PRELIMINARY SITE ASSESSMENT

FOR

PARCEL #905
MICHAEL PADGETT PROPERTY
STEVENSON AUTOMOTIVE GROUP
1805 N. MARINE BLVD
JACKSONVILLE, ONSLOW COUNTY, NORTH CAROLINA

STATE PROJECT: U-4007B
WBS ELEMENT: 35008.1.1
DESCRIPTION: Jacksonville – US 17 from SR 1403 (Country Club Road) to Western Blvd

PREPARED FOR:

NCDOT GEOTECHNICAL ENGINEERING UNIT-GEOENVIRONMENTAL SECTION
1589 MSC
RALEIGH, NORTH CAROLINA 27699-1589

OCTOBER 6, 2008

PREPARED BY:

CATLIN ENGINEERS AND SCIENTISTS
P. O. BOX 10279
WILMINGTON, NORTH CAROLINA 28404-0279
(910) 452-5861

CATLIN PROJECT NO. 208-055

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1.0 INTRODUCTION

1.1 PURPOSE OF INVESTIGATION AND DESCRIPTION

CATLIN Engineers and Scientists (CATLIN) was retained by the North Carolina Department of Transportation (NCDOT) Geotechnical Engineering Unit to provide a field investigation concluding with a Preliminary Site Assessment (PSA) for the above referenced property. In response to a Request for Technical and Cost Proposal (RFP) dated August 29, 2008, CATLIN submitted a proposal for conducting an investigation at the above referenced parcel in Jacksonville, North Carolina. Figure 1 illustrates the project vicinity.

According to the RFP:

> Advanced acquisition of the right-of-way is necessary for the improvements of NC 17/ Jacksonville Bypass. A PSA is to be performed only within the proposed right-of-way and/or easement unless an uneconomic remnant will be left after acquisition.

The workscope as requested includes:

- Locate all underground storage tanks (USTs) and determine approximate size and contents (if any).
- Determine if contaminated soils are present.
- If contamination is evident, estimate the quantity of impacted soils and indicate the approximate area of soil contamination on a site map.

- Prepare and submit a report including field activities, findings, and recommendations in triplicate and electronically to the NCDOT GeoEnvironmental Section.

CATLIN coordinated and conducted site reconnaissance beginning on September 3, 2008. This report documents our activities and findings.

1.2 BACKGROUND INFORMATION

The subject site is being utilized as a commercial car and light truck dealership. No USTs are known to have been used at the site. Two (2) above ground storage tanks (ASTs) within a concrete berm are located behind the show room and maintenance shop. An active oil-water separator is located off the pavement behind the maintenance shop (adjacent to DPT-01, see Figure 2). There have been no known releases associated with the ASTs or oil-water separator. No additional historical information regarding the property is known.

2.0 METHODS

2.1 FIELD METHODS

CATLIN personnel performed site reconnaissance and investigated proposed boring locations. There were no indications of environmental concern noted during the site reconnaissance except an active oil-water separator. A proposed boring location was marked adjacent to the oil-water separator.

Underground utility locating was coordinated by CATLIN personnel. The North Carolina One Call Center (NC-1-Call) was contacted for underground utility location. The NC-1-Call service does not provide utility locating for water and sewer lines in the area or private utilities within the property. The City of Jacksonville Utility Maintenance personnel were subsequently contacted for water and sewer line locating. Private utilities were located within the site by Professional Locating Services (PLS). The City of Jacksonville and PLS personnel were met on site by CATLIN personnel and the area around the proposed boring location was checked and found to be clear of any underground utilities.

One (1) soil boring/sample location (DPT-01) was established. Site photographs taken during sampling activities are provided in Appendix A. The boring coordinates were collected utilizing a Trimble® Global Positioning System (GPS) unit. A North Carolina certified well driller advanced and properly abandoned all borings. CATLIN personnel gathered subsurface soil data at the site by Direct Push Technology (DPT) boring advancement using an AMS PowerProbe™ 9600D (PowerProbe). When using the PowerProbe, the borings are advanced to depth by static

force and a 90-pound hydraulic percussion hammer. Two and one-quarter inch diameter by four-foot length steel is used as casing. Soil samples are continuously collected in one and one-half inch clear liners. Liners are removed from the casing and then cut in half longitudinally to allow for visual/manual classification utilizing the Unified Soil Classification System (USCS). Soil boring information was recorded on a field log and is summarized on the boring log provided in Appendix B. Soil samples were collected continuously from near the surface to eight (8) feet below land surface (BLS).

