSTODY RECORD

MR PROJ. MGR.

Shipping Carrier:

Turn Around Time:
10 Day X
3 Day
1 Day

Comments:

SAMPLE ID.NO.	DATE	TIME	GRAB	COMP	MATRIX	NUMBER OF CONTAINERS	PRODUCT CODE	Pd 60B							Preserve	LAB NUMBER
Duplicate	8-27-15	2:50pm	X		Aq	2 40 ml VOA	2A								HCl	01
post gac		2:30pm														02
mw-1		2:40pm														03
mw-2		2:35pm														04
mw-3		2:11pm														05
mw-4		2:08pm														06
trip Blank	8-27-15	1030am	X		X	X	X	X							X	07

RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE	TIME	Lab WO #:	Log In Time:
Justin Bay	8-27-15	16:49	[signature]	8/27	16:49	1508473	0807
RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE	TIME	Labeled By:	Staff: Ed
							Date: 8/31/15

White - Lab; Blue - File; Yellow - Project Manager; Pink - Staff

C:\Users\jbuggy\Desktop\STUFF\FIELD WORK\Blank COC_v1_04_08

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PADEP #07-00418
EPA Lab #PA00165

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PADEP #33-00258
EPA Lab #PA00155

22 October 2015

Lab ID #: 1510268

Betty Hess
Cook's Country Store
16570 Hell Lane
James Creek, PA 16657

RE: Site Characterization

Enclosed are the results of analyses for samples received by the laboratory on 10/16/15 13:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tegan Schott
Technical Specialist II

Authorized Reviewer

MOUNTAIN RESEARCH, LLC

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Cook's Country Store 16570 Hell Lane James Creek PA, 16657	Project Name: Site Characterization Project Number: 4547.15.01 Lab Project Manager: Tegan Schott	**Lab ID#:** 1510268 **Reported:** 10/22/15 07:20

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Sample Type	Date Sampled	Date Received
SB-17 (5') U	1510268-01	Soil	Grab	10/14/15 09:40	10/16/15 13:00
MW-5 (6') U	1510268-02	Soil	Grab	10/13/15 11:20	10/16/15 13:00
SB-18 (10') U	1510268-03	Soil	Grab	10/14/15 10:20	10/16/15 13:00
SB-16 (5') U	1510268-04	Soil	Grab	10/14/15 08:40	10/16/15 13:00
SB-13 (2') U	1510268-05	Soil	Grab	10/13/15 10:50	10/16/15 13:00
MW-7 (6') U	1510268-06	Soil	Grab	10/14/15 12:26	10/16/15 13:00
SB-20 (5') U	1510268-07	Soil	Grab	10/15/15 09:15	10/16/15 13:00
SB-19 (5') U	1510268-08	Soil	Grab	10/14/15 11:00	10/16/15 13:00
SB-21 (4') U	1510268-09	Soil	Grab	10/15/15 10:00	10/16/15 13:00
SB-22 (10') U	1510268-10	Soil	Grab	10/15/15 13:00	10/16/15 13:00
MW-6 (5') U	1510268-11	Soil	Grab	10/13/15 13:00	10/16/15 13:00
SB-15 (9.5') U	1510268-12	Soil	Grab	10/15/15 10:45	10/16/15 13:00
SB-14 (3') U	1510268-13	Soil	Grab	10/15/15 12:36	10/16/15 13:00

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Cook's Country Store 16570 Hell Lane James Creek PA, 16657	Project Name: Site Characterization Project Number: 4547.15.01 Lab Project Manager: Tegan Schott	**Lab ID#:** 1510268 **Reported:** 10/22/15 07:20

SB-17 (5') U

1510268-01 (Soil) Sampled: 10/14/15 09:40

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
General Chemistry by Standard/EPA/ASTM Methods											
Percent Solids	**86.4**	0.100	NA	NA	wt%	10/19/15 10:10	10/19/15 10:10	SM 2540 G	A	JMK	
Volatile Organic Compounds by GC/MS										**VOCM**	
1,2,4-Trimethylbenzene	**714**	232	106	NA	µg/Kg dry	10/20/15 02:42	10/20/15 02:42	EPA 8260	A	JMG	
1,3,5-Trimethylbenzene	**259**	232	224	NA	µg/Kg dry	10/20/15 02:42	10/20/15 02:42	EPA 8260	A	JMG	
Benzene	<232	232	122	NA	µg/Kg dry	10/20/15 02:42	10/20/15 02:42	EPA 8260	A	JMG	
Ethylbenzene	<232	232	155	NA	µg/Kg dry	10/20/15 02:42	10/20/15 02:42	EPA 8260	A	JMG	
Isopropylbenzene (Cumene)	<232	232	59.4	NA	µg/Kg dry	10/20/15 02:42	10/20/15 02:42	EPA 8260	A	JMG	
MTBE	<232	232	52.0	NA	µg/Kg dry	10/20/15 02:42	10/20/15 02:42	EPA 8260	A	JMG	
Naphthalene	**603**	232	48.8	NA	µg/Kg dry	10/20/15 02:42	10/20/15 02:42	EPA 8260	A	JMG	LCCV
Toluene	<232	232	158	NA	µg/Kg dry	10/20/15 02:42	10/20/15 02:42	EPA 8260	A	JMG	
Xylene o	<232	232	146	NA	µg/Kg dry	10/20/15 02:42	10/20/15 02:42	EPA 8260	A	JMG	
Xylene p/m	<463	463	85.6	NA	µg/Kg dry	10/20/15 02:42	10/20/15 02:42	EPA 8260	A	JMG	
Xylenes, Total	<695	695	NA	NA	µg/Kg dry	10/20/15 02:42	10/20/15 02:42	EPA 8260	A	JMG	Calc

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Cook's Country Store 16570 Hell Lane James Creek PA, 16657	Project Name: Site Characterization Project Number: 4547.15.01 Lab Project Manager: Tegan Schott	**Lab ID#:** 1510268 **Reported:** 10/22/15 07:20

MW-5 (6') U

1510268-02 (Soil) Sampled: 10/13/15 11:20

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
General Chemistry by Standard/EPA/ASTM Methods											
Percent Solids	**87.1**	0.100	NA	NA	wt%	10/19/15 10:10	10/19/15 10:10	SM 2540 G	A	JMK	
Volatile Organic Compounds by GC/MS										**VOCM**	
1,2,4-Trimethylbenzene	<230	230	105	NA	µg/Kg dry	10/20/15 03:08	10/20/15 03:08	EPA 8260	A	JMG	
1,3,5-Trimethylbenzene	<230	230	222	NA	µg/Kg dry	10/20/15 03:08	10/20/15 03:08	EPA 8260	A	JMG	
Benzene	<230	230	121	NA	µg/Kg dry	10/20/15 03:08	10/20/15 03:08	EPA 8260	A	JMG	
Ethylbenzene	<230	230	153	NA	µg/Kg dry	10/20/15 03:08	10/20/15 03:08	EPA 8260	A	JMG	
Isopropylbenzene (Cumene)	<230	230	58.9	NA	µg/Kg dry	10/20/15 03:08	10/20/15 03:08	EPA 8260	A	JMG	
MTBE	<230	230	51.6	NA	µg/Kg dry	10/20/15 03:08	10/20/15 03:08	EPA 8260	A	JMG	
Naphthalene	<230	230	48.4	NA	µg/Kg dry	10/20/15 03:08	10/20/15 03:08	EPA 8260	A	JMG	LCCV
Toluene	<230	230	157	NA	µg/Kg dry	10/20/15 03:08	10/20/15 03:08	EPA 8260	A	JMG	
Xylene o	<230	230	145	NA	µg/Kg dry	10/20/15 03:08	10/20/15 03:08	EPA 8260	A	JMG	
Xylene p/m	<459	459	84.9	NA	µg/Kg dry	10/20/15 03:08	10/20/15 03:08	EPA 8260	A	JMG	
Xylenes, Total	<689	689	NA	NA	µg/Kg dry	10/20/15 03:08	10/20/15 03:08	EPA 8260	A	JMG	Calc

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Cook's Country Store 16570 Hell Lane James Creek PA, 16657	Project Name: Site Characterization Project Number: 4547.15.01 Lab Project Manager: Tegan Schott	**Lab ID#:** 1510268 **Reported:** 10/22/15 07:20

SB-18 (10') U

1510268-03 (Soil) Sampled: 10/14/15 10:20

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
General Chemistry by Standard/EPA/ASTM Methods											
Percent Solids	**85.3**	0.100	NA	NA	wt%	10/19/15 10:10	10/19/15 10:10	SM 2540 G	A	JMK	
Volatile Organic Compounds by GC/MS											**VOCM**
1,2,4-Trimethylbenzene	<235	235	108	NA	µg/Kg dry	10/20/15 03:33	10/20/15 03:33	EPA 8260	A	JMG	
1,3,5-Trimethylbenzene	<235	235	227	NA	µg/Kg dry	10/20/15 03:33	10/20/15 03:33	EPA 8260	A	JMG	
Benzene	<235	235	124	NA	µg/Kg dry	10/20/15 03:33	10/20/15 03:33	EPA 8260	A	JMG	
Ethylbenzene	<235	235	157	NA	µg/Kg dry	10/20/15 03:33	10/20/15 03:33	EPA 8260	A	JMG	
Isopropylbenzene (Cumene)	<235	235	60.1	NA	µg/Kg dry	10/20/15 03:33	10/20/15 03:33	EPA 8260	A	JMG	
MTBE	<235	235	52.7	NA	µg/Kg dry	10/20/15 03:33	10/20/15 03:33	EPA 8260	A	JMG	
Naphthalene	<235	235	49.4	NA	µg/Kg dry	10/20/15 03:33	10/20/15 03:33	EPA 8260	A	JMG	LCCV
Toluene	<235	235	160	NA	µg/Kg dry	10/20/15 03:33	10/20/15 03:33	EPA 8260	A	JMG	
Xylene o	<235	235	148	NA	µg/Kg dry	10/20/15 03:33	10/20/15 03:33	EPA 8260	A	JMG	
Xylene p/m	<469	469	86.7	NA	µg/Kg dry	10/20/15 03:33	10/20/15 03:33	EPA 8260	A	JMG	
Xylenes, Total	<704	704	NA	NA	µg/Kg dry	10/20/15 03:33	10/20/15 03:33	EPA 8260	A	JMG	Calc

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Cook's Country Store 16570 Hell Lane James Creek PA, 16657	Project Name: Site Characterization Project Number: 4547.15.01 Lab Project Manager: Tegan Schott	**Lab ID#:** 1510268 **Reported:** 10/22/15 07:20

SB-16 (5') U

1510268-04 (Soil) Sampled: 10/14/15 08:40

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
General Chemistry by Standard/EPA/ASTM Methods											
Percent Solids	**83.6**	0.100	NA	NA	wt%	10/19/15 10:10	10/19/15 10:10	SM 2540 G	A	JMK	
Volatile Organic Compounds by GC/MS										**VOCM**	
1,2,4-Trimethylbenzene	<239	239	110	NA	µg/Kg dry	10/20/15 03:59	10/20/15 03:59	EPA 8260	A	JMG	
1,3,5-Trimethylbenzene	<239	239	232	NA	µg/Kg dry	10/20/15 03:59	10/20/15 03:59	EPA 8260	A	JMG	
Benzene	<239	239	126	NA	µg/Kg dry	10/20/15 03:59	10/20/15 03:59	EPA 8260	A	JMG	
Ethylbenzene	<239	239	160	NA	µg/Kg dry	10/20/15 03:59	10/20/15 03:59	EPA 8260	A	JMG	
Isopropylbenzene (Cumene)	<239	239	61.3	NA	µg/Kg dry	10/20/15 03:59	10/20/15 03:59	EPA 8260	A	JMG	
MTBE	<239	239	53.7	NA	µg/Kg dry	10/20/15 03:59	10/20/15 03:59	EPA 8260	A	JMG	
Naphthalene	<239	239	50.4	NA	µg/Kg dry	10/20/15 03:59	10/20/15 03:59	EPA 8260	A	JMG	LCCV
Toluene	<239	239	163	NA	µg/Kg dry	10/20/15 03:59	10/20/15 03:59	EPA 8260	A	JMG	
Xylene o	<239	239	151	NA	µg/Kg dry	10/20/15 03:59	10/20/15 03:59	EPA 8260	A	JMG	
Xylene p/m	<478	478	88.4	NA	µg/Kg dry	10/20/15 03:59	10/20/15 03:59	EPA 8260	A	JMG	
Xylenes, Total	<717	717	NA	NA	µg/Kg dry	10/20/15 03:59	10/20/15 03:59	EPA 8260	A	JMG	Calc

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Cook's Country Store 16570 Hell Lane James Creek PA, 16657	Project Name: Site Characterization Project Number: 4547.15.01 Lab Project Manager: Tegan Schott	**Lab ID#:** 1510268 **Reported:** 10/22/15 07:20

SB-13 (2') U

1510268-05 (Soil) Sampled: 10/13/15 10:50

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
General Chemistry by Standard/EPA/ASTM Methods											
Percent Solids	**87.8**	0.100	NA	NA	wt%	10/19/15 10:10	10/19/15 10:10	SM 2540 G	A	JMK	
Volatile Organic Compounds by GC/MS											**VOCM**
1,2,4-Trimethylbenzene	**23700**	11400	5230	NA	µg/Kg dry	10/20/15 04:25	10/21/15 11:57	EPA 8260	A	JMG	Dilut
1,3,5-Trimethylbenzene	**9050**	228	221	NA	µg/Kg dry	10/20/15 04:25	10/20/15 04:25	EPA 8260	A	JMG	
Benzene	<228	228	120	NA	µg/Kg dry	10/20/15 04:25	10/20/15 04:25	EPA 8260	A	JMG	
Ethylbenzene	**882**	228	152	NA	µg/Kg dry	10/20/15 04:25	10/20/15 04:25	EPA 8260	A	JMG	
Isopropylbenzene (Cumene)	**2200**	228	58.4	NA	µg/Kg dry	10/20/15 04:25	10/20/15 04:25	EPA 8260	A	JMG	
MTBE	<228	228	51.2	NA	µg/Kg dry	10/20/15 04:25	10/20/15 04:25	EPA 8260	A	JMG	
Naphthalene	**2160**	228	48.0	NA	µg/Kg dry	10/20/15 04:25	10/20/15 04:25	EPA 8260	A	JMG	LCCV
Toluene	<228	228	156	NA	µg/Kg dry	10/20/15 04:25	10/20/15 04:25	EPA 8260	A	JMG	
Xylene o	**413**	228	144	NA	µg/Kg dry	10/20/15 04:25	10/20/15 04:25	EPA 8260	A	JMG	
Xylene p/m	**2730**	455	84.2	NA	µg/Kg dry	10/20/15 04:25	10/20/15 04:25	EPA 8260	A	JMG	
Xylenes, Total	**3150**	683	NA	NA	µg/Kg dry	10/20/15 04:25	10/20/15 04:25	EPA 8260	A	JMG	Calc

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Cook's Country Store 16570 Hell Lane James Creek PA, 16657	Project Name: Site Characterization Project Number: 4547.15.01 Lab Project Manager: Tegan Schott	**Lab ID#:** 1510268 **Reported:** 10/22/15 07:20

MW-7 (6') U

1510268-06 (Soil) Sampled: 10/14/15 12:26

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
General Chemistry by Standard/EPA/ASTM Methods											
Percent Solids	**85.8**	0.100	NA	NA	wt%	10/19/15 10:10	10/19/15 10:10	SM 2540 G	A	JMK	
Volatile Organic Compounds by GC/MS										**VOCM**	
1,2,4-Trimethylbenzene	**1120**	233	107	NA	µg/Kg dry	10/20/15 04:51	10/20/15 04:51	EPA 8260	A	JMG	
1,3,5-Trimethylbenzene	**358**	233	226	NA	µg/Kg dry	10/20/15 04:51	10/20/15 04:51	EPA 8260	A	JMG	
Benzene	<233	233	123	NA	µg/Kg dry	10/20/15 04:51	10/20/15 04:51	EPA 8260	A	JMG	
Ethylbenzene	<233	233	156	NA	µg/Kg dry	10/20/15 04:51	10/20/15 04:51	EPA 8260	A	JMG	
Isopropylbenzene (Cumene)	**243**	233	59.8	NA	µg/Kg dry	10/20/15 04:51	10/20/15 04:51	EPA 8260	A	JMG	
MTBE	<233	233	52.4	NA	µg/Kg dry	10/20/15 04:51	10/20/15 04:51	EPA 8260	A	JMG	
Naphthalene	**254**	233	49.2	NA	µg/Kg dry	10/20/15 04:51	10/20/15 04:51	EPA 8260	A	JMG	LCCV
Toluene	<233	233	159	NA	µg/Kg dry	10/20/15 04:51	10/20/15 04:51	EPA 8260	A	JMG	
Xylene o	<233	233	147	NA	µg/Kg dry	10/20/15 04:51	10/20/15 04:51	EPA 8260	A	JMG	
Xylene p/m	<466	466	86.2	NA	µg/Kg dry	10/20/15 04:51	10/20/15 04:51	EPA 8260	A	JMG	
Xylenes, Total	<699	699	NA	NA	µg/Kg dry	10/20/15 04:51	10/20/15 04:51	EPA 8260	A	JMG	Calc

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Cook's Country Store 16570 Hell Lane James Creek PA, 16657	Project Name: Site Characterization Project Number: 4547.15.01 Lab Project Manager: Tegan Schott	**Lab ID#:** 1510268 **Reported:** 10/22/15 07:20

SB-20 (5') U

1510268-07 (Soil) Sampled: 10/15/15 09:15

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
General Chemistry by Standard/EPA/ASTM Methods											
Percent Solids	**92.2**	0.100	NA	NA	wt%	10/19/15 10:10	10/19/15 10:10	SM 2540 G	A	JMK	
Volatile Organic Compounds by GC/MS											
1,2,4-Trimethylbenzene	<217	217	99.6	NA	µg/Kg dry	10/20/15 05:17	10/20/15 05:17	EPA 8260	A	JMG	
1,3,5-Trimethylbenzene	<217	217	210	NA	µg/Kg dry	10/20/15 05:17	10/20/15 05:17	EPA 8260	A	JMG	
Benzene	<217	217	114	NA	µg/Kg dry	10/20/15 05:17	10/20/15 05:17	EPA 8260	A	JMG	
Ethylbenzene	<217	217	145	NA	µg/Kg dry	10/20/15 05:17	10/20/15 05:17	EPA 8260	A	JMG	
Isopropylbenzene (Cumene)	<217	217	55.6	NA	µg/Kg dry	10/20/15 05:17	10/20/15 05:17	EPA 8260	A	JMG	
MTBE	<217	217	48.7	NA	µg/Kg dry	10/20/15 05:17	10/20/15 05:17	EPA 8260	A	JMG	
Naphthalene	<217	217	45.7	NA	µg/Kg dry	10/20/15 05:17	10/20/15 05:17	EPA 8260	A	JMG	LCCV
Toluene	<217	217	148	NA	µg/Kg dry	10/20/15 05:17	10/20/15 05:17	EPA 8260	A	JMG	
Xylene o	<217	217	137	NA	µg/Kg dry	10/20/15 05:17	10/20/15 05:17	EPA 8260	A	JMG	
Xylene p/m	<434	434	80.2	NA	µg/Kg dry	10/20/15 05:17	10/20/15 05:17	EPA 8260	A	JMG	
Xylenes, Total	<650	650	NA	NA	µg/Kg dry	10/20/15 05:17	10/20/15 05:17	EPA 8260	A	JMG	Calc

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Cook's Country Store 16570 Hell Lane James Creek PA, 16657	Project Name: Site Characterization Project Number: 4547.15.01 Lab Project Manager: Tegan Schott	**Lab ID#:** 1510268 **Reported:** 10/22/15 07:20

SB-19 (5') U

1510268-08 (Soil) Sampled: 10/14/15 11:00

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
General Chemistry by Standard/EPA/ASTM Methods											
Percent Solids	**83.1**	0.100	NA	NA	wt%	10/19/15 10:10	10/19/15 10:10	SM 2540 G	A	JMK	
Volatile Organic Compounds by GC/MS											**VOCL**
1,2,4-Trimethylbenzene	<241	241	111	NA	µg/Kg dry	10/20/15 05:43	10/20/15 05:43	EPA 8260	A	JMG	
1,3,5-Trimethylbenzene	<241	241	233	NA	µg/Kg dry	10/20/15 05:43	10/20/15 05:43	EPA 8260	A	JMG	
Benzene	<241	241	127	NA	µg/Kg dry	10/20/15 05:43	10/20/15 05:43	EPA 8260	A	JMG	
Ethylbenzene	<241	241	161	NA	µg/Kg dry	10/20/15 05:43	10/20/15 05:43	EPA 8260	A	JMG	
Isopropylbenzene (Cumene)	<241	241	61.7	NA	µg/Kg dry	10/20/15 05:43	10/20/15 05:43	EPA 8260	A	JMG	
MTBE	<241	241	54.1	NA	µg/Kg dry	10/20/15 05:43	10/20/15 05:43	EPA 8260	A	JMG	
Naphthalene	<241	241	50.7	NA	µg/Kg dry	10/20/15 05:43	10/20/15 05:43	EPA 8260	A	JMG	LCCV
Toluene	<241	241	165	NA	µg/Kg dry	10/20/15 05:43	10/20/15 05:43	EPA 8260	A	JMG	
Xylene o	<241	241	152	NA	µg/Kg dry	10/20/15 05:43	10/20/15 05:43	EPA 8260	A	JMG	
Xylene p/m	<481	481	89.0	NA	µg/Kg dry	10/20/15 05:43	10/20/15 05:43	EPA 8260	A	JMG	
Xylenes, Total	<722	722	NA	NA	µg/Kg dry	10/20/15 05:43	10/20/15 05:43	EPA 8260	A	JMG	Calc

Mountain Research, LLC

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Cook's Country Store 16570 Hell Lane James Creek PA, 16657	Project Name: Site Characterization Project Number: 4547.15.01 Lab Project Manager: Tegan Schott	**Lab ID#:** 1510268 **Reported:** 10/22/15 07:20

SB-21 (4') U

1510268-09 (Soil) Sampled: 10/15/15 10:00

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
General Chemistry by Standard/EPA/ASTM Methods											
Percent Solids	**79.2**	0.100	NA	NA	wt%	10/19/15 10:10	10/19/15 10:10	SM 2540 G	A	JMK	
Volatile Organic Compounds by GC/MS										**VOCM**	
1,2,4-Trimethylbenzene	<252	252	116	NA	µg/Kg dry	10/20/15 06:08	10/20/15 06:08	EPA 8260	A	JMG	
1,3,5-Trimethylbenzene	<252	252	244	NA	µg/Kg dry	10/20/15 06:08	10/20/15 06:08	EPA 8260	A	JMG	
Benzene	<252	252	133	NA	µg/Kg dry	10/20/15 06:08	10/20/15 06:08	EPA 8260	A	JMG	
Ethylbenzene	<252	252	169	NA	µg/Kg dry	10/20/15 06:08	10/20/15 06:08	EPA 8260	A	JMG	
Isopropylbenzene (Cumene)	<252	252	64.7	NA	µg/Kg dry	10/20/15 06:08	10/20/15 06:08	EPA 8260	A	JMG	
MTBE	<252	252	56.7	NA	µg/Kg dry	10/20/15 06:08	10/20/15 06:08	EPA 8260	A	JMG	
Naphthalene	<252	252	53.2	NA	µg/Kg dry	10/20/15 06:08	10/20/15 06:08	EPA 8260	A	JMG	LCCV
Toluene	<252	252	173	NA	µg/Kg dry	10/20/15 06:08	10/20/15 06:08	EPA 8260	A	JMG	
Xylene o	<252	252	159	NA	µg/Kg dry	10/20/15 06:08	10/20/15 06:08	EPA 8260	A	JMG	
Xylene p/m	<505	505	93.3	NA	µg/Kg dry	10/20/15 06:08	10/20/15 06:08	EPA 8260	A	JMG	
Xylenes, Total	<757	757	NA	NA	µg/Kg dry	10/20/15 06:08	10/20/15 06:08	EPA 8260	A	JMG	Calc

Mountain Research, LLC

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Cook's Country Store 16570 Hell Lane James Creek PA, 16657	Project Name: Site Characterization Project Number: 4547.15.01 Lab Project Manager: Tegan Schott	**Lab ID#:** 1510268 **Reported:** 10/22/15 07:20

SB-22 (10') U

1510268-10 (Soil) Sampled: 10/15/15 13:00

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
General Chemistry by Standard/EPA/ASTM Methods											
Percent Solids	**85.5**	0.100	NA	NA	wt%	10/19/15 10:10	10/19/15 10:10	SM 2540 G	A	JMK	
Volatile Organic Compounds by GC/MS										**VOCM**	
1,2,4-Trimethylbenzene	<234	234	107	NA	µg/Kg dry	10/20/15 06:34	10/20/15 06:34	EPA 8260	A	JMG	
1,3,5-Trimethylbenzene	<234	234	226	NA	µg/Kg dry	10/20/15 06:34	10/20/15 06:34	EPA 8260	A	JMG	
Benzene	<234	234	123	NA	µg/Kg dry	10/20/15 06:34	10/20/15 06:34	EPA 8260	A	JMG	
Ethylbenzene	<234	234	156	NA	µg/Kg dry	10/20/15 06:34	10/20/15 06:34	EPA 8260	A	JMG	
Isopropylbenzene (Cumene)	<234	234	60.0	NA	µg/Kg dry	10/20/15 06:34	10/20/15 06:34	EPA 8260	A	JMG	
MTBE	<234	234	52.5	NA	µg/Kg dry	10/20/15 06:34	10/20/15 06:34	EPA 8260	A	JMG	
Naphthalene	<234	234	49.3	NA	µg/Kg dry	10/20/15 06:34	10/20/15 06:34	EPA 8260	A	JMG	LCCV
Toluene	<234	234	160	NA	µg/Kg dry	10/20/15 06:34	10/20/15 06:34	EPA 8260	A	JMG	
Xylene o	<234	234	147	NA	µg/Kg dry	10/20/15 06:34	10/20/15 06:34	EPA 8260	A	JMG	
Xylene p/m	<468	468	86.5	NA	µg/Kg dry	10/20/15 06:34	10/20/15 06:34	EPA 8260	A	JMG	
Xylenes, Total	<702	702	NA	NA	µg/Kg dry	10/20/15 06:34	10/20/15 06:34	EPA 8260	A	JMG	Calc

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Cook's Country Store 16570 Hell Lane James Creek PA, 16657	Project Name: Site Characterization Project Number: 4547.15.01 Lab Project Manager: Tegan Schott	**Lab ID#:** 1510268 **Reported:** 10/22/15 07:20

MW-6 (5') U

1510268-11 (Soil) Sampled: 10/13/15 13:00

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
General Chemistry by Standard/EPA/ASTM Methods											
Percent Solids	**83.1**	0.100	NA	NA	wt%	10/19/15 10:10	10/19/15 10:10	SM 2540 G	A	JMK	
Volatile Organic Compounds by GC/MS											**VOCL**
1,2,4-Trimethylbenzene	<241	241	111	NA	µg/Kg dry	10/20/15 07:00	10/20/15 07:00	EPA 8260	A	JMG	
1,3,5-Trimethylbenzene	<241	241	233	NA	µg/Kg dry	10/20/15 07:00	10/20/15 07:00	EPA 8260	A	JMG	
Benzene	<241	241	127	NA	µg/Kg dry	10/20/15 07:00	10/20/15 07:00	EPA 8260	A	JMG	
Ethylbenzene	<241	241	161	NA	µg/Kg dry	10/20/15 07:00	10/20/15 07:00	EPA 8260	A	JMG	
Isopropylbenzene (Cumene)	<241	241	61.7	NA	µg/Kg dry	10/20/15 07:00	10/20/15 07:00	EPA 8260	A	JMG	
MTBE	<241	241	54.1	NA	µg/Kg dry	10/20/15 07:00	10/20/15 07:00	EPA 8260	A	JMG	
Naphthalene	<241	241	50.7	NA	µg/Kg dry	10/20/15 07:00	10/20/15 07:00	EPA 8260	A	JMG	LCCV
Toluene	**265**	241	164	NA	µg/Kg dry	10/20/15 07:00	10/20/15 07:00	EPA 8260	A	JMG	
Xylene o	<241	241	152	NA	µg/Kg dry	10/20/15 07:00	10/20/15 07:00	EPA 8260	A	JMG	
Xylene p/m	<481	481	88.9	NA	µg/Kg dry	10/20/15 07:00	10/20/15 07:00	EPA 8260	A	JMG	
Xylenes, Total	<722	722	NA	NA	µg/Kg dry	10/20/15 07:00	10/20/15 07:00	EPA 8260	A	JMG	Calc

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Cook's Country Store 16570 Hell Lane James Creek PA, 16657	Project Name: Site Characterization Project Number: 4547.15.01 Lab Project Manager: Tegan Schott	**Lab ID#:** 1510268 **Reported:** 10/22/15 07:20

SB-15 (9.5') U

1510268-12 (Soil) Sampled: 10/15/15 10:45

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
General Chemistry by Standard/EPA/ASTM Methods											
Percent Solids	**90.3**	0.100	NA	NA	wt%	10/19/15 10:10	10/19/15 10:10	SM 2540 G	A	JMK	
Volatile Organic Compounds by GC/MS											**VOCL**
1,2,4-Trimethylbenzene	<221	221	102	NA	µg/Kg dry	10/20/15 07:26	10/20/15 07:26	EPA 8260	A	JMG	
1,3,5-Trimethylbenzene	<221	221	214	NA	µg/Kg dry	10/20/15 07:26	10/20/15 07:26	EPA 8260	A	JMG	
Benzene	<221	221	117	NA	µg/Kg dry	10/20/15 07:26	10/20/15 07:26	EPA 8260	A	JMG	
Ethylbenzene	<221	221	148	NA	µg/Kg dry	10/20/15 07:26	10/20/15 07:26	EPA 8260	A	JMG	
Isopropylbenzene (Cumene)	<221	221	56.8	NA	µg/Kg dry	10/20/15 07:26	10/20/15 07:26	EPA 8260	A	JMG	
MTBE	<221	221	49.7	NA	µg/Kg dry	10/20/15 07:26	10/20/15 07:26	EPA 8260	A	JMG	
Naphthalene	<221	221	46.7	NA	µg/Kg dry	10/20/15 07:26	10/20/15 07:26	EPA 8260	A	JMG	LCCV
Toluene	<221	221	151	NA	µg/Kg dry	10/20/15 07:26	10/20/15 07:26	EPA 8260	A	JMG	
Xylene o	<221	221	140	NA	µg/Kg dry	10/20/15 07:26	10/20/15 07:26	EPA 8260	A	JMG	
Xylene p/m	<443	443	81.8	NA	µg/Kg dry	10/20/15 07:26	10/20/15 07:26	EPA 8260	A	JMG	
Xylenes, Total	<664	664	NA	NA	µg/Kg dry	10/20/15 07:26	10/20/15 07:26	EPA 8260	A	JMG	Calc

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Cook's Country Store 16570 Hell Lane James Creek PA, 16657	Project Name: Site Characterization Project Number: 4547.15.01 Lab Project Manager: Tegan Schott	**Lab ID#:** 1510268 **Reported:** 10/22/15 07:20

SB-14 (3') U

1510268-13 (Soil) Sampled: 10/15/15 12:36

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
General Chemistry by Standard/EPA/ASTM Methods											
Percent Solids	**90.4**	0.100	NA	NA	wt%	10/19/15 10:10	10/19/15 10:10	SM 2540 G	A	JMK	
Volatile Organic Compounds by GC/MS											**VOCL**
1,2,4-Trimethylbenzene	**147000**	11100	5080	NA	µg/Kg dry	10/20/15 07:52	10/21/15 12:22	EPA 8260	A	JMG	Dilut
1,3,5-Trimethylbenzene	**51800**	2210	2140	NA	µg/Kg dry	10/20/15 07:52	10/20/15 07:52	EPA 8260	A	JMG	Dilut
Benzene	**3780**	2210	1170	NA	µg/Kg dry	10/20/15 07:52	10/20/15 07:52	EPA 8260	A	JMG	Dilut
Ethylbenzene	**75400**	2210	1480	NA	µg/Kg dry	10/20/15 07:52	10/20/15 07:52	EPA 8260	A	JMG	Dilut
Isopropylbenzene (Cumene)	**13800**	2210	567	NA	µg/Kg dry	10/20/15 07:52	10/20/15 07:52	EPA 8260	A	JMG	Dilut
MTBE	<2210	2210	497	NA	µg/Kg dry	10/20/15 07:52	10/20/15 07:52	EPA 8260	A	JMG	Dilut
Naphthalene	**22200**	2210	466	NA	µg/Kg dry	10/20/15 07:52	10/20/15 07:52	EPA 8260	A	JMG	Dilut, LCCV
Toluene	**40500**	2210	1510	NA	µg/Kg dry	10/20/15 07:52	10/20/15 07:52	EPA 8260	A	JMG	Dilut
Xylene o	**73900**	2210	1390	NA	µg/Kg dry	10/20/15 07:52	10/20/15 07:52	EPA 8260	A	JMG	Dilut
Xylene p/m	**229000**	22100	4090	NA	µg/Kg dry	10/20/15 07:52	10/21/15 12:22	EPA 8260	A	JMG	Dilut
Xylenes, Total	**303000**	24300	NA	NA	µg/Kg dry	10/20/15 07:52	10/21/15 12:22	EPA 8260	A	JMG	Calc, Dilut

Mountain Research, LLC

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.

Tegan Schott

Tegan Schott, Technical Specialist II

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Cook's Country Store 16570 Hell Lane James Creek PA, 16657	Project Name: Site Characterization Project Number: 4547.15.01 Lab Project Manager: Tegan Schott	**Lab ID#:** 1510268 **Reported:** 10/22/15 07:20

Certifications

Code	Description	Number	Expires
MDDOE	Maryland Department of the Environment	257	09/30/2015
PADEP-Altoona	Pennsylvania Department of Environmental Protection	009	03/31/2015
WVDEP	West Virginia Department of Environmental Protection	225	10/31/2015
PADEP-DuBois	Pennsylvania Department of Environmental Protection	008	09/30/2015

Notes and Definitions

VOCM	VOC vial contained more than the EPA recommended amount of soil.
VOCL	VOC vial contained less than the EPA recommended amount of soil.
LCCV	This sample had a low continuing calibration verification standard.
Dilut	This sample was analyzed at a dilution.
Calc	[Calc] - Calculated analytes are reported based on unrounded results of the individual analytes used in the calculation. Therefore, using the rounded values of the analytes as reported may lead to a result that varies slightly from the reported result.
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
dry	Sample results reported on a dry weight basis
A	Analysis Performed by Mountain Research Altoona Laboratory - PADEP #07-00418
D	Analysis Performed by Mountain Research DuBois Laboratory - PADEP # 33-00258

BALL POINT PEN ONLY

Billing Group:	Phase: Soil Sample	PROJECT NAME: MW/SB Install
MR Project #: 4547.15.01	SITE LOCATION: Robertsdale, PA	
CLIENT: Cooks Country Store	SAMPLER(S): KC	

NOTES:
Received On Ice: (Y) / N
Sample Temp: 0.5°C
PWSID #:
Seal In Tack: Y / N
Other:
Comments:

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CHAIN OF CUSTODY RECORD

MR PROJ. MGR. MC

Shipping Carrier:

Turn Around Time:
10 Day X
3 Day
1 Day

Comments:

SAMPLE ID.NO.	DATE	TIME	GRAB	COMP	MATRIX	NUMBER OF CONTAINERS	PRODUCT CODE	Analyses Requested: 8260 B	Percent Solid	Preserve	LAB NUMBER
SB-17(5') u	10-14-15	0940	X		Soil	1-VOA 40mL	ZA	X		MeOH	01
						1-4oz Jar			X	None	1
MW-5(6') u	10-13-15	1120	X		Soil	1-VOA 40mL	ZA	X		MeOH	02
						1-4oz Jar			X	None	1
SB-18(10') u	10-14-15	1020	X		Soil	1-VOA 40mL	ZA	X		MeOH	03
						1-4oz Jar			X	None	1
SB-16(5') u	10-14-15	0840	X		Soil	1-VOA 40mL	ZA	X		MeOH	04
						1-4oz Jar			X	None	1

	DATE	TIME		DATE	TIME		
RELINQUISHED BY:	10-16-15	1300	ACCEPTED BY:	10/16	1300	Lab WO #: L510268	Log In Time: 1257
RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE	TIME	Labeled By:	Staff: Kd
							Date: 10/16/15

White - Lab; Blue - File; Yellow - Project Manager; Pink - Staff

BALL POINT PEN ONLY

00001

Billing Group:	Phase: Soil Sample	PROJECT NAME MW/SB Install
MR Project # 4547.15.01	SITE LOCATION Robertsdale, PA	
CLIENT Cooks Country Store	SAMPLER(S) KC	

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CHAIN OF CUSTODY RECORD

NOTES:

Received On Ice: (Y) / N

Sample Temp: 0.5°C

PWSID #:

Seal In Tack: Y / N

Other:

Comments:

MR PROJ. MGR. MC

Shipping Carrier:

Turn Around Time:
10 Day X
3 Day
1 Day

Comments:

Analyses Requested

SAMPLE ID.NO.	DATE	TIME	GRAB	COMP	MATRIX	NUMBER OF CONTAINERS	PRODUCT CODE	8260 B	Percent Solid						Preserve	LAB NUMBER
SB-13 (2') 4	10-13-15	1050	X		Soil	1-VOA 40 mL	2A	X							MeOH	05
						1-4oz Jar			X						None	↓
MW-7 (6') 4	10-14-15	1226	X		Soil	1-VOA 40 mL	2A	X							MeOH	06
						1-4oz Jar			X						None	↓
SB-20 (5') 4	10-15-15	0915	X		Soil	1-40mL VOA	2A	X							MeOH	07
						1-4oz Jar			X						None	↓
SB-19 (5') 4	10-14-15	1100	X		Soil	1-40mL VOA	2A	X							MeOH	08
						1-4oz Jar			X						None	↓

RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE	TIME	Lab WO #:	Log In Time: 1559
[signature]	10-16-15	1300	[signature]	10/16/15	1300	1510263	Staff: KC
RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE	TIME	Labeled By:	Date: 10/16/15

White - Lab; Blue - File; Yellow - Project Manager; Pink - Staff

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BALL POINT PEN ONLY

00001

Billing Group:	Phase: Soil Sample	PROJECT NAME: MW/SB Install
MR Project #: 4547.15.01		SITE LOCATION: Robertsdale, PA
CLIENT: Cooks Country Store		SAMPLER(S): KC

NOTES:
Received On Ice: (Y) / N
Sample Temp: 0.5°C
PWSID #:
Seal In Tack: Y / N
Other:
Comments:

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CHAIN OF CUSTODY RECORD

MR PROJ. MGR. MC

Shipping Carrier:

Turn Around Time:
10 Day X
3 Day
1 Day

Comments:

SAMPLE ID.NO.	DATE	TIME	GRAB	COMP	MATRIX	NUMBER OF CONTAINERS	PRODUCT CODE	8260 B	Percent Solid						Preserve	LAB NUMBER
SB-21(4') u	10-15-15	1000	X		Soil	1-40mL VOA	ZA	X							MeOH	09
						1-4oz Jar			X						None	1
SB-22(10') u	10-15-15	1300	X		Soil	1-40mL VOA	ZA	X							MeOH	10
						1-4oz Jar			X						None	1
MW-6(5') u	10-13-15	1300	X		Soil	1-40mL VOA	ZA	X							MeOH	11
						1-4oz Jar			X						None	2
SB-15(9.5') u	10-13-15	1045	X		Soil	1-40mL VOA	ZA	X							MeOH	12
						1-4oz Jar			X						None	2

RELINQUISHED BY:	DATE 10-16-15	TIME 1300	ACCEPTED BY:	DATE 10/16/15	TIME 1300	Lab WO #: 1510263	Log In Time: 1557
RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE	TIME	Labeled By:	Staff: KC
							Date: 10/16/15

White - Lab; Blue - File; Yellow - Project Manager; Pink - Staff

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BALL POINT PEN ONLY

00001

Billing Group:	Phase: Soil Sample	PROJECT NAME: MW/SB Install
MR Project #: 4547.15.01		SITE LOCATION: Robertsdale, PA
CLIENT: Cooks Country Store		SAMPLER(S): KC

NOTES:

Received On Ice: (Y) / N

Sample Temp: 0.5°C

PWSID #:

Seal In Tack: Y / N

Other:

Comments:

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CHAIN OF CUSTODY RECORD

MR PROJ. MGR. MC

Shipping Carrier:

Turn Around Time:
10 Day X
3 Day
1 Day

Comments:

Analyses Requested: 8260 B; Percent Solid

SAMPLE ID.NO.	DATE	TIME	GRAB	COMP	MATRIX	NUMBER OF CONTAINERS	PRODUCT CODE	8260 B	Percent Solid	Preserve	LAB NUMBER
SB-14 (3') u	10-13-15	1236	X		Soil	1-40mL VOA	2A	X		MeOH	13
						1-4oz Jar			X	None	1

RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE	TIME	Lab WO #:	Log In Time:
	10-16-15	1300		10/16/15	1300	1510263	Staff:
RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE	TIME	Labeled By:	Date: 10/16/15

White - Lab; Blue - File; Yellow - Project Manager; Pink - Staff

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EPA Lab #PA00165

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PADEP #33-00258
EPA Lab #PA00155

01 December 2015

Lab ID #: 1511281

Betty Hess
Cook's Country Store
16570 Hell Lane
James Creek, PA 16657

RE: Site Characterization

Enclosed are the results of analyses for samples received by the laboratory on 11/19/15 13:39. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tegan Schott
Technical Specialist II

Authorized Reviewer

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Cook's Country Store 16570 Hell Lane James Creek PA, 16657	Project Name: Site Characterization Project Number: 4547.15.01 Lab Project Manager: Tegan Schott	**Lab ID#:** 1511281 **Reported:** 12/01/15 13:19

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Sample Type	Date Sampled	Date Received
MW-1	1511281-01	Aqueous	Grab	11/19/15 10:50	11/19/15 13:39
MW-2	1511281-02	Aqueous	Grab	11/19/15 09:34	11/19/15 13:39
MW-3	1511281-03	Aqueous	Grab	11/19/15 10:45	11/19/15 13:39
MW-4	1511281-04	Aqueous	Grab	11/19/15 09:47	11/19/15 13:39
MW-5	1511281-05	Aqueous	Grab	11/19/15 11:08	11/19/15 13:39
MW-6	1511281-06	Aqueous	Grab	11/19/15 11:51	11/19/15 13:39
MW-6 Dup	1511281-07	Aqueous	Grab	11/19/15 11:52	11/19/15 13:39
MW-7	1511281-08	Aqueous	Grab	11/19/15 10:24	11/19/15 13:39
MW-8	1511281-09	Aqueous	Grab	11/19/15 11:34	11/19/15 13:39
Trip Blank	1511281-10	Aqueous	Grab	11/19/15 07:05	11/19/15 13:39

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Tegan Schott

Tegan Schott, Technical Specialist II

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Cook's Country Store	Project Name: Site Characterization	**Lab ID#:** 1511281
16570 Hell Lane	Project Number: 4547.15.01	**Reported:**
James Creek PA, 16657	Lab Project Manager: Tegan Schott	12/01/15 13:19

MW-1

1511281-01 (Aqueous) Sampled: 11/19/15 10:50

Mountain Research, LLC

Volatile Organic Compounds by GC/MS

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
1,2,4-Trimethylbenzene	**1320**	100	38.5	NA	µg/L	11/23/15 17:07	11/23/15 17:33	EPA 8260	A	JMG	D1
1,3,5-Trimethylbenzene	**640**	20.0	7.26	NA	µg/L	11/23/15 17:07	11/23/15 17:07	EPA 8260	A	JMG	D1
Benzene	**2450**	100	33.3	NA	µg/L	11/23/15 17:07	11/23/15 17:33	EPA 8260	A	JMG	D1
Ethylbenzene	**1030**	100	36.0	NA	µg/L	11/23/15 17:07	11/23/15 17:33	EPA 8260	A	JMG	D1
Isopropylbenzene (Cumene)	**114**	20.0	5.61	NA	µg/L	11/23/15 17:07	11/23/15 17:07	EPA 8260	A	JMG	D1
MTBE	<20.0	20.0	5.58	NA	µg/L	11/23/15 17:07	11/23/15 17:07	EPA 8260	A	JMG	D1
Naphthalene	**495**	20.0	3.53	NA	µg/L	11/23/15 17:07	11/23/15 17:07	EPA 8260	A	JMG	D1
Toluene	**4350**	100	37.3	NA	µg/L	11/23/15 17:07	11/23/15 17:33	EPA 8260	A	JMG	D1
Xylene o	**1150**	100	32.8	NA	µg/L	11/23/15 17:07	11/23/15 17:33	EPA 8260	A	JMG	D1
Xylene p/m	**3490**	200	64.6	NA	µg/L	11/23/15 17:07	11/23/15 17:33	EPA 8260	A	JMG	D1
Xylenes, Total	**4650**	300	NA	NA	µg/L	11/23/15 17:07	11/23/15 17:33	EPA 8260	A	JMG	Calc, D1

Mountain Research, LLC

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Tegan Schott

Tegan Schott, Technical Specialist II

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Cook's Country Store 16570 Hell Lane James Creek PA, 16657	Project Name: Site Characterization Project Number: 4547.15.01 Lab Project Manager: Tegan Schott	**Lab ID#:** 1511281 **Reported:** 12/01/15 13:19

MW-2

1511281-02 (Aqueous) Sampled: 11/19/15 09:34

Mountain Research, LLC

Volatile Organic Compounds by GC/MS — **LSurr**

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
1,2,4-Trimethylbenzene	**200**	50.0	19.2	NA	µg/L	11/23/15 20:08	11/24/15 17:28	EPA 8260	A	JMG	D1
1,3,5-Trimethylbenzene	**81.2**	2.00	0.726	NA	µg/L	11/23/15 20:08	11/23/15 20:08	EPA 8260	A	JMG	
Benzene	**1820**	50.0	16.6	NA	µg/L	11/23/15 20:08	11/24/15 17:28	EPA 8260	A	JMG	D1
Ethylbenzene	**94.2**	50.0	18.0	NA	µg/L	11/23/15 20:08	11/24/15 17:28	EPA 8260	A	JMG	D1
Isopropylbenzene (Cumene)	**36.1**	2.00	0.561	NA	µg/L	11/23/15 20:08	11/23/15 20:08	EPA 8260	A	JMG	
MTBE	**2.49**	2.00	0.558	NA	µg/L	11/23/15 20:08	11/23/15 20:08	EPA 8260	A	JMG	
Naphthalene	**50.6**	2.00	0.353	NA	µg/L	11/23/15 20:08	11/23/15 20:08	EPA 8260	A	JMG	
Toluene	**39.1**	2.00	0.746	NA	µg/L	11/23/15 20:08	11/23/15 20:08	EPA 8260	A	JMG	
Xylene o	**35.4**	2.00	0.656	NA	µg/L	11/23/15 20:08	11/23/15 20:08	EPA 8260	A	JMG	
Xylene p/m	**1050**	100	32.3	NA	µg/L	11/23/15 20:08	11/24/15 17:28	EPA 8260	A	JMG	D1
Xylenes, Total	**1090**	102	NA	NA	µg/L	11/23/15 20:08	11/24/15 17:28	EPA 8260	A	JMG	Calc, D1

MOUNTAIN RESEARCH, LLC

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Cook's Country Store 16570 Hell Lane James Creek PA, 16657	Project Name: Site Characterization Project Number: 4547.15.01 Lab Project Manager: Tegan Schott	**Lab ID#:** 1511281 **Reported:** 12/01/15 13:19

MW-3

1511281-03 (Aqueous) Sampled: 11/19/15 10:45

Mountain Research, LLC

Volatile Organic Compounds by GC/MS

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
1,2,4-Trimethylbenzene	**370**	20.0	7.70	NA	µg/L	11/23/15 20:34	11/24/15 17:54	EPA 8260	A	JMG	D1
1,3,5-Trimethylbenzene	**115**	20.0	7.26	NA	µg/L	11/23/15 20:34	11/24/15 17:54	EPA 8260	A	JMG	D1
Benzene	**552**	20.0	6.66	NA	µg/L	11/23/15 20:34	11/24/15 17:54	EPA 8260	A	JMG	D1
Ethylbenzene	**402**	20.0	7.19	NA	µg/L	11/23/15 20:34	11/24/15 17:54	EPA 8260	A	JMG	D1
Isopropylbenzene (Cumene)	**45.7**	2.00	0.561	NA	µg/L	11/23/15 20:34	11/23/15 20:34	EPA 8260	A	JMG	
MTBE	**17.5**	2.00	0.558	NA	µg/L	11/23/15 20:34	11/23/15 20:34	EPA 8260	A	JMG	
Naphthalene	**119**	20.0	3.53	NA	µg/L	11/23/15 20:34	11/24/15 17:54	EPA 8260	A	JMG	D1
Toluene	**303**	20.0	7.46	NA	µg/L	11/23/15 20:34	11/24/15 17:54	EPA 8260	A	JMG	D1
Xylene o	**81.7**	2.00	0.656	NA	µg/L	11/23/15 20:34	11/23/15 20:34	EPA 8260	A	JMG	
Xylene p/m	**870**	40.0	12.9	NA	µg/L	11/23/15 20:34	11/24/15 17:54	EPA 8260	A	JMG	D1
Xylenes, Total	**952**	42.0	NA	NA	µg/L	11/23/15 20:34	11/24/15 17:54	EPA 8260	A	JMG	Calc, D1

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Cook's Country Store 16570 Hell Lane James Creek PA, 16657	Project Name: Site Characterization Project Number: 4547.15.01 Lab Project Manager: Tegan Schott	**Lab ID#:** 1511281 **Reported:** 12/01/15 13:19

MW-4

1511281-04 (Aqueous) Sampled: 11/19/15 09:47

Mountain Research, LLC

Volatile Organic Compounds by GC/MS

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
1,2,4-Trimethylbenzene	**21.3**	2.00	0.770	NA	µg/L	11/24/15 16:36	11/24/15 16:36	EPA 8260	A	JMG	
1,3,5-Trimethylbenzene	**7.46**	2.00	0.726	NA	µg/L	11/24/15 16:36	11/24/15 16:36	EPA 8260	A	JMG	
Benzene	<2.00	2.00	0.666	NA	µg/L	11/24/15 16:36	11/24/15 16:36	EPA 8260	A	JMG	
Ethylbenzene	**7.91**	2.00	0.719	NA	µg/L	11/24/15 16:36	11/24/15 16:36	EPA 8260	A	JMG	
Isopropylbenzene (Cumene)	<2.00	2.00	0.561	NA	µg/L	11/24/15 16:36	11/24/15 16:36	EPA 8260	A	JMG	
MTBE	<2.00	2.00	0.558	NA	µg/L	11/24/15 16:36	11/24/15 16:36	EPA 8260	A	JMG	
Naphthalene	<2.00	2.00	0.353	NA	µg/L	11/24/15 16:36	11/24/15 16:36	EPA 8260	A	JMG	
Toluene	**5.46**	2.00	0.746	NA	µg/L	11/24/15 16:36	11/24/15 16:36	EPA 8260	A	JMG	
Xylene o	**8.61**	2.00	0.656	NA	µg/L	11/24/15 16:36	11/24/15 16:36	EPA 8260	A	JMG	
Xylene p/m	**29.6**	4.00	1.29	NA	µg/L	11/24/15 16:36	11/24/15 16:36	EPA 8260	A	JMG	
Xylenes, Total	**38.3**	6.00	NA	NA	µg/L	11/24/15 16:36	11/24/15 16:36	EPA 8260	A	JMG	Calc

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Cook's Country Store 16570 Hell Lane James Creek PA, 16657	Project Name: Site Characterization Project Number: 4547.15.01 Lab Project Manager: Tegan Schott	**Lab ID#:** 1511281 **Reported:** 12/01/15 13:19

MW-5

1511281-05 (Aqueous) Sampled: 11/19/15 11:08

Mountain Research, LLC

Volatile Organic Compounds by GC/MS

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
1,2,4-Trimethylbenzene	**22.3**	2.00	0.770	NA	µg/L	11/23/15 21:26	11/23/15 21:26	EPA 8260	A	JMG	
1,3,5-Trimethylbenzene	**5.92**	2.00	0.726	NA	µg/L	11/23/15 21:26	11/23/15 21:26	EPA 8260	A	JMG	
Benzene	**25.2**	2.00	0.666	NA	µg/L	11/23/15 21:26	11/23/15 21:26	EPA 8260	A	JMG	
Ethylbenzene	**2.50**	2.00	0.719	NA	µg/L	11/23/15 21:26	11/23/15 21:26	EPA 8260	A	JMG	
Isopropylbenzene (Cumene)	**4.68**	2.00	0.561	NA	µg/L	11/23/15 21:26	11/23/15 21:26	EPA 8260	A	JMG	
MTBE	<2.00	2.00	0.558	NA	µg/L	11/23/15 21:26	11/23/15 21:26	EPA 8260	A	JMG	
Naphthalene	<2.00	2.00	0.353	NA	µg/L	11/23/15 21:26	11/23/15 21:26	EPA 8260	A	JMG	
Toluene	<2.00	2.00	0.746	NA	µg/L	11/23/15 21:26	11/23/15 21:26	EPA 8260	A	JMG	
Xylene o	<2.00	2.00	0.656	NA	µg/L	11/23/15 21:26	11/23/15 21:26	EPA 8260	A	JMG	
Xylene p/m	<4.00	4.00	1.29	NA	µg/L	11/23/15 21:26	11/23/15 21:26	EPA 8260	A	JMG	
Xylenes, Total	<6.00	6.00	NA	NA	µg/L	11/23/15 21:26	11/23/15 21:26	EPA 8260	A	JMG	Calc

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Cook's Country Store 16570 Hell Lane James Creek PA, 16657	Project Name: Site Characterization Project Number: 4547.15.01 Lab Project Manager: Tegan Schott	**Lab ID#:** 1511281 **Reported:** 12/01/15 13:19

MW-6

1511281-06 (Aqueous) Sampled: 11/19/15 11:51

Mountain Research, LLC

Volatile Organic Compounds by GC/MS

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
1,2,4-Trimethylbenzene	<2.00	2.00	0.770	NA	µg/L	11/23/15 21:52	11/23/15 21:52	EPA 8260	A	JMG	
1,3,5-Trimethylbenzene	<2.00	2.00	0.726	NA	µg/L	11/23/15 21:52	11/23/15 21:52	EPA 8260	A	JMG	
Benzene	**5.03**	2.00	0.666	NA	µg/L	11/23/15 21:52	11/23/15 21:52	EPA 8260	A	JMG	
Ethylbenzene	<2.00	2.00	0.719	NA	µg/L	11/23/15 21:52	11/23/15 21:52	EPA 8260	A	JMG	
Isopropylbenzene (Cumene)	<2.00	2.00	0.561	NA	µg/L	11/23/15 21:52	11/23/15 21:52	EPA 8260	A	JMG	
MTBE	<2.00	2.00	0.558	NA	µg/L	11/23/15 21:52	11/23/15 21:52	EPA 8260	A	JMG	
Naphthalene	<2.00	2.00	0.353	NA	µg/L	11/23/15 21:52	11/23/15 21:52	EPA 8260	A	JMG	
Toluene	<2.00	2.00	0.746	NA	µg/L	11/23/15 21:52	11/23/15 21:52	EPA 8260	A	JMG	
Xylene o	<2.00	2.00	0.656	NA	µg/L	11/23/15 21:52	11/23/15 21:52	EPA 8260	A	JMG	
Xylene p/m	<4.00	4.00	1.29	NA	µg/L	11/23/15 21:52	11/23/15 21:52	EPA 8260	A	JMG	
Xylenes, Total	<6.00	6.00	NA	NA	µg/L	11/23/15 21:52	11/23/15 21:52	EPA 8260	A	JMG	Calc

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Cook's Country Store 16570 Hell Lane James Creek PA, 16657	Project Name: Site Characterization Project Number: 4547.15.01 Lab Project Manager: Tegan Schott	**Lab ID#:** 1511281 **Reported:** 12/01/15 13:19

MW-6 Dup

1511281-07 (Aqueous) Sampled: 11/19/15 11:52

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Volatile Organic Compounds by GC/MS

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
1,2,4-Trimethylbenzene	<2.00	2.00	0.770	NA	µg/L	11/24/15 14:52	11/24/15 14:52	EPA 8260	A	JMG	
1,3,5-Trimethylbenzene	<2.00	2.00	0.726	NA	µg/L	11/24/15 14:52	11/24/15 14:52	EPA 8260	A	JMG	
Benzene	**5.22**	2.00	0.666	NA	µg/L	11/24/15 14:52	11/24/15 14:52	EPA 8260	A	JMG	
Ethylbenzene	<2.00	2.00	0.719	NA	µg/L	11/24/15 14:52	11/24/15 14:52	EPA 8260	A	JMG	
Isopropylbenzene (Cumene)	<2.00	2.00	0.561	NA	µg/L	11/24/15 14:52	11/24/15 14:52	EPA 8260	A	JMG	
MTBE	<2.00	2.00	0.558	NA	µg/L	11/24/15 14:52	11/24/15 14:52	EPA 8260	A	JMG	
Naphthalene	<2.00	2.00	0.353	NA	µg/L	11/24/15 14:52	11/24/15 14:52	EPA 8260	A	JMG	
Toluene	<2.00	2.00	0.746	NA	µg/L	11/24/15 14:52	11/24/15 14:52	EPA 8260	A	JMG	
Xylene o	<2.00	2.00	0.656	NA	µg/L	11/24/15 14:52	11/24/15 14:52	EPA 8260	A	JMG	
Xylene p/m	<4.00	4.00	1.29	NA	µg/L	11/24/15 14:52	11/24/15 14:52	EPA 8260	A	JMG	
Xylenes, Total	<6.00	6.00	NA	NA	µg/L	11/24/15 14:52	11/24/15 14:52	EPA 8260	A	JMG	Calc

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Cook's Country Store 16570 Hell Lane James Creek PA, 16657	Project Name: Site Characterization Project Number: 4547.15.01 Lab Project Manager: Tegan Schott	**Lab ID#:** 1511281 **Reported:** 12/01/15 13:19

MW-7

1511281-08 (Aqueous) Sampled: 11/19/15 10:24

Mountain Research, LLC

Volatile Organic Compounds by GC/MS

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
1,2,4-Trimethylbenzene	**19.6**	2.00	0.770	NA	µg/L	11/24/15 15:18	11/24/15 15:18	EPA 8260	A	JMG	
1,3,5-Trimethylbenzene	**5.99**	2.00	0.726	NA	µg/L	11/24/15 15:18	11/24/15 15:18	EPA 8260	A	JMG	
Benzene	**46.8**	2.00	0.666	NA	µg/L	11/24/15 15:18	11/24/15 15:18	EPA 8260	A	JMG	
Ethylbenzene	**12.9**	2.00	0.719	NA	µg/L	11/24/15 15:18	11/24/15 15:18	EPA 8260	A	JMG	
Isopropylbenzene (Cumene)	**14.5**	2.00	0.561	NA	µg/L	11/24/15 15:18	11/24/15 15:18	EPA 8260	A	JMG	
MTBE	<2.00	2.00	0.558	NA	µg/L	11/24/15 15:18	11/24/15 15:18	EPA 8260	A	JMG	
Naphthalene	**6.46**	2.00	0.353	NA	µg/L	11/24/15 15:18	11/24/15 15:18	EPA 8260	A	JMG	
Toluene	<2.00	2.00	0.746	NA	µg/L	11/24/15 15:18	11/24/15 15:18	EPA 8260	A	JMG	
Xylene o	<2.00	2.00	0.656	NA	µg/L	11/24/15 15:18	11/24/15 15:18	EPA 8260	A	JMG	
Xylene p/m	**5.57**	4.00	1.29	NA	µg/L	11/24/15 15:18	11/24/15 15:18	EPA 8260	A	JMG	
Xylenes, Total	<6.00	6.00	NA	NA	µg/L	11/24/15 15:18	11/24/15 15:18	EPA 8260	A	JMG	Calc

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Cook's Country Store 16570 Hell Lane James Creek PA, 16657	Project Name: Site Characterization Project Number: 4547.15.01 Lab Project Manager: Tegan Schott	**Lab ID#:** 1511281 **Reported:** 12/01/15 13:19

MW-8

1511281-09 (Aqueous) Sampled: 11/19/15 11:34

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
Volatile Organic Compounds by GC/MS											
1,2,4-Trimethylbenzene	<2.00	2.00	0.770	NA	µg/L	11/24/15 15:44	11/24/15 15:44	EPA 8260	A	JMG	
1,3,5-Trimethylbenzene	<2.00	2.00	0.726	NA	µg/L	11/24/15 15:44	11/24/15 15:44	EPA 8260	A	JMG	
Benzene	<2.00	2.00	0.666	NA	µg/L	11/24/15 15:44	11/24/15 15:44	EPA 8260	A	JMG	
Ethylbenzene	<2.00	2.00	0.719	NA	µg/L	11/24/15 15:44	11/24/15 15:44	EPA 8260	A	JMG	
Isopropylbenzene (Cumene)	<2.00	2.00	0.561	NA	µg/L	11/24/15 15:44	11/24/15 15:44	EPA 8260	A	JMG	
MTBE	<2.00	2.00	0.558	NA	µg/L	11/24/15 15:44	11/24/15 15:44	EPA 8260	A	JMG	
Naphthalene	<2.00	2.00	0.353	NA	µg/L	11/24/15 15:44	11/24/15 15:44	EPA 8260	A	JMG	
Toluene	<2.00	2.00	0.746	NA	µg/L	11/24/15 15:44	11/24/15 15:44	EPA 8260	A	JMG	
Xylene o	<2.00	2.00	0.656	NA	µg/L	11/24/15 15:44	11/24/15 15:44	EPA 8260	A	JMG	
Xylene p/m	<4.00	4.00	1.29	NA	µg/L	11/24/15 15:44	11/24/15 15:44	EPA 8260	A	JMG	
Xylenes, Total	<6.00	6.00	NA	NA	µg/L	11/24/15 15:44	11/24/15 15:44	EPA 8260	A	JMG	Calc

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Tegan Schott

Tegan Schott, Technical Specialist II

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Cook's Country Store 16570 Hell Lane James Creek PA, 16657	Project Name: Site Characterization Project Number: 4547.15.01 Lab Project Manager: Tegan Schott	**Lab ID#:** 1511281 **Reported:** 12/01/15 13:19

Trip Blank

1511281-10 (Aqueous) Sampled: 11/19/15 07:05

Mountain Research, LLC

Volatile Organic Compounds by GC/MS

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
1,2,4-Trimethylbenzene	<2.00	2.00	0.770	NA	µg/L	11/24/15 16:10	11/24/15 16:10	EPA 8260	A	JMG	
1,3,5-Trimethylbenzene	<2.00	2.00	0.726	NA	µg/L	11/24/15 16:10	11/24/15 16:10	EPA 8260	A	JMG	
Benzene	<2.00	2.00	0.666	NA	µg/L	11/24/15 16:10	11/24/15 16:10	EPA 8260	A	JMG	
Ethylbenzene	<2.00	2.00	0.719	NA	µg/L	11/24/15 16:10	11/24/15 16:10	EPA 8260	A	JMG	
Isopropylbenzene (Cumene)	<2.00	2.00	0.561	NA	µg/L	11/24/15 16:10	11/24/15 16:10	EPA 8260	A	JMG	
MTBE	<2.00	2.00	0.558	NA	µg/L	11/24/15 16:10	11/24/15 16:10	EPA 8260	A	JMG	
Naphthalene	<2.00	2.00	0.353	NA	µg/L	11/24/15 16:10	11/24/15 16:10	EPA 8260	A	JMG	
Toluene	<2.00	2.00	0.746	NA	µg/L	11/24/15 16:10	11/24/15 16:10	EPA 8260	A	JMG	
Xylene o	<2.00	2.00	0.656	NA	µg/L	11/24/15 16:10	11/24/15 16:10	EPA 8260	A	JMG	
Xylene p/m	<4.00	4.00	1.29	NA	µg/L	11/24/15 16:10	11/24/15 16:10	EPA 8260	A	JMG	
Xylenes, Total	<6.00	6.00	NA	NA	µg/L	11/24/15 16:10	11/24/15 16:10	EPA 8260	A	JMG	Calc

Mountain Research, LLC

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Tegan Schott

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Cook's Country Store 16570 Hell Lane James Creek PA, 16657	Project Name: Site Characterization Project Number: 4547.15.01 Lab Project Manager: Tegan Schott	**Lab ID#:** 1511281 **Reported:** 12/01/15 13:19

Certifications

Code	Description	Number	Expires
MDDOE	Maryland Department of the Environment	257	06/30/2016
PADEP-Altoona	Pennsylvania Department of Environmental Protection	009	03/31/2015
WVDEP	West Virginia Department of Environmental Protection	225	12/31/2015
PADEP-DuBois	Pennsylvania Department of Environmental Protection	008	09/30/2016

Notes and Definitions

LSurr	Sample had a low surrogate recovery for 1,2-Dichloroethane-d4.
D1	This sample was analyzed at a dilution.
Calc	[Calc] - Calculated analytes are reported based on unrounded results of the individual analytes used in the calculation. Therefore, using the rounded values of the analytes as reported may lead to a result that varies slightly from the reported result.
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
dry	Sample results reported on a dry weight basis
A	Analysis Performed by Mountain Research Altoona Laboratory - PADEP #07-00418
D	Analysis Performed by Mountain Research DuBois Laboratory - PADEP # 33-00258

Mountain Research, LLC

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Tegan Schott

Tegan Schott, Technical Specialist II

Billing Group:	Phase:	PROJECT NAME
—	Site Char	Groundwater Sampling

MR Project #: 4547.15.01

SITE LOCATION: Robertsdale, PA

CLIENT: Cooks Country Store

SAMPLER(S): BE

NOTES:

Received On Ice: (Y) / N

Sample Temp: 6.6°C

PWSID #:

Comments:

MOUNTAIN RESEARCH LLC

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110 McCracken Run Road, Dubois, PA 15801 (814) 371-6

CHAIN OF CUSTODY RECORD

Analyses Requested

MR PROJ. MGR. MC

Shipping Carrier:

Turn Around Time:
10 Day X
3 Day
1 Day

Comments:
Odor + Sheen: MW-1, -3, -6
Odor: MW-2, -7

SAMPLE ID	DATE	TIME	GRAB	COMP	MATRIX	NUMBER OF CONTAINERS	PRODUCT CODE	8260B	Preserve	LAB NUMBER
MW-1	11/19/15	10:50	X		AQ	2 40mL VOA's	ZA	X	HCl	
MW-2		09:34								
MW-3		10:45								
MW-4		09:47								
MW-5		11:08								
MW-6		11:51								
MW-6 dup		11:52								
MW-7		10:24								
MW-8		11:34								
Trip Blank		07:05								

RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE/TIME	Lab Workorder #:
Benjamin Azar	11/19/15	13:39	[signature]	11/19/15 13:39	1511281
RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE/TIME	Labeled By:

Log In Time: 13:51

Staff: Kd

Date: 11/19/15

MOUNTAIN RESEARCH, LLC

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EPA Lab #PA00155

16 December 2015

Lab ID #: 1512177

Betty Hess
Cook's Country Store
16570 Hell Lane
James Creek, PA 16657

RE: Site Characterization

Enclosed are the results of analyses for samples received by the laboratory on 12/09/15 14:03. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tegan Schott
Technical Specialist II

Authorized Reviewer

MOUNTAIN RESEARCH, LLC

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Cook's Country Store 16570 Hell Lane James Creek PA, 16657	Project Name: Site Characterization Project Number: 4547.15.01 Lab Project Manager: Tegan Schott	**Lab ID#:** 1512177 **Reported:** 12/16/15 14:57

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Sample Type	Date Sampled	Date Received
MW-1	1512177-01	Aqueous	Grab	12/09/15 12:14	12/09/15 14:03
MW-1 (DUP)	1512177-02	Aqueous	Grab	12/09/15 12:14	12/09/15 14:03
MW-2	1512177-03	Aqueous	Grab	12/09/15 12:53	12/09/15 14:03
MW-3	1512177-04	Aqueous	Grab	12/09/15 12:37	12/09/15 14:03
MW-4	1512177-05	Aqueous	Grab	12/09/15 12:26	12/09/15 14:03
MW-5	1512177-06	Aqueous	Grab	12/09/15 11:20	12/09/15 14:03
MW-6	1512177-07	Aqueous	Grab	12/09/15 11:35	12/09/15 14:03
MW-7	1512177-08	Aqueous	Grab	12/09/15 11:58	12/09/15 14:03
MW-8	1512177-09	Aqueous	Grab	12/09/15 13:08	12/09/15 14:03
Trip Blank	1512177-10	Aqueous	Grab	12/09/15 09:00	12/09/15 14:03
Post GAC	1512177-11	Aqueous	Grab	12/09/15 11:39	12/09/15 14:03

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Cook's Country Store 16570 Hell Lane James Creek PA, 16657	Project Name: Site Characterization Project Number: 4547.15.01 Lab Project Manager: Tegan Schott	**Lab ID#:** 1512177 **Reported:** 12/16/15 14:57

MW-1

1512177-01 (Aqueous) Sampled: 12/09/15 12:14

Mountain Research, LLC

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Volatile Organic Compounds by GC/MS											**LSurr**
1,2,4-Trimethylbenzene	**2350**	200	77.0	NA	µg/L	12/11/15 11:54	12/11/15 14:29	EPA 8260 B	A	JMG	D1
1,3,5-Trimethylbenzene	**705**	200	72.6	NA	µg/L	12/11/15 11:54	12/11/15 14:29	EPA 8260 B	A	JMG	D1
Benzene	**5590**	200	66.6	NA	µg/L	12/11/15 11:54	12/11/15 14:29	EPA 8260 B	A	JMG	D1
Ethylbenzene	**1980**	200	71.9	NA	µg/L	12/11/15 11:54	12/11/15 14:29	EPA 8260 B	A	JMG	D1
Isopropylbenzene (Cumene)	**89.7**	2.00	0.561	NA	µg/L	12/11/15 11:54	12/11/15 11:54	EPA 8260 B	A	JMG	
MTBE	**10.3**	2.00	0.558	NA	µg/L	12/11/15 11:54	12/11/15 11:54	EPA 8260 B	A	JMG	
Naphthalene	**328**	200	35.3	NA	µg/L	12/11/15 11:54	12/11/15 14:29	EPA 8260 B	A	JMG	D1
Toluene	**18600**	1000	373	NA	µg/L	12/11/15 11:54	12/14/15 16:28	EPA 8260 B	A	JMG	D1
Xylene o	**2800**	200	65.6	NA	µg/L	12/11/15 11:54	12/11/15 14:29	EPA 8260 B	A	JMG	D1
Xylene p/m	**7640**	400	129	NA	µg/L	12/11/15 11:54	12/11/15 14:29	EPA 8260 B	A	JMG	D1
Xylenes, Total	**10400**	600	NA	NA	µg/L	12/11/15 11:54	12/11/15 14:29	EPA 8260 B	A	JMG	Calc, D1

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Cook's Country Store 16570 Hell Lane James Creek PA, 16657	Project Name: Site Characterization Project Number: 4547.15.01 Lab Project Manager: Tegan Schott	**Lab ID#:** 1512177 **Reported:** 12/16/15 14:57

MW-1 (DUP)

1512177-02 (Aqueous) Sampled: 12/09/15 12:14

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
Volatile Organic Compounds by GC/MS											**LSurr**
1,2,4-Trimethylbenzene	**2280**	200	77.0	NA	µg/L	12/11/15 12:20	12/11/15 14:55	EPA 8260 B	A	JMG	D1
1,3,5-Trimethylbenzene	**656**	200	72.6	NA	µg/L	12/11/15 12:20	12/11/15 14:55	EPA 8260 B	A	JMG	D1
Benzene	**5280**	200	66.6	NA	µg/L	12/11/15 12:20	12/11/15 14:55	EPA 8260 B	A	JMG	D1
Ethylbenzene	**1910**	200	71.9	NA	µg/L	12/11/15 12:20	12/11/15 14:55	EPA 8260 B	A	JMG	D1
Isopropylbenzene (Cumene)	**88.9**	2.00	0.561	NA	µg/L	12/11/15 12:20	12/11/15 12:20	EPA 8260 B	A	JMG	
MTBE	**10.0**	2.00	0.558	NA	µg/L	12/11/15 12:20	12/11/15 12:20	EPA 8260 B	A	JMG	
Naphthalene	**342**	200	35.3	NA	µg/L	12/11/15 12:20	12/11/15 14:55	EPA 8260 B	A	JMG	D1
Toluene	**17900**	1000	373	NA	µg/L	12/11/15 12:20	12/14/15 16:53	EPA 8260 B	A	JMG	D1
Xylene o	**2660**	200	65.6	NA	µg/L	12/11/15 12:20	12/11/15 14:55	EPA 8260 B	A	JMG	D1
Xylene p/m	**7340**	400	129	NA	µg/L	12/11/15 12:20	12/11/15 14:55	EPA 8260 B	A	JMG	D1
Xylenes, Total	**10000**	600	NA	NA	µg/L	12/11/15 12:20	12/11/15 14:55	EPA 8260 B	A	JMG	Calc, D1

