LIMITED PRELIMINARY SITE ASSESSMENT

Parcel #006
GPI Properties, LLC Property
2853 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 #006
GPI Properties, LLC Property
2853 North Liberty Street
Winston-Salem, NC 27105
NCDOT TIP #U-2826A
WBS Element # 34871.1.1
EI Project No. ENMO050015.00

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

Prepared By:

Environmental Investigations, Inc. (EI)
2101 Gateway Centre Blvd., Suite 200
Morrisville, North Carolina 27560
(919) 544-7500 FAX (919) 544-2199

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

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 #6,* including the *proposed* and *existing right-of-way (ROW).* The subject parcel is located at 2853 North Liberty Street, Winston-Salem, North Carolina. The parcel and ROW was identified by the NCDOT as the prescribed area of study for this project.

An abandoned building is currently located on the subject parcel (adjacent to ROW). A report presented herein documents the findings of the *PSA.* 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. Darren Lockhart and Mr. Robert Michael Shaut, Environmental Geologists' with EI conducted field activities on August 11, and September 7, 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 "Groundwater Analytical Results" are presented in "**Table 1"** and **"Table 2",** respectively. A "Site Location Map", an "Aerial Photograph", and a "Site Map" are presented in **Figures 1**, **2**, and **3,** respectively, while **Figure 3.1** that depicts a Site Map of Parcel #005 (depicts two soil borings) is also presented within the report. 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.

2101 Gateway Centre Boulevard • Suite 200 • Morrisville, NC 27560 • Tel: (919) 544-7500 • Fax: (919) 544-2199

The study (PSA) conducted on the referenced parcel (Parcel #006 – GPI Properties, LLC Property) was performed with a reasonable effort to investigate and quantify potentially petroleum-hydrocarbon residual impacted subsurface soils. 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 all known and reported subsurface environmental incidents throughout the state of North Carolina. Based on research conducted by EI personnel, no known environmental incidents were filed with the aforementioned environmental agencies regarding the subject parcel with the current listed address.

2101 Gateway Centre Boulevard • Suite 200 • Morrisville, NC 27560 • Tel: (919) 544-7500 • Fax: (919) 544-2199

2.0 SCOPE OF WORK & ENVIRONMENTAL SERVICES

2.1 Requested Scope of Work

Documented in the *RFP*, 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 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.

2101 Gateway Centre Boulevard • Suite 200 • Morrisville, NC 27560 • Tel: (919) 544-7500 • Fax: (919) 544-2199

- Supervision, direction and oversight for the advancement of 11 soil test borings utilizing DPT methods to a total depth ranging between 14.0 and 35.0 feet below the land surface (bls) across the site in targeted 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 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.

2101 Gateway Centre Boulevard • Suite 200 • Morrisville, NC 27560 • Tel: (919) 544-7500 • Fax: (919) 544-2199

3.0 SITE CHARACTERIZATION

3.1 Site Location

An abandoned building is currently located at 2853 North Liberty Street, 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 a web site operated by Forsyth County, the subject property is currently owned by Tri-City Investments, Inc. The owners address was listed as 36 Richmond Plz, Rockingham, NC 28379-0. According to the NCDOT, the property owner is GPI Properties, LLC Property. The size of the parcel was listed as 0.62 acres.

3.3 Physical Setting

The subject site parcel has been improved to operate a business. The parcel consists of an abandoned one-story building surrounded by parking areas partially bounded by steel mesh fencing. Asphalt, gravel, and concrete cover the surface of the parking areas, while the remaining portions of the parcel consist of sparse grass. A grassy ditch is located along the western property boundary between the subject parcel and Liberty Street. See **Figure 3** for pertinent site features.

2101 Gateway Centre Boulevard • Suite 200 • Morrisville, NC 27560 • Tel: (919) 544-7500 • Fax: (919) 544-2199

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, indications of 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 953 feet and 954 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 1,770 feet (590 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 industrial properties. The site is bounded on the north by an undeveloped parcel, to the south by a business known as the "Liberty Butcher Shop", to the east by US 52, and to the west by Liberty Street.

2101 Gateway Centre Boulevard • Suite 200 • Morrisville, NC 27560 • Tel: (919) 544-7500 • Fax: (919) 544-2199

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 *existing* and *proposed* ROW.

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 0.65 acres.

4.2 Geophysical Survey Results

The geophysical results indicated anomalies caused by known above-ground metal features, several smaller anomalies probably caused by relatively small; insignificant buried metal objects, and a large anomaly covering most of the area from the building to the east, which indicated the presence of reinforced concrete. The GPR surveys also indicted the presence of two (2) possible **vent pipes**, one (1) located near the northeast corner of the building, and the other located at the northwest corner of the building; however, the GPR data did not indicate the presence of USTs at these locations.

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 performed, directed and/or supervised the advancement of 11 soil test borings (GP-1 through GP-11) in the vicinity of either the NCDOT identified proposed drainage, suspected UST location, and/or the balance of the property (for potential former UST system leaks, etc.).

The borings were advanced in order to evaluate the absence/presence of potential subsurface soil (vadose zone) impact and/or subsurface groundwater (petroleum smearing) impact associated with potential former petroleum releases. The soil borings were advanced to investigative total depths ranging from 14.0 feet to a depth of 35.0 feet bls.

2101 Gateway Centre Boulevard • Suite 200 • Morrisville, NC 27560 • Tel: (919) 544-7500 • Fax: (919) 544-2199

4.3.1 Soil Sample Collection Procedures

Based on the results of site conditions (i.e., presence of former UST system location), a total of nine (9) soil samples were collected for laboratory retention.

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 either asphalt patch or concrete.

4.3.4 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 either asphalt 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 tan, brown fine to medium silty SAND (SM), underlain by a layer of dark reddish brown CLAY (CL), which was saprolitic to the investigated depth of 35.0 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 11, 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 by an EI Geologist (Robert Shaut) based on site conditions and field indicators noted from adjacent soil borings and/or site conditions, and/or probable potentially suspect locations (ie., topographic location). The well was advanced to the approximate investigated depth of 35.0 feet bls. Groundwater was measured after a period of at least 24 hours at a depth of 29.75 feet below the top of casing (flush-mount with ground surface).

2101 Gateway Centre Boulevard • Suite 200 • Morrisville, NC 27560 • Tel: (919) 544-7500 • Fax: (919) 544-2199

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

Groundwater sample identified as "TW-1"was 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.

2101 Gateway Centre Boulevard • Suite 200 • Morrisville, NC 27560 • Tel: (919) 544-7500 • Fax: (919) 544-2199

5.0 LABORATORY TESTING AND RESULTS

5.1 Subsurface Soil Analytical Methods

A total of nine (9) soil samples ("P6GP1-20", "P6GP2-20", "P6GP3-20", "P6GP4-20", "P6GP5-20", "P6GP6-20", "P6GP7-20", "P6GP10-12", and "P6GPDEL") 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

Laboratory analyses of soil samples collected from three (3) of nine (9) soil borings detected TPH concentrations for diesel range organics as follows: "P6GP2-20" at 12.5 mg/kg, "P6GP4-20" at 10.1 mg/kg, and "P6GP10-12" at 108 mg/kg. The remaining soil samples did not show concentrations at or above the method laboratory detection limits. 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

Benzene, naphthalene (petroleum hydrocarbon constituents) and chloromethane were detected in the groundwater sample identified as "TW1" at concentrations of 0.937 ug/L, 0.579 ug/L, and 4.49 ug/L, respectively. 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**.

2101 Gateway Centre Boulevard • Suite 200 • Morrisville, NC 27560 • Tel: (919) 544-7500 • Fax: (919) 544-2199

6.0 SUMMARY OF FINDINGS

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

- Based upon the geophysical report and site observations, two (2) metal pipes that appeared to resemble UST type **vent pipes** were identified adjacent to the subject property building (northeast and southeast building corners). One (1) of the pipes (southeast building corner) was discounted as a potential UST system, while the remaining pipe appears to have possibly been associated with a suspected former UST system. Residual petroleum hydrocarbon impact was present in the vicinity of this possible former system (northeast building corner). The geophysical survey **did not reveal the presence of USTs** in either of these areas or remaining portions of the site. Due to these findings, and the results of analytical data, EI suspects that **a former heating oil UST may have been located in the northeast building corner location.**

- Analysis of one (1) subsurface soil sample collected from boring GP-5, collected in the vicinity of the *proposed drainage piping* within the *proposed* ROW, did not show reportable TPH concentrations in the GRO or DRO ranges.

- Reported concentrations of TPH for DRO were detected **above** the DENR action limits (10.0 mg/kg) in three (3) soil samples collected in the area of study, although only one (1) sample (from boring GP-10 – collected in vicinity of suspected former UST) reported significant detectable concentrations). The remaining two (2) soil samples (borings GP-2 and GP-4) were collected in the north/central portion of the parcel (one inside and one outside the *proposed* ROW).

- Review of the groundwater analytical data indicated that **one (1) analyte (chloromethane)** was detected at concentrations that **exceed** the 15A NCAC 02L .0202 (g) Groundwater Quality Standards (Class GA). None of the remaining detectable analytes showed concentrations of VOCs above the 15A NCAC 2L .0202 (g) Groundwater Quality Standards (Class GA).

- Groundwater was measured after a period of at least 24 hours at a depth of 29.75 feet below the top of casing (flush-mount with ground surface).

2101 Gateway Centre Boulevard • Suite 200 • Morrisville, NC 27560 • Tel: (919) 544-7500 • Fax: (919) 544-2199

7.0 CONCLUSIONS AND RECOMMENDATIONS

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

CONCLUSIONS

Suspected Former USTs

Based on the appearance of the noted metal pipe (suspected vent pipe - northeast building corner), and the residual petroleum impact present in the area, **the pipe is believed to have been associated with a former suspected heating oil UST**. Based on the geophysical report, the area was scanned with GPR equipment and a UST was not identified in this location. **No other petroleum product dispensers, parts or portions of UST systems, nor remnants of concrete pump islands were observed on the property.**

Petroleum Hydrocarbon Impact

Residual petroleum hydrocarbon impact has been discovered within the vadose zone (unsaturated zone) beneath the subject property situated both outside and inside the *existing* and/or *proposed* DOT ROW. The impact appears to have occurred in three (3) separate areas of the parcel. One (1) of these areas appear to be more significant and located in close proximity to a suspected former UST (heating oil), while the two (2) remaining areas of impact appear to be minor and isolated in nature. A source of impact for these isolated areas may have been attributed to either unknown former USTs, former aboveground storage tanks (ASTs), and/or aboveground spills from vehicles or mechanical equipment.

Quantity or Volume of Contaminants

Isolated Areas of Impact

We estimate that the extent of residual petroleum hydrocarbon impact is *very minor* in two (2) of the three (3) areas of impact located in the central and north portions of the parcel. We estimate that these two (2) minor areas appear to be isolated in nature and the areal extent has been estimated at approximately 10.0 feet by 10.0 feet (or less) each and the contaminants likely would be encountered at depths ranging from a zone at approximately 5.0 feet to 18.0 feet bls. Based on these projections, EI estimates that a **volume of approximately 25 to 100 cubic yards each** of affected or **impacted soils** may be present in these isolated areas.

2101 Gateway Centre Boulevard • Suite 200 • Morrisville, NC 27560 • Tel: (919) 544-7500 • Fax: (919) 544-2199

Area of Impact near Suspected Former UST Location

We estimate that an area of residual petroleum impact appears to be localized adjacent to the suspected former UST location. Based on laboratory analyses, we estimate an areal extent of approximately 20.0 feet by 25.0 feet and the contaminants *likely* would be present at shallow depths ranging from approximately 5.0 feet to 25.0 feet bls. Based on these projections, EI estimates that a **volume of approximately 200 to 350 cubic yards** of affected or **impacted soils** may be present.

Groundwater Impact

Although only one (1) analyte was detected above the 15A NCAC 02L .0202 (g) Groundwater Quality Standards (Class GA), since residual hydrocarbon impact has been discovered on various parts of the area of study, the groundwater impact could potentially be more significant in various parts of the property. A delineation of groundwater impact was beyond the scope of study for this project.

RECOMMENDATIONS

- Based on the detection of TPH concentrations above regulatory (DENR) reportable levels (10.0 mg/kg), and groundwater concentrations that exceed the 15A NCAC 2L .0202 Groundwater Quality Standards (Class GA), the property owner should be notified and the detection of TPH concentrations and dissolved VOCs are reportable.

- Removal of the secondary source contaminants (residual petroleum hydrocarbon impacted soils) to eliminate the potential for contaminant migration and/or leaching.

- Additional investigation would be necessary to determine if contaminant levels within the aquifer are above the referenced 2L Groundwater Standards and to determine the potential extent of impact.

2101 Gateway Centre Boulevard • Suite 200 • Morrisville, NC 27560 • Tel: (919) 544-7500 • Fax: (919) 544-2199

TABLES

TABLE 1
Summary of Soil Analytical Results
Parcel #006 - GPI Properties, LLC Property
NCDOT - Forsyth
TIP#: U-2826A - WBS Element #34871.1.1
Winston-Salem, North Carolina
EI Project No. ENMO050015.00

Sample Point Identification		P6GP1-20	P6GP2-20	P6GP3-20	P6GP4-20	P6GP5-20	P6GP6-20	P6GP7-20	P6GP10-12	P6GPDEL
Sample Boring Location		GP-1	GP-2	GP-3	GP-4	GP-5	GP-6	GP-7	GP-10	GP-11
Sample Depth - Feet		18-20	18-20	18-20	18-20	18-20	18-20	18-20	10-12	18-20
Sample Date		8/11/2005								9/8/2005
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)									
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	BQL	***12.5***	BQL	***10.1***	BQL	BQL	BQL	***108***	BQL
VOCs (8260B - 5035)										
All Analytes		NA				BQL	NA			
SVOCs (8270)										
All Analytes		NA				BQL	NA			

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

TABLE 2
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
Parcel # 006 - GPI Properties, LLC Property
NCDOT - Forsyth County
TIP# U-2826A
WBS# 34871.1.1

Sample Identification		TW1
Sample Date		9/7/2005
Groundwater Depth		29.75
Volatile Organic Compounds by EPA Method 8260B	**2L Groundwater Standards (ug/L)**	**LABORATORY RESULTS (ug/L)**
Benzene	1	0.937
Chloromethane	2.6	***4.49***
Diisopropyl ether (DIPE)	NS	BQL
Ethylbenzene	29	BQL
naphthalene	21	0.579
MTBE	200	BQL
Toluene	1000	BQL
Xylenes	530	BQL
All Remaining Analytes	NA	BQL

Legend:
Italics/**Bold Font** = In Excess of NCAC 2L Class GA Standards
BQL = Below Quantitation Limit
NA = Not Applicable
NS = No Standard
Groundwater Depth measured from top of casing (flush-mount temporary well)