Depth to water (DTW) was estimated based on saturated soils. No wells were installed and no groundwater samples were collected during this investigation.

Soil samples were collected for laboratory analysis above the water table at approximately two to three feet BLS. New disposable nitrile gloves were worn during sampling activities. All samples were placed into laboratory provided glassware and packed on ice in an insulated cooler for transportation to the laboratory. Sample integrity was maintained by following proper Chain of Custody procedures. A copy of the Chain of Custody is provided following the analytical report in Appendix C.

The borehole was abandoned to the surface using three-eighth inch bentonite chips. Bentonite and water were poured into the borehole simultaneously to facilitate hydration. Final borehole and sample location was surveyed utilizing a Trimble® GPS survey instrument. Borehole location and site features are illustrated on Figure 2.

2.2 LABORATORY TESTING

Following boring advancement, soils were removed from the liners and placed in the appropriately labeled glassware. In an attempt to provide information regarding petroleum impacts to soils with reasonable analytical expense, soil samples were analyzed for total petroleum hydrocarbon (TPH) diesel and gasoline range organics (DRO and GRO) by Environmental Protection Agency (EPA) Methods 5030 and 3550 with analysis by modified 8015 for oil and grease per EPA 9071 with silica gel wash. Any soil samples revealing detectable laboratory concentrations are considered petroleum impacted.

One (1) soil sample was submitted to SGS Environmental Services, Inc., NC Certification # 481 for analysis per EPA Methods 3550 and 5030 by modified 8015 and 9071 with silica gel wash. Chain of Custody documentation is included in Appendix C.

3.0 RESULTS

Sandy clays and clayey sands with varying amounts of silt were encountered at boring DPT-01 adjacent to the oil-water separator. Saturated soils were encountered approximately seven (7) feet BLS. The complete boring log is provided in Appendix B.

Summarized soil sample analytical results are provided on Table 1. Sample location and summarized results are illustrated on Figure 2. The complete analytical report is provided in Appendix C.

No TPH DRO or GRO concentrations were detected. Oil and grease concentrations were detected at 55 milligrams per kilogram (mg/Kg).

4.0 SUMMARY AND DISCUSSION

A preliminary site assessment was conducted at the subject site as requested by NCDOT in conjunction with advanced right-of-way acquisition for the US 17 Jacksonville Bypass construction. A soil boring (one) was advanced adjacent to an active oil-water separator and a soil sample was collected for laboratory analysis. Sandy/clayey soils were encountered during boring advancement. No TPH DRO or GRO concentrations were detected above the reporting limit. Oil and grease concentrations were revealed at 55 mg/Kg.

According to information provided by NCDOT, a majority of the Padgett property is within a proposed "fill" section and will not be disturbed during construction. Based on the plan sheet provided by NCDOT and utilized for the attached Figure 2, the DPT-01 boring and soil sample location is within a proposed fill section. The oil and grease impacted soils are likely isolated to the area immediately surrounding the oil-water separator and not outside the proposed fill section.

5.0 LIMITATIONS

This report is based on the agreed work scope and a review of available data from limited sampling. It is possible that this investigation may have failed to reveal the presence of contamination in the project area where such contamination may exist. Although CATLIN has used accepted methods appropriate for soil sampling, CATLIN cannot guarantee that additional soil and/or groundwater contamination does not exist.

6.0 SIGNATURES

Benjamin J. Ashba
Project Manager

G. Richard Garrett, P.G.
Contract Manager

TABLES

TABLE 1
SUMMARY OF SOIL LABORATORY RESULTS –
TOTAL PETROLEUM HYDROCARBONS –
DIESEL AND GASOLINE RANGE ORGANICS –
OIL AND GREASE

