PSA REPORT

PRELIMINARY SITE ASSESSMENT PARCEL 11 DALE WHISENANT PROPERTY 116 WEST KING STREET BOONE, WATAUGA COUNTY, NORTH CAROLINA WBS ELEMENT 35015.1.1 TIP U-4020

Prepared for

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June 4, 2008



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Certification

This Report was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my thorough inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

CENSED LA

URS Corporation – North Carolina

Walter Plekan, L.G. Project Manager

NC License No.

2061

SECTIONONE Introduction

1.1 INTRODUCTION

This report documents a Preliminary Site Assessment (PSA) conducted by URS Corporation – North Carolina (URS) on behalf of the North Carolina Department of Transportation (NCDOT). The assessment area is located within a proposed NCDOT Right-of-Way (ROW) and/or construction easement necessary for the planned expansion of US 421 (King Street) from US 321 (Hardin Street) to east of NC 194 (Jefferson Road). This PSA was conducted in Boone, Watauga County, North Carolina (**Figure 1**) for Parcel 11, Dale Whisenant Property, located at 116 West King Street. Only the portion of Parcel 11 lying within the proposed ROW was evaluated for this PSA.

This PSA was performed in general accordance with:

- NCDOT's February 20, 2008 Request for Technical and Cost Proposal (RFP) entitled:
 <u>Request for Technical and Cost Proposal, Preliminary Site Assessment, Parcel 11, Dale Whisenant Property</u>. The RFP established the following scope of work (SOW) for the project:
 - Locate all underground storage tanks (USTs) and determine approximate size and contents (if any).
 - Determine if contaminated soils are present.
 - If contamination is evident, estimate the quantity of impacted soils and indicate the approximate area of soil contamination on a Site map.
 - Prepare a report including field activities, findings, and recommendations for the Site and submit the report to NCDOT in triplicate.
- URS's March 7, 2008 Technical and Cost Proposal entitled: <u>Revised Technical and Cost Proposal, Preliminary Site Assessment, Parcel 11, Dale Whisenant Property</u>.
- NCDOT's March 7, 2008 <u>Notice to Proceed, Preliminary Site Assessment, Parcel 11, Dale Whisenant Property.</u>

The project included a geophysical survey, soil sampling using a Geoprobe[®] rig, and laboratory analyses of selected soil samples from within the proposed NCDOT ROW or construction easement. The geophysical survey was first conducted by URS in order to establish the locations of any USTs within the subject areas. Based on the results of the geophysical survey and anecdotal evidence, boring locations were identified and the direct-push borings were completed by a qualified drilling subcontractor (SAEDACCO of Fort Mill, South Carolina) under the supervision of a URS geologist. Analysis of soil samples were performed by Prism Laboratories, Inc. (Prism) of Charlotte, North Carolina under direct contract with NCDOT.

1.2 BACKGROUND

The objective for this PSA is to assess the Site for impacted soil and to delineate potential impacts found in soils. The Site location relative to the Town of Boone and the project area is shown in **Figure 1**, and its location relative to the adjacent project parcels along with major project features is shown in **Figure 2**. US 421 runs east/west through Boone, NC, and the parcel is located at the northwest corner of the intersection of US 421 (West King Street) and US 321

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SECTIONONE Introduction

(Hardin Street). The parcel lies at an elevation of approximately 3,250 feet above mean sea level (ft msl).

The owner of Parcel 11 indicated that two former gas stations have operated at this location in the past. Both former station buildings are still present on the parcel and are utilized for commercial businesses. No ancillary gas station equipment or monitoring wells were noted during the Site visits. The area of interest is within the proposed ROW which encompasses a 370 ft long strip approximately 20 to 35 ft wide along the southern property boundary.

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2.1 GEOPHYSICAL SURVEY

The geophysical survey for Parcel 11 was conducted between March 18 and 22, 2008 by URS using the electromagnetic (EM) method augmented by ground-penetrating radar (GPR). The EM survey was completed using the Geonics, Ltd. EM-61 MKII (EM-61). The objective of the geophysical survey was to locate USTs or anomalies within the proposed ROW of US 421. A Trimble ProXRS global positioning system (GPS) was used to record simultaneous positional data coincident with the EM-61 data. EM-61 data were collected along parallel profiles spaced approximately three feet apart across the survey area. Data were recorded at a rate of five readings per second, which equates to an along-profile data point spacing of less than one foot. The acquired differential GPS (DGPS) has a horizontal accuracy of approximately three feet. URS also used the GPS system to record the locations of relevant Site features.

The EM-61 data were processed in the field using the program DAT61 MK2 (Geonics Ltd). The program was used primarily to prepare the data for contouring in Surfer (Golden Software, Inc.). The contoured EM-61 Channel 3 responses (data recorded at the second latest time interval along the response decay curve) were used to layout boring locations throughout the entire parcel. The late time response data provide enhanced detection of objects with longer decay rates which are characteristic of larger objects such as USTs. The effectiveness of the EM-61 for detection of buried objects is negatively affected by interference from surface or near-surface features (e.g. reinforced concrete, buried catch basins, etc.). The objective of augmenting the EM-61 survey with follow-up GPR surveying was to further characterize identified EM-61 anomalies that could not be readily attributed to existing site features.

Follow-up GPR surveying was then conducted using a Sensors & Software, Inc. Noggin PLUS Smart Cart System with a 250 MHz scanning antenna. The GPR survey was conducted within sections of the parcel that exhibited widespread large EM responses due to the presence of buildings, reinforced concrete, or other site-specific features. GPR surveying consisted of infield analysis of real-time data, and as a result, no post-processing of the data was completed.

2.2 SOIL BORING INSTALLATION AND SOIL SAMPLING

Thirteen Geoprobe[®] direct-push soil borings, P11-1 through P11-13, were installed on April 8, 2008 to assess the Site for impacted soil. The locations of the soil borings are shown on **Figure** 3. Soil samples were collected and logged continuously at each soil boring location. Soil sample aliquots were field screened for organic vapors with a MiniRae[®] brand photo-ionization detection (PID) instrument calibrated daily with 100 parts per million (ppm) isobutylene.

Soil samples from selected intervals were collected from each boring (P11-1 thru P11-13) during the soil investigations for laboratory analysis. The samples were analyzed for Total Petroleum Hydrocarbons (TPH) as gasoline range organics (GRO) and diesel range organics (DRO) using USEPA Method 8015B.

2.3 QUALITY CONTROL/QUALITY ASSURANCE PROCEDURES

While in the field, pertinent observations were recorded in a logbook maintained by the URS field representative. This included pertinent field data collection activities and other observations as appropriate. Each sample collected for laboratory analysis was assigned a unique sample identification number and placed in laboratory supplied containers appropriate for

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SECTIONTWO

Methods of Investigation

the parameters being analyzed. Samples collected for laboratory analyses were stored on ice in insulated coolers immediately following collection. Information on the custody, transfer, handling, and shipping of all samples was recorded on a chain-of-custody form that accompanied the samples to the laboratory.

Soil analytical data were evaluated based on the <u>Contract Laboratory Program National</u> <u>Functional Guidelines for Organic Data Review</u> (USEPA, October 1999). Sample results have been qualified based on the results of the data review process and are considered representative and valid for the purpose of this report.

URS 2-2

The EM-61 results are provided as a color enhanced contour map for use in the field during the drilling operation (**Figure 4**). The map differentiates areas interpreted as background from areas of relatively high EM responses that are generally indicative of large buried metal objects or surface or near-surface features (e.g. suspected underground utilities, guard rail, fence). Interpretation of in-field data analysis revealed no EM anomalies indicative of USTs within the areas of Parcel 11 surveyed. However, the EM-61 results indicated widespread areas of elevated responses as shown on **Figure 4**. Follow-up GPR surveying was therefore conducted across the proposed ROW at Parcel 11 to further evaluate the potential presence of USTs in this area. The GPR survey did not indicate the presence of any USTs.

A total of thirteen soil borings were completed during the PSA investigation at Parcel 11. All of the borings were advanced to 12 ft bgs with the exception of P11-3, were refusal was encountered at 8 ft bgs. Boring locations are shown in **Figure 3** and boring logs are provided in **Appendix A**. The soil is generally described as predominantly light brown, loose, silty sand. Groundwater was not encountered in any of the soil borings.

Soil headspace screening readings and laboratory results (TPH as GRO and DRO) of soil samples collected from each soil boring are summarized in **Table 1** along with the Unified Soil Classification System (USCS) lithology. The complete laboratory report is included in **Appendix B**.

Elevated PID readings were observed in soil samples collected from soil borings P11-1, P11-2, P11-3, P11-10, P11-11, and P11-12 and ranged from 3 to 9999+ ppm (see **Table 1**). The highest PID readings were recorded in the 0 to 4 ft bgs interval and generally decreased with depth at theses six locations.

At each of the six borings were elevated PID readings were observed, two samples were collected, a shallow sample between 2 and 4 ft bgs and a deeper sample at the bottom of the boring or generally 12 ft bgs. GRO and DRO were reported above the NCDENR action level of 10 micrograms per kilogram (mg/kg) at the six previously mentioned borings with the exception of GRO at P11-12, which was below the detection limit. GRO concentrations ranged from 32 to 4,700 mg/kg and DRO concentrations ranged from 15 to 530 mg/kg. The deeper samples were below detection levels with the exception of P11-10, which was detected at 7.6 mg/kg, below the NCDENR action level.

Based on the boring locations and current laboratory data, it appears that two separate soil impact areas exist within the proposed ROW of Parcel 11. Assuming there was two stations, and based on typical retail station layouts, these two impacted areas may correspond to the two former pump island areas. Based on field screening of soil (**Table 1**), the impacted zone is generally no deeper than 5 to 6 ft bgs. Based on a 10 mg/kg TPH level, a 5 to 6 ft thickness, and the surface areas delineated on **Figure 5**, URS estimates 825 tons of impacted soil is located within the proposed easement of Parcel 11 (note that additional impacted soil may exist between the easement and the buildings to the north). The impacted soil estimates are based on areas with approximate dimensions of 80 ft long by 12 ft wide (west area) and 70 ft long by 25 ft wide (east area) and an average depth of 5.5 ft and an estimated soil density of 1.5 tons/cubic yard.

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SECTIONFOUR Limitations

This geophysical investigation was conducted in accordance with reasonable and accepted engineering geophysics practices, and the interpretations and conclusions are rendered in a manner consistent with other consultants in our profession. All geophysical techniques have some level of uncertainty and limitations. No other representations of the reported information is expressed or implied, and no warranty or guarantee is included or intended.

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SECTIONFIVE References

United States Environmental Protection Agency, <u>Contract Laboratory Program National</u>
<u>Functional Guidelines for Organic Data Review</u>, 1999

- North Carolina Department of Transportation, <u>Request for Technical and Cost Proposal</u>, <u>Preliminary Site Assessment, Parcel 11, Dale Whisenant Property</u>, February 20, 2008
- URS Corporation North Carolina, Technical and Cost Proposal entitled: <u>Revised Technical</u> <u>and Cost Proposal, Preliminary Site Assessment, Parcel 11 Dale Whisenant Property</u>, March 7, 2008
- North Carolina Department of Transportation, <u>Notice to Proceed Preliminary Site Assessment</u>, <u>Parcel 107, Dale Whisenanat Property</u>, March 7, 2008

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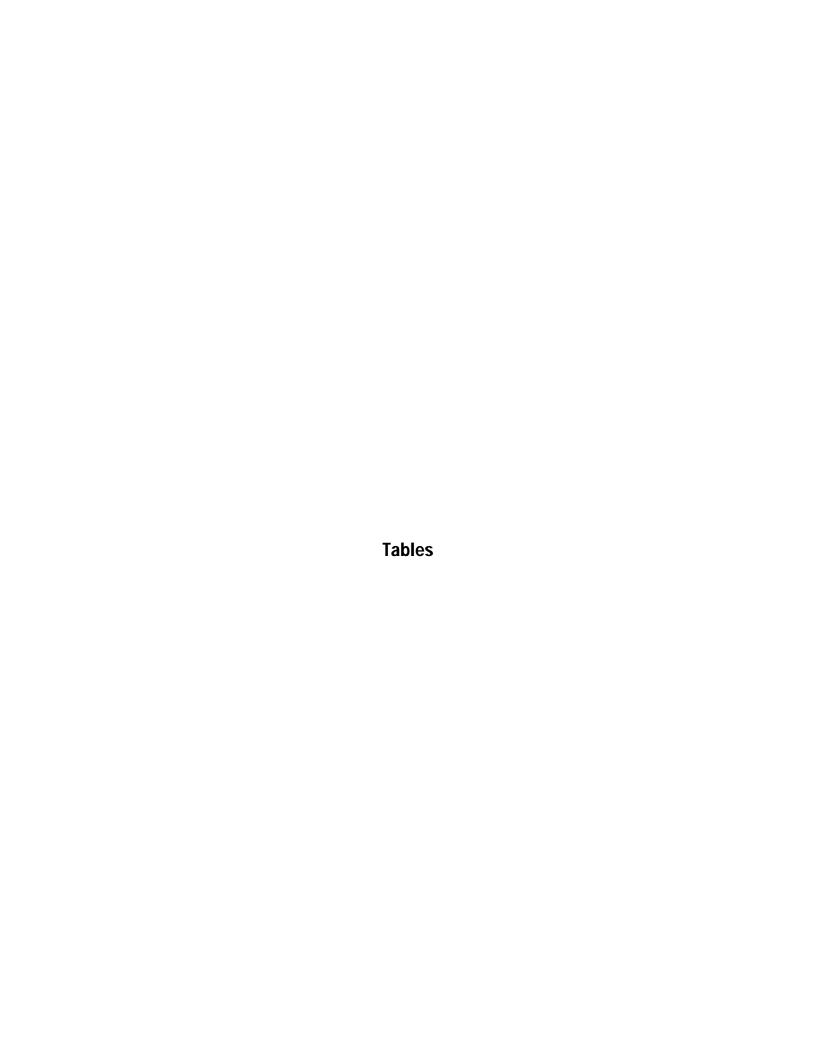


