

P S A R E P O R T

**PRELIMINARY SITE ASSESSMENT
PARCEL 15
ANDREA MCDONOUGH PROPERTY
154 EAST KING STREET
BOONE, WATAUGA COUNTY,
NORTH CAROLINA
WBS ELEMENT 35015.1.1
TIP U-4020**

Prepared for

North Carolina Department of Transportation
Geotechnical Engineering Unit
Geoenvironmental Section
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June 4, 2008



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URS Job No. 3182 5704

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Certification

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



Walter Plekan, L.G.
Project Manager
URS Corporation – North Carolina

2061
NC License No.

6-1-8
Date

1.1 INTRODUCTION

This report documents a Preliminary Site Assessment (PSA) conducted by URS Corporation – North Carolina (URS) on behalf of the North Carolina Department of Transportation (NCDOT). The assessment area is located within a proposed NCDOT Right-of-Way (ROW) and/or construction easement necessary for the planned expansion of US 421 from US 321 (Hardin Street) to east of NC 194 (Jefferson Road). This PSA was conducted in Boone, Watauga County, North Carolina (**Figure 1**) for Parcel 15, Andrea Mcdonough Property, located at 154 East King Street. The entire Parcel 15 was evaluated for this PSA.

This PSA was performed in general accordance with:

- NCDOT’s February 20, 2008 Request for Technical and Cost Proposal (RFP) entitled: Request for Technical and Cost Proposal, Preliminary Site Assessment, Parcel 15, Andrea Mcdonough Property. The RFP established the following scope of work (SOW) for the project:
 - Locate all underground storage tanks (USTs) and determine approximate size and contents (if any).
 - Determine if contaminated soils are present.
 - If contamination is evident, estimate the quantity of impacted soils and indicate the approximate area of soil contamination on a Site map.
 - Prepare a report including field activities, findings, and recommendations for the Site and submit the report to NCDOT in triplicate.
- URS’s March 7, 2008 Technical and Cost Proposal entitled: Revised Technical and Cost Proposal, Preliminary Site Assessment, Parcel 15, Andrea Mcdonough Property.
- NCDOT’s March 7, 2008 Notice to Proceed, Preliminary Site Assessment, Parcel 15, Andrea Mcdonough Property.

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

1.2 BACKGROUND

The objective for this PSA is to assess the Site for impacted soil and to delineate potential impacts found in soils. The site location relative to the Town of Boone and the project area is shown in **Figure 1**, and its location relative to the adjacent project parcels along with major project features is shown in **Figure 2**. US 421 runs east/west through Boone, NC, and the parcel is located on the south side of US 421, (East King Street) east of US 321 (Hardin Street) at the southwest corner of East King and Oak Streets. The two story stone building is currently a State Farm Insurance Office.

The parcel lies at an elevation of approximately 3,250 feet above mean sea level (ft msl) and slopes from East King Street to the south and the rear property line allowing two story construction in the rear of the building. No existing monitoring wells were noted during the Site visit; however, one fuel oil UST was noted onsite as shown in **Figure 3**. The UST is located on the east side of the building, under some hedges, near the entrance of the lower elevation of the building. The area of interest is the entire parcel for the proposed ROW.

2.1 GEOPHYSICAL SURVEY

The geophysical survey for Parcel 15 was conducted between March 18 and 22, 2008 by URS using the electromagnetic (EM) method augmented by ground-penetrating radar (GPR). The EM survey was completed using the Geonics, Ltd. EM-61 MKII (EM-61). The objective of the geophysical survey was to locate USTs or anomalies within the proposed ROW of US 421. A Trimble ProXRS global positioning system (GPS) was used to record simultaneous positional data coincident with the EM-61 data. EM-61 data were collected along parallel profiles spaced approximately three feet apart across the survey area. Data were recorded at a rate of five readings per second, which equates to an along-profile data point spacing of less than one foot. The acquired differential GPS (DGPS) has a horizontal accuracy of approximately three feet. URS also used the GPS system to record the locations of relevant Site features.

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

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

2.2 SOIL BORING INSTALLATION AND SOIL SAMPLING

Ten Geoprobe[®] direct-push soil borings, P15-1 through P15-10, were installed on April 10, 2008 to assess the Site for impacted soil. The locations of the soil borings are shown on **Figure 4**.

Soil samples were collected and logged continuously at each soil boring location. Soil sample aliquots were field screened for organic vapors with a MiniRae[®] brand photo-ionization detection (PID) instrument calibrated daily with 100 parts per million (ppm) isobutylene.

Soil samples from selected intervals were collected from each boring (P15-1 thru P15-10) during the soil investigations for laboratory analysis. The samples were analyzed for Total Petroleum Hydrocarbons (TPH) as gasoline range organics (GRO) and diesel range organics (DRO) using USEPA Method 8015B.

2.3 QUALITY CONTROL/QUALITY ASSURANCE PROCEDURES

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

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

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

The EM-61 results are provided as a color enhanced contour map for use in the field during the drilling operation (**Figure 5**). The map differentiates areas interpreted as background from areas of relatively high EM responses that are generally indicative of large buried metal objects or surface or near-surface features (e.g. suspected underground utilities, guard rail, fence). Interpretation of in-field data analysis revealed no unusual EM anomalies indicative of USTs at Parcel 15. However, the EM-61 results indicated widespread areas of elevated responses, particularly to the north of the building, which is likely the presence of reinforcement beneath the asphalt pavement. Follow-up GPR surveying was therefore conducted across the full extents of the parcel to further evaluate the potential presence of USTs in this area. The GPR survey did not indicate the presence of any additional USTs, beyond the UST identified during the Site visit as noted above and shown on **Figures 3, 4, and 5**.

As mentioned above, a fill port and vent pipe were visually observed at Parcel 15, indicating the presence of an existing UST at the site. Geophysical surveying was not completed over the suspected UST due to the presence of landscaping features. Therefore, the extent of the UST could not be determined.

A total of ten soil borings were advanced to a depth of 12 ft bgs during the PSA investigation at Parcel 15. Boring locations are shown in **Figure 4** and a boring log, representative of each of the borings, is provided in **Appendix A**. The soil is generally described as predominantly light brown, loose, silty sand. Groundwater was not encountered in any of the soil borings.

Soil headspace screening readings are summarized in **Table 1**, and a PID response was not observed to be present in any of the soil samples collected. Laboratory results (TPH as GRO and DRO) of soil samples collected from each soil boring are also summarized in **Table 1** along with the Unified Soil Classification System (USCS) lithology for each interval. The complete laboratory report is included in **Appendix B**.

TPH as GRO was detected in four samples (P15-6, P15-8, P-15-9., and P-15-10), however the reported concentration range of these samples, 3.9 to 4.6 milligrams per kilogram (mg/kg), is below the NCDENR action level of 10 mg/kg for GRO.

DRO was detected in five samples (P15-2, P15-6, P15-7, P15-8, and P-15-9) of which several locations correlate with the GRO detections. The DRO concentrations ranged from 1.4 to 17 mg/kg. The detected DRO concentration of 17 mg/kg reported in P15-2 is just above the action level of 10 mg/kg for UST related incidents, but below the action level of 40 mg/kg for non UST related incidents. An UST was found on Parcel 15 but the tank is downgradient of the DRO detection at P15-2 and the one soil sample (P15-6) collected adjacent to the known UST was non detect for TPH. It is our understanding that in cases such as this, NCDOT would view the results under the non-UST framework and therefore, no additional activities are warranted as the detected concentration is below the action level for a non-UST related incident. In terms of reporting the detection to NCDENR, the guidance for this scenario is not explicit, and NCDENR reporting could be completed by NCDOT as a conservative measure.

