

Prepared for:

North Carolina Department of Transportation
Geotechnical Engineering Unit
GeoEnvironmental Section
1589 Mail Service Center
Raleigh, North Carolina, 27699-1589

Preliminary Site Assessment Report

Loving T A & Co. Property
Parcel # 70 (a,b,c,d)
2511 N. William Street
Goldsboro, Wayne County, North Carolina
US 117 Alternate from US 70 Bypass to Belfast
TIP Number: U-2714
WBS Element: 38979.1.2



Apex Companies, LLC
10610 Metromont Parkway, Suite 206
Charlotte, North Carolina 28269

Prepared by:

DocuSigned by:

Troy Holzschuh

2D73445FBBB9455...

Troy L. Holzschuh
Assistant Project Manager

Reviewed by:

DocuSigned by:

Kathleen Roush

72DD754524A74DD...

Kathleen Roush, L.G. RSM
Division Manager
NC Geologist License No. 1353



August 16, 2017

not considered final unless all signatures are completed

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1.0 INTRODUCTION

This report presents the results of a Preliminary Site Assessment (PSA) for the North Carolina Department of Transportation (NCDOT) Parcel 70 performed by Apex Companies, LLC (Apex) on behalf of the NCDOT. The subject site of this PSA report will be affected by the widening of the US Highway 117 from US Highway 70 to Belfast Road. The Site is comprised of four parcels and is located at 2511 North William Street and is identified as Parcel 70, Loving T A & Co, Property, within the NCDOT U-2714 design project. The property is located west of the intersection of North William Street and Industry Court in Goldsboro, Wayne County, North Carolina, as shown in the attached Site Location Map (**Figure 1**). The site investigation was conducted in accordance with Apex Company's Technical and Cost proposal dated June 7, 2017.

NCDOT contracted Apex to perform the PSA within the proposed right-of-way (ROW) and/or easement of the Parcel 70 Property due to the potential presence of contamination at the site and the fact that excavation and grading may occur within the area. The PSA was performed to evaluate if soils have been impacted as a result of past and present uses of the property within the proposed investigation area, if buried underground storage tanks (USTs) are present in the area of investigation, and if groundwater is impacted.

The following report presents the results of a ground penetrating radar (GPR) evaluation to identify underground storage tanks (USTs) in the investigation area, and describes the subsurface field investigation at the site. The report includes the evaluation of field screening, as well as field and laboratory analyses with regards to the presence or absence of soil and groundwater contamination within the area of investigation across Parcel 70. **Appendix A** includes a Photograph log for the site.

1.1 Site History

Parcel 70 has been identified with the address of 2511 North William Street. Based on a search of the North Carolina Department of Environmental Quality (NCDEQ) UST database registry, no registered tanks were identified for the 2511 North William Street site. No visual evidence of USTs were noted during field activities. Currently the site operates as T.A. Loving Construction Company. Apex personnel also reviewed the NCDEQ Incident Management Database and no groundwater incidents are associated with this parcel.

1.2 Site Description

The site is located in a mixed commercial and residential area of Goldsboro in Wayne County. The property is currently used as a storage area for T.A. Loving Construction Company. The site is bordered to the north by additional T.A. Loving Construction Company facilities. North

William Street followed by Absolute Perfection Auto Detailing and multiple residential properties border the site to the east. Griffin Steel & Supply borders the property to the south and a railroad track followed by a vacant lot is located to the west. Parcel 70 does not appear on the NCDEQ UST database registry and is not associated with known USTs. The geophysical surveyor, Pyramid Environmental & Engineering, PC, (Pyramid) did not identify anomalies characteristic of a UST in the investigation area.

2.0 GEOLOGY

2.1 Regional Geology

Parcel 70 is located within the Coastal Plain Physiographic Province. The Coastal Plain is the largest physiographic province in the state, covering about 45% of the land area. According to the US Geological Survey Professional Paper 1404-I entitled "Hydrogeologic Framework of the North Carolina Coastal Plain" (Winner and Coble, 1996), the geology consists of an eastward-dipping and eastward-thickening series of sedimentary rocks which range in age from Holocene to Cretaceous. The most common type of sediment types are sand and clay, although a significant amount of limestone occurs in the southern part of the coastal plain. The site overlies the Black Creek Formation. The Black Creek Formation is Late Cretaceous in age and was deposited in a lagoonal to marine environment. It generally consists of thinly laminated gray to black clay with interbedded gray to tan sands. The most notable characteristic of the formation is the high concentration of wood and organic material. Shells and glauconite are also common.

2.2 Site Geology

Site geology was observed through the drilling and sampling of 40 direct push probe soil borings (SB) onsite. Figure 2 presents the boring locations and site layout. Borings did not exceed a total depth of ten feet below ground surface (bgs) since that depth was the maximum excavation depth for proposed drainage features. Soil consisting predominantly of tan silty sand and yellow to orange clayey sand was observed across the parcel from land surface to approximately five feet bgs. Soils five to six feet bgs consist predominantly an orange and white marbled clayey silt, which is underlain to total depth by yellow sand. The soils in the upper five feet are unconsolidated and as a result the borings often collapsed. Groundwater was encountered at approximately five feet bgs. Based on site topography and presence of a surface water body (Lewis Branch) along the northern property boundary, groundwater likely flows northward. However, this would need to be confirmed with the installation of groundwater monitoring wells. Boring logs are presented in **Appendix B**.

3.0 FIELD ACTIVITIES

3.1 Preliminary Activities

Prior to commencing field sampling activities at the site, several tasks were accomplished in preparation for the subsurface investigation. A Health and Safety Plan (HASP) was prepared to include the site-specific health and safety information necessary for the field activities. North Carolina-One Call was contacted on May 31, 2017 to report the proposed drilling activities and notify affected utilities. Apex subcontracted Pyramid to locate subsurface utilities and other subsurface drilling hazards as well as to perform a geophysical survey. Carolina Soil Investigations, LLC (CSI) of Olin, North Carolina was retained by Apex to perform the direct push sampling for soil borings. REDLAB, LLC (REDLAB) provided an ultraviolet fluorescence (UVF) Hydrocarbon Analyzer and Eastern Solutions provided a calibrated Flame Ionization/Photoionization Detector (FID/PID). Boring locations were strategically placed in a pattern within the area of investigation to maximize the opportunity to encounter potentially contaminated soil.

3.2 Site Reconnaissance

Apex personnel performed a site reconnaissance on June 6, 2017. During the site reconnaissance, the area was visually examined for the presence of USTs or areas/obstructions that could potentially affect the subsurface investigation. The proposed boring locations were marked based on the site inspection and geophysical survey results. Apex personnel also used the site visit as an opportunity to contact the property manager/owner to inform them of upcoming field activities.

3.3 Geophysics Survey Results

The geophysical survey of the site was conducted on June 8, 2017. Pyramid performed an electromagnetic (EM) induction metal survey followed by a GPR survey. A copy of the Geophysical Report is presented in **Appendix C**. The results of the geophysical survey did not record any evidence of unknown metallic USTs at the property. Follow-up GPR scans associated with utility locating verified the presence of buried utilities at various locations throughout the survey area.

3.4 Well Survey

No water supply or groundwater monitoring wells were observed on Parcel 70.

3.5 Soil Sampling

Apex conducted drilling activities at the site on June 20, 2017. Apex drilling subcontractor, CSI, advanced 40 direct push soil borings within the proposed investigation area. These 40 boring

locations (P70-SB1 through P70-SB40) were placed in a pattern to maximize the likelihood of intercepting potential soil contamination. **Figure 2** presents the Site Map with boring locations and identifications.

The purpose of soil sampling was to determine if a petroleum release has occurred within the investigation area, and if so, to estimate the volume of impacted soil that might require special handling during construction activities.

Soil sampling was performed utilizing hand auger and direct push methods accompanied by field screening with the FID/PID unit and onsite quantitative analyses with the UVF Hydrocarbon Analyzer. One to two intervals of the soil boring, exhibiting the most elevated FID/PID readings, were selected for onsite quantitative analysis of total petroleum hydrocarbons (TPH) and polycyclic aromatic hydrocarbons (PAH) in soil using the REDLAB UVF Hydrocarbon Analyzer. The analysis was performed onsite by Kristen Hartsen, a certified REDLAB UVF technician with Apex. The UVF results were generated concurrent with soil boring activities so that rapid assessment could be utilized for strategic boring placement.

3.6 Groundwater Sampling

Apex personnel mobilized to the Site on June 20, 2017 to obtain groundwater grab samples. Groundwater grab sample locations were chosen based on data generated from the UVF analyzer and on site conditions such as the likely groundwater gradient and UST locations. The soils encountered were very sandy and unconsolidated in the upper five feet, and as a result the borings would not stand open. Apex instructed CSI personnel to temporarily install a one-inch diameter 10-slot screen into three of the soil borings for the purposes of collecting a groundwater grab sample. Apex personnel collected groundwater grab samples from borings P70-SB1, P70-SB25 and P70-SB30 for onsite quantitative analysis of TPH using the REDLAB UVF Hydrocarbon Analyzer. The analysis was performed onsite by Kristen Hartsen, a certified REDLAB UVF technician with Apex.

4.0 SAMPLING RESULTS

4.1 Soil Sampling Results

Based on FID/PID field screening and onsite UVF hydrocarbon analysis from the June 2017 soil sampling there is no evidence of significant petroleum hydrocarbon impact onsite, within the area of investigation.

Elevated FID/PID readings, above ten parts per million (ppm), were not observed in the borings conducted at the site above the smear zone. The FID readings ranged from non-detectable to

6.4 ppm and the PID readings ranged from non-detectable to 1.3 ppm. The FID/PID field screening results are provided on the boring logs in **Appendix B**.

Soil concentrations of TPH gasoline range organics (GRO) and diesel range organics (DRO) measured using the onsite UVF unit are presented in **Table 1**, with instrument generated tables and chromatographs in **Appendix D**. **Figure 3** presents the TPH-GRO and TPH-DRO results at each boring.

Based on the UVF analyses, TPH-GRO and TPH-DRO was identified in soils on Parcel 70. TPH-GRO concentrations ranged from below detectable levels to 4.2 milligram per kilogram (mg/kg) (P70-SB29). TPH-DRO concentrations ranged from below detectable levels to 96.2 mg/kg (P70-SB30). TPH-GRO concentrations did not exceed the regulatory action level of 50 mg/kg and the TPH-DRO concentrations did not exceed the regulatory action level of 100 mg/kg.

4.2 Groundwater Sampling Results

Apex personnel collected groundwater grab samples from three soil borings (P70-SB1, P70-SB25 and P70-SB30) for onsite quantitative analysis of TPH using the REDLAB UVF Hydrocarbon Analyzer. Based on the real time UVF analysis of the three groundwater grab samples, significant groundwater impact is not present on Parcel 70. Water sample P70-SB1-WATER indicated TPH-GRO concentrations of <0.025 milligrams per liter (mg/L) and TPH-DRO concentrations of <0.03 mg/L, P70-SB25-WATER indicated TPH-GRO concentrations of 0.16 mg/L and TPH-DRO concentrations of <0.03 mg/L and sample P70-SB30-WATER indicated TPH-GRO concentrations 0.13 mg/L and TPH-DRO concentrations of <0.03 mg/L. The groundwater UVF results are tabulated in **Table 1**. The instrument generated tables and chromatographs are included in **Appendix D**. Groundwater analytical data are summarized on **Figure 4**.

5.0 CONCLUSIONS

Based on site observations and onsite UVF analysis, no petroleum-impacted soil contamination was identified above the NCDEQ Action level of 50 mg/kg for TPH-GRO or above the NCDEQ Action level of 100 mg/kg for TPH-DRO. The onsite UVF analysis of groundwater did not indicate significant groundwater contamination to be present.

The following bulleted summary is based upon Apex's evaluation of field observations and onsite quantitative analyses of samples collected from the Site on June 20, 2017.

- Results of the geophysical survey did not produce evidence of anomalies characteristic of USTs.
- Forty soil borings were advanced onsite. Soil samples collected from each boring were analyzed in the field using a REDLAB UVF Hydrocarbon Analyzer.
- Soil samples analyzed using the UVF did not contain either TPH-DRO or TPH-GRO concentrations above their respective NCDEQ Action levels of 100 mg/kg and 50 mg/kg.
- Three groundwater grab samples were collected and analyzed for TPH-DRO and TPH-GRO with the REDLAB UVF Hydrocarbon Analyzer. These samples did not contain any detectable TPH-DRO and TPH-GRO at a maximum concentration of 0.16 mg/L.

6.0 RECOMMENDATIONS

Based on these PSA results, no suspect USTs were identified on the subject property which will require removal. Apex did not identify soil or groundwater impact which will require additional assessment or removal. Apex recommends no further action on this site.

