

**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 Closed Phase 1 Landfill	1242 Old Highway 29 Thomasville, NC 27360	29-06	0.1600	April 16-18, 2013

**Environmental Status: (Check all that apply)**  
 Initial/Background Monitoring  Detection Monitoring  Assessment Monitoring  Corrective Action

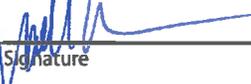
**Type of data submitted: (Check all that apply)**  
 Groundwater monitoring data from monitoring wells  Methane gas monitoring data  
 Groundwater monitoring data from private water supply wells  Corrective action data (specify) \_\_\_\_\_  
 Leachate monitoring data  Other(specify) \_\_\_\_\_  
 Surface 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.**

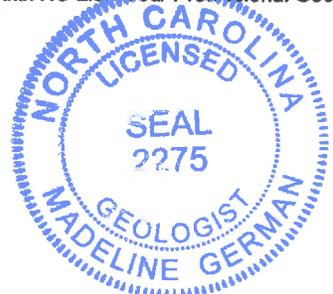
Madeline Germsn Geologist 919-828-0577 x 222  
 Facility Representative Name (Print) Title (Area Code) Telephone Number

 7/1/13  
 Signature Date

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 April 2013 Semi-Annual Event

## Davidson County Phase 1 Lined Landfill NC Solid Waste Permit No. 29-06

Prepared for:

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



**June 2013**

Prepared by:

# SMITH+GARDNER

14 N. Boylan Avenue, Raleigh NC 27603 | 919.828.0577



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# April 2013 Groundwater Monitoring Report

**Davidson County Phase 1 Lined Landfill  
NC Solid Waste Permit No. 29-06**

Prepared For:

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

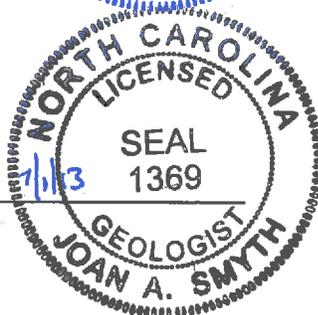
**S+G Project No. DAVDCO -4**



Madeline German, P.G.  
Project Geologist



Joan Smyth, P.G.  
Senior Hydrogeologist



**June 2013**

# SMITH + GARDNER

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# Davidson County Phase 1 Lined Landfill NC Solid Waste Permit No. 29-06

## April 2013 Groundwater Monitoring Report

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## 1.0 INTRODUCTION

Smith Gardner, Inc. (S+G) was contracted by Davidson County to perform their semi-annual ground water monitoring at the Davidson County Phase 1 Lined Landfill, permit number 29-06, as required by 15A NCAC 13B .1600. Sampling was conducted April 16-18, 2013. 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.

## 3.0 SAMPLING LOCATIONS

The groundwater monitoring network for the Davidson County Phase 1 includes thirteen monitoring wells (MW-1S, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7S, MW-7D, MW-8, MW-9A, MW-10, MW-11 and MW-12), two surface water locations (SW-1 and SW-2) and one leachate location (Leachate). Monitoring well MW-2 was dry this event; therefore, it was not sampled. SW-1 is the upstream surface water location; SW-2 is located on Jimmy's Creek downstream of the landfill. A trip blank and equipment blank were submitted for quality control purposes. Sampling locations are shown in **Figure 1**.

## 4.0 SAMPLING PROCEDURES

Sampling procedures followed the protocols set forth in the site's Water Quality Monitoring 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

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<sup>1</sup> Davidson County Water Quality Monitoring Plan, G.N. Richardson and Associates, June 1999.

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. Turbidity could not be measured this event due to equipment malfunction. 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 for groundwater included metals via EPA Test Method 200.8 and Appendix I Volatile Organic Compounds (VOCs) via EPA Test Method 8260B. Leachate samples were also sampled for BOD, COD, nitrate nitrogen, total phosphorus 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 B**.

#### **5.2.1 Inorganic Constituents**

Five inorganic constituents barium (MW-3), copper (MW-3, MW-4, MW-7S, MW-8, MW-9A and MW-11), chromium (MW-11), vanadium (MW-3 and MW-11) and zinc (MW-3, MW-4, MW-7S, MW-7D, MW-8, MW-9A and MW-11) were detected above their respective SWSL's. Only chromium in MW-11 was detected above its 2L Standard. 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**

Acetone was the only organic parameter detected this event. It was detected at a concentration above the SWSL in MW-11.

## 6.0 STATISTICAL ANALYSIS

No statistical analyses were performed on the analytical data based on the latest version of 15A NCAC 13B.1632 and .1633 effective April 1, 2011.

## 7.0 GROUNDWATER CHARACTERIZATION

A potentiometric surface map was prepared from ground water data from this sampling event. Ground water flow velocities for this sampling event were calculated for monitoring wells using the equation:

$$V = KI/n$$

where: K = hydraulic conductivity

l = ground water gradient

n = porosity

Ground water velocities in the uppermost aquifer ranged from 0.0021 feet/day (MW-1S) to 2.94 feet/day (MW-9A) and averaging 0.509 feet/day. Calculations are included in **Table 5**. Groundwater elevations indicate the flow direction is generally north and northwest across the site; which is consistent with historically reported ground water flow patterns. The potentiometric surface map is included as **Figure 1**.

