

NC DENR

Division of Waste Management - Solid Waste

# Environmental Monitoring Reporting Form

Notice: This form and any information attached to it are "Public Records" as defined in NC General Statute 132-1. As such, these documents are available for inspection and examination by any person upon request (NC General Statute 132-6).

### Instructions:

- Prepare one form for each individually monitored unit.
- Please type or print legibly.
- Attach a notification table with values that attain or exceed NC 2L groundwater standards or NC 2B surface water standards. The notification must include a preliminary analysis of the cause and significance of each value. (e.g. naturally occurring, off-site source, pre-existing condition, etc.).
- Attach a notification table of any groundwater or surface water values that equal or exceed the reporting limits.
- Attach a notification table of any methane gas values that attain or exceed explosive gas levels. This includes any structures on or nearby the facility (NCAC 13B .1629 (4)(a)(i)).
- Send the original signed and sealed form, any tables, and Electronic Data Deliverable to: Compliance Unit, NCDENR-DWM, Solid Waste Section, 1646 Mail Service Center, Raleigh, NC 27699-1646.

### Solid Waste Monitoring Data Submittal Information

Name of entity submitting data (laboratory, consultant, facility owner):

Smith Gardner, Inc.

Contact for questions about data formatting. Include data preparer's name, telephone number and E-mail address:

Name: Madeline German Phone: 919-828-0577 x 222

E-mail: madeline@smithgardnerinc.com

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
Davidson County C&D Landfill	1242 Old Highway 29 Thomasville, NC 27360	29-06	0.0500	October 2, 2012

### Environmental Status: (Check all that apply)

- Initial/Background Monitoring  Detection Monitoring  Assessment Monitoring  Corrective Action

### Type of data submitted: (Check all that apply)

- Groundwater monitoring data from monitoring wells  Methane gas monitoring data  
 Groundwater monitoring data from private water supply wells  Corrective action data (specify) \_\_\_\_\_  
 Leachate monitoring data  Other(specify) \_\_\_\_\_  
 Surface water monitoring data

### Notification attached?

- No. No groundwater or surface water standards were exceeded.  
 Yes, a notification of values exceeding a groundwater or surface water standard is attached. It includes a list of groundwater and surface water monitoring points, dates, analytical values, NC 2L groundwater standard, NC 2B surface water standard or NC Solid Waste GWPS and preliminary analysis of the cause and significance of any concentration.  
 Yes, a notification of values exceeding an explosive methane gas limit is attached. It includes the methane monitoring points, dates, sample values and explosive methane gas limits.

### Certification

To the best of my knowledge, the information reported and statements made on this data submittal and attachments are true and correct. Furthermore, I have attached complete notification of any sampling values meeting or exceeding groundwater standards or explosive gas levels, and a preliminary analysis of the cause and significance of concentrations exceeding groundwater standards. I am aware that there are significant penalties for making any false statement, representation, or certification including the possibility of a fine and imprisonment.

Madeline German

Geologist

919-828-0577 x 222

Facility Representative Name (Print)

Title

(Area Code) Telephone Number

Signature

Date

1/4/13

Affix NC Licensed Professional Geologist Seal

14 N. Boylan Ave. Raleigh, NC 27603

Facility Representative Address

C-0828

NC PE Firm License Number (if applicable effective May 1, 2009)



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**Groundwater Monitoring Report  
October 2012 Semi-Annual Event**

**Davidson County Construction and Demolition Debris Landfill  
NC Solid Waste Permit No. 29-06**

Prepared for:

**Davidson County Integrated Solid Waste  
1242 Old Highway 29  
Thomasville, North Carolina 27360-0024**



**January 2013**

Prepared by:

**SMITH+GARDNER**

14 N. Boylan Avenue, Raleigh NC 27603 | 919.828.0577



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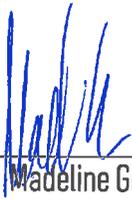
# Groundwater Monitoring Report – October 2012

**Davidson County Construction and Demolition Debris Landfill  
NC Solid Waste Permit No. 29-06**

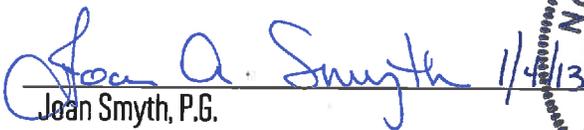
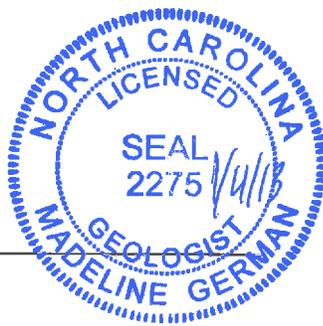
Prepared For:

**Davidson County Integrated Solid Waste  
Thomasville, North Carolina 27360-0024**

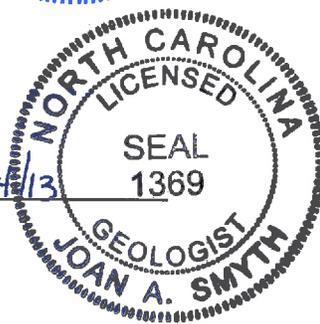
**S+G Project No. DAVDCO-13A**



Madeline German P.G.  
Project Geologist



Joan Smyth, P.G.  
Senior Hydrogeologist



**January 2013**

**SMITH+GARDNER**

14 N. Boylan Avenue, Raleigh NC 27603 | 919.828.0577

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# Davidson County Construction and Demolition Debris Landfill NC Solid Waste Permit No. 29-06

## October 2012 Groundwater Monitoring Report

### Table of Contents

		<u>Page</u>
1.0	INTRODUCTION .....	1
2.0	SITE GEOLOGY .....	1
3.0	SAMPLING LOCATIONS .....	1
4.0	SAMPLING PROCEDURES .....	2
5.0	FIELD & LABORATORY RESULTS .....	2
5.1	Field Results.....	2
5.2	Laboratory Analysis.....	2
	5.2.1 Inorganic Constituents.....	2
	5.2.2 Organic Constituents .....	3
6.0	GROUNDWATER CHARACTERIZATION .....	3
7.0	CONCLUSIONS .....	3

#### FIGURE

Figure 1                      Ground Water Potentiometric Map

#### TABLES

Table 1                      Ground Water Elevations  
 Table 2                      Field Parameters  
 Table 3                      Detected Inorganic Parameters  
 Table 4                      Detected Organic Parameters

#### APPENDICES

Appendix A                  Field Data Sheets  
 Appendix B                  Monitoring Well Information  
 Appendix C                  Laboratory Analytical Report

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## 1.0 INTRODUCTION

Smith Gardner, Inc. (S+G) was contracted by Davidson County to execute their semi-annual ground water monitoring at the Davidson County Construction and Demolition (C&D) Debris Landfill, permit number 29-06, as required by 15A NCAC 13B .0600. Sampling was conducted October 3, 2012. This report summarizes the event sampling procedures, field and laboratory results and ground water characterization as required by NC Solid Waste Regulations. Summary tables, a potentiometric map and the laboratory analytical report are also included.

## 2.0 SITE GEOLOGY

The Davidson County Landfill facility is located in the Piedmont Physiographic Province of North Carolina approximately three and a half miles northeast of the City of Lexington, NC. The Geologic Map of North Carolina (*USGS, 1985*) indicates that the site lies at the western margin of the Carolina Slate Belt; an area of predominantly volcanic and sedimentary rocks of Late Proterozoic to Cambrian age that have been metamorphosed and intruded by numerous igneous plutons. The boundary zone between the Carolina Slate Belt and the adjacent Charlotte Belt is known as the Gold Hill/Silver Hill shear zone. The site vicinity is underlain by volcanic rocks from the Flat Swamp Member of the Cid Formation and metavolcanic rocks of the Battleground Formation. This region also has numerous intrusions of metagabbro and metabasalt dikes and conformable sheets. This metagabbro typically crops out as round residual boulders that show no foliation except in the Gold Hill/Silver Hill shear zone.

The encountered lithology includes sandy silt and partially weathered rock. For this report partially weathered rock is defined as soils with a standard penetration test blow count of 100+ blows per foot.

