



Engineering of NC INC



an affiliate of **The GEL Group** INC

GEOENVIRONMENTAL PHASE II INVESTIGATION REPORT PARCEL #28 3426 WAYNE MEMORIAL DRIVE, GOLDSBORO, NC

Revision 2, October 2, 2019

WBS Number: 39927.1.1

TIP Number: U-4753

County: Wayne

Description: Widening of SR 1556 (Wayne Memorial Drive) from south of SR 1003 (New Hope Road) to US 70 Bypass, Wayne County, NC

Parcel No (PIN): Parcel #28; Tommy's Food Mart
PIN #3610674854

Address: 3426 Wayne Memorial Drive, Goldsboro, NC
27534

Submitted to:

North Carolina Department of Transportation

Geotechnical Engineering Unit

1589 Mail Service Center

Raleigh, North Carolina 27699-1589

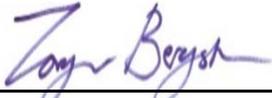
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This document, entitled *GeoEnvironmental Phase II Investigation Report, Parcel #28, 3426 Wayne Memorial Drive, Goldsboro, NC*, has been prepared by GEL Engineering of NC, Inc., for the parcel identified above in accordance with the Notice to Proceed issued by the North Carolina Department of Transportation – Geotechnical Engineering Unit on June 27, 2019. It has been prepared in accordance with accepted quality control practices for the exclusive use of the North Carolina Department of Transportation and has been reviewed by the undersigned.

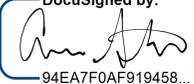
GEL ENGINEERING OF NC, INC.
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October 2, 2019
Date 10/3/2019



**GEOENVIRONMENTAL PHASE II INVESTIGATION REPORT
PARCEL #28, 3426 WAYNE MEMORIAL DRIVE , GOLDSBORO, NC**

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south of SR 1003 (New Hope Road) to US 70 Bypass, Wayne County, NC
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1.0 INTRODUCTION

The North Carolina Department of Transportation (NCDOT) authorized GEL Engineering of NC, Inc. (GEL), to perform a Phase II GeoEnvironmental Investigation at the subject parcel in Wayne County. The objective of the investigation was to evaluate the presence of potential environmental hazards within the existing and proposed rights-of-way (ROWs) and/or easements, including objects such as underground storage tanks (USTs) and petroleum contaminated soil. The subject parcel location is shown on Figure 1 and listed below.

<u>Parcel #</u>	<u>Owner</u>	<u>Business Name</u>	<u>Address</u>	<u>Wayne County PIN #</u>
28 PSH 6	Yassen Investments, Inc.	Tommy's Food Mart	3426 Wayne Memorial Dr, Goldsboro, NC 27534	3610674854

A portion of the parcel was designated as the investigation area from information included in NCDOT's U-4753 CAD files provided to GEL. This area is shown on Figure 2 and extends from the edge-of-pavement to the innermost existing or proposed ROW or easement. Geophysical surveys were conducted across the investigation area using ground penetrating radar (GPR) and time-domain electromagnetic (TDEM) technologies. Eight geoenvironmental soil borings were installed within the investigation area at the locations shown on Figure 3. The methodologies and results of these investigations are discussed in the following sections.

In addition to the electronic DocuSign copy of this report, GEL is submitting to NCDOT (a) an electronic MicroStation U-4753_env_geo.dgn file that provides the geoenvironmental soil boring locations and the estimated extent of contaminated soil, and (b) a Microsoft Excel file of the soil sample ultra-violet fluorescence (UVF) spectrometry analytical results prepared by RED Lab, LLC, of Wilmington, North Carolina (RED Lab).

2.0 HISTORY

GEL searched North Carolina Department of Environmental Quality (NCDEQ) electronic records and contacted the NCDEQ Washington Regional Office and NCDEQ Headquarters in Raleigh to obtain pertinent environmental records and regulatory history. No NCDEQ records related to the Site were identified. From the Connect NCDOT server, GEL downloaded and reviewed the *GeoEnvironmental Impact Evaluation* dated May 3, 2019, prepared Terracon Consultants, Inc. (Terracon). Terracon's findings regarding the subject parcel are consistent with GEL's records search and Site observations (Section 3.0), as follows:

This facility was identified during the site reconnaissance as Tommy's Food Mart, a convenience store and fuel station. According to the historical city directories, the current facility operated as Carolina Convenience as early as 2000. It is unknown when the facility was constructed or how long Carolina Convenience operated, though a facility does appear on the 1983 aerial photograph. According to Wayne County Tax Records, the facility was sold in 2002 and began operating as Tommy's Food Mart.

During the site reconnaissance, Terracon observed one apparent kerosene above-ground storage tank (AST), and two apparent petroleum ASTs of unknown volume. Based on aerial imagery and site observations, the kerosene tank, petroleum tanks and dispenser island are located approximately 82, 96 and 43 feet from the Wayne Memorial Drive right-of-way, respectively. This facility was not identified on the UST, or IMD databases.

Based on the distance of the age and proximity of the AST system and potential for a release, Tommy's Food Mart presents the potential for low geoenvironmental impact to the project.

3.0 SITE OBSERVATIONS

In advance of the field investigation, the GEL Project Manager notified the Tommy's Food Mart owner/manager of the planned investigation activities. The GEL Project Manager also conducted a site reconnaissance on July 25, 2019, during the beginning of the investigation. Representative photographs taken during the site reconnaissance are provided in Appendix A.

Tommy's Food Mart consists of a convenience store with two active fuel dispensers under a canopy on the northwest side of the store. Two gasoline aboveground storage tanks (ASTs) and one kerosene AST are situated on the northeast side of the building (see Appendix A, Photograph 7). According to the business owner/manager, the distribution lines run underground directly between the ASTs and the dispensers. The kerosene dispenser is situated directly in front of the AST. No other features of potential environmental concern were observed within or adjacent to the investigation area. Obstructions to the geophysical survey across the investigation area included a few parked vehicles, reinforced concrete, and minor surface utility structures, signposts, and landscaping (see Appendix A, Photographs 8 and 9).

4.0 METHODS

This section describes the field methods followed to complete the geophysical surveys and the geoenvironmental soil boring and sampling program.

4.1 Geophysical Survey Methods

The geophysical evaluation included the deployment of GPR and TDEM technologies to the site. These technologies were used in concert with one another in order to identify the presence of potential USTs or other subsurface features of concern such as buried drums. A brief description of these technologies is presented in the following paragraphs.

The GPR and TDEM surveys were conducted by towing the geophysical equipment along a system of transect lines on an approximately 2.5-foot spaced grid established within the investigation area. In spatially restricted and surface obstructed areas, a modified pattern of transect lines was implemented to maximize data acquisition. Positioning for the investigation was provided using a Trimble real-time kinematic (RTK) global positioning system (GPS).

4.1.1 Ground Penetrating Radar Methodology

An ImpulseRadar Crossover dual-channel digital radar control system configured with a 400- and 800-Megahertz (MHz) antenna array was used in this investigation. GPR is an electromagnetic geophysical method that detects interfaces between subsurface materials with differing dielectric constants. The GPR system consists of an antenna which houses the transmitter and receiver, a digital control unit which both generates and digitally records the GPR data, and a color video monitor to view data as it is collected in the field.

The transmitter radiates repetitive short duration electromagnetic waves (at radar frequencies) into the earth from an antenna moving across the ground surface. These radar waves are reflected back to the receiver from the interface of materials with different dielectric constants. The intensity of the reflected signal is a function of the contrast in the dielectric constant between the materials, the conductivity of the material through which the wave is traveling, and the frequency of the signal.

Subsurface features that commonly cause such reflections are: 1) natural geologic conditions, such as changes in sediment composition, bedding, and cementation horizons and voids; or 2) unnatural changes to the subsurface such as disturbed soils, soil backfill, buried debris, tanks,

pipelines, and utilities. The digital control unit processes the signal from the receiver and produces a continuous cross-section of the subsurface interface reflection events.

GPR data profiles were collected along transects covering the entire investigation area. Depth of investigation of the GPR signal is highly site specific and is limited by signal attenuation (absorption) in the subsurface materials. Signal attenuation is dependent upon the electrical conductivity of the subsurface materials. Signal attenuation is greatest in materials with relatively high electrical conductivities such as clays, brackish groundwater, or groundwater with a high dissolved solid content from natural or manmade sources. Signal attenuation is lowest in relatively low conductivity materials such as dry sand or rock. Depth of investigation is also dependent on the antenna's transmitting frequency. Depth of investigation generally increases as transmitting frequency decreases; however, the ability to resolve smaller subsurface features is diminished as frequency is decreased. The average depth of penetration at this site was approximately 3 to 5 feet below the surface.

The GPR antenna used at this site is internally shielded from aboveground interference sources. Accordingly, the GPR response is not affected by overhead power lines, metallic buildings, or nearby objects.

4.1.2 Time Domain Electromagnetic Methodology

TDEM methods measure the electrical conductivity of subsurface materials. The conductivity is determined by inducing (from a transmitter) a time or frequency-varying magnetic field and measuring (with a receiver) the amplitude and phase shift of an induced secondary magnetic field. The secondary magnetic field is created by subsurface conductive materials behaving as an inductor as the primary magnetic field is passed through them.

The Geonics EM-61 system used in this investigation operates within these principles. However, the EM-61 TDEM system can discriminate between moderately conductive earth materials and very conductive metallic targets. The EM-61 consists of a portable coincident loop time domain transmitter and receiver with a 1.0-meter by 0.5-meter coil system. The EM-61 generates 150 pulses per second and measures the response from the ground after transmission or between pulses. The secondary EM responses from metallic targets are of longer duration than those created by conductive earth materials. By recording the later time EM arrivals, only the response from metallic targets is measured, rather than the field generated by the earth material.

4.2 GeoEnvironmental Soil Borings and Soil Sampling

A direct push technology (DPT) drilling rig provided by our subcontracted driller, Regional Probing Services, Inc., was used to advance soil borings across the investigation area at the locations shown on Figure 3. A utility clearance was performed by North Carolina One-Call across the investigation area prior to the soil boring program. In addition to the GPR and TDEM geophysical investigations described in Section 4.1, GEL specifically cleared each planned drilling location for underground utilities utilizing radio frequency electromagnetics instrumentation. Underground utilities were identified across much of the investigation area, in particularly along Wayne Memorial Drive. As shown on Figure 3, most soil borings were positioned in the inner portion of the investigation area toward the fueling dispensers, ASTs, distribution lines, and low-lying areas where any fuel spills may have flown or accumulated. Downhole DPT equipment was decontaminated before and after each boring was constructed. Following sample collection, the borings were backfilled with bentonite chips, and the location of each boring (Figure 3) was measured using the Trimble RTK/GPS.