## 8.0 CONCLUSIONS

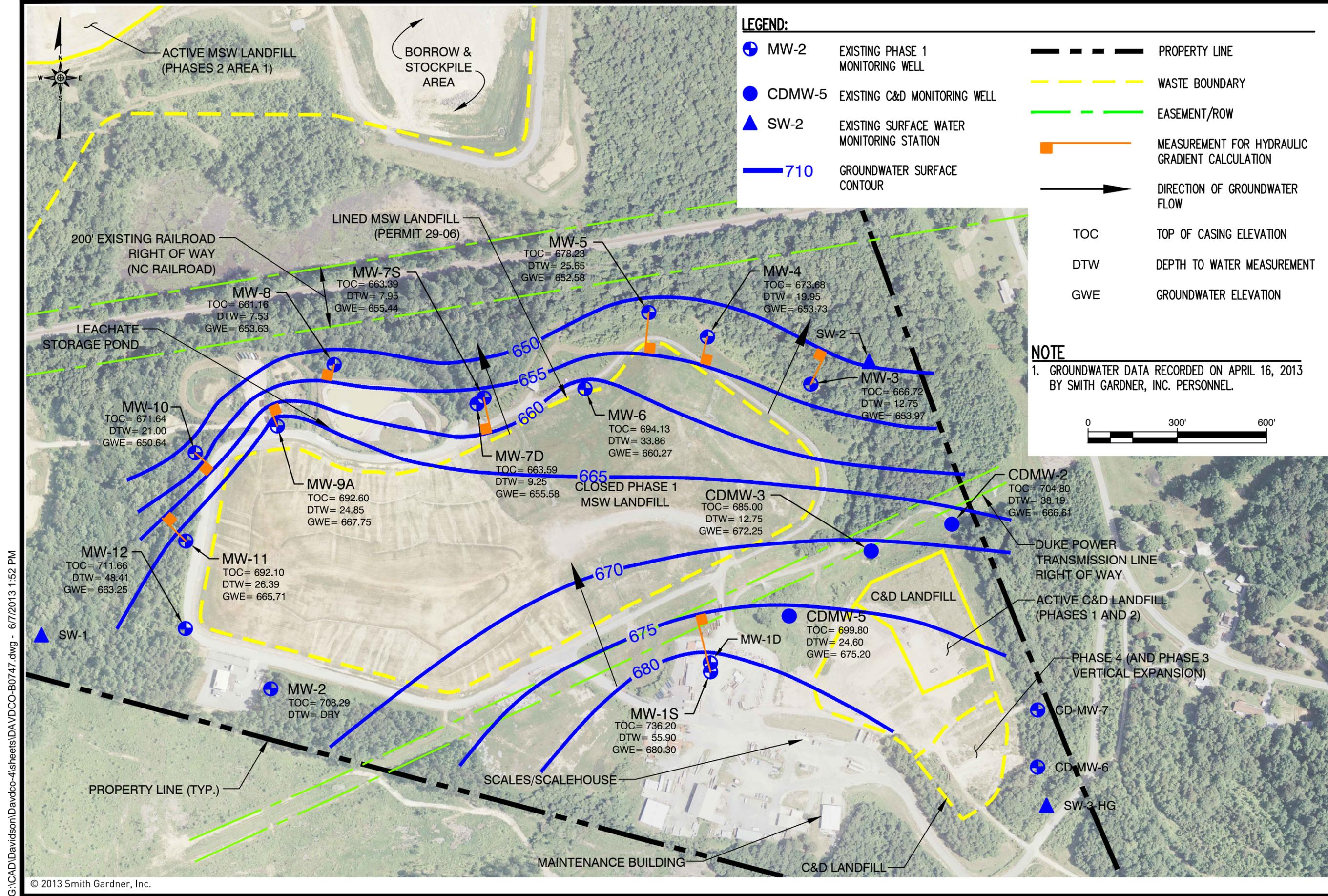
The analytical results for the Phase 1 lined landfill are consistent with reported historic inorganic detections. Barium, copper, chromium, vanadium and zinc were detected above the SWSL and chromium was detected about the 2L Standard. These detections are likely due to variations in these naturally occurring constituents and are not indicative of ground water impact from the landfill. Acetone was the only organic parameter detected above the SWSL. Acetone is commonly used in laboratories and this detection is likely from the lab. The next ground water monitoring event is tentatively scheduled for October 2013.

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## **FIGURES**

**April 2013 Groundwater Monitoring Report  
Davidson County Phased 1 Lined Landfill  
NC Solid Waste Permit No. 29-06**

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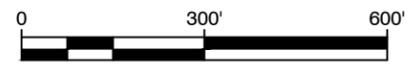


**LEGEND:**

- 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
- 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 APRIL 16, 2013 BY SMITH GARDNER, INC. PERSONNEL.



G:\CAD\Davidson\Davidco-4\sheets\DAVDCO-B0747.dwg - 6/7/2013 1:52 PM

© 2013 Smith Gardner, Inc.

<p>PREPARED BY: <b>SMITH+GARDNER</b>  <small>NC LIC. NO. C-9828 (ENGINEERING)</small>  <small>14 N. Boylan Avenue, Raleigh NC 27603   919.828.0577</small></p>	
<p>FIGURE NO. 1</p>	<p>FILENAME: DAVDCO-B0747</p>
<p>SCALE: AS SHOWN</p>	<p>PROJECT NO: DAVDCO-4</p>
<p>DRAWN: K.C.B.</p>	<p>DATE: Jun 2013</p>
<p><b>POTENTIOMETRIC SURFACE MAP</b>  <b>APRIL 2013</b>  <b>CLOSED PHASE 1 AND C&amp;D</b>  <b>DAVIDSON COUNTY, NC</b></p>	
<p>PREPARED FOR:</p>	

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## **TABLES**

**April 2013 Groundwater Monitoring Report  
Davidson County Phase 1 Lined Landfill  
Solid Waste Permit No. 29-06**

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**Table 1**  
 Groundwater Elevations  
 Davidson County Phase 1 Lined Landfill  
 April 15, 2013

Well	Northing	Easting	TOC Elevation (feet)	Water Level (feet)	GW Elev (feet)
MW-1S	763311.06	1650889.31	736.20	55.90	680.30
MW-2	763253.60	1649411.40	708.29	DRY	-
MW-3	764274.92	1651226.41	666.72	12.75	653.97
MW-4	764433.34	1650879.10	673.68	19.95	653.73
MW-5	764515.15	1650681.80	678.23	25.65	652.58
MW-6	764259.47	1650467.49	694.13	33.86	660.27
MW-7S	764228.53	1650127.95	663.39	7.95	655.44
MW-7D	764228.53	1650127.95	663.59	8.01	655.58
MW-8	764340.45	1649624.12	661.16	7.53	653.63
MW-9A	764134.52	1649433.54	692.60	24.85	667.75
MW-10	764044.52	1649157.57	671.64	21.00	650.64
MW-11	763749.09	1649125.82	692.10	26.39	665.71
MW-12	763456.03	1649124.23	711.66	48.41	663.25

Notes: Survey Data collected by Michael Green and Associates.