## 3.0 SAMPLING LOCATIONS

Ground water sampling at the Davidson County C&D landfill was performed at five down-gradient ground water monitoring well locations (CDMW-2, CDMW-3, CDMW-5, CDMW-6 and CDMW-7). No surface water monitoring locations have been established for this site. A trip blank (TB) was also submitted for quality control purposes.

Please note, due to Phase 3 C&D landfill construction, CDMW-4A was abandoned in early 2011 and two new monitoring wells, CDMW-6 and CDMW-7 were installed in November 2010.

Sampling locations are shown on **Figure 1**. Boring logs and construction records are provided in **Appendix B**.

## 4.0 SAMPLING PROCEDURES

Sampling procedures followed the protocols set forth in the site's Sampling and Analysis Plan<sup>1</sup> and the North Carolina Water Quality Monitoring Guidance Document for Solid Waste Facilities (North Carolina Department of Environment and Natural Resources, Division of Waste Management). Each well was gauged to determine ground water depth and purged three to five well volumes or until dry. Field measurements for pH, specific conductivity and temperature were recorded at each well. Ground water elevations are provided in **Table 1**.

Environment 1, Inc. (NC Laboratory Certification # 10) provided laboratory prepared sample containers for the specified analytical procedures. Ground water samples were properly preserved, placed on ice and transported to the laboratory facility within the specified hold times for each analysis.

Sampling wells and locations were inspected and found to be in good condition and free of obstructions. Field logs are presented in **Appendix A**.

## 5.0 FIELD & LABORATORY RESULTS

### 5.1 Field Results

Temperature, pH, and specific conductance were measured in the field at the time of sampling via direct read instruments. The field parameter results are summarized in **Table 2** and have remained consistent with previously reported sampling events.

### 5.2 Laboratory Analysis

Samples were transported to Environment 1, Inc., in Greenville, NC, a North Carolina certified laboratory (NC Wastewater ID #10). Laboratory analysis included C&D metals via EPA Test Method 200.8, Appendix I Volatile Organic Compounds (VOCs) via EPA Test Method 8260B and additional C&D parameters for alkalinity, chloride, total dissolved residue and sulfate via SWS approved methods listed in the laboratory report. Analytical results were compared to the NC DWM Solid Waste Section Quantitation Limits (SWSLs) and 15A NCAC 2L.0200 (2LStandard). The laboratory analysis is presented in **Appendix C**.

#### 5.2.1 Inorganic Constituents

Five inorganic constituents barium (CDMW-3), copper (CDMW-3), iron (CDMW-2, CDMW-3, CDMW-5, CDMW-6 and CDMW-7), manganese (CDMW-3, CDMW-5 and CDMW-6) and zinc (CDMW-3 and CDMW-6) were detected above their respective

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<sup>1</sup> Davidson County C&D Landfill Water Quality Monitoring Plan. Richardson Smith Gardner and Associates, April 2011.

<sup>2</sup> New Guidelines for electronic submittal of environmental monitoring data memo, NCDENR DWM, Solid Waste Section, October 27, 2006.

SWSL standards. Two inorganic constituents were detected above the 2L Standard:

- iron (CDMW-2, CDMW-3, CDMW-5, CDMW-6 and CDMW-7) and
- manganese (CDMW3, CDMW-5 and CDMW-6).

The most inorganic constituents were either below the method detection limit (MDL) or were "J-values" indicating a non-quantifiable value.

No inorganics were detected above 2B Standards in surface water samples.

#### 5.2.2 Organic Constituents

No organic constituents were detected above the SWSL or 2L Standard in groundwater samples from the October 2012 sampling event.

## 6.0 GROUNDWATER CHARACTERIZATION

A potentiometric surface map was prepared from ground water data from this sampling event. Ground water at the C&D landfill flows in a generally northern direction. An ephemeral stream is located east and northeast of the C&D landfill. The potentiometric surface for the landfill property is shown on **Figure 1**.

## 7.0 CONCLUSIONS

C&D landfill analytical results indicate five inorganic constituents were detected in samples at concentrations above the SWSL, with iron and manganese detected above the 2L standard in groundwater samples. These detections are likely due to variations in these naturally occurring constituents and are not indicative of ground water impact from the landfill. The next ground water monitoring event is scheduled for April 2012. A monitoring report will be submitted with analytical data from that event

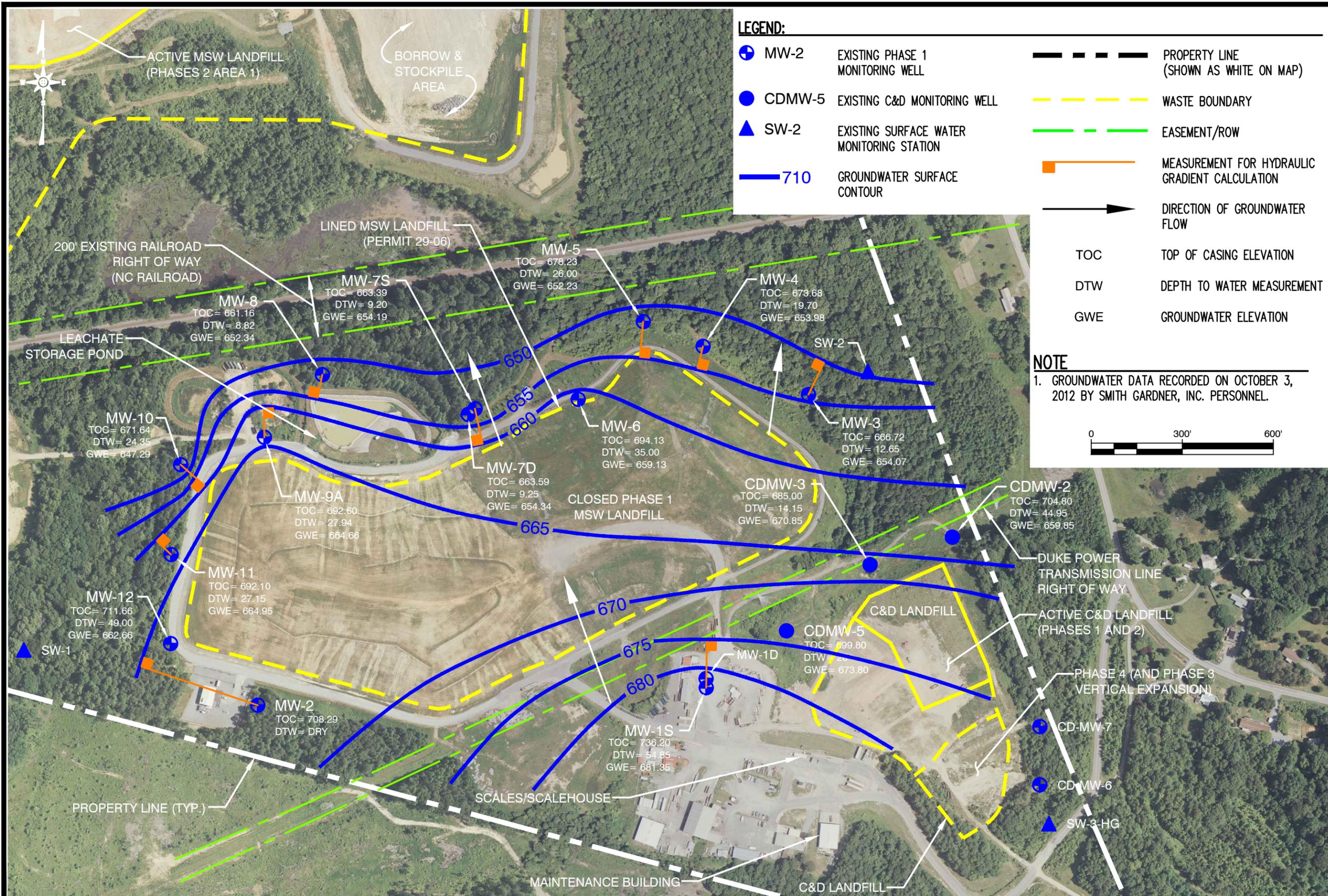
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## **FIGURES**