TABLES

Table 1
UVF Onsite Hydrocarbon Analytical Soil and Groundwater Data from June 2017
U-2714, Parcel 70, Loving T A & Co Property
Goldsboro, North Carolina

Sample ID Number	Sample Date	Sample Depth (ft bgs)	GRO (mg/kg) (C5-C10)	DRO (mg/kg) (C10-C35)
SOIL				
NCDEQ Action Level in mg/kg			50	100
P70-SB1	6/19/2017	2	<0.47	0.47
P70-SB2	6/19/2017	2	<0.52	6.1
P70-SB3	6/19/2017	2	<0.54	3.8
P70-SB4	6/19/2017	2	<0.54	17.7
P70-SB5	6/19/2017	2	<0.5	41
P70-SB6	6/19/2017	2	<0.49	0.49
P70-SB7	6/19/2017	2	<0.57	0.75
P70-SB8	6/19/2017	2	<0.51	0.51
P70-SB9	6/19/2017	2	<0.51	0.68
P70-SB10	6/19/2017	2	<0.48	0.48
P70-SB11	6/19/2017	2	<0.52	6.6
P70-SB12	6/19/2017	2	<0.49	55.6
P70-SB13	6/19/2017	2	<0.5	1.8
P70-SB14	6/19/2017	2	<0.5	1.2
P70-SB15	6/19/2017	2	<0.56	<0.56
P70-SB16	6/19/2017	2	<0.49	<0.49
P70-SB17	6/19/2017	2	<0.49	3.9
P70-SB18	6/19/2017	2	1.9	4.1
P70-SB19	6/19/2017	2	<0.58	2.5
P70-SB20	6/19/2017	2	<0.6	16.5
P70-SB21	6/19/2017	2	1.4	10.8
P70-SB22	6/19/2017	2	<0.51	1.9
P70-SB22	6/19/2017	4	<0.51	1.3
P70-SB23	6/19/2017	2	<0.51	0.51

Table 1
UVF Onsite Hydrocarbon Analytical Soil and Groundwater Data from June 2017
U-2714, Parcel 70, Loving T A & Co Property
Goldsboro, North Carolina

Sample ID Number	Sample Date	Sample Depth (ft bgs)	GRO (mg/kg) (C5-C10)	DRO (mg/kg) (C10-C35)
P70-SB24	6/19/2017	2	<0.56	<0.56
P70-SB25	6/19/2017	2	<0.48	<0.48
P70-SB26	6/19/2017	2	<0.59	1.6
P70-SB27	6/19/2017	2	<0.52	1.9
P70-SB28	6/19/2017	2	<0.21	<0.21
P70-SB29	6/20/2017	2	4.2	9.3
P70-SB30	6/20/2017	2	<2.6	96.2
P70-SB31	6/20/2017	2	<0.52	0.52
P70-SB32	6/20/2017	2	<0.51	10.4
P70-SB33	6/20/2017	2	<0.5	33.8
P70-SB34	6/20/2017	2	<0.53	36.1
P70-SB35	6/20/2017	2	<1	<1
P70-SB36	6/20/2017	2	<0.49	<0.49
P70-SB37	6/20/2017	2	<0.59	<0.59
P70-SB38	6/20/2017	1	<0.57	<0.57
P70-SB39	6/20/2017	1	<0.5	0.65
P70-SB40	6/20/2017	1	0.57	0.57
GROUNDWATER (mg/L)				
P70-SB1-WATER	6/20/2017	NM	<0.025	<0.03
P70-SB25-WATER	6/20/2017	NM	0.16	<0.03
P70-SB30-WATER	6/20/2017	NM	0.13	<0.03

NOTES:

(mg/kg) = Milligrams per kilogram

(mg/L) = Milligrams per liter

GRO = Gasoline Range Organics

DRO = Diesel Range Organics

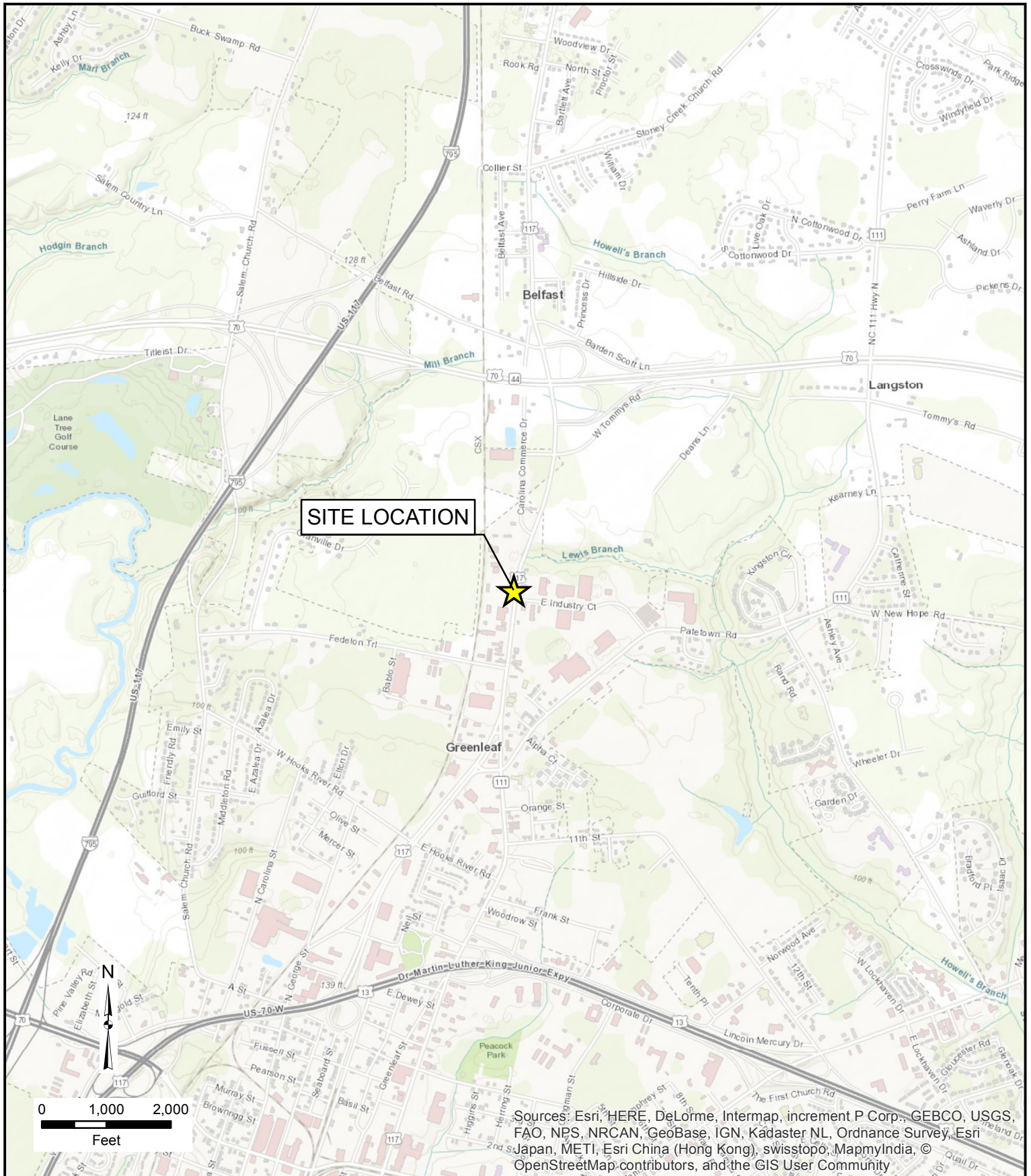
ft bgs = feet below ground surface

NM = Not Measured

TPH - GRO values in exceedance of NCDEQ Action Level of 50 mg/kg are shown in Bold

TPH - DRO values in exceedance of NCDEQ Action Level of 100 mg/kg are shown in Bold

FIGURES



CHECK BY: TH
DRAWN BY: SP
DATE: 7/17/17
SCALE: AS SHOWN
CAD NO.: 510497-003
PRJ NO.: 510497-003

SITE LOCATION MAP
PARCELS #70 (a,b,c,D)
N. US 117 HWY OR 2511 N. WILLIAM STREET
GOLDSBORO, NORTH CAROLINA



FIGURE
1

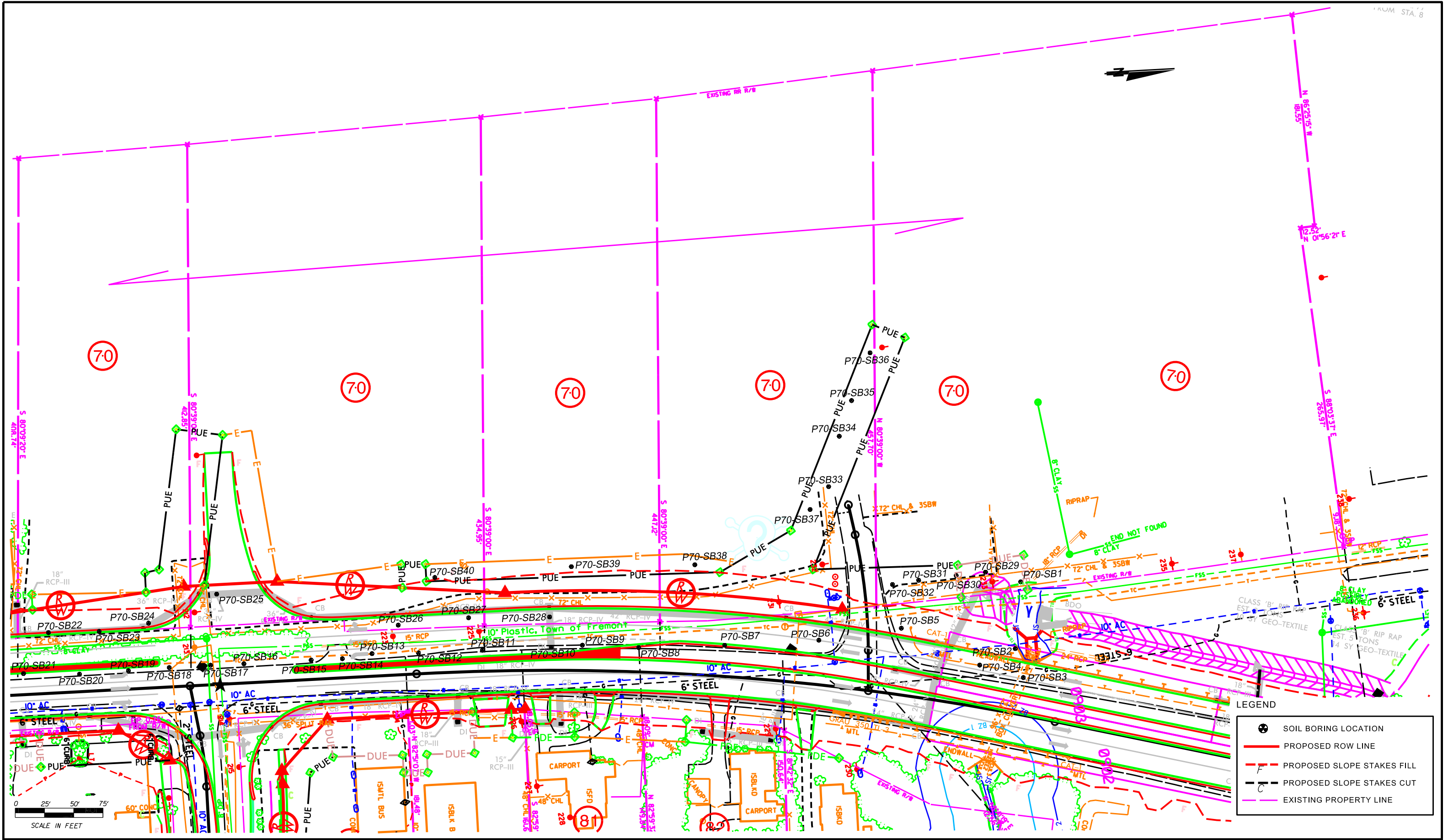


FIGURE 2
 PARCEL 70 (a,b,c,d)
 SITE MAP WITH SOIL BORING
 LOCATIONS



LEGEND

- SOIL BORING LOCATION
- PROPOSED ROW LINE
- PROPOSED SLOPE STAKES FILL
- PROPOSED SLOPE STAKES CUT
- EXISTING PROPERTY LINE

Date:	7/15/17	GOLDSBORO U-2714
Proj. #	510497-003	
pc_70_fig 2.dgn		Project Title:
CAD File:		1" = 75'
Approx. Scale:		Drawn by: MJO
		Client: NC DOT

Sample Identification	P70-SB14
Sample Depth (Feet bgs)	2
TPH GRO (mg/kg)	<0.5
THP DRO (mg/kg)	1.2

Sample Identification	P70-SB15
Sample Depth (Feet bgs)	2
TPH GRO (mg/kg)	<0.56
THP DRO (mg/kg)	<0.56

Sample Identification	P70-SB25
Sample Depth (Feet bgs)	2
TPH GRO (mg/kg)	<0.48
THP DRO (mg/kg)	<0.48

Sample Identification	P70-SB24
Sample Depth (Feet bgs)	2
TPH GRO (mg/kg)	<0.56
THP DRO (mg/kg)	<0.56

Sample Identification	P70-SB23
Sample Depth (Feet bgs)	2
TPH GRO (mg/kg)	<0.51
THP DRO (mg/kg)	0.51

Sample Identification	P70-SB22
Sample Depth (Feet bgs)	2
TPH GRO (mg/kg)	<0.51
THP DRO (mg/kg)	1.9
Sample Depth (Feet bgs)	4
TPH GRO (mg/kg)	<0.51
THP DRO (mg/kg)	1.3

Sample Identification	P70-SB13
Sample Depth (Feet bgs)	2
TPH GRO (mg/kg)	<0.5
THP DRO (mg/kg)	1.8

Sample Identification	P70-SB26
Sample Depth (Feet bgs)	2
TPH GRO (mg/kg)	<0.59
THP DRO (mg/kg)	1.6

Sample Identification	P70-SB12
Sample Depth (Feet bgs)	2
TPH GRO (mg/kg)	<0.49
THP DRO (mg/kg)	55.6

Sample Identification	P70-SB40
Sample Depth (Feet bgs)	1
TPH GRO (mg/kg)	0.57
THP DRO (mg/kg)	0.57

Sample Identification	P70-SB27
Sample Depth (Feet bgs)	2
TPH GRO (mg/kg)	<0.52
THP DRO (mg/kg)	1.9

Sample Identification	P70-SB28
Sample Depth (Feet bgs)	2
TPH GRO (mg/kg)	<0.21
THP DRO (mg/kg)	<0.21

Sample Identification	P70-SB39
Sample Depth (Feet bgs)	1
TPH GRO (mg/kg)	<0.5
THP DRO (mg/kg)	0.65

Sample Identification	P70-SB38
Sample Depth (Feet bgs)	1
TPH GRO (mg/kg)	<0.57
THP DRO (mg/kg)	<0.57

Sample Identification	P70-SB36
Sample Depth (Feet bgs)	2
TPH GRO (mg/kg)	<0.49
THP DRO (mg/kg)	<0.49

Sample Identification	P70-SB35
Sample Depth (Feet bgs)	2
TPH GRO (mg/kg)	<1
THP DRO (mg/kg)	<1

Sample Identification	P70-SB34
Sample Depth (Feet bgs)	2
TPH GRO (mg/kg)	<0.53
THP DRO (mg/kg)	36.1

Sample Identification	P70-SB33
Sample Depth (Feet bgs)	2
TPH GRO (mg/kg)	<0.5
THP DRO (mg/kg)	33.8

Sample Identification	P70-SB37
Sample Depth (Feet bgs)	2
TPH GRO (mg/kg)	<0.59
THP DRO (mg/kg)	<0.59

Sample Identification	P70-SB29
Sample Depth (Feet bgs)	2
TPH GRO (mg/kg)	4.27
THP DRO (mg/kg)	9.3

