

PRELIMINARY SITE ASSESSMENT

**PARCEL #22, LEGION ROAD AUTO
3911 LEGION ROAD, HOPE MILLS, NORTH CAROLINA**

**FAYETTEVILLE – SR 1132 (LEGION ROAD) FROM SR 1363 (ELK ROAD)
TO SR 1007 (OWEN ROAD)
CUMBERLAND COUNTY, NORTH CAROLINA**

**NCDOT WBS ELEMENT 34865.2.3
STATE PROJECT U-2809B**

December 20, 2010

Prepared for:

**Ethan J. Caldwell, L.G., P. E.
North Carolina Department of Transportation
Geotechnical Engineering Unit
GeoEnvironmental Section
1589 Mail Service Center
Raleigh, North Carolina 27699-1589**

Prepared by:

**Kleinfelder Southeast, Inc.
313 Gallimore Dairy Road
Greensboro, North Carolina 27409**

Kleinfelder Project No. 113754

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PROJECT FOR WHICH THIS REPORT WAS PREPARED.**



December 20, 2010
File No. 113754 | GSO10R251

Ethan J. Caldwell, L.G., P. E.
North Carolina Department of Transportation
1589 Mail Service Center
Raleigh, North Carolina 27699-1589

Reference: **Preliminary Site Assessment**
WBS Element No. 34865.2.3, State Project U-2809B
Parcel # 22, Legion Road Auto
3911 Legion Road, Hope Mills
Cumberland County, North Carolina

Dear Mr. Caldwell:

Please find enclosed a report summarizing the sampling activities for the preliminary site assessment conducted at the referenced site. Laboratory analysis of soil samples collected at the site did not detect petroleum hydrocarbon concentrations above the method detection limits of the laboratory methods. This report summarizes our field activities, results, laboratory report, and conclusions.

Should questions arise or additional information be required, please contact the undersigned.

Sincerely,

Kleinfelder Southeast, Inc.



Peter F. Pozzo, L.G.
Staff Professional II



John M. Stewart, L.G.
Senior Professional

PPF/JMS:cas
Enclosure

PRELIMINARY SITE ASSESSMENT

Site Name and Location: Parcel #22, Legion Road Auto
3911 Legion Road
Hope Mills, Cumberland County, North
Carolina

Latitude and Longitude: 34° 59' 16" N, 78° 55' 30" W

Facility ID Number: 0-002401

Incident Number: 11933

Property Owner: Theodore P. Melvin III DBA Legion
3911 Legion Road
Hope Mills, North Carolina 28348

UST Owner Mid State Oil Co.
1820 South main Street
Lexington, North Carolina 27293

NCDOT Project No.: NCDOT WBS Element 34865.2.3
State Project U-2809B

Date of Report: December 20, 2010

Consultant: Kleinfelder
313 Gallimore Dairy Road
Greensboro, North Carolina 27409
Attn: Mr. John M. Stewart
Phone: 336.668.0093 X115

Seal and Signature of Certifying Licensed Geologist

I, John M. Stewart, a Licensed Geologist for Kleinfelder Southeast, Inc., do certify that the information contained in this report is correct and accurate to the best of my knowledge.

John M. Stewart, L.G.
NC License No. 1046

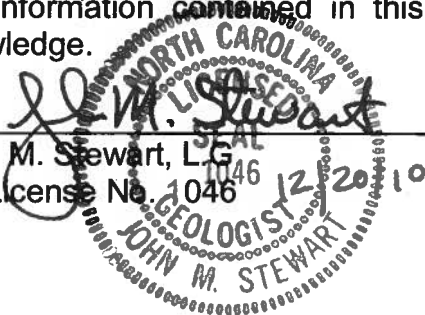


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1.0 INTRODUCTION

Kleinfelder Southeast, Inc. (Kleinfelder) has prepared this Preliminary Site Assessment (PSA) report documenting assessment activities performed at the Theodore Melvin property (Parcel 22) located at 3911 Legion Road (formerly 3220 Legion Road) in Hope Mills, Cumberland County, North Carolina (Figure 1). This assessment was conducted on behalf of the North Carolina Department of Transportation (NCDOT) in accordance with Kleinfelder's October 7, 2010 proposal.

NCDOT is proposing to widen SR 1132 (Legion Road) from SR 1363 (Elk Road) to SR 1007 (Owen Road). The proposed right-of-way/easement is located along the west side of the Theodore Melvin property (Figure 2). There is concern that contaminated soils could be encountered during the construction activities at this site.

The purpose of this assessment was to determine the presence or absence of impacted soil at the subject property in proposed right-of-way construction areas related to the widening of SR 1132 (Legion Road) from SR 1363 (Elk Road) to SR 1007 (Owen Road).

1.1 Site Description

The proposed right-of-way/easement is located along west side of the property owned by Theodore P. Melvin III, dba Legion Road Auto and at the time of our site reconnaissance, this parcel was occupied by Legion Road Auto. The building on the property was reportedly used as an auto repair shop. A building was located at the rear (east side) of the property. Site photographs are shown in Appendix A.

1.2 Site Location

The store is located in the northeast corner of the intersection of Legion Road and Mantis Street. A residence is located north of the property and residences are located east of the property. Legion Road and a sports bar and farm equipment store are located west of the property and a convenience store is located south of the property.

1.3 NCDENR File Review

Kleinfelder reviewed incident files at the North Carolina Department of Environment and Natural Resources (NDENR) Fayetteville Regional Office. The site was originally occupied by Legion Road Sunoco (facility ID No. 0-002401). Three underground storage tanks (USTs) were used on-site. The USTs consisted of a 4,000-gallon UST used to store unleaded gasoline, a 1,000-gallon UST used to store used oil, and a 550-gallon UST used to store fuel oil. The gasoline UST was reportedly located in the northwest corner of the property, the waste oil UST was located north of the building, and the heating oil UST was located behind the rear of the building (east side). Two gasoline dispensers were located under the canopy in front of the building. A hydraulic lift was located in the left side (north) of the building. The USTs were removed between May 7 and 13, 1993. Holes were reported in the gasoline and fuel oil USTs. Analysis of soil samples collected beneath the USTs detected petroleum hydrocarbons above the state's action in the samples collected beneath the fuel oil UST. Analysis of a water sample collected from the fuel oil UST excavation detected a number of hydrocarbons above the state's groundwater quality standard (15 A NCAC 2L Section 0.202).

Subsequent to the UST removals, a groundwater investigation was conducted which resulted in the installation of six monitoring wells. Low concentrations of petroleum and chlorinated hydrocarbons were detected in the samples collected from the wells. Analysis of samples collected from wells located near the existing right-of way, MW-4, MW-10, and MW-11, contained low concentrations of chloroform and tetrachloroethene (PCE) between June 2001 and December 2001.

On March 13, 2006, the UST Section issued a No Further Action letter for the soil contamination associated with the fuel oil UST; however, the groundwater incident associated with the chlorinated hydrocarbons is still open. The incident has been

turned over to the Dry Cleaning Solvent Clean-up Section. Copies of reports and coorespondence in the NCDER are included in Appendix B.

2.0 SITE ASSESSMENT

2.1 Geophysical Investigation

Pyramid Environmental & Engineering, P.C (Pyramid) conducted a geophysical investigation of the proposed right-of-way/easement on the west side of the property on October 22, 2010. Pyramid utilized electromagnetic (EM) induction technology to identify potential geophysical anomalies and potential USTs at the site. On October 29, 2010, Pyramid conducted a ground penetrating radar (GPR) survey of several magnetic anomalies identified during the EM survey. A more detailed description of their scope of work is explained in their Geophysical Investigation Report included in Appendix C. Prior to drilling the soil borings, buried utilities were marked by NC One Call and Northstate Utility Locating, Inc. (Northstate).

2.2 Soil Sampling

To determine if contaminated soil may be encountered during the proposed construction activities, soil samples were collected along the west side of the property. A Kleinfelder geologist and direct push rig crew met at the property on November 18, 2010. Kleinfelder advanced three soil borings (SS-4 to SS-6) by direct push technology (DPT). The approximate location of the borings is shown on Figure 3.

Soil borings were advanced to a depth of six feet below the ground surface (bgs). The borings were located along the proposed right-of-way/easement. Soil samples were collected by driving a macrocore sampler in 4-foot intervals in each boring. Each 4-foot sample sleeve was divided in half and screened for volatile organic compounds in the field using a MiniRae 2000 photoionization detectors (PID). In each boring, the soil interval with the highest PID reading was collected for laboratory analysis. If no organic vapors were detected, the sample collected from the bottom of the boring was submitted for analysis. The PID readings are summarized in Table 1. Copies of the boring logs are included in Appendix D.

Prior to the initial boring and after each subsequent boring, the sampling equipment was decontaminated. The soil samples collected for laboratory analysis were analyzed for total petroleum hydrocarbons (TPH) similar to diesel and gasoline (DRO/GRO) using EPA Method 8015B following 3550 and 5035 preparation and for volatile hydrocarbons (VOCs) using EPA Method 8260. All soil samples were placed into laboratory provided jars, labeled, and maintained on ice until delivered to SGS, a NCDOT contract laboratory for chemical analysis.

3.0 RESULTS

3.1 Geophysical Investigation

Pyramid's results indicate that the GPR and EM investigation did not detect unknown metallic USTs within the survey area. Pyramid's report is included in Appendix C.

3.2 Soil Sample

Diesel range organics (DRO), gasoline range organics (GRO), and volatile organic hydrocarbons were not detected at concentrations above the method detection limits in the soil samples. The laboratory results are summarized in Table 2 and on Figure 3. The laboratory report and associated chain-of-custody document are included in Appendix E.

4.0 CONCLUSIONS

Based on results of the laboratory analysis and field observations, Kleinfelder has the following conclusions:

- ◆ Groundwater was encountered at a depth of six feet; and
- ◆ TPH and VOCs were not detected in the soil samples at concentrations above the method detection limits.

5.0 RECOMMENDATIONS

Groundwater samples were not collected from borings drilled along the proposed right-of way/easement; however, analysis of samples collected from monitoring wells installed in this area in the late 1990s and early 2000s, detected low concentrations of chlorinated hydrocarbons. The source of the chlorinated hydrocarbons is unknown, but possibly from releases from the used oil tank. Should construction activities extend down more than 2.13 feet (shallowest depth to groundwater measured), impacted soil will likely be encountered. The area of potential contamination extends approximately 100 feet along the frontage of the property by 40 feet wide (Figure 4). The volume of soil which could be encountered below a depth of 2 feet is approximately 600 cubic yards (100 feet long by 40 feet wide by 4 feet thick). Impacted soil will need to be stockpiled and sampled prior to offsite disposal.

6.0 LIMITATIONS

Our work has been performed in a manner consistent with that level of care and skill ordinarily exercised by other members of Kleinfelder's profession practicing in the same locality, under similar conditions and at the date the services were provided. Our conclusions, opinions and recommendations are 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.

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TABLES

TABLE 1: SOIL SAMPLE PID RESULTS

SAMPLE LOCATION	DEPTH (feet bgs)	PID READINGS
SS-4	0.0 - 2.0	3.9
	2.0 - 4.0	2.3
	4.0 - 6.0	NR
SS-5	0.0 - 2.0	2.3
	2.0 - 4.0	4.2
	4.0 - 6.0	NR
SS-6	0.0 - 2.0	4.2
	2.0 - 4.0	1.1
	4.0 - 6.0	NR

Notes:

Samples were collected on November 18, 2010.

Readings reported in parts per million

feet bgs = feet below ground surface

Bold = Selected for laboratory analysis

NR = Not recored

TABLE 2: SOIL SAMPLE ANALYTICAL SUMMARY

SAMPLE ID	COLLECTION DATE	DRO	GRO	METHOD 8260
SS-4 2.0 ft	11/18/2010	BQL	BQL	*BQL
SS-5 4.0 ft	11/18/2010	BQL	BQL	*BQL
SS-6 2.0 ft	11/18/2010	BQL	BQL	*BQL
State Action Level		10	10	Varies

Notes:

Sample collection depth is indicated in Sample ID, following sequential soil sample number