**October 2012 - Groundwater Monitoring Report  
Davidson County C&D Landfill  
NC Solid Waste Permit No. 29-06**

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**LEGEND:**

- MW-2 EXISTING PHASE 1 MONITORING WELL
- CDMW-5 EXISTING C&D MONITORING WELL
- ▲ SW-2 EXISTING SURFACE WATER MONITORING STATION
- 710 GROUNDWATER SURFACE CONTOUR
- PROPERTY LINE (SHOWN AS WHITE ON MAP)
- WASTE BOUNDARY
- EASEMENT/ROW
- MEASUREMENT FOR HYDRAULIC GRADIENT CALCULATION
- DIRECTION OF GROUNDWATER FLOW
- TOC TOP OF CASING ELEVATION
- DTW DEPTH TO WATER MEASUREMENT
- GWE GROUNDWATER ELEVATION

**NOTE**

1. GROUNDWATER DATA RECORDED ON OCTOBER 3, 2012 BY SMITH GARDNER, INC. PERSONNEL.



PREPARED BY: **SMITH+GARDNER**  
NC LIC. NO. C-9828 (ENGINEERING)  
14 N. Boylan Avenue, Raleigh NC 27603 | 919.828.0577

DRAWN: J.A.L.	SCALE: AS SHOWN	FIGURE NO: 1	PROJECT NO: DAVDCO-13A
DATE: Jan 2013	APPROVED:	FILENAME: DAVDCO-B0710	

**POTENTIOMETRIC SURFACE MAP**  
**FALL 2012**  
**CLOSED PHASE 1 AND C&D**  
**DAVIDSON COUNTY, NC**

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## **TABLES**

**October 2012 – Groundwater Monitoring Report  
Davidson County C&D Landfill  
Solid Waste Permit No. 29-06**

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**Table 1  
Ground Water Elevations  
Davidson County C&D Landfill  
10/2/2012**

<b>Well</b>	<b>Northing</b>	<b>Easting</b>	<b>TOC Elevation (feet)</b>	<b>Water Level (feet)</b>	<b>GW Elev (feet)</b>
CDMW-2	763805.91	1651700.59	704.80	44.95	659.85
CDMW-3	763715.69	1651429.31	685.00	14.15	670.85
CDMW-5	763497.87	1651153.73	699.80	26.00	673.80
CDMW-6	NA	NA	NA	15.57	NA
CDMW-7	NA	NA	NA	33.60	NA

- Survey data reported by Michael Green and Associates.
- CDMW-4 was abandoned and new monitoring locations CDMW-6 and CDMW-7 were installed.
- CDMW-6 and 7 have not yet been surveyed, estimated locations provided on Figure 1.

**Table 2  
Field Parameters  
Davidson County C&D Landfill  
10/2/2012**

<b>Well</b>	<b>pH (Std Units)</b>	<b>Conductivity (uhmos/cm)</b>	<b>Temperature (Celsius)</b>	<b>Turbidity (NTU)</b>
CDMW-2	5.9	255	16.75	-
CDMW-3	6.0	624	18.84	-
CDMW-5	6.13	288	16.53	-
CDMW-6	5.79	173	14.43	-
CDMW-7	6.6	249	16	-

Notes: - Data Collected by Don Misenheimer of S+G.  
 - CDMW-4 was abandoned and new monitoring locations CDMW-6 and CDMW-7 were installed prior to sampling.  
 Turbidity not measured due to equipment malfunction

Table 3  
Detected Inorganic Parameters  
Davidson County C&D Landfill  
10/2/2012

Constituent	SWSL	2L or GWP	MDL	CDMW-2	CDMW-3	CDMW-5	CDMW-6	CDMW-7
total alkalinity	NE	NE	1000	48000	216000	68000	43000	117000
chloride	NE	250000	5000	19000	49000	39000	27000	20000
total dissolved residue	NE	500000	1000	241000	498000	253000	173000	219000
sulfate	250000	250000	5000	64800 J	90700 J	27200 J	20000 J	18600 J
antimony	6	1 <sup>§</sup>	0.02	<0.02	<0.02	0.25 J	<0.02	0.06 J
arsenic	10	10	0.13	0.28 J	0.79 J	0.18 J	0.57 J	<0.13
barium	100	700	0.07	98 J	<b>175</b>	48.9 J	37.3 J	6.2 J
beryllium	1	4 <sup>§</sup>	0.07	<0.07	0.1 J	<0.07	0.36 J	<0.07
cadmium	1	2	0.03	0.07 J	0.08 J	0.04 J	0.07 J	<0.03
cobalt	10	1 <sup>§</sup>	0.02	0.83 J	2.5 J	1.4 J	2.7 J	0.53 J
copper	10	1000	0.06	1.5 J	<b>15</b>	0.72 J	5.8 J	3.9 J
total chromium	10	10	0.18	<0.18	2.1 J	<0.18	2.7 J	0.67 J
iron	300	300	15.9	<b>2160</b>	<b>12065</b>	<b>334</b>	<b>12310</b>	<b>1507</b>
manganese	50	50	0.16	39 J	<b>151</b>	<b>84</b>	<b>521</b>	25 J
lead	10	15	0.08	0.36 J	1.7 J	0.08 J	6.8 J	0.63 J
mercury	0	1	0.02	<0.02	0.08 J	0.03 J	<0.02	<0.02
nickel	50	100	0.06	1.6 J	6.3 J	3 J	5.5 J	1.6 J
selenium	10	20	0.17	0.22 J	1.7 J	0.6 J	<0.17	0.3 J
silver	10	20	0.10	<0.10	0.11 J	<0.10	<0.10	<0.10
thallium	5.5	0.28 <sup>§</sup>	0.07	<0.07	0.10 J	<0.07	<0.07	<0.07
vanadium	25	0.3 <sup>§</sup>	0.10	4.3 J	18.7 J	3.8 J	16.8 J	7.6 J
zinc	10	1000	0.48	7.9 J	<b>22</b>	1.6 J	<b>41</b>	2.5 J

- SWSL - Solid Waste Section Quantitation Limits
- 2L - Groundwater Standards (15A NCAC 2L 0200)
- GWP - Groundwater Protection Standards (noted by <sup>§</sup>)
- MDL - Method Detection Limit
- Shading - Detection above 2L Standard
- Bold Letters - Constituents detected above SWSL
- J - Detected between MDL and SWSL limit
- ND - Not detected at or above MDL

Table units are presented in ug/l.  
Lab data analysis by Environment 1, Inc. report dated 10/26/2012, ID#6050.

**Table 4**  
**Detected Organic Parameters**  
**Davidson County C&D Landfill**  
**10/2/2012**

<b>Constituent</b>	<b>SWSL</b>	<b>2L</b>	<b>MDL</b>	<b>CDMW-3</b>	<b>CDMW-5</b>
1,1-dichloroethane	5	6	0.20	0.5 J	<0.20
tetrahydrofuran	NE	NE	0.39	26.9	0.70 J

- SWSL - Solid Waste Section Quantitation Limits
- 2L - Groundwater Standards (15A NCAC 2L 0200)
- MDL - Method Detection Limit
- Shading - Detection above 2L Standard
- Bold Letters - Constituents detected above SWSL
- J - Detected between MDL and SWSL limit
- ND - Not detected at or above MDL

Table units are presented in ug/l.  
Lab data analysis by Environment 1, Inc. report dated 10/26/2012, ID#6050.

## **Appendix A**

### **Field Data Sheets**

**October 2012 – Groundwater Monitoring Report  
Davidson County C&D Landfill  
Solid Waste Permit No. 29-06**

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This checklist is provided to inform our clients about the health and maintenance of their groundwater monitoring wells. This checklist provides no information pertaining to groundwater quality, but focuses on the physical characteristics of the well and its vicinity.

Site: DAVIDSON (C+D) Date: 10.2.12  
 Well ID: MW-1 Initials: AD

Please mark the appropriate box for the following areas of concern. If you answer NO, please explain in the comment box.