FIGURES

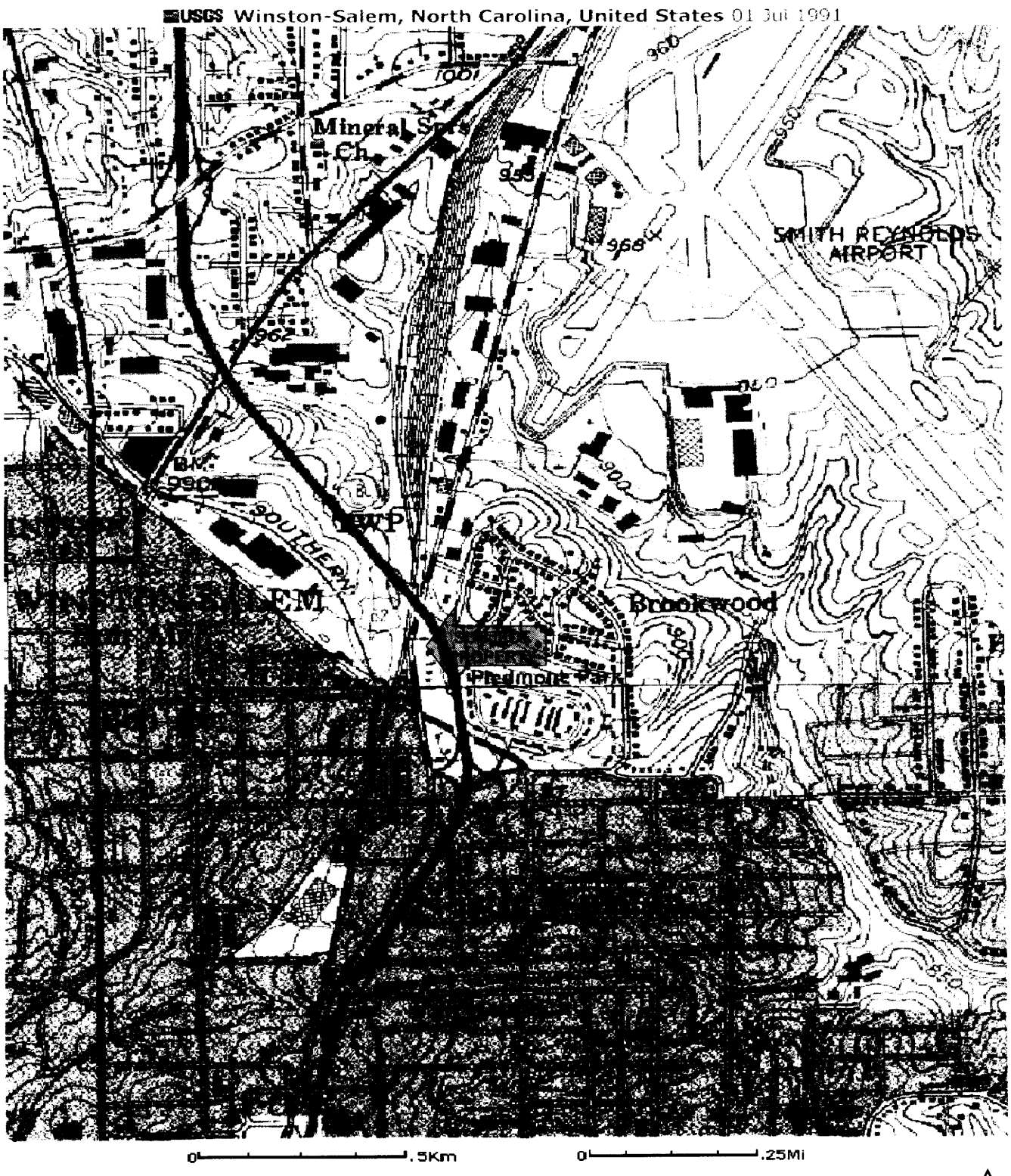


FIGURE NUMBER: 1	**SITE LOCATION MAP** Parcel #006 – GPI Properties, LLC Property 2853 North Liberty Street Winston-Salem, North Carolina	EI ENVIRONMENTAL INVESTIGATIONS, INC
QUAD: 1991 Winston-Salem		
PROJECT NUMBER: ENMO050015.00		
SCALE: As Shown		

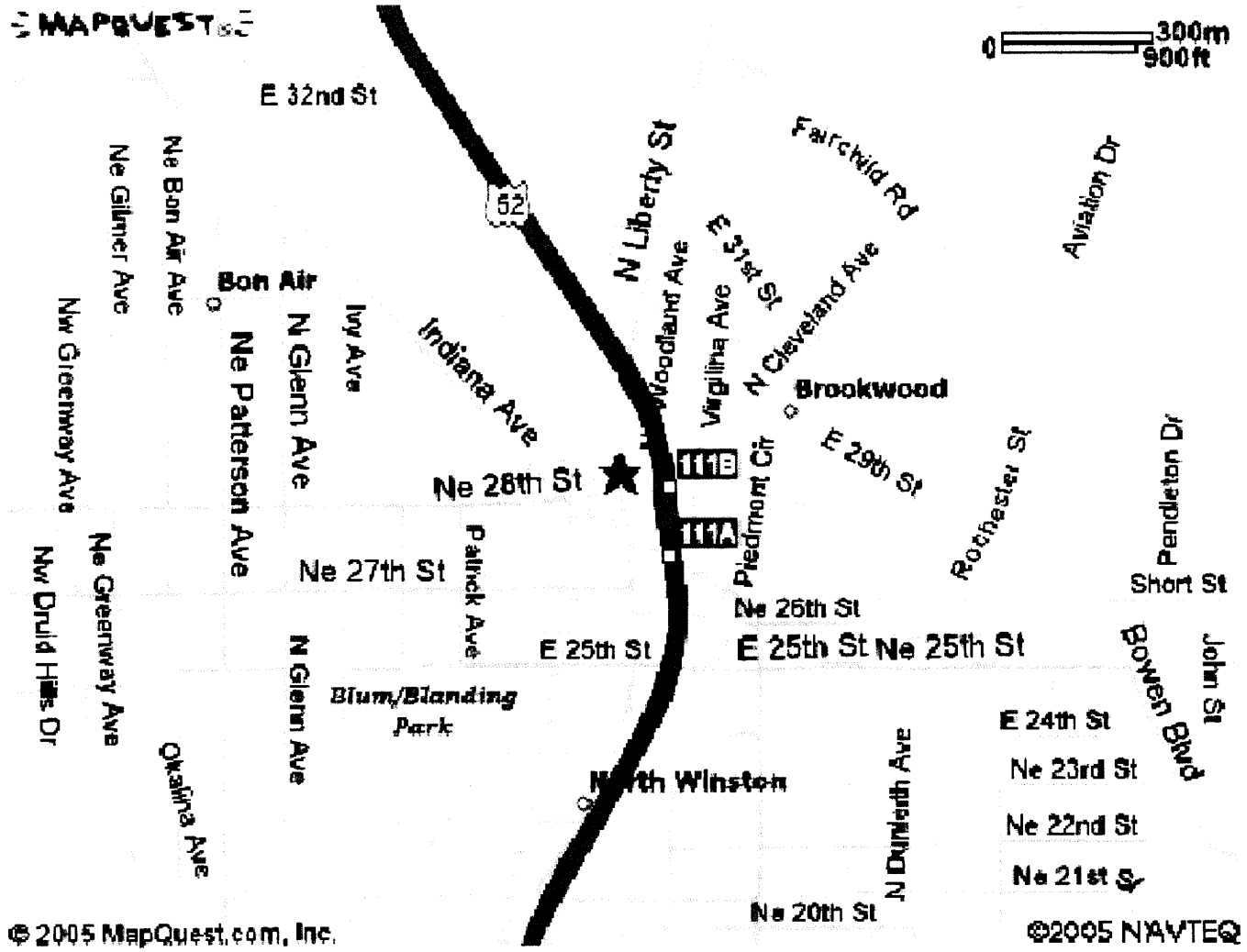
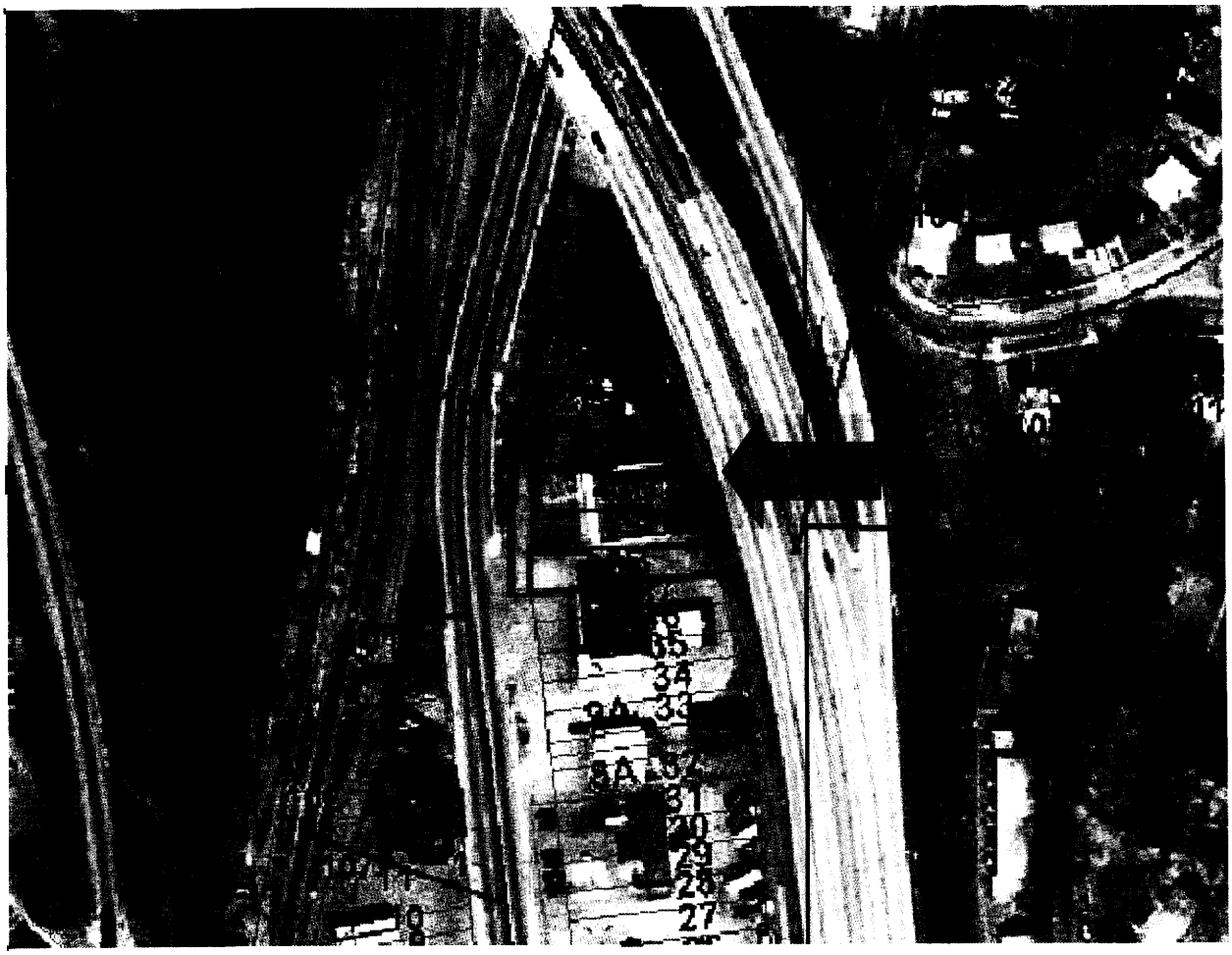


FIGURE NUMBER:	1A
QUAD:	1991 Winston-Salem
PROJECT NUMBER:	ENMO050015.00
SCALE:	As Shown

SITE LOCATION MAP
Parcel #006 – GPI Properties, LLC
Property
2853 North Liberty Street
Winston-Salem, North Carolina

EI
ENVIRONMENTAL INVESTIGATIONS, INC



0 Feet 184

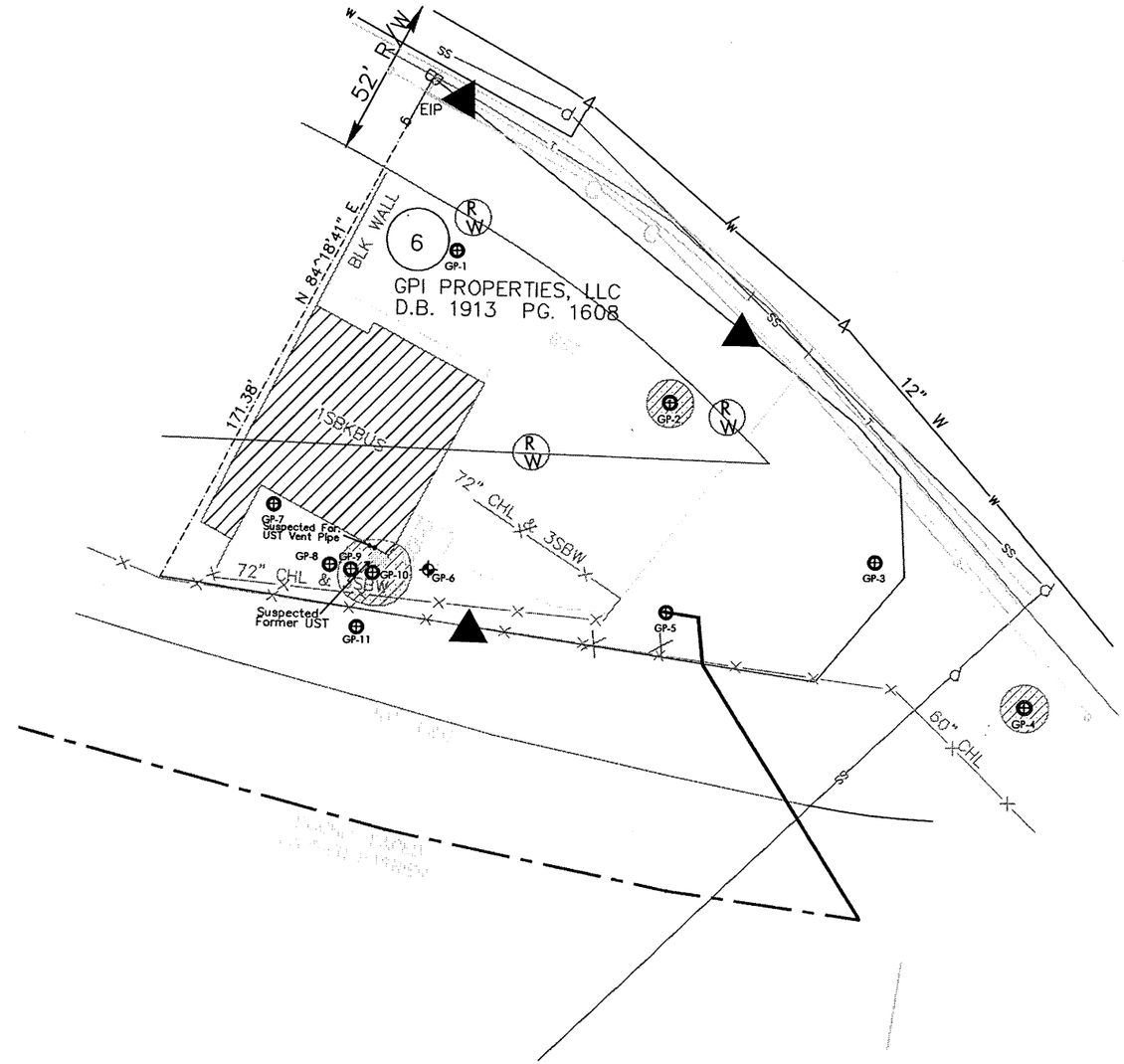
SCALE 1 : 2215

N

FIGURE NUMBER:	2
QUAD:	1991 Winston-Salem
PROJECT NUMBER:	ENMO050015.00
SCALE:	AS SHOWN

AERIAL PHOTOGRAPH
Parcel #006 –GPI Properties, LLC
Property
2853 North Liberty Street
Winston-Salem, North Carolina

EI
ENVIRONMENTAL INVESTIGATIONS, INC



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
- Estimated Extent of Petroleum Impact

0 50 100

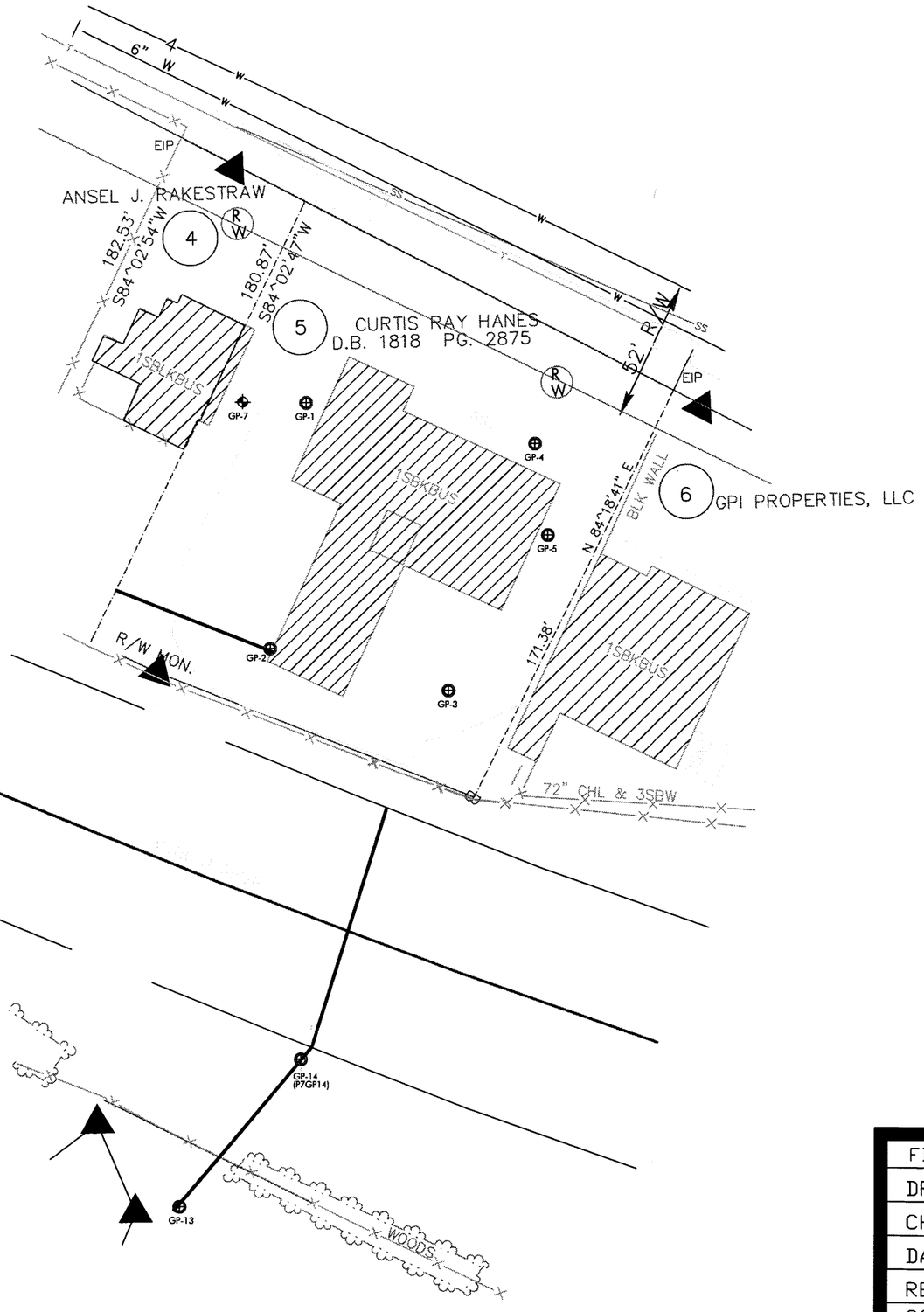
Scale In Feet (1" = 50')