GEL installed each of the 8 soil borings to 8 feet below ground surface (bgs). DPT soil sampling consists of pushing/hammering a stainless-steel, 4-foot long, Macro-Core soil sampler and PVC liner to the desired sampling depth. The liner is removed from the soil sampler and cut to expose a continuous soil core for characterization and sampling. Lithologic descriptions of soil samples were recorded on soil boring logs along with other field observations. The soil boring logs are provided as Appendix B.

Subsurface soil was screened for organic vapors using a field photoionization detector (PID), and these measurements were recorded on the soil boring logs (Appendix B). The PID measures the concentration of organic compounds in the vapor space above a soil sample resulting from volatilization of organic compounds contained in the soil. To screen the soils, each sample was placed in a clean, resealable polyethylene bag. The bag was sealed, the sample was allowed to equilibrate, the probe of the PID was then inserted into the bag, and the airspace above the soil was screened for organic vapors.

Soil samples were submitted for laboratory analysis by RED Lab. After the soil core extracted from each boring was logged, the horizon with the highest field PID reading was selected for laboratory analysis. To evaluate field and laboratory precision, soil was collected in duplicate

from the horizon selected from boring SB-3, with both the primary and duplicate soil samples submitted for laboratory analysis.

To collect the sample, approximately 10 grams of soil from the selected horizon were extracted using a laboratory-provided Terra-Core sampler and transferred into a laboratory-provided VOA vial containing 20 milliliters of methanol preservative and handled according to RED Lab field sampling protocol. Laboratory-quality nitrile gloves were worn by sampling personnel throughout the sampling process and changed between each sample. Upon collection, sample bottles were placed on ice in a cooler and transported to the analytical laboratory under proper chain-of-custody procedures. The samples were analyzed by RED Lab using UVF Spectrometry for the following indicator parameters to evaluate the investigation area for the presence petroleum of contaminated soil:

- Total benzene, toluene, ethylbenzene, and xylenes (BTEX) (C6-C9 fraction)
- Diesel Range Organics (DRO) (C10-C35 fraction)
- Gasoline Range Organics (GRO) (C5-C10 fraction)
- Total Petroleum Hydrocarbons (TPH) (C5-C35 fraction)
- Total Aromatics (C10-C35 fraction)
- 16 EPA Polycyclic Aromatic Hydrocarbons (PAHs) (total PAH value)
- Benzo(a)Pyrene.

5.0 RESULTS

The results of the geophysical surveys and geoenvironmental soil boring and soil sampling program are presented below.

5.1 Geophysical Survey Results

The geophysical field investigation was successfully performed at the subject parcel. Interpretation of the GPR data was conducted in the field, with subsequent data processing including band pass filtering, background removal, horizontal smoothing, and gain adjustments. TDEM was also used to scan the project site. Based on the field data review, no electromagnetic or GPR anomalies were detected that were indicative of buried metallic objects, and so no potential anomalies were marked in the field.

The TDEM survey results are displayed on Figure 4. All the high TDEM responses shown on Figure 4 are correlated to surface metallic debris and/or above-ground metal structures as labeled on the figure and are not considered to be representative of "Potential USTs."

5.2 Soil Sample Analytical Results

The field PID screening measurements are listed in Table 1. These measurements indicate the presence of significant organic vapors, and a sample of the soil collected from the horizon with the highest PID measurement from each boring was submitted to RED Lab for indicator-parameter UVF Spectrometry analysis to evaluate for the presence petroleum contaminated soil. From boring SB-4, which is down-slope and southwest of the fuel dispensers, soil samples were collected for laboratory analysis from the horizons with the two highest PID readings, 850 parts per million (ppm) at 3 to 4 feet bgs, and 576 ppm at 7 to 8 feet bgs. A summary of the soil sampling details is tabulated in Table 1, along with a listing of the northing and easting coordinates for the boring locations.

The UVF Spectrometry analytical results for GRO, DRO, and TPH are presented in Table 1. These results are also presented in Appendix B along with hydrocarbon fingerprint graphs prepared by RED Lab and the chain-of-custody form completed for the project. Consistent with the field PID measurement results, each of the samples contained petroleum hydrocarbons. The soil samples from all borings except boring SB-5 have reported concentrations exceeding the NCDEQ action level of 50 milligrams per kilogram (mg/Kg) for GRO, and the soil samples from all borings except

borings SB-2, SB-5, SB-6, and SB-7 have reported concentrations exceeding the NCDEQ action level of 100 mg/Kg for DRO. The highest reported TPH concentration (carbon range C5 through C35) was 3,605 mg/Kg in the sample from 3 to 4 feet bgs from boring SB-4, which is down-slope of the fuel dispensers. The GRO concentration reported for this sample, 3,401 mg/Kg, is the highest of all the GRO soil sample results. The TPH and GRO concentrations reported for the sample collected from 7 to 8 feet bgs in boring SB-4 were notably lower, at 210 and 165 mg/Kg, respectively. The TPH concentrations reported for the samples from the other seven borings range from 76.9 to 2,002 mg/Kg. The distribution of these TPH concentrations are illustrated on Figure 5. The TPH fingerprint matches for all samples indicate degraded gasoline, suggesting that gasoline spills had occurred sometime in the past. The field PID measurements presented in Table 1 and Appendix B indicate that the upper few feet of soil across the investigation area may not have significant petroleum product impacts. At the far north corner of the Parcel, the field PID measurements from boring SB-7 (see Appendix A, Photograph 8) suggest that the upper 6 feet of soil may not have significant petroleum product impacts.

6.0 CONCLUSIONS

Field and office review of the geophysical field investigation data correlated all identified geophysical anomalies to surface metallic debris and/or above ground metal structures. No potential anomalies were marked in the field, and the geophysical survey results suggest there are no buried metallic objects indicative of “Potential USTs” within the investigation area.

Soil samples collected from each of the eight borings constructed across the investigation area contained notable concentrations of petroleum hydrocarbons, with TPH results ranging from 76.9 to 3,605 mg/Kg. The soil samples from all borings except boring SB-5 have reported concentrations exceeding the NCDEQ action level of 100 mg/Kg for DRO and/or 50 mg/Kg for GRO. The TPH fingerprint matches for all samples indicate degraded gasoline, suggesting that gasoline spills had occurred sometime in the past. Field PID measurements indicate that petroleum impacts extend to at least 8 feet bgs across the investigation area. Should the water table not be much deeper than the 8-foot bgs completion depth of the borings, detectable groundwater impacts would be anticipated.

Figure 5 shows a blue-shaded area indicating soil TPH contamination extending across the entire investigation area. The shaded area on Figure 5 is depicted by lines in the electronic MicroStation U-4753_env_geo.dgn file as a “known contamination area.” This area is estimated to be 13,117 square feet. The calculated volume of potentially contaminated soil from the ground surface to 8 feet bgs across the soil contamination area shown on Figure 5 is estimated at 3,890 cubic yards. Because soil TPH contamination was observed across the entire investigation area, it is inferred that impacts extend into other portions of Parcel #28. Therefore, the remainder of the parcel outside of the investigation area is identified in the MicroStation U-4753_env_geo.dgn file with lines indicating a “potential contamination area.”

7.0 RECOMMENDATIONS

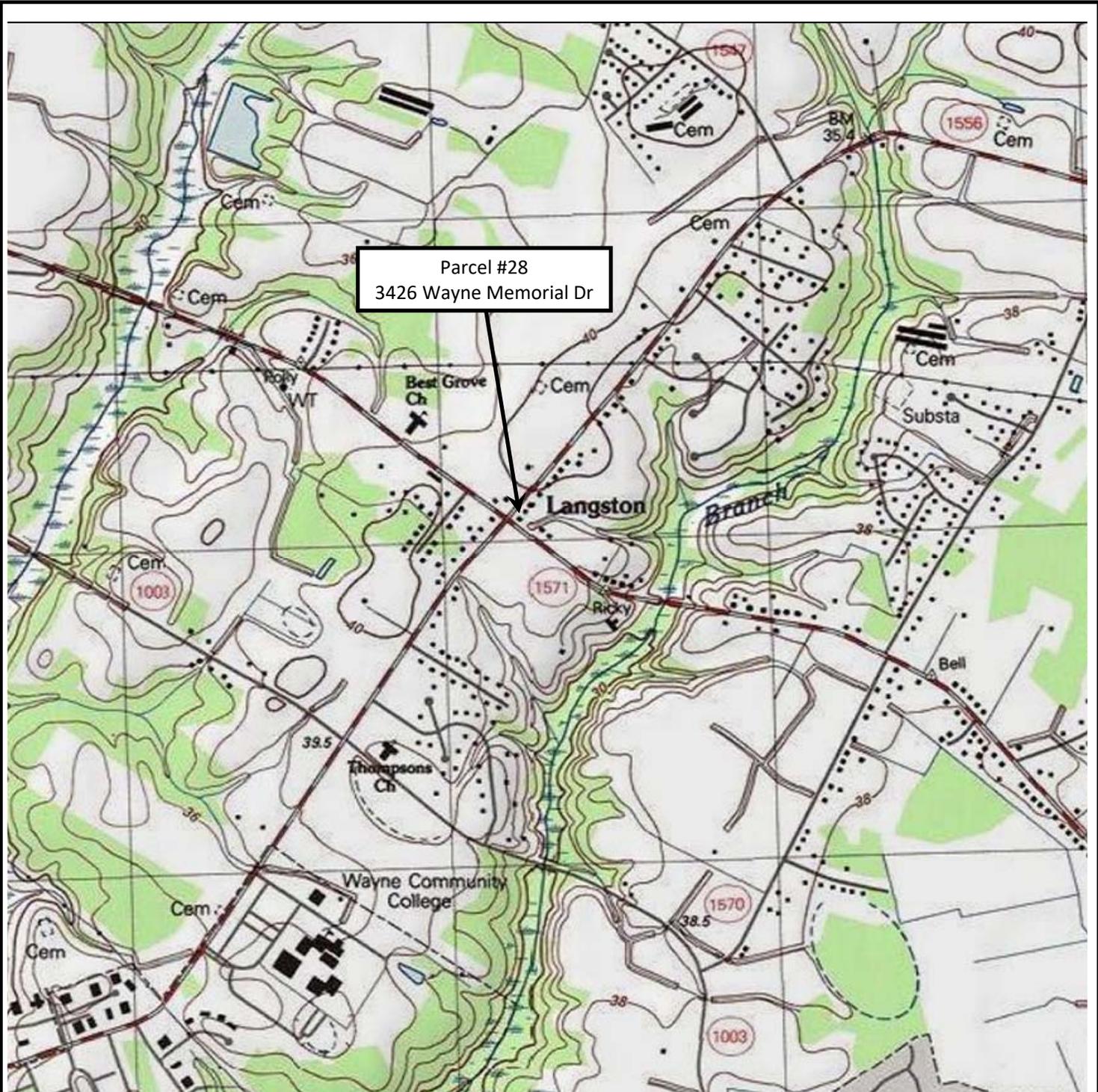
The results of this GeoEnvironmental Phase II Investigation should be provided to the Parcel landowner and/or fueling station operator, with advisement that they notify NCDEQ of a release by completing and submitting a Notification of Discharge Report.