**Table 2**  
 Field Parameters  
 Davidson County Phase 1 Lined Landfill  
 April 15, 2013

Well	pH (Std. Units)	Conductivity (umhos)	Temperature (celsius)
MW-1	6.79	31.4	23.08
MW-3	6.51	9	19.94
MW-4	6.26	5.2	22.51
MW-5	6.80	6.1	23.25
MW-6	7.45	10.2	18.49
MW-7S	6.37	12.1	13.45
MW-7d	6.49	5.6	15.33
MW-8	6.44	13.8	15.99
MW-9A	6.96	14.3	17.51
MW-10	6.84	25.3	16.94
MW-11	6.83	30.4	16.78
MW-12	7.80	52.7	17.52
SW-1	NM	NM	NM
SW-2	7.20	170	21.87

NOTES:

Data Collected by S+G personel, Jared Lemaster and John Fearington.

NM - Not Measured

\*Turbidity unable to be measured due to equipment malfunction

**Table 3**  
 Detected Parameters  
 Davidson County Phase 1 Lined Landfill  
 April 15,2013

Parameter	MDL	SWSL	2L or GWP	2B	MW-1S	MW-3	MW-4	MW-5	MW-6	MW-7D	MW-8	MW-7S	MW-9A	MW-10	MW-11	MW-12	SW-2
<b>Inorganic Constituents</b>																	
antimony	0.02	6	1 <sup>s</sup>	640	0.02 J	<0.02	<0.02	<0.02	<0.02	0.40 J	0.05 J	0.15 J	0.03 J	<0.02	<0.02	<0.02	0.45 J
arsenic	0.05	10	10	10	0.28 J	0.51 J	0.20 J	0.26 J	<0.05	0.19 J	0.33 J	0.64 J	0.32 J	0.13 J	0.38 J	<0.05	0.73 J
barium	0.06	100	700	2000000	35.7 J	<b>221</b>	54.0 J	44.9 J	11.6 J	6.5 J	46.7 J	51.7 J	22.7 J	11.4 J	19.3 J	0.96 J	22.8 J
beryllium	0.03	1	4 <sup>s</sup>	6.5	<0.03	0.23 J	0.07 J	<0.03	<0.03	0.03 J	0.15 J	0.21 J	0.04 J	0.13 J	0.18 J	<0.03	<0.03
cadmium	0.05	1	2	2	<0.05	0.06 J	0.11 J	<0.05	0.29 J	0.26 J	<0.05	0.34 J	0.33 J	0.31 J	0.20 J	<0.05	0.08 J
cobalt	0.02	10	1 <sup>s</sup>	270	0.62 J	9.5 J	2.6 J	0.23 J	0.07 J	0.16 J	5.0 J	4.9 J	1.6 J	2.8 J	3.3 J	0.14 J	0.61 J
copper	0.06	10	1000	7	1.8 J	<b>32</b>	<b>12</b>	0.91 J	0.41 J	1.0 J	<b>12</b>	<b>22</b>	<b>11</b>	3.8 J	<b>14</b>	0.54 J	1.6 J
chromium, total	0.04	10	10	50	<0.04	3.1 J	4.8 J	<0.04	<0.04	<0.04	7.1 J	6.1 J	1.6 J	5.8 J	<b>12</b>	<0.04	0.06 J
lead	0.02	10	15	25	0.32 J	1.6 J	1.3 J	0.12 J	0.08 J	0.99 J	4.3 J	3.9 J	0.96 J	0.78 J	1.7 J	0.05 J	0.25 J
nickel	0.45	50	100	88	1.1 J	7.5 J	2.2 J	<0.45	<0.45	<0.45	4.0 J	4.0 J	4.1 J	3.9 J	6.6 J	1.1 J	0.83 J
selenium	0.06	10	20	5	1.1 J	0.29 J	0.17 J	<0.06	0.20 J	<0.06	0.30 J	0.36 J	0.68 J	0.18 J	0.31 J	0.44 J	0.42 J
silver	0.03	10	20	0.06	<0.03	0.05J	<0.03	<0.03	0.03 J	<0.03	<0.03	0.04 J	<0.03	<0.03	0.03 J	<0.03	0.03 J
thallium	0.02	5.5	0.28 <sup>s</sup>	0.47	<0.02	0.08 J	<0.02	<0.02	0.28 J	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.05 J
vanadium	0.07	25	0.3 <sup>s</sup>	NE	3.4 J	<b>36</b>	12.4 J	4.0 J	0.88 J	1.2 J	24.1 J	17.6 J	9.1 J	12.9 J	<b>28</b>	6.8 J	1.3 J
zinc	0.47	10	1000	50	3.5 J	<b>52</b>	<b>17</b>	2.2 J	2.6 J	<b>13</b>	<b>14</b>	<b>24</b>	<b>14</b>	6.0 J	<b>12</b>	2.8 J	2.7 J

**Organic Constituents**

Parameter	MDL	SWSL	2L	MW-10	MW-11
acetone	9.06	100	6000	11.6 J	<b>340</b>

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

Table units are presented in ug/l.

Lab data analysis by Environment 1, Inc. report dated 5/20/2013, ID#6038.