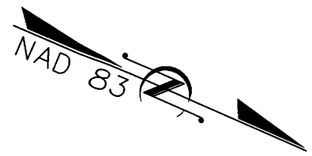
FIGURE:	3
DRN BY:	DOT/RMS
CHK BY:	DCB
DATE:	8/2005
REVISED:	N/A
SCALE:	1" = 50'

SITE MAP

Parcel 6
GPI Properties, LLC Property
2853 North Liberty Street
Winston-Salem, North Carolina

ENVIRONMENTAL INVESTIGATIONS, INC





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

FIGURE:	3.1
DRN BY:	DOT/RMS
CHK BY:	DCB
DATE:	8/2005
REVISED:	N/A
SCALE:	1" = 50'

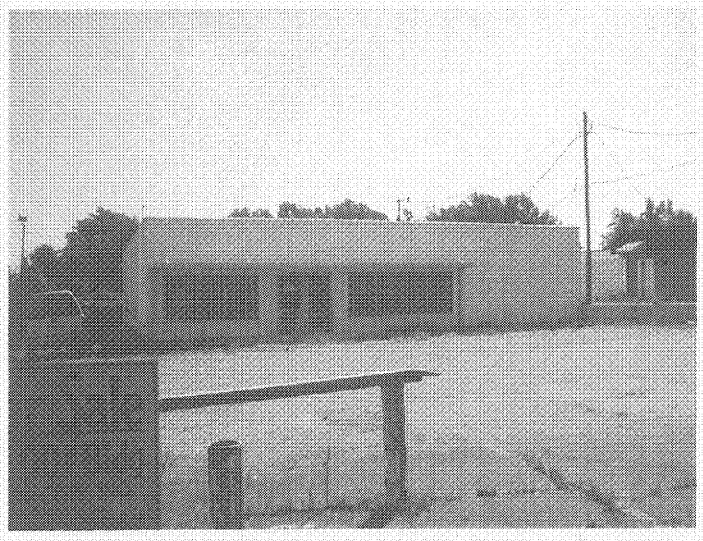
PARCEL #005 SITE MAP

Parcel 6
GPI Properties, LLC Property
2853 North Liberty Street
Winston-Salem, North Carolina

ENVIRONMENTAL INVESTIGATIONS, INC

APPENDIX A

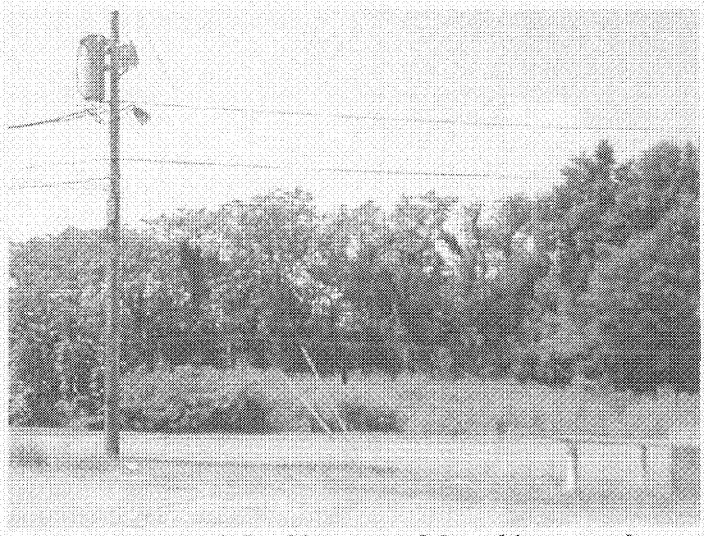
SITE PHOTOGRAPHS



Photograph 1: View of subject property.

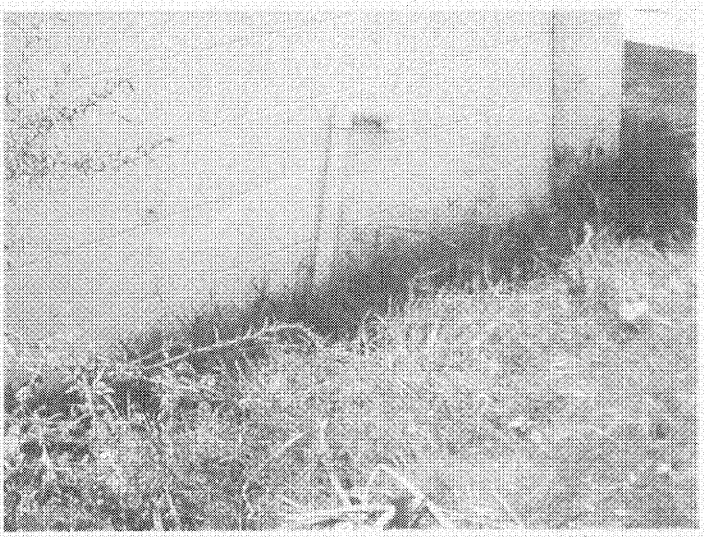
Photograph 2: Looking north of the subject parcel.

Photograph 3: Looking east of the subject parcel. US 52 is visible behind the vegetation.



Photograph 4: Looking west of the subject parcel.

Photograph 5: Looking south of the subject parcel.



Photograph 6: Note suspected "vent pipe" located in suspected former UST located adj. to NE building corner.

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.

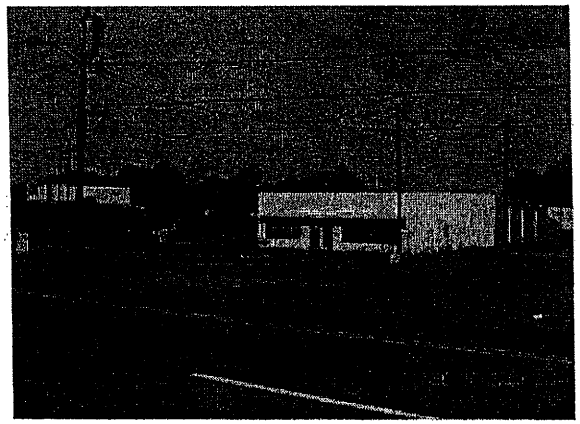
Thank you for the opportunity to serve you on this project. Please call if you need additional information or have any questions.

Sincerely,

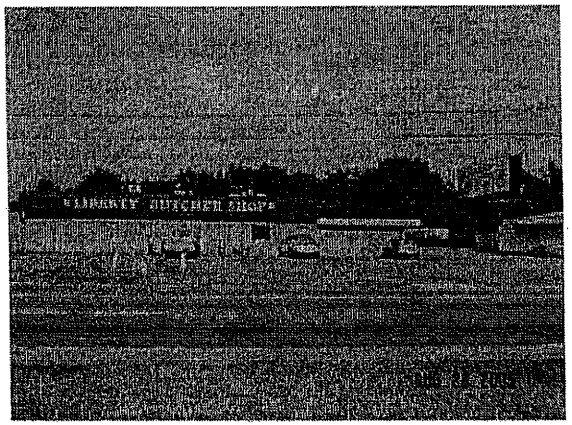
Edward (Ned) D. Billington, P.G.
Project Manager

NORTH CAROLINA LICENSED SEAL 1631 GEOLOGIST EDWARD DAVIS BILLINGTON

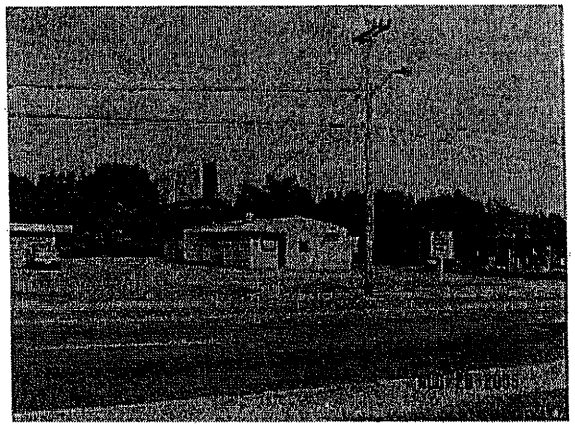
JS/NB
Attachment: Figures (6)
FILE: G:\PROJECTS\03211019 (NCDOT GEOPHYSICS 2003)\CORRESPONDENCE\CROUCH H&H LTR 2A - REPORT ON TASK 16 (I-2304AA, ROWAN) WITH FIGS.DOC



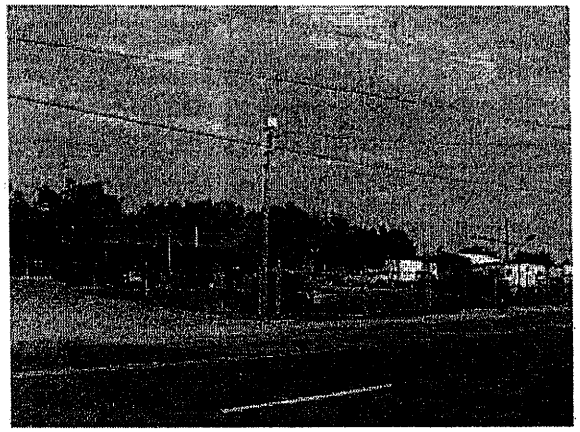
Parcel 6 - Vacant, looking northeast



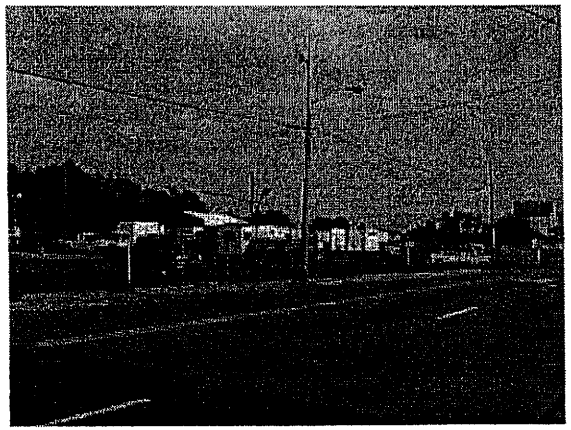
Parcel 5 - Liberty Butcher Shop, looking east



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-2626A 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.