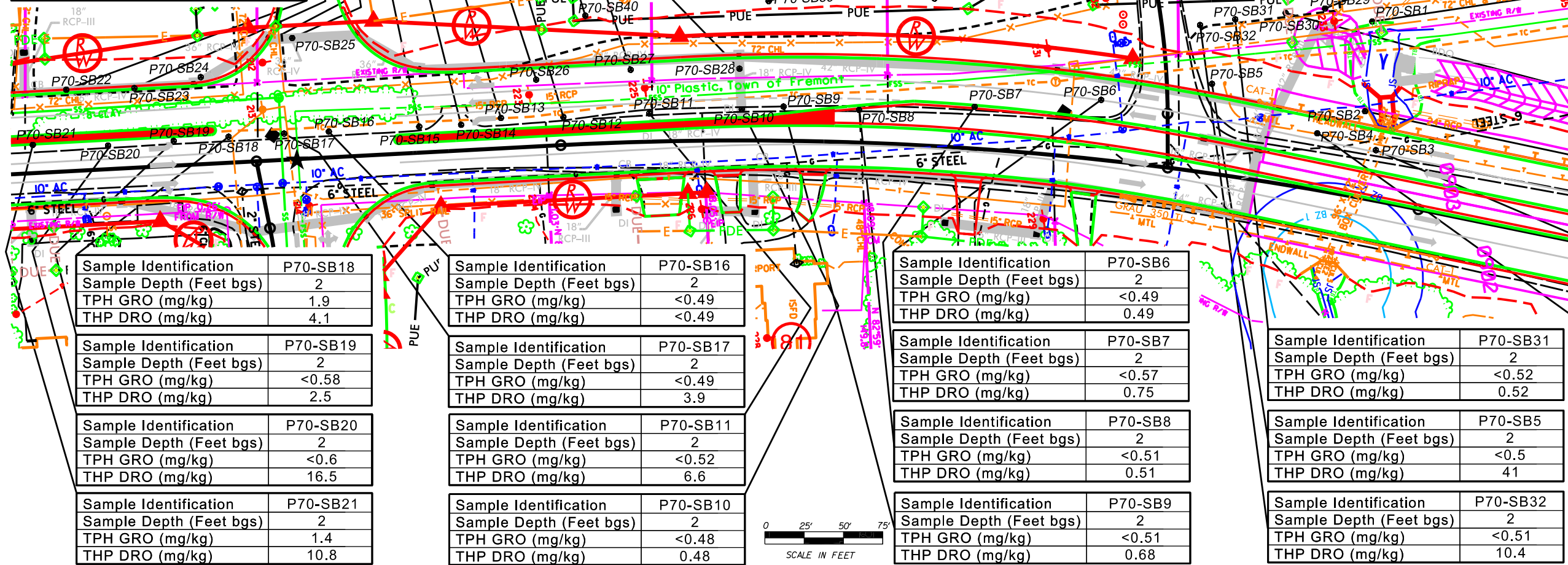
Sample Identification	P70-SB1
Sample Depth (Feet bgs)	2
TPH GRO (mg/kg)	<0.47
THP DRO (mg/kg)	0.47

Sample Identification	P70-SB30
Sample Depth (Feet bgs)	2
TPH GRO (mg/kg)	<2.6
THP DRO (mg/kg)	96.2

Sample Identification	P70-SB2
Sample Depth (Feet bgs)	2
TPH GRO (mg/kg)	<0.52
THP DRO (mg/kg)	6.1

Sample Identification	P70-SB3
Sample Depth (Feet bgs)	2
TPH GRO (mg/kg)	<0.54
THP DRO (mg/kg)	3.8

Sample Identification	P70-SB4
Sample Depth (Feet bgs)	2
TPH GRO (mg/kg)	<0.54
THP DRO (mg/kg)	17.7



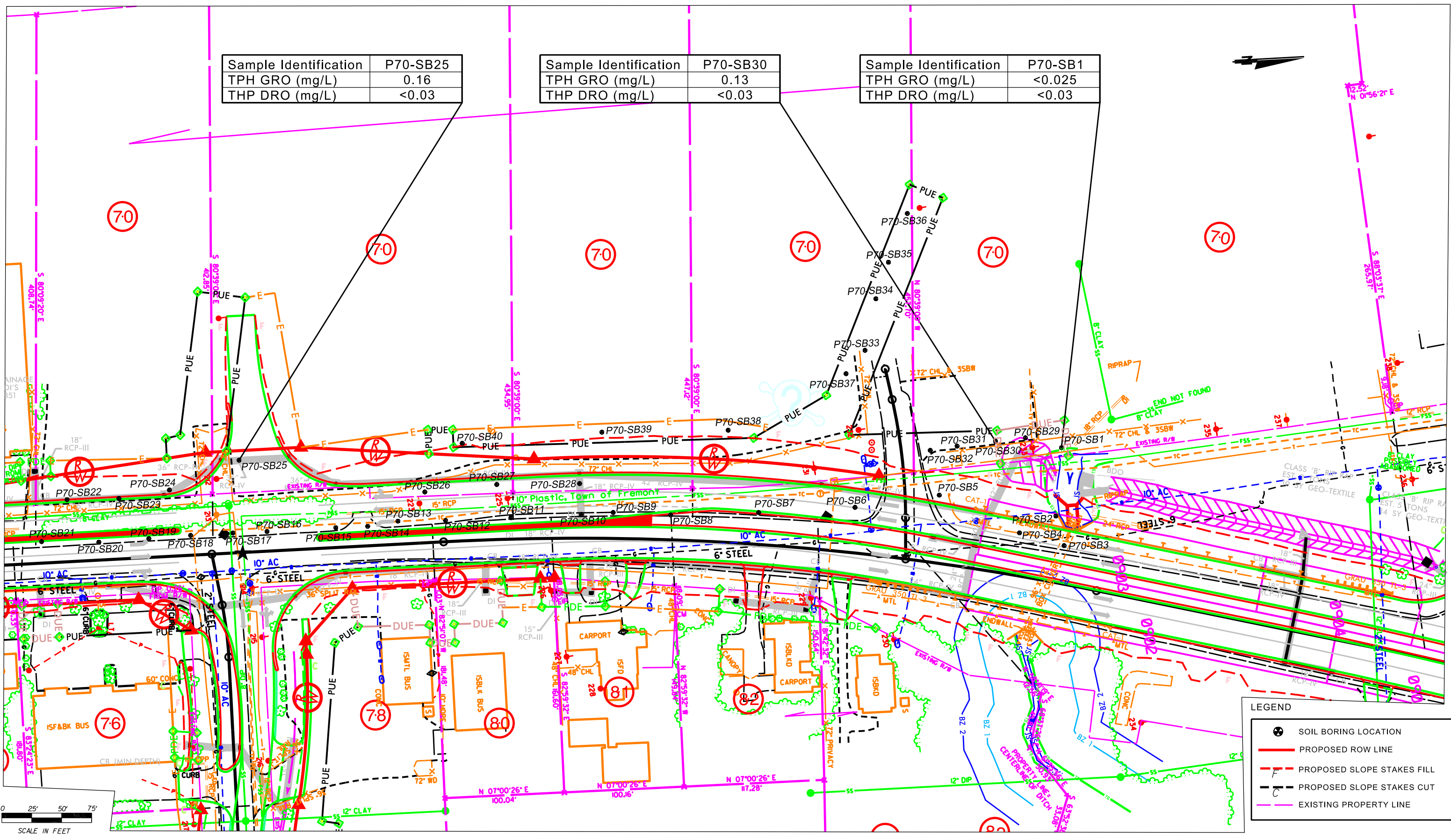
LEGEND

	SOIL BORING LOCATION
	PROPOSED ROW LINE
	PROPOSED SLOPE STAKES FILL
	PROPOSED SLOPE STAKES CUT
	EXISTING PROPERTY LINE



FIGURE 3
 PARCEL 61/61a
 ONSITE UVF HYDROCARBON
 ANALYSIS RESULTS - SOIL
 6/20/17

Date:	7/15/17	GOLDSBORO U-2714		
Proj. #	510497-003			
pc_70_fig 2.dgn		Project Title:		
CAD File:		1" = 75'	MJO	NC DOT
Approx. Scale:		Drawn by:		



Sample Identification	P70-SB25
TPH GRO (mg/L)	0.16
THP DRO (mg/L)	<0.03

Sample Identification	P70-SB30
TPH GRO (mg/L)	0.13
THP DRO (mg/L)	<0.03

Sample Identification	P70-SB1
TPH GRO (mg/L)	<0.025
THP DRO (mg/L)	<0.03

LEGEND	
	SOIL BORING LOCATION
	PROPOSED ROW LINE
	PROPOSED SLOPE STAKES FILL
	PROPOSED SLOPE STAKES CUT
	EXISTING PROPERTY LINE

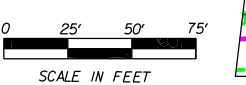


FIGURE 4
 PARCEL 70(a,b,c,d)
 ONSITE UVF HYDROCARBON
 ANALYSIS RESULTS -
 GROUNDWATER 6/19/17

APPENDIX A
PHOTOGRAPH LOG



Photo 1

Overview of site prior to preliminary site assessment activities.



Photo 2

View of site from the southeast corner looking north.



Photo 3

View of CSI hand clearing for utilities.



Photo 4

View of CSI preparing to drill using direct push technology.

APPENDIX B
BORING LOGS



Apex Companies, LLC

Boring Log

Boring/Well No.: P70-SB-1	Site Name: Parcel 70 - Loving T A & Co Property
Date: 06/19/17	Location: Goldsboro, Wayne County, NC
Job No.: 510497-003	Sample Method: Hand Auger and Direct Push
Apex Rep: Troy L. Holzschuh	Drilling Method: Hand Auger and Direct Push
Drilling Company: Carolina Soil Investigations	Driller Name/Cert #: Danny Summers / 2579

Remarks:

Depth (ft) BLS)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
				Grass
1				White Sand, Fine, Dry
2	0	0	Sample at 2'	Brown, Clayey Silt
3				
4	0	0		Water
5				Black, Silty Sand, Fine
6	0	0		
7				
8	0	0		Yellow Sand, Medium
9				
10	0	0		
				Boring terminated at 10 feet
11				
12				
13				
14				

WELL CONSTRUCTION DETAILS (If Applicable)	
Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



Apex Companies, LLC

Boring Log

Boring/Well No.: P70-SB-2	Site Name: Parcel 70 - Loving T A & Co Property
Date: 06/19/17	Location: Goldsboro, Wayne County, NC
Job No.: 510497-003	Sample Method: Hand Auger and Direct Push
Apex Rep: Troy L. Holzschuh	Drilling Method: Hand Auger and Direct Push
Drilling Company: Carolina Soil Investigations	Driller Name/Cert #: Danny Summers / 2579

Remarks:

Depth (ft BLS)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
				Grass
1				Tan Silt, Dry
2	0	0	Sample at 2'	Tan, Silty Sand
3				
4	0	0		
5				Water
Boring terminated at 5 feet				
6				
7				
8				
9				
10				
11				
12				
13				
14				

WELL CONSTRUCTION DETAILS (If Applicable)

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



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Boring Log

Boring/Well No.: P70-SB-3	Site Name: Parcel 70 - Loving T A & Co Property
Date: 06/19/17	Location: Goldsboro, Wayne County, NC
Job No.: 510497-003	Sample Method: Hand Auger and Direct Push
Apex Rep: Troy L. Holzschuh	Drilling Method: Hand Auger and Direct Push
Drilling Company: Carolina Soil Investigations	Driller Name/Cert #: Danny Summers / 2579

Remarks:

Depth (ft) BLS)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
				Grass
1				Tan Silt
2	3.2	0	Sample at 2'	Tan, Silty Sand, Fine
3				
4	0	0		Orange, Clayey Silt
5				Water
Boring terminated at 5 feet				
6				
7				
8				
9				
10				
11				
12				
13				
14				

WELL CONSTRUCTION DETAILS (If Applicable)

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



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Boring Log

Boring/Well No.: P70-SB-4	Site Name: Parcel 70 - Loving T A & Co Property
Date: 06/19/17	Location: Goldsboro, Wayne County, NC
Job No.: 510497-003	Sample Method: Hand Auger and Direct Push
Apex Rep: Troy L. Holzschuh	Drilling Method: Hand Auger and Direct Push
Drilling Company: Carolina Soil Investigations	Driller Name/Cert #: Danny Summers / 2579

Remarks:

Depth (ft BLS)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
				Grass
1				Tan Silt
2	4.1	0	Sample at 2'	Tan, Silty Sand
3				
4	0	0		
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				

WELL CONSTRUCTION DETAILS (If Applicable)

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



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Boring Log

Boring/Well No.: P70-SB-5	Site Name: Parcel 70 - Loving T A & Co Property
Date: 06/19/17	Location: Goldsboro, Wayne County, NC
Job No.: 510497-003	Sample Method: Hand Auger and Direct Push
Apex Rep: Troy L. Holzschuh	Drilling Method: Hand Auger and Direct Push
Drilling Company: Carolina Soil Investigations	Driller Name/Cert #: Danny Summers / 2579

Remarks:

Depth BLS)	(ft)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
					Grass
1					Tan Silt
2		0	0	Sample at 2'	Brown, Silty Sand, Fine
3					
4		0	0		
5					
					Boring terminated at 5 feet
6					
7					
8					
9					
10					
11					
12					
13					
14					

WELL CONSTRUCTION DETAILS (If Applicable)

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



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Boring Log

Boring/Well No.: P70-SB-6	Site Name: Parcel 70 - Loving T A & Co Property
Date: 06/19/17	Location: Goldsboro, Wayne County, NC
Job No.: 510497-003	Sample Method: Hand Auger and Direct Push
Apex Rep: Troy L. Holzschuh	Drilling Method: Hand Auger and Direct Push
Drilling Company: Carolina Soil Investigations	Driller Name/Cert #: Danny Summers / 2579

Remarks:

Depth BLS)	(ft)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
					Grass
1					
2		0	0	Sample at 2'	Tan, Silty Sand
3					
4		0	0		Orange, Clayey Silt
5					Boring terminated at 5 feet
6					
7					
8					
9					
10					
11					
12					
13					
14					

WELL CONSTRUCTION DETAILS (If Applicable)

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



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Boring Log

Boring/Well No.: P70-SB-7	Site Name: Parcel 70 - Loving T A & Co Property
Date: 06/19/17	Location: Goldsboro, Wayne County, NC
Job No.: 510497-003	Sample Method: Hand Auger and Direct Push
Apex Rep: Troy L. Holzschuh	Drilling Method: Hand Auger and Direct Push
Drilling Company: Carolina Soil Investigations	Driller Name/Cert #: Danny Summers / 2579

Remarks:

Depth (ft BLS)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
				Grass
1				Tan Silt
2	0	0	Sample at 2'	Tan, Sandy Silt
3				
4	0	0		Orange, Clayey Silt
5				
				Boring terminated at 5 feet
6				
7				
8				
9				
10				
11				
12				
13				
14				

WELL CONSTRUCTION DETAILS (If Applicable)

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



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Boring Log

Boring/Well No.: P70-SB-8	Site Name: Parcel 70 - Loving T A & Co Property
Date: 06/19/17	Location: Goldsboro, Wayne County, NC
Job No.: 510497-003	Sample Method: Hand Auger and Direct Push
Apex Rep: Troy L. Holzschuh	Drilling Method: Hand Auger and Direct Push
Drilling Company: Carolina Soil Investigations	Driller Name/Cert #: Danny Summers / 2579

Remarks:

Depth (ft) BLS)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
				Grass
1				Tan Silt
2	0	0	Sample at 2'	Tan, Sandy Silt
3				
4	0	0		Orange, Clayey Silt
5				
Boring terminated at 5 feet				
6				
7				
8				
9				
10				
11				
12				
13				
14				

WELL CONSTRUCTION DETAILS (If Applicable)

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



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Boring Log

Boring/Well No.: P70-SB-9	Site Name: Parcel 70 - Loving T A & Co Property
Date: 06/19/17	Location: Goldsboro, Wayne County, NC
Job No.: 510497-003	Sample Method: Hand Auger and Direct Push
Apex Rep: Troy L. Holzschuh	Drilling Method: Hand Auger and Direct Push
Drilling Company: Carolina Soil Investigations	Driller Name/Cert #: Danny Summers / 2579

Remarks:

Depth BLS)	(ft)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
					Grass
1					Tan Silt
2		0	0	Sample at 2'	Tan, Silty Sand
3					
4		0	0		Orange, Sandy Silt
5					
					Boring terminated at 5 feet
6					
7					
8					
9					
10					
11					
12					
13					
14					

WELL CONSTRUCTION DETAILS (If Applicable)

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



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Boring Log

Boring/Well No.: P70-SB-10	Site Name: Parcel 70 - Loving T A & Co Property
Date: 06/19/17	Location: Goldsboro, Wayne County, NC
Job No.: 510497-003	Sample Method: Hand Auger and Direct Push
Apex Rep: Troy L. Holzschuh	Drilling Method: Hand Auger and Direct Push
Drilling Company: Carolina Soil Investigations	Driller Name/Cert #: Danny Summers / 2579

Remarks:

Depth BLS)	(ft)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
					Grass
1					Tan Silt
2		0	0	Sample at 2'	Tan, Silty Sand
3					
4		0	0		
5					
					Boring terminated at 5 feet
6					
7					
8					
9					
10					
11					
12					
13					
14					

WELL CONSTRUCTION DETAILS (If Applicable)

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



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Boring Log

Boring/Well No.: P70-SB-11	Site Name: Parcel 70 - Loving T A & Co Property
Date: 06/19/17	Location: Goldsboro, Wayne County, NC
Job No.: 510497-003	Sample Method: Hand Auger and Direct Push
Apex Rep: Troy L. Holzschuh	Drilling Method: Hand Auger and Direct Push
Drilling Company: Carolina Soil Investigations	Driller Name/Cert #: Danny Summers / 2579

Remarks:

Depth (ft) BLS)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
				Grass
1				Tan Silt
2	0	0	Sample at 2'	Tan, Silty Sand
3				
4	0	0		
5				
				Boring terminated at 5 feet
6				
7				
8				
9				
10				
11				
12				
13				
14				

WELL CONSTRUCTION DETAILS (If Applicable)

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



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Boring Log

Boring/Well No.: P70-SB-12	Site Name: Parcel 70 - Loving T A & Co Property
Date: 06/19/17	Location: Goldsboro, Wayne County, NC
Job No.: 510497-003	Sample Method: Hand Auger and Direct Push
Apex Rep: Troy L. Holzschuh	Drilling Method: Hand Auger and Direct Push
Drilling Company: Carolina Soil Investigations	Driller Name/Cert #: Danny Summers / 2579

Remarks:

Depth BLS)	(ft)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
					Grass
1					Tan Silt
2		0	0	Sample at 2'	Tan, Silty Sand
3					
4		0	0		
5					
					Boring terminated at 5 feet
6					
7					
8					
9					
10					
11					
12					
13					
14					

WELL CONSTRUCTION DETAILS (If Applicable)

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



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Boring Log

Boring/Well No.: P70-SB-13	Site Name: Parcel 70 - Loving T A & Co Property
Date: 06/19/17	Location: Goldsboro, Wayne County, NC
Job No.: 510497-003	Sample Method: Hand Auger and Direct Push
Apex Rep: Troy L. Holzschuh	Drilling Method: Hand Auger and Direct Push
Drilling Company: Carolina Soil Investigations	Driller Name/Cert #: Danny Summers / 2579

Remarks:

Depth (ft) BLS)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
				Grass
1				Tan Silt
2	0	0	Sample at 2'	Tan, Silty Sand
3				
4	0	0		
5				
				Boring terminated at 5 feet
6				
7				
8				
9				
10				
11				
12				
13				
14				

WELL CONSTRUCTION DETAILS (If Applicable)

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



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Boring Log

Boring/Well No.: P70-SB-14	Site Name: Parcel 70 - Loving T A & Co Property
Date: 06/19/17	Location: Goldsboro, Wayne County, NC
Job No.: 510497-003	Sample Method: Hand Auger and Direct Push
Apex Rep: Troy L. Holzschuh	Drilling Method: Hand Auger and Direct Push
Drilling Company: Carolina Soil Investigations	Driller Name/Cert #: Danny Summers / 2579

Remarks:

Depth (ft) BLS)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
				Grass
1				Tan Silt
2	0	0	Sample at 2'	Tan, Silty Sand, Fine
3				
4	0	0		
5				
				Boring terminated at 5 feet
6				
7				
8				
9				
10				
11				
12				
13				
14				

WELL CONSTRUCTION DETAILS (If Applicable)	
Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



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Boring Log

Boring/Well No.: P70-SB-15	Site Name: Parcel 70 - Loving T A & Co Property
Date: 06/19/17	Location: Goldsboro, Wayne County, NC
Job No.: 510497-003	Sample Method: Hand Auger and Direct Push
Apex Rep: Troy L. Holzschuh	Drilling Method: Hand Auger and Direct Push
Drilling Company: Carolina Soil Investigations	Driller Name/Cert #: Danny Summers / 2579

Remarks:

Depth BLS)	(ft)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
					Grass
1					Tan Silt
2		0	0	Sample at 2'	Tan, Silty Sand, Fine
3					
4		0	0		
5					
					Boring terminated at 5 feet
6					
7					
8					
9					
10					
11					
12					
13					
14					

WELL CONSTRUCTION DETAILS (If Applicable)

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



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Boring Log

Boring/Well No.: P70-SB-16	Site Name: Parcel 70 - Loving T A & Co Property
Date: 06/19/17	Location: Goldsboro, Wayne County, NC
Job No.: 510497-003	Sample Method: Hand Auger and Direct Push
Apex Rep: Troy L. Holzschuh	Drilling Method: Hand Auger and Direct Push
Drilling Company: Carolina Soil Investigations	Driller Name/Cert #: Danny Summers / 2579

Remarks:

Depth (ft) BLS)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
				Grass
1				Tan Silt
2	0	0	Sample at 2'	Tan, Sandy Silt
3				
4	0	0		
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				

WELL CONSTRUCTION DETAILS (If Applicable)	
Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



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Boring Log

Boring/Well No.: P70-SB-17	Site Name: Parcel 70 - Loving T A & Co Property
Date: 06/19/17	Location: Goldsboro, Wayne County, NC
Job No.: 510497-003	Sample Method: Hand Auger and Direct Push
Apex Rep: Troy L. Holzschuh	Drilling Method: Hand Auger and Direct Push
Drilling Company: Carolina Soil Investigations	Driller Name/Cert #: Danny Summers / 2579

Remarks:

Depth BLS)	(ft)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
					Grass
1					Tan Silt
2		0	0	Sample at 2'	Tan, Sandy Silt
3					
4		0	0		
5					
					Boring terminated at 5 feet
6					
7					
8					
9					
10					
11					
12					
13					
14					

WELL CONSTRUCTION DETAILS (If Applicable)

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



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Boring Log

Boring/Well No.: P70-SB-18	Site Name: Parcel 70 - Loving T A & Co Property
Date: 06/19/17	Location: Goldsboro, Wayne County, NC
Job No.: 510497-003	Sample Method: Hand Auger and Direct Push
Apex Rep: Troy L. Holzschuh	Drilling Method: Hand Auger and Direct Push
Drilling Company: Carolina Soil Investigations	Driller Name/Cert #: Danny Summers / 2579

Remarks:

Depth BLS)	(ft)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
					Grass
1					Tan Silt
2		0	0	Sample at 2'	Tan, Sandy Silt
3					
4		0	0		
5					
					Boring terminated at 5 feet
6					
7					
8					
9					
10					
11					
12					
13					
14					

WELL CONSTRUCTION DETAILS (If Applicable)

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



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Boring Log

Boring/Well No.: P70-SB-19	Site Name: Parcel 70 - Loving T A & Co Property
Date: 06/19/17	Location: Goldsboro, Wayne County, NC
Job No.: 510497-003	Sample Method: Hand Auger and Direct Push
Apex Rep: Troy L. Holzschuh	Drilling Method: Hand Auger and Direct Push
Drilling Company: Carolina Soil Investigations	Driller Name/Cert #: Danny Summers / 2579

Remarks:

Depth (ft) BLS)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
				Grass
1				Tan Silt
2	0	0	Sample at 2'	Tan, Sandy Silt
3				
4	0	0		
5				
				Boring terminated at 5 feet
6				
7				
8				
9				
10				
11				
12				
13				
14				

WELL CONSTRUCTION DETAILS (If Applicable)

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



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Boring Log

Boring/Well No.: P70-SB-20	Site Name: Parcel 70 - Loving T A & Co Property
Date: 06/19/17	Location: Goldsboro, Wayne County, NC
Job No.: 510497-003	Sample Method: Hand Auger and Direct Push
Apex Rep: Troy L. Holzschuh	Drilling Method: Hand Auger and Direct Push
Drilling Company: Carolina Soil Investigations	Driller Name/Cert #: Danny Summers / 2579

Remarks:

Depth BLS)	(ft)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
					Grass
1					
2		0	0	Sample at 2'	Brown Sand, Fine
3					
4		0	0		Orange, Clayey Sand
5					
Boring terminated at 5 feet					
6					
7					
8					
9					
10					
11					
12					
13					
14					

WELL CONSTRUCTION DETAILS (If Applicable)

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



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Boring Log

Boring/Well No.: P70-SB-21	Site Name: Parcel 70 - Loving T A & Co Property
Date: 06/19/17	Location: Goldsboro, Wayne County, NC
Job No.: 510497-003	Sample Method: Hand Auger and Direct Push
Apex Rep: Troy L. Holzschuh	Drilling Method: Hand Auger and Direct Push
Drilling Company: Carolina Soil Investigations	Driller Name/Cert #: Danny Summers / 2579

Remarks:

Depth BLS)	(ft)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
					Grass
1					Brown Sand
2		0	0	Sample at 2'	
3					Orange, Clayey Sand
4		0	0		
5					
					Boring terminated at 5 feet
6					
7					
8					
9					
10					
11					
12					
13					
14					

WELL CONSTRUCTION DETAILS (If Applicable)

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



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Boring Log

Boring/Well No.: P70-SB-22	Site Name: Parcel 70 - Loving T A & Co Property
Date: 06/19/17	Location: Goldsboro, Wayne County, NC
Job No.: 510497-003	Sample Method: Hand Auger and Direct Push
Apex Rep: Troy L. Holzschuh	Drilling Method: Hand Auger and Direct Push
Drilling Company: Carolina Soil Investigations	Driller Name/Cert #: Danny Summers / 2579

Remarks:

Depth (ft) BLS)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
				Grass
1				White Sand
2	0	0	Sample at 2'	Tan Sand
3				
4	0	0		Yellow, Clayey Sand
5				
Boring terminated at 5 feet				
6				
7				
8				
9				
10				
11				
12				
13				
14				

WELL CONSTRUCTION DETAILS (If Applicable)

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



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Boring Log

Boring/Well No.: P70-SB-23	Site Name: Parcel 70 - Loving T A & Co Property
Date: 06/19/17	Location: Goldsboro, Wayne County, NC
Job No.: 510497-003	Sample Method: Hand Auger and Direct Push
Apex Rep: Troy L. Holzschuh	Drilling Method: Hand Auger and Direct Push
Drilling Company: Carolina Soil Investigations	Driller Name/Cert #: Danny Summers / 2579

Remarks:

Depth (ft) BLS)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
1				Grass
2	0	0	Sample at 2'	Tan Silt
3				
4	0	0		Yellow, Clayey Sand
5				Boring terminated at 5 feet
6				
7				
8				
9				
10				
11				
12				
13				
14				

WELL CONSTRUCTION DETAILS (If Applicable)

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



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Boring Log

Boring/Well No.: P70-SB-24	Site Name: Parcel 70 - Loving T A & Co Property
Date: 06/19/17	Location: Goldsboro, Wayne County, NC
Job No.: 510497-003	Sample Method: Hand Auger and Direct Push
Apex Rep: Troy L. Holzschuh	Drilling Method: Hand Auger and Direct Push
Drilling Company: Carolina Soil Investigations	Driller Name/Cert #: Danny Summers / 2579

Remarks:

Depth (ft) BLS)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
				Grass
1				White Sand
2	0	0	Sample at 2'	White, Silty Sand
3				
4	0	0		Yellow, Clayey Sand
5				
Boring terminated at 5 feet				
6				
7				
8				
9				
10				
11				
12				
13				
14				

WELL CONSTRUCTION DETAILS (If Applicable)

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



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Boring Log

Boring/Well No.: P70-SB-25	Site Name: Parcel 70 - Loving T A & Co Property
Date: 06/19/17	Location: Goldsboro, Wayne County, NC
Job No.: 510497-003	Sample Method: Hand Auger and Direct Push
Apex Rep: Troy L. Holzschuh	Drilling Method: Hand Auger and Direct Push
Drilling Company: Carolina Soil Investigations	Driller Name/Cert #: Danny Summers / 2579

Remarks:

Depth (ft) BLS)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
				Grass
1				Tan, Silty Sand
2	0	1.3	Sample at 2'	
3				
4	0	1.2		
5				Tan and Orange Marbled, Clayey Sand
6	0	1.3		
7				Yellow Sand, Medium
8	0	1.6		
9				
10	0	1.7		
				Boring terminated at 10 feet
11				
12				
13				
14				

WELL CONSTRUCTION DETAILS (If Applicable)	
Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



Apex Companies, LLC

Boring Log

Boring/Well No.: P70-SB-26	Site Name: Parcel 70 - Loving T A & Co Property
Date: 06/19/17	Location: Goldsboro, Wayne County, NC
Job No.: 510497-003	Sample Method: Hand Auger and Direct Push
Apex Rep: Troy L. Holzschuh	Drilling Method: Hand Auger and Direct Push
Drilling Company: Carolina Soil Investigations	Driller Name/Cert #: Danny Summers / 2579

Remarks:

Depth (ft) BLS)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
				Grass
1				Tan Sand, Fine
2	0	0	Sample at 2'	
3				
4	0	0		
5				
				Boring terminated at 5 feet
6				
7				
8				
9				
10				
11				
12				
13				
14				

WELL CONSTRUCTION DETAILS (If Applicable)