Results presented in milligrams per kilogram, analogous to parts per million

DRO = Diesel Range Organics

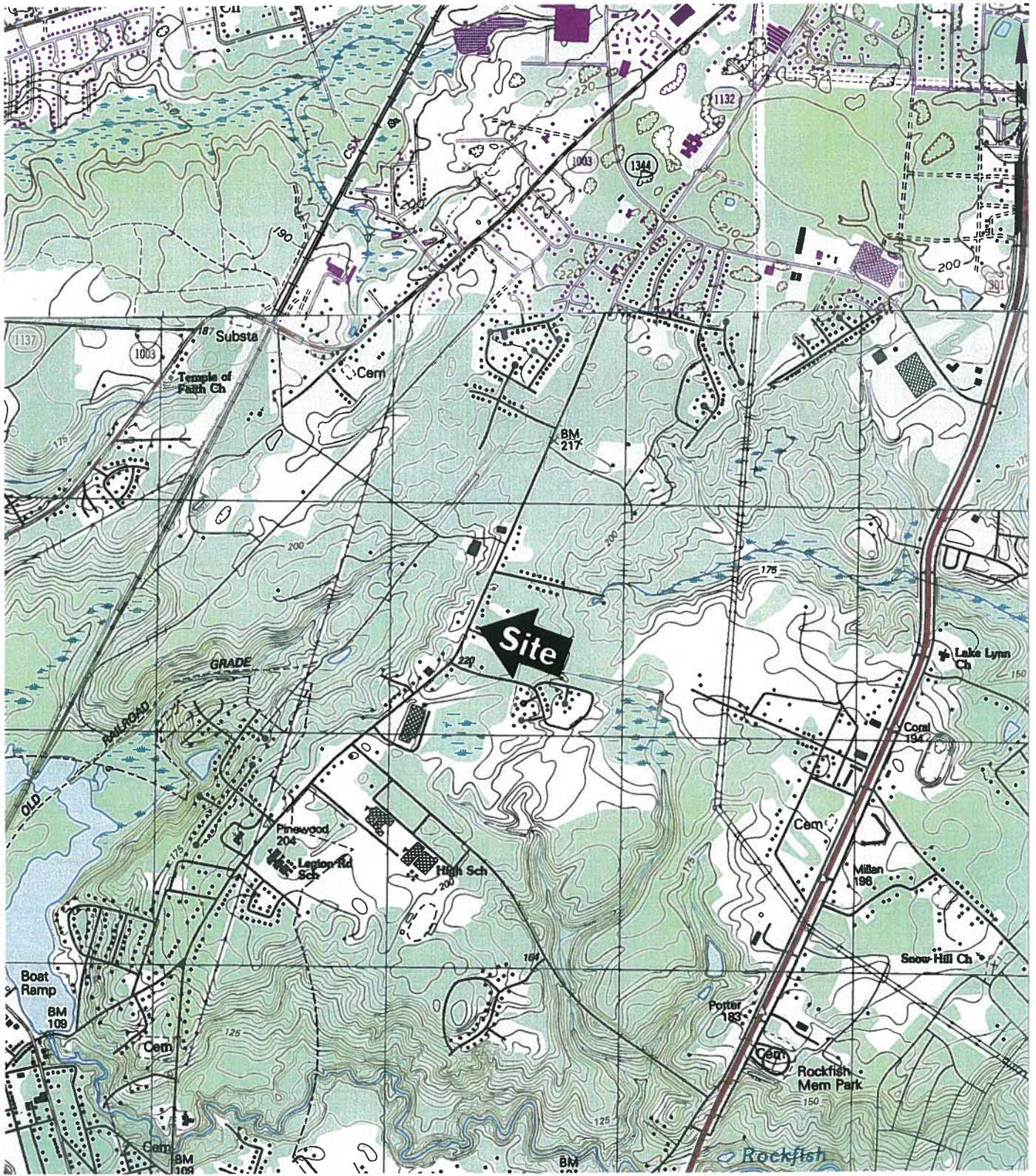
GRO = Gasoline Range Organics

BQL = Below quantitation limit

Bold denotes concentration exceeds the State Action Level

*BQL = 8260 Method deliverable compounds

FIGURES



www.kleinfelder.com

**FIGURE 1
SITE LOCATION MAP**

**PARCEL # 22, LEGION ROAD AUTO
3911 LEGION ROAD
CUMBERLAND COUNTY, NORTH CAROLINA**

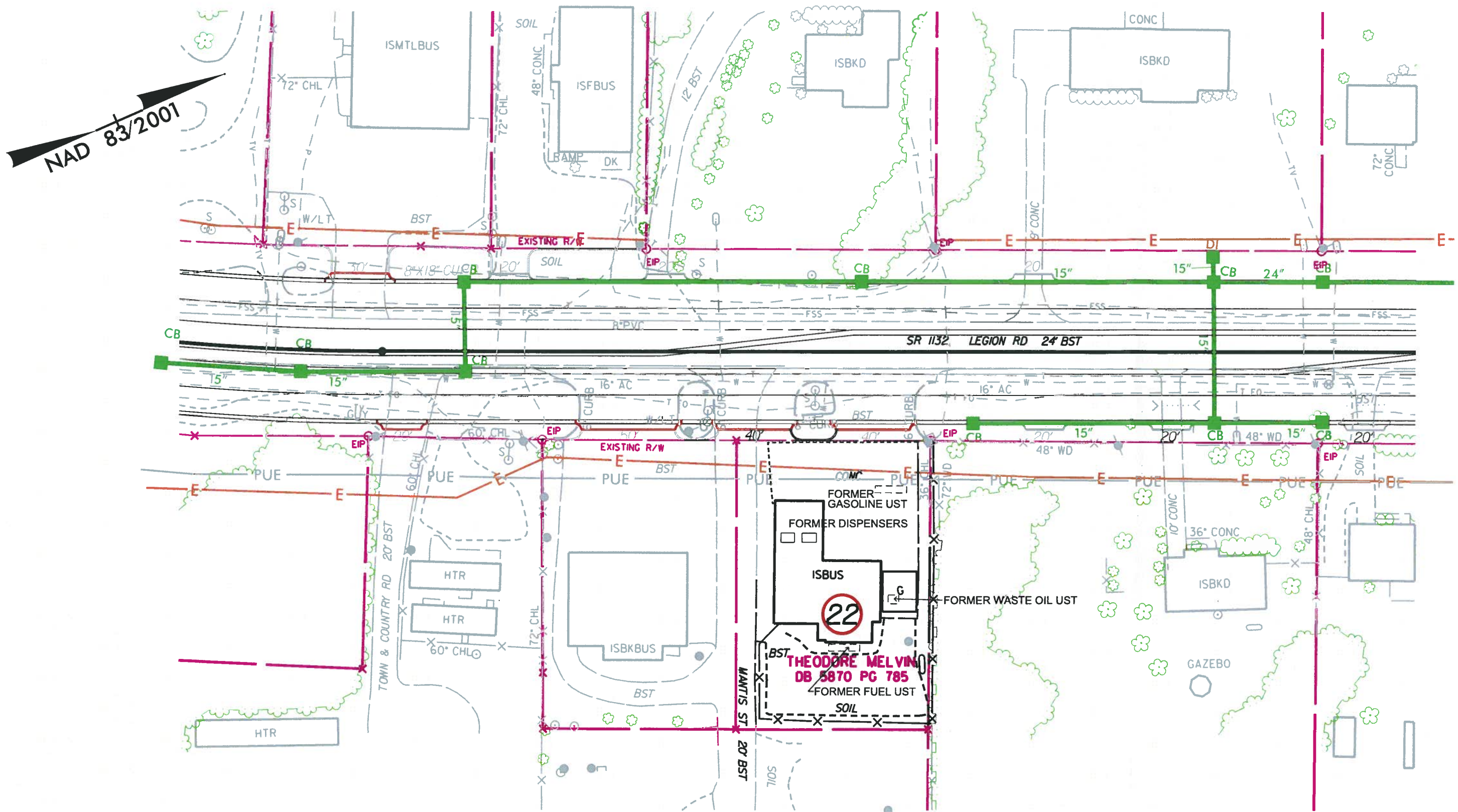
DATE: December 17, 2010

APPROVED
BY: *JMS*

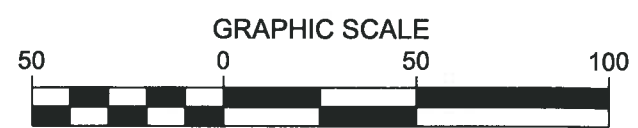
SCALE: 1" to 24,000'

SOURCE: USGS 7.5' Topographic Map,
Fayetteville & Hope Mills Quadrangle

PROJECT NO. 113754

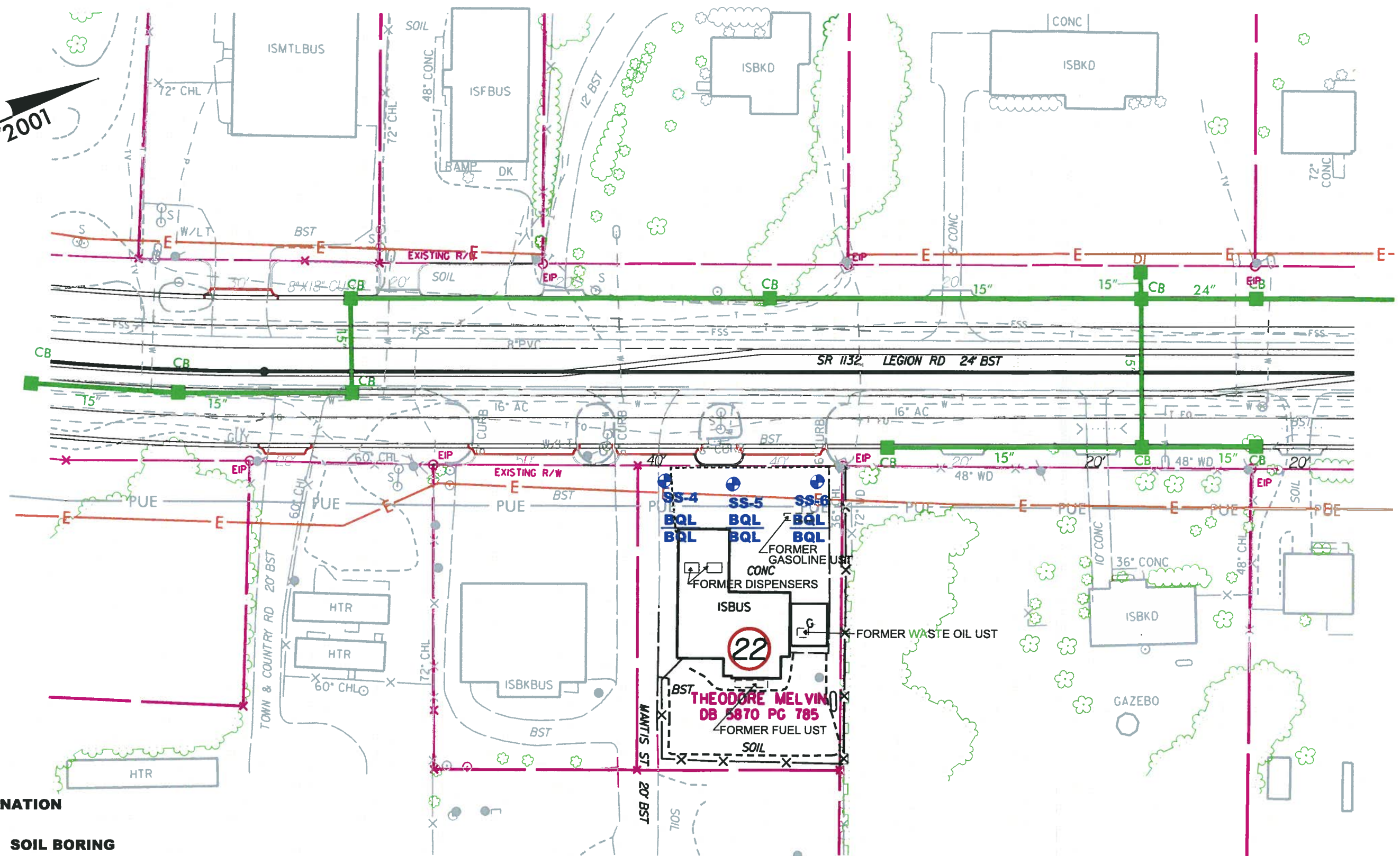
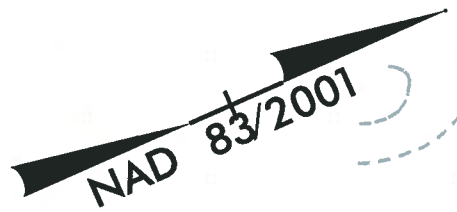


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PROJECT NO.	113754	SITE MAP	
DRAWN:	11/24/2010	PARCEL #22	
DRAWN BY:	DJH	THEODORE MELVIN	
CHECKED BY:	JMS	3911 LEGION ROAD	
SCALE:	1" = 50'	TIP NO.	U-2809B
		WBS ELEMENT NO.	34865.2.3
		CUMBERLAND COUNTY NORTH CAROLINA	

FIGURE:
2



EXPLANATION

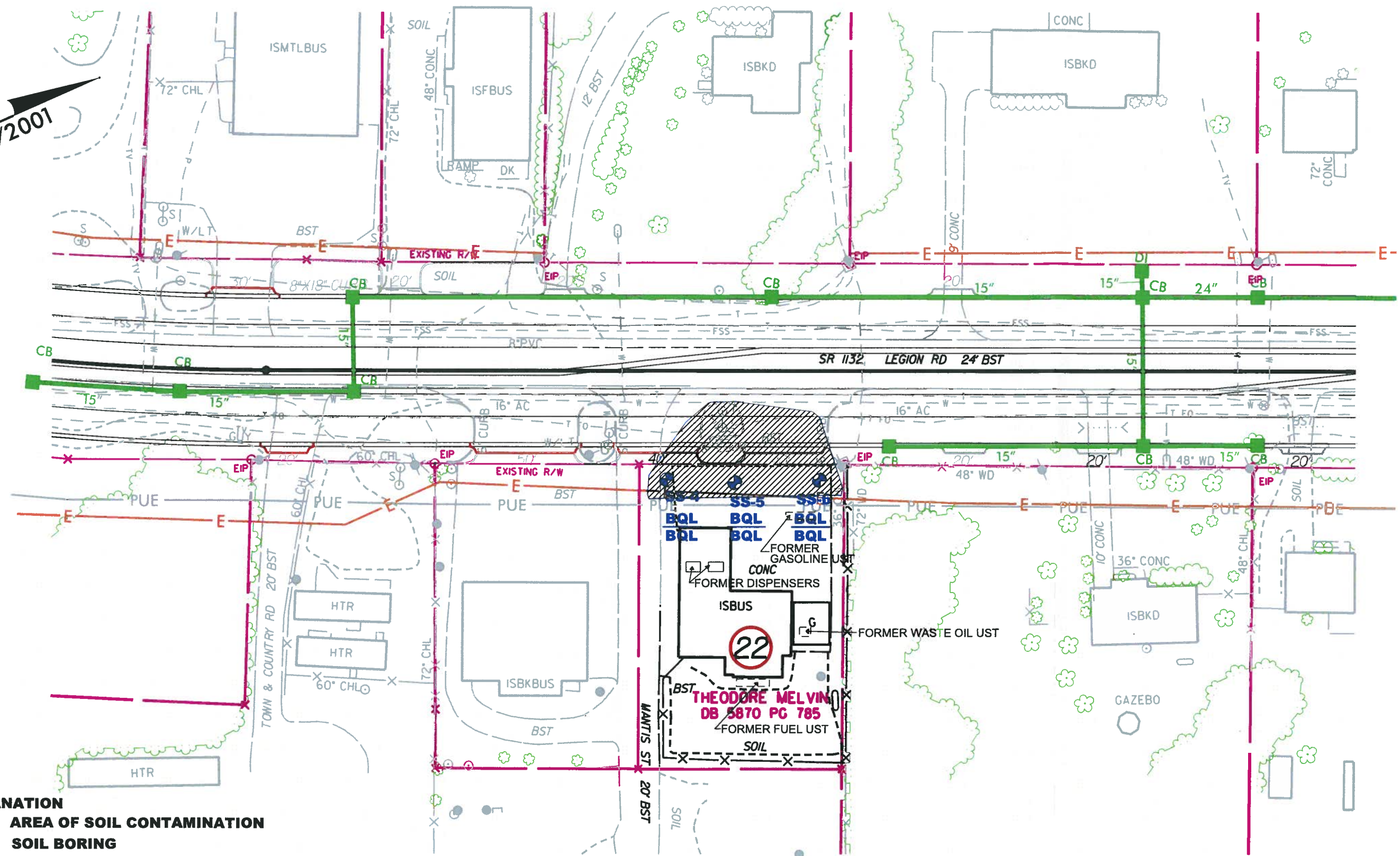
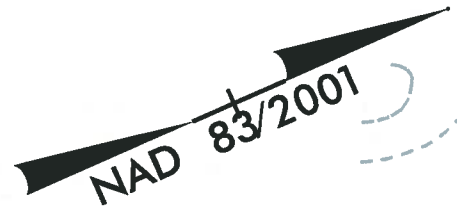
- SS-1 SOIL BORING
- BQL GRO IN PPM
- BQL DRO

**NOTE: BRL - BELOW QUANTITATION LIMIT
GRO - GASOLINE RANGE ORGANICS
DRO - DIESEL RANGE ORGANICS**

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PROJECT NO.	113754	BORING LOCATION MAP		FIGURE: 3	
DRAWN:	11/24/2010				
DRAWN BY:	DJH	PARCEL #22 THEODORE MELVIN 3911 LEGION ROAD			
CHECKED BY:	JMS				
SCALE:	1" = 50'	TIP NO.	U-2809B	WBS ELEMENT NO.	34865.2.3
		CUMBERLAND COUNTY NORTH CAROLINA			



EXPLANATION

AREA OF SOIL CONTAMINATION

SOIL BORING

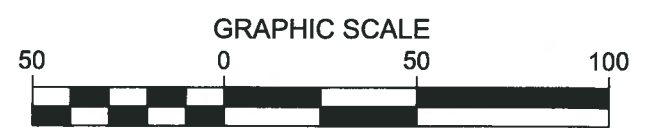
BQL

GRO IN PPM

DRO

NOTE: BRL - BELOW QUANTITATION LIMIT
GRO - GASOLINE RANGE ORGANICS
DRO - DIESEL RANGE ORGANICS

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PROJECT NO.	113754	EXTENT OF SOIL CONTAMINATION		FIGURE: 4	
DRAWN:	11/24/2010	PARCEL #22			
DRAWN BY:	DJH	THEODORE MELVIN			
CHECKED BY:	JMS	3911 LEGION ROAD			
SCALE:	1" = 50'	TIP NO.	U-2809B	WBS ELEMENT NO.	34865.2.3
		CUMBERLAND COUNTY NORTH CAROLINA			

APPENDIX A

**SITE PHOTOGRAPHS
KLEINFELDER PROJECT NO. 113754
PARCEL NO. 22 LEGION ROAD AUTO PROPERTY**



Photograph 1 – View looking north from parcel #19



Photograph 2 – View looking north. Two soil samples were collected from below the concrete pad and one was collected south of the concrete pad below the asphalt.

APPENDIX B

I. INTRODUCTION

This is the Tank Excavation Assessment Report for the closure of three (3) underground storage tanks (USTs) at Legion Road Sunoco in Hope Mills, North Carolina. This site, and the USTs, are owned by Mid-State Oil Company and is operated as a retail facility.

The site is located along Legion Road in Hope Mills. The property consists of a retail fueling facility and is primarily covered by asphalt. The property is relatively flat, as is the regional topography.

The adjacent property owners consist primarily of residential occupants. Other UST facilities are located within 1500 feet of the site. All properties in the area are served by public water supply.

A Preliminary Site Assessment has been performed at this site by Law Engineering, under contract with Sun Oil Company, Inc., due to a pending property transfer.

II. EXCAVATION PROCESS

The removal of the USTs was conducted by Jerry Kelly, Inc., of Elizabeth City, North Carolina, on May 7 and May 13, 1993. The excavations were conducted using a rubber tire backhoe.

After removing the asphalt and topsoil layers on top of the USTs, the contractor then began removing the native sand backfill from around the USTs. The backfill material that was removed was stockpiled along the east side of the excavations. After sufficient quantities of the backfill material were removed, the fill pipes, vent lines, and drain lines were disconnected from the USTs, and they were lifted from the excavations by placing a chain through the lifting eye in the top of each tank.

After the USTs were removed, the remaining backfill material was moved within the excavations to allow soil samples to be taken in the native soil beneath the USTs. Upon completion of the sampling, the excavations were backfilled with the soil from the stockpile and clean sand.

III. TANK CONDITION

One (1) 4,000 gallon single-wall steel UST, used to store Unleaded gasoline, was removed from the excavation along the front of the building. One (1) 1,000 gallon single-wall steel UST, used to store Used oil, was removed from the excavation along the north side of the building. One (1) 550 gallon single-wall steel UST, used to store Fuel oil, was removed from the excavation along the rear of the building. The orientation of the USTs is shown in Figure 2.

The 4,000 gallon and 550 gallon USTs contained numerous 1/4" holes along their bottoms. The 1,000 gallon UST appeared to be in good condition. Once the condition was assessed, the USTs were loaded onto a flatbed truck and taken to Jerry Kelly, Inc. property, in Elizabeth City, for disposal.

Groundwater was encountered in the Used oil UST excavation at a depth of approximately 7 feet below ground surface. Throughout the entire removal process, no releases were noted from the USTs.