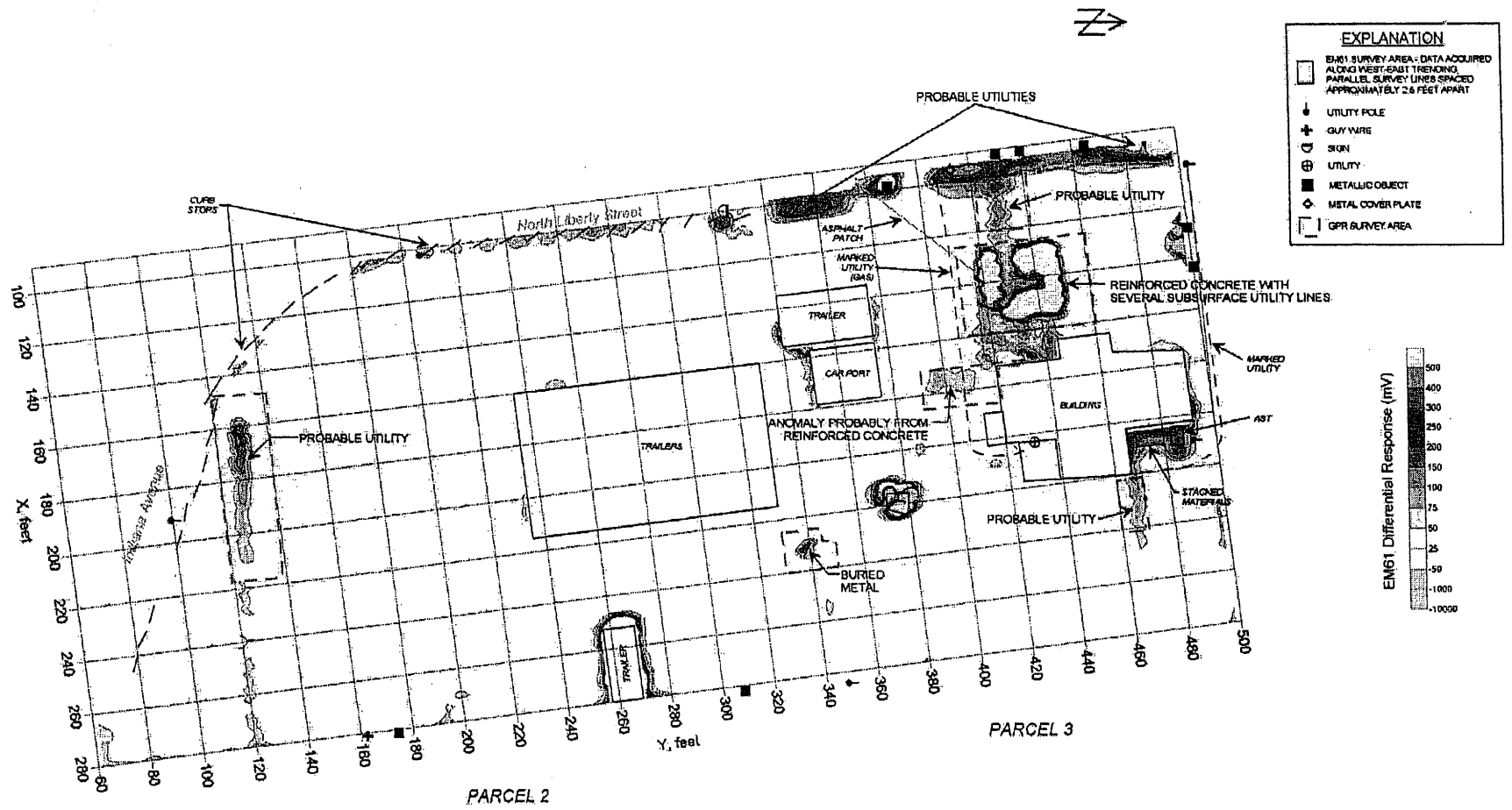
Schnabel Engineering

NC Department of Transportation
Geotechnical Engineering Unit

WBS Element 34871.1.1, TIP U-2826A
Forsyth County

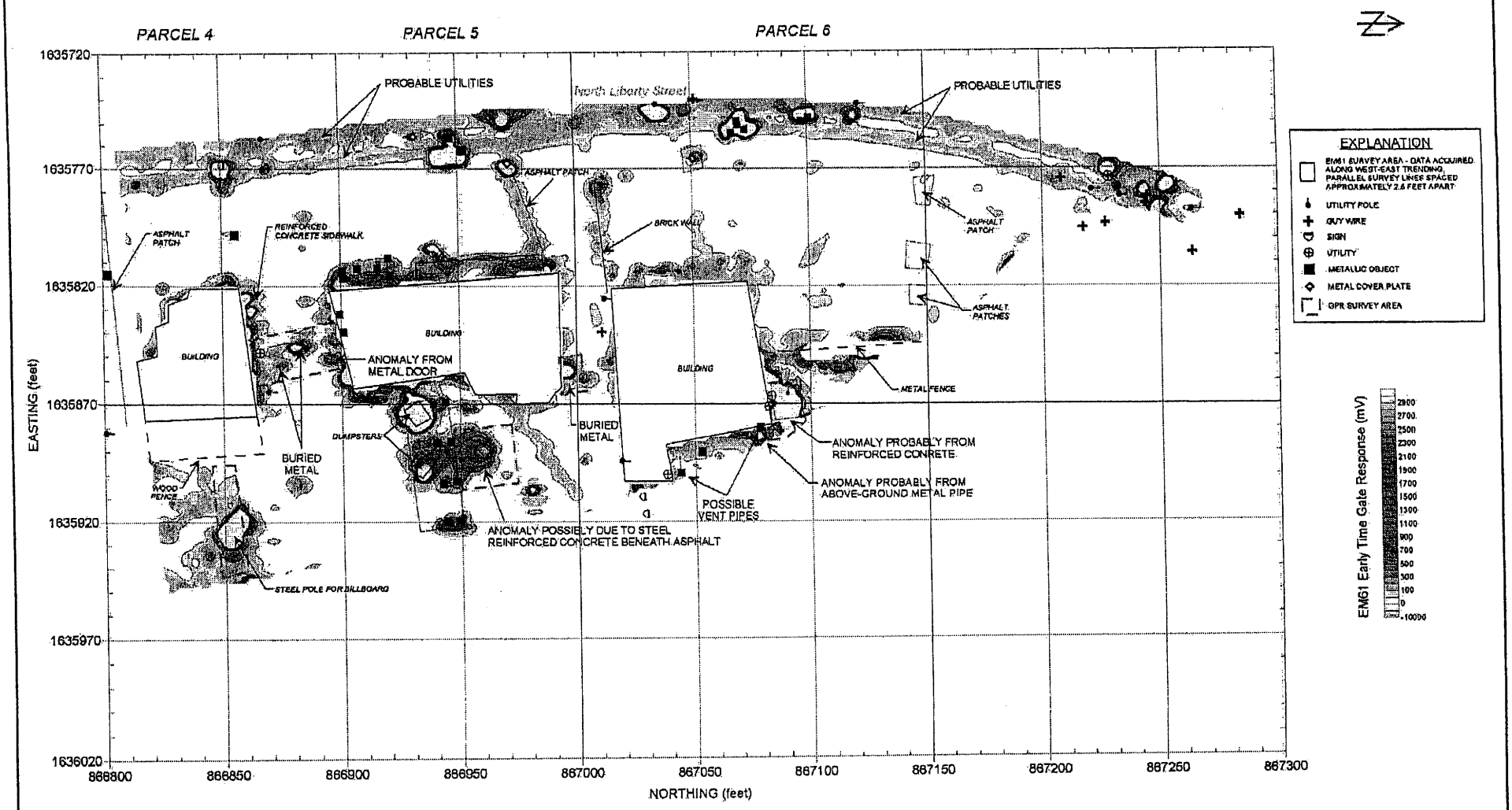
PARCELS 2 AND 3
EM61 EARLY
TIME GATE RESPONSE

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.

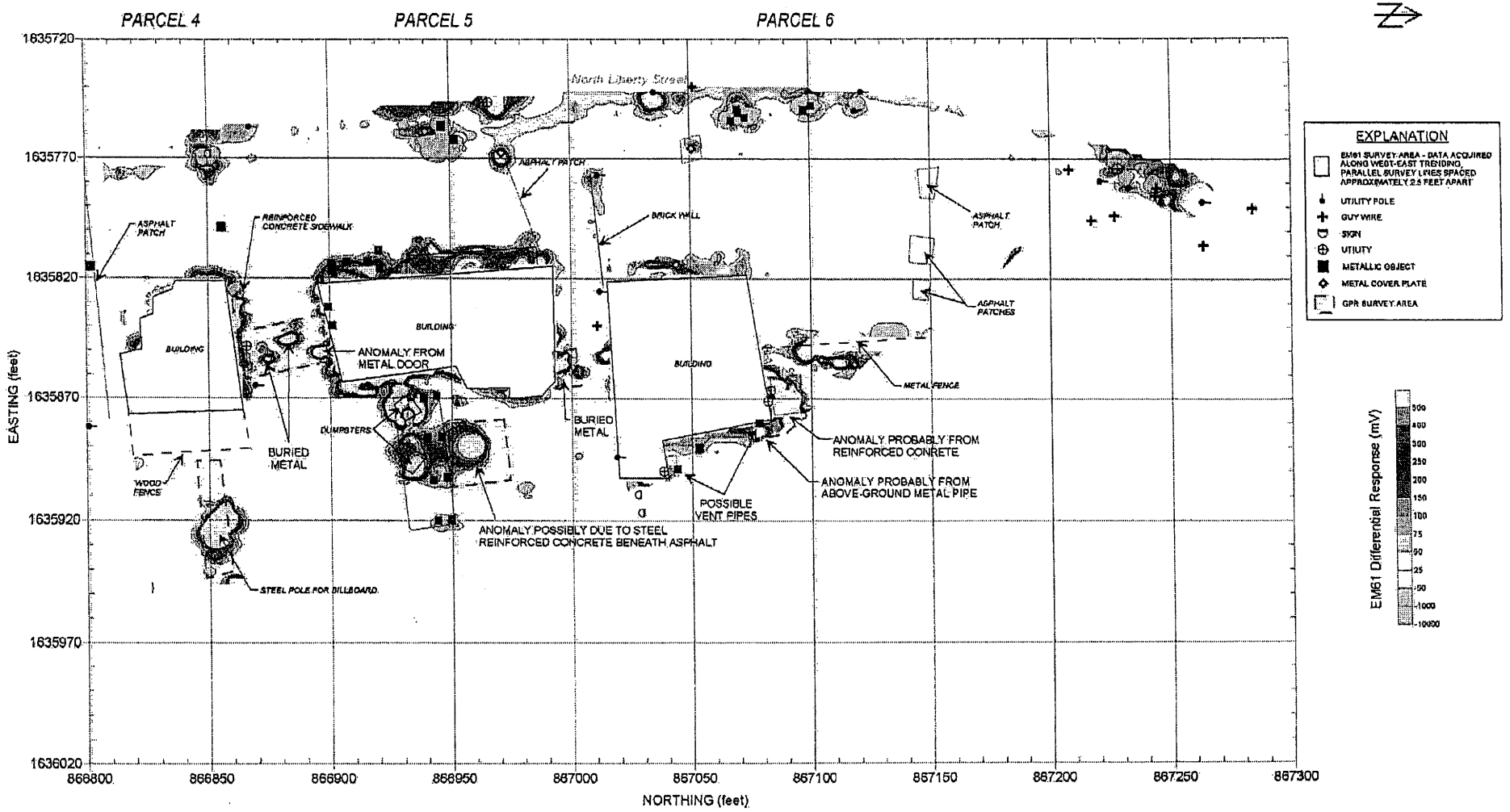
Schnabel Engineering

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.

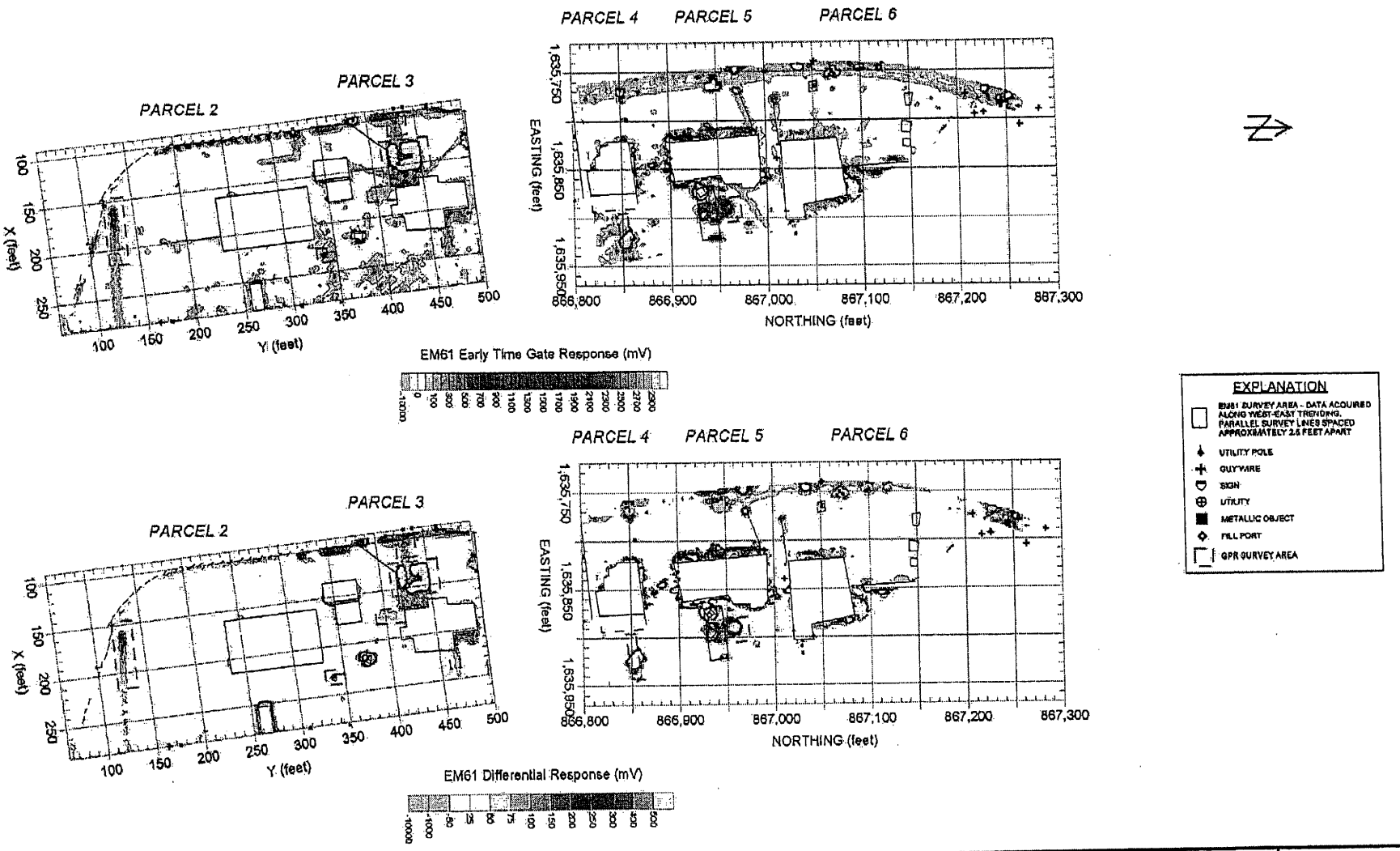
Schnabel Engineering

NC Department of Transportation
Geotechnical Engineering Unit

WBS Element 34871.1.1.1, 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: 08/11/05

Client:	NCDOT	Logged By:	RMS
Project Name:	Parcel #006 - GPI Properties, LLC Property	Drilling Company:	SEI
Project/Site Location:	2853 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: Southwest of building, adjacent to ROW

Depth (Feet)	Depth (Meters)	Time	Sample Analyzed	Recovery	Soil Profile	Lithological Description	Sample PID (ppm)
2.00	0.61			100%	(CL)	Reddish brown, silty CLAY (CL), dry.	0.0
4.00	1.22						
6.00	1.83			100%	(ML)	Tan, orange, light brown SILT (ML) with trace sand, dry.	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			100%			0.0
20.00	6.10	x					
						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-2
Date Drilled: 08/11/05

Client:	NCDOT	Logged By:	RMS
Project Name:	Parcel #006 - GPI Properties, LLC Property	Drilling Company:	SEI
Project/Site Location:	2853 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: Northwest of building, adjacent to ROW

Depth (Feet)	Depth (Meters)	Time	Sample Analyzed	Recovery	Soil Profile	Lithological Description	Sample PID (ppm)
2.00	0.61			100%	(CL)	Reddish brown, silty CLAY (CL), dry.	0.0
4.00	1.22						
6.00	1.83			100%	(ML)	Tan, orange, light brown SILT (ML) with trace sand, dry.	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%	(SM)		0.0
18.00	5.49						
20.00	6.10	x					
						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: 08/11/05

Client:	NCDOT	Logged By:	RMS
Project Name:	Parcel #006 - GPI Properties, LLC Property	Drilling Company:	SEI
Project/Site Location:	2853 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: Northwest of building, adjacent to ROW

Depth (Feet)	Depth (Meters)	Time	Sample Analyzed	Recovery	Soil Profile	Lithological Description	Sample PID (ppm)
2.00	0.61			100%		Dark reddish brown CLAY (CL), dry.	0.0
4.00	1.22						
6.00	1.83			100%	(SM)	Tanish brown fine to med SAND (SM) with little silt, dry.	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					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: 08/11/05

Client:	NCDOT	Logged By:	RMS
Project Name:	Parcel #006 - GPI Properties, LLC Property	Drilling Company:	SEI
Project/Site Location:	2853 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: Southwest of building, adjacent to ROW

Depth (Feet)	Depth (Meters)	Time	Sample Analyzed	Recovery	Soil Profile	Lithological Description	Sample PID (ppm)
2.00	0.61			100%	(CL)	Reddish brown, silty CLAY (CL), dry.	0.0
4.00	1.22						
6.00	1.83			100%	(SM)	Tan, light brown silty fine to medium SAND (SM), dry.	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						
20.00	6.10	x					
						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: 08/11/05

Client:	NCDOT	Logged By:	RMS
Project Name:	Parcel #006 - GPI Properties, LLC Property	Drilling Company:	SEI
Project/Site Location:	2853 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: North of building adjacent to property line

Depth (Feet)	Depth (Meters)	Time	Sample Analyzed	Recovery	Soil Profile	Lithological Description	Sample PID (ppm)
2.00	0.61			100%	(CL)	Reddish brown, silty CLAY (CL), dry.	0.0
4.00	1.22						
6.00	1.83			100%	(SM)	Tan, light brown silty fine to medium SAND (SM), dry.	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						
20.00	6.10	x					
						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: 08/11/05

Client:	NCDOT	Logged By:	RMS
Project Name:	Parcel #006 - GPI Properties, LLC Property	Drilling Company:	SEI
Project/Site Location:	2853 North Liberty Street, Winston-Salem, NC	Drill Device:	GeoProbe® 5400
Project Number:	ENMO050015.00	Drill Method:	DPT

Total Boring Depth: 35.0' | 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 35.0' bls, Probe Refusal. x denotes interval collected for laboratory testing. Boring converted into a temporary well (1" piezometer).	

ENVIRONMENTAL INVESTIGATIONS, INC.

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

SOIL BORING LOG

Boring No. GP-7
Date Drilled: 08/11/05

Client:	NCDOT	Logged By:	RMS
Project Name:	Parcel #006 - GPI Properties, LLC Property	Drilling Company:	SEI
Project/Site Location:	2853 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: Southeast building corner

Depth (Feet)	Depth (Meters)	Time	Sample Analyzed	Recovery	Soil Profile	Lithological Description	Sample PID (ppm)
2.00	0.61			100%	(CL)	Reddish brown, silty CLAY (CL), dry.	0.0
4.00	1.22						
6.00	1.83			100%	(ML)	Tan, orange, light brown SILT (ML) with trace sand, dry.	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%	(SM)		0.0
18.00	5.49						
20.00	6.10	x					
						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: **08/11/05**

Client:	NCDOT	Logged By:	RMS
Project Name:	Parcel #006 - GPI Properties, LLC Property	Drilling Company:	SEI
Project/Site Location:	2853 North Liberty Street, Winston-Salem, NC	Drill Device:	GeoProbe® 5400
Project Number:	ENMO050015.00	Drill Method:	DPT

Total Boring Depth: 14.0' | Weather Conditions: Very Hot | Surface Elevation:
Boring Diameter: 4.0" | Boring Location: Southeast building corner

Depth (Feet)	Depth (Meters)	Time	Sample Analyzed	Recovery	Soil Profile	Lithological Description	Sample PID (ppm)
2.00	0.61			100%	(CL)	Reddish brown, silty CLAY (CL), dry.	0.0
4.00	1.22						
6.00	1.83			100%	(ML)	Tan, orange, light brown SILT (ML) with trace sand, dry.	0.0
8.00	2.44						
10.00	3.05						
12.00	3.66			100%			0.0
14.00	4.27						
						Boring terminated at 14.0' bls.	

ENVIRONMENTAL INVESTIGATIONS, INC.

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

SOIL BORING LOG

Boring No. GP-9
Date Drilled: 08/11/05

Client:	NCDOT	Logged By:	RMS
Project Name:	Parcel #006 - GPI Properties, LLC Property	Drilling Company:	SEI
Project/Site Location:	2853 North Liberty Street, Winston-Salem, NC	Drill Device:	GeoProbe® 5400
Project Number:	ENMO050015.00	Drill Method:	DPT

Total Boring Depth: 14.0' | Weather Conditions: Very Hot | Surface Elevation:
Boring Diameter: 4.0" | Boring Location: Southeast building corner

Depth (Feet)	Depth (Meters)	Time	Sample Analyzed	Recovery	Soil Profile	Lithological Description	Sample PID (ppm)
2.00	0.61			100%	(CL)	Reddish brown, silty CLAY (CL), dry.	0.0
4.00	1.22						
6.00	1.83			100%	(ML)	Tan, orange, light brown SILT (ML) with trace sand, dry, petroleum odor.	0.0
8.00	2.44						
10.00	3.05						
12.00	3.66			100%			0.0
14.00	4.27						
						Boring terminated at 14.0' bls.	

