

**North Carolina Department of Transportation**

**PRELIMINARY SITE ASSESSMENT  
FOR PARCELS 66 & 68**

**State Project U-4020, WBS Element 35015.1.1  
US 421 (King Street) from US 321 (Hardin Street)  
to East of NC 194 (Jefferson Road) in Boone  
Watauga County, North Carolina**



May 22, 2008  
Revised June 10, 2008  
Project Number 07210023.07



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**US 421 (King Street) from US 321 (Hardin Street) to East of NC 194 (Jefferson Road) in**  
**Boone, Watauga County, North Carolina**

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## **1.0 INTRODUCTION**

The North Carolina Department of Transportation (NCDOT) is widening the existing alignment of US Highway 421 (King Street) in the town of Boone, located in Watauga County, North Carolina. Acquisition of properties within the right-of-way is necessary prior to road construction. Schnabel Engineering conducted Preliminary Site Assessments (PSAs) on six sites (seven parcels) located within the proposed right-of-way that are of concern to the NCDOT.

This report summarizes the results of field activities conducted during the PSA for the proposed property acquisition area (Study Area) identified by NCDOT on Parcels 66 and 68. The property is located at 1032 East King Street and is occupied by Street Smart Auto Sales and Idol's Tire and Auto, currently owned by Jerry Idol (Figure 1). These parcels are located on the south side of East King Street just east of the NC 194 intersection. The property line and topography are shown on Figure 2. The approximate NCDOT project limits that delineate the property acquisition area are shown on Figure 3.

The scope of work executed at the site was performed in general accordance with our cost proposal dated March 3, 2008 and was initiated based on a Notice to Proceed issued by the NCDOT Geotechnical Engineering Unit on March 4, 2008 under contract 7000008010, dated May 31, 2007.

## **2.0 BACKGROUND AND SITE DESCRIPTION**

No structures are located on the right-of-way of Parcels 66 and 68. The surface of the right-of-way is covered with an asphalt covered parking lot. Several utilities cross the site including buried water, sewer pipes, and overhead electric lines. Photographs of the Study Area are presented in Appendix A. This preliminary site assessment is for the investigation of the right-of-way along East King Street.

### **3.0 FIELD METHODOLOGY**

Prior to mobilizing to the site to conduct subsurface sampling, Schnabel Engineering contacted North Carolina One Call to locate underground utilities in the proposed property acquisition areas (Study Area) of the site. Schnabel Engineering mobilized a geophysical crew to the site on March 12, 2008 and performed an electromagnetic survey of the subsurface in the proposed right-of-way area within the parcel. The electromagnetic survey equipment (EM61-MK2) identified various magnetic anomalies within the Study Area. The Schnabel geophysical crew returned to the Study Area on March 21, 2008 to perform ground penetrating radar (GPR) survey with a Geophysical Survey Systems SIR 3000 equipped with a 400 MHz antenna. Results of the survey suggested the presence of buried utility lines or conduits within the Study Area. The report on the geophysical surveys is included in Appendix B and was previously sent to the NCDOT on May 2, 2008.

After reviewing the background information and geophysical data, Schnabel returned to Parcels 66 and 68 to obtain soil and water samples for chemical analysis from within the Study Area. Soil samples were collected to test for total petroleum hydrocarbon gasoline, diesel range volatile organic carbons (TPH-GRO and TPH-DRO), Method 8260 Organics, and Oil and Grease. Water samples were collected to test for total petroleum hydrocarbon gasoline, diesel range volatile organic carbons (TPH-GRO and TPH-DRO), and Method 8260 Organics. Four soil borings designated B-66-01, B-66-02, B-68-03, and B-68-04 were advanced by Subsurface Environmental Investigations of Statesville, NC along East King Street on April 1, 2008. The locations of the four soil borings are shown on Figure 3. The borings were each advanced to a total depth of eight feet below ground surface. The borings drilled within the Study Area were advanced utilizing a track-mounted Geoprobe<sup>®</sup> (Model 6610-DT) with direct push probe technology. At the completion of the sampling activities, each boring was backfilled with soil removed from the boring during sampling and/or bentonite chips.

Soil samples were obtained from the Geoprobe borings using a MacroCore<sup>®</sup> sampler fitted with a new, single-use, four foot long disposable polyvinyl chloride (PVC) liner. A portion of each 2-foot interval was placed in a separate resealable plastic bag. These bags were sealed and placed at ambient temperature for field screening with a MiniRAE Plus photo ionization detector (PID).

Volatile organic compounds were allowed to accumulate in the headspace of each bag for approximately 15 minutes, and then the headspace of each sealed bag was scanned with the PID. Headspace screening of the soil samples indicated a concentration of 0 ppm at each boring location at intervals of two, four, six, and eight feet below ground surface. The PID was calibrated on March 29, 2008 in general accordance with the manufacturer's recommended calibration procedures. The PID readings were recorded with the soil descriptions and indications of staining or odors, if present. Logs for each boring are presented in Appendix C.

Soil samples for laboratory analysis were collected from each boring at the sample intervals identified in Table 1. Samples from the borings were obtained from the bottom of each boring above the water table. Water samples were collected at B-68-04 using a peristaltic Geopump 1 with a polyethylene tube with Teflon liner on the water discharge tube. All soil and water samples were placed in laboratory-supplied containers and stored on ice pending shipment to Prism Laboratories, Inc. (Prism) in Charlotte, NC. Sample information was recorded on the Chain-of-Custody form and the samples were submitted for chemical analysis of TPH-GRO by Modified EPA Method 5030/8015, TPH-DRO by Modified EPA Method 3545/8015, and Method 8260 Organics. An Oil and Grease soil sample was collected at B-68-03 which is in the down-gradient part of the site.

Soils collected from borings within the Study Area generally consisted of silty sand (SM) or sandy silt (ML). GPS coordinates for each boring were obtained using a Trimble Pro-XRS DGPS system (Appendix D) with coordinates reported in US State Plane 1983 system, North Carolina 3200 zone, using the NAD 83 datum, with units in US survey feet.

#### **4.0 DISCUSSION OF RESULTS**

Soil and water samples were collected from Geoprobe borings and analyzed for TPH-DRO, TPH-GRO, Method 8260 Organics, and Oil and Grease. TPH-DRO was detected in soil sample B-66-02 from the 0 to 2 foot depth interval and from B-68-04 from the 4 to 6 foot depth interval at estimated concentrations of 11 mg/kg and 12 mg/kg, respectively. Results from the remaining soil and water samples submitted for analysis did not reveal the presence of TPH-GRO, TPH-DRO, Method 8260 Organics, or Oil and Grease at levels above the laboratory analytical reporting limits. Laboratory

analytical results are summarized in Table 2. Laboratory reports for these samples are presented in Appendix E.

## **5.0 CONCLUSIONS**

The geophysical survey conducted at the site did not indicate the presence of probable USTs on Parcels 66 and 68. The geophysical survey did indicate the presence of buried utility lines and conduits. Four soil borings B-66-01, B-66-02, B-68-03, and B-68-04 were advanced to evaluate potential petroleum and oil and grease contamination within the Study Area, and to document soil conditions.

Laboratory analytical results showed that soil samples from Geoprobe borings B-66-01 and B-68-03 and the water sample from B-68-04 were below the laboratory analytical reporting limits. TPH-DRO was detected in soil sample B-66-02 from the 0 to 2 foot depth interval and from B-68-04 from the 4 to 6 foot depth interval at estimated concentrations of 11 mg/kg and 12 mg/kg, respectively. These results are below the TPH Action Level of 40 mg/kg for DRO (*UST Section Guidelines for the Investigation and Remediation of Contamination from Non-UST Petroleum Releases, Department of Environment and Natural Resource, Division of Waste Management, UST Section, July, 2007*).

## **6.0 RECOMMENDATIONS**

Based on the currently available information presented in this report, additional assessment is not recommended. Concentrations of the constituents selected for laboratory analysis were below the TPH Action Levels, so excavation and treatment of soils for these constituents is not recommended. However, NCDOT may choose to properly transport and treat the excavated soil in the vicinity of these soil borings. During roadway construction, the NCDOT transportation/disposal contractor may use different criteria for estimating impacted soil.

## **7.0 LIMITATIONS**

This Preliminary Site Assessment was prepared for the use of the North Carolina Department of Transportation. The scope of work performed at the site is limited to the tasks described in our cost proposal dated March 3, 2008. This report is not intended to represent an exhaustive research of all potential hazards that may exist. Schnabel makes no other declarations, or any express or implied warranty, as to the professional services provided under the terms of the agreement.

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# TABLES

**TABLE 1**  
**SAMPLING INTERVALS AND FIELD VOLATILE MEASUREMENTS**  
**PARCELS 66 & 68**  
**NCDOT U-4020, WATAUGA COUNTY**

Sample Depth Below Ground Surface	Soil Borings			
	B-66-01	B-66-02	B-68-03	B-68-04
	PID (ppm)			
0 - 2 feet	ND	ND*	ND*	ND
2 - 4 feet	ND	ND	ND	ND
4 - 6 feet	ND	ND	ND	ND**
6 - 8 feet	ND*	ND	ND	ND

Shaded cells were submitted for laboratory analysis

NS = Not Sampled

ND = Volatiles Not Detected by field measurements (0 ppm headspace reading with PID)

ND\* = Water Encountered

ND\*\* = Water Sample Taken

PID readings were obtained using a MiniRae Photo Ionization Detector

ppm = parts per million

**TABLE 2  
SUMMARY OF LABORATORY RESULTS  
PARCELS 66 & 68  
NCDOT U-4020, WATAUGA COUNTY**

Boring No.	Depth (ft)	Matrix	TPH-GRO	TPH-DRO	Oil and Grease	Method 8260 Organics
B-66-01	0 - 2	Soil	NS	NS	NS	NS
B-66-01	2 - 4	Soil	NS	NS	NS	NS
B-66-01	4 - 6	Soil	NS	NS	NS	NS
B-66-01	6 - 8	Soil	BRL	BRL	NS	NS
B-66-02	0 - 2	Soil	BRL	11	NS	NS
B-66-02	2 - 4	Soil	NS	NS	NS	NS
B-66-02	4 - 6	Soil	NS	NS	NS	NS
B-66-02	6 - 8	Soil	NS	NS	NS	NS
B-68-03	0 - 2	Soil	BRL	BRL	BRL	BRL
B-68-03	2 - 4	Soil	NS	NS	NS	NS
B-68-03	4 - 6	Soil	NS	NS	NS	NS
B-68-03	6 - 8	Soil	NS	NS	NS	NS
B-68-04	0 - 2	Soil	NS	NS	NS	NS
B-68-04	2 - 4	Soil	NS	NS	NS	NS
B-68-04	4 - 6	Soil	BRL	12	NS	BRL
B-68-04	6 - 8	Soil	NS	NS	NS	NS
B-68-04	4 - 6	Water	BRL	BRL	NS	BRL
Regulatory Concentrations						
TPH Action Levels		Soil	10	40	250	Various
NC 2L		Water	4.2	42	NS	Various

Units in mg/kg for soils  
and mg/L for water

J: The analyte was positively identified but the value is estimated below the reporting limit.

mg/kg = parts per million

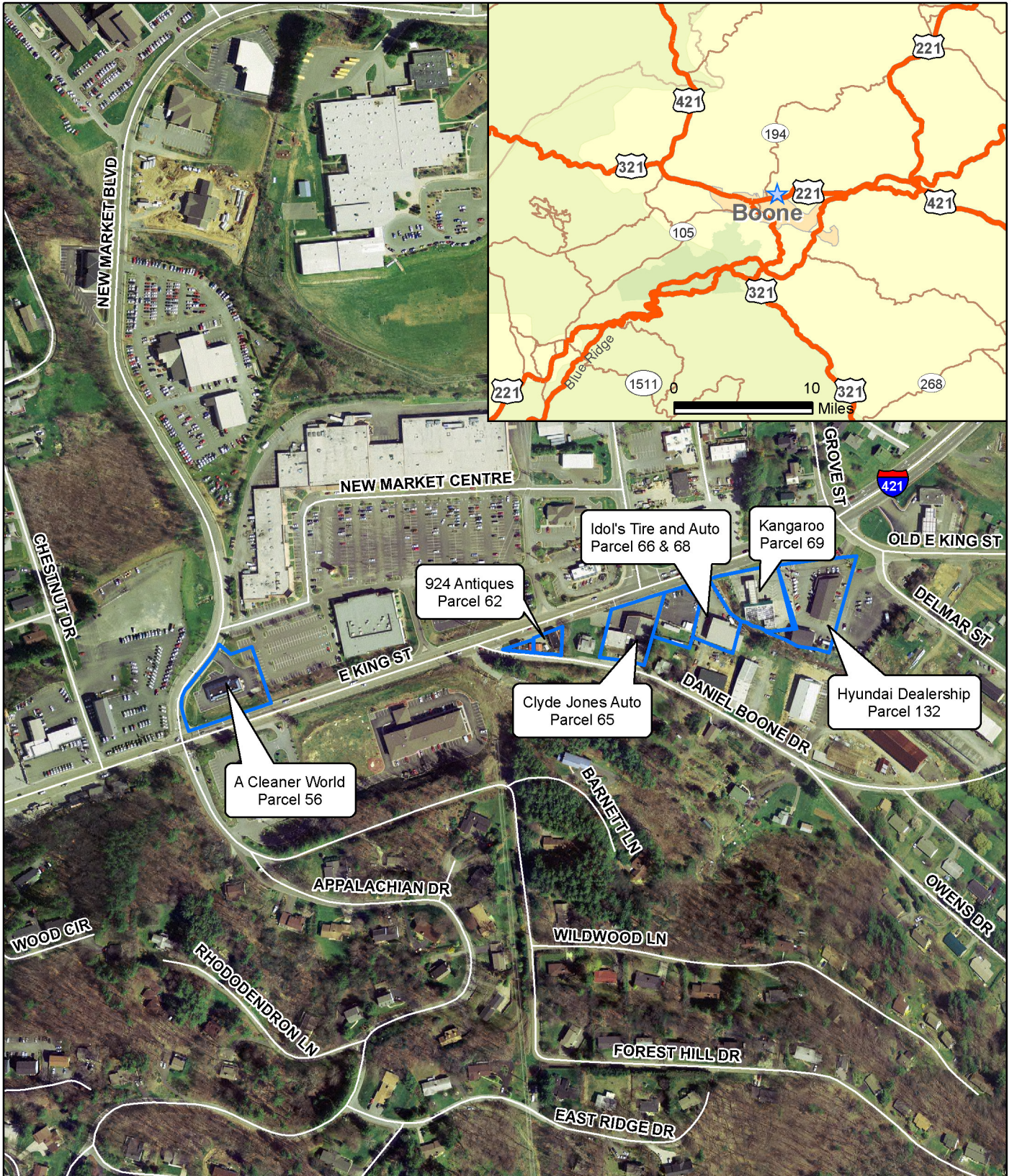
BRL - Below Reporting Limit

NS - Not Sampled

Listed Regulatory Concentrations are from UST Section Guidelines



# FIGURES



Source: 1. Watauga County GIS,  
<http://www.wataugacounty.org/gis/index.asp>

400 200 0 400 Feet

Scale: 1:4,800



NC Department of Transportation  
 Geotechnical Engineering Unit

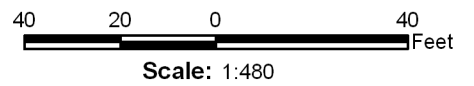
State Project No. U-4020  
 Watauga County, North Carolina

