ATC ASSOCIATES OF NORTH CAROLINA, P.C.
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November 1, 2012

Mr. Gordon Box
NC Department of Transportation
GeoEnvironmental Section
1589 Mail Service Center
Raleigh, North Carolina, 27699-1589

Reference: Preliminary Site Assessment
Parcel 51
1402 W 14th Avenue, Greenville, NC 27834
State Project: U-3315
WBS Element 35781.1.2
ATC Project No. 45.19873.0007

Dear Mr. Box:

ATC Associates of North Carolina, P.C. (ATC) has prepared this report to document the results of a preliminary site assessment (PSA) conducted at the above referenced site. The assessment was conducted in accordance with the Technical and Cost Proposal submitted to the North Carolina Department of Transportation (NCDOT) on July 27, 2012, and a Notice to Proceed letter issued by the NCDOT on August 16, 2012. This report describes field activities, laboratory results, estimated impacted soil quantities, and conclusions based on the collected data.

1.0 BACKGROUND INFORMATION

According to the request for technical and cost proposal (RFP) dated July 10, 2012, parcel 51 (site) is located at 1402West 14th Street in Greenville, North Carolina. Note that the Pitt County online parcel information system (OPIS) lists the site's location as 1402 West 14th Avenue, as opposed to West 14th Street. Furthermore, OPIS indicates that Parcel 51 is comprised of two adjacent county parcels oriented northeast-southwest. The address for the northwest county parcel is 0 Spruce Street. A site plan is included as ***Figure 1***. Per the RFP, the site building functions as an automotive body shop (Moore's Body Shop) which is currently operating. The site is not listed on EPA's registry though a sign located above the garage indicated "Hazardous Material". The type and quantity of waste was not identified. The site is bounded to the west by 14th Avenue and to the south by Spruce Street. Adjacent properties toward the northwest are zoned as a warehouse and function as a religious worship center (Parcel 50).

The site lies within the coastal plain of North Carolina and is underlain by the Yorktown formation, which generally consists of fossiliferous clays and sands. The site lies in the Tar-

Pamlico river basin and groundwater flows generally to the northeast across the site. A groundwater gradient map for the site and surrounding parcels is included as ***Figure 1.***

Parcel 51 has been identified for total take status and therefore NCDOT requested investigative actions be performed over the entirety of the site. A parcel identification map is included as ***Figure 2***.

As per the Technical and Cost Proposal, ATC obtained a report provided by Environmental Data Resources, Inc. (EDR) of Milford, Connecticut. The report was reviewed for information regarding reported releases of hazardous substances and petroleum products on or near the site. ATC also reviewed the "unmappable" (also referred to as "orphan") listings within the database report, cross-referencing available address information and facility names. Unmappable sites are listings that could not be plotted with confidence, but are potentially in the general area of the property in question based on the partial street address, city, or zip code. No unmappable sites were identified by ATC as being within the approximate minimum search distance from Parcel 51 based on the site reconnaissance and/or cross-referencing to mapped listings. In addition, Parcel 51 was not listed on any state databases reviewed for this part of the historical assessment. The property is listed on the Resource Conservation Recovery Act Non Generator list (RCRA – NonGen) and the Facility Index (FINDS) databases. The property is listed in the EDR reports as American Auto body at 302 Spruce Street. These databases indicate the property once was a generator of wastes that were likely associated with auto body repair work. No violations were found for the property. The Non Generator status indicates the property does not produce wastes but once did. The 1923, 1929, and 1946 Sanborn Maps for the site depict the property with a road (Farmville Boulevard). The 1958 Sanborn Map depicts the road configuration changed for the adjacent Growers Warehouse. The current building first appears in the 1958 Sanborn Map and is identified as a wholesale electric parts and repair shop . The aerial photographs appear to depict the property building. The complete EDR report is included in ***Appendix A.***

2.0 FIELD ACTIVITIES

2.1 Geophysical Survey

Prior to performing soil assessment activities, ATC contacted Stantec Consulting Services, Inc. (Stantec) to perform a geophysical survey of the site. The purpose of the survey was to locate USTs and/or other buried structures on the parcel. This was to be done in the area of the proposed NCDOT right of way and included proposed excavations for drainage lines, utilities, and slope stake cuts. The survey was conducted on July 18 through 19, 2012 and included electromagnetic (EM) induction-magnetic detection and ground penetrating radar (GPR) surveys. According to Stantec's survey, no USTs and/or other buried structures were present on the parcel. The complete geophysical report is provided in ***Appendix B.*** Based on the findings of the survey, the total take status of the site, and the restricted access to the southwest county parcel (i.e. covered by a building), ATC performed a drilling event to assess soil and groundwater conditions at the site. Details of the soil and groundwater assessment are included in ***Sections 2.2*** and ***2.3***.

2.2 Soil Assessment

Based on the results of the geophysical survey and in anticipation of a total take by the NCDOT, a soil assessment was completed on-site. On August 8, 2012, ATC mobilized to the site with South Atlantic Environmental Drilling and Construction Company (SAEDACCO) to conduct sampling activities. Over the course of the event, five borings (SB51-1 through SB51-4 and TW51-1) were advanced using direct-push technology (DPT) drilling techniques. Prior to the drilling, Stantec was contracted to conduct utility clearance in conjunction with the geophysical survey investigation. The NCDOT and North Carolina's 811 service were also notified prior to field activities.

The locations of the borings are shown on the attached ***Figure 1***. Each boring was advanced to a depth of five feet below ground surface (bgs) via hand auger prior to utilizing DPT drilling techniques to complete the sampling. Soil samples were collected every 1 to 3 feet and screened with a photo-ionization detector (PID). Soils encountered consisted primarily of tan to gray silty sands and clays. The highest PID reading collected during the soil assessment was 0.7 parts per million (ppm) in the 0-2.5 feet bgs interval of SB51-2. Boring logs are included in ***Appendix C***.

One soil sample from each boring was submitted for laboratory analysis. This was determined by either submitting the interval with the highest PID reading, or, if not applicable, the deepest interval at which proposed construction would take place. Samples were submitted to SGS Analytical Perspectives (SGS) in Wilmington, North Carolina. Following proper chain-of-custody protocol, the samples were placed in laboratory supplied containers in an ice filled cooler for analysis of Total Petroleum Hydrocarbons – Gasoline Range Organics (TPH-GRO) and Diesel Range Organics (TPH-DRO) by EPA Method 8015 Modified. Due to their proximity to the probable UST locations at Parcel 50 and possible former industrial activities at the site, select samples (SB51-1, SB51-2 and TW51-1) were also analyzed for volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) by EPA methods 8260B and 8270D, respectively. A discussion of the laboratory results is provided in ***Section 3.0***.

2.3 Groundwater Assessment

ATC supervised SAEDACCO during the installation of temporary well TW51-1 on August 7, 2012. The boring was advanced to a depth of five feet bgs via hand auger prior to utilizing DPT drilling techniques to complete the well installation activities. Temporary well TW51-1 was installed to a depth of 12 feet bgs using 10 feet of 0.010-inch machine slotted 1-inch poly vinyl chloride (PVC) well screen and solid PVC riser. The annular space of the boring was filled with washed silica sand to an approximate depth of 2 feet bgs. The location of the temporary well is shown on the attached ***Figure 1*** and a boring log is included in ***Appendix C***.

Following the temporary well installation, ATC gauged an approximate depth to water level of 2.65 feet below the top of well casing. A peristaltic pump and dedicated polyethylene tubing were used to purge approximately one gallon prior to collecting a groundwater sample. The sample was submitted to SGS under chain-of-custody protocol for analysis of VOCs by EPA Method 8260B and SVOCs by EPA Method 8270D. Following sampling, the top of well casing was surveyed for vertical elevation using standard surveying practices from a temporary benchmark with an arbitrary, assumed elevation of 100.00 feet. This was done in conjunction with adjacent temporary wells installed on the surrounding parcels. Following surveying, the

borings were filled with native soil and finished to approximately 6 inches below surface grade with bentonite. The remainder of the boring was then filled using material to match the surround surface.

3.0 LABORATORY RESULTS

The results of the laboratory analyses for soil samples collected on-site indicated no detectable concentrations of TPH-GRO in all samples and detectable concentrations of TPH-DRO in SB51-2 and TW51-1. Comparison of detected concentrations to the NCDENR action level of 10 milligrams per kilogram (mg/kg) indicated exceedences of TPH-DRO in SB51-2 and TW51-1. The results of the VOC and SVOC analyses indicated concentrations of benzene and benzo(a)pyrene above the NCDENR soil-to-groundwater maximum soil contaminant concentration levels (MSCCs) in TW51-1.

The results of laboratory analyses for groundwater sample TW51-1 indicated levels of MTBE at concentrations above NC Title 15A NCAC 2L .0202 Groundwater Standards (2L Standards). No other compounds were detected above laboratory detection limits. The laboratory analytical report is included in ***Appendix D*** and a summary of the laboratory results for the soil and groundwater sampling are provided in ***Tables 1*** and ***2***, respectively.

4.0 IMPACTED SOIL ASSESSMENT

The results of the soil and groundwater assessment indicate that soil has been impacted above the NCDENR action level. Therefore, ATC proceeded with estimating the quantity of impacted soil as directed in the RFP. Specifically, soil samples collected from the 0-2.5 feet bgs interval in borings SB51-2 and TW50-1 were used to calculate volumes in two locations. At the request of the NCDOT, volume calculations are separated into two categories. The first volume estimation represents the total quantity of impacted soil on-site. Due to the shallow groundwater table at the site, this estimation was calculated using the "Estimated Extent of Impacted Soil" as depicted on ***Figure 4*** and in ***Appendix E***. The second volume estimation represents the quantity of impacted soil that will need to be handled during the proposed construction. This estimation was calculated using the "Estimated Extent of Impacted Groundwater" as depicted on ***Figure 5*** and in ***Appendix E***. The volume to be handled during the proposed construction was estimated based on proposed drainage, utility, and cut/fill construction elevations provided by the NCDOT. Quantities are estimated in cubic yards and converted to tons using an NCDOT provided multiplier of 1.5 tons per cubic yard.

For the first volume estimation, ATC calculated a volume of approximately 58.89 cubic yards (88.34 tons) for the total volume of impacted soil on-site. For the second volume estimation, ATC calculated a volume of approximately 11.05 cubic yards (16.58 tons) for the volume of impacted soil that may need to be handled during proposed construction. It should be noted that the exact horizontal extent of impacted soil has not been fully delineated. As such, ATC's estimations should be considered approximations and actual quantities may vary. If the NCDOT requires a greater level of assurance regarding the extent, additional sampling could be performed for confirmation. Detailed calculations, references, and ATC's assumptions are included in ***Appendix E***.

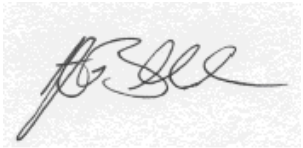
5.0 CONCLUSIONS

ATC has completed PSA activities at the Parcel 51 site in Greenville, North Carolina. The results of the assessment indicate that soil at the site has been impacted above NCDENR action levels and soil-to-groundwater MSCCs. Groundwater assessed on-site indicated constituents above 2L Standards. Based on a review of the site's historical data, geophysical investigation, and field assessment, ATC concludes that the impacted soil and groundwater may be associated with the adjacent Parcel 50's probable USTs and/or possible former commercial/industrial activities at the site. ATC recommends that the collected data be provided to the NCDENR Division of Waste Management. If impacted soil or groundwater is encountered during construction activities, appropriate measures should be taken to ensure worker safety. In addition, any impacted soil or groundwater disturbed during construction should be handled and disposed of in accordance with applicable regulations.

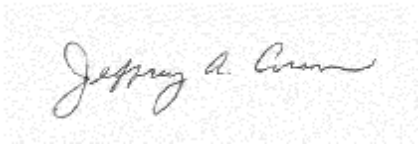
ATC appreciates the opportunity to assist the NCDOT with this project. If you have questions or require additional information, please do not hesitate to contact us at (919) 871-0999.

Sincerely,
ATC Associates of North Carolina, P.C.

Corey M. Scheip
Staff Scientist



Justin C. Ballard, P.G.
Project Geologist



Jeffrey A. Corson
Project Manager

Attachments:

1. Table 1 – Soil Analytical Data
2. Table 2 – Groundwater Analytical Data
3. Figure 1 – Project Groundwater Gradient Map
4. Figure 2 – Parcel Identification Map
5. Figure 3 – Sample Location Map
6. Figure 4 – Soil Analytical Data Map
7. Figure 5 – Groundwater Analytical Data Map
8. Appendix A –EDR Report
9. Appendix B – Geophysical Investigation Report
10. Appendix C – Boring Logs
11. Appendix D – Laboratory Analytical Report
12. Appendix E – Volumetric Calculations

TABLES

TABLE 1

PSA
SOIL ANALYTICAL DATA

PARCEL 51
GREENVILLE, PITT COUNTY, NORTH CAROLINA
ATC PROJECT NO. 45.19873.0007
WBS ELEMENT NO. 35781.1.2

EPA Method:				5030/8015	3550/8015	EPA 8260 AND 8270													
Boring I.D.	**Depth (feet)**	**Sampling Date**	**PID Reading (ppm)**	**TPH-GRO**	**TPH-DRO**	**Benzene**	**Toluene**	**Ethyl benzene**	**Total Xylenes**	**MTBE**	**Naphthalene**	**Acetone**	**2-Butanone**	**1,2,4-Trimethylbenzene**	**Benzo(a)pyrene**	**Benzo(b)fluoranthene**	**Benzo(g,h,i)perylene**	**Chrysene**	**Fluoranthene**	**Pyrene**
SB51-1	0-2.5	8/8/2012	0	<3.71	<7.35	<0.00525	<0.00525	<0.00525	<0.00525	<0.00525	<0.00525	0.066	<0.0263	<0.00525	<0.407	<0.407	<0.407	<0.407	<0.407	<0.407
SB51-2	0-2.5	8/8/2012	0.7	<3.12	**14.9**	<0.00456	<0.00456	<0.00456	<0.00456	<0.00456	<0.00456	0.105	<0.0228	<0.00456	<0.359	<0.359	<0.359	<0.359	<0.359	<0.359
SB51-3	0-2.5	8/8/2012	0	<3.91	<8.45	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB51-4	0-2.5	8/8/2012	0	<4.98	<7.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TW51-1	0-2.5	8/7/2012	0	<4.38	**56.3**	**0.00972**	<0.00455	<0.00455	0.014	<0.00455	<0.00455	0.22	0.0238	0.00585	**0.486**	0.524	0.39	0.54	0.543	0.987
NCDENR Action Level				**10**	**10**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
Soil-to-Groundwater MSCC				**--**	**--**	**0.0056**	**4.3**	**4.9**	**4.6**	**0.091**	**0.16**	**24**	**16**	**8.5**	**0.096**	**1.2**	**6,400**	**39**	**47**	**270**
Residential MSCC				**--**	**--**	**18**	**1,200**	**1,560**	**3,129**	**350**	**313**	**14,000**	**9,385**	**782**	**0.088**	**0.88**	**469**	**88**	**620**	**469**
Industrial/Commercial MSCC				**--**	**--**	**164**	**32,000**	**40,000**	**81,760**	**3,100**	**8,176**	**360,000**	**245,280**	**20,440**	**0.78**	**8.0**	**12,264**	**780**	**16,400**	**12,264**

Notes:
1. TPH = Total petroleum hydrocarbons.
2. GRO = Gasoline range organics.
3. DRO = Diesel range organics.
4. Concentrations reported in milligrams per kilogram (mg/kg).
5. "<" = not detected at or above the laboratory detection limit.
6. MSCC = Maximum Soil Contaminant Concentration Levels.
7. NE = Not established.
8. NA = Not analyzed.
9. MTBE = Methyl tertiary butyl ether.
10. Values in **BOLD** indicate levels above Soil-to-Groundwater MSCCs and/or the NCDENR Action Level.
11. # = Health based level > 100%.

TABLE 2

PSA
GROUNDWATER ANALYTICAL DATA

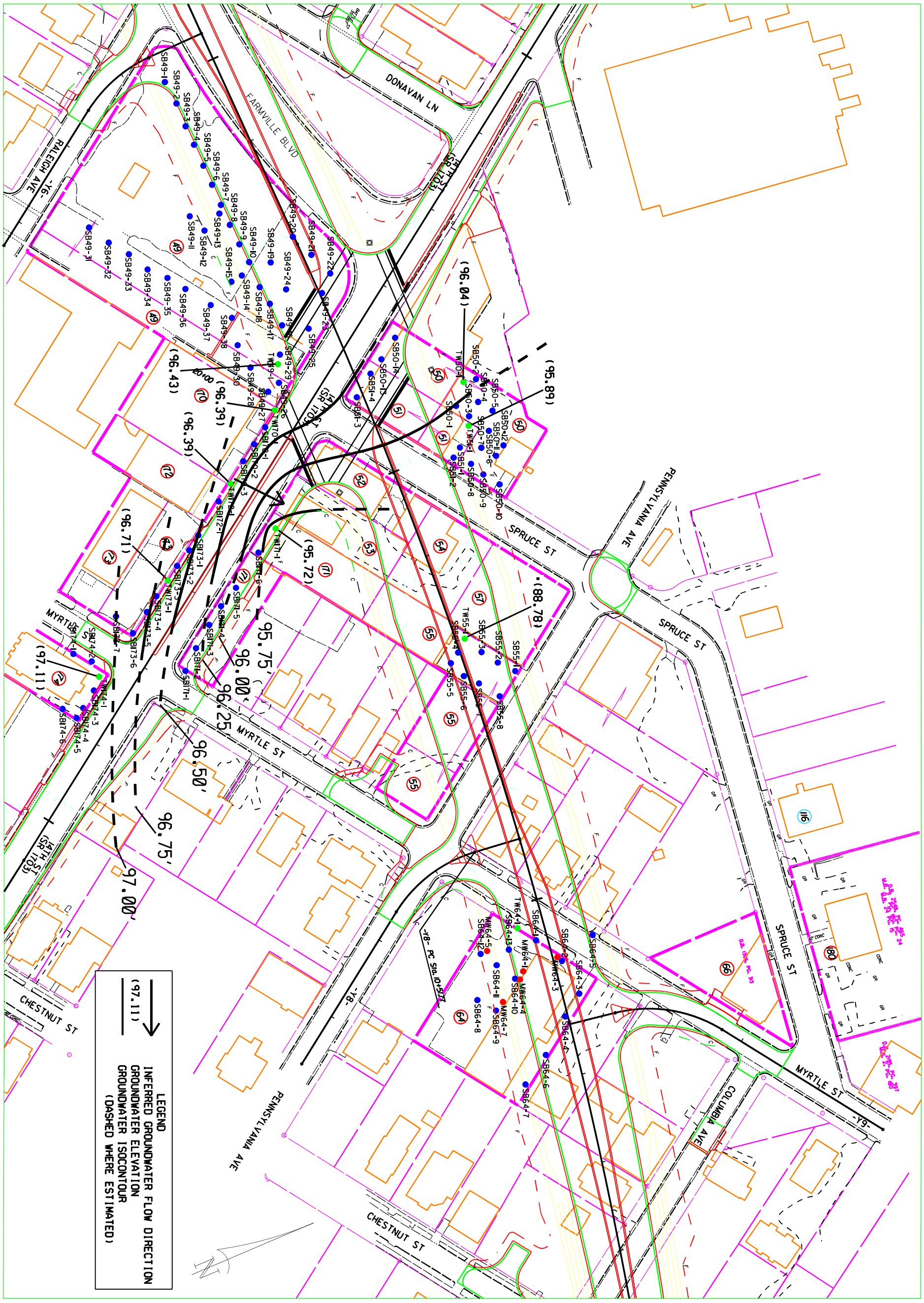
PARCEL 51
GREENVILLE, PITT COUNTY, NORTH CAROLINA
ATC PROJECT NO. 45.19873.0007
WBS ELEMENT NO. 35781.1.2

Analytical Method		EPA Method 8260B and 8270D						
Contaminant of Concern		Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	MTBE	Naphthalene
Well ID	Date Collected							
TW51-1	8/9/2012	<8.0	<8.0	<8.0	<8.0	NE	**169**	<8.0
2L Standard (µg/l)		**1**	**600**	**600**	**500**	**NE**	**20**	**6**
GCL (µg/l)		**5,000**	**260,000**	**84,500**	**85,500**	**NE**	**20,000**	**6,000**

Notes:

1. "<" or ND = Not detected at or above the laboratory detection limit.
2. Concentrations are reported in micrograms per liter (µg/l) = parts per billion.
3. Concentrations in bold print equal or exceed the NCDENR 2L Standard (2L).
4. NCDENR = North Carolina Department of Environment and Natural Resources.
5. GCL = Gross Contaminantion Level.
6. NE = Not Established.
7. MTBE = Methyl Tertiary Butyl Ether.
8. Gross Contamination Levels for Groundwater are referenced in the Guidelines for Assessment and Corrective Action, November 2008, updated January 2010.
9. BTEX = Benzene, Toluene, Ethylbenzene, Total Xylenes
10. Temporary well TW51-1 was installed on 8/7/2012, sampled on 8/9/2012, and abandoned on 8/9/2012.

FIGURES



NOTES:

1) WELL TW55-1 NOT USED TO CONSTRUCT CONTOURS.

TITLE FIGURE 1

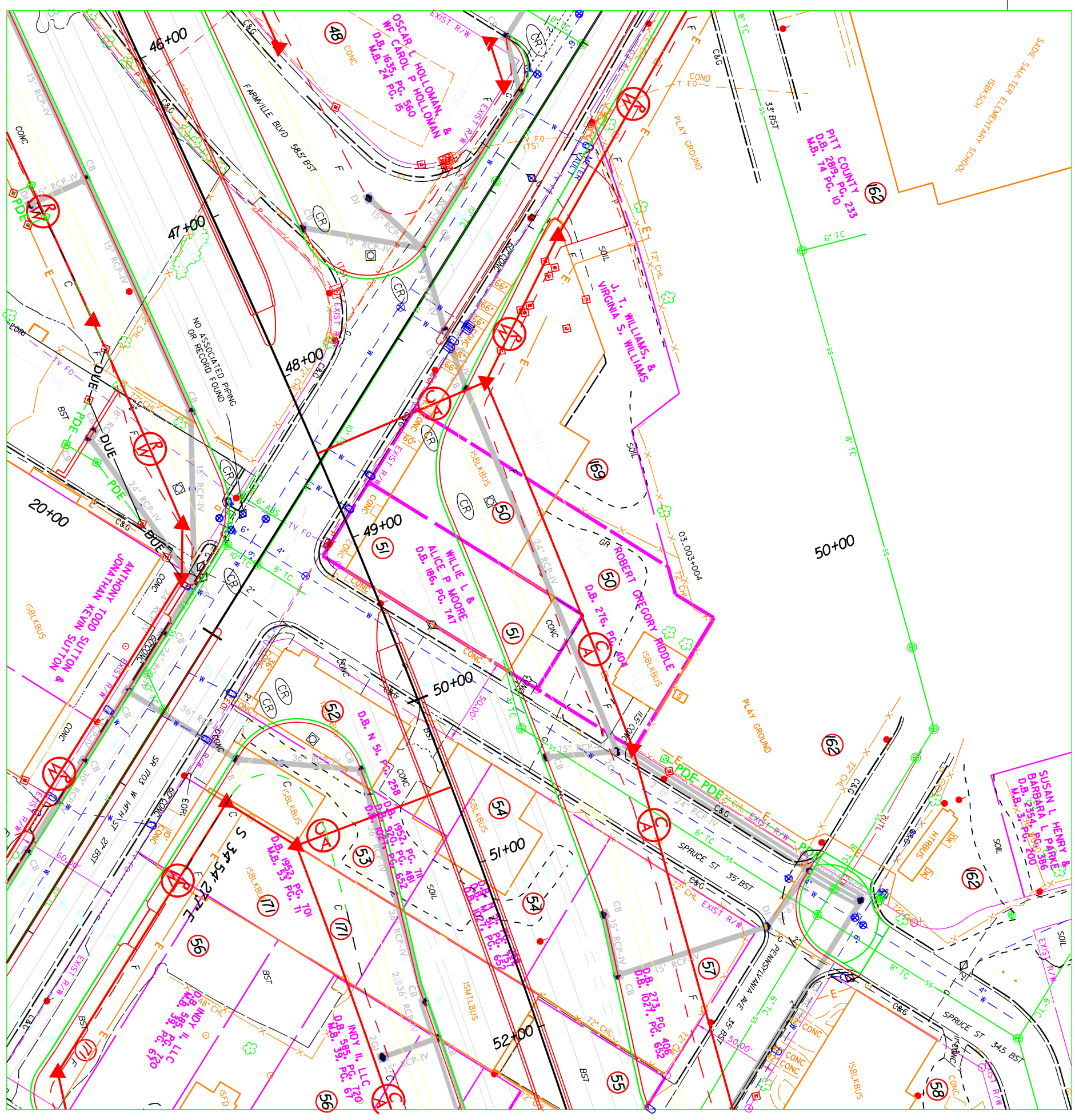
PROJECT GROUNDWATER GRADIENT MAP
STANTONSBURG ROAD/TENTH STREET CONNECTOR FROM MEMORIAL DRIVE (US13) TO EVAN STREET
GREENVILLE, NC
NCDOT PROJECT U-3315

ATC Associates of North Carolina, P.C.
RALEIGH, NORTH CAROLINA (919) 871-0999 FAX (919) 871-0335

CAD FILE	WBS ELEMENT	PREP. BY	REV. BY	SCALE	DATE	PROJECT NO.
	35781.1.2	CS	JB	1"= 100'	10-31-2012	45.19873.0007

LEGEND

- EXISTING RIGHT OF WAY
- PROPOSED RIGHT OF WAY
- PROPERTY LINE
- U/G CABLE TV
- U/G CABLE TELEPHONE
- U/G CABLE TELEPHONE FIBER OPTIC
- EXISTING HYDRO
- U/G CABLE TV FIBER OPTIC
- PERMANENT UTILITY EASEMENT
- FILL LINE
- CUT LINE
- CHL CHAIN LINK
- CB CATCH BASIN
- RCP REINFORCED CONCRETE PIPE
- EOT EDGE OF TRAVEL
- MH MANHOLE
- TC TERRA COTTA PIPE
- TRAFFIC SIGNAL POLE



NOTES:

TITLE FIGURE 2
PARCEL IDENTIFICATION MAP
WILLIE L & ALICE P MOORE PROPERTY - PARCEL 51
ROBERT GREGORY RIDDLE PROPERTY - PARCEL 50
1402 & 1404 W 14TH AVE
GREENVILLE NC 27858

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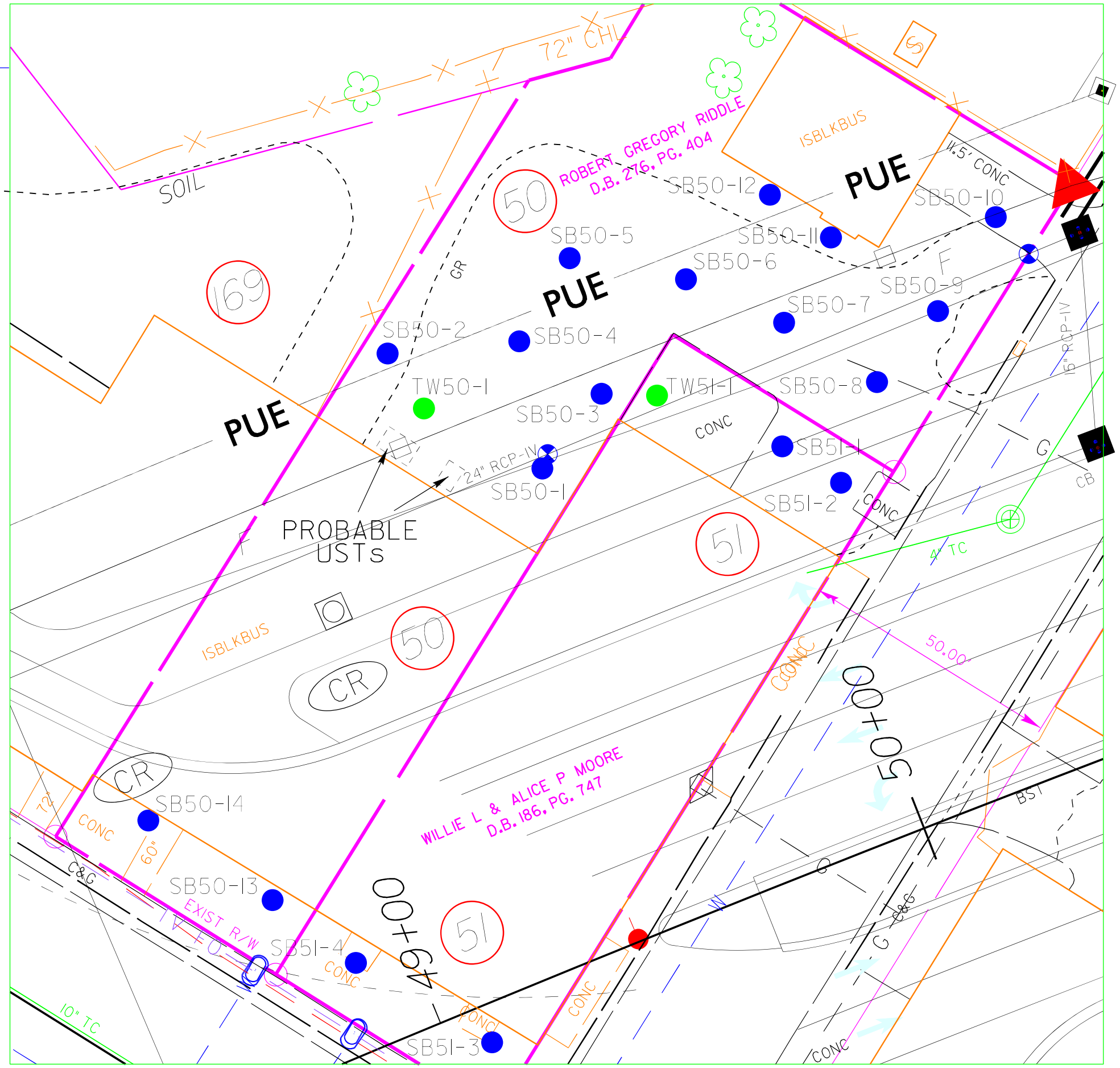
CAD FILE	WBS ELEMENT	PREP. BY	REV. BY	SCALE	DATE	PROJECT NO.
	35781.1.2	JB	KN	1"=60'-0"	10-30-2012	45.19873.0007

LEGEND

- EXISTING RIGHT OF WAY
- PROPOSED RIGHT OF WAY
- PROPERTY LINE
- U/G CABLE TV
- U/G CABLE TELEPHONE
- U/G CABLE TELEPHONE FIBER OPTIC
- U/G ELECTRIC
- EXISTING HYDRO
- U/G CABLE TV FIBER OPTIC
- PERMANENT UTILITY EASEMENT
- FILL LINE
- CUT LINE
- CHL CHAIN LINK
- CB CATCH BASIN
- RCP REINFORCED CONCRETE PIPE
- EOT EDGE OF TRAVEL
- MH MANHOLE
- TC TERRA COTTA PIPE
- TRAFFIC SIGNAL POLE
- UTILITY POLE
- L LIGHT POLE
- SOIL BORING LOCATION
- TEMPORARY WELL LOCATION



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DATE	PROJECT NO.
10-30-2012	45.19873.0007

SCALE	REV. BY
1"=20'-0"	KN

PREP. BY	WBS ELEMENT
JB	35781.1.2

CAD FILE

TITLE FIGURE 3
SAMPLE LOCATION MAP
WILLIE L & ALICE P MOORE PROPERTY - PARCEL 51
ROBERT GREGORY RIDDLE PROPERTY - PARCEL 50
1402 & 1404 W 14TH AVE
GREENVILLE NC 27858

NOTES:

NOTES:

1) VALUES IN BOLD INDICATE LEVELS ABOVE SOIL-TO-GROUNDWATER MAXIMUM SOIL CONTAMINANT CONCENTRATIONS (MSCC) AND/OR NCDENR ACTION LEVELS.

