## **Initial Abatement Action Report**

### 6 Initial Abatement Action Report

In addition to reporting initial response and abatement actions and assessment actions and presenting initial site characterization, this newly-created Initial Abatement Action Report must fulfill the requirements, when a release has been discovered, for the following individual reports:

- x Site Check Report (Section C) Section 3.0
- x UST Closure Report (UST-12) with UST-2 Form (Section D) Section 4.0
- x Post-Excavation Soil Contamination Assessment Report (Section H) Section 8.0
- x Free Product Recovery Report (Section E) Section 5.0

Check the applicable report(s). Complete Sections A-L, as required, including the sections specifically designated for the reports you have indicated. The Initial Abatement Action Report must be submitted to the appropriate regional office within 90 days following discovery of release.

1. Site Identification	
<ul> <li>Date of Report: <u>April 30, 2008</u></li> </ul>	
• Facility I.D.: 3262	UST Incident Number (if known): N/A
• Site Name: NCDOT Parcel 68 – James Pugh	
Site Street Address: US Hwy 1 and Special F	
• City/Town: Hoffman Zip Code: 2834	
Description of Geographical Data Point (e.g., diese	
• Location Method (GPS, topographical map, other):	1 /
• Latitude (decimal degrees): 35.057 Longit	
2. Information about Contacts Associated with the Leaking V	
code and mailing address, if different).	
UST Owner: Unknown	
Address: Tel Unknown:	
UST Operator: Unknown	<del>-</del>
Address:	
Property Owner: NCDOT by Permanent I	Easement
Address: US Hwy 1 and Special Forces Wa	
Property Occupant: None	
Address:	Tel:
Consultant/Contractor: Solutions-IES, Inc.,	
Address: 1101 Nowell Road, Raleigh, NC 27607	Tel: (919) 873-1060
Analytical Laboratory: Prism Laboratories, Inc.	State Certification No.37735

3. Information about Release

A. Site Information

- Date Discovered: UST Closure 03/19/08
- Estimated Quantity of Release: <u>Unknown</u>
- Cause of Release: Unknown
- Source of Release (Dispenser/Piping/UST): <u>Unknown</u>

Address: 449 Springbrook Road, Charlotte, NC 28224

- Sizes and contents of UST system(s) from which the release occurred): 2 550 gallon gasoline
- 4. Certification (The title page must display the seal and signature of the certifying P.E. or L.G. and the name and certification number of the company or corporation, if applicable [See 15A NCAC 2L .0103(e)].)
- I, Sherisk O. Professoral Engineer/Licensed Geologist (circle one) for Solutions-IES, do certify that the information contained is too reperfyla correct and accurate to the best of my knowledge.

  (Please Afte Schildrag Gratury)

Tel: (800) 529-6364

Solutions of the company of Castlina C1849.

#### INITIAL ABATEMENT ACTION REPORT NCDOT PARCEL 68 – JAMES PUGH PROPERTY US HWY 1 & SPECIAL FORCES WAY HOFFMAN, RICHMOND COUNTY NORTH CAROLINA 28347 WBS ELEMENT: 34438.1.1 STATE PROJECT: R-2502B

Prepared for:

NC Department of Transportation Geotechnical Unit 1589 Mail Service Center Raleigh, NC 27699-1589

Prepared by

Solutions-IES, Inc. 1101 Nowell Road Raleigh, NC 27607 www.solutions-ies.com

Solutions-IES Project No. 6000.08A2.NDOT

May 5, 2008

Project Manager

Jessica L. Dehart Project Hydrogeologist

Jessica L. Ochart

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### **FIGURES**

Figure 1	Site Location Map
Figure 2	Site Map
Figure 3	Closure Sample Locations
Figure 4	Confirmation Sample Locations

### **APPENDICES**

Appendix A	UST-2 Form "Site Investigation Report for Permanent Closure or Change-In-Service of UST Form"
	UST-61 Form "24-Hour Release and UST Leak Reporting"
Appendix B	Site-Specific Health and Safety Plan
Appendix C	Tanks Disposal Certificate, Certificate of Soil Disposal and Soil Manifests
Appendix D	Laboratory Analytical Report and Chain-of-Custody Forms
Appendix E	Photographs

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#### 1.0 INTRODUCTION

The North Carolina Department of Transportation (NCDOT) is widening the existing alignment of US Highway 1 near the towns of Marston and Hoffman, located in Richmond County, North Carolina. Solutions-IES, Inc. (Solutions-IES) was retained by NCDOT to remove petroleum impacted soil identified during a preliminary site assessment (PSA) conducted at the James Pugh property, NCDOT parcel 68 (Site), located at US Highway 1 and Special Forces Way in Hoffman, Richmond County, North Carolina (Figure 1). This scope of work was initiated based on a Notice to Proceed issued by the NCDOT Geotechnical Engineering Unit dated February 22, 2008 under contract 7000008011, dated May 31, 2007. During excavation activities, two underground storage tanks (USTs) were uncovered. The USTs on the Site are located within the proposed right-of-way and had to be removed prior to road construction. This Initial Action Abatement Report (IAAR) documents the UST closure activities and has been prepared according to the July 2007 *Underground Storage Tank Section Guidelines For Site Checks, Tank Closure, and Initial Response and Abatement (Guidelines)* published by the UST Section, North Carolina Department of Environment and Natural Resources (NCDENR) Division of Waste Management. Tables and figures have been numbered in general accordance with the system outlined in the *Guidelines*.

#### 2.0 SITE HISTORY AND CHARACTERIZATION

The Site is located on the north side of US Highway 1, approximately 500 feet west of the Special Forces Way intersection in Hoffman, Richmond County, North Carolina. The background information available for this Site stated that a former dispenser island was present at the Site approximately 15 feet north of US Highway 1.

In August 2006, Solutions-IES conducted a PSA<sup>1</sup> of Parcel 68. A geophysical survey was conducted during this assessment did not identify buried metallic tanks at this Site. Soil sampling was conducted to determine if impacted soil existed at this Site. Based on the detected of total petroleum hydrocarbon (TPH) concentrations greater than the *Guidelines* screening level of 10 mg/kg TPH diesel range organics (DRO) and TPH gasoline range organics (GRO), Solutions-IES identified an area of impacted soil approximately (30 feet by 50 feet) centered on the location of the former dispenser island.

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<sup>&</sup>lt;sup>1</sup> Solutions-IES, Inc. "Preliminary Site Assessment, Parcel #68, James Pugh property, US Highway 1 and Special Forces Way, Richmond County, North Carolina, WBS Element: 34438.1.1; NCDOT Project: R-2502B", September 28, 2006.

#### 2.1 UST OWNER AND OPERATOR INFORMATION

**Table B-2** provides known tank owner and operator information.

#### 2.2 UST INFORMATION

During excavation activities, two inactive USTs were uncovered beneath the location of the former dispenser island. **Table B-1** summarizes the available details of each UST and **Figure 2** shows the UST area. Both tanks were steel, single-walled construction that previously contained gasoline. They were located at a depth of about 2 feet below ground surface (ft bgs). The nominal capacity of each UST was 550 gallons with dimensions of approximately 4 ft by 6 ft. There were no product lines associated with either of these tanks.

#### 2.3 NON-UST INFORMATION

No aboveground storage tanks were identified at the Site.

#### 2.4 RELEASE DESCRIPTION

According to the November 2007 version of the Regional UST (RUST) database, no release has been reported at this Site. However, petroleum impacts were identified in surface soils at the Site during a PSA conducted by Solutions-IES in August 2006.

Results of the UST closure activities conducted during March 2008 as documented in this IAAR confirmed petroleum impacts from the USTs at this Site. Soil samples collected during the closure activities contained TPH DRO or TPH GRO concentrations greater than the screening level of 10 mg/kg specified in the *Guidelines*. Analytical results are discussed in **Section 4.5**.

#### 2.5 SITE CHARACTERISTICS

The surface of the Site was densely covered with thick vegetation but the area around the former dispenser island had been cleared by Solutions-IES prior to the previous PSA activities. The outline of a former dispenser island was observed north of the existing shoulder of US Highway 1. Based upon the existence of the former dispenser island, the Site is presumed to have operated as a gas station in the past. Photographs of the UST removal activities are presented in **Appendix E**.

A description of the surrounding property is as follows:

- North undeveloped
- South undeveloped
- East undeveloped
- West undeveloped

#### 2.6 HISTORICAL REGULATORY ACTIVITY SUMMARY

According to the NCDENR RUST Database, there is no UST incident number associated with this Site and no record of historical releases. No other regulatory information is available for this Site.

#### 3.0 SITE CHECK REPORT

A site check summarizes the operating condition of the USTs in question if they remain in service. The fuel USTs were closed by removal, therefore site check requirements are not applicable.

#### 4.0 UST CLOSURE REPORT

#### 4.1 PREPARATION FOR UST CLOSURE

A UST-3, "Notice of Intent: UST Permanent Closure or Change-in-Service" form was not submitted to the NCDENR or the Fayetteville Regional Office as no USTs were anticipated at the Site. A site-specific Health and Safety Plan was prepared prior to the initiation of the field work and is included as **Appendix B**. Utilities were located by One-Call and KCI Associates of North Carolina prior to initiation of field activities. The soil and tank removal contractor, Soil Solutions, Inc. (SSI), did not obtain a permit from the County Fire Marshal prior to mobilizing to site but did obtain one after tank discovery.

#### 4.2 CLOSURE PROCEDURES

SSI of Winston-Salem, NC, was contracted by Solutions-IES to conduct excavation and disposal activities. On March 18, 2008, Solutions-IES and SSI mobilized to the site to initiate excavation of impacted soils. The PSA geophysical survey had indicated that the proposed right-of-way did not contain metallic USTs. However, two USTs were discovered during excavation activities. The USTs were uncovered and dry ice was used to purge the USTs of potentially explosive vapors until the Lower Explosive Limit (LEL) and oxygen content (O<sub>2</sub>) were confirmed to be suitable prior to removal.

Both USTs were uncovered and removed using a backhoe. One soil closure sample was collected from beneath each UST, and one closure sample was collected from beneath the former dispenser island. **Figure 3** shows the closure sample locations.

Both of the USTs appeared rusted and damaged. Tank 2 appeared to have been crushed. The tanks were cleaned and disposed of by SSI at an off-site location. Photographs of the UST conditions and removal activities are provided in **Appendix E**. The Tanks Disposal Certificate is provided in **Appendix C**.

#### 4.3 RESIDUAL MATERIAL REMOVED

Both of the USTs were empty, so no residual material was removed.

#### 4.4 INITIAL RESPONSE ACTIONS

The UST-2 form, "Site Investigation Report for Permanent Closure or Change-in-Service of UST" was submitted to the NCDENR Central Office as well as the Fayetteville Regional Office on March 28, 2008. Due to elevated concentrations identified from laboratory analysis of closure samples, a "24 Hour Release and UST Leak Reporting Form" (UST-61) was submitted to the Fayetteville Regional Office on April 15, 2008. Copies of these forms are included in **Appendix A**.

#### 4.5 CLOSURE INVESTIGATIONS

#### 4.5.1 Field Screening of Soils

Soils were screened in the field using a Photovac Microfid flame ionization detector (FID). The FID was calibrated at the start of the workday using 100-parts per million (ppm) methane calibration gas; the calibration of the instrument was re-checked periodically over the course of the day. Soil samples collected for field screening were placed in re-sealable plastic bags, and labeled with information identifying the sample name and/or location. Each sample was initially agitated to break up the soil. The bags were sealed and time was allowed for volatile organic compounds (VOCs) trapped within the sample to volatilize into the headspace of the bag. After approximately 20 minutes, the probe of the FID was inserted into the headspace of the bag and the concentration of VOCs or volatile vapors present in the headspace was read in ppm on the FID display and recorded in the field log book. The FID readings of the samples submitted for laboratory analysis are summarized in **Table B-3A**.

#### 4.5.2 Closure Soil Sampling

Closure soil samples were collected in accordance with Section 5.3 of the Guidelines. Based on the size of the tanks, one sample was collected from beneath each UST. Soil samples were collected from beneath the center of each tank pit using a trackhoe bucket to access soil at a depth of 5 ft bgs. The dispenser sample was collected directly beneath the mid-point of the former dispenser. Soil samples were collected as grab samples and screened with the FID as described in **Section 4.5.1**.

The closure samples were then transferred to laboratory-supplied glassware. The containers were labeled with the sample location information, date, time of collection, requested analyses, and were placed on ice in an insulated cooler for delivery to Prism Laboratories, Inc. (Prism Labs) in Charlotte, NC. Samples were delivered under chain-of-custody procedures by laboratory courier on March 21, 2008.

#### 4.5.3 Groundwater and Surface Water Samples

Groundwater was not encountered during tank closure activities and groundwater sampling was not included in this scope of work. No surface water features were identified at the Site.

#### 4.5.4 Quality Control Measures

All non-disposable sampling equipment was decontaminated by rinsing with potable water, washing with a liquinox®/water solution and scrub brush, rinsing with potable water, rinsing with deionized water, and letting air dry. NCDOT does not routinely specify collection of additional field QC samples (e.g., blind duplicate, matrix and matrix spike, equipment rinse, field, and trip blank) for tank closure activities. Samples submitted for laboratory analysis were collected using NCDENR-approved methods using new pre-preserved laboratory-supplied containers as required by the analytical method. The containers were labeled with the sample location information, including date, time of collection, and requested analyses. The filled containers were preserved on ice, and handled under chain-of-custody procedures. The samples were delivered to Prism Labs via same day courier for analysis. Prism Labs is approved by North Carolina (NC Certification Number 402) for analyses required for UST closure and corrective action. Laboratory QC results are included with the analytical results in **Appendix D**.

#### 4.5.5 Sample Results

Closure samples were analyzed for low boiling point fuels identified as TPH GRO with EPA Method 5030/Modified 8015 (California Method) and for high boiling point fuels identified as TPH DRO with EPA Method 3545/Modified 8015 (California Method). The laboratory analytical results for the soil samples are summarized in **Table B-3B**. Copies of the laboratory analytical reports are provided in **Appendix D**.

The sample collected from beneath the former dispenser island did not contain concentrations of TPH DRO or GRO above the laboratory reporting limits. Sample 68-T1-1 collected from beneath the midpoint of tank 1 contained TPH DRO and GRO concentrations of 70 mg/kg and 1,000 mg/kg, respectively. The sample collected from beneath the mid-point of tank 2 (68-T2-1) contained TPH DRO and GRO concentrations of 220 mg/kg and 720 mg/kg, respectively.

#### 5.0 FREE PRODUCT INVESTIGATION AND RECOVERY REPORT

Free product was not encountered during field activities.

#### 6.0 GROUNDWATER AND SURFACE WATER INVESTIGATION

No groundwater or surface water samples were collected during closure of the USTs at the Site. Therefore, **Table B-4** "Summary of Groundwater and Surface Water Results" is not included in this report.

#### 7.0 INITIAL RESPONSE AND ABATEMENT ACTION

As stated in **Section 4.4**, a UST-2 form, "Site Investigation Report for Permanent Closure or Change-in-Service of UST" was submitted to the NCDENR Central Office as well as the Fayetteville Regional Office on March 28, 2008. Due to concentrations in excess of the screening levels defined in the *Guidelines*, a UST-61 form "24-Hour Release and Report Form" was submitted to the UST Section regional office on April 15, 2008. Copies of both forms are included in **Appendix A**.

#### 8.0 EXCAVATION OF CONTAMINATED SOIL

#### 8.1 SOURCE AND EXTENT OF IMPACTED SOIL

After completing closure activities, additional excavation was performed in the vicinity of the USTs based upon elevated FID readings and strong petroleum odors in the tank pit. SSI excavated petroleum-impacted soil and transported the material for disposal. The approximate lateral extent of the excavation is shown in **Figure 4**. The vertical extent of the excavation extended to the groundwater table, or approximately 14 ft bgs.

#### 8.2 EXCAVATION PROCESS

SSI used a trackhoe to excavate the petroleum-impacted soil from around the USTs. The excavation had four sidewalls as shown in **Figure 4** and a depth of approximately 14 ft. Contaminated soil was hauled from the site for disposal by SSI. Lateral excavation limits were based on FID readings, visual inspection of the soil, and site constraints; the vertical excavation limit was bounded by the presence of groundwater which was encountered during excavation activities. Approximately 870 tons of soil were excavated and disposed of by SSI. The Certificate of Disposal and waste manifests for the excavated soils are provided in **Appendix C.** 

Complete excavation of petroleum-impacted soil was not possible due to site constraints. Excavation along the south side of the pit was limited to the edge of the shoulder of US Highway 1 so as not to affect the integrity of the existing roadway. Excavation continued in a northerly, easterly and westerly direction to the limits of probable impact. Confirmation soil samples were collected along each side of the excavation at approximately 15 to 20 foot intervals. The pit was then backfilled with soil provided by SSI from an off-site source to the land surface.

#### 8.3 POST-EXCAVATION CONFIRMATION SAMPLING

**Figure 4** shows the estimated extent of excavation and the location of the ten confirmation samples that were collected in March 2008. The samples were collected along the sidewalls at an interval of approximately 20 ft and a depth of approximately 8 ft bgs. Confirmation samples were screened with an FID as discussed in **Section 4.5.1**. The FID readings for the confirmation samples are summarized in **Table-3A**.

The confirmation samples were collected from the trackhoe bucket and then transferred to laboratory-supplied sample containers. The containers were labeled with the sample location information, including date, time of collection, and requested analyses. The filled containers were placed on ice pending delivery to Prism Labs. Samples were delivered under chain-of-custody procedures by laboratory courier on March 21, 2008. Confirmation samples were analyzed for VOCs, isopropyl ether, and methyl-tert-butyl ether by EPA Method 8260B/5035, semi-volatile organic compounds (SVOCs) by EPA Method 8270C, and petroleum hydrocarbons by the Massachusetts Department of Environmental Protection (MADEP) EPH and MADEP VPH methods.

#### 8.4 CONFIRMATION SAMPLE RESULTS

Laboratory analytical results for the confirmation samples are provided in **Table B-3B**. Laboratory analytical reports are provided in **Appendix D**. Soil samples collected from the south side of the excavation pit (S1, S2, and S3) contained concentrations of VOCs, SVOCs, and MADEP petroleum fractions above the NCDENR Soil-to-Groundwater Maximum Soil Contaminant Concentrations (MSCCs) provided in the *Guidelines*. Aside from low concentrations (below the MSCC) of acetone in 68-W1 and 68-W2, no other VOCs, SVOCs, or MADEP fractions were detected in the confirmation samples.

#### 9.0 CONCLUSIONS

Two inactive USTs located at the James Pugh property, NCDOT Parcel 68, were closed by removal on March 19, 2008. Solutions-IES personnel collected closure samples from beneath a former dispenser island and the two USTs to determine whether a release had occurred and to document permanent closure of the USTs. Elevated volatile vapors were detected by an FID during field screening of the soil samples and strong petroleum odors were present in the tank pit. Additional soil was excavated from around the tank pit to remove further potential impacts. Confirmation soil samples were collected from the sides of the excavation pit to confirm that impacted soil had been removed. Excavation was limited to the south of the tank pit due to the close proximity to the shoulder of Highway 1. Soil samples collected from the north, east and west sides of the excavation pit did not contain contaminants indicative of petroleum constituents suggesting that impacted soil has been removed in these directions. Soil samples collected from the south side of the excavation pit contained hydrocarbon constituents indicative of petroleum impacts at concentrations greater than the MSCCs. Therefore, impacts to soil remain outside of the limits of excavation in this direction.



## TABLE B-1

#### SITE HISTORY - UST/AST SYSTEM INFORMATION

NCDOT Parcel 68 – James Pugh Property US Hwy 1 and Special Forces Way

Hoffman, Richmond County, North Carolina

WBS Element: 34438.1.1; State Project#: R-2502B Solutions-IES Project No. 6000.08A2.NDOT

Incident Number and Name: NA

UST ID Number	Current/Last Contents *	Previous Contents *	Depth (ft bgs)	Capacity (in gallons)	Construction Details **	Tank Dimensions	Description of Associated Piping and Pumps	Date Tank Installed	Status of UST ***	Was release associated with the UST System?
1	Gasoline	Unknown	2'	550	Single walled steel tank	3.7' x 7.1'	None	Unknown	Permanently Closed 3/19/08	Yes
2	Gasoline	Unknown	2'	550	Single walled steel tank	3.7' x 7.1'	None	Unknown	Permanently Closed 3/19/08	Yes

Note: UST ID Numbers correspond to UST locations on Figures 3 and 4

- \* Gasoline (unleaded or leaded), diesel, used oil, waste oil, aviation fuel, etc., or pesticides, non-halogenated or halogenated solvents, etc.
- \*\* Fiberglass (single- or double-walled), steel (single- or double-walled), steel with FRP (single- or double-walled), steel with liner, other, unknown.
- \*\*\* Currently operational, not in use or temporarily closed (specify date), permanently closed in place (specify date), permanently closed by removal (specify date).

#### TABLE B-2 SITE HISTORY – UST OWNER AND OPERATOR INFORMATION

#### NCDOT Parcel 68 – James Pugh Property US Hwy 1 and Special Forces Way Hoffman, Richmond County, North Carolina WBS Element: 34438.1.1; State Project#: R-2502B Solutions-IES Project No. 6000.08A2.NDOT

Incident Number and Name: NA

UST ID Number	Unknown		Facility ID Nu	FA-3262					
Name of Owner			Dates of Operation						
NCDOT by Permane	nt Easement		Unknown						
Street Address									
US Hwy 1 and Specia	l Forces Way								
City		State	Zip	Telephone Number					
Hoffman		NC	28347	Unknown					
Name of Operator			Dates of Operation (mm/dd/yy to mm/dd/yy)						
Unknown			Unknown						
Street Address									
US Hwy 1 and Specia	l Forces Way								
City		State	Zip	Telepho	one Number				
Hoffman		NC	28347	Unknow	'n				

## TABLE B-3A SUMMARY OF FIELD SCREEN RESULTS

#### NCDOT Parcel 68 – James Pugh Property US Hwy 1 and Special Forces Way

Hoffman, Richmond County, North Carolina WBS Element: 34438.1.1; State Project#: R-2502B Solutions-IES Project No. 6000.08A2.NDOT

Incident Number and Name: NA

Sample ID	Depth (ft bgs)	Location	Sample Type	FID Reading (ppm)
68-E1	8	Northeast end of excavation	Soil	ND
68-E2	8	Southeast end of excavation	Soil	ND
68-N1	8	Northwest end of excavation	Soil	ND
68-N2	8	North end of excavation	Soil	ND
68-N3	8	Northeast end of excavation	Soil	ND
68-S1	8	Southwest end of excavation	Soil	51.1
68-S2	8	South end of excavation	Soil	128.0
68-S3	8	Southeast end of excavation	Soil	77.1
68-W1	8	Northwest end of excavation	Soil	ND
68-W2	8	Southwest end of excavation	Soil	ND
68-DISP-1	1	Dispenser	Soil	ND
68-T1-1	5	Tank pit 1 – center of tank	Soil	652
68-T2-1	5	Tank pit 2 – center of tank	Soil	811

ND = Not detected

TABLE B-3B

SUMMARY OF SOIL SAMPLE RESULTS

NCDOT Parcel 68 – James Pugh Property

US Hwy 1 and Special Forces Way, Hoffman, Richmond County, North Carolina

WBS Element: 34438.1.1; NCDOT Project: R-2502B

Solutions-IES Project No. 6000.08A2.NDOT

	TPH DRO																																		
Analytical Method (e.g., VOC by EPA 8260)				VOC by		VOC by	VOC by EPA 8260B				VOC by EPA 8260B									SVOC by										MADEP EPH	MADEP EPH	MADEP EPH	MADEP VPH	MADEP VPH	MADEP VPH
		.,	ne	ne																															
Sample ID Date Source Area (eg. Depth (ft losure, 20Day, etc.)  Collected (m/dd/yy) Tank pit 1) Depth (ft losure, 20Day, losure)  (Closure, 20Day, losure, 20Day, losure)	TPH DRO	TPH GRO	1.2.4-Trimethylbenze	1,3,5-Trimethylbenze	Ethylbenzene	Isoporpylbenzene	Acetone	Benzene	m.p-Xylenes	Methyl t-butyl ether	n-Butylbenzene	n-Propylbenzene	Naphthalene	o-Xylene	p-Isopropyltoluene	Sec-Butylbenzene	Tert-Butylbenzene	Toluene	2-Methylnaphthalene	Acenaphthene	Acenaphylene	Anthracene	Benzo(a)anthracene	Chrysene	Fluoranthene	Fluorene	Naphthalene	Phenanthrene	Pyrene	C11-C22 Aromatics	C19-C36 Aliphatics	C9-C18 Aliphatics	C5-C8 Aliphatics	C9-C10 Aromatics	C9-C12 Aliphatics
68-E1 3/19/2008 Northeast end of excavation 8 Confirmation	NA	NA	< 0.0042	< 0.0042	< 0.0042	< 0.0042	< 0.042	< 0.0025	< 0.0083	< 0.0083	< 0.0042	< 0.0042	< 0.0083	< 0.0042	< 0.0042	< 0.0042	< 0.0042	< 0.0042	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	<11	<11	<11	<5.8	<5.8	<5.8
68-E2 3/19/2008 Southeast end of excavation 8 Confirmation	NA	NA	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.050	< 0.0030	< 0.010	< 0.010	< 0.0050	< 0.0050	< 0.010	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	<12	<12	<12	<6.0	<6.0	<6.0
68-N1 3/19/2008 Northwest end of excavation 8 Confirmation	NA	NA	< 0.0043	< 0.0043	< 0.0043	< 0.0043	< 0.043	< 0.0026	< 0.0087	< 0.0087	< 0.0043	< 0.0043	< 0.0087	< 0.0043	< 0.0043	< 0.0043	< 0.0043	< 0.0043	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	<11	<11	<11	<5.6	<5.6	<5.6
68-N2 3/19/2008 North end of excavation 8 Confirmation	NA	NA	< 0.0043	< 0.0043	< 0.0043	< 0.0043	< 0.043	< 0.0026	< 0.0086	< 0.0086	< 0.0043	< 0.0043	< 0.0086	< 0.0043	< 0.0043	< 0.0043	< 0.0043	< 0.0043	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	<12	<12	<12	<5.8	<5.8	<5.8
68-N3 3/19/2008 Northeast end of excavation 8 Confirmation	NA	NA	< 0.0046	< 0.0046	< 0.0046	< 0.0046	< 0.046	< 0.0027	< 0.0091	< 0.0091	< 0.0046	< 0.0046	< 0.0091	< 0.0046	< 0.0046	< 0.0046	< 0.0046	< 0.0046	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	<11	<11	<11	<5.9	<5.9	<5.9
68-S1 3/20/2008 Southwest end of excavation 8 Confirmation	NA	NA	0.011	0.0041 J	0.0037 J	< 0.0044	0.053	< 0.0027	0.0051J	< 0.0089	< 0.0044	0.0018 J	0.0077 J	< 0.0044	0.0018 J	< 0.0044	< 0.0044	< 0.0044	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	<12	<12	<12	<6.1	<6.1	<6.1
68-S2 3/20/2008 South end of excavation 8 Confirmation	NA	NA	13	5.1	2.4	1.1	0.074	0.17	9.5	< 0.0082	0.96	1.8	3.8	2.3	1.6	0.58	0.31	0.18	0.24 J	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	0.44	< 0.37	< 0.37	<11	<11	13	390	93	330
68-S3 3/20/2008 Southeast end of excavation 8 Confirmation	NA	NA	49	21	7.3	2.8	0.071	0.012	22	< 0.0091	2.5	4.9	21	0.019	3.7	0.086	0.03	0.025	1.7	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	4.6	< 0.40	< 0.40	<12	<12	75	630	180	720
68-W1 3/20/2008 Northwest end of excavation 8 Confirmation	NA	NA	< 0.0052	< 0.0052	< 0.0052	< 0.0052	0.009	< 0.0031	< 0.010	< 0.010	< 0.0052	< 0.0052	< 0.010	< 0.0052	< 0.0052	< 0.0052	< 0.0052	< 0.0052	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	<11	<11	<11	<5.4	<5.4	<5.4
68-W2 3/20/2008 Southwest end of excavation 8 Confirmation	NA	NA	< 0.0048	< 0.0048	< 0.0048	<0.0048	0.066	< 0.0029	<0.0096	< 0.0096	< 0.0048	< 0.0048	< 0.0096	< 0.0048	< 0.0048	< 0.0048	< 0.0048	< 0.0048	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	<11	<11	<11	<5.4	<5.4	<5.4
68-DISP-1 3/18/2008 Dispenser 1 Closure	6.0 J	<5.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
68-T1-1 3/19/2008 Tank pit 1 – center of tank 5 Closure	70	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
68-T2-1 3/20/2008 Tank pit 2 – center of tank 5 Closure	220	720	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil to groundwater MSCC (mg/kg)	10	10	7.5	7.3	4.6	1.7	2.8	0.0056	5 (total)	0.92	4.3	1.7	0.58	5 (total)	NS	3.3	3.4	7.3	1.7	8.2	11	1000	0.34	38	280	44	0.58	60	290	34 (C9-C22)	NS	3300	72	34 (C9-C22)	3300 (C9-C18)
Residential MSCC (mg/kg)	NS	NS	782	782	1560	1564	1564	18	3129 (total)	213	626	626	63	3129 (total)	NS	626	626	3200	63	940	469	4600	0.88	88	620	620	313	469	469	469 (C9-C22)	NS	9386	939	469 (C9-C22)	9386 (C9-C18)
Industrial/Commercial MSCC (mg/kg)	NS	NS	20440	20440	40000	40880	40880	164	81760 (total)	1908	16350	16350	1635	81760 (total)	NS	16350	16350	82000	1635	24000	12264	122000	8	780	16400	16400	8176	12264	12264	12264 (C9-C22)	NS	245280	24528	12264 (C9-C22)	245280 (C9-C18)

Industrial/Commercial MSCC (mg/kg)
ft bgs = feet below ground surface
mg/kg =milligrams per kilogram
\* = Reporting limit is above MSCC levels
All units are mg/kg

 $NA = not \ analyzed$   $MSCC = maximum \ soil \ contaminant \ concentration$   $NS = no \ standard$   $MADEP = Massachusetts \ Department \ of Environmental Protection <math>J = the \ analyte \ was \ positively \ identified \ but \ the \ value \ is \ estimated \ below \ the \ reporting \ limits$   $NE = not \ established$ 

TPH = Total Petroleum Hydrocarbons
GRO = Gasoline Range Organics
Concentrations in excess of the method detection limit are in bold.
Concentrations in excess of the Soil to groundwater MSCC are shaded

# TABLE B-5 PUBLIC AND PRIVATE WATER SUPPLY WELL AND OTHER RECEPTOR INFORMATION

NCDOT Parcel 68 – James Pugh Property US Hwy 1 and Special Forces Way Hoffman, Richmond County, North Carolina WBS Element: 34438.1.1; State Project#: R-2502B

Solutions-IES Project No. 6000.08A2.NDOT

#### Incident Number and Name: NA

(Include the following information. The well number (can use tax number), well owner and user names, addresses and telephone numbers, use of the well (potable, agricultural, etc.), well depth, type of well (i.e., drilled or bored), well casing depth, well screen interval and distance of well from the source area of the release)

**Public and Private Water Supply Wells** 

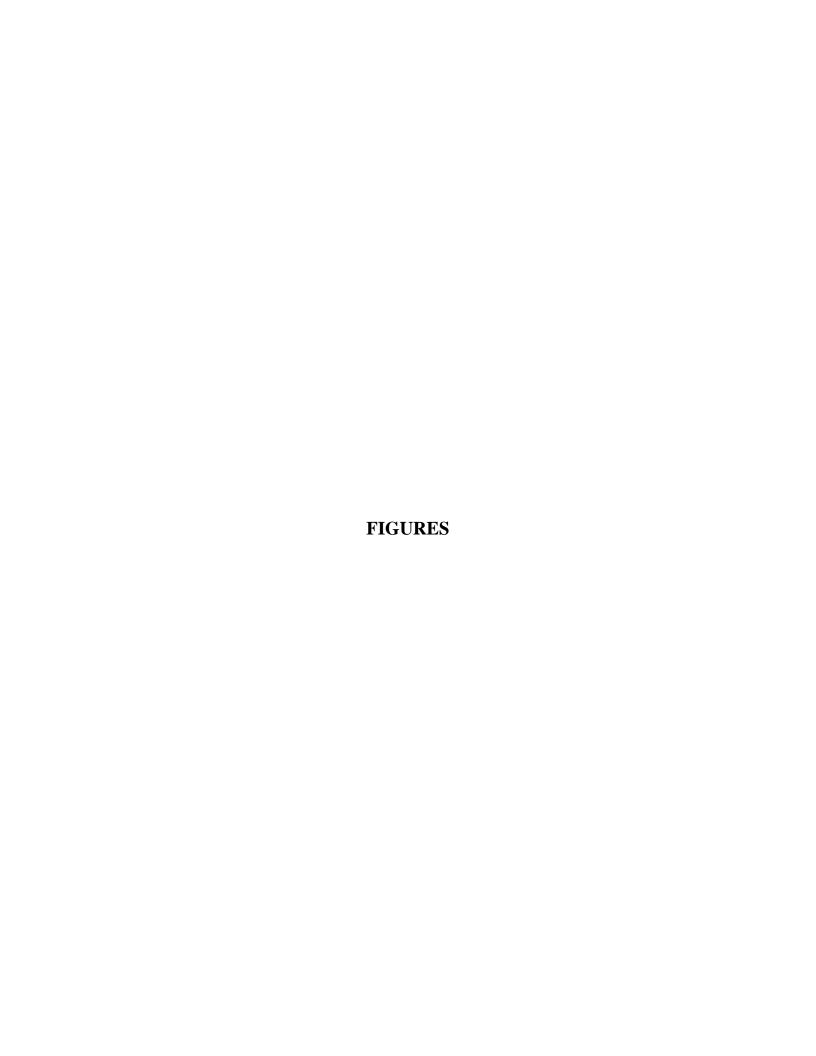
	Tivate water Supply we									
Well #	Well Owner/ User (indicate which)	Address	Phone Number	Well Use	Well Depth (ft BGS)	Type of Well	Well Casing Depth (ft. BGS)	Well Screen Interval ( <u>x</u> to <u>y</u> ft. BGS)	Distance from source area of release (ft.)	Up or downgradient
	No private wells identif	ied during this assessment.	An abando	ned cister	n was ide	ntified at	the Site.			

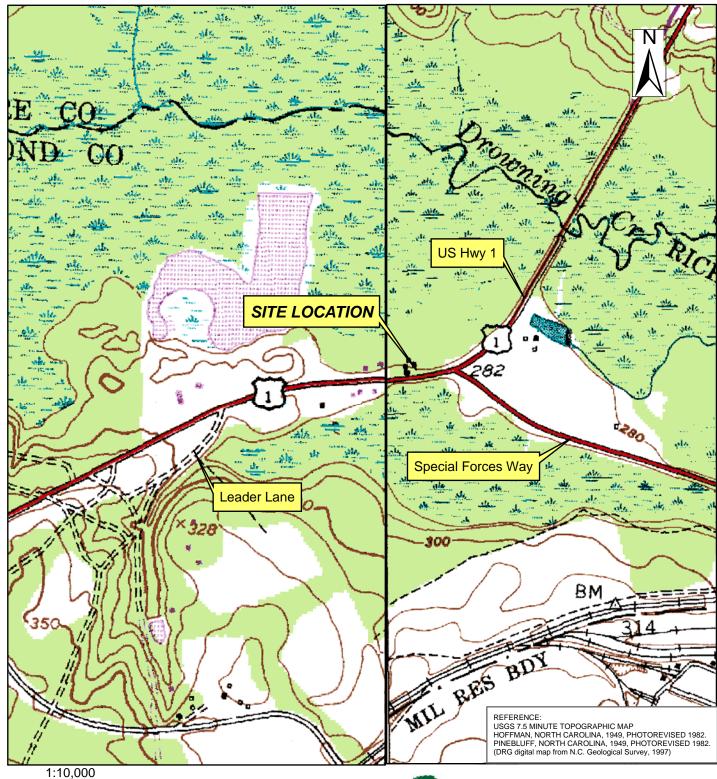
ftt bgs = feet below ground surface

#### **Other Receptors**

(other public water supplies, reservoirs, water supply lines, surface water bodies, wellhead protection areas, recharge areas for deep aquifers, subsurface structures)

Receptor ID	Description	Location	Contact	Phone Number	Usage		Up or down-gradient	Distance from source area of release (ft.)

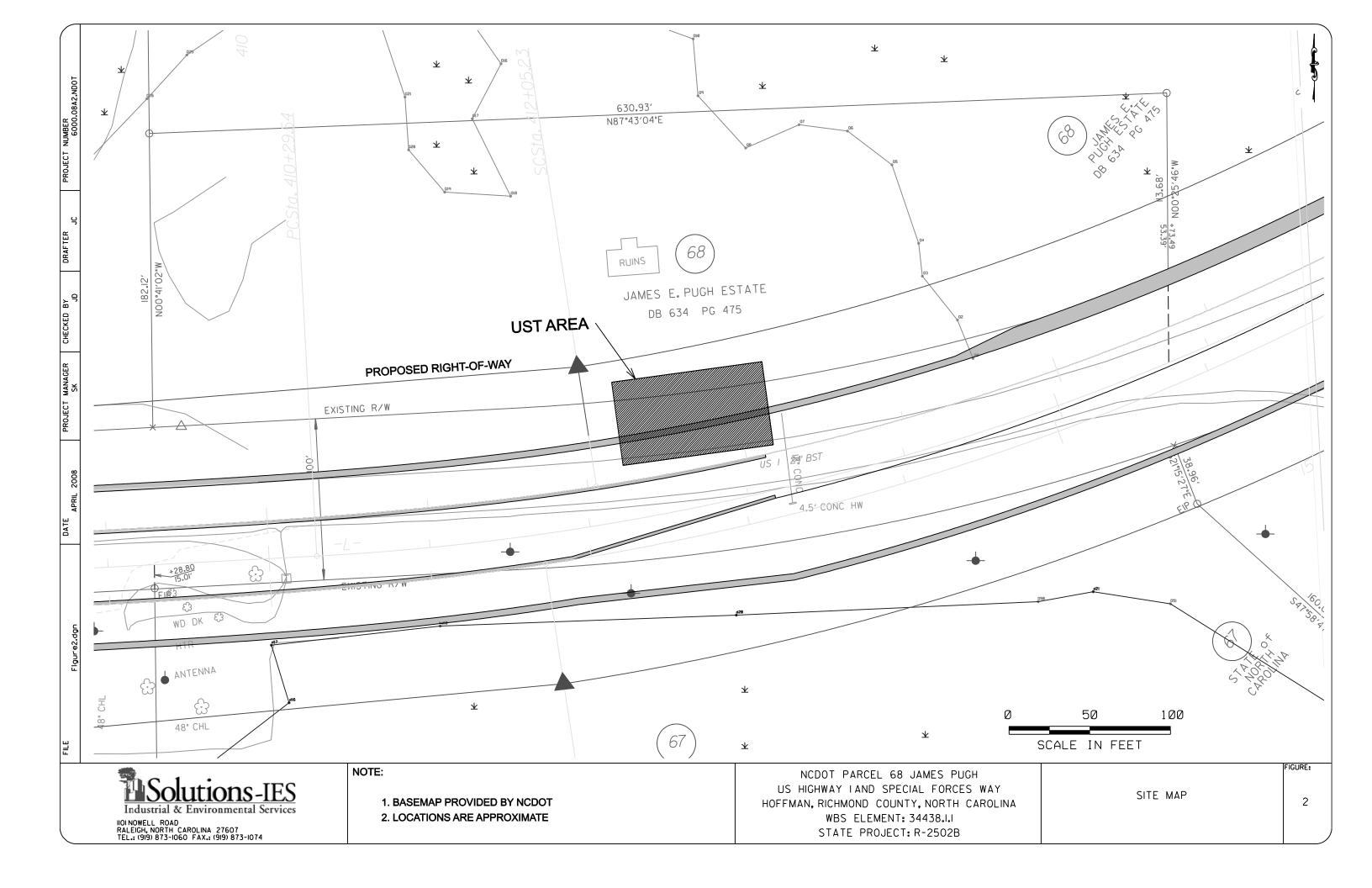


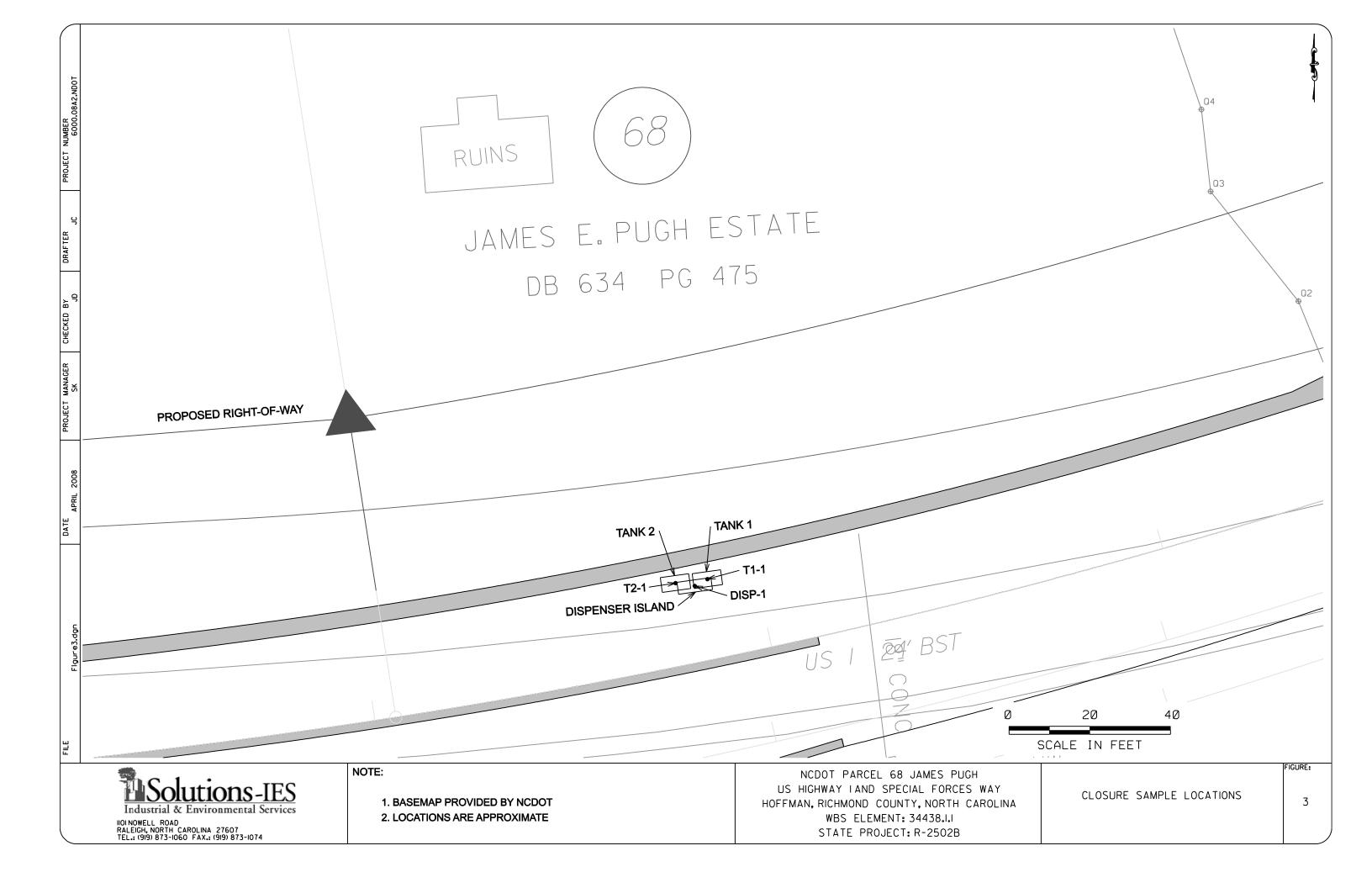


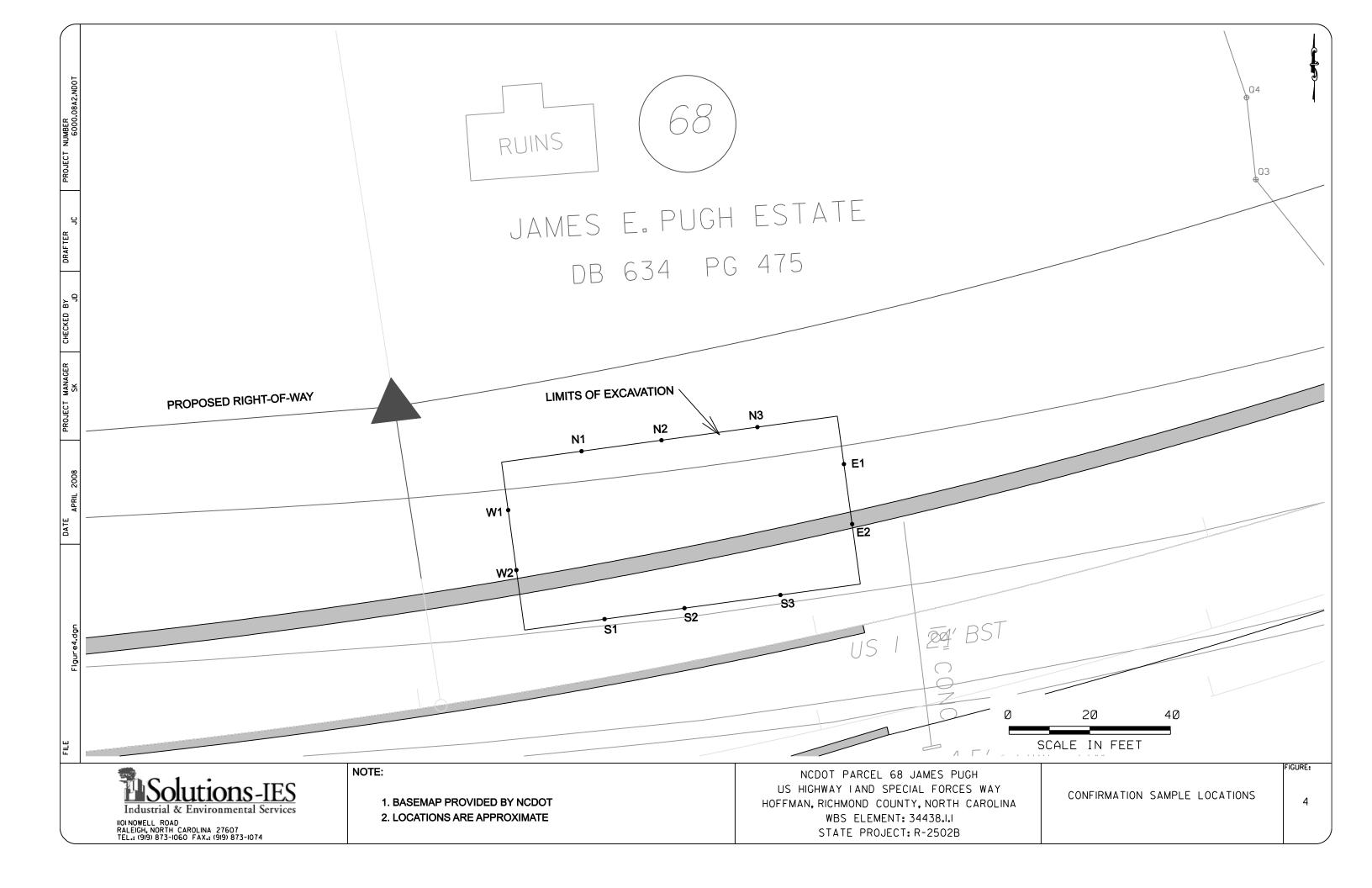
SITE LOCATION MAP
PARCEL 68
JAMES PUGH PROPERTY
RICHMOND COUNTY, NORTH CAROLINA
STATE PROJECT NO. R-2502 B, WBS ELEMENT# 34438.1.1



1101 Nowell Road, Raleigh, NC 27609 Phone (919) 873-1060, Fax (919) 873-1074									
Created by: JD Checked by: SK File: Figure 1.mxd	Project: 6000.0 Date: APRIL								
Software: ESRI ArcMap 9.1	FIGURE	1							







### **APPENDIX A**

UST-2: "SITE INVESTIGATION REPORT FOR PERMANENT CLOSURE OR CHANGE-IN SERVICE OF UST FORM"

**UST-61: "24-HOUR RELEASE AND UST LEAK REPORTING FORM"** 

													·	
U	ST-2	Site In	vestigatio	n Repo	rt for Per	rm	anent Clo	sure c	or Chai	nge-in	-Serv	/ice	of U	ST
Return	complete	d form to:									T	STA	TE USE (	ONLY:
The DWM Regional Office located in the area where the facility is located. Send a copy to the Central Office in Raleigh so that							at I.D.	I.D. #						
the status of the tank may be changed to "PERMANENTLY CLOSED" and your tank fee account can be closed out.  SEE MAP ON THE BACK OF THIS FORM FOR THE CENTRAL AND REGIONAL OFFICE ADDRESSES.							Date	Date Received						
INSTRUCTIONS (READ THIS FORM FOR THE CENTRAL AND REGIONAL OFFICE ADDRESSES.														
For mor	e than five L	JST systems yo	u mav attach ad					<u> </u>						
		- For permanen				m.								
Change	-in-service -	- For change-ir	n-service where				erted from cor	ntaining a	regulated	substanc	ce to s	torina	a non	regulated
substan	ce, complete	e sections I, II, II	I, IV, and VIII											-
change-	in-services i	i, 1995, all US <sup>-</sup> must be comple <i>Closur</i> e can be	eted in accorda	ance with th	e latest version	t be	submitted in to of the <i>Guideline</i>	he format es for Tar	provided ok Closure	in the US . A copy	T-12 for of the	orm. l UST-	JST cli 12 forr	osure and n and the
disposed could be	r disposal. I d of illegally e held respor	e that USTs ren Usually, USTs a in fields or other asible for the cle	re cleaned and r dumpsites car eanup of any en	l cut up for s n leak petrolo vironmental	crap metal. T eum products damage that o	This and occi	is dangerous was desirated in the subsection is desired in the subsection is desired in the subsection in the subsection is desired in the subsection in the subsection in the subsection is desired in the subsection in the subsec	vork and r e environn	nust be pe nent. If yo	rformed b ur tanks a	y a qua re dispo	alified o	ompar f impro	ny. Tanks perly, you
L.G., wit	if a release th all closure	from the tank(s site assessmen	s) nas occurred nt reports bearii	i, the site as ng the signat	sessment port ture and seal o	tion of th	of the tank clo ne P.E. or L.G.	sure mus	t be condu	icted unde	er the s	upervi	sion of	a P.E. or
			HIP OF TANK			Γ		II.	LOCATIO	ON OF TA	ANKS			
		oration, Individua ent Easement	al, Public Agen	cy, or Other	Entity)	Fa	acility Name or							
Street A	ddress					Fa	acility ID # (If kr	nown)				***************************************		
City	d Special Fo	rces Way	Coun	tv		C+	treet Address							
Hoffman	1		Richr			1	S 1 and Specia	I Forces V	Vay					
State			Zip C			Ci	ity			County		Zip Code		
NC Dhone N	li imah a r		2834	/			offman			Richmo	nd	283	47	1874-11 - 44
Phone N none	vumbei					1	hone Number one							
				111	. CONTACT	PE	RSONNEL							
	for Facility:	NCDOT Geoen		. **			Job Title:				,	Phone		
	Contractor N			Contractor Co	ompany:	Project Manager 919-250-4088 Address: Phone. No:								
Tony Dis			Soil Solut	ions, Inc		1703 Vargrave St, Winston-Salem, NC 336-725-5844								
	Consultant N Knox, P.E.	Name:	Primary ( Solutions	Consultant C	ompany:	Address: Phone. No: 1101 Nowell Rd., Raleigh, NC 919-873-1060								
Offer L.		LINEORMATI			HET EVETE	= 8.4.0		Ra., Raie		CANATI				0
Tank Size in Tank Last Last Use Permane					1	V. EXCAVATION CONDITION  Water in Free Notable of								
ID No.	Gallons	Dimensions	Last Contents	Last Use Date	Permaner Close Dat	- 1	Change-in- Service Date		vation No	1	oduct No			tor or visible amination No
1	550	4' x 6'	Gasoline, Ga	unknown	03/19/08	3	Date	$\boxtimes$	<b>†</b> –				N/2	
2	550	4' x 6'	Gasoline, Ga	unknown	03/19/08	-							$\boxtimes$	
	VI. UST I	NFORMATIO	N FOR UNRE	GISTERE	D UST SYST	ren	/IS		VII. EX	CAVATI	ON CO	DNDIT	ION	1
Tank Size in Tank Last Last Use Permanent				Tank Owner Water in Free			ee	Notable odor or visible						
ID No.	Gallons	Dimensions	Contents	Date	Close Date	Name *         excavation         product           Yes         No         Yes         No				soil contamination Yes No				
***************************************														
					-		···	П	П	П			Ē	
The State of Control o														
						+-							<u>니</u>	

\* If the tank owner address is different from the one listed in Section I., then enter the street address, city, state, zip code and telephone no. below:

#### VIII. CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true accurate and complete.

Print name and official title of owner or owner's authorized representative Jessica L. Dehart, PG. Acting Agent for NCDOT

Signature Japanes L. Ahart

Date Signed

UST-61	2	24-Hour R	lelease	and U	ST Le	ak	Rep	orti	ng Form.
For Releases in NC	This form sho an undergro	uld be completed a und storage tank (U	nd submitted to JST) system. T	This form is red	ction's regior quired to be ted release	submitt	e following ted within	ng a kno n 24 hou	own or suspected release from urs of discovery of a known or
(DWM Incident # F Received On F Reported by (circle one): Region	Suspected Contamination? (Y/N) $\underline{\underline{Y}}$ Confirmed GW Contamination? (Y/N) $\underline{\underline{N}}$ Confirmed Soil Contamination? (Y/N) $\underline{\underline{Y}}$ Samples Taken?(Y/N) $\underline{\underline{Y}}$ Free Product? (Y/N) $\underline{\underline{N}}$ If Yes, State Greatest Thickness $\underline{\underline{NA}}$					Facility ID Number 3262 Date Leak Discovered 3/19/08 Comm/Non-Commercial? Reg/Non-regulated? Regulated			
			NCIDENT						
Incident Name: NCDO	)T $\underline{Parc}\epsilon$	el 68 <u>– Jam</u> e	es Pugh F	Property					
Address: US 1 and				WHITE COLUMN TO THE COLUMN TO		-	Cour	nty: Ri	chmond
City/Town: Hoffman			Zip Code: 28	8347	Regional Raleigh, V	Office (	circle on	e): Ash	eville, Mooresville Fayetteville, n, Winston-Salem
Latitude (decimal degrees): 3	5.05727	Longitur	de (decimal degree		9916				Obtained by:
Briefly describe suspected of release, amount of free	d or confirmed	d release: (including	j but not limited	I to: nature of i	release, date	e of rele	ease, am	ount	☑ GPS
A review of the RI									☐ Topographic map
at this location. Duri									GIS Address matching
were located and cl									Other
Laboratory data indic								ing	Unknown
			·					-115	Describe location:
limit of 10 mg/kg in soi	ils. The date	e of release in unl	known. Impac	cted soil was	removed f	rom th	e site.		Describe rocation.
								]	
		HOW RELEA		DISCOV	ERED (	Release	e Code)		
Datasa Datastian Eq.	· ··			•			1 (		
Release Detection Equal During UST Closure/R	•	ethods	☑ Visual/Od ☐ Water in T				ľ		undwater Contamination face Water Contamination
Property Transfer			Water Supply Well Contamination						er (specify)
			JRCE OF (	CONTAM	OITAIN	· NI	L		
2 of Boloo						/I <b>V</b>	<b></b>	٠.,	
Source of Relea (Check one to indicate posource)		Cause of Re (Check one to indicate cause	ate primary	Type of F (Check		,(( -		ne to ind	Type Released dicate primary product type released)
☑ Tank	Ţ	Spill		🛚 Petroleu	ıım.	<b>X</b>	Gasoline	e/ Diesel	l/ Diesel/Veg. Oil
Piping	1	Overfill		☐ Non-Pe			Kerosen Heating		Blend  Vegetable Oil 100%
☐ Dispenser		Corrosion		☐ Both			Other Pe	etroleum	
Submersible Turbine	Pump [	Physical or Mech	ıanical	Locat	ion		Products Metals	3	☐ E21 – E84
Delivery Problem	I matell Duckland			(Check					E85 - E99
Other Unknown		Other		☐ Facility			Other Or	ganics	Ethanol 100%
		☑ Unknown		Resider					☐ E01 – E09
Definitions presented on re Ownership	everse De	efinitions presented	on reverse	☑ Other					
1. Municipal 2. Military 3. Unknown 4. Private 5. Federal 6. County 7. State									
<u>Operation Type</u> 1. Public Service 2. Agricultural 3. Residential 4. Education/Relig. 5. Industrial 6. Commercial 7. Mining									

UST Form 61 (02/08) Page 1 of 2

IMPACT ON DRINKING WATER SUPPLIES								
Water Supply Wells Affected? 1. Yes	2. No 3. Unknown							
Number of Water Supply Wells Affected	·····							
Water Supply Wells Contaminated: (Include Users	Water Supply Wells Contaminated: (Include Users Names, Addresses and Phone Numbers. Attach additional sheet if necessary)							
1.								
2. 3.								
<u> </u>	UST SYSTEM OWNER							
UST Owner/Company								
NCDOT by permanent easemer	nt							
Point of Contact		Address	=					
Cyrus F. Parker (NCDOT Geoe	nvironmental Unit)							
City	State NC	Zip Code	Telephone Number					
Raleigh	NC	27607	919-250-4088					
UST SYSTEM OPERATOR								
UST Operator/Company		Address	Windows					
Unknown								
City	State	Zip Code	Telephone Number					
LANDOWNER AT LOCATION OF UST INCIDENT								
Landowner Address								
NCDOT by permanent easen	nent	, 1000						
City	State	Zip Code	Telephone Number					
Draw Sketch of Area (showing two major road intersections) or Attach Map								
SITE N								
V /								
LEACEL US HWY 1 SPECIAL WAY FORCES WAY								
Person Reporting Incident Jessica Dehart Com	pany Solutions-IES, Inc.	1	Telephone Number 9/9-873-1060					
TitleActing Agent for NCDOT Address 1101 Nowell Rd. Raleigh, NC Date 04/15/08								
UST Form 61 (02/08)			Page 2 of 2					

#### **Definitions of Sources**

Tank: means the tank that stores the product and is part of the underground storage tank system

Piping: means the piping and connectors running from the tank or submersible turbine pump to the dispenser or other end-use equipment (Vent, vapor recovery, or fill lines are excluded.)