Table 1 SUMMARY OF SOIL ANALYTICAL RESULTS PARCEL 11

DALE WHISENANT PROPERTY 116 WEST KING STREET

BOONE, WATAUGA COUNTY, NORTH CAROLINA

			FIELD	LARORATOR	RY ANALYSES	
			SCREENING		EORGANICS	
		DEPTH	PID	GRO	DRO	USCS
LOCATION	DATE	(ft bgs)	(ppm)	(mg/kg)	(mg/kg)	LITHOLOGY
		2.	ND	-	- (9/1.9/	202001
P11-1	04/08/08	4.	71.4	32.	530.	†
		6.	ND	-	-	†
		8.	ND	-	_	SM
		10.	ND	-	_	1
		12.	ND	ND (3.9)	ND (1.4)	†
		12.	IVE	145 (0.0)	148 (1.4)	
		2.	9,999	-	-	
P11-2	04/08/08	4.	1,047	4,700.	63.	
		6.	20	-	-	
		8.	67	_	-	SM
		10.	15	-	_	†
		12.	ND	ND (3.8)	ND (1.4)	†
		12.	112	112 (0.0)	142 (1.1)	
		2.	4,000	650.	76.	
P11-3	04/08/08	4.	4,000 ND	-		
		6.	ND	_	-	SM
		8.	ND	ND (4.0)	ND (1.4)	-
		<u> </u>	IND	145 (4.0)	146 (1.4)	
		2.	ND	_	_	
P11-4	04/08/08	4.	ND	_	_	†
		6.	ND	-	-	-
		8.	ND	_	-	SM
		10.	ND		_	-
		12.	ND	ND (3.8)	ND (1.4)	-
		12.	IND	140 (5.6)	ND (1.4)	
		2.	ND	_	_	
P11-5	04/08/08	4.	ND	-	-	+
		6.	ND		_	-
		8.	ND	-	-	SM
		10.	ND	_	-	-
		12.	ND	ND (3.5)	ND (1.2)	+
		12.	IND	140 (5.5)	140 (1.2)	
		2.	ND	_		
P11-6	04/08/08	4.	ND	-	-	1
		6.	ND ND	-	-	1
		8.	ND	-	-	SM
		10.	ND	-	-	1
		12.	ND	ND (4.0)	ND (1.4)	1
		2.	ND ND	TVD (4.0)	-	
P11-7	04/08/08	4.	ND	-	-	1
		6.	ND ND	-	-	1
	1		ND ND	_	-	SM
		×		_	ı -	4
		8. 10		=	_	
		10.	ND	- ND (3.9)	- ND (1.4)	
				- ND (3.9)	- ND (1.4)	
		10. 12.	ND ND	ND (3.9)	ND (1.4)	
P11-8	04/08/08	10. 12. 2.	ND ND	ND (3.9)	ND (1.4)	
P11-8	04/08/08	10. 12. 2. 4.	ND ND ND	ND (3.9) - -	ND (1.4)	
P11-8	04/08/08	10. 12. 2. 4. 6.	ND ND ND ND ND	ND (3.9)	ND (1.4)	SM
P11-8	04/08/08	10. 12. 2. 4. 6. 8.	ND ND ND ND ND ND	ND (3.9)	ND (1.4)	SM
P11-8	04/08/08	10. 12. 2. 4. 6.	ND ND ND ND ND	ND (3.9)	ND (1.4)	SM

Table 1 SUMMARY OF SOIL ANALYTICAL RESULTS

PARCEL 11 DALE WHISENANT PROPERTY

116 WEST KING STREET

BOONE, WATAUGA COUNTY, NORTH CAROLINA

			FIELD	LABORATOR	RY ANALYSES	
			SCREENING	TPH RANGE	ORGANICS	
LOCATION	DATE	DEPTH	PID	GRO	DRO	USCS
LOCATION	DATE	(ft bgs)	(ppm)	(mg/kg)	(mg/kg)	LITHOLOGY
P11-9	04/08/08	2.	ND	-	-	
111-3	04/00/00	4.	ND	-	-	
		6.	ND	-	-	SM
		8.	ND	-	-	Oivi
		10.	ND	-	-	
		12.	ND	ND (3.7)	ND (1.3)	
P11-10	04/08/08	2.	20.7	-	-	
1 11 10	04/00/00	4.	3,434	690.	67.	
		6.	5.1	-	-	SM
		8.	3.0	-	-	Oivi
		10.	16.1	-	-	
		12.	ND	7.6	ND (1.4)	
P11-11	04/08/08	2.	ND	-	-	
	0-1/00/00	4.	663	130.	110.	
		6.	ND	-	-	SM
		8.	ND	-	-	
		10.	25.2	-	-	
		12.	ND	ND (4.1)	ND (1.5)	
P11-12	04/08/08	2.	ND	-	-	
	04/00/00	4.	2,195	ND (3.7)	15.	
		6.	119	-	-	SM
		8.	20	-	-	
		10.	20	-	-	
		12.	ND	ND (4.0)	ND (1.4)	
P11-13	04/08/08	2.	ND	-	-	
	3-7,00,00	4.	ND	-	-]
		6.	ND	-	-	SM
		8.	ND	-	-]
		10.	ND	-	-]
		12.	ND	ND (3.8)	ND (1.4)	

NCDENR UST Section Action Levels: 10 10 NCDENR Non-UST Petroleum Action Levels: 10 40

LEGEND:

ft bgs - feet below ground surface mg/Kg - milligrams per kilogram

ppm - parts per million

PID - Photo Ionization Detector (field screening results)

TPH - Total Petroleum Hydrocarbons

DRO - Diesel Range Organics (determined by laboratory via EPA Method 8015B)

GRO - Gasoline Range Organics (determined by laboratory via EPA Method 8015B)

ND(7.3) - Not Detected above the indicated detection limit

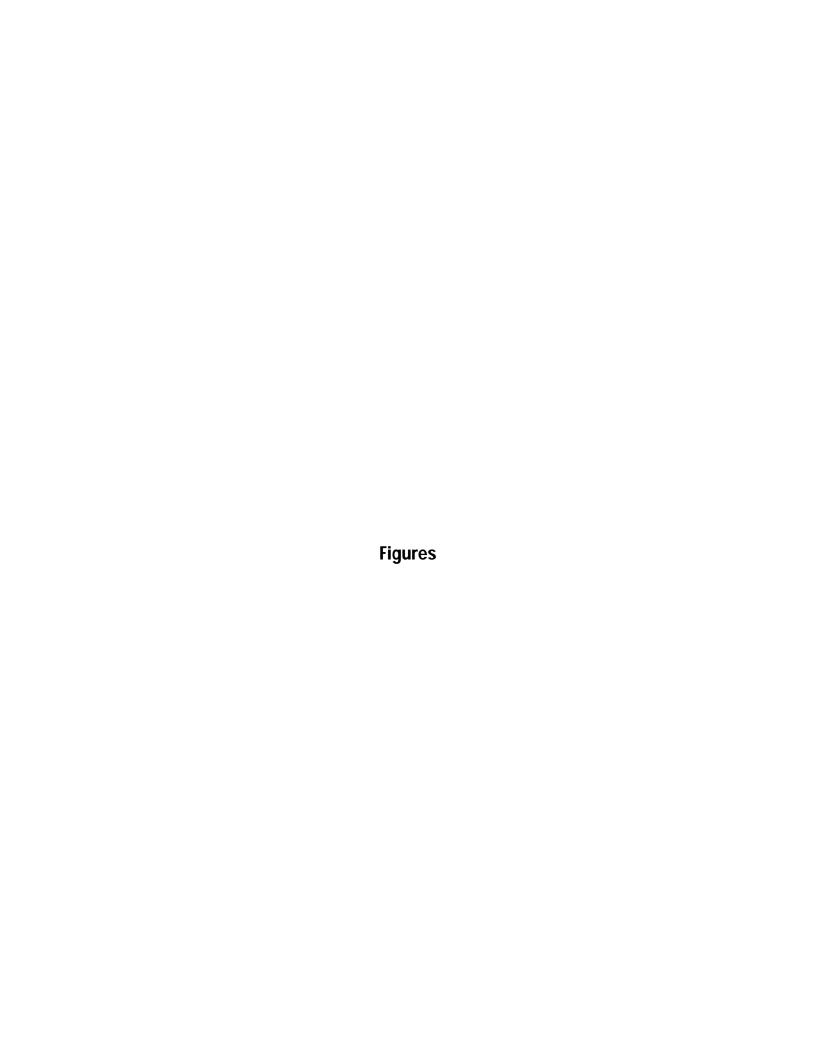
USCS - Unified Soil Classification System.

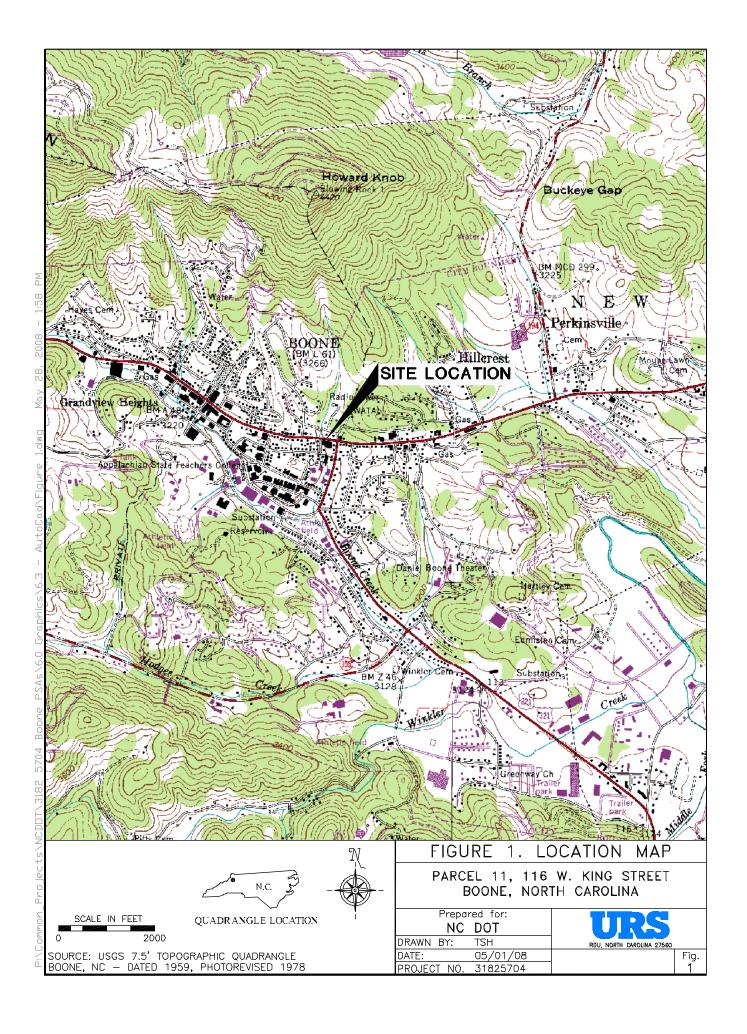
NOTES:

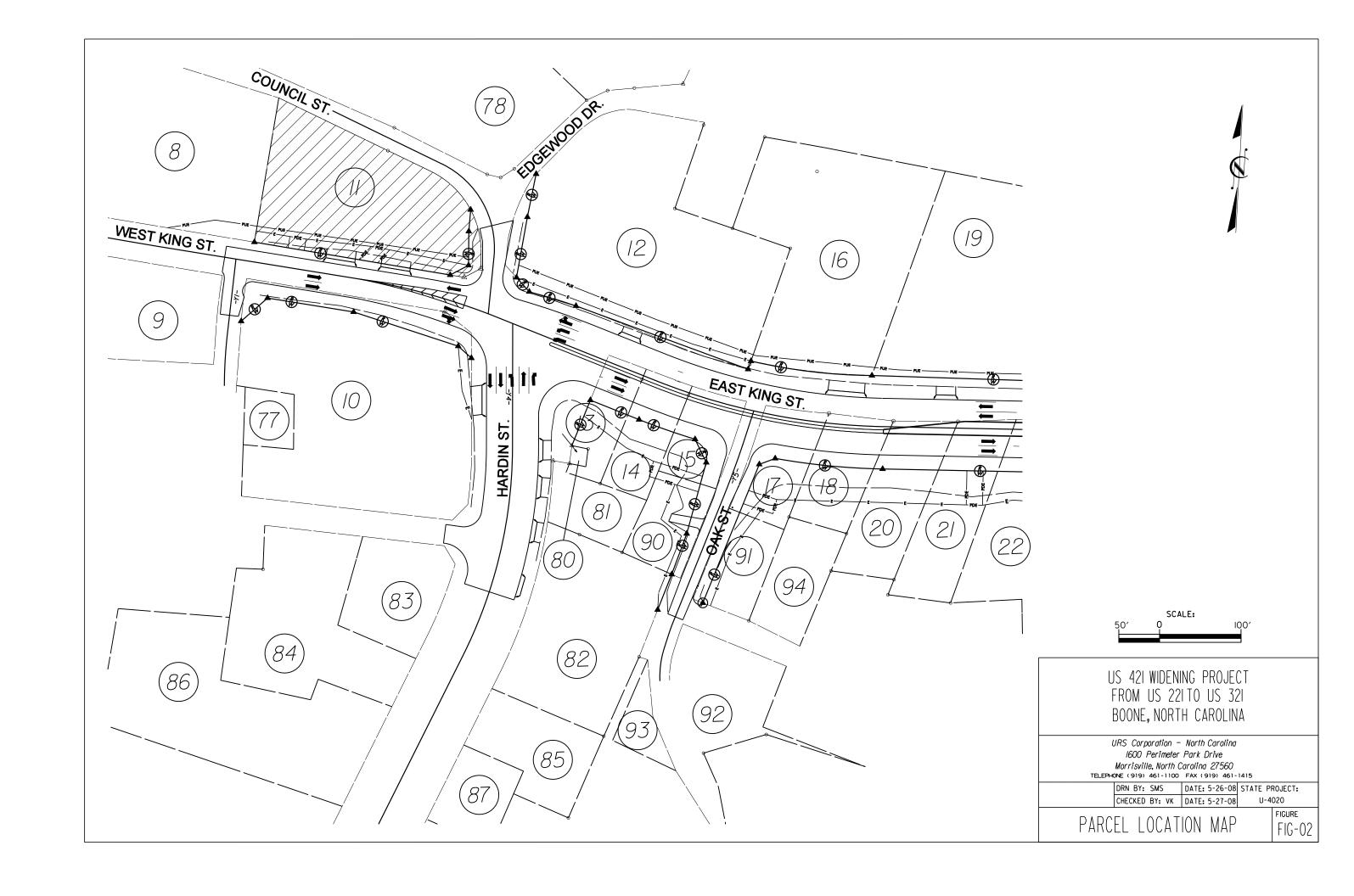
Soil samples were collected by URS on the dates shown.

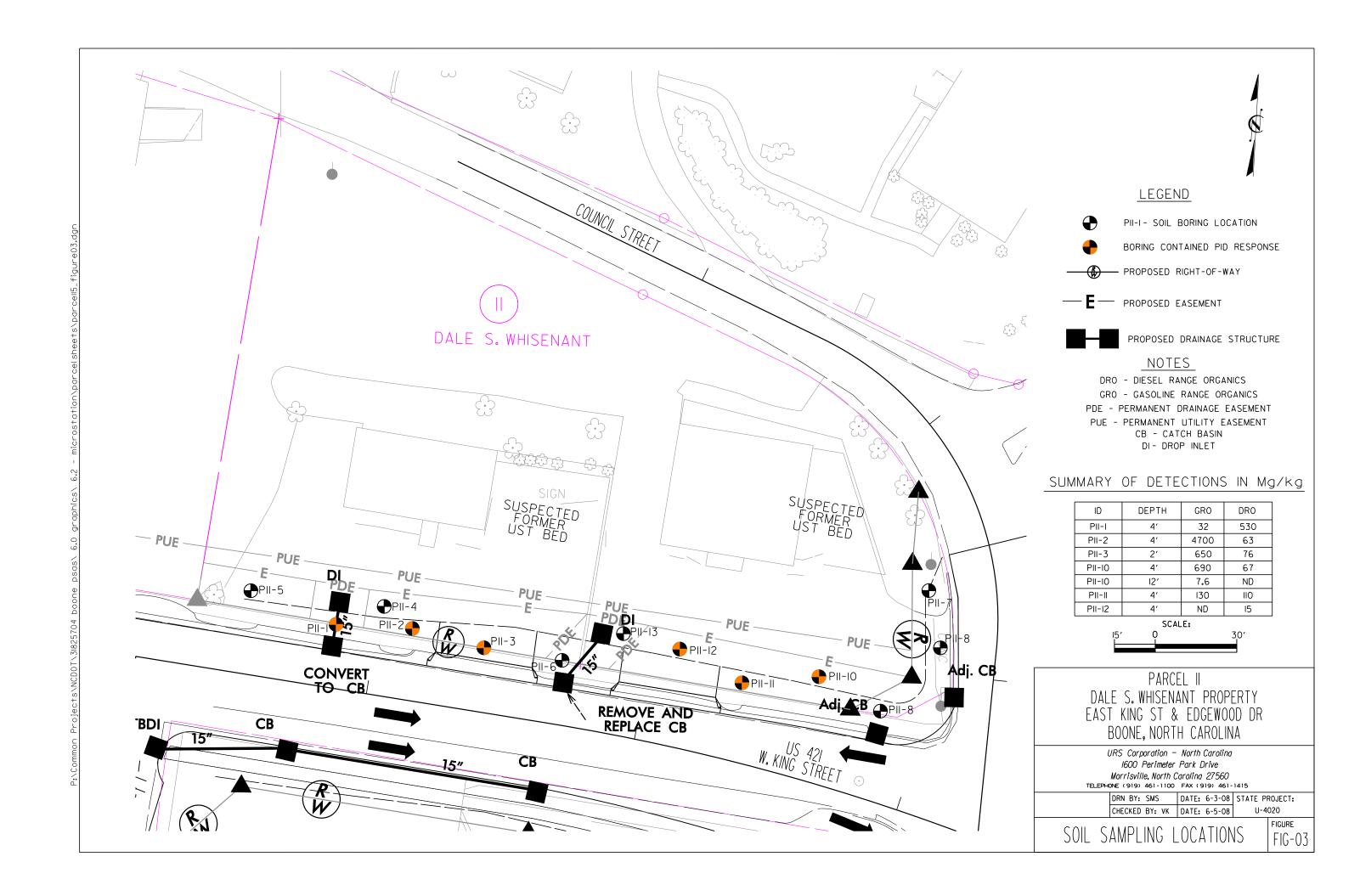
All results reported on a dry-weight basis.

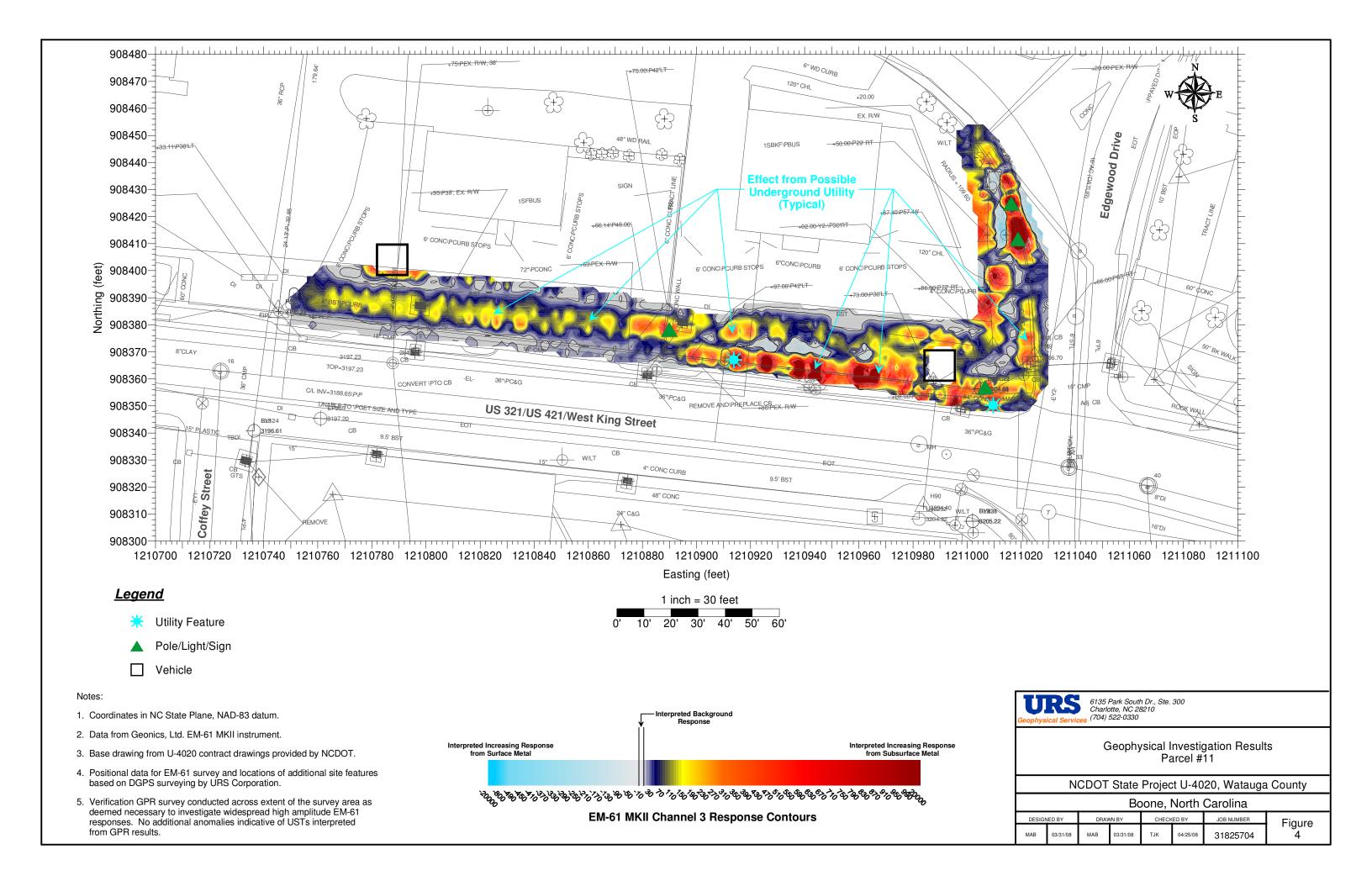
Action Levels were taken from the NCDENR UST Section, <u>Guidelines for Assessment and Corrective Action</u> (NCDENR, UST Section, July 2001) and <u>Guidelines for the Investigation and Remediation of Contamination from Non-UST Petroleum Releases</u> (NCDENR, UST Section, July 2007).