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



Apex Companies, LLC

Boring Log

Boring/Well No.: P70-SB-27	Site Name: Parcel 70 - Loving T A & Co Property
Date: 06/19/17	Location: Goldsboro, Wayne County, NC
Job No.: 510497-003	Sample Method: Hand Auger and Direct Push
Apex Rep: Troy L. Holzschuh	Drilling Method: Hand Auger and Direct Push
Drilling Company: Carolina Soil Investigations	Driller Name/Cert #: Danny Summers / 2579

Remarks:

Depth (ft BLS)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
				Grass
1				Tan Sand, Fine
2	0	0	Sample at 2'	
3				
4	0	0		
5				
				Boring terminated at 5 feet
6				
7				
8				
9				
10				
11				
12				
13				
14				

WELL CONSTRUCTION DETAILS (If Applicable)	
Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



Apex Companies, LLC

Boring Log

Boring/Well No.: P70-SB-28	Site Name: Parcel 70 - Loving T A & Co Property
Date: 06/19/17	Location: Goldsboro, Wayne County, NC
Job No.: 510497-003	Sample Method: Hand Auger and Direct Push
Apex Rep: Troy L. Holzschuh	Drilling Method: Hand Auger and Direct Push
Drilling Company: Carolina Soil Investigations	Driller Name/Cert #: Danny Summers / 2579

Remarks:

Depth BLS)	(ft)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
					Grass
1					Tan Sand
2		0	0	Sample at 2'	
3					Yellow, Clayey, Silty Sand
4		0	0		
5					
					Boring terminated at 5 feet
6					
7					
8					
9					
10					
11					
12					
13					
14					

WELL CONSTRUCTION DETAILS (If Applicable)

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



Apex Companies, LLC

Boring Log

Boring/Well No.: P70-SB-29	Site Name: Parcel 70 - Loving T A & Co Property
Date: 06/19/17	Location: Goldsboro, Wayne County, NC
Job No.: 510497-003	Sample Method: Hand Auger and Direct Push
Apex Rep: Troy L. Holzschuh	Drilling Method: Hand Auger and Direct Push
Drilling Company: Carolina Soil Investigations	Driller Name/Cert #: Danny Summers / 2579

Remarks:

Depth BLS)	(ft)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
1					Brown Silt
2		0	0	Sample at 2'	Brown, Clayey Silt
3					
4		0	0.1		Water
5					
Boring terminated at 5 feet					
6					
7					
8					
9					
10					
11					
12					
13					
14					

WELL CONSTRUCTION DETAILS (If Applicable)

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



Apex Companies, LLC

Boring Log

Boring/Well No.: P70-SB-30	Site Name: Parcel 70 - Loving T A & Co Property
Date: 06/19/17	Location: Goldsboro, Wayne County, NC
Job No.: 510497-003	Sample Method: Hand Auger and Direct Push
Apex Rep: Troy L. Holzschuh	Drilling Method: Hand Auger and Direct Push
Drilling Company: Carolina Soil Investigations	Driller Name/Cert #: Danny Summers / 2579

Remarks:

Depth (ft BLS)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
1				Brown Silt
2	6.4	0.2	Sample at 2'	
3				Brown, Clayey Silt
4	5.8	0.2		Water
5				
Boring terminated at 5 feet				
6				
7				
8				
9				
10				
11				
12				
13				
14				

WELL CONSTRUCTION DETAILS (If Applicable)

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



Apex Companies, LLC

Boring Log

Boring/Well No.: P70-SB-31	Site Name: Parcel 70 - Loving T A & Co Property
Date: 06/19/17	Location: Goldsboro, Wayne County, NC
Job No.: 510497-003	Sample Method: Hand Auger and Direct Push
Apex Rep: Troy L. Holzschuh	Drilling Method: Hand Auger and Direct Push
Drilling Company: Carolina Soil Investigations	Driller Name/Cert #: Danny Summers / 2579

Remarks:

Depth BLS)	(ft)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
1					Brown Silt
2		0	0	Sample at 2'	
3					Brown, Clayey Silt
4		0	0		Water
5					
Boring terminated at 5 feet					
6					
7					
8					
9					
10					
11					
12					
13					
14					

WELL CONSTRUCTION DETAILS (If Applicable)	
Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



Apex Companies, LLC

Boring Log

Boring/Well No.: P70-SB-32	Site Name: Parcel 70 - Loving T A & Co Property
Date: 06/19/17	Location: Goldsboro, Wayne County, NC
Job No.: 510497-003	Sample Method: Hand Auger and Direct Push
Apex Rep: Troy L. Holzschuh	Drilling Method: Hand Auger and Direct Push
Drilling Company: Carolina Soil Investigations	Driller Name/Cert #: Danny Summers / 2579

Remarks:

Depth (ft BLS)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
1				Gravel
2	0	0	Sample at 2'	Tan Sand
3				Brown, Clayey Sand
4	0	0		Water
5				Boring terminated at 5 feet
6				
7				
8				
9				
10				
11				
12				
13				
14				

WELL CONSTRUCTION DETAILS (If Applicable)

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



Apex Companies, LLC

Boring Log

Boring/Well No.: P70-SB-33	Site Name: Parcel 70 - Loving T A & Co Property
Date: 06/19/17	Location: Goldsboro, Wayne County, NC
Job No.: 510497-003	Sample Method: Hand Auger and Direct Push
Apex Rep: Troy L. Holzschuh	Drilling Method: Hand Auger and Direct Push
Drilling Company: Carolina Soil Investigations	Driller Name/Cert #: Danny Summers / 2579

Remarks:

Depth (ft) BLS)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
1				Tan Sand
2	0	0	Sample at 2'	
3				
4	0	0		Brown, Clayey Sand. Water.
5				
Boring terminated at 5 feet				
6				
7				
8				
9				
10				
11				
12				
13				
14				

WELL CONSTRUCTION DETAILS (If Applicable)	
Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



Apex Companies, LLC

Boring Log

Boring/Well No.: P70-SB-34	Site Name: Parcel 70 - Loving T A & Co Property
Date: 06/19/17	Location: Goldsboro, Wayne County, NC
Job No.: 510497-003	Sample Method: Hand Auger and Direct Push
Apex Rep: Troy L. Holzschuh	Drilling Method: Hand Auger and Direct Push
Drilling Company: Carolina Soil Investigations	Driller Name/Cert #: Danny Summers / 2579

Remarks:

Depth BLS)	(ft)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
					Asphalt
1					Tan Sand
2		0	0	Sample at 2'	
3					Brown, Clayey Sand. Water.
4		0	0		
5					
					Boring terminated at 5 feet
6					
7					
8					
9					
10					
11					
12					
13					
14					

WELL CONSTRUCTION DETAILS (If Applicable)

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



Apex Companies, LLC

Boring Log

Boring/Well No.: P70-SB-35	Site Name: Parcel 70 - Loving T A & Co Property
Date: 06/19/17	Location: Goldsboro, Wayne County, NC
Job No.: 510497-003	Sample Method: Hand Auger and Direct Push
Apex Rep: Troy L. Holzschuh	Drilling Method: Hand Auger and Direct Push
Drilling Company: Carolina Soil Investigations	Driller Name/Cert #: Danny Summers / 2579

Remarks:

Depth (ft) BLS)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
1				Gravel Tan Sand
2	0	0	Sample at 2'	Wood
3				Brown, Clayey Sand
4	0	0		
5				
				Boring terminated at 5 feet
6				
7				
8				
9				
10				
11				
12				
13				
14				

WELL CONSTRUCTION DETAILS (If Applicable)

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



Apex Companies, LLC

Boring Log

Boring/Well No.: P70-SB-36	Site Name: Parcel 70 - Loving T A & Co Property
Date: 06/19/17	Location: Goldsboro, Wayne County, NC
Job No.: 510497-003	Sample Method: Hand Auger and Direct Push
Apex Rep: Troy L. Holzschuh	Drilling Method: Hand Auger and Direct Push
Drilling Company: Carolina Soil Investigations	Driller Name/Cert #: Danny Summers / 2579

Remarks:

Depth BLS)	(ft)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
1					Gravel
2		0	0	Sample at 2'	Tan Sand
3					Yellow Sand, Fine
4		0	0		
5					
Boring terminated at 5 feet					
6					
7					
8					
9					
10					
11					
12					
13					
14					

WELL CONSTRUCTION DETAILS (If Applicable)

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



Apex Companies, LLC

Boring Log

Boring/Well No.: P70-SB-37	Site Name: Parcel 70 - Loving T A & Co Property
Date: 06/19/17	Location: Goldsboro, Wayne County, NC
Job No.: 510497-003	Sample Method: Hand Auger and Direct Push
Apex Rep: Troy L. Holzschuh	Drilling Method: Hand Auger and Direct Push
Drilling Company: Carolina Soil Investigations	Driller Name/Cert #: Danny Summers / 2579

Remarks:

Depth BLS)	(ft)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
					Black Silt
1					Tan Sand
2		0	0	Sample at 2'	
3					Water
4		0	0		Brown, Clayey Sand
5					
Boring terminated at 5 feet					
6					
7					
8					
9					
10					
11					
12					
13					
14					

WELL CONSTRUCTION DETAILS (If Applicable)

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



Apex Companies, LLC

Boring Log

Boring/Well No.: P70-SB-38	Site Name: Parcel 70 - Loving T A & Co Property
Date: 06/19/17	Location: Goldsboro, Wayne County, NC
Job No.: 510497-003	Sample Method: Hand Auger and Direct Push
Apex Rep: Troy L. Holzschuh	Drilling Method: Hand Auger and Direct Push
Drilling Company: Carolina Soil Investigations	Driller Name/Cert #: Danny Summers / 2579

Remarks:

Depth BLS)	(ft)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
					Black Silt
1					Tan Sand
2		0	0	Sample at 2'	
3					Yellow Sand
4		0	0		
5					
					Boring terminated at 5 feet
6					
7					
8					
9					
10					
11					
12					
13					
14					

WELL CONSTRUCTION DETAILS (If Applicable)

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



Apex Companies, LLC

Boring Log

Boring/Well No.: P70-SB-39	Site Name: Parcel 70 - Loving T A & Co Property
Date: 06/19/17	Location: Goldsboro, Wayne County, NC
Job No.: 510497-003	Sample Method: Hand Auger and Direct Push
Apex Rep: Troy L. Holzschuh	Drilling Method: Hand Auger and Direct Push
Drilling Company: Carolina Soil Investigations	Driller Name/Cert #: Danny Summers / 2579

Remarks:

Depth (ft) BLS)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
1				Black Silt
2	0	0	Sample at 2'	Tan Sand, Fine
3				
4	0	0		Brown, Clayey Sand
5				Boring terminated at 5 feet
6				
7				
8				
9				
10				
11				
12				
13				
14				

WELL CONSTRUCTION DETAILS (If Applicable)

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



Apex Companies, LLC

Boring Log

Boring/Well No.: P70-SB-40	Site Name: Parcel 70 - Loving T A & Co Property
Date: 06/19/17	Location: Goldsboro, Wayne County, NC
Job No.: 510497-003	Sample Method: Hand Auger and Direct Push
Apex Rep: Troy L. Holzschuh	Drilling Method: Hand Auger and Direct Push
Drilling Company: Carolina Soil Investigations	Driller Name/Cert #: Danny Summers / 2579

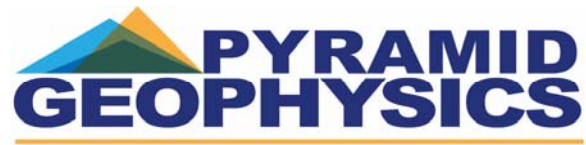
Remarks:

Depth (ft) BLS)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
1				Black Silt
2	0	0	Sample at 2'	Tan Sand, Fine
3				
4	0	0		Black Clayey Sand
5				Boring terminated at 5 feet
6				
7				
8				
9				
10				
11				
12				
13				
14				

WELL CONSTRUCTION DETAILS (If Applicable)

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:

APPENDIX C
GEOPHYSICAL REPORT



July 7, 2017

Mr. Troy Holzschuh
Apex Companies, LLC
10610 Metromont Parkway, Suite 206
Charlotte, NC 28269
Sent via email to THolzschuh@apexcos.com

**SUBJECT: Results of Geophysical Survey for Metallic Underground Storage Tanks
Parcel 070 (a, b, c, d) - NCDOT Project U-2714
2511 N. William St. Goldsboro, Wayne County, North Carolina**

Mr. Holzschuh:

Pyramid Environmental & Engineering, P.C. (Pyramid) conducted a geophysical investigation for Apex Companies, LLC (Apex) at Parcel 070 (a, b, c, d), located at 2511 N. William Street, Goldsboro, NC. The survey was part of a North Carolina Department of Transportation (NCDOT) Right-of-Way (ROW) investigation (NCDOT Project U-2714). Apex directed Pyramid as to the geophysical survey boundaries at the project site, which were designed to extend from the existing edge of pavement into the proposed Right-Of-Way (ROW) and/or proposed easements, whichever distance was greater. Conducted on June 8, 2017, the geophysical investigation was conducted to determine if unknown, metallic underground storage tanks (USTs) were present beneath the survey area.

Based on the technical cost proposal provided by Pyramid and discussions with Apex and the NCDOT, abbreviated letter reports are being submitted for all parcels where no evidence of unknown metallic USTs was recorded by the geophysical survey. As discussed below, this is the case for Parcel 070 (a, b, c, d).

Figure 1 provides an overlay of the geophysical survey area onto the NCDOT MicroStation engineering plans (proposed ROW and easements) for reference.

The geophysical investigation consisted of an electromagnetic (EM) induction-metal detection survey. Pyramid collected the EM data using a Geonics EM61 metal detector integrated with a Trimble AG-114 GPS antenna. The integrated GPS system allows the location of the instrument to be recorded in real-time during data collection, resulting in an EM data set that is geo-referenced and can be overlain on aerial photographs and CADD drawings. A boundary grid was established around the perimeter of the site with marks every 10 feet to maintain orientation of the instrument throughout the survey and assure complete coverage of the area.

According to the instrument specifications, the EM61 can detect a metal drum down to a maximum depth of approximately 8 feet. Smaller objects (1-foot or less in size) can be

detected to a maximum depth of 4 to 5 feet. The EM61 data were digitally collected at approximately 0.8-foot intervals along north-south trending or east-west trending, generally parallel survey lines spaced five feet apart. The data were downloaded to a computer and reviewed in the field and office using the Geonics NAV61 and Surfer for Windows Version 14.0 software programs.

The results of the geophysical survey did not record any evidence of unknown metallic USTs at the property. All of the EM features observed were the result of visible cultural features at the ground surface. GPR data were not required due to all EM features being directly attributed to visible cultural features. Follow-up GPR scans associated with utility locating verified the presence of buried utilities at various locations throughout the survey area.