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**Table 4**  
 Leachate Analytical Data  
 Davidson County Phase 1 Lined Landfill  
 April 15, 2013

Parameter	Unit	Leachate
Antimony	ug/l	0.72 J
Arsenic	ug/l	1.3 J
Barium	ug/l	66.0 J
BOD	mg/l	6.8
Cobalt	ug/l	2.3 J
COD	mg/l	1401
Copper	ug/l	2.8 J
Lead	ug/l	0.05 J
Nitrate Nitrogen as N	mg/l	0.12 J
Nickel	ug/l	13.7 J
Selenium	ug/l	1.7 J
Sulfate	mg/l	40.6 J
Total Chromium	ug/l	0.95 J
Total Phosphorus as P	mg/l	0.1
Vanadium	ug/l	1.8 J
Zinc	ug/l	3.3 J

**NOTES:**

J-values indicate the parameter was detected between the laboratory MDL and the SWSL. These are estimated concentrations.

Lab data analysis by Environment 1, Inc. report dated 5/20/2013, ID#6038.

**Table 5**  
 Aquifer Conductivity and Velocity Calculations  
 Davidson County Phase 1 Lined Landfill  
 April 16, 2013

Well Number	Aquifer	Conductivity (ft/day)	Conductivity (ft/min)	Assumed Porosity (n)	Gradient (I)	Velocity (ft/day)
MW-1S	Bedrock	0.14	9.72E-05	0.1	0.002	0.0021
MW-2	Bedrock	0.17	1.18E-04	0.1	DRY	-
MW-3	Unconsolidated	0.62	4.31E-04	0.2	0.057	0.1758
MW-4	Unconsolidated	1.31	9.10E-04	0.2	0.014	0.0924
MW-5	Unconsolidated	NA	NA	NA	0.028	NA
MW-6	Bedrock	0.02	1.39E-05	0.1	0.053	0.0105
MW-7S	Unconsolidated	0.38	2.64E-04	0.15	0.065	0.1650
MW-7D	Unconsolidated	NA	NA	NA	NA	NA
MW-8	Unconsolidated	0.57	3.96E-04	0.15	0.025	0.0947
MW-9A	Unconsolidated	2.65	1.84E-03	0.1	0.111	2.9415
MW-10	Unconsolidated	0.88	6.11E-04	0.2	0.117	0.5148
MW-11	Unconsolidated	4.13	2.87E-03	0.2	0.052	1.0717
MW-12	Unconsolidated	0.58	4.03E-04	0.2	0.009	0.0254

Notes: Velocity Calculated from  $V=K*I/n$  where:  
 V = velocity  
 K = Hydraulic Conductivity  
 I = Gradient  
 n = Porosity  
 Hydraulic Conductivity data from slug tests performed in 1994  
 Porosity values assumed from Groundwater & Wells (Driscoll)  
 Survey Data collected by Michael Green and Associates.  
 Gradient calculated from Spring 2011 potentiometric surface.

NM - Not Measured  
 NA - Not Available

## **Appendix A**

### **Field Data Sheets**

**April 2013 – Groundwater Monitoring Report  
Davidson County Phase 1 Lined 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 P# 1

Date: 4/15/13

Well ID: MW-18

Initials: GRA

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:		

	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:		

	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:		

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: Paopsoo Ph 1  
 Well ID: MW-2

Date: 4/15/13  
 Initials: GRA

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 type="checkbox"/>	<input type="checkbox"/>
B. Vicinity is free of potential contaminants.	/	<input type="checkbox"/>	<input type="checkbox"/>
C. Dead trees, etc. not in danger of falling and damaging wells.	/	<input type="checkbox"/>	<input type="checkbox"/>
D. Well is in the same location as on field maps.	/	<input type="checkbox"/>	<input type="checkbox"/>
E.	/	<input type="checkbox"/>	<input type="checkbox"/>
Comments/ items addressed or to be addressed:			

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

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

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 Pt 1

Date: 4/15/13

Well ID: MW-3

Initials: JRA

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:			

		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:			

		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:			

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 PH 1

Date: 4/15/13

Well ID: MW-4

Initials: DRK

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:			

		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:			

		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:			

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 P#1

Date: 4/15/13

Well ID: MW-5

Initials: ARF

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:			

		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:			

		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:			

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 PH 1

Date: 4/15/13

Well ID: MLJ-6

Initials: GRJ

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:			

		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:			

		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:			

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 PH 1

Date: 4/15/13

Well ID: MW-75

Initials: APJ

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:		

	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:  <u>BENT CASING</u>		

	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:		

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 Pit 1

Date: 4/15/13

Well ID: MU-7D

Initials: ORF

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:			

		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:			
BROKEN HINGE			

		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:			

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: Dawson Pt 1

Date: 4/15/13

Well ID: MW-8

Initials: ORJ

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:			

		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:			
LOCK WAS CUT			

		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:			

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 PH 1  
 Well ID: MW-9A

Date: 4/15/13  
 Initials: OPJ

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 type="checkbox"/>	<input type="checkbox"/>
B. Vicinity is free of potential contaminants.	-	<input type="checkbox"/>	<input type="checkbox"/>
C. Dead trees, etc. not in danger of falling and damaging wells.	-	<input type="checkbox"/>	<input type="checkbox"/>
D. Well is in the same location as on field maps.	-	<input type="checkbox"/>	<input type="checkbox"/>
E.		<input type="checkbox"/>	<input type="checkbox"/>
Comments/ items addressed or to be addressed:			

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

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

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 ? W 1

Date: 4/15/13

Well ID: MW-10

Initials: ORA

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:			

		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:			

		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:			

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 PH 1

Date: 4/15/13

Well ID: MW-11

Initials: ORA

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:		

	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:		

	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:		

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: PAVISON PH 1

Date: 4/15/13

Well ID: MW-12

Initials: OPA

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:			

		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:			

		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:			

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## **Appendix B**

### **Monitoring Well Information**

**April 2013 – Groundwater Monitoring Report  
Davidson County Phase 1 Lined Landfill  
NC Solid Waste Permit No. 29-06**

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# FIELD BOREHOLE LOG

BOREHOLE NUMBER:

MW-10

PROJECT NUMBER: 94012  
 PROJECT NAME: DAVIDSON COUNTY  
 LOCATION: LEXINGTON, NORTH CAROLINA  
 DRILLING COMPANY: BORE AND CORE  
 RIG TYPE & NUMBER: MOBILE B-53  
 DRILLING METHOD: HOLLOW STEM AUGER AND AIR ROTARY  
 WEATHER: SUNNY  
 FIELD PARTY: KENNY MOSLEY  
 GEOLOGIST: GRAHAM SIMMERMAN  
 DATE BEGUN: 5/03/94

TOP OF CASING ELEVATION: 736.18  
 TOTAL DEPTH: 88.5  
 GROUND SURFACE ELEVATION: 735.01  
 SHEET: 1 OF: 4

STATIC WATER LEVEL (8LS)	
WD=While Drilling AB=After Boring	
Depth (ft)	51.88 AB
Time	9:37
Date	05/04/94

DATE COMPLETED: 5/03/94

DEPTH	BLON COUNTS	SAMPLING METHOD	SAMPLE NUMBER	MOISTURE	CONSISTANCY	SAMPLE RECOVERY	CGI	LITHOLOGY DESCRIPTION	LITHOLOGY	WELL INSTALLATION
2.0										
1.0										
0.0										
1.0								CLAY AND SILT: with sand; white quartz and weathered feldspar; grades into light green weathered chlorite schist.	[Hatched Pattern]	[Vertical Line]
2.0										
3.0	15	Ss	S1							
4.0	50/5									
5.0										
6.0										
7.0										
8.0										
9.0	26	Ss	S2					CLAY AND SILT: chlorite schist; light bluish green; some black stained vertical fractures; very dense; dry.	[Hatched Pattern]	[Vertical Line]
10.0	50/4									
11.0										
12.0										
13.0										
14.0	42	Ss	S3					CLAY AND SILT: bluish gray green; weathered chlorite schist; with white feldspar (talcl) veins; some black to orange stained subvertical fractures.	[Hatched Pattern]	[Vertical Line]
15.0	50/4									
16.0										
17.0										
18.0										
19.0	35	Ss	S4					CLAY AND SILT: weathered chlorite/white feldspar schist; horizontal to subvertical fractures; dry; very dense; auger refusal.	[Hatched Pattern]	[Vertical Line]
20.0	50/4									
21.0										

# FIELD BOREHOLE LOG

BOREHOLE NUMBER:

MW-1D

PROJECT NUMBER: 94012  
 PROJECT NAME: DAVIDSON COUNTY  
 LOCATION: LEXINGTON, NORTH CAROLINA  
 DRILLING COMPANY: BORE AND CORE  
 RIG TYPE & NUMBER: MOBILE B-53  
 DRILLING METHOD: AIR ROTARY  
 WEATHER: SUNNY  
 FIELD PARTY: KENNY MOBLEY  
 GEOLOGIST: GRAHAM SIMMERMAN  
 DATE BEGUN: 5/03/94

TOP OF CASING ELEVATION: 736.18  
 TOTAL DEPTH: 88.5  
 GROUND SURFACE ELEVATION: 735.01  
 SHEET: 2 OF 4

STATIC WATER LEVEL (BLS)	
HQ-White Drilling AB-After Boring	
Depth (ft)	51.88 AB
Time	9:37
Date:	05/04/94

DATE COMPLETED: 5/03/94

DEPTH	BL/DH COUNTS	SAMPLING METHOD	SAMPLE NUMBER	MOISTURE	CONSISTENCY	ORGANIC VAPOR	GRT	LITHOLOGY DESCRIPTION	LITHOLOGY	WELL INSTALLATION
21.0 22.0 23.0 24.0 25.0 26.0 27.0 28.0 29.0 30.0 31.0 32.0 33.0 34.0 35.0 36.0 37.0 38.0 39.0 40.0 41.0 42.0 43.0 44.0 45.0								SCHIST: chlorite/white feldspar schist; few horizontal to subvertical fractures.		

# FIELD BOREHOLE LOG

BOREHOLE NUMBER:

MW-10

PROJECT NUMBER: 94012  
 PROJECT NAME: DAVIDSON COUNTY  
 LOCATION: LEXINGTON, NORTH CAROLINA  
 DRILLING COMPANY: BORE AND CORE  
 RIG TYPE & NUMBER: MOBILE B-53  
 DRILLING METHOD: AIR ROTARY  
 WEATHER: SUNNY  
 FIELD PARTY: KENNY MDSLEY  
 GEOLOGIST: GRAHAM SIMMERMAN  
 DATE BEGUN: 5/03/94

TOP OF CASING ELEVATION: 736.18  
 TOTAL DEPTH: 88.5  
 GROUND SURFACE ELEVATION: 735.01  
 SHEET: 3 OF: 4

STATIC WATER LEVEL (BLS)	
WD=While Drilling AB=After Boring	
Depth (Ft)	51.88 AB
Time	9:37
Date	05/04/94

DEPTH	BLD COUNTS	SAMPLING METHOD	SAMPLE NUMBER	MOISTURE	CONSISTANCY	ORGANIC VAPOR	CGI	LITHOLOGY DESCRIPTION	LITHOLOGY	WELL INSTALLATION
45.0 46.0 47.0 48.0 49.0 50.0 51.0 52.0 53.0 54.0 55.0 56.0 57.0 58.0 59.0 60.0 61.0 62.0 63.0 64.0 65.0 66.0 67.0 68.0								SCHIST: chlorite/white feldspar schist; few horizontal to subvertical fractures.		