		YES	NO
<b>1. Well Vicinity</b>			
A. Well is assessable and surrounding area is safe for employees.	<input checked="" type="checkbox"/>		
B. Vicinity is free of potential contaminants.	<input checked="" type="checkbox"/>		
C. Dead trees, etc. not in danger of falling and damaging wells.	<input checked="" type="checkbox"/>		
D. Well is in the same location as on field maps.	<input checked="" type="checkbox"/>		
E.			
Comments/ items addressed or to be addressed:  <p style="text-align: center; font-size: 2em;">ok</p>			

		YES	NO
<b>2. Concrete Apron and Steel Case</b>			
A. Concrete apron is present and in good condition.	<input checked="" type="checkbox"/>		
B. Steel case is present and upright.	<input checked="" type="checkbox"/>		
C. Steel case is not movable and cemented in.	<input checked="" type="checkbox"/>		
D. Steel case lid opens and closes correctly with no gaps. Lock can be easily applied.	<input checked="" type="checkbox"/>		
E. Well tag is present with pertinent information.	<input checked="" type="checkbox"/>		
F. Well numbers are prominently displayed (Reflective address numbers, etc.).	<input checked="" type="checkbox"/>		
G. No evidence of tampering is present.	<input checked="" type="checkbox"/>		
H. Lock operates properly.	<input checked="" type="checkbox"/>		
I.			
Comments/ items addressed or to be addressed:  <p style="text-align: center; font-size: 2em;">ok</p>			

		YES	NO
<b>3. PVC Riser</b>			
A. Monitoring cap is present and provides a tight seal.	<input checked="" type="checkbox"/>		
B. Riser is of appropriate height (has not been cut off too low within the steel case).	<input checked="" type="checkbox"/>		
C. Riser is not loose/ easily moved.	<input checked="" type="checkbox"/>		
D. Riser does not appear cracked, broken, or brittle.	<input checked="" type="checkbox"/>		
E. No visual sign of external contamination entering well through riser.	<input checked="" type="checkbox"/>		
F.			
Comments/ items addressed or to be addressed:  <p style="text-align: center; font-size: 2em;">ok</p>			

This checklist is provided to inform our clients about the health and maintenance of their groundwater monitoring wells. This checklist provides no information pertaining to groundwater quality, but focuses on the physical characteristics of the well and its vicinity.

Site: DAVIDSON (L+D) Date: 10-2-12  
 Well ID: MW-2 Initials: MD

Please mark the appropriate box for the following areas of concern. If you answer NO, please explain in the comment box.

	YES	NO
<b>1. Well Vicinity</b>		
A. Well is assessable and surrounding area is safe for employees.	✓	
B. Vicinity is free of potential contaminants.	✓	
C. Dead trees, etc. not in danger of falling and damaging wells.	✓	
D. Well is in the same location as on field maps.	✓	
E.		
Comments/ items addressed or to be addressed:  <p style="text-align: center;">ok</p>		

	YES	NO
<b>2. Concrete Apron and Steel Case</b>		
A. Concrete apron is present and in good condition.	✓	
B. Steel case is present and upright.	✓	
C. Steel case is not movable and cemented in.	✓	
D. Steel case lid opens and closes correctly with no gaps. Lock can be easily applied.	✓	
E. Well tag is present with pertinent information.	✓	
F. Well numbers are prominently displayed (Reflective address numbers, etc.).	✓	
G. No evidence of tampering is present.	✓	
H. Lock operates properly.	✓	
I.		
Comments/ items addressed or to be addressed:  <p style="text-align: center;">ok</p>		

	YES	NO
<b>3. PVC Riser</b>		
A. Monitoring cap is present and provides a tight seal.	✓	
B. Riser is of appropriate height (has not been cut off too low within the steel case).	✓	
C. Riser is not loose/ easily moved.	✓	
D. Riser does not appear cracked, broken, or brittle.	✓	
E. No visual sign of external contamination entering well through riser.	✓	
F.		
Comments/ items addressed or to be addressed:  <p style="text-align: center;">ok</p>		

This checklist is provided to inform our clients about the health and maintenance of their groundwater monitoring wells. This checklist provides no information pertaining to groundwater quality, but focuses on the physical characteristics of the well and its vicinity.

Site: DAVIDSON (CL+D) Date: 10.2.12

Well ID: MW-3 Initials: MD

Please mark the appropriate box for the following areas of concern. If you answer NO, please explain in the comment box.

		YES	NO
<b>1. Well Vicinity</b>			
A.	Well is assessable and surrounding area is safe for employees.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
B.	Vicinity is free of potential contaminants.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
C.	Dead trees, etc. not in danger of falling and damaging wells.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
D.	Well is in the same location as on field maps.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
E.		<input type="checkbox"/>	<input type="checkbox"/>
Comments/ items addressed or to be addressed:			
OK			

		YES	NO
<b>2. Concrete Apron and Steel Case</b>			
A.	Concrete apron is present and in good condition.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
B.	Steel case is present and upright.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
C.	Steel case is not movable and cemented in.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
D.	Steel case lid opens and closes correctly with no gaps. Lock can be easily applied.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
E.	Well tag is present with pertinent information.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
F.	Well numbers are prominently displayed (Reflective address numbers, etc.).	<input checked="" type="checkbox"/>	<input type="checkbox"/>
G.	No evidence of tampering is present.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
H.	Lock operates properly.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
I.		<input type="checkbox"/>	<input type="checkbox"/>
Comments/ items addressed or to be addressed:			
OK			

		YES	NO
<b>3. PVC Riser</b>			
A.	Monitoring cap is present and provides a tight seal.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
B.	Riser is of appropriate height (has not been cut off too low within the steel case).	<input checked="" type="checkbox"/>	<input type="checkbox"/>
C.	Riser is not loose/ easily moved.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
D.	Riser does not appear cracked, broken, or brittle.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
E.	No visual sign of external contamination entering well through riser.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
F.		<input type="checkbox"/>	<input type="checkbox"/>
Comments/ items addressed or to be addressed:			
OK			

This checklist is provided to inform our clients about the health and maintenance of their groundwater monitoring wells. This checklist provides no information pertaining to groundwater quality, but focuses on the physical characteristics of the well and its vicinity.

Site: DAVIDSON (C+D) Date: 10-2-12

Well ID: MW-5 Initials: D

Please mark the appropriate box for the following areas of concern. If you answer NO, please explain in the comment box.

		YES	NO
<b>1. Well Vicinity</b>			
A. Well is assessable and surrounding area is safe for employees.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
B. Vicinity is free of potential contaminants.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
C. Dead trees, etc. not in danger of falling and damaging wells.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
D. Well is in the same location as on field maps.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
E.		<input type="checkbox"/>	<input type="checkbox"/>
Comments/ items addressed or to be addressed:			
<i>ok</i>			

		YES	NO
<b>2. Concrete Apron and Steel Case</b>			
A. Concrete apron is present and in good condition.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
B. Steel case is present and upright.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
C. Steel case is not movable and cemented in.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
D. Steel case lid opens and closes correctly with no gaps. Lock can be easily applied.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
E. Well tag is present with pertinent information.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
F. Well numbers are prominently displayed (Reflective address numbers, etc.).		<input checked="" type="checkbox"/>	<input type="checkbox"/>
G. No evidence of tampering is present.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
H. Lock operates properly.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
I.		<input type="checkbox"/>	<input type="checkbox"/>
Comments/ items addressed or to be addressed:			
<i>ok</i>			

		YES	NO
<b>3. PVC Riser</b>			
A. Monitoring cap is present and provides a tight seal.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
B. Riser is of appropriate height (has not been cut off too low within the steel case).		<input checked="" type="checkbox"/>	<input type="checkbox"/>
C. Riser is not loose/ easily moved.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
D. Riser does not appear cracked, broken, or brittle.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
E. No visual sign of external contamination entering well through riser.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
F.		<input type="checkbox"/>	<input type="checkbox"/>
Comments/ items addressed or to be addressed:			
<i>ok.</i>			

This checklist is provided to inform our clients about the health and maintenance of their groundwater monitoring wells. This checklist provides no information pertaining to groundwater quality, but focuses on the physical characteristics of the well and its vicinity.

Site: DAVIDSON (+D) Date: 10.2.12  
 Well ID: MW-6 Initials: MD

Please mark the appropriate box for the following areas of concern. If you answer NO, please explain in the comment box.