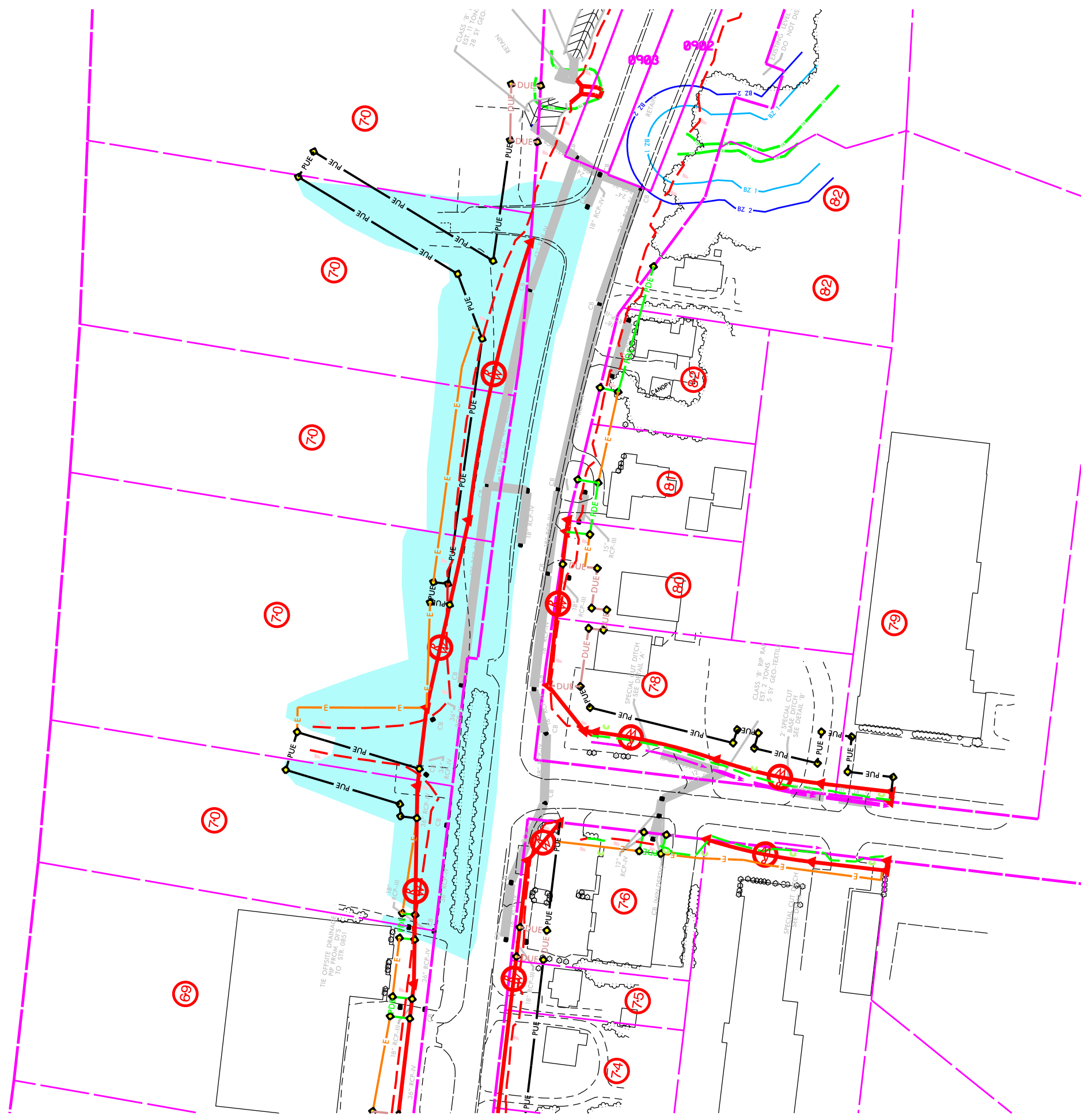
This abbreviated letter report is being submitted based on the guidelines in Pyramid's technical cost proposal and discussions with Apex and the NCDOT. All electronic data files from the geophysical surveys will be stored on Pyramid's internal servers for retrieval in the future, if necessary.

Geophysical surveys have been performed and this report was prepared for Apex in accordance with generally accepted guidelines for EM61 surveys. It is generally recognized that the results of the EM61 surveys are non-unique and may not represent actual subsurface conditions. The EM61 results obtained for this project have not conclusively determined the definitive presence or absence of metallic USTs, but the evidence collected is sufficient to result in the conclusions made in this report. Additionally, it should be understood that areas containing extensive vegetation, reinforced concrete, or other restrictions to the accessibility of the geophysical instruments could not be fully investigated.









Sincerely,

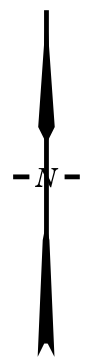
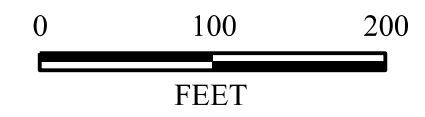



Eric Cross, P.G.
Senior Geophysicist



LEGEND

-  EXISTING ROW
-  EXISTING PROPERTY BOUNDARY
-  PROPOSED ROW LINE
-  PROPOSED UTILITY EASEMENT
-  PROPOSED DRAINAGE EASEMENT
-  PROPOSED SS FILL LINE
-  PROPOSED SS CUT LINE
-  GEOPHYSICAL SURVEY AREA



TITLE OVERLAY OF GEOPHYSICAL SURVEY BOUNDARIES ON NCDOT ENGINEERING PLANS	
PROJECT PARCEL 70 (a, b, c, d) GOLDSBORO, NORTH CAROLINA NCDOT PROJECT U-2714	
 503 INDUSTRIAL AVENUE GREENSBORO, NC 27406 336.335.3174 (p) 336.691.0648 (f) License # C1251 Eng. / #C257 Geology	
DATE: 6-30-17	REVISION NO. 0
PYRAMID PROJECT NO. 2017-156	FIGURE NO. 1

APPENDIX D
UVF HYDROCARBON ANALYSIS RESULTS



Hydrocarbon Analysis Results

Client: NCDOT
Address: PARCEL 70 (a,b,c,d)
 2511 N William St
 Goldsboro, NC

Samples taken Monday, June 19, 2017
Samples extracted Monday, June 19, 2017
Samples analysed Monday, June 19, 2017

Contact: Dennis Li

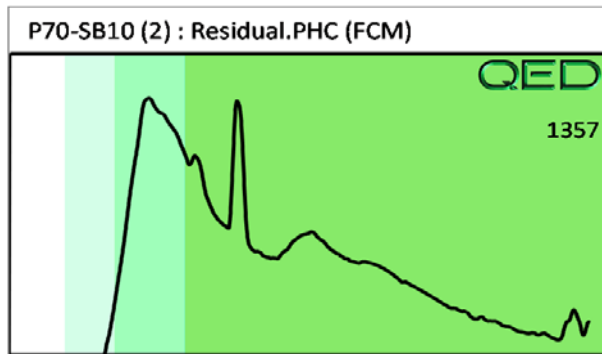
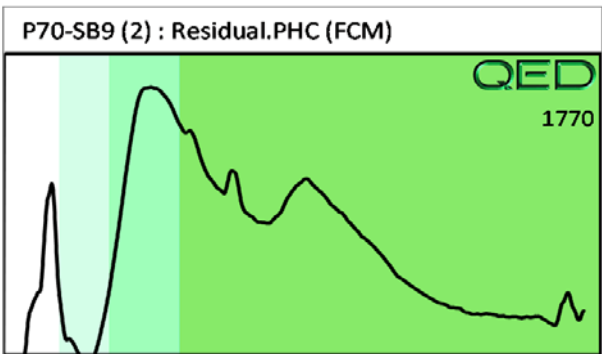
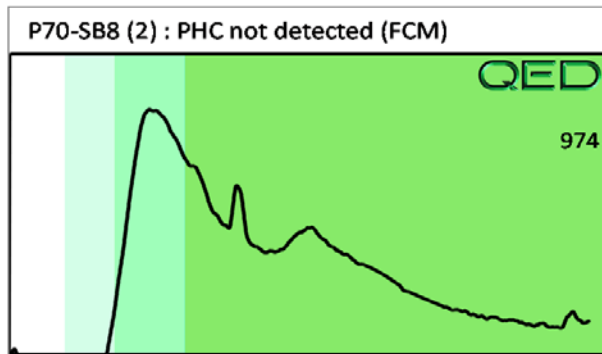
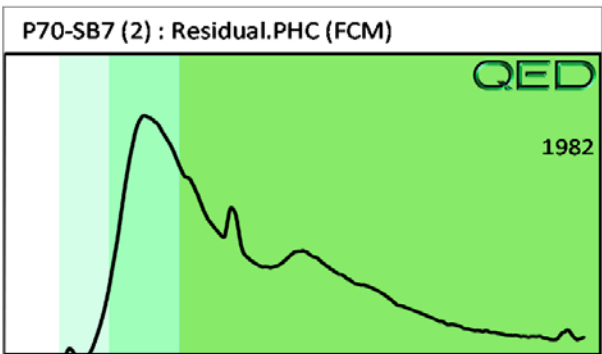
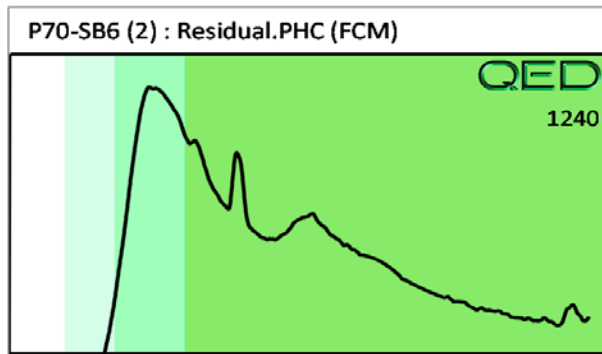
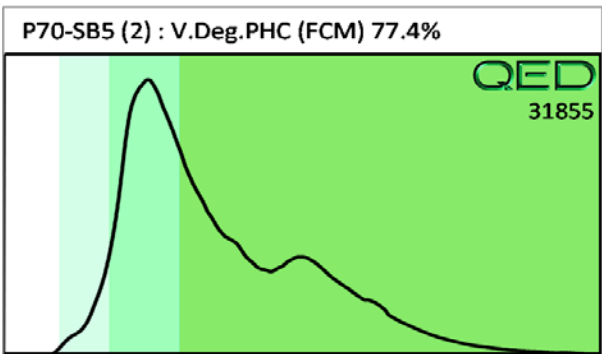
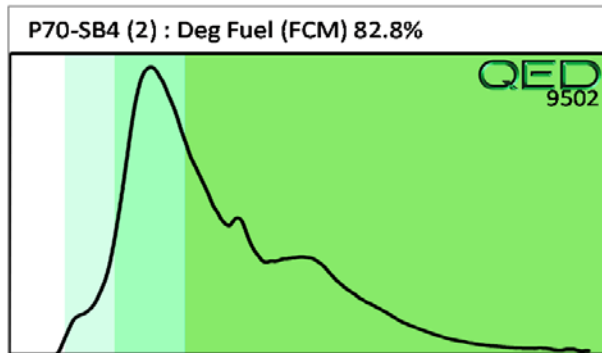
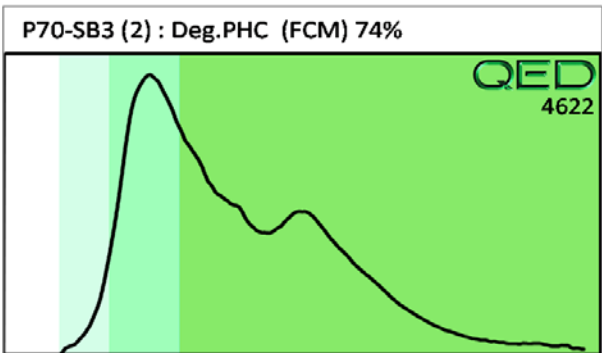
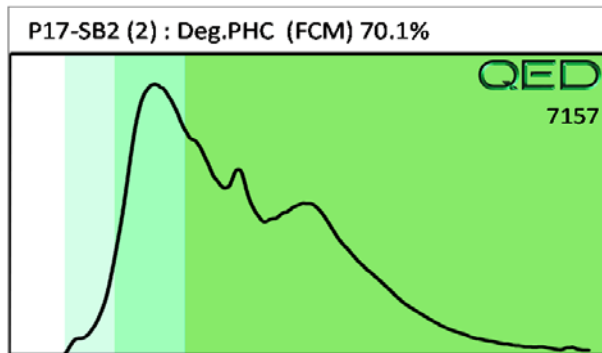
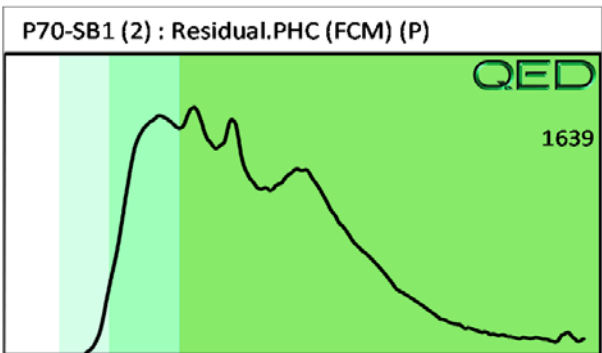
Operator KH

Project: 510497-003

											F03640															
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	P70-SB1 (2)	19.0	<0.47	<0.47	0.47	0.47	0.54	0.07	0.003	0	54.7	45.3	Residual.PHC (FCM) (P)													
s	P17-SB2 (2)	20.8	<0.52	<0.52	6.1	6.1	5	0.52	0.008	0	78.1	21.9	Deg.PHC (FCM) 70.1%													
s	P70-SB3 (2)	21.5	<0.54	<0.54	3.8	3.8	3.1	0.33	0.004	0	79	21	Deg.PHC (FCM) 74%													
s	P70-SB4 (2)	21.7	<0.54	<0.54	17.7	17.7	7.4	0.38	0.004	0	85.4	14.6	Deg Fuel (FCM) 82.8%													
s	P70-SB5 (2)	20.2	<0.5	<0.5	41	41	23.2	1	0.011	0	84.1	15.9	V.Deg.PHC (FCM) 77.4%													
s	P70-SB6 (2)	19.5	<0.49	<0.49	0.49	0.49	0.37	0.04	<0.002	0	57.6	42.4	Residual.PHC (FCM)													
s	P70-SB7 (2)	22.6	<0.57	<0.57	0.75	0.75	0.72	0.09	<0.002	0	64.2	35.8	Residual.PHC (FCM)													
s	P70-SB8 (2)	20.5	<1	<0.51	0.51	0.51	0.29	0.03	<0.002	0	57.5	42.5	PHC not detected (FCM)													
s	P70-SB9 (2)	20.5	<0.51	<0.51	0.68	0.68	0.64	0.08	<0.002	0	57.7	42.3	Residual.PHC (FCM)													
s	P70-SB10 (2)	19.1	<0.48	<0.48	0.48	0.48	0.38	0.05	<0.002	0	54.6	45.4	Residual.PHC (FCM)													
Initial Calibrator QC check											OK		Final FCM QC Check											OK		110.9 %