Soil excavated as part of NCDOT's planned construction activities across this Parcel should be handled appropriately as petroleum contaminated soil and further characterized for petroleum constituents, as warranted. It is recommended that NCDOT screen soils with a PID as construction activities proceed into the current active roadway adjacent to Parcel #28, and NCDOT should be prepared to appropriately handle soil removed from the roadway as petroleum contaminated soil.

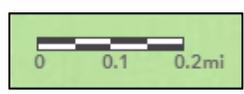
Should the construction plans change from the reviewed U-4753 plans, with the potential for soil cuts to extend deeper than the 3 to 4 feet currently shown, then an assessment of groundwater depth and quality is recommended in advance of construction activities.

Although geophysical methods provide a high level of assurance for the location of subsurface objects, the possibility exists that not all features can or will be identified. Therefore, due caution should be used when performing subsurface excavation across the entire investigation area.

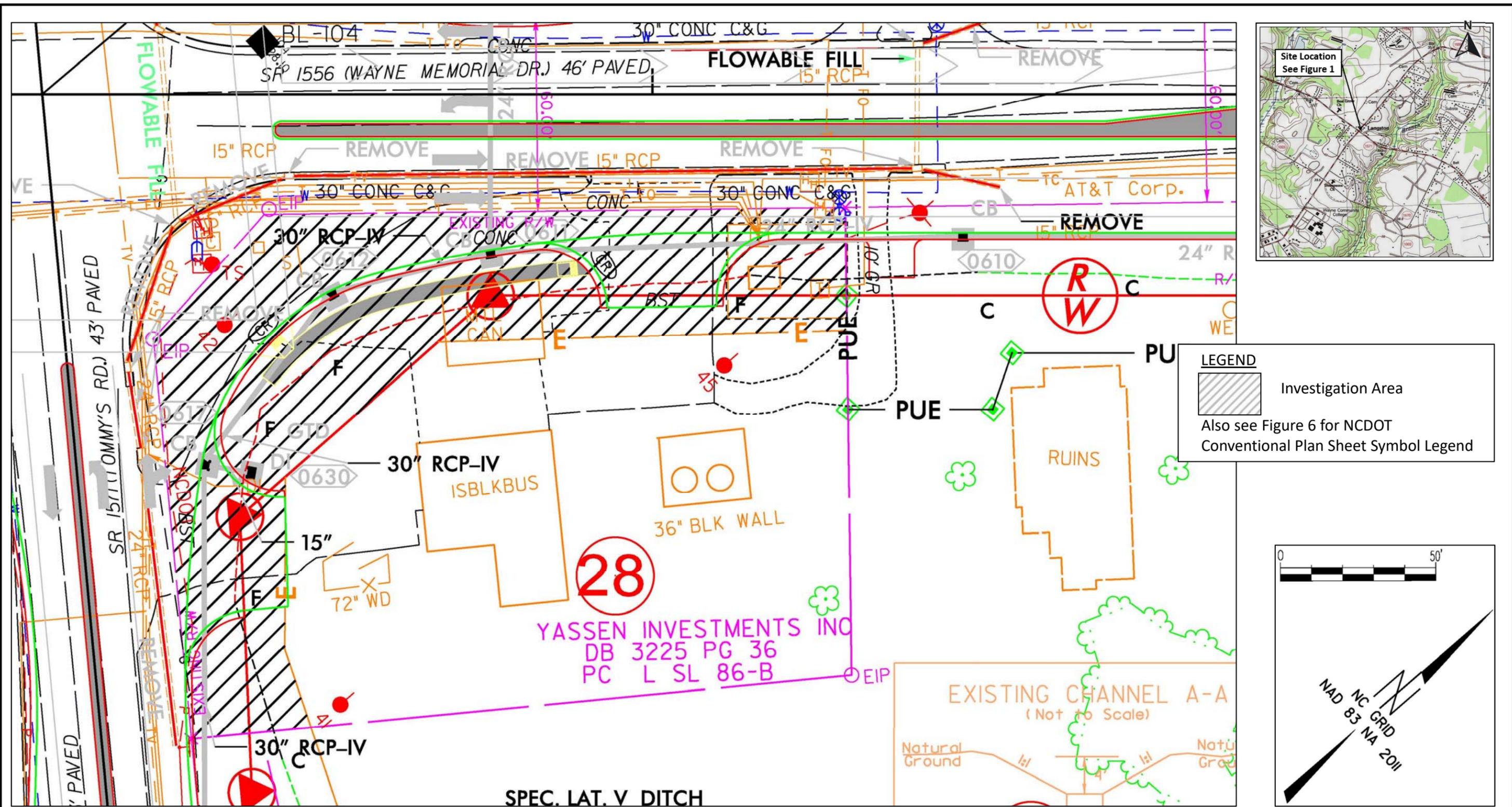
FIGURES



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 Engineering of NC Inc problem solved an affiliate of The GEL Group INC www.gel.com 2700 Sumner Boulevard, Suite 106 P 919.544.1100 Raleigh, NC 27616 F 919.237.9177	PROJECT: ncdt04919 GEOENVIRONMENTAL PHASE II INVESTIGATION REPORT, PARCEL 28 WIDENING OF SR 1556 (WAYNE MEMORIAL DR) GOLDSBORO, WAYNE COUNTY, NC TIP NO. U-4753, WBS NO. 39927.1.1	DATE: September 18, 2019	FIGURE 1
	SITE LOCATION MAP	DRAWN BY: ADS	