Mountain Research, LLC

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Cook's Country Store 16570 Hell Lane James Creek PA, 16657	Project Name: Site Characterization Project Number: 4547.15.01 Lab Project Manager: Tegan Schott	**Lab ID#:** 1512177 **Reported:** 12/16/15 14:57

MW-2

1512177-03 (Aqueous) Sampled: 12/09/15 12:53

Mountain Research, LLC

Volatile Organic Compounds by GC/MS — **LSurr**

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
1,2,4-Trimethylbenzene	**291**	50.0	19.2	NA	µg/L	12/11/15 08:52	12/11/15 13:12	EPA 8260 B	A	JMG	D1
1,3,5-Trimethylbenzene	**98.5**	50.0	18.2	NA	µg/L	12/11/15 08:52	12/11/15 13:12	EPA 8260 B	A	JMG	D1
Benzene	**1850**	50.0	16.6	NA	µg/L	12/11/15 08:52	12/11/15 13:12	EPA 8260 B	A	JMG	D1
Ethylbenzene	**174**	50.0	18.0	NA	µg/L	12/11/15 08:52	12/11/15 13:12	EPA 8260 B	A	JMG	D1
Isopropylbenzene (Cumene)	**48.6**	2.00	0.561	NA	µg/L	12/11/15 08:52	12/11/15 08:52	EPA 8260 B	A	JMG	
MTBE	**2.25**	2.00	0.558	NA	µg/L	12/11/15 08:52	12/11/15 08:52	EPA 8260 B	A	JMG	
Naphthalene	**67.7**	2.00	0.353	NA	µg/L	12/11/15 08:52	12/11/15 08:52	EPA 8260 B	A	JMG	
Toluene	**80.4**	2.00	0.746	NA	µg/L	12/11/15 08:52	12/11/15 08:52	EPA 8260 B	A	JMG	
Xylene o	**54.2**	2.00	0.656	NA	µg/L	12/11/15 08:52	12/11/15 08:52	EPA 8260 B	A	JMG	
Xylene p/m	**1730**	100	32.3	NA	µg/L	12/11/15 08:52	12/11/15 13:12	EPA 8260 B	A	JMG	D1
Xylenes, Total	**1790**	102	NA	NA	µg/L	12/11/15 08:52	12/11/15 13:12	EPA 8260 B	A	JMG	Calc, D1

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Cook's Country Store 16570 Hell Lane James Creek PA, 16657	Project Name: Site Characterization Project Number: 4547.15.01 Lab Project Manager: Tegan Schott	**Lab ID#:** 1512177 **Reported:** 12/16/15 14:57

MW-3

1512177-04 (Aqueous) Sampled: 12/09/15 12:37

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
Volatile Organic Compounds by GC/MS											**LSurr**
1,2,4-Trimethylbenzene	**481**	50.0	19.2	NA	µg/L	12/11/15 08:27	12/11/15 12:46	EPA 8260 B	A	JMG	D1
1,3,5-Trimethylbenzene	**136**	50.0	18.2	NA	µg/L	12/11/15 08:27	12/11/15 12:46	EPA 8260 B	A	JMG	D1
Benzene	**1500**	50.0	16.6	NA	µg/L	12/11/15 08:27	12/11/15 12:46	EPA 8260 B	A	JMG	D1
Ethylbenzene	**408**	50.0	18.0	NA	µg/L	12/11/15 08:27	12/11/15 12:46	EPA 8260 B	A	JMG	D1
Isopropylbenzene (Cumene)	**35.6**	2.00	0.561	NA	µg/L	12/11/15 08:27	12/11/15 08:27	EPA 8260 B	A	JMG	
MTBE	**15.2**	2.00	0.558	NA	µg/L	12/11/15 08:27	12/11/15 08:27	EPA 8260 B	A	JMG	
Naphthalene	**99.2**	2.00	0.353	NA	µg/L	12/11/15 08:27	12/11/15 08:27	EPA 8260 B	A	JMG	
Toluene	**1830**	50.0	18.6	NA	µg/L	12/11/15 08:27	12/11/15 12:46	EPA 8260 B	A	JMG	D1
Xylene o	**308**	50.0	16.4	NA	µg/L	12/11/15 08:27	12/11/15 12:46	EPA 8260 B	A	JMG	D1
Xylene p/m	**1110**	100	32.3	NA	µg/L	12/11/15 08:27	12/11/15 12:46	EPA 8260 B	A	JMG	D1
Xylenes, Total	**1420**	150	NA	NA	µg/L	12/11/15 08:27	12/11/15 12:46	EPA 8260 B	A	JMG	Calc, D1

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Cook's Country Store 16570 Hell Lane James Creek PA, 16657	Project Name: Site Characterization Project Number: 4547.15.01 Lab Project Manager: Tegan Schott	**Lab ID#:** 1512177 **Reported:** 12/16/15 14:57

MW-4

1512177-05 (Aqueous) Sampled: 12/09/15 12:26

Mountain Research, LLC

Volatile Organic Compounds by GC/MS

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
1,2,4-Trimethylbenzene	**80.8**	2.00	0.770	NA	µg/L	12/11/15 08:01	12/11/15 08:01	EPA 8260 B	A	JMG	
1,3,5-Trimethylbenzene	**28.1**	2.00	0.726	NA	µg/L	12/11/15 08:01	12/11/15 08:01	EPA 8260 B	A	JMG	
Benzene	<2.00	2.00	0.666	NA	µg/L	12/11/15 08:01	12/11/15 08:01	EPA 8260 B	A	JMG	
Ethylbenzene	**31.5**	2.00	0.719	NA	µg/L	12/11/15 08:01	12/11/15 08:01	EPA 8260 B	A	JMG	
Isopropylbenzene (Cumene)	**4.62**	2.00	0.561	NA	µg/L	12/11/15 08:01	12/11/15 08:01	EPA 8260 B	A	JMG	
MTBE	<2.00	2.00	0.558	NA	µg/L	12/11/15 08:01	12/11/15 08:01	EPA 8260 B	A	JMG	
Naphthalene	**7.43**	2.00	0.353	NA	µg/L	12/11/15 08:01	12/11/15 08:01	EPA 8260 B	A	JMG	
Toluene	**14.3**	2.00	0.746	NA	µg/L	12/11/15 08:01	12/11/15 08:01	EPA 8260 B	A	JMG	
Xylene o	**32.8**	2.00	0.656	NA	µg/L	12/11/15 08:01	12/11/15 08:01	EPA 8260 B	A	JMG	
Xylene p/m	**116**	4.00	1.29	NA	µg/L	12/11/15 08:01	12/11/15 08:01	EPA 8260 B	A	JMG	
Xylenes, Total	**149**	6.00	NA	NA	µg/L	12/11/15 08:01	12/11/15 08:01	EPA 8260 B	A	JMG	Calc

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Cook's Country Store 16570 Hell Lane James Creek PA, 16657	Project Name: Site Characterization Project Number: 4547.15.01 Lab Project Manager: Tegan Schott	**Lab ID#:** 1512177 **Reported:** 12/16/15 14:57

MW-5

1512177-06 (Aqueous) Sampled: 12/09/15 11:20

Mountain Research, LLC

Volatile Organic Compounds by GC/MS

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
1,2,4-Trimethylbenzene	**9.04**	2.00	0.770	NA	µg/L	12/11/15 07:34	12/11/15 07:34	EPA 8260 B	A	JMG	
1,3,5-Trimethylbenzene	**2.26**	2.00	0.726	NA	µg/L	12/11/15 07:34	12/11/15 07:34	EPA 8260 B	A	JMG	
Benzene	**13.2**	2.00	0.666	NA	µg/L	12/11/15 07:34	12/11/15 07:34	EPA 8260 B	A	JMG	
Ethylbenzene	<2.00	2.00	0.719	NA	µg/L	12/11/15 07:34	12/11/15 07:34	EPA 8260 B	A	JMG	
Isopropylbenzene (Cumene)	**2.44**	2.00	0.561	NA	µg/L	12/11/15 07:34	12/11/15 07:34	EPA 8260 B	A	JMG	
MTBE	<2.00	2.00	0.558	NA	µg/L	12/11/15 07:34	12/11/15 07:34	EPA 8260 B	A	JMG	
Naphthalene	<2.00	2.00	0.353	NA	µg/L	12/11/15 07:34	12/11/15 07:34	EPA 8260 B	A	JMG	
Toluene	<2.00	2.00	0.746	NA	µg/L	12/11/15 07:34	12/11/15 07:34	EPA 8260 B	A	JMG	
Xylene o	<2.00	2.00	0.656	NA	µg/L	12/11/15 07:34	12/11/15 07:34	EPA 8260 B	A	JMG	
Xylene p/m	<4.00	4.00	1.29	NA	µg/L	12/11/15 07:34	12/11/15 07:34	EPA 8260 B	A	JMG	
Xylenes, Total	<6.00	6.00	NA	NA	µg/L	12/11/15 07:34	12/11/15 07:34	EPA 8260 B	A	JMG	Calc

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MW-6

1512177-07 (Aqueous) Sampled: 12/09/15 11:35

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
Volatile Organic Compounds by GC/MS											
1,2,4-Trimethylbenzene	<2.00	2.00	0.770	NA	µg/L	12/11/15 07:09	12/11/15 07:09	EPA 8260 B	A	JMG	
1,3,5-Trimethylbenzene	<2.00	2.00	0.726	NA	µg/L	12/11/15 07:09	12/11/15 07:09	EPA 8260 B	A	JMG	
Benzene	**11.2**	2.00	0.666	NA	µg/L	12/11/15 07:09	12/11/15 07:09	EPA 8260 B	A	JMG	
Ethylbenzene	<2.00	2.00	0.719	NA	µg/L	12/11/15 07:09	12/11/15 07:09	EPA 8260 B	A	JMG	
Isopropylbenzene (Cumene)	<2.00	2.00	0.561	NA	µg/L	12/11/15 07:09	12/11/15 07:09	EPA 8260 B	A	JMG	
MTBE	<2.00	2.00	0.558	NA	µg/L	12/11/15 07:09	12/11/15 07:09	EPA 8260 B	A	JMG	
Naphthalene	<2.00	2.00	0.353	NA	µg/L	12/11/15 07:09	12/11/15 07:09	EPA 8260 B	A	JMG	
Toluene	<2.00	2.00	0.746	NA	µg/L	12/11/15 07:09	12/11/15 07:09	EPA 8260 B	A	JMG	
Xylene o	<2.00	2.00	0.656	NA	µg/L	12/11/15 07:09	12/11/15 07:09	EPA 8260 B	A	JMG	
Xylene p/m	<4.00	4.00	1.29	NA	µg/L	12/11/15 07:09	12/11/15 07:09	EPA 8260 B	A	JMG	
Xylenes, Total	<6.00	6.00	NA	NA	µg/L	12/11/15 07:09	12/11/15 07:09	EPA 8260 B	A	JMG	Calc

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Cook's Country Store	Project Name: Site Characterization	**Lab ID#:** 1512177
16570 Hell Lane	Project Number: 4547.15.01	**Reported:**
James Creek PA, 16657	Lab Project Manager: Tegan Schott	12/16/15 14:57

MW-7

1512177-08 (Aqueous) Sampled: 12/09/15 11:58

Mountain Research, LLC

Volatile Organic Compounds by GC/MS

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
1,2,4-Trimethylbenzene	**17.6**	2.00	0.770	NA	µg/L	12/11/15 06:43	12/11/15 06:43	EPA 8260 B	A	JMG	
1,3,5-Trimethylbenzene	**4.07**	2.00	0.726	NA	µg/L	12/11/15 06:43	12/11/15 06:43	EPA 8260 B	A	JMG	
Benzene	**51.4**	2.00	0.666	NA	µg/L	12/11/15 06:43	12/11/15 06:43	EPA 8260 B	A	JMG	
Ethylbenzene	**10.4**	2.00	0.719	NA	µg/L	12/11/15 06:43	12/11/15 06:43	EPA 8260 B	A	JMG	
Isopropylbenzene (Cumene)	**12.3**	2.00	0.561	NA	µg/L	12/11/15 06:43	12/11/15 06:43	EPA 8260 B	A	JMG	
MTBE	<2.00	2.00	0.558	NA	µg/L	12/11/15 06:43	12/11/15 06:43	EPA 8260 B	A	JMG	
Naphthalene	**2.57**	2.00	0.353	NA	µg/L	12/11/15 06:43	12/11/15 06:43	EPA 8260 B	A	JMG	
Toluene	<2.00	2.00	0.746	NA	µg/L	12/11/15 06:43	12/11/15 06:43	EPA 8260 B	A	JMG	
Xylene o	<2.00	2.00	0.656	NA	µg/L	12/11/15 06:43	12/11/15 06:43	EPA 8260 B	A	JMG	
Xylene p/m	**5.85**	4.00	1.29	NA	µg/L	12/11/15 06:43	12/11/15 06:43	EPA 8260 B	A	JMG	
Xylenes, Total	<6.00	6.00	NA	NA	µg/L	12/11/15 06:43	12/11/15 06:43	EPA 8260 B	A	JMG	Calc

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Cook's Country Store 16570 Hell Lane James Creek PA, 16657	Project Name: Site Characterization Project Number: 4547.15.01 Lab Project Manager: Tegan Schott	**Lab ID#:** 1512177 **Reported:** 12/16/15 14:57

MW-8

1512177-09 (Aqueous) Sampled: 12/09/15 13:08

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
Volatile Organic Compounds by GC/MS											
1,2,4-Trimethylbenzene	<2.00	2.00	0.770	NA	µg/L	12/11/15 06:17	12/11/15 06:17	EPA 8260 B	A	JMG	
1,3,5-Trimethylbenzene	<2.00	2.00	0.726	NA	µg/L	12/11/15 06:17	12/11/15 06:17	EPA 8260 B	A	JMG	
Benzene	<2.00	2.00	0.666	NA	µg/L	12/11/15 06:17	12/11/15 06:17	EPA 8260 B	A	JMG	
Ethylbenzene	<2.00	2.00	0.719	NA	µg/L	12/11/15 06:17	12/11/15 06:17	EPA 8260 B	A	JMG	
Isopropylbenzene (Cumene)	<2.00	2.00	0.561	NA	µg/L	12/11/15 06:17	12/11/15 06:17	EPA 8260 B	A	JMG	
MTBE	<2.00	2.00	0.558	NA	µg/L	12/11/15 06:17	12/11/15 06:17	EPA 8260 B	A	JMG	
Naphthalene	<2.00	2.00	0.353	NA	µg/L	12/11/15 06:17	12/11/15 06:17	EPA 8260 B	A	JMG	
Toluene	<2.00	2.00	0.746	NA	µg/L	12/11/15 06:17	12/11/15 06:17	EPA 8260 B	A	JMG	
Xylene o	<2.00	2.00	0.656	NA	µg/L	12/11/15 06:17	12/11/15 06:17	EPA 8260 B	A	JMG	
Xylene p/m	<4.00	4.00	1.29	NA	µg/L	12/11/15 06:17	12/11/15 06:17	EPA 8260 B	A	JMG	
Xylenes, Total	<6.00	6.00	NA	NA	µg/L	12/11/15 06:17	12/11/15 06:17	EPA 8260 B	A	JMG	Calc

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.

Tegan Schott

Tegan Schott, Technical Specialist II

MOUNTAIN RESEARCH, LLC

Corporate Office and Laboratory
825 25th Street
Altoona, PA 16601
814.949.2034 Phone
800.837.4674 Toll Free
814.949.9591 Fax

DuBois Office and Laboratory
110 McCracken Run Road
DuBois, PA 15801
814.371.6030 Phone
814.375.0823 Fax

Cook's Country Store 16570 Hell Lane James Creek PA, 16657	Project Name: Site Characterization Project Number: 4547.15.01 Lab Project Manager: Tegan Schott	**Lab ID#:** 1512177 **Reported:** 12/16/15 14:57

Trip Blank

1512177-10 (Aqueous) Sampled: 12/09/15 09:00

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
Volatile Organic Compounds by GC/MS											
1,2,4-Trimethylbenzene	<2.00	2.00	0.770	NA	µg/L	12/11/15 05:51	12/11/15 05:51	EPA 8260 B	A	JMG	
1,3,5-Trimethylbenzene	<2.00	2.00	0.726	NA	µg/L	12/11/15 05:51	12/11/15 05:51	EPA 8260 B	A	JMG	
Benzene	<2.00	2.00	0.666	NA	µg/L	12/11/15 05:51	12/11/15 05:51	EPA 8260 B	A	JMG	
Ethylbenzene	<2.00	2.00	0.719	NA	µg/L	12/11/15 05:51	12/11/15 05:51	EPA 8260 B	A	JMG	
Isopropylbenzene (Cumene)	<2.00	2.00	0.561	NA	µg/L	12/11/15 05:51	12/11/15 05:51	EPA 8260 B	A	JMG	
MTBE	<2.00	2.00	0.558	NA	µg/L	12/11/15 05:51	12/11/15 05:51	EPA 8260 B	A	JMG	
Naphthalene	<2.00	2.00	0.353	NA	µg/L	12/11/15 05:51	12/11/15 05:51	EPA 8260 B	A	JMG	
Toluene	<2.00	2.00	0.746	NA	µg/L	12/11/15 05:51	12/11/15 05:51	EPA 8260 B	A	JMG	
Xylene o	<2.00	2.00	0.656	NA	µg/L	12/11/15 05:51	12/11/15 05:51	EPA 8260 B	A	JMG	
Xylene p/m	<4.00	4.00	1.29	NA	µg/L	12/11/15 05:51	12/11/15 05:51	EPA 8260 B	A	JMG	
Xylenes, Total	<6.00	6.00	NA	NA	µg/L	12/11/15 05:51	12/11/15 05:51	EPA 8260 B	A	JMG	Calc

Mountain Research, LLC

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Cook's Country Store 16570 Hell Lane James Creek PA, 16657	Project Name: Site Characterization Project Number: 4547.15.01 Lab Project Manager: Tegan Schott	**Lab ID#:** 1512177 **Reported:** 12/16/15 14:57

Post GAC

1512177-11 (Aqueous) Sampled: 12/09/15 11:39

Analyte	Result	PQL	MDL	Regulatory Limit	Units	Prepared	Analyzed	Method	Lab	Analyst	Notes
Mountain Research, LLC											
Volatile Organic Compounds by GC/MS											
1,2,4-Trimethylbenzene	<2.00	2.00	0.770	NA	µg/L	12/11/15 05:24	12/11/15 05:24	EPA 8260 B	A	JMG	
1,3,5-Trimethylbenzene	<2.00	2.00	0.726	NA	µg/L	12/11/15 05:24	12/11/15 05:24	EPA 8260 B	A	JMG	
Benzene	<2.00	2.00	0.666	NA	µg/L	12/11/15 05:24	12/11/15 05:24	EPA 8260 B	A	JMG	
Ethylbenzene	<2.00	2.00	0.719	NA	µg/L	12/11/15 05:24	12/11/15 05:24	EPA 8260 B	A	JMG	
Isopropylbenzene (Cumene)	<2.00	2.00	0.561	NA	µg/L	12/11/15 05:24	12/11/15 05:24	EPA 8260 B	A	JMG	
MTBE	<2.00	2.00	0.558	NA	µg/L	12/11/15 05:24	12/11/15 05:24	EPA 8260 B	A	JMG	
Naphthalene	<2.00	2.00	0.353	NA	µg/L	12/11/15 05:24	12/11/15 05:24	EPA 8260 B	A	JMG	
Toluene	<2.00	2.00	0.746	NA	µg/L	12/11/15 05:24	12/11/15 05:24	EPA 8260 B	A	JMG	
Xylene o	<2.00	2.00	0.656	NA	µg/L	12/11/15 05:24	12/11/15 05:24	EPA 8260 B	A	JMG	
Xylene p/m	<4.00	4.00	1.29	NA	µg/L	12/11/15 05:24	12/11/15 05:24	EPA 8260 B	A	JMG	
Xylenes, Total	<6.00	6.00	NA	NA	µg/L	12/11/15 05:24	12/11/15 05:24	EPA 8260 B	A	JMG	Calc

Mountain Research, LLC

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Tegan Schott

Tegan Schott, Technical Specialist II

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DuBois, PA 15801
814.371.6030 Phone
814.375.0823 Fax

Cook's Country Store 16570 Hell Lane James Creek PA, 16657	Project Name: Site Characterization Project Number: 4547.15.01 Lab Project Manager: Tegan Schott	**Lab ID#:** 1512177 **Reported:** 12/16/15 14:57

Certifications

Code	Description	Number	Expires
MDDOE	Maryland Department of the Environment	257	06/30/2016
PADEP-Altoona	Pennsylvania Department of Environmental Protection	009	03/31/2015
WVDEP	West Virginia Department of Environmental Protection	225	12/31/2015
PADEP-DuBois	Pennsylvania Department of Environmental Protection	008	09/30/2016

Notes and Definitions

LSurr	Sample had a low surrogate recovery for 1,2-Dichloroethane-d4.
D1	This sample was analyzed at a dilution.
Calc	[Calc] - Calculated analytes are reported based on unrounded results of the individual analytes used in the calculation. Therefore, using the rounded values of the analytes as reported may lead to a result that varies slightly from the reported result.
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
dry	Sample results reported on a dry weight basis
A	Analysis Performed by Mountain Research Altoona Laboratory - PADEP #07-00418
D	Analysis Performed by Mountain Research DuBois Laboratory - PADEP # 33-00258

Mountain Research, LLC

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Tegan Schott

Tegan Schott, Technical Specialist II

Billing Group:	Phase:	PROJECT NAME
—	GW3	Groundwater Sampling
MR Project # 4547150l		SITE LOCATION Robertsdale PA
CLIENT Cook's Country Store		SAMPLER(S) LM

MOUNTAIN RESEARCH LLC
825 25th Street, Altoona, PA 16601 (814) 949
110 McCracken Run Road, Dubois, PA 15801 (814) 371

CHAIN OF CUSTODY RECORD

NOTES:
Received On Ice: (Y) N
Sample Temp: 5.3°C
PWSID #:
Comments:

MR PROJ. MGR. MC
Shipping Carrier:
Turn Around Time:
10 Day X
3 Day
1 Day
Comments:

SAMPLE ID	DATE	TIME	GRAB	COMP	MATRIX	NUMBER OF CONTAINERS	PRODUCT CODE	8260B	Preserve	LAB NUMBER
MW-1	12/9/15	12:14	X		AQ	240ml VOAs	2A	X	HCl	01
MW-1(Dup)		12:14						X	HCl	02
MW-2		12:53						X	HCl	03
MW-3		12:37						X	HCl	04
MW-4		12:26						X	HCl	05
MW-5		11:20						X	HCl	06
MW-6		11:35AM						X	HCl	07
MW-7		11:58						X	HCl	08
MW-8		13:08						X	HCl	09
Trip Blank		9:00						X	HCl	10
Post GAC		11:39						X	HCl	11

RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE/TIME	Lab Workorder #:
[signature]	12/9/15	14:03	[signature]	12/9/15 14:03	1512177
RELINQUISHED BY:	DATE	TIME	ACCEPTED BY:	DATE/TIME	Labeled By:

Log In Time: 12:40
Staff: KA
Date: 12/10/15

APPENDIX C

NOTICE OF CONTAMINATION

#1

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

2630-FM-BECB0082 Rev. 5/2014
BUREAU OF ENVIRONMENTAL CLEANUP AND BROWNFIELDS

NOTIFICATION OF REPORTABLE RELEASE *(Owners and Operators)*

☑ Initial
☐ Follow-Up

NOTIFICATION OF CONTAMINATION *(Certified Installers and Inspectors)*

NOTIFICATION OF REPORTABLE RELEASE *(Owners and Operators)*

The Storage Tank Program's Corrective Action Process (CAP) regulations establish release reporting requirements for owners and operators of storage tanks and storage tank facilities.

Subsection 245.305(a) of the regulations requires owners or operators to notify the appropriate regional office of the Department as soon as practicable, but no later than 24 hours after the confirmation of a reportable release.

Subsection 245.305(d) requires owners or operators to provide an initial written notification to the Department, each municipality in which the reportable release occurred, and each municipality where that release has impacted environmental media or water supplies, buildings, or sewer or other utility lines, within 15 days of the notice required by subsection 245.305(a).

Subsection 245.305(e) requires owners or operators to provide follow-up written notification to the Department and to each impacted municipality of new impacts to environmental media or water supplies, buildings, or sewer or other utility lines discovered after the initial written notification required by subsection 245.305(d). Written notification is to be made within 15 days of the discovery of the new impact.

This form may be used to comply with subsections 245.305(d) and (e).

OWNERS AND OPERATORS (O/O)
INDICATE IF THIS IS AN INITIAL OR FOLLOW-UP NOTIFICATION BY MARKING THE APPROPRIATE BOX FOUND IN THE TOP RIGHT-HAND CORNER OF THIS FORM. PLEASE COMPLETE ALL INFORMATION IN SECTIONS I, II, IIIA, IIIB, IV, V, VII and VIII.

NOTIFICATION OF CONTAMINATION *(Certified Installers and Inspectors)*

The Storage Tank Program's Certification regulations establish standards of performance for certified installers and inspectors of storage tanks and storage tank facilities.

Subsection 245.132(a)(4) of the regulations requires certified installers and inspectors to report to the Department a release of a regulated substance or confirmed or suspected contamination of soil, surface or groundwater from regulated substances observed while performing services as a certified installer or inspector.

This form may be used to comply with subsection 245.132(a)(4). Subsection 245.132(a)(4) requires submission of the form within 48 hours of observing suspected or confirmed contamination. Where there is a reportable release, the form may be submitted jointly by the owner, operator, certified installer and certified inspector. In this instance, the form must be received by the appropriate regional office within 15 days of the notice required by subsection 245.305(a).

CERTIFIED INSTALLERS AND INSPECTORS (I/I)
PLEASE COMPLETE ALL INFORMATION IN SECTIONS I, II, IIIA, IIIC, VI, VII and VIII.

INSTRUCTIONS

I. **FACILITY INFORMATION** - Record the name, I.D. number and physical location (not P.O. Box) of the facility at which a reportable release has been confirmed or at which suspected or confirmed contamination has been observed. Include the name and phone number of a person to contact at the facility.

II. **OWNER/OPERATOR INFORMATION** - Record the name, business address and telephone number of the owner of the facility identified in Section I. Also, record the name and telephone number of the operator of the facility.

III. **REGULATED SUBSTANCE INFORMATION** - Indicate to the best of your knowledge: A) the type of product or products involved; B) the quantity of product or products released; and C) whether the contamination is suspected or confirmed.

IV. **REPORTABLE RELEASE INFORMATION** - Record the date of confirmation of the reportable release, e.g., "9/18/01"; the date and regional office notified; and the date the local municipality(ies) [provide name of municipality(ies)] was/were sent a copy of this form. Indicate to the best of your knowledge the source/cause of the release, how the release was discovered and the environmental media affected and impacts.

V. **INTERIM REMEDIAL ACTIONS** - Indicate the interim remedial actions planned, initiated or completed.

VI. **SUSPECTED/CONFIRMED CONTAMINATION INFORMATION** - Record the date of observation of the suspected or confirmed contamination, e.g., "11/24/01". Indicate to the best of your knowledge the indications of a suspected release or extent of confirmed contamination resulting from the release of the regulated substance.

VII. **ADDITIONAL INFORMATION** - Provide any additional, relevant, available information concerning the reportable release or suspected or confirmed contamination. Include in this section specific details or problems about the release. For example, if the piping was the source of the release and the cause was corrosion of a metal connector or flexible connector, it is important to include that information here. Use additional 8½" x 11" sheets of paper, if necessary.

VIII. **CERTIFICATION** - Please print your name, and provide your signature and date of signature. If a certified installer/inspector, provide certification number and company certification number.

IX. **ATTACHMENT** - If a certified installer/inspector, provide a copy of failed valid tightness test(s), if applicable.

PLEASE SEND COMPLETED ORIGINAL FORM TO:
PA Department of Environmental Protection
Environmental Cleanup and Brownfields Program
Storage Tank Section
(and the appropriate address below,
depending on where the FACILITY is located)

DEC 1 2014

Southeast Region	Northeast Region	South-central Region	North-central Region	Southwest Region	Northwest Region
2 East Main Street Norristown, PA 19401 PHONE: 484-250-5900 FAX: 484-250-5961	2 Public Square Wilkes-Barre, PA 18711-1915 PHONE: 570-826-2511 FAX: 570-826-4807	909 Elmerton Avenue Harrisburg, PA 17110 PHONE: 866-825-0208 FAX: 717-705-4830	208 W. Third Street, Suite 101 Williamsport, PA 17701 PHONE: 570-321-6525/327-3636 FAX: 570-327-3420	400 Waterfront Drive Pittsburgh, PA 15222 PHONE: 412-442-4091/4000 FAX: 412-442-4328	230 Chestnut Street Meadville, PA 16335-3481 PHONE: 814-332-6945 800-373-3398 FAX: 814-332-6121
Counties Bucks, Chester, Delaware, Montgomery, Philadelphia	**Counties** Carbon, Lackawanna, Lehigh, Luzerne, Monroe, Northampton, Pike, Schuylkill, Susquehanna, Wayne, Wyoming	**Counties** Adams, Bedford, Berks, Blair, Cumberland, Dauphin, Franklin, Fulton, Huntingdon, Juniata, Lancaster, Lebanon, Mifflin, Perry, York	**Counties** Bradford, Cameron, Centre, Clinton, Clearfield, Columbia, Lycoming, Montour, Northumberland, Potter, Snyder, Sullivan, Tioga, Union	**Counties** Allegheny, Armstrong, Beaver, Cambria, Fayette, Greene, Indiana, Somerset, Washington, Westmoreland	**Counties** Butler, Clarion, Crawford, Elk, Erie, Forest, Jefferson, Lawrence, McKean, Mercer, Venango, Warren

#1 Incident - 47284

2630-FM-BECB0082 Rev. 5/2014 File- UST

FACILITY I.D. NUMBER 31-07856

I. FACILITY INFORMATION (Both O/O and I/I)

Facility Name: Cooks Country Store
Facility I.D. Number: 31-07856
Street Address (P.O. Box not acceptable): 21042 Cook's Rd.
City: Robertsdale
State: PA
Zip Code: 16674
County: Huntingdon
Municipality: Todd Tp.
Contact Person: TOM HESS
Telephone Number: (814) 386 0165

II. OWNER/OPERATOR INFORMATION (Both O/O and I/I)

Owner Name: BETTY HESS
Address: 16570 HESS LANE
City: JAMES CREEK
State: PA
Zip Code: 16657
Telephone Number: (814) -
Operator Name:
Telephone Number: ( ) -

III. REGULATED SUBSTANCE INFORMATION

A. Type of Product(s) Involved (Mark All That Apply ☒): Both O/O and I/I		B. Quantity (Gallons) of Product(s) Released: O/O Only	C. Contamination Suspected [S] or Confirmed [C] (Mark All That Apply ☒): I/I Only	
Leaded Gasoline	☐		☐ [S]	☐ [C]
Unleaded Gasoline	☒	UNK	☒ [S]	☐ [C]
Aviation Gasoline	☐		☐ [S]	☐ [C]
Kerosene	☐		☐ [S]	☐ [C]
Jet Fuel	☐		☐ [S]	☐ [C]
Diesel Fuel	☐		☐ [S]	☐ [C]
New Motor Oil	☐		☐ [S]	☐ [C]
Used Motor Oil	☐		☐ [S]	☐ [C]
Fuel Oil No. 1	☐		☐ [S]	☐ [C]
Fuel Oil No. 2	☐		☐ [S]	☐ [C]
Fuel Oil No. 4	☐		☐ [S]	☐ [C]
Fuel Oil No. 5	☐		☐ [S]	☐ [C]
Fuel Oil No. 6	☐		☐ [S]	☐ [C]
Other (Specify)	☐		☐ [S]	☐ [C]
Unknown	☐		☐ [S]	☐ [C]

IV. REPORTABLE RELEASE INFORMATION (O/O Only)

Date Reportable Release was Confirmed: ___ / ___ / ___ (m d y)

Date Owner/Operator Verbally Notified Appropriate Regional Office of Reportable Release and Office Notified:
Date: 11 / 25 / 14 (m d y) Office: South Central

Date Owner/Operator Sent Copy of this Written Notification to Local Municipality(ies) and Name of Municipality(ies) Notified:
Date: ___ / ___ / ___ (m d y) Municipality ___
Date: ___ / ___ / ___ (m d y) Municipality ___

Source (Mark All That Apply ☒):		How Discovered (Mark All That Apply ☒):		Environmental Media Affected and Impacts (Mark All That Apply ☒):	
Tank (DEP Assigned Nos. ___)	☐	During Closure	☒	Soil	☒
Piping System (Aboveground Regulated)	☐	Lining Installation	☐	Sediment	☐
Piping System (Underground Regulated)	☐	Routine Leak Detection	☐	Surface Water	☐
Piping System (Non-Regulated)	☐	Third Party Inspection	☐	Ground Water	☐
Dispenser/Dispensing Equipment	☐	Tightness Testing Activities	☐	Bedrock	☐
Spill Catchment Basin	☐	Visible Product or Odor Reports	☐	Water Supplies	☐
Accident/Natural Disaster	☐	Water in Tank	☐	Vapors/Product in Buildings	☐
Submersible Turbine Pump Head/Fittings	☐	Construction	☐	Vapors/Product in Sewer/Utility Lines	☐
Containment/Sump Failure	☐	Upgrade/Repair	☐	Ecological Receptors	☐
Other (Specify) ___	☐	Supply Well Sample Results	☐		
Unknown	☒	Monitoring Well Sample Results	☐		
Cause (Mark All That Apply ☒):		Property Transfer	☐		
Faulty Installation	☐	Other (Specify) ___	☐		
Corrosion	☐	Unknown	☐		
Physical/Mechanical Failure	☐				
Spill During Delivery	☐				
Overfill at Delivery	☐				
Vehicle Gas Tank Overfill	☐				
Product Delivery Hose Rupture	☐				
Other (Specify) ___	☐				
Unknown	☒				

#1.

V. INTERIM REMEDIAL ACTIONS (O/O Only)

(Mark All That Apply ☒):

	Planned	Initiated	Completed	Not Applicable
Regulated Substance Removed from Storage Tanks	☐	☐	☒	☐
Fire, Explosion and Safety Hazards Mitigated	☐	☐	☒	☐
Contaminated Soil Excavated	☒	☐	☐	☐
Free Product Recovered	☐	☐	☐	☒
Water Supplies Identified and Sampled	☐	☐	☐	☒
Temporary Water Supplies Provided	☐	☐	☐	☒
Other (Specify) _____	☐	☐	☐	☐

VI. SUSPECTED / CONFIRMED CONTAMINATION INFORMATION (I/I Only)

Date of Observation of Suspected/Confirmed Contamination: 11 / 25 / 14 (m / d / y)

Indication of Suspected Contamination (Mark All That Apply ☒):		Extent of Confirmed Contamination (Mark All That Apply ☒):	
Unusual Level of Vapors	☒	Product Stained or Product Saturated Soil or Backfill	☒
Erratic Behavior of Product Dispensing Equipment	☐	Ponded Product	☐
Release Detection Results Indicate a Release	☐	Free Product or Sheen on Ponded Water	☐
Discovery of Holes in the Storage Tank	☐	Free Product or Sheen on the Ground Water Surface	☐
Other (Specify) _____	☐	Free Product or Sheen on Surface Water	☐
		Other (Specify) _____	☐

VII. ADDITIONAL INFORMATION (Both O/O and I/I)

Provide any additional, relevant, available information concerning the reportable release or suspected or confirmed contamination. Include specific details or problems about the release. For example, if the piping was the source of the release and the cause was corrosion of a metal connector or flexible connector, it is important to include that information here. Provide DEP-assigned and owner/operator-assigned tank number(s), where applicable. Use additional 8½" x 11" sheets of paper, if necessary.

Tank + Lines Removed on 11/24/14

Island To Be Removed on 11/25/14

Found. Suspected Contaminated Soil

3' And Below Island Surface.

Odor / Stained

Exploritory Sample Collected At Fuel Island

#.1

2630-FM-BECB0082 Rev. 5/2014

FACILITY I.D. NUMBER 31-07856

VIII. CERTIFICATION (Both O/O and I/I)

I, Betty Hess, hereby certify, under penalty of law as provided in 18 Pa.
(Print Name)

C.S.A. §4904 (relating to unsworn falsification to authorities) that I am the owner or operator of the above referenced storage tank facility and that the information provided by me in this notification is true, accurate and complete to the best of my knowledge and belief.

Betty Hess — Signature of Owner or Operator

Nov 12 2014 — Date

I, George P. McVicker, hereby certify, under penalty of law as provided in 18 Pa.
(Print Name)

C.S.A. §4904 (relating to unsworn falsification to authorities) that I am the certified installer who performed tank handling activities at the above referenced storage tank facility and that the information provided by me in this notification is true, accurate and complete to the best of my knowledge and belief.

Signature of Certified Installer

11/26/14 — Date

759 — Installer Certification Number

511 — Company Certification Number

I, _____, hereby certify, under penalty of law as provided in 18 Pa.
(Print Name)

C.S.A. §4904 (relating to unsworn falsification to authorities) that I am the certified inspector who performed inspection activities at the above referenced storage tank facility and that the information provided by me in this notification is true, accurate and complete to the best of my knowledge and belief.

Signature of Certified Inspector

/ / — Date

Inspector Certification Number

Company Certification Number

APPENDIX D

CHARACTERISTICS OF CONSTITUENTS OF CONCERN

1,2,4 – TRIMETHYLBENZENE

Water Solubility (WS)	Density (d)
Organic Carbon Coefficient (Koc)	Vapor Pressure (VP)
Lower Explosive Limit (LEL)	

1. 1,2,4 - TRIMETHYLBENZENE (CAS 95-63-6)

WS	= 56 ppm	d	= 0.876 g/ml
Koc	= 2,200	VP	= 4.5 mm Hg @ 20°C
LEL	= 9,ppm		

1,2,4 – Trimethylbenze (TMB) is primarily released into the environment through spills of petroleum products. TMB is considered volatile, therefore when released onto surface water(s) and soil(s) TMB will be lost to evaporation and microbial degradation. The high Koc and low solubility values indicate that TMB has little affinity for water leading to the conclusion that TMB will largely remain in the soil in the event of a sub-surface release. Additionally, density (d) of TMB is less than 1 indicating it is lighter than water.

TMB is moderately toxic to humans targeting the nervous system. TMB is not classified as a carcinogen. The non-residential Statewide Health Standard established for TMB is 35 ppb in ground water.

1,3,5 – TRIMETHYLBENZENE

Water Solubility (WS)	Density (d)
Organic Carbon Coefficient (Koc)	Vapor Pressure (VP)
Lower Explosive Limit (LEL)	

1. 1,3,5 - TRIMETHYLBENZENE (CAS 108-67-8)

WS	= 48.9 ppm	d	= 0.8637 g/ml
Koc	= 660	VP	= 2 mm Hg @ 20°C
LEL	= Not listed in Niosh Pocket Guide		

1,3,5 – Trimethylbenze (TMB) is primarily released into the environment through spills of petroleum products. TMB is considered volatile, therefore when released onto surface water(s) and soil(s) TMB will be lost to evaporation and microbial degradation. The high Koc and low solubility values indicate that TMB has little affinity for water leading to the conclusion that TMB will largely remain in the soil in the event of a sub-surface release. Additionally, density (d) of TMB is less than 1 indicating it is lighter than water.

TMB is moderately toxic to humans targeting the nervous system. TMB is not classified as a carcinogen. The non-residential Statewide Health Standard established for TMB is 35 ppb in ground water.

BENZENE

Aqueous Solubility (AS)	Specific Gravity (SG)
Organic Carbon Coefficient (Koc)	Vapor Pressure (VP)
Degradation Coefficient (K)	Lower Explosive Limit (LEL)

Benzene (CAS 71-43-2) (Ref. 1)

AS	= 1,780.5 mg/L (Ref. 1)	SG	= 0.88 (Ref. 2)
Koc	= 58 (Ref. 1)	VP	= 75 mm Hg (Ref. 2)
K	= 0.35 (yr^{-1}) (Ref. 1)	LEL	= 1.2% (Ref. 2)

References:

1. Department of Environmental Protection, Bureau of Land Recycling and Waste Management, Land Recycling and Cleanup Program. "Title 25. Environmental Protection, Department of Environmental Protection Chapter 250. Administration of Land Recycling Program," November 24, 2001.

2. Department of Health and Human Services, Centers for Disease Control and Prevention and National Institute for Occupational and Health. NIOSH Pocket Guide to Chemical Hazards and Other Databases, Publication No. 2001-145, August 2001.

TOLUENE

Aqueous Solubility (AS)	Specific Gravity (SG)
Organic Carbon Coefficient (Koc)	Vapor Pressure (VP)
Degradation Coefficient (K)	Lower Explosive Limit (LEL)

Toluene (CAS 108-88-3) (Ref. 1)

AS	= 532.4 mg/L (Ref. 1)	SG	= 0.87 (Ref. 2)
Koc	= 130 (Ref. 1)	VP	= 21 mm Hg (Ref. 2)
K	= 9.01 (yr^{-1}) (Ref. 1)	LEL	= 1.1% (Ref. 2)

References:

1. Department of Environmental Protection, Bureau of Land Recycling and Waste Management, Land Recycling and Cleanup Program. "Title 25. Environmental Protection, Department of Environmental Protection Chapter 250. Administration of Land Recycling Program," November 24, 2001.

2. Department of Health and Human Services, Centers for Disease Control and Prevention and National Institute for Occupational and Health. NIOSH Pocket Guide to Chemical Hazards and Other Databases, Publication No. 2001-145, August 2001.

ETHYLBENZENE

Aqueous Solubility (AS)	Specific Gravity (SG)
Organic Carbon Coefficient (Koc)	Vapor Pressure (VP)
Degradation Coefficient (K)	Lower Explosive Limit (LEL)

Ethylbenzene (CAS 100-41-4) (Ref. 1)

AS	= 161 mg/L (Ref. 1)	SG	= 0.87 (Ref. 2)
Koc	= 220 (Ref. 1)	VP	= 7 mm Hg (Ref.2)
K	= 1.11 (yr^{-1}) (Ref.1)	LEL	= 0.8% (Ref. 2)

References:

1. Department of Environmental Protection, Bureau of Land Recycling and Waste Management, Land Recycling and Cleanup Program. "Title 25. Environmental Protection, Department of Environmental Protection Chapter 250. Administration of Land Recycling Program," November 24, 2001.

2. Department of Health and Human Services, Centers for Disease Control and Prevention and National Institute for Occupational and Health. NIOSH Pocket Guide to Chemical Hazards and Other Databases, Publication No. 2001-145, August 2001.

XYLENES

Aqueous Solubility (AS)	Specific Gravity (SG)
Organic Carbon Coefficient (Koc)	Vapor Pressure (VP)
Degradation Coefficient (K)	Lower Explosive Limit (LEL)

Xylenes (total) (CAS 1330-20-7) (Ref. 1)

AS	= 175 mg/L (Ref. 1)	SG	= 0.87 (average) (Ref. 2)
Koc	= 350 (Ref. 1)	VP	= 8.3 mmHg (average) (Ref. 2)
K	= 0.69 (yr^{-1}) (Ref. 1)	LEL	= 1.0% (average) (Ref. 2)

References:

1. Department of Environmental Protection, Bureau of Land Recycling and Waste Management, Land Recycling and Cleanup Program. "Title 25. Environmental Protection, Department of Environmental Protection Chapter 250. Administration of Land Recycling Program," November 24, 2001.

2. Department of Health and Human Services, Centers for Disease Control and Prevention and National Institute for Occupational and Health. NIOSH Pocket Guide to Chemical Hazards and Other Databases, Publication No. 2001-145, August 2001.

CUMENE

Aqueous Solubility (AS)	Specific Gravity (SG)
Organic Carbon Coefficient (Koc)	Vapor Pressure (VP)
Degradation Coefficient (K)	Lower Explosive Limit (LEL)

Cumene (CAS 98-82-8) (Ref. 1)

AS	= 50 mg/L (Ref. 1)	SG	= 0.86 (Ref. 2)
Koc	= 2800 (Ref. 1)	VP	= 8 mm Hg (Ref. 2)
K	= 15.81 (yr^{-1}) (Ref. 1)	LEL	= 0.9% (Ref. 2)

References:

1. Department of Environmental Protection, Bureau of Land Recycling and Waste Management, Land Recycling and Cleanup Program. "Title 25. Environmental Protection, Department of Environmental Protection Chapter 250. Administration of Land Recycling Program," November 24, 2001.

2. Department of Health and Human Services, Centers for Disease Control and Prevention and National Institute for Occupational and Health. NIOSH Pocket Guide to Chemical Hazards and Other Databases, Publication No. 2001-145, August 2001.

NAPHTHALENE

Aqueous Solubility (AS)	Specific Gravity (SG)
Organic Carbon Coefficient (Koc)	Vapor Pressure (VP)
Degradation Coefficient (K)	Lower Explosive Limit (LEL)

Naphthalene (CAS 91-20-3) (Ref. 1)

AS	= 30 mg/L (Ref. 1)	SG	= 1.15 (Ref. 2)
Koc	= 950 (Ref. 1)	VP	= 0.08 mm Hg (Ref. 2)
K	= 0.98 (yr^{-1}) (Ref. 1)	LEL	= 0.9% (Ref. 2)

References:

1. Department of Environmental Protection, Bureau of Land Recycling and Waste Management, Land Recycling and Cleanup Program. "Title 25. Environmental Protection, Department of Environmental Protection Chapter 250. Administration of Land Recycling Program," November 24, 2001.

2. Department of Health and Human Services, Centers for Disease Control and Prevention and National Institute for Occupational and Health. NIOSH Pocket Guide to Chemical Hazards and Other Databases, Publication No. 2001-145, August 2001.

APPENDIX E

ENVIRONMENTAL DATABASE RESOURCES REPORT

Cooks Country Store
21042 Cooks Road
Robertsdale, PA 16674

Inquiry Number: 4184877.5
January 21, 2015

The EDR-City Directory Image Report

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

Year	Target Street	Cross Street	Source
2013	☑	☐	Cole Information Services
2008	☐	☐	Cole Information Services
2003	☐	☐	Cole Information Services
1999	☐	☐	Cole Information Services
1995	☐	☐	Cole Information Services
1992	☐	☐	Cole Information Services

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FINDINGS

TARGET PROPERTY STREET

21042 Cooks Road
Robertsdale, PA 16674

Year	CD Image	Source	
COOKS RD			
2013	pg A1	Cole Information Services	
2008	-	Cole Information Services	Street not listed in Source
2003	-	Cole Information Services	Street not listed in Source
1999	-	Cole Information Services	Street not listed in Source
1995	-	Cole Information Services	Street not listed in Source
1992	-	Cole Information Services	Street not listed in Source

FINDINGS

CROSS STREETS

No Cross Streets Identified

City Directory Images

Target Street	Cross Street	Source
✓	-	Cole Information Services

COOKS RD 2013

20814	HARRY HARSHBARGER
20840	DAVID COLES
20975	OCCUPANT UNKNOWN
21034	PIERRE CARON
21121	DAVID EVERETTS
21170	MARY BOLINGER
21212	OCCUPANT UNKNOWN
21251	JACK REED
21256	DENNIS RAGER
21265	SAMUEL RAMPER
21298	KEVIN NEUDER
21314	MIKE BRENNA
21354	JOSEPH HORTON

Cooks Country Store
21042 Cooks Road
Robertsdale, PA 16674

Inquiry Number: 4184877.6s
January 19, 2015

EDR Vapor Encroachment Screen

Prepared using EDR's Vapor Encroachment Worksheet

EDR® Environmental Data Resources Inc

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of the ASTM Standard Practice for Assessment of Vapor Encroachment into Structures on Property Involved in Real Estate Transactions (E 2600-10).

STANDARD ENVIRONMENTAL RECORDS	Maximum Search Distance*	Summary		
		property	1/10	1/10 - 1/3
Federal NPL	0.333	0	0	0
Federal CERCLIS	0.333	0	0	0
Federal RCRA CORRACTS facilities list	0.333	0	0	0
Federal RCRA TSD facilities list	0.333	0	0	0
Federal RCRA generators list	property	0	-	-
Federal institutional controls / engineering controls registries	0.333	0	0	0
Federal ERNS list	property	0	-	-
State and tribal - equivalent NPL	0.333	0	0	0
State and tribal - equivalent CERCLIS	not searched	-	-	-
State and tribal landfill / solid waste disposal	0.333	0	0	0
State and tribal leaking storage tank lists	0.333	0	0	0
State and tribal registered storage tank lists	property	1	-	-
State and tribal institutional control / engineering control registries	property	0	-	-
State and tribal voluntary cleanup sites	0.333	0	0	0
State and tribal Brownfields sites	0.333	0	0	0
Other Standard Environmental Records	0.333	1	0	0

HISTORICAL USE RECORDS				
Former manufactured Gas Plants	0.333	0	0	0
Historical Gas Stations	0.25	0	0	0
Historical Dry Cleaners	0.25	0	0	0
Exclusive Recovered Govt. Archives	property	0	-	-

*Each category may include several separate databases, each having a different search distance. For each category, the table reports the maximum search distance applied. See the section 'Record Sources and Currency' for information on individual databases.

EXECUTIVE SUMMARY

TARGET PROPERTY INFORMATION

ADDRESS

COOKS COUNTRY STORE
21042 COOKS ROAD
ROBERTSDALE, PA 16674

COORDINATES

Latitude (North):	40.2115 - 40° 12′ 41.393738″
Longitude (West):	78.0884 - 78° 5′ 18.24646″
Elevation:	1524 ft. above sea level

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records.

Site	Database(s)
COOKS COUNTRY STORE 21042 COOKS RD ROBERTSDALE, PA 16674	EFACTS
COOKS COUNTRY STORE 21042 COOKS RD ROBERTSDALE, PA 16674	UST

EXECUTIVE SUMMARY

PHYSICAL SETTING INFORMATION

Flood Zone:	Not Available
NWI Wetlands:	Available

AQUIFLOW®

Search Radius: 0.333 Mile.

No Aquiflow sites reported.

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name:	Philo
Soil Surface Texture:	silt loam
Hydrologic Group:	Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.
Soil Drainage Class:	Moderately well drained
Hydric Status:	Partially hydric
Corrosion Potential - Uncoated Steel:	Low
Depth to Bedrock Min:	> 0 inches
Depth to Watertable Min:	> 54 inches

Soil Layer Information

	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	silt loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14.11 Min: 4.23	Max: 6 Min: 4.5

EXECUTIVE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
2	7 inches	40 inches	silt loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14.11 Min: 4.23	Max: 6 Min: 4.5
3	40 inches	59 inches	stratified sandy loam to gravelly loam to loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42.34 Min: 14.11	Max: 6 Min: 4.5

Soil Map ID: 2

Soil Component Name: Philo

Soil Surface Texture: silt loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Moderately well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 69 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	silt loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14.11 Min: 4.23	Max: 6 Min: 4.5

EXECUTIVE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
2	7 inches	40 inches	silt loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14.11 Min: 4.23	Max: 6 Min: 4.5
3	40 inches	59 inches	stratified sandy loam to loam to gravelly loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42.34 Min: 14.11	Max: 6 Min: 4.5

Soil Map ID: 3

Soil Component Name: Purdy

Soil Surface Texture: silt loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Poorly drained

Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 8 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 4.23 Min: 1.41	Max: 6 Min: 4.5

EXECUTIVE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
2	9 inches	59 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.41 Min: 0.1	Max: 5.5 Min: 4.2

Soil Map ID: 4

Soil Component Name: Calvin

Soil Surface Texture: channery silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	channery silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 42.34 Min: 14.11	Max: 6.5 Min: 4.5
2	7 inches	24 inches	channery silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 42.34 Min: 14.11	Max: 6 Min: 4.5

EXECUTIVE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
3	24 inches	35 inches	very channery silt loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42.34 Min: 14.11	Max: 6 Min: 4.5
4	35 inches	40 inches	unweathered bedrock	Not reported	Not reported	Max: 42 Min: 14	Max: Min:

Soil Map ID: 5

Soil Component Name: Atkins

Soil Surface Texture: silt loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Poorly drained

Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 8 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14.11 Min: 4.23	Max: 5.5 Min: 4.5
2	16 inches	42 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14.11 Min: 0.42	Max: 5.5 Min: 4.5

EXECUTIVE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
3	42 inches	61 inches	stratified gravelly sandy loam to silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 42.34 Min: 1.41	Max: 5.5 Min: 4.5
4	7 inches	16 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14.11 Min: 0.42	Max: 5.5 Min: 4.5

Soil Map ID: 6

Soil Component Name: Calvin

Soil Surface Texture: channery silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	channery silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 42.34 Min: 14.11	Max: 6.5 Min: 4.5

EXECUTIVE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
2	7 inches	24 inches	channery silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 42.34 Min: 14.11	Max: 6 Min: 4.5
3	24 inches	35 inches	very channery silt loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42.34 Min: 14.11	Max: 6 Min: 4.5
4	35 inches	40 inches	unweathered bedrock	Not reported	Not reported	Max: 42 Min: 14	Max: Min:

Soil Map ID: 7

Soil Component Name: Water

Soil Surface Texture: channery silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class:
Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

No Layer Information available.

Soil Map ID: 8

Soil Component Name: Klinesville

Soil Surface Texture: channery silt loam

Hydrologic Group: Class C/D - Drained/undrained hydrology class of soils that can be drained and classified.

Soil Drainage Class: Well drained

EXECUTIVE SUMMARY

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	5 inches	channery silt loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42.34 Min: 14.11	Max: 6 Min: 4.5
2	5 inches	11 inches	very channery silt loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42.34 Min: 14.11	Max: 6 Min: 4.5
3	11 inches	18 inches	very channery loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel	Max: 42.34 Min: 14.11	Max: 6 Min: 4.5
4	18 inches	22 inches	unweathered bedrock	Not reported	Not reported	Max: 42 Min: 14	Max: Min:

Soil Map ID: 9

Soil Component Name: Albrights

Soil Surface Texture: silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Moderately well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 53 inches

EXECUTIVE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14.11 Min: 4.23	Max: 6.5 Min: 5
2	24 inches	44 inches	channery loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4.23 Min: 1.41	Max: 6.5 Min: 4.5
3	44 inches	59 inches	very channery loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4.23 Min: 1.41	Max: 6.5 Min: 4.5
4	7 inches	24 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14.11 Min: 4.23	Max: 5.5 Min: 3.6

Soil Map ID: 10

Soil Component Name: Meckesville

Soil Surface Texture: silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 100 inches

EXECUTIVE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14.11 Min: 4.23	Max: 6.6 Min: 3.6
2	7 inches	40 inches	gravelly clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14.11 Min: 4.23	Max: 5.5 Min: 3.6
3	40 inches	72 inches	very gravelly clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 4.23 Min: 1.41	Max: 5.5 Min: 3.6
4	72 inches	96 inches	very gravelly clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 4.23 Min: 1.41	Max: 5.5 Min: 3.6

Soil Map ID: 11

Soil Component Name: Calvin

Soil Surface Texture: channery silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

EXECUTIVE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	channery silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 42.34 Min: 14.11	Max: 6.5 Min: 4.5
2	7 inches	24 inches	channery silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 42.34 Min: 14.11	Max: 6 Min: 4.5
3	24 inches	35 inches	very channery silt loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42.34 Min: 14.11	Max: 6 Min: 4.5
4	35 inches	40 inches	unweathered bedrock	Not reported	Not reported	Max: 42 Min: 14	Max: Min:

Soil Map ID: 12

Soil Component Name: Raritan

Soil Surface Texture: silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 69 inches

EXECUTIVE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14.11 Min: 4.23	Max: 6 Min: 4.5
2	20 inches	42 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14.11 Min: 4.23	Max: 6 Min: 4.5
3	42 inches	72 inches	very gravelly sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILIS, Gravels, Clean Gravels, Well-graded gravel. COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel.	Max: 42.34 Min: 4.23	Max: 6 Min: 4.5
4	7 inches	20 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14.11 Min: 4.23	Max: 6 Min: 4.5

Soil Map ID: 13

Soil Component Name:	Albrights
Soil Surface Texture:	channery loam
Hydrologic Group:	Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.
Soil Drainage Class:	Moderately well drained
Hydric Status:	Partially hydric
Corrosion Potential - Uncoated Steel:	High
Depth to Bedrock Min:	> 0 inches
Depth to Watertable Min:	> 53 inches

EXECUTIVE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	24 inches	44 inches	channery loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4.23 Min: 1.41	Max: 6.5 Min: 4.5
2	44 inches	59 inches	very channery loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4.23 Min: 1.41	Max: 6.5 Min: 4.5
3	7 inches	24 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14.11 Min: 4.23	Max: 5.5 Min: 3.6
4	0 inches	7 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14.11 Min: 4.23	Max: 5.5 Min: 3.6

Soil Map ID: 14

Soil Component Name:	Meckesville
Soil Surface Texture:	channery silt loam
Hydrologic Group:	Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.
Soil Drainage Class:	Well drained
Hydric Status:	Not hydric
Corrosion Potential - Uncoated Steel:	Moderate
Depth to Bedrock Min:	> 0 inches
Depth to Watertable Min:	> 100 inches

EXECUTIVE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	channery silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14.11 Min: 4.23	Max: 5.5 Min: 3.6
2	7 inches	40 inches	gravelly clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14.11 Min: 4.23	Max: 5.5 Min: 3.6
3	40 inches	72 inches	very gravelly clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 4.23 Min: 1.41	Max: 5.5 Min: 3.6
4	72 inches	96 inches	very gravelly clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 4.23 Min: 1.41	Max: 5.5 Min: 3.6

EXECUTIVE SUMMARY

SEARCH RESULTS

Unmappable (orphan) sites are not considered in the foregoing analysis.

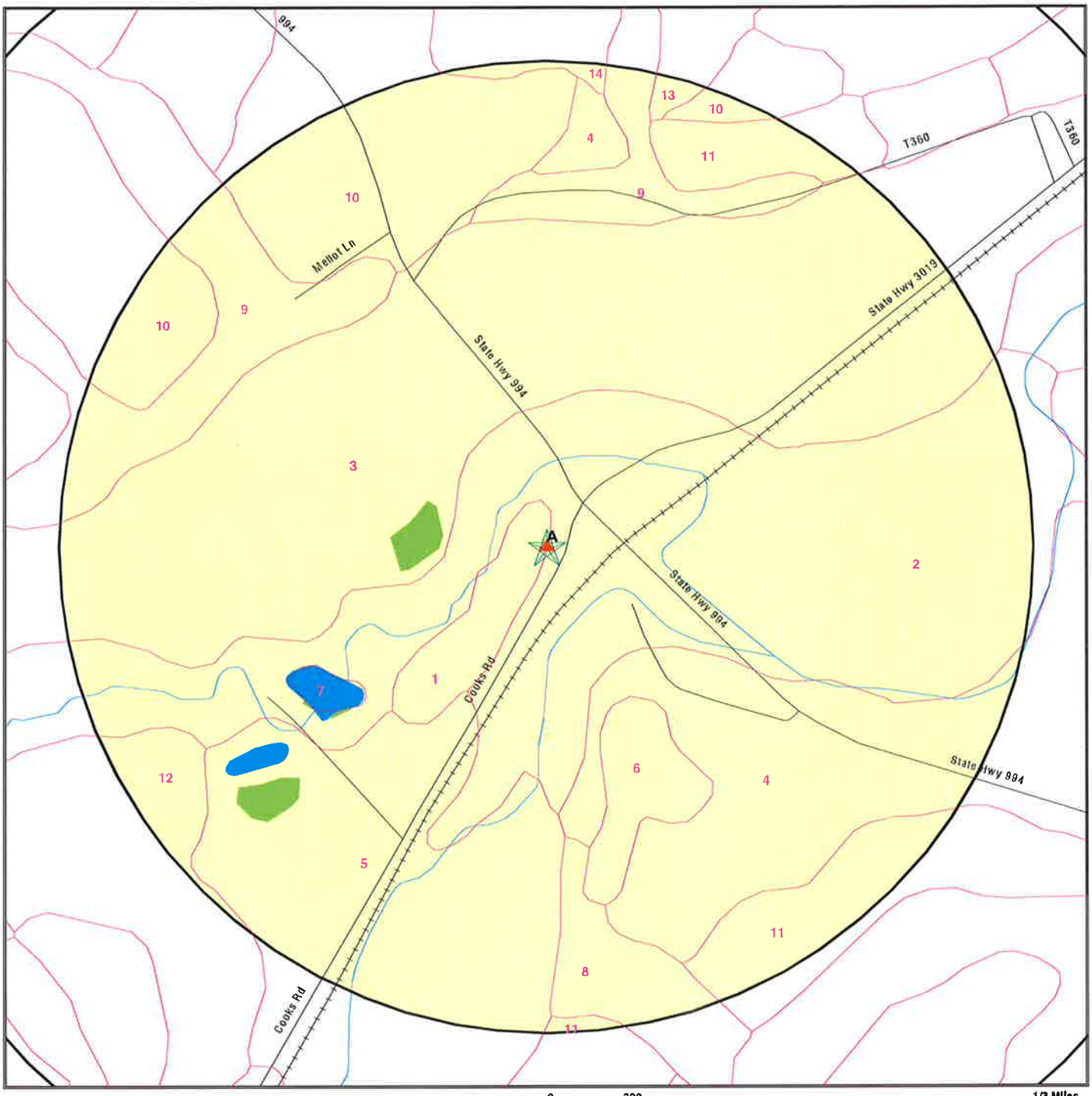
STANDARD ENVIRONMENTAL RECORDS

Name	Address	Dist/Dir	Map ID	Page
COOKS COUNTRY STORE EFACTS: Other Standard Environmental Records	21042 COOKS RD	Property	▲ A1	22
COOKS COUNTRY STORE UST: State and tribal registered storage tank lists	21042 COOKS RD	Property	▲ A2	23

HISTORICAL USE RECORDS

Name	Address	Dist/Dir	Map ID	Page
Not Reported				

PRIMARY MAP - 4184877.6S



0 300 1/3 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Oil & Gas pipelines from USGS
- National Wetland Inventory
- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- SSURGO Soil

SITE NAME: Cooks Country Store ADDRESS: 21042 Cooks Road Robertsdale PA 16674 LAT/LONG: 40.2115 / 78.0884	CLIENT: Mountain Research, Inc. CONTACT: Matt Ference INQUIRY #: 4184877.6s DATE: January 19, 2015 2:40 pm

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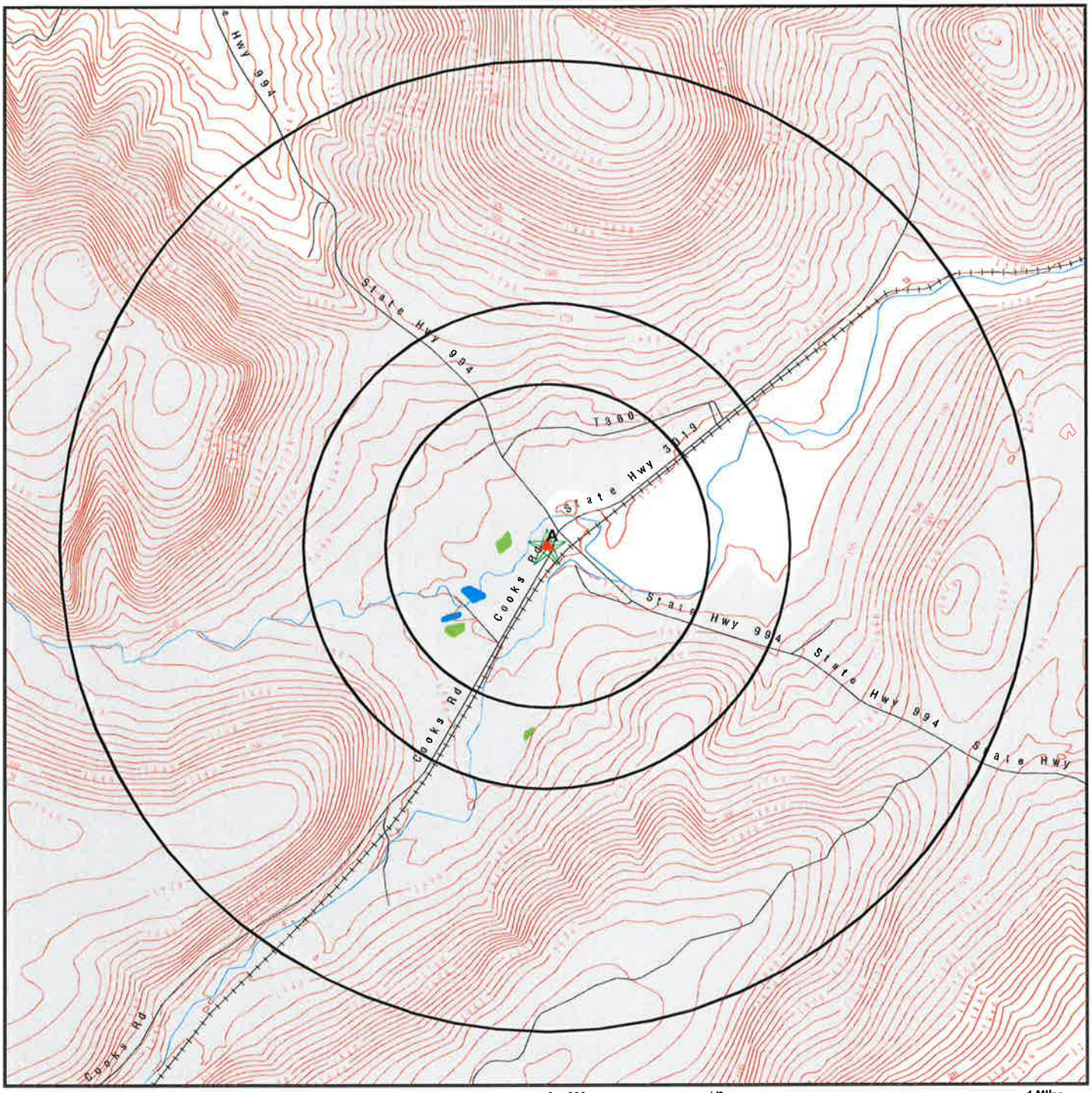
SECONDARY MAP - 4184877.6S



- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ▼ Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites

0 300 1/3 1 Miles

- Indian Reservations BIA
- Contour Lines
- Oil & Gas pipelines from USGS
- National Wetland Inventory
- Upgradient Area

SITE NAME: Cooks Country Store ADDRESS: 21042 Cooks Road Robertsdale PA 16674 LAT/LONG: 40.2115 / 78.0884	CLIENT: Mountain Research, Inc. CONTACT: Matt Ference INQUIRY #: 4184877.6s DATE: January 19, 2015 2:34 pm

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AERIAL PHOTOGRAPHY - 4184877.6s

SITE NAME: Cooks Country Store ADDRESS: 21042 Cooks Road Robertsdale PA 16674 LAT/LONG: 40.2115 / 78.0884	CLIENT: Mountain Research, Inc. CONTACT: Matt Ference INQUIRY #: 4184877.6s DATE: January 19, 2015 2:43 pm

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MAP FINDINGS

LEGEND

FACILITY NAME **FACILITY ADDRESS, CITY, ST, ZIP**			EDR SITE ID NUMBER
▼ MAP ID#	Direction Distance Range Relative Elevation	(Distance feet / miles) Feet Above Sea Level	ASTM 2600 Record Sources found in this report. Each database searched has been assigned to one or more categories. For detailed information about categorization, see the section of the report Records Searched and Currency.

Worksheet:

Comments:
Comments may be added on the online Vapor Encroachment Worksheet.

DATABASE ACRONYM: Applicable categories (A hoverbox with database description).

COOKS COUNTRY STORE 21042 COOKS RD, ROBERTSDALE, PA, 16674		S115879481
▲ A1	Target Property 1524 ft. Above Sea Level	Other Standard Environmental Records

Worksheet:

MAP FINDINGS

COOKS COUNTRY STORE 21042 COOKS RD, ROBERTSDALE, PA, 16674		U004124599
▲ A2	Target Property 1524 ft. Above Sea Level	State and tribal registered storage tank lists

Worksheet:

RECORD SOURCES AND CURRENCY

To maintain currency of the following databases, EDR contacts the appropriate agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

PRP: Potentially Responsible Parties

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013
Number of Days to Update: 3
Last EDR Contact :12/29/2015

Source: EPA
Telephone: 202-564-6023

RMP: Risk Management Plans

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 08/01/2014
Number of Days to Update: 86
Last EDR Contact :10/27/2014

Source: Environmental Protection Agency
Telephone: 202-564-8600

ACT 2-DEED: Act 2-Deed Acknowledgment Sites

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: 0.333 Mile

This listing pertains to sites where the Department has approved a cleanup requiring a deed acknowledgment under Act 2. This list includes sites remediated to a non-residential Statewide health standard (Section 303(g)); all sites demonstrating attainment of a Site-specific standard (Section 304(m)); and sites being remediated as a special industrial area (Section 305(g)). Persons who remediated a site to a standard that requires a deed acknowledgment shall comply with the requirements of the Solid Waste Management Act or the Hazardous Sites Cleanup Act, as referenced in Act 2. These statutes require a property description section in the deed concerning the hazardous substance disposal on the site. The location of disposed hazardous substances and a description of the type of hazardous substances disposed on the site shall be included in the deed acknowledgment. A deed acknowledgment is required at the time of conveyance of the property.

Date of Government Version: 04/23/2010
Number of Days to Update: 2
Last EDR Contact :07/22/2011

Source: Department of Environmental Protection
Telephone: 717-783-9470

AIRS: Permit and Emissions Inventory Data

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

Permit and emissions inventory data.

Date of Government Version: 12/31/2013
Number of Days to Update: 57

Source: Department of Environmental Protection
Telephone: 717-787-9702

RECORD SOURCES AND CURRENCY

Last EDR Contact :12/29/2014

ARCHIVE AST: Archived Aboveground Storage Tank Sites

Standard Environmental Record Source: State and tribal registered storage tank lists

Search Distance: Property

The list includes aboveground tanks with a capacity greater than 21,000 gallons that were removed from the DEP's Storage Tank Information database because of the Department's policy on sensitive information. The list also may include tanks that are removed or permanently closed.

Date of Government Version: 08/01/2014
Number of Days to Update: 61
Last EDR Contact :12/17/2014

Source: Department of Environmental Protection
Telephone: 717-772-5599

ARCHIVE UST: Archived Underground Storage Tank Sites

Standard Environmental Record Source: State and tribal registered storage tank lists

Search Distance: Property

The list includes tanks storing highly hazardous substances that were removed from the DEP's Storage Tank Information database because of the Department's policy on sensitive information. The list also may include tanks that are removed or permanently closed.

Date of Government Version: 08/01/2014
Number of Days to Update: 61
Last EDR Contact :12/17/2014

Source: Department of Environmental Protection
Telephone: 717-772-5599

AST: Listing of Pennsylvania Regulated Aboveground Storage Tanks

Standard Environmental Record Source: State and tribal registered storage tank lists

Search Distance: Property

Registered Aboveground Storage Tanks.

Date of Government Version: 08/01/2014
Number of Days to Update: 61
Last EDR Contact :12/17/2014

Source: Department of Environmental Protection
Telephone: 717-772-5599

AUL: Environmental Covenants Listing

Standard Environmental Record Source: State and tribal institutional control / engineering control registries

Search Distance: Property

A listing of sites with environmental covenants.

Date of Government Version: 10/21/2014
Number of Days to Update: 26
Last EDR Contact :10/23/2014

Source: Department of Environmental Protection
Telephone: 717-783-7509

BROWNFIELDS: Brownfields Sites

Standard Environmental Record Source: State and tribal Brownfields sites

Search Distance: 0.333 Mile

Brownfields are generally defined as abandoned or underused industrial or commercial properties where redevelopment is complicated by actual or perceived environmental contamination. Brownfields vary in size, location, age and past use. They can range from a small, abandoned corner gas station to a large, multi-acre former manufacturing plant that has been closed for years.

Date of Government Version: 10/17/2014
Number of Days to Update: 27

Source: Department of Environmental Protection
Telephone: 717-783-1566

RECORD SOURCES AND CURRENCY

Last EDR Contact :10/17/2014

DRYCLEANERS: Drycleaner Facility Locations

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: 0.25 Mile

A listing of drycleaner facility locations.

Date of Government Version: 09/25/2014
Number of Days to Update: 54
Last EDR Contact :12/19/2014

Source: Department of Environmental Protection
Telephone: 717-787-9702

EFACTS: EFACTS Database

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

The Department's eFACTS (Environment, Facility, Application, Compliance Tracking System) database (formerly known as the Foundation for Information eXchange (FIX)) is a Department-wide database that provides a holistic view of the clients and sites (including facilities) that DEP regulates.