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

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

North Carolina Department of Transportation, Request for Technical and Cost Proposal, Preliminary Site Assessment, Parcel 15, Andrea McDonough Property, February 20, 2008

URS Corporation – North Carolina, Technical and Cost Proposal entitled: Revised Technical and Cost Proposal, Preliminary Site Assessment, Parcel 15, Andrea McDonough Property, March 7, 2008

North Carolina Department of Transportation, Notice to Proceed - Preliminary Site Assessment, Parcel 15, Andrea McDonough Property, March 7, 2008

Tables

Table 1
SUMMARY OF SOIL ANALYTICAL RESULTS
PARCEL 15
ANDREA McDONOUGH PROPERTY
154 EAST KING STREET
BOONE, WATAUGA COUNTY, NORTH CAROLINA

| LOCATION | DATE | DEPTH (ft bgs) | FIELD SCREENING PID (ppm) | LABORATORY ANALYSES | | USCS LITHOLOGY |
|----------|----------|-------------------|------------------------------------|---------------------|----------------|-------------------|
| | | | | GRO (mg/kg) | DRO (mg/kg) | |
| P15-1 | 04/10/08 | 2. | ND | - | - | SM |
| | | 4. | ND | - | - | |
| | | 6. | ND | - | - | |
| | | 8. | ND | - | - | |
| | | 10. | ND | - | - | |
| | | 12. | ND | ND (3.8) | ND (1.4) | |
| P15-2 | 04/10/08 | 2. | ND | - | - | SM |
| | | 4. | ND | - | - | |
| | | 6. | ND | - | - | |
| | | 8. | ND | - | - | |
| | | 10. | ND | - | - | |
| | | 12. | ND | ND (3.8) | 17. | |
| P15-3 | 04/10/08 | 2. | ND | - | - | SM |
| | | 4. | ND | - | - | |
| | | 6. | ND | - | - | |
| | | 8. | ND | - | - | |
| | | 10. | ND | - | - | |
| | | 12. | ND | ND (4.4) | ND (1.6) | |
| P15-4 | 04/10/08 | 2. | ND | - | - | SM |
| | | 4. | ND | - | - | |
| | | 6. | ND | - | - | |
| | | 8. | ND | - | - | |
| | | 10. | ND | - | - | |
| | | 12. | ND | ND (4.4) | ND (1.6) | |
| P15-5 | 04/10/08 | 2. | ND | - | - | SM |
| | | 4. | ND | - | - | |
| | | 6. | ND | - | - | |
| | | 8. | ND | - | - | |
| | | 10. | ND | - | - | |
| | | 12. | ND | ND (3.7) | ND (1.3) | |
| P15-6 | 04/10/08 | 2. | ND | - | - | SM |
| | | 4. | ND | - | - | |
| | | 6. | ND | - | - | |
| | | 8. | ND | - | - | |
| | | 10. | ND | - | - | |
| | | 12. | ND | 4.1 | 1.5 | |
| P15-7 | 04/10/08 | 2. | ND | - | - | SM |
| | | 4. | ND | - | - | |
| | | 6. | ND | - | - | |
| | | 8. | ND | - | - | |
| | | 10. | ND | - | - | |
| | | 12. | ND | ND (3.6) | 5.3 J | |

Table 1
SUMMARY OF SOIL ANALYTICAL RESULTS
PARCEL 15
ANDREA McDONOUGH PROPERTY
154 EAST KING STREET
BOONE, WATAUGA COUNTY, NORTH CAROLINA

| LOCATION | DATE | DEPTH (ft bgs) | FIELD SCREENING PID (ppm) | LABORATORY ANALYSES | | USCS LITHOLOGY |
|----------|----------|-------------------|------------------------------------|---------------------|----------------|-------------------|
| | | | | GRO (mg/kg) | DRO (mg/kg) | |
| P15-8 | 04/10/08 | 2. | ND | - | - | SM |
| | | 4. | ND | - | - | |
| | | 6. | ND | - | - | |
| | | 8. | ND | - | - | |
| | | 10. | ND | - | - | |
| | | 12. | ND | 3.9 | 1.4 | |
| P15-9 | 04/10/08 | 2. | ND | - | - | SM |
| | | 4. | ND | - | - | |
| | | 6. | ND | - | - | |
| | | 8. | ND | - | - | |
| | | 10. | ND | - | - | |
| | | 12. | ND | 4.2 | 1.5 | |
| P15-10 | 04/10/08 | 2. | ND | - | - | SM |
| | | 4. | ND | - | - | |
| | | 6. | ND | - | - | |
| | | 8. | ND | - | - | |
| | | 10. | ND | - | - | |
| | | 12. | ND | 4.6 | ND (1.6) | |

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

LEGEND:

ft bgs - feet below ground surface
mg/Kg - milligrams per kilogram
ppm - parts per million
PID - Photo Ionization Detector (field screening results)
TPH - Total Petroleum Hydrocarbons
DRO - Diesel Range Organics (determined by laboratory via EPA Method 8015B)
GRO - Gasoline Range Organics (determined by laboratory via EPA Method 8015B)
ND(7.3) - Not Detected above the indicated detection limit
J - Estimated
USCS - Unified Soil Classification System.

NOTES:

Soil samples were collected by URS on the dates shown.
All results reported on a dry-weight basis.
Action Levels were taken from the NCDENR UST Section, *Guidelines for Assessment and Corrective Action* (NCDENR, UST Section, July 2001) and *Guidelines for the Investigation and Remediation of Contamination from Non-UST Petroleum Releases* (NCDENR, UST Section, July 2007).

Figures

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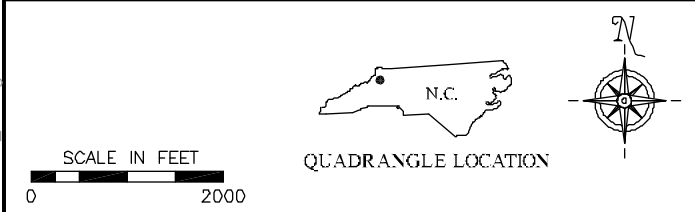
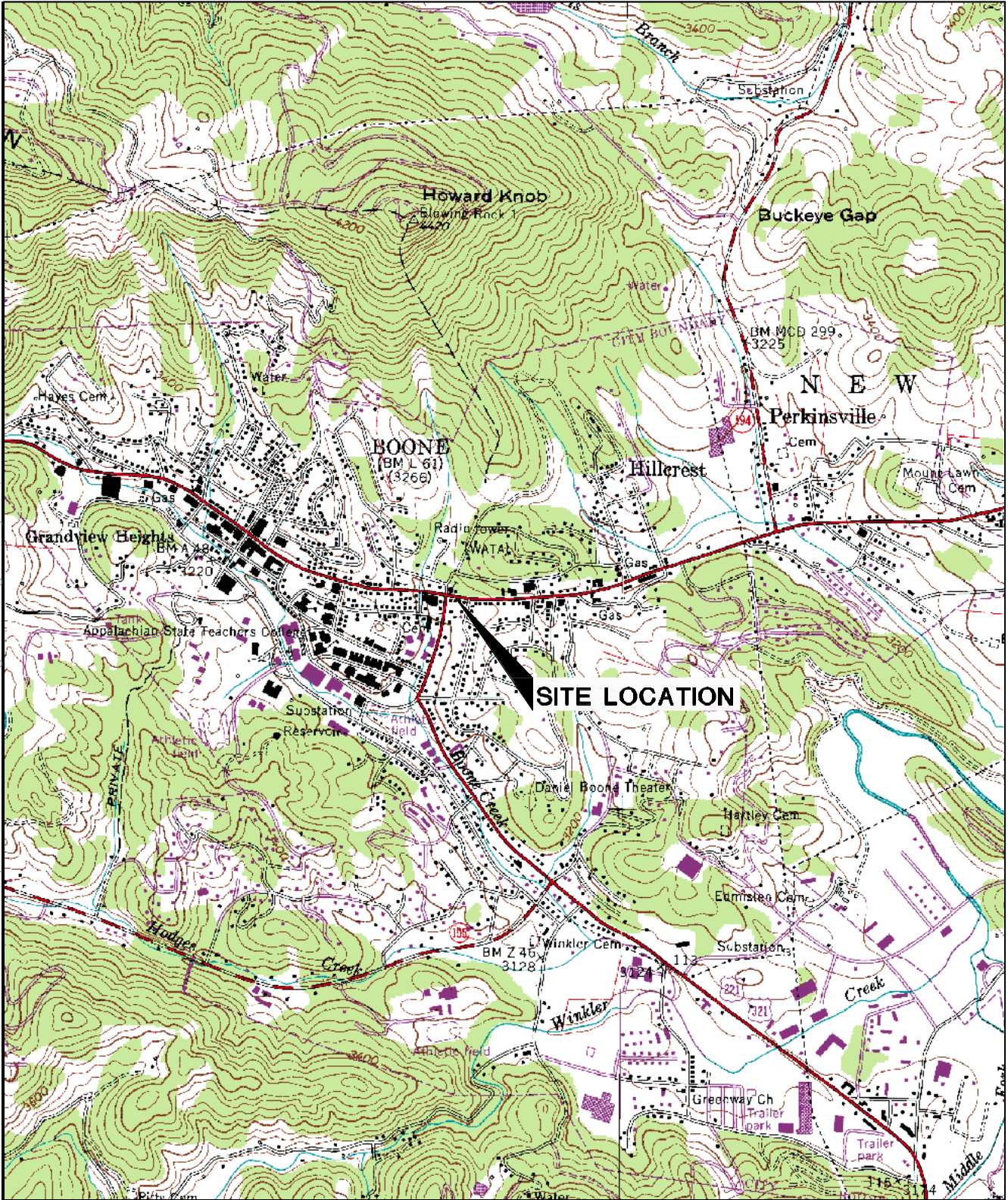
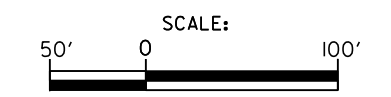