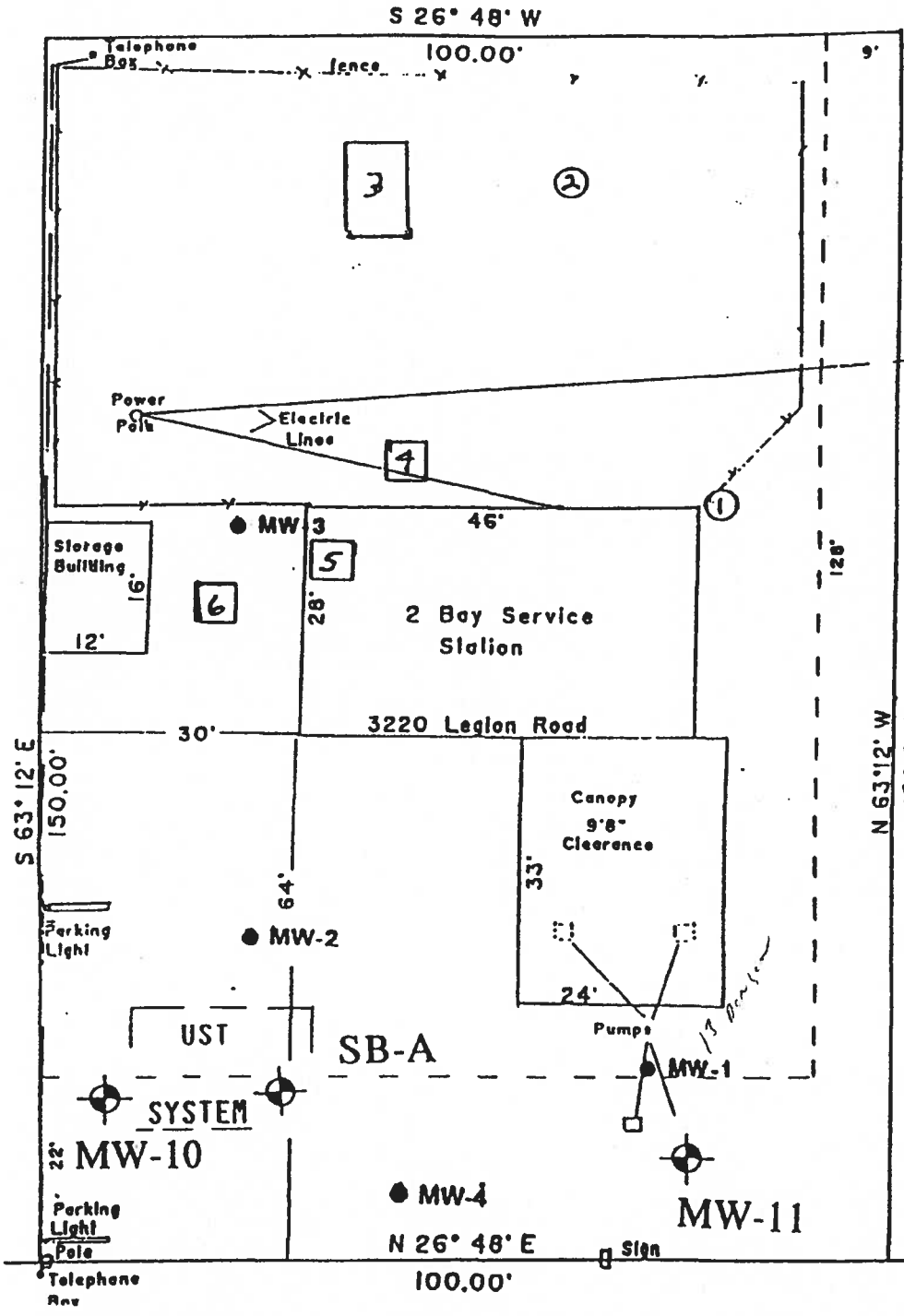
IV. SAMPLE COLLECTION PROCESS

During the UST removal, the backfill and native soils from the excavations were collected and screened in accordance with NC DEM guidelines. Each sample was collected using a clean, stainless steel sampling spoon and split evenly to perform photoionization screening with an HNU hydrocarbon sensor, while the other half was preserved for possible analytical testing.

The soil samples retrieved from the backhoe bucket were visually inspected by a field technician. The samples to be scanned with the HNU hydrocarbon sensor were placed in glass jars to approximately one-half full and covered with aluminum foil for sealing purposes. The jars were then placed out of direct sunlight for approximately twenty (20) minutes to allow the soil vapors time to reach equilibrium. After sufficient time had elapsed, the probe of the HNU sensor was inserted into the head space of each jar and the vapor concentration was measured and recorded. The results of this scanning are contained in Table 1.

Upon completion of the field scanning, soil samples were taken from two (2) feet below the USTs, in native soil, per NC DEM protocol. A groundwater sample was also taken from the Used oil UST excavation per NC DEM protocol. All of the samples were placed into separate glass jars, with Teflon-lined screw-on lids, using a clean sampling spoon. These jars were then placed on ice in an insulated cooler and shipped to REIC Laboratory, in Beaver, West Virginia, on May 10 and May 17, 1993.

The soil samples were tested using EPA methods 5030, 3550, 9071, and 8021, while the water sample was tested using EPA methods 502.2, 625, and 3030C. The results of the laboratory analyses are shown in Tables 2 and 3, while the exact sampling locations are shown in Figure 3.

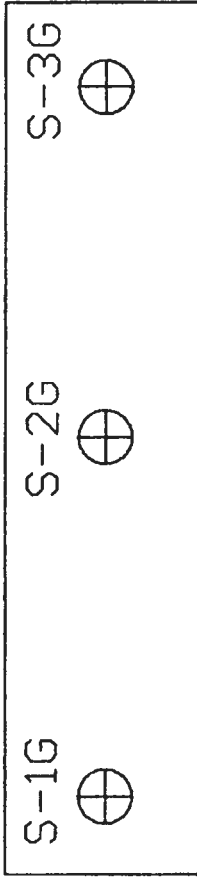
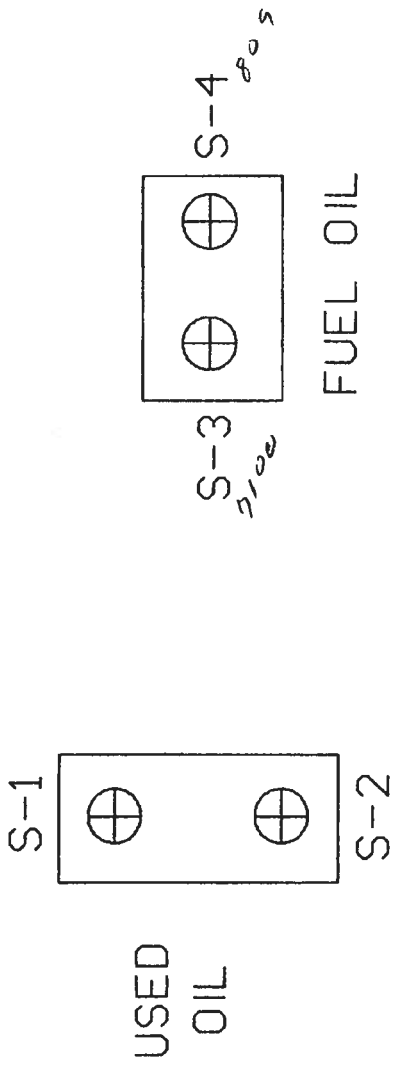


- LEGEND**
- MW-1 MONITORING WELL LOCATION
 - ① FORMER BAY DRAIN SEPTIC TANK
 - ② EXISTING BAY DRAIN SEPTIC TANK
 - ③ SEPTIC TANK DRAIN FIELD
 - ④ HEATING OIL UST
 - ⑤ HYDRAULIC LIFT OIL AST
 - ⑥ WASTE OIL UST

MONITOR WELLS INSTALLED BY ESCM -

Mid-State Petroleum, Inc. 1820 S. Main St. - Lexington, NC 27292	FACILITY BASE MAP	Facility: Legion Road Sunoco
Location: 3220 Legion Road - Hope Mills, NC	Drawn by: Walter O'Niell - June 1993	Scale: 1 inch = 20 feet
ESCM & Associates, Inc. 394 S. Milledge Ave. - Athens, GA 30604	Reference: Law Engineering; Divestment Contamination Report, Figure 3 - January 1993.	FIGURE 1

FIGURE 2



SAMPLING MAP		JOB NUMBER GESOHMPL	
LEGION ROAD SUNOCO		DRAWN: WRB CHECKED: WWC	FIGURE NUMBER 3
3220 LEGION ROAD HOPE MILLS, NC		DATE: 8/25/93	

TABLE 1
SOIL SCANNING RESULTS (ppm)
LEGION ROAD SUNOCO

SAMPLE #	DEPTH (in.)	RESULTS
S-1	90	0
S-2	90	0
S-3	96	10.4
S-4	96	9.4
S-1G	120	0
S-2G	120	1.4
S-3G	120	140

TABLE 2
 SOIL ANALYTICAL RESULTS (ppm)
 LEGION ROAD SUNOCO

SAMPLE #	DATE	DEPTH (in.)	EPA METHOD	RESULTS
S-1	5/7	90	9071	ND
			8021	ND
S-2	5/7	90	9071	ND
			8021	ND
S-3	5/7	96	5030	2300
			3550	4800
S-4	5/7	96	5030	370
			3550	439
S-1G	5/13	120	5030	ND
S-2G	5/13	120	5030	ND
S-3G	5/13	120	5030	ND

MQL - Minimum Quantifying Level
 ND - None Detected at MQL
 EPA 5030 - MQL is 5 ppm
 EPA 3550 - MQL is 10 ppm
 EPA 9071 - MQL is 10 ppm
 EPA 8021 - MQL is 0.002 ppm

TABLE 3
GROUNDWATER ANALYTICAL RESULTS (ppb)
LEGION ROAD SUNOCO

SAMPLE #	DATE	EPA METHOD	CONSTITUENT	RESULTS
W-1	5/7	502.2	Benzene	13
			Toluene	58
			Ethylbenzene	41
			Xylene	238
			All Others	ND
		625	Naphthalene	1050
			Anthracene	665
			All Others	ND
		3030C	Cadmium	2
			Chromium	19
			Lead	43
			All Others	ND

MQL - Minimum Quantitative Limit (as shown on laboratory report)
 ND - None Detected at MQL



**Groundwater
& Environmental Services of North Carolina, Inc.**

One North Commerce Center • 5293 Capital Boulevard • Raleigh, North Carolina 27616 • (919) 954-0111 • (919) 878-1666

OCT 14 2005

October 13, 2005

Attn: Mr. James Brown
North Carolina Department of Environment and Natural Resources
Division of Water Quality – Groundwater Section
Fayetteville Regional Office
Systel Building
225 Green Street, Suite 714
Fayetteville, North Carolina 28301

**Re: Sunoco Station (former)
3911 Legion Road
Hope Mills, NC
Facility DUNS #30275-7573
Incident #11933**

Dear Mr. Brown:

Groundwater and Environmental Services, Inc. (GES), on behalf of our client, Sunoco, Inc. is pleased to present this letter with the results of the most recent groundwater sampling event at the above referenced site. As requested and approved by the North Carolina Department of Environment and Natural Resources, (NCDENR) Fayetteville Regional Office, monitoring wells MW-1 and MW-3 were gauged, purged, and sampled on April 14, 2005. Groundwater samples were collected and analyzed using EPA Method 601/602. A site map, a summary of historical groundwater analytical results, and the laboratory analytical report for the April 14, 2005 monitoring event are attached.

The results with regards to the April 14, 2005 groundwater monitoring event are as follows:

- MW-1 had a detection of chloroform (2.5 ug/L) that is significantly below North Carolina 2L Standard of 70 ug/L; and had a detection of methyl tert-butyl ether (4.3 ug/L) which is significantly below North Carolina 2L Standard of 200 ug/L.
- MW-3 had a detection of tetrachloroethene (2.9 ug/L) that is above the North Carolina 2L Standard of 0.7 ug/L.

A comparison of the 2005 analytical results to the NCAC 2L Standards for constituents detected by EPA Method 601/602 indicate that with the exception tetrachloroethene, groundwater concentrations are below the 2L Standards. The tetrachloroethene in the groundwater is not a result of Sunoco's activities as the site. Sunoco respectfully requests that this site be closed in the underground storage tank section.

Mr. James Brown
October 13, 2005
Page 2 of 2



If you have any questions regarding this site please do not hesitate to contact me at 919-954-0111.

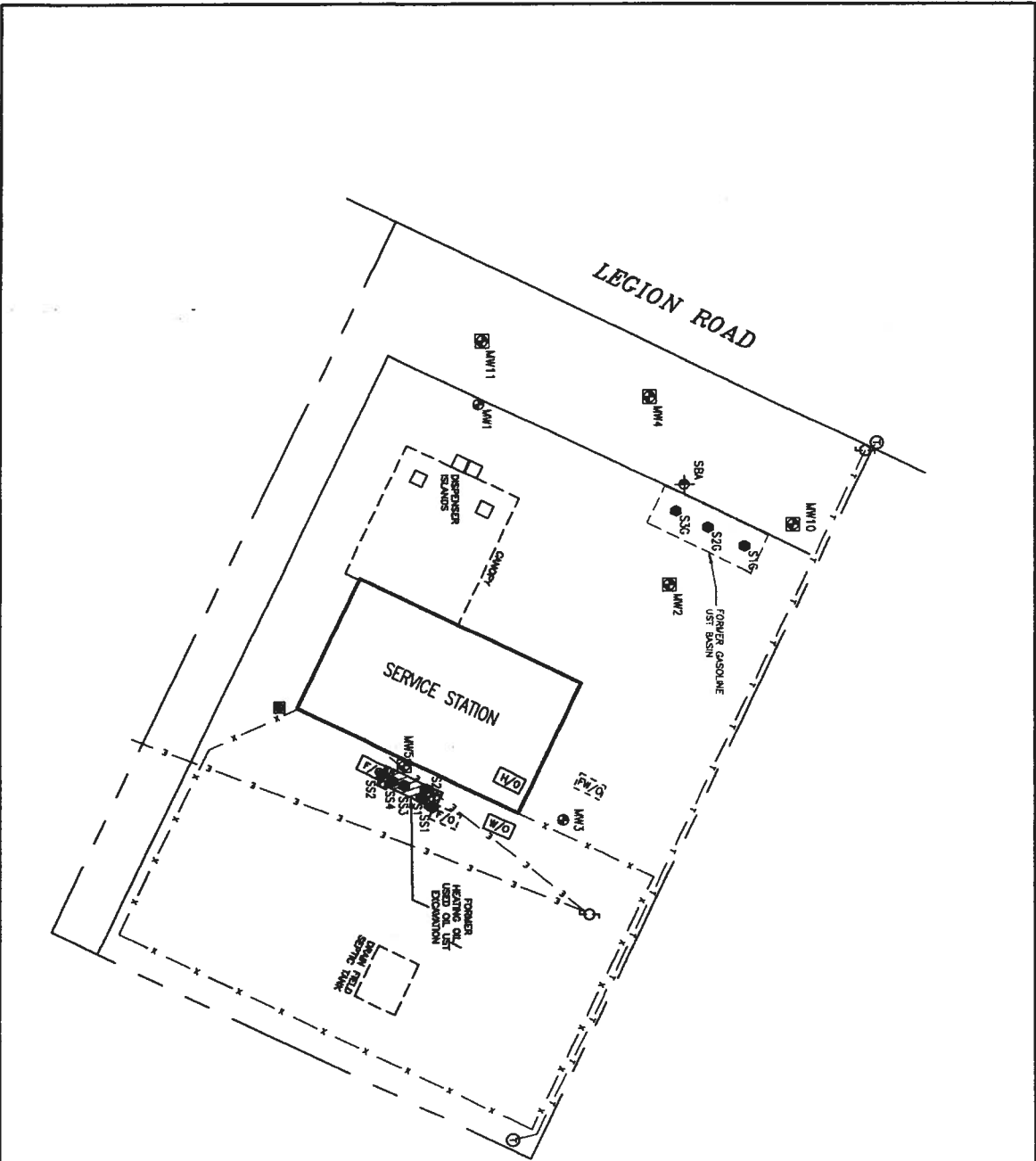
Sincerely,
Groundwater and Environmental Services of North Carolina, Inc.

A handwritten signature in black ink, appearing to read 'Eli Holland', written over a horizontal line.

