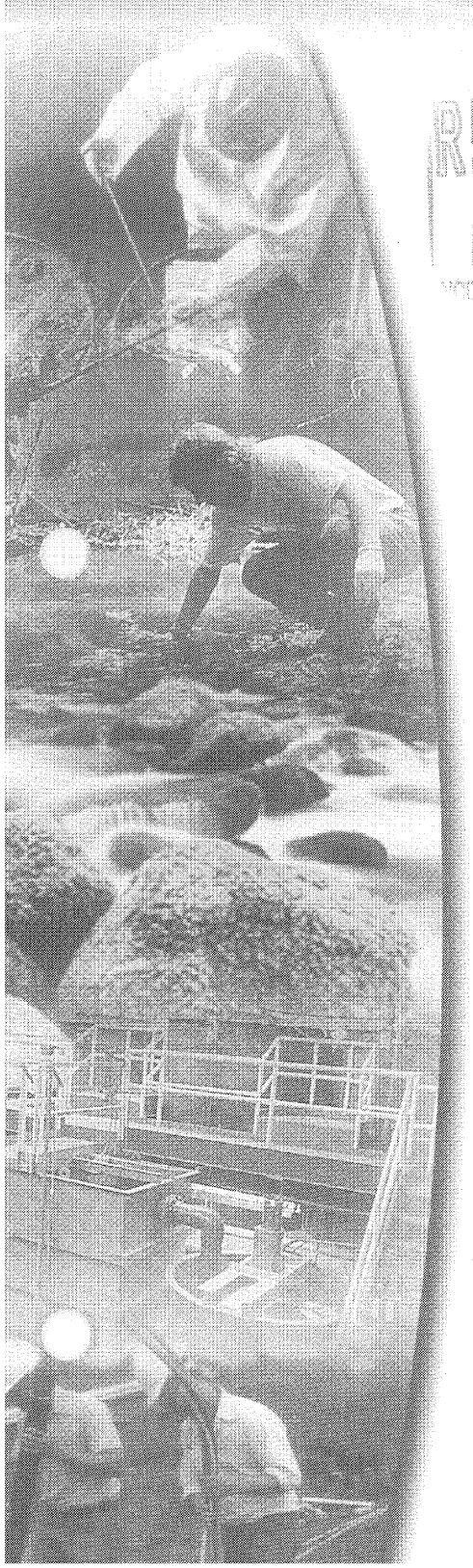

LIMITED PRELIMINARY SITE ASSESSMENT

Parcel #003
Claudia Kelly Salisbury Property
(Dick Kelly Truck Sales)
(Former Flynn's Amoco)
2821 North Liberty Street
Winston-Salem, NC 27105

WBS Element # 34871.1.1
TIP # U-2826A
EI Project No. ENMO050015.00

Prepared For:

Gregory A. Smith
State of North Carolina
Department of Transportation
Geotechnical Unit
GeoEnvironmental Section
1589 Mail Service Center
Raleigh, NC 27699-1589

Prepared by:

Environmental Investigations, Inc.
2101 Gateway Centre Boulevard, Suite 200
Morrisville, NC 27560
PH (919) 544-7500 FAX (919) 544-2199

October 18, 2005

LIMITED PRELIMINARY SITE ASSESSMENT

Conducted on

Parcel #003
Claudia Kelly Salisbury Property
(Dick Kelly Truck Sales)
(Former Flynn's Amoco)
2821 North Liberty Street
Winston-Salem, NC 27105
NCDOT TIP #U-2826A
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For

Mr. Gregory A. Smith
State of North Carolina
Department of Transportation
Geotechnical Engineering Unit
GeoEnvironmental Section
1589 Mail Service Center
Raleigh, NC 27699-1589

Issue Date: October 18, 2005

Robert M. Shaut
Project Geologist/Manager

Signature

David C. Brewster, P.G.
Principal Geologist

Signature

NORTH CAROLINA
10/18/05
CHASE BREWSTER

Prepared By:

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1.0 INTRODUCTION

Environmental Investigations, Inc. (EI) conducted a *Limited Preliminary Site Assessment* (PSA) on a parcel identified by the North Carolina Department of Transportation (NCDOT) as *Parcel # 003* that includes the *proposed* and *existing right-of-way (*ROW*)*. The subject parcel is located northeast of the intersection of North Liberty Street and Indiana Avenue, Winston-Salem, North Carolina.

A business (truck sales) known as "Dick Kelly Truck Sales" (former Flynn Amoco) is currently located on the subject parcel (adjacent to ROW). A report presented herein documents the findings of the PSA that was conducted within the prescribed area of study. For purposes of this report, the terms "subject property" and/or "site" include the *existing* NCDOT ROW and the *proposed* ROW, and/or the abutting property/parcel.

1.1 Report Organization

Mr. Robert Michael Shaut an Environmental Geologist with EI conducted field activities on August 22, 2005. The report presented herein summarizes the scope of work conducted, discusses sampling activities, and presents findings, conclusions and our recommendations. Two (2) tables entitled "Summary of Soil Analytical Results" and "Summary of Groundwater Analytical Results" are presented in **"Table 1"** and **"Table 2",** respectively. A "Site Location Map", an "Aerial Photograph", and "Site Map" are presented in **Figures 1**, **2**, and **3**, respectively. A compilation of "Site Photographs" are presented in **Appendix A**, a "Geophysical Report" is presented in **Appendix B**, Soil Boring Logs" are included in **Appendix C**, while an "Analytical Laboratory Report" is presented in **Appendix D,** respectively.

1.2 Background

EI received a "*Request for Technical and Cost Proposal*" (RFP), dated July 7, 2005 signed by Cyrus F. Parker, LG, GeoEnvironmental Project Manager with the NCDOT GeoTechnical Engineering Unit. The RFP solicited a technical and cost proposal to perform PSAs on a total of 10 Parcels located within a NCDOT Highway Project, identified as WBS Element 34871.1.1, TIP # U-2826A, located in Winston-Salem, NC. The RFP outlined site information on each of the 10 parcels and NCDOT Figures (Plan Sheets) were attached to the RFP. Mr. Gregory A. Smith, LG, PE, GeoEnvironmental Supervisor with the NCDOT, GeoTechnical Engineering Unit, GeoEnvironmental Section authorized EI to perform the PSAs, as documented in a "Notice to Proceed" dated July 28, 2005.

1.3 Objectives

The objective of performing the PSAs was to investigate parcel histories, locate potential underground storage tanks (USTs), and determine if these systems or sources have impacted the subsurface within the area of study.

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The study conducted on the referenced parcel (Parcel #003 – Claudia Kelly Salisbury Property) was performed with a reasonable effort to investigate and quantify potentially petroleum-hydrocarbon residual impacted subsurface soils. However, findings documented in the report do not constitute a guarantee that all potential sources of environmental contamination have been assessed and subsequently analyzed.

This report is provided for the sole use of the NCDOT on the project for which it was prepared. All materials and information used for this project were obtained or provided to EI, Inc. Use of this report by any third parties other than the NCDOT will be at such party's sole risk. EI Inc. disclaims liability for any use of or reliance on this report by third parties.

1.4 Site History

The North Carolina Department of Environmental Health and Natural Resources (NCDENR), Division of Waste Management (DWM), Underground Storage Tank Section and the Aquifer Protection Division maintains environmental records of known and reported subsurface environmental incidents throughout the state of North Carolina. Based on research conducted by EI personnel, an environmental incident related to the subject parcel was on file with the UST Section with NCDENR.

A summary of the incident file is presented as follows:

- On May 28, 1992, Beroth Oil Company permanently closed five (5) USTs (1-2,000-gallon kerosene; two (2) 4,000-gallon gasoline; and two (2) 2,000-gallon gasoline) by removal methods at the "Flynn's Amoco" site.

- Reportedly, based on assessment activities conducted by the same contractor (Beroth), a total of 15 soil samples collected from beneath either the former USTs foot prints, dispenser pump island, and/or product lines did not result in detected concentrations of either gasoline or diesel analytes above the method laboratory detection limits.

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2.0 SCOPE OF WORK & ENVIRONMENTAL SERVICES

2.1 Requested Scope of Work

Documented in the *RFA*, the NCDOT requested the following scope of work:

- Investigate site histories.
- Locate USTs and determine approximate size and contents, if any.
- Determine if contaminated soils are present.
- Investigate all proposed drainage areas on the project.
- If contamination is evident, estimate the quantity of impacted soils and indicate the approximate area of soil contamination on a site map.
- If groundwater is encountered and the project manager suspects the possibility of groundwater contamination, obtain a sample for analysis by converting one of the soil borings to a temporary monitoring well.
- Prepare a set of NCDOT plansheets (11" x 17") as a separate deliverable showing a summary of suspected impacted areas of contamination.
- Prepare a report including field activities, findings, and recommendations for each site and submit and submit to this office in triplicate.

2.2 Scope of Services

To perform the requested scope-of-services, a geophysical survey was performed to identify potential UST systems, a field reconnaissance was performed to identify general site conditions, and Direct Push Technology (DPT) was utilized to collect soil samples and install a temporary groundwater well (piezometer) and collect subsequent groundwater samples on the subject property.

To complete the study on the subject parcel, EI performed the following scope of services:

- Limited oversight and supervision of a geophysical survey conducted within the area of study.

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- Supervision, direction and oversight for the advancement of eight (8) soil test borings utilizing DPT methods to a total depth ranging between 20.0 and 34.0 feet below the land surface (bls) in former UST related or site dependent locations.

- Collection and submittal of nine (9) soil samples for laboratory analyses of total petroleum hydrocarbons (TPH) in the gasoline and diesel ranges.

- Supervised and directed the installation of one (1) temporary monitoring well (piezometer) on the subject site.

- Collected a groundwater sample from the temporary monitoring well for laboratory analyses of volatile organic compounds (VOCs).

- Photo documentation of pertinent site features.

- Preparation of this report in triplicate format, presenting our findings and conclusions along with our recommendations.

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3.0 SITE CHARACTERIZATION

3.1 Site Location

A truck sales business known as "Dick Kelly Truck Sales" is currently located at 2821 North Liberty Street (northeast of the intersection of North Liberty Street and Indiana Avenue), Winston-Salem, (Forsyth County), North Carolina (**Figures 1** and **2).** The subject property is currently located immediately adjacent to the DOT ROW as identified in DOT's U-2826A Plan Sheet 5. Digital site photographs are presented in **Appendix A**.

3.2 Property Ownership

According to the Forsyth County, North Carolina Tax Office Geo-Data Explorer web site, the abutting subject property is currently owned by Richard D. Kelly. The owners address is listed as the same address (2821 North Liberty Street). The parcel ID was listed on the web site as #6836-56-8694. The size of the parcel was listed as 0.54 acres. According to the NCDOT, the property owner is listed as Claudia Kelly Salisbury.

3.3 Physical Setting

The subject site parcel has been improved to operate a truck sales business. The parcel consists of a one-story wooden siding building (former Amoco business), and parking areas partially bounded by steel mesh fencing. Existing trucks, trailers are currently located within the parking areas. The surface of the parking areas are covered by either paved/broken asphalt, concrete and/or gravel, while the remaining portions of the parcel consists of landscaped areas. A grassy ditch is located along both the southern and western property boundaries between the subject parcel and 28th and Liberty Streets, respectively. See **Figure 3** for pertinent site features.

City municipal water services and natural gas services were observed that supply the parcel via underground utility lines. The lines were marked in directions both parallel and perpendicular to Liberty Street that traverse the subject parcel. Overhead utility lines are currently located along the northwest portion of the parcel (parallel to Liberty Street), with electrical feed lines that cross perpendicular to the street.

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3.3.1 Number and Capacities of USTs

Based on a geophysical investigation, which is discussed in further detail in Sections 4.1 and 4.2, site observations or subsurface anomalies resembling USTs were not observed within the *existing* or *proposed* NCDOT ROW (See **Appendix B**).

3.4 Site Topography

Site observations and review of the Walkertown, NC United States Geological Survey (USGS) Topographic Quadrangle Map (1980) revealed that the subject site elevation ranges between approximately 956 feet and 958 feet above mean sea level (msl) (**Figure 1**). Topographically, the site slopes gently to the north/northeast as surface water runoff appears to flow directly north/northeast in the direction of Brushy Fork Creek located approximately 2,190 feet (730 yards) from the parcel.

3.5 Land Use & Surrounding Properties

The subject property is located inside the city limits of Winston-Salem, NC. Land use in the immediate vicinity of the site is characterized by commercial and/or industrial properties. The site is bounded on the north by a business known as the "Liberty Street Sports Bar", to the south by the Kelly property (Parcel #002 – "Dick Kelly Truck Sales"), to the east by US 52, and to the west by Liberty Street.

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4.0 SUBSURFACE INVESTIAGTION

4.1 Geophysical Survey

Schnabel Engineering South, based in Greensboro, North Carolina, was subcontracted to provide geophysical services on the subject site. The purpose of the geophysical survey was to locate potential UST systems within the area of study.

The contractor conducted an electromagnetic (EM) induction survey utilizing a Geonics EM61-MK2 instrument. Ground penetrating radar (GPR) investigations of selected EM61 anomalies were conducted using a Geophysical Surveys System SIR-2000 system equipped with a 400 MHz antenna. The geophysical contractor surveyed an area estimated at 0.54 acres.

4.2 Geophysical Survey Results

The geophysical results indicated several linear anomalies probably caused by buried utilities, anomalies caused by known above-ground metal features, and several smaller anomalies probably caused by relatively small, insignificant buried metal objects. Most of the observed anomalies not attributed to known cultural features are removed in the differential data set and re-surveyed utilizing the GPR devices. The GPR data indicated the presence of several buried utilities, reinforced concrete, and buried metal. The GPR data **did not** indicate the presence of USTs in the chosen areas surveyed.

A detailed report documenting the geophysical survey activities and results of the study is included in **Appendix B**.

4.3 Subsurface Soils Investigation

Subsurface Environmental Investigations, Inc., based in Statesville, North Carolina, was selected and subcontracted to provide Direct Push Technology (DPT) services. An EI Geologist directed and supervised the advancement of nine soil test borings (GP-1 through GP-9) in the vicinity of either the NCDOT identified proposed drainage, former UST system location and/or the balance of the property.

The borings were advanced in order to evaluate the absence/presence of potential subsurface soil (vadose zone) impact and/or potential subsurface groundwater (petroleum smearing) impact associated with potential former petroleum releases. The soil borings were advanced to investigative total depths ranging from 20.0 feet to a depth of 34.0 feet bls.

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Based on the presence of known former USTs, EI selected to investigate the subsurface for the possible presence of subsurface petroleum contaminants by conducting a series of targeted soil locations in the area of the former tank pits and UST system product dispenser pump island, proposed piping, and downgradient from the hydraulic lift.

4.3.1 Soil Sample Collection Procedures

Based on the results of site conditions (i.e., presence of former UST system location), one (1) soil sample each was collected for laboratory retention from all nine (9) of nine (9) soil test borings.

Soil samples retained for laboratory analyses were shipped, via overnight courier service (Federal Express) to Paradigm Analytical Laboratory, for laboratory analytical testing. Dates and times of sample shipment may be referenced in the analytical Chain-of Custodies (COC) presented in **Appendix D**.

4.3.2 Backfill Activities

At the completion of the exploratory subsurface advancement activities, the test borings were backfilled to surface grade and capped with asphalt patch and/or concrete.

4.3.3 Subsurface Soil Lithology

During boring advancement activities, soil samples were classified in the field by an EI geologist utilizing the Unified Soil Classification System (USCS). Subsurface soils encountered in the area of study were fairly consistent. A surface layer of asphalt, gravel or concrete was encountered overlying a gravel sub-base underlain by reddish brown silty CLAY (CL-CH) to a layer of approximately 4.0 to 6.0 feet bls, underlain by a layer of gold, tan fine to medium SILT (ML), which became saprolitic at depths ranging from 18.0 to the investigated depth of 34.0 feet bls. Detailed descriptions are presented in Soil Boring Logs included in **Appendix C**. The boring logs include an interpretation of subsurface conditions based on field samples.

4.4 Groundwater Investigation

4.4.1 Temporary Monitoring Well Installation

On August 22, 2005, soil test boring GP-6 was converted into a Type I (temporary) 1.0-inch diameter groundwater monitoring well (piezometer). The approximate location of the groundwater monitoring well is depicted in **Figure 3**. The well location was selected in the field based on site conditions and field indicators noted from adjacent soil borings

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and/or site conditions, and/or probable potentially suspect locations. The well was advanced to the approximate investigated depth of 34.0 feet bls. Groundwater was measured from GP-6 on 9-2-05 at 32.65 feet below the top of casing (flush-mount with ground surface).