# FIELD BOREHOLE LOG

BOREHOLE NUMBER:

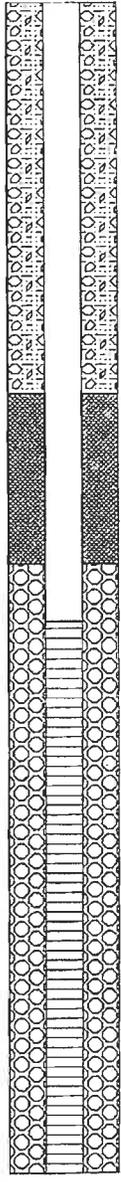
MW-10

PROJECT NUMBER: 94012  
 PROJECT NAME: DAVIDSON COUNTY  
 LOCATION: LEXINGTON, NORTH CAROLINA  
 DRILLING COMPANY: BORE AND CORE  
 RIG TYPE & NUMBER: MOBILE B-53  
 DRILLING METHOD: AIR ROTARY  
 WEATHER: SUNNY  
 FIELD PARTY: KENNY MOSLEY  
 GEOLOGIST: GRAHAM SIMPERMAN  
 DATE BEGUN: 5/03/94

TOP OF CASING ELEVATION: 736.18  
 TOTAL DEPTH: 88.5  
 GROUND SURFACE ELEVATION: 735.01  
 SHEET: 4 OF: 4

STATIC WATER LEVEL (BLS)	
WD=While Drilling AB=After Boring	
Depth (ft)	51.88 AB
Time	9:37
Date	05/04/94

DATE COMPLETED: 5/03/94

DEPTH	BLOW COUNTS	SAMPLING METHOD	SAMPLE NUMBER	MOISTURE	CONSISTANCY	ORGANIC VAPOR	GGI	LITHOLOGY DESCRIPTION	LITHOLOGY	WELL INSTALLATION
68.0								SCHIST: chlorite/white feldspar schist; few horizontal to subvertical fractures.		
69.0										
70.0										
71.0										
72.0										
73.0										
74.0										
75.0										
76.0										
77.0										
78.0										
79.0										
80.0										
81.0										
82.0										
83.0										
84.0										
85.0										
86.0										
87.0										
88.0										



# FIELD BOREHOLE LOG

BOREHOLE NUMBER

MW-2

PROJECT NUMBER: 94012  
 PROJECT NAME: DAVIDSON COUNTY  
 LOCATION: LEXINGTON, NORTH CAROLINA  
 DRILLING COMPANY: BORE AND CORE  
 RIG TYPE & NUMBER: MOBILE B-53  
 DRILLING METHOD: HOLLOW STEM AUGER  
 WEATHER: SUNNY  
 FIELD PARTY: KENNY MOSLEY  
 GEOLOGIST: GRAHAM SIMMERMAN  
 DATE BEGUN: 5/5/94

TOP OF CASING ELEVATION: -  
 TOTAL DEPTH: 39.0  
 GROUND SURFACE ELEVATION: -  
 SHEET: 2 OF 2

STATIC WATER LEVEL (BLS)		
WD=While Drilling AB=After Borinc		
Depth(ft)		
Time		
Date		

DEPTH	BLOW COUNTS	SAMPLING METHOD	SAMPLE NUMBER	MOISTURE	CONSISTANCY	SAMPLE RECOVERY	DRILL METHOD	LITHOLOGY DESCRIPTION	DEPTH	LITHOLOGY	WELL INSTALLATION
20.0								DIORITE: white feldspar with augite, weathered	20.0		
21.0									21.0		
22.0									22.0		
23.0	15	Ss	S5						23.0		
24.0	32 37								24.0		
25.0									25.0		
26.0									26.0		
27.0									27.0		
28.0	40	Ss	S6						28.0		
29.0	50/5								29.0		
30.0									30.0		
31.0									31.0		
32.0				W					32.0		
33.0	50/5	Ss	S7						33.0		
34.0									34.0		
35.0									35.0		
36.0									36.0		
37.0									37.0		
38.0	50/5	Ss	S8						38.0		
39.0								39.0			







# FIELD BOREHOLE LOG

BOREHOLE NUMBER

MW-6D

PROJECT NUMBER 94012  
 PROJECT NAME DAVIDSON COUNTY  
 LOCATION LEXINGTON, NORTH CAROLINA  
 DRILLING COMPANY: BORE AND CORE  
 RIG TYPE & NUMBER MOBILE 8-53  
 DRILLING METHOD: HOLLOW STEM AUGER  
 WEATHER: SUNNY  
 FIELD PARTY: KENNY MOSLEY  
 GEOLOGIST: GRAHAM SIMMERMAN  
 DATE BEGUN: 5/04/94

TOP OF CASING ELEVATION 694.13  
 TOTAL DEPTH: 68.5  
 GROUND SURFACE ELEVATION 692.79  
 SHEET: 1 DF: 3

STATIC WATER LEVEL (BLS)		
WD=While Drilling AB=After Boring		
Depth (ft)		
Time		
Date		

DATE COMPLETED: 5/04/94

DEPTH	BLOW COUNTS	SAMPLING METHOD	SAMPLE NUMBER	MOISTURE	CONSISTANCY	SAMPLE RECOVERY	DRILL METHOD	LITHOLOGY DESCRIPTION	DEPTH	LITHOLOGY	WELL INSTALLATION
1.0									1.0		
0.0								CLAY AND SILT AND SAND. fill.	0.0		
1.0								CLAY AND SAND coarse sand, light tan brown, soft, moist; fill; some roots	1.0		
2.0									2.0		
3.0									3.0		
4.0	5	Ss	S1						4.0		
5.0	7								5.0		
6.0	7								6.0		
7.0									7.0		
8.0									8.0		
9.0	5	Ss	S2					CLAY AND SILT: tan brown to orange red; interbedded with light tan coarse sandy clay, with quartz and feldspar; soft, moist; medium dense.	9.0		
10.0	6								10.0		
11.0	9								11.0		
12.0									12.0		
13.0									13.0		
14.0	6	Ss	S3					CLAY AND SILT light tan, interbedded with orange coarse sandy clay, some greenstone and wood fragments; stiff.	14.0		
15.0	10								15.0		
16.0	12								16.0		
17.0									17.0		
18.0									18.0		
19.0	9	Ss	S4					CLAY AND SILT. light tan, interbedded with orange coarse sandy clay, some greenstone fragments, stiff.	19.0		
20.0	10								20.0		
21.0	9								21.0		