ENVIRONMENTAL INVESTIGATIONS, INC.

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

SOIL BORING LOG

Boring No. **GP-10**
Date Drilled: **08/11/05**

Client:	NCDOT	Logged By:	RMS
Project Name:	Parcel #006 - GPI Properties, LLC Property	Drilling Company:	SEI
Project/Site Location:	2853 North Liberty Street, Winston-Salem, NC	Drill Device:	GeoProbe® 5400
Project Number:	ENMO050015.00	Drill Method:	DPT

Total Boring Depth: 14.0' | Weather Conditions: Very Hot | Surface Elevation:
Boring Diameter: 4.0" | Boring Location: Southeast building corner

Depth (Feet)	Depth (Meters)	Time	Sample Analyzed	Recovery	Soil Profile	Lithological Description	Sample PID (ppm)
2.00	0.61			100%	(CL)	Reddish brown, silty CLAY (CL), dry.	0.0
4.00	1.22						
6.00	1.83			100%	(ML)	Tan, orange, light brown SILT (ML) with trace sand, dry, petroleum odor.	0.0
8.00	2.44						
10.00	3.05						
12.00	3.66		x	100%			0.0
14.00	4.27						
						Boring terminated at 14.0' 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-11
Date Drilled: 08/11/05

Client:	NCDOT	Logged By:	RMS
Project Name:	Parcel #006 - GPI Properties, LLC Property	Drilling Company:	EI
Project/Site Location:	2853 North Liberty Street, Winston-Salem, NC	Drill Device:	Hand Auger
Project Number:	ENMO050015.00	Drill Method:	Hand Auger

Total Boring Depth: 14.0' | Weather Conditions: Very Hot | Surface Elevation:
Boring Diameter: 4.0" | Boring Location: Southeast building corner

Depth (Feet)	Depth (Meters)	Time	Sample Analyzed	Recovery	Soil Profile	Lithological Description	Sample PID (ppm)
2.00	0.61			100%	(CL)	Reddish brown, silty CLAY (CL), dry.	0.0
4.00	1.22						
6.00	1.83			100%	(ML)	Tan, orange, light brown SILT (ML) with trace sand, dry.	0.0
8.00	2.44						
10.00	3.05						
12.00	3.66		x	100%			0.0
14.00	4.27						
						Boring terminated at 14.0' bls. X denotes interval collected for laboratory testing.	

APPENDIX D

LABORATORY ANALYTICAL 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: G106-534

Client Project: Parcel 6 Tip#U-2826A

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.

Laboratory Director — Date 8/30/2005
J. Patrick Weaver

Results for Total Petroleum Hydrocarbons

by **GC/FID 8015**

Client Sample ID:	P6GP1-20	Analyzed By:	DCS
Client Project ID:	Parcel 6 Tip#U-2826A	Date Collected:	8/11/05 13:40
Lab Sample ID:	G106-534-1	Date Received:	8/13/05
Lab Project ID:	G106-534	Matrix:	Soil
Report Basis:	Dry Weight	Solids	67.00

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	7.59	5035	1	08/17/05
Diesel Range Organics	BQL	9.56	3545	1	08/26/05

Comments:

Reviewed By: MA

Results for Total Petroleum Hydrocarbons

by **GC/FID 8015**

Client Sample ID: P6GP2-20
Client Project ID: Parcel 6 Tip#U-2826A
Lab Sample ID: G106-534-2
Lab Project ID: G106-534
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 8/11/05 13:55
Date Received: 8/13/05
Matrix: Soil
Solids 75.93

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	6.79	5035	1	08/18/05
Diesel Range Organics	**12.5**	8.1	3545	1	08/26/05

Comments:

Reviewed By: _____

TPH_LIMS_v1.62 XLS

Results for Total Petroleum Hydrocarbons

by **GC/FID 8015**

Client Sample ID: P6GP3-20
Client Project ID: Parcel 6 Tip#U-2826A
Lab Sample ID: G106-534-3
Lab Project ID: G106-534
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 8/11/05 14:10
Date Received: 8/13/05
Matrix: Soil
Solids 71.40

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	8.21	5035	1	08/18/05
Diesel Range Organics	BQL	8.45	3545	1	08/26/05

Comments:

Reviewed By: _____

TPH_LIMS_v1.82 XLS

Results for Total Petroleum Hydrocarbons

by **GC/FID 8015**

Client Sample ID: P6GP4-20
Client Project ID: Parcel 6 Tip#U-2826A
Lab Sample ID: G106-534-4
Lab Project ID: G106-534
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 8/11/05 14:25
Date Received: 8/13/05
Matrix: Soil
Solids 71.92

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	7.38	5035	1	08/18/05
Diesel Range Organics	**10.1**	8.53	3545	1	08/26/05

Comments:

Reviewed By: MC

Results for Total Petroleum Hydrocarbons

by **GC/FID 8015**

Client Sample ID:	P6GP5-20	Analyzed By:	DCS
Client Project ID:	Parcel 6 Tip#U-2826A	Date Collected:	8/11/05 14:55
Lab Sample ID:	G106-534-5	Date Received:	8/13/05
Lab Project ID:	G106-534	Matrix:	Soil
Report Basis:	Dry Weight	Solids	64.42

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	7.85	5035	1	08/18/05
Diesel Range Organics	BQL	9.49	3545	1	08/26/05

Comments:

Reviewed By: _____

Results for Total Petroleum Hydrocarbons

by **GC/FID 8015**

Client Sample ID:	P6GP6-20	Analyzed By:	DCS
Client Project ID:	Parcel 6 Tip#U-2826A	Date Collected:	8/11/05 15:10
Lab Sample ID:	G106-534-6	Date Received:	8/13/05
Lab Project ID:	G106-534	Matrix:	Soil
Report Basis:	Dry Weight	Solids	78.74

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	7.16	5035	1	08/18/05
Diesel Range Organics	BQL	7.74	3545	1	08/26/05

Comments:

Reviewed By: _____

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

Client Sample ID: P6GP7-20
Client Project ID: Parcel 6 Tip#U-2826A
Lab Sample ID: G106-534-7
Lab Project ID: G106-534
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 8/11/05 17:00
Date Received: 8/13/05
Matrix: Soil
Solids 88.45

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	6.32	5035	1	08/18/05
Diesel Range Organics	BQL	7.06	3545	1	08/26/05

Comments:

Reviewed By: _____

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: P6GP5-20
Client Project ID: Parcel 6 Tip#U-2826A
Lab Sample ID G106-534-5A
Lab Project ID: G106-534
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 08-11-2005 14:55
Date Received: 8/13/2005
Matrix: Soil
%Solids: 64.4

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	65.4	1	8/17/2005
Benzene	BQL	6.54	1	8/17/2005
Bromobenzene	BQL	6.54	1	8/17/2005
Bromochloromethane	BQL	6.54	1	8/17/2005
Bromodichloromethane	BQL	6.54	1	8/17/2005
Bromoform	BQL	6.54	1	8/17/2005
Bromomethane	BQL	6.54	1	8/17/2005
2-Butanone	BQL	32.7	1	8/17/2005
n-Butylbenzene	BQL	6.54	1	8/17/2005
sec-Butylbenzene	BQL	6.54	1	8/17/2005
tert-Butylbenzene	BQL	6.54	1	8/17/2005
Carbon disulfide	BQL	6.54	1	8/17/2005
Carbon tetrachloride	BQL	6.54	1	8/17/2005
Chlorobenzene	BQL	6.54	1	8/17/2005
Chloroethane	BQL	6.54	1	8/17/2005
Chloroform	BQL	6.54	1	8/17/2005
Chloromethane	BQL	6.54	1	8/17/2005
2-Chlorotoluene	BQL	6.54	1	8/17/2005
4-Chlorotoluene	BQL	6.54	1	8/17/2005
Dibromochloromethane	BQL	6.54	1	8/17/2005
1,2-Dibromo-3-chloropropane	BQL	6.54	1	8/17/2005
Dibromomethane	BQL	6.54	1	8/17/2005
1,2-Dibromoethane (EDB)	BQL	6.54	1	8/17/2005
1,2-Dichlorobenzene	BQL	6.54	1	8/17/2005
1,3-Dichlorobenzene	BQL	6.54	1	8/17/2005
1,4-Dichlorobenzene	BQL	6.54	1	8/17/2005
trans-1,4-Dichloro-2-butene	BQL	6.54	1	8/17/2005
1,1-Dichloroethane	BQL	6.54	1	8/17/2005
1,1-Dichloroethene	BQL	6.54	1	8/17/2005
1,2-Dichloroethane	BQL	6.54	1	8/17/2005
cis-1,2-Dichloroethene	BQL	6.54	1	8/17/2005
trans-1,2-dichloroethene	BQL	6.54	1	8/17/2005
1,2-Dichloropropane	BQL	6.54	1	8/17/2005
1,3-Dichloropropane	BQL	6.54	1	8/17/2005
2,2-Dichloropropane	BQL	6.54	1	8/17/2005
1,1-Dichloropropene	BQL	6.54	1	8/17/2005
cis-1,3-Dichloropropene	BQL	6.54	1	8/17/2005
trans-1,3-Dichloropropene	BQL	6.54	1	8/17/2005
Dichlorodifluoromethane	BQL	6.54	1	8/17/2005
Diisopropyl ether (DIPE)	BQL	6.54	1	8/17/2005
Ethylbenzene	BQL	6.54	1	8/17/2005
Hexachlorobutadiene	BQL	6.54	1	8/17/2005
2-Hexanone	BQL	6.54	1	8/17/2005
Iodomethane	BQL	6.54	1	8/17/2005

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: P6GP5-20
Client Project ID: Parcel 6 Tip#U-2826A
Lab Sample ID G106-534-5A
Lab Project ID: G106-534
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 08-11-2005 14:55
Date Received: 8/13/2005
Matrix: Soil
%Solids: 64.4

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Isopropylbenzene	BQL	6.54	1	8/17/2005
4-Isopropyltoluene	BQL	6.54	1	8/17/2005
Methylene chloride	BQL	26.2	1	8/17/2005
4-Methyl-2-pentanone	BQL	6.54	1	8/17/2005
Methyl-tert-butyl ether (MTBE)	BQL	6.54	1	8/17/2005
Naphthalene	BQL	6.54	1	8/17/2005
n-Propyl benzene	BQL	6.54	1	8/17/2005
Styrene	BQL	6.54	1	8/17/2005
1,1,1,2-Tetrachloroethane	BQL	6.54	1	8/17/2005
1,1,2,2-Tetrachloroethane	BQL	6.54	1	8/17/2005
Tetrachloroethene	BQL	6.54	1	8/17/2005
Toluene	BQL	6.54	1	8/17/2005
1,2,3-Trichlorobenzene	BQL	6.54	1	8/17/2005
1,2,4-Trichlorobenzene	BQL	6.54	1	8/17/2005
Trichloroethene	BQL	6.54	1	8/17/2005
1,1,1-Trichloroethane	BQL	6.54	1	8/17/2005
1,1,2-Trichloroethane	BQL	6.54	1	8/17/2005
Trichlorofluoromethane	BQL	6.54	1	8/17/2005
1,2,3-Trichloropropane	BQL	6.54	1	8/17/2005
1,2,4-Trimethylbenzene	BQL	6.54	1	8/17/2005
1,3,5-Trimethylbenzene	BQL	6.54	1	8/17/2005
Vinyl chloride	BQL	6.54	1	8/17/2005
m-,p-Xylene	BQL	13.1	1	8/17/2005
o-Xylene	BQL	6.54	1	8/17/2005

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	50	60	120
1,2-Dichloroethane-d4	50	59.2	118
Toluene-d8	50	53.1	106

Comments:

Flags:
BQL = Below Quantitation Limits.

Reviewed By: MC

Results for Semivolatiles by GCMS 8270

Client Sample ID: P6GP5-20
Client Project ID: Parcel 6 Tip#U-2826A
Lab Sample ID: G106-534-5F
Lab Project ID: G106-534
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 8/11/2005 14:55
Date Received: 8/13/2005
Date Extracted: 1/0/1900
Matrix: Soil
% Solids: 64.42

Compound	Result ug/Kg	Quantitation Limit ug/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	491	1	8/20/2005
Acenaphthylene	BQL	491	1	8/20/2005
Anthracene	BQL	491	1	8/20/2005
Benzo[a]anthracene	BQL	491	1	8/20/2005
Benzo[a]pyrene	BQL	491	1	8/20/2005
Benzo[b]fluoranthene	BQL	491	1	8/20/2005
Benzo[g,h,i]perylene	BQL	491	1	8/20/2005
Benzo[k]fluoranthene	BQL	491	1	8/20/2005
Benzoic Acid	BQL	981	1	8/20/2005
Bis(2-chloroethoxy)methane	BQL	491	1	8/20/2005
Bis(2-chloroethyl)ether	BQL	491	1	8/20/2005
Bis(2-chloroisopropyl)ether	BQL	491	1	8/20/2005
Bis(2-ethylhexyl)phthalate	BQL	491	1	8/20/2005
4-bromophenyl phenyl ether	BQL	491	1	8/20/2005
Butylbenzylphthalate	BQL	491	1	8/20/2005
2-Chloronaphthalene	BQL	491	1	8/20/2005
2-Chlorophenol	BQL	491	1	8/20/2005
4-Chloro-3-methylphenol	BQL	491	1	8/20/2005
4-Chloroaniline	BQL	2450	1	8/20/2005
4-Chlorophenyl phenyl ether	BQL	491	1	8/20/2005
Chrysene	BQL	491	1	8/20/2005
Dibenzo[a,h]anthracene	BQL	491	1	8/20/2005
Dibenzofuran	BQL	491	1	8/20/2005
Di-n-Butylphthalate	BQL	491	1	8/20/2005
1,2-Dichlorobenzene	BQL	491	1	8/20/2005
1,3-Dichlorobenzene	BQL	491	1	8/20/2005
1,4-Dichlorobenzene	BQL	491	1	8/20/2005
3,3'-Dichlorobenzidine	BQL	981	1	8/20/2005
2,4-Dichlorophenol	BQL	491	1	8/20/2005
Diethylphthalate	BQL	491	1	8/20/2005
Dimethylphthalate	BQL	491	1	8/20/2005
2,4-Dimethylphenol	BQL	491	1	8/20/2005
Di-n-octylphthalate	BQL	491	1	8/20/2005
4,6-Dinitro-2-methylphenol	BQL	2450	1	8/20/2005
2,4-Dinitrophenol	BQL	2450	1	8/20/2005
2,4-Dinitrotoluene	BQL	491	1	8/20/2005
2,6-Dinitrotoluene	BQL	491	1	8/20/2005
Diphenylamine *	BQL	491	1	8/20/2005
Fluoranthene	BQL	491	1	8/20/2005
Fluorene	BQL	491	1	8/20/2005
Hexachlorobenzene	BQL	491	1	8/20/2005
Hexachlorobutadiene	BQL	491	1	8/20/2005

Results for Semivolatiles by GCMS 8270

Client Sample ID: P6GP5-20
Client Project ID: Parcel 6 Tip#U-2826A
Lab Sample ID: G106-534-5F
Lab Project ID: G106-534
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 8/11/2005 14:55
Date Received: 8/13/2005
Date Extracted: 1/0/1900
Matrix: Soil
% Solids: 64.42

Compound	Result ug/Kg	Quantitation Limit ug/Kg	Dilution Factor	Date Analyzed
Hexachlorocyclopentadiene	BQL	981	1	8/20/2005
Hexachloroethane	BQL	491	1	8/20/2005
Indeno(1,2,3-c,d)pyrene	BQL	491	1	8/20/2005
Isophorone	BQL	491	1	8/20/2005
2-Methylnaphthalene	BQL	491	1	8/20/2005
2-Methylphenol	BQL	491	1	8/20/2005
3- & 4-Methylphenol	BQL	491	1	8/20/2005
Naphthalene	BQL	491	1	8/20/2005
2-Nitroaniline	BQL	491	1	8/20/2005
3-Nitroaniline	BQL	2450	1	8/20/2005
4-Nitroaniline	BQL	2450	1	8/20/2005
Nitrobenzene	BQL	491	1	8/20/2005
2-Nitrophenol	BQL	491	1	8/20/2005
4-Nitrophenol	BQL	2450	1	8/20/2005
N-Nitrosodi-n-propylamine	BQL	491	1	8/20/2005
Pentachlorophenol	BQL	2450	1	8/20/2005
Phenanthrene	BQL	491	1	8/20/2005
Phenol	BQL	491	1	8/20/2005
Pyrene	BQL	491	1	8/20/2005
1,2,4-Trichlorobenzene	BQL	491	1	8/20/2005
2,4,5-Trichlorophenol	BQL	491	1	8/20/2005
2,4,6-Trichlorophenol	BQL	491	1	8/20/2005

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	8.5	85
2-Fluorophenol	10	10.1	101
Nitrobenzene-d5	10	9.5	95
Phenol-d6	10	9.9	99
2,4,6-Tribromophenol	10	6.9	69
4-Terphenyl-d14	10	12	120

Comments:

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

Flags:

BQL = Below Quantitation Limits.