4.4.2 Groundwater Sampling Activities

EI personnel collected a groundwater sample from the temporary well (GP-6) on September 2, 2005 for purposes of analytical testing. On September 6, 2005, the samples were submitted via overnight courier service to Paradigm Analytical Laboratories, for analytical laboratory testing.

4.4.3 Groundwater Laboratory Analyses

A groundwater sample identified as "P3TW-1" (Boring GP-6) were submitted for VOCs analysis by EPA Method 6230D + IPE & MTBE.

4.4.4 Monitoring Well Abandonment Activities

On September 8, 2005, a DPT subcontractor, (EnviroProbing, Inc.) abandoned the aforementioned temporary monitoring well.

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5.0 LABORATORY TESTING AND RESULTS

5.1 Subsurface Soil Analytical Methods

A total of nine (9) soil samples ("P3GP1-15", "P3GP2-10", "P3GP3-20", "P3GP4-20", "P3GP5-15", "P3GP6-20", "P3GP7-20", "P3GP8-15", and "P3GP9-20") were submitted for total petroleum hydrocarbons (TPH) analyses by GC/FID 8015 analyzing for the analytes: Gasoline Range Organics (GRO), and Diesel Range Organics (DRO). The analytes in the GRO range are utilized to extract volatile fuels such as gasoline, while the DRO range is utilized to extract less volatile petroleum products such as diesel fuel, #2 fuel oil, kerosene, and varsol.

5.2 Soil Laboratory Analyses Results

Diesel range organics were detected at 16.9 mg/kg in soil sample identified as "P3GP1-15". Concentrations were not detected at or above the method laboratory detection limit in the gasoline or diesel ranges from the remaining eight (8) soil samples. The results of the analytical testing of the soil samples are tabulated and presented in **Table 1**. The complete laboratory results and COC Records are presented in **Appendix D**.

5.3 Groundwater Laboratory Analyses Results

< 2 ug/L

Naphthalene (a petroleum hydrocarbon constituent) was detected in the groundwater sample identified as "P3TW1" at concentrations of 0.558 ug/L. None of the remaining analytes showed concentrations above the method laboratory detection limits. Specific results are tabulated in **Table 2** and the complete laboratory report along with COC records is presented in **Appendix D**.

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6.0 SUMMARY OF FINDINGS

EI has reviewed information gathered for the Limited PSA study including site reconnaissance, review of DOT plan sheets, review of former site investigations, review of site investigations including soil and groundwater collection activities, review of the geophysical investigation report, and review of the laboratory analyses report. Compiled below is a summarized list of the significant findings.

- The geophysical data **did not** indicate the presence of any potential suspected USTs located on Parcel 3 or within the *proposed* or *existing* ROW.

- Petroleum product dispensers, parts or neither portions of UST systems, nor remnants of concrete pump islands were observed on the property.

- Analyses of one (1) subsurface soil sample ("P3GP1-15"), collected in the central portion (asphalt patch – former pump island location) of the subject parcel situated outside of the *existing* and *proposed* ROW showed concentrations (16.9 mg/kg) of DRO, which is above the NCDENR action (reportable) limits (10.0 mg/kg). None of the remaining soil samples collected for analysis detected concentrations at or above the method laboratory detection limits.

- The groundwater level was measured at 32.65 feet from GP-6 below the top of casing (flush-mount casing).

- Review of the groundwater analytical data collected from piezometer GP-6 installed in the vicinity of the *proposed* ROW **did not** detect concentrations of VOCs above the 15A NCAC 2L .0202 (g) Groundwater Quality Standards.

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7.0 CONCLUSIONS AND RECOMMENDATIONS

EI personnel have reviewed information obtained during the Limited PSA at the site and present the following conclusions and recommendations.

CONCLUSIONS

Presence and Source of Contaminants

Residual petroleum hydrocarbon impact has been discovered within the vadose zone (unsaturated zone - beneath the subject property) situated outside of the *existing* and *proposed* DOT ROW. Based on the former site investigations, it is assumed that the most likely source of this impact is the former UST system pump island.

Quantity or Volume of Contaminants

EI estimates that the extent of residual petroleum hydrocarbon impact has affected a portion of the former pump island location. We further estimate that the projected area appears to be confined at a areal extent of approximately 20.0 feet by 20.0 feet and the contaminants likely would be present at shallow depths from approximately 5.0 feet to 20 feet bls. Based on these projections, EI estimates that a volume of approximately 100 to 250 cubic yards of soil which contains low levels of petroleum residuals may be present.

Groundwater Impact

Although a groundwater sample obtained from the property (area of former USTs) revealed very minor dissolved concentrations of dissolved petroleum constituents, since residual hydrocarbons were detected in the vadose zone, the groundwater impact could potentially be more significant in various parts of the property, especially beneath the source of contamination (former pump island). A delineation of groundwater impact was beyond the scope of study for this project.

Note: This report does not constitute a guarantee that all potential sources of environmental contamination have been assessed and subsequently analyzed.

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RECOMMENDATIONS

Based on the results of this study, EI recommends the following:

- Based on the detection of TPH concentrations above regulatory (DENR) reportable levels (10.0 mg/kg), the property owner should be notified and the TPH levels are reportable.
- Removal of the secondary source contaminants (residual petroleum hydrocarbon impacted soils).
- Due to the location of the vadose zone (former pump island) impact, additional investigation of the groundwater may be warranted.

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TABLES

TABLE 1
Summary of Soil Analytical Results
Parcel #003 - Claudia Kelly Salisbury Property
("Dick Kelly Truck Sales")
NCDOT - Forsyth
TIP#: U-2826A - WBS Element #34871.1.1
EI Project No. ENMO050015.00

Sample Point Identification		P3GP1-15	P3GP2-10	P3GP3-20	P3GP4-20	P3GP5-15	P3GP6-20	P3GP7-20	P3GP8-15	P3GP9-20
Sample Depth - Feet		13-15	8-10	18-20	18-20	13-15	18-20	18-20	13-15	18-20
Sample Date		8/22/2005								
Field Screening Results-PID (ppm)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Laboratory Analysis	NCDENR (Volume II) Reportable Concentration (mg/kg)	Laboratory Analytical Results (mg/kg)								
Prep Method 5035 - Gasoline Range Organics	10.0	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Prep Method 3545 - Diesel Range Organics	10.0	***16.9***	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
VOCs (8260B - 5035)		Laboratory Analytical Results (UG/KG)								
All Analytes		NA	NA	NA	NA	NA	NA	BQL	NA	BQL
SVOCs (8270)		Laboratory Analytical Results (UG/KG)								
All Analytes		NA	NA	NA	NA	NA	NA	BQL	NA	BQL

LEGEND:
Bold & Italics Font = In Excess of NCDENR Reportable Concentrations

TABLE 2
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
Parcel # 003 - Claudia Kelly Salisbury Property
NCDOT - Forsyth County
TIP: U-2826A
WBS: 34871.1.1
EI Project No. ENMO050015.00

Sample Identification		P3TW1
Sample Date		9/2/2005
Groundwater Depth		32.65
Volatile Organic Compounds EPA Method 6200D	**2L Groundwater Standards (ug/L)**	**LABORATORY RESULTS (ug/L)**
Benzene	1	BQL
Diisopropyl ether (DIPE)	NS	BQL
Ethylbenzene	550	BQL
Naphthalene	21	0.558
MTBE	200	7.63
Toluene	1000	BQL
Xylenes	530	BQL
All Remaining Analytes	NA	BQL

Legend:
Italics/**Bold Font** = In Excess of 15A NCAC 02L .0202 Groundwater Quality Standards
BQL = Below Quantitation Limit
NA = Not Applicable
NS = No Standard
Groundwater Depth measured from top of casing (flush-mount temporary well)

FIGURES

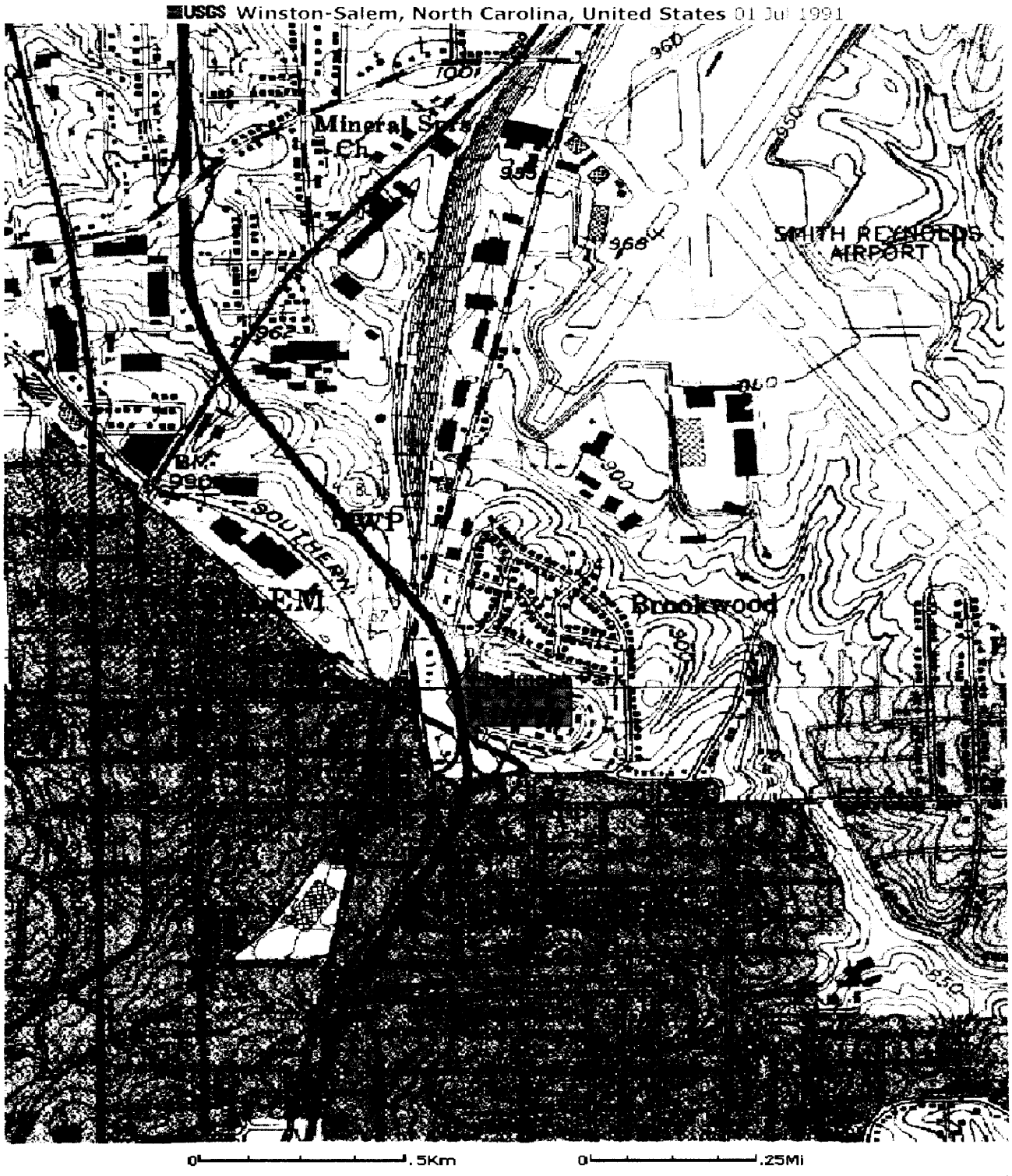


FIGURE NUMBER: 1	**SITE LOCATION MAP** Parcel #003 – Claudia Kelly Salisbury Property (Dick Kelly Truck Sales) 2821 North Liberty Street Winston-Salem, North Carolina	EI ENVIRONMENTAL INVESTIGATIONS, INC
QUAD: 1980 Winston-Salem		
PROJECT NUMBER: ENMO050015.00		
SCALE: As Shown		

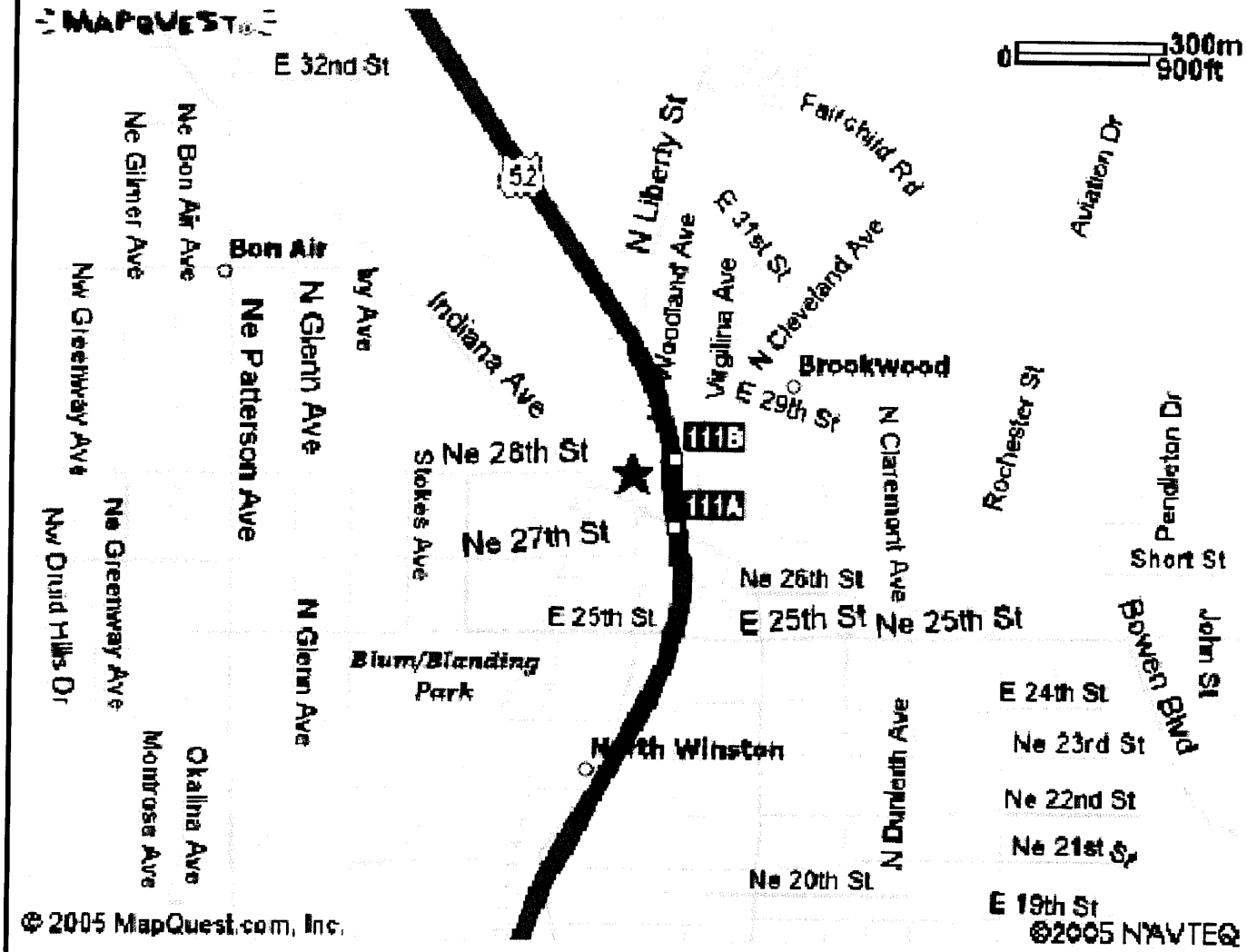
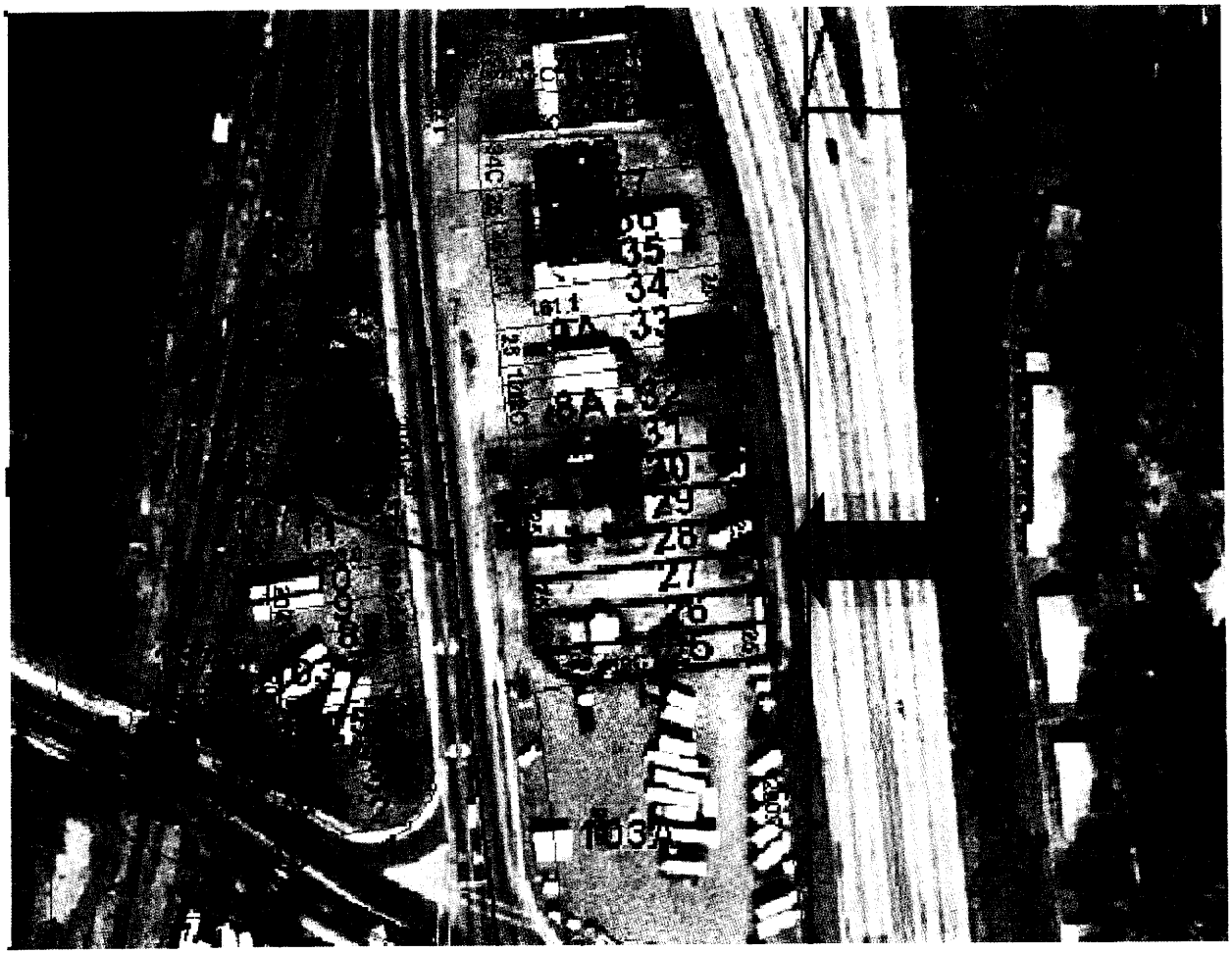


