KLEINFELDER
Bright People. Right Solutions.

September 17, 2019
Kleinfelder File No. RAL19R100883

Mr. John L. Pilipchuk, LG., PE
North Carolina Department of Transportation
State Geotechnical Engineer
Geotechnical Engineering Unit
1589 Mail Service Center
Raleigh, North Carolina 27699-1589

SUBJECT: Preliminary Site Assessment Report
Parcel 5, Hayes Jewelers, Inc.
WBS Element No. 54035.1.1, TIP No. U-5757
NC 8 (Winston Road) from 9th Street to SR 1408 (Biesecker Rd) in Lexington. Widen to multi lanes
Kleinfelder Project No. 20201105.001A

Dear Mr. Pilipchuk,

Kleinfelder is pleased to provide its report detailing the activities conducted as part of the preliminary site assessment for the subject project.

Kleinfelder appreciates the opportunity to be of service to you. Should you have questions or require additional information, please do not hesitate to contact the undersigned.

Sincerely,
KLEINFELDER, INC.

Abigail R. Shurtleff
Environmental Staff Professional

Michael J Burns, PG
Environmental Program Manager

ARS/MJB:asp

KLEINFELDER 3200 Gateway Centre Blvd. Suite 100, Morrisville, NC 27560 **p |** 919.755.5011 **f |** 919.755.1414

PRELIMINARY SITE ASSESSMENT REPORT
PARCEL 5 HAYES JEWELERS, INC.
PARCEL 1101200000002
859 WINSTON ROAD
LEXINGTON, DAVIDSON COUNTY, NORTH CAROLINA

NCDOT WBS ELEMENT 54035.1.1
STATE PROJECT U-5757
NC 8 (WINSTON RD) FROM 9TH STREET TO SR 1408 (BIESECKER RD) IN LEXINGTON. WIDEN TO MULTI LANES

KLEINFELDER PROJECT NO. 20201105.001A

SEPTEMBER 17, 2019

A Report Prepared for:

Mr. John L. Pilipchuk, LG., PE
North Carolina Department of Transportation
State Geotechnical Engineer
Geotechnical Engineering Unit
1589 Mail Service Center
Raleigh, North Carolina 27699-1589

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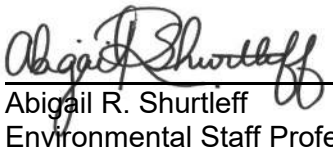
Prepared by:



Abigail R. Shurtleff
Environmental Staff Professional

Reviewed by:

Michael J. Burns, PG
Environmental Program Manager

KLEINFELDER
3200 Gateway Centre Blvd. | Suite 100
Raleigh, North Carolina 27560
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September 17, 2019

Kleinfelder Project No. 20201105.001A

PRELIMINARY SITE ASSESSMENT REPORT

Site Name and Location:	Parcel 5 859 Winston Road Lexington, Davidson County, North Carolina
Latitude and Longitude:	35.837453°N, -80.253129°W
County Parcel Number	1101200000002
Facility ID Number:	N/A
Leaking UST Incident:	N/A
State Project No.:	U-5757
NCDOT Project No.:	NCDOT WBS Element 54035.1.1
Description:	NC 8 (Winston Rd) from 9th Street to SR 1408 (Biesecker Rd) in Lexington. Widen to multi lanes
Date of Report:	September 17, 2019
Consultant:	Kleinfelder, Inc. 3200 Gateway Center Boulevard | Suite 100 Morrisville, North Carolina 27560 Corporate Geology License No. C-521 Corporate Licensure for Engineering F-1312

SEAL AND SIGNATURE OF CERTIFYING LICENSED GEOLOGIST

I, Michael J Burns, a Licensed Geologist for Kleinfelder, Inc., do certify that the information contained in this report is correct and accurate to the best of my knowledge.

DocuSigned by:
7E53DC44AC794CA...

10/7/2019

Michael J Burns, LG
NC License No. 1645

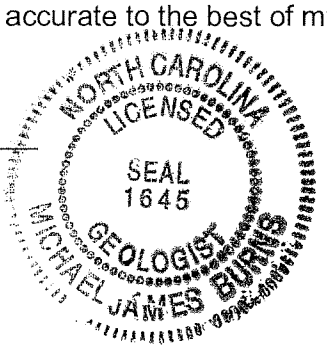


TABLE OF CONTENTS

PRELIMINARY SITE ASSESSMENT
PARCEL 5 HAYES JEWELERS, INC.
PARCEL 1101200000002
859 WINSTON ROAD
LEXINGTON, DAVIDSON COUNTY, NORTH CAROLINA

NCDOT WBS ELEMENT 54035.1.1
STATE PROJECT U-5757
NC 8 (WINSTON RD) FROM 9TH STREET TO SR 1408 (BIESECKER RD) IN LEXINGTON. WIDEN TO MULTI LANES

1 INTRODUCTION

Kleinfelder, Inc. (Kleinfelder) has prepared this Preliminary Site Assessment (PSA) report to document assessment activities performed on Parcel 5 (the assessment area is hereafter referred to as the "Project Study Area"). The Project Study Area consists of the western and most of the northern portions of a parcel known as Parcel Number 1101200000002 by the Davidson County, NC Tax Assessor's Office. The western portion of Parcel 5 is currently occupied by a paved asphalt parking lot and the eastern portion of Parcel 5 is currently occupied by a maintained grass lawn. Parcel 5 is located southeast of the intersection of West 9th Street and Winston Road in the Town of Lexington, Davidson County, North Carolina (Figure 1).

Based on information provided in the Hazardous Materials Survey Report, dated February 28, 2019, prepared by Kleinfelder for SEPI Engineering & Construction, the parcel is a former gasoline filling station with no registered active/inactive underground storage tanks (USTs). As such, the purpose of the PSA was to evaluate whether unknown USTs or contaminated soil are present in the Project Study Area that may result in increased project costs and future liability if acquired by the NCDOT.

1.1 SITE DESCRIPTION

Parcel 5 has a listed owner of Hayes Jewelers, Inc. The parcel has a street address of 859 Winston Road. The parcel consists of a paved asphalt parking lot and maintained grass lawn. The parcel is bounded by West 9th Street to the north, beyond which is the paved parking area and building associated with Hayes Jewelers; by Winston Road to the west, beyond which is a Taco Bell fast food restaurant; Virginia Drive to the east, beyond which are residential properties; and a paved concrete pad and one story brick building (associated with a former gasoline filling station), maintained grass lawn, and a residential structure to the south, beyond which are the on

and off ramps for U.S. Highway 70. Photographs of the Project Study Area are provided in Appendix A.

1.2 SCOPE OF WORK

Kleinfelder conducted this PSA in accordance with the NCDOT's May 24, 2019, Request for Technical and Cost Proposal (RFP) and Kleinfelder's June 18, 2019 Technical and Cost Proposal. The NCDOT granted a formal Notice to Proceed on June 27, 2019.

2 HISTORY

2.1 PARCEL USAGE

The parcel consists of a paved asphalt parking lot and a maintained grass field. The intersection of West 9th Street (running generally east-to-west) and Winston Road (running generally north-to-south) is located northwest of the parcel.

The February 2018 Hazardous Materials Survey Report identifies the parcel as Parcel 7 located at 100 9th Street (since changed to Parcel 5). This report indicates no records of USTs for the parcel; however, orphan USTs and the potential for petroleum contaminated soil/groundwater from former use of the parcel as a gasoline filling station are mentioned in the report.

Kleinfelder conducted historical research to determine whether additional environmental listings were identified for Parcel 5, and identified a gasoline filling station which operated on site from the early 1950's until the 1970's, with the gas station building being demolished in 1991. No records of UST closure activities were reported for the site.

2.2 FACILITY ID NUMBERS

Kleinfelder reviewed the NCDEQ UST database for Parcel 5. The parcel was not listed in the database at the time of this report.

2.3 GROUNDWATER INCIDENT NUMBERS

No known groundwater incident numbers are associated with Parcel 5 at this time.

3 OBSERVATIONS

3.1 GROUNDWATER MONITORING WELLS

No groundwater monitoring wells were observed on Parcel 5 at the time of site exploration, August 5, 2019.

3.2 ACTIVE USTS

No indication of the active use of USTs at Parcel 5 was observed at the time of site exploration, August 5, 2019.

3.3 OTHER FEATURES APPARENT BEYOND PROJECT STUDY AREA

The Project Study Area consisted on the western and northern portions of the parcel. There were no features of concern observed in the maintained grass lawn of the parcel beyond the Project Study Area.

4 METHODS

4.1 PROPERTY OWNER CONTACTS

As part of Kleinfelder's scope of work, the listed property owner was contacted about the work schedule for the field work and the type of work being performed. The owner did not express any concern or special conditions associated with the work being performed.

4.2 HEALTH AND SAFETY

Prior to commencing the field work, Kleinfelder personnel developed a Site-Specific Health and Safety Plan (HASP) covering activities to be performed. The site-specific HASP was discussed with all Kleinfelder personnel involved with the project and at a daily on-site "tail gate" safety meetings with subcontractors and sub consultants. In addition to the HASP, Kleinfelder utilized its comprehensive Corporate Health and Safety Program, targeted to address those specific and critical tasks that involve Kleinfelder personnel and subcontractors. The Loss Prevention System (LPS™), a behavior-based program, is Kleinfelder's company-wide safety system implemented and embraced by all levels of the company.

4.3 GEOPHYSICAL INVESTIGATION

Pyramid Environmental & Engineering, P.C (Pyramid) conducted a geophysical investigation in the Project Study Area between July 15 and 16, 2019. Pyramid utilized electromagnetic (EM) induction technology and ground penetrating radar (GPR) to locate potential geophysical anomalies and potential USTs within the Project Study Area.

There were no EM responses that were not associated with known utilities, vehicles, or other known subsurface conditions.

A copy of the Pyramid Geophysical Investigation Report, detailing the field methodology, is included in Appendix B.

4.4 SOIL ASSESSMENT

The scope of work for the soil assessment was to evaluate the presence of soil contamination along the existing right of way and/or easement to evaluate whether known impact is present in this area and maybe migrating off-site. The soil borings were planned to be advanced to maximum depths of 10 feet below the ground surface unless groundwater was encountered. Field screening using a photo ionization detector (PID) was to be conducted at 1-foot intervals beginning at 0 foot

to 1 foot. The soil sample with the highest PID reading above background or the sample from the maximum drilled depth would be selected for on-site laboratory analyses.

Prior to the drilling activities, public utilities were marked by NC One Call and private utilities were marked by Pyramid.

Kleinfelder subcontracted Quantex, Inc. (Quantex) to perform the drilling on-site on August 5, 2019. Quantex advanced six (6) soil borings (P5-B1 to P5-B6) by direct-push technology from the ground surface to boring termination (10 feet bgs) at locations specified by Kleinfelder. The soil boring locations were identified in the field using a GPS. The soil boring locations are shown on Figure 2. The borings were located within the public utility easement along West 9th Street, the NCDOT right-of-way along Winston Road, and the northern and western parcel boundaries. Soil borings P5-B1 and P5-B2 were advanced along West 9th Street. Soil boring P5-B3 was advanced along Winston Road. Soil borings P5-B4 through P5-B6 were advanced in the vicinity of P5-B3 after PID and on-site laboratory analysis suggested the presence of elevated levels of degraded petroleum products within four to nine feet below ground surface (bgs). Soil samples were collected by driving Macro Core™ samplers in 5-foot intervals. Each soil core was cut open, the soil samples were classified, and the soil divided into 1-foot sections. Each 1-foot section was screened in the field using a PID. The PID readings are summarized in Table 1.

Soils were determined to be primarily a clayey silt or a silty clay. Groundwater was not encountered in any of the borings at the termination depth of 10 feet bgs. Copies of the boring logs are included in Appendix C.

4.5 SOIL ANALYSIS

The PID readings from soil borings advanced at P5-B1 and P5-B2 were noted to be low. Based on the PID data and visual observations, one (1) sample from each boring was selected for on-site laboratory analysis. However, PID readings from P5-B3 were elevated between approximately four and nine feet bgs. Two (2) samples each from borings P5-B3 and P5-B4 were selected for on-site analysis, and one (1) sample each from borings P5-B5 and P5-B6 were selected for on-site analysis.

The samples were analyzed by RED Lab, LLC utilizing ultraviolet fluorescence (UVF) methodology to provide real-time analytical results of Total Petroleum Hydrocarbons (TPH), Gasoline Range Organics (GRO), Diesel Range Organics (DRO), and benzene, toluene, ethylbenzene, and total xylenes (BTEX). The UVF method was selected because of the possible

historical use of petroleum products on Parcel 5. The UVF analysis also provided data regarding Environmental Protection Agency 16 total Polycyclic Aromatic Hydrocarbons (PAHs), and Benzo(a)pyrene (BaP).

Soil samples from four and nine feet bgs in soil boring P5-B3 (P5-B3-4 and P5-B3-9, respectively), from three feet and six feet bgs in soil boring P5-B4 (P5-B4-3 and P5-B4-6, respectively), and from eight feet bgs in soil boring P5-B5 (P5-B5-8) were submitted to an off-site laboratory, Prism Laboratories of Charlotte, NC, for VOC analysis via 8260 methodology. Samples were collected directly from the soil core utilizing disposable nitrile gloves and a disposable plastic corer. Samples were iced upon collection. The Chain of Custody can be found in Appendix D.

5 RESULTS

5.1 GEOPHYSICAL INVESTIGATION

The EM and GPR surveys did not identify unknown geophysical anomalies within the Project Study Area.

5.2 SOIL SAMPLING DATA

The UVF analysis of soil samples indicated the presence of petroleum impact in soil boring P5-B3 between four and nine ft bgs; however, this impact did not exceed NCDEQ Action Limits. Additional soil borings advanced in the vicinity of P5-B3 (P5-B4 through P5-B6) returned much lower levels of petroleum impact between three and eight feet bgs. Soil borings P5-B1 and P5-B2 also returned low levels of petroleum impact at 5-ft bgs. As such, shallow soil impact does not appear to be present within the existing right of way or along the northern parcel boundary above NCDEQ Action Limits.

Soil samples P5-B3-4, P5-B3-9, P5-B4-3, P5-B4-6, and P5-B5-8 returned no VOC detections above NCDEQ maximum soil contaminant concentrations (MSCCs), and thus did not indicate the likely presence of chlorinated solvent impact within the soil of Parcel 5 within the existing right of way.

A summary of soil sample analytical results is presented in Table 2. The on-site laboratory results associated with each boring are presented on Figure 3. The off-site and on-site laboratory report and graphs are included in Appendix D.

5.3 SAMPLE OBSERVATIONS

Soils were observed for any obvious evidence of contamination. Olfactory evidence of contamination was noted in soil samples collected between four and nine feet bgs in soil borings P5-B3 and P5-B4; however, the on-site UVF analysis revealed impacts did not exceed NCDEQ Action Limits.

5.4 QUANTITY CALCULATIONS

Kleinfelder did not identify soil impact in the current right of way, nor have previous assessments identified quantifiable soil impact on Parcel 5.

6 CONCLUSIONS

Based on results of the EM/GPR survey, soil assessment and field observations, Kleinfelder has reached the following conclusions:

- The GPR and EM investigation did not identify unknown features.
- Parcel 5 is not listed on the NCDEQ UST database, nor are any groundwater incident numbers known to be associated with Parcel 5 at this time.
- No soil impact was detected in borings advanced along Winston Road and the northern parcel boundary (West 9th Street) above the NCDEQ Action Limits for TPH GRO and DRO or the MSCCs.
- Groundwater was not encountered in the soil borings at a depth of 10 feet bgs.

7 RECOMMENDATIONS

Based on results of this Preliminary Site Assessment, Kleinfelder recommends no additional sampling or special handling of soils be performed within the Project Study Area on Parcel 5 in Lexington, Davidson County, North Carolina.

8 LIMITATIONS

Kleinfelder's work will be performed in a manner consistent with that level of care and skill ordinarily exercised by other members of its profession practicing in the same locality, under similar conditions and at the date the services are provided. Kleinfelder's conclusions, opinions and recommendations will be based on a limited number of observations and data. It is possible that conditions could vary between or beyond the data evaluated. Kleinfelder makes no guarantee or warranty, express or implied, regarding the services, communication (oral or written), report, opinion, or instrument of service provided.

Kleinfelder offers various levels of investigative and engineering services to suit the varying needs of different clients. It should be recognized that definition and evaluation of geologic and environmental conditions are a difficult and inexact science. Judgments leading to conclusions and recommendations are generally made with incomplete knowledge of the subsurface conditions present due to the limitations of data from field studies. Although risk can never be eliminated, more detailed and extensive studies yield more information, which may help understand and manage the level of risk. Since detailed study and analysis involves greater expense, Kleinfelder's clients participate in determining levels of service that provide adequate information for their purposes at acceptable levels of risk. More extensive studies, including subsurface studies or field tests, should be performed to reduce uncertainties. Acceptance of this report will indicate that NCDOT has reviewed the document and determined that it does not need or want a greater level of service than provided.

During the course of the performance of Kleinfelder's services, hazardous materials may have been discovered. Kleinfelder assumes no responsibility or liability whatsoever for any claim, loss of property value, damage, or injury that results from pre-existing hazardous materials being encountered or present on the project site, or from the discovery of such hazardous materials. Nothing contained in this report should be construed or interpreted as requiring Kleinfelder to assume the status of an owner, operator, or generator, or person who arranges for disposal, transport, storage or treatment of hazardous materials within the meaning of any governmental statute, regulation or order. NCDOT is solely responsible for directing notification of all governmental agencies, and the public at large, of the existence, release, treatment or disposal of any hazardous materials observed at the project site, either before or during performance of

Kleinfelder's services. NCDOT is responsible for directing all arrangements to lawfully store, treat, recycle, dispose, or otherwise handle hazardous materials, including cuttings and samples resulting from Kleinfelder's services.

TABLES

Table 1: Soil Sample Screening Results

Date	Sample ID	Depth (ft)	PID Reading	Notes
8/5/2019	U5757-P5-B1	1	0.0	
		2	0.0	
		3	0.0	
		4	0.0	
		5	0.0	UVF Analysis
		6	0.0	
		7	0.0	
		8	0.0	
		9	0.0	
		10	0.0	
8/5/2019	U5757-P5-B2	1	0.0	
		2	0.0	
		3	0.0	
		4	0.0	
		5	0.0	UVF Analysis
		6	0.0	
		7	0.0	
		8	0.0	
		9	0.0	
		10	0.0	
8/5/2019	U5757-P5-B3	1	1.1	
		2	5.8	
		3	13.4	
		4	339.5	UVF Analysis
		5	169.4	
		6	337.0	
		7	32.4	
		8	99.5	
		9	16.8	UVF Analysis
		10	5.3	
8/5/2019	U5757-P5-B4	1	0.3	
		2	41.2	
		3	126.8	UVF Analysis
		4	186.4	
		5	2.3	
		6	22.8	UVF Analysis
		7	21.0	
		8	6.3	
		9	12.1	
		10	79.1*	
8/5/2019	U5757-P5-B5	1	0.1	
		2	0.3	
		3	0.0	
		4	0.2	
		5	9.6	
		6	11.0	
		7	5.8	
		8	71.8	UVF Analysis
		9	51.6	
		10	2.7	
8/5/2019	U5757-P5-B6	1	0.0	
		2	1.2	
		3	1.1	UVF Analysis
		4	0.9	
		5	0.6	
		6	0.2	
		7	0.6	
		8	0.6	
		9	0.3	
		10	0.2	

Notes:
1) PID = Photoionization Detector
2) PID readings in parts per million (ppm)
3) * = likely result of cross-contamination

TABLE 2: Soil Sample Analytical Summary

Parameter	Analytical Results								Comparison Criteria		
	Soil Sample Results										
Sample ID	P5-B1-5	P5-B2-5	P5-B3-4	P5-B3-9	P5-B4-3	P5-B4-6	P5-B5-8	P5-B6-3	State Action Limit	Protection of Groundwater	Residential Health
PID Reading (ppm)	0.0	0.0	339.5	16.8	126.8	22.8	71.8	1.1			
Collection Depth (ft bgs)	5	5	4	9	3	6	8	3			
Collection Date	8/5/19	8/5/19	8/5/19	8/5/19	8/5/19	8/5/19	8/5/19	8/5/19			
UVF Method											
Diesel Range Organics	**9**	<0.28	**62.6**	**0.43**	<0.28	<0.3	**3.7**	**0.35**	100	--	--
Gasoline Range Organics	**6.2**	**2.1**	**16.3**	**3.2**	**6.1**	**1.9**	**6.1**	<0.35	50	--	--
EPA Method 8260											
4-Isopropyltoluene	N/A	N/A	<0.0014	<0.0014	**0.0098**	<0.0015	<0.0018	N/A	--	0.12	100
Ethylbenzene	N/A	N/A	<0.00087	<0.00082	**0.0068**	<0.00090	<0.0011	N/A	--	4.9	1560
Isopropylbenzene (Cumene)	N/A	N/A	<0.00067	<0.00063	**0.012**	<0.00069	<0.00081	N/A	--	1.7	1564
Naphthalene	N/A	N/A	<0.00058	<0.00055	**0.014**	<0.00060	<0.00071	N/A	--	0.16	313
n-Butylbenzene	N/A	N/A	<0.00054	<0.00051	**0.025**	<0.00056	<0.00066	N/A	--	4.3	626
n-Propylbenzene	N/A	N/A	<0.00083	<0.00079	**0.023**	<0.00086	<0.0010	N/A	--	1.7	626
sec-Butylbenzene	N/A	N/A	**0.006**	<0.00059	**0.023**	<0.00064	**0.0069 J**	N/A	--	3.3	626
tert-Butylbenzene	N/A	N/A	**0.0036 J**	<0.00065	**0.0065**	<0.00071	**0.004 J**	N/A	--	3.4	626
Acetone	N/A	N/A	**0.044**	**0.055**	**0.037**	**0.083**	**0.031**	N/A	--	24	14000

Notes:

Results displayed in milligrams per kilogram (mg/kg)

ft bgs = Feet below ground surface

Bold = Above Laboratory Detection Limit

Highlighted concentrations exceed the NCDEQ action limit

UVF = Ultraviolet Flouresence

J = Estimated value between the method detection limit and laboratory reporting limit

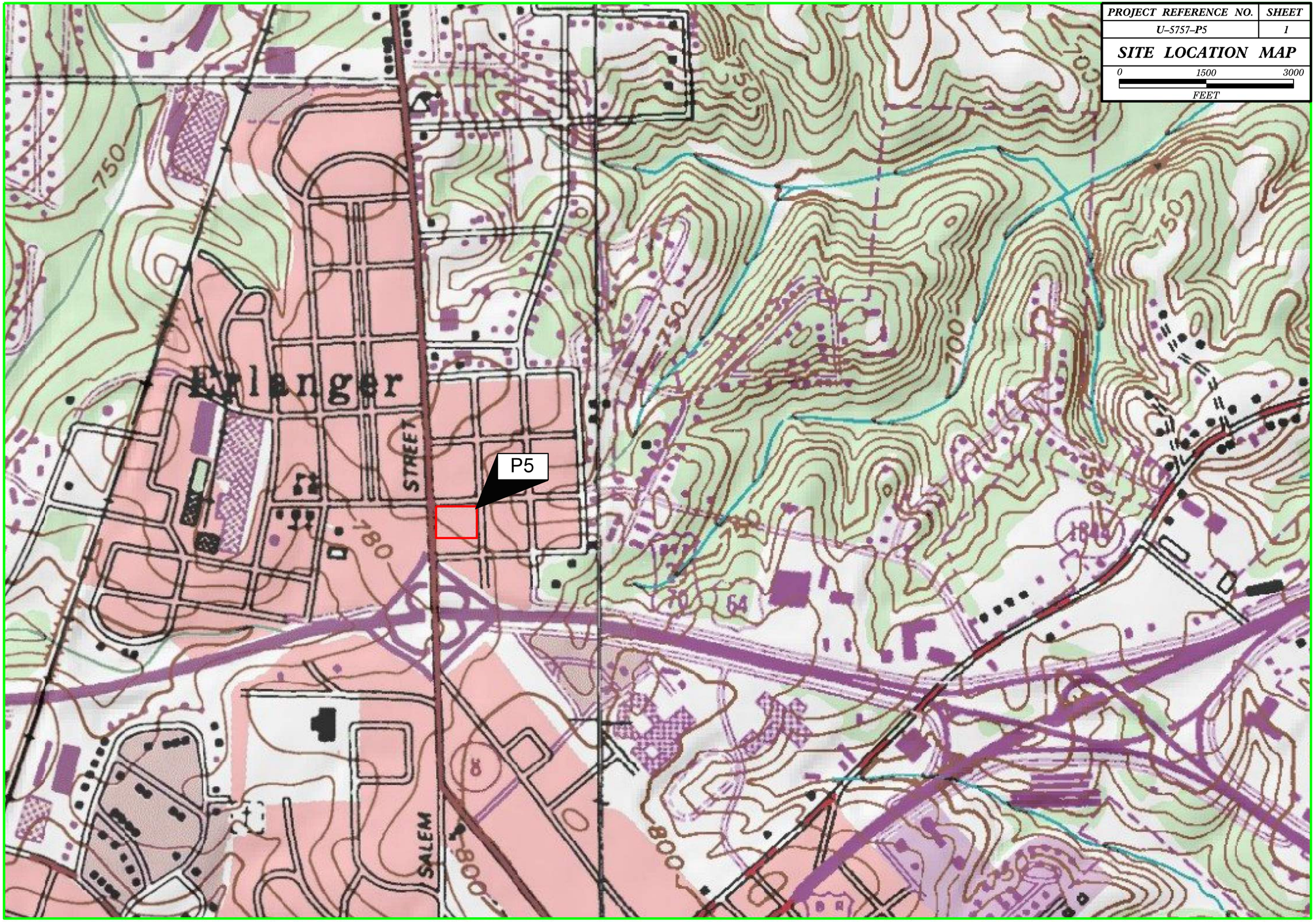
FIGURES

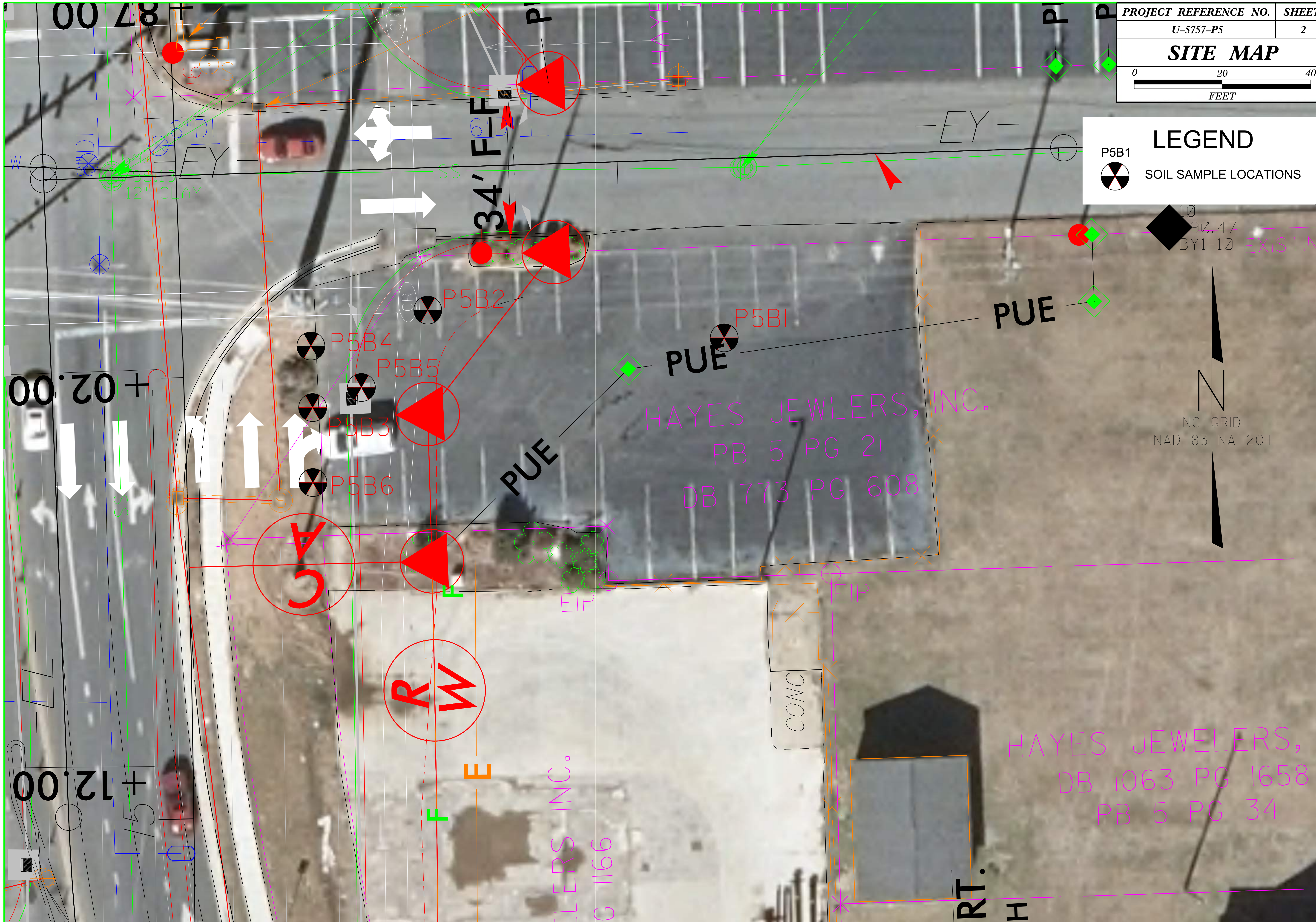
PROJECT REFERENCE NO.	SHEET
U–5757–P5	1

SITE LOCATION MAP

0 1500 3000

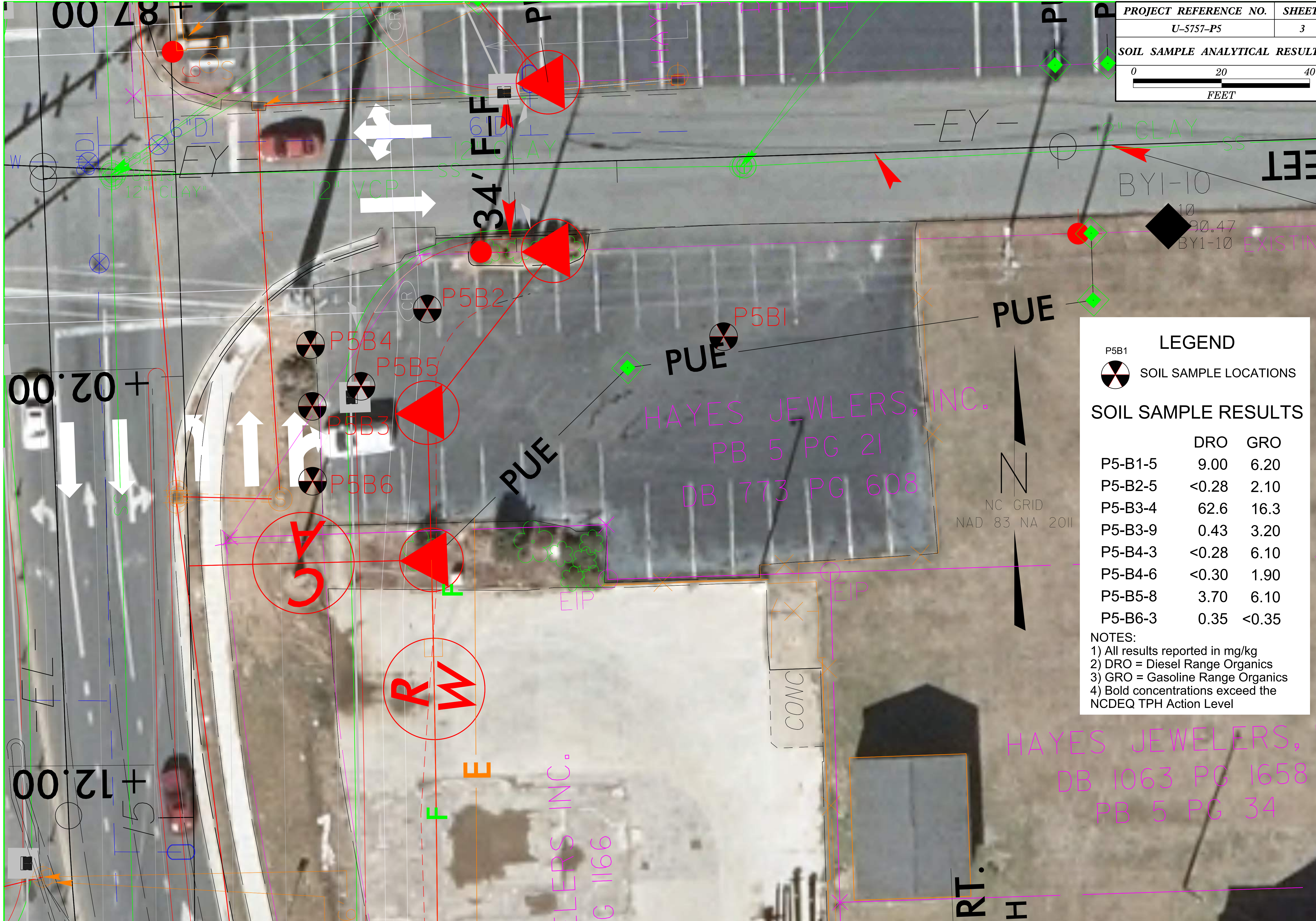
FEET




PROJECT REFERENCE NO.
U-5757-P5
SHEET
2
SITE MAP
0
20
40
FEET
LEGEND
P5B1
SOIL SAMPLE LOCATIONS
P5B1
P5B2
P5B3
P5B4
P5B5
P5B6
PUE
PUE
PUE
-EY-
-EY-
34'
HAYES JEWLERS, INC.
PB 5 PG 21
DB 773 PG 608
HAYES JEWELERS, IN
DB 1063 PG 1658
PB 5 PG 34
NC GRID
NAD 83 NA 2011
EIP
EIP
CONC
+02.00
+12.00

PROJECT REFERENCE NO.	SHEET
U-5757-P5	3

SOIL SAMPLE ANALYTICAL RESULTS



LEGEND

P5B1 — SOIL SAMPLE LOCATIONS

SOIL SAMPLE RESULTS

	DRO	GRO
P5-B1-5	9.00	6.20
P5-B2-5	<0.28	2.10
P5-B3-4	62.6	16.3
P5-B3-9	0.43	3.20
P5-B4-3	<0.28	6.10
P5-B4-6	<0.30	1.90
P5-B5-8	3.70	6.10
P5-B6-3	0.35	<0.35

NOTES:
1) All results reported in mg/kg
2) DRO = Diesel Range Organics
3) GRO = Gasoline Range Organics
4) Bold concentrations exceed the NCDEQ TPH Action Level

APPENDIX A
SITE PHOTOGRAPHS

View facing southeasterly across 9th Street of Parcel 5.

Original in Color

View facing southerly across 9th Street of Parcel 5 toward soil borings P5-B3 through P5-B6.

KLEINFELDER *Bright People. Right Solutions.* www.kleinfelder.com	PROJECT NO:20201105.001A DRAWN: September 2019 DRAWN BY: ARS CHECKED BY: MB FILE NAME: Photo Pages	**SITE PHOTOGRAPHS** Preliminary Site Assessment Report U-5757-P5 Lexington, Davidson County, North Carolina	FIGURE **A-1**

APPENDIX B
GEOPHYSICAL SURVEY REPORT

PYRAMID GEOPHYSICAL SERVICES
(PROJECT 2019-211)

GEOPHYSICAL SURVEY

METALLIC UST INVESTIGATION:
PARCEL 5
NCDOT PROJECT U-5757 (54035.1.1)

SOUTHEAST CORNER OF NC-8 AND 9TH STREET, LEXINGTON, NC

August 15, 2019

Report prepared for: **Michael Burns, P.G.**
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Prepared by: _____

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C257: GEOLOGY C1251: ENGINEERING

GEOPHYSICAL INVESTIGATION REPORT
Parcel 5 - Southeast Corner of NC-8 and 9th Street
Lexington, Davidson County, North Carolina

Table of Contents

Figures

LIST OF ACRONYMS

CADD .....Computer Assisted Drafting and Design
DF .....Dual Frequency
EM.....Electromagnetic
GPR.....Ground Penetrating Radar
GPS .....Global Positioning System
NCDOT.....North Carolina Department of Transportation
ROW .....Right-of-Way
UST .....Underground Storage Tank

EXECUTIVE SUMMARY

Project Description: Pyramid Environmental conducted a geophysical investigation for Kleinfelder, Inc. at Parcel 5 located at the Southeast Corner of NC-8 and 9th Street in Lexington, NC. The survey was part of an NCDOT Right-of-Way (ROW) investigation (NCDOT Project U-5757). The survey was designed to extend from the existing edge of pavement into the proposed ROW and/or easements, whichever distance was greater. Conducted from July 15-16, 2019, the geophysical investigation was performed to determine if unknown, metallic underground storage tanks (USTs) were present beneath the survey area.

Geophysical Results: The geophysical investigation consisted of electromagnetic (EM) induction-metal detection and ground penetrating radar (GPR) surveys. A total of six EM anomalies were identified. The majority of the EM anomalies were directly attributed to visible cultural features at the ground surface. EM and GPR data recorded evidence of buried metallic debris at the site. Collectively, the geophysical data did not record any evidence of unknown metallic USTs at Parcel 5.

INTRODUCTION

Pyramid Environmental conducted a geophysical investigation for Kleinfelder, Inc. at Parcel 5 located at the Southeast Corner of NC-8 and 9th Street in Lexington, NC. The survey was part of an NCDOT Right-of-Way (ROW) investigation (NCDOT Project U-5757). The survey was designed to extend from the existing edge of pavement into the proposed ROW and/or easements, whichever distance was greater. Conducted from July 15-16, 2019, the geophysical investigation was performed to determine if unknown, metallic underground storage tanks (USTs) were present beneath the survey area.

The site included an asphalt parking lot surrounded by grass and concrete surfaces. An aerial photograph showing the survey area boundaries and ground-level photographs are shown in **Figure 1**.

FIELD METHODOLOGY

The geophysical investigation consisted of electromagnetic (EM) induction-metal detection and ground penetrating radar (GPR) surveys. Pyramid collected the EM data using a Geonics EM61-MK2 (EM61) metal detector integrated with a Geode External GPS/GLONASS receiver. 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 15.0 software programs.

GPR data were acquired across select EM anomalies on July 16, 2019, using a Geophysical Survey Systems, Inc. (GSSI) UtilityScan DF unit equipped with a dual frequency 300/800 MHz antenna. Data were collected both in reconnaissance fashion as well as along formal transect lines across EM features. The GPR data were viewed in real-time using a vertical scan of 512 samples, at a rate of 48 scans per second. GPR data were viewed down to a maximum depth of approximately 6 feet, based on dielectric constants calculated by the DF unit in the field during the reconnaissance scans. GPR transects across specific anomalies were saved to the hard drive of the DF unit for post-processing and figure generation.

Pyramid's classifications of USTs for the purposes of this report are based directly on the geophysical UST ratings provided by the NCDOT. These ratings are as follows:

Geophysical Surveys for Underground Storage Tanks
on NCDOT Projects

High Confidence	Intermediate Confidence	Low Confidence	No Confidence
Known UST Active tank - spatial location, orientation, and approximate depth determined by geophysics.	**Probable UST** Sufficient geophysical data from both magnetic and radar surveys that is characteristic of a tank. Interpretation may be supported by physical evidence such as fill/vent pipe, metal cover plate, asphalt/concrete patch, etc.	**Possible UST** Sufficient geophysical data from either magnetic or radar surveys that is characteristic of a tank. Additional data is not sufficient enough to confirm or deny the presence of a UST.	Anomaly noted but not characteristic of a UST. Should be noted in the text and may be called out in the figures at the geophysicist's discretion.

DISCUSSION OF RESULTS

Discussion of EM Results

A contour plot of the EM61 results obtained across the survey area at the property is presented in **Figure 2**. Each EM anomaly is numbered for reference in the figure. The following table presents the list of EM anomalies and the cause of the metallic response, if known:

LIST OF METALLIC ANOMALIES IDENTIFIED BY EM SURVEY

Metallic Anomaly #	Cause of Anomaly	Investigated with GPR
1	Utility	
2	Manhole	
3	Surface Metal	
4	Surface Metal	
5	Suspected Metallic Debris	✓
6	Drop Inlet	

The majority of the EM anomalies were directly attributed to visible cultural features at the ground surface including a utility, a manhole, surface metal, and a drop inlet. EM Anomaly 5 was suspected to be the result of buried metallic debris and was investigated further with GPR.

Discussion of GPR Results

Figure 3 presents the locations of the formal GPR transects performed at the property as well as the transect images. A total of two formal GPR transects were performed at the site. GPR Transects 1 and 2 were performed across an area of suspected buried metallic debris (EM Anomaly 5). These transects recorded small hyperbolic reflectors consistent with the presence of buried metallic debris. No evidence of any buried structures such as USTs was observed.

Collectively, the geophysical data did not record any evidence of unknown metallic USTs at Parcel 5. **Figure 4** provides an overlay of the metal detection results on the NCDOT MicroStation engineering plans for reference.

SUMMARY & CONCLUSIONS

Pyramid's evaluation of the EM61 and GPR data collected at Parcel 5 in Lexington, North Carolina, provides the following summary and conclusions:

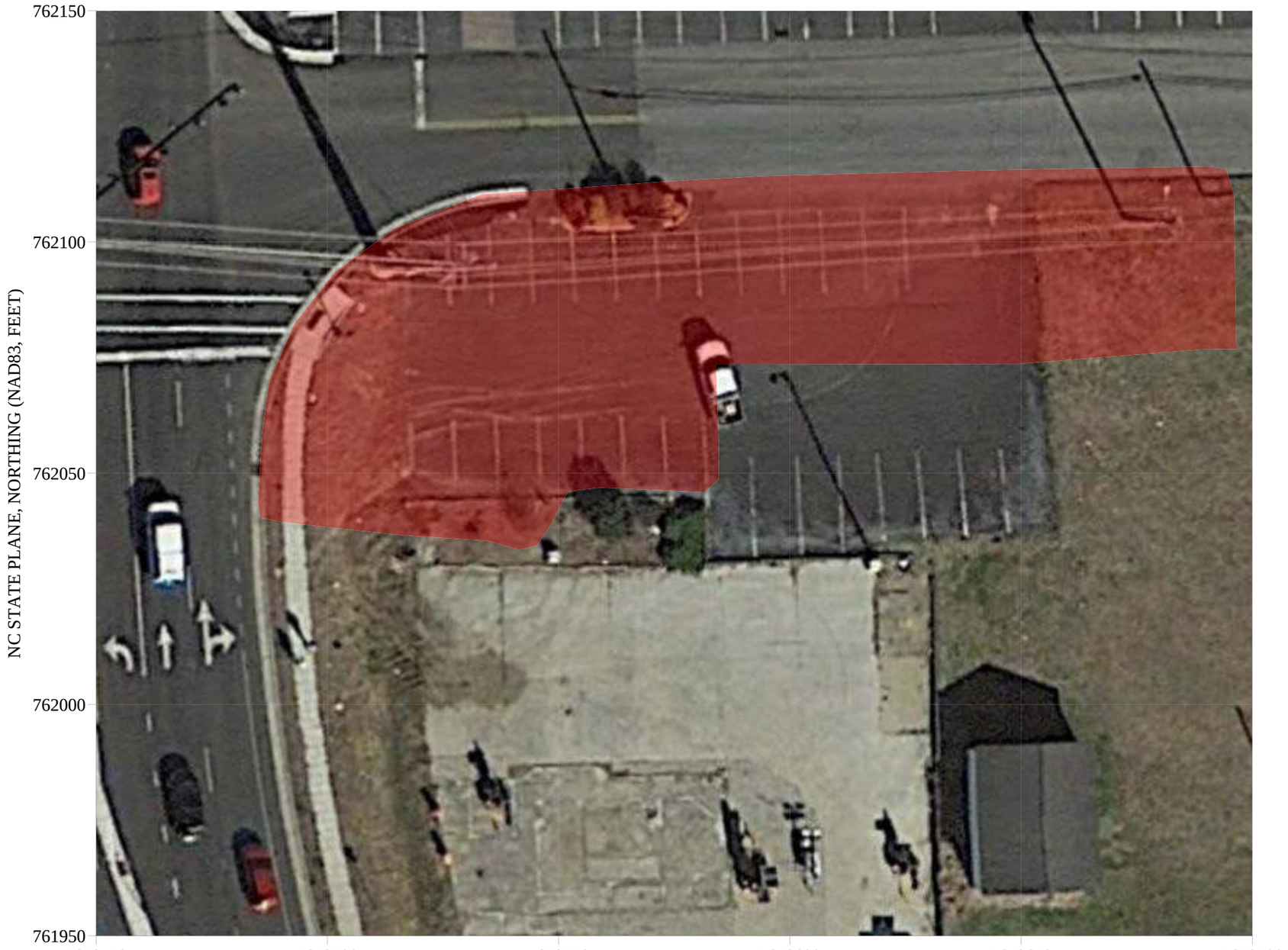
- The EM61 and GPR surveys provided reliable results for the detection of metallic USTs within the accessible portions of the geophysical survey area.

- The majority of the EM anomalies were directly attributed to visible cultural features at the ground surface.
- EM and GPR data recorded evidence of buried metallic debris at the site.
- Collectively, the geophysical data did not record any evidence of unknown metallic USTs at Parcel 5.

LIMITATIONS

Geophysical surveys have been performed and this report was prepared for Kleinfelder in accordance with generally accepted guidelines for EM61 and GPR surveys. It is generally recognized that the results of the EM61 and GPR surveys are non-unique and may not represent actual subsurface conditions. The EM61 and GPR 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.

APPROXIMATE BOUNDARIES OF GEOPHYSICAL SURVEY AREA



View of Survey Area
(Facing Approximately North)

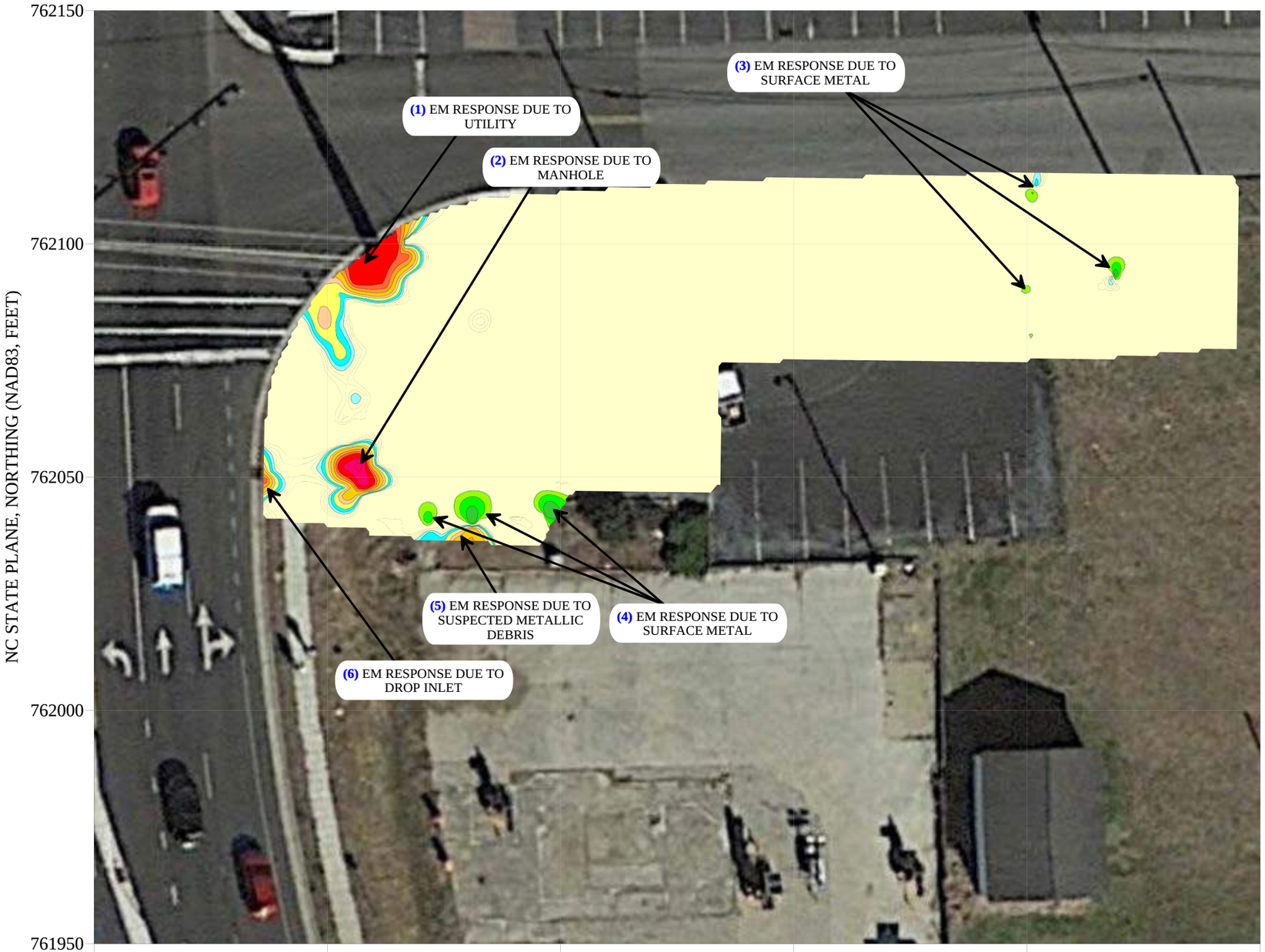
View of Survey Area
(Facing Approximately East)

N

PYRAMID GEOPHYSICS
503 INDUSTRIAL AVENUE
GREENSBORO, NC 27406
(336) 335-3174 (p) (336) 691-0648 (f)
License # C1251 Eng. / License # C257 Geology

PROJECT	PARCEL 5 LEXINGTON, NORTH CAROLINA NCDOT PROJECT U-5757	TITLE	PARCEL 5 - GEOPHYSICAL SURVEY BOUNDARIES AND SITE PHOTOGRAPHS	DATE	7/19/2019
				CLIENT	KLEINFELDER
				PYRAMID PROJECT #:	2019-211
					FIGURE 1

EM61 METAL DETECTION RESULTS



NO EVIDENCE OF METALLIC USTs WAS OBSERVED.