Date of Government Version: 11/03/2014
Number of Days to Update: 15
Last EDR Contact :10/27/2014

Source: Department of Environmental Protection
Telephone: 717-783-2300

ENG CONTROLS: Engineering Controls Site Listing

Standard Environmental Record Source: State and tribal institutional control / engineering control registries

Search Distance: Property

Under the Land Recycling Act (Act 2) persons who perform a site cleanup using the site-specific standard or the special industrial area standard may use engineering or institutional controls as part of the response action. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 05/15/2008
Number of Days to Update: 27
Last EDR Contact :10/17/2014

Source: Department of Environmental Protection
Telephone: 717-783-9470

HIST LF ALI: Abandoned Landfill Inventory

Standard Environmental Record Source: State and tribal landfill / solid waste disposal

Search Distance: 0.333 Mile

The report provides facility information recorded in the Pennsylvania Department of Environmental Protection ALI database. Some of this information has been abstracted from old records and may not accurately reflect the current conditions and status at these facilities

Date of Government Version: 01/04/2005
Number of Days to Update: 31
Last EDR Contact :11/26/2012

Source: Department of Environmental Protection
Telephone: 717-787-7564

HIST LF INACTIVE: Inactive Facilities List

Standard Environmental Record Source: State and tribal landfill / solid waste disposal

A listing of inactive non-hazardous facilities (10000 & 300000 series). This listing is no longer updated or maintained by the Department of Environmental Protection. At the time the listing was available, the DEP?s name was the Department of Environmental Resources.

Date of Government Version: 12/20/1994
Number of Days to Update: 30

Source: Department of Environmental Protection
Telephone: 717-787-7381

RECORD SOURCES AND CURRENCY

Last EDR Contact :06/21/2005

HIST LF INVENTORY: Facility Inventory

Standard Environmental Record Source: State and tribal landfill / solid waste disposal

A listing of solid waste facilities. This listing is no longer updated or maintained by the Department of Environmental Protection. At the time the listing was available, the DEP?s name was the Department of Environmental Resources.

Date of Government Version: 06/02/1999
Number of Days to Update: 30
Last EDR Contact :09/19/2005

Source: Department of Environmental Protection
Telephone: 717-787-7381

HSCA: HSCA Remedial Sites Listing

Standard Environmental Record Source: State and tribal - equivalent NPL

Search Distance: 0.333 Mile

A list of remedial sites on the PA Priority List. This is the PA state equivalent of the federal NPL superfund list.

Date of Government Version: 09/30/2013
Number of Days to Update: 10
Last EDR Contact :10/24/2014

Source: Department of Environmental Protection
Telephone: 717-783-7816

INST CONTROL: Institutional Controls Site Listing

Standard Environmental Record Source: State and tribal institutional control / engineering control registries

Search Distance: Property

Under the Land Recycling Act (Act 2) persons who perform a site cleanup using the site-specific standard or the special industrial area standard may use engineering or institutional controls as part of the response action. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 05/15/2008
Number of Days to Update: 27
Last EDR Contact :10/17/2014

Source: Department of Environmental Protection
Telephone: 717-783-9470

LAST: Storage Tank Release Sites

Standard Environmental Record Source: State and tribal leaking storage tank lists

Search Distance: 0.333 Mile

Leaking Aboveground Storage Tank Incident Reports.

Date of Government Version: 09/16/2014
Number of Days to Update: 61
Last EDR Contact :12/17/2014

Source: Department of Environmental Protection
Telephone: 717-783-7509

LUST: Storage Tank Release Sites

Standard Environmental Record Source: State and tribal leaking storage tank lists

Search Distance: 0.333 Mile

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 09/16/2014
Number of Days to Update: 61
Last EDR Contact :12/17/2014

Source: Department of Environmental Protection
Telephone: 717-783-7509

MINES: Abandoned Mine Land Inventory

RECORD SOURCES AND CURRENCY

Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: 0.25 Mile

This data set portrays the approximate location of Abandoned Mine Land Problem Areas containing public health, safety, and public welfare problems created by past coal mining.

Date of Government Version: 10/02/2014
Number of Days to Update: 21
Last EDR Contact :10/29/2014

Source: PASDA
Telephone: 814-863-0104

NPDES: NPDES Permit Listing
Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

A listing of facilities with an NPDES permit.

Date of Government Version: 03/28/2014
Number of Days to Update: 54
Last EDR Contact :12/12/2014

Source: Department of Environmental Protection
Telephone: 717-787-9642

PA MANIFEST: Manifest Information
Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

Hazardous waste manifest information.

Date of Government Version: 12/31/2013
Number of Days to Update: 35
Last EDR Contact :10/20/2014

Source: Department of Environmental Protection
Telephone: 717-783-8990

SHWS: Hazardous Sites Cleanup Act Site List
Standard Environmental Record Source: State and tribal - equivalent NPL
Search Distance: 0.333 Mile

The Hazardous Sites Cleanup Act Site List includes sites listed on PA Priority List, sites delisted from PA Priority List, Interim Response Completed sites, and Sites Being Studied or Response Being Planned.

Date of Government Version: 10/21/2014
Number of Days to Update: 27
Last EDR Contact :10/23/2014

Source: Department Environmental Protection
Telephone: 717-783-7816

SPILLS: State spills
Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

A listing of hazardous material incidents.

Date of Government Version: 10/28/2014
Number of Days to Update: 20
Last EDR Contact :01/12/2015

Source: DEP, Emergency Response
Telephone: 717-787-5715

SWF/LF: Operating Facilities
Standard Environmental Record Source: State and tribal landfill / solid waste disposal
Search Distance: 0.333 Mile

The listing includes Municipal Waste Landfills, Construction/Demolition Waste Landfills and Waste-to-Energy Facilities.

RECORD SOURCES AND CURRENCY

Date of Government Version: 08/26/2014
Number of Days to Update: 83
Last EDR Contact :08/26/2014

Source: Department of Environmental Protection
Telephone: 717-787-7564

UIC: Underground Injection Wells
Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

A listing of underground injection well locations.

Date of Government Version: 09/23/2014
Number of Days to Update: 55
Last EDR Contact :12/23/2014

Source: Department of Environmental Protection
Telephone: 717-783-7209

UNREG LTANKS: Unregulated Tank Cases
Standard Environmental Record Source: State and tribal leaking storage tank lists
Search Distance: 0.333 Mile

Leaking storage tank cases from unregulated storage tanks.

Date of Government Version: 04/12/2002
Number of Days to Update: 15
Last EDR Contact :08/14/2003

Source: Department of Environmental Protection
Telephone: 717-783-7509

UST: Listing of Pennsylvania Regulated Underground Storage Tanks
Standard Environmental Record Source: State and tribal registered storage tank lists
Search Distance: Property

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 08/01/2014
Number of Days to Update: 61
Last EDR Contact :12/17/2014

Source: Department of Environmental Protection
Telephone: 717-772-5599

VCP: Voluntary Cleanup Program Sites
Standard Environmental Record Source: State and tribal voluntary cleanup sites
Search Distance: 0.333 Mile

The VCP listings included Completed Sites, Sites in Progress and Act 2 Non-Use Aquifer Determinations Sites. Formerly known as the Act 2, the Land Recycling Program encourages the voluntary cleanup and reuse of contaminated commercial and industrial sites.

Date of Government Version: 10/03/2014
Number of Days to Update: 32
Last EDR Contact :01/15/2015

Source: Department of Environmental Protection
Telephone: 717-783-2388

2020 COR ACTION: 2020 Corrective Action Program List
Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: 0.25 Mile

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

RECORD SOURCES AND CURRENCY

Date of Government Version: 11/11/2011
Number of Days to Update: 7
Last EDR Contact :11/14/2014

Source: Environmental Protection Agency
Telephone: 703-308-4044

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System
Standard Environmental Record Source: Federal CERCLIS
Search Distance: 0.333 Mile

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 10/25/2013
Number of Days to Update: 94
Last EDR Contact :01/09/2015

Source: EPA
Telephone: 703-412-9810

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned
Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: 0.333 Mile

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 10/25/2013
Number of Days to Update: 94
Last EDR Contact :01/09/2015

Source: EPA
Telephone: 703-412-9810

COAL ASH DOE: Sleam-Electric Plan Operation Data
Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Number of Days to Update: 76
Last EDR Contact :01/15/2015

Source: Department of Energy
Telephone: 202-586-8719

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: 0.333 Mile

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014
Number of Days to Update: 40
Last EDR Contact :12/12/2014

Source: Environmental Protection Agency
Telephone: Not Reported

CONSENT: Superfund (CERCLA) Consent Decrees
Standard Environmental Record Source: Federal NPL
Search Distance: 0.333 Mile

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

RECORD SOURCES AND CURRENCY

Date of Government Version: 12/31/2013
Number of Days to Update: 31
Last EDR Contact :12/24/2014

Source: Department of Justice, Consent Decree Library
Telephone: Varies

CORRACTS: Corrective Action Report

Standard Environmental Record Source: Federal RCRA CORRACTS facilities list
Search Distance: 0.333 Mile

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 06/10/2014
Number of Days to Update: 78
Last EDR Contact :12/29/2014

Source: EPA
Telephone: 800-424-9346

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

Standard Environmental Record Source: State and tribal landfill / solid waste disposal
Search Distance: 0.333 Mile

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Number of Days to Update: 137
Last EDR Contact :10/24/2014

Source: EPA, Region 9
Telephone: 415-947-4219

DELISTED NPL: National Priority List Deletions

Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: 0.333 Mile

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 09/29/2014
Number of Days to Update: 40
Last EDR Contact :01/08/2015

Source: EPA
Telephone: Not Reported

DOT OPS: Incident and Accident Data

Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012
Number of Days to Update: 42
Last EDR Contact :11/04/2014

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595

EPA WATCH LIST: EPA WATCH LIST

Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

RECORD SOURCES AND CURRENCY

Date of Government Version: 08/30/2013
Number of Days to Update: 88
Last EDR Contact :11/14/2014

Source: Environmental Protection Agency
Telephone: 617-520-3000

ERNS: Emergency Response Notification System

Standard Environmental Record Source: Federal ERNS list

Search Distance: Property

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 09/29/2014
Number of Days to Update: 37
Last EDR Contact :12/29/2014

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180

FEMA UST: Underground Storage Tank Listing

Standard Environmental Record Source: State and tribal registered storage tank lists

Search Distance: Property

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010
Number of Days to Update: 55
Last EDR Contact :01/12/2015

Source: FEMA
Telephone: 202-646-5797

FINDS: Facility Index System/Facility Registry System

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 08/16/2014
Number of Days to Update: 40
Last EDR Contact :12/09/2014

Source: EPA
Telephone: Not Reported

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Number of Days to Update: 25
Last EDR Contact :11/19/2014

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

Standard Environmental Record Source: Other Standard Environmental Records

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

RECORD SOURCES AND CURRENCY

Date of Government Version: 04/09/2009
Number of Days to Update: 25
Last EDR Contact :11/19/2014

Source: EPA
Telephone: 202-566-1667

FUDS: Formerly Used Defense Sites
Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: 0.333 Mile

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 06/06/2014
Number of Days to Update: 8
Last EDR Contact :12/12/2014

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Number of Days to Update: 40
Last EDR Contact :12/17/2007

Source: Environmental Protection Agency
Telephone: 202-564-2501

HMIRS: Hazardous Materials Information Reporting System
Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 09/30/2014
Number of Days to Update: 36
Last EDR Contact :12/30/2014

Source: U.S. Department of Transportation
Telephone: 202-366-4555

ICIS: Integrated Compliance Information System
Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 07/31/2014
Number of Days to Update: 8
Last EDR Contact :01/09/2015

Source: Environmental Protection Agency
Telephone: 202-564-5088

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
Standard Environmental Record Source: State and tribal leaking storage tank lists
Search Distance: 0.333 Mile

A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 02/01/2013

Source: EPA Region 1

Number of Days to Update: 184 Telephone: 617-918-1313
Last EDR Contact :10/31/2014

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
Standard Environmental Record Source: State and tribal leaking storage tank lists
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 05/20/2014 Source: EPA Region 10
Number of Days to Update: 73 Telephone: 206-553-2857
Last EDR Contact :10/27/2014

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
Standard Environmental Record Source: State and tribal leaking storage tank lists
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 07/30/2014 Source: EPA Region 4
Number of Days to Update: 10 Telephone: 404-562-8677
Last EDR Contact :10/27/2014

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Standard Environmental Record Source: State and tribal leaking storage tank lists
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 11/03/2014 Source: EPA, Region 5
Number of Days to Update: 12 Telephone: 312-886-7439
Last EDR Contact :10/27/2014

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
Standard Environmental Record Source: State and tribal leaking storage tank lists
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 10/06/2014 Source: EPA Region 6
Number of Days to Update: 19 Telephone: 214-665-6597
Last EDR Contact :10/27/2014

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
Standard Environmental Record Source: State and tribal leaking storage tank lists
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 05/22/2014 Source: EPA Region 7
Number of Days to Update: 27 Telephone: 913-551-7003
Last EDR Contact :10/27/2014

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
Standard Environmental Record Source: State and tribal leaking storage tank lists
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 11/04/2014 Source: EPA Region 8
Number of Days to Update: 10 Telephone: 303-312-6271
Last EDR Contact :10/27/2014

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
Standard Environmental Record Source: State and tribal leaking storage tank lists

LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 03/01/2013
Number of Days to Update: 42
Last EDR Contact :12/09/2014

Source: Environmental Protection Agency
Telephone: 415-972-3372

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: 0.333 Mile

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Number of Days to Update: 52
Last EDR Contact :10/29/2014

Source: Environmental Protection Agency
Telephone: 703-308-8245

INDIAN UST R1: Underground Storage Tanks on Indian Land
Standard Environmental Record Source: State and tribal registered storage tank lists
Search Distance: Property

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 02/01/2013
Number of Days to Update: 271
Last EDR Contact :10/31/2014

Source: EPA, Region 1
Telephone: 617-918-1313

INDIAN UST R10: Underground Storage Tanks on Indian Land
Standard Environmental Record Source: State and tribal registered storage tank lists
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 05/20/2014
Number of Days to Update: 66
Last EDR Contact :10/27/2014

Source: EPA Region 10
Telephone: 206-553-2857

INDIAN UST R4: Underground Storage Tanks on Indian Land
Standard Environmental Record Source: State and tribal registered storage tank lists
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 07/30/2014
Number of Days to Update: 10
Last EDR Contact :10/27/2014

Source: EPA Region 4
Telephone: 404-562-9424

INDIAN UST R5: Underground Storage Tanks on Indian Land
Standard Environmental Record Source: State and tribal registered storage tank lists
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 11/03/2014
Number of Days to Update: 12
Last EDR Contact :10/27/2014

Source: EPA Region 5
Telephone: 312-886-6136

INDIAN UST R6: Underground Storage Tanks on Indian Land

RECORD SOURCES AND CURRENCY

Standard Environmental Record Source: State and tribal registered storage tank lists

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 10/06/2014
Number of Days to Update: 8
Last EDR Contact :10/27/2014

Source: EPA Region 6
Telephone: 214-665-7591

INDIAN UST R7: Underground Storage Tanks on Indian Land

Standard Environmental Record Source: State and tribal registered storage tank lists

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 08/20/2014
Number of Days to Update: 27
Last EDR Contact :10/27/2014

Source: EPA Region 7
Telephone: 913-551-7003

INDIAN UST R8: Underground Storage Tanks on Indian Land

Standard Environmental Record Source: State and tribal registered storage tank lists

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 11/04/2014
Number of Days to Update: 10
Last EDR Contact :10/27/2014

Source: EPA Region 8
Telephone: 303-312-6137

INDIAN UST R9: Underground Storage Tanks on Indian Land

Standard Environmental Record Source: State and tribal registered storage tank lists

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 08/14/2014
Number of Days to Update: 7
Last EDR Contact :10/27/2014

Source: EPA Region 9
Telephone: 415-972-3368

INDIAN VCP R1: Voluntary Cleanup Priority Listing

Standard Environmental Record Source: State and tribal voluntary cleanup sites

Search Distance: 0.333 Mile

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 09/29/2014
Number of Days to Update: 36
Last EDR Contact :12/31/2014

Source: EPA, Region 1
Telephone: 617-918-1102

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

Standard Environmental Record Source: State and tribal voluntary cleanup sites

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Number of Days to Update: 27
Last EDR Contact :04/20/2009

Source: EPA, Region 7
Telephone: 913-551-7365

LEAD SMELTER 1: Lead Smelter Sites

Standard Environmental Record Source: Other Standard Environmental Records

RECORD SOURCES AND CURRENCY

Search Distance: Property

A listing of former lead smelter site locations.

Date of Government Version: 06/04/2014
Number of Days to Update: 46
Last EDR Contact :01/05/2015

Source: Environmental Protection Agency
Telephone: 703-603-8787

LEAD SMELTER 2: Lead Smelter Sites

Standard Environmental Record Source: Other Standard Environmental Records

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Number of Days to Update: 36
Last EDR Contact :12/02/2009

Source: American Journal of Public Health
Telephone: 703-305-6451

LIENS 2: CERCLA Lien Information

Standard Environmental Record Source: Federal CERCLIS

Search Distance: Property

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/18/2014
Number of Days to Update: 37
Last EDR Contact :10/27/2014

Source: Environmental Protection Agency
Telephone: 202-564-6023

LUCIS: Land Use Control Information System

Standard Environmental Record Source: Federal institutional controls / engineering controls registries

Search Distance: 0.333 Mile

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 08/29/2014
Number of Days to Update: 11
Last EDR Contact :11/17/2014

Source: Department of the Navy
Telephone: 843-820-7326

MLTS: Material Licensing Tracking System

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 07/22/2013
Number of Days to Update: 91
Last EDR Contact :12/04/2014

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169

NPL: National Priority List

Standard Environmental Record Source: Federal NPL

Search Distance: 0.333 Mile

RECORD SOURCES AND CURRENCY

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 09/29/2014
Number of Days to Update: 40
Last EDR Contact :01/08/2015

Source: EPA
Telephone: Not Reported

NPL Site Boundaries

Sources:

EPA"s Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-566-0690

EPA Region 1
Telephone: 617-918-1102

EPA Region 2
Telephone: 212-637-4293

EPA Region 3
Telephone: 215-814-5418

EPA Region 4
Telephone: 404-562-8681

EPA Region 5
Telephone: 312-353-1063

EPA Region 6
Telephone: 214-655-6659

EPA Region 7
Telephone: 913-551-7247

EPA Region 8
Telephone: 303-312-6118

EPA Region 9
Telephone: 415-947-4579

EPA Region 10
Telephone: 206-553-4479

NPL LIENS: Federal Superfund Liens

Standard Environmental Record Source: Federal NPL

Search Distance: Property

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Number of Days to Update: 56
Last EDR Contact :08/15/2011

Source: EPA
Telephone: 202-564-4267

ODI: Open Dump Inventory

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: 0.333 Mile

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346

RECORD SOURCES AND CURRENCY

Last EDR Contact :06/09/2004

PADS: PCB Activity Database System

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 07/01/2014 Source: EPA

Number of Days to Update: 33 Telephone: 202-566-0500

Last EDR Contact :01/16/2015

PCB TRANSFORMER: PCB Transformer Registration Database

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011 Source: Environmental Protection Agency

Number of Days to Update: 83 Telephone: 202-566-0517

Last EDR Contact :10/31/2014

Proposed NPL: Proposed National Priority List Sites

Standard Environmental Record Source: Federal NPL

Search Distance: 0.333 Mile

A site that has been proposed for listing on the NationalPriorities List through the issuance of a proposed rule in the Federal Register.EPA then accepts public comments on the site, responds to the comments,and places on the NPL those sites that continue to meet therequirements for listing.

Date of Government Version: 09/29/2014 Source: EPA

Number of Days to Update: 40 Telephone: Not Reported

Last EDR Contact :01/08/2015

RAATS: RCRA Administrative Action Tracking System

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995 Source: EPA

Number of Days to Update: 35 Telephone: 202-564-4104

Last EDR Contact :06/02/2008

RADINFO: Radiation Information Database

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 10/07/2014 Source: Environmental Protection Agency

Number of Days to Update: 12 Telephone: 202-343-9775

RECORD SOURCES AND CURRENCY

Last EDR Contact :01/08/2015

RCRA NonGen / NLR: RCRA - Non Generators

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 06/10/2014 Source: Environmental Protection Agency

Number of Days to Update: 78 Telephone: 703-308-8895

Last EDR Contact :12/29/2014

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

Standard Environmental Record Source: Federal RCRA generators list

Search Distance: Property

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/10/2014 Source: Environmental Protection Agency

Number of Days to Update: 78 Telephone: 703-308-8895

Last EDR Contact :12/29/2014

RCRA-LQG: RCRA - Large Quantity Generators

Standard Environmental Record Source: Federal RCRA generators list

Search Distance: Property

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/10/2014 Source: Environmental Protection Agency

Number of Days to Update: 78 Telephone: 703-308-8895

Last EDR Contact :12/29/2014

RCRA-SQG: RCRA - Small Quantity Generators

Standard Environmental Record Source: Federal RCRA generators list

Search Distance: Property

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 06/10/2014 Source: Environmental Protection Agency

Number of Days to Update: 78 Telephone: 703-308-8895

Last EDR Contact :12/29/2014

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

Standard Environmental Record Source: Federal RCRA TSD facilities list

Search Distance: 0.333 Mile

RECORD SOURCES AND CURRENCY

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 06/10/2014
Number of Days to Update: 78
Last EDR Contact :12/29/2014

Source: Environmental Protection Agency
Telephone: 703-308-8895

ROD: Records Of Decision

Standard Environmental Record Source: Federal NPL

Search Distance: 0.333 Mile

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 11/25/2013
Number of Days to Update: 74
Last EDR Contact :12/12/2014

Source: EPA
Telephone: 703-416-0223

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: 0.333 Mile

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011
Number of Days to Update: 54
Last EDR Contact :11/18/2014

Source: Environmental Protection Agency
Telephone: 615-532-8599

SSTS: Section 7 Tracking Systems

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Number of Days to Update: 77
Last EDR Contact :10/27/2014

Source: EPA
Telephone: 202-564-4203

TRIS: Toxic Chemical Release Inventory System

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2011
Number of Days to Update: 44
Last EDR Contact :11/26/2014

Source: EPA
Telephone: 202-566-0250

RECORD SOURCES AND CURRENCY

TSCA: Toxic Substances Control Act

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2006 Source: EPA

Number of Days to Update: 64 Telephone: 202-260-5521

Last EDR Contact :12/22/2014

UMTRA: Uranium Mill Tailings Sites

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: 0.333 Mile

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010 Source: Department of Energy

Number of Days to Update: 146 Telephone: 505-845-0011

Last EDR Contact :11/26/2014

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/16/2014 Source: EPA

Number of Days to Update: 17 Telephone: 202-564-2496

Last EDR Contact :12/23/2014

US AIRS MINOR: Air Facility System Data

Standard Environmental Record Source: Other Standard Environmental Records

A listing of minor source facilities.

Date of Government Version: 10/16/2014 Source: EPA

Number of Days to Update: 17 Telephone: 202-564-2496

Last EDR Contact :12/23/2014

US BROWNFIELDS: A Listing of Brownfields Sites

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: 0.333 Mile

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 09/22/2014 Source: Environmental Protection Agency

Number of Days to Update: 27
Last EDR Contact :12/22/2014
Telephone: 202-566-2777

US CDL: Clandestine Drug Labs

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 07/25/2014
Number of Days to Update: 41
Last EDR Contact :11/25/2014
Source: Drug Enforcement Administration
Telephone: 202-307-1000

US ENG CONTROLS: Engineering Controls Sites List

Standard Environmental Record Source: Federal institutional controls / engineering controls registries

Search Distance: Property

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 09/18/2014
Number of Days to Update: 31
Last EDR Contact :12/03/2014
Source: Environmental Protection Agency
Telephone: 703-603-0695

US FIN ASSUR: Financial Assurance Information

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 09/04/2014
Number of Days to Update: 46
Last EDR Contact :11/11/2014
Source: Environmental Protection Agency
Telephone: 202-566-1917

US HIST CDL: National Clandestine Laboratory Register

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 07/25/2014
Number of Days to Update: 41
Last EDR Contact :11/25/2014
Source: Drug Enforcement Administration
Telephone: 202-307-1000

US INST CONTROL: Sites with Institutional Controls

Standard Environmental Record Source: Federal institutional controls / engineering controls registries

Search Distance: Property

RECORD SOURCES AND CURRENCY

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 09/18/2014
Number of Days to Update: 31
Last EDR Contact :12/03/2014

Source: Environmental Protection Agency
Telephone: 703-603-0695

US MINES: Mines Master Index File

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/05/2014
Number of Days to Update: 74
Last EDR Contact :12/30/2014

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959

DOD: Department of Defense Sites

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: 0.333 Mile

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Number of Days to Update: 62
Last EDR Contact :01/15/2015

Source: USGS
Telephone: 888-275-8747

INDIAN RESERV: Indian Reservations

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005
Number of Days to Update: 34
Last EDR Contact :01/15/2015

Source: USGS
Telephone: 202-208-3710

PWS: Public Water System Data

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

This Safe Drinking Water Information System (SDWIS) file contains public water systems name and address, population served and the primary source of water

Date of Government Version: 12/17/2013
Number of Days to Update: 279
Last EDR Contact :12/03/2014

Source: EPA
Telephone: Not Reported

RECORD SOURCES AND CURRENCY

HISTORICAL USE RECORDS

RGA HWS: Recovered Government Archive State Hazardous Waste Facilities List

Standard Environmental Record Source: Exclusive Recovered Govt. Archives

Search Distance: Property

The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department Environmental Protection in Pennsylvania.

Date of Government Version: Not Reported
Number of Days to Update: 182
Last EDR Contact :06/01/2012

Source: Department Environmental Protection
Telephone: Not Reported

RGA LF: Recovered Government Archive Solid Waste Facilities List

Standard Environmental Record Source: Exclusive Recovered Govt. Archives

Search Distance: Property

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department Environmental Protection in Pennsylvania.

Date of Government Version: Not Reported
Number of Days to Update: 193
Last EDR Contact :06/01/2012

Source: Department Environmental Protection
Telephone: Not Reported

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

Standard Environmental Record Source: Exclusive Recovered Govt. Archives

Search Distance: Property

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department Environmental Protection in Pennsylvania.

Date of Government Version: Not Reported
Number of Days to Update: 182
Last EDR Contact :06/01/2012

Source: Department Environmental Protection
Telephone: Not Reported

EDR MGP: EDR Proprietary Manufactured Gas Plants

Standard Environmental Record Source: Former manufactured Gas Plants

Search Distance: 0.333 Mile

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: 08/28/2009
Number of Days to Update: 55
Last EDR Contact :11/30/2012

Source: EDR, Inc.
Telephone: Not Reported

EDR US Hist Auto Stat: EDR Exclusive Historic Gas Stations

Standard Environmental Record Source: Historical Gas Stations

Search Distance: 0.25 Mile

RECORD SOURCES AND CURRENCY

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: 02/20/2007
Number of Days to Update: 42
Last EDR Contact :02/21/2007

Source: EDR, Inc.
Telephone: Not Reported

EDR US Hist Cleaners: EDR Exclusive Historic Dry Cleaners

Standard Environmental Record Source: Historical Dry Cleaners

Search Distance: 0.25 Mile

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: 02/20/2007
Number of Days to Update: 42
Last EDR Contact :02/21/2007

Source: EDR, Inc.
Telephone: Not Reported

RECORD SOURCES AND CURRENCY

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5' minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

HYDROGEOLOGIC INFORMATION

AQUIFLOW® Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW® Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services. The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

STREET AND ADDRESS INFORMATION

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Cooks Country Store
21042 Cooks Road
Robertsdale, PA 16674

Inquiry Number: 4184877.4
January 19, 2015

EDR Historical Topographic Map Report

6 Armstrong Road, 4th Floor
Shelton, Connecticut 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topographic Map Report

Environmental Data Resources, Inc.s (EDR) Historical Topographic Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topographic Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the early 1900s.

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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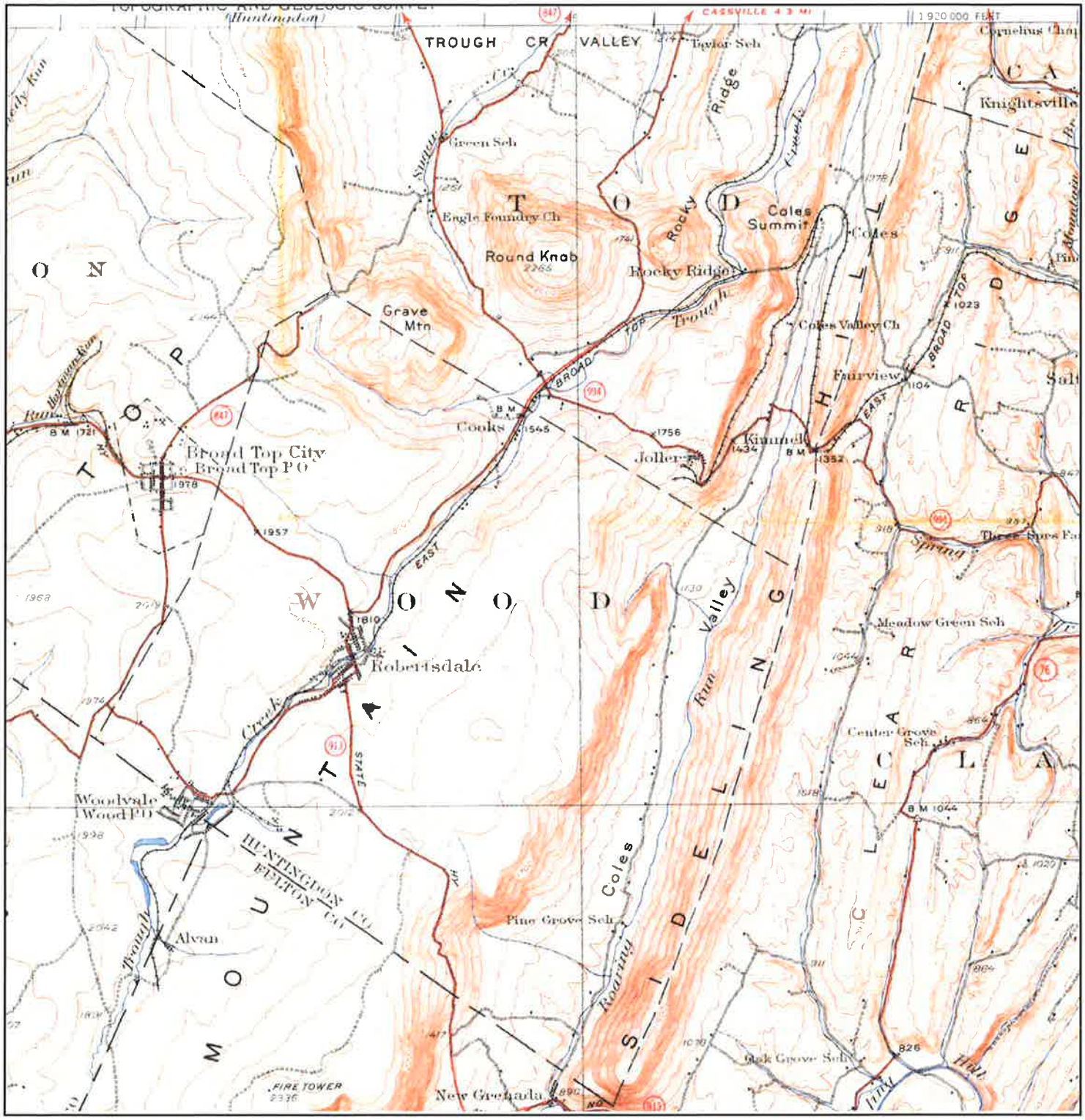
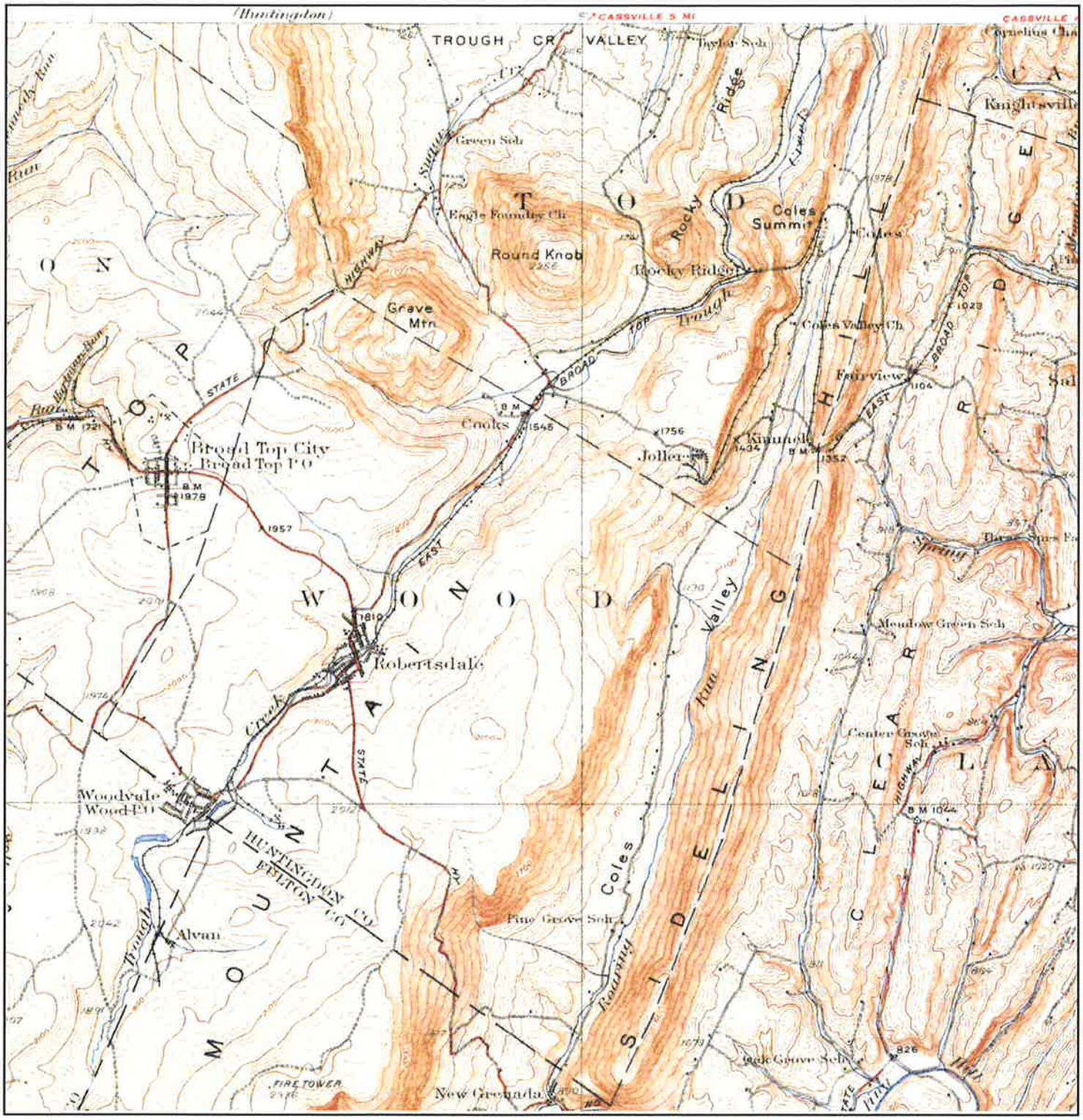
Historical Topographic Map



N	TARGET QUAD NAME: BROAD TOP MAP YEAR: 1930 SERIES: 15 SCALE: 1:62500	SITE NAME: Cooks Country Store ADDRESS: 21042 Cooks Road Robertsdale, PA 16674 LAT/LONG: 40.2115 / -78.0884	CLIENT: Mountain Research, Inc. CONTACT: Matt Ference INQUIRY#: 4184877.4 RESEARCH DATE: 01/19/2015

Historical Topographic Map



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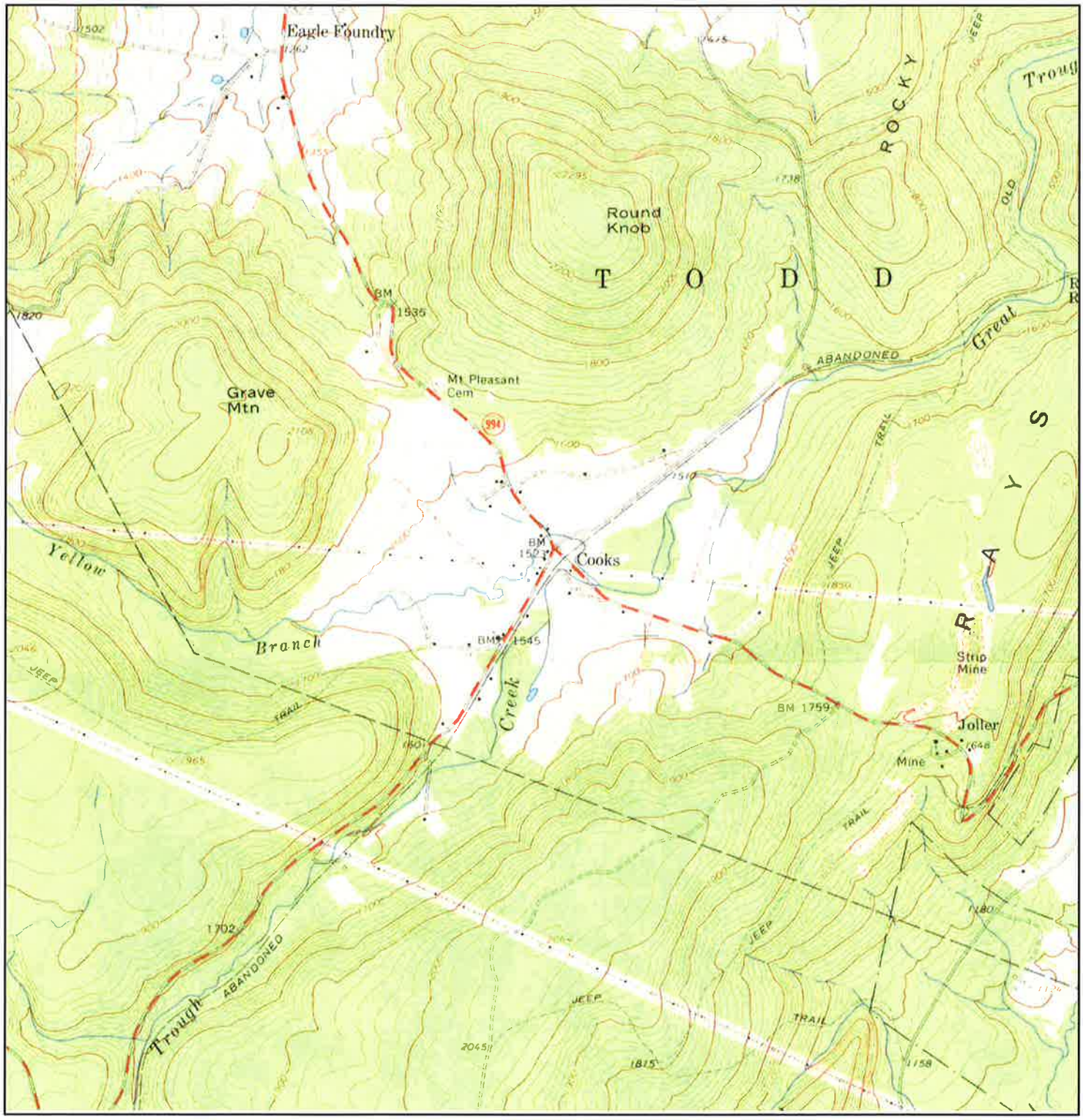
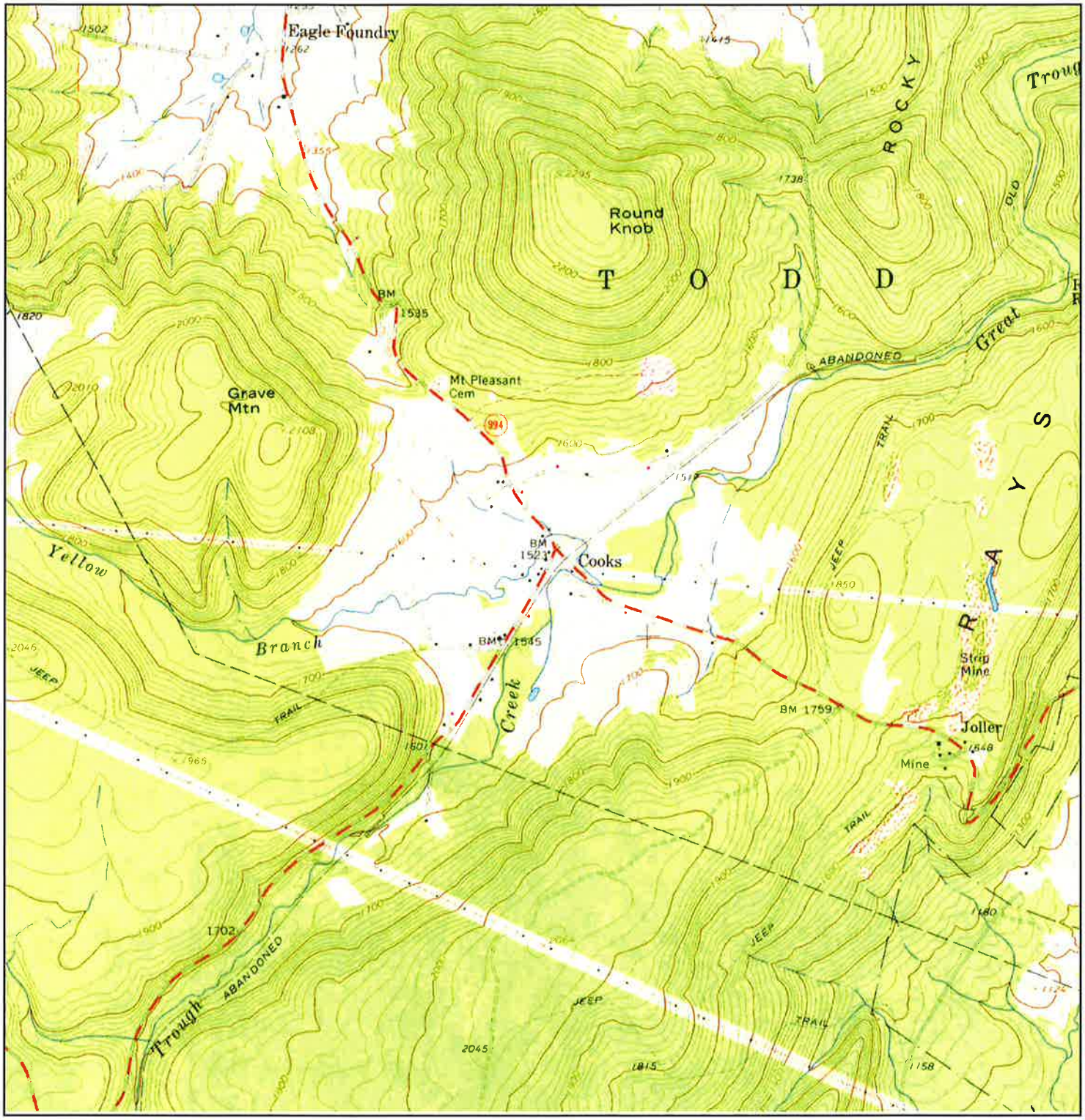
Historical Topographic Map



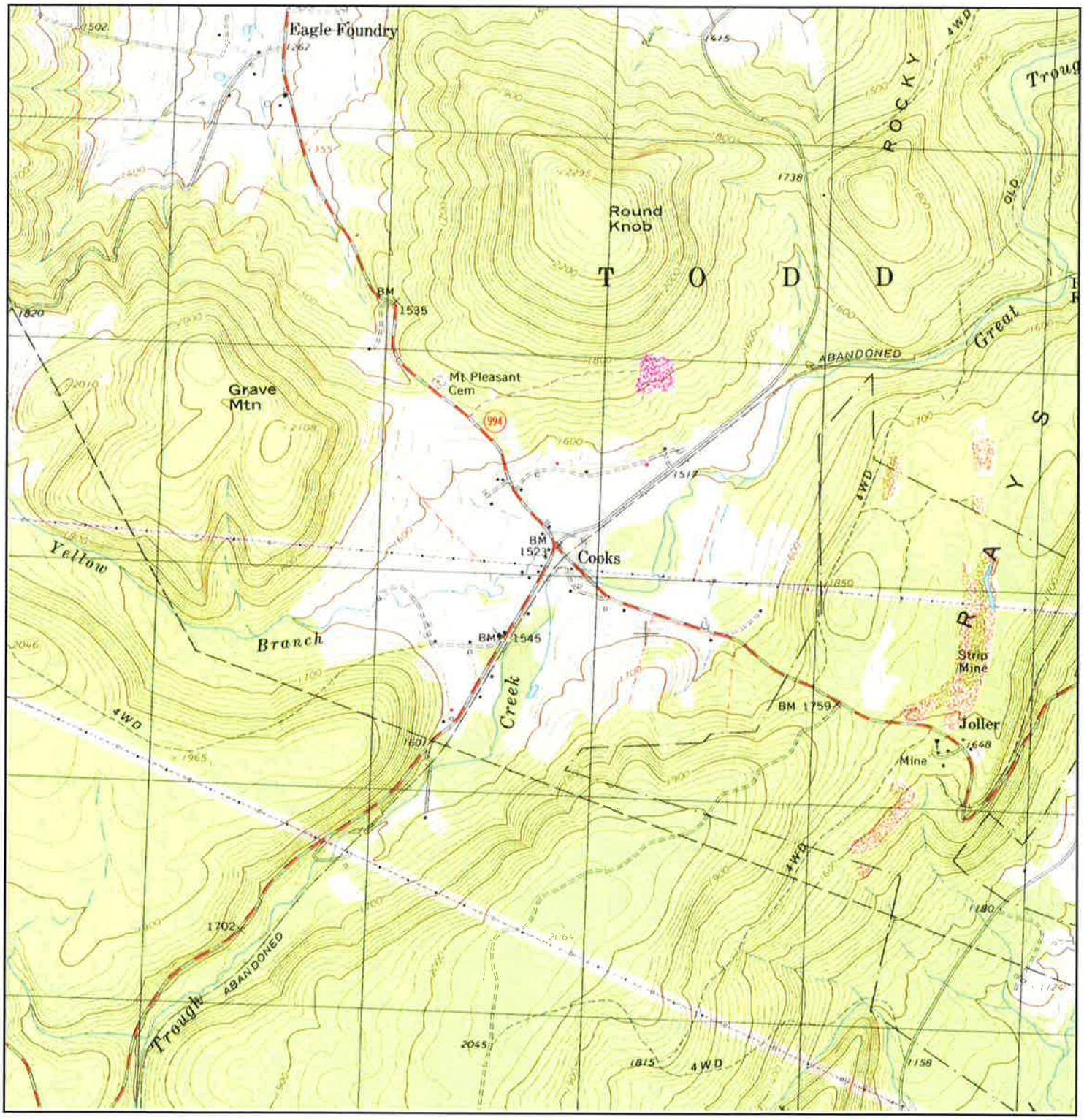
N	TARGET QUAD NAME: SALTILLO MAP YEAR: 1968 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Cooks Country Store ADDRESS: 21042 Cooks Road Robertsdale, PA 16674 LAT/LONG: 40.2115 / -78.0884	CLIENT: Mountain Research, Inc. CONTACT: Matt Ference INQUIRY#: 4184877.4 RESEARCH DATE: 01/19/2015

Historical Topographic Map



N	TARGET QUAD NAME: SALTILLO MAP YEAR: 1973 PHOTOREVISED FROM :1968 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Cooks Country Store ADDRESS: 21042 Cooks Road Robertsdale, PA 16674 LAT/LONG: 40.2115 / -78.0884	CLIENT: Mountain Research, Inc. CONTACT: Matt Ference INQUIRY#: 4184877.4 RESEARCH DATE: 01/19/2015

Historical Topographic Map



N	TARGET QUAD NAME: SALTILLO MAP YEAR: 1994 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Cooks Country Store ADDRESS: 21042 Cooks Road Robertsdale, PA 16674 LAT/LONG: 40.2115 / -78.0884	CLIENT: Mountain Research, Inc. CONTACT: Matt Ference INQUIRY#: 4184877.4 RESEARCH DATE: 01/19/2015

Cooks Country Store
21042 Cooks Road
Robertsdale, PA 16674

Inquiry Number: 4184877.9
January 19, 2015

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th Floor
Shelton, Connecticut 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

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Date EDR Searched Historical Sources:

Aerial Photography January 19, 2015

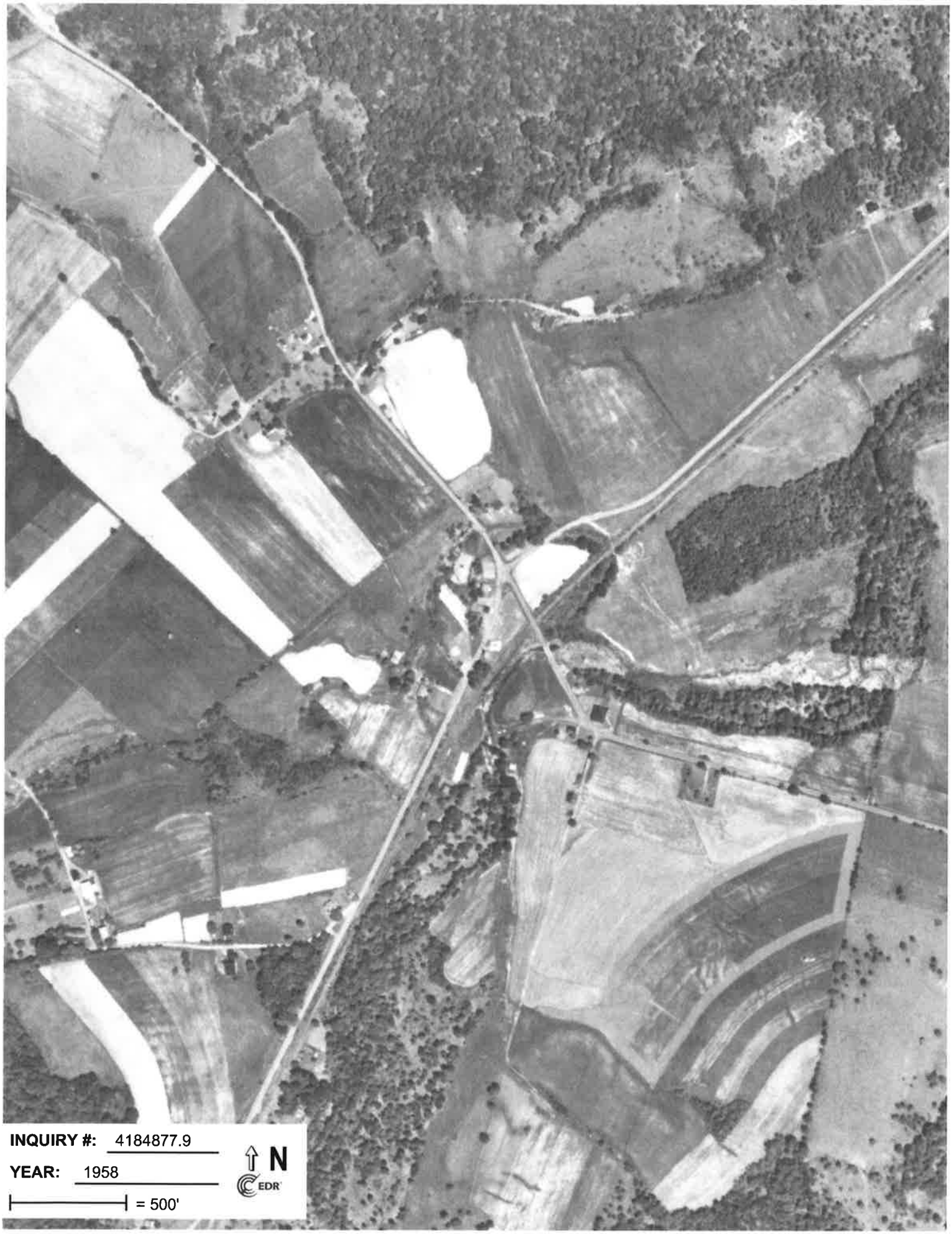
Target Property:

21042 Cooks Road

Robertsdale, PA 16674

Year	***Scale***	***Details***	***Source***
1938	Aerial Photograph. Scale: 1"=500'	Flight Date: October 11, 1938	USDA
1958	Aerial Photograph. Scale: 1"=500'	Flight Date: June 07, 1958	USGS
1967	Aerial Photograph. Scale: 1"=500'	Flight Date: September 04, 1967	USDA
1994	Aerial Photograph. Scale: 1"=500'	DOQQ - acquisition dates: April 18, 1994	USGS/DOQQ
2005	Aerial Photograph. Scale: 1"=500'	Flight Year: 2005	USDA/NAIP
2006	Aerial Photograph. Scale: 1"=500'	Flight Year: 2006	USDA/NAIP
2008	Aerial Photograph. Scale: 1"=500'	Flight Year: 2008	USDA/NAIP
2010	Aerial Photograph. Scale: 1"=500'	Flight Year: 2010	USDA/NAIP

INQUIRY #: 4184877.9
YEAR: 1938
= 500'
N
EDR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YEAR: 1958
= 500'
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EDR

INQUIRY #: 4184877.9
YEAR: 1967
= 500'
N
EDR

INQUIRY #: 4184877.9
YEAR: 1994
= 500'
N
EDR

INQUIRY #: 4184877.9
YEAR: 2005
= 500'
N
EDR

INQUIRY #: 4184877.9
YEAR: 2006
= 500'
N
EDR

INQUIRY #: 4184877.9
YEAR: 2008
= 500'
N
EDR

INQUIRY #: 4184877.9
YEAR: 2010
= 500'
N
EDR

Cooks Country Store
21042 Cooks Road
Robertsdale, PA 16674

Inquiry Number: 4184877.3
January 19, 2015

Certified Sanborn® Map Report

EDR®

6 Armstrong Road, 4th Floor
Shelton, Connecticut 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

1/19/15

Site Name:	**Client Name:**
Cooks Country Store	Mountain Research, Inc.
21042 Cooks Road	825 25th Street
Robertsdale, PA 16674	Altoona, PA 16601
EDR Inquiry # 4184877.3	Contact: Matt Ference

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by Mountain Research, Inc. were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Site Name:	Cooks Country Store
Address:	21042 Cooks Road
City, State, Zip:	Robertsdale, PA 16674
Cross Street:	
P.O. #	MTF011915
Project:	4547.15.01.50
Certification #	A4B8-4DA9-A1E6

Sanborn® Library search results
Certification # A4B8-4DA9-A1E6

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

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- ✓ Library of Congress
- ✓ University Publications of America
- ✓ EDR Private Collection

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Cooks Country Store
21042 Cooks Road
Robertsdale, PA 16674

Inquiry Number: 4184877.2s
January 19, 2015

The EDR Radius Map™ Report with GeoCheck®

EDR® Environmental Data Resources Inc

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

FORM-LBC-MGA

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GEOCHECK ADDENDUM

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

21042 COOKS ROAD
HUNTINGDON County, PA 16685

COORDINATES

Latitude (North):	40.2115000 - 40' 12' 41.40"
Longitude (West):	78.0884000 - 78' 5' 18.24"
Universal Tranverse Mercator:	Zone 17
UTM X (Meters):	747789.3
UTM Y (Meters):	4455088.5
Elevation:	1524 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	40078-B1 SALTILLO, PA
Most Recent Revision:	1997

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20100701
Source:	USDA

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 8 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
COOKS COUNTRY STORE 21042 COOKS RD ROBERTSDALE, PA 16674	EFACTS	N/A
COOKS COUNTRY STORE 21042 COOKS RD ROBERTSDALE, PA 16674	UST	N/A

EXECUTIVE SUMMARY

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL..... National Priority List
Proposed NPL..... Proposed National Priority List Sites
NPL LIENS..... Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL..... National Priority List Deletions

Federal CERCLIS list

CERCLIS..... Comprehensive Environmental Response, Compensation, and Liability Information System
FEDERAL FACILITY..... Federal Facility Site Information listing

Federal CERCLIS NFRAP site List

CERC-NFRAP..... CERCLIS No Further Remedial Action Planned

Federal RCRA CORRACTS facilities list

CORRACTS..... Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF..... RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG..... RCRA - Large Quantity Generators
RCRA-SQG..... RCRA - Small Quantity Generators
RCRA-CESQG..... RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

US ENG CONTROLS..... Engineering Controls Sites List
US INST CONTROL..... Sites with Institutional Controls
LUCIS..... Land Use Control Information System

Federal ERNS list

ERNS..... Emergency Response Notification System

State- and tribal - equivalent NPL

SHWS..... Hazardous Sites Cleanup Act Site List

EXECUTIVE SUMMARY

HSCA ..... HSCA Remedial Sites Listing

State and tribal landfill and/or solid waste disposal site lists

SWF/LF ..... Operating Facilities

State and tribal leaking storage tank lists

LUST ..... Storage Tank Release Sites
UNREG LTANKS ..... Unregulated Tank Cases
LAST ..... Storage Tank Release Sites
INDIAN LUST ..... Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

AST ..... Listing of Pennsylvania Regulated Aboveground Storage Tanks
INDIAN UST ..... Underground Storage Tanks on Indian Land
FEMA UST ..... Underground Storage Tank Listing

State and tribal institutional control / engineering control registries

ENG CONTROLS ..... Engineering Controls Site Listing
INST CONTROL ..... Institutional Controls Site Listing
AUL ..... Environmental Covenants Listing

State and tribal voluntary cleanup sites

INDIAN VCP ..... Voluntary Cleanup Priority Listing
VCP ..... Voluntary Cleanup Program Listing

State and tribal Brownfields sites

BROWNFIELDS ..... Brownfields Sites

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS ..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

DEBRIS REGION 9 ..... Torres Martinez Reservation Illegal Dump Site Locations
ODI ..... Open Dump Inventory
HIST LF ..... Abandoned Landfill Inventory
INDIAN ODI ..... Report on the Status of Open Dumps on Indian Lands

Local Lists of Hazardous waste / Contaminated Sites

US CDL ..... Clandestine Drug Labs
US HIST CDL ..... National Clandestine Laboratory Register

Local Lists of Registered Storage Tanks

ARCHIVE UST ..... Archived Underground Storage Tank Sites

EXECUTIVE SUMMARY

ARCHIVE AST..... Archived Aboveground Storage Tank Sites

Local Land Records

LIENS 2..... CERCLA Lien Information
ACT 2-DEED..... Act 2-Deed Acknowledgment Sites

Records of Emergency Release Reports

HMIRS..... Hazardous Materials Information Reporting System
SPILLS..... State spills

Other Ascertainable Records

RCRA NonGen / NLR..... RCRA - Non Generators / No Longer Regulated
DOT OPS..... Incident and Accident Data
DOD..... Department of Defense Sites
FUDS..... Formerly Used Defense Sites
CONSENT..... Superfund (CERCLA) Consent Decrees
ROD..... Records Of Decision
UMTRA..... Uranium Mill Tailings Sites
US MINES..... Mines Master Index File
TRIS..... Toxic Chemical Release Inventory System
TSCA..... Toxic Substances Control Act
FTTS..... FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
HIST FTTS..... FIFRA/TSCA Tracking System Administrative Case Listing
SSTS..... Section 7 Tracking Systems
ICIS..... Integrated Compliance Information System
PADS..... PCB Activity Database System
MLTS..... Material Licensing Tracking System
RADINFO..... Radiation Information Database
FINDS..... Facility Index System/Facility Registry System
RAATS..... RCRA Administrative Action Tracking System
RMP..... Risk Management Plans
UIC..... Underground Injection Wells
NPDES..... NPDES Permit Listing
MANIFEST..... Manifest Information
DRYCLEANERS..... Drycleaner Facility Locations
AIRS..... Permit and Emissions Inventory Data
INDIAN RESERV..... Indian Reservations
SCRD DRYCLEANERS..... State Coalition for Remediation of Drycleaners Listing
PCB TRANSFORMER..... PCB Transformer Registration Database
US FIN ASSUR..... Financial Assurance Information
EPA WATCH LIST..... EPA WATCH LIST
LEAD SMELTERS..... Lead Smelter Sites
PRP..... Potentially Responsible Parties
2020 COR ACTION..... 2020 Corrective Action Program List
COAL ASH DOE..... Steam-Electric Plant Operation Data
US AIRS..... Aerometric Information Retrieval System Facility Subsystem
MINES..... MINES
COAL ASH EPA..... Coal Combustion Residues Surface Impoundments List

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP..... EDR Proprietary Manufactured Gas Plants

EXECUTIVE SUMMARY

EDR US Hist Auto Stat..... EDR Exclusive Historic Gas Stations
EDR US Hist Cleaners..... EDR Exclusive Historic Dry Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF..... Recovered Government Archive Solid Waste Facilities List
RGA LUST..... Recovered Government Archive Leaking Underground Storage Tank
RGA HWS..... Recovered Government Archive State Hazardous Waste Facilities List

SURROUNDING SITES: SEARCH RESULTS

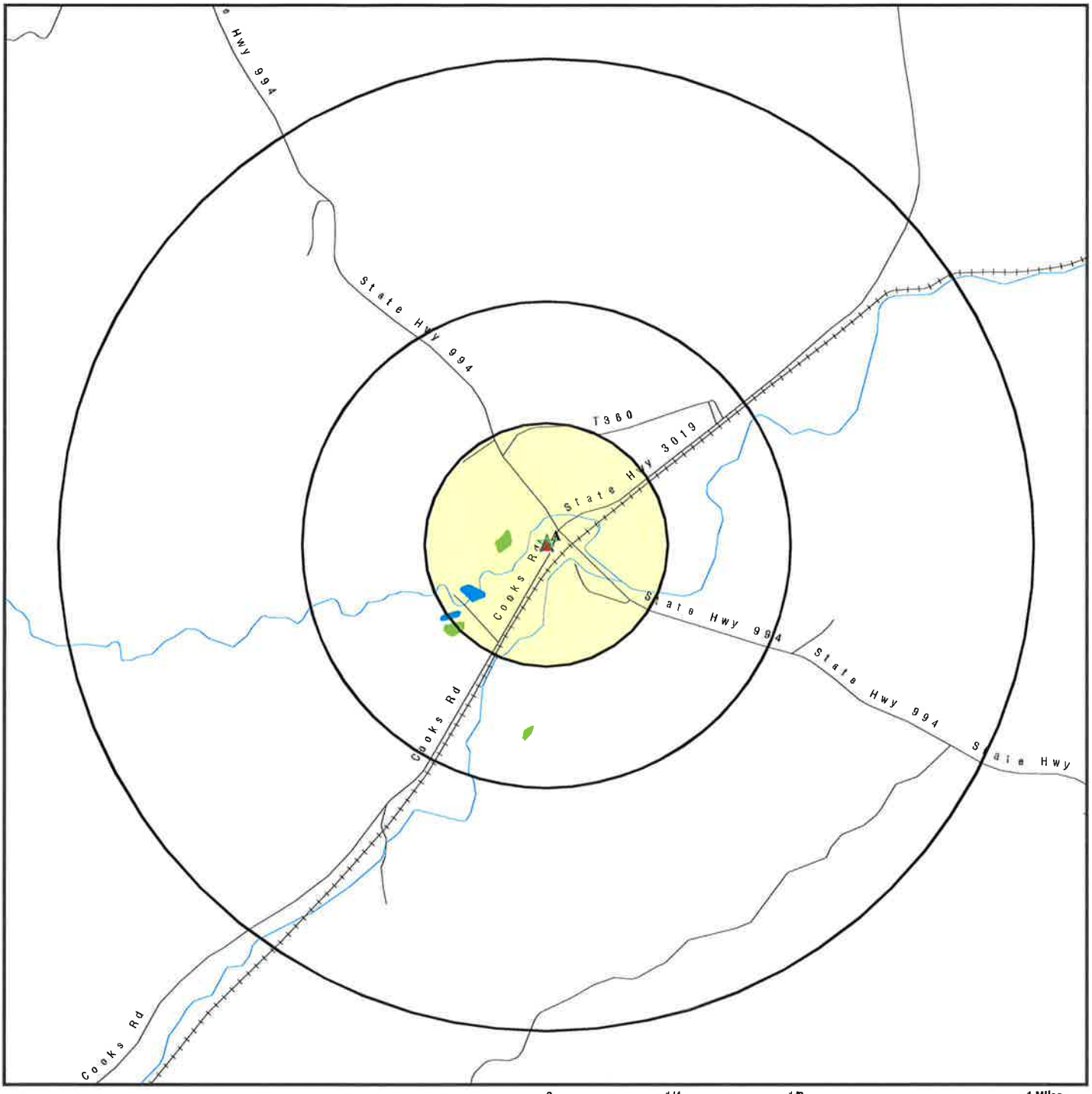
Surrounding sites were not identified.

Unmappable (orphan) sites are not considered in the foregoing analysis.

EXECUTIVE SUMMARY

There were no unmapped sites in this report.

OVERVIEW MAP - 4184877.2S



- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites

0 1/4 1/2 1 Miles

- Indian Reservations BIA
- Oil & Gas pipelines from USGS
- National Wetland Inventory

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Cooks Country Store ADDRESS: 21042 Cooks Road Robertsdale PA 16674 LAT/LONG: 40.2115 / 78.0884	CLIENT: Mountain Research, Inc. CONTACT: Matt Ference INQUIRY #: 4184877.2s DATE: January 19, 2015 9:51 am

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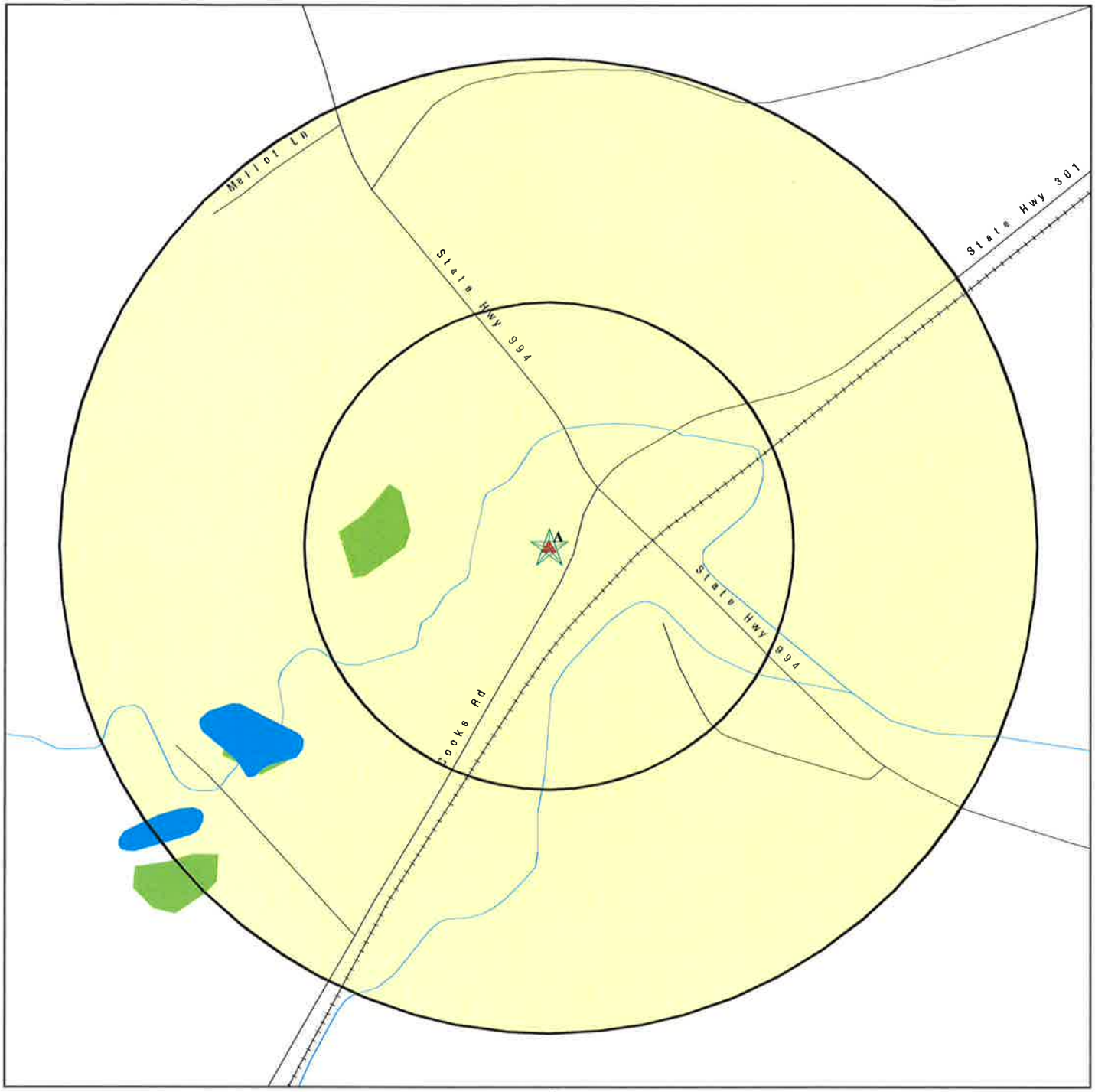
DETAIL MAP - 4184877.2S



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Oil & Gas pipelines from USGS
- National Wetland Inventory

0 1/16 1/8 1/4 Miles

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Cooks Country Store ADDRESS: 21042 Cooks Road Robertsdale PA 16674 LAT/LONG: 40.2115 / 78.0884	CLIENT: Mountain Research, Inc. CONTACT: Matt Ference INQUIRY #: 4184877.2s DATE: January 19, 2015 9:52 am

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	TP		NR	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
CERCLIS	0.500		0	0	0	NR	NR	0
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site List								
CERC-NFRAP	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
LUCIS	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
SHWS	1.000		0	0	0	0	NR	0
HSCA	1.000		0	0	0	0	NR	0
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LUST	0.500		0	0	0	NR	NR	0
UNREG LTANKS	0.500		0	0	0	NR	NR	0
LAST	0.500		0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
UST	0.250	1	0	0	NR	NR	NR	1
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
FEMA UST	0.250		0	0	NR	NR	NR	0
State and tribal institutional control / engineering control registries								
ENG CONTROLS	0.500		0	0	0	NR	NR	0
INST CONTROL	0.500		0	0	0	NR	NR	0
AUL	0.500		0	0	0	NR	NR	0
State and tribal voluntary cleanup sites								
INDIAN VCP	0.500		0	0	0	NR	NR	0
VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
HIST LF	0.500		0	0	0	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US CDL	TP		NR	NR	NR	NR	NR	0
US HIST CDL	TP		NR	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
ARCHIVE UST	0.250		0	0	NR	NR	NR	0
ARCHIVE AST	TP		NR	NR	NR	NR	NR	0
Local Land Records								
LIENS 2	TP		NR	NR	NR	NR	NR	0
ACT 2-DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0
SPILLS	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
DOT OPS	TP		NR	NR	NR	NR	NR	0
DOD	1.000		0	0	0	0	NR	0
FUDS	1.000		0	0	0	0	NR	0
CONSENT	1.000		0	0	0	0	NR	0
ROD	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
UIC	TP		NR	NR	NR	NR	NR	0
NPDES	TP		NR	NR	NR	NR	NR	0
MANIFEST	0.250		0	0	NR	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
AIRS	TP		NR	NR	NR	NR	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
MINES	0.250		0	0	NR	NR	NR	0
EFACTS	TP	1	NR	NR	NR	NR	NR	1
COAL ASH EPA	0.500		0	0	0	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR US Hist Auto Stat	0.250		0	0	NR	NR	NR	0
EDR US Hist Cleaners	0.250		0	0	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
RGA LUST	TP		NR	NR	NR	NR	NR	0
RGA HWS	TP		NR	NR	NR	NR	NR	0

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1 Target Property — **COOKS COUNTRY STORE**, **21042 COOKS RD**, **ROBERTSDALE, PA 16674** — **EFACTS** — **S115879481**, **N/A**

Site 1 of 2 in cluster A

Actual: 1524 ft.

EFACTS:

Primary Facility Id:	594239
Program:	Environmental Cleanup & Brownfields
Status:	Active
Municipality Name:	Todd Township
DER Code:	73

A2 Target Property — **COOKS COUNTRY STORE**, **21042 COOKS RD**, **ROBERTSDALE, PA 16674** — **UST** — **U004124599**, **N/A**

Site 2 of 2 in cluster A

Actual: 1524 ft.