U4753.28-SB-7

U4753.28-SB-6

U4753.28-SB-8

U4753.28-SB-5

U4753.28-SB-3

U4753.28-SB-4

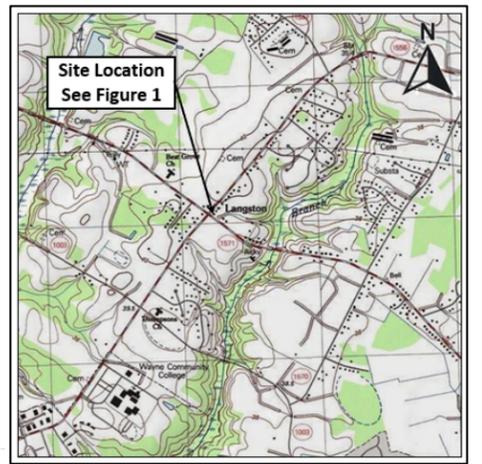
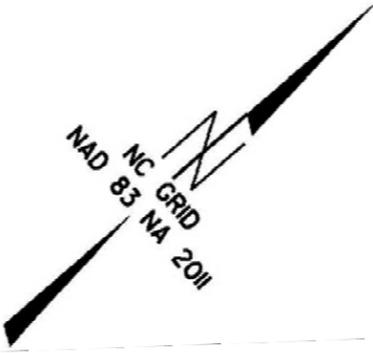
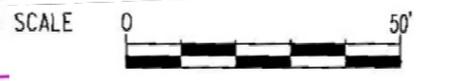
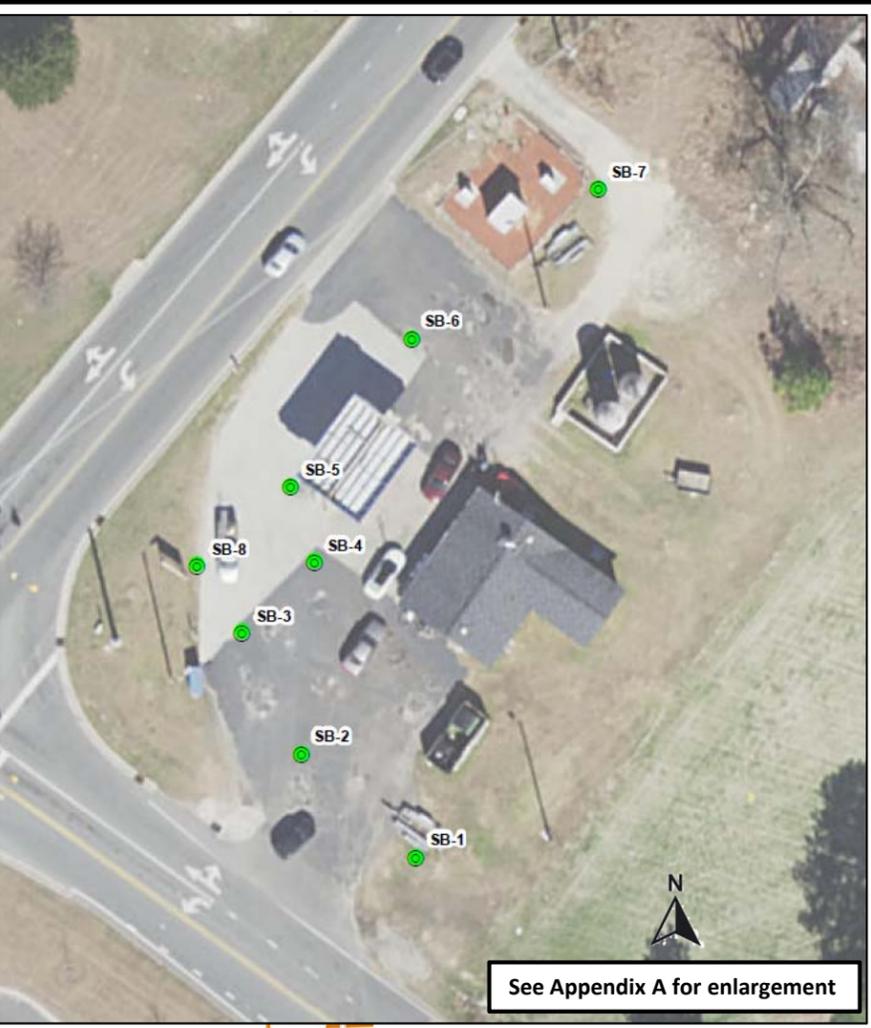
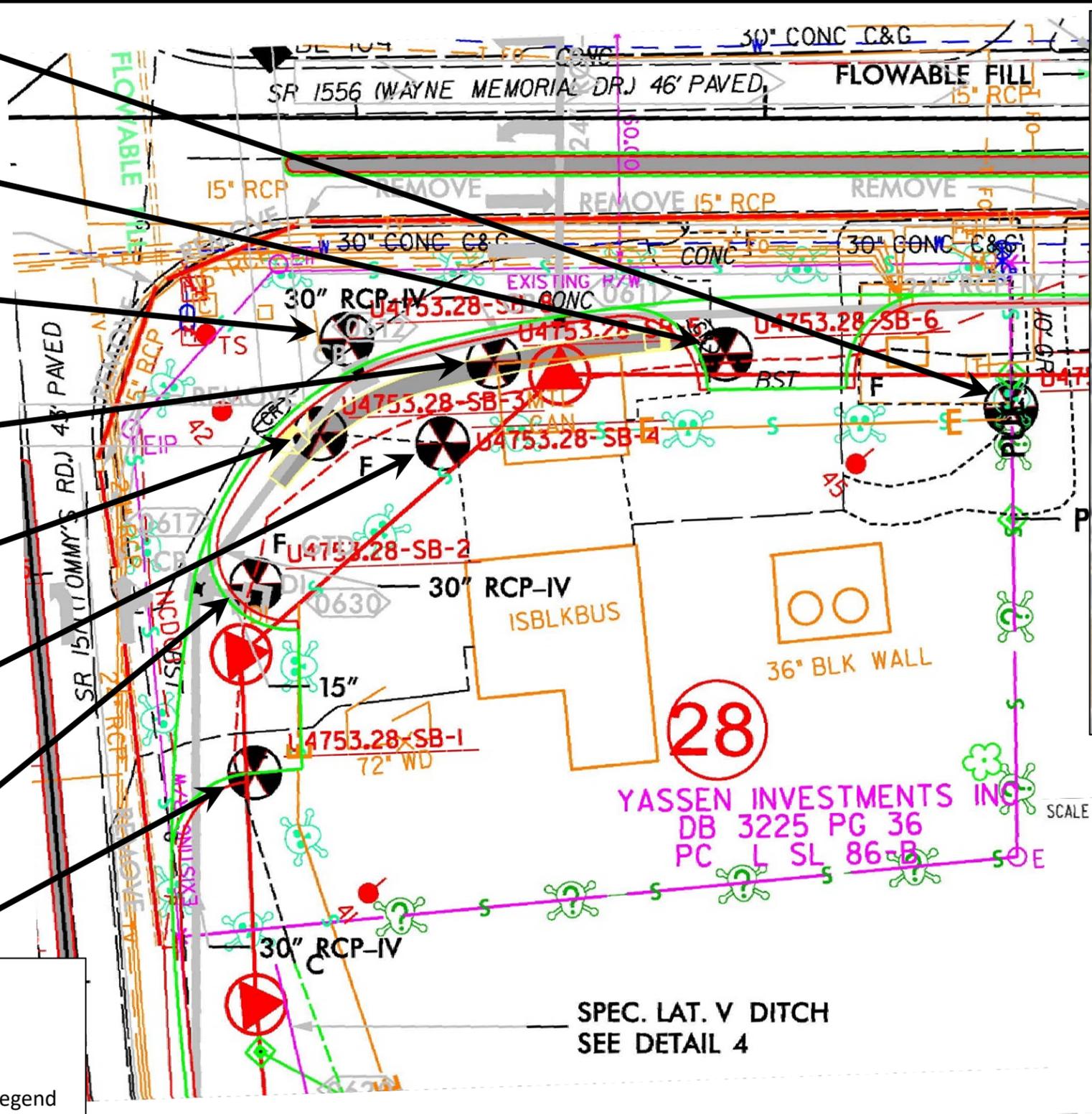
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U4753.28-SB-1

LEGEND

 Geoenvironmental Boring

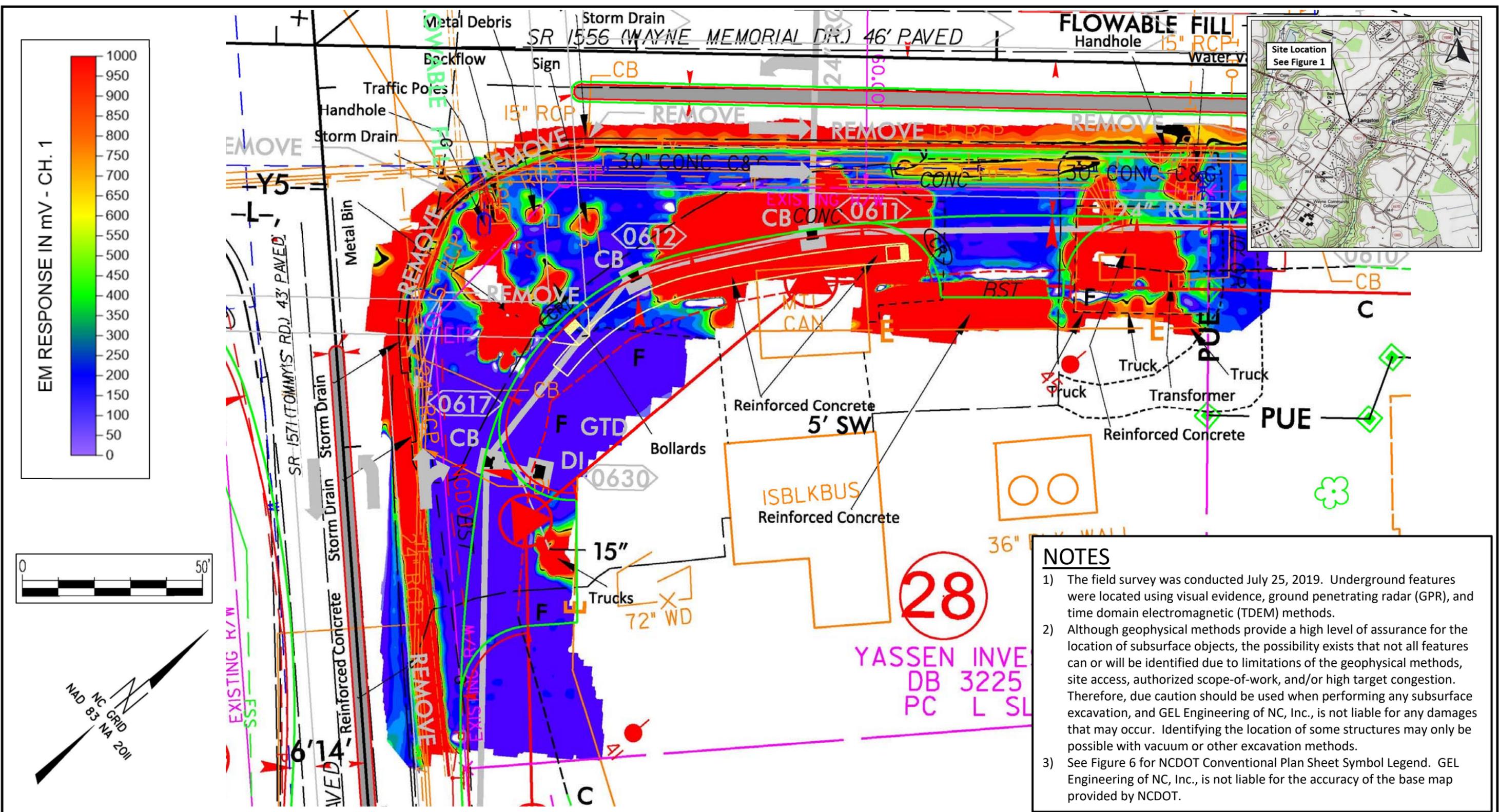
Also see Figure 6 for NCDOT
Conventional Plan Sheet Symbol Legend