	YES	NO
<b>1. Well Vicinity</b>		
A. Well is assessable and surrounding area is safe for employees.	✓	
B. Vicinity is free of potential contaminants.	✓	
C. Dead trees, etc. not in danger of falling and damaging wells.	✓	
D. Well is in the same location as on field maps.	✓	
E.		
Comments/ items addressed or to be addressed:  <p style="text-align: center; color: purple;">ok.</p>		

	YES	NO
<b>2. Concrete Apron and Steel Case</b>		
A. Concrete apron is present and in good condition.	✓	
B. Steel case is present and upright.	✓	
C. Steel case is not movable and cemented in.	✓	
D. Steel case lid opens and closes correctly with no gaps. Lock can be easily applied.	✓	
E. Well tag is present with pertinent information.	✓	
F. Well numbers are prominently displayed (Reflective address numbers, etc.).	✓	
G. No evidence of tampering is present.	✓	
H. Lock operates properly.	✓	
I.		
Comments/ items addressed or to be addressed:  <p style="text-align: center; color: purple;">ok</p>		

	YES	NO
<b>3. PVC Riser</b>		
A. Monitoring cap is present and provides a tight seal.	✓	
B. Riser is of appropriate height (has not been cut off too low within the steel case).	✓	
C. Riser is not loose/ easily moved.	✓	
D. Riser does not appear cracked, broken, or brittle.	✓	
E. No visual sign of external contamination entering well through riser.	✓	
F.		
Comments/ items addressed or to be addressed:  <p style="text-align: center; color: purple;">ok</p>		

This checklist is provided to inform our clients about the health and maintenance of their groundwater monitoring wells. This checklist provides no information pertaining to groundwater quality, but focuses on the physical characteristics of the well and its vicinity.

Site: DAVIDSON (C+D) Date: 10-2-12

Well ID: MW-7 Initials: JD

Please mark the appropriate box for the following areas of concern. If you answer NO, please explain in the comment box.

		YES	NO
<b>1. Well Vicinity</b>			
A.	Well is assessable and surrounding area is safe for employees.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
B.	Vicinity is free of potential contaminants.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
C.	Dead trees, etc. not in danger of falling and damaging wells.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
D.	Well is in the same location as on field maps.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
E.		<input type="checkbox"/>	<input type="checkbox"/>
Comments/ items addressed or to be addressed:			
<i>ok</i>			

		YES	NO
<b>2. Concrete Apron and Steel Case</b>			
A.	Concrete apron is present and in good condition.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
B.	Steel case is present and upright.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
C.	Steel case is not movable and cemented in.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
D.	Steel case lid opens and closes correctly with no gaps. Lock can be easily applied.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
E.	Well tag is present with pertinent information.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
F.	Well numbers are prominently displayed (Reflective address numbers, etc.).	<input checked="" type="checkbox"/>	<input type="checkbox"/>
G.	No evidence of tampering is present.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
H.	Lock operates properly.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
I.		<input type="checkbox"/>	<input type="checkbox"/>
Comments/ items addressed or to be addressed:			
<i>ok</i>			

		YES	NO
<b>3. PVC Riser</b>			
A.	Monitoring cap is present and provides a tight seal.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
B.	Riser is of appropriate height (has not been cut off too low within the steel case).	<input checked="" type="checkbox"/>	<input type="checkbox"/>
C.	Riser is not loose/ easily moved.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
D.	Riser does not appear cracked, broken, or brittle.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
E.	No visual sign of external contamination entering well through riser.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
F.		<input type="checkbox"/>	<input type="checkbox"/>
Comments/ items addressed or to be addressed:			
<i>ok</i>			

## **Appendix B**

### **Monitoring Well Information**

**October 2012 – Groundwater Monitoring Report  
Davidson County C&D Landfill  
NC Solid Waste Permit No. 29-06**

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FIELD BOREHOLE LOG		BOREHOLE NUMBER B-6
PROJECT NUMBER: Davdco-14 PROJECT NAME: Davideon County Landfill LOCATION: Lexington, North Carolina DRILLING COMPANY: Engineering Tectonics RIG TYPE & NUMBER: MOBILE B-50 DRILLING METHOD: Hollow Stem/Air Rotary/Hammer WEATHER: Sunny, 95 DEGREES FIELD PARTY: R. Barron GEOLOGIST: P. May DATE BEGUN: 7/16/98		TOP OF CASING ELEVATION: TBD TOTAL DEPTH: 51.0 FT GROUND SURFACE ELEVATION: TBD SHEET: 1 OF 2
STATIC WATER LEVEL (BLS) WD=While Drilling AB=After Boring		
DATE COMPLETED: 7/16/98		Depth(Ft): - Time: - Date: -

DEPTH	BLDN COUNTS	SAMPLING METHOD	SAMPLE NUMBER	MOISTURE	CONSISTANCY	SAMPLE RECOVERY	DRILL METHOD	LITHOLOGY DESCRIPTION	DEPTH	LITHOLOGY	WELL INSTALLATION
1.0							AR	<p><b>SAND:</b> Tan orange fine to medium with some coarse sand mottled with iron and manganese, SP.</p>	1.0		
0.0									0.0		
1.0									1.0		
2.0									2.0		
3.0	10	Ss	S1						3.0		
4.0	15								4.0		
5.0	18								5.0		
6.0									6.0		
7.0									7.0		
8.0	17	Ss	S2						8.0		
9.0	26								9.0		
10.0	34								10.0		
11.0									11.0		
12.0								12.0			
13.0	50/5	Ss	S3					13.0			
14.0								14.0			
15.0								15.0			
16.0								16.0			
17.0								17.0			
18.0	50/4	Ss	S4					18.0			
19.0								19.0			
20.0								20.0			
21.0								21.0			
22.0								22.0			
23.0							AH	<p><b>GRANITE:</b> Tan and gray granite. Dry.</p>	23.0		
24.0								24.0			

FIELD BOREHOLE LOG		BOREHOLE NUMBER B-6
PROJECT NUMBER: Davdco-14 PROJECT NAME: Davidson County Landfill LOCATION: Lexington, North Carolina DRILLING COMPANY: Engineering Tectonics RIG TYPE & NUMBER: MOBILE B-50 DRILLING METHOD: Hollow Stem/Air Rotary/Hammer WEATHER: Sunny, 95 DEGREEE6 FIELD PARTY: R. Barron GEOLGIST: P. May DATE BEGUN: 7/16/98	TOP OF CASING ELEVATION: TBD TOTAL DEPTH: 51.0 FT GROUND SURFACE ELEVATION: TBD SHEET: 2 OF 2	
STATIC WATER LEVEL (BLS) WD=While Drilling AB=After Boring		
Depth(ft)	-	-
Time	-	-
Date	-	-

DEPTH	BLOW COUNTS	SAMPLING METHOD	SAMPLE NUMBER	MOISTURE	CONSISTANCY	SAMPLE RECOVERY	DRILL METHOD	LITHOLOGY DESCRIPTION	DEPTH	LITHOLOGY	WELL INSTALLATION			
25.0								GRANITE: Tan and gray granite. Dry.	25.0					
26.0														
27.0														
28.0		G	S5											
29.0														
30.0														
31.0														
32.0														
33.0		G	S6											
34.0														
35.0														
36.0														
37.0														
38.0		G	S7											
39.0														
40.0														
41.0														
42.0														
43.0		G	S8											
44.0														
45.0														
46.0														
47.0														
48.0		G	S9											
49.0														
50.0														
51.0														
									GRANITE: Gray and tan granite. Darker than above. Water seam at 51 feet. Boring terminated.					





**G. N. Richardson & Associates, Inc.**  
 14 North Boylan Avenue, Raleigh NC 27603  
 (919) 828-0577

**FIELD BOREHOLE LOG**

BOREHOLE NUMBER **CDMW-4a** Page 1 of 2

PROJECT NAME: **Davidson County C&D Landfill**  
 LOCATION: **Lexington, NC**  
 DRILLING CO: **Engineering Tectonics, P.A.**  
 DRILLING METHOD: **AR/AH**  
 FIELD PARTY: **R. Barron**  
 GEOLOGIST: **J. Smyth**  
 DATE BEGUN: **1/24/06** COMPLETED: **1/24/06**

TOTAL DEPTH: **78**  
 GROUND SURFACE ELEVATION: **NA**  
 TOP OF CASING ELEVATION:

STATIC WATER LEVEL (BLS)		
Depth (ft)		
Time		
Date		

DEPTH	BLOW COUNT	SAMPLING METHOD	RECOVERY	DRILL METHOD	DESCRIPTION	LITHOLOGY	DEPTH	WELL INSTALLATION
-------	------------	-----------------	----------	--------------	-------------	-----------	-------	-------------------