Eli Holland
Project Geologist

Attachments:
Site Map
Historical Groundwater Analytical Results
April 14, 2005 Laboratory Analytical Results

cc: Mr. Mike Byrne – Sunoco, Inc.
File



LEGEND

- FORMER WASTE OIL UST BASIN
- WASTE OIL AST
- HEATING OIL UST
- HEATING OIL AST
- OIL AST-HYDRAULIC LIFT
- FENCE LINE
- FORMER BAY DRAIN FOR SEPTIC TANK
- TELEPHONE UTILITY BOX
- UTILITY POLE
- MONITORING WELL
- DESTROYED MONITORING WELL
- ELECTRIC LINES
- TELEPHONE LINES
- SOIL BORING LOCATION
- SOIL SAMPLE LOCATION
- ADDITIONAL EXCAVATION CONDUCTED BY IT CORPORATION



<p>DATE: 12-17-04</p> <p>SCALE: 1" = 20'</p> <p>FIGURE: 1</p>	<p>REVISIONS:</p> <p>NO. 1: 12-17-04</p>	<p>PROJECT:</p> <p>SUNOCO SERVICE STATION</p> <p>3911 LEGION ROAD</p> <p>HOPE MILLS, NORTH CAROLINA</p>	<p>CLIENT:</p> <p>Groundwater & Environmental Services, Inc.</p> <p>ONE NORTH COMMERCE CENTER, 5203 CAPITAL BLVD., RALEIGH, NC 27616</p>
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TABLE 2

Summary of Historical Groundwater Analytical Results (ug/L)
EPA Method 601/Metals(3030c)

Former Sunoco Station
3911 Legion Road, Hope Mills, NC
Sunoco Facility DUNS # 0275-7573
NCDENR Groundwater Incident No. 11933

Well ID	Sampling Date	Chloroform	1,1,1-Trichloroethane	Tetrachloroethene	Cadmium	Chromium	Lead
*North Carolina 2L Standards		*(0.00019 ug/L)	*(200 ug/L)	*(0.7 ug/L)	*(5 ug/L)	*(50 ug/L)	*(15 ug/L)
VV-1	05/07/93	ND	ND	ND	2	19	43
MW-1	01/24/95	2.9	ND	ND	NA	NA	NA
	11/11/96	2.2	ND	2.1	NA	NA	NA
	04/28/99	NS	NS	NS	NA	NA	NA
	12/09/99	NS	NS	NS	NS	NS	NS
	03/03/00	NS	NS	NS	NS	NS	NS
	06/13/00	NS	NS	NS	NS	NS	NS
	09/22/00	NS	NS	NS	NS	NS	NS
	12/19/00	NS	NS	NS	NS	NS	NS
	03/30/01	ND	ND	ND	NA	NA	NA
	06/30/01	ND	ND	ND	NA	NA	NA
	10/03/01	ND	ND	ND	NA	NA	NA
12/28/01	ND	ND	ND	NA	NA	NA	
MW-2	01/24/95	3.0	1.2	ND	NA	NA	NA
	11/11/96	3.9	ND	1.4	NA	NA	NA
	04/28/99	1.2	ND	ND	NA	NA	NA
	12/09/99	---	---	---	---	---	---
	12/22/99	ND	ND	8.0	NA	NA	NA
	03/03/00	ND	ND	3.0	NA	NA	NA
	06/13/00	ND	ND	8.0	NA	NA	NA
	09/22/00	ND	ND	4.6	NA	NA	NA
	12/19/00	ND	ND	1.9	NA	NA	NA
	03/30/01	1.4	ND	2.2	NA	NA	NA
	06/30/01	1.2	ND	3.9	NA	NA	NA
10/03/01	1.0	ND	3.1	NA	NA	NA	
12/28/01	ND	ND	4.1	NA	NA	NA	
MW-3	01/24/95	ND	ND	3.3	NA	NA	NA
	11/11/96	ND	ND	ND	NA	NA	NA
	04/28/99	ND	ND	2.8	NA	NA	NA
	12/22/99	NS	NS	NS	NS	NS	NS
	03/03/00	ND	ND	17.9	NA	NA	NA
	06/13/00	1.4	ND	ND	NA	NA	NA
	09/22/00	ND	ND	2.0	NA	NA	NA
	12/19/00	ND	ND	2.5	NA	NA	NA
	03/30/01	3.8	ND	ND	NA	NA	NA
	06/30/01	2.0	ND	ND	NA	NA	NA
	10/03/01	ND	ND	ND	NA	NA	NA
12/28/01	ND	ND	ND	NA	NA	NA	
MW-4	01/24/95	3.4	ND	ND	NA	NA	NA
	11/11/96	3.7	ND	ND	NA	NA	NA
	04/28/99	NS	NS	NS	NS	NS	NS
	12/09/99	NS	NS	NS	NS	NS	NS
	03/03/00	NS	NS	NS	NS	NS	NS
	06/13/00	NS	NS	NS	NS	NS	NS
	09/22/00	NS	NS	NS	NS	NS	NS
	12/19/00	NS	NS	NS	NS	NS	NS
	03/30/01	2.9	ND	ND	NA	NA	NA
	06/30/01	2.6	ND	ND	NA	NA	NA
	**10/3/2001	ND	ND	ND	NA	NA	NA
12/28/01	1.2	ND	ND	NA	NA	NA	

TABLE 2

Summary of Historical Groundwater Analytical Results (ug/L)
EPA Method 601/Metals(3030c)

Former Sunoco Station
3911 Legion Road, Hope Mills, NC
Sunoco Facility DUNS # 0275-7573
NCDENR Groundwater Incident No. 11933

Well ID	Sampling Date	Chloroform	1,1,1-Trichloro-ethane	Tetrachloro-ethene	Cadmium	Chromium	Lead
*North Carolina 2L Standards		*(0.00019 ug/L)	*(200 ug/L)	*(0.7 ug/L)	*(5 ug/L)	*(50 ug/L)	*(15 ug/L)
MW-5	10/03/94	2.9	6.9	15	NA	NA	NA
	01/24/95	4.6	1.7	9.0	NA	NA	NA
	11/11/98	1.5	ND	4.0	NA	NA	NA
	04/28/99	ND	ND	1.3	NA	NA	NA
	12/09/99	ND	ND	ND	NA	NA	NA
	03/03/00	NS	NS	NS	NS	NS	NS
	06/13/00	NS	NS	NS	NS	NS	NS
	09/22/00	NS	NS	NS	NS	NS	NS
	12/19/00	NS	NS	NS	NS	NS	NS
	03/30/01	1.2	ND	1.3	NA	NA	NA
	06/30/01	ND	ND	1.4	NA	NA	NA
	10/03/01	ND	ND	ND	NA	NA	NA
	****1/8/2002	ND	ND	1.8	NA	NA	NA
MW-10	01/24/95	2.0	ND	ND	NA	NA	NA
	04/28/99	NS	NS	NS	NA	NA	NA
	12/09/99	NS	NS	NS	NS	NS	NS
	03/03/00	NS	NS	NS	NS	NS	NS
	06/13/00	NS	NS	NS	NS	NS	NS
	09/22/00	NS	NS	NS	NS	NS	NS
	12/19/00	NS	NS	NS	NS	NS	NS
	03/30/01	1.2	ND	4.1	NA	NA	NA
	06/30/01	1.3	ND	3.4	NA	NA	NA
	**10/3/2001	ND	ND	1.5	NA	NA	NA
	****1/8/2002	ND	ND	1.2	NA	NA	NA
MW-11	01/24/95	1.6	ND	ND	NA	NA	NA
	11/11/98	2.3	ND	ND	NA	NA	NA
	04/28/99	NS	NS	NS	NA	NA	NA
	12/09/99	NS	NS	NS	NS	NS	NS
	03/03/00	NS	NS	NS	NS	NS	NS
	06/13/00	NS	NS	NS	NS	NS	NS
	09/22/00	NS	NS	NS	NS	NS	NS
	12/19/00	NS	NS	NS	NS	NS	NS
	03/30/01	2.7	ND	ND	NA	NA	NA
	06/30/01	ND	ND	ND	NA	NA	NA
	10/03/01	ND	ND	ND	NA	NA	NA
	12/28/01	ND	ND	ND	NA	NA	NA

Notes:

*North Carolina Administrative Code Subchapter 2L Groundwater Standard

** The samples collected from MW-4 and MW-10 on 10/03/01 contained Dichlorodifluoromethane at level of 1.2 ug/L and 1.2 ug/L, respectively. This is below the North Carolina Groundwater Quality 2L Standard of 1.4 ug/L.

***Broken laboratory containers

**** Samples collected on December 28, 2001 broke in transit and the wells had to be resampled on January 8, 2002.

ug/L - Micrograms per Liter

NS - Not Sampled

ND - Not Detected Above Laboratory Reporting Limits

NA - Not Analyzed for parameter

Bold print indicates exceedance of standard

W-1 - Groundwater sample collected from the former used oil UST basin

Table 3
Summary of Historical Water Table Elevations
 Former Sunoco Station
 3911 Legion Road, Hope Mills, NC
 Sunoco Facility DUNS #0275-7573
 NCDENR Incident #11933

Well ID	Date	Well Head Elevation (feet)	Depth to Water (feet)	Water-Table Elevation (feet)
MW-1	1/24/1995	100.19	4.95	95.24
	11/11/1996	100.19	4.20	95.99
	7/2/1997	100.19	6.79	93.40
	4/27/1999	100.19	NG	NG
	12/9/1999	100.19	NG	NG
	12/22/1999	100.19	NG	NG
	3/3/2000	100.19	NG	NG
	6/13/2000	100.19	NG	NG
	9/22/2000	100.19	NG	NG
	12/19/2000	100.19	NG	NG
	3/30/2001	100.19	5.84	94.35
	6/30/2001	100.19	5.12	95.07
	10/3/2001	100.19	6.10	94.09
	12/28/2001	100.19	7.60	92.59
	9/6/2002	100.19	6.11	94.08
	11/13/2002	100.19	5.98	94.21
	3/6/2003	100.19	4.91	95.28
	6/5/2003	100.19	3.42	96.77
	7/31/2003	100.19	2.26	97.93
2/9/2004	100.19	5.31	94.88	
MW-2	1/24/1995	100.09	4.92	95.17
	11/11/1996	100.09	4.24	95.85
	7/2/1997	100.09	6.35	93.74
	4/27/1999	100.09	6.31	93.78
	12/9/1999	100.09	4.32	95.77
	12/22/1999	100.09	4.50	95.59
	3/3/2000	100.09	4.13	95.96
	6/13/2000	100.09	6.24	93.85
	9/22/2000	100.09	6.40	93.69
	12/19/2000	100.09	6.49	93.60
	3/30/2001	100.09	5.98	94.11
	6/30/2001	100.09	5.05	95.04
	10/3/2001	100.09	6.15	93.94
	12/28/2001	100.09	7.63	92.46
	9/6/2002	100.09	6.08	94.01
	11/13/2002	100.09	5.95	94.14
	3/6/2003	100.09	4.91	95.18
	6/5/2003	100.09	5.95	94.14
	7/31/2003	100.09	2.08	98.01
2/9/2004	100.09	Destroyed	Destroyed	

Table 3
Summary of Historical Water Table Elevations
 Former Sunoco Station
 3911 Legion Road, Hope Mills, NC
 Sunoco Facility DUNS #0275-7573
 NCDENR Incident #11933

Well ID	Date	Well Head Elevation (feet)	Depth to Water (feet)	Water-Table Elevation (feet)
MW-3	1/24/1995	100.55	5.04	95.51
	11/11/1996	100.55	4.24	96.31
	7/2/1999	100.55	6.55	94.00
	4/27/1999	100.55	6.28	94.27
	12/9/1999	100.55	NG	NG
	12/22/1999	100.55	NG	NG
	3/3/2000	100.55	4.30	96.25
	6/13/2000	100.55	6.44	94.11
	9/22/2000	100.55	6.61	93.94
	12/19/2000	100.55	6.68	93.87
	3/30/2001	100.55	5.83	94.72
	6/30/2001	100.55	5.32	95.23
	10/3/2001	100.55	6.33	94.22
	12/28/2001	100.55	7.83	92.72
	9/6/2002	100.55	6.22	94.33
	11/13/2002	100.55	6.04	94.51
	3/6/2006	100.55	5.28	95.27
	6/5/2003	100.55	3.57	96.98
	7/31/2003	100.55	2.73	97.82
	2/9/2004	100.55	5.44	95.11
MW-4	1/24/1995	99.98	5.00	94.98
	11/11/1996	99.98	4.30	95.68
	7/2/1997	99.98	6.31	93.67
	4/27/1999	99.98	NG	NG
	12/9/1999	99.98	NG	NG
	12/22/1999	99.98	NG	NG
	3/3/2000	99.98	NG	NG
	6/13/2000	99.98	NG	NG
	9/22/2000	99.98	NG	NG
	12/19/2000	99.98	NG	NG
	3/30/2001	99.98	5.85	94.13
	6/30/2001	99.98	5.12	94.86
	10/3/2001	99.98	6.13	93.85
	12/28/2001	99.98	7.58	92.40
	9/6/2002	99.98	6.14	93.84
	11/13/2002	99.98	5.98	94.00
	3/6/2003	99.98	4.95	95.03
	6/5/2003	99.98	3.51	96.47
	7/31/2003	99.98	2.41	97.57
	2/9/2004	99.98	Destroyed	Destroyed

Table 3
Summary of Historical Water Table Elevations
 Former Sunoco Station
 3911 Legion Road, Hope Mills, NC
 Sunoco Facility DUNS #0275-7573
 NCDENR Incident #11933

Well ID	Date	Well Head Elevation (feet)	Depth to Water (feet)	Water-Table Elevation (feet)
MW-5	1/24/1995	100.43	4.80	95.63
	11/11/1996	100.43	4.01	96.42
	7/2/1997	100.43	NG	NG
	4/27/1999	100.43	6.09	94.34
	12/9/1999	100.43	4.35	96.08
	12/22/1999	100.43	NG	NG
	3/3/2000	100.43	NG	NG
	6/13/2000	100.43	NG	NG
	9/22/2000	100.43	NG	NG
	12/19/2000	100.43	NG	NG
	3/30/2001	100.43	5.78	94.65
	6/30/2001	100.43	5.10	95.33
	10/3/2001	100.43	6.10	94.33
	12/28/2001	100.43	7.30	93.13
	9/6/2002	100.43	NL	NL
	11/13/2002	100.43	NL	NL
	3/6/2003	100.43	5.78	94.65
	6/5/2003	100.43	3.39	97.04
	7/31/2003	100.43	NG	NG
	2/9/2004	100.43	5.25	95.18
MW-10	1/24/1995	100.12	5.11	95.01
	11/11/1996	100.12	NG	NG
	7/2/1997	100.12	6.42	93.70
	4/27/1999	100.12	NG	NG
	12/9/1999	100.12	NG	NG
	12/22/1999	100.12	NG	NG
	3/3/2000	100.12	NG	NG
	6/13/2000	100.12	NG	NG
	9/22/2000	100.12	NG	NG
	12/19/2000	100.12	NG	NG
	3/30/2001	100.12	6.00	94.12
	6/30/2001	100.12	5.30	94.82
	10/3/2001	100.12	6.30	93.82
	12/28/2001	100.12	7.76	92.36
	9/6/2002	100.12	6.25	93.87
	11/13/2002	100.12	5.99	94.13
	3/6/2003	100.12	NG	NG
	6/5/2003	100.12	3.64	96.48
	7/31/2003	100.12	2.34	97.78
	2/9/2004	100.12	Destroyed	Destroyed

Table 3
Summary of Historical Water Table Elevations
 Former Sunoco Station
 3911 Legion Road, Hope Mills, NC
 Sunoco Facility DUNS #0275-7573
 NCDENR Incident #11933

Well ID	Date	Well Head Elevation (feet)	Depth to Water (feet)	Water-Table Elevation (feet)
MW-11	1/24/1995	100.04	4.95	95.09
	11/11/1996	100.04	4.24	95.80
	7/2/1997	100.04	6.30	93.74
	4/27/1999	100.04	NG	NG
	12/9/1999	100.04	NG	NG
	12/22/1999	100.04	NG	NG
	3/3/2000	100.04	NG	NG
	6/13/2000	100.04	NG	NG
	9/22/2000	100.04	NG	NG
	12/19/2000	100.04	NG	NG
	3/30/2001	100.04	5.85	94.19
	6/30/2001	100.04	5.16	94.88
	10/3/2001	100.04	6.11	93.93
	12/28/2001	100.04	7.62	92.42
	9/6/2002	100.04	6.12	93.92
	11/13/2002	100.04	5.98	94.06
	3/6/2003	100.04	4.91	95.13
	6/5/2003	100.04	3.44	96.60
	7/31/2003	100.04	2.13	97.91
	2/9/2004	100.04	Destroyed	Destroyed

Notes:

NG - Not Gauged

NL - Not Located

Table 5
Summary of Historical Groundwater Analytical Results
Former Sunoco Station
3911 Legion Road, Hope Mills, NC
Sunoso Facility DUNS #0275-7573
NCDENR Incident #11933

Well ID	Sampling Date	Chloroform	1,1,1-Trichloroethane	Tetrachloroethene	Cadmium	Chromium	Lead
*North Carolina 2L Standards		*(0.00019 ug/L)	*(200 ug/L)	*(0.7 ug/L)	*(5 ug/L)	*(50 ug/L)	*(15 ug/L)
W-1	5/7/1993	ND	ND	ND	2	19	43
MW-1	1/24/1995	2.9	ND	ND	NA	NA	NA
	11/11/1996	2.2	ND	2.1	NA	NA	NA
	4/28/1999	NS	NS	NS	NA	NA	NA
	12/9/1999	NS	NS	NS	NS	NS	NS
	3/3/2000	NS	NS	NS	NS	NS	NS
	6/13/2000	NS	NS	NS	NS	NS	NS
	9/22/2000	NS	NS	NS	NS	NS	NS
	12/19/2000	NS	NS	NS	NS	NS	NS
	3/30/2001	ND	ND	ND	NA	NA	NA
	6/30/2001	ND	ND	ND	NA	NA	NA
	10/3/2001	ND	ND	ND	NA	NA	NA
	12/28/2001	ND	ND	ND	NA	NA	NA
	9/6/2002	<1.0	<1.0	<1.0	NA	NA	NA
	11/13/2002	<1.0	<1.0	<1.0	NA	NA	NA
	3/6/2003	<1.0	<1.0	2.4	NA	NA	NA
	6/5/2003	<1.0	<1.0	<1.0	NA	NA	NA
	7/31/2003	<1.0	<1.0	<1.0	NA	NA	NA
	2/9/2004	<1.0	<1.0	6.7	NA	NA	NA
MW-2	1/24/1995	3	1.2	ND	NA	NA	NA
	11/11/1996	3.9	ND	1.4	NA	NA	NA
	4/28/1999	1.2	ND	ND	NA	NA	NA
	12/9/1999	***	***	***	***	***	***
	12/22/1999	ND	ND	8.0	NA	NA	NA
	3/3/2000	ND	ND	3.0	NA	NA	NA
	6/13/2000	ND	ND	8.0	NA	NA	NA
	9/22/2000	ND	ND	4.6	NA	NA	NA
	12/19/2000	ND	ND	1.9	NA	NA	NA
	3/30/2001	1.4	ND	2.2	NA	NA	NA
	6/30/2001	1.2	ND	3.9	NA	NA	NA
	10/3/2001	1.0	ND	3.1	NA	NA	NA
	12/28/2001	ND	ND	4.1	NA	NA	NA
	9/6/2002	1.3	<1.0	1.7	NA	NA	NA
	11/13/2002	1.1	<1.0	2.1	NA	NA	NA
	3/6/2003	<1.0	<1.0	3.6	NA	NA	NA
	6/5/2003	<1.0	<1.0	4.7	NA	NA	NA
	7/31/2003	<1.0	<1.0	14	NA	NA	NA
	2/9/2004	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed

Table 5
Summary of Historical Groundwater Analytical Results
 Former Sunoco Station
 3911 Legion Road, Hope Mills, NC
 Sunoso Facility DUNS #0275-7573
 NCDENR Incident #11933

Well ID	Sampling Date	Chloroform	1,1,1-Trichloroethane	Tetrachloroethene	Cadmium	Chromium	Lead
*North Carolina 2L Standards		*(0.00019 ug/L)	*(200 ug/L)	*(0.7 ug/L)	*(5 ug/L)	*(50 ug/L)	*(15 ug/L)
MW-3	1/24/1995	ND	ND	3.3	NA	NA	NA
	11/11/1996	ND	ND	ND	NA	NA	NA
	4/28/1999	ND	ND	2.8	NA	NA	NA
	12/22/1999	NS	NS	NS	NS	NS	NS
	3/3/2000	ND	ND	17.9	NA	NA	NA
	6/13/2000	1.4	ND	ND	NA	NA	NA
	9/22/2000	ND	ND	2.0	NA	NA	NA
	12/19/2000	ND	ND	2.5	NA	NA	NA
	3/30/2001	3.8	ND	ND	NA	NA	NA
	6/30/2001	2.0	ND	ND	NA	NA	NA
	10/3/2001	ND	ND	ND	NA	NA	NA
	12/28/2001	ND	ND	ND	NA	NA	NA
	9/6/2002	2.9	<1.0	1.2	NA	NA	NA
	11/13/2002	1.0	<1.0	5.9	NA	NA	NA
	3/6/2003	<1.0	<1.0	4.7	NA	NA	NA
	6/5/2003	<1.0	<1.0	<1.0	NA	NA	NA
	7/31/2003	<1.0	<1.0	7.3	NA	NA	NA
2/9/2004	1.2	<1.0	4.9	NA	NA	NA	
MW-4	1/24/1995	3.4	ND	ND	NA	NA	NA
	11/11/1996	3.7	ND	ND	NA	NA	NA
	4/28/1999	NS	NS	NS	NS	NS	NS
	12/9/1999	NS	NS	NS	NS	NS	NS
	3/3/2000	NS	NS	NS	NS	NS	NS
	6/13/2000	NS	NS	NS	NS	NS	NS
	9/22/2000	NS	NS	NS	NS	NS	NS
	12/19/2000	NS	NS	NS	NS	NS	NS
	3/30/2001	2.9	ND	ND	NA	NA	NA
	6/30/2001	2.6	ND	ND	NA	NA	NA
	**10/3/2001	ND	ND	ND	NA	NA	NA
	12/28/2001	1.2	ND	ND	NA	NA	NA
	9/6/2002	2.3	<1.0	<1.0	NA	NA	NA
	11/13/2002	1.5	<1.0	<1.0	NA	NA	NA
	3/6/2003	1.0	<1.0	<1.0	NA	NA	NA
	6/5/2003	1.2	<1.0	<1.0	NA	NA	NA
	7/31/2003	<1.0	<1.0	<1.0	NA	NA	NA
2/9/2004				Destroyed			

Table 5
Summary of Historical Groundwater Analytical Results
 Former Sunoco Station
 3911 Legion Road, Hope Mills, NC
 Sunoco Facility DUNS #0275-7573
 NCDENR Incident #11933

Well ID	Sampling Date	Chloroform	1,1,1-Trichloroethane	Tetrachloroethene	Cadmium	Chromium	Lead
*North Carolina 2L Standards		*(0.00019 ug/L)	*(200 ug/L)	*(0.7 ug/L)	*(5 ug/L)	*(50 ug/L)	*(15 ug/L)
MW-5	10/3/1994	2.9	6.9	15	NA	NA	NA
	1/24/1995	4.6	1.7	9	NA	NA	NA
	11/11/1996	1.5	ND	4	NA	NA	NA
	4/28/1999	ND	ND	1.3	NA	NA	NA
	12/9/1999	ND	ND	ND	NA	NA	NA
	3/3/2000	NS	NS	NS	NS	NS	NS
	6/13/2000	NS	NS	NS	NS	NS	NS
	9/22/2000	NS	NS	NS	NS	NS	NS
	12/19/2000	NS	NS	NS	NS	NS	NS
	3/30/2001	1.2	ND	1.3	NA	NA	NA
	6/30/2001	ND	ND	1.4	NA	NA	NA
	10/3/2001	ND	ND	ND	NA	NA	NA
	****1/8/2002	ND	ND	1.8	NA	NA	NA
	9/6/2002	NL	NL	NL	NL	NL	NL
	11/13/2002	NL	NL	NL	NL	NL	NL
	3/6/2003	2.7	<1.0	<1.0	NA	NA	NA
	6/5/2003	<1.0	<1.0	3.4	NA	NA	NA
	7/31/2003	NS	NS	NS	NS	NS	NS
	2/9/2004	<1.0	<1.0	3.6	NA	NA	NA
MW-10	1/24/1995	2.0	ND	ND	NA	NA	NA
	4/28/1999	NS	NS	NS	NA	NA	NA
	12/9/1999	NS	NS	NS	NS	NS	NS
	3/3/2000	NS	NS	NS	NS	NS	NS
	6/13/2000	NS	NS	NS	NS	NS	NS
	9/22/2000	NS	NS	NS	NS	NS	NS
	12/19/2000	NS	NS	NS	NS	NS	NS
	3/30/2001	1.2	ND	4.1	NA	NA	NA
	6/30/2001	1.3	ND	3.4	NA	NA	NA
	**10/3/2001	ND	ND	1.5	NA	NA	NA
	****1/8/2002	ND	ND	1.2	NA	NA	NA
	9/6/2002	<1.0	<1.0	1.1	NA	NA	NA
	11/13/2002	<1.0	<1.0	<1.0	NA	NA	NA
	3/6/2003	NS	NS	NS	NS	NS	NS
	6/5/2003	<1.0	<1.0	1.3	NA	NA	NA
	7/31/2003	<1.0	<1.0	4.1	NA	NA	NA
	2/9/2004	<1.0	<1.0	Destroyed			

Table 5
Summary of Historical Groundwater Analytical Results
 Former Sunoco Station
 3911 Legion Road, Hope Mills, NC
 Sunoco Facility DUNS #0275-7573
 NCDENR Incident #11933

Well ID	Sampling Date	Chloroform	1,1,1-Trichloro-ethane	Tetrachloro-ethene	Cadmium	Chromium	Lead
*North Carolina 2L Standards		*(0.00019 ug/L)	*(200 ug/L)	*(0.7 ug/L)	*(5 ug/L)	*(50 ug/L)	*(15 ug/L)
MW-11	1/24/1995	1.6	ND	ND	NA	NA	NA
	11/11/1996	2.3	ND	ND	NA	NA	NA
	4/28/1999	NS	NS	NS	NA	NA	NA
	12/9/1999	NS	NS	NS	NS	NS	NS
	3/3/2000	NS	NS	NS	NS	NS	NS
	6/13/2000	NS	NS	NS	NS	NS	NS
	9/22/2000	NS	NS	NS	NS	NS	NS
	12/19/2000	NS	NS	NS	NS	NS	NS
	3/30/2001	2.7	ND	ND	NA	NA	NA
	6/30/2001	ND	ND	ND	NA	NA	NA
	10/3/2001	ND	ND	ND	NA	NA	NA
	12/28/2001	ND	ND	ND	NA	NA	NA
	9/6/2002	<1.0	<1.0	<1.0	NA	NA	NA
	11/13/2002	<1.0	<1.0	<1.0	NA	NA	NA
	3/6/2003	<1.0	<1.0	<1.0	NA	NA	NA
	6/5/2003	<1.0	<1.0	<1.0	NA	NA	NA
	7/31/2003	<1.0	<1.0	<1.0	NA	NA	NA
	2/9/2004	Destroyed					

Notes:

*North Carolina Administrative Code Subchapter 2L Groundwater Standard

** The samples collected from MW-4 and MW-10 on 10/03/01 contained Dichlorodifluoromethane at level of 1.2 ug/L and 1.2 ug/L, respectively. This is below the North Carolina Groundwater Quality 2L Standard of 1.4 ug/L.

***Broken laboratory containers

**** Samples collected on December 28, 2001 broke in transit and the wells had to be resampled on January 8, 2002.

ug/L - Micrograms per Liter

NS - Not Sampled

ND - Not Detected Above Laboratory Reporting Limits

NA - Not Analyzed for parameter

NL - Not Located

Bold print indicates exceedance of standard

W-1 - Groundwater sample collected from the former used oil UST basin



North Carolina Department of Environment and Natural Resources

Michael F. Easley, Governor
William G. Ross Jr., Secretary

Division of Waste Management
Underground Storage Tank Section

Dexter R. Matthews, Director

March 13, 2006

Sunoco, Inc
Mike Byrne
3499 W. Broad Street
Columbus, OH 43204

Re: Notice of No Further Action
15A NCAC 2L .0115(h)
Risk-based Assessment and Corrective Action
for Petroleum Underground Storage Tanks

Legion Road Sunoco
3220 Legion Road
Cumberland County
Incident Number: 11933
Risk Classification: Low

Dear Mr. Byrne:

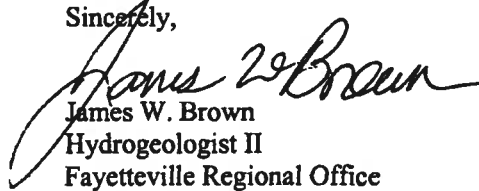
The Monitoring Reports and UST Closure Report received by the Underground Storage Tank (UST) Section, Fayetteville Regional Office has been reviewed. The review indicates that soil contamination does not exceed soil-to-groundwater contaminant concentrations, established in Title 15A NCAC 2L .0115(m), and that groundwater contamination associated with petroleum UST's does not exceed the groundwater quality standards established in Title 15A NCAC 2L .0202. However, groundwater contamination still exceeds the groundwater quality standards for chlorinated solvents exceeding 15A NCAC 2L .0202. This No Further Action does not address these chlorinated solvents and the Dry-Cleaning Solvent Cleanup Section has been notified of the discovery. Further source determination and assessment will likely be necessary.

The UST Section determines that no further action is warranted for this incident. This determination shall apply unless the UST Section later finds that the discharge or release poses an unacceptable risk or a potentially unacceptable risk to human health or the environment. Pursuant to Title 15A NCAC 2L .0115(e) you have a continuing obligation to notify the Department of any changes that might affect the risk or land use classifications that have been assigned.

This No Further Action determination applies only to the subject incident; for any other incidents at the subject site, the responsible party must continue to address contamination as required.

If you have any questions regarding this notice, please contact me at the address or telephone number listed below.

Sincerely,



James W. Brown
Hydrogeologist II
Fayetteville Regional Office

cc: Cumberland County Health Department
Theodore Melvin – Land Owner
Paul Mickler - GES

UST Regional Offices

Asheville (ARO) – 2090 US Highway 70, Swannanoa, NC 28778 (828) 296-4500

Fayetteville (FAY) – 225 Green Street, Suite 714, Systel Building, Fayetteville, NC 28301 (910) 486-1541

Mooreville (MOR) – 610 East Center Avenue, Suite 301, Mooreville, NC 28115 (704) 663-1699

Raleigh (RRO) – 1628 Mail Service Center, Raleigh, NC 27699 (919) 791-4200

Washington (WAS) – 943 Washington Square Mall, Washington, NC 27889 (252) 946-6481

Wilmington (WIL) – 127 Cardinal Drive Extension, Wilmington, NC 28405 (910) 796-7215

Winston-Salem (WS) – 585 Waughtown Street, Winston-Salem, NC 27107 (336) 771-4600

Guilford County Environmental Health, 1203 Maple Street, Greensboro, NC 27405, (336) 641-3771

FTP: NFA low-noNRP NOR1005.dot

APPENDIX C

Pyramid Project # 2010258

GEOPHYSICAL INVESTIGATION REPORT

EM61 & GPR SURVEYS

THEODORE MELVIN PROPERTY

PARCEL 22

Fayetteville, North Carolina

November 5, 2010

Report prepared for: John Stewart P.G.
Kleinfelder
313 Gallimore Dairy Road
Greensboro, NC 27409

Prepared by: 
Mark J. Denil, P.G.

Reviewed by: 
Douglas Canavello, P.G.

PYRAMID ENVIRONMENTAL & ENGINEERING, P.C.
P.O. Box 16265
GREENSBORO, NC 27416-0265
(336) 335-3174

Kleinfelder
GEOPHYSICAL INVESTIGATION REPORT
THEODORE MELVIN PROPERTY
PARCEL 22
Fayetteville, North Carolina

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| Figure 1 | Geophysical Equipment & Site Photographs |
| Figure 2 | EM61 Metal Detection Results |

1.0 INTRODUCTION

Pyramid Environmental conducted a geophysical investigation for Kleinfelder across the western portion (proposed Right-of-Way area) of the Theodore Melvin property (Parcel 22) located along the northeasterly corner of Legion Road and Mantis Drive in Fayetteville, North Carolina. Conducted on October 22 and 29, 2010 the geophysical investigation was performed as part of the North Carolina Department of Transportation (NCDOT) preliminary site assessment project to determine if unknown, metallic, underground storage tanks (USTs) were present beneath the area of interest at Parcel 22.

Kleinfelder representative Mr. John Stewart, P.G. provided site maps to Pyramid Environmental personnel during the week of September 30, 2010, which identified the geophysical survey area of the Melvin property. The geophysical survey area had a maximum length and width of 100 feet and 70 feet, respectively. Photographs of the geophysical equipment used in this investigation and a portion of the geophysical survey area at Parcel 22 are shown in **Figure 1**.

2.0 FIELD METHODOLOGY

Prior to conducting the geophysical investigation, a 10-foot by 10-foot survey grid was established across the geophysical survey area (property) using measuring tapes, pin flags and water-based marking paint. These grid marks were used as X-Y coordinates for location control when collecting the geophysical data and establishing base maps for the geophysical results.

The geophysical investigation consisted of electromagnetic (EM) induction-metal detection surveys. The EM survey was performed on October 22, 2010 using a Geonics EM61-MK1 metal detection instrument. 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. All of the EM61 data were digitally collected at approximately 0.8 foot intervals along northerly-southerly (X-axis), parallel survey lines spaced five feet apart. All of

the data were downloaded to a computer and reviewed in the field and office using the Geonics DAT61W and Surfer for Windows Version 7.0 software programs.

GPR surveys were conducted on October 29, 2010 across selected EM61 differential anomalies using a GSSI SIR-2000 unit equipped with a 400 MHz antenna. Data were digitally collected in a continuous mode along X-axis and/or Y-axis survey lines, spaced 2.5 to 5.0 feet apart using a vertical scan of 512 samples, at a rate of 48 scans per second. A 70 MHz high pass filter and an 800 MHz low pass filter were used during data acquisition with the 400 MHz antenna. GPR data were collected down to a maximum depth of approximately 5 feet, based on an estimated two-way travel time of 8 nanoseconds per foot. All of the GPR data were downloaded to a field computer and reviewed in the field and office using Radprint software.

Contour plots of the EM61 bottom coil and differential results are presented in **Figure 2**. The bottom coil results represent the most sensitive component of the EM61 instrument and detect metal objects regardless of size. The bottom coil response can be used to delineate metal conduits or utility lines, small, isolated metal objects, and areas containing insignificant metal debris. The differential results are obtained from the difference between the top and bottom coils of the EM61 instrument. The differential results focus on the larger metal objects such as drum and UST-size objects and ignore the smaller insignificant metal objects.

Preliminary geophysical results obtained from Parcel 22 were reported to Mr. Stewart on November 2, 2010.