Reviewed By: MA

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.

MI34.011404.1

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

Chain-of Custody Record & Analytical Request

TIP# U-2826A WBS: 34871.1.1

COC# 48827

Page 1 of 1

Client: EI, INC.
Address: 210 GATEWAY CENTRE BLVD
Address: SUITE 200, MORRISVILLE NC 27560
Quote #:

Project ID: PARCEL 06
Contact: DARREN LOCKAMY
Phone: 919-544-7500
Fax: 919-544-2199

Date: 10-12-05
Turnaround: STANDARD
Job Number: ENM00500015.00
P.O. Number:

Report To: DARREN LOCKAMY EI

Invoice To: NCDOT TIP# U-2826A

Sample ID	Date	Time	Matrix	Preservatives	TPH GRO	TPH DRO	8260	8270
P6GP1-00	8-11-05	1340	Soil		X	X		
P6GP2-20		1355			X	X		
P6GP3-00		1410			X	X		
P6GP4-00		1425			X	X		
P6GP5-20		1455			X	X	X	X
P6GP6-20		1510			X	X		
P6GP7-20		1700			X	X		

Comments: Please specify any special reporting requirements

G106-534

Relinquished By	Date	Time	Received By	Date	Time	Temperature
	10-12-05			8/10/05	3:20	on ice
	"	1535	L. Lockamy	8/13/05	10:30	3.8

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

96

Client Sample ID: P9GP10-12
Client Project ID: NCDOT-Forsyth County Tip #U-2826A
Lab Sample ID: G106-549-8
Lab Project ID: G106-549
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 9/2/05 10:10
Date Received: 9/7/05
Matrix: Soil
Solids 86.11

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	6.66	5035	1	09/08/05
Diesel Range Organics	**108**	7.15	3545	1	09/10/05

Comments:

Reviewed By: _____

P6
6W

Mr. Darren Lockhart
Environmental Investigations
2101 Gateway Centre Boulevard
Suite 200
Morrisville NC 27560
Report Number: G106-551

Client Project: NCDOT-Forsyth Tip #U-2

Dear Mr. Lockhart:

Enclosed are the results of the analytical services performed under the [illegible] 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.

9/16/05

Laboratory Director Date
J. Patrick Weaver

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

Client Sample ID: P6GPDEL
Client Project ID: NCDOT-Forsyth Tip #U-2826A
Lab Sample ID: G106-551-5
Lab Project ID: G106-551
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 9/8/05 12:30
Date Received: 9/10/05
Matrix: Soil
Solids 77.11

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	8.84	5035	1	09/12/05
Diesel Range Organics	BQL	7.95	3545	1	09/14/05

Comments:

Reviewed By: mc

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: P8GP11-8
Client Project ID: NCDOT-Forsyth Tip #U-2826A
Lab Sample ID G106-551-1A
Lab Project ID: G106-551
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 09-07-2005 10:15
Date Received: 9/10/05
Matrix: Soil
%Solids: 74.0

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	74.0	1	9/13/05
Benzene	BQL	7.40	1	9/13/05
Bromobenzene	BQL	7.40	1	9/13/05
Bromochloromethane	BQL	7.40	1	9/13/05
Bromodichloromethane	BQL	7.40	1	9/13/05
Bromoform	BQL	7.40	1	9/13/05
Bromomethane	BQL	7.40	1	9/13/05
2-Butanone	BQL	37.0	1	9/13/05
n-Butylbenzene	BQL	7.40	1	9/13/05
sec-Butylbenzene	BQL	7.40	1	9/13/05
tert-Butylbenzene	BQL	7.40	1	9/13/05
Carbon disulfide	BQL	7.40	1	9/13/05
Carbon tetrachloride	BQL	7.40	1	9/13/05
Chlorobenzene	BQL	7.40	1	9/13/05
Chloroethane	BQL	7.40	1	9/13/05
Chloroform	BQL	7.40	1	9/13/05
Chloromethane	BQL	7.40	1	9/13/05
2-Chlorotoluene	BQL	7.40	1	9/13/05
4-Chlorotoluene	BQL	7.40	1	9/13/05
Dibromochloromethane	BQL	7.40	1	9/13/05
1,2-Dibromo-3-chloropropane	BQL	7.40	1	9/13/05
Dibromomethane	BQL	7.40	1	9/13/05
1,2-Dibromoethane (EDB)	BQL	7.40	1	9/13/05
1,2-Dichlorobenzene	BQL	7.40	1	9/13/05
1,3-Dichlorobenzene	BQL	7.40	1	9/13/05
1,4-Dichlorobenzene	BQL	7.40	1	9/13/05
trans-1,4-Dichloro-2-butene	BQL	7.40	1	9/13/05
1,1-Dichloroethane	BQL	7.40	1	9/13/05
1,1-Dichloroethene	BQL	7.40	1	9/13/05
1,2-Dichloroethane	BQL	7.40	1	9/13/05
cis-1,2-Dichloroethene	BQL	7.40	1	9/13/05
trans-1,2-dichloroethene	BQL	7.40	1	9/13/05
1,2-Dichloropropane	BQL	7.40	1	9/13/05
1,3-Dichloropropane	BQL	7.40	1	9/13/05
2,2-Dichloropropane	BQL	7.40	1	9/13/05
1,1-Dichloropropene	BQL	7.40	1	9/13/05
cis-1,3-Dichloropropene	BQL	7.40	1	9/13/05
trans-1,3-Dichloropropene	BQL	7.40	1	9/13/05
Dichlorodifluoromethane	BQL	7.40	1	9/13/05
Diisopropyl ether (DIPE)	BQL	7.40	1	9/13/05
Ethylbenzene	BQL	7.40	1	9/13/05
Hexachlorobutadiene	BQL	7.40	1	9/13/05

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: P8GP11-8
Client Project ID: NCDOT-Forsyth Tip #U-2826A
Lab Sample ID G106-551-1A
Lab Project ID: G106-551
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 09-07-2005 10:15
Date Received: 9/10/05
Matrix: Soil
%Solids: 74.0

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
2-Hexanone	BQL	7.40	1	9/13/05
Iodomethane	BQL	7.40	1	9/13/05
Isopropylbenzene	BQL	7.40	1	9/13/05
4-Isopropyltoluene	BQL	7.40	1	9/13/05
Methylene chloride	BQL	29.6	1	9/13/05
4-Methyl-2-pentanone	BQL	7.40	1	9/13/05
Methyl-tert-butyl ether (MTBE)	BQL	7.40	1	9/13/05
Naphthalene	BQL	7.40	1	9/13/05
n-Propyl benzene	BQL	7.40	1	9/13/05
Styrene	BQL	7.40	1	9/13/05
1,1,1,2-Tetrachloroethane	BQL	7.40	1	9/13/05
1,1,2,2-Tetrachloroethane	BQL	7.40	1	9/13/05
Tetrachloroethene	**9.19**	7.40	1	9/13/05
Toluene	BQL	7.40	1	9/13/05
1,2,3-Trichlorobenzene	BQL	7.40	1	9/13/05
1,2,4-Trichlorobenzene	BQL	7.40	1	9/13/05
Trichloroethene	BQL	7.40	1	9/13/05
1,1,1-Trichloroethane	BQL	7.40	1	9/13/05
1,1,2-Trichloroethane	BQL	7.40	1	9/13/05
Trichlorofluoromethane	BQL	7.40	1	9/13/05
1,2,3-Trichloropropane	BQL	7.40	1	9/13/05
1,2,4-Trimethylbenzene	BQL	7.40	1	9/13/05
1,3,5-Trimethylbenzene	BQL	7.40	1	9/13/05
Vinyl chloride	BQL	7.40	1	9/13/05
m-,p-Xylene	BQL	14.8	1	9/13/05
o-Xylene	BQL	7.40	1	9/13/05

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	50	44.3	89
1,2-Dichloroethane-d4	50	64.3	129
Toluene-d8	50	51.7	104

Comments:

Flags:
BQL = Below Quantitation Limits.
J = Detected below the quantitation limit.

Reviewed By: _____

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: P8GP12-5
Client Project ID: NCDOT-Forsyth Tip #U-2826A
Lab Sample ID G106-551-2A
Lab Project ID: G106-551
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 09-07-2005 10:45
Date Received: 9/10/05
Matrix: Soil
%Solids: 82.1

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	79.1	1	9/13/05
Benzene	BQL	7.91	1	9/13/05
Bromobenzene	BQL	7.91	1	9/13/05
Bromochloromethane	BQL	7.91	1	9/13/05
Bromodichloromethane	BQL	7.91	1	9/13/05
Bromoform	BQL	7.91	1	9/13/05
Bromomethane	BQL	7.91	1	9/13/05
2-Butanone	BQL	39.6	1	9/13/05
n-Butylbenzene	BQL	7.91	1	9/13/05
sec-Butylbenzene	BQL	7.91	1	9/13/05
tert-Butylbenzene	BQL	7.91	1	9/13/05
Carbon disulfide	BQL	7.91	1	9/13/05
Carbon tetrachloride	BQL	7.91	1	9/13/05
Chlorobenzene	BQL	7.91	1	9/13/05
Chloroethane	BQL	7.91	1	9/13/05
Chloroform	BQL	7.91	1	9/13/05
Chloromethane	BQL	7.91	1	9/13/05
2-Chlorotoluene	BQL	7.91	1	9/13/05
4-Chlorotoluene	BQL	7.91	1	9/13/05
Dibromochloromethane	BQL	7.91	1	9/13/05
1,2-Dibromo-3-chloropropane	BQL	7.91	1	9/13/05
Dibromomethane	BQL	7.91	1	9/13/05
1,2-Dibromoethane (EDB)	BQL	7.91	1	9/13/05
1,2-Dichlorobenzene	BQL	7.91	1	9/13/05
1,3-Dichlorobenzene	BQL	7.91	1	9/13/05
1,4-Dichlorobenzene	BQL	7.91	1	9/13/05
trans-1,4-Dichloro-2-butene	BQL	7.91	1	9/13/05
1,1-Dichloroethane	BQL	7.91	1	9/13/05
1,1-Dichloroethene	BQL	7.91	1	9/13/05
1,2-Dichloroethane	BQL	7.91	1	9/13/05
cis-1,2-Dichloroethene	BQL	7.91	1	9/13/05
trans-1,2-dichloroethene	BQL	7.91	1	9/13/05
1,2-Dichloropropane	BQL	7.91	1	9/13/05
1,3-Dichloropropane	BQL	7.91	1	9/13/05
2,2-Dichloropropane	BQL	7.91	1	9/13/05
1,1-Dichloropropene	BQL	7.91	1	9/13/05
cis-1,3-Dichloropropene	BQL	7.91	1	9/13/05
trans-1,3-Dichloropropene	BQL	7.91	1	9/13/05
Dichlorodifluoromethane	BQL	7.91	1	9/13/05
Diisopropyl ether (DIPE)	BQL	7.91	1	9/13/05
Ethylbenzene	BQL	7.91	1	9/13/05
Hexachlorobutadiene	BQL	7.91	1	9/13/05

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: P8GP12-5
Client Project ID: NCDOT-Forsyth Tip #U-2826A
Lab Sample ID G106-551-2A
Lab Project ID: G106-551
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 09-07-2005 10:45
Date Received: 9/10/05
Matrix: Soil
%Solids: 82.1

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
2-Hexanone	BQL	7.91	1	9/13/05
Iodomethane	BQL	7.91	1	9/13/05
Isopropylbenzene	BQL	7.91	1	9/13/05
4-Isopropyltoluene	BQL	7.91	1	9/13/05
Methylene chloride	BQL	31.7	1	9/13/05
4-Methyl-2-pentanone	BQL	7.91	1	9/13/05
Methyl-tert-butyl ether (MTBE)	BQL	7.91	1	9/13/05
Naphthalene	BQL	7.91	1	9/13/05
n-Propyl benzene	BQL	7.91	1	9/13/05
Styrene	BQL	7.91	1	9/13/05
1,1,1,2-Tetrachloroethane	BQL	7.91	1	9/13/05
1,1,2,2-Tetrachloroethane	BQL	7.91	1	9/13/05
Tetrachloroethene	BQL	7.91	1	9/13/05
Toluene	BQL	7.91	1	9/13/05
1,2,3-Trichlorobenzene	BQL	7.91	1	9/13/05
1,2,4-Trichlorobenzene	BQL	7.91	1	9/13/05
Trichloroethene	BQL	7.91	1	9/13/05
1,1,1-Trichloroethane	BQL	7.91	1	9/13/05
1,1,2-Trichloroethane	BQL	7.91	1	9/13/05
Trichlorofluoromethane	BQL	7.91	1	9/13/05
1,2,3-Trichloropropane	BQL	7.91	1	9/13/05
1,2,4-Trimethylbenzene	BQL	7.91	1	9/13/05
1,3,5-Trimethylbenzene	BQL	7.91	1	9/13/05
Vinyl chloride	BQL	7.91	1	9/13/05
m-,p-Xylene	BQL	15.8	1	9/13/05
o-Xylene	BQL	7.91	1	9/13/05

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	50	42.4	85
1,2-Dichloroethane-d4	50	62.2	124
Toluene-d8	50	52.7	105

Comments:

Flags:
BQL = Below Quantitation Limits.
J = Detected below the quantitation limit.

Reviewed By: mc

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: P8GP13-8
Client Project ID: NCDOT-Forsyth Tip #U-2826A
Lab Sample ID G106-551-3A
Lab Project ID: G106-551
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 09-07-2005 11:15
Date Received: 9/10/05
Matrix: Soil
%Solids: 86.8

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	72.7	1	9/13/05
Benzene	BQL	7.27	1	9/13/05
Bromobenzene	BQL	7.27	1	9/13/05
Bromochloromethane	BQL	7.27	1	9/13/05
Bromodichloromethane	BQL	7.27	1	9/13/05
Bromoform	BQL	7.27	1	9/13/05
Bromomethane	BQL	7.27	1	9/13/05
2-Butanone	BQL	36.4	1	9/13/05
n-Butylbenzene	BQL	7.27	1	9/13/05
sec-Butylbenzene	BQL	7.27	1	9/13/05
tert-Butylbenzene	BQL	7.27	1	9/13/05
Carbon disulfide	BQL	7.27	1	9/13/05
Carbon tetrachloride	BQL	7.27	1	9/13/05
Chlorobenzene	BQL	7.27	1	9/13/05
Chloroethane	BQL	7.27	1	9/13/05
Chloroform	BQL	7.27	1	9/13/05
Chloromethane	BQL	7.27	1	9/13/05
2-Chlorotoluene	BQL	7.27	1	9/13/05
4-Chlorotoluene	BQL	7.27	1	9/13/05
Dibromochloromethane	BQL	7.27	1	9/13/05
1,2-Dibromo-3-chloropropane	BQL	7.27	1	9/13/05
Dibromomethane	BQL	7.27	1	9/13/05
1,2-Dibromoethane (EDB)	BQL	7.27	1	9/13/05
1,2-Dichlorobenzene	BQL	7.27	1	9/13/05
1,3-Dichlorobenzene	BQL	7.27	1	9/13/05
1,4-Dichlorobenzene	BQL	7.27	1	9/13/05
trans-1,4-Dichloro-2-butene	BQL	7.27	1	9/13/05
1,1-Dichloroethane	BQL	7.27	1	9/13/05
1,1-Dichloroethene	BQL	7.27	1	9/13/05
1,2-Dichloroethane	BQL	7.27	1	9/13/05
cis-1,2-Dichloroethene	BQL	7.27	1	9/13/05
trans-1,2-dichloroethene	BQL	7.27	1	9/13/05
1,2-Dichloropropane	BQL	7.27	1	9/13/05
1,3-Dichloropropane	BQL	7.27	1	9/13/05
2,2-Dichloropropane	BQL	7.27	1	9/13/05
1,1-Dichloropropene	BQL	7.27	1	9/13/05
cis-1,3-Dichloropropene	BQL	7.27	1	9/13/05
trans-1,3-Dichloropropene	BQL	7.27	1	9/13/05
Dichlorodifluoromethane	BQL	7.27	1	9/13/05
Diisopropyl ether (DIPE)	BQL	7.27	1	9/13/05
Ethylbenzene	BQL	7.27	1	9/13/05
Hexachlorobutadiene	BQL	7.27	1	9/13/05