FIGURE NUMBER: 1A	**SITE LOCATION MAP**	EI
QUAD: 1980 Winston-Salem	Parcel #003 – Claudia Kelly Salisbury Property	
PROJECT NUMBER: ENMO050015.00	(Dick Kelly Truck Sales)	
SCALE: As Shown	2821 North Liberty Street Winston-Salem, North Carolina	ENVIRONMENTAL INVESTIGATIONS, INC

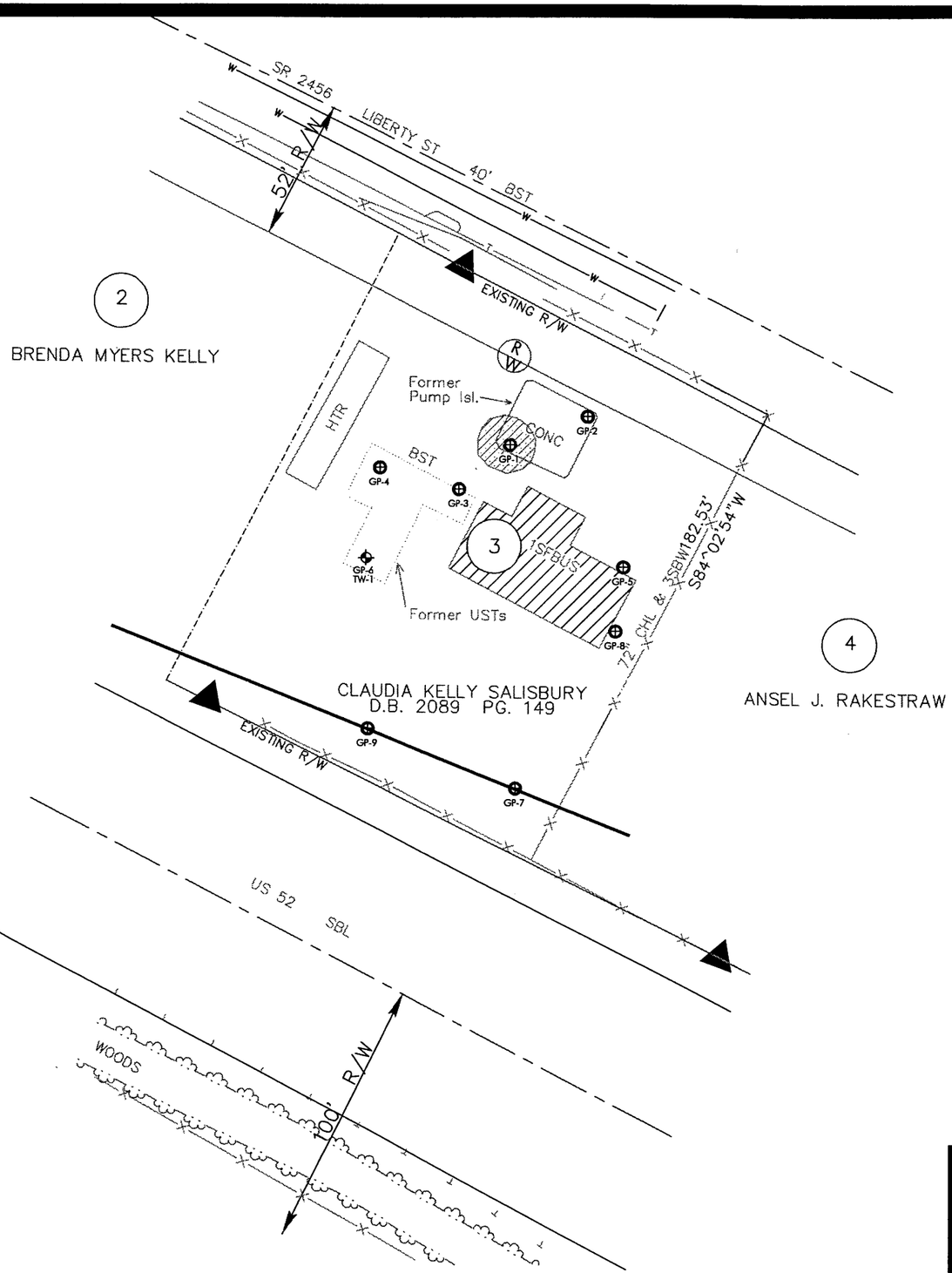


0 Feet 155

SCALE 1 : 1860

N

FIGURE NUMBER: 2	**AERIAL PHOTOGRAPH** Parcel # 003 –Claudia Kelly Salisbury Property (Dick Kelly Truck Sales) 2821 North Liberty Street Winston-Salem, North Carolina	EI ENVIRONMENTAL INVESTIGATIONS, INC
QUAD: 1991 Winston-Salem		
PROJECT NUMBER: ENMO050015.00		
SCALE: AS SHOWN		



NAD 83

LEGEND:

- Building
- Property Border
- Chain Link Fence
- Approx. Right-of-Way To Be Acquired
- Approx. Existing Right-of-Way
- Proposed Piping
- DPT Soil Test Boring (GP-1)
- Type I Monitoring Well

0 50 100

Scale In Feet (1" = 50')

FIGURE:	3
DRN BY:	DOT/RMS
CHK BY:	DCB
DATE:	8/2005
REVISED:	N/A
SCALE:	1" = 50'

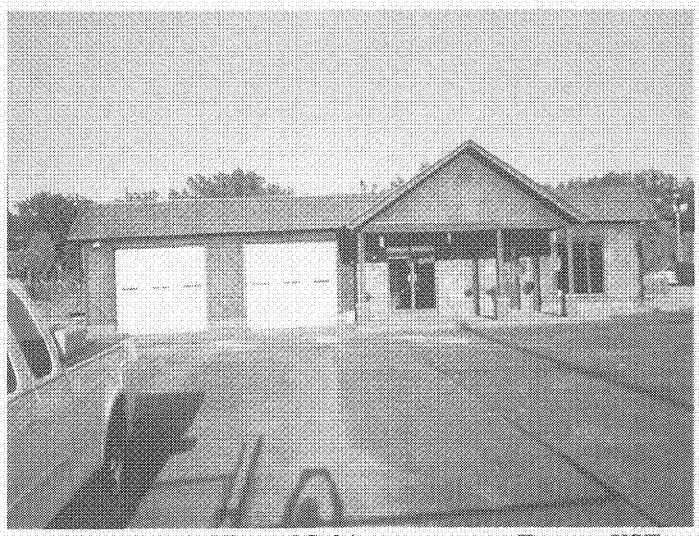
SITE MAP

Parcel 3
Claudia Kelly Salisbury Property
(Dick Kelly Truck Sales)
2821 North Liberty Street
Winston-Salem, North Carolina

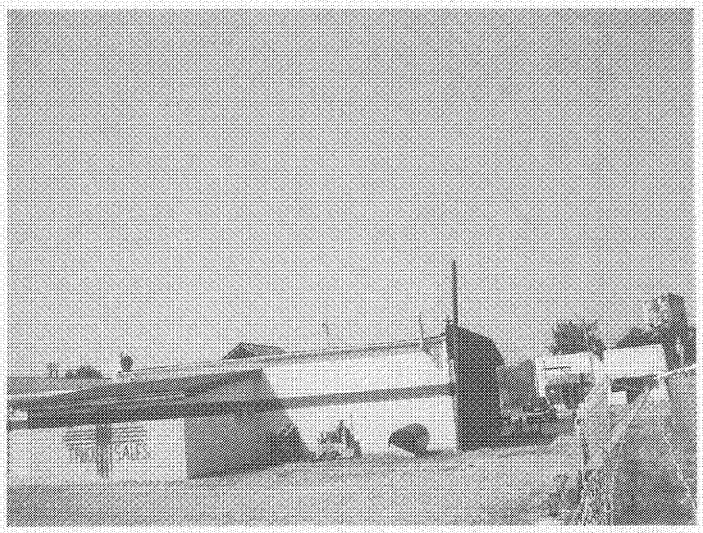
ENVIRONMENTAL INVESTIGATIONS, INC

APPENDIX A

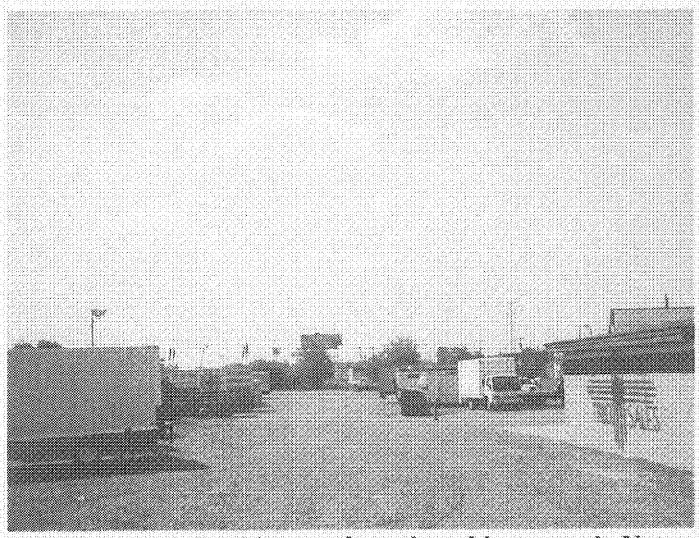
SITE PHOTOGRAPHS



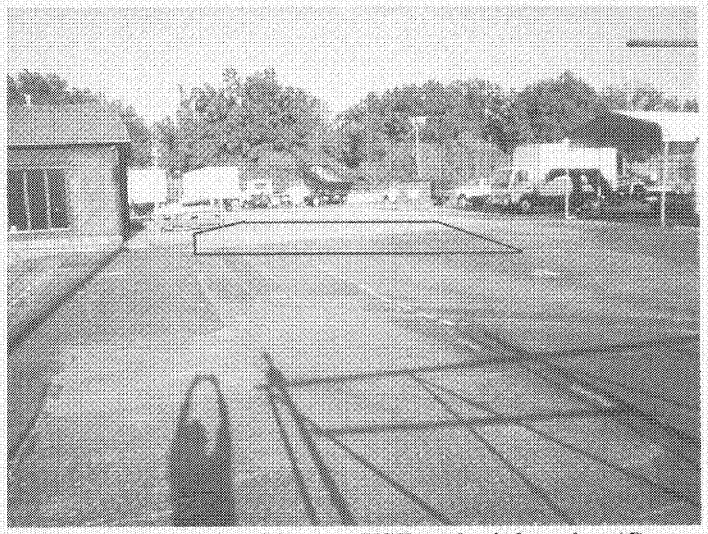
Photograph 1: View of Subject property. Former UST associated pump island located in center of photo.



Photograph 2: A rear view of the subject site building (Dick Kelly Truck Sales).



Photograph 3: Looking south on the subject parcel. Note trucks and parking areas.



Photograph 4: View of former UST tank pit location (Center of photo).

Photograph 5: View of parcel looking southeast. Former pump island was located in approximate center of photo.

Photograph 6: Looking north from DOT ROW location along subject parcel.

APPENDIX B

GEOPHYSICAL REPORT

Schnabel Engineering South

11-A Oak Branch Drive
Greensboro, NC 27407

Phone (336) 274-9456
Fax (336) 274-9486
www.schnabel-eng.com

September 19, 2005

Mr. Darren Lockhart
EI, Inc.
2101 Gateway Centre Boulevard, Suite 200
Morrisville, NC 27560

Via email (pdf)

RE: WBS Element 34871.1.1, TIP U-2826A, Forsyth County
Replacement of Bridges 256 and 257 on US 52
Parcels 2, 3, 4, 5, and 6

SUBJECT: Report on Geophysical Surveys for Locating Possible UST's on 5 Parcels
Schnabel Engineering Project No. 05211014.01-01

Dear Mr. Lockhart:

This letter contains our report on the geophysical surveys we conducted on the subject properties. We understand this letter report will be included as an appendix in your report to the NCDOT. The report includes 6 color figures.

1.0 INTRODUCTION

The work described in this report was conducted by Schnabel Engineering under our contract with the NCDOT. The work was conducted at the locations indicated by EI 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 product lines in the accessible areas of the sites.

Schnabel Engineering conducted geophysical surveys on August 10-13, 17, 19, 20, and 26, 2005, in the accessible areas of Parcels 2 and 3 (Dick Kelly), Parcel 4 (Sports Bar), Parcel 5 (Butcher Shop) and Parcel 6 (Vacant). Photographs of these parcels are included on Figure 1.

The geophysical investigation consisted of electromagnetic (EM) induction surveys using a Geonics EM61-MK2 instrument. The EM61 metal detector is used to locate metal objects buried up to about eight feet below ground surface. Ground-penetrating radar (GPR) investigations of selected EM61 anomalies were conducted using a Geophysical Survey Systems SIR-2000 system equipped with a 400 MHz antenna.

2.0 FIELD METHODOLOGY

2.1 Location Control

Locations of geophysical data points were obtained using a sub-meter Trimble Pro-XRS DGPS system on Parcels 4, 5, and 6. An X-Y survey grid was set up on Parcels 2 and 3. References to direction and location in this report for Parcels 2 and 3 are based on this local site grid. References to direction and location in this report for Parcels 4, 5, and 6 are based on the US State Plane System, North Carolina Zone 3200, using the NAD 83 datum, with units in 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.