SAMPLING INTERVAL	DATE COLLECTED		
SB51-2			
TPH-GRO	mg/kg	0-2.5'	08/08/12
TPH-DRO	mg/kg	<3.12	
TPH-DRO	mg/kg	**14.9**	

SAMPLING INTERVAL	DATE COLLECTED		
TW51-1			
TPH-GRO	mg/kg	5-6'	08/07/12
TPH-DRO	mg/kg	<4.38	
BENZENE	mg/kg	**56.3**	
TOLUENE	mg/kg	**0.0097**	
ETHYLBENZENE	mg/kg	<0.00455	
TOTAL XYLENES	mg/kg	<0.00455	
MTBE	mg/kg	0.014	
NAPHTHALENE	mg/kg	<0.00455	
BENZO(A)PYRENE	mg/kg	<0.00455	
	mg/kg	**0.486**	

LEGEND

- EXISTING RIGHT OF WAY
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- U/G CABLE TV
- U/G CABLE TELEPHONE
- U/G CABLE TELEPHONE FIBER OPTIC
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- EOT EDGE OF TRAVEL
- MH MANHOLE
- TC TERRA COTTA PIPE
- TRAFFIC SIGNAL POLE
- UTILITY POLE
- L LIGHT POLE
- SOIL BORING LOCATION
- TEMPORARY WELL LOCATION
- ESTIMATED EXTENT OF IMPACTED SOIL (DASHED WHERE INFERRED)
- ND NO ANALYZED COMPOUNDS DETECTED AT OR ABOVE MSCCS AND/OR NCDENR ACTION LEVELS
- NS NOT SAMPLED

ESTIMATED EXTENT OF IMPACTED SOIL

PROBABLE USTS

WILLIE L & ALICE P MOORE D.B. 186, PG. 747

ROBERT GREGORY RIDDLE D.B. 276, PG. 404

ISBLKBUS

PUE

CONC

CR

GR

TITLE FIGURE 4
SOIL ANALYTICAL DATA MAP
WILLIE L & ALICE P MOORE PROPERTY - PARCEL 51
1402 W 14TH AVE
GREENVILLE NC 27858

CAD FILE

WBS ELEMENT 35781.1.2

PREP. BY CS

REV. BY JB

SCALE 1"=20'-0"

DATE 10-30-2012

PROJECT NO. 45.19873.0007

ATC Associates of North Carolina, P.C.
RALEIGH, NORTH CAROLINA
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- EOT EDGE OF TRAVEL
- MH MANHOLE
- TC TERRA COTTA PIPE
- TRAFFIC SIGNAL POLE
- UTILITY POLE
- LIGHT POLE
- SOIL BORING LOCATION
- TEMPORARY WELL LOCATION
- ESTIMATED EXTENT OF IMPACTED GROUNDWATER (DASHED WHERE INFERRED)
- ND NO ANALYZED COMPOUNDS DETECTED AT OR ABOVE MSCCS AND/OR NCDENR ACTION LEVELS
- NS NOT SAMPLED

		DATE COLLECTED
TW51-1		08/07/12
BENZENE	µg/L	<8.0
TOLUENE	µg/L	<8.0
ETHYLBENZENE	µg/L	<8.0
TOTAL XYLENES	µg/L	<8.0
MTBE	µg/L	***169***
NAPHTHALENE	µg/L	<8.0

72" CHL
ROBERT GREGORY RIDDLE D.B. 276, PG. 404
ISBLKBUS
PUE
W.5' CONC
SB50-12
SB50-10
SB50-11
SB50-5
SB50-6
SB50-9
SB50-7
SB50-2
SB50-4
TW50-1
TW51-1
SB50-8
SB50-3
SB51-1
SB50-1
SB51-2
24" RCP-IV
18" RCP-IV
CONC
4" TC
PROBABLE USTs
ESTIMATED EXTENT OF IMPACTED GROUNDWATER
50.00'
WILLIE L & ALICE P MOORE D.B. 186, PG. 747
SB50-14
SB50-13
SB51-4
SB51-3
EXIST R/W
10" TC
C&G
CB
BSL
169
50
51
CR
GR
S
F
G
W
0+00
4+90
5+00

NOTES:
1) VALUES IN BOLD INDICATE LEVELS AT OR ABOVE NC 2L STANDARDS.
2) TW51-1 SET AT 12' BELOW GROUND SURFACE (BGS) WITH A SCREENED INTERVAL OF 2-12' BGS.

ATC Associates of North Carolina, P.C.
RALEIGH, NORTH CAROLINA (919) 871-0999 FAX (919) 871-0335

PROJECT NO.	45.19873.0007
DATE	10-30-2012
SCALE	1"=20'-0"
REV. BY	JB
PREP. BY	CS
WBS ELEMENT	35781.1.2
CAD FILE	

TITLE FIGURE 5
GROUNDWATER ANALYTICAL DATA MAP
WILLIE L & ALICE P MOORE PROPERTY - PARCEL 51
1402 W 14TH AVE
GREENVILLE NC 27858

APPENDIX A

EDR REPORT

U-3315
West 14th Street
Greenville, NC 27834

Inquiry Number: 3363129.2s
July 09, 2012

The EDR Radius Map™ Report with GeoCheck®

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-05) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

WEST 14TH STREET
GREENVILLE, NC 27834

COORDINATES

Latitude (North):	35.6079000 - 35° 36' 28.44''
Longitude (West):	77.3854000 - 77° 23' 7.44''
Universal Tranverse Mercator:	Zone 18
UTM X (Meters):	283925.0
UTM Y (Meters):	3942880.8
Elevation:	62 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	35077-E4 GREENVILLE SW, NC
Most Recent Revision:	2001
North Map:	35077-F4 GREENVILLE NW, NC
Most Recent Revision:	2001
East Map:	35077-E3 GREENVILLE SE, NC
Most Recent Revision:	2001

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	2009, 2010
Source:	USDA

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

EXECUTIVE SUMMARY

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL ---------- National Priority List
Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ---------- National Priority List Deletions

Federal CERCLIS list

CERCLIS ---------- Comprehensive Environmental Response, Compensation, and Liability Information System
FEDERAL FACILITY ---------- Federal Facility Site Information listing

Federal CERCLIS NFRAP site List

CERC-NFRAP ---------- CERCLIS No Further Remedial Action Planned

Federal RCRA CORRACTS facilities list

CORRACTS ---------- Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF ---------- RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG ---------- RCRA - Large Quantity Generators
RCRA-SQG ---------- RCRA - Small Quantity Generators
RCRA-CESQG ---------- RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

US ENG CONTROLS ---------- Engineering Controls Sites List
US INST CONTROL ---------- Sites with Institutional Controls

Federal ERNS list

ERNS ---------- Emergency Response Notification System

State and tribal landfill and/or solid waste disposal site lists

SWF/LF ---------- List of Solid Waste Facilities

OLI ---------- Old Landfill Inventory

State and tribal leaking storage tank lists

INDIAN LUST ---------- Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

AST ---------- AST Database
INDIAN UST ---------- Underground Storage Tanks on Indian Land
FEMA UST ---------- Underground Storage Tank Listing

State and tribal institutional control / engineering control registries

INST CONTROL ---------- No Further Action Sites With Land Use Restrictions Monitoring

State and tribal voluntary cleanup sites

VCP ---------- Responsible Party Voluntary Action Sites
INDIAN VCP ---------- Voluntary Cleanup Priority Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Landfill / Solid Waste Disposal Sites

ODI ---------- Open Dump Inventory
DEBRIS REGION 9 ---------- Torres Martinez Reservation Illegal Dump Site Locations
SWRCY ---------- Recycling Center Listing
HIST LF ---------- Solid Waste Facility Listing
INDIAN ODI ---------- Report on the Status of Open Dumps on Indian Lands

Local Lists of Hazardous waste / Contaminated Sites

US CDL ---------- Clandestine Drug Labs
US HIST CDL ---------- National Clandestine Laboratory Register

Local Land Records

LIENS 2 ---------- CERCLA Lien Information
LUCIS ---------- Land Use Control Information System

Records of Emergency Release Reports

HMIRS ---------- Hazardous Materials Information Reporting System

Other Ascertainable Records

DOT OPS ---------- Incident and Accident Data
DOD ---------- Department of Defense Sites
FUDS ---------- Formerly Used Defense Sites
CONSENT ---------- Superfund (CERCLA) Consent Decrees
ROD ---------- Records Of Decision
UMTRA ---------- Uranium Mill Tailings Sites
MINES ---------- Mines Master Index File

EXECUTIVE SUMMARY

TRIS	Toxic Chemical Release Inventory System
TSCA	Toxic Substances Control Act
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
SSTS	Section 7 Tracking Systems
ICIS	Integrated Compliance Information System
PADS	PCB Activity Database System
MLTS	Material Licensing Tracking System
RADINFO	Radiation Information Database
FINDS	Facility Index System/Facility Registry System
RAATS	RCRA Administrative Action Tracking System
UIC	Underground Injection Wells Listing
DRYCLEANERS	Drycleaning Sites
NPDES	NPDES Facility Location Listing
INDIAN RESERV	Indian Reservations
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
FINANCIAL ASSURANCE	Financial Assurance Information Listing
COAL ASH	Coal Ash Disposal Sites
COAL ASH DOE	Sleam-Electric Plan Operation Data
2020 COR ACTION	2020 Corrective Action Program List
EPA WATCH LIST	EPA WATCH LIST
US FIN ASSUR	Financial Assurance Information
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

State- and tribal - equivalent NPL

NC HSDS: The Hazardous Substance Disposal Sites list contains locations of uncontrolled and unregulated hazardous waste sites. The file contains sites on the national priority list as well as the state priority list. The data source is the North Carolina Center for Geographic Information and Analysis.

A review of the NC HSDS list, as provided by EDR, and dated 08/09/2011 has revealed that there is 1 NC HSDS site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
GREENVILLE COAL GAS PLANT		NE 1/2 - 1 (0.595 mi.)	0	7

EXECUTIVE SUMMARY

State- and tribal - equivalent CERCLIS

SHWS: The State Hazardous Waste Sites records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. The data come from the Department of Environment & Natural Resources' Inactive Hazardous Sites Program.

A review of the SHWS list, as provided by EDR, and dated 03/01/2012 has revealed that there is 1 SHWS site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SOUTHERN STATES (FORMER)	***125 LINE AVE***	***W 1/8 - 1/4 (0.229 mi.)***	***H26***	***58***

State and tribal leaking storage tank lists

LUST: The Leaking Underground Storage Tank Incidents Management Database contains an inventory of reported leaking underground storage tank incidents. The data come from the Department of Environment, & Natural Resources' Incidents by Address.

A review of the LUST list, as provided by EDR, and dated 05/04/2012 has revealed that there are 45 LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
WILLIE SMALL PROPERTY *NRP*	***1402 SPRUCE STREET***	***WSW 0 - 1/8 (0.014 mi.)***	***6***	***15***
Incident Phase: Response				
EAST CAROLINA UNW-STEAM PLT.	***14TH ST.***	***NNW 0 - 1/8 (0.119 mi.)***	***10***	***22***
Incident Phase: Closed Out				
BUCK SUPPLY COMPANY	***201 GRAND AVENUE***	***E 1/8 - 1/4 (0.134 mi.)***	***B12***	***26***
Incident Phase: Closed Out				
FUSION SKATE PARK	***504 WEST TENTH STREET***	***S 1/8 - 1/4 (0.147 mi.)***	***C14***	***31***
AGNES FULLILOVE SCHOOL	***1615 HALIFAX STREET***	***WSW 1/8 - 1/4 (0.150 mi.)***	***D15***	***34***
Incident Phase: Closed Out				
OLD PONY EXPRESS	***DICKINSON AVE***	***S 1/8 - 1/4 (0.165 mi.)***	***C18***	***41***
Incident Phase: Closed Out				
NEW WAY/SHOP A LOT	***1006 BANCROFT AVENUE***	***WNW 1/8 - 1/4 (0.216 mi.)***	***G24***	***55***
Incident Phase: Closed Out				
SOUTHERN STATES (FORMER)	***125 LINE AVE***	***W 1/8 - 1/4 (0.229 mi.)***	***H26***	***58***
Incident Phase: Closed Out				
ANDERSON PROPERTY (DOROTHY)	***801 BANCROFT AVENUE***	***WNW 1/4 - 1/2 (0.253 mi.)***	***31***	***66***
Incident Phase: Closed Out				
STRINGFIELD PROPERTY (DELZORA)	703 MCDOWELL STREET	WNW 1/4 - 1/2 (0.277 mi.)	32	68
WILLIAMS RESIDENCE (JOCELYN)	***1611 LINCOLN DRIVE***	***NW 1/4 - 1/2 (0.308 mi.)***	***33***	***70***
Incident Phase: Closed Out				
SPUR STATION/FLORENCE BLOUNT E	***1025 DICKINSON AVE.***	***SSW 1/4 - 1/2 (0.327 mi.)***	***J35***	***76***
Incident Phase: Closed Out				
WOOTEN RESIDENCE (JOHNNY-FORME	***1818 BATTLE DRIVE***	***WNW 1/4 - 1/2 (0.336 mi.)***	***K37***	***80***
Incident Phase: Closed Out				
TUCKER, NINA RESIDENCE	***1820 BATTLE DRIVE***	***WNW 1/4 - 1/2 (0.336 mi.)***	***K38***	***82***
Incident Phase: Response				

EXECUTIVE SUMMARY

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
STOKES, MARTHA PROPERTY Incident Phase: Closed Out	***1812 BATTLE AVENUE***	***WNW 1/4 - 1/2 (0.337 mi.)***	***K39***	***85***
ST. GABRIEL'S CATHOLIC CHURCH Incident Phase: Closed Out	***1101 WARD ST***	***N 1/4 - 1/2 (0.345 mi.)***	***L40***	***88***
ST GABRIELS WARD STREET SITE	***1100 WARD STREET***	***N 1/4 - 1/2 (0.346 mi.)***	***L41***	***90***
MARTIN PROPERTY (ANNIE) Incident Phase: Closed Out	***1509 E. FIFTH STREET***	***NNW 1/4 - 1/2 (0.360 mi.)***	***42***	***93***
W.L. ALLEN OIL-BULK PLANT UST Incident Phase: Closed Out	***120 SKINNER STREET***	***SSW 1/4 - 1/2 (0.368 mi.)***	***J47***	***103***
AARON PENNY RESIDENCE *NRP* Incident Phase: Closed Out	***405 WEST VILLAGE DRIVE***	***W 1/4 - 1/2 (0.403 mi.)***	***50***	***110***
MOORE PROPERTY (AMY & KYLE) Incident Phase: Closed Out	***1712 WEST SIXTH STREET***	***WNW 1/4 - 1/2 (0.462 mi.)***	***60***	***140***

Lower Elevation	Address	Direction / Distance	Map ID	Page
FRANKLIN BAKING COMPANY, INC. Incident Phase: Closed Out	***1107 MYRTLE DRIVE***	***ENE 0 - 1/8 (0.005 mi.)***	***A5***	***12***
SADIE SAULTER SCHOOL Incident Phase: Closed Out	***1019 FLEMING STREET***	***NNE 0 - 1/8 (0.086 mi.)***	***8***	***19***
HERBERT COREY PROPERTY Incident Phase: Closed Out	***DICKINSON AV. AND GRAND***	***E 1/8 - 1/4 (0.167 mi.)***	***F19***	***44***
EATON'S SHELL Incident Phase: Closed Out	***601 ALBEMARLE STREET***	***ENE 1/8 - 1/4 (0.187 mi.)***	***E21***	***48***
CITY OF GREENVILLE PROPERTY Incident Phase: Closed Out	602 CONTENTNEA STREET	NE 1/8 - 1/4 (0.191 mi.)	22	51
THE GOODYEAR TIRE & RUBBER COM Incident Phase: Closed Out	***729 DICKINSON AVE***	***E 1/8 - 1/4 (0.207 mi.)***	***F23***	***52***
FAITH VENTURES, INC./ NO NAME Incident Phase: Response	***907 MARTIN LUTHER KING***	***NNE 1/8 - 1/4 (0.236 mi.)***	***28***	***61***
SAM POLLARD & SON, INC Incident Phase: Follow Up	***400 W 10TH STREET***	***ESE 1/4 - 1/2 (0.317 mi.)***	***34***	***73***
MAGNNLIA APARTMENTS Incident Phase: Closed Out	***418 WEST FIFTH STREET***	***ENE 1/4 - 1/2 (0.361 mi.)***	***M43***	***96***
NATHANIEL VILLAGE Incident Phase: Closed Out	***411 WEST FIFTH STREET***	***ENE 1/4 - 1/2 (0.363 mi.)***	***M45***	***99***
CAROLINA TELEPHONE Incident Phase: Closed Out	***401 WEST 5TH ST.***	***ENE 1/4 - 1/2 (0.367 mi.)***	***M46***	***101***
TAYLOR, OLA RESIDENCE Incident Phase: Closed Out	***1011 WEST THIRD STREET***	***NNE 1/4 - 1/2 (0.416 mi.)***	***51***	***113***
WILCAR EXECUTIVE CENTER Incident Phase: Response	***223 WEST TENTH STREET***	***ESE 1/4 - 1/2 (0.423 mi.)***	***52***	***115***
TYSON PROPERTY (BERVERLY) Incident Phase: Closed Out	***420 CADILLAC STREET***	***NNW 1/4 - 1/2 (0.424 mi.)***	***53***	***118***
SYCAMORE HILL BAPTIST CHURCH Incident Phase: Closed Out	***226 W. 8TH STREET***	***E 1/4 - 1/2 (0.432 mi.)***	***54***	***121***
CITY OF GREENVILLE TANS. GARAG Incident Phase: Closed Out Incident Phase: Closed Out	***1500 BEATTY ST.***	***SSE 1/4 - 1/2 (0.438 mi.)***	***N55***	***124***

EXECUTIVE SUMMARY

Lower Elevation	Address	Direction / Distance	Map ID	Page
PUGH'S SHELL STATION Incident Phase: Closed Out	***5TH & GREEN STREET***	***ENE 1/4 - 1/2 (0.448 mi.)***	***O57***	***134***
THE PANTRY #832 Incident Phase: Response	***501 SOUTH MEMORIAL DRIV***	***NW 1/4 - 1/2 (0.465 mi.)***	***P61***	***142***
FORBES RESIDENCE (SELENA) Incident Phase: Closed Out	***1407 WEST 4TH STREET***	***NNW 1/4 - 1/2 (0.465 mi.)***	***Q63***	***144***
FASTFARE NC 680-CROWN CENTRAL Incident Phase: Closed Out	***506 MEMORIAL DR.***	***NW 1/4 - 1/2 (0.469 mi.)***	***P64***	***147***
SUTTON'S SERVICE CENTER, INC. Incident Phase: Closed Out	***1105 DICKINSON AVE., PO***	***SSW 1/4 - 1/2 (0.470 mi.)***	***65***	***150***
CITY OF GREENVILLE PROPERTY-TA Incident Phase: Closed Out	527 DICKINSON AVENUE	ENE 1/4 - 1/2 (0.480 mi.)	66	155
UNIVERSITY AMOCO Incident Phase: Closed Out	***101 EAST 10TH STREET***	***ESE 1/4 - 1/2 (0.495 mi.)***	***R67***	***157***
DAUGHTRIDGE OIL-EVANS 76 Incident Phase: Closed Out	***10TH ST. & EVANS ST.***	***ESE 1/4 - 1/2 (0.497 mi.)***	***R68***	***160***

LUST TRUST: This database contains information about claims against the State Trust Funds for reimbursements for expenses incurred while remediating Leaking USTs.

A review of the LUST TRUST list, as provided by EDR, and dated 04/11/2012 has revealed that there are 24 LUST TRUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
WILLIE SMALL PROPERTY *NRP*	***1402 SPRUCE STREET***	***WSW 0 - 1/8 (0.014 mi.)***	***6***	***15***
NIMMO PROPERTY	1113 WEST 14TH STREET	SE 0 - 1/8 (0.122 mi.)	11	25
BUCK SUPPLY COMPANY	***201 GRAND AVENUE***	***E 1/8 - 1/4 (0.134 mi.)***	***B12***	***26***
FUSION SKATE PARK	***504 WEST TENTH STREET***	***S 1/8 - 1/4 (0.147 mi.)***	***C14***	***31***
AGNES FULLILOVE SCHOOL	***1615 HALIFAX STREET***	***WSW 1/8 - 1/4 (0.150 mi.)***	***D15***	***34***
ANDERSON PROPERTY (DOROTHY)	***801 BANCROFT AVENUE***	***WNW 1/4 - 1/2 (0.253 mi.)***	***31***	***66***
WILLIAMS RESIDENCE (JOCELYN)	***1611 LINCOLN DRIVE***	***NW 1/4 - 1/2 (0.308 mi.)***	***33***	***70***
WOOTEN RESIDENCE (JOHNNY-FORME	***1818 BATTLE DRIVE***	***WNW 1/4 - 1/2 (0.336 mi.)***	***K37***	***80***
TUCKER, NINA RESIDENCE	***1820 BATTLE DRIVE***	***WNW 1/4 - 1/2 (0.336 mi.)***	***K38***	***82***
STOKES, MARTHA PROPERTY	***1812 BATTLE AVENUE***	***WNW 1/4 - 1/2 (0.337 mi.)***	***K39***	***85***
ST. GABRIEL'S CATHOLIC CHURCH	***1101 WARD ST***	***N 1/4 - 1/2 (0.345 mi.)***	***L40***	***88***
ST GABRIELS WARD STREET SITE	***1100 WARD STREET***	***N 1/4 - 1/2 (0.346 mi.)***	***L41***	***90***
AARON PENNY RESIDENCE *NRP*	***405 WEST VILLAGE DRIVE***	***W 1/4 - 1/2 (0.403 mi.)***	***50***	***110***
MOORE PROPERTY (AMY & KYLE)	***1712 WEST SIXTH STREET***	***WNW 1/4 - 1/2 (0.462 mi.)***	***60***	***140***

Lower Elevation	Address	Direction / Distance	Map ID	Page
FRANKLIN BAKING COMPANY, INC.	***1107 MYRTLE DRIVE***	***ENE 0 - 1/8 (0.005 mi.)***	***A5***	***12***
FAITH VENTURES, INC./ NO NAME	***907 MARTIN LUTHER KING***	***NNE 1/8 - 1/4 (0.236 mi.)***	***28***	***61***
MAGNOLIA APARTMENTS	418 W. FIFTH STREET	ENE 1/4 - 1/2 (0.361 mi.)	M44	98
NATHANIEL VILLAGE	***411 WEST FIFTH STREET***	***ENE 1/4 - 1/2 (0.363 mi.)***	***M45***	***99***
WILCAR EXECUTIVE CENTER	***223 WEST TENTH STREET***	***ESE 1/4 - 1/2 (0.423 mi.)***	***52***	***115***
SYCAMORE HILL BAPTIST CHURCH	***226 W. 8TH STREET***	***E 1/4 - 1/2 (0.432 mi.)***	***54***	***121***
PUGH'S SHELL SERVICE	5TH & GREENE STREETS	ENE 1/4 - 1/2 (0.448 mi.)	O58	138
THE PANTRY #832	***501 SOUTH MEMORIAL DRIV***	***NW 1/4 - 1/2 (0.465 mi.)***	***P61***	***142***
SELINA FORBES PROPERTY	1407 W FOURTH ST	NNW 1/4 - 1/2 (0.465 mi.)	Q62	144
A & B AUTO SERVICE	103 WEST 9TH STREET	E 1/4 - 1/2 (0.499 mi.)	70	166

LAST: A listing of leaking aboveground storage tank site locations.

A review of the LAST list, as provided by EDR, and dated 05/10/2012 has revealed that there are 3 LAST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
1401 5TH STREET AST SPILL	1401 WEST 5TH STREET	NNW 1/4 - 1/2 (0.334 mi.)	36	79

Lower Elevation	Address	Direction / Distance	Map ID	Page
PITT COUNTY SCHOOLS MAINTENANC	CONTENTNEA ST. & THIRD	NNE 1/4 - 1/2 (0.401 mi.)	49	108
ECU/HAYNIE LAND	***10TH STREET***	***ESE 1/4 - 1/2 (0.498 mi.)***	***R69***	***163***

State and tribal registered storage tank lists

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Department of Environment & Natural Resources' Petroleum Underground Storage Tank Database.

A review of the UST list, as provided by EDR, and dated 05/04/2012 has revealed that there are 11 UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
A B WHITLEY INC	1311 WEST 14TH STREET	0 - 1/8 (0.000 mi.)	1	7
WAINWRIGHT'S AMOCO	***1201 W 14TH STREET***	***SE 0 - 1/8 (0.057 mi.)***	***7***	***18***
STEWART SANDWICHES INC.	821 DICKENSON AVENUE.	ESE 0 - 1/8 (0.108 mi.)	9	22
PONY EXPRESS (FORMER TENANT)	1202 DICKERSON AVE	S 1/8 - 1/4 (0.165 mi.)	C17	39
AGNES FULLILOVE SCHOOL	WATAUGA AVE	WSW 1/8 - 1/4 (0.181 mi.)	D20	46
SHOP A LOT	1006 BANCROFT AVENUE	WNW 1/8 - 1/4 (0.216 mi.)	G25	57

Lower Elevation	Address	Direction / Distance	Map ID	Page
MACHINE&WELDING(PREVIOUS RENTE	307 SPRUCE ST.	0 - 1/8 (0.000 mi.)	A2	9
FRANKLIN BAKING COMPANY, INC.	***1107 MYRTLE DRIVE***	***ENE 0 - 1/8 (0.005 mi.)***	***A5***	***12***
SADIE SAULTER SCHOOL	***1019 FLEMING STREET***	***NNE 0 - 1/8 (0.086 mi.)***	***8***	***19***
EATONS SHELL SERVICE	601 ALBEMARLE AVE	ENE 1/8 - 1/4 (0.164 mi.)	E16	37
THE GOODYEAR TIRE & RUBBER COM	***729 DICKINSON AVE***	***E 1/8 - 1/4 (0.207 mi.)***	***F23***	***52***

State and tribal Brownfields sites

BROWNFIELDS: A brownfield site is an abandoned, idled, or underused property where the threat of environmental contamination has hindered its redevelopment. All of the sites in the inventory are working toward a a brownfield agreement for cleanup and liabitliy control.