Dispenser: includes the dispenser and the equipment used to connect the dispenser to the piping (e.g., a release from a suction pump or from components located above the shear valve)

Submersible Turbine Pump (STP) Area includes the submersible turbine pump head (typically located in the tank sump), the line leak detector, and the piping that connects the submersible turbine pump to the tank

identifies releases that occurred during product delivery to the tank. (Typical causes associated with this source are spills and overfills.)

Other: serves as the option to use when the release source is known but does not fit into one of the preceding categories (e.g., for releases from vent lines, vapor recovery lines, and fill lines)

Unknown: identifies releases for which the source has not been determined

#### **Definitions of Causes**

use this cause when a spill occurs (e.g., when the delivery hose is disconnected from the tank fill pipe or when the nozzle is removed from the dispenser) Overfill: use when an overfill occurs (e.g., overfills may occur from the fill pipe at the tank or when the nozzle fails to shut off at the dispenser)

Physical or Mechanical Damage: use for all types of physical or mechanical damage, except corrosion (e.g., puncture of tank or piping, loose fittings, broken components, and components that have changed dimension)

Corrosion: use when a metal tank, piping, or other component has a release due to corrosion (e.g., for steel, corrosion takes the form of rust)

Installation Problem: use when the problem is determined to have occurred specifically because the UST system was not installed properly

use this option when the cause is known but does not fit into one of the preceding categories (e.g., putting regulated substances into monitoring wells) Unknown: use when the cause has not been determined

# APPENDIX B SITE-SPECIFIC HEALTH AND SAFETY PLAN

#### **HEALTH AND SAFETY PLAN**

#### PRELIMINARY SITE ASSESSMENTS

PARCELS: (R-2502-A&B) 009, 021, 048, 050, 061, and 068

#### Along US-1 South of SR1001 to North of the Richmond County Line

NCDOT TIP: R-2502 A & B NCDOT WBS Element: 34438.1.1 RICHMOND / MOORE COUNTY NORTH CAROLINA

Prepared for:

NCDOT Geotechnical Unit 1589 Mail Service Center Raleigh, NC 27699-1589

Prepared by:

**Solutions-IES, Inc.** 1101 Nowell Road Raleigh, NC 27607

Solutions-IES Project No. 6000.07A3.NDOT

February 2008

# HEALTH AND SAFETY PLAN PRELIMINARY SITE ASSESSMENT

LOCATION OF SITE:

6 Parcels from South of SR 1001 to North of the

Richmond County Line, North Carolina

**SOLUTIONS-IES JOB NO.:** 

6000.07A3.NDOT

CLIENT:

Mr. Cyrus F. Parker, LG, PE

(NCDOT Geotechnical Unit)

**REVIEWED BY** 

Corporate Health & Safety Officer

Walter J. Beckwith, P.G.

(NB)

Project Manager

Sheri Knox, P.E.

#### **DATE OF PLAN PREPARATION**

February 27, 2008

#### **DATES OF PLANNED FIELD ACTIVITIES:**

March 10, 2008 to March 21

#### **EMERGENCY CONTACT INFORMATION:**

Hospital:

First Health Richmond Memorial Hospital

925 South Long Drive

Rockingham, NC 28379

(910) 417-3665

Distance from Site:

**Approximately 15.7 miles** 

Travel Time:

24 minutes

Directions:

Start: Going West on US-1/Main Street towards Bracy St.

Turn LEFT on South Long Drive / NC-1646

End: 925 South Long Drive, Rockingham, NC 28379-4835

Source:

www.mapquest.com

(See Figure 1 for Hospital Route)

EMS/FIRE/POLICE:

911

Solutions-IES Job: 6000.07A3.NDOT NCDOT TIP: R-2502 A & B NCDOT WBS Element: 34438.1.1

### SOLUTIONS-IES HEALTH AND SAFETY OFFICER:

Walt Beckwith, Office (919) 873-1060; Mobile (919) 345-1310

CLIENT CONTACT: Mr. Cyrus F. Parker, LG, PE Office (919) 250-4088

#### FIGURE 1 ROUTE TO HOSPITAL

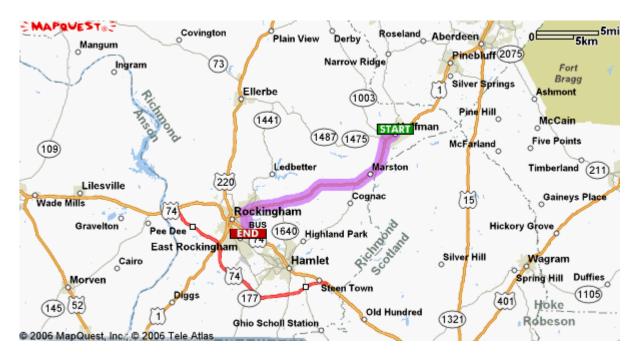
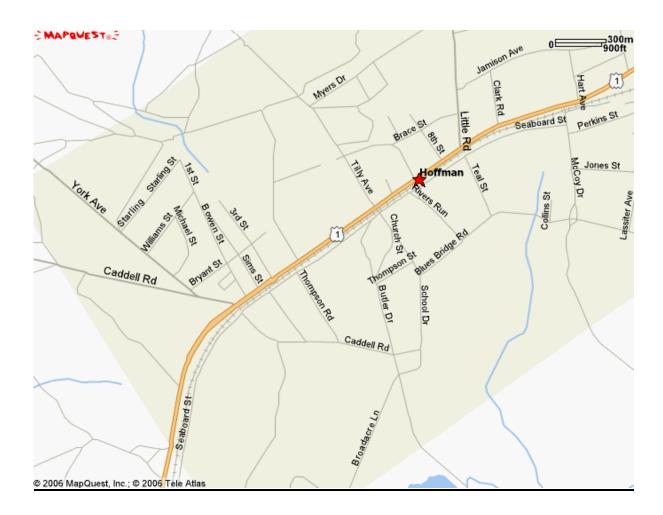






FIGURE 2 LOCAL MAP



Solutions-IES Job: 6000.07A3.NDOT NCDOT TIP: R-2502 A & B NCDOT WBS Element: 34438.1.1

#### **DAILY SIGN IN LOG:**

Solutions-IES is not liable for any Health & Safety issues involving non-Solutions-IES employees. Contractors, sub-contractors and government employees are responsible for providing and following their own Health & Safety Plans and adhering to their own company policies.

The undersigned Solutions-IES employees have read and understood this site-specific health and safety plan:

Name	Signatura	Data	Attended Today's Site Specific H&S
Name	Signature	<u>Date</u>	Meeting?(Y/N)
Jessica Dehart	(Lehait	3/10/00	$\rightarrow$
<u> Vessica Dehart</u>	J. Dehart	3/11/08	
Jessica Dehart	Dehart	3/10/08	4
Lossica Dehart	Callehart	3/13/08	4
Jessica Dehart	2 Ochaet	3/14/08	<u> </u>
Jessia Dehart	J. Dehart	3/18/08	4
Jessica Dehart	G Dehaut	3/19/08	<del></del>
Jessica Dehart	2 Dehart	3/20/08	<u> </u>
Jessica Dehori-	J Dehart	3/2/108	· <u>4</u>
Im Porta	T. Ruc	3/23/08	e /
and Pane	- Pur	3/25/09	<u> </u>
			P. Control of the Con
-	•	VOLENE ETS HONORINANT MARIE ET ALLEMENT AND	
	·		4-4-1-1-1-1-1

Solutions-IES Job: 6000.07A3.NDOT NCDOT TIP: R-2502 A & B NCDOT WBS Element: 34438.1.1

#### **DAILY SIGN IN LOG:**

Solutions-IES is not liable for any Health & Safety issues involving non-Solutions-IES employees. Contractors, sub-contractors and government employees are responsible for providing and following their own Health & Safety Plans and adhering to their own company policies.

The undersigned Solutions-IES employees have read and understood this site-specific health and safety plan:

<u>Name</u>	<u>Signature</u>	<u>Date</u>	Attended Today's Site Specific H&S Meeting?(Y/N)

#### SITE-SPECIFIC HEALTH AND SAFETY PLAN

#### TANK PULL'S AND SOIL EXCAVATION / REMOVAL

PARCELS: (R-2502-A&B) 009, 021, 048, 050, 061, and 068

#### A. Site History and Description

### NCDOT TIP: R-2502 A & B Richmond County, NC

A Limited PSAs was performed at the six parcels referenced in the Request for Technical and Cost Proposal dated July 10, 2006. NCDOT provided a brief description of the six parcels including some background information and a Limited Phase I Site Assessment report prepared by S&ME, Inc. Work is to be performed in Right of Way and/or Easement only.

State Project: R-2502A

**Parcel 009**, K.J. Lewis Property - 2505 US Hwy 1 (north side of hwy 1 and east of Mercer St.) Richmond County NC. This parcel is located on the north side of US 1 just east of Mercer Street. Three USTs were noted on the property in the existing right of way. Heavy vegetation, overhead electric lines exist on the site. It probably operated as a gas station in the past. Pump island remains were observed. We did not collect any samples as access at this site is difficult.

Scope: Remove USTs contents and piping; excavate and dispose of contaminated soils.

**Parcel 021**, James Brigman Property - 2589 US Hwy 1 near the towns of Marston and Hoffman. It previously operated as gas station, smoke shop and body-piercing establishment. No evidence of UST system observed. 11 soil borings showed low concentrations detected in headspace analysis and no detects of TPH DRO/GRO above lab limits

Scope: Remove USTs contents and piping; excavate and dispose of contaminated soils.

Solutions-IES Job: 6000.07A3.NDOT NCDOT TIP: R-2502 A & B NCDOT WBS Element: 34438.1.1

**Parcel 048**, Roy Barry Bostick Property - 3569 US Hwy 1 Richmond County, NC near Marston and Hoffman. Previously, buildings housed a towing company which performed vehicle maintenance and race car assembly. There is possibly one small UST southwest corner of building. There is no evidence of UST system. 10 soil borings showed low levels of volatile vapors in headspace and chromium and lead detected above reporting limits in all 10 samples. DRO was above lab reporting limits in 6 of 10.

Scope: Remove USTs, contents and piping; excavate and dispose of contaminated soils. This parcel is located on the north side of US 1 and 300 feet west of Tilley Street.

**Parcel 050**, Pansy Earnest Property -3585 US Hwy 1 near Marston and Hoffman Richmond Co., near Hwy 1 and Tilley St in Hoffman. There is a cinder block building on site, and several utilities including overhead. GPR showed 2 potential USTs near southwestern corner of bldg. No evidence of UST system noted. Nine soil borings showed low concentration of volatiles in headspace and DRO levels between 5.4-6.6 mg/kg.

Scope: Remove USTs, contents and piping; excavate and dispose of contaminated soils.

**Parcel 061**, Cooper & Brown Incorporated Property - 3702 Us Hwy 1. There is a cinder block building on site, along with dense brush and trees. Utilities were noted overhead. Geophysical found no evidence of USTs. There are elevated DRO and GRO in soils that are stockpiled on site.

Scope: Load and dispose of 50 yd<sup>3</sup> stockpiled on-site.

**Parcel 068** (R-2502B), James Pugh Property - US Hwy 1 Richmond County, near Marston and Hoffman. Located on the north side of US 1 ~500 ft west of Special Forces Way. The site is covered with dense brush and trees. A former pump island noted suggesting gas station operated in the past. GPR did not suggest a UST, but maybe a cistern or well 140 ft west of pump island. Nineteen soil borings had volatile vapors in headspace screening, and elevated GRO and DRO levels.

Scope: Excavate and dispose of contaminated soils down to an elevation of 278 feet or until no contamination is detected.

.

Solutions-IES Job: 6000.07A3.NDOT
NCDOT TIP: R-2502 A & B
NCDOT WBS Element: 34438 1 1

A.	. Site Classification: (i.e. plant, landfill, etc.)				
	The sites are either abandoned commercial businesses that were previously used as commercial fueling stations or cleared lots. Parcel 068 is a local resident with an open well head that presents a fall hazard.				
B.	B. Activities performed prior to investigation: (i.e. groundwater sampling, tan removal, spill, fire, etc.)				
	ESA was completed	that encompasses the	ly closed eight UST's. Phase 1 properties. Solutions-IES cust of 2006.		
C.	Unusual Features: (i	e. lakes, streams, utili	ties, dikes, drum storage, etc.)		
	Properties are adjacent to the highways, and a opened well head on parcel 68				
D.	D. Waste Classification: _✓_Solid _✓_LiquidGasSludge				
E.	E. Waste Characterization: Toxic Corrosive Radioactive				
	Flammable Volatile Reactive				
		Other (Specif	·y)		
F.	Substance(s)	Quantity	Action Level (PEL/TWA)		
	Gasoline	unknown_	_ <u>5ppm_</u>		
	Kerosene/Diesel	<u>unknown</u>	<u>100ppm</u>		
	Diesel Fuel	<u>unknown</u>	<u>10ppm</u>		
	Heating Oil	unknown_	<u>100ppm</u>		
	Waste Oil	<u>unknown</u>	Not Established		

Solutions-IES Health and Safety Plan	Solutions-IES Job: 6000.07A3.NDC
NCDOT Tank Pulls and Soil Removal	NCDOT TIP: R-2502 A &
Richmond County, NC	NCDOT WBS Element: 34438.1

	G.	Physical Hazards:	✓_ Heat	Cold	✓_ Noise	Radiation
			<u>√</u>	Other (Spec	eify) Vehicular to trips, and f	raffic, and slips,
	Н.	Weather:				
		Tank removal activiting range anywhere from forecasts should be redaily. If heavy rain is UST's in the ground.	lows in the viewed price predicted, i	30's to high or to mobilize t is recomm	ns in the low 60' cation, and prior ended not to lea	s. Weather to start of work
B.	Site On	rganization and Contro	1			
	A.	Work area identified a	ıs:			
		PARCELS 009, 021, 048, 050, 061, and 068. The work areas will be identified in the field and will be marked with traffic cones, flags and caution tape if necessary.				
	B.	Decontamination area identified as:				
		Area adjacent to Solut	ions-IES w	ork vehicle		
	C.	Support area identified	l as:			
		Solutions-IES work vo	ehicle			
	D.	Site security maintain	ed by:			
		All of the sites are unbe used to segregate to particularly careful or any slip/trip or fall has well as Solutions-I	he work are n sites that a zards. Rec	ea from cast are active ar ognize pote	ual entry by onlo	ookers. Be ablic. Prevent
C.	Job Ac	ctivities and Work Plan	<u>s</u>			

A. Type of Activity: Soil Sampling, Soil Excavation and Tank Removals

#### Solutions-IES Job: 6000.07A3.NDOT NCDOT TIP: R-2502 A & B NCDOT WBS Element: 34438.1.1

1.	Soil sami	oling out	of back-h	oe bucket	or hand	auger
- •	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~		O		01 1100110	

	1. Son sampling	out of buck not bucket of hand auger
	before approaching buck	e will make direct eye contact with back-hoe operator tet to obtain sample, and will only approach bucket when
	B. Work Plan Descripti	on:
	removed by Soil Solutions, a written in the proposal. Add from the project manager. So confirmation sampling. The control to Pace Analytical Lanalyzed for total petroleum	activities to be performed at the site. UST's will be and contaminated soils will be excavated to the extent ditional soil may be removed after verbal confirmation solutions-IES will screen soils and perform closure and examples will be shipped on under Chain-of-Custody aboratories for analysis. Soil samples collected will be hydrocarbons. Contaminated soil will be removed from and disposed of according to regulations.
D.	Levels of Protection	
	Job Activity	Personal Protective Equipment (PPE) Level
	1. Soil sampling	Steel toe boots, nitrile gloves, <u>D</u> safety glasses, ear plugs, and DOT safety vest. Hard hat will be worn while working around Geo-Probe.
V.	Ambient Field Monitoria	<u>ng</u>
	A. Equipment required:	
	Flame ionization det	ector (FID)

### B. Monitoring Protocol:

Solutions-IES Job: 6000.07A3.NDOT NCDOT TIP: R-2502 A & B NCDOT WBS Element: 34438.1.1

Position yourself upwind of the purging/sampling operation if possible. If odors are detected monitor the breathing zone with a flame ionization detector (FID). Monitor the breathing zone frequently. If readings approach 5 ppm over background, cease activities. Move upwind from the suspected source and let levels stabilize. Return to work when levels are less than 5 ppm. If levels do not decrease, stop activities and call Solutions-IES Health and Safety officer.

VI.	Safety Equipment List				
	A. First-Aid kit ✓ Yes No Location: <u>Solutions-IES truck</u>				
	B. Fire Extinguisher: ✓ Yes No Location: <u>Solutions-IES truck</u> Verify condition prior to mobilization				
	C. Communication:Buddy Radio Hand Signals ✓ Cell Phone				
	D. Personal Protective Equipment List: Level D  Tyvek Chemical Resistant Suit Fully Encapsulated Suit  ✓ Steel Toed Boots ✓ Orange Work Vest ✓ Hard Hat ✓ Safety Glasses Ear Plugs (See Attached Hearing Protection Protocol)				
	Gloves, inner (specify)  ✓ Gloves, outer (specify) Nitrile, work gloves				
	Respirator, Type: Half-face Full-face SCBA Respirator Cartridge Type:				
	E. Other Specialized Equipment:  ✓ Water Cooler  ✓ Cell Phone  ✓ Traffic Cones  ✓ Traffic Signs (When Necessary)  ✓ API UST Closure Guidelines  ✓ NCDENR UST Section Tank Closure Guidelines  ✓ Other(specify) roll of plastic sheeting				

#### VII. Decontamination Equipment

	Tank Pul	ls and Soil Removal , NC	NCDOT TIP: R-2502 A & B NCDOT WBS Element: 34438.1.1
		<ul> <li>✓ Pressure Washer (Geoprobe)</li> <li>_ Steam Ginny (Drill Rig)</li> <li>✓ Water</li> <li>✓ Liquinox<sup>TM</sup></li> <li>✓ 5-Gallon Carboy of Deionized Water</li> </ul>	Other (specify)
VIII.	Decor	tamination Procedures	
	Ad	etivity: Soil sampling	
	Wa	ocedure: All non-disposable sampling equater, washed with a Liquinox Mater mixted allowed to air dry.	ture, and then rinsed with DI water
IX. <u>Sanitation:</u>			
		Restrooms/Hand Washing: Locate suitable facilities before beginning	g work.
		Shower: Not Available	
		Comments: <u>Hose on Geo-Probe can be used for hand</u>	d washing.
X.	Educa	tion, Training and Medical Surveillance	
	A.	Special Training Beyond OSHA 40-Hou	r Requirement?
		✓ NoYes (specify)	
	B.	Special Medical Monitoring beyond stan	dard OSHA program required?
		<ul><li>✓ No</li><li>Yes (specify)</li></ul>	

Solutions-IES Job: 6000.07A3.NDOT

Solutions-IES Job: 6000.07A3.NDOT NCDOT TIP: R-2502 A & B NCDOT WBS Element: 34438.1.1

### APPENDIX I MSDS FORMS

Unknown concentrations of the contaminants listed below may be detected in the soil and groundwater at the parcels to be assessed.

- 1. Gasoline
- 2. Diesel
- 3. Kerosene
- 4. Heating Oil
- 5. Waste Oil

Solutions-IES Job: 6000.07A3.NDOT NCDOT TIP: R-2502 A & B NCDOT WBS Element: 34438.1.1

### APPENDIX II ACCIDENT, ENVIRONMENTAL RELEASE, PROPERTY DAMAGE OR NEAR MISS FORM

### Appendix IV

### **Hearing Protection Protocol**

### APPENDIX C

TANKS DISPOSAL CERTIFICATE, CERTIFICATE OF SOIL DISPOSAL AND SOIL MANIFESTS



### TANKS DISPOSAL CERTIFICATE

Tank Owner:

NCDOT (Parcel 68)

Site Address:

US-1 and Special Forces Way

Hoffman, NC

Description of Tanks:

Tank Number	Size of Tank	Contents
1	550 Gallons	Gasoline
2	550 Gallons	Gasoline

Transporter:

Soil Solutions, Inc.

SSI Project #:

030811

Disposal Certification:

Soil Solutions, Inc. does hereby certify that the above named storage tanks were transported to Atlantic Scrap and Processing in Winston-Salem, NC for proper disposal and recycling.

Signature

Thomas W. Hammett

Vice President

Soil Solutions, Inc.



### **CERTIFICATE OF DISPOSAL**

Soil Solutions, Inc. does hereby certify that 869.80 tons of non-hazardous contaminated material received on 03/18/2008, 03/19/2008, 03/20/2008 and 03/21/2008 from:

Generator:

NCDOT (Parcel 68)

Originating at:

US-1 and Special Forces Way

Hoffman, NC

SSI Waste ID #:

030811

has been disposed of by Soil Solutions, Inc. in a manner approved by the North Carolina Department of Environment and Natural Resources.

Signature '

Tony Disher

President

Soil Solutions, Inc.

Earthtee of NC, Inc. Post Office Box 130 Sanford, NC 27331 Phone #: 919-774-4317 Fax #: 919-774-6415

# PUBLIC WEIGHMASTER LICENSE EXPIRES JUNE 30, 2008 ADOLPHUS HEADEN 31794 INVALID UNLESS SIGNED

5 ID. MO.

77400 15 GR RECALLED 60340 15 TR 17060 15 NT

03/18/08 10:38am

NON-HAZARDOUS WASTE MANIFEST				
Project Number: 030811	Load Number:			
Consultant: Soil Solutions, Inc.	Contact: Tony Disher			
1703 Vargrave Street, Winston Salem, NC	336-725-5844			
Generator: NCDOT Parcel #68	Contact: Cyrus Parker			
US1 & Special Forces Way, Hoffman, NC	_			
28347	Phone: 919-250-4088			
Transporter:	Contact:			
	Phone			
Destination: Earthtee Environmental, Inc	Contact: Scott Keller			
3145 Rosser Road, Bear Creek, NC 27207	Phone: 919-774-4517 or 919-770-4258			
Waste Description:	Waste Origination: US 1 & Special Forces Way, Hoffman, NC 28347			
Truck #: 875 12H2	Gross Weight: 77400			
	Tare Weight: 40340 31280			
	Net Weight: 17060 46120			
	23.06 \$153 tons			
Generator's Certification: I certify that the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of HAZARDOUS WASTE.				
Cassia Ochant ACT	IVE AGENT FOR NODOT 3/18/08			
Generator / Agent Signature  Acknowledgment of Receipt of Material:   Date  Drivers Signature  Date  Date				
Acknowledgment of Receipt of Material: 2	1ano 11 Janue 3-18-08			
Drivers Signature Date  Noted Discrepancies:				
Inspected & Accepted (except as noted above By: Earthtec Environmental, Inc.				
Accepted By: Allyhus Hende Date: 3-18-08				

Deer Creek, M

Š

31280 1b GR RECALLED 00 1b TR 31280 1b MT

03/18/08 12:01Fm

NORTH CAROLINA
PUBLIC WEIGHMASTER
LICENSE EXPIRES JUNE 30, 2008
ABOLPHUS HEADEN

INVALID UNLESS SIGNED

Earthtee of NC, Inc.
Post Office Box 130
Sanford, NC 27331
Phone #: 919-774-4517
Fax #: 919-774-6415

# NORTH CAROLINA PUBLIC WEIGHIVASTER LICENSE EXPIRES JUNE 30, 2008 ABOLPHUS HEADEN INVALID UNLESS SIGNED

<u>i</u> ID: HO:

68320 1b GR 28860 1b TR RECALLED 39460 1b NT

03/18/08 10:14am

	Assessment to the lift of the contract of the
NON-HAZARDOUS	WASTE MANIFEST
Project Number: 030811	LOSE LYGICA
A CONTRACT OF THE PARTY OF THE	Contact: Tony Disher
Consultant: Soil Solutions, Inc.	
Consultant: Soil Solutions, me. 1703 Vargrave Street, Winston Salem, NC	Portor
	Contact: Cyrus Parker
Generator: NCDO1 Farcet #00 US1 & Special Forces Way, Hoffman, NC	Phone: 919-250-4088
28347	Contact:
Transporter:	
	Phone Contact: Scott Keller Contact: Scott Keller
Destination: Earthtec Environmental, Inc	Contact: Scott Rener Phone: 919-774-4517 or 919-770-4258 Phone: 919-774-4517 or 919-770-4258
Destination: Earthtec Ervironments, 3145 Rosser Road, Bear Creek, NC 27207	The state of the s
Waste Description:	Way, Hoffman, No see
	Gross Weight: 68320
Truck #: EV-007	
	Ture Weight: 28860
	Net Weight: 39460
	19,73 fons
	4 420 manifest are 1101
consideration: I certify that the I	materials described above on this manifest are not roper disposal of HAZARDOUS WASTE.
Generator's Certification: I certify that the I subject to federal regulations for reporting p	
subject to redorm regular AC	TIMO DE FOR NOON Date Till Colored Blakele 3-18-08
The Signature	Til 18 latele 3-18-08
Generator / Agent Signature Acknowledgment of Receipt of Materi	Drivers Signature
Noted Discrepancies:	Environmental, Inc.
Noted Discrepance (except as noted	d above By: Earthtee Environmental, Inc.  Date: 3 - 18 - 8
$\sim$ $\sim$ $\sim$ $\sim$ $\sim$ $\sim$ $\sim$	Inder Date: 3-10 0
Accepted By:	

Earthtec of NC, Inc. Post Office Box 130 Senford, NC 27331 Phone #: 919-774-4517 Fax #: 919-774-6415

# NORTH CAROLINA PUBLIC WEIGHMASTER LICENSE EXPIRES JUNE 30, 2008 ADOLPHUS HEADEN 31794 MMALID UNLESS SIGNED

3 ID: NO.

57720 1b GR 26240 1b TR RECALLED 31480 1b NT

03/18/08 10:26am

NON-HAZARDOUS WASTE MANIFEST				
Project Number: 030811	Load Number:			
Consultant: Soil Solutions, Inc.	Contact: Tony Disher			
1703 Vargrave Street, Winston Salem, NC	336-725-5844			
**				
Generator: NCDOT Parcel #68	Contact: Cyrus Parker			
US1 & Special Forces Way, Hoffman, NC				
28347	Phone: 919-250-4088			
Transporter:	Contact:			
45. 45. 45. 45. 45. 45. 45. 45. 45. 45.	· ·			
	Phone Contact: Scott Keller			
Destination: Earthtec Environmental, Inc	Connact: Scott Kener Phone: 919-774-4517 or 919-770-4258			
3145 Rosser Road, Bear Creek, NC 27207	Waste Origination: US 1 & Special Forces			
Waste Description:	Way, Hoffman, NC 28347			
3 35	Gross Weight:			
Truck #: +12-	- 3 ·/ // ·) /)			
EJU	Tare Weight: 26240			
Earthtee	26240			
Pulliffee	The state of the s			
months recipie	31480			
	15,74 tons			
Generator's Certification: I certify that the mater	rials described above on this manifest are not			
subject to federal regulations for reporting proper	r disposal of HAZARDOUS WASTE.			
Lissila Librart Action	SAGENT FIRE MOST 3/18/08			
Generator / Agent Signature Acknowledgment of Receipt of Material:	Title from & Ragers 210/25			
Acknowledgment of Receipt of Material:	Jugowy 2110100			
	Drivers Signature Date			
Noted Discrepancies:				
Inspected & Accepted (except as noted above	as tràt commente treamannaire de les			
Accepted By: Adlephus Dear	Date: 3-18-08			

Earthtet of NC, Inc. Fost Office Box 130 Sauford, NC 27331 Phone #: 919-774-4517 Fax #: 919-774-6415

## NORTH CAROLINA PUBLIC WEIGHMASTER LIGENSE EXPIRES JUNE 30, 2008 ADOLPHUS HEADEN 31794

INVALID UNLESS SIGNED

2 ID. NO.

53280 lb GR

24980 15 TR RECALLED

28300 lb NT

03/18/08 10:34am

NON-HAZARDOUS	WASTE MANIFEST
Project Number: 030811	Load Number:
Consultant: Soil Solutions, Inc.	Contact: Tony Disher
1703 Vargrave Street, Winston Salem, NC	336-725-5844
Generator: NCDOT Parcel #68	Contact: Cyrus Parker
USI & Special Forces Way, Hoffman, NC	-
28347	Phone: 919-250-4088
Transporter:	Contact:
	Phone
Destination: Earthtec Environmental, Inc	Contact: Scott Keller
3145 Rosser Road, Bear Creek, NC 27207	Phone: 919-774-4517 or 919-770-4258
Waste Description:	Waste Origination: US I & Special Forces
	Way, Hoffman, NC 28347
Truck#:ETO1	Gross Weight: 53280
Earthter	Tare Weight: 24980
	Net Weight: 28300
	14,15+on
Generator's Certification: I certify that the mater	ials described above on this manifest are not
subject to federal regulations for reporting proper	disposal of HAZARDOUS WASTE.
Chessia Dehait ACTIVE	S AGENT FOR NODOT 3/18/08
Greerator / Agent Signature  Acknowledgment of Receipt of Material:	Title Date
Acknowledgment of Receipt of Material:	leny 2 Checha 3/18/08
man a diment	Drivetz Signature Date
Noted Discrepancies:	Day Parking Transcence and Trans
Inspected & Accepted (except as noted above	1
Accepted By: Hoylun Head	Date: 3-18-05

Earthtee of NC, Inc. Post Office Box 130 Sauford, NC 27331

**NORTH CAROLINA** PUBLIC WEIGHMASTER Phone # 919-774-4517 LICENSE EXPIRES JUNE 30, 2008
Fax #: 919-774-6415 ADOLPHUS HEADEN 31794

73 ID. NO.

INVALID UNLESS SIGNED

78060 lb SR 27000 16 TR RECALLED 51060 lb NT

03/18/08 10:11am

RUN-HALAKIAJID	WASINIMATURBI
Project Number: 030811	Load Number:
Consultant: Soil Solutions, Inc.	Contact: Tony Disher
1703 Vargrave Street, Winston Salem, NC	į
Generator: NCDOT Parcel #68	Contact: Cyrus Parker
USI & Special Forces Way, Hoffman, NC	
28347	Phone: 919-250-4088
Transporter:	Contact:
	Phone
Destination: Earthtec Environmental, Inc	Contact: Scott Keller
3145 Rosser Road, Bear Creek, NC 27207	Phone: 919-774-4517 or 919-770-4258
Waste Description:	Waste Origination: US I & Special Forces Way, Hoffman, NC 28347
Truck #: JB Thomas IN	Gross Weight: 78060
3B# A	Tare Weight: 20 A D
	Net Weight: 5/060
	25.53 tons
Generator's Certification: I certify that the mater subject to federal regulations for reporting proper	
Jassua Jehant Acon	
Generator / Agent Signature	Title She 3/18/08
Acknowledgment of Receipt of Material:	
$\mathcal{C}$	Drivers Signature Date
Noted Discrepancies:	
Inspected & Accepted (except as noted above	e By: Earthtec Environmental, Inc.
Accepted By Addeflus Dead	- #
/ /	

Emiliter of NC, Inc. Post Office Box 130 Smith No. 2003 Phone #: 919-774-4317 Fac 4: 919-774-6415

# NORTH CARCLINA PUBLIC WEIGHMASTER LICENSE EXPIRES JUNE 30, 2008 ABOLPHUS HEADEN 31794

- INVALID UNLESS SIGNED

72 ID. NO.

76060 lb GR

29980 lb TR RECALLED 46080 15 NT

	WANTE MANIFEST/18/08 10:07am
Project Number: 030811	Lowi Number:
Consultant: Soil Solutions, Inc.	Contact: Tony Disher
1703 Vargrave Street, Winston Salem, NC	336-725-5844
Generator: NCDOT Parcel #68	Contact: Cyrus Parker
USI & Special Forces Way, Hoffman, NC	
28347	Phone: 919-250-4088
Transporter:	Contact:
	Phone
Destination: Earthtec Environmental, Inc	Contact Scott Keller
3145 Rosser Road, Bear Creek, NC 27207	Phone: 919-774-4517 or 919-770-4258
Waste Description:	Waste Origination: US I & Special Forces Way, Hoffman, NC 28347
Truck #: JD Thomas Ine	Gross Weight: 76060
5T-01	Tare Weight: 29980
	Net Weight: 46080
Transfer of the state of the st	23 04 tons
Generator's Certification: I certify that the materi subject to federal regulations for reporting proper	als described above on this manifest are not disposal of HAZARDOUS WASTE.
Description Drait ACTING PG	ENT FOR NODET 3/19/09
Generator / Agent Signature	Tiug Date
Generator / Agent Signature 7 Acknowledgment of Receipt of Material:	Deal Com 3 (8108
Noted Discrepancies:	Vilvets prémounte Tvars
Inspected & Accepted (except as noted above	By: Earthtec Environmental, Inc
Accepted By: Alleghan Head	Date: 3-18-08

Earthtee of NC, Inc.
Post Office Box 130
Sanford, NC 27331
Phone #: 919-774-4517
Fax #: 919-774-6415

# NORTH CAROLINA PUBLIC WEIGHMASTER LICENSE EXPIRES JUNE 30, 2008 ADOLPHUS HEADEN 31784

6 ID. MO.

71700 lb GR 29620 lb TR RECALLED 42080 lb NT

03/19/08 12:52<sub>PM</sub>

NON-HAZARDOUS WASTE MANIFEST

MON-HAZAKINJUB WABILI MANTELIBI		
Project Number: 030811	Load Number:	
Consultant: Soil Solutions, Inc.	Contact: Tony Disher	
1703 Vargrave Street, Winston Salem, NC	336-725-5844	
Generator: NCDOT Parcel #68	Contact: Cyrus Parker	
USI & Special Forces Way, Hoffman, NC	-	
28347	Phone: 919-250-4088	
Transporter:	Contact:	
	Phone	
Destination: Earthtec Environmental, Inc	Contact: Scott Keller	
3145 Rosser Road, Bear Creek, NC 27207	Phone: 919-774-4517 or 919-770-4258	
Waste Description:	Waste Origination: US I & Special Forces	
A	Way, Hoffman, NC 28347	
Truck # 1-6 TR-1	Gross Weight: 71700	
	Tare Weight: 29620	
	Net Weight: 42080	
	21.04 tons	
Generator's Certification: I certify that the materials described above on this manifest are not		
subject to federal regulations for reporting proper disposal of HAZARDOUS WASTE.		
Sessia Phart ACT	WB AGENT FOR MOOT 3/19/08	
The last on I he and Signature	Titla limit	
Acknowledgment of Receipt of Material:	13 illa Monroe 3-19-08	
	Drivers Signature Date	
Noted Discrepancies:		
Inspected & Accepted (except as noted above By: Earthtec Environmental, Inc.		
Accepted By Aduphus Dend Date 3-19-08		

Earthtec of NC, Inc. Post Office Box 130 Sanford, NC 27331 Phone #: 919-774-4517 Fax #: 919-774-6415

PUBLIC WEIGHMASTER
LICENSE EXPIRES JUNE 30, 2008
ADOLPHUS HEADEN 31794
INVALID UNLESS SIGNED

144 ID. WO.

83440 lb GR 34100 lb TR RECALLED 49340 lb NT

03/19/08 01:54Fm

#### NON-HAZARDOUS WASTE MANIFEST

T	T T T L
Project Number: 03081	Load Number:
Topological designation of the state of the	
Consultant: SOIL SOLUTIONS INC	Contact: TONY DISHER
mas Vacaphic CT	. ,
105 VARIGEAUESI	336-125-5844
WINSTON - SHIERT NO	
MINSTON-SALEM NC Generator: NCOOT PALLEL 408	Contact: CYEUS PARKER
USI + SPECIAL FORCES WAY HOFFMAN, NC	
HOFFMAN, NC	Phone: 919~250-4088
Transporter:	Contact: Tony Disher
	•
Soil Solutions Inc	Phone 336-725-5844
Destination: Earthtec Environmental, Inc	Contact: Scott Keller
3145 Rosser Road, Bear Creek, NC 27207	Phone: 919-774-4517 or 919-770-4258
Waste Description:	Waste Origination:
£	~~ ^
T	Grace Waight:
Truck #: 55 209	Gross Weight: 83460
33.07	
	Tare Weight:
	34100
	Net Weight:
	49340
	2//17/2
	24,67 tons
Generator's Certification: I certify that the mater	ials described above on this manifest are not
subject to federal regulations for reporting proper	disposal of HAZARDOUS WASTE.
$\wedge$	2/0/20
HESSICA DEMANT ACTIVE	Title Date
Generator / Agent Signature	Title Dufe
The state of Marial:	112 3/19/08
Picking wichien but a terestin or arms in:	Date Date
Noted Discrepancies:	
Inspected & Accepted (except as noted abov	e By: Earthtec Environmental. Inc.
	_
Accepted By: Holyman Des	Date: 3-19-08
Profession In. 1 10000 1000	· · · · · · · · · · · · · · · · · · ·

Earthtee of NC, Inc. Post Office Box 150 Sauford, NC 27331 Phone #: 919-774-4517 Fax #: 919=774=6415

# NORTH CAROLINA PUBLIC WEIGHMASTER LICINSE EXPIRES JUNE 30, 2058 JE 3SIE GODFREY 31795

73 ID: NO:

84660 lb GR 27000 15 TR RECALLED 57660 lb NT

03/18/08 02:55Fm

NON-HAZARDOUS	WASIE MANIPEST
Project Number: 030811	Load Number:
Consultant: Soil Solutions, Inc.	Contact: Tony Disher
1703 Vargrave Street, Winston Salem, NC	
Generator: NCDOT Parcel #68	Contact: Cyrus Parker
US1 & Special Forces Way, Hoffman, NC	THE TAXABLE PARTY.
28347	Phone: 919-250-4088
Transporter:	Contact:
	Phone
Destination: Earthtec Environmental, Inc	Contact: Scott Keller
3145 Rosser Road, Bear Creek, NC 27207	Phone: 919-774-4517 or 919-770-4258
Waste Description:	Waste Origination: US 1 & Special Forces Way, Hoffman, NC 28347
Truck #: JB Thomas Inc	Gross Weight: 84660 Tare Weight: 27000
JT-02	Tare Weight: 27000
	Net Weight: 57660
	28,83 tons
Generator's Certification: I certify that the mater subject to federal regulations for reporting proper	ials described above on this manifest are not
Usua lehaut ACTNGA	GENT POL NOOT 3/18/08
Acknowledgment of Receipt of Material:	ohn LAUS 1/1 1/03
Noted Discrepancies:	Drivers Signature Date
Inspected & Accept as noted abov	e By: Farthtec Environmental Inc.
Accepted By Holefther Weed	0 0 0

Earthtet of NC, Inc. Post Office Box 130 Sauford, NC 27531 Phone #: 919-774-4517 Fax #: 919-774-6415

NORTH CAROLINA
PUBLIC WEIGHMASTER
LICINSE EXPIRES JINE 30, 2008
JE 3SIE GODFREY 31/95 MVALID UNLESS SIGNED

2 ID: NO.

65220 lb GR

24980 1b TR RECALLED

40240 lb NT

03/18/08 04:06Fm

NON-HAZARDOUS	WASTE MANIFEST
Project Number: 030811	Load Number:
Consultant: Soil Solutions, Inc.	Contact: Tony Disher
1703 Vargrave Street, Winston Salem, NC	336-725-5844
1.03 AMMAAG BREEF AAMSTON PHONE 110	at and the financial and a second a second and a second a
Generator: NCDOT Parcel #68	Contact: Cyrus Parker
USI & Special Forces Way, Hoffman, NC	
28347	Phone: 919-250-4088
Transporter:	Contact:
	Phone
Destination: Earthtec Environmental, Inc	Contact: Scott Keller
3145 Rosser Road, Bear Creek, NC 27207	Phone: 919-774-4517 or 919-770-4258
Waste Description:	Waste Origination: US 1 & Special Forces
	Way, Hoffinan, NC 28347
Truck #: E T 0 1	Gross Weight: 65220
Earthtec	Tare Weight: 24980
	Net Weight: 40240
Generator's Certification: I certify that the mater subject to federal regulations for reporting proper	ials described above on this manifest are not disposal of HAZARDOUS WASTE.
Chronia Mart ACTING PRENT FOR NOOD 3/18/08	
Acknowledgment of Receipt of Material:	Deny & Chestha 3/18/08
-	Drivers Signature Date
Noted Discrepancies:	
Inspected & Accepted (except as noted above	e By: Earthtee Environmental, Inc.
	_
Accepted By:	Date: 3-18-08

Earthtee of NC, Inc. Post Office Bex 130 Sauford, NC 27331 Phone #: 919-774-4517

Fax #: 919-774-6415

NORTH CAROLINA PUBLIC WEIGHMASTER
LICI NSE EXPIRES JIVINE 30, 2008
JE 3SIE GODFREY 31795 MVALID UNLESS SIGNED

7 ID: MO:

74880 15 GR 31280 1b TR RECALLED 43600 lb NT

03/18/08 03:57pm

NON-HAZARDOUS	WASTE MANIFEST
Project Number: 030811	Load Number:
Consultant: Soil Solutions, Inc.	Contact: Tony Disher
1703 Vargrave Street, Winston Salem, NC	} <del>*</del>
1763 Yagiare Duces, William Jacon, 176	at a that it dear in the time
Generator: NCDOT Parcel #68	Contact: Cyrus Parker
USI & Special Forces Way, Hoffman, NC	
28347	Phone: 919-250-4088
Transporter:	Contact:
a a tone trigger was that a	
	Phone
Destination: Earthtec Environmental, Inc	Contact: Scott Keller
3145 Rosser Road, Bear Creek, NC 27207	Phone: 919-774-4517 or 919-770-4258
Waste Description:	Waste Origination: US 1 & Special Forces
£	Way, Hoffman, NC 28347
Truck #: ETS TR#2	Gross Weight: 74880
	Tare Weight: 3/280
	Mat Walnut
	43600
	TONUS 21.80
Generator's Certification: I certify that the mater	ials described above on this manifest are not
subject to federal regulations for reporting proper	disposal of HAZARDOUS WASTE.
1 1.1.	GENT FOR NODOT 3/18/28
Acknowledgment of Receipt of Material: Marie Monte 3 15 08	
Vicking and property of transfer of transfers.	Drivers Signature Date
Noted Discrepancies:	
Inspected & Accepted (except as noted abov	e By: Earthtee Environmental, Inc.
Accepted By:	Date: 3-18.08
and the second s	

Earthtee of NC, Inc. Post Office Box 130 Sanford, NC 27331 Phone #: 919-774-4517 Fax #: 919-774-6415 NORTH CAROLINA
PUBLIC WEIGHMASTER
LICENSE EXPIRES JUNE 30, 2009
ADOLPHUS HEADEN
31794

3 ID. MO:

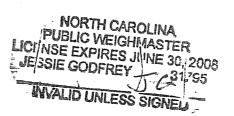
62600 1b GR 26240 1b TR RECALLED 36360 1b NT

03/18/08 03:33pm

WONLHARADDOTTS WASTE WANTERST

NUN-EMERICAN	WADIE WAINEROI
Project Number: 030811	Load Number:
Consultant: Soil Solutions, Inc.	Contact: Tony Disher
1703 Vargrave Street, Winston Salem, NC	336-725-5844
Generator: NCDOT Parcel #68	Contact: Cyrus Parker
USI & Special Forces Way, Hoffman, NC	-
28347	Phone: 919-250-4088
Transporter:	Contact:
	Phone
Destination: Earthtec Environmental, Inc	Contact: Scott Keller
3145 Rosser Road, Bear Creek, NC 27207	Phone: 919-774-4517 or 919-770-4258
Waste Description:	Waste Origination: US 1 & Special Forces
E.	Way, Hoffman, NC 28347
Truck #: Etd2	Gross Weight: 62 600
Earthteu	Ture Weight: 26240
	Net Weight: 36360
	18.18 tons
Generator's Certification: I certify that the mater	
subject to federal regulations for reporting proper	disposal of HAZARDOUS WASTE.
	AGENT FOR NODOT 3/18/08
Generator / Agent Signature	Title fun D B Date
Acknowledgment of Receipt of Material:	Supril 12 /100/00 3/19/06
	Drivers Signature Date
Noted Discrepancies:	
Inspected & Accepted (except as noted abov	e By: Earthtec Environmental, Inc.
Accepted By: All Deflus Neade	Date: 3-18-08

Earthtee of NC, Inc. Post Office Box 130 Sanford, NC 27331 Phone #: 919-774-4517 Fax #: 919-774-6415



72 ID: NO:

80240 15 GR 29980 15 TR RECALLED 50260 15 NT

03/18/08 12:20pm

NON-HAZARDOUS WASTE MANUFEST

	vicas a de evaca vaa dee a
Project Number: 030811	Load Number:
Consultant: Soil Solutions, Inc.	Contact: Tony Disher
	336-725-5844
1703 Vargrave Street, Winston Salem, NC	130-(2)-1644
Generator: NCDOT Parcel #68	Contact: Cyrus Packer
US1 & Special Forces Way, Hoffman, NC	
18347	Phone: 919-250-4088
Transporter:	Contact:
rimiaphita.	Control Contro
	77.0
	Phone
Destination: Earthtec Environmental, Inc	Contact Scott Keller
3145 Rosser Road, Bear Creek, NC 27207	Phone: 919-774-4517 or 919-770-4258
Waste Description:	Waste Origination: US I & Special Forces
·	Way, Hoffman, NC 28347
Truck # TO TO -	Gross Weight:
Truck #: JB Thomas Inc.	80240
0 7 110 11 69 4110	Tare Weight:
5T-01	29980
	Nat Wainbt
	50260
	TONGS 25,13
Generator's Certification: I certify that the mater	ials described above on this manifest are not
subject to federal regulations for reporting proper	disnosal of HAZARDOTIS WASTE.
Striber to reterm reframments to rehearing heales.	Table at fact to a time to a distance as a second of the s
1. mas laboret dama De	and the state
HILL POING HE	ENT FOR 14000T 3/18/08
Zenerator / Agent Signature	Title Date Date Date
Acknowledgment of Receipt of Material:	Japan (MW) 3/18/08
Acknowledgment of Receipt of Material:	Davere Signature Date
Noted Discrepancies:	
Inspected & Accepted (except as noted abov	- Bu: Earthfee Environmental Inc
trabancer en errechion lemake un maine man.	_
W. MICA	Dale: 3-18-08
Accepted By: # 1900	

The state of the state of

7 D. HO.

84140 16 GR 29980 16 TR RECALLED 54160 16 NT

03/19/08 03:10Fm

NORTH CAROLINA
JGENSE EXPIRES JUNE 30, 2008
APOLPHUS HEADEN

Earthtee of NC, Inc. Post Office Box 130 Sanford, NC 27331 Phone #: 919-774-4517 Fax #: 919-774-6415



73 ID. MO.

84140 lb GR 2<del>7080</del> lb TR RECALLED 57140 lb NT

03/18/08 03:09pm

NON-HAZARDOUS WASTE MANIFEST	
Project Number: 030811	Load Number:
Consultant: Soil Solutions, Inc.	Contact: Tony Disher
1703 Vargrave Street, Winston Salem, NC	336-725-5844
Generator: NCDOT Parcel #68	Contact: Cyrus Parker
USI & Special Forces Way, Hoffman, NC	
28347	Phone: 919-250-4088
Transporter:	Contact:
	Phone
Destination: Earthtec Environmental, Inc	Contact: Scott Keller
3145 Rosser Road, Bear Creek, NC 27207	Phone: 919-774-4517 or 919-770-4258
Waste Description:	Waste Origination: US 1 & Special Forces
	Way, Hoffman, NC 28347
Truck#: JB Thomas Inc	Gross Weight: 84140"
JT-01	29980
	Net Weight: 54160
	27,08 tons
Generator's Certification: I certify that the mater	als described above on this manifest are not
subject to federal regulations for reporting proper	disposal of HAZARDOUS WASTE.
yessig Dehaet ACTIVE	AGENT FOR NOOT 3/18/08
-Gen+rator / Agent Signature '	Title / \ Date
Acknowledgment of Receipt of Material:	Josep Cher 3/18/08
	Brivers Signature Date
Noted Discrepancies:	
Inspected & Accepted (except as noted above	e By: Earthtec Environmental, Inc.
Accepted By: Alle May No	-de- Date: 3-18-08

Earthtee of NC, Inc. Post Office Box 130 Sanford, NC 27331 Phone #: 919-774-4517 Fax #: 919-774-6415 NORTH CAROLINA PUBLIC WEIGHMASTER LICI NSE EXPIRES J'INE 30, 2008 JE SSIE GODFREY 31795 MVALID UNLESS SIGNED

73 ID. NO.

75980 lb GR 27000 lb TR RECALLED 48980 lb NT

03/18/08 12:23<sub>PM</sub>

NON-HAZARDOUS	WASTE MANIFEST
Project Number: 030811	Load Number:
Consultant: Soil Solutions, Inc.	Contact: Tony Disher
1703 Vargrave Street, Winston Salem, NC	
Generator: NCDOT Parcel #68	Contact: Cyrus Parker
USI & Special Forces Way, Hoffman, NC	Communication of the Communica
28347	Phone: 919-250-4088
Transporter:	Contact:
	Phone
Destination: Earthtec Environmental, Inc	Contact: Scott Keller
3145 Rosser Road, Bear Creek, NC 27207	Phone: 919-774-4517 or 919-770-4258
Waste Description:	Waste Origination: US I & Special Forces Way, Hoffman, NC 28347
Truck #:	Gross Weight:
JB Thomas INC	75980
5B # Z	Tare Weight: 27000
	Net Weight: 48980
Generator's Certification: I certify that the materi	
Generator's Certification: I certify that the materi subject to federal regulations for reporting proper	als described above on this manifest are not disposal of HAZARDOUS WASTE.
Hosia Ochaet Acrius	AGENT FOR MIDOT 3/8/00
	Title Date
Keknowledgment of Receipt of Material:	John John 3/18/08
Noted Discrepancies:	Fivers Signature Date
Inspected & Accepted (except as noted above	Arr Baribias Entironmountal Inc
mehanana sa wasahion (swashi up naced umat	Dy. Daimee Dividumental, Inc.
Accepted By:	Date: 3-18-08
	ン

Earthtee of NC, Inc. Post Office Box 130

NORTH CAROLINA Post Office Box 130
Semford, NC 27331

Phone #: 919-774-4517

JE/SSIE GODFREY

3: 25 Fax #: 919-774-6415 INVALID UNLESS SIGNED

1 ID: WD.

73300 lb GR 28860 15 TR RECALLED 44440 lb NT

03/18/08 02:41pm

NON-HAZARDOUS WASTE MANIFEST		
Project Number: 030811	Load Number:	
Consultant: Soil Solutions, Inc.	Contact: Tony Disher	
1703 Vargrave Street, Winston Salem, NC		
Generator: NCDOT Parcel #68	Contact: Cyrus Parker	
US1 & Special Forces Way, Hoffman, NC		
28347	Phone: 919-250-4088	
Transporter:	Contact:	
***OUT-PROTECTION	Phone	
Destination: Earthtec Environmental, Inc	Contact: Scott Keller	
3145 Rosser Road, Bear Creek, NC 27207	Phone: 919-774-4517 or 919-770-4258	
Waste Description:	Waste Origination: US I & Special Forces	
-	Way, Hoffinan, NC 28347	
Truck #: EV-007	Gross Weight: 7,3300	
	Tare Weight: 28860	
	Nist Weight:	
	44440	
	TONOS 32.22	
Generator's Certification: I certify that the materials described above on this manifest are not		
subject to federal regulations for reporting proper disposal of HAZARDOUS WASTE.		
Sassia What ACTING A	GOVT FOR 1400T 3/18/08	
Zenerator / Agent Signature		
Zenerator / Agent Signature Acknowledgment of Receipt of Material:	Title hard Bloker 3-18-08	
	Drivers Signature Date	
Noted Discrepancies:		
Inspected & Accepted (except as noted above By: Earthtee Environmental, Inc.		
Accepted By:	Date: 3-18.08	

Earthtee of NC, Inc. Post Office Box 130 Sauford, NC 27331 Phone #: 919-774-4517 Fax #: 919-774-6415

NORTH CAROLINA
PUBLIC WEIGHMASTER
LICENSE EXPIRES JUNE 30, 2008
ADOLPHUS HEADEN 31794 PAYALID UNLESS'SIGNED

1 ID. NO.

69580 lb GR 28860 15 TR RECALLED 40720 1b NT

03/18/08 12:30<sub>PM</sub>

NON-HAZARDOUS	WASTE MANIFEST
Project Number: 030811	Load Number:
Consultant: Soil Solutions, Inc.	Contact: Tony Disher
1703 Vargrave Street, Winston Salem, NC	336-725-5844
Generator: NCDOT Parcel #68	Contact: Cyrus Parker
USI & Special Forces Way, Hoffman, NC	
28347	Phone: 919-250-4088
Transporter:	Contact:
***CONTRACT	
	Phone
Destination: Earthtec Environmental, Inc	Contact: Scott Keller
3145 Rosser Road, Bear Creek, NC 27207	Phone: 919-774-4517 or 919-770-4258
Waste Description:	Waste Origination: US 1 & Special Forces
777 5 33	Way, Hoffinan, NC 28347
Truck# E12007	Gross Weight: 69580
	Tare Weight: 28 860
	Net Weight:
	40720
	20,36 tons
Generator's Certification: I certify that the materi	als described above on this manifest are not
subject to federal regulations for reporting proper	disposal of HAZARDOUS WASTE.
	ENT FOR NUCLOT 3/18/08
Deherator / Agent Signature	Crohard Blofel 3-18-14
Acknowledgment of Receipt of Material:	achaid Bloke 3-18-19
Noted Discrepancies:	Drivers Signature Date
Inspected & Accepted (except as noted above	By: Earthtec Environmental Inc
Accepted By: Allethus Aluder	Date 3-18-08

Earthtec of NC, Inc. Post Office Box 130 Sauford, NC 27331 Phone #: 919-774-4517 Fax #: 919-774-6415

# PUBLIC WEIGHMASTER LICENSE EXPIRES JUNE 30, 2008 ADOLPHUS HEADEN INVALID UNLESS SIGNED

2 ID: NO.

68260 1b GR 24980 1b TR RECALLED 43280 1b NT

03/18/08 01:26Pm

NON-HAZARDOUS WASTE MANIFEST	
Project Number: 030811	Load Number:
Consultant: Soil Solutions, Inc.	Contact: Tony Disher
1703 Vargrave Street, Winston Salem, NC	336-725-5844
Generator: NCDOT Parcel #68	Contact: Cyrus Parker
USI & Special Forces Way, Hoffman, NC	
28347	Phone: 919-250-4088
Transporter:	Contact:
- -	
	Phone
Destination: Earthtec Environmental, Inc	Contact: Scott Keller
3145 Rosser Road, Bear Creek, NC 27207	Phone: 919-774-4517 or 919-770-4258
Waste Description:	Waste Origination: US 1 & Special Forces
	Way, Hoffman, NC 28347
Truck #: E 701	Gross Weight: 68260
Earthtec	Tare Weight: 24 980
	Net Weight: 43280
Generalistic Guille, di Turke di Line	21.64 tons
Generator's Certification: I certify that the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of HAZARDOUS WASTE.	
YSSIA Dehat GOTABI	GENT FOR NUDOT 3/18/08
Generator / Agent Signature Acknowledgment of Receipt of Material:	my 2 Cheathan 3/18/08
T	Private Signature Date
Noted Discrepancies:	and the sufficient of the suff
nspected & Accepted (except as noted above By: Earthtee Environmental, Inc.	
Accepted By: Allephus Heade	Date: 3-18-58
, · · · · · · · · · · · · · · · · · · ·	