3.0 DISCUSSION OF RESULTS

The linear EM61 bottom coil anomaly intersecting grid coordinates X=25 Y=200 is probably in response to the steel reinforced concrete curbing and a buried utility line(s). The linear EM61 bottom coil anomalies intersecting grid coordinates X=48 Y=206 and X=54 Y=150 are possibly in response to buried utility lines or conduits. GPR surveys suggest the high amplitude EM61 anomalies centered near grid coordinates X=45 Y=195 and X=62 Y=195 are in response to the metallic dumpster and a

parked vehicle, respectively. Similarly, GPR data suggest the high amplitude EM61 anomaly near coordinates X=65 Y=145 is in response to parked vehicles.

The EM61 anomalies recorded near grid coordinates X=25 Y=149 and X=35 Y=145 are probably in response to the metal business sign and a water meter cover, respectively. The EM61 metal detection and GPR results suggest the surveyed portion of Parcel 22 does not contain metallic USTs.

4.0 SUMMARY & CONCLUSIONS

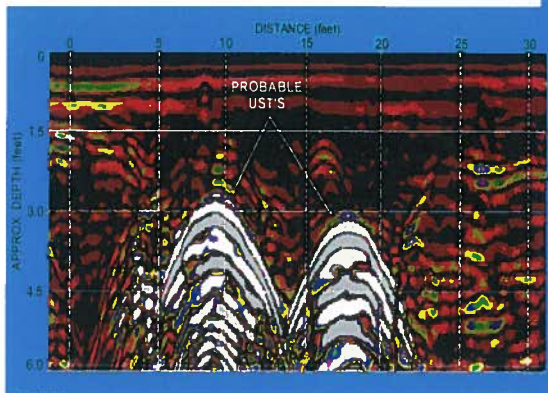
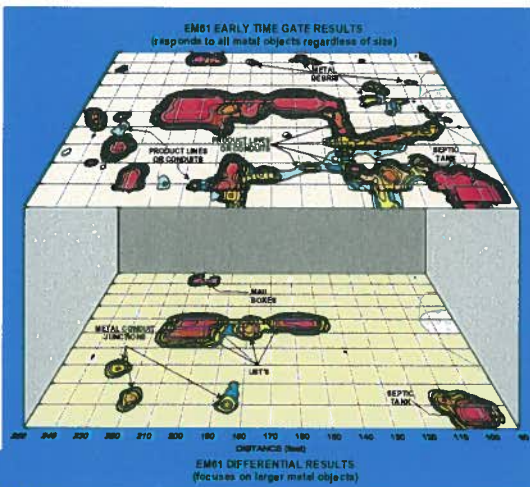
Our evaluation of the EM61 and GPR data collected across the area of interest at the Theodore Melvin property (Parcel 22) located in Fayetteville, North Carolina, provides the following summary and conclusions:

- The EM61 and GPR surveys provided reliable results for the detection of metallic USTs within the surveyed portion of the site.
- The linear EM61 bottom coil anomaly intersecting grid coordinates X=25 Y=200 is probably in response to the steel reinforced concrete curbing and a buried utility line(s)
- The linear EM61 bottom coil anomalies intersecting grid coordinates X=48 Y=206 and X=54 Y=150 are possibly in response to buried utility lines or conduits.
- The EM61 metal detection and GPR results suggest the surveyed portion of Parcel 22 does not contain metallic USTs.

5.0 LIMITATIONS

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

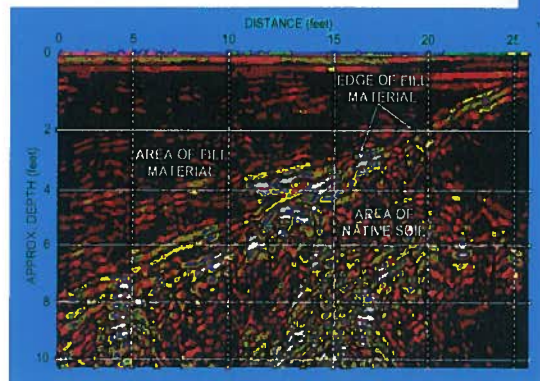
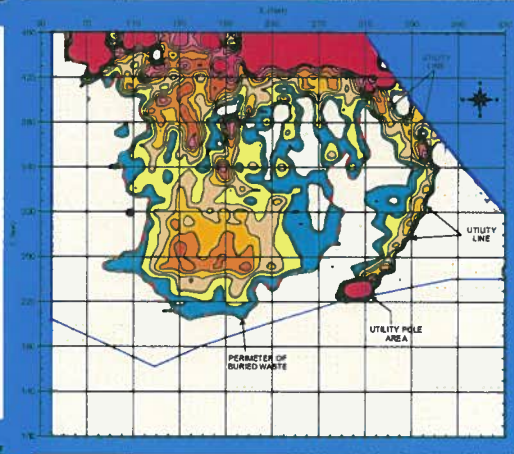
determined that the surveyed portion of the site does not contain unknown, buried metallic USTs, but that none were detected.



FIGURES

(on the following pages)

Figures shown on this page are for esthetic purposes only and are not related to the geophysical results discussed in this report.



The photograph shows the Geonics EM61 metal detector that was used to conduct the metal detection survey at Parcel 22 on October 22, 2010.



The photographs show the SIR-2000 GPR system equipped with a 400 MHz antenna that were used to conduct the ground penetrating radar investigation at Parcel 22 on October 29, 2010.

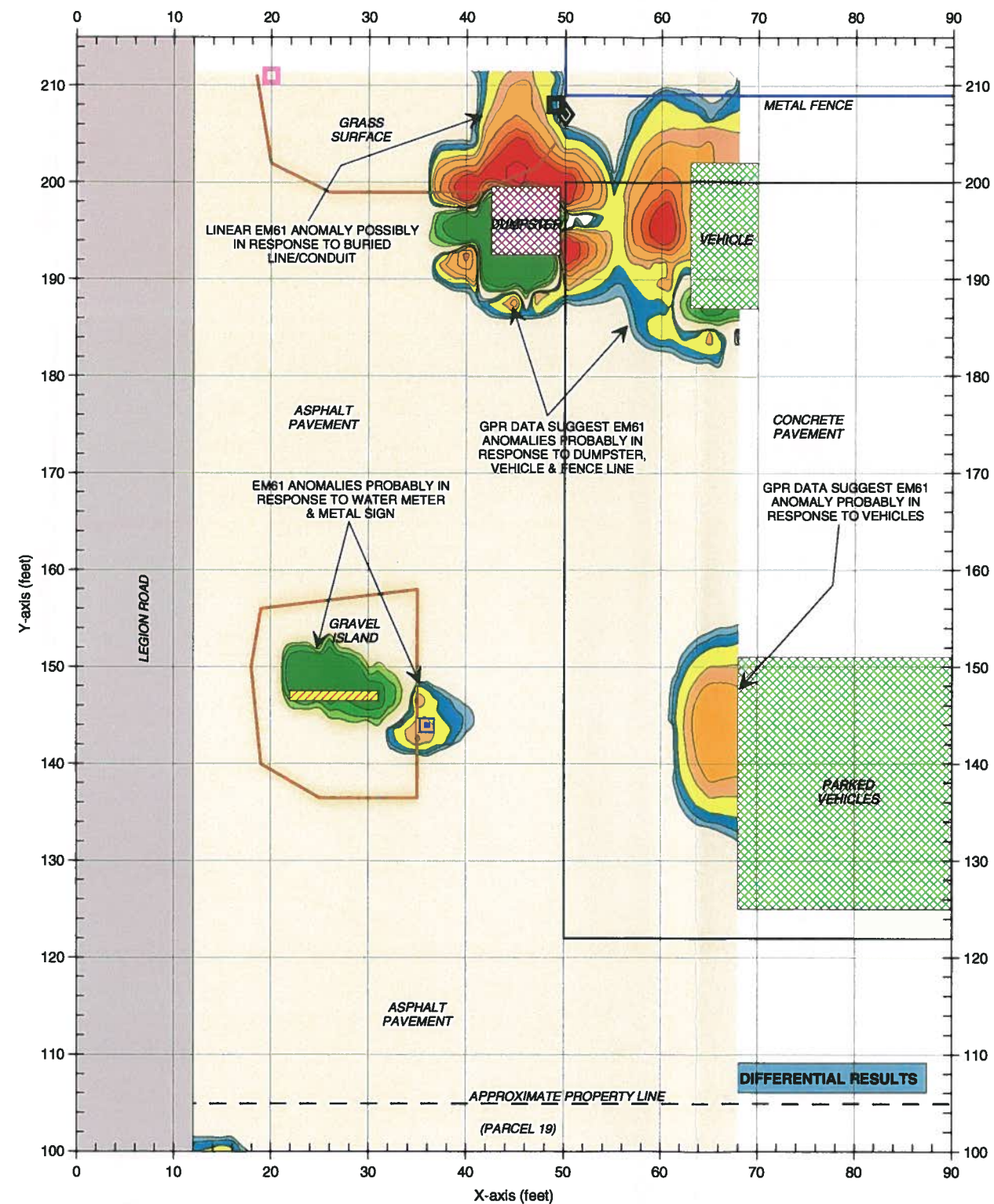
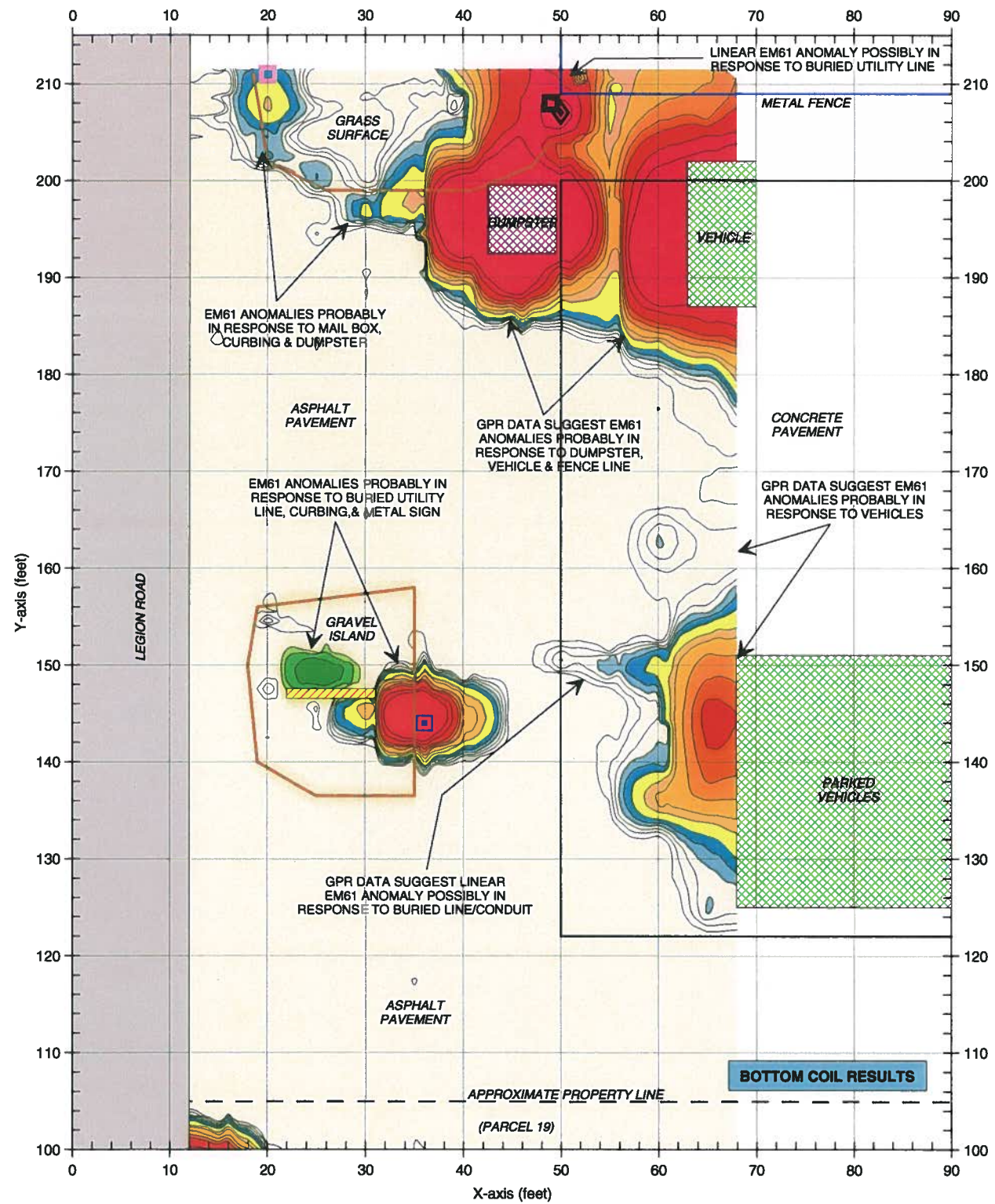


The photograph shows the front (western) portion of the Theodore Melvin property (Parcel 22) located at the intersection of Legion Road and Mantis Drive in Fayetteville, North Carolina. The photograph is viewed in a northeasterly direction.



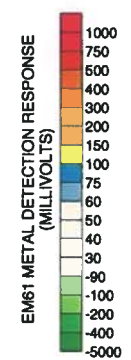
CLIENT	KLEINFELDER		DATE	11/02/10	BY	MJD
SITE	THEODORE MELVIN PROPERTY (PARCEL 22)		LAY		DATE	
CITY	FAYETTEVILLE	STATE	NORTH CAROLINA		DATE	
TITLE	GEOPHYSICAL RESULTS		NO.	2010-258	DATE	

GEOPHYSICAL EQUIPMENT
& SITE PHOTOGRAPHS



LEGEND

<ul style="list-style-type: none"> ■ SURVEY AREA: EM61 OR GPR DATA ACQUIRED ALONG X-AXIS TRENDING LINES SPACED 5 FEET APART ■ METAL BUSINESS SIGN ■ METAL SIGN FRAME ■ DUMPSTER ■ GUY WIRE ● METAL SIGN POLE ■ MAIL BOX 	<ul style="list-style-type: none"> ● ROAD SIGN ■ UTILITY LINE BOX ◆ UTILITY OR LAMP POLE ■ WATER METER BOX ■ METAL COVER OVER VAULT ■ PARKED VEHICLE ■ METAL FENCE ■ CONCRETE CURBING
--	---



The contour plot shows the bottom coil (most sensitive) and differential results of the EM61 instrument in millivolts (mV). The bottom coil response shows buried metallic objects regardless of size. The differential response focuses on larger, buried metallic objects such as drums and USTs and ignores smaller miscellaneous, buried, metal debris.

The EM61 data were collected on October 22, 2010 using a Geonics EM61 instrument. Ground penetrating radar (GPR) data were acquired on October 29, 2010 across selected EM61 anomalies using a Geophysical Survey Systems SIR 2000 instrument with a 400 MHz antenna. The geophysical investigation suggests that the surveyed portion of the property does not contain metallic USTs.

EM61 METAL DETECTION RESULTS

FIGURE 2

MJD	11/02/10	DATE	2010-258	FIGURE	2
NAME	11/02/10	DATE	2010-258	FIGURE	2
LAYER		DATE		FIGURE	
STATE	NORTH CAROLINA	DATE		FIGURE	
CITY	FAYETTEVILLE	DATE		FIGURE	
FILE		DATE		FIGURE	

KLEINFELDER

THEODORE MELVIN PROPERTY (PARCEL 22)

FAYETTEVILLE NORTH CAROLINA

GEOPHYSICAL RESULTS

PYRAMID
ENVIRONMENTAL & ENGINEERING, P.C.

APPENDIX D

LOG OF BORING SS-4

SHEET 1 OF 1

Client NCDOT

Drill Contractor Kleinfelder

Project Name U-2809B

Drill Method 2 inch Direct Push

Elevation --

Number 113754

Drilling Started 11/18/10 Ended 11/18/10

Total Depth 8.0

Location Legion Road Auto #22

Logged By P. Pozzo

Depth To Water

DEPTH FEET	SAMPLE NO.	BLOWS/FT	PID ppm	USCS	LITHOLOGY	DESCRIPTION	DEPTH FEET
5	SS 4-2'		3.9	SM	[Dotted Pattern]	Tan Silty SAND	5
				SM		Tan Silty SAND	
				SM		White Silty SAND in Water Table	
			NR			Boring Terminated at 8 feet in RESIDUAL	

LOG A EWINN05 113754D.GPJ LOG A EWINN05.GDT 12/16/10



Kleinfelder
 313 Gallimore Dairy Road
 Greensboro, NC 27409
 Telephone: 336-668-0093
 Fax: 336-668-3868

Remarks Sample SS-4 collected at 2 ft. submitted for laboratory analysis.
 NR - No Reading

See key sheet for symbols and abbreviations used above.

LOG OF BORING SS-5

SHEET 1 OF 1


Client NCDOT
 Project Name U-2809B
 Number 113754
 Location Legion Road Auto #22

Drill Contractor Kleinfelder
 Drill Method 2 inch Direct Push
 Drilling Started 11/18/10 Ended 11/18/10
 Logged By P. Pozzo

Elevation --
 Total Depth 8.0
 Depth To Water

DEPTH FEET	SAMPLE NO.	BLOWS/FT	PID ppm	USCS	LITHOLOGY	DESCRIPTION	DEPTH FEET
2.3	SS 5-4'			SM		Tan Silty SAND	
4.2				SM		Tan Silty SAND	
5				SW		Tan White SAND in Water Table	5
			NR			Boring Terminated at 8 feet in RESIDUAL	

LOG A E1WNN05 113754D.GPJ LOG A E1WNN05.GDT 12/16/10



Kleinfelder
 313 Gallimore Dairy Road
 Greensboro, NC 27409
 Telephone: 336-668-0093
 Fax: 336-668-3868

Remarks Sample SS-5 collected at 4 ft. submitted for laboratory analysis.
 NR - No Reading

See key sheet for symbols and abbreviations used above.