A review of the BROWNFIELDS list, as provided by EDR, and dated 09/30/2010 has revealed that there is 1 BROWNFIELDS site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
IMPERIAL CAMPUS	701 ATLANTIC AVE.	ENE 1/8 - 1/4 (0.245 mi.)	I30	66

EXECUTIVE SUMMARY

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: The EPA's listing of Brownfields properties from the Cleanups in My Community program, which provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

A review of the US BROWNFIELDS list, as provided by EDR, and dated 06/27/2011 has revealed that there are 2 US BROWNFIELDS sites within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
FORMER GREENVILLE PRODUCE PROP	310 W. 9TH STREET	E 1/4 - 1/2 (0.388 mi.)	48	106
SOUTHWEST REDEVELOPMENT SITE	523 S. PITT STREET	ENE 1/4 - 1/2 (0.453 mi.)	59	138

Other Ascertainable Records

RCRA-NonGen: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA-NonGen list, as provided by EDR, and dated 03/15/2012 has revealed that there are 3 RCRA-NonGen sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
AMERICAN AUTO BODY	***302 SPRUCE ST***	***ENE 0 - 1/8 (0.004 mi.)***	***A3***	***9***
APPAREL IMPRESSIONS	***715 ALBEMARLE AVE***	***E 1/8 - 1/4 (0.138 mi.)***	***B13***	***29***
VAN WATERS & ROGERS INC	***715 ATLANTIC AVE***	***ENE 1/8 - 1/4 (0.239 mi.)***	***I29***	***64***

IMD: Incident Management Database.

A review of the IMD list, as provided by EDR, and dated 07/21/2006 has revealed that there are 35 IMD sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
WILLIE SMALL PROPERTY *NRP*	***1402 SPRUCE STREET***	***WSW 0 - 1/8 (0.014 mi.)***	***6***	***15***
EAST CAROLINA UNW-STEAM PLT.	***14TH ST.***	***NNW 0 - 1/8 (0.119 mi.)***	***10***	***22***
BUCK SUPPLY COMPANY	***201 GRAND AVENUE***	***E 1/8 - 1/4 (0.134 mi.)***	***B12***	***26***
FUSION SKATE PARK	***504 WEST TENTH STREET***	***S 1/8 - 1/4 (0.147 mi.)***	***C14***	***31***
AGNES FULLILOVE SCHOOL	***1615 HALIFAX STREET***	***WSW 1/8 - 1/4 (0.150 mi.)***	***D15***	***34***
OLD PONY EXPRESS	***DICKINSON AVE***	***S 1/8 - 1/4 (0.165 mi.)***	***C18***	***41***
NEW WAY/SHOP A LOT	***1006 BANCROFT AVENUE***	***WNW 1/8 - 1/4 (0.216 mi.)***	***G24***	***55***
SOUTHERN FARM AND HOME/SOUTHER	125 LINE AVENUE	W 1/8 - 1/4 (0.229 mi.)	H27	60
WILLIAMS RESIDENCE (JOCELYN)	***1611 LINCOLN DRIVE***	***NW 1/4 - 1/2 (0.308 mi.)***	***33***	***70***
SPUR STATION/FLORENCE BLOUNT E	***1025 DICKINSON AVE.***	***SSW 1/4 - 1/2 (0.327 mi.)***	***J35***	***76***
TUCKER, NINA RESIDENCE	***1820 BATTLE DRIVE***	***WNW 1/4 - 1/2 (0.336 mi.)***	***K38***	***82***
STOKES, MARTHA PROPERTY	***1812 BATTLE AVENUE***	***WNW 1/4 - 1/2 (0.337 mi.)***	***K39***	***85***
ST GABRIELS WARD STREET SITE	***1100 WARD STREET***	***N 1/4 - 1/2 (0.346 mi.)***	***L41***	***90***
MARTIN PROPERTY (ANNIE)	***1509 E. FIFTH STREET***	***NNW 1/4 - 1/2 (0.360 mi.)***	***42***	***93***

EXECUTIVE SUMMARY

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
W.L. ALLEN OIL-BULK PLANT UST	***120 SKINNER STREET***	***SSW 1/4 - 1/2 (0.368 mi.)***	***J47***	***103***
AARON PENNY RESIDENCE *NRP*	***405 WEST VILLAGE DRIVE***	***W 1/4 - 1/2 (0.403 mi.)***	***50***	***110***

Lower Elevation	Address	Direction / Distance	Map ID	Page
FRANKLIN BAKING CO. INC.	1107 MYRTLE AVENUE	ENE 0 - 1/8 (0.005 mi.)	A4	11
HERBERT COREY PROPERTY	***DICKINSON AV. AND GRAND***	***E 1/8 - 1/4 (0.167 mi.)***	***F19***	***44***
EATON'S SHELL	***601 ALBEMARLE STREET***	***ENE 1/8 - 1/4 (0.187 mi.)***	***E21***	***48***
FAITH VENTURES, INC./ NO NAME	***907 MARTIN LUTHER KING***	***NNE 1/8 - 1/4 (0.236 mi.)***	***28***	***61***
SAM POLLARD & SON, INC	***400 W 10TH STREET***	***ESE 1/4 - 1/2 (0.317 mi.)***	***34***	***73***
MAGNNLIA APARTMENTS	***418 WEST FIFTH STREET***	***ENE 1/4 - 1/2 (0.361 mi.)***	***M43***	***96***
CAROLINA TELEPHONE	***401 WEST 5TH ST.***	***ENE 1/4 - 1/2 (0.367 mi.)***	***M46***	***101***
TAYLOR, OLA RESIDENCE	***1011 WEST THIRD STREET***	***NNE 1/4 - 1/2 (0.416 mi.)***	***51***	***113***
WILCAR EXECUTIVE CENTER	***223 WEST TENTH STREET***	***ESE 1/4 - 1/2 (0.423 mi.)***	***52***	***115***
TYSON PROPERTY (BERVERLY)	***420 CADILLAC STREET***	***NNW 1/4 - 1/2 (0.424 mi.)***	***53***	***118***
SYCAMORE HILL BAPTIST CHURCH	***226 W. 8TH STREET***	***E 1/4 - 1/2 (0.432 mi.)***	***54***	***121***
GREENVILLE PUBLIC WKS GARAGE,	1500 BEATTY STREET	SSE 1/4 - 1/2 (0.438 mi.)	N56	132
PUGH'S SHELL STATION	***5TH & GREEN STREET***	***ENE 1/4 - 1/2 (0.448 mi.)***	***O57***	***134***
FORBES RESIDENCE (SELENA)	***1407 WEST 4TH STREET***	***NNW 1/4 - 1/2 (0.465 mi.)***	***Q63***	***144***
FASTFARE NC 680-CROWN CENTRAL	***506 MEMORIAL DR.***	***NW 1/4 - 1/2 (0.469 mi.)***	***P64***	***147***
SUTTON'S SERVICE CENTER, INC.	***1105 DICKINSON AVE., PO***	***SSW 1/4 - 1/2 (0.470 mi.)***	***65***	***150***
UNIVERSITY AMOCO	***101 EAST 10TH STREET***	***ESE 1/4 - 1/2 (0.495 mi.)***	***R67***	***157***
DAUGHTRIDGE OIL-EVANS 76	***10TH ST. & EVANS ST.***	***ESE 1/4 - 1/2 (0.497 mi.)***	***R68***	***160***
ECU/HAYNIE LAND	***10TH STREET***	***ESE 1/4 - 1/2 (0.498 mi.)***	***R69***	***163***

EDR PROPRIETARY RECORDS

EDR Proprietary Records

Manufactured Gas Plants: The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

A review of the Manufactured Gas Plants list, as provided by EDR, has revealed that there is 1 Manufactured Gas Plants site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
GREENVILLE MGP	PLANT STREET	NNE 1/2 - 1 (0.609 mi.)	71	166

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 40 records.

Site Name	Database(s)
CHICOD CITGO	LAST
INFINGER TRANSPORT COMPANY	LAST
SMITHS FERTILIZER	UST,FINANCIAL ASSURANCE 1
TRADE-WILCO 1879	UST,FINANCIAL ASSURANCE 1
BELK GROUP OF GREENVILLE/CAROL	IMD,LUST
GOINS ESTATE (WILLIAM)	LUST TRUST,LUST,IMD
BRANCH'S STORE (HARDMAN'S GROC	IMD,LUST
JOYCE MCROY PROPERTY (QUICK FI	IMD,LUST
KASH & KARRY	LUST
SNYDER PROPERTY (KRISTINA)	LUST TRUST,LUST
BELVOIR HARDWARE	IMD,LUST
BARNHILL PROPERTY (NELL)	LUST TRUST,LUST
CONVENIENT WORLD #2	IMD,LUST
FORBES, DILLON RESIDENCE	IMD,LUST
ED WARREN ESTATE	LUST TRUST,LUST,IMD
HARDEE PROPERTY (ROY)	LUST TRUST,IMD,LUST
EIW EQUIPMENT, INC. HERTZ CORP	LUST
BELVOIR ELEMENTARY SCHOOL	LUST
MCNEILL RESIDENCE (JOHN)	LUST TRUST,LUST
FAST FARE NC 513	IMD,LUST
SAM'S CLUB GAS STATION	LUST
KASH-N-KARRY#9	LUST TRUST
FRANK D. DAIL	UST
LENNIE'S GROCERY	UST
CLARA E JONES SERVICE STATION	UST
MRS. FANNIE MAE HINES STORE	UST
NORTH PITT HIGH	UST
ROY'S MINI MART	UST
HARDMAN INC	UST
GREENVILLE PAVING & CONTRACTING	UST
FALKLAND SCHOOL	UST
WILBUR HARDEE	UST
MAYNARD SUMMERLIN	UST
TROPIGAS USA INC	UST
RED OAK CONVENIENT MART	UST
FORBES QUIK STEP	UST
D H CONLEY HIGH SCHOOL	UST
B & S COUNTRY STORE	UST
PITT COMMUNITY COLLEGE	IMD
PITT COMMUNITY COLLEGE (3000 G	IMD

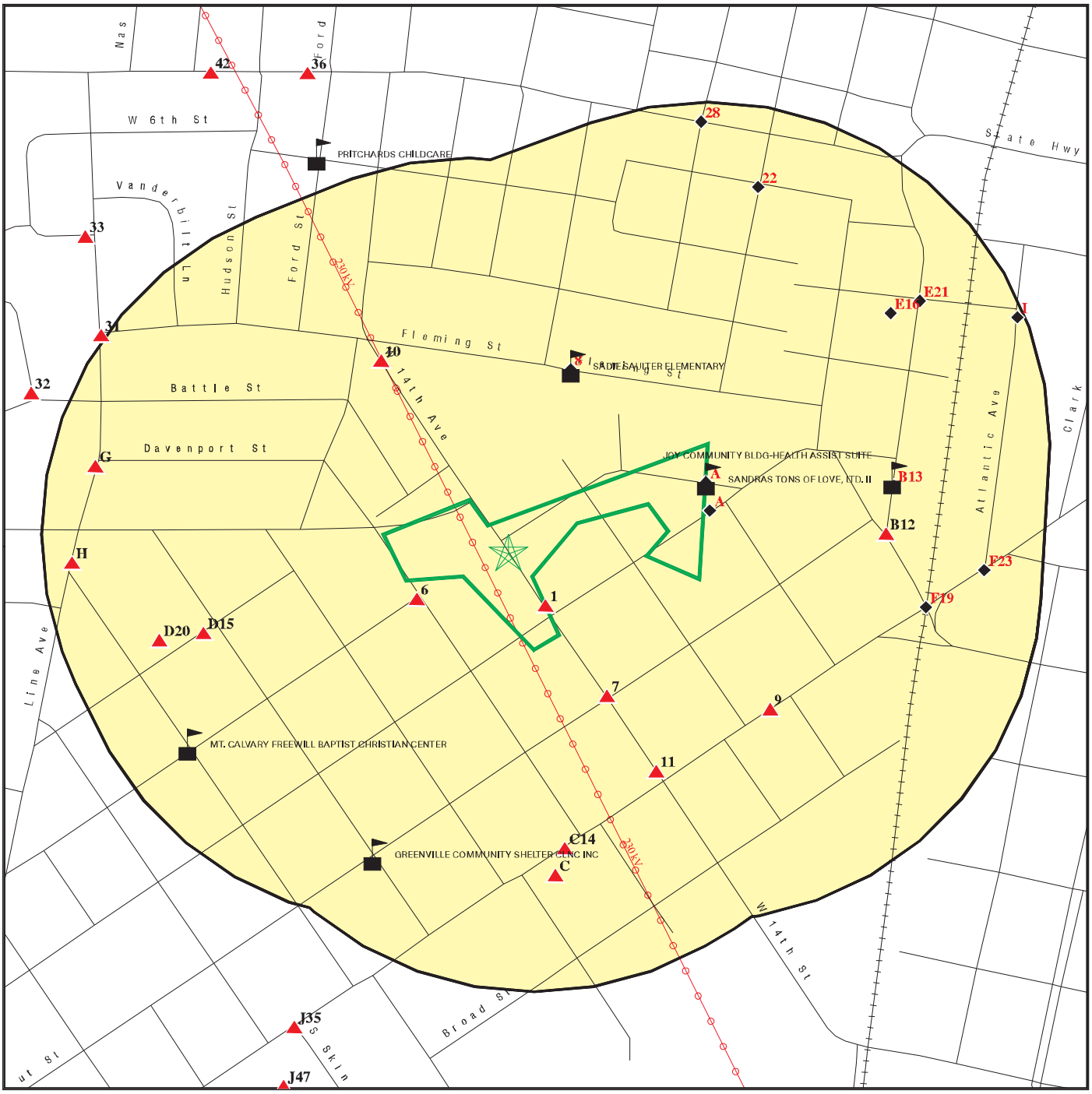
OVERVIEW MAP - 3363129.2s

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- Oil & Gas pipelines from USGS
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- State Wetlands
- Hazardous Substance Disposal Sites

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: U-3315 ADDRESS: West 14th Street Greenville NC 27834 LAT/LONG: 35.6079 / 77.3854	CLIENT: ATC Associates Inc. #45 CONTACT: Jeff Corson INQUIRY #: 3363129.2s DATE: July 09, 2012 6:13 pm

DETAIL MAP - 3363129.2s



0 1/16 1/8 1/4 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- Oil & Gas pipelines from USGS
- 100-year flood zone
- 500-year flood zone
- Hazardous Substance Disposal Sites

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: U-3315	CLIENT: ATC Associates Inc. #45
ADDRESS: West 14th Street Greenville NC 27834	CONTACT: Jeff Corson INQUIRY #: 3363129.2s
LAT/LONG: 35.6079 / 77.3854	DATE: July 09, 2012 6:14 pm

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	TP		NR	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
CERCLIS	0.500		0	0	0	NR	NR	0
FEDERAL FACILITY	1.000		0	0	0	0	NR	0
Federal CERCLIS NFRAP site List								
CERC-NFRAP	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
NC HSDS	1.000		0	0	0	1	NR	1
State- and tribal - equivalent CERCLIS								
SHWS	1.000		0	1	0	0	NR	1
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	0	0	NR	NR	0
OLI	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LUST	0.500		4	11	30	NR	NR	45

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LUST TRUST	0.500		3	4	17	NR	NR	24
LAST	0.500		0	0	3	NR	NR	3
INDIAN LUST	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
UST	0.250		6	5	NR	NR	NR	11
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
FEMA UST	0.250		0	0	NR	NR	NR	0
State and tribal institutional control / engineering control registries								
INST CONTROL	0.500		0	0	0	NR	NR	0
State and tribal voluntary cleanup sites								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	1	0	NR	NR	1
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	2	NR	NR	2
Local Lists of Landfill / Solid Waste Disposal Sites								
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HIST LF	0.500		0	0	0	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US CDL	TP		NR	NR	NR	NR	NR	0
US HIST CDL	TP		NR	NR	NR	NR	NR	0
Local Land Records								
LIENS 2	TP		NR	NR	NR	NR	NR	0
LUCIS	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA-NonGen	0.250		1	2	NR	NR	NR	3
DOT OPS	TP		NR	NR	NR	NR	NR	0
DOD	1.000		0	0	0	0	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
FUDS	1.000		0	0	0	0	NR	0
CONSENT	1.000		0	0	0	0	NR	0
ROD	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
MINES	0.250		0	0	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
IMD	0.500		3	9	23	NR	NR	35
UIC	TP		NR	NR	NR	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
NPDES	TP		NR	NR	NR	NR	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
FINANCIAL ASSURANCE	TP		NR	NR	NR	NR	NR	0
COAL ASH	0.500		0	0	0	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
EDR PROPRIETARY RECORDS								
EDR Proprietary Records								
Manufactured Gas Plants	1.000		0	0	0	1	NR	1

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

HSDS
Region
NE
1/2-1
3140 ft.

GREENVILLE COAL GAS PLANT
, NC

NC HSDS **S102442530**
N/A

HSDS:

Site Type:	Federal
Superfund ID:	986 188 886
Lat/Long:	35 36 57.978380 77 22 32.694728
Total area in coverage units:	15827.6660156
Total perimeter in coverage units:	505.70578002
X-value coordinate in feet:	2482728.75
Y-value coordinate in feet:	683091.9375
Sites designated as superfund cleanup sites:	434
Length of feature in internal units:	505.705724829
Area of feature in internal units squared:	15827.6626249

1
< 1/8
1 ft.

Relative:
Higher

Actual:
63 ft.

A B WHITLEY INC
1311 WEST 14TH STREET
GREENVILLE, NC 27834

UST **U003563226**
N/A

UST:

Contact:	A B WHITLEY INC
Contact Address1:	1311 WEST 14TH STREET
Contact Address2:	Not reported
Contact City/State/Zip:	GREENVILLE, NC 27834
Installed Date:	09/24/1979
Root Tank Id:	Not reported
Main Tank:	0
Compartment Tank:	0
Manifold Tank:	Not reported
Product Name:	Gasoline, Gas Mix
Tank Status:	Removed
Tank Capacity:	1000
Perm Close Date:	12/13/1990
Commercial:	Yes
Regulated:	Yes
Product Key:	3
Tank Construction:	Steel
Piping Construction:	FRP
Piping System Key:	1
Other CP Tank:	Not reported
FIPS County Desc:	Pitt
Latitude:	0
Longitude:	0

Installed Date:	09/24/1979
Root Tank Id:	Not reported
Main Tank:	0
Compartment Tank:	0
Manifold Tank:	Not reported
Product Name:	Diesel
Tank Status:	Removed
Tank Capacity:	550
Perm Close Date:	12/13/1990
Commercial:	Yes
Regulated:	Yes
Product Key:	1

A B WHITLEY INC (Continued) **U003563226**

Tank Construction:	Steel
Piping Construction:	FRP
Piping System Key:	1
Other CP Tank:	Not reported
FIPS County Desc:	Pitt
Latitude:	0
Longitude:	0
Installed Date:	01/01/1964
Root Tank Id:	Not reported
Main Tank:	0
Compartment Tank:	0
Manifold Tank:	Not reported
Product Name:	Unknown
Tank Status:	Removed
Tank Capacity:	550
Perm Close Date:	07/19/1993
Commercial:	No
Regulated:	Yes
Product Key:	20
Tank Construction:	Concrete
Piping Construction:	Aluminum
Piping System Key:	1
Other CP Tank:	Not reported
FIPS County Desc:	Pitt
Latitude:	0
Longitude:	0
Installed Date:	09/24/1979
Root Tank Id:	Not reported
Main Tank:	0
Compartment Tank:	0
Manifold Tank:	Not reported
Product Name:	Oil, New/Used/Mix
Tank Status:	Removed
Tank Capacity:	550
Perm Close Date:	12/13/1990
Commercial:	Yes
Regulated:	Yes
Product Key:	14
Tank Construction:	Steel
Piping Construction:	FRP
Piping System Key:	1
Other CP Tank:	Not reported
FIPS County Desc:	Pitt
Latitude:	0
Longitude:	0
Installed Date:	09/27/1965
Root Tank Id:	Not reported
Main Tank:	0
Compartment Tank:	0
Manifold Tank:	Not reported
Product Name:	Heating Oil/Fuel
Tank Status:	Removed
Tank Capacity:	280
Perm Close Date:	05/24/1991

A B WHITLEY INC (Continued) **U003563226**

Commercial:	No
Regulated:	No
Product Key:	6
Tank Construction:	Concrete
Piping Construction:	FRP
Piping System Key:	1
Other CP Tank:	Not reported
FIPS County Desc:	Pitt
Latitude:	0
Longitude:	0

A2 **MACHINE&WELDING(PREVIOUS RENTER)** **UST** **U001197869**
307 SPRUCE ST. **N/A**
< 1/8 **GREENVILLE, NC 27834**
0.000 mi.
2 ft. **Site 1 of 4 in cluster A**

Relative:
Lower

Actual:
59 ft.

UST:

Contact:	UNKNOWN
Contact Address1:	307 SPRUCE STREET
Contact Address2:	Not reported
Contact City/State/Zip:	GREENVILLE, NC 27834
Installed Date:	05/04/1976
Root Tank Id:	Not reported
Main Tank:	0
Compartment Tank:	0
Manifold Tank:	Not reported
Product Name:	Diesel
Tank Status:	Removed
Tank Capacity:	1000
Perm Close Date:	12/31/1988
Commercial:	Yes
Regulated:	Yes
Product Key:	1
Tank Construction:	Steel
Piping Construction:	FRP
Piping System Key:	1
Other CP Tank:	Not reported
FIPS County Desc:	Pitt
Latitude:	0
Longitude:	0

A3 **AMERICAN AUTO BODY** **RCRA-NonGen** **1004745458**
ENE **302 SPRUCE ST** **FINDS** **NCD982122657**
< 1/8 **GREENVILLE, NC 27834**
0.004 mi.
20 ft. **Site 2 of 4 in cluster A**

Relative:
Lower

Actual:
59 ft.

RCRA-NonGen:

Date form received by agency:	06/27/1990
Facility name:	AMERICAN AUTO BODY
Facility address:	302 SPRUCE ST GREENVILLE, NC 27834
EPA ID:	NCD982122657
Mailing address:	SPRUCE ST GREENVILLE, NC 27834

AMERICAN AUTO BODY (Continued) **1004745458**

Contact: LANGEMANN KLAUS
Contact address: 302 SPRUCE ST
GREENVILLE, NC 27834
Contact country: US
Contact telephone: (919) 758-7540
Contact email: Not reported
EPA Region: 04
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: LANGEMANN KLAUS
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Hazardous Waste Summary:
Waste code: F003
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: F005
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF

AMERICAN AUTO BODY (Continued) **1004745458**

ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Violation Status: No violations found

FINDS:

Registry ID: 110004033126

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

A4 **FRANKLIN BAKING CO. INC.** **IMD** **S103130272**
ENE **1107 MYRTLE AVENUE** **N/A**
< 1/8 **GREENVILLE, NC**
0.005 mi.
24 ft. **Site 3 of 4 in cluster A**

Relative:
Lower

Actual:
60 ft.

IMD:

Region:	WAS
Facility ID:	12444
Date Occurred:	6/22/1994
Submit Date:	7/27/1994
GW Contam:	Yes, Groundwater Contamination has been detected
Soil Contam:	No
Incident Desc:	UPON CLOSURE OF UST MAJOR SOIL CONTAM. WAS CONFIRMED.
Operator:	JERRY HANCOCK
Contact Phone:	2292272283
Owner Company:	FLOWERS BAKERY, INC.
Operator Address:	1925 FLOWERS CIRCLE
Operator City:	THOMASVILLE
Oper City,St,Zip:	THOMASVILLE, NC 31757-
Ownership:	Private
Operation:	Commercial
Material:	GASOLINE
Qty Lost 1:	Not reported
Qty Recovered 1:	Not reported
Source:	Leak-underground
Type:	Gasoline/diesel
Location:	Facility
Setting:	Urban
Risk Site:	L
Site Priority:	70/E
Priority Code:	L
Priority Update:	5/30/1998
Dem Contact:	JSB
Wells Affected:	No
Num Affected:	0
Wells Contam:	Not reported
Sampled By:	Responsible Parties
Samples Include:	Soil Samples

U-3315
West 14th Street
Greenville, NC 27834

Inquiry Number: 3363129.5
July 10, 2012

The EDR Aerial Photo Decade Package

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Date EDR Searched Historical Sources:

Aerial Photography July 10, 2012

Target Property:

West 14th Street

Greenville, NC 27834

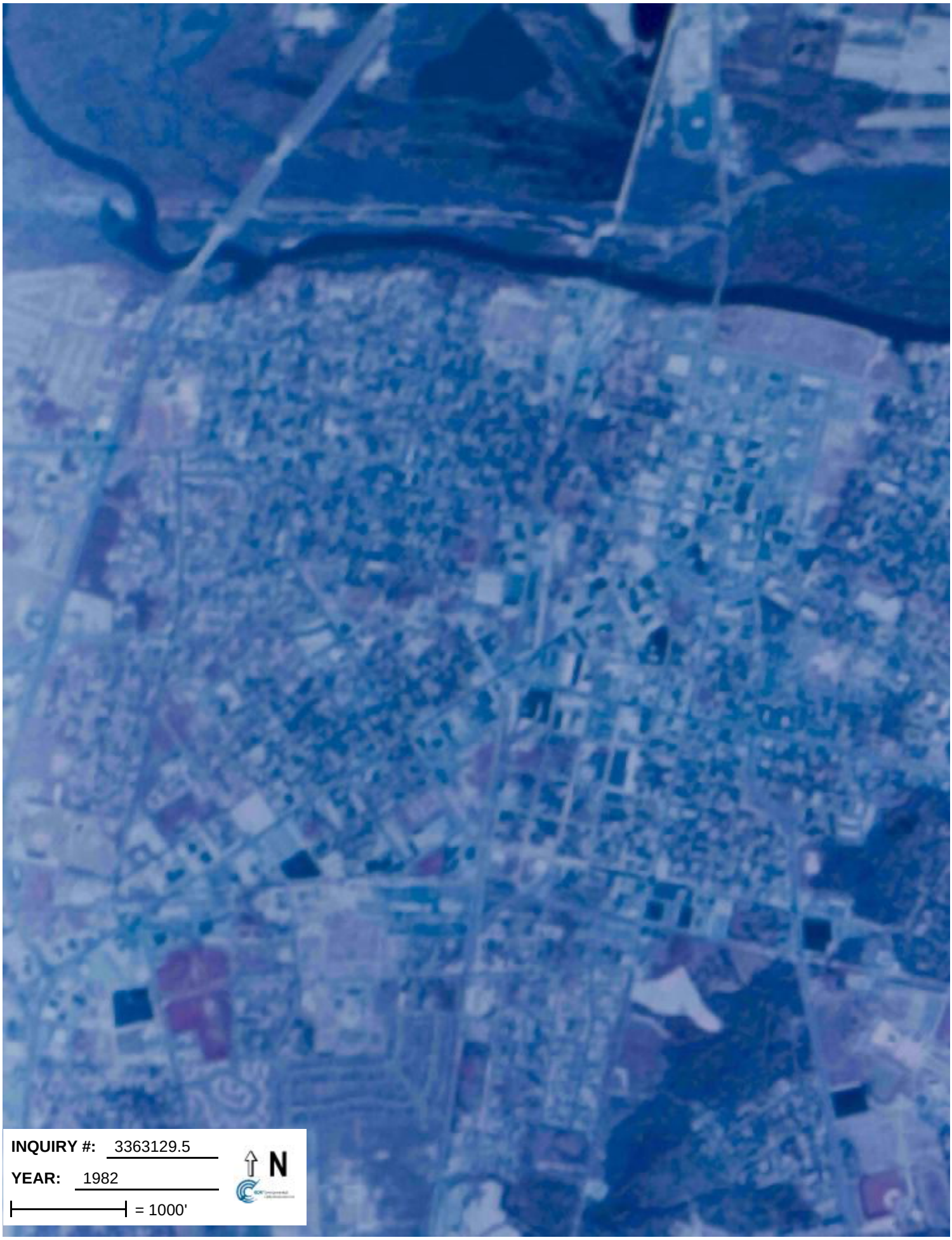
Year	Scale	Details	Source
1957	Aerial Photograph. Scale: 1"=500'	Panel #: 35077-E4, Greenville SW, NC;/Flight Date: March 10, 1957	EDR
1961	Aerial Photograph. Scale: 1"=1000'	Panel #: 35077-E4, Greenville SW, NC;/Flight Date: October 16, 1961	EDR
1974	Aerial Photograph. Scale: 1"=1000'	Panel #: 35077-E4, Greenville SW, NC;/Flight Date: April 10, 1974	EDR
1977	Aerial Photograph. Scale: 1"=750'	Panel #: 35077-E4, Greenville SW, NC;/Flight Date: January 30, 1977	EDR
1982	Aerial Photograph. Scale: 1"=1000'	Panel #: 35077-E4, Greenville SW, NC;/Flight Date: March 29, 1982	EDR
1993	Aerial Photograph. Scale: 1"=500'	Panel #: 35077-E4, Greenville SW, NC;/Composite DOQQ - acquisition dates: March 08, 1993	EDR
1999	Aerial Photograph. Scale: 1"=1000'	Panel #: 35077-E4, Greenville SW, NC;/Flight Date: September 23, 1999	EDR
2005	Aerial Photograph. Scale: 1"=500'	Panel #: 35077-E4, Greenville SW, NC;/Flight Year: 2005	EDR
2006	Aerial Photograph. Scale: 1"=500'	Panel #: 35077-E4, Greenville SW, NC;/Flight Year: 2006	EDR
2008	Aerial Photograph. Scale: 1"=500'	Panel #: 35077-E4, Greenville SW, NC;/Flight Year: 2008	EDR


INQUIRY #: 3363129.5
YEAR: 1957
= 500'
N


INQUIRY #: 3363129.5
YEAR: 1961
= 1000'
N


INQUIRY #: 3363129.5
YEAR: 1974
= 1000'
N


INQUIRY #: 3363129.5
YEAR: 1977
= 750'
N


INQUIRY #: 3363129.5
YEAR: 1982
= 1000'
N


INQUIRY #: 3363129.5
YEAR: 1993
= 500'
N


INQUIRY #: 3363129.5
YEAR: 1999
= 1000'
N


INQUIRY #: 3363129.5
YEAR: 2005
= 500'
N


INQUIRY #: 3363129.5
YEAR: 2006
= 500'
N


INQUIRY #: 3363129.5
YEAR: 2008
= 500'
N

U-3315
West 14th Street
Greenville, NC 27834

Inquiry Number: 3363129.3
July 10, 2012

Certified Sanborn® Map Report

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

7/10/12

Site Name:
U-3315
West 14th Street
Greenville, NC 27834

Client Name:
ATC Associates Inc. #45
2725 East Millbrook Road
Raleigh, NC 27604

EDR Inquiry # 3363129.3

Contact: Jeff Corson

The complete Sanborn Library collection has been searched by EDR, and fire insurance maps covering the target property location provided by ATC Associates Inc. #45 were identified for the years listed below. The certified Sanborn Library search results in this report can be authenticated by visiting www.ednet.com/sanborn and entering the certification number. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by Sanborn Library LLC, the copyright holder for the collection.