2.2 Data Collection

The EM61 data were collected along parallel survey lines spaced approximately 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 one to two feet apart in orthogonal directions over areas of reinforced concrete and over anomalous EM readings not attributed to cultural features. The GPR data were reviewed in the field to evaluate the

possible presence of UST's. The GPR data also were recorded digitally and later transferred to a desktop computer for further review.

Preliminary results were mailed overnight to EI on August 30, 2005.

3.0 DISCUSSION OF RESULTS

The contoured EM61 data are shown on Figures 2 through 6. The EM61 early time gate results are plotted on Figures 2 and 4. The early time gate data provide the most sensitive detection of metal object targets, regardless of size. Figures 3 and 5 show 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 EM61 early time gate and differential results are also shown at a scale of 1 inch = 100 feet on Figure65.

3.1 Parcels 2 and 3

Parcels 2 and 3 are located at the northeast corner of the intersection of North Liberty Street and Indiana Avenue in Winston-Salem, NC. The combined site contains Dick Kelly's Trucks business. The EM61 results for Parcels 2 and 3 are shown on Figure 2 (early time gate) and Figure 3 (differential). The areas occupied by buildings, trailers, or other obstructions could not be surveyed. The early time gate results indicate several linear anomalies probably caused by buried utilities, anomalies caused by known above-ground metal features, and several smaller anomalies probably caused by relatively small, insignificant buried metal objects (Figure 2). Most of the observed anomalies not attributed to known cultural features are removed in the differential data set (Figure 3). GPR surveys were conducted in six areas to investigate significant EM61 differential anomalies not attributed to known cultural features. The GPR data indicated the presence of several buried utilities, reinforced concrete, and buried metal. The GPR data did not indicate the presence of UST's in the areas surveyed.

3.2 Parcels 4, 5, and 6

Parcels 4, 5, and 6 are located immediately north of Parcels 2 and 3, along North Liberty Street in Winston-Salem, NC. Parcel 4 is currently occupied by a sports bar, Parcel 5 is currently occupied by a butcher shop, and Parcel 6 contains a vacant building. The EM61 results for Parcels 4, 5, and 6 are shown on Figure 4 (early time gate) and Figure 5 (differential). The areas occupied by buildings could not be surveyed. The early time gate results show a number of small, isolated anomalies probably caused by relatively small, insignificant buried metal objects, several linear anomalies apparently caused by buried utilities, and a number of anomalies caused by known site features (Figure 4). Most of the observed anomalies not attributed to known cultural features are removed in the differential data set (Figure 5). GPR surveys were conducted in five areas to investigate significant EM61 differential anomalies not attributed to known cultural features. The GPR data indicated the presence of buried metal and reinforced concrete. The GPR data did not indicate the presence of UST's in the areas surveyed. Two possible vent pipes were observed behind the building on Parcel 6; however, the GPR data did not indicate the presence of UST's at these locations.

4.0 CONCLUSIONS

Our evaluation of the geophysical data collected on Parcels 2 through 6 on Project U-2826A in Winston-Salem, NC indicate the following:

- The geophysical data indicate the presence of several buried utilities, buried metal objects, and reinforced concrete in the areas surveyed.

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

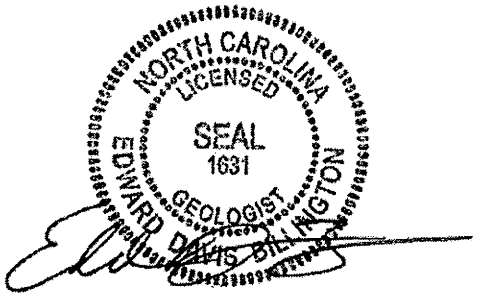
5.0 LIMITATIONS

These services have been performed and this report prepared for the North Carolina Department of Transportation and EI 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.

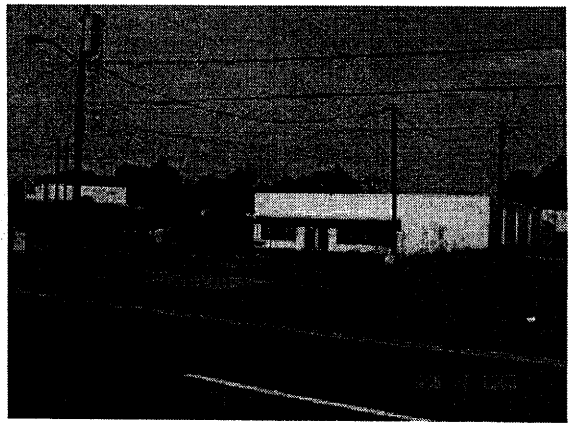
Thank you for the opportunity to serve you on this project. Please call if you need additional information or have any questions.

Sincerely,

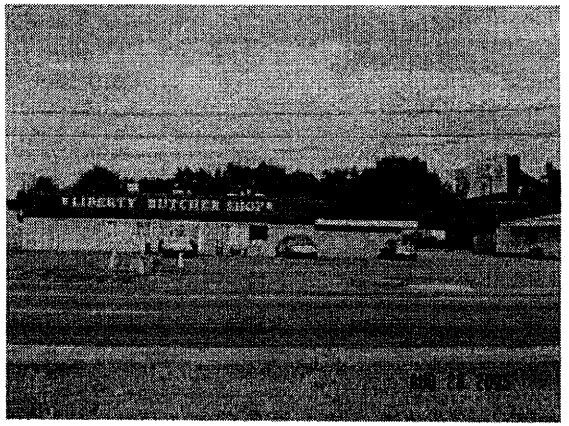
Edward (Ned) D. Billington, P.G.
Project Manager



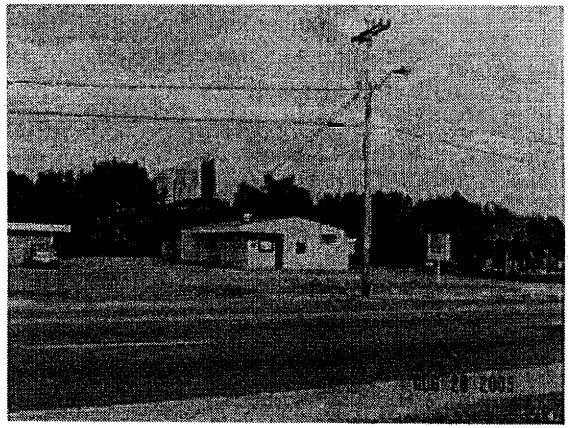
JS/NB
Attachment: Figures (6)
FILE: G:\PROJECTS\03211019 (NCDOT GEOPHYSICS 2003)\CORRESPONDENCE\CROUCH H&H LTR 2A - REPORT ON TASK 16 (I-2304AA, ROWAN) WITH FIGS.DOC



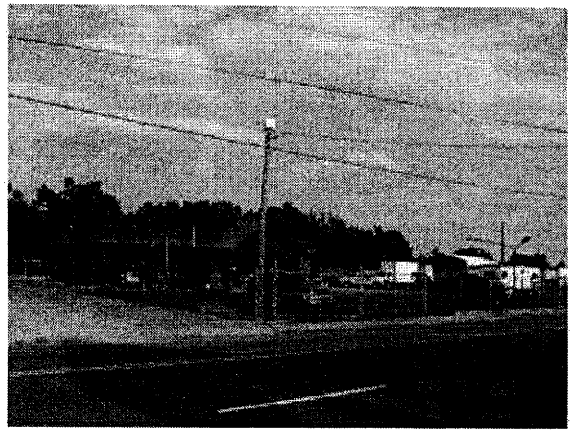
Parcel 6 - Vacant, looking northeast



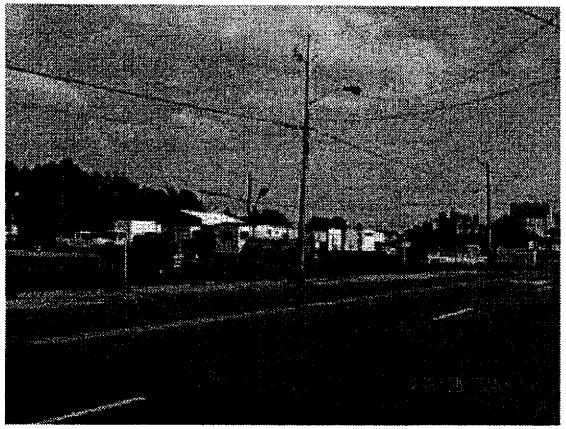
Parcel 5 - Liberty Butcher Shop, looking east



Parcel 4 - Liberty Street Sports Bar, looking southeast



Parcel 4 - Dick Kelly's Trucks, looking southeast

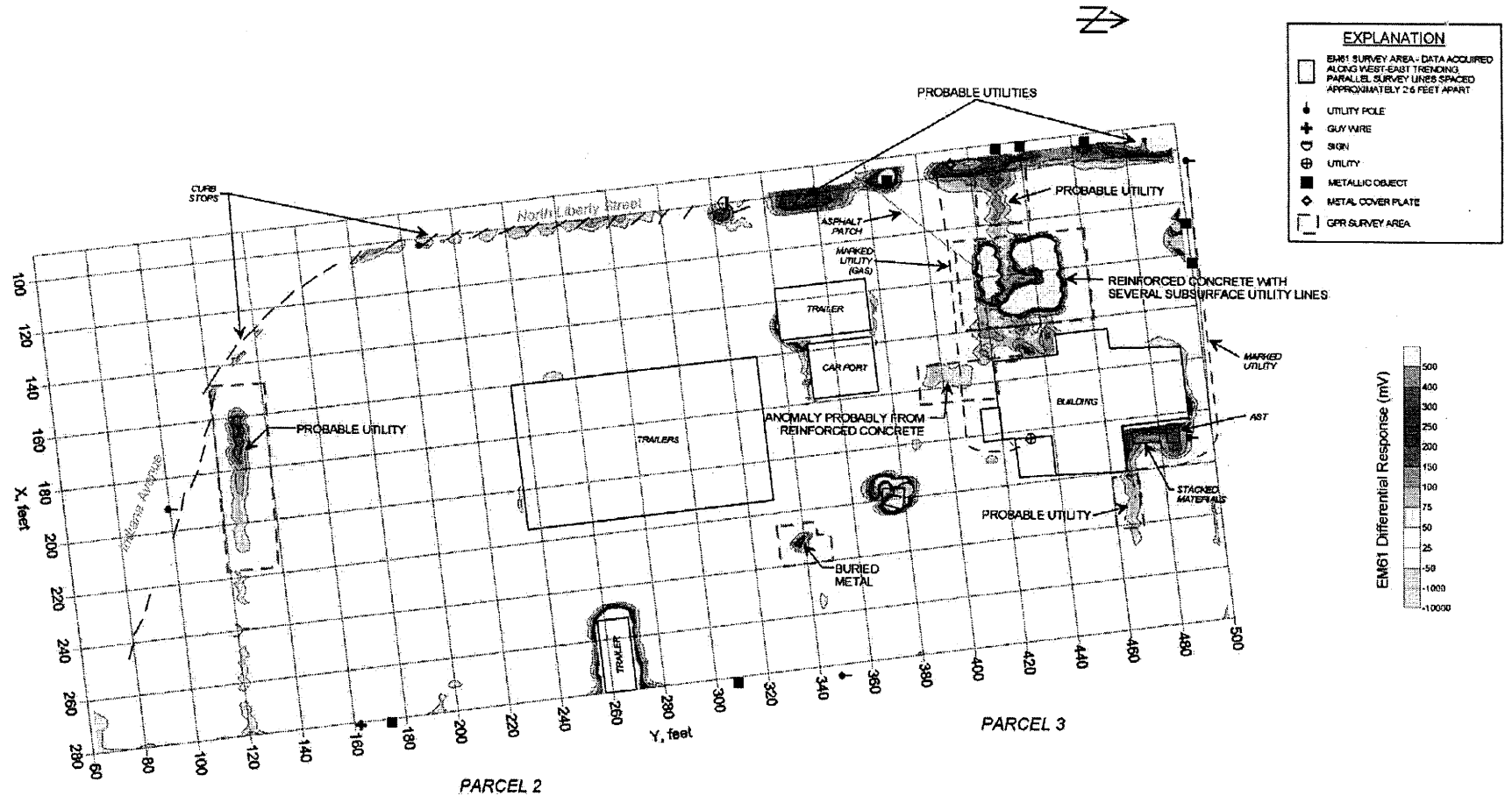


Parcel 4 - parking for Dick Kelly's Trucks, looking southeast

Schnabel Engineering	NC Department of Transportation Geotechnical Engineering Unit WBS Element 34871.1.1, TIP U-2826A Forsyth County	**SITE PHOTOS** FIGURE 1

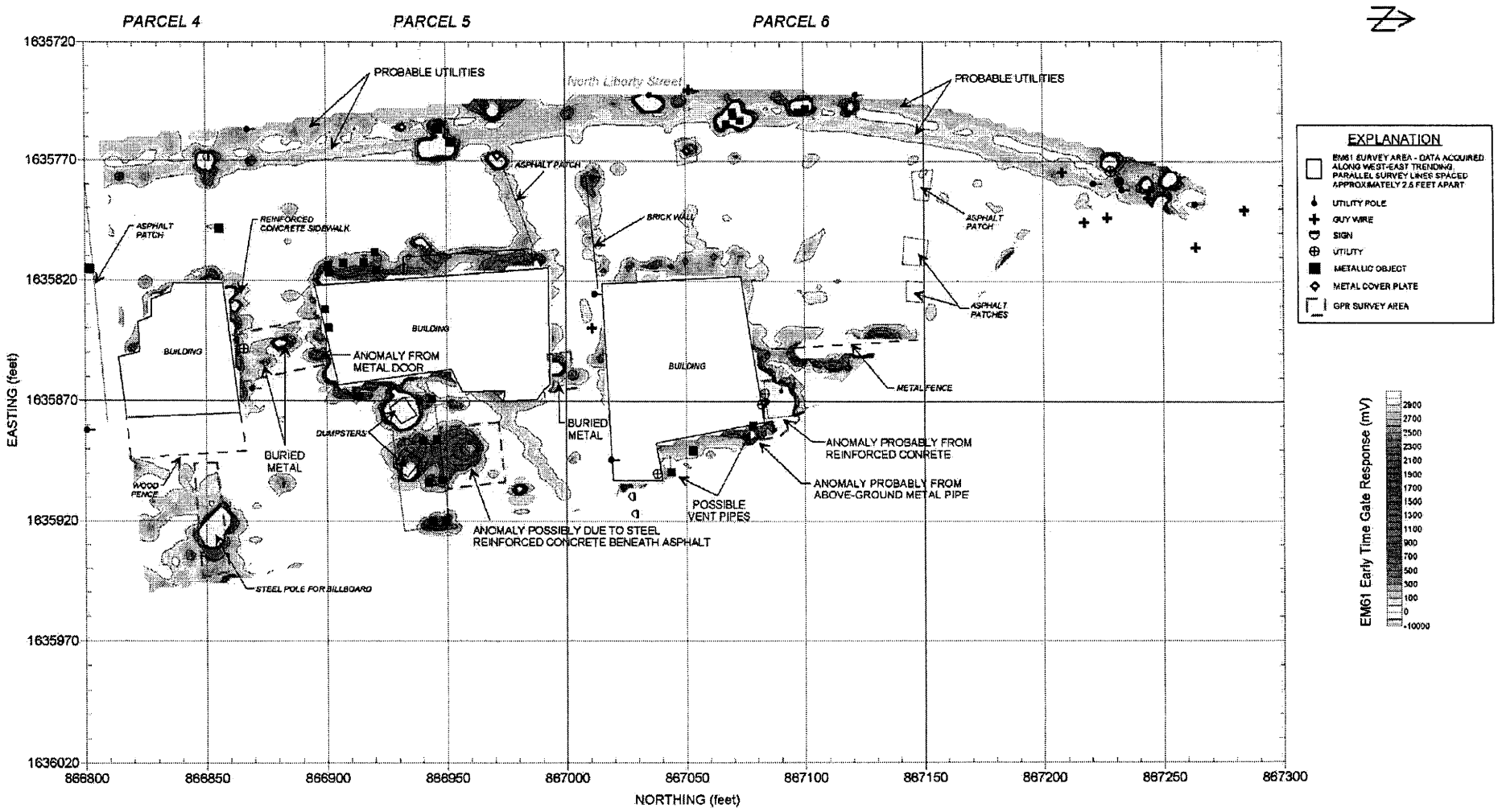
Note: The contour plot shows the earliest and most sensitive time gate of the EM61 bottom coil/channel in millivolts (mV). The EM data were collected on August 10 through 13, 2005, using a Geonics EM61-MK2 instrument. GPR data were acquired on August 17, 19, 20, and 26, 2005, using a Geophysical Survey Systems SIR 2000 instrument equipped with a 400 MHz antenna. Positioning for EM61 survey was provided using local site grid, as shown. Site features located using a submeter Trimble ProXRS DGPS system.