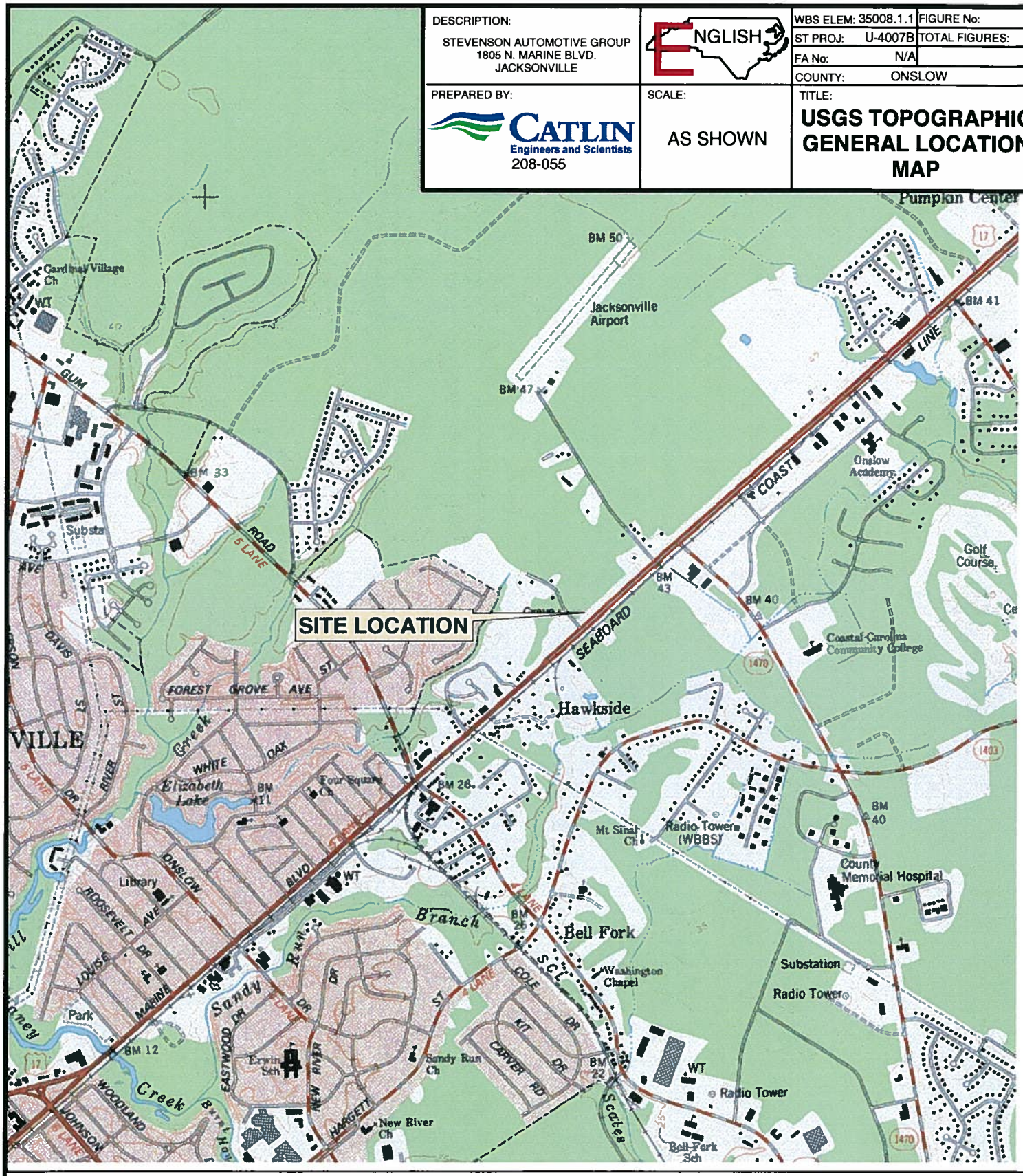
Parcel # 905, Michael Padgett Property
Stevenson Automotive Group
1805 N. Marine Blvd.

Sample ID	Contaminant of Concern →		Diesel Range Organics	Gasoline Range Organics	Oil and Grease
	Date Collected	Sample Depth (ft. BLS)			
DPT-01	9/18/2008	5.5 - 6.5	BRL	BRL	55

All results in milligrams per Kilogram (mg/Kg).
ft. BLS = Feet Below Land Surface
BRL = Below Reporting Limit
Refer to analytical report for a complete list of reporting limits.

FIGURES

DESCRIPTION: STEVENSON AUTOMOTIVE GROUP 1805 N. MARINE BLVD. JACKSONVILLE	ENGLISH	WBS ELEM: 35008.1.1	FIGURE No: 1
		ST PROJ: U-4007B	TOTAL FIGURES: 2
		FA No: N/A	
		COUNTY: ONSLOW	
PREPARED BY: CATLIN Engineers and Scientists 208-055	SCALE: AS SHOWN	TITLE: **USGS TOPOGRAPHIC GENERAL LOCATION MAP**	



Source: Topozone.com download USGS Topographic Quadrangle, (Jacksonville North, NC)