Certified Sanborn Results:

Site Name: U-3315
Address: West 14th Street
City, State, Zip: Greenville, NC 27834
Cross Street:
P.O. # NA
Project: NA
Certification # D067-4C5F-9194

Maps Provided:

1958
1946
1929
1923

Sanborn® Library search results
Certification # D067-4C5F-9194

The Sanborn Library includes more than 1.2 million Sanborn fire insurance maps, which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ✔ Library of Congress
- ✔ University Publications of America
- ✔ EDR Private Collection

The Sanborn Library LLC Since 1866™

Limited Permission To Make Copies

ATC Associates Inc. #45 (the client) is permitted to make up to THREE photocopies of this Sanborn Map transmittal and each fire insurance map accompanying this report solely for the limited use of its customer. No one other than the client is authorized to make copies. Upon request made directly to an EDR Account Executive, the client may be permitted to make a limited number of additional photocopies. This permission is conditioned upon compliance by the client, its customer and their agents with EDR's copyright policy; a copy of which is available upon request.

Sanborn Sheet Thumbnails

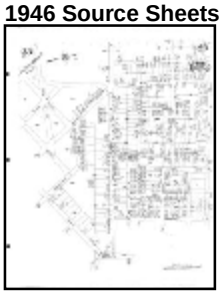
This Certified Sanborn Map Report is based upon the following Sanborn Fire Insurance map sheets.

1958 Source Sheets

Volume 1, Sheet 23

Volume 1, Sheet 25

1946 Source Sheets



Volume 1, Sheet 23

Volume 1, Sheet 25

1929 Source Sheets

Volume 1, Sheet 23

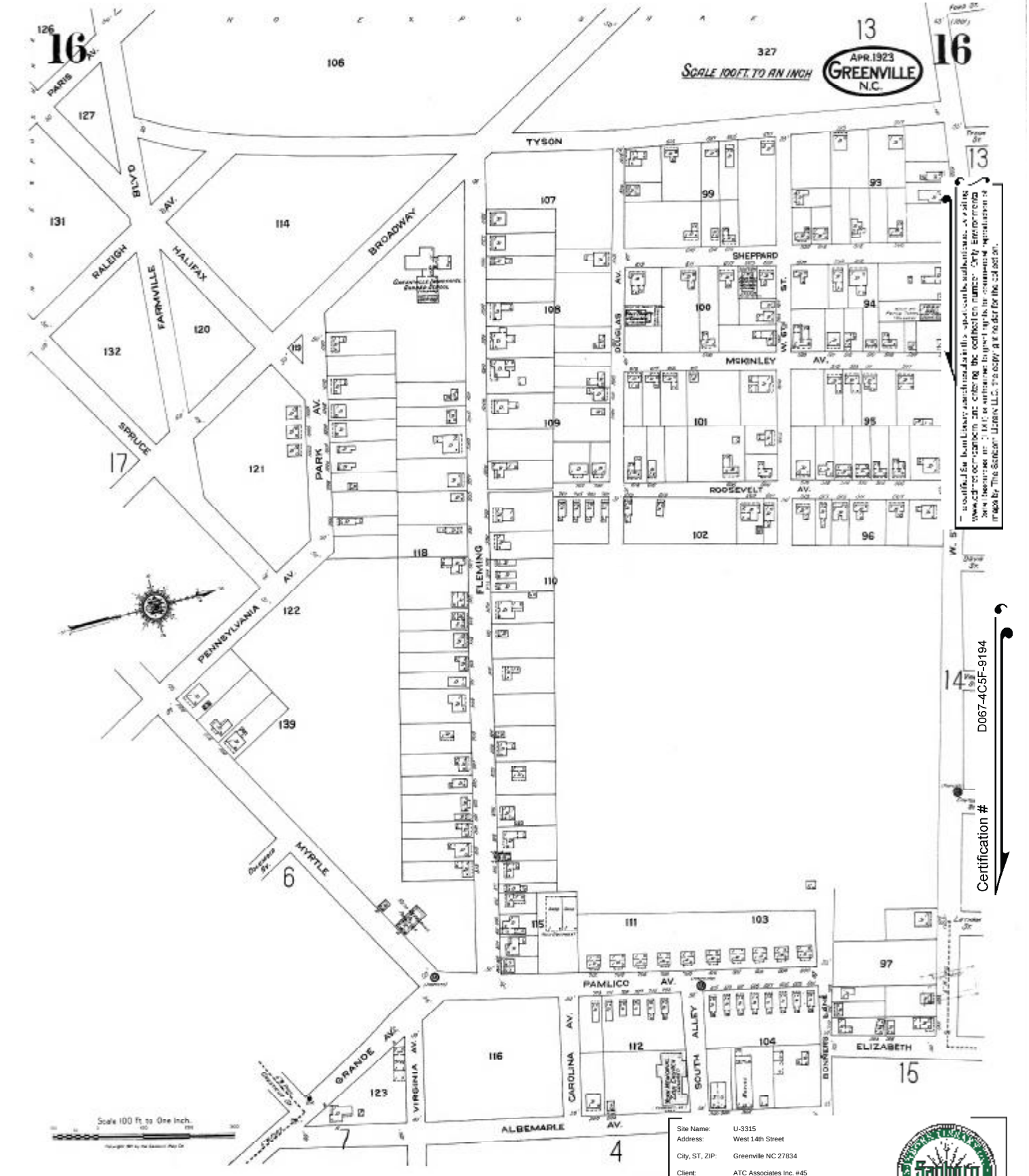
Volume 1, Sheet 25

1923 Source Sheets

Volume 1, Sheet 16

Volume 1, Sheet 17

1923 Certified Sanborn Map



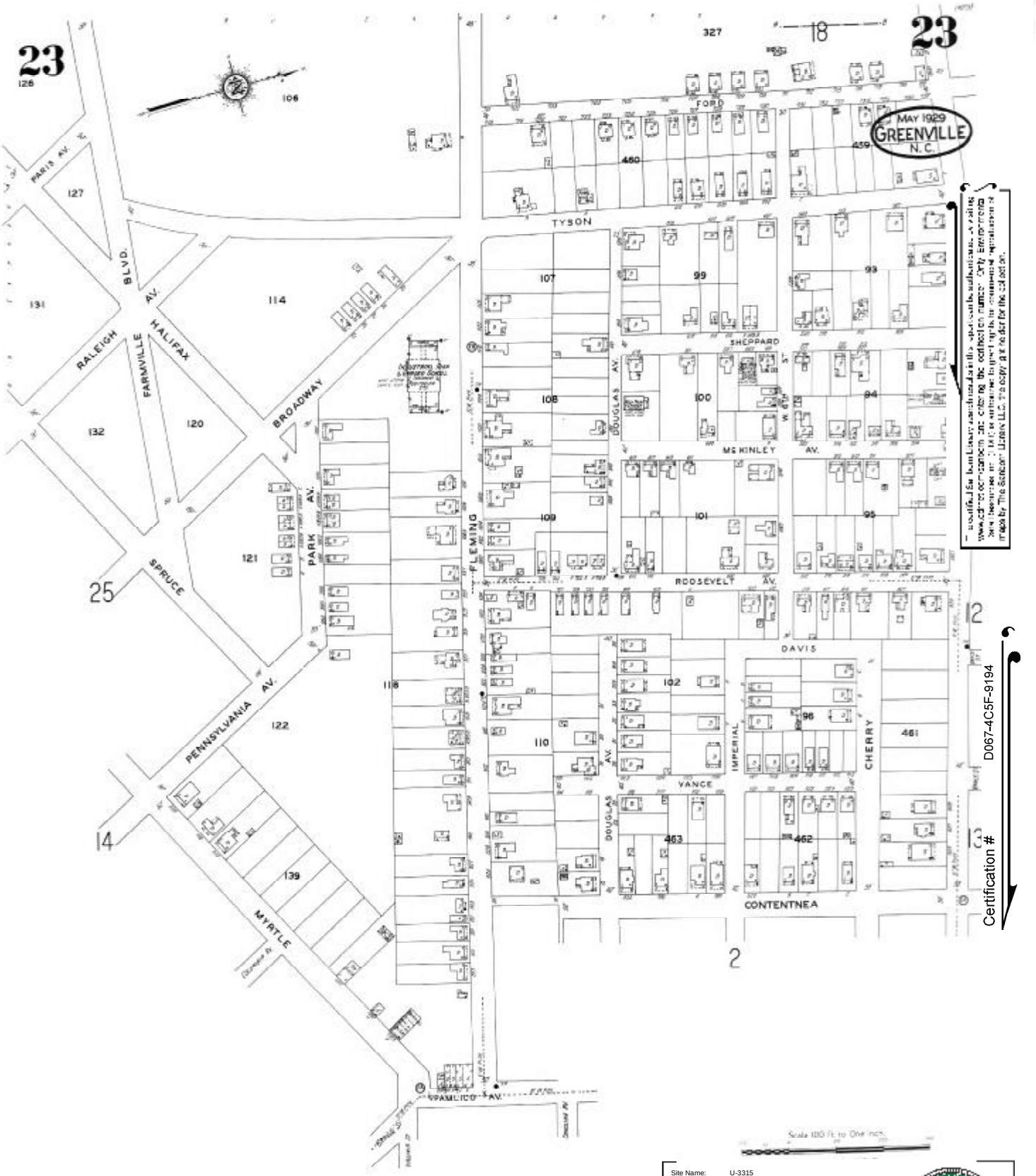
Site Name:	U-3315
Address:	West 14th Street
City, ST, ZIP:	Greenville NC 27834
Client:	ATC Associates Inc. #45
EDR Inquiry:	3363129.3
Order Date:	7/10/2012 9:52:03 AM
Certification #	D067-4C5F-9194
Copyright:	1923

1923 Certified Sanborn Map

Site Name: U-3315
Address: West 14th Street
City, ST, ZIP: Greenville NC 27834
Client: ATC Associates Inc. #45
EDR Inquiry: 3363129.3
Order Date: 7/10/2012 9:52:03 AM
Certification # D067-4C5F-9194

Copyright: 1923

1929 Certified Sanborn Map

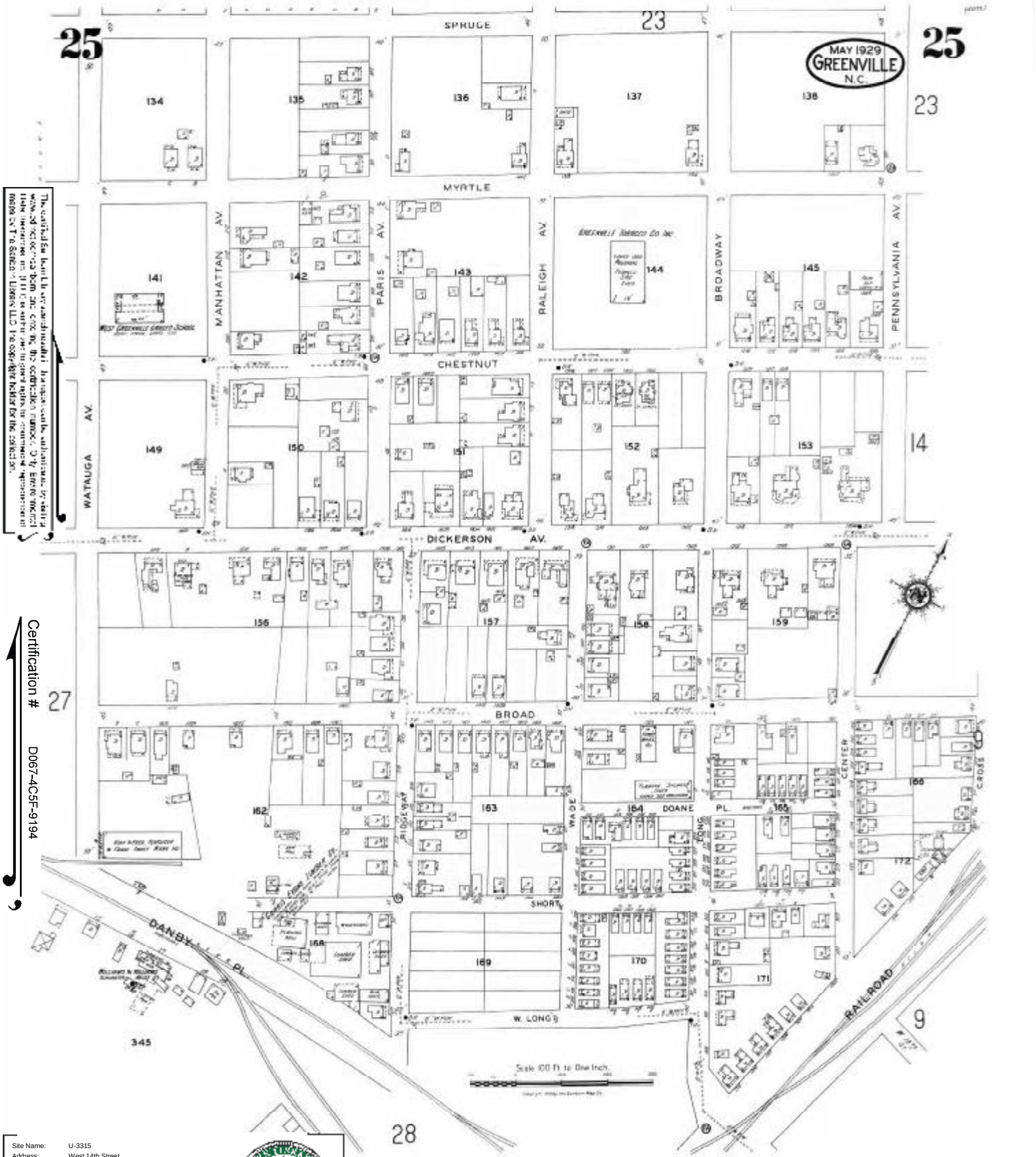


Scale 100 Ft. to One inch.

Site Name:	U-3315
Address:	West 14th Street
City, ST, ZIP:	Greenville NC 27834
Client:	ATC Associates Inc. #45
EDR Inquiry:	3363129.3
Order Date:	7/10/2012 9:52:03 AM
Certification #	D067-4C5F-9194

Copyright: 1929

1929 Certified Sanborn Map

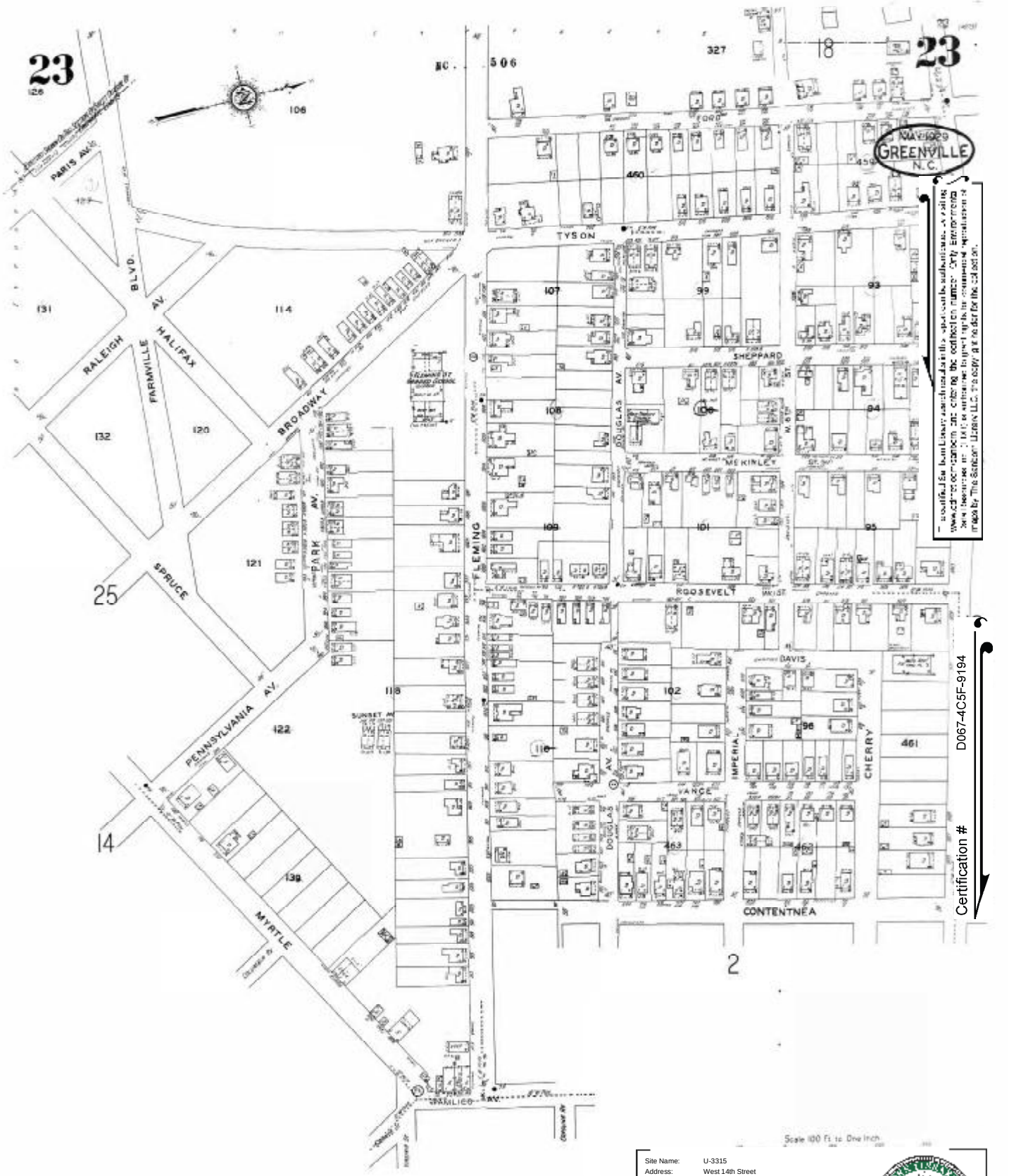


Certification # D067-4C5F-9194

Site Name:	U-3315
Address:	West 14th Street
City, ST, ZIP:	Greenville NC 27834
Client:	ATC Associates Inc. #45
EDR Inquiry:	3363129.3
Order Date:	7/10/2012 9:52:03 AM
Certification #	D067-4C5F-9194

Copyright: 1929

1946 Certified Sanborn Map



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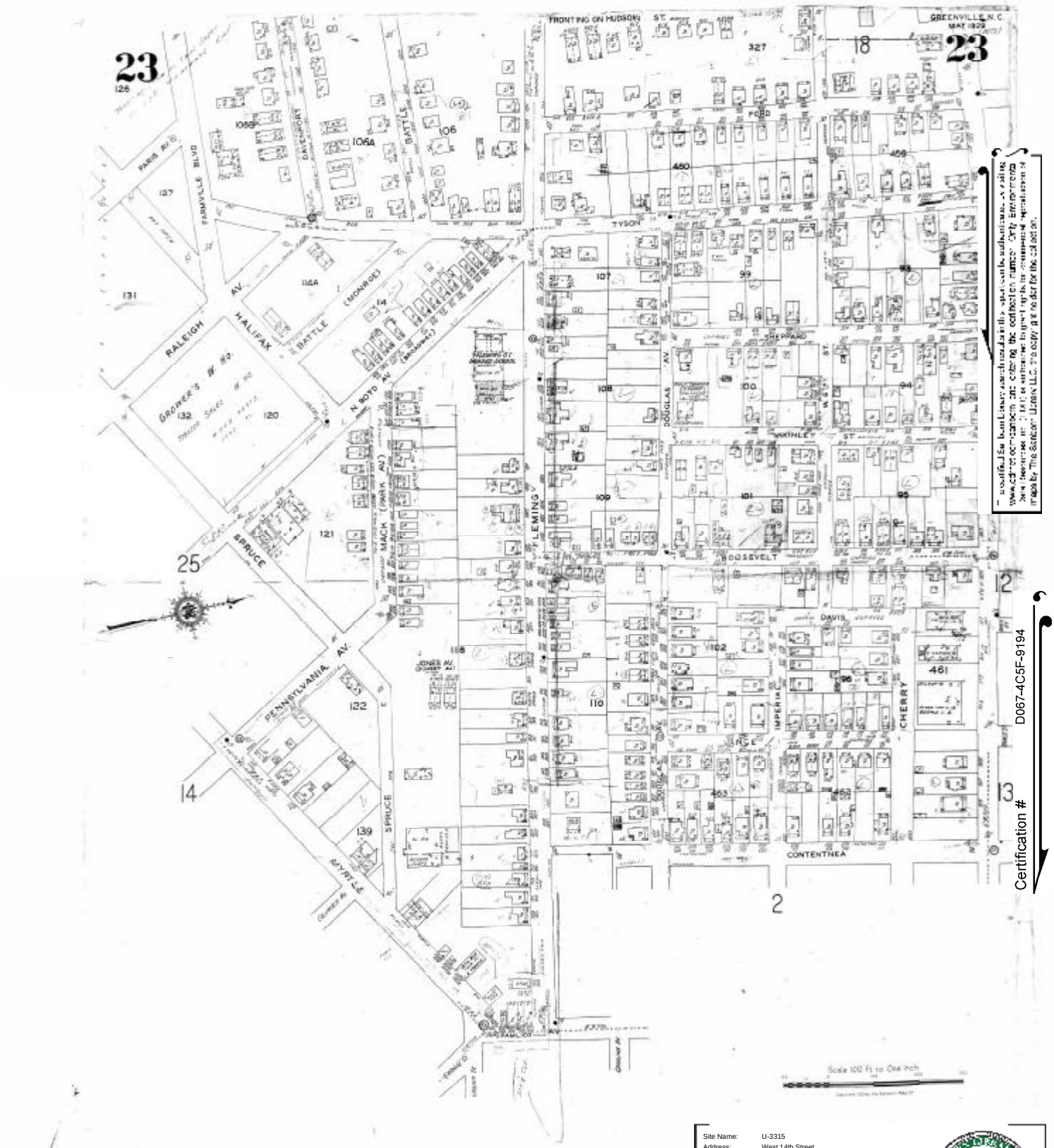
Address:	West 14th Street
City, ST, ZIP:	Greenville NC 27834
Client:	ATC Associates Inc. #45
EDR Inquiry:	3363129.3
Order Date:	7/10/2012 9:52:03 AM
Certification #	D067-4C5F-9194
Copyright:	1946

1946 Certified Sanborn Map

Certification # D067-4C5F-9194

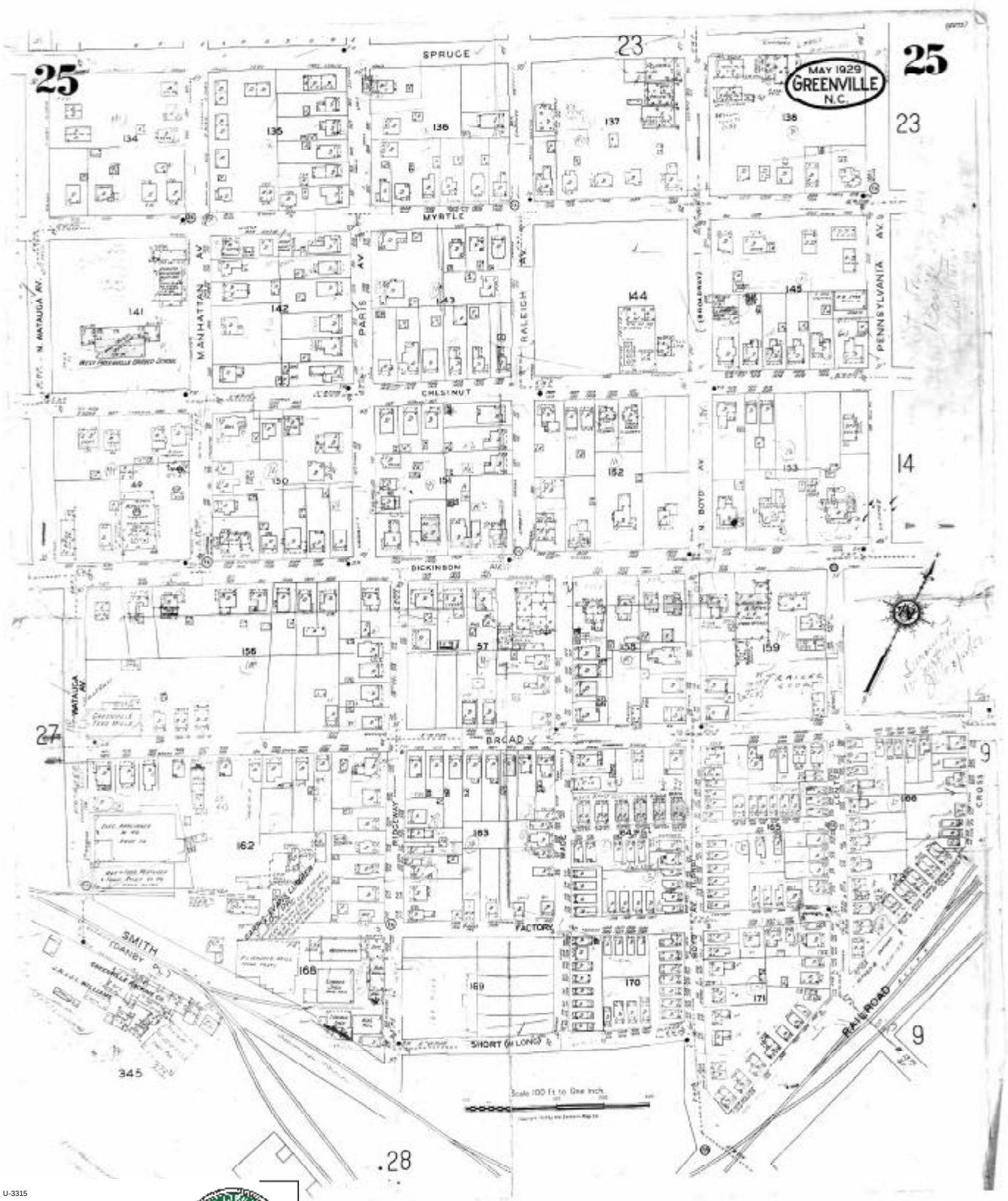
Site Name: U-3315
Address: West 14th Street
City, ST, ZIP: Greenville NC 27834
Client: ATC Associates Inc. #45
EDR Inquiry: 3363129.3
Order Date: 7/10/2012 9:52:03 AM
Certification # D067-4C5F-9194

1958 Certified Sanborn Map



Site Name:	U-3315
Address:	West 14th Street
City, ST, ZIP:	Greenville NC 27834
Client:	ATC Associates Inc. #45
EDR Inquiry:	3363129.3
Order Date:	7/10/2012 9:52:03 AM
Certification #	D067-4C5F-9194
Copyright:	1958

1958 Certified Sanborn Map



Certification # D067-4C5F-9194

Site Name:	U-3315
Address:	West 14th Street
City, ST, ZIP:	Greenville NC 27834
Client:	ATC Associates Inc. #45
EDR Inquiry:	3363129.3
Order Date:	7/10/2012 9:52:03 AM
Certification #	D067-4C5F-9194

APPENDIX B

GEOPHYSICAL REPORT

SUBSURFACE INVESTIGATION REPORT

Electromagnetic Induction, Magnetic Detection *& GPR Survey*

Moore, Willie Lee Property (Parcel 51)
Moore's Body Shop
1402 West 14th Street
Greenville, North Carolina

July 19, 2012

Report prepared for:
Justin C. Ballard, P.G.
ATC Associates of North Carolina
2725 Millbrook Road, Suite 121
Raleigh, North Carolina 27604

Investigative Team: Shane Haniford, Joe Chiocca

Reviewed by: Bruce Beavers P.L.S. and Alex Baldwin L.S.S.