0.0				AR	SAND: Highly weathered partially weathered rock, granitic sand rock, dry. Auger refusal at 17 feet		0.0	
1.0							1.0	
2.0							2.0	
3.0		Grab					3.0	
4.0							4.0	
5.0					5.0			
6.0					6.0			
7.0					7.0			
8.0					8.0			
9.0					9.0			
10.0		Grab			10.0			
11.0					11.0			
12.0					12.0			
13.0					13.0			
14.0					14.0			
15.0		Grab			15.0			
16.0					16.0			
17.0				AH	GRANITE: Weathered granite, dry.		17.0	
18.0							18.0	
19.0							19.0	
20.0							20.0	
21.0		Grab					21.0	
22.0					22.0			
23.0					23.0			
24.0					24.0			
25.0					25.0			
26.0					26.0			
27.0					27.0			
28.0		Grab			28.0			
29.0					29.0			
30.0		Grab			30.0			
31.0					SANDY SILT: Soil seam of sandy silt, dry.		31.0	
32.0							32.0	
33.0		Grab			GRANITE: Weathered granite, dry.		33.0	
34.0							34.0	
35.0							35.0	
36.0		Grab					36.0	
37.0							37.0	
38.0					38.0			
39.0					39.0			





**G. N. Richardson & Associates, Inc.**  
 14 North Boylan Avenue, Raleigh NC 27603  
 (919) 828-0577

**FIELD BOREHOLE LOG**

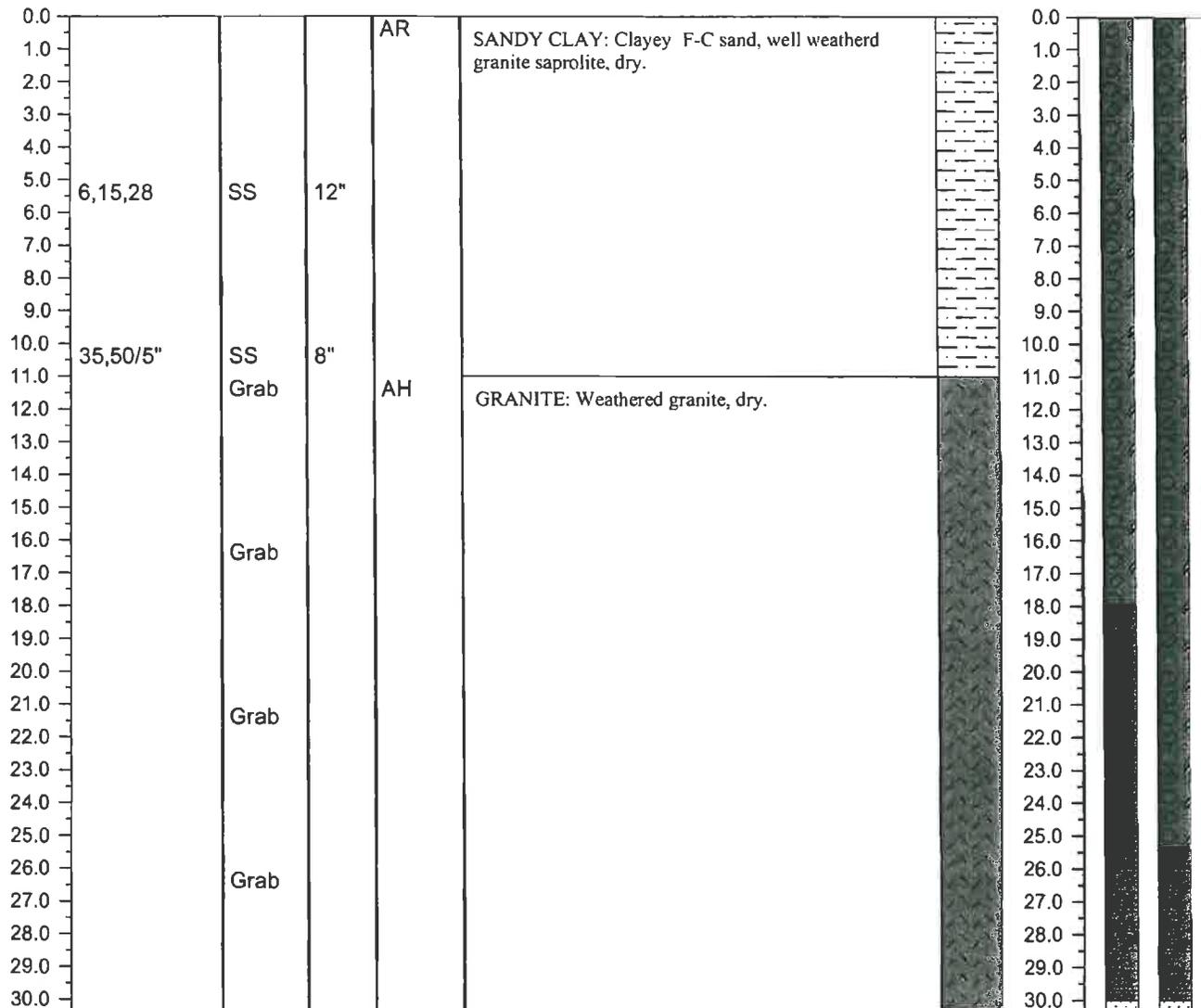
BOREHOLE NUMBER **CDMW-5** Page 1 of 2

PROJECT NAME: **Davidson County C&D Landfill**  
 LOCATION: **Lexington, NC**  
 DRILLING CO: **Engineering Tectonics, P.A.**  
 DRILLING METHOD: **AR/AH**  
 FIELD PARTY: **R. Barron**  
 GEOLOGIST: **J. Smyth**  
 DATE BEGUN: **1/30/06** COMPLETED: **1/30/06**

TOTAL DEPTH: **47**  
 GROUND SURFACE ELEVATION: **NA**  
 TOP OF CASING ELEVATION:

STATIC WATER LEVEL (BLS)		
Depth (ft)		
Time		
Date		

DEPTH	BLOW COUNT	SAMPLING METHOD	RECOVERY	DRILL METHOD	DESCRIPTION	LITHOLOGY	DEPTH	WELL INSTALLATION
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**G. N. Richardson & Associates, Inc.**14 North Boylan Avenue, Raleigh NC 27603  
(919) 828-0577**FIELD BOREHOLE LOG**

BOREHOLE NUMBER CDMW-5

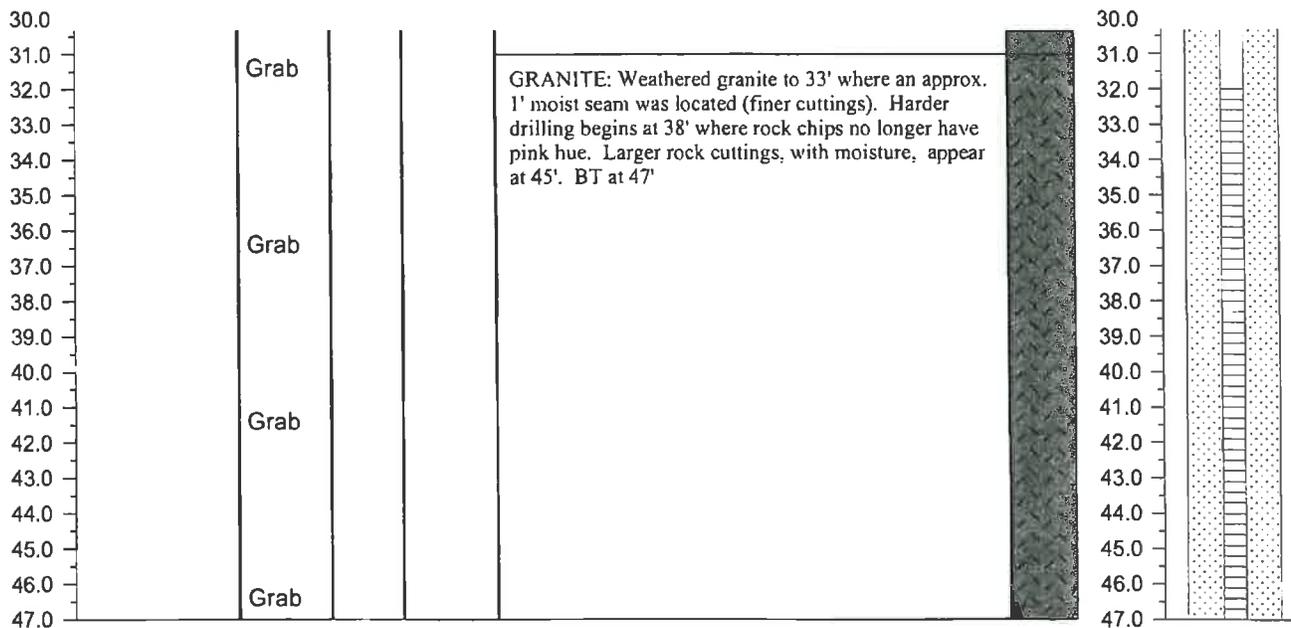
Page 2 of 2

PROJECT NAME: Davidson County C&D Landfill  
 LOACATION: Lexington, NC  
 DRILLING CO: Engineering Tectonics, P.A.  
 DRILLING METHOD: AR/AH  
 FIELD PARTY: R. Barron  
 GEOLOGIST: J. Smyth  
 DATE BEGUN: 1/30/06 COMPLETED: 1/30/06