UST:

Site ID:	454919
Other Id:	31-07856
Client Id Number:	306851
Municipality Name:	Todd
Region:	EP SC Rgnl Off Harrisburg
Mailing Name:	HESS BETTY H
Mailing Address:	16570 HESS LN
Mailing Address 2:	Not reported
Mailing City,St,Zip:	JAMES CREEK, PA 16657
Registration Expiration Date:	06/04/2015
Tank Seq No:	004
Tank Status:	**Temporarily Out of Use**
Capacity:	4000
Substance:	Gasoline
Date Installed:	05/19/1997
Tank Code:	UST
Inspection Code:	Facility Operation Inspection
Tank Last Dt Inspected:	07/10/2014
Tank Seq No:	005
Tank Status:	**Temporarily Out of Use**
Capacity:	3000
Substance:	Gasoline
Date Installed:	05/19/1997
Tank Code:	UST
Inspection Code:	Facility Operation Inspection
Tank Last Dt Inspected:	07/10/2014
Tank Seq No:	006
Tank Status:	**Temporarily Out of Use**
Capacity:	2000
Substance:	Gasoline
Date Installed:	05/19/1997
Tank Code:	UST
Inspection Code:	Facility Operation Inspection
Tank Last Dt Inspected:	07/10/2014

Count: 0 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
		NO SITES FOUND			

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 09/29/2014
Date Data Arrived at EDR: 10/08/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 40

Source: EPA
Telephone: N/A
Last EDR Contact: 01/08/2015
Next Scheduled EDR Contact: 04/20/2015
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 3
Telephone 215-814-5418

EPA Region 4
Telephone 404-562-8033

EPA Region 5
Telephone 312-886-6686

EPA Region 10
Telephone 206-553-8665

EPA Region 6
Telephone: 214-655-6659

EPA Region 7
Telephone: 913-551-7247

EPA Region 8
Telephone: 303-312-6774

EPA Region 9
Telephone: 415-947-4246

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 09/29/2014
Date Data Arrived at EDR: 10/08/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 40

Source: EPA
Telephone: N/A
Last EDR Contact: 01/08/2015
Next Scheduled EDR Contact: 04/20/2015
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal Delisted NPL site list

DELISTED NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 09/29/2014	Source: EPA
Date Data Arrived at EDR: 10/08/2014	Telephone: N/A
Date Made Active in Reports: 11/17/2014	Last EDR Contact: 01/08/2015
Number of Days to Update: 40	Next Scheduled EDR Contact: 04/20/2015
	Data Release Frequency: Quarterly

Federal CERCLIS list

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 10/25/2013	Source: EPA
Date Data Arrived at EDR: 11/11/2013	Telephone: 703-412-9810
Date Made Active in Reports: 02/13/2014	Last EDR Contact: 01/09/2015
Number of Days to Update: 94	Next Scheduled EDR Contact: 03/09/2015
	Data Release Frequency: Quarterly

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 07/21/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 10/07/2014	Telephone: 703-603-8704
Date Made Active in Reports: 10/20/2014	Last EDR Contact: 01/09/2015
Number of Days to Update: 13	Next Scheduled EDR Contact: 04/20/2015
	Data Release Frequency: Varies

Federal CERCLIS NFRAP site List

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 10/25/2013	Source: EPA
Date Data Arrived at EDR: 11/11/2013	Telephone: 703-412-9810
Date Made Active in Reports: 02/13/2014	Last EDR Contact: 01/09/2015
Number of Days to Update: 94	Next Scheduled EDR Contact: 03/09/2015
	Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 06/10/2014
Date Data Arrived at EDR: 07/02/2014
Date Made Active in Reports: 09/18/2014
Number of Days to Update: 78

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 12/29/2014
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 06/10/2014
Date Data Arrived at EDR: 07/02/2014
Date Made Active in Reports: 09/18/2014
Number of Days to Update: 78

Source: Environmental Protection Agency
Telephone: 800-438-2474
Last EDR Contact: 12/29/2014
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/10/2014
Date Data Arrived at EDR: 07/02/2014
Date Made Active in Reports: 09/18/2014
Number of Days to Update: 78

Source: Environmental Protection Agency
Telephone: 800-438-2474
Last EDR Contact: 12/29/2014
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 06/10/2014
Date Data Arrived at EDR: 07/02/2014
Date Made Active in Reports: 09/18/2014
Number of Days to Update: 78

Source: Environmental Protection Agency
Telephone: 800-438-2474
Last EDR Contact: 12/29/2014
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/10/2014
Date Data Arrived at EDR: 07/02/2014
Date Made Active in Reports: 09/18/2014
Number of Days to Update: 78

Source: Environmental Protection Agency
Telephone: 800-438-2474
Last EDR Contact: 12/29/2014
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal institutional controls / engineering controls registries

US ENG CONTROLS: Engineering Controls Sites List
A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 09/18/2014
Date Data Arrived at EDR: 09/19/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 31

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 12/03/2014
Next Scheduled EDR Contact: 03/16/2015
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls
A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 09/18/2014
Date Data Arrived at EDR: 09/19/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 31

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 12/03/2014
Next Scheduled EDR Contact: 03/16/2015
Data Release Frequency: Varies

LUCIS: Land Use Control Information System
LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 08/29/2014
Date Data Arrived at EDR: 10/09/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 11

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 11/17/2014
Next Scheduled EDR Contact: 03/02/2015
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System
Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 09/29/2014
Date Data Arrived at EDR: 09/30/2014
Date Made Active in Reports: 11/06/2014
Number of Days to Update: 37

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 12/29/2014
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Annually

State- and tribal - equivalent NPL

SHWS: Hazardous Sites Cleanup Act Site List
The Hazardous Sites Cleanup Act Site List includes sites listed on PA Priority List, sites delisted from PA Priority List, Interim Response Completed sites, and Sites Being Studied or Response Being Planned.

Date of Government Version: 10/21/2014
Date Data Arrived at EDR: 10/23/2014
Date Made Active in Reports: 11/19/2014
Number of Days to Update: 27

Source: Department Environmental Protection
Telephone: 717-783-7816
Last EDR Contact: 10/23/2014
Next Scheduled EDR Contact: 02/02/2015
Data Release Frequency: Semi-Annually

HSCA: HSCA Remedial Sites Listing
A list of remedial sites on the PA Priority List. This is the PA state equivalent of the federal NPL superfund list.

Date of Government Version: 09/30/2013
Date Data Arrived at EDR: 04/25/2014
Date Made Active in Reports: 05/05/2014
Number of Days to Update: 10

Source: Department of Environmental Protection
Telephone: 717-783-7816
Last EDR Contact: 10/24/2014
Next Scheduled EDR Contact: 02/02/2015
Data Release Frequency: Varies

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: Operating Facilities
The listing includes Municipal Waste Landfills, Construction/Demolition Waste Landfills and Waste-to-Energy Facilities.

Date of Government Version: 08/26/2014
Date Data Arrived at EDR: 08/27/2014
Date Made Active in Reports: 11/18/2014
Number of Days to Update: 83

Source: Department of Environmental Protection
Telephone: 717-787-7564
Last EDR Contact: 08/26/2014
Next Scheduled EDR Contact: 12/08/2014
Data Release Frequency: Semi-Annually

State and tribal leaking storage tank lists

LUST: Storage Tank Release Sites
Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 09/16/2014
Date Data Arrived at EDR: 09/18/2014
Date Made Active in Reports: 11/18/2014
Number of Days to Update: 61

Source: Department of Environmental Protection
Telephone: 717-783-7509
Last EDR Contact: 12/17/2014
Next Scheduled EDR Contact: 03/30/2015
Data Release Frequency: Semi-Annually

UNREG LTANKS: Unregulated Tank Cases
Leaking storage tank cases from unregulated storage tanks.

Date of Government Version: 04/12/2002
Date Data Arrived at EDR: 08/14/2003
Date Made Active in Reports: 08/29/2003
Number of Days to Update: 15

Source: Department of Environmental Protection
Telephone: 717-783-7509
Last EDR Contact: 08/14/2003
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

LAST: Storage Tank Release Sites
Leaking Aboveground Storage Tank Incident Reports.

Date of Government Version: 09/16/2014
Date Data Arrived at EDR: 09/18/2014
Date Made Active in Reports: 11/18/2014
Number of Days to Update: 61

Source: Department of Environmental Protection
Telephone: 717-783-7509
Last EDR Contact: 12/17/2014
Next Scheduled EDR Contact: 03/30/2015
Data Release Frequency: Semi-Annually

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 03/01/2013
Date Data Arrived at EDR: 03/01/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 42

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 12/09/2014
Next Scheduled EDR Contact: 02/09/2015
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 05/20/2014
Date Data Arrived at EDR: 06/10/2014
Date Made Active in Reports: 08/22/2014
Number of Days to Update: 73

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 10/27/2014
Next Scheduled EDR Contact: 02/09/2015
Data Release Frequency: Quarterly

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 11/03/2014
Date Data Arrived at EDR: 11/05/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 12

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 10/27/2014
Next Scheduled EDR Contact: 02/09/2015
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 02/01/2013
Date Data Arrived at EDR: 05/01/2013
Date Made Active in Reports: 11/01/2013
Number of Days to Update: 184

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 10/31/2014
Next Scheduled EDR Contact: 02/09/2015
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 07/30/2014
Date Data Arrived at EDR: 08/12/2014
Date Made Active in Reports: 08/22/2014
Number of Days to Update: 10

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 10/27/2014
Next Scheduled EDR Contact: 02/09/2015
Data Release Frequency: Semi-Annually

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 10/06/2014
Date Data Arrived at EDR: 10/29/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 19

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 10/27/2014
Next Scheduled EDR Contact: 02/09/2015
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 05/22/2014
Date Data Arrived at EDR: 08/22/2014
Date Made Active in Reports: 09/18/2014
Number of Days to Update: 27

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 10/27/2014
Next Scheduled EDR Contact: 02/09/2015
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 11/04/2014
Date Data Arrived at EDR: 11/07/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 10

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 10/27/2014
Next Scheduled EDR Contact: 02/09/2015
Data Release Frequency: Quarterly

State and tribal registered storage tank lists

UST: Listing of Pennsylvania Regulated Underground Storage Tanks
Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 08/01/2014
Date Data Arrived at EDR: 09/18/2014
Date Made Active in Reports: 11/18/2014
Number of Days to Update: 61

Source: Department of Environmental Protection
Telephone: 717-772-5599
Last EDR Contact: 12/17/2014
Next Scheduled EDR Contact: 03/30/2015
Data Release Frequency: Varies

AST: Listing of Pennsylvania Regulated Aboveground Storage Tanks
Registered Aboveground Storage Tanks.

Date of Government Version: 08/01/2014
Date Data Arrived at EDR: 09/18/2014
Date Made Active in Reports: 11/18/2014
Number of Days to Update: 61

Source: Department of Environmental Protection
Telephone: 717-772-5599
Last EDR Contact: 12/17/2014
Next Scheduled EDR Contact: 03/30/2015
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 02/01/2013
Date Data Arrived at EDR: 05/01/2013
Date Made Active in Reports: 01/27/2014
Number of Days to Update: 271

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 10/31/2014
Next Scheduled EDR Contact: 02/09/2015
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 07/30/2014
Date Data Arrived at EDR: 08/12/2014
Date Made Active in Reports: 08/22/2014
Number of Days to Update: 10

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 10/27/2014
Next Scheduled EDR Contact: 02/09/2015
Data Release Frequency: Semi-Annually

INDIAN UST R5: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 11/03/2014
Date Data Arrived at EDR: 11/05/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 12

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 10/27/2014
Next Scheduled EDR Contact: 02/09/2015
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 10/06/2014
Date Data Arrived at EDR: 10/29/2014
Date Made Active in Reports: 11/06/2014
Number of Days to Update: 8

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 10/27/2014
Next Scheduled EDR Contact: 02/09/2015
Data Release Frequency: Semi-Annually

INDIAN UST R7: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 08/20/2014
Date Data Arrived at EDR: 08/22/2014
Date Made Active in Reports: 09/18/2014
Number of Days to Update: 27

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 10/27/2014
Next Scheduled EDR Contact: 02/09/2015
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 11/04/2014
Date Data Arrived at EDR: 11/07/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 10

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 10/27/2014
Next Scheduled EDR Contact: 02/09/2015
Data Release Frequency: Quarterly

INDIAN UST R9: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 08/14/2014
Date Data Arrived at EDR: 08/15/2014
Date Made Active in Reports: 08/22/2014
Number of Days to Update: 7

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 10/27/2014
Next Scheduled EDR Contact: 02/09/2015
Data Release Frequency: Quarterly

INDIAN UST R10: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 05/20/2014
Date Data Arrived at EDR: 06/10/2014
Date Made Active in Reports: 08/15/2014
Number of Days to Update: 66

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 10/27/2014
Next Scheduled EDR Contact: 02/09/2015
Data Release Frequency: Quarterly

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 55

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 01/12/2015
Next Scheduled EDR Contact: 04/27/2015
Data Release Frequency: Varies

State and tribal institutional control / engineering control registries

ENG CONTROLS: Engineering Controls Site Listing
Under the Land Recycling Act (Act 2) persons who perform a site cleanup using the site-specific standard or the special industrial area standard may use engineering or institutional controls as part of the response action. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 05/15/2008
Date Data Arrived at EDR: 05/16/2008
Date Made Active in Reports: 06/12/2008
Number of Days to Update: 27

Source: Department of Environmental Protection
Telephone: 717-783-9470
Last EDR Contact: 10/17/2014
Next Scheduled EDR Contact: 02/02/2015
Data Release Frequency: No Update Planned

AUL: Environmental Covenants Listing
A listing of sites with environmental covenants.

Date of Government Version: 10/21/2014
Date Data Arrived at EDR: 10/23/2014
Date Made Active in Reports: 11/18/2014
Number of Days to Update: 26

Source: Department of Environmental Protection
Telephone: 717-783-7509
Last EDR Contact: 10/23/2014
Next Scheduled EDR Contact: 02/02/2015
Data Release Frequency: Varies

INST CONTROL: Institutional Controls Site Listing
Under the Land Recycling Act (Act 2) persons who perform a site cleanup using the site-specific standard or the special industrial area standard may use engineering or institutional controls as part of the response action. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 05/15/2008
Date Data Arrived at EDR: 05/16/2008
Date Made Active in Reports: 06/12/2008
Number of Days to Update: 27

Source: Department of Environmental Protection
Telephone: 717-783-9470
Last EDR Contact: 10/17/2014
Next Scheduled EDR Contact: 02/02/2015
Data Release Frequency: No Update Planned

State and tribal voluntary cleanup sites

VCP: Voluntary Cleanup Program Sites
The VCP listings included Completed Sites, Sites in Progress and Act 2 Non-Use Aquifer Determinations Sites. Formerly known as the Act 2, the Land Recycling Program encourages the voluntary cleanup and reuse of contaminated commercial and industrial sites.

Date of Government Version: 10/03/2014
Date Data Arrived at EDR: 10/17/2014
Date Made Active in Reports: 11/18/2014
Number of Days to Update: 32

Source: Department of Environmental Protection
Telephone: 717-783-2388
Last EDR Contact: 01/15/2015
Next Scheduled EDR Contact: 04/27/2015
Data Release Frequency: Semi-Annually

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 09/29/2014
Date Data Arrived at EDR: 10/01/2014
Date Made Active in Reports: 11/06/2014
Number of Days to Update: 36

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 12/31/2014
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Brownfields Sites
Brownfields are generally defined as abandoned or underused industrial or commercial properties where redevelopment is complicated by actual or perceived environmental contamination. Brownfields vary in size, location, age and past use. They can range from a small, abandoned corner gas station to a large, multi-acre former manufacturing plant that has been closed for years.

Date of Government Version: 10/17/2014
Date Data Arrived at EDR: 10/22/2014
Date Made Active in Reports: 11/18/2014
Number of Days to Update: 27

Source: Department of Environmental Protection
Telephone: 717-783-1566
Last EDR Contact: 10/17/2014
Next Scheduled EDR Contact: 02/02/2015
Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 09/22/2014
Date Data Arrived at EDR: 09/23/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 12/22/2014
Next Scheduled EDR Contact: 04/06/2015
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 10/24/2014
Next Scheduled EDR Contact: 02/09/2015
Data Release Frequency: No Update Planned

HIST LF INACTIVE: Inactive Facilities List
A listing of inactive non-hazardous facilities (10000 & 300000 series). This listing is no longer updated or maintained by the Department of Environmental Protection. At the time the listing was available, the DEP?s name was the Department of Environmental Resources.

Date of Government Version: 12/20/1994
Date Data Arrived at EDR: 07/12/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 30

Source: Department of Environmental Protection
Telephone: 717-787-7381
Last EDR Contact: 06/21/2005
Next Scheduled EDR Contact: 12/19/2005
Data Release Frequency: No Update Planned

HIST LF INVENTORY: Facility Inventory

A listing of solid waste facilities. This listing is no longer updated or maintained by the Department of Environmental Protection. At the time the listing was available, the DEP?s name was the Department of Environmental Resources.

Date of Government Version: 06/02/1999
Date Data Arrived at EDR: 07/12/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 30

Source: Department of Environmental Protection
Telephone: 717-787-7381
Last EDR Contact: 09/19/2005
Next Scheduled EDR Contact: 12/19/2005
Data Release Frequency: No Update Planned

HIST LF ALI: Abandoned Landfill Inventory

The report provides facility information recorded in the Pennsylvania Department of Environmental Protection ALI database. Some of this information has been abstracted from old records and may not accurately reflect the current conditions and status at these facilities

Date of Government Version: 01/04/2005
Date Data Arrived at EDR: 01/04/2005
Date Made Active in Reports: 02/04/2005
Number of Days to Update: 31

Source: Department of Environmental Protection
Telephone: 717-787-7564
Last EDR Contact: 11/26/2012
Next Scheduled EDR Contact: 03/11/2013
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 10/29/2014
Next Scheduled EDR Contact: 02/16/2015
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 07/25/2014
Date Data Arrived at EDR: 09/09/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 41

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/25/2014
Next Scheduled EDR Contact: 03/16/2015
Data Release Frequency: Quarterly

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 07/25/2014
Date Data Arrived at EDR: 09/09/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 41

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/25/2014
Next Scheduled EDR Contact: 03/16/2015
Data Release Frequency: No Update Planned

Local Lists of Registered Storage Tanks

ARCHIVE UST: Archived Underground Storage Tank Sites

The list includes tanks storing highly hazardous substances that were removed from the DEP's Storage Tank Information database because of the Department's policy on sensitive information. The list also may include tanks that are removed or permanently closed.

Date of Government Version: 08/01/2014
Date Data Arrived at EDR: 09/18/2014
Date Made Active in Reports: 11/18/2014
Number of Days to Update: 61

Source: Department of Environmental Protection
Telephone: 717-772-5599
Last EDR Contact: 12/17/2014
Next Scheduled EDR Contact: 03/30/2015
Data Release Frequency: Varies

ARCHIVE AST: Archived Aboveground Storage Tank Sites

The list includes aboveground tanks with a capacity greater than 21,000 gallons that were removed from the DEP's Storage Tank Information database because of the Department's policy on sensitive information. The list also may include tanks that are removed or permanently closed.

Date of Government Version: 08/01/2014
Date Data Arrived at EDR: 09/18/2014
Date Made Active in Reports: 11/18/2014
Number of Days to Update: 61

Source: Department of Environmental Protection
Telephone: 717-772-5599
Last EDR Contact: 12/17/2014
Next Scheduled EDR Contact: 03/30/2015
Data Release Frequency: Varies

Local Land Records

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/18/2014
Date Data Arrived at EDR: 03/18/2014
Date Made Active in Reports: 04/24/2014
Number of Days to Update: 37

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 10/27/2014
Next Scheduled EDR Contact: 02/09/2015
Data Release Frequency: Varies

ACT 2-DEED: Act 2-Deed Acknowledgment Sites

This listing pertains to sites where the Department has approved a cleanup requiring a deed acknowledgment under Act 2. This list includes sites remediated to a non-residential Statewide health standard (Section 303(g)); all sites demonstrating attainment of a Site-specific standard (Section 304(m)); and sites being remediated as a special industrial area (Section 305(g)). Persons who remediated a site to a standard that requires a deed acknowledgment shall comply with the requirements of the Solid Waste Management Act or the Hazardous Sites Cleanup Act, as referenced in Act 2. These statutes require a property description section in the deed concerning the hazardous substance disposal on the site. The location of disposed hazardous substances and a description of the type of hazardous substances disposed on the site shall be included in the deed acknowledgment. A deed acknowledgment is required at the time of conveyance of the property.

Date of Government Version: 04/23/2010
Date Data Arrived at EDR: 04/28/2010
Date Made Active in Reports: 04/30/2010
Number of Days to Update: 2

Source: Department of Environmental Protection
Telephone: 717-783-9470
Last EDR Contact: 07/22/2011
Next Scheduled EDR Contact: 11/07/2011
Data Release Frequency: Varies

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 09/30/2014
Date Data Arrived at EDR: 10/01/2014
Date Made Active in Reports: 11/06/2014
Number of Days to Update: 36

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 12/30/2014
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Annually

SPILLS: State spills
A listing of hazardous material incidents.

Date of Government Version: 10/28/2014
Date Data Arrived at EDR: 10/30/2014
Date Made Active in Reports: 11/19/2014
Number of Days to Update: 20

Source: DEP, Emergency Response
Telephone: 717-787-5715
Last EDR Contact: 01/12/2015
Next Scheduled EDR Contact: 04/27/2015
Data Release Frequency: Varies

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators
RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 06/10/2014
Date Data Arrived at EDR: 07/02/2014
Date Made Active in Reports: 09/18/2014
Number of Days to Update: 78

Source: Environmental Protection Agency
Telephone: 800-438-2474
Last EDR Contact: 12/29/2014
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Varies

DOT OPS: Incident and Accident Data
Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 11/04/2014
Next Scheduled EDR Contact: 02/16/2015
Data Release Frequency: Varies

DOD: Department of Defense Sites
This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 01/15/2015
Next Scheduled EDR Contact: 04/27/2015
Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites
The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 06/06/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 09/18/2014
Number of Days to Update: 8

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 12/12/2014
Next Scheduled EDR Contact: 03/23/2015
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees
Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 01/24/2014
Date Made Active in Reports: 02/24/2014
Number of Days to Update: 31

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 12/24/2014
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 11/25/2013
Date Data Arrived at EDR: 12/12/2013
Date Made Active in Reports: 02/24/2014
Number of Days to Update: 74

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 12/12/2014
Next Scheduled EDR Contact: 03/23/2015
Data Release Frequency: Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010
Date Data Arrived at EDR: 10/07/2011
Date Made Active in Reports: 03/01/2012
Number of Days to Update: 146

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 11/26/2014
Next Scheduled EDR Contact: 03/09/2015
Data Release Frequency: Varies

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/05/2014
Date Data Arrived at EDR: 09/04/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 74

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 12/30/2014
Next Scheduled EDR Contact: 03/16/2015
Data Release Frequency: Semi-Annually

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 07/31/2013
Date Made Active in Reports: 09/13/2013
Number of Days to Update: 44

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 11/26/2014
Next Scheduled EDR Contact: 03/09/2015
Data Release Frequency: Annually

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2006
Date Data Arrived at EDR: 09/29/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 64

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 12/22/2014
Next Scheduled EDR Contact: 04/06/2015
Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 11/19/2014
Next Scheduled EDR Contact: 03/09/2015
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 11/19/2014
Next Scheduled EDR Contact: 03/09/2015
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

SSTS: Section 7 Tracking Systems
Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 10/27/2014
Next Scheduled EDR Contact: 02/09/2015
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System
The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 07/31/2014
Date Data Arrived at EDR: 10/29/2014
Date Made Active in Reports: 11/06/2014
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 01/09/2015
Next Scheduled EDR Contact: 04/27/2015
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 10/15/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 33

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 01/16/2015
Next Scheduled EDR Contact: 04/27/2015
Data Release Frequency: Annually

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 07/22/2013
Date Data Arrived at EDR: 08/02/2013
Date Made Active in Reports: 11/01/2013
Number of Days to Update: 91

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 12/04/2014
Next Scheduled EDR Contact: 03/23/2015
Data Release Frequency: Quarterly

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 10/07/2014
Date Data Arrived at EDR: 10/08/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 12

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 01/08/2015
Next Scheduled EDR Contact: 04/20/2015
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 08/16/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 40

Source: EPA
Telephone: (215) 814-5000
Last EDR Contact: 12/09/2014
Next Scheduled EDR Contact: 03/23/2015
Data Release Frequency: Quarterly

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 08/01/2014
Date Data Arrived at EDR: 08/12/2014
Date Made Active in Reports: 11/06/2014
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 10/27/2014
Next Scheduled EDR Contact: 02/09/2015
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 02/26/2013
Date Made Active in Reports: 04/19/2013
Number of Days to Update: 52

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 11/26/2014
Next Scheduled EDR Contact: 03/09/2015
Data Release Frequency: Biennially

NPDES: NPDES Permit Listing

A listing of facilities with an NPDES permit.

Date of Government Version: 03/28/2014
Date Data Arrived at EDR: 06/12/2014
Date Made Active in Reports: 08/05/2014
Number of Days to Update: 54

Source: Department of Environmental Protection
Telephone: 717-787-9642
Last EDR Contact: 12/12/2014
Next Scheduled EDR Contact: 03/23/2015
Data Release Frequency: Varies

UIC: Underground Injection Wells

A listing of underground injection well locations.

Date of Government Version: 09/23/2014
Date Data Arrived at EDR: 09/24/2014
Date Made Active in Reports: 11/18/2014
Number of Days to Update: 55

Source: Department of Environmental Protection
Telephone: 717-783-7209
Last EDR Contact: 12/23/2014
Next Scheduled EDR Contact: 04/06/2015
Data Release Frequency: Varies

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 07/21/2014
Date Made Active in Reports: 08/25/2014
Number of Days to Update: 35

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 10/20/2014
Next Scheduled EDR Contact: 02/02/2015
Data Release Frequency: Annually

DRYCLEANERS: Drycleaner Facility Locations

A listing of drycleaner facility locations.

Date of Government Version: 09/25/2014
Date Data Arrived at EDR: 09/25/2014
Date Made Active in Reports: 11/18/2014
Number of Days to Update: 54

Source: Department of Environmental Protection
Telephone: 717-787-9702
Last EDR Contact: 12/19/2014
Next Scheduled EDR Contact: 04/06/2015
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

AIRS: Permit and Emissions Inventory Data
Permit and emissions inventory data.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 07/22/2014
Date Made Active in Reports: 09/17/2014
Number of Days to Update: 57

Source: Department of Environmental Protection
Telephone: 717-787-9702
Last EDR Contact: 12/29/2014
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Annually

INDIAN RESERV: Indian Reservations
This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 12/08/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 34

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 01/15/2015
Next Scheduled EDR Contact: 04/27/2015
Data Release Frequency: Semi-Annually

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing
The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011
Date Data Arrived at EDR: 03/09/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 11/18/2014
Next Scheduled EDR Contact: 02/02/2015
Data Release Frequency: Varies

2020 COR ACTION: 2020 Corrective Action Program List
The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 11/11/2011
Date Data Arrived at EDR: 05/18/2012
Date Made Active in Reports: 05/25/2012
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 11/14/2014
Next Scheduled EDR Contact: 02/23/2015
Data Release Frequency: Varies

MINES: Abandoned Mine Land Inventory
This data set portrays the approximate location of Abandoned Mine Land Problem Areas containing public health, safety, and public welfare problems created by past coal mining.

Date of Government Version: 10/02/2014
Date Data Arrived at EDR: 10/29/2014
Date Made Active in Reports: 11/19/2014
Number of Days to Update: 21

Source: PASDA
Telephone: 814-863-0104
Last EDR Contact: 10/29/2014
Next Scheduled EDR Contact: 02/09/2015
Data Release Frequency: Semi-Annually

LEAD SMELTER 1: Lead Smelter Sites
A listing of former lead smelter site locations.

Date of Government Version: 06/04/2014
Date Data Arrived at EDR: 06/12/2014
Date Made Active in Reports: 07/28/2014
Number of Days to Update: 46

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 01/05/2015
Next Scheduled EDR Contact: 04/20/2015
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites
A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 10/17/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 3

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 12/29/2015
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Quarterly

FEDLAND: Federal and Indian Lands
Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 01/15/2015
Next Scheduled EDR Contact: 04/27/2015
Data Release Frequency: N/A

US FIN ASSUR: Financial Assurance Information
All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 09/04/2014
Date Data Arrived at EDR: 09/04/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 46

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 11/11/2014
Next Scheduled EDR Contact: 03/02/2015
Data Release Frequency: Quarterly

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 12/12/2014
Next Scheduled EDR Contact: 03/23/2015
Data Release Frequency: Varies

COAL ASH DOE: Sleam-Electric Plan Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 01/15/2015
Next Scheduled EDR Contact: 04/27/2015
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)
The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/16/2014
Date Data Arrived at EDR: 10/31/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 17

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 12/23/2014
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data
A listing of minor source facilities.

Date of Government Version: 10/16/2014
Date Data Arrived at EDR: 10/31/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 17

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 12/23/2014
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Annually

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011
Date Data Arrived at EDR: 10/19/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 83

Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 10/31/2014
Next Scheduled EDR Contact: 02/09/2015
Data Release Frequency: Varies

EPA WATCH LIST: EPA WATCH LIST
EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 11/14/2014
Next Scheduled EDR Contact: 02/23/2015
Data Release Frequency: Quarterly

EFACTS: EFACTS Database
The Department's eFACTS (Environment, Facility, Application, Compliance Tracking System) database (formerly known as the Foundation for Information eXchange (FIX)) is a Department-wide database that provides a holistic view of the clients and sites (including facilities) that DEP regulates.

Date of Government Version: 11/03/2014
Date Data Arrived at EDR: 11/04/2014
Date Made Active in Reports: 11/19/2014
Number of Days to Update: 15

Source: Department of Environmental Protection
Telephone: 717-783-2300
Last EDR Contact: 10/27/2014
Next Scheduled EDR Contact: 02/09/2015
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR US Hist Auto Stat: EDR Exclusive Historic Gas Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR US Hist Cleaners: EDR Exclusive Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department Environmental Protection in Pennsylvania.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: Department Environmental Protection
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LF: Recovered Government Archive Solid Waste Facilities List
The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department Environmental Protection in Pennsylvania.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/10/2014
Number of Days to Update: 193

Source: Department Environmental Protection
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA HWS: Recovered Government Archive State Hazardous Waste Facilities List
The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department Environmental Protection in Pennsylvania.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: Department Environmental Protection
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 07/30/2013
Date Data Arrived at EDR: 08/19/2013
Date Made Active in Reports: 10/03/2013
Number of Days to Update: 45

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 11/17/2014
Next Scheduled EDR Contact: 03/02/2015
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 07/19/2012
Date Made Active in Reports: 08/28/2012
Number of Days to Update: 40

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 01/12/2015
Next Scheduled EDR Contact: 04/27/2015
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 11/01/2014
Date Data Arrived at EDR: 11/05/2014
Date Made Active in Reports: 11/24/2014
Number of Days to Update: 19

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 11/05/2014
Next Scheduled EDR Contact: 02/16/2015
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 07/15/2014
Date Made Active in Reports: 08/13/2014
Number of Days to Update: 29

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 11/26/2014
Next Scheduled EDR Contact: 03/09/2015
Data Release Frequency: Annually

VT MANIFEST: Hazardous Waste Manifest Data
Hazardous waste manifest information.

Date of Government Version: 06/24/2014
Date Data Arrived at EDR: 08/22/2014
Date Made Active in Reports: 11/04/2014
Number of Days to Update: 74

Source: Department of Environmental Conservation
Telephone: 802-241-3443
Last EDR Contact: 10/20/2014
Next Scheduled EDR Contact: 02/02/2015
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 06/20/2014
Date Made Active in Reports: 08/07/2014
Number of Days to Update: 48

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 12/12/2014
Next Scheduled EDR Contact: 03/30/2015
Data Release Frequency: Annually

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.
Daycare Centers: Child Care Facility List
Source: Department of Public Welfare
Telephone: 717-783-3856

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

Scanned Digital USGS 7.5' Topographic Map (DRG)
Source: United States Geologic Survey
A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

COOKS COUNTRY STORE
21042 COOKS ROAD
ROBERTSDALE, PA 16674

TARGET PROPERTY COORDINATES

Latitude (North):	40.2115 - 40˚ 12' 41.40"
Longitude (West):	78.0884 - 78˚ 5' 18.24"
Universal Tranverse Mercator:	Zone 17
UTM X (Meters):	747789.3
UTM Y (Meters):	4455088.5
Elevation:	1524 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	40078-B1 SALTILLO, PA
Most Recent Revision:	1997

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

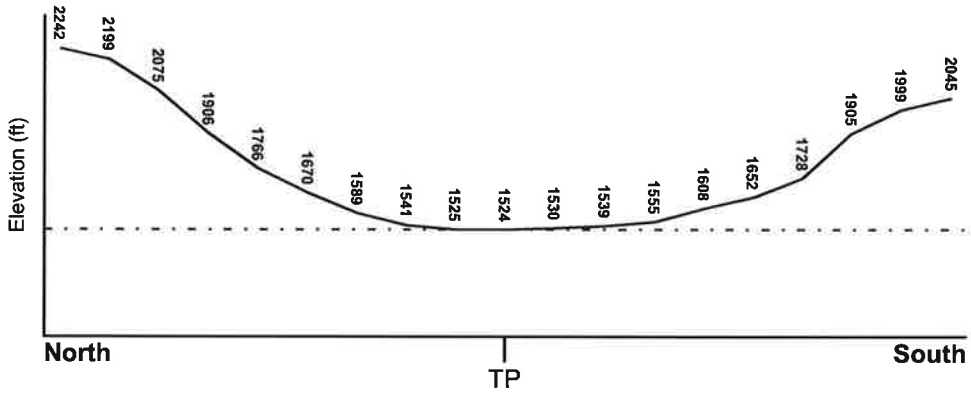
TOPOGRAPHIC INFORMATION

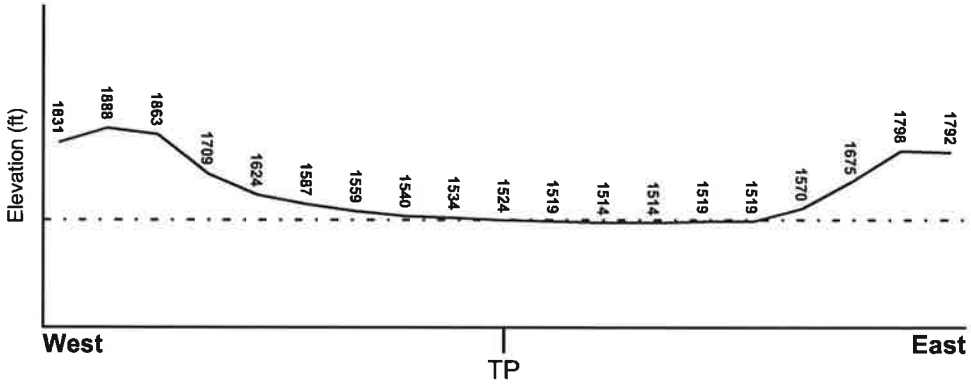
Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General East

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES





Target Property Elevation: 1524 ft.

Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Target Property County	FEMA Flood Electronic Data
HUNTINGDON, PA	Not Available

Flood Plain Panel at Target Property: Not Reported

Additional Panels in search area: Not Reported

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
SALTILLO	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

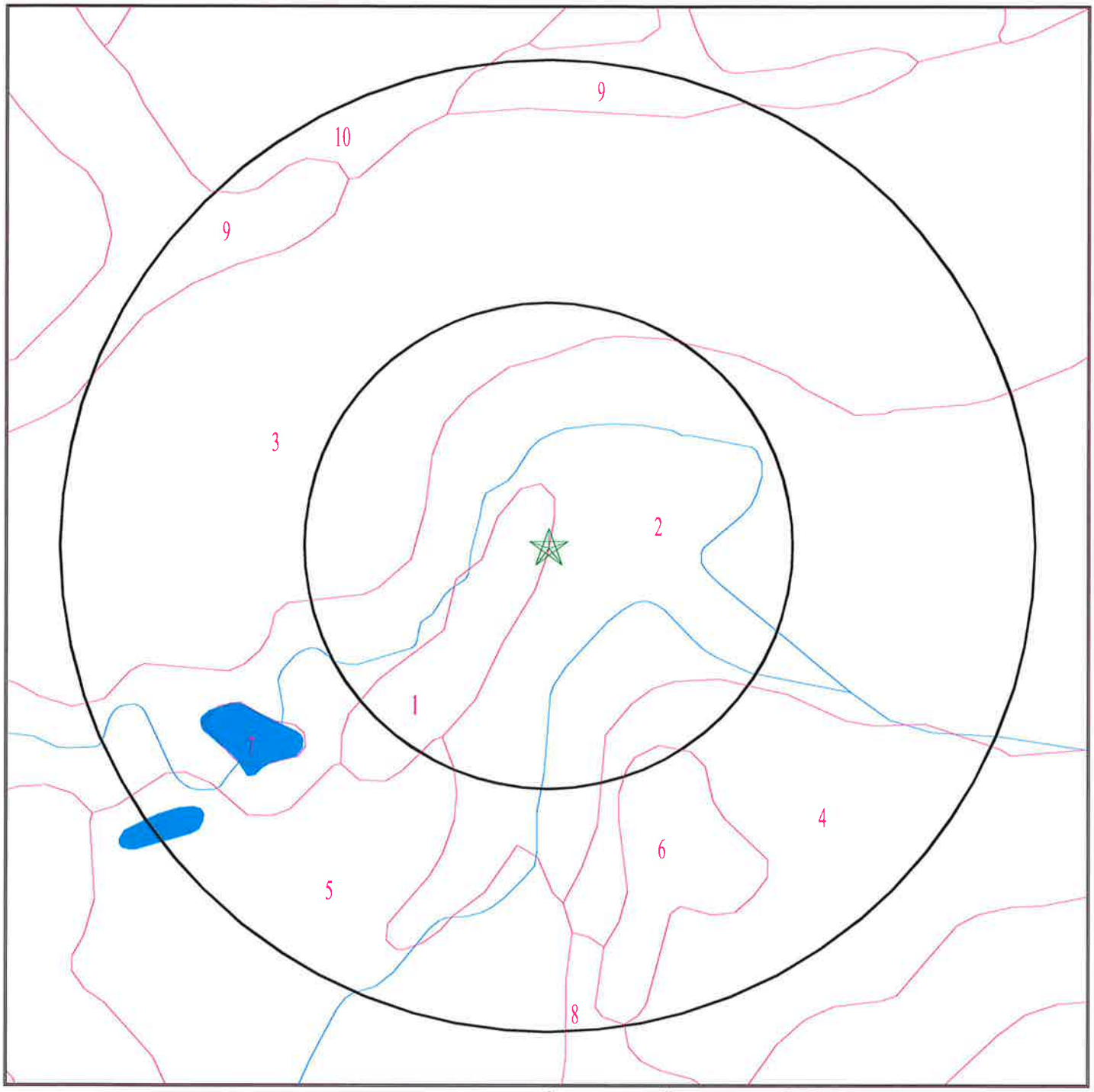
Era:	Paleozoic
System:	Pennsylvanian
Series:	Pennsylvanian
Code:	PP *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratifed Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 4184877.2s



★ Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME: Cooks Country Store ADDRESS: 21042 Cooks Road Robertsdale PA 16674 LAT/LONG: 40.2115 / 78.0884	CLIENT: Mountain Research, Inc. CONTACT: Matt Ference INQUIRY #: 4184877.2s DATE: January 19, 2015 9:52 am

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Philo

Soil Surface Texture: silt loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Moderately well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 54 inches

Soil Layer Information

	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	silt loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14.11 Min: 4.23	Max: 6 Min: 4.5
2	7 inches	40 inches	silt loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14.11 Min: 4.23	Max: 6 Min: 4.5
3	40 inches	59 inches	stratified sandy loam to gravelly loam to loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42.34 Min: 14.11	Max: 6 Min: 4.5

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Map ID: 2

Soil Component Name: Philo

Soil Surface Texture: silt loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Moderately well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 69 inches

Soil Layer Information

	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	silt loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14.11 Min: 4.23	Max: 6 Min: 4.5
2	7 inches	40 inches	silt loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14.11 Min: 4.23	Max: 6 Min: 4.5
3	40 inches	59 inches	stratified sandy loam to loam to gravelly loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42.34 Min: 14.11	Max: 6 Min: 4.5

Soil Map ID: 3

Soil Component Name: Purdy

Soil Surface Texture: silt loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Poorly drained

Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 8 inches

Soil Layer Information

	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 4.23 Min: 1.41	Max: 6 Min: 4.5
2	9 inches	59 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.41 Min: 0.1	Max: 5.5 Min: 4.2

Soil Map ID: 4

Soil Component Name: Calvin

Soil Surface Texture: channery silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	channery silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 42.34 Min: 14.11	Max: 6.5 Min: 4.5
2	7 inches	24 inches	channery silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 42.34 Min: 14.11	Max: 6 Min: 4.5
3	24 inches	35 inches	very channery silt loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42.34 Min: 14.11	Max: 6 Min: 4.5
4	35 inches	40 inches	unweathered bedrock	Not reported	Not reported	Max: 42 Min: 14	Max: Min:

Soil Map ID: 5

Soil Component Name: Atkins

Soil Surface Texture: silt loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Poorly drained

Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 8 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14.11 Min: 4.23	Max: 5.5 Min: 4.5
2	16 inches	42 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14.11 Min: 0.42	Max: 5.5 Min: 4.5
3	42 inches	61 inches	stratified gravelly sandy loam to silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 42.34 Min: 1.41	Max: 5.5 Min: 4.5
4	7 inches	16 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14.11 Min: 0.42	Max: 5.5 Min: 4.5

Soil Map ID: 6

Soil Component Name: Calvin

Soil Surface Texture: channery silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	channery silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 42.34 Min: 14.11	Max: 6.5 Min: 4.5
2	7 inches	24 inches	channery silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 42.34 Min: 14.11	Max: 6 Min: 4.5
3	24 inches	35 inches	very channery silt loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42.34 Min: 14.11	Max: 6 Min: 4.5
4	35 inches	40 inches	unweathered bedrock	Not reported	Not reported	Max: 42 Min: 14	Max: Min:

Soil Map ID: 7

Soil Component Name: Water

Soil Surface Texture: channery silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class:
Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

No Layer Information available.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Map ID: 8

Soil Component Name: Klinesville

Soil Surface Texture: channery silt loam

Hydrologic Group: Class C/D - Drained/undrained hydrology class of soils that can be drained and classified.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information

	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	5 inches	channery silt loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42.34 Min: 14.11	Max: 6 Min: 4.5
2	5 inches	11 inches	very channery silt loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42.34 Min: 14.11	Max: 6 Min: 4.5
3	11 inches	18 inches	very channery loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel	Max: 42.34 Min: 14.11	Max: 6 Min: 4.5
4	18 inches	22 inches	unweathered bedrock	Not reported	Not reported	Max: 42 Min: 14	Max: Min:

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Map ID: 9

Soil Component Name: Albrights

Soil Surface Texture: silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Moderately well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 53 inches

Soil Layer Information

	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14.11 Min: 4.23	Max: 6.5 Min: 5
2	24 inches	44 inches	channery loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4.23 Min: 1.41	Max: 6.5 Min: 4.5
3	44 inches	59 inches	very channery loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4.23 Min: 1.41	Max: 6.5 Min: 4.5
4	7 inches	24 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14.11 Min: 4.23	Max: 5.5 Min: 3.6

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Map ID: 10

Soil Component Name: Meckesville

Soil Surface Texture: silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 100 inches

Soil Layer Information

	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14.11 Min: 4.23	Max: 6.6 Min: 3.6
2	7 inches	40 inches	gravelly clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14.11 Min: 4.23	Max: 5.5 Min: 3.6
3	40 inches	72 inches	very gravelly clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 4.23 Min: 1.41	Max: 5.5 Min: 3.6
4	72 inches	96 inches	very gravelly clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 4.23 Min: 1.41	Max: 5.5 Min: 3.6

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
C8	USGS40001013273	1/8 - 1/4 Mile NNW
D12	USGS40001013023	1/4 - 1/2 Mile SW
E16	USGS40001012897	1/2 - 1 Mile SSW
F17	USGS40001013655	1/2 - 1 Mile NNW

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

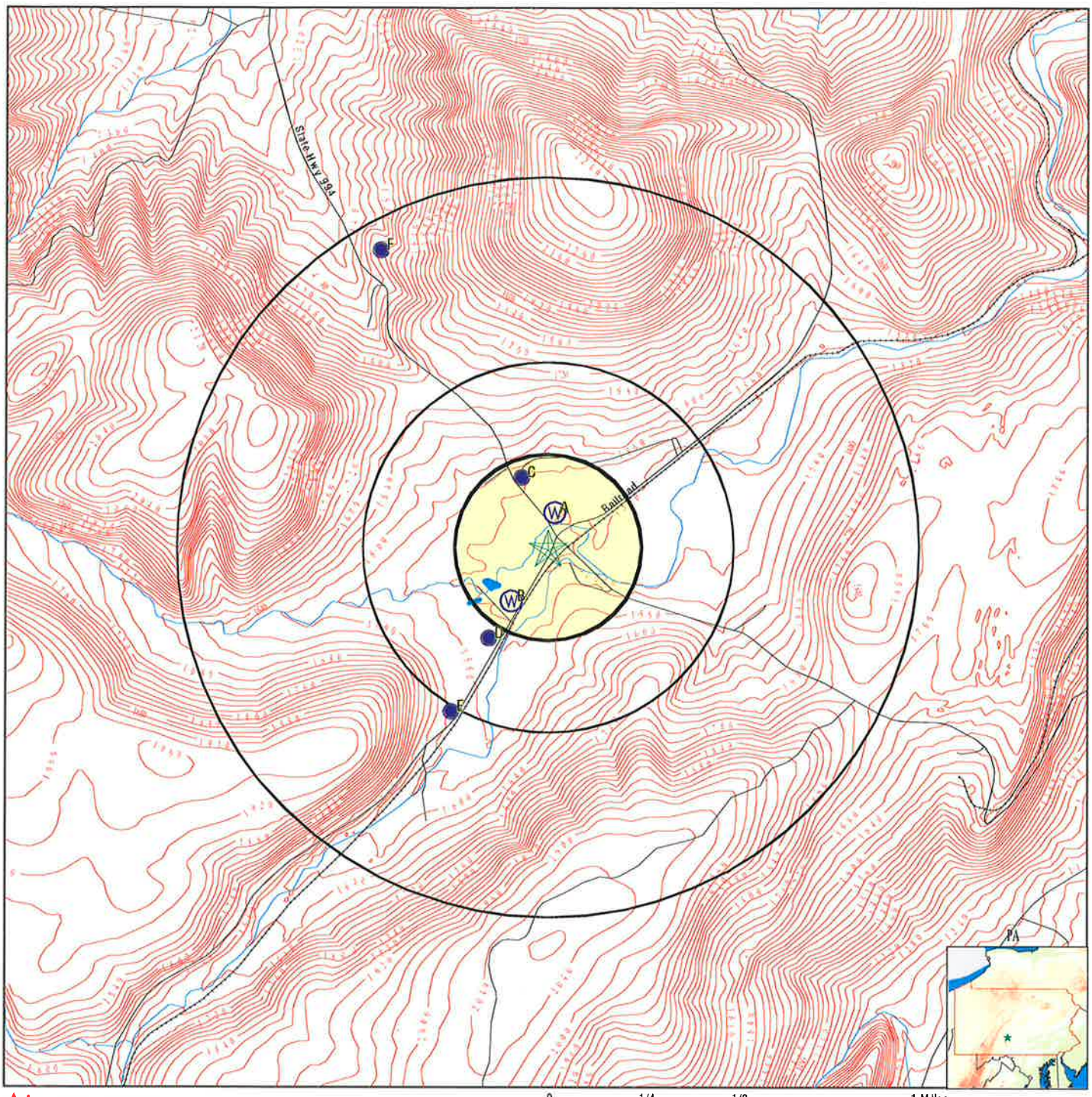
MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A1	PASI30000061960	0 - 1/8 Mile North
A2	SPAW0068100	0 - 1/8 Mile NNE
B3	SPAW0068097	1/8 - 1/4 Mile SW
B4	PASI30000061460	1/8 - 1/4 Mile SW
B5	SPAW0068091	1/8 - 1/4 Mile SSW
B6	PASI30000061416	1/8 - 1/4 Mile SSW
C7	PASI30000062144	1/8 - 1/4 Mile NNW
D9	SPAW0068092	1/4 - 1/2 Mile SW
D10	PASI30000061277	1/4 - 1/2 Mile SW
D11	PASI30000061278	1/4 - 1/2 Mile SW
D13	PASI30000061194	1/4 - 1/2 Mile SSW
D14	SPAW0068090	1/4 - 1/2 Mile SSW
E15	PASI30000060876	1/2 - 1 Mile SSW
F18	PASI30000063512	1/2 - 1 Mile NNW

PHYSICAL SETTING SOURCE MAP - 4184877.2s



County Boundary
Major Roads
Contour Lines
Earthquake epicenter, Richter 5 or greater
Water Wells
Public Water Supply Wells
Cluster of Multiple Icons

0 1/4 1/2 1 Miles

Groundwater Flow Direction
Indeterminate Groundwater Flow at Location
Groundwater Flow Varies at Location
Oil, gas or related wells

SITE NAME: Cooks Country Store ADDRESS: 21042 Cooks Road Robertsdale PA 16674 LAT/LONG: 40.2115 / 78.0884	CLIENT: Mountain Research, Inc. CONTACT: Matt Ference INQUIRY #: 4184877.2s DATE: January 19, 2015 9:52 am

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation		Database	EDR ID Number
A1 **North** **0 - 1/8 Mile** **Lower**		**PA WELLS**	**PASI30000061960**

Dep counter:	0	Siteid:	Not Reported
Transactio:	0	Local welln:	X 0675
County:	HUNTINGDON	Latitude:	Not Reported
Longitude:	Not Reported	Aapg code:	327MCCK
Topography:	VALLEY FLAT	Well depth:	88
Elevation:	0		
Elev method:	Not Reported		
Accuracy of elev:	Not Reported	Hydrologic:	Not Reported
Latlong acc:	ACCURATE TO +1 MINUTE	Quad code:	SALTILLO
Type of site:	WELL	Date created:	03-FEB-99
Date updated:	04-FEB-99		
Data Reliability:	LOCATION MAY NOT BE ACCURATE (WWI paper)		
Source Depth Data:	DRILLER'S RECORD		
Municipality:	TODD TWP.		
Latitude dd:	40.2127777778		
Longitude dd:	-78.0883333333		
Well addres:	Not Reported		
Well zipcode:	Not Reported	Depth to bedrock:	40
Bedrock not:	0	Saltwaterz:	0
Date drilled:	25-NOV-85	Pagwis id:	112661
Source site:	2	Local permit:	Not Reported
Latest owner:	111935	Driller sc:	0
Latest prod:	113116	Latest well:	114767
Site id:	PASI30000061960		

A2 **NNE** **0 - 1/8 Mile** **Lower**		**PA WELLS**	**SPAW0068100**

Well ID:	X 0675		
Owner's Name:	TERRITO GUY	County	HUNTINGDON
Latitude:	401246	Longitude:	780518
Quadrangle:	SALTILLO	Lat/Long Accuracy:	ACCURATE TO +1 MINUTE
Hydrologic Unit:	Not Reported	Topographic Setting:	VALLEY FLAT
Water Usage:	DOMESTIC	Site Usage:	WITHDRAWAL
Well Depth:	88	Finish:	OPEN HOLE
Casing 1:	42	Casing1 Diameter(inches):	6
Casing2:	Not Reported	Casing2 Diameter(inches):	Not Reported
Grouted:	Not Reported	Date Drilled:	00-00-00
Static Water Level:	10	Production WL:	Not Reported
Yield (gpm):	Not Reported	Yield Measurement Method:	5
Drawdown:	5	Test Time:	4
Bedrock:	40	Driller:	0045
Water Bearing Zone 1:	65	Water Bearing Zone 2:	80
Water Bearing Zone 3:	Not Reported	Lithology:	SHALE
Municipality:	TODD	Remark:	1721
Aquifer:	MAUCH CHUNK FORMATION		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation		Database	EDR ID Number
B3 **SW** **1/8 - 1/4 Mile** **Higher**		**PA WELLS**	**SPAW0068097**

Well ID:	X 0672		
Owner's Name:	BRENNA MILE	County	HUNTINGDON
Latitude:	401234	Longitude:	780526
Quadrangle:	SALTILLO	Lat/Long Accuracy:	ACCURATE TO +1 MINUTE
Hydrologic Unit:	Not Reported	Topographic Setting:	HILLSIDE
Water Usage:	DOMESTIC	Site Usage:	WITHDRAWAL
Well Depth:	123	Finish:	OPEN HOLE
Casing 1:	26	Casing1 Diameter(inches):	6
Casing2:	Not Reported	Casing2 Diameter(inches):	Not Reported
Grouted:	Not Reported	Date Drilled:	00-00-00
Static Water Level:	40	Production WL:	Not Reported
Yield (gpm):	Not Reported	Yield Measurement Method:	Not Reported
Drawdown:	Not Reported	Test Time:	Not Reported
Bedrock:	23	Driller:	0138
Water Bearing Zone 1:	40	Water Bearing Zone 2:	80
Water Bearing Zone 3:	90	Lithology:	SHALE
Municipality:	TODD	Remark:	1721
Aquifer:	MAUCH CHUNK FORMATION		

B4 **SW** **1/8 - 1/4 Mile** **Higher**		**PA WELLS**	**PASI30000061460**

Dep counter:	0	Siteid:	Not Reported
Transactio:	0	Local welln:	X 0672
County:	HUNTINGDON	Latitude:	Not Reported
Longitude:	Not Reported	Aapg code:	327MCCK
Topography:	HILLSIDE	Well depth:	123
Elevation:	0		
Elev method:	Not Reported		
Accuracy of elev:	Not Reported	Hydrologic:	Not Reported
Latlong acc:	ACCURATE TO +1 MINUTE	Quad code:	SALTILLO
Type of site:	WELL	Date created:	03-FEB-99
Date updated:	04-FEB-99		
Data Reliability:	LOCATION MAY NOT BE ACCURATE (WWI paper)		
Source Depth Data:	DRILLER'S RECORD		
Municipality:	TODD TWP.		
Latitude dd:	40.2094444444		
Longitude dd:	-78.0905555556		
Well addres:	Not Reported		
Well zipcode:	Not Reported	Depth to bedrock:	23
Bedrock not:	0	Saltwaterz:	0
Date drilled:	03-DEC-83	Pagwis id:	112658
Source site:	2	Local permit:	Not Reported
Latest owner:	111932	Driller sc:	0
Latest prod:	113113	Latest well:	114764

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Site id: PASI30000061460

B5
SSW
1/8 - 1/4 Mile
Higher

PA WELLS **SPAW0068091**

Well ID:	X 0666		
Owner's Name:	HUSTON J	County	HUNTINGDON
Latitude:	401233	Longitude:	780526
Quadrangle:	SALTILLO	Lat/Long Accuracy:	ACCURATE TO +1 MINUTE
Hydrologic Unit:	Not Reported	Topographic Setting:	HILLSIDE
Water Usage:	DOMESTIC	Site Usage:	WITHDRAWAL
Well Depth:	80	Finish:	OPEN HOLE
Casing 1:	21	Casing1 Diameter(inches):	6
Casing2:	Not Reported	Casing2 Diameter(inches):	Not Reported
Grouted:	Not Reported	Date Drilled:	00-00-00
Static Water Level:	Not Reported	Production WL:	Not Reported
Yield (gpm):	Not Reported	Yield Measurement Method:	1
Drawdown:	Not Reported	Test Time:	Not Reported
Bedrock:	Not Reported	Driller:	1402
Water Bearing Zone 1:	Not Reported	Water Bearing Zone 2:	Not Reported
Water Bearing Zone 3:	Not Reported	Lithology:	Not Reported
Municipality:	TODD	Remark:	1721
Aquifer:	MAUCH CHUNK FORMATION		

B6
SSW
1/8 - 1/4 Mile
Higher

PA WELLS **PASI30000061416**

Dep counter:	0	Siteid:	Not Reported
Transactio:	0	Local welln:	X 0666
County:	HUNTINGDON	Latitude:	Not Reported
Longitude:	Not Reported	Aapg code:	327MCCK
Topography:	HILLSIDE	Well depth:	80
Elevation:	0		
Elev method:	Not Reported		
Accuracy of elev:	Not Reported	Hydrologic:	Not Reported
Latlong acc:	ACCURATE TO +1 MINUTE	Quad code:	SALTILLO
Type of site:	WELL	Date created:	03-FEB-99
Date updated:	04-FEB-99		
Data Reliability:	LOCATION MAY NOT BE ACCURATE (WWI paper)		
Source Depth Data:	DRILLER'S RECORD		
Municipality:	TODD TWP.		
Latitude dd:	40.2091666667		
Longitude dd:	-78.0905555556		
Well addres:	Not Reported		
Well zipcode:	Not Reported	Depth to bedrock:	0
Bedrock not:	0	Saltwaterz:	0
Date drilled:	01-SEP-81	Pagwis id:	112652
Source site:	2	Local permit:	Not Reported
Latest owner:	111927	Driller sc:	0
Latest prod:	113109	Latest well:	114758

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Site id: PASI30000061416

C7
NNW
1/8 - 1/4 Mile
Higher

PA WELLS **PASI30000062144**

Dep counter:	0	Siteid:	401251078052401
Transactio:	1	Local welln:	HU 228
County:	HUNTINGDON	Latitude:	Not Reported
Longitude:	Not Reported	Aapg code:	327MCCK
Topography:	HILLSIDE	Well depth:	88
Elevation:	1550		
Elev method:	INTERPOLATED FROM TOPOGRAPHIC MAP		
Accuracy of elev:	10	Hydrologic:	02050304
Latlong acc:	ACCURATE TO +1 SECOND	Quad code:	SALTILLO
Type of site:	WELL	Date created:	14-DEC-81
Date updated:	08-JUL-94		
Data Reliability:	FIELD CHECKED BY REPORTING AGENCY (PaDAg pest. survey)		
Source Depth Data:	OTHER/UNKNOWN/UNSPECIFIED		
Municipality:	TODD TWP.		
Latitude dd:	40.2141666667		
Longitude dd:	-78.09		
Well addres:	Not Reported		
Well zipcode:	Not Reported	Depth to bedrock:	0
Bedrock not:	0	Saltwaterz:	0
Date drilled:	09-SEP-75	Pagwis id:	36447
Source site:	1	Local permit:	Not Reported
Latest owner:	36185	Driller sc:	0
Latest prod:	41951	Latest well:	36447
Site id:	PASI30000062144		

C8
NNW
1/8 - 1/4 Mile
Higher

FED USGS **USGS40001013273**

Org. Identifier:	USGS-PA		
Formal name:	USGS Pennsylvania Water Science Center		
Monloc Identifier:	USGS-401251078052401		
Monloc name:	HU 228		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	02050304	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	40.2142466
Longitude:	-78.0897276	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1545.00
Vert measure units:	feet	Vertacc measure val:	10
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Mauch Chunk Formation		

Aquifer type:	Not Reported		
Construction date:	19750909	Welldepth:	88
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1980-07-17	11.73	

D9
SW
1/4 - 1/2 Mile
Higher

PA WELLS **SPAW0068092**

Well ID:	X 0667		
Owner's Name:	BOLINGER A	County	HUNTINGDON
Latitude:	401229	Longitude:	780530
Quadrangle:	SALTILLO	Lat/Long Accuracy:	ACCURATE TO +1 MINUTE
Hydrologic Unit:	Not Reported	Topographic Setting:	HILLSIDE
Water Usage:	DOMESTIC	Site Usage:	WITHDRAWAL
Well Depth:	96	Finish:	OPEN HOLE
Casing 1:	20	Casing1 Diameter(inches):	6
Casing2:	Not Reported	Casing2 Diameter(inches):	Not Reported
Grouted:	Not Reported	Date Drilled:	00-00-00
Static Water Level:	Not Reported	Production WL:	Not Reported
Yield (gpm):	Not Reported	Yield Measurement Method:	1
Drawdown:	Not Reported	Test Time:	Not Reported
Bedrock:	Not Reported	Driller:	1402
Water Bearing Zone 1:	Not Reported	Water Bearing Zone 2:	Not Reported
Water Bearing Zone 3:	Not Reported	Lithology:	Not Reported
Municipality:	TODD	Remark:	1721
Aquifer:	MAUCH CHUNK FORMATION		

D10
SW
1/4 - 1/2 Mile
Higher

PA WELLS **PASI30000061277**

Dep counter:	0	Siteid:	401229078053001
Transactio:	1	Local welln:	HU 226
County:	HUNTINGDON	Latitude:	Not Reported
Longitude:	Not Reported	Aapg code:	327MCCK
Topography:	VALLEY FLAT	Well depth:	96
Elevation:	1560		
Elev method:	INTERPOLATED FROM TOPOGRAPHIC MAP		
Accuracy of elev:	10	Hydrologic:	02050304
Latlong acc:	ACCURATE TO +1 SECOND	Quad code:	SALTILLO
Type of site:	WELL	Date created:	14-DEC-81
Date updated:	08-JUL-94		
Data Reliability:	FIELD CHECKED BY REPORTING AGENCY (PaDAg pest. survey)		
Source Depth Data:	OTHER/UNKNOWN/UNSPECIFIED		
Municipality:	TODD TWP.		

Latitude dd:	40.2080555556		
Longitude dd:	-78.0916666667		
Well addres:	Not Reported		
Well zipcode:	Not Reported	Depth to bedrock:	0
Bedrock not:	0	Saltwaterz:	0
Date drilled:	01-JUL-78	Pagwis id:	36442
Source site:	1	Local permit:	Not Reported
Latest owner:	36180	Driller sc:	0
Latest prod:	17120	Latest well:	36442
Site id:	PASI30000061277		

D11
SW
1/4 - 1/2 Mile
Higher

PA WELLS **PASI30000061278**

Dep counter:	0	Siteid:	Not Reported
Transactio:	0	Local welln:	X 0667
County:	HUNTINGDON	Latitude:	Not Reported
Longitude:	Not Reported	Aapg code:	327MCCK
Topography:	HILLSIDE	Well depth:	96
Elevation:	0		
Elev method:	Not Reported		
Accuracy of elev:	Not Reported	Hydrologic:	Not Reported
Latlong acc:	ACCURATE TO +1 MINUTE	Quad code:	SALTILLO
Type of site:	WELL	Date created:	03-FEB-99
Date updated:	04-FEB-99		
Data Reliability:	LOCATION MAY NOT BE ACCURATE (WWI paper)		
Source Depth Data:	DRILLER'S RECORD		
Municipality:	TODD TWP.		
Latitude dd:	40.2080555556		
Longitude dd:	-78.0916666667		
Well addres:	Not Reported		
Well zipcode:	Not Reported	Depth to bedrock:	0
Bedrock not:	0	Saltwaterz:	0
Date drilled:	01-JUL-78	Pagwis id:	112653
Source site:	2	Local permit:	Not Reported
Latest owner:	111928	Driller sc:	0
Latest prod:	113110	Latest well:	114759
Site id:	PASI30000061278		

D12
SW
1/4 - 1/2 Mile
Higher

FED USGS **USGS40001013023**

Org. Identifier:	USGS-PA		
Formal name:	USGS Pennsylvania Water Science Center		
Monloc Identifier:	USGS-401229078053001		
Monloc name:	HU 226		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	02050304	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	40.2081356
Longitude:	-78.0913943	Sourcemap scale:	24000

Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1558.00
Vert measure units:	feet	Vertacc measure val:	10
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Mauch Chunk Formation		
Aquifer type:	Not Reported		
Construction date:	19780701	Welldepth:	96
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

D13
SSW
1/4 - 1/2 Mile
Higher

PA WELLS **PASI30000061194**

Dep counter:	0	Siteid:	Not Reported
Transactio:	0	Local welln:	X 0665
County:	HUNTINGDON	Latitude:	Not Reported
Longitude:	Not Reported	Aapg code:	327MCCK
Topography:	HILLSIDE	Well depth:	96
Elevation:	0		
Elev method:	Not Reported		
Accuracy of elev:	Not Reported	Hydrologic:	Not Reported
Latlong acc:	ACCURATE TO +1 MINUTE	Quad code:	SALTILLO
Type of site:	WELL	Date created:	03-FEB-99
Date updated:	04-FEB-99		
Data Reliability:	LOCATION MAY NOT BE ACCURATE (WWI paper)		
Source Depth Data:	DRILLER'S RECORD		
Municipality:	TODD TWP.		
Latitude dd:	40.2075		
Longitude dd:	-78.0916666667		
Well addres:	Not Reported		
Well zipcode:	Not Reported	Depth to bedrock:	0
Bedrock not:	0	Saltwaterz:	0
Date drilled:	12-DEC-85	Pagwis id:	112651
Source site:	2	Local permit:	Not Reported
Latest owner:	111926	Driller sc:	0
Latest prod:	113108	Latest well:	114757
Site id:	PASI30000061194		

D14
SSW
1/4 - 1/2 Mile
Higher

PA WELLS **SPAW0068090**

Well ID:	X 0665		
Owner's Name:	HUSTON J	County	HUNTINGDON
Latitude:	401227	Longitude:	780530
Quadrangle:	SALTILLO	Lat/Long Accuracy:	ACCURATE TO +1 MINUTE
Hydrologic Unit:	Not Reported	Topographic Setting:	HILLSIDE
Water Usage:	DOMESTIC	Site Usage:	WITHDRAWAL
Well Depth:	96	Finish:	OPEN HOLE
Casing 1:	21	Casing1 Diameter(inches):	6
Casing2:	Not Reported	Casing2 Diameter(inches):	Not Reported

Grouted:	Not Reported	Date Drilled:	00-00-00
Static Water Level:	Not Reported	Production WL:	Not Reported
Yield (gpm):	Not Reported	Yield Measurement Method:	1
Drawdown:	Not Reported	Test Time:	Not Reported
Bedrock:	Not Reported	Driller:	1402
Water Bearing Zone 1:	Not Reported	Water Bearing Zone 2:	Not Reported
Water Bearing Zone 3:	Not Reported	Lithology:	Not Reported
Municipality:	TODD	Remark:	1721
Aquifer:	MAUCH CHUNK FORMATION		

E15
SSW
1/2 - 1 Mile
Higher

PA WELLS **PASI30000060876**

Dep counter:	0	Siteid:	401218078053701
Transactio:	1	Local welln:	HU 227
County:	HUNTINGDON	Latitude:	Not Reported
Longitude:	Not Reported	Aapg code:	327MCCK
Topography:	VALLEY FLAT	Well depth:	123
Elevation:	1580		
Elev method:	INTERPOLATED FROM TOPOGRAPHIC MAP		
Accuracy of elev:	10	Hydrologic:	02050304
Latlong acc:	ACCURATE TO +1 SECOND	Quad code:	SALTILLO
Type of site:	WELL	Date created:	14-DEC-81
Date updated:	08-JUL-94		
Data Reliability:	FIELD CHECKED BY REPORTING AGENCY (PaDAg pest. survey)		
Source Depth Data:	OTHER/UNKNOWN/UNSPECIFIED		
Municipality:	TODD TWP.		
Latitude dd:	40.205		
Longitude dd:	-78.0936111111		
Well addres:	Not Reported		
Well zipcode:	Not Reported	Depth to bedrock:	0
Bedrock not:	0	Saltwaterz:	0
Date drilled:	26-SEP-72	Pagwis id:	36438
Source site:	1	Local permit:	Not Reported
Latest owner:	36176	Driller sc:	0
Latest prod:	41948	Latest well:	36438
Site id:	PASI30000060876		

E16
SSW
1/2 - 1 Mile
Higher

FED USGS **USGS40001012897**

Org. Identifier:	USGS-PA		
Formal name:	USGS Pennsylvania Water Science Center		
Monloc Identifier:	USGS-401218078053701		
Monloc name:	HU 227		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	02050304	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	40.2050801
Longitude:	-78.0933388	Sourcemap scale:	24000

Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1578.00
Vert measure units:	feet	Vertacc measure val:	10
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Mauch Chunk Formation		
Aquifer type:	Not Reported		
Construction date:	19720926	Welldepth:	123
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1980-07-17	42.62	

F17
NNW
1/2 - 1 Mile
Higher

FED USGS **USGS40001013655**

Org. Identifier:	USGS-PA		
Formal name:	USGS Pennsylvania Water Science Center		
Monloc Identifier:	USGS-401323078055001		
Monloc name:	HU 231		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	02050303	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	40.2231352
Longitude:	-78.09695	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1560.00
Vert measure units:	feet	Vertacc measure val:	10
Vert accmeasure units:	feet		
Vertcollection method:	Unknown		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Mauch Chunk Formation		
Aquifer type:	Not Reported		
Construction date:	19750705	Welldepth:	105
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1975-07-05	25.00	

F18
NNW
1/2 - 1 Mile
Higher

PA WELLS **PASI30000063512**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Dep counter:	0	Siteid:	401323078055001
Transactio:	1	Local welln:	HU 231
County:	HUNTINGDON	Latitude:	Not Reported
Longitude:	Not Reported	Aapg code:	327MCCK
Topography:	HILLSIDE	Well depth:	105
Elevation:	1560		
Elev method:	UNKNOWN		
Accuracy of elev:	10	Hydrologic:	02050303
Latlong acc:	ACCURATE TO +1 SECOND	Quad code:	SALTILLO
Type of site:	WELL	Date created:	14-DEC-81
Date updated:	08-JUL-94		
Data Reliability:	FIELD CHECKED BY REPORTING AGENCY (PaDAg pest. survey)		
Source Depth Data:	OTHER/UNKNOWN/UNSPECIFIED		
Municipality:	TODD TWP.		
Latitude dd:	40.2230555556		
Longitude dd:	-78.0972222222		
Well addres:	Not Reported		
Well zipcode:	Not Reported	Depth to bedrock:	0
Bedrock not:	0	Saltwaterz:	0
Date drilled:	05-JUL-75	Pagwis id:	36455
Source site:	1	Local permit:	Not Reported
Latest owner:	36193	Driller sc:	0
Latest prod:	17132	Latest well:	36455
Site id:	PASI30000063512		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: PA Radon

Radon Test Results

Zipcode	Num Tests	Min pCi/L	Max pCi/L	Avg pCi/L
16685	7	1.3	6	3.9

Federal EPA Radon Zone for HUNTINGDON County: 1

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for HUNTINGDON COUNTY, PA

Number of sites tested: 6

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	6.400 pCi/L	0%	100%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	3.967 pCi/L	67%	33%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Scanned Digital USGS 7.5' Topographic Map (DRG)
Source: United States Geologic Survey
A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

HYDROGEOLOGIC INFORMATION

AQUIFLOW[R] Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Pennsylvania Public Water Supply Wells
Source: Pennsylvania Department of Environmental Resources Bureau of Water Supply
Telephone: 717-787-5017

Pennsylvania Groundwater Information System
Source: Department of Conservation and Natural Resources
Telephone: 717-702-2045

OTHER STATE DATABASE INFORMATION

Pennsylvania Oil and Gas Locations
Source: Pennsylvania Department of Environmental Protection
Telephone: 814-863-0104
An Oil and Gas Location is a DEP primary facility type related to the Oil & Gas Program. The sub-facility types related to Oil and Gas that are included in this layer are:Land Application -- An area where drilling cuttings or waste are disposed by land application; Well-- A well associated with oil and/or gas production; Pit -- An approved pit that is used for storage of oil and gas well fluids.Some sub facility types are not included in this layer due to security policies.

RADON

State Database: PA Radon
Source: Department of Environmental Protection
Telephone: 717-783-3594
Radon Test Results Statistics by Zip Code

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

EPA Region 3 Statistical Summary Readings
Source: Region 3 EPA
Telephone: 215-814-2082
Radon readings for Delaware, D.C., Maryland, Pennsylvania, Virginia and West Virginia.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

STREET AND ADDRESS INFORMATION

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APPENDIX F

PAGWIS DATABASE LISTING

PaGWIS Records

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.

○ Multiple Criteria ○ Polygon Search ◉ Radial Search

Longitude : -78.088410
Latitude : 40.211518
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 : 8 Records **Click on the column headers to sort the Search Results.**

PA Well ID	Driller	Driller Ref	Date Drilled	Owner	County	Municipality	Image
36442	OTHER		7/1/1978	BOLINGER, A.	HUNTINGDON	TODD TWP.	
36447	SHATZER WELL DRILLING		9/9/1975	TERRITO, GUY	HUNTINGDON	TODD TWP.	
36438	GERALD W. CLARK WELL DRILLING, INC.		9/26/1972	BRENNA, MILES	HUNTINGDON	TODD TWP.	
116748	MARTIN'S WELL DRILLING			HUSTON J	HUNTINGDON	TODD TWP.	
116749	MARTIN'S WELL DRILLING			BOLINGER A	HUNTINGDON	TODD TWP.	
116757	SHATZER WELL DRILLING			TERRITO GUY	HUNTINGDON	TODD TWP.	
116747	MARTIN'S WELL DRILLING			HUSTON J	HUNTINGDON	TODD TWP.	
116754	GERALD W. CLARK WELL DRILLING, INC.			BRENNA MILE	HUNTINGDON	TODD TWP.	