FIGURE 1. LOCATION MAP
PARCEL 15, 154 E. KING STREET
BOONE, NORTH CAROLINA

| | | |
|---------------|----------|--|
| Prepared for: | | URS <small>RDU, NORTH CAROLINA 27560</small> |
| NC DOT | | |
| DRAWN BY: | TSH | Fig. 1 |
| DATE: | 05/01/08 | |
| PROJECT NO.: | 31825704 | |

SOURCE: USGS 7.5' TOPOGRAPHIC QUADRANGLE
 BOONE, NC - DATED 1959, PHOTOREVISED 1978



| | | |
|---|---------------|------------------|
| US 421 WIDENING PROJECT FROM US 221 TO US 321 BOONE, NORTH CAROLINA | | |
| URS Corporation - North Carolina 1600 Perimeter Park Drive Morrisville, North Carolina 27560 TELEPHONE (919) 461-1100 FAX (919) 461-1415 | | |
| DRN BY: SMS | DATE: 5-26-08 | STATE PROJECT: |
| CHECKED BY: VK | DATE: 5-27-08 | U-4020 |
| PARCEL LOCATION MAP | | FIGURE FIG-02 |


Fill Port
 E: 1211323.8 feet
 N: 908166.7 feet

Vent Pipe

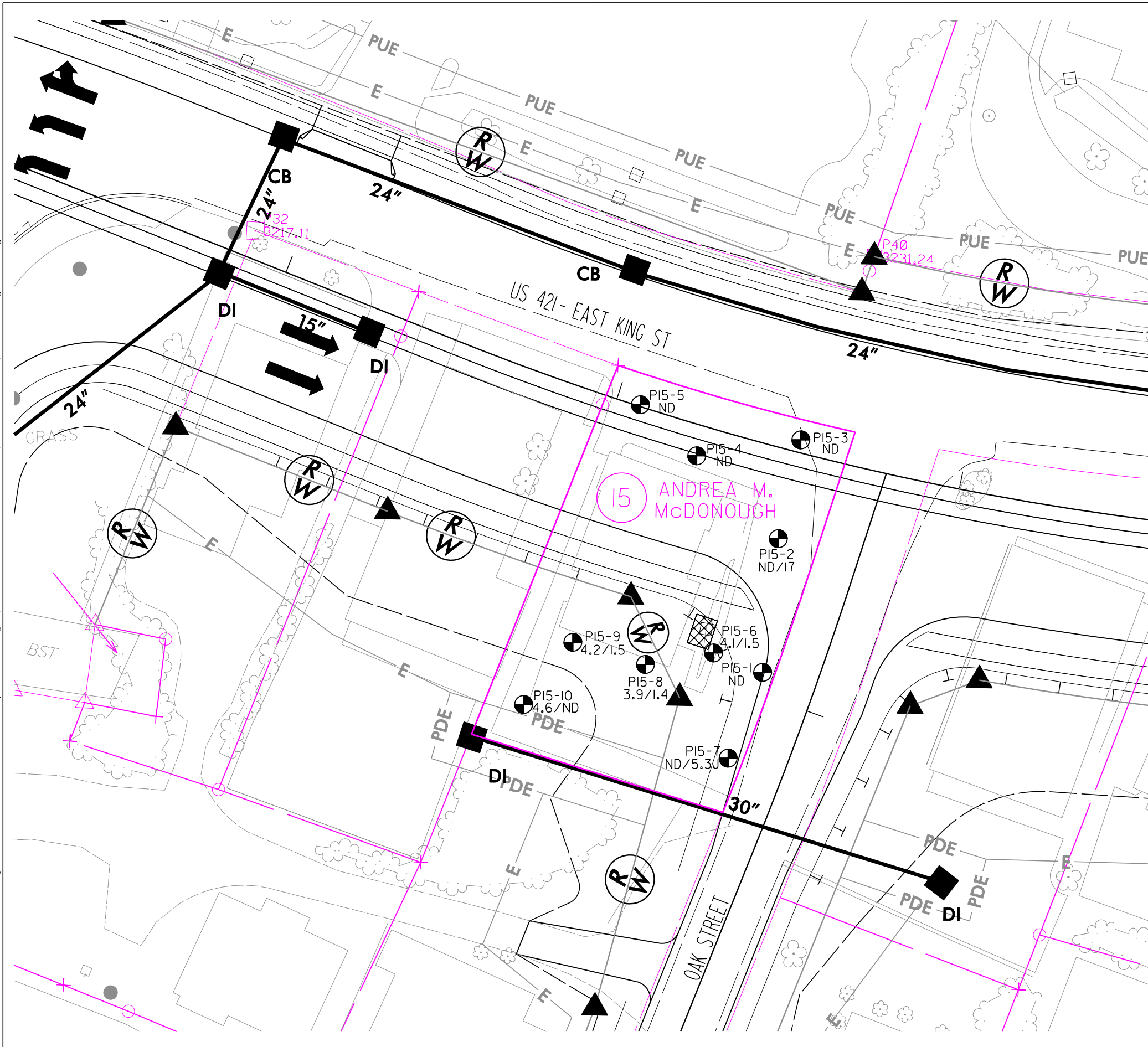


Notes:

1. Extents of UST could not be marked due to landscaping.
2. View is looking west from the parking area toward the east side of the building on Parcel #15.
3. Coordinates in NC State Plane, NAD-83 datum.
4. Coordinates from DGPS survey by URS Corporation.

| | | | |
|---|----------|--|-------------|
|  | | 6135 Park South Dr., Ste. 300 Charlotte, NC 28210 (704) 522-0330 | |
| UST Fill Port Parcel #15 | | | |
| NCDOT State Project U-4020, Watauga County | | | |
| Boone, North Carolina | | | |
| DESIGNED BY | DRAWN BY | CHECKED BY | JOB NUMBER |
| MAB | 03/31/08 | MAB | 03/31/08 |
| | | TJK | 04/25/08 |
| | | | 31825704 |
| | | | Figure 3 |

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LEGEND

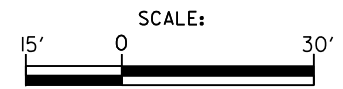
- PI5-1 - SOIL BORING LOCATION
- PROPOSED RIGHT-OF-WAY
- PROPOSED EASEMENT
- PROPOSED DRAINAGE STRUCTURE
- APPROXIMATE LOCATION OF UST