The contour plot shows the differential results of the EM61 instrument in millivolts (mV). The differential results focus on larger metallic objects such as USTs and drums. The EM data were collected on July 15, 2019, using a Geonics EM61-MK2 instrument. Verification GPR data were collected using a GSSI UtilityScan DF instrument with a dual frequency 300/800 MHz antenna on July 16, 2019.

EM61 Metal Detection Response (millivolts)

N

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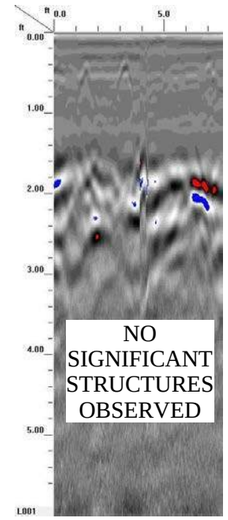
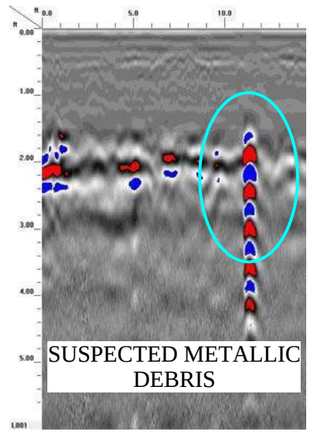
PROJECT	PARCEL 5 LEXINGTON, NORTH CAROLINA NCDOT PROJECT U-5757	TITLE	PARCEL 5 - EM61 METAL DETECTION CONTOUR MAP	DATE 7/19/2019 CLIENT KLEINFELDER PYRAMID PROJECT #: 2019-211 **FIGURE 2**

LOCATIONS OF GPR TRANSECTS



GPR TRANSECT 1 (T1)



GPR TRANSECT 2 (T2)

N

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PROJECT	PARCEL 5 LEXINGTON, NORTH CAROLINA NCDOT PROJECT U-5757	TITLE	PARCEL 5 - GPR TRANSECT LOCATIONS AND IMAGES	DATE	7/19/2019
				CLIENT	KLEINFELDER
				PYRAMID PROJECT #:	2019-211
					FIGURE 3

LEGEND

- EXISTING ROW
- EXISTING PROPERTY BOUNDARY
- PROPOSED ROW LINE
- TEMPORARY CONSTRUCTION EASEMENT
- PROPOSED PERMANENT UTILITY
- PROPOSED SS CUT LINE
- PROPOSED SS FILL LINE

EM61 Metal Detection Response (millivolts)

1000 750 500 400 300 200 150 100 75 60 50 40 30 -90 -100 -200 -400 -5000

HAYES JEWELERS, I
DB 958, PG 89
DB 580, PG 62
DB 575, PG 408
DB 506, PG 754
DB 488, PG 627
DB 469, PG 322
PB 64, PG 74
PB 5, PG 34
PB 5, PG 21

EXISTING R/W VARIES

BY1-10 EXISTING R/W VARIES

HAYES JEWLERS, INC.
PB 5 PG 21
DB 773 PG 608

HAYES JEWELERS, INC
DB 1063 PG 1658
PB 5 PG 34

HAYES JEWELERS, INC
DB 1198 PG 985
PB 5 PG 21

HAYES JEWELERS INC.
DB 2307 PG 1166

0 15 30
FEET

N

TITLE
OVERLAY OF METAL DETECTION RESULTS
ON NCDOT ENGINEERING PLANS

PROJECT
PARCEL 5
LEXINGTON, NORTH CAROLINA
NCDOT PROJECT U-5757

PYRAMID GEOPHYSICS
503 INDUSTRIAL AVENUE
GREENSBORO, NC 27406
336.335.3174 (p) 336.691.0648 (f)
License # C1251 Eng. / #C257 Geology

DATE: 08-13-2019 | REVISION NO. 0

PYRAMID PROJECT NO. 2019-211 | FIGURE NO. 4

APPENDIX C
BORING LOGS

Date Begin - End:	8/05/2019	**Drilling Company:**	Quantex
Logged By:	A Shurtleff	**Drill Crew:**	Andrew C
Hor.-Vert. Datum:	WGS 1984 - Not Available	**Drilling Equipment:**	Geunine Geoprobe
Plunge:	-90 degrees	**Drilling Method:**	See Drilling Method Column
Weather:	75°F Cloudy	**Borehole Diameter:**	

BORING LOG P5-B1

FIELD EXPLORATION

Latitude: 35.83751° N
Longitude: -80.25308° E
Surface Condition: Asphalt

Depth (feet)	Drilling Method	Sample Type	Sample Number	Recovery (NR=No Recovery)	PID / FID (ppmv)	Graphical Log	Lithologic Description
							ASPHALT
					0.0		**Silty CLAY**: dark brown, dry
					0.0		**Clayey SILT**: red streaked light brown, dry to moist
					0.0		
					0.0		
5	Geoprobe		P5-B1-5		0.0		
					0.0		
					0.0		
					0.0		
					0.0		**SILT**: red, dry to moist
					0.0		
10					0.0		

The borehole was terminated at approximately 10 ft. below ground surface.

GROUNDWATER LEVEL INFORMATION:
Groundwater was not observed during drilling or after completion.
GENERAL NOTES:
An iPad integrated GPS unit was used to locate the borehole with an accuracy of 5 meters.
The boring was backfilled with excavated material on August 05, 2019.

KLEINFELDER
Bright People. Right Solutions.

PROJECT NO.: 20201105.001A	BORING LOG P5-B1		
DRAWN BY: A SHURTLEFF	NCDOT: U-5757 Biesecker Road Lexington, NC	1	
CHECKED BY: M BURNS			
DATE: 9/10/2019		PAGE: 1 of 1	

Date Begin - End:	8/05/2019	**Drilling Company:**	Quantex	**BORING LOG P5-B2**	
Logged By:	A Shurtleff	**Drill Crew:**	Andrew C		
Hor.-Vert. Datum:	WGS 1984 - Not Available	**Drilling Equipment:**	Geunine Geoprobe		
Plunge:	-90 degrees	**Drilling Method:**	See Drilling Method Column		
Weather:	75°F Cloudy	**Borehole Diameter:**			

FIELD EXPLORATION

Depth (feet)	Drilling Method	Sample Type	Sample Number	Recovery (NR=No Recovery)	PID / FID (ppmv)	Graphical Log	Latitude: 35.83749° N Longitude: -80.25330° E Surface Condition: Asphalt Lithologic Description
							ASPHALT
					0.0		**CLAY with Silt**: dark brown, dry
					0.0		
					0.0		
					0.0		**Clayey SILT**: red streaked light brown, dry to moist
					0.0		**CLAY with Silt**: yellow mottled reddish yellow, dry to moist
5	Direct Push Sleeves		P5-B2-5		0.0		**SILT with Clay**: red nodules black, moist
					0.0		**CLAY**: light brown mottled reddish brown, moist to wet, trace silt
					0.0		
					0.0		
					0.0		
					0.0		
10							

The borehole was terminated at approximately 10 ft. below ground surface.

GROUNDWATER LEVEL INFORMATION:
Groundwater was not observed during drilling or after completion.
GENERAL NOTES:
An iPad integrated GPS unit was used to locate the borehole with an accuracy of 5 meters.
The boring was backfilled with excavated material on August 05, 2019.

KLEINFELDER
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PROJECT NO.: 20201105.001A	BORING LOG P5-B2		
DRAWN BY: A SHURTLEFF	NCDOT: U-5757 Biesecker Road Lexington, NC	2	
CHECKED BY: M BURNS			
DATE: 9/10/2019		PAGE: 1 of 1	

Date Begin - End:	8/05/2019	**Drilling Company:**	Quantex
Logged By:	A Shurtleff	**Drill Crew:**	Andrew C
Hor.-Vert. Datum:	WGS 1984 - Not Available	**Drilling Equipment:**	Geunine Geoprobe
Plunge:	-90 degrees	**Drilling Method:**	See Drilling Method Column
Weather:	75°F Cloudy	**Borehole Diameter:**	

BORING LOG P5-B3

FIELD EXPLORATION

Latitude: 35.83745° N
Longitude: -80.25336° E
Surface Condition: Grass

Depth (feet)	Drilling Method	Sample Type	Sample Number	Recovery (NR=No Recovery)	PID / FID (ppmv)	Graphical Log	Lithologic Description
							SAND with Silt: light brown
					1.1		**CLAY with Silt**: brown, dry to moist
					5.8		
					13.4		
							Clayey SILT: light brown nodules brown, strong odor, moist
					339.5		
	Direct Push Sleeves		P5-B3-4				
					169.4		
5							
					337.0		**CLAY with Silt**: light brown and bluish gray, strong odor, moist
					32.4		
					99.5		
					16.8		
			P5-B3-9				**CLAY**: bluish gray nodules black, weak odor, moist
					5.3		
10							

The borehole was terminated at approximately 10 ft. below ground surface.

GROUNDWATER LEVEL INFORMATION:
Groundwater was not observed during drilling or after completion.
GENERAL NOTES:
An iPad integrated GPS unit was used to locate the borehole with an accuracy of 5 meters.
The boring was backfilled with excavated material on August 05, 2019.

KLEINFELDER
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PROJECT NO.: 20201105.001A
DRAWN BY: A SHURTLEFF
CHECKED BY: M BURNS
DATE: 9/10/2019

BORING LOG P5-B3

NCDOT: U-5757
Biesecker Road
Lexington, NC

3

PAGE: 1 of 1

Date Begin - End:	8/05/2019	**Drilling Company:**	Quantex
Logged By:	A Shurtleff	**Drill Crew:**	Andrew C
Hor.-Vert. Datum:	WGS 1984 - Not Available	**Drilling Equipment:**	Geunine Geoprobe
Plunge:	-90 degrees	**Drilling Method:**	See Drilling Method Column
Weather:	75°F Cloudy	**Borehole Diameter:**	

BORING LOG P5-B4

FIELD EXPLORATION

Latitude: 35.83750° N
Longitude: -80.25337° E
Surface Condition: Asphalt

Depth (feet)	Drilling Method	Sample Type	Sample Number	Recovery (NR=No Recovery)	PID / FID (ppmv)	Graphical Log	Lithologic Description
							SAND with Silt: light brown
					0.3		**CLAY with Silt**: brown, dry to moist
					41.2		
					126.8		
	Direct Push Sleeves		P5-B4-3		186.4		**Clayey SILT**: light brown nodules brown, strong odor, moist
5					2.3		
					22.8		**CLAY with Silt**: light brown and bluish gray, strong odor, moist
			P5-B4-6		21.0		
					6.3		
					12.1		
					79.1		**CLAY**: bluish gray nodules black, weak odor, moist
10							

The borehole was terminated at approximately 10 ft. below ground surface.

GROUNDWATER LEVEL INFORMATION:
Groundwater was not observed during drilling or after completion.
GENERAL NOTES:
An iPad integrated GPS unit was used to locate the borehole with an accuracy of 5 meters.
The boring was backfilled with excavated material on August 05, 2019.

KLEINFELDER
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PROJECT NO.: 20201105.001A
DRAWN BY: A SHURTLEFF
CHECKED BY: M BURNS
DATE: 9/10/2019

BORING LOG P5-B4

NCDOT: U-5757
Biesecker Road
Lexington, NC

4

PAGE: 1 of 1

BORING LOG P5-B5

Date Begin - End:	8/05/2019	**Drilling Company:**	Quantex
Logged By:	A Shurtleff	**Drill Crew:**	Andrew C
Hor.-Vert. Datum:	WGS 1984 - Not Available	**Drilling Equipment:**	Geunine Geoprobe
Plunge:	-90 degrees	**Drilling Method:**	See Drilling Method Column
Weather:	75°F Cloudy	**Borehole Diameter:**	

FIELD EXPLORATION

Depth (feet)	Drilling Method	Sample Type	Sample Number	Recovery (NR=No Recovery)	PID / FID (ppmv)	Graphical Log	Latitude: 35.83746° N Longitude: -80.25331° E Surface Condition: Grass Lithologic Description
							SAND with Silt: light brown
					0.1		**CLAY with Silt**: brown, dry to moist
					0.3		
					0.0		
							Clayey SILT: light brown nodules brown, strong odor, moist
					0.2		
	Direct Push Sleeves				9.6		
5							
					11.0		**CLAY with Silt**: light brown and bluish gray, strong odor, moist
					5.8		
					71.8		
			P5-B5-8				
					51.6		
							CLAY: bluish gray nodules black, weak odor, moist
					2.7		
10							

The borehole was terminated at approximately 10 ft. below ground surface.

GROUNDWATER LEVEL INFORMATION:
Groundwater was not observed during drilling or after completion.
GENERAL NOTES:
An iPad integrated GPS unit was used to locate the borehole with an accuracy of 5 meters.
The boring was backfilled with excavated material on August 05, 2019.

KLEINFELDER
Bright People. Right Solutions.

PROJECT NO.: 20201105.001A	BORING LOG P5-B5		
DRAWN BY: A SHURTLEFF	NCDOT: U-5757 Biesecker Road Lexington, NC	5	
CHECKED BY: M BURNS			
DATE: 9/10/2019		PAGE: 1 of 1	

Date Begin - End:	8/05/2019	**Drilling Company:**	Quantex
Logged By:	A Shurtleff	**Drill Crew:**	Andrew C
Hor.-Vert. Datum:	WGS 1984 - Not Available	**Drilling Equipment:**	Geunine Geoprobe
Plunge:	-90 degrees	**Drilling Method:**	See Drilling Method Column
Weather:	78°F Cloudy	**Borehole Diameter:**	

BORING LOG P5-B6

FIELD EXPLORATION

Latitude: 35.83742° N
Longitude: -80.25338° E
Surface Condition: Grass

Depth (feet)	Drilling Method	Sample Type	Sample Number	Recovery (NR=No Recovery)	PID / FID (ppmv)	Graphical Log	Lithologic Description
					0.0		**GRAVEL**: brown, dry, trace sand
					1.2		
					1.1		
			P5-B6-3				**SILT with Clay**: dark reddish brown streaked black, dry to moist
					0.9		
	Direct Push Sleeves				0.6		**CLAY with Silt**: light brown streaked red, dry to moist
5					0.2		**CLAY**: pale red streaked bluish gray, dry to moist
					0.6		
					0.6		
					0.3		
					0.2		
10							

The borehole was terminated at approximately 10 ft. below ground surface.

GROUNDWATER LEVEL INFORMATION:
Groundwater was not observed during drilling or after completion.
GENERAL NOTES:
An iPad integrated GPS unit was used to locate the borehole with an accuracy of 5 meters.
The boring was backfilled with excavated material on August 05, 2019.

KLEINFELDER
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PROJECT NO.: 20201105.001A	BORING LOG P5-B6		
DRAWN BY: A SHURTLEFF	NCDOT: U-5757 Biesecker Road Lexington, NC	6	
CHECKED BY: M BURNS			
DATE: 9/10/2019		PAGE: 1 of 1	

APPENDIX D
ANALYTICAL REPORT AND GRAPHS

QED

QROS

Hydrocarbon Analysis Results

Client: KLEINFELDER
Address:

Samples taken Monday, August 5, 2019
Samples extracted Monday, August 5, 2019
Samples analysed Monday, August 5, 2019

Contact: ABIGAIL SHURTLEFF

Operator CAROLINE STEVENS

Project: U-5757

U00904

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
										C5 - C10	C10 - C18	C18	
s	P5-B1-5	24.8	<0.62	6.2	9	15.2	6.2	0.24	<0.025	74	19.4	6.5	Deg Fuel 90.2%,(FCM),(BO)
s	P5-B2-5	11.4	<0.28	2.1	<0.28	2.1	0.17	<0.09	<0.011	97.8	1.4	0.8	Deg.PHC 71.4%,(FCM)
s	P5-B3-4	12.7	<0.32	16.3	62.6	78.9	3.3	0.13	<0.013	99.7	0.2	0.1	Deg.Kerosene 86.2%,(FCM),(BO)
s	P5-B3-9	9.1	<0.23	3.2	0.43	3.63	0.27	<0.07	<0.009	96	2.7	1.4	Deg.PHC 78.2%,(FCM),(BO)
s	P5-B4-3	11.0	<0.28	6.1	<0.28	6.1	0.19	<0.09	<0.011	99.5	0.4	0.1	Deg.PHC 62.5%,(FCM)
s	P5-B4-6	12.1	<0.3	1.9	<0.3	1.9	<0.06	<0.1	<0.012	100	0	0	,(FCM)
s	P5-B5-8	25.2	<0.63	6.1	3.7	9.8	2.4	<0.2	<0.025	88.1	8.9	3	Deg.Fuel 89.3%,(FCM)
s	P5-B6-3	13.9	<0.35	<0.35	0.35	0.35	0.22	<0.11	<0.014	0	63.4	36.6	Deg Fuel 75.5%,(FCM)

Initial Calibrator QC check OK

Final FCM QC Check OK 105.6 %

Concentration values in mg/kg for soil samples and mg/L for water samples. Soil values uncorrected for moisture or stone content. Fingerprints provide a tentative hydrocarbon identification.

Abbreviations :- FCM = Results calculated using Fundamental Calibration Mode : % = confidence of hydrocarbon identification : (PFM) = Poor Fingerprint Match : (T) = Turbid : (P) = Particulate detected

B = Blank Drift : (SBS)/(LBS) = Site Specific or Library Background Subtraction applied to result : (BO) = Background Organics detected : (OCR) = Outside cal range : (M) = Modifed Result.

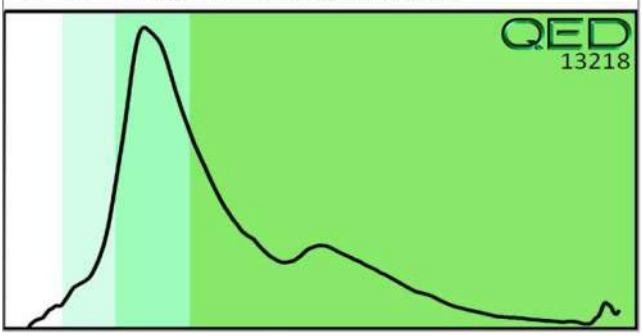
% Ratios estimated aromatic carbon number proportions : HC = Hydrocarbon : PHC = Petroleum HC : FP = Fingerprint only. **Data generated by HC-1 Analyser**

QED Hydrocarbon Fingerprints

Project: U-5757

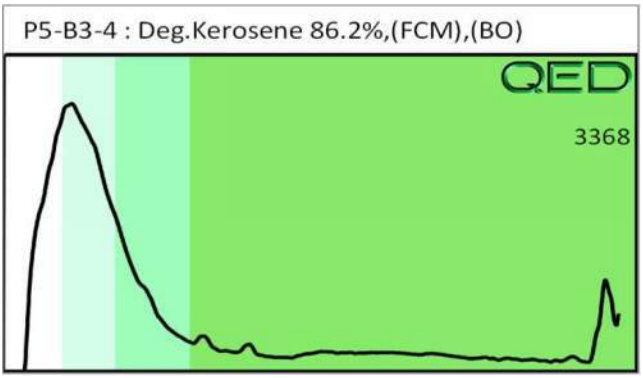
Monday, August 5, 2019

P5-B1-5 : Deg Fuel 90.2%,(FCM),(BO)

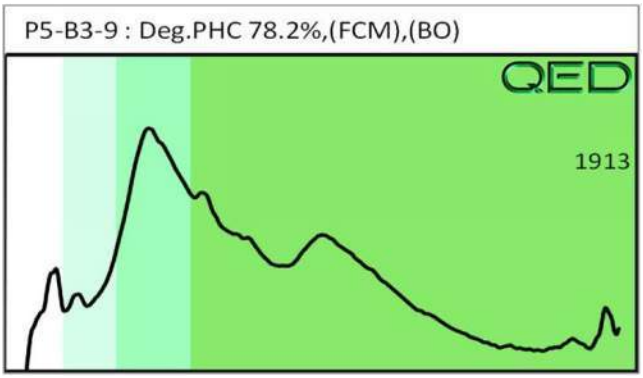


P5-B2-5 : Deg.PHC 71.4%,(FCM)

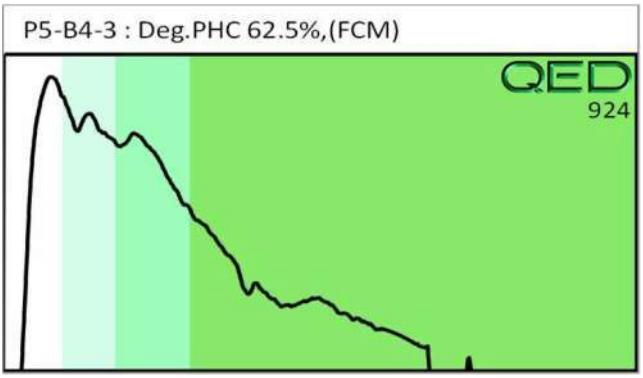
P5-B3-4 : Deg.Kerosene 86.2%,(FCM),(BO)



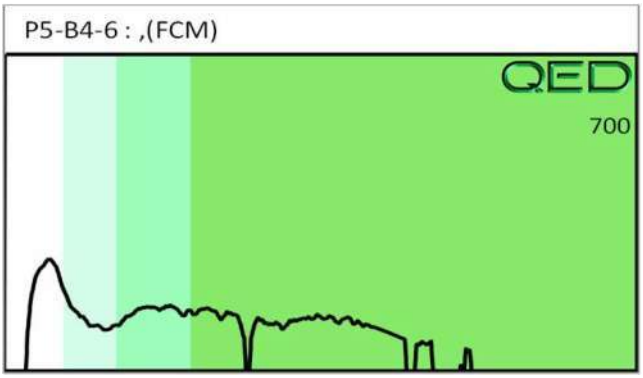
P5-B3-9 : Deg.PHC 78.2%,(FCM),(BO)



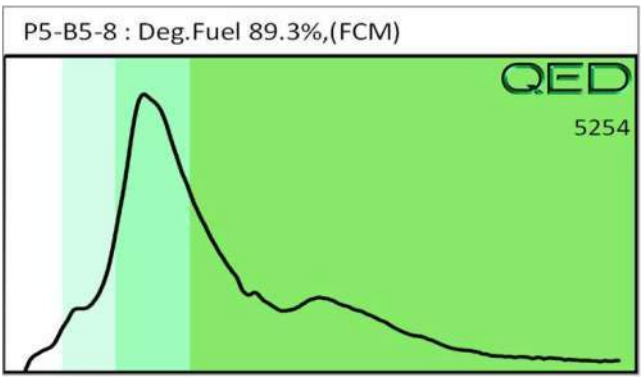
P5-B4-3 : Deg.PHC 62.5%,(FCM)



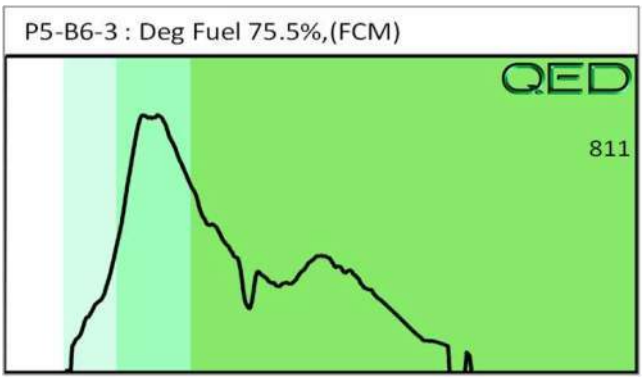
P5-B4-6 : ,(FCM)



P5-B5-8 : Deg.Fuel 89.3%,(FCM)



P5-B6-3 : Deg Fuel 75.5%,(FCM)



Kleinfelder SE, Inc. (Morrisville)
Mike Burns
3200 Gateway Centre Blvd. Suite 100
Morrisville, NC 27560

Project: U5757

Lab Submittal Date: 08/07/2019
Prism Work Order: 9080072

This data package contains the analytical results for the project identified above and includes a Case Narrative, Sample Results and Chain of Custody. Unless otherwise noted, all samples were received in acceptable condition and processed according to the referenced methods.

Data qualifiers are flagged individually on each sample. A key reference for the data qualifiers appears at the end of this case narrative.

Please call if you have any questions relating to this analytical report.

Respectfully,

PRISM LABORATORIES, INC.

Angela D. Overcash

VP Laboratory Services

Reviewed By Terri W. Cole For Angela D. Overcash

Project Manager

Data Qualifiers Key Reference:

J	Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
SR2	Re-analysis due to low surrogate recovery resulted in similar recoveries. Matrix interference suspected. Initial result reported.
BRL	Below Reporting Limit
MDL	Method Detection Limit
RPD	Relative Percent Difference
*	Results reported to the reporting limit. All other results are reported to the MDL with values between MDL and reporting limit indicated with a J.

PRISM LABORATORIES, INC. | Full-Service Analytical & Environmental Solutions

Sample Receipt Summary

08/14/2019

Prism Work Order: 9080072

Client Sample ID	Lab Sample ID	Matrix	Date/Time Sampled	Date/Time Received
P5B43	9080072-01	Solid	08/05/19 11:30	08/07/19 10:30
P5B39	9080072-02	Solid	08/05/19 11:30	08/07/19 10:30
P5B58	9080072-03	Solid	08/05/19 11:30	08/07/19 10:30
P5B34	9080072-04	Solid	08/05/19 11:30	08/07/19 10:30
P5B46	9080072-05	Solid	08/05/19 11:30	08/07/19 10:30

Samples were received in good condition at 0.7 degrees C unless otherwise noted.

449 Springbrook Road - P.O. Box 240543 - Charlotte, NC 28224-0543
Phone: 704/529-6364 - Toll Free Number: 1-800/529-6364 - Fax: 704/525-0409

Summary of Detections

08/14/2019

Prism Work Order: 9080072

Prism ID	Client ID	Parameter	Method	Result		Units
9080072-01	P5B43	4-Isopropyltoluene	8260D	0.0098		mg/kg dry
9080072-01	P5B43	Acetone	8260D	0.037		mg/kg dry
9080072-01	P5B43	Ethylbenzene	8260D	0.0068		mg/kg dry
9080072-01	P5B43	Isopropylbenzene (Cumene)	8260D	0.012		mg/kg dry
9080072-01	P5B43	Naphthalene	8260D	0.014		mg/kg dry
9080072-01	P5B43	n-Butylbenzene	8260D	0.025		mg/kg dry
9080072-01	P5B43	n-Propylbenzene	8260D	0.023		mg/kg dry
9080072-01	P5B43	sec-Butylbenzene	8260D	0.023		mg/kg dry
9080072-01	P5B43	tert-Butylbenzene	8260D	0.0065		mg/kg dry
9080072-02	P5B39	Acetone	8260D	0.055		mg/kg dry
9080072-03	P5B58	Acetone	8260D	0.031		mg/kg dry
9080072-03	P5B58	sec-Butylbenzene	8260D	0.0069	J	mg/kg dry
9080072-03	P5B58	tert-Butylbenzene	8260D	0.0040	J	mg/kg dry
9080072-04	P5B34	Acetone	8260D	0.044		mg/kg dry
9080072-04	P5B34	sec-Butylbenzene	8260D	0.0060		mg/kg dry
9080072-04	P5B34	tert-Butylbenzene	8260D	0.0036	J	mg/kg dry
9080072-05	P5B46	Acetone	8260D	0.083		mg/kg dry

449 Springbrook Road - P.O. Box 240543 - Charlotte, NC 28224-0543
Phone: 704/529-6364 - Toll Free Number: 1-800/529-6364 - Fax: 704/525-0409

Kleinfelder SE, Inc. (Morrisville)
Attn: Mike Burns
3200 Gateway Centre Blvd. Suite 100
Morrisville, NC 27560

Project: U5757

Sample Matrix: Solid

Client Sample ID: P5B43
Prism Sample ID: 9080072-01
Prism Work Order: 9080072
Time Collected: 08/05/19 11:30
Time Submitted: 08/07/19 10:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	**84.2**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**8/13/19 10:30**	**KBS**	**P9H0204**
Volatile Organic Compounds by GC/MS									
1,1,1,2-Tetrachloroethane	BRL	mg/kg dry	0.0053	0.00065	1	8260D	8/9/19 0:17	JLB	P9H0147
1,1,1-Trichloroethane	BRL	mg/kg dry	0.0053	0.00078	1	8260D	8/9/19 0:17	JLB	P9H0147
1,1,2,2-Tetrachloroethane	BRL	mg/kg dry	0.0053	0.00039	1	8260D	8/9/19 0:17	JLB	P9H0147
1,1,2-Trichloroethane	BRL	mg/kg dry	0.0053	0.00057	1	8260D	8/9/19 0:17	JLB	P9H0147
1,1-Dichloroethane	BRL	mg/kg dry	0.0053	0.00096	1	8260D	8/9/19 0:17	JLB	P9H0147
1,1-Dichloroethylene	BRL	mg/kg dry	0.0053	0.00097	1	8260D	8/9/19 0:17	JLB	P9H0147
1,1-Dichloropropylene	BRL	mg/kg dry	0.0053	0.00082	1	8260D	8/9/19 0:17	JLB	P9H0147
1,2,3-Trichlorobenzene	BRL	mg/kg dry	0.011	0.00076	1	8260D	8/9/19 0:17	JLB	P9H0147
1,2,3-Trichloropropane	BRL	mg/kg dry	0.0053	0.00060	1	8260D	8/9/19 0:17	JLB	P9H0147
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.011	0.00051	1	8260D	8/9/19 0:17	JLB	P9H0147
1,2,4-Trimethylbenzene	BRL	mg/kg dry	0.0053	0.00056	1	8260D	8/9/19 0:17	JLB	P9H0147
1,2-Dibromoethane	BRL	mg/kg dry	0.0053	0.00048	1	8260D	8/9/19 0:17	JLB	P9H0147
1,2-Dichlorobenzene	BRL	mg/kg dry	0.0053	0.00059	1	8260D	8/9/19 0:17	JLB	P9H0147
1,2-Dichloroethane	BRL	mg/kg dry	0.0053	0.00063	1	8260D	8/9/19 0:17	JLB	P9H0147
1,2-Dichloropropane	BRL	mg/kg dry	0.0053	0.00080	1	8260D	8/9/19 0:17	JLB	P9H0147
1,3,5-Trimethylbenzene	BRL	mg/kg dry	0.0053	0.00067	1	8260D	8/9/19 0:17	JLB	P9H0147
1,3-Dichlorobenzene	BRL	mg/kg dry	0.0053	0.00066	1	8260D	8/9/19 0:17	JLB	P9H0147
1,3-Dichloropropane	BRL	mg/kg dry	0.0053	0.00044	1	8260D	8/9/19 0:17	JLB	P9H0147
1,4-Dichlorobenzene	BRL	mg/kg dry	0.0053	0.00067	1	8260D	8/9/19 0:17	JLB	P9H0147
2,2-Dichloropropane	BRL	mg/kg dry	0.0053	0.00066	1	8260D	8/9/19 0:17	JLB	P9H0147
2-Chlorotoluene	BRL	mg/kg dry	0.0053	0.00071	1	8260D	8/9/19 0:17	JLB	P9H0147
4-Chlorotoluene	BRL	mg/kg dry	0.0053	0.00060	1	8260D	8/9/19 0:17	JLB	P9H0147
4-Isopropyltoluene	**0.0098**	**mg/kg dry**	**0.0053**	**0.0013**	**1**	**8260D**	**8/9/19 0:17**	**JLB**	**P9H0147**
Acetone	**0.037**	**mg/kg dry**	**0.021**	**0.0014**	**1**	**8260D**	**8/9/19 0:17**	**JLB**	**P9H0147**
Benzene	BRL	mg/kg dry	0.0053	0.00083	1	8260D	8/9/19 0:17	JLB	P9H0147
Bromobenzene	BRL	mg/kg dry	0.0053	0.00074	1	8260D	8/9/19 0:17	JLB	P9H0147
Bromochloromethane	BRL	mg/kg dry	0.0053	0.00087	1	8260D	8/9/19 0:17	JLB	P9H0147
Bromodichloromethane	BRL	mg/kg dry	0.0053	0.00050	1	8260D	8/9/19 0:17	JLB	P9H0147
Bromoform	BRL	mg/kg dry	0.0053	0.00041	1	8260D	8/9/19 0:17	JLB	P9H0147
Bromomethane	BRL	mg/kg dry	0.011	0.0026	1	8260D	8/9/19 0:17	JLB	P9H0147
Carbon Tetrachloride	BRL	mg/kg dry	0.0053	0.0010	1	8260D	8/9/19 0:17	JLB	P9H0147
Chlorobenzene	BRL	mg/kg dry	0.0053	0.00083	1	8260D	8/9/19 0:17	JLB	P9H0147
Chloroethane	BRL	mg/kg dry	0.011	0.0010	1	8260D	8/9/19 0:17	JLB	P9H0147
Chloroform	BRL	mg/kg dry	0.0053	0.00065	1	8260D	8/9/19 0:17	JLB	P9H0147
Chloromethane	BRL	mg/kg dry	0.011	0.0016	1	8260D	8/9/19 0:17	JLB	P9H0147
cis-1,2-Dichloroethylene	BRL	mg/kg dry	0.0053	0.00083	1	8260D	8/9/19 0:17	JLB	P9H0147
cis-1,3-Dichloropropylene	BRL	mg/kg dry	0.0053	0.00052	1	8260D	8/9/19 0:17	JLB	P9H0147
Dibromochloromethane	BRL	mg/kg dry	0.0053	0.00036	1	8260D	8/9/19 0:17	JLB	P9H0147
Dichlorodifluoromethane	BRL	mg/kg dry	0.011	0.0015	1	8260D	8/9/19 0:17	JLB	P9H0147

Kleinfelder SE, Inc. (Morrisville)
Attn: Mike Burns
3200 Gateway Centre Blvd. Suite 100
Morrisville, NC 27560

Project: U5757

Sample Matrix: Solid

Client Sample ID: P5B43
Prism Sample ID: 9080072-01
Prism Work Order: 9080072
Time Collected: 08/05/19 11:30
Time Submitted: 08/07/19 10:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Ethylbenzene	**0.0068**	**mg/kg dry**	**0.0053**	**0.00080**	**1**	**8260D**	**8/9/19 0:17**	**JLB**	**P9H0147**
Isopropyl Ether	BRL	mg/kg dry	0.0053	0.00078	1	8260D	8/9/19 0:17	JLB	P9H0147
Isopropylbenzene (Cumene)	**0.012**	**mg/kg dry**	**0.0053**	**0.00062**	**1**	**8260D**	**8/9/19 0:17**	**JLB**	**P9H0147**
m,p-Xylenes	BRL	mg/kg dry	0.011	0.0014	1	8260D	8/9/19 0:17	JLB	P9H0147
Methyl Butyl Ketone (2-Hexanone)	BRL	mg/kg dry	0.021	0.00037	1	8260D	8/9/19 0:17	JLB	P9H0147
Methyl Ethyl Ketone (2-Butanone)	BRL	mg/kg dry	0.021	0.0012	1	8260D	8/9/19 0:17	JLB	P9H0147
Methyl Isobutyl Ketone	BRL	mg/kg dry	0.021	0.00043	1	8260D	8/9/19 0:17	JLB	P9H0147
Methylene Chloride	BRL	mg/kg dry	0.0053	0.00086	1	8260D	8/9/19 0:17	JLB	P9H0147
Methyl-tert-Butyl Ether	BRL	mg/kg dry	0.0053	0.00074	1	8260D	8/9/19 0:17	JLB	P9H0147
Naphthalene	**0.014**	**mg/kg dry**	**0.011**	**0.00054**	**1**	**8260D**	**8/9/19 0:17**	**JLB**	**P9H0147**
n-Butylbenzene	**0.025**	**mg/kg dry**	**0.0053**	**0.00050**	**1**	**8260D**	**8/9/19 0:17**	**JLB**	**P9H0147**
n-Propylbenzene	**0.023**	**mg/kg dry**	**0.0053**	**0.00077**	**1**	**8260D**	**8/9/19 0:17**	**JLB**	**P9H0147**
o-Xylene	BRL	mg/kg dry	0.0053	0.00056	1	8260D	8/9/19 0:17	JLB	P9H0147
sec-Butylbenzene	**0.023**	**mg/kg dry**	**0.0053**	**0.00057**	**1**	**8260D**	**8/9/19 0:17**	**JLB**	**P9H0147**
Styrene	BRL	mg/kg dry	0.0053	0.00051	1	8260D	8/9/19 0:17	JLB	P9H0147
tert-Butylbenzene	**0.0065**	**mg/kg dry**	**0.0053**	**0.00063**	**1**	**8260D**	**8/9/19 0:17**	**JLB**	**P9H0147**
Tetrachloroethylene	BRL	mg/kg dry	0.0053	0.00096	1	8260D	8/9/19 0:17	JLB	P9H0147
Toluene	BRL	mg/kg dry	0.0053	0.00084	1	8260D	8/9/19 0:17	JLB	P9H0147
trans-1,2-Dichloroethylene	BRL	mg/kg dry	0.0053	0.0010	1	8260D	8/9/19 0:17	JLB	P9H0147
trans-1,3-Dichloropropylene	BRL	mg/kg dry	0.0053	0.00045	1	8260D	8/9/19 0:17	JLB	P9H0147
Trichloroethylene	BRL	mg/kg dry	0.0053	0.0010	1	8260D	8/9/19 0:17	JLB	P9H0147
Trichlorofluoromethane	BRL	mg/kg dry	0.011	0.0014	1	8260D	8/9/19 0:17	JLB	P9H0147
Vinyl acetate	BRL	mg/kg dry	0.011	0.00057	1	8260D	8/9/19 0:17	JLB	P9H0147
Vinyl chloride	BRL	mg/kg dry	0.011	0.0010	1	8260D	8/9/19 0:17	JLB	P9H0147
Xylenes, total	BRL	mg/kg dry	0.016	0.0019	1	8260D	8/9/19 0:17	JLB	P9H0147

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	*93 %*	*70-130*
Dibromofluoromethane	*84 %*	*84-123*
Toluene-d8	*125 %*	*76-129*

Kleinfelder SE, Inc. (Morrisville)
Attn: Mike Burns
3200 Gateway Centre Blvd. Suite 100
Morrisville, NC 27560

Project: U5757

Sample Matrix: Solid

Client Sample ID: P5B39
Prism Sample ID: 9080072-02
Prism Work Order: 9080072
Time Collected: 08/05/19 11:30
Time Submitted: 08/07/19 10:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	**73.8**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**8/13/19 10:30**	**KBS**	**P9H0204**
Volatile Organic Compounds by GC/MS									
1,1,1,2-Tetrachloroethane	BRL	mg/kg dry	0.0054	0.00067	1	8260D	8/8/19 19:49	JLB	P9H0147
1,1,1-Trichloroethane	BRL	mg/kg dry	0.0054	0.00080	1	8260D	8/8/19 19:49	JLB	P9H0147
1,1,2,2-Tetrachloroethane	BRL	mg/kg dry	0.0054	0.00040	1	8260D	8/8/19 19:49	JLB	P9H0147
1,1,2-Trichloroethane	BRL	mg/kg dry	0.0054	0.00059	1	8260D	8/8/19 19:49	JLB	P9H0147
1,1-Dichloroethane	BRL	mg/kg dry	0.0054	0.00098	1	8260D	8/8/19 19:49	JLB	P9H0147
1,1-Dichloroethylene	BRL	mg/kg dry	0.0054	0.0010	1	8260D	8/8/19 19:49	JLB	P9H0147
1,1-Dichloropropylene	BRL	mg/kg dry	0.0054	0.00084	1	8260D	8/8/19 19:49	JLB	P9H0147
1,2,3-Trichlorobenzene	BRL	mg/kg dry	0.011	0.00078	1	8260D	8/8/19 19:49	JLB	P9H0147
1,2,3-Trichloropropane	BRL	mg/kg dry	0.0054	0.00062	1	8260D	8/8/19 19:49	JLB	P9H0147
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.011	0.00052	1	8260D	8/8/19 19:49	JLB	P9H0147
1,2,4-Trimethylbenzene	BRL	mg/kg dry	0.0054	0.00058	1	8260D	8/8/19 19:49	JLB	P9H0147
1,2-Dibromoethane	BRL	mg/kg dry	0.0054	0.00049	1	8260D	8/8/19 19:49	JLB	P9H0147
1,2-Dichlorobenzene	BRL	mg/kg dry	0.0054	0.00061	1	8260D	8/8/19 19:49	JLB	P9H0147
1,2-Dichloroethane	BRL	mg/kg dry	0.0054	0.00065	1	8260D	8/8/19 19:49	JLB	P9H0147
1,2-Dichloropropane	BRL	mg/kg dry	0.0054	0.00082	1	8260D	8/8/19 19:49	JLB	P9H0147
1,3,5-Trimethylbenzene	BRL	mg/kg dry	0.0054	0.00068	1	8260D	8/8/19 19:49	JLB	P9H0147
1,3-Dichlorobenzene	BRL	mg/kg dry	0.0054	0.00068	1	8260D	8/8/19 19:49	JLB	P9H0147
1,3-Dichloropropane	BRL	mg/kg dry	0.0054	0.00046	1	8260D	8/8/19 19:49	JLB	P9H0147
1,4-Dichlorobenzene	BRL	mg/kg dry	0.0054	0.00069	1	8260D	8/8/19 19:49	JLB	P9H0147
2,2-Dichloropropane	BRL	mg/kg dry	0.0054	0.00068	1	8260D	8/8/19 19:49	JLB	P9H0147
2-Chlorotoluene	BRL	mg/kg dry	0.0054	0.00073	1	8260D	8/8/19 19:49	JLB	P9H0147
4-Chlorotoluene	BRL	mg/kg dry	0.0054	0.00062	1	8260D	8/8/19 19:49	JLB	P9H0147
4-Isopropyltoluene	BRL	mg/kg dry	0.0054	0.0014	1	8260D	8/8/19 19:49	JLB	P9H0147
Acetone	**0.055**	**mg/kg dry**	**0.022**	**0.0014**	**1**	**8260D**	**8/8/19 19:49**	**JLB**	**P9H0147**
Benzene	BRL	mg/kg dry	0.0054	0.00085	1	8260D	8/8/19 19:49	JLB	P9H0147
Bromobenzene	BRL	mg/kg dry	0.0054	0.00076	1	8260D	8/8/19 19:49	JLB	P9H0147
Bromochloromethane	BRL	mg/kg dry	0.0054	0.00090	1	8260D	8/8/19 19:49	JLB	P9H0147
Bromodichloromethane	BRL	mg/kg dry	0.0054	0.00052	1	8260D	8/8/19 19:49	JLB	P9H0147
Bromoform	BRL	mg/kg dry	0.0054	0.00042	1	8260D	8/8/19 19:49	JLB	P9H0147
Bromomethane	BRL	mg/kg dry	0.011	0.0027	1	8260D	8/8/19 19:49	JLB	P9H0147
Carbon Tetrachloride	BRL	mg/kg dry	0.0054	0.0011	1	8260D	8/8/19 19:49	JLB	P9H0147
Chlorobenzene	BRL	mg/kg dry	0.0054	0.00085	1	8260D	8/8/19 19:49	JLB	P9H0147
Chloroethane	BRL	mg/kg dry	0.011	0.0010	1	8260D	8/8/19 19:49	JLB	P9H0147
Chloroform	BRL	mg/kg dry	0.0054	0.00067	1	8260D	8/8/19 19:49	JLB	P9H0147
Chloromethane	BRL	mg/kg dry	0.011	0.0017	1	8260D	8/8/19 19:49	JLB	P9H0147
cis-1,2-Dichloroethylene	BRL	mg/kg dry	0.0054	0.00086	1	8260D	8/8/19 19:49	JLB	P9H0147
cis-1,3-Dichloropropylene	BRL	mg/kg dry	0.0054	0.00054	1	8260D	8/8/19 19:49	JLB	P9H0147
Dibromochloromethane	BRL	mg/kg dry	0.0054	0.00036	1	8260D	8/8/19 19:49	JLB	P9H0147
Dichlorodifluoromethane	BRL	mg/kg dry	0.011	0.0015	1	8260D	8/8/19 19:49	JLB	P9H0147

Kleinfelder SE, Inc. (Morrisville)
Attn: Mike Burns
3200 Gateway Centre Blvd. Suite 100
Morrisville, NC 27560

Project: U5757

Sample Matrix: Solid

Client Sample ID: P5B39
Prism Sample ID: 9080072-02
Prism Work Order: 9080072
Time Collected: 08/05/19 11:30
Time Submitted: 08/07/19 10:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Ethylbenzene	BRL	mg/kg dry	0.0054	0.00082	1	8260D	8/8/19 19:49	JLB	P9H0147
Isopropyl Ether	BRL	mg/kg dry	0.0054	0.00080	1	8260D	8/8/19 19:49	JLB	P9H0147
Isopropylbenzene (Cumene)	BRL	mg/kg dry	0.0054	0.00063	1	8260D	8/8/19 19:49	JLB	P9H0147
m,p-Xylenes	BRL	mg/kg dry	0.011	0.0014	1	8260D	8/8/19 19:49	JLB	P9H0147
Methyl Butyl Ketone (2-Hexanone)	BRL	mg/kg dry	0.022	0.00038	1	8260D	8/8/19 19:49	JLB	P9H0147
Methyl Ethyl Ketone (2-Butanone)	BRL	mg/kg dry	0.022	0.0013	1	8260D	8/8/19 19:49	JLB	P9H0147
Methyl Isobutyl Ketone	BRL	mg/kg dry	0.022	0.00044	1	8260D	8/8/19 19:49	JLB	P9H0147
Methylene Chloride	BRL	mg/kg dry	0.0054	0.00088	1	8260D	8/8/19 19:49	JLB	P9H0147
Methyl-tert-Butyl Ether	BRL	mg/kg dry	0.0054	0.00076	1	8260D	8/8/19 19:49	JLB	P9H0147
Naphthalene	BRL	mg/kg dry	0.011	0.00055	1	8260D	8/8/19 19:49	JLB	P9H0147
n-Butylbenzene	BRL	mg/kg dry	0.0054	0.00051	1	8260D	8/8/19 19:49	JLB	P9H0147
n-Propylbenzene	BRL	mg/kg dry	0.0054	0.00079	1	8260D	8/8/19 19:49	JLB	P9H0147
o-Xylene	BRL	mg/kg dry	0.0054	0.00058	1	8260D	8/8/19 19:49	JLB	P9H0147
sec-Butylbenzene	BRL	mg/kg dry	0.0054	0.00059	1	8260D	8/8/19 19:49	JLB	P9H0147
Styrene	BRL	mg/kg dry	0.0054	0.00053	1	8260D	8/8/19 19:49	JLB	P9H0147
tert-Butylbenzene	BRL	mg/kg dry	0.0054	0.00065	1	8260D	8/8/19 19:49	JLB	P9H0147
Tetrachloroethylene	BRL	mg/kg dry	0.0054	0.00099	1	8260D	8/8/19 19:49	JLB	P9H0147
Toluene	BRL	mg/kg dry	0.0054	0.00087	1	8260D	8/8/19 19:49	JLB	P9H0147
trans-1,2-Dichloroethylene	BRL	mg/kg dry	0.0054	0.0010	1	8260D	8/8/19 19:49	JLB	P9H0147
trans-1,3-Dichloropropylene	BRL	mg/kg dry	0.0054	0.00047	1	8260D	8/8/19 19:49	JLB	P9H0147
Trichloroethylene	BRL	mg/kg dry	0.0054	0.0011	1	8260D	8/8/19 19:49	JLB	P9H0147
Trichlorofluoromethane	BRL	mg/kg dry	0.011	0.0015	1	8260D	8/8/19 19:49	JLB	P9H0147
Vinyl acetate	BRL	mg/kg dry	0.011	0.00059	1	8260D	8/8/19 19:49	JLB	P9H0147
Vinyl chloride	BRL	mg/kg dry	0.011	0.0011	1	8260D	8/8/19 19:49	JLB	P9H0147
Xylenes, total	BRL	mg/kg dry	0.016	0.0020	1	8260D	8/8/19 19:49	JLB	P9H0147

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	*101 %*	*70-130*
Dibromofluoromethane	*99 %*	*84-123*
Toluene-d8	*82 %*	*76-129*

Kleinfelder SE, Inc. (Morrisville)
Attn: Mike Burns
3200 Gateway Centre Blvd. Suite 100
Morrisville, NC 27560