2,000 1,000 0 2,000 4,000 Feet

SCALE

N W E S

DESCRIPTION: STEVENSON AUTOMOTIVE GROUP 1805 N. MARINE BLVD. JACKSONVILLE	ENGLISH	WBS ELEM.: 35008.1.1	FIGURE NO.	2
		TIP NO.: U-4007B	TOTAL FIGURES:	2
		F.A. NO.: N/A		
		COUNTY: ONSLOW		
PREPARED BY: CATLIN Engineers and Scientists, 220 Old Dairy Road, Wilmington, NC 28405	SCALE: AS SHOWN	TITLE: SITE MAP WITH SOIL SAMPLE LOCATIONS AND SUMMARIZED RESULTS		

S:\wpmktg\Proj\8D-055\Figs\Proj\stevenson.dgn

Sample ID	Contaminant of Concern →		Diesel Range Organics	Gasoline Range Organics	Oil and Grease
	Date Collected	Sample Depth (ft. BLS)			
DPT-01	9/18/2008	5.5 - 6.5	BRL	BRL	55

All results in milligrams per Kilogram (mg/Kg).
ft. BLS = Feet Below Land Surface
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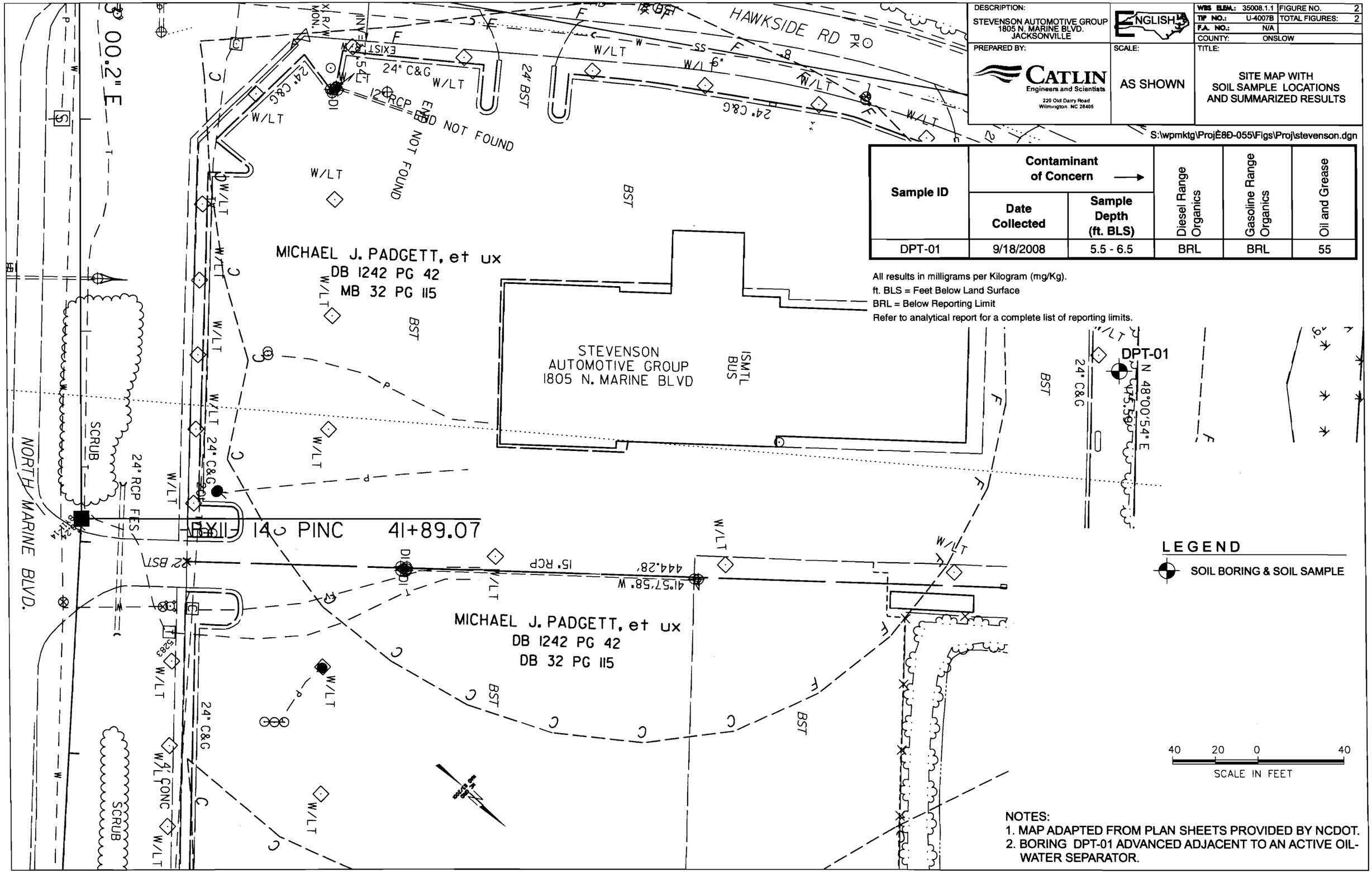