Schnabel Engineering	NC Department of Transportation Geotechnical Engineering Unit	PARCELS 2 AND 3 EM61 EARLY TIME GATE RESPONSE
	WBS Element 34871.1.1, TIP U-2826A Forsyth County	FIGURE 2



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 August 10-13, 2005, using a Geonics EM61-MK2 instrument. GPR data were acquired on August 17, 19, 20, and 26, 2005, using a Geophysical Survey Systems SIR 2000 equipped with a 400 MHz antenna. Positioning for the EM61 survey was provided using local site grid, as shown. Site features located using a submeter Trimble ProXRS DGPS system.

Schnabel Engineering	NC Department of Transportation Geotechnical Engineering Unit	PARCELS 2 AND 3 EM61 DIFFERENTIAL RESPONSE
	WBS Element 34871.1.1, TIP U-2826A Forsyth County	FIGURE 3



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 August 10 through 13, 2005, using a Geonics EM61-MK2 instrument. GPR data were acquired on August 17, 19, 20, and 26, 2005, using a Geophysical Survey Systems SIR 2000 instrument equipped with a 400 MHz antenna. Positioning for EM61 survey provided using a submeter Trimble ProXRS DGPS system. Coordinates are in the UTM System, Zone 17 North, using the WGS 1984 datum.

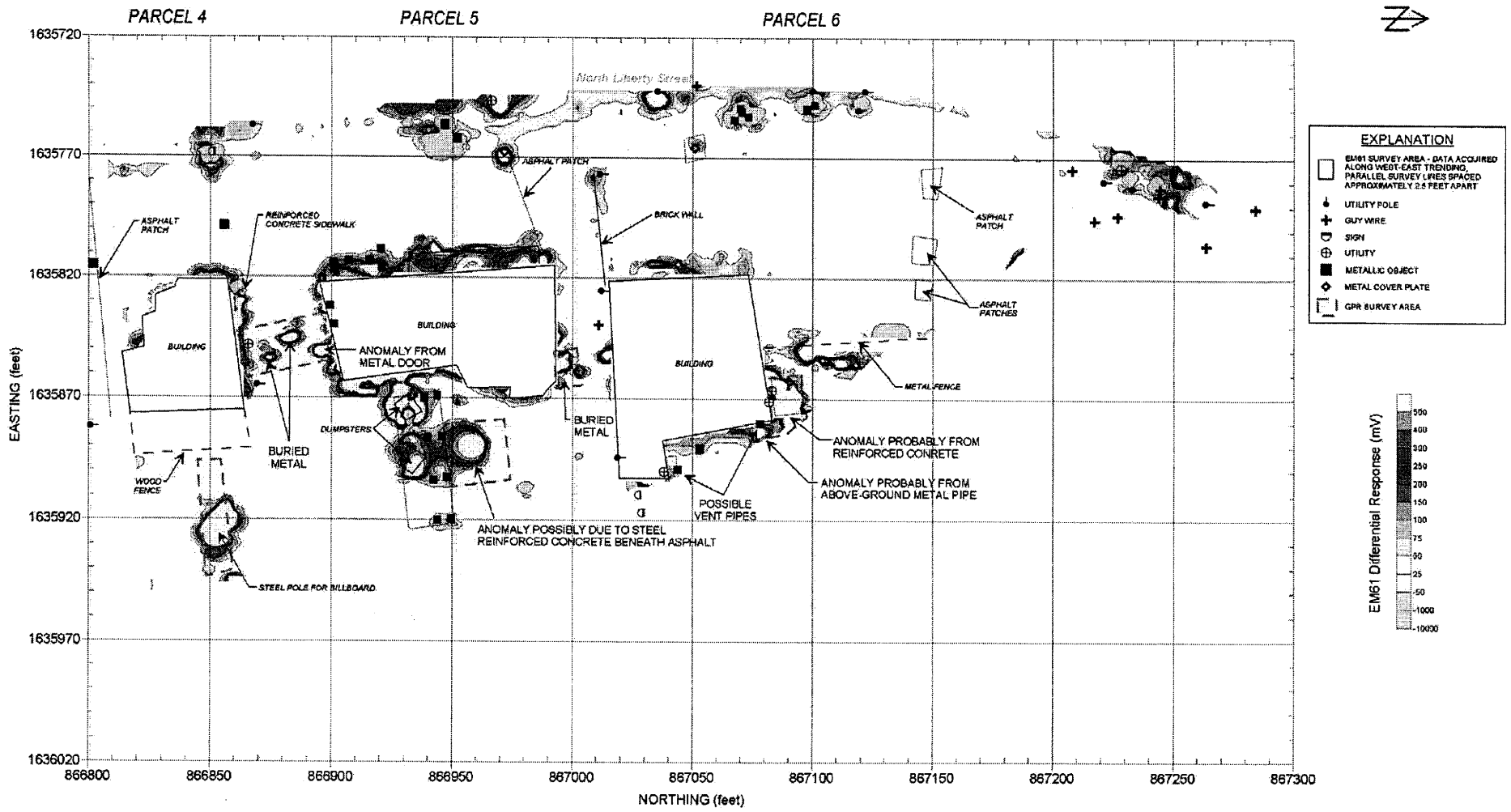
Schnabel Engineering

NC Department of Transportation
Geotechnical Engineering Unit

WBS Element 34871.1.1, TIP U-2826A
Forsyth County

PARCELS 4, 5 AND 6
EM61 EARLY
TIME GATE RESPONSE

FIGURE 4



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 August 10-13, 2005, using a Geonics EM61-MK2 instrument. GPR data were acquired on August 17, 19, 20, and 26, 2005, using a Geophysical Survey Systems SIR 2000 equipped with a 400 MHz antenna. Positioning for the EM61 survey provided using a submeter Trimble ProXRS DGPS system. Coordinates are in the US State Plane System, North Carolina 3200 Zone, using the NAD 1983 datum.

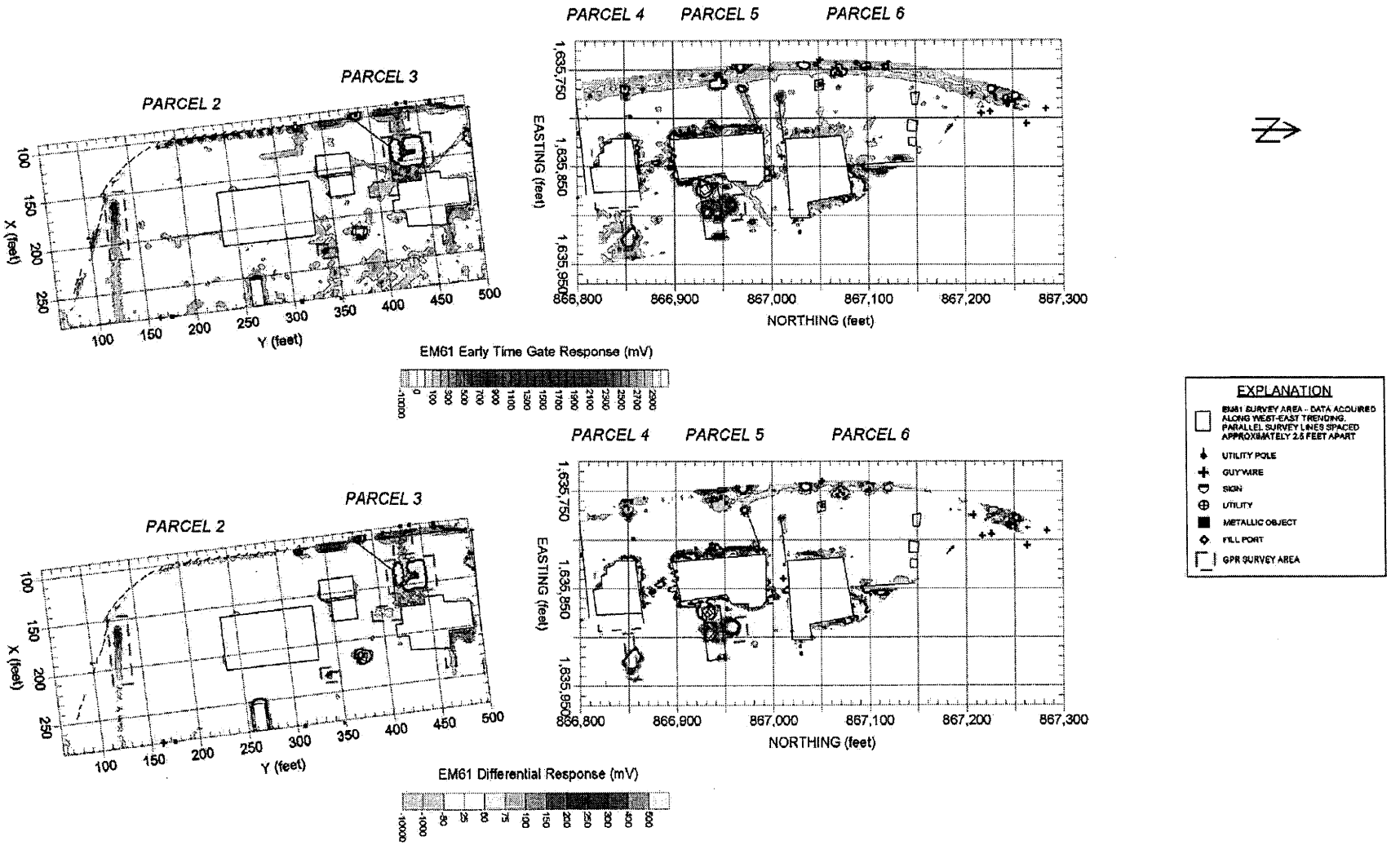
Schnabel Engineering

NC Department of Transportation
Geotechnical Engineering Unit

WBS Element 34871.1.1, TIP U-2826A
Forsyth County

PARCELS 4, 5 AND 6
EM61 DIFFERENTIAL RESPONSE

FIGURE 5



Schnabel Engineering	NC Department of Transportation Geotechnical Engineering Unit WBS Element 34871.1.1, TIP U-2826A Forsyth County	PARCELS 2, 3, 4, 5, AND 6 EM61 RESPONSE 1 INCH = 100 FEET FIGURE 6

APPENDIX C

SOIL BORING LOGS

ENVIRONMENTAL INVESTIGATIONS, INC.

2101 Gateway Centre Boulevard, Suite 200
Morrisville, North Carolina
919-544-7500

SOIL BORING LOG

Boring No. GP-1
Date Drilled: 08/22/05

Client:	NCDOT	Logged By:	RMS
Project Name:	Parcel #003 - Claudia Kelly Salisbury Property	Drilling Company:	SEI
Project/Site Location:	2821 North Liberty Street, Winston-Salem, NC	Drill Device:	GeoProbe® 5400
Project Number:	ENMO050015.00	Drill Method:	DPT

Total Boring Depth: 25.0' | Weather Conditions: Very Hot | Surface Elevation:
Boring Diameter: 4.0" | Boring Location: Southeastern portion of concrete patch

Depth (Feet)	Depth (Meters)	Time	Sample Analyzed	Recovery	Soil Profile	Lithological Description	Sample PID (ppm)
2.00	0.61			100%		Reddish brown, silty CLAY (CL), dry.	0.0
4.00	1.22						
6.00	1.83			100%	(ML)	Gold, tan fine to medium SILT (ML), with trace or some find sand, dry, micaeous.	0.0
8.00	2.44						
10.00	3.05						
12.00	3.66			100%			0.0
14.00	4.27						
16.00	4.88		x				
18.00	5.49			100%			0.0
20.00	6.10						
22.00	6.71			100%	(SAP)	(SAPROLITE) desribed as gold, tan, light brown sandy silty	0.0
24.00	7.32						
26.00	7.93					Boring terminated at 25.0' bls. x denotes interval collected for laboratory testing.	

ENVIRONMENTAL INVESTIGATIONS, INC.

2101 Gateway Centre Boulevard, Suite 200
Morrisville, North Carolina
919-544-7500

SOIL BORING LOG

Boring No. GP-2
Date Drilled: 08/22/05

Client:	NCDOT	Logged By:	RMS
Project Name:	Parcel #003 - Claudia Kelly Salisbury Property	Drilling Company:	SEI
Project/Site Location:	2821 North Liberty Street, Winston-Salem, NC	Drill Device:	GeoProbe® 5400
Project Number:	ENMO050015.00	Drill Method:	DPT

Total Boring Depth: 20.0' Weather Conditions: Very Hot Surface Elevation:
Boring Diameter: 4.0" Boring Location: Northwestern portion of concrete patch

Depth (Feet)	Depth (Meters)	Time	Sample Analyzed	Recovery	Soil Profile	Lithological Description	Sample PID (ppm)
2.00	0.61			100%		Reddish brown, silty CLAY (CL), dry.	0.0
4.00	1.22				(ML)	Gold, tan fine to medium SILT (ML), with trace or some find sand, dry, micaeous.	
6.00	1.83			100%			0.0
8.00	2.44						
10.00	3.05	x					
12.00	3.66			100%			0.0
14.00	4.27						
16.00	4.88			100%			0.0
18.00	5.49						
20.00	6.10				(SAP)	(SAPROLITE) desribed as gold, tan, light brown sandy silt	
						Boring terminated at 20.0' bls. X denotes interval collected for laboratory testing.	

ENVIRONMENTAL INVESTIGATIONS, INC.

2101 Gateway Centre Boulevard, Suite 200
Morrisville, North Carolina
919-544-7500

SOIL BORING LOG

Boring No. GP-3
Date Drilled: 08/22/05

Client:	NCDOT	Logged By:	RMS
Project Name:	Parcel #003 - Claudia Kelly Salisbury Property	Drilling Company:	SEI
Project/Site Location:	2821 North Liberty Street, Winston-Salem, NC	Drill Device:	GeoProbe® 5400
Project Number:	ENMO050015.00	Drill Method:	DPT

Total Boring Depth: 20.0' | Weather Conditions: Very Hot | Surface Elevation:
Boring Diameter: 4.0" | Boring Location: Adjacent to southwestern building corner

Depth (Feet)	Depth (Meters)	Time	Sample Analyzed	Recovery	Soil Profile	Lithological Description	Sample PID (ppm)
2.00	0.61			100%		Reddish brown, silty CLAY (CL), dry.	0.0
4.00	1.22				(ML)	Gold, tan fine to medium SILT (ML), with trace or some find sand, dry, micaeous.	
6.00	1.83			100%			0.0
8.00	2.44						
10.00	3.05						
12.00	3.66			100%			0.0
14.00	4.27						
16.00	4.88			100%			0.0
18.00	5.49		x				
20.00	6.10				(SAP)	(SAPROLITE) desribed as gold, tan, light brown sandy silt	
						Boring terminated at 20.0' bls. X denotes interval collected for laboratory testing.	

ENVIRONMENTAL INVESTIGATIONS, INC.

2101 Gateway Centre Boulevard, Suite 200
Morrisville, North Carolina
919-544-7500

SOIL BORING LOG

Boring No. GP-4
Date Drilled: 08/22/05

Client:	NCDOT	Logged By:	RMS
Project Name:	Parcel #003 - Claudia Kelly Salisbury Property	Drilling Company:	SEI
Project/Site Location:	2821 North Liberty Street, Winston-Salem, NC	Drill Device:	GeoProbe® 5400
Project Number:	ENMO050015.00	Drill Method:	DPT

Total Boring Depth: 20.0' Weather Conditions: Very Hot Surface Elevation:
Boring Diameter: 4.0" Boring Location: Southern portion of former UST pit

Depth (Feet)	Depth (Meters)	Time	Sample Analyzed	Recovery	Soil Profile	Lithological Description	Sample PID (ppm)
2.00	0.61			100%		Reddish brown, silty CLAY (CL), dry.	0.0
4.00	1.22				(ML)	Gold, tan fine to medium SILT (ML), with trace or some find sand, dry, micaeous.	
6.00	1.83			100%			0.0
8.00	2.44						
10.00	3.05			100%			0.0
12.00	3.66						
14.00	4.27						
16.00	4.88			100%			0.0
18.00	5.49		x				
20.00	6.10				(SAP)	(SAPROLITE) desribed as gold, tan, light brown sandy silt	
						Boring terminated at 20.0' bls. X denotes interval collected for laboratory testing.	