Stantec Consulting Services Inc.
801 Jones Franklin Road, Suite 300
Raleigh, NC 27606
(919) 851-6866

ATC Associates of North Carolina
Subsurface Investigation Report
Moore, Willie Lee Property (Parcel 51)
1402 West 14th Street
Greenville, North Carolina

1.0 PURPOSE

Stantec Consulting Services Inc. performed a subsurface investigation utilizing surface Ground Penetrating Radar (GPR), Magnetic Detection and Electromagnetic Induction (EM) to survey the subject site located at 1402 West 14th Street in the city of Greenville, North Carolina and is located on the north quadrant of West 14th Avenue and Spruce Street at the terminus of Farmville Blvd.

This facility currently operates as an automobile body shop. According to NCDENR's UST Section Registry there are no known facility ID's or groundwater incidents associated with this property. A sign located above the garage indicated "Hazardous Material". Type and quantity of waste was not identified. This site is not listed on the EPA's registry.

ATC Associates representative Mr. Justin C. Ballard, P.G. provided information and maps identifying the geophysical survey area to Stantec personnel prior to conducting the investigation.

Survey was conducted at the request of Justin C. Ballard, P.G. on July 18th to 19th and September 19th 2012.

The purpose of this investigation was to:

- Survey for detectable structures (UST) and other subsurface anomalies.

The specified survey area was described as 1402 West 14th Street in the city of Greenville, North Carolina and located on the north quadrant of the intersection of W 14th Ave and Spruce St.

A map depicting this area is included herein.

1.1 LIMITING CONDITIONS

In the event portions of the subject site were not accessible due to obstructions and/or stored items, those areas will be noted as inaccessible. An attempt was made to be as thorough as possible in the survey process. The surveyed area was defined, at the time of the investigation, by the Client. Client representative on site was Aaron Leff with ATC Associates of North Carolina.

In order to accurately conduct a radar survey, linear scans were made across the target area. Confined, obstructed or non-level areas which restrict the scanning pattern can impede the data collected and reduce the accuracy of the desired results.

The assessment of this site is based on our professional evaluation of the data gathered, and our experience with the properties with surface ground penetrating radar within this setting and scope. The evaluation rendered in this report meets the standards of our profession and was conducted in accordance with generally accepted guidelines for EM, Magnetic Detection and GPR surveys. It is generally recognized that the results of the EM, Magnetic Detection and GPR are non-unique and may not represent actual subsurface conditions.

Note: A diligent effort has been made to obtain the highest quality data and make useful interpretations.

Analysis of data was accomplished by visual inspection in the field and then recording the data for post processing.

1.2 APPROACH

Multiple tools involving differing technologies were used in this investigation.

For the GPR analysis, the entire subject survey area was divided logistically into manageable/workable sections.

These isometric sections represent the arrangement of the survey scans. Within these sections, scans were made in an orthogonal pattern on two foot centers. This provided two separate data sets for each section.

For Magnetic Detection and Electromagnetic Induction the area was systematically scanned in such a pattern so to cover over 100% of the accessible portions of the site. This is possible due to the size and shape of the resulting fields produced from the sensors thus resulting in an "overlapping" of each transect covered.

2.0 METHODOLOGY

2.1 EQUIPMENT

Ground Penetrating Radar (GPR)

The GPR method transmits electromagnetic waves, which are pulsed at discrete distance/ time intervals.

The transmitted pulse radiates through the earth whereby a portion of the energy is reflected from interfaces of contrasting electrical properties (e.g. pavement and soil interface, soil stratigraphic changes and buried metallic objects) while the remaining energy continues until reaching additional reflectors where the process is repeated.

Reflected energy is received by the antennae and recorded for later processing and interpretation. Factors such as soil moisture, clay content, and variations in the dielectric constants of materials control the effectiveness of the GPR method. Wet conductive soils severely attenuate GPR signals and thus the effective depth of exploration.

The presence of foreign products leeched into the soil can eschew the data collected thereby affecting the images.

GPR energy cannot transmit through ferrous objects since metal acts as a pure reflector.

Stantec employed a MALA X3M/GPR digital radar unit with a 250 MHz center frequency, bistatic antenna to survey the site. The instrument was configured to detect moderately shallow reflectors within the geologic strata. The chosen instrument configuration facilitates the analysis. The GPR system unit was configured for data collection as follows:

- Trigger Source: Cart
- Range: 0-66 ns
- Samples per Scan: 250-512
- Sampling Frequency: 10852.27 to 7234.85 MHz

• Vertical High Pass Filter: 15 Samples
• Vertical Low Pass Filter: 5 Samples
• Point Interval: 0.669 to 0.906 in
• Pulses/Ft: 108.48

Software utilized for the collection and analysis of these data included:
RAMAC Ground Vision GPR Software version 3. 1. 19. (5).

2.2 EQUIPMENT

Electromagnetic (EM) and Magnetic Detection

The magnetic detection method is a LF (30 to 300 kHz) or VLF (below 30 kHz) receiver for detecting electromagnetic fields which radiate off of metallic objects. Magnetic locators operate on a simple principal.

An electronic transmitter and receiving antennae are mounted on a support structure. The two antennae are mounted a fixed distance apart aligned opposing so that the magnetic field measured by one sensor is negative of the magnetic field measured by the other. Each measures the average magnetic field component along their axis i.e. the magnetic field component along the longitudinal axis between the antennae.

This is calibrated in the field to a position (setting) which is neutral to the earth's natural magnetic field. When a metallic object is introduced within this field, it is detected as a differing field. This differing magnetic field is the field of interest.

Stantec employed this method of locating buried metallic objects as a compliment to GPR for the subject site.

Stantec selected the following instruments for this particular task:

- Subsurface Magnetic Locator ML-1M
- Schonstedt GA-52Cx. HeliFlux magnetic field sensors—drive frequency 7.5 KHz.
- RadioDetection 8000 T-10 model utilizing 512 hertz, 8 KHz, 33 KHz, 65 KHz, 50/60 hertz, long wave radio frequencies

3.0 DATA PROCESSING AND ANALYSIS-GPR

Stantec calculated the average radar propagation velocity for the subject sites. This procedure is necessary to provide reasonably accurate depth estimates for reflection events in the subsurface strata.

The average radar velocity for the site was estimated. It should be noted that the dielectric constants and hence the corresponding radar propagation velocities did vary by an order of degree(s) of magnitude across the surveyed area. Additionally, radar propagation velocity decreases with depth in most geologic sections.

Data processing of the GPR data prior to interpretation included band pass filtering, background removal, horizontal smoothing, trace editing, and time gain adjustments. After processing, the data profiles were reviewed for analysis. These processing techniques were applied to the GPR data to provide the highest quality data and therefore facilitate the overall interpretation process.

4.0 RESULTS & CONCLUSIONS

Stantec Consulting Services Inc. has completed a subsurface investigation of the subject site.

Multiple methods and technologies were used where permitted by the environment.

Survey scans were made throughout the targeted area.

The survey revealed anomalies within the subject site.

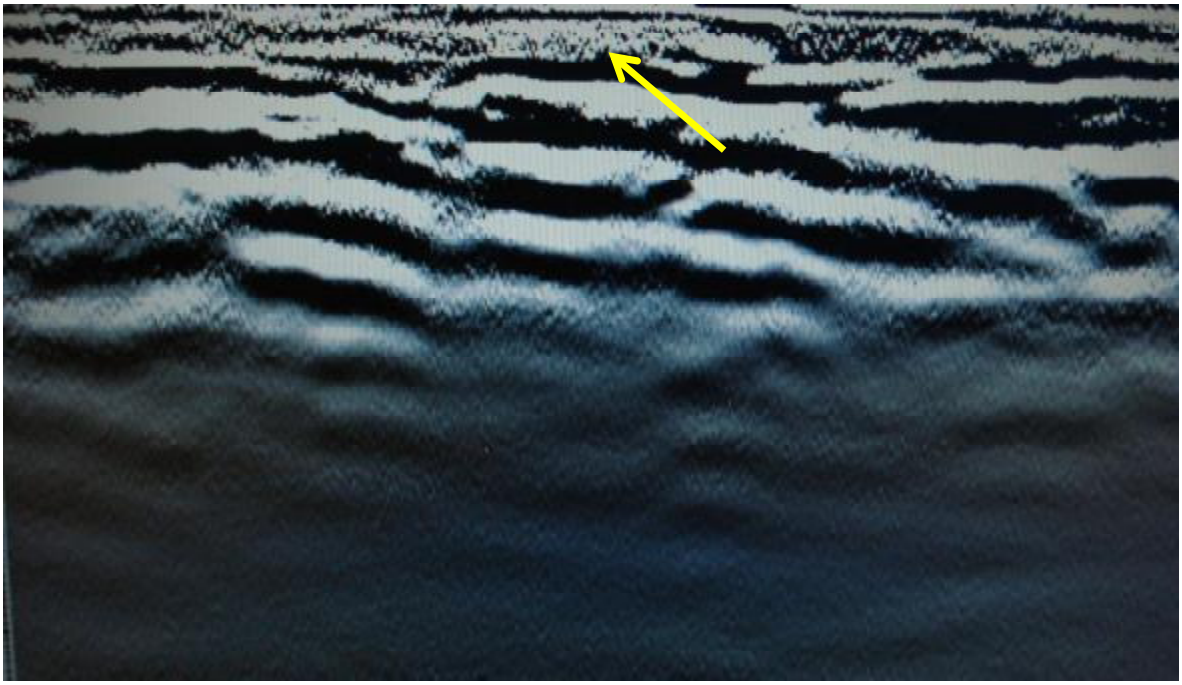
Target A: Concrete Pad at rear of building contains rebar throughout pad. This discovery was made using magnetics detection and ground penetrating radar. A sketch of this area is included on page 10.

1. A gas service line was detected along the side of the building on Spruce Street connecting to meter attached to building. Electromagnetic Induction was used to delineate this line. 33 kHz and long wave radio frequencies were used. A sketch of this area is included on page 10.

2. A water service line was detected along the front of the business on W 14th Ave connecting to meter in ground. Electromagnetic Induction was used to delineate this line. 8 and 33 kHz frequencies were used. A sketch of this area is included on page 10.
3. A traffic control wire was found descending from a pole to a junction box on the corner of the intersection of Spruce Street and West 14th Avenue. It was determined that the traffic control stayed outside of the parcel limits.

Gas meter and service to building along Spruce Street

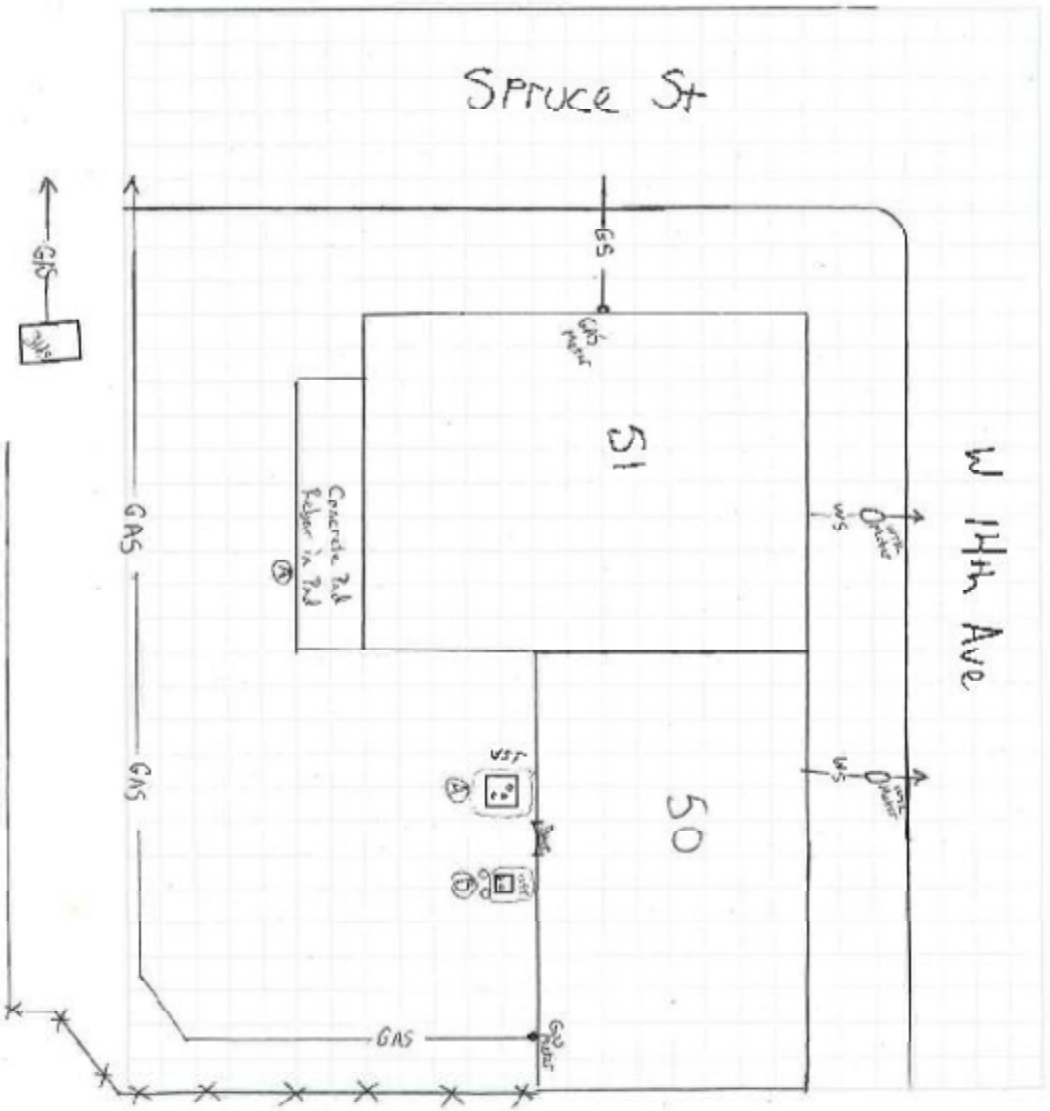
Traffic Control from pole to junction box and water meter with service to building along W 14th



Saturated ground from recent rains making data less clear small anomalies from rebar in concrete pad Target A

Concrete pad with rebar in concrete Target A

Stantec


Spruce St
W 14th Ave
GAS
GAS
GAS
GAS
GAS
GAS
51
50
Concrete Pad
Edger in Pad
WS
WS
Designed by:
Checked by:

Parcel 51
Geophysical Project Map

Pitt County, NC
July 2012

Target Delineation

Study Area

Stantec

APPENDIX C

BORING LOGS

BORING LOG: SB51-1

Client: NCDOT
Project: U-3315 Parcel 51
Greenville, Pitt County, North Carolina
WBS Element 35781.1.2

ATC Project No. 45.19873.0007

Date(s) Drilled	: 8/8/2012	Boring Diameter	: 2 Inches
Driller	: SAEDACCO	Sampling Method	: Macrocore
Drilling Method	: Direct Push	Sampling Interval	: Continuous
		Logged By	: Aaron Leff

Depth In Feet	USCS	GRAPHIC	DESCRIPTION	PID VOC (ppm)	Sample
0	AR		Sandy gravel		
1	SW		Gray, silty SAND	0.0	x
2					
3	CL		Tan and gray, CLAY, moist		
4				0.0	
5	ML		Gray, clayey SILT, saturated		
			End of boring at 5' bgs		

Soil sample was collected from 0'-2.5' bgs interval.

BORING LOG: SB51-2

Client: NCDOT
Project: U-3315 Parcel 51
Greenville, Pitt County, North Carolina
WBS Element 35781.1.2

ATC Project No. 45.19873.0007

Date(s) Drilled	: 8/8/2012	Boring Diameter	: 2 Inches
Driller	: SAEDACCO	Sampling Method	: Macrocore
Drilling Method	: Direct Push	Sampling Interval	: Continuous
		Logged By	: Aaron Leff

Depth In Feet	USCS	GRAPHIC	DESCRIPTION	PID VOC (ppm)	Sample
0	AR		Sandy gravel		
1	SW		Gray, silty SAND	0.7	x
2					
3	CL		Tan and gray, CLAY, moist	0.4	
4					
5	ML		Gray, clayey SILT, saturated		
			End of boring at 5' bgs		

Soil sample was collected from 0'-2.5' bgs interval.

BORING LOG: SB51-3

Client: NCDOT
Project: U-3315 Parcel 51
Greenville, Pitt County, North Carolina
WBS Element 35781.1.2

ATC Project No. 45.19873.0007

Date(s) Drilled	: 8/8/2012	Boring Diameter	: 2 Inches
Driller	: SAEDACCO	Sampling Method	: Macrocore
Drilling Method	: Direct Push	Sampling Interval	: Continuous
		Logged By	: Aaron Leff

Depth In Feet	USCS	GRAPHIC	DESCRIPTION	PID VOC (ppm)	Sample
0			Grass and sandy topsoil		
1	SW		Brown, silty SAND, moist	0.0	x
2					
3	CL		Gray and tan, CLAY, moist	0.0	
4	ML		Gray, sandy SILT, saturated		
5			End of boring at 5' bgs		

Soil sample was collected from 0'-2.5' bgs interval.

BORING LOG: SB51-4

Client: NCDOT
Project: U-3315 Parcel 51
Greenville, Pitt County, North Carolina
WBS Element 35781.1.2

ATC Project No. 45.19873.0007

Date(s) Drilled	: 8/8/2012	Boring Diameter	: 2 Inches
Driller	: SAEDACCO	Sampling Method	: Macrocore
Drilling Method	: Direct Push	Sampling Interval	: Continuous
		Logged By	: Aaron Leff

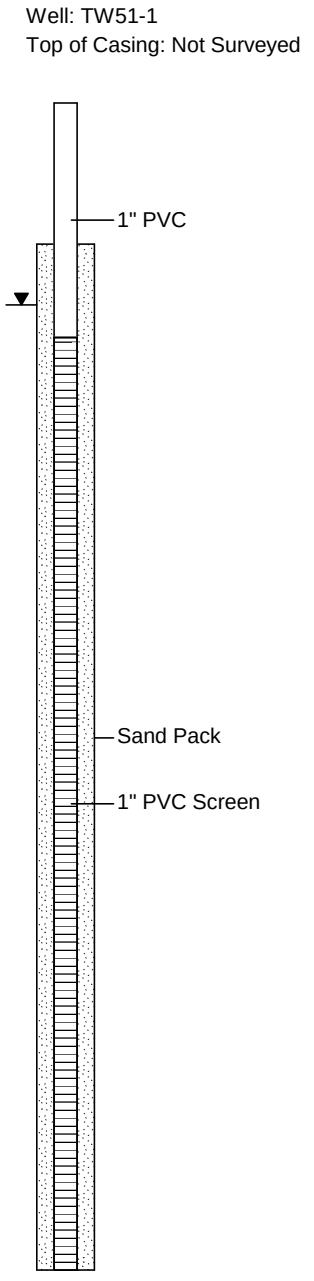
Depth In Feet	USCS	GRAPHIC	DESCRIPTION	PID VOC (ppm)	Sample
0			Grass and sandy topsoil		
1	SW		Brown, silty SAND, moist	0.0	x
2					
3	CL		Gray and tan, CLAY, moist	0.0	
4	ML		Gray, sandy SILT, saturated		
5			End of boring at 5' bgs		

Soil sample was collected from 0'-2.5' bgs interval.

WELL LOG: TW51-1

Client: NCDOT Project: U-3315 Parcel 51 Greenville, Pitt County, North Carolina		Date Drilled	: 8/7/2012	Boring Diameter	: 2.25 inches
		Drilling Company	: SAEDACCO	Sampling Method	: Macrocore
		Drilling Method	: Direct-Push	Sampling Interval	: Continuous
WBS Element 35784.1.1.2					
ATC Project No. 45.19873.0007				Logged By	: Aaron Leff

DEPTH	USCS	GRAPHIC	DESCRIPTION	PID (ppm)
0	AR		Asphalt and subbase	
1	ML		Brown SILT, dry	0.0
2	ML		Brown sandy SILT, moist	
3	SW		Brown silty SAND, moist	
4	SW		Brown silty SAND, saturated	0.0
5				0.0
6			End of sampling at 6' bgs	
7				
8				
9				
10				
11				
12			Temporary well TW51-1 set at 12' bgs	



Temporary well TW51-1 set at 12 feet bgs and screened from 2-12 feet bgs.
Soil sample taken at 0-2.5 feet bgs.
Depth to water approximately 2.65 feet from top of casing (TOC).
TOC is approximately 1 foot above ground surface.

03-01-2013 S:\Enviro\NCDOT\NCDOT Projects\U-3315\Boring Logs\TW51-1.bor

APPENDIX D

LABORATORY ANALYTICAL REPORTS

Laboratory Report of Analysis

To: Justin Ballard
ATC Associates
2725 E. Millbrook Rd
Suite 121
Raleigh, NC 27604

Report Number: **31202558**

Client Project: **NCDOT U-3315**

Dear Justin Ballard,

Enclosed are the results of the analytical services performed under the referenced project for the received samples and associated QC as applicable. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of five years in the event they are required for future reference. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. Any samples submitted to our laboratory will be retained for a maximum of thirty (30) days from the date of this report unless other arrangements are requested.

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

Thank you for using SGS North America Inc. for your analytical services. We look forward to working with you again on any additional analytical needs.

Sincerely,
SGS North America Inc.

Digitally signed by: Michael Page
Date: 2012.10.03 16:11:09 -04'00'

Michael D. Page — Date
Project Manager
michael.page@sgs.com

Print Date: 08/23/2012 N.C. Certification # 481

Laboratory Qualifiers

Report Definitions

DL	Method, Instrument, or Estimated Detection Limit per Analytical Method
CL	Control Limits for the recovery result of a parameter
LOQ	Reporting Limit
DF	Dilution Factor
RPD	Relative Percent Difference
LCS(D)	Laboratory Control Spike (Duplicate)
MS(D)	Matrix Spike (Duplicate)
MB	Method Blank

Qualifier Definitions

*	Recovery or RPD outside of control limits
B	Analyte was detected in the Lab Method Blank at a level above the LOQ
U	Undetected (Reported as ND or < DL)
V	Recovery is below quality control limit. The data has been validated based on a favorable signal-to-noise and detection limit
A	Amount detected is less than the Lower Method Calibration Limit
J	Estimated Concentration.
O	The recovery of this analyte in the OPR is above the Method QC Limits and the reported concentration in the sample may be biased high
E	Amount detected is greater than the Upper Calibration Limit
S	The amount of analyte present has saturated the detector. This situation results in an underestimation of the affected analyte(s)
Q	Indicates the presence of a quantitative interference. This situation may result in an underestimation of the affected analyte(s)
I	Indicates the presence of a qualitative interference that could cause a false positive or an overestimation of the affected analyte(s)
DPE	Indicates the presence of a peak in the polychlorinated diphenylether channel that could cause a false positive or an overestimation of the affected analyte(s)
TIC	Tentatively Identified Compound
EMPC	Estimated Maximum possible Concentration due to ion ratio failure
ND	Not Detected
K	Result is estimated due to ion ratio failure in High Resolution PCB Analysis
P	RPD > 40% between results of dual columns
D	Spike or surrogate was diluted out in order to achieve a parameter result within instrument calibration range

Samples requiring manual integrations for various congeners and/or standards are marked and dated by the analyst. A code definition is provided below:

M1	Mis-identified peak
M2	Software did not integrate peak
M3	Incorrect baseline construction (i.e. not all of peak included; two peaks integrated as one)
M4	Pattern integration required (i.e. DRO, GRO, PCB, Toxaphene and Technical Chlordane)
M5	Other - Explained in case narrative

Note Results pages that include a value for "Solids (%)" have been adjusted for moisture content.