GFQU#Krp h ; Frqwdfw#GFQU ; Sulydf|#Srdf| ; Vhfxulw|#Srdf| ; SD#Krp h

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:	**OTHER**	PA Well ID:	**36442**
Driller License:	**-000**	Driller Well ID:	
Type of Activity:		Local Permit #:	
		Original Well By:	**UNKNOWN**
Date Drilled:	**7/1/1978**	Drilling Method:	**OTHER/UNKNOWN**

Owner:	**BOLINGER, A.**				
Address of Well:				Zipcode:	
County:	**HUNTINGDON**				
Municipality:	**TODD TWP.**				
Coordinate Method:					
Quadrangle:	**SALTILLO**	Latitude:	**40.20806**	Longitude:	**-78.09167**

Well Depth (*ft*):	**96**	Well Finish:	**OPEN HOLE**
Depth to Bedrock (*ft*):		Did Not Encounter Bedrock:	
Well Yield (*gpm*):	**20**	Yield Measure Method:	**VOLUMETRIC, WATCH & BUCKET**
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:	**WITHDRAWAL**	Use of Water:	**DOMESTIC**

DRILLER'S LOG

UNIT TOP	UNIT BOTTOM	DESCRIPTION OF UNITS PENETRATED

BOREHOLE

Section 1: Top: **0** Bottom: **96** Diameter: **6**

CASING

Casing 1:

Top: **0** Bottom: **20** Diameter: **6** 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: **SHATZER WELL DRILLING**
PA Well ID: **36447**
Driller License: **0045**
Driller Well ID:
Type of Activity:
Local Permit #:
Original Well By: **UNKNOWN**
Date Drilled: **9/9/1975**
Drilling Method: **AIR ROTARY**

Owner: **TERRITO, GUY**
Address of Well:
Zipcode:
County: **HUNTINGDON**
Municipality: **TODD TWP.**
Coordinate Method:
Quadrangle: **SALTILLO**
Latitude: **40.21417**
Longitude: **-78.09**

Well Depth (*ft*): **88**
Well Finish: **OPEN HOLE**
Depth to Bedrock (*ft*):
Did Not Encounter Bedrock:
Well Yield (*gpm*):
Yield Measure Method:
Static Water Level: **11.7**
(*ft below land surface*)
Water level after yield test:
(*ft below land surface*)
Length of Yield Test:
(*minutes*)
Saltwater Zone (*ft*):
Use of Well: **WITHDRAWAL**
Use of Water: **DOMESTIC**

DRILLER'S LOG

UNIT TOP	UNIT BOTTOM	DESCRIPTION OF UNITS PENETRATED

BOREHOLE

Section 1: Top: **0** Bottom: **88** Diameter: **6**

CASING

Casing 1:

Top: **0** Bottom: **42** Diameter: **6** Material: **UNKNOWN**

Seal(Grout) 1:

Top: Bottom: Type:

SCREEN/SLOT

WELL LINER

PACKER

WATER BEARING ZONE

Zone 1:	Top:	**65**	Bottom:	Yield:
Zone 2:	Top:	**80**	Bottom:	Yield:

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:	**GERALD W. CLARK WELL DRILLING, INC.**	PA Well ID:	**36438**
Driller License:	**0138**	Driller Well ID:	
Type of Activity:		Local Permit #:	
		Original Well By:	**UNKNOWN**
Date Drilled:	**9/26/1972**	Drilling Method:	**AIR ROTARY**

Owner:	**BRENNA, MILES**		
Address of Well:		Zipcode:	
County:	**HUNTINGDON**		
Municipality:	**TODD TWP.**		
Coordinate Method:			
Quadrangle:	**SALTILLO**	Latitude: **40.205**	Longitude: **-78.09361**

Well Depth (*ft*):	**123**	Well Finish:	**OPEN HOLE**
Depth to Bedrock (*ft*):		Did Not Encounter Bedrock:	
Well Yield (*gpm*):		Yield Measure Method:	
Static Water Level: (*ft below land surface*)	**42.6**	Water level after yield test: (*ft below land surface*)	
Length of Yield Test: (*minutes*)		Saltwater Zone (*ft*):	
Use of Well:	**WITHDRAWAL**	Use of Water:	**DOMESTIC**

DRILLER'S LOG

UNIT TOP	UNIT BOTTOM	DESCRIPTION OF UNITS PENETRATED

BOREHOLE

Section 1: Top: **0** Bottom: **123** Diameter: **6**

CASING

Casing 1:

Top: **0** Bottom: **26** Diameter: **6** Material: **UNKNOWN**

Seal(Grout) 1:

Top: Bottom: Type:

SCREEN/SLOT

WELL LINER

PACKER

WATER BEARING ZONE

Zone 1:	Top:	**40**	Bottom:	Yield:
Zone 2:	Top:	**80**	Bottom:	Yield:
Zone 3:	Top:	**90**	Bottom:	Yield:
Zone 4:	Top:	**110**	Bottom:	Yield:

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: **MARTIN'S WELL DRILLING**
PA Well ID: **116748**
Driller License: **1402**
Driller Well ID:
Type of Activity: **New Well**
Local Permit #:
Original Well By: **UNKNOWN**
Date Drilled:
Drilling Method:

Owner: **HUSTON J**
Address of Well:
Zipcode:
County: **HUNTINGDON**
Municipality: **TODD TWP.**
Coordinate Method:
Quadrangle: **SALTILLO**
Latitude: **40.20917**
Longitude: **-78.09056**

Well Depth (*ft*): **80**
Well Finish: **OPEN HOLE**
Depth to Bedrock (*ft*):
Did Not Encounter Bedrock:
Well Yield (*gpm*):
Yield Measure Method: **UNKNOWN**
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: **WITHDRAWAL**
Use of Water: **DOMESTIC**

DRILLER'S LOG

UNIT TOP	UNIT BOTTOM	DESCRIPTION OF UNITS PENETRATED

BOREHOLE

CASING

Casing 1:

Top: **0** Bottom: **21** Diameter: **6** Material:

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: **MARTIN'S WELL DRILLING**
PA Well ID: **116749**
Driller License: **1402**
Driller Well ID:
Type of Activity: **New Well**
Local Permit #:
Original Well By: **UNKNOWN**
Date Drilled:
Drilling Method:

Owner: **BOLINGER A**
Address of Well:
Zipcode:
County: **HUNTINGDON**
Municipality: **TODD TWP.**
Coordinate Method:
Quadrangle: **SALTILLO**
Latitude: **40.20806**
Longitude: **-78.09167**

Well Depth (*ft*): **96**
Well Finish: **OPEN HOLE**
Depth to Bedrock (*ft*):
Did Not Encounter Bedrock:
Well Yield (*gpm*):
Yield Measure Method: **UNKNOWN**
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: **WITHDRAWAL**
Use of Water: **DOMESTIC**

DRILLER'S LOG

UNIT TOP	UNIT BOTTOM	DESCRIPTION OF UNITS PENETRATED

BOREHOLE

CASING

Casing 1:

Top: **0** Bottom: **20** Diameter: **6** Material:

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: **SHATZER WELL DRILLING**
PA Well ID: **116757**
Driller License: **0045**
Driller Well ID:
Type of Activity: **New Well**
Local Permit #:
Original Well By: **UNKNOWN**
Date Drilled:
Drilling Method:

Owner: **TERRITO GUY**
Address of Well:
Zipcode:
County: **HUNTINGDON**
Municipality: **TODD TWP.**
Coordinate Method:
Quadrangle: **SALTILLO**
Latitude: **40.21278**
Longitude: **-78.08833**

Well Depth (*ft*): **88**
Well Finish: **OPEN HOLE**
Depth to Bedrock (*ft*): **40**
Did Not Encounter Bedrock:
Well Yield (*gpm*):
Yield Measure Method: **UNKNOWN**
Static Water Level: **10** (*ft below land surface*)
Water level after yield test: (*ft below land surface*)
Length of Yield Test: **4** (*minutes*)
Saltwater Zone (*ft*):
Use of Well: **WITHDRAWAL**
Use of Water: **DOMESTIC**

DRILLER'S LOG

UNIT TOP	UNIT BOTTOM	DESCRIPTION OF UNITS PENETRATED

BOREHOLE

CASING

Casing 1:

Top: **0** Bottom: **42** Diameter: **6** Material:

Seal(Grout) 1:

Top: Bottom: Type:

SCREEN/SLOT

WELL LINER

PACKER

WATER BEARING ZONE

Zone 1:	Top:	**65**	Bottom:	Yield:
Zone 2:	Top:	**80**	Bottom:	Yield:

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: **MARTIN'S WELL DRILLING**
PA Well ID: **116747**
Driller License: **1402**
Driller Well ID:
Type of Activity: **New Well**
Local Permit #:
Original Well By: **UNKNOWN**
Date Drilled:
Drilling Method:

Owner: **HUSTON J**
Address of Well:
Zipcode:
County: **HUNTINGDON**
Municipality: **TODD TWP.**
Coordinate Method:
Quadrangle: **SALTILLO**
Latitude: **40.2075**
Longitude: **-78.09167**

Well Depth (*ft*): **96**
Well Finish: **OPEN HOLE**
Depth to Bedrock (*ft*):
Did Not Encounter Bedrock:
Well Yield (*gpm*):
Yield Measure Method: **UNKNOWN**
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: **WITHDRAWAL**
Use of Water: **DOMESTIC**

DRILLER'S LOG

UNIT TOP	UNIT BOTTOM	DESCRIPTION OF UNITS PENETRATED

BOREHOLE

CASING

Casing 1:

Top: **0** Bottom: **21** Diameter: **6** Material:

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: **GERALD W. CLARK WELL DRILLING, INC.**
PA Well ID: **116754**
Driller License: **0138**
Driller Well ID:
Type of Activity: **New Well**
Local Permit #:
Original Well By: **UNKNOWN**
Date Drilled:
Drilling Method:

Owner: **BRENNA MILE**
Address of Well:
Zipcode:
County: **HUNTINGDON**
Municipality: **TODD TWP.**
Coordinate Method:
Quadrangle: **SALTILLO**
Latitude: **40.20944**
Longitude: **-78.09056**

Well Depth (*ft*): **123**
Well Finish: **OPEN HOLE**
Depth to Bedrock (*ft*): **23**
Did Not Encounter Bedrock:
Well Yield (*gpm*):
Yield Measure Method:
Static Water Level: **40** (*ft below land surface*)
Water level after yield test: (*ft below land surface*)
Length of Yield Test: (*minutes*)
Saltwater Zone (*ft*):
Use of Well: **WITHDRAWAL**
Use of Water: **DOMESTIC**

DRILLER'S LOG

UNIT TOP	UNIT BOTTOM	DESCRIPTION OF UNITS PENETRATED

BOREHOLE

CASING

Casing 1:

Top: **0** Bottom: **26** Diameter: **6** Material:

Seal(Grout) 1:

Top: Bottom: Type:

SCREEN/SLOT

WELL LINER

PACKER

WATER BEARING ZONE

Zone 1:	Top:	**40**	Bottom:	Yield:
Zone 2:	Top:	**80**	Bottom:	Yield:
Zone 3:	Top:	**90**	Bottom:	Yield:

APPENDIX G

FIELD METHODS

Drilling, Soil Sampling, Well Construction Methods

Boring/monitoring well locations were selected based on site physical constraints (i.e., overhead and underground utilities, property boundaries, locations of removed tanks and distribution system, and structures). In addition to the location of potential soil and ground water contamination, borings were advanced during the site study using the following drilling methods:

Hollow Stem Auger

Hollow stem auger drilling was used to advance borings for the purpose of collecting soil samples and to install monitoring wells. The auger size used was 4 inch inside diameter (7.25 inch outside diameter). Boring logs were constructed by direct observation of the split spoon and core soil samples. Soils were described using the USCS.

Direct Push Drilling

Direct push drilling was used to collect soil samples using a continuous core. Soil samples were collected in a 5 foot x 2 inch diameter PVC tube. Lithologic logs were constructed by direct observation of the continuous soil sampling liners. Soils were described using the USCS.

Soil Sample Collection

Drill cuttings from air rotary borings were scanned for volatile organic compounds (VOCs) using a photoionization detector (PID). However, these PID measurements from the air rotary drilling method should be considered qualitative due to the high potential for volatilization of compounds in the air stream. Also, the air stream was

scanned during drilling advancement in order to monitor breathing zones for health and safety protocol.

Soil samples from hollow steam auger and direct push borings were screened for VOCs using a PID. Soil samples were collected from each boring on the basis of PID measurements and visual observations. Soil samples were collected for VOC by inserting an Encore® sampler or TerraCore® Sampler into the soil core. The soil from the sampler was deposited in a laboratory provided 40-milliliter glass container and preserved with methanol. For semi-volatile analysis soils were collected into a laboratory provided 4-ounce glass jar. The samples were labeled, stored in a chilled cooler, and transported to the analytical laboratory under a chain of custody.

Monitoring Well Construction

Monitoring wells were constructed of 2 inch or 4 inch diameter PVC/Steel/Wire Wrap casing. Screened intervals were constructed of .010 machine slotted casing. Appropriately sized PVC blank riser extended wells to the ground surface. The annuli between the boreholes and screened intervals was packed with clean quartz sand. The sand pack was extended approximately two feet above the top of the screened interval. The remaining vertical interval above the sand pack was Bentonite sealed to the surface. Each well was completed in a flush mounted manway.

Direct Push Boring Advancement and Soil Sampling Methods

In addition to the location of potential contamination, boring/monitoring well locations were selected with knowledge of site physical constraints (i.e., overhead and underground utilities, property boundaries, locations of removed tanks and distribution system, and structures). Borings were advanced during the site study using the following drilling methods:

Direct Push Drilling

Direct push drilling was used to collect soil samples using a continuous core. Soil samples were collected in a 5 foot x 2 inch diameter PVC tube. Lithologic logs were constructed by direct observation of the continuous soil sampling liners. Soils were described using the USCS.

Soil samples were collected from soil borings following the method below:

Soil Sample Collection

Soil samples from direct push borings were screened for VOCs using a PID. Soil samples were collected from each boring on the basis of PID measurements and visual observations. Soil samples were collected for VOC by inserting an Encore® sampler or TerraCore® Sampler into the soil core. The soil from the sampler was deposited in a laboratory provided 40-milliliter glass container and preserved with methanol. For semi-volatile analysis soils were collected into a laboratory provided 4-ounce glass jar. The samples were labeled, stored in a chilled cooler, and transported to the analytical laboratory under a chain of custody.

Groundwater Sampling Methods

The sample collection methodology used by Mountain Research was designed to comply with US Environmental Protection Agency (EPA) SW-846 protocol and the Pennsylvania Groundwater Monitoring Guidance Manual, December 1, 2001. Prior to sampling, all field sampling equipment was properly cleaned to avoid sample contamination. The static water level (SWL) of each well was measured as the first step in sampling. These measurements were used to calculate groundwater elevation at each well.

Each well was purged of at least three well volumes of fluid, or until the monitoring well went dry, using a submersible pump or dedicated disposable bailer. Samples were then collected using the dedicated disposable bailer. Groundwater was decanted from the bailer into appropriate, laboratory supplied containers. The samples were labeled and stored in an ice cooler for transport to the analytical laboratory.

Slug Test Analysis Methodology

The most practical method for determining aquifer characteristics (e.g. hydraulic conductivity, and transmissivity) utilizing small diameter monitoring points is a aquifer slug test. Transmissivity (T) is a term that describes the velocity of a fluid traveling through an aquifer unit or it is the ability of the aquifer's subsurface material to transmit fluid (hydraulic conductivity - K) at a hydraulic gradient (I). When water is displaced in well during a slug test, water is removed and/or added from the aquifer surrounding the well and consequently the water table is lowered or raised over a given area. The displacement within the area of influence is the distance the water level is lowered and or raised from the initial static level. By collecting this displacement data during a slug test via a data logger system and/or manually with a water level indicator, the data can be used to generate displacement versus time best-fit line to estimate the variation of displacement with time near the well. This best fit line will describe the ability of the ground water to permeate through the aquifer.

Bouwer and Rice Method for Slug Tests

The Bouwer and Rice equation allows for the determination of the aquifer characteristics based on the following assumptions:

- The aquifer is homogenous, isotropic, of uniform thickness and infinite aerial extent.
- The water level surface is horizontal.
- The well is displaced at a constant rate.The well partially penetrates the aquifer and flow is horizontal within the aquifer.
- Water removed and/or added is performed instantaneously with a declining and/or ascending head.

To utilize the Bouwer and Rice equation: K = (rc2ln (Re/rw)/2Le x 1/t x ln yo/yt

Where:

K	=	Hydraulic Conductivity
R_c	=	radius of casing
Re	=	effective radial distance over which y is dissipated
r_w	=	radial distance of undisturbed portion of aquifer from centerline
L_e	=	length of screened area
t	=	time value
y	=	vertical difference between water level inside well and static water table outside well
y_o	=	y at time zero
y_t	=	y at time t

Best-fit time-displacement line is superimposed on the time versus displacement semi log graphs. A point is selected to determine coordinates of match points of y and t (yo at t = 0 and yt at t), a number of y and t measurements can be taken and (ln (yo/yt)/t is determined as the slope of the best-fitting line through the y versus t points on semi-logarithmic paper. The straight line through the data points can also be used to select two values of y along with the time interval t between them for substitution into the equation.

APPENDIX H

GEOLOGIC LOGS

MOUNTAIN RESEARCH, LLC
MONITORING WELL LOG

WELL NO.: MW-1

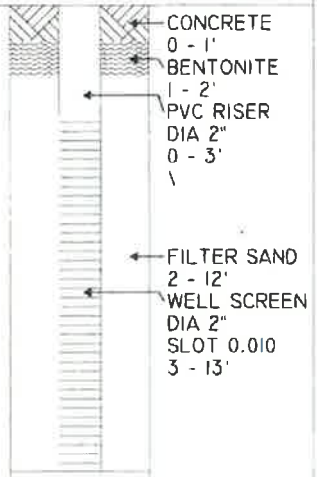
PROJECT NO.: 4547.15.01
PROJECT NAME: SOIL BORING/MW INSTALLATION
CLIENT: COOK'S COUNTRY STORE
LOCATION: ROBERTSDALE, PA
DEPTH: 14' BGS.
SATURATED ZONE: 5 - 14' BGS.
TOC ELEVATION:

WEATHER: SUNNY/80'S
LOGGED BY: HUNTER LOHR
DRILLING METHOD: DIRECT PUSH
OPERATOR: DAVE BENNETT
BOREHOLE COMPLETION: MONITORING WELL
DATE: 8-18-2015
BOREHOLE DIAMETER: 2.25"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION
0		47	0 - 1' - ASPHALT: MIXED WITH GRAVEL.
		13.8	1 - 3.5' - SANDY CLAY (CLS): BLACK.
		68.9	3.5 - 5' - SILTY CLAY (CL-ML): BROWN; LOW PLASTICITY; MOISTURE.
5		106	5 - 6.5' - SANDY CLAY (CLS): BROWN; SATURATED WHITE SHEEN.
		433	6.5 - 9' - SANDY CLAY (CLS): BROWN/RED; LOW PLASTICITY; WET.
		99	
10		11	9 - 14' - SANDY CLAY (CLS): BROWN; LOW PLASTICITY; MOISTURE.
		23	
		18	14' - REFUSAL AT 14' BGS.
15			
20			
25			
30			
35			

GRAPHIC LOG

WELL CONSTRUCTION DETAILS



MOUNTAIN RESEARCH, LLC
MONITORING WELL LOG

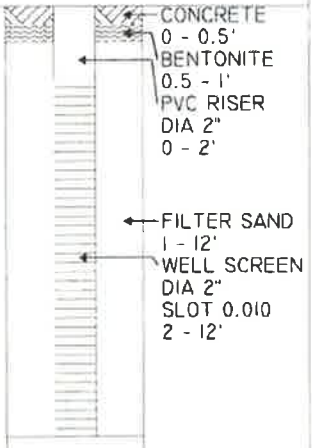
WELL NO.: MW-2

PROJECT NO.: 4547.15.01
PROJECT NAME: SOIL BORING/MW INSTALLATION
CLIENT: COOK'S COUNTRY STORE
LOCATION: ROBERTSDALE, PA
DEPTH: 13.5' BGS.
SATURATED ZONE: 9 - 10' BGS.
TOC ELEVATION:

WEATHER: SUNNY/80'S
LOGGED BY: HUNTER LOHR
DRILLING METHOD: DIRECT PUSH
OPERATOR: DAVE BENNETT
BOREHOLE COMPLETION: MONITORING WELL
DATE: 8-18-2015
BOREHOLE DIAMETER: 2.25"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION	GRAPHIC LOG
0			0 - 2.5' - SANDY SILT (MLS): BLACK; LOW RECOVERY.	
		1288	2.5 - 4' - SANDY SILT (MLS): BROWN.	
			4 - 5' - SANDSTONE COBBLES.	
5		96.4	5 - 10' - SANDY SILT (MLS): BROWN/GREY; LOW RECOVERY.	
10		8.0	10 - 11' - SANDSTONE ROCK: BLACK/GREY; WEATHERED.	
		164	11 - 13.5' - SANDSTONE ROCK: BROWN/WHITE; POWDERED; WEATHERED.	
			13.5 - REFUSAL AT 13.5' BGS.	
15				
20				
25				
30				
35				

WELL CONSTRUCTION DETAILS



MOUNTAIN RESEARCH, LLC
MONITORING WELL LOG

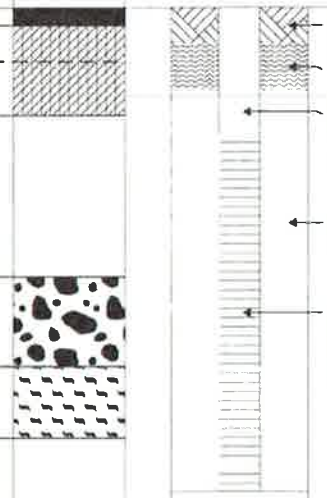
WELL NO.: MW-3

PROJECT NO.: 4547.15.01
PROJECT NAME: SOIL BORING/MW INSTALLATION
CLIENT: COOK'S COUNTRY STORE
LOCATION: ROBERTSDALE, PA
DEPTH: 15' BGS.
SATURATED ZONE: 5 - 7' BGS.
TOC ELEVATION:

WEATHER: SUNNY/80'S
LOGGED BY: HUNTER LOHR
DRILLING METHOD: DIRECT PUSH
OPERATOR: DAVE BENNETT
BOREHOLE COMPLETION: MONITORING WELL
DATE: 8-18-2015
BOREHOLE DIAMETER: 2.25"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION
0			0 - 0.5' - APHALT: MIXED WITH GRAVEL.
			0.5 - 1.5' - SANDY CLAY (CL-ML): BLACK ON OUTSIDE AND BROWN ON INSIDE; SANDY.
		1143	1.5 - 3' - SANDY CLAY (CL-ML): BROWN; MIXED WITH SILT.
		122	3 - 7.5' - SANDSTONE: SANDSTONECOBBLES; SATURATED FROM 5 TO 7' BGS.
5		10.7	
		6.9	7.5 - 10' - GRAVEL (GW): RED CLAY WEATHERED ROCK.
10		5.2	10 - 12' - FILL: SLUFF.
			12 - 15' - SANDSTONE: WEATHERED ROCK.
15			15' - REFUSAL AT 15' BGS.
20			
25			
30			
35			

GRAPHIC LOG



WELL CONSTRUCTION DETAILS

CONCRETE 0 - 1'
BENTONITE 1 - 2.3'
PVC RISER DIA 2" 0 - 3.5'
FILTER SAND 2.5 - 13.5'
WELL SCREEN DIA 2" SLOT 0.010 3.5 - 13.5'

MOUNTAIN RESEARCH, LLC
MONITORING WELL LOG

WELL NO.: MW-4

PROJECT NO.: 4547.15.01
PROJECT NAME: SOIL BORING/MW INSTALLATION
CLIENT: COOK'S COUNTRY STORE
LOCATION: ROBERTSDALE, PA
DEPTH: 14' BGS.
SATURATED ZONE: 5 - 5.5' BGS.
TOC ELEVATION:

WEATHER: OVERCAST/70'S
LOGGED BY: HUNTER LOHR
DRILLING METHOD: DIRECT PUSH
OPERATOR: DAVE BENNETT
BOREHOLE COMPLETION: MONITORING WELL
DATE: 8-18-2015
BOREHOLE DIAMETER: 2.25"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION
0			0 - 1.8' - SANDY SILT (MLS): BLACK/GREY; LOW RECOVERY FROM 0 TO 5' BGS.
			1.8 - 5' - GRAVEL: PEA GRAVEL; NO RECOVERY.
5		158	5 - 7' - SANDY GRAVEL (GWS): DARK BROWN; MIXED WITH SILTY CLAY; SATURATED FROM 5 TO 5.5' BGS.
		12.4	
		6.3	7 - 10' - SILTY CLAY (CL-ML): DARK BROWN; _OW RECOVERY.
10			10 - 11.25' - CLAY (CL): BROWN.
			11.25 - 14' - SHALE: WEATHERED.
			14' - REFUSAL AT 14' BGS.
15			
20			
25			
30			
35			

GRAPHIC LOG

WELL CONSTRUCTION DETAILS

MOUNTAIN RESEARCH, LLC
MONITORING WELL LOG

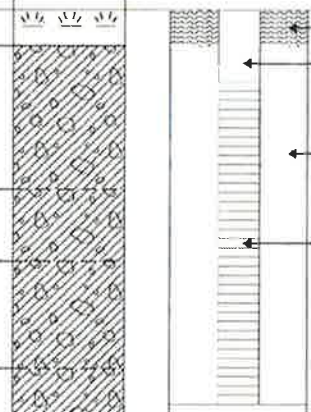
WELL NO.: MW-5

PROJECT NO.: 4547.15.01
PROJECT NAME: SOIL BORING/MW INSTALLATION
CLIENT: COOK'S COUNTRY STORE
LOCATION: ROBERTSDALE, PA
DEPTH: REFUSAL AT 14' BGS.
SATURATED ZONE: 7 - 14' BGS.
TOC ELEVATION:

WEATHER: 60'S/CLOUDY
LOGGED BY: KEVIN CLAYCOMB
DRILLING METHOD: DIRECT PUSH
OPERATOR: DAVE BENNETT
BOREHOLE COMPLETION: MONITORING WELL
DATE: 10-13-2015
BOREHOLE DIAMETER: 2.5"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION
0			0 - 1' - TOPSOIL: DRY.
		0	1 - 5' - GRAVELLY CLAY (CLG): COARSE SANDS PRESENT; DRY.
		0	
		0	
		0	
5	MW-5 (6') U	34.5	5 - 7' - GRAVELLY CLAY (CLG): GRAVELLY CLAY CONTINUES; ODOR PRESENT; DRY.
		75.3	
		8.3	7 - 10' - GRAVELLY CLAY (CLG): DARK BROWN; SLIGHT ODOR; SATURATED.
		6.4	
		7.7	
10		0	10 - 14' - GRAVELLY CLAY (CLG): GRAVELLY CLAY CONTINUES; SATURATED.
		0	
		0	
		0	
		0	
15			14' - REFUSAL AT 14' BGS - LIGHT CLAY WITH WEATHERED SHALE PRESENT.
20			
25			
30			
35			

GRAPHIC LOG



WELL CONSTRUCTION DETAILS

BENTONITE 0 - 1'
PVC RISER DIA 2" 0 - 2'
FILTER SAND 1 - 11'
WELL SCREEN DIA 2" SLOT 0.010 2 - 11'

11-24-15

MOUNTAIN RESEARCH, LLC
MONITORING WELL LOG

WELL NO.: **MW-6**

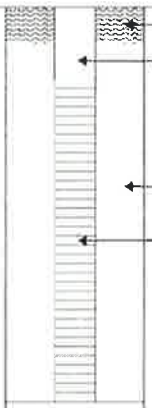
PROJECT NO.: 4547.15.01
PROJECT NAME: SOIL BORING/MW INSTALLATION
CLIENT: COOK'S COUNTRY STORE
LOCATION: ROBERTSDALE, PA
DEPTH: REFUSAL AT 14' BGS.
SATURATED ZONE: 5 - 14' BGS.
TOC ELEVATION:

WEATHER: 60'S/CLOUDY
LOGGED BY: KEVIN CLAYCOMB
DRILLING METHOD: DIRECT PUSH
OPERATOR: DAVE BENNETT
BOREHOLE COMPLETION: MONITORING WELL
DATE: 10-13-2015
BOREHOLE DIAMETER: 2.5"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION
0			0 - 1' - TOPSOIL.
		0	1 - 5' - SANDY/GRAVELLY CLAY (CLG): SANDY CLAY, WITH A LOT OF GRAVEL PRESENT; STRONG ODOR NEAR 5' BGS.
		0	
		0	
		0	
5	MW-6 (5') U	799.7	5 - 10' - GRAVELLY CLAY (CLG): ODORS PRESENT; SATURATED.
		168.8	
		31.2	
		21.9	
		17.7	
10		19.0	10 - 14' - GRAVELLY CLAY (CLG): ODORS PRESENT; SATURATED.
		55.4	
		19.3	
		21.1	
		10.8	14' - REFUSAL AT 14' BGS - WEATHERED SHALE.
15			
20			
25			
30			
35			

GRAPHIC LOG

WELL CONSTRUCTION DETAILS



11-24-15

MOUNTAIN RESEARCH, LLC
MONITORING WELL LOG

WELL NO.: **MW-7**

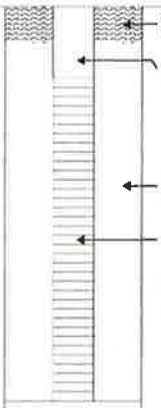
PROJECT NO.: 4547.15.01
PROJECT NAME: SOIL BORING/MW INSTALLATION
CLIENT: COOK'S COUNTRY STORE
LOCATION: ROBERTSDALE, PA
DEPTH: REFUSAL AT 12.5' BGS.
SATURATED ZONE: 6 - 12.5' BGS.
TOC ELEVATION:

WEATHER: PARTLY SUNNY/60'S
LOGGED BY: KEVIN CLAYCOMB
DRILLING METHOD: DIRECT PUSH
OPERATOR: DAVE BENNETT
BOREHOLE COMPLETION: MONITORING WELL
DATE: 10-14-2015
BOREHOLE DIAMETER: 2.5"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION
0		0	0 - 5' - SANDY CLAY (CLS): BROWN; LOW PLASTICITY; DRY; VERY LOW RECOVERY (<1').
		0	
		0	
		0	
		0	
5	MW-7 (6') U	826.9	5 - 6' - SANDY CLAY (CLS): BLACK; STRONG ODORS; DRY.
		21.8	6 - 10' - CLAYEY SAND (SC): COARSE SANDS, WITH SOME CLAY PRESENT; ODORS AND SHEEN ON WATER; SATURATED.
		18.3	
		19.9	
10		10.8	10 - 12.5' - SAND (SC): COARSE SANDS; SHEEN ON WATER; SATURATED.
		8.6	
		8.0	
			12.5' - REFUSAL AT 12.5' BGS.
15			
20			
25			
30			
35			

GRAPHIC LOG

WELL CONSTRUCTION DETAILS



BENTONITE 0 - 1'
PVC RISER DIA 2" 0 - 2'
FILTER SAND 1 - 11'
WELL SCREEN DIA 2" SLOT 0.010 2 - 11'

11-24-15

MOUNTAIN RESEARCH, LLC
MONITORING WELL LOG

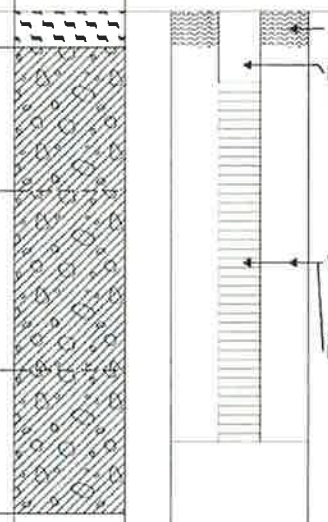
WELL NO.: SB-21/MW-8

PROJECT NO.: 4547.15.01
PROJECT NAME: SOIL BORING/MW INSTALLATION
CLIENT: COOK'S COUNTRY STORE
LOCATION: ROBERTSDALE, PA
DEPTH: REFUSAL AT 14' BGS.
SATURATED ZONE: 4 - 14' BGS.
TOC ELEVATION:

WEATHER: 40'S/SUNNY
LOGGED BY: KEVIN CLAYCOMB
DRILLING METHOD: DIRECT PUSH
OPERATOR: DAVE BENNETT
BOREHOLE COMPLETION: SOIL BORING/MONITORING WELL
DATE: 10-15-2015
BOREHOLE DIAMETER: 2.5"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION
0			0 - 1' - FILL: GRAVEL FILL MATERIAL; DRY.
		0	1 - 5' - GRAVELLY CLAY (CLG): DARK BROWN; COARSE SANDS PRESENT.
		0	
		0	
	SB-21/MW-8 (4') U	0	
5		0	5 - 10' - GRAVELLY CLAY (CLG): CONTINUES, WITH A LOT OF COARSE SANDS PRESENT.
		0	
		0	
		0	
		0	
10		0	10 - 14' - GRAVELLY CLAY (CLG): CONTINUES; SATURATED.
			14' - REFUSAL AT 14' BGS.
15			
20			
25			
30			
35			

GRAPHIC LOG



WELL CONSTRUCTION DETAILS

11-24-15

MOUNTAIN RESEARCH, LLC
SOIL BORING LOG

BORING NO.: **SB-1**

PROJECT NO.: 4547.15.01
PROJECT NAME: SOIL BORING/MW INSTALLATION
CLIENT: COOK'S COUNTRY STORE
LOCATION: ROBERTSDALE, PA
DEPTH: 14' BGS.
SATURATED ZONE: 5 - 6' BGS.

WEATHER: OVERCAST/70'S
LOGGED BY: HUNTER LOHR
DRILLING METHOD: DIRECT PUSH
OPERATOR: DAVE BENNETT
BOREHOLE COMPLETION: SOIL BORING
DATE: 8-18-2015
BOREHOLE DIAMETER: 2.25"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION	GRAPHIC LOG
0			0 - 1' - SANDY CLAY (CLS): BLACK.	
		1062	1 - 2' - SANDY CLAY (CLS): BLACK/BROWN.	
		1470	2 - 5' - SANDSTONE: BROWN/GREY IN COLOR; NO RECOVERY FROM 4 TO 5' BGS.	
5		630	5 - 7' - SILTY CLAY (CL-ML: BROWN; NO RECOVERY FROM 5 TO 6' BGS - SHEEN.	
		220	7 - 9' - GRAVEL (GW): REDDISH-BROWN; SILTY.	
		63	9 - 10' - SANDSTONE: WHITE.	
10		32	10 - 12' - SANDSTONE: BROWN; COBBLES.	
		48	12 - 14' - SANDSTONE ROCK: BROWN; WEATHERED.	
15			14' - REFUSAL @ 14' BGS.	
20				
25				
30				
35				

MOUNTAIN RESEARCH, LLC
SOIL BORING LOG

BORING NO.: **SB-2**

PROJECT NO.: 4547.15.01
PROJECT NAME: SOIL BORING/MW INSTALLATION
CLIENT: COOK'S COUNTRY STORE
LOCATION: ROBERTSDALE, PA
DEPTH: 9' BGS.
SATURATED ZONE: 5 - 6.5' BGS.

WEATHER: OVERCAST/70'S
LOGGED BY: HUNTER LOHR
DRILLING METHOD: DIRECT PUSH
OPERATOR: DAVE BENNETT
BOREHOLE COMPLETION: SOIL BORING
DATE: 8-18-2015
BOREHOLE DIAMETER: 2.25"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION	GRAPHIC LOG
0			0 - 3' - SANDY CLAY (CLS): BLACK.	
		1127		
		1480	3 - 5' - CLAY (CL): BROWN; LOW PLASTICITY; ODOR AND SHEEN; WET	
5		205	5 - 6.5' - SANDY SILT (MLS): BLACK; SATURATED.	
			6.5 - 7.5' - SANDY SILT (MLS): BROWN; HARD QUARTZ SILT.	
		36.8	7.5 - 9' - SANDSTONE.	
		22		
			9' - REFUSAL AT 9' BGS.	
10				
15				
20				
25				
30				
35				

Plate 3

MOUNTAIN RESEARCH, LLC
SOIL BORING LOG

BORING NO.: **SB-3**

PROJECT NO.: 4547.15.01
PROJECT NAME: SOIL BORING/MW INSTALLATION
CLIENT: COOK'S COUNTRY STORE
LOCATION: ROBERTSDALE, PA
DEPTH: 14' BGS.
SATURATED ZONE: 6.5 - 8' BGS.

WEATHER: SUNNY/80'S
LOGGED BY: HUNTER LOHR
DRILLING METHOD: DIRECT PUSH
OPERATOR: DAVE BENNETT
BOREHOLE COMPLETION: SOIL BORING
DATE: 8-18-2015
BOREHOLE DIAMETER: 2.25"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION	GRAPHIC LOG
0			0 - 5' - SANDY SILT (MLS): 3.5' RECOVERY; 2.5 - 3.5 - BLACK SANDY SILT; 3.5 - 5' - BROWN SANDY CLAY - LOW PLASTICITY, WET.	
		1230		
		598		
5		62.6	5 - 7.5' - SANDSTONE: SANDSTONE COBBLES; MIXED WITH BLACK/GREY SANDY SILT.	
		47.1	7.5 - 10' - SANDSTONE ROCK: BROWN/RED; WEATHERED; SATURATED FROM 6.5 TO 8' BGS.	
10		21.2	10 - 12' - SANDSTONE: COBBLES.	
		18	12 -14' - SILTY SAND (SM): BROWN.	
		16.3	14' - REFUSAL AT 14' BGS.	
15				
20				
25				
30				
35				

MOUNTAIN RESEARCH, LLC
SOIL BORING LOG

BORING NO.: **SB-4**

PROJECT NO.: 4547.15.01
PROJECT NAME: SOIL BORING/MW INSTALLATION
CLIENT: COOK'S COUNTRY STORE
LOCATION: ROBERTSDALE, PA
DEPTH: 14' BGS.
SATURATED ZONE: 5 - 7' BGS.

WEATHER: SUNNY/80'S
LOGGED BY: HUNTER LOHR
DRILLING METHOD: DIRECT PUSH
OPERATOR: DAVE BENNETT
BOREHOLE COMPLETION: SOIL BORING
DATE: 8-18-2015
BOREHOLE DIAMETER: 2.25"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION	GRAPHIC LOG
0			0 - 1' - ASPHALT.	
		1308	1 - 1.5' - SANDY SILT (MLS): BLACK ON OUTSIDE; BROWN SANDY SILT ON INSIDE. 1.5 - 1.6' - SANDSTONE: BROWN/WHITE. 1.6 - 4' - SANDY CLAY (CLS): GREY/BROWN.	
		35.3	4 - 7' - SANDY SILT (MLS): BLACK; ODOR AND SHEEN; SATURATED FROM 5 TO 7' BGS.	
5				
		14.4	7 - 10' - SILTY SAND (SM): BROWN; MIXED WITH SANDSTONE COBBLES FROM 8 TO 10' BGS.	
10			10 - 13.5' - SANDSTONE COBBLES: BROWN; NO RECOVERY FROM 10 TO 12.5' BGS.	
		11.1		
			13.5 - 14' - SANDSTONE: WEATHERED ROCK.	
15			14' - REFUSAL AT 14' BGS.	
20				
25				
30				
35				

MOUNTAIN RESEARCH, LLC
SOIL BORING LOG

BORING NO.: **SB-5**

PROJECT NO.: 4547.15.01
PROJECT NAME: SOIL BORING/MW INSTALLATION
CLIENT: COOK'S COUNTRY STORE
LOCATION: ROBERTSDALE, PA
DEPTH: 14' BGS.
SATURATED ZONE: 6.5 - 8.5' BGS

WEATHER: SUNNY/80'S
LOGGED BY: HUNTER LOHR
DRILLING METHOD: DIRECT PUSH
OPERATOR: DAVE BENNETT
BOREHOLE COMPLETION: SOIL BORING
DATE: 8-18-2015
BOREHOLE DIAMETER: 2.25"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION	GRAPHIC LOG
0			0 - 0.5' - CONCRETE.	
			0.5 - 1.5' - SANDY SILT (MLS): BLACK.	
		217	1.5 - 3' SANDSTONE COBBLES; LOW RECOVERY.	
		1070	3 - 3.7' - SANDY CLAY (CLS): GREY/BLACK.	
			3.7 - 4' - SANDSTONE COBBLES.	
5			4 - 5' - SANDY SILT (MLS): BLACK.	
		44.3	5 - 7' - SANDY SILT (MLS): BROWN/GREY/BLACK; ODOR; SATURATED FROM 6.5 TO 8.5' BGS.	
		23.8	7 - 8' - SANDSTONE COBBLES.	
			8 - 10' - SANDY CLAY (CLS): RED; HARD.	
10			10 - 12' - SANDSTONE COBBLES; LOW TO NO RECOVERY.	
			12 - 13' - SILTY CLAY (CL-ML): RED.	
			13 - 14' - SHALE: WEATHERED.	
15			14' - REFUSAL AT 14' BGS.	
20				
25				
30				
35				

MOUNTAIN RESEARCH, LLC
SOIL BORING LOG

BORING NO.: **SB-6**

PROJECT NO.: 4547.15.01
PROJECT NAME: SOIL BORING/MW INSTALLATION
CLIENT: COOK'S COUNTRY STORE
LOCATION: ROBERTSDALE, PA
DEPTH: 13' BGS.
SATURATED ZONE: 10 - 12' BGS.

WEATHER: SUNNY/80'S
LOGGED BY: HUNTER LOHR
DRILLING METHOD: DIRECT PUSH
OPERATOR: DAVE BENNETT
BOREHOLE COMPLETION: SOIL BORING
DATE: 8-18-2015
BOREHOLE DIAMETER: 2.25"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION	GRAPHIC LOG
0			0 - 2.5' - SANDY CLAY (CLS): BLACK; LOW RECOVERY.	
		1119		
			2.5 - 5' - SANDSTONE: SANDSTONE COBBLES - MIXED WITH GREY SANDY CLAY	
		1066		
5			5 - 6.5' - SANDY CLAY (CLS): BLACK/GREY; SHEEN; ODOR.	
		818		
			6.5 - 10' - SANDSTONE: MIXED WITH RED SANDY CLAY; LOW RECOVERY.	
		1047		
10		44.3	10 - 12' - SANDSTONE: SANDSTONE COBBLES; LOW RECOVERY; SATURATED.	
			12 - 13' - SANDSTONE: WHITE; POWDERED.	
			13' - REFUSAL AT 13' BGS.	
15				
20				
25				
30				
35				

MOUNTAIN RESEARCH, LLC
SOIL BORING LOG

BORING NO.: **SB-7**

PROJECT NO.: 4547.15.01
PROJECT NAME: SOIL BORING/MW INSTALLATION
CLIENT: COOK'S COUNTRY STORE
LOCATION: ROBERTSDALE, PA
DEPTH: 10' BGS.
SATURATED ZONE: N/A

WEATHER: SUNNY/80'S
LOGGED BY: HUNTER LOHR
DRILLING METHOD: DIRECT PUSH
OPERATOR: DAVE BENNETT
BOREHOLE COMPLETION: SOIL BORING
DATE: 8-19-2015
BOREHOLE DIAMETER: 2.25"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION	GRAPHIC LOG
0			0 - 1' - GRAVEL (GW): PEA GRAVEL; LOW RECOVERY.	
		472	1 - 1.5' - SANDY CLAY (CLS): BLACK; MIXED WITH SILT.	
			1.5 - 5' - SANDSTONE COBBLES.	
5			5 - 9' - SANDY SILT (MLS): BLACK/RED; LOW RECOVERY; NO RECOVERY FROM 5 TO 7.5' BGS.	
		144		
10		36.5	9 - 10' - SHALE: RED; WEATHERED.	
			10 - REFUSAL AT 10' BGS.	
15				
20				
25				
30				
35				

MOUNTAIN RESEARCH, LLC
SOIL BORING LOG

BORING NO.: **SB-8**

PROJECT NO.: 4547.15.01
PROJECT NAME: SOIL BORING/MW INSTALLATION
CLIENT: COOK'S COUNTRY STORE
LOCATION: ROBERTSDALE, PA
DEPTH: 10' BGS.
SATURATED ZONE: N/A

WEATHER: SUNNY/80'S
LOGGED BY: HUNTER LOHR
DRILLING METHOD: DIRECT PUSH
OPERATOR: DAVE BENNETT
BOREHOLE COMPLETION: SOIL BORING
DATE: 8-19-2015
BOREHOLE DIAMETER: 2.25"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION	GRAPHIC LOG
0		322	0 -5 ' - SANDY CLAY (CLS): BLACK/BROWN; FINE GRAINED; MIXED WITH SANDSTONE COBBLES; LOW RECOVERY.	
5		25.6	5 - 8' - SANDY SILT (MLS): BLACK; FINE GRAINED; LOW RECOVERY.	
			8 - 10' - FILL: SLUFF.	
10			10' - REFUSAL AT 10' BGS.	
15				
20				
25				
30				
35				

MOUNTAIN RESEARCH, LLC
SOIL BORING LOG

BORING NO.: **SB-9**

PROJECT NO.: 4547.15.01
PROJECT NAME: SOIL BORING/MW INSTALLATION
CLIENT: COOK'S COUNTRY STORE
LOCATION: ROBERTSDALE, PA
DEPTH: 9.5' BGS.
SATURATED ZONE: N/A

WEATHER: SUNNY/80'S
LOGGED BY: HUNTER LOHR
DRILLING METHOD: DIRECT PUSH
OPERATOR: DAVE BENNETT
BOREHOLE COMPLETION: SOIL BORING
DATE: 8-19-2015
BOREHOLE DIAMETER: 2.25"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION	GRAPHIC LOG
0		84.3	0 - 1' - ASPHALT: MIXED WITH BLACK SANDY SILT.	
		261	1 - 2' - SANDY SILT (MLS): BLACK.	
		1163	2 - 5' - SANDY SILT (MLS): BLACK; FINE GRAINED.	
		1064		
5		170	5 - 8' - SILTY CLAY (CL-ML): RED; FINE GRAINED; SANDY; NO RECOVERY FROM 5 TO 7' BGS.	
		9.6		
		4.6	8 - 9.5' - GRAVELLY CLAY (CLG): RED CLAY, MIXED WITH WEATHERED SHALE GRAVEL.	
10			9.5' - REFUSAL AT 9.5' BGS.	
15				
20				
25				
30				
35				

MOUNTAIN RESEARCH, LLC
SOIL BORING LOG

BORING NO.: **SB-10**

PROJECT NO.: 4547.15.01
PROJECT NAME: SOIL BORING/MW INSTALLATION
CLIENT: COOK'S COUNTRY STORE
LOCATION: ROBERTSDALE, PA
DEPTH: 9.5' BGS.
SATURATED ZONE: N/A

WEATHER: SUNNY/80'S
LOGGED BY: HUNTER LOHR
DRILLING METHOD: DIRECT PUSH
OPERATOR: DAVE BENNETT
BOREHOLE COMPLETION: SOIL BORING
DATE: 8-19-2015
BOREHOLE DIAMETER: 2.25"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION	GRAPHIC LOG
0		1.8	0 - 1' - ASPHALT: MIXED WITH SILTY GRAVEL STONE.	
			1 - 5' - SANDSTONE: BACKFILL ROCK.	
5		571	5 - 8.5' - SANDY CLAY (CLS): BLACK/GREY; SHEEN; NO RECOVER FROM 5 TO 7' BGS.	
		62.2	8.5 - 9.5' - SANDY CLAY (CLS): RED; MIXED WITH WEATHERED ROCK.	
10			9.5' - REFUSAL AT 9.5' BGS.	
15				
20				
25				
30				
35				

MOUNTAIN RESEARCH, LLC
SOIL BORING LOG

BORING NO.: **SB-11**

PROJECT NO.: 4547.15.01
PROJECT NAME: SOIL BORING/MW INSTALLATION
CLIENT: COOK'S COUNTRY STORE
LOCATION: ROBERTSDALE, PA
DEPTH: 4' BGS.
SATURATED ZONE: N/A

WEATHER: SUNNY/80'S
LOGGED BY: HUNTER LOHR
DRILLING METHOD: DIRECT PUSH
OPERATOR: DAVE BENNETT
BOREHOLE COMPLETION: SOIL BORING
DATE: 8-19-2015
BOREHOLE DIAMETER: 2.25"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION	GRAPHIC LOG
0			0 - 1' - SANDY SILT (MLS): BLACK.	
		1004	1 - 2' - SANDY SILT (MLS): BROWN.	
		612	2 - 4' - SANDSTONE COBBLES; WHITE; FINE GRAINED; NO RECOVERY FROM 2 - 3' BGS.	
		1383	4' - REFUSAL AT 4' BGS.	
5				
10				
15				
20				
25				
30				
35				

MOUNTAIN RESEARCH, LLC
SOIL BORING LOG

BORING NO.: **SB-12**

PROJECT NO.: 4547.15.01
PROJECT NAME: SOIL BORING/MW INSTALLATION
CLIENT: COOK'S COUNTRY STORE
LOCATION: ROBERTSDALE, PA
DEPTH: 13' BGS.
SATURATED ZONE: N/A

WEATHER: SUNNY/80'S
LOGGED BY: HUNTER LOHR
DRILLING METHOD: DIRECT PUSH
OPERATOR: DAVE BENNETT
BOREHOLE COMPLETION: SOIL BORING
DATE: 8-19-2015
BOREHOLE DIAMETER: 2.25"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION	GRAPHIC LOG
0			0 - 0.5' - CONCRETE.	
		17.0	0.5 - 7.5' - SANDY CLAY (CLS): BLACK; NO RECOVERY FROM 5 TO 7.5' BGS.	
		775		
		862		
		485		
5		183		
		29	7.5 - 10' - SHALE: BROWN/WHITE; WEATHERED.	
10		12.1	10 - 13' - SHALE: RED; WEATHERED.	
		6.2		
			13' - REFUSAL AT 13' BGS.	
15				
20				
25				
30				
35				

MOUNTAIN RESEARCH, LLC
SOIL BORING LOG

BORING NO.: **SB-13**

PROJECT NO.: 4547.15.01
PROJECT NAME: SOIL BORING/MW INSTALLATION
CLIENT: COOK'S COUNTRY STORE
LOCATION: ROBERTSDALE, PA
DEPTH: REFUSAL AT 14' BGS.
SATURATED ZONE: 3 - 14' BGS.

WEATHER: 60'S/SUNNY
LOGGED BY: KEVIN CLAYCOMB
DRILLING METHOD: DIRECT PUSH
OPERATOR: DAVE BENNETT
BOREHOLE COMPLETION: SOIL BORING
DATE: 10-13-2015
BOREHOLE DIAMETER: 2.5"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION	GRAPHIC LOG
0		2.4	0 - 1' - FILL: FILL GRAVEL.	
		823.4 119.3 21.1 18.3	1 - 5' - BOULDERS (BLDRCBB): BOULDERS, MIXED WITH BROWN COARSE SANDS; SATURATION AT 3' BGS.	
5			5 - 10' - GRAVELLY SAND (SWG): SOME SANDY CLAY PRESENT; SOME SHEEN ON WATER; BROWN SANDS AND CLAY; SATURATED.	
10			10 - 14' - GRAVELLY CLAY (CLS): SATURATED.	
15			14' - REFUSAL AT 14' BGS.	
20				
25				
30				
35				

11-24-15

MOUNTAIN RESEARCH, LLC
SOIL BORING LOG

BORING NO.: **SB-14**

PROJECT NO.: 4547.15.01
PROJECT NAME: SOIL BORING/MW INSTALLATION
CLIENT: COOK'S COUNTRY STORE
LOCATION: ROBERTSDALE, PA
DEPTH: REFUSAL AT 14' BGS.
SATURATED ZONE: 5 - 14' BGS.

WEATHER: 60'S/UNNY
LOGGED BY: KEVIN CLAYCOMB
DRILLING METHOD: DIRECT PUSH
OPERATOR: DAVE BENNETT
BOREHOLE COMPLETION: SOIL BORING
DATE: 10-13-2014
BOREHOLE DIAMETER: 2.5"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION	GRAPHIC LOG
0		0.0	0 - 1' - ASPHALT: MIXED WITH GRAVEL FILL; DRY.	
		0.0	1 - 5' - SAND (SW): COARSE SANDS, MIXED WITH BOULDERS; LIGHT BROWN SANDS; STRONG ODORS AT 4 - 5' BGS; DRY.	
		118.8		
		1211		
		81.1		
5		13.3	5 - 10' - GRAVELLY CLAY (CLG): LIGHT BROWN; A LOT OF COARSE SANDS PRESENT; SATURATED.	
		0.0		
		0.0		
		0.0		
10		0.0	10 - 14' - GRAVELLY CLAY (CLG): GRAVELLY CLAY CONTINUES; SATURATED.	
		0.0		
		0.0		
		0.0		
		0.0		
15			14' - REFUSAL AT 14' BGS.	
20				
25				
30				
35				

11-24-15

MOUNTAIN RESEARCH, LLC
SOIL BORING LOG

BORING NO.: **SB-15**

PROJECT NO.: 4547.15.01
PROJECT NAME: SOIL BORING/MW INSTALLATION
CLIENT: COOK'S COUNTRY STORE
LOCATION: ROBERTSDALE, PA
DEPTH: REFUSAL AT 15' BGS.
SATURATED ZONE: 10 - 15' BGS.

WEATHER: 60'S/CLOUDY
LOGGED BY: KEVIN CLAYCOMB
DRILLING METHOD: DIRECT PUSH
OPERATOR: DAVE BENNETT
BOREHOLE COMPLETION: SOIL BORING
DATE: 10-13-2015
BOREHOLE DIAMETER: 2.5"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION	GRAPHIC LOG
0	SB-15 (9.5') U	0	0 - 5' - GRAVEL WITH CLAY (GW-GC): GRAVEL, MIXED WITH FINE GRAIN SANDY CLAY; MORE GRAVEL THAN CLAY; MAINLY SANDSTONE GRAVEL; CLAY IS DARK BROWN; LOW PLASTICITY; DRY.	
		0		
		0		
		0		
5		0	5 - 10' - GRAVEL WITH CLAY (GW-GC): GRAVEL, MIXED WITH SANDY CLAY CONTINUES - MORE COARSE SANDS - STILL MAINLY SANDSTONE; MOIST FROM 8 TO 8.5' BGS - REMAINDER OF INTERVAL IS DRY.	
		0		
		0		
		0		
		0		
10		0	10 -13' - GRAVEL WITH CLAY (GW-GC): GRAVEL MIXED WITH CLAY CONTINUES; SATURATED.	
		0		
		0		
		0		
		0	13 - 15' - SILTY CLAY (CL-ML): LIGHT BROWN; VERY LOW PLASTICITY; NO GRAVEL PRESENT.	
		0		
15			15' - REFUSAL AT 15' BGS - WEATHERED SHALE.	
20				
25				
30				
35				

11-24-15

MOUNTAIN RESEARCH, LLC
SOIL BORING LOG

BORING NO.: **SB-16**

PROJECT NO.: 4547.15.01
PROJECT NAME: SOIL BORING/MW INSTALLATION
CLIENT: COOK'S COUNTRY STORE
LOCATION: ROBERTSDALE, PA
DEPTH: REFUSAL AT 14' BGS.
SATURATED ZONE: 5 - 14' BGS.

WEATHER: 60'S/PARTLY SUNNY
LOGGED BY: KEVIN CLAYCOMB
DRILLING METHOD: DIRECT PUSH
OPERATOR: DAVE BENNETT
BOREHOLE COMPLETION: SOIL BORING
DATE: 10-14-2015
BOREHOLE DIAMETER: 2.5"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION	GRAPHIC LOG
0			0 - 1' - FILL: GRAVEL.	
		0	1 - 5' - GRAVELLY CLAY (CLG): LIGHT BROWN; MOSTLY SANDSTONE GRAVEL; ODOR NEAR 5' BGS; DRY.	
		0		
		0		
		0		
5	SB-16 (5') U	74.3	5 - 10' - GRAVEL WITH CLAY (GW-GC): MOSTLY GRAVEL - SMALL AMOUNT OF CLAY; SATURATED.	
		14.4		
		8.8		
		0		
		0		
10		0	10 - 14' - SANDY CLAY (CLS): COARSE SANDS; SATURATED.	
		0		
		0		
		0		
		0	14' - REFUSAL AT 14' BGS - WEATHERED SHALE.	
15				
20				
25				
30				
35				

11-24-15

MOUNTAIN RESEARCH, LLC
SOIL BORING LOG

BORING NO.: **SB-17**

PROJECT NO.: 4547.15.01
PROJECT NAME: SOIL BORING/MW INSTALLATION
CLIENT: COOK'S COUNTRY STORE
LOCATION: ROBERTSDALE, PA
DEPTH: REFUSAL AT 14' BGS.
SATURATED ZONE: 5 - 14' BGS.

WEATHER: 60'S/PARTLY SUNNY
LOGGED BY: KEVIN CLAYCOMB
DRILLING METHOD: DIRECT PUSH
OPERATOR: DAVE BENNETT
BOREHOLE COMPLETION: SOIL BORING
DATE: 10-14-2015
BOREHOLE DIAMETER: 2.5"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION	GRAPHIC LOG
0		0.0	0 - 5' - GRAVELLY CLAY: DARK BROWN; COARSE SANDS PRESENT; MOSTLY SANDSTONE GRAVEL; ODOR FROM 4 TO 5' BGS; DRY.	
		0.0		
		0.0		
		33.6		
	SB-17 (5') U	39.2		
5		10.7	5 - 10' - SAND (SW): GREY; CONSOLIDATED SANDS; VERY LITTLE GRAVEL - MOSTLY COARSE GRANED SANDS; SATURATED.	
		13.5		
		1.1		
		1.9		
		3.1		
10		2.8	10 -14' - SAND (SW): BLACK/GREY; CONSOLIDATED SANDS CONTINUE; STRONG ODORS; SATURATED.	
		10.9		
		6.3		
		4.4		
15			14' - REFUSAL AT 14' BGS.	
20				
25				
30				
35				

11-24-15

MOUNTAIN RESEARCH, LLC
SOIL BORING LOG

BORING NO.: **SB-18**

PROJECT NO.: 4547.15.01
PROJECT NAME: SOIL BORING/MW INSTALLATION
CLIENT: COOK'S COUNTRY STORE
LOCATION: ROBERTSDALE, PA
DEPTH: REFUSAL AT 15' BGS.
SATURATED ZONE: 0 - 5' / 10 - 15' BGS.

WEATHER: 60'S/PARTLY SUNNY
LOGGED BY: KEVIN CLAYCOMB
DRILLING METHOD: DIRECT PUSH
OPERATOR: DAVE BENNETT
BOREHOLE COMPLETION: SOIL BORING
DATE: 10-14-2015
BOREHOLE DIAMETER: 2.5"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION	GRAPHIC LOG
0	SB-18 (10') U	0	0 - 5' - FILL: LOW RECOVERY (1'); ALL LIMESTONE FILL GRAVEL; SATURATED.	
		0		
		0		
		0		
5		0	5 - 10' - GRAVEL (GW): BROWN; MAINLY GRAVEL - SOME SILTY CLAY; DRY.	
		0		
		0		
		0		
10		0	10 - 15' - GRAVELLY CLAY (CLG): LIGHT BROWN; MOSTLY SANDSTONE GRAVEL; SATURATED.	
		0		
		0		
		0		
15		0	15' - REFUSAL AT 15' BGS.	
20				
25				
30				
35				

MOUNTAIN RESEARCH, LLC
SOIL BORING LOG

BORING NO.: **SB-19**

PROJECT NO.: 4547.15.01
PROJECT NAME: SOIL BORING/MW INSTALLATION
CLIENT: COOK'S COUNTRY STORE
LOCATION: ROBERTSDALE, PA
DEPTH: REFUSAL AT 14' BGS.
SATURATED ZONE: 5 - 14' BGS.

WEATHER: 60'S/PARTLY SUNNY
LOGGED BY: KEVIN CLAYCOMB
DRILLING METHOD: DIRECT PUSH
OPERATOR: DAVE BENNETT
BOREHOLE COMPLETION: SOIL BORING
DATE: 10-14-2015
BOREHOLE DIAMETER: 2.5"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION	GRAPHIC LOG
0			0 - 1' - TOPSOIL.	
		0	1 - 4' - SANDY CLAY (CLS): BROWN; FINE GRAIN; LOW PLASTICITY; DRY.	
		0		
		0		
		0		
		0	4 - 5' - SAND (SW): GREY; COARSE; MOIST.	
5	SB-19 (5') U	0	5 - 10' - SAND (SW): GREY SAND CONTINUES; COARSE; SATURATED.	
		0		
		0		
		0		
		0		
10		0	10 - 14' - GRAVELLY CLAY (CLG): MIXED WITH SANDS AND SANDSTONE; SATURATED.	
		0		
		0		
		0		
		0		
			14' - REFUSAL AT 14' BGS.	
15				
20				
25				
30				
35				

11-24-15

MOUNTAIN RESEARCH, LLC
SOIL BORING LOG

BORING NO.: **SB-20**

PROJECT NO.: 4547.15.01
PROJECT NAME: SOIL BORING/MW INSTALLATION
CLIENT: COOK'S COUNTRY STORE
LOCATION: ROBERTSDALE, PA
DEPTH: REFUSAL AT 8.5' BGS.
SATURATED ZONE: 5 - 8.5' BGS.

WEATHER: 40'S/SUNNY
LOGGED BY: KEVIN CLAYCOMB
DRILLING METHOD: DIRECT PUSH
OPERATOR: DAVE BENNETT
BOREHOLE COMPLETION: SOIL BORING
DATE: 10-15-2015
BOREHOLE DIAMETER: 2.5"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION	GRAPHIC LOG
0			0 - 1' - ASPHALT - MIXED WITH FILL GRAVEL.	
		0	1 -5' GRAVELLY SANDS (SWG): LIGHT BROWN; MIXED WITH SOME SAND CLAY; MOSTLY SANDSTONE GRAVEL.	
		0		
		0		
		0		
5	SB-20 (5') U	0	5 - 8.5' - GRAVELLY SANDS (SWG): BROWN; MORE SANDY CLAY PRESENT; NO ODOR OR SHEEN ON WATER.	
		0		
		0		
		0		
			8.5' - REFUSAL AT 8.5' BGS.	
10				
15				
20				
25				
30				
35				

11-24-15

MOUNTAIN RESEARCH, LLC
SOIL BORING LOG

BORING NO.: **SB-22**

PROJECT NO.: 4547.15.01
PROJECT NAME: SOIL BORING/MW INSTALLATION
CLIENT: COOK'S COUNTRY STORE
LOCATION: ROBERTSDALE, PA
DEPTH: REFUSAL AT 14' BGS.
SATURATED ZONE: 10 - 14' BGS.

WEATHER: 50'S/SUNNY
LOGGED BY: KEVIN CLAYCOMB
DRILLING METHOD: DIRECT PUSH
OPERATOR: DAVE BENNETT
BOREHOLE COMPLETION: SOIL BORING
DATE: 10-15-2015
BOREHOLE DIAMETER: 2.5"

DEPTH SCALE	SAMPLE NO.	PID (PPM)	LITHOLOGY DESCRIPTION	GRAPHIC LOG
0			0 - 1' - TOPSOIL: DARK BROWN.	
		0	1 - 5' - SANDY CLAY (CLS): BROWN/ORNGE; FINE GRAIN; LOW PLASTICITY; DRY.	
		0		
		0		
		0		
5		0	5 - 10' - GRAVELLY CLAY (CLG): RED/BROWN; MIXED WITH COARSE SANDS; DRY.	
		0		
		0		
		0		
		0		
10	SB-22 (10') U	0	10 - 14' - GRAVELLY CLAY (CLG): RED/BROWN GRAVELLY CLAY CONTINUES; SATURATED.	
		0		
		0		
		0		
		0		
15			14' - REFUSAL AT 14' BGS.	
20				
25				
30				
35				

11-24-15

APPENDIX I

LABORATORY ANALYTICAL DATA REPORTS – GEOTECHNICAL

WATER HOLDING CAPACITY / EFFECTIVE POROSITY

Client	Mountain Research, LLC	
Client Project	4547.15.01	
Project No.	36414	
Boring	MW-3	
Depth	3.0'-5.0'	
Sample	MW-3	
Lab ID	36414001	
Wet Weight	47.13	
Dry Weight	43.19	
Water	3.94	
Water Content @ 1/3 Bar, %	9.1%	= (Water / Dry Soil) * 100
Moisture Content @ 1/3 Bar, %	8.4%	= (Water / Wet Soil) *100
Porosity, n	0.33	
Effective Porosity	**0.24**	**= Porosity - Water Content @ 1/3 Bar**

Method Reference:
Methods of Soil Analysis, Part 3 - Chemical Methods, 2nd Ed. Rev.
Soil Science Society of America, Black, C.A. et al. 1982, p 663

Date Tested: 10/9/2015

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SPECIFIC GRAVITY OF SOILS - ASTM D854 (B)

Client: Mountain Research, LLC
Client Project: 4547.15.01
Project No.: 36414

Lab Sample No.	Boring	Depth	Sample	Replicate No.	Material Used	Passing #4 Sieve	Pycnometer Id.	Pre-test Pycnometer Check Weight	Weight Pycnometer +Soil+Water	Test Temp.	Tare No.	Weight Tare+ Dry Soil	Tare Weight	Weight Dry Soil	Test Water Density	Weight Pycnometer +Water at Test Temp	Average Calibrated Pycnometer Dry Weight	Average Calibrated Volume of Pycnometer	Specific Gravity of Soil at Test Temp	Conversion Factor For Temp	Specific Gravity of Soil at 20°C
								gm	gm	°C		gm	gm	gm	gm/ml	gm	gm	ml	g/cc		g/cc
					Sieve	%		Mp	Mpw,t	Tt				Mds	ρw,t	Mpw,t	Mp	Vp	Gt	Tb-K	G20°C
				TEST PARAMETERS													CALIBRATION PARAMETERS		SPECIFIC GRAVITY		
36414001	MW-3	3.0'-5.0'	MW-3	1	- #4	NA	1	164.86	698.32	20.5	879	158.91	101.84	57.07	0.9981	663.58	164.84	499.69	2.556	0.9999	2.56

Input Validation: tmp

Reviewed By: SVG

Date: 10/8/2015

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PARTICLE-SIZE ANALYSIS OF SOILS - ASTM D422

Client	Mountain Research, LLC	Boring	MW-3
Client Project	4547.15.01	Depth	3.0'-5.0'
Project No.	36414	Sample	MW-3
		Lab Sample	36414001

Sample Color: **DARK GRAYISH BROWN**
USCS Group Name: **SILTY, CLAYEY SAND**
USCS Group Symbol: **SC-SM** USDA: **SANDY LOAM** AASHTO: **A-2-4 (0)**

MECHANICAL SIEVE

Total Sample	
Total Sample Wet Wt, gm (-3")	485
Sample Split on Sieve	No. 4
Coarse Washed Dry Sample, gm	12
Wet Wt Passing Split, gm	474
Dry Wt. Passing Split, gm	406
Total Sample Dry Wt, gm	418

Split Sample - Passing No. 4	
Tare No.	2070
Tare + WS., gm	291.62
Tare + DS., gm	271.85
Tare, gm	153.06
Water Content of Split Sample	**16.6%**
Wt. of DS., gm	118.79
Wt. of +#200 Sample, gm	84.06

Sieve Size	Nominal Opening, mm	Dry Wt, gm	Split Normalized % Retained	Split Normalized % Finer	Project Specifications
3"	75	0	0.0%	100.0%	
2-1/2"	63	0	0.0%	100.0%	
2"	50	0	0.0%	100.0%	
1-1/2"	37.5	0	0.0%	100.0%	
1"	25	0	0.0%	100.0%	
3/4"	19	0	0.0%	100.0%	
1/2"	12.5	0	0.0%	100.0%	
3/8"	9.5	1.48	0.4%	99.6%	
No. 4	4.75	10.07	2.4%	97.2%	
No. 10	2	3.5	2.9%	94.4%	
No. 20	0.85	4.97	4.1%	90.3%	
No. 40	0.425	14.4	11.8%	78.5%	
No. 60	0.25	28.97	23.7%	54.8%	
No. 140	0.106	26.88	22.0%	32.8%	
No. 200	0.075	5.34	4.4%	28.4%	

HYDROMETER (-#200)

Tare No.	561	Wt. Dispers., gm	5	Specific Gravity	2.56
Wt. Tare + DS., gm	217	Wt. Dry Soil, gm (-#200)	15.1		Tested
Wt. Tare, gm	196.9	-#10 Dispersed 1min in Hamilton Beach Mixer		*a Factor*	*1.0218*

Elapsed Time (min.)	R Measured	Temp *C	Composite Correction	R Corrected	K Factor	Percent Finer (%)	Particle Diameter (mm)	Adjusted % Finer (%)
2	19	22.3	4.6	14.4	0.0137	97.4	0.0350	27.7%
5	18	22.3	4.6	13.4	0.0137	90.7	0.0223	25.8%
15	16.5	22.3	4.6	11.9	0.0137	80.5	0.0130	22.9%
30	15	22.3	4.6	10.4	0.0137	70.4	0.0093	20.0%
60	13.5	22.3	4.6	8.9	0.0137	60.2	0.0066	17.1%
250	11	22.3	4.6	6.4	0.0137	43.3	0.0033	12.3%
1440	9.5	21	5.0	4.5	0.0139	30.5	0.0014	8.7%

USCS SOIL CLASSIFICATION

Corrected For 100% Passing a 3" Sieve

% Gravel (-3" & +#4)	**2.8**	Silt=13.2% Clay=15.2%	
Coarse=0; Fine=2.8		D60, mm	NA
% Sand (-#4 & +#200)	**68.8**	D30, mm	NA
Coarse=2.9; Medium=15.9; Fine=50.1		D10, mm	NA
% Fines (-#200)	**28.4**	Cc	NA
% Plus #200 (-3")	**71.6**	Cu	NA

USCS Description
SILTY, CLAYEY SAND

USCS Group Symbol	Atterberg Limits Group Symbol
SC-SM	**CL-ML - SILTY CLAY**

Auxiliary Information	Wt Ret, gm	% Retained	% Finer
12" Sieve - 300 mm	0	0.0	100.0
6" Sieve - 150 mm	0	0.0	100.0
3" Sieve - 75 mm	0	0.0	100.0

USDA CLASSIFICATION

Particle Size (mm)	Percent Finer (%)
100	100
2	94.4
0.05	28.0
0.002	10.2

Percent of Each Component (Material)	(%)	Corrected Percent of -2.0 mm Material for USDA
Gravel	5.6	0
Sand	66.3	70.3
Silt	17.9	18.9
Clay	10.2	10.8

USDA Classification
SANDY LOAM

Input Validation Yes Reviewed By: SVG Date Tested 10/8/2015

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LIQUID LIMIT, PLASTIC LIMIT, AND PLASTICITY INDEX OF SOILS
ASTM D 4318

Client	Mountain Research, LLC	Boring	MW-3
Client Project	4547.15.01	Depth	3.0'-5.0'
Project No.	36414	Sample	MW-3
		Lab Sample	36414001

Soil Description: DARK GRAYISH BROWN SILTY CLAY
(-#40 Fraction)

AS-RECEIVED W.C.	
Tare Number	2070
Wt. Tare & WS, gm	291.62
Wt. Tare & DS, gm	271.85
Wt. Tare, gm	153.06
Water Content, %	16.6

SAMPLE SUMMARY	
Activity Index = .39; Liquidity Index = -.35	
Liquid Limit (LL), %	22
Plastic Limit (PL), %	18
Plasticity Index (PI)	4
USCS Group Symbol (-#40 Fraction)	CL-ML
USCS Group Name (-#40 Fraction)	SILTY CLAY
Sample Color:	DARK GRAYISH BROWN

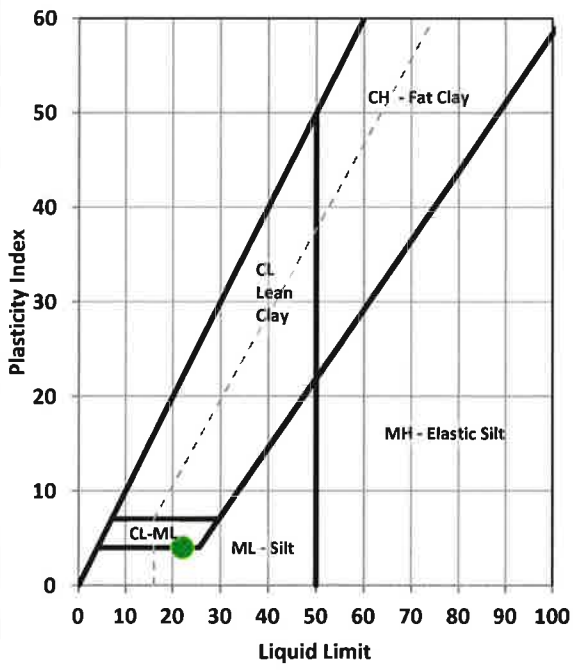
PLASTIC LIMIT

Points Run	3 Points		
Tare Number	419	425	475
Wt. Tare & WS, gm	20.17	18.09	16.96
Wt. Tare & DS, gm	18.71	16.96	16.00
Wt. Tare, gm	10.71	10.77	10.73
Water Content, %	18.3	18.3	18.2