Earthtec of NC, Inc. Post Office Box 130 Sanford, NC 27331 Phone #: 919-774-4517 Fax #: 919-774-6415

NORTH CAROLINA
PUBLIC IVEIGHMASTER
LICENSE EXPIRES JUNE 30, 2008
ADOLPHUS HEADEN 31794
INVALID UNLESS SIGNED

7 ID. NO.

73220 lb GR 31280 lb TR RECALLED 41940 lb NT

03/18/08 01:31Fm

NON-HAZARDOUS WASTE MANTEEST

	WANIE MANIFEST
Project Number: 030811	Load Number:
	8
Consultant: Soil Solutions, Inc.	Contact: Tony Disher
1703 Vargrave Street, Winston Salem, NC	336-725-5844
The state of the s	sa etc.
Generator: NCDOT Parcel #68	Contact: Cyrus Parker
USI & Special Forces Way, Hoffman, NC	
28347	Phone: 919-250-4088
Transporter:	Contact:
	Phone
Destination: Earthtec Environmental, Inc	Contact: Scott Keller
3145 Rosser Road, Bear Creek, NC 27207	Phone: 919-774-4517 or 919-770-4258
Waste Description:	Waste Origination: US 1 & Special Forces
	Way, Hoffman, NC 28347
Truck#: ITS TE#2	Gross Weight:
U) ILVE	73220
our modern a	Tara Walahi
	31280
парахоса	Net Weight: 44 Quin
	41940
1	20 24 +
	20,97 tons
Generator's Certification: I certify that the materi	als described above on this manifest are not
subject to federal regulations for reporting proper	usposm of HAZARDOUS WASTE.
Chora Ahnt Days	a Acoustic monor Stolic
Generator / Agent Signature	G AGENT FOR NUDOT 3/18/08
Advantador of Francis City	Date'
Acknowledgment of Receipt of Material: 1	1/ano 1/10nue 5-18-08
Noted Discrepancies:	Privers Signature Date
	The Tourist with the second
Inspected & Accepted (except as noted above	Dy: Carunec Environmental, Inc.
Accepted By: Hallflus Vlea	de
acceptant sign of the plant of the	L/健会 10 UD

Earthtec of NC, Inc.
Post Office Box 130
Sanford, NC 27331
Phone #: 919-774-4517
Fex #: 919-774-6415

# NORTH CAROLINA PUBLIC WEIGHMASTER LICENSE EXPIRES JUNE 30, 2008 ADOLPHUS HEADEN 31794 INVALID UNLESS SIGNED

3 ID: MG:

56060 1b GR 26240 1b TR RECALLED 29820 1b NT

03/18/08 01:10pm

NON-HAZARDOUS	WASTE MANIFEST
Project Number: 030811	Load Number: 7
Consultant: Soil Solutions, Inc.	Contact: Tony Disher
1703 Vargrave Street, Winston Salem, NC	336-725-5844
Generator: NCDOT Parcel #68	Contact: Cyrus Parker
USI & Special Forces Way, Hoffman, NC	The second secon
28347	Phone: 919-250-4088
Transporter:	Contact:
REAL PROPERTY.	S CECENTE PER
	Phone
Destination: Earthtec Environmental, Inc	Contact: Scott Keller
3145 Rosser Road, Bear Creek, NC 27207	Phone: 919-774-4517 or 919-770-4258
Waste Description:	Waste Origination: US 1 & Special Forces
PT 5 2	Way. Hoffman, NC 28347
Truck #: Eto2	Gross Weight: 56060
Farthtec	Tare Weight: 26240
or a control of the c	Net Weight: 2980e
	14.91 time
Generator's Certification: I certify that the materi- subject to federal regulations for reporting proper	als described above on this manifest are not
V 1	msposm of HAZARINUS WASTE
HADURA PRABUL ACTIVIS	AGENT FOR NOOT 3/18/08
	Title Dota
Acknowledgment of Receipt of Material: 2	
Noted Discrepancies:	vers Signature Date
Inspected & Accepted (except as noted above	By: Earthtec Environmental Inc
Accepted By: Addything Hade	Date: 3 -18 - U8
The state of the s	The state of the s

Earthtec of NC, Inc. Post Office Box 130 Sanford, NC 27331 Phone #: 919-774-4517 Fax #: 919-774-6415

# NORTH CAROLINA PUBLIC WEIGHMASTER LICENSE EXPIRES JUNE 30, 2008 ABOLPHUS HEADEN 31794 INVALID UNLESS SIGNED

2 ID: MO:

66920 lb GR 24980 lb TR RECALLED 41940 lb NT

03/19/08 10:09am

NON-HAZARDOUS WASTE MANIFEST		
Project Number: 030811	Load Number:	
Consultant: Soil Solutions, Inc.	Contact: Tony Disher	
1703 Vargrave Street, Winston Salem, NC	336-725-5844	
Generator: NCDOT Parcel #68	Contact: Cyrus Parker	
USI & Special Forces Way, Hoffman, NC		
28347	Phone: 919-250-4088	
Transporter:	Contact:	
Thereined - Product F	Phone	
Destination: Earthtec Environmental, Inc	Contact: Scott Keller	
3145 Rosser Road, Bear Creek, NC 27207	Phone: 919-774-4517 or 919-770-4258	
Waste Description:	Waste Origination: US I & Special Forces	
ST-	Way, Hoffman, NC 28347	
Truck#: ETO1	Gross Weight: 66920	
Earthtec	Tare Weight: 24 980	
	Net Weight: 4/940	
	20,97 form	
Constance is Certification. I certify that the materials described above on this manifest are not		
subject to federal regulations for reporting proper disposal of HAZARDOUS WASTE.		
GESSIA Chart ACTING AGENT FRENCHOT FIBER		
Seperator / Agent Signature Title Daje		
Acknowledgment of Receipt of Material: Lery & Cheathan 3/18/08		
Drive Signature Date		
Noted Discrepancies:		
Inspected & Accepted (except as noted above By: Earthtec Environmental, Inc.		
Accepted By: Addephus New der Date: 3-18-08		

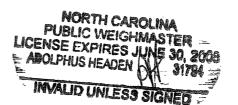
# NORTH CAROLINA PUBLIC WEIGHMASTER LICENSE EXPIRES JUNE 30, 2008 ADOLPHUS HEADEN INVALID UNLESS SIGNED

3 ID: NO.

69960 1b GR 26240 1b TR RECALLED 43720 1b NT

03/19/08 10:16am

	WASTE MANIFEST
Project Number: 030811	Load Number:
Consultant: Soil Solutions, Inc.	Contact: Tony Disher
T	
Tanada and a same and a	
Generator: NCDOT Parcel #68	Contact: Cyrus Parker
US1 & Special Forces Way, Hoffman, NC	
28347	Phone: 919-250-4088
Transporter:	Contact:
The state of the Paris The state of the stat	Phone
Destination: Earthtec Environmental, Inc 3145 Rosser Road, Bear Creek, NC 27207	Contact: Scott Keller
Waste Description:	Phone: 919-774-4517 or 919-770-4258
r mer restignist.	Waste Origination: US 1 & Special Forces Way, Hoffman, NC 28347
Truck #:	Grac Waisht:
ETOZ	Gross Weight: 49960
Earthtec	Tare Weight: 26240
	Net Weight: 43720
	21.86 tons
Generator's Certification: I certify that the materials described above on this manifest are not	
subject to federal regulations for reporting proper	disposal of HAZAKLYOUS WASTE.
HODION DEHOLT POTNE	AGENT FOR NOOT 3/18/18
Venerator / Agent Signature Acknowledgment of Receipt of Material:	Title Date 1
Acknowledgment of Receipt of Material:	47M B. Magera 3/18/04
, and the second	rivers Signature Date
Noted Discrepancies:	The art of a real
Inspected & Accepted (except as noted above	A .
Accepted By: Addershus Dead	Date 3-18-08



6 ID: NO:

79340 lb GR 29620 Ib TR RECALLED 49720 lb NT

03/19/08 10:20am

NON-HAZARDOUS	WASTE MANIFEST
Project Number: 030811	Load Number:
Consultant: Soil Solutions, Inc.	Contact: Tony Disher
1703 Vargrave Street, Winston Salem, NC	336-725-5844
Generator: NCDOT Parcel #68	
USI & Special Forces Way, Hoffman, NC	Contact: Cyrus Parker
28347	Thans: 010 050 4000
Transporter:	Phone: 919-250-4088  Contact:
	Cuttilities.
	Phone
Destination: Earthtec Environmental, Inc	Contact: Scott Keller
3145 Rosser Road, Bear Creek, NC 27207	Phone: 919-774-4517 or 919-770-4258
Waste Description:	Waste Origination: US I & Special Forces
Fig. 5 1	Way, Hoffman, NC 28347
Truck #: E+-6 TR-1	Gross Weight: 79340
	Tare Weight: 29 620
To constitution and the second	Net Weight: 49726
The state of the s	24,86 tons
Generator's Certification: I certify that the materi	als described above on this manifest are not
subject to federal regulations for reporting proper	disposal of HAZARDOUS WASTE.
Assa What ATUS	PAGNT FORMOOT 3/18/08
Acknowledgment of Receipt of Material: W	ella monoc 3-19-08
<u>l</u>	rivers Signature Date
Noted Discrepancies:	
Inspected & Accepted (except as noted above By: Earthtee Environmental, Inc.	
Accepted By: <b>Dall Mus Leader</b>	) 

# - NORTH CAROLINA PUBLIC WEIGHMASTER LICENSE EXPIRES JUNE 30, 2666 ANOLPHUS HELDEN 31794 PRALID UNLESS SIGNED

3 ID. NO.

62540 lb GR 26240 16 TR RECALLED 36300 lb NT

03/19/08 01:10<del>p</del>m

NON-HAZARDOUS	WASTE MANIFEST
Project Number: 030811	Load Number:
Consultant: Soil Solutions, Inc.	Contact: Tony Disher
1703 Vargrave Street, Winston Salem, NC	336-725-5844
Generator: NCDOT Parcel #68	Contact: Cyrus Parker
USI & Special Forces Way, Hoffman, NC	entities toling ratific
28347	Phone: 919-250-4088
Transporter:	Contact:
	Phone
Destination: Earthtee Environmental, Inc	Contact: Scott Keller
3145 Rosser Road, Bear Creek, NC 27207	Phone: 919-774-4517 or 919-770-4258
Waste Description:	Waste Origination: US I & Special Forces
PP. L. B.	Way, Hoffinan, NC 28347
Truck #: Fto7	Gross Weight: 62540
Farthtec	1 Mrs Weight: 26240
The second secon	Net Weight: 36300
	18,15 tons
Generator's Certification: I certify that the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of HAZARDOUS WASTE.	
seplect to teneral techniques for technique brober (	disposal of HAZARDOUS WASTE.
Jessia Dehart ACTING	AGENT FOR NODOT 3/19/08
Generator / Agent Signature T Acknowledgment of Receipt of Material:	
removed the first of the self of the decision of the self of the s	rivers Signature Date
Noted Discrepancies:	Minera Digitatina
inspected & Accepted (except as noted above	By: Earthfee Environmental Tree
Accepted By: Atolephus Deade	Dat 3-19-08

The five of INT, Ima. For Office Bur. 130 Senford NO 27531 Phone #: 919-774-4517 For #: 918-774-4415 NORTH CAROLINA
PUBLIC WEIGHMASTER
LICENSE EXPIRES JUNE 30, 2008
ADOLPHUS HEADEN 31794
INVALID UNLESS SIGNED

1 ID: WO.

71060 15 GR 28860 15 TR RECALLED 42200 15 NT

03/19/08 Oi:13Fm

NON-HAZARDOUS WASTE MANIFEST Project Number Lowd Number: Consultant SOIL SOLUTIONS INC Control TONY DISHER 1703 VARGEAUE ST., WINSTON SALEM 331e-725-5844 Contact: Cylus PALKER Generalor: NCOOT PARIEL #68 USI + SPECIAL FORCES WA HOFFMAN, NC 3834 Phone: 919-250-4086 Transporter: Contacti Maid Destination Earthus Environmental Inc Contact: Scott Relies 3145 Rosser Road, Bear Creek, NC 27207 Phone: 919-774-4517 or 919-770-4258 Waste Description. Waste Origination. Gross Weight 71060 linch # EU-000) Tare Weight 28860 Net Weight: 42200 21.10 form Generator's Cemification: I certify that the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of HAZARDOUS WASTE ACTING AGENT FOR NODET 3/19/08 cknowledgment of Receipt of Material: 🖈 Noted Discreptionies: Inspected & Accepted (except to upred above By . Earthrec Environmental Inc. Accopacino Addephus Headen 3-19-08

# NORTH CAROLINA PUBLIC WEIGHMASTER LICENSE EXPIRES JUNE 30, 2008 ABOLPHUS HEADEN 31794 INVALID UNLESS SIGNED

2 ID. NO.

67660 15 GR 24980 15 TR RECALLED 42680 15 NT

03/19/08 12:57Fm

NON-HAZARDOUS WASTE MANIFEST	
Project Number: 030811	Load Number:
Consultant: Soil Solutions, Inc.	
1703 Vargrave Street, Winston Salem, NC	Contact: Tony Disher
1	336-725-5844
Generator: NCDOT Parcel #68	
USI & Special Forces Way, Hoffman, NC	Contact: Cyrus Parker
28347	mag.
Transporter:	Phone: 919-250-4088
iidistrico	Contact:
L	
Flooring in Contract Tour	Phone
Destination: Earthtec Environmental, Inc	Contact: Scott Keller
3145 Rosser Road, Bear Creek, NC 27207 Waste Description:	Phone: 919-774-4517 or 919-770-4258
AA WOLD TAGSCLINIGHT.	Waste Origination: US I & Special Forces
Three de de	Way, Holiman, NC 28347
Truck #: E 701	Gross Weight:
FIU	67660
Earthtec	Tare Weight: 34980
Larme	34980
	Net Weight: (/2/ en
	17et Weight: 42680
demonstration of the second se	21.34 tons
Generator's Certification: I certify that the materia	3 1.54 70m
subject to federal regulations for reporting proper (	us described above on this manifest are not General of the Zadtvolia village
VI 1	nahasm of HASAKIVIIS MASIE
( Shoring 1) Mart Antila	AGENT FOR NODOT 3/19/08
denerator / Agent Signature (1	Title Data
Acknowledgment of Receipt of Material:	
To the state of th	river Signature Date
Noted Discrepancies:	an Nata Date
Inspected & Agrented (except as noted above	Dec That a to
Inspected & Accepted (except as noted above By: Earthtee Environmental, Inc.	
Accepted By Holleshur Reader	2-10 "()
Tolymo, I the	

NORTH CAROLINA
PUBLIC WEIGHMASTER
LICENSE EXPIRES JUNE 30, 2008
ABOLPHUS HEADEN 31794

144 ID. MO. 87080 Ib GR 03/19/08 10:52am 144 ID. MO.

INVALID UNLESS SIGNED

87080 lb GR RECALLED 34040 lb TR 53040 lb NT

NON-HAZARDOUS WASTE MANIFEST/19/08 11:03-am Project Number: 030811 Load Number: Consultant: Soil Solutions, Inc. Contact: Tony Disher 1703 Vargrave Street, Winston Salem, NC 336-725-5844 Generator: NCDOT Parcel #68 Contact: Cyrus Parker USI & Special Forces Way, Hoffman, NC 28347 Phone: 919-250-4088 Transporter: Contact: Tuny Disher Soil Solutions Inc Phone 336-725-5844 Contact Scott Keller Destination: Earthtec Environmental, Inc 3145 Rosser Road, Bear Creek, NC 27207 Phone: 919-774-4517 or 919-770-4258 Weste Description: Waste Origination: US I & Special Forces Way, Hoffman, NC 28347 Truck #: 55207 Gross Weight: Twe Weight: Net Weight: 3040 Generator's Certification: I certify that the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of HAZARDOUS WASTE. ACTING AGENT FOR NODOT Enerator / Agent Signature Acknowledgment of Receipt of Material: Drivers Signature Noted Discrepancies: Inspected & Accepted (except as noted above By: Earthtee Environmental, Inc.

PUBLIC WEIGHMASTER
LICINSE EXPIRES JUNE 30, 2008
JE 3SIE GODFREY

WYALID UNLESS SIGNED

6 ID. NO.

72260 15 GR 29620 15 TR RECALLED 42640 15 NT

03/19/08 03:24PM

NON-HAZARDOUS WASTE MANIFEST

	ALCOHOL WATER TO AND THE AND T
Project Number: 030811	Load Number:
Consultant: Soil Soldiers, Inc.	Contact: Tony Disher
1703 Vargrane St. Winster-Silem NC	336-725-5844
Generator: NEDOT-Parcel 68 VS 1 + Special Forces way; Haffman NE	Contact: Cyrus Perker  Phone: 919 - 250 - 4088
Transporter:	Contact:
	Phone
Destination: Earthtec Environmental, Inc	Contact: Scott Keller
3145 Rosser Road, Bear Creek, NC 27207	Phone: 919-774-4517 or 919-770-4258
Waste Description:	Waste Origination:
Truck #: E1-6 TR-1	Gross Weight: 72260
	Tare Weight:
	Net Weight: 42640
Generator's Certification: I certify that the mater	TONOS 21.32
subject to federal regulations for reporting proper	rials described above on this manifest are not rdisposal of HAZARDOUS WASTE.
Johnson Defort And	Title Date  Divers Signature  Date  Date
Générator / Agent Signature	Title Date
Acknowledgment of Receipt of Material:	1,1,0011 Manage 3-19-08
	Drivers Signature Deta
AARCH TAISCI CHUNGICS.	
inspected & Accepted (except as noted abov	e By: Earthtec Environmental, Inc.
Accepted By:	Date: 3-14-08

T/C

NORTH CAROLINA,
PUBLIC WEIGHMASTER
LICI NSE EXPIRES JIVNE 30, 2008
JE 3SIE GODFREY 31/795
INVALID UNLESS SIGNED

3 ID: MO:

60620 1b GR 26240 1b TR RECALLED 34380 1b NT

03/19/08 QJ:44Pm

NON-HAZARDOUS WASTE MANIFEST

Project Number:	Load Number:
030811	
Consultant: Soil Solutions Inc	Contact: Tany Disher
1703 Vogran St. Winston - Salen	334-725-5844
(703 Virgini St. Winston - Salen Generator: Neget - Parel 69 Vs i.s Special trees way Hathren Wi	334-725-5844 Contact: Cyrus fasker
TRANSPORTED TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TOTAL TO THE TOTAL T	Phone: 919 - 250 - 4088
Transporter:	Contact:
	Phone
Destination: Earthtec Environmental, Inc	Contact: Scott Keller
3145 Rosser Road, Bear Creek, NC 27207	Phone: 919-774-4517 or 919-770-4258
Waste Description:	Waste Origination: USI + Special from why
Truck #: E+07	Gross Weight: 60620
Earth tec	Tare Weight:  26240  Net Weight:
, , , , , , , , , , , , , , , , , , , ,	Net Weight: 34340
	TONUS 17.14
Generator's Certification: I certify that the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of HAZARDOUS WASTE.	
Jul By Artin	Title Brown 3/19/08
Generator / Agent Signature /	Title Date
Acknowledgment of Receipt of Material:	STOPHINE 14700 3119108
	Dravers Signature Date
Noted Discrepancies:	
Inspected & Accepted (except as noted above	re By: Earthtec Environmental, Inc.
Accepted By:	Date: 3-19-08

# NORTH CAROLINA PUBLIC WEIGHMASTER LICI NSE EXPIRES JUNE 30, 2008 JE 3SIE GODFREY INVALID UNLESS SIGNED

1 ID: NO:

72860 lb GR 28860 lb TR RECALLED 44000 lb NT

03/19/08 03:36FM

NON-HAZARDOUS WASTE MANIFEST

<b>Project Number:</b> 0318	Load Number:
Consultant: S. ( Seletions, Inc.	Contact: To Del
1703 Vargrave St Wingh Salem NC	Contact: Tom Disher
	331-725-5844
Generator: NEDUT - Parcel 68	Contact: Cyns Parkar
USI + Special forces very Albura Ne	Phone: 919-250-4688
Transporter:	Contact:
	Phone
Destination: Earthtec Environmental, Inc	Contact: Scott Keller
3145 Rosser Road, Bear Creek, NC 27207	Phone: 919-774-4517 or 919-770-4258
Waste Description:	Waste Origination: VS 1 + Speed fores who Headman NI
Truck #: EV-CO')	Gross Weight: 72860
	Tare Weight: 28860
<del>-</del>	Net Weight: 44000
	TOMS 22.000
Generator's Certification: I certify that the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of HAZARDOUS WASTE.	
Al By Athy	And for Man 3/19/08 Title Date  Drivery Signature  Drivery Signature  Deta
Generator / Agent Signature /	Title Date
Acknowledgment of Receipt of Material:	Kithan Blatol, 3-19-08
	Drivers Signature Date
Noted Discrepancies:	
inspected & Accepted (except as noted above By: Earthtec Environmental, Inc.	
Accepted By:	Date: 3-14.08

NORTH CAROLINA PUBLIC WEIGHMASTER LIC: VSE EXPIRES JIVNE 30, 2008 JE JSIE GODFREY 31/795

2 ID. WO.

73620 1b GR 24980 1b TR RECALLED

48640 lb NT

03/19/08 03:40pm

NON-HAZARDOUS WASTE MANIFEST

Project Number:	Load Number:	
030811		
Consultant: Soil Solvins	Contact: Tiny Disher	
Consultant: Soil Solutions 1703 Varguare St. Waston Silem NC	336-725-58 44	
Generator: Nepot & Paral 68	Contact: Cyris Parker	
Generator: NCDET & Parcel 68 VS 1 * Special forces Way Hillyman NC	Phone: 919 - 250 - 4188	
Transporter:	Contact:	
	Phone	
Destination: Earthtec Environmental, Inc	Contact: Scott Keller	
3145 Rosser Road, Bear Creek, NC 27207	Phone: 919-774-4517 or 919-770-4258	
Waste Description:	Waste Origination: V5 1 + Special forces way	
Truck # 5 w	Gross Weight:	
Truck #: F 7 0 1	73620	
Earthtec	Tare Weight: 24960	
	Net Weight: 48640	
Generator's Certification: I certify that the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of HAZARDOUS WASTE.		
Generator / Agent Signature Acknowledgment of Receipt of Material:	And for NEDET 3/19/08	
Generator / Agent Signature	litie / Date /	
Acknowledgment of Receipt of Material:	en 2 Cheathan 3/19/68	
	Drivers Signature Date	
Noted Discrepancies:		
Inspected & Accepted (except as noted above By: Earthtee Environmental, Inc.		
Accepted By:	Date: 3-19.08	

FC 2 Benfitor of No. Inc. Past Office Sen 130 Sandard RC 17831 Plane 4-919-771-4517 Fax 4. 919-774-6415

#### NORTH CAROLINA PUBLIC WEIGHMASTER LICENSE EXPIRES JUNE 30, 2008 JOE F, HOPPERA INVALID UNLESS SIGNED

1 ID. MD.

75960 lb GR 28860 16 TR RECALLED 47100 lb NT

03/20/08 08:44am

A TANK THE LAND AND A TANK THE PARTY OF THE	UN WASIN MANINISI
Project Number 03/811	Load Number:
Consultant: SOIL SOLUTIONS /NE	Contact: TONY DISCHER
1703 VARGEAUEST	336-725-5841
WINSTON SALEM NO	
USI + Special Foeces WAY	Contact: Cyeus PARKER
USI - Special Foeces WAY	
HOFFMAN NC	Phone: 919-25D-4088
Transporter:	Contact:
	Phone
Destination: Earther Environmental, Inc	Contact: Scott Keller
3145 Resser Road, Bear Creek, NC 27207	Phone: 919-774-4517 or 919-770-4258
Waste Description:	Waste Origination:
Truck #: E U-007	Gross Weight:
LU-00	75960
	Tare Welght. 28860
	Net Weight: 47100
and compared to the control of the c	The state of the s
	23,55 tans
Generator's Certification: I certify that the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of HAZARDOUS WASTE.	
A 1	a disposal of HAZARDOUS WASTE.
dissua Dehait ACTI	NG AGENT FOR NOOT 3/19/08
Viterator / Agent Signalure	Till 1
Acknowledgment of Receipt of Material:	NG AGENT FOR NOOT 3/19/08  Tilly Dule  Lichard Blakele 3-20-08  Drivers Signature  Drivers
State and The concess was a few	Drivers Signature / Date
roted lifetapanoles	
uspected & Accepted (except as noted abo	ve by: Earthfee Environmental, Inc.
Accepted By: Frankie Holler	Daw-3-20-08

Ē.

Earthter of NC, Inc. Post Office Box 130 Sanford, NC 27331 Phone #: 919-774-4517

Fax #: 919-774-6415

NORTH CAROLINA
PUBLIC WEIGHMASTER
LICINSE EXPIRES J'NE 30, 2009 1 ID. NO.

JEJSSIE GODFREY 31 95

INVALID UNLESE SIGNED 74740 1b GR
29860 1b TR RECALLED
45880 1b NT

03/20/08 11:08am

NON-HAZARDOUS WASTE MANIFEST

Drawn Romann (1981)	i reard diferent from:	
Consultant: Soil Solutions, Inc.	Contact: Tony Disher	
1703 Vargrave Street, Winston Salem, NC	336-725-5844	
Generator: NCDOT Parcel #68	Contact: Cyrus Parker	
USI & Special Forces Way, Hoffman, NC	(VI)-administra	
28347	Phone: 919-250-4088	
Transporter:	Contact:	
	Phone	
Destination: Earthtec Environmental, Inc	Contact: Scott Keller	
3145 Rosser Road, Bear Creek, NC 27207	Phone: 919-774-4517 or 919-770-4258	
Waste Description:	Waste Origination: US 1 & Special Forces	
	Way, Hoffman, NC 28347	
Truck #: E V - 007	Gross Weight: 74740	
	Tare Weight: 28860	
	Net Weight: 45860	
	70000	
	TONELS 2294	
Generator's Certification: I certify that the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of HAZARDOUS WASTE.		
dessua Dehait An	TING AGENT FOR NOOT 3/20/08	
Zenerntor / Agent Signature	riua) o pata	
Acknowledgment of Receipt of Material:	12 ho / 18 label 3-20.08	
-	Orivers Signature Trate	
Noted Discrepancies:	(Xcere)	
Inspected & Accepted (except as noted above	By: Earthtee Environmental, Inc.	
Accepted By: JM	Date: 3-20.08	

NORTH CAROLINA
PUBLIC WEIGHMASTER
LICHNSE EXPIRES JIL'NE 30, 2008
JESSIE GODFREY
31 '95 3: 95

1 ID: NO:

81240 lb GR

2000 15 TR RECALLED

52380 lb NT

03/20/08 01:47pm

NON-HAZARDOUS WASTE MANIFEST

Project Number: 030811	Load Number:
Consultant: Soil Solutions, Inc.	Contact: Tony Disher
1703 Vargrave Street, Winston Salem, NC	336-725-5844
Generator: NCDOT Parcel #68	Contact: Cyrus Parker
USI & Special Forces Way, Hoffman, NC	
28347	Phone: 919-250-4088
Transporter:	Contact:
· ·	
	Phone
Destination: Earthtec Environmental, Inc	Contact: Scott Keller
3145 Rosser Road, Bear Creek, NC 27207	Phone: 919-774-4517 or 919-770-4258
Waste Description:	Waste Origination: US I & Special Forces
	Way, Hoffman, NC 28347
Truck#: Ev-001	Gross Weight: 8/240
	Tare Weight: 28860
	Net Weight: 52380
Generator's Certification: I certify that the materi	TONAS 26,19
Generator's Certification: I certify that the materi	als described above on this manifest are hat
subject to federal regulations for reporting proper	disposal of HAZARDOUS WASTE.
yessia Dehart ACTING	AGENT FOR NOOT 3/20/08
Venerator / Agent Signature	Die / Date /
Mederator / Agent Signature Acknowledgment of Receipt of Material:	what Blakel 3-20-08
I	Orivers Signature Date
Noted Discrepancies:	
Inspected & Accepted (except as noted above	By: Earthtee Environmental, Inc.
Accepted By:	Date: 3:20.08

NORTH CAROLINA
PUBLIC WEIGHMASTER
LICINSE EXPIRES JIVINE 30, 2008 3 ID. MO.
JEJSSIE GODFREY 31/795
INVALID UNLESS SIGNED 56060 1b GR
26240 1b TR RECALLED
39820 1b HT

03/20/08 03:53FM

NON-HAZARDOUS WASTE MANTERET

	WASIE MANIFEST
Project Number: 030811	Load Number:
Consultant: Soil Solutions, Inc.	Contact: Tony Disher
1703 Vargrave Street, Winston Salem, NC	336-725-5844
	Section with the control of the section of the sect
Generator: NCDOT Parcel #68	Contact: Cyrus Parker
USI & Special Forces Way, Hoffman, NC	
28347	Phone: 919-250-4088
Transporter:	Contact:
	Phone
Destination: Earthtec Environmental, Inc	Contact: Scott Keller
3145 Rosser Road, Bear Creek, NC 27207	Phone: 919-774-4517 or 919-770-4258
Waste Description:	Waste Origination: US 1 & Special Forces
	Way, Hoffman, NC 28347
Truck #: P427	Gross Weight:
702	66060
Fartntec	Tare Weight: 26240
and the second s	Net Weight:
	39820
a de la companya de l	(
Generator's Certification: I certify that the materi	TONAS 19.91
Capital and a continue of the control of the contro	als described above on this manifest are not
subject to federal regulations for reporting proper	disposal of HAZARDOUS WASTE,
Culsora Dehaut ACTING &	POENT FOR NUDOT 3/01/08
Gylerator / Agent Signature	Title 0 10 0 Date
Acknowledgment of Receipt of Material:	tumen a hoger 3/2010\$
T	Devers Signature Date
Noted Discrepancies:	
Inspected & Accepted (except as noted above	By: Earthtec Environmental, Inc.
Accepted By:	Date: 3-20-08

# . NORTH CAROLINA PUBLIC WEIGHMASTER LICE NSE EXPIRES J. NE 30, 2008 JESSIE GODFREY 31, 93

Earthiet of NC, Inc. Post Office Box 130 Surford, NC 27331 Phone #: 919-774-4517 Fax #: 919-774-6415

INVALID UNLESS SIGNED

3 ID. MO.

66080 lb GR

26240 16 TR RECALLED

39840 lb NT

03/20/08 12:44Pm

NON-HAZARDOUS WASTE MANIFEST

The state of the s	The state of the s
Project Number: 030811	Load Number:
Consultant: Soil Solutions, Inc.	Contact: Tony Disher
1703 Vargrave Street, Winston Salem, NC	336-725-5844
Generator: NCDOT Parcel #68	Contact: Cyrus Parker
USI & Special Forces Way, Hoffman, NC	The same of the sa
28347	Phone: 919-250-4088
Transporter:	Contact:
45.	Phone
Destination: Earthtec Environmental, Inc	Contact Scott Keller
3145 Rosser Road, Bear Creek, NC 27207	Phone: 919-774-4517 or 919-770-4258
Waste Description:	Waste Origination: US 1 & Special Forces Way, Hoffman, NC 28347
Truck #: _	Gross Weight:
E+02	66080
Farthtec	Tare Weight: 26240
	Net Weight: 39840
Generator's Certification: I certify that the materi	• •
Generator's Certification: I certify that the materi subject to federal regulations for reporting proper	als described above on this manifest are not disposal of HAZARDOUS WASTE
Sassa Chart Am	INTO ACCULATOR NATION 3/1/10
Quiterator / Agent Signature	Citie Date 3/20/00
Acknowledgment of Receipt of Material;	
Noted Discrepancies:	Drivers Signature Date
inspected & Accepted (except as noted above	By: Earthtec Environmental, Inc.
Accepted By:	Date: 3-20.08

NORTH CAROLINA
PUBLIC WEIGHMASTER
LIC! ISE EXPIRES JI'NE 30, 2008 2 ID. NO.
JE SSIE GODFREY 31/95 72380 1b GR
24980 1b TR RECALLED
47400 1b NT

03/20/08 12:38pm

NON-HAZARDOUS WASTE MANTERST

	Wall Marie Ma
Project Number: 030811	Load Number:
Consultant: Soil Solutions, Inc.	Contact: Tony Disher
1703 Vargrave Street, Winston Salem, NC	336-725-5844
Generator: NCDOT Parcel #68	Contact: Cyrus Parker
USI & Special Forces Way, Hoffman, NC	
28347	Phone: 919-250-4088
Transporter:	Contact:
	Phone
Destination: Earthtec Environmental, Inc	Contact: Scott Keller
3145 Rosser Road, Bear Creek, NC 27207	Phone: 919-774-4517 or 919-770-4258
Waste Description:	Waste Origination: US 1 & Special Forces
	Way, Hoffman, NC 28347
Truck #: F 701	Gross Weight: 72380
Earthtec	Tare Weight: 24980
	Net Weight: 43 400
Generator's Certification: I certify that the materi	
Generator's Certification: I certify that the materi	als described above on this manifest are not
subject to federal regulations for reporting proper	disposal of HAZARDOUS WASTE.
Your Dhart Actives	AGENT FOR NUDOT 3/20/08
General of / Agent Signature 17	
Acknowledgment of Receipt of Material:	Pille Date Deter 3-2908
	Drivery Signature Date
Inspected & Accepted (except as noted above	Ru: Earthias Engineers and I to -
7	2. Leading That and Chemistry 1116.
Accepted By:	Date: 3-20,08

Karibir of W. Tre. Per offic Esc. 30 Saura Billon Manual 010-174-1517 Faz 8. 919-776-6415

NORTH CAROLINA
PUBLIC WEIGHMASTER
LICTUSE EXPIRES JUNE 30, 2006
JE 3SIE GODFREY 31/95 INVALID UNLESS SIGNED

2 ID. NO.

68260 lb GR 24980 lb TR RECALLED 43280 lb MT

03/20/08 09:57am

The first of the second of the	US WASTE MANIFEST
Project Number 038//	First Misselles
Consultant: SOIL SOCUTIONS THE 1703 VALGEAUE ST WINSTON SALEM INC	Contact TONY DISCHER 3310-725-5844
Generator: NCOOT PALCEL 108 VSI 4 SPECIAL FORCES WAY	Contact: Cyeus PARIER
HOFFMAN, NC Transporter:	Phone: 9A-250-408 Contact:
Destination: Earthier Environmental, Inc 3145 Reaser Read, Bear Creek, NC 27207	Phone  Contact: Scott Keller  Phone: 919-774-4517 or 919-770-4258
Waste Description:	Waste Origination: ACOOT PACIEL 68 USI + SECIAL FORCES WAY HOFFMAN NO
Truck = E701	Gross Weight: 68226
Earthtee	Thre Weight: 24980 Net Weight:
tand til fillgaternakar fram av sakrapatat kan erkkan sakrapatan og fram 100 av fra år skallendare i men og fra fram til den er til	43280
Generator's Certification: I certify that the mate subject to federal regulations for reporting prope	TONGS 2164 stills described above on this manifest are not a disposal of HAZARDONS WASTE
Justica Dehart Ami	US AGANT FOR NODOT 3/21/12
Acknowledgment of Receipt of Material:	Deny 2 Ceathan 3/20/08 Drive Signature
voted Discrepancies aspected & Accepted (except as noted abov	ALON BEN MAY
ecapted By July	8-20-08
//	

Further of NC Tex. For Office Box 170 Saulard, NC 27331 Phone #: 919-771-1517 Fw. #: 919-774-6415 NORTH CAROLINA
PUBLIC WEIGHMASTER
LICI NSE EXPIRES JI'NE 30, 2008
JE 3SIE GODFREY 31/795
INVALID UNLESS SIGNEL

J ID. NO.

62500 lb GR 26240 lb TR RECALLED 36260 lb NT

03/20/08 09:51am

NON-TAZARDOL	s vasti mantitist
Project Number 030811	The second secon
Consultant SOL SOUTIONS INC	Coninci TONY DISCHER
1703 VARGEDUE ST. WINSTON SALEM NC	336-725-5844
Generalor: NODOT PAROEL GB	Connect: CYRUS PARIER
USI + SPECIAL FOECES WAY	
HOFFMAN, NC	Phone: 919-250-4088
ಡ ಸೇವಿಸಿದ್ದಾ ಕೇರ್ನಿಕ ಕರ್ಮನ್ನ	Confact:
	Phone
Destination: Earlinec Environmental, Inc	Contact. Scott Keller
3145 Rosser Road, Bear Creek, NO 27207 Waste Description.	Phone: 919-774-4517 or 919-770-4258
ne cross a madasses profession	Waste Crigination:
Imek # Etez-	Cines Weight.
The state of the s	62500
Earthtec	16240
	16 2 40 Not Worght: 36 260
	TONAS 1812
inversion's Certification: I certify that the protect object to federal regulations for reporting proper	Traffic structure the most referred and rear the respective programme the second
	3/20/08
HISSIA DURALT ACTING	AGENT FOR NOOT 3/9/08
Muster / Agent Signalme cknowledgment of Receipt of Material:	Stephen & Roger 3120/04
come or commendate are respectful as farming [80]	District Standard 5 10104
eted Discrepancies.	
specied & Accepted (except as noted above	v By . Earther Bayironnemai, inc.
ocepted By:	Dan 3-20.08
	10 10 10 10 10 10 10 10 10 10 10 10 10 1

J/) 3

# NORTH CAROLINA PUBLIC WEIGHMASTER LICINSE EXPIRES JUNE 30, 2008 JESSIE GODFREY MVALID UNLESS SIGNED

2 ID: NO.

67980 15 GR 24980 15 TR RECALLED 43000 15 NT

03/21/08 06:28am

NON-HAZARDOUS WASTE MANTERST

Y. Charles and the second seco	WASIE MANIFEST
Project Number: 030811	Load Number:
Consultant: Soil Solutions, Inc.	Contact: Tony Disher
1703 Vargrave Street, Winston Salem, NC	336-725-5844
Generator: NCDOT Parcel #68	Contact: Cyrus Parker
USI & Special Forces Way, Hoffman, NC	a a consistency of a set of the
28347	Phone: 919-250-4088
Transporter:	Contact:
	Phone
Destination: Earthtee Environmental, Inc	Contact: Scott Keller
3145 Rosser Road, Bear Creek, NC 27207	Phone: 919-774-4517 or 919-770-4258
Waste Description:	Waste Origination: US 1 & Special Forces
PP 5 33 4 4	Way, Hoffman, NC 28347
Truck #: E T 0.1	Gross Weight: 67980
Earthtec	Tare Weight: 24980
And the state of t	Net Weight: 43000
	TONA) 21.50
Generator's Certification: I certify that the materi- subject to federal regulations for reporting proper	als described above on this manifest are not disposal of HAZARDOUS WASTE.
MADORA Dhart ACTUR	SAGENT FOR NODOT 3/20/08
Glykiet af or / Agent Signature	città e o / Date
Ciblicitator / Agent Signature Acknowledgment of Receipt of Material:	eny 2 Chedhan 3/20/08
$\mathbf{I}$	Drivere Signature Date
Noted Discrepancies:	
Inspected & Accepted (except as noted above	By: Earthtee Environmental, Inc.
Accepted By: June	Date: 3-21-08

#### APPENDIX D

# LABORATORY ANALYTICAL REPORT AND CHAIN-OF-CUSTODY FORMS

#### **Case Narrative**



Date:

04/15/08

Company: N. C. Department of Transportation

Contact: Address:

Jessica Dehart c/o Solution - IES

1101 Nowell Road

Raleigh, NC 27607

Client Project ID:

NCDOT Parcel 68

**Prism COC Group No:** 

G0308735

Collection Date(s):

3/18/08 thru 3/20/08

Lab Submittal Date(s):

03/21/08

Client Project Name Or No: Richmond Co. WBS# 34438.1.1

This data package contains the analytical results for the project identified above and includes a Case Narrative, Laboratory Report and Quality Control Data totaling 95 pages. A chain-of-custody is also attached for the samples submitted to Prism for this project.

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

#### Semi Volatile Analysis

Analysis Note for Q31404 MSD Phenol: RPD value outside the control limits.

Analysis Note for Q31414 MS Diesel Range Organics (DRO): MS recovery outside of the control limits. Matrix interference is suspected due to high diesel content of spiked sample.

Analysis Note for Q31414 MSD Diesel Range Organics (DRO); MSD recovery outside the control limits.

#### **Volatile Analysis**

No Anomalies Reported

#### Metals Analysis

N/A

#### Wet Lab and Micro Analysis

N/A

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

Date Reviewed by:	Paula A. Gilleland	Project Manager:	r: Angela D. Overcash
Signature:	Lande U. Dilleland	Signature:	Taula d. Willeland for Angel Overcal
Review Date:	04/15/08	Approval Date:	04/15/08

#### **Data Qualifiers Key Reference:**

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

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



#### **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607

Project Name: Richmond Co.

Project ID: Project No.: NCDOT Parcel 68 WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-E1 Prism Sample ID: 209576

COC Group:

G0308735

Time Collected:

03/19/08 10:00

Time Submitted: 03/21/08

13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Percent Solids Determination Percent Solids	85.6	%			1	SM2540 G	03/26/08 14:40	mbarber	
Sample Weight Determination Weight Bisulfate 1	7.03	g			1	5035	03/26/08 0:00	[brown	
Weight Bisulfate 2	7.16	g			1	5035	03/26/08 0:00	lbrown	
Weight Methanol	6.37	g			1	5035	03/26/08 0:00	lbrown	
Volatile Organic Compounds by G	C/MS								
1,1,1-Trichloroethane	BRL	mg/kg	0.0042	0.00049	1	8260B	03/29/08 14:32	lwitry	Q31336
1,1,2,2-Tetrachloroethane	BRL.	mg/kg	0.0042	0.0003	1	8260B	03/29/08 14:32	lwitry	Q31336
1,1,2-Trichloroethane	BRL	mg/kg	0.0042	0.00044	1	8260B	03/29/08 14:32	lwitry	Q31336
1,1-Dichloroethane	BRL	mg/kg	0.0042	0.00047	1	8260B	03/29/08 14:32	lwitry	Q31336
1,1-Dichloroethene	BRL	mg/kg	0.0042	0.00071	1	8260B	03/29/08 14:32	lwitry	Q31336
1,1-Dichloropropene	BRL	mg/kg	0.0042	0.00049	1	8260B	03/29/08 14:32	lwitry	Q31336
1,2,3-Trichlorobenzene	BRL	mg/kg	0.0042	0.00047	1	8260B	03/29/08 14:32	lwitry	Q31336
1,2,3-Trichloropropane	BRL	mg/kg	0.0042	0.00056	1	8260B	03/29/08 14:32	lwitry	Q31336
1,2,4-Trichlorobenzene	BRL	mg/kg	0.0042	0.00054	1	8260B	03/29/08 14:32	lwitry	Q31336
1,2,4-Trimethylbenzene	BRL	mg/kg	0.0042	0.00021	1	8260B	03/29/08 14:32	lwitry	Q31336
1,2-Dibromoethane (EDB)	BRL	mg/kg	0.0042	0.00052	1	8260B	03/29/08 14:32	lwitry	Q31336
1,2-Dichlorobenzene	BRL	mg/kg	0.0042	0.00027	1	8260B	03/29/08 14:32	lwitry	Q31336
1,2-Dichloroethane	BRL	mg/kg	0.0042	0.00047	1	8260B	03/29/08 14:32	lwitry	Q31336
1,2-Dichloropropane	BRL	mg/kg	0.0042	0.0010	1	8260B	03/29/08 14:32	lwitry	Q31336
1,3,5-Trimethy/benzene	BRL.	mg/kg	0.0042	0.00035	1	8260B	03/29/08 14:32	lwitry	Q31336
1,3-Dichlorobenzene	BRL	mg/kg	0.0042	0.00027	1	8260B	03/29/08 14:32	lwitry	Q31336
1,3-Dichloropropane	BRL	mg/kg	0.0042	0.00017	1	8260B	03/29/08 14:32	lwitry	Q31336
1,4-Dichlorobenzene	BRL	mg/kg	0.0042	0.00053	1	8260B	03/29/08 14:32	lwitry	Q31336
2,2-Dichloropropane	BRL	mg/kg	0.0042	0.0006	1	8260B	03/29/08 14:32	lwitry	Q31336
2-Chlorotoluene	BRL	mg/kg	0.0042	0.00023	1	8260B	03/29/08 14:32	lwitrv	Q31336

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Phone: 704/529-6364 - Toll Free Number: 1-800/529-6364 - Fax: 704/525-0409



# **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607

Project ID:

Project Name: Richmond Co.

Project No.:

NCDOT Parcel 68 WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-E1

Prism Sample ID: 209576

COC Group:

G0308735

Time Collected: 03/19/08 10:00 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis A	Analyst	Batch ID
2-Hexanone	BRL	mg/kg	0.042	0.0036	1	8260B	03/29/08 14:32 lwit	itry	Q31336
4-Chlorotoluene	BRL	mg/kg	0.0042	0.00031	1	8260B	03/29/08 14:32 lwit	try	Q31336
4-Methyl-2-pentanone (MIBK)	BRL	mg/kg	0.042	0.0043	1	8260B	03/29/08 14:32 lwit	try	Q31336
Acetone	BRL	mg/kg	0.042	0.012	1	8260B	03/29/08 14:32 lwit	try	Q31336
Benzene	BRL	mg/kg	0.0025	0.00035	1	8260B	03/29/08 14:32 lwit	try	Q31336
Bromobenzene	BRL	mg/kg	0.0042	0.00053	1	8260B	03/29/08 14:32 lwit	try	Q31336
Bromochloromethane	BRL	mg/kg	0.0042	0.00034	1	8260B	03/29/08 14:32 lwit	try	Q31336
Bromodichloromethane	BRL.	mg/kg	0.0042	0.00045	1	8260B	03/29/08 14:32 lwit	try	Q31336
Bromoform	BRL	mg/kg	0.0042	0.00037	1	8260B	03/29/08 14:32 lwite	try	Q31336
Bromomethane	BRL	mg/kg	0.0083	0.00093	1	8260B	03/29/08 14:32 lwit	try	Q31336
Carbon tetrachloride	BRL.	mg/kg	0.0042	0.00027	1	8260B	03/29/08 14:32 lwiti	try	Q31336
Chlorobenzene	BRL	mg/kg	0.0042	0.00042	1	8260B	03/29/08 14:32 lwit	try	Q31336
Chlorodibromomethane	BRL	mg/kg	0.0042	0.00038	1	8260B	03/29/08 14:32 lwiti	try	Q31336
Chloroethane	BRL	mg/kg	0.0083	0.0014	1	8260B	03/29/08 14:32 lwite	try	Q31336
Chloroform	BRL	mg/kg	0.0042	0.00069	1	8260B	03/29/08 14:32 lwite	try	Q31336
Chloromethane	BRL	mg/kg	0.0042	0.0010	1	8260B	03/29/08 14:32 lwite	try	Q31336
cis-1,2-Dichloroethene	BRL	mg/kg	0.0042	0.00066	1	8260B	03/29/08 14:32 lwitr	try	Q31336
cis-1,3-Dichloropropene	BRL	mg/kg	0.0042	0.00055	1	8260B	03/29/08 14:32 lwit	try	Q31336
Dichlorodifluoromethane	BRL	mg/kg	0.0042	0.0011	1	8260B	03/29/08 14:32 lwitr	try	Q31336
Ethylbenzene	BRL	mg/kg	0.0042	0.00019	1	8260B	03/29/08 14:32 lwite	try	Q31336
Isopropyl ether (IPE)	BRL	mg/kg	0.0042	0.00038	1	8260B	03/29/08 14:32 lwitr	try	Q31336
Isopropylbenzene	BRL	mg/kg	0.0042	0.00024	1	8260B	03/29/08 14:32 lwite	try	Q31336
m,p-Xylenes	BRL	mg/kg	0.0083	0.00068	1	8260B	03/29/08 14:32 lwitr	try	Q31336
Methyl ethyl ketone (MEK)	BRL	mg/kg	0.083	0.012	1	8260B	03/29/08 14:32 lwitr	try	Q31336
Methyl t-butyl ether (MTBE)	BRL	mg/kg	0.0083	0.00035	1	8260B	03/29/08 14:32 lwitr	try	Q31336
Methylene chloride	BRL	mg/kg	0.0042	0.00068	1	8260B	03/29/08 14:32 lwitr	try	Q31336
n-Butylbenzene	BRL	mg/kg	0.0042	0.0003	1	8260B	03/29/08 14:32 lwitr	try	Q31336



## **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607 Project Name: Richmond Co.

Project ID: NCDOT Parcel 68
Project No.: WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-E1
Prism Sample ID: 209576
COC Group: 6030873

COC Group: G0308735 Time Collected: 03/19/08

Time Collected: 03/19/08 10:00 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
n-Propylbenzene	BRL	mg/kg	0.0042	0.00027	1	8260B	03/29/08 14:32	lwitry	Q31336
Naphthalene	BRL	mg/kg	0.0083	0.0005	1	8260B	03/29/08 14:32	lwitry	Q31336
o-Xylene	BRL	mg/kg	0.0042	0.00017	1	8260B	03/29/08 14:32	lwitry	Q31336
p-Isopropyltoluene	BRL	mg/kg	0.0042	0.00033	1	8260B	03/29/08 14:32	lwitry	Q31336
sec-Butylbenzene	BRL	mg/kg	0.0042	0.00028	1	8260B	03/29/08 14:32	lwitry	Q31336
Styrene	BRL	mg/kg	0.0042	0.00047	1	8260B	03/29/08 14:32	lwitry	Q31336
tert-Butylbenzene	BRL	mg/kg	0.0042	0.00035	1	8260B	03/29/08 14:32	lwitry	Q31336
Tetrachloroethene	BRL	mg/kg	0.0042	0.00037	1	8260B	03/29/08 14:32	lwitry	Q31336
Toluene	BRL	mg/kg	0.0042	0.00031	1	8260B	03/29/08 14:32	lwitry	Q31336
trans-1,2-Dichloroethene	BRL	mg/kg	0.0042	0.00053	1	8260B	03/29/08 14:32	lwitry	Q31336
trans-1,3-Dichloropropene	BRL	mg/kg	0.0042	0.00049	1	8260B	03/29/08 14:32	lwitry	Q31336
Trichloroethene	BRL	mg/kg	0.0042	0.00061	1	8260B	03/29/08 14:32	lwitry	Q31336
Trichlorofluoromethane	BRL	mg/kg	0.0042	0.00074	1	8260B	03/29/08 14:32	lwitry	Q31336
Vinyl acetate	BRL	mg/kg	0.021	0.0012	1	8260B	03/29/08 14:32	lwitry	Q31336
Vinyl chloride	BRL	mg/kg	0.0042	0.00072	1	8260B	03/29/08 14:32	lwitry	Q31336

					Surroga	te	% Recover	y Cont	rol Limits
					Toluene-	d8	91	8	31 - 128
					Dibromot	fluoromethane	105	•	67 - 143
					Bromoflu	orobenzene	102	7	77 - 128
Semi-volatile Organic Compounds	by GC/MS								
1,2,4-Trichlorobenzene	BRL	mg/kg	0.39	0.043	1	8270C	04/02/08 0:37	kcampigotto	Q31404
1,2-Dichlorobenzene	BRL	mg/kg	0.39	0.043	1	8270C	04/02/08 0:37	kcampigotto	Q31404
1,3-Dichlorobenzene	BRL	mg/kg	0.39	0.038	1	8270C	04/02/08 0:37	kcampigotto	Q31404
1,4-Dichlorobenzene	BRL	mg/kg	0.39	0.047	1	8270C	04/02/08 0:37	kcampigotto	Q31404
2,4,5-Trichlorophenol	BRL	mg/kg	0.39	0.046	1	8270C	04/02/08 0:37	kcampigotto	Q31404
2,4,6-Trichlorophenol	BRL	mg/kg	0.39	0.042	1	8270C	04/02/08 0:37	kcampigotto	Q31404

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## **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607 Project Name: Richmond Co.

Project ID: NCDOT Parcel 68
Project No.: WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-E1
Prism Sample ID: 209576
COC Group: G0308735

Time Collected: 03/19/08 10:00 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
2,4-Dichlorophenol	BRL	mg/kg	0.39	0.026	1	8270C	04/02/08 0:37	kcampigotto	Q31404
2,4-Dimethylphenol	BRL	mg/kg	0.39	0.058	1	8270C	04/02/08 0:37	kcampigotto	Q31404
2,4-Dinitrophenol	BRL	mg/kg	2.0	0.11	1	8270C	04/02/08 0:37	kcampigotto	Q31404
2,4-Dinitrotoluene	BRL	mg/kg	0.39	0.051	1	8270C	04/02/08 0:37	kcampigotto	Q31404
2,6-Dinitrotoluene	BRL	mg/kg	0.39	0.070	1	8270C	04/02/08 0:37	kcampigotto	Q31404
2-Chloronaphthalene	BRL	mg/kg	0.39	0.049	1	8270C	04/02/08 0:37	kcampigotto	Q31404
2-Chlorophenol	BRL	mg/kg	0.39	0.016	1	8270C	04/02/08 0:37	kcampigotto	Q31404
2-Methylnaphthalene	BRL	mg/kg	0.39	0.044	1	8270C	04/02/08 0:37	kcampigotto	Q31404
2-Methylphenol	BRL	mg/kg	0.39	0.031	1	8270C	04/02/08 0:37	kcampigotto	Q31404
2-Nitrophenol	BRL	mg/kg	0.39	0.055	1	8270C	04/02/08 0:37	kcampigotto	Q31404
3&4-Methylphenol	BRL	mg/kg	0.39	0.046	1	8270C	04/02/08 0:37	kcampigotto	Q31404
3,3'-Dichlorobenzidine	BRL	mg/kg	0.78	0.071	1	8270C	04/02/08 0:37	kcampigotto	Q31404
4,6-Dinitro-2-methylphenol	BRL	mg/kg	2.0	0.033	1	8270C	04/02/08 0:37	kcampigotto	Q31404
4-Bromophenylphenylether	BRL	mg/kg	0.39	0.049	1	8270C	04/02/08 0:37	kcampigotto	Q31404
4-Chloro-3-methylphenol	BRL	mg/kg	0.78	0.046	1	8270C	04/02/08 0:37	kcampigotto	Q31404
4-Chloroaniline	BRL	mg/kg	0.39	0.029	1	8270C	04/02/08 0:37	kcampigotto	Q31404
4-Chlorophenylphenylether	BRL	mg/kg	0.39	0.049	1	8270C	04/02/08 0:37	kcampigotto	Q31404
4-Nitrophenol	BRL	mg/kg	2.0	0.050	1	8270C	04/02/08 0:37	kcampigotto	Q31404
Acenaphthene	BRL	mg/kg	0.39	0.053	1	8270C	04/02/08 0:37	kcampigotto	Q31404
Acenaphthylene	BRL	mg/kg	0.39	0.037	1	8270C	04/02/08 0:37	kcampigotto	Q31404
Anthracene	BRL	mg/kg	0.39	0.028	1	8270C	04/02/08 0:37	kcampigotto	Q31404
Azobenzene	BRL	mg/kg	2.0	0.057	1	8270C	04/02/08 0:37	kcampigotto	Q31404
Benzo(a)anthracene	BRL	mg/kg	0.39	0.044	1	8270C	04/02/08 0:37	kcampigotto	Q31404
Benzo(a)pyrene	BRL	mg/kg	0.39	0.049	1	8270C	04/02/08 0:37	kcampigotto	Q31404
Benzo(b)fluoranthene	BRL	mg/kg	0.39	0.080	1	8270C	04/02/08 0:37	kcampigotto	Q31404
Benzo(g,h,i)perylene	BRL	mg/kg	0.39	0.050	1	8270C	04/02/08 0:37	kcampigotto	Q31404
Benzo(k)fluoranthene	BRL	mg/kg	0.39	0.10	1	8270C	04/02/08 0:37	kcampigotto	Q31404



## **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607

Project Name: Richmond Co.