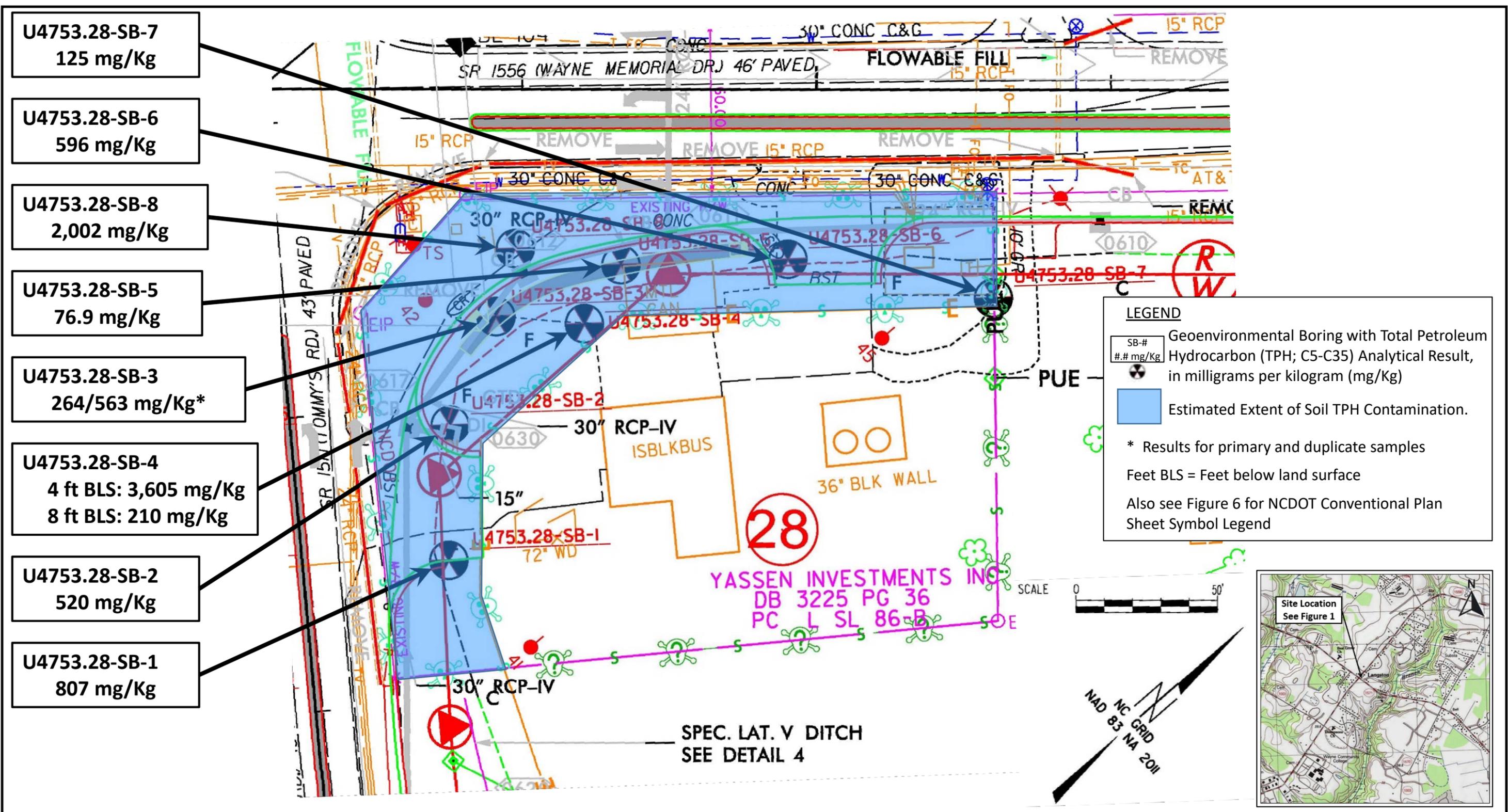
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GEOENVIRONMENTAL PHASE II INVESTIGATION REPORT, PARCEL 28
WIDENING OF SR 1556 (WAYNE MEMORIAL DR)
GOLDSBORO, WAYNE COUNTY, NC
TIP No. U-4753, WBS No. 39927.1.1

GEOENVIRONMENTAL BORING LOCATIONS		
PROJECT: ncdt04919	DATE: Rev2, October 2, 2019	FIGURE 3



- NOTES**
- 1) The field survey was conducted July 25, 2019. Underground features were located using visual evidence, ground penetrating radar (GPR), and time domain electromagnetic (TDEM) methods.
 - 2) Although geophysical methods provide a high level of assurance for the location of subsurface objects, the possibility exists that not all features can or will be identified due to limitations of the geophysical methods, site access, authorized scope-of-work, and/or high target congestion. Therefore, due caution should be used when performing any subsurface excavation, and GEL Engineering of NC, Inc., is not liable for any damages that may occur. Identifying the location of some structures may only be possible with vacuum or other excavation methods.
 - 3) See Figure 6 for NCDOT Conventional Plan Sheet Symbol Legend. GEL Engineering of NC, Inc., is not liable for the accuracy of the base map provided by NCDOT.



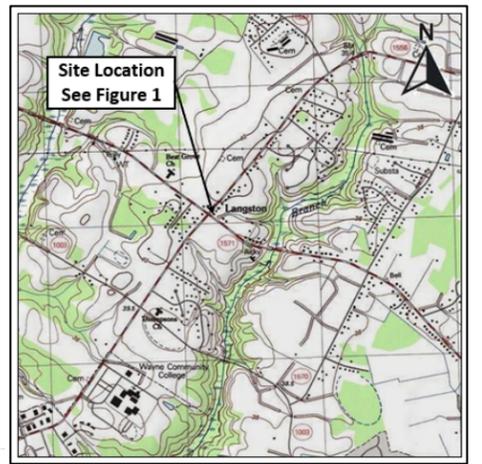
U4753.28-SB-7	125 mg/Kg
U4753.28-SB-6	596 mg/Kg
U4753.28-SB-8	2,002 mg/Kg
U4753.28-SB-5	76.9 mg/Kg
U4753.28-SB-3	264/563 mg/Kg*
U4753.28-SB-4	4 ft BLS: 3,605 mg/Kg 8 ft BLS: 210 mg/Kg
U4753.28-SB-2	520 mg/Kg
U4753.28-SB-1	807 mg/Kg

LEGEND

- SB-# Geoenvironmental Boring with Total Petroleum Hydrocarbon (TPH; C5-C35) Analytical Result, in milligrams per kilogram (mg/Kg)
- ## mg/Kg
- Estimated Extent of Soil TPH Contamination.
- * Results for primary and duplicate samples
- Feet BLS = Feet below land surface
- Also see Figure 6 for NCDOT Conventional Plan Sheet Symbol Legend

SCALE 0 50'

NAD 83 NA 2011



04/05/15

STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS CONVENTIONAL PLAN SHEET SYMBOLS

Note: Not to Scale *S.U.E. = Subsurface Utility Engineering

PROJECT REFERENCE NO. _____
SHEET NO. _____

NOTE:
Legend provided
by NCDOT

BOUNDARIES AND PROPERTY:

State Line	-----
County Line	-----
Township Line	-----
City Line	-----
Reservation Line	-----
Property Line	-----
Existing Iron Pin	⊙
Property Corner	⊙
Property Monument	⊙
Parcel/Sequence Number	⊙
Existing Fence Line	-----
Proposed Woven Wire Fence	-----
Proposed Chain Link Fence	-----
Proposed Barbed Wire Fence	-----
Existing Wetland Boundary	-----
Proposed Wetland Boundary	-----
Existing Endangered Animal Boundary	-----
Existing Endangered Plant Boundary	-----
Existing Historic Property Boundary	-----
Known Contamination Area: Soil	-----
Potential Contamination Area: Soil	-----
Known Contamination Area: Water	-----
Potential Contamination Area: Water	-----
Contaminated Site: Known or Potential	-----

BUILDINGS AND OTHER CULTURE:

Gas Pump Vent or U/G Tank Cap	⊙
Sign	⊙
Well	⊙
Small Mine	⊙
Foundation	⊙
Area Outline	⊙
Cemetery	⊙
Building	⊙
School	⊙
Church	⊙
Dam	⊙

HYDROLOGY:

Stream or Body of Water	-----
Hydro, Pool or Reservoir	-----
Jurisdictional Stream	-----
Buffer Zone 1	-----
Buffer Zone 2	-----
Flow Arrow	-----
Disappearing Stream	-----
Spring	-----
Wetland	-----
Proposed Lateral, Tail, Head Ditch	-----
False Sump	-----

RAILROADS:

Standard Gauge	-----
RR Signal Milepost	-----
Switch	-----
RR Abandoned	-----
RR Dismantled	-----

RIGHT OF WAY:

Baseline Control Point	◆
Existing Right of Way Marker	△
Existing Right of Way Line	-----
Proposed Right of Way Line	-----
Proposed Right of Way Line with Iron Pin and Cap Marker	-----
Proposed Right of Way Line with Concrete or Granite RW Marker	-----
Proposed Control of Access Line with Concrete CA Marker	-----
Existing Control of Access	-----
Proposed Control of Access	-----
Existing Easement Line	-----
Proposed Temporary Construction Easement	-----
Proposed Temporary Drainage Easement	-----
Proposed Permanent Drainage Easement	-----
Proposed Permanent Drainage / Utility Easement	-----
Proposed Permanent Utility Easement	-----
Proposed Temporary Utility Easement	-----
Proposed Aerial Utility Easement	-----
Proposed Permanent Easement with Iron Pin and Cap Marker	◆

ROADS AND RELATED FEATURES:

Existing Edge of Pavement	-----
Existing Curb	-----
Proposed Slope Stakes Cut	-----
Proposed Slope Stakes Fill	-----
Proposed Curb Ramp	-----
Existing Metal Guardrail	-----
Proposed Guardrail	-----
Existing Cable Guiderail	-----
Proposed Cable Guiderail	-----
Equality Symbol	⊙
Pavement Removal	-----

VEGETATION:

Single Tree	⊙
Single Shrub	⊙
Hedge	-----
Woods Line	-----

Orchard	-----
Vineyard	-----

EXISTING STRUCTURES:

MAJOR:	-----
Bridge, Tunnel or Box Culvert	-----
Bridge Wing Wall, Head Wall and End Wall	-----
MINOR:	-----
Head and End Wall	-----
Pipe Culvert	-----
Footbridge	-----
Drainage Box: Catch Basin, DI or JB	-----
Paved Ditch Gutter	-----
Storm Sewer Manhole	-----
Storm Sewer	-----

UTILITIES:

POWER:	-----
Existing Power Pole	-----
Proposed Power Pole	-----
Existing Joint Use Pole	-----
Proposed Joint Use Pole	-----
Power Manhole	-----
Power Line Tower	-----
Power Transformer	-----
U/G Power Cable Hand Hole	-----
H-Frame Pole	-----
U/G Power Line LOS B (S.U.E.*)	-----
U/G Power Line LOS C (S.U.E.*)	-----
U/G Power Line LOS D (S.U.E.*)	-----

TELEPHONE:

Existing Telephone Pole	-----
Proposed Telephone Pole	-----
Telephone Manhole	-----
Telephone Pedestal	-----
Telephone Cell Tower	-----
U/G Telephone Cable Hand Hole	-----
U/G Telephone Cable LOS B (S.U.E.*)	-----
U/G Telephone Cable LOS C (S.U.E.*)	-----
U/G Telephone Cable LOS D (S.U.E.*)	-----
U/G Telephone Conduit LOS B (S.U.E.*)	-----
U/G Telephone Conduit LOS C (S.U.E.*)	-----
U/G Telephone Conduit LOS D (S.U.E.*)	-----
U/G Fiber Optics Cable LOS B (S.U.E.*)	-----
U/G Fiber Optics Cable LOS C (S.U.E.*)	-----
U/G Fiber Optics Cable LOS D (S.U.E.*)	-----