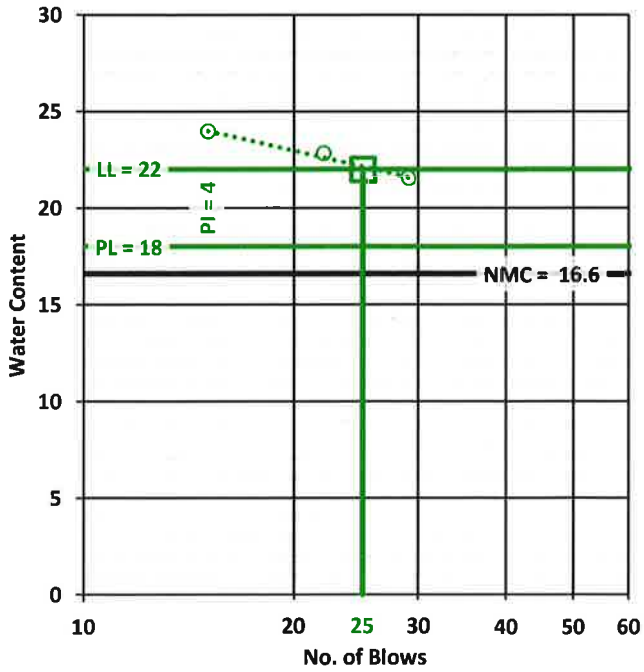
LIQUID LIMIT

	3 Points		
	450	486	500
	17.68	18.32	18.80
	16.35	16.92	17.38
	10.81	10.79	10.80
	24.0	22.8	21.6
# of Blows	15	22	29

PLASTICITY CHART



FLOW CURVE



Input Validation: Yes Reviewed By: SVG Date Tested: 10/8/2015

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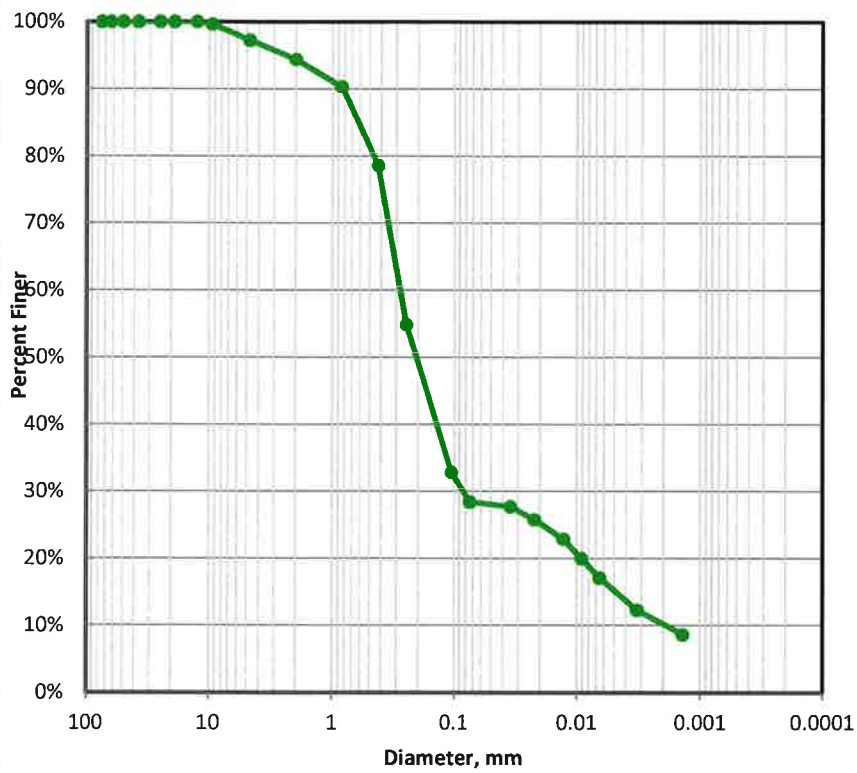
PARTICLE-SIZE ANALYSIS OF SOILS - ASTM D422

Client	Mountain Research, LLC	Boring	MW-3
Client Project	4547.15.01	Depth	3.0'-5.0'
Project No.	36414	Sample	MW-3
		Lab Sample	36414001

Sample Color: **DARK GRAYISH BROWN**

USCS Group Name: **SILTY, CLAYEY SAND**

USCS Group Symbol: **SC-SM** USDA: **SANDY LOAM** AASHTO: **A-2-4 (0)**



US Std. Sieve Size	Particle Diameter (mm)	Percent Finer
3"	75	100.0%
2-1/2"	63	100.0%
2"	50	100.0%
1-1/2"	37.5	100.0%
1"	25	100.0%
3/4"	19	100.0%
1/2"	12.5	100.0%
3/8"	9.5	99.6%
No. 4	4.75	97.2%
No. 10	2	94.4%
No. 20	0.85	90.3%
No. 40	0.425	78.5%
No. 60	0.25	54.8%
No. 140	0.106	32.8%
No. 200	0.075	28.4%
NA	0.0350	27.7%
NA	0.0223	25.8%
NA	0.0130	22.9%
NA	0.0093	20.0%
NA	0.0066	17.1%
NA	0.0033	12.3%
NA	0.0014	8.7%

USCS SOIL CLASSIFICATION

Corrected For 100% Passing a 3" Sieve

% Gravel (-3" & +#4)	**2.8**	Silt=13.2% Clay=15.2%	
Coarse=0; Fine=2.8		D60, mm	NA
% Sand (-#4 & +#200)	**68.8**	D30, mm	NA
Coarse=2.9; Medium=15.9; Fine=50.1		D10, mm	NA
% Fines (-#200)	**28.4**	Cc	NA
% Plus #200 (-3")	**71.6**	Cu	NA

USCS Description

SILTY, CLAYEY SAND

USCS Group Symbol	Atterberg Limits Group Symbol
SC-SM	CL-ML - SILTY CLAY

Auxiliary Information	Wt Ret, gm	% Retained	% Finer
12" Sieve - 300 mm	0	0.0	100.0
6" Sieve - 150 mm	0	0.0	100.0
3" Sieve - 75 mm	0	0.0	100.0

USDA CLASSIFICATION

Particle Size (mm)	Percent Finer (%)	Percent of Each Component (Material)	(%)	Corrected Percent of -2.0 mm Material for USDA
100	100			
		Gravel	5.6	0
2	94.4			
		Sand	66.3	70.3
0.05	28.0			
		Silt	17.9	18.9
0.002	10.2			
		Clay	10.2	10.8

USDA Classification

SANDY LOAM

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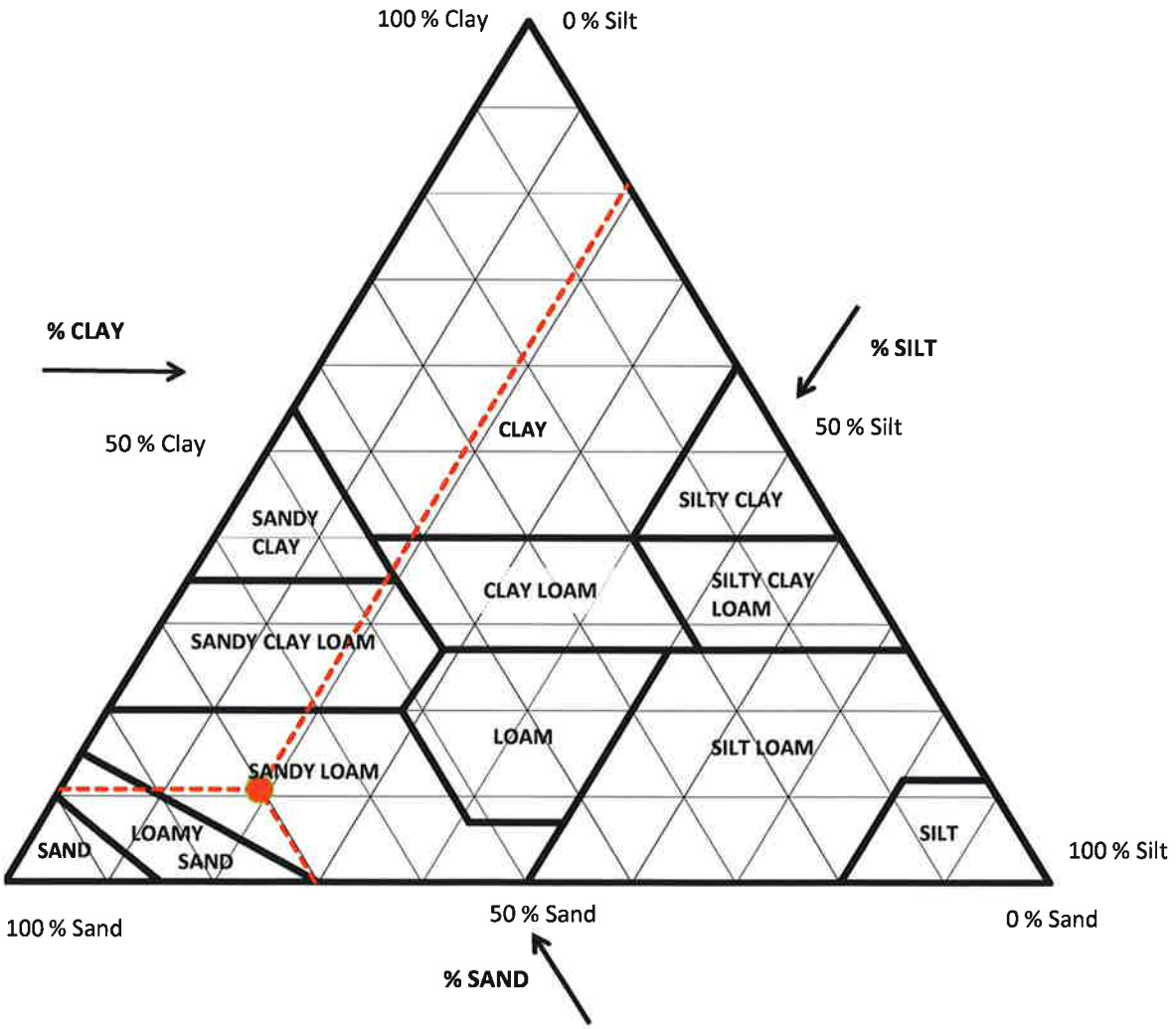
USDA CLASSIFICATION CHART

Client	Mountain Research, LLC	Boring	MW-3
Client Project	4547.15.01	Depth	3.0'-5.0'
Project No.	36414	Sample	MW-3
		Lab Sample	36414001

Sample Color: **DARK GRAYISH BROWN**
USCS Group Name: **SILTY, CLAYEY SAND**
USCS Group Symbol: **SC-SM** USDA: **SANDY LOAM** AASHTO: **A-2-4 (0)**

Corrected for 0% gravel	
Percent Gravel, %	0.0
Percent Sand, %	70.3
Percent Silt, %	18.9
Percent Clay, %	10.8

Sand Subsizes Corrected Percentages	
Very Coarse Sand; 2-1	3.5
Coarse Sand; 1-0.5	10.4
Medium Sand; 0.5-0.25	28.1
Fine Sand; 0.25-0.1	24.1
Very Fine Sand; 0.1-0.05	4.3
Total	**70.3**



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DENSITY DETERMINATIONS

Client	Mountain Research, LLC
Project	4547.15.01
Project No.	36414

Boring Number	MW-3									
Depth	3.0'-5.0'									
Sample	MW-3									
Lab Sample No.	36414001									
Water Contents										
Tare Number	w73									
Wt. Tare & WS, gm	113.29									
Wt. Tare & DS, gm	103.55									
Wt. Tare, gm	8.42									
Water Content, %	**10.2%**									
Direct Measurement Method										
Wt. Of Wet Soil + tube., gm	352.2									
Wt of empty tube, gm	23.08									
Wt. of Wet Soil, gm	329.12									
Length 1, in	4.984									
Length 2, in	4.972									
Length 3, in	4.963									
Top Diameter, in	1.632									
Middle Diameter, in	1.667									
Bottom Diameter, in	1.635									
Sample Volume, cc	173.13									
Water Content ,%	10.2%									
Unit Wet Wt., gm/cc	1.90									
Unit Wet Wt., pcf	118.6									
Unit Dry Wt., pcf	**107.6**									
Unit Dry Wt., gm/cc	1.72									
Specific Gravity, Tested	2.56									
Void Ratio,e	0.48									
Porosity, n	0.33									
Saturation, %	54.1%									

Input Validation: ALO Reviewed By: SVG Date: 10/9/2015

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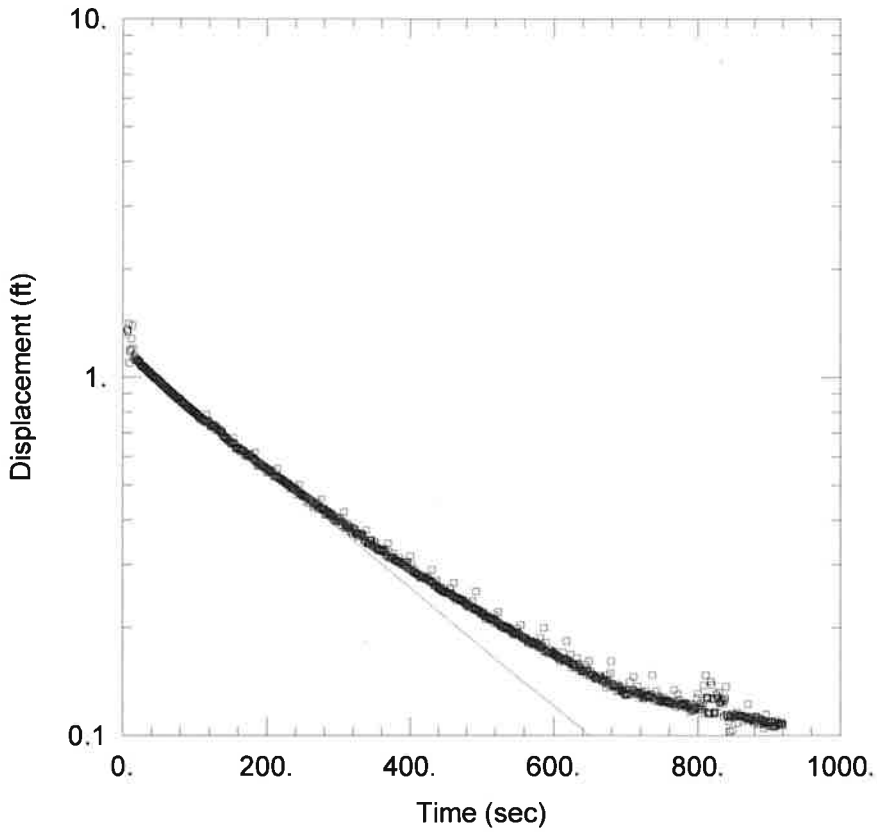
APPENDIX J

SLUG TEST DOCUMENTATION



MW-1 FALLING HEAD

Data Set: \...\MW-1 Falling Head.aqt
Date: 12/17/15 Time: 15:26:44

PROJECT INFORMATION

Company: Mountain Research
Client: COOK'S
Project: 4547.15.01
Location: ROBERTSDALE, PA
Test Well: MW-1
Test Date: 12-10-15

AQUIFER DATA

Saturated Thickness: 16.58 ft
Anisotropy Ratio (Kz/Kr): 1.

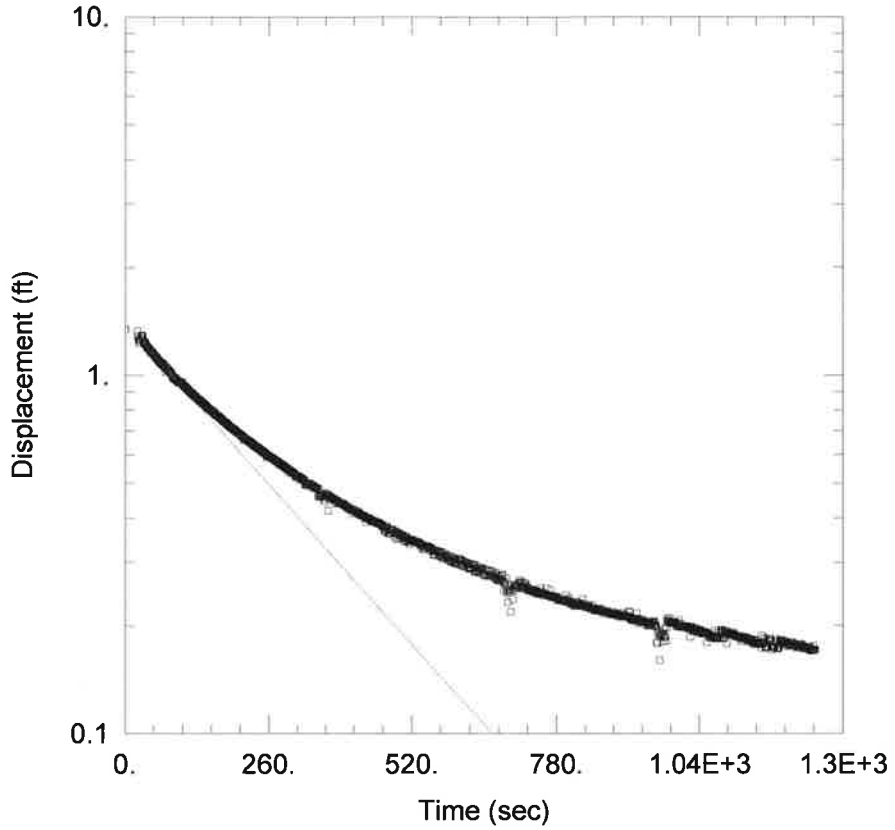
WELL DATA (MW-1)

Initial Displacement: 1.32 ft
Total Well Penetration Depth: 11.58 ft
Casing Radius: 0.083 ft
Static Water Column Height: 11.58 ft
Screen Length: 10. ft
Wellbore Radius: 0.308 ft
Gravel Pack Porosity: 0.28

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 1.245 ft/day
y0 = 1.183 ft



MW-1 RISING HEAD TEST

Data Set: \...\MW-1 Rising Head Test.aqt
Date: 12/17/15 Time: 15:27:30

PROJECT INFORMATION

Company: Mountain Research

AQUIFER DATA

Saturated Thickness: 16.58 ft Anisotropy Ratio (Kz/Kr): 1.

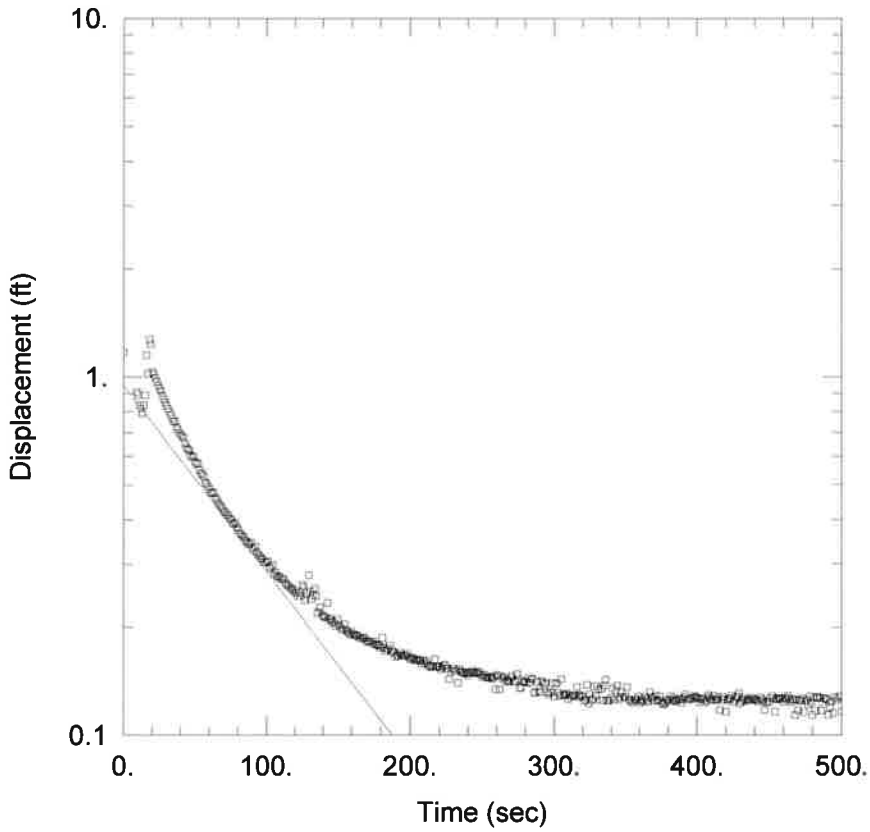
WELL DATA (MW-1)

Initial Displacement: 1.34 ft
Total Well Penetration Depth: 11.58 ft
Casing Radius: 0.083 ft
Static Water Column Height: 11.58 ft
Screen Length: 10. ft
Wellbore Radius: 0.308 ft
Gravel Pack Porosity: 0.28

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 1.295 ft/day y0 = 1.386 ft



MW-3 FALLING HEAD

Data Set: \...\MW-3 Falling Head.aqt
Date: 12/17/15 Time: 15:27:44

PROJECT INFORMATION

Company: Mountain Research
Client: COOK'S
Project: 4547.15.01
Location: ROBERTSDALE, PA
Test Well: MW-3
Test Date: 12-10-15

AQUIFER DATA

Saturated Thickness: 16.95 ft
Anisotropy Ratio (Kz/Kr): 1.

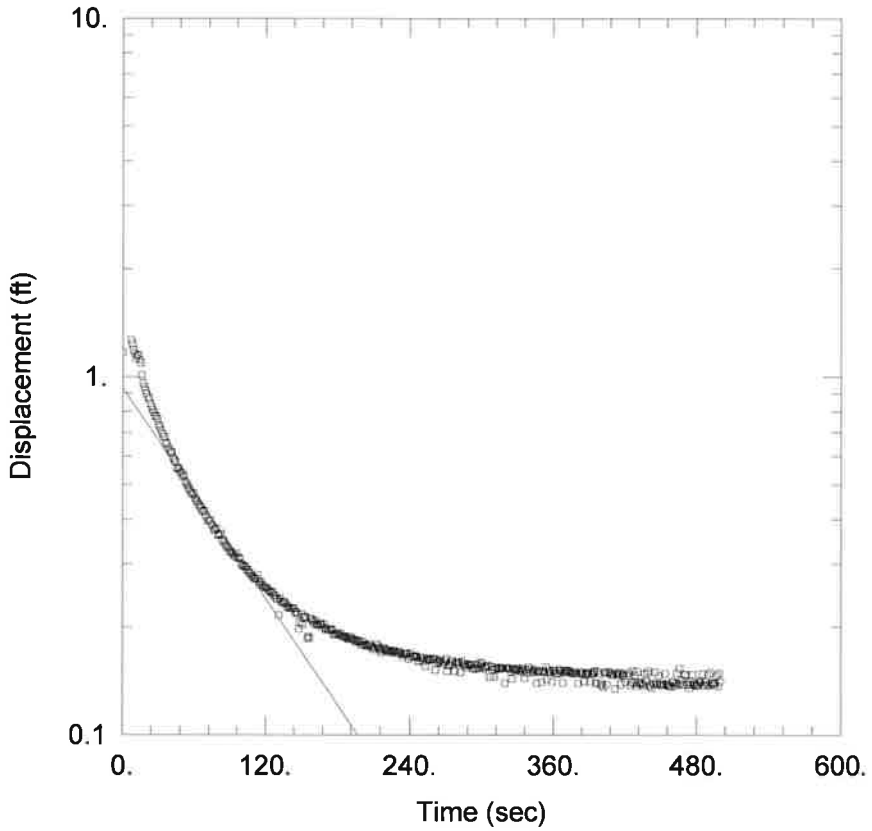
WELL DATA (MW-3)

Initial Displacement: 1.17 ft
Total Well Penetration Depth: 11.95 ft
Casing Radius: 0.083 ft
Static Water Column Height: 11.95 ft
Screen Length: 10. ft
Wellbore Radius: 0.308 ft
Gravel Pack Porosity: 0.28

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 3.935 ft/day
y0 = 0.9432 ft



MW-3 RISING HEAD

Data Set: \...\MW-3 Rising Head.aqt
Date: 12/17/15 Time: 15:27:59

PROJECT INFORMATION

Company: Mountain Research
Client: COOK'S
Project: 4547.15.01
Location: ROBERTSDALE, PA
Test Well: MW-3
Test Date: 12-10-15

AQUIFER DATA

Saturated Thickness: 16.95 ft
Anisotropy Ratio (Kz/Kr): 1.

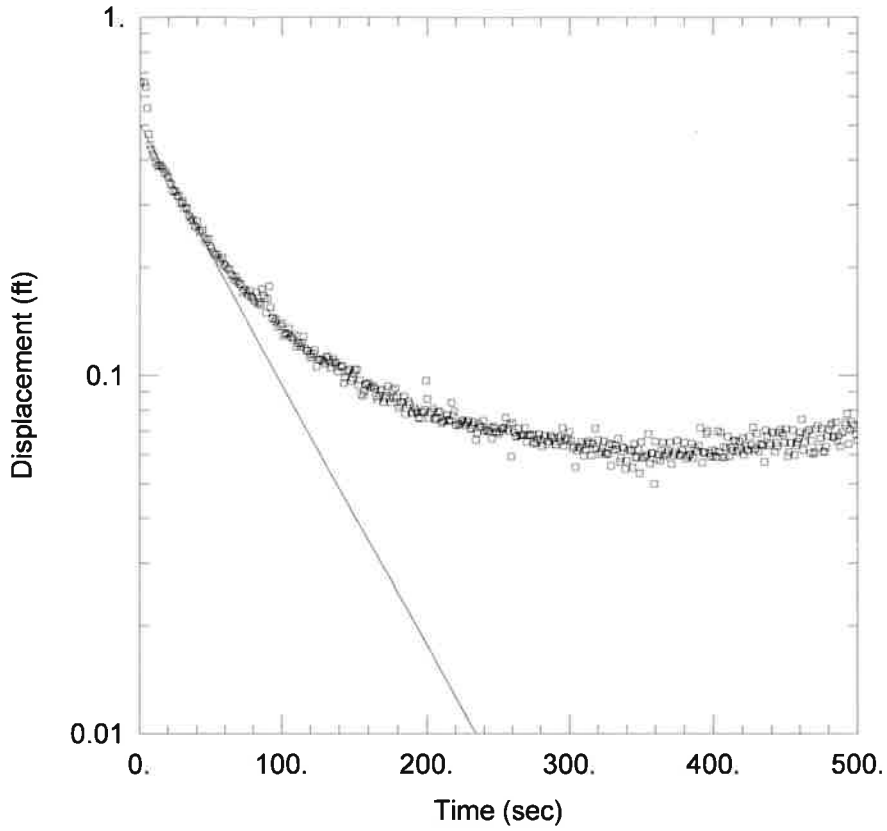
WELL DATA (MW-3)

Initial Displacement: 1.17 ft
Total Well Penetration Depth: 11.95 ft
Casing Radius: 0.083 ft
Static Water Column Height: 11.95 ft
Screen Length: 10. ft
Wellbore Radius: 0.308 ft
Gravel Pack Porosity: 0.28

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 3.719 ft/day
y0 = 0.9294 ft



MW-5 FALLING HEAD

Data Set: \...\MW-5 Falling Head.aqt
Date: 12/17/15 Time: 15:28:47

PROJECT INFORMATION

Company: Mountain Research
Client: COOK'S
Project: 4547.15.01
Location: ROBERTSDALE, PA
Test Well: MW-5
Test Date: 12-10-15

AQUIFER DATA

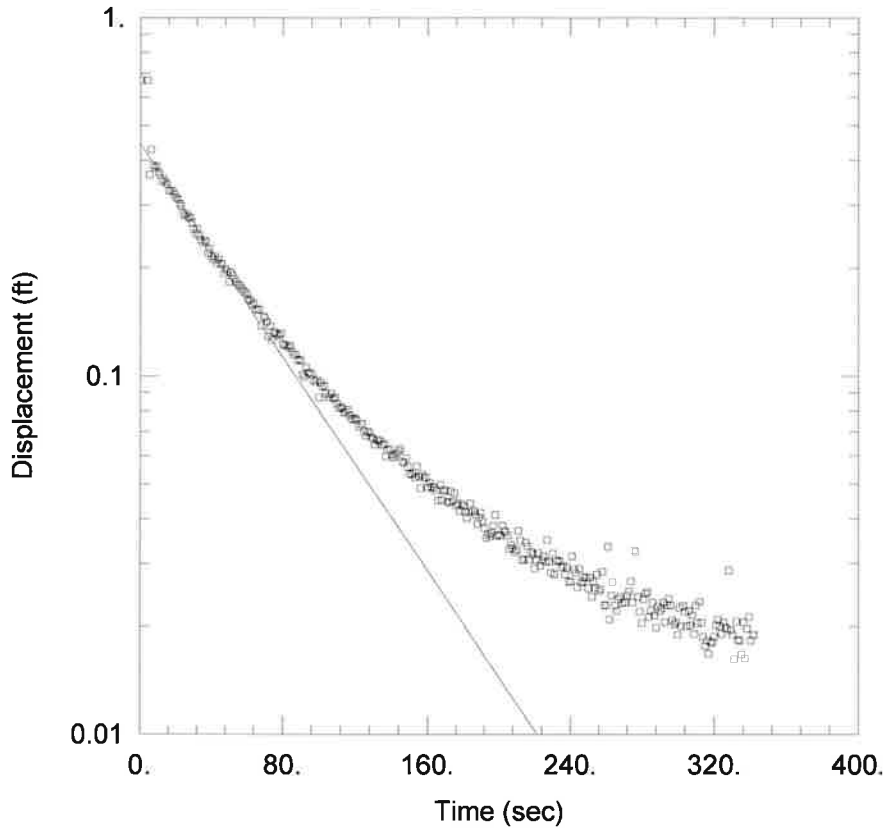
Saturated Thickness: 13.3 ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-5)

Initial Displacement: 0.66 ft
Static Water Column Height: 8.3 ft
Total Well Penetration Depth: 8.3 ft
Screen Length: 9. ft
Casing Radius: 0.083 ft
Wellbore Radius: 0.308 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 1.217 ft/day
y0 = 0.5002 ft



MW-5 RISING HEAD

Data Set: \...\MW-5 Rising Head.aqt
Date: 01/15/16 Time: 11:04:10

PROJECT INFORMATION

Company: Mountain Research
Client: COOK'S
Project: 4547.15.01
Location: ROBERTSDALE, PA
Test Well: MW-5
Test Date: 12-10-15

AQUIFER DATA

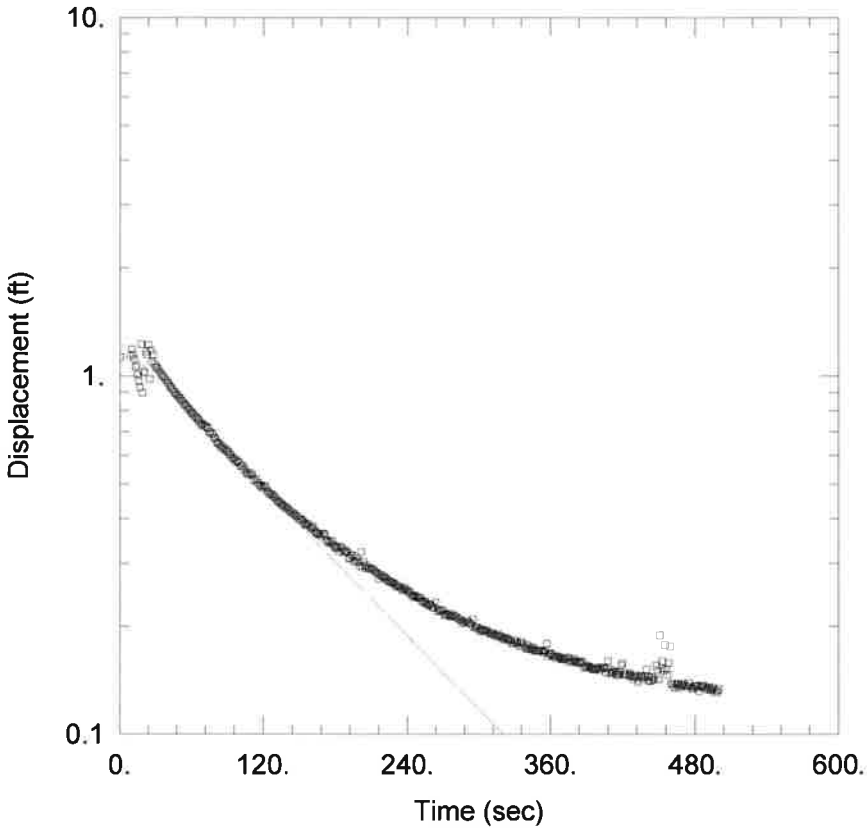
Saturated Thickness: 13.3 ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-5)

Initial Displacement: 0.67 ft
Total Well Penetration Depth: 8.3 ft
Casing Radius: 0.083 ft
Static Water Column Height: 8.3 ft
Screen Length: 9. ft
Wellbore Radius: 0.308 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 1.248 ft/day
y0 = 0.4448 ft



MW-7 FALLING HEAD

Data Set: \...\MW-7 FALLING HEAD.aqt
Date: 12/17/15 Time: 15:29:43

PROJECT INFORMATION

Company: Mountain Research
Client: COOK'S
Project: 4547.15.01
Location: ROBERTSDALE, PA
Test Well: MW-7
Test Date: 12-10-15

AQUIFER DATA

Saturated Thickness: 13.3 ft
Anisotropy Ratio (Kz/Kr): 1.

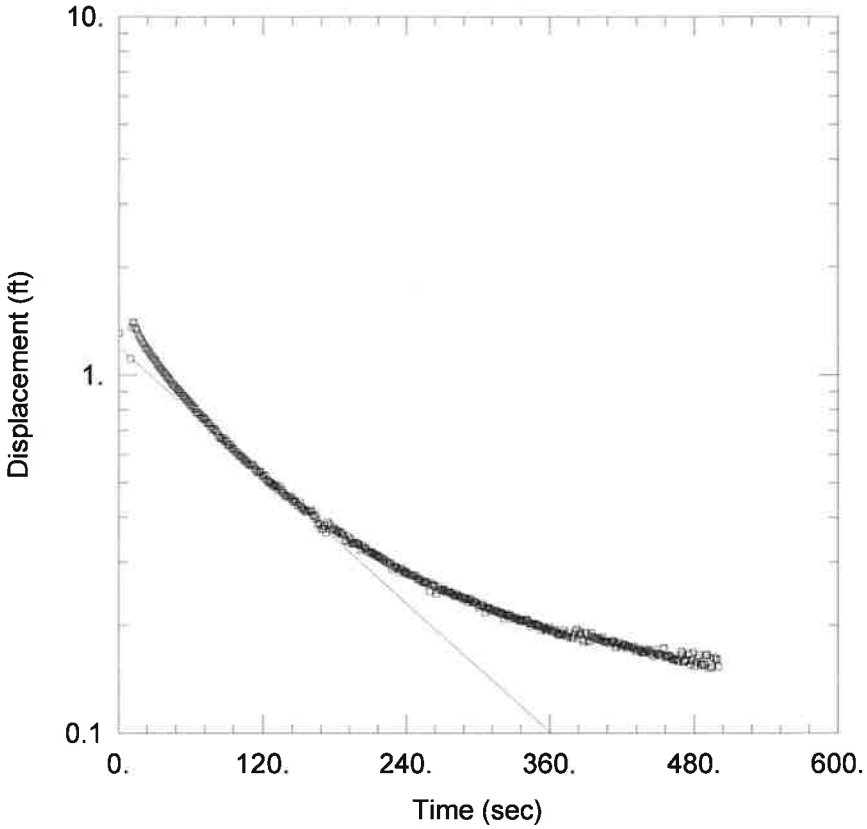
WELL DATA (MW-7)

Initial Displacement: 1.13 ft
Total Well Penetration Depth: 9.72 ft
Casing Radius: 0.083 ft
Static Water Column Height: 9.72 ft
Screen Length: 9. ft
Wellbore Radius: 0.308 ft
Gravel Pack Porosity: 0.28

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 2.748 ft/day
y0 = 1.249 ft



MW-7 RISING HEAD

Data Set: \...\MW-7 RISING HEAD.aqt
Date: 12/17/15 Time: 15:29:59

PROJECT INFORMATION

Company: Mountain Research
Client: COOK'S
Project: 4547.15.01
Location: ROBERTSDALE, PA
Test Well: MW-7
Test Date: 12-10-15

AQUIFER DATA

Saturated Thickness: 14.72 ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-7)

Initial Displacement: 1.31 ft
Total Well Penetration Depth: 9.72 ft
Casing Radius: 0.083 ft
Static Water Column Height: 9.72 ft
Screen Length: 9. ft
Wellbore Radius: 0.308 ft
Gravel Pack Porosity: 0.28

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 2.367 ft/day
y0 = 1.195 ft

APPENDIX K

DISPOSAL MANIFEST - SOIL AND WATER

NON-HAZARDOUS WASTE MANIFEST

(Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. C E S Q G

Manifest Document No. 158100

2. Page 1 of 1

Generator's Name and Mailing Address
Cooks Country Store-Robertsdale(J&F Holdings)
20142 Cooks Rod
Robertsdale PA 16674

SAME

4. Generator's Phone (8 1 4 4 2 1 - 5 2 9 0

5. Transporter 1 Company Name: Environmental Specialists, Inc.

6. US EPA ID Number: O H D 0 0 0 8 1 6 8 6 8

A. State Transporter's ID

B. Transporter 1 Phone: 330 7460748

7. Transporter 2 Company Name

8. US EPA ID Number

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address
Environmental Specialists, Inc.
1101 Andrews Avenue
Youngstown OH 44505

10. US EPA ID Number: O H D 0 0 0 8 1 6 8 6 8

E. State Facility's ID

F. Facility's Phone: 330 7460748

11. WASTE DESCRIPTION	Containers No.	Containers Type	13. Total Quantity	14. Unit Wt./Vol.
a. NON-DOT/NON-Regulated (Drill Cuttings)	5	DM	500	P
b. ESI Approval #YO-20151117-006 OILY WATER (PURGEWATER)	1	DM	55	G
c.				
d.				

G. Additional Descriptions for Materials Listed Above
a. c.
b. d.

H. Handling Codes for Wastes Listed Above
a. c.
b. d.

15. Special Handling Instructions and Additional Information
1) 2)

16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Printed/Typed Name: NO ONE ON SITE TO SIGN AGREEMENT
Signature
Date: Month Day Year

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Craig A Rotz Sr.
Signature
Date: Month 12 Day 9 Year 15

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name
Signature
Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.
Printed/Typed Name: MARK GRUVER
Signature
Date: Month 12 Day 9 Year 15

GENERATOR | TRANSPORTER | FACILITY | NON-HAZARDOUS WASTE

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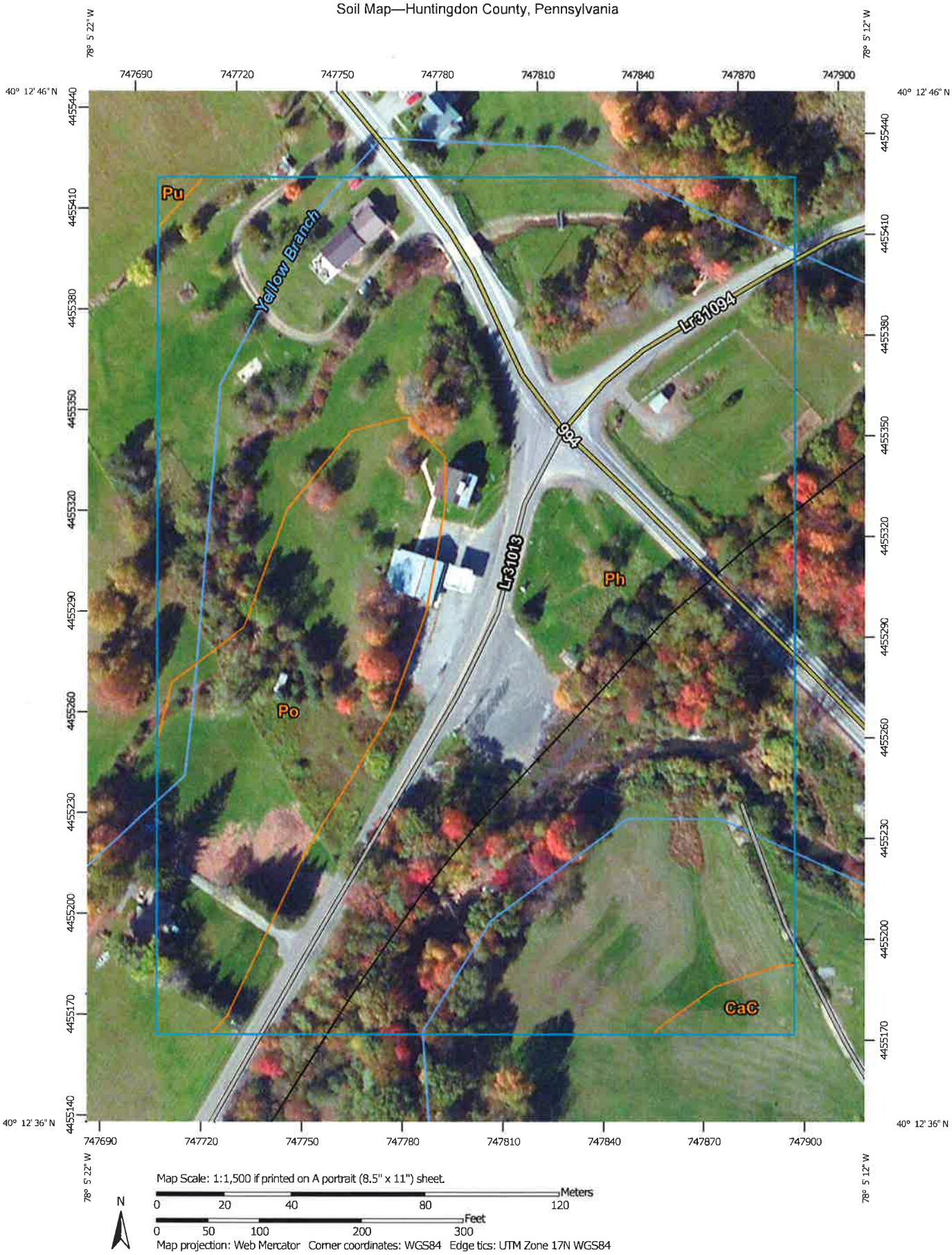
APPENDIX L

SOIL SURVEY MAP


78° 5' 22" W
78° 5' 12" W
40° 12' 46" N
40° 12' 36" N
747690
747720
747750
747780
747810
747840
747870
747900
4455440
4455410
4455380
4455350
4455320
4455290
4455260
4455230
4455200
4455170
4455140
Pu
Yellow Branch
Lr31094
094
Lr31013
Ph
Po
CaC
Map Scale: 1:1,500 if printed on A portrait (8.5" x 11") sheet.
Meters
0
20
40
80
120
Feet
0
50
100
200
300
N
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

MAP LEGEND

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

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

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

Water Features
- Streams and Canals

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

Background
- Aerial Photography

MAP INFORMATION

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

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: Huntingdon County, Pennsylvania
Survey Area Data: Version 6, Sep 19, 2014

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

Date(s) aerial images were photographed: Oct 6, 2011—Oct 17, 2011

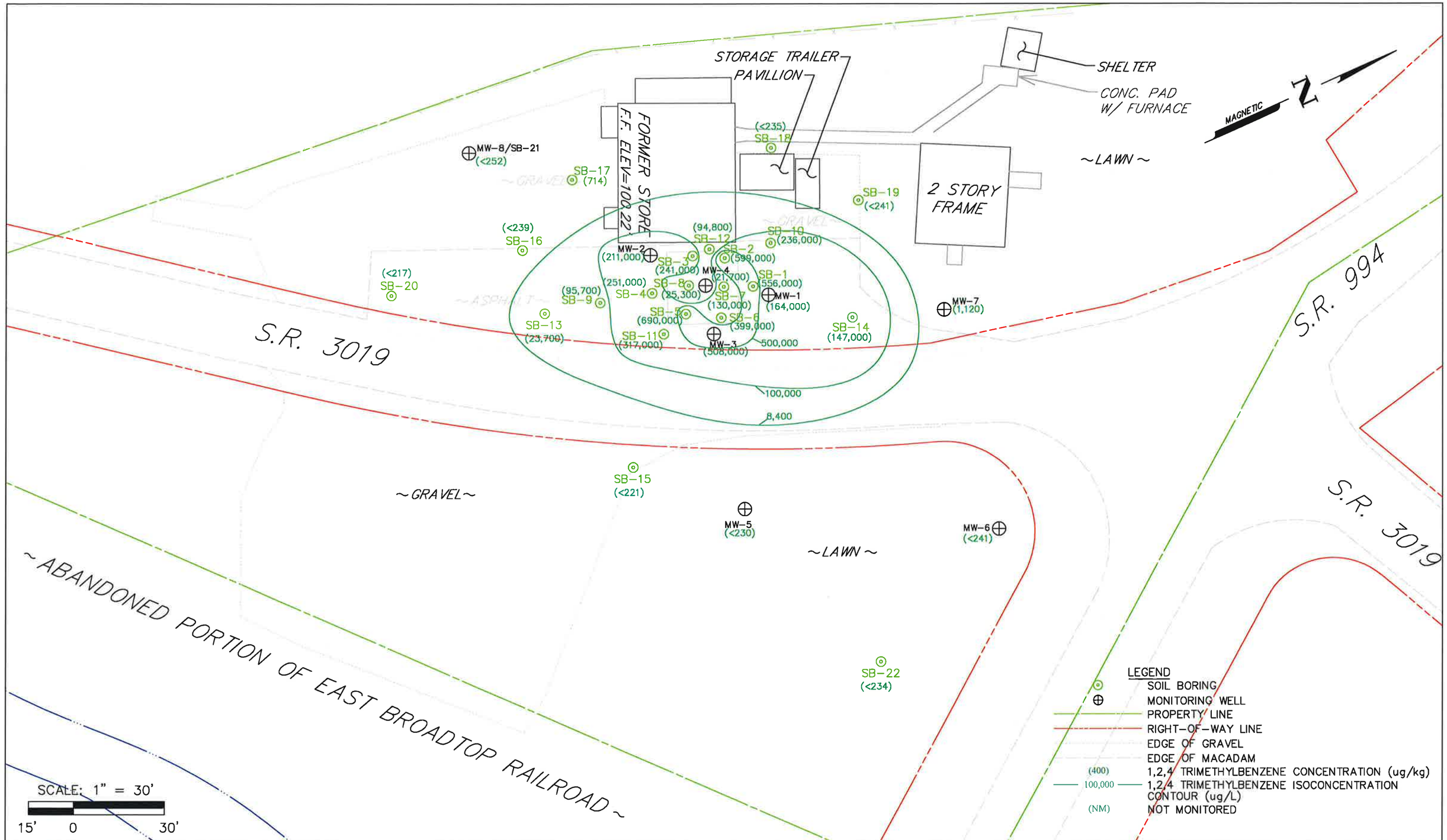
The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Huntingdon County, Pennsylvania (PA061)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
CaC	Calvin shaly silt loam, 8 to 15 percent slopes	0.1	1.2%
Ph	Philo and Basher silt loams	9.8	81.5%
Po	Philo and Basher silt loams, high bottom	2.1	17.1%
Pu	Purdy silt loam	0.0	0.2%
Totals for Area of Interest		**12.0**	**100.0%**

APPENDIX M

ISOCONCENTRATION MAPS – SOIL



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(814) 949-2034 Fax (814) 949-9591

Drawn By: JMB 01-06-16
Submitted By: MRC
Project Manager: M.C.
Checked By: MRC

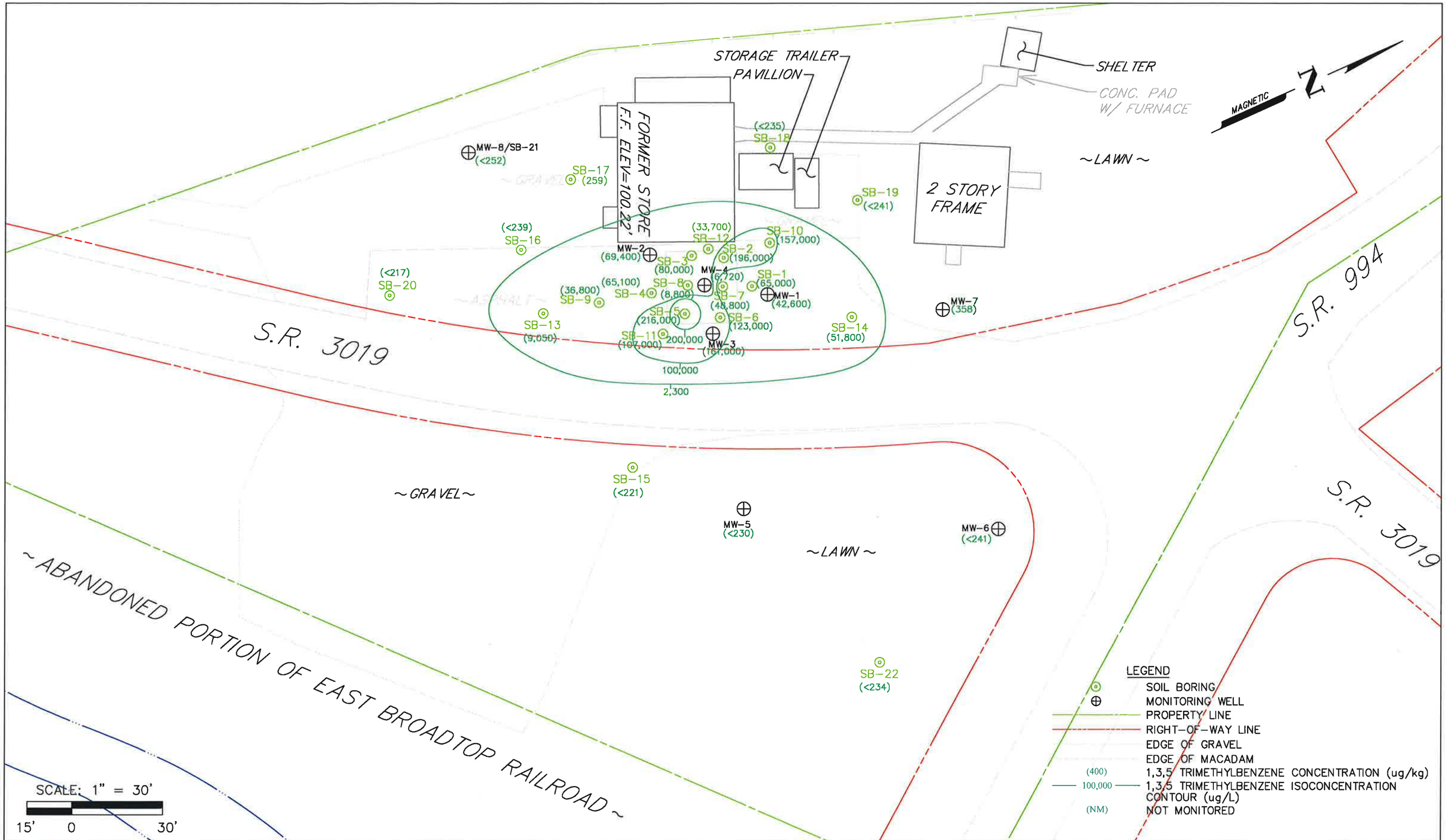
4547.15.01

H:\C\Cooks Country Store\4547.15.01 Robertsdale, PA\AUTO CAD\124 TRI SOIL.dwg

COOK'S COUNTY STORE

Robertsdale, PA

1,2,4-TRIMETHYLBENZENE SOIL ISOCONCENTRATION CONTOUR MAP



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Submitted By: MRC
Project Manager: M.C.
Checked By: MRC

4547.15.01

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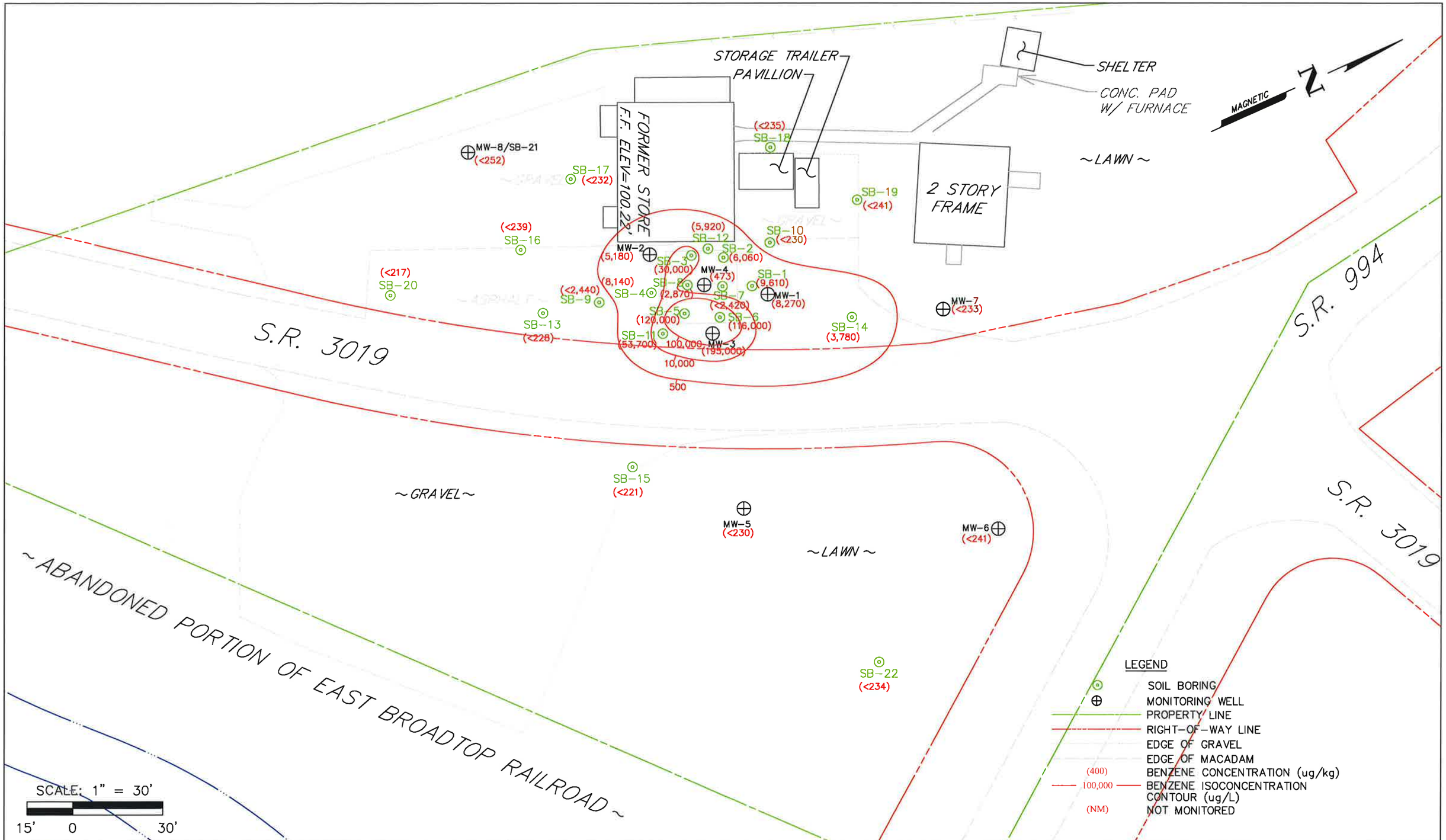
COOK'S COUNTY STORE

Robertsdale, PA

1,3,5-TRIMETHYLBENZENE SOIL ISOCONCENTRATION CONTOUR MAP



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Drawn By: JMB 01-08-16
Submitted By: MRC
Project Manager: M.C.
Checked By: MRC

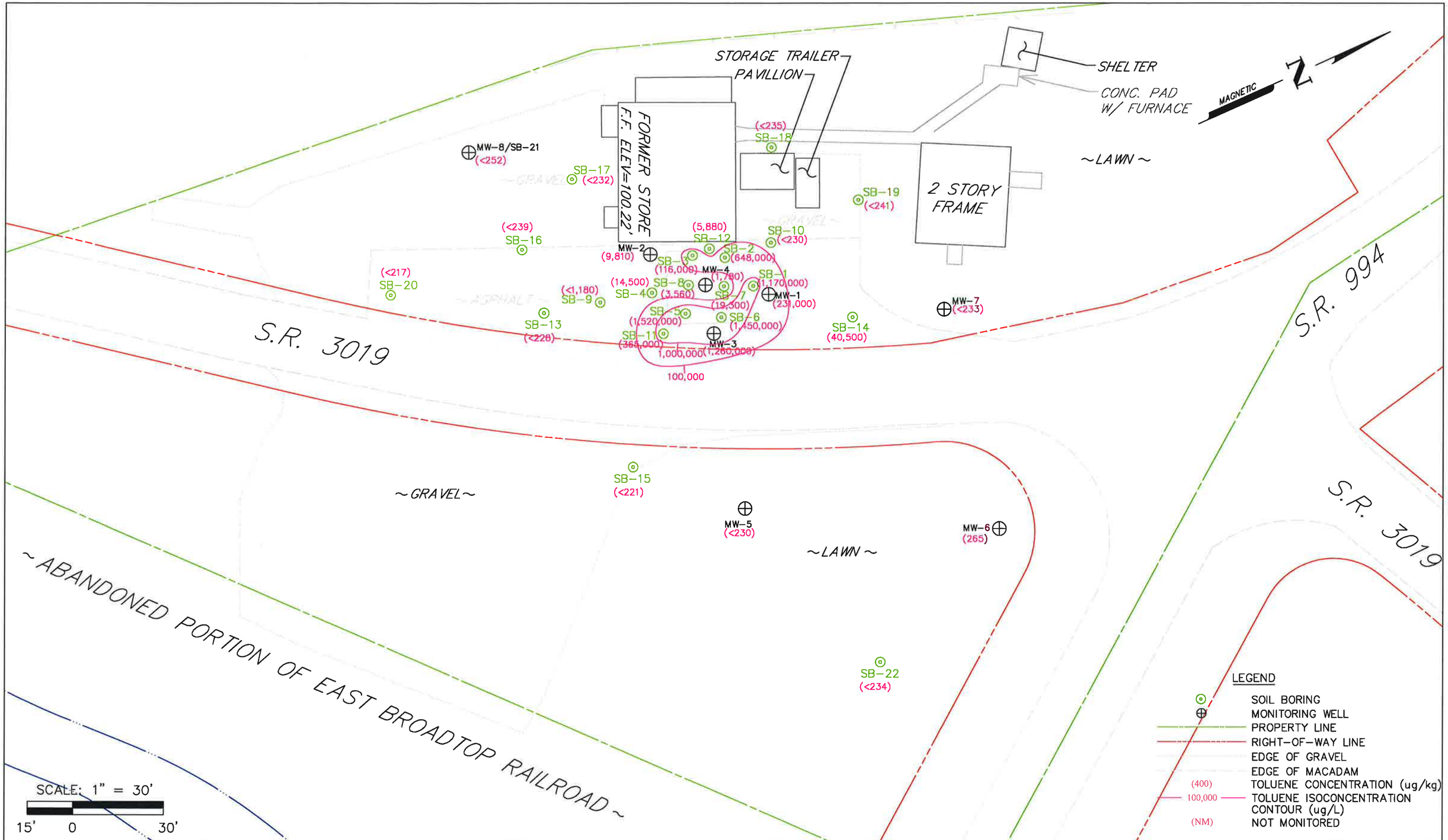
4547.15.01

H:\C\Cooks Country Store\4547.15.01 Robertsdale, PA\AUTO CAD\BENZ SOIL.dwg

COOK'S COUNTY STORE

Robertsdale, PA

BENZENE SOIL ISOCONCENTRATION CONTOUR MAP



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Drawn By: JMB 01-08-16
Submitted By: MRC
Project Manager: M.C.
Checked By: MRC

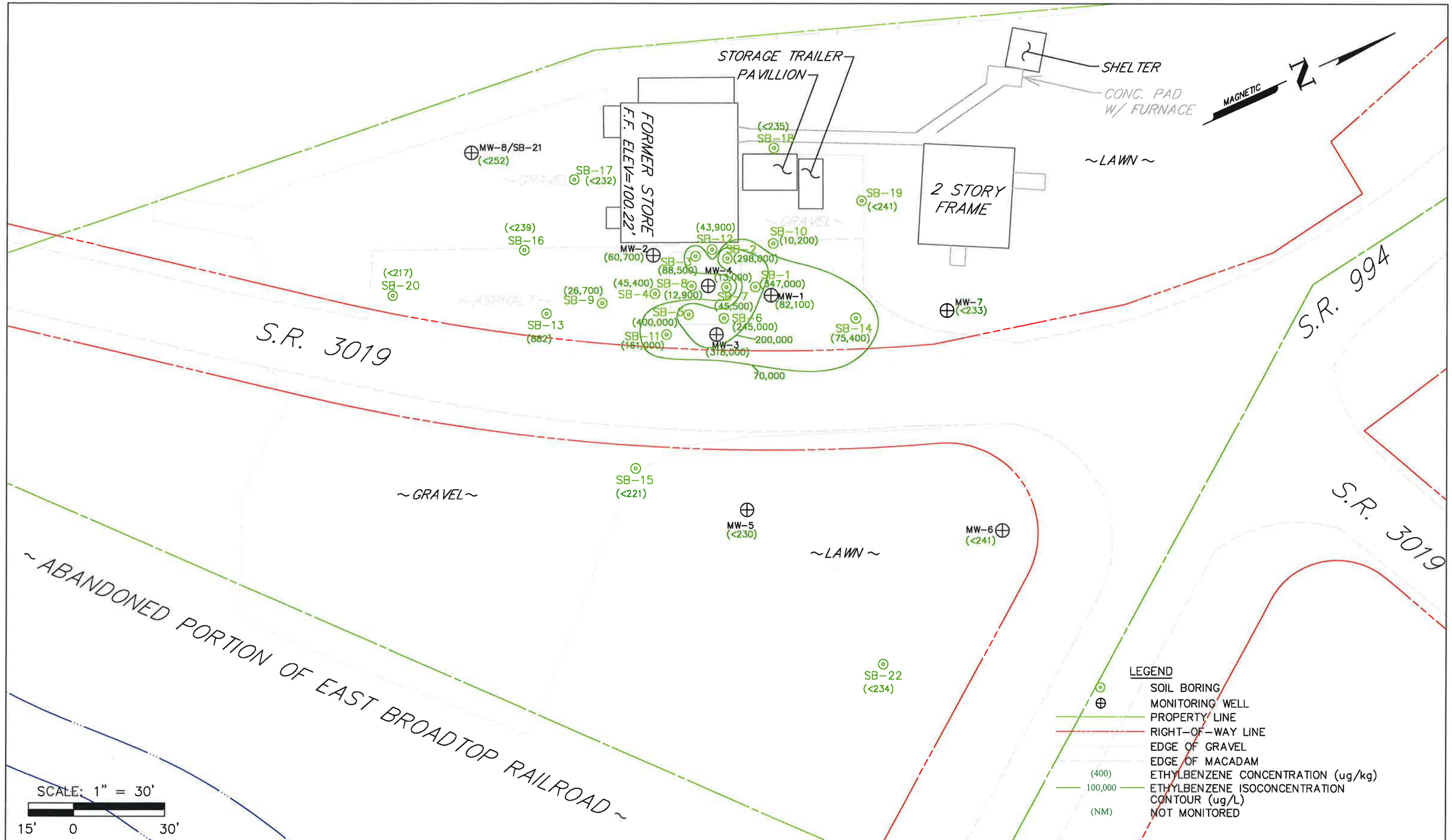
4547.15.01

H:\C\Cooks Country Store\4547.15.01 Robertsdale, PA\AUTO CAD\TOL SOIL.dwg

COOK'S COUNTY STORE

Robertsdale, PA

TOLUENE SOIL ISOCONCENTRATION CONTOUR MAP



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Submitted By: MRC
Project Manager: M.C.
Checked By: MRC

4547.15.01

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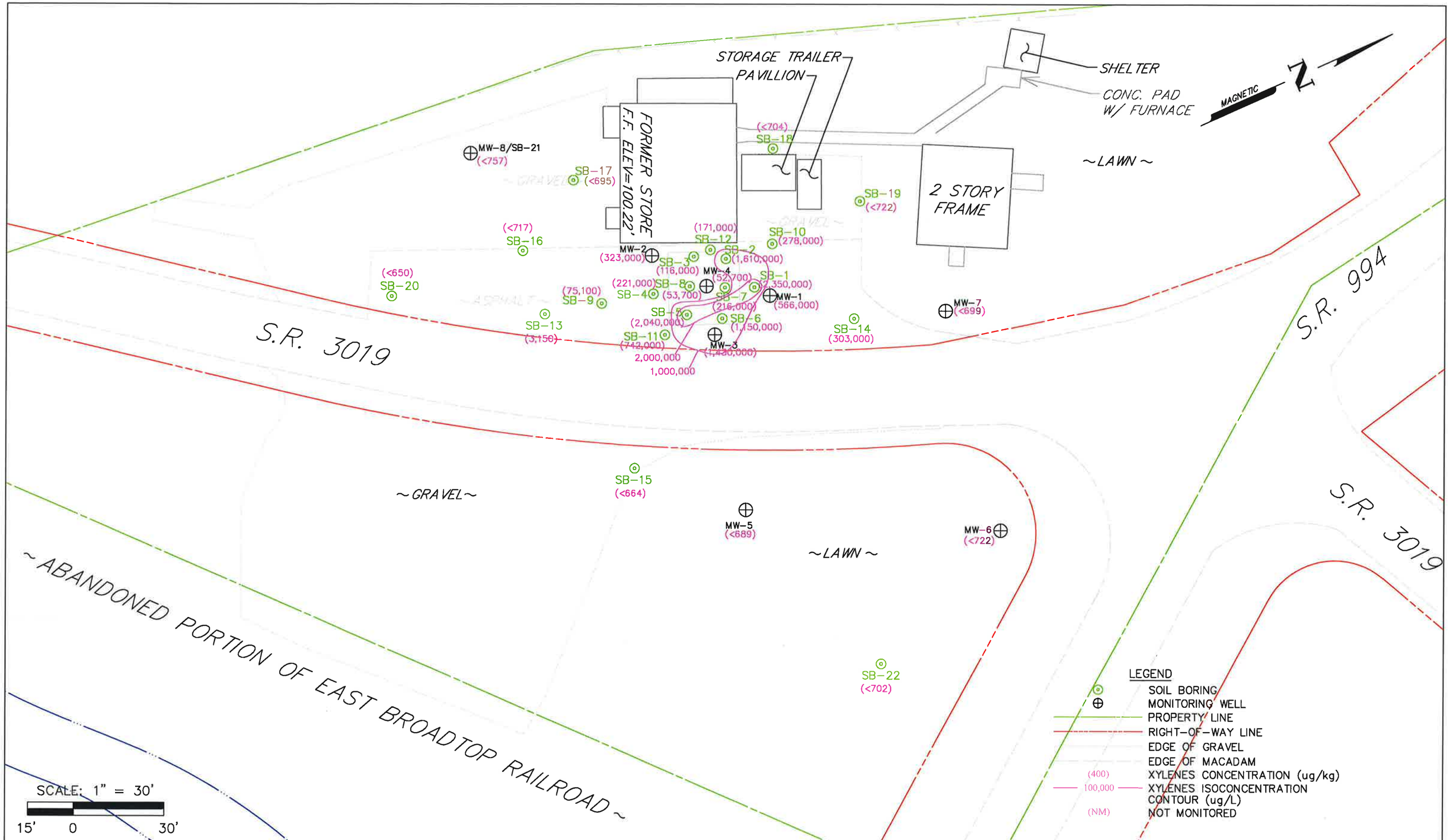
COOK'S COUNTY STORE

Robertsdale, PA

ETHYLBENZENE SOIL ISOCONCENTRATION CONTOUR MAP



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Submitted By: MRC
Project Manager: M.C.
Checked By: MRC

4547.15.01

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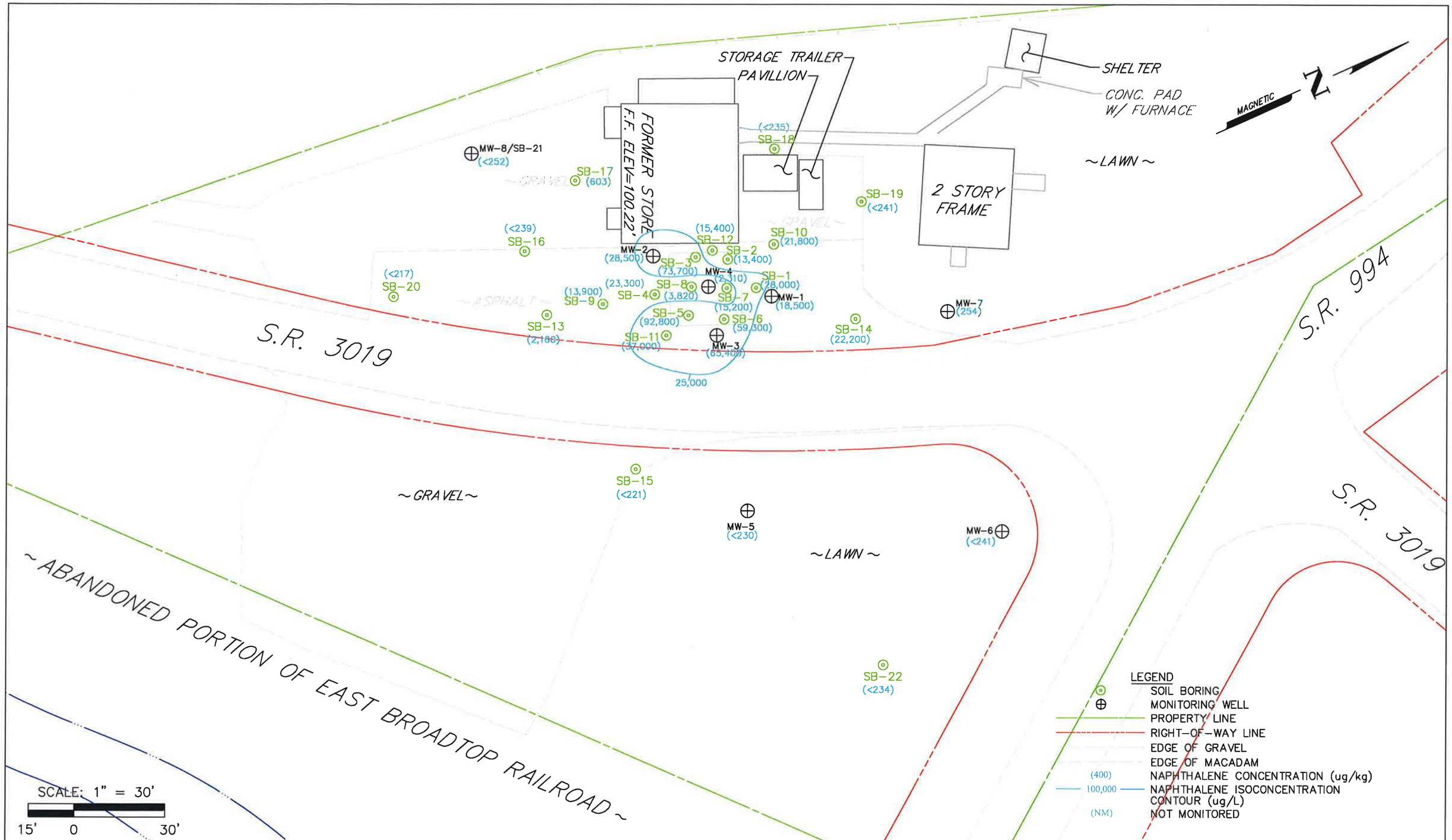
COOK'S COUNTY STORE

Robertsdale, PA

TOTAL XYLENES SOIL ISOCONCENTRATION CONTOUR MAP



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Drawn By: JMB 01-08-16
Submitted By: MRC
Project Manager: M.C.
Checked By: MRC