NOTES:
1. MAP ADAPTED FROM PLAN SHEETS PROVIDED BY NCDOT.
2. BORING DPT-01 ADVANCED ADJACENT TO AN ACTIVE OIL-WATER SEPARATOR.

APPENDICES

APPENDIX A

SITE PHOTOGRAPHS

PHOTOGRAPHS

Parcel #905
Michael Padgett Property
Stevenson Automotive Group
1805 N. Marine Blvd.
Jacksonville, NC

Looking Northwest from oil-water separator towards back of maintenance shop

Looking Southwest – Pink flag at DPT-01
– Sewer manholes (2) atop oil-water separator

APPENDIX B

BORING LOG

BORING LOG

CATLIN ENGINEERS and SCIENTISTS
208-055
Wilmington, NC

WBS Element: 35008.1.1
TIP Number: U-4007
SHEET 1 OF 1

PROJECT NO.: 208-055	**STATE:** NC	**COUNTY:** Onslow	**LOCATION:** Jacksonville
PROJECT NAME: Padgett Property / Stevenson Mazda		**LOGGED BY:** Steve Tyler	**BORING ID:** DPT-01
		DRILLER: Bobbie D. Fowler	
NORTHING: 376,987.02	**EASTING:** 2,480,887.61	**CREW:**	
SYSTEM: NCSP NAD 83 (USft)	**BORING LOCATION:**		**LAND ELEV.:** NM
DRILL MACHINE: Power Probe	**METHOD:** Direct Push	**0 HOUR DTW:**	**BORING DEPTH:** 8.0
START DATE: 9/18/08	**FINISH DATE:** 9/18/08	**24 HOUR DTW:**	**ROCK DEPTH:** --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	MOI.	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
					SC/ SM			Olive SILTY to CLAYEY SAND. No odor.	
2.0							2.8		
		M							
4.0									
		M		DPT-01 (5.5-6.5' @ 1250 on 9/18/08	CL			Tan SANDY CLAY. High plasticity. Becomes gray in color at 6' BLS. No odor.	
6.0							6.8		
		W			SM		7.0	Olive SILTY SAND. No odor. Wet.	
					CL			Gray SANDY CLAY. No odor. Wet.	
8.0							8.0		
								Boring Terminated at Depth 8.0 ft	

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIRO LOG 208-055 - NCDOT PADGETT GPJ CATLIN.GDT 10/2/08

APPENDIX C

LABORATORY REPORT AND CHAIN OF CUSTODY RECORD

SGS

Rick Garrett
Richard Catlin & Associates
220 Old Dairy Rd.
Wilmington, NC 28405

Report Number: G128-2248

Client Project: Stevenson Maz

Dear Rick Garrett,

Enclosed are the results of the analytical services performed under the referenced project. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of five years in the event they are required for future reference. Any samples submitted to our laboratory will 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 Ashley Nifong at (910) 350-1903. We will be happy to answer any questions or concerns which you may have.

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

Sincerely,
SGS Environmental Services, Inc.

Ashley Nifong
2008.09.25 16:43:36 -04'00'

Project Manager
Ashley Nifong

Date

List of Reporting Abbreviations and Data Qualifiers

B = Compound also detected in batch blank

BQL = Below Quantitation Limit (RL or MDL)

DF = Dilution Factor

Dup = Duplicate

D = Detected, but RPD is > 40% between results in dual column method.

E = Estimated concentration, exceeds calibration range.