VICINITY MAP

Figure 1



Source: 1. Watauga County GIS,  
<http://www.wataugacounty.org/gis/index.asp>



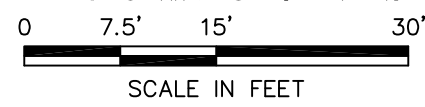
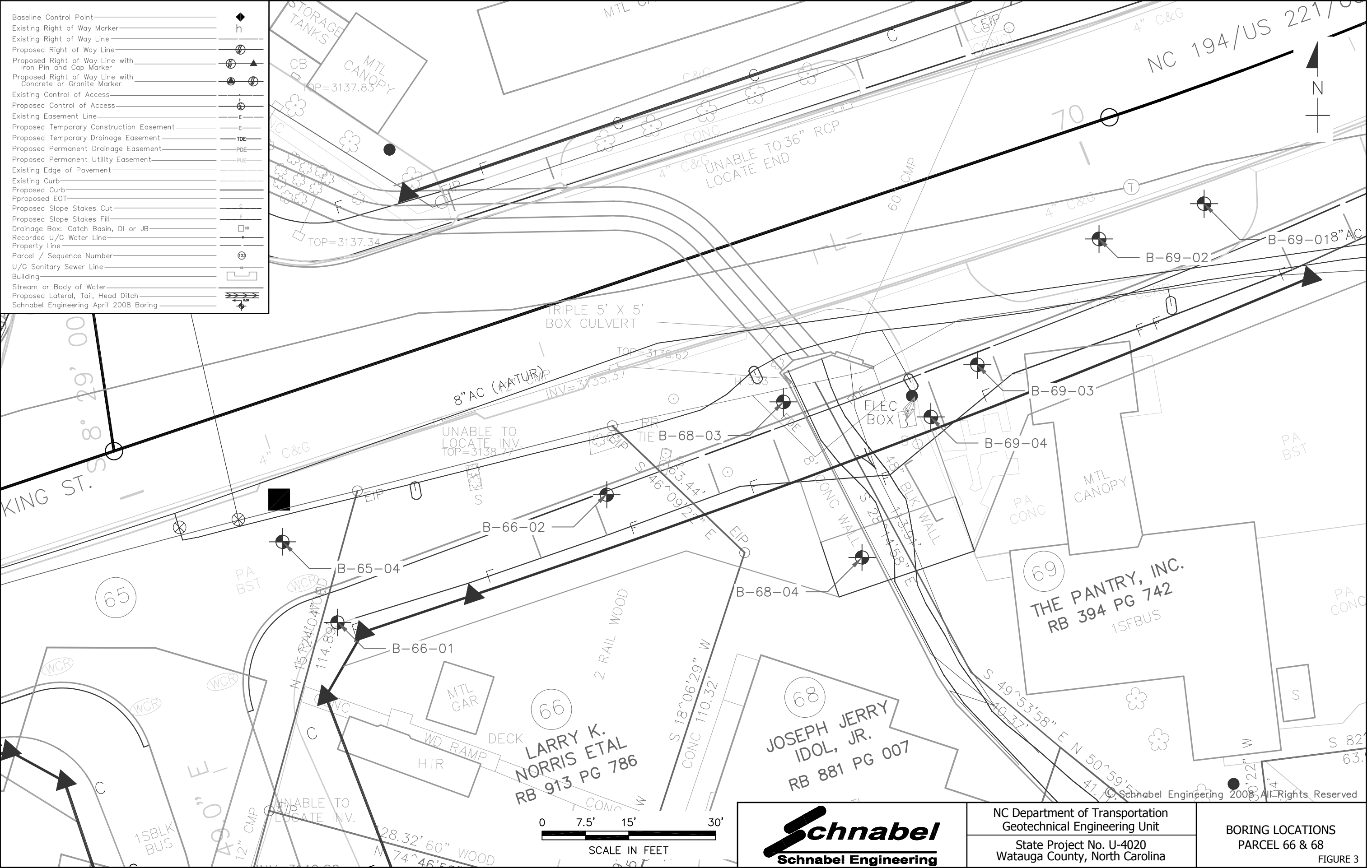
NC Department of Transportation  
 Geotechnical Engineering Unit

State Project No. U-4020  
 Watauga County, North Carolina

SITE MAP  
 PARCELS 66 AND 68

Figure 2

Baseline Control Point	◆
Existing Right of Way Marker	h
Existing Right of Way Line	—
Proposed Right of Way Line	—
Proposed Right of Way Line with Iron Pin and Cap Marker	⊙
Proposed Right of Way Line with Concrete or Granite Marker	⊙
Existing Control of Access	—
Proposed Control of Access	—
Existing Easement Line	E
Proposed Temporary Construction Easement	E
Proposed Temporary Drainage Easement	TDE
Proposed Permanent Drainage Easement	PDE
Proposed Permanent Utility Easement	PUE
Existing Edge of Pavement	—
Existing Curb	—
Proposed Curb	—
Proposed EOT	—
Proposed Slope Stakes Cut	C
Proposed Slope Stakes Fill	F
Drainage Box: Catch Basin, DI or JB	□
Recorded U/G Water Line	—
Property Line	—
Parcel / Sequence Number	⑬
U/G Sanitary Sewer Line	—
Building	—
Stream or Body of Water	—
Proposed Lateral, Tail, Head Ditch	—
Schnabel Engineering April 2008 Boring	—



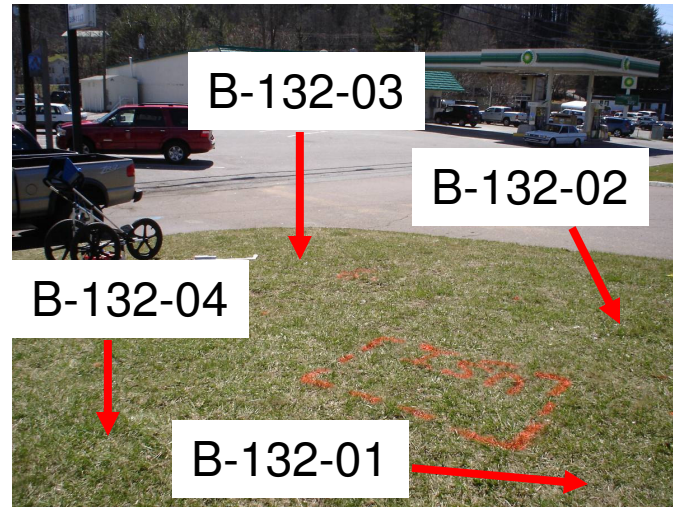
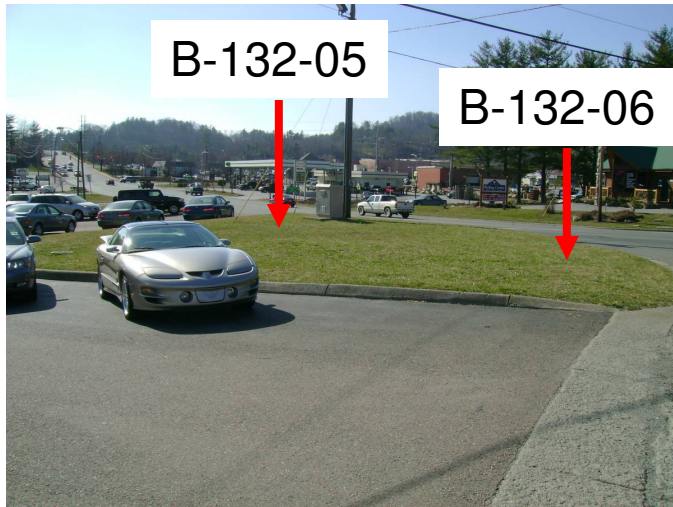
NC Department of Transportation  
Geotechnical Engineering Unit  
State Project No. U-4020  
Watauga County, North Carolina

BORING LOCATIONS  
PARCEL 66 & 68  
FIGURE 3

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APPENDIX A  
Photographs

# Parcel 132, Hyundai Dealership



APPENDIX B  
Geophysics Report

May 2, 2008

Mr. Cyrus Parker  
NCDOT, Geotechnical Unit  
1020 Birch Ridge Drive  
Raleigh, NC 27610

Via email (pdf)

RE: State Project: U-4020  
WBS Element: 35015.1.1  
County: Watauga  
Description: US 421 (King Street) from US 321 (Hardin Street) to east  
of NC 194 (Jefferson Road) in Boone

SUBJECT: Report on Geophysical Surveys of Parcels 66 & 68  
Schnabel Engineering Project No. 07210023.07

Dear Mr. Parker:

This letter contains our report on the geophysical surveys we conducted on the subject properties. The report includes two 11x17 color figures.

## **1.0 INTRODUCTION**

Schnabel Engineering conducted geophysical surveys on March 12 and March 21, 2008, in the accessible areas of the proposed right-of-way (ROW) sections of Parcels 66 and 68 (Larry Norris & Joseph Idol, Jr. Properties, Idol's Tire and Auto, Street Smart Auto Sales) under our 2007 contract with the NCDOT. Parcels 66 and 68 are located on the south side of US 421 (King Street) just east of the NC 194 intersection and Parcel 65, in Boone, NC. The work was conducted at the location indicated by the NCDOT to support their environmental assessment of the subject parcels. The purpose of the geophysical surveys was to locate possible metal underground storage tanks (UST's) and associated metal product lines in the accessible areas of the sites.



## **2.0 FIELD METHODOLOGY**

Locations of geophysical data points were obtained using a sub-meter Trimble Pro-XRS DGPS system. References to direction and location in this report are based on the US State Plane 1983 system, North Carolina 3200 zone, using the NAD 83 datum, with units in US survey feet. The locations of existing site features (building, curbs, signs, etc.) were recorded for later correlation with the geophysical data and for location references to the NCDOT drawings. The geophysical investigation consisted of electromagnetic (EM) induction surveys using a Geonics EM61-MK2 instrument, and ground-penetrating radar surveys using a Geophysical Survey Systems SIR-3000 system equipped with a 400 MHz antenna.

The EM61 data were collected along parallel survey lines spaced about 2.5 feet apart. The EM61 and DGPS data were recorded digitally using a field computer and later transferred to a desktop computer for data processing. The GPR data were collected along survey lines spaced two feet apart in orthogonal directions over anomalous EM readings not attributed to cultural features.

## **3.0 DISCUSSION OF RESULTS**

The contoured EM61 data are shown on Figures 1 and 2. The EM61 early time gate results are plotted on Figure 1. The early time gate data provide the most sensitive detection of metal object targets, regardless of size. Figure 2 shows the difference between the response of the top and bottom coils of the EM61 instrument (differential response). The difference is taken to remove the effect of surface and very shallowly buried metallic objects. Typically, the differential response emphasizes anomalies from deeper and larger objects such as UST's.

The early time gate and differential results indicate linear anomalies probably caused by buried utilities, an anomaly probably caused by reinforced concrete, and anomalies probably caused by known cultural features. An area of reinforced concrete and anomalies not attributed to known cultural features in the EM61 data were investigated using GPR. The anomalies not attributed to known cultural features in the EM61 data were likely the result of vehicles parked close to the

survey area. The GPR data did not indicate the presence of UST's in the area surveyed on Parcels 66 and 68.

#### **4.0 CONCLUSIONS**

Our evaluation of the geophysical data collected on Parcels 66 and 68 of Project U-4020 in Boone, NC indicates the following:

- The geophysical data do not indicate the presence of UST's in the areas surveyed.

#### **5.0 LIMITATIONS**

These services have been performed and this report prepared for the North Carolina Department of Transportation in accordance with generally accepted guidelines for conducting geophysical surveys. It is generally recognized that the results of geophysical surveys are non-unique and may not represent actual subsurface conditions.

Thank you for the opportunity to serve you on this project. Please call if you need additional information or have any questions.

Sincerely,



Jeremy S. Strohmeyer, P.G.  
Project Manager

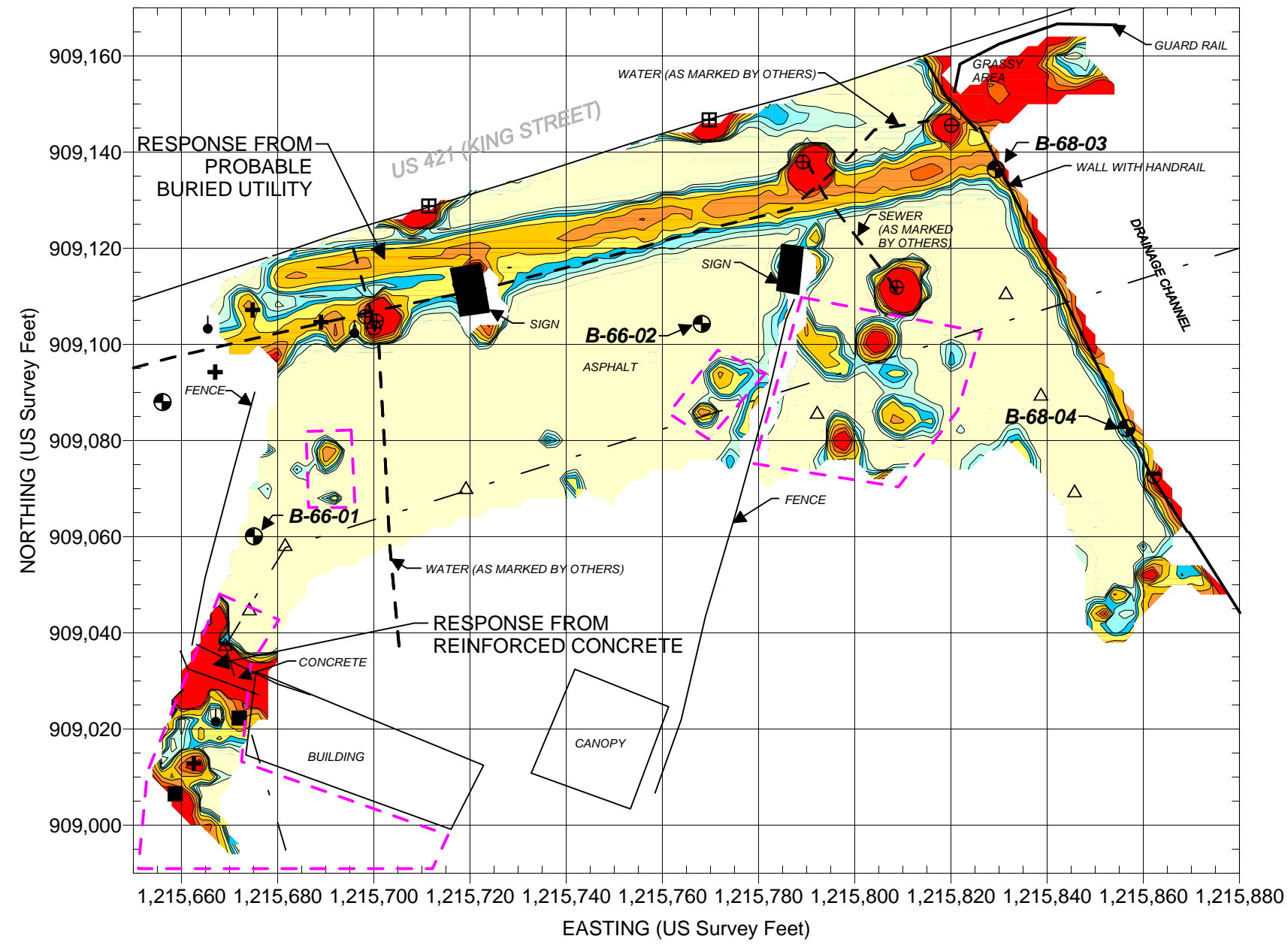


Edward D. Billington, P.G.  
Senior Vice President

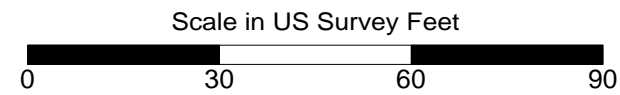
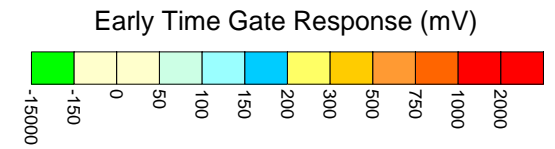
JW/JS/NB

Attachment: Figures (2)

FILE: G:\2007 PROJECTS\07210023 (NCDOT 2007 GEOPHYSICAL SERVICES)\PHASE 07 (U-4020 - WATAUGA COUNTY)\REPORT\NCDOT (GOEPHYSICS & PSA)\PARCELS 66 & 68\REPORT ON PARCELS 66 & 68.DOC



EXPLANATION	
	EM61 SURVEY AREA - DATA ACQUIRED ALONG PARALLEL SURVEY LINES SPACED APPROXIMATELY 2.5 FEET APART
	BORING LOCATION
	GUY WIRE
	SIGN
	METALLIC OBJECT
	NCDOT MARKER
	UTILITY POLE
	STORMWATER GRATE
	UTILITY MANHOLE
	MONITORING WELL
	LIGHTPOLE
	GPR SURVEY AREA
	LOCATION OF GPR SURVEY LINE SHOWN
	APPROXIMATE LOCATION OF POSSIBLE UTILITY (SOME MARKED IN FIELD)
	APPROXIMATE LOCATION OF POSSIBLE BURIED UST AS MARKED IN FIELD
	APPROXIMATE LIMITS OF NCDOT PROJECT