4547.15.01

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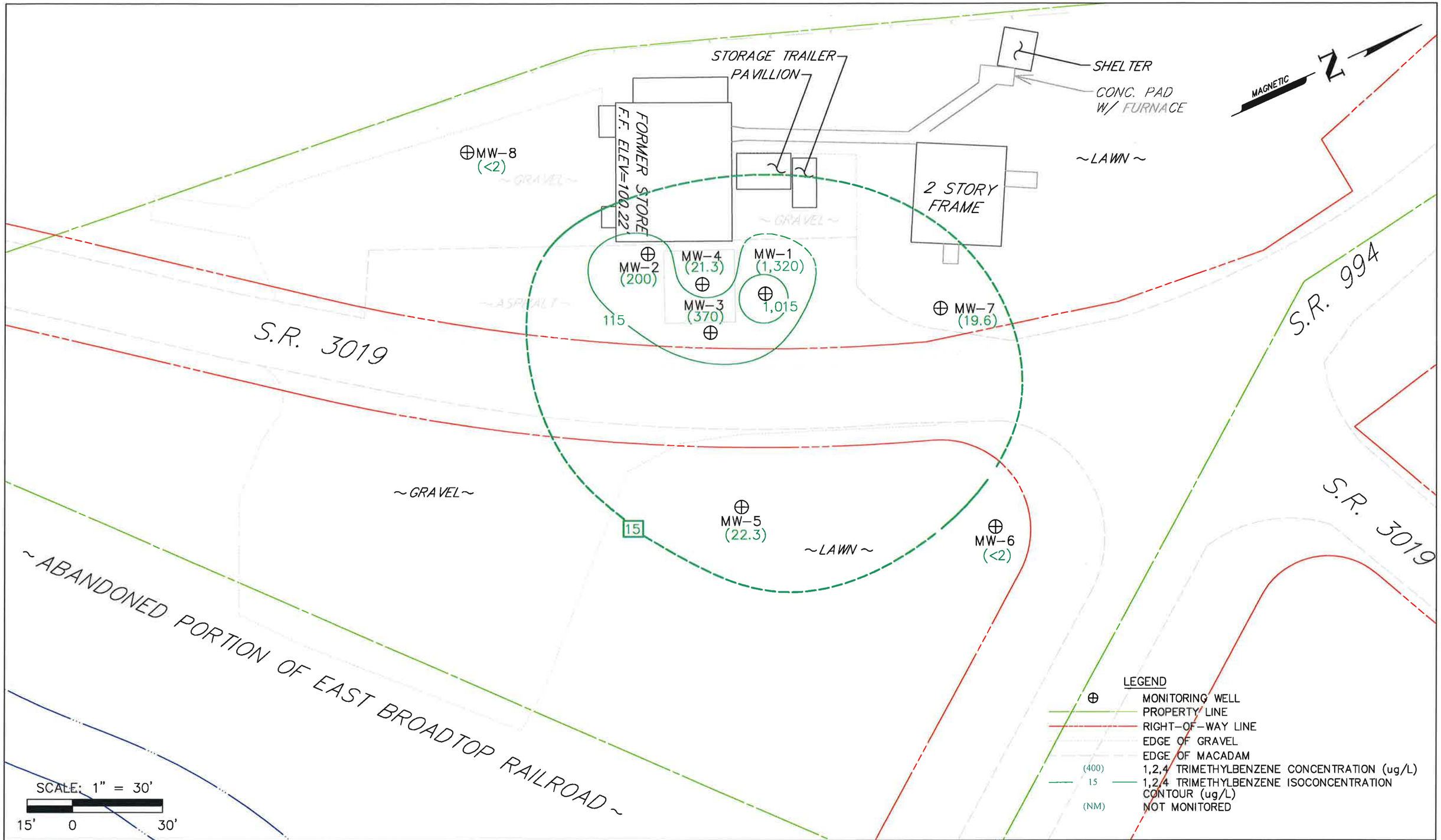
COOK'S COUNTY STORE

Robertsdale, PA

NAPHTHALENE SOIL ISOCONCENTRATION CONTOUR MAP

APPENDIX N

ISOCONCENTRATION MAPS – GROUNDWATER



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Checked By: MRC

4547.15.01

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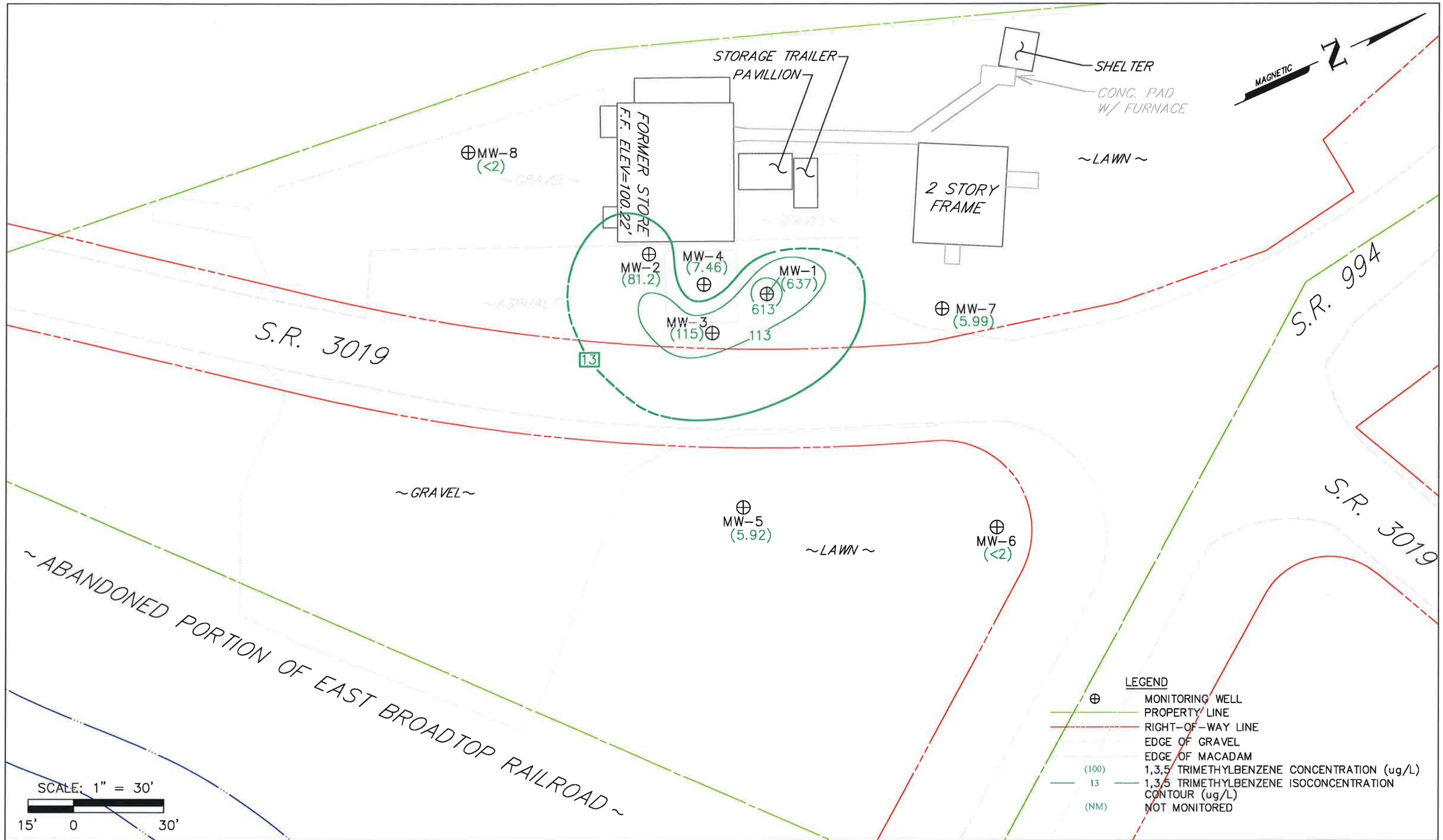
COOK'S COUNTY STORE

Robertsdale, PA

1,2,4-TRIMETHYLBENZENE ISOCONCENTRATION CONTOUR MAP

November 19, 2015



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Drawn By: JMB 01-06-16
Submitted By: MRC
Project Manager: M.C.
Checked By: MRC

4547.15.01

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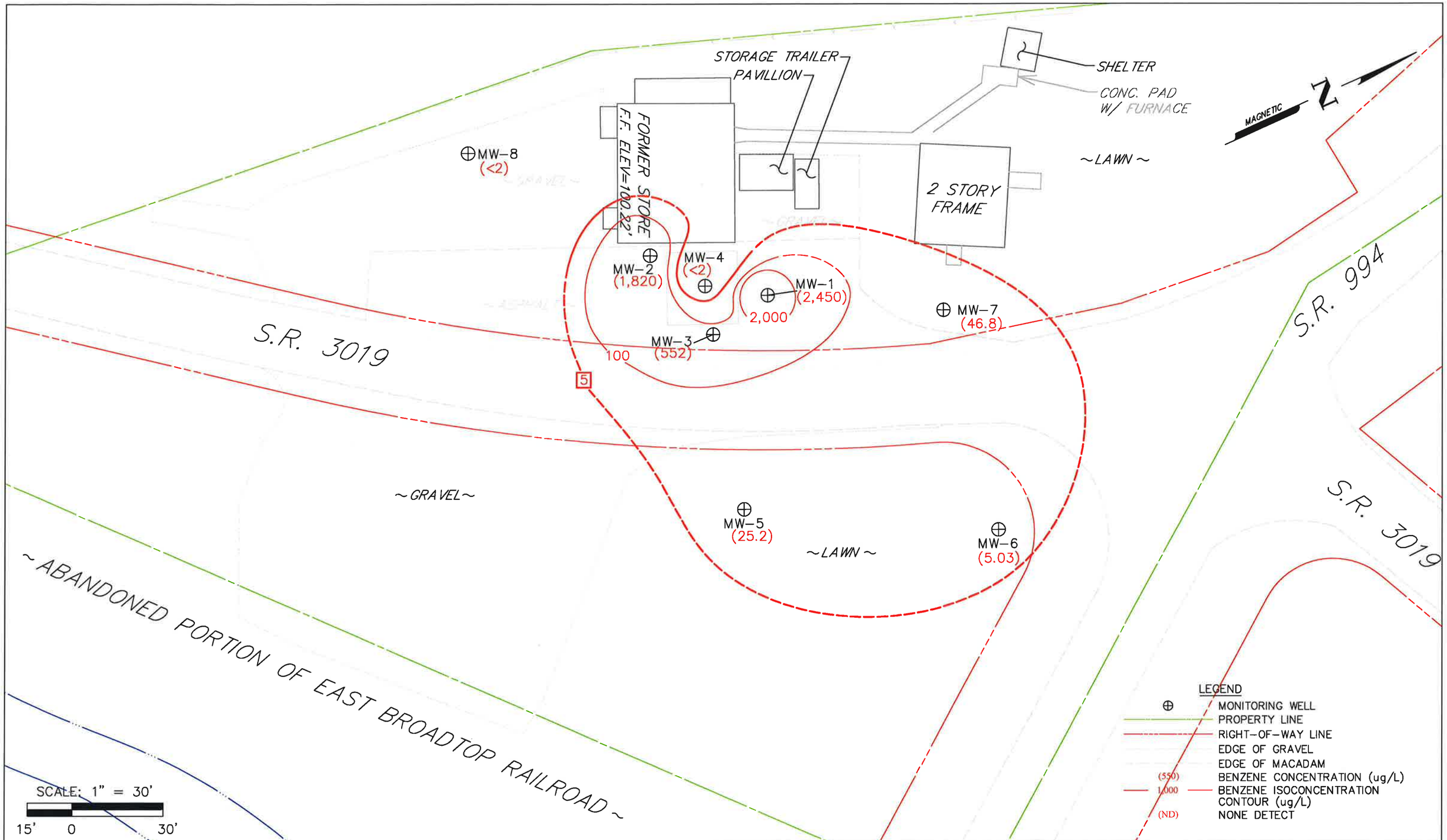
COOK'S COUNTY STORE

Robertsdale, PA

1,3,5-TRIMETHYLBENZENE ISOCONCENTRATION CONTOUR MAP

November 19, 2015



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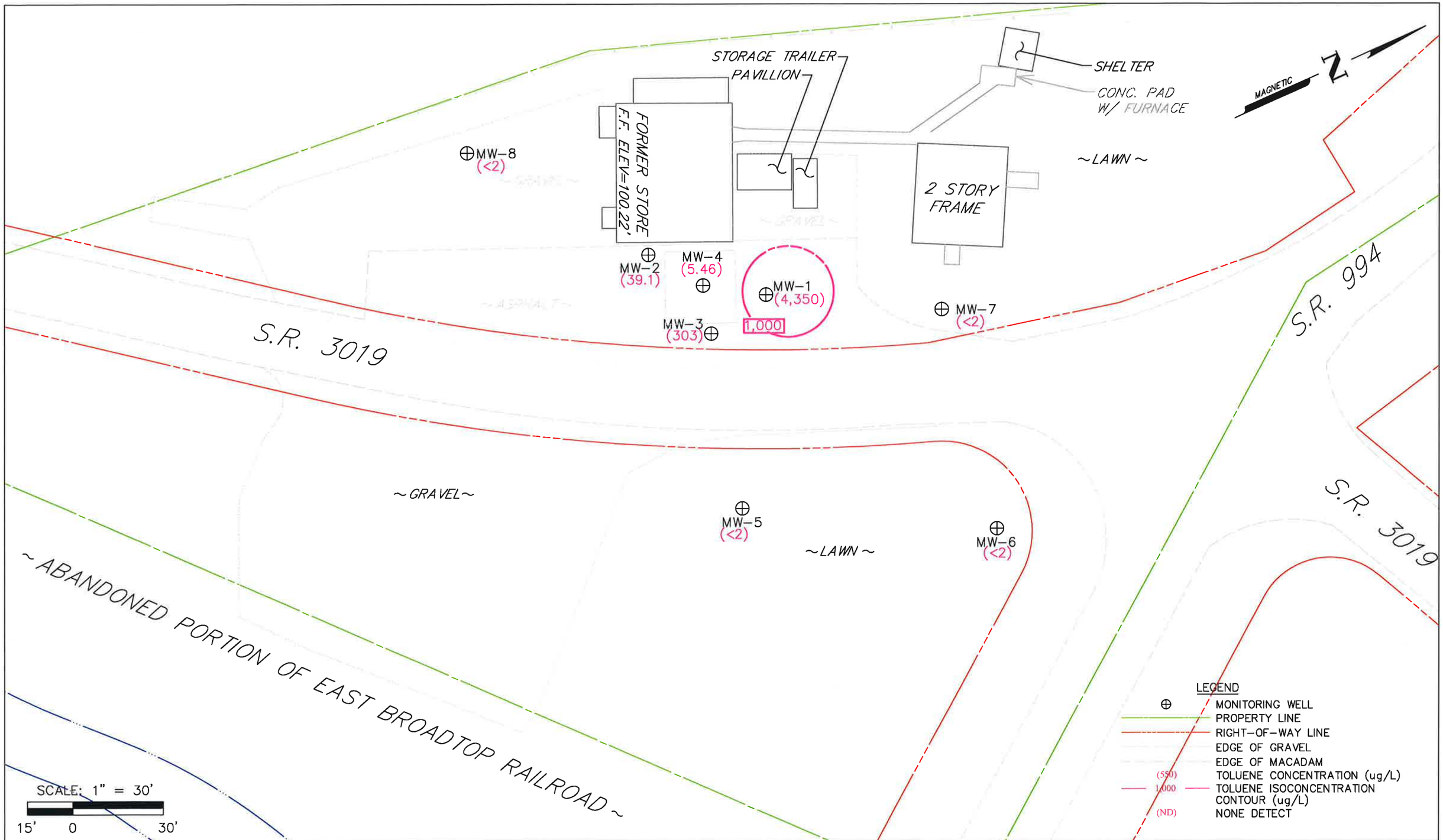
COOK'S COUNTY STORE

Robertsdale, PA

BENZENE ISOCONCENTRATION CONTOUR MAP

November 19, 2015



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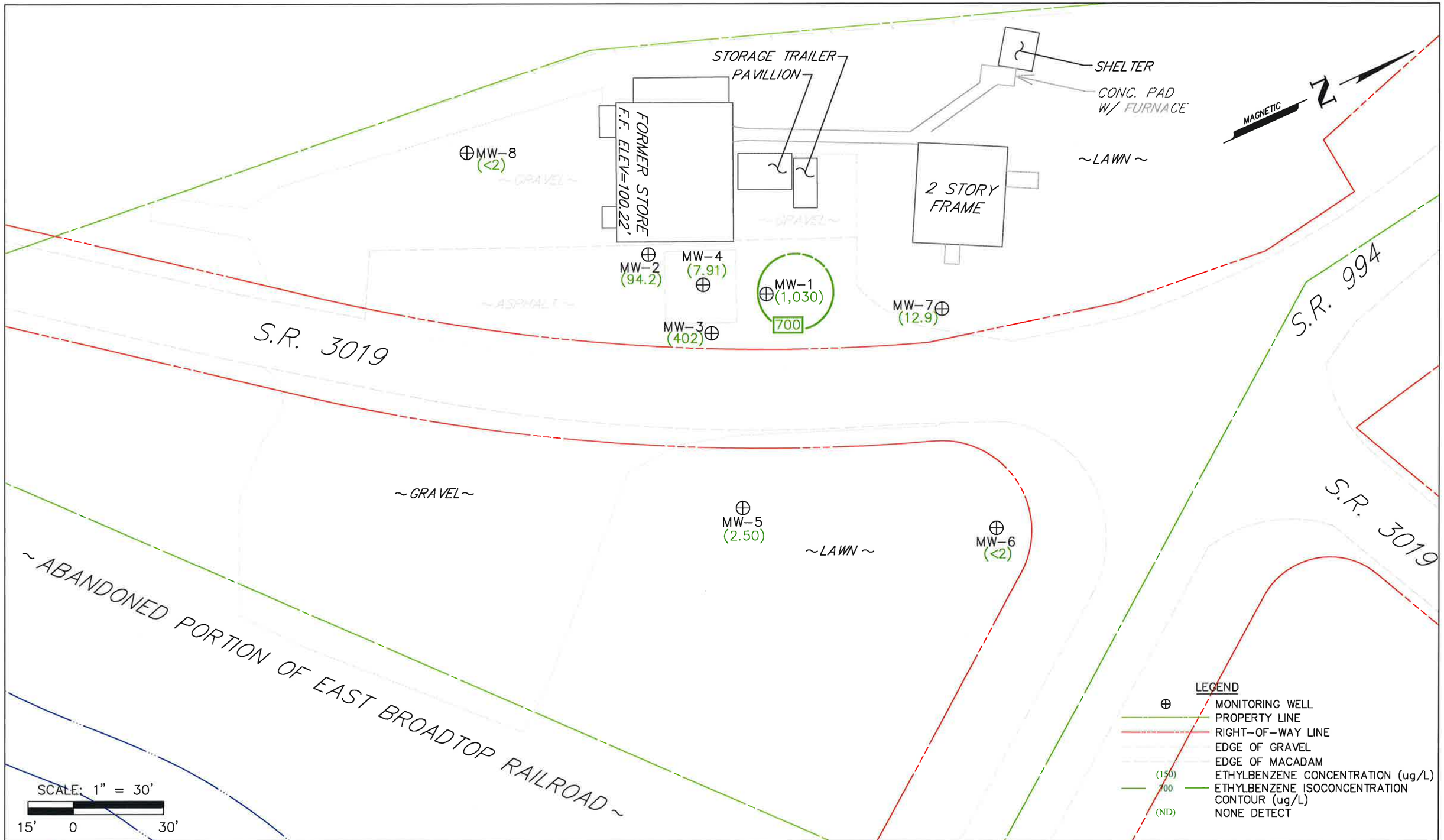
COOK'S COUNTY STORE

Robertsdale, PA

TOLUENE ISOCONCENTRATION CONTOUR MAP

November 19, 2015



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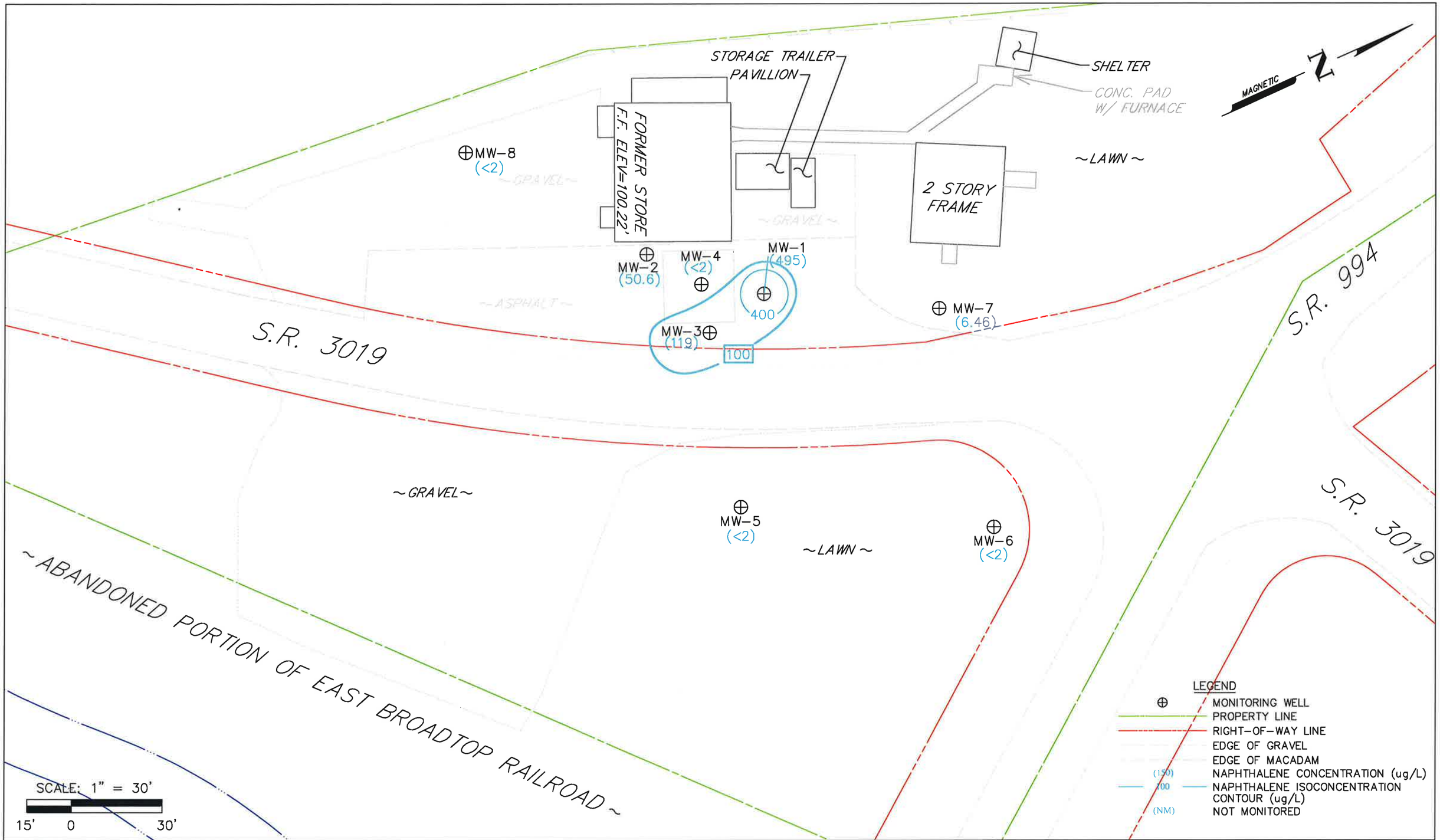
COOK'S COUNTY STORE

Robertsdale, PA

ETHYLBENZENE ISOCONCENTRATION CONTOUR MAP

November 19, 2015



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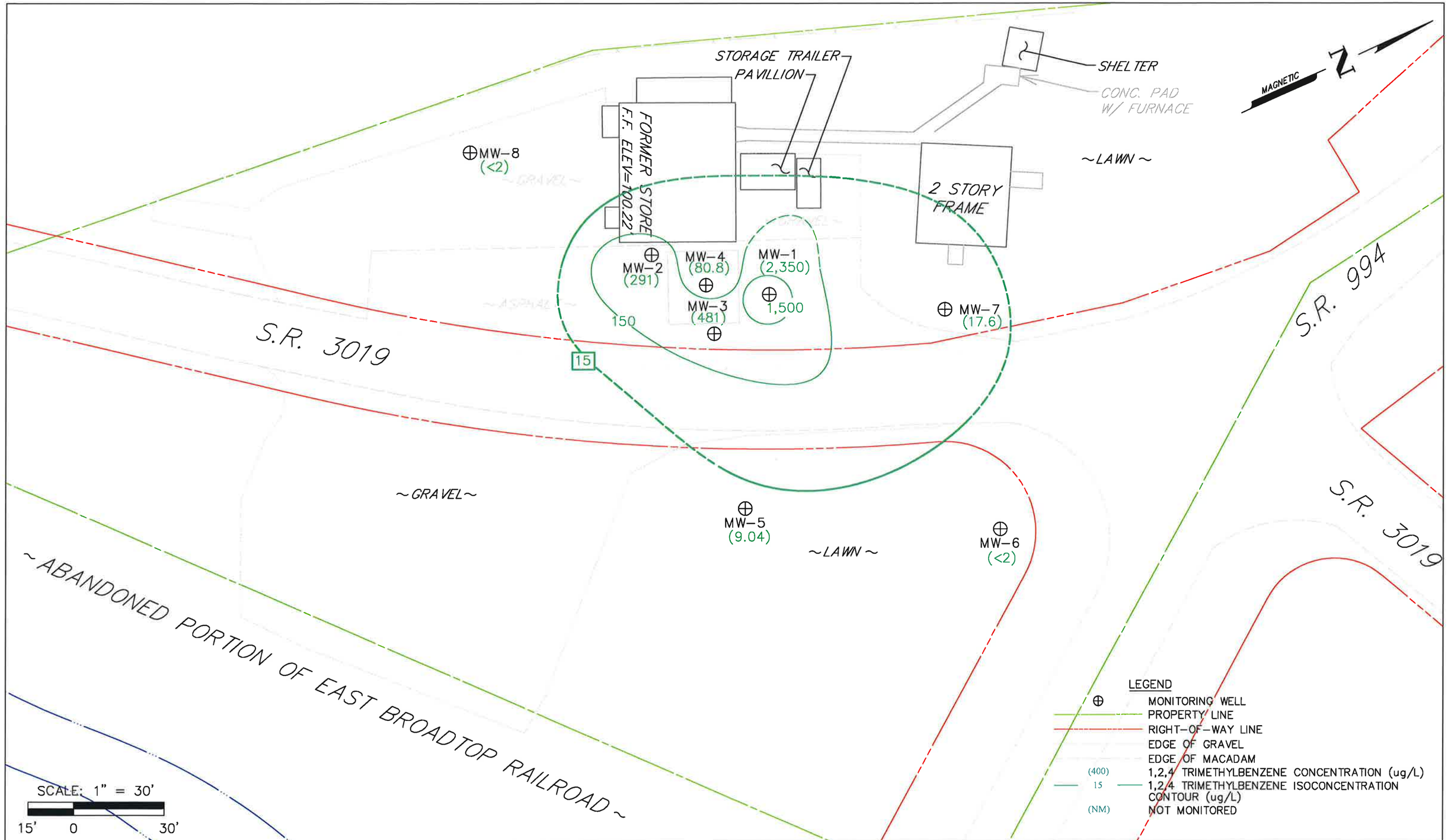
COOK'S COUNTY STORE

Robertsdale, PA

NAPHTHALENE ISOCONCENTRATION CONTOUR MAP

November 19, 2015



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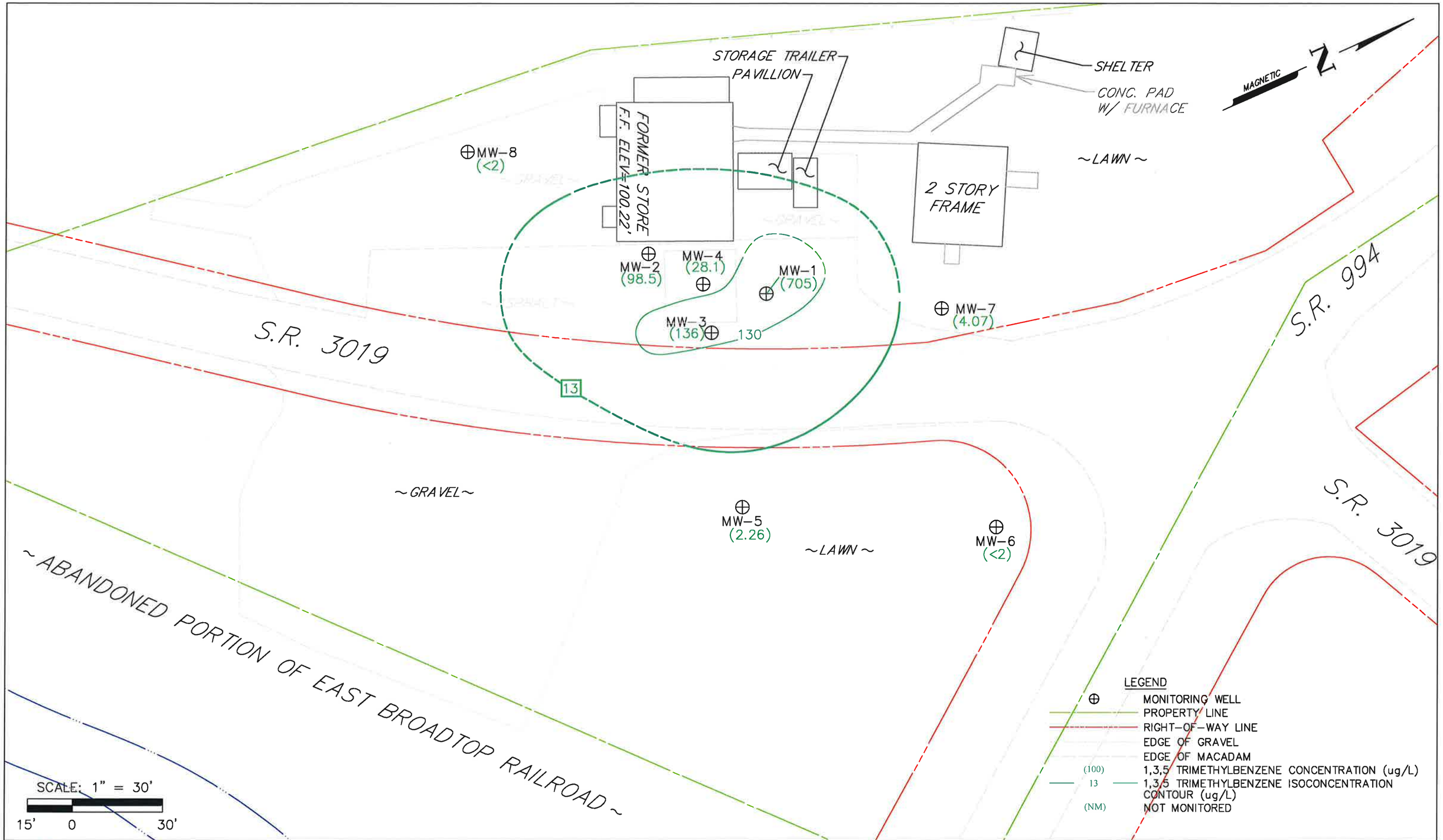
COOK'S COUNTY STORE

Robertsdale, PA

1,2,4-TRIMETHYLBENZENE ISOCONCENTRATION CONTOUR MAP

December 9, 2015



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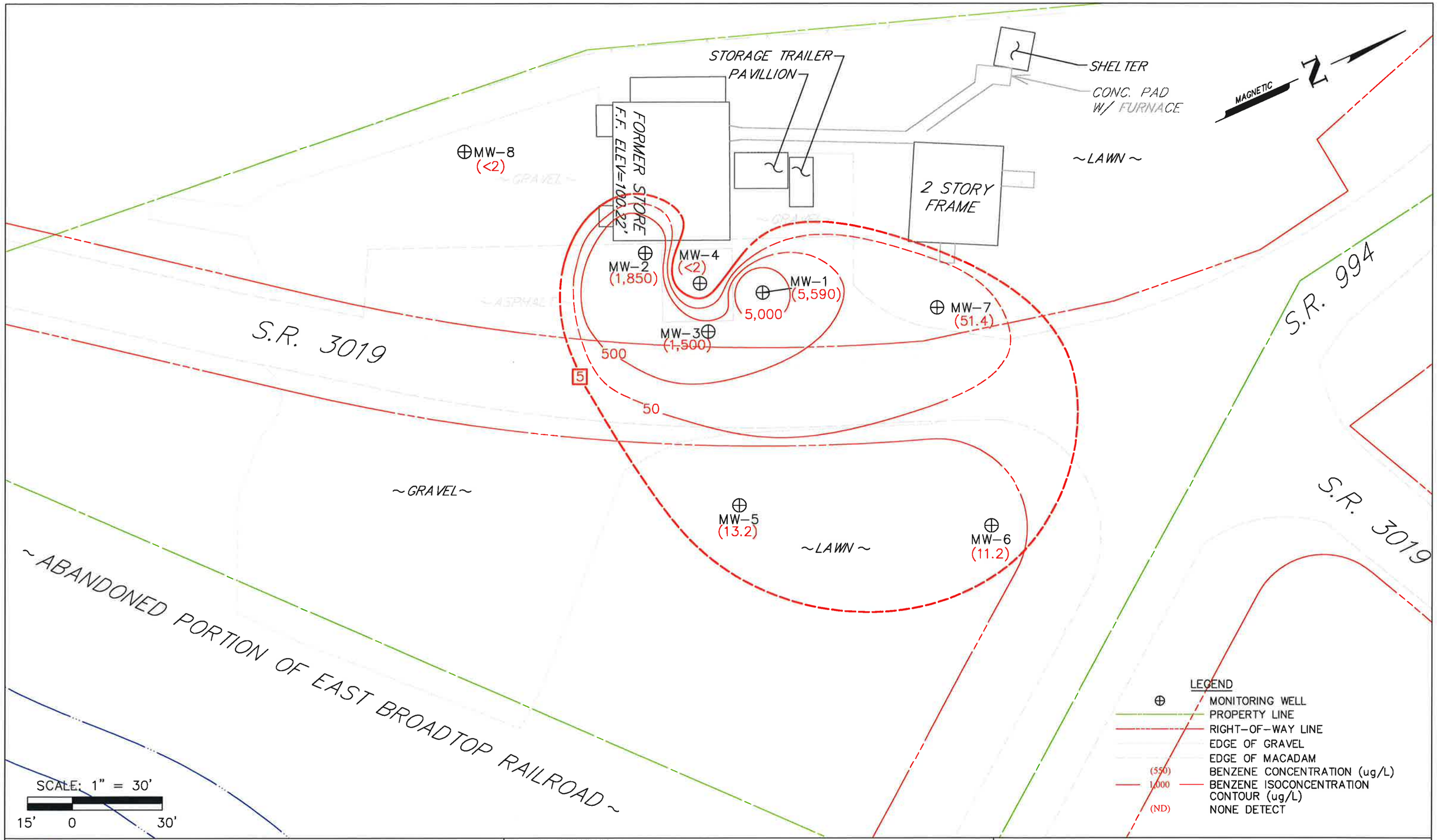
COOK'S COUNTY STORE

Robertsdale, PA

1,3,5-TRIMETHYLBENZENE ISOCONCENTRATION CONTOUR MAP

December 9, 2015



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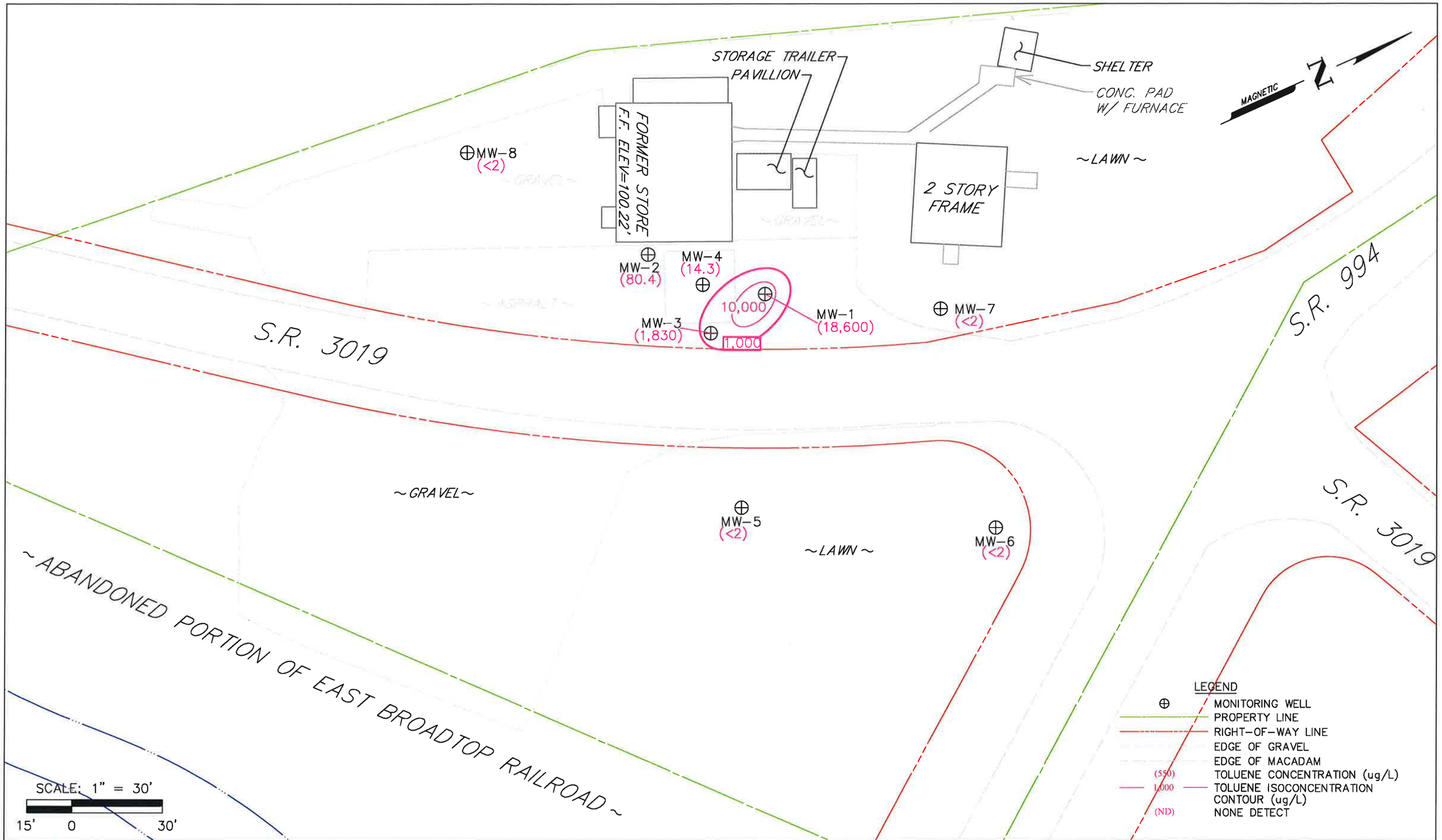
COOK'S COUNTY STORE

Robertsdale, PA

BENZENE ISOCONCENTRATION CONTOUR MAP

December 9, 2015



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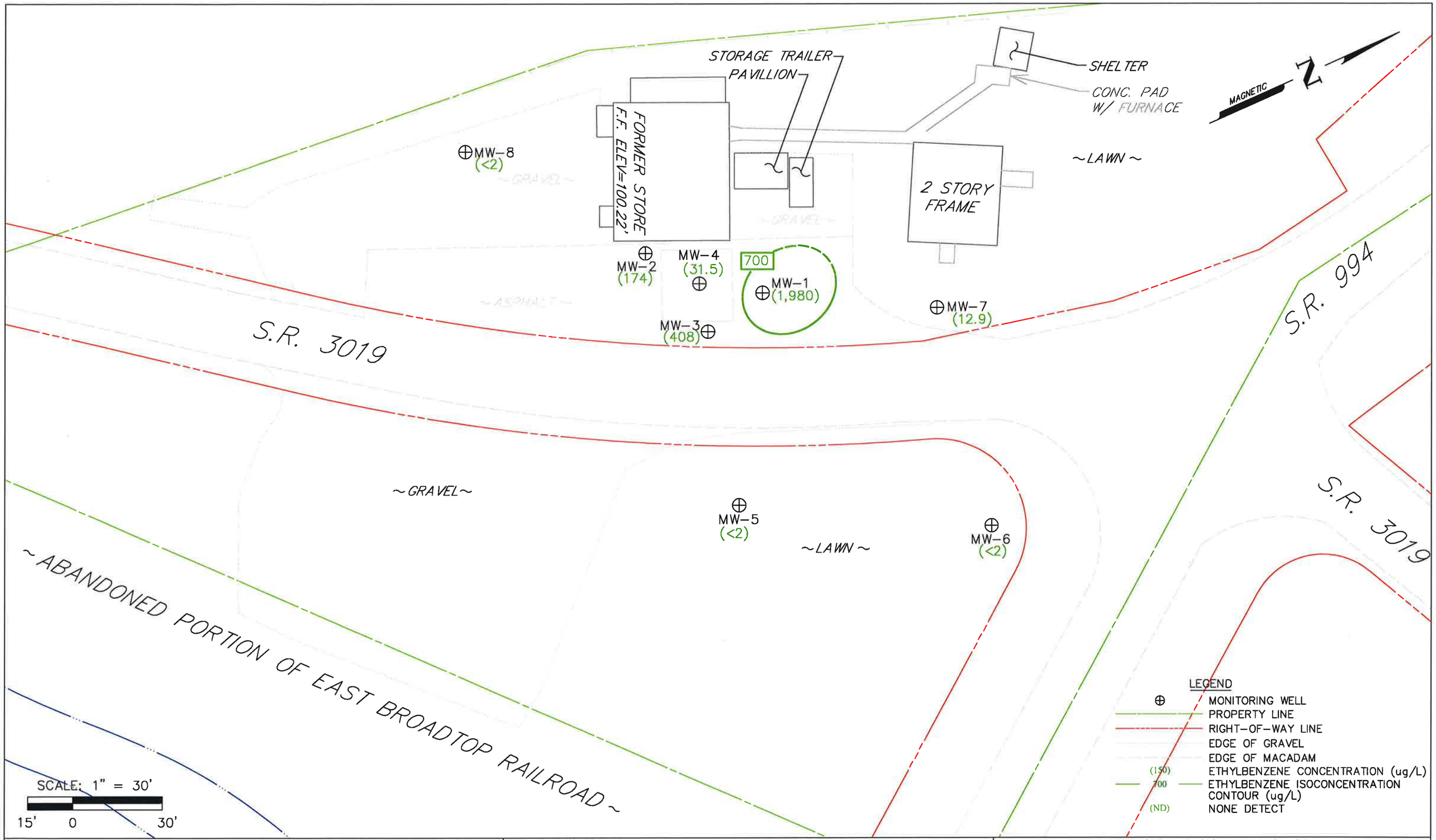
COOK'S COUNTY STORE

Robertsdale, PA

TOLUENE ISOCONCENTRATION CONTOUR MAP

December 9, 2015



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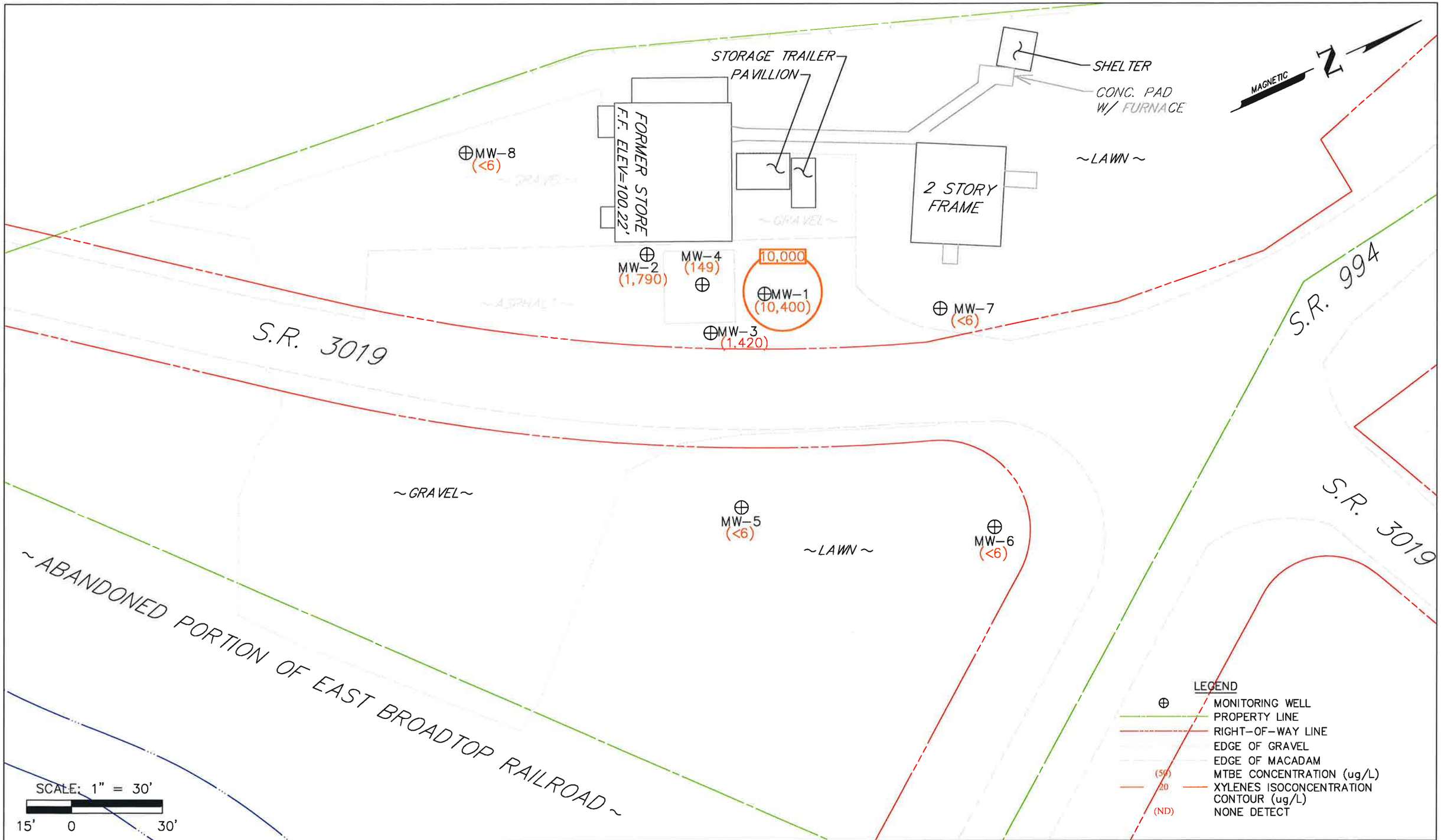
COOK'S COUNTY STORE

Robertsdale, PA

ETHYLBENZENE ISOCONCENTRATION CONTOUR MAP

December 9, 2015



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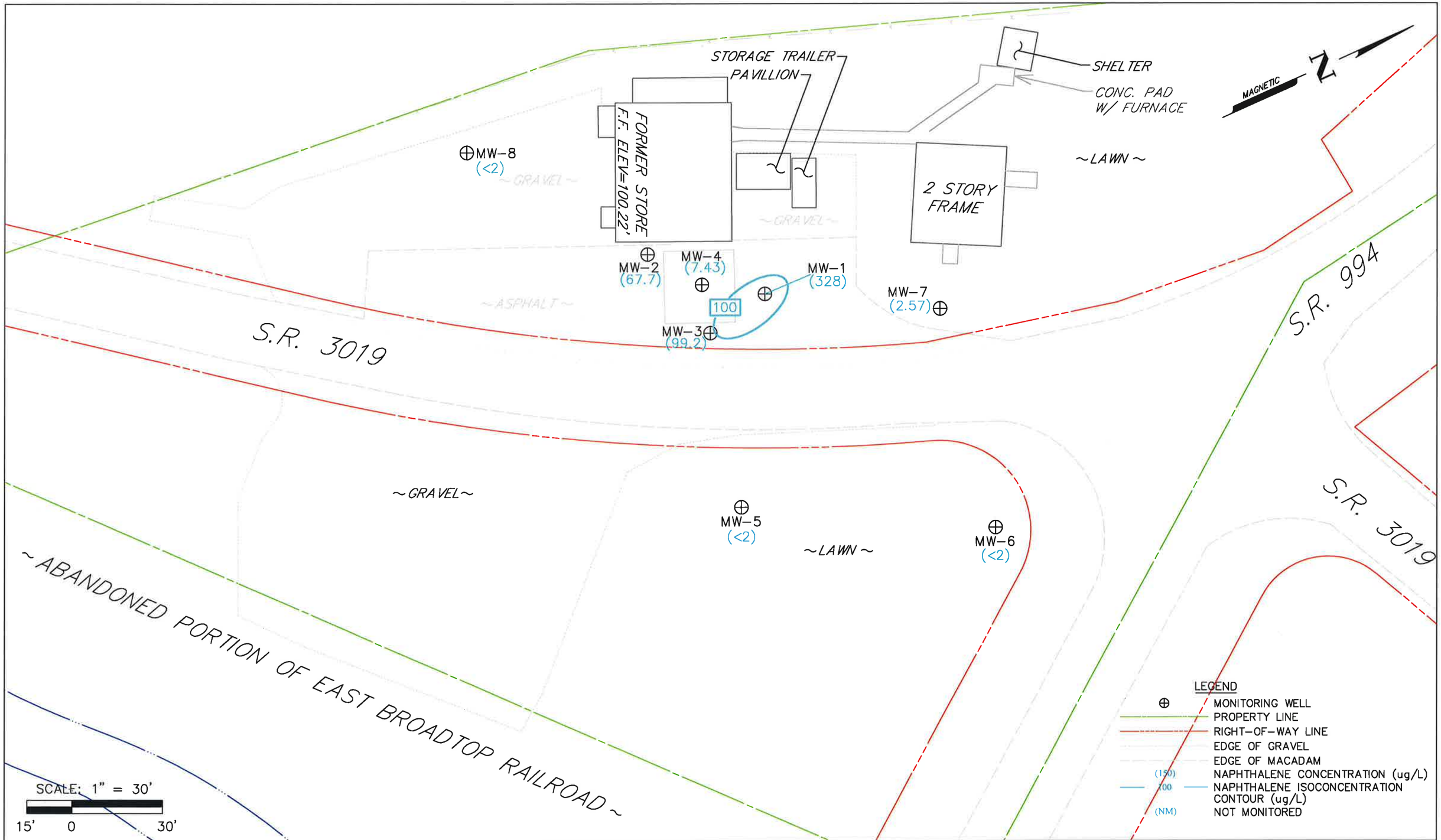
COOK'S COUNTY STORE

Robertsdale, PA

TOTAL XYLENES ISOCONCENTRATION CONTOUR MAP

December 9, 2015



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COOK'S COUNTY STORE

Robertsdale, PA

NAPHTHALENE ISOCONCENTRATION CONTOUR MAP

December 9, 2015

APPENDIX O

QD MODELING DOCUMENTATION

Cooks Country Store, James Creek, PA
Quick Domenico overburden groundwater naphthalene model input and sensitivity analysis MW-1 to MW-3

Model Input	Input value	Rationale for input	Sensitivity analysis
Initial concentration	.495 mg/L	MW-1 source area - maximum value since remediation, (11/19/2015) sampling event.	QD is highly sensitive to this value. In general, one order of magnitude change in initial concentration will change the output of the model by the same order of magnitude.
A(x)	55 feet	Initial value set at 55 feet and was retained during sensitivity analysis.	QD is highly sensitive to this value especially near the tail end of modeled contaminant plume. In general, one order of magnitude change in A (x) will change the output of the model by two orders of magnitude.
A(Y)	5.5 feet	Initial value set to 1/10 of A(x) and retained during model calibration	QD is moderately sensitive to this value. A change in one order of magnitude larger will cause model centerline values to decrease slightly.
A(z)	0.001 feet	PADEP suggested value was retained during model calibration	QD is not sensitive to this value. A change in one order of magnitude larger caused no change in model output.
Lambda	0.026	Initial value set to PADEP supplied value of 0.00268 and adjusted during calibration.	QD is highly sensitive to this value. A change in one order of magnitude larger will cause model centerline value to decrease significantly.
Source Width	30 feet	Based on estimated width of source area using isoconcentration map MSC line .	QD is sensitive to this value. A change in +50 feet yields an increase in model output.
Source Thickness	9.24 feet	Source thickness is based on the overall thickness of the aquifer.	QD is not sensitive to this value. A change in +/- 5 feet yields no change in model output.
Time	401 days	Calculated as days between the most recent UST excavation (11/25/2014) and the date of model calibration (12/31/2015)	QD is not sensitive to this value. A change of 100 days yields no change in model output
Hydraulic Conductivity	1.97 feet/day	Initial value set to average K value of 1.977 ft/day (from12/10/2015 aquifer tests) and retained during sensitivity analysis.	QD is highly sensitive to this value. A change in one order of magnitude will cause the model output to change significantly
Gradient	0.036 feet/foot	Value set at calculated gradient between MW-1 and MW-3 during the 11/19/2015 sampling event.	QD is moderately sensitive to this value. A change of + 0.01 feet/foot yields higher model output values.
Effective Porosity	0.024 decimal fraction	A site specific effective porosity ($N_{e)}$ value was obtained for the overburden aquifer at the site and was utilized in each model.	QD is moderately sensitive to this value. A change in + .05 causes a decrease in model output.
Soil Bulk Density	2.014 g/cm3	A calculated soil bulk density of 2.014 gm/cm^3 was utilized for the overburden aquifer to calibrate the model.	QD is moderately sensitive to this value. A change in + 0.1 causes a decrease in model output.
KOC	950	Value set to PADEP value for naphthalene	QD is moderately sensitive to this value. A change in + 10 causes a decrease in model output.
Fraction of Organic Carbon	0.0002 decimal fraction	PADEP suggested value was retained during model calibration	QD is moderately sensitive to this value. A change in one order of magnitude larger yields significantly lower model output.

ADVECTIVE TRANSPORT WITH THREE DIMENSIONAL DISPERSION,1ST ORDER DECAY and RETARDATION - WITH CALIBRATION TOOL

Project:	Cooks Country Store		
Date:	12/31/2015	Prepared by:	Mountain Research (MC)
		Contaminant:	1,2,4-Trimethylbenzene 30 year to SHS

NEW QUICK_DOMENICO.XLS

SPREADSHEET APPLICATION OF "AN ANALYTICAL MODEL FOR MULTIDIMENSIONAL TRANSPORT OF A DECAYING CONTAMINANT SPECIES" P.A. Domenico (1987) Modified to Include Retardation

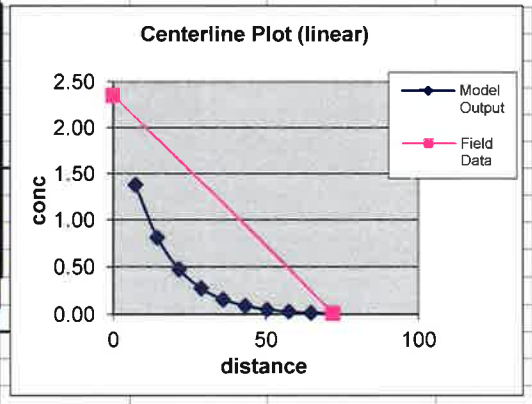
SOURCE CONC (MG/L)	Ax (ft)	Ay (ft)	Az (ft) >=.001	LAMBDA day-1	SOURCE WIDTH (ft)	SOURCE THICKNESS (ft)	Time (days) (days)
2.35	9.50E+02	9.50E+00	1.00E-03	0.0125	115	9.54	11359

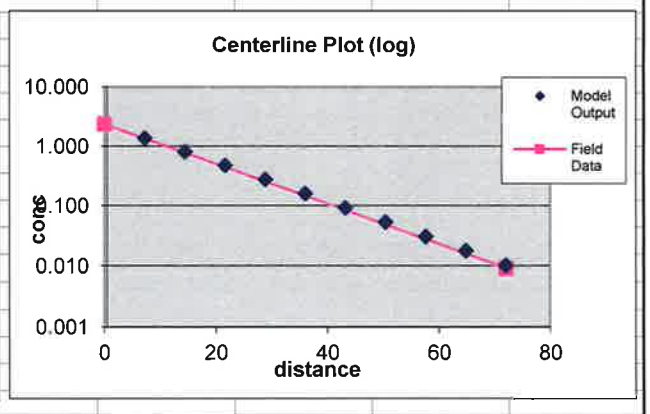
Hydraulic Cond (ft/day)	Hydraulic Gradient (ft/ft)	Porosity (dec. frac.)	Soil Bulk Density (g/cm³)	KOC	Frac. Org. Carb.	Retard-ation (R)	V (=K*i/n*R) (ft/day)
1.97E-01	0.011	0.024	2.014	2200	2.00E-04	37.92333333	0.0023809

Point Concentration

x(ft)	y(ft)	z(ft)
67	0	0

	x(ft)	y(ft)	z(ft)
Conc. At	67	0	0
at	11359	days =	
			0.015 mg/l





	AREAL MODEL	CALCULATION DOMAIN
	Length (ft)	72
	Width (ft)	115

	7.2	14.4	21.6	28.8	36	43.2	50.4	57.6	64.8	72
115	0.000	0.000	0.001	0.002	0.002	0.002	0.002	0.001	0.001	0.001
57.5	0.691	0.406	0.239	0.140	0.082	0.048	0.028	0.017	0.010	0.006
0	1.381	0.811	0.475	0.277	0.160	0.093	0.053	0.031	0.018	0.010
-57.5	0.691	0.406	0.239	0.140	0.082	0.048	0.028	0.017	0.010	0.006
-115	0.000	0.000	0.001	0.002	0.002	0.002	0.002	0.001	0.001	0.001

Field Data:										
	Centerline Cc Concentration			2.35	0.00904					
	Distance from Source			0	72					

ADVECTIVE TRANSPORT WITH THREE DIMENSIONAL DISPERSION,1ST ORDER DECAY and RETARDATION - WITH CALIBRATION TOOL

Project:	Cooks Country Store		
Date:	12/31/2015	Prepared by:	Mountain Research (MC)
		Contaminant:	1,2,4-Trimethylbenzene Calibration

NEW QUICK_DOMENICO.XLS

SPREADSHEET APPLICATION OF "AN ANALYTICAL MODEL FOR MULTIDIMENSIONAL TRANSPORT OF A DECAYING CONTAMINANT SPECIES" P.A. Domenico (1987) Modified to Include Retardation

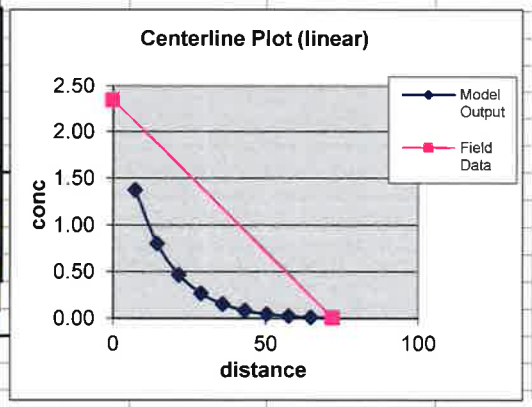
SOURCE CONC (MG/L)	Ax (ft)	Ay (ft)	Az (ft) >=.001	LAMBDA day-1	SOURCE WIDTH (ft)	SOURCE THICKNESS (ft)	Time (days) (days)
2.35	9.50E+02	9.50E+00	1.00E-03	0.0125	115	9.54	401

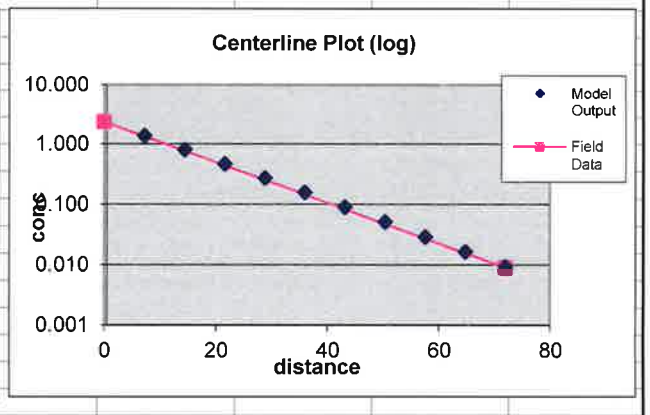
Hydraulic Cond (ft/day)	Hydraulic Gradient (ft/ft)	Porosity (dec. frac.)	Soil Bulk Density (g/cm³)	KOC	Frac. Org. Carb.	Retard-ation (R)	V (=K*i/n*R) (ft/day)
1.97E-01	0.011	0.024	2.014	2200	2.00E-04	37.92333333	0.0023809

Point Concentration

x(ft)	y(ft)	z(ft)
72	0	0

	x(ft)	y(ft)	z(ft)
Conc. At	72	0	0
at	401	days =	
			0.009 mg/l





	AREAL MODEL	CALCULATION DOMAIN
	Length (ft)	72
	Width (ft)	115

	7.2	14.4	21.6	28.8	36	43.2	50.4	57.6	64.8	72
115	0.000	0.000	0.001	0.002	0.002	0.002	0.002	0.001	0.001	0.001
57.5	0.690	0.405	0.238	0.139	0.082	0.048	0.028	0.016	0.009	0.005
0	1.379	0.809	0.473	0.275	0.159	0.091	0.052	0.030	0.017	0.009
-57.5	0.690	0.405	0.238	0.139	0.082	0.048	0.028	0.016	0.009	0.005
-115	0.000	0.000	0.001	0.002	0.002	0.002	0.002	0.001	0.001	0.001

Field Data:	Centerline Cc Concentration	2.35	0.00904
	Distance from Source	0	72

ADVECTIVE TRANSPORT WITH THREE DIMENSIONAL DISPERSION,1ST ORDER DECAY and RETARDATION - WITH CALIBRATION TOOL

Project:	Cooks Country Store		
Date:	12/31/2015	Prepared by:	Mountain Research (MC)
		Contaminant:	1,3,5-Trimethylbenzene 30 year to SHS

NEW QUICK_DOMENICO.XLS

SPREADSHEET APPLICATION OF "AN ANALYTICAL MODEL FOR MULTIDIMENSIONAL TRANSPORT OF A DECAYING CONTAMINANT SPECIES"
P.A. Domenico (1987)
Modified to Include Retardation

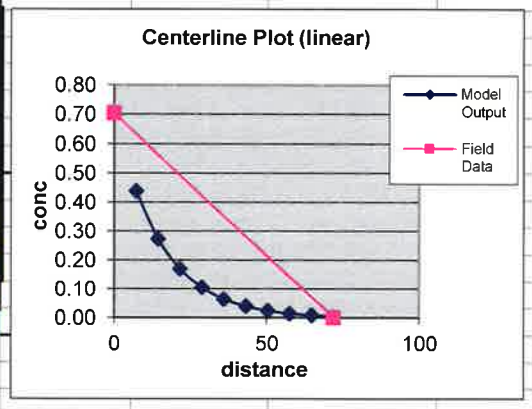
SOURCE CONC (MG/L)	Ax (ft)	Ay (ft)	Az (ft) >=.001	LAMBDA day-1	SOURCE WIDTH (ft)	SOURCE THICKNESS (ft)	Time (days) (days)
0.705	9.00E+00	9.00E+00	1.00E-03	0.0078	135	9.54	11359

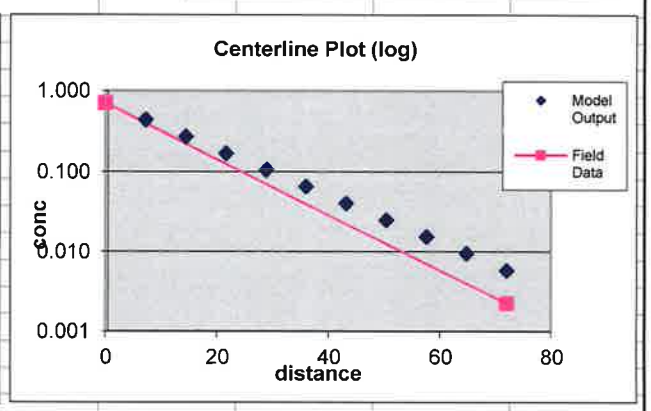
Hydraulic Cond (ft/day)	Hydraulic Gradient (ft/ft)	Porosity (dec. frac.)	Soil Bulk Density (g/cm³)	KOC	Frac. Org. Carb.	Retard-ation (R)	V (=K*i/n*R) (ft/day)
1.97E+00	0.011	0.024	2.014	660	2.00E-04	12.077	0.074763324

Point Concentration

x(ft)	y(ft)	z(ft)
60	0	0

	x(ft)	y(ft)	z(ft)
Conc. At	60	0	0
at	11359	days =	
			0.013
			mg/l





	AREAL MODEL	CALCULATION DOMAIN
	Length (ft)	72
	Width (ft)	135

	7.2	14.4	21.6	28.8	36	43.2	50.4	57.6	64.8	72
135	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
67.5	0.220	0.137	0.085	0.053	0.033	0.021	0.013	0.008	0.005	0.003
0	0.440	0.274	0.171	0.106	0.066	0.041	0.025	0.016	0.010	0.006
-67.5	0.220	0.137	0.085	0.053	0.033	0.021	0.013	0.008	0.005	0.003
-135	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Field Data:	Centerline Cc Concentration	0.705	0.00226
	Distance from Source	0	72

ADVECTIVE TRANSPORT WITH THREE DIMENSIONAL DISPERSION,1ST ORDER DECAY and RETARDATION - WITH CALIBRATION TOOL

Project:	Cooks Country Store		
Date:	12/31/2015	Prepared by:	Mountain Research (MC)
		Contaminant:	1,3,5-Trimethylbenzene Calibration

NEW QUICK_DOMENICO.XLS

SPREADSHEET APPLICATION OF "AN ANALYTICAL MODEL FOR MULTIDIMENSIONAL TRANSPORT OF A DECAYING CONTAMINANT SPECIES" P.A. Domenico (1987) Modified to Include Retardation

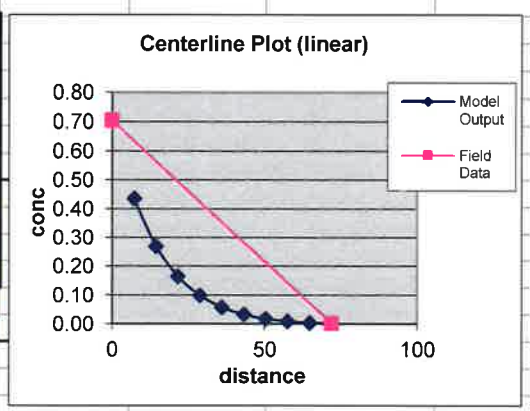
SOURCE CONC (MG/L)	Ax (ft)	Ay (ft)	Az (ft) >=.001	LAMBDA day-1	SOURCE WIDTH (ft)	SOURCE THICKNESS (ft)	Time (days) (days)
0.705	9.00E+00	9.00E+00	1.00E-03	0.0078	135	9.54	401

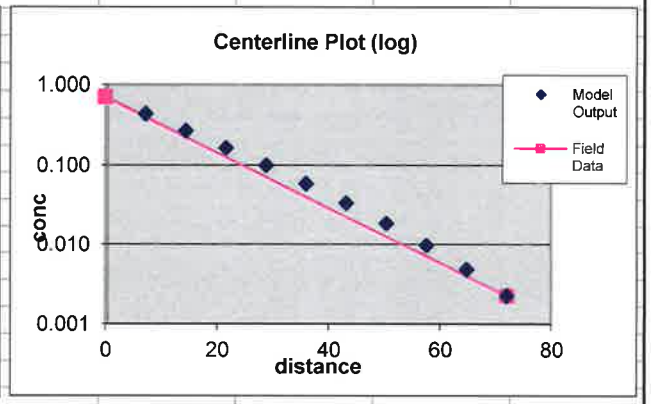
Hydraulic Cond (ft/day)	Hydraulic Gradient (ft/ft)	Porosity (dec. frac.)	Soil Bulk Density (g/cm³)	KOC	Frac. Org. Carb.	Retard-ation (R)	V (=K*i/n*R) (ft/day)
1.97E+00	0.011	0.024	2.014	660	2.00E-04	12.077	0.074763324

Point Concentration

x(ft)	y(ft)	z(ft)
72	0	0

	x(ft)	y(ft)	z(ft)
Conc. At	72	0	0
at	401	days =	
			0.002
			mg/l





	AREAL MODEL	CALCULATION DOMAIN
	Length (ft)	72
	Width (ft)	135

	7.2	14.4	21.6	28.8	36	43.2	50.4	57.6	64.8	72
135	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
67.5	0.218	0.135	0.083	0.050	0.030	0.017	0.010	0.005	0.003	0.001
0	0.437	0.270	0.166	0.100	0.059	0.034	0.019	0.010	0.005	0.002
-67.5	0.218	0.135	0.083	0.050	0.030	0.017	0.010	0.005	0.003	0.001
-135	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Field Data:	Centerline Cc Concentration	0.705	0.00226
	Distance from Source	0	72

ADVECTIVE TRANSPORT WITH THREE DIMENSIONAL DISPERSION,1ST ORDER DECAY and RETARDATION - WITH CALIBRATION TOOL

Project:	Cooks Country Store		
Date:	12/31/2015	Prepared by:	Mountain Research (MC)
		Contaminant:	Benzene 30 year to SHS

NEW QUICK_DOMENICO.XLS

SPREADSHEET APPLICATION OF "AN ANALYTICAL MODEL FOR MULTIDIMENSIONAL TRANSPORT OF A DECAYING CONTAMINANT SPECIES"
P.A. Domenico (1987)
Modified to Include Retardation

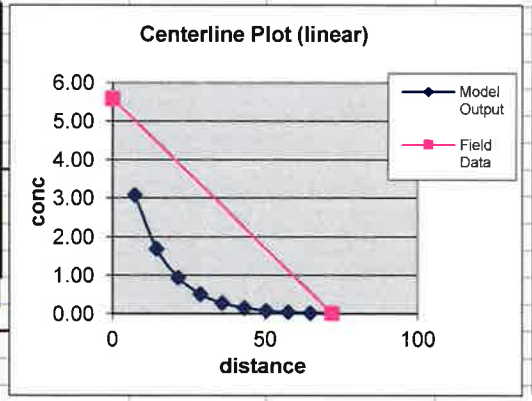
SOURCE CONC (MG/L)	Ax (ft)	Ay (ft)	Az (ft) >=.001	LAMBDA day-1	SOURCE WIDTH (ft)	SOURCE THICKNESS (ft)	Time (days) (days)
5.59	5.00E+02	5.00E+00	1.00E-03	16	125	9.54	11359

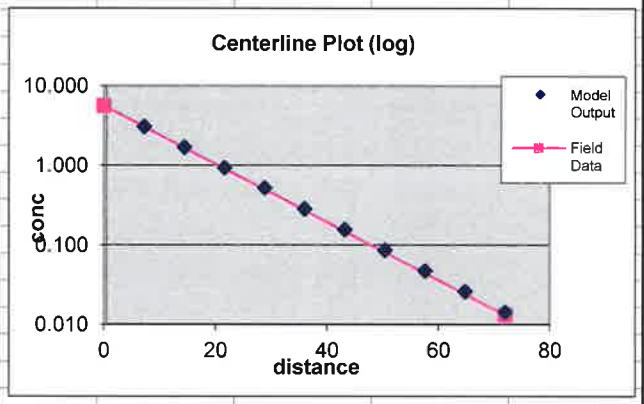
Hydraulic Cond (ft/day)	Hydraulic Gradient (ft/ft)	Porosity (dec. frac.)	Soil Bulk Density (g/cm³)	KOC	Frac. Org. Carb.	Retard-ation (R)	V (=K*i/n*R) (ft/day)
1.97E+01	0.011	0.024	2.014	58	2.00E-04	1.973433333	4.575359357

Point Concentration

x(ft)	y(ft)	z(ft)
84	0	0

	x(ft)	y(ft)	z(ft)
Conc. At	84	0	0
at	11359	days =	0.005 mg/l





	AREAL MODEL	CALCULATION DOMAIN
	Length (ft)	72
	Width (ft)	125

	7.2	14.4	21.6	28.8	36	43.2	50.4	57.6	64.8	72
125	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
62.5	1.542	0.850	0.469	0.259	0.143	0.079	0.043	0.024	0.013	0.007
0	3.083	1.701	0.938	0.517	0.285	0.157	0.086	0.047	0.026	0.014
-62.5	1.542	0.850	0.469	0.259	0.143	0.079	0.043	0.024	0.013	0.007
-125	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Field Data:									
	Centerline Cc Concentration		5.59	0.0132					
	Distance from Source		0	72					

ADVECTIVE TRANSPORT WITH THREE DIMENSIONAL DISPERSION,1ST ORDER DECAY and RETARDATION - WITH CALIBRATION TOOL

Project:	Cooks Country Store		
Date:	12/31/2015	Prepared by:	Mountain Research (MC)
		Contaminant:	Benzene Calibration

NEW QUICK_DOMENICO.XLS

SPREADSHEET APPLICATION OF "AN ANALYTICAL MODEL FOR MULTIDIMENSIONAL TRANSPORT OF A DECAYING CONTAMINANT SPECIES"
P.A. Domenico (1987)
Modified to Include Retardation

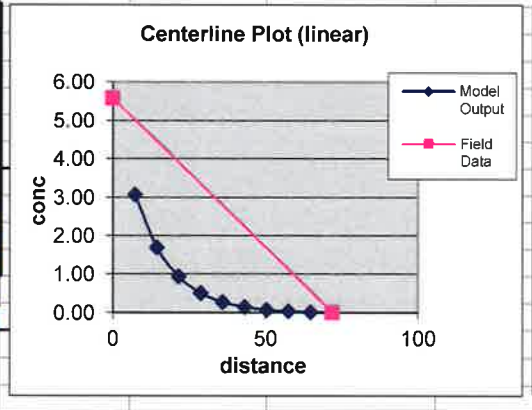
SOURCE CONC (MG/L)	Ax (ft)	Ay (ft)	Az (ft) >=.001	LAMBDA day-1	SOURCE WIDTH (ft)	SOURCE THICKNESS (ft)	Time (days) (days)
5.59	5.00E+02	5.00E+00	1.00E-03	16	125	9.54	401