Project ID:

NCDOT Parcel 68

Project No.:

WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-E1

Prism Sample ID: 209576 COC Group:

G0308735

Time Collected: 03/19/08 10:00

Time Submitted:	03/21/08	13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Benzoic acid	BRL	mg/kg	2.0	0.17	1	8270C	04/02/08 0:37	kcampigotto	Q31404
Benzyl alcohol	BRL	mg/kg	0.78	0.031	1	8270C	04/02/08 0:37	kcampigotto	Q31404
Bis(2-chloroethoxy)methane	BRL	mg/kg	0.39	0.066	1	8270C	04/02/08 0:37	kcampigotto	Q31404
Bis(2-chloroethyl)ether	BRL	mg/kg	0.39	0.048	1	8270C	04/02/08 0:37	kcampigotto	Q31404
Bis(2-chloroisopropyl)ether	BRL	mg/kg	0.39	0.039	1	8270C	04/02/08 0:37	kcampigotto	Q31404
Bis(2-ethylhexyl)phthalate	BRL	mg/kg	0.39	0.030	1	8270C	04/02/08 0:37	kcampigotto	Q31404
Butylbenzylphthalate	BRL	mg/kg	0.39	0.048	1	8270C	04/02/08 0:37	kcampigotto	Q31404
Chrysene	BRL	mg/kg	0.39	0.026	1	8270C	04/02/08 0:37	kcampigotto	Q31404
Di-n-butylphthalate	BRL	mg/kg	0.39	0.063	1	8270C	04/02/08 0:37	kcampigotto	Q31404
Di-n-octylphthalate	BRL	mg/kg	0.39	0.11	1	8270C	04/02/08 0:37	kcampigotto	Q31404
Dibenzo(a,h)anthracene	BRL	mg/kg	0.39	0.036	1	8270C	04/02/08 0:37	kcampigotto	Q31404
Dibenzofuran	BRL	mg/kg	0.39	0.048	1	8270C	04/02/08 0:37	kcampigotto	Q31404
Diethylphthalate	BRL	mg/kg	0.39	0.10	1	8270C	04/02/08 0:37	kcampigotto	Q31404
Dimethylphthalate	BRL.	mg/kg	0.39	0.058	1	8270C	04/02/08 0:37	kcampigotto	Q31404
Fluoranthene	BRL	mg/kg	0.39	0.069	1	8270C	04/02/08 0:37	kcampigotto	Q31404
Fluorene	BRL	mg/kg	0.39	0.056	1	8270C	04/02/08 0:37	kcampigotto	Q31404
Hexachlorobenzene	BRL	mg/kg	0.39	0.054	1	8270C	04/02/08 0:37	kcampigotto	Q31404
Hexachlorobutadiene	BRL	mg/kg	0.39	0.039	1	8270C	04/02/08 0:37	kcampigotto	Q31404
Hexachlorocyclopentadiene	BRL	mg/kg	0.39	0.058	1	8270C	04/02/08 0:37	kcampigotto	Q31404
Hexachloroethane	BRL	mg/kg	0.39	0.016	1	8270C	04/02/08 0:37	kcampigotto	Q31404
Indeno(1,2,3-cd)pyrene	BRL	mg/kg	0.39	0.037	1	8270C	04/02/08 0:37	kcampigotto	Q31404
Isophorone	BRL	mg/kg	0.39	0.037	1	8270C	04/02/08 0:37	kcampigotto	Q31404
N-Nitrosodi-n-propylamine	BRL	mg/kg	0.39	0.023	1	8270C	04/02/08 0:37	kcampigotto	Q31404
N-Nitrosodiphenylamine	BRL	mg/kg	0.39	0.057	1	8270C	04/02/08 0:37	kcampigotto	Q31404
Naphthalene	BRL	mg/kg	0.39	0.047	1	8270C	04/02/08 0:37	kcampigotto	Q31404
Nitrobenzene	BRL	mg/kg	0.39	0.049	1	8270C	04/02/08 0:37	kcampigotto	Q31404
Pentachlorophenol	BRL	mg/kg	2.0	0.060	1	8270C	04/02/08 0:37	kcampigotto	Q31404



## **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607 Project Name: Richmond Co.

Project ID: NCDOT Parcel 68
Project No.: WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-E1
Prism Sample ID: 209576
COC Group: G0308735

Time Collected: 03/19/08 10:00 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Phenanthrene	BRI.	mg/kg	0.39	0.033	1	8270C	04/02/08 0:37	kcampigotto	Q31404
Phenol	BRL	mg/kg	0.39	0.069	1	8270C	04/02/08 0:37	kcampigotto	Q31404
Pyrene	BRL	mg/kg	0.39	0.074	1	8270C	04/02/08 0:37	kcampigotto	Q31404
Sample Preparation:			29	.64 g /	1 mL	3550B	04/01/08 8:00	pbarr	P21213
					Surrogate		% Recover	y Cont	rol Limits
					Terphenyl-	d14	86	4	1 - 136
					Phenol-d5		52	1	3 - 95
					Nitrobenze	ne-d5	47	1	4 - 103
					2-Fluoroph	enot	40	1	4 - 89
					2-Fluorobij	ohenyl	51	2	1 - 108
					2,4,6-Tribr	omophenol	80	2	25 - 123
Extractable Petroleum Hydrocarbon									
C11-C22 Aromatics	BRL.	mg/kg	11	2.0		MADEP EPH	04/05/08 1:41	grappaccioli	Q31459
C19-C36 Aliphatics	BRL	mg/kg	11	1.6		MADEP EPH	04/05/08 0:49	grappaccioli	Q31459
C9-C18 Aliphatics	BRL	mg/kg	11	1.0	1	MADEP EPH	04/05/08 0:49	grappaccioli	Q31459
Sample Preparation:			10.	.17 g /	2 mL	EPH	03/29/08 12:00	) pbarr	P21191
					Surrogate		% Recover	y Cont	rol Limits
					o-Terphen	yl	109	4	0 - 140
					2-Fluorobip	henyl	93	4	0 - 140
					2-Bromona	phthalene	105	4	0 - 140
					1-Chloro-o	ctadecane	88	4	0 - 140
Volatile Petroleum Hydrocarbons by									
C5-C8 Aliphatics	BRL	mg/kg	5.8	1.1		MADEP VPH	04/02/08 23:53	3 wbradley	Q31500
			5.8 5.8	1.1 0.035		MADEP VPH	04/02/08 23:53 04/02/08 23:53	3 wbradley	Q31500 Q31500

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#### **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607

Project Name: Richmond Co.

Project ID:

NCDOT Parcel 68

Project No.:

WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-E1

Prism Sample ID: 209576

COC Group:

G0308735

10:00

Time Collected:

03/19/08

Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
					Surrogate		% Pacayon	Cont	zal Limite

Surrogate	% Recovery	Control Limits
2,5-Dibromotoluene-PID	110	70 - 130
2,5-Dibromotoluene-FID	97	70 - 130

Sample	Waight	Determination	
Samble	weign	Determination	

Weight 1	13.88	g	1	MADEP VPH	03/26/08 0:00	lbrown
Weight 2	13.67	g	1	MADEP VPH	03/26/08 0:00	lbrown

#### Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

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

All results are reported on a dry-weight basis

Angela D. Overcash, V.P. Laboratory Services



## **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607

Project Name: Richmond Co.

Project ID: Project No.: **NCDOT Parcel 68** WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-E2 Prism Sample ID: 209577

COC Group:

G0308735

Time Collected: 03/19/08 10:15 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Percent Solids Determination Percent Solids	83.9	%		, ,	1	SM2540 G	03/26/08 14:40	mbarber	
Sample Weight Determination Weight Bisulfate 1	5.41	g			1	5035	03/26/08 0:00	Ibrown	
Weight Bisulfate 2	5.95	g			1	5035	03/26/08 0:00	lbrown	
Weight Methanol	2.55	g			1	5035	03/26/08 0:00	lbrown	
Volatile Organic Compounds by GC 1,1,1-Trichloroethane	/MS BRL	mg/kg	0.0050	0.00059	1	8260B	03/30/08 23:16	lwitry	Q31336
1,1,2,2-Tetrachloroethane	BRL	mg/kg		0.00036	1	8260B	03/30/08 23:16	-	Q31336
1,1,2-Trichloroethane	BRL	mg/kg		0.00053	1	8260B	03/30/08 23:16	•	Q31336
1,1-Dichloroethane	BRL	mg/kg	0.0050	0.00057	1	8260B	03/30/08 23:16	lwitry	Q31336
1,1-Dichloroethene	BRL	mg/kg	0.0050	0.00086	1	8260B	03/30/08 23:16	lwitry	Q31336
1,1-Dichloropropene	BRL	mg/kg	0.0050	0.00059	1	8260B	03/30/08 23:16	lwitry	Q31336
1,2,3-Trichlorobenzene	BRL	mg/kg	0.0050	0.00057	1	8260B	03/30/08 23:16	lwitry	Q31336
1,2,3-Trichloropropane	BRL.	mg/kg	0.0050	0.00067	1	8260B	03/30/08 23:16	lwitry	Q31336
1,2,4-Trichlorobenzene	BRL.	mg/kg	0.0050	0.00065	1	8260B	03/30/08 23:16	lwitry	Q31336
1,2,4-Trimethylbenzene	BRL	mg/kg	0.0050	0.00025	1	8260B	03/30/08 23:16	lwitry	Q31336
1,2-Dibromoethane (EDB)	BRL	mg/kg	0.0050	0.00062	1	8260B	03/30/08 23:16	lwitry	Q31336
1,2-Dichlorobenzene	BRL	mg/kg	0.0050	0.00032	1	8260B	03/30/08 23:16	lwitry	Q31336
1,2-Dichloroethane	BRL	mg/kg	0.0050	0.00056	1	8260B	03/30/08 23:16	lwitry	Q31336
1,2-Dichloropropane	BRL.	mg/kg	0.0050	0.0012	1	8260B	03/30/08 23:16	lwitry	Q31336
1,3,5-Trimethylbenzene	BRL	mg/kg	0.0050	0.00042	1	8260B	03/30/08 23:16	lwitry	Q31336
1,3-Dichlorobenzene	BRL.	mg/kg	0.0050	0.00033	1	8260B	03/30/08 23:16	lwitry	Q31336
1,3-Dichloropropane	BRL	mg/kg	0.0050	0.00021	1	8260B	03/30/08 23:16	lwitry	Q31336
1,4-Dichlorobenzene	BRL	mg/kg	0.0050	0.00064	1	8260B	03/30/08 23:16	lwitry	Q31336
2,2-Dichloropropane	BRL	mg/kg	0.0050	0.00072	1	8260B	03/30/08 23:16	lwitry	Q31336
2-Chlorotoluene	BRL	mg/kg	0.0050	0.00028	1	8260B	03/30/08 23:16	lwitry	Q31336

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#### **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607

Project ID:

Project Name: Richmond Co.

Project No.:

NCDOT Parcel 68 WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-E2

Prism Sample ID: 209577

COC Group:

G0308735

Time Collected: Time Submitted: 03/21/08

03/19/08 10:15

13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
2-Hexanone	BRL	mg/kg	0.050	0.0043	1	8260B	03/30/08 23:16	lwitry	Q31336
4-Chlorotoluene	BRL	mg/kg	0.0050	0.00037	1	8260B	03/30/08 23:16	lwitry	Q31336
4-Methyl-2-pentanone (MIBK)	BRL	mg/kg	0.050	0.0052	1	8260B	03/30/08 23:16	lwitry	Q31336
Acetone	BRL	mg/kg	0.050	0.015	1	8260B	03/30/08 23:16	lwitry	Q31336
Benzene	BRL	mg/kg	0.0030	0.00042	1	8260B	03/30/08 23:16	lwitry	Q31336
Bromobenzene	BRL	mg/kg	0.0050	0.00064	1	8260B	03/30/08 23:16	lwitry	Q31336
Bromochloromethane	BRL	mg/kg	0.0050	0.00041	1	8260B	03/30/08 23:16	lwitry	Q31336
Bromodichloromethane	BRL	mg/kg	0.0050	0.00054	1	8260B	03/30/08 23:16	lwitry	Q31336
Bromoform	BRL	mg/kg	0.0050	0.00045	1	8260B	03/30/08 23:16	lwitry	Q31336
Bromomethane	BRL	mg/kg	0.010	0.0011	1	8260B	03/30/08 23:16	lwitry	Q31336
Carbon tetrachloride	BRL	mg/kg	0.0050	0.00033	1	8260B	03/30/08 23:16	lwitry	Q31336
Chlorobenzene	BRL	mg/kg	0.0050	0.00051	1	8260B	03/30/08 23:16	lwitry	Q31336
Chlorodibromomethane	BRL	mg/kg	0.0050	0.00046	1	8260B	03/30/08 23:16	lwitry	Q31336
Chloroethane	BRL	mg/kg	0.010	0.0017	1	8260B	03/30/08 23:16	lwitry	Q31336
Chloroform	BRL	mg/kg	0.0050	0.00083	1	8260B	03/30/08 23:16	lwitry	Q31336
Chloromethane	BRL	mg/kg	0.0050	0.0012	1	8260B	03/30/08 23:16	lwitry	Q31336
cis-1,2-Dichloroethene	BRL	mg/kg	0.0050	0.0008	1	8260B	03/30/08 23:16	lwitry	Q31336
cis-1,3-Dichloropropene	BRL	mg/kg	0.0050	0.00066	1	8260B	03/30/08 23:16	lwitry	Q31336
Dichlorodifluoromethane	BRL	mg/kg	0.0050	0.0014	1	8260B	03/30/08 23:16	lwitry	Q31336
Ethylbenzene	BRL	mg/kg	0.0050	0.00023	1	8260B	03/30/08 23:16	lwitry	Q31336
sopropyl ether (IPE)	BRL	mg/kg	0.0050	0.00046	1	8260B	03/30/08 23:16	lwitry	Q31336
sopropylbenzene	BRL	mg/kg	0.0050	0.00029	1	8260B	03/30/08 23:16	lwitry	Q31336
m,p-Xylenes	BRL	mg/kg	0.010	0.00082	1	8260B	03/30/08 23:16	lwitry	Q31336
Methyl ethyl ketone (MEK)	BRL	mg/kg	0.10	0.015	1	8260B	03/30/08 23:16	lwitry	Q31336
Methyl t-butyl ether (MTBE)	BRL	mg/kg	0.010	0.00042	1	8260B	03/30/08 23:16	lwitry	Q31336
Methylene chloride	BRL.	mg/kg	0.0050	0.00082	1	8260B	03/30/08 23:16	lwitry	Q31336
n-Butylbenzene	BRL	mg/kg	0.0050	0.00036	1	8260B	03/30/08 23:16	lwitry	Q31336

Phone: 704/529-6364 - Toll Free Number: 1-800/529-6364 - Fax: 704/525-0409



# **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607 Project Name: Richmond Co.

Project ID: NCDOT Parcel 68
Project No.: WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-E2
Prism Sample ID: 209577
COC Group: G0308735

Time Collected: 03/19/08 10:15 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
n-Propylbenzene	BRL.	mg/kg	0.0050	0.00033	1	8260B	03/30/08 23:16	lwitry	Q31336
Naphthalene	BRL	mg/kg	0.010	0.0006	1	8260B	03/30/08 23:16	lwitry	Q31336
o-Xylene	BRL	mg/kg	0.0050	0.00021	1	8260B	03/30/08 23:16	lwitry	Q31336
p-Isopropyltoluene	BRL.	mg/kg	0.0050	0.0004	1	8260B	03/30/08 23:16	lwitry	Q31336
sec-Butylbenzene	BRL	mg/kg	0.0050	0.00034	1	8260B	03/30/08 23:16	lwitry	Q31336
Styrene	BRL	mg/kg	0.0050	0.00056	1	8260B	03/30/08 23:16	lwitry	Q31336
tert-Butylbenzene	BRL	mg/kg	0.0050	0.00042	1	8260B	03/30/08 23:16	lwitry	Q31336
Tetrachloroethene	BRL	mg/kg	0.0050	0.00045	1	8260B	03/30/08 23:16	lwitry	Q31336
Toluene	BRL	mg/kg	0.0050	0.00037	1	8260B	03/30/08 23:16	lwitry	Q31336
trans-1,2-Dichloroethene	BRL	mg/kg	0.0050	0.00064	1	8260B	03/30/08 23:16	lwitry	Q31336
trans-1,3-Dichloropropene	BRL	mg/kg	0.0050	0.00059	1	8260B	03/30/08 23:16	lwitry	Q31336
Trichloroethene	BRL	mg/kg	0.0050	0.00073	1	8260B	03/30/08 23:16	lwitry	Q31336
Trichlorofluoromethane	BRL	mg/kg	0.0050	0.00089	1	8260B	03/30/08 23:16	lwitry	Q31336
Vinyl acetate	BRL	mg/kg	0.025	0.0014	1	8260B	03/30/08 23:16	lwitry	Q31336
Vinyl chloride	BRL	mg/kg	0.0050	0.00087	1	8260B	03/30/08 23:16	lwitry	Q31336

					Surroga	te	% Recove	гу Сол	ntrol Limits
					Toluene-d8 Dibromofluoromethane Bromofluorobenzene		93		81 - 128
							111		67 - 143
							107		77 - 128
Semi-volatile Organic Compounds	by GC/MS								
1,2,4-Trichlorobenzene	BRL	mg/kg	0.39	0.043	1	8270C	04/02/08 1:27	kcamplgotte	Q31404
1,2-Dichlorobenzene	BRL	mg/kg	0.39	0.043	1	8270C	04/02/08 1:27	kcampigotte	Q31404
1,3-Dichlorobenzene	BRL	mg/kg	0.39	0.038	1	8270C	04/02/08 1:27	kcampigotte	Q31404
1,4-Dichlorobenzene	BRL	mg/kg	0.39	0.047	1	8270C	04/02/08 1:27	kcampigotto	Q31404
2,4,5-Trichlorophenol	BRL	mg/kg	0.39	0.046	1	8270C	04/02/08 1:27	kcampigotte	Q31404
2,4,6-Trichlorophenol	BRL	ma/ka	0.39	0.042	1	8270C	04/02/08 1:27	kcampigotte	Q31404

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## **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607 Project Name: Richmond Co.

Project ID: NCDOT Parcel 68
Project No.: WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-E2
Prism Sample ID: 209577
COC Group: G0308735

Time Collected: 03/19/08 10:15 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
2,4-Dichlorophenol	BRL	mg/kg	0.39	0.026	1	8270C	04/02/08 1:27	kcampigotto	Q31404
2,4-Dimethylphenol	BRL	mg/kg	0.39	0.058	1	8270C	04/02/08 1:27	kcampigotto	Q31404
2,4-Dinitrophenol	BRL	mg/kg	2.0	0.11	1	8270C	04/02/08 1:27	kcampigotto	Q31404
2,4-Dinitrotoluene	BRL	mg/kg	0.39	0.051	1	8270C	04/02/08 1:27	kcampigotto	Q31404
2,6-Dinitrotoluene	BRL	mg/kg	0.39	0.071	1	8270C	04/02/08 1:27	kcampigotto	Q31404
2-Chloronaphthalene	BRL	mg/kg	0.39	0.049	1	8270C	04/02/08 1:27	kcampigotto	Q31404
2-Chlorophenol	BRL	mg/kg	0.39	0.016	1	8270C	04/02/08 1:27	kcampigotto	Q31404
2-Methylnaphthalene	BRL	mg/kg	0.39	0.044	1	8270C	04/02/08 1:27	kcampigotto	Q31404
2-Methylphenol	BRL	mg/kg	0.39	0.032	1	8270C	04/02/08 1:27	kcampigotto	Q31404
2-Nitrophenol	BRL	mg/kg	0.39	0.055	1	8270C	04/02/08 1:27	kcampigotto	Q31404
3&4-Methylphenol	BRL	mg/kg	0.39	0.046	1	8270C	04/02/08 1:27	kcampigotto	Q31404
3,3'-Dichlorobenzidine	BRL	mg/kg	0.78	0.071	1	8270C	04/02/08 1:27	kcampigotto	Q31404
4,6-Dinitro-2-methylphenol	BRL	mg/kg	2.0	0.034	1	8270C	04/02/08 1:27	kcampigotto	Q31404
4-Bromophenylphenylether	BRL	mg/kg	0.39	0.049	1	8270C	04/02/08 1:27	kcampigotto	Q31404
4-Chloro-3-methylphenol	BRL	mg/kg	0.78	0.046	1	8270C	04/02/08 1:27	kcampigotto	Q31404
4-Chloroaniline	BRL	mg/kg	0.39	0.029	1	8270C	04/02/08 1:27	kcampigotto	Q31404
4-Chlorophenylphenylether	BRL	mg/kg	0.39	0.049	1	8270C	04/02/08 1:27	kcampigotto	Q31404
4-Nitrophenol	BRL	mg/kg	2.0	0.050	1	8270C	04/02/08 1:27	kcampigotto	Q31404
Acenaphthene	BRL	mg/kg	0.39	0.053	1	8270C	04/02/08 1:27	kcampigotto	Q31404
Acenaphthylene	BRL	mg/kg	0.39	0.037	1	8270C	04/02/08 1:27	kcampigotto	Q31404
Anthracene	BRL	mg/kg	0.39	0.028	1	8270C	04/02/08 1:27	kcampigotto	Q31404
Azobenzene	BRL	mg/kg	2.0	0.057	1	8270C	04/02/08 1:27	kcampigotto	Q31404
Benzo(a)anthracene	BRL	mg/kg	0.39	0.044	1	8270C	04/02/08 1:27	kcampigotto	Q31404
Benzo(a)pyrene	BRL	mg/kg	0.39	0.049	1	8270C	04/02/08 1:27	kcampigotto	Q31404
Benzo(b)fluoranthene	BRL	mg/kg	0.39	0.080	1	8270C	04/02/08 1:27	kcampigotto	Q31404
Benzo(g,h,i)perylene	BRL	mg/kg	0.39	0.050	1	8270C	04/02/08 1:27	kcampigotto	Q31404
Benzo(k)fluoranthene	BRL	mg/kg	0.39	0.10	1	8270C	04/02/08 1:27	kcampigotto	Q31404

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449 Springbrook Road - P.O. Box 240543 - Charlotte, NC 28224-0543

Phone: 704/529-6364 - Toll Free Number: 1-800/529-6364 - Fax: 704/525-0409



# **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607 Project Name: Richmond Co.

Project ID: NCDOT Parcel 68
Project No.: WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-E2
Prism Sample ID: 209577
COC Group: C030873

COC Group: G0308735

Time Collected: 03/19/08 10:15 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Benzoic acid	BRL	mg/kg	2.0	0.17	1	8270C	04/02/08 1:27	kcampigotto	Q31404
Benzyi alcohol	BRL	mg/kg	0.78	0.031	1	8270C	04/02/08 1:27	kcampigotto	Q31404
Bis(2-chloroethoxy)methane	BRL	mg/kg	0.39	0.066	1	8270C	04/02/08 1:27	kcampigotto	Q31404
Bis(2-chloroethyl)ether	BRL	mg/kg	0.39	0.048	1	8270C	04/02/08 1:27	kcampigotto	Q31404
Bis(2-chloroisopropyl)ether	BRL	mg/kg	0.39	0.039	1	8270C	04/02/08 1:27	kcampigotto	Q31404
Bis(2-ethylhexyl)phthalate	BRL	mg/kg	0.39	0.030	1	8270C	04/02/08 1:27	kcampigotto	Q31404
Butylbenzylphthalate	BRL	mg/kg	0.39	0.048	1	8270C	04/02/08 1:27	kcampigotto	Q31404
Chrysene	BRL	mg/kg	0.39	0.026	1	8270C	04/02/08 1:27	kcampigotto	Q31404
Di-n-butylphthalate	BRL	mg/kg	0.39	0.063	1	8270C	04/02/08 1:27	kcampigotto	Q31404
Di-n-octylphthalate	BRL	mg/kg	0.39	0.11	1	8270C	04/02/08 1:27	kcampigotto	Q31404
Dibenzo(a,h)anthracene	BRL	mg/kg	0.39	0.037	1	8270C	04/02/08 1:27	kcampigotto	Q31404
Dibenzofuran	BRL	mg/kg	0.39	0.048	1	8270C	04/02/08 1:27	kcampigotto	Q31404
Diethylphthalate	BRL	mg/kg	0.39	0.10	1	8270C	04/02/08 1:27	kcampigotto	Q31404
Dimethylphthalate	BRL	mg/kg	0.39	0.058	1	8270C	04/02/08 1:27	kcampigotto	Q31404
Fluoranthene	BRL	mg/kg	0.39	0.069	1	8270C	04/02/08 1:27	kcampigotto	Q31404
Fluorene	BRL	mg/kg	0.39	0.056	1	8270C	04/02/08 1:27	kcampigotto	Q31404
Hexachlorobenzene	BRL	mg/kg	0.39	0.054	1	8270C	04/02/08 1:27	kcampigotto	Q31404
Hexachlorobutadiene	BRL	mg/kg	0.39	0.039	1	8270C	04/02/08 1:27	kcampigotto	Q31404
Hexachlorocyclopentadiene	BRL	mg/kg	0.39	0.058	1	8270C	04/02/08 1:27	kcampigotto	Q31404
Hexachloroethane	BRL	mg/kg	0.39	0.016	1	8270C	04/02/08 1:27	kcampigotto	Q31404
Indeno(1,2,3-cd)pyrene	BRL	mg/kg	0.39	0.037	1	8270C	04/02/08 1:27	kcampigotto	Q31404
Isophorone	BRL	mg/kg	0.39	0.037	1	8270C	04/02/08 1:27	kcampigotto	Q31404
N-Nitrosodi-n-propylamine	BRL	mg/kg	0.39	0.023	1	8270C	04/02/08 1:27	kcampigotto	Q31404
N-Nitrosodiphenylamine	BRL	mg/kg	0.39	0.057	1	8270C	04/02/08 1:27	kcampigotto	Q31404
Naphthalene	BRL	mg/kg	0.39	0.047	1	8270C	04/02/08 1:27	kcampigotto	Q31404
Nitrobenzene	BRL	mg/kg	0.39	0.049	1	8270C	04/02/08 1:27	kcampigotto	Q31404
Pentachlorophenol	BRL	mg/kg	2.0	0.060	1	8270C	04/02/08 1:27	kcampigotto	Q31404



## **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607

Project Name: Richmond Co.

Project ID:

NCDOT Parcel 68

Project No.:

WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-E2

Prism Sample ID: 209577

COC Group:

G0308735

Time Collected: 03/19/08

10:15 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID	
Phenanthrene	BRL	mg/kg	0.39	0.033	1	8270C	04/02/08 1:27	kcampigotto	Q31404	
Phenol	BRL	mg/kg	0.39	0.069	1	8270C	04/02/08 1:27	kcampigotto	Q31404	
Pyrene	BRL	mg/kg	0.39	0.075	1	8270C	04/02/08 1:27	kcampigotto	Q31404	
Sample Preparat	ion:		30	.16 g /	1 mL	3550B	04/01/08 8:00	pbarr	P21213	
					Surrogate		% Recovery	Control Limits		
					Terphenyl	-d14	84	4	11 - 136	
					Phenol-d5		65	13 - 95		
					Nitrobenzene-d5		63		14 - 103	
					2-Fluorophenol 2-Fluorobiphenyl		51		14 - 89	
							72	2	21 - 108	
					2,4,6-Tribromophenol		84	25 - 123		
Extractable Petroleum Hydroca										
C11-C22 Aromatics	BRL	mg/kg	12	2.1	1	MADEP EPH	04/05/08 3:25	grappaccioli	Q31459	
C19-C36 Aliphatics	BRL	mg/kg	12	1.6	1	MADEP EPH	04/05/08 2:33	grappaccioli	Q31459	
C9-C18 Aliphatics	BRL	mg/kg	12	1.1	1	MADEP EPH	04/05/08 2:33	grappaccioli	Q31459	
Sample Preparation:			10	.16 g /	2 mL	EPH	03/29/08 12:00	pbarr	P21191	
					Surrogate	<b>)</b>	% Recovery	Control Limits		
					o-Terpher	yl	114	4	40 - 140	
					2-Fluorobiphenyl		100	4	40 - 140	
					2-Bromonaphtha		112	40 - 140		
					1-Chloro-octadecane		90		10 - 140	
Volatile Petroleum Hydrocarbo			0.0			MADED LED	0.4/0.0/0.2		00150	
C5-C8 Aliphatics	BRL	mg/kg	6.0	1.1	1	MADEP VPH	04/03/08 10:01		Q31500	
C9-C10 Aromatics	BRL	mg/kg	6.0	0.036	1	MADEP VPH	04/03/08 10:01		Q31500	
C9-C12 Aliphatics	BRL	mg/kg	6.0	1.8	1	MADEP VPH	04/03/08 10:01	wbradley	Q31500	



#### **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607

Project Name: Richmond Co.

Project ID: Project No.: **NCDOT Parcel 68** WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-E2

Prism Sample ID: 209577

COC Group:

G0308735

Time Collected:

03/19/08 10:15

Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
					Surrogate 2,5-Dibromotoluene-PID		% Recovery	ecovery Control L	
									70 - 130 70 - 130
				2,5-Dibromotoluene-F		notoluene-FID			
Sample Weight Determination									
Weight 1	12.90	g			1	MADEP VPH	03/26/08 0:00	lbrown	
Weight 2	12.98	g			1	MADEP VPH	03/26/08 0:00	lbrown	

#### Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

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

All results are reported on a dry-weight basis

Angela D. Overcash, V.P. Laboratory Services



## **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607 Project Name: Richmond Co.

Project ID: Project No.: NCDOT Parcel 68 WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-N1 Prism Sample ID: 209578

COC Group: G

G0308735

Time Collected: 03/19/08 14:40 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Percent Solids Determination Percent Solids	89.4	%			1	SM2540 G	03/26/08 14:40	mbarber	,
Sample Weight Determination Weight Bisulfate 1	6.46	g			1	5035	03/26/08 0:00	lbrown	
Weight Bisulfate 2	6.11	9			1	5035	03/26/08 0:00	Ibrown	
Weight Methanol	5.58	g			1	5035	03/26/08 0:00	lbrown	
Volatile Organic Compounds by G	C/MS								
1,1,1-Trichloroethane	BRL	mg/kg	0.0043	0.00051	1	8260B	03/29/08 16:00	lwitry	Q31336
1,1,2,2-Tetrachloroethane	BRL	mg/kg	0.0043	0.00031	1	8260B	03/29/08 16:00	lwitry	Q31336
1,1,2-Trichloroethane	BRL	mg/kg	0.0043	0.00046	1	8260B	03/29/08 16:00	lwitry	Q31336
1,1-Dichloroethane	BRL	mg/kg	0.0043	0.00049	1	8260B	03/29/08 16:00	lwitry	Q31336
1,1-Dichloroethene	BRL	mg/kg	0.0043	0.00074	1	8260B	03/29/08 16:00	lwitry	Q31336
1,1-Dichloropropene	BRL	mg/kg	0.0043	0.00051	1	8260B	03/29/08 16:00	lwitry	Q31336
1,2,3-Trichlorobenzene	BRL	mg/kg	0.0043	0.00049	1	8260B	03/29/08 16:00	lwitry	Q31336
1,2,3-Trichloropropane	BRL	mg/kg	0.0043	0.00058	1	8260B	03/29/08 16:00	lwitry	Q31336
1,2,4-Trichlorobenzene	BRL	mg/kg	0.0043	0.00056	1	8260B	03/29/08 16:00	lwitry	Q31336
1,2,4-Trimethylbenzene	BRL	mg/kg	0.0043	0.00022	1	8260B	03/29/08 16:00	lwitry	Q31336
1,2-Dibromoethane (EDB)	BRL	mg/kg	0.0043	0.00054	1	8260B	03/29/08 16:00	lwitry	Q31336
1,2-Dichlorobenzene	BRL	mg/kg	0.0043	0.00028	1	8260B	03/29/08 16:00	lwitry	Q31336
1,2-Dichloroethane	BRL	mg/kg	0.0043	0.00048	1	8260B	03/29/08 16:00	lwitry	Q31336
1,2-Dichloropropane	BRL	mg/kg	0.0043	0.0010	1	8260B	03/29/08 16:00	lwitry	Q31336
1,3,5-Trimethylbenzene	BRL.	mg/kg	0.0043	0.00036	1	8260B	03/29/08 16:00	lwitry	Q31336
1,3-Dichlorobenzene	BRL	mg/kg	0.0043	0.00029	1	8260B	03/29/08 16:00	lwitry	Q31336
1,3-Dichloropropane	BRL	mg/kg	0.0043	0.00018	1	8260B	03/29/08 16:00	lwitry	Q31336
1,4-Dichlorobenzene	BRL	mg/kg	0.0043	0.00055	1	8260B	03/29/08 16:00	lwitry	Q31336
2,2-Dichloropropane	BRL.	mg/kg	0.0043	0.00062	1	8260B	03/29/08 16:00	lwitry	Q31336
2-Chlorotoluene	BRL	mg/kg	0.0043	0.00024	1	8260B	03/29/08 16:00	lwitry	Q31336

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# **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607 Project Name: Richmond Co.

Project ID: NCDOT Parcel 68
Project No.: WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-N1
Prism Sample ID: 209578
COC Group: G0308735

Time Collected: 03/19/08 14:40
Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
2-Hexanone	BRL.	mg/kg	0.043	0.0037	1	8260B	03/29/08 16:00	lwitry	Q31336
4-Chlorotoluene	BRL	mg/kg	0.0043	0.00032	1	8260B	03/29/08 16:00	lwitry	Q31336
4-Methyl-2-pentanone (MIBK)	BRL	mg/kg	0.043	0.0045	1	8260B	03/29/08 16:00	lwitry	Q31336
Acetone	BRL	mg/kg	0.043	0.013	1	8260B	03/29/08 16:00	lwitry	Q31336
Benzene	BRL	mg/kg	0.0026	0.00036	1	8260B	03/29/08 16:00	lwitry	Q31336
Bromobenzene	BRL	mg/kg	0.0043	0.00055	1	8260B	03/29/08 16:00	lwitry	Q31336
Bromochloromethane	BRL	mg/kg	0.0043	0.00035	1	8260B	03/29/08 16:00	lwitry	Q31336
Bromodichloromethane	BRL	mg/kg	0.0043	0.00047	1	8260B	03/29/08 16:00	lwitry	Q31336
Bromoform	BRL	mg/kg	0.0043	0.00039	1	8260B	03/29/08 16:00	lwitry	Q31336
Bromomethane	BRL	mg/kg	0.0087	0.00097	1	8260B	03/29/08 16:00	lwitry	Q31336
Carbon tetrachloride	BRL	mg/kg	0.0043	0.00029	1	8260B	03/29/08 16:00	lwitry	Q31336
Chlorobenzene	BRL	mg/kg	0.0043	0.00044	1	8260B	03/29/08 16:00	lwitry	Q31336
Chlorodibromomethane	BRL	mg/kg	0.0043	0.0004	1	8260B	03/29/08 16:00	lwitry	Q31336
Chloroethane	BRL	mg/kg	0.0087	0.0015	1	8260B	03/29/08 16:00	lwitry	Q31336
Chloroform	BRL	mg/kg	0.0043	0.00072	1	8260B	03/29/08 16:00	lwitry	Q31336
Chloromethane	BRL	mg/kg	0.0043	0.0010	1	8260B	03/29/08 16:00	lwitry	Q31336
cis-1,2-Dichloroethene	BRL	mg/kg	0.0043	0.00069	1	8260B	03/29/08 16:00	lwitry	Q31336
cis-1,3-Dichloropropene	BRL	mg/kg	0.0043	0.00057	1	8260B	03/29/08 16:00	lwitry	Q31336
Dichlorodifluoromethane	BRL	mg/kg	0.0043	0.0012	1	8260B	03/29/08 16:00	lwitry	Q31336
Ethylbenzene	BRL	mg/kg	0.0043	0.0002	1	8260B	03/29/08 16:00	lwitry	Q31336
Isopropyl ether (IPE)	BRL	mg/kg	0.0043	0.0004	1	8260B	03/29/08 16:00	lwitry	Q31336
Isopropylbenzene	BRL	mg/kg	0.0043	0.00025	1	8260B	03/29/08 16:00	lwitry	Q31336
m,p-Xylenes	BRL	mg/kg	0.0087	0.00071	1	8260B	03/29/08 16:00	lwitry	Q31336
Methyl ethyl ketone (MEK)	BRL	mg/kg	0.087	0.013	1	8260B	03/29/08 16:00	lwitry	Q31336
Methyl t-butyl ether (MTBE)	BRL	mg/kg	0.0087	0.00036	1	8260B	03/29/08 16:00	lwitry	Q31336
Methylene chloride	BRL	mg/kg	0.0043	0.00071	1	8260B	03/29/08 16:00	lwitry	Q31336
n-Butylbenzene	BRL	mg/kg	0.0043	0.00031	1	8260B	03/29/08 16:00	lwitry	Q31336



# **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607 Project Name: Richmond Co.

Project ID:

NCDOT Parcel 68

Project No.:

WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-N1 Prism Sample ID: 209578

COC Group:

G0308735

Time Collected: 03/19/08 14:40 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
n-Propylbenzene	BRL	mg/kg	0.0043	0.00029	1	8260B	03/29/08 16:00	lwitry	Q31336
Naphthalene	BRL	mg/kg	0.0087	0.00052	1	8260B	03/29/08 16:00	lwitry	Q31336
o-Xylene	BRL	mg/kg	0.0043	0.00018	1	8260B	03/29/08 16:00	lwitry	Q31336
p-Isopropyltoluene	BRL	mg/kg	0.0043	0.00035	1	8260B	03/29/08 16:00	lwitry	Q31336
sec-Butylbenzene	BRL	mg/kg	0.0043	0.00029	1	8260B	03/29/08 16:00	lwitry	Q31336
Styrene	BRL	mg/kg	0.0043	0.00048	1	8260B	03/29/08 16:00	lwitry	Q31336
tert-Butylbenzene	BRL	mg/kg	0.0043	0.00036	1	8260B	03/29/08 16:00	lwitry	Q31336
Tetrachloroethene	BRL	mg/kg	0.0043	0.00039	1	8260B	03/29/08 16:00	lwitry	Q31336
Toluene	BRL	mg/kg	0.0043	0.00032	1	8260B	03/29/08 16:00	lwitry	Q31336
trans-1,2-Dichloroethene	BRL	mg/kg	0.0043	0.00055	1	8260B	03/29/08 16:00	lwitry	Q31336
trans-1,3-Dichloropropene	BRL	mg/kg	0.0043	0.00051	1	8260B	03/29/08 16:00	lwitry	Q31336
Trichloroethene	BRL	mg/kg	0.0043	0.00063	1	8260B	03/29/08 16:00	lwitry	Q31336
Trichlorofluoromethane	BRL	mg/kg	0.0043	0.00077	1	8260B	03/29/08 16:00	lwitry	Q31336
Vinyl acetate	BRL	mg/kg	0.022	0.0012	1	8260B	03/29/08 16:00	lwitry	Q31336
Vinyl chloride	BRL	mg/kg	0.0043	0.00075	1	8260B	03/29/08 16:00	lwitry	Q31336

					Surroga	te	% Re	covery	Con	ntrol Limits
					Toluene-	d8	95			81 - 128
					Dibromo	fluoromethane		107		67 - 143
					Bromoflu	orobenzene		111		77 - 128
Semi-volatile Organic Compound	s by GC/MS									
1,2,4-Trichlorobenzene	BRL	mg/kg	0.36	0.040	1	8270C	04/01/08	17:14	kcampigotto	Q31404
1,2-Dichlorobenzene	BRL	mg/kg	0.36	0.040	1	8270C	04/01/08	17:14	kcampigotto	Q31404
1,3-Dichlorobenzene	BRL	mg/kg	0.36	0.035	1	8270C	04/01/08	17:14	kcampigotto	Q31404
1,4-Dichlorobenzene	BRL	mg/kg	0.36	0.043	1	8270C	04/01/08	17:14	kcampigotto	Q31404
2,4,5-Trichlorophenol	BRL	mg/kg	0.36	0.043	1	8270C	04/01/08	17:14	kcampigotto	Q31404
2,4,6-Trichlorophenol	BRL	mg/kg	0.36	0.039	1	8270C	04/01/08	17:14	kcampigotto	Q31404

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# **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607 Project Name
Project ID:
Project No.:

Project Name: Richmond Co.

NCDOT Parcel 68 WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-N1 Prism Sample ID: 209578

COC Group:

G0308735

Time Collected: 03/19/08 14:40 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
2,4-Dichlorophenol	BRL	mg/kg	0.36	0.024	1	8270C	04/01/08 17:14	kcampigotto	Q31404
2,4-Dimethylphenol	BRL	mg/kg	0.36	0.054	1	8270C	04/01/08 17:14	kcampigotto	Q31404
2,4-Dinitrophenol	BRL	mg/kg	1.8	0.11	1	8270C	04/01/08 17:14	kcampigotto	Q31404
2,4-Dinitrotoluene	BRL	mg/kg	0.36	0.048	1	8270C	04/01/08 17:14	kcampigotto	Q31404
2,6-Dinitrotoluene	BRL	mg/kg	0.36	0.065	1	8270C	04/01/08 17:14	kcampigotto	Q31404
2-Chloronaphthalene	BRL	mg/kg	0.36	0.046	1	8270C	04/01/08 17:14	kcampigotto	Q31404
2-Chlorophenol	BRL	mg/kg	0.36	0.015	1	8270C	04/01/08 17:14	kcampigotto	Q31404
2-Methylnaphthalene	BRL	mg/kg	0.36	0.041	1	8270C	04/01/08 17:14	kcampigotto	Q31404
2-Methylphenol	BRL	mg/kg	0.36	0.029	1	8270C	04/01/08 17:14	kcampigotto	Q31404
2-Nitrophenol	BRL	mg/kg	0.36	0.051	1	8270C	04/01/08 17:14	kcampigotto	Q31404
3&4-Methylphenol	BRL	mg/kg	0.36	0.042	1	8270C	04/01/08 17:14	kcampigotto	Q31404
3,3'-Dichlorobenzidine	BRL	mg/kg	0.73	0.066	1	8270C	04/01/08 17:14	kcampigotto	Q31404
4,6-Dinitro-2-methylphenol	BRL	mg/kg	1.8	0.031	1	8270C	04/01/08 17:14	kcampigotto	Q31404
4-Bromophenylphenylether	BRL	mg/kg	0.36	0.045	1	8270C	04/01/08 17:14	kcampigotto	Q31404
4-Chloro-3-methylphenol	BRL	mg/kg	0.73	0.043	1	8270C	04/01/08 17:14	kcampigotto	Q31404
4-Chloroaniline	BRL	mg/kg	0.36	0.027	1	8270C	04/01/08 17:14	kcampigotto	Q31404
4-Chlorophenylphenylether	BRL	mg/kg	0.36	0.046	1	8270C	04/01/08 17:14	kcampigotto	Q31404
4-Nitrophenol	BRL	mg/kg	1.8	0.046	1	8270C	04/01/08 17:14	kcampigotto	Q31404
Acenaphthene	BRL	mg/kg	0.36	0.049	1	8270C	04/01/08 17:14	kcampigotto	Q31404
Acenaphthylene	BRL	mg/kg	0.36	0.034	1	8270C	04/01/08 17:14	kcampigotto	Q31404
Anthracene	BRL	mg/kg	0.36	0.026	1	8270C	04/01/08 17:14	kcampigotto	Q31404
Azobenzene	BRL	mg/kg	1.8	0.053	1	8270C	04/01/08 17:14	kcampigotto	Q31404
Benzo(a)anthracene	BRL	mg/kg	0.36	0.041	1	8270C	04/01/08 17:14	kcampigotto	Q31404
Benzo(a)pyrene	BRL	mg/kg	0.36	0.046	1	8270C	04/01/08 17:14	kcampigotto	Q31404
Benzo(b)fluoranthene	BRL	mg/kg	0.36	0.074	1	8270C	04/01/08 17:14	kcampigotto	Q31404
Benzo(g,h,i)perylene	BRL	mg/kg	0.36	0.046	1	8270C	04/01/08 17:14	kcampigotto	Q31404
Benzo(k)fluoranthene	BRL	mg/kg	0.36	0.097	1	8270C	04/01/08 17:14	kcampigotto	Q31404



# **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607

Project Name: Richmond Co.

Project ID: NCDOT Parcel 68 Project No.: WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-N1 Prism Sample ID: 209578

COC Group:

G0308735

Time Collected: 03/19/08 14:40 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Benzoic acid	BRL	mg/kg	1.8	0.15	1	8270C	04/01/08 17:14	kcampigotto	Q31404
Benzyl alcohol	BRL	mg/kg	0.73	0.029	1	8270C	04/01/08 17:14	kcampigotto	Q31404
Bis(2-chloroethoxy)methane	BRL	mg/kg	0.36	0.061	1	8270C	04/01/08 17:14	kcampigotto	Q31404
Bis(2-chloroethyl)ether	BRL	mg/kg	0.36	0.045	1	8270C	04/01/08 17:14	kcampigotto	Q31404
Bis(2-chloroisopropyl)ether	BRL	mg/kg	0.36	0.036	1	8270C	04/01/08 17:14	kcampigotto	Q31404
Bis(2-ethylhexyl)phthalate	BRŁ	mg/kg	0.36	0.028	1	8270C	04/01/08 17:14	kcampigotto	Q31404
Butylbenzylphthalate	BRL	mg/kg	0.36	0.045	1	8270C	04/01/08 17:14	kcampigotto	Q31404
Chrysene	BRL	mg/kg	0.36	0.024	1	8270C	04/01/08 17:14	kcampigotto	Q31404
Di-n-butylphthalate	BRL	mg/kg	0.36	0.058	1	8270C	04/01/08 17:14	kcampigotto	Q31404
Di-n-octylphthalate	BRL	mg/kg	0.36	0.10	1	8270C	04/01/08 17:14	kcampigotto	Q31404
Dibenzo(a,h)anthracene	BRL	mg/kg	0.36	0.034	1	8270C	04/01/08 17:14	kcampigotto	Q31404
Dibenzofuran	BRL	mg/kg	0.36	0.044	1	8270C	04/01/08 17:14	kcampigotto	Q31404
Diethylphthalate	BRL	mg/kg	0.36	0.094	1	8270C	04/01/08 17:14	kcampigotto	Q31404
Dimethylphthalate	BRL	mg/kg	0.36	0.054	1	8270C	04/01/08 17:14	kcampigotto	Q31404
Fluoranthene	BRL	mg/kg	0.36	0.064	1	8270C	04/01/08 17:14	kcampigotto	Q31404
Fluorene	BRL	mg/kg	0.36	0.052	1	8270C	04/01/08 17:14	kcampigotto	Q31404
Hexachlorobenzene	BRL	mg/kg	0.36	0.050	1	8270C	04/01/08 17:14	kcampigotto	Q31404
Hexachlorobutadiene	BRL	mg/kg	0.36	0.036	1	8270C	04/01/08 17:14	kcampigotto	Q31404
Hexachlorocyclopentadiene	BRL	mg/kg	0.36	0.054	1	8270C	04/01/08 17:14	kcampigotto	Q31404
Hexachloroethane	BRL	mg/kg	0.36	0.015	1	8270C	04/01/08 17:14	kcampigotto	Q31404
Indeno(1,2,3-cd)pyrene	BRL	mg/kg	0.36	0.034	1	8270C	04/01/08 17:14	kcampigotto	Q31404
Isophorone	BRL	mg/kg	0.36	0.035	1	8270C	04/01/08 17:14	kcampigotto	Q31404
N-Nitrosodi-n-propylamine	BRL	mg/kg	0.36	0.021	1	8270C	04/01/08 17:14	kcampigotto	Q31404
N-Nitrosodiphenylamine	BRL	mg/kg	0.36	0.053	1	8270C	04/01/08 17:14	kcampigotto	Q31404
Naphthalene	BRL	mg/kg	0.36	0.043	1	8270C	04/01/08 17:14	kcampigotto	Q31404
Nitrobenzene	BRL	mg/kg	0.36	0.046	1	8270C	04/01/08 17:14	kcampigotto	Q31404
Pentachlorophenol	BRL	mg/kg	1.8	0.055	1	8270C	04/01/08 17:14	kcampigotto	Q31404



# **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607 Project Name: Richmond Co.

Project ID: NCDOT Parcel 68
Project No.: WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-N1 Prism Sample ID: 209578

COC Group: G0308735

Time Collected: 03/19/08 14:40 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analys Date/Tir		Analyst	Batch ID
Phenanthrene	BRL	mg/kg	0.36	0.031	1	8270C	04/01/08	17:14	kcampigotto	Q31404
Phenol	BRL	mg/kg	0.36	0.064	1	8270C	04/01/08	17:14	kcampigotto	Q31404
Pyrene	BRL	mg/kg	0.36	0.069	1	8270C	04/01/08	17:14	kcampigotto	Q31404
Sample Preparation:			30	).49 g /	1 mL	3550B	04/01/08	8:00	pbarr	P21213
					Surrogate	1	% Rec	covery	Cont	rol Limits
					Terphenyl-	·d14		80	•	11 - 136
					Phenol-d5			64		13 - 95
					Nitrobenze	ene-d5		57		14 - 103
					2-Fluoroph	nenol		49		14 - 89
					2-Fluorobi	phenyl		73	:	21 - 108
					2,4,6-Tribr	omophenol		95		25 - 123
Extractable Petroleum Hydrocarbon										
C11-C22 Aromatics	BRL	mg/kg	11	1.9		MADEP EPH	04/05/08		grappaccioli	Q31459
C19-C36 Aliphatics	BRL	mg/kg	11	1.4	1	MADEP EPH	04/05/08	4:17	grappaccioli	Q31459
C9-C18 Aliphatics	BRL	mg/kg	11	0.97	1	MADEP EPH	04/05/08	4:17	grappaccioli	Q31459
Sample Preparation:			10	.42 g /	2 mL	EPH	03/29/08	12:00	pbarr	P21191
					Surrogate	<b>!</b>	% Red	covery	Cont	rol Limits
					o-Terphen	yl		117	•	40 - 140
					2-Fluorobi	phenyl		98	•	10 - 140
						2-Bromonaphthalene		62		10 - 140
					1-Chloro-c	ctadecane		89		10 - 140
Volatile Petroleum Hydrocarbons by										
C5-C8 Aliphatics	BRL	mg/kg	5.6	1.1	1	MADEP VPH	04/03/08	10:44	wbradley	Q31500
C9-C10 Aromatics	BRL	mg/kg	5.6	0.034	1	MADEP VPH	04/03/08	10:44	wbradley	Q31500
C9-C12 Aliphatics	BRL	mg/kg	5.6	1.7	1	MADEP VPH	04/03/08	10:44	wbradley	Q31500



### **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607

Project Name: Richmond Co.

Project ID:

Project No.: Sample Matrix: Soil

NCDOT Parcel 68

WBS# 34438.1.1

Client Sample ID: 68-N1 Prism Sample ID: 209578

COC Group:

G0308735

Time Collected:

03/19/08 Time Submitted: 03/21/08 14:40 13:05

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

Surrogate	% Recovery	Control Limits
2,5-Dibromotoluene-PID	112	70 - 130
2,5-Dibromotoluene-FID	87	70 - 130

#### Sample Weight Determination

Weight 1	13.42	g	1	MADEP VPH	03/26/08 0:00	lbrown
Weight 2	12.74	g	1	MADEP VPH	03/26/08 0:00	lbrown

#### Sample Comment(s):

BRL = Below Reporting Limit

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

Angela D. Overcash, V.P. Laboratory Services

J- Estimated value between the Reporting Limit and the MDL



# **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607 Project Name: Richmond Co.

Project ID: NCDOT Parcel 68
Project No.: WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-N2
Prism Sample ID: 209579

COC Group:

G0308735

Time Collected: 03/19/08 14:45 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Percent Solids Determination Percent Solids	86.5	%	THE BOOK STATES	P PERSON PERSONAL PROPERTY AND	1	SM2540 G	03/26/08 14:40	mbarber	
Sample Weight Determination Weight Bisulfate 1	6.76	g			1	5035	03/26/08 0:00	lbrown	
Weight Bisulfate 2	6.73	9			1	5035	03/26/08 0:00	lbrown	
Weight Methanol	6.18	g			1	5035	03/26/08 0:00	lbrown	
Volatile Organic Compounds by G	C/MS								
1,1,1-Trichloroethane	BRL	mg/kg		0.0005	1	8260B	03/29/08 16:44		Q31336
1,1,2,2-Tetrachloroethane	BRL.	mg/kg	0.0043	0.00031	1	8260B	03/29/08 16:44	-	Q31336
1,1,2-Trichloroethane	BRL	mg/kg		0.00045	1	8260B	03/29/08 16:44	•	Q31336
1,1-Dichloroethane	BRL	mg/kg	0.0043	0.00049	1	8260B	03/29/08 16:44	lwitry	Q31336
1,1-Dichloroethene	BRL	mg/kg	0.0043	0.00074	1	8260B	03/29/08 16:44	lwitry	Q31336
1,1-Dichloropropene	BRL	mg/kg	0.0043	0.0005	1	8260B	03/29/08 16:44	lwitry	Q31336
1,2,3-Trichlorobenzene	BRL	mg/kg	0.0043	0.00049	1	8260B	03/29/08 16:44	lwitry	Q31336
1,2,3-Trichloropropane	BRL	mg/kg	0.0043	0.00057	1	8260B	03/29/08 16:44	lwitry	Q31336
1,2,4-Trichlorobenzene	BRL	mg/kg	0.0043	0.00056	1	8260B	03/29/08 16:44	lwitry	Q31336
1,2,4-Trimethylbenzene	BRL	mg/kg	0.0043	0.00021	1	8260B	03/29/08 16:44	lwitry	Q31336
1,2-Dibromoethane (EDB)	BRL	mg/kg	0.0043	0.00053	1	8260B	03/29/08 16:44	lwitry	Q31336
1,2-Dichlorobenzene	BRL	mg/kg	0.0043	0.00027	1	8260B	03/29/08 16:44	lwitry	Q31336
1,2-Dichloroethane	BRL	mg/kg	0.0043	0.00048	1	8260B	03/29/08 16:44	lwitry	Q31336
1,2-Dichloropropane	BRL	mg/kg	0.0043	0.0010	1	8260B	03/29/08 16:44	lwitry	Q31336
1,3,5-Trimethylbenzene	BRL	mg/kg	0.0043	0.00036	1	8260B	03/29/08 16:44	lwitry	Q31336
1,3-Dichlorobenzene	BRL	mg/kg	0.0043	0.00028	1	8260B	03/29/08 16:44	lwitry	Q31336
1,3-Dichloropropane	BRL	mg/kg	0.0043	0.00018	1	8260B	03/29/08 16:44	lwitry	Q31336
1,4-Dichlorobenzene	BRL	mg/kg	0.0043	0.00055	1	8260B	03/29/08 16:44	lwitry	Q31336
2,2-Dichloropropane	BRL	mg/kg	0.0043	0.00062	1	8260B	03/29/08 16:44	lwitry	Q31336
2-Chlorotoluene	BRL	mg/kg	0.0043	0.00024	1	8260B	03/29/08 16:44	lwitry	Q31336

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# **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607 Project Name: Richmond Co.