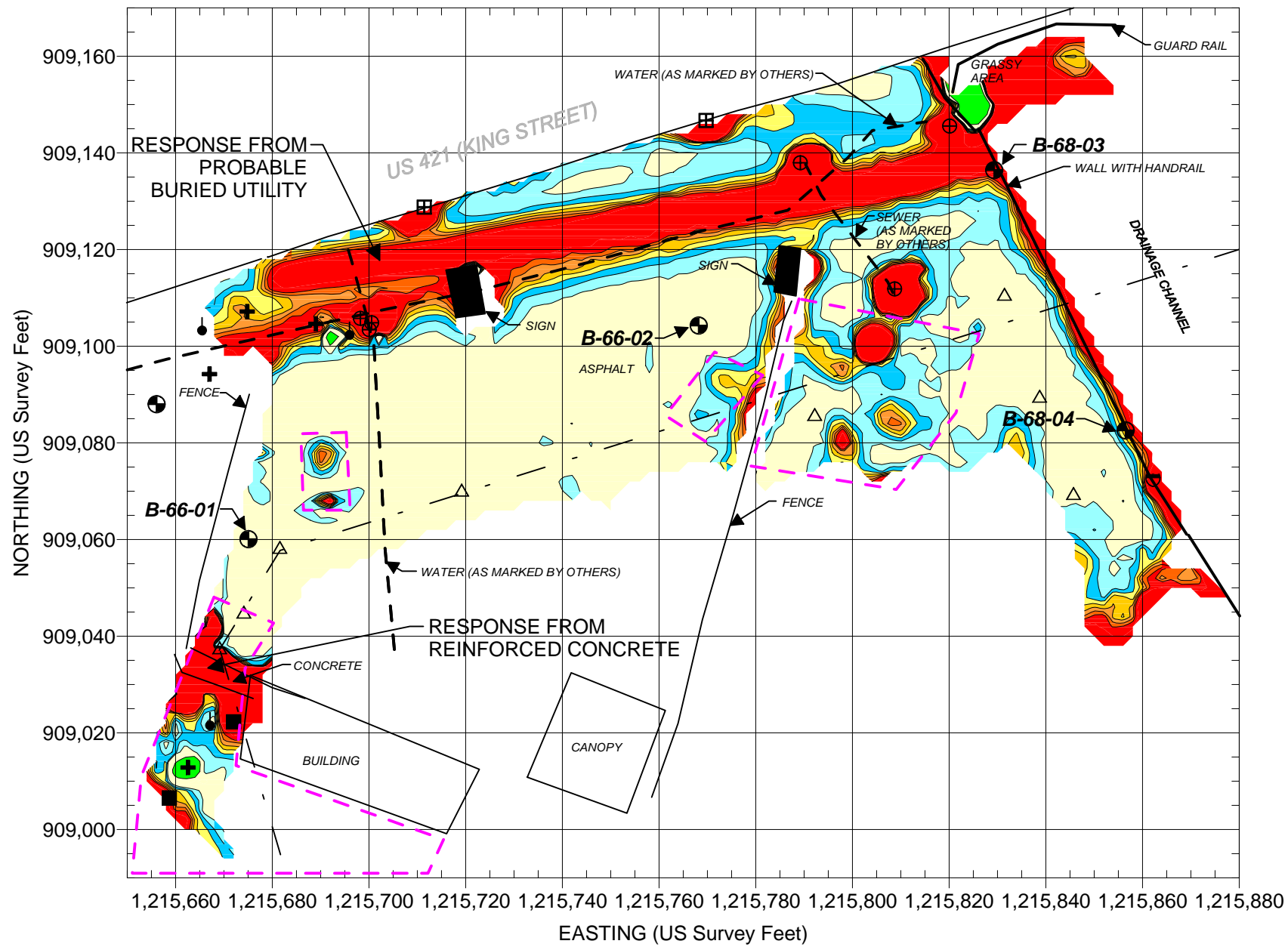
Note: The contour plot shows the earliest and most sensitive time gate of the EM61 bottom coil/channel in millivolts (mV). The EM data were collected on March 12, 2008, using a Geonics EM61-MK2 instrument. Positioning for the EM61 survey was provided using a submeter Trimble ProXRS DGPS system. Coordinates are in the US State Plane 1983 System, North Carolina Zone 3200, using the NAD 1983 datum. GPR data were acquired on March 21, 2008, using a Geophysical Survey Systems SIR 3000 equipped with a 400 MHz antenna.



NC Department of Transportation  
Geotechnical Engineering Unit  
State Project No. U-4020  
Watauga County, North Carolina

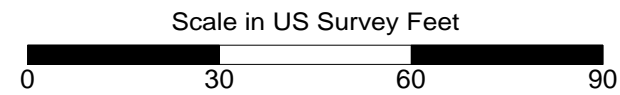
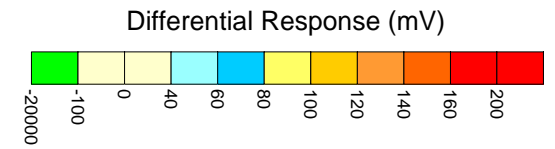
**PARCELS 66 AND 68  
EM61 EARLY TIME  
GATE RESPONSE**

FIGURE 1



**EXPLANATION**

- EM61 SURVEY AREA - DATA ACQUIRED ALONG PARALLEL SURVEY LINES SPACED APPROXIMATELY 2.5 FEET APART
- BORING LOCATION
- GUY WIRE
- SIGN
- METALLIC OBJECT
- NCDOT MARKER
- UTILITY POLE
- STORMWATER GRATE
- UTILITY MANHOLE
- MONITORING WELL
- LIGHTPOLE
- GPR SURVEY AREA
- LOCATION OF GPR SURVEY LINE SHOWN
- APPROXIMATE LOCATION OF POSSIBLE UTILITY (SOME MARKED IN FIELD)
- APPROXIMATE LOCATION OF POSSIBLE BURIED UST AS MARKED IN FIELD
- APPROXIMATE LIMITS OF NCDOT PROJECT



Note: The contour plot shows the difference, in millivolts (mV), between the readings from the top and bottom coils of the EM61. The difference is taken to reduce the effect of shallow metal objects and emphasize anomalies caused by deeper metallic objects, such as pipes and tanks. The EM data were collected on March 12, 2008, using a Geonics EM61-MK2 instrument. Positioning for the EM61 survey was provided using a submeter Trimble ProXRS DGPS system. Coordinates are in the US State Plane 1983 System, North Carolina 3200 Zone, using the NAD 1983 datum. GPR data were acquired on March 21, 2008, using a Geophysical Survey Systems SIR 3000 equipped with a 400 MHz antenna.



NC Department of Transportation  
Geotechnical Engineering Unit

State Project No. U-4020  
Watauga County, North Carolina

**PARCELS 66 AND 68  
EM61 DIFFERENTIAL  
RESPONSE**

FIGURE 2

APPENDIX C  
Soil Boring Logs



**GEO  
PROBE  
LOG**

**Project:** NCDOT Preliminary Site Assessments  
Watauga County  
Boone, North Carolina

**Geo Probe Number:** **B-66-01**  
**Contract Number:** 7210023.07  
**Sheet:** 1 of 1

**Contractor:** Subsurface Environmental Investigations  
Statesville, NC  
**Contractor Foreman:** Walt Davis  
**Schnabel Representative:** Ben Bradley  
**Equipment:** Geoprobe 6610DT  
**Method:** Geoprobe,  
Macrocore  
**Hammer Type:** NA  
**Dates Started:** 4/1/08 **Finished:** 4/1/08  
**X:** 1215856 ft **Y:** 909082 ft  
**Ground Surface Elevation:** 3140± (ft) **Total Depth:** 8.0 ft

Groundwater Observations						
	Date	Time	Depth	Casing	Caved	
Encountered	4/1	1:35 PM	7.0'	---	---	

DEPTH (ft)	MATERIAL DESCRIPTION	SYMBOL	ELEV (ft)	STRA TUM	SAMPLING		TESTS	REMARKS
					DEPTH	DATA		
0.3	Asphalt		3139.5					
	SILTY SAND, dry, dark gray, estimated <5% mica, estimated <5% rock fragments	SM						
2.0	SANDY SILT, moist, gray, probable RESIDUAL material	ML	3137.8				PID = 0 ppm	
4.0	SANDY SILT, moist, dark gray, probable RESIDUAL material	ML	3135.8		5		PID = 0 ppm	
6.0	SANDY SILT, moist, grayish brown, probable RESIDUAL material	ML	3133.8				PID = 0 ppm	
8.0		ML	3131.8			S-1	PID = 0 ppm	

Bottom of Geo Probe at 8.0 ft.  
Boring terminated at selected depth.  
Boring backfilled with bentonite upon completion.

TEST BORING LOG BORELOGS:GPJ SCHINABEL DATA TEMPLATE 2008\_04\_01.GDT 5/29/08



**GEO  
PROBE  
LOG**

**Project:** NCDOT Preliminary Site Assessments  
Watauga County  
Boone, North Carolina

**Geo Probe Number:** **B-66-02**  
**Contract Number:** 7210023.07  
**Sheet:** 1 of 1

**Contractor:** Subsurface Environmental Investigations  
Statesville, NC  
**Contractor Foreman:** Walt Davis  
**Schnabel Representative:** Ben Bradley  
**Equipment:** Geoprobe 6610DT  
**Method:** Geoprobe,  
Macrocore  
**Hammer Type:** NA  
**Dates Started:** 4/1/08 **Finished:** 4/1/08  
**X:** 1215768 ft **Y:** 909104 ft  
**Ground Surface Elevation:** 3138± (ft) **Total Depth:** 8.0 ft

Groundwater Observations					
	Date	Time	Depth	Casing	Caved
Encountered	4/1	2:09 PM	6 In	---	---

DEPTH (ft)	MATERIAL DESCRIPTION	SYMBOL	ELEV (ft)	STRA TUM	SAMPLING		TESTS	REMARKS
					DEPTH	DATA		
0.2	Asphalt		3137.5					
	SILTY SAND, dry, dark gray, estimated <5% rock fragments	SM						
2.0	SANDY SILT, moist, dark gray, estimated <5% terra cotta, probable RESIDUAL material	ML	3135.7			S-1	PID = 0 ppm	
4.0	SILTY SAND, wet, gray, estimated 5 - 10% rock fragments, probable ALLUVIAL material	SM	3133.7		5		PID = 0 ppm	
8.0			3129.7				PID = 0 ppm	

Bottom of Geo Probe at 8.0 ft.  
Boring terminated at selected depth.  
Boring backfilled with bentonite upon completion.

TEST BORING LOG BORELOGS:GPJ SCHINABEL DATA TEMPLATE 2008\_04\_01.GDT 5/29/08



**GEO  
PROBE  
LOG**

**Project:** NCDOT Preliminary Site Assessments  
Watauga County  
Boone, North Carolina

**Geo Probe Number:** **B-68-03**  
**Contract Number:** 7210023.07  
**Sheet:** 1 of 1

**Contractor:** Subsurface Environmental Investigations  
Statesville, NC  
**Contractor Foreman:** Walt Davis  
**Schnabel Representative:** Ben Bradley  
**Equipment:** Geoprobe 6610DT  
**Method:** Geoprobe,  
Macrocore  
**Hammer Type:** NA  
**Dates Started:** 4/1/08 **Finished:** 4/1/08  
**X:** 1215675 ft **Y:** 909060 ft  
**Ground Surface Elevation:** 3138± (ft) **Total Depth:** 8.0 ft

Groundwater Observations					
	Date	Time	Depth	Casing	Caved
Encountered	4/1	2:56 PM	6 In	---	---

DEPTH (ft)	MATERIAL DESCRIPTION	SYMBOL	ELEV (ft)	STRA TUM	SAMPLING		TESTS	REMARKS
					DEPTH	DATA		
0.2	Topsoil SANDY SILT, moist, dark gray, estimated 15 - 25% rock fragments, probable RESIDUAL material	ML	3137.4					
2.0	GRAVEL, moist, probable ALLUVIAL material	GP	3135.6			S-1, S-2, S-3	PID = 0 ppm	
8.0			3129.6		5		PID = 0 ppm	

Bottom of Geo Probe at 8.0 ft.  
Boring terminated at selected depth.  
Boring backfilled with bentonite upon completion.

TEST BORING LOG BORELOGS:GPJ SCHNABEL DATA TEMPLATE 2008\_04\_01.GDT 5/29/08





**GEO  
PROBE  
LOG**

**Project:** NCDOT Preliminary Site Assessments  
Watauga County  
Boone, North Carolina

**Geo Probe Number:** **B-68-04**  
**Contract Number:** 7210023.07  
**Sheet:** 1 of 1

**Contractor:** Subsurface Environmental Investigations  
Statesville, NC  
**Contractor Foreman:** Walt Davis  
**Schnabel Representative:** Ben Bradley  
**Equipment:** Geoprobe 6610DT  
**Method:** Geoprobe,  
Macrocore  
**Hammer Type:** NA  
**Dates Started:** 4/1/08 **Finished:** 4/1/08  
**X:** 1215656 ft **Y:** 909087 ft  
**Ground Surface Elevation:** 3136± (ft) **Total Depth:** 8.0 ft

Groundwater Observations						
	Date	Time	Depth	Casing	Caved	
Encountered	4/1	3:36 PM	5.0'	---	---	▽

DEPTH (ft)	MATERIAL DESCRIPTION	SYMBOL	ELEV (ft)	STRA TUM	SAMPLING		TESTS	REMARKS
					DEPTH	DATA		
0.3	Asphalt		3136.0					
	SANDY SILT, moist, yellowish brown, probable RESIDUAL material	ML						
2.0	SANDY SILT, moist, dark gray, estimated <5% rock fragments, probable RESIDUAL material	ML	3134.3				PID = 0 ppm	
		ML					PID = 0 ppm	
		▽			5			
6.0	SANDY SILT, wet, dark gray, probable ALLUVIAL material	ML	3130.3			S-1, S-2, S-3	PID = 0 ppm	
		ML						
8.0			3128.3				PID = 0 ppm	

Bottom of Geo Probe at 8.0 ft.  
Boring terminated at selected depth.  
Boring backfilled with bentonite upon completion.

TEST BORING LOG BORELOGS:GPJ SCHNABEL DATA TEMPLATE 2008\_04\_01.GDT 5/29/08

APPENDIX D  
Soil Boring GPS Coordinates

**SOIL BORING GPS COORDINATES  
NCDOT U-4020, WATAUGA COUNTY**

<b>Soil Boring GPS Coordinates</b>		
Boring Identification	Easting	Northing
	X	Y
B-66-01	1215856	909082
B-66-02	1215768	909104
B-68-03	1215675	909060
B-68-04	1215656	909087

\* NC State Plane 1983 System, NC 3200 Zone,  
NAD 83 Datum, US Survey Feet

APPENDIX E  
Prism Lab Report



# Case Narrative

**Date:** 04/17/08  
**Company:** N. C. Department of Transportation  
**Contact:** Ben Bradley  
**Address:** c/o Schnabel Engineering  
 11 A Oak Branch Drive  
 Greensboro, NC 27407

**Client Project ID:** NCDOT Parcel 66  
**Prism COC Group No:** G0408093  
**Collection Date(s):** 04/01/08  
**Lab Submittal Date(s):** 04/03/08

**Client Project Name Or No:** Street Smart Auto Sale, Boone, NC

This data package contains the analytical results for the project identified above and includes a Case Narrative, Laboratory Report and Quality Control Data totaling 4 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

No Anomalies Reported

### Volatile Analysis

See laboratory report for additional comments.

### 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:** Robbi A. Jones

**Signature:** Robbi A. Jones

**Signature:** Robbi A. Jones

**Review Date:** 04/17/08

**Approval Date:** 04/17/08

### **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

04/17/08

N. C. Department of Transportation  
 Attn: Ben Bradley  
 c/o Schnabel Engineering  
 11 A Oak Branch Drive  
 Greensboro, NC 27407

Project Name: Street Smart Auto Sale, Boone, NC  
 Project ID: NCDOT Parcel 66  
 Project No.: WBS #7210023.07  
 Sample Matrix: Soil  
 Client Sample ID: B-66-01  
 Prism Sample ID: 210416  
 COC Group: G0408093  
 Time Collected: 04/01/08 13:45  
 Time Submitted: 04/03/08 8:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
-----------	--------	-------	--------------	-----	-----------------	--------	--------------------	---------	----------

**Percent Solids Determination**

Percent Solids	78.4	%			1	SM2540 G	04/07/08 13:45	mbarber	
----------------	------	---	--	--	---	----------	----------------	---------	--

**Diesel Range Organics (DRO) by GC-FID**

Diesel Range Organics (DRO)	BRL	mg/kg	8.8	1.4	1	8015B	04/10/08 15:00	jvogel	Q31647
-----------------------------	-----	-------	-----	-----	---	-------	----------------	--------	--------

Sample Preparation: 25.32 g / 1 mL 3545 04/09/08 10:00 wconder P21297

Surrogate	% Recovery	Control Limits
o-Terphenyl	62	49 - 124

**Gasoline Range Organics (GRO) by GC-FID**

Gasoline Range Organics (GRO)	BRL	mg/kg	1.3	0.026	1	8015B	04/08/08 16:41	wbradley	Q31508
-------------------------------	-----	-------	-----	-------	---	-------	----------------	----------	--------

One surrogate recovery was outside of the control limits. The analysis was repeated, with no improvement in recovery. Matrix interference is suspected.