# FIELD BOREHOLE LOG

BOREHOLE NUMBER:

MW-6D

PROJECT NUMBER: 94012  
 PROJECT NAME: DAVIDSON COUNTY  
 LOCATION: LEXINGTON, NORTH CAROLINA  
 DRILLING COMPANY: BORE AND CORE  
 RIG TYPE & NUMBER: MOBILE 8-53  
 DRILLING METHOD: HOLLOW STEM AUGER  
 WEATHER: SUNNY  
 FIELD PARTY: KENNY MOSLEY  
 GEOLOGIST: GRAHAM SIMMERMAN  
 DATE BEGUN: 5/04/94

TOP OF CASING ELEVATION: 694.13  
 TOTAL DEPTH: 68.5  
 GROUND SURFACE ELEVATION: 692.79  
 SHEET: 3 OF 3

STATIC WATER LEVEL (BLS)		
WO=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
45.0								GRANITE GNEISS bedrock.	45.0		
46.0									46.0		
47.0									47.0		
48.0									48.0		
49.0									49.0		
50.0									50.0		
51.0									51.0		
52.0									52.0		
53.0									53.0		
54.0									54.0		
55.0									55.0		
56.0									56.0		
57.0									57.0		
58.0									58.0		
59.0									59.0		
60.0									60.0		
61.0									61.0		
62.0									62.0		
63.0									63.0		
64.0									64.0		
65.0								65.0			
66.0								66.0			
67.0								67.0			
68.0								68.0			
69.0								69.0			





# FIELD BOREHOLE LOG

BOREHOLE NUMBER

MW-7D

PROJECT NUMBER: 94012  
 PROJECT NAME: DAVIISON COUNTY  
 LOCATION: LEXINGTON, NORTH CAROLINA  
 DRILLING COMPANY: BORE AND CORE  
 RIG TYPE & NUMBER: MOBILE B-53  
 DRILLING METHOD: HOLLOW STEM AUGER  
 WEATHER: SUNNY  
 FIELD PARTY: KENNY MOSLEY  
 GEOLOGIST: GRAHAM SIMMERMAN  
 DATE BEGUN: 4/26/94

TOP OF CASING ELEVATION: 663.59  
 TOTAL DEPTH: 46.0  
 GROUND SURFACE ELEVATION: 661.44  
 SHEET: 2 OF 2

STATIC WATER LEVEL (BLS)	
WD=White Drilling AB=After Borinc	
Depth (Ft)	4.55 AB
Time	4:37
Date	04/26/94

DATE COMPLETED: 4/26/94

DEPTH	BLOW COUNTS	SAMPLING METHOD	SAMPLE NUMBER	MOISTURE	CONSISTANCY	SAMPLE RECOVERY	DRILL METHOD	LITHOLOGY DESCRIPTION	DEPTH	LITHOLOGY	WELL INSTALLATION
21.0								SAND coarse grained quartz muscovite granite, medium gray with gray quartz, heavy iron staining	21.0		
22.0								SAND AND CLAY coarse sand, orange brown porphyritic gray quartz/white feldspar trace muscovite and hornblende granite; heavy iron staining	22.0		
23.0	25	Ss	S5						23.0		
24.0	50/6							SAND AND CLAY coarse sand, brown; porphyritic gray quartz/white feldspar; trace muscovite and hornblende granite; heavy iron staining	24.0		
25.0	50/5								25.0		
26.0								SAND AND CLAY coarse sand, orange brown porphyritic gray quartz/white feldspar trace muscovite and hornblende granite; heavy iron staining	26.0		
27.0									27.0		
28.0	50/5	Ss	S6					SAND AND CLAY coarse sand, brown; porphyritic gray quartz/white feldspar; trace muscovite and hornblende granite; heavy iron staining	28.0		
29.0									29.0		
30.0								SAND AND CLAY coarse sand, dark brown; porphyritic gray quartz/white feldspar, trace muscovite and hornblende granite; heavy iron staining	30.0		
31.0									31.0		
32.0								SAND AND CLAY coarse sand, dark brown; porphyritic gray quartz/white feldspar, trace muscovite and hornblende granite; heavy iron staining	32.0		
33.0	50/4	Ss	S7						33.0		
34.0								SAND AND CLAY coarse sand, dark brown; porphyritic gray quartz/white feldspar, trace muscovite and hornblende granite; heavy iron staining	34.0		
35.0									35.0		
36.0								SAND AND CLAY coarse sand, dark brown; porphyritic gray quartz/white feldspar, trace muscovite and hornblende granite; heavy iron staining	36.0		
37.0									37.0		
38.0	50/5	Ss	S8					SAND AND CLAY coarse sand, dark brown; porphyritic gray quartz/white feldspar, trace muscovite and hornblende granite; heavy iron staining	38.0		
39.0									39.0		
40.0								SAND AND CLAY coarse sand, dark brown; porphyritic gray quartz/white feldspar, trace muscovite and hornblende granite; heavy iron staining	40.0		
41.0									41.0		
42.0								SAND AND CLAY coarse sand, dark brown; porphyritic gray quartz/white feldspar, trace muscovite and hornblende granite; heavy iron staining	42.0		
43.0	50/3	Ss	S9						43.0		
44.0								SAND AND CLAY coarse sand, dark brown; porphyritic gray quartz/white feldspar, trace muscovite and hornblende granite; heavy iron staining	44.0		
45.0									45.0		
46.0								SAND AND CLAY coarse sand, dark brown; porphyritic gray quartz/white feldspar, trace muscovite and hornblende granite; heavy iron staining	46.0		