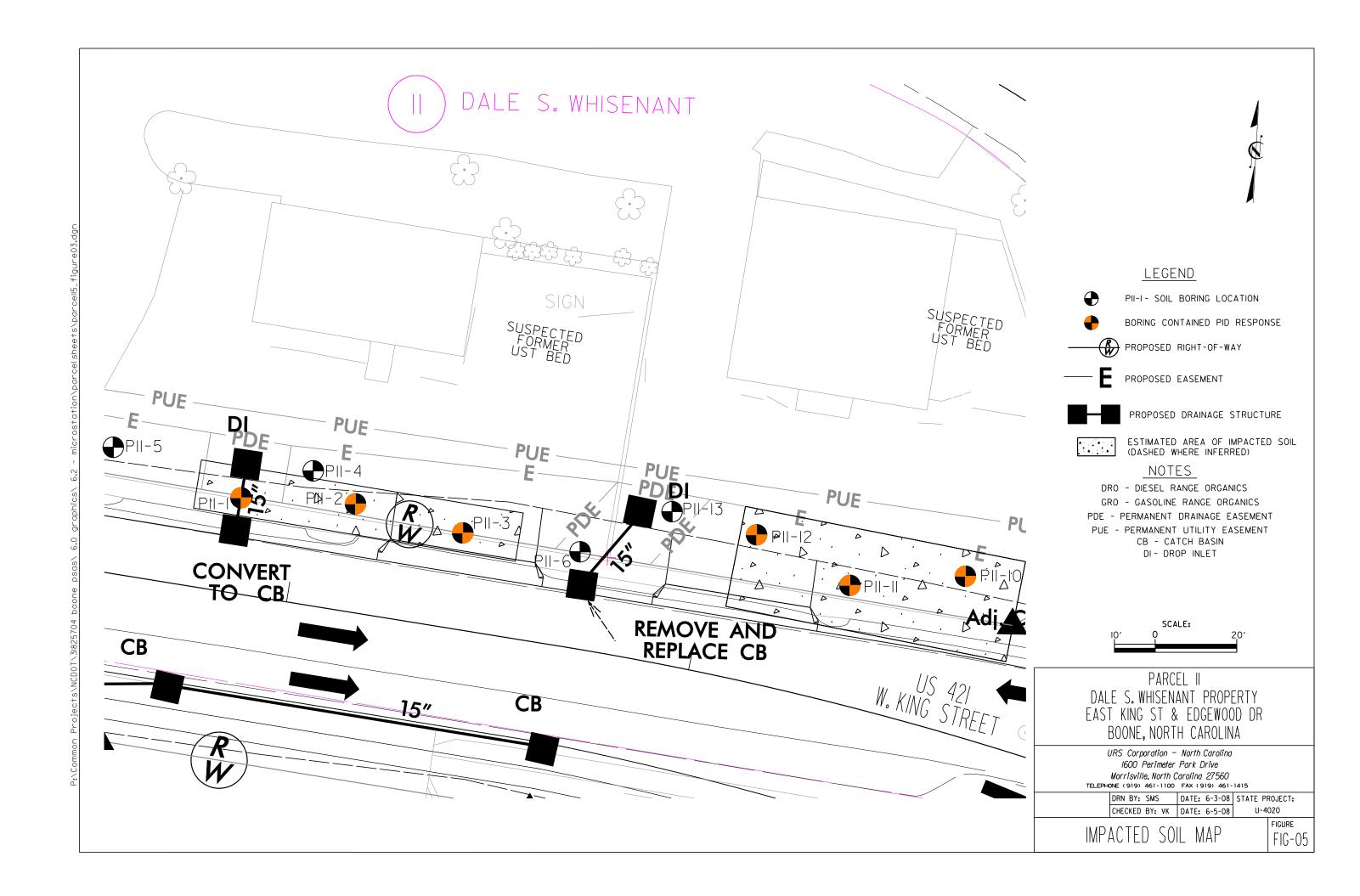












Appendix A
Soil Boring Logs

Permit #			Drill Date	04/08/08	Site		Parcel 11
Client NCDOT Address	Roono	North	Use Carolina			Corporation I Depth (ft)	12
Orilling Method			ect push	Boring Depth (ft) 12		ng Diam. (in)	2.25
ackfill Material	benton			NA		c Water Level	unknown
mrks <i>Groundw</i>	ater not enc	ounter	red	TOC Elevation	Sam	ple Method	Acetate liner
n boring.							
Depth (ft.)	Sample Depth (ft)	Blows/ 6"	OVA (ppm)	Geologic	Descriptio	on	Typical Diagram
0				loose, dry, light brown,	silty Sand (SM), asphalt	
			0.0 ppm				
4 — P11-1-			71.4 ppm				
	4 4'		0.0 ppm				\
6 —			0.0 ppm	loose, dry, light brown	silty Sand	(SM), mica	backfilled with bentonite
8 —			0.0 ppm				pack
10			0.0 ppm	_			

SAEDACCO

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Not to Scale

12'

Michael Meese

Driller:

P11-1-12

U	J	RS
Permit	#	
Client	NCD	OT

BORING LOG: P11-2

Permit #	ŧ			Drill Date	04/08/0	8	Site	Parcel 11
	NCDOT			Use	0 11 001 0	<u>-</u>	URS Corporation	
Address		Boone,		Carolina			Total Depth (ft)	12
Drilling N				ect push	Boring Depth (ft)	12	Boring Diam. (in)	2.25
Backfill N		rial bentonite			NA		Static Water Level	unknown
Rmrks	mrks Groundwater not encountered			TOC Elevation		Sample Method	Acetate liner	
in borin	ıg.							
Depth (ft.)	Sample ID	Sample Depth (ft)	Blows/ 6"	OVA (ppm)	Geo	logic Des	cription	Typical Diagram
0	1				loose, dry, light	brown, silty	Sand (SM), asphalt	
				9999 ppm				
4 —				1047 ppm				
4 —	P11-2-4	4'		20 ppm	loose, dry, ligh	t brown, silt	y Sand (SM), mica	\
8 —	1			67 ppm				backfilled with bentonite
				15 ppm				bac
				0.0 ppm				Not to Scale
12	P11-2-12	12'			E	Bottom of bo	ring	
Notes:	n+:	Miche-			Drillor: CAEDAG	200		
Geologis	SI.	Michae	i iviees	е	Driller: SAEDAC	,00		

U	RS
Permit	#
Client	NCDOT

BORING LOG: P11-3

Permit #	<u> </u>			Drill Date	04/08/0	8	Site	Parcel 11
	NCDOT			Use			URS Corporation	
Address		Boone,	North	Carolina			Total Depth (ft)	8
Drilling N		od Geoprobe direct push				Boring Diam. (in)	2.25	
Backfill N				NA		Static Water Level	unknown	
Rmrks	ks Groundwater not encountered		TOC Elevation		Sample Method	Acetate liner		
in borin	g.							
Depth (ft.)	Sample ID	Sample Depth (ft)	Blows/ 6"	OVA (ppm)	Geo	logic Des	cription	Typical Diagram
2 — 2 — 4 — — 6 — — — — — — — — — — — — — — —	P11-3-2	2'		0.0 ppm			Sand (SM), asphalt / Sand (SM), mica	backfilled with bentonite △
8 — — — 10 — —	P11-3-8	8'				Refusal at	8'	backfille
12 Notes:								Not to Scale
Geologis	st:	Michae	l Mees	ie	Driller: SAEDAC	cco		

Permit #			Drill Date	04/08/08	Site	Parcel 11
Client NCDOT			Use		URS Corporation	
Address			Carolina	T	Total Depth (ft)	12
Orilling Method			ect push	Boring Depth (ft) 12	Boring Diam. (in)	2.25
Backfill Material	benton			NA NA	Static Water Level	unknown
Rmrks Groundwa	ter not ence	ounter	red	TOC Elevation	Sample Method	Acetate liner
n boring.		ı	1	T		
Depth (ft.)	Sample Depth (ft)	Blows/ 6"	OVA (ppm)	Geologic E	escription	Typical Diagram
0				loose, dry, light brown, s	ilty Sand (SM), asphalt	
2 — — — — — — — —			0.0 ppm	_		
6 —			0.0 ppm	loose, dry, light brown,	silty Sand (SM), mica	<
			0.0 ppm			backfilled with bentonite
* — — —			0.0 ppm			pack
10			0.0 ppm			

SAEDACCO

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Not to Scale

Michael Meese

Driller:

P11-4-12

Drilling Method Geoprobe direct push Boring Depth (ft) 12 Boring Diam. (in) 2 Backfill Material bentonite NA Static Water Level unk Rmrks Groundwater not encountered TOC Elevation Sample Method Acets in boring. Typical Geologic Description Diagran O COUNTY OF THE PUBLIC OF THE PU	Permit #			Drill Date	04/08/08	!	Site	Parcel 11
Drilling Method Geoprobe direct push boring Depth (ft) 12 Boring Diam. (in) 2 Backfill Material bentonite NA Static Water Level unk Rmrks Groundwater not encountered TOC Elevation Sample Method Acets in boring. Typica Geologic Description Typica Diagran O O Ppm	Client <i>NCDOT</i>			Use			URS Corporation	
Backfill Material bentonite NA Static Water Level unk Rmrks Groundwater not encountered TOC Elevation Sample Method Aceta in boring. Company	Address	Boone,	North	Carolina				12
Remriks Groundwater not encountered TOC Elevation Sample Method Aceta in boring. 1	Drilling Method	Geopro	be dir	ect push	Boring Depth (ft)	12	Boring Diam. (in)	2.25
in boring. (i) (i) (ii) (ii) (ii) (ii) (ii) (ii)	Backfill Material	benton	ite		NA		Static Water Level	unknown
Typical Diagram Typical Diagram Typical Diagram O	Rmrks Groundwa	ter not enc	ounter	red	TOC Elevation		Sample Method	Acetate liner
0.0 ppm	in boring.				•			
0.0 ppm	Depth (ft.)	Sample Depth (ft)	Blows/ 6"	OVA (ppm)	Geol	ogic De	scription	Typical Diagram
2	0				loose, dry, light b	rown, silty	Sand (SM), asphalt	
8 — 0.0 ppm — 0.0 ppm — 0.0 ppm	4 —			0.0 ppm	loose, dry, light	brown, sil	ty Sand (SM), mica	onite
	8 — 8 — 10 —			0.0 ppm				backfilled with bentonite
12 P11-5-12 12' Bottom of boring	42	0		о.о ррпі				Not to Scale

SAEDACCO

12'

Michael Meese

Driller:

P11-5-12

12

Permit #			Drill Date	04/08/08	Site	Parcel 11
Client NCDOT			Use		URS Corporation	
Address	Boone	, North	Carolina		Total Depth (ft)	12
Orilling Method	Geopre	obe dir	ect push	Boring Depth (ft) 12	Boring Diam. (in)	2.25
Backfill Material	benton	ite		NA	Static Water Leve	el <i>unknown</i>
Rmrks Groundw	ater not enc	ounter	red	TOC Elevation	Sample Method	Acetate liner
in boring.	T	1	,			
Depth (ft.)	Sample Depth (ft)	Blows/ 6"	OVA (ppm)	Geologic [Description	Typical Diagram
0				loose, dry, light brown, s	ilty Sand (SM), asphalt	
2 — 2 — 4 — 6 — 8 —			0.0 ppm 0.0 ppm 0.0 ppm	loose, dry, light brown,	silty Sand (SM), mica	backfilled with bentonite
10			0.0 ppm	_		
						Not to Scale
12 P11-6-	12 12'			Bottom o	t boring	

SAEDACCO

Michael Meese

Driller:

Permit #			Drill Date	04/08/08	Site	Parcel 11
Client NCDOT			Use		URS Corporation	
Address			Carolina	<u></u>	Total Depth (ft)	12
Orilling Method			ect push	Boring Depth (ft) 12	Boring Diam. (in)	2.25
Backfill Material	benton			NA	Static Water Level	unknown
Rmrks Groundwa	ter not enc	ountei	rea	TOC Elevation	Sample Method	Acetate liner
Depth (ft.)	Sample Depth (ft)	Blows/ 6"	OVA (ppm)	Geologic E	Description	Typical Diagram
0				loose, dry, light brown, si	Ity Sand (SM), organics	
			0.0 ppm			
4			0.0 ppm			
			0.0 ppm			≤ 1
6 —			0.0 ppm	loose, dry, light brown,	silty Sand (SM), mica	backfilled with bentonite
8 —			0.0 ppm			back
10			0.0 ppm	-		

SAEDACCO

Page 1 of 1

Not to Scale

12'

Michael Meese

Driller:

P11-7-12

Permit #		Drill Date	04/08/08	3	Site	Parcel 11
Client NCDOT		Use			URS Corporation	
Address	Boone, No	orth Carolina			Total Depth (ft)	12
Orilling Method	Geoprobe	direct push	Boring Depth (ft)	12	Boring Diam. (in)	2.25
Backfill Material	bentonite		NA NA		Static Water Level	unknown
	ter not encoun	ntered	TOC Elevation		Sample Method	Acetate liner
n boring.		<u> </u>	1			
Depth (ft.)	Sample Depth (ft)	OVA (ppm)	Geol	ogic De	scription	Typical Diagram
0			loose, dry, light b	rown, silty	y Sand (SM), asphalt	
2 — - - - - - - - - - - - - -		0.0 ppm 0.0 ppm	loose, dry, light	brown, si	lty Sand (SM), mica	ntonite
8 — - - - - - 10 — - -		0.0 ppm 0.0 ppm				Not to Scale
12 P11-8-1	2 12'		В	ottom of b	poring	

Michael Meese

Driller:

SAEDACCO

Permit #			Drill Date	04/08/08	}	Site	Parcel 11
Client NCDOT			Use			URS Corporation	
Address	Boone,	North	Carolina			Total Depth (ft)	12
Orilling Method	Geopro	be dir	ect push	Boring Depth (ft)	12	Boring Diam. (in)	2.25
Backfill Material	benton	ite		NA		Static Water Level	unknown
Rmrks <i>Groundwa</i> t	er not enc	ounter	ed	TOC Elevation		Sample Method	Acetate liner
n boring.	1	1	1	1		ı	
Depth (ft.)	Sample Depth (ft)	Blows/ 6"	OVA (ppm)	Geol	ogic De	scription	Typical Diagram
0				loose, dry, light b	rown, silty	/ Sand (SM), asphalt	
2 —			0.0 ppm 0.0 ppm 0.0 ppm	loose, dry, light	brown, sil	ty Sand (SM), mica	nite
8 —			0.0 ppm	_			backfilled with bentonite
			0.0 ppm				Not to Scale
12 D11_0_12	12'	1			attom of h		

SAEDACCO

12'

Michael Meese

Driller:

P11-9-12

Permit #				Drill Date	04/08/08		Site	Parcel 11	
	CDOT	Daama	Novelo	Use			URS Corporation	42	
Address Drilling Meth	hod			Carolina ect push	Boring Depth (ft)	12	Total Depth (ft) Boring Diam. (in)	12 2.25	
Backfill Mat		benton		cot pusii	NA	12	Static Water Level	unknown	
	oundwater			ed	TOC Elevation		Sample Method	Acetate liner	
n boring.							1 1 1		
Depth (ft.)	Sample ID	Sample Depth (ft)	Blows/ 6"	OVA (ppm)	Geolog	gic De	scription	Typical Diagram	
0					loose, dry, light brow	wn, silty	y Sand (SM), asphalt		
2				20.7 ppm					
				3434 ppm					
	P11-10-4	4'		5.1 ppm	5.1 ppm			≤ 1	
6 —				3.0 ppm	loose, dry, light bro	own, si	lty Sand (SM), mica	backfilled with bentonite	
8 —				16.1 ppm				backl	
10 —				0.0 ppm	-				

SAEDACCO

Not to Scale

Michael Meese

Driller:

P11-10-12

Permit #			Drill Date	04/08/08	3	Site	Parcel 11
Client NCDOT			Use			URS Corporation	
Address	Boone,	North	Carolina			Total Depth (ft)	12
Drilling Method	Geopro	be dii	ect push	Boring Depth (ft)	12	Boring Diam. (in)	2.25
Backfill Material	benton	ite		NA		Static Water Level	unknown
Rmrks Groundwate	er not enc	ounte	red	TOC Elevation		Sample Method	Acetate liner
in boring.							
Depth (ft.) Sample ID	Sample Depth (ft)	Blows/ 6"	OVA (ppm)	Geol	ogic De	scription	Typical Diagram
0				loose, dry, light b	rown, silt	y Sand (SM), asphalt	
2 —			0.0 ppm				
4 — P11-11-4			663 ppm				
P11-11-4	4'		0.0 ppm	lana da lista	.	the Cond (CM) price	~ 1
			0.0 ppm	- ioose, ary, iigni	brown, si	lty Sand (SM), mica	backfilled with bentonite
8 —			25.2 ppm				backf

Geologist: Michael Meese Driller: SAEDACCO

Bottom of boring

0.0 ppm

Not to Scale

12'

P11-11-12

12

Notes:

5	RS
Dormit #	

BORING LOG: P11-12

Permit #	ł			Drill Date	04/08/08	8	Site	Parcel 11		
	NCDOT			Use			URS Corporation			
Address		Boone,	North	Carolina			Total Depth (ft)	12		
Drilling N	Method	Geopro	be dir	ect push	Boring Depth (ft)	12	Boring Diam. (in)	2.25		
Backfill N	Backfill Material bentonite				NA		Static Water Level	unknown		
Rmrks Groundwater not encountered					TOC Elevation		Sample Method	Acetate liner		
in borin	g.	1	1	T	1					
Depth (ft.)	Sample ID	Sample Depth (ft)	Blows/ 6"	OVA (ppm)	Geo	logic Des	Typical Diagram			
0					loose, dry, light l	orown, silty	Sand (SM), asphalt			
				0.0 ppm						
				2195 ppm						
4	P11-12-4	4'		119 ppm	loose, dry, light brown, silty Sand (SM), mica			\		
— — — — 8 —					icosc, diy, ngii	. Slown, sing	y dand (din), mica	backfilled with bentonite		
— — — — 10 —				20 ppm				pac		
				0.0 ppm				Not to Scale		
12	P11-12-12	12'			В	ottom of bo	ring			
Notes: Geologis	et·	Michae	J Macs	20	Driller: SAEDAC	200				
Coologis	J	monac	. mees	,,,	Dillor. GALDAC	-50				

Permit #			Drill Date	04/08/08	}	Site	Parcel 11
Client NCDOT			Use			URS Corporation	
Address	Boone,	, North	Carolina			Total Depth (ft)	12
Orilling Method	Geopro	obe dir	ect push	Boring Depth (ft)	12	Boring Diam. (in)	2.25
Backfill Material	benton	ite		NA		Static Water Level	unknown
Rmrks <i>Groundw</i>	ater not enc	ounter	ed	TOC Elevation		Sample Method	Acetate liner
n boring.			T	T		Ţ	
Depth (ft.)	Sample ID Sample Depth (ft) Blows/ 6" OVA (ppm)			Geol	ogic De	scription	Typical Diagram
0				loose, dry, light b	rown, silty	/ Sand (SM), asphalt	
2 — ———————————————————————————————————			0.0 ppm 0.0 ppm	loose, dry, light	brown, si	ty Sand (SM), mica	onite.
8 —			0.0 ppm	_			backfilled with bentonite
10			0.0 ppm				Not to Scale

SAEDACCO

Driller:

Page 1 of 1

Michael Meese

Notes:

Geologist:

Appendix B
Laboratory Report

Case Narrative



Date:

04/22/08

Company: N. C. Department of Transportation

Contact: Address:

Martha Meyers-Lee

c/o URS

1600 Perimeter Park Dr. Suite 400

Morrisville, NC 27560

Client Project ID:

NCDOT: Boone - Parcel 11

Prism COC Group No:

G0408281

Collection Date(s):

04/08/08

Lab Submittal Date(s):

04/09/08

Client Project Name Or No: State Project: U-4020/ 116 W. King

This data package contains the analytical results for the project identified above and includes a Case Narrative, Laboratory Report and Quality Control Data totaling 21 pages. A chain-of-custody is also attached for the samples submitted to Prism for this project.

Data qualifiers are flagged individually on each sample. A key reference for the data qualifiers appears at the end of this case narrative. Quality control statements and/or sample specific remarks are included in the sample comments section of the laboratory report for each sample affected.

Semi Volatile Analysis

Analysis Note for Q31875 MSD Diesel Range Organics (DRO): MSD recovery outside the control limits. Matrix interference is suspected.

Volatile Analysis

No Anomalies Reported

Metals Analysis

N/A

Wet Lab and Micro Analysis

N/A

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

Date Reviewed by:

Robbi A. Jones

Project Manager:

Signature:

Signature:

Approval Date:

Review Date: Data Qualifiers Key Reference:

- B: Compound also detected in the method blank.
- #: Result outside of the QC limits.
- DO: Compound diluted out.
 - E: Estimated concentration, calibration range exceeded.
 - J: The analyte was positively identified but the value is estimated below the reporting limit.
- H: Estimated concentration with a high bias.
- L: Estimated concentration with a low bias.
- M: A matrix effect is present.

Notes: This report should not be reproduced, except in its entirety, without the written consent of Prism Laboratories. Inc. The results in this report relate only to the samples submitted for analysis.



NC Certification No. 402 SC Certification No. 99012 NC Drinking Water Cert. No. 37735

Laboratory Report

N. C. Department of Transportation

Attn: Martha Meyers-Lee

c/o URS

1600 Perimeter Park Dr. Suite 400

Morrisville, NC 27560

Project Name: State Project: U-4020/

116 W. King St

NCDOT: Boone - Parcel

Project No.: WBS# 35015.1.1

Sample Matrix: Soil

Project ID:

Client Sample ID: P11-1-4

Prism Sample ID: 210969

COC Group:

G0408281

Time Collected:

04/08/08

9:00

Time Submitted: 0	4/09/08 15:50
-------------------	---------------

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysi Date/Tir		Analys	t Batch ID
Percent Solids Determination Percent Solids	90.5	%			1	SM2540 G	04/11/08	14:00	mbarber	
Diesel Range Organics (DRO) by G	C-FID									
Diesel Range Organics (DRO)	530	mg/kg	76	12	10	8015B	04/21/08	14:43	jvogel	Q31875
Sample Preparation:			2	25.3 g	/ 1 mL	3545	04/17/08	17:40	wconder	P21369
					Surrogate)	% Red	очегу	Co	ntrol Limits
					o-Terphen	yl		104		49 - 124
Sample Weight Determination										
Weight 1	5.51	g			1	GRO	04/11/08	0:00	lbrown	
Weight 2	5.70	9			1	GRO	04/11/08	0:00	lbrown	
Gasoline Range Organics (GRO) b	y GC-FID									
Gasoline Range Organics (GRO)	32	mg/kg	5.5	3.5	50	8015B	04/13/08	21:17	wbradley	Q31689
					Surrogate	3	% Red	covery	Co	ntrol Limits
					aaa-TFT			92		55 - 129

Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

The results in this report relate only to the samples submitted for analysis and meet state certification requirements other than NELAC certification except for those instances indicated in the case narrative and/or test comments.

All results are reported on a dry-weight basis

Angela D. Overcash, V.P. Laboratory Services



Laboratory Report

04/22/08

N. C. Department of Transportation

Attn: Martha Meyers-Lee

c/o URS

1600 Perimeter Park Dr. Suite 400

Morrisville, NC 27560

State Project: U-4020/ Project Name:

116 W. King St

NCDOT: Boone - Parcel

WBS# 35015.1.1 Project No.:

Project ID:

Sample Matrix: Soil

Client Sample ID: P11-1-12

Prism Sample ID: 210970

COC Group: G0408281

Time Collected: 04/08/08 9:10 Time Submitted: 04/09/08 15:50

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analy	st Batch ID
Percent Solids Determination Percent Solids	81.1	%			1	SM2540 G	04/11/08 14:00) mbarber	
Diesel Range Organics (DRO) by G	C-FID								
Diesel Range Organics (DRO)	BRL	mg/kg	8.5	1.4	1	8015B	04/18/08 22:59) jvogel	Q31875
Sample Preparation:			25	.25 g	/ 1 mL	3545	04/17/08 17:4) wcond	er P21369
					Surrogate	•	% Recover	у С	ontrol Limits
					o-Terphen	yl	96		49 - 124
Sample Weight Determination									-
Weight 1	4.94	g			1	GRO	04/11/08 0:00	lbrown	
Weight 2	5.44	g			1	GRO	04/11/08 0:00	lbrown	
Gasoline Range Organics (GRO) b	v GC-FID								
Gasoline Range Organics (GRO)	BRL	mg/kg	6.2	3.9	50	8015B	04/13/08 21:50) wbradley	Q31689
					Surrogate	,	% Recover	у С	ontrol Limits
					aaa-TFT		79		55 - 129

Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

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All results are reported on a dry-weight basis



Laboratory Report

04/22/08

N. C. Department of Transportation

Attn: Martha Meyers-Lee

c/o URS

1600 Perimeter Park Dr. Suite 400

Morrisville, NC 27560

Project Name: State Project: U-4020/

116 W. King St

NCDOT: Boone - Parcel

11

Project No.: WBS# 35015.1.1

Sample Matrix: Soil

Project ID:

Client Sample ID: P11-2-4

Prism Sample ID: 210971

COC Group: G0408281

Time Collected: 04/08/08 9:30

Time Submitted: 04/09/08 15:50

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analys Date/Tir		Analys	st Batch ID
Percent Solids Determination										
Percent Solids	82.5	%			1	SM2540 G	04/11/08	14:00	mbarber	
Diesel Range Organics (DRO) by G	iC-FID									
Diesel Range Organics (DRO)	63	mg/kg	8.5	1.4	1	8015B	04/21/08	12:27	jvogel	Q31875
Sample Preparation:			25	.04 g	1 mL	3545	04/17/08	17:40	wconde	er P21369
					Surrogate		% Re	covery	Co	ontrol Limits
					o-Terphen	yl		113		49 - 124
Sample Weight Determination										
Weight 1	5.77	g			1	GRO	04/11/08	0:00	Ibrown	
Weight 2	6.40	g			1	GRO	04/11/08	0:00	lbrown	
Gasoline Range Organics (GRO) b	y GC-FID									
Gasoline Range Organics (GRO)	4700	mg/kg	120	75	1000	8015B	04/14/08	14:23	wbradley	Q31689
					Surrogate)	% Re	covery	Co	ontrol Limits
					aaa-TFT			DO #	<i>t</i>	55 - 129

Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

The results in this report relate only to the samples submitted for analysis and meet state certification requirements other than NELAC certification except for those instances indicated in the case narrative and/or test comments.

All results are reported on a dry-weight basis



Laboratory Report

04/22/08

N. C. Department of Transportation

Attn: Martha Meyers-Lee

c/o URS

1600 Perimeter Park Dr. Suite 400

Morrisville, NC 27560

Project Name: State Project: U-4020/

116 W. King St

NCDOT: Boone - Parcel

Project No.: WBS# 35015.1.1

Sample Matrix: Soil

Project ID:

Client Sample ID: P11-2-12

Prism Sample ID: 210972

COC Group:

G0408281

Time Collected:

04/08/08 Time Submitted: 04/09/08

9:40 15:50

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Percent Solids Determination Percent Solids	82.0	%			1	SM2540 G	04/11/08 14:00) mbarber	
Diesel Range Organics (DRO) by G	C-FID								
Diesel Range Organics (DRO)	BRL	mg/kg	8.5	1.4	1	8015B	04/18/08 23:36	jvogel	Q31875
Sample Preparation:			25	.08 g	/ 1 mL	3545	04/17/08 17:4) wconder	P21369
					Surrogate	•	% Recover	y Cor	trol Limits
					o-Terphen	yl	94		49 - 124
Sample Weight Determination								_	
Weight 1	5.29	g			1	GRO	04/11/08 0:00	lbrown	
Weight 2	5.24	g			1	GRO	04/11/08 0:00	Ibrown	
Gasoline Range Organics (GRO) by	GC-FID								
Gasoline Range Organics (GRO)	BRL	mg/kg	6.1	3.8	50	8015B	04/13/08 22:2	wbradley	Q31689
					Surrogate	•	% Recover	y Cor	trol Limits
					aaa-TFT		89		55 - 129

Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

The results in this report relate only to the samples submitted for analysis and meet state certification requirements other than NELAC certification except for those instances indicated in the case narrative and/or test comments.