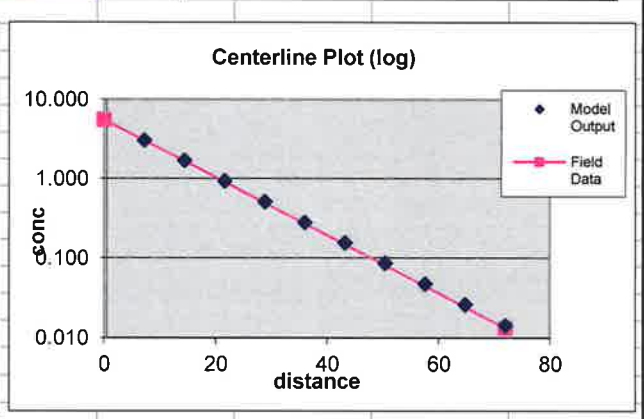
Hydraulic Cond (ft/day)	Hydraulic Gradient (ft/ft)	Porosity (dec. frac.)	Soil Bulk Density (g/cm³)	KOC	Frac. Org. Carb.	Retard-ation (R)	V (=K*i/n*R) (ft/day)
1.97E+01	0.011	0.024	2.014	58	2.00E-04	1.973433333	4.575359357

Point Concentration

x(ft)	y(ft)	z(ft)
72	0	0

	x(ft)	y(ft)	z(ft)
Conc. At	72	0	0
at	401	days =	0.014 mg/l





	AREAL MODEL	CALCULATION DOMAIN
	Length (ft)	72
	Width (ft)	125

	7.2	14.4	21.6	28.8	36	43.2	50.4	57.6	64.8	72
125	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
62.5	1.542	0.850	0.469	0.259	0.143	0.079	0.043	0.024	0.013	0.007
0	3.083	1.701	0.938	0.517	0.285	0.157	0.086	0.047	0.026	0.014
-62.5	1.542	0.850	0.469	0.259	0.143	0.079	0.043	0.024	0.013	0.007
-125	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Field Data:	Centerline Cc Concentration	5.59	0.0132
	Distance from Source	0	72

ADVECTIVE TRANSPORT WITH THREE DIMENSIONAL DISPERSION,1ST ORDER DECAY and RETARDATION - WITH CALIBRATION TOOL

Project:	Cooks Country Store		
Date:	12/31/2015	Prepared by:	Mountain Research (MC)
		Contaminant:	Ethylbenzene 30 year to SHS

NEW QUICK_DOMENICO.XLS

SPREADSHEET APPLICATION OF "AN ANALYTICAL MODEL FOR MULTIDIMENSIONAL TRANSPORT OF A DECAYING CONTAMINANT SPECIES"
P.A. Domenico (1987)
Modified to Include Retardation

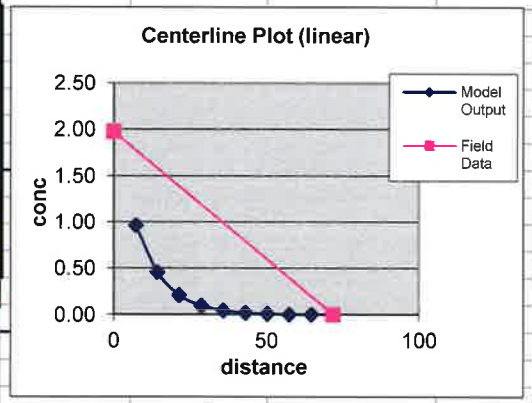
SOURCE CONC (MG/L)	Ax (ft)	Ay (ft)	Az (ft) >=.001	LAMBDA day-1	SOURCE WIDTH (ft)	SOURCE THICKNESS (ft)	Time (days) (days)
1.98	3.00E+01	3.00E+00	1.00E-03	0.0765	40	9.54	11359

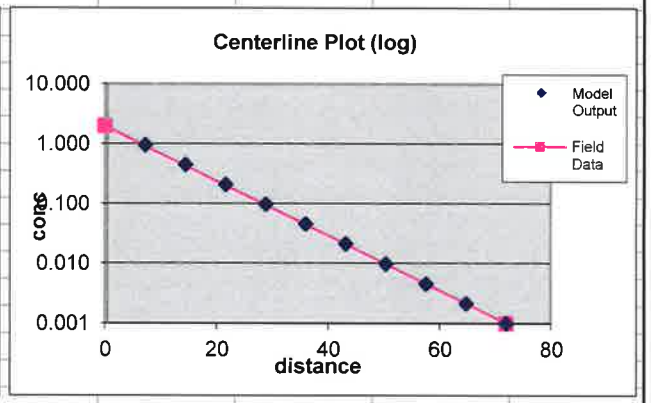
Hydraulic Cond (ft/day)	Hydraulic Gradient (ft/ft)	Porosity (dec. frac.)	Soil Bulk Density (g/cm³)	KOC	Frac. Org. Carb.	Retard-ation (R)	V (=K*i/n*R) (ft/day)
1.97E+00	0.011	0.024	2.014	220	2.00E-04	4.692333333	0.192423812

Point Concentration

x(ft)	y(ft)	z(ft)
10.5	0	0

	x(ft)	y(ft)	z(ft)
Conc. At	10.5	0	0
at	11359	days =	
			0.687
			mg/l





	AREAL MODEL	CALCULATION DOMAIN
	Length (ft)	72
	Width (ft)	40

	7.2	14.4	21.6	28.8	36	43.2	50.4	57.6	64.8	72
40	0.001	0.007	0.009	0.007	0.005	0.003	0.002	0.001	0.000	0.000
20	0.483	0.236	0.115	0.056	0.027	0.013	0.006	0.003	0.001	0.001
0	0.964	0.457	0.212	0.098	0.045	0.021	0.010	0.005	0.002	0.001
-20	0.483	0.236	0.115	0.056	0.027	0.013	0.006	0.003	0.001	0.001
-40	0.001	0.007	0.009	0.007	0.005	0.003	0.002	0.001	0.000	0.000

Field Data:	Centerline Cc Concentration	1.98	0.001
	Distance from Source	0	72

ADVECTIVE TRANSPORT WITH THREE DIMENSIONAL DISPERSION,1ST ORDER DECAY and RETARDATION - WITH CALIBRATION TOOL

Project:	Cooks Country Store		
Date:	12/31/2015	Prepared by:	Mountain Research (MC)
		Contaminant:	Ethylbenzene Calibration

NEW QUICK_DOMENICO.XLS

SPREADSHEET APPLICATION OF "AN ANALYTICAL MODEL FOR MULTIDIMENSIONAL TRANSPORT OF A DECAYING CONTAMINANT SPECIES"
P.A. Domenico (1987)
Modified to Include Retardation

SOURCE CONC (MG/L)	Ax (ft)	Ay (ft)	Az (ft) >=.001	LAMBDA day-1	SOURCE WIDTH (ft)	SOURCE THICKNESS (ft)	Time (days) (days)
1.98	3.00E+01	3.00E+00	1.00E-03	0.0765	40	9.54	401

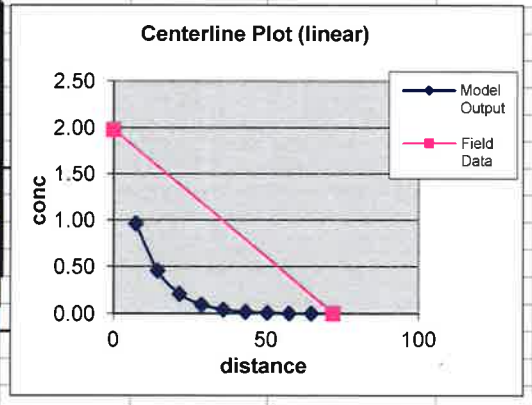
Hydraulic Cond (ft/day)	Hydraulic Gradient (ft/ft)	Porosity (dec. frac.)	Soil Bulk Density (g/cm³)	KOC	Frac. Org. Carb.	Retard-ation (R)	V (=K*i/n*R) (ft/day)
1.97E+00	0.011	0.024	2.014	220	2.00E-04	4.692333333	0.192423812

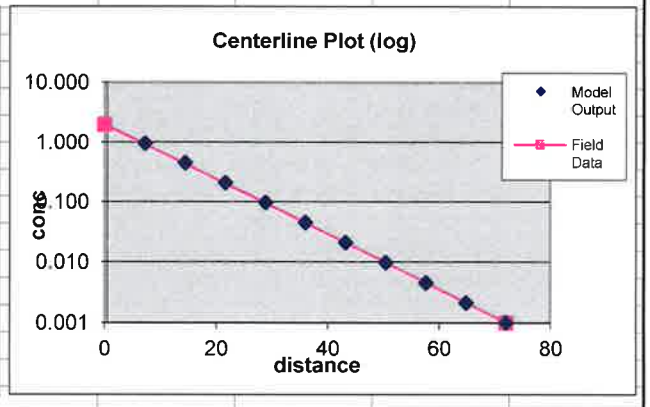
Point Concentration

x(ft)	y(ft)	z(ft)
72	0	0

	x(ft)	y(ft)	z(ft)
Conc. At	72	0	0
at	401	days =	

0.001 mg/l





	AREAL MODEL	CALCULATION DOMAIN
	Length (ft)	72
	Width (ft)	40

	7.2	14.4	21.6	28.8	36	43.2	50.4	57.6	64.8	72
40	0.001	0.007	0.009	0.007	0.005	0.003	0.002	0.001	0.000	0.000
20	0.483	0.236	0.115	0.056	0.027	0.013	0.006	0.003	0.001	0.001
0	0.964	0.457	0.212	0.098	0.045	0.021	0.010	0.005	0.002	0.001
-20	0.483	0.236	0.115	0.056	0.027	0.013	0.006	0.003	0.001	0.001
-40	0.001	0.007	0.009	0.007	0.005	0.003	0.002	0.001	0.000	0.000
Field Data:	**Centerline Cc Concentration**			1.98	0.001					
	Distance from Source			0	72					

ADVECTIVE TRANSPORT WITH THREE DIMENSIONAL DISPERSION,1ST ORDER DECAY and RETARDATION - WITH CALIBRATION TOOL

Project:	Cooks Country Store		
Date:	12/31/2015	Prepared by:	Mountain Research (MC)
		Contaminant:	MTBE 30 year to SHS

NEW QUICK_DOMENICO.XLS

SPREADSHEET APPLICATION OF "AN ANALYTICAL MODEL FOR MULTIDIMENSIONAL TRANSPORT OF A DECAYING CONTAMINANT SPECIES"
P.A. Domenico (1987)
Modified to Include Retardation

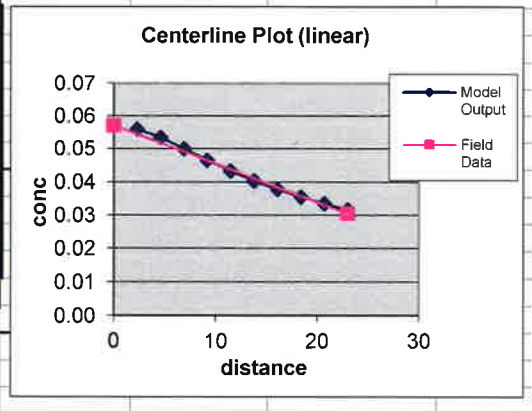
SOURCE CONC (MG/L)	Ax (ft)	Ay (ft)	Az (ft) >=.001	LAMBDA day-1	SOURCE WIDTH (ft)	SOURCE THICKNESS (ft)	Time (days) (days)
0.0572	3.50E+01	3.50E+00	1.00E-03	0.0023	25	9.54	11359

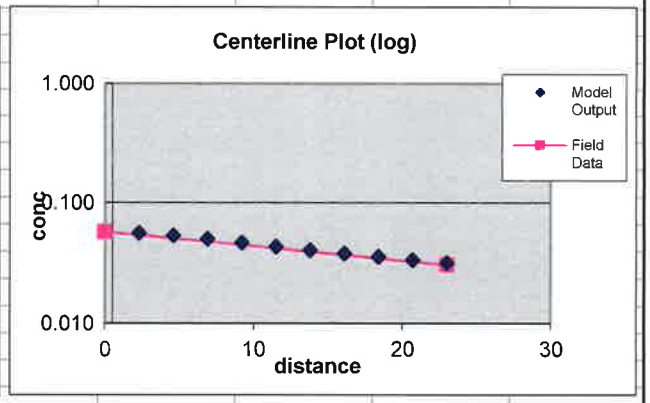
Hydraulic Cond (ft/day)	Hydraulic Gradient (ft/ft)	Porosity (dec. frac.)	Soil Bulk Density (g/cm³)	KOC	Frac. Org. Carb.	Retard-ation (R)	V (=K*i/n*R) (ft/day)
1.97E+00	0.003	0.024	2.014	12	2.00E-04	1.2014	0.204969203

Point Concentration

x(ft)	y(ft)	z(ft)
44	0	0

	x(ft)	y(ft)	z(ft)
Conc. At	44	0	0
at	11359	days =	
			0.020
			mg/l





AREAL MODEL	CALCULATION DOMAIN
Length (ft)	23
Width (ft)	25

	2.3	4.6	6.9	9.2	11.5	13.8	16.1	18.4	20.7	23
25	0.000	0.001	0.002	0.003	0.004	0.005	0.006	0.007	0.007	0.008
12.5	0.028	0.027	0.027	0.026	0.026	0.025	0.024	0.024	0.023	0.022
0	0.056	0.053	0.050	0.047	0.043	0.040	0.038	0.036	0.034	0.032
-12.5	0.028	0.027	0.027	0.026	0.026	0.025	0.024	0.024	0.023	0.022
-25	0.000	0.001	0.002	0.003	0.004	0.005	0.006	0.007	0.007	0.008

Field Data:			
	Centerline Cc Concentration	0.0572	0.0305
	Distance from Source	0	23

ADVECTIVE TRANSPORT WITH THREE DIMENSIONAL DISPERSION,1ST ORDER DECAY and RETARDATION - WITH CALIBRATION TOOL

Project:	Cooks Country Store		
Date:	12/31/2015	Prepared by:	Mountain Research (MC)
		Contaminant:	MTBE Calibration

NEW QUICK_DOMENICO.XLS

SPREADSHEET APPLICATION OF "AN ANALYTICAL MODEL FOR MULTIDIMENSIONAL TRANSPORT OF A DECAYING CONTAMINANT SPECIES" P.A. Domenico (1987) Modified to Include Retardation

SOURCE CONC (MG/L)	Ax (ft)	Ay (ft)	Az (ft) >=.001	LAMBDA day-1	SOURCE WIDTH (ft)	SOURCE THICKNESS (ft)	Time (days) (days)
0.0572	3.50E+01	3.50E+00	1.00E-03	0.0023	25	9.54	401

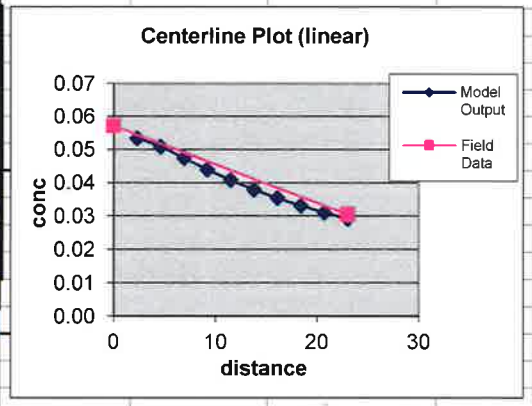
Hydraulic Cond (ft/day)	Hydraulic Gradient (ft/ft)	Porosity (dec. frac.)	Soil Bulk Density (g/cm³)	KOC	Frac. Org. Carb.	Retard-ation (R)	V (=K*i/n*R) (ft/day)
1.97E+00	0.003	0.024	2.014	12	2.00E-04	1.2014	0.204969203

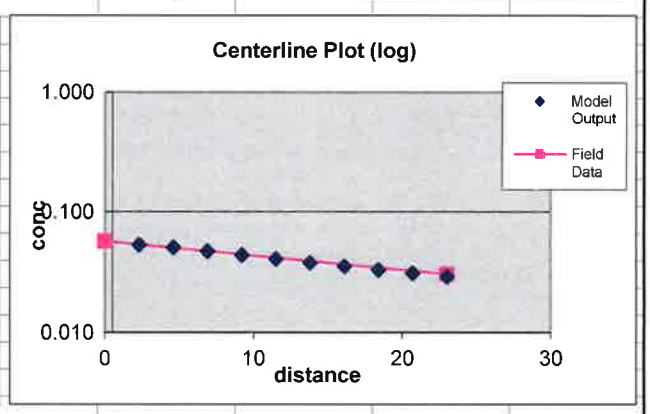
Point Concentration

x(ft)	y(ft)	z(ft)
23	0	0

	x(ft)	y(ft)	z(ft)
Conc. At	23	0	0
at	401	days =	

0.029 mg/l





AREAL MODEL	CALCULATION DOMAIN
Length (ft)	23
Width (ft)	25

	2.3	4.6	6.9	9.2	11.5	13.8	16.1	18.4	20.7	23
25	0.000	0.001	0.002	0.003	0.004	0.005	0.006	0.006	0.007	0.007
12.5	0.027	0.026	0.026	0.025	0.024	0.024	0.023	0.022	0.021	0.021
0	0.054	0.051	0.048	0.044	0.041	0.038	0.035	0.033	0.031	0.029
-12.5	0.027	0.026	0.026	0.025	0.024	0.024	0.023	0.022	0.021	0.021
-25	0.000	0.001	0.002	0.003	0.004	0.005	0.006	0.006	0.007	0.007

Field Data:	Centerline Cc Concentration	0.0572	0.0305
	Distance from Source	0	23

ADVECTIVE TRANSPORT WITH THREE DIMENSIONAL DISPERSION,1ST ORDER DECAY and RETARDATION - WITH CALIBRATION TOOL

Project:	Cooks Country Store		
Date:	12/31/2015	Prepared by:	Mountain Research (MC)
		Contaminant:	Naphthalene 30 year to SHS

NEW QUICK_DOMENICO.XLS

SPREADSHEET APPLICATION OF "AN ANALYTICAL MODEL FOR MULTIDIMENSIONAL TRANSPORT OF A DECAYING CONTAMINANT SPECIES" P.A. Domenico (1987) Modified to Include Retardation

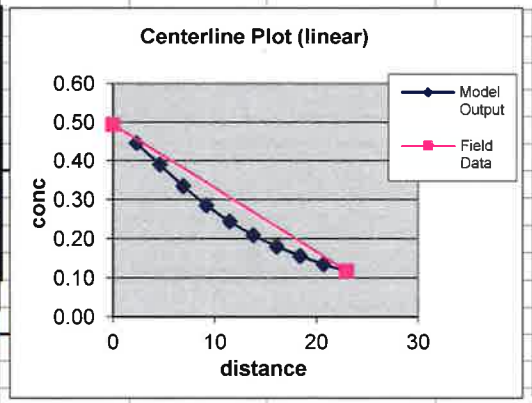
SOURCE CONC (MG/L)	Ax (ft)	Ay (ft)	Az (ft) >=.001	LAMBDA day-1	SOURCE WIDTH (ft)	SOURCE THICKNESS (ft)	Time (days) (days)
0.495	5.50E+01	5.50E+00	1.00E-03	0.026	30	9.54	11359

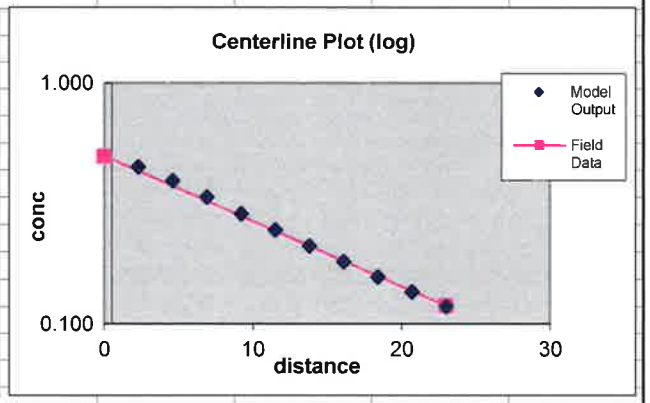
Hydraulic Cond (ft/day)	Hydraulic Gradient (ft/ft)	Porosity (dec. frac.)	Soil Bulk Density (g/cm³)	KOC	Frac. Org. Carb.	Retard-ation (R)	V (=K*i/n*R) (ft/day)
1.97E+00	0.036	0.024	2.014	950	2.00E-04	16.94416667	0.174396302

Point Concentration

x(ft)	y(ft)	z(ft)
26	0	0

	x(ft)	y(ft)	z(ft)
Conc. At	26	0	0
at	11359	days =	
			0.099 mg/l





AREAL MODEL	CALCULATION DOMAIN
Length (ft)	23
Width (ft)	30

	2.3	4.6	6.9	9.2	11.5	13.8	16.1	18.4	20.7	23
30	0.001	0.007	0.016	0.022	0.027	0.030	0.032	0.032	0.032	0.031
15	0.224	0.202	0.183	0.165	0.148	0.133	0.119	0.107	0.095	0.085
0	0.446	0.391	0.335	0.286	0.245	0.210	0.181	0.157	0.136	0.118
-15	0.224	0.202	0.183	0.165	0.148	0.133	0.119	0.107	0.095	0.085
-30	0.001	0.007	0.016	0.022	0.027	0.030	0.032	0.032	0.032	0.031
Field Data:	Centerline Cc Concentration			0.495	0.119					
	Distance from Source			0	23					

ADVECTIVE TRANSPORT WITH THREE DIMENSIONAL DISPERSION,1ST ORDER DECAY and RETARDATION - WITH CALIBRATION TOOL

Project:	Cooks Country Store		
Date:	12/31/2015	Prepared by:	Mountain Research (MC)
		Contaminant:	Naphthalene Calibration

NEW QUICK_DOMENICO.XLS

SPREADSHEET APPLICATION OF "AN ANALYTICAL MODEL FOR MULTIDIMENSIONAL TRANSPORT OF A DECAYING CONTAMINANT SPECIES" P.A. Domenico (1987) Modified to Include Retardation

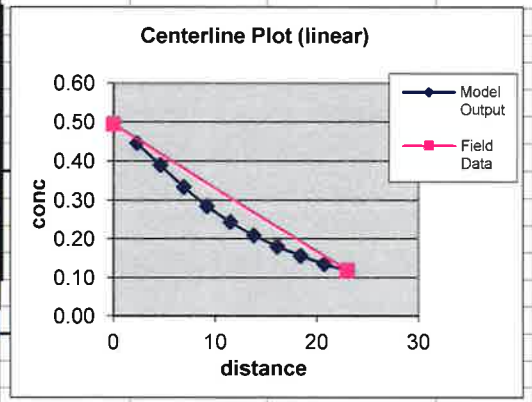
SOURCE CONC (MG/L)	Ax (ft)	Ay (ft)	Az (ft) >=.001	LAMBDA day-1	SOURCE WIDTH (ft)	SOURCE THICKNESS (ft)	Time (days) (days)
0.495	5.50E+01	5.50E+00	1.00E-03	0.026	30	9.54	401

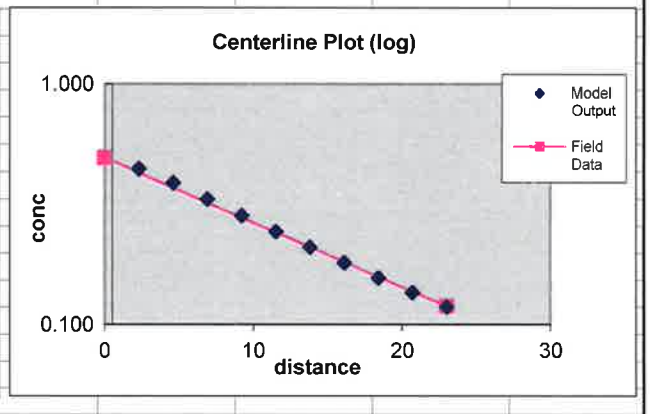
Hydraulic Cond (ft/day)	Hydraulic Gradient (ft/ft)	Porosity (dec. frac.)	Soil Bulk Density (g/cm³)	KOC	Frac. Org. Carb.	Retard-ation (R)	V (=K*i/n*R) (ft/day)
1.97E+00	0.036	0.024	2.014	950	2.00E-04	16.94416667	0.174396302

Point Concentration

x(ft)	y(ft)	z(ft)
23	0	0

	x(ft)	y(ft)	z(ft)
Conc. At	23	0	0
at	401	days =	
			0.118 mg/l





AREAL MODEL	CALCULATION DOMAIN
Length (ft)	23
Width (ft)	30

	2.3	4.6	6.9	9.2	11.5	13.8	16.1	18.4	20.7	23
30	0.001	0.007	0.016	0.022	0.027	0.030	0.032	0.032	0.032	0.031
15	0.224	0.202	0.183	0.165	0.148	0.133	0.119	0.107	0.095	0.085
0	0.446	0.391	0.335	0.286	0.245	0.210	0.181	0.157	0.136	0.118
-15	0.224	0.202	0.183	0.165	0.148	0.133	0.119	0.107	0.095	0.085
-30	0.001	0.007	0.016	0.022	0.027	0.030	0.032	0.032	0.032	0.031

Field Data:	Centerline Cc Concentration	0.495	0.119
	Distance from Source	0	23

ADVECTIVE TRANSPORT WITH THREE DIMENSIONAL DISPERSION,1ST ORDER DECAY and RETARDATION - WITH CALIBRATION TOOL

Project:	Cooks Country Store		
Date:	12/31/2015	Prepared by:	Mountain Research (MC)
		Contaminant:	Toluene 30 year to SHS

NEW QUICK_DOMENICO.XLS

SPREADSHEET APPLICATION OF "AN ANALYTICAL MODEL FOR MULTIDIMENSIONAL TRANSPORT OF A DECAYING CONTAMINANT SPECIES"
P.A. Domenico (1987)
Modified to Include Retardation

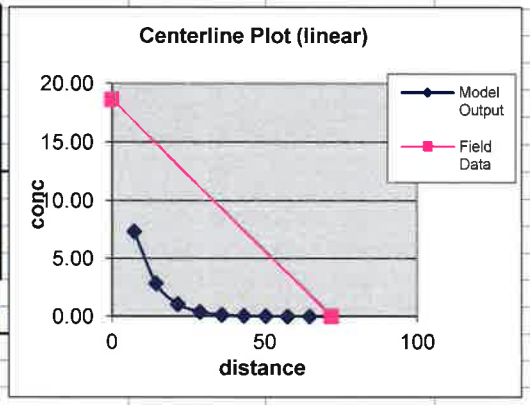
SOURCE CONC (MG/L)	Ax (ft)	Ay (ft)	Az (ft) >=.001	LAMBDA day-1	SOURCE WIDTH (ft)	SOURCE THICKNESS (ft)	Time (days) (days)
18.6	2.50E+02	5.00E+00	1.00E-03	0.12	50	9.54	11359

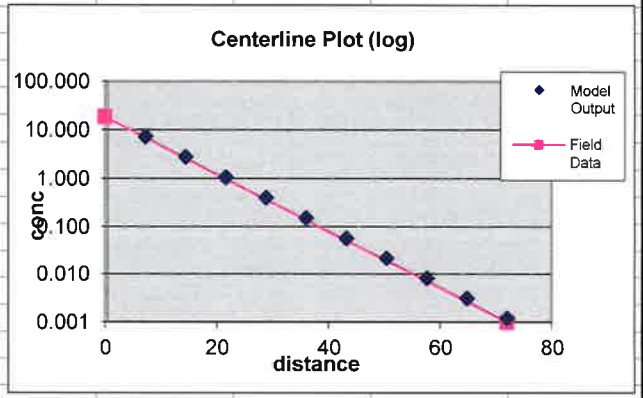
Hydraulic Cond (ft/day)	Hydraulic Gradient (ft/ft)	Porosity (dec. frac.)	Soil Bulk Density (g/cm³)	KOC	Frac. Org. Carb.	Retard-ation (R)	V (=K*i/n*R) (ft/day)
1.97E-01	0.011	0.024	2.014	130	2.00E-04	3.181833333	0.028377246

Point Concentration

x(ft)	y(ft)	z(ft)
22.5	0	0

	x(ft)	y(ft)	z(ft)
Conc. At	22.5	0	0
at	11359	days =	
			0.943
			mg/l





	AREAL MODEL	CALCULATION DOMAIN
	Length (ft)	72
	Width (ft)	50

	7.2	14.4	21.6	28.8	36	43.2	50.4	57.6	64.8	72
50	0.012	0.055	0.052	0.033	0.017	0.008	0.004	0.002	0.001	0.000
25	3.698	1.471	0.584	0.232	0.092	0.036	0.014	0.006	0.002	0.001
0	7.373	2.832	1.066	0.400	0.150	0.057	0.021	0.008	0.003	0.001
-25	3.698	1.471	0.584	0.232	0.092	0.036	0.014	0.006	0.002	0.001
-50	0.012	0.055	0.052	0.033	0.017	0.008	0.004	0.002	0.001	0.000

Field Data:	Centerline Cc Concentration	18.6	0.001
	Distance from Source	0	72

ADVECTIVE TRANSPORT WITH THREE DIMENSIONAL DISPERSION,1ST ORDER DECAY and RETARDATION - WITH CALIBRATION TOOL

Project:	Cooks Country Store		
Date:	12/31/2015	Prepared by:	Mountain Research (MC)
		Contaminant:	Toluene Calibration

NEW QUICK_DOMENICO.XLS

SPREADSHEET APPLICATION OF "AN ANALYTICAL MODEL FOR MULTIDIMENSIONAL TRANSPORT OF A DECAYING CONTAMINANT SPECIES"
P.A. Domenico (1987)
Modified to Include Retardation

SOURCE CONC (MG/L)	Ax (ft)	Ay (ft)	Az (ft) >=.001	LAMBDA day-1	SOURCE WIDTH (ft)	SOURCE THICKNESS (ft)	Time (days) (days)
18.6	2.50E+02	5.00E+00	1.00E-03	0.12	50	9.54	401

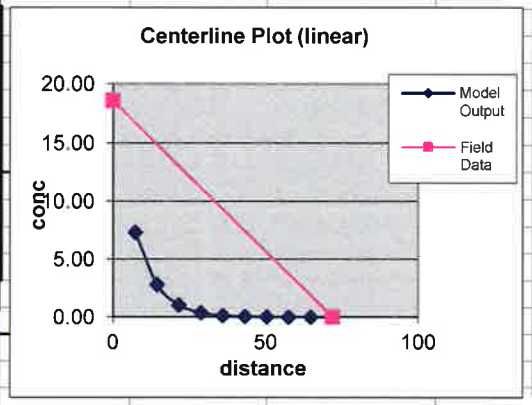
Hydraulic Cond (ft/day)	Hydraulic Gradient (ft/ft)	Porosity (dec. frac.)	Soil Bulk Density (g/cm³)	KOC	Frac. Org. Carb.	Retard-ation (R)	V (=K*i/n*R) (ft/day)
1.97E-01	0.011	0.024	2.014	130	2.00E-04	3.181833333	0.028377246

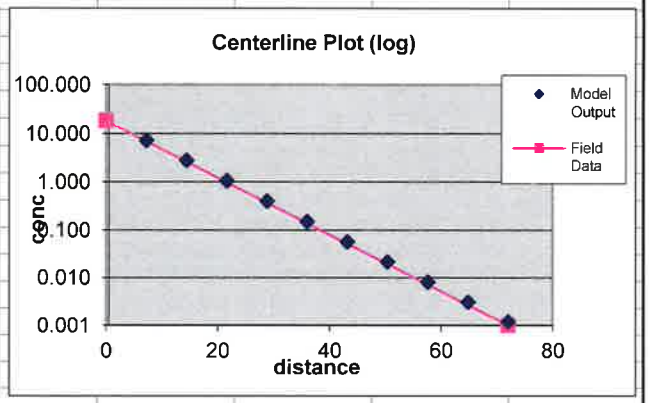
Point Concentration

x(ft)	y(ft)	z(ft)
72	0	0

	x(ft)	y(ft)	z(ft)
Conc. At	72	0	0
at	401	days =	

0.001 mg/l





AREAL MODEL	CALCULATION DOMAIN
Length (ft)	72
Width (ft)	50

	7.2	14.4	21.6	28.8	36	43.2	50.4	57.6	64.8	72
50	0.012	0.055	0.052	0.033	0.017	0.008	0.004	0.002	0.001	0.000
25	3.698	1.471	0.584	0.232	0.092	0.036	0.014	0.006	0.002	0.001
0	7.373	2.832	1.066	0.400	0.150	0.057	0.021	0.008	0.003	0.001
-25	3.698	1.471	0.584	0.232	0.092	0.036	0.014	0.006	0.002	0.001
-50	0.012	0.055	0.052	0.033	0.017	0.008	0.004	0.002	0.001	0.000

Field Data:	Centerline Cc Concentration	18.6	0.001
	Distance from Source	0	72

ADVECTIVE TRANSPORT WITH THREE DIMENSIONAL DISPERSION,1ST ORDER DECAY and RETARDATION - WITH CALIBRATION TOOL

Project:	Cooks Country Store		
Date:	12/31/2015	Prepared by:	Mountain Research (MC)
		Contaminant:	Xylenes 30 year to SHS

NEW QUICK_DOMENICO.XLS

SPREADSHEET APPLICATION OF "AN ANALYTICAL MODEL FOR MULTIDIMENSIONAL TRANSPORT OF A DECAYING CONTAMINANT SPECIES" P.A. Domenico (1987) Modified to Include Retardation

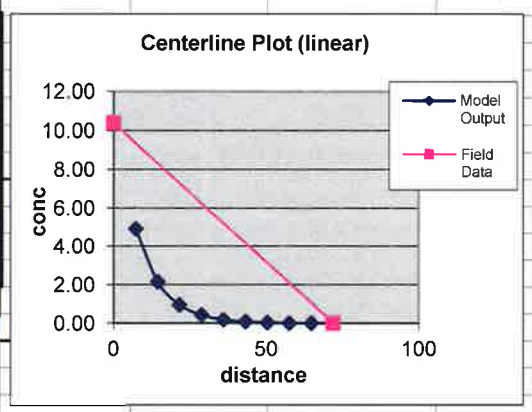
SOURCE CONC (MG/L)	Ax (ft)	Ay (ft)	Az (ft) >=.001	LAMBDA day-1	SOURCE WIDTH (ft)	SOURCE THICKNESS (ft)	Time (days) (days)
10.4	2.00E+01	2.00E+00	1.00E-03	0.036	20	9.54	11359

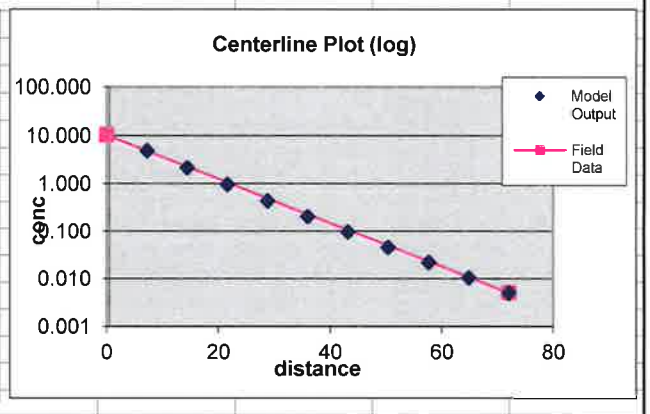
Hydraulic Cond (ft/day)	Hydraulic Gradient (ft/ft)	Porosity (dec. frac.)	Soil Bulk Density (g/cm³)	KOC	Frac. Org. Carb.	Retard-ation (R)	V (=K*i/n*R) (ft/day)
1.97E+00	0.011	0.024	2.014	350	2.00E-04	6.874166667	0.131349254

Point Concentration

x(ft)	y(ft)	z(ft)
0.5	0	0

	x(ft)	y(ft)	z(ft)
Conc. At	0.5	0	0
at	11359	days =	9.919 mg/l





	AREAL MODEL	CALCULATION DOMAIN
	Length (ft)	72
	Width (ft)	20

	7.2	14.4	21.6	28.8	36	43.2	50.4	57.6	64.8	72
20	0.164	0.249	0.189	0.118	0.067	0.037	0.020	0.010	0.005	0.003
10	2.629	1.318	0.651	0.319	0.155	0.076	0.037	0.018	0.009	0.004
0	4.931	2.160	0.966	0.441	0.205	0.096	0.046	0.022	0.010	0.005
-10	2.629	1.318	0.651	0.319	0.155	0.076	0.037	0.018	0.009	0.004
-20	0.164	0.249	0.189	0.118	0.067	0.037	0.020	0.010	0.005	0.003

Field Data:	Centerline Cc Concentration	10.4	0.005
	Distance from Source	0	72

ADVECTIVE TRANSPORT WITH THREE DIMENSIONAL DISPERSION,1ST ORDER DECAY and RETARDATION - WITH CALIBRATION TOOL

Project:	Cooks Country Store		
Date:	12/31/2015	Prepared by:	Mountain Research (MC)
		Contaminant:	Xylenes Calibration

NEW QUICK_DOMENICO.XLS

SPREADSHEET APPLICATION OF "AN ANALYTICAL MODEL FOR MULTIDIMENSIONAL TRANSPORT OF A DECAYING CONTAMINANT SPECIES" P.A. Domenico (1987) Modified to Include Retardation

SOURCE CONC (MG/L)	Ax (ft)	Ay (ft)	Az (ft) >=.001	LAMBDA day-1	SOURCE WIDTH (ft)	SOURCE THICKNESS (ft)	Time (days) (days)
10.4	2.00E+01	2.00E+00	1.00E-03	0.036	20	9.54	401

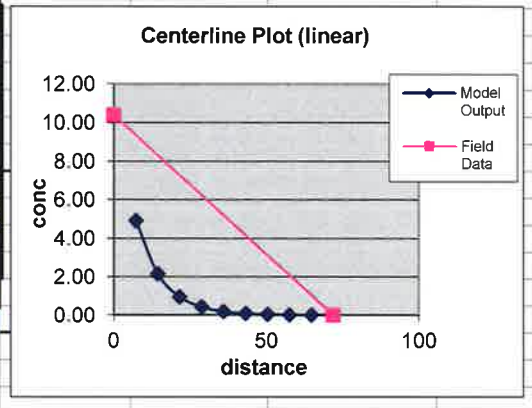
Hydraulic Cond (ft/day)	Hydraulic Gradient (ft/ft)	Porosity (dec. frac.)	Soil Bulk Density (g/cm³)	KOC	Frac. Org. Carb.	Retard-ation (R)	V (=K*i/n*R) (ft/day)
1.97E+00	0.011	0.024	2.014	350	2.00E-04	6.874166667	0.131349254

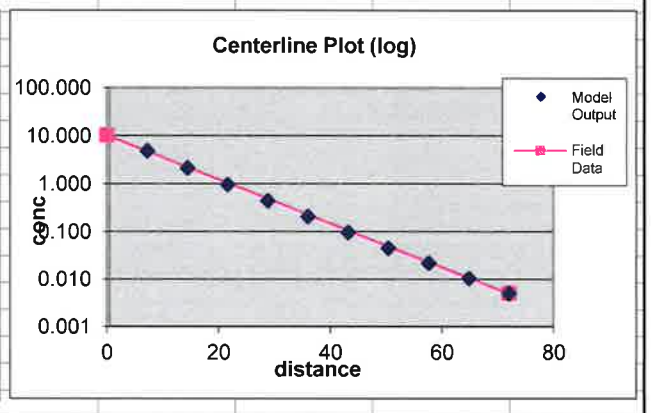
Point Concentration

x(ft)	y(ft)	z(ft)
72	0	0

	x(ft)	y(ft)	z(ft)
Conc. At	72	0	0
at	401	days =	0.005 mg/l

AREAL MODEL	CALCULATION DOMAIN
Length (ft)	72
Width (ft)	20





	7.2	14.4	21.6	28.8	36	43.2	50.4	57.6	64.8	72
20	0.164	0.249	0.189	0.118	0.067	0.037	0.020	0.010	0.005	0.003
10	2.629	1.318	0.651	0.319	0.155	0.076	0.037	0.018	0.009	0.004
0	4.931	2.160	0.966	0.441	0.205	0.096	0.046	0.022	0.010	0.005
-10	2.629	1.318	0.651	0.319	0.155	0.076	0.037	0.018	0.009	0.004
-20	0.164	0.249	0.189	0.118	0.067	0.037	0.020	0.010	0.005	0.003

Field Data:	Centerline Cc Concentration	10.4	0.005
	Distance from Source	0	72

Cooks Country Store, James Creek, PA

1,2,4-Trimethylbenzene Calibration evaluation MW-1 to MW-5

Calibration at t= 401

Model	K (ft/day)	ax (ft)	λ (day-1)	Comments
1	0.197	9.5		will not calibrate
2	0.197	95		will not calibrate
3	0.197	950	0.0125	most conservative, model used
4	1.97	9.5		will not calibrate
5	1.97	95	0.0145	steady state
6	1.97	950	0.13	steady state
7	19.7	9.5	0.0306	steady state
8	19.7	95	0.145	steady state
9	19.7	950	1.3	steady state

30 year predictive simulation t=11,359 (at steady state)

Model	K (ft/day)	ax (ft)	Distance to MSC (15 µg/L)	Comments
1	0.197	9.5		will not calibrate
2	0.197	95		will not calibrate
3	0.197	950	67	most conservative, model used
4	1.97	9.5		will not calibrate
5	1.97	95	66	steady state
6	1.97	950	66	steady state
7	19.7	9.5	66	steady state
8	19.7	95	66	steady state
9	19.7	950	66	steady state

Cooks Country Store, James Creek, PA

1,3,5-Trimethylbenzene Calibration evaluation MW-1 to MW-5

Calibration at t= 401

Model	K (ft/day)	ax (ft)	λ (day-1)	Comments
1	0.197	9		will not calibrate
2	0.197	90		will not calibrate
3	0.197	900	0.042	steady state
4	1.97	9	0.0078	most conservative, model used
5	1.97	90	0.047	steady state
6	1.97	900	0.42	steady state
7	19.7	90	0.1	steady state
8	19.7	90	0.47	steady state
9	19.7	900	4.2	steady state

30 year predictive simulation t=11,359 (at steady state)

Model	K (ft/day)	ax (ft)	Distance to MSC 13 µg/L)	Comments
1	0.197	9		will not calibrate
2	0.197	90		will not calibrate
3	0.197	900	51	steady state
4	1.97	9	60	most conservative, model used
5	1.97	90	51	steady state
6	1.97	900	51	steady state
7	19.7	9	51	steady state
8	19.7	90	51	steady state
9	19.7	900	51	steady state

Cooks Country Store, James Creek, PA

Benzene Calibration evaluation MW-1 to MW-5

Calibration at t= 401

Model	K (ft/day)	ax (ft)	λ (day-1)	Comments
1	0.197	5		will not calibrate
2	0.197	50	0.02	steady state
3	0.197	500	0.165	steady state
4	1.97	5	0.054	steady state
5	1.97	50	0.2	steady state
6	1.97	500	1.65	steady state
7	19.7	5	0.54	steady state
8	19.7	50	2	steady state
9	19.7	500	16	most conservative, model used

30 year predictive simulation t=11,359 (at steady state)

Model	K (ft/day)	ax (ft)	Distance to MSC (5 µg/L)	Comments
1	0.197	5		will not calibrate
2	0.197	50	83	steady state
3	0.197	500	83	steady state
4	1.97	5	83	steady state
5	1.97	50	83	steady state
6	1.97	500	83	steady state
7	19.7	5	83	steady state
8	19.7	50	83	steady state
9	19.7	500	84	most conservative, model used

Cooks Country Store, James Creek, PA

Toluene Calibration evaluation MW-1 to MW-5

Calibration at t= 401

Model	K (ft/day)	ax (ft)	λ (day-1)	Comments
1	0.197	2.5		will not calibrate
2	0.197	25	0.0149	steady state
3	0.197	250	0.13	most representative of site data, model used
4	1.97	2.5	0.049	steady state
5	1.97	25	0.155	steady state
6	1.97	250	1.23	steady state
7	19.7	2.5	0.49	steady state
8	19.7	25	1.57	steady state
9	19.7	250	12	steady state

30 year predictive simulation t=11,359 (at steady state)

Model	K (ft/day)	ax (ft)	Distance to MSC (1,000 µg/L)	Comments
1	0.197	2.5		will not calibrate
2	0.197	25	22.5	steady state
3	0.197	250	22	most representative of site data, model used
4	1.97	2.5	22	steady state
5	1.97	25	22	steady state
6	1.97	250	22	steady state
7	19.7	2.5	22	steady state
8	19.7	25	22	steady state
9	19.7	250	22.5	steady state

Cooks Country Store, James Creek, PA

Ethylbenzene Calibration evaluation MW-1 to MW-5

Calibration at t= 401

Model	K (ft/day)	ax (ft)	λ (day-1)	Comments
1	0.197	3		will not calibrate
2	0.197	30	0.0024	steady state
3	0.197	300	0.059	steady state
4	1.97	3	0.025	steady state
5	1.97	30	0.0765	most representative of site data, model used
6	1.97	300	0.59	steady state
7	19.7	3	0.25	steady state
8	19.7	30	0.79	steady state
9	19.7	300	5.9	steady state

30 year predictive simulation t=11,359 (at steady state)

Model	K (ft/day)	ax (ft)	Distance to MSC (700 µg/L)	Comments
1	0.197	3		will not calibrate
2	0.197	30	10.5	steady state
3	0.197	300	10.5	steady state
4	1.97	3	10.5	steady state
5	1.97	30	10.5	most representative of site data, model used
6	1.97	300	10.5	steady state
7	19.7	3	10.5	steady state
8	19.7	30	10.5	steady state
9	19.7	300	10.5	steady state

Cooks Country Store, James Creek, PA

Xylenes Calibration evaluation MW-1 to MW-5

Calibration at t= 401

Model	K (ft/day)	ax (ft)	λ (day-1)	Comments
1	0.197	2		will not calibrate
2	0.197	20		will not calibrate
3	0.197	200	0.025	steady state
4	1.97	2	0.0127	steady state
5	1.97	20	0.036	most representative of site data, model used
6	1.97	200	0.25	steady state
7	19.7	2	0.15	steady state
8	19.7	20	0.36	steady state
9	19.7	200	2.5	steady state

30 year predictive simulation t=11,359 (at steady state)

Model	K (ft/day)	ax (ft)	Distance to MSC (10,000 µg/L)	Comments
1	0.197	2		will not calibrate
2	0.197	20		will not calibrate
3	0.197	200	0.5	steady state
4	1.97	2	0.5	steady state
5	1.97	20	0.5	most representative of site data, model used
6	1.97	200	0.5	steady state
7	19.7	2	0.5	steady state
8	19.7	20	0.5	steady state
9	19.7	200	0.5	steady state

Cooks Country Store, James Creek, PA

MTBE Calibration evaluation MW-1 to MW-3

Calibration at t= 401

Model	K (ft/day)	ax (ft)	λ (day-1)	Comments
1	0.197	3.5		will not calibrate
2	0.197	35		will not calibrate
3	0.197	350		will not calibrate
4	1.97	3.5	0.0023	steady state
5	1.97	35	0.0023	most conservative, model used
6	1.97	350	0.015	steady state
7	19.7	3.5	0.0025	steady state
8	19.7	35	0.034	steady state
9	19.7	350	0.15	steady state

30 year predictive simulation t=11,359 (at steady state)

Model	K (ft/day)	ax (ft)	Distance to MSC (20 µg/L)	Comments
1	0.197	3.5		will not calibrate
2	0.197	35		will not calibrate
3	0.197	350		will not calibrate
4	1.97	3.5	40	steady state
5	1.97	35	44	most conservative, model used
6	1.97	350	36	steady state
7	19.7	3.5	38	steady state
8	19.7	35	38	steady state
9	19.7	350	36	steady state

Cooks Country Store, James Creek, PA

Naphthalene Calibration evaluation MW-1 to MW-3

Calibration at t= 401

Model	K (ft/day)	ax (ft)	λ (day-1)	Comments
1	0.197	5.5		will not calibrate
2	0.197	55		will not calibrate
3	0.197	550	0.019	steady state
4	1.97	5.5	0.0095	steady state
5	1.97	55	0.026	most representative of site data, model used
6	1.97	550	0.19	steady state
7	19.7	5.5	0.095	steady state
8	19.7	55	0.26	steady state
9	19.7	550	1.9	most conservative, model used

30 year predictive simulation t=11,359 (at steady state)

Model	K (ft/day)	ax (ft)	Distance to MSC (100 µg/L)	Comments
1	0.197	5.5		will not calibrate
2	0.197	55		will not calibrate
3	0.197	550	26	steady state
4	1.97	5.5	26	steady state
5	1.97	55	26	most representative of site data, model used
6	1.97	550	26	steady state
7	19.7	5.5	26	steady state
8	19.7	55	26	steady state
9	19.7	550	26	most conservative, model used

Cooks Country Store, James Creek, PA
Quick Domenico overburden groundwater 1,2,4-Trimethylbenzene model input and sensitivity analysis MW-1 to MW-5

Model Input	Input value	Rationale for input	Sensitivity analysis
Initial concentration	2.35 mg/L	MW-1 source area - maximum value since remediation, (12/9/2015) sampling event.	QD is highly sensitive to this value. In general, one order of magnitude change in initial concentration will change the output of the model by the same order of magnitude.
A(x)	950 feet	Initial value set at 95 feet and was adjusted during sensitivity analysis.	QD is highly sensitive to this value especially near the tail end of modeled contaminant plume. In general, one order of magnitude change in A (x) will change the output of the model by two orders of magnitude.
A(Y)	9.5 feet	Initial value set to 1/10 of A(x) and retained during model calibration	QD is moderately sensitive to this value. A change in one order of magnitude larger will cause model centerline values to decrease slightly.
A(z)	0.001 feet	PADEP suggested value was retained during model calibration	QD is not sensitive to this value. A change in one order of magnitude larger caused no change in model output.
Lambda	0.0125	Initial value set to PADEP supplied value of 0.0123 and adjusted during calibration.	QD is highly sensitive to this value. A change in one order of magnitude larger will cause model centerline value to decrease significantly.
Source Width	115 feet	Based on estimated width of source area using isoconcentration map MSC line .	QD is sensitive to this value. A change in +50 feet yields an increase in model output.
Source Thickness	9.24 feet	Source thickness is based on the overall thickness of the aquifer.	QD is not sensitive to this value. A change in +/- 5 feet yields no change in model output.
Time	401 days	Calculated as days between the most recent UST excavation (11/25/2014) and the date of model calibration (12/31/2015)	QD is slightly sensitive to this value. A change of 100 days yields a slight increase in model output
Hydraulic Conductivity	0.197 feet/day	Initial value set to average K value of 1.977 ft/day (from12/10/2015 aquifer tests) and adjusted during sensitivity analysis.	QD is highly sensitive to this value. A change in one order of magnitude will cause the model output to change significantly
Gradient	0.011 feet/foot	Value set at calculated gradient between MW-1 and MW-5 during the 12/9/2015 sampling event.	QD is moderately sensitive to this value. A change of + 0.01 feet/foot yields higher model output values.
Effective Porosity	0.024 decimal fraction	A site specific effective porosity (N_e) value was obtained for the overburden aquifer at the site and was utilized in each model.	QD is moderately sensitive to this value. A change in + .05 causes a decrease in model output.
Soil Bulk Density	2.014 g/cm3	A calculated soil bulk density of 2.014 gm/cm^3 was utilized for the overburden aquifer to calibrate the model.	QD is moderately sensitive to this value. A change in + 0.1 causes a decrease in model output.
KOC	2,200	Value set to PADEP value for 1,2,4-trimethylbenzene	QD is moderately sensitive to this value. A change in + 10 causes a decrease in model output.
Fraction of Organic Carbon	0.0002 decimal fraction	PADEP suggested value was retained during model calibration	QD is moderately sensitive to this value. A change in one order of magnitude larger yields significantly lower model output.

Cooks Country Store, James Creek, PA
Quick Domenico overburden groundwater 1,3,5-Trimethylbenzene model input and sensitivity analysis MW-1 to MW-5

Model Input	Input value	Rationale for input	Sensitivity analysis
Initial concentration	.705 mg/L	MW-1 source area - maximum value since remediation, (12/9/2015) sampling event.	QD is highly sensitive to this value. In general, one order of magnitude change in initial concentration will change the output of the model by the same order of magnitude.
A(x)	9 feet	Initial value set at 90 feet and was adjusted during sensitivity analysis.	QD is highly sensitive to this value especially near the tail end of modeled contaminant plume. In general, one order of magnitude change in A (x) will change the output of the model by two orders of magnitude.
A(Y)	9 feet	Initial value set to 1/10 of A(x) and retained during model calibration	QD is moderately sensitive to this value. A change in one order of magnitude larger will cause model centerline values to decrease slightly.
A(z)	0.001 feet	PADEP suggested value was retained during model calibration	QD is not sensitive to this value. A change in one order of magnitude larger caused no change in model output.
Lambda	0.0078	Initial value set to PADEP suggested value of 0.01 and adjusted during calibration.	QD is highly sensitive to this value. A change in one order of magnitude larger will cause model centerline value to decrease significantly.
Source Width	135 feet	Based on estimated width of source area using isoconcentration map MSC line .	QD is sensitive to this value. A change in +50 feet yields an increase in model output.
Source Thickness	9.24 feet	Source thickness is based on the overall thickness of the aquifer.	QD is moderately sensitive to this value. A change in +/- 5 feet yields minimal change in model output.
Time	401 days	Calculated as days between the most recent UST excavation (11/25/2014) and the date of model calibration (12/31/2015)	QD is slightly sensitive to this value. A change of 100 days yields an increase in model output
Hydraulic Conductivity	1.97 feet/day	Initial value set to average K value of 1.977 ft/day (from12/10/2015 aquifer tests) and retained during sensitivity analysis.	QD is highly sensitive to this value. A change in one order of magnitude will cause the model output to change significantly
Gradient	0.011 feet/foot	Value set at calculated gradient between MW-1 and MW-5 during the 12/9/2015 sampling event.	QD is moderately sensitive to this value. A change of + 0.01 feet/foot yields higher model output values.
Effective Porosity	0.024 decimal fraction	A site specific effective porosity ($N_{e)}$ value was obtained for the overburden aquifer at the site and was utilized in each model.	QD is moderately sensitive to this value. A change in + .05 causes a decrease in model output.
Soil Bulk Density	2.014 g/cm3	A calculated soil bulk density of 2.014 gm/cm^3 was utilized for the overburden aquifer to calibrate the model.	QD is moderately sensitive to this value. A change in + 0.1 causes a decrease in model output.
KOC	660	Value set to PADEP value for 1,3,5-trimethylbenzene	QD is moderately sensitive to this value. A change in + 10 causes a decrease in model output.
Fraction of Organic Carbon	0.0002 decimal fraction	PADEP suggested value was retained during model calibration	QD is moderately sensitive to this value. A change in one order of magnitude larger yields significantly lower model output.

Cooks Country Store, James Creek, PA
Quick Domenico overburden groundwater Benzene model input and sensitivity analysis MW-1 to MW-5

Model Input	Input value	Rationale for input	Sensitivity analysis
Initial concentration	5.59 mg/L	MW-1 source area - maximum value since remediation, (12/9/2015) sampling event.	QD is highly sensitive to this value. In general, one order of magnitude change in initial concentration will change the output of the model by the same order of magnitude.
A(x)	500 feet	Initial value set at 50 feet and was adjusted during sensitivity analysis.	QD is highly sensitive to this value especially near the tail end of modeled contaminant plume. In general, one order of magnitude change in A (x) will change the output of the model by two orders of magnitude.
A(Y)	5 feet	Initial value set to 1/10 of A(x) and retained during model calibration	QD is moderately sensitive to this value. A change in one order of magnitude larger will cause model centerline values to decrease slightly.
A(z)	0.001 feet	PADEP suggested value was retained during model calibration	QD is not sensitive to this value. A change in one order of magnitude larger caused no change in model output.
Lambda	16	Initial value set to PADEP supplied value of 0.000958 and adjusted during calibration.	QD is highly sensitive to this value. A change in one order of magnitude larger will cause model centerline value to decrease significantly.
Source Width	125 feet	Based on estimated width of source area using isoconcentration map MSC line .	QD is sensitive to this value. A change in +50 feet yields an increase in model output.
Source Thickness	9.24 feet	Source thickness is based on the overall thickness of the aquifer.	QD is moderately sensitive to this value. A change in +/- 5 feet yields minimal change in model output.
Time	401 days	Calculated as days between the most recent UST excavation (11/25/2014) and the date of model calibration (12/31/2015)	QD is not sensitive to this value. A change of 100 days yields no change in model output
Hydraulic Conductivity	19.7 feet/day	Initial value set to average K value of 1.977 ft/day (from12/10/2015 aquifer tests) and adjusted during sensitivity analysis.	QD is highly sensitive to this value. A change in one order of magnitude will cause the model output to change significantly
Gradient	0.011 feet/foot	Value set at calculated gradient between MW-1 and MW-5 during the 12/9/2015 sampling event.	QD is moderately sensitive to this value. A change of + 0.01 feet/foot yields higher model output values.
Effective Porosity	0.024 decimal fraction	A site specific effective porosity ($N_{e)}$ value was obtained for the overburden aquifer at the site and was utilized in each model.	QD is moderately sensitive to this value. A change in + .05 causes a decrease in model output.
Soil Bulk Density	2.014 g/cm3	A calculated soil bulk density of 2.014 gm/cm^3 was utilized for the overburden aquifer to calibrate the model.	QD is moderately sensitive to this value. A change in + 0.1 causes a decrease in model output.
KOC	58	Value set to PADEP value for benzene	QD is moderately sensitive to this value. A change in + 10 causes a decrease in model output.
Fraction of Organic Carbon	0.0002 decimal fraction	PADEP suggested value was retained during model calibration	QD is moderately sensitive to this value. A change in one order of magnitude larger yields significantly lower model output.

Cooks Country Store, James Creek, PA
Quick Domenico overburden groundwater toluene model input and sensitivity analysis MW-1 to MW-5

Model Input	Input value	Rationale for input	Sensitivity analysis
Initial concentration	18.6 mg/L	MW-1 source area - maximum value since remediation, (12/9/2015) sampling event.	QD is highly sensitive to this value. In general, one order of magnitude change in initial concentration will change the output of the model by the same order of magnitude.
A(x)	250 feet	Initial value set at 25 feet and was adjusted during sensitivity analysis.	QD is highly sensitive to this value especially near the tail end of modeled contaminant plume. In general, one order of magnitude change in A (x) will change the output of the model by two orders of magnitude.
A(Y)	2.5 feet	Initial value set to 1/10 of A(x) and retained during model calibration	QD is moderately sensitive to this value. A change in one order of magnitude larger will cause model centerline values to decrease slightly.
A(z)	0.001 feet	PADEP suggested value was retained during model calibration	QD is not sensitive to this value. A change in one order of magnitude larger caused no change in model output.
Lambda	0.13	Initial value set to PADEP supplied value of 0.0246 and adjusted during calibration.	QD is highly sensitive to this value. A change in one order of magnitude larger will cause model centerline value to decrease significantly.
Source Width	50 feet	Based on estimated width of source area using isoconcentration map MSC line .	QD is sensitive to this value. A change in +50 feet yields an increase in model output.
Source Thickness	9.24 feet	Source thickness is based on the overall thickness of the aquifer.	QD is moderately sensitive to this value. A change in +/- 5 feet yields minimal change in model output.
Time	401 days	Calculated as days between the most recent UST excavation (11/25/2014) and the date of model calibration (12/31/2015)	QD is not sensitive to this value. A change of 100 days yields no change in model output
Hydraulic Conductivity	0.197 feet/day	Initial value set to average K value of 1.977 ft/day (from12/10/2015 aquifer tests) and adjusted during sensitivity analysis.	QD is highly sensitive to this value. A change in one order of magnitude will cause the model output to change significantly
Gradient	0.011 feet/foot	Value set at calculated gradient between MW-1 and MW-5 during the 12/9/2015 sampling event.	QD is moderately sensitive to this value. A change of + 0.01 feet/foot yields higher model output values.
Effective Porosity	0.024 decimal fraction	A site specific effective porosity ($N_{e)}$ value was obtained for the overburden aquifer at the site and was utilized in each model.	QD is moderately sensitive to this value. A change in + .05 causes a decrease in model output.
Soil Bulk Density	2.014 g/cm3	A calculated soil bulk density of 2.014 gm/cm^3 was utilized for the overburden aquifer to calibrate the model.	QD is moderately sensitive to this value. A change in + 0.1 causes a decrease in model output.
KOC	130	Value set to PADEP value for toluene	QD is moderately sensitive to this value. A change in + 10 causes a decrease in model output.
Fraction of Organic Carbon	0.0002 decimal fraction	PADEP suggested value was retained during model calibration	QD is moderately sensitive to this value. A change in one order of magnitude larger yields significantly lower model output.

Cooks Country Store, James Creek, PA
Quick Domenico overburden groundwater ethylbenzene model input and sensitivity analysis MW-1 to MW-5

Model Input	Input value	Rationale for input	Sensitivity analysis
Initial concentration	1.98 mg/L	MW-1 source area - maximum value since remediation, (12/9/2015) sampling event.	QD is highly sensitive to this value. In general, one order of magnitude change in initial concentration will change the output of the model by the same order of magnitude.
A(x)	30 feet	Initial value set at 30 feet and was retained during sensitivity analysis.	QD is highly sensitive to this value especially near the tail end of modeled contaminant plume. In general, one order of magnitude change in A (x) will change the output of the model by two orders of magnitude.
A(Y)	3 feet	Initial value set to 1/10 of A(x) and retained during model calibration	QD is moderately sensitive to this value. A change in one order of magnitude larger will cause model centerline values to decrease slightly.
A(z)	0.001 feet	PADEP suggested value was retained during model calibration	QD is not sensitive to this value. A change in one order of magnitude larger caused no change in model output.
Lambda	0.0765	Initial value set to PADEP supplied value of 0.00304 and adjusted during calibration.	QD is highly sensitive to this value. A change in one order of magnitude larger will cause model centerline value to decrease significantly.
Source Width	40 feet	Based on estimated width of source area using isoconcentration map MSC line .	QD is sensitive to this value. A change in +50 feet yields an increase in model output.
Source Thickness	9.24 feet	Source thickness is based on the overall thickness of the aquifer.	QD is not sensitive to this value. A change in +/- 5 feet yields no change in model output.
Time	401 days	Calculated as days between the most recent UST excavation (11/25/2014) and the date of model calibration (12/31/2015)	QD is not sensitive to this value. A change of 100 days yields no change in model output
Hydraulic Conductivity	1.97 feet/day	Initial value set to average K value of 1.977 ft/day (from12/10/2015 aquifer tests) and retained during sensitivity analysis.	QD is highly sensitive to this value. A change in one order of magnitude will cause the model output to change significantly
Gradient	0.011 feet/foot	Value set at calculated gradient between MW-1 and MW-5 during the 12/9/2015 sampling event.	QD is moderately sensitive to this value. A change of + 0.01 feet/foot yields higher model output values.
Effective Porosity	0.024 decimal fraction	A site specific effective porosity ($N_{e)}$ value was obtained for the overburden aquifer at the site and was utilized in each model.	QD is moderately sensitive to this value. A change in + .05 causes a decrease in model output.
Soil Bulk Density	2.014 g/cm3	A calculated soil bulk density of 2.014 gm/cm^3 was utilized for the overburden aquifer to calibrate the model.	QD is moderately sensitive to this value. A change in + 0.1 causes a decrease in model output.
KOC	220	Value set to PADEP value for ethylbenzene	QD is moderately sensitive to this value. A change in + 10 causes a decrease in model output.
Fraction of Organic Carbon	0.0002 decimal fraction	PADEP suggested value was retained during model calibration	QD is moderately sensitive to this value. A change in one order of magnitude larger yields significantly lower model output.

Cooks Country Store, James Creek, PA
Quick Domenico overburden groundwater xylenes model input and sensitivity analysis MW-1 to MW-5

Model Input	Input value	Rationale for input	Sensitivity analysis
Initial concentration	10.4 mg/L	MW-1 source area - maximum value since remediation, (12/9/2015) sampling event.	QD is highly sensitive to this value. In general, one order of magnitude change in initial concentration will change the output of the model by the same order of magnitude.
A(x)	20 feet	Initial value set at 20 feet and was retained during sensitivity analysis.	QD is highly sensitive to this value especially near the tail end of modeled contaminant plume. In general, one order of magnitude change in A (x) will change the output of the model by two orders of magnitude.
A(Y)	2 feet	Initial value set to 1/10 of A(x) and retained during model calibration	QD is moderately sensitive to this value. A change in one order of magnitude larger will cause model centerline values to decrease slightly.
A(z)	0.001 feet	PADEP suggested value was retained during model calibration	QD is not sensitive to this value. A change in one order of magnitude larger caused no change in model output.
Lambda	0.036	Initial value set to PADEP supplied value of 0.00189 and adjusted during calibration.	QD is highly sensitive to this value. A change in one order of magnitude larger will cause model centerline value to decrease significantly.
Source Width	20 feet	Based on estimated width of source area using isoconcentration map MSC line .	QD is sensitive to this value. A change in +50 feet yields an increase in model output.
Source Thickness	9.24 feet	Source thickness is based on the overall thickness of the aquifer.	QD is not sensitive to this value. A change in +/- 5 feet yields no change in model output.
Time	401 days	Calculated as days between the most recent UST excavation (11/25/2014) and the date of model calibration (12/31/2015)	QD is not sensitive to this value. A change of 100 days yields no change in model output
Hydraulic Conductivity	1.97 feet/day	Initial value set to average K value of 1.977 ft/day (from12/10/2015 aquifer tests) and retained during sensitivity analysis.	QD is highly sensitive to this value. A change in one order of magnitude will cause the model output to change significantly
Gradient	0.011 feet/foot	Value set at calculated gradient between MW-1 and MW-5 during the 12/9/2015 sampling event.	QD is moderately sensitive to this value. A change of + 0.01 feet/foot yields higher model output values.
Effective Porosity	0.024 decimal fraction	A site specific effective porosity ($N_{e)}$ value was obtained for the overburden aquifer at the site and was utilized in each model.	QD is moderately sensitive to this value. A change in + .05 causes a decrease in model output.
Soil Bulk Density	2.014 g/cm3	A calculated soil bulk density of 2.014 gm/cm^3 was utilized for the overburden aquifer to calibrate the model.	QD is moderately sensitive to this value. A change in + 0.1 causes a decrease in model output.
KOC	350	Value set to PADEP value for xylenes	QD is moderately sensitive to this value. A change in + 10 causes a decrease in model output.
Fraction of Organic Carbon	0.0002 decimal fraction	PADEP suggested value was retained during model calibration	QD is moderately sensitive to this value. A change in one order of magnitude larger yields significantly lower model output.

Cooks Country Store, James Creek, PA
Quick Domenico overburden groundwater MTBE model input and sensitivity analysis MW-1 to MW-3

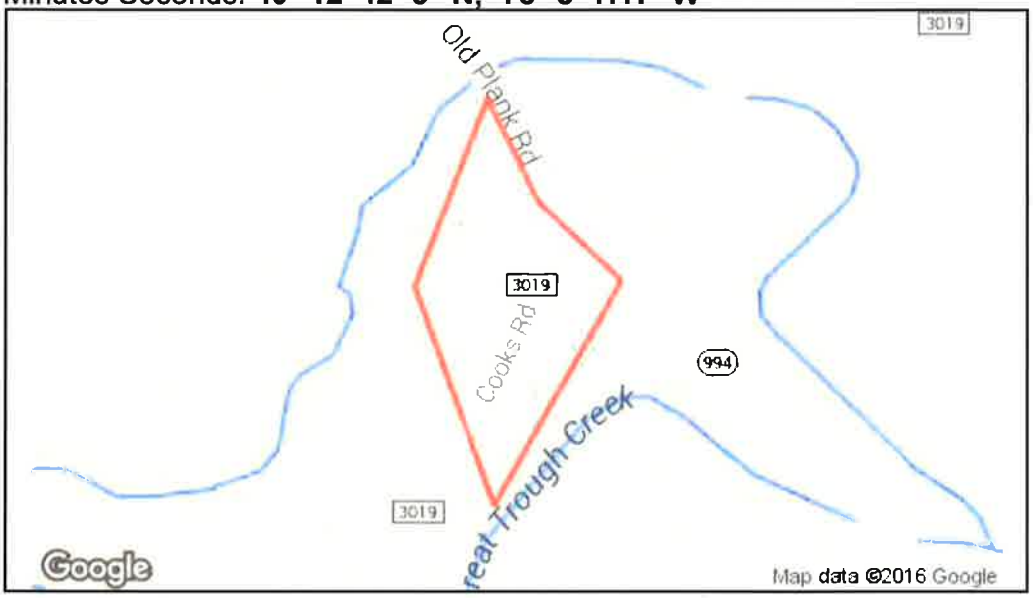
Model Input	Input value	Rationale for input	Sensitivity analysis
Initial concentration	.0572 mg/L	MW-1 source area - maximum value since remediation, (8/27/2015) sampling event.	QD is highly sensitive to this value. In general, one order of magnitude change in initial concentration will change the output of the model by the same order of magnitude.
A(x)	35 feet	Initial value set at 35 feet and was retained during sensitivity analysis.	QD is highly sensitive to this value especially near the tail end of modeled contaminant plume. In general, one order of magnitude change in A (x) will change the output of the model by two orders of magnitude.
A(Y)	3.5 feet	Initial value set to 1/10 of A(x) and retained during model calibration	QD is moderately sensitive to this value. A change in one order of magnitude larger will cause model centerline values to decrease slightly.
A(z)	0.001 feet	PADEP suggested value was retained during model calibration	QD is not sensitive to this value. A change in one order of magnitude larger caused no change in model output.
Lambda	0.023	Initial value set to PADEP supplied value of 0.00189 and adjusted during calibration.	QD is highly sensitive to this value. A change in one order of magnitude larger will cause model centerline value to decrease significantly.
Source Width	25 feet	Based on estimated width of source area using isoconcentration map MSC line .	QD is sensitive to this value. A change in +50 feet yields an increase in model output.
Source Thickness	9.24 feet	Source thickness is based on the overall thickness of the aquifer.	QD is not sensitive to this value. A change in +/- 5 feet yields no change in model output.
Time	401 days	Calculated as days between the most recent UST excavation (11/25/2014) and the date of model calibration (12/31/2015)	QD is not sensitive to this value. A change of 100 days yields no change in model output
Hydraulic Conductivity	1.97 feet/day	Initial value set to average K value of 1.977 ft/day (from12/10/2015 aquifer tests) and retained during sensitivity analysis.	QD is highly sensitive to this value. A change in one order of magnitude will cause the model output to change significantly
Gradient	0.003 feet/foot	Value set at calculated gradient between MW-1 and MW-3 during the 8/27/2015 sampling event.	QD is moderately sensitive to this value. A change of + 0.01 feet/foot yields higher model output values.
Effective Porosity	0.024 decimal fraction	A site specific effective porosity ($N_{e)}$ value was obtained for the overburden aquifer at the site and was utilized in each model.	QD is moderately sensitive to this value. A change in + .05 causes a decrease in model output.
Soil Bulk Density	2.014 g/cm3	A calculated soil bulk density of 2.014 gm/cm^3 was utilized for the overburden aquifer to calibrate the model.	QD is moderately sensitive to this value. A change in + 0.1 causes a decrease in model output.
KOC	12	Value set to PADEP value for MTBE	QD is moderately sensitive to this value. A change in + 10 causes a decrease in model output.
Fraction of Organic Carbon	0.0002 decimal fraction	PADEP suggested value was retained during model calibration	QD is moderately sensitive to this value. A change in one order of magnitude larger yields significantly lower model output.

APPENDIX P

PNDI SEARCH REPORT

1. PROJECT INFORMATION

Project Name: **Cook's Property**
Date of review: **1/15/2016 11:45:30 AM**
Project Category: **Hazardous Waste Clean-up, Site Remediation, and Reclamation,Spill (e.g., oil, chemical)**
Project Area: **2.2** acres
County: **Huntingdon** Township/Municipality: **Todd**
Quadrangle Name: **SALTILLO** ~ ZIP Code: **16685**
Decimal Degrees: **40.211752 N, -78.088070 W**
Degrees Minutes Seconds: **40° 12' 42^3" N, -78° 5' 17.1" 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 jursidictional agencies **strongly advise against** conducting surveys for the species listed on the receipt prior to consultation with the agencies.

PA Game Commission

RESPONSE: No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Department of Conservation and Natural Resources

RESPONSE: No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Fish and Boat Commission

RESPONSE: No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

U.S. Fish and Wildlife Service

RESPONSE: No impacts to **federally** listed or proposed species are anticipated. Therefore, no further consultation/coordination under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.* is required. Because no take of federally listed species is anticipated, none is authorized. This response does not reflect potential Fish and Wildlife Service concerns under the Fish and Wildlife Coordination Act or other authorities.

4. DEP INFORMATION

The Pa Department of Environmental Protection (DEP) requires that a signed copy of this receipt, along with any required documentation from jurisdictional agencies concerning resolution of potential impacts, be submitted with applications for permits requiring PNDI review. 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:_____
Company/Business Name:_____
Address:_____
City, State, Zip:_____
Phone:(_____)_____Fax:(_____)_____
Email:_____

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 date