Project: U5757

Sample Matrix: Solid

Client Sample ID: P5B58
Prism Sample ID: 9080072-03
Prism Work Order: 9080072
Time Collected: 08/05/19 11:30
Time Submitted: 08/07/19 10:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	**72.0**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**8/13/19 10:30**	**KBS**	**P9H0204**
Volatile Organic Compounds by GC/MS									
1,1,1,2-Tetrachloroethane	BRL	mg/kg dry	0.0070	0.00086	1	8260D	8/8/19 20:19	JLB	P9H0147
1,1,1-Trichloroethane	BRL	mg/kg dry	0.0070	0.0010	1	8260D	8/8/19 20:19	JLB	P9H0147
1,1,2,2-Tetrachloroethane	BRL	mg/kg dry	0.0070	0.00051	1	8260D	8/8/19 20:19	JLB	P9H0147
1,1,2-Trichloroethane	BRL	mg/kg dry	0.0070	0.00076	1	8260D	8/8/19 20:19	JLB	P9H0147
1,1-Dichloroethane	BRL	mg/kg dry	0.0070	0.0013	1	8260D	8/8/19 20:19	JLB	P9H0147
1,1-Dichloroethylene	BRL	mg/kg dry	0.0070	0.0013	1	8260D	8/8/19 20:19	JLB	P9H0147
1,1-Dichloropropylene	BRL	mg/kg dry	0.0070	0.0011	1	8260D	8/8/19 20:19	JLB	P9H0147
1,2,3-Trichlorobenzene	BRL	mg/kg dry	0.014	0.0010	1	8260D	8/8/19 20:19	JLB	P9H0147
1,2,3-Trichloropropane	BRL	mg/kg dry	0.0070	0.00080	1	8260D	8/8/19 20:19	JLB	P9H0147
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.014	0.00067	1	8260D	8/8/19 20:19	JLB	P9H0147
1,2,4-Trimethylbenzene	BRL	mg/kg dry	0.0070	0.00074	1	8260D	8/8/19 20:19	JLB	P9H0147
1,2-Dibromoethane	BRL	mg/kg dry	0.0070	0.00063	1	8260D	8/8/19 20:19	JLB	P9H0147
1,2-Dichlorobenzene	BRL	mg/kg dry	0.0070	0.00078	1	8260D	8/8/19 20:19	JLB	P9H0147
1,2-Dichloroethane	BRL	mg/kg dry	0.0070	0.00083	1	8260D	8/8/19 20:19	JLB	P9H0147
1,2-Dichloropropane	BRL	mg/kg dry	0.0070	0.0011	1	8260D	8/8/19 20:19	JLB	P9H0147
1,3,5-Trimethylbenzene	BRL	mg/kg dry	0.0070	0.00088	1	8260D	8/8/19 20:19	JLB	P9H0147
1,3-Dichlorobenzene	BRL	mg/kg dry	0.0070	0.00087	1	8260D	8/8/19 20:19	JLB	P9H0147
1,3-Dichloropropane	BRL	mg/kg dry	0.0070	0.00059	1	8260D	8/8/19 20:19	JLB	P9H0147
1,4-Dichlorobenzene	BRL	mg/kg dry	0.0070	0.00089	1	8260D	8/8/19 20:19	JLB	P9H0147
2,2-Dichloropropane	BRL	mg/kg dry	0.0070	0.00087	1	8260D	8/8/19 20:19	JLB	P9H0147
2-Chlorotoluene	BRL	mg/kg dry	0.0070	0.00094	1	8260D	8/8/19 20:19	JLB	P9H0147
4-Chlorotoluene	BRL	mg/kg dry	0.0070	0.00080	1	8260D	8/8/19 20:19	JLB	P9H0147
4-Isopropyltoluene	BRL	mg/kg dry	0.0070	0.0018	1	8260D	8/8/19 20:19	JLB	P9H0147
Acetone	**0.031**	**mg/kg dry**	**0.028**	**0.0018**	**1**	**8260D**	**8/8/19 20:19**	**JLB**	**P9H0147**
Benzene	BRL	mg/kg dry	0.0070	0.0011	1	8260D	8/8/19 20:19	JLB	P9H0147
Bromobenzene	BRL	mg/kg dry	0.0070	0.00097	1	8260D	8/8/19 20:19	JLB	P9H0147
Bromochloromethane	BRL	mg/kg dry	0.0070	0.0012	1	8260D	8/8/19 20:19	JLB	P9H0147
Bromodichloromethane	BRL	mg/kg dry	0.0070	0.00067	1	8260D	8/8/19 20:19	JLB	P9H0147
Bromoform	BRL	mg/kg dry	0.0070	0.00054	1	8260D	8/8/19 20:19	JLB	P9H0147
Bromomethane	BRL	mg/kg dry	0.014	0.0034	1	8260D	8/8/19 20:19	JLB	P9H0147
Carbon Tetrachloride	BRL	mg/kg dry	0.0070	0.0014	1	8260D	8/8/19 20:19	JLB	P9H0147
Chlorobenzene	BRL	mg/kg dry	0.0070	0.0011	1	8260D	8/8/19 20:19	JLB	P9H0147
Chloroethane	BRL	mg/kg dry	0.014	0.0013	1	8260D	8/8/19 20:19	JLB	P9H0147
Chloroform	BRL	mg/kg dry	0.0070	0.00086	1	8260D	8/8/19 20:19	JLB	P9H0147
Chloromethane	BRL	mg/kg dry	0.014	0.0021	1	8260D	8/8/19 20:19	JLB	P9H0147
cis-1,2-Dichloroethylene	BRL	mg/kg dry	0.0070	0.0011	1	8260D	8/8/19 20:19	JLB	P9H0147
cis-1,3-Dichloropropylene	BRL	mg/kg dry	0.0070	0.00069	1	8260D	8/8/19 20:19	JLB	P9H0147
Dibromochloromethane	BRL	mg/kg dry	0.0070	0.00047	1	8260D	8/8/19 20:19	JLB	P9H0147
Dichlorodifluoromethane	BRL	mg/kg dry	0.014	0.0020	1	8260D	8/8/19 20:19	JLB	P9H0147

Kleinfelder SE, Inc. (Morrisville)
Attn: Mike Burns
3200 Gateway Centre Blvd. Suite 100
Morrisville, NC 27560

Project: U5757

Sample Matrix: Solid

Client Sample ID: P5B58
Prism Sample ID: 9080072-03
Prism Work Order: 9080072
Time Collected: 08/05/19 11:30
Time Submitted: 08/07/19 10:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Ethylbenzene	BRL	mg/kg dry	0.0070	0.0011	1	8260D	8/8/19 20:19	JLB	P9H0147
Isopropyl Ether	BRL	mg/kg dry	0.0070	0.0010	1	8260D	8/8/19 20:19	JLB	P9H0147
Isopropylbenzene (Cumene)	BRL	mg/kg dry	0.0070	0.00081	1	8260D	8/8/19 20:19	JLB	P9H0147
m,p-Xylenes	BRL	mg/kg dry	0.014	0.0018	1	8260D	8/8/19 20:19	JLB	P9H0147
Methyl Butyl Ketone (2-Hexanone)	BRL	mg/kg dry	0.028	0.00048	1	8260D	8/8/19 20:19	JLB	P9H0147
Methyl Ethyl Ketone (2-Butanone)	BRL	mg/kg dry	0.028	0.0016	1	8260D	8/8/19 20:19	JLB	P9H0147
Methyl Isobutyl Ketone	BRL	mg/kg dry	0.028	0.00057	1	8260D	8/8/19 20:19	JLB	P9H0147
Methylene Chloride	BRL	mg/kg dry	0.0070	0.0011	1	8260D	8/8/19 20:19	JLB	P9H0147
Methyl-tert-Butyl Ether	BRL	mg/kg dry	0.0070	0.00098	1	8260D	8/8/19 20:19	JLB	P9H0147
Naphthalene	BRL	mg/kg dry	0.014	0.00071	1	8260D	8/8/19 20:19	JLB	P9H0147
n-Butylbenzene	BRL	mg/kg dry	0.0070	0.00066	1	8260D	8/8/19 20:19	JLB	P9H0147
n-Propylbenzene	BRL	mg/kg dry	0.0070	0.0010	1	8260D	8/8/19 20:19	JLB	P9H0147
o-Xylene	BRL	mg/kg dry	0.0070	0.00074	1	8260D	8/8/19 20:19	JLB	P9H0147
sec-Butylbenzene	**0.0069 J**	**mg/kg dry**	**0.0070**	**0.00076**	**1**	**8260D**	**8/8/19 20:19**	**JLB**	**P9H0147**
Styrene	BRL	mg/kg dry	0.0070	0.00068	1	8260D	8/8/19 20:19	JLB	P9H0147
tert-Butylbenzene	**0.0040 J**	**mg/kg dry**	**0.0070**	**0.00083**	**1**	**8260D**	**8/8/19 20:19**	**JLB**	**P9H0147**
Tetrachloroethylene	BRL	mg/kg dry	0.0070	0.0013	1	8260D	8/8/19 20:19	JLB	P9H0147
Toluene	BRL	mg/kg dry	0.0070	0.0011	1	8260D	8/8/19 20:19	JLB	P9H0147
trans-1,2-Dichloroethylene	BRL	mg/kg dry	0.0070	0.0013	1	8260D	8/8/19 20:19	JLB	P9H0147
trans-1,3-Dichloropropylene	BRL	mg/kg dry	0.0070	0.00060	1	8260D	8/8/19 20:19	JLB	P9H0147
Trichloroethylene	BRL	mg/kg dry	0.0070	0.0014	1	8260D	8/8/19 20:19	JLB	P9H0147
Trichlorofluoromethane	BRL	mg/kg dry	0.014	0.0019	1	8260D	8/8/19 20:19	JLB	P9H0147
Vinyl acetate	BRL	mg/kg dry	0.014	0.00076	1	8260D	8/8/19 20:19	JLB	P9H0147
Vinyl chloride	BRL	mg/kg dry	0.014	0.0014	1	8260D	8/8/19 20:19	JLB	P9H0147
Xylenes, total	BRL	mg/kg dry	0.021	0.0025	1	8260D	8/8/19 20:19	JLB	P9H0147

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	*102 %*	*70-130*
Dibromofluoromethane	*92 %*	*84-123*
Toluene-d8	*97 %*	*76-129*

Kleinfelder SE, Inc. (Morrisville)
Attn: Mike Burns
3200 Gateway Centre Blvd. Suite 100
Morrisville, NC 27560

Project: U5757

Sample Matrix: Solid

Client Sample ID: P5B34
Prism Sample ID: 9080072-04
Prism Work Order: 9080072
Time Collected: 08/05/19 11:30
Time Submitted: 08/07/19 10:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	**78.5**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**8/13/19 10:30**	**KBS**	**P9H0204**
Volatile Organic Compounds by GC/MS									
1,1,1,2-Tetrachloroethane	BRL	mg/kg dry	0.0058	0.00070	1	8260D	8/8/19 21:18	JLB	P9H0147
1,1,1-Trichloroethane	BRL	mg/kg dry	0.0058	0.00085	1	8260D	8/8/19 21:18	JLB	P9H0147
1,1,2,2-Tetrachloroethane	BRL	mg/kg dry	0.0058	0.00042	1	8260D	8/8/19 21:18	JLB	P9H0147
1,1,2-Trichloroethane	BRL	mg/kg dry	0.0058	0.00062	1	8260D	8/8/19 21:18	JLB	P9H0147
1,1-Dichloroethane	BRL	mg/kg dry	0.0058	0.0010	1	8260D	8/8/19 21:18	JLB	P9H0147
1,1-Dichloroethylene	BRL	mg/kg dry	0.0058	0.0011	1	8260D	8/8/19 21:18	JLB	P9H0147
1,1-Dichloropropylene	BRL	mg/kg dry	0.0058	0.00089	1	8260D	8/8/19 21:18	JLB	P9H0147
1,2,3-Trichlorobenzene	BRL	mg/kg dry	0.012	0.00082	1	8260D	8/8/19 21:18	JLB	P9H0147
1,2,3-Trichloropropane	BRL	mg/kg dry	0.0058	0.00065	1	8260D	8/8/19 21:18	JLB	P9H0147
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.012	0.00055	1	8260D	8/8/19 21:18	JLB	P9H0147
1,2,4-Trimethylbenzene	BRL	mg/kg dry	0.0058	0.00061	1	8260D	8/8/19 21:18	JLB	P9H0147
1,2-Dibromoethane	BRL	mg/kg dry	0.0058	0.00052	1	8260D	8/8/19 21:18	JLB	P9H0147
1,2-Dichlorobenzene	BRL	mg/kg dry	0.0058	0.00064	1	8260D	8/8/19 21:18	JLB	P9H0147
1,2-Dichloroethane	BRL	mg/kg dry	0.0058	0.00069	1	8260D	8/8/19 21:18	JLB	P9H0147
1,2-Dichloropropane	BRL	mg/kg dry	0.0058	0.00087	1	8260D	8/8/19 21:18	JLB	P9H0147
1,3,5-Trimethylbenzene	BRL	mg/kg dry	0.0058	0.00072	1	8260D	8/8/19 21:18	JLB	P9H0147
1,3-Dichlorobenzene	BRL	mg/kg dry	0.0058	0.00072	1	8260D	8/8/19 21:18	JLB	P9H0147
1,3-Dichloropropane	BRL	mg/kg dry	0.0058	0.00048	1	8260D	8/8/19 21:18	JLB	P9H0147
1,4-Dichlorobenzene	BRL	mg/kg dry	0.0058	0.00073	1	8260D	8/8/19 21:18	JLB	P9H0147
2,2-Dichloropropane	BRL	mg/kg dry	0.0058	0.00072	1	8260D	8/8/19 21:18	JLB	P9H0147
2-Chlorotoluene	BRL	mg/kg dry	0.0058	0.00077	1	8260D	8/8/19 21:18	JLB	P9H0147
4-Chlorotoluene	BRL	mg/kg dry	0.0058	0.00066	1	8260D	8/8/19 21:18	JLB	P9H0147
4-Isopropyltoluene	BRL	mg/kg dry	0.0058	0.0014	1	8260D	8/8/19 21:18	JLB	P9H0147
Acetone	**0.044**	**mg/kg dry**	**0.023**	**0.0015**	**1**	**8260D**	**8/8/19 21:18**	**JLB**	**P9H0147**
Benzene	BRL	mg/kg dry	0.0058	0.00090	1	8260D	8/8/19 21:18	JLB	P9H0147
Bromobenzene	BRL	mg/kg dry	0.0058	0.00080	1	8260D	8/8/19 21:18	JLB	P9H0147
Bromochloromethane	BRL	mg/kg dry	0.0058	0.00095	1	8260D	8/8/19 21:18	JLB	P9H0147
Bromodichloromethane	BRL	mg/kg dry	0.0058	0.00055	1	8260D	8/8/19 21:18	JLB	P9H0147
Bromoform	BRL	mg/kg dry	0.0058	0.00045	1	8260D	8/8/19 21:18	JLB	P9H0147
Bromomethane	BRL	mg/kg dry	0.012	0.0028	1	8260D	8/8/19 21:18	JLB	P9H0147
Carbon Tetrachloride	BRL	mg/kg dry	0.0058	0.0011	1	8260D	8/8/19 21:18	JLB	P9H0147
Chlorobenzene	BRL	mg/kg dry	0.0058	0.00090	1	8260D	8/8/19 21:18	JLB	P9H0147
Chloroethane	BRL	mg/kg dry	0.012	0.0011	1	8260D	8/8/19 21:18	JLB	P9H0147
Chloroform	BRL	mg/kg dry	0.0058	0.00070	1	8260D	8/8/19 21:18	JLB	P9H0147
Chloromethane	BRL	mg/kg dry	0.012	0.0018	1	8260D	8/8/19 21:18	JLB	P9H0147
cis-1,2-Dichloroethylene	BRL	mg/kg dry	0.0058	0.00090	1	8260D	8/8/19 21:18	JLB	P9H0147
cis-1,3-Dichloropropylene	BRL	mg/kg dry	0.0058	0.00057	1	8260D	8/8/19 21:18	JLB	P9H0147
Dibromochloromethane	BRL	mg/kg dry	0.0058	0.00039	1	8260D	8/8/19 21:18	JLB	P9H0147
Dichlorodifluoromethane	BRL	mg/kg dry	0.012	0.0016	1	8260D	8/8/19 21:18	JLB	P9H0147

Kleinfelder SE, Inc. (Morrisville)
Attn: Mike Burns
3200 Gateway Centre Blvd. Suite 100
Morrisville, NC 27560

Project: U5757

Sample Matrix: Solid

Client Sample ID: P5B34
Prism Sample ID: 9080072-04
Prism Work Order: 9080072
Time Collected: 08/05/19 11:30
Time Submitted: 08/07/19 10:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Ethylbenzene	BRL	mg/kg dry	0.0058	0.00087	1	8260D	8/8/19 21:18	JLB	P9H0147
Isopropyl Ether	BRL	mg/kg dry	0.0058	0.00085	1	8260D	8/8/19 21:18	JLB	P9H0147
Isopropylbenzene (Cumene)	BRL	mg/kg dry	0.0058	0.00067	1	8260D	8/8/19 21:18	JLB	P9H0147
m,p-Xylenes	BRL	mg/kg dry	0.012	0.0015	1	8260D	8/8/19 21:18	JLB	P9H0147
Methyl Butyl Ketone (2-Hexanone)	BRL	mg/kg dry	0.023	0.00040	1	8260D	8/8/19 21:18	JLB	P9H0147
Methyl Ethyl Ketone (2-Butanone)	BRL	mg/kg dry	0.023	0.0013	1	8260D	8/8/19 21:18	JLB	P9H0147
Methyl Isobutyl Ketone	BRL	mg/kg dry	0.023	0.00047	1	8260D	8/8/19 21:18	JLB	P9H0147
Methylene Chloride	BRL	mg/kg dry	0.0058	0.00093	1	8260D	8/8/19 21:18	JLB	P9H0147
Methyl-tert-Butyl Ether	BRL	mg/kg dry	0.0058	0.00081	1	8260D	8/8/19 21:18	JLB	P9H0147
Naphthalene	BRL	mg/kg dry	0.012	0.00058	1	8260D	8/8/19 21:18	JLB	P9H0147
n-Butylbenzene	BRL	mg/kg dry	0.0058	0.00054	1	8260D	8/8/19 21:18	JLB	P9H0147
n-Propylbenzene	BRL	mg/kg dry	0.0058	0.00083	1	8260D	8/8/19 21:18	JLB	P9H0147
o-Xylene	BRL	mg/kg dry	0.0058	0.00061	1	8260D	8/8/19 21:18	JLB	P9H0147
sec-Butylbenzene	**0.0060**	**mg/kg dry**	**0.0058**	**0.00062**	**1**	**8260D**	**8/8/19 21:18**	**JLB**	**P9H0147**
Styrene	BRL	mg/kg dry	0.0058	0.00056	1	8260D	8/8/19 21:18	JLB	P9H0147
tert-Butylbenzene	**0.0036 J**	**mg/kg dry**	**0.0058**	**0.00068**	**1**	**8260D**	**8/8/19 21:18**	**JLB**	**P9H0147**
Tetrachloroethylene	BRL	mg/kg dry	0.0058	0.0010	1	8260D	8/8/19 21:18	JLB	P9H0147
Toluene	BRL	mg/kg dry	0.0058	0.00092	1	8260D	8/8/19 21:18	JLB	P9H0147
trans-1,2-Dichloroethylene	BRL	mg/kg dry	0.0058	0.0011	1	8260D	8/8/19 21:18	JLB	P9H0147
trans-1,3-Dichloropropylene	BRL	mg/kg dry	0.0058	0.00049	1	8260D	8/8/19 21:18	JLB	P9H0147
Trichloroethylene	BRL	mg/kg dry	0.0058	0.0011	1	8260D	8/8/19 21:18	JLB	P9H0147
Trichlorofluoromethane	BRL	mg/kg dry	0.012	0.0016	1	8260D	8/8/19 21:18	JLB	P9H0147
Vinyl acetate	BRL	mg/kg dry	0.012	0.00062	1	8260D	8/8/19 21:18	JLB	P9H0147
Vinyl chloride	BRL	mg/kg dry	0.012	0.0011	1	8260D	8/8/19 21:18	JLB	P9H0147
Xylenes, total	BRL	mg/kg dry	0.017	0.0021	1	8260D	8/8/19 21:18	JLB	P9H0147

Surrogate	Recovery	Control Limits	
4-Bromofluorobenzene	*98 %*	*70-130*	
Dibromofluoromethane	*72 %*	*84-123*	*SR2*
Toluene-d8	*101 %*	*76-129*	

Kleinfelder SE, Inc. (Morrisville)
Attn: Mike Burns
3200 Gateway Centre Blvd. Suite 100
Morrisville, NC 27560

Project: U5757

Sample Matrix: Solid

Client Sample ID: P5B46
Prism Sample ID: 9080072-05
Prism Work Order: 9080072
Time Collected: 08/05/19 11:30
Time Submitted: 08/07/19 10:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	**76.5**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**8/13/19 10:30**	**KBS**	**P9H0204**
Volatile Organic Compounds by GC/MS									
1,1,1,2-Tetrachloroethane	BRL	mg/kg dry	0.0060	0.00073	1	8260D	8/8/19 20:48	JLB	P9H0147
1,1,1-Trichloroethane	BRL	mg/kg dry	0.0060	0.00088	1	8260D	8/8/19 20:48	JLB	P9H0147
1,1,2,2-Tetrachloroethane	BRL	mg/kg dry	0.0060	0.00043	1	8260D	8/8/19 20:48	JLB	P9H0147
1,1,2-Trichloroethane	BRL	mg/kg dry	0.0060	0.00064	1	8260D	8/8/19 20:48	JLB	P9H0147
1,1-Dichloroethane	BRL	mg/kg dry	0.0060	0.0011	1	8260D	8/8/19 20:48	JLB	P9H0147
1,1-Dichloroethylene	BRL	mg/kg dry	0.0060	0.0011	1	8260D	8/8/19 20:48	JLB	P9H0147
1,1-Dichloropropylene	BRL	mg/kg dry	0.0060	0.00092	1	8260D	8/8/19 20:48	JLB	P9H0147
1,2,3-Trichlorobenzene	BRL	mg/kg dry	0.012	0.00085	1	8260D	8/8/19 20:48	JLB	P9H0147
1,2,3-Trichloropropane	BRL	mg/kg dry	0.0060	0.00068	1	8260D	8/8/19 20:48	JLB	P9H0147
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.012	0.00057	1	8260D	8/8/19 20:48	JLB	P9H0147
1,2,4-Trimethylbenzene	BRL	mg/kg dry	0.0060	0.00063	1	8260D	8/8/19 20:48	JLB	P9H0147
1,2-Dibromoethane	BRL	mg/kg dry	0.0060	0.00053	1	8260D	8/8/19 20:48	JLB	P9H0147
1,2-Dichlorobenzene	BRL	mg/kg dry	0.0060	0.00066	1	8260D	8/8/19 20:48	JLB	P9H0147
1,2-Dichloroethane	BRL	mg/kg dry	0.0060	0.00071	1	8260D	8/8/19 20:48	JLB	P9H0147
1,2-Dichloropropane	BRL	mg/kg dry	0.0060	0.00090	1	8260D	8/8/19 20:48	JLB	P9H0147
1,3,5-Trimethylbenzene	BRL	mg/kg dry	0.0060	0.00075	1	8260D	8/8/19 20:48	JLB	P9H0147
1,3-Dichlorobenzene	BRL	mg/kg dry	0.0060	0.00074	1	8260D	8/8/19 20:48	JLB	P9H0147
1,3-Dichloropropane	BRL	mg/kg dry	0.0060	0.00050	1	8260D	8/8/19 20:48	JLB	P9H0147
1,4-Dichlorobenzene	BRL	mg/kg dry	0.0060	0.00075	1	8260D	8/8/19 20:48	JLB	P9H0147
2,2-Dichloropropane	BRL	mg/kg dry	0.0060	0.00074	1	8260D	8/8/19 20:48	JLB	P9H0147
2-Chlorotoluene	BRL	mg/kg dry	0.0060	0.00080	1	8260D	8/8/19 20:48	JLB	P9H0147
4-Chlorotoluene	BRL	mg/kg dry	0.0060	0.00068	1	8260D	8/8/19 20:48	JLB	P9H0147
4-Isopropyltoluene	BRL	mg/kg dry	0.0060	0.0015	1	8260D	8/8/19 20:48	JLB	P9H0147
Acetone	**0.083**	**mg/kg dry**	**0.024**	**0.0015**	**1**	**8260D**	**8/8/19 20:48**	**JLB**	**P9H0147**
Benzene	BRL	mg/kg dry	0.0060	0.00093	1	8260D	8/8/19 20:48	JLB	P9H0147
Bromobenzene	BRL	mg/kg dry	0.0060	0.00083	1	8260D	8/8/19 20:48	JLB	P9H0147
Bromochloromethane	BRL	mg/kg dry	0.0060	0.00098	1	8260D	8/8/19 20:48	JLB	P9H0147
Bromodichloromethane	BRL	mg/kg dry	0.0060	0.00057	1	8260D	8/8/19 20:48	JLB	P9H0147
Bromoform	BRL	mg/kg dry	0.0060	0.00046	1	8260D	8/8/19 20:48	JLB	P9H0147
Bromomethane	BRL	mg/kg dry	0.012	0.0029	1	8260D	8/8/19 20:48	JLB	P9H0147
Carbon Tetrachloride	BRL	mg/kg dry	0.0060	0.0012	1	8260D	8/8/19 20:48	JLB	P9H0147
Chlorobenzene	BRL	mg/kg dry	0.0060	0.00093	1	8260D	8/8/19 20:48	JLB	P9H0147
Chloroethane	BRL	mg/kg dry	0.012	0.0011	1	8260D	8/8/19 20:48	JLB	P9H0147
Chloroform	BRL	mg/kg dry	0.0060	0.00073	1	8260D	8/8/19 20:48	JLB	P9H0147
Chloromethane	BRL	mg/kg dry	0.012	0.0018	1	8260D	8/8/19 20:48	JLB	P9H0147
cis-1,2-Dichloroethylene	BRL	mg/kg dry	0.0060	0.00094	1	8260D	8/8/19 20:48	JLB	P9H0147
cis-1,3-Dichloropropylene	BRL	mg/kg dry	0.0060	0.00059	1	8260D	8/8/19 20:48	JLB	P9H0147
Dibromochloromethane	BRL	mg/kg dry	0.0060	0.00040	1	8260D	8/8/19 20:48	JLB	P9H0147
Dichlorodifluoromethane	BRL	mg/kg dry	0.012	0.0017	1	8260D	8/8/19 20:48	JLB	P9H0147

Kleinfelder SE, Inc. (Morrisville)
Attn: Mike Burns
3200 Gateway Centre Blvd. Suite 100
Morrisville, NC 27560

Project: U5757

Sample Matrix: Solid

Client Sample ID: P5B46
Prism Sample ID: 9080072-05
Prism Work Order: 9080072
Time Collected: 08/05/19 11:30
Time Submitted: 08/07/19 10:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Ethylbenzene	BRL	mg/kg dry	0.0060	0.00090	1	8260D	8/8/19 20:48	JLB	P9H0147
Isopropyl Ether	BRL	mg/kg dry	0.0060	0.00087	1	8260D	8/8/19 20:48	JLB	P9H0147
Isopropylbenzene (Cumene)	BRL	mg/kg dry	0.0060	0.00069	1	8260D	8/8/19 20:48	JLB	P9H0147
m,p-Xylenes	BRL	mg/kg dry	0.012	0.0015	1	8260D	8/8/19 20:48	JLB	P9H0147
Methyl Butyl Ketone (2-Hexanone)	BRL	mg/kg dry	0.024	0.00041	1	8260D	8/8/19 20:48	JLB	P9H0147
Methyl Ethyl Ketone (2-Butanone)	BRL	mg/kg dry	0.024	0.0014	1	8260D	8/8/19 20:48	JLB	P9H0147
Methyl Isobutyl Ketone	BRL	mg/kg dry	0.024	0.00049	1	8260D	8/8/19 20:48	JLB	P9H0147
Methylene Chloride	BRL	mg/kg dry	0.0060	0.00096	1	8260D	8/8/19 20:48	JLB	P9H0147
Methyl-tert-Butyl Ether	BRL	mg/kg dry	0.0060	0.00083	1	8260D	8/8/19 20:48	JLB	P9H0147
Naphthalene	BRL	mg/kg dry	0.012	0.00060	1	8260D	8/8/19 20:48	JLB	P9H0147
n-Butylbenzene	BRL	mg/kg dry	0.0060	0.00056	1	8260D	8/8/19 20:48	JLB	P9H0147
n-Propylbenzene	BRL	mg/kg dry	0.0060	0.00086	1	8260D	8/8/19 20:48	JLB	P9H0147
o-Xylene	BRL	mg/kg dry	0.0060	0.00063	1	8260D	8/8/19 20:48	JLB	P9H0147
sec-Butylbenzene	BRL	mg/kg dry	0.0060	0.00064	1	8260D	8/8/19 20:48	JLB	P9H0147
Styrene	BRL	mg/kg dry	0.0060	0.00058	1	8260D	8/8/19 20:48	JLB	P9H0147
tert-Butylbenzene	BRL	mg/kg dry	0.0060	0.00071	1	8260D	8/8/19 20:48	JLB	P9H0147
Tetrachloroethylene	BRL	mg/kg dry	0.0060	0.0011	1	8260D	8/8/19 20:48	JLB	P9H0147
Toluene	BRL	mg/kg dry	0.0060	0.00095	1	8260D	8/8/19 20:48	JLB	P9H0147
trans-1,2-Dichloroethylene	BRL	mg/kg dry	0.0060	0.0011	1	8260D	8/8/19 20:48	JLB	P9H0147
trans-1,3-Dichloropropylene	BRL	mg/kg dry	0.0060	0.00051	1	8260D	8/8/19 20:48	JLB	P9H0147
Trichloroethylene	BRL	mg/kg dry	0.0060	0.0012	1	8260D	8/8/19 20:48	JLB	P9H0147
Trichlorofluoromethane	BRL	mg/kg dry	0.012	0.0016	1	8260D	8/8/19 20:48	JLB	P9H0147
Vinyl acetate	BRL	mg/kg dry	0.012	0.00065	1	8260D	8/8/19 20:48	JLB	P9H0147
Vinyl chloride	BRL	mg/kg dry	0.012	0.0012	1	8260D	8/8/19 20:48	JLB	P9H0147
Xylenes, total	BRL	mg/kg dry	0.018	0.0021	1	8260D	8/8/19 20:48	JLB	P9H0147

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	*101 %*	*70-130*
Dibromofluoromethane	*99 %*	*84-123*
Toluene-d8	*86 %*	*76-129*

Kleinfelder SE, Inc. (Morrisville)
Attn: Mike Burns
3200 Gateway Centre Blvd. Suite 100
Morrisville, NC 27560

Project: U5757

Prism Work Order: 9080072
Time Submitted: 8/7/2019 10:30:00AM

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9H0147 - 5035										
Blank (P9H0147-BLK1)				Prepared & Analyzed: 08/08/19						
1,1,1,2-Tetrachloroethane	BRL	0.0050	mg/kg wet							
1,1,1-Trichloroethane	BRL	0.0050	mg/kg wet							
1,1,2,2-Tetrachloroethane	BRL	0.0050	mg/kg wet							
1,1,2-Trichloroethane	BRL	0.0050	mg/kg wet							
1,1-Dichloroethane	BRL	0.0050	mg/kg wet							
1,1-Dichloroethylene	BRL	0.0050	mg/kg wet							
1,1-Dichloropropylene	BRL	0.0050	mg/kg wet							
1,2,3-Trichlorobenzene	BRL	0.010	mg/kg wet							
1,2,3-Trichloropropane	BRL	0.0050	mg/kg wet							
1,2,4-Trichlorobenzene	BRL	0.010	mg/kg wet							
1,2,4-Trimethylbenzene	BRL	0.0050	mg/kg wet							
1,2-Dibromoethane	BRL	0.0050	mg/kg wet							
1,2-Dichlorobenzene	BRL	0.0050	mg/kg wet							
1,2-Dichloroethane	BRL	0.0050	mg/kg wet							
1,2-Dichloropropane	BRL	0.0050	mg/kg wet							
1,3,5-Trimethylbenzene	BRL	0.0050	mg/kg wet							
1,3-Dichlorobenzene	BRL	0.0050	mg/kg wet							
1,3-Dichloropropane	BRL	0.0050	mg/kg wet							
1,4-Dichlorobenzene	BRL	0.0050	mg/kg wet							
2,2-Dichloropropane	BRL	0.0050	mg/kg wet							
2-Chlorotoluene	BRL	0.0050	mg/kg wet							
4-Chlorotoluene	BRL	0.0050	mg/kg wet							
4-Isopropyltoluene	BRL	0.0050	mg/kg wet							
Acetone	BRL	0.020	mg/kg wet							
Benzene	BRL	0.0050	mg/kg wet							
Bromobenzene	BRL	0.0050	mg/kg wet							
Bromochloromethane	BRL	0.0050	mg/kg wet							
Bromodichloromethane	BRL	0.0050	mg/kg wet							
Bromoform	BRL	0.0050	mg/kg wet							
Bromomethane	BRL	0.010	mg/kg wet							
Carbon Tetrachloride	BRL	0.0050	mg/kg wet							
Chlorobenzene	BRL	0.0050	mg/kg wet							
Chloroethane	BRL	0.010	mg/kg wet							
Chloroform	BRL	0.0050	mg/kg wet							
Chloromethane	BRL	0.010	mg/kg wet							
cis-1,2-Dichloroethylene	BRL	0.0050	mg/kg wet							
cis-1,3-Dichloropropylene	BRL	0.0050	mg/kg wet							
Dibromochloromethane	BRL	0.0050	mg/kg wet							
Dichlorodifluoromethane	BRL	0.010	mg/kg wet							
Ethylbenzene	BRL	0.0050	mg/kg wet							
Isopropyl Ether	BRL	0.0050	mg/kg wet							
Isopropylbenzene (Cumene)	BRL	0.0050	mg/kg wet							
m,p-Xylenes	BRL	0.010	mg/kg wet							
Methyl Butyl Ketone (2-Hexanone)	BRL	0.020	mg/kg wet							
Methyl Ethyl Ketone (2-Butanone)	BRL	0.020	mg/kg wet							
Methyl Isobutyl Ketone	BRL	0.020	mg/kg wet							

Kleinfelder SE, Inc. (Morrisville)
Attn: Mike Burns
3200 Gateway Centre Blvd. Suite 100
Morrisville, NC 27560

Project: U5757

Prism Work Order: 9080072
Time Submitted: 8/7/2019 10:30:00AM

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9H0147 - 5035										
Blank (P9H0147-BLK1)				Prepared & Analyzed: 08/08/19						
Methylene Chloride	BRL	0.0050	mg/kg wet							
Methyl-tert-Butyl Ether	BRL	0.0050	mg/kg wet							
Naphthalene	BRL	0.010	mg/kg wet							
n-Butylbenzene	BRL	0.0050	mg/kg wet							
n-Propylbenzene	BRL	0.0050	mg/kg wet							
o-Xylene	BRL	0.0050	mg/kg wet							
sec-Butylbenzene	BRL	0.0050	mg/kg wet							
Styrene	BRL	0.0050	mg/kg wet							
tert-Butylbenzene	BRL	0.0050	mg/kg wet							
Tetrachloroethylene	BRL	0.0050	mg/kg wet							
Toluene	BRL	0.0050	mg/kg wet							
trans-1,2-Dichloroethylene	BRL	0.0050	mg/kg wet							
trans-1,3-Dichloropropylene	BRL	0.0050	mg/kg wet							
Trichloroethylene	BRL	0.0050	mg/kg wet							
Trichlorofluoromethane	BRL	0.010	mg/kg wet							
Vinyl acetate	BRL	0.010	mg/kg wet							
Vinyl chloride	BRL	0.010	mg/kg wet							
Xylenes, total	BRL	0.015	mg/kg wet							
Surrogate: 4-Bromofluorobenzene	*51.6*		*ug/L*	*50.00*		*103*	*70-130*			
Surrogate: Dibromofluoromethane	*50.3*		*ug/L*	*50.00*		*101*	*84-123*			
Surrogate: Toluene-d8	*43.1*		*ug/L*	*50.00*		*86*	*76-129*			
LCS (P9H0147-BS1)				Prepared & Analyzed: 08/08/19						
1,1,1,2-Tetrachloroethane	0.0478	0.0050	mg/kg wet	0.05000		96	72-115			
1,1,1-Trichloroethane	0.0524	0.0050	mg/kg wet	0.05000		105	67-131			
1,1,2,2-Tetrachloroethane	0.0399	0.0050	mg/kg wet	0.05000		80	56-126			
1,1,2-Trichloroethane	0.0464	0.0050	mg/kg wet	0.05000		93	70-133			
1,1-Dichloroethane	0.0510	0.0050	mg/kg wet	0.05000		102	74-127			
1,1-Dichloroethylene	0.0496	0.0050	mg/kg wet	0.05000		99	67-149			
1,1-Dichloropropylene	0.0559	0.0050	mg/kg wet	0.05000		112	71-130			
1,2,3-Trichlorobenzene	0.0457	0.010	mg/kg wet	0.05000		91	68-130			
1,2,3-Trichloropropane	0.0413	0.0050	mg/kg wet	0.05000		83	60-137			
1,2,4-Trichlorobenzene	0.0467	0.010	mg/kg wet	0.05000		93	66-125			
1,2,4-Trimethylbenzene	0.0449	0.0050	mg/kg wet	0.05000		90	69-129			
1,2-Dibromoethane	0.0465	0.0050	mg/kg wet	0.05000		93	70-132			
1,2-Dichlorobenzene	0.0433	0.0050	mg/kg wet	0.05000		87	72-123			
1,2-Dichloroethane	0.0481	0.0050	mg/kg wet	0.05000		96	68-128			
1,2-Dichloropropane	0.0511	0.0050	mg/kg wet	0.05000		102	73-130			
1,3,5-Trimethylbenzene	0.0453	0.0050	mg/kg wet	0.05000		91	69-128			
1,3-Dichlorobenzene	0.0442	0.0050	mg/kg wet	0.05000		88	71-120			
1,3-Dichloropropane	0.0459	0.0050	mg/kg wet	0.05000		92	75-124			
1,4-Dichlorobenzene	0.0442	0.0050	mg/kg wet	0.05000		88	71-123			
2,2-Dichloropropane	0.0535	0.0050	mg/kg wet	0.05000		107	50-142			
2-Chlorotoluene	0.0435	0.0050	mg/kg wet	0.05000		87	67-124			
4-Chlorotoluene	0.0437	0.0050	mg/kg wet	0.05000		87	71-126			
4-Isopropyltoluene	0.0464	0.0050	mg/kg wet	0.05000		93	68-129			
Acetone	0.0820	0.020	mg/kg wet	0.1000		82	29-198			

Kleinfelder SE, Inc. (Morrisville)
Attn: Mike Burns
3200 Gateway Centre Blvd. Suite 100
Morrisville, NC 27560

Project: U5757

Prism Work Order: 9080072
Time Submitted: 8/7/2019 10:30:00AM

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9H0147 - 5035										
LCS (P9H0147-BS1)				Prepared & Analyzed: 08/08/19						
Benzene	0.0526	0.0050	mg/kg wet	0.05000		105	74-127			
Bromobenzene	0.0409	0.0050	mg/kg wet	0.05000		82	73-125			
Bromochloromethane	0.0534	0.0050	mg/kg wet	0.05000		107	72-134			
Bromodichloromethane	0.0516	0.0050	mg/kg wet	0.05000		103	75-122			
Bromoform	0.0475	0.0050	mg/kg wet	0.05000		95	66-135			
Bromomethane	0.0588	0.010	mg/kg wet	0.05000		118	20-180			
Carbon Tetrachloride	0.0541	0.0050	mg/kg wet	0.05000		108	64-143			
Chlorobenzene	0.0487	0.0050	mg/kg wet	0.05000		97	74-118			
Chloroethane	0.0527	0.010	mg/kg wet	0.05000		105	33-149			
Chloroform	0.0523	0.0050	mg/kg wet	0.05000		105	73-127			
Chloromethane	0.0433	0.010	mg/kg wet	0.05000		87	45-143			
cis-1,2-Dichloroethylene	0.0510	0.0050	mg/kg wet	0.05000		102	76-134			
cis-1,3-Dichloropropylene	0.0542	0.0050	mg/kg wet	0.05000		108	71-125			
Dibromochloromethane	0.0467	0.0050	mg/kg wet	0.05000		93	73-122			
Dichlorodifluoromethane	0.0478	0.010	mg/kg wet	0.05000		96	26-146			
Ethylbenzene	0.0480	0.0050	mg/kg wet	0.05000		96	74-128			
Isopropyl Ether	0.0487	0.0050	mg/kg wet	0.05000		97	59-159			
Isopropylbenzene (Cumene)	0.0458	0.0050	mg/kg wet	0.05000		92	68-126			
m,p-Xylenes	0.0980	0.010	mg/kg wet	0.1000		98	75-124			
Methyl Butyl Ketone (2-Hexanone)	0.0408	0.020	mg/kg wet	0.05000		82	61-157			
Methyl Ethyl Ketone (2-Butanone)	0.0418	0.020	mg/kg wet	0.05000		84	63-149			
Methyl Isobutyl Ketone	0.0451	0.020	mg/kg wet	0.05000		90	57-162			
Methylene Chloride	0.0463	0.0050	mg/kg wet	0.05000		93	74-129			
Methyl-tert-Butyl Ether	0.0504	0.0050	mg/kg wet	0.05000		101	70-130			
Naphthalene	0.0443	0.010	mg/kg wet	0.05000		89	57-157			
n-Butylbenzene	0.0455	0.0050	mg/kg wet	0.05000		91	65-135			
n-Propylbenzene	0.0439	0.0050	mg/kg wet	0.05000		88	67-130			
o-Xylene	0.0480	0.0050	mg/kg wet	0.05000		96	74-126			
sec-Butylbenzene	0.0451	0.0050	mg/kg wet	0.05000		90	66-131			
Styrene	0.0506	0.0050	mg/kg wet	0.05000		101	77-121			
tert-Butylbenzene	0.0455	0.0050	mg/kg wet	0.05000		91	67-132			
Tetrachloroethylene	0.0574	0.0050	mg/kg wet	0.05000		115	68-130			
Toluene	0.0535	0.0050	mg/kg wet	0.05000		107	71-129			
trans-1,2-Dichloroethylene	0.0506	0.0050	mg/kg wet	0.05000		101	73-132			
trans-1,3-Dichloropropylene	0.0531	0.0050	mg/kg wet	0.05000		106	68-123			
Trichloroethylene	0.0557	0.0050	mg/kg wet	0.05000		111	75-133			
Trichlorofluoromethane	0.0501	0.010	mg/kg wet	0.05000		100	44-146			
Vinyl acetate	0.0522	0.010	mg/kg wet	0.05000		104	85-161			
Vinyl chloride	0.0500	0.010	mg/kg wet	0.05000		100	48-147			
Xylenes, total	0.146	0.015	mg/kg wet	0.1500		97	74-126			
Surrogate: 4-Bromofluorobenzene	*50.2*		*ug/L*	*50.00*		*100*	*70-130*			
Surrogate: Dibromofluoromethane	*47.1*		*ug/L*	*50.00*		*94*	*84-123*			
Surrogate: Toluene-d8	*43.0*		*ug/L*	*50.00*		*86*	*76-129*			

Kleinfelder SE, Inc. (Morrisville)
Attn: Mike Burns
3200 Gateway Centre Blvd. Suite 100
Morrisville, NC 27560

Project: U5757

Prism Work Order: 9080072
Time Submitted: 8/7/2019 10:30:00AM

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9H0147 - 5035										
LCS Dup (P9H0147-BSD1)				Prepared & Analyzed: 08/08/19						
1,1,1,2-Tetrachloroethane	0.0464	0.0050	mg/kg wet	0.05000		93	72-115	3	20	
1,1,1-Trichloroethane	0.0497	0.0050	mg/kg wet	0.05000		99	67-131	5	20	
1,1,2,2-Tetrachloroethane	0.0426	0.0050	mg/kg wet	0.05000		85	56-126	6	20	
1,1,2-Trichloroethane	0.0461	0.0050	mg/kg wet	0.05000		92	70-133	0.8	20	
1,1-Dichloroethane	0.0486	0.0050	mg/kg wet	0.05000		97	74-127	5	20	
1,1-Dichloroethylene	0.0481	0.0050	mg/kg wet	0.05000		96	67-149	3	20	
1,1-Dichloropropylene	0.0526	0.0050	mg/kg wet	0.05000		105	71-130	6	20	
1,2,3-Trichlorobenzene	0.0448	0.010	mg/kg wet	0.05000		90	68-130	2	20	
1,2,3-Trichloropropane	0.0433	0.0050	mg/kg wet	0.05000		87	60-137	5	20	
1,2,4-Trichlorobenzene	0.0454	0.010	mg/kg wet	0.05000		91	66-125	3	20	
1,2,4-Trimethylbenzene	0.0423	0.0050	mg/kg wet	0.05000		85	69-129	6	20	
1,2-Dibromoethane	0.0466	0.0050	mg/kg wet	0.05000		93	70-132	0.2	20	
1,2-Dichlorobenzene	0.0428	0.0050	mg/kg wet	0.05000		86	72-123	1	20	
1,2-Dichloroethane	0.0478	0.0050	mg/kg wet	0.05000		96	68-128	0.5	20	
1,2-Dichloropropane	0.0507	0.0050	mg/kg wet	0.05000		101	73-130	0.7	20	
1,3,5-Trimethylbenzene	0.0430	0.0050	mg/kg wet	0.05000		86	69-128	5	20	
1,3-Dichlorobenzene	0.0427	0.0050	mg/kg wet	0.05000		85	71-120	3	20	
1,3-Dichloropropane	0.0452	0.0050	mg/kg wet	0.05000		90	75-124	2	20	
1,4-Dichlorobenzene	0.0427	0.0050	mg/kg wet	0.05000		85	71-123	3	20	
2,2-Dichloropropane	0.0505	0.0050	mg/kg wet	0.05000		101	50-142	6	20	
2-Chlorotoluene	0.0413	0.0050	mg/kg wet	0.05000		83	67-124	5	20	
4-Chlorotoluene	0.0422	0.0050	mg/kg wet	0.05000		84	71-126	4	20	
4-Isopropyltoluene	0.0439	0.0050	mg/kg wet	0.05000		88	68-129	5	20	
Acetone	0.0948	0.020	mg/kg wet	0.1000		95	29-198	14	20	
Benzene	0.0503	0.0050	mg/kg wet	0.05000		101	74-127	4	20	
Bromobenzene	0.0406	0.0050	mg/kg wet	0.05000		81	73-125	0.8	20	
Bromochloromethane	0.0524	0.0050	mg/kg wet	0.05000		105	72-134	2	20	
Bromodichloromethane	0.0510	0.0050	mg/kg wet	0.05000		102	75-122	1	20	
Bromoform	0.0486	0.0050	mg/kg wet	0.05000		97	66-135	2	20	
Bromomethane	0.0564	0.010	mg/kg wet	0.05000		113	20-180	4	20	
Carbon Tetrachloride	0.0501	0.0050	mg/kg wet	0.05000		100	64-143	8	20	
Chlorobenzene	0.0460	0.0050	mg/kg wet	0.05000		92	74-118	6	20	
Chloroethane	0.0491	0.010	mg/kg wet	0.05000		98	33-149	7	20	
Chloroform	0.0499	0.0050	mg/kg wet	0.05000		100	73-127	5	20	
Chloromethane	0.0415	0.010	mg/kg wet	0.05000		83	45-143	4	20	
cis-1,2-Dichloroethylene	0.0488	0.0050	mg/kg wet	0.05000		98	76-134	4	20	
cis-1,3-Dichloropropylene	0.0534	0.0050	mg/kg wet	0.05000		107	71-125	1	20	
Dibromochloromethane	0.0462	0.0050	mg/kg wet	0.05000		92	73-122	1	20	
Dichlorodifluoromethane	0.0445	0.010	mg/kg wet	0.05000		89	26-146	7	20	
Ethylbenzene	0.0452	0.0050	mg/kg wet	0.05000		90	74-128	6	20	
Isopropyl Ether	0.0475	0.0050	mg/kg wet	0.05000		95	59-159	2	20	
Isopropylbenzene (Cumene)	0.0435	0.0050	mg/kg wet	0.05000		87	68-126	5	20	
m,p-Xylenes	0.0913	0.010	mg/kg wet	0.1000		91	75-124	7	20	
Methyl Butyl Ketone (2-Hexanone)	0.0452	0.020	mg/kg wet	0.05000		90	61-157	10	20	
Methyl Ethyl Ketone (2-Butanone)	0.0484	0.020	mg/kg wet	0.05000		97	63-149	15	20	
Methyl Isobutyl Ketone	0.0495	0.020	mg/kg wet	0.05000		99	57-162	9	20	

Kleinfelder SE, Inc. (Morrisville)
Attn: Mike Burns
3200 Gateway Centre Blvd. Suite 100
Morrisville, NC 27560

Project: U5757

Prism Work Order: 9080072
Time Submitted: 8/7/2019 10:30:00AM

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9H0147 - 5035										
LCS Dup (P9H0147-BSD1)			Prepared & Analyzed: 08/08/19							
Methylene Chloride	0.0456	0.0050	mg/kg wet	0.05000		91	74-129	1	20	
Methyl-tert-Butyl Ether	0.0510	0.0050	mg/kg wet	0.05000		102	70-130	1	20	
Naphthalene	0.0461	0.010	mg/kg wet	0.05000		92	57-157	4	20	
n-Butylbenzene	0.0428	0.0050	mg/kg wet	0.05000		86	65-135	6	20	
n-Propylbenzene	0.0416	0.0050	mg/kg wet	0.05000		83	67-130	6	20	
o-Xylene	0.0455	0.0050	mg/kg wet	0.05000		91	74-126	5	20	
sec-Butylbenzene	0.0428	0.0050	mg/kg wet	0.05000		86	66-131	5	20	
Styrene	0.0483	0.0050	mg/kg wet	0.05000		97	77-121	5	20	
tert-Butylbenzene	0.0428	0.0050	mg/kg wet	0.05000		86	67-132	6	20	
Tetrachloroethylene	0.0538	0.0050	mg/kg wet	0.05000		108	68-130	6	20	
Toluene	0.0505	0.0050	mg/kg wet	0.05000		101	71-129	6	20	
trans-1,2-Dichloroethylene	0.0478	0.0050	mg/kg wet	0.05000		96	73-132	6	20	
trans-1,3-Dichloropropylene	0.0539	0.0050	mg/kg wet	0.05000		108	68-123	2	20	
Trichloroethylene	0.0539	0.0050	mg/kg wet	0.05000		108	75-133	3	20	
Trichlorofluoromethane	0.0463	0.010	mg/kg wet	0.05000		93	44-146	8	20	
Vinyl acetate	0.0548	0.010	mg/kg wet	0.05000		110	85-161	5	20	
Vinyl chloride	0.0471	0.010	mg/kg wet	0.05000		94	48-147	6	20	
Xylenes, total	0.137	0.015	mg/kg wet	0.1500		91	74-126	7	20	
Surrogate: 4-Bromofluorobenzene	*49.7*		*ug/L*	*50.00*		*99*	*70-130*			
Surrogate: Dibromofluoromethane	*46.2*		*ug/L*	*50.00*		*92*	*84-123*			
Surrogate: Toluene-d8	*42.7*		*ug/L*	*50.00*		*85*	*76-129*			

Sample Extraction Data

Prep Method: Solids, Dry Weight

Lab Number	Batch	Initial	Final	Date/Time
9080072-01	P9H0204	30 g	30 g	08/12/19 16:45
9080072-02	P9H0204	30 g	30 g	08/12/19 16:45
9080072-03	P9H0204	30 g	30 g	08/12/19 16:45
9080072-04	P9H0204	30 g	30 g	08/12/19 16:45
9080072-05	P9H0204	30 g	30 g	08/12/19 16:45

Prep Method: 5035

Lab Number	Batch	Initial	Final	Date/Time
9080072-01	P9H0147	5.6 g	5 mL	08/08/19 10:00
9080072-02	P9H0147	6.22 g	5 mL	08/08/19 10:00
9080072-03	P9H0147	4.96 g	5 mL	08/08/19 10:00
9080072-04	P9H0147	5.53 g	5 mL	08/08/19 10:00
9080072-05	P9H0147	5.49 g	5 mL	08/08/19 10:00

CHAIN OF CUSTODY RECORD

PRISM LABORATORIES, INC. — Full-Service Analytical & Environmental Solutions

449 Springbrook Road • Charlotte, NC 28217
Phone 704/529-6364 • Fax: 704/525-0409

PAGE 1 OF 2 QUOTE # TO ENSURE PROPER BILLING: _____

Project Name: U5757
Short Hold Analysis: (Yes) (No) UST Project: (Yes) (No)
*Please ATTACH any project specific reporting (QC LEVEL I II III IV) provisions and/or QC Requirements
Invoice To: SAME
Address: _____

Client Company Name: Kleinfelder
Report To/Contact Name: Mike Burns
Reporting Address: 3200 Gateway Centre Blvd Suite 100, Morrisville, NC
Phone: 919 755 5011 Fax (Yes) (No)
Email Address: mburns@kleinfelder.com
EDD Type: PDF X Excel ___ Other ___
Site Location Name: U5757
Site Location Physical Address: Winston Ave Lexington, NC

Purchase Order No./Billing Reference 20201105.001A
Requested Due Date ☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 4 Days X 5 Days
"Working Days" ☐ 6-9 Days ☐ Standard 10 days ☐ Rush Work Must Be Pre-Approved
Samples received after 14:00 will be processed next business day.
Turnaround time is based on business days, excluding weekends and holidays.
(SEE REVERSE FOR TERMS & CONDITIONS REGARDING SERVICES RENDERED BY PRISM LABORATORIES, INC. TO CLIENT)

LAB USE ONLY

	YES	NO	N/A
Samples INTACT upon arrival?	✓		
Received ON WET ICE?	✓		
PROPER PRESERVATIVES indicated?	✓		
Received WITHIN HOLDING TIMES?	✓		
CUSTODY SEALS INTACT?			✓
VOLATILES rec'd W/OUT HEADSPACE?			✓
PROPER CONTAINERS used?	✓		

TEMP: Therm ID: IR T-14 Observed: @ 6 °C / Corr: @ 7 °C

TO BE FILLED IN BY CLIENT/SAMPLING PERSONNEL

Certification: NELAC ___ DoD ___ FL ___ NC X
SC ___ OTHER ___ N/A ___
Water Chlorinated: YES ___ NO X
Sample Iced Upon Collection: YES X NO ___

CLIENT SAMPLE DESCRIPTION	DATE COLLECTED	TIME COLLECTED MILITARY HOURS	MATRIX (SOIL, WATER OR SLUDGE)	SAMPLE CONTAINER *TYPE SEE BELOW	NO.	SIZE	PRESERVATIVES	ANALYSIS REQUESTED 8260	ANALYSIS REQUESTED 5035	REMARKS	PRISM LAB ID NO.
P5B43	8/5/19	1130	SOIL	CG	1	2oz	None		X		01
				VOA	1	✓	Methanol	X			1
				VOA	2	✓	NaHSO4	X			1
P5B39				CG	1	2oz	None		X		02
				VOA	1	✓	Methanol	X			1
				VOA	2	✓	NaHSO4	X			1
P5B58				CG	1	2oz	None		X		03
				VOA	1	✓	Methanol	X			1
				VOA	2	✓	NaHSO4	X			1
P5B34				CG	1	2oz	None		X		04

Sampler's Signature: Abigail Shurtleff Sampled By (Print Name): Abigail Shurtleff Affiliation: KLF

PRESS DOWN FIRMLY - 3 COPIES

Upon relinquishing, this Chain of Custody is your authorization for Prism to proceed with the analyses as requested above. Any changes must be submitted in writing to the Prism Project Manager. There will be charges for any changes after analyses have been initialized.