LOG OF BORING SS-6

SHEET 1 OF 1

Client NCDOT

Drill Contractor Kleinfelder

Project Name U-2809B

Drill Method 2 inch Direct Push

Elevation --

Number 113754

Drilling Started 11/18/10 Ended 11/18/10

Total Depth 8.0

Location Legion Road Auto #22

Logged By P. Pozzo

Depth To Water

DEPTH FEET	SAMPLE NO.	BLOWS/FT	PID ppm	USCS	LITHOLOGY	DESCRIPTION	DEPTH FEET
5	SS 6-2'		4.2	SM	[Dotted Pattern]	Tan Silty SAND	5
				SM		Tan Silty SAND	
				NR	[Solid Black]	Black Asphalt	
				SM	[Dotted Pattern]	White Silty SAND in Water Table	
10						Boring Terminated at 8 feet in RESIDUAL	10
15							15
20							20
25							25
30							30

LOG A EWIN05 113754D.GPJ LOG A EWIN05.GDT 12/16/10



Kleinfelder
 313 Gallimore Dairy Road
 Greensboro, NC 27409
 Telephone: 336-668-0093
 Fax: 336-668-3868

Remarks Sample SS-6 collected at 2 ft. submitted for laboratory analysis.
 NR - No Reading

See key sheet for symbols and abbreviations used above.

APPENDIX E



Peter Pozzo
Trigon/Kleinfelder
313 Gallimore Dairy Road
Greensboro, NC 27409

Report Number: G118-597

Client Project: NCDOT Fayetteville PSA

Dear Peter Pozzo,

Enclosed are the results of the analytical services performed under the referenced project for the received samples and associated QC as applicable. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of five years in the event they are required for future reference. Any samples submitted to our laboratory will be retained for a maximum of thirty (30) days from the date of this report unless other arrangements are requested.

If there are any questions about the report or services performed during this project, please call Lori Lockamy at (910) 350-1903. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS North America, Inc. for your analytical services. We look forward to working with you again on any additional analytical needs.

Sincerely,
SGS North America, Inc.

for:
Project Manager
Lori Lockamy

Barbara Hager

12/10/10
Date

SGS North America, Inc.

List of Reporting Abbreviations
And Data Qualifiers

B = Compound also detected in batch blank

BQL = Below Quantification Limit (RL or MDL)

DF = Dilution Factor

Dup = Duplicate

D = Detected, but RPD is > 40% between results in dual column method.

E = Estimated concentration, exceeds calibration range.

J = Estimated concentration, below calibration range and above MDL

LCS(D) = Laboratory Control Spike (Duplicate)

MDL = Method Detection Limit

MS(D) = Matrix Spike (Duplicate)

PQL = Practical Quantitation Limit

RL/CL = Reporting Limit / Control Limit

RPD = Relative Percent Difference

UJ = Target analytes with recoveries that are $10\% < \%R < LCL$; # of MEs are allowable and compounds are not detected in the sample.

mg/kg = milligram per kilogram, ppm, parts per million

ug/kg = micrograms per kilogram, ppb, parts per billion

mg/L = milligram per liter, ppm, parts per million

ug/L = micrograms per liter, ppb, parts per billion

% Rec = Percent Recovery

% solids = Percent Solids

Special Notes:

- 1) Metals and mercury samples are digested with a hot block; see the standard operating procedure document for details.
- 2) Uncertainty for all reported data is less than or equal to 30 percent.

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: 22 SS-4 2'
Client Project ID: NCDOT Fayetteville PSA
Lab Sample ID: G118-597-7A
Lab Project ID: G118-597
Report Basis: Dry Weight

Analyzed By: LMC
Date Collected: 11/18/2010 8:29
Date Received: 11/19/2010
Matrix: Soil
Solids 96.00

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.71	mg/Kg	1	11/30/10 08:17

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	93.4	93.4		70-130

Comments:

Batch Information

Analytical Batch: VP112910
Analytical Method: 8015
Instrument ID: GC4
Analyst: LMC

Prep Method: 5035
Initial Wt/Vol: 5.47 g
Final Volume: 5 mL

Analyst: 

**Results for Total Petroleum Hydrocarbons
by GC/FID 8015**

Client Sample ID: 22 SS-4 2'
 Client Project ID: NCDOT Fayetteville PSA
 Lab Sample ID: G118-597-7F
 Lab Project ID: G118-597

Date Collected: 11/18/2010 8:29
 Date Received: 11/19/2010
 Matrix: Soil
 Solids 96.00
 Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	6.34	mg/Kg	1	11/22/10 06:39
Surrogate Spike Results		Spike Added	Control Limits	Spike Result	Percent Recovery
OTP		40	40-140	29.9	74.6

Comments:

Batch Information

Analytical Batch: EP112110
 Analytical Method: 8015
 Instrument: GC6
 Analyst: DTF

Prep batch: 17790
 Prep Method: 3541
 Prep Date: 11/19/10
 Initial Prep Wt/Vol: 32.87 G
 Prep Final Vol: 10 mL

Analyst: FX

NC Certification #481

N.C. Certification #481

Reviewed By: MA

SGS North America, Inc.

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: 22 SS-4 2'
Client Project ID: NCDOT Fayetteville PSA
Lab Sample ID G118-597-7D
Lab Project ID: G118-597
Report Basis: Dry Weight

Analyzed By: BWS
Date Collected: 11-18-2010 08:29
Date Received: 11/19/2010
Matrix: Soil
Sample Amount: 5.47 g
%Solids: 96.0

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	47.5	1	11/24/2010
Benzene	BQL	4.75	1	11/24/2010
Bromobenzene	BQL	4.75	1	11/24/2010
Bromochloromethane	BQL	4.75	1	11/24/2010
Bromodichloromethane	BQL	4.75	1	11/24/2010
Bromoform	BQL	4.75	1	11/24/2010
Bromomethane	BQL	4.75	1	11/24/2010
2-Butanone	BQL	23.8	1	11/24/2010
n-Butylbenzene	BQL	4.75	1	11/24/2010
sec-Butylbenzene	BQL	4.75	1	11/24/2010
tert-Butylbenzene	BQL	4.75	1	11/24/2010
Carbon disulfide	BQL	4.75	1	11/24/2010
Carbon tetrachloride	BQL	4.75	1	11/24/2010
Chlorobenzene	BQL	4.75	1	11/24/2010
Chloroethane	BQL	4.75	1	11/24/2010
Chloroform	BQL	4.75	1	11/24/2010
Chloromethane	BQL	4.75	1	11/24/2010
2-Chlorotoluene	BQL	4.75	1	11/24/2010
4-Chlorotoluene	BQL	4.75	1	11/24/2010
Dibromochloromethane	BQL	4.75	1	11/24/2010
1,2-Dibromo-3-chloropropane	BQL	23.8	1	11/24/2010
Dibromomethane	BQL	4.75	1	11/24/2010
1,2-Dibromoethane (EDB)	BQL	4.75	1	11/24/2010
1,2-Dichlorobenzene	BQL	4.75	1	11/24/2010
1,3-Dichlorobenzene	BQL	4.75	1	11/24/2010
1,4-Dichlorobenzene	BQL	4.75	1	11/24/2010
trans-1,4-Dichloro-2-butene	BQL	23.8	1	11/24/2010
1,1-Dichloroethane	BQL	4.75	1	11/24/2010
1,1-Dichloroethene	BQL	4.75	1	11/24/2010
1,2-Dichloroethane	BQL	4.75	1	11/24/2010
cis-1,2-Dichloroethene	BQL	4.75	1	11/24/2010
trans-1,2-dichloroethene	BQL	4.75	1	11/24/2010
1,2-Dichloropropane	BQL	4.75	1	11/24/2010
1,3-Dichloropropane	BQL	4.75	1	11/24/2010
2,2-Dichloropropane	BQL	4.75	1	11/24/2010
1,1-Dichloropropene	BQL	4.75	1	11/24/2010
cis-1,3-Dichloropropene	BQL	4.75	1	11/24/2010
trans-1,3-Dichloropropene	BQL	4.75	1	11/24/2010
Dichlorodifluoromethane	BQL	4.75	1	11/24/2010
Diisopropyl ether (DIPE)	BQL	4.75	1	11/24/2010
Ethylbenzene	BQL	4.75	1	11/24/2010
Hexachlorobutadiene	BQL	4.75	1	11/24/2010
2-Hexanone	BQL	11.9	1	11/24/2010
Iodomethane	BQL	4.75	1	11/24/2010

SGS North America, Inc.

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: 22 SS-4 2'
Client Project ID: NCDOT Fayetteville PSA
Lab Sample ID G118-597-7D
Lab Project ID: G118-597
Report Basis: Dry Weight

Analyzed By: BWS
Date Collected: 11-18-2010 08:29
Date Received: 11/19/2010
Matrix: Soil
Sample Amount: 5.47 g
%Solids: 96.0

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Isopropylbenzene	BQL	4.75	1	11/24/2010
4-Isopropyltoluene	BQL	4.75	1	11/24/2010
Methylene chloride	BQL	19.0	1	11/24/2010
4-Methyl-2-pentanone	BQL	11.9	1	11/24/2010
Methyl-tert-butyl ether (MTBE)	BQL	4.75	1	11/24/2010
Naphthalene	BQL	4.75	1	11/24/2010
n-Propyl benzene	BQL	4.75	1	11/24/2010
Styrene	BQL	4.75	1	11/24/2010
1,1,1,2-Tetrachloroethane	BQL	4.75	1	11/24/2010
1,1,2,2-Tetrachloroethane	BQL	4.75	1	11/24/2010
Tetrachloroethene	BQL	4.75	1	11/24/2010
Toluene	BQL	4.75	1	11/24/2010
1,2,3-Trichlorobenzene	BQL	4.75	1	11/24/2010
1,2,4-Trichlorobenzene	BQL	4.75	1	11/24/2010
Trichloroethene	BQL	4.75	1	11/24/2010
1,1,1-Trichloroethane	BQL	4.75	1	11/24/2010
1,1,2-Trichloroethane	BQL	4.75	1	11/24/2010
Trichlorofluoromethane	BQL	4.75	1	11/24/2010
1,2,3-Trichloropropane	BQL	4.75	1	11/24/2010
1,2,4-Trimethylbenzene	BQL	4.75	1	11/24/2010
1,3,5-Trimethylbenzene	BQL	4.75	1	11/24/2010
Vinyl chloride	BQL	4.75	1	11/24/2010
m-,p-Xylene	BQL	9.51	1	11/24/2010
o-Xylene	BQL	4.75	1	11/24/2010

	Spike Added	Spike Result	Percent Recovered
1,2-Dichloroethane-d4	30	39.5	132
Toluene-d8	30	28.7	96
4-Bromofluorobenzene	30	27.5	92

Comments:

Flags:

BQL = Below Quantitation Limits.

Analyst: DVS

Reviewed By: 

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: 22 SS-5 2'
Client Project ID: NCDOT Fayetteville PSA
Lab Sample ID: G118-597-8A
Lab Project ID: G118-597
Report Basis: Dry Weight

Analyzed By: LMC
Date Collected: 11/18/2010 9:10
Date Received: 11/19/2010
Matrix: Soil
Solids 94.64

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.40	mg/Kg	1	11/30/10 08:44

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	93.4	93.4		70-130

Comments:

Batch Information

Analytical Batch: VP112910
Analytical Method: 8015
Instrument ID: GC4
Analyst: LMC

Prep Method: 5035
Initial Wt/Vol: 5.87 g
Final Volume: 5 mL

Analyst: WML

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: 22 SS-5 2'
Client Project ID: NCDOT Fayetteville PSA
Lab Sample ID: G118-597-8G
Lab Project ID: G118-597

Date Collected: 11/18/2010 9:10
Date Received: 11/19/2010
Matrix: Soil
Solids 94.64
Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	6.48	mg/Kg	1	11/22/10 08:03
Surrogate Spike Results		Spike Added	Control Limits	Spike Result	Percent Recovery
OTP		40	40-140	30	75.1

Comments:

Batch Information

Analytical Batch: EP112110
Analytical Method: 8015
Instrument: GC6
Analyst: DTF

Prep batch: 17790
Prep Method: 3541
Prep Date: 11/19/10
Initial Prep Wt/Vol: 32.59 G
Prep Final Vol: 10 mL

Analyst: FX

NC Certification #481

N.C. Certification #481

Reviewed By: GM
DRO.XLS
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SGS North America, Inc.

**Results for Volatiles
by GCMS 8260-5035**

Client Sample ID: 22 SS-5 2'
Client Project ID: NCDOT Fayetteville PSA
Lab Sample ID G118-597-8D
Lab Project ID: G118-597
Report Basis: Dry Weight

Analyzed By: BWS
Date Collected: 11-18-2010 09:10
Date Received: 11/19/2010
Matrix: Soil
Sample Amount: 5.52 g
%Solids: 94.6

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	47.8	1	11/24/2010
Benzene	BQL	4.78	1	11/24/2010
Bromobenzene	BQL	4.78	1	11/24/2010
Bromochloromethane	BQL	4.78	1	11/24/2010
Bromodichloromethane	BQL	4.78	1	11/24/2010
Bromoform	BQL	4.78	1	11/24/2010
Bromomethane	BQL	4.78	1	11/24/2010
2-Butanone	BQL	23.9	1	11/24/2010
n-Butylbenzene	BQL	4.78	1	11/24/2010
sec-Butylbenzene	BQL	4.78	1	11/24/2010
tert-Butylbenzene	BQL	4.78	1	11/24/2010
Carbon disulfide	BQL	4.78	1	11/24/2010
Carbon tetrachloride	BQL	4.78	1	11/24/2010
Chlorobenzene	BQL	4.78	1	11/24/2010
Chloroethane	BQL	4.78	1	11/24/2010
Chloroform	BQL	4.78	1	11/24/2010
Chloromethane	BQL	4.78	1	11/24/2010
2-Chlorotoluene	BQL	4.78	1	11/24/2010
4-Chlorotoluene	BQL	4.78	1	11/24/2010
Dibromochloromethane	BQL	4.78	1	11/24/2010
1,2-Dibromo-3-chloropropane	BQL	23.9	1	11/24/2010
Dibromomethane	BQL	4.78	1	11/24/2010
1,2-Dibromoethane (EDB)	BQL	4.78	1	11/24/2010
1,2-Dichlorobenzene	BQL	4.78	1	11/24/2010
1,3-Dichlorobenzene	BQL	4.78	1	11/24/2010
1,4-Dichlorobenzene	BQL	4.78	1	11/24/2010
trans-1,4-Dichloro-2-butene	BQL	23.9	1	11/24/2010
1,1-Dichloroethane	BQL	4.78	1	11/24/2010
1,1-Dichloroethene	BQL	4.78	1	11/24/2010
1,2-Dichloroethane	BQL	4.78	1	11/24/2010
cis-1,2-Dichloroethene	BQL	4.78	1	11/24/2010
trans-1,2-dichloroethene	BQL	4.78	1	11/24/2010
1,2-Dichloropropane	BQL	4.78	1	11/24/2010
1,3-Dichloropropane	BQL	4.78	1	11/24/2010
2,2-Dichloropropane	BQL	4.78	1	11/24/2010
1,1-Dichloropropene	BQL	4.78	1	11/24/2010
cis-1,3-Dichloropropene	BQL	4.78	1	11/24/2010
trans-1,3-Dichloropropene	BQL	4.78	1	11/24/2010
Dichlorodifluoromethane	BQL	4.78	1	11/24/2010
Diisopropyl ether (DIPE)	BQL	4.78	1	11/24/2010
Ethylbenzene	BQL	4.78	1	11/24/2010
Hexachlorobutadiene	BQL	4.78	1	11/24/2010
2-Hexanone	BQL	11.9	1	11/24/2010
Iodomethane	BQL	4.78	1	11/24/2010

**Results for Volatiles
by GCMS 8260-5035**

Client Sample ID: 22 SS-5 2'
Client Project ID: NCDOT Fayetteville PSA
Lab Sample ID G118-597-8D
Lab Project ID: G118-597
Report Basis: Dry Weight

Analyzed By: BWS
Date Collected: 11-18-2010 09:10
Date Received: 11/19/2010
Matrix: Soil
Sample Amount: 5.52 g
%Solids: 94.6

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Isopropylbenzene	BQL	4.78	1	11/24/2010
4-Isopropyltoluene	BQL	4.78	1	11/24/2010
Methylene chloride	BQL	19.1	1	11/24/2010
4-Methyl-2-pentanone	BQL	11.9	1	11/24/2010
Methyl-tert-butyl ether (MTBE)	BQL	4.78	1	11/24/2010
Naphthalene	BQL	4.78	1	11/24/2010
n-Propyl benzene	BQL	4.78	1	11/24/2010
Styrene	BQL	4.78	1	11/24/2010
1,1,1,2-Tetrachloroethane	BQL	4.78	1	11/24/2010
1,1,2,2-Tetrachloroethane	BQL	4.78	1	11/24/2010
Tetrachloroethene	BQL	4.78	1	11/24/2010
Toluene	BQL	4.78	1	11/24/2010
1,2,3-Trichlorobenzene	BQL	4.78	1	11/24/2010
1,2,4-Trichlorobenzene	BQL	4.78	1	11/24/2010
Trichloroethene	BQL	4.78	1	11/24/2010
1,1,1-Trichloroethane	BQL	4.78	1	11/24/2010
1,1,2-Trichloroethane	BQL	4.78	1	11/24/2010
Trichlorofluoromethane	BQL	4.78	1	11/24/2010
1,2,3-Trichloropropane	BQL	4.78	1	11/24/2010
1,2,4-Trimethylbenzene	BQL	4.78	1	11/24/2010
1,3,5-Trimethylbenzene	BQL	4.78	1	11/24/2010
Vinyl chloride	BQL	4.78	1	11/24/2010
m-,p-Xylene	BQL	9.56	1	11/24/2010
o-Xylene	BQL	4.78	1	11/24/2010

	Spike Added	Spike Result	Percent Recovered
1,2-Dichloroethane-d4	30	36.2	121
Toluene-d8	30	24.9	83
4-Bromofluorobenzene	30	27	90

Comments:

Flags:

BQL = Below Quantitation Limits.