All results are reported on a dry-weight basis



Laboratory Report

04/22/08

N. C. Department of Transportation

Attn: Martha Meyers-Lee

c/o URS

1600 Perimeter Park Dr. Suite 400

Morrisville, NC 27560

Project Name: State Project: U-4020/

116 W. King St

NCDOT: Boone - Parcel

11

Project No.: WBS# 35015.1.1

Sample Matrix: Soil

Project ID:

Client Sample ID: P11-3-2

Prism Sample ID: 210973

COC Group: G04

G0408281

Time Collected: 04/08/08 10:10

Time Submitted: 04/09/08 15:50

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analy	st Batch ID
Percent Solids Determination									
Percent Solids	82.4	%			1	SM2540 G	04/11/08 14:00) mbarber	
Diesel Range Organics (DRO) by GO	C-FID								
Diesel Range Organics (DRO)	76	mg/kg	8.4	1.4	1	8015B	04/19/08 8:42	jvogel	Q31875
 * Analysis Note for Di control limits. Matrix 					surrogat	e recovery	was outside	of the	=
Sample Preparation:			25	.27 g	/ 1 mL	3545	04/17/08 17:40) wconde	P21369
					Surrogate	•	% Recover	y C	ontrol Limits
					o-Terpher	yl	146	#	49 - 124
Sample Weight Determination									
Weight 1	4.53	g			1	GRO	04/11/08 0:00	lbrown	
Weight 2	5.17	g			1	GRO	04/11/08 0:00	lbrown	
Gasoline Range Organics (GRO) by	GC-FID								
Gasoline Range Organics (GRO)	650	mg/kg	61	38	500	8015B	04/14/08 13:13	3 wbradiey	Q31689
					Surrogate	€	% Recover	y C	ontrol Limits
					***************************************		DO		55 - 129

Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

The results in this report relate only to the samples submitted for analysis and meet state certification requirements other than NELAC certification except for those instances indicated in the case narrative and/or test comments.

All results are reported on a dry-weight basis



Laboratory Report

04/22/08

N. C. Department of Transportation

Attn: Martha Meyers-Lee

c/o URS

1600 Perimeter Park Dr. Suite 400

Morrisville, NC 27560

Project Name: State Project: U-4020/

116 W. King St

NCDOT: Boone - Parcel

11

Project No.: WBS# 35015.1.1

Sample Matrix: Soil

Project ID:

Client Sample ID: P11-3-8

Prism Sample ID: 210974

COC Group: G

G0408281

Time Collected: 04/08/08 10:15

Time Submitted: 04/09/08 15:50

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analys Date/Ti		Analy	st Batch ID
Percent Solids Determination Percent Solids	79.1	%			1	SM2540 G	04/11/08	14:00	mbarber	
Diesel Range Organics (DRO) by G	C-FID									
Diesel Range Organics (DRO)	BRL	mg/kg	8.8	1.4	1	8015B	04/19/08	9:20	jvogel	Q31875
Sample Preparation:			2	25.1 g	/ 1 mL	3545	04/17/08	17:40	wconde	er P21369
					Surrogat	e	% Re	covery	Co	ontrol Limits
					o-Terphe	nyl		94		49 - 124
Sample Weight Determination									**************************************	
Weight 1	5.54	g			1	GRO	04/11/08	0:00	lbrown	
Weight 2	5.45	g			1	GRO	04/11/08	0:00	Ibrown	
Gasoline Range Organics (GRO) by	GC-FID									
Gasoline Range Organics (GRO)	BRL	mg/kg	6.3	4.0	50	8015B	04/13/08	22:53	wbradley	Q31689
					Surrogat	e	% Re	covery	, Co	ontrol Limits
					aaa-TFT			79		55 - 129

Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

The results in this report relate only to the samples submitted for analysis and meet state certification requirements other than NELAC certification except for those instances indicated in the case narrative and/or test comments.

All results are reported on a dry-weight basis



Laboratory Report

04/22/08

N. C. Department of Transportation

Attn: Martha Meyers-Lee

c/o URS

1600 Perimeter Park Dr. Suite 400

Morrisville, NC 27560

Project Name: State Project: U-4020/

116 W. King St

NCDOT: Boone - Parcel

11

Project No.: WBS# 35015.1.1

Sample Matrix: Soil

Project ID:

Client Sample ID: P11-4-12

Prism Sample ID: 210975

COC Group:

G0408281

10:45

Time Collected: 04/08/08

Time Submitted: 04/09/08 15:50

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Anal	yst Batch ID
Percent Solids Determination Percent Solids	83.4	%			1	SM2540 G	04/11/08 14:0	0 mbarber	
Diesel Range Organics (DRO) by G Diesel Range Organics (DRO)	<u>C-FID</u> BRL	mg/kg	8.4	1.4	1	8015B	04/19/08 9:57	jvogel	Q31875
Sample Preparation:		0 0	25	.08 g <i>l</i>	1 mL	3545	04/17/08 17:4	0 wcon	der P21369
					Surrogate	:	% Recove	ry (Control Limits
					o-Terphen	yl	83		49 - 124
Sample Weight Determination Weight 1	4.96	g			1	GRO	04/21/08 0:00	Athao	
Weight 2	5.01	g			1	GRO	04/21/08 0:00	Athao	
Gasoline Range Organics (GRO) by Gasoline Range Organics (GRO)	<u>/ GC-FID</u> BRL	mg/kg	6.0	3.8	50	8015B	04/13/08 23:2	4 wbradle	y Q31689
					Surrogate)	% Recove	ry (Control Limits
					aaa-TFT		78		55 - 129

Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

The results in this report relate only to the samples submitted for analysis and meet state certification requirements other than NELAC certification except for those instances indicated in the case narrative and/or test comments.

All results are reported on a dry-weight basis



Laboratory Report

04/22/08

N. C. Department of Transportation

Attn: Martha Meyers-Lee

c/o URS

1600 Perimeter Park Dr. Suite 400

Morrisville, NC 27560

Project Name: State Project: U-4020/

116 W. King St

NCDOT: Boone - Parcel

Project No.: WBS# 35015.1.1

Sample Matrix: Soil

Project ID:

Client Sample ID: P11-5-12

Prism Sample ID: 210976

COC Group:

G0408281

11:40

Time Collected: 04/08/08

Time Submitted: 04/09/08 15:50

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analys Date/Tir		Analy	st Batch ID
Percent Solids Determination Percent Solids	90.2	%			1	SM2540 G	04/11/08	14:00	mbarber	
Diesel Range Organics (DRO) by G Diesel Range Organics (DRO)	C-FID BRL	mg/kg	7.7	1.2	1	8015B	04/19/08	10:35	jvogel	Q31875
Sample Preparation:			25	.12 g	/ 1 mL	3545	04/17/08	17:40	wconde	er P21369
					Surrogate)	% Re	covery	, C	ontrol Limits
					o-Terphen	yl		107		49 - 124
Sample Weight Determination Weight 1	4.73	g			1	GRO	04/11/08	0:00	Ibrown	
Weight 2	4.84	g			1	GRO	04/11/08	0:00	Ibrown	
Gasoline Range Organics (GRO) b	v GC-FID									
Gasoline Range Organics (GRO)	BRL	mg/kg	5.5	3.5	50	8015B	04/13/08	23:56	wbradley	Q31689
					Surrogate	1	% Re	covery	, с	ontrol Limits
					aaa-TFT			96		55 - 129

Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

The results in this report relate only to the samples submitted for analysis and meet state certification requirements other than NELAC certification except for those instances indicated in the case narrative and/or test comments.

All results are reported on a dry-weight basis



Laboratory Report

04/22/08

N. C. Department of Transportation

Attn: Martha Meyers-Lee

c/o URS

1600 Perimeter Park Dr. Suite 400

Morrisville, NC 27560

Project Name: State Project: U-4020/

116 W. King St

NCDOT: Boone - Parcel

11

Project No.: WBS# 35015.1.1

Sample Matrix: Soil

Project ID:

Client Sample ID: P11-6-12

Prism Sample ID: 210977

COC Group:

G0408281

Time Collected: 04/08/08

Time Submitted: 04/09/08

4/08/08 12:00

15:50

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Percent Solids Determination Percent Solids	78.7	%			1	SM2540 G	04/11/08 14:00) mbarber	
Diesel Range Organics (DRO) by G	<u>C-FID</u> BRL	mg/kg	8.7	1.4	1	8015B	04/19/08 11:1:	3 ivoqel	Q31875
Sample Preparation:	DAL	mg/kg		i.43 g		3545	04/17/08 17:4		P21369
					Surrogate)	% Recover	y Con	trol Limits
					o-Terphen	yl	104		49 - 124
Sample Weight Determination Weight 1	5.28	g			1	GRO	04/11/08 0:00	Ibrown	
Weight 2	5.33	g			1	GRO	04/11/08 0:00	lbrown	
Gasoline Range Organics (GRO) by	/ GC-FID								
Gasoline Range Organics (GRO)	BRL	mg/kg	6.4	4.0	50	8015B	04/14/08 0:28	wbradley	Q31689
					Surrogate	•	% Recover	ry Con	trol Limits
					aaa-TFT		85		55 - 129

Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

The results in this report relate only to the samples submitted for analysis and meet state certification requirements other than NELAC certification except for those instances indicated in the case narrative and/or test comments.

All results are reported on a dry-weight basis



Laboratory Report

04/22/08

N. C. Department of Transportation

Attn: Martha Meyers-Lee

c/o URS

1600 Perimeter Park Dr. Suite 400

Morrisville, NC 27560

Project Name: State Project: U-4020/

116 W. King St

NCDOT: Boone - Parcel

Project No.: WBS# 35015.1.1

Sample Matrix: Soil

Project ID:

Client Sample ID: P11-7-12

Prism Sample ID: 210978

COC Group:

G0408281

Time Collected:

04/08/08 12:15

Time Submitted: 04/09/08 15:50

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysi Date/Tin		Analyst	Batch ID
Percent Solids Determination					A	CNOC 40 C	0.414.4/00	44.00	an harbar	
Percent Solids	80.4	%			1	SM2540 G	04/11/08	14:00	mbarbei	
Diesel Range Organics (DRO) by GC	-FID									
Diesel Range Organics (DRO)	BRL	mg/kg	8.5	1.4	1	8015B	04/19/08	11:51	jvogel	Q31875
Sample Preparation:			25	.62 g	' 1 mL	3545	04/17/08	17:40	wconder	P21369
					Surrogate	1	% Red	covery	, Coi	ntrol Limits
					o-Terphen	yl		97		49 - 124
Sample Weight Determination										
Weight 1	5.01	g			1	GRO	04/21/08	0:00	Athao	
Weight 2	5.26	g			1	GRO	04/21/08	0:00	Athao	
Gasoline Range Organics (GRO) by	GC-FID									
Gasoline Range Organics (GRO)	BRL	mg/kg	6.2	3.9	50	8015B	04/14/08	0:59	wbradley	Q31689
					Surrogate	1	% Red	covery	, Co:	ntrol Limits
					aaa-TFT			64		55 - 129

Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

The results in this report relate only to the samples submitted for analysis and meet state certification requirements other than NELAC certification except for those instances indicated in the case narrative and/or test comments.

All results are reported on a dry-weight basis



Laboratory Report

04/22/08

N. C. Department of Transportation

Attn: Martha Meyers-Lee

c/o URS

1600 Perimeter Park Dr. Suite 400

Morrisville, NC 27560

State Project: U-4020/ Project Name:

116 W. King St

NCDOT: Boone - Parcel

Project No.: WBS# 35015.1.1

Project ID:

Client Sample ID: P11-8-12

Prism Sample ID: 210979

COC Group: G0408281

Time Collected: 04/08/08 12:30

Time Submitted: 04/09/08 15:50 Sample Matrix: Soil

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analy	st Batch ID
Percent Solids Determination									
Percent Solids	78.3	%			1	SM2540 G	04/11/08 14:	00 mbarber	
Diesel Range Organics (DRO) by G	C-FID								
Diesel Range Organics (DRO)	BRL	mg/kg	8.9	1.4	1	8015B	04/19/08 12:	29 jvogel	Q31875
Sample Preparation:			25	.01 g	/ 1 mL	3545	04/17/08 17:	40 wcond	ler P2 1369
					Surrogate)	% Recov	ery C	ontrol Limits
					o-Terphen	yl	102		49 - 124
Sample Weight Determination									
Weight 1	5.01	g			1	GRO	04/11/08 0:0	0 lbrown	
Weight 2	4.80	g			1	GRO	04/11/08 0:0	0 lbrown	
Gasoline Range Organics (GRO) b	y GC-FID								
Gasoline Range Organics (GRO)	BRL	mg/kg	6.4	4.0	50	8015B	04/14/08 1:3	1 wbradley	Q31689
					Surrogate	1	% Recov	erv C	ontrol Limits
					aaa-TFT		80		55 - 129

Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

The results in this report relate only to the samples submitted for analysis and meet state certification requirements other than NELAC certification except for those instances indicated in the case narrative and/or test comments.

All results are reported on a dry-weight basis



Laboratory Report

04/22/08

N. C. Department of Transportation

Attn: Martha Mevers-Lee

c/o URS

1600 Perimeter Park Dr. Suite 400

Morrisville, NC 27560

Project Name: State Project: U-4020/

116 W. King St

NCDOT: Boone - Parcel

Project No.: WBS# 35015.1.1

Sample Matrix: Soil

Project ID:

Client Sample ID: P11-9-12

Prism Sample ID: 210980

COC Group:

G0408281 Time Collected: 04/08/08

13:25

Time Submitted: 04/09/08 15:50

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time		alyst Batch ID
Percent Solids Determination Percent Solids	84.9	%			1	SM2540 G	04/11/08 14	:00 mbarb	er
Diesel Range Organics (DRO) by G	iC-FID								
Diesel Range Organics (DRO)	BRL	mg/kg	8.1	1.3	1	8015B	04/19/08 13	:06 jvogel	Q318
Sample Preparation:			25	.37 g	1 mL	3545	04/17/08 17	7:40 wa	onder P2136
					Surrogate	!	% Reco	very	Control Limits
					o-Terphen	yl	10	1	49 - 124
Sample Weight Determination									
Weight 1	4.72	g			1	GRO	04/11/08 0:	00 lbrowr	1
Weight 2	5.11	g			1	GRO	04/11/08 0:	00 lbrowr	1
Gasoline Range Organics (GRO) b	v GC-FID								
Gasoline Range Organics (GRO)	BRL	mg/kg	5.9	3.7	50	8015B	04/14/08 2:	02 wbrad	ley Q316
					Surrogate	ı	% Reco	rery	Control Limits
					aaa-TFT		11:	-	55 - 129

Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

The results in this report relate only to the samples submitted for analysis and meet state certification requirements other than NELAC certification except for those instances indicated in the case narrative and/or test comments.