WATER:

Water Manhole	-----
Water Meter	-----
Water Valve	-----
Water Hydrant	-----
U/G Water Line LOS B (S.U.E.*)	-----
U/G Water Line LOS C (S.U.E.*)	-----
U/G Water Line LOS D (S.U.E.*)	-----
Above Ground Water Line	-----

TV:

TV Pedestal	-----
TV Tower	-----
U/G TV Cable Hand Hole	-----
U/G TV Cable LOS B (S.U.E.*)	-----
U/G TV Cable LOS C (S.U.E.*)	-----
U/G TV Cable LOS D (S.U.E.*)	-----
U/G Fiber Optic Cable LOS B (S.U.E.*)	-----
U/G Fiber Optic Cable LOS C (S.U.E.*)	-----
U/G Fiber Optic Cable LOS D (S.U.E.*)	-----

GAS:

Gas Valve	-----
Gas Meter	-----
U/G Gas Line LOS B (S.U.E.*)	-----
U/G Gas Line LOS C (S.U.E.*)	-----
U/G Gas Line LOS D (S.U.E.*)	-----
Above Ground Gas Line	-----

SANITARY SEWER:

Sanitary Sewer Manhole	-----
Sanitary Sewer Cleanout	-----
U/G Sanitary Sewer Line	-----
Above Ground Sanitary Sewer	-----
SS Forced Main Line LOS B (S.U.E.*)	-----
SS Forced Main Line LOS C (S.U.E.*)	-----
SS Forced Main Line LOS D (S.U.E.*)	-----

MISCELLANEOUS:

Utility Pole	-----
Utility Pole with Base	-----
Utility Located Object	-----
Utility Traffic Signal Box	-----
Utility Unknown U/G Line LOS B (S.U.E.*)	-----
U/G Tank; Water, Gas, Oil	-----
Underground Storage Tank, Approx. Loc.	-----
A/G Tank; Water, Gas, Oil	-----
Geoenvironmental Boring	-----
U/G Test Hole LOS A (S.U.E.*)	-----
Abandoned According to Utility Records	AATUR
End of Information	E.O.I.

TABLE

TABLE 1. SOIL SAMPLE FIELD SCREENING AND LABORATORY ANALYTICAL RESULTS SUMMARY (Page 1 of 2)

Soil Boring ID (Northing/ Easting)	Date	Depth (feet bgs)	PID Reading (ppm)	QED UVF Results (mg/Kg)		
				GRO (C5-C10) (action level=50)	DRO (C10-C35) (action level=100)	TPH (C5-C35)
U4753.28-SB-1 (607763.032 / 2316446.300)	7/25/2019	0-1	0.3			
		1-2	0.6			
		2-3	2.5			
		3-4	57			
		4-5	143			
		5-6	52			
		6-7	353			
		7-8	775	123.1	684.3	807.4
U4753.28-SB-2 (607793.442 / 2316411.921)	7/25/2019	0-1	10			
		1-2	37			
		2-3	426			
		3-4	651			
		4-5	890	463.8	56.3	520.1
		5-6	498			
		6-7	755			
		7-8	522			
U4753.28-SB-3 (607829.233 / 2316394.385)	7/25/2019	0-1	6.1			
		1-2	25			
		2-3	29			
		3-4	9.4			
		4-5	212			
		5-6	45			
		6-7	277			
		7-8 (duplicate)	382	45.2 103.1	218.4 459.9	263.6 563.0
U4753.28-SB-4 (607850.340 / 2316415.882)	7/25/2019	0-1	8.5			
		1-2	53			
		2-3	784			
		3-4	850	3,401	203.5	3,605
		4-5	428			
		5-6	737			
		6-7	383			
		7-8	576	165.2	44.3	209.5
U4753.28-SB-5 (607872.740 / 2316408.970)	7/25/2019	0-1	14			
		1-2	36			
		2-3	610			
		3-4	885	13.6	63.3	76.9
		4-5	391			
		5-6	648			
		6-7	319			
		7-8	464			

**TABLE 1. SOIL SAMPLE FIELD SCREENING AND
 LABORATORY ANALYTICAL RESULTS SUMMARY (Page 2 of 2)**

Soil Boring ID	Date	Depth (feet bgs)	PID Reading (ppm)	QED UVF Results (mg/Kg)		
				GRO (C5-C10) (action level=50)	DRO (C10-C35) (action level=100)	TPH (C5-C35)
U4753.28-SB-6 (607916.762 / 2316444.722)	7/25/2019	0-1	1.4			
		1-2	7.6			
		2-3	18			
		3-4	957	522.5	73.6	596.1
		4-5	909			
		5-6	832			
		6-7	653			
		7-8	712			
U4753.28-SB-7 (607960.893 / 2316500.278)	7/25/2019	0-1	0.6			
		1-2	0.7			
		2-3	1.0			
		3-4	1.0			
		4-5	1.0			
		5-6	1.8			
		6-7	327			
		7-8	542	102.5	22.2	124.7
U4753.28-SB-8 (607849.261 / 2316381.334)	7/25/2019	0-1	0.3			
		1-2	5.2			
		2-3	249			
		3-4	272			
		4-5	404			
		5-6	595	624.6	1,377	2,002
		6-7	283			
		7-8	198			

DRO = Diesel range organics
 GRO = Gasoline range organics
 TPH = Total petroleum hydrocarbons
 N/A = not applicable
 mg/Kg = milligrams per kilogram
 ppm = parts per million
 feet bgs = feet below ground surface
 GRO and DRO action levels per 7/26/16 NCDEQ UST Corrective Action Branch memorandum.
Bold values highlighted **yellow** exceed the indicated NCDEQ action level.

APPENDIX A

SITE PHOTOGRAPHS



Photograph 1. Aerial photograph showing GeoEnvironmental soil boring locations.



Photograph 2. GeoEnvironmental soil boring location U4753.28-SB-1.



Photograph 3. GeoEnvironmental soil boring location U4753.28-SB-2.



Photograph 4. GeoEnvironmental soil boring location U4753.28-SB-3.



Photograph 5. GeoEnvironmental soil boring location U4753.28-SB-4.



Photograph 6. GeoEnvironmental soil boring location U4753.28-SB-5.



Photograph 7. GeoEnvironmental soil boring location U4753.28-SB-6 and aboveground storage tanks.



Photograph 8. GeoEnvironmental soil boring location U4753.28-SB-7.



Photograph 9. GeoEnvironmental soil boring location U4753.28-SB-8.

APPENDIX B

SOIL BORING LOGS

SOIL BORING LOGS

GEL Engineering, of NC, Inc., Raleigh, North Carolina

Project Name: NCDOT Widening of SR 1556 (Wayne Memorial Dr), Goldsboro, Wayne County, NC;

TIP No. U- 4753, WBS No. 39927.1.1 GEL Project Code: NCDT04919

Parcel Address: Parcel 28, 3426 Wayne Memorial Dr, Goldsboro, NC 27534 (Tommy's Food Mart)

Drilling Date: July 25, 2019 Drilling Contractor: Regional Probing Services, Inc.; NC Cert No. 3322A

Drilling Method: Direct Push Technology (DPT) GEL Geologist: Brian P. Bastian

Depth (ft bgs)	PID (ppm)	Soil Description (depths are in feet below ground surface [ft bgs])	Laboratory Analysis
BORING ID: U4753.28-SB-1			
0-1	0.3	SAND (100% fine grained sand), dark gray, moist, organics present.	
1-2	0.6	Sandy CLAY (70% clay, 15% medium grained sand, 15% fine grained sand), gray, moist.	
2-3	2.5	Sandy CLAY (70% clay, 15% medium grained sand, 15% fine grained sand), gray, moist.	
3-4	57	Sandy CLAY (70% clay, 15% medium grained sand, 15% fine grained sand), gray, moist, odor present.	
4-5	143	Sandy CLAY (70% clay, 15% medium grained sand, 15% fine grained sand), gray/brown, moist, odor present.	
5-6	52	Clayey SAND (40% clay, 30% medium grained sand, 30% fine grained sand), gray, slight moisture.	
6-7	353	Sandy CLAY (70% clay, 15% medium grained sand, 15% fine grained sand), gray, slight moisture, odor present.	
7-8	775	Sandy CLAY (60% clay, 20% medium grained sand, 20% fine grained sand), gray, moist, odor present.	●
BORING ID: U4753.28-SB-2			
0-1	10.2	SAND (100% fine grained sand), brown, slight moisture.	
1-2	37	Silty SAND (100% fine grained sand), light brown, slight moisture.	
2-3	426	Silty SAND (100% fine grained sand), light brown, slight moisture, odor present.	
3-4	651	Silty SAND (90% fine grained sand, 10% clay), brown, moist, odor present.	
4-5	890	Silty SAND (100% fine grained sand), brown, moist, odor present.	●
5-6	498	Sandy CLAY (70% clay, 30% fine grained sand), gray/brown, moist, odor present.	
6-7	755	Sandy CLAY (70% clay, 30% fine grained sand), gray, moist, odor present.	
7-8	522	Sandy CLAY (70% clay, 30% fine grained sand), gray, moist, odor present.	