Surrogate	% Recovery	Control Limits
aaa-TFT	46 #	55 - 129

**Sample Comment(s):**

GRO/5035 vials contained too much soil so laboratory used DRO sample to perform GRO/5030.

*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



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

# Laboratory Report

04/17/08

N. C. Department of Transportation  
 Attn: Ben Bradley  
 c/o Schnabel Engineering  
 11 A Oak Branch Drive  
 Greensboro, NC 27407

Project Name: Street Smart Auto Sale, Boone, NC  
 Project ID: NCDOT Parcel 66  
 Project No.: WBS #7210023.07  
 Sample Matrix: Soil  
 Client Sample ID: B-66-02  
 Prism Sample ID: 210417  
 COC Group: G0408093  
 Time Collected: 04/01/08 14:11  
 Time Submitted: 04/03/08 8:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>Percent Solids Determination</b>									
Percent Solids	77.6	%			1	SM2540 G	04/07/08 13:45	mbarber	
<b>Diesel Range Organics (DRO) by GC-FID</b>									
Diesel Range Organics (DRO)	11	mg/kg	9.0	1.5	1	8015B	04/10/08 15:32	jvogel	Q31647
Sample Preparation:			25.08 g	/	1 mL	3545	04/09/08 10:00	wconder	P21297
						<b>Surrogate</b>	<b>% Recovery</b>	<b>Control Limits</b>	
						o-Terphenyl	78	49 - 124	
<b>Gasoline Range Organics (GRO) by GC-FID</b>									
Gasoline Range Organics (GRO)	BRL	mg/kg	1.3	0.027	1	8015B	04/04/08 22:34	wbradley	Q31508
						<b>Surrogate</b>	<b>% Recovery</b>	<b>Control Limits</b>	
						aaa-TFT	87	55 - 129	

**Sample Comment(s):**

GRO/5035 vials contained too much soil so laboratory used DRO sample to perform GRO/5030.

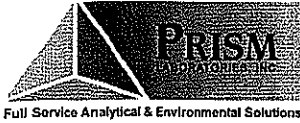
*BRL = Below Reporting Limit*

*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



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

# Level II QC Report

04/17/08

N. C. Department of Transportation  
 Attn: Ben Bradley  
 c/o Schnabel Engineering  
 11 A Oak Branch Drive  
 Greensboro, NC 27407

Project Name: Street Smart Auto Sale,  
 Boone, NC  
 Project ID: NCDOT Parcel 66  
 Project No.: WBS #7210023.07

COC Group Number: G0408093  
 Date/Time Submitted: 4/3/2008 8:30

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

Method Blank							QC Batch ID		
	Result	RL	Control Limit	Units					
Gasoline Range Organics (GRO)	ND	1	<0.5	mg/kg			Q31508		
Laboratory Control Sample							QC Batch ID		
	Result	Spike Amount		Units	Recovery %	Recovery Ranges %			
Gasoline Range Organics (GRO)	1.945	2		mg/kg	97	64-124	Q31508		
Matrix Spike							QC Batch ID		
Sample ID:	Result	Spike Amount		Units	Recovery %	Recovery Ranges %			
210407 Gasoline Range Organics (GRO)	1.868	2		mg/kg	93	37-126	Q31508		
Matrix Spike Duplicate							QC Batch ID		
Sample ID:	Result	Spike Amount		Units	Recovery %	Recovery Ranges %	RPD %	RPD Range %	QC Batch ID
210407 Gasoline Range Organics (GRO)	1.862	2		mg/kg	93	37-126	0	0 - 34	Q31508

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

Method Blank							QC Batch ID		
	Result	RL	Control Limit	Units					
Diesel Range Organics (DRO)	ND	7	<3.5	mg/kg			Q31647		
Laboratory Control Sample							QC Batch ID		
	Result	Spike Amount		Units	Recovery %	Recovery Ranges %			
Diesel Range Organics (DRO)	84.2	80		mg/kg	105	55-109	Q31647		
Matrix Spike							QC Batch ID		
Sample ID:	Result	Spike Amount		Units	Recovery %	Recovery Ranges %			
210414 Diesel Range Organics (DRO)	69.4	80		mg/kg	87	50-117	Q31647		
Matrix Spike Duplicate							QC Batch ID		
Sample ID:	Result	Spike Amount		Units	Recovery %	Recovery Ranges %	RPD %	RPD Range %	QC Batch ID
210414 Diesel Range Organics (DRO)	77.5	80		mg/kg	97	50-117	11	0 - 24	Q31647

#-See Case Narrative





Full Service Analytical & Environmental Solutions  
 449 Springbrook Road • P.O. Box 240543 • Charlotte, NC 28224-0543  
 Phone: 704/529-6364 • Fax: 704/525-0409

Client Company Name: Spruill  
 Report To/Contact Name: Ben Brashley  
 Reporting Address: \_\_\_\_\_

Phone: 336-274-9456 Fax (Yes) (No): \_\_\_\_\_  
 Email (Yes) (No) Email Address: ben@prism-lab.com  
 EDD Type: PDF  Excel  Other   
 Site Location Name: Street View - Auto Sale  
 Site Location Physical Address: Seave, NC

# CHAIN OF CUSTODY RECORD

PAGE \_\_\_\_\_ OF \_\_\_\_\_ QUOTE # TO ENSURE PROPER BILLING: \_\_\_\_\_

Project Name: 72102307      UST Project: (Yes) (No) \_\_\_\_\_  
 Short Hold Analysis: (Yes) (No) \_\_\_\_\_  
 \*Please ATTACH any project specific reporting (QC LEVEL I III III IV) provisions and/or QC Requirements

Invoice To: \_\_\_\_\_  
 Address: \_\_\_\_\_

## Purchase Order No./Billing Reference

Requested Due Date  1 Day  2 Days  3 Days  4 Days  5 Days  
 "Working Days"  6-9 Days  Standard 10 days  Rush Work Must Be Pre-Approved  
 Samples received after 15:00 will be processed next business day.  
 Turnaround time is based on business days, excluding weekends and holidays.  
 (SEE REVERSE FOR TERMS & CONDITIONS REGARDING SERVICES RENDERED BY PRISM LABORATORIES, INC. TO CLIENT)

### LAB USE ONLY

Samples INTACT upon arrival? YES  NO  N/A \_\_\_\_\_  
 Received ON WET ICE? Temp 3.1  
 PROPER PRESERVATIVES indicated? YES  NO  N/A \_\_\_\_\_  
 RECEIVED WITHIN HOLDING TIMES? YES  NO  N/A \_\_\_\_\_  
 CUSTODY SEALS INTACT? YES  NO  N/A \_\_\_\_\_  
 VOLATILES rec'd W/OUT HEADSPACE? YES  NO  N/A \_\_\_\_\_  
 PROPER CONTAINERS used? YES  NO  N/A \_\_\_\_\_

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

CLIENT SAMPLE DESCRIPTION	DATE COLLECTED	TIME COLLECTED MILITARY HOURS	MATRIX (SOIL, WATER OR SLUDGE)	SAMPLE CONTAINER		PRESERVATIVES	ANALYSES REQUESTED	REMARKS	PRISM LAB ID NO.
				*TYPE SEE BELOW	NO. SIZE				
B-66-01	4-1-08	1345	Soil	Glass	3		TL-DICO TPH-BFO	X	210416
B-66-02	4-1-08	1411	Soil	Glass	3			X	210417

PRISM USE ONLY

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

Additional Comments: \_\_\_\_\_

Press Down Firmly - 3 COPIES

Sampler's Signature: Ben Brashley      Sampled By (Print Name): Ben Brashley      Affiliation: \_\_\_\_\_  
 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.  
 Relinquished By (Signature): Ben Brashley      Date: 4/2/08      Military/Hours: 1330  
 Relinquished By (Signature): David Mow      Date: 4/2/08      Date: 4/2/08      Time: 830  
 Relinquished By (Signature): \_\_\_\_\_      Date: \_\_\_\_\_      COC Group No. G0408043  
 Method of Shipment:  Fed Ex  UPS  Hand-delivered  Prism Field Service  Other \_\_\_\_\_  
 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.

NPDES:  NC  SC  NC  SC  NC  SC  NC  SC  NC  SC  NC  SC  NC  SC  NC  SC  NC  SC

OTHER:  LANDFILL  CERCLA  RCRA  SOLID WASTE  DRINKING WATER  GROUNDWATER  Other \_\_\_\_\_

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

SEE REVERSE FOR TERMS & CONDITIONS

ORIGINAL

## Case Narrative



**Date:** 04/18/08  
**Company:** N. C. Department of Transportation  
**Contact:** Ben Bradley  
**Address:** c/o Schnabel Engineering  
11 A Oak Branch Drive  
Greensboro, NC 27407

**Client Project ID:** NCDOT Parcel 68  
**Prism COC Group No:** G0408097  
**Collection Date(s):** 04/01/08  
**Lab Submittal Date(s):** 04/03/08  
**Client Project Name Or No:** Idols Tire & Auto, Boone, NC WBS

This data package contains the analytical results for the project identified above and includes a Case Narrative, Laboratory Report and Quality Control Data totaling 24 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

No Anomalies Reported

### Volatile Analysis

No Anomalies Reported

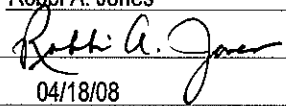
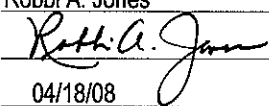
### Metals Analysis

N/A

### Wet Lab and Micro Analysis

N/A

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

<b>Date Reviewed by:</b> Robbi A. Jones	<b>Project Manager:</b> Robbi A. Jones
<b>Signature:</b> 	<b>Signature:</b> 
<b>Review Date:</b> 04/18/08	<b>Approval Date:</b> 04/18/08

### **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.

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

# Laboratory Report

04/18/08

N. C. Department of Transportation  
 Attn: Ben Bradley  
 c/o Schnabel Engineering  
 11 A Oak Branch Drive  
 Greensboro, NC 27407

Project Name: Idols Tire & Auto, Boone, NC  
 Client Sample ID: B-68-03  
 Prism Sample ID: 210433  
 Project ID: NCDOT Parcel 68  
 COC Group: G0408097  
 Project No.: WBS #7210023.07  
 Time Collected: 04/01/08 14:50  
 Sample Matrix: Soil  
 Time Submitted: 04/03/08 8:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>Percent Solids Determination</b>									
Percent Solids	75.8	%			1	SM2540 G	04/07/08 13:45	mbarber	
<b>Volatile Organic Compounds by GC/MS</b>									
1,1,1,2-Tetrachloroethane	BRL	µg/kg	7.4	0.73	1	8260B	04/04/08 16:01	erussell	Q31464
1,1,1-Trichloroethane	BRL	µg/kg	7.4	0.42	1	8260B	04/04/08 16:01	erussell	Q31464
1,1,2,2-Tetrachloroethane	BRL	µg/kg	7.4	0.76	1	8260B	04/04/08 16:01	erussell	Q31464
1,1,2-Trichloroethane	BRL	µg/kg	7.4	0.46	1	8260B	04/04/08 16:01	erussell	Q31464
1,1-Dichloroethane	BRL	µg/kg	7.4	0.54	1	8260B	04/04/08 16:01	erussell	Q31464
1,1-Dichloroethene	BRL	µg/kg	7.4	0.57	1	8260B	04/04/08 16:01	erussell	Q31464
1,1-Dichloropropene	BRL	µg/kg	7.4	0.66	1	8260B	04/04/08 16:01	erussell	Q31464
1,2,3-Trichlorobenzene	BRL	µg/kg	15	0.82	1	8260B	04/04/08 16:01	erussell	Q31464
1,2,3-Trichloropropane	BRL	µg/kg	7.4	0.66	1	8260B	04/04/08 16:01	erussell	Q31464
1,2,4-Trichlorobenzene	BRL	µg/kg	15	0.71	1	8260B	04/04/08 16:01	erussell	Q31464
1,2,4-Trimethylbenzene	BRL	µg/kg	15	0.57	1	8260B	04/04/08 16:01	erussell	Q31464
1,2-Dibromo-3-chloropropane	BRL	µg/kg	7.4	1.2	1	8260B	04/04/08 16:01	erussell	Q31464
1,2-Dibromoethane (EDB)	BRL	µg/kg	7.4	0.13	1	8260B	04/04/08 16:01	erussell	Q31464
1,2-Dichlorobenzene	BRL	µg/kg	15	0.40	1	8260B	04/04/08 16:01	erussell	Q31464
1,2-Dichloroethane	BRL	µg/kg	7.4	0.74	1	8260B	04/04/08 16:01	erussell	Q31464
1,2-Dichloropropane	BRL	µg/kg	7.4	0.55	1	8260B	04/04/08 16:01	erussell	Q31464
1,3,5-Trimethylbenzene	BRL	µg/kg	15	0.63	1	8260B	04/04/08 16:01	erussell	Q31464
1,3-Dichlorobenzene	BRL	µg/kg	15	0.64	1	8260B	04/04/08 16:01	erussell	Q31464
1,3-Dichloropropane	BRL	µg/kg	7.4	0.51	1	8260B	04/04/08 16:01	erussell	Q31464
1,4-Dichlorobenzene	BRL	µg/kg	15	0.58	1	8260B	04/04/08 16:01	erussell	Q31464
2,2-Dichloropropane	BRL	µg/kg	7.4	0.37	1	8260B	04/04/08 16:01	erussell	Q31464
2-Chloroethyl vinyl ether	BRL	µg/kg	15	0.55	1	8260B	04/04/08 16:01	erussell	Q31464
2-Chlorotoluene	BRL	µg/kg	15	0.55	1	8260B	04/04/08 16:01	erussell	Q31464
2-Hexanone	BRL	µg/kg	7.4	0.77	1	8260B	04/04/08 16:01	erussell	Q31464

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

# Laboratory Report

04/18/08

N. C. Department of Transportation  
 Attn: Ben Bradley  
 c/o Schnabel Engineering  
 11 A Oak Branch Drive  
 Greensboro, NC 27407