J = Estimated concentration, below calibration range and above MDL

LCS(D) = Laboratory Control Spike (Duplicate)

MDL = Method Detection Limit

MS(D) = Matrix Spike (Duplicate)

PQL = Practical Quantitation Limit

RL/CL = Reporting Limit / Control Limit

RPD = Relative Percent Difference

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

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

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

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

% Rec = Percent Recovery

% soilds = Percent Solids

Special Notes:

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

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

Print Date: 9/25/2008

Client Sample ID: **StM DPT-01**
Client Project ID: Stevenson Maz
Lab Sample ID: G128-2248-1E
Lab Project ID: G128-2248

Collection Date: 18-Sep-08 12:50
Received Date: 19-Sep-08
Matrix: SOIL
Solids: 83.73
Basis: Dry

Results by 8015DRO

Parameter	Result	RL/CL	MDL	Units	DF	Qual	Date Analyzed
Diesel Range Organics	BQL	7.46		MG/KG	1		24-Sep-08 0:16

Surrogates

OTP	81.4	40-140		%	1		24-Sep-08 0:16

Batch Information

Analytical Batch: EP092308
Analytical Method: 8015DRO
Instrument: GC6
Analyst: EAW

Prep Batch:
Prep Method: 3541
Prep Date/Time:
Initial Prep Wt./Vol.: 32.04
Prep Extract Vol: 10

Print Date: 9/25/2008

Client Sample ID: **StM DPT-01**
Client Project ID: Stevenson Maz
Lab Sample ID: G128-2248-1A
Lab Project ID: G128-2248

Collection Date: 18-Sep-08 12:50
Received Date: 19-Sep-08
Matrix: SOIL
Solids: 83.73
Basis: Dry

Results by 8015GRO

Parameter	Result	RL/CL	MDL	Units	DF	Qual	Date Analyzed
Gasoline Range Organics	BQL	4.97		MG/KG	1		24-Sep-08 18:43

Surrogates

BFB	95.6	70-130		%	1		24-Sep-08 18:43

Batch Information

Analytical Batch: VP092408
Analytical Method: 8015GRO
Instrument: GC4
Analyst: DVG

Prep Batch:
Prep Method: 5035
Prep Date/Time:
Initial Prep Wt./Vol.: 7.21
Prep Extract Vol: 5

SGS

Print Date: 9/25/2008

Client Sample ID: **StM DPT-01**
Client Project ID: Stevenson Maz
Lab Sample ID: G128-2248-1
Lab Project ID: G128-2248

Collection Date: 18-Sep-08 12:50
Received Date: 19-Sep-08
Matrix: SOIL
Solids:
Basis: Dry

Results by 9071B

Parameter	Result	RL/CL	MDL	Units	DF	Qual	Date Analyzed
9071 w/ Silica Gel	**55**	3.6	3.6	MG/KG	1		23-Sep-08 12:03

Batch Information

Analytical Batch: SUB
Analytical Method: 9071B
Instrument:
Analyst:

Prep Batch:
Prep Method:
Prep Date/Time:
Initial Prep Wt./Vol.:
Prep Extract Vol:

SGS

CHAIN OF CUSTODY RECORD
SGS Environmental Services Inc.

Locations Nationwide
- Alaska
- Hawaii
- Ohio
- Maryland
- New Jersey
- North Carolina
- West Virginia

www.us.sgs.com

087599

(1)

CLIENT: NCDOT

CONTACT: CATLIN ATTN: RICK GARRETT PHONE NO:(910) 452 -5861

PROJECT: STEVENSON MAR SITE/PWSID# :

REPORTS TO: CATLIN ATTN: RICK GARRETT E-MAIL: FAX NO.:( )

INVOICE TO: NCDOT QUOTE # ~~P.O.NUMBER~~ WBS 35008.1.1

SGS Reference: G128-2248

PAGE 1 OF 1

(2)

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No CONTAINERS	SAMPLE TYPE (C= COMP, G= GRAB)	Preservatives Used	Analysis Required (3) TPH-DRO	TPH-GRO	Oil & Grease 9071 w/ Phillips Gasoline Wash	REMARKS
	STM DPT-01	9-18-08	1250	soil	3			✓	✓	✓	

Page 6 of 6

(5)

Collected/Relinquished By:(1)	Date	Time	Received By:	Date	Time
	9-19-08	1205		9/19/08	1205
Relinquished By: (2)	Date	Time	Received By:	Date	Time
~~Relinquished By:~~ (3)	~~Date~~	~~Time~~	~~Received By:~~	~~Date~~	~~Time~~
Relinquished By: (4)	Date	Time	Received By:	Date	Time

(4)

Shipping Carrier:

Shipping Ticket No:

Samples Received Cold? (Circle) YES NO

Temperature ∫C: 4.1°C T

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
☐ 1270 Greenbrier Street **Charleston, WV 25311** Tel: (304) 346-0725 Fax: (304) 346-0761

White - Retained by Lab
Yellow - Returned with Report
Pink - Retained by Sampler