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: P8GP13-8
Client Project ID: NCDOT-Forsyth Tip #U-2826A
Lab Sample ID G106-551-3A
Lab Project ID: G106-551
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 09-07-2005 11:15
Date Received: 9/10/05
Matrix: Soil
%Solids: 86.8

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
2-Hexanone	BQL	7.27	1	9/13/05
Iodomethane	BQL	7.27	1	9/13/05
Isopropylbenzene	BQL	7.27	1	9/13/05
4-Isopropyltoluene	BQL	7.27	1	9/13/05
Methylene chloride	BQL	29.1	1	9/13/05
4-Methyl-2-pentanone	BQL	7.27	1	9/13/05
Methyl-tert-butyl ether (MTBE)	BQL	7.27	1	9/13/05
Naphthalene	BQL	7.27	1	9/13/05
n-Propyl benzene	BQL	7.27	1	9/13/05
Styrene	BQL	7.27	1	9/13/05
1,1,1,2-Tetrachloroethane	BQL	7.27	1	9/13/05
1,1,2,2-Tetrachloroethane	BQL	7.27	1	9/13/05
Tetrachloroethene	BQL	7.27	1	9/13/05
Toluene	BQL	7.27	1	9/13/05
1,2,3-Trichlorobenzene	BQL	7.27	1	9/13/05
1,2,4-Trichlorobenzene	BQL	7.27	1	9/13/05
Trichloroethene	BQL	7.27	1	9/13/05
1,1,1-Trichloroethane	BQL	7.27	1	9/13/05
1,1,2-Trichloroethane	BQL	7.27	1	9/13/05
Trichlorofluoromethane	BQL	7.27	1	9/13/05
1,2,3-Trichloropropane	BQL	7.27	1	9/13/05
1,2,4-Trimethylbenzene	BQL	7.27	1	9/13/05
1,3,5-Trimethylbenzene	BQL	7.27	1	9/13/05
Vinyl chloride	BQL	7.27	1	9/13/05
m-,p-Xylene	BQL	14.5	1	9/13/05
o-Xylene	BQL	7.27	1	9/13/05

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	50	43.3	87
1,2-Dichloroethane-d4	50	62	124
Toluene-d8	50	51.7	103

Comments:

Flags:
BQL = Below Quantitation Limits.
J = Detected below the quantitation limit.

Reviewed By: _____

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: P8GP22-8
Client Project ID: NCDOT-Forsyth Tip #U-2826A
Lab Sample ID G106-551-4A
Lab Project ID: G106-551
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 09-07-2005 12:00
Date Received: 9/10/05
Matrix: Soil
%Solids: 88.1

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	54.0	1	9/13/05
Benzene	BQL	5.40	1	9/13/05
Bromobenzene	BQL	5.40	1	9/13/05
Bromochloromethane	BQL	5.40	1	9/13/05
Bromodichloromethane	BQL	5.40	1	9/13/05
Bromoform	BQL	5.40	1	9/13/05
Bromomethane	BQL	5.40	1	9/13/05
2-Butanone	BQL	27.0	1	9/13/05
n-Butylbenzene	BQL	5.40	1	9/13/05
sec-Butylbenzene	BQL	5.40	1	9/13/05
tert-Butylbenzene	BQL	5.40	1	9/13/05
Carbon disulfide	BQL	5.40	1	9/13/05
Carbon tetrachloride	BQL	5.40	1	9/13/05
Chlorobenzene	BQL	5.40	1	9/13/05
Chloroethane	BQL	5.40	1	9/13/05
Chloroform	BQL	5.40	1	9/13/05
Chloromethane	BQL	5.40	1	9/13/05
2-Chlorotoluene	BQL	5.40	1	9/13/05
4-Chlorotoluene	BQL	5.40	1	9/13/05
Dibromochloromethane	BQL	5.40	1	9/13/05
1,2-Dibromo-3-chloropropane	BQL	5.40	1	9/13/05
Dibromomethane	BQL	5.40	1	9/13/05
1,2-Dibromoethane (EDB)	BQL	5.40	1	9/13/05
1,2-Dichlorobenzene	BQL	5.40	1	9/13/05
1,3-Dichlorobenzene	BQL	5.40	1	9/13/05
1,4-Dichlorobenzene	BQL	5.40	1	9/13/05
trans-1,4-Dichloro-2-butene	BQL	5.40	1	9/13/05
1,1-Dichloroethane	BQL	5.40	1	9/13/05
1,1-Dichloroethene	BQL	5.40	1	9/13/05
1,2-Dichloroethane	BQL	5.40	1	9/13/05
cis-1,2-Dichloroethene	BQL	5.40	1	9/13/05
trans-1,2-dichloroethene	BQL	5.40	1	9/13/05
1,2-Dichloropropane	BQL	5.40	1	9/13/05
1,3-Dichloropropane	BQL	5.40	1	9/13/05
2,2-Dichloropropane	BQL	5.40	1	9/13/05
1,1-Dichloropropene	BQL	5.40	1	9/13/05
cis-1,3-Dichloropropene	BQL	5.40	1	9/13/05
trans-1,3-Dichloropropene	BQL	5.40	1	9/13/05
Dichlorodifluoromethane	BQL	5.40	1	9/13/05
Diisopropyl ether (DIPE)	BQL	5.40	1	9/13/05
Ethylbenzene	BQL	5.40	1	9/13/05
Hexachlorobutadiene	BQL	5.40	1	9/13/05

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: P8GP22-8
Client Project ID: NCDOT-Forsyth Tip #U-2826A
Lab Sample ID G106-551-4A
Lab Project ID: G106-551
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 09-07-2005 12:00
Date Received: 9/10/05
Matrix: Soil
%Solids: 88.1

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
2-Hexanone	BQL	5.40	1	9/13/05
Iodomethane	BQL	5.40	1	9/13/05
Isopropylbenzene	BQL	5.40	1	9/13/05
4-Isopropyltoluene	BQL	5.40	1	9/13/05
Methylene chloride	BQL	21.6	1	9/13/05
4-Methyl-2-pentanone	BQL	5.40	1	9/13/05
Methyl-tert-butyl ether (MTBE)	BQL	5.40	1	9/13/05
Naphthalene	BQL	5.40	1	9/13/05
n-Propyl benzene	BQL	5.40	1	9/13/05
Styrene	BQL	5.40	1	9/13/05
1,1,1,2-Tetrachloroethane	BQL	5.40	1	9/13/05
1,1,2,2-Tetrachloroethane	BQL	5.40	1	9/13/05
Tetrachloroethene	BQL	5.40	1	9/13/05
Toluene	BQL	5.40	1	9/13/05
1,2,3-Trichlorobenzene	BQL	5.40	1	9/13/05
1,2,4-Trichlorobenzene	BQL	5.40	1	9/13/05
Trichloroethene	BQL	5.40	1	9/13/05
1,1,1-Trichloroethane	BQL	5.40	1	9/13/05
1,1,2-Trichloroethane	BQL	5.40	1	9/13/05
Trichlorofluoromethane	BQL	5.40	1	9/13/05
1,2,3-Trichloropropane	BQL	5.40	1	9/13/05
1,2,4-Trimethylbenzene	BQL	5.40	1	9/13/05
1,3,5-Trimethylbenzene	BQL	5.40	1	9/13/05
Vinyl chloride	BQL	5.40	1	9/13/05
m-,p-Xylene	BQL	10.8	1	9/13/05
o-Xylene	BQL	5.40	1	9/13/05

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	50	44.3	89
1,2-Dichloroethane-d4	50	61.8	124
Toluene-d8	50	50.4	101

Comments:

Flags:
BQL = Below Quantitation Limits.
J = Detected below the quantitation limit.

Reviewed By: _____

Results for Semivolatiles
by GCMS 8270

Client Sample ID: P8GP11-8
Client Project ID: NCDOT-Forsyth Tip #U-2826A
Lab Sample ID: G106-551-1H
Lab Project ID: G106-551
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 9/7/2005 10:15
Date Received: 9/10/2005
Date Extracted: 9/13/2005
Matrix: Soil
% Solids: 73.95

Compound	Result ug/Kg	Quantitation Limit ug/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	413	1	9/14/2005
Acenaphthylene	BQL	413	1	9/14/2005
Anthracene	BQL	413	1	9/14/2005
Benzo[a]anthracene	BQL	413	1	9/14/2005
Benzo[a]pyrene	BQL	413	1	9/14/2005
Benzo[b]fluoranthene	BQL	413	1	9/14/2005
Benzo[g,h,i]perylene	BQL	413	1	9/14/2005
Benzo[k]fluoranthene	BQL	413	1	9/14/2005
Benzoic Acid	BQL	826	1	9/14/2005
Bis(2-chloroethoxy)methane	BQL	413	1	9/14/2005
Bis(2-chloroethyl)ether	BQL	413	1	9/14/2005
Bis(2-chloroisopropyl)ether	BQL	413	1	9/14/2005
Bis(2-ethylhexyl)phthalate	BQL	413	1	9/14/2005
4-bromophenyl phenyl ether	BQL	413	1	9/14/2005
Butylbenzylphthalate	BQL	413	1	9/14/2005
2-Chloronaphthalene	BQL	413	1	9/14/2005
2-Chlorophenol	BQL	413	1	9/14/2005
4-Chloro-3-methylphenol	BQL	413	1	9/14/2005
4-Chloroaniline	BQL	2070	1	9/14/2005
4-Chlorophenyl phenyl ether	BQL	413	1	9/14/2005
Chrysene	BQL	413	1	9/14/2005
Dibenzo[a,h]anthracene	BQL	413	1	9/14/2005
Dibenzofuran	BQL	413	1	9/14/2005
Di-n-Butylphthalate	BQL	413	1	9/14/2005
1,2-Dichlorobenzene	BQL	413	1	9/14/2005
1,3-Dichlorobenzene	BQL	413	1	9/14/2005
1,4-Dichlorobenzene	BQL	413	1	9/14/2005
3,3'-Dichlorobenzidine	BQL	826	1	9/14/2005
2,4-Dichlorophenol	BQL	413	1	9/14/2005
Diethylphthalate	BQL	413	1	9/14/2005
Dimethylphthalate	BQL	413	1	9/14/2005
2,4-Dimethylphenol	BQL	413	1	9/14/2005
Di-n-octylphthalate	BQL	413	1	9/14/2005
4,6-Dinitro-2-methylphenol	BQL	2070	1	9/14/2005
2,4-Dinitrophenol	BQL	2070	1	9/14/2005
2,4-Dinitrotoluene	BQL	413	1	9/14/2005
2,6-Dinitrotoluene	BQL	413	1	9/14/2005
Diphenylamine *	BQL	413	1	9/14/2005
Fluoranthene	BQL	413	1	9/14/2005
Fluorene	BQL	413	1	9/14/2005
Hexachlorobenzene	BQL	413	1	9/14/2005
Hexachlorobutadiene	BQL	413	1	9/14/2005

Results for Semivolatiles by GCMS 8270

Client Sample ID: P8GP11-8
Client Project ID: NCDOT-Forsyth Tip #U-2826A
Lab Sample ID: G106-551-1H
Lab Project ID: G106-551
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 9/7/2005 10:15
Date Received: 9/10/2005
Date Extracted: 9/13/2005
Matrix: Soil
% Solids: 73.95

Compound	Result ug/Kg	Quantitation Limit ug/Kg	Dilution Factor	Date Analyzed
Hexachlorocyclopentadiene	BQL	826	1	9/14/2005
Hexachloroethane	BQL	413	1	9/14/2005
Indeno(1,2,3-c,d)pyrene	BQL	413	1	9/14/2005
Isophorone	BQL	413	1	9/14/2005
2-Methylnaphthalene	BQL	413	1	9/14/2005
2-Methylphenol	BQL	413	1	9/14/2005
3- & 4-Methylphenol	BQL	413	1	9/14/2005
Naphthalene	BQL	413	1	9/14/2005
2-Nitroaniline	BQL	413	1	9/14/2005
3-Nitroaniline	BQL	2070	1	9/14/2005
4-Nitroaniline	BQL	2070	1	9/14/2005
Nitrobenzene	BQL	413	1	9/14/2005
2-Nitrophenol	BQL	413	1	9/14/2005
4-Nitrophenol	BQL	2070	1	9/14/2005
N-Nitrosodi-n-propylamine	BQL	413	1	9/14/2005
Pentachlorophenol	BQL	2070	1	9/14/2005
Phenanthrene	BQL	413	1	9/14/2005
Phenol	BQL	413	1	9/14/2005
Pyrene	BQL	413	1	9/14/2005
1,2,4-Trichlorobenzene	BQL	413	1	9/14/2005
2,4,5-Trichlorophenol	BQL	413	1	9/14/2005
2,4,6-Trichlorophenol	BQL	413	1	9/14/2005

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	10.1	101
2-Fluorophenol	10	6.7	67
Nitrobenzene-d5	10	7.7	77
Phenol-d6	10	7.4	74
2,4,6-Tribromophenol	10	8	80
4-Terphenyl-d14	10	9.9	99

Comments:

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

Flags:

BQL = Below Quantitation Limits.

Reviewed By: mc

Results for Semivolatiles
by GCMS 8270

Client Sample ID: P8GP12-5
Client Project ID: NCDOT-Forsyth Tip #U-2826A
Lab Sample ID: G106-551-2H
Lab Project ID: G106-551
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 9/7/2005 10:45
Date Received: 9/10/2005
Date Extracted: 9/13/2005
Matrix: Soil
% Solids: 82.06

Compound	Result ug/Kg	Quantitation Limit ug/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	366	1	9/14/2005
Acenaphthylene	BQL	366	1	9/14/2005
Anthracene	BQL	366	1	9/14/2005
Benzo[a]anthracene	BQL	366	1	9/14/2005
Benzo[a]pyrene	BQL	366	1	9/14/2005
Benzo[b]fluoranthene	BQL	366	1	9/14/2005
Benzo[g,h,i]perylene	BQL	366	1	9/14/2005
Benzo[k]fluoranthene	BQL	366	1	9/14/2005
Benzoic Acid	BQL	732	1	9/14/2005
Bis(2-chloroethoxy)methane	BQL	366	1	9/14/2005
Bis(2-chloroethyl)ether	BQL	366	1	9/14/2005
Bis(2-chloroisopropyl)ether	BQL	366	1	9/14/2005
Bis(2-ethylhexyl)phthalate	BQL	366	1	9/14/2005
4-bromophenyl phenyl ether	BQL	366	1	9/14/2005
Butylbenzylphthalate	BQL	366	1	9/14/2005
2-Chloronaphthalene	BQL	366	1	9/14/2005
2-Chlorophenol	BQL	366	1	9/14/2005
4-Chloro-3-methylphenol	BQL	366	1	9/14/2005
4-Chloroaniline	BQL	1830	1	9/14/2005
4-Chlorophenyl phenyl ether	BQL	366	1	9/14/2005
Chrysene	BQL	366	1	9/14/2005
Dibenzo[a,h]anthracene	BQL	366	1	9/14/2005
Dibenzofuran	BQL	366	1	9/14/2005
Di-n-Butylphthalate	BQL	366	1	9/14/2005
1,2-Dichlorobenzene	BQL	366	1	9/14/2005
1,3-Dichlorobenzene	BQL	366	1	9/14/2005
1,4-Dichlorobenzene	BQL	366	1	9/14/2005
3,3'-Dichlorobenzidine	BQL	732	1	9/14/2005
2,4-Dichlorophenol	BQL	366	1	9/14/2005
Diethylphthalate	BQL	366	1	9/14/2005
Dimethylphthalate	BQL	366	1	9/14/2005
2,4-Dimethylphenol	BQL	366	1	9/14/2005
Di-n-octylphthalate	BQL	366	1	9/14/2005
4,6-Dinitro-2-methylphenol	BQL	1830	1	9/14/2005
2,4-Dinitrophenol	BQL	1830	1	9/14/2005
2,4-Dinitrotoluene	BQL	366	1	9/14/2005
2,6-Dinitrotoluene	BQL	366	1	9/14/2005
Diphenylamine *	BQL	366	1	9/14/2005
Fluoranthene	BQL	366	1	9/14/2005
Fluorene	BQL	366	1	9/14/2005
Hexachlorobenzene	BQL	366	1	9/14/2005
Hexachlorobutadiene	BQL	366	1	9/14/2005

Results for Semivolatiles
by GCMS 8270

Client Sample ID: P8GP12-5
Client Project ID: NCDOT-Forsyth Tip #U-2826A
Lab Sample ID: G106-551-2H
Lab Project ID: G106-551
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 9/7/2005 10:45
Date Received: 9/10/2005
Date Extracted: 9/13/2005
Matrix: Soil
% Solids: 82.06

Compound	Result ug/Kg	Quantitation Limit ug/Kg	Dilution Factor	Date Analyzed
Hexachlorocyclopentadiene	BQL	732	1	9/14/2005
Hexachloroethane	BQL	366	1	9/14/2005
Indeno(1,2,3-c,d)pyrene	BQL	366	1	9/14/2005
Isophorone	BQL	366	1	9/14/2005
2-Methylnaphthalene	BQL	366	1	9/14/2005
2-Methylphenol	BQL	366	1	9/14/2005
3- & 4-Methylphenol	BQL	366	1	9/14/2005
Naphthalene	BQL	366	1	9/14/2005
2-Nitroaniline	BQL	366	1	9/14/2005
3-Nitroaniline	BQL	1830	1	9/14/2005
4-Nitroaniline	BQL	1830	1	9/14/2005
Nitrobenzene	BQL	366	1	9/14/2005
2-Nitrophenol	BQL	366	1	9/14/2005
4-Nitrophenol	BQL	1830	1	9/14/2005
N-Nitrosodi-n-propylamine	BQL	366	1	9/14/2005
Pentachlorophenol	BQL	1830	1	9/14/2005
Phenanthrene	BQL	366	1	9/14/2005
Phenol	BQL	366	1	9/14/2005
Pyrene	BQL	366	1	9/14/2005
1,2,4-Trichlorobenzene	BQL	366	1	9/14/2005
2,4,5-Trichlorophenol	BQL	366	1	9/14/2005
2,4,6-Trichlorophenol	BQL	366	1	9/14/2005

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	8.4	84
2-Fluorophenol	10	10.2	102
Nitrobenzene-d5	10	8.5	85
Phenol-d6	10	10.2	102
2,4,6-Tribromophenol	10	5.7	57
4-Terphenyl-d14	10	8.7	87

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

Flags:
BQL = Below Quantitation Limits.