Sample Summary

Client Sample ID	Lab Sample ID	Collected	Received	Matrix
TW51-1 (0-2.5)	31202558012	08/07/2012 13:15	08/10/2012 15:45	Soil-Solid as dry weight
TW51-1	31202558022	08/09/2012 08:35	08/10/2012 15:45	Water
SB51-1 (0-2.5)	31202558029	08/08/2012 16:00	08/10/2012 15:45	Soil-Solid as dry weight
SB51-4 (0-2.5)	31202558030	08/08/2012 16:30	08/10/2012 15:45	Soil-Solid as dry weight
SB51-2 (0-2.5)	31202558032	08/08/2012 17:00	08/10/2012 15:45	Soil-Solid as dry weight
SB51-3 (0-2.5)	31202558035	08/08/2012 18:30	08/10/2012 15:45	Soil-Solid as dry weight

Results of **TW51-1 (0-2.5)**

Client Sample ID: **TW51-1 (0-2.5)**
Client Project ID: **NCDOT U-3315**
Lab Sample ID: 31202558012-A
Lab Project ID: 31202558

Collection Date: 08/07/2012 13:15
Received Date: 08/10/2012 15:45
Matrix: Soil-Solid as dry weight
Solids (%): 81.80

Results by **SW-846 8260B**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND		4.55	ug/Kg	1	08/14/2012 18:23
1,1,1-Trichloroethane	ND		4.55	ug/Kg	1	08/14/2012 18:23
1,1,2,2-Tetrachloroethane	ND		4.55	ug/Kg	1	08/14/2012 18:23
1,1,2-Trichloroethane	ND		4.55	ug/Kg	1	08/14/2012 18:23
1,1-Dichloroethane	ND		4.55	ug/Kg	1	08/14/2012 18:23
1,1-Dichloroethene	ND		4.55	ug/Kg	1	08/14/2012 18:23
1,1-Dichloropropene	ND		4.55	ug/Kg	1	08/14/2012 18:23
1,2,3-Trichlorobenzene	ND		4.55	ug/Kg	1	08/14/2012 18:23
1,2,3-Trichloropropane	ND		4.55	ug/Kg	1	08/14/2012 18:23
1,2,4-Trichlorobenzene	ND		4.55	ug/Kg	1	08/14/2012 18:23
1,2,4-Trimethylbenzene	**5.85**		4.55	ug/Kg	1	08/14/2012 18:23
1,2-Dibromo-3-chloropropane	ND		27.3	ug/Kg	1	08/14/2012 18:23
1,2-Dibromoethane	ND		4.55	ug/Kg	1	08/14/2012 18:23
1,2-Dichlorobenzene	ND		4.55	ug/Kg	1	08/14/2012 18:23
1,2-Dichloroethane	ND		4.55	ug/Kg	1	08/14/2012 18:23
1,2-Dichloropropane	ND		4.55	ug/Kg	1	08/14/2012 18:23
1,3,5-Trimethylbenzene	ND		4.55	ug/Kg	1	08/14/2012 18:23
1,3-Dichlorobenzene	ND		4.55	ug/Kg	1	08/14/2012 18:23
1,3-Dichloropropane	ND		4.55	ug/Kg	1	08/14/2012 18:23
1,4-Dichlorobenzene	ND		4.55	ug/Kg	1	08/14/2012 18:23
2,2-Dichloropropane	ND		4.55	ug/Kg	1	08/14/2012 18:23
2-Butanone	**23.8**		22.8	ug/Kg	1	08/14/2012 18:23
2-Chlorotoluene	ND		4.55	ug/Kg	1	08/14/2012 18:23
2-Hexanone	ND		11.4	ug/Kg	1	08/14/2012 18:23
4-Chlorotoluene	ND		4.55	ug/Kg	1	08/14/2012 18:23
4-Isopropyltoluene	ND		4.55	ug/Kg	1	08/14/2012 18:23
4-Methyl-2-pentanone	ND		11.4	ug/Kg	1	08/14/2012 18:23
Acetone	**220**		45.5	ug/Kg	1	08/14/2012 18:23
Benzene	**9.72**		4.55	ug/Kg	1	08/14/2012 18:23
Bromobenzene	ND		4.55	ug/Kg	1	08/14/2012 18:23
Bromochloromethane	ND		4.55	ug/Kg	1	08/14/2012 18:23
Bromodichloromethane	ND		4.55	ug/Kg	1	08/14/2012 18:23
Bromoform	ND		4.55	ug/Kg	1	08/14/2012 18:23
Bromomethane	ND		4.55	ug/Kg	1	08/14/2012 18:23
n-Butylbenzene	ND		4.55	ug/Kg	1	08/14/2012 18:23
Carbon disulfide	ND		4.55	ug/Kg	1	08/14/2012 18:23
Carbon tetrachloride	ND		4.55	ug/Kg	1	08/14/2012 18:23
Chlorobenzene	ND		4.55	ug/Kg	1	08/14/2012 18:23
Chloroethane	ND		4.55	ug/Kg	1	08/14/2012 18:23
Chloroform	ND		4.55	ug/Kg	1	08/14/2012 18:23
Chloromethane	ND		4.55	ug/Kg	1	08/14/2012 18:23
Dibromochloromethane	ND		4.55	ug/Kg	1	08/14/2012 18:23
Dibromomethane	ND		4.55	ug/Kg	1	08/14/2012 18:23
Dichlorodifluoromethane	ND		4.55	ug/Kg	1	08/14/2012 18:23

Print Date: 08/23/2012

N.C. Certification # 481

Results of **TW51-1 (0-2.5)**

Client Sample ID: **TW51-1 (0-2.5)**
Client Project ID: **NCDOT U-3315**
Lab Sample ID: 31202558012-A
Lab Project ID: 31202558

Collection Date: 08/07/2012 13:15
Received Date: 08/10/2012 15:45
Matrix: Soil-Solid as dry weight
Solids (%): 81.80

Results by **SW-846 8260B**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
cis-1,3-Dichloropropene	ND		4.55	ug/Kg	1	08/14/2012 18:23
trans-1,3-Dichloropropene	ND		4.55	ug/Kg	1	08/14/2012 18:23
Diisopropyl Ether	ND		4.55	ug/Kg	1	08/14/2012 18:23
Ethyl Benzene	ND		4.55	ug/Kg	1	08/14/2012 18:23
Hexachlorobutadiene	ND		4.55	ug/Kg	1	08/14/2012 18:23
Isopropylbenzene (Cumene)	ND		4.55	ug/Kg	1	08/14/2012 18:23
Methyl iodide	ND		4.55	ug/Kg	1	08/14/2012 18:23
Methylene chloride	ND		18.2	ug/Kg	1	08/14/2012 18:23
Naphthalene	ND		4.55	ug/Kg	1	08/14/2012 18:23
Styrene	ND		4.55	ug/Kg	1	08/14/2012 18:23
Tetrachloroethene	ND		4.55	ug/Kg	1	08/14/2012 18:23
Toluene	ND		4.55	ug/Kg	1	08/14/2012 18:23
Trichloroethene	ND		4.55	ug/Kg	1	08/14/2012 18:23
Trichlorofluoromethane	ND		4.55	ug/Kg	1	08/14/2012 18:23
Vinyl chloride	ND		4.55	ug/Kg	1	08/14/2012 18:23
Xylene (total)	**14.0**		9.11	ug/Kg	1	08/14/2012 18:23
cis-1,2-Dichloroethene	ND		4.55	ug/Kg	1	08/14/2012 18:23
m,p-Xylene	**14.0**		9.11	ug/Kg	1	08/14/2012 18:23
n-Propylbenzene	ND		4.55	ug/Kg	1	08/14/2012 18:23
o-Xylene	ND		4.55	ug/Kg	1	08/14/2012 18:23
sec-Butylbenzene	ND		4.55	ug/Kg	1	08/14/2012 18:23
tert-Butyl methyl ether (MTBE)	ND		4.55	ug/Kg	1	08/14/2012 18:23
tert-Butylbenzene	ND		4.55	ug/Kg	1	08/14/2012 18:23
trans-1,2-Dichloroethene	ND		4.55	ug/Kg	1	08/14/2012 18:23
trans-1,4-Dichloro-2-butene	ND		22.8	ug/Kg	1	08/14/2012 18:23
Surrogates						
1,2-Dichloroethane-d4	123		55.0-173	%	1	08/14/2012 18:23
4-Bromofluorobenzene	88.0		23.0-141	%	1	08/14/2012 18:23
Toluene d8	101		57.0-134	%	1	08/14/2012 18:23

Batch Information

Analytical Batch: **VMS2473**
Analytical Method: **SW-846 8260B**
Instrument: **MSD9**
Analyst: **DVO**
Analytical Date/Time: **08/14/2012 18:23**

Prep Batch: **VXX3820**
Prep Method: **SW-846 5035 SL**
Prep Date/Time: **08/13/2012 10:40**
Prep Initial Wt./Vol.: **6.71 g**
Prep Extract Vol: **5 mL**

Print Date: 08/23/2012

N.C. Certification # 481

Results of **TW51-1 (0-2.5)**

Client Sample ID: **TW51-1 (0-2.5)**
Client Project ID: **NCDOT U-3315**
Lab Sample ID: 31202558012-E
Lab Project ID: 31202558

Collection Date: 08/07/2012 13:15
Received Date: 08/10/2012 15:45
Matrix: Soil-Solid as dry weight
Solids (%): 81.80

Results by **SW-846 8015C GRO**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Gasoline Range Organics (GRO)	ND		4.38	mg/kg	1	08/16/2012 19:50
Surrogates						
4-Bromofluorobenzene	106		70.0-130	%	1	08/16/2012 19:50

Batch Information

Analytical Batch: **VGC2073**
Analytical Method: **SW-846 8015C GRO**
Instrument: **GC7**
Analyst: **MDY**
Analytical Date/Time: **08/16/2012 19:50**

Prep Batch: **VXX3837**
Prep Method: **SW-846 5035**
Prep Date/Time: **08/13/2012 10:40**
Prep Initial Wt./Vol.: **5.58 g**
Prep Extract Vol: **5 mL**

Print Date: 08/23/2012

N.C. Certification # 481

Results of **TW51-1 (0-2.5)**

Client Sample ID: **TW51-1 (0-2.5)**
Client Project ID: **NCDOT U-3315**
Lab Sample ID: 31202558012-H
Lab Project ID: 31202558

Collection Date: 08/07/2012 13:15
Received Date: 08/10/2012 15:45
Matrix: Soil-Solid as dry weight
Solids (%): 81.80

Results by **SW-846 8270D**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND		384	ug/Kg	1	08/20/2012 20:53
1,2-Dichlorobenzene	ND		384	ug/Kg	1	08/20/2012 20:53
1,3-Dichlorobenzene	ND		384	ug/Kg	1	08/20/2012 20:53
1,4-Dichlorobenzene	ND		384	ug/Kg	1	08/20/2012 20:53
2,4,5-Trichlorophenol	ND		384	ug/Kg	1	08/20/2012 20:53
2,4,6-Trichlorophenol	ND		384	ug/Kg	1	08/20/2012 20:53
2,4-Dichlorophenol	ND		384	ug/Kg	1	08/20/2012 20:53
2,4-Dinitrophenol	ND		766	ug/Kg	1	08/20/2012 20:53
2,4-Dinitrotoluene	ND		384	ug/Kg	1	08/20/2012 20:53
2,6-Dinitrotoluene	ND		384	ug/Kg	1	08/20/2012 20:53
2-Chloronaphthalene	ND		384	ug/Kg	1	08/20/2012 20:53
2-Chlorophenol	ND		384	ug/Kg	1	08/20/2012 20:53
2-Methylnaphthalene	ND		384	ug/Kg	1	08/20/2012 20:53
2-Methylphenol	ND		384	ug/Kg	1	08/20/2012 20:53
2-Nitroaniline	ND		384	ug/Kg	1	08/20/2012 20:53
2-Nitrophenol	ND		384	ug/Kg	1	08/20/2012 20:53
3 and/or 4-Methylphenol	ND		384	ug/Kg	1	08/20/2012 20:53
3,3'-Dichlorobenzidine	ND		384	ug/Kg	1	08/20/2012 20:53
3-Nitroaniline	ND		384	ug/Kg	1	08/20/2012 20:53
4,6-Dinitro-2-methylphenol	ND		384	ug/Kg	1	08/20/2012 20:53
4-Chloro-3-methylphenol	ND		384	ug/Kg	1	08/20/2012 20:53
4-Chloroaniline	ND		384	ug/Kg	1	08/20/2012 20:53
4-Chlorophenyl phenyl ether	ND		384	ug/Kg	1	08/20/2012 20:53
Acenaphthene	ND		384	ug/Kg	1	08/20/2012 20:53
Acenaphthylene	ND		384	ug/Kg	1	08/20/2012 20:53
Anthracene	ND		384	ug/Kg	1	08/20/2012 20:53
Benzo(a)anthracene	ND		384	ug/Kg	1	08/20/2012 20:53
Benzo(a)pyrene	**486**		384	ug/Kg	1	08/20/2012 20:53
Benzo(b)fluoranthene	**524**		384	ug/Kg	1	08/20/2012 20:53
Benzo(g,h,i)perylene	**390**		384	ug/Kg	1	08/20/2012 20:53
Benzo(k)fluoranthene	ND		384	ug/Kg	1	08/20/2012 20:53
Benzoic acid	ND		384	ug/Kg	1	08/20/2012 20:53
Bis(2-Chloroethoxy)methane	ND		384	ug/Kg	1	08/20/2012 20:53
Bis(2-Chloroethyl)ether	ND		384	ug/Kg	1	08/20/2012 20:53
Bis(2-Chloroisopropyl)ether	ND		384	ug/Kg	1	08/20/2012 20:53
Bis(2-Ethylhexyl)phthalate	ND		384	ug/Kg	1	08/20/2012 20:53
4-Bromophenyl phenyl ether	ND		384	ug/Kg	1	08/20/2012 20:53
Butyl benzyl phthalate	ND		384	ug/Kg	1	08/20/2012 20:53
Chrysene	**540**		384	ug/Kg	1	08/20/2012 20:53
Di-n-butyl phthalate	ND		384	ug/Kg	1	08/20/2012 20:53
Di-n-octyl phthalate	ND		384	ug/Kg	1	08/20/2012 20:53
Dibenz(a,h)anthracene	ND		384	ug/Kg	1	08/20/2012 20:53
Dibenzofuran	ND		384	ug/Kg	1	08/20/2012 20:53
Diethyl phthalate	ND		384	ug/Kg	1	08/20/2012 20:53

Print Date: 08/23/2012

N.C. Certification # 481

Results of **TW51-1 (0-2.5)**

Client Sample ID: **TW51-1 (0-2.5)**
Client Project ID: **NCDOT U-3315**
Lab Sample ID: 31202558012-H
Lab Project ID: 31202558

Collection Date: 08/07/2012 13:15
Received Date: 08/10/2012 15:45
Matrix: Soil-Solid as dry weight
Solids (%): 81.80

Results by **SW-846 8270D**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Dimethyl phthalate	ND		384	ug/Kg	1	08/20/2012 20:53
2,4-Dimethylphenol	ND		384	ug/Kg	1	08/20/2012 20:53
Diphenylamine	ND		384	ug/Kg	1	08/20/2012 20:53
Fluoranthene	**543**		384	ug/Kg	1	08/20/2012 20:53
Fluorene	ND		384	ug/Kg	1	08/20/2012 20:53
Hexachlorobenzene	ND		384	ug/Kg	1	08/20/2012 20:53
Hexachlorobutadiene	ND		384	ug/Kg	1	08/20/2012 20:53
Hexachlorocyclopentadiene	ND		384	ug/Kg	1	08/20/2012 20:53
Hexachloroethane	ND		384	ug/Kg	1	08/20/2012 20:53
Indeno(1,2,3-cd)pyrene	ND		384	ug/Kg	1	08/20/2012 20:53
Isophorone	ND		384	ug/Kg	1	08/20/2012 20:53
Naphthalene	ND		384	ug/Kg	1	08/20/2012 20:53
4-Nitroaniline	ND		384	ug/Kg	1	08/20/2012 20:53
Nitrobenzene	ND		384	ug/Kg	1	08/20/2012 20:53
4-Nitrophenol	ND		384	ug/Kg	1	08/20/2012 20:53
Pentachlorophenol	ND		384	ug/Kg	1	08/20/2012 20:53
Phenanthrene	ND		384	ug/Kg	1	08/20/2012 20:53
Phenol	ND		384	ug/Kg	1	08/20/2012 20:53
Pyrene	**987**		384	ug/Kg	1	08/20/2012 20:53
n-Nitrosodi-n-propylamine	ND		384	ug/Kg	1	08/20/2012 20:53
Surrogates						
2,4,6-Tribromophenol	73.0		41.0-129	%	1	08/20/2012 20:53
2-Fluorobiphenyl	87.0		48.0-123	%	1	08/20/2012 20:53
2-Fluorophenol	72.0		42.0-123	%	1	08/20/2012 20:53
Nitrobenzene-d5	82.0		46.0-117	%	1	08/20/2012 20:53
Phenol-d6	86.0		48.0-125	%	1	08/20/2012 20:53
Terphenyl-d14	89.0		44.0-140	%	1	08/20/2012 20:53

Batch Information

Analytical Batch: **XMS1642**
Analytical Method: **SW-846 8270D**
Instrument: **MSD10**
Analyst: **CMP**
Analytical Date/Time: **08/20/2012 20:53**

Prep Batch: **XXX2922**
Prep Method: **SW-846 3541**
Prep Date/Time: **08/14/2012 10:24**
Prep Initial Wt./Vol.: **31.89 g**
Prep Extract Vol: **10 mL**

Print Date: 08/23/2012

N.C. Certification # 481

Results of **TW51-1 (0-2.5)**

Client Sample ID: **TW51-1 (0-2.5)**
Client Project ID: **NCDOT U-3315**
Lab Sample ID: 31202558012-H
Lab Project ID: 31202558

Collection Date: 08/07/2012 13:15
Received Date: 08/10/2012 15:45
Matrix: Soil-Solid as dry weight
Solids (%): 81.80

Results by **SW-846 8015C DRO**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Diesel Range Organics (DRO)	**56.3**		7.96	mg/kg	1	08/15/2012 5:50
Surrogates						
o-Terphenyl	88.1		40.0-140	%	1	08/15/2012 5:50

Batch Information

Analytical Batch: **XGC2444**
Analytical Method: **SW-846 8015C DRO**
Instrument: **GC6**
Analyst: **DTF**
Analytical Date/Time: **08/15/2012 05:50**

Prep Batch: **XXX2919**
Prep Method: **SW-846 3541**
Prep Date/Time: **08/13/2012 17:19**
Prep Initial Wt./Vol.: **30.7 g**
Prep Extract Vol: **10 mL**

Print Date: 08/23/2012

N.C. Certification # 481

Results of **TW51-1**

Client Sample ID: **TW51-1**
Client Project ID: **NCDOT U-3315**
Lab Sample ID: 31202558022-A
Lab Project ID: 31202558

Collection Date: 08/09/2012 08:35
Received Date: 08/10/2012 15:45
Matrix: Water

Results by **SW-846 8260B**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND		8.00	ug/L	8	08/13/2012 15:15
1,1,1-Trichloroethane	ND		8.00	ug/L	8	08/13/2012 15:15
1,1,2,2-Tetrachloroethane	ND		8.00	ug/L	8	08/13/2012 15:15
1,1,2-Trichloroethane	ND		8.00	ug/L	8	08/13/2012 15:15
1,1-Dichloroethane	ND		8.00	ug/L	8	08/13/2012 15:15
1,1-Dichloroethene	ND		8.00	ug/L	8	08/13/2012 15:15
1,1-Dichloropropene	ND		8.00	ug/L	8	08/13/2012 15:15
1,2,3-Trichlorobenzene	ND		8.00	ug/L	8	08/13/2012 15:15
1,2,3-Trichloropropane	ND		8.00	ug/L	8	08/13/2012 15:15
1,2,4-Trichlorobenzene	ND		8.00	ug/L	8	08/13/2012 15:15
1,2,4-Trimethylbenzene	ND		8.00	ug/L	8	08/13/2012 15:15
1,2-Dibromo-3-chloropropane	ND		40.0	ug/L	8	08/13/2012 15:15
1,2-Dibromoethane	ND		8.00	ug/L	8	08/13/2012 15:15
1,2-Dichlorobenzene	ND		8.00	ug/L	8	08/13/2012 15:15
1,2-Dichloroethane	ND		8.00	ug/L	8	08/13/2012 15:15
1,2-Dichloropropane	ND		8.00	ug/L	8	08/13/2012 15:15
1,3,5-Trimethylbenzene	ND		8.00	ug/L	8	08/13/2012 15:15
1,3-Dichlorobenzene	ND		8.00	ug/L	8	08/13/2012 15:15
1,3-Dichloropropane	ND		8.00	ug/L	8	08/13/2012 15:15
1,4-Dichlorobenzene	ND		8.00	ug/L	8	08/13/2012 15:15
2,2-Dichloropropane	ND		8.00	ug/L	8	08/13/2012 15:15
2-Butanone	ND		200	ug/L	8	08/13/2012 15:15
2-Chlorotoluene	ND		8.00	ug/L	8	08/13/2012 15:15
2-Hexanone	ND		40.0	ug/L	8	08/13/2012 15:15
4-Chlorotoluene	ND		8.00	ug/L	8	08/13/2012 15:15
4-Isopropyltoluene	ND		8.00	ug/L	8	08/13/2012 15:15
4-Methyl-2-pentanone	ND		40.0	ug/L	8	08/13/2012 15:15
Acetone	ND		200	ug/L	8	08/13/2012 15:15
Benzene	ND		8.00	ug/L	8	08/13/2012 15:15
Bromobenzene	ND		8.00	ug/L	8	08/13/2012 15:15
Bromochloromethane	ND		8.00	ug/L	8	08/13/2012 15:15
Bromodichloromethane	ND		8.00	ug/L	8	08/13/2012 15:15
Bromoform	ND		8.00	ug/L	8	08/13/2012 15:15
Bromomethane	ND		8.00	ug/L	8	08/13/2012 15:15
n-Butylbenzene	ND		8.00	ug/L	8	08/13/2012 15:15
Carbon disulfide	ND		8.00	ug/L	8	08/13/2012 15:15
Carbon tetrachloride	ND		8.00	ug/L	8	08/13/2012 15:15
Chlorobenzene	ND		8.00	ug/L	8	08/13/2012 15:15
Chloroethane	ND		8.00	ug/L	8	08/13/2012 15:15
Chloroform	ND		8.00	ug/L	8	08/13/2012 15:15
Chloromethane	ND		8.00	ug/L	8	08/13/2012 15:15
Dibromochloromethane	ND		8.00	ug/L	8	08/13/2012 15:15
Dibromomethane	ND		8.00	ug/L	8	08/13/2012 15:15
Dichlorodifluoromethane	ND		40.0	ug/L	8	08/13/2012 15:15

Print Date: 08/23/2012

N.C. Certification # 481

Results of **TW51-1**

Client Sample ID: **TW51-1**
Client Project ID: **NCDOT U-3315**
Lab Sample ID: 31202558022-A
Lab Project ID: 31202558

Collection Date: 08/09/2012 08:35
Received Date: 08/10/2012 15:45
Matrix: Water

Results by **SW-846 8260B**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
cis-1,3-Dichloropropene	ND		8.00	ug/L	8	08/13/2012 15:15
trans-1,3-Dichloropropene	ND		8.00	ug/L	8	08/13/2012 15:15
Diisopropyl Ether	ND		8.00	ug/L	8	08/13/2012 15:15
Ethyl Benzene	ND		8.00	ug/L	8	08/13/2012 15:15
Hexachlorobutadiene	ND		8.00	ug/L	8	08/13/2012 15:15
Isopropylbenzene (Cumene)	ND		8.00	ug/L	8	08/13/2012 15:15
Methyl iodide	ND		8.00	ug/L	8	08/13/2012 15:15
Methylene chloride	ND		40.0	ug/L	8	08/13/2012 15:15
Naphthalene	ND		8.00	ug/L	8	08/13/2012 15:15
Styrene	ND		8.00	ug/L	8	08/13/2012 15:15
Tetrachloroethene	ND		8.00	ug/L	8	08/13/2012 15:15
Toluene	ND		8.00	ug/L	8	08/13/2012 15:15
Trichloroethene	ND		8.00	ug/L	8	08/13/2012 15:15
Trichlorofluoromethane	ND		8.00	ug/L	8	08/13/2012 15:15
Vinyl chloride	ND		8.00	ug/L	8	08/13/2012 15:15
Xylene (total)	ND		16.0	ug/L	8	08/13/2012 15:15
cis-1,2-Dichloroethene	ND		8.00	ug/L	8	08/13/2012 15:15
m,p-Xylene	ND		16.0	ug/L	8	08/13/2012 15:15
n-Propylbenzene	ND		8.00	ug/L	8	08/13/2012 15:15
o-Xylene	ND		8.00	ug/L	8	08/13/2012 15:15
sec-Butylbenzene	ND		8.00	ug/L	8	08/13/2012 15:15
tert-Butyl methyl ether (MTBE)	**169**		8.00	ug/L	8	08/13/2012 15:15
tert-Butylbenzene	ND		8.00	ug/L	8	08/13/2012 15:15
trans-1,2-Dichloroethene	ND		8.00	ug/L	8	08/13/2012 15:15
trans-1,4-Dichloro-2-butene	ND		40.0	ug/L	8	08/13/2012 15:15
Surrogates						
1,2-Dichloroethane-d4	103		64.0-140	%	8	08/13/2012 15:15
4-Bromofluorobenzene	103		85.0-115	%	8	08/13/2012 15:15
Toluene d8	106		82.0-117	%	8	08/13/2012 15:15

Batch Information

Analytical Batch: **VMS2470**
Analytical Method: **SW-846 8260B**
Instrument: **MSD3**
Analyst: **BWS**
Analytical Date/Time: **08/13/2012 15:15**

Prep Batch: **VXX3811**
Prep Method: **SW-846 5030B**
Prep Date/Time: **08/13/2012 10:02**
Prep Initial Wt./Vol.: **40 mL**
Prep Extract Vol: **40 mL**

Print Date: 08/23/2012

N.C. Certification # 481

Results of **TW51-1**

Client Sample ID: **TW51-1**
Client Project ID: **NCDOT U-3315**
Lab Sample ID: 31202558022-D
Lab Project ID: 31202558

Collection Date: 08/09/2012 08:35
Received Date: 08/10/2012 15:45
Matrix: Water

Results by **SW-846 8270D**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND		5.22	ug/L	1	08/20/2012 23:56
1,2-Dichlorobenzene	ND		5.22	ug/L	1	08/20/2012 23:56
1,3-Dichlorobenzene	ND		5.22	ug/L	1	08/20/2012 23:56
1,4-Dichlorobenzene	ND		5.22	ug/L	1	08/20/2012 23:56
2,4,5-Trichlorophenol	ND		5.22	ug/L	1	08/20/2012 23:56
2,4,6-Trichlorophenol	ND		5.22	ug/L	1	08/20/2012 23:56
2,4-Dichlorophenol	ND		5.22	ug/L	1	08/20/2012 23:56
2,4-Dinitrophenol	ND		26.1	ug/L	1	08/20/2012 23:56
2,4-Dinitrotoluene	ND		5.22	ug/L	1	08/20/2012 23:56
2,6-Dinitrotoluene	ND		5.22	ug/L	1	08/20/2012 23:56
2-Chloronaphthalene	ND		5.22	ug/L	1	08/20/2012 23:56
2-Chlorophenol	ND		5.22	ug/L	1	08/20/2012 23:56
2-Methylnaphthalene	ND		5.22	ug/L	1	08/20/2012 23:56
2-Methylphenol	ND		5.22	ug/L	1	08/20/2012 23:56
2-Nitroaniline	ND		5.22	ug/L	1	08/20/2012 23:56
2-Nitrophenol	ND		5.22	ug/L	1	08/20/2012 23:56
3 and/or 4-Methylphenol	ND		5.22	ug/L	1	08/20/2012 23:56
3,3'-Dichlorobenzidine	ND		10.4	ug/L	1	08/20/2012 23:56
3-Nitroaniline	ND		26.1	ug/L	1	08/20/2012 23:56
4,6-Dinitro-2-methylphenol	ND		26.1	ug/L	1	08/20/2012 23:56
4-Chloro-3-methylphenol	ND		5.22	ug/L	1	08/20/2012 23:56
4-Chloroaniline	ND		26.1	ug/L	1	08/20/2012 23:56
4-Chlorophenyl phenyl ether	ND		5.22	ug/L	1	08/20/2012 23:56
Acenaphthene	ND		5.22	ug/L	1	08/20/2012 23:56
Acenaphthylene	ND		5.22	ug/L	1	08/20/2012 23:56
Anthracene	ND		5.22	ug/L	1	08/20/2012 23:56
Benzo(a)anthracene	ND		5.22	ug/L	1	08/20/2012 23:56
Benzo(a)pyrene	ND		5.22	ug/L	1	08/20/2012 23:56
Benzo(b)fluoranthene	ND		5.22	ug/L	1	08/20/2012 23:56
Benzo(g,h,i)perylene	ND		5.22	ug/L	1	08/20/2012 23:56
Benzo(k)fluoranthene	ND		5.22	ug/L	1	08/20/2012 23:56
Benzoic acid	ND		5.22	ug/L	1	08/20/2012 23:56
Bis(2-Chloroethoxy)methane	ND		5.22	ug/L	1	08/20/2012 23:56
Bis(2-Chloroethyl)ether	ND		5.22	ug/L	1	08/20/2012 23:56
Bis(2-Chloroisopropyl)ether	ND		5.22	ug/L	1	08/20/2012 23:56
Bis(2-Ethylhexyl)phthalate	ND		5.22	ug/L	1	08/20/2012 23:56
4-Bromophenyl phenyl ether	ND		5.22	ug/L	1	08/20/2012 23:56
Butyl benzyl phthalate	ND		5.22	ug/L	1	08/20/2012 23:56
Chrysene	ND		5.22	ug/L	1	08/20/2012 23:56
Di-n-butyl phthalate	ND		5.22	ug/L	1	08/20/2012 23:56
Di-n-octyl phthalate	ND		5.22	ug/L	1	08/20/2012 23:56
Dibenz(a,h)anthracene	ND		5.22	ug/L	1	08/20/2012 23:56
Dibenzofuran	ND		5.22	ug/L	1	08/20/2012 23:56
Diethyl phthalate	ND		5.22	ug/L	1	08/20/2012 23:56

Print Date: 08/23/2012

N.C. Certification # 481

Results of **TW51-1**

Client Sample ID: **TW51-1**
Client Project ID: **NCDOT U-3315**
Lab Sample ID: 31202558022-D
Lab Project ID: 31202558

Collection Date: 08/09/2012 08:35
Received Date: 08/10/2012 15:45
Matrix: Water

Results by **SW-846 8270D**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Dimethyl phthalate	ND		5.22	ug/L	1	08/20/2012 23:56
2,4-Dimethylphenol	ND		5.22	ug/L	1	08/20/2012 23:56
Diphenylamine	ND		5.22	ug/L	1	08/20/2012 23:56
Fluoranthene	ND		5.22	ug/L	1	08/20/2012 23:56
Fluorene	ND		5.22	ug/L	1	08/20/2012 23:56
Hexachlorobenzene	ND		5.22	ug/L	1	08/20/2012 23:56
Hexachlorobutadiene	ND		5.22	ug/L	1	08/20/2012 23:56
Hexachlorocyclopentadiene	ND		10.4	ug/L	1	08/20/2012 23:56
Hexachloroethane	ND		5.22	ug/L	1	08/20/2012 23:56
Indeno(1,2,3-cd)pyrene	ND		5.22	ug/L	1	08/20/2012 23:56
Isophorone	ND		5.22	ug/L	1	08/20/2012 23:56
Naphthalene	ND		5.22	ug/L	1	08/20/2012 23:56
4-Nitroaniline	ND		26.1	ug/L	1	08/20/2012 23:56
Nitrobenzene	ND		5.22	ug/L	1	08/20/2012 23:56
4-Nitrophenol	ND		26.1	ug/L	1	08/20/2012 23:56
Pentachlorophenol	ND		26.1	ug/L	1	08/20/2012 23:56
Phenanthrene	ND		5.22	ug/L	1	08/20/2012 23:56
Phenol	ND		5.22	ug/L	1	08/20/2012 23:56
Pyrene	ND		5.22	ug/L	1	08/20/2012 23:56
n-Nitrosodi-n-propylamine	ND		5.22	ug/L	1	08/20/2012 23:56
Surrogates						
2,4,6-Tribromophenol	92.0		29.3-152	%	1	08/20/2012 23:56
2-Fluorobiphenyl	87.0		50.0-107	%	1	08/20/2012 23:56
2-Fluorophenol	72.0		33.1-118	%	1	08/20/2012 23:56
Nitrobenzene-d5	84.0		46.0-118	%	1	08/20/2012 23:56
Phenol-d6	86.0		49.0-120	%	1	08/20/2012 23:56
Terphenyl-d14	92.0		22.1-142	%	1	08/20/2012 23:56