Project ID: NCDOT Parcel 68
Project No.: WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-N2
Prism Sample ID: 209579
COC Group: G0308735

Time Collected: 03/19/08 14:45 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
2-Hexanone	BRL	mg/kg	0.043	0.0037	1	8260B	03/29/08 16:44	lwitry	Q31336
4-Chlorotoluene	BRL	mg/kg	0.0043	0.00032	1	8260B	03/29/08 16:44	lwitry	Q31336
4-Methyl-2-pentanone (MIBK)	BRL	mg/kg	0.043	0.0044	1	8260B	03/29/08 16:44	lwitry	Q31336
Acetone	BRL	mg/kg	0.043	0.013	1	8260B	03/29/08 16:44	lwitry	Q31336
Benzene	BRL	mg/kg	0.0026	0.00036	1	8260B	03/29/08 16:44	lwitry	Q31336
Bromobenzene	BRL	mg/kg	0.0043	0.00055	1	8260B	03/29/08 16:44	lwitry	Q31336
Bromochloromethane	BRL.	mg/kg	0.0043	0.00035	1	8260B	03/29/08 16:44	lwitry	Q31336
Bromodichloromethane	BRL	mg/kg	0.0043	0.00046	1	8260B	03/29/08 16:44	lwitry	Q31336
Bromoform	BRL	mg/kg	0.0043	0.00038	1	8260B	03/29/08 16:44	lwitry	Q31336
Bromomethane	BRL	mg/kg	0.0086	0.00096	1	8260B	03/29/08 16:44	lwitry	Q31336
Carbon tetrachloride	BRL	mg/kg	0.0043	0.00028	1	8260B	03/29/08 16:44	lwitry	Q31336
Chlorobenzene	BRL	mg/kg	0.0043	0.00044	1	8260B	03/29/08 16:44	lwitry	Q31336
Chlorodibromomethane	BRL	mg/kg	0.0043	0.00039	1	8260B	03/29/08 16:44	lwitry	Q31336
Chloroethane	BRL	mg/kg	0.0086	0.0014	1	8260B	03/29/08 16:44	lwitry	Q31336
Chloroform	BRL	mg/kg	0.0043	0.00071	1	8260B	03/29/08 16:44	lwitry	Q31336
Chloromethane	BRL	mg/kg	0.0043	0.0010	1	8260B	03/29/08 16:44	lwitry	Q31336
cis-1,2-Dichloroethene	BRL	mg/kg	0.0043	0.00068	1	8260B	03/29/08 16:44	lwitry	Q31336
cis-1,3-Dichloropropene	BRL	mg/kg	0.0043	0.00056	1	8260B	03/29/08 16:44	lwitry	Q31336
Dichlorodifluoromethane	BRL	mg/kg	0.0043	0.0012	1	8260B	03/29/08 16:44	lwitry	Q31336
Ethylbenzene	BRL.	mg/kg	0.0043	0.0002	1	8260B	03/29/08 16:44	lwitry	Q31336
Isopropyl ether (IPE)	BRL.	mg/kg	0.0043	0.00039	1	8260B	03/29/08 16:44	lwitry	Q31336
Isopropylbenzene	BRL	mg/kg	0.0043	0.00025	1	8260B	03/29/08 16:44	lwitry	Q31336
m,p-Xylenes	BRL	mg/kg	0.0086	0.0007	1	8260B	03/29/08 16:44	lwitry	Q31336
Methyl ethyl ketone (MEK)	BRL	mg/kg	0.086	0.013	1	8260B	03/29/08 16:44	lwitry	Q31336
Methyl t-butyl ether (MTBE)	BRL	mg/kg	0.0086	0.00036	1	8260B	03/29/08 16:44	lwitry	Q31336
Methylene chloride	BRL	mg/kg	0.0043	0.0007	1	8260B	03/29/08 16:44	lwitry	Q31336
n-Butylbenzene	BRL	mg/kg	0.0043	0.00031	1	8260B	03/29/08 16:44	lwitry	Q31336



### **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607 Project Name: Richmond Co.

Project ID: NCDOT Parcel 68
Project No.: WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-N2 Prism Sample ID: 209579

COC Group: G0308735

Time Collected: 03/19/08 14:45 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis / Date/Time	Analyst	Batch ID
n-Propylbenzene	BRL	mg/kg	0.0043	0.00028	1	8260B	03/29/08 16:44 lwi	itry	Q31336
Naphthalene	BRL	mg/kg	0.0086	0.00051	1	8260B	03/29/08 16:44 lwit	itry	Q31336
o-Xylene	BRL	mg/kg	0.0043	0.00018	1	8260B	03/29/08 16:44 lwi	itry	Q31336
p-Isopropyltoluene	BRL	mg/kg	0.0043	0.00034	1	8260B	03/29/08 16:44 lwi	itry	Q31336
sec-Butylbenzene	BRL	mg/kg	0.0043	0.00029	1	8260B	03/29/08 16:44 lwi	itry	Q31336
Styrene	BRL	mg/kg	0.0043	0.00048	1	8260B	03/29/08 16:44 lwi	itry	Q31336
tert-Butylbenzene	BRL	mg/kg	0.0043	0.00036	1	8260B	03/29/08 16:44 lwi	itry	Q31336
Tetrachloroethene	BRL	mg/kg	0.0043	0.00038	1	8260B	03/29/08 16:44 lwi	itry	Q31336
Toluene	BRL	mg/kg	0.0043	0.00032	1	8260B	03/29/08 16:44 lwi	itry	Q31336
trans-1,2-Dichloroethene	BRL	mg/kg	0.0043	0.00055	1	8260B	03/29/08 16:44 lwi	itry	Q31336
trans-1,3-Dichloropropene	BRL	mg/kg	0.0043	0.0005	1	8260B	03/29/08 16:44 lwi	itry	Q31336
Trichloroethene	BRL	mg/kg	0.0043	0.00062	1	8260B	03/29/08 16:44 lwi	itry	Q31336
Trichlorofluoromethane	BRL	mg/kg	0.0043	0.00076	1	8260B	03/29/08 16:44 lwi	itry	Q31336
Vinyl acetate	BRL	mg/kg	0.021	0.0012	1	8260B	03/29/08 16:44 lwi	itry	Q31336
Vinyl chloride	BRL	mg/kg	0.0043	0.00074	1	8260B	03/29/08 16:44 lwi	itry	Q31336

					Surrogat	te	% Recover	y Con	trol Limits
					Toluene-	d8	93		81 - 128
					Dibromof	luoromethane	108		67 - 143
					Bromoflu	orobenzene	108	108 7	
Semi-volatile Organic Compounds by	GC/MS								
1,2,4-Trichlorobenzene	BRL	mg/kg	0.39	0.043	1	8270C	04/02/08 3:25	kcampigotto	Q31404
1,2-Dichlorobenzene	BRL	mg/kg	0.39	0.043	1	8270C	04/02/08 3:25	kcampigotto	Q31404
1,3-Dichlorobenzene	BRL	mg/kg	0.39	0.037	1	8270C	04/02/08 3:25	kcampigotto	Q31404
1,4-Dichlorobenzene	BRL	mg/kg	0.39	0.046	1	8270C	04/02/08 3:25	kcampigotto	Q31404
2,4,5-Trichlorophenol	BRL	mg/kg	0.39	0.046	1	8270C	04/02/08 3:25	kcampigotto	Q31404
2,4,6-Trichlorophenol	BRL	mg/kg	0.39	0.042	1	8270C	04/02/08 3:25	kcampigotto	Q31404

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### **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607

Project Name: Richmond Co.

Project ID: Project No.:

NCDOT Parcel 68 WBS# 34438.1.1

Sample Matrix: Soil

Prism Sample ID: 209579

COC Group:

Client Sample ID: 68-N2

G0308735

Time Collected: 03/19/08 14:45 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
2,4-Dichlorophenol	BRL.	mg/kg	0.39	0.025	1	8270C	04/02/08 3:25	kcampigotto	Q31404
2,4-Dimethylphenol	BRL	mg/kg	0.39	0.057	1	8270C	04/02/08 3:25	kcampigotto	Q31404
2,4-Dinitrophenol	BRL	mg/kg	1.9	0.11	1	8270C	04/02/08 3:25	kcampigotto	Q31404
2,4-Dinitrotoluene	BRL	mg/kg	0.39	0.051	1	8270C	04/02/08 3:25	kcampigotto	Q31404
2,6-Dinitrotoluene	BRL	mg/kg	0.39	0.070	1	8270C	04/02/08 3:25	kcampigotto	Q31404
2-Chloronaphthalene	BRL	mg/kg	0.39	0.048	1	8270C	04/02/08 3:25	kcampigotto	Q31404
2-Chlorophenol	BRL	mg/kg	0.39	0.016	1	8270C	04/02/08 3:25	kcampigotto	Q31404
2-Methylnaphthalene	BRL	mg/kg	0.39	0.043	1	8270C	04/02/08 3:25	kcampigotto	Q31404
2-Methylphenol	BRL	mg/kg	0.39	0.031	1	8270C	04/02/08 3:25	kcampigotto	Q31404
2-Nitrophenol	BRL	mg/kg	0.39	0.054	1	8270C	04/02/08 3:25	kcampigotto	Q31404
3&4-Methylphenol	BRL.	mg/kg	0.39	0.045	1	8270C	04/02/08 3:25	kcampigotto	Q31404
3,3'-Dichlorobenzidine	BRL	mg/kg	0.77	0.070	1	8270C	04/02/08 3:25	kcampigotto	Q31404
4,6-Dinitro-2-methylphenol	BRL	mg/kg	1.9	0.033	1	8270C	04/02/08 3:25	kcampigotto	Q31404
4-Bromophenylphenylether	BRL	mg/kg	0.39	0.048	1	8270C	04/02/08 3:25	kcampigotto	Q31404
4-Chloro-3-methylphenol	BRL	mg/kg	0.77	0.046	1	8270C	04/02/08 3:25	kcampigotto	Q31404
4-Chloroaniline	BRL	mg/kg	0.39	0.029	1	8270C	04/02/08 3:25	kcampigotto	Q31404
4-Chlorophenylphenylether	BRL	mg/kg	0.39	0.049	1	8270C	04/02/08 3:25	kcampigotto	Q31404
4-Nitrophenol	BRL	mg/kg	1.9	0.049	1	8270C	04/02/08 3:25	kcampigotto	Q31404
Acenaphthene	BRL	mg/kg	0.39	0.052	1	8270C	04/02/08 3:25	kcampigotto	Q31404
Acenaphthylene	BRL	mg/kg	0.39	0.036	1	8270C	04/02/08 3:25	kcampigotto	Q31404
Anthracene	BRL	mg/kg	0.39	0.028	1	8270C	04/02/08 3:25	kcampigotto	Q31404
Azobenzene	BRL	mg/kg	1. <del>9</del>	0.056	1	8270C	04/02/08 3:25	kcampigotto	Q31404
Benzo(a)anthracene	BRL	mg/kg	0.39	0.044	1	8270C	04/02/08 3:25	kcampigotto	Q31404
Benzo(a)pyrene	BRL	mg/kg	0.39	0.049	1	8270C	04/02/08 3:25	kcampigotto	Q31404
Benzo(b)fluoranthene	BRL	mg/kg	0.39	0.079	1	8270C	04/02/08 3:25	kcampigotto	Q31404
Benzo(g,h,i)perylene	BRL	mg/kg	0.39	0.049	1	8270C	04/02/08 3:25	kcampigotto	Q31404
Benzo(k)fluoranthene	BRL	mg/kg	0.39	0.10	1	8270C	04/02/08 3:25	kcampigotto	Q31404



# **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607 Project Name: Richmond Co.

Project ID: Project No.: NCDOT Parcel 68 WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-N2 Prism Sample ID: 209579

COC Group:

G0308735

Time Collected: 03

03/19/08 14:45

Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Benzoic acid	BRL	mg/kg	1.9	0.16	1	8270C	04/02/08 3:25	kcampigotto	Q31404
Benzyl alcohol	BRL	mg/kg	0.77	0.031	1	8270C	04/02/08 3:25	kcampigotto	Q31404
Bis(2-chloroethoxy)methane	BRL	mg/kg	0.39	0.065	1	8270C	04/02/08 3:25	kcampigotto	Q31404
Bis(2-chloroethyl)ether	BRL	mg/kg	0.39	0.048	1	8270C	04/02/08 3:25	kcampigotto	Q31404
Bis(2-chloroisopropyl)ether	BRL	mg/kg	0.39	0.039	1	8270C	04/02/08 3:25	kcampigotto	Q31404
Bis(2-ethylhexyl)phthalate	BRL	mg/kg	0.39	0.030	1	8270C	04/02/08 3:25	kcampigotto	Q31404
Butylbenzylphthalate	BRL	mg/kg	0.39	0.048	1	8270C	04/02/08 3:25	kcampigotto	Q31404
Chrysene	BRL	mg/kg	0.39	0.026	1	8270C	04/02/08 3:25	kcampigotto	Q31404
Di-n-butylphthalate	BRL	mg/kg	0.39	0.062	1	8270C	04/02/08 3:25	kcampigotto	Q31404
Di-n-octylphthalate	BRL	mg/kg	0.39	0.11	1	8270C	04/02/08 3:25	kcampigotto	Q31404
Dibenzo(a,h)anthracene	BRL	mg/kg	0.39	0.036	1	8270C	04/02/08 3:25	kcampigotto	Q31404
Dibenzofuran	BRL	mg/kg	0.39	0.047	1	8270C	04/02/08 3:25	kcampigotto	Q31404
Diethylphthalate	BRL	mg/kg	0.39	0.10	1	8270C	04/02/08 3:25	kcampigotto	Q31404
Dimethylphthalate	BRL	mg/kg	0.39	0.057	1	8270C	04/02/08 3:25	kcampigotto	Q31404
Fluoranthene	BRL	mg/kg	0.39	0.068	1	8270C	04/02/08 3:25	kcampigotto	Q31404
Fluorene	BRL	mg/kg	0.39	0.055	1	8270C	04/02/08 3:25	kcampigotto	Q31404
Hexachlorobenzene	BRL	mg/kg	0.39	0.053	1	8270C	04/02/08 3:25	kcampigotto	Q31404
Hexachlorobutadiene	BRL	mg/kg	0.39	0.038	1	8270C	04/02/08 3:25	kcampigotto	Q31404
Hexachlorocyclopentadiene	BRL	mg/kg	0.39	0.057	1	8270C	04/02/08 3:25	kcampigotto	Q31404
Hexachloroethane	BRL	mg/kg	0.39	0.016	1	8270C	04/02/08 3:25	kcampigotto	Q31404
Indeno(1,2,3-cd)pyrene	BRL	mg/kg	0.39	0.037	1	8270C	04/02/08 3:25	kcampigotto	Q31404
Isophorone	BRL	mg/kg	0.39	0.037	1	8270C	04/02/08 3:25	kcampigotto	Q31404
N-Nitrosodi-n-propylamine	BRL	mg/kg	0.39	0.022	1	8270C	04/02/08 3:25	kcampigotto	Q31404
N-Nitrosodiphenylamine	BRL	mg/kg	0.39	0.056	1	8270C	04/02/08 3:25	kcampigotto	Q31404
Naphthalene	BRL	mg/kg	0.39	0.046	1	8270C	04/02/08 3:25	kcampigotto	Q31404
Nitrobenzene	BRL	mg/kg	0.39	0.048	1	8270C	04/02/08 3:25	kcampigotto	Q31404
Pentachlorophenol	BRL	mg/kg	1.9	0.059	1	8270C	04/02/08 3:25	kcampigotto	Q31404



# **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607 Project Name: Richmond Co.

Project ID: NCDOT Parcel 68
Project No.: WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-N2 Prism Sample ID: 209579

COC Group:

G0308735

Time Collected: 03/19/08 14:45 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Phenanthrene	BRL	mg/kg	0.39	0.033	1	8270C	04/02/08 3:25	kcampigotto	Q31404
Phenol	BRL	mg/kg	0.39	0.068	1	8270C	04/02/08 3:25	kcampigotto	Q31404
Pyrene	BRL	mg/kg	0.39	0.074	1	8270C	04/02/08 3:25	kcampigotto	Q31404
Sample Preparation:			2	9.64 g /	1 mL	3550B	04/01/08 8:00	pbarr	P21213
					Surrogate	9	% Recovery	/ Cont	rol Limits
					Terphenyl	l-d14	73	•	11 - 136
					Phenol-d5	5	39	•	13 - 95
					Nitrobenz	ene-d5	39	,	14 - 103
					2-Fluorop	henol	34		14 - 89
					2-Fluorob	iphenyl	41	:	21 - 108
					2,4,6-Trib	romophenol	77		25 - 123
Extractable Petroleum Hydrocarbone C11-C22 Aromatics	s by GC-FID BRL	mg/kg	12	2.0	1	MADEP EPH	04/05/08 6:00	grappaccioli	Q31459
C19-C36 Aliphatics	BRL	mg/kg	12	1.6	1	MADEP EPH	04/05/08 6:00	grappaccioli	Q31459
C9-C18 Aliphatics	BRL	mg/kg	12	1.0	1	MADEP EPH	04/05/08 6:00	grappaccioli	Q31459
Sample Preparation:				9.93 g /	2 mL	EPH	03/29/08 12:00	pbarr	P21191
					Surrogate	9	% Recovery	y Cont	rol Limits
					o-Terpher	nyl	97	•	10 - 140
					2-Fluorob	iphenyl	89	•	10 - 140
					2-Bromon	aphthalene	52		40 - 140
					1-Chloro-	octadecane	98		<del>1</del> 0 - 140
Volatile Petroleum Hydrocarbons by									
C5-C8 Aliphatics	BRL	mg/kg	5.8	1.1	1	MADEP VPH	04/03/08 11:26		Q31500
C9-C10 Aromatics	BRL	mg/kg	5.8	0.035	1	MADEP VPH	04/03/08 11:26	wbradley	Q31500
C9-C12 Aliphatics	BRL	mg/kg	5.8	1.8	1	MADEP VPH	04/03/08 11:26	wbradley	Q31500



### **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607

Project Name: Richmond Co.

Project ID: Project No.: **NCDOT Parcel 68** WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-N2

Prism Sample ID: 209579

COC Group:

G0308735

Time Collected: 03/19/08 14:45 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID	
					Surrogate	<b>;</b>	% Recovery	Con	trol Limits	
•	•				2,5-Dibron	notoluene-PID	119		70 - 130	
	2,5-Dibromotoluene-FIL		notoluene-FID	94		70 - 130				
Sample Weight Determination										
Weight 1	13.17	g			1	MADEP VPH	03/26/08 0:00	lbrown		
Weight 2	13.37	g			1	MADEP VPH	03/26/08 0:00	Ibrown		

#### Sample Comment(s):

BRL = Below Reporting Limit

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

All results are reported on a dry-weight basis

Angela D. Overcash, V.P. Laboratory Services

J- Estimated value between the Reporting Limit and the MDL



### **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607 Project Name: Richmond Co.

Project ID: NCDOT Parcel 68
Project No.: WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-N3
Prism Sample ID: 209580
COC Group: G0308735

Time Collected: 03/19/08 14:50 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Percent Solids Determination Percent Solids	85.4	%			1	SM2540 G	03/26/08 14:40	mbarber	
Sample Weight Determination Weight Bisulfate 1	6.68	a			1	5035	03/26/08 0:00	lbrown	
Weight Bisulfate 2	6.72	g			1	5035	03/26/08 0:00	lbrown	
Weight Methanol	7.09	g g			1	5035	03/26/08 0:00	Ibrown	
Volatile Organic Compounds by G									
1,1,1-Trichloroethane	BRL	mg/kg		0.00054	1	8260B	03/29/08 17:29	-	Q31336
1,1,2,2-Tetrachloroethane	BRL	mg/kg -		0.00033	1	8260B	03/29/08 17:29		Q31336
1,1,2-Trichloroethane	BRL	mg/kg		0.00048	1	8260B	03/29/08 17:29		Q31336
1,1-Dichloroethane	BRL	mg/kg		0.00052	1	8260B	03/29/08 17:29	•	Q31336
1,1-Dichloroethene	BRL	mg/kg		0.00079	1	8260B	03/29/08 17:29		Q31336
1,1-Dichloropropene	BRL	mg/kg		0.00054	1	8260B	03/29/08 17:29	lwitry	Q31336
1,2,3-Trichlorobenzene	BRL	mg/kg	0.0046	0.00052	1	8260B	03/29/08 17:29	lwitry	Q31336
1,2,3-Trichloropropane	BRL	mg/kg	0.0046	0.00061	1	8260B	03/29/08 17:29	lwitry	Q31336
1,2,4-Trichlorobenzene	BRL	mg/kg	0.0046	0.00059	1	8260B	03/29/08 17:29	lwitry	Q31336
1,2,4-Trimethylbenzene	BRL	mg/kg	0.0046	0.00023	1	8260B	03/29/08 17:29	lwitry	Q31336
1,2-Dibromoethane (EDB)	BRL	mg/kg	0.0046	0.00057	1	8260B	03/29/08 17:29	lwitry	Q31336
1,2-Dichlorobenzene	BRL	mg/kg	0.0046	0.00029	1	8260B	03/29/08 17:29	lwitry	Q31336
1,2-Dichloroethane	BRL	mg/kg	0.0046	0.00051	1	8260B	03/29/08 17:29	lwitry	Q31336
1,2-Dichloropropane	BRL	mg/kg	0.0046	0.0011	1	8260B	03/29/08 17:29	lwitry	Q31336
1,3,5-Trimethylbenzene	BRL	mg/kg	0.0046	0.00038	1	8260B	03/29/08 17:29	lwitry	Q31336
1,3-Dichlorobenzene	BRL	mg/kg	0.0046	0.0003	1	8260B	03/29/08 17:29	lwitry	Q31336
1,3-Dichloropropane	BRL	mg/kg	0.0046	0.00019	1	8260B	03/29/08 17:29	lwitry	Q31336
1,4-Dichlorobenzene	BRL	mg/kg	0.0046	0.00059	1	8260B	03/29/08 17:29	lwitry	Q31336
2,2-Dichloropropane	BRL	mg/kg	0.0046	0.00066	1	8260B	03/29/08 17:29	lwitry	Q31336
2-Chlorotoluene	BRL	mg/kg	0.0046	0.00026	1	8260B	03/29/08 17:29	lwitry	Q31336

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449 Springbrook Road - P.O. Box 240543 - Charlotte, NC 28224-0543



### **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607 Project Name: Richmond Co.

Project ID: NCDOT Parcel 68
Project No.: WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-N3
Prism Sample ID: 209580

COC Group:

G0308735

Time Collected: 03/19/08 14:50 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
2-Hexanone	BRL	mg/kg	0.046	0.0039	1	8260B	03/29/08 17:29	lwitry	Q31336
4-Chiorotoluene	BRL.	mg/kg	0.0046	0.00034	1	8260B	03/29/08 17:29	lwitry	Q31336
4-Methyl-2-pentanone (MIBK)	BRL	mg/kg	0.046	0.0047	1	8260B	03/29/08 17:29	lwitry	Q31336
Acetone	BRL	mg/kg	0.046	0.014	1	8260B	03/29/08 17:29	lwitry	Q31336
Benzene	BRL	mg/kg	0.0027	0.00038	1	8260B	03/29/08 17:29	lwitry	Q31336
Bromobenzene	BRL	mg/kg	0.0046	0.00059	1	8260B	03/29/08 17:29	lwitry	Q31336
Bromochloromethane	BRL	mg/kg	0.0046	0.00038	1	8260B	03/29/08 17:29	lwitry	Q31336
Bromodichloromethane	BRL	mg/kg	0.0046	0.00049	1	8260B	03/29/08 17:29	lwitry	Q31336
Bromoform	BRL	mg/kg	0.0046	0.00041	1	8260B	03/29/08 17:29	lwitry	Q31336
Bromomethane	BRL	mg/kg	0.0091	0.0010	1	8260B	03/29/08 17:29	lwitry	Q31336
Carbon tetrachloride	BRL	mg/kg	0.0046	0.0003	1	8260B	03/29/08 17:29	lwitry	Q31336
Chlorobenzene	BRL	mg/kg	0.0046	0.00047	1	8260B	03/29/08 17:29	lwitry	Q31336
Chlorodibromomethane	BRL	mg/kg	0.0046	0.00042	1	8260B	03/29/08 17:29	lwitry	Q31336
Chloroethane	BRL.	mg/kg	0.0091	0.0015	1	8260B	03/29/08 17:29	lwitry	Q31336
Chloroform	BRL	mg/kg	0.0046	0.00076	1	8260B	03/29/08 17:29	lwitry	Q31336
Chloromethane	BRL	mg/kg	0.0046	0.0011	1	8260B	03/29/08 17:29	lwitry	Q31336
cis-1,2-Dichloroethene	BRL	mg/kg	0.0046	0.00073	1	8260B	03/29/08 17:29	lwitry	Q31336
cis-1,3-Dichloropropene	BRL	mg/kg	0.0046	0.0006	1	8260B	03/29/08 17:29	lwitry	Q31336
Dichlorodifluoromethane	BRL	mg/kg	0.0046	0.0013	1	8260B	03/29/08 17:29	lwitry	Q31336
Ethylbenzene	BRL	mg/kg	0.0046	0.00021	1	8260B	03/29/08 17:29	lwitry	Q31336
Isopropyl ether (IPE)	BRL	mg/kg	0.0046	0.00042	1	8260B	03/29/08 17:29	lwitry	Q31336
Isopropylbenzene	BRL	mg/kg	0.0046	0.00027	1	8260B	03/29/08 17:29	lwitry	Q31336
m,p-Xylenes	BRL	mg/kg	0.0091	0.00075	1	8260B	03/29/08 17:29	lwitry	Q31336
Methyl ethyl ketone (MEK)	BRL	mg/kg	0.091	0.014	1	8260B	03/29/08 17:29	lwitry	Q31336
Methyl t-butyl ether (MTBE)	BRL	mg/kg	0.0091	0.00038	1	8260B	03/29/08 17:29	lwitry	Q31336
Methylene chloride	BRL	mg/kg	0.0046	0.00075	1	8260B	03/29/08 17:29	lwitry	Q31336
n-Butylbenzene	BRL	mg/kg	0.0046	0.00033	1	8260B	03/29/08 17:29	lwitry	Q31336



# **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607 Project Name: Richmond Co.

Project ID: NCDOT Parcel 68
Project No.: WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-N3
Prism Sample ID: 209580

COC Group: G0

G0308735

Time Collected: 03/19/08 14:50 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
n-Propylbenzene	BRL	mg/kg	0.0046	0.0003	1	8260B	03/29/08 17:29	lwitry	Q31336
Naphthalene	BRL	mg/kg	0.0091	0.00055	1	8260B	03/29/08 17:29	lwitry	Q31336
o-Xylene	BRL	mg/kg	0.0046	0.00019	1	8260B	03/29/08 17:29	lwitry	Q31336
p-Isopropyltoluene	BRL	mg/kg	0.0046	0.00037	1	8260B	03/29/08 17:29	lwitry	Q31336
sec-Butylbenzene	BRL.	mg/kg	0.0046	0.00031	1	8260B	03/29/08 17:29	lwitry	Q31336
Styrene	BRL	mg/kg	0.0046	0.00051	1	8260B	03/29/08 17:29	lwitry	Q31336
tert-Butylbenzene	BRL	mg/kg	0.0046	0.00038	1	8260B	03/29/08 17:29	lwitry	Q31336
Tetrachloroethene	BRL	mg/kg	0.0046	0.00041	1	8260B	03/29/08 17:29	lwitry	Q31336
Toluene	BRL	mg/kg	0.0046	0.00034	1	8260B	03/29/08 17:29	lwitry	Q31336
trans-1,2-Dichloroethene	BRL	mg/kg	0.0046	0.00059	1	8260B	03/29/08 17:29	lwitry	Q31336
trans-1,3-Dichloropropene	BRL	mg/kg	0.0046	0.00054	1	8260B	03/29/08 17:29	lwitry	Q31336
Trichloroethene	BRL	mg/kg	0.0046	0.00067	1	8260B	03/29/08 17:29	lwitry	Q31336
Trichlorofluoromethane	BRL	mg/kg	0.0046	0.00081	1	8260B	03/29/08 17:29	lwitry	Q31336
Vinyl acetate	BRL	mg/kg	0.023	0.0013	1	8260B	03/29/08 17:29	lwitry	Q31336
Vinyl chloride	BRL	mg/kg	0.0046	0.0008	1	8260B	03/29/08 17:29	lwitry	Q31336

					Surroga	te	% Recovery	y Cont	trol Limits
					Toluene-	d8	90	(	81 - 128
					Dibromot	luoromethane	107	(	67 - 143
					Bromoflu	orobenzene	107	-	77 - 128
Semi-volatile Organic Compoun	ds by GC/MS								
1,2,4-Trichlorobenzene	BRL	mg/kg	0.39	0.043	1	8270C	04/02/08 4:15	kcampigotto	Q31404
1,2-Dichlorobenzene	BRL	mg/kg	0.39	0.043	1	8270C	04/02/08 4:15	kcampigotto	Q31404
1,3-Dichlorobenzene	BRL	mg/kg	0.39	0.038	1	8270C	04/02/08 4:15	kcampigotto	Q31404
1,4-Dichlorobenzene	BRL.	mg/kg	0.39	0.046	1	8270C	04/02/08 4:15	kcampigotto	Q31404
2,4,5-Trichlorophenol	BRL	mg/kg	0.39	0.046	1	8270C	04/02/08 4:15	kcampigotto	Q31404
2,4,6-Trichlorophenol	BRL	mg/kg	0.39	0.042	1	8270C	04/02/08 4:15	kcampigotto	Q31404

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# **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607

Project Name: Richmond Co.

Project ID: Project No.: **NCDOT Parcel 68** WBS# 34438.1.1

Sample Matrix: Soil

COC Group:

Prism Sample ID: 209580 G0308735

Time Collected: 03/19/08 14:50

Client Sample ID: 68-N3

Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
2,4-Dichlorophenol	BRL	mg/kg	0.39	0.025	1	8270C	04/02/08 4:15	kcampigotto	Q31404
2,4-Dimethylphenol	BRL	mg/kg	0.39	0.058	1	8270C	04/02/08 4:15	kcampigotto	Q31404
2,4-Dinitrophenol	BRL	mg/kg	1.9	0.11	1	8270C	04/02/08 4:15	kcampigotto	Q31404
2,4-Dinitrotoluene	BRL	mg/kg	0.39	0.051	1	8270C	04/02/08 4:15	kcampigotto	Q31404
2,6-Dinitrotoluene	BRL	mg/kg	0.39	0.070	1	8270C	04/02/08 4:15	kcampigotto	Q31404
2-Chloronaphthalene	BRL.	mg/kg	0.39	0.049	1	8270C	04/02/08 4:15	kcampigotto	Q31404
2-Chlorophenol	BRL	mg/kg	0.39	0.016	1	8270C	04/02/08 4:15	kcampigotto	Q31404
2-Methylnaphthalene	BRL	mg/kg	0.39	0.043	1	8270C	04/02/08 4:15	kcampigotto	Q31404
2-Methylphenol	BRL	mg/kg	0.39	0.031	1	8270C	04/02/08 4:15	kcampigotto	Q31404
2-Nitrophenol	BRL	mg/kg	0.39	0.054	1	8270C	04/02/08 4:15	kcampigotto	Q31404
3&4-Methylphenol	BRL	mg/kg	0.39	0.045	1	8270C	04/02/08 4:15	kcampigotto	Q31404
3,3'-Dichlorobenzidine	BRL	mg/kg	0.77	0.070	1	8270C	04/02/08 4:15	kcampigotto	Q31404
4,6-Dinitro-2-methylphenol	BRL	mg/kg	1.9	0.033	1	8270C	04/02/08 4:15	kcampigotto	Q31404
4-Bromophenylphenylether	BRL	mg/kg	0.39	0.048	1	8270C	04/02/08 4:15	kcampigotto	Q31404
4-Chloro-3-methylphenol	BRL	mg/kg	0.77	0.046	1	8270C	04/02/08 4:15	kcampigotto	Q31404
4-Chloroaniline	BRL	mg/kg	0.39	0.029	1	8270C	04/02/08 4:15	kcampigotto	Q31404
4-Chlorophenylphenylether	BRL	mg/kg	0.39	0.049	1	8270C	04/02/08 4:15	kcampigotto	Q31404
4-Nitrophenol	BRL	mg/kg	1.9	0.049	1	8270C	04/02/08 4:15	kcampigotto	Q31404
Acenaphthene	BRL	mg/kg	0.39	0.053	1	8270C	04/02/08 4:15	kcampigotto	Q31404
Acenaphthylene	BRL	mg/kg	0.39	0.036	1	8270C	04/02/08 4:15	kcampigotto	Q31404
Anthracene	BRL	mg/kg	0.39	0.028	1	8270C	04/02/08 4:15	kcampigotto	Q31404
Azobenzene	BRL	mg/kg	1.9	0.057	1	8270C	04/02/08 4:15	kcampigotto	Q31404
Benzo(a)aпthracene	BRL	mg/kg	0.39	0.044	1	8270C	04/02/08 4:15	kcampigotto	Q31404
Benzo(a)pyrene	BRL	mg/kg	0.39	0.049	1	8270C	04/02/08 4:15	kcampigotto	Q31404
Benzo(b)fluoranthene	BRL	mg/kg	0.39	0.079	1	8270C	04/02/08 4:15	kcampigotto	Q31404
Benzo(g,h,i)perylene	BRL	mg/kg	0.39	0.049	1	8270C	04/02/08 4:15	kcampigotto	Q31404
Benzo(k)fluoranthene	BRL	mg/kg	0.39	0.10	1	8270C	04/02/08 4:15	kcampigotto	Q31404



### **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607 Project Name: Richmond Co.

Project ID: NCDOT Parcel 68
Project No.: WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-N3
Prism Sample ID: 209580

COC Group: G

G0308735

Time Collected: 03/19/08 14:50 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Benzoic acid	BRL	mg/kg	1.9	0.16	1	8270C	04/02/08 4:15	kcampigotto	Q31404
Benzyl alcohol	BRL	mg/kg	0.77	0.031	1	8270C	04/02/08 4:15	kcampigotto	Q31404
Bis(2-chloroethoxy)methane	BRL	mg/kg	0.39	0.065	1	8270C	04/02/08 4:15	kcampigotto	Q31404
Bis(2-chloroethyl)ether	BRL	mg/kg	0.39	0.048	1	8270C	04/02/08 4:15	kcampigotto	Q31404
Bis(2-chloroisopropyl)ether	BRL	mg/kg	0.39	0.039	1	8270C	04/02/08 4:15	kcampigotto	Q31404
Bis(2-ethylhexyl)phthalate	BRL	mg/kg	0.39	0.030	1	8270C	04/02/08 4:15	kcampigotto	Q31404
Butylbenzylphthalate	BRL	mg/kg	0.39	0.048	1	8270C	04/02/08 4:15	kcampigotto	Q31404
Chrysene	BRL	mg/kg	0.39	0.026	1	8270C	04/02/08 4:15	kcampigotto	Q31404
Di-n-butylphthalate	BRL	mg/kg	0.39	0.062	1	8270C	04/02/08 4:15	kcampigotto	Q31404
Di-n-octylphthalate	BRL	mg/kg	0.39	0.11	1	8270C	04/02/08 4:15	kcampigotto	Q31404
Dibenzo(a,h)anthracene	BRL	mg/kg	0.39	0.036	1	8270C	04/02/08 4:15	kcampigotto	Q31404
Dibenzofuran	BRL	mg/kg	0.39	0.047	1	8270C	04/02/08 4:15	kcampigotto	Q31404
Diethylphthalate	BRL	mg/kg	0.39	0.10	1	8270C	04/02/08 4:15	kcampigotto	Q31404
Dimethylphthalate	BRL	mg/kg	0.39	0.057	1	8270C	04/02/08 4:15	kcampigotto	Q31404
Fluoranthene	BRL	mg/kg	0.39	0.068	1	8270C	04/02/08 4:15	kcampigotto	Q31404
Fluorene	BRL	mg/kg	0.39	0.055	1	8270C	04/02/08 4:15	kcampigotto	Q31404
Hexachlorobenzene	BRL	mg/kg	0.39	0.053	1	8270C	04/02/08 4:15	kcampigotto	Q31404
Hexachlorobutadiene	BRL	mg/kg	0.39	0.038	1	8270C	04/02/08 4:15	kcampigotto	Q31404
Hexachlorocyclopentadiene	BRL	mg/kg	0.39	0.058	1	8270C	04/02/08 4:15	kcampigotto	Q31404
Hexachloroethane	BRL	mg/kg	0.39	0.016	1	8270C	04/02/08 4:15	kcampigotto	Q31404
Indeno(1,2,3-cd)pyrene	BRL	mg/kg	0.39	0.037	1	8270C	04/02/08 4:15	kcampigotto	Q31404
Isophorone	BRL	mg/kg	0.39	0.037	1	8270C	04/02/08 4:15	kcampigotto	Q31404
N-Nitrosodi-n-propylamine	BRL	mg/kg	0.39	0.023	1	8270C	04/02/08 4:15	kcampigotto	Q31404
N-Nitrosodiphenylamine	BRL	mg/kg	0.39	0.056	1	8270C	04/02/08 4:15	kcampigotto	Q31404
Naphthalene	BRL	mg/kg	0.39	0.046	1	8270C	04/02/08 4:15	kcampigotto	Q31404
Nitrobenzene	BRL	mg/kg	0.39	0.049	1	8270C	04/02/08 4:15	kcampigotto	Q31404
Pentachlorophenol	BRL	mg/kg	1.9	0.059	1	8270C	04/02/08 4:15	kcampigotto	Q31404



### **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607 Project Name: Richmond Co.

Project ID: NCDOT Parcel 68
Project No.: WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-N3
Prism Sample ID: 209580

COC Group:

G0308735

Time Collected: 03/19/08 14:50 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Phenanthrene	BRL	mg/kg	0.39	0.033	1	8270C	04/02/08 4:15	kcampigotto	Q31404
Phenol	BRL	mg/kg	0.39	0.068	1	8270C	04/02/08 4:15	kcampigotto	Q31404
Pyrene	BRL	mg/kg	0.39	0.074	1	8270C	04/02/08 4:15	kcampigotto	Q31404
Sample Preparation:			29	.93 g /	1 mL	3550B	04/01/08 8:00	рвап	P21213
					Surrogate	1	% Recovery	Cont	rol Limits
					Terphenyl-	-d14	91	4	1 - 136
					Phenol-d5		47	1	3 - 95
					Nitrobenze	ene-d5	46	1	4 - 103
					2-Fluoroph	nenol	36	1	4 - 89
					2-Fluorobi	phenyl	60	2	1 - 108
					2,4,6-Tribr	omophenol	86	2	5 - 123
Extractable Petroleum Hydrocarbon		_							
C11-C22 Aromatics	BRL	mg/kg -	11	2.0	1	MADEP EPH	04/05/08 8:36	grappaccioli	Q31459
C19-C36 Aliphatics	BRL	mg/kg	11	1.5	1	MADEP EPH	04/05/08 7:44	grappaccioli	Q31459
C9-C18 Aliphatics	BRL	mg/kg	11	1.0	1	MADEP EPH	04/05/08 7:44	grappaccioli	Q31459
Sample Preparation:			10	.23 g /	2 mL	EPH	03/29/08 12:00	рвап	P21191
					Surrogate	)	% Recovery	Cont	rol Limits
					o-Terphen	yl	128	4	0 - 140
					2-Fluorobi	phenyl	110	4	0 - 140
					2-Bromon	aphthalene	41	4	0 - 140
					1-Chloro-c	ctadecane	89	4	0 - 140
Volatile Petroleum Hydrocarbons by		_					0.4100155		
C5-C8 Aliphatics	BRL	mg/kg	5.9	1.1	1	MADEP VPH	04/03/08 12:08		Q31500
C9-C10 Aromatics	BRL	mg/kg	5.9	0.035	1	MADEP VPH	04/03/08 12:08	wbradley	Q31500
				1.8					Q31500



### **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607

Project Name: Richmond Co.

Project ID: Project No.: **NCDOT Parcel 68** 

WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-N3 Prism Sample ID: 209580

COC Group:

G0308735

Time Collected:

03/19/08 14:50

Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Surrogate 2,5-Dibromotoluene-PID 2,5-Dibromotoluene-FID		Analysis Date/Time	Analyst	Batch ID
							% Recovery	Con	trol Limits
							114		70 - 130
							95		70 - 130
Sample Weight Determination									
Weight 1	13.69	g			1	MADEP VPH	03/26/08 0:00	lbrown	
Weight 2	12.82	g			1	MADEP VPH	03/26/08 0:00	lbrown	

#### Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

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

All results are reported on a dry-weight basis

Angela D. Overcash, V.P. Laboratory Services



### **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607 Project Name: Richmond Co.

Project ID: NCDOT Parcel 68
Project No.: WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-S1
Prism Sample ID: 209581

COC Group: G0308735

Time Collected: 03/20/08 10:30 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Percent Solids Determination Percent Solids	82.4	%	·		1	SM2540 G	03/27/08 11:30	mbarber	,
Sample Weight Determination Weight Bisulfate 1	6.83	g			1	5035	03/26/08 0:00	lbrown	
Weight Bisulfate 2	6.61	g			1	5035	03/26/08 0:00	Ibrown	
Volatile Organic Compounds by G	C/MS								
1,1,1-Trichloroethane	BRL	mg/kg	0.0044	0.00052	1	8260B	03/31/08 21:08	lwitry	Q31361
1,1,2,2-Tetrachloroethane	BRL	mg/kg	0.0044	0.00032	1	8260B	03/31/08 21:08	lwitry	Q31361
1,1,2-Trichloroethane	BRL	mg/kg	0.0044	0.00047	1	8260B	03/31/08 21:08	lwitry	Q31361
1,1-Dichloroethane	BRL	mg/kg	0.0044	0.00051	1	8260B	03/31/08 21:08	lwitry	Q31361
1,1-Dichloroethene	BRL	mg/kg	0.0044	0.00076	1	8260B	03/31/08 21:08	lwitry	Q31361
1,1-Dichloropropene	BRL.	mg/kg	0.0044	0.00052	1	8260B	03/31/08 21:08	lwitry	Q31361
1,2,3-Trichlorobenzene	BRL	mg/kg	0.0044	0.00051	1	8260B	03/31/08 21:08	lwitry	Q31361
1,2,3-Trichloropropane	BRL	mg/kg	0.0044	0.0006	1	8260B	03/31/08 21:08	lwitry	Q31361
1,2,4-Trichlorobenzene	BRL	mg/kg	0.0044	0.00058	1	8260B	03/31/08 21:08	lwitry	Q31361
1,2,4-Trimethylbenzene	0.011	mg/kg	0.0044	0.00022	1	8260B	03/31/08 21:08	lwitry	Q31361
1,2-Dibromoethane (EDB)	BRL	mg/kg	0.0044	0.00055	1	8260B	03/31/08 21:08	lwitry	Q31361
1,2-Dichlorobenzene	BRL	mg/kg	0.0044	0.00028	1	8260B	03/31/08 21:08	lwitry	Q31361
1,2-Dichloroethane	BRL	mg/kg	0.0044	0.0005	1	8260B	03/31/08 21:08	lwitry	Q31361
1,2-Dichloropropane	BRL	mg/kg	0.0044	0.0011	1	8260B	03/31/08 21:08	lwitry	Q31361
1,3,5-Trimethylbenzene	0.0041 J	mg/kg	0.0044	0.00037	1	8260B	03/31/08 21:08	lwitry	Q31361
1,3-Dichlorobenzene	BRL	mg/kg	0.0044	0.00029	1	8260B	03/31/08 21:08	lwitry	Q31361
1,3-Dichloropropane	BRL	mg/kg	0.0044	0.00019	1	8260B	03/31/08 21:08	lwitry	Q31361
1,4-Dichlorobenzene	BRL	mg/kg	0.0044	0.00057	1	8260B	03/31/08 21:08	lwitry	Q31361
2,2-Dichloropropane	BRL	mg/kg	0.0044	0.00064	1	8260B	03/31/08 21:08	lwitry	Q31361
2-Chlorotoluene	BRL	mg/kg	0.0044	0.00025	1	8260B	03/31/08 21:08	lwitry	Q31361
2-Hexanone	BRL	mg/kg	0.044	0.0038	1	8260B	03/31/08 21:08	·	Q31361

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# **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607

Project Name: Richmond Co. Project ID:

Project No.:

NCDOT Parcel 68 WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-S1 Prism Sample ID: 209581

COC Group:

G0308735

Time Collected: 03/20/08 10:30 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
4-Chlorotoluene	BRL	mg/kg	0.0044	0.00033	1	8260B	03/31/08 21:08	lwitry	Q31361
4-Methyl-2-pentanone (MIBK)	BRL	mg/kg	0.044	0.0046	1	8260B	03/31/08 21:08	lwitry	Q31361
Acetone	0.053	mg/kg	0.044	0.013	1	8260B	03/31/08 21:08	lwitry	Q31361
Benzene	BRL	mg/kg	0.0027	0.00037	1	8260B	03/31/08 21:08	lwitry	Q31361
Bromobenzene	BRL	mg/kg	0.0044	0.00057	1	8260B	03/31/08 21:08	lwitry	Q31361
Bromochloromethane	BRL	mg/kg	0.0044	0.00036	1	8260B	03/31/08 21:08	lwitry	Q31361
Bromodichloromethane	BRL	mg/kg	0.0044	0.00048	1	8260B	03/31/08 21:08	lwitry	Q31361
Bromoform	BRL	mg/kg	0.0044	0.0004	1	8260B	03/31/08 21:08	lwitry	Q31361
Bromomethane	BRL	mg/kg	0.0089	0.0010	1	8260B	03/31/08 21:08	lwitry	Q31361
Carbon tetrachloride	BRL	mg/kg	0.0044	0.00029	1	8260B	03/31/08 21:08	lwitry	Q31361
Chlorobenzene	BRL	mg/kg	0.0044	0.00045	1	8260B	03/31/08 21:08	lwitry	Q31361
Chlorodibromomethane	BRL	mg/kg	0.0044	0.00041	1	8260B	03/31/08 21:08	lwitry	Q31361
Chloroethane	BRL	mg/kg	0.0089	0.0015	1	8260B	03/31/08 21:08	lwitry	Q31361
Chloroform	BRL	mg/kg	0.0044	0.00074	1	8260B	03/31/08 21:08	lwitry	Q31361
Chloromethane	BRL	mg/kg	0.0044	0.0011	1	8260B	03/31/08 21:08	lwitry	Q31361
cis-1,2-Dichloroethene	BRL	mg/kg	0.0044	0.00071	1	8260B	03/31/08 21:08	lwitry	Q31361
cis-1,3-Dichloropropene	BRL	mg/kg	0.0044	0.00059	1	8260B	03/31/08 21:08	lwitry	Q31361
Dichlorodifluoromethane	BRL	mg/kg	0.0044	0.0012	1	8260B	03/31/08 21:08	lwitry	Q31361
Ethylbenzene	0.0037 J	mg/kg	0.0044	0.0002	1	8260B	03/31/08 21:08	lwitry	Q31361
Isopropyl ether (IPE)	BRL	mg/kg	0.0044	0.00041	1	8260B	03/31/08 21:08	lwitry	Q31361
Isopropylbenzene	BRL	mg/kg	0.0044	0.00026	1	8260B	03/31/08 21:08	lwitry	Q31361
m,p-Xylenes	0.0051 J	mg/kg	0.0089	0.00073	1	8260B	03/31/08 21:08	lwitry	Q31361
Methyl ethyl ketone (MEK)	BRL	mg/kg	0.089	0.013	1	8260B	03/31/08 21:08	lwitry	Q31361
Methyl t-butyl ether (MTBE)	BRL	mg/kg	0.0089	0.00037	1	8260B	03/31/08 21:08	lwitry	Q31361
Methylene chloride	BRL	mg/kg	0.0044	0.00073	1	8260B	03/31/08 21:08	lwitry	Q31361
n-Butylbenzene	BRL	mg/kg	0.0044	0.00032	1	8260B	03/31/08 21:08	lwitry	Q31361
n-Propylbenzene	0.0018 J	mg/kg	0.0044	0.00029	1	8260B	03/31/08 21:08	lwitry	Q31361



# **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607 Project Name: Richmond Co.

Project ID: NCDOT Parcel 68
Project No.: WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-S1
Prism Sample ID: 209581
COC Group: G0308735

Time Collected: 03/20/08 10:30 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Naphthalene	0.0077 J	mg/kg	0.0089	0.00053	1	8260B	03/31/08 21:08	lwitry	Q31361
o-Xylene	BRL.	mg/kg	0.0044	0.00019	1	8260B	03/31/08 21:08	lwitry	Q31361
p-Isopropyltoluene	0.0018 J	mg/kg	0.0044	0.00036	1	8260B	03/31/08 21:08	lwitry	Q31361
sec-Butylbenzene	BRL	mg/kg	0.0044	0.0003	1	8260B	03/31/08 21:08	lwitry	Q31361
Styrene	BRL	mg/kg	0.0044	0.0005	1	8260B	03/31/08 21:08	lwitry	Q31361
tert-Butylbenzene	BRL	mg/kg	0.0044	0.00037	1	8260B	03/31/08 21:08	lwitry	Q31361
Tetrachloroethene	BRL	mg/kg	0.0044	0.0004	1	8260B	03/31/08 21:08	lwitry	Q31361
Toluene	BRL	mg/kg	0.0044	0.00033	1	8260B	03/31/08 21:08	lwitry	Q31361
trans-1,2-Dichloroethene	BRL	mg/kg	0.0044	0.00057	1	8260B	03/31/08 21:08	lwitry	Q31361
trans-1,3-Dichloropropene	BRL	mg/kg	0.0044	0.00052	1	8260B	03/31/08 21:08	lwitry	Q31361
Trichloroethene	BRL	mg/kg	0.0044	0.00065	1	8260B	03/31/08 21:08	lwitry	Q31361
Trichlorofluoromethane	BRL	mg/kg	0.0044	0.00079	1	8260B	03/31/08 21:08	lwitry	Q31361
Vinyl acetate	BRL	mg/kg	0.022	0.0013	1	8260B	03/31/08 21:08	lwitry	Q31361
Vinyl chloride	BRL	mg/kg	0.0044	0.00077	1	8260B	03/31/08 21:08	lwitry	Q31361

			Surrogate	te	% Recovery	y Cont	rol Limits		
					Toluene-	d8	92		31 - 128
					Dibromot	luoromethane	104	(	67 - 143
					Bromoflu	orobenzene	103		77 - 128
Semi-volatile Organic Compounds b	y GC/MS								
1,2,4-Trichlorobenzene	BRL	mg/kg	0.40	0.044	1	8270C	04/03/08 9:56	kcampigotto	Q31433
1,2-Dichlorobenzene	BRL	mg/kg	0.40	0.044	1	8270C	04/03/08 9:56	kcampigotto	Q31433
1,3-Dichlorobenzene	BRL	mg/kg	0.40	0.039	1	8270C	04/03/08 9:56	kcampigotto	Q31433
1,4-Dichlorobenzene	BRL	mg/kg	0.40	0.048	1	8270C	04/03/08 9:56	kcampigotto	Q31433
2,4,5-Trichlorophenol	BRL	mg/kg	0.40	0.047	1	8270C	04/03/08 9:56	kcampigotto	Q31433
2,4,6-Trichlorophenol	BRL	mg/kg	0.40	0.043	1	8270C	04/03/08 9:56	kcampigotto	Q31433
2,4-Dichlorophenol	BRL	mg/kg	0.40	0.026	1	8270C	04/03/08 9:56	kcampigotto	Q31433

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# **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607

Project Name: Richmond Co. Project ID:

Project No.:

NCDOT Parcel 68

Sample Matrix: Soil

Prism Sample ID: 209581 WBS# 34438.1.1 COC Group:

Time Collected:

Client Sample ID: 68-S1

G0308735

03/20/08 10:30 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
2,4-Dimethylphenol	BRL	mg/kg	0.40	0.060	1	8270C	04/03/08 9:56	kcampigotto	Q31433
2,4-Dinitrophenol	BRL	mg/kg	2.0	0.12	1	8270C	04/03/08 9:56	kcampigotto	Q31433
2,4-Dinitrotoluene	BRL	mg/kg	0.40	0.053	1	8270C	04/03/08 9:56	kcampigotto	Q31433
2,6-Dinitrotoluene	BRL	mg/kg	0.40	0.072	1	8270C	04/03/08 9:56	kcampigotto	Q31433
2-Chloronaphthalene	BRL	mg/kg	0.40	0.050	1	8270C	04/03/08 9:56	kcampigotto	Q31433
2-Chlorophenol	BRL	mg/kg	0.40	0.017	1	8270C	04/03/08 9:56	kcampigotto	Q31433
2-Methylnaphthalene	BRL	mg/kg	0.40	0.045	1	8270C	04/03/08 9:56	kcampigotto	Q31433
2-Methylphenol	BRL	mg/kg	0.40	0.032	1	8270C	04/03/08 9:56	kcampigotto	Q31433
2-Nitrophenol	BRL	mg/kg	0.40	0.056	1	8270C	04/03/08 9:56	kcampigotto	Q31433
3&4-Methylphenol	BRL	mg/kg	0.40	0.047	1	8270C	04/03/08 9:56	kcampigotto	Q31433
3,3'-Dichlorobenzidine	BRL	mg/kg	0.80	0.073	1	8270C	04/03/08 9:56	kcampigotto	Q31433
4,6-Dinitro-2-methylphenol	BRL	mg/kg	2.0	0.034	1	8270C	04/03/08 9:56	kcampigotto	Q31433
4-Bromophenylphenylether	BRL	mg/kg	0.40	0.050	1	8270C	04/03/08 9:56	kcampigotto	Q31433
4-Chloro-3-methylphenol	BRL	mg/kg	0.80	0.047	1	8270C	04/03/08 9:56	kcampigotto	Q31433
4-Chloroaniline	BRL	mg/kg	0.40	0.030	1	8270C	04/03/08 9:56	kcampigotto	Q31433
4-Chlorophenylphenylether	BRL	mg/kg	0.40	0.051	1	8270C	04/03/08 9:56	kcampigotto	Q31433
4-Nitrophenol	BRL	mg/kg	2.0	0.051	1	8270C	04/03/08 9:56	kcampigotto	Q31433
Acenaphthene	BRL	mg/kg	0.40	0.054	1	8270C	04/03/08 9:56	kcampigotto	Q31433
Acenaphthylene	BRL	mg/kg	0.40	0.038	1	8270C	04/03/08 9:56	kcampigotto	Q31433
Anthracene	BRL	mg/kg	0.40	0.029	1	8270C	04/03/08 9:56	kcampigotto	Q31433
Azobenzene	BRL	mg/kg	2.0	0.059	1	8270C	04/03/08 9:56	kcampigotto	Q31433
Benzo(a)anthracene	BRL	mg/kg	0.40	0.045	1	8270C	04/03/08 9:56	kcampigotto	Q31433
Benzo(a)pyrene	BRL	mg/kg	0.40	0.051	1	8270C	04/03/08 9:56	kcampigotto	Q31433
Benzo(b)fluoranthene	BRL	mg/kg	0.40	0.082	1	8270C	04/03/08 9:56	kcampigotto	Q31433
Benzo(g,h,i)perylene	BRL	mg/kg	0.40	0.051	1	8270C	04/03/08 9:56	kcampigotto	Q31433
Benzo(k)fluoranthene	BRL	mg/kg	0.40	0.11	1	8270C	04/03/08 9:56	kcampigotto	Q31433
Benzoic acid	BRL	mg/kg	2.0	0.17	1	8270C	04/03/08 9:56	kcampigotto	Q31433

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### **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607 Project Name: Richmond Co.

Project ID: Project No.: NCDOT Parcel 68 WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-S1 Prism Sample ID: 209581

COC Group: G0308735
Time Collected: 03/20/08 1

Time Collected: 03/20/08 10:30 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Benzyl alcohol	BRL	mg/kg	0.80	0.032	1	8270C	04/03/08 9:56	kcampigotto	Q31433
Bis(2-chloroethoxy)methane	BRL	mg/kg	0.40	0.068	1	8270C	04/03/08 9:56	kcampigotto	Q31433
Bis(2-chloroethyl)ether	BRL	mg/kg	0.40	0.050	1	8270C	04/03/08 9:56	kcampigotto	Q31433
Bis(2-chloroisopropyl)ether	BRL	mg/kg	0.40	0.040	1	8270C	04/03/08 9:56	kcampigotto	Q31433
Bis(2-ethylhexyl)phthalate	BRL	mg/kg	0.40	0.031	1	8270C	04/03/08 9:56	kcampigotto	Q31433
Butylbenzylphthalate	BRL	mg/kg	0.40	0.049	1	8270C	04/03/08 9:56	kcampigotto	Q31433
Chrysene	BRL	mg/kg	0.40	0.027	1	8270C	04/03/08 9:56	kcampigotto	Q31433
Di-n-butylphthalate	BRL	mg/kg	0.40	0.064	1	8270C	04/03/08 9:56	kcampigotto	Q31433
Di-n-octylphthalate	BRL	mg/kg	0.40	0.12	1	8270C	04/03/08 9:56	kcampigotto	Q31433
Dibenzo(a,h)anthracene	BRL	mg/kg	0.40	0.037	1	8270C	04/03/08 9:56	kcampigotto	Q31433
Dibenzofuran	BRL	mg/kg	0.40	0.049	1	8270C	04/03/08 9:56	kcampigotto	Q31433
Diethylphthalate	BRL	mg/kg	0.40	0.10	1	8270C	04/03/08 9:56	kcampigotto	Q31433
Dimethylphthalate	BRL	mg/kg	0.40	0.059	1	8270C	04/03/08 9:56	kcampigotto	Q31433
Fluoranthene	BRL	mg/kg	0.40	0.071	1	8270C	04/03/08 9:56	kcampigotto	Q31433
Fluorene	BRL	mg/kg	0.40	0.057	1	8270C	04/03/08 9:56	kcampigotto	Q31433
Hexachlorobenzene	BRL	mg/kg	0.40	0.055	1	8270C	04/03/08 9:56	kcampigotto	Q31433
Hexachlorobutadiene	BRL	mg/kg	0.40	0.040	1	8270C	04/03/08 9:56	kcampigotto	Q31433
Hexachlorocyclopentadiene	BRL	mg/kg	0.40	0.060	1	8270C	04/03/08 9:56	kcampigotto	Q31433
Hexachloroethane	BRL	mg/kg	0.40	0.017	1	8270C	04/03/08 9:56	kcampigotto	Q31433
Indeno(1,2,3-cd)pyrene	BRL	mg/kg	0.40	0.038	1	8270C	04/03/08 9:56	kcampigotto	Q31433
Isophorone	BRL	mg/kg	0.40	0.038	1	8270C	04/03/08 9:56	kcampigotto	Q31433
N-Nitrosodi-n-propylamine	BRL	mg/kg	0.40	0.023	1	8270C	04/03/08 9:56	kcampigotto	Q31433
N-Nitrosodiphenylamine	BRL	mg/kg	0.40	0.058	1	8270C	04/03/08 9:56	kcampigotto	Q31433
Naphthalene	BRL	mg/kg	0.40	0.048	1	8270C	04/03/08 9:56	kcampigotto	Q31433
Nitrobenzene	BRL	mg/kg	0.40	0.050	1	8270C	04/03/08 9:56	kcampigotto	Q31433
Pentachlorophenol	BRL	mg/kg	2.0	0.061	1	8270C	04/03/08 9:56	kcampigotto	Q31433
Phenanthrene	BRL	mg/kg	0.40	0.034	1	8270C	04/03/08 9:56	kcampigotto	Q31433



# **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607

Project Name: Richmond Co.