Project Name: Idols Tire & Auto, Boone, NC  
 Client Sample ID: B-68-03  
 Prism Sample ID: 210433  
 Project ID: NCDOT Parcel 68  
 COC Group: G0408097  
 Project No.: WBS #7210023.07  
 Time Collected: 04/01/08 14:50  
 Sample Matrix: Soil  
 Time Submitted: 04/03/08 8:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
4-Chlorotoluene	BRL	µg/kg	15	0.39	1	8260B	04/04/08 16:01	erussell	Q31464
4-Methyl-2-pentanone (MIBK)	BRL	µg/kg	15	0.74	1	8260B	04/04/08 16:01	erussell	Q31464
Acetone	BRL	µg/kg	30	2.9	1	8260B	04/04/08 16:01	erussell	Q31464
Benzene	BRL	µg/kg	4.5	0.60	1	8260B	04/04/08 16:01	erussell	Q31464
Bromobenzene	BRL	µg/kg	7.4	0.52	1	8260B	04/04/08 16:01	erussell	Q31464
Bromochloromethane	BRL	µg/kg	7.4	0.45	1	8260B	04/04/08 16:01	erussell	Q31464
Bromodichloromethane	BRL	µg/kg	7.4	0.66	1	8260B	04/04/08 16:01	erussell	Q31464
Bromoform	BRL	µg/kg	7.4	0.55	1	8260B	04/04/08 16:01	erussell	Q31464
Bromomethane	BRL	µg/kg	15	0.86	1	8260B	04/04/08 16:01	erussell	Q31464
Carbon disulfide	BRL	µg/kg	15	0.48	1	8260B	04/04/08 16:01	erussell	Q31464
Carbon tetrachloride	BRL	µg/kg	7.4	0.43	1	8260B	04/04/08 16:01	erussell	Q31464
Chlorobenzene	BRL	µg/kg	7.4	0.57	1	8260B	04/04/08 16:01	erussell	Q31464
Chlorodibromomethane	BRL	µg/kg	7.4	0.51	1	8260B	04/04/08 16:01	erussell	Q31464
Chloroethane	BRL	µg/kg	15	0.61	1	8260B	04/04/08 16:01	erussell	Q31464
Chloroform	BRL	µg/kg	7.4	0.55	1	8260B	04/04/08 16:01	erussell	Q31464
Chloromethane	BRL	µg/kg	15	0.52	1	8260B	04/04/08 16:01	erussell	Q31464
cis-1,2-Dichloroethene	BRL	µg/kg	7.4	0.33	1	8260B	04/04/08 16:01	erussell	Q31464
cis-1,3-Dichloropropene	BRL	µg/kg	7.4	0.48	1	8260B	04/04/08 16:01	erussell	Q31464
Dibromomethane	BRL	µg/kg	7.4	0.55	1	8260B	04/04/08 16:01	erussell	Q31464
Dichlorodifluoromethane	BRL	µg/kg	15	1.7	1	8260B	04/04/08 16:01	erussell	Q31464
Ethylbenzene	BRL	µg/kg	7.4	0.52	1	8260B	04/04/08 16:01	erussell	Q31464
Hexachlorobutadiene	BRL	µg/kg	22	0.92	1	8260B	04/04/08 16:01	erussell	Q31464
Isopropyl ether (IPE)	BRL	µg/kg	7.4	0.25	1	8260B	04/04/08 16:01	erussell	Q31464
Isopropylbenzene	BRL	µg/kg	15	0.60	1	8260B	04/04/08 16:01	erussell	Q31464
m,p-Xylenes	BRL	µg/kg	15	1.0	1	8260B	04/04/08 16:01	erussell	Q31464
Methyl ethyl ketone (MEK)	BRL	µg/kg	30	2.1	1	8260B	04/04/08 16:01	erussell	Q31464
Methyl t-butyl ether (MTBE)	BRL	µg/kg	7.4	0.43	1	8260B	04/04/08 16:01	erussell	Q31464

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

# Laboratory Report

04/18/08

N. C. Department of Transportation  
 Attn: Ben Bradley  
 c/o Schnabel Engineering  
 11 A Oak Branch Drive  
 Greensboro, NC 27407

Project Name: Idols Tire & Auto, Boone, NC  
 Client Sample ID: B-68-03  
 Prism Sample ID: 210433  
 Project ID: NCDOT Parcel 68  
 COC Group: G0408097  
 Project No.: WBS #7210023.07  
 Time Collected: 04/01/08 14:50  
 Sample Matrix: Soil  
 Time Submitted: 04/03/08 8:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Methylene chloride	BRL	µg/kg	15	0.61	1	8260B	04/04/08 16:01	erussell	Q31464
n-Butylbenzene	BRL	µg/kg	22	0.60	1	8260B	04/04/08 16:01	erussell	Q31464
n-Propylbenzene	BRL	µg/kg	15	0.45	1	8260B	04/04/08 16:01	erussell	Q31464
Naphthalene	BRL	µg/kg	7.4	0.86	1	8260B	04/04/08 16:01	erussell	Q31464
o-Xylene	BRL	µg/kg	7.4	0.45	1	8260B	04/04/08 16:01	erussell	Q31464
p-Isopropyltoluene	BRL	µg/kg	22	0.61	1	8260B	04/04/08 16:01	erussell	Q31464
sec-Butylbenzene	BRL	µg/kg	22	0.49	1	8260B	04/04/08 16:01	erussell	Q31464
Styrene	BRL	µg/kg	7.4	0.74	1	8260B	04/04/08 16:01	erussell	Q31464
tert-Butylbenzene	BRL	µg/kg	30	0.46	1	8260B	04/04/08 16:01	erussell	Q31464
Tetrachloroethene	BRL	µg/kg	15	1.3	1	8260B	04/04/08 16:01	erussell	Q31464
Toluene	BRL	µg/kg	7.4	0.51	1	8260B	04/04/08 16:01	erussell	Q31464
trans-1,2-Dichloroethene	BRL	µg/kg	7.4	0.57	1	8260B	04/04/08 16:01	erussell	Q31464
trans-1,3-Dichloropropene	BRL	µg/kg	7.4	0.52	1	8260B	04/04/08 16:01	erussell	Q31464
Trichloroethene	BRL	µg/kg	7.4	0.45	1	8260B	04/04/08 16:01	erussell	Q31464
Trichlorofluoromethane	BRL	µg/kg	7.4	0.61	1	8260B	04/04/08 16:01	erussell	Q31464
Vinyl chloride	BRL	µg/kg	15	0.95	1	8260B	04/04/08 16:01	erussell	Q31464

Surrogate	% Recovery	Control Limits
Toluene-d8	109	81 - 128
Dibromofluoromethane	110	67 - 143
Bromofluorobenzene	102	77 - 128

**Oil and Grease by Soxhlet Extraction**

Oil and Grease      BRL      mg/kg      46      46      1      9071A      04/17/08 10:00      smanivanh      Q31844

**Diesel Range Organics (DRO) by GC-FID**

Diesel Range Organics (DRO)      BRL      mg/kg      9.1      1.5      1      8015B      04/11/08 16:02      jvogel      Q31720

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# Laboratory Report

04/18/08

N. C. Department of Transportation  
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 c/o Schnabel Engineering  
 11 A Oak Branch Drive  
 Greensboro, NC 27407

Project Name: Idols Tire & Auto, Boone, NC  
 Client Sample ID: B-68-03  
 Prism Sample ID: 210433  
 Project ID: NCDOT Parcel 68  
 COC Group: G0408097  
 Project No.: WBS #7210023.07  
 Time Collected: 04/01/08 14:50  
 Sample Matrix: Soil  
 Time Submitted: 04/03/08 8:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Sample Preparation:				25.37 g	/	1 mL	3545	04/10/08 17:15	wconder P21301
			<b>Surrogate</b>			<b>% Recovery</b>	<b>Control Limits</b>		
			o-Terphenyl			70	49 - 124		
<b>Gasoline Range Organics (GRO) by GC-FID</b>									
Gasoline Range Organics (GRO)	BRL	mg/kg	1.3	0.027	1	8015B	04/10/08 11:56	wbradley	Q31561
			<b>Surrogate</b>			<b>% Recovery</b>	<b>Control Limits</b>		
			aaa-TFT			62	55 - 129		

**Sample Comment(s):**

GRO/5035 and 8260/5035 vials contained too much soil so laboratory used DRO sample to perform GRO/5030.

*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



NC Certification No. 402  
 SC Certification No. 99012  
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# Laboratory Report

04/18/08

N. C. Department of Transportation  
 Attn: Ben Bradley  
 c/o Schnabel Engineering  
 11 A Oak Branch Drive  
 Greensboro, NC 27407

Project Name: Idols Tire & Auto, Boone, NC  
 Client Sample ID: B-68-04  
 Prism Sample ID: 210434  
 Project ID: NCDOT Parcel 68  
 COC Group: G0408097  
 Project No.: WBS #7210023.07  
 Time Collected: 04/01/08 15:30  
 Sample Matrix: Soil  
 Time Submitted: 04/03/08 8:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>Percent Solids Determination</b>									
Percent Solids	80.2	%			1	SM2540 G	04/08/08 12:35	mbarber	
<b>Volatile Organic Compounds by GC/MS</b>									
1,1,1,2-Tetrachloroethane	BRL	µg/kg	6.6	0.65	1	8260B	04/07/08 11:12	lwitry	Q31423
1,1,1-Trichloroethane	BRL	µg/kg	6.6	0.37	1	8260B	04/07/08 11:12	lwitry	Q31423
1,1,2,2-Tetrachloroethane	BRL	µg/kg	6.6	0.68	1	8260B	04/07/08 11:12	lwitry	Q31423
1,1,2-Trichloroethane	BRL	µg/kg	6.6	0.41	1	8260B	04/07/08 11:12	lwitry	Q31423
1,1-Dichloroethane	BRL	µg/kg	6.6	0.48	1	8260B	04/07/08 11:12	lwitry	Q31423
1,1-Dichloroethene	BRL	µg/kg	6.6	0.50	1	8260B	04/07/08 11:12	lwitry	Q31423
1,1-Dichloropropene	BRL	µg/kg	6.6	0.58	1	8260B	04/07/08 11:12	lwitry	Q31423
1,2,3-Trichlorobenzene	BRL	µg/kg	13	0.73	1	8260B	04/07/08 11:12	lwitry	Q31423
1,2,3-Trichloropropane	BRL	µg/kg	6.6	0.58	1	8260B	04/07/08 11:12	lwitry	Q31423
1,2,4-Trichlorobenzene	BRL	µg/kg	13	0.64	1	8260B	04/07/08 11:12	lwitry	Q31423
1,2,4-Trimethylbenzene	BRL	µg/kg	13	0.50	1	8260B	04/07/08 11:12	lwitry	Q31423
1,2-Dibromo-3-chloropropane	BRL	µg/kg	6.6	1.0	1	8260B	04/07/08 11:12	lwitry	Q31423
1,2-Dibromoethane (EDB)	BRL	µg/kg	6.6	0.12	1	8260B	04/07/08 11:12	lwitry	Q31423
1,2-Dichlorobenzene	BRL	µg/kg	13	0.36	1	8260B	04/07/08 11:12	lwitry	Q31423
1,2-Dichloroethane	BRL	µg/kg	6.6	0.66	1	8260B	04/07/08 11:12	lwitry	Q31423
1,2-Dichloropropane	BRL	µg/kg	6.6	0.49	1	8260B	04/07/08 11:12	lwitry	Q31423
1,3,5-Trimethylbenzene	BRL	µg/kg	13	0.56	1	8260B	04/07/08 11:12	lwitry	Q31423
1,3-Dichlorobenzene	BRL	µg/kg	13	0.57	1	8260B	04/07/08 11:12	lwitry	Q31423
1,3-Dichloropropane	BRL	µg/kg	6.6	0.45	1	8260B	04/07/08 11:12	lwitry	Q31423
1,4-Dichlorobenzene	BRL	µg/kg	13	0.52	1	8260B	04/07/08 11:12	lwitry	Q31423
2,2-Dichloropropane	BRL	µg/kg	6.6	0.33	1	8260B	04/07/08 11:12	lwitry	Q31423
2-Chloroethyl vinyl ether	BRL	µg/kg	13	0.49	1	8260B	04/07/08 11:12	lwitry	Q31423
2-Chlorotoluene	BRL	µg/kg	13	0.49	1	8260B	04/07/08 11:12	lwitry	Q31423
2-Hexanone	BRL	µg/kg	66	0.69	1	8260B	04/07/08 11:12	lwitry	Q31423

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# Laboratory Report

04/18/08

N. C. Department of Transportation  
 Attn: Ben Bradley  
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 11 A Oak Branch Drive  
 Greensboro, NC 27407

Project Name: Idols Tire & Auto, Boone, NC  
 Client Sample ID: B-68-04  
 Prism Sample ID: 210434  
 Project ID: NCDOT Parcel 68  
 COC Group: G0408097  
 Project No.: WBS #7210023.07  
 Time Collected: 04/01/08 15:30  
 Sample Matrix: Soil  
 Time Submitted: 04/03/08 8:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
4-Chlorotoluene	BRL	µg/kg	13	0.34	1	8260B	04/07/08 11:12	lwitry	Q31423
4-Methyl-2-pentanone (MIBK)	BRL	µg/kg	13	0.66	1	8260B	04/07/08 11:12	lwitry	Q31423
Acetone	BRL	µg/kg	27	2.6	1	8260B	04/07/08 11:12	lwitry	Q31423
Benzene	BRL	µg/kg	4.0	0.53	1	8260B	04/07/08 11:12	lwitry	Q31423
Bromobenzene	BRL	µg/kg	6.6	0.46	1	8260B	04/07/08 11:12	lwitry	Q31423
Bromochloromethane	BRL	µg/kg	6.6	0.40	1	8260B	04/07/08 11:12	lwitry	Q31423
Bromodichloromethane	BRL	µg/kg	6.6	0.58	1	8260B	04/07/08 11:12	lwitry	Q31423
Bromoform	BRL	µg/kg	6.6	0.49	1	8260B	04/07/08 11:12	lwitry	Q31423
Bromomethane	BRL	µg/kg	13	0.77	1	8260B	04/07/08 11:12	lwitry	Q31423
Carbon disulfide	BRL	µg/kg	13	0.42	1	8260B	04/07/08 11:12	lwitry	Q31423
Carbon tetrachloride	BRL	µg/kg	6.6	0.38	1	8260B	04/07/08 11:12	lwitry	Q31423
Chlorobenzene	BRL	µg/kg	6.6	0.50	1	8260B	04/07/08 11:12	lwitry	Q31423
Chlorodibromomethane	BRL	µg/kg	6.6	0.45	1	8260B	04/07/08 11:12	lwitry	Q31423
Chloroethane	BRL	µg/kg	13	0.54	1	8260B	04/07/08 11:12	lwitry	Q31423
Chloroform	BRL	µg/kg	6.6	0.49	1	8260B	04/07/08 11:12	lwitry	Q31423
Chloromethane	BRL	µg/kg	13	0.46	1	8260B	04/07/08 11:12	lwitry	Q31423
cis-1,2-Dichloroethene	BRL	µg/kg	6.6	0.29	1	8260B	04/07/08 11:12	lwitry	Q31423
cis-1,3-Dichloropropene	BRL	µg/kg	6.6	0.42	1	8260B	04/07/08 11:12	lwitry	Q31423
Dibromomethane	BRL	µg/kg	6.6	0.49	1	8260B	04/07/08 11:12	lwitry	Q31423
Dichlorodifluoromethane	BRL	µg/kg	13	1.5	1	8260B	04/07/08 11:12	lwitry	Q31423
Ethylbenzene	BRL	µg/kg	6.6	0.46	1	8260B	04/07/08 11:12	lwitry	Q31423
Hexachlorobutadiene	BRL	µg/kg	20	0.82	1	8260B	04/07/08 11:12	lwitry	Q31423
Isopropyl ether (IPE)	BRL	µg/kg	6.6	0.23	1	8260B	04/07/08 11:12	lwitry	Q31423
Isopropylbenzene	BRL	µg/kg	13	0.53	1	8260B	04/07/08 11:12	lwitry	Q31423
m,p-Xylenes	BRL	µg/kg	13	0.93	1	8260B	04/07/08 11:12	lwitry	Q31423
Methyl ethyl ketone (MEK)	BRL	µg/kg	27	1.9	1	8260B	04/07/08 11:12	lwitry	Q31423
Methyl t-butyl ether (MTBE)	BRL	µg/kg	6.6	0.38	1	8260B	04/07/08 11:12	lwitry	Q31423

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

# Laboratory Report

04/18/08

N. C. Department of Transportation  
 Attn: Ben Bradley  
 c/o Schnabel Engineering  
 11 A Oak Branch Drive  
 Greensboro, NC 27407

Project Name: Idols Tire & Auto, Boone, NC  
 Client Sample ID: B-68-04  
 Prism Sample ID: 210434  
 Project ID: NCDOT Parcel 68  
 COC Group: G0408097  
 Project No.: WBS #7210023.07  
 Time Collected: 04/01/08 15:30  
 Sample Matrix: Soil  
 Time Submitted: 04/03/08 8:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Methylene chloride	BRL	µg/kg	13	0.54	1	8260B	04/07/08 11:12	lwitry	Q31423
n-Butylbenzene	BRL	µg/kg	20	0.53	1	8260B	04/07/08 11:12	lwitry	Q31423
n-Propylbenzene	BRL	µg/kg	13	0.40	1	8260B	04/07/08 11:12	lwitry	Q31423
Naphthalene	BRL	µg/kg	6.6	0.77	1	8260B	04/07/08 11:12	lwitry	Q31423
o-Xylene	BRL	µg/kg	6.6	0.40	1	8260B	04/07/08 11:12	lwitry	Q31423
p-Isopropyltoluene	BRL	µg/kg	20	0.54	1	8260B	04/07/08 11:12	lwitry	Q31423
sec-Butylbenzene	BRL	µg/kg	20	0.44	1	8260B	04/07/08 11:12	lwitry	Q31423
Styrene	BRL	µg/kg	6.6	0.66	1	8260B	04/07/08 11:12	lwitry	Q31423
tert-Butylbenzene	BRL	µg/kg	27	0.41	1	8260B	04/07/08 11:12	lwitry	Q31423
Tetrachloroethene	BRL	µg/kg	13	1.1	1	8260B	04/07/08 11:12	lwitry	Q31423
Toluene	BRL	µg/kg	6.6	0.45	1	8260B	04/07/08 11:12	lwitry	Q31423
trans-1,2-Dichloroethene	BRL	µg/kg	6.6	0.50	1	8260B	04/07/08 11:12	lwitry	Q31423
trans-1,3-Dichloropropene	BRL	µg/kg	6.6	0.46	1	8260B	04/07/08 11:12	lwitry	Q31423
Trichloroethene	BRL	µg/kg	6.6	0.40	1	8260B	04/07/08 11:12	lwitry	Q31423
Trichlorofluoromethane	BRL	µg/kg	6.6	0.54	1	8260B	04/07/08 11:12	lwitry	Q31423
Vinyl chloride	BRL	µg/kg	13	0.85	1	8260B	04/07/08 11:12	lwitry	Q31423