Batch Information

Analytical Batch: **XMS1642**
Analytical Method: **SW-846 8270D**
Instrument: **MSD10**
Analyst: **CMP**
Analytical Date/Time: **08/20/2012 23:56**

Prep Batch: **XXX2937**
Prep Method: **SW-846 3520C**
Prep Date/Time: **08/15/2012 16:39**
Prep Initial Wt./Vol.: **957 mL**
Prep Extract Vol: **5 mL**

Print Date: 08/23/2012

N.C. Certification # 481

Results of **SB51-1 (0-2.5)**

Client Sample ID: **SB51-1 (0-2.5)**
Client Project ID: **NCDOT U-3315**
Lab Sample ID: 31202558029-A
Lab Project ID: 31202558

Collection Date: 08/08/2012 16:00
Received Date: 08/10/2012 15:45
Matrix: Soil-Solid as dry weight
Solids (%): 80.80

Results by **SW-846 8260B**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND		5.25	ug/Kg	1	08/18/2012 16:14
1,1,1-Trichloroethane	ND		5.25	ug/Kg	1	08/18/2012 16:14
1,1,2,2-Tetrachloroethane	ND		5.25	ug/Kg	1	08/18/2012 16:14
1,1,2-Trichloroethane	ND		5.25	ug/Kg	1	08/18/2012 16:14
1,1-Dichloroethane	ND		5.25	ug/Kg	1	08/18/2012 16:14
1,1-Dichloroethene	ND		5.25	ug/Kg	1	08/18/2012 16:14
1,1-Dichloropropene	ND		5.25	ug/Kg	1	08/18/2012 16:14
1,2,3-Trichlorobenzene	ND		5.25	ug/Kg	1	08/18/2012 16:14
1,2,3-Trichloropropane	ND		5.25	ug/Kg	1	08/18/2012 16:14
1,2,4-Trichlorobenzene	ND		5.25	ug/Kg	1	08/18/2012 16:14
1,2,4-Trimethylbenzene	ND		5.25	ug/Kg	1	08/18/2012 16:14
1,2-Dibromo-3-chloropropane	ND		31.5	ug/Kg	1	08/18/2012 16:14
1,2-Dibromoethane	ND		5.25	ug/Kg	1	08/18/2012 16:14
1,2-Dichlorobenzene	ND		5.25	ug/Kg	1	08/18/2012 16:14
1,2-Dichloroethane	ND		5.25	ug/Kg	1	08/18/2012 16:14
1,2-Dichloropropane	ND		5.25	ug/Kg	1	08/18/2012 16:14
1,3,5-Trimethylbenzene	ND		5.25	ug/Kg	1	08/18/2012 16:14
1,3-Dichlorobenzene	ND		5.25	ug/Kg	1	08/18/2012 16:14
1,3-Dichloropropane	ND		5.25	ug/Kg	1	08/18/2012 16:14
1,4-Dichlorobenzene	ND		5.25	ug/Kg	1	08/18/2012 16:14
2,2-Dichloropropane	ND		5.25	ug/Kg	1	08/18/2012 16:14
2-Butanone	ND		26.3	ug/Kg	1	08/18/2012 16:14
2-Chlorotoluene	ND		5.25	ug/Kg	1	08/18/2012 16:14
2-Hexanone	ND		13.1	ug/Kg	1	08/18/2012 16:14
4-Chlorotoluene	ND		5.25	ug/Kg	1	08/18/2012 16:14
4-Isopropyltoluene	ND		5.25	ug/Kg	1	08/18/2012 16:14
4-Methyl-2-pentanone	ND		13.1	ug/Kg	1	08/18/2012 16:14
Acetone	**66.0**		52.5	ug/Kg	1	08/18/2012 16:14
Benzene	ND		5.25	ug/Kg	1	08/18/2012 16:14
Bromobenzene	ND		5.25	ug/Kg	1	08/18/2012 16:14
Bromochloromethane	ND		5.25	ug/Kg	1	08/18/2012 16:14
Bromodichloromethane	ND		5.25	ug/Kg	1	08/18/2012 16:14
Bromoform	ND		5.25	ug/Kg	1	08/18/2012 16:14
Bromomethane	ND		5.25	ug/Kg	1	08/18/2012 16:14
n-Butylbenzene	ND		5.25	ug/Kg	1	08/18/2012 16:14
Carbon disulfide	ND		5.25	ug/Kg	1	08/18/2012 16:14
Carbon tetrachloride	ND		5.25	ug/Kg	1	08/18/2012 16:14
Chlorobenzene	ND		5.25	ug/Kg	1	08/18/2012 16:14
Chloroethane	ND		5.25	ug/Kg	1	08/18/2012 16:14
Chloroform	ND		5.25	ug/Kg	1	08/18/2012 16:14
Chloromethane	ND		5.25	ug/Kg	1	08/18/2012 16:14
Dibromochloromethane	ND		5.25	ug/Kg	1	08/18/2012 16:14
Dibromomethane	ND		5.25	ug/Kg	1	08/18/2012 16:14
Dichlorodifluoromethane	ND		5.25	ug/Kg	1	08/18/2012 16:14

Print Date: 08/23/2012

N.C. Certification # 481

Results of **SB51-1 (0-2.5)**

Client Sample ID: **SB51-1 (0-2.5)**
Client Project ID: **NCDOT U-3315**
Lab Sample ID: 31202558029-A
Lab Project ID: 31202558

Collection Date: 08/08/2012 16:00
Received Date: 08/10/2012 15:45
Matrix: Soil-Solid as dry weight
Solids (%): 80.80

Results by **SW-846 8260B**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
cis-1,3-Dichloropropene	ND		5.25	ug/Kg	1	08/18/2012 16:14
trans-1,3-Dichloropropene	ND		5.25	ug/Kg	1	08/18/2012 16:14
Diisopropyl Ether	ND		5.25	ug/Kg	1	08/18/2012 16:14
Ethyl Benzene	ND		5.25	ug/Kg	1	08/18/2012 16:14
Hexachlorobutadiene	ND		5.25	ug/Kg	1	08/18/2012 16:14
Isopropylbenzene (Cumene)	ND		5.25	ug/Kg	1	08/18/2012 16:14
Methyl iodide	ND		5.25	ug/Kg	1	08/18/2012 16:14
Methylene chloride	ND		21.0	ug/Kg	1	08/18/2012 16:14
Naphthalene	ND		5.25	ug/Kg	1	08/18/2012 16:14
Styrene	ND		5.25	ug/Kg	1	08/18/2012 16:14
Tetrachloroethene	ND		5.25	ug/Kg	1	08/18/2012 16:14
Toluene	ND		5.25	ug/Kg	1	08/18/2012 16:14
Trichloroethene	ND		5.25	ug/Kg	1	08/18/2012 16:14
Trichlorofluoromethane	ND		5.25	ug/Kg	1	08/18/2012 16:14
Vinyl chloride	ND		5.25	ug/Kg	1	08/18/2012 16:14
Xylene (total)	ND		10.5	ug/Kg	1	08/18/2012 16:14
cis-1,2-Dichloroethene	ND		5.25	ug/Kg	1	08/18/2012 16:14
m,p-Xylene	ND		10.5	ug/Kg	1	08/18/2012 16:14
n-Propylbenzene	ND		5.25	ug/Kg	1	08/18/2012 16:14
o-Xylene	ND		5.25	ug/Kg	1	08/18/2012 16:14
sec-Butylbenzene	ND		5.25	ug/Kg	1	08/18/2012 16:14
tert-Butyl methyl ether (MTBE)	ND		5.25	ug/Kg	1	08/18/2012 16:14
tert-Butylbenzene	ND		5.25	ug/Kg	1	08/18/2012 16:14
trans-1,2-Dichloroethene	ND		5.25	ug/Kg	1	08/18/2012 16:14
trans-1,4-Dichloro-2-butene	ND		26.3	ug/Kg	1	08/18/2012 16:14
Surrogates						
1,2-Dichloroethane-d4	112		55.0-173	%	1	08/18/2012 16:14
4-Bromofluorobenzene	99.0		23.0-141	%	1	08/18/2012 16:14
Toluene d8	104		57.0-134	%	1	08/18/2012 16:14

Batch Information

Analytical Batch: **VMS2486**
Analytical Method: **SW-846 8260B**
Instrument: **MSD9**
Analyst: **DVO**
Analytical Date/Time: **08/18/2012 16:14**

Prep Batch: **VXX3850**
Prep Method: **SW-846 5035 SL**
Prep Date/Time: **08/13/2012 11:38**
Prep Initial Wt./Vol.: **5.89 g**
Prep Extract Vol: **5 mL**

Print Date: 08/23/2012

N.C. Certification # 481

Results of **SB51-1 (0-2.5)**

Client Sample ID: **SB51-1 (0-2.5)**
Client Project ID: **NCDOT U-3315**
Lab Sample ID: 31202558029-E
Lab Project ID: 31202558

Collection Date: 08/08/2012 16:00
Received Date: 08/10/2012 15:45
Matrix: Soil-Solid as dry weight
Solids (%): 80.80

Results by **SW-846 8015C GRO**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Gasoline Range Organics (GRO)	ND		3.71	mg/kg	1	08/21/2012 23:21
Surrogates						
4-Bromofluorobenzene	100		70.0-130	%	1	08/21/2012 23:21

Batch Information

Analytical Batch: **VGC2087**
Analytical Method: **SW-846 8015C GRO**
Instrument: **GC7**
Analyst: **MDY**
Analytical Date/Time: **08/21/2012 23:21**

Prep Batch: **VXX3875**
Prep Method: **SW-846 5035**
Prep Date/Time: **08/13/2012 11:38**
Prep Initial Wt./Vol.: **6.68 g**
Prep Extract Vol: **5 mL**

Print Date: 08/23/2012

N.C. Certification # 481

Results of **SB51-1 (0-2.5)**

Client Sample ID: **SB51-1 (0-2.5)**
Client Project ID: **NCDOT U-3315**
Lab Sample ID: 31202558029-H
Lab Project ID: 31202558

Collection Date: 08/08/2012 16:00
Received Date: 08/10/2012 15:45
Matrix: Soil-Solid as dry weight
Solids (%): 80.80

Results by **SW-846 8270D**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND		407	ug/Kg	1	08/20/2012 22:47
1,2-Dichlorobenzene	ND		407	ug/Kg	1	08/20/2012 22:47
1,3-Dichlorobenzene	ND		407	ug/Kg	1	08/20/2012 22:47
1,4-Dichlorobenzene	ND		407	ug/Kg	1	08/20/2012 22:47
2,4,5-Trichlorophenol	ND		407	ug/Kg	1	08/20/2012 22:47
2,4,6-Trichlorophenol	ND		407	ug/Kg	1	08/20/2012 22:47
2,4-Dichlorophenol	ND		407	ug/Kg	1	08/20/2012 22:47
2,4-Dinitrophenol	ND		813	ug/Kg	1	08/20/2012 22:47
2,4-Dinitrotoluene	ND		407	ug/Kg	1	08/20/2012 22:47
2,6-Dinitrotoluene	ND		407	ug/Kg	1	08/20/2012 22:47
2-Chloronaphthalene	ND		407	ug/Kg	1	08/20/2012 22:47
2-Chlorophenol	ND		407	ug/Kg	1	08/20/2012 22:47
2-Methylnaphthalene	ND		407	ug/Kg	1	08/20/2012 22:47
2-Methylphenol	ND		407	ug/Kg	1	08/20/2012 22:47
2-Nitroaniline	ND		407	ug/Kg	1	08/20/2012 22:47
2-Nitrophenol	ND		407	ug/Kg	1	08/20/2012 22:47
3 and/or 4-Methylphenol	ND		407	ug/Kg	1	08/20/2012 22:47
3,3'-Dichlorobenzidine	ND		407	ug/Kg	1	08/20/2012 22:47
3-Nitroaniline	ND		407	ug/Kg	1	08/20/2012 22:47
4,6-Dinitro-2-methylphenol	ND		407	ug/Kg	1	08/20/2012 22:47
4-Chloro-3-methylphenol	ND		407	ug/Kg	1	08/20/2012 22:47
4-Chloroaniline	ND		407	ug/Kg	1	08/20/2012 22:47
4-Chlorophenyl phenyl ether	ND		407	ug/Kg	1	08/20/2012 22:47
Acenaphthene	ND		407	ug/Kg	1	08/20/2012 22:47
Acenaphthylene	ND		407	ug/Kg	1	08/20/2012 22:47
Anthracene	ND		407	ug/Kg	1	08/20/2012 22:47
Benzo(a)anthracene	ND		407	ug/Kg	1	08/20/2012 22:47
Benzo(a)pyrene	ND		407	ug/Kg	1	08/20/2012 22:47
Benzo(b)fluoranthene	ND		407	ug/Kg	1	08/20/2012 22:47
Benzo(g,h,i)perylene	ND		407	ug/Kg	1	08/20/2012 22:47
Benzo(k)fluoranthene	ND		407	ug/Kg	1	08/20/2012 22:47
Benzoic acid	ND		407	ug/Kg	1	08/20/2012 22:47
Bis(2-Chloroethoxy)methane	ND		407	ug/Kg	1	08/20/2012 22:47
Bis(2-Chloroethyl)ether	ND		407	ug/Kg	1	08/20/2012 22:47
Bis(2-Chloroisopropyl)ether	ND		407	ug/Kg	1	08/20/2012 22:47
Bis(2-Ethylhexyl)phthalate	ND		407	ug/Kg	1	08/20/2012 22:47
4-Bromophenyl phenyl ether	ND		407	ug/Kg	1	08/20/2012 22:47
Butyl benzyl phthalate	ND		407	ug/Kg	1	08/20/2012 22:47
Chrysene	ND		407	ug/Kg	1	08/20/2012 22:47
Di-n-butyl phthalate	ND		407	ug/Kg	1	08/20/2012 22:47
Di-n-octyl phthalate	ND		407	ug/Kg	1	08/20/2012 22:47
Dibenz(a,h)anthracene	ND		407	ug/Kg	1	08/20/2012 22:47
Dibenzofuran	ND		407	ug/Kg	1	08/20/2012 22:47
Diethyl phthalate	ND		407	ug/Kg	1	08/20/2012 22:47

Print Date: 08/23/2012

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Results of **SB51-1 (0-2.5)**

Client Sample ID: **SB51-1 (0-2.5)**
Client Project ID: **NCDOT U-3315**
Lab Sample ID: 31202558029-H
Lab Project ID: 31202558

Collection Date: 08/08/2012 16:00
Received Date: 08/10/2012 15:45
Matrix: Soil-Solid as dry weight
Solids (%): 80.80

Results by **SW-846 8270D**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Dimethyl phthalate	ND		407	ug/Kg	1	08/20/2012 22:47
2,4-Dimethylphenol	ND		407	ug/Kg	1	08/20/2012 22:47
Diphenylamine	ND		407	ug/Kg	1	08/20/2012 22:47
Fluoranthene	ND		407	ug/Kg	1	08/20/2012 22:47
Fluorene	ND		407	ug/Kg	1	08/20/2012 22:47
Hexachlorobenzene	ND		407	ug/Kg	1	08/20/2012 22:47
Hexachlorobutadiene	ND		407	ug/Kg	1	08/20/2012 22:47
Hexachlorocyclopentadiene	ND		407	ug/Kg	1	08/20/2012 22:47
Hexachloroethane	ND		407	ug/Kg	1	08/20/2012 22:47
Indeno(1,2,3-cd)pyrene	ND		407	ug/Kg	1	08/20/2012 22:47
Isophorone	ND		407	ug/Kg	1	08/20/2012 22:47
Naphthalene	ND		407	ug/Kg	1	08/20/2012 22:47
4-Nitroaniline	ND		407	ug/Kg	1	08/20/2012 22:47
Nitrobenzene	ND		407	ug/Kg	1	08/20/2012 22:47
4-Nitrophenol	ND		407	ug/Kg	1	08/20/2012 22:47
Pentachlorophenol	ND		407	ug/Kg	1	08/20/2012 22:47
Phenanthrene	ND		407	ug/Kg	1	08/20/2012 22:47
Phenol	ND		407	ug/Kg	1	08/20/2012 22:47
Pyrene	ND		407	ug/Kg	1	08/20/2012 22:47
n-Nitrosodi-n-propylamine	ND		407	ug/Kg	1	08/20/2012 22:47
Surrogates						
2,4,6-Tribromophenol	80.0		41.0-129	%	1	08/20/2012 22:47
2-Fluorobiphenyl	82.0		48.0-123	%	1	08/20/2012 22:47
2-Fluorophenol	75.0		42.0-123	%	1	08/20/2012 22:47
Nitrobenzene-d5	83.0		46.0-117	%	1	08/20/2012 22:47
Phenol-d6	86.0		48.0-125	%	1	08/20/2012 22:47
Terphenyl-d14	86.0		44.0-140	%	1	08/20/2012 22:47

Batch Information

Analytical Batch: **XMS1642**
Analytical Method: **SW-846 8270D**
Instrument: **MSD10**
Analyst: **CMP**
Analytical Date/Time: **08/20/2012 22:47**

Prep Batch: **XXX2922**
Prep Method: **SW-846 3541**
Prep Date/Time: **08/14/2012 10:24**
Prep Initial Wt./Vol.: **30.43 g**
Prep Extract Vol: **10 mL**

Print Date: 08/23/2012

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Results of **SB51-1 (0-2.5)**

Client Sample ID: **SB51-1 (0-2.5)**
Client Project ID: **NCDOT U-3315**
Lab Sample ID: 31202558029-H
Lab Project ID: 31202558

Collection Date: 08/08/2012 16:00
Received Date: 08/10/2012 15:45
Matrix: Soil-Solid as dry weight
Solids (%): 80.80

Results by **SW-846 8015C DRO**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Diesel Range Organics (DRO)	ND		7.35	mg/kg	1	08/16/2012 3:48
Surrogates						
o-Terphenyl	86.3		40.0-140	%	1	08/16/2012 3:48

Batch Information

Analytical Batch: **XGC2452**
Analytical Method: **SW-846 8015C DRO**
Instrument: **GC6**
Analyst: **DTF**
Analytical Date/Time: **08/16/2012 03:48**

Prep Batch: **XXX2924**
Prep Method: **SW-846 3541**
Prep Date/Time: **08/14/2012 16:42**
Prep Initial Wt./Vol.: **33.67 g**
Prep Extract Vol: **10 mL**

Print Date: 08/23/2012

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Results of **SB51-4 (0-2.5)**

Client Sample ID: **SB51-4 (0-2.5)**
Client Project ID: **NCDOT U-3315**
Lab Sample ID: 31202558030-A
Lab Project ID: 31202558

Collection Date: 08/08/2012 16:30
Received Date: 08/10/2012 15:45
Matrix: Soil-Solid as dry weight
Solids (%): 78.70

Results by **SW-846 8015C GRO**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Gasoline Range Organics (GRO)	ND		4.98	mg/kg	1	08/21/2012 23:46
Surrogates						
4-Bromofluorobenzene	101		70.0-130	%	1	08/21/2012 23:46

Batch Information

Analytical Batch: **VGC2087**
Analytical Method: **SW-846 8015C GRO**
Instrument: **GC7**
Analyst: **MDY**
Analytical Date/Time: **08/21/2012 23:46**

Prep Batch: **VXX3875**
Prep Method: **SW-846 5035**
Prep Date/Time: **08/13/2012 11:40**
Prep Initial Wt./Vol.: **5.11 g**
Prep Extract Vol: **5 mL**

Print Date: 08/23/2012

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Results of **SB51-4 (0-2.5)**

Client Sample ID: **SB51-4 (0-2.5)**
Client Project ID: **NCDOT U-3315**
Lab Sample ID: 31202558030-C
Lab Project ID: 31202558

Collection Date: 08/08/2012 16:30
Received Date: 08/10/2012 15:45
Matrix: Soil-Solid as dry weight
Solids (%): 78.70

Results by **SW-846 8015C DRO**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Diesel Range Organics (DRO)	ND		7.04	mg/kg	1	08/16/2012 4:17
Surrogates						
o-Terphenyl	77.8		40.0-140	%	1	08/16/2012 4:17

Batch Information

Analytical Batch: **XGC2452**
Analytical Method: **SW-846 8015C DRO**
Instrument: **GC6**
Analyst: **DTF**
Analytical Date/Time: **08/16/2012 04:17**

Prep Batch: **XXX2924**
Prep Method: **SW-846 3541**
Prep Date/Time: **08/14/2012 16:42**
Prep Initial Wt./Vol.: **36.1 g**
Prep Extract Vol: **10 mL**

Print Date: 08/23/2012

N.C. Certification # 481

Results of **SB51-2 (0-2.5)**

Client Sample ID: **SB51-2 (0-2.5)**
Client Project ID: **NCDOT U-3315**
Lab Sample ID: 31202558032-A
Lab Project ID: 31202558

Collection Date: 08/08/2012 17:00
Received Date: 08/10/2012 15:45
Matrix: Soil-Solid as dry weight
Solids (%): 85.10

Results by **SW-846 8260B**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND		4.56	ug/Kg	1	08/18/2012 16:40
1,1,1-Trichloroethane	ND		4.56	ug/Kg	1	08/18/2012 16:40
1,1,2,2-Tetrachloroethane	ND		4.56	ug/Kg	1	08/18/2012 16:40
1,1,2-Trichloroethane	ND		4.56	ug/Kg	1	08/18/2012 16:40
1,1-Dichloroethane	ND		4.56	ug/Kg	1	08/18/2012 16:40
1,1-Dichloroethene	ND		4.56	ug/Kg	1	08/18/2012 16:40
1,1-Dichloropropene	ND		4.56	ug/Kg	1	08/18/2012 16:40
1,2,3-Trichlorobenzene	ND		4.56	ug/Kg	1	08/18/2012 16:40
1,2,3-Trichloropropane	ND		4.56	ug/Kg	1	08/18/2012 16:40
1,2,4-Trichlorobenzene	ND		4.56	ug/Kg	1	08/18/2012 16:40
1,2,4-Trimethylbenzene	ND		4.56	ug/Kg	1	08/18/2012 16:40
1,2-Dibromo-3-chloropropane	ND		27.3	ug/Kg	1	08/18/2012 16:40
1,2-Dibromoethane	ND		4.56	ug/Kg	1	08/18/2012 16:40
1,2-Dichlorobenzene	ND		4.56	ug/Kg	1	08/18/2012 16:40
1,2-Dichloroethane	ND		4.56	ug/Kg	1	08/18/2012 16:40
1,2-Dichloropropane	ND		4.56	ug/Kg	1	08/18/2012 16:40
1,3,5-Trimethylbenzene	ND		4.56	ug/Kg	1	08/18/2012 16:40
1,3-Dichlorobenzene	ND		4.56	ug/Kg	1	08/18/2012 16:40
1,3-Dichloropropane	ND		4.56	ug/Kg	1	08/18/2012 16:40
1,4-Dichlorobenzene	ND		4.56	ug/Kg	1	08/18/2012 16:40
2,2-Dichloropropane	ND		4.56	ug/Kg	1	08/18/2012 16:40
2-Butanone	ND		22.8	ug/Kg	1	08/18/2012 16:40
2-Chlorotoluene	ND		4.56	ug/Kg	1	08/18/2012 16:40
2-Hexanone	ND		11.4	ug/Kg	1	08/18/2012 16:40
4-Chlorotoluene	ND		4.56	ug/Kg	1	08/18/2012 16:40
4-Isopropyltoluene	ND		4.56	ug/Kg	1	08/18/2012 16:40
4-Methyl-2-pentanone	ND		11.4	ug/Kg	1	08/18/2012 16:40
Acetone	**105**		45.6	ug/Kg	1	08/18/2012 16:40
Benzene	ND		4.56	ug/Kg	1	08/18/2012 16:40
Bromobenzene	ND		4.56	ug/Kg	1	08/18/2012 16:40
Bromochloromethane	ND		4.56	ug/Kg	1	08/18/2012 16:40
Bromodichloromethane	ND		4.56	ug/Kg	1	08/18/2012 16:40
Bromoform	ND		4.56	ug/Kg	1	08/18/2012 16:40
Bromomethane	ND		4.56	ug/Kg	1	08/18/2012 16:40
n-Butylbenzene	ND		4.56	ug/Kg	1	08/18/2012 16:40
Carbon disulfide	ND		4.56	ug/Kg	1	08/18/2012 16:40
Carbon tetrachloride	ND		4.56	ug/Kg	1	08/18/2012 16:40
Chlorobenzene	ND		4.56	ug/Kg	1	08/18/2012 16:40
Chloroethane	ND		4.56	ug/Kg	1	08/18/2012 16:40
Chloroform	ND		4.56	ug/Kg	1	08/18/2012 16:40
Chloromethane	ND		4.56	ug/Kg	1	08/18/2012 16:40
Dibromochloromethane	ND		4.56	ug/Kg	1	08/18/2012 16:40
Dibromomethane	ND		4.56	ug/Kg	1	08/18/2012 16:40
Dichlorodifluoromethane	ND		4.56	ug/Kg	1	08/18/2012 16:40

Print Date: 08/23/2012

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Results of **SB51-2 (0-2.5)**

Client Sample ID: **SB51-2 (0-2.5)**
Client Project ID: **NCDOT U-3315**
Lab Sample ID: 31202558032-A
Lab Project ID: 31202558

Collection Date: 08/08/2012 17:00
Received Date: 08/10/2012 15:45
Matrix: Soil-Solid as dry weight
Solids (%): 85.10

Results by **SW-846 8260B**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
cis-1,3-Dichloropropene	ND		4.56	ug/Kg	1	08/18/2012 16:40
trans-1,3-Dichloropropene	ND		4.56	ug/Kg	1	08/18/2012 16:40
Diisopropyl Ether	ND		4.56	ug/Kg	1	08/18/2012 16:40
Ethyl Benzene	ND		4.56	ug/Kg	1	08/18/2012 16:40
Hexachlorobutadiene	ND		4.56	ug/Kg	1	08/18/2012 16:40
Isopropylbenzene (Cumene)	ND		4.56	ug/Kg	1	08/18/2012 16:40
Methyl iodide	ND		4.56	ug/Kg	1	08/18/2012 16:40
Methylene chloride	ND		18.2	ug/Kg	1	08/18/2012 16:40
Naphthalene	ND		4.56	ug/Kg	1	08/18/2012 16:40
Styrene	ND		4.56	ug/Kg	1	08/18/2012 16:40
Tetrachloroethene	ND		4.56	ug/Kg	1	08/18/2012 16:40
Toluene	ND		4.56	ug/Kg	1	08/18/2012 16:40
Trichloroethene	ND		4.56	ug/Kg	1	08/18/2012 16:40
Trichlorofluoromethane	ND		4.56	ug/Kg	1	08/18/2012 16:40
Vinyl chloride	ND		4.56	ug/Kg	1	08/18/2012 16:40
Xylene (total)	ND		9.11	ug/Kg	1	08/18/2012 16:40
cis-1,2-Dichloroethene	ND		4.56	ug/Kg	1	08/18/2012 16:40
m,p-Xylene	ND		9.11	ug/Kg	1	08/18/2012 16:40
n-Propylbenzene	ND		4.56	ug/Kg	1	08/18/2012 16:40
o-Xylene	ND		4.56	ug/Kg	1	08/18/2012 16:40
sec-Butylbenzene	ND		4.56	ug/Kg	1	08/18/2012 16:40
tert-Butyl methyl ether (MTBE)	ND		4.56	ug/Kg	1	08/18/2012 16:40
tert-Butylbenzene	ND		4.56	ug/Kg	1	08/18/2012 16:40
trans-1,2-Dichloroethene	ND		4.56	ug/Kg	1	08/18/2012 16:40
trans-1,4-Dichloro-2-butene	ND		22.8	ug/Kg	1	08/18/2012 16:40
Surrogates						
1,2-Dichloroethane-d4	118		55.0-173	%	1	08/18/2012 16:40
4-Bromofluorobenzene	82.0		23.0-141	%	1	08/18/2012 16:40
Toluene d8	99.0		57.0-134	%	1	08/18/2012 16:40

Batch Information

Analytical Batch: **VMS2486**
Analytical Method: **SW-846 8260B**
Instrument: **MSD9**
Analyst: **DVO**
Analytical Date/Time: **08/18/2012 16:40**

Prep Batch: **VXX3850**
Prep Method: **SW-846 5035 SL**
Prep Date/Time: **08/13/2012 11:43**
Prep Initial Wt./Vol.: **6.45 g**
Prep Extract Vol: **5 mL**