		Date	Military/Hours
Relinquished By: (Signature) Abigail Shurtleff	Received By: (Signature)	8/7/19	
Relinquished By: (Signature)	Received By: (Signature)	Date	
Relinquished By: (Signature)	Received For Prism Laboratories By:	8.7.19	1030

Method of Shipment: NOTE: ALL SAMPLE COOLERS SHOULD BE TAPED SHUT WITH CUSTODY SEALS FOR TRANSPORTATION TO THE LABORATORY. SAMPLES ARE NOT ACCEPTED AND VERIFIED AGAINST COC UNTIL RECEIVED AT THE LABORATORY.

☐ Fed Ex ☐ UPS ☐ Hand-delivered ☐ Prism Field Service ☐ Other ___

COC Group No. 9080072

Additional Comments:

PRISM USE ONLY

Site Arrival Time:
Site Departure Time:
Field Tech Fee:
Mileage:

NPDES:	UST:	GROUNDWATER:	DRINKING WATER:	SOLID WASTE:	RCRA:	CERCLA	LANDFILL	OTHER:
☐ NC ☐ SC	X NC ☐ SC	☐ NC ☐ SC	☐ NC ☐ SC	☐ NC ☐ SC	☐ NC ☐ SC	☐ NC ☐ SC	☐ NC ☐ SC	☐ NC ☐ SC
☐ ___	☐ ___	☐ ___	☐ ___	☐ ___	☐ ___	☐ ___	☐ ___	☐ ___

*CONTAINER TYPE CODES: A = Amber C = Clear G= Glass P = Plastic; TL = Teflon-Lined Cap VOA = Volatile Organics Analysis (Zero Head Space)

SEE REVERSE FOR TERMS & CONDITIONS

ORIGINAL

CHAIN OF CUSTODY RECORD

PRISM LABORATORIES, INC.
Full-Service Analytical & Environmental Solutions
449 Springbrook Road • Charlotte, NC 28217
Phone 704/529-6364 • Fax: 704/525-0409

PAGE 2 OF 2 QUOTE # TO ENSURE PROPER BILLING: _____

Project Name: U5757
Short Hold Analysis: (Yes) (No) UST Project: (Yes) (NO)
*Please ATTACH any project specific reporting (QC LEVEL I II III IV) provisions and/or QC Requirements
Invoice To: SAME
Address: _____

Client Company Name: Kleinfelder
Report To/Contact Name: Mike Burns
Reporting Address: 3200 Gateway Centre Blvd, Suite 100, Morrisville, NC
Phone: 919 755 5011 Fax (Yes) (No): _____
Email Address: mburns@kleinfelder.com
EDD Type: PDF X Excel ___ Other ___
Site Location Name: U5757
Site Location Physical Address: Winston Rd Lexington, NC

Purchase Order No./Billing Reference 20201105.001A
Requested Due Date ☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 4 Days ☒ 5 Days
"Working Days" ☐ 6-9 Days ☐ Standard 10 days ☐ Rush Work Must Be Pre-Approved
Samples received after 14:00 will be processed next business day.
Turnaround time is based on business days, excluding weekends and holidays.
(SEE REVERSE FOR TERMS & CONDITIONS REGARDING SERVICES RENDERED BY PRISM LABORATORIES, INC. TO CLIENT)

LAB USE ONLY

	YES	NO	N/A
Samples INTACT upon arrival?	✓		
Received ON WET ICE?	✓		
PROPER PRESERVATIVES indicated?	✓		
Received WITHIN HOLDING TIMES?	✓		
CUSTODY SEALS INTACT?			✓
VOLATILES rec'd W/OUT HEADSPACE?			✓
PROPER CONTAINERS used?	✓		

TEMP: Therm ID: IRT-14 Observed: 0.6 °C / Corr: 0.7 °C

TO BE FILLED IN BY CLIENT/SAMPLING PERSONNEL
Certification: NELAC ___ DoD ___ FL ___ NC X
SC ___ OTHER ___ N/A ___
Water Chlorinated: YES ___ NO X
Sample Iced Upon Collection: YES X NO ___

CLIENT SAMPLE DESCRIPTION	DATE COLLECTED	TIME COLLECTED MILITARY HOURS	MATRIX (SOIL, WATER OR SLUDGE)	SAMPLE CONTAINER *TYPE SEE BELOW	NO.	SIZE	PRESERVATIVES	ANALYSIS REQUESTED 8260	5035	REMARKS	PRISM LAB ID NO.
P5B34	8/5/19	1130	SOIL	VOA	1	✓	Methanol	X			04
↓	↓	↓	↓	VOA	2	✓	NaHSO4	X			1
P5B46				CG	1	2oz	None		X		05
↓				VOA	1	✓	Methanol	X			1
↓				VOA	2	✓	NaHSO4	X			1

Sampler's Signature [signature] Sampled By (Print Name) Abigail Shurtleff Affiliation KLF

PRESS DOWN FIRMLY - 3 COPIES

Upon relinquishing, this Chain of Custody is your authorization for Prism to proceed with the analyses as requested above. Any changes must be submitted in writing to the Prism Project Manager. There will be charges for any changes after analyses have been initialized.

		Date	Military/Hours
Relinquished By: (Signature)	Received By: (Signature)	8/5/19	
Relinquished By: (Signature)	Received By: (Signature)	Date	
Relinquished By: (Signature)	Received For Prism Laboratories By:	Date 8.7.19	1030

Method of Shipment: NOTE: ALL SAMPLE COOLERS SHOULD BE TAPED SHUT WITH CUSTODY SEALS FOR TRANSPORTATION TO THE LABORATORY. SAMPLES ARE NOT ACCEPTED AND VERIFIED AGAINST COC UNTIL RECEIVED AT THE LABORATORY.
☐ Fed Ex ☐ UPS ☐ Hand-delivered ☐ Prism Field Service ☐ Other _____
COC Group No. 9080072

Additional Comments:

PRISM USE ONLY
Site Arrival Time:
Site Departure Time:
Field Tech Fee:
Mileage:

NPDES:	UST:	GROUNDWATER:	DRINKING WATER:	SOLID WASTE:	RCRA:	CERCLA	LANDFILL	OTHER:
☐ NC ☐ SC	☒ NC ☐ SC	☐ NC ☐ SC	☐ NC ☐ SC	☐ NC ☐ SC	☐ NC ☐ SC	☐ NC ☐ SC	☐ NC ☐ SC	☐ NC ☐ SC
☐ ___	☐ ___	☐ ___	☐ ___	☐ ___	☐ ___	☐ ___	☐ ___	☐ ___

SEE REVERSE FOR TERMS & CONDITIONS

*CONTAINER TYPE CODES: A = Amber C = Clear G= Glass P = Plastic; TL = Teflon-Lined Cap VOA = Volatile Organics Analysis (Zero Head Space)

ORIGINAL

KLEINFELDER
Bright People. Right Solutions.

September 17, 2019
Kleinfelder File No. RAL19R100884

Mr. John L. Pilipchuk, LG., PE
North Carolina Department of Transportation
State Geotechnical Engineer
Geotechnical Engineering Unit
1589 Mail Service Center
Raleigh, North Carolina 27699-1589

SUBJECT: Preliminary Site Assessment Report
Parcel 7, Hayes Jewelers, Inc.
WBS Element No. 54035.1.1, TIP No. U-5757
NC 8 (Winston Road) from 9th Street to SR 1408 (Biesecker Rd) in Lexington. Widen to multi lanes
Kleinfelder Project No. 20201105.001A

Dear Mr. Pilipchuk,

Kleinfelder is pleased to provide its report detailing the activities conducted as part of the preliminary site assessment for the subject project.

Kleinfelder appreciates the opportunity to be of service to you. Should you have questions or require additional information, please do not hesitate to contact the undersigned.

Sincerely,
KLEINFELDER, INC.

Abigail R. Shurtleff
Environmental Staff Professional

Michael J Burns, PG
Environmental Program Manager

ARS/MJB:asp

KLEINFELDER 3200 Gateway Centre Blvd. Suite 100, Morrisville, NC 27560 **p |** 919.755.5011 **f |** 919.755.1414

PRELIMINARY SITE ASSESSMENT REPORT
PARCEL 7 HAYES JEWELERS, INC.
PARCEL 1101200000015
903 WINSTON ROAD
LEXINGTON, DAVIDSON COUNTY, NORTH CAROLINA

NCDOT WBS ELEMENT 54035.1.1
STATE PROJECT U-5757
NC 8 (WINSTON RD) FROM 9TH STREET TO SR 1408 (BIESECKER RD) IN LEXINGTON. WIDEN TO MULTI LANES

KLEINFELDER PROJECT NO. 20201105.001A

SEPTEMBER 17, 2019

A Report Prepared for:

Mr. John L. Pilipchuk, LG., PE
North Carolina Department of Transportation
State Geotechnical Engineer
Geotechnical Engineering Unit
1589 Mail Service Center
Raleigh, North Carolina 27699-1589

PRELIMINARY SITE ASSESSMENT REPORT
PARCEL 7 HAYES JEWELERS, INC.
PARCEL 1101200000015
903 WINSTON ROAD
LEXINGTON, DAVIDSON COUNTY, NORTH CAROLINA

NCDOT WBS ELEMENT 54035.1.1
STATE PROJECT U-5757
NC 8 (WINSTON RD) FROM 9TH STREET TO SR 1408 (BIESECKER RD) IN LEXINGTON. WIDEN TO MULTI LANES

Prepared by:

Abigail R. Shurtleff
Environmental Staff Professional

Reviewed by:

Michael J. Burns, PG
Environmental Program Manager

KLEINFELDER
3200 Gateway Centre Blvd. | Suite 100
Raleigh, North Carolina 27560
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September 17, 2019

Kleinfelder Project No. 20201105.001A

KLEINFELDER
Bright People. Right Solutions.

PRELIMINARY SITE ASSESSMENT REPORT

Site Name and Location:	Parcel 7 903 Winston Road Lexington, Davidson County, North Carolina
Latitude and Longitude:	35.837778°N, -80.253297°W
County Parcel Number	1101200000015
Facility ID Number:	00-0-0000011275
Leaking UST Incident:	N/A
State Project No.:	U-5757
NCDOT Project No.:	NCDOT WBS Element 54035.1.1
Description:	NC 8 (Winston Rd) from 9th Street to SR 1408 (Biesecker Rd) in Lexington. Widen to multi lanes
Date of Report:	September 17, 2019
Consultant:	Kleinfelder, Inc. 3200 Gateway Center Boulevard | Suite 100 Morrisville, North Carolina 27560 Corporate Geology License No. C-521 Corporate Licensure for Engineering F-1312

SEAL AND SIGNATURE OF CERTIFYING LICENSED GEOLOGIST

I, Michael J Burns, a Licensed Geologist for Kleinfelder, Inc., do certify that the information contained in this report is correct and accurate to the best of my knowledge.

DocuSigned by:
7E53DC44AC794CA...

10/7/2019

Michael J Burns, LG
NC License No. 1645

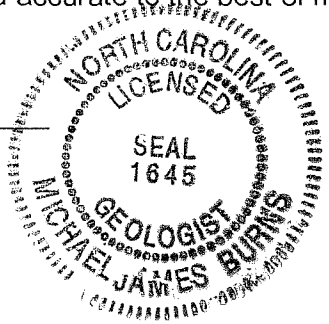


TABLE OF CONTENTS

PRELIMINARY SITE ASSESSMENT
PARCEL 7 HAYES JEWELERS, INC.
PARCEL 1101200000015
903 WINSTON ROAD
LEXINGTON, DAVIDSON COUNTY, NORTH CAROLINA

NCDOT WBS ELEMENT 54035.1.1
STATE PROJECT U-5757
NC 8 (WINSTON RD) FROM 9TH STREET TO SR 1408 (BIESECKER RD) IN LEXINGTON. WIDEN TO MULTI LANES

1 INTRODUCTION

Kleinfelder, Inc. (Kleinfelder) has prepared this Preliminary Site Assessment (PSA) report to document assessment activities performed on Parcel 7 (the assessment area is hereafter referred to as the "Project Study Area"). The Project Study Area consists of the western portion of a parcel known by the Davidson County Tax Assessor's Office as Parcel Number 1101200000015. Parcel 7 is currently occupied by a retail jewelry store, Hayes Jewelers, and associated paved parking areas. Parcel 7 is located northeast of the intersection of West 9th Street and Winston Road, in the Town of Lexington, Davidson County, North Carolina (Figure 1).

Based on information provided in the Hazardous Materials Survey Report, dated February 28, 2019, prepared by Kleinfelder for SEPI Engineering & Construction, the parcel is a former gasoline filling station, which operated from about 1959 until about 1997. The site reportedly operated three (3) registered underground storage tanks (USTs). As such, the purpose of the PSA was to evaluate whether unknown USTs or contaminated soil are present in the Project Study Area that may result in increased project costs and future liability if acquired by the NCDOT.

1.1 SITE DESCRIPTION

Parcel 7 has a listed owner of Hayes Jewelers, Inc. The parcel has a street address of 903 Winston Road. The parcel consists of an active retail jewelry store and associated paved parking areas. The parcel is bounded by West 9th Street to the south, beyond which is a paved asphalt parking lot and maintained grass lawn reportedly owned by the same listed owner as Parcel 7; by Winston Road to the west, beyond which are residential homes; by a vacant grass lot to the north which is reportedly owned by the same owner as Parcel 7; by Virginia Drive to the east, beyond which are residential homes. Photographs of the Project Study Area are provided in Appendix A.

1.2 SCOPE OF WORK

Kleinfelder conducted this PSA in accordance with the NCDOT's May 24, 2019, Request for Technical and Cost Proposal (RFP) and Kleinfelder's June 18, 2019 Technical and Cost Proposal. The NCDOT granted a formal Notice to Proceed on June 27, 2019.

2 HISTORY

2.1 PARCEL USAGE

The parcel consists of a retail jewelry store and associated paved parking areas.

The February 2018 Hazardous Materials Survey Report included information about the past use of Parcel 7 as a portion of a former gasoline filling station developed around 1959 and operating until about 1997. Three (3) former gasoline USTs were present on the site.

Kleinfelder conducted historical research to determine whether additional environmental listings were identified for Parcel 7. The following are the results of the additional research:

- Based on a review of aerial photographs and historical databases, the site appeared to be developed as a gasoline service station around 1959 (U&M Esso), and operated until about 1997 (Tommy's Service Center).
- Historical automotive databases list the site as Taylor's Exxon and Taylor's Esso Station.
- There were no recorded releases for this site in the databases reviewed.
- Kleinfelder searched the registered UST database, maintained by the North Carolina Department of Environmental Quality (NCDEQ). The site was listed as Facility ID 00-0-0000011275, which operated three (3) gasoline USTs owned by Ripple Oil Company: one (1) 4,000-gallon UST installed in 1979 and two (2) 6,000-gallon USTs installed in 1965. All USTs were reportedly removed from the ground 1989 without incident.
- No other listings for Parcel 7 were identified on any of the available NCDEQ pollution incident databases.

2.2 FACILITY ID NUMBERS

Kleinfelder reviewed the NCDEQ UST database for Parcel 7. The parcel was identified as having three (1) permanently closed USTs and is listed as Facility ID: 00-0-0000011275.

2.3 GROUNDWATER INCIDENT NUMBERS

No groundwater incidents are known to be associated with Parcel 7 at this time.

3 OBSERVATIONS

3.1 GROUNDWATER MONITORING WELLS

No groundwater monitoring wells were observed on Parcel 7 at the time of site exploration, Monday, August 5, 2019. No groundwater monitoring wells were associated with the Facility ID 00-0-0000011275.

3.2 ACTIVE USTS

Based on review of the NCDEQ UST database, site visits and previous reports, there were three (3) gasoline USTs formerly located on site, which were reportedly removed from the ground in 1989.

3.3 OTHER FEATURES APPARENT BEYOND PROJECT STUDY AREA

The Project Study Area consisted of the western portion of the parcel. There were no features of concern observed in other portions of the parcel beyond the Project Study Area.

4 METHODS

4.1 PROPERTY OWNER CONTACTS

As part of Kleinfelder's scope of work, the listed property owner was contacted about the work schedule for the field work and the type of work being performed. The owner did not express any concern or special conditions associated with the work being performed.

4.2 HEALTH AND SAFETY

Prior to commencing the field work, Kleinfelder personnel developed a Site-Specific Health and Safety Plan (HASP) covering activities to be performed. The site specific HASP was discussed with all Kleinfelder personnel involved with the project and at a daily on-site "tail gate" safety meetings with subcontractors and sub consultants. In addition to the HASP, Kleinfelder utilized its comprehensive Corporate Health and Safety Program, targeted to address those specific and critical tasks that involve Kleinfelder personnel and subcontractors. The Loss Prevention System (LPS™), a behavior-based program, is Kleinfelder's company-wide safety system implemented and embraced by all levels of the company.

4.3 GEOPHYSICAL INVESTIGATION

Pyramid Environmental & Engineering, P.C (Pyramid) conducted a geophysical investigation in the Project Study Area between July 15 and 16, 2019. Pyramid utilized electromagnetic (EM) induction technology and ground penetrating radar (GPR) to locate potential geophysical anomalies and potential USTs within the Project Study Area.

There were no EM responses that were not associated with known utilities, vehicles, or other previously known conditions.

A copy of the Pyramid Geophysical Investigation Report, detailing the field methodology, is included in Appendix B.

4.4 SOIL ASSESSMENT

The scope of work for the soil assessment was to evaluate the presence of soil contamination along the existing right of way and/or easement to evaluate whether known impact is present in this area and maybe migrating off-site. The soil borings were planned to be advanced to maximum depths of 10 feet below the ground surface (bgs) unless groundwater was encountered. Field screening using a photo ionization detector (PID) was to be conducted at 1-foot intervals

beginning at 0 foot to 1 foot. The soil sample with the highest PID reading above background or the sample from the maximum drilled depth would be selected for on-site laboratory analyses.

Prior to the drilling activities, public utilities were marked by NC One Call and private utilities were marked by Pyramid.

Kleinfelder subcontracted Quantex, Inc. (Quantex) to perform the drilling on-site on August 5, 2019. Quantex advanced three (3) soil borings (P7-B1 through P7-B3) by direct-push technology from the ground surface to boring termination (10 feet bgs) at locations specified by Kleinfelder. The soil boring locations were identified in the field using a GPS. The soil boring locations are shown on Figure 2. The borings were located within the right-of-way along Winston Road and the western and southern parcel boundaries of the retail jewelry store. Soil borings P7-B1 and P7-B2 were located along the southern parcel boundary, West 9th Street. Soil boring P7-B3 was located along Winston Road. Soil samples were collected by driving Macro Core™ samplers in 5-foot intervals. Each soil core was cut open, the soil samples were classified, and the soil divided into 1-foot sections. Each 1-foot section was screened in the field using a PID. The PID readings are summarized in Table 1.

Soils were determined to be primarily a loose gravel and sand fill within the first 3 feet, underlain by an increasingly micaceous silt. Groundwater was not encountered in any of the borings at the termination depth of 10 feet bgs. Copies of the boring logs are included in Appendix C.

4.5 SOIL ANALYSIS

The PID readings from soil borings advanced on Parcel 7 were noted to be low. Based on the PID data and visual observations, one (1) of the samples from each boring was selected for on-site laboratory analysis.

The samples were analyzed by RED Lab, LLC utilizing ultraviolet fluorescence (UVF) methodology to provide real-time analytical results of Total Petroleum Hydrocarbons (TPH), Gasoline Range Organics (GRO), Diesel Range Organics (DRO), and benzene, toluene, ethylbenzene, and total xylenes (BTEX). The UVF method was selected because of the known historical use of petroleum products on Parcel 7. The UVF analysis also provided data regarding Environmental Protection Agency 16 total Polycyclic Aromatic Hydrocarbons (PAHs), and Benzo(a)pyrene (BaP).

Off-site soil sample analysis for volatile organic compounds (VOCs) utilizing 8260 methodology was originally proposed in addition to the UVF methodology for Parcel 7. However, no samples were sent for off-site analysis due to the generally low PID readings and low TPH GRO results returned via UVF methodology.

5 RESULTS

5.1 GEOPHYSICAL INVESTIGATION

The EM and GPR surveys did not identify unknown geophysical anomalies within the Project Study Area.

5.2 SOIL SAMPLING DATA

The UVF analysis of soil samples did not indicate the presence of petroleum impact in any of the soil samples analyzed. As such, shallow soil impact does not appear to be present within the existing right of way above NCDEQ Action Limits. A summary of soil sample analytical results is presented in Table 2. The laboratory results associated with each boring are presented on Figure 3. The laboratory report and graphs are included in Appendix D.

5.3 SAMPLE OBSERVATIONS

Soils were observed for any obvious evidence of contamination. No visual or olfactory evidence of contamination was noted in any of the soil samples from the borings.

5.4 QUANTITY CALCULATIONS

Kleinfelder did not identify soil impact in the current right of way.

6 CONCLUSIONS

Based on results of the EM/GPR survey, soil assessment and field observations, Kleinfelder has reached the following conclusions:

- The GPR and EM investigation did not identify unknown features.
- The site is listed in the NCDEQ UST Database as Facility ID 00-0-0000011275. Three (3) gasoline USTs were formerly located on site, which were reportedly removed from the ground in 1989 without incident. No indication of the presence or likely presence of active or inactive USTs was observed on Parcel 7 at the time of site exploration, August 5, 2019.
- No soil impact was detected in borings advanced within the current right-of-way above the NCDEQ Action Limits for TPH GRO and DRO.
- Groundwater was not encountered in the soil borings at a depth of 10 feet bgs.

7 RECOMMENDATIONS

Based on results of this Preliminary Site Assessment, Kleinfelder recommends no additional sampling or special handling of soils be performed within the Project Study Area on Parcel 7 in Lexington, Davidson County, North Carolina.

8 LIMITATIONS

Kleinfelder's work will be performed in a manner consistent with that level of care and skill ordinarily exercised by other members of its profession practicing in the same locality, under similar conditions and at the date the services are provided. Kleinfelder's conclusions, opinions and recommendations will be based on a limited number of observations and data. It is possible that conditions could vary between or beyond the data evaluated. Kleinfelder makes no guarantee or warranty, express or implied, regarding the services, communication (oral or written), report, opinion, or instrument of service provided.

Kleinfelder offers various levels of investigative and engineering services to suit the varying needs of different clients. It should be recognized that definition and evaluation of geologic and environmental conditions are a difficult and inexact science. Judgments leading to conclusions and recommendations are generally made with incomplete knowledge of the subsurface conditions present due to the limitations of data from field studies. Although risk can never be eliminated, more-detailed and extensive studies yield more information, which may help understand and manage the level of risk. Since detailed study and analysis involves greater expense, Kleinfelder's clients participate in determining levels of service that provide adequate information for their purposes at acceptable levels of risk. More extensive studies, including subsurface studies or field tests, should be performed to reduce uncertainties. Acceptance of this report will indicate that NCDOT has reviewed the document and determined that it does not need or want a greater level of service than provided.

During the course of the performance of Kleinfelder's services, hazardous materials may have been discovered. Kleinfelder assumes no responsibility or liability whatsoever for any claim, loss of property value, damage, or injury that results from pre-existing hazardous materials being encountered or present on the project site, or from the discovery of such hazardous materials. Nothing contained in this report should be construed or interpreted as requiring Kleinfelder to assume the status of an owner, operator, or generator, or person who arranges for disposal, transport, storage or treatment of hazardous materials within the meaning of any governmental statute, regulation or order. NCDOT is solely responsible for directing notification of all governmental agencies, and the public at large, of the existence, release, treatment or disposal of any hazardous materials observed at the project site, either before or during performance of

Kleinfelder's services. NCDOT is responsible for directing all arrangements to lawfully store, treat, recycle, dispose, or otherwise handle hazardous materials, including cuttings and samples resulting from Kleinfelder's services.

TABLES

Table 1: Soil Sample Screening Results

Date	Sample ID	Depth (ft)	PID Reading	Notes
8/5/2019	U5757-P7-B1	1	NR	
		2	NR	
		3	0.2	
		4	0.1	
		5	0.1	
		6	0.9	
		7	1.6	
		8	1.7	
		9	2.0	UVF Analysis
		10	0.6	
8/5/2019	U5757-P7-B2	1	0.6	
		2	1.2	
		3	0.7	
		4	0.6	
		5	0.9	
		6	1.0	UVF Analysis
		7	0.6	
		8	0.6	
		9	0.6	
		10	0.7	
8/5/2019	U5757-P7-B3	1	NR	
		2	NR	
		3	2.7	
		4	2.1	
		5	1.5	UVF Analysis
		6	NR	
		7	NR	
		8	1.6	
		9	1.7	
		10	0.7	

Notes:
1) PID = Photoionization Detector
2) PID readings in parts per million (ppm)
3) NR = no recovery

TABLE 2: Soil Sample Analytical Summary

Parameter	Analytical Results			Comparison Criteria		
	Soil Sample Results					
Sample ID	P7-B1-9	P7-B2-6	P7-B3-5	State Action Limit	Protection of Groundwater	Residential Health
PID Reading (ppm)	2.0	1.0	1.5			
Collection Depth (ft bgs)	9	6	5			
Collection Date	8/5/19	8/5/19	8/5/19			
UVF Method						
Diesel Range Organics	**7.9**	**3.8**	**0.79**	100	--	--
Gasoline Range Organics	<0.34	<0.39	<0.33	50	--	--

Notes:

Results displayed in milligram per kilogram (mg/kg)
ft bgs = Feet below ground surface
Bold = Above Laboratory Detection Limit
Highlighted concentrations exceed state action limit
UVF = Ultraviolet Flouresence

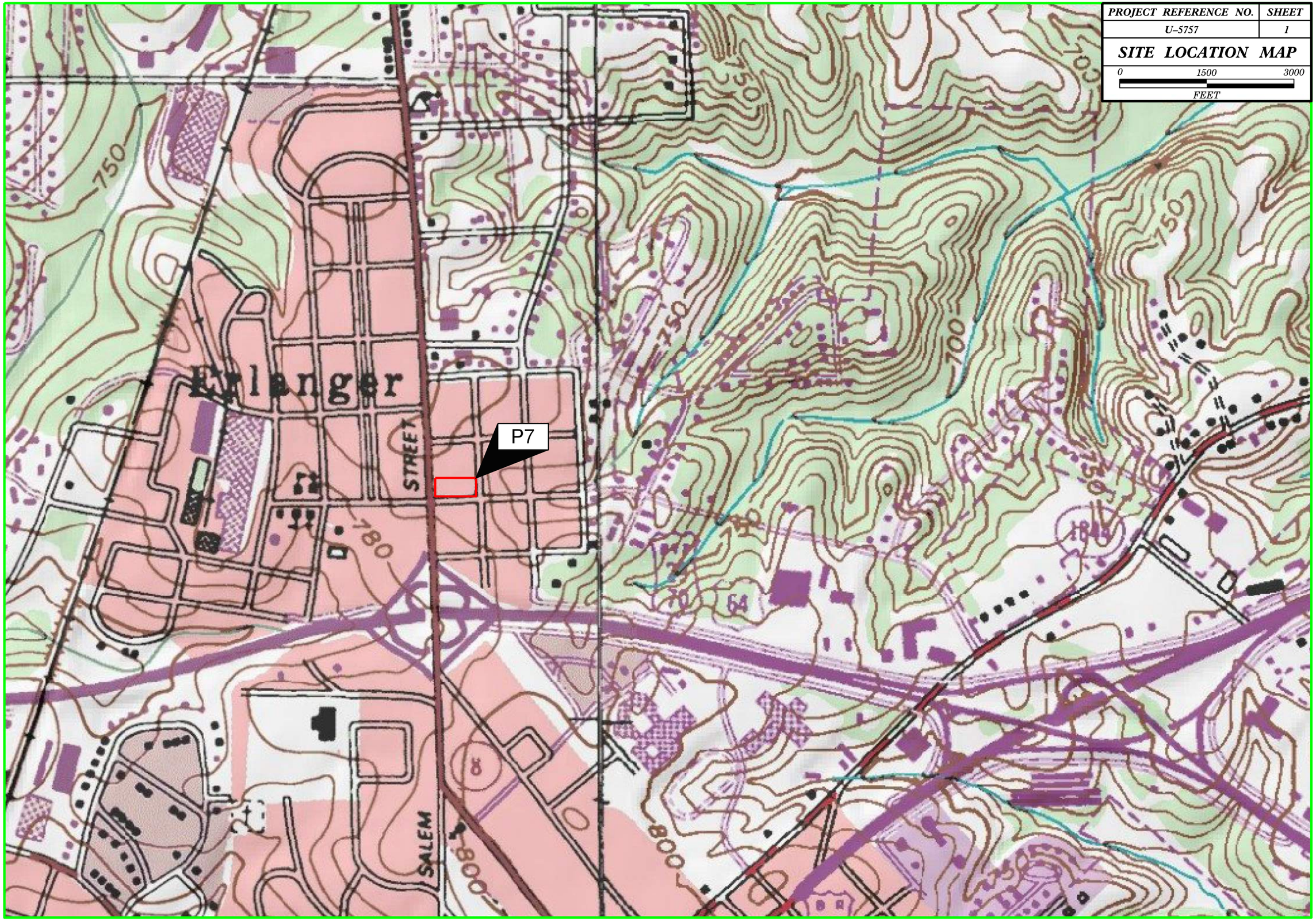
FIGURES

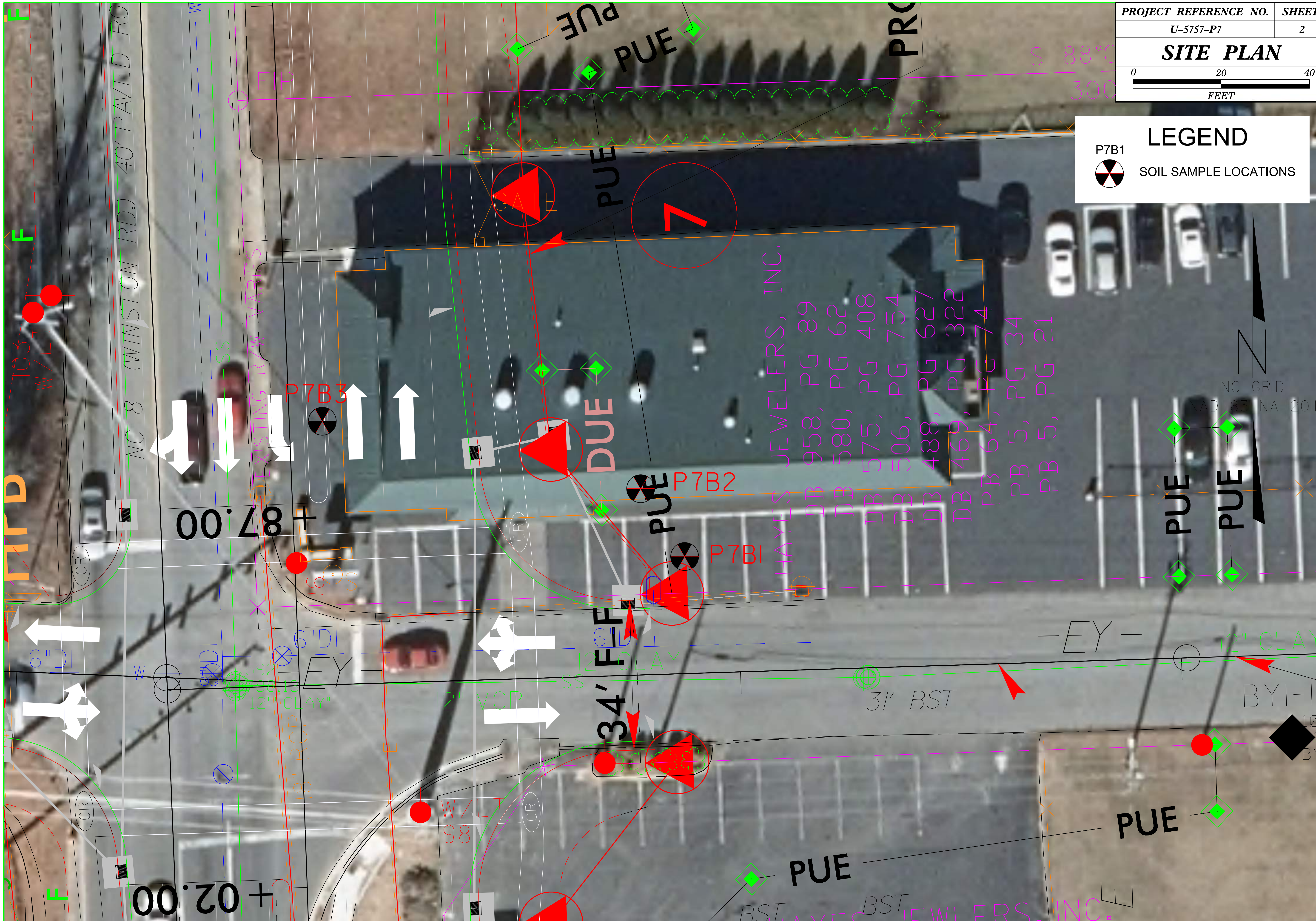
PROJECT REFERENCE NO.	SHEET
U–5757	1

SITE LOCATION MAP

0 1500 3000

FEET





PROJECT REFERENCE NO.
U-5757-P7
SHEET
2
SITE PLAN
0
20
40
FEET
LEGEND
P7B1
SOIL SAMPLE LOCATIONS
P7B3
P7B2
P7BI
PUE
DUE
34' F-F
31' BST
-EY-
87.00
02.00
NC 8 (WINSTON RD.) 40' PAVED RD.
HAYES JEWELERS, INC.
DB 958, PG 89
DB 580, PG 62
DB 575, PG 408
DB 506, PG 754
DB 488, PG 627
DB 463, PG 322
DB 64, PG 74
PB 5, PG 34
PB 5, PG 21
NC GRID
NAD 83/NA 2011
6"DI
12" VCP
BYI-10
HAYES JEWLERS, INC.
GATE
EXISTING R/W VARIES

PROJECT REFERENCE NO.	SHEET
U-5757	3

SOIL SAMPLE ANALYTICAL RESULTS

0 20 40
FEET

LEGEND

P7B1 SOIL SAMPLE LOCATIONS

SOIL SAMPLE RESULTS

	DRO	GRO
P7-B1-9	7.0	<0.34
P7-B2-6	3.8	<0.39
P7-B3-5	0.79	<0.33

NOTES:
1) All results reported in mg/kg
2) DRO = Diesel Range Organics
3) GRO = Gasoline Range Organics
4) Bold concentrations exceed the NCDEQ TPH Action Level

P7B3
P7B2
P7B1
+87.00
+02.00
PUE
EXISTING R/W VARIES
HAYES JEWELERS, INC.
NC GRID
NAD 83 NA 2011

APPENDIX A
SITE PHOTOGRAPHS

View facing southerly along the western border of Parcel 7, NC Highway 8 (Winston Road), toward soil boring P7-B3.

Original in Color

View facing easterly along the southern border of Parcel 7, 9th Street, toward soil borings P7-B1 and P7-B2.

KLEINFELDER *Bright People. Right Solutions.* www.kleinfelder.com	PROJECT NO:20201105.001A DRAWN: September 2019 DRAWN BY: ARS CHECKED BY: MB FILE NAME: Photo Pages	**SITE PHOTOGRAPHS** Preliminary Site Assessment Report U-5757-P7 Lexington, Davidson County, North Carolina	FIGURE **A-1**

APPENDIX B
GEOPHYSICAL SURVEY REPORT

PYRAMID GEOPHYSICAL SERVICES
(PROJECT 2019-211)

GEOPHYSICAL SURVEY

METALLIC UST INVESTIGATION:
PARCEL 7
NCDOT PROJECT U-5757 (54035.1.1)

903 WINSTON ROAD, LEXINGTON, NC

August 15, 2019

Report prepared for: **Michael Burns, P.G.**
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GEOPHYSICAL INVESTIGATION REPORT
Parcel 7 - 903 Winston Road
Lexington, Davidson County, North Carolina

Table of Contents

Figures

LIST OF ACRONYMS

CADD .....Computer Assisted Drafting and Design
DF .....Dual Frequency
EM.....Electromagnetic
GPR.....Ground Penetrating Radar
GPS .....Global Positioning System
NCDOT.....North Carolina Department of Transportation
ROW .....Right-of-Way
UST .....Underground Storage Tank

EXECUTIVE SUMMARY

Project Description: Pyramid Environmental conducted a geophysical investigation for Kleinfelder, Inc. at Parcel 7 located at 903 Winston Road in Lexington, NC. The survey was part of an NCDOT Right-of-Way (ROW) investigation (NCDOT Project U-5757). The survey was designed to extend from the existing edge of pavement into the proposed ROW and/or easements, whichever distance was greater. Conducted from July 15-16, 2019, the geophysical investigation was performed to determine if unknown, metallic underground storage tanks (USTs) were present beneath the survey area.

Geophysical Results: The geophysical investigation consisted of electromagnetic (EM) induction-metal detection and ground penetrating radar (GPR) surveys. A total of eight EM anomalies were identified. All of the EM anomalies were directly attributed to visible cultural features at the ground surface. Collectively, the geophysical data did not record any evidence of unknown metallic USTs at Parcel 7.

INTRODUCTION

Pyramid Environmental conducted a geophysical investigation for Kleinfelder, Inc. at Parcel 7 located at 903 Winston Road in Lexington, NC. The survey was part of an NCDOT Right-of-Way (ROW) investigation (NCDOT Project U-5757). The survey was designed to extend from the existing edge of pavement into the proposed ROW and/or easements, whichever distance was greater. Conducted from July 15-16, 2019, the geophysical investigation was performed to determine if unknown, metallic underground storage tanks (USTs) were present beneath the survey area.

The site included a commercial building surrounded by asphalt, grass, and concrete surfaces. An aerial photograph showing the survey area boundaries and ground-level photographs are shown in **Figure 1**.

FIELD METHODOLOGY

The geophysical investigation consisted of electromagnetic (EM) induction-metal detection and ground penetrating radar (GPR) surveys. Pyramid collected the EM data using a Geonics EM61-MK2 (EM61) metal detector integrated with a Geode External GPS/GLONASS receiver. 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 15.0 software programs.

GPR data were acquired across select EM anomalies on July 16, 2019, using a Geophysical Survey Systems, Inc. (GSSI) UtilityScan DF unit equipped with a dual frequency 300/800 MHz antenna. Data were collected both in reconnaissance fashion as well as along formal transect lines across EM features. The GPR data were viewed in real-time using a vertical scan of 512 samples, at a rate of 48 scans per second. GPR data were viewed down to a maximum depth of approximately 6 feet, based on dielectric constants calculated by the DF unit in the field during the reconnaissance scans. GPR transects across specific anomalies were saved to the hard drive of the DF unit for post-processing and figure generation.

Pyramid's classifications of USTs for the purposes of this report are based directly on the geophysical UST ratings provided by the NCDOT. These ratings are as follows:

Geophysical Surveys for Underground Storage Tanks
on NCDOT Projects

High Confidence	Intermediate Confidence	Low Confidence	No Confidence
Known UST Active tank - spatial location, orientation, and approximate depth determined by geophysics.	**Probable UST** Sufficient geophysical data from both magnetic and radar surveys that is characteristic of a tank. Interpretation may be supported by physical evidence such as fill/vent pipe, metal cover plate, asphalt/concrete patch, etc.	**Possible UST** Sufficient geophysical data from either magnetic or radar surveys that is characteristic of a tank. Additional data is not sufficient enough to confirm or deny the presence of a UST.	Anomaly noted but not characteristic of a UST. Should be noted in the text and may be called out in the figures at the geophysicist's discretion.

DISCUSSION OF RESULTS

Discussion of EM Results

A contour plot of the EM61 results obtained across the survey area at the property is presented in **Figure 2**. Each EM anomaly is numbered for reference in the figure. The following table presents the list of EM anomalies and the cause of the metallic response, if known:

LIST OF METALLIC ANOMALIES IDENTIFIED BY EM SURVEY

Metallic Anomaly #	Cause of Anomaly	Investigated with GPR
1	Drop Inlet	
2	Utility	
3	Fence/Wall	
4	Building	✓
5	Utility	
6	Drop Inlet	
7	Sign/Stone Structure	
8	Utility	

All of the EM anomalies were directly attributed to visible cultural features at the ground surface including a drop inlet, utilities, a fence/wall, the building, and a sign/stone structure. EM Anomaly 4 was associated with interference from the building and was investigated further with GPR to confirm that no larger structures were obscured by the interference.

Discussion of GPR Results

Figure 3 presents the locations of the formal GPR transects performed at the property as well as the transect images. A total of two formal GPR transects were performed at the site. GPR Transects 1 and 2 were performed across an area associated with interference from the building (EM Anomaly 4). No evidence of any buried structures such as USTs was observed.

Collectively, the geophysical data did not record any evidence of unknown metallic USTs at Parcel 7. **Figure 4** provides an overlay of the metal detection results on the NCDOT MicroStation engineering plans for reference.

SUMMARY & CONCLUSIONS

Pyramid's evaluation of the EM61 and GPR data collected at Parcel 7 in Lexington, North Carolina, provides the following summary and conclusions:

- The EM61 and GPR surveys provided reliable results for the detection of metallic

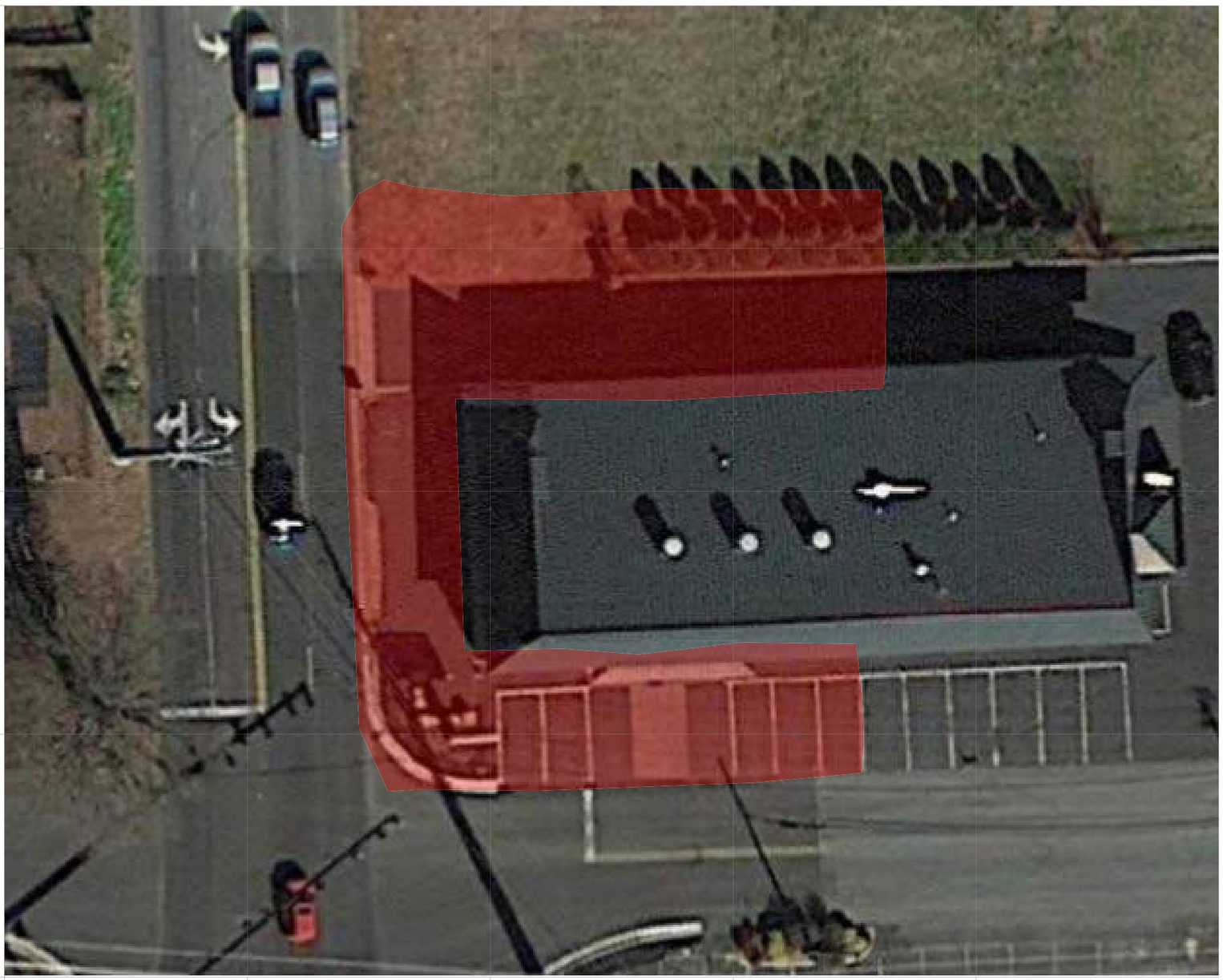
USTs within the accessible portions of the geophysical survey area.

- All of the EM anomalies were directly attributed to visible cultural features at the ground surface.
- Collectively, the geophysical data did not record any evidence of unknown metallic USTs at Parcel 7.

LIMITATIONS

Geophysical surveys have been performed and this report was prepared for Kleinfelder in accordance with generally accepted guidelines for EM61 and GPR surveys. It is generally recognized that the results of the EM61 and GPR surveys are non-unique and may not represent actual subsurface conditions. The EM61 and GPR 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.

APPROXIMATE BOUNDARIES OF GEOPHYSICAL SURVEY AREA



View of Survey Area
(Facing Approximately East)

View of Survey Area
(Facing Approximately East)

N

PYRAMID GEOPHYSICS
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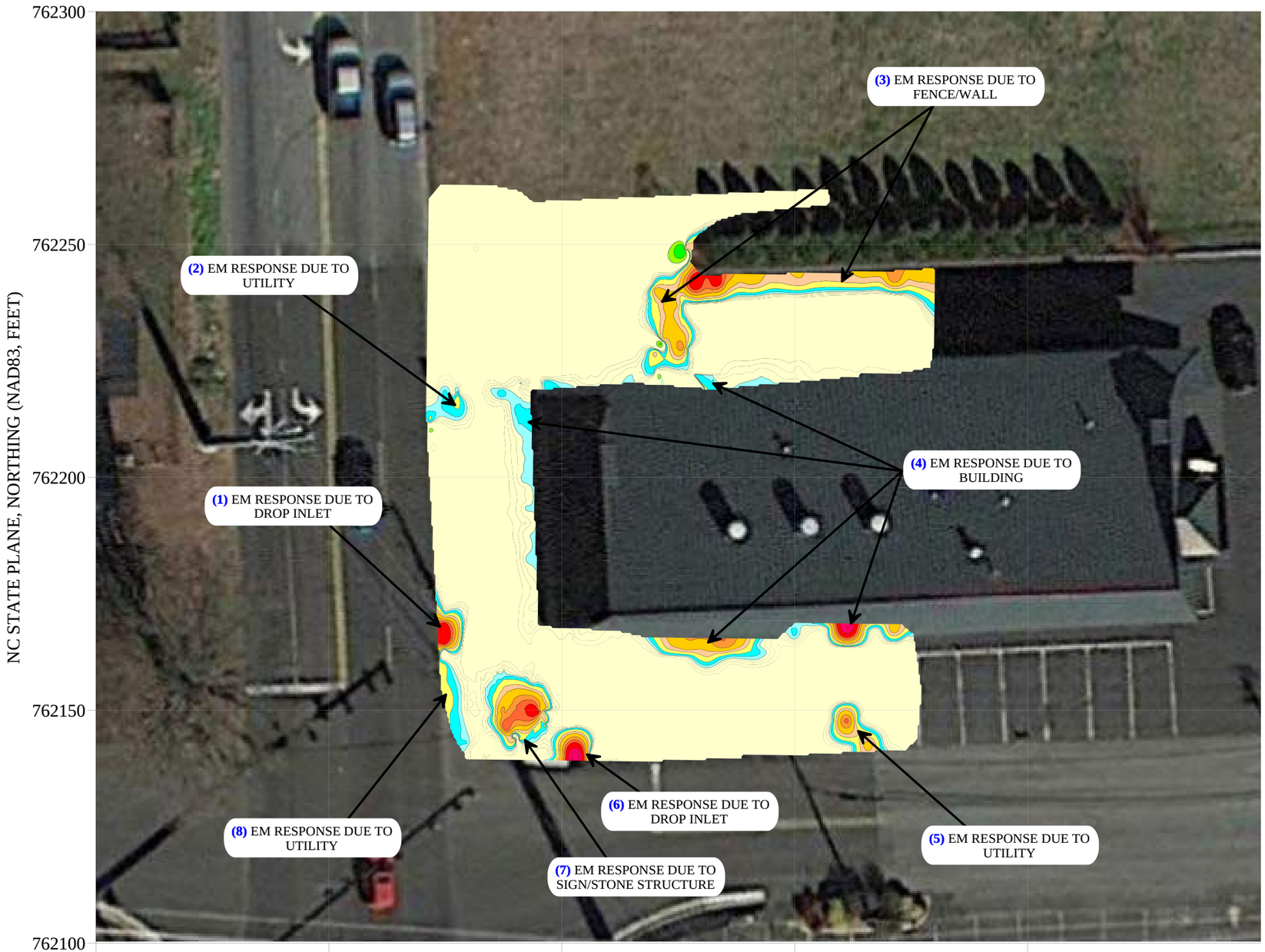
GREENSBORO, NC 27406
(336) 335-3174 (p) (336) 691-0648 (f)
License # C1251 Eng. / License # C257 Geology

PROJECT	PARCEL 7 LEXINGTON, NORTH CAROLINA NCDOT PROJECT U-5757	TITLE	PARCEL 7 - GEOPHYSICAL SURVEY BOUNDARIES AND SITE PHOTOGRAPHS	DATE	7/19/2019
				CLIENT	KLEINFELDER
				PYRAMID PROJECT #:	2019-211
					FIGURE 1

EM61 METAL DETECTION RESULTS



NO EVIDENCE OF METALLIC USTs WAS OBSERVED.