Surrogate	% Recovery	Control Limits
Toluene-d8	97	81 - 128
Dibromofluoromethane	104	67 - 143
Bromofluorobenzene	100	77 - 128

**Diesel Range Organics (DRO) by GC-FID**

Diesel Range Organics (DRO) 12 µg/kg 8.6 1.4 1 8015B 04/11/08 16:38 jvogel Q31720

Sample Preparation: 25.34 g / 1 mL 3545 04/10/08 17:15 wconder P21301

Surrogate	% Recovery	Control Limits
o-Terphenyl	70	49 - 124

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NC Certification No. 402  
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# Laboratory Report

04/18/08

N. C. Department of Transportation  
 Attn: Ben Bradley  
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 11 A Oak Branch Drive  
 Greensboro, NC 27407

Project Name: Idols Tire & Auto, Boone, NC  
 Client Sample ID: B-68-04  
 Prism Sample ID: 210434  
 Project ID: NCDOT Parcel 68  
 COC Group: G0408097  
 Project No.: WBS #7210023.07  
 Time Collected: 04/01/08 15:30  
 Sample Matrix: Soil  
 Time Submitted: 04/03/08 8:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>Gasoline Range Organics (GRO) by GC-FID</b>									
Gasoline Range Organics (GRO)	BRL	mg/kg	1.2	0.026	1	8015B	04/08/08 19:51	wbradley	Q31561

Surrogate	% Recovery	Control Limits
aaa-TFT	86	55 - 129

**Sample Comment(s):**

GRO/5035 and 8260/5035 vials contained too much soil so laboratory used DRO sample to perform GRO/5030.

*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



NC Certification No. 402  
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# Laboratory Report

04/18/08

N. C. Department of Transportation  
 Attn: Ben Bradley  
 c/o Schnabel Engineering  
 11 A Oak Branch Drive  
 Greensboro, NC 27407

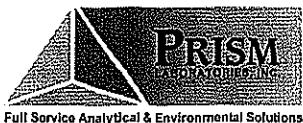
Project Name: Idols Tire & Auto, Boone, NC  
 Client Sample ID: B-68-04  
 Prism Sample ID: 210435  
 Project ID: NCDOT Parcel 68  
 COC Group: G0408097  
 Project No.: WBS #7210023.07  
 Time Collected: 04/01/08 15:30  
 Sample Matrix: Water  
 Time Submitted: 04/03/08 8:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>Volatile Organic Compounds by GC/MS</b>									
1,1,1,2-Tetrachloroethane	BRL	µg/L	1.0	0.10	1	8260B	04/10/08 12:28	erussell	Q31629
1,1,1-Trichloroethane	BRL	µg/L	1.0	0.20	1	8260B	04/10/08 12:28	erussell	Q31629
1,1,2,2-Tetrachloroethane	BRL	µg/L	1.0	0.12	1	8260B	04/10/08 12:28	erussell	Q31629
1,1,2-Trichloroethane	BRL	µg/L	1.0	0.15	1	8260B	04/10/08 12:28	erussell	Q31629
1,1-Dichloroethane	BRL	µg/L	1.0	0.088	1	8260B	04/10/08 12:28	erussell	Q31629
1,1-Dichloroethene	BRL	µg/L	1.0	0.095	1	8260B	04/10/08 12:28	erussell	Q31629
1,1-Dichloropropene	BRL	µg/L	1.0	0.20	1	8260B	04/10/08 12:28	erussell	Q31629
1,2,3-Trichlorobenzene	BRL	µg/L	2.0	0.24	1	8260B	04/10/08 12:28	erussell	Q31629
1,2,3-Trichloropropane	BRL	µg/L	1.0	0.17	1	8260B	04/10/08 12:28	erussell	Q31629
1,2,4-Trichlorobenzene	BRL	µg/L	1.0	0.22	1	8260B	04/10/08 12:28	erussell	Q31629
1,2,4-Trimethylbenzene	BRL	µg/L	1.0	0.16	1	8260B	04/10/08 12:28	erussell	Q31629
1,2-Dibromo-3-chloropropane	BRL	µg/L	2.0	1.3	1	8260B	04/10/08 12:28	erussell	Q31629
1,2-Dibromoethane (EDB)	BRL	µg/L	1.0	0.14	1	8260B	04/10/08 12:28	erussell	Q31629
1,2-Dichlorobenzene	BRL	µg/L	1.0	0.10	1	8260B	04/10/08 12:28	erussell	Q31629
1,2-Dichloroethane	BRL	µg/L	1.0	0.12	1	8260B	04/10/08 12:28	erussell	Q31629
1,2-Dichloropropane	BRL	µg/L	1.0	0.17	1	8260B	04/10/08 12:28	erussell	Q31629
1,3,5-Trimethylbenzene	BRL	µg/L	1.0	0.19	1	8260B	04/10/08 12:28	erussell	Q31629
1,3-Dichlorobenzene	BRL	µg/L	1.0	0.12	1	8260B	04/10/08 12:28	erussell	Q31629
1,3-Dichloropropane	BRL	µg/L	1.0	0.12	1	8260B	04/10/08 12:28	erussell	Q31629
1,4-Dichlorobenzene	BRL	µg/L	1.0	0.10	1	8260B	04/10/08 12:28	erussell	Q31629
2,2-Dichloropropane	BRL	µg/L	2.0	0.21	1	8260B	04/10/08 12:28	erussell	Q31629
2-Chloroethyl vinyl ether	BRL	µg/L	2.0	0.41	1	8260B	04/10/08 12:28	erussell	Q31629
2-Chlorotoluene	BRL	µg/L	1.0	0.12	1	8260B	04/10/08 12:28	erussell	Q31629
2-Hexanone	BRL	µg/L	5.0	0.23	1	8260B	04/10/08 12:28	erussell	Q31629
4-Chlorotoluene	BRL	µg/L	1.0	0.10	1	8260B	04/10/08 12:28	erussell	Q31629
4-Methyl-2-pentanone (MIBK)	BRL	µg/L	5.0	0.46	1	8260B	04/10/08 12:28	erussell	Q31629
Acetone	BRL	µg/L	10	0.44	1	8260B	04/10/08 12:28	erussell	Q31629

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

# Laboratory Report

04/18/08

N. C. Department of Transportation  
 Attn: Ben Bradley  
 c/o Schnabel Engineering  
 11 A Oak Branch Drive  
 Greensboro, NC 27407

Project Name: Idols Tire & Auto, Boone, NC  
 Client Sample ID: B-68-04  
 Prism Sample ID: 210435  
 Project ID: NCDOT Parcel 68  
 COC Group: G0408097  
 Project No.: WBS #7210023.07  
 Time Collected: 04/01/08 15:30  
 Sample Matrix: Water  
 Time Submitted: 04/03/08 8:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Acrolein	BRL	µg/L	100	0.54	1	8260B	04/10/08 12:28	erussell	Q31629
Acrylonitrile	BRL	µg/L	100	0.43	1	8260B	04/10/08 12:28	erussell	Q31629
Benzene	BRL	µg/L	1.0	0.094	1	8260B	04/10/08 12:28	erussell	Q31629
Bromobenzene	BRL	µg/L	1.0	0.088	1	8260B	04/10/08 12:28	erussell	Q31629
Bromochloromethane	BRL	µg/L	1.0	0.085	1	8260B	04/10/08 12:28	erussell	Q31629
Bromodichloromethane	BRL	µg/L	1.0	0.15	1	8260B	04/10/08 12:28	erussell	Q31629
Bromoform	BRL	µg/L	1.0	0.10	1	8260B	04/10/08 12:28	erussell	Q31629
Bromomethane	BRL	µg/L	3.0	0.23	1	8260B	04/10/08 12:28	erussell	Q31629
Carbon disulfide	BRL	µg/L	5.0	0.15	1	8260B	04/10/08 12:28	erussell	Q31629
Carbon tetrachloride	BRL	µg/L	2.0	0.15	1	8260B	04/10/08 12:28	erussell	Q31629
Chlorobenzene	BRL	µg/L	1.0	0.10	1	8260B	04/10/08 12:28	erussell	Q31629
Chlorodibromomethane	BRL	µg/L	1.0	0.20	1	8260B	04/10/08 12:28	erussell	Q31629
Chloroethane	BRL	µg/L	5.0	0.18	1	8260B	04/10/08 12:28	erussell	Q31629
Chloroform	BRL	µg/L	1.0	0.080	1	8260B	04/10/08 12:28	erussell	Q31629
Chloromethane	BRL	µg/L	2.0	0.21	1	8260B	04/10/08 12:28	erussell	Q31629
cis-1,2-Dichloroethene	BRL	µg/L	1.0	0.12	1	8260B	04/10/08 12:28	erussell	Q31629
cis-1,3-Dichloropropene	BRL	µg/L	1.0	0.097	1	8260B	04/10/08 12:28	erussell	Q31629
Dibromomethane	BRL	µg/L	1.0	0.14	1	8260B	04/10/08 12:28	erussell	Q31629
Dichlorodifluoromethane	BRL	µg/L	2.0	0.19	1	8260B	04/10/08 12:28	erussell	Q31629
Ethylbenzene	BRL	µg/L	1.0	0.16	1	8260B	04/10/08 12:28	erussell	Q31629
Hexachlorobutadiene	BRL	µg/L	2.0	0.17	1	8260B	04/10/08 12:28	erussell	Q31629
Isopropyl ether (IPE)	BRL	µg/L	1.0	0.079	1	8260B	04/10/08 12:28	erussell	Q31629
Isopropylbenzene	BRL	µg/L	1.0	0.20	1	8260B	04/10/08 12:28	erussell	Q31629
m,p-Xylenes	BRL	µg/L	2.0	0.33	1	8260B	04/10/08 12:28	erussell	Q31629
Methyl ethyl ketone (MEK)	BRL	µg/L	5.0	0.36	1	8260B	04/10/08 12:28	erussell	Q31629
Methyl t-butyl ether (MTBE)	BRL	µg/L	1.0	0.093	1	8260B	04/10/08 12:28	erussell	Q31629
Methylene chloride	BRL	µg/L	2.0	0.16	1	8260B	04/10/08 12:28	erussell	Q31629

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

# Laboratory Report

04/18/08

N. C. Department of Transportation  
 Attn: Ben Bradley  
 c/o Schnabel Engineering  
 11 A Oak Branch Drive  
 Greensboro, NC 27407

Project Name: Idols Tire & Auto, Boone, NC  
 Client Sample ID: B-68-04  
 Prism Sample ID: 210435  
 Project ID: NCDOT Parcel 68  
 COC Group: G0408097  
 Project No.: WBS #7210023.07  
 Time Collected: 04/01/08 15:30  
 Sample Matrix: Water  
 Time Submitted: 04/03/08 8:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
n-Butylbenzene	BRL	µg/L	1.0	0.21	1	8260B	04/10/08 12:28	erussell	Q31629
n-Propylbenzene	BRL	µg/L	1.0	0.18	1	8260B	04/10/08 12:28	erussell	Q31629
Naphthalene	BRL	µg/L	1.0	0.19	1	8260B	04/10/08 12:28	erussell	Q31629
o-Xylene	BRL	µg/L	1.0	0.17	1	8260B	04/10/08 12:28	erussell	Q31629
p-Isopropyltoluene	BRL	µg/L	1.0	0.21	1	8260B	04/10/08 12:28	erussell	Q31629
sec-Butylbenzene	BRL	µg/L	1.0	0.16	1	8260B	04/10/08 12:28	erussell	Q31629
Styrene	BRL	µg/L	1.0	0.11	1	8260B	04/10/08 12:28	erussell	Q31629
tert-Butylbenzene	BRL	µg/L	1.0	0.17	1	8260B	04/10/08 12:28	erussell	Q31629
Tetrachloroethene	BRL	µg/L	1.0	0.17	1	8260B	04/10/08 12:28	erussell	Q31629
Toluene	BRL	µg/L	1.0	0.31	1	8260B	04/10/08 12:28	erussell	Q31629
trans-1,2-Dichloroethene	BRL	µg/L	2.0	0.12	1	8260B	04/10/08 12:28	erussell	Q31629
trans-1,3-Dichloropropene	BRL	µg/L	1.0	0.22	1	8260B	04/10/08 12:28	erussell	Q31629
Trichloroethene	BRL	µg/L	2.0	0.19	1	8260B	04/10/08 12:28	erussell	Q31629
Trichlorofluoromethane	BRL	µg/L	2.0	0.21	1	8260B	04/10/08 12:28	erussell	Q31629
Vinyl acetate	BRL	µg/L	20	0.44	1	8260B	04/10/08 12:28	erussell	Q31629
Vinyl chloride	BRL	µg/L	2.0	0.23	1	8260B	04/10/08 12:28	erussell	Q31629

Surrogate	% Recovery	Control Limits
Toluene-d8	99	75 - 121
Dibromofluoromethane	103	74 - 133
Bromofluorobenzene	112	69 - 139

**Diesel Range Organics (DRO) by GC-FID**

Diesel Range Organics (DRO) BRL mg/L 1.0 0.074 1 8015B 04/07/08 11:44 jvogel Q31539

Sample Preparation: 1000 mL / 2 mL 3510C 04/05/08 11:00 grappaccioli P21258

Surrogate	% Recovery	Control Limits
o-Terphenyl	95	50 - 144

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Project Name: Idols Tire & Auto, Boone, NC  
 Client Sample ID: B-68-04  
 Prism Sample ID: 210435  
 Project ID: NCDOT Parcel 68  
 COC Group: G0408097  
 Project No.: WBS #7210023.07  
 Time Collected: 04/01/08 15:30  
 Sample Matrix: Water  
 Time Submitted: 04/03/08 8:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>Gasoline Range Organics (GRO) by GC-FID</b>									
Gasoline Range Organics (GRO)	BRL	mg/L	0.20	0.031	1	8015B	04/04/08 14:22	wbradley	Q31497

Surrogate	% Recovery	Control Limits
aaa-TFT	70	57 - 132

**Sample Comment(s):**

GRO/5035 and 8260/5035 vials contained too much soil so laboratory used DRO sample to perform GRO/5030.