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





Hydrocarbon Analysis Results

Client: NCDOT
Address: PARCEL 70 (a,b,c,d)
 2511 N William St
 Goldsboro, NC

Samples taken Monday, June 19, 2017
Samples extracted Monday, June 19, 2017
Samples analysed Monday, June 19, 2017

Contact: Dennis Li

Operator KH

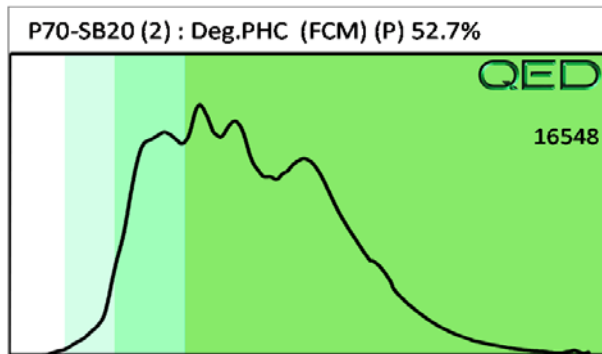
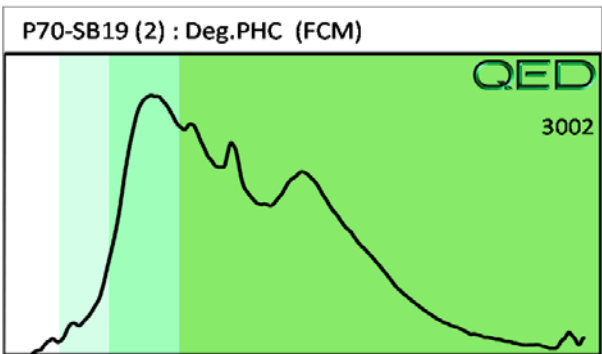
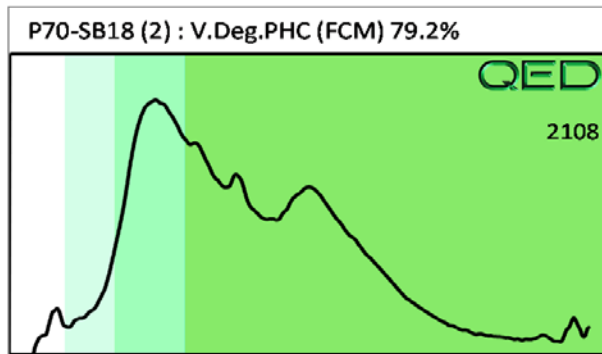
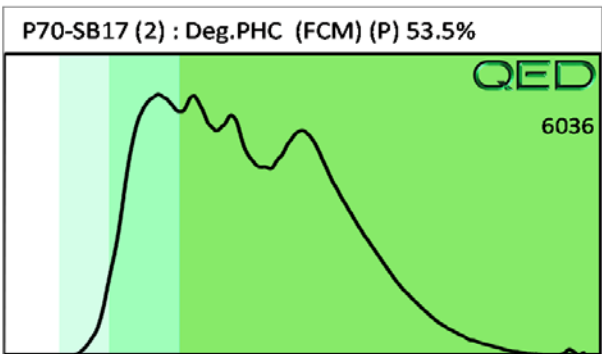
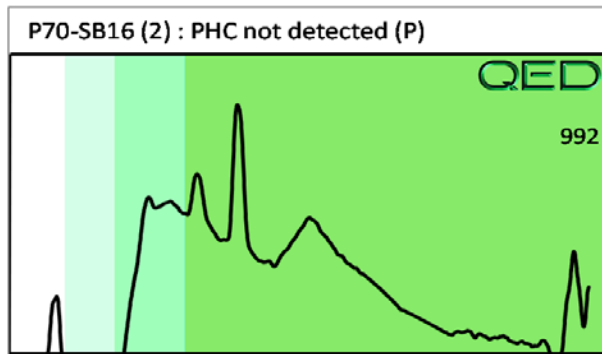
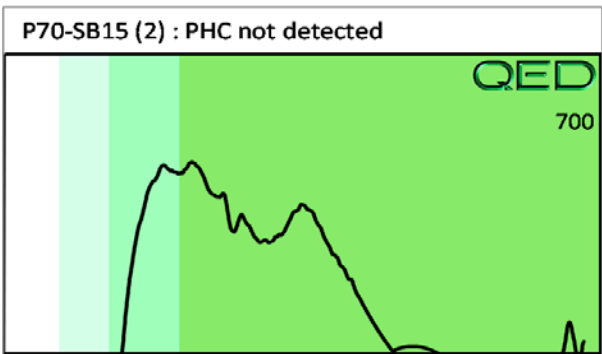
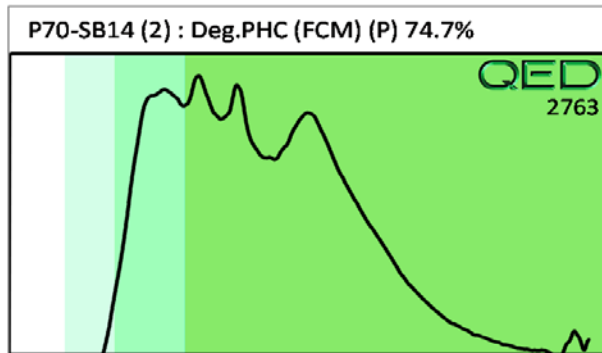
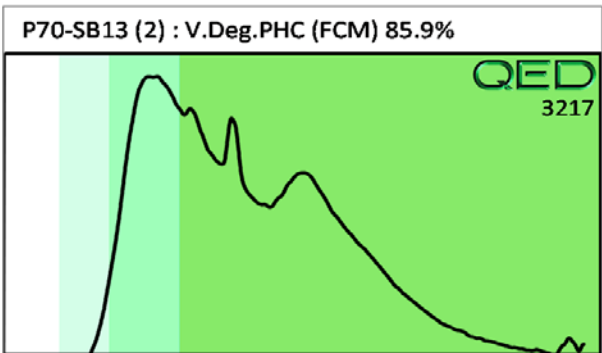
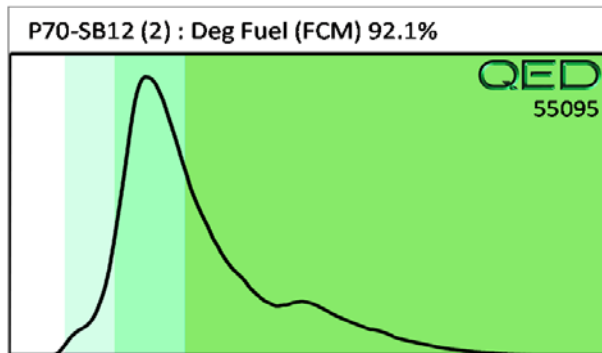
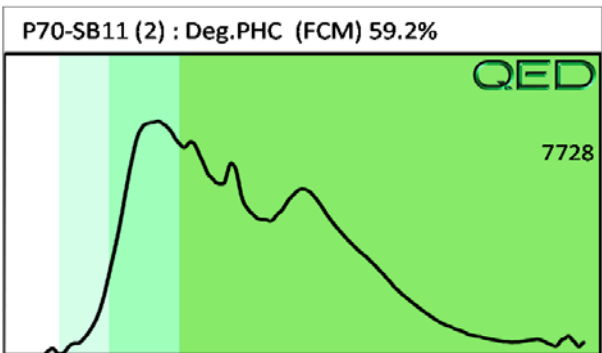
Project: 510497-003

										F03640			
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	P70-SB11 (2)	20.6	<0.52	<0.52	6.6	6.6	5.5	0.56	0.008	0	74	26	Deg.PHC (FCM) 59.2%
s	P70-SB12 (2)	19.5	<0.49	<0.49	55.6	55.6	45.1	2.4	0.03	0	89.5	10.5	Deg Fuel (FCM) 92.1%
s	P70-SB13 (2)	19.8	<0.5	<0.5	1.8	1.8	1.2	0.06	0.002	0	57.9	42.1	V.Deg.PHC (FCM) 85.9%
s	P70-SB14 (2)	19.8	<0.5	<0.5	1.2	1.2	1	0.06	0.002	0	48.1	51.9	Deg.PHC (FCM) (P) 74.7%
s	P70-SB15 (2)	22.4	<0.56	<0.56	<0.56	<0.56	<0.11	<0.02	<0.002	0	23.9	76.1	PHC not detected
s	P70-SB16 (2)	19.4	<0.49	<0.49	<0.49	<0.49	<0.16	<0.02	<0.002	0	1.3	98.7	PHC not detected (P)
s	P70-SB17 (2)	19.4	<0.49	<0.49	3.9	3.9	3.3	0.32	0.006	0	65.1	34.9	Deg.PHC (FCM) (P) 53.5%
s	P70-SB18 (2)	20.3	<0.51	1.9	4.1	6	1.5	0.07	0.002	59.4	32.4	8.2	V.Deg.PHC (FCM) 79.2%
s	P70-SB19 (2)	23.0	<0.58	<0.58	2.5	2.5	2.4	0.27	0.005	0	77	23	Deg.PHC (FCM)
s	P70-SB20 (2)	23.9	<0.6	<0.6	16.5	16.5	13.9	1.5	0.057	0	73.2	26.8	Deg.PHC (FCM) (P) 52.7%
Initial Calibrator QC check			OK			Final FCM QC Check			OK			105 %	

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

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Samples analysed Monday, June 19, 2017

Contact: Dennis Li

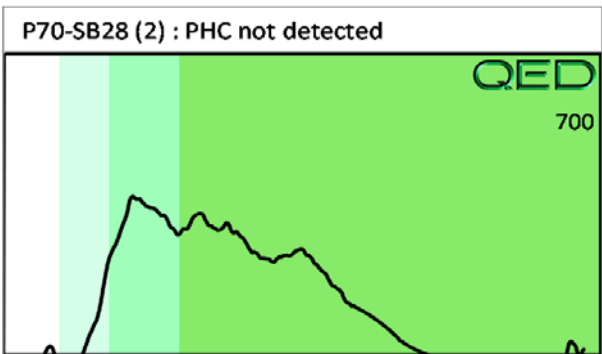
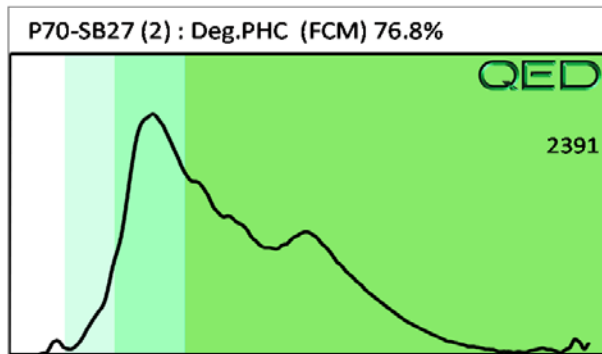
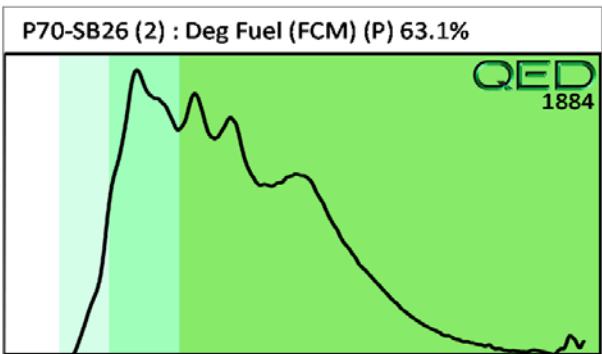
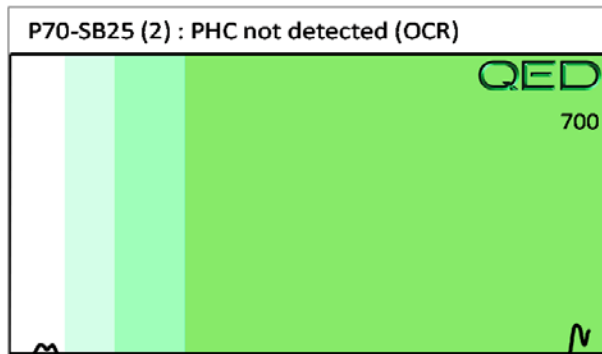
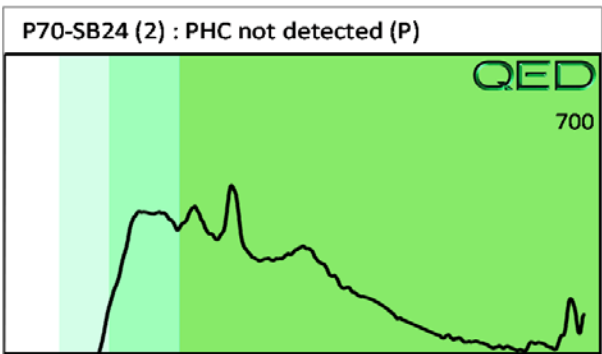
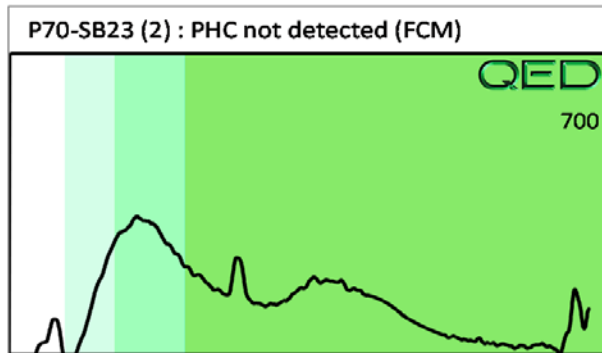
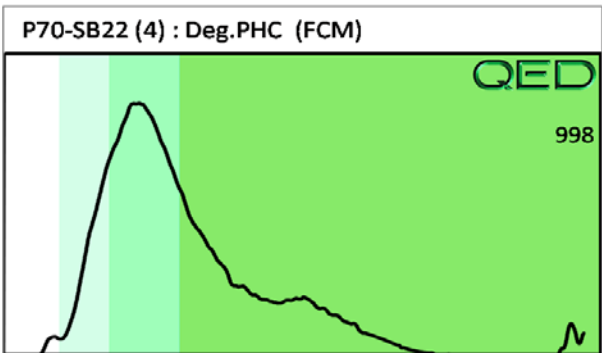
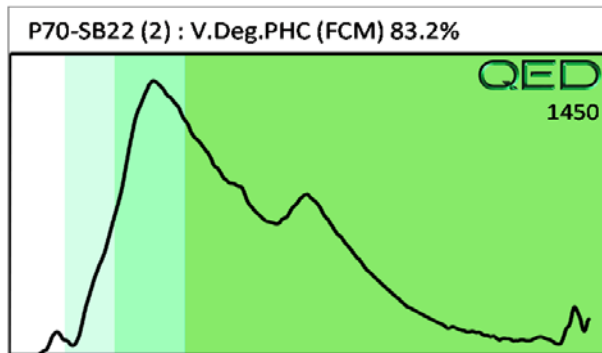
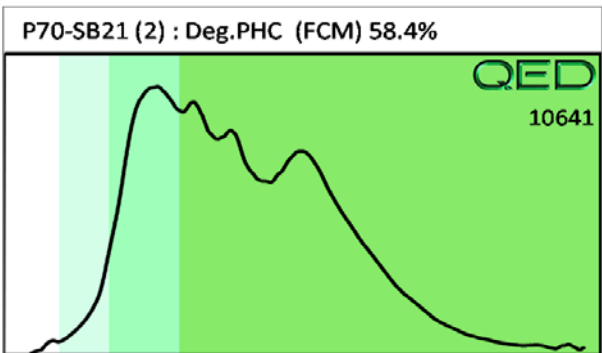
Operator KH