NOTES

- ND - TPH NOT DETECTED ABOVE THE METHOD DETECTION LIMIT
- DRO - DIESEL RANGE ORGANICS
- GRO - GASOLINE RANGE ORGANICS
- PDE - PERMANENT DRAINAGE EASEMENT
- PUE - PERMANENT UTILITY EASEMENT
- DI - DROP INLET
- CB - CATCH BASIN

SUMMARY OF DETECTIONS IN Mg/kg

| ID | DEPTH | GRO | DRO |
|--------|-------|-----|------|
| PI5-2 | 12' | ND | 17 |
| PI5-6 | 12' | 4.1 | 1.5 |
| PI5-7 | 12' | ND | 5.3J |
| PI5-8 | 12' | 3.9 | 1.4 |
| PI5-9 | 12' | 4.2 | 1.5 |
| PI5-10 | 12' | 4.6 | ND |



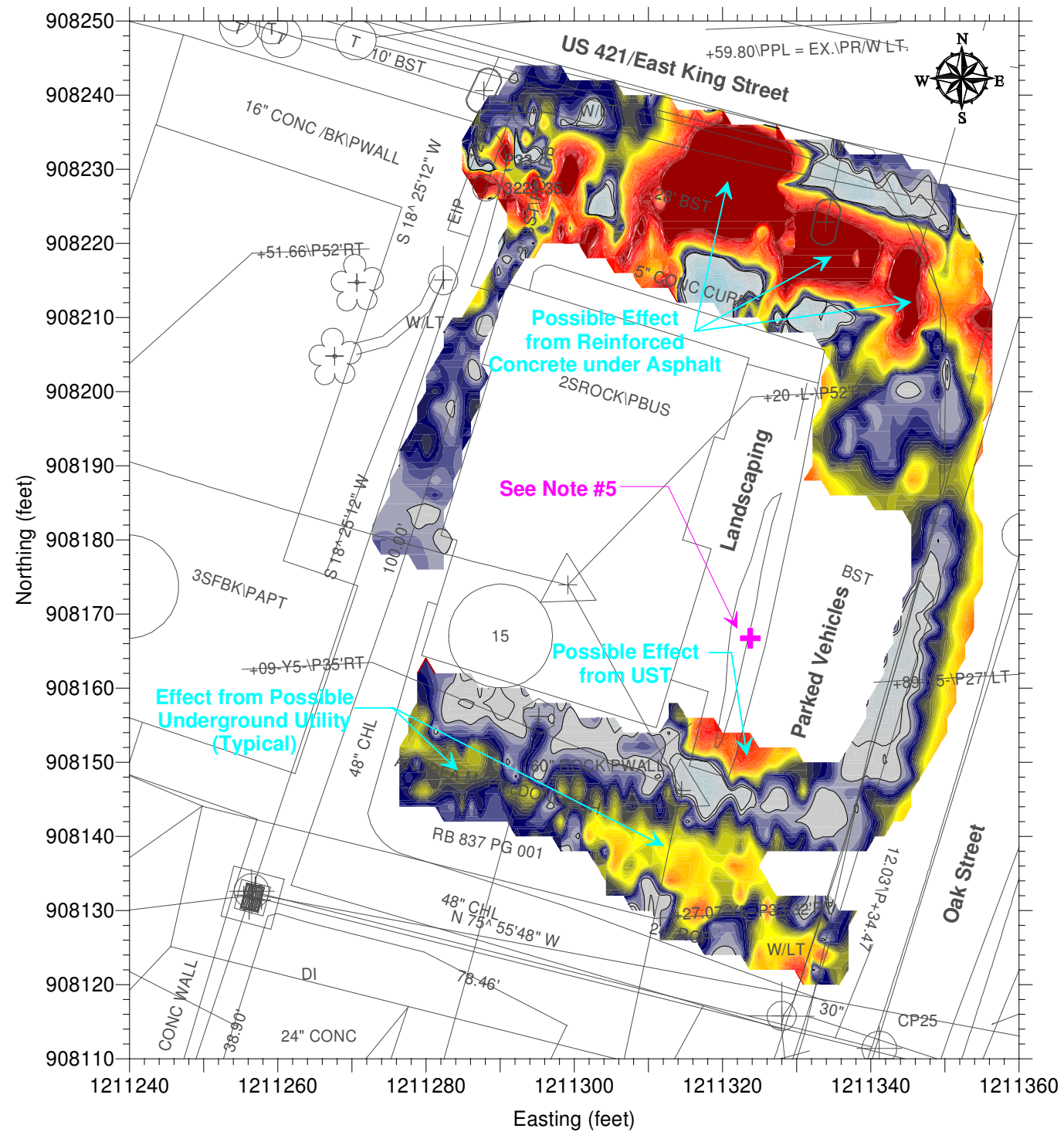
PARCEL 15
ANDREA MCDONOUGH PROPERTY
 154 EAST KING STREET
 BOONE, NORTH CAROLINA

URS Corporation - North Carolina
 1600 Perimeter Park Drive
 Morrisville, North Carolina 27560
 TELEPHONE (919) 461-1100 FAX (919) 461-1415

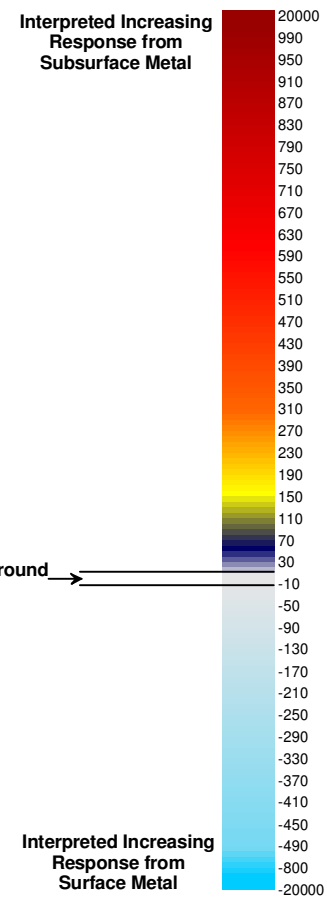
| | | |
|-------------------------------|-----------------------------|-------------------------------|
| <small>DRN BY: SMS</small> | <small>DATE: 6-3-08</small> | <small>STATE PROJECT:</small> |
| <small>CHECKED BY: VK</small> | <small>DATE: 6-5-08</small> | <small>U-4020</small> |

SOIL SAMPLING LOCATIONS

FIGURE
FIG-04



**EM-61 MKII Channel 3 Response
(millivolts)**

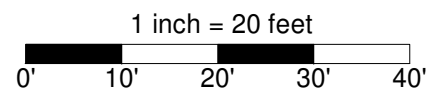


Legend

✚ UST Fill Port

Notes:

1. Coordinates in NC State Plane, NAD-83 datum.
2. Data from Geonics, Ltd. EM-61 MKII instrument.
3. Base drawing from U-4020 contract drawings provided by NCDOT.
4. Positional data for EM-61 survey and locations of additional site features based on DGPS surveying by URS Corporation.
5. Extents of UST not marked in field because UST located under landscaping.
6. Verification GPR survey conducted across extent of the survey area as deemed necessary to investigate widespread high amplitude EM-61 responses. No additional anomalies indicative of USTs interpreted from GPR results.



| | | | | |
|--|----------|------------|------------|---------------------|
| | | | | |
| 6135 Park South Dr., Ste. 300 Charlotte, NC 28210 (704) 522-0330 | | | | |
| Geophysical Investigation Results Parcel #15 | | | | |
| NCDOT State Project U-4020, Watauga County | | | | |
| Boone, North Carolina | | | | |
| DESIGNED BY | DRAWN BY | CHECKED BY | JOB NUMBER | Figure 5 |
| MAB | 03/31/08 | MAB | 03/31/08 | |
| | | TJK | 04/25/08 | |
| | | | 31825704 | |