Analyst: BVO

Reviewed By:

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: 22 SS-6 4'
Client Project ID: NCDOT Fayetteville PSA
Lab Sample ID: G118-597-9A
Lab Project ID: G118-597
Report Basis: Dry Weight

Analyzed By: LMC
Date Collected: 11/18/2010 8:51
Date Received: 11/19/2010
Matrix: Soil
Solids 90.19

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.13	mg/Kg	1	11/30/10 09:11

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	92.4	92.4		70-130

Comments:

Batch Information

Analytical Batch: VP112910
Analytical Method: 8015
Instrument ID: GC4
Analyst: LMC

Prep Method: 5035
Initial Wt/Vol: 6.49 g
Final Volume: 5 mL

Analyst: LMC

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: 22 SS-6 4'
Client Project ID: NCDOT Fayetteville PSA
Lab Sample ID: G118-597-9G
Lab Project ID: G118-597

Date Collected: 11/18/2010 8:51
Date Received: 11/19/2010
Matrix: Soil
Solids 90.19
Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	6.64	mg/Kg	1	11/22/10 10:50

Surrogate Spike Results	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	28.4	71

Comments:

Batch Information

Analytical Batch: EP112210
Analytical Method: 8015
Instrument: GC6
Analyst: DTF

Prep batch: 17790
Prep Method: 3541
Prep Date: 11/19/10
Initial Prep Wt/Vol: 33.41 G
Prep Final Vol: 10 mL

Analyst: FD

NC Certification #481

N.C. Certification #481

Reviewed By: 
DRO.XLS
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SGS North America, Inc.

**Results for Volatiles
by GCMS 8260-5035**

Client Sample ID: 22 SS-6 4'
Client Project ID: NCDOT Fayetteville PSA
Lab Sample ID G118-597-9D
Lab Project ID: G118-597
Report Basis: Dry Weight

Analyzed By: BWS
Date Collected: 11-18-2010 08:51
Date Received: 11/19/2010
Matrix: Soil
Sample Amount: 6.21 g
%Solids: 90.2

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	44.6	1	11/24/2010
Benzene	BQL	4.46	1	11/24/2010
Bromobenzene	BQL	4.46	1	11/24/2010
Bromochloromethane	BQL	4.46	1	11/24/2010
Bromodichloromethane	BQL	4.46	1	11/24/2010
Bromoform	BQL	4.46	1	11/24/2010
Bromomethane	BQL	4.46	1	11/24/2010
2-Butanone	BQL	22.3	1	11/24/2010
n-Butylbenzene	BQL	4.46	1	11/24/2010
sec-Butylbenzene	BQL	4.46	1	11/24/2010
tert-Butylbenzene	BQL	4.46	1	11/24/2010
Carbon disulfide	BQL	4.46	1	11/24/2010
Carbon tetrachloride	BQL	4.46	1	11/24/2010
Chlorobenzene	BQL	4.46	1	11/24/2010
Chloroethane	BQL	4.46	1	11/24/2010
Chloroform	BQL	4.46	1	11/24/2010
Chloromethane	BQL	4.46	1	11/24/2010
2-Chlorotoluene	BQL	4.46	1	11/24/2010
4-Chlorotoluene	BQL	4.46	1	11/24/2010
Dibromochloromethane	BQL	4.46	1	11/24/2010
1,2-Dibromo-3-chloropropane	BQL	22.3	1	11/24/2010
Dibromomethane	BQL	4.46	1	11/24/2010
1,2-Dibromoethane (EDB)	BQL	4.46	1	11/24/2010
1,2-Dichlorobenzene	BQL	4.46	1	11/24/2010
1,3-Dichlorobenzene	BQL	4.46	1	11/24/2010
1,4-Dichlorobenzene	BQL	4.46	1	11/24/2010
trans-1,4-Dichloro-2-butene	BQL	22.3	1	11/24/2010
1,1-Dichloroethane	BQL	4.46	1	11/24/2010
1,1-Dichloroethene	BQL	4.46	1	11/24/2010
1,2-Dichloroethane	BQL	4.46	1	11/24/2010
cis-1,2-Dichloroethene	BQL	4.46	1	11/24/2010
trans-1,2-dichloroethene	BQL	4.46	1	11/24/2010
1,2-Dichloropropane	BQL	4.46	1	11/24/2010
1,3-Dichloropropane	BQL	4.46	1	11/24/2010
2,2-Dichloropropane	BQL	4.46	1	11/24/2010
1,1-Dichloropropene	BQL	4.46	1	11/24/2010
cis-1,3-Dichloropropene	BQL	4.46	1	11/24/2010
trans-1,3-Dichloropropene	BQL	4.46	1	11/24/2010
Dichlorodifluoromethane	BQL	4.46	1	11/24/2010
Diisopropyl ether (DIPE)	BQL	4.46	1	11/24/2010
Ethylbenzene	BQL	4.46	1	11/24/2010
Hexachlorobutadiene	BQL	4.46	1	11/24/2010
2-Hexanone	BQL	11.1	1	11/24/2010
Iodomethane	BQL	4.46	1	11/24/2010

SGS North America, Inc.

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: 22 SS-6 4'
Client Project ID: NCDOT Fayetteville PSA
Lab Sample ID G118-597-9D
Lab Project ID: G118-597
Report Basis: Dry Weight

Analyzed By: BWS
Date Collected: 11-18-2010 08:51
Date Received: 11/19/2010
Matrix: Soil
Sample Amount: 6.21 g
%Solids: 90.2

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Isopropylbenzene	BQL	4.46	1	11/24/2010
4-Isopropyltoluene	BQL	4.46	1	11/24/2010
Methylene chloride	BQL	17.8	1	11/24/2010
4-Methyl-2-pentanone	BQL	11.1	1	11/24/2010
Methyl-tert-butyl ether (MTBE)	BQL	4.46	1	11/24/2010
Naphthalene	BQL	4.46	1	11/24/2010
n-Propyl benzene	BQL	4.46	1	11/24/2010
Styrene	BQL	4.46	1	11/24/2010
1,1,1,2-Tetrachloroethane	BQL	4.46	1	11/24/2010
1,1,2,2-Tetrachloroethane	BQL	4.46	1	11/24/2010
Tetrachloroethene	BQL	4.46	1	11/24/2010
Toluene	BQL	4.46	1	11/24/2010
1,2,3-Trichlorobenzene	BQL	4.46	1	11/24/2010
1,2,4-Trichlorobenzene	BQL	4.46	1	11/24/2010
Trichloroethene	BQL	4.46	1	11/24/2010
1,1,1-Trichloroethane	BQL	4.46	1	11/24/2010
1,1,2-Trichloroethane	BQL	4.46	1	11/24/2010
Trichlorofluoromethane	BQL	4.46	1	11/24/2010
1,2,3-Trichloropropane	BQL	4.46	1	11/24/2010
1,2,4-Trimethylbenzene	BQL	4.46	1	11/24/2010
1,3,5-Trimethylbenzene	BQL	4.46	1	11/24/2010
Vinyl chloride	BQL	4.46	1	11/24/2010
m-,p-Xylene	BQL	8.91	1	11/24/2010
o-Xylene	BQL	4.46	1	11/24/2010

	Spike Added	Spike Result	Percent Recovered
1,2-Dichloroethane-d4	30	37.3	124
Toluene-d8	30	22.4	75
4-Bromofluorobenzene	30	25.5	85

Comments:

Flags:

BQL = Below Quantitation Limits.

Analyst: OV0

Reviewed By: 



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SGS North America Inc.

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 - New Jersey
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 - Maryland
 - New York
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099436

1 CLIENT: Klenfeldor
 CONTACT: Peter Pozzo PHONE NO: 336 668 0093
 PROJECT: NC DOT Fayetteville SITE ID: 4-2809-B
 REPORTS TO: Peter Pozzo
 INVOICE TO: John Stewart FAX NO.: ()
 QUOTE #: NC DOT
 P.O. NUMBER: WBS 34865.2.3

SGS Reference: WBS 34865.2.3 PAGE 1 OF 5

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	CONTAINERS	SAMPLE TYPE	Preservatives Used	Analysis Required	REMARKS
43	SS-3 4'	11/17/10	1500	Soil	3	G	✓	✓	
43	SS-4 6'	11/17/10	1509	Soil	3	G	✓	✓	
43	SS-5 6'	11/17/10	1517	Soil	3	G	✓	✓	
19	SS-1 4'	11/18/10	759	Soil	3	G	✓	✓	
19	SS-2 4'		808		3	G	✓	✓	
19	SS-3 4'		829		3	G	✓	✓	
22	SS-4 2'		910		6	G	✓	✓	
22	SS-5 2'		851		6	G	✓	✓	
147	SS-1 8'		1017		6	G	✓	✓	

2

Collected/Relinquished By: (1)	Date	Time	Received By:
<u>[Signature]</u>	11/19/10	1735	FedEx
Relinquished By: (2)	Date	Time	Received By:
<u>[Signature]</u>	11/19/10	9:55	<u>[Signature]</u>
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received By:

3

4

5

Shipping Carrier: _____
 Shipping Ticket No: _____
 Special Deliverable Requirements: _____
 Samples Received Cold? (Circle) YES NO
 Temperature °C: 4.65:1
 Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT
 Special Instructions: _____
 Requested Turnaround Time: RUSH STD _____ Date Needed _____



CHAIN OF CUSTODY RECORD
SGS North America Inc.

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 - New Jersey
 - North Carolina
 - New York
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1 CLIENT: <u>Kleinfelder</u> CONTACT: <u>Peter Porzo</u> PROJECT: <u>NCDOT Fayetteville</u> REPORTS TO: <u>Peter Porzo</u> INVOICE TO: <u>John Stewart</u> PHONE NO.: <u>(336) 608 0093</u> SITE/PWSID#: <u>4-28 0913</u> FAX NO.: () QUOTE #: <u>NCDOT</u> P.O. NUMBER: <u>WBS 34865 2.3</u>		SGS Reference: <u>WBS 34865 2.3</u> PAGE <u>2</u> OF <u>5</u>				
2		No CONTAINERS				
LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	Preservation Used Analysis Required (3)	REMARKS
	168 SS-1	11/17/10	9:50	SO1	✓	
	168 SS-2		10:19		✓	
	168 SS-3		10:06		✓	
	168 SS-5		9:34		✓	
	168 SS-6		10:35		✓	
	168 SS-7		10:44		✓	
	168 SS-8		10:58		✓	
	168 SS-9		11:06		✓	
	168 SS-10		11:21		✓	
	168 SS-11		11:32		✓	
5 Collected/Relinquished By: (1) <u>[Signature]</u>		Time	Received By:		Shipping Carrier: _____ Shipping Ticket No: _____ Special Deliverable Requirements: _____ Special Instructions: _____	
Relinquished By: (2) _____		Time	Received By:		Samples Received Cold? (Circle) YES NO Temperature °C: <u>4.6 5.1</u> Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT	
Relinquished By: (3) _____		Time	Received By:		Requested Turnaround Time: _____ <input type="checkbox"/> RUSH <input type="checkbox"/> STD	
Relinquished By: (4) _____		Time	Received By:		Date Needed _____	



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- North Carolina
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- New York
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099435

1 CLIENT: Kleinfelder
 CONTACT: Peter Pozzo PHONE NO: 336 668 0043
 PROJECT: NCDOT Fayetteville SA SITE/PROJECT ID#: U-2-80913
 REPORTS TO: Peter Pozzo
John Stewart FAX NO.: ()
 INVOICE TO: Carol Shore QUOTE #: NCDOT
 P.O. NUMBER: WBS 34865.2.3

SGS Reference: WBS 34865.2.3 PAGE 3 OF 5

PREPARATION	ANALYSIS	NO	SAMPLE TYPE	CONTAINERS	MATRIX	DATE	TIME	RECEIVED BY	REMARKS
Used	Required	3	G	3	Soil	11/17/10	1148	Fed Ex	
							1404		
							1352		
							1339		
							1326		
							1314		
							1301		
							1250		
							1437		
							1447		

4 Shipping Carrier: _____ Samples Received Cold? (Circle YES) NO
 Shipping Ticket No: _____ Temperature: 4.6, 5.1
 Special Deliverable Requirements: _____ Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT
 Special Instructions: _____
 Requested Turnaround Time: RUSH STD Date Needed _____

2 LAB NO. SAMPLE IDENTIFICATION DATE TIME RECEIVED BY

5 Collected/Relinquished By: (1) _____ Date 11/18/10 Time 1735 Received By: _____
 Relinquished By: (2) _____
 Relinquished By: (3) _____
 Relinquished By: (4) _____ Date 11/19/10 Time 9:55 Received By: [Signature]



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099431

1 CLIENT: Kleinfelder PHONE NO: ()

CONTACT: Peter Bozza

PROJECT: NC DOT Fayetteville I-75A SITE/PROJECT ID#:

REPORTS TO:

INVOICE TO:

FAX NO.:()

QUOTE #:

P.O. NUMBER: WBS 3496.2.3

SGS Reference: G118-597 PAGE 4 OF 5

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No CONTAINERS	SAMPLE TYPE	Preservatives Used	Analysis Required	REMARKS
147	SS-2	11/8/10	1024	Soil	6	G			
147	SS-3		1040		6	G			
147	SS-4		1107		6	G			
147	SS-5		1124						
147	SS-6		1252						
147	SS-7		1304						
147	SS-8		1320						
147	SS-9		1338						
147	SS-10		1406						
147	17A-12	11/11/10	1500						sample is changed by Per P. POZZO 11/11

2 Collected/Relinquished By: (1) [Signature] Received By: FedEx

Relinquished By: (2) [Signature] Received By: [Signature]

Relinquished By: (3)

Relinquished By: (4) [Signature] Received By: [Signature]

Shipping Carrier: 4.65 Samples Received Cold? (Circle) YES / NO

Shipping Ticket No: 4.65 Temperature °C: 4.65

Special Deliverable Requirements: INTACT Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

Special Instructions:

Requested Turnaround Time: STD RUSH Date Needed



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099434

1 CLIENT: <u>Kleinfeldt</u> CONTACT: <u>Peter Petro</u> PHONE NO: () PROJECT: <u>NC DOT Fayetteville FSA</u> REPORTS TO: INVOICE TO: 2 P.O. NUMBER: <u>WBS 34865.2.3</u>			SGS Reference: <u>G118-597</u> PAGE <u>5</u> OF <u>5</u>	
No CONTAINERS <u>6</u>			Preservatives Used: <u>Method</u> Analysis Required: <u>3</u>	
SAMPLE TYPE: <u>Soil</u> C= COMP G= GRAB			REMARKS	
LAB NO. <u>147 HA-2 4</u>			DATE <u>11/18/10</u> TIME <u>1434</u> MATRIX <u>Soil</u>	
SAMPLE IDENTIFICATION			Shipping Carrier:	
5 Collected/Relinquished By: (1) <u>[Signature]</u>			Shipping Carrier: <u>FedEx</u>	
Relinquished By: (2) <u>[Signature]</u>			Shipping Ticket No:	
Relinquished By: (3)			Special Deliverable Requirements:	
Relinquished By: (4) <u>11/18/10 9:55</u>			Special Instructions:	
Date <u>11/18/10</u> Time <u>1735</u>			Samples Received Cold? (Circle) YES NO	
Date <u>11/18/10</u> Time <u>9:55</u>			Temperature °C: <u>4.6, 5.1</u>	
Date <u>11/18/10</u> Time <u>9:55</u>			Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT	
Date <u>11/18/10</u> Time <u>9:55</u>			Requested Turnaround Time: <input type="checkbox"/> RUSH <input type="checkbox"/> STD	

200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301
 5000 Business Drive Wilmington, NC 28405 Tel: (910) 350-1903 Fax: (910) 350-1557

White - Retained by Lab
 Pink - Retained by Client