TOTAL DEPTH: 47  
 GROUND SURFACE ELEVATION: NA  
 TOP OF CASING ELEVATION:

STATIC WATER LEVEL (BLS)		
Depth (ft)		
Time		
Date		

DEPTH	BLOW COUNT	SAMPLING METHOD	RECOVERY	DRILL METHOD	DESCRIPTION	LITHOLOGY	DEPTH	WELL INSTALLATION
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## **Appendix C**

### **Laboratory Analytical Report**

**October 2012 – Groundwater Monitoring Report  
Davidson County C&D Landfill  
NC Solid Waste Permit No. 29-06**

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# Environment 1, Incorporated

Drinking Water ID: 37715  
Wastewater ID: 10

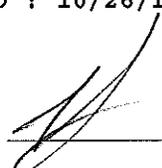
P.O. BOX 7085, 114 OAKMONT DRIVE  
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208  
FAX (252) 756-0633

ID#: 6050

DAVIDSON COUNTY LANDFILL (C&D)  
MS. JOAN SMYTH  
SMITH GARDNER, INC.  
14 NORTH BOYLAN AVE.  
RALEIGH, NC 27603

DATE COLLECTED: 10/02/12  
DATE REPORTED : 10/26/12

REVIEWED BY: 

PARAMETERS	MDL	SWSL	CDMW-2	CDMW-3	CDMW-5	CDMW-6	CDMW-7	Analysis Date	Method
								Analyst	Code
Total Alkalinity (to pH 4.5), mg/l	1.0	1.0	48	216	68	43	117	10/05/12TRB	2320B-97
Chloride, mg/l	5.0	5.0	19	49	39	27	20	10/05/12MSG	4500CLB-97
Total Dissolved Residue, mg/l	1.0	1.0	241	498	253	173	219	10/09/12HLB	2540C-97
Sulfate, mg/l	5.0	250.0	64.8 J	90.7 J	27.2 J	20.0 J	18.6 J	10/08/12TRB	4500S042E97
Antimony, ug/l	0.02	6.0	---	U				10/12/12CMF	EPA200.8
Antimony, ug/l	0.02	6.0			0.25 J		0.06 J	10/15/12LFJ	EPA200.8
Arsenic, ug/l	0.13	10.0	0.28 J			0.57 J		10/12/12CMF	EPA200.8
Arsenic, ug/l	0.13	10.0		0.79 J	0.18 J		---	10/15/12LFJ	EPA200.8
Barium, ug/l	0.07	100.0	98.0 J			37.3 J		10/12/12CMF	EPA200.8
Barium, ug/l	0.07	100.0		175	48.9 J		6.2 J	10/15/12LFJ	EPA200.8
Beryllium, ug/l	0.07	1.0	---	U		0.36 J		10/12/12CMF	EPA200.8
Beryllium, ug/l	0.07	1.0		0.10 J	---	U	---	10/15/12LFJ	EPA200.8
Cadmium, ug/l	0.03	1.0	0.07 J			0.07 J		10/12/12CMF	EPA200.8
Cadmium, ug/l	0.03	1.0		0.08 J	0.04 J		---	10/15/12LFJ	EPA200.8
Cobalt, ug/l	0.02	10.0	0.83 J			2.7 J		10/12/12CMF	EPA200.8
Cobalt, ug/l	0.02	10.0		2.5 J	1.4 J		0.53 J	10/15/12LFJ	EPA200.8
Copper, ug/l	0.06	10.0	1.5 J			5.8 J		10/12/12CMF	EPA200.8
Copper, ug/l	0.06	10.0		15	0.72 J		3.9 J	10/15/12LFJ	EPA200.8
Total Chromium, ug/l	0.18	10.0	---	U		2.7 J		10/12/12CMF	EPA200.8
Total Chromium, ug/l	0.18	10.0		2.1 J	---	U	0.67 J	10/15/12LFJ	EPA200.8
Iron, ug/l	15.9	300.0	2160	12065	334	12310	1507	10/17/12ADD	3111B-99
Manganese, ug/l	0.16	50.0	39 J			521	25 J	10/12/12LFJ	EPA200.8
Manganese, ug/l	0.16	50.0		151	84			10/16/12LFJ	EPA200.7
Lead, ug/l	0.08	10.0	0.36 J			6.8 J		10/12/12CMF	EPA200.8
Lead, ug/l	0.08	10.0		1.7 J	0.08 J		0.63 J	10/15/12LFJ	EPA200.8
Mercury, ug/l	0.02	0.20	---	U		---	U	10/12/12CMF	EPA200.8
Mercury, ug/l	0.02	0.20		0.08 J	0.03 J		---	10/15/12LFJ	EPA200.8
Nickel, ug/l	0.06	50.0	1.6 J			5.5 J		10/12/12CMF	EPA200.8
Nickel, ug/l	0.06	50.0		6.3 J	3.0 J		1.6 J	10/15/12LFJ	EPA200.8
Selenium, ug/l	0.17	10.0	0.22 J			---	U	10/12/12CMF	EPA200.8
Selenium, ug/l	0.17	10.0		1.7 J	0.60 J		0.30 J	10/15/12LFJ	EPA200.8
Silver, ug/l	0.10	10.0	---	U		---	U	10/12/12CMF	EPA200.8
Silver, ug/l	0.10	10.0		0.11 J	---	U	---	10/15/12LFJ	EPA200.8
Thallium, ug/l	0.07	5.5	---	U		---	U	10/12/12CMF	EPA200.8
Thallium, ug/l	0.07	5.5		0.10 J	---	U	---	10/15/12LFJ	EPA200.8
Vanadium, ug/l	0.10	25.0	4.3 J			16.8 J		10/12/12CMF	EPA200.8
Vanadium, ug/l	0.10	25.0		18.7 J	3.8 J		7.6 J	10/15/12LFJ	EPA200.8
Zinc, ug/l	0.48	10.0	7.9 J			41		10/12/12CMF	EPA200.8
Zinc, ug/l	0.48	10.0		22	1.6 J		2.5 J	10/15/12LFJ	EPA200.8

J = Between MDL and SWSL, U = Below ALL Quantitation Limits.