Appendix A
Soil Boring Log



BORING LOG: P15-1

| | | |
|--|-----------------------------|------------------------------------|
| Permit # | Drill Date 04/10/08 | Site Parcel 15 |
| Client NCDOT | Use | URS Corporation |
| Address Boone, North Carolina | | Total Depth (ft) 12 |
| Drilling Method Direct push | Boring Depth (ft) 12 | Boring Diam. (in) 2.25 |
| Backfill Material Bentonite | NA | Static Water Level unknown |
| Rmrks Groundwater not encountered | TOC Elevation NA | Sample Method Acetate liner |

in boring

| Depth (ft.) | Sample ID | Sample Depth (ft) | Blows/ 6" | OVA (ppm) | Geologic Description | Typical Diagram |
|-------------|-----------|-------------------|-----------|-----------|---|---------------------|
| 0 | | | | | Asphalt | |
| 2 | | | | 0.0 ppm | Light brown, dry, loose, silty Sand (SM), some mica | |
| 4 | | | 0.0 ppm | | | |
| 6 | | | 0.0 ppm | | | |
| 8 | | | 0.0 ppm | | | |
| 10 | | | 0.0 ppm | | | |
| 12 | P15-1-12 | 12' | | | bottom of boring | Not to Scale |

Notes:

| | |
|---------------------------------|--------------------------|
| Geologist: Michael Meese | Driller: SAEDACCO |
|---------------------------------|--------------------------|

Appendix B
Laboratory Report



Case Narrative

Date: 04/25/08
Company: N. C. Department of Transportation
Contact: Martha Meyers-Lee
Address: c/o URS
1600 Perimeter Park Dr. Suite 400
Morrisville, NC 27560

Client Project ID: NCDOT: Boone - Parcel 15
Prism COC Group No: G0408350
Collection Date(s): 04/10/08
Lab Submittal Date(s): 04/11/08

Client Project Name Or No: State Project: U-4020/ 154 E. King

This data package contains the analytical results for the project identified above and includes a Case Narrative, Laboratory Report and Quality Control Data totaling 12 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.

Date Reviewed by: Paula A. Gilleland

Project Manager: Robbi A. Jones

Signature: *Paula A. Gilleland*

Signature: *Paula A. Gilleland for Robbi Jones*

Review Date: 04/25/08

Approval Date: 04/25/08

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

04/25/08

N. C. Department of Transportation
 Attn: Martha Meyers-Lee
 c/o URS
 1600 Perimeter Park Dr. Suite 400
 Morrisville, NC 27560

Project Name: State Project: U-4020/
 154 E. King St.
 Project ID: NCDOT: Boone - Parcel
 15
 Project No.: WBS# 35015.1.1
 Sample Matrix: Soil

Client Sample ID: P15-1-12
 Prism Sample ID: 211201
 COC Group: G0408350
 Time Collected: 04/10/08 8:10
 Time Submitted: 04/11/08 8:30

| Parameter | Result | Units | Report Limit | MDL | Dilution Factor | Method | Analysis Date/Time | Analyst | Batch ID |
|--|--------|-------|--------------|-----|------------------|-------------------|-----------------------|----------|----------|
| Percent Solids Determination | | | | | | | | | |
| Percent Solids | 83.3 | % | | | 1 | SM2540 G | 04/15/08 11:15 | mbarber | |
| Diesel Range Organics (DRO) by GC-FID | | | | | | | | | |
| Diesel Range Organics (DRO) | BRL | mg/kg | 8.4 | 1.4 | 1 | 8015B | 04/24/08 21:26 | jvogel | Q31993 |
| Sample Preparation: | | | 25.11 g | / | 1 mL | 3545 | 04/23/08 17:10 | wconder | P21424 |
| | | | | | Surrogate | % Recovery | Control Limits | | |
| | | | | | o-Terphenyl | 73 | 49 - 124 | | |
| Sample Weight Determination | | | | | | | | | |
| Weight 1 | 4.63 | g | | | 1 | GRO | 04/14/08 0:00 | lbrown | |
| Weight 2 | 4.52 | g | | | 1 | GRO | 04/14/08 0:00 | lbrown | |
| Gasoline Range Organics (GRO) by GC-FID | | | | | | | | | |
| Gasoline Range Organics (GRO) | BRL | mg/kg | 6.0 | 3.8 | 50 | 8015B | 04/15/08 23:05 | wbradley | Q31760 |
| | | | | | Surrogate | % Recovery | Control Limits | | |
| | | | | | aaa-TFT | 89 | 55 - 129 | | |

Sample Comment(s):

BRL = Below Reporting Limit
 J- Estimated value between the Reporting Limit and the MDL
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 All results are reported on a dry-weight basis

Angela D. Overcash, V.P. Laboratory Services

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NC Certification No. 402
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Laboratory Report

04/25/08

N. C. Department of Transportation
 Attn: Martha Meyers-Lee
 c/o URS
 1600 Perimeter Park Dr. Suite 400
 Morrisville, NC 27560

Project Name: State Project: U-4020/
 154 E. King St.
 Project ID: NCDOT: Boone - Parcel
 15
 Project No.: WBS# 35015.1.1
 Sample Matrix: Soil

Client Sample ID: P15-2-12
 Prism Sample ID: 211202
 COC Group: G0408350
 Time Collected: 04/10/08 8:35
 Time Submitted: 04/11/08 8:30

| Parameter | Result | Units | Report Limit | MDL | Dilution Factor | Method | Analysis Date/Time | Analyst | Batch ID |
|---|--------|-------|--------------|------------------|-----------------|-------------------|--------------------|-----------------------|----------|
| <u>Percent Solids Determination</u> | | | | | | | | | |
| Percent Solids | 81.8 | % | | | 1 | SM2540 G | 04/15/08 11:15 | mbarber | |
| <u>Diesel Range Organics (DRO) by GC-FID</u> | | | | | | | | | |
| Diesel Range Organics (DRO) | 17 | mg/kg | 8.6 | 1.4 | 1 | 8015B | 04/25/08 8:48 | jvogel | Q31993 |
| Sample Preparation: | | | 25.18 g | / | 1 mL | 3545 | 04/23/08 17:10 | wconder | P21424 |
| | | | | Surrogate | | % Recovery | | Control Limits | |
| | | | | o-Terphenyl | | 74 | | 49 - 124 | |
| <u>Sample Weight Determination</u> | | | | | | | | | |
| Weight 1 | 5.39 | g | | | 1 | GRO | 04/14/08 0:00 | lbrown | |
| Weight 2 | 5.10 | g | | | 1 | GRO | 04/14/08 0:00 | lbrown | |
| <u>Gasoline Range Organics (GRO) by GC-FID</u> | | | | | | | | | |
| Gasoline Range Organics (GRO) | BRL | mg/kg | 6.1 | 3.8 | 50 | 8015B | 04/15/08 23:37 | wbradley | Q31760 |
| | | | | Surrogate | | % Recovery | | Control Limits | |
| | | | | aaa-TFT | | 87 | | 55 - 129 | |

Sample Comment(s):

BRL = Below Reporting Limit
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Angela D. Overcash, V.P. Laboratory Services



NC Certification No. 402
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Laboratory Report

04/25/08

N. C. Department of Transportation
 Attn: Martha Meyers-Lee
 c/o URS
 1600 Perimeter Park Dr. Suite 400
 Morrisville, NC 27560

Project Name: State Project: U-4020/
 154 E. King St.
 Project ID: NCDOT: Boone - Parcel
 15
 Project No.: WBS# 35015.1.1
 Sample Matrix: Soil

Client Sample ID: P15-3-12
 Prism Sample ID: 211203
 COC Group: G0408350
 Time Collected: 04/10/08 8:55
 Time Submitted: 04/11/08 8:30

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

Percent Solids Determination

| | | | | | | | | | |
|----------------|------|---|--|--|---|----------|----------------|---------|--|
| Percent Solids | 71.4 | % | | | 1 | SM2540 G | 04/16/08 15:15 | mbarber | |
|----------------|------|---|--|--|---|----------|----------------|---------|--|