SOIL BORING LOGS

GEL Engineering, of NC, Inc., Raleigh, North Carolina

Project Name: NCDOT Widening of SR 1556 (Wayne Memorial Dr), Goldsboro, Wayne County, NC;

TIP No. U- 4753, WBS No. 39927.1.1 GEL Project Code: NCDT04919

Parcel Address: Parcel 28, 3426 Wayne Memorial Dr, Goldsboro, NC 27534 (Tommy's Food Mart)

Drilling Date: July 25, 2019 Drilling Contractor: Regional Probing Services, Inc.; NC Cert No. 3322A

Drilling Method: Direct Push Technology (DPT) GEL Geologist: Brian P. Bastian

Depth (ft bgs)	PID (ppm)	Soil Description (depths are in feet below ground surface [ft bgs])	Laboratory Analysis
BORING ID: U4753.28-SB-3			
0-1	6.1	SAND (100% fine grained sand), brown, slight moisture.	
1-2	25	SAND (100% fine grained sand), gray, slight moisture.	
2-3	29	SAND (100% fine grained sand), gray, slight moisture.	
3-4	9.4	SAND (100% fine grained sand), gray, slight moisture.	
4-5	212	SAND (85% fine grained sand, 15% clay), gray, moist.	
5-6	45	SAND (85% fine grained sand, 15% clay), gray, moist.	
6-7	277	SAND (85% fine grained sand, 15% clay), gray, moist, odor present.	
7-8	382	Clayey SAND (65% fine grained sand, 35% clay), gray, moist, odor present.	● (duplicate)
BORING ID: U4753.28-SB-4			
0-1	8.5	SAND and GRAVEL (100% fine grained sand), brown, slight moisture.	
1-2	53	SAND (100% fine grained sand), light brown, slight moisture.	
2-3	784	SAND (85% fine grained sand, 15% clay), light brown, slight moisture, odor present.	
3-4	850	Clayey SAND (65% fine grained sand, 35% clay), light brown, slight moisture, odor present.	●
4-5	428	Clayey SAND (60% fine grained sand, 40% clay), light brown/gray, slight moisture, odor present.	
5-6	737	Sandy CLAY (60% clay, 40% fine grained sand), light brown/gray, slight moisture, odor present.	
6-7	383	Sandy CLAY (70% clay, 30% fine grained sand), light brown/gray, slight moisture, odor present.	
7-8	576	Sandy CLAY (70% clay, 30% fine grained sand), light brown/gray, slight moisture, odor present.	●

SOIL BORING LOGS

GEL Engineering, of NC, Inc., Raleigh, North Carolina

Project Name: NCDOT Widening of SR 1556 (Wayne Memorial Dr), Goldsboro, Wayne County, NC;

TIP No. U- 4753, WBS No. 39927.1.1 GEL Project Code: NCDT04919

Parcel Address: Parcel 28, 3426 Wayne Memorial Dr, Goldsboro, NC 27534 (Tommy's Food Mart)

Drilling Date: July 25, 2019 Drilling Contractor: Regional Probing Services, Inc.; NC Cert No. 3322A

Drilling Method: Direct Push Technology (DPT) GEL Geologist: Brian P. Bastian

Depth (ft bgs)	PID (ppm)	Soil Description (depths are in feet below ground surface [ft bgs])	Laboratory Analysis
BORING ID: U4753.28-SB-5			
0-1	13.5	SAND (100% fine grained sand), tan, slight moisture.	
1-2	36	SAND (90% fine grained sand, 10% clay), tan, slight moisture.	
2-3	610	Sandy CLAY (60% clay, 40% fine grained sand), tan, slight moisture.	
3-4	885	Sandy CLAY (60% clay, 40% fine grained sand), tan, slight moisture.	●
4-5	391	Sandy CLAY (70% clay, 30% fine grained sand), tan/orange, slight moisture.	
5-6	648	Sandy CLAY (70% clay, 30% fine grained sand), tan/orange, slight moisture.	
6-7	319	Sandy CLAY (70% clay, 30% fine grained sand), tan/orange, slight moisture.	
7-8	464	Sandy CLAY (70% clay, 30% fine grained sand), tan/orange, slight moisture.	
BORING ID: U4753.28-SB-6			
0-1	1.4	SAND (100% fine grained sand), light brown, slight moisture.	
1-2	7.6	Clayey SAND (80% fine grained sand, 20% clay), light brown, slight moisture.	
2-3	18	Clayey SAND (80% fine grained sand, 20% clay), light brown, slight moisture.	
3-4	957	Sandy CLAY (60% clay, 40% fine grained sand), light brown, slight moisture, odor present.	●
4-5	909	Sandy CLAY (75% clay, 25% fine grained sand), light brown/orange, slight moisture, odor present.	
5-6	832	Sandy CLAY (75% clay, 25% fine grained sand), light brown/orange, slight moisture, odor present.	
6-7	653	Sandy CLAY (75% clay, 25% fine grained sand), light brown/orange, slight moisture, odor present.	
7-8	712	Sandy CLAY (75% clay, 25% fine grained sand), light brown/orange, slight moisture, odor present.	

SOIL BORING LOGS

GEL Engineering, of NC, Inc., Raleigh, North Carolina

Project Name: NCDOT Widening of SR 1556 (Wayne Memorial Dr), Goldsboro, Wayne County, NC;

TIP No. U- 4753, WBS No. 39927.1.1 GEL Project Code: NCDT04919

Parcel Address: Parcel 28, 3426 Wayne Memorial Dr, Goldsboro, NC 27534 (Tommy's Food Mart)

Drilling Date: July 25, 2019 Drilling Contractor: Regional Probing Services, Inc.; NC Cert No. 3322A

Drilling Method: Direct Push Technology (DPT) GEL Geologist: Brian P. Bastian

Depth (ft bgs)	PID (ppm)	Soil Description (depths are in feet below ground surface [ft bgs])	Laboratory Analysis
BORING ID: U4753.28-SB-7			
0-1	0.6	SAND (100% fine grained sand), brown, slight moisture.	
1-2	0.7	SAND (100% fine grained sand), light brown, slight moisture.	
2-3	1.0	Sandy CLAY (60% clay, 40% fine grained sand), light brown, slight moisture.	
3-4	1.0	Sandy CLAY (60% clay, 40% fine grained sand), light brown, slight moisture.	
4-5	1.0	Sandy CLAY (70% clay, 30% fine grained sand), light brown/orange, slight moisture.	
5-6	1.8	Sandy CLAY (75% clay, 25% fine grained sand), light brown/orange, slight moisture.	
6-7	327	Sandy CLAY (75% clay, 25% fine grained sand), light brown/orange, slight moisture, odor present.	
7-8	542	Sandy CLAY (75% clay, 25% fine grained sand), light brown/orange, slight moisture, odor present.	●
BORING ID: U4753.28-SB-8			
0-1	0.3	SAND (100% fine grained sand), brown, slight moisture.	
1-2	5.2	SAND (100% fine grained sand), tan, slight moisture,	
2-3	249	Clayey SAND (60% fine grained sand, 40% clay), light brown, slight moisture, odor present.	
3-4	272	Clayey SAND (60% fine grained sand, 40% clay), light brown, slight moisture, odor present.	
4-5	404	Clayey SAND (60% fine grained sand, 40% clay), light brown, slight moisture, odor present.	
5-6	595	Sandy CLAY (70% clay, 30% fine grained sand), gray/orange, slight moisture, odor present.	●
6-7	283	Sandy CLAY (70% clay, 30% fine grained sand), gray/orange, slight moisture, odor present.	
7-8	198	Sandy CLAY (70% clay, 30% fine grained sand), gray/orange, slight moisture, odor present.	

APPENDIX C

LABORATORY ANALYTICAL REPORT AND CHAIN OF CUSTODY RECORD FOR SOIL SAMPLES



Hydrocarbon Analysis Results

Client: GEL ENGINEERING

Address:

Samples taken

Thursday, July 25, 2019

Samples extracted

Thursday, July 25, 2019

Samples analysed

Monday, July 29, 2019

Contact: ANDREW STAHL

Operator

CAROLINE STEVENS

Project: NCDTO4919

U04049

Matrix	Sample ID	Dilution used	BTEX (C6 - C9)	GRO (C5 - C10)	DRO (C10 - C35)	TPH (C5 - C35)	Total Aromatics (C10-C35)	16 EPA PAHs	BaP	Ratios			HC Fingerprint Match
										% light	% mid	% heavy	
s	U4753-28-SB-1	22.9	<0.57	123.1	684.3	807.4	40.3	1.6	<0.023	99.8	0.2	0	Deg.Light PHC 86.8%,(FCM)
s	U4753-28-SB-5	13.3	6.6	13.6	63.3	76.9	1.8	<0.11	<0.013	99.7	0.1	0.2	Deg.Light PHC 78.5%,(FCM),(PFM)
s	U4753-28-SB-2	23.9	199.1	463.8	56.3	520.1	171.2	6.6	<0.024	99.1	0.7	0.2	Deg.Gas 68.3%,(FCM)
s	U4753-28-SB-3	24.1	2.6	45.2	218.4	263.6	7.3	0.29	<0.024	99.9	0.1	0	Deg.Light PHC 85.4%,(FCM)
s	U4753-28-SB-3-D	24.8	17.7	103.1	459.9	563	20.6	0.8	<0.025	99.9	0.1	0	Deg.Light PHC 86.6%,(FCM)
s	U4753-28-SB-4-4.0	24.4	439.8	3401	203.5	3604.5	118.8	4.7	<0.024	99.8	0.1	0.1	Deg.Gas 86%,(FCM)
s	U4753-28-SB-4-8.0	33.3	<0.83	165.2	44.3	209.5	40.9	1.6	<0.033	99.8	0.1	0.1	Deg.Gas 84%,(FCM)
s	U4753-28-SB-6	47.7	87.1	522.5	73.6	596.1	87.6	3.4	<0.048	99.6	0.2	0.2	Deg.Gas 80.9%,(FCM)
s	U4753-28-SB-7	35.9	17.6	102.5	22.2	124.7	15.5	0.59	<0.036	99.8	0.1	0.1	Deg.Gas 84.4%,(FCM)
s	U4735-28-SB-8	700.0	303.8	624.6	1377	2002	48.7	<5.6	<0.7	99.9	0.1	0.1	Deg.Gas 89.7%,(FCM)