Project ID: Project No.: NCDOT Parcel 68

WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-S1 Prism Sample ID: 209581

COC Group:

G0308735

Time Collected: 03/20/08

10:30 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analys Date/Tir		Anaiyst	Batch ID
Phenol	BRL	mg/kg	0.40	0.071	1	8270C	04/03/08	9:56	kcampigotto	Q31433
Pyrene	BRL	mg/kg	0.40	0.077	1	8270C	04/03/08	9:56	kcampigotto	Q31433
Sample Preparation:			29	.98 g /	1 mL	3550B	04/01/08	14:00	pbarr	P21232
					Surrogate		% Re	covery	Cont	rol Limits
					Terphenyl-	d14		83	•	41 - 136
					Phenol-d5			67		13 - 95
					Nitrobenze	en <del>e-</del> d5		64		14 - 103
					2-Fluoroph	ienol		54		14 - 89
					2-Fluorobij	ohenyl		79	:	21 - 108
					2,4,6-Tribr	omophenol		91	:	25 - 123
Extractable Petroleum Hydrocarbon	s by GC-FID									
C11-C22 Aromatics	BRL	mg/kg	12	2.1	1	MADEP EPH	04/10/08	6:54	grappaccioli	Q31603
C19-C36 Aliphatics	BRL	mg/kg	12	1.6	1	MADEP EPH	04/10/08	6:54	grappaccioli	Q31603
C9-C18 Aliphatics	BRL	mg/kg	12	1.1	1	MADEP EPH	04/10/08	6:54	grappaccioli	Q31603
Sample Preparation:			10	.02 g /	2 mL	EPH	03/31/08	10:00	pbarr	P21205
					Surrogate		% Re	covery	Cont	rol Limits
					o-Terphen	yl		121	•	10 - 140
					2-Fluorobij	ohenyl		101	•	10 - 140
					2-Bromona	aphthalene		92	•	10 - 140
					1-Chloro-o	ctadecane		98		10 - 140
Volatile Petroleum Hydrocarbons by C5-C8 Aliphatics	GC-PID/FID BRL	mg/kg	6.1	1.2	1	MADEP VPH	04/03/08	12.50	whradlev	Q31500
C9-C10 Aromatics	BRL	mg/kg	6.1	0.036		MADEP VPH	04/03/08		_	Q31500
•			6.1	1.9		MADEP VPH	04/03/08			
C9-C12 Aliphatics	BRL	mg/kg	0.1	1.9	ı	WADER VEN	04/03/08	12:00	wurauley	Q31500



### **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607 Project Name: Richmond Co.

Project ID: NCDOT Parcel 68
Project No.: WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-S1
Prism Sample ID: 209581

COC Group: G0308735

Time Collected: 03/20/08 10:30 Time Submitted: 03/21/08 13:05

Parameter	neter Result Units Report MDL Dilution Meth Limit Factor		Method	Analysis Date/Time	Analyst	Batch ID			
				Surrogate  2,5-Dibromotoluene-PID  2,5-Dibromotoluene-FID		% Recovery	Con	trol Limits	
						113		70 - 130 70 - 130	
						95			
Sample Weight Determination						· · · · · · · · · · · · · · · · · · ·	NAME OF THE OWNER OWNER OF THE OWNER OWNE		
Weight 1	12.64	g		1	MADEP VPH	03/26/08 0:00	Ibrown		
Weight 2	13.18	g		1	MADEP VPH	03/26/08 0:00	Ibrown		

#### Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

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

All results are reported on a dry-weight basis

Angela D. Overcash, V.P. Laboratory Services



# **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607

Project Name: Richmond Co.

Project ID: Project No.: NCDOT Parcel 68 WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-S2

Prism Sample ID: 209582

COC Group: G0308735 Time Collected: 03/20/08

10:40 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Percent Solids Determination Percent Solids	88.8	%			1	SM2540 G	03/27/08 11:30	mbarber	
Sample Weight Determination Weight Bisulfate 1	6.87	g			1	5035	03/26/08 0:00	lbrown	
Weight Bisulfate 2	6.78	g			1	5035	03/26/08 0:00	lbrown	
Weight Methanol	6.72	g			1	5035	03/26/08 0:00	lbrown	
Volatile Organic Compounds by Go	<u>C/MS</u> BRL	mg/kg	0.0041	0.00048	1	8260B	04/01/08 18:38	lwitry	Q31361
1,1,2,2-Tetrachloroethane	BRL	mg/kg	0.0041	0.0003	1	8260B	04/01/08 18:38	lwitry	Q31361
1,1,2-Trichloroethane	BRL	mg/kg	0.0041	0.00043	1	8260B	04/01/08 18:38	lwitry	Q31361
1,1-Dichloroethane	BRL	mg/kg	0.0041	0.00047	1	8260B	04/01/08 18:38	lwitry	Q31361
1,1-Dichloroethene	BRL	mg/kg	0.0041	0.0007	1	8260B	04/01/08 18:38	lwitry	Q31361
1,1-Dichloropropene	BRL	mg/kg	0.0041	0.00048	1	8260B	04/01/08 18:38	lwitry	Q31361
1,2,3-Trichlorobenzene	BRL	mg/kg	0.0041	0.00047	1	8260B	04/01/08 18:38	lwitry	Q31361
1,2,3-Trichloropropane	BRL	mg/kg	0.0041	0.00055	1	8260B	04/01/08 18:38	lwitry	Q31361
1,2,4-Trichlorobenzene	BRL	mg/kg	0.0041	0.00053	1	8260B	04/01/08 18:38	lwitry	Q31361
1,2,4-Trimethylbenzene	13	mg/kg	2.0	0.10	500	8260B	04/02/08 18:12	lwitry	Q31361
1,2-Dibromoethane (EDB)	BRL	mg/kg	0.0041	0.00051	1	8260B	04/01/08 18:38	lwitry	Q31361
1,2-Dichlorobenzene	BRL	mg/kg	0.0041	0.00026	1	8260B	04/01/08 18:38	lwitry	Q31361
1,2-Dichloroethane	BRL	mg/kg	0.0041	0.00046	1	8260B	04/01/08 18:38	lwitry	Q31361
1,2-Dichloropropane	BRL	mg/kg	0.0041	0.00099	1	8260B	04/01/08 18:38	lwitry	Q31361
1,3,5-Trimethylbenzene	5.1	mg/kg	2.0	0.17	500	8260B	04/02/08 18:12	lwitry	Q31361
1,3-Dichlorobenzene	BRL	mg/kg	0.0041	0.00027	1	8260B	04/01/08 18:38	lwitry	Q31361
1,3-Dichloropropane	BRL	mg/kg	0.0041	0.00017	1	8260B	04/01/08 18:38	lwitry	Q31361
1,4-Dichlorobenzene	BRL	mg/kg	0.0041	0.00052	1	8260B	04/01/08 18:38	lwitry	Q31361
2,2-Dichloropropane	BRL	mg/kg	0.0041	0.00059	1	8260B	04/01/08 18:38	lwitry	Q31361
2-Chlorotoluene	BRL	mg/kg	0.0041	0.00023	1	8260B	04/01/08 18:38	lwitry	Q31361

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# **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607 Project Name Project ID:

Project Name: Richmond Co.

Project No.:

NCDOT Parcel 68 WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-S2 Prism Sample ID: 209582

COC Group:

G0308735

Time Collected: 03/20/08 10:40 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Anaiyst	Batch ID
2-Нехапопе	BRL	mg/kg	0.041	0.0035	1	8260B	04/01/08 18:38	lwitry	Q31361
4-Chlorotoluene	BRL	mg/kg	0.0041	0.0003	1	8260B	04/01/08 18:38	lwitry	Q31361
4-Methyl-2-pentanone (MIBK)	BRL	mg/kg	0.041	0.0043	1	8260B	04/01/08 18:38	lwitry	Q31361
Acetone	0.074	mg/kg	0.041	0.012	1	8260B	04/01/08 18:38	lwitry	Q31361
Benzene	0.17	mg/kg	0.0025	0.00034	1	8260B	04/01/08 18:38	lwitry	Q31361
Bromobenzene	BRL	mg/kg	0.0041	0.00052	1	8260B	04/01/08 18:38	lwitry	Q31361
Bromochloromethane	BRL	mg/kg	0.0041	0.00034	1	8260B	04/01/08 18:38	lwitry	Q31361
Bromodichloromethane	BRL	mg/kg	0.0041	0.00044	1	8260B	04/01/08 18:38	lwitry	Q31361
Bromoform	BRL.	mg/kg	0.0041	0.00037	1	8260B	04/01/08 18:38	lwitry	Q31361
Bromomethane	BRL	mg/kg	0.0082	0.00092	1	8260B	04/01/08 18:38	lwitry	Q31361
Carbon tetrachloride	BRL	mg/kg	0.0041	0.00027	1	8260B	04/01/08 18:38	lwitry	Q31361
Chlorobenzene	BRL	mg/kg	0.0041	0.00042	1	8260B	04/01/08 18:38	lwitry	Q31361
Chlorodibromomethane	BRL	mg/kg	0.0041	0.00038	1	8260B	04/01/08 18:38	lwitry	Q31361
Chloroethane	BRL	mg/kg	0.0082	0.0014	1	8260B	04/01/08 18:38	lwitry	Q31361
Chloroform	BRL	mg/kg	0.0041	0.00068	1	8260B	04/01/08 18:38	lwitry	Q31361
Chloromethane	BRL	mg/kg	0.0041	0.00098	1	8260B	04/01/08 18:38	lwitry	Q31361
cis-1,2-Dichloroethene	BRL	mg/kg	0.0041	0.00066	1	8260B	04/01/08 18:38	lwitry	Q31361
cis-1,3-Dichloropropene	BRL	mg/kg	0.0041	0.00054	1	8260B	04/01/08 18:38	lwitry	Q31361
Dichlorodifluoromethane	BRL	mg/kg	0.0041	0.0011	1	8260B	04/01/08 18:38	lwitry	Q31361
Ethylbenzene	2.4	mg/kg	2.0	0.094	500	8260B	04/02/08 18:12	lwitry	Q31361
Isopropyl ether (IPE)	BRL	mg/kg	0.0041	0.00038	1	8260B	04/01/08 18:38	lwitry	Q31361
Isopropylbenzene	1.1	mg/kg	0.20	0.012	50	8260B	04/02/08 17:34	lwitry	Q31361
m,p-Xylenes	9.5	mg/kg	4.1	0.34	500	8260B	04/02/08 18:12	lwitry	Q31361
Methyl ethyl ketone (MEK)	BRL	mg/kg	0.082	0.012	1	8260B	04/01/08 18:38	lwitry	Q31361
Methyl t-butyl ether (MTBE)	BRL	mg/kg	0.0082	0.00034	1	8260B	04/01/08 18:38	lwitry	Q31361
Methylene chloride	BRL	mg/kg	0.0041	0.00067	1	8260B	04/01/08 18:38	lwitry	Q31361
n-Butylbenzene	0.96	mg/kg	0.20	0.015	50	8260B	04/02/08 17:34	lwitry	Q31361



### **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607 Project Name: Richmond Co.

Project ID: NCDOT Parcel 68
Project No.: WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-S2 Prism Sample ID: 209582

COC Group:

G0308735

Time Collected: 03/20/08 10:40 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
n-Propylbenzene	1.8	mg/kg	0.20	0.014	50	8260B	04/02/08 17:34	lwitry	Q31361
Naphthalene	3.8	mg/kg	0.41	0.025	50	8260B	04/02/08 17:34	lwitry	Q31361
o-Xylene	2.3	mg/kg	2.0	0.086	500	8260B	04/02/08 18:12	lwitry	Q31361
p-Isopropyltoluene	1.6	mg/kg	0.20	0.016	50	8260B	04/02/08 17:34	lwitry	Q31361
sec-Butylbenzene	0.58	mg/kg	0.20	0.014	50	8260B	04/02/08 17:34	lwitry	Q31361
Styrene	BRL	mg/kg	0.0041	0.00046	1	8260B	04/01/08 18:38	lwitry	Q31361
tert-Butylbenzene	0.31	mg/kg	0.20	0.017	50	8260B	04/02/08 17:34	lwitry	Q31361
Tetrachloroethene	BRL	mg/kg	0.0041	0.00037	1	8260B	04/01/08 18:38	lwitry	Q31361
Toluene	0.18	mg/kg	0.17	0.015	50	8260B	04/02/08 17:34	lwitry	Q31361
trans-1,2-Dichloroethene	BRL	mg/kg	0.0041	0.00052	1	8260B	04/01/08 18:38	lwitry	Q31361
trans-1,3-Dichloropropene	BRL	mg/kg	0.0041	0.00048	1	8260B	04/01/08 18:38	lwitry	Q31361
Trichloroethene	BRL	mg/kg	0.0041	0.0006	1	8260B	04/01/08 18:38	lwitry	Q31361
Trichlorofluoromethane	BRL	mg/kg	0.0041	0.00073	1	8260B	04/01/08 18:38	lwitry	Q31361
Vinyl acetate	BRL	mg/kg	0.020	0.0012	1	8260B	04/01/08 18:38	lwitry	Q31361
Vinyl chloride	BRL	mg/kg	0.0041	0.00071	1	8260B	04/01/08 18:38	lwitry	Q31361

Two surrogate recoveries were outside of the control limits. Matrix interference is suspected.

					Surroga	te	% Re	covery	Cor	ntrol Limits	
					Toluene	d8	M #		<b>‡</b>	81 - 128	
					Dibromofluoromethane		125		67 - 143		
					Bromoflu	orobenzene		M #	‡	77 - 128	
Semi-volatile Organic Compounds	by GC/MS										
1,2,4-Trichlorobenzene	BRL	mg/kg	0.37	0.041	1	8270C	04/03/08	10:45	kcampigotto	Q31433	
1,2-Dichlorobenzene	BRL	mg/kg	0.37	0.041	1	8270C	04/03/08	10:45	kcampigotto	Q31433	
1,3-Dichlorobenzene	BRL	mg/kg	0.37	0.036	1	8270C	04/03/08	10:45	kcampigotto	Q31433	
1,4-Dichlorobenzene	BRL	mg/kg	0.37	0.044	1	8270C	04/03/08	10:45	kcamplgotto	Q31433	
2,4,5-Trichlorophenol	BRL	mg/kg	0.37	0.044	1	8270C	04/03/08	10:45	kcampigotto	Q31433	



# **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607

Project Name: Richmond Co.

Project ID: Project No.: NCDOT Parcel 68

WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-S2 Prism Sample ID: 209582

COC Group:

G0308735

Time Collected: 03/20/08 10:40 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Analys Date/Time	t Batch ID
2,4,6-Trichlorophenol	BRL	mg/kg	0.37	0.040	1	8270C	04/03/08 10:45 kcampigott	o Q31433
2,4-Dichlorophenol	BRL	mg/kg	0.37	0.024	1	8270C	04/03/08 10:45 kcampigott	o Q31433
2,4-Dimethylphenol	BRL	mg/kg	0.37	0.055	1	8270C	04/03/08 10:45 kcampigott	o Q31433
2,4-Dinitrophenol	BRL	mg/kg	1.8	0.11	1	8270C	04/03/08 10:45 kcampigott	o Q31433
2,4-Dinitrotoluene	BRL	mg/kg	0.37	0.048	1	8270C	04/03/08 10:45 kcampigott	o Q31433
2,6-Dinitrotoluene	BRL	mg/kg	0.37	0.066	1	8270C	04/03/08 10:45 kcampigott	o Q31433
2-Chloronaphthalene	BRL	mg/kg	0.37	0.046	1	8270C	04/03/08 10:45 kcampigott	o Q31433
2-Chlorophenol	BRL	mg/kg	0.37	0.015	1	8270C	04/03/08 10:45 kcampigott	o Q31433
2-Methylnaphthalene	0.24 J	mg/kg	0.37	0.041	1	8270C	04/03/08 10:45 kcampigott	o Q31433
2-Methylphenol	BRL	mg/kg	0.37	0.030	1	8270C	04/03/08 10:45 kcampigott	o Q31433
2-Nitrophenol	BRL	mg/kg	0.37	0.052	1	8270C	04/03/08 10:45 kcampigott	o Q31433
3&4-Methylphenol	BRL	mg/kg	0.37	0.043	1	8270C	04/03/08 10:45 kcampigott	o Q31433
3,3'-Dichlorobenzidine	BRL	mg/kg	0.74	0.067	1	8270C	04/03/08 10:45 kcampigott	Q31433
4,6-Dinitro-2-methylphenol	BRL	mg/kg	1.8	0.032	1	8270C	04/03/08 10:45 kcampigott	Q31433
4-Bromophenylphenylether	BRL	mg/kg	0.37	0.046	1	8270C	04/03/08 10:45 kcampigott	Q31433
4-Chloro-3-methylphenol	BRL	mg/kg	0.74	0.044	1	8270C	04/03/08 10:45 kcampigott	Q31433
4-Chloroaniline	BRL	mg/kg	0.37	0.027	1	8270C	04/03/08 10:45 kcampigott	o Q31433
4-Chlorophenylphenylether	BRL	mg/kg	0.37	0.046	1	8270C	04/03/08 10:45 kcampigott	Q31433
4-Nitrophenol	BRL	mg/kg	1.8	0.047	1	8270C	04/03/08 10:45 kcampigott	Q31433
Acenaphthene	BRL	mg/kg	0.37	0.050	1	8270C	04/03/08 10:45 kcampigott	Q31433
Acenaphthylene	BRL	mg/kg	0.37	0.035	1	8270C	04/03/08 10:45 kcampigott	Q31433
Anthracene	BRL	mg/kg	0.37	0.027	1	8270C	04/03/08 10:45 kcampigott	Q31433
Azobenzene	BRL	mg/kg	1.8	0.054	1	8270C	04/03/08 10:45 kcampigott	Q31433
Benzo(a)anthracene	BRL	mg/kg	0.37	0.042	1	8270C	04/03/08 10:45 kcampigott	Q31433
Benzo(a)pyrene	BRL.	mg/kg	0.37	0.047	1	8270C	04/03/08 10:45 kcampigott	Q31433
Benzo(b)fluoranthene	BRL	mg/kg	0.37	0.075	1	8270C	04/03/08 10:45 kcampigott	Q31433
Benzo(g,h,i)perylene	BRL	mg/kg	0.37	0.047	1	8270C	04/03/08 10:45 kcampigott	Q31433



# **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607 Project Name: Richmond Co.

Project ID:

NCDOT Parcel 68 WBS# 34438.1.1

Project No.: WB: Sample Matrix: Soil Client Sample ID: 68-S2 Prism Sample ID: 209582

COC Group:

G0308735

Time Collected: 03/20/08 10:40 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Benzo(k)fluoranthene	BRL	mg/kg	0.37	0.099	1	8270C	04/03/08 10:45	kcampigotto	Q31433
Benzoic acid	BRL	mg/kg	1.8	0.16	1	8270C	04/03/08 10:45	kcampigotto	Q31433
Benzyl alcohol	BRL	mg/kg	0.74	0.029	1	8270C	04/03/08 10:45	kcampigotto	Q31433
Bis(2-chloroethoxy)methane	BRL	mg/kg	0.37	0.062	1	8270C	04/03/08 10:45	kcampigotto	Q31433
Bis(2-chloroethyl)ether	BRL	mg/kg	0.37	0.046	1	8270C	04/03/08 10:45	kcampigotto	Q31433
Bis(2-chloroisopropyl)ether	BRL	mg/kg	0.37	0.037	1	8270C	04/03/08 10:45	kcampigotto	Q31433
Bis(2-ethylhexyl)phthalate	BRL	mg/kg	0.37	0.028	1	8270C	04/03/08 10:45	kcampigotto	Q31433
Butylbenzylphthalate	BRL	mg/kg	0.37	0.045	1	8270C	04/03/08 10:45	kcampigotto	Q31433
Chrysene	BRL	mg/kg	0.37	0.025	1	8270C	04/03/08 10:45	kcampigotto	Q31433
Dî-n-butylphthalate	BRL	mg/kg	0.37	0.059	1	8270C	04/03/08 10:45	kcampigotto	Q31433
Di-n-octylphthalate	BRL	mg/kg	0.37	0.11	1	8270C	04/03/08 10:45	kcampigotto	Q31433
Dibenzo(a,h)anthracene	BRL	mg/kg	0.37	0.034	1	8270C	04/03/08 10:45	kcampigotto	Q31433
Dibenzofuran	BRL	mg/kg	0.37	0.045	1	8270C	04/03/08 10:45	kcampigotto	Q31433
Diethylphthalate	BRL	mg/kg	0.37	0.095	1	8270C	04/03/08 10:45	kcampigotto	Q31433
Dimethylphthalate	BRL	mg/kg	0.37	0.055	1	8270C	04/03/08 10:45	kcampigotto	Q31433
Fluoranthene	BRL	mg/kg	0.37	0.065	1	8270C	04/03/08 10:45	kcampigotto	Q31433
Fluorene	BRL	mg/kg	0.37	0.052	1	8270C	04/03/08 10:45	kcampigotto	Q31433
Hexachlorobenzene	BRL	mg/kg	0.37	0.051	1	8270C	04/03/08 10:45	kcampigotto	Q31433
Hexachlorobutadiene	BRL	mg/kg	0.37	0.037	1	8270C	04/03/08 10:45	kcampigotto	Q31433
Hexachlorocyclopentadiene	BRL	mg/kg	0.37	0.055	1	8270C	04/03/08 10:45	kcampigotto	Q31433
Hexachloroethane	BRL	mg/kg	0.37	0.015	1	8270C	04/03/08 10:45	kcampigotto	Q31433
Indeno(1,2,3-cd)pyrene	BRL	mg/kg	0.37	0.035	1	8270C	04/03/08 10:45	kcampigotto	Q31433
Isophorone	BRL	mg/kg	0.37	0.035	1	8270C	04/03/08 10:45	kcampigotto	Q31433
N-Nitrosodi-n-propylamine	BRL	mg/kg	0.37	0.021	1	8270C	04/03/08 10:45	kcampigotto	Q31433
N-Nitrosodiphenylamine	BRL	mg/kg	0.37	0.053	1	8270C	04/03/08 10:45	kcampigotto	Q31433
Naphthalene	0.44	mg/kg	0.37	0.044	1	8270C	04/03/08 10:45	kcampigotto	Q31433
Nitrobenzene	BRL	mg/kg	0.37	0.046	1	8270C	04/03/08 10:45	kcampigotto	Q31433



### **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607

Project Name: Richmond Co.

Project ID: Project No.: NCDOT Parcel 68 WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-S2

Prism Sample ID: 209582

COC Group:

G0308735

Time Collected:

03/20/08 10:40

Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Pentachlorophenol	BRL	mg/kg	1.8	0.056	1	8270C	04/03/08 10:45	kcampigotto	Q31433
Phenanthrene	BRL	mg/kg	0.37	0.031	1	8270C	04/03/08 10:45	kcampigotto	Q31433
Phenol	BRL	mg/kg	0.37	0.065	1	8270C	04/03/08 10:45	kcampigotto	Q31433
Pyrene	BRL	mg/kg	0.37	0.070	1	8270C	04/03/08 10:45	kcampigotto	Q31433
One surrogate recovery	was outs:	ide of t	the cont	trol 1	imits. Ma	atrix inte	erference is	suspected	1.
Sample Preparation:			30.	28 g /	1 mL	3550B	04/01/08 14:00	pbarr	P21232

		Su	rrogate		% Rec	overv	Ca	ntrol Limits
Sample Preparation:	30.28 g	1	1 mL	3550B	04/01/08	14:00	pbarr	P21232

Surrogate	% Recovery	Control Limits
Terphenyl-d14	92	41 - 136
Phenol-d5	96 #	13 - 95
Nitrobenzene-d5	90	14 - 103
2-Fluorophenol	75	14 - 89
2-Fluorobiphenyl	107	21 - 108
2,4,6-Tribromophenol	100	25 - 123

Extractable Petroleum Hydrocarbons	by GC-FID								
C11-C22 Aromatics	BRL	mg/kg	11	2.0	1	MADEP EPH	04/11/08 6:06	grappaccioli	Q31603
C19-C36 Aliphatics	BRL	mg/kg	11	1.5	1	MADEP EPH	04/11/08 5:14	grappaccioli	Q31603
C9-C18 Aliphatics	13	mg/kg	11	1.0	1	MADEP EPH	04/11/08 5:14	grappaccioli	Q31603
Sample Preparation:			9.9	95 g /	2 mL	. EPH	03/31/08 10:00	pbarr	P21205

Surrogate	% Recovery	Control Limits
o-Terphenyl	105	40 - 140
2-Fluorobiphenyl	86	40 - 140
2-Bromonaphthalene	96	40 - 140
1-Chloro-octadecane	61	40 - 140

Volatile Petroleum	Hydrocarbons by GC-PID/FID

C5-C8 Aliphatics	390	mg/kg	56	11	10	MADEP VPH	04/03/08 15:38 wbradley	Q31500
C9-C10 Aromatics	93	mg/kg	56	0.34	10	MADEP VPH	04/03/08 15:38 wbradley	Q31500



### **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607 Project Name: Richmond Co.

Project ID: Project No.: NCDOT Parcel 68 WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-S2
Prism Sample ID: 209582

COC Group:

G0308735

Time Collected:

03/20/08 10:40

Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
C9-C12 Aliphatics	330	mg/kg	56	17	10	MADEP VPH	04/03/08 15:38	wbradley	Q31500

Surrogate	% Recovery	Control Limits
2,5-Dibromotoluene-PID	DO #	70 - 130
2,5-Dibromotoluene-FID	DO #	70 - 130
·		

Sample	Weight	Determination
Campic	AACIGIIL	Determination

Weight 1	14.25	g	1	MADEP VPH	03/26/08 0:00	Ibrown
Weight 2	13.26	g	1	MADEP VPH	03/26/08 0:00	ibrown

#### Sample Comment(s):

BRL = Below Reporting Limit

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

All results are reported on a dry-weight basis

Angela D. Overcash, V.P. Laboratory Services

J- Estimated value between the Reporting Limit and the MDL



# **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607 Project Name: Richmond Co.

Project ID: Project No.: NCDOT Parcel 68 WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-S3
Prism Sample ID: 209583

COC Group: G0308735

Time Collected: 03/20/08 10:45 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Percent Solids Determination					ALC NOT THE PERSON NATIONAL PROPERTY.	THE REST OF THE PARTY OF THE PA	TO THE TAXABLE PARTY OF THE PAR		
Percent Solids	83.6	%			1	SM2540 G	03/27/08 11:30	mbarber	
Sample Weight Determination									
Weight Bisulfate 1	6.91	g			1	5035	03/26/08 0:00	lbrown	
Weight Bisulfate 2	6.57	g			1	5035	03/26/08 0:00	lbrown	
Weight Methanol	6.43	g			1	5035	03/26/08 0:00	lbrown	
Volatile Organic Compounds by GC									
1,1,1-Trichloroethane	BRL	mg/kg		0.00054		8260B	04/03/08 12:20		Q31384
1,1,2,2-Tetrachloroethane	BRL	mg/kg		0.00033		8260B	04/03/08 12:20		Q31384
1,1,2-Trichloroethane	BRL.	mg/kg		0.00048		8260B	04/03/08 12:20		Q31384
1,1-Dichloroethane	BRL	mg/kg	0.0046	0.00052	1	8260B	04/03/08 12:20	erussell	Q31384
1,1-Dichloroethene	BRL	mg/kg	0.0046	0.00078	1	8260B	04/03/08 12:20	erussell	Q31384
1,1-Dichloropropene	BRL	mg/kg	0.0046	0.00054	1	8260B	04/03/08 12:20	erussell	Q31384
1,2,3-Trichlorobenzene	BRL	mg/kg	0.0046	0.00052	1	8260B	04/03/08 12:20	erussell	Q31384
1,2,3-Trichloropropane	BRL	mg/kg	0.0046	0.00061	1	8260B	04/03/08 12:20	erussell	Q31384
1,2,4-Trichlorobenzene	BRL	mg/kg	0.0046	0.00059	1	8260B	04/03/08 12:20	erussell	Q31384
1,2,4-Trimethylbenzene	49	mg/kg	2.3	0.12	500	8260B	04/02/08 13:45	erussell	Q31384
1,2-Dibromoethane (EDB)	BRL	mg/kg	0.0046	0.00056	1	8260B	04/03/08 12:20	erussell	Q31384
1,2-Dichlorobenzene	BRL	mg/kg	0.0046	0.00029	1	8260B	04/03/08 12:20	erussell	Q31384
1,2-Dichloroethane	BRL	mg/kg	0.0046	0.00051	1	8260B	04/03/08 12:20	erussell	Q31384
1,2-Dichloropropane	BRL	mg/kg	0.0046	0.0011	1	8260B	04/03/08 12:20	erussell	Q31384
1,3,5-Trimethylbenzene	21	mg/kg	2.3	0.20	500	8260B	04/02/08 13:45	erussell	Q31384
1,3-Dichlorobenzene	BRL	mg/kg	0.0046	0.0003	1	8260B	04/03/08 12:20	erussell	Q31384
1,3-Dichloropropane	BRL	mg/kg	0.0046	0.00019	1	8260B	04/03/08 12:20	erussell	Q31384
1,4-Dichlorobenzene	BRL	mg/kg	0.0046	0.00058	1	8260B	04/03/08 12:20	erussell	Q31384
2,2-Dichloropropane	BRL	mg/kg	0.0046	0.00066	1	8260B	04/03/08 12:20	erussell	Q31384
2-Chlorotoluene	BRL	mg/kg	0.0046	0.00025	1	8260B	04/03/08 12:20	erussell	Q31384

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# **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607 Project Name: Richmond Co.

Project ID: NCDOT Parcel 68
Project No.: WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-S3
Prism Sample ID: 209583

COC Group: G0308735

Time Collected: 03/20/08 10:45 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
2-Hexanone	BRL	mg/kg	0.046	0.0039	1	8260B	04/03/08 12:20	erussell	Q31384
4-Chlorotoluene	BRL	mg/kg	0.0046	0.00034	1	8260B	04/03/08 12:20	erussell	Q31384
4-Methyl-2-pentanone (MIBK)	BRL	mg/kg	0.046	0.0047	1	8260B	04/03/08 12:20	erussell	Q31384
Acetone	0.071	mg/kg	0.046	0.014	1	8260B	04/03/08 12:20	erussell	Q31384
Benzene	0.012	mg/kg	0.0027	0.00038	1	8260B	04/03/08 12:20	erussell	Q31384
Bromobenzene	BRL	mg/kg	0.0046	0.00058	1	8260B	04/03/08 12:20	erussell	Q31384
Bromochloromethane	BRL	mg/kg	0.0046	0.00037	1	8260B	04/03/08 12:20	erussell	Q31384
Bromodichloromethane	BRL	mg/kg	0.0046	0.00049	1	8260B	04/03/08 12:20	erussell	Q31384
Bromoform	BRL	mg/kg	0.0046	0.00041	1	8260B	04/03/08 12:20	erussell	Q31384
Bromomethane	BRL	mg/kg	0.0091	0.0010	1	8260B	04/03/08 12:20	erussell	Q31384
Carbon tetrachloride	BRL	mg/kg	0.0046	0.0003	1	8260B	04/03/08 12:20	erussell	Q31384
Chlorobenzene	BRL	mg/kg	0.0046	0.00046	1	8260B	04/03/08 12:20	erussell	Q31384
Chlorodibromomethane	BRL	mg/kg	0.0046	0.00042	1	8260B	04/03/08 12:20	erussell	Q31384
Chloroethane	BRL	mg/kg	0.0091	0.0015	1	8260B	04/03/08 12:20	erussell	Q31384
Chloroform	BRL	mg/kg	0.0046	0.00076	1	8260B	04/03/08 12:20	erussell	Q31384
Chloromethane	BRL	mg/kg	0.0046	0.0011	1	8260B	04/03/08 12:20	erussell	Q31384
cis-1,2-Dichloroethene	BRL	mg/kg	0.0046	0.00073	1	8260B	04/03/08 12:20	erussell	Q31384
cis-1,3-Dichloropropene	BRL	mg/kg	0.0046	0.0006	1	8260B	04/03/08 12:20	erussell	Q31384
Dichlorodifluoromethane	BRL	mg/kg	0.0046	0.0013	1	8260B	04/03/08 12:20	erussell	Q31384
Ethylbenzene	7.3	mg/kg	2.3	0.11	500	8260B	04/02/08 13:45	erussell	Q31384
Isopropyl ether (IPE)	BRL	mg/kg	0.0046	0.00042	1	8260B	04/03/08 12:20	erussell	Q31384
Isopropylbenzene	2.8	mg/kg	0.23	0.013	50	8260B	04/02/08 13:07	erussell	Q31384
m,p-Xylenes	22	mg/kg	4.7	0.38	500	8260B	04/02/08 13:45	erussell	Q31384
Methyl ethyl ketone (MEK)	BRL	mg/kg	0.091	0.013	1	8260B	04/03/08 12:20	erussell	Q31384
Methyl t-butyl ether (MTBE)	BRL	mg/kg	0.0091	0.00038	1	8260B	04/03/08 12:20	erussell	Q31384
Methylene chloride	BRL	mg/kg	0.0046	0.00075	1	8260B	04/03/08 12:20	erussell	Q31384
n-Butylbenzene	2.5	mg/kg	0.23	0.017	50	8260B	04/02/08 13:07	erussell	Q31384



#### **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607 Project Name: Richmond Co.

Project ID:

NCDOT Parcel 68

Project No.:

WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-S3 Prism Sample ID: 209583

COC Group:

G0308735

10:45

Time Collected: 03/20/08

Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
n-Propylbenzene	4.9	mg/kg	0.23	0.015	50	8260B	04/02/08 13:07	erussell	Q31384
Naphthalene	21	mg/kg	4.7	0.28	500	8260B	04/02/08 13:45	erussell	Q31384
o-Xylene	0.019	mg/kg	0.0046	0.00019	1	8260B	04/03/08 12:20	erussell	Q31384
p-Isopropyltoluene	3.7	mg/kg	0.23	0.019	50	8260B	04/02/08 13:07	erussell	Q31384
sec-Butylbenzene	0.086	mg/kg	0.0046	0.00031	1	8260B	04/03/08 12:20	erussell	Q31384
Styrene	BRL	mg/kg	0.0046	0.00051	1	8260B	04/03/08 12:20	erussell	Q31384
tert-Butylbenzene	0.030	mg/kg	0.0046	0.00038	1	8260B	04/03/08 12:20	erussell	Q31384
Tetrachloroethene	BRL	mg/kg	0.0046	0.00041	1	8260B	04/03/08 12:20	erussell	Q31384
Toluene	0.025	mg/kg	0.0046	0.00034	1	8260B	04/03/08 12:20	erussell	Q31384
trans-1,2-Dichloroethene	BRL	mg/kg	0.0046	0.00058	1	8260B	04/03/08 12:20	erussell	Q31384
trans-1,3-Dichloropropene	BRL	mg/kg	0.0046	0.00054	1	8260B	04/03/08 12:20	erussell	Q31384
Trichloroethene	BRL	mg/kg	0.0046	0.00066	1	8260B	04/03/08 12:20	erussell	Q31384
Trichlorofluoromethane	BRL	mg/kg	0.0046	0.00081	1	8260B	04/03/08 12:20	erussell	Q31384
Vinyl acetate	BRL	mg/kg	0.023	0.0013	1	8260B	04/03/08 12:20	erussell	Q31384
Vinyl chloride	BRL	mg/kg	0.0046	0.00079	1	8260B	04/03/08 12:20	erussell	Q31384

Two surrogate recoveries were outside of the control limits. Matrix interference is suspected.

					Surrogate		% Re	covery	Con	trol Limits
					Toluene-	d8		139 #	ŧ	81 - 128
					Dibromof	luoromethane		87		67 - 143
					Bromoflu	orobenzene		330 #	ŧ	77 - 128
Semi-volatile Organic Compounds	s by GC/MS									
1,2,4-Trichlorobenzene	BRL	mg/kg	0.40	0.044	1	8270C	04/03/08	11:35	kcampigotto	Q31433
1,2-Dichlorobenzene	BRL	mg/kg	0.40	0.044	1	8270C	04/03/08	11:35	kcampigotto	Q31433
1,3-Dichlorobenzene	BRL	mg/kg	0.40	0.038	1	8270C	04/03/08	11:35	kcampigotto	Q31433
1,4-Dichlorobenzene	BRL	mg/kg	0.40	0.047	1	8270C	04/03/08	11:35	kcampigotto	Q31433
2,4,5-Trichlorophenol	BRL	mg/kg	0.40	0.047	1	8270C	04/03/08	11:35	kcampigotto	Q31433



## **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607 Project Name: Richmond Co.

Project ID: NCDOT Parcel 68
Project No.: WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-S3
Prism Sample ID: 209583
COC Group: G0308735

Time Collected: 03/20/08 10:45 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
2,4,6-Trichlorophenol	BRL	mg/kg	0.40	0.043	1	8270C	04/03/08 11:35	kcampigotto	Q31433
2,4-Dichlorophenol	BRL	mg/kg	0.40	0.026	1	8270C	04/03/08 11:35	kcampigotto	Q31433
2,4-Dimethylphenol	BRL	mg/kg	0.40	0.059	1	8270C	04/03/08 11:35	kcampigotto	Q31433
2,4-Dinitrophenol	BRL	mg/kg	2.0	0.11	1	8270C	04/03/08 11:35	kcampigotto	Q31433
2,4-Dinitrotoluene	BRL	mg/kg	0.40	0.052	1	8270C	04/03/08 11:35	kcampigotto	Q31433
2,6-Dinitrotoluene	BRL	mg/kg	0.40	0.072	1	8270C	04/03/08 11:35	kcampigotto	Q31433
2-Chloronaphthalene	BRL	mg/kg	0.40	0.050	1	8270C	04/03/08 11:35	kcampigotto	Q31433
2-Chlorophenol	BRL	mg/kg	0.40	0.017	1	8270C	04/03/08 11:35	kcampigotto	Q31433
2-Methylnaphthalene	1.7	mg/kg	0.40	0.044	1	8270C	04/03/08 11:35	kcampigotto	Q31433
2-Methylphenol	BRL	mg/kg	0.40	0.032	1	8270C	04/03/08 11:35	kcampigotto	Q31433
2-Nitrophenol	BRL	mg/kg	0.40	0.056	1	8270C	04/03/08 11:35	kcampigotto	Q31433
3&4-Methylphenol	BRL	mg/kg	0.40	0.046	1	8270C	04/03/08 11:35	kcampigotto	Q31433
3,3'-Dichlorobenzidine	BRL	mg/kg	0.79	0.072	1	8270C	04/03/08 11:35	kcampigotto	Q31433
4,6-Dinitro-2-methylphenol	BRL	mg/kg	2.0	0.034	1	8270C	04/03/08 11:35	kcampigotto	Q31433
4-Bromophenylphenylether	BRL	mg/kg	0.40	0.049	1	8270C	04/03/08 11:35	kcampigotto	Q31433
4-Chloro-3-methylphenol	BRL	mg/kg	0.79	0.047	1	8270C	04/03/08 11:35	kcampigotto	Q31433
4-Chloroaniline	BRL	mg/kg	0.40	0.029	1	8270C	04/03/08 11:35	kcampigotto	Q31433
4-Chlorophenylphenylether	BRL	mg/kg	0.40	0.050	1	8270C	04/03/08 11:35	kcampigotto	Q31433
4-Nitrophenol	BRL	mg/kg	2.0	0.051	1	8270C	04/03/08 11:35	kcampigotto	Q31433
Acenaphthene	BRL	mg/kg	0.40	0.054	1	8270C	04/03/08 11:35	kcampigotto	Q31433
Acenaphthylene	BRL	mg/kg	0.40	0.037	1	8270C	04/03/08 11:35	kcampigotto	Q31433
Anthracene	BRL	mg/kg	0.40	0.029	1	8270C	04/03/08 11:35	kcampigotto	Q31433
Azobenzene	BRL	mg/kg	2.0	0.058	1	8270C	04/03/08 11:35	kcampigotto	Q31433
Benzo(a)anthracene	BRL	mg/kg	0.40	0.045	1	8270C	04/03/08 11:35	kcampigotto	Q31433
Benzo(a)pyrene	BRL	mg/kg	0.40	0.050	1	8270C	04/03/08 11:35	kcampigotto	Q31433
Benzo(b)fluoranthene	BRL	mg/kg	0.40	0.081	1	8270C	04/03/08 11:35	kcampigotto	Q31433
Benzo(g,h,i)perylene	BRL	mg/kg	0.40	0.051	1	8270C	04/03/08 11:35	kcampigotto	Q31433

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## **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607 Project Name: Richmond Co.

Project ID: NCDO

Project No.:

NCDOT Parcel 68 WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-S3 Prism Sample ID: 209583

COC Group:

G0308735

Time Collected: 03/20/08

10:45

Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Benzo(k)fluoranthene	BRL	mg/kg	0.40	0.11	1	8270C	04/03/08 11:35 k	campigotto	Q31433
Benzoic acid	BRL	mg/kg	2.0	0.17	1	8270C	04/03/08 11:35 k	campigotto	Q31433
Benzyl alcohol	BRL	mg/kg	0.79	0.032	1	8270C	04/03/08 11:35 k	campigotto	Q31433
Bis(2-chloroethoxy)methane	BRL	mg/kg	0.40	0.067	1	8270C	04/03/08 11:35 k	campigotto	Q31433
Bis(2-chloroethyl)ether	BRL	mg/kg	0.40	0.049	1	8270C	04/03/08 11:35 kg	campigotto	Q31433
Bis(2-chloroisopropyl)ether	BRL	mg/kg	0.40	0.040	1	8270C	04/03/08 11:35 k	campigotto	Q31433
Bis(2-ethylhexyl)phthalate	BRL	mg/kg	0.40	0.031	1	8270C	04/03/08 11:35 kg	campigotto	Q31433
Butylbenzylphthalate	BRL	mg/kg	0.40	0.049	1	8270C	04/03/08 11:35 kg	campigotto	Q31433
Chrysene	BRL	mg/kg	0.40	0.027	1	8270C	04/03/08 11:35 kg	campigotto	Q31433
Di-n-butylphthalate	BRL	mg/kg	0.40	0.064	1	8270C	04/03/08 11:35 k	campigotto	Q31433
Di-n-octylphthalate	BRL	mg/kg	0.40	0.11	1	8270C	04/03/08 11:35 k	campigotto	Q31433
Dibenzo(a,h)anthracene	BRL	mg/kg	0.40	0.037	1	8270C	04/03/08 11:35 k	campigotto	Q31433
Dibenzofuran	BRL	mg/kg	0.40	0.048	1	8270C	04/03/08 11:35 k	campigotto	Q31433
Diethylphthalate	BRL	mg/kg	0.40	0.10	1	8270C	04/03/08 11:35 k	campigotto	Q31433
Dimethylphthalate	BRL	mg/kg	0.40	0.059	1	8270C	04/03/08 11:35 kg	campigotto	Q31433
Fluoranthene	BRL	mg/kg	0.40	0.070	1	8270C	04/03/08 11:35 k	campigotto	Q31433
Fluorene	BRL	mg/kg	0.40	0.057	1	8270C	04/03/08 11:35 k	campigotto	Q31433
Hexachlorobenzene	BRL	mg/kg	0.40	0.054	1	8270C	04/03/08 11:35 k	campigotto	Q31433
Hexachlorobutadiene	BRL	mg/kg	0.40	0.039	1	8270C	04/03/08 11:35 kg	campigotto	Q31433
Hexachlorocyclopentadiene	BRL	mg/kg	0.40	0.059	1	8270C	04/03/08 11:35 k	campigotto	Q31433
Hexachloroethane	BRL	mg/kg	0.40	0.016	1	8270C	04/03/08 11:35 k	campigotto	Q31433
Indeno(1,2,3-cd)pyrene	BRL	mg/kg	0.40	0.038	1	8270C	04/03/08 11:35 k	campigotto	Q31433
Isophorone	BRL	mg/kg	0.40	0.038	1	8270C	04/03/08 11:35 k	campigotto	Q31433
N-Nitrosodi-n-propylamine	BRL	mg/kg	0.40	0.023	1	8270C	04/03/08 11:35 k	campigotto	Q31433
N-Nitrosodiphenylamine	BRL	mg/kg	0.40	0.057	1	8270C	04/03/08 11:35 k	campigotto	Q31433
Naphthalene	4.6	mg/kg	2.0	0.24	5	8270C	04/03/08 21:43 k	campigotto	Q31433
Nitrobenzene	BRL	mg/kg	0.40	0.050	1	8270C	04/03/08 11:35 k	campigotto	Q31433



## **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607

Project Name: Richmond Co.

Project ID:

**NCDOT Parcel 68** 

Project No.:

WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-S3 Prism Sample ID: 209583

COC Group:

G0308735

Time Collected:

03/20/08

10:45 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analys Date/Ti		Analyst	Batch ID
Pentachlorophenol	BRL	mg/kg	2.0	0.061	1	8270C	04/03/08	11:35	kcampigotto	Q31433
Phenanthrene	BRL	mg/kg	0.40	0.034	1	8270C	04/03/08	11:35	kcampigotto	Q31433
Phenol	BRL	mg/kg	0.40	0.070	1	8270C	04/03/08	11:35	kcampigotto	Q31433
Pyrene	BRL	mg/kg	0.40	0.076	1	8270C	04/03/08	11:35	kcampigotto	Q31433
Sample Preparation:			29.	85 g /	1 mL	3550B	04/01/08	14:00	рвап	P21232
					Surrogate	•	% Re	covery	Con	trol Limits
					Terphenyl-	-d14		87		41 - 136
					Phenol-d5			85		13 - 95
					Nitrobenze	ene-d5		16		14 - 103
					2-Fluoroph	nenol		67		14 - 89
					2-Fluorobi	phenyl		103		21 - 108
					2,4,6-Tribr	omophenol		92		25 - 123
Extractable Petroleum Hydrocarbon	•									
C11-C22 Aromatics	BRL	mg/kg	12	2.1		MADEP EPH			grappaccioli	
C19-C36 Aliphatics	BRL	mg/kg	12	1.6		MADEP EPH			grappaccioli	
C9-C18 Aliphatics	75	mg/kg	12	1.1	1	MADEP EPH	04/07/08	19:20	grappaccioli	Q31512
Sample Preparation:			10.	<b>21</b> g /	2 mL	EPH	04/01/08	14:00	pbarr	P21233
					Surrogate	)	% Re	covery	Con	trol Limits
					o-Terphen	yl		99		40 - 140
					2-Fluorobi	phenyl		75		40 - 140
					2-Bromona	aphthalene		40		40 - 140
					1-Chloro-c	ctadecane	· · · · · · · · · · · · · · · · · · ·	80		40 - 140
Volatile Petroleum Hydrocarbons by			60	14	10	MADEDVOU	04/02/02	40:04	udorodlos	004500
C5-C8 Aliphatics	630	mg/kg	60	11		MADER VPH	04/03/08			Q31500
C9-C10 Aromatics	180	mg/kg	60	0.36	10	MADEP VPH	04/03/08	16:21	woradley	Q31500



#### **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607 Project Name: Richmond Co.

Project ID: N Project No.: W

NCDOT Parcel 68 WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-S3

Prism Sample ID: 209583 COC Group: G0308735

Time Collected: 03/20/08 10:45 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
C9-C12 Aliphatics	720	mg/kg	60	18	10	MADEP VPH	04/03/08 16:21 v	wbradley	Q31500

			Surrogate	% Recovery	Control Limits
			2,5-Dibromotoluene-PID	DO #	70 - 130
			2,5-Dibromotoluene-FID	DO #	70 - 130
Sample Weight Determination					
Weight 1	13.43	g	1 MADEP VPH	03/26/08 0:00 Ibrowr	1
Weight 2	13.42	g	1 MADEP VPH	03/26/08 0:00 lbrown	ı

#### Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

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

All results are reported on a dry-weight basis



## **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607 Project Name: Richmond Co.

Project ID: NCDOT Parcel 68
Project No.: WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-W1
Prism Sample ID: 209584
COC Group: G030873

COC Group: G0308735 Time Collected: 03/20/08 14:15

Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Percent Solids Determination Percent Solids	93.2	%			1	SM2540 G	03/27/08 11:30	mbarber	The second secon
Sample Weight Determination Weight Bisulfate 1	5.47	g			1	5035	03/26/08 0:00	lbrown	
Weight Bisulfate 2	5.48	g			1	5035	03/26/08 0:00	lbrown	
Weight Methanol	4.90	g			1	5035	03/26/08 0:00	lbrown	
Volatile Organic Compounds by G									
1,1,1-Trichloroethane	BRL	mg/kg		0.00061	1	8260B	04/01/08 15:42	•	Q31361
1,1,2,2-Tetrachloroethane	BRL	mg/kg		0.00037	1	8260B	04/01/08 15:42		Q31361
1,1,2-Trichloroethane	BRL	mg/kg		0.00055	1	8260B	04/01/08 15:42	-	Q31361
1,1-Dichloroethane	BRL	mg/kg		0.00059	1	8260B	04/01/08 15:42		Q31361
1,1-Dichloroethene	BRL	mg/kg		0.00089	1	8260B	04/01/08 15:42		Q31361
1,1-Dichloropropene	BRL	mg/kg	0.0052	0.00061	1	8260B	04/01/08 15:42	lwitry	Q31361
1,2,3-Trichlorobenzene	BRL	mg/kg	0.0052	0.00059	1	8260B	04/01/08 15:42	lwitry	Q31361
1,2,3-Trichloropropane	BRL	mg/kg	0.0052	0.0007	1	8260B	04/01/08 15:42	lwitry	Q31361
1,2,4-Trichlorobenzene	BRL	mg/kg	0.0052	0.00067	1	8260B	04/01/08 15:42	lwitry	Q31361
1,2,4-Trimethylbenzene	BRL	mg/kg	0.0052	0.00026	1	8260B	04/01/08 15:42	lwitry	Q31361
1,2-Dibromoethane (EDB)	BRL	mg/kg	0.0052	0.00064	1	8260B	04/01/08 15:42	lwitry	Q31361
1,2-Dichlorobenzene	BRL	mg/kg	0.0052	0.00033	1	8260B	04/01/08 15:42	lwitry	Q31361
1,2-Dichloroethane	BRL	mg/kg	0.0052	0.00058	1	8260B	04/01/08 15:42	lwitry	Q31361
1,2-Dichloropropane	BRL	mg/kg	0.0052	0.0013	1	8260B	04/01/08 15:42	lwitry	Q31361
1,3,5-Trimethylbenzene	BRL	mg/kg	0.0052	0.00044	1	8260B	04/01/08 15:42	lwitry	Q31361
1,3-Dichlorobenzene	BRL	mg/kg	0.0052	0.00034	1	8260B	04/01/08 15:42	lwitry	Q31361
1,3-Dichloropropane	BRL	mg/kg	0.0052	0.00022	1	8260B	04/01/08 15:42	lwitry	Q31361
1,4-Dichlorobenzene	BRL	mg/kg	0.0052	0.00066	1	8260B	04/01/08 15:42	lwitry	Q31361
2,2-Dichloropropane	BRL	mg/kg	0.0052	0.00075	1	8260B	04/01/08 15:42	lwitry	Q31361
2-Chlorotoluene	BRL	mg/kg	0.0052	0.00029	1	8260B	04/01/08 15:42	lwitry	Q31361

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#### **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607

Project ID:

Project Name: Richmond Co.

Project No.:

NCDOT Parcel 68 WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-W1 Prism Sample ID: 209584

COC Group:

G0308735

Time Collected:

03/20/08

14:15 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
2-Hexanone	BRL.	mg/kg	0.052	0.0045	1	8260B	04/01/08 15:42	lwitry	Q31361
4-Chlorotoluene	BRL	mg/kg	0.0052	0.00038	1	8260B	04/01/08 15:42	lwitry	Q31361
4-Methyl-2-pentanone (MIBK)	BRL	mg/kg	0.052	0.0054	1	8260B	04/01/08 15:42	lwitry	Q31361
Acetone	0.059	mg/kg	0.052	0.015	1	8260B	04/01/08 15:42	lwitry	Q31361
Benzene	BRL	mg/kg	0.0031	0.00044	1	8260B	04/01/08 15:42	lwitry	Q31361
Bromobenzene	BRL.	mg/kg	0.0052	0.00066	1	8260B	04/01/08 15:42	lwitry	Q31361
Bromochloromethane	BRL	mg/kg	0.0052	0.00043	1	8260B	04/01/08 15:42	lwitry	Q31361
Bromodichloromethane	BRL	mg/kg	0.0052	0.00056	1	8260B	04/01/08 15:42	lwitry	Q31361
Bromoform	BRL	mg/kg	0.0052	0.00047	1	8260B	04/01/08 15:42	lwitry	Q31361
Bromomethane	BRL	mg/kg	0.010	0.0012	1	8260B	04/01/08 15:42	lwitry	Q31361
Carbon tetrachloride	BRL	mg/kg	0.0052	0.00034	1	8260B	04/01/08 15:42	lwitry	Q31361
Chlorobenzene	BRL	mg/kg	0.0052	0.00053	1	8260B	04/01/08 15:42	lwitry	Q31361
Chlorodibromomethane	BRL	mg/kg	0.0052	0.00048	1	8260B	04/01/08 15:42	lwitry	Q31361
Chloroethane	BRL	mg/kg	0.010	0.0017	1	8260B	04/01/08 15:42	lwitry	Q31361
Chloroform	BRL	mg/kg	0.0052	0.00086	1	8260B	04/01/08 15:42	lwitry	Q31361
Chloromethane	BRL	mg/kg	0.0052	0.0012	1	8260B	04/01/08 15:42	lwitry	Q31361
cis-1,2-Dichloroethene	BRL	mg/kg	0.0052	0.00083	1	8260B	04/01/08 15:42	lwitry	Q31361
cis-1,3-Dichloropropene	BRL	mg/kg	0.0052	0.00068	1	8260B	04/01/08 15:42	lwitry	Q31361
Dichlorodifluoromethane	BRL	mg/kg	0.0052	0.0014	1	8260B	04/01/08 15:42	lwitry	Q31361
Ethylbenzene	BRL	mg/kg	0.0052	0.00024	1	8260B	04/01/08 15:42	lwitry	Q31361
Isopropyl ether (IPE)	BRL	mg/kg	0.0052	0.00048	1	8260B	04/01/08 15:42	lwitry	Q31361
Isopropylbenzene	BRL	mg/kg	0.0052	0.0003	1	8260B	04/01/08 15:42	lwitry	Q31361
m,p-Xylenes	BRL	mg/kg	0.010	0.00085	1	8260B	04/01/08 15:42	lwitry	Q31361
Methyl ethyl ketone (MEK)	BRL	mg/kg	0.10	0.015	1	8260B	04/01/08 15:42	lwitry	Q31361
Methyl t-butyl ether (MTBE)	BRI.	mg/kg	0.010	0.00044	1	8260B	04/01/08 15:42	lwitry	Q31361
Methylene chloride	BRL.	mg/kg	0.0052	0.00085	1	8260B	04/01/08 15:42	lwitry	Q31361
n-Butylbenzene	BRL	mg/kg	0.0052	0.00037	1	8260B	04/01/08 15:42	lwitry	Q31361

Phone: 704/529-6364 - Toll Free Number: 1-800/529-6364 - Fax: 704/525-0409



## **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607 Project Name: Richmond Co.

Project ID: NCDOT Parcel 68
Project No.: WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-W1
Prism Sample ID: 209584
COC Group: G0308735

Time Collected: 03/20/08 14:15 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
n-Propylbenzene	BRL	mg/kg	0.0052	0.00034	1	8260B	04/01/08 15:42	lwitry	Q31361
Naphthalene	BRL	mg/kg	0.010	0.00062	1	8260B	04/01/08 15:42	lwitry	Q31361
o-Xylene	BRL	mg/kg	0.0052	0.00022	1	8260B	04/01/08 15:42	lwitry	Q31361
p-Isopropyltoluene	BRL	mg/kg	0.0052	0.00042	1	8260B	04/01/08 15:42	lwitry	Q31361
sec-Butylbenzene	BRL	mg/kg	0.0052	0.00035	1	8260B	04/01/08 15:42	lwitry	Q31361
Styrene	BRL	mg/kg	0.0052	0.00058	1	8260B	04/01/08 15:42	lwitry	Q31361
tert-Butylbenzene	BRL	mg/kg	0.0052	0.00044	1	8260B	04/01/08 15:42	lwitry	Q31361
Tetrachloroethene	BRL	mg/kg	0.0052	0.00047	1	8260B	04/01/08 15:42	lwitry	Q31361
Toluene	BRL	mg/kg	0.0052	0.00038	1	8260B	04/01/08 15:42	lwitry	Q31361
trans-1,2-Dichloroethene	BRL.	mg/kg	0.0052	0.00066	1	8260B	04/01/08 15:42	lwitry	Q31361
trans-1,3-Dichloropropene	BRL	mg/kg	0.0052	0.00061	1	8260B	04/01/08 15:42	lwitry	Q31361
Trichloroethene	BRL	mg/kg	0.0052	0.00076	1	8260B	04/01/08 15:42	lwitry	Q31361
Trichlorofluoromethane	BRL	mg/kg	0.0052	0.00092	1	8260B	04/01/08 15:42	lwitry	Q31361
Vinyl acetate	BRL	mg/kg	0.026	0.0015	1	8260B	04/01/08 15:42	lwitry	Q31361
Vinyl chloride	BRL	mg/kg	0.0052	0.0009	1	8260B	04/01/08 15:42	lwitry	Q31361

					Surrogat	te	% Re	covery	Con	trol Limits
					Toluene	d8	·	97		81 - 128
					Dibromof	luoromethane		111		67 - 143
					Bromoflu	orobenzene		109		77 - 128
Semi-volatile Organic Compound	ds by GC/MS									
1,2,4-Trichlorobenzene	BRL	mg/kg	0.36	0.040	1	8270C	04/03/08	20:05	kcampigotto	Q31433
1,2-Dichlorobenzene	BRL	mg/kg	0.36	0.040	1	8270C	04/03/08	20:05	kcampigotto	Q31433
1,3-Dichlorobenzene	BRL	mg/kg	0.36	0.035	1	8270C	04/03/08	20:05	kcampigotto	Q31433
1,4-Dichlorobenzene	BRL	mg/kg	0.36	0.043	1	8270C	04/03/08	20:05	kcampigotto	Q31433
2,4,5-Trichlorophenol	BRL	mg/kg	0.36	0.042	1	8270C	04/03/08	20:05	kcampigotto	Q31433
2,4,6-Trichlorophenol	BRL	mg/kg	0.36	0.039	1	8270C	04/03/08	20:05	kcampigotto	Q31433

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## **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607

Project Name: Richmond Co.