Diesel Range Organics (DRO) by GC-FID

| | | | | | | | | | |
|-----------------------------|-----|-------|-----|-----|---|-------|----------------|---------|--------|
| Diesel Range Organics (DRO) | BRL | mg/kg | 9.7 | 1.6 | 1 | 8015B | 04/24/08 22:38 | jvoegel | Q31993 |
|-----------------------------|-----|-------|-----|-----|---|-------|----------------|---------|--------|

Sample Preparation: 25.28 g / 1 mL 3545 04/23/08 17:10 wconder P21424

| Surrogate | % Recovery | Control Limits |
|-------------|------------|----------------|
| o-Terphenyl | 69 | 49 - 124 |

Sample Weight Determination

| | | | | | | | | | |
|----------|------|---|--|--|---|-----|---------------|-------|--|
| Weight 1 | 4.37 | g | | | 1 | GRO | 04/21/08 0:00 | Athao | |
| Weight 2 | 5.18 | g | | | 1 | GRO | 04/21/08 0:00 | Athao | |

Gasoline Range Organics (GRO) by GC-FID

| | | | | | | | | | |
|-------------------------------|-----|-------|-----|-----|----|-------|---------------|----------|--------|
| Gasoline Range Organics (GRO) | BRL | mg/kg | 7.0 | 4.4 | 50 | 8015B | 04/16/08 0:08 | wbradley | Q31760 |
|-------------------------------|-----|-------|-----|-----|----|-------|---------------|----------|--------|

| Surrogate | % Recovery | Control Limits |
|-----------|------------|----------------|
| aaa-TFT | 77 | 55 - 129 |

Sample Comment(s):

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Angela D. Overcash, V.P. Laboratory Services



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

Laboratory Report

04/25/08

N. C. Department of Transportation
 Attn: Martha Meyers-Lee
 c/o URS
 1600 Perimeter Park Dr. Suite 400
 Morrisville, NC 27560

Project Name: State Project: U-4020/
 154 E. King St.
 Project ID: NCDOT: Boone - Parcel
 15
 Project No.: WBS# 35015.1.1
 Sample Matrix: Soil

Client Sample ID: P15-4-12
 Prism Sample ID: 211204
 COC Group: G0408350
 Time Collected: 04/10/08 9:15
 Time Submitted: 04/11/08 8:30

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

Percent Solids Determination

| | | | | | | | | | |
|----------------|------|---|--|--|---|----------|----------------|---------|--|
| Percent Solids | 70.7 | % | | | 1 | SM2540 G | 04/16/08 15:15 | mbarber | |
|----------------|------|---|--|--|---|----------|----------------|---------|--|

Diesel Range Organics (DRO) by GC-FID

| | | | | | | | | | |
|-----------------------------|-----|-------|-----|-----|---|-------|---------------|--------|--------|
| Diesel Range Organics (DRO) | BRL | mg/kg | 9.8 | 1.6 | 1 | 8015B | 04/25/08 6:25 | jvogel | Q31993 |
|-----------------------------|-----|-------|-----|-----|---|-------|---------------|--------|--------|

Sample Preparation: 25.17 g / 1 mL 3545 04/23/08 17:10 wconder P21424

| Surrogate | % Recovery | Control Limits |
|-------------|------------|----------------|
| o-Terphenyl | 55 | 49 - 124 |

Sample Weight Determination

| | | | | | | | | | |
|----------|------|---|--|--|---|-----|---------------|--------|--|
| Weight 1 | 5.16 | g | | | 1 | GRO | 04/11/08 0:00 | lbrown | |
| Weight 2 | 5.35 | g | | | 1 | GRO | 04/11/08 0:00 | lbrown | |

Gasoline Range Organics (GRO) by GC-FID

| | | | | | | | | | |
|-------------------------------|-----|-------|-----|-----|----|-------|---------------|----------|--------|
| Gasoline Range Organics (GRO) | BRL | mg/kg | 7.1 | 4.4 | 50 | 8015B | 04/16/08 1:11 | wbradley | Q31760 |
|-------------------------------|-----|-------|-----|-----|----|-------|---------------|----------|--------|

| Surrogate | % Recovery | Control Limits |
|-----------|------------|----------------|
| aaa-TFT | 63 | 55 - 129 |

Sample Comment(s):

BRL = Below Reporting Limit
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Angela D. Overcash, V.P. Laboratory Services



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

Laboratory Report

04/25/08

N. C. Department of Transportation
 Attn: Martha Meyers-Lee
 c/o URS
 1600 Perimeter Park Dr. Suite 400
 Morrisville, NC 27560

Project Name: State Project: U-4020/
 154 E. King St.
 Project ID: NCDOT: Boone - Parcel
 15
 Project No.: WBS# 35015.1.1
 Sample Matrix: Soil

Client Sample ID: P15-5-12
 Prism Sample ID: 211205
 COC Group: G0408350
 Time Collected: 04/10/08 10:00
 Time Submitted: 04/11/08 8:30

| Parameter | Result | Units | Report Limit | MDL | Dilution Factor | Method | Analysis Date/Time | Analyst | Batch ID |
|--|--------|-------|--------------|------------------|-----------------|-------------------|--------------------|-----------------------|----------|
| Percent Solids Determination | | | | | | | | | |
| Percent Solids | 84.9 | % | | | 1 | SM2540 G | 04/16/08 15:15 | mbarber | |
| Diesel Range Organics (DRO) by GC-FID | | | | | | | | | |
| Diesel Range Organics (DRO) | BRL | mg/kg | 8.1 | 1.3 | 1 | 8015B | 04/24/08 19:39 | jbvogel | Q31993 |
| Sample Preparation: | | | 25.33 g | / | 1 mL | 3545 | 04/23/08 17:10 | wconder | P21424 |
| | | | | Surrogate | | % Recovery | | Control Limits | |
| | | | | o-Terphenyl | | 54 | | 49 - 124 | |
| Sample Weight Determination | | | | | | | | | |
| Weight 1 | 4.72 | g | | | 1 | GRO | 04/14/08 0:00 | lbrown | |
| Weight 2 | 5.72 | g | | | 1 | GRO | 04/14/08 0:00 | lbrown | |
| Gasoline Range Organics (GRO) by GC-FID | | | | | | | | | |
| Gasoline Range Organics (GRO) | BRL | mg/kg | 5.9 | 3.7 | 50 | 8015B | 04/16/08 1:43 | wbradley | Q31760 |
| | | | | Surrogate | | % Recovery | | Control Limits | |
| | | | | aaa-TFT | | 89 | | 55 - 129 | |

Sample Comment(s):

BRL = Below Reporting Limit
 J- Estimated value between the Reporting Limit and the MDL
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NC Certification No. 402
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 NC Drinking Water Cert. No. 37735

Laboratory Report

04/25/08

N. C. Department of Transportation
 Attn: Martha Meyers-Lee
 c/o URS
 1600 Perimeter Park Dr. Suite 400
 Morrisville, NC 27560

Project Name: State Project: U-4020/
 154 E. King St.
 Project ID: NCDOT: Boone - Parcel
 15
 Project No.: WBS# 35015.1.1
 Sample Matrix: Soil

Client Sample ID: P15-6-12
 Prism Sample ID: 211206
 COC Group: G0408350
 Time Collected: 04/10/08 10:30
 Time Submitted: 04/11/08 8:30

| Parameter | Result | Units | Report Limit | MDL | Dilution Factor | Method | Analysis Date/Time | Analyst | Batch ID |
|---|--------|-------|--------------|-----|-----------------|------------------|--------------------|-----------------------|----------|
| <u>Percent Solids Determination</u> | | | | | | | | | |
| Percent Solids | 76.3 | % | | | 1 | SM2540 G | 04/16/08 15:15 | mbarber | |
| <u>Diesel Range Organics (DRO) by GC-FID</u> | | | | | | | | | |
| Diesel Range Organics (DRO) | BRL | mg/kg | 9.0 | 1.5 | 1 | 8015B | 04/24/08 20:15 | jvogel | Q31993 |
| Sample Preparation: | | | 25.44 g | / | 1 mL | 3545 | 04/23/08 17:10 | wconder | P21424 |
| | | | | | | Surrogate | % Recovery | Control Limits | |
| | | | | | | o-Terphenyl | 57 | 49 - 124 | |
| <u>Sample Weight Determination</u> | | | | | | | | | |
| Weight 1 | 5.05 | g | | | 1 | GRO | 04/14/08 0:00 | lbrown | |
| Weight 2 | 4.91 | g | | | 1 | GRO | 04/14/08 0:00 | lbrown | |
| <u>Gasoline Range Organics (GRO) by GC-FID</u> | | | | | | | | | |
| Gasoline Range Organics (GRO) | BRL | mg/kg | 6.6 | 4.1 | 50 | 8015B | 04/16/08 2:15 | wbradley | Q31760 |
| | | | | | | Surrogate | % Recovery | Control Limits | |
| | | | | | | aaa-TFT | 80 | 55 - 129 | |