ENVIRONMENTAL INVESTIGATIONS, INC.

2101 Gateway Centre Boulevard, Suite 200
Morrisville, North Carolina
919-544-7500

SOIL BORING LOG

Boring No. GP-5
Date Drilled: 08/22/05

Client:	NCDOT	Logged By:	RMS
Project Name:	Parcel #003 - Claudia Kelly Salisbury Property	Drilling Company:	SEI
Project/Site Location:	2821 North Liberty Street, Winston-Salem, NC	Drill Device:	GeoProbe® 5400
Project Number:	ENMO050015.00	Drill Method:	DPT

Total Boring Depth: 20.0' | Weather Conditions: Very Hot | Surface Elevation:
Boring Diameter: 4.0" | Boring Location: Adjacent to garage

Depth (Feet)	Depth (Meters)	Time	Sample Analyzed	Recovery	Soil Profile	Lithological Description	Sample PID (ppm)
2.00	0.61			100%		Reddish brown, silty CLAY (CL), dry.	0.0
4.00	1.22				(ML)	Gold, tan fine to medium SILT (ML), with trace or some find sand, dry, micaeous.	
6.00	1.83			100%			0.0
8.00	2.44						
10.00	3.05						
12.00	3.66			100%			0.0
14.00	4.27						
16.00	4.88			100%			0.0
18.00	5.49		x				
20.00	6.10				(SAP)	(SAPROLITE) desribed as gold, tan, light brown sandy silt	
						Boring terminated at 20.0' bls. X denotes interval collected for laboratory testing.	

ENVIRONMENTAL INVESTIGATIONS, INC.

2101 Gateway Centre Boulevard, Suite 200
Morrisville, North Carolina
919-544-7500

SOIL BORING LOG

Boring No. GP-6
Date Drilled: 08/22/05

Client:	NCDOT	Logged By:	RMS
Project Name:	Parcel #003 - Claudia Kelly Salisbury Property	Drilling Company:	SEI
Project/Site Location:	2821 North Liberty Street, Winston-Salem, NC	Drill Device:	GeoProbe® 5400
Project Number:	ENMO050015.00	Drill Method:	DPT

Total Boring Depth: 34.0' | Weather Conditions: Very Hot | Surface Elevation:
Boring Diameter: 4.0" | Boring Location: Southeast of former UST pit

Depth (Feet)	Depth (Meters)	Time	Sample Analyzed	Recovery	Soil Profile	Lithological Description	Sample PID (ppm)
				100%		Reddish brown, silty CLAY (CL), dry.	0.0
				100%	(ML)	Gold, tan fine to medium SILT (ML), with trace or some find sand, dry, micaeous.	0.0
10.00	3.05						
				100%			0.0
20.00	6.10	x					
				100%			0.0
30.00	9.15			100%	(SAP)	(SAPROLITE) desribed as gold, tan, light brown sandy silty	0.0
						Boring terminated at 34.0' bls, Probe Refusal. x denotes interval collected for laboratory testing.	

ENVIRONMENTAL INVESTIGATIONS, INC.

2101 Gateway Centre Boulevard, Suite 200
Morrisville, North Carolina
919-544-7500

SOIL BORING LOG

Boring No. GP-7
Date Drilled: 08/22/05

Client:	NCDOT	Logged By:	RMS
Project Name:	Parcel #003 - Claudia Kelly Salisbury Property	Drilling Company:	SEI
Project/Site Location:	2821 North Liberty Street, Winston-Salem, NC	Drill Device:	GeoProbe® 5400
Project Number:	ENMO050015.00	Drill Method:	DPT

Total Boring Depth: 20.0' | Weather Conditions: Very Hot | Surface Elevation:
Boring Diameter: 4.0" | Boring Location: Proposed Piping

Depth (Feet)	Depth (Meters)	Time	Sample Analyzed	Recovery	Soil Profile	Lithological Description	Sample PID (ppm)
2.00	0.61			100%		Reddish brown, silty CLAY (CL), dry.	0.0
4.00	1.22				(ML)	Gold, tan fine to medium SILT (ML), with trace or some find sand, dry, micaeous.	
6.00	1.83			100%			0.0
8.00	2.44						
10.00	3.05						
12.00	3.66			100%			0.0
14.00	4.27						
16.00	4.88						
18.00	5.49		x	100%			0.0
20.00	6.10				(SAP)	(SAPROLITE) desribed as gold, tan, light brown sandy silt	
						Boring terminated at 20.0' bls. X denotes interval collected for laboratory testing.	

ENVIRONMENTAL INVESTIGATIONS, INC.

2101 Gateway Centre Boulevard, Suite 200
Morrisville, North Carolina
919-544-7500

SOIL BORING LOG

Boring No. GP-8
Date Drilled: 08/22/05

Client:	NCDOT	Logged By:	RMS
Project Name:	Parcel #003 - Claudia Kelly Salisbury Property	Drilling Company:	SEI
Project/Site Location:	2821 North Liberty Street, Winston-Salem, NC	Drill Device:	GeoProbe® 5400
Project Number:	ENMO050015.00	Drill Method:	DPT

Total Boring Depth: 20.0' | Weather Conditions: Very Hot | Surface Elevation:
Boring Diameter: 4.0" | Boring Location: Proposed Piping

Depth (Feet)	Depth (Meters)	Time	Sample Analyzed	Recovery	Soil Profile	Lithological Description	Sample PID (ppm)
2.00	0.61			100%		Reddish brown, silty CLAY (CL), dry.	0.0
4.00	1.22				(ML)	Gold, tan fine to medium SILT (ML), with trace or some find sand, dry, micaeous.	
6.00	1.83			100%			0.0
8.00	2.44						
10.00	3.05						
12.00	3.66			100%			0.0
14.00	4.27						
16.00	4.88	x					
18.00	5.49			100%			0.0
20.00	6.10				(SAP)	(SAPROLITE) desribed as gold, tan, light brown sandy silt	
						Boring terminated at 20.0' bls. X denotes interval collected for laboratory testing.	

ENVIRONMENTAL INVESTIGATIONS, INC.

2101 Gateway Centre Boulevard, Suite 200
Morrisville, North Carolina
919-544-7500

SOIL BORING LOG

Boring No. **GP-9**
Date Drilled: **08/22/05**

Client:	NCDOT	Logged By:	RMS
Project Name:	Parcel #003 - Claudia Kelly Salisbury Property	Drilling Company:	SEI
Project/Site Location:	2821 North Liberty Street, Winston-Salem, NC	Drill Device:	GeoProbe® 5400
Project Number:	ENMO050015.00	Drill Method:	DPT

Total Boring Depth: 20.0' | Weather Conditions: Very Hot | Surface Elevation:
Boring Diameter: 4.0" | Boring Location: Proposed Piping

Depth (Feet)	Depth (Meters)	Time	Sample Analyzed	Recovery	Soil Profile	Lithological Description	Sample PID (ppm)
2.00	0.61			100%		Reddish brown, silty CLAY (CL), dry.	0.0
4.00	1.22				(ML)	Gold, tan fine to medium SILT (ML), with trace or some find sand, dry, micaeous.	
6.00	1.83			100%			0.0
8.00	2.44						
10.00	3.05			100%			0.0
12.00	3.66						
14.00	4.27						
16.00	4.88			100%			0.0
18.00	5.49		x				
20.00	6.10				(SAP)	(SAPROLITE) desribed as gold, tan, light brown sandy silt	
						Boring terminated at 20.0' bls. X denotes interval collected for laboratory testing.	

APPENDIX D

LABORATORY ANALYTICAL RESULTS REPORT

PARADIGM ANALYTICAL LABORATORIES, INC.
5500 Business Drive
Wilmington, North Carolina 28405
(910) 350-1903
Fax (910) 350-1557

Mr. Darren Lockhart
Environmental Investigations
2101 Gateway Centre Boulevard
Suite 200
Morrisville NC 27560
Report Number: G106-540

Client Project: NCDOT-Parcel 3

Dear Mr. Lockhart:

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

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

Thank you for using Paradigm Analytical Labs for your analytical services. We look forward to working with you again on any additional analytical needs which you may have.

Sincerely,
Paradigm Analytical Laboratories, Inc.

9/9/05

Laboratory Director — Date
J. Patrick Weaver

Results for Total Petroleum Hydrocarbons

by **GC/FID 8015**

Client Sample ID: P3GP-1-15
Client Project ID: NCDOT-Parcel 3
Lab Sample ID: G106-540-1
Lab Project ID: G106-540
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 8/22/05 9:25
Date Received: 8/26/05
Matrix: Soil
Solids 88.89

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	8.02	5035	1	08/30/05
Diesel Range Organics	**16.9**	6.99	3545	1	08/31/05

Comments:

Reviewed By: _____

TPH_LIMS_v1 82 XLS

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

Client Sample ID: P3GP2-10
Client Project ID: NCDOT-Parcel 3
Lab Sample ID: G106-540-2
Lab Project ID: G106-540
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 8/22/05 9:45
Date Received: 8/26/05
Matrix: Soil
Solids 80.31

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	8.07	5035	1	08/30/05
Diesel Range Organics	BQL	7.68	3545	1	08/31/05

Comments:

Reviewed By: _____

Results for Total Petroleum Hydrocarbons

by **GC/FID 8015**

Client Sample ID: P3GP3-20
Client Project ID: NCDOT-Parcel 3
Lab Sample ID: G106-540-3
Lab Project ID: G106-540
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 8/22/05 11:40
Date Received: 8/26/05
Matrix: Soil
Solids 81.01

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	8.36	5035	1	08/30/05
Diesel Range Organics	BQL	7.09	3545	1	08/31/05

Comments:

Reviewed By: _____

Results for Total Petroleum Hydrocarbons

by **GC/FID 8015**

Client Sample ID: P3GP4-20
Client Project ID: NCDOT-Parcel 3
Lab Sample ID: G106-540-4
Lab Project ID: G106-540
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 8/22/05 11:30
Date Received: 8/26/05
Matrix: Soil
Solids 89.67

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	8.78	5035	1	08/30/05
Diesel Range Organics	BQL	6.77	3545	1	08/31/05

Comments:

Reviewed By: _____

Results for Total Petroleum Hydrocarbons

by **GC/FID 8015**

Client Sample ID: P3GP5-15
Client Project ID: NCDOT-Parcel 3
Lab Sample ID: G106-540-5
Lab Project ID: G106-540
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 8/22/05 12:00
Date Received: 8/26/05
Matrix: Soil
Solids 87.89

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	9.2	5035	1	08/30/05
Diesel Range Organics	BQL	6.93	3545	1	08/29/05

Comments:

Reviewed By: _____

TPH_LIMS_v1.82.XLS

Results for Total Petroleum Hydrocarbons

by **GC/FID 8015**

Client Sample ID: P3GP6-20
Client Project ID: NCDOT-Parcel 3
Lab Sample ID: G106-540-6
Lab Project ID: G106-540
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 8/22/05 10:02
Date Received: 8/26/05
Matrix: Soil
Solids 83.22

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	9.2	5035	1	08/30/05
Diesel Range Organics	BQL	6.89	3545	1	08/29/05

Comments:

Reviewed By: _____

TPH_LIMS_v1 82.XLS

Results for Total Petroleum Hydrocarbons

by **GC/FID 8015**

Client Sample ID: P3GP7-20
Client Project ID: NCDOT-Parcel 3
Lab Sample ID: G106-540-7
Lab Project ID: G106-540
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 8/22/05 12:25
Date Received: 8/26/05
Matrix: Soil
Solids 89.74

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	8.82	5035	1	08/30/05
Diesel Range Organics	BQL	6.87	3545	1	09/01/05

Comments:

Reviewed By: _____

TPH_LIMS_v1 82 XLS

Results for Total Petroleum Hydrocarbons

by **GC/FID 8015**

Client Sample ID: P3GP8-15
Client Project ID: NCDOT-Parcel 3
Lab Sample ID: G106-540-8
Lab Project ID: G106-540
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 8/22/05 12:20
Date Received: 8/26/05
Matrix: Soil
Solids 90.40

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	9.22	5035	1	08/30/05
Diesel Range Organics	BQL	6.88	3545	1	09/02/05

Comments:

Reviewed By: _____

TPH_LIMS_v1 82.XLS

Results for Total Petroleum Hydrocarbons

by **GC/FID 8015**

Client Sample ID: P3GP9-20
Client Project ID: NCDOT-Parcel 3
Lab Sample ID: G106-540-9
Lab Project ID: G106-540
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 8/22/05 12:20
Date Received: 8/26/05
Matrix: Soil
Solids 74.16

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	9.45	5035	1	08/30/05
Diesel Range Organics	BQL	8.29	3545	1	09/02/05

Comments:

Reviewed By: _____

TPH_LIMS_v1.82.XLS

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: P3GP7-20
Client Project ID: NCDOT-Parcel 3
Lab Sample ID G106-540-7A
Lab Project ID: G106-540
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 08-22-2005 12:25
Date Received: 8/26/2005
Matrix: Soil
%Solids: 89.7

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	58.4	1	8/30/2005
Benzene	BQL	5.84	1	8/30/2005
Bromobenzene	BQL	5.84	1	8/30/2005
Bromochloromethane	BQL	5.84	1	8/30/2005
Bromodichloromethane	BQL	5.84	1	8/30/2005
Bromoform	BQL	5.84	1	8/30/2005
Bromomethane	BQL	5.84	1	8/30/2005
2-Butanone	BQL	29.2	1	8/30/2005
n-Butylbenzene	BQL	5.84	1	8/30/2005
sec-Butylbenzene	BQL	5.84	1	8/30/2005
tert-Butylbenzene	BQL	5.84	1	8/30/2005
Carbon disulfide	BQL	5.84	1	8/30/2005
Carbon tetrachloride	BQL	5.84	1	8/30/2005
Chlorobenzene	BQL	5.84	1	8/30/2005
Chloroethane	BQL	5.84	1	8/30/2005
Chloroform	BQL	5.84	1	8/30/2005
Chloromethane	BQL	5.84	1	8/30/2005
2-Chlorotoluene	BQL	5.84	1	8/30/2005
4-Chlorotoluene	BQL	5.84	1	8/30/2005
Dibromochloromethane	BQL	5.84	1	8/30/2005
1,2-Dibromo-3-chloropropane	BQL	5.84	1	8/30/2005
Dibromomethane	BQL	5.84	1	8/30/2005
1,2-Dibromoethane (EDB)	BQL	5.84	1	8/30/2005
1,2-Dichlorobenzene	BQL	5.84	1	8/30/2005
1,3-Dichlorobenzene	BQL	5.84	1	8/30/2005
1,4-Dichlorobenzene	BQL	5.84	1	8/30/2005
trans-1,4-Dichloro-2-butene	BQL	5.84	1	8/30/2005
1,1-Dichloroethane	BQL	5.84	1	8/30/2005
1,1-Dichloroethene	BQL	5.84	1	8/30/2005
1,2-Dichloroethane	BQL	5.84	1	8/30/2005
cis-1,2-Dichloroethene	BQL	5.84	1	8/30/2005
trans-1,2-dichloroethene	BQL	5.84	1	8/30/2005
1,2-Dichloropropane	BQL	5.84	1	8/30/2005
1,3-Dichloropropane	BQL	5.84	1	8/30/2005
2,2-Dichloropropane	BQL	5.84	1	8/30/2005
1,1-Dichloropropene	BQL	5.84	1	8/30/2005
cis-1,3-Dichloropropene	BQL	5.84	1	8/30/2005
trans-1,3-Dichloropropene	BQL	5.84	1	8/30/2005
Dichlorodifluoromethane	BQL	5.84	1	8/30/2005
Diisopropyl ether (DIPE)	BQL	5.84	1	8/30/2005
Ethylbenzene	BQL	5.84	1	8/30/2005
Hexachlorobutadiene	BQL	5.84	1	8/30/2005
2-Hexanone	BQL	5.84	1	8/30/2005
Iodomethane	BQL	5.84	1	8/30/2005

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: P3GP7-20
Client Project ID: NCDOT-Parcel 3
Lab Sample ID G106-540-7A
Lab Project ID: G106-540
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 08-22-2005 12:25
Date Received: 8/26/2005
Matrix: Soil
%Solids: 89.7

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Isopropylbenzene	BQL	5.84	1	8/30/2005
4-Isopropyltoluene	BQL	5.84	1	8/30/2005
Methylene chloride	BQL	23.4	1	8/30/2005
4-Methyl-2-pentanone	BQL	5.84	1	8/30/2005
Methyl-tert-butyl ether (MTBE)	BQL	5.84	1	8/30/2005
Naphthalene	BQL	5.84	1	8/30/2005
n-Propyl benzene	BQL	5.84	1	8/30/2005
Styrene	BQL	5.84	1	8/30/2005
1,1,1,2-Tetrachloroethane	BQL	5.84	1	8/30/2005
1,1,2,2-Tetrachloroethane	BQL	5.84	1	8/30/2005
Tetrachloroethene	BQL	5.84	1	8/30/2005
Toluene	BQL	5.84	1	8/30/2005
1,2,3-Trichlorobenzene	BQL	5.84	1	8/30/2005
1,2,4-Trichlorobenzene	BQL	5.84	1	8/30/2005
Trichloroethene	BQL	5.84	1	8/30/2005
1,1,1-Trichloroethane	BQL	5.84	1	8/30/2005
1,1,2-Trichloroethane	BQL	5.84	1	8/30/2005
Trichlorofluoromethane	BQL	5.84	1	8/30/2005
1,2,3-Trichloropropane	BQL	5.84	1	8/30/2005
1,2,4-Trimethylbenzene	BQL	5.84	1	8/30/2005
1,3,5-Trimethylbenzene	BQL	5.84	1	8/30/2005
Vinyl chloride	BQL	5.84	1	8/30/2005
m-,p-Xylene	BQL	11.7	1	8/30/2005
o-Xylene	BQL	5.84	1	8/30/2005

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	50	49.4	99
1,2-Dichloroethane-d4	50	48.6	97
Toluene-d8	50	52	104

Comments:

Flags:
BQL = Below Quantitation Limits.