# Environment 1, Incorporated

Drinking Water ID: 37715  
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE  
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208  
FAX (252) 756-0633

CLIENT: DAVIDSON COUNTY LANDFILL (C&D)  
MS. JOAN SMYTH  
SMITH GARDNER, INC.  
14 NORTH BOYLAN AVE.  
RALEIGH, NC 27603

CLIENT ID: 6050

ANALYST: MAO  
DATE COLLECTED: 10/02/12  
DATE ANALYZED: 10/10/12  
DATE REPORTED: 10/26/12

Page: 1

REVIEWED BY: 

## VOLATILE ORGANICS EPA METHOD 8260B R1(96)

PARAMETERS, ug/l	MDL	SWSL	CDMW-2	CDMW-3	CDMW-5	CDMW-6	CDMW-7
1. Chloromethane	0.77	1.0	-- U	--- U	--- U	--- U	--- U
2. Vinyl Chloride	0.63	1.0	-- U	--- U	--- U	--- U	--- U
3. Bromomethane	0.67	10.0	-- U	--- U	--- U	--- U	--- U
4. Chloroethane	0.48	10.0	-- U	--- U	--- U	--- U	--- U
5. Trichlorofluoromethane	0.24	1.0	-- U	--- U	--- U	--- U	--- U
6. 1,1-Dichloroethene	0.17	5.0	-- U	--- U	--- U	--- U	--- U
7. Acetone	9.06	100.0	-- U	--- U	--- U	--- U	--- U
8. Iodomethane	0.26	10.0	-- U	--- U	--- U	--- U	--- U
9. Carbon Disulfide	0.23	100.0	-- U	--- U	--- U	--- U	--- U
10. Methylene Chloride	0.64	1.0	-- U	--- U	--- U	--- U	--- U
11. trans-1,2-Dichloroethene	0.23	5.0	-- U	--- U	--- U	--- U	--- U
12. 1,1-Dichloroethane	0.20	5.0	-- U	0.50 J	--- U	--- U	--- U
13. Vinyl Acetate	0.20	50.0	-- U	--- U	--- U	--- U	--- U
14. Cis-1,2-Dichloroethene	0.25	5.0	-- U	--- U	--- U	--- U	--- U
15. 2-Butanone	2.21	100.0	-- U	--- U	--- U	--- U	--- U
16. Bromochloromethane	0.27	3.0	-- U	--- U	--- U	--- U	--- U
17. Chloroform	0.25	5.0	-- U	--- U	--- U	--- U	--- U
18. 1,1,1-Trichloroethane	0.19	1.0	-- U	--- U	--- U	--- U	--- U
19. Carbon Tetrachloride	0.22	1.0	-- U	--- U	--- U	--- U	--- U
20. Benzene	0.24	1.0	-- U	--- U	--- U	--- U	--- U
21. 1,2-Dichloroethane	0.27	1.0	-- U	--- U	--- U	--- U	--- U
22. Trichloroethene	0.23	1.0	-- U	--- U	--- U	--- U	--- U
23. 1,2-Dichloropropane	0.21	1.0	-- U	--- U	--- U	--- U	--- U
24. Bromodichloromethane	0.21	1.0	-- U	--- U	--- U	--- U	--- U
25. Cis-1,3-Dichloropropene	0.24	1.0	-- U	--- U	--- U	--- U	--- U
26. 4-Methyl-2-Pentanone	1.19	100.0	-- U	--- U	--- U	--- U	--- U
27. Toluene	0.23	1.0	-- U	--- U	--- U	--- U	--- U
28. trans-1,3-Dichloropropene	0.28	1.0	-- U	--- U	--- U	--- U	--- U
29. 1,1,2-Trichloroethane	0.25	1.0	-- U	--- U	--- U	--- U	--- U
30. Tetrachloroethene	0.17	1.0	-- U	--- U	--- U	--- U	--- U
31. 2-Hexanone	1.57	50.0	-- U	--- U	--- U	--- U	--- U
32. Dibromochloromethane	0.24	3.0	-- U	--- U	--- U	--- U	--- U
33. 1,2-Dibromoethane	0.26	1.0	-- U	--- U	--- U	--- U	--- U
34. Chlorobenzene	0.30	3.0	-- U	--- U	--- U	--- U	--- U
35. 1,1,1,2-Tetrachloroethane	0.22	5.0	-- U	--- U	--- U	--- U	--- U
36. Ethylbenzene	0.21	1.0	-- U	--- U	--- U	--- U	--- U
37. Xylenes	0.68	5.0	-- U	--- U	--- U	--- U	--- U
38. Dibromomethane	0.28	10.0	-- U	--- U	--- U	--- U	--- U
39. Styrene	0.19	1.0	-- U	--- U	--- U	--- U	--- U
40. Bromoform	0.20	3.0	-- U	--- U	--- U	--- U	--- U
41. 1,1,2,2-Tetrachloroethane	0.26	3.0	-- U	--- U	--- U	--- U	--- U
42. 1,2,3-Trichloropropane	0.43	1.0	-- U	--- U	--- U	--- U	--- U
43. 1,4-Dichlorobenzene	0.39	1.0	-- U	--- U	--- U	--- U	--- U
44. 1,2-Dichlorobenzene	0.32	5.0	-- U	--- U	--- U	--- U	--- U
45. 1,2-Dibromo-3-Chloropropane	0.34	13.0	-- U	--- U	--- U	--- U	--- U
46. Acrylonitrile	2.72	200.0	-- U	--- U	--- U	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.42	100.0	-- U	--- U	--- U	--- U	--- U
48. Tetrahydrofuran	0.39	1.0	-- U	26.90	0.70 J	--- U	--- U

J = Between MDL and SWSL, U = Below ALL Quantitation Limits.

# Environment 1, Incorporated

Drinking Water ID: 37715  
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE  
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208  
FAX (252) 756-0633

CLIENT: DAVIDSON COUNTY LANDFILL (C&D)  
MS. JOAN SMYTH  
SMITH GARDNER, INC.  
14 NORTH BOYLAN AVE.  
RALEIGH, NC 27603

CLIENT ID: 6050  
ANALYST: MAO  
DATE COLLECTED: 10/02/12  
DATE ANALYZED: 10/10/12  
DATE REPORTED: 10/26/12

Page: 2

REVIEWED BY: 

## VOLATILE ORGANICS EPA METHOD 8260B R1 (96)

PARAMETERS, ug/l	MDL	SWSL	Trip Blank
1. Chloromethane	0.77	1.0	--- U
2. Vinyl Chloride	0.63	1.0	--- U
3. Bromomethane	0.67	10.0	--- U
4. Chloroethane	0.48	10.0	--- U
5. Trichlorofluoromethane	0.24	1.0	--- U
6. 1,1-Dichloroethene	0.17	5.0	--- U
7. Acetone	9.06	100.0	--- U
8. Iodomethane	0.26	10.0	--- U
9. Carbon Disulfide	0.23	100.0	--- U
10. Methylene Chloride	0.64	1.0	--- U
11. trans-1,2-Dichloroethene	0.23	5.0	--- U
12. 1,1-Dichloroethane	0.20	5.0	--- U
13. Vinyl Acetate	0.20	50.0	--- U
14. Cis-1,2-Dichloroethene	0.25	5.0	--- U
15. 2-Butanone	2.21	100.0	--- U
16. Bromochloromethane	0.27	3.0	--- U
17. Chloroform	0.25	5.0	--- U
18. 1,1,1-Trichloroethane	0.19	1.0	--- U
19. Carbon Tetrachloride	0.22	1.0	--- U
20. Benzene	0.24	1.0	--- U
21. 1,2-Dichloroethane	0.27	1.0	--- U
22. Trichloroethene	0.23	1.0	--- U
23. 1,2-Dichloropropane	0.21	1.0	--- U
24. Bromodichloromethane	0.21	1.0	--- U
25. Cis-1,3-Dichloropropene	0.24	1.0	--- U
26. 4-Methyl-2-Pentanone	1.19	100.0	--- U
27. Toluene	0.23	1.0	--- U
28. trans-1,3-Dichloropropene	0.28	1.0	--- U
29. 1,1,2-Trichloroethane	0.25	1.0	--- U
30. Tetrachloroethene	0.17	1.0	--- U
31. 2-Hexanone	1.57	50.0	--- U
32. Dibromochloromethane	0.24	3.0	--- U
33. 1,2-Dibromoethane	0.26	1.0	--- U
34. Chlorobenzene	0.30	3.0	--- U
35. 1,1,1,2-Tetrachloroethane	0.22	5.0	--- U
36. Ethylbenzene	0.21	1.0	--- U
37. Xylenes	0.68	5.0	--- U
38. Dibromomethane	0.28	10.0	--- U
39. Styrene	0.19	1.0	--- U
40. Bromoform	0.20	3.0	--- U
41. 1,1,2,2-Tetrachloroethane	0.26	3.0	--- U
42. 1,2,3-Trichloropropane	0.43	1.0	--- U
43. 1,4-Dichlorobenzene	0.39	1.0	--- U
44. 1,2-Dichlorobenzene	0.32	5.0	--- U
45. 1,2-Dibromo-3-Chloropropane	0.34	13.0	--- U
46. Acrylonitrile	2.72	200.0	--- U
47. trans-1,4-Dichloro-2-Butene	0.42	100.0	--- U
48. Tetrahydrofuran	0.39	1.0	--- U

J = Between MDL and SWSL, U = Below ALL Quantitation Limits.