The contour plot shows the differential results of the EM61 instrument in millivolts (mV). The differential results focus on larger metallic objects such as USTs and drums. The EM data were collected on July 15, 2019, using a Geonics EM61-MK2 instrument. Verification GPR data were collected using a GSSI UtilityScan DF instrument with a dual frequency 300/800 MHz antenna on July 16, 2019.

EM61 Metal Detection Response (millivolts)

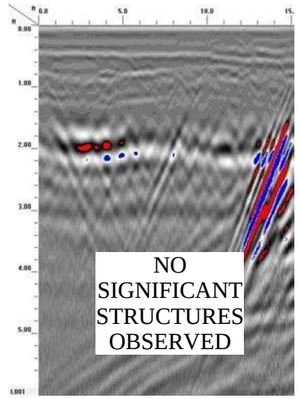
1000 750 500 400 300 200 150 100 75 60 50 40 30 -90 -100 -200 -400 -5000

N

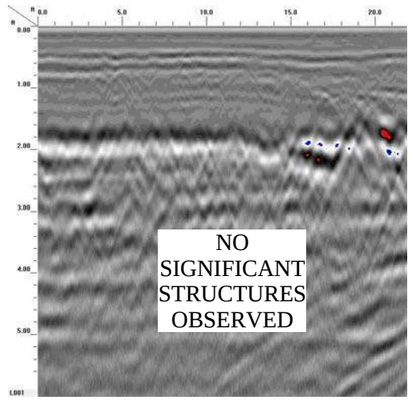
PYRAMID GEOPHYSICS
503 INDUSTRIAL AVENUE
GREENSBORO, NC 27406
(336) 335-3174 (p) (336) 691-0648 (f)
License # C1251 Eng. / License # C257 Geology

PROJECT	PARCEL 7 LEXINGTON, NORTH CAROLINA NCDOT PROJECT U-5757
TITLE	PARCEL 7 - EM61 METAL DETECTION CONTOUR MAP
DATE	7/19/2019
PYRAMID PROJECT #:	2019-211
CLIENT	KLEINFELDER
	FIGURE 2

LOCATIONS OF GPR TRANSECTS



GPR TRANSECT 1 (T1)



GPR TRANSECT 2 (T2)

N

PYRAMID GEOPHYSICS
503 INDUSTRIAL AVENUE
GREENSBORO, NC 27406
(336) 335-3174 (p) (336) 691-0648 (f)
License # C1251 Eng. / License # C257 Geology

PROJECT	PARCEL 7 LEXINGTON, NORTH CAROLINA NCDOT PROJECT U-5757
TITLE	PARCEL 7 - GPR TRANSECT LOCATIONS AND IMAGES
DATE	7/19/2019
CLIENT	KLEINFELDER
PYRAMID PROJECT #:	2019-211
	FIGURE 3

LEGEND

- EXISTING ROW
- EXISTING PROPERTY BOUNDARY
- PROPOSED ROW LINE
- TEMPORARY CONSTRUCTION EASEMENT
- PROPOSED PERMANENT UTILITY
- PROPOSED SS CUT LINE
- PROPOSED SS FILL LINE

EM61 Metal Detection Response
(millivolts)

1000 750 500 400 300 200 150 100 75 60 50 40 30 -90 -100 -200 -400 -5000

0 15 30
FEET

N

TITLE
OVERLAY OF METAL DETECTION RESULTS
ON NCDOT ENGINEERING PLANS

PROJECT
PARCEL 7
LEXINGTON, NORTH CAROLINA
NCDOT PROJECT U-5757

PYRAMID GEOPHYSICS
503 INDUSTRIAL AVENUE
GREENSBORO, NC 27406
336.335.3174 (p) 336.691.0648 (f)
License # C1251 Eng. / #C257 Geology

DATE: 08-13-2019	REVISION NO. 0
PYRAMID PROJECT NO. 2019-211	FIGURE NO. 4

APPENDIX C
BORING LOGS

Date Begin - End:	8/05/2019	**Drilling Company:**	Quantex	**BORING LOG P7-B1**	
Logged By:	A Shurtleff	**Drill Crew:**	Andrew C		
Hor.-Vert. Datum:	WGS 1984 - Not Available	**Drilling Equipment:**	Geunine Geoprobe		
Plunge:	-90 degrees	**Drilling Method:**	See Drilling Method Column		
Weather:	80°F Partly Cloudy	**Borehole Diameter:**			

FIELD EXPLORATION

Depth (feet)	Drilling Method	Sample Type	Sample Number	Recovery (NR=No Recovery)	PID / FID (ppmv)	Graphical Log	Latitude: 35.83767° N Longitude: -80.25326° E Surface Condition: Asphalt Lithologic Description
							ASPHALT
							Limited Recovery; Loose Fill **SAND with Gravel**: light gray, dry
					0.2		
					0.1		Increasingly micaceous and lighter **SILT**: reddish yellow and light brown, dry to moist
5	Direct Push Sleeves				0.1		
					0.9		
					1.6		
					1.7		
					2.0		
			P7-B1-9				
					0.6		
10							

The borehole was terminated at approximately 10 ft. below ground surface.

GROUNDWATER LEVEL INFORMATION:
Groundwater was not observed during drilling or after completion.
GENERAL NOTES:
An iPad integrated GPS unit was used to locate the borehole with an accuracy of 5 meters.
The boring was backfilled with bentonite on August 05, 2019.

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PROJECT NO.: 20201105.001A	BORING LOG P7-B1		
DRAWN BY: A SHURTLEFF	NCDOT: U-5757 Biesecker Road Lexington, NC	1	
CHECKED BY: M BURNS			
DATE: 9/10/2019		PAGE: 1 of 1	

Date Begin - End:	8/05/2019	**Drilling Company:**	Quantex	**BORING LOG P7-B2**	
Logged By:	A Shurtleff	**Drill Crew:**	Andrew C		
Hor.-Vert. Datum:	WGS 1984 - Not Available	**Drilling Equipment:**	Geunine Geoprobe		
Plunge:	-90 degrees	**Drilling Method:**	See Drilling Method Column		
Weather:	80°F Partly Cloudy	**Borehole Diameter:**			

FIELD EXPLORATION

Latitude: 35.83763° N
Longitude: -80.25322° E
Surface Condition: Asphalt

Depth (feet)	Drilling Method	Sample Type	Sample Number	Recovery (NR=No Recovery)	PID / FID (ppmv)	Graphical Log	Lithologic Description
							ASPHALT
					0.6		**CLAY with Silt**: reddish brown, dry to moist
					1.2		
					0.7		
					0.6		Increasingly micaceous **SILT**: reddish yellow, dry to moist
5	Direct Push Sleeves		P7-B2-6		0.9		
					1.0		
					0.6		
					0.6		
					0.6		
					0.7		
10							

The borehole was terminated at approximately 10 ft. below ground surface.

GROUNDWATER LEVEL INFORMATION:
Groundwater was not observed during drilling or after completion.
GENERAL NOTES:
An iPad integrated GPS unit was used to locate the borehole with an accuracy of 5 meters.
The boring was backfilled with bentonite on August 05, 2019.

KLEINFELDER
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PROJECT NO.: 20201105.001A
DRAWN BY: A SHURTLEFF
CHECKED BY: M BURNS
DATE: 9/10/2019

BORING LOG P7-B2

NCDOT: U-5757
Biesecker Road
Lexington, NC

2

PAGE: 1 of 1

Date Begin - End:	8/05/2019	**Drilling Company:**	Quantex	**BORING LOG P7-B3**	
Logged By:	A Shurtleff	**Drill Crew:**	Andrew C		
Hor.-Vert. Datum:	WGS 1984 - Not Available	**Drilling Equipment:**	Geunine Geoprobe		
Plunge:	-90 degrees	**Drilling Method:**	See Drilling Method Column		
Weather:	80°F Partly Cloudy	**Borehole Diameter:**			

FIELD EXPLORATION

Depth (feet)	Drilling Method	Sample Type	Sample Number	Recovery (NR=No Recovery)	PID / FID (ppmv)	Graphical Log	Latitude: 35.83772° N Longitude: -80.25347° E Surface Condition: Asphalt Lithologic Description
							ASPHALT
					2.7		Limited Recovery; Loose Fill **SAND with Gravel**: light gray, dry
					2.1		**Clayey SILT**: reddish yellow and yellow, dry to moist
5	Direct Push Sleeves		P7-B3-5		1.5		Loose
					1.6		
					1.7		**CLAY with Silt**: reddish yellow, dry to moist
10					0.7		

The borehole was terminated at approximately 10 ft. below ground surface.

GROUNDWATER LEVEL INFORMATION:
Groundwater was not observed during drilling or after completion.
GENERAL NOTES:
An iPad integrated GPS unit was used to locate the borehole with an accuracy of 5 meters.
The boring was backfilled with bentonite on August 05, 2019.

KLEINFELDER
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PROJECT NO.: 20201105.001A	BORING LOG P7-B3		
DRAWN BY: A SHURTLEFF	NCDOT: U-5757 Biesecker Road Lexington, NC	3	
CHECKED BY: M BURNS			
DATE: 9/10/2019		PAGE: 1 of 1	

APPENDIX D
ANALYTICAL REPORT AND GRAPHS

QED

AQROS

Hydrocarbon Analysis Results

Client: KLEINFELDER
Address:

Samples taken Monday, August 5, 2019
Samples extracted Monday, August 5, 2019
Samples analysed Monday, August 5, 2019

Contact: ABIGAIL SHURTLEFF

Operator CAROLINE STEVENS

Project: U-5757

U00904

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
										C5 - C10	C10 - C18	C18	
s	P7-B1-9	13.5	<0.34	<0.34	7.9	7.9	3.4	0.15	<0.013	0	70	30	Deg.PHC 80.1%,(FCM)
s	P7-B2-6	15.6	<0.39	<0.39	3.8	3.8	2.1	<0.12	<0.016	0	68.9	31.1	Deg Fuel 73.8%,(FCM)
s	P7-B3-5	13.3	<0.33	<0.33	0.79	0.79	0.37	<0.11	<0.013	0	71.6	28.4	Deg Fuel 73%,(FCM)
s	P8-B1-4	14.9	<0.37	<0.37	<0.37	<0.37	<0.07	<0.12	<0.015	0	75.4	24.6	,(FCM)
s	P8-B2-6	12.8	<0.32	<0.32	<0.32	0.18	0.18	<0.1	<0.013	0	54.3	45.7	Residual HC
s	P8-B3-5	12.6	<0.32	<0.32	<0.32	0.24	0.24	<0.1	<0.013	0	50.4	49.6	Residual HC,(BO)

Initial Calibrator QC check OK

Final FCM QC Check OK 98.1 %

Concentration values in mg/kg for soil samples and mg/L for water samples. Soil values uncorrected for moisture or stone content. Fingerprints provide a tentative hydrocarbon identification.

Abbreviations :- FCM = Results calculated using Fundamental Calibration Mode : % = confidence of hydrocarbon identification : (PFM) = Poor Fingerprint Match : (T) = Turbid : (P) = Particulate detected

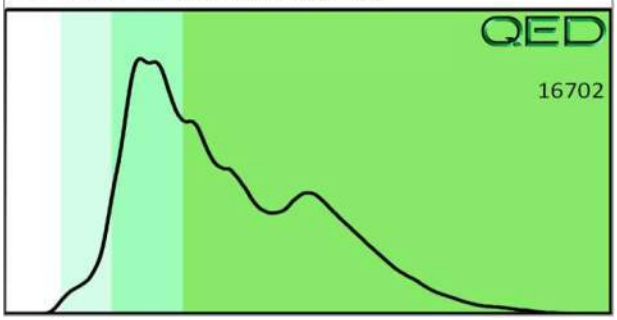
B = Blank Drift : (SBS)/(LBS) = Site Specific or Library Background Subtraction applied to result : (BO) = Background Organics detected : (OCR) = Outside cal range : (M) = Modifed Result.

% Ratios estimated aromatic carbon number proportions : HC = Hydrocarbon : PHC = Petroleum HC : FP = Fingerprint only. **Data generated by HC-1 Analyser**

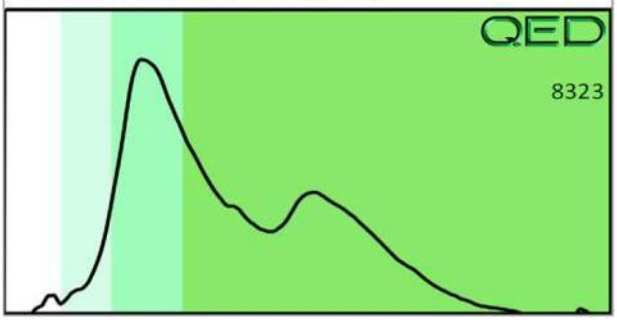
QED Hydrocarbon Fingerprints

Project: U-5757 Monday, August 5, 2019

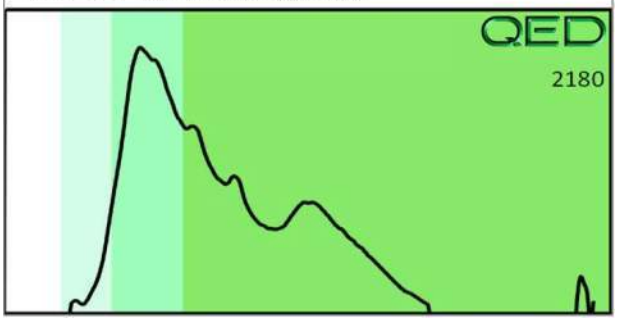
P7-B1-9 : Deg.PHC 80.1%,(FCM)



P7-B2-6 : Deg Fuel 73.8%,(FCM)

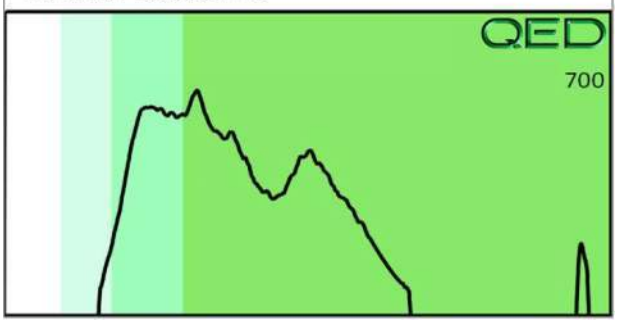


P7-B3-5 : Deg Fuel 73%,(FCM)

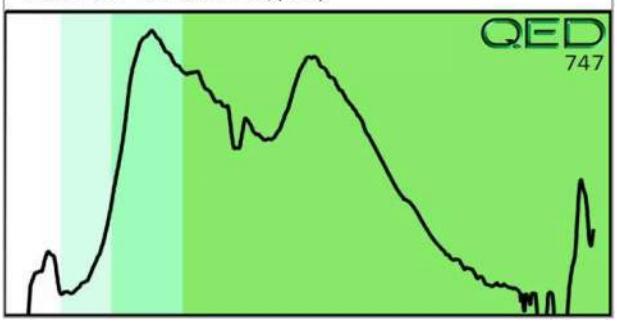


P8-B1-4 : ,(FCM)

P8-B2-6 : Residual HC



P8-B3-5 : Residual HC,(BO)



KLEINFELDER
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September 17, 2019
Kleinfelder File No. RAL19R100885

Mr. John L. Pilipchuk, LG., PE
North Carolina Department of Transportation
State Geotechnical Engineer
Geotechnical Engineering Unit
1589 Mail Service Center
Raleigh, North Carolina 27699-1589

SUBJECT: Preliminary Site Assessment Report
Parcel 8, Hayes Jewelers, Inc.
WBS Element No. 54035.1.1, TIP No. U-5757
NC 8 (Winston Road) from 9th Street to SR 1408 (Biesecker Rd) in Lexington. Widen to multi lanes
Kleinfelder Project No. 20201105.001A

Dear Mr. Pilipchuk,

Kleinfelder is pleased to provide its report detailing the activities conducted as part of the preliminary site assessment for the subject project.

Kleinfelder appreciates the opportunity to be of service to you. Should you have questions or require additional information, please do not hesitate to contact the undersigned.

Sincerely,
KLEINFELDER, INC.

Abigail R. Shurtleff
Environmental Staff Professional

Michael J Burns, PG
Environmental Program Manager

ARS/MJB:asp

KLEINFELDER 3200 Gateway Centre Blvd. Suite 100, Morrisville, NC 27560 **p |** 919.755.5011 **f |** 919.755.1414

PRELIMINARY SITE ASSESSMENT REPORT
PARCEL 8 HAYES JEWELERS, INC.
PARCEL 1101200000015
907 WINSTON ROAD
LEXINGTON, DAVIDSON COUNTY, NORTH CAROLINA

NCDOT WBS ELEMENT 54035.1.1
STATE PROJECT U-5757
NC 8 (WINSTON RD) FROM 9TH STREET TO SR 1408 (BIESECKER RD) IN LEXINGTON. WIDEN TO MULTI LANES

KLEINFELDER PROJECT NO. 20201105.001A

SEPTEMBER 17, 2019

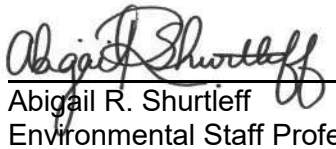
A Report Prepared for:

Mr. John L. Pilipchuk, LG., PE
North Carolina Department of Transportation
State Geotechnical Engineer
Geotechnical Engineering Unit
1589 Mail Service Center
Raleigh, North Carolina 27699-1589

PRELIMINARY SITE ASSESSMENT REPORT
PARCEL 8 HAYES JEWELERS, INC.
PARCEL 1101200000015
907 WINSTON ROAD
LEXINGTON, DAVIDSON COUNTY, NORTH CAROLINA

NCDOT WBS ELEMENT 54035.1.1
STATE PROJECT U-5757
NC 8 (WINSTON RD) FROM 9TH STREET TO SR 1408 (BIESECKER RD) IN LEXINGTON. WIDEN TO MULTI LANES

Prepared by:



Abigail R. Shurtleff
Environmental Staff Professional

Reviewed by:

Michael J. Burns, PG
Environmental Program Manager

KLEINFELDER
3200 Gateway Centre Blvd. | Suite 100
Raleigh, North Carolina 27560
P | 919.755.5011

September 17, 2019

Kleinfelder Project No. 20201105.001A

PRELIMINARY SITE ASSESSMENT REPORT

Site Name and Location:	Parcel 8 907 Winston Road Lexington, Davidson County, North Carolina
Latitude and Longitude:	35.838149°N, -80.253423°W
County Parcel Number	1101200000015
Facility ID Number:	00-0-0000011275
Leaking UST Incident:	N/A
State Project No.:	U-5757
NCDOT Project No.:	NCDOT WBS Element 54035.1.1
Description:	NC 8 (Winston Rd) from 9th Street to SR 1408 (Biesecker Rd) in Lexington. Widen to multi lanes
Date of Report:	September 17, 2019
Consultant:	Kleinfelder, Inc. 3200 Gateway Center Boulevard | Suite 100 Morrisville, North Carolina 27560 Corporate Geology License No. C-521 Corporate Licensure for Engineering F-1312

SEAL AND SIGNATURE OF CERTIFYING LICENSED GEOLOGIST

I, Michael J Burns, a Licensed Geologist for Kleinfelder, Inc., do certify that the information contained in this report is correct and accurate to the best of my knowledge.

DocuSigned by:
7E53DC44AC794CA...

Michael J Burns, LG 10/7/2019
NC License No. 1645

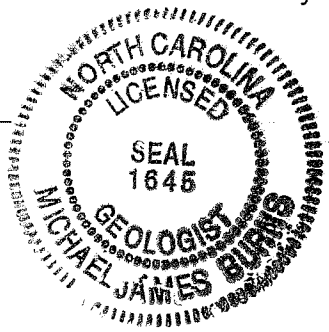


TABLE OF CONTENTS

PRELIMINARY SITE ASSESSMENT
PARCEL 8 HAYES JEWELERS, INC.
PARCEL 1101200000015
907 WINSTON ROAD
LEXINGTON, DAVIDSON COUNTY, NORTH CAROLINA

NCDOT WBS ELEMENT 54035.1.1
STATE PROJECT U-5757
NC 8 (WINSTON RD) FROM 9TH STREET TO SR 1408 (BIESECKER RD) IN LEXINGTON. WIDEN TO MULTI LANES

1 INTRODUCTION

Kleinfelder, Inc. (Kleinfelder) has prepared this Preliminary Site Assessment (PSA) report to document assessment activities performed on Parcel 8 (the assessment area is hereafter referred to as the "Project Study Area"). The Project Study Area consists of the western portion of a parcel known by the Davidson County Tax Assessor's Office as Parcel Number 1101200000015. Parcel 8 is currently occupied by a vacant grassy lot. Parcel 8 is located approximately 127-ft northeast of the intersection of West 9th Street and Winston Road and approximately 90-ft southeast of the intersection of 10th Street and Winston Road, in the Town of Lexington, Davidson County, North Carolina (Figure 1).

Based on information provided in the Hazardous Materials Survey Report, dated February 28, 2019, prepared by Kleinfelder for SEPI Engineering & Construction, the parcel is a former gasoline filling station, which operated from about 1959 until about 1997. The site reportedly operated three (3) registered underground storage tanks (USTs). As such, the purpose of the PSA was to evaluate whether unknown USTs or contaminated soil are present in the Project Study Area that may result in increased project costs and future liability if acquired by the NCDOT.

1.1 SITE DESCRIPTION

Parcel 8 has a listed owner of Hayes Jewelers, Inc. The parcel has a historic street address of 907 Winston Road. The parcel consists of a vacant grassy lot. The parcel is bounded by a retail jewelry store, Hayes Jewelers, to the south which is reportedly owned by the same owner as Parcel 8, beyond which is West 9th Street; by Winston Road to the west, beyond which are residential homes; by a pit-smoked barbeque restaurant with associated paved parking areas, outbuildings, and a maintained grass lawn to the north, beyond which is 10th Street; by Virginia Drive to the east, beyond which are residential homes. Photographs of the Project Study Area are provided in Appendix A.

1.2 SCOPE OF WORK

Kleinfelder conducted this PSA in accordance with the NCDOT's May 24, 2019, Request for Technical and Cost Proposal (RFP) and Kleinfelder's June 18, 2019 Technical and Cost Proposal. The NCDOT granted a formal Notice to Proceed on June 27, 2019.

2 HISTORY

2.1 PARCEL USAGE

The parcel consists of a vacant grassy lot.

The February 2018 Hazardous Materials Survey Report included information about the past use of Parcel 8 as a portion of a former gasoline filling station developed around 1959 and operating until about 1997. Three (3) former gasoline USTs were present on the site.

Kleinfelder conducted historical research to determine whether additional environmental listings were identified for Parcel 8. The following are the results of the additional research:

- Based on a review of aerial photographs and historical databases, the site appeared to be developed as a gasoline service station around 1959 (U&M Esso), and operated until about 1997 (Tommy's Service Center).
- Historical automotive databases list the site as Taylor's Exxon and Taylor's Esso Station.
- There were no recorded releases for this site in the databases reviewed.
- Kleinfelder searched the registered UST database, maintained by the North Carolina Department of Environmental Quality (NCDEQ). The site was listed as Facility ID 00-0-0000011275, which operated three (3) gasoline USTs owned by Ripple Oil Company: one (1) 4,000-gallon UST installed in 1979 and two (2) 6,000-gallon USTs installed in 1965. All USTs were reportedly removed from the ground 1989 without incident.
- No other listings for Parcel 8 were identified on any of the available NCDEQ pollution incident databases.

2.2 FACILITY ID NUMBERS

Kleinfelder reviewed the NCDEQ UST database for Parcel 8. The parcel was identified as having three (1) permanently closed USTs and is listed as Facility ID: 00-0-0000011275. Kleinfelder visited the NCDEQ Winston-Salem Regional Office to review reports related to the Facility ID. Information from select reports is discussed below:

- Kleinfelder reviewed a September 18, 1989 letter from Ripple Oil Company to the NC Department of Natural Resources and Community Development (now NCDEQ) announcing their intention to remove four (4) USTs at the station as it would no longer be

selling gasoline. The tanks included two (2) 6,000-gallon gasoline tanks, one (1) 4,000-gallon gasoline tank, and one (1) 550-gallon kerosene tank. Reportedly, Ripple Oil Company had been distributing gasoline at the station since 1984, prior to which it had been serviced by Exxon Company, USA.

- Kleinfelder reviewed a November 1989 Soil Analysis Preliminary Information report prepared by Ripple Oil Company for the tank closure. The tanks were transported off-site for scrap metal recycling by Safeway Tank Disposal, Inc., and approximately 55-gallons of residual petroleum product was appropriately disposed of by a subcontractor. Nine (9) soil samples from UST excavations were analyzed for total petroleum hydrocarbons (TPH) and metals. All samples were non-detect for metals, five (5) samples were non-detect for TPH, and four (4) samples returned TPH concentrations of 13, 26, 27, and 81 milligrams per kilogram (mg/kg)

Copies of the reports mentioned above are provided in Appendix E.

2.3 GROUNDWATER INCIDENT NUMBERS

No groundwater incidents are known to be associated with Parcel 8 at this time.

3 OBSERVATIONS

3.1 GROUNDWATER MONITORING WELLS

No groundwater monitoring wells were observed on Parcel 8 at the time of site exploration, Monday, August 5, 2019. No groundwater monitoring wells were associated with the Facility ID 00-0-0000011275.

3.2 ACTIVE USTS

Based on review of the NCDEQ UST database, site visits and previous reports, there were three (3) gasoline USTs formerly located on site, which were reportedly removed from the ground in 1989.

3.3 OTHER FEATURES APPARENT BEYOND PROJECT STUDY AREA

The Project Study Area consisted of the western portion of the parcel. There were no features of concern observed in other portions of the parcel beyond the Project Study Area.

4 METHODS

4.1 PROPERTY OWNER CONTACTS

As part of Kleinfelder's scope of work, the listed property owner was contacted about the work schedule for the field work and the type of work being performed. The owner did not express any concern or special conditions associated with the work being performed.

4.2 HEALTH AND SAFETY

Prior to commencing the field work, Kleinfelder personnel developed a Site-Specific Health and Safety Plan (HASP) covering activities to be performed. The site-specific HASP was discussed with all Kleinfelder personnel involved with the project and at a daily on-site "tail gate" safety meetings with subcontractors and sub consultants. In addition to the HASP, Kleinfelder utilized its comprehensive Corporate Health and Safety Program, targeted to address those specific and critical tasks that involve Kleinfelder personnel and subcontractors. The Loss Prevention System (LPS™), a behavior-based program, is Kleinfelder's company-wide safety system implemented and embraced by all levels of the company.

4.3 GEOPHYSICAL INVESTIGATION

Pyramid Environmental & Engineering, P.C (Pyramid) conducted a geophysical investigation in the Project Study Area between July 15 and 16, 2019. Pyramid utilized electromagnetic (EM) induction technology and ground penetrating radar (GPR) to locate potential geophysical anomalies and potential USTs within the Project Study Area.

There were no EM responses that were not associated with known USTs, ASTs, utilities, vehicles, or other previously known conditions.

A copy of the Pyramid Geophysical Investigation Report, detailing the field methodology, is included in Appendix B.

4.4 SOIL ASSESSMENT

The scope of work for the soil assessment was to evaluate the presence of soil contamination along the existing right of way and/or easement to evaluate whether known impact is present in this area and maybe migrating off-site. The soil borings were planned to be advanced to maximum depths of 10 feet below the ground surface (bgs) unless groundwater was encountered. Field screening using a photo ionization detector (PID) was to be conducted at 1-foot intervals

beginning at 0 foot to 1 foot. The soil sample with the highest PID reading above background or the sample from the maximum drilled depth would be selected for on-site laboratory analyses.

Prior to the drilling activities, public utilities were marked by NC One Call and private utilities were marked by Pyramid.

Kleinfelder subcontracted Quantex, Inc. (Quantex) to perform the drilling on-site on August 5, 2019. Quantex advanced three (3) soil borings (P8-B1 through P8-B3) by direct-push technology from the ground surface to boring termination (10 feet bgs) at locations specified by Kleinfelder. The soil boring locations were identified in the field using a GPS. The soil boring locations are shown on Figure 2. The borings were located within the right-of-way along Winston Road and the western parcel boundary. Soil samples were collected by driving Macro Core™ samplers in 5-foot intervals. Each soil core was cut open, the soil samples were classified, and the soil divided into 1-foot sections. Each 1-foot section was screened in the field using a PID. The PID readings are summarized in Table 1.

Soils were determined to be primarily a silty sand with organic matter in the top 2 or 3 feet, underlain primarily by silt or clayey silt. The silty sand in the upper 2 or 3 feet of soil led to limited recovery via Macro Core™ samplers in this zone. Groundwater was not encountered in any of the borings at the termination depth of 10 feet bgs. Copies of the boring logs are included in Appendix C.

4.5 SOIL ANALYSIS

The PID readings from soil borings advanced were noted to be low. Based on the PID data and visual observations, one (1) of the samples from each boring was selected for on-site laboratory analysis.

The samples were analyzed by RED Lab, LLC utilizing ultraviolet fluorescence (UVF) methodology to provide real-time analytical results of Total Petroleum Hydrocarbons (TPH), Gasoline Range Organics (GRO), Diesel Range Organics (DRO), and benzene, toluene, ethylbenzene, and total xylenes (BTEX). The UVF method was selected because of the known historical use of petroleum products on Parcel 8. The UVF analysis also provided data regarding Environmental Protection Agency 16 total Polycyclic Aromatic Hydrocarbons (PAHs), and Benzo(a)pyrene (BaP).

Off-site soil sample analysis for volatile organic compounds (VOCs) utilizing 8260 methodology was originally proposed in addition to the UVF methodology for Parcel 7. However, no samples were sent for off-site analysis due to the generally low PID readings and low TPH GRO results returned via UVF methodology.

5 RESULTS

5.1 GEOPHYSICAL INVESTIGATION

The EM and GPR surveys did not identify unknown geophysical anomalies within the Project Study Area.

5.2 SOIL SAMPLING DATA

The UVF analysis of soil samples did not indicate the presence of petroleum impact in any of the soil samples analyzed. As such, shallow soil impact does not appear to be present within the existing right of way above NCDEQ Action Limits. A summary of soil sample analytical results is presented in Table 2. The laboratory results associated with each boring are presented on Figure 3. The laboratory report and graphs are included in Appendix D.

5.3 SAMPLE OBSERVATIONS

Soils were observed for any obvious evidence of contamination. No visual or olfactory evidence of contamination was noted in any of the soil samples from the borings.

5.4 QUANTITY CALCULATIONS

Kleinfelder did not identify soil impact in the current right of way.

6 CONCLUSIONS

Based on results of the EM/GPR survey, soil assessment and field observations, Kleinfelder has reached the following conclusions:

- The GPR and EM investigation did not identify unknown features.
- The site is listed in the NCDEQ UST Database as Facility ID 00-0-0000011275. Three (3) gasoline USTs and one (1) kerosene UST were formerly located on site, which were reportedly removed from the ground in 1989 without incident. No indication of the presence or likely presence of active or inactive USTs was observed on Parcel 8 at the time of site exploration, August 5, 2019.
- No soil impact was detected in borings advanced within the current right-of-way above the NCDEQ Action Limits for TPH GRO and DRO.
- Groundwater was not encountered in the soil borings at a depth of 10 feet bgs.

7 RECOMMENDATIONS

Based on results of this Preliminary Site Assessment, Kleinfelder recommends no additional sampling or special handling of soils be performed within the Project Study Area on Parcel 8 in Lexington, Davidson County, North Carolina.

8 LIMITATIONS

Kleinfelder's work will be performed in a manner consistent with that level of care and skill ordinarily exercised by other members of its profession practicing in the same locality, under similar conditions and at the date the services are provided. Kleinfelder's conclusions, opinions and recommendations will be based on a limited number of observations and data. It is possible that conditions could vary between or beyond the data evaluated. Kleinfelder makes no guarantee or warranty, express or implied, regarding the services, communication (oral or written), report, opinion, or instrument of service provided.

Kleinfelder offers various levels of investigative and engineering services to suit the varying needs of different clients. It should be recognized that definition and evaluation of geologic and environmental conditions are a difficult and inexact science. Judgments leading to conclusions and recommendations are generally made with incomplete knowledge of the subsurface conditions present due to the limitations of data from field studies. Although risk can never be eliminated, more detailed and extensive studies yield more information, which may help understand and manage the level of risk. Since detailed study and analysis involves greater expense, Kleinfelder's clients participate in determining levels of service that provide adequate information for their purposes at acceptable levels of risk. More extensive studies, including subsurface studies or field tests, should be performed to reduce uncertainties. Acceptance of this report will indicate that NCDOT has reviewed the document and determined that it does not need or want a greater level of service than provided.

During the course of the performance of Kleinfelder's services, hazardous materials may have been discovered. Kleinfelder assumes no responsibility or liability whatsoever for any claim, loss of property value, damage, or injury that results from pre-existing hazardous materials being encountered or present on the project site, or from the discovery of such hazardous materials. Nothing contained in this report should be construed or interpreted as requiring Kleinfelder to assume the status of an owner, operator, or generator, or person who arranges for disposal, transport, storage or treatment of hazardous materials within the meaning of any governmental statute, regulation or order. NCDOT is solely responsible for directing notification of all governmental agencies, and the public at large, of the existence, release, treatment or disposal of any hazardous materials observed at the project site, either before or during performance of

Kleinfelder's services. NCDOT is responsible for directing all arrangements to lawfully store, treat, recycle, dispose, or otherwise handle hazardous materials, including cuttings and samples resulting from Kleinfelder's services.

TABLES

Table 1: Soil Sample Screening Results

Date	Sample ID	Depth (ft)	PID Reading	Notes
8/5/2019	U5757-P8-B1	1	0.0	
		2	0.8	
		3	1.6	
		4	2.3	UVF Analysis
		5	1.3	
		6	1.8	
		7	1.7	
		8	1.2	
		9	1.3	
		10	0.7	
8/5/2019	U5757-P8-B2	1	NR	
		2	NR	
		3	0.4	
		4	0.7	
		5	0.3	
		6	0.9	UVF Analysis
		7	0.5	
		8	0.6	
		9	0.8	
		10	0.2	
8/5/2019	U5757-P8-B3	1	0.6	
		2	1.7	
		3	0.4	
		4	0.2	
		5	0.7	UVF Analysis
		6	0.5	
		7	0.5	
		8	0.1	
		9	0.4	
		10	0.3	

Notes:
1) PID = Photoionization Detector
2) PID readings in parts per million (ppm)
3) NR = no recovery

TABLE 2: Soil Sample Analytical Summary

Parameter	Analytical Results			Comparison Criteria		
	Soil Sample Results					
Sample ID	P8-B1-4	P8-B2-6	P8-B3-5	State Action Limit	Protection of Groundwater	Residential Health
PID Reading (ppm)	2.3	0.9	0.7			
Collection Depth (ft bgs)	4	6	5			
Collection Date	8/5/19	8/5/19	8/5/19			
UVF Method						
Diesel Range Organics	<0.37	<0.32	<0.32	100	--	--
Gasoline Range Organics	<0.37	<0.32	<0.32	50	--	--

Notes:

Results displayed in milligram per kilogram (mg/kg)
ft bgs = Feet below ground surface
Bold = Above Laboratory Detection Limit
Highlighted concentrations exceed state action limit
UVF = Ultraviolet Flouresence

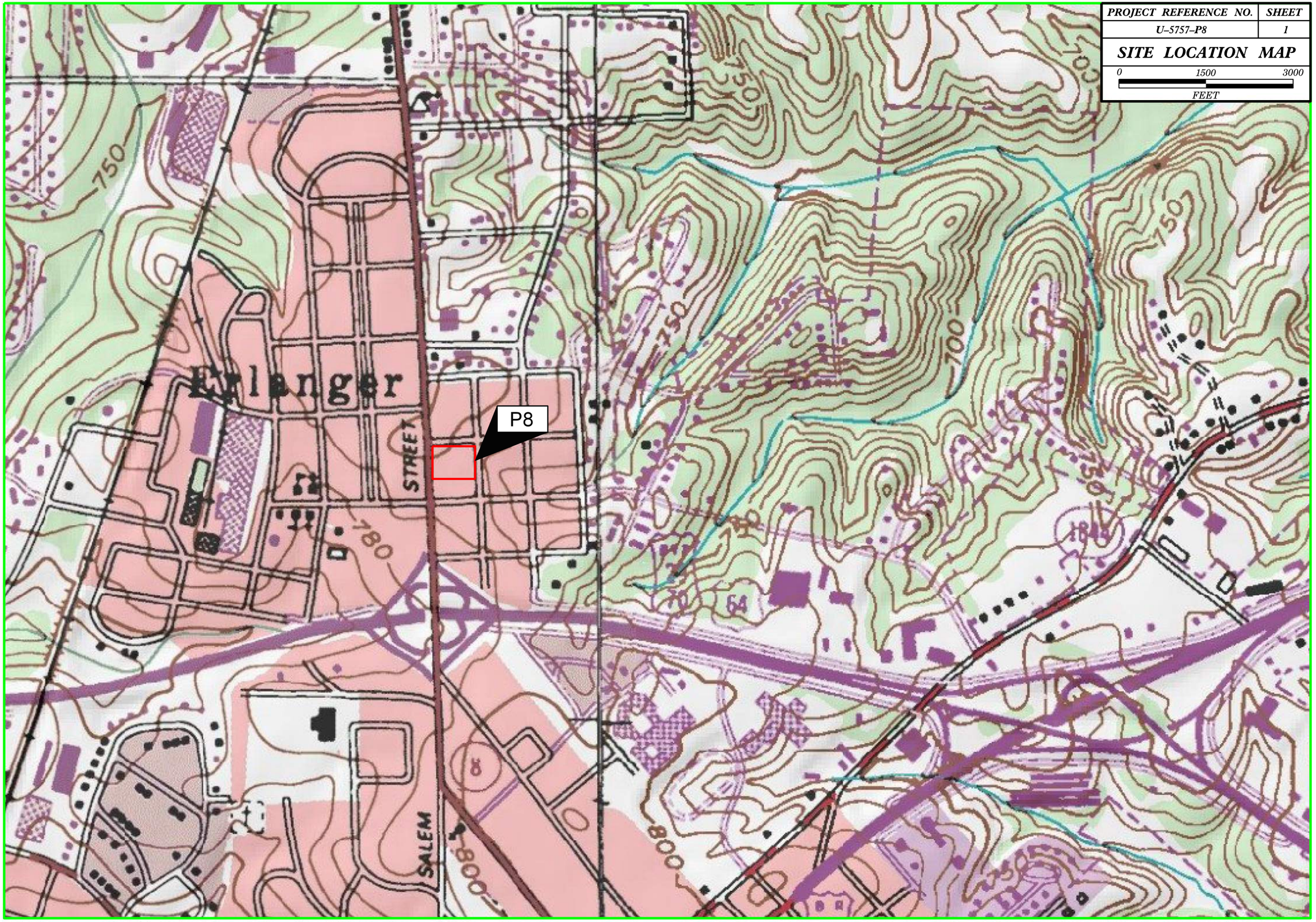
FIGURES

PROJECT REFERENCE NO.	SHEET
U–5757–P8	1

SITE LOCATION MAP

0 1500 3000

FEET



PROJECT REFERENCE NO.	SHEET
U-5757-P8	2

SITE MAP

0 20 40
FEET

LEGEND

P8B1 SOIL SAMPLE LOCATIONS

PROJECT REFERENCE NO.	SHEET
U-5757-P8	3

SOIL SAMPLE ANALYTICAL RESULTS

0 20 40 FEET

LEGEND

P8B1 SOIL SAMPLE LOCATIONS

SOIL SAMPLE RESULTS

	DRO	GRO
P8-B1-4	<0.37	<0.37
P8-B2-6	<0.32	<0.32
P8-B3-5	<0.32	<0.32

NOTES:
1) All results reported in mg/kg
2) DRO = Diesel Range Organics
3) GRO = Gasoline Range Organics
4) Bold concentrations exceed the NCDEQ TPH Action Level

APPENDIX A
SITE PHOTOGRAPHS

View facing northerly along the western boundary of Parcel 8, NC Highway 8 (Winston Road), toward soil borings P8-B1 through P8-B3.

Original in Color

View facing northeasterly from the southwestern corner of Parcel 8.

KLEINFELDER *Bright People. Right Solutions.* www.kleinfelder.com	PROJECT NO:20201105.001A DRAWN: September 2019 DRAWN BY: ARS CHECKED BY: MB FILE NAME: Photo Pages	**SITE PHOTOGRAPHS** Preliminary Site Assessment Report U-5757-P8 Lexington, Davidson County, North Carolina	FIGURE **A-1**

APPENDIX B
GEOPHYSICAL SURVEY REPORT

PYRAMID GEOPHYSICAL SERVICES
(PROJECT 2019-211)

GEOPHYSICAL SURVEY

METALLIC UST INVESTIGATION:
PARCEL 8
NCDOT PROJECT U-5757 (54035.1.1)

VACANT LOT NORTH OF 903 WINSTON ROAD, LEXINGTON, NC

August 15, 2019

Report prepared for: **Michael Burns, P.G.**
Kleinfelder, Inc.
3500 Gateway Center Boulevard, Suite 200
Morrisville, NC 27560

Prepared by: _____
Eric C. Cross, P.G.
NC License #2181

Reviewed by: _____
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GEOPHYSICAL INVESTIGATION REPORT
Parcel 8 - Vacant Lot North of 903 Winston Road
Lexington, Davidson County, North Carolina

Table of Contents

Figures

Appendices

LIST OF ACRONYMS

CADD .....Computer Assisted Drafting and Design
DF .....Dual Frequency
EM.....Electromagnetic
GPR.....Ground Penetrating Radar
GPS .....Global Positioning System
NCDOT.....North Carolina Department of Transportation
ROW .....Right-of-Way
UST .....Underground Storage Tank

EXECUTIVE SUMMARY

Project Description: Pyramid Environmental conducted a geophysical investigation for Kleinfelder, Inc. at Parcel 8 located at the Vacant Lot North of 903 Winston Road in Lexington, NC. The survey was part of an NCDOT Right-of-Way (ROW) investigation (NCDOT Project U-5757). The survey was designed to extend from the existing edge of pavement into the proposed ROW and/or easements, whichever distance was greater. Conducted from July 15-17, 2019, the geophysical investigation was performed to determine if unknown, metallic underground storage tanks (USTs) were present beneath the survey area.

Geophysical Results: The geophysical investigation consisted of electromagnetic (EM) induction-metal detection and ground penetrating radar (GPR) surveys. A total of six EM anomalies were identified. Several of the EM anomalies were directly attributed to visible cultural features at the ground surface. EM and GPR data showed evidence of buried utilities and metallic debris at the site. Collectively, the geophysical data did not record any evidence of unknown metallic USTs at Parcel 8.

INTRODUCTION

Pyramid Environmental conducted a geophysical investigation for Kleinfelder, Inc. at Parcel 8 located at the Vacant Lot North of 903 Winston Road in Lexington, NC. The survey was part of an NCDOT Right-of-Way (ROW) investigation (NCDOT Project U-5757). The survey was designed to extend from the existing edge of pavement into the proposed ROW and/or easements, whichever distance was greater. Conducted from July 15-17, 2019, the geophysical investigation was performed to determine if unknown, metallic underground storage tanks (USTs) were present beneath the survey area.

The site included a vacant lot with grass and dirt surfaces. An aerial photograph showing the survey area boundaries and ground-level photographs are shown in **Figure 1**.

FIELD METHODOLOGY

The geophysical investigation consisted of electromagnetic (EM) induction-metal detection and ground penetrating radar (GPR) surveys. Pyramid collected the EM data using a Geonics EM61-MK2 (EM61) metal detector integrated with a Geode External GPS/GLONASS receiver. 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 15.0 software programs.

GPR data were acquired across select EM anomalies on July 17, 2019, using a Geophysical Survey Systems, Inc. (GSSI) UtilityScan DF unit equipped with a dual frequency 300/800 MHz antenna. Data were collected both in reconnaissance fashion as well as along formal transect lines across EM features. The GPR data were viewed in real-time using a vertical scan of 512 samples, at a rate of 48 scans per second. GPR data were viewed down to a maximum depth of approximately 6 feet, based on dielectric constants calculated by the DF unit in the field during the reconnaissance scans. GPR transects across specific anomalies were saved to the hard drive of the DF unit for post-processing and figure generation.

Pyramid's classifications of USTs for the purposes of this report are based directly on the geophysical UST ratings provided by the NCDOT. These ratings are as follows:

Geophysical Surveys for Underground Storage Tanks
on NCDOT Projects

High Confidence	Intermediate Confidence	Low Confidence	No Confidence
Known UST Active tank - spatial location, orientation, and approximate depth determined by geophysics.	**Probable UST** Sufficient geophysical data from both magnetic and radar surveys that is characteristic of a tank. Interpretation may be supported by physical evidence such as fill/vent pipe, metal cover plate, asphalt/concrete patch, etc.	**Possible UST** Sufficient geophysical data from either magnetic or radar surveys that is characteristic of a tank. Additional data is not sufficient enough to confirm or deny the presence of a UST.	Anomaly noted but not characteristic of a UST. Should be noted in the text and may be called out in the figures at the geophysicist's discretion.

DISCUSSION OF RESULTS

Discussion of EM Results

A contour plot of the EM61 results obtained across the survey area at the property is presented in **Figure 2**. Each EM anomaly is numbered for reference in the figure. The following table presents the list of EM anomalies and the cause of the metallic response, if known:

LIST OF METALLIC ANOMALIES IDENTIFIED BY EM SURVEY

Metallic Anomaly #	Cause of Anomaly	Investigated with GPR
1	Sign	
2	Suspected Metallic Debris	✓
3	Surface Metal	
4	Water Meter	
5	Wall	
6	Suspected Utility	✓

Several of the EM anomalies were directly attributed to visible cultural features at the ground surface including a sign, surface metal, a water meter, and a wall. EM Anomaly 2 was suspected to be the result of buried metallic debris and was investigated further with GPR. EM Anomaly 6 was suspected to be the result of a buried utility and was investigated further with GPR.

Discussion of GPR Results

Figure 3 presents the locations of the formal GPR transects performed at the property as well as select transect images. All of the transect images are included in **Appendix A**. A total of ten formal GPR transects were performed at the site. GPR Transects 1, 4, and 10 were performed across areas associated with a suspected utility (EM Anomaly 6). These transects recorded evidence of discrete hyperbolic reflectors that were characteristic of a buried utility.

GPR Transects 2 and 3, 5 and 6, and 7-9 were performed across areas associated with suspected buried metallic debris (EM Anomaly 2). These transects recorded small hyperbolic reflectors typical of buried metallic debris.

Collectively, the geophysical data did not record any evidence of unknown metallic USTs at Parcel 8. **Figure 4** provides an overlay of the metal detection results on the NCDOT MicroStation engineering plans for reference.

SUMMARY & CONCLUSIONS

Pyramid's evaluation of the EM61 and GPR data collected at Parcel 8 in Lexington, North Carolina, provides the following summary and conclusions:

- The EM61 and GPR surveys provided reliable results for the detection of metallic USTs within the accessible portions of the geophysical survey area.
- Several of the EM anomalies were directly attributed to visible cultural features at the ground surface.
- EM and GPR data showed evidence of buried utilities and metallic debris at the site.
- Collectively, the geophysical data did not record any evidence of unknown metallic USTs at Parcel 8.

LIMITATIONS

Geophysical surveys have been performed and this report was prepared for Kleinfelder in accordance with generally accepted guidelines for EM61 and GPR surveys. It is generally recognized that the results of the EM61 and GPR surveys are non-unique and may not represent actual subsurface conditions. The EM61 and GPR 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.

APPROXIMATE BOUNDARIES OF GEOPHYSICAL SURVEY AREA

View of Survey Area
(Facing Approximately South)

View of Survey Area
(Facing Approximately North)

N

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PROJECT	PARCEL 8 LEXINGTON, NORTH CAROLINA NCDOT PROJECT U-5757	TITLE	PARCEL 8 - GEOPHYSICAL SURVEY BOUNDARIES AND SITE PHOTOGRAPHS	DATE 7/19/2019 CLIENT KLEINFELDER
				PYRAMID PROJECT #: 2019-211 **FIGURE 1**

EM61 METAL DETECTION RESULTS

NO EVIDENCE OF METALLIC USTs WAS OBSERVED.

The contour plot shows the differential results of the EM61 instrument in millivolts (mV). The differential results focus on larger metallic objects such as USTs and drums. The EM data were collected on July 15, 2019, using a Geonics EM61-MK2 instrument. Verification GPR data were collected using a GSSI UtilityScan DF instrument with a dual frequency 300/800 MHz antenna on July 17, 2019.