Reviewed By: _____

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: P3GP9-20
Client Project ID: NCDOT-Parcel 3
Lab Sample ID G106-540-9A
Lab Project ID: G106-540
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 08-22-2005 12:20
Date Received: 8/26/2005
Matrix: Soil
%Solids: 74.2

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	72.3	1	8/30/2005
Benzene	BQL	7.23	1	8/30/2005
Bromobenzene	BQL	7.23	1	8/30/2005
Bromochloromethane	BQL	7.23	1	8/30/2005
Bromodichloromethane	BQL	7.23	1	8/30/2005
Bromoform	BQL	7.23	1	8/30/2005
Bromomethane	BQL	7.23	1	8/30/2005
2-Butanone	BQL	36.2	1	8/30/2005
n-Butylbenzene	BQL	7.23	1	8/30/2005
sec-Butylbenzene	BQL	7.23	1	8/30/2005
tert-Butylbenzene	BQL	7.23	1	8/30/2005
Carbon disulfide	BQL	7.23	1	8/30/2005
Carbon tetrachloride	BQL	7.23	1	8/30/2005
Chlorobenzene	BQL	7.23	1	8/30/2005
Chloroethane	BQL	7.23	1	8/30/2005
Chloroform	BQL	7.23	1	8/30/2005
Chloromethane	BQL	7.23	1	8/30/2005
2-Chlorotoluene	BQL	7.23	1	8/30/2005
4-Chlorotoluene	BQL	7.23	1	8/30/2005
Dibromochloromethane	BQL	7.23	1	8/30/2005
1,2-Dibromo-3-chloropropane	BQL	7.23	1	8/30/2005
Dibromomethane	BQL	7.23	1	8/30/2005
1,2-Dibromoethane (EDB)	BQL	7.23	1	8/30/2005
1,2-Dichlorobenzene	BQL	7.23	1	8/30/2005
1,3-Dichlorobenzene	BQL	7.23	1	8/30/2005
1,4-Dichlorobenzene	BQL	7.23	1	8/30/2005
trans-1,4-Dichloro-2-butene	BQL	7.23	1	8/30/2005
1,1-Dichloroethane	BQL	7.23	1	8/30/2005
1,1-Dichloroethene	BQL	7.23	1	8/30/2005
1,2-Dichloroethane	BQL	7.23	1	8/30/2005
cis-1,2-Dichloroethene	BQL	7.23	1	8/30/2005
trans-1,2-dichloroethene	BQL	7.23	1	8/30/2005
1,2-Dichloropropane	BQL	7.23	1	8/30/2005
1,3-Dichloropropane	BQL	7.23	1	8/30/2005
2,2-Dichloropropane	BQL	7.23	1	8/30/2005
1,1-Dichloropropene	BQL	7.23	1	8/30/2005
cis-1,3-Dichloropropene	BQL	7.23	1	8/30/2005
trans-1,3-Dichloropropene	BQL	7.23	1	8/30/2005
Dichlorodifluoromethane	BQL	7.23	1	8/30/2005
Diisopropyl ether (DIPE)	BQL	7.23	1	8/30/2005
Ethylbenzene	BQL	7.23	1	8/30/2005
Hexachlorobutadiene	BQL	7.23	1	8/30/2005
2-Hexanone	BQL	7.23	1	8/30/2005
Iodomethane	BQL	7.23	1	8/30/2005

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: P3GP9-20
Client Project ID: NCDOT-Parcel 3
Lab Sample ID G106-540-9A
Lab Project ID: G106-540
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 08-22-2005 12:20
Date Received: 8/26/2005
Matrix: Soil
%Solids: 74.2

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Isopropylbenzene	BQL	7.23	1	8/30/2005
4-Isopropyltoluene	BQL	7.23	1	8/30/2005
Methylene chloride	BQL	28.9	1	8/30/2005
4-Methyl-2-pentanone	BQL	7.23	1	8/30/2005
Methyl-tert-butyl ether (MTBE)	BQL	7.23	1	8/30/2005
Naphthalene	BQL	7.23	1	8/30/2005
n-Propyl benzene	BQL	7.23	1	8/30/2005
Styrene	BQL	7.23	1	8/30/2005
1,1,1,2-Tetrachloroethane	BQL	7.23	1	8/30/2005
1,1,2,2-Tetrachloroethane	BQL	7.23	1	8/30/2005
Tetrachloroethene	BQL	7.23	1	8/30/2005
Toluene	BQL	7.23	1	8/30/2005
1,2,3-Trichlorobenzene	BQL	7.23	1	8/30/2005
1,2,4-Trichlorobenzene	BQL	7.23	1	8/30/2005
Trichloroethene	BQL	7.23	1	8/30/2005
1,1,1-Trichloroethane	BQL	7.23	1	8/30/2005
1,1,2-Trichloroethane	BQL	7.23	1	8/30/2005
Trichlorofluoromethane	BQL	7.23	1	8/30/2005
1,2,3-Trichloropropane	BQL	7.23	1	8/30/2005
1,2,4-Trimethylbenzene	BQL	7.23	1	8/30/2005
1,3,5-Trimethylbenzene	BQL	7.23	1	8/30/2005
Vinyl chloride	BQL	7.23	1	8/30/2005
m-,p-Xylene	BQL	14.5	1	8/30/2005
o-Xylene	BQL	7.23	1	8/30/2005

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	50	50.1	100
1,2-Dichloroethane-d4	50	51.5	103
Toluene-d8	50	51.9	104

Comments:

Flags:
BQL = Below Quantitation Limits.

Reviewed By: _____

Results for Semivolatiles by GCMS 8270

Client Sample ID: P3GP7-20
Client Project ID: NCDOT-Parcel 3
Lab Sample ID: G106-540-7H
Lab Project ID: G106-540
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 8/22/2005 12:25
Date Received: 8/26/2005
Date Extracted: 8/30/2005
Matrix: Soil
% Solids: 89.74

Compound	Result ug/Kg	Quantitation Limit ug/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	336	1	8/31/2005
Acenaphthylene	BQL	336	1	8/31/2005
Anthracene	BQL	336	1	8/31/2005
Benzo[a]anthracene	BQL	336	1	8/31/2005
Benzo[a]pyrene	BQL	336	1	8/31/2005
Benzo[b]fluoranthene	BQL	336	1	8/31/2005
Benzo[g,h,i]perylene	BQL	336	1	8/31/2005
Benzo[k]fluoranthene	BQL	336	1	8/31/2005
Benzoic Acid	BQL	671	1	8/31/2005
Bis(2-chloroethoxy)methane	BQL	336	1	8/31/2005
Bis(2-chloroethyl)ether	BQL	336	1	8/31/2005
Bis(2-chloroisopropyl)ether	BQL	336	1	8/31/2005
Bis(2-ethylhexyl)phthalate	BQL	336	1	8/31/2005
4-bromophenyl phenyl ether	BQL	336	1	8/31/2005
Butylbenzylphthalate	BQL	336	1	8/31/2005
2-Chloronaphthalene	BQL	336	1	8/31/2005
2-Chlorophenol	BQL	336	1	8/31/2005
4-Chloro-3-methylphenol	BQL	336	1	8/31/2005
4-Chloroaniline	BQL	1680	1	8/31/2005
4-Chlorophenyl phenyl ether	BQL	336	1	8/31/2005
Chrysene	BQL	336	1	8/31/2005
Dibenzo[a,h]anthracene	BQL	336	1	8/31/2005
Dibenzofuran	BQL	336	1	8/31/2005
Di-n-Butylphthalate	BQL	336	1	8/31/2005
1,2-Dichlorobenzene	BQL	336	1	8/31/2005
1,3-Dichlorobenzene	BQL	336	1	8/31/2005
1,4-Dichlorobenzene	BQL	336	1	8/31/2005
3,3'-Dichlorobenzidine	BQL	671	1	8/31/2005
2,4-Dichlorophenol	BQL	336	1	8/31/2005
Diethylphthalate	BQL	336	1	8/31/2005
Dimethylphthalate	BQL	336	1	8/31/2005
2,4-Dimethylphenol	BQL	336	1	8/31/2005
Di-n-octylphthalate	BQL	336	1	8/31/2005
4,6-Dinitro-2-methylphenol	BQL	1680	1	8/31/2005
2,4-Dinitrophenol	BQL	1680	1	8/31/2005
2,4-Dinitrotoluene	BQL	336	1	8/31/2005
2,6-Dinitrotoluene	BQL	336	1	8/31/2005
Diphenylamine *	BQL	336	1	8/31/2005
Fluoranthene	BQL	336	1	8/31/2005
Fluorene	BQL	336	1	8/31/2005
Hexachlorobenzene	BQL	336	1	8/31/2005
Hexachlorobutadiene	BQL	336	1	8/31/2005

Results for Semivolatiles by GCMS 8270

Client Sample ID: P3GP7-20
Client Project ID: NCDOT-Parcel 3
Lab Sample ID: G106-540-7H
Lab Project ID: G106-540
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 8/22/2005 12:25
Date Received: 8/26/2005
Date Extracted: 8/30/2005
Matrix: Soil
% Solids: 89.74

Compound	Result ug/Kg	Quantitation Limit ug/Kg	Dilution Factor	Date Analyzed
Hexachlorocyclopentadiene	BQL	671	1	8/31/2005
Hexachloroethane	BQL	336	1	8/31/2005
Indeno(1,2,3-c,d)pyrene	BQL	336	1	8/31/2005
Isophorone	BQL	336	1	8/31/2005
2-Methylnaphthalene	BQL	336	1	8/31/2005
2-Methylphenol	BQL	336	1	8/31/2005
3- & 4-Methylphenol	BQL	336	1	8/31/2005
Naphthalene	BQL	336	1	8/31/2005
2-Nitroaniline	BQL	336	1	8/31/2005
3-Nitroaniline	BQL	1680	1	8/31/2005
4-Nitroaniline	BQL	1680	1	8/31/2005
Nitrobenzene	BQL	336	1	8/31/2005
2-Nitrophenol	BQL	336	1	8/31/2005
4-Nitrophenol	BQL	1680	1	8/31/2005
N-Nitrosodi-n-propylamine	BQL	336	1	8/31/2005
Pentachlorophenol	BQL	1680	1	8/31/2005
Phenanthrene	BQL	336	1	8/31/2005
Phenol	BQL	336	1	8/31/2005
Pyrene	BQL	336	1	8/31/2005
1,2,4-Trichlorobenzene	BQL	336	1	8/31/2005
2,4,5-Trichlorophenol	BQL	336	1	8/31/2005
2,4,6-Trichlorophenol	BQL	336	1	8/31/2005

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	9.6	96
2-Fluorophenol	10	10.6	106
Nitrobenzene-d5	10	10.6	105
Phenol-d6	10	10.1	101
2,4,6-Tribromophenol	10	7.1	71
4-Terphenyl-d14	10	11.8	118

Comments:

* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

Flags:

BQL = Below Quantitation Limits.

Reviewed By: _____

Results for Semivolatiles by GCMS 8270

Client Sample ID: P3GP9-20
Client Project ID: NCDOT-Parcel 3
Lab Sample ID: G106-540-9H
Lab Project ID: G106-540
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 8/22/2005 12:20
Date Received: 8/26/2005
Date Extracted: 8/30/2005
Matrix: Soil
% Solids: 74.16

Compound	Result ug/Kg	Quantitation Limit ug/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	401	1	9/1/2005
Acenaphthylene	BQL	401	1	9/1/2005
Anthracene	BQL	401	1	9/1/2005
Benzo[a]anthracene	BQL	401	1	9/1/2005
Benzo[a]pyrene	BQL	401	1	9/1/2005
Benzo[b]fluoranthene	BQL	401	1	9/1/2005
Benzo[g,h,i]perylene	BQL	401	1	9/1/2005
Benzo[k]fluoranthene	BQL	401	1	9/1/2005
Benzoic Acid	BQL	802	1	9/1/2005
Bis(2-chloroethoxy)methane	BQL	401	1	9/1/2005
Bis(2-chloroethyl)ether	BQL	401	1	9/1/2005
Bis(2-chloroisopropyl)ether	BQL	401	1	9/1/2005
Bis(2-ethylhexyl)phthalate	BQL	401	1	9/1/2005
4-bromophenyl phenyl ether	BQL	401	1	9/1/2005
Butylbenzylphthalate	BQL	401	1	9/1/2005
2-Chloronaphthalene	BQL	401	1	9/1/2005
2-Chlorophenol	BQL	401	1	9/1/2005
4-Chloro-3-methylphenol	BQL	401	1	9/1/2005
4-Chloroaniline	BQL	2000	1	9/1/2005
4-Chlorophenyl phenyl ether	BQL	401	1	9/1/2005
Chrysene	BQL	401	1	9/1/2005
Dibenzo[a,h]anthracene	BQL	401	1	9/1/2005
Dibenzofuran	BQL	401	1	9/1/2005
Di-n-Butylphthalate	BQL	401	1	9/1/2005
1,2-Dichlorobenzene	BQL	401	1	9/1/2005
1,3-Dichlorobenzene	BQL	401	1	9/1/2005
1,4-Dichlorobenzene	BQL	401	1	9/1/2005
3,3'-Dichlorobenzidine	BQL	802	1	9/1/2005
2,4-Dichlorophenol	BQL	401	1	9/1/2005
Diethylphthalate	BQL	401	1	9/1/2005
Dimethylphthalate	BQL	401	1	9/1/2005
2,4-Dimethylphenol	BQL	401	1	9/1/2005
Di-n-octylphthalate	BQL	401	1	9/1/2005
4,6-Dinitro-2-methylphenol	BQL	2000	1	9/1/2005
2,4-Dinitrophenol	BQL	2000	1	9/1/2005
2,4-Dinitrotoluene	BQL	401	1	9/1/2005
2,6-Dinitrotoluene	BQL	401	1	9/1/2005
Diphenylamine *	BQL	401	1	9/1/2005
Fluoranthene	BQL	401	1	9/1/2005
Fluorene	BQL	401	1	9/1/2005
Hexachlorobenzene	BQL	401	1	9/1/2005
Hexachlorobutadiene	BQL	401	1	9/1/2005

Results for Semivolatiles by GCMS 8270

Client Sample ID: P3GP9-20
Client Project ID: NCDOT-Parcel 3
Lab Sample ID: G106-540-9H
Lab Project ID: G106-540
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 8/22/2005 12:20
Date Received: 8/26/2005
Date Extracted: 8/30/2005
Matrix: Soil
% Solids: 74.16

Compound	Result ug/Kg	Quantitation Limit ug/Kg	Dilution Factor	Date Analyzed
Hexachlorocyclopentadiene	BQL	802	1	9/1/2005
Hexachloroethane	BQL	401	1	9/1/2005
Indeno(1,2,3-c,d)pyrene	BQL	401	1	9/1/2005
Isophorone	BQL	401	1	9/1/2005
2-Methylnaphthalene	BQL	401	1	9/1/2005
2-Methylphenol	BQL	401	1	9/1/2005
3- & 4-Methylphenol	BQL	401	1	9/1/2005
Naphthalene	BQL	401	1	9/1/2005
2-Nitroaniline	BQL	401	1	9/1/2005
3-Nitroaniline	BQL	2000	1	9/1/2005
4-Nitroaniline	BQL	2000	1	9/1/2005
Nitrobenzene	BQL	401	1	9/1/2005
2-Nitrophenol	BQL	401	1	9/1/2005
4-Nitrophenol	BQL	2000	1	9/1/2005
N-Nitrosodi-n-propylamine	BQL	401	1	9/1/2005
Pentachlorophenol	BQL	2000	1	9/1/2005
Phenanthrene	BQL	401	1	9/1/2005
Phenol	BQL	401	1	9/1/2005
Pyrene	BQL	401	1	9/1/2005
1,2,4-Trichlorobenzene	BQL	401	1	9/1/2005
2,4,5-Trichlorophenol	BQL	401	1	9/1/2005
2,4,6-Trichlorophenol	BQL	401	1	9/1/2005

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	10	100
2-Fluorophenol	10	10.9	109
Nitrobenzene-d5	10	10.4	104
Phenol-d6	10	10.4	104
2,4,6-Tribromophenol	10	7.7	77
4-Terphenyl-d14	10	10.2	102

Comments:

* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

Flags:

BQL = Below Quantitation Limits.