Sample Comment(s):

BRL = Below Reporting Limit
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Laboratory Report

04/25/08

N. C. Department of Transportation
 Attn: Martha Meyers-Lee
 c/o URS
 1600 Perimeter Park Dr. Suite 400
 Morrisville, NC 27560

Project Name: State Project: U-4020/
 154 E. King St. Client Sample ID: P15-7-12
 Prism Sample ID: 211207
 Project ID: NCDOT: Boone - Parcel
 15 COC Group: G0408350
 Project No.: WBS# 35015.1.1 Time Collected: 04/10/08 10:50
 Sample Matrix: Soil Time Submitted: 04/11/08 8:30

| Parameter | Result | Units | Report Limit | MDL | Dilution Factor | Method | Analysis Date/Time | Analyst | Batch ID |
|---|--------|-------|------------------|-----|-----------------|----------|--------------------|-----------------------|----------|
| <u>Percent Solids Determination</u> | | | | | | | | | |
| Percent Solids | 85.9 | % | | | 1 | SM2540 G | 04/16/08 15:15 | mbarber | |
| <u>Diesel Range Organics (DRO) by GC-FID</u> | | | | | | | | | |
| Diesel Range Organics (DRO) | 5.3 J | mg/kg | 8.1 | 1.3 | 1 | 8015B | 04/24/08 23:14 | jvogel | Q31993 |
| Sample Preparation: | | | 25.18 g | / | 1 mL | 3545 | 04/23/08 17:10 | wconder | P21424 |
| | | | Surrogate | | | | % Recovery | Control Limits | |
| | | | o-Terphenyl | | | | 71 | 49 - 124 | |
| <u>Sample Weight Determination</u> | | | | | | | | | |
| Weight 1 | 3.84 | g | | | 1 | GRO | 04/17/08 0:00 | athao | |
| Weight 2 | 5.43 | g | | | 1 | GRO | 04/17/08 0:00 | athao | |
| <u>Gasoline Range Organics (GRO) by GC-FID</u> | | | | | | | | | |
| Gasoline Range Organics (GRO) | BRL | mg/kg | 5.8 | 3.6 | 50 | 8015B | 04/16/08 2:47 | wbradley | Q31760 |
| | | | Surrogate | | | | % Recovery | Control Limits | |
| | | | aaa-TFT | | | | 92 | 55 - 129 | |

Sample Comment(s):

BRL = Below Reporting Limit
 J- Estimated value between the Reporting Limit and the MDL
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Laboratory Report

04/25/08

N. C. Department of Transportation
 Attn: Martha Meyers-Lee
 c/o URS
 1600 Perimeter Park Dr. Suite 400
 Morrisville, NC 27560

Project Name: State Project: U-4020/
 154 E. King St. Client Sample ID: P15-8-12
 Prism Sample ID: 211208
 Project ID: NCDOT: Boone - Parcel
 15 COC Group: G0408350
 Project No.: WBS# 35015.1.1 Time Collected: 04/10/08 11:10
 Sample Matrix: Soil Time Submitted: 04/11/08 8:30

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

Percent Solids Determination

| | | | | | | | | | |
|----------------|------|---|--|--|---|----------|----------------|---------|--|
| Percent Solids | 79.3 | % | | | 1 | SM2540 G | 04/16/08 15:15 | mbarber | |
|----------------|------|---|--|--|---|----------|----------------|---------|--|

Diesel Range Organics (DRO) by GC-FID

| | | | | | | | | | |
|-----------------------------|-----|-------|-----|-----|---|-------|----------------|--------|--------|
| Diesel Range Organics (DRO) | BRL | mg/kg | 8.8 | 1.4 | 1 | 8015B | 04/24/08 23:50 | jvogel | Q31993 |
|-----------------------------|-----|-------|-----|-----|---|-------|----------------|--------|--------|

Sample Preparation: 25.16 g / 1 mL 3545 04/23/08 17:10 wconder P21424

| Surrogate | % Recovery | Control Limits |
|-------------|------------|----------------|
| o-Terphenyl | 69 | 49 - 124 |

Sample Weight Determination

| | | | | | | | | | |
|----------|------|---|--|--|---|-----|---------------|-------|--|
| Weight 1 | 5.08 | g | | | 1 | GRO | 04/17/08 0:00 | athao | |
|----------|------|---|--|--|---|-----|---------------|-------|--|

| | | | | | | | | | |
|----------|------|---|--|--|---|-----|---------------|-------|--|
| Weight 2 | 3.98 | g | | | 1 | GRO | 04/17/08 0:00 | athao | |
|----------|------|---|--|--|---|-----|---------------|-------|--|

Gasoline Range Organics (GRO) by GC-FID

| | | | | | | | | | |
|-------------------------------|-----|-------|-----|-----|----|-------|---------------|----------|--------|
| Gasoline Range Organics (GRO) | BRL | mg/kg | 6.3 | 3.9 | 50 | 8015B | 04/16/08 3:18 | wbradley | Q31760 |
|-------------------------------|-----|-------|-----|-----|----|-------|---------------|----------|--------|

| Surrogate | % Recovery | Control Limits |
|-----------|------------|----------------|
| aaa-TFT | 96 | 55 - 129 |

Sample Comment(s):

BRL = Below Reporting Limit

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Laboratory Report

04/25/08

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 Attn: Martha Meyers-Lee
 c/o URS
 1600 Perimeter Park Dr. Suite 400
 Morrisville, NC 27560

Project Name: State Project: U-4020/
 154 E. King St. Client Sample ID: P15-9-12
 Prism Sample ID: 211209
 Project ID: NCDOT: Boone - Parcel
 15 COC Group: G0408350
 Project No.: WBS# 35015.1.1 Time Collected: 04/10/08 11:25
 Sample Matrix: Soil Time Submitted: 04/11/08 8:30

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

Percent Solids Determination

| | | | | | | | | | |
|----------------|------|---|--|--|---|----------|----------------|---------|--|
| Percent Solids | 73.8 | % | | | 1 | SM2540 G | 04/16/08 15:15 | mbarber | |
|----------------|------|---|--|--|---|----------|----------------|---------|--|

Diesel Range Organics (DRO) by GC-FID

| | | | | | | | | | |
|-----------------------------|-----|-------|-----|-----|---|-------|---------------|--------|--------|
| Diesel Range Organics (DRO) | BRL | mg/kg | 9.5 | 1.5 | 1 | 8015B | 04/25/08 1:02 | jvogel | Q31993 |
|-----------------------------|-----|-------|-----|-----|---|-------|---------------|--------|--------|

Sample Preparation: 25.03 g / 1 mL 3545 04/23/08 17:10 woonder P21424

| Surrogate | % Recovery | Control Limits |
|-------------|------------|----------------|
| o-Terphenyl | 74 | 49 - 124 |

Sample Weight Determination

| | | | | | | | | | |
|----------|------|---|--|--|---|-----|---------------|-------|--|
| Weight 1 | 5.34 | g | | | 1 | GRO | 04/17/08 0:00 | athao | |
| Weight 2 | 5.18 | g | | | 1 | GRO | 04/17/08 0:00 | athao | |