Project ID:

NCDOT Parcel 68

Project No.:

WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-W1

Prism Sample ID: 209584 COC Group:

G0308735

Time Collected:

03/20/08 14:15 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
2,4-Dichlorophenol	BRL.	mg/kg	0.36	0.023	1	8270C	04/03/08 20:05	kcampigotto	Q31433
2,4-Dimethylphenol	BRL	mg/kg	0.36	0.053	1	8270C	04/03/08 20:05	kcampigotto	Q31433
2,4-Dinitrophenol	BRL	mg/kg	1.8	0.10	1	8270C	04/03/08 20:05	kcampigotto	Q31433
2,4-Dinitrotoluene	BRL	mg/kg	0.36	0.047	1	8270C	04/03/08 20:05	kcampigotto	Q31433
2,6-Dinitrotoluene	BRL	mg/kg	0.36	0.065	1	8270C	04/03/08 20:05	kcampigotto	Q31433
2-Chloronaphthalene	BRL	mg/kg	0.36	0.045	1	8270C	04/03/08 20:05	kcampigotto	Q31433
2-Chlorophenol	BRL	mg/kg	0.36	0.015	1	8270C	04/03/08 20:05	kcampigotto	Q31433
2-Methylnaphthalene	BRL	mg/kg	0.36	0.040	1	8270C	04/03/08 20:05	kcampigotto	Q31433
2-Methylphenol	BRL.	mg/kg	0.36	0.029	1	8270C	04/03/08 20:05	kcampigotto	Q31433
2-Nitrophenol	BRL	mg/kg	0.36	0.050	1	8270C	04/03/08 20:05	kcampigotto	Q31433
3&4-Methylphenol	BRL	mg/kg	0.36	0.042	1	8270C	04/03/08 20:05	kcampigotto	Q31433
3,3'-Dichlorobenzidine	BRL	mg/kg	0.72	0.065	1	8270C	04/03/08 20:05	kcampigotto	Q31433
4,6-Dinitro-2-methylphenol	BRL	mg/kg	1.8	0.031	1	8270C	04/03/08 20:05	kcampigotto	Q31433
4-Bromophenylphenylether	BRL	mg/kg	0.36	0.045	1	8270C	04/03/08 20:05	kcampigotto	Q31433
4-Chloro-3-methylphenol	BRL	mg/kg	0.72	0.042	1	8270C	04/03/08 20:05	kcampigotto	Q31433
4-Chloroaniline	BRL	mg/kg	0.36	0.027	1	8270C	04/03/08 20:05	kcampigotto	Q31433
4-Chlorophenylphenylether	BRL	mg/kg	0.36	0.045	1	8270C	04/03/08 20:05	kcampigotto	Q31433
4-Nitrophenol	BRL	mg/kg	1.8	0.046	1	8270C	04/03/08 20:05	kcampigotto	Q31433
Acenaphthene	BRL	mg/kg	0.36	0.049	1	8270C	04/03/08 20:05	kcampigotto	Q31433
Acenaphthylene	BRL	mg/kg	0.36	0.034	1	8270C	04/03/08 20:05	kcampigotto	Q31433
Anthracene	BRL	mg/kg	0.36	0.026	1	8270C	04/03/08 20:05	kcampigotto	Q31433
Azobenzene	BRL	mg/kg	1.8	0.052	1	8270C	04/03/08 20:05	kcampigotto	Q31433
Benzo(a)anthracene	BRL	mg/kg	0.36	0.040	1	8270C	04/03/08 20:05	kcampigotto	Q31433
Benzo(a)pyrene	BRL	mg/kg	0.36	0.045	1	8270C	04/03/08 20:05	kcampigotto	Q31433
Benzo(b)fluoranthene	BRL	mg/kg	0.36	0.073	1	8270C	04/03/08 20:05	kcampigotto	Q31433
Benzo(g,h,i)perylene	BRL	mg/kg	0.36	0.046	1	8270C	04/03/08 20:05	kcampigotto	Q31433
Benzo(k)fluoranthene	BRL	mg/kg	0.36	0.096	1	8270C	04/03/08 20:05	kcampigotto	Q31433



## **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607

Project ID:

Project Name: Richmond Co. NCDOT Parcel 68

Project No.:

WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-W1 Prism Sample ID: 209584

COC Group:

G0308735

Time Collected: 03/20/08 14:15 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Benzoic acid	BRL	mg/kg	1.8	0.15	1	8270C	04/03/08 20:05	kcampigotto	Q31433
Benzyi alcohol	BRL	mg/kg	0.72	0.029	1	8270C	04/03/08 20:05	kcampigotto	Q31433
Bis(2-chloroethoxy)methane	BRL	mg/kg	0.36	0.061	1	8270C	04/03/08 20:05	kcampigotto	Q31433
Bis(2-chloroethyl)ether	BRL	mg/kg	0.36	0.044	1	8270C	04/03/08 20:05	kcampigotto	Q31433
Bis(2-chloroisopropyl)ether	BRL	mg/kg	0.36	0.036	1	8270C	04/03/08 20:05	kcampigotto	Q31433
Bis(2-ethylhexyl)phthalate	BRL	mg/kg	0.36	0.028	1	8270C	04/03/08 20:05	kcampigotto	Q31433
Butylbenzylphthalate	BRL	mg/kg	0.36	0.044	1	8270C	04/03/08 20:05	kcampigotto	Q31433
Chrysene	BRL	mg/kg	0.36	0.024	1	8270C	04/03/08 20:05	kcampigotto	Q31433
Di-n-butylphthalate	BRL	mg/kg	0.36	0.057	1	8270C	04/03/08 20:05	kcampigotto	Q31433
Di-n-octylphthalate	BRL.	mg/kg	0.36	0.10	1	8270C	04/03/08 20:05	kcampigotto	Q31433
Dibenzo(a,h)anthracene	BRL	mg/kg	0.36	0.033	1	8270C	04/03/08 20:05	kcampigotto	Q31433
Dibenzofuran	BRL	mg/kg	0.36	0.044	1	8270C	04/03/08 20:05	kcampigotto	Q31433
Diethylphthalate	BRL	mg/kg	0.36	0.092	1	8270C	04/03/08 20:05	kcampigotto	Q31433
Dimethylphthalate	BRL	mg/kg	0.36	0.053	1	8270C	04/03/08 20:05	kcampigotto	Q31433
Fluoranthene	BRL	mg/kg	0.36	0.063	1	8270C	04/03/08 20:05	kcampigotto	Q31433
Fluorene	BRL	mg/kg	0.36	0.051	1	8270C	04/03/08 20:05	kcampigotto	Q31433
Hexachlorobenzene	BRL	mg/kg	0.36	0.049	1	8270C	04/03/08 20:05	kcampigotto	Q31433
Hexachlorobutadiene	BRL	mg/kg	0.36	0.036	1	8270C	04/03/08 20:05	kcampigotto	Q31433
Hexachlorocyclopentadiene	BRL	mg/kg	0.36	0.053	1	8270C	04/03/08 20:05	kcampigotto	Q31433
Hexachloroethane	BRL	mg/kg	0.36	0.015	1	8270C	04/03/08 20:05	kcampigotto	Q31433
ndeno(1,2,3-cd)pyrene	BRL	mg/kg	0.36	0.034	1	8270C	04/03/08 20:05	kcampigotto	Q31433
sophorone	BRL	mg/kg	0.36	0.034	1	8270C	04/03/08 20:05	kcampigotto	Q31433
N-Nitrosodi-n-propylamine	BRL	mg/kg	0.36	0.021	1	8270C	04/03/08 20:05	kcampigotto	Q31433
N-Nitrosodiphenylamine	BRL	mg/kg	0.36	0.052	1	8270C	04/03/08 20:05	kcampigotto	Q31433
Naphthalene	BRL	mg/kg	0.36	0.043	1	8270C	04/03/08 20:05	kcampigotto	Q31433
Nitrobenzene	BRL	mg/kg	0.36	0.045	1	8270C	04/03/08 20:05	kcampigotto	Q31433
Pentachlorophenol	BRL.	mg/kg	1.8	0.055	1	8270C	04/03/08 20:05	kcampigotto	Q31433



## **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607 Project Name: Richmond Co.

Project ID: N

NCDOT Parcel 68

Project No.:

WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-W1 Prism Sample ID: 209584

COC Group:

G0308735

Time Collected: 03/20/08 14:15 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Phenanthrene	BRL	mg/kg	0.36	0.030	1	8270C	04/03/08 20:05	kcampigotto	Q31433
Phenol	BRL	mg/kg	0.36	0.063	1	8270C	04/03/08 20:05	kcampigotto	Q31433
Pyrene	BRL	mg/kg	0.36	0.068	1	8270C	04/03/08 20:05	keampigotto	Q31433
Sample Preparation:			2	9.63 g /	1 mL	3550B	04/01/08 14:00	) pbarr	P21232
					Surrogate	)	% Recover	y Con	trol Limits
					Terphenyl	-d14	86		41 - 136
					Phenol-d5	i	89		13 - 95
					Nitrobenze	ene-d5	82		14 - 103
					2-Fluoroph	nenol	66		14 - 89
					2-Fluorobi	phenyl	98		21 - 108
					2,4,6-Trib	romophenol	96		25 <b>- 12</b> 3
Extractable Petroleum Hydrocarbons C11-C22 Aromatics	s by GC-FID BRL	mg/kg	11	1.9	1	MADEP EPH	04/07/08 21:55	S grapnaccioli	Q31512
C19-C36 Aliphatics	BRL	mg/kg	11	1.5	1	MADEP EPH	04/07/08 21:03		Q31512
C9-C18 Aliphatics	BRL	mg/kg	11	0.98	1	MADEP EPH	04/07/08 21:03		Q31512
Sample Preparation:				9.83 g /	2 mL	EPH	04/01/08 14:00	) pbarr	P21233
					Surrogate	•	% Recover	y Con	trol Limits
					o-Terpher	ıyl	120		40 - 140
					2-Fluorobi	phenyl	52		40 - 140
					2-Bromon	aphthalene	105		40 - 140
					1-Chloro-c	octadecane	101		40 - 140
Volatile Petroleum Hydrocarbons by		•							
C5-C8 Aliphatics	BRL	mg/kg	5.4	1.0	1	MADEP VPH	04/03/08 13:32		Q31500
C9-C10 Aromatics	BRL	mg/kg	5.4	0.032	1	MADEP VPH	04/03/08 13:32	2 wbradley	Q31500
C9-C12 Aliphatics	BRL	mg/kg	5.4	1.7	1	MADEP VPH	04/03/08 13:32	2 wbradley	Q31500



#### **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607

Project Name: Richmond Co.

Project ID:

NCDOT Parcel 68

Project No.:

WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-W1

Prism Sample ID: 209584

COC Group:

G0308735

Time Collected: 03/20/08 14:15 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL			Analysis Date/Time	Analyst	Batch ID
					Surrogate	<b>)</b>	% Recovery	Cor	ntrol Limits
					2,5-Dibromotoluene-PID 2,5-Dibromotoluene-FID		104		70 - 130
							117		70 - 130
Sample Weight Determination									
Weight 1	17.46	g			1	MADEP VPH	03/26/08 0:00	Ibrown	
Weight 2	20.53	g			1	MADEP VPH	03/26/08 0:00	Ibrown	

#### Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

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



#### **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607 Project Name: Richmond Co.

Project ID: N
Project No.: W

NCDOT Parcel 68 WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-W2 Prism Sample ID: 209585

COC Group:

G0308735

Time Collected: 03/20/08 14:20 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Percent Solids Determination Percent Solids	93.0	%			1	SM2540 G	03/27/08 11:30	mbarber	
Sample Weight Determination Weight Bisulfate 1	5.62	g			1	5035	03/26/08 0:00	lbrown	
Weight Bisulfate 2	5.66	g			1	5035	03/26/08 0:00	lbrown	
Weight Methanol	5.70	g			1	5035	03/26/08 0:00	lbrown	
Volatile Organic Compounds by G	C/MS								
1,1,1-Trichloroethane	BRL	mg/kg		0.00056	1	8260B	04/01/08 16:26	·	Q31361
1,1,2,2-Tetrachloroethane	BRL	mg/kg		0.00034	1	8260B	04/01/08 16:26	•	Q31361
1,1,2-Trichloroethane	BRL	mg/kg		0.00051	1	8260B	04/01/08 16:26	-	Q31361
1,1-Dichloroethane	BRL	mg/kg	0.0048	0.00055	1	8260B	04/01/08 16:26	Witry	Q31361
1,1-Dichloroethene	BRL	mg/kg	0.0048	0.00082	1	8260B	04/01/08 16:26	i lwitry	Q31361
1,1-Dichloropropene	BRL	mg/kg	0.0048	0.00056	1	8260B	04/01/08 16:26	lwitry	Q31361
1,2,3-Trichlorobenzene	BRL	mg/kg	0.0048	0.00055	1	8260B	04/01/08 16:26	i lwitry	Q31361
1,2,3-Trichloropropane	BRL	mg/kg	0.0048	0.00064	1	8260B	04/01/08 16:26	Witry	Q31361
1,2,4-Trichlorobenzene	BRL	mg/kg	0.0048	0.00062	1	8260B	04/01/08 16:26	i lwitry	Q31361
1,2,4-Trimethylbenzene	BRL	mg/kg	0.0048	0.00024	1	8260B	04/01/08 16:26	Witry	Q31361
1,2-Dibromoethane (EDB)	BRL	mg/kg	0.0048	0.00059	1	8260B	04/01/08 16:26	Witry	Q31361
1,2-Dichlorobenzene	BRL	mg/kg	0.0048	0.00031	1	8260B	04/01/08 16:26	i lwitry	Q31361
1,2-Dichloroethane	BRL	mg/kg	0.0048	0.00054	1	8260B	04/01/08 16:26	i lwitry	Q31361
1,2-Dichloropropane	BRL	mg/kg	0.0048	0.0012	1	8260B	04/01/08 16:26	witry	Q31361
1,3,5-Trimethylbenzene	BRL	mg/kg	0.0048	0.0004	1	8260B	04/01/08 16:26	witry	Q31361
1,3-Dichlorobenzene	BRL	mg/kg	0.0048	0.00032	1	8260B	04/01/08 16:26	Witry	Q31361
1,3-Dichloropropane	BRL	mg/kg	0.0048	0.0002	1	8260B	04/01/08 16:26	Witry	Q31361
1,4-Dichlorobenzene	BRL	mg/kg	0.0048	0.00061	1	8260B	04/01/08 16:26	i witry	Q31361
2,2-Dichloropropane	BRL	mg/kg	0.0048	0.00069	1	8260B	04/01/08 16:26	i lwitry	Q31361
2-Chlorotoluene	BRL	mg/kg	0.0048	0.00027	1	8260B	04/01/08 16:26	i lwitry	Q31361

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## **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607 Project Name: Richmond Co.

Project ID: NCDOT Parcel 68
Project No.: WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-W2
Prism Sample ID: 209585
COC Group: G0308735

Time Collected: 03/20/08 14:20 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
2-Hexanone	BRL	mg/kg	0.048	0.0041	1	8260B	04/01/08 16:26	lwitry	Q31361
4-Chlorotoluene	BRL	mg/kg	0.0048	0.00035	1	8260B	04/01/08 16:26	lwitry	Q31361
4-Methyl-2-pentanone (MIBK)	BRL	mg/kg	0.048	0.0050	1	8260B	04/01/08 16:26	lwitry	Q31361
Acetone	0.066	mg/kg	0.048	0.014	1	8260B	04/01/08 16:26	lwitry	Q31361
Benzene	BRL	mg/kg	0.0029	0.0004	1	8260B	04/01/08 16:26	lwitry	Q31361
Bromobenzene	BRL	mg/kg	0.0048	0.00061	1	8260B	04/01/08 16:26	lwitry	Q31361
Bromochloromethane	BRL	mg/kg	0.0048	0.00039	1	8260B	04/01/08 16:26	lwitry	Q31361
Bromodichloromethane	BRL	mg/kg	0.0048	0.00052	1	8260B	04/01/08 16:26	lwitry	Q31361
Bromoform	BRL	mg/kg	0.0048	0.00043	1	8260B	04/01/08 16:26	lwitry	Q31361
Bromomethane	BRL	mg/kg	0.0096	0.0011	1	8260B	04/01/08 16:26	lwitry	Q31361
Carbon tetrachloride	BRL	mg/kg	0.0048	0.00032	1	8260B	04/01/08 16:26	lwitry	Q31361
Chlorobenzene	BRL.	mg/kg	0.0048	0.00049	1	8260B	04/01/08 16:26	lwitry	Q31361
Chlorodibromomethane	BRL	mg/kg	0.0048	0.00044	1	8260B	04/01/08 16:26	lwitry	Q31361
Chloroethane	BRL	mg/kg	0.0096	0.0016	1	8260B	04/01/08 16:26	lwitry	Q31361
Chloroform	BRL	mg/kg	0.0048	0.00079	1	8260B	04/01/08 16:26	lwitry	Q31361
Chloromethane	BRL	mg/kg	0.0048	0.0011	1	8260B	04/01/08 16:26	lwitry	Q31361
cis-1,2-Dichloroethene	BRL	mg/kg	0.0048	0.00077	1	8260B	04/01/08 16:26	lwitry	Q31361
cis-1,3-Dichloropropene	BRL	mg/kg	0.0048	0.00063	1	8260B	04/01/08 16:26	lwitry	Q31361
Dichlorodifluoromethane	BRL	mg/kg	0.0048	0.0013	1	8260B	04/01/08 16:26	lwitry	Q31361
Ethylbenzene	BRL.	mg/kg	0.0048	0.00022	1	8260B	04/01/08 16:26	lwitry	Q31361
Isopropyl ether (IPE)	BRL	mg/kg	0.0048	0.00044	1	8260B	04/01/08 16:26	lwitry	Q31361
Isopropylbenzene	BRL	mg/kg	0.0048	0.00028	1	8260B	04/01/08 16:26	lwitry	Q31361
m,p-Xylenes	BRL	mg/kg	0.0096	0.00078	1	8260B	04/01/08 16:26	lwitry	Q31361
Methyl ethyl ketone (MEK)	BRL	mg/kg	0.096	0.014	1	8260B	04/01/08 16:26	lwitry	Q31361
Methyl t-butyl ether (MTBE)	BRL	mg/kg	0.0096	0.0004	1	8260B	04/01/08 16:26	lwitry	Q31361
Methylene chloride	BRL	mg/kg	0.0048	0.00078	1	8260B	04/01/08 16:26	lwitry	Q31361
n-Butylbenzene	BRL	mg/kg	0.0048	0.00034	1	8260B	04/01/08 16:26	lwitry	Q31361



#### **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607 Project Name: Richmond Co.

Project ID: Project No.: NCDOT Parcel 68 WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-W2 Prism Sample ID: 209585

COC Group:

G0308735

Time Collected: 03/20/08 14:20 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
n-Propylbenzene	BRL	mg/kg	0.0048	0.00032	1	8260B	04/01/08 16:26 W	witry	Q31361
Naphthalene	BRL	mg/kg	0.0096	0.00057	1	8260B	04/01/08 16:26 N	witry	Q31361
o-Xylene	BRL	mg/kg	0.0048	0.0002	1	8260B	04/01/08 16:26 N	witry	Q31361
p-!sopropyltoluene	BRL	mg/kg	0.0048	0.00038	1	8260B	04/01/08 16:26 N	witry	Q31361
sec-Butylbenzene	BRL	mg/kg	0.0048	0.00033	1	8260B	04/01/08 16:26 lv	witry	Q31361
Styrene	BRL	mg/kg	0.0048	0.00054	1	8260B	04/01/08 16:26 lv	witry	Q31361
tert-Butylbenzene	BRL	mg/kg	0.0048	0.0004	1	8260B	04/01/08 16:26 lv	witry	Q31361
Tetrachloroethene	BRL	mg/kg	0.0048	0.00043	1	8260B	04/01/08 16:26 lv	witry	Q31361
Toluene	BRL	mg/kg	0.0048	0.00035	1	8260B	04/01/08 16:26 lv	witry	Q31361
trans-1,2-Dichloroethene	BRL	mg/kg	0.0048	0.00061	1	8260B	04/01/08 16:26 lv	witry	Q31361
trans-1,3-Dichloropropene	BRL	mg/kg	0.0048	0.00056	1	8260B	04/01/08 16:26 N	witry	Q31361
Trichloroethene	BRL	mg/kg	0.0048	0.0007	1	8260B	04/01/08 16:26 lv	witry	Q31361
Trichlorofluoromethane	BRL	mg/kg	0.0048	0.00085	1	8260B	04/01/08 16:26 lv	witry	Q31361
Vinyl acetate	BRL	mg/kg	0.024	0.0013	1	8260B	04/01/08 16:26 lv	witry	Q31361
Vinyl chloride	BRL	mg/kg	0.0048	0.00083	1	8260B	04/01/08 16:26 lv	witry	Q31361

					Surroga	te	% Re	covery	Con	trol Limits
					Toluene-	d8		93		81 - 128
					Dibromo	luoromethane		107		67 - 143
					Bromoflu	orobenzene		102		77 - 128
Semi-volatile Organic Compound	s by GC/MS									
1,2,4-Trichlorobenzene	BRL	mg/kg	0.36	0.039	1	8270C	04/03/08	19:16	kcampigotto	Q31433
1,2-Dichlorobenzene	BRL	mg/kg	0.36	0.039	1	8270C	04/03/08	19:16	kcampigotto	Q31433
1,3-Dichlorobenzene	BRL	mg/kg	0.36	0.034	1	8270C	04/03/08	19:16	kcampigotto	Q31433
1,4-Dichlorobenzene	BRL	mg/kg	0.36	0.042	1	8270C	04/03/08	19:16	kcampigotto	Q31433
2,4,5-Trichlorophenol	BRL	mg/kg	0.36	0.042	1	8270C	04/03/08	19:16	kcampigotto	Q31433
2,4,6-Trichlorophenol	BRL	mg/kg	0.36	0.038	1	8270C	04/03/08	19:16	kcampigotto	Q31433

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## **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607 Project Name: Richmond Co.

Project ID: NCDOT Parcel 68
Project No.: WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-W2
Prism Sample ID: 209585
COC Group: G030873

COC Group: G0308735

Time Collected: 03/20/08 14:20 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDŁ	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
2,4-Dichlorophenol	BRL	mg/kg	0.36	0.023	1	8270C	04/03/08 19:16	kcampigotto	Q31433
2,4-Dimethylphenol	BRL	mg/kg	0.36	0.053	1	8270C	04/03/08 19:16	kcampigotto	Q31433
2,4-Dinitrophenol	BRL	mg/kg	1.8	0.10	1	8270C	04/03/08 19:16	kcampigotto	Q31433
2,4-Dinitrotoluene	BRL	mg/kg	0.36	0.047	1	8270C	04/03/08 19:16	kcampigotto	Q31433
2,6-Dinitrotoluene	BRL	mg/kg	0.36	0.064	1	8270C	04/03/08 19:16	kcampigotto	Q31433
2-Chloronaphthalene	BRL	mg/kg	0.36	0.045	1	8270C	04/03/08 19:16	kcampigotto	Q31433
2-Chlorophenol	BRL	mg/kg	0.36	0.015	1	8270C	04/03/08 19:16	kcampigotto	Q31433
2-Methylnaphthalene	BRL	mg/kg	0.36	0.040	1	8270C	04/03/08 19:16	kcampigotto	Q31433
2-Methylphenol	BRL	mg/kg	0.36	0.029	1	8270C	04/03/08 19:16	kcampigotto	Q31433
2-Nitrophenol	BRL	mg/kg	0.36	0.050	1	. 8270C	04/03/08 19:16	kcampigotto	Q31433
3&4-Methylphenol	BRL	mg/kg	0.36	0.042	1	8270C	04/03/08 19:16	kcampigotto	Q31433
3,3'-Dichlorobenzidine	BRL	mg/kg	0.71	0.064	1	8270C	04/03/08 19:16	kcampigotto	Q31433
4,6-Dinitro-2-methylphenol	BRL	mg/kg	1.8	0.031	1	8270C	04/03/08 19:16	kcampigotto	Q31433
4-Bromophenylphenylether	BRL	mg/kg	0.36	0.044	1	8270C	04/03/08 19:16	kcampigotto	Q31433
4-Chloro-3-methylphenol	BRL	mg/kg	0.71	0.042	1	8270C	04/03/08 19:16	kcampigotto	Q31433
4-Chloroaniline	BRL	mg/kg	0.36	0.026	1	8270C	04/03/08 19:16	kcampigotto	Q31433
4-Chlorophenylphenylether	BRL	mg/kg	0.36	0.045	1	8270C	04/03/08 19:16	kcampigotto	Q31433
4-Nitrophenol	BRL	mg/kg	1.8	0.045	1	8270C	04/03/08 19:16	kcampigotto	Q31433
Acenaphthene	BRL	mg/kg	0.36	0.048	1	8270C	04/03/08 19:16	kcampigotto	Q31433
Acenaphthylene	BRL	mg/kg	0.36	0.033	1	8270C	04/03/08 19:16	kcampigotto	Q31433
Anthracene	BRL.	mg/kg	0.36	0.026	1	8270C	04/03/08 19:16	kcampigotto	Q31433
Azobenzene	BRL	mg/kg	1.8	0.052	1	8270C	04/03/08 19:16	kcampigotto	Q31433
Benzo(a)anthracene	BRL	mg/kg	0.36	0.040	1	8270C	04/03/08 19:16	kcampigotto	Q31433
Benzo(a)pyrene	BRL.	mg/kg	0.36	0.045	1	8270C	04/03/08 19:16	kcampigotto	Q31433
Benzo(b)fluoranthene	BRL	mg/kg	0.36	0.073	1	8270C	04/03/08 19:16	kcampigotto	Q31433
Benzo(g,h,i)perylene	BRL	mg/kg	0.36	0.045	1	8270C	04/03/08 19:16	kcampigotto	Q31433
Benzo(k)fluoranthene	BRL	mg/kg	0.36	0.095	1	8270C	04/03/08 19:16	kcampigotto	Q31433



## **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607

Project Name: Richmond Co.

Project ID: **NCDOT Parcel 68** Project No.:

WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-W2 Prism Sample ID: 209585

COC Group: G0308735

Time Collected: 03/20/08 14:20 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Benzoic acid	BRL	mg/kg	1.8	0.15	1	8270C	04/03/08 19:16	kcampigotto	Q31433
Benzyl alcohol	BRL	mg/kg	0.71	0.028	1	8270C	04/03/08 19:16	kcampigotto	Q31433
Bis(2-chloroethoxy)methane	BRL	mg/kg	0.36	0.060	1	8270C	04/03/08 19:16	kcampigotto	Q31433
Bis(2-chloroethyl)ether	BRL	mg/kg	0.36	0.044	1	8270C	04/03/08 19:16	kcampigotto	Q31433
Bis(2-chloroisopropyl)ether	BRL	mg/kg	0.36	0.036	1	8270C	04/03/08 19:16	kcampigotto	Q31433
Bis(2-ethylhexyl)phthalate	BRL	mg/kg	0.36	0.027	1	8270C	04/03/08 19:16	kcampigotto	Q31433
Butylbenzylphthalate	BRL	mg/kg	0.36	0.044	1	8270C	04/03/08 19:16	kcampigotto	Q31433
Chrysene	BRL	mg/kg	0.36	0.024	1	8270C	04/03/08 19:16	kcampigotto	Q31433
Di-n-butylphthalate	BRL	mg/kg	0.36	0.057	1	8270C	04/03/08 19:16	kcampigotto	Q31433
Di-n-octylphthalate	BRL	mg/kg	0.36	0.10	1	8270C	04/03/08 19:16	kcampigotto	Q31433
Dibenzo(a,h)anthracene	BRL	mg/kg	0.36	0.033	1	8270C	04/03/08 19:16	kcampigotto	Q31433
Dibenzofuran	BRL	mg/kg	0.36	0.043	1	8270C	04/03/08 19:16	kcampigotto	Q31433
Diethylphthalate	BRL	mg/kg	0.36	0.092	1	8270C	04/03/08 19:16	kcampigotto	Q31433
Dimethylphthalate	BRL	mg/kg	0.36	0.053	1	8270C	04/03/08 19:16	kcampigotto	Q31433
Fluoranthene	BRL	mg/kg	0.36	0.063	1	8270C	04/03/08 19:16	kcampigotto	Q31433
Fluorene	BRL	mg/kg	0.36	0.051	1	8270C	04/03/08 19:16	kcampigotto	Q31433
Hexachlorobenzene	BRL	mg/kg	0.36	0.049	1	8270C	04/03/08 19:16	kcampigotto	Q31433
Hexachlorobutadiene	BRL	mg/kg	0.36	0.035	1	8270C	04/03/08 19:16	kcampigotto	Q31433
Hexachlorocyclopentadiene	BRL	mg/kg	0.36	0.053	1	8270C	04/03/08 19:16	kcampigotto	Q31433
Hexachloroethane	BRL	mg/kg	0.36	0.015	1	8270C	04/03/08 19:16	kcampigotto	Q31433
Indeno(1,2,3-cd)pyrene	BRL	mg/kg	0.36	0.034	1	8270C	04/03/08 19:16	kcampigotto	Q31433
Isophorone	BRL	mg/kg	0.36	0.034	1	8270C	04/03/08 19:16	kcampigotto	Q31433
N-Nitrosodi-n-propylamine	BRL	mg/kg	0.36	0.021	1	8270C	04/03/08 19:16	kcampigotto	Q31433
N-Nitrosodiphenylamine	BRL	mg/kg	0.36	0.052	1	8270C	04/03/08 19:16	kcampigotto	Q31433
Naphthalene	BRL	mg/kg	0.36	0.042	1	8270C	04/03/08 19:16	kcampigotto	Q31433
Nitrobenzene	BRL	mg/kg	0.36	0.045	1	8270C	04/03/08 19:16	kcampigotto	Q31433
Pentachlorophenol	BRL	mg/kg	1.8	0.054	1	8270C	04/03/08 19:16	kcampigotto	Q31433



### **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607

Project Name: Richmond Co.

Project ID: NCDOT Parcel 68 Project No.: WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-W2 Prism Sample ID: 209585 COC Group: G0308735

Time Collected: 03/20/08 14:20 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysi Date/Tin		Analyst	Batch ID
Phenanthrene	BRL	mg/kg	0.36	0.030	1	8270C	04/03/08	19:16	kcampigotto	Q3143
Phenol	BRL	mg/kg	0.36	0.063	1	8270C	04/03/08	19:16	kcampigotto	Q3143
Pyrene	BRL	mg/kg	0.36	0.068	1	8270C	04/03/08	19:16	kcampigotto	Q3143
Sample Preparation:			29	.93 g /	1 mL	3550B	04/01/08	14:00	рьап	P21232
					Surrogate		% Rec	overy	Con	rol Limits
					Terphenyl-	d14		86		41 - 136
					Phenol-d5			83		13 - 95
					Nitrobenze	ene-d5		75		14 - 103
					2-Fluoroph	enol		59		14 - 89
					2-Fluorobij	phenyl		99	:	21 - 108
					2,4,6-Tribr	omophenol		96		25 - 123
Extractable Petroleum Hydrocarbon	•				_					
C11-C22 Aromatics	BRL	mg/kg	11	1.9		MADEP EPH			grappaccioli	Q31512
C19-C36 Aliphatics	BRL	mg/kg	11	1.4		MADEP EPH			grappaccioli	Q3151
C9-C18 Aliphatics	BRL	mg/kg	11	0.95	1	MADEP EPH	04/07/08	22:47	grappaccioli	Q3151
Sample Preparation:			10	.21 g /	2 mL	EPH	04/01/08	14:00	pbarr	P21233
					Surrogate	l	% Rec	overy	Con	rol Limits
					o-Terphen	yt		95	•	10 - 140
					2-Fluorobij	ohenyl		88	•	10 - 140
					2-Bromona	aphthalene	1	115	•	<b>1</b> 0 - 140
					1-Chloro-o	ctadecane		80		10 - 140
Volatile Petroleum Hydrocarbons by										
C5-C8 Aliphatics	BRL	mg/kg	5.4	1.0	1	MADEP VPH	04/03/08	14:14	wbradley	Q31500
C9-C10 Aromatics	BRL	mg/kg	5.4	0.032	1	MADEP VPH	04/03/08	14:14	wbradley	Q31500
C9-C12 Aliphatics	BRL	mg/kg	5.4	1.7	1	MADEP VPH	04/03/08	14:14	wbradley	Q31500



#### **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607

Project Name: Richmond Co.

Project ID: NCDOT Parcel 68 Project No.:

WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-W2

Prism Sample ID: 209585 COC Group: G0308735

Time Collected: 03/20/08 14:20 Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
					Surrogate	•	% Recovery	Con	trol Limits
					2,5-Dibromotoluene-PID 2,5-Dibromotoluene-FID		112		70 - 130
							96		70 - 130
Sample Weight Determination									
Weight 1	11.32	g			1	MADEP VPH	03/26/08 0:00	lbrown	
Weight 2	17.37	g			1	MADEP VPH	03/26/08 0:00	Ibrown	

#### Sample Comment(s):

BRL = Below Reporting Limit

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

All results are reported on a dry-weight basis

J- Estimated value between the Reporting Limit and the MDL



### **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607

Project Name: Richmond Co.

Project ID:

NCDOT Parcel 68

Project No.:

WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-DISP-1

Prism Sample ID: 209586

COC Group:

G0308735

Time Collected:

03/18/08 10:55 Time Submitted: 03/21/08

13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Percent Solids Determination					_			_	
Percent Solids	85.0	%			1	SM2540 G	03/25/08 14:4	5 mbarber	
Diesel Range Organics (DRO) by G	C-FID								
Diesel Range Organics (DRO)	6.0 J	mg/kg	8.1	1.3	1	8015B	04/02/08 16:3	2 jvogel	Q31414
Sample Preparation:			25	.48 g	/ 1 mL	3545	03/31/08 18:0	) wconder	P21221
					Surrogate	•	% Recover	y Cor	ntrol Limits
					o-Terphen	yl	93		49 - 124
Sample Weight Determination									
Weight 1	6.98	g			1	GRO	03/26/08 0:00	lbrown	
Weight 2	6.77	g			1	GRO	03/26/08 0:00	lbrown	
Gasoline Range Organics (GRO) by	GC-FID								
Gasoline Range Organics (GRO)	BRL	mg/kg	5.9	3.7	50	8015B	03/28/08 19:14	1 wbradley	Q31330
					Surrogate	•	% Recover	y Cor	ntrol Limits
					aaa-TFT		91		55 - 129

Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

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

All results are reported on a dry-weight basis



## **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607

Project Name: Richmond Co.

Project ID: Project No.: **NCDOT Parcel 68** 

WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-T1-1

Prism Sample ID: 209587

COC Group: G0308735

Time Collected:

03/19/08 10:15

Time Submitted: 03/21/08 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysi Date/Tin		Analy	st Batch ID
Percent Solids Determination Percent Solids	86.6	%	3-2		1	SM2540 G	03/26/08	14:40	mbarber	, and the second
Diesel Range Organics (DRO) by G	C-FID									
Diesel Range Organics (DRO)	70	mg/kg	8.0	1.3	1	8015B	04/02/08	17:46	jvogel	Q31414
Sample Preparation:			25	.19 g	/ 1 mL	3545	03/31/08	18:00	wcond	er P21221
					Surrogate	<b>)</b>	% Rec	overy	С	ontrol Limits
					o-Terphen	yl	4	121		49 - 124
Sample Weight Determination										
Weight 1	6.52	g			1	GRO	04/14/08	0:00	Lbrown	
Weight 2	6.32	g			1	GRO	04/14/08	0:00	lbrown	
Gasoline Range Organics (GRO) b	y GC-FID									
Gasoline Range Organics (GRO)	1000	mg/kg	120	73	1000	8015B	03/28/08	20:17	wbradley	Q31330
					Surrogate	<b>.</b>	% Rec	overy	C	ontrol Limits
					aaa-TFT			DO #		55 - 129

Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

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

All results are reported on a dry-weight basis



### **Laboratory Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607

Project Name: Richmond Co.

Project ID:

NCDOT Parcel 68

Project No.:

WBS# 34438.1.1

Sample Matrix: Soil

Client Sample ID: 68-T2-1

Prism Sample ID: 209588

COC Group:

G0308735

Time Collected:

03/19/08

Time Submitted: 03/21/08

10:20 13:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analy	st Batch ID
Percent Solids Determination Percent Solids	85.9	%			1	SM2540 G	03/26/08 14:	40 mbarber	η
Diesel Range Organics (DRO) by Go	<u>C-FID</u> 220	ma/ka	8.1	1.3	1	8015B	04/02/08 17:	00 ivoqel	Q31414
,	220	mg/kg							
Sample Preparation:			25	.17 g /	1 mL	3545	03/31/08 18:	00 wcond	er P21221
					Surrogate	•	% Recov	ery C	ontrol Limits
					o-Terphen	yl	119		49 - 124
Sample Weight Determination									
Weight 1	6.40	g			1	GRO	04/14/08 0:0	0 Lbrown	
Weight 2	6.43	9			1	GRO	04/14/08 0:0	0 Ibrown	
Gasoline Range Organics (GRO) by	GC-FID								
Gasoline Range Organics (GRO)	720	mg/kg	120	73	1000	8015B	03/28/08 21:	20 wbradley	Q31330
					Surrogate	1	% Recov	ery C	ontrol Limits
					aaa-TFT			) #	55 - 129

Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

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

All results are reported on a dry-weight basis



# **Level II QC Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road

Raleigh, NC 27607

Project Name:

Richmond Co.

COC Group Number: G0308735 Date/Time Submitted:

3/21/200 13:05

Project ID: Project No.: **NCDOT Parcel 68** 

WBS# 34438.1.1

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

Method	Blank									QC Batch
	0	Result	RI.	Control Limit	Units					ID
	Gasoline Range Organics (GRO)	ND	5	<2.5	mg/kg					Q31330
Laborate	ory Control Sample	Result	Spike Amou	nl	Units	Recovery %	Recovery Ranges %			QC Batch ID
	Gasoline Range Organics (GRO)	41.7	50		mg/kg	83	67-116			Q31330
Matrix S	•	Result	Spike Amou	nt	Units	Recovery %	Recovery Ranges %			QC Batch ID
	Gasoline Range Organics (GRO)	49.7	50		mg/kg	99	57-113			Q31330
Matrix S Sample ID:	Spike Duplicate	Result	Spike Amou	nt	Units	Recovery %	Recovery Ranges %	RPD %	RPD Range %	QC Batch ID
	Gasoline Range Organics	47.9	50		mg/kg	96	57-113	4	0 - 23	Q31330



# Level II QC Report

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES

1101 Nowell Road Raleigh, NC 27607

Project Name:

Richmond Co.

COC Group Number: G0308735 Date/Time Submitted:

3/21/200 13:05

Project ID:

NCDOT Parcel 68

Project No.:

WBS# 34438.1.1

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

od Blank	Result	RL	Control Limit	Units	QC Batch ID
1,1,1-Trichloroethane	ND	0.005	<0.0025	mg/kg	Q31336
1,1,2,2-Tetrachloroethane	ND	0.005	<0.0025	mg/kg	Q31336
1,1,2-Trichloroethane	ND	0.005	<0.0025	mg/kg	Q31336
1,1-Dichloroethane	ND	0.005	<0.0025	mg/kg	Q31336
1,1-Dichloroethene	ND	0.005	<0.0025	mg/kg	Q31336
1,1-Dichloropropene	ND	0.005	<0.0025	mg/kg	Q31336
1,2,3-Trichlorobenzene	ND	0.005	<0.0025	mg/kg	Q31336
1,2,3-Trichloropropane	ND	0.005	<0.0025	mg/kg	Q31336
1,2,4-Trichlorobenzene	ND	0.005	<0.0025	mg/kg	Q31336
1,2,4-Trimethylbenzene	ND	0.005	<0.0025	mg/kg	Q31336
1,2-Dibromoethane (EDB)	ND	0.005	<0.0025	mg/kg	Q31336
1,2-Dichlorobenzene	ND	0.005	<0.0025	mg/kg	Q31336
1,2-Dichloroethane	ND	0.005	<0.0025	mg/kg	Q31336
1,2-Dichloropropane	ND	0.005	<0.0025	mg/kg	Q31336
1,3,5-Trimethylbenzene	ND	0.005	<0.0025	mg/kg	Q31336
1,3-Dichlorobenzene	ND	0.005	<0.0025	mg/kg	Q31336
1,3-Dichloropropane	ND	0.005	<0.0025	mg/kg	Q31336
1,4-Dichlorobenzene	ND	0.005	<0.0025	mg/kg	Q31336
2,2-Dichloropropane	ND	0.005	<0.0025	mg/kg	Q31336
2-Chlorotoluene	ND	0.005	<0.0025	mg/kg	Q31336
2-Hexanone	ND	0.05	<0.025	mg/kg	Q31336
4-Chlorotoluene	ND	0.005	<0.0025	mg/kg	Q31336
4-Methyl-2-pentanone (MIBK)	ND	0.05	<0.025	mg/kg	Q31336
Acetone	ND	0.05	<0.025	mg/kg	Q31336
Benzene	ND	0.003	<0.0015	mg/kg	Q31336
Bromobenzene	ND	0.005	<0.0025	mg/kg	Q31336
Bromochioromethane	ND	0.005	<0.0025	mg/kg	Q31336
Bromodichloromethane	ND	0.005	<0.0025	mg/kg	Q31336
Bromoform	ND	0.005	<0.0025	mg/kg	Q31336
Bromomethane	ND	0.01	<0.005	mg/kg	Q31336
Carbon tetrachloride	ND	0.005	<0.0025	mg/kg	Q31336
Chlorobenzene	ND	0.005	<0.0025	mg/kg	Q31336
Chlorodibromomethane	ND	0.005	<0.0025	mg/kg	Q31336
Chloroethane	ND	0.01	<0.005	mg/kg	Q31336

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# **Level II QC Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607

Project Name:

Richmond Co.

COC Group Number: G0308735 Date/Time Submitted:

3/21/200 13:05

Project ID:

NCDOT Parcel 68

Project No.:

WBS# 34438.1.1

Method Blank	Result	RL	Control Limit	Units			QC Batch ID
Chloroform	ND	0.005	<0.0025	mg/kg			Q31336
Chloromethane	ND	0.005	<0.0025	mg/kg			Q31336
cis-1,2-Dichloroethene	ND	0.005	<0.0025	mg/kg			Q31336
cis-1,3-Dichloropropene	ND	0.005	<0.0025	mg/kg			Q31336
Dichlorodifluoromethane	ND	0.005	<0.0025	mg/kg			Q31336
Ethylbenzene	ND	0.005	<0.0025	mg/kg			Q31336
Isopropyl ether (IPE)	ND	0.005	<0.0025	mg/kg			Q31336
Isopropylbenzene	ND	0.005	<0.0025	mg/kg			Q31336
m,p-Xylenes	ND	0.01	<0.005	mg/kg			Q31336
Methyl ethyl ketone (MEK)	ND	0.1	<0.05	mg/kg			Q31336
Methyl t-butyl ether (MTBE)	ND	0.01	<0.005	mg/kg			Q31336
Methylene chloride	ND	0.005	<0.0025	mg/kg			Q31336
n-Butylbenzene	ND	0.005	<0.0025	mg/kg			Q31336
n-Propylbenzene	ND	0.005	<0.0025	mg/kg			Q31336
Naphthalene	ND	0.01	<0.005	mg/kg			Q31336
o-Xylene	ND	0.005	<0.0025	mg/kg			Q31336
p-Isopropyltoluene	ND	0.005	<0.0025	mg/kg			Q31336
sec-Butylbenzene	ND	0.005	<0.0025	mg/kg			Q31336
Styrene	ND	0.005	<0.0025	mg/kg			Q31336
tert-Butylbenzene	ND	0.005	<0.0025	mg/kg			Q31336
Tetrachloroethene	ND	0.005	<0.0025	mg/kg			Q31336
Toluene	ND	0.005	<0.0025	mg/kg			Q31336
trans-1,2-Dichloroethene	ND	0.005	<0.0025	mg/kg			Q31336
trans-1,3-Dichloropropene	ND	0.005	<0.0025	mg/kg			Q31336
Trichloroethene	ND	0.005	<0.0025	mg/kg			Q31336
Trichlorofluoromethane	ND	0.005	<0.0025	mg/kg			Q31336
Vinyl acetate	ND	0.025	<0.0125	mg/kg			Q31336
Vinyi chloride	ND	0.005	<0.0025	mg/kg			Q31336
aboratory Control Sample	Result	Spike Amour	nt	Units	Recovery %	Recovery Ranges %	QC Bate
1,1-Dichloroethene	0.05225	0.05		mg/kg	105	57-122	Q31336
Benzene	0.04927	0.05		mg/kg	99	62-119	Q31336
Chlorobenzene	0.04803	0.05		mg/kg	96	61-124	Q31336
Toluene	0.05038	0.05		mg/kg	101	57-122	Q31336

mg/kg

106

59-129

0.05309

0.05

Trichloroethene

Page 3 of 21

Q31336



# Level II QC Report

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart

c/o Solution - IES 1101 Nowell Road

Raleigh, NC 27607

Project Name:

Richmond Co.

Date/Time Submitted:

COC Group Number: G0308735

3/21/200 13:05

Project ID:

**NCDOT Parcel 68** 

Project No.:

WBS# 34438.1.1

Matrix Spike Sample ID:	Result	Spike Amount	Units	Recovery %	Recovery Ranges %			QC Batch ID
209557 1,1-Dichloroethene	0.05199	0.05	mg/kg	104	44-140			Q31336
Benzene	0.04396	0.05	mg/kg	88	46-136			Q31336
Chlorobenzene	0.03204	0.05	mg/kg	64	47-135			Q31336
Toluene	0.03898	0.05	mg/kg	78	47-136			Q31336
Trichloroethene	0.05089	0.05	mg/kg	102	45-141			Q31336
Matrix Spike Duplicate Sample ID:	Result	Spike Amount	Units	Recovery %	Recovery Ranges %	RPD %	RPD Range %	QC Batch ID
209557 1,1-Dichloroethene	0.04158	0.05	mg/kg	83	44-140	22	0 - 23	Q31336
Benzene	0.03554	0.05	mg/kg	71	46-136	21	0 - 22	Q31336
Chlorobenzene	0.02904	0.05	·mg/kg	58	47-135	10	0 - 22	Q31336
Toluene	0.03293	0.05	mg/kg	66	47-136	17	0 - 22	Q31336
Trichloroethene	0.04078	0.05	mg/kg	82	45-141	22	0 - 23	Q31336



# Level II QC Report

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road

Raleigh, NC 27607

Project Name:

Richmond Co.

COC Group Number: G0308735 Date/Time Submitted:

3/21/200 13:05

Project ID:

NCDOT Parcel 68

Project No.:

WBS# 34438.1.1

Volatile Organic Compounds by GC/MS, method 8260B

d Blank	Result	RL	Control Limit	Units	QC Batd ID
1,1,1-Trichloroethane	ND	0.005	<0.0025	mg/kg	Q31361
1,1,2,2-Tetrachloroethane	ND	0.005	<0.0025	mg/kg	Q31361
1,1,2-Trichloroethane	ND	0.005	<0.0025	mg/kg	Q31361
1,1-Dichloroethane	ND	0.005	<0.0025	mg/kg	Q31361
1,1-Dichloroethene	ND	0.005	<0.0025	mg/kg	Q31361
1,1-Dichloropropene	ND	0.005	<0.0025	mg/kg	Q31361
1,2,3-Trichlorobenzene	ND	0.005	<0.0025	mg/kg	Q3136 <sup>-</sup>
1,2,3-Trichloropropane	ND	0.005	<0.0025	mg/kg	Q31361
1,2,4-Trichlorobenzene	ND	0.005	<0.0025	mg/kg	Q31361
1,2,4-Trimethylbenzene	ND	0.005	<0.0025	mg/kg	Q3136
1,2-Dibromoethane (EDB)	ND	0.005	<0.0025	mg/kg	Q3136 <sup>-</sup>
1,2-Dichlorobenzene	ND	0.005	<0.0025	mg/kg	Q3136
1,2-Dichloroethane	ND	0.005	<0.0025	mg/kg	Q3136
1,2-Dichloropropane	ND	0.005	<0.0025	mg/kg	Q3136
1,3,5-Trimethylbenzene	ND	0.005	<0.0025	mg/kg	Q3136
1,3-Dichlorobenzene	ND	0.005	<0.0025	mg/kg	Q3136
1,3-Dichloropropane	ND	0.005	<0.0025	mg/kg	Q3136
1,4-Dichlorobenzene	ND	0.005	<0.0025	mg/kg	Q3136
2,2-Dichloropropane	ND	0.005	<0.0025	mg/kg	Q3136
2-Chlorotoluene	ND	0.005	<0.0025	mg/kg	Q3136
2-Hexanone	ND	0.05	<0.025	mg/kg	Q3136
4-Chiorotoluene	ND	0.005	<0.0025	mg/kg	Q3136
4-Methyl-2-pentanone (MIBK)	ND	0.05	<0.025	mg/kg	Q3136
Acetone	ND	0.05	<0.025	mg/kg	Q3136
Benzene	ND	0.003	<0.0015	mg/kg	Q3136
Bromobenzene	ND	0.005	<0.0025	mg/kg	Q3136
Bromochloromethane	ND	0.005	<0.0025	mg/kg	Q3136
Bromodichloromethane	ND	0.005	<0.0025	mg/kg	Q3136
Bromoform	ND	0.005	<0.0025	mg/kg	Q3136
Bromomethane	ND	0.01	<0.005	mg/kg	Q3136
Carbon tetrachloride	ND	0.005	<0.0025	mg/kg	Q3136
Chlorobenzene	ND	0.005	<0.0025	mg/kg	Q3136
Chlorodibromomethane	ND	0.005	<0.0025	mg/kg	Q3136
Chloroethane	ND	0.01	<0.005	mg/kg	Q3136

Phone: 704/529-6364 - Toll Free Number: 1-800/529-6364 - Fax: 704/525-0409



# Level II QC Report

Date/Time Submitted: 3/21/200 13:05

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart 1101 Nowell Road Raleigh, NC 27607

Project Name:

Richmond Co.

COC Group Number: G0308735

c/o Solution - IES

Project ID:

**NCDOT Parcel 68** 

Project No.:

WBS# 34438.1.1

Method Blank	Result	RL	Control Limit	Units			QC Batch ID
Chloroform	ND	0.005	<0.0025	mg/kg		,	Q31361
Chloromethane	ND	0.005	<0.0025	mg/kg			Q31361
cis-1,2-Dichloroethene	ND	0.005	<0.0025	mg/kg			Q31361
cis-1,3-Dichloropropene	ND	0.005	<0.0025	mg/kg			Q31361
Dichlorodifluoromethane	ND	0.005	<0.0025	mg/kg			Q31361
Ethylbenzene	ND	0.005	<0.0025	mg/kg			Q31361
Isopropyl ether (IPE)	ND	0.005	<0.0025	mg/kg			Q31361
Isopropylbenzene	ND	0.005	<0.0025	mg/kg			Q31361
m,p-Xylenes	ND	0.01	<0.005	mg/kg			Q31361
Methyl ethyl ketone (MEK)	ND	0.1	<0.05	mg/kg			Q31361
Methyl t-butyl ether (MTBE)	ND	0.01	<0.005	mg/kg			Q31361
Methylene chloride	ND	0.005	<0.0025	mg/kg			Q31361
n-Butylbenzene	ND	0.005	<0.0025	mg/kg			Q31361
n-Propylbenzene	ND	0.005	<0.0025	mg/kg			Q31361
Naphthalene	ND	0.01	<0.005	mg/kg			Q31361
o-Xylene	ND	0.005	<0.0025	mg/kg			Q31361
p-isopropyitoluene	ND	0.005	<0.0025	mg/kg			Q31361
sec-Butylbenzene	ND	0.005	<0.0025	mg/kg			Q31361
Styrene	ND	0.005	<0.0025	mg/kg			Q31361
tert-Butylbenzene	ND	0.005	<0.0025	mg/kg			Q31361
Tetrachloroethene	ND	0.005	<0.0025	mg/kg			Q31361
Toluene	ND	0.005	<0.0025	mg/kg			Q31361
trans-1,2-Dichloroethene	ND	0.005	<0.0025	mg/kg			Q31361
trans-1,3-Dichloropropene	ND	0.005	<0.0025	mg/kg			Q31361
Trichloroethene	ND	0.005	<0.0025	mg/kg			Q31361
Trichlorofluoromethane	ND	0.005	<0.0025	mg/kg			Q31361
Vinyl acetate	ND	0.025	<0.0125	mg/kg			Q31361
Vinyl chloride	ND	0.005	<0.0025	mg/kg			Q31361
aboratory Control Sample	Result	Spike Amou	nt	Units	Recovery %	Recovery Ranges %	QC Batch ID
1,1-Dichloroethene	0.05483	0.05		mg/kg	110	57-122	Q31361
Benzene	0.04902	0.05		mg/kg	98	62-119	Q31361
Chlorobenzene	0.04857	0.05		mg/kg	97	61-124	Q31361
Toluene	0.05021	0.05		mg/kg	100	57-122	Q31361
Trichloroethene	0.05305	0.05		mg/kg	106	59-129	Q31361

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# **Level II QC Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road

Project ID: Project No.:

Project Name:

Richmond Co.

NCDOT Parcel 68

WBS# 34438.1.1

COC Group Number: G0308735

Date/Time Submitted: 3/21/200 13:05

Raleig	h, NC 27607								
Matrix Sample II	-	Result	Spike Amount	Units	Recovery %	Recovery Ranges %			QC Batch ID
209581	1,1-Dichloroethene	0.03694	0.05	mg/kg	74	44-140			Q31361
	Benzene	0.03027	0.05	mg/kg	61	46-136			Q31361
	Chlorobenzene	0.02978	0.05	mg/kg	60	47-135			Q31361
	Toluene	0.03137	0.05	mg/kg	63	47-136			Q31361
	Trichloroethene	0.03367	0.05	mg/kg	67	45-141			Q31361
Matrix Sample II	Spike Duplicate o:	Result	Spike Amount	Units	Recovery %	Recovery Ranges %	RPD %	RPD Range %	QC Batch ID
209581	1,1-Dichloroethene	0.03504	0.05	mg/kg	70	44-140	5	0 - 23	Q31361
	Benzene	0.03042	0.05	mg/kg	61	46-136	0	0 - 22	Q31361
	Chlorobenzene	0.031	0.05	mg/kg	62	47-135	4	0 - 22	Q31361
	Toluene	0.03165	0.05	mg/kg	63	47-136	1	0 - 22	Q31361
	Trichloroethene	0.03316	0.05	mg/kg	66	45-141	2	0 - 23	Q31361



# Level II QC Report

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607

**Project** Name:

Richmond Co.