Reviewed By: _____

List of Reporting Abbreviations and Data Qualifiers

B = Compound also detected in batch blank

BQL = Below Quantitation Limit

DF = Dilution Factor

Dup = Duplicate

E = Estimated concentration, exceeds calibration range.

J = Estimated concentration, below calibration range and above MDL

LCS(D) = Laboratory Control Spike (Duplicate)

MDL = Method Detection Limit

MS(D) = Matrix Spike (Duplicate)

PQL = Practical Quantitation Limit

RL = Reporting Limit

RPD = Relative Percent Difference

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

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

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

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

% Rec = Percent Recovery

% soilds = Percent Solids

Special Notes:

1) Metals and mercury samples are digested with a hot block, see the standard operating procedure document for details.

2) Uncertainty for all reported data is less than or equal to 30 percent.

PARADIGM ANALYTICAL LABORATORIES, INC.
5500 Business Drive, Wilmington, NC 28405
Phone: (910)-350-1903 FAX: (910)-350-1557

Chain-of Custody Record & Analytical Request

PARCEL 3 / WBS #34871.1.1

COC# 40557

Page ____ **of** ____

Client: EI, INC.
Address: 210 GATEWAY CENTRE BLVD. SUITE 200, MORRISVILLE, N/C 27560
Quote #: ____

Project ID: NCDOT-PARCEL 3
Contact: BOB SCHMIDT
Phone: 919-544-7500
Fax: 919-544-2191

Date: 8-26-05
Turnaround: STANDARD
Job Number: EWMO 050 01J.00
P.O. Number: ____

Report To: DAMON LOCKHART
Invoice To: NCDOT

Sample ID	Date	Time	Matrix	Preservatives	Analyses: TPH-GRO	Analyses: TPH-DRO	Analyses: 8260/5035	Analyses: 8270	Comments: Please specify any special reporting requirements
P3GP1-15	8-22-05	0905	SOIL		X	X			
P3GP2-10		0945			X	X			G106-540
P3GP3-20		1140			X	X			
P3GP4-20		1130			X	X			
P3GP5-15		1200			X	X			
P3GP6-20		1002			X	X			
P3GP7-20		1225			X	X	+	+	8260+8270 added per D. Lockhart 8/26/05
P3GP8-15		1220			X	X			
P3GP9-20		1300			X	X	+	+	

Relinquished By	Date	Time	Received By	Date	Time	Temperature
	8-26-05			8/26/05	10:00	on ice
				8/26/05	09:30	2.9°C

State Certification Requested
NC ✓ SC ____ Other ____

SEE REVERSE FOR TERMS AND CONDITIONS

ORIGINAL

PARADIGM ANALYTICAL LABORATORIES, INC.

N.C. Certification #481 S.C. Certification #99029

PARADIGM ANALYTICAL LABORATORIES, INC.
5500 Business Drive
Wilmington, North Carolina 28405
(910) 350-1903
Fax (910) 350-1557

Mr. Bob Shaut
Environmental Investigations
2101 Gateway Centre Boulevard
Suite 200
Morrisville NC 27560
Report Number: G106-549

Client Project: NCDOT-Forsyth County Tip #U-2826A

Dear Mr. Shaut:

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

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

Thank you for using Paradigm Analytical Labs for your analytical services. We look forward to working with you again on any additional analytical needs which you may have.

Sincerely,
Paradigm Analytical Laboratories, Inc.

9/15/05
Date

Laboratory Director
J. Patrick Weaver

Results for Volatiles
by GC 6230D

Client Sample ID: P3TW1
Client Project ID: NCDOT-Forsyth County Tip #U-2826A
Lab Sample ID: G106-549-9A
Lab Project ID: G106-549

Analyzed By: MJC
Date Collected: 9/2/05 12:30
Date Received: 9/7/05
Matrix: Water

Analyte	Result ug/L	RL ug/L	Dilution Factor	Date Analyzed
Benzene	BQL	0.500	1	9/9/05
Bromobenzene	BQL	0.500	1	9/9/05
Bromochloromethane	BQL	0.500	1	9/9/05
Bromodichloromethane	BQL	0.500	1	9/9/05
Bromoform	BQL	0.500	1	9/9/05
Bromomethane	BQL	0.500	1	9/9/05
n-Butylbenzene	BQL	0.500	1	9/9/05
sec-Butylbenzene	BQL	0.500	1	9/9/05
tert-Butylbenzene	BQL	0.500	1	9/9/05
Carbon tetrachloride	BQL	0.500	1	9/9/05
Chlorobenzene	BQL	0.500	1	9/9/05
Chloroethane	BQL	0.500	1	9/9/05
Chloroform	BQL	0.500	1	9/9/05
Chloromethane	BQL	0.500	1	9/9/05
2-Chlorotoluene	BQL	0.500	1	9/9/05
4-Chlorotoluene	BQL	0.500	1	9/9/05
Dibromochloromethane	BQL	0.500	1	9/9/05
1,2-Dibromo-3-chloropropane	BQL	0.500	1	9/9/05
1,2-Dibromoethane (EDB)	BQL	0.500	1	9/9/05
Dibromomethane	BQL	0.500	1	9/9/05
1,2-Dichlorobenzene	BQL	0.500	1	9/9/05
1,3-Dichlorobenzene	BQL	0.500	1	9/9/05
1,4-Dichlorobenzene	BQL	0.500	1	9/9/05
Dichlorodifluoromethane	BQL	0.500	1	9/9/05
1,1-Dichloroethane	BQL	0.500	1	9/9/05
1,2-Dichloroethane	BQL	0.500	1	9/9/05
1,1-Dichloroethene	BQL	0.500	1	9/9/05
cis-1,2-Dichloroethene	BQL	0.500	1	9/9/05
trans-1,2-Dichloroethene	BQL	0.500	1	9/9/05
1,2-Dichloropropane	BQL	0.500	1	9/9/05
2,2-Dichloropropane	BQL	0.500	1	9/9/05
cis-1,3-Dichloropropene	BQL	0.500	1	9/9/05
trans-1,3-Dichloropropene	BQL	0.500	1	9/9/05
Diisopropyl ether (DIPE)	BQL	0.500	1	9/9/05
Ethylbenzene	BQL	0.500	1	9/9/05
Hexachlorobutadiene	BQL	0.500	1	9/9/05
Isopropylbenzene	BQL	0.500	1	9/9/05
p-Isopropyltoluene	BQL	0.500	1	9/9/05
Methyl-tert butyl ether (MTBE)	BQL	0.500	1	9/9/05

Reviewed By: _____
GC_LIMS_v2 0 XLS

Results for Volatiles
by GC 6230D

Client Sample ID: P3TW1
Client Project ID: NCDOT-Forsyth County Tip #U-2826A
Lab Sample ID: G106-549-9A
Lab Project ID: G106-549

Analyzed By: MJC
Date Collected: 9/2/05 12:30
Date Received: 9/7/05
Matrix: Water

Analyte	Result ug/L	RL ug/L	Dilution Factor	Date Analyzed
Methylene Chloride	BQL	5.00	1	9/9/05
Naphthalene	**0.535**	0.500	1	9/9/05
n-Propylbenzene	BQL	0.500	1	9/9/05
Styrene	BQL	1.00	1	9/9/05
1,1,1,2-Tetrachloroethane	BQL	0.500	1	9/9/05
1,1,2,2-Tetrachloroethane	BQL	0.500	1	9/9/05
Tetrachloroethene	BQL	0.500	1	9/9/05
Toluene	BQL	0.500	1	9/9/05
1,2,3-Trichlorobenzene	BQL	0.500	1	9/9/05
1,2,4-Trichlorobenzene	BQL	0.500	1	9/9/05
1,1,1-Trichloroethane	BQL	0.500	1	9/9/05
1,1,2-Trichloroethane	BQL	0.500	1	9/9/05
Trichloroethene	BQL	0.500	1	9/9/05
Trichlorofluoromethane	BQL	0.500	1	9/9/05
1,2,3-Trichloropropane	BQL	0.500	1	9/9/05
1,2,4-Trimethylbenzene	BQL	0.500	1	9/9/05
1,3,5-Trimethylbenzene	BQL	0.500	1	9/9/05
Vinyl Chloride	BQL	0.500	1	9/9/05
m/p-Xylene	BQL	1.00	1	9/9/05
o-Xylene	BQL	1.00	1	9/9/05

Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	41.5	104
1,4-Dichlorobutane	40	39.9	99.7

Comments:
All values corrected for dilution.
BQL = Below quantitation limit.

Reviewed By: _____

Results for Volatiles
by GC 6230D

Client Sample ID: P3TW1
Client Project ID: NCDOT-Forsyth County Tip #U-2826A
Lab Sample ID: G106-549-9b
Lab Project ID: G106-549

Analyzed By: MJC
Date Collected: 9/2/05 12:30
Date Received: 9/7/05
Matrix: Water

Analyte	Result ug/L	RL ug/L	Dilution Factor	Date Analyzed
Benzene	BQL	0.500	1	9/14/05
Bromobenzene	BQL	0.500	1	9/14/05
Bromochloromethane	BQL	0.500	1	9/14/05
Bromodichloromethane	BQL	0.500	1	9/14/05
Bromoform	BQL	0.500	1	9/14/05
Bromomethane	BQL	0.500	1	9/14/05
n-Butylbenzene	BQL	0.500	1	9/14/05
sec-Butylbenzene	BQL	0.500	1	9/14/05
tert-Butylbenzene	BQL	0.500	1	9/14/05
Carbon tetrachloride	BQL	0.500	1	9/14/05
Chlorobenzene	BQL	0.500	1	9/14/05
Chloroethane	BQL	0.500	1	9/14/05
Chloroform	BQL	0.500	1	9/14/05
Chloromethane	BQL	0.500	1	9/14/05
2-Chlorotoluene	BQL	0.500	1	9/14/05
4-Chlorotoluene	BQL	0.500	1	9/14/05
Dibromochloromethane	BQL	0.500	1	9/14/05
1,2-Dibromo-3-chloropropane	BQL	0.500	1	9/14/05
1,2-Dibromoethane (EDB)	BQL	0.500	1	9/14/05
Dibromomethane	BQL	0.500	1	9/14/05
1,2-Dichlorobenzene	BQL	0.500	1	9/14/05
1,3-Dichlorobenzene	BQL	0.500	1	9/14/05
1,4-Dichlorobenzene	BQL	0.500	1	9/14/05
Dichlorodifluoromethane	BQL	0.500	1	9/14/05
1,1-Dichloroethane	BQL	0.500	1	9/14/05
1,2-Dichloroethane	BQL	0.500	1	9/14/05
1,1-Dichloroethene	BQL	0.500	1	9/14/05
cis-1,2-Dichloroethene	BQL	0.500	1	9/14/05
trans-1,2-Dichloroethene	BQL	0.500	1	9/14/05
1,2-Dichloropropane	BQL	0.500	1	9/14/05
2,2-Dichloropropane	BQL	0.500	1	9/14/05
cis-1,3-Dichloropropene	BQL	0.500	1	9/14/05
trans-1,3-Dichloropropene	BQL	0.500	1	9/14/05
Diisopropyl ether (DIPE)	BQL	0.500	1	9/14/05
Ethylbenzene	BQL	0.500	1	9/14/05
Hexachlorobutadiene	BQL	0.500	1	9/14/05
Isopropylbenzene	BQL	0.500	1	9/14/05
p-Isopropyltoluene	BQL	0.500	1	9/14/05
Methyl-tert butyl ether (MTBE)	**7.63**	0.500	1	9/14/05

Reviewed By: _____
GC_LIMS_v2.0.XLS

Results for Volatiles
by GC 6230D

Client Sample ID: P3TW1
Client Project ID: NCDOT-Forsyth County Tip #U-2826A
Lab Sample ID: G106-549-9b
Lab Project ID: G106-549

Analyzed By: MJC
Date Collected: 9/2/05 12:30
Date Received: 9/7/05
Matrix: Water

Analyte	Result ug/L	RL ug/L	Dilution Factor	Date Analyzed
Methylene Chloride	BQL	5.00	1	9/14/05
Naphthalene	**0.558**	0.500	1	9/14/05
n-Propylbenzene	BQL	0.500	1	9/14/05
Styrene	BQL	1.00	1	9/14/05
1,1,1,2-Tetrachloroethane	BQL	0.500	1	9/14/05
1,1,2,2-Tetrachloroethane	BQL	0.500	1	9/14/05
Tetrachloroethene	BQL	0.500	1	9/14/05
Toluene	BQL	0.500	1	9/14/05
1,2,3-Trichlorobenzene	BQL	0.500	1	9/14/05
1,2,4-Trichlorobenzene	BQL	0.500	1	9/14/05
1,1,1-Trichloroethane	BQL	0.500	1	9/14/05
1,1,2-Trichloroethane	BQL	0.500	1	9/14/05
Trichloroethene	BQL	0.500	1	9/14/05
Trichlorofluoromethane	BQL	0.500	1	9/14/05
1,2,3-Trichloropropane	BQL	0.500	1	9/14/05
1,2,4-Trimethylbenzene	BQL	0.500	1	9/14/05
1,3,5-Trimethylbenzene	BQL	0.500	1	9/14/05
Vinyl Chloride	BQL	0.500	1	9/14/05
m/p-Xylene	BQL	1.00	1	9/14/05
o-Xylene	BQL	1.00	1	9/14/05

Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	40.3	101
1,4-Dichlorobutane	40	40.2	101

Comments:
All values corrected for dilution.
BQL = Below quantitation limit.
This analysis made from a vial with headspace.

Reviewed By: _____
GC_LIMS_v2 0 XLS

List of Reporting Abbreviations and Data Qualifiers

B = Compound also detected in batch blank

BQL = Below Quantitation Limit

DF = Dilution Factor

Dup = Duplicate

E = Estimated concentration, exceeds calibration range.

J = Estimated concentration, below calibration range and above MDL

LCS(D) = Laboratory Control Spike (Duplicate)

MDL = Method Detection Limit

MS(D) = Matrix Spike (Duplicate)

PQL = Practical Quantitation Limit

RL = Reporting Limit

RPD = Relative Percent Difference

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

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

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

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

% Rec = Percent Recovery

% soilds = Percent Solids

Special Notes:

1) Metals and mercury samples are digested with a hot block, see the standard operating procedure document for details.

2) Uncertainty for all reported data is less than or equal to 30 percent.