Initial Calibrator QC check **OK**

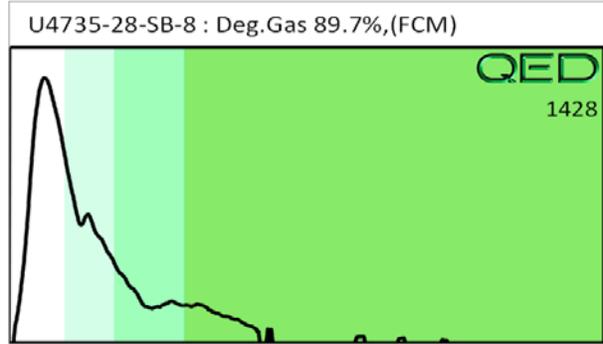
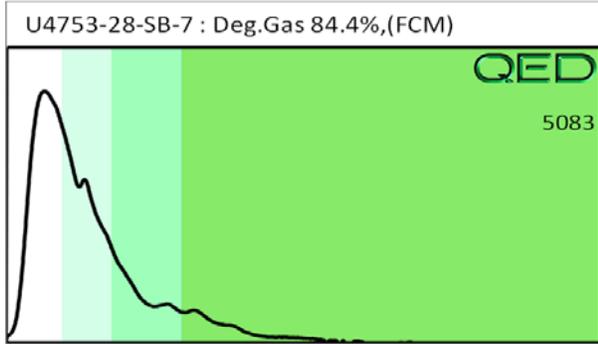
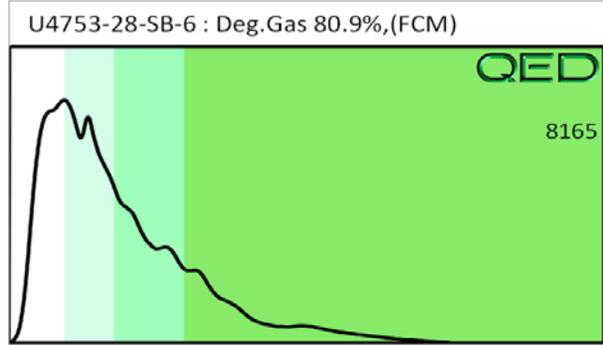
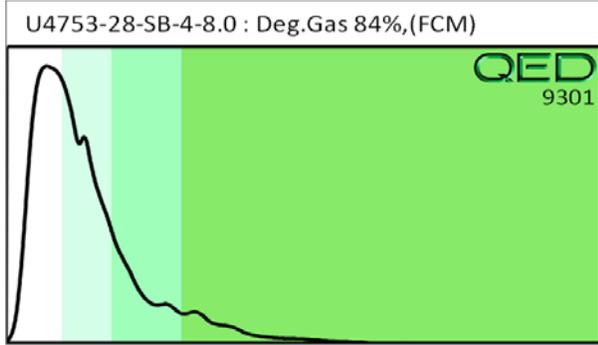
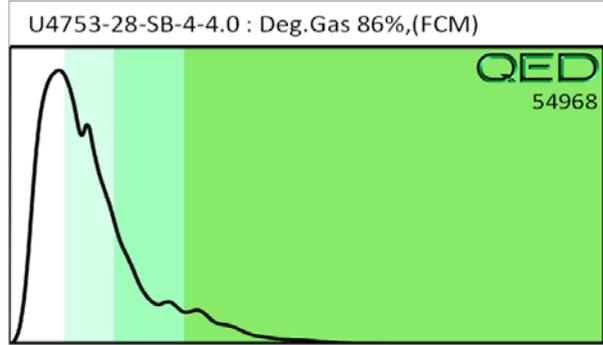
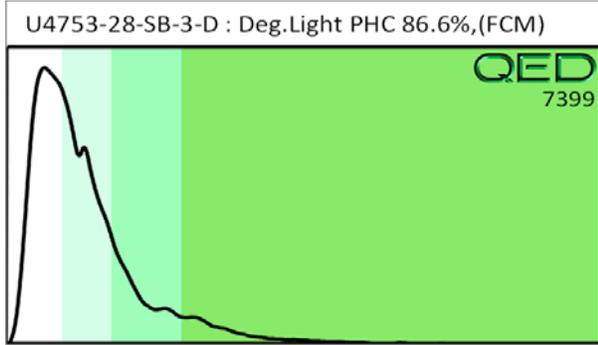
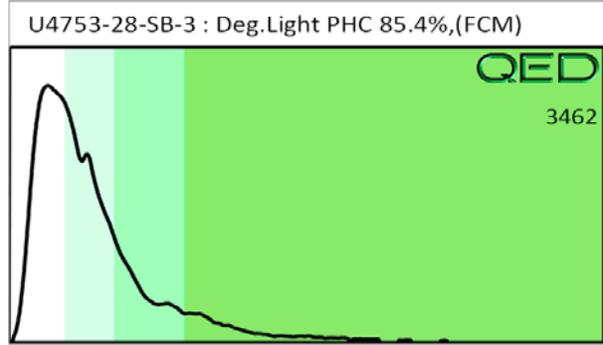
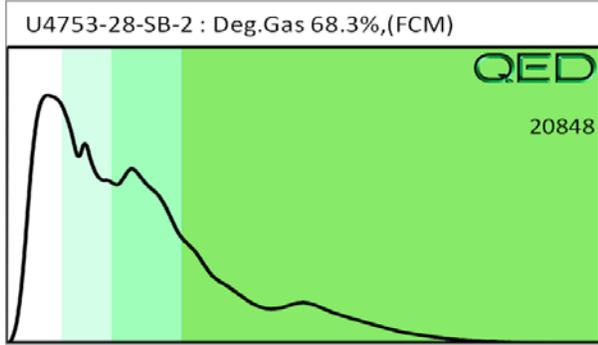
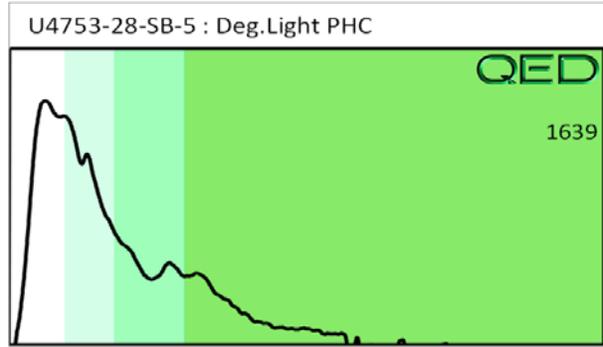
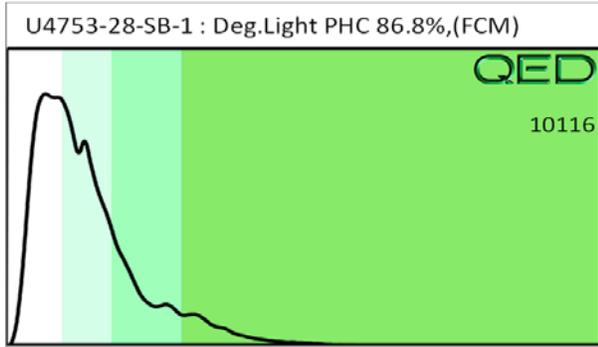
Final FCM QC Check **OK**

101 %

Results generated by a QED HC-1 analyser. Concentration values in mg/kg for soil samples and mg/L for water samples. Soil values are not corrected for moisture or stone content

Fingerprints provide a tentative hydrocarbon identification. The abbreviations are:- FCM = Results calculated using Fundamental Calibration Mode : % = confidence for sample fingerprint match to library

(SBS) or (LBS) = Site Specific or Library Background Subtraction applied to result : (PFM) = Poor Fingerprint Match : (T) = Turbid : (P) = Particulate present



Client Name: G-EL
 Address:
 Contact: Andrew Stahl
 Project Ref.: NCDT04919
 Email: Andrew.Stahl@G-EL.com
 Phone #: 919-819-2510
 Collected by: BPB



RED Lab, LLC
 5598 Marvin K Moss Lane
 MARBIONC Bldg, Suite 2003
 Wilmington, NC 28409

Each UVF sample will be analyzed for total BTEX, GRO, DRO, TPH, PAH total aromatics and BaP. Standard GC Analyses are for BTEX and Chlorinated Solvents: VC, 1,1 DCE, 1,2 cis DCE, 1,2 trans DCE, TCE, and PCE. Specify target analytes in the space provided below.

CHAIN OF CUSTODY AND ANALYTICAL REQUEST FORM

Sample Collection Date/Time	TAT Requested		Analysis Type		Initials	Sample ID	Total Wt.	Tare Wt.	Sample Wt.
	24 Hour	48 Hour	UVF	GC					
7-25-19/1240		X	X		BPB	U4753.28-SB-1	58.2	44.2	14.0
7-25-19/1300		X	X		BPB	U4753.28-SB-5	56.7	43.9	12.8
7-25-19/1330		X	X		BPB	U4753.28-SB-2	57.3	43.9	13.4
7-25-19/1350		X	X		BPB	U4753.28-SB-3	57.2	43.9	13.3
7-25-19/1355		X	X		BPB	U4753.28-SB-3-12	57.1	44.2	12.9
7-25-19/1415		X	X		BPB	U4753.28-SB-4-4.0	57.4	44.3	13.1
7-25-19/1420		X	X		BPB	U4753.28-SB-4-8.0	56.2	43.6	12.6
7-25-19/1435		X	X		BPB	U4753.28-SB-6	57.1	44.1	13.0
7-25-19/1500		X	X		BPB	U4753.28-SB-7	55.6	43.9	11.7
7-25-19/1530		X	X		BPB	U4753.28-SB-8	57.4	44.0	13.4
7-25-19/1640		X	X		BPB	U4753.26-SB-1	57.9	44.3	13.6
7-25-19/1700		X	X		BPB	U4753.26-SB-2	57.3	44.4	12.9
7-25-19/1715		X	X		BPB	U4753.26-SB-3	54.5	44.0	10.5
7-25-19/1735		X	X		BPB	U4753.26-SB-4	55.9	44.3	11.6
7-25-19/1750		X	X		BPB	U4753.26-SB-5	57.2	43.8	13.4
7-26-19/0755		X	X		BPB	U4753.26-SB-6	54.2	44.1	10.1
7-26-19/0820		X	X		BPB	U4753.26-SB-7	58.8	43.8	14.7
7-26-19/0850		X	X		BPB	U4753.26-SB-8	55.4	43.9	11.5
7-26-19/0905		X	X		BPB	U4753.26-SB-9	56.2	43.8	12.4
7-26-19/0925		X	X		BPB	U4753.26-SB-10	58.0	43.9	14.1

COMMENTS/REQUESTS:

TARGET GC/UVF ANALYTES: BTEX, GRO, DRO, TPH, PAH total aromatics, BaP

Relinquished by BP Stahl 7-26-19	Accepted by [Signature]	Date/Time 7/26 12:20
Relinquished by	Accepted by	Date/Time

RED Lab USE ONLY
 20+1 B132
 Ref. No