Reviewed By: mc

Results for Semivolatiles
by GCMS 8270

Client Sample ID: P8GP13-8
Client Project ID: NCDOT-Forsyth Tip #U-2826A
Lab Sample ID: G106-551-3H
Lab Project ID: G106-551
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 9/7/2005 11:15
Date Received: 9/10/2005
Date Extracted: 9/13/2005
Matrix: Soil
% Solids: 86.81

Compound	Result ug/Kg	Quantitation Limit ug/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	352	1	9/15/2005
Acenaphthylene	BQL	352	1	9/15/2005
Anthracene	BQL	352	1	9/15/2005
Benzo[a]anthracene	BQL	352	1	9/15/2005
Benzo[a]pyrene	BQL	352	1	9/15/2005
Benzo[b]fluoranthene	BQL	352	1	9/15/2005
Benzo[g,h,i]perylene	BQL	352	1	9/15/2005
Benzo[k]fluoranthene	BQL	352	1	9/15/2005
Benzoic Acid	BQL	703	1	9/15/2005
Bis(2-chloroethoxy)methane	BQL	352	1	9/15/2005
Bis(2-chloroethyl)ether	BQL	352	1	9/15/2005
Bis(2-chloroisopropyl)ether	BQL	352	1	9/15/2005
Bis(2-ethylhexyl)phthalate	BQL	352	1	9/15/2005
4-bromophenyl phenyl ether	BQL	352	1	9/15/2005
Butylbenzylphthalate	BQL	352	1	9/15/2005
2-Chloronaphthalene	BQL	352	1	9/15/2005
2-Chlorophenol	BQL	352	1	9/15/2005
4-Chloro-3-methylphenol	BQL	352	1	9/15/2005
4-Chloroaniline	BQL	1760	1	9/15/2005
4-Chlorophenyl phenyl ether	BQL	352	1	9/15/2005
Chrysene	BQL	352	1	9/15/2005
Dibenzo[a,h]anthracene	BQL	352	1	9/15/2005
Dibenzofuran	BQL	352	1	9/15/2005
Di-n-Butylphthalate	BQL	352	1	9/15/2005
1,2-Dichlorobenzene	BQL	352	1	9/15/2005
1,3-Dichlorobenzene	BQL	352	1	9/15/2005
1,4-Dichlorobenzene	BQL	352	1	9/15/2005
3,3'-Dichlorobenzidine	BQL	703	1	9/15/2005
2,4-Dichlorophenol	BQL	352	1	9/15/2005
Diethylphthalate	BQL	352	1	9/15/2005
Dimethylphthalate	BQL	352	1	9/15/2005
2,4-Dimethylphenol	BQL	352	1	9/15/2005
Di-n-octylphthalate	BQL	352	1	9/15/2005
4,6-Dinitro-2-methylphenol	BQL	1760	1	9/15/2005
2,4-Dinitrophenol	BQL	1760	1	9/15/2005
2,4-Dinitrotoluene	BQL	352	1	9/15/2005
2,6-Dinitrotoluene	BQL	352	1	9/15/2005
Diphenylamine *	BQL	352	1	9/15/2005
Fluoranthene	BQL	352	1	9/15/2005
Fluorene	BQL	352	1	9/15/2005
Hexachlorobenzene	BQL	352	1	9/15/2005
Hexachlorobutadiene	BQL	352	1	9/15/2005

Results for Semivolatiles
by GCMS 8270

Client Sample ID: P8GP13-8
Client Project ID: NCDOT-Forsyth Tip #U-2826A
Lab Sample ID: G106-551-3H
Lab Project ID: G106-551
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 9/7/2005 11:15
Date Received: 9/10/2005
Date Extracted: 9/13/2005
Matrix: Soil
% Solids: 86.81

Compound	Result ug/Kg	Quantitation Limit ug/Kg	Dilution Factor	Date Analyzed
Hexachlorocyclopentadiene	BQL	703	1	9/15/2005
Hexachloroethane	BQL	352	1	9/15/2005
Indeno(1,2,3-c,d)pyrene	BQL	352	1	9/15/2005
Isophorone	BQL	352	1	9/15/2005
2-Methylnaphthalene	BQL	352	1	9/15/2005
2-Methylphenol	BQL	352	1	9/15/2005
3- & 4-Methylphenol	BQL	352	1	9/15/2005
Naphthalene	BQL	352	1	9/15/2005
2-Nitroaniline	BQL	352	1	9/15/2005
3-Nitroaniline	BQL	1760	1	9/15/2005
4-Nitroaniline	BQL	1760	1	9/15/2005
Nitrobenzene	BQL	352	1	9/15/2005
2-Nitrophenol	BQL	352	1	9/15/2005
4-Nitrophenol	BQL	1760	1	9/15/2005
N-Nitrosodi-n-propylamine	BQL	352	1	9/15/2005
Pentachlorophenol	BQL	1760	1	9/15/2005
Phenanthrene	BQL	352	1	9/15/2005
Phenol	BQL	352	1	9/15/2005
Pyrene	BQL	352	1	9/15/2005
1,2,4-Trichlorobenzene	BQL	352	1	9/15/2005
2,4,5-Trichlorophenol	BQL	352	1	9/15/2005
2,4,6-Trichlorophenol	BQL	352	1	9/15/2005

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	10.3	103
2-Fluorophenol	10	9.4	94
Nitrobenzene-d5	10	9.5	95
Phenol-d6	10	10	100
2,4,6-Tribromophenol	10	7.4	74
4-Terphenyl-d14	10	11.4	114

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: P8GP22-8
Client Project ID: NCDOT-Forsyth Tip #U-2826A
Lab Sample ID: G106-551-4G
Lab Project ID: G106-551
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 9/7/2005 12:00
Date Received: 9/10/2005
Date Extracted: 9/13/2005
Matrix: Soil
% Solids: 88.08

Compound	Result ug/Kg	Quantitation Limit ug/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	354	1	9/15/2005
Acenaphthylene	BQL	354	1	9/15/2005
Anthracene	BQL	354	1	9/15/2005
Benzo[a]anthracene	BQL	354	1	9/15/2005
Benzo[a]pyrene	BQL	354	1	9/15/2005
Benzo[b]fluoranthene	BQL	354	1	9/15/2005
Benzo[g,h,i]perylene	BQL	354	1	9/15/2005
Benzo[k]fluoranthene	BQL	354	1	9/15/2005
Benzoic Acid	BQL	709	1	9/15/2005
Bis(2-chloroethoxy)methane	BQL	354	1	9/15/2005
Bis(2-chloroethyl)ether	BQL	354	1	9/15/2005
Bis(2-chloroisopropyl)ether	BQL	354	1	9/15/2005
Bis(2-ethylhexyl)phthalate	BQL	354	1	9/15/2005
4-bromophenyl phenyl ether	BQL	354	1	9/15/2005
Butylbenzylphthalate	BQL	354	1	9/15/2005
2-Chloronaphthalene	BQL	354	1	9/15/2005
2-Chlorophenol	BQL	354	1	9/15/2005
4-Chloro-3-methylphenol	BQL	354	1	9/15/2005
4-Chloroaniline	BQL	1770	1	9/15/2005
4-Chlorophenyl phenyl ether	BQL	354	1	9/15/2005
Chrysene	BQL	354	1	9/15/2005
Dibenzo[a,h]anthracene	BQL	354	1	9/15/2005
Dibenzofuran	BQL	354	1	9/15/2005
Di-n-Butylphthalate	BQL	354	1	9/15/2005
1,2-Dichlorobenzene	BQL	354	1	9/15/2005
1,3-Dichlorobenzene	BQL	354	1	9/15/2005
1,4-Dichlorobenzene	BQL	354	1	9/15/2005
3,3'-Dichlorobenzidine	BQL	709	1	9/15/2005
2,4-Dichlorophenol	BQL	354	1	9/15/2005
Diethylphthalate	BQL	354	1	9/15/2005
Dimethylphthalate	BQL	354	1	9/15/2005
2,4-Dimethylphenol	BQL	354	1	9/15/2005
Di-n-octylphthalate	BQL	354	1	9/15/2005
4,6-Dinitro-2-methylphenol	BQL	1770	1	9/15/2005
2,4-Dinitrophenol	BQL	1770	1	9/15/2005
2,4-Dinitrotoluene	BQL	354	1	9/15/2005
2,6-Dinitrotoluene	BQL	354	1	9/15/2005
Diphenylamine *	BQL	354	1	9/15/2005
Fluoranthene	BQL	354	1	9/15/2005
Fluorene	BQL	354	1	9/15/2005
Hexachlorobenzene	BQL	354	1	9/15/2005
Hexachlorobutadiene	BQL	354	1	9/15/2005

Results for Semivolatiles
by GCMS 8270

Client Sample ID: P8GP22-8
Client Project ID: NCDOT-Forsyth Tip #U-2826A
Lab Sample ID: G106-551-4G
Lab Project ID: G106-551
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 9/7/2005 12:00
Date Received: 9/10/2005
Date Extracted: 9/13/2005
Matrix: Soil
% Solids: 88.08

Compound	Result ug/Kg	Quantitation Limit ug/Kg	Dilution Factor	Date Analyzed
Hexachlorocyclopentadiene	BQL	709	1	9/15/2005
Hexachloroethane	BQL	354	1	9/15/2005
Indeno(1,2,3-c,d)pyrene	BQL	354	1	9/15/2005
Isophorone	BQL	354	1	9/15/2005
2-Methylnaphthalene	BQL	354	1	9/15/2005
2-Methylphenol	BQL	354	1	9/15/2005
3- & 4-Methylphenol	BQL	354	1	9/15/2005
Naphthalene	BQL	354	1	9/15/2005
2-Nitroaniline	BQL	354	1	9/15/2005
3-Nitroaniline	BQL	1770	1	9/15/2005
4-Nitroaniline	BQL	1770	1	9/15/2005
Nitrobenzene	BQL	354	1	9/15/2005
2-Nitrophenol	BQL	354	1	9/15/2005
4-Nitrophenol	BQL	1770	1	9/15/2005
N-Nitrosodi-n-propylamine	BQL	354	1	9/15/2005
Pentachlorophenol	BQL	1770	1	9/15/2005
Phenanthrene	BQL	354	1	9/15/2005
Phenol	BQL	354	1	9/15/2005
Pyrene	BQL	354	1	9/15/2005
1,2,4-Trichlorobenzene	BQL	354	1	9/15/2005
2,4,5-Trichlorophenol	BQL	354	1	9/15/2005
2,4,6-Trichlorophenol	BQL	354	1	9/15/2005

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	10.9	109
2-Fluorophenol	10	10.9	109
Nitrobenzene-d5	10	9.9	99
Phenol-d6	10	10.5	105
2,4,6-Tribromophenol	10	7.7	77
4-Terphenyl-d14	10	11.2	112

Comments:

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

Flags:

BQL = Below Quantitation Limits.

Reviewed By: mc

Results for Volatiles
by GC 6230D

Client Sample ID: P6TW-1
Client Project ID: NCDOT-Forsyth Tip #U-2826A
Lab Sample ID: G106-551-6A
Lab Project ID: G106-551

Analyzed By: MJC
Date Collected: 9/7/05 18:10
Date Received: 9/10/05
Matrix: Water

Analyte	Result ug/L	RL ug/L	Dilution Factor	Date Analyzed
Benzene	**0.937**	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	**4.49**	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)	BQL	0.500	1	9/14/05

Reviewed By: mv

Results for Volatiles
by GC 6230D

Client Sample ID: P6TW-1
Client Project ID: NCDOT-Forsyth Tip #U-2826A
Lab Sample ID: G106-551-6A
Lab Project ID: G106-551

Analyzed By: MJC
Date Collected: 9/7/05 18:10
Date Received: 9/10/05
Matrix: Water

Analyte	Result ug/L	RL ug/L	Dilution Factor	Date Analyzed
Methylene Chloride	BQL	5.00	1	9/14/05
Naphthalene	**0.579**	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	40.1	100
1,4-Dichlorobutane	40	40.1	100

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

Reviewed By: MC

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

COC# 48119

Page ____ of ____

22 of 22

TIP # U-2826A WBS: 34871.1.1

Client: EI INC. Project ID: NCDOT-FORSYTH Date: 9/9/05 Report To: DARREN LOCKHART-EI
Address: 2401 GATEWAY CENTRE BLVD Contact: BOB SHAUT Turnaround: 5 DAY-PER MATT BURNS
Address: SUITE 200, MORRISVILLE NC 27560 Phone: 919-544-7500 Job Number: ____
Quote #: ____ Fax: 919-544-2199 P.O. Number: ____ Invoice To: NCDOT

Sample ID	Date	Time	Matrix	Preservatives	Analyses: TPH GRO	TPH DRO	VOCs 8260	SVOCs 8270	6230	Comments: Please specify any special reporting requirements
P8GP11-8	9-7-05	1015	SOIL				X	X		G106-551
P8GP12-5	"	1045	"				X	X		
P8GP13-8	"	1115	"				X	X		
P8GP22-8	"	1200	"			X	X	X		
P6GPDUP	9-8-05	1230	"			X				
P6TW-1	9-7-05	1810	GW						X	

Relinquished By	Date	Time	Received By	Date	Time	Temperature
Robert Shaut			ACM for DS	9/10/05	1020	1.0°C

State Certification Requested: NC ✓ SC ____ Other ____

SEE REVERSE FOR TERMS AND CONDITIONS

ORIGINAL

PARADIGM ANALYTICAL LABORATORIES, INC.

N.C. CERTIFICATION #481

Results for Volatiles
by GC 6230D

Client Sample ID: P6TW-1
Client Project ID: NCDOT-Forsyth Tip #U-2826A
Lab Sample ID: G106-551-6A
Lab Project ID: G106-551

Analyzed By: MJC
Date Collected: 9/7/05 18:10
Date Received: 9/10/05
Matrix: Water

Analyte	Result ug/L	RL ug/L	Dilution Factor	Date Analyzed
Benzene	**0.937**	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	**4.49**	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)	BQL	0.500	1	9/14/05

Reviewed By: mv

Results for Volatiles
by GC 6230D

Client Sample ID: P6TW-1
Client Project ID: NCDOT-Forsyth Tip #U-2826A
Lab Sample ID: G106-551-6A
Lab Project ID: G106-551

Analyzed By: MJC
Date Collected: 9/7/05 18:10
Date Received: 9/10/05
Matrix: Water

Analyte	Result ug/L	RL ug/L	Dilution Factor	Date Analyzed
Methylene Chloride	BQL	5.00	1	9/14/05
Naphthalene	**0.579**	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	40.1	100
1,4-Dichlorobutane	40	40.1	100

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

Reviewed By: _____