EM61 Metal Detection Response (millivolts)

N

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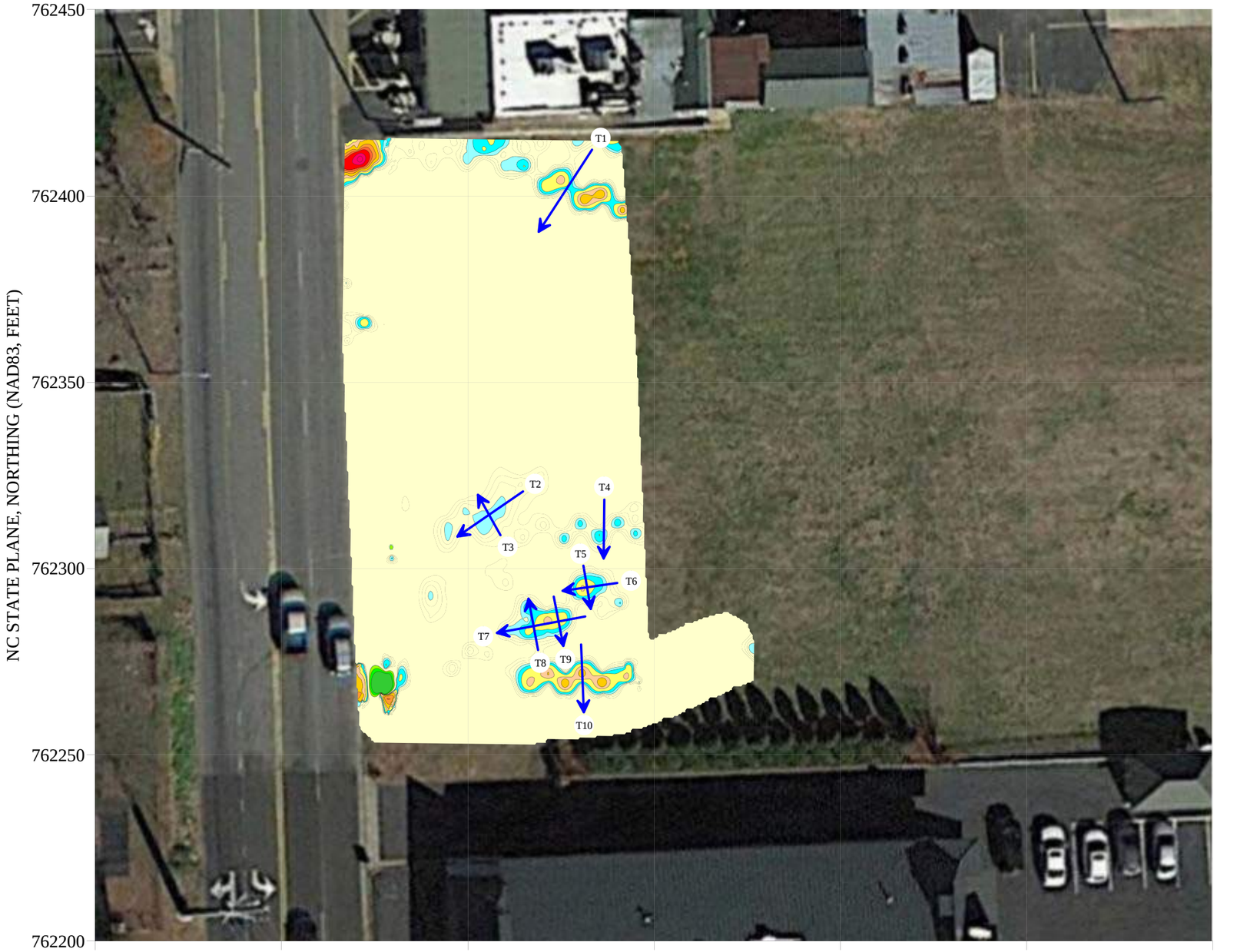
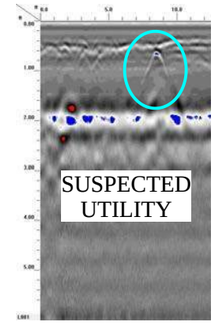
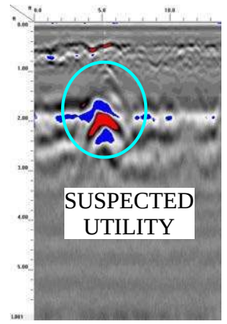
PROJECT	PARCEL 8 LEXINGTON, NORTH CAROLINA NCDOT PROJECT U-5757	TITLE	PARCEL 8 - EM61 METAL DETECTION CONTOUR MAP	DATE 7/19/2019 PYRAMID PROJECT #: 2019-211
CLIENT	KLEINFELDER			**FIGURE 2**

LOCATIONS OF GPR TRANSECTS

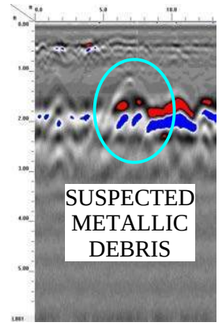




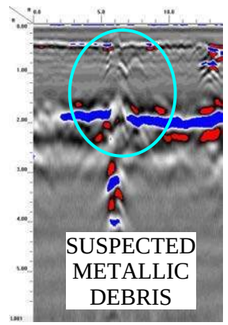
GPR TRANSECT 1 (T1)



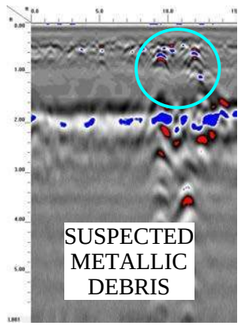
GPR TRANSECT 4 (T4)



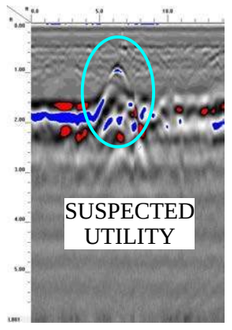
GPR TRANSECT 5 (T5)



GPR TRANSECT 8 (T8)



GPR TRANSECT 9 (T9)



GPR TRANSECT 10 (T10)

N

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PROJECT
PARCEL 8
LEXINGTON, NORTH CAROLINA
NCDOT PROJECT U-5757

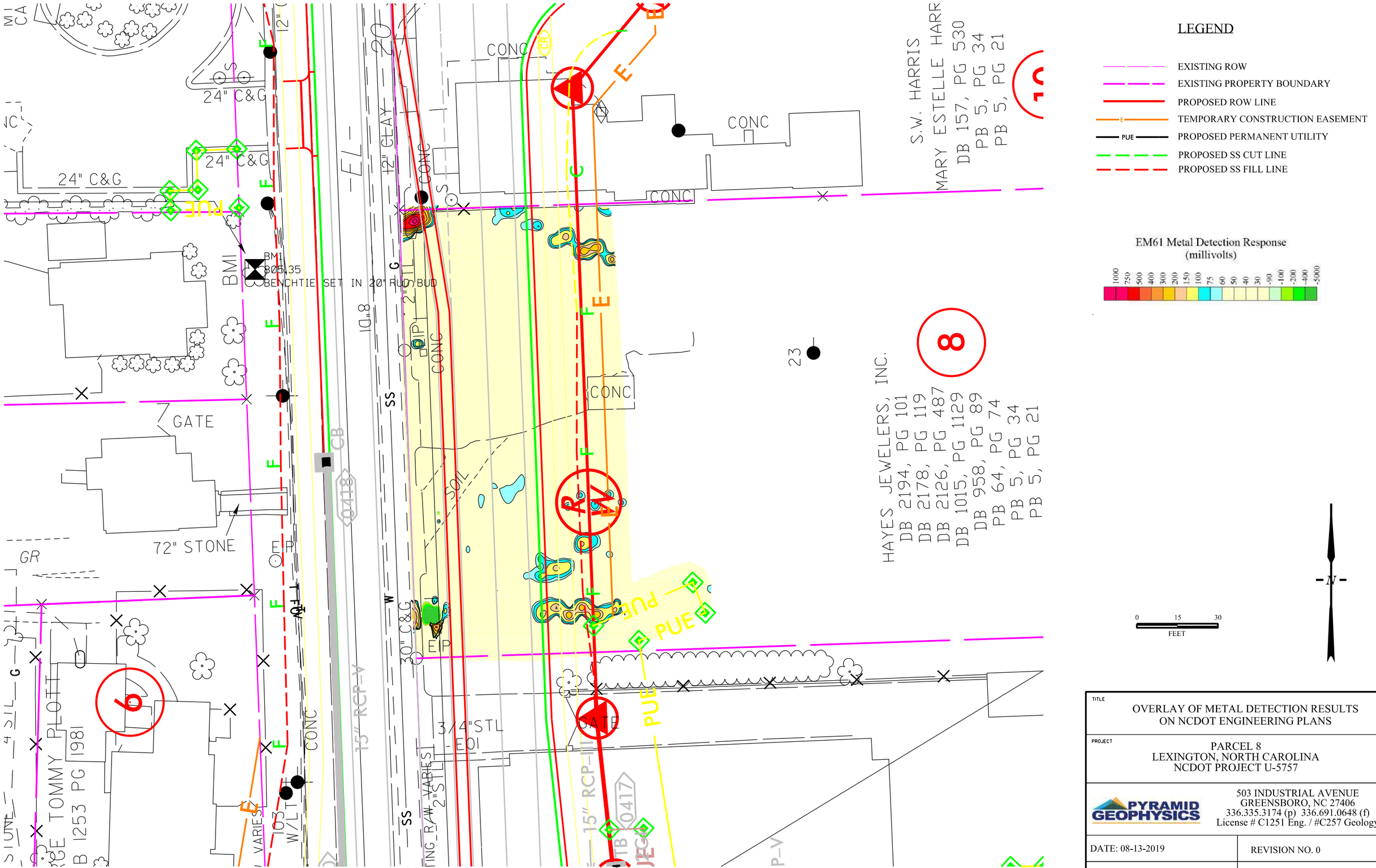
TITLE
PARCEL 8 - GPR TRANSECT LOCATIONS AND SELECT IMAGES

DATE 7/19/2019

CLIENT KLEINFELDER

PYRAMID PROJECT #: 2019-211

FIGURE 3



TITLE
OVERLAY OF METAL DETECTION RESULTS
ON NCDOT ENGINEERING PLANS

PROJECT
PARCEL 8
LEXINGTON, NORTH CAROLINA
NCDOT PROJECT U-5757

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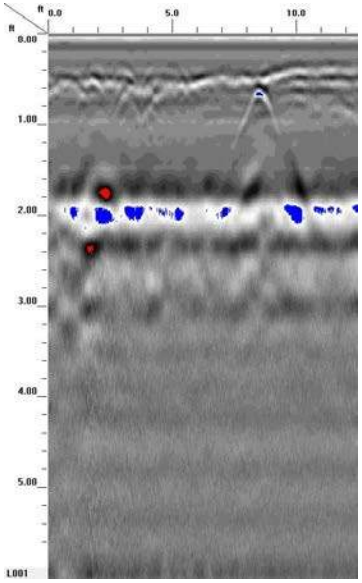
DATE: 08-13-2019	REVISION NO. 0
PYRAMID PROJECT NO. 2019-211	FIGURE NO. 4

Appendix A – GPR Transect Images



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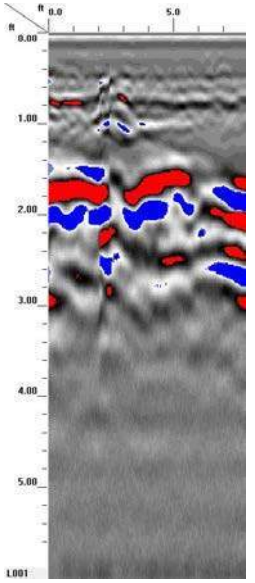
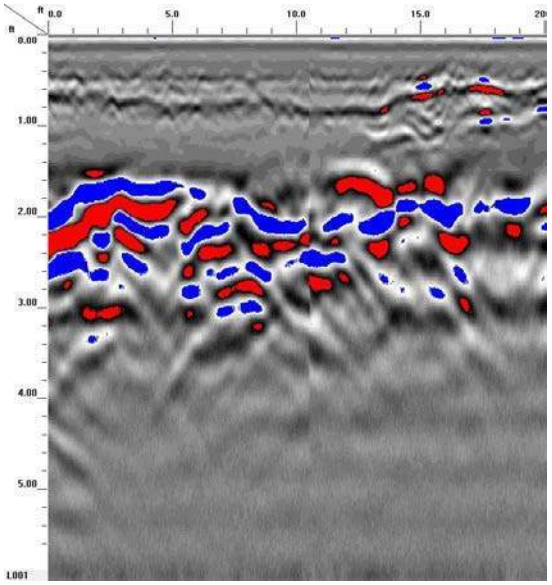


GPR TRANSECT 3



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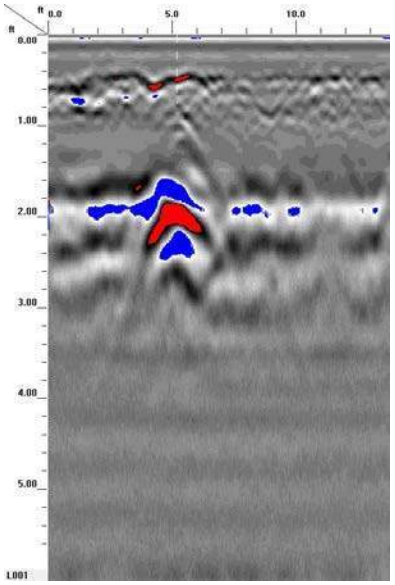

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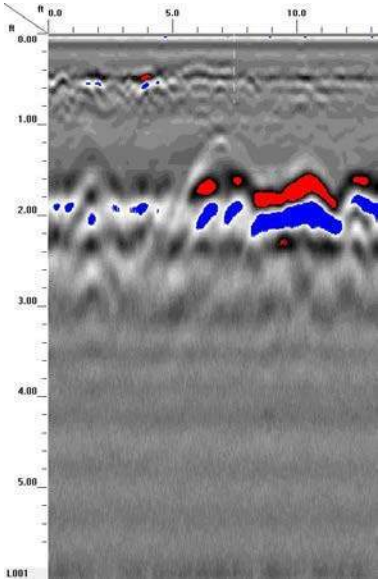
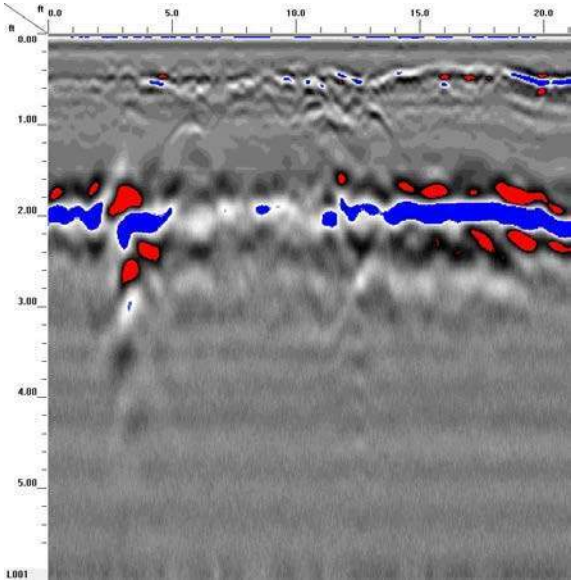
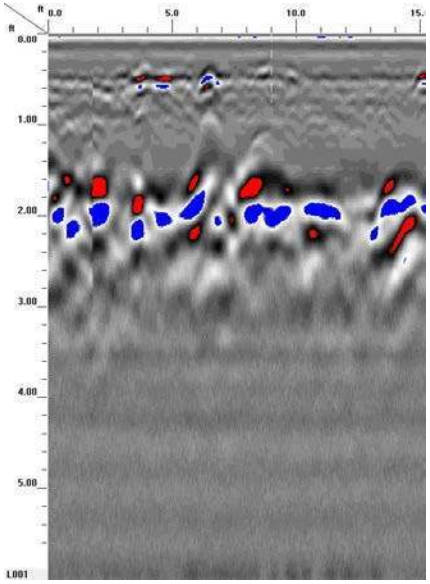


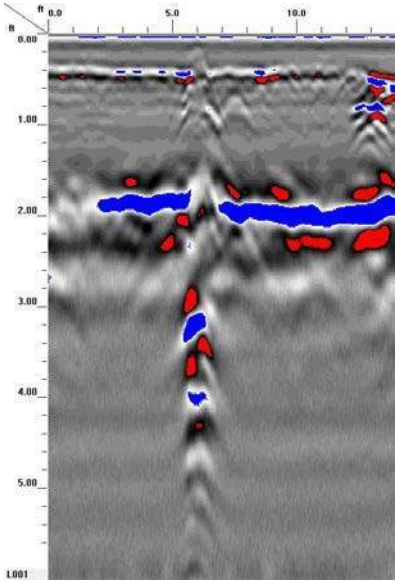
GPR TRANSECT 5



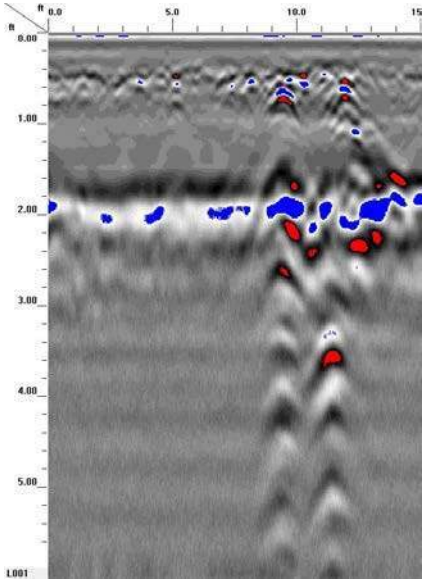
GPR TRANSECT 7



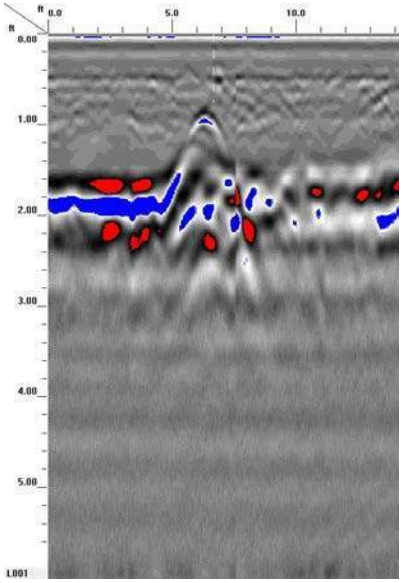
GPR TRANSECT 6



GPR TRANSECT 8



GPR TRANSECT 9



GPR TRANSECT 10

APPENDIX C
BORING LOGS

Date Begin - End:	8/05/2019	**Drilling Company:**	Quantex
Logged By:	A Shurtleff	**Drill Crew:**	Andrew C
Hor.-Vert. Datum:	WGS 1984 - Not Available	**Drilling Equipment:**	Geunine Geoprobe
Plunge:	-90 degrees	**Drilling Method:**	See Drilling Method Column
Weather:	80°F Partly Cloudy	**Borehole Diameter:**	

BORING LOG P8-B1

FIELD EXPLORATION

Latitude: 35.83815° N
Longitude: -80.25342° E
Surface Condition: Grass

Depth (feet)	Drilling Method	Sample Type	Sample Number	Recovery (NR=No Recovery)	PID / FID (ppmv)	Graphical Log	Lithologic Description
							SAND: fine to coarse-grained, light brownish gray, dry
					0.0		**SILT**: red streaked yellow, dry
					0.8		
					1.6		
					2.3		
	Direct Push Sleeves		P8-B1-4		1.3		
5					1.8		
					1.7		
					1.2		
					1.3		**SILT**: red and white, dry to moist, trace sand
					0.7		
10							

The borehole was terminated at approximately 10 ft. below ground surface.

GROUNDWATER LEVEL INFORMATION:
Groundwater was not observed during drilling or after completion.
GENERAL NOTES:
An iPad integrated GPS unit was used to locate the borehole with an accuracy of 5 meters.
The boring was backfilled with excavated material

KLEINFELDER
Bright People. Right Solutions.

PROJECT NO.: 20201105.001A
DRAWN BY: A SHURTLEFF
CHECKED BY: M BURNS
DATE: 9/10/2019

BORING LOG P8-B1

NCDOT: U-5757
Biesecker Road
Lexington, NC

1

PAGE: 1 of 1

Date Begin - End:	8/05/2019	**Drilling Company:**	Quantex
Logged By:	A Shurtleff	**Drill Crew:**	Andrew C
Hor.-Vert. Datum:	WGS 1984 - Not Available	**Drilling Equipment:**	Geunine Geoprobe
Plunge:	-90 degrees	**Drilling Method:**	See Drilling Method Column
Weather:	80°F Partly Cloudy	**Borehole Diameter:**	

BORING LOG P8-B2

FIELD EXPLORATION

Depth (feet)	Drilling Method	Sample Type	Sample Number	Recovery (NR=No Recovery)	PID / FID (ppmv)	Graphical Log	Latitude: 35.83815° N Longitude: -80.25342° E Surface Condition: Grass Lithologic Description
	Direct Push Sleeves		P8-B2-6		0.4		Limited Recovery; Loose **SAND with Silt**: light gray, dry
					0.7		**SILT with Clay**: dark reddish brown, dry
5					0.3 0.9 0.5		**SILT**: reddish yellow and red, dry to moist, Increasingly micaceous Soil becomes mottled with black spots - no odor
					0.6 0.8 0.2		
10							

The borehole was terminated at approximately 10 ft. below ground surface.

GROUNDWATER LEVEL INFORMATION:
Groundwater was not observed during drilling or after completion.
GENERAL NOTES:
An iPad integrated GPS unit was used to locate the borehole with an accuracy of 5 meters.
The boring was backfilled with excavated material

KLEINFELDER
Bright People. Right Solutions.

PROJECT NO.: 20201105.001A
DRAWN BY: A SHURTLEFF
CHECKED BY: M BURNS
DATE: 9/10/2019

BORING LOG P8-B2

NCDOT: U-5757
Biesecker Road
Lexington, NC

2

PAGE: 1 of 1

Date Begin - End:	8/05/2019	**Drilling Company:**	Quantex
Logged By:	A Shurtleff	**Drill Crew:**	Andrew C
Hor.-Vert. Datum:	WGS 1984 - Not Available	**Drilling Equipment:**	Geunine Geoprobe
Plunge:	-90 degrees	**Drilling Method:**	See Drilling Method Column
Weather:	80°F Partly Cloudy	**Borehole Diameter:**	

BORING LOG P8-B3

FIELD EXPLORATION

Depth (feet)	Drilling Method	Sample Type	Sample Number	Recovery (NR=No Recovery)	PID / FID (ppmv)	Graphical Log	Latitude: 35.83815° N Longitude: -80.25342° E Surface Condition: Grass Lithologic Description
					0.6		**SILT with Clay**: dark reddish brown, dry, Roots present
					1.7		Limited Recovery; Loose **SAND with Silt**: grey, dry
					0.4		**SILT**: reddish brown and reddish yellow, dry to moist, Increasingly micaceous and lighter
					0.2		
					0.7		
5	Direct Push Sleeves		P8-B3-5		0.5		
					0.5		
					0.1		
					0.4		
					0.3		
10							

The borehole was terminated at approximately 10 ft. below ground surface.

GROUNDWATER LEVEL INFORMATION:
Groundwater was not observed during drilling or after completion.
GENERAL NOTES:
An iPad integrated GPS unit was used to locate the borehole with an accuracy of 5 meters.
The boring was backfilled with excavated material

KLEINFELDER
Bright People. Right Solutions.

PROJECT NO.: 20201105.001A
DRAWN BY: A SHURTLEFF
CHECKED BY: M BURNS
DATE: 9/10/2019

BORING LOG P8-B3

NCDOT: U-5757
Biesecker Road
Lexington, NC

3

PAGE: 1 of 1

APPENDIX D
ANALYTICAL REPORT AND GRAPHS

QED

AQROS

Hydrocarbon Analysis Results

Client: KLEINFELDER
Address:

Samples taken Monday, August 5, 2019
Samples extracted Monday, August 5, 2019
Samples analysed Monday, August 5, 2019

Contact: ABIGAIL SHURTLEFF

Operator CAROLINE STEVENS

Project: U-5757

U00904

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
										C5 - C10	C10 - C18	C18	
s	P7-B1-9	13.5	<0.34	<0.34	7.9	7.9	3.4	0.15	<0.013	0	70	30	Deg.PHC 80.1%,(FCM)
s	P7-B2-6	15.6	<0.39	<0.39	3.8	3.8	2.1	<0.12	<0.016	0	68.9	31.1	Deg Fuel 73.8%,(FCM)
s	P7-B3-5	13.3	<0.33	<0.33	0.79	0.79	0.37	<0.11	<0.013	0	71.6	28.4	Deg Fuel 73%,(FCM)
s	P8-B1-4	14.9	<0.37	<0.37	<0.37	<0.37	<0.07	<0.12	<0.015	0	75.4	24.6	,(FCM)
s	P8-B2-6	12.8	<0.32	<0.32	<0.32	0.18	0.18	<0.1	<0.013	0	54.3	45.7	Residual HC
s	P8-B3-5	12.6	<0.32	<0.32	<0.32	0.24	0.24	<0.1	<0.013	0	50.4	49.6	Residual HC,(BO)

Initial Calibrator QC check OK

Final FCM QC Check OK 98.1 %

Concentration values in mg/kg for soil samples and mg/L for water samples. Soil values uncorrected for moisture or stone content. Fingerprints provide a tentative hydrocarbon identification.

Abbreviations :- FCM = Results calculated using Fundamental Calibration Mode : % = confidence of hydrocarbon identification : (PFM) = Poor Fingerprint Match : (T) = Turbid : (P) = Particulate detected

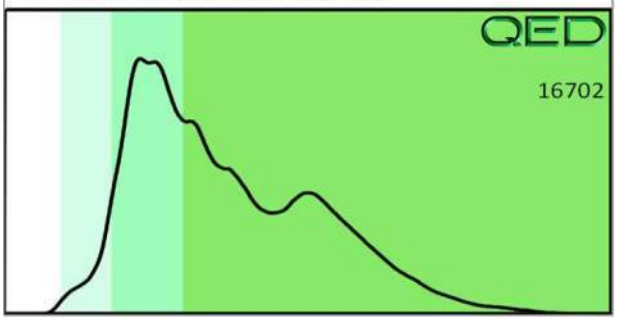
B = Blank Drift : (SBS)/(LBS) = Site Specific or Library Background Subtraction applied to result : (BO) = Background Organics detected : (OCR) = Outside cal range : (M) = Modifed Result.

% Ratios estimated aromatic carbon number proportions : HC = Hydrocarbon : PHC = Petroleum HC : FP = Fingerprint only. **Data generated by HC-1 Analyser**

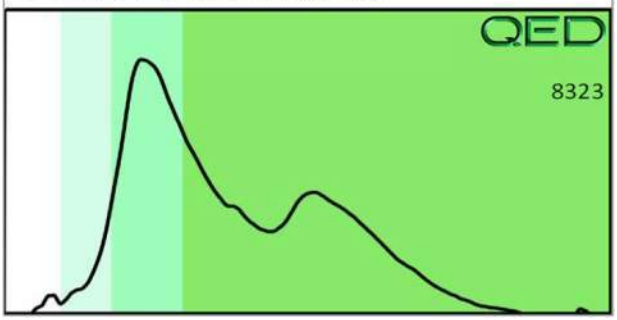
QED Hydrocarbon Fingerprints

Project: U-5757 Monday, August 5, 2019

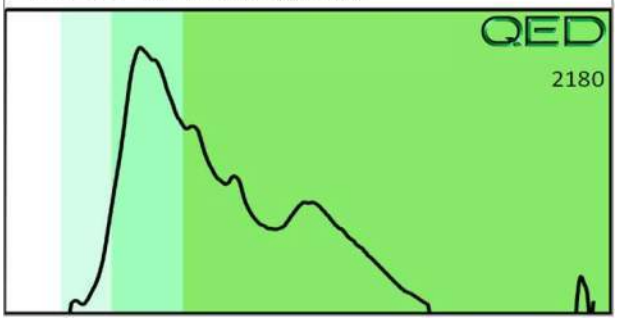
P7-B1-9 : Deg.PHC 80.1%,(FCM)



P7-B2-6 : Deg Fuel 73.8%,(FCM)

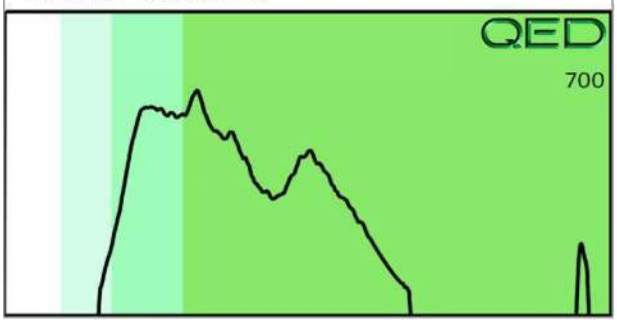


P7-B3-5 : Deg Fuel 73%,(FCM)

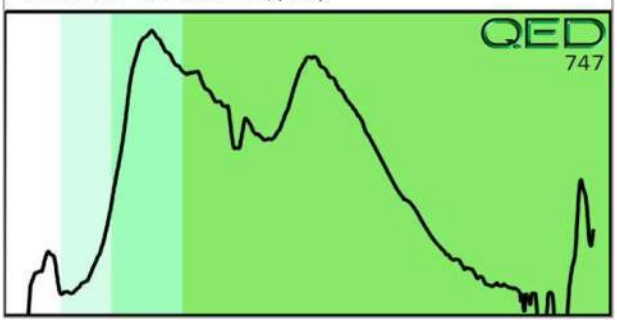


P8-B1-4 : ,(FCM)

P8-B2-6 : Residual HC



P8-B3-5 : Residual HC,(BO)



APPENDIX E
PAGES FROM PREVIOUS REPORTS

BETTY R. SMITH - President
B. FRANKLIN SMITH, JR. - Vice President

Phones: 704/731-2141
919/764-4080

RIPPLE OIL COMPANY, INC.

Gasoline - Kerosene - Fuel Oil

DISTRIBUTOR EXXON PRODUCTS

P. O. BOX 59
WELCOME, N. C. 27374

September 18, 1989

N. C. Dept of Natural Resources & Community Development
Winston Salem Regional Office
8025 North Point Blvd.
Winston Salem, North Carolina 27106

Attention: Mr. Larry Coble

Dear Mr. Coble:

This letter is to inform you that within the next 30 days that we will have underground tanks remove at the site of Taylor's Exxon Sta., 907 Winston Road, Lexington, N.C. There is a 6,000 gal., Two = 4,000 gal. gasoline tanks and one 550 gal. Kerosene tank to be remove, because they will no longer be selling gasoline. There will be no tanks put back of the ones that we are having to remove.

Mr. Charlie Taylor, who is retired owns this property and Ripple Oil has been distributing gasoline since 1984, before that time this service station was serve by Exxon Company, U.S.A.

Thanking you for time and consideration in this matter.

Sincerely,

B. Franklin Smith, Jr.

B. Franklin Smith, Jr.
Vice President & Manager

BFSjr

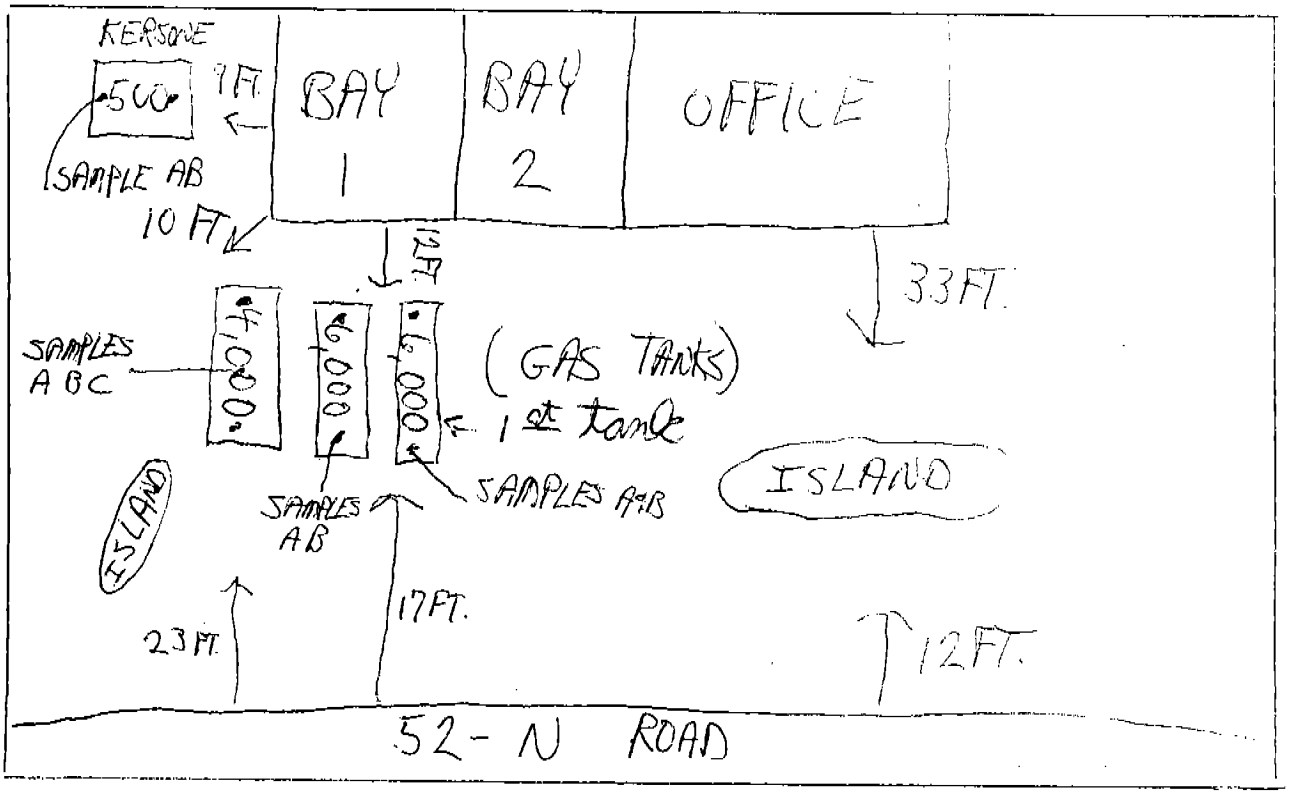
OUR 60TH ANNIVERSARY

TAYLORS

Soil Analysis Preliminary Information

Location: Ripple Oil Co.
Welcome N.C. 27374
Po Box 59

Directions: Exxon Sta.
Hiway 52 N. + old I-85
Lexington



Tanks:	Size	Quantity	Product
	500	1	KEROSENE
	4000	1	GAS
	6000	2	GAS

Additional Information: 500 TANK SAMPLES TAKEN AT
4000 TANK SAMPLES TAKEN AT 7 FT
TAKEN AT 11 FT, SAMPLES PUT IN BAGGIES
THEN TAKEN TO LAB IN TRUCK.

(Complete one for each tank)

I. Tank closure: Ripple oil SAME PER 4 TANKS.

A. Liquid waste:

1) Type of liquid waste emptied from tank: Empty.
2) Amount of liquid waste emptied from tank: _____ gallon.
3) Disposal method of liquid waste _____ and location _____.

B. Solid waste (sludges, scale, etc.):

1) Amount cleaned from tank: _____.
2) Disposal method _____ and location _____.
3) Describe tank cleaning and vapor purging methods: _____

II. Tank abandonment only:

A. Type of inert material used to fill tank: _____.

III. Tank removal only:

A. Tank destination SAFEWAY TANK DISPOSAL.

B. Future use of tank: SCRAP.

IV. Piping closure:

A. Length of piping between tank and product dispenser: 30' feet.

B. Piping closure method: FLUSHED & CAPPED.

V. Site Assessment:

A. Free product present: Yes ___ No ✓.

B. Sampling:

1) Date of sampling: 10-28.
2) Type of sampling device: Soils Shovel
Water _____
3) Type of sample container: Soils BAGGIE
Water _____.
4) Composite samples: Yes ✓ No ___.

C. Analysis:

1) Lab name: See ATTACHED.
2) Date sample analyzed: _____ (NOTE: Provide Lab QA Plan).

D. Provide a diagram of sample locations and depths.

Report completed by: Lance R. Hageman Date: 11-13-89

Safeway Tank Disposal, Inc.

CERTIFICATE OF TANK DISPOSAL

Customer

Jones + Frank
118 S. Burns Ave
Charlotte NC

Date Nov. 3, 1989

Transported by: Overcash

Tank Disposal Number	Size	Weight	Product	Residue Amount	Origin
1609	6,000 gal.	55530 lbs.	Gasoline	15 gals.	Ripple Oil Welcome NC
1610	6,000 gal.	55530 lbs.	Gasoline	20 gals.	
1613	550 gal.	4501 lbs.	Fuel Oil	5 gals.	
1614	4,000 gal.	33601 lbs.	Gasoline	15 gals.	
			Total Residue	55 gals.	

Tanks were disposed in accordance with API 1604, 1987 Removal and Disp... Underground Petroleum Storage Tanks. Residue was disposed in accordance ... Regulations by licensed subcontractor. Lead free scrap steel was recycled by United Metal Recyclers on Nov. 3, 1989.

Brian A. Yon

SAFEWAY TANK DISPOSAL, INC.

Safeway Tank Disposal, Inc.

RECEIVING REPORT

From: [illegible] Ford
Charlotte NC

Received by: Bruce A. Young
SAFEWAY TANK DISPOSAL, INC.

Transported by: Overcash

Tank Disposal Number	Size	Weight	Product	Date Received	Origin
1609	6,000	55301 lbs	Gasoline	10/25/89	Ripple Dr. Welcome NC
1610	6,000	5530 lbs	Gasoline	10/25/89	↓
1613	550	500	Fuel	↓	↓
1614	4000	3360	Gasoline	↓	↓

Safeway Tank Disposal, Inc. accepts the liability for the tank(s) and contents on this report. The [illegible] and contents must be a petroleum product. If at any time the tanks are found to contain [illegible] other than a petroleum product SAFEWAY TANK DISPOSAL, INC. has the right to [illegible] or negotiate a price for disposal. Customer will be liable for any clean-up or [illegible] from contamination by a substance other than a petroleum product. [illegible] Disposal, Inc. agrees to dispose of petroleum tanks and contents in [illegible] state, and federal regulation. Certificate of Disposal to follow.

Bruce A. Young
SAFEWAY TANK DISPOSAL, INC.

Research Labs
Incorporated
ANALYTICAL TESTING & CONSULTING SERVICES
P.O. BOX 31486 • CHARLOTTE, NC 28231 • TELEPHONE (704) 527-4183 • FAX: (704) 525-0409

LAB SAMPLE NO.(s): 9458I-10

P.O. NO.:

RECEIVED FROM:

NAME: LANCE MOLYCROSS
ORG. JONES & FRANK
ADD: 4240 MORRIS FIELD DRIVE

CHARLOTTE NC 28208

DATE OF REPORT: 11/09/89

DATE RECEIVED: 10/30/89

CUSTOMER NO.: 6294

TELEPHONE NO.: 704-393-8542

N.C. CERTIFICATION NO.: 254 W.W.
N.C. CERTIFICATION NO.: 37735 D.W.
S.C. CERTIFICATION NO.: 99028 W.W.

SAMPLE(s) of: SOIL

MARKED: A:

B:

C: RIPPLE OIL 500 TANK AB

D: RIPPLE OIL 4000 TANK ABC

SAMPLE/TEST NO.	1	A: B-5	B: B-6	C: B-7	D: B-8
ANALYSIS	UNITS				
PH					
TOTAL RESIDUE	(mg/L)				
TOTAL NONFILT. RESIDUE	(mg/L)				
TOTAL DISSOLVED RESIDUE	(mg/L)				
BOD	(mg/L)				
COD	(mg/L)				
AMMONIA AS N	(mg/L)				
TOTAL KJELDAHL NITROGEN	(mg/L)				
NITRITE	(mg/L)				
NITRATE AS N	(mg/L)				
TOTAL NITROGEN	(mg/L)				
TOTAL PHOSPHATE AS P	(mg/L)				
CHLORIDE AS Cl-	(mg/L)				
OIL & GREASE	(mg/L)				
CYANIDE, TOTAL	(mg/L)				
PHENOL	(ug/L)				
TOTAL PETROLEUM HYDROCARBONS	mg/Kg			13	26
METALS	UNITS				
ARSENIC	(mg/L)				
SELENIUM	(mg/L)				
CADMIUM	(mg/L)				
CHROMIUM	(mg/L)				
COPPER	(mg/L)				
LEAD	(mg/L)				
NICKEL	(mg/L)				
ZINC	(mg/L)				
MERCURY	(mg/L)				
SILVER	(mg/L)				
BARIUM	(mg/L)				

APPROVED BY: Grady W Burgin Grady Burgin, Lab Manager

449 SPRINGBROOK RD. • CHARLOTTE, NC 28217

Bold Research Labs
Incorporated

ANALYTICAL TESTING & CONSULTING SERVICES

P.O. BOX 31486 • CHARLOTTE, NC 28231 • TELEPHONE (704) 527-4183 • FAX: (704) 525-0409

LAB SAMPLE NO.(s): 945B1-10

DATE OF REPORT: 11/09/89

P.O. NO.:

DATE RECEIVED: 10/30/89

RECEIVED FROM:

CUSTOMER NO.: 6294

NAME: LANCE HOLYCROSS
ORG. JONES & FRANK
ADD: 4240 MORRIS FIELD DRIVE

CHARLOTTE NC 28208

TELEPHONE NO.: 704-393-8542

N.C. CERTIFICATION NO.: 254 W.W.
N.C. CERTIFICATION NO.: 37735 D.W.
S.C. CERTIFICATION NO.: 99028 W.W.

SAMPLE(s) of: SOIL

MARKED: A: RIPPLE OIL 6000 1ST AB

B: RIPPLE OIL 6000 2ND AB

C:

D:

SAMPLE/TEST NO.	1	A: B-9	B: B-10	C:	D:
ANALYSIS	UNITS				
pH					
TOTAL RESIDUE	(mg/L)				
TOTAL NONFILT. RESIDUE	(mg/L)				
TOTAL DISSOLVED RESIDUE	(mg/L)				
BOD	(mg/L)				
COD	(mg/L)				
AMMONIA AS N	(mg/L)				
TOTAL KJELDAHL NITROGEN	(mg/L)				
NITRITE	(mg/L)				
NITRATE AS N	(mg/L)				
TOTAL NITROGEN	(mg/L)				
TOTAL PHOSPHATE AS P	(mg/L)				
CHLORIDE AS Cl-	(mg/L)				
OIL & GREASE	(mg/L)				
CYANIDE, TOTAL	(mg/L)				
PHENOL	(ug/L)				
TOTAL PETROLEUM HYDROCARBONS	mg/Kg	81	27		
METALS	UNITS				
ARSENIC	(mg/L)				
SELENIUM	(mg/L)				
CADMIUM	(mg/L)				
CHROMIUM	(mg/L)				
COPPER	(mg/L)				
LEAD	(mg/L)				
NICKEL	(mg/L)				
ZINC	(mg/L)				
MERCURY	(mg/L)				
SILVER	(mg/L)				
BARIUM	(mg/L)				

APPROVED BY: Grady W Burgin Grady Burgin, Lab Manager

449 SPRINGBROOK RD. • CHARLOTTE, NC 28217

UST CLOSURE REPORT

GRAB & GO 12
1009 WINSTON ROAD
LEXINGTON, NC

FACILITY ID # 00-0-0000024863

JULY 25, 2023

PREPARED BY: PARAGON ENVIRONMENTAL CONSULTANTS, INC.

PARAGON
Environmental Consultants, Inc.

July 25, 2023

Shehzad Quamar
DSF of NC, Inc.
1025 Gatewood Avenue
Greensboro, NC 27405

Reference: UST Closure Report
Grab & Go 12
1009 Winston Road
Lexington, NC 27292
Groundwater Incident # 44108
Facility ID # 00-0-0000024863

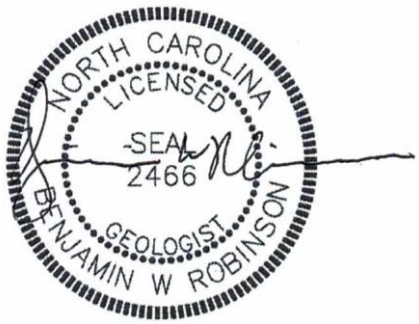
Dear Mr. Quamar:

Please find enclosed a report summarizing the Underground Storage Tank (UST) closure for three (3) 6,000 gallon gasoline USTs and two (2) 2,000 gallon diesel USTs formerly located at the above referenced facility. The UST closure consisted of tank removal, field sampling, and laboratory analyses of the soils in the vicinity of the underground storage tank. A summary of these activities and our recommendations and conclusions are contained herein.

In accordance with the North Carolina Administrative code, Title 15A, Chapter 2, Subchapter 2N, this report should be submitted to the Director of the Division of Environmental Management. This report is submitted in accordance with the outline provided in NCDEQ form GW/UST-12.

Mr. Quamar, if you have any questions regarding this report, please contact our office.

Sincerely,



Benjamin W. Robinson, L.G.
Paragon Environmental Consultants, Inc.

R23-1305

P.O. Box 157 • Thomasville, NC 27361-0157
Business Ph: (336) 669-6037 • Fax: (336) 476-7708

TABLE OF CONTENTS

UST CLOSURE REPORT

Grab & Go 12
1009 Winston Road
Lexington, NC

I. General Information

A. Ownership

Name: DSF of NC, LLC
1025 Gatewood Avenue
Greensboro, NC 27405
(336) 285-7474

B. Facility Information

Facility: Grab & Go 12
1009 Winston Road
Lexington, NC 27292
Davidson County
Facility ID # 00-0-0000024863

C. Contacts

1. Primary Contact: Shehzad Quamar
DSF of NC, Inc.
1025 Gatewood Avenue
Greensboro, NC 27405
(336) 285-7474

2. Closure Contractor: Petroleum Specialty, Inc.
37 Bogey Court
Canton, NC 28716
(828) 231-2312

3. Consultant: Paragon Environmental Consultants, Inc.
P. O. Box 157
Thomasville, NC 27361-0157
(336) 669-6037

4. Laboratory: Waypoint Analytical, LLC
449 Springbrook Road
Charlotte, NC 28217
(704) 529-6364
Lab. Cert.: NCDEM # 402

D. UST Information

Tank No	Installation Date	Size (Gal.)	Tank Dimensions	Last Contents	Previous Contents
T1	11/11/1986	6,000	8’ x 16’ 1”	Gasoline	N/A
T2	11/11/1986	6,000	8’ x 16’ 1”	Gasoline	N/A
T3	11/11/1986	6,000	8’ x 16’ 1”	Gasoline	N/A
T4	11/11/1986	2,000	64” x 12’	Diesel	N/A
T5	11/11/1986	2,000	64” x 12’	Diesel	N/A

E. Site Characteristics

1. Past Releases: A Phase II Environmental Site Assessment conducted in 2013 discovered contaminated soil in the vicinity of the UST system at this facility. This release was assigned Incident #44108 and closed after an LSA and Notice of Residual Petroleum.

2. Facility/UST Status: The project location was formerly in use as a convenience store and filling station. The last date of use for the USTs was in 2023.

3. Surrounding Property Use: Commercial / Industrial

4. Site Geology: Native soils consisted of clay and silt of varying proportions. Appendix A contains a geologic log of excavation for this project. Bedrock was not encountered, and groundwater was not observed during this project.

Other pertinent information is contained in the GW/UST-2 Site Investigation Form which is included as Appendix B.

II. Closure Procedures

A. Tank Preparation

Tank Inerting: The tank was inerted as verified by an O_2 / LEL meter to ensure it was properly degassed.

B. Residuals

The contents of the USTs were removed from the tanks by Petroleum Specialty, Inc. on July 10, 2023. This material was transported by Petroleum Specialty, Inc. to their facility in Canton, NC for treatment and disposal. Copies of the liquids disposal manifest are contained as Appendix C.

C. Excavation

The UST closure project at Grab & Go 12 was initiated on July 10, 2023. Petroleum Specialty, Inc. excavated the fill and vent pipes, cut and drained them to avoid release of product into the surrounding soils, then removed them from the tank. The USTs were then removed from the ground. Figure 2 shows the site layout and the location of the USTs removed during this closure project.

Petroleum Specialty and Paragon inspected the tanks for structural integrity upon removal. The tanks appeared to be in decent condition with no corrosion observed. After removal the tanks were transported according to API guidelines to Mountain Metals in Asheville, NC for cleaning and disposal. Appendix C contains a copy of the tank disposal manifest for the USTs removed from 1009 Winston Road.

Following removal of the USTs, the excavation was visually inspected for the presence of free product and groundwater. Groundwater was not encountered in the tank pit and free product was not observed during any phase of this closure project. Petroleum odors were noted in the area of the UST excavation. The dimensions of the excavation created by the removal of the tanks were approximately 45 feet long by 23 feet wide by 12 feet deep.

Other pertinent information for this removal is summarized below:

Tank No.	Depth to Top of Tank	QTY of Soil Re moved (yd3)	Avg. PID Reading (ppm)	Stockpile Soil Type	Excavation Backfill Type	Backfill Source
T1	4’	82	N/A	Native Soil	Silty Clay	Off-site
T2	4’	82	N/A	Native Soil	Silty Clay	Off-site
T3	4’	82	N/A	Native Soil	Silty Clay	Off-site
T4	4’	36	N/A	Native Soil	Silty Clay	Off-site
T5	4’	36	N/A	Native Soil	Silty Clay	Off-site

D. Contaminated Soil

According to the laboratory results, contaminated soils were discovered beneath two USTs, one product dispenser, and a section of product piping during the tank removal project at this facility. Following removal of the USTs and collection of the closure soil samples, the tank pit was backfilled with the overburden and additional soil as needed to fill the volume of the former tanks.

III. Site Investigation

A. Soil Sampling

To confirm site conditions Paragon collected samples from in-situ soils beneath the former UST, product piping, and dispensers in accordance with the current NCDEQ Guidelines for Tank Closure. Soil samples were taken from the floor of the tank excavation at depths of 10 and 13 feet below surface grade. The three dispenser samples were collected at depths of 4 feet below land surface. The three piping samples were collected at depths of 3 feet below land surface. The UST Closure assessment samples were collected from the excavator bucket and were subsequently labeled with location and depth below surface.