COC Group Number: G0308735

Date/Time Submitted: 3/21/200 13:05

Project ID:

NCDOT Parcel 68

Project No.:

WBS# 34438.1.1

Volatile Organic Compounds by GC/MS, method 8260B

od Blank	Result	RI.	Control Limit	Units	QC Batch ID
1,1,1-Trichloroethane	ND	0.005	<0.0025	mg/kg	Q31384
1,1,2,2-Tetrachloroethane	ND	0.005	<0.0025	mg/kg	Q31384
1,1,2-Trichloroethane	ND	0.005	<0.0025	mg/kg	Q31384
1,1-Dichloroethane	ND	0.005	<0.0025	mg/kg	Q31384
1,1-Dichloroethene	ND	0.005	<0.0025	mg/kg	Q31384
1,1-Dichloropropene	ND	0.005	<0.0025	mg/kg	Q31384
1,2,3-Trichlorobenzene	ND	0.005	<0.0025	mg/kg	Q31384
1,2,3-Trichloropropane	ND	0.005	<0.0025	mg/kg	Q31384
1,2,4-Trichlorobenzene	ND	0.005	<0.0025	mg/kg	Q31384
1,2,4-Trimethylbenzene	ND	0.005	<0.0025	mg/kg	Q31384
1,2-Dibromoethane (EDB)	ND	0.005	<0.0025	mg/kg	Q31384
1,2-Dichlorobenzene	ND	0.005	<0.0025	mg/kg	Q31384
1,2-Dichloroethane	ND	0.005	<0.0025	mg/kg	Q31384
1,2-Dichloropropane	ND	0.005	<0.0025	mg/kg	Q31384
1,3,5-Trimethylbenzene	ND	0.005	<0.0025	mg/kg	Q31384
1,3-Dichlorobenzene	ND	0.005	<0.0025	mg/kg	Q31384
1,3-Dichloropropane	ND	0.005	<0.0025	mg/kg	Q31384
1,4-Dichlorobenzene	ND	0.005	<0.0025	mg/kg	Q31384
2,2-Dichloropropane	ND	0.005	<0.0025	mg/kg	Q31384
2-Chlorotoluene	ND	0.005	<0.0025	mg/kg	Q31384
2-Hexanone	ND	0.05	<0.025	mg/kg	Q31384
4-Chlorotoluene	ND	0.005	<0.0025	mg/kg	Q31384
4-Methyl-2-pentanone (MIBK)	ND	0.05	<0.025	mg/kg	Q31384
Acetone	ND	0.05	<0.025	mg/kg	Q31384
Benzene	ND	0.003	<0.0015	mg/kg	Q31384
Bromobenzene	ND	0.005	<0.0025	mg/kg	Q31384
Bromochloromethane	ND	0.005	<0.0025	mg/kg	Q31384
Bromodichloromethane	ND	0.005	<0.0025	mg/kg	Q31384
Bromoform	ND	0.005	<0.0025	mg/kg	Q31384
Bromomethane	ND	0.01	<0.005	mg/kg	Q31384
Carbon tetrachloride	ND	0.005	<0.0025	mg/kg	Q31384
Chlorobenzene	ND	0.005	<0.0025	mg/kg	Q31384
Chlorodibromomethane	ND	0.005	<0.0025	mg/kg	Q31384
Chloroethane	ND	0.01	<0.005	mg/kg	Q31384

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# Level II QC Report

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart 1101 Nowell Road Raleigh, NC 27607

Project Name:

Richmond Co.

COC Group Number: G0308735 Date/Time Submitted:

3/21/200 13:05

c/o Solution - IES

Project ID: Project No.: NCDOT Parcel 68

WBS# 34438.1.1

Method Blank	Result	RL	Control Limit	Units			QC Batch ID
Chloroform	ND	0.005	<0.0025	mg/kg			Q31384
Chloromethane	ND	0.005	<0.0025	mg/kg			Q31384
cis-1,2-Dichloroethene	ND	0.005	<0.0025	mg/kg			Q31384
cis-1,3-Dichloropropene	ND	0.005	<0.0025	mg/kg			Q31384
Dichlorodifluoromethane	ND	0.005	<0.0025	mg/kg			Q31384
Ethylbenzene	ND	0.005	<0.0025	mg/kg			Q31384
Isopropyl ether (IPE)	ND	0.005	<0.0025	mg/kg			Q31384
Isopropylbenzene	ND	0.005	<0.0025	mg/kg			Q31384
m,p-Xylenes	ND	0.01	<0.005	mg/kg			Q31384
Methyl ethyl ketone (MEK)	ND	0.1	<0.05	mg/kg			Q31384
Methyl t-butyl ether (MTBE)	ND	0.01	<0.005	mg/kg			Q31384
Methylene chloride	ND	0.005	<0.0025	mg/kg			Q31384
n-Butylbenzene	ND	0.005	<0.0025	mg/kg			Q31384
n-Propylbenzene	ND	0.005	<0.0025	mg/kg			Q31384
Naphthalene	ND	0.01	<0.005	mg/kg			Q31384
o-Xylene	ND	0.005	<0.0025	mg/kg			Q31384
p-Isopropyltoluene	ND	0.005	<0.0025	mg/kg			Q31384
sec-Butylbenzene	ND	0.005	<0.0025	mg/kg			Q31384
Styrene	ND	0.005	<0.0025	mg/kg			Q31384
tert-Butylbenzene	ND	0.005	<0.0025	mg/kg			Q31384
Tetrachloroethene	ND	0.005	<0.0025	mg/kg			Q31384
Toluene	ND	0.005	<0.0025	mg/kg			Q31384
trans-1,2-Dichloroethene	ND	0.005	<0.0025	mg/kg			Q31384
trans-1,3-Dichloropropene	ND	0.005	<0.0025	mg/kg			Q31384
Trichloroethene	ND	0.005	<0.0025	mg/kg			Q31384
Trichlorofluoromethane	ND	0.005	<0.0025	mg/kg			Q31384
Vinyl acetate	ND	0.025	<0.0125	mg/kg			Q31384
Vinyl chloride	ND	0.005	<0.0025	mg/kg			Q31384
aboratory Control Sample	Result	Spike Amou	nt	Units	Recovery %	Recovery Ranges %	QC Batch ID
1,1-Dichloroethene	0.04688	0.05		mg/kg	94	57-122	Q31384
Benzene	0.0466	0.05		mg/kg	93	62-119	Q31384
Chlorobenzene	0.04584	0.05		mg/kg	92	61-124	Q31384
Toluene	0.04951	0.05		mg/kg	99	57-122	Q31384
Trichloroethene	0.04695	0.05		mg/kg	94	59-129	Q31384

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# **Level II QC Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart 1101 Nowell Road

Project Name:

Richmond Co.

COC Group Number: G0308735 Date/Time Submitted:

3/21/200 13:05

c/o Solution - IES

Project ID:

NCDOT Parcel 68

Project No.:

WBS# 34438.1.1

Raleigh, NC 27607					
Matrix Spike				Recovery	Recove
Sample ID:	Result	Spike Amount	Units	%	Range %

Sample ID	Spike D:	Result	Spike Amount	Units	Recovery %	Recovery Ranges %			QC Batch ID
209843	1,1-Dichloroethene	0.03923	0.05	mg/kg	78	44-140			Q31384
	Benzene	0.03934	0.05	mg/kg	79	46-136			Q31384
	Chlorobenzene	0.03745	0.05	mg/kg	75	47-135			Q31384
	Toluene	0.04135	0.05	mg/kg	83	47-136			Q31384
	Trichloroethene	0.03896	0.05	mg/kg	78	45-141			Q31384
Matrix Spike Duplicate Sample ID:					Recovery	Recovery		RPD	OO Balah
Sample ID	);	Result	Spike Amount	Units	%	Ranges %	RPD %	Range %	QC Batch ID
	o: 1,1-Dichloroethene	Result 0.04123	Spike Amount 0.05	Units mg/kg	•	_		_	ID
				····	%	%	%	0 - 23	ID
	1,1-Dichloroethene	0.04123	0.05	mg/kg	82	% 44-140	5	% 0 - 23 0 - 22	Q31384
	1,1-Dichloroethene Benzene	0.04123 0.03985	0.05 0.05	mg/kg mg/kg	% 82 80	% 44-140 46-136	% 5 1	% 0 - 23 0 - 22	Q31384 Q31384 Q31384



# Level II QC Report

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road

Project Name:

Richmond Co.

COC Group Number: G0308735 Date/Time Submitted:

3/21/200 13:05

Raleigh, NC 27607

Project ID: Project No.: NCDOT Parcel 68

WBS# 34438.1.1

#### Semi-volatile Organic Compounds by GC/MS, method 8270C

d Blank	Result	RL	Control Limit	Units	QC Batch ID
1,2,4-Trichlorobenzene	ND	0.33	<0.165	mg/kg	Q31404
1,2-Dichlorobenzene	ND	0.33	<0.165	mg/kg	Q31404
1,3-Dichlorobenzene	ND	0.33	<0.165	mg/kg	Q31404
1,4-Dichlorobenzene	ND	0.33	<0.165	mg/kg	Q31404
2,4,5-Trichlorophenol	ND	0.33	<0.165	mg/kg	Q31404
2,4,6-Trichlorophenol	ND	0.33	<0.165	mg/kg	Q31404
2,4-Dichlorophenol	ND	0.33	<0.165	mg/kg	Q31404
2,4-Dimethylphenol	ND	0.33	<0.165	mg/kg	Q31404
2,4-Dinitrophenol	ND	1.65	<0.825	mg/kg	Q31404
2,4-Dinitrotoluene	ND	0.33	<0.165	mg/kg	Q31404
2,6-Dinitrotoluene	ND	0.33	<0.165	mg/kg	Q31404
2-Chloronaphthalene	ND	0.33	<0.165	mg/kg	Q31404
2-Chlorophenol	ND	0.33	<0.165	mg/kg	Q31404
2-Methylnaphthalene	ND	0.33	<0.165	mg/kg	Q31404
2-Methylphenol	ND	0.33	<0.165	mg/kg	Q31404
2-Nitrophenol	ND	0.33	<0.165	mg/kg	Q31404
3&4-Methylphenol	ND	0.33	<0.165	mg/kg	Q31404
3,3'-Dichlorobenzidine	ND	0.66	<0.33	mg/kg	Q31404
4,6-Dînitro-2-methylphenol	ND	1.65	<0.825	mg/kg	Q31404
4-Bromophenylphenylether	ND	0.33	<0.165	mg/kg	Q31404
4-Chloro-3-methylphenol	ND	0.66	<0.33	mg/kg	Q31404
4-Chloroaniline	ND	0.33	<0.165	mg/kg	Q31404
4-Chlorophenylphenylether	ND	0.33	<0.165	mg/kg	Q31404
4-Nitrophenol	ND	1.65	<0.825	mg/kg	Q31404
Acenaphthene	ND	0.33	<0.165	mg/kg	Q31404
Acenaphthylene	ND	0.33	<0.165	mg/kg	Q31404
Anthracene	ND	0.33	<0.165	mg/kg	Q31404
Azobenzene	ND	1.65	<0.825	mg/kg	Q31404
Benzo(a)anthracene	ND	0.33	<0.165	mg/kg	Q31404
Benzo(a)pyrene	ND	0.33	<0.165	mg/kg	Q31404
Benzo(b)fluoranthene	ND	0.33	<0.165	mg/kg	Q31404
Benzo(g,h,i)perylene	ND	0.33	<0.165	mg/kg	Q31404
Benzo(k)fluoranthene	ND	0.33	<0.165	mg/kg	Q31404
Benzoic acid	ND	1.65	<0.825	mg/kg	Q31404

Phone: 704/529-6364 - Toll Free Number: 1-800/529-6364 - Fax: 704/525-0409



# **Level II QC Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart 1101 Nowell Road Raleigh, NC 27607

Project Name:

Richmond Co.

COC Group Number: G0308735 Date/Time Submitted: 3/21/200 13:05

c/o Solution - IES

Project ID:

NCDOT Parcel 68

Pro

Method Blank	Result	RL	Control Limit	Units			QC Batch ID
Benzyl alcohol	ND	0.66	<0.33	mg/kg			Q31404
Bis(2-chloroethoxy)methane	ND	0.33	<0.165	mg/kg			Q31404
Bis(2-chloroethyl)ether	ND	0.33	<0.165	mg/kg			Q31404
Bis(2-chloroisopropyl)ether	ND	0.33	<0.165	mg/kg			Q31404
Bis(2-ethylhexyl)phthalate	ND	0.33	<0.165	mg/kg			Q31404
Butylbenzylphthalate	ND	0.33	<0.165	mg/kg			Q31404
Chrysene	NĐ	0.33	<0.165	mg/kg			Q31404
Di-n-butylphthalate	ND	0.33	<0.165	mg/kg			Q31404
Di-n-octylphthalate	ND	0.33	<0.165	mg/kg			Q31404
Dibenzo(a,h)anthracene	ND	0.33	<0.165	mg/kg			Q31404
Dibenzofuran	ND	0.33	<0.165	mg/kg			Q31404
Diethylphthalate	ND	0.33	<0.165	mg/kg			Q31404
Dimethylphthalate	ND	0.33	<0.165	mg/kg			Q31404
Fluoranthene	ND	0.33	<0.165	mg/kg			Q31404
Fluorene	ND	0.33	<0.165	mg/kg			Q31404
Hexachlorobenzene	ND	0.33	<0.165	mg/kg			Q31404
Hexachlorobutadiene	ND	0.33	<0.165	mg/kg			Q31404
Hexachlorocyclopentadiene	ND	0.33	<0.165	mg/kg			Q31404
Hexachloroethane	ND	0.33	<0.165	mg/kg			Q31404
Indeno(1,2,3-cd)pyrene	ND	0.33	<0.165	mg/kg			Q31404
Isophorone	ND	0.33	<0.165	mg/kg			Q31404
N-Nitrosodi-n-propylamine	ND	0.33	<0.165	mg/kg			Q31404
N-Nitrosodiphenylamine	ND	0.33	<0.165	mg/kg			Q31404
Naphthalene	ND	0.33	<0.165	mg/kg			Q31404
Nitrobenzene	ND	0.33	<0.165	mg/kg			Q31404
Pentachlorophenol	ND	1.65	<0.825	mg/kg			Q31404
Phenanthrene	ND	0.33	<0.165	mg/kg			Q31404
Phenol	ND	0.33	<0.165	mg/kg			Q31404
Pyrene	ND	0.33	<0.165	mg/kg			Q31404
aboratory Control Sample	·				Recovery	Recovery Ranges	QC Batch
	Result	Spike Атюц	int	Units	%	%	ID .
1,2,4-Trichlorobenzene	1.21626	1.6537	7	mg/kg	74	39-98	Q31404
1,4-Dichlorobenzene	1.16005	1.6537	7	mg/kg	70	37-95	Q31404
2,4-Dinitrotoluene	1.48578	1.6537	7	mg/kg	90	56-128	Q31404
2-Chlorophenol	1.14781	1.6537	7	mg/kg	69	37-98	Q31404
4-Chloro-3-methylphenol	1.37235	1.6537	7	mg/kg	83	<b>45-111</b>	Q31404

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# Level II QC Report

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart 1101 Nowell Road Raleigh, NC 27607

Project Name:

Richmond Co.

COC Group Number: G0308735 Date/Time Submitted:

3/21/200 13:05

c/o Solution - IES

Project ID:

NCDOT Parcel 68

Project No.:

WBS# 34438.1.1

Laboratory Control Sample	Result	Spike Amount	Units	Recovery %	Recovery Ranges %				QC Batch ID
4-Nitrophenol	1,27414	1.6537	mg/kg	77	20-157				Q31404
Acenaphthene	1.41865	1.6537	mg/kg	86	44-110				Q31404
N-Nitrosodi-n-propylamine	0.99735	1.6537	mg/kg	60	38-101				Q31404
Pentachlorophenol	1.75429	1.6537	mg/kg	106	53-127				Q31404
Phenol	1.21164	1.6537	mg/kg	73	34-102				Q31404
Pyrene	1.41600	1.6537	mg/kg	86	54-131				Q31404
Matrix Spike				Recovery	Recovery				
Sample ID:	Result	Spike Amount	Units	%	Ranges %				QC Batch ID
209578 1,2,4-Trichlorobenzene	0.98566	1.667	mg/kg	59	26-97				Q31404
1,4-Dichlorobenzene	0.99066	1.667	mg/kg	5 <del>9</del>	23-92				Q31404
2,4-Dinitrotoluene	1.38633	1.667	mg/kg	83	45-127				Q31404
2-Chlorophenol	1.089	1.667	mg/kg	65	25-94				Q31404
4-Chloro-3-methylphenol	1.21466	1.667	mg/kg	73	31-113				Q31404
4-Nitrophenol	1.339	1.667	mg/kg	80	17-150				Q31404
Acenaphthene	1.34266	1.667	mg/kg	81	36-107				Q31404
N-Nitrosodi-n-propylamine	0.87266	1.667	mg/kg	52	22-105				Q31404
Pentachlorophenol	1.636	1.667	mg/kg	98	39-137				Q31404
Phenol	0.937	1.667	mg/kg	56	23-97				Q31404
Pyrene	1.41066	1.667	mg/kg	85	45-133				Q31404
Matrix Spike Duplicate Sample ID:	Result	Spike Amount	Units	Recovery %	Recovery Ranges %	RPD %		RPD tange %	QC Batch ID
209578 1,2,4-Trichlorobenzene	1.217	1.667	mg/kg	73	26-97	21		0 - 37	Q31404
1,4-Dichlorobenzene	1.26566	1.667	mg/kg	76	23-92	24		0 - 36	Q31404
2,4-Dinitrotoluene	1.563	1.667	mg/kg	94	45-127	12		0 - 29	Q31404
2-Chlorophenoi	1.296	1.667	mg/kg	78	25-94	17		0 - 37	Q31404
4-Chloro-3-methylphenol	1.38433	1.667	mg/kg	83	31-113	13		0 - 32	Q31404
4-Nitrophenol	1.419	1.667	mg/kg	85	17-150	6		0 - 32	Q31404
Acenaphthene	1.60033	1.667	mg/kg	96	36-107	18		0 - 32	Q31404
N-Nitrosodi-n-propylamine	1.116	1.667	mg/kg	67	22-105	24		0 - 37	Q31404
Pentachlorophenol	1.87433	1.667	mg/kg	112	39-137	14		0 - 27	Q31404
Phenol	1.44266	1.667	mg/kg	87	23-97	42	#	0 - 42	Q31404
Pyrene	1.51833	1.667	mg/kg	91	45-133	7		0 - 27	Q31404



# Level II QC Report

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607

**Project** Name:

Richmond Co.

COC Group Number: G0308735 Date/Time Submitted:

3/21/200 13:05

Project ID: Project No.: **NCDOT Parcel 68** 

WBS# 34438.1.1

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

Method Blank		**************************************							QC Batch
	Result	RL.	Control Limit	Units					ID
Diesel Range Organics (DRO)	ND	7	<3.5	mg/kg					Q31414
Laboratory Control Sample	Result	Spike Amour	nt	Units	Recovery %	Recovery Ranges %			QC Batch ID
Diesel Range Organics (DRO)	78.7	80		mg/kg	98	55-109			Q31414
Matrix Spike Sample ID:	Result	Spike Amour	nt	Units	Recovery %	Recovery Ranges %			QC Batch ID
209749 Diesel Range Organics (DRO)	23290	80		mg/kg	5985 #	50-117			Q31414
Matrix Spike Duplicate Sample ID:	Result	Spike Amour	nt	Units	Recovery %	Recovery Ranges %	RPD %	RPD Range %	QC Batch ID
209749 Diesel Range Organics (DRO)	19585	80		mg/kg	1354 #	50-117	17	0 - 24	Q31414



# **Level II QC Report**

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart

c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607 Project Name: Richmond Co.

COC Group Number: ODate/Time Submitted:

G0308735

3/21/200 13:05

Project ID:

NCDOT Parcel 68

Project No.:

WBS# 34438.1.1

Semi-volatile Organic Compounds by GC/MS, method 8270C

ethod Blank	Result	RL	Control Limit	Units	QC Batch ID
1,2,4-Trichlorobenzene	ND	0.33	<0.165	mg/kg	Q31433
1,2-Dichlorobenzene	ND	0.33	<0.165	mg/kg	Q31433
1,3-Dichlorobenzene	ND	0.33	<0.165	mg/kg	Q31433
1,4-Dichlorobenzene	ND	0.33	<0.165	mg/kg	Q31433
2,4,5-Trichlorophenol	ND	0.33	<0.165	mg/kg	Q31433
2,4,6-Trichlorophenol	ND	0.33	<0.165	mg/kg	Q31433
2,4-Dichlorophenol	ND	0.33	<0.165	mg/kg	Q31433
2,4-Dimethylphenol	ND	0.33	<0.165	mg/kg	Q31433
2,4-Dinitrophenol	ND	1.65	<0.825	mg/kg	Q31433
2,4-Dinitrotoluene	ND	0.33	<0.165	mg/kg	Q31433
2,6-Dinitrotoluene	ND	0.33	<0.165	mg/kg	Q31433
2-Chloronaphthalene	ND	0.33	<0.165	mg/kg	Q31433
2-Chlorophenol	ND	0.33	<0.165	mg/kg	Q31433
2-Methylnaphthalene	ND	0.33	<0.165	mg/kg	Q31433
2-Methylphenol	ND	0.33	<0.165	mg/kg	Q31433
2-Nitrophenol	ND	0.33	<0.165	mg/kg	Q31433
3&4-Methylphenol	ND	0.33	<0.165	mg/kg	Q31433
3,3'-Dichlorobenzidine	ND	0.66	<0.33	mg/kg	Q31433
4,6-Dinitro-2-methylphenol	ND	1.65	<0.825	mg/kg	Q31433
4-Bromophenylphenylether	ND	0.33	<0.165	mg/kg	Q31433
4-Chloro-3-methylphenol	ND	0.66	<0.33	mg/kg	Q31433
4-Chloroaniline	ND	0.33	<0.165	mg/kg	Q31433
4-Chlorophenylphenylether	ND	0.33	<0.165	mg/kg	Q31433
4-Nitrophenol	ND	1.65	<0.825	mg/kg	Q31433
Acenaphthene	ND	0.33	<0.165	mg/kg	Q31433
Acenaphthylene	ND	0.33	<0.165	mg/kg	Q31433
Anthracene	ND	0.33	<0.165	mg/kg	Q31433
Azobenzene	ND	1.65	<0.825	mg/kg	Q31433
Benzo(a)anthracene	ND	0.33	<0.165	mg/kg	Q31433
Benzo(a)pyrene	ND	0.33	<0.165	mg/kg	Q31433
Benzo(b)fluoranthene	ND	0.33	<0.165	mg/kg	Q31433
Benzo(g,h,i)perylene	ND	0.33	<0.165	mg/kg	Q31433
Benzo(k)fluoranthene	ND	0.33	<0.165	mg/kg	Q31433
Benzoic acid	ND	1.65	<0.825	mg/kg	Q31433

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# Level II QC Report

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart 1101 Nowell Road Raleigh, NC 27607

Project Name:

Richmond Co.

COC Group Number: G0308735 Date/Time Submitted:

3/21/200 13:05

c/o Solution - IES

Project ID:

**NCDOT Parcel 68** 

Project No.:

WBS# 34438.1.1

lethod Blank	Result	RL	Control Limit	Units			QC Bato ID
Benzyl alcohol	ND	0.66	<0.33	mg/kg		P - 5.4 T - V Shidd (M - of - conflicts) concerns	Q31433
Bis(2-chloroethoxy)methane	ND	0.33	<0.165	mg/kg			Q31433
Bis(2-chloroethyl)ether	ND .	0.33	<0.165	mg/kg			Q31433
Bis(2-chloroisopropyl)ether	ND	0.33	<0.165	mg/kg			Q31433
Bis(2-ethylhexyl)phthalate	ND	0.33	<0.165	mg/kg			Q31433
Butylbenzylphthalate	ND	0.33	<0.165	mg/kg			Q31433
Chrysene	ND	0.33	<0.165	mg/kg			Q31433
Di-n-butylphthalate	ND	0.33	<0.165	mg/kg			Q31433
Di-n-octylphthalate	ND	0.33	<0.165	mg/kg			Q31433
Dibenzo(a,h)anthracene	ND	0.33	<0.165	mg/kg		i .	Q31433
Dibenzofuran	ND	0.33	<0.165	mg/kg			Q31433
Diethylphthalate	ND	0.33	<0.165	mg/kg			Q31433
Dimethylphthalate	ND	0.33	<0.165	mg/kg			Q3143
Fluoranthene	ND	0.33	<0.165	mg/kg			Q3143
Fluorene	ND	0.33	<0.165	mg/kg			Q3143
Hexachlorobenzene	ND	0.33	<0.165	mg/kg			Q3143
Hexachlorobutadiene	ND	0.33	<0.165	mg/kg			Q3143
Hexachlorocyclopentadiene	ND	0.33	<0.165	mg/kg			Q3143
Hexachloroethane	ND	0.33	<0.165	mg/kg			Q3143
Indeno(1,2,3-cd)pyrene	ND	0.33	<0.165	mg/kg			Q3143
Isophorone	ND	0.33	<0.165	mg/kg			Q3143
N-Nitrosodi-n-propylamine	ND	0.33	<0.165	mg/kg			Q3143
N-Nitrosodiphenylamine	ND	0.33	<0.165	mg/kg			Q3143
Naphthalene	ND	0.33	<0.165	mg/kg			Q3143
Nitrobenzene	ND	0.33	<0.165	mg/kg			Q3143
Pentachlorophenol	ND	1.65	<0.825	mg/kg			Q3143
Phenanthrene	ND	0.33	<0.165	mg/kg			Q3143
Phenol	ND	0.33	<0.165	mg/kg			Q3143
Pyrene	ND	0.33	<0.165	mg/kg			Q3143
aboratory Control Sample	Result	Spike Amou	nt	Units	Recovery %	Recovery Ranges %	QC Bat ID
1,2,4-Trichlorobenzene	1.06108	1.6423	3	mg/kg	65	39-98	Q3143
1,4-Dichlorobenzene	1.10935	1.6423	3	mg/kg	68	37-95	Q3143
2,4-Dinitrotoluene	1.24860	1.6423	3	mg/kg	76	56-128	Q3143
2-Chlorophenol	1.08243	1.6423	3	mg/kg	66	37-98	Q3143
4-Chloro-3-methylphenol	1.13004	1.6423	3	mg/kg	69	45-111	Q3143

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# Level II QC Report

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart 1101 Nowell Road Raleigh, NC 27607

Project Name:

Richmond Co.

COC Group Number: G0308735

c/o Solution - IES

Project ID: Project No.: NCDOT Parcel 68

WBS# 34438.1.1

Date/Time Submitted:	3/21/200	13:05

Laboratory Control Sample	Result	Spike Amount	Units	Recovery %	Recovery Ranges %			QC Batch ID
4-Nitrophenol	1.16354	1.6423	mg/kg	71	20-157			Q31433
Acenaphthene	1.11428	1.6423	mg/kg	68	44-110			Q31433
N-Nitrosodi-n-propylamine	e 0.93169	1.6423	mg/kg	57	38-101			Q31433
Pentachlorophenol	1.46206	1.6423	mg/kg	89	53-127			Q31433
Phenol	1.13497	1.6423	mg/kg	69	34-102			Q31433
Pyrene	1.24893	1.6423	mg/kg	76	54-131			Q31433
Matrix Spike Sample ID:	Result	Spike Amount	Units	Recovery %	Recovery Ranges %			QC Batch ID
209697 1,2,4-Trichlorobenzene	1.28266	1.667	mg/kg	77	26-97			Q31433
1,4-Dichlorobenzene	1.14666	1.667	mg/kg	69	23-92			Q31433
2,4-Dinitrotoluene	1.45666	1.667	mg/kg	87	45-127			Q31433
2-Chlorophenol	1.20833	1.667	mg/kg	72	25-94			Q31433
4-Chloro-3-methylphenol	1.46166	1.667	mg/kg	88	31-113			Q31433
4-Nitrophenol	1.354	1.667	mg/kg	81	17-150			Q31433
Acenaphthene	1.489	1.667	mg/kg	89	36-107			Q31433
N-Nitrosodi-n-propylamin	e 1.101	1.667	mg/kg	66	22-105			Q31433
Pentachlorophenol	1.802	1.667	mg/kg	108	39-137			Q31433
Phenol	1.35066	1.667	mg/kg	81	23-97			Q31433
Pyrene	1.55033	1.667	mg/kg	93	45-133			Q31433
Matrix Spike Duplicate Sample ID:	Result	Spike Amount	Units	Recovery %	Recovery Ranges %	RPD %	RPD Range %	QC Batch ID
209697 1,2,4-Trichlorobenzene	0.97066	1.667	mg/kg	58	26-97	28	0 - 37	Q31433
1,4-Dichlorobenzene	0.96933	1.667	mg/kg	58	23-92	17	0 - 36	Q31433
2,4-Dinitrotoluene	1.523	1.667	mg/kg	91	45-127	4	0 - 29	Q31433
2-Chiorophenol	0.97033	1.667	mg/kg	58	25-94	22	0 - 37	Q31433
4-Chloro-3-methylphenol	1.10466	1.667	mg/kg	66	31-113	28	0 - 32	Q31433
4-Nitrophenol	1.38333	1.667	mg/kg	83	17-150	2	0 - 32	Q31433
Acenaphthene	1.198	1.667	mg/kg	72	36-107	22	0 - 32	Q31433
N-Nitrosodi-n-propylamin	e 0.822	1.667	mg/kg	49	22-105	29	0 - 37	Q31433
Pentachlorophenol	1.69333	1.667	mg/kg	102	39-137	6	0 - 27	Q31433
Phenol	0.975	1.667	mg/kg	58	23-97	32	0 - 42	Q31433
Pyrene	1.41333	1.667	mg/kg	85	45-133	9	0 - 27	Q31433



# Level II QC Report

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES

1101 Nowell Road Raleigh, NC 27607 Project Name:

Richmond Co.

Project ID:

**NCDOT Parcel 68** 

Project No.:

WBS# 34438.1.1

COC Group Number: G0308735

Date/Time Submitted: 3/21/200 13:05

#### Extractable Petroleum Hydrocarbons by GC-FID, method MADEP EPH

Method Blank									QC Batch
46.300	Result	RL	Control Limit	Units					ID
C11-C22 Aromatics	ND	10	<5	mg/kg					Q31459
C19-C36 Aliphatics	ND	10	<5	mg/kg					Q31459
C9-C18 Aliphatics	ND	10	<5	mg/kg					Q31459
Laboratory Control Sample	Result	Spike Amou	unt	Units	Recovery %	Recovery Ranges %			QC Batch ID
C11-C22 Aromatics	101.5	170		mg/kg	60	40-140			Q31459
C19-C36 Aliphatics	53.88	80		mg/kg	67	40-140			Q31459
C9-C18 Aliphatics	32.4	60		mg/kg	54	40-140			Q31459
Matrix Spike Sample ID:	Result	Spike Amo	unt	Units	Recovery %	Recovery Ranges %			QC Batch ID
209558 C11-C22 Aromatics	139.9	170		mg/kg	82	40-140			Q31459
C19-C36 Aliphatics	56.9	80		mg/kg	71	40-140			Q31459
C9-C18 Aliphatics	42.16	60		mg/kg	70	40-140			Q31459
Matrix Spike Duplicate Sample ID:	Result	Spike Amou	unt	Units	Recovery %	Recovery Ranges %	RPD %	RPD Range %	QC Batch ID
209558 C11-C22 Aromatics	133.58	170		mg/kg	79	40-140	5	0 - 50	Q31459
C19-C36 Aliphatics	56. <del>9</del>	80		mg/kg	71	40-140	0	0 - 50	Q31459
C9-C18 Aliphatics	43.96	60		mg/kg	73	40-140	4	0 - 50	Q31459



# Level II QC Report

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart

c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607 Project Name:

Richmond Co.

COC Group Number: G0308735

Date/Time Submitted:

3/21/200 13:05

Project ID:

NCDOT Parcel 68

Project No.:

WBS# 34438.1.1

Volatile Petroleum Hydrocarbons by GC-PID/FID, method MADEP VPH

Method Blank	•						······		QC Batch
	Result	RL	Control Limit	Units					ID ID
C5-C8 Aliphatics	ND	5	<2.5	mg/kg					Q31500
C9-C10 Aromatics	ND	5	<2.5	mg/kg					Q31500
C9-C12 Aliphatics	ND	5	<2.5	mg/kg					Q31500
Laboratory Control Sample	Result	Spike Amou	unt	Units	Recovery %	Recovery Ranges %			QC Batch ID
C5-C8 Aliphatics	26.657	30		mg/kg	89	70-130			Q31500
C9-C10 Aromatics	4.772	5		mg/kg	95	70-130			Q31500
C9-C12 Aliphatics	34.931	40		mg/kg	87	70-130			Q31500
Matrix Spike Sample ID:	Result	Spike Amou	unt	Units	Recovery %	Recovery Ranges %			QC Batch ID
210007 C5-C8 Aliphatics	34.004	30		mg/kg	113	70-130			Q31500
C9-C10 Aromatics	4.917	5		mg/kg	98	70-130			Q31500
C9-C12 Aliphatics	42.449	40		mg/kg	106	70-130			Q31500
Matrix Spike Duplicate Sample ID:	Result	Spike Amou	unt	Units	Recovery %	Recovery Ranges %	RPD %	RPD Range %	QC Batch ID
210007 C5-C8 Aliphatics	34.045	30		mg/kg	113	70-130	0	0 - 25	Q31500
C9-C10 Aromatics	4.988	5		mg/kg	100	70-130	1	0 - 25	Q31500
C9-C12 Aliphatics	43.346	40		mg/kg	108	70-130	2	0 - 25	Q31500



## Level II QC Report

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road

Project Name:

Richmond Co.

COC Group Number: G0308735 Date/Time Submitted:

3/21/200 13:05

Project ID: Project No.: **NCDOT Parcel 68** 

WBS# 34438.1.1

Raleigh, NC 27607

#### Extractable Petroleum Hydrocarbons by GC-FID, method MADEP EPH

Method Blank	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,								QC Batch
	Result	RL	Control Limit	Units					ID
C11-C22 Aromatics	ND	10	<5	mg/kg					Q31512
C19-C36 Aliphatics	ND	10	<5	mg/kg					Q31512
C9-C18 Aliphatics	ND	10	<5	mg/kg					Q31512
Laboratory Control Sample	Result	Spike Amou	unt	Units	Recovery %	Recovery Ranges %			QC Batch ID
C11-C22 Aromatics	95.98	170		mg/kg	56	40-140			Q31512
C19-C36 Aliphatics	56.66	80		mg/kg	71	40-140			Q31512
C9-C18 Aliphatics	27.34	60		mg/kg	46	40-140			Q31512
Matrix Spike Sample ID:	Result	Spike Amou	unt	Units	Recovery %	Recovery Ranges %		·	QC Batch ID
209859 C11-C22 Aromatics	134.04	170		mg/kg	79	40-140			Q31512
C19-C36 Aliphatics	69.16	80		mg/kg	86	40-140			Q31512
C9-C18 Aliphatics	42.68	60		mg/kg	71	40-140			Q31512
Matrix Spike Duplicate Sample ID:	Result	Spike Amou	unt	Units	Recovery %	Recovery Ranges %	RPD %	RPD Range %	QC Batch ID
209859 C11-C22 Aromatics	129.84	170		mg/kg	76	40-140	3	0 - 50	Q31512
C19-C36 Aliphatics	67.6	80		mg/kg	85	40-140	2	0 - 50	Q31512
C9-C18 Aliphatics	45.06	60		mg/kg	75	40-140	5	0 - 50	Q31512



# Level II QC Report

04/15/08

N. C. Department of Transportation

Attn: Jessica Dehart c/o Solution - IES 1101 Nowell Road Raleigh, NC 27607

Project Name:

Richmond Co.

COC Group Number: G0308735

Project ID:

NCDOT Parcel 68

Project No.:

WBS# 34438,1.1

Date/Time Submitted: 3/21/200 13:05

#### Extractable Petroleum Hydrocarbons by GC-FID, method MADEP EPH

Method Blank									QC Batch
	Result	RL	Control Limit	Units					ID.
C11-C22 Aromatics	ND	10	<5	mg/kg					Q31603
C19-C36 Aliphatics	ND	10	<5	mg/kg					Q31603
C9-C18 Aliphatics	ND	10	<5	mg/kg					Q31603
Laboratory Control Sample	Result	Spike Amo	unt	Units	Recovery %	Recovery Ranges %			QC Batch ID
C11-C22 Aromatics	130.34	170		mg/kg	77	40-140			Q31603
C19-C36 Aliphatics	58.28	80		mg/kg	73	40-140			Q31603
C9-C18 Aliphatics	30.04	60		mg/kg	50	40-140			Q31603
<b>Matrix Spike</b> Sample ID:	Result	Spike Amor	unt	Units	Recovery %	Recovery Ranges %			QC Batch ID
209571 C11-C22 Aromatics	106.1	170		mg/kg	62	40-140			Q31603
C19-C36 Aliphatics	59.86	80		mg/kg	75	40-140			Q31603
C9-C18 Aliphatics	33.46	60		mg/kg	56	40-140			Q31603
Matrix Spike Duplicate Sample ID:	Result	Spike Amo	unt	Units	Recovery %	Recovery Ranges %	RPD %	RPD Range %	QC Batch ID
209571 C11-C22 Aromatics	118.3	170		mg/kg	70	40-140	11	0 - 50	Q31603
C19-C36 Aliphatics	68.7	80		mg/kg	86	40-140	14	0 - 50	Q31603
C9-C18 Aliphatics	<del>44</del> .12	60		mg/kg	74	40-140	27	0 - 50	Q31603

Page 21 of 21



PAGE OF .... Full Service Analytical & Environmental Solutions

Phone: 9/9873-/020 Fax (Yes) (No): Purchase Order No./Billing Reference M.D. H. Email/Yes)XNo) Email Address (DELHALT & OLUTARS Purchase Order No./Billing Reference M.D. H. 449 Springbrook Road • P.O. Box 240543 • Charlotte, NC 28224-0543 Phone: 704/529-6364 • Fax: 264/525-0409 Client Company Name: Client Company Name: 55CB DIVELL Report To/Contact Name: Reporting Address: 1/10/ MEIGH MINISH EDD Type: PD Site Location

Site Location

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NO N/A

LAB USE ONLY

Received ON WET ICE? Temp Samples INTACT upon arrival?

		PRISM	LAB ID NO.	924E76	209577	2573	224579	Jul 580	924581	32783	24583	केश्डम	254535	- 3 COPIES	PRISM USE ONLY	me:	e Time:
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Certification: NELAC	SCOTHER Water Chlorinated: YESNO Sample Iced Upon Collection: YES	ANALYSES REQUESTED	MCS SAN SOS								THE PART OF THE PA	417	<del>}</del>	Affiliation Oct. JON TOWN - 1ES	must be		,
U 4 Days U 5 Days	s Christi was be Lishess day. Weekends and holidays. Wee SerVICES		1817 1817	1. 1.							A COLUMN TO THE PARTY OF THE PA	3	<del>\</del>	Affiliation Oct	Upon relinquishing, this chain of Custody is your authorization for Prism to proceed with the analyses as requested above. Any changes must be submitted in writing to the Project Manager. There will be charges for any changes after analyses have been initialized.	30/2/	Date / / / 60
UllDay UllDays UllDays UllDays UllDays UllDays	"Working Days"   © 6-9 Days ALStandard 10 days © Prest work must be Samples received after 15:00 will be processed next business day.  Turnaround time is based on business days, excluding weekends and holidays. (SEE REVERSE FOR TERMS & CONDITIONS REGARDING SERVICES HENDERED BY PRISM LABORATORIES. INC. TO CLIENT	INER	SIZE TIVES	Scount Menthing Scount Providite									>	CA DEHACT	the analyses as request	alla.	
ate	"Working Days" © 6 Samples received after 15: Turnaround time is based of SEE REVERSE FOR TE RENDERED BY PRISM	SAMPLE CONTAINER	*TYPE NO.	4/11 1/12									<del>&gt;</del>	Sampled By (Print Name)	Prism to proceed with larges for any changes	Received By: (Signature)	Received By: (Signature)
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1	DALCEL Address: A		DATE COLLECTED	3/10/08	     			>	3/20/08				<del>\</del>	MODIO	s Chain of Cus the Prism Pro	MM	
(2.17)	ite Location Physical Address: KILLHIDAD (DUNITY)		CLIENT SAMPLE DESCRIPTION	108-E1	68-63	108-NI	68-NJ	(08-N3		68-53	108-53	100-W	(ab-Wa	Sampler's Signature	Upon relinquishing, this submitted in writing to	Belinquished By: (Signature)	Relinguished By: (Signature)

Site Departure (Ime: Field Tech Fee: Mileage:

SEE REVERSE FOR TERMS & CONDITIONS

ONC OSC

**OTHER**:

LANDFILL

CERCLA

RCRA:

SOLID WASTE:

DRINKING WATER:

Other.

rism Field Service

☐ Fed Ex ☐ UPS ☐ Hand-delivered

UST:

NPDES:

GRQUNDWATER:

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DNC DSC

G0308735

Consulta Ministra

1305

ORIGINAL

Melhod of Shipment: NOTE: ALL SAMPLE COOLERS SHOULD BE TAPED SHUTWITH CUSTODY SEATS FOR TRANSPORTATION TO THE LABORATORY. SAMPLES ARE NOT ARCEPTED AND VERIFIED AGAINST & CONTIL RECEIVED AT THE LABORATORY.



Full Service Analytical & Environmental Solutions

Phone: 419 873-10/40\_ Fax (Yes) (No): Email (Yes) (No) Email Address JOEHART @ Solution -165. 449 Springbrook Road • P.O. Box 240543 • Charlotte, NC 28224-0543 Phone: 704/529-6364 • Fax/704/525-0409 Client Company Name: XX UTTDAS-Oure Site Location Name: PALCEL UP EDD Type: PDF \_\_\_ Exçel\_\_ Report To/Contact Name: Reporting Address:

Site Location Physical Address: LiCAMOVD (DINDY

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Project Name: KICHMOND (DUNTY UST CLOSURE QUOTE # TO ENSURE PROPER BILLING: PAGE / OF \_

\*Please ATTACH any project specific reporting (QC LEVEL I II III) UST Project: (Mes) (No provisions and/or OC Requirements
Invoice To: NCON GEOSIVII DOIVING NAME UN IT Short Hold Analysis: (Yes) (Nb) Address: DALEIGH, NO

1,1 	$\frac{\lambda}{1}$			ا لا	
Samples INTACT upon arrival? $HB$	PROPER PRESERVATIVES indicated? Received WITHIN HOLDING TIMES?	TODY SEALS INTACT	VOLATILES rec'd W/OUT HEADSPACE?	PROPER CONTAINERS used?	
	6				

N/A

YES

LAB USE ONLY

Purchase Order No./Billing Reference 1000年 34436 - 6.1
Requested Due Date @1 Day @2 Days @3 Days @4 Days @5 Days
"Working Days" G-9 Days Standard 10 days G Pre-Annoyed
Samples received after 15:00 will be processed next business day.
Turnaround time is based on business days, excluding weekends and holidays.
(SEE REVERSE FOR TERMS & CONDITIONS REGARDING SERVICES
RENDERED BY PRISM LABORATORIES, INC. TO CLIENT)

	IO BE FILLED IN BY CLIENI/SAMPLING PERSONNEL	
	Certification: NELACUSACEFLNC_X_	
	SCOTHERN/A	
	Water Chlorinated: YES NO	
	Sample Iced Upon Collection: YES 🗡 NO	
3	MAI VEES DECLIECTED	_

PRISM	LAB ID NO.	A29536	वेञ्बाह्य	224583	100						- 3 COPIES	PRISM USE ONLY	me:	e Time:
\	REMARKS						The state of the s				PRESS DOWN FIRMLY - 3 COPIES	PRISM (	Additional Comments: Site Arrival Time:	Site Departure Time:
	K OPK OF	メメ	× ×	<b>*</b>					And the second s		Affiliation Society Affiliation Section Sectio	Upparelinquishing, this Chain of Custody is your authorization for Prism to proceed with the analyses as requested above. Any changes must be adomitted in writing to the Prism Project Manager. There will be charges for any changes after analyses have been initialized.	<b>E</b>	
DRESERVA.	TIVES	west/mentions	-	j							EHART	s as requested ab		
SAMPLE CONTAINER	NO. SIZE	C/,		<b>→</b>							Jessica Deuger	ed with the analyse hanges after analys	Man	and I
SAMPLE	*TYPE SEE BELOW	Soil 6 luca		<b>→</b>		- -					Sampled By (Print Name)	Prism to procer	Received By: (Signature)	Reseived By: (Signature)
(SOIL.	WATER OR SLUDGE)	301	<u></u>	<del>-&gt;</del>								orization for ere will be d	Rece	Head
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DATE	COLLECTED	3/18/08	3/19/08	3/19/08						7	Longo	Chain of Custo	41141	un lary
CLIENT	SAMPLE DESCRIPTION	1-0510-80		<b>—</b>							Sampler's Signature	Upon relinguishing, this	Relinquished By: (Signature)	Refundshed By: (Signature)

Site Departure Time:

Mileage:

Field Tech Fee:

ORIGINAL

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

ONCOSCONCOSCONCOSCONCOSCO

OTHER:

LANDFILL

CERCLA

RCRA:

SOLID WASTE: ONC OSC

DRINKING WATER: ONC OSC

NPDES: UST: GROUNDWATER:

☐ Hand-delivered

☐ Fed Ex ☐ UPS

Method of Shipment: NOTE: ALL SAMPLE COOLERS SHOULD BE TAPED SHAT WITH CUSTODY SEALS FOR TRANSPORTATION TO THE LABORATORY. SAMPLES ARE NOT ACCEPTED AND VERIFIED AGAINST COCUITIL RECEIVED AT THE LABORATORY.

G0308735

#### VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name:

N. C. Department of Transportation

Laboratory Name:

Prism Laboratories, Inc.

**Project Name:** 

NCDOT Parcel 68

NC Certification # (Lab):

402

Site Location:

Richmond County, NC

Sample Matrix:

Soil

	Samı	ole Informati	on and Analyti	cal Results			
Method fo	r Ranges: MADEP VPH		···-				
VPH Surro	ogate Standards: Aliphatic	- 2,5-Dibrom	otoluene / Arc	matic - 2,5-Di	bromotoluene	1	
		- T					
Sample Id	entification:	14	209576	209577	209578	209579	209580
Collection	Option (for soil*):		1	1	1	1	1
Date Colle	ected:		03/19/08	03/19/08	03/19/08	03/19/08	03/19/08
Date Rece	eived:		03/21/08	03/21/08	03/21/08	03/21/08	03/21/08
Date Extra	acted:		04/02/08	04/03/08	04/03/08	04/03/08	04/03/08
Date Anal	yzed:		04/02/08	04/03/08	04/03/08	04/03/08	04/03/08
% Dry Sol	ids:		85.6	83.9	89.4	86.5	85.4
Dilution Fa	actor:		1	1	1	1	1
Hydrocarb	on Ranges in mg/kg:		Sample Results				
C5-C8 A	Miphatics		<5.8	<6.0	<5.6	<5.8	<5.9
C9-C12	Aliphatics		<5.8	<6.0	<5.6	<5.8	<5.9
C9-C10	Aromatics		<5.8	<6.0	<5.6	<5.8	<5.9
Blank:	C5-C8 Aliphatics		<5.0	<5.0	<5.0	<5.0	<5.0
	C9-C12 Aliphatics		<5.0	<5.0	<5.0	<5.0	<5.0
	C9-C10 Aromatics		<5.0	<5.0	<5.0	<5.0	<5.0
RL:	C5-C8 Aliphatics		5.8	6.0	5.6	5.8	5.9
	C9-C12 Aliphatics		5.8	6.0	5.6	5.8	5.9
	C9-C10 Aromatics		5.8	6.0	5.6	5.8	5.9
MDL:	C5-C8 Aliphatics		1,1	1.1	1.1	1.1	1.1
	C9-C12 Aliphatics		1.8	1.8	1.7	1.8	1.8
	C9-C10 Aromatics		0.035	0.036	0.034	0.035	0.035
	Acceptance Range:	Blank	70-130 %	70-130 %	70-130 %	70-130 %	70-130 %
	Surrogate % Rec FID:	91	97	70	87	94	95
Aromatic	c Surrogate % Rec PID:	90	110	103	112	119	114

<sup>\*</sup> Option 1 = Established fill line on vial

MDL = Method Detection Limit

RL = Reporting Limit

Blank = Laboratory Method Blank or Trip Blank

(whichever is higher - indicate type)

Were all performance/acceptance standards for required QA/QC procedures achieved?

Were any significant modifications to the VPH method made?

YES NO

No - Details Attached Yes - Details Attached

Comments:

VPH trip blank was not submitted to the laboratory.

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VPH Soil

<sup>\*</sup> Option 2 = Sampling device (indicate brand, e.g., EnCore TM)

<sup>\*</sup> Option 3 = Field weight of soil

#### VPH (Aliphatics/Aromatics) Laboratory Reporting Form

 Client Name:
 N. C. Department of Transportation
 Laboratory Name:
 Prism Laboratories, Inc.

 Project Name:
 NC DOT Parcel 68
 NC Certification # (Lab):
 402

 Site Location:
 Richmond County, NC
 Sample Matrix:
 Soil

	Samr	ole Informatio	on and Analyti	cal Results			
Method for	Ranges: MADEP VPH	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	on and many a	odi i toodito			
	gate Standards: Aliphatic	- 2.5-Dibrom	otoluene / Arc	matic - 2.5-Di	bromotoluene	<b>.</b>	
Sample Ide	entification:		209581	209582	209583	209584	209585
Collection	Option (for soil*):		1	1	1	1	1
Date Colle	cted:		03/20/08	03/20/08	03/20/08	03/20/08	03/20/08
Date Rece	ived:		03/21/08	03/21/08	03/21/08	03/21/08	03/21/08
Date Extra	cted:		04/03/08	04/03/08	04/03/08	04/03/08	04/03/08
Date Analy	zed:		04/03/08	04/03/08	04/03/08	04/03/08	04/03/08
% Dry Soli	ds:		82.4	88.8	83.6	93.2	93.0
Dilution Fa	ctor:		1	10	10	1	1
Hydrocarbo	on Ranges in mg/kg:		Sample Results				
C5-C8 A	iphatics		<6.1	390	630	<5.4	<5.4
C9-C12 /	Aliphatics		<6.1	330	720	<5.4	<5.4
C9-C10 /	Aromatics		<6.1	93	180	<5.4	<5.4
Blank:	C5-C8 Aliphatics		<5.0	<5.0	<5.0	<5.0	<5.0
	C9-C12 Aliphatics		<5.0	<5.0	<5.0	<5.0	<5.0
	C9-C10 Aromatics		<5.0	<5.0	<5.0	<5.0	<5.0
RL:	C5-C8 Aliphatics		6.1	56	60	5.4	5.4
	C9-C12 Aliphatics		6.1	56	60	5.4	5.4
	C9-C10 Aromatics		6.1	56	60	5.4	5.4
MDL:	C5-C8 Aliphatics		1.2	11	11	1.0	1.0
	C9-C12 Aliphatics		1.9	17	18	1.7	1.7
	C9-C10 Aromatics		0.036	0.34	0.36	0.032	0.032
	Acceptance Range:	Blank	70-130 %	70-130 %	70-130 %	70-130 %	70-130 %
	Surrogate % Rec FID:	91	95	DO#	DO#	117	96
Aromatic	Surrogate % Rec PID:	90	113	DO#	DO#	104	112

<sup>\*</sup> Option 1 = Established fill line on vial

MDL = Method Detection Limit RL = Reporting Limit Blank = Laboratory Method Blank or Trip Blank (whichever is higher - indicate type)

Were all performance/acceptance standards for required QA/QC procedures achieved?

Were any significant modifications to the VPH method made?

VPH trip blank was not submitted to the laboratory.

DO: Compound diluted out.

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Page 2 of 2 VPH Soil

<sup>\*</sup> Option 2 = Sampling device (indicate brand, e.g., EnCore TM)

<sup>\*</sup> Option 3 = Field weight of soil

### EPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name:

N. C. Department of Transportation

Laboratory Name:

Prism Laboratories, Inc.

Project Name:

NCDOT Parcel 68

NC Certification # (Lab):

402

Site Location:

Richmond County, NC

Sample Matrix:

Soil

		ple Informati	on and Analyt	ical Results			
	Ranges: MADEP EPH						
EPH Surro	gate Standards: Aliphatic	- 1-Chloro-o	ctadecane / A	romatic - o-Tei	phenyl		
	onation Surrogates: #1 - 2	2-Bromonapl	nthalene / #2 -	Fluorobiphen	yl		
Sample ide	171		209576	209577	209578	209579	209580
Date Collec			03/19/08	03/19/08	03/19/08	03/19/08	03/19/08
Date Recei	ived:		03/21/08	03/21/08	03/21/08	03/21/08	03/21/08
Date Extra	- 11 11		03/29/08	03/29/08	03/29/08	03/29/08	03/29/08
Date Analy	***		04/05/08	04/05/08	04/05/08	04/05/08	04/05/08
% Dry Solid	ds:		85.6	83.9	89.4	86.5	85.4
Dilution Fac			1	1	1	1	1
	on Ranges in mg/kg:		Sample Results	Sample Results	Sample Results	Sample Results	Sample Results
C9-C18 A			<11	<12	<11	<12	<11
	Aliphatics		<11	<12	<11	<12	<11
C11-C22	Aromatics		<11	<12	<11	<12	<11
Blank:	C9-C18 Aliphatics		<10	<10	<10	<10	<10
	C19-C36 Aliphatics		<10	<10	<10	<10	<10
	C11-C22 Aromatics		<10	<10	<10	<10	<10
RL:	C9-C18 Aliphatics		11	12	11	12	11
	C19-C36 Aliphatics		11	12	11	12	11
	C11-C22 Aromatics		11	12	11	12	11
MDL:	C9-C18 Aliphatics		1.0	1.1	0.97	1.0	1.0
	C19-C36 Aliphatics		1.6	1.6	1.4	1.6	1.5
	C11-C22 Aromatics		2.0	2.1	1.9	2.0	2.0
Surrogate Acceptance Range:		Blank	40-140 %	40-140 %	40-140 %	40-140 %	40-140 %
Aliphatic Surrogate % Rec.:		91	88	90	89	. 98	89
Aromatic Surrogate % Rec.:		79	109	114	117	97	128
Fractionation Surrogate Accep. Range:		Blank	40-140 %	40-140 %	40-140 %	40-140 %	40-140 %
	rogate #1 % Rec.:	47	105	112	62	52	. 41
Frac. Sun	rogate #2 % Rec.:	93	93	100	98	89	110

MDL = Method Detection Limit

RL = Reporting Limit

Blank = Laboratory Method Blank

Were all performance/acceptance standards for required QA/QC procedures achieved?

Was blank correction applied as a significant modification of the method?

Were any significant modifications to the EPH method made?

YES NO
Yes NO
Yes - Details Attached

Comments:

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Page 1 of 2 EPH Soil

### EPH (Aliphatics/Aromatics) Laboratory Reporting Form

 Client Name:
 N. C. Department of Transportation
 Laboratory Name:
 Prism Laboratories, Inc.

 Project Name:
 NC DOT Parcel 68
 NC Certification # (Lab):
 402

 Site Location:
 Richmond County, NC
 Sample Matrix:
 Soil

	Sam	ole Information	on and Analyti	cal Results			
Method for	Ranges: MADEP EPH		,				
EPH Surro	gate Standards: Aliphatic	- 1-Chloro-o	ctadecane / A	romatic - o-Tei	ohenvl		
	onation Surrogates: #1 - 2					<del></del>	
Sample ide			209581	209582	209583	209584	209585
Date Collec	cted:		03/20/08	03/20/08	03/20/08	03/20/08	03/20/08
Date Recei	ived:		03/21/08	03/21/08	03/21/08	03/21/08	03/21/08
Date Extra	cted:		03/31/08	03/31/08	04/01/08	04/01/08	04/01/08
Date Analy	zed:		04/10/08	04/11/08	04/07/08	04/07/08	04/07/08
% Dry Solid	ds:		82.4	88.8	83.6	93.2	93.0
Dilution Fa	ctor:		1	1	1	1	1
Hydrocarbo	on Ranges in mg/kg:		Sample Results	Sample Results	Sample Results	Sample Results	Sample Results
C9-C18 A	Aliphatics		<12	13	75	<11	<11
	Aliphatics		<12	<11	<12	<11	<11
C11-C22	Aromatics		<12	<11	<12	<11	<11
Blank:	C9-C18 Aliphatics		<10	<10	<10	<10	<10
	C19-C36 Aliphatics		<10	<10	<10	<10	<10
	C11-C22 Aromatics		<10	<10	<10	<10	<10
RL:	C9-C18 Aliphatics		12	11	12	11	11
	C19-C36 Aliphatics		12	11	12	11	11
	C11-C22 Aromatics		12	11	12	11	11
MDL:	C9-C18 Aliphatics		1.1	1.0	1.1	0.98	0.95
	C19-C36 Aliphatics		1.6	1.5	1.6	1.5	1.4
	C11-C22 Aromatics		2.1	2.0	2.1	1.9	1.9
Surrogate Acceptance Range: Blan		Blank	40-140 %	40-140 %	40-140 %	40-140 %	40-140 %
Aliphatic Surrogate % Rec.:		77	98	61	80	101	80
Aromatic Surrogate % Rec.:		93	121	105	99	120	95
Fractionation Surrogate Accep. Range:		Blank	40-140 %	40-140 %	40-140 %	40-140 %	40-140 %
	rogate #1 % Rec.:	41	92	96	40	105	115
Frac. Sur	rogate #2 % Rec.:	84	101	86	75	52	88

MDL = Method Detection Limit

RL = Reporting Limit

Blank = Laboratory Method Blank

Were all performance/acceptance standards for required QA/QC procedures achieved?

Was blank correction applied as a significant modification of the method?

Were any significant modifications to the EPH method made?

NO Yes - Details Attached

Comments:

G0308735

Page 2 of 2 EPH Soil

# APPENDIX E PHOTOGRAPHS



Photograph 1 - Tanks 1 & 2 uncovered.



Photograph 2 – Site restoration.