All results are reported on a dry-weight basis



Laboratory Report

04/22/08

N. C. Department of Transportation

Attn: Martha Meyers-Lee

c/o URS

1600 Perimeter Park Dr. Suite 400

Morrisville, NC 27560

Project Name: State Project: U-4020/

116 W. King St

NCDOT: Boone - Parcel

11

Project No.: WBS# 35015.1.1

Sample Matrix: Soil

Project ID:

Client Sample ID: P11-10-4

Prism Sample ID: 210981

COC Group: G0408281

Time Collected: 04/08/08 13:45

Time Submitted: 04/09/08 15:50

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analys Date/Tit		Analys	st Batch ID
Percent Solids Determination Percent Solids	80.2	%			1	SM2540 G	04/11/08	14:00	mbarber	
r ercent solids	00.2	76			•	ONIZOTO O	0-1111100	1-1.00	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Diesel Range Organics (DRO) by G	iC-FID									
Diesel Range Organics (DRO)	67	mg/kg	8.7	1.4	1	8015B	04/19/08	13:44	jvogel	Q31875
Sample Preparation:			25	.16 g	1 mL	3545	04/17/08	17:40	wconde	er P21369
					Surrogate	ŀ	% Re	covery	Co	ontrol Limits
					o-Terphen	yl		114		49 - 124
Sample Weight Determination										
Weight 1	5.74	g			1	GRO	04/11/08	0:00	Ibrown	
Weight 2	5.34	g			1	GRO	04/11/08	0:00	lbrown	
Gasoline Range Organics (GRO) b	y GC-FID									
Gasoline Range Organics (GRO)	690	mg/kg	120	77	1000	8015B	04/14/08	16:19	wbradley	Q31689
					Surrogate)	% Re	covery	Co	ontrol Limits
					aaa-TFT			DO #	ŧ	55 - 129

Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

The results in this report relate only to the samples submitted for analysis and meet state certification requirements other than NELAC certification except for those instances indicated in the case narrative and/or test comments.

All results are reported on a dry-weight basis



Laboratory Report

04/22/08

N. C. Department of Transportation

Attn: Martha Meyers-Lee

c/o URS

1600 Perimeter Park Dr. Suite 400

Morrisville, NC 27560

Project Name: State Project: U-4020/

116 W. King St

NCDOT: Boone - Parcel

11

Project No.: WBS# 35015.1.1

Sample Matrix: Soil

Project ID:

Client Sample ID: P11-10-12

Prism Sample ID: 210982

COC Group: G0408281

Time Collected: 04/08/08 13:50

Time Submitted: 04/09/08 15:50

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysi Date/Tir		Analys	t Batch ID
Percent Solids Determination Percent Solids	82.2	%			1	SM2540 G	04/11/08	14:00	mbarber	
Diesel Range Organics (DRO) by GO	C-FID									
Diesel Range Organics (DRO)	BRL	mg/kg	8.5	1.4	1	8015B	04/19/08	14:22	jvogel	Q31875
Sample Preparation:			25	.01 g	/ 1 mL	3545	04/17/08	17:40	wconde	r P21369
					Surrogate)	% Red	covery	, Co	ntrol Limits
					o-Terphen	ıyl		96		49 - 124
Sample Weight Determination										
Weight 1	4.98	g			1	GRO	04/11/08	0:00	Ibrown	
Weight 2	4.81	g			1	GRO	04/11/08	0:00	Ibrown	
Gasoline Range Organics (GRO) by	GC-FID									
Gasoline Range Organics (GRO)	7.6	mg/kg	6.1	3.8	50	8015B	04/14/08	3:06	wbradley	Q31689
					Surrogate	9	% Red	covery	, Co	entrol Limits
					aaa-TFT			81		55 - 129

Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

The results in this report relate only to the samples submitted for analysis and meet state certification requirements other than NELAC certification except for those instances indicated in the case narrative and/or test comments.

All results are reported on a dry-weight basis



Laboratory Report

N. C. Department of Transportation

Attn: Martha Meyers-Lee

c/o URS

1600 Perimeter Park Dr. Suite 400

Morrisville, NC 27560

Project Name: State Project: U-4020/

116 W. King St

Project ID: NCDOT: Boone - Parcel

Project No.: WBS# 35015.1.1

Client Sample ID: P11-11-4

Prism Sample ID: 210983

COC Group:

G0408281

Time Collected:

04/08/08

14:15

Sample Matrix: Soil

Time Submitted: 04/09/08

15:50

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Percent Solids Determination Percent Solids	74.7	%			1	SM2540 G	04/11/08 14:00	mbarber	
Diesel Range Organics (DRO) by G			9.3	1.5	1	8015B	04/21/08 11:49	ivenel	Q31875
Diesel Range Organics (DRO)	110	mg/kg	9.3	1.5	·	00100	04/21/06 11:48	Jvoger	Goloro
Sample Preparation:			:	25.3 g	/ 1 mL	3545	04/17/08 17:40	wconder	P21369
					Surrogate	•	% Recover	y Con	trol Limits
					o-Terphen	ıyl	114		49 - 124
Sample Weight Determination					***************************************				
Weight 1	6.11	g			1	GRO	04/11/08 0:00	lbrown	
Weight 2	5.86	g			1	GRO	04/11/08 0:00	lbrown	
Gasoline Range Organics (GRO) by	y GC-FID								
Gasoline Range Organics (GRO)	130	mg/kg	6.7	4.2	50	8015B	04/14/08 3:37	wbradley	Q31689
					Surrogate	3	% Recover	v Con	trol Limits
					aaa-TFT		98	<u> </u>	55 - 129

Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

The results in this report relate only to the samples submitted for analysis and meet state certification requirements other than NELAC certification except for those instances indicated in the case narrative and/or test comments.

All results are reported on a dry-weight basis



Laboratory Report

04/22/08

N. C. Department of Transportation

Attn: Martha Meyers-Lee

c/o URS

1600 Perimeter Park Dr. Suite 400

Morrisville, NC 27560

Project Name: State Project: U-4020/

116 W. King St

NCDOT: Boone - Parcel

11

Project No.: WBS# 35015.1.1

Sample Matrix: Soil

Project ID:

Client Sample ID: P11-11-12

Prism Sample ID: 210984

COC Group:

G0408281

Time Collected: 04/08/08 14:20

Time Submitted: 04/09/08 15:50

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analys Date/Tir		Analy	st Batch ID
Percent Solids Determination Percent Solids	77.1	%			1	SM2540 G	04/11/08	14:00	mbarber	
Diesel Range Organics (DRO) by G	C-FID									
Diesel Range Organics (DRO)	BRL	mg/kg	9.0	1.5	1	8015B	04/19/08	15:00	jvogel	Q31875
Sample Preparation:			25	.18 g	/ 1 mL	3545	04/17/08	17:40	wcond	er P21369
					Surrogate	.	% Re	covery	c	ontrol Limits
					o-Terphen	yl		78		49 - 124
Sample Weight Determination										
Weight 1	5.73	g			1	GRO	04/11/08	0:00	lbrown	
Weight 2	5.82	g			1	GRO	04/11/08	0:00	lbrown	
Gasoline Range Organics (GRO) by			0.5		50	00450	0.444.4/00	40-40		00400
Gasoline Range Organics (GRO)	BRL	mg/kg	6.5	4.1	50	8015B	04/14/08	10:49	wbradiey	Q31689
					Surrogate	9	% Re	covery	, c	ontrol Limits
					aaa-TFT			84		55 - 129

Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

The results in this report relate only to the samples submitted for analysis and meet state certification requirements other than NELAC certification except for those instances indicated in the case narrative and/or test comments.

All results are reported on a dry-weight basis



Laboratory Report

04/22/08

N. C. Department of Transportation

Attn: Martha Meyers-Lee

c/o URS

1600 Perimeter Park Dr. Suite 400

Morrisville, NC 27560

Project Name: State Project: U-4020/

116 W. King St

NCDOT: Boone - Parcel

11

Project No.: WBS# 35015.1.1

Sample Matrix: Soil

Project ID:

Client Sample ID: P11-12-4

Prism Sample ID: 210985

COC Group: G04

G0408281

Time Collected: 04/08/08 14:40

Time Submitted: 04/09/08 15:50

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Percent Solids Determination Percent Solids	84.4	%			1	SM2540 G	04/11/08 14:00	mbarber	
Diesel Range Organics (DRO) by GO Diesel Range Organics (DRO)	<u>C-FID</u> 15	mg/kg	8.1	1.3	1	8015B	04/21/08 11:12	jvogel	Q31875
Sample Preparation:			25	.47 g	/ 1 mL	3545	04/17/08 17:40	wconder	P21369
					Surrogate)	% Recovery	, Con	trol Limits
					o-Terphen	yl	113		49 - 124
Sample Weight Determination						000	0.444/00.000	lle de la constant	
Weight 1	5.71	g			1	GRO	04/11/08 0:00	lbrown	
Weight 2	5.77	g			1	GRO	04/11/08 0:00	lbrown	
Gasoline Range Organics (GRO) by	GC-FID								
Gasoline Range Organics (GRO)	BRL	mg/kg	5.9	3.7	50	8015B	04/14/08 11:21	wbradley	Q31689
					Surrogate	•	% Recover	, Con	trol Limits
					aaa-TFT	THE PRODUCTION AND A SECOND	91	,	55 - 129

Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

The results in this report relate only to the samples submitted for analysis and meet state certification requirements other than NELAC certification except for those instances indicated in the case narrative and/or test comments.

All results are reported on a dry-weight basis



Laboratory Report

04/22/08

N. C. Department of Transportation

Attn: Martha Meyers-Lee

c/o URS

1600 Perimeter Park Dr. Suite 400

Morrisville, NC 27560

Project Name: State Project: U-4020/

116 W. King St

Project ID: NCDOT: Boone - Parcel

11

Project No.: WBS# 35015.1.1

Sample Matrix: Soil

Client Sample ID: P11-12-12

Prism Sample ID: 210986

COC Group: G0408281

Time Collected: 04/08/08 14:45

Time Submitted: 04/09/08 15:50

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analys Date/Ti		Analys	t Batch ID
Percent Solids Determination										
Percent Solids	78.4	%			1	SM2540 G	04/11/08	14:00	mbarber	
Diesel Range Organics (DRO) by GO	C-FID									
Diesel Range Organics (DRO)	BRL	mg/kg	8.9	1.4	1	8015B	04/19/08	15:38	jvogel	Q31875
Sample Preparation:			25	.14 g	/ 1 mL	3545	04/17/08	17:40	wconde	P21369
					Surrogate	.	% Re	covery	Co	ntrol Limits
					o-Terpher	yl		68		49 - 124
Sample Weight Determination										
Weight 1	5.50	g			1	GRO	04/11/08	0:00	lbrown	
Weight 2	5.43	g			1	GRO	04/11/08	0:00	lbrown	
Gasoline Range Organics (GRO) by	GC-FID									
Gasoline Range Organics (GRO)	BRL	mg/kg	6.4	4.0	50	8015B	04/14/08	12:10	wbradley	Q31689
•					Surrogate	•	% Re	covery	Co	ntrol Limits
					aaa-TFT			78		55 - 129

Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

The results in this report relate only to the samples submitted for analysis and meet state certification requirements other than NELAC certification except for those instances indicated in the case narrative and/or test comments.

All results are reported on a dry-weight basis



Laboratory Report

04/22/08

N. C. Department of Transportation

Attn: Martha Meyers-Lee

c/o URS

1600 Perimeter Park Dr. Suite 400

Morrisville, NC 27560

Project Name: State Project: U-4020/

116 W. King St

NCDOT: Boone - Parcel

Project No.: WBS# 35015.1.1

Sample Matrix: Soil

Project ID:

Client Sample ID: P11-13-12

Prism Sample ID: 210987

COC Group: G0408281

Time Collected: 04/08/08 15:10

Time Submitted: 04/09/08 15:50

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analys Date/Ti		Analys	t Batch ID
Percent Solids Determination Percent Solids	81.5	%			1	SM2540 G	04/11/08	14:00	mbarber	
Diesel Range Organics (DRO) by GO	:-FID									
Diesel Range Organics (DRO)	BRL	mg/kg	8.6	1.4	1	8015B	04/19/08	16:15	jvogel	Q31875
Sample Preparation:			2	25.1 g	/ 1 mL	3545	04/17/08	17:40	wconde	P21369
					Surrogate)	% Re	covery	Co	ntrol Limits
					o-Terphen	yl		73		49 - 124
Sample Weight Determination										
Weight 1	4.88	g			1	GRO	04/11/08	0:00	ibrown	
Weight 2	4.89	g			1	GRO	04/11/08	0:00	lbrown	
Gasoline Range Organics (GRO) by	GC-FID									
Gasoline Range Organics (GRO)	BRL	mg/kg	6.1	3.8	50	8015B	04/14/08	12:41	wbradley	Q31689
					Surrogate	.	% Re	covery	, Ca	ntrol Limits
					aaa-TFT			87		55 - 129

Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

The results in this report relate only to the samples submitted for analysis and meet state certification requirements other than NELAC certification except for those instances indicated in the case narrative and/or test comments.