All of the soil samples were submitted to Waypoint Analytical, LLC for analyses according to Gasoline Range Organics (GRO). GRO detects Total Petroleum Hydrocarbons (TPH) from low boiling-point fuels such as gasoline, aviation fuel, and gasohol. The samples collected from the diesel portions of the tank system were also analyzed by Diesel Range Organics (DRO). DRO detects TPH from high boiling-point fuels such as diesel, kerosene, and fuel oil. The current action level for GRO is 50 milligrams per kilogram (mg/kg) and the current action level for DRO is 100 mg/kg. Figure 3 illustrates the soil sample locations for this closure project.

B. Water Sampling

No water samples were collected during the UST closure activities.

C. Quality Control Measures

The soil samples were packed into new laboratory supplied glassware. The samples were labeled with sample location, analyses to be performed, time, date, and the sampler's name. They were then placed in a cooler and chilled with ice to approximately 4^{o}C in preparation for transportation to the analytical laboratory utilizing EPA approved chain-of-custody procedures. The soil samples collected beneath the diesel USTs were collected on July 10, 2023 between 1:45 PM and 3:45 PM and were delivered to the laboratory on the following day. The soil samples collected beneath the gasoline USTs were collected on July 11, 2023 between 10:30 AM and 1:00 PM and were delivered to the laboratory on July 13, 2023. The soil samples collected beneath the dispensers and product piping were collected on July 12, 2023 between 9:00 AM and 9:50 AM and were delivered to the laboratory on July 13, 2023.

D. Investigation Results

The sample labelled as Tank #2 - South (T2-S) was reported with a concentration of 123 mg/kg by GRO. Sample Tank #5 – South (T5-S) was listed at a level of 5,760 mg/kg by DRO and a concentration of 960 mg/kg by GRO. The remaining tank samples collected from beneath the USTs were below the NCDEQ action levels for GRO and DRO. Dispenser #2 (D-2) was reported with a concentration of 3,340 mg/kg by DRO and a level of 42.9 mg/kg by GRO. Piping #1 (P-1) was reported at a concentration of 101 mg/kg by DRO and was below the laboratory detection limit for GRO. The remaining dispenser and piping samples were below the NCDEQ action levels. Table 1 summarizes the analytical results for the soil samples collected at Grab & Go 12. Appendix D contains copies of the laboratory analytical reports, and Appendix E contains the chain-of-custody records for the soil samples from this project location.

IV. Conclusions and Recommendations

A. Conclusions

The UST Closure Report activities for three gasoline USTs and two diesel USTs have been completed at Grab & Go 12. From a review of all information gathered during this removal project, Paragon Environmental Consultants, Inc. makes the following conclusions:

- Three 6,000 gallon gasoline USTs and two 2,000 gallon diesel USTs have been properly closed by removal at 1009 Winston Road in Lexington, NC.
- Analytical results for samples collected beneath two USTs were above the current action levels for GRO and DRO.
- Analytical results for samples collected beneath one dispenser and one section of product piping were above the current action level for DRO.

B. Recommendations

Based upon a review of all information gathered during this UST closure project, Paragon recommends that, since an LSA has already been conducted at this site, additional soil and groundwater samples are collected in the most contaminated areas to confirm that the soil is below the Industrial/Commercial Standards and the groundwater is below the GCLs. A copy of this report should be forwarded to the following address:

Winston-Salem Regional Office - UST Section
450 W. Hanes Mill Road – Suite 300
Winston-Salem, NC 27105

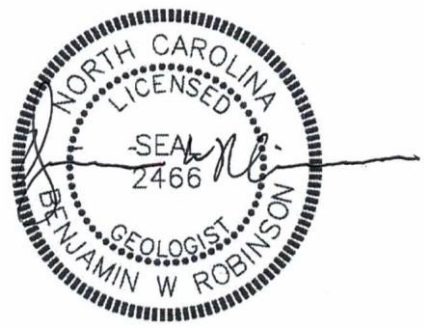
C. Limitations

This report has been prepared for the exclusive use of DSF of NC, Inc. for the specific application to the referenced site located in Davidson County, North Carolina. The assessment was conducted based on the scope of work and level of effort desired by the client. Our findings have been developed in accordance with generally accepted standards in the practice of UST Closures in the State of North Carolina, available information, and our professional judgment. No other warranty is expressed or implied.

The data presented in this report are indicative of conditions that existed at the precise locations sampled and at the time the samples were collected. Additionally, the data obtained from the samples would be interpreted as meaningful with respect to the parameters indicated in the laboratory reports. No additional information can be logically inferred from this data.

V. Professional Certification

The UST Closure Report for this site has been prepared by Paragon Environmental Consultants, Inc. under the direct supervision of a licensed geologist. All activities performed on this project were conducted under my direct supervision:



Benjamin W. Robinson, L.G.
North Carolina License #2466

FIGURES

FIGURE 1

PARAGON ENVIRONMENTAL CONSULTANTS, INC.
THOMASVILLE, NORTH CAROLINA

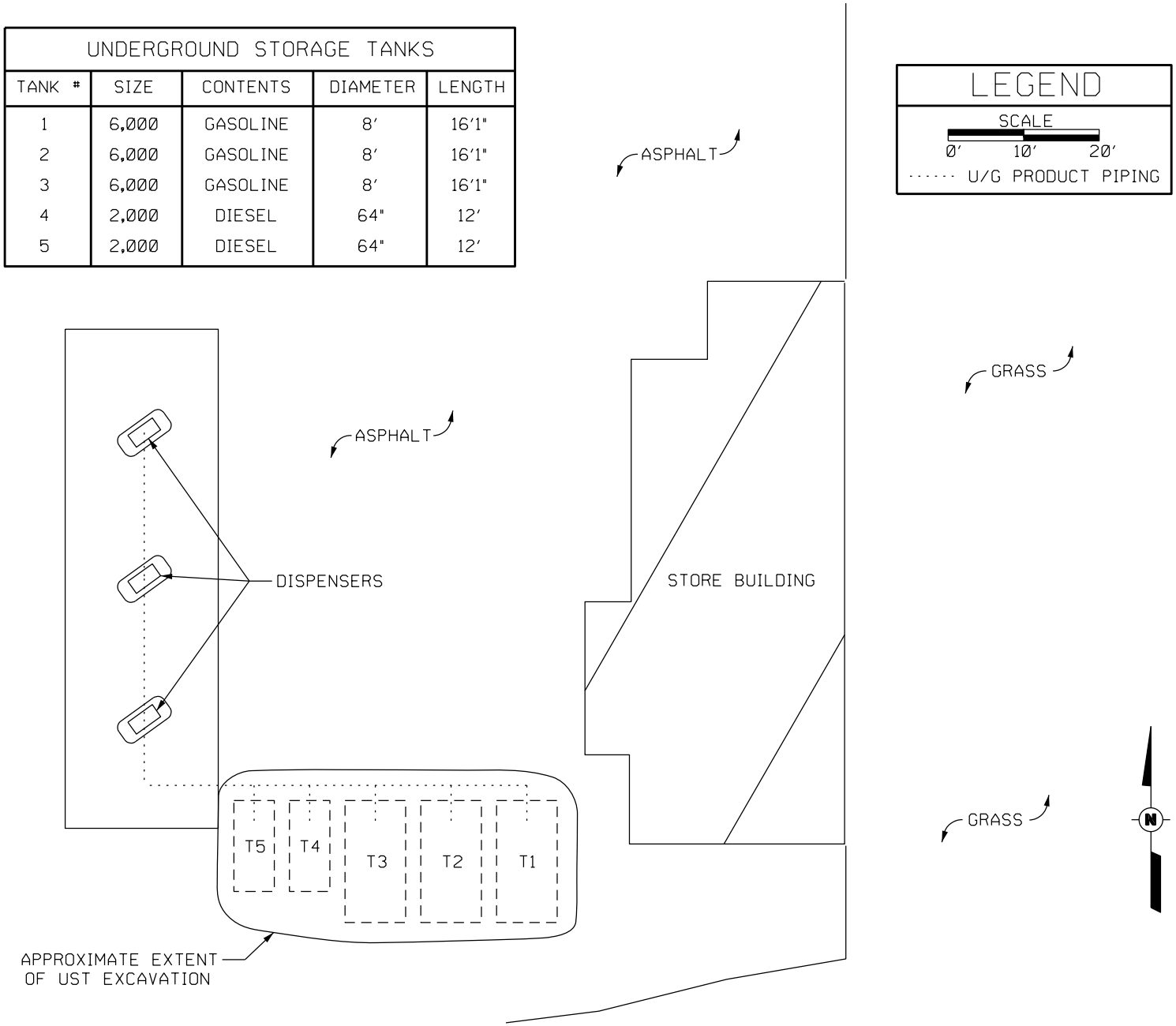
CLIENT: DSF OF NC, INC.
GREENSBORO, NC

PROJECT: UST CLOSURE
1009 WINSTON ROAD
LEXINGTON, NC

TITLE: PROJECT LOCATION
U.S.G.S. TOPO MAP
LEXINGTON WEST QUADRANGLE

SCALE: 1"=2,000'
DATE: 7/11/23
DWN. BY: BWR
DWG. NO. L23-1305Z

FIGURE 2



UNDERGROUND STORAGE TANKS				
TANK #	SIZE	CONTENTS	DIAMETER	LENGTH
1	6,000	GASOLINE	8′	16′1"
2	6,000	GASOLINE	8′	16′1"
3	6,000	GASOLINE	8′	16′1"
4	2,000	DIESEL	64"	12′
5	2,000	DIESEL	64"	12′

LEGEND

SCALE

0′ 10′ 20′

····· U/G PRODUCT PIPING

SCALE: 1"=20′	TITLE: SITE LAYOUT AND FORMER UST LOCATIONS	PROJECT: UST CLOSURE 1009 WINSTON ROAD LEXINGTON, NC	CLIENT: DSF OF NC, INC. GREENSBORO, NC
DATE: 7/11/23			
DWN. BY: BWR			
DWG. NO. L23-1305			

PARAGON ENVIRONMENTAL CONSULTANTS, INC.
THOMASVILLE, NORTH CAROLINA

FIGURE 3

UNDERGROUND STORAGE TANKS				
TANK #	SIZE	CONTENTS	DIAMETER	LENGTH
1	6,000	GASOLINE	8′	16′1"
2	6,000	GASOLINE	8′	16′1"
3	6,000	GASOLINE	8′	16′1"
4	2,000	DIESEL	64"	12′
5	2,000	DIESEL	64"	12′

LEGEND

SCALE
0′ 10′ 20′

····· U/G PRODUCT PIPING

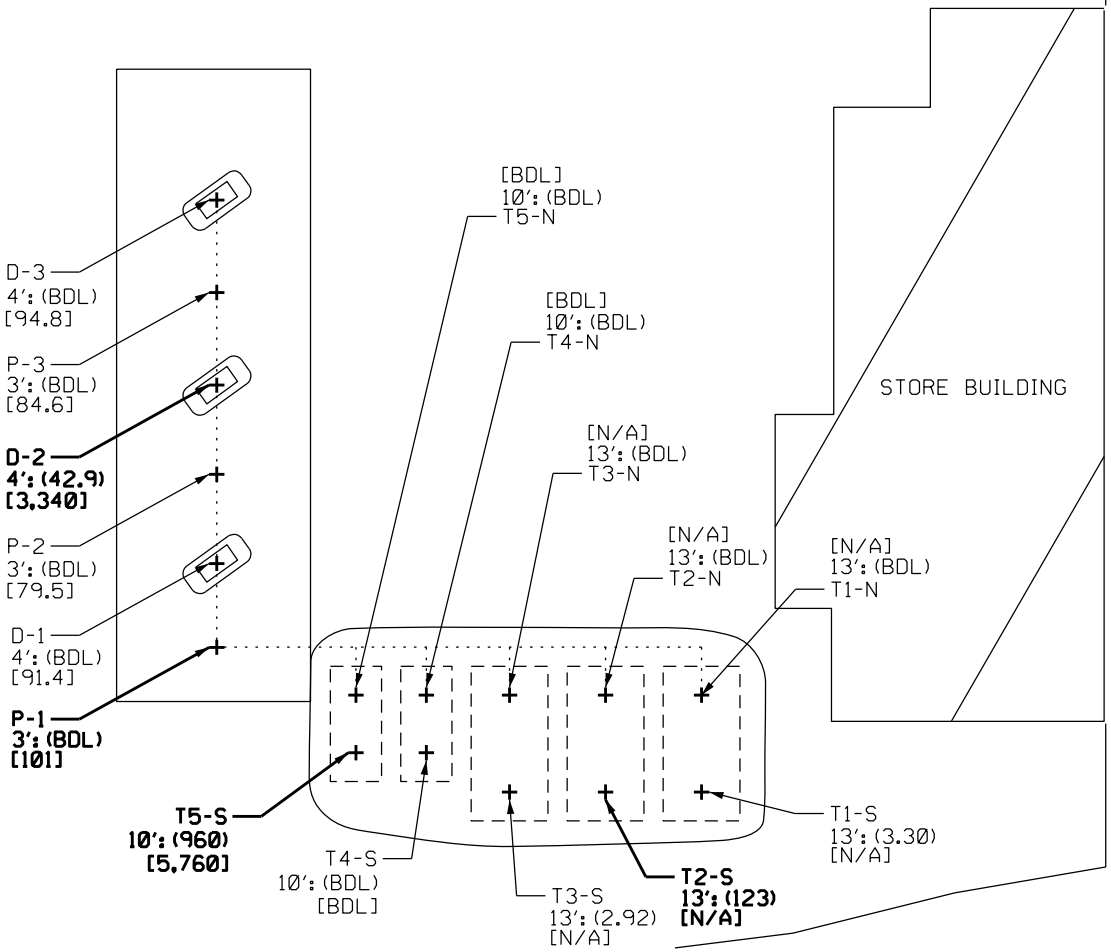
\+ SOIL SAMPLE LOCATION

13′: SAMPLE DEPTH

(123) TPH CONCENTRATION BY METHOD 5030 (mg/kg)

[101] TPH CONCENTRATION BY METHOD 3550 (mg/kg)

BDL BELOW LABORATORY DETECTION LIMITS



SCALE: 1"=20′	TITLE: SITE LAYOUT, SOIL SAMPLE LOCATIONS, AND SOIL TPH MAP	PROJECT: UST CLOSURE 1009 WINSTON ROAD LEXINGTON, NC	CLIENT: DSF OF NC, INC. GREENSBORO, NC	PARAGON ENVIRONMENTAL CONSULTANTS, INC. THOMASVILLE, NORTH CAROLINA
DATE: 7/13/23				
DWN. BY: BWR				
DWG. NO. L23-1305A				

TABLES

TABLE 1

FIELD AND LABORATORY ANALYTICAL RESULTS - TPH SOIL SAMPLES

Grab & Go 12
1009 Winston Road
Lexington, North Carolina

SAMPLE ID	LOCATION	DATE	DEPTH (FT)	TPH DRO*	TPH GRO*	OVA
T1-N	Tank #1 - North	7/11/23	13'	N/A	<2.89	N/A
T1-S	Tank #1 - South	7/11/23	13'	N/A	3.30	N/A
T2-N	Tank #2 - North	7/11/23	13'	N/A	<2.88	N/A
T2-S	Tank #2 - South	7/11/23	13'	N/A	**123**	N/A
T3-N	Tank #3 - North	7/11/23	13'	N/A	<2.80	N/A
T3-S	Tank #3 - South	7/11/23	13'	N/A	2.92	N/A
T4-N	Tank #4 - North	7/10/23	10'	<6.17	<2.75	N/A
T4-S	Tank #4 - South	7/10/23	10'	<6.26	<2.79	N/A
T5-N	Tank #5 - North	7/10/23	10'	<5.88	<2.62	N/A
T5-S	Tank #5 - South	7/10/23	10'	**5,760**	**960**	N/A

* Results in milligrams per kilogram (mg/kg)
N/A = Not Analyzed
BDL = Below Detection Limits

R23-1305T

TABLE 1 (CONT'D)

FIELD AND LABORATORY ANALYTICAL RESULTS - TPH SOIL SAMPLES (CONT'D)

Grab & Go 12
1009 Winston Road
Lexington, North Carolina

SAMPLE ID	LOCATION	DATE	DEPTH (FT)	TPH DRO*	TPH GRO*	OVA
D-1	Dispenser #1	7/12/23	4'	91.4	<2.75	N/A
D-2	Dispenser #2	7/12/23	4'	**3,340**	42.9	N/A
D-3	Dispenser #3	7/12/23	4'	94.8	<2.77	N/A
P-1	Piping #1	7/12/23	3'	**101**	<2.45	N/A
P-2	Piping #2	7/12/23	3'	79.5	<2.15	N/A
P-3	Piping #3	7/12/23	3'	84.6	<2.67	N/A

* Results in milligrams per kilogram (mg/kg)
N/A = Not Analyzed
BDL = Below Detection Limits

R23-1305T

APPENDIX A

GEOLOGIC LOG OF EXCAVATION

GEOLOGIC LOG OF EXCAVATION

Paragon Environmental Consultants, Inc.

Job Name:	Grab & Go 12		
Address:	1009 Winston Road Lexington, NC		
Job No.:	P-1305	Excavation Method:	Excavator
Start Date:	7/11/23	Sample Method:	Excavator Bucket
Contractor:	Petroleum Specialty, Inc.	Sampled By:	BWR
Sample ID:	UST closure samples	Logged By:	BWR
Comments:			

Sample Number	Depth (FT.)	Soil Decription (color, soil type, moisture)	OVA (ppm)
T1-N	13	Tan/brown, SILT with clay, damp	N/A
T1-S	13	Olive/brown, SILT with clay, damp	N/A
T2-N	13	Tan/brown, SILT with clay, damp	N/A
T2-S	13	Olive/brown, SILT with clay, damp	N/A
T3-N	13	Tan/brown, SILT with clay, damp	N/A
T3-S	13	Tan/brown, SILT with clay, damp	N/A
T4-N	10	Red/grey, SILT with clay, damp	N/A
T4-S	10	Orange/red, SILT with clay, damp	N/A
T5-N	10	Tan, SILT with clay, damp	N/A
T5-S	10	Tan, SILT with clay, damp	N/A
D-1	4	Orange/red, CLAY with silt, damp	N/A
D-2	4	Orange/red, CLAY with silt, damp	N/A
D-3	4	Orange/red, CLAY with silt, damp	N/A
P-1	3	Orange, CLAY with silt, damp	N/A
P-2	3	Orange/red, CLAY with silt, damp	N/A
P-3	3	Orange/red, CLAY with silt, damp	N/A
P-1305X			

APPENDIX B

FORM GW/UST-2

UST-2A

Site Investigation Report for Permanent Closure or Change-in-Service of REGISTERED UST

NC Environmental Quality

Return completed form to:

NC DEQ / DWM / UST SECTION
1646 MAIL SERVICE CENTER
RALEIGH, NC 27699-1646
ATTN: REGISTRATION & PERMITTING

phone (919) 707-8171 fax (919) 715-1117 http://www.wastenotnc.org/

STATE USE ONLY:
Facility ID #

Date Received

INSTRUCTIONS (READ THIS FIRST)

1. UST permanent closure or change in service must be completed in accordance with the latest version of the *Guidelines for Site Checks, Tank Closure and Initial Response and Abatement*. The guidelines can be obtained at http://deq.nc.gov/about/divisions/waste-management/waste-management-permit-guidance/underground-storage-tanks-section.
2. Permanent closure: Complete all sections of this form.
3. Change-in-service: Where a UST system will be converted from storing a regulated substance to a non-regulated substance, complete sections I, II, III, IV, and VI
4. For more than 5 registered UST systems, attach additional forms as needed
5. **Tank Fee Refund: An annual tank fee may be refunded for a tank for which a tank fee was not required. An owner or operator must submit a written request and include: (1) contact information, (2) federal identification # or SSN, and (3) a copy of UST-2 form. The annual tank fee will be prorated based on the date of permanent closure.**
6. UNREGISTERED USTs use Form UST-2B

I. OWNERSHIP OF TANKS

Owner Name (Corporation, Individual, Public Agency, or Other Entity)		
DSF of NC, Inc.		
Street Address		
1025 Gatewood Avenue		
City	County	
Greensboro	Guilford	
State	Zip Code	
NC	27405	
Phone Number		
(336) 285-7474		

II. LOCATION OF TANKS

Facility Name or Company		
Grab & Go 12		
Facility ID # (If known)		
00-0-0000024863		
Street Address		
1009 Winston Road		
City	County	Zip Code
Lexington	Davidson	27292
Phone Number		
(336) 841-4165		

III. CONTACT PERSONNEL

Contact for Facility:		Job Title:	Phone #:
Shehzad Quamar		Owner	(336) 285-7474
Closure Contractor Name:	Closure Contractor Company:	Address:	Phone #
Doug Wester	Petroleum Specialty, Inc.	37 Bogey Ct Canton	(828) 231-2312
Primary Consultant Name:	Primary Consultant Company:	Address:	Phone #
Brandon Moore	Paragon Environmental Conslts.	POB 157 Thomasville	(336) 669-6037

IV. UST INFORMATION FOR REGISTERED UST SYSTEMS

UNREGISTERED USTs use Form UST-2B

V. EXCAVATION CONDITION

Tank ID No.	Size in Gallons	Last Contents	Last Use Date	Permanent Close Date	Method of Permanent Closure: Indicate REMOVED or enter fill material, such as foam/ concrete/ sand	Change-in-Service Date	Water in excavation		Free product		Notable odor or visible soil contamination	
							Yes	No	Yes	No	Yes	No
1	6000	Gasoline, C	2023	7/11/23	Removed		☐	☒	☐	☒	☒	☐
2	6000	Gasoline, C	2023	7/11/23	Removed		☐	☒	☐	☒	☒	☐
3	6000	Gasoline, C	2023	7/11/23	Removed		☐	☒	☐	☒	☒	☐
4	2000	Dielsel, Die	2023	7/10/23	Removed		☐	☒	☐	☒	☒	☐
5	2000	Dielsel, Die	2023	7/10/23	Removed		☐	☒	☐	☒	☒	☐
							☐	☐	☐	☐	☐	☐

VI. CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true accurate and complete.

Print name and official title of owner or owner's authorized representative
Shehzad Quamar owner

Signature

Date Signed
07/25/2023

APPENDIX C

LIQUIDS AND TANK DISPOSAL MANIFEST

UST DISPOSAL MANIFEST

Tank Location:

Tank Location: Grab & Go 12

Physical Address: 1009 Winston Rd

Lexington, NC 27295

Description of Contents:

Gallons.	Contents	Comments
(2) 2,000	Diesel	
(3) 6,000	Gas	

Residuals:

The undersigned transporters certify that the above listed contents have been transported to:

Petroleum Specialty Inc 106 Trellis Drive Canton, NC 28716

Printed Name: Doug Wester

Signature: [signature]

Date: 7/11/23

Cleaning and Demolition Certification:

The undersigned certifies that the above listed tanks have been cleaned and demolished according to American Petroleum Institute (API) Recommended Practice 1604, "Removal and Disposal of Used Underground Petroleum Storage Tanks", and API Publication 2015, "Cleaning Petroleum Storage Tanks".

Doug Wester *Printed Name* | [signature] *Signature* | 7/11/23 *Date*

Disposal Certification:

The undersigned certifies that the contents listed above have been disposed of properly.

Disposal Facility: .Mountain Metals 79 pond Rd Asheville, NC 28806

Sonya Gribble *Printed Name* | Sonya Gribble *Signature* | 7/12/23 *Date*

APPENDIX D

LABORATORY ANALYTICAL REPORTS

449 Springbrook Rd, Charlotte, NC 28217
Main 704.529.6364
www.waypointanalytical.com

7/14/2023

Paragon Environmental Consultants, Inc.
Brandon Moore
PO Box 157
Thomasville, NC, 27361

Ref: Analytical Testing
Lab Report Number: 23-192-0004
Client Project Description: Grab & Go 12
P-1305

Dear Brandon Moore:

Waypoint Analytical, LLC (Charlotte) received sample(s) on 7/11/2023 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule May 2021) unless otherwise indicated.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,

Angela D Overcash
Senior Project Manager

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.

449 Springbrook Rd, Charlotte, NC 28217
Main 704.529.6364
www.waypointanalytical.com

Certification Summary

Laboratory ID: WP CNC: Waypoint Analytical Carolina, Inc. (C), Charlotte, NC

State	Program	Lab ID	Expiration Date
North Carolina	State Program	37735	07/31/2023
North Carolina	State Program	402	12/31/2023
South Carolina	State Program	99012	07/31/2023
South Carolina	State Program	99012	12/31/2022

449 Springbrook Rd, Charlotte, NC 28217
Main 704.529.6364
www.waypointanalytical.com

Sample Summary Table

Report Number: **23-192-0004**

Client Project Description: **Grab & Go 12 P-1305**

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
89169	T4-N	Solids	07/10/2023 15:30	07/11/2023 11:20
89170	T4-S	Solids	07/10/2023 15:45	07/11/2023 11:20
89171	T5-N	Solids	07/10/2023 13:45	07/11/2023 11:20
89172	T5-S	Solids	07/10/2023 14:00	07/11/2023 11:20

449 Springbrook Rd, Charlotte, NC 28217
Main 704.529.6364
www.waypointanalytical.com

Summary of Detected Analytes

Project: **Grab & Go 12**

Report Number: **23-192-0004**

Client Sample ID / Method	Lab Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
T4-N	**V 89169**					
SW-DRYWT	Moisture	24.6	%		07/11/2023 14:40	
T4-S	**V 89170**					
SW-DRYWT	Moisture	25.7	%		07/11/2023 14:40	
T5-N	**V 89171**					
SW-DRYWT	Moisture	20.9	%		07/11/2023 14:40	
T5-S	**V 89172**					
8015C DRO	Diesel Range Organics (C10-C28)	5760	mg/Kg - dry	235	07/13/2023 17:34	
8015C GRO	Gasoline Range Organics (C6-C10)	960	mg/Kg - dry	26.1	07/12/2023 15:46	
SW-DRYWT	Moisture	20.7	%		07/11/2023 14:40	

449 Springbrook Rd, Charlotte, NC 28217
Main 704.529.6364
www.waypointanalytical.com

Client: Paragon Environmental Consultants, Inc. **CASE NARRATIVE**
Project: Grab & Go 12
Lab Report Number: 23-192-0004
Date: 7/14/2023

Total Petroleum Hydrocarbons - Extractable Method 8015C DRO
Sample 89172 (T5-S)
QC Batch No: V35285/V35220
Surrogate(s) flagged for recovery outside QC limits in this project sample due to a required dilution. The dilution factor resulted in surrogate concentration(s) below the minimum detectable level. Batch QC samples (method blank and laboratory control samples) all showed surrogates within QC limits.

Total Petroleum Hydrocarbons - Volatile Method 8015C GRO
Sample 89169 (T4-N)
Analyte: a,a,a-Trifluorotoluene
QC Batch No: V35265/V35264
Surrogate(s) exhibited a high bias in this project sample where no target analytes were detected. The high recovery(s) had no impact on the data. Batch QC samples (method blank and laboratory control samples) all showed surrogates within QC limits.

Sample 89170 (T4-S)
Analyte: a,a,a-Trifluorotoluene
QC Batch No: V35265/V35264
Surrogate(s) exhibited a high bias in this project sample where no target analytes were detected. The high recovery(s) had no impact on the data. Batch QC samples (method blank and laboratory control samples) all showed surrogates within QC limits.

449 Springbrook Rd, Charlotte, NC 28217
Main 704.529.6364
www.waypointanalytical.com

01156
Paragon Environmental Consultants, Inc.
Brandon Moore
PO Box 157
Thomasville , NC 27361

Project Grab & Go 12
Information : P-1305

Report Date : 07/14/2023
Received : 07/11/2023

Report Number : **23-192-0004**

REPORT OF ANALYSIS

Lab No : **89169**
Sample ID : **T4-N**

Matrix: **Solids**
Sampled: **7/10/2023 15:30**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Moisture	**24.6**	%			1	07/11/23 14:40	PEB	SW-DRYWT

Qualifiers/ Definitions

*	Outside QC Limit	DF	Dilution Factor
MQL	Method Quantitation Limit		

449 Springbrook Rd, Charlotte, NC 28217
Main 704.529.6364
www.waypointanalytical.com

01156
Paragon Environmental Consultants, Inc.
Brandon Moore
PO Box 157
Thomasville , NC 27361

Project Grab & Go 12
Information : P-1305

Report Date : 07/14/2023
Received : 07/11/2023

Report Number : **23-192-0004**

REPORT OF ANALYSIS

Lab No : **89169**
Sample ID : **T4-N**

Matrix: **Solids**
Sampled: **7/10/2023 15:30**

Analytical Method: 8015C DRO **Prep Batch(es):** **V35220** 07/12/23 09:30
Prep Method: 3546

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Diesel Range Organics (C10-C28)	<6.17	mg/Kg - dry	6.17	13.3	1	07/12/23 16:11	AMP	V35285
Surrogate: OTP Surrogate	62.6	Limits: 31-123%			1	07/12/23 16:11	AMP	8015C DRO

Analytical Method: 8015C GRO **Prep Batch(es):** **V35264** 07/12/23 08:00
Prep Method: 5035 MED

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Gasoline Range Organics (C6-C10)	<2.75	mg/Kg - dry	2.75	6.63	50	07/12/23 12:57	TBL	V35265
Surrogate: a,a,a-Trifluorotoluene	**153 ***	Limits: 50-137%			50	07/12/23 12:57	TBL	8015C GRO

Qualifiers/ Definitions
* Outside QC Limit
MQL Method Quantitation Limit
DF Dilution Factor

449 Springbrook Rd, Charlotte, NC 28217
Main 704.529.6364
www.waypointanalytical.com

01156
Paragon Environmental Consultants, Inc.
Brandon Moore
PO Box 157
Thomasville , NC 27361

Project Grab & Go 12

Information : P-1305

Report Date : 07/14/2023
Received : 07/11/2023

Report Number : **23-192-0004**

REPORT OF ANALYSIS

Lab No : **89170**
Sample ID : **T4-S**

Matrix: **Solids**
Sampled: **7/10/2023 15:45**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Moisture	**25.7**	%			1	07/11/23 14:40	PEB	SW-DRYWT

Qualifiers/ Definitions

* Outside QC Limit
MQL Method Quantitation Limit
DF Dilution Factor

Waypoint ANALYTICAL
449 Springbrook Rd, Charlotte, NC 28217
Main 704.529.6364
www.waypointanalytical.com

01156
Paragon Environmental Consultants, Inc.
Brandon Moore
PO Box 157
Thomasville , NC 27361

Project Grab & Go 12
Information : P-1305

Report Date : 07/14/2023
Received : 07/11/2023

Report Number : **23-192-0004**

REPORT OF ANALYSIS

Lab No : **89170**
Sample ID : **T4-S**

Matrix: **Solids**
Sampled: **7/10/2023 15:45**

Analytical Method: 8015C DRO **Prep Batch(es):** **V35220** 07/12/23 09:30
Prep Method: 3546

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Diesel Range Organics (C10-C28)	<6.26	mg/Kg - dry	6.26	13.5	1	07/12/23 16:32	AMP	V35285
Surrogate: OTP Surrogate	58.0	Limits: 31-123%			1	07/12/23 16:32	AMP	8015C DRO

Analytical Method: 8015C GRO **Prep Batch(es):** **V35264** 07/12/23 08:00
Prep Method: 5035 MED

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Gasoline Range Organics (C6-C10)	<2.79	mg/Kg - dry	2.79	6.73	50	07/12/23 13:25	TBL	V35265
Surrogate: a,a,a-Trifluorotoluene	**158 ***	Limits: 50-137%			50	07/12/23 13:25	TBL	8015C GRO

Qualifiers/ Definitions
* Outside QC Limit
MQL Method Quantitation Limit
DF Dilution Factor

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01156
Paragon Environmental Consultants, Inc.
Brandon Moore
PO Box 157
Thomasville , NC 27361

Project Grab & Go 12

Information : P-1305

Report Date : 07/14/2023
Received : 07/11/2023

Report Number : **23-192-0004**

REPORT OF ANALYSIS

Lab No : **89171**
Sample ID : **T5-N**

Matrix: **Solids**
Sampled: **7/10/2023 13:45**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Moisture	**20.9**	%			1	07/11/23 14:40	PEB	SW-DRYWT

Qualifiers/ Definitions

* Outside QC Limit
MQL Method Quantitation Limit
DF Dilution Factor

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Project Grab & Go 12
Information : P-1305

Report Date : 07/14/2023
Received : 07/11/2023

Report Number : **23-192-0004**

REPORT OF ANALYSIS

Lab No : **89171**
Sample ID : **T5-N**

Matrix: **Solids**
Sampled: **7/10/2023 13:45**

Analytical Method: 8015C DRO **Prep Batch(es):** **V35220** 07/12/23 09:30
Prep Method: 3546

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Diesel Range Organics (C10-C28)	<5.88	mg/Kg - dry	5.88	12.6	1	07/12/23 16:53	AMP	V35285
Surrogate: OTP Surrogate	61.8	Limits: 31-123%			1	07/12/23 16:53	AMP	8015C DRO

Analytical Method: 8015C GRO **Prep Batch(es):** **V35264** 07/12/23 08:00
Prep Method: 5035 MED

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Gasoline Range Organics (C6-C10)	<2.62	mg/Kg - dry	2.62	6.32	50	07/12/23 13:53	TBL	V35265
Surrogate: a,a,a-Trifluorotoluene	137	Limits: 50-137%			50	07/12/23 13:53	TBL	8015C GRO

Qualifiers/ Definitions
* Outside QC Limit
MQL Method Quantitation Limit
DF Dilution Factor

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Project Grab & Go 12

Information : P-1305

Report Date : 07/14/2023
Received : 07/11/2023

Report Number : **23-192-0004**

REPORT OF ANALYSIS

Lab No : **89172**
Sample ID : **T5-S**

Matrix: **Solids**
Sampled: **7/10/2023 14:00**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Moisture	**20.7**	%			1	07/11/23 14:40	PEB	SW-DRYWT

Qualifiers/ Definitions

* Outside QC Limit
MQL Method Quantitation Limit
DF Dilution Factor

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Project Grab & Go 12
Information : P-1305

Report Date : 07/14/2023
Received : 07/11/2023

Report Number : **23-192-0004**

REPORT OF ANALYSIS

Lab No : **89172**
Sample ID : **T5-S**

Matrix: **Solids**
Sampled: **7/10/2023 14:00**

Analytical Method: 8015C DRO **Prep Batch(es):** **V35220** 07/12/23 09:30
Prep Method: 3546

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Diesel Range Organics (C10-C28)	**5760**	mg/Kg - dry	235	504	40	07/13/23 17:34	AMP	V35285
Surrogate: OTP Surrogate	**0 ***	Limits: 31-123%			40	07/13/23 17:34	AMP	8015C DRO

Analytical Method: 8015C GRO **Prep Batch(es):** **V35264** 07/12/23 08:00
Prep Method: 5035 MED

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Gasoline Range Organics (C6-C10)	**960**	mg/Kg - dry	26.1	63.1	500	07/12/23 15:46	TBL	V35265
Surrogate: a,a,a-Trifluorotoluene	124	Limits: 50-137%			500	07/12/23 15:46	TBL	8015C GRO

Qualifiers/ Definitions
* Outside QC Limit
MQL Method Quantitation Limit
DF Dilution Factor

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Quality Control Data

Client ID: **Paragon Environmental Consultants, Inc.**
Project Description: **Grab & Go 12**
Report No: **23-192-0004**

QC Prep: V35220
QC Prep Batch Method: 3546
QC Analytical Batch(es): V35285
Analysis Method: 8015C DRO
Analysis Description: Total Petroleum Hydrocarbons - Extractable

Lab Reagent Blank LRB-V35220 Matrix: SOL
Associated Lab Samples: 89169, 89170, 89171, 89172

Parameter	Units	Blank Result	MDL	MQL	Analyzed	% Recovery	% Rec Limits
Diesel Range Organics (C10-C28)	mg/Kg	<4.65	4.65	10.0	07/12/23 15:07		
OTP Surrogate (S)					07/12/23 15:07	63.7	31-123

Laboratory Control Sample & LCSD LCS-V35220 LCSD-V35220

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS %Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD
Diesel Range Organics (C10-C28)	mg/Kg	66.7	60.9	65.2	91.3	97.7	46-126	6.8	20
OTP Surrogate (S)					60.3	65.7	31-123		

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Quality Control Data

Client ID: **Paragon Environmental Consultants, Inc.**
Project Description: **Grab & Go 12**
Report No: **23-192-0004**

QC Prep: V35264
QC Prep Batch Method: 5035 MED
QC Analytical Batch(es): V35265
Analysis Method: 8015C GRO
Analysis Description: Total Petroleum Hydrocarbons - Volatile

Lab Reagent Blank LRB-V35264 Matrix: SOL
Associated Lab Samples: 89169, 89170, 89171, 89172

Parameter	Units	Blank Result	MDL	MQL	Analyzed	% Recovery	% Rec Limits
Gasoline Range Organics (C6-C10)	mg/Kg	<2.07	2.07	5.00	07/12/23 12:01		
a,a,a-Trifluorotoluene (S)					07/12/23 12:01	106	50-137

Laboratory Control Sample LCS-V35264

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Gasoline Range Organics (C6-C10)	mg/Kg	50.0	56.4	113	41-138
a,a,a-Trifluorotoluene (S)				119	50-137

Matrix Spike & Matrix Spike Duplicate V 89146-MS-V35264 V 89146-MSD-V35264

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Gasoline Range Organics (C6-C10)	mg/Kg	<2.07	50.0	50.0	53.0	52.4	106	105	41-138	1.1	34
a,a,a-Trifluorotoluene (S)							110	115	50-137		

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Quality Control Data

Client ID: **Paragon Environmental Consultants, Inc.**
Project Description: **Grab & Go 12**
Report No: **23-192-0004**

QC Analytical Batch: V35196
Analysis Method: SW-DRYWT
Analysis Description: Dry Weight Determination

Duplicate V 89055-DUP

Parameter	Units	Result	DUP Result	RPD	Max RPD	Analyzed
Moisture	%	23.7	23.5	0.8	20.0	07/11/23 14:40

Duplicate V 89171-DUP

Parameter	Units	Result	DUP Result	RPD	Max RPD	Analyzed
Moisture	%	20.9	22.7	8.2	20.0	07/11/23 14:40

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Shipment Receipt Form

Customer Number: **01156**
Customer Name: **Paragon Environmental Consultants, Inc.**
Report Number: **23-192-0004**

Shipping Method

○ Fed Ex	○ US Postal	◉ Lab	○ Other :	
○ UPS	○ Client	○ Courier	Thermometer ID:	IRT-15 1.7C

Shipping container/cooler uncompromised?	◉ Yes	○ No	
Number of coolers/boxes received	1		
Custody seals intact on shipping container/cooler?	○ Yes	○ No	◉ Not Present
Custody seals intact on sample bottles?	○ Yes	○ No	◉ Not Present
Chain of Custody (COC) present?	◉ Yes	○ No	
COC agrees with sample label(s)?	◉ Yes	○ No	
COC properly completed	◉ Yes	○ No	
Samples in proper containers?	◉ Yes	○ No	
Sample containers intact?	◉ Yes	○ No	
Sufficient sample volume for indicated test(s)?	◉ Yes	○ No	
All samples received within holding time?	◉ Yes	○ No	
Cooler temperature in compliance?	◉ Yes	○ No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	◉ Yes	○ No	
Water - Sample containers properly preserved	○ Yes	○ No	◉ N/A
Water - VOA vials free of headspace	○ Yes	○ No	◉ N/A
Trip Blanks received with VOAs	○ Yes	○ No	◉ N/A
Soil VOA method 5035 – compliance criteria met	◉ Yes	○ No	○ N/A

☐ High concentration container (48 hr)
☐ Low concentration EnCore samplers (48 hr)
☑ High concentration pre-weighed (methanol -14 d)
☐ Low conc pre-weighed vials (Sod Bis -14 d)

Special precautions or instructions included?	○ Yes	◉ No

Comments:

Signature: Caitlyn Cummins Date & Time: 07/11/2023 12:00:18

CHAIN OF CUSTODY RECORD

Waypoint ANALYTICAL
449 Springbrook Road • Charlotte, NC 28217
Phone 704/529-6364 • Fax: 704/525-0409

PAGE 1 OF 1 QUOTE # TO ENSURE PROPER BILLING:

Project Name: P-1305
Short Hold Analysis (Yes) (No) UST Project: (Yes) (No)
*Please ATTACH any project specific reporting (QC LEVEL I II III IV) provisions and/or QC Requirements
Invoice To: Paragon
Address:

Client Company Name: PARAGON Environmental Consultants, Inc. P.O. Box 157 Thomasville, NC 27361 (336) 669-6037
Report To/Contact Name:
Reporting Address:

Phone: Fax (Yes)(No):
Email Address: paragonenv@northstate.net
EDD Type: PDF X Excel Other
Site Location Name: Grab & Go 12
Site Location Physical Address: 1009 Winston Road Lexington, NC 27292

Purchase Order No./Billing Reference
Requested Due Date ❑ 1 Day ❑ 2 Days ❑ 3 Days ❑ 4 Days ☒ 5 Days
"Working Days" ❑ 6-9 Days ❑ Standard 10 days ❑ Rush Work Must Be Pre Approved
Samples received after 15:00 will be processed next business day.
Turnaround time is based on business days, excluding weekends and holidays.
(SEE REVERSE FOR TERMS & CONDITIONS REGARDING SERVICES RENDERED BY WAYPOINT ANALYTICAL, LLC TO CLIENT)

LAB USE ONLY

	YES	NO	N/A
Samples INTACT upon arrival?	X		
Received IN ICE?	X		
PROPER PRESERVATIVES indicated?	X		
Received WITHIN HOLDING TIMES?	X		
CUSTODY SEALS INTACT?			X
VOLATILES rec'd W/OUT HEADSPACE?			X
PROPER CONTAINERS used?	X		

TEMP: Therm ID: IR-15 Observed 1.7 °C /Corr. 1.7 °C

TO BE FILLED IN BY CLIENT/SAMPLING PERSONNEL
Certification: NC X SC
Other N/A
Water Chlorinated: YES NO
Samples Iced Upon Collection: YES X NO

CLIENT SAMPLE DESCRIPTION	DATE COLLECTED	TIME COLLECTED MILITARY HOURS	MATRIX (SOIL, WATER, OR SLUDGE)	SAMPLE CONTAINER *TYPE SEE BELOW	SAMPLE CONTAINER NO.	SAMPLE CONTAINER SIZE	PRESERVATIVES	ANALYSIS REQUESTED GRO	ANALYSIS REQUESTED DRO	REMARKS	ID NO.
Tank #4-North (T4-N)	7/10/23	15:30	Soil		3			X	X		
Tank #4-South (T4-S)	7/10/23	15:45	Soil		3			X	X		
Tank #5-North (T5-N)	7/10/23	13:45	Soil		3			X	X		
Tank #5-South (T5-S)	7/10/23	14:00	Soil		3			X	X		

23-192-0004
01156
07-11-2023
11:47:38
Paragon Environmental Consultants, Inc.
Grab & Go 12

PRESS DOWN FIRMLY - 2 COPIES

Sampler's Signature: Sampled By (Print Name) Benjamin W. Robinson Affiliation

Upon relinquishing, this Chain of Custody is your authorization for Waypoint Analytical to proceed with the analyses as requested above. Any changes must be submitted in writing to the Waypoint Analytical Project Manager. There will be charges for any changes after analyses have been initialized.

		Date	Military/Hours
Relinquished By: (Signature)	Received By: (Signature)	7.11.23	9:15
Relinquished By: (Signature)	Received By: (Signature)	Date	
Relinquished By: (Signature)	Received For Waypoint Analytical By: Caitlyn Cummings	7.11.23	11:20

Additional Comments:

LAB USE ONLY
Site Arrival Time:
Site Departure Time:
Field Tech Fee:
Mileage:

Method of Shipment: NOTE: ALL SAMPLE COOLERS SHOULD BE TAPED SHUT WITH CUSTODY SEALS FOR TRANSPORTATION TO THE LABORATORY. SAMPLES ARE NOT ACCEPTED AND VERIFIED AGAINST COC UNTIL RECEIVED AT THE LABORATORY.
COC Group No.

❑ Fed Ex ❑ UPS ❑ Hand-delivered ☒ Waypoint Analytical Field Service ❑ Other

NPDES:	UST:	GROUNDWATER:	DRINKING WATER:	SOLID WASTE:	RCRA:	BRWNFLD	LANDFILL	OTHER:
❑ NC ❑ SC	☒ NC ❑ SC	❑ NC ❑ SC	❑ NC ❑ SC	❑ NC ❑ SC	❑ NC ❑ SC	❑ NC ❑ SC	❑ NC ❑ SC	❑ NC ❑ SC
❑	❑	❑	❑	❑	❑	❑	❑	❑

*CONTAINER TYPE CODES: A = Amber C = Clear G= Glass P = Plastic; TL = Teflon-Lined Cap VOA = Volatile Organics Analysis (Zero Head Space)

SEE REVERSE FOR TERMS & CONDITIONS

ORIGINAL

449 Springbrook Rd, Charlotte, NC 28217
Main 704.529.6364
www.waypointanalytical.com

7/18/2023

Paragon Environmental Consultants, Inc.
Brandon Moore
PO Box 157
Thomasville, NC, 27361

Ref: Analytical Testing
Lab Report Number: 23-194-0006
Client Project Description: Grab & Go 12
P-1305

Dear Brandon Moore:

Waypoint Analytical, LLC (Charlotte) received sample(s) on 7/13/2023 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule May 2021) unless otherwise indicated.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,

Angela D Overcash
Senior Project Manager

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.

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Certification Summary

Laboratory ID: WP CNC: Waypoint Analytical Carolina, Inc. (C), Charlotte, NC

State	Program	Lab ID	Expiration Date
North Carolina	State Program	37735	07/31/2023
North Carolina	State Program	402	12/31/2023
South Carolina	State Program	99012	07/31/2023
South Carolina	State Program	99012	12/31/2022

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Sample Summary Table

Report Number: **23-194-0006**

Client Project Description: **Grab & Go 12 P-1305**

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
89427	T1-N	Solids	07/11/2023 12:50	07/13/2023
89428	T1-S	Solids	07/11/2023 13:00	07/13/2023
89429	T2-N	Solids	07/11/2023 12:00	07/13/2023
89430	T2-S	Solids	07/11/2023 12:10	07/13/2023
89431	T3-N	Solids	07/11/2023 10:30	07/13/2023
89432	T3-S	Solids	07/11/2023 10:40	07/13/2023
89433	D-1	Solids	07/12/2023 09:00	07/13/2023
89434	D-2	Solids	07/12/2023 09:10	07/13/2023
89435	D-3	Solids	07/12/2023 09:20	07/13/2023
89436	P-1	Solids	07/12/2023 09:30	07/13/2023
89437	P-2	Solids	07/12/2023 09:40	07/13/2023
89438	P-3	Solids	07/12/2023 09:50	07/13/2023

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Summary of Detected Analytes

Project: Grab & Go 12

Report Number: 23-194-0006

Client Sample ID / Method	Lab Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
T1-N	**V 89427**					
SW-DRYWT	Moisture	28.4	%		07/16/2023 02:00	
T1-S	**V 89428**					
8015C GRO	Gasoline Range Organics (C6-C10)	3.30	mg/Kg - dry	3.25	07/14/2023 13:21	J
SW-DRYWT	Moisture	36.4	%		07/16/2023 02:00	
T2-N	**V 89429**					
SW-DRYWT	Moisture	28.0	%		07/16/2023 02:00	
T2-S	**V 89430**					
8015C GRO	Gasoline Range Organics (C6-C10)	123	mg/Kg - dry	2.83	07/14/2023 14:17	
SW-DRYWT	Moisture	26.9	%		07/16/2023 02:00	
T3-N	**V 89431**					
SW-DRYWT	Moisture	26.0	%		07/16/2023 02:00	
T3-S	**V 89432**					
8015C GRO	Gasoline Range Organics (C6-C10)	2.92	mg/Kg - dry	2.70	07/14/2023 15:41	J
SW-DRYWT	Moisture	23.4	%		07/16/2023 02:00	
D-1	**V 89433**					
8015C DRO	Diesel Range Organics (C10-C28)	91.4	mg/Kg - dry	6.18	07/17/2023 11:43	
SW-DRYWT	Moisture	24.7	%		07/16/2023 02:00	
D-2	**V 89434**					
8015C DRO	Diesel Range Organics (C10-C28)	3340	mg/Kg - dry	323	07/17/2023 15:18	
8015C GRO	Gasoline Range Organics (C6-C10)	42.9	mg/Kg - dry	2.87	07/14/2023 18:29	
SW-DRYWT	Moisture	27.9	%		07/16/2023 02:00	
D-3	**V 89435**					
8015C DRO	Diesel Range Organics (C10-C28)	94.8	mg/Kg - dry	6.22	07/17/2023 12:26	
SW-DRYWT	Moisture	25.2	%		07/16/2023 02:00	
P-1	**V 89436**					
8015C DRO	Diesel Range Organics (C10-C28)	101	mg/Kg - dry	5.50	07/17/2023 12:48	
SW-DRYWT	Moisture	15.4	%		07/16/2023 02:00	
P-2	**V 89437**					
8015C DRO	Diesel Range Organics (C10-C28)	79.5	mg/Kg - dry	4.83	07/17/2023 13:09	
SW-DRYWT	Moisture	3.81	%		07/16/2023 02:00	

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Summary of Detected Analytes

Project: **Grab & Go 12**

Report Number: **23-194-0006**

Client Sample ID / Method	Lab Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
P-3	**V 89438**					
8015C DRO	Diesel Range Organics (C10-C28)	84.6	mg/Kg - dry	6.01	07/17/2023 13:31	
SW-DRYWT	Moisture	22.6	%		07/16/2023 02:00	

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Client: Paragon Environmental Consultants, Inc. **CASE NARRATIVE**
Project: Grab & Go 12
Lab Report Number: 23-194-0006
Date: 7/17/2023

Total Petroleum Hydrocarbons - Volatile Method 8015C GRO
Sample 89431 (T3-N)
Analyte: a,a,a-Trifluorotoluene
QC Batch No: V35360/V35359
Surrogate(s) exhibited a high bias in this project sample where no target analytes were detected. The high recovery(s) had no impact on the data. Batch QC samples (method blank and laboratory control samples) all showed surrogates within QC limits.

Sample 89432 (T3-S)
Analyte: a,a,a-Trifluorotoluene
QC Batch No: V35360/V35359
Surrogate(s) exhibited a high bias in this project sample where no target analytes were detected. The high recovery(s) had no impact on the data. Batch QC samples (method blank and laboratory control samples) all showed surrogates within QC limits.