Print Date: 08/23/2012

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Results of **SB51-2 (0-2.5)**

Client Sample ID: **SB51-2 (0-2.5)**
Client Project ID: **NCDOT U-3315**
Lab Sample ID: 31202558032-E
Lab Project ID: 31202558

Collection Date: 08/08/2012 17:00
Received Date: 08/10/2012 15:45
Matrix: Soil-Solid as dry weight
Solids (%): 85.10

Results by **SW-846 8015C GRO**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Gasoline Range Organics (GRO)	ND		3.12	mg/kg	1	08/22/2012 0:37
Surrogates						
4-Bromofluorobenzene	101		70.0-130	%	1	08/22/2012 0:37

Batch Information

Analytical Batch: **VGC2087**
Analytical Method: **SW-846 8015C GRO**
Instrument: **GC7**
Analyst: **MDY**
Analytical Date/Time: **08/22/2012 00:37**

Prep Batch: **VXX3875**
Prep Method: **SW-846 5035**
Prep Date/Time: **08/13/2012 11:43**
Prep Initial Wt./Vol.: **7.54 g**
Prep Extract Vol: **5 mL**

Print Date: 08/23/2012

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Results of **SB51-2 (0-2.5)**

Client Sample ID: **SB51-2 (0-2.5)**
Client Project ID: **NCDOT U-3315**
Lab Sample ID: 31202558032-H
Lab Project ID: 31202558

Collection Date: 08/08/2012 17:00
Received Date: 08/10/2012 15:45
Matrix: Soil-Solid as dry weight
Solids (%): 85.10

Results by **SW-846 8270D**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND		359	ug/Kg	1	08/20/2012 23:10
1,2-Dichlorobenzene	ND		359	ug/Kg	1	08/20/2012 23:10
1,3-Dichlorobenzene	ND		359	ug/Kg	1	08/20/2012 23:10
1,4-Dichlorobenzene	ND		359	ug/Kg	1	08/20/2012 23:10
2,4,5-Trichlorophenol	ND		359	ug/Kg	1	08/20/2012 23:10
2,4,6-Trichlorophenol	ND		359	ug/Kg	1	08/20/2012 23:10
2,4-Dichlorophenol	ND		359	ug/Kg	1	08/20/2012 23:10
2,4-Dinitrophenol	ND		717	ug/Kg	1	08/20/2012 23:10
2,4-Dinitrotoluene	ND		359	ug/Kg	1	08/20/2012 23:10
2,6-Dinitrotoluene	ND		359	ug/Kg	1	08/20/2012 23:10
2-Chloronaphthalene	ND		359	ug/Kg	1	08/20/2012 23:10
2-Chlorophenol	ND		359	ug/Kg	1	08/20/2012 23:10
2-Methylnaphthalene	ND		359	ug/Kg	1	08/20/2012 23:10
2-Methylphenol	ND		359	ug/Kg	1	08/20/2012 23:10
2-Nitroaniline	ND		359	ug/Kg	1	08/20/2012 23:10
2-Nitrophenol	ND		359	ug/Kg	1	08/20/2012 23:10
3 and/or 4-Methylphenol	ND		359	ug/Kg	1	08/20/2012 23:10
3,3'-Dichlorobenzidine	ND		359	ug/Kg	1	08/20/2012 23:10
3-Nitroaniline	ND		359	ug/Kg	1	08/20/2012 23:10
4,6-Dinitro-2-methylphenol	ND		359	ug/Kg	1	08/20/2012 23:10
4-Chloro-3-methylphenol	ND		359	ug/Kg	1	08/20/2012 23:10
4-Chloroaniline	ND		359	ug/Kg	1	08/20/2012 23:10
4-Chlorophenyl phenyl ether	ND		359	ug/Kg	1	08/20/2012 23:10
Acenaphthene	ND		359	ug/Kg	1	08/20/2012 23:10
Acenaphthylene	ND		359	ug/Kg	1	08/20/2012 23:10
Anthracene	ND		359	ug/Kg	1	08/20/2012 23:10
Benzo(a)anthracene	ND		359	ug/Kg	1	08/20/2012 23:10
Benzo(a)pyrene	ND		359	ug/Kg	1	08/20/2012 23:10
Benzo(b)fluoranthene	ND		359	ug/Kg	1	08/20/2012 23:10
Benzo(g,h,i)perylene	ND		359	ug/Kg	1	08/20/2012 23:10
Benzo(k)fluoranthene	ND		359	ug/Kg	1	08/20/2012 23:10
Benzoic acid	ND		359	ug/Kg	1	08/20/2012 23:10
Bis(2-Chloroethoxy)methane	ND		359	ug/Kg	1	08/20/2012 23:10
Bis(2-Chloroethyl)ether	ND		359	ug/Kg	1	08/20/2012 23:10
Bis(2-Chloroisopropyl)ether	ND		359	ug/Kg	1	08/20/2012 23:10
Bis(2-Ethylhexyl)phthalate	ND		359	ug/Kg	1	08/20/2012 23:10
4-Bromophenyl phenyl ether	ND		359	ug/Kg	1	08/20/2012 23:10
Butyl benzyl phthalate	ND		359	ug/Kg	1	08/20/2012 23:10
Chrysene	ND		359	ug/Kg	1	08/20/2012 23:10
Di-n-butyl phthalate	ND		359	ug/Kg	1	08/20/2012 23:10
Di-n-octyl phthalate	ND		359	ug/Kg	1	08/20/2012 23:10
Dibenz(a,h)anthracene	ND		359	ug/Kg	1	08/20/2012 23:10
Dibenzofuran	ND		359	ug/Kg	1	08/20/2012 23:10
Diethyl phthalate	ND		359	ug/Kg	1	08/20/2012 23:10

Print Date: 08/23/2012

N.C. Certification # 481

Results of **SB51-2 (0-2.5)**

Client Sample ID: **SB51-2 (0-2.5)**
Client Project ID: **NCDOT U-3315**
Lab Sample ID: 31202558032-H
Lab Project ID: 31202558

Collection Date: 08/08/2012 17:00
Received Date: 08/10/2012 15:45
Matrix: Soil-Solid as dry weight
Solids (%): 85.10

Results by **SW-846 8270D**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Dimethyl phthalate	ND		359	ug/Kg	1	08/20/2012 23:10
2,4-Dimethylphenol	ND		359	ug/Kg	1	08/20/2012 23:10
Diphenylamine	ND		359	ug/Kg	1	08/20/2012 23:10
Fluoranthene	ND		359	ug/Kg	1	08/20/2012 23:10
Fluorene	ND		359	ug/Kg	1	08/20/2012 23:10
Hexachlorobenzene	ND		359	ug/Kg	1	08/20/2012 23:10
Hexachlorobutadiene	ND		359	ug/Kg	1	08/20/2012 23:10
Hexachlorocyclopentadiene	ND		359	ug/Kg	1	08/20/2012 23:10
Hexachloroethane	ND		359	ug/Kg	1	08/20/2012 23:10
Indeno(1,2,3-cd)pyrene	ND		359	ug/Kg	1	08/20/2012 23:10
Isophorone	ND		359	ug/Kg	1	08/20/2012 23:10
Naphthalene	ND		359	ug/Kg	1	08/20/2012 23:10
4-Nitroaniline	ND		359	ug/Kg	1	08/20/2012 23:10
Nitrobenzene	ND		359	ug/Kg	1	08/20/2012 23:10
4-Nitrophenol	ND		359	ug/Kg	1	08/20/2012 23:10
Pentachlorophenol	ND		359	ug/Kg	1	08/20/2012 23:10
Phenanthrene	ND		359	ug/Kg	1	08/20/2012 23:10
Phenol	ND		359	ug/Kg	1	08/20/2012 23:10
Pyrene	ND		359	ug/Kg	1	08/20/2012 23:10
n-Nitrosodi-n-propylamine	ND		359	ug/Kg	1	08/20/2012 23:10
Surrogates						
2,4,6-Tribromophenol	75.0		41.0-129	%	1	08/20/2012 23:10
2-Fluorobiphenyl	74.0		48.0-123	%	1	08/20/2012 23:10
2-Fluorophenol	73.0		42.0-123	%	1	08/20/2012 23:10
Nitrobenzene-d5	77.0		46.0-117	%	1	08/20/2012 23:10
Phenol-d6	84.0		48.0-125	%	1	08/20/2012 23:10
Terphenyl-d14	83.0		44.0-140	%	1	08/20/2012 23:10

Batch Information

Analytical Batch: **XMS1642**
Analytical Method: **SW-846 8270D**
Instrument: **MSD10**
Analyst: **CMP**
Analytical Date/Time: **08/20/2012 23:10**

Prep Batch: **XXX2922**
Prep Method: **SW-846 3541**
Prep Date/Time: **08/14/2012 10:24**
Prep Initial Wt./Vol.: **32.78 g**
Prep Extract Vol: **10 mL**

Print Date: 08/23/2012

N.C. Certification # 481

Results of **SB51-2 (0-2.5)**

Client Sample ID: **SB51-2 (0-2.5)**
Client Project ID: **NCDOT U-3315**
Lab Sample ID: 31202558032-H
Lab Project ID: 31202558

Collection Date: 08/08/2012 17:00
Received Date: 08/10/2012 15:45
Matrix: Soil-Solid as dry weight
Solids (%): 85.10

Results by **SW-846 8015C DRO**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Diesel Range Organics (DRO)	**14.9**		7.25	mg/kg	1	08/16/2012 5:13
Surrogates						
o-Terphenyl	104		40.0-140	%	1	08/16/2012 5:13

Batch Information

Analytical Batch: **XGC2452**
Analytical Method: **SW-846 8015C DRO**
Instrument: **GC6**
Analyst: **DTF**
Analytical Date/Time: **08/16/2012 05:13**

Prep Batch: **XXX2924**
Prep Method: **SW-846 3541**
Prep Date/Time: **08/14/2012 16:42**
Prep Initial Wt./Vol.: **32.42 g**
Prep Extract Vol: **10 mL**

Print Date: 08/23/2012

N.C. Certification # 481

Results of **SB51-3 (0-2.5)**

Client Sample ID: **SB51-3 (0-2.5)**
Client Project ID: **NCDOT U-3315**
Lab Sample ID: 31202558035-A
Lab Project ID: 31202558

Collection Date: 08/08/2012 18:30
Received Date: 08/10/2012 15:45
Matrix: Soil-Solid as dry weight
Solids (%): 77.40

Results by **SW-846 8015C GRO**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Gasoline Range Organics (GRO)	ND		3.91	mg/kg	1	08/22/2012 1:53
Surrogates						
4-Bromofluorobenzene	101		70.0-130	%	1	08/22/2012 1:53

Batch Information

Analytical Batch: **VGC2087**
Analytical Method: **SW-846 8015C GRO**
Instrument: **GC7**
Analyst: **MDY**
Analytical Date/Time: **08/22/2012 01:53**

Prep Batch: **VXX3875**
Prep Method: **SW-846 5035**
Prep Date/Time: **08/13/2012 11:46**
Prep Initial Wt./Vol.: **6.62 g**
Prep Extract Vol: **5 mL**

Print Date: 08/23/2012

N.C. Certification # 481

Results of **SB51-3 (0-2.5)**

Client Sample ID: **SB51-3 (0-2.5)**
Client Project ID: **NCDOT U-3315**
Lab Sample ID: 31202558035-C
Lab Project ID: 31202558

Collection Date: 08/08/2012 18:30
Received Date: 08/10/2012 15:45
Matrix: Soil-Solid as dry weight
Solids (%): 77.40

Results by **SW-846 8015C DRO**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Diesel Range Organics (DRO)	ND		8.45	mg/kg	1	08/16/2012 6:38
Surrogates						
o-Terphenyl	90.9		40.0-140	%	1	08/16/2012 6:38

Batch Information

Analytical Batch: **XGC2452**
Analytical Method: **SW-846 8015C DRO**
Instrument: **GC6**
Analyst: **DTF**
Analytical Date/Time: **08/16/2012 06:38**

Prep Batch: **XXX2924**
Prep Method: **SW-846 3541**
Prep Date/Time: **08/14/2012 16:42**
Prep Initial Wt./Vol.: **30.58 g**
Prep Extract Vol: **10 mL**

Print Date: 08/23/2012

N.C. Certification # 481

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104637

(1)

CLIENT: ATC ASSOCIATES

CONTACT: JUSTIN BALLARD PHONE NO:(919) 871-0999

PROJECT: NCDOT U-3315 SITE/PWSID# :

REPORTS TO:

JUSTIN BALLARD FAX NO.:(919 871-0735

INVOICE TO: NCDOT QUOTE #:

P.O. NUMBER:

SGS Reference: 31202558

PAGE 1 OF 2

(2)

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No CONTAINERS	SAMPLE TYPE (C=COMP G=GRAB)	Preservatives Used	Analysis Required (3) DRO	GRO	8260	8270	REMARKS
1	SB55-7 (0-2.5)	8/1/12	0845	SOIL	3	G		X	X			
2	SB55-1 (0-2.5)	8/7/12	0740									
3	SB55-2 (0-2.5)	8/7/12	0730									
4	SB55-3 (0-2.5)	8/7/12	0705									
5	SB55-4 (0-2.5)	8/6/12	1430									
6	SB55-5 (0-2.5)	8/6/12	1500									
7	SB55-6 (0-2.5)	8/7/12	0830									
8	SB55-8 (0-2.5)	8/7/12	0910									
9	TW55-1 (0-2.5)	8/6/12	1520									
10	TW171-1 (0-2.5)	8/6/12	1250									

(5)

	Date	Time	
Collected/Relinquished By:(1)	8/9/12 8/10/12	12:45	Received By:
Relinquished By: (2)	8/10/12	13:20	Received By:
Relinquished By: (3)	8/10/12	1545	Received By:
Relinquished By: (4)	Date	Time	Received By:

(4)

Shipping Carrier:

Shipping Ticket No:

Samples Received Cold? (Circle) YES NO

Temperature°C: 1.9 0.7

Special Deliverable Requirements:

Chain of Custody Seal: (Circle)

INTACT BROKEN (ABSENT)

Special Instructions:

Requested Turnaround Time:

☐ RUSH _____ Date Needed ☑ STD

☐ 200 W. Potter Drive **Anchorage, AK 99518** Tel: (907) 562-2343 Fax: (907) 561-5301
☐ 5500 Business Drive **Wilmington, NC 28405** Tel: (910) 350-1903 Fax: (910) 350-1557

White - Retained by Lab
Pink - Retained by Client

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(1)

CLIENT: ATC ASSOCIATES

CONTACT: JUSTIN BALLARD PHONE NO:(919) 871-0999

PROJECT: NCDOT U-3315 SITE/PWSID#:

REPORTS TO: JUSTIN BALLARD FAX NO.:(919) 871-0335

INVOICE TO: NCDOT QUOTE #:

P.O. NUMBER:

SGS Reference: 31202558

PAGE 2 OF 2

(2)

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No CONTAINERS	SAMPLE TYPE C=COMP G=GRAB	Preservatives Used	Analysis Required (3) DRO	GRO	8260	8270	REMARKS
11	TW50-1 (5-6)	8/7/12	1410	SOIL	8	G		X	X	X	X	
12	TW51-1 (0-2.5)	8/7/12	1315	↓	↓	↓		↓	↓	↓	↓	
13	SB50-1 (0-2.5)	8/7/12	1545	↓	↓	↓		↓	↓	↓	↓	
14	SB50-3 (2.5-5)	8/8/12	1400	X	X	X		X	X	X	X	
15	SB50-9 (0-2.5)	8/8/12	1415	X	3	X		X	X			
16	SB50-6 (2.5-5.0)	8/8/12	1420	X	3	X		X	X			
17	SB50-8 (2.5-5.0)	8/8/12	1430	X	3	X		X	X			
18	SB50-10 (2.5-5.0)	8/8/12	1440	X	3	X		X	X			
19	SB50-4 (2.5-5.0)	8/8/12	1445	X	8	X		X	X	X	X	
20	SB-50-7 (2.5-5.0)	8/8/12	1455	X	8	X		X	X	X	X	

(5)

Collected/Relinquished By:(1)	Date	Time	Received By:
	8/9/12	1245	
Relinquished By: (2)	Date	Time	Received By:
	8/10/12	1320	
Relinquished By: (3)	Date	Time	Received By:
	8/11/12	1545	
Relinquished By: (4)	Date	Time	Received By:

(4)

Shipping Carrier:

Shipping Ticket No:

Samples Received Cold? (Circle) YES NO

Temperature°C: 1.7 1.9 0.7 8/10/12

Special Deliverable Requirements:

Chain of Custody Seal: (Circle)

INTACT BROKEN ABSENT

Special Instructions:

Requested Turnaround Time:

☐ RUSH _____ Date Needed ☒ STD

☐ 200 W. Potter Drive **Anchorage, AK 99518** Tel: (907) 562-2343 Fax: (907) 561-5301
☐ 5500 Business Drive **Wilmington, NC 28405** Tel: (910) 350-1903 Fax: (910) 350-1557

White - Retained by Lab
Pink - Retained by Client

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(1)

CLIENT: ATC

CONTACT: JUSTIN BALLARD PHONE NO:(919 871 6999

PROJECT: SITE/PWSID# :

REPORTS TO: JUSTIN BALLARD FAX NO.:( )

INVOICE TO: NCDOT QUOTE #:

P.O. NUMBER:

SGS Reference: 31202558

PAGE 3 OF 4

(2)

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No CONTAINERS	SAMPLE TYPE C= COMP G= GRAB	Preservatives Used	Analysis Required (3) 8260	8270	REMARKS
21	TW50-1	8/9	0810	W	4	G		X	X	
22	TW51-1	8/9	0835	W	4	G		X	X	
23	TW171-1	8/9	0930	W	3	G		X		
24	TW55-1	8/9	1000	W	3	G		X		
25	TW172-1(6-8)	8/1	1045	S	3	G		X		

q.s.

(5)

Collected/Relinquished By:(1)	Date 8/9	Time 4:00	Received By: 8/10/12 0919
Relinquished By: (2)	Date 8/10/12	Time 1320	Received By: 1245
Relinquished By: (3)	Date 8/10/12	Time 1545	Received By:
Relinquished By: (4)	Date	Time	Received By:

(4)

Shipping Carrier:

Shipping Ticket No:

Samples Received Cold? (Circle) YES NO

Temperature°C: 1.9 0.7

Special Deliverable Requirements:

Chain of Custody Seal: (Circle)

INTACT BROKEN ABSENT

Special Instructions:

Requested Turnaround Time:

☐ RUSH _____ Date Needed ☒ STD

❑ 200 W. Potter Drive **Anchorage, AK 99518** Tel: (907) 562-2343 Fax: (907) 561-5301
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White - Retained by Lab
Pink - Retained by Client

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104649

(1)

CLIENT: ATC

CONTACT: JUSTIN BALLARD PHONE NO:(919) 871 0999

PROJECT: NCDOT 3315 SITE/PWSID# :

REPORTS TO:
JUSTIN BALLARD FAX NO.:(919) 871 0335

INVOICE TO: NCDOT QUOTE #:

P.O. NUMBER:

SGS Reference: 31202558

PAGE 4 OF 4

(2)

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No CONTAINERS	SAMPLE TYPE (C=COMP G=GRAB)	Preservatives Used	Analysis Required (3) D20	G20	5260	5270						REMARKS
26	SB50-7 (2.5-5.0)	8/8/12	1515	S	3	G		X	X								
27	SB50-11 (2.5-5.0)	8/8/12	1525	S	3	G		X	X								
28	SB50-5 (0-2.5)	8/8/12	1525	S	3	G		X	X								
29	SB51-1 (0-2.5)	8/8/12	1600	S	8	G		X	X	X	X						
30	SB51-4 (0-2.5)	8/8/12	1630	S	3	G		X	X								
31	SB50-12 (2.5-5)	8/8	1650	S	3	G		X	X								
32	SB51-2 (0-2.5)	8/8	1700	S	8	G		X	X	X	X						
33	SB50-13 (0-2.5)	8/8	1750	S	3	G		X	X								
2434	SB50-14 (0-2.5)	8/8	1800	S	3	G		X	X								
35	SB51-3 (0-2.5)	8/8	1830	S	3	G		X	X								

(5)

Collected/Relinquished By:(1)	Date 8/8	Time 1245	Received By:	8/10/12
Relinquished By: (2)	Date 8/10/12	Time 1320	Received By:	
Relinquished By: (3)	Date 8/10/12	Time 1545	Received By:	
Relinquished By: (4)	Date	Time	Received By:	

(4)

Shipping Carrier:

Shipping Ticket No:

Samples Received Cold? (Circle) YES NO

Temperature°C: 1.9

Special Deliverable Requirements:

Chain of Custody Seal: (Circle)
INTACT BROKEN ABSENT

Special Instructions:

Requested Turnaround Time:
☐ RUSH _____ (Date Needed) ☑ STD

❑ 200 W. Potter Drive **Anchorage, AK 99518** Tel: (907) 562-2343 Fax: (907) 561-5301
❑ 5500 Business Drive **Wilmington, NC 28405** Tel: (910) 350-1903 Fax: (910) 350-1557

White - Retained by Lab
Pink - Retained by Client

SGS North America Inc.

Sample Receipt Checklist (SRC)

Client: **NCDOT-ATC** Work Order No.: **31202558**

1. ___ Shipped
   X Hand Delivered
   Notes: SGS Courier

2. X COC Present on Receipt
   ___ No COC
   ___ Additional Transmittal Forms

3. ___ Custody Tape on Container
   X No Custody Tape

4. X Samples Intact
   ___ Samples Broken / Leaking

5. X Chilled on Receipt Actual Temp.(s) in °C: 1.9, 0.7
   ___ Ambient on Receipt
   ___ Walk-in on Ice; Coming down to temp.
   ___ Received Outside of Temperature Specifications

6. X Sufficient Sample Submitted
   ___ Insufficient Sample Submitted

7. ___ Chlorine absent
   ___ HNO3 < 2
   ___ HCL < 2
   ___ Additional Preservatives verified (see notes)

8. X Received Within Holding Time
   ___ Not Received Within Holding Time

9. X No Discrepancies Noted
   ___ Discrepancies Noted
   ___ NCDENR notified of Discrepancies*

10. X No Headspace present in VOC vials
    ___ Headspace present in VOC vials >6mm

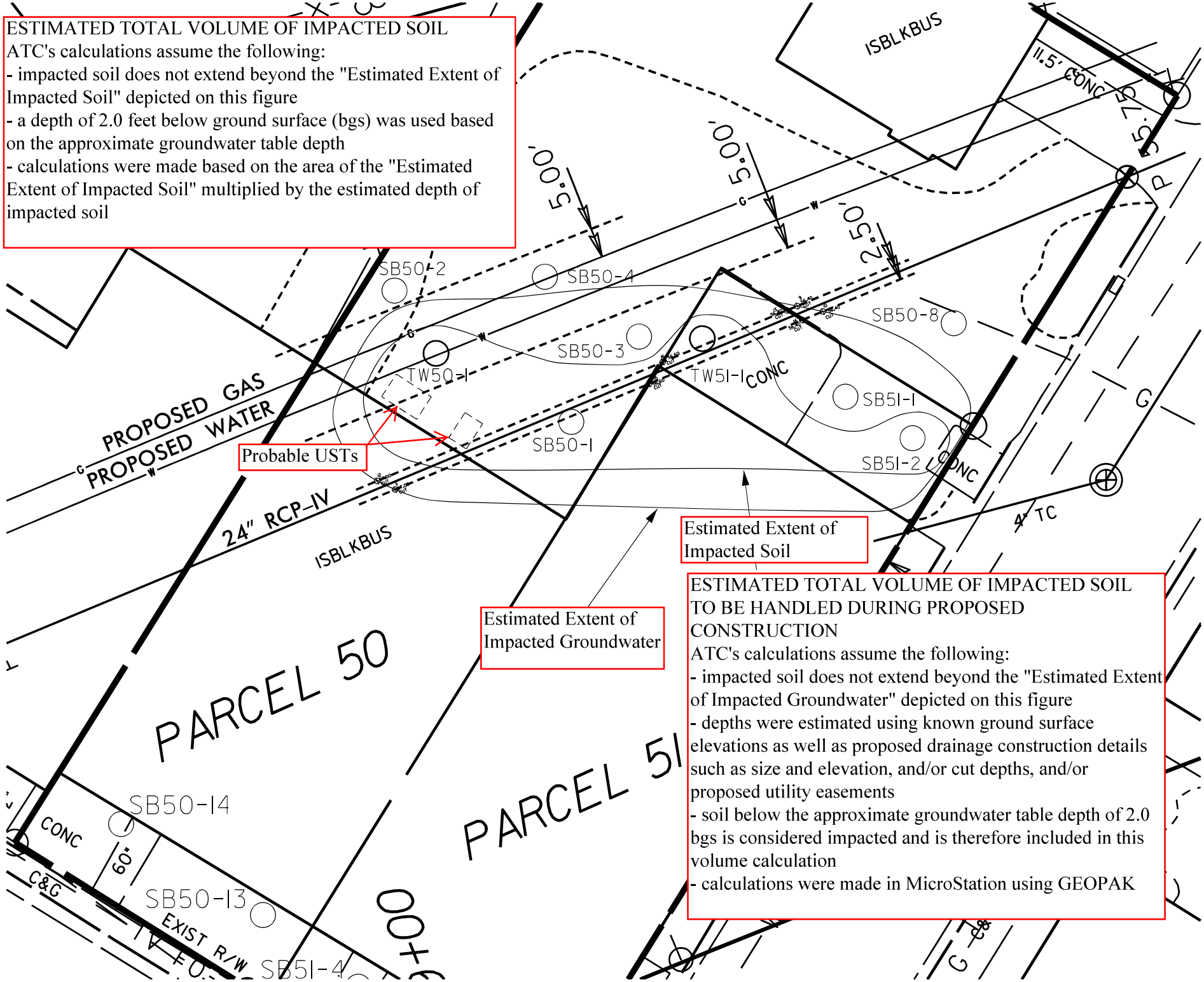
Comments:

Inspected and Logged in by: JMM
Date: Fri-8/10/12 00:00

*NCDENR must be notified when collection, holding time or preservation requirements are not met. MI_11.6

APPENDIX E

VOLUMETRIC CALCULATIONS


ESTIMATED TOTAL VOLUME OF IMPACTED SOIL
ATC's calculations assume the following:
- impacted soil does not extend beyond the "Estimated Extent of Impacted Soil" depicted on this figure
- a depth of 2.0 feet below ground surface (bgs) was used based on the approximate groundwater table depth
- calculations were made based on the area of the "Estimated Extent of Impacted Soil" multiplied by the estimated depth of impacted soil
ISBLKBUS
11.5' CONC
5.00
5.00
5.00
SB50-2
SB50-4
SB50-8
SB50-3
TW50-1
TW51-1
CONC
SB51-1
SB50-1
SB51-2
CONC
PROPOSED GAS
PROPOSED WATER
Probable USTs
24" RCP-IV
ISBLKBUS
4" TC
Estimated Extent of Impacted Soil
Estimated Extent of Impacted Groundwater
ESTIMATED TOTAL VOLUME OF IMPACTED SOIL TO BE HANDLED DURING PROPOSED CONSTRUCTION
ATC's calculations assume the following:
- impacted soil does not extend beyond the "Estimated Extent of Impacted Groundwater" depicted on this figure
- depths were estimated using known ground surface elevations as well as proposed drainage construction details such as size and elevation, and/or cut depths, and/or proposed utility easements
- soil below the approximate groundwater table depth of 2.0 bgs is considered impacted and is therefore included in this volume calculation
- calculations were made in MicroStation using GEOPAK
PARCEL 50
PARCEL 51
SB50-14
CONC
60.09
C&G
SB50-13
EXIST R/W
SB51-4
100

```
**********************************************************************
** Parcel 51 24" RCP (OD = 30")
**                                                                  **
** TIN to TIN Volume Report -- Mon Oct 29 11:23:23 2012
**                                                                  **
** From TIN <V:\1784\active\ATC - U3315\gpk\parcel50-51_top.tin>
** to TIN <V:\1784\active\ATC - U3315\gpk\parcel51_pipe.tin>
**                                                                  **
** Prismoidal Volume
**                                                                  **
**                                                                  **
**********************************************************************
**                                                                  **
**  Total Cut =         11.047 Cubic Yards
**  Total Fill =        0.000 Cubic Yards
**  Area =              7.008 Sq Yards
**  Balance =           11.047 Cubic Yards
**                                                                  **
** Boundary Polygon Used
**********************************************************************

Parcel 51 total pipe volume = 11.047 Cubic Yards

**********************************************************************

Parcel 51 Total Impacted Soil Volume

794.95 Sq.Ft. x 2 Ft. = 1589.90 C.Ft. = 58.89 Cubic Yards

**********************************************************************
```

SQUARE FOOTAGE CALCULATIONS