All results are reported on a dry-weight basis



Level II QC Report

04/22/08

N. C. Department of Transportation

Attn: Martha Meyers-Lee

c/o URS

1600 Perimeter Park Dr. Suite 400

Morrisville, NC 27560

Project Name: State Project: U-4020/

116 W. King St

Project ID:

NCDOT: Boone - Parcel

Project No.: 11

WBS# 35015.1.1

COC Group Number: G0408281

Date/Time Submitted: 4/9/2008 15:50

Gasoline Range Organics (GRO) by GC-FID, method 8015B

Method Blank							h		QC Batch
411	Result	RL	Control Limit	Units	2073.54	WAII 0-1-1			ID
Gasoline Range Organics (GRO)	ND	5	<2.5	mg/kg					Q31689
Laboratory Control Sample	Result	Spike Amou	nt	Units	Recovery %	Recovery Ranges %			QC Batch ID
Gasoline Range Organics (GRO)	51	50		mg/kg	102	67-116			Q31689
Matrix Spike					Recovery	Recovery		.,,	QC Batch
Sample ID:	Result	Spike Amou	nt	Units	%	Ranges %			ID
210969 Gasoline Range Organics (GRO)	74.7	50		mg/kg	92	57-113			Q31689
Matrix Spike Duplicate				•	Recovery	Recovery	RPD	RPD	QC Batch
Sample ID:	Result	Spike Amou	nt	Units	%	Ranges %	%	Range %	ID
210969 Gasoline Range Organics (GRO)	76	50		mg/kg	95	57-113	2	0 - 23	Q31689

Diesel Range Organics (DRO) by GC-FID, method 8015B

Method Blank	Result	RL	Control Limit	Units					QC Batch ID
Diesel Range Organics (DRO)	ND	7	<3.5	mg/kg					Q31875
Laboratory Control Sample	Result	Spike Amou	nt	Units	Recovery %	Recovery Ranges %		***************************************	QC Batch ID
Diesel Range Organics (DRO)	77.4	80		mg/kg	97	55-109			Q31875
Matrix Spike Sample ID:	Result	Spike Amou	nt	Units	Recovery %	Recovery Ranges %			QC Batch ID
210969 Diesel Range Organics (DRO)	568	80		mg/kg	111	50-117			Q31875
Matrix Spike Duplicate Sample ID:	Result	Spike Amou	nt	Units	Recovery %	Recovery Ranges %	RPD %	RPD Range %	QC Batch ID
210969 Diesel Range Organics (DRO)	505	80		mg/kg	33 #	¥ 50-117	12	0 - 24	Q31875

#-See Case Narrative



CHAIN OF CUSTODY RECORD

Ser Ser	/	 	7)	
Samples INTACT upon arrival?	Received ON WET ICE? Temp 5	PROPER PRESERVATIVES indicated?	Received WITHIN HOLDING TIMES?	CUSTODY SEALS INTACT?	VOLATILES rec'd W/OUT HEADSPACE?	PROPER CONTAINERS used?	
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		7 7		SONNEL	NC X			PRISM	ID NO.	त्राज्यध्य	212972	AIS471	Arsens	213	A13974	213	A12976	A12977	A1247B
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. t.	S indicated?	CUSTODY SEALS INTACT? VOLATILES rec'd W/OUT HEADSPACE?	sed?	Element: 35015) TO BE FILLED IN BY CLIENT/SAMPLING PERSONNEL	USACE	OTHER	Water Chlorinated: YES $\overline{}$ NO $\overline{}$ Sample Iced Upon Collection: YES $\overline{}$ NO		REMARKS										
Samples INTACT Upon arrival:	PROPER PRESERVATIVES indicated? Received WITHIN HOLDING TIMES?	CUSTODY SEALS INTACT? VOLATILES rec'd W/OUT HE	PROPER CONTAINERS used?	IN BY CL	Certification: NELAC	Sc	Water Chlorinated: YES_Sample Iced Upon Collec						1						
Beceived ON	PROPER PR Received WI	CUSTODY S VOLATILES	PROPER CO	BE FILLED	tification:		ter Chlorina nple Iced U	REQUESTE	REGIETOS SON										
	(2)	2		Sols7.fro				ANALYSES	105 % C			_		_	-		-		
	UST Project: (Yes) (NO)	SOT C	17-4020	foundly: 3	tys CD 5 Days	P-Approved	ody: nds and holida RVICES		FRI CAR	7	7	٦ ~	<u>_</u>	7	2 1	_ G	2	-	<u>-</u>
QUOTE * TO ENSURE PROPER BILLING:	UST Pro	or QC Requirements \(\cdot \text{CD} \cdot \	tot tot	ŀΤ	te C 1 Day C 2 Days C 3 Days C 4 Days C 5 Days	"Working Days" — 6-9 Days — Standard 10 days — Pre-Approved Complex consisted after 45-00 will the processed have business day	Daniples received arien 19,00 will the processed from boomers and folidays. Turnaround films is based on business days, excluding weekends and holidays. REER REVERSE FOR TERMS & CONDITIONS REGARDING SERVICES RENDERED BY PRISM LABORATORIES, INC. TO CLIENT)	DRESERVA.	TIVES					1					
O ENSURE PI	Project Name: NCVOI - ISOOA - Short Hold Analysis: (Yes) (NO)	r specific r frements \(\mathbb{Z}\)	Drosed	Reference	D 2 Days	Standard Standard	ness days, ex CONDITIONS ATORIES, INC	aa	SIZE	1 40 ml									
JOOTE # T	is: Re	or OC Requ	State State	o./Billing	□10ay (☐ 6-9 Day:	sed on busi OR TERMS & RISM LABOR	CONTAINER		2.									≥
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PAGE_1_OF_	Project Name: N C Short Hold Analysis:	Please A I I ACH any project specing Provisions and/or QC Requirements (A) (Minvoice To: 0, C Q C)	Address:	Purchase	$ ho_{\sf Requested}$	"Working Days"	Turnaround (SEE R	₩.	SEE BELOW	৩									≫
	8224-0543		1 1-	2/H/-1°	de Urse	1	カ	MATRIX (SOII	WATER OR SLUDGE)	į.Ś				-		•			>
Solution	Charlotte, NC	Mettis.	To Pay Cui	Fax (Yes) (No): (519) 461-1415	a nexes		W. King	TIME	MILITARY HOURS	0060	0160	0930	0460	0101	1015	1045	1140	20¢	27.1
Ent Control Application 9 Equipmented Columbia	7ull Service Atlaytea & Elivingilliantal Solutions 449 Springbrook Road • P.O. Box 240543 • Charlotte, NC 28224-0543 Phone: 704/529-6364 • Fax: 704/525-0409	Client Company Name: UKS ('orpolation Company Name: Marking Meters)	Reporting Address: 1600 Per in Law Pay Cut.	Fax	o (Site Location Physical Address: 116 10. King St	2440	COLLECTED	4-8-08 0900									>
de A condes And	ook Road • P./ 29-6364 • Fax	any Name:	ddress://b/	1001-17	No) Email A	Name.	η Physical A				رع اع	4	<u>ر</u>	7	∞	(2	ಡ	<u>d</u> .	(1-
1	449 Springbr Phone: 704/5	Client Comp Report To/Co	Reporting Ac	Phone (219) 461-1100	Email (Yes) (I	Site I ocation Name: Pive	Site Location	ENE S	SAMPLE DESCRIPTION	h-1-11d	p1 - 1 - 13	P11-2-4	P11-2-1	P11-3-2	P11- 3-8	P11- 4-12	p11-5-12	61-9-119	011-7-110
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Site Departure Time:		Date		Received By: (Signature)		Relinduished Bw/(Signature)
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Site Arrival Time:	Additional Comments:	Date Military/Hours	man	Received By: (Signature)		Relinquished By: (Signature)
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Affiliation_

Sampled By (Print Name)

Sampler's Signature

911- 7-12

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CSI SON Y NOW CONT)	æ					
Relinquished By: (Signaturé)	Received For	eceived For Prism Laboratories By:	()		Date		
	\ \{\}	` {	\ \ \		पीकि	1850	
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.	APED SHUT WITH CUSTOD D AGAINST COC UNTIL RE	IY SEALS FOR TRANSPOR CEIVED AT THE LABORAT	TATION TO THE LABOR ORY.	ATORY.	COC Group No.		
☐ Fed Ex ☐ UPS ☐ Hand-delivered ☐ Arism Field Service ☐	Other	Automorphis			G0438381	ઝકા	
NPDES: UST: GRØUNDWATER: DI	DRINKING WATER: SOLID WASTE:	SOLID WASTE:	RCRA: CE	CERCLA	LANDFILL OTHER:	OTHER:	
a NC a SC a NC a SC a NC a SC	ONC OSC		ONC OSC ONC OSC ONC OSC ONC	NC D SC	ONC DSC	ONC OSC	
*CONTAINER TYPE CODES: A = Amber C = Clear G = Glass P = Plastic; TL = Teflon-Lined Cap VOA = Volatile Organics Analysis (Zero Head Space)	rG=Glass P=Pla	stic; TL = Teflon-Lin	ed Cap VOA = Vo	Matile Organic	s Analysis (Zer	o Head Space	

ORIGINAL

Field Tech Fee:

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449 Springbrook Road • P.O. Box 240543 • Charlotte, NC 28224-0543 Phone: 704/529-6364 • Fax: 704/525-0409 Fax (Fig. 1 MS) Flace | 1 HS Full Service Analytical & Environmental Solutions Client Company Name: UPS Report To/Contact Name:
∫ Reporting Address: [600] Email((Yes))XNo) Email Ad EDD Type: PDF ____Excel Site Location Name: Pro Phone (9,19) 46/- 1100 Morcissille

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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 Reguirements QUOTE # TO ENSURE PROPER BILLING: Boord Project Name: NCDOT

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Samples INTACT upon arrival?	Received ON WET ICE? Temp 5-4	PROPER PRESERVATIVES Indicated?	Received WITHIN HOLDING TIMES?	CUSTODY SEALS INTACT?	VOLATILES rec'd W/OUT HEADSPACE?	PROPER CONTAINERS used?
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Samples INTACT upon arrival?	Received ON WET ICE? Temp 5-7	PROPER PRESERVATIVES indicated?	Received WITHIN HOLDING TIMES?	CUSTODY SEALS INTACT?	VOLATILES rec'd W/OUT HEADSPACE?	PROPER CONTAINERS used?	
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nvoice To: Dicket Bill : NCD 01	VOLATILE
Address:	PROPER C
State Project: U-4020	1
Bychase Order No./Billing Reference 以路5日本近子、35015、1.1	TO BE FILLE
	Certification:
"Working Days" — G-9 Days ** Standard 10 days — Pre-Approved	
Turnaround time is based on business days, excluding weekends and holidays.	Water Chlorin
(SEE REVERSE FOR TERMS & CONDITIONS REGARDING SERVICES	Comple load
RENDERED BY PRISM LABORATORIES, INC. TO CLIENT)	Sample Icen

PRISM USE ONLY	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.	s as requested aboves have been initial	ι the analyses s after analys	sed with change	Prism to proce harges for any	horization for here will be <u>c</u>	dy is your aut ct Manager. T	is Chain of Custo o the Prism Proje	Upon relinquishing, the submitted in writing to
PRESS DOWN FIRMLY - 3 COPIES	Meese Affiliation URS Corp.	Messe	Nichael	Z	Sampled By (Print Name)	Sampled B	Men	Willel	Sampler's Signature
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REMARKS LAB	RECONSTITUTE OF STATES	TIVES	SIZE	NO.	*TYPE SEE BELOW	WATER OR SLUDGE)	MILITARY HOURS	COLLECTED	SAMPLE DESCRIPTION
MSIHA	ANALYSES REQUESTED		AINER	SAMPLE CONTAINER	SAMPL	MATRIX (SOIL,	TIME	DATE	I IENT
ĮŽ()		Samples received after 15:00 will be processed fext business day. Turnaround lime is based on business days, excluding weekends and holidays. REE REVERSE FOR TERMS & CONDITIONS REGARDING SERVICES RENDERED BY PRISM LABORATORIES, INC. TO CLIENT)	5:00 Will be prod fon business da TERMS & CONDI	is basects FOR 18 PRIS	Samples received after Turnaround time is bass (SEE REVERSE FOI RENDERED BY PR	 . . .	W. King St	al Address: 115	Site Location Physical Address: 116 13.
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Y CLIENT/SAMPLING PERSONNEL	1 SSOIS LL TO BE FILLED IN B	ence WBS How	Billing Refer	er No./	Purchase Ord	νω	TAIL YOU'V	ZA Lex	

Additional Comments:

SEE REVERSE FOR TERMS & CONDITION

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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.

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