Sample 89435 (D-3)
Analyte: a,a,a-Trifluorotoluene
QC Batch No: V35360/V35359
Surrogate(s) was flagged for recovery outside QC limits in this project sample. This sample was re-analyzed for verification, and/or dilution of target analytes. Batch QC samples (method blank and laboratory control samples) all showed surrogates within QC limits.
Surrogate out on matrix spike/matrix spike dupe. GRO results for MS/MSD support parent sample concentration. No further action taken.

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Paragon Environmental Consultants, Inc.
Brandon Moore
PO Box 157
Thomasville , NC 27361

Project Grab & Go 12
Information : P-1305

Report Date : 07/18/2023
Received : 07/13/2023

Report Number : **23-194-0006**

REPORT OF ANALYSIS

Lab No : **89427**
Sample ID : **T1-N**

Matrix: **Solids**
Sampled: **7/11/2023 12:50**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Moisture	**28.4**	%			1	07/16/23 02:00	PEB	SW-DRYWT

Qualifiers/ Definitions

*	Outside QC Limit	DF	Dilution Factor
I	Recovery out of range	J	Estimated value
MQL	Method Quantitation Limit		

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Project Grab & Go 12
Information : P-1305

Report Date : 07/18/2023
Received : 07/13/2023

Report Number : **23-194-0006**

REPORT OF ANALYSIS

Lab No : **89427**
Sample ID : **T1-N**

Matrix: **Solids**
Sampled: **7/11/2023 12:50**

Analytical Method: 8015C GRO **Prep Batch(es):** **V35359** 07/14/23 08:00
Prep Method: 5035 MED

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Gasoline Range Organics (C6-C10)	<2.89	mg/Kg - dry	2.89	6.98	50	07/14/23 12:53	TBL	V35360
Surrogate: a,a,a-Trifluorotoluene	137		Limits: 50-137%		50	07/14/23 12:53	TBL	8015C GRO

Qualifiers/ Definitions

*	Outside QC Limit	DF	Dilution Factor
I	Recovery out of range	J	Estimated value
MQL	Method Quantitation Limit		

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Project Grab & Go 12

Information : P-1305

Report Date : 07/18/2023
Received : 07/13/2023

Report Number : **23-194-0006**

REPORT OF ANALYSIS

Lab No : **89428**
Sample ID : **T1-S**

Matrix: **Solids**
Sampled: **7/11/2023 13:00**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Moisture	**36.4**	%			1	07/16/23 02:00	PEB	SW-DRYWT

Qualifiers/ Definitions

*	Outside QC Limit	DF	Dilution Factor
I	Recovery out of range	J	Estimated value
MQL	Method Quantitation Limit		

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Project Grab & Go 12
Information : P-1305

Report Date : 07/18/2023
Received : 07/13/2023

Report Number : **23-194-0006**

REPORT OF ANALYSIS

Lab No : **89428**
Sample ID : **T1-S**

Matrix: **Solids**
Sampled: **7/11/2023 13:00**

Analytical Method: 8015C GRO **Prep Batch(es):** **V35359** 07/14/23 08:00
Prep Method: 5035 MED

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Gasoline Range Organics (C6-C10)	**3.30 J**	mg/Kg - dry	3.25	7.86	50	07/14/23 13:21	TBL	V35360
Surrogate: a,a,a-Trifluorotoluene	133	Limits: 50-137%			50	07/14/23 13:21	TBL	8015C GRO

Qualifiers/ Definitions

*	Outside QC Limit	DF	Dilution Factor
I	Recovery out of range	J	Estimated value
MQL	Method Quantitation Limit		

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Project Grab & Go 12

Information : P-1305

Report Date : 07/18/2023
Received : 07/13/2023

Report Number : **23-194-0006**

REPORT OF ANALYSIS

Lab No : **89429**
Sample ID : **T2-N**

Matrix: **Solids**
Sampled: **7/11/2023 12:00**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Moisture	**28.0**	%			1	07/16/23 02:00	PEB	SW-DRYWT

Qualifiers/ Definitions

*	Outside QC Limit	DF	Dilution Factor
I	Recovery out of range	J	Estimated value
MQL	Method Quantitation Limit		

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Report Number : **23-194-0006**

REPORT OF ANALYSIS

Lab No : **89429**
Sample ID : **T2-N**

Matrix: **Solids**
Sampled: **7/11/2023 12:00**

Analytical Method: 8015C GRO **Prep Batch(es):** **V35359** 07/14/23 08:00
Prep Method: 5035 MED

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Gasoline Range Organics (C6-C10)	<2.88	mg/Kg - dry	2.88	6.94	50	07/14/23 13:49	TBL	V35360
Surrogate: a,a,a-Trifluorotoluene	135		Limits: 50-137%		50	07/14/23 13:49	TBL	8015C GRO

Qualifiers/ Definitions

*	Outside QC Limit	DF	Dilution Factor
I	Recovery out of range	J	Estimated value
MQL	Method Quantitation Limit		

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Information : P-1305

Report Date : 07/18/2023
Received : 07/13/2023

Report Number : **23-194-0006**

REPORT OF ANALYSIS

Lab No : **89430**
Sample ID : **T2-S**

Matrix: **Solids**
Sampled: **7/11/2023 12:10**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Moisture	**26.9**	%			1	07/16/23 02:00	PEB	SW-DRYWT

Qualifiers/ Definitions

*	Outside QC Limit	DF	Dilution Factor
I	Recovery out of range	J	Estimated value
MQL	Method Quantitation Limit		

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Report Number : **23-194-0006**

REPORT OF ANALYSIS

Lab No : **89430**
Sample ID : **T2-S**

Matrix: **Solids**
Sampled: **7/11/2023 12:10**

Analytical Method: 8015C GRO **Prep Batch(es):** **V35359** 07/14/23 08:00
Prep Method: 5035 MED

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Gasoline Range Organics (C6-C10)	**123**	mg/Kg - dry	2.83	6.84	50	07/14/23 14:17	TBL	V35360
Surrogate: a,a,a-Trifluorotoluene	127		Limits: 50-137%		50	07/14/23 14:17	TBL	8015C GRO

Qualifiers/ Definitions

*	Outside QC Limit	DF	Dilution Factor
I	Recovery out of range	J	Estimated value
MQL	Method Quantitation Limit		

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Project Grab & Go 12
Information : P-1305

Report Date : 07/18/2023
Received : 07/13/2023

Report Number : **23-194-0006**

REPORT OF ANALYSIS

Lab No : **89431**
Sample ID : **T3-N**

Matrix: **Solids**
Sampled: **7/11/2023 10:30**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Moisture	**26.0**	%			1	07/16/23 02:00	PEB	SW-DRYWT

Qualifiers/ Definitions

*	Outside QC Limit	DF	Dilution Factor
I	Recovery out of range	J	Estimated value
MQL	Method Quantitation Limit		

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Report Number : **23-194-0006**

REPORT OF ANALYSIS

Lab No : **89431**
Sample ID : **T3-N**

Matrix: **Solids**
Sampled: **7/11/2023 10:30**

Analytical Method: 8015C GRO **Prep Batch(es):** **V35359** 07/14/23 08:00
Prep Method: 5035 MED

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Gasoline Range Organics (C6-C10)	<2.80	mg/Kg - dry	2.80	6.76	50	07/14/23 15:13	TBL	V35360
Surrogate: a,a,a-Trifluorotoluene	**143 ***		Limits: 50-137%		50	07/14/23 15:13	TBL	8015C GRO

Qualifiers/ Definitions				
	*	Outside QC Limit	DF	Dilution Factor
	I	Recovery out of range	J	Estimated value
	MQL	Method Quantitation Limit		

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Project Grab & Go 12

Information : P-1305

Report Date : 07/18/2023
Received : 07/13/2023

Report Number : **23-194-0006**

REPORT OF ANALYSIS

Lab No : **89432**
Sample ID : **T3-S**

Matrix: **Solids**
Sampled: **7/11/2023 10:40**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Moisture	**23.4**	%			1	07/16/23 02:00	PEB	SW-DRYWT

Qualifiers/ Definitions

*	Outside QC Limit	DF	Dilution Factor
I	Recovery out of range	J	Estimated value
MQL	Method Quantitation Limit		

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Report Date : 07/18/2023
Received : 07/13/2023

Report Number : **23-194-0006**

REPORT OF ANALYSIS

Lab No : **89432**
Sample ID : **T3-S**

Matrix: **Solids**
Sampled: **7/11/2023 10:40**

Analytical Method: 8015C GRO **Prep Batch(es):** **V35359** 07/14/23 08:00
Prep Method: 5035 MED

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Gasoline Range Organics (C6-C10)	**2.92 J**	mg/Kg - dry	2.70	6.53	50	07/14/23 15:41	TBL	V35360
Surrogate: a,a,a-Trifluorotoluene	**139 ***	Limits: 50-137%			50	07/14/23 15:41	TBL	8015C GRO

Qualifiers/ Definitions				
	*	Outside QC Limit	DF	Dilution Factor
	I	Recovery out of range	J	Estimated value
	MQL	Method Quantitation Limit		

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Information : P-1305

Report Date : 07/18/2023
Received : 07/13/2023

Report Number : **23-194-0006**

REPORT OF ANALYSIS

Lab No : **89433**
Sample ID : **D-1**

Matrix: **Solids**
Sampled: **7/12/2023 9:00**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Moisture	**24.7**	%			1	07/16/23 02:00	PEB	SW-DRYWT

Qualifiers/ Definitions

*	Outside QC Limit	DF	Dilution Factor
I	Recovery out of range	J	Estimated value
MQL	Method Quantitation Limit		

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Information : P-1305

Report Date : 07/18/2023
Received : 07/13/2023

Report Number : **23-194-0006**

REPORT OF ANALYSIS

Lab No : **89433**
Sample ID : **D-1**

Matrix: **Solids**
Sampled: **7/12/2023 9:00**

Analytical Method: 8015C DRO **Prep Batch(es):** **V35329** 07/14/23 11:30
Prep Method: 3546

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Diesel Range Organics (C10-C28)	**91.4**	mg/Kg - dry	6.18	13.3	1	07/17/23 11:43	TJW	V35363
Surrogate: OTP Surrogate	53.8	Limits: 31-123%			1	07/17/23 11:43	TJW	8015C DRO

Analytical Method: 8015C GRO **Prep Batch(es):** **V35359** 07/14/23 08:00
Prep Method: 5035 MED

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Gasoline Range Organics (C6-C10)	<2.75	mg/Kg - dry	2.75	6.64	50	07/14/23 16:09	TBL	V35360
Surrogate: a,a,a-Trifluorotoluene	98.8	Limits: 50-137%			50	07/14/23 16:09	TBL	8015C GRO

Qualifiers/ Definitions				
	*	Outside QC Limit	DF	Dilution Factor
	I	Recovery out of range	J	Estimated value
	MQL	Method Quantitation Limit		

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Information : P-1305

Report Date : 07/18/2023
Received : 07/13/2023

Report Number : **23-194-0006**

REPORT OF ANALYSIS

Lab No : **89434**
Sample ID : **D-2**

Matrix: **Solids**
Sampled: **7/12/2023 9:10**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Moisture	**27.9**	%			1	07/16/23 02:00	PEB	SW-DRYWT

Qualifiers/ Definitions				
	*	Outside QC Limit	DF	Dilution Factor
	I	Recovery out of range	J	Estimated value
	MQL	Method Quantitation Limit		

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Information : P-1305

Report Date : 07/18/2023
Received : 07/13/2023

Report Number : **23-194-0006**

REPORT OF ANALYSIS

Lab No : **89434**
Sample ID : **D-2**

Matrix: **Solids**
Sampled: **7/12/2023 9:10**

Analytical Method: 8015C DRO **Prep Batch(es):** **V35329** 07/14/23 11:30
Prep Method: 3546

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Diesel Range Organics (C10-C28)	**3340**	mg/Kg - dry	323	693	50	07/17/23 15:18	TJW	V35363
Surrogate: OTP Surrogate	**I ***		Limits: 31-123%		50	07/17/23 15:18	TJW	8015C DRO

Analytical Method: 8015C GRO **Prep Batch(es):** **V35359** 07/14/23 08:00
Prep Method: 5035 MED

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Gasoline Range Organics (C6-C10)	**42.9**	mg/Kg - dry	2.87	6.93	50	07/14/23 18:29	TBL	V35360
Surrogate: a,a,a-Trifluorotoluene	97.6		Limits: 50-137%		50	07/14/23 18:29	TBL	8015C GRO

Qualifiers/ Definitions				
	*	Outside QC Limit	DF	Dilution Factor
	I	Recovery out of range	J	Estimated value
	MQL	Method Quantitation Limit		

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Information : P-1305

Report Date : 07/18/2023
Received : 07/13/2023

Report Number : **23-194-0006**

REPORT OF ANALYSIS

Lab No : **89435**
Sample ID : **D-3**

Matrix: **Solids**
Sampled: **7/12/2023 9:20**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Moisture	**25.2**	%			1	07/16/23 02:00	PEB	SW-DRYWT

Qualifiers/ Definitions				
	*	Outside QC Limit	DF	Dilution Factor
	I	Recovery out of range	J	Estimated value
	MQL	Method Quantitation Limit		

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Information : P-1305

Report Date : 07/18/2023
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Report Number : **23-194-0006**

REPORT OF ANALYSIS

Lab No : **89435**
Sample ID : **D-3**

Matrix: **Solids**
Sampled: **7/12/2023 9:20**

Analytical Method: 8015C DRO **Prep Batch(es):** **V35329** 07/14/23 11:30
Prep Method: 3546

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Diesel Range Organics (C10-C28)	**94.8**	mg/Kg - dry	6.22	13.4	1	07/17/23 12:26	TJW	V35363
Surrogate: OTP Surrogate	56.2	Limits: 31-123%			1	07/17/23 12:26	TJW	8015C DRO

Analytical Method: 8015C GRO **Prep Batch(es):** **V35359** 07/14/23 08:00
Prep Method: 5035 MED

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Gasoline Range Organics (C6-C10)	<2.77	mg/Kg - dry	2.77	6.68	50	07/14/23 10:05	TBL	V35360
Surrogate: a,a,a-Trifluorotoluene	133	Limits: 50-137%			50	07/14/23 10:05	TBL	8015C GRO

Qualifiers/ Definitions				
	*	Outside QC Limit	DF	Dilution Factor
	I	Recovery out of range	J	Estimated value
	MQL	Method Quantitation Limit		

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Project Grab & Go 12

Information : P-1305

Report Date : 07/18/2023
Received : 07/13/2023

Report Number : **23-194-0006**

REPORT OF ANALYSIS

Lab No : **89436**
Sample ID : **P-1**

Matrix: **Solids**
Sampled: **7/12/2023 9:30**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Moisture	**15.4**	%			1	07/16/23 02:00	PEB	SW-DRYWT

Qualifiers/ Definitions

*	Outside QC Limit	DF	Dilution Factor
I	Recovery out of range	J	Estimated value
MQL	Method Quantitation Limit		

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Project Grab & Go 12
Information : P-1305

Report Date : 07/18/2023
Received : 07/13/2023

Report Number : **23-194-0006**

REPORT OF ANALYSIS

Lab No : **89436**
Sample ID : **P-1**

Matrix: **Solids**
Sampled: **7/12/2023 9:30**

Analytical Method: 8015C DRO **Prep Batch(es):** **V35329** 07/14/23 11:30
Prep Method: 3546

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Diesel Range Organics (C10-C28)	**101**	mg/Kg - dry	5.50	11.8	1	07/17/23 12:48	TJW	V35363
Surrogate: OTP Surrogate	64.7	Limits: 31-123%			1	07/17/23 12:48	TJW	8015C DRO

Analytical Method: 8015C GRO **Prep Batch(es):** **V35359** 07/14/23 08:00
Prep Method: 5035 MED

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Gasoline Range Organics (C6-C10)	<2.45	mg/Kg - dry	2.45	5.91	50	07/14/23 10:33	TBL	V35360
Surrogate: a,a,a-Trifluorotoluene	136	Limits: 50-137%			50	07/14/23 10:33	TBL	8015C GRO

Qualifiers/ Definitions				
	*	Outside QC Limit	DF	Dilution Factor
	I	Recovery out of range	J	Estimated value
	MQL	Method Quantitation Limit		

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Project Grab & Go 12

Information : P-1305

Report Date : 07/18/2023
Received : 07/13/2023

Report Number : **23-194-0006**

REPORT OF ANALYSIS

Lab No : **89437**
Sample ID : **P-2**

Matrix: **Solids**
Sampled: **7/12/2023 9:40**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Moisture	**3.81**	%			1	07/16/23 02:00	PEB	SW-DRYWT

Qualifiers/ Definitions

*	Outside QC Limit	DF	Dilution Factor
I	Recovery out of range	J	Estimated value
MQL	Method Quantitation Limit		

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Project Grab & Go 12
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REPORT OF ANALYSIS

Lab No : **89437**
Sample ID : **P-2**

Matrix: **Solids**
Sampled: **7/12/2023 9:40**

Analytical Method: 8015C DRO **Prep Batch(es):** **V35329** 07/14/23 11:30
Prep Method: 3546

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Diesel Range Organics (C10-C28)	**79.5**	mg/Kg - dry	4.83	10.4	1	07/17/23 13:09	TJW	V35363
Surrogate: OTP Surrogate	61.3	Limits: 31-123%			1	07/17/23 13:09	TJW	8015C DRO

Analytical Method: 8015C GRO **Prep Batch(es):** **V35359** 07/14/23 08:00
Prep Method: 5035 MED

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Gasoline Range Organics (C6-C10)	<2.15	mg/Kg - dry	2.15	5.20	50	07/14/23 11:01	TBL	V35360
Surrogate: a,a,a-Trifluorotoluene	128	Limits: 50-137%			50	07/14/23 11:01	TBL	8015C GRO

Qualifiers/ Definitions				
	*	Outside QC Limit	DF	Dilution Factor
	I	Recovery out of range	J	Estimated value
	MQL	Method Quantitation Limit		

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Project Grab & Go 12

Information : P-1305

Report Date : 07/18/2023
Received : 07/13/2023

Report Number : **23-194-0006**

REPORT OF ANALYSIS

Lab No : **89438**
Sample ID : **P-3**

Matrix: **Solids**
Sampled: **7/12/2023 9:50**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Moisture	**22.6**	%			1	07/16/23 02:00	PEB	SW-DRYWT

Qualifiers/ Definitions

*	Outside QC Limit	DF	Dilution Factor
I	Recovery out of range	J	Estimated value
MQL	Method Quantitation Limit		

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Project Grab & Go 12
Information : P-1305

Report Date : 07/18/2023
Received : 07/13/2023

Report Number : **23-194-0006**

REPORT OF ANALYSIS

Lab No : **89438**
Sample ID : **P-3**

Matrix: **Solids**
Sampled: **7/12/2023 9:50**

Analytical Method: 8015C DRO **Prep Batch(es):** **V35329** 07/14/23 11:30
Prep Method: 3546

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Diesel Range Organics (C10-C28)	**84.6**	mg/Kg - dry	6.01	12.9	1	07/17/23 13:31	TJW	V35363
Surrogate: OTP Surrogate	52.0	Limits: 31-123%			1	07/17/23 13:31	TJW	8015C DRO

Analytical Method: 8015C GRO **Prep Batch(es):** **V35359** 07/14/23 08:00
Prep Method: 5035 MED

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Gasoline Range Organics (C6-C10)	<2.67	mg/Kg - dry	2.67	6.46	50	07/14/23 11:29	TBL	V35360
Surrogate: a,a,a-Trifluorotoluene	114	Limits: 50-137%			50	07/14/23 11:29	TBL	8015C GRO

Qualifiers/ Definitions				
	*	Outside QC Limit	DF	Dilution Factor
	I	Recovery out of range	J	Estimated value
	MQL	Method Quantitation Limit		

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Quality Control Data

Client ID: **Paragon Environmental Consultants, Inc.**
Project Description: **Grab & Go 12**
Report No: **23-194-0006**

QC Prep: V35329
QC Prep Batch Method: 3546
QC Analytical Batch(es): V35363
Analysis Method: 8015C DRO
Analysis Description: Total Petroleum Hydrocarbons - Extractable

Lab Reagent Blank LRB-V35329 Matrix: SOL
Associated Lab Samples: 89433, 89434, 89435, 89436, 89437, 89438

Parameter	Units	Blank Result	MDL	MQL	Analyzed	% Recovery	% Rec Limits
Diesel Range Organics (C10-C28)	mg/Kg	<4.65	4.65	10.0	07/17/23 10:39		
OTP Surrogate (S)					07/17/23 10:39	64.9	31-123

Laboratory Control Sample & LCSD LCS-V35329 LCSD-V35329

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS %Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD
Diesel Range Organics (C10-C28)	mg/Kg	66.7	68.3	70.8	102	106	46-126	3.5	20
OTP Surrogate (S)					66.3	71.2	31-123		

Waypoint ANALYTICAL
449 Springbrook Rd, Charlotte, NC 28217
Main 704.529.6364
www.waypointanalytical.com

Quality Control Data

Client ID: **Paragon Environmental Consultants, Inc.**
Project Description: **Grab & Go 12**
Report No: **23-194-0006**

QC Prep: V35359
QC Prep Batch Method: 5035 MED
QC Analytical Batch(es): V35360
Analysis Method: 8015C GRO
Analysis Description: Total Petroleum Hydrocarbons - Volatile

Lab Reagent Blank LRB-V35359 Matrix: SOL
Associated Lab Samples: 89427, 89428, 89429, 89430, 89431, 89432, 89433, 89434, 89435, 89436, 89437, 89438

Parameter	Units	Blank Result	MDL	MQL	Analyzed	% Recovery	% Rec Limits
Gasoline Range Organics (C6-C10)	mg/Kg	<2.07	2.07	5.00	07/14/23 09:37		
a,a,a-Trifluorotoluene (S)					07/14/23 09:37	119	50-137

Laboratory Control Sample LCS-V35359

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Gasoline Range Organics (C6-C10)	mg/Kg	50.0	56.8	114	41-138
a,a,a-Trifluorotoluene (S)				121	50-137

449 Springbrook Rd, Charlotte, NC 28217
Main 704.529.6364
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Quality Control Data

Client ID: **Paragon Environmental Consultants, Inc.**
Project Description: **Grab & Go 12**
Report No: **23-194-0006**

QC Analytical Batch: V35356
Analysis Method: SW-DRYWT
Analysis Description: Dry Weight Determination

Duplicate V 89425-DUP

Parameter	Units	Result	DUP Result	RPD	Max RPD	Analyzed
Moisture	%	19.1	19.2	0.5	20.0	07/16/23 02:00

Duplicate V 89445-DUP

Parameter	Units	Result	DUP Result	RPD	Max RPD	Analyzed
Moisture	%	32.9	33.2	0.9	20.0	07/16/23 02:00

Waypoint ANALYTICAL
449 Springbrook Rd, Charlotte, NC 28217
Main 704.529.6364
www.waypointanalytical.com

Shipment Receipt Form

Customer Number: **01156**
Customer Name: **Paragon Environmental Consultants, Inc.**
Report Number: **23-194-0006**

Shipping Method

○ Fed Ex	○ US Postal	◉ Lab	○ Other :	
○ UPS	○ Client	○ Courier	Thermometer ID:	

Shipping container/cooler uncompromised?	◉ Yes	○ No	
Number of coolers/boxes received	1		
Custody seals intact on shipping container/cooler?	○ Yes	○ No	◉ Not Present
Custody seals intact on sample bottles?	○ Yes	○ No	◉ Not Present
Chain of Custody (COC) present?	◉ Yes	○ No	
COC agrees with sample label(s)?	◉ Yes	○ No	
COC properly completed	◉ Yes	○ No	
Samples in proper containers?	◉ Yes	○ No	
Sample containers intact?	◉ Yes	○ No	
Sufficient sample volume for indicated test(s)?	◉ Yes	○ No	
All samples received within holding time?	◉ Yes	○ No	
Cooler temperature in compliance?	◉ Yes	○ No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	◉ Yes	○ No	
Water - Sample containers properly preserved	○ Yes	○ No	◉ N/A
Water - VOA vials free of headspace	○ Yes	○ No	◉ N/A
Trip Blanks received with VOAs	○ Yes	○ No	◉ N/A
Soil VOA method 5035 – compliance criteria met	○ Yes	○ No	◉ N/A

☐ High concentration container (48 hr)
☐ Low concentration EnCore samplers (48 hr)
☑ High concentration pre-weighed (methanol -14 d)
☐ Low conc pre-weighed vials (Sod Bis -14 d)

Special precautions or instructions included?	○ Yes	◉ No

Comments:

Signature: Angela D Overcash Date & Time: 07/13/2023 12:01:01

CHAIN OF CUSTODY RECORD

Waypoint ANALYTICAL
449 Springbrook Road • Charlotte, NC 28217
Phone 704/529-6364 • Fax: 704/525-0409

PAGE 1 OF 2 QUOTE # TO ENSURE PROPER BILLING:

Project Name: P-1305
Short Hold Analysis (Yes) (No) UST Project: (Yes) (No)
*Please ATTACH any project specific reporting (QC LEVEL I II III IV) provisions and/or QC Requirements
Invoice To: Paragon
Address:

Client Company Name: PARAGON Environmental Consultants, Inc. P.O. Box 157 Thomasville, NC 27361 (336) 669-6037
Report To/Contact Name:
Reporting Address:

Phone: Fax (Yes)(No):
Email Address: paragoncnv@northstate.net
EDD Type: PDF X Excel Other
Site Location Name: Grab & Go 12
Site Location Physical Address: 1009 Winston Road Lexington, NC 27292

Purchase Order No./Billing Reference
Requested Due Date ❑ 1 Day ❑ 2 Days ❑ 3 Days ❑ 4 Days X 5 Days
"Working Days" ❑ 6-9 Days ❑ Standard 10 days ❑ Rush Work Must Be Pre Approved
Samples received after 15:00 will be processed next business day.
Turnaround time is based on business days, excluding weekends and holidays.
(SEE REVERSE FOR TERMS & CONDITIONS REGARDING SERVICES RENDERED BY WAYPOINT ANALYTICAL, LLC TO CLIENT)

LAB USE ONLY

	YES	NO	N/A
Samples INTACT upon arrival?	X		
Received IN ICE?	X		
PROPER PRESERVATIVES indicated?	X		
Received WITHIN HOLDING TIMES?	X		
CUSTODY SEALS INTACT?			X
VOLATILES rec'd W/OUT HEADSPACE?			X
PROPER CONTAINERS used?	X		

TEMP: Therm ID: IRT-15 Observed 4.9 °C /Corr. 4.9 °C

TO BE FILLED IN BY CLIENT/SAMPLING PERSONNEL
Certification: NC X SC
Other N/A
Water Chlorinated: YES NO
Samples Iced Upon Collection: YES X NO

CLIENT SAMPLE DESCRIPTION	DATE COLLECTED	TIME COLLECTED MILITARY HOURS	MATRIX (SOIL, WATER, OR SLUDGE)	SAMPLE CONTAINER *TYPE SEE BELOW	SAMPLE CONTAINER NO.	SAMPLE CONTAINER SIZE	PRESERVATIVES	ANALYSIS REQUESTED GRO	REMARKS	ID NO.
Tank #1-North (T1-N)	7/11/23	12:50	Soil		3			X		
Tank #1-South (T1-S)	7/11/23	13:00	Soil		3			X		
Tank #2-North (T2-N)	7/11/23	12:00	Soil		3			X		
Tank #2-South (T2-S)	7/11/23	12:10	Soil		3			X		
Tank #3-North (T3-N)	7/11/23	10:30	Soil		3			X		
Tank #3-South (T3-S)	7/11/23	10:40	Soil		3			X		

23-194-0006
01156
07-13-2023
11:59:42
Paragon Environmental Consultants, Inc.
Grab & Go 12

PRESS DOWN FIRMLY - 2 COPIES

Sampler's Signature: Sampled By (Print Name) Benjamin W. Robinson Affiliation

Upon relinquishing, this Chain of Custody is your authorization for Waypoint Analytical to proceed with the analyses as requested above. Any changes must be submitted in writing to the Waypoint Analytical Project Manager. There will be charges for any changes after analyses have been initialized.

		Date	Military/Hours
Relinquished By: (Signature)	Received By: (Signature)	7.13.23	8:53
Relinquished By: (Signature)	Received By: (Signature)	Date	
Relinquished By: (Signature)	Received For Waypoint Analytical By: Cathy Cummings	7.13.23	10:45

Method of Shipment: NOTE: ALL SAMPLE COOLERS SHOULD BE TAPED SHUT WITH CUSTODY SEALS FOR TRANSPORTATION TO THE LABORATORY. SAMPLES ARE NOT ACCEPTED AND VERIFIED AGAINST COC UNTIL RECEIVED AT THE LABORATORY.
COC Group No.

❑ Fed Ex ❑ UPS ❑ Hand-delivered X Waypoint Analytical Field Service ❑ Other

Additional Comments:

LAB USE ONLY
Site Arrival Time:
Site Departure Time:
Field Tech Fee:
Mileage:

SEE REVERSE FOR TERMS & CONDITIONS

NPDES:	UST:	GROUNDWATER:	DRINKING WATER:	SOLID WASTE:	RCRA:	BRWNFLD	LANDFILL	OTHER:
❑ NC ❑ SC	X NC ❑ SC	❑ NC ❑ SC	❑ NC ❑ SC	❑ NC ❑ SC	❑ NC ❑ SC	❑ NC ❑ SC	❑ NC ❑ SC	❑ NC ❑ SC
❑ _____	❑ _____	❑ _____	❑ _____	❑ _____	❑ _____	❑ _____	❑ _____	❑ _____

*CONTAINER TYPE CODES: A = Amber C = Clear G= Glass P = Plastic; TL = Teflon-Lined Cap VOA = Volatile Organics Analysis (Zero Head Space)

ORIGINAL

CHAIN OF CUSTODY RECORD

Waypoint ANALYTICAL
449 Springbrook Road • Charlotte, NC 28217
Phone 704/529-6364 • Fax: 704/525-0409

PAGE 2 OF 2 QUOTE # TO ENSURE PROPER BILLING:

Project Name: P-1305

Short Hold Analysis (Yes) (No) UST Project: (Yes) (No)

*Please ATTACH any project specific reporting (QC LEVEL I II III IV) provisions and/or QC Requirements

Invoice To: Paragon

Address:

Purchase Order No./Billing Reference

Requested Due Date ❑ 1 Day ❑ 2 Days ❑ 3 Days ❑ 4 Days ☒ 5 Days

"Working Days" ❑ 6-9 Days ❑ Standard 10 days ❑ Rush Work Must Be Pre Approved

Samples received after 15:00 will be processed next business day.
Turnaround time is based on business days, excluding weekends and holidays.
(SEE REVERSE FOR TERMS & CONDITIONS REGARDING SERVICES RENDERED BY WAYPOINT ANALYTICAL, LLC TO CLIENT)

Client Company Name: PEI PARAGON Environmental Consultants, Inc. P.O. Box 157 Thomasville, NC 27361 (336) 669-6037

Report To/Contact Name:

Reporting Address:

Phone: Fax (Yes)(No):

Email Address: paragonenv@northstate.net

EDD Type: PDF X Excel Other

Site Location Name: Grab & Go 12

Site Location Physical Address: 1009 Winston Road Lexington, NC 27292

LAB USE ONLY

	YES	NO	N/A
Samples INTACT upon arrival?	X		
Received IN ICE?	X		
PROPER PRESERVATIVES indicated?	X		
Received WITHIN HOLDING TIMES?	X		
CUSTODY SEALS INTACT?			X
VOLATILES rec'd W/OUT HEADSPACE?			X
PROPER CONTAINERS used?	X		

TEMP: Therm ID: IR7-15 Observed 4.9 °C /Corr. 4.9 °C

TO BE FILLED IN BY CLIENT/SAMPLING PERSONNEL

Certification: NC X SC

Other N/A

Water Chlorinated: YES NO

Samples Iced Upon Collection: YES X NO

CLIENT SAMPLE DESCRIPTION	DATE COLLECTED	TIME COLLECTED MILITARY HOURS	MATRIX (SOIL, WATER, OR SLUDGE)	SAMPLE CONTAINER *TYPE SEE BELOW	SAMPLE CONTAINER NO.	SAMPLE CONTAINER SIZE	PRESERVATIVES	ANALYSIS REQUESTED GRO	ANALYSIS REQUESTED DRO	ANALYSIS REQUESTED	ANALYSIS REQUESTED	ANALYSIS REQUESTED	ANALYSIS REQUESTED	REMARKS	ID NO.
Dispenser #1 (D-1)	7/12/23	9:00	Soil		3			X	X						
Dispenser #2 (D-2)	7/12/23	9:16	Soil		3			X	X						
Dispenser #3 (D-3)	7/12/23	9:20	Soil		3			X	X						
Piping #1 (P-1)	7/12/23	9:30	Soil		3			X	X						
Piping #2 (P-2)	7/12/23	9:40	Soil		3			X	X						
Piping #3 (P-3)	7/12/23	9:50	Soil		3			X	X						

23-194-0006
01156
07-13-2023
11:59:42
Paragon Environmental Consultants, Inc.
Grab & Go 12

PRESS DOWN FIRMLY - 2 COPIES

Sampler's Signature: Sampled By (Print Name) Benjamin W. Robinson Affiliation

Upon relinquishing, this Chain of Custody is your authorization for Waypoint Analytical to proceed with the analyses as requested above. Any changes must be submitted in writing to the Waypoint Analytical Project Manager. There will be charges for any changes after analyses have been initialized.

		Date	Military/Hours
Relinquished By: (Signature)	Received By: (Signature)	7.13.23	8:53
Relinquished By: (Signature)	Received By: (Signature)	Date	
Relinquished By: (Signature)	Received For Waypoint Analytical By:	Date 7.13.23	10:45

Additional Comments:

LAB USE ONLY

Site Arrival Time:

Site Departure Time:

Field Tech Fee:

Mileage:

Method of Shipment: NOTE: ALL SAMPLE COOLERS SHOULD BE TAPED SHUT WITH CUSTODY SEALS FOR TRANSPORTATION TO THE LABORATORY. SAMPLES ARE NOT ACCEPTED AND VERIFIED AGAINST COC UNTIL RECEIVED AT THE LABORATORY.

COC Group No.

❑ Fed Ex ❑ UPS ❑ Hand-delivered ☒ Waypoint Analytical Field Service ❑ Other

NPDES:	UST:	GROUNDWATER:	DRINKING WATER:	SOLID WASTE:	RCRA:	BRWNFLD	LANDFILL	OTHER:
❑ NC ❑ SC	☒ NC ❑ SC	❑ NC ❑ SC	❑ NC ❑ SC	❑ NC ❑ SC	❑ NC ❑ SC	❑ NC ❑ SC	❑ NC ❑ SC	❑ NC ❑ SC
❑ _____	❑ _____	❑ _____	❑ _____	❑ _____	❑ _____	❑ _____	❑ _____	❑ _____

*CONTAINER TYPE CODES: A = Amber C = Clear G= Glass P = Plastic; TL = Teflon-Lined Cap VOA = Volatile Organics Analysis (Zero Head Space)

SEE REVERSE FOR TERMS & CONDITIONS

ORIGINAL

APPENDIX E

CHAIN-OF-CUSTODY RECORDS

CHAIN OF CUSTODY RECORD

Waypoint ANALYTICAL
449 Springbrook Road • Charlotte, NC 28217
Phone 704/529-6364 • Fax: 704/525-0409

PAGE 1 OF 1 QUOTE # TO ENSURE PROPER BILLING:

Project Name: P-1305
Short Hold Analysis (Yes) (No) UST Project: (Yes) (No)
*Please ATTACH any project specific reporting (QC LEVEL I II III IV) provisions and/or QC Requirements
Invoice To: Paragon
Address:

Client Company Name: PARAGON Environmental Consultants, Inc. P.O. Box 157 Thomasville, NC 27361 (336) 669-6037
Report To/Contact Name:
Reporting Address:

Phone: Fax (Yes)(No):
Email Address: paragonenv@northstate.net
EDD Type: PDF X Excel Other
Site Location Name: Grab & Go 12
Site Location Physical Address: 1009 Winston Road Lexington, NC 27292

Purchase Order No./Billing Reference
Requested Due Date ❑ 1 Day ❑ 2 Days ❑ 3 Days ❑ 4 Days ☒ 5 Days
"Working Days" ❑ 6-9 Days ❑ Standard 10 days ❑ Rush Work Must Be Pre Approved
Samples received after 15:00 will be processed next business day.
Turnaround time is based on business days, excluding weekends and holidays.
(SEE REVERSE FOR TERMS & CONDITIONS REGARDING SERVICES RENDERED BY WAYPOINT ANALYTICAL, LLC TO CLIENT)

LAB USE ONLY

	YES	NO	N/A
Samples INTACT upon arrival?	X		
Received IN ICE?	X		
PROPER PRESERVATIVES indicated?	X		
Received WITHIN HOLDING TIMES?	X		
CUSTODY SEALS INTACT?			X
VOLATILES rec'd W/OUT HEADSPACE?			X
PROPER CONTAINERS used?	X		

TEMP: Therm ID: IR-15 Observed 1.7 °C /Corr. 1.7 °C

TO BE FILLED IN BY CLIENT/SAMPLING PERSONNEL
Certification: NC X SC
Other N/A
Water Chlorinated: YES NO
Samples Iced Upon Collection: YES X NO

CLIENT SAMPLE DESCRIPTION	DATE COLLECTED	TIME COLLECTED MILITARY HOURS	MATRIX (SOIL, WATER, OR SLUDGE)	SAMPLE CONTAINER *TYPE SEE BELOW	SAMPLE CONTAINER NO.	SAMPLE CONTAINER SIZE	PRESERVATIVES	ANALYSIS REQUESTED GRO	ANALYSIS REQUESTED DRO	REMARKS	ID NO.
Tank #4-North (T4-N)	7/10/23	15:30	Soil		3			X	X		
Tank #4-South (T4-S)	7/10/23	15:45	Soil		3			X	X		
Tank #5-North (T5-N)	7/10/23	13:45	Soil		3			X	X		
Tank #5-South (T5-S)	7/10/23	14:00	Soil		3			X	X		

23-192-0004
01156
07-11-2023
11:47:38
Paragon Environmental Consultants, Inc.
Grab & Go 12

PRESS DOWN FIRMLY - 2 COPIES

Sampler's Signature: Sampled By (Print Name) Benjamin W. Robinson Affiliation

Upon relinquishing, this Chain of Custody is your authorization for Waypoint Analytical to proceed with the analyses as requested above. Any changes must be submitted in writing to the Waypoint Analytical Project Manager. There will be charges for any changes after analyses have been initialized.

		Date	Military/Hours
Relinquished By: (Signature)	Received By: (Signature)	7.11.23	9:15
Relinquished By: (Signature)	Received By: (Signature)	Date	
Relinquished By: (Signature)	Received For Waypoint Analytical By: Caitlyn Cummings	7.11.23	11:20

Additional Comments:

LAB USE ONLY
Site Arrival Time:
Site Departure Time:
Field Tech Fee:
Mileage:

Method of Shipment: NOTE: ALL SAMPLE COOLERS SHOULD BE TAPED SHUT WITH CUSTODY SEALS FOR TRANSPORTATION TO THE LABORATORY. SAMPLES ARE NOT ACCEPTED AND VERIFIED AGAINST COC UNTIL RECEIVED AT THE LABORATORY.
COC Group No.

❑ Fed Ex ❑ UPS ❑ Hand-delivered ☒ Waypoint Analytical Field Service ❑ Other

NPDES:	UST:	GROUNDWATER:	DRINKING WATER:	SOLID WASTE:	RCRA:	BRWNFLD	LANDFILL	OTHER:
❑ NC ❑ SC	☒ NC ❑ SC	❑ NC ❑ SC	❑ NC ❑ SC	❑ NC ❑ SC	❑ NC ❑ SC	❑ NC ❑ SC	❑ NC ❑ SC	❑ NC ❑ SC
❑	❑	❑	❑	❑	❑	❑	❑	❑

*CONTAINER TYPE CODES: A = Amber C = Clear G= Glass P = Plastic; TL = Teflon-Lined Cap VOA = Volatile Organics Analysis (Zero Head Space)

SEE REVERSE FOR TERMS & CONDITIONS

ORIGINAL

CHAIN OF CUSTODY RECORD

Waypoint ANALYTICAL
449 Springbrook Road • Charlotte, NC 28217
Phone 704/529-6364 • Fax: 704/525-0409

PAGE 1 OF 2 QUOTE # TO ENSURE PROPER BILLING:

Project Name: P-1305
Short Hold Analysis (Yes) (No) UST Project: (Yes) (No)
*Please ATTACH any project specific reporting (QC LEVEL I II III IV) provisions and/or QC Requirements
Invoice To: Paragon
Address:

Client Company Name: PARAGON Environmental Consultants, Inc. P.O. Box 157 Thomasville, NC 27361 (336) 669-6037
Report To/Contact Name:
Reporting Address:

Phone: Fax (Yes)(No):
Email Address: paragoncnv@northstate.net
EDD Type: PDF X Excel Other
Site Location Name: Grab & Go 12
Site Location Physical Address: 1009 Winston Road Lexington, NC 27292

Purchase Order No./Billing Reference
Requested Due Date ❑ 1 Day ❑ 2 Days ❑ 3 Days ❑ 4 Days X 5 Days
"Working Days" ❑ 6-9 Days ❑ Standard 10 days ❑ Rush Work Must Be Pre Approved
Samples received after 15:00 will be processed next business day.
Turnaround time is based on business days, excluding weekends and holidays.
(SEE REVERSE FOR TERMS & CONDITIONS REGARDING SERVICES RENDERED BY WAYPOINT ANALYTICAL, LLC TO CLIENT)

LAB USE ONLY

	YES	NO	N/A
Samples INTACT upon arrival?	X		
Received IN ICE?	X		
PROPER PRESERVATIVES indicated?	X		
Received WITHIN HOLDING TIMES?	X		
CUSTODY SEALS INTACT?			X
VOLATILES rec'd W/OUT HEADSPACE?			X
PROPER CONTAINERS used?	X		

TEMP: Therm ID: IRT-15 Observed 4.9 °C /Corr. 4.9 °C

TO BE FILLED IN BY CLIENT/SAMPLING PERSONNEL
Certification: NC X SC
Other N/A
Water Chlorinated: YES NO
Samples Iced Upon Collection: YES X NO

CLIENT SAMPLE DESCRIPTION	DATE COLLECTED	TIME COLLECTED MILITARY HOURS	MATRIX (SOIL, WATER, OR SLUDGE)	SAMPLE CONTAINER *TYPE SEE BELOW	SAMPLE CONTAINER NO.	SAMPLE CONTAINER SIZE	PRESERVATIVES	ANALYSIS REQUESTED GRO	REMARKS	ID NO.
Tank #1-North (T1-N)	7/11/23	12:50	Soil		3			X		
Tank #1-South (T1-S)	7/11/23	13:00	Soil		3			X		
Tank #2-North (T2-N)	7/11/23	12:00	Soil		3			X		
Tank #2-South (T2-S)	7/11/23	12:10	Soil		3			X		
Tank #3-North (T3-N)	7/11/23	10:30	Soil		3			X		
Tank #3-South (T3-S)	7/11/23	10:40	Soil		3			X		

23-194-0006
01156
07-13-2023
11:59:42
Paragon Environmental Consultants, Inc.
Grab & Go 12

PRESS DOWN FIRMLY - 2 COPIES

Sampler's Signature: Sampled By (Print Name) Benjamin W. Robinson Affiliation

Upon relinquishing, this Chain of Custody is your authorization for Waypoint Analytical to proceed with the analyses as requested above. Any changes must be submitted in writing to the Waypoint Analytical Project Manager. There will be charges for any changes after analyses have been initialized.

		Date	Military/Hours
Relinquished By: (Signature)	Received By: (Signature)	7.13.23	8:53
Relinquished By: (Signature)	Received By: (Signature)	Date	
Relinquished By: (Signature)	Received For Waypoint Analytical By: Cathy Cummings	7.13.23	10:45

Method of Shipment: NOTE: ALL SAMPLE COOLERS SHOULD BE TAPED SHUT WITH CUSTODY SEALS FOR TRANSPORTATION TO THE LABORATORY. SAMPLES ARE NOT ACCEPTED AND VERIFIED AGAINST COC UNTIL RECEIVED AT THE LABORATORY.
COC Group No.

❑ Fed Ex ❑ UPS ❑ Hand-delivered X Waypoint Analytical Field Service ❑ Other

Additional Comments:

LAB USE ONLY
Site Arrival Time:
Site Departure Time:
Field Tech Fee:
Mileage:

SEE REVERSE FOR TERMS & CONDITIONS

NPDES:	UST:	GROUNDWATER:	DRINKING WATER:	SOLID WASTE:	RCRA:	BRWNFLD	LANDFILL	OTHER:
❑ NC ❑ SC	X NC ❑ SC	❑ NC ❑ SC	❑ NC ❑ SC	❑ NC ❑ SC	❑ NC ❑ SC	❑ NC ❑ SC	❑ NC ❑ SC	❑ NC ❑ SC
❑ _____	❑ _____	❑ _____	❑ _____	❑ _____	❑ _____	❑ _____	❑ _____	❑ _____

*CONTAINER TYPE CODES: A = Amber C = Clear G= Glass P = Plastic; TL = Teflon-Lined Cap VOA = Volatile Organics Analysis (Zero Head Space)

ORIGINAL

CHAIN OF CUSTODY RECORD

Waypoint ANALYTICAL
449 Springbrook Road • Charlotte, NC 28217
Phone 704/529-6364 • Fax: 704/525-0409

PAGE 2 OF 2 QUOTE # TO ENSURE PROPER BILLING:

Project Name: P-1305

Short Hold Analysis (Yes) (No) UST Project: (Yes) (No)

*Please ATTACH any project specific reporting (QC LEVEL I II III IV) provisions and/or QC Requirements

Invoice To: Paragon

Address:

Purchase Order No./Billing Reference

Requested Due Date ❑ 1 Day ❑ 2 Days ❑ 3 Days ❑ 4 Days ☒ 5 Days

"Working Days" ❑ 6-9 Days ❑ Standard 10 days ❑ Rush Work Must Be Pre Approved

Samples received after 15:00 will be processed next business day.
Turnaround time is based on business days, excluding weekends and holidays.
(SEE REVERSE FOR TERMS & CONDITIONS REGARDING SERVICES RENDERED BY WAYPOINT ANALYTICAL, LLC TO CLIENT)

Client Company Name: PEI PARAGON Environmental Consultants, Inc. P.O. Box 157 Thomasville, NC 27361 (336) 669-6037

Report To/Contact Name:

Reporting Address:

Phone: Fax (Yes)(No):

Email Address: paragonenv@northstate.net

EDD Type: PDF X Excel Other

Site Location Name: Grab & Go 12

Site Location Physical Address: 1009 Winston Road Lexington, NC 27292

LAB USE ONLY

	YES	NO	N/A
Samples INTACT upon arrival?	X		
Received IN ICE?	X		
PROPER PRESERVATIVES indicated?	X		
Received WITHIN HOLDING TIMES?	X		
CUSTODY SEALS INTACT?			X
VOLATILES rec'd W/OUT HEADSPACE?			X
PROPER CONTAINERS used?	X		

TEMP: Therm ID: IR7-15 Observed 4.9 °C /Corr. 4.9 °C

TO BE FILLED IN BY CLIENT/SAMPLING PERSONNEL

Certification: NC X SC

Other N/A

Water Chlorinated: YES NO

Samples Iced Upon Collection: YES X NO

CLIENT SAMPLE DESCRIPTION	DATE COLLECTED	TIME COLLECTED MILITARY HOURS	MATRIX (SOIL, WATER, OR SLUDGE)	SAMPLE CONTAINER *TYPE SEE BELOW	SAMPLE CONTAINER NO.	SAMPLE CONTAINER SIZE	PRESERVATIVES	ANALYSIS REQUESTED GRO	ANALYSIS REQUESTED DRO	ANALYSIS REQUESTED	ANALYSIS REQUESTED	ANALYSIS REQUESTED	ANALYSIS REQUESTED	REMARKS	ID NO.
Dispenser #1 (D-1)	7/12/23	9:00	Soil		3			X	X						
Dispenser #2 (D-2)	7/12/23	9:16	Soil		3			X	X						
Dispenser #3 (D-3)	7/12/23	9:20	Soil		3			X	X						
Piping #1 (P-1)	7/12/23	9:30	Soil		3			X	X						
Piping #2 (P-2)	7/12/23	9:40	Soil		3			X	X						
Piping #3 (P-3)	7/12/23	9:50	Soil		3			X	X						

23-194-0006
01156
07-13-2023
11:59:42
Paragon Environmental Consultants, Inc.
Grab & Go 12

PRESS DOWN FIRMLY - 2 COPIES

Sampler's Signature: Sampled By (Print Name) Benjamin W. Robinson Affiliation

Upon relinquishing, this Chain of Custody is your authorization for Waypoint Analytical to proceed with the analyses as requested above. Any changes must be submitted in writing to the Waypoint Analytical Project Manager. There will be charges for any changes after analyses have been initialized.

		Date	Military/Hours
Relinquished By: (Signature)	Received By: (Signature)	7.13.23	8:53
Relinquished By: (Signature)	Received By: (Signature)	Date	
Relinquished By: (Signature)	Received For Waypoint Analytical By:	Date 7.13.23	10:45

Additional Comments:

LAB USE ONLY

Site Arrival Time:

Site Departure Time:

Field Tech Fee:

Mileage:

Method of Shipment: NOTE: ALL SAMPLE COOLERS SHOULD BE TAPED SHUT WITH CUSTODY SEALS FOR TRANSPORTATION TO THE LABORATORY. SAMPLES ARE NOT ACCEPTED AND VERIFIED AGAINST COC UNTIL RECEIVED AT THE LABORATORY.

COC Group No.

❑ Fed Ex ❑ UPS ❑ Hand-delivered ☒ Waypoint Analytical Field Service ❑ Other

NPDES:	UST:	GROUNDWATER:	DRINKING WATER:	SOLID WASTE:	RCRA:	BRWNFLD	LANDFILL	OTHER:
❑ NC ❑ SC	☒ NC ❑ SC	❑ NC ❑ SC	❑ NC ❑ SC	❑ NC ❑ SC	❑ NC ❑ SC	❑ NC ❑ SC	❑ NC ❑ SC	❑ NC ❑ SC
❑ _____	❑ _____	❑ _____	❑ _____	❑ _____	❑ _____	❑ _____	❑ _____	❑ _____

*CONTAINER TYPE CODES: A = Amber C = Clear G= Glass P = Plastic; TL = Teflon-Lined Cap VOA = Volatile Organics Analysis (Zero Head Space)

SEE REVERSE FOR TERMS & CONDITIONS

ORIGINAL