Project: 510497-003

										F03640			
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	P70-SB21 (2)	21.1	<1.1	1.4	10.8	12.2	8.8	0.93	0.021	14.6	65.9	19.5	Deg.PHC (FCM) 58.4%
s	P70-SB22 (2)	20.3	<1	<0.51	1.9	1.9	1.2	0.06	<0.002	0	86	14	V.Deg.PHC (FCM) 83.2%
s	P70-SB22 (4)	20.3	<0.51	<0.51	1.3	1.3	1.2	0.13	<0.002	0	97.6	2.4	Deg.PHC (FCM)
s	P70-SB23 (2)	20.5	<0.51	<0.51	0.51	0.51	0.31	0.04	<0.002	0	98	2	PHC not detected (FCM)
s	P70-SB24 (2)	22.2	<0.56	<0.56	<0.56	<0.56	<0.11	<0.02	<0.002	0	62.9	37.1	PHC not detected (P)
s	P70-SB25 (2)	19.3	<0.48	<0.48	<0.48	<0.48	<0.1	<0.02	<0.002	0	0	0	PHC not detected (OCR)
s	P70-SB26 (2)	23.6	<0.59	<0.59	1.6	1.6	1.6	0.09	0.003	0	82.4	17.6	Deg Fuel (FCM) (P) 63.1%
s	P70-SB27 (2)	20.6	<1	<0.52	1.9	1.9	1.6	0.17	<0.002	0	80.7	19.3	Deg.PHC (FCM) 76.8%
s	P70-SB28 (2)	8.3	<0.21	<0.21	<0.21	<0.21	<0.04	<0.007	<0.001	0	85.1	14.9	PHC not detected
Initial Calibrator QC check										OK			103.1 %
Final FCM QC Check										OK			103.1 %

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





Hydrocarbon Analysis Results

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 Goldsboro, NC

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Samples analysed Tuesday, June 20, 2017

Contact: Dennis Li

Operator KH

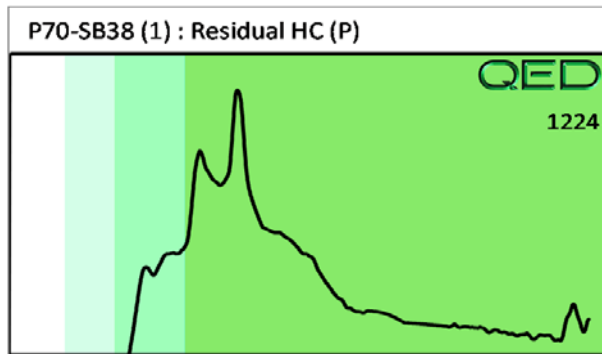
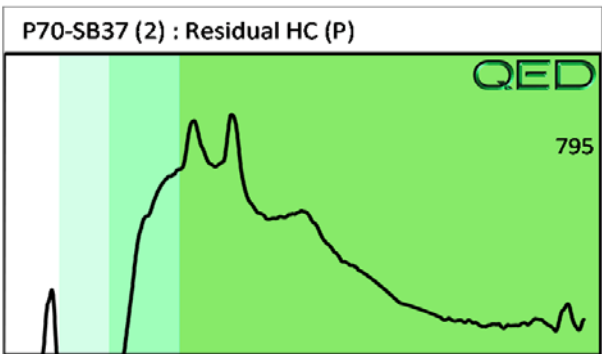
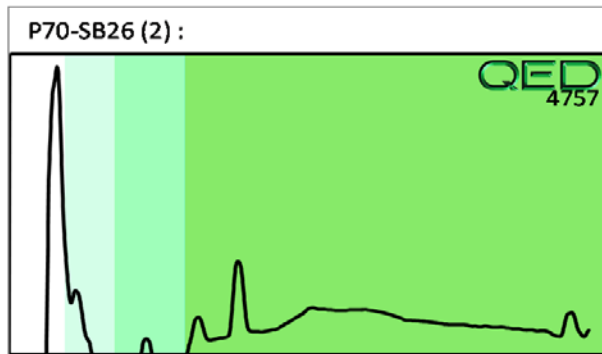
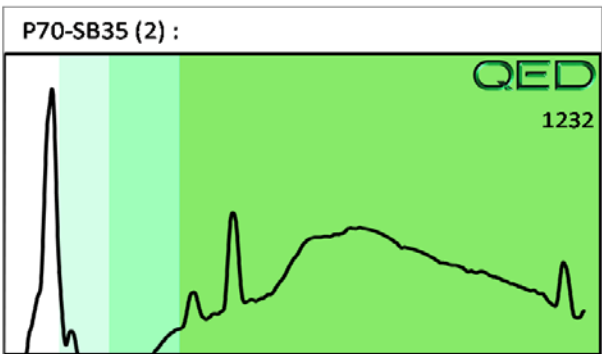
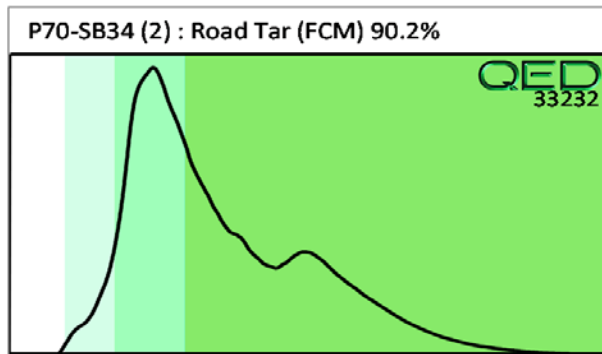
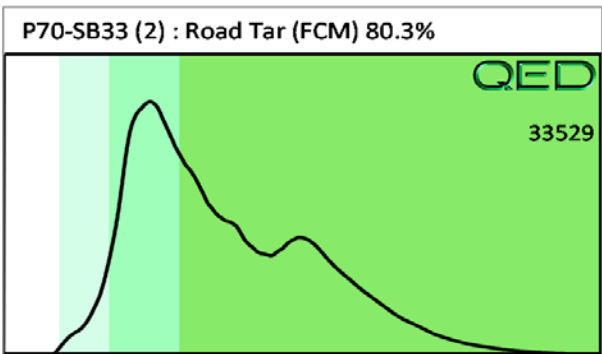
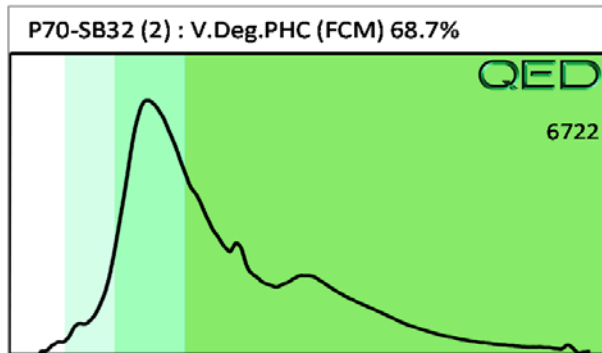
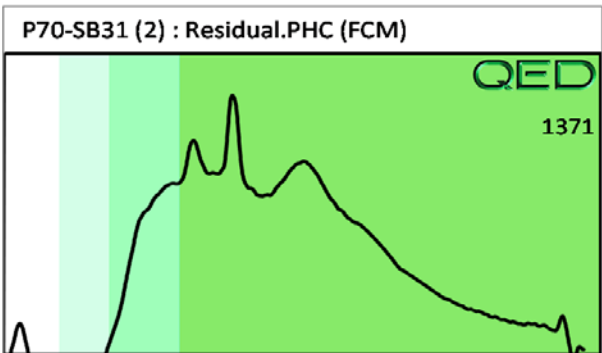
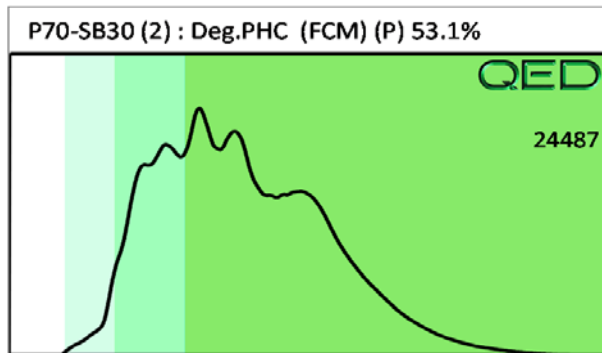
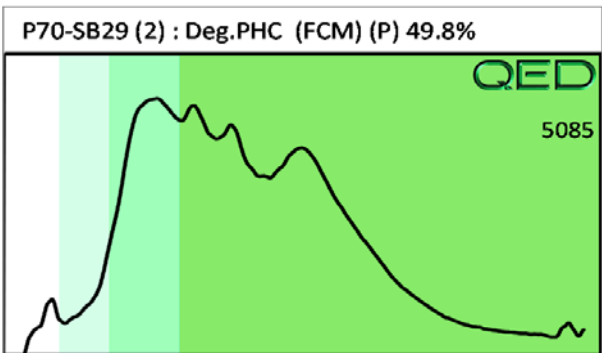
Project: 510497-003

													F03640	
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	P70-SB29 (2)	21.5	<0.54	4.2	9.3	13.5	4.3	0.22	0.004	52.3	37	10.7	Deg.PHC (FCM) (P) 49.8%	
s	P70-SB30 (2)	102.5	<2.6	<2.6	96.2	96.2	80.8	8.7	0.4	0	74	26	Deg.PHC (FCM) (P) 53.1%	
s	P70-SB31 (2)	21.0	<1	<0.52	0.52	0.52	0.31	0.04	0.004	0	31.2	68.8	Residual.PHC (FCM)	
s	P70-SB32 (2)	20.5	<0.51	<0.51	10.4	10.4	4.4	0.2	0.002	0	85.2	14.8	V.Deg.PHC (FCM) 68.7%	
s	P70-SB33 (2)	19.8	<0.5	<0.5	33.8	33.8	25.1	2.7	0.048	0	83.4	16.6	Road Tar (FCM) 80.3%	
s	P70-SB34 (2)	21.3	<0.53	<0.53	36.1	36.1	26.9	2.9	0.044	0	85.5	14.5	Road Tar (FCM) 90.2%	
s	P70-SB35 (2)	40.7	<1	<1	<1	<1	<0.2	<0.03	<0.004	0	0	100		
s	P70-SB26 (2)	19.4	<0.49	<0.49	<0.49	<0.49	<0.1	<0.02	<0.002	0	0	100		
s	P70-SB37 (2)	23.6	<0.59	<0.59	<0.59	<0.59	<0.16	<0.02	<0.002	0	18	82	Residual HC (P)	
s	P70-SB38 (1)	22.8	<0.57	<0.57	<0.57	<0.57	<0.15	0.03	0.008	0	4.8	95.2	Residual HC (P)	
Initial Calibrator QC check			OK							Final FCM QC Check			OK 93.3 %	

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

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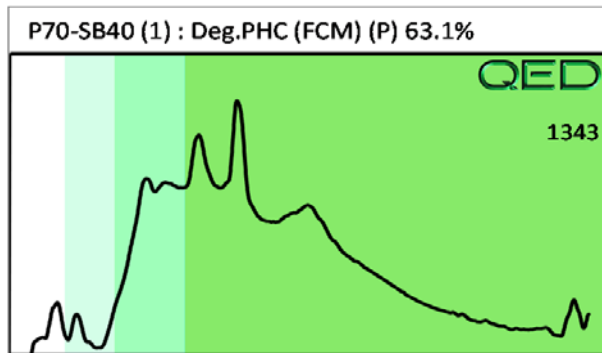
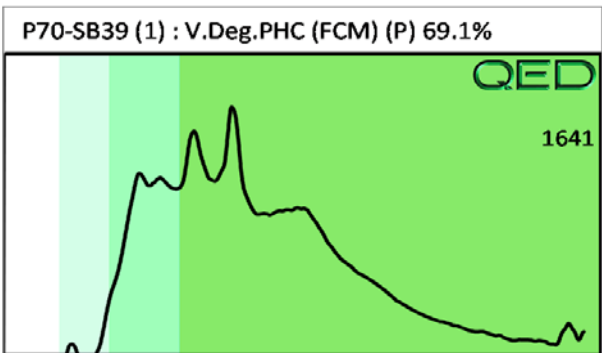
Contact: Dennis Li

Operator KH

Project: 510497-003

										F03640			
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	P70-SB39 (1)	20.2	<0.5	<0.5	0.65	0.65	0.46	0.02	0.002	0	49	51	V.Deg.PHC (FCM) (P) 69.1%
s	P70-SB40 (1)	22.8	<0.57	0.57	0.57	1.14	0.39	<0.02	0.002	48.4	22.6	29	Deg.PHC (FCM) (P) 63.1%
Initial Calibrator QC check										OK			100.9 %
Final FCM QC Check										OK			100.9 %

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Project: 510497-003

													F03640
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	
W	P70-SB1 - WATER	1.0	<0.025	<0.025	<0.03	<0.025	<0.005	<0.001	<0	0	0	100	PHC not detected (P) (BO)
W	P70-SB25 - WATER	1.0	<0.025	0.16	<0.03	0.16	<0.008	<0.001	0	95	1.5	3.5	Deg.Gas (FCM)
W	P70-SB30 - WATER	1.0	<0.025	0.13	<0.03	0.13	<0.007	<0.001	<0	95.1	3.1	1.8	Deg.Gas (FCM)
Initial Calibrator QC check										OK			
										Final FCM QC Check			OK
													97.1 %

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