*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 wet-weight basis*

Angela D. Overcash, V.P. Laboratory Services



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

# Level II QC Report

04/18/08

N. C. Department of Transportation  
 Attn: Ben Bradley  
 c/o Schnabel Engineering  
 11 A Oak Branch Drive  
 Greensboro, NC 27407

Project Name: Idols Tire & Auto, Boone, NC  
 Project ID: NCDOT Parcel 68  
 Project No.: WBS #7210023.07

COC Group Number: G0408097  
 Date/Time Submitted: 4/3/2008 8:30

## Volatile Organic Compounds by GC/MS, method 8260B

Method Blank					QC Batch ID
	Result	RL	Control Limit	Units	
1,1,1-Trichloroethane	ND	0.005	<0.0025	mg/kg	Q31423
1,1,2,2-Tetrachloroethane	ND	0.005	<0.0025	mg/kg	Q31423
1,1,2-Trichloroethane	ND	0.005	<0.0025	mg/kg	Q31423
1,1-Dichloroethane	ND	0.005	<0.0025	mg/kg	Q31423
1,1-Dichloroethene	ND	0.005	<0.0025	mg/kg	Q31423
1,1-Dichloropropene	ND	0.005	<0.0025	mg/kg	Q31423
1,2,3-Trichlorobenzene	ND	0.005	<0.0025	mg/kg	Q31423
1,2,3-Trichloropropane	ND	0.005	<0.0025	mg/kg	Q31423
1,2,4-Trichlorobenzene	ND	0.005	<0.0025	mg/kg	Q31423
1,2,4-Trimethylbenzene	ND	0.005	<0.0025	mg/kg	Q31423
1,2-Dibromoethane (EDB)	ND	0.005	<0.0025	mg/kg	Q31423
1,2-Dichlorobenzene	ND	0.005	<0.0025	mg/kg	Q31423
1,2-Dichloroethane	ND	0.005	<0.0025	mg/kg	Q31423
1,2-Dichloropropane	ND	0.005	<0.0025	mg/kg	Q31423
1,3,5-Trimethylbenzene	ND	0.005	<0.0025	mg/kg	Q31423
1,3-Dichlorobenzene	ND	0.005	<0.0025	mg/kg	Q31423
1,3-Dichloropropane	ND	0.005	<0.0025	mg/kg	Q31423
1,4-Dichlorobenzene	ND	0.005	<0.0025	mg/kg	Q31423
2,2-Dichloropropane	ND	0.005	<0.0025	mg/kg	Q31423
2-Chlorotoluene	ND	0.005	<0.0025	mg/kg	Q31423
2-Hexanone	ND	0.05	<0.025	mg/kg	Q31423
4-Chlorotoluene	ND	0.005	<0.0025	mg/kg	Q31423
4-Methyl-2-pentanone (MIBK)	ND	0.05	<0.025	mg/kg	Q31423
Acetone	ND	0.05	<0.025	mg/kg	Q31423
Benzene	ND	0.003	<0.0015	mg/kg	Q31423
Bromobenzene	ND	0.005	<0.0025	mg/kg	Q31423
Bromochloromethane	ND	0.005	<0.0025	mg/kg	Q31423
Bromodichloromethane	ND	0.005	<0.0025	mg/kg	Q31423
Bromoform	ND	0.005	<0.0025	mg/kg	Q31423
Bromomethane	ND	0.01	<0.005	mg/kg	Q31423
Carbon tetrachloride	ND	0.005	<0.0025	mg/kg	Q31423
Chlorobenzene	ND	0.005	<0.0025	mg/kg	Q31423
Chlorodibromomethane	ND	0.005	<0.0025	mg/kg	Q31423
Chloroethane	ND	0.01	<0.005	mg/kg	Q31423

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

# Level II QC Report

04/18/08

N. C. Department of Transportation  
 Attn: Ben Bradley  
 c/o Schnabel Engineering  
 11 A Oak Branch Drive  
 Greensboro, NC 27407

Project Name: Idols Tire & Auto, Boone, NC  
 Project ID: NCDOT Parcel 68  
 Project No.: WBS #7210023.07

COC Group Number: G0408097  
 Date/Time Submitted: 4/3/2008 8:30

## Method Blank

	Result	RL	Control Limit	Units	QC Batch ID
Chloroform	ND	0.005	<0.0025	mg/kg	Q31423
Chloromethane	ND	0.005	<0.0025	mg/kg	Q31423
cis-1,2-Dichloroethene	ND	0.005	<0.0025	mg/kg	Q31423
cis-1,3-Dichloropropene	ND	0.005	<0.0025	mg/kg	Q31423
Dichlorodifluoromethane	ND	0.005	<0.0025	mg/kg	Q31423
Ethylbenzene	ND	0.005	<0.0025	mg/kg	Q31423
Isopropyl ether (IPE)	ND	0.005	<0.0025	mg/kg	Q31423
Isopropylbenzene	ND	0.005	<0.0025	mg/kg	Q31423
m,p-Xylenes	ND	0.01	<0.005	mg/kg	Q31423
Methyl ethyl ketone (MEK)	ND	0.1	<0.05	mg/kg	Q31423
Methyl t-butyl ether (MTBE)	ND	0.01	<0.005	mg/kg	Q31423
Methylene chloride	ND	0.005	<0.0025	mg/kg	Q31423
n-Butylbenzene	ND	0.005	<0.0025	mg/kg	Q31423
n-Propylbenzene	ND	0.005	<0.0025	mg/kg	Q31423
Naphthalene	ND	0.01	<0.005	mg/kg	Q31423
o-Xylene	ND	0.005	<0.0025	mg/kg	Q31423
p-Isopropyltoluene	ND	0.005	<0.0025	mg/kg	Q31423
sec-Butylbenzene	ND	0.005	<0.0025	mg/kg	Q31423
Styrene	ND	0.005	<0.0025	mg/kg	Q31423
tert-Butylbenzene	ND	0.005	<0.0025	mg/kg	Q31423
Tetrachloroethene	ND	0.005	<0.0025	mg/kg	Q31423
Toluene	ND	0.005	<0.0025	mg/kg	Q31423
trans-1,2-Dichloroethene	ND	0.005	<0.0025	mg/kg	Q31423
trans-1,3-Dichloropropene	ND	0.005	<0.0025	mg/kg	Q31423
Trichloroethene	ND	0.005	<0.0025	mg/kg	Q31423
Trichlorofluoromethane	ND	0.005	<0.0025	mg/kg	Q31423
Vinyl acetate	ND	0.025	<0.0125	mg/kg	Q31423
Vinyl chloride	ND	0.005	<0.0025	mg/kg	Q31423

## Laboratory Control Sample

	Result	Spike Amount	Units	Recovery %	Recovery Ranges %	QC Batch ID
1,1-Dichloroethene	0.04285	0.05	mg/kg	86	57-122	Q31423
Benzene	0.04117	0.05	mg/kg	82	62-119	Q31423
Chlorobenzene	0.04513	0.05	mg/kg	90	61-124	Q31423
Toluene	0.0521	0.05	mg/kg	104	57-122	Q31423
Trichloroethene	0.04517	0.05	mg/kg	90	59-129	Q31423

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COC Group Number: G0408097  
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### Matrix Spike

Sample ID:	Result	Spike Amount	Units	Recovery %	Recovery Ranges %	QC Batch ID
210360 1,1-Dichloroethene	0.02662	0.05	mg/kg	53	44-140	Q31423
Benzene	0.02742	0.05	mg/kg	55	46-136	Q31423
Chlorobenzene	0.02989	0.05	mg/kg	60	47-135	Q31423
Toluene	0.03053	0.05	mg/kg	61	47-136	Q31423
Trichloroethene	0.02998	0.05	mg/kg	60	45-141	Q31423

### Matrix Spike Duplicate

Sample ID:	Result	Spike Amount	Units	Recovery %	Recovery Ranges %	RPD %	RPD Range %	QC Batch ID
210360 1,1-Dichloroethene	0.03049	0.05	mg/kg	61	44-140	14	0 - 23	Q31423
Benzene	0.03292	0.05	mg/kg	66	46-136	18	0 - 22	Q31423
Chlorobenzene	0.03328	0.05	mg/kg	67	47-135	11	0 - 22	Q31423
Toluene	0.03438	0.05	mg/kg	69	47-136	12	0 - 22	Q31423
Trichloroethene	0.03395	0.05	mg/kg	68	45-141	12	0 - 23	Q31423

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 Project No.: WBS #7210023.07

COC Group Number: G0408097  
 Date/Time Submitted: 4/3/2008 8:30

## Volatile Organic Compounds by GC/MS, method 8260B

Method Blank	Result	RL	Control Limit	Units	QC Batch ID
1,1,1,2-Tetrachloroethane	ND	5	<2.5	µg/kg	Q31464
1,2-Dibromo-3-chloropropane	ND	5	<2.5	µg/kg	Q31464
2-Chloroethyl vinyl ether	ND	10	<5	µg/kg	Q31464
Carbon disulfide	ND	10	<5	µg/kg	Q31464
Dibromomethane	ND	5	<2.5	µg/kg	Q31464
Hexachlorobutadiene	ND	15	<7.5	µg/kg	Q31464
1,1,1-Trichloroethane	ND	0.005	<0.0025	mg/kg	Q31464
1,1,2,2-Tetrachloroethane	ND	0.005	<0.0025	mg/kg	Q31464
1,1,2-Trichloroethane	ND	0.005	<0.0025	mg/kg	Q31464
1,1-Dichloroethane	ND	0.005	<0.0025	mg/kg	Q31464
1,1-Dichloroethene	ND	0.005	<0.0025	mg/kg	Q31464
1,1-Dichloropropene	ND	0.005	<0.0025	mg/kg	Q31464
1,2,3-Trichlorobenzene	ND	0.005	<0.0025	mg/kg	Q31464
1,2,3-Trichloropropane	ND	0.005	<0.0025	mg/kg	Q31464
1,2,4-Trichlorobenzene	ND	0.005	<0.0025	mg/kg	Q31464
1,2,4-Trimethylbenzene	ND	0.005	<0.0025	mg/kg	Q31464
1,2-Dibromoethane (EDB)	ND	0.005	<0.0025	mg/kg	Q31464
1,2-Dichlorobenzene	ND	0.005	<0.0025	mg/kg	Q31464
1,2-Dichloroethane	ND	0.005	<0.0025	mg/kg	Q31464
1,2-Dichloropropane	ND	0.005	<0.0025	mg/kg	Q31464
1,3,5-Trimethylbenzene	ND	0.005	<0.0025	mg/kg	Q31464
1,3-Dichlorobenzene	ND	0.005	<0.0025	mg/kg	Q31464
1,3-Dichloropropane	ND	0.005	<0.0025	mg/kg	Q31464
1,4-Dichlorobenzene	ND	0.005	<0.0025	mg/kg	Q31464
2,2-Dichloropropane	ND	0.005	<0.0025	mg/kg	Q31464
2-Chlorotoluene	ND	0.005	<0.0025	mg/kg	Q31464
2-Hexanone	ND	0.05	<0.025	mg/kg	Q31464
4-Chlorotoluene	ND	0.005	<0.0025	mg/kg	Q31464
4-Methyl-2-pentanone (MIBK)	ND	0.05	<0.025	mg/kg	Q31464
Acetone	ND	0.05	<0.025	mg/kg	Q31464
Benzene	ND	0.003	<0.0015	mg/kg	Q31464
Bromobenzene	ND	0.005	<0.0025	mg/kg	Q31464
Bromochloromethane	ND	0.005	<0.0025	mg/kg	Q31464
Bromodichloromethane	ND	0.005	<0.0025	mg/kg	Q31464

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# Level II QC Report

04/18/08

N. C. Department of Transportation  
 Attn: Ben Bradley  
 c/o Schnabel Engineering  
 11 A Oak Branch Drive  
 Greensboro, NC 27407

Project Name: Idols Tire & Auto, Boone, NC  
 Project ID: NCDOT Parcel 68  
 Project No.: WBS #7210023.07

COC Group Number: G0408097  
 Date/Time Submitted: 4/3/2008 8:30

## Method Blank

	Result	RL	Control Limit	Units	QC Batch ID
Bromoform	ND	0.005	<0.0025	mg/kg	Q31464
Bromomethane	ND	0.01	<0.005	mg/kg	Q31464
Carbon tetrachloride	ND	0.005	<0.0025	mg/kg	Q31464
Chlorobenzene	ND	0.005	<0.0025	mg/kg	Q31464
Chlorodibromomethane	ND	0.005	<0.0025	mg/kg	Q31464
Chloroethane	ND	0.01	<0.005	mg/kg	Q31464
Chloroform	ND	0.005	<0.0025	mg/kg	Q31464
Chloromethane	ND	0.005	<0.0025	mg/kg	Q31464
cis-1,2-Dichloroethene	ND	0.005	<0.0025	mg/kg	Q31464
cis-1,3-Dichloropropene	ND	0.005	<0.0025	mg/kg	Q31464
Dichlorodifluoromethane	ND	0.005	<0.0025	mg/kg	Q31464
Ethylbenzene	ND	0.005	<0.0025	mg/kg	Q31464
Isopropyl ether (IPE)	ND	0.005	<0.0025	mg/kg	Q31464
Isopropylbenzene	ND	0.005	<0.0025	mg/kg	Q31464
m,p-Xylenes	ND	0.01	<0.005	mg/kg	Q31464
Methyl ethyl ketone (MEK)	ND	0.1	<0.05	mg/kg	Q31464
Methyl t-butyl ether (MTBE)	ND	0.01	<0.005	mg/kg	Q31464
Methylene chloride	ND	0.005	<0.0025	mg/kg	Q31464
n-Butylbenzene	ND	0.005	<0.0025	mg/kg	Q31464
n-Propylbenzene	ND	0.005	<0.0025	mg/kg	Q31464
Naphthalene	ND	0.01	<0.005	mg/kg	Q31464
o-Xylene	ND	0.005	<0.0025	mg/kg	Q31464
p-Isopropyltoluene	ND	0.005	<0.0025	mg/kg	Q31464
sec-Butylbenzene	ND	0.005	<0.0025	mg/kg	Q31464
Styrene	ND	0.005	<0.0025	mg/kg	Q31464
tert-Butylbenzene	ND	0.005	<0.0025	mg/kg	Q31464
Tetrachloroethene	ND	0.005	<0.0025	mg/kg	Q31464
Toluene	ND	0.005	<0.0025	mg/kg	Q31464
trans-1,2-Dichloroethene	ND	0.005	<0.0025	mg/kg	Q31464
trans-1,3-Dichloropropene	ND	0.005	<0.0025	mg/kg	Q31464
Trichloroethene	ND	0.005	<0.0025	mg/kg	Q31464
Trichlorofluoromethane	ND	0.005	<0.0025	mg/kg	Q31464
Vinyl acetate	ND	0.025	<0.0125	mg/kg	Q31464
Vinyl chloride	ND	0.005	<0.0025	mg/kg	Q31464

## Laboratory Control Sample

Result	Spike Amount	Units	Recovery %	Recovery Ranges %	QC Batch ID

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# Level II QC Report

04/18/08

N. C. Department of Transportation  
 Attn: Ben Bradley  
 c/o Schnabel Engineering  
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 Greensboro, NC 27407

Project Name: Idols Tire & Auto, Boone, NC  
 Project ID: NCDOT Parcel 68  
 Project No.: WBS #7210023.07

COC Group Number: G0408097  
 Date/Time Submitted: 4/3/2008 8:30

Laboratory Control Sample	Result	Spike Amount	Units	Recovery %	Recovery Ranges %	QC Batch ID
1,1-Dichloroethene	37.15	50	mg/kg	74	57-122	Q31464
Benzene	40.53	50	mg/kg	81	62-119	Q31464
Chlorobenzene	39.03	50	mg/kg	78	61-124	Q31464
Toluene	43.39	50	mg/kg	87	57-122	Q31464
Trichloroethene	40.53	50	mg/kg	81	59-129	Q31464

Matrix Spike	Result	Spike Amount	Units	Recovery %	Recovery Ranges %	QC Batch ID
Sample ID: 210021 1,1-Dichloroethene	31.11	50	mg/kg	62	44-140	Q31464
Benzene	32.39	50	mg/kg	65	46-136	Q31464
Chlorobenzene	28.91	50	mg/kg	58	47-135	Q31464
Toluene	32	50	mg/kg	64	47-136	Q31464
Trichloroethene	31.95	50	mg/kg	64	45-141	Q31464

Matrix Spike Duplicate	Result	Spike Amount	Units	Recovery %	Recovery Ranges %	RPD %	RPD Range %	QC Batch ID
Sample ID: 210021 1,1-Dichloroethene	31.68	50	mg/kg	63	44-140	2	0 - 23	Q31464
Benzene	32.63	50	mg/kg	65	46-136	1	0 - 22	Q31464
Chlorobenzene	28.93	50	mg/kg	58	47-135	0	0 - 22	Q31464
Toluene	31.31	50	mg/kg	63	47-136	2	0 - 22	Q31464
Trichloroethene	31.68	50	mg/kg	63	45-141	1	0 - 23	Q31464

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

Method Blank	Result	RL	Control Limit	Units	QC Batch ID
Gasoline Range Organics (GRO)	ND	0.2	<0.1	mg/L	Q31497

Laboratory Control Sample	Result	Spike Amount	Units	Recovery %	Recovery Ranges %	QC Batch ID
Gasoline Range Organics (GRO)	1.774	2	mg/L	89	60-138	Q31497

Matrix Spike	Result	Spike Amount	Units	Recovery %	Recovery Ranges %	QC Batch ID
Sample ID: 210432 Gasoline Range Organics (GRO)	1.784	2	mg/L	89	69-130	Q31497