Gasoline Range Organics (GRO) by GC-FID

| | | | | | | | | | |
|-------------------------------|-----|-------|-----|-----|----|-------|---------------|----------|--------|
| Gasoline Range Organics (GRO) | BRL | mg/kg | 6.8 | 4.2 | 50 | 8015B | 04/16/08 3:50 | wbradley | Q31760 |
|-------------------------------|-----|-------|-----|-----|----|-------|---------------|----------|--------|

| Surrogate | % Recovery | Control Limits |
|-----------|------------|----------------|
| aaa-TFT | 83 | 55 - 129 |

Sample Comment(s):

*BRL = Below Reporting Limit
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Angela D. Overcash, V.P. Laboratory Services



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 SC Certification No. 99012
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Laboratory Report

04/25/08

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 1600 Perimeter Park Dr. Suite 400
 Morrisville, NC 27560

Project Name: State Project: U-4020/
 154 E. King St. Client Sample ID: P15-10-12
 Prism Sample ID: 211210
 Project ID: NCDOT: Boone - Parcel
 15 COC Group: G0408350
 Project No.: WBS# 35015.1.1 Time Collected: 04/10/08 11:45
 Sample Matrix: Soil Time Submitted: 04/11/08 8:30

| Parameter | Result | Units | Report Limit | MDL | Dilution Factor | Method | Analysis Date/Time | Analyst | Batch ID |
|---|--------|-------|--------------|-----|------------------|----------|--------------------|-----------------------|----------|
| <u>Percent Solids Determination</u> | | | | | | | | | |
| Percent Solids | 68.4 | % | | | 1 | SM2540 G | 04/16/08 15:15 | mbarber | |
| <u>Diesel Range Organics (DRO) by GC-FID</u> | | | | | | | | | |
| Diesel Range Organics (DRO) | BRL | mg/kg | 10 | 1.6 | 1 | 8015B | 04/25/08 1:38 | jvogel | Q31993 |
| Sample Preparation: | | | 25.18 g | / | 1 mL | 3545 | 04/23/08 17:10 | wconder | P21424 |
| | | | | | Surrogate | | % Recovery | Control Limits | |
| | | | | | o-Terphenyl | | 69 | 49 - 124 | |
| <u>Sample Weight Determination</u> | | | | | | | | | |
| Weight 1 | 5.02 | g | | | 1 | GRO | 04/14/08 0:00 | lbrown | |
| Weight 2 | 5.88 | g | | | 1 | GRO | 04/14/08 0:00 | lbrown | |
| <u>Gasoline Range Organics (GRO) by GC-FID</u> | | | | | | | | | |
| Gasoline Range Organics (GRO) | BRL | mg/kg | 7.3 | 4.6 | 50 | 8015B | 04/16/08 4:21 | wbradley | Q31760 |
| | | | | | Surrogate | | % Recovery | Control Limits | |
| | | | | | aaa-TFT | | 75 | 55 - 129 | |

Sample Comment(s):

BRL = Below Reporting Limit
J- Estimated value between the Reporting Limit and the MDL
The results in this report relate only to the samples submitted for analysis and meet state certification requirements other than NELAC certification except for those instances indicated in the case narrative and/or test comments.
All results are reported on a dry-weight basis

Angela D. Overcash, V.P. Laboratory Services



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

Level II QC Report

4/25/08

N. C. Department of Transportation
 Attn: Martha Meyers-Lee
 c/o URS
 1600 Perimeter Park Dr. Suite 400
 Morrisville, NC 27560

Project Name: State Project: U-4020/
 154 E. King St.
 Project ID: NCDOT: Boone - Parcel
 15
 Project No.: WBS# 35015.1.1

COC Group Number: G0408350
 Date/Time Submitted: 4/11/08 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 | 5 | <2.5 | mg/kg | | | Q31760 | | |
| Laboratory Control Sample | | | | | | | QC Batch ID | | |
| | Result | Spike Amount | | Units | Recovery % | Recovery Ranges % | | | |
| Gasoline Range Organics (GRO) | 49.4 | 50 | | mg/kg | 99 | 67-116 | Q31760 | | |
| Matrix Spike | | | | | | | QC Batch ID | | |
| Sample ID: | Result | Spike Amount | | Units | Recovery % | Recovery Ranges % | | | |
| 211179 Gasoline Range Organics (GRO) | 55.9 | 50 | | mg/kg | 112 | 57-113 | Q31760 | | |
| Matrix Spike Duplicate | | | | | | | QC Batch ID | | |
| Sample ID: | Result | Spike Amount | | Units | Recovery % | Recovery Ranges % | RPD % | RPD Range % | |
| 211179 Gasoline Range Organics (GRO) | 54.8 | 50 | | mg/kg | 110 | 57-113 | 2 | 0 - 23 | Q31760 |

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 | | | Q31993 | | |
| Laboratory Control Sample | | | | | | | QC Batch ID | | |
| | Result | Spike Amount | | Units | Recovery % | Recovery Ranges % | | | |
| Diesel Range Organics (DRO) | 53.0 | 80 | | mg/kg | 66 | 55-109 | Q31993 | | |
| Matrix Spike | | | | | | | QC Batch ID | | |
| Sample ID: | Result | Spike Amount | | Units | Recovery % | Recovery Ranges % | | | |
| 211201 Diesel Range Organics (DRO) | 43.6 | 80 | | mg/kg | 55 | 50-117 | Q31993 | | |
| Matrix Spike Duplicate | | | | | | | QC Batch ID | | |
| Sample ID: | Result | Spike Amount | | Units | Recovery % | Recovery Ranges % | RPD % | RPD Range % | |
| 211201 Diesel Range Organics (DRO) | 40.0 | 80 | | mg/kg | 50 | 50-117 | 9 | 0 - 24 | Q31993 |

#-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: URS Corporation
 Report To/Contact Name: Matthew Myers-Lee
 Reporting Address: 1000 Perimeter Park Dr. Suite 400
Morrisville, NC 27560
 Phone: (919) 461-1100 Fax (Yes/No): (919) 461-1415
 Email (Yes/No) Email Address
 EDD Type: PDF Excel Other
 Site Location Name: Parcel 15
 Site Location Physical Address: 154 F. King St.

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1 QUOTE # TO ENSURE PROPER BILLING:
 Project Name: NCDOT Boone
 Short Hold Analysis: (Yes) (No) UST Project: (Yes) (No)
 *Please ATTACH any project specific reporting (QC LEVEL I III III IV) provisions and/or QC Requirements
 Invoice To: Direct Bill: NCDOT
 Address: State Project U-4020

Purchase Order No./Billing Reference WBS Element 35015.11
 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
 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 4.0
 PROPER PRESERVATIVES indicated?
 Received WITHIN HOLDING TIMES?
 CUSTODY SEALS INTACT?
 VOLATILES rec'd W/OUT 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 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 | | | | |
| P15-1-12 | 4-10-08 | 810 | Soil | G | 4 | | | | 211201 |
| P15-2-12 | | 835 | | G | 4 | | | | 211202 |
| P15-3-12 | | 855 | | G | 4 | | | | 211203 |
| P15-4-12 | | 915 | | G | 4 | | | | 211204 |
| P15-5-12 | | 1000 | | G | 4 | | | | 211205 |
| P15-6-12 | | 1030 | | G | 4 | | | | 211206 |
| P15-7-12 | | 1050 | | G | 4 | | | | 211207 |
| P15-8-12 | | 1110 | | G | 4 | | | | 211208 |
| P15-9-12 | | 1125 | | G | 4 | | | | 211209 |
| P15-10-12 | 4-10-08 | 1145 | Soil | G | 4 | | | | 211210 |

PRISM USE ONLY

Additional Comments: _____

Received By: (Signature) Michael Meer Date: 4/10/08 Military Hours: 1430
 Received By: (Signature) _____ Date: _____
 Received For Prism Laboratories By: Prism Jones Date: 4-11-08 8:30
 COC Group No: 60433350

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

Fed Ex UPS Hand-delivered Prism Field Service Other:

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

OTHER: LANDFILL NC SC NC SC NC SC

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

SEE REVERSE FOR TERMS & CONDITIONS

ORIGINAL