Matrix Spike Duplicate	Result	Spike Amount	Units	Recovery %	Recovery Ranges %	RPD %	RPD Range %	QC Batch ID
Sample ID: 210432 Gasoline Range Organics (GRO)	1.910	2	mg/L	96	69-130	7	0 - 24	Q31497

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# Level II QC Report

04/18/08

N. C. Department of Transportation  
 Attn: Ben Bradley  
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 11 A Oak Branch Drive  
 Greensboro, NC 27407

Project Name: Idols Tire & Auto, Boone, NC  
 Project ID: NCDOT Parcel 68  
 Project No.: WBS #7210023.07

COC Group Number: G0408097  
 Date/Time Submitted: 4/3/2008 8:30

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

Method Blank							QC Batch ID		
	Result	RL	Control Limit	Units					
Diesel Range Organics (DRO)	ND	1	<0.5	mg/L			Q31539		
Laboratory Control Sample							QC Batch ID		
	Result	Spike Amount		Units	Recovery %	Recovery Ranges %			
Diesel Range Organics (DRO)	1.59	2		mg/L	80	53-135	Q31539		
Matrix Spike							QC Batch ID		
Sample ID:	Result	Spike Amount		Units	Recovery %	Recovery Ranges %			
210435 Diesel Range Organics (DRO)	1.83	2		mg/L	92	51-145	Q31539		
Matrix Spike Duplicate							QC Batch ID		
Sample ID:	Result	Spike Amount		Units	Recovery %	Recovery Ranges %	RPD %	RPD Range %	
210435 Diesel Range Organics (DRO)	1.57	2		mg/L	79	51-145	15	0 - 22	Q31539

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

Method Blank							QC Batch ID		
	Result	RL	Control Limit	Units					
Gasoline Range Organics (GRO)	ND	1	<0.5	mg/kg			Q31561		
Laboratory Control Sample							QC Batch ID		
	Result	Spike Amount		Units	Recovery %	Recovery Ranges %			
Gasoline Range Organics (GRO)	1.603	2		mg/kg	80	64-124	Q31561		
Matrix Spike							QC Batch ID		
Sample ID:	Result	Spike Amount		Units	Recovery %	Recovery Ranges %			
210434 Gasoline Range Organics (GRO)	1.659	2		mg/kg	83	37-126	Q31561		
Matrix Spike Duplicate							QC Batch ID		
Sample ID:	Result	Spike Amount		Units	Recovery %	Recovery Ranges %	RPD %	RPD Range %	
210434 Gasoline Range Organics (GRO)	1.367	2		mg/kg	68	37-126	19	0 - 34	Q31561

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COC Group Number: G0408097  
 Date/Time Submitted: 4/3/2008 8:30

## Volatile Organic Compounds by GC/MS, method 8260B

Method Blank	Result	RL	Control Limit	Units	QC Batch ID
1,1,1,2-Tetrachloroethane	ND	1	<0.5	µg/L	Q31629
1,1,1-Trichloroethane	ND	1	<0.5	µg/L	Q31629
1,1,2,2-Tetrachloroethane	ND	1	<0.5	µg/L	Q31629
1,1,2-Trichloroethane	ND	1	<0.5	µg/L	Q31629
1,1-Dichloroethane	ND	1	<0.5	µg/L	Q31629
1,1-Dichloroethene	ND	1	<0.5	µg/L	Q31629
1,1-Dichloropropene	ND	1	<0.5	µg/L	Q31629
1,2,3-Trichlorobenzene	ND	2	<1	µg/L	Q31629
1,2,3-Trichloropropane	ND	1	<0.5	µg/L	Q31629
1,2,4-Trichlorobenzene	ND	1	<0.5	µg/L	Q31629
1,2,4-Trimethylbenzene	ND	1	<0.5	µg/L	Q31629
1,2-Dibromo-3-chloropropane	ND	2	<1	µg/L	Q31629
1,2-Dibromoethane (EDB)	ND	1	<0.5	µg/L	Q31629
1,2-Dichlorobenzene	ND	1	<0.5	µg/L	Q31629
1,2-Dichloroethane	ND	1	<0.5	µg/L	Q31629
1,2-Dichloropropane	ND	1	<0.5	µg/L	Q31629
1,3,5-Trimethylbenzene	ND	1	<0.5	µg/L	Q31629
1,3-Dichlorobenzene	ND	1	<0.5	µg/L	Q31629
1,3-Dichloropropane	ND	1	<0.5	µg/L	Q31629
1,4-Dichlorobenzene	ND	1	<0.5	µg/L	Q31629
2,2-Dichloropropane	ND	2	<1	µg/L	Q31629
2-Chloroethyl vinyl ether	ND	2	<1	µg/L	Q31629
2-Chlorotoluene	ND	1	<0.5	µg/L	Q31629
2-Hexanone	ND	5	<2.5	µg/L	Q31629
4-Chlorotoluene	ND	1	<0.5	µg/L	Q31629
4-Methyl-2-pentanone (MIBK)	ND	5	<2.5	µg/L	Q31629
Acetone	ND	10	<5	µg/L	Q31629
Acrolein	ND	100	<50	µg/L	Q31629
Acrylonitrile	ND	100	<50	µg/L	Q31629
Benzene	ND	1	<0.5	µg/L	Q31629
Bromobenzene	ND	1	<0.5	µg/L	Q31629
Bromochloromethane	ND	1	<0.5	µg/L	Q31629
Bromodichloromethane	ND	1	<0.5	µg/L	Q31629
Bromoform	ND	1	<0.5	µg/L	Q31629

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 Project No.: WBS #7210023.07

COC Group Number: G0408097  
 Date/Time Submitted: 4/3/2008 8:30

**Method Blank**

	Result	RL	Control Limit	Units	QC Batch ID
Bromomethane	ND	3	<1.5	µg/L	Q31629
Carbon disulfide	ND	5	<2.5	µg/L	Q31629
Carbon tetrachloride	ND	2	<1	µg/L	Q31629
Chlorobenzene	ND	1	<0.5	µg/L	Q31629
Chlorodibromomethane	ND	1	<0.5	µg/L	Q31629
Chloroethane	ND	5	<2.5	µg/L	Q31629
Chloroform	ND	1	<0.5	µg/L	Q31629
Chloromethane	ND	2	<1	µg/L	Q31629
cis-1,2-Dichloroethene	ND	1	<0.5	µg/L	Q31629
cis-1,3-Dichloropropene	ND	1	<0.5	µg/L	Q31629
Dibromomethane	ND	1	<0.5	µg/L	Q31629
Dichlorodifluoromethane	ND	2	<1	µg/L	Q31629
Ethylbenzene	ND	1	<0.5	µg/L	Q31629
Hexachlorobutadiene	ND	2	<1	µg/L	Q31629
Isopropyl ether (IPE)	ND	1	<0.5	µg/L	Q31629
Isopropylbenzene	ND	1	<0.5	µg/L	Q31629
m,p-Xylenes	ND	2	<1	µg/L	Q31629
Methyl ethyl ketone (MEK)	ND	5	<2.5	µg/L	Q31629
Methyl t-butyl ether (MTBE)	ND	1	<0.5	µg/L	Q31629
Methylene chloride	ND	2	<1	µg/L	Q31629
n-Butylbenzene	ND	1	<0.5	µg/L	Q31629
n-Propylbenzene	ND	1	<0.5	µg/L	Q31629
Naphthalene	ND	1	<0.5	µg/L	Q31629
o-Xylene	ND	1	<0.5	µg/L	Q31629
p-Isopropyltoluene	ND	1	<0.5	µg/L	Q31629
sec-Butylbenzene	ND	1	<0.5	µg/L	Q31629
Styrene	ND	1	<0.5	µg/L	Q31629
tert-Butylbenzene	ND	1	<0.5	µg/L	Q31629
Tetrachloroethene	ND	1	<0.5	µg/L	Q31629
Toluene	ND	1	<0.5	µg/L	Q31629
trans-1,2-Dichloroethene	ND	2	<1	µg/L	Q31629
trans-1,3-Dichloropropene	ND	1	<0.5	µg/L	Q31629
Trichloroethene	ND	2	<1	µg/L	Q31629
Trichlorofluoromethane	ND	2	<1	µg/L	Q31629
Vinyl acetate	ND	20	<10	µg/L	Q31629
Vinyl chloride	ND	2	<1	µg/L	Q31629

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

# Level II QC Report

04/18/08

N. C. Department of Transportation  
 Attn: Ben Bradley  
 c/o Schnabel Engineering  
 11 A Oak Branch Drive  
 Greensboro, NC 27407

Project Name: Idols Tire & Auto, Boone, NC  
 Project ID: NCDOT Parcel 68  
 Project No.: WBS #7210023.07

COC Group Number: G0408097  
 Date/Time Submitted: 4/3/2008 8:30

Laboratory Control Sample	Result	Spike Amount	Units	Recovery %	Recovery Ranges %	QC Batch ID
1,1-Dichloroethene	45.81	50	µg/L	92	62-141	Q31629
Benzene	45.98	50	µg/L	92	70-141	Q31629
Chlorobenzene	47.62	50	µg/L	95	88-120	Q31629
Toluene	49.03	50	µg/L	98	78-130	Q31629
Trichloroethene	49.45	50	µg/L	99	78-124	Q31629

Matrix Spike	Result	Spike Amount	Units	Recovery %	Recovery Ranges %	QC Batch ID
Sample ID: 210555 1,1-Dichloroethene	183.44	200	µg/L	92	54-140	Q31629
Benzene	185.36	200	µg/L	93	62-129	Q31629
Chlorobenzene	188.64	200	µg/L	94	64-127	Q31629
Toluene	184.92	200	µg/L	92	60-131	Q31629
Trichloroethene	192.8	200	µg/L	96	52-128	Q31629

Matrix Spike Duplicate	Result	Spike Amount	Units	Recovery %	Recovery Ranges %	RPD %	RPD Range %	QC Batch ID
Sample ID: 210555 1,1-Dichloroethene	174.08	200	µg/L	87	54-140	5	0 - 20	Q31629
Benzene	178.52	200	µg/L	89	62-129	4	0 - 19	Q31629
Chlorobenzene	184.12	200	µg/L	92	64-127	2	0 - 20	Q31629
Toluene	179.4	200	µg/L	90	60-131	3	0 - 21	Q31629
Trichloroethene	184.48	200	µg/L	92	52-128	4	0 - 18	Q31629

**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	Q31720

Laboratory Control Sample	Result	Spike Amount	Units	Recovery %	Recovery Ranges %	QC Batch ID
Diesel Range Organics (DRO)	57.7	80	mg/kg	72	55-109	Q31720

Matrix Spike	Result	Spike Amount	Units	Recovery %	Recovery Ranges %	QC Batch ID
Sample ID: 210631 Diesel Range Organics (DRO)	52.2	80	mg/kg	65	50-117	Q31720

Matrix Spike Duplicate	Result	Spike Amount	Units	Recovery %	Recovery Ranges %	RPD %	RPD Range %	QC Batch ID
Sample ID: 210631 Diesel Range Organics (DRO)	54.8	80	mg/kg	69	50-117	5	0 - 24	Q31720

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

# Level II QC Report

04/18/08

N. C. Department of Transportation  
 Attn: Ben Bradley  
 c/o Schnabel Engineering  
 11 A Oak Branch Drive  
 Greensboro, NC 27407

Project Name: Idols Tire & Auto, Boone, NC  
 Project ID: NCDOT Parcel 68  
 Project No.: WBS #7210023.07

COC Group Number: G0408097  
 Date/Time Submitted: 4/3/2008 8:30

**Oil and Grease by Soxhlet Extraction, method 9071A**

Method Blank							QC Batch ID	
	Result	RL	Control Limit	Units				
Oil and Grease	ND	35	<17.5	mg/kg			Q31844	
Laboratory Control Sample								
	Result	Spike Amount	Units	Recovery %	Recovery Ranges %		QC Batch ID	
Oil and Grease	5259	5249	mg/kg	100	80-120		Q31844	
Matrix Spike								
Sample ID:	Result	Spike Amount	Units	Recovery %	Recovery Ranges %		QC Batch ID	
210408 Oil and Grease	24951	24793	mg/kg	101	80-120		Q31844	
Matrix Spike Duplicate								
Sample ID:	Result	Spike Amount	Units	Recovery %	Recovery Ranges %	RPD %	RPD Range %	QC Batch ID
210408 Oil and Grease	25235	24504	mg/kg	103	80-120	1	0 - 20	Q31844

#-See Case Narrative



Full Service Analytical & Environmental Solutions  
 449 Springbrook Road • P.O. Box 240543 • Charlotte, NC 28224-0543  
 Phone: 704/529-6364 • Fax: 704/525-0409

Client Company Name: Schnabel  
 Report To/Contact Name: Ben Bradley  
 Reporting Address: \_\_\_\_\_

Phone: 336-274-0456 Fax (Yes) (No): \_\_\_\_\_  
 Email (Yes) (No) Email Address: Bradley@Schnabel.com  
 EDD Type: PDF  Excel  Other   
 Site Location Name: Idals Fire and Auto  
 Site Location Physical Address: Revere, NC

# CHAIN OF CUSTODY RECORD

PAGE OF QUOTE # TO ENSURE PROPER BILLING: 70300172  
 Project Name: \_\_\_\_\_  
 Short Hold Analysis: (Yes) (No) UST Project: (Yes) (No)  
 \*Please ATTACH any project specific reporting (QC LEVEL I II III IV) provisions and/or QC Requirements  
 Invoice To: \_\_\_\_\_  
 Address: \_\_\_\_\_

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

**LAB USE ONLY**  
 Samples INTACT upon arrival? YES  NO  N/A   
 Received ON WET ICE? Temp 4.6  
 PROPER PRESERVATIVES indicated?   
 Received WITH-IN HOLDING TIMES?   
 CUSTODY SEALS INTACT?   
 VOLATILES rec'd W/O/T HEADSPACE?   
 PROPER CONTAINERS used?

**TO BE FILLED IN BY CLIENT/SAMPLING PERSONNEL**  
 Certification: NELAC \_\_\_\_\_ USACE \_\_\_\_\_ FL \_\_\_\_\_ NC \_\_\_\_\_  
 SC \_\_\_\_\_ OTHER \_\_\_\_\_ N/A \_\_\_\_\_  
 Water Chlorinated: YES \_\_\_\_\_ NO \_\_\_\_\_  
 Sample Iced Upon Collection: YES  NO \_\_\_\_\_

CLIENT SAMPLE DESCRIPTION	DATE COLLECTED	TIME COLLECTED MILITARY HOURS	MATRIX (SOIL, WATER OR SLUDGE)	SAMPLE CONTAINER			PRESERVATIVES	ANALYSES REQUESTED	REMARKS	PRISM LAB ID NO.
				*TYPE SEE BELOW	NO.	SIZE				
B-68-01	4-1-08		Soil	G	6			TRT B-68-01 TRT B-68-01 TRT B-68-01 TRT B-68-01		
B-68-02	4-1-08		Soil	G	6					210433
B-68-03	4-1-08	1450	Soil	G	6					210434
B-68-04	4-1-08	1530	Soil	G	6					210435
B-68-04	4-1-08	1530	Water	A, Vol	6					

**PRESS DOWN FIRMLY - 3 COPIES**

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

Sampler's Signature: Ben Bradley Sampled By (Print Name): Ben Bradley Affiliation: \_\_\_\_\_  
 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.  
 Relinquished By (Signature): Ben Bradley Date: 4-2-08 Military/Hours: 1335  
 Relinquished By (Signature): Ben Bradley Date: 4-2-08 Date: 4-2-08 8:20  
 Relinquished By (Signature): \_\_\_\_\_ Date: \_\_\_\_\_  
 Method of Shipment:  Fed Ex  UPS  Hand-delivered  Other   
 NPDES:  NC  SC  NC  SC  NC  SC  NC  SC  NC  SC  
 DRINKING WATER:  NC  SC  NC  SC  NC  SC  
 SOLID WASTE:  NC  SC  NC  SC  
 RCRA:  NC  SC  NC  SC  
 CERCLA:  NC  SC  NC  SC  
 LANDFILL:  NC  SC  NC  SC  
 OTHER:  NC  SC  NC  SC  
 Additional Comments: \_\_\_\_\_  
 COC Group No. 60403047

\*CONTAINER TYPE CODES: A = Amber C = Clear G = Glass P = Plastic; TL = Teflon-Lined Cap. VOA = Volatile Organics Analysis (Zero Head Space)  
 SEE REVERSE FOR TERMS & CONDITIONS  
 ORIGINAL