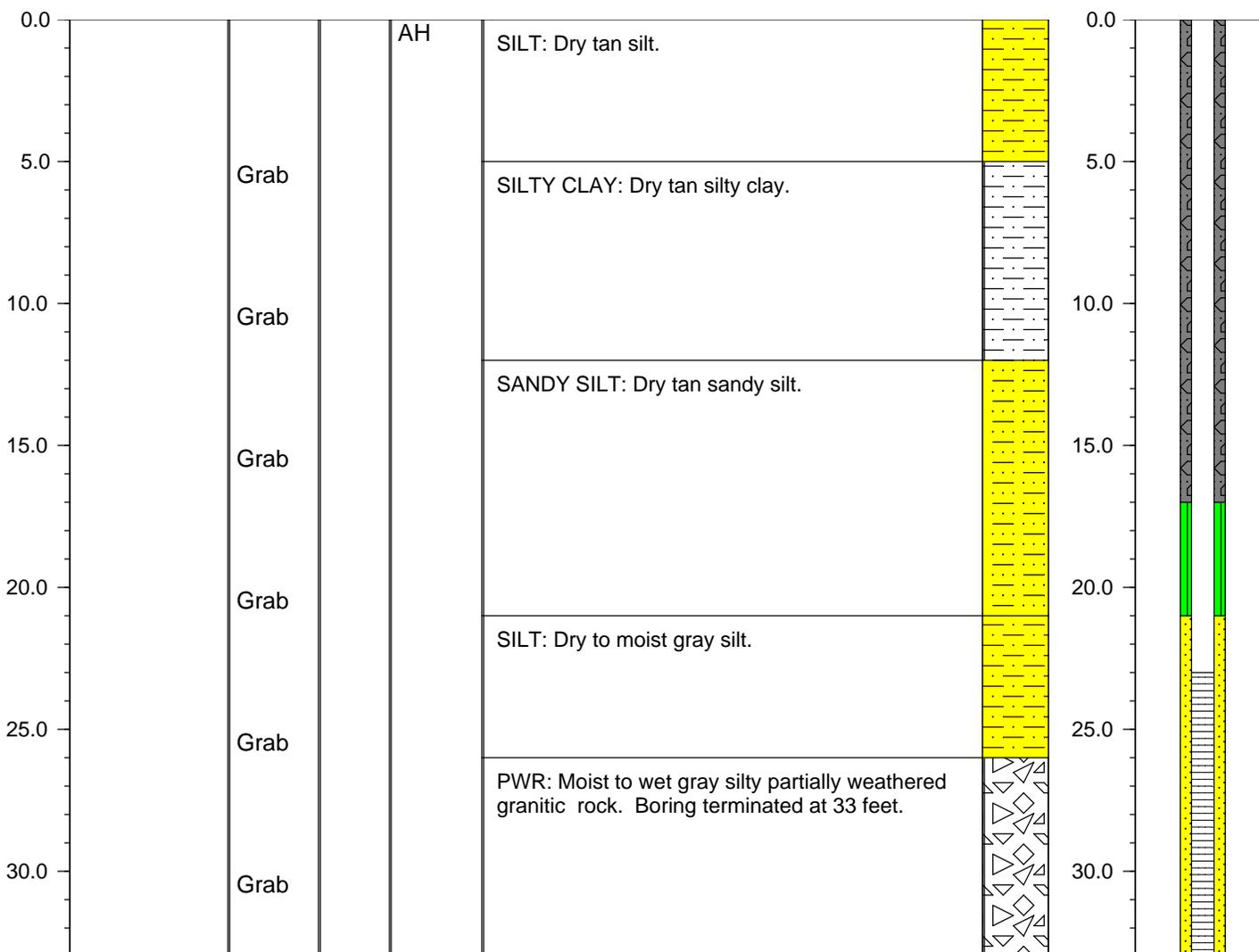


PROJECT NAME: **Davidson Co Phase 1 Landfill**  
LOCATION: **Davidson County**  
DRILLING CO: **Geologic Explorations**  
DRILLING METHOD: **AH**  
FIELD PARTY: **Johnny Burr**  
GEOLOGIST: **Lindsay Quant**  
DATE BEGUN: **11/11/10** COMPLETED: **11/11/10**

TOTAL DEPTH: **33**  
TOP OF CASING ELEV.: **GROUND ELEV.: 686.32**  
NORTHING: **764126.597** EASTING: **1649351.338**

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

DEPTH Feet	BLOW COUNT Per 6"	SAMPLING METHOD	RECOVERY Inches	DRILL METHOD	DESCRIPTION	LITHOLOGY	DEPTH Feet	WELL INSTALLATION
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## **Appendix C**

### **Laboratory Analytical Report**

**April 2013 Groundwater Monitoring Report  
Davidson County Phase 1 Lined 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#: 6038

DAVIDSON COUNTY (LINED)  
MS. JOAN SMYTH  
SMITH GARDNER, INC.  
14 NORTH BOYLAN AVE.  
RALEIGH, NC 27603

DATE COLLECTED: 04/16/13  
DATE REPORTED : 05/20/13

REVIEWED BY: 

PARAMETERS	MDL	SWSL	MW-1S	MW-2	MW-3	MW-4	MW-5	Analysis	Method
								Date	Analyst
Total Alkalinity (to pH 4.5), mg/l	1.0	1.0	268					04/19/13MPB	2320B-97
Chloride, mg/l	5.0	5.0	56					04/22/13HMB	4500CLB-97
Total Dissolved Residue, mg/l	1.0	1.0	416					04/19/13HMB	2540C-97
Sulfate, mg/l	5.0	250.0	36.8 J					04/25/13TRB	4500SO42E97
Antimony, ug/l	0.02	6.0	0.02 J Missing		--- U	--- U	--- U	04/25/13LFJ	EPA200.8
Arsenic, ug/l	0.05	10.0	0.28 J Missing		0.51 J	0.20 J	0.26 J	04/25/13LFJ	EPA200.8
Barium, ug/l	0.06	100.0	35.7 J Missing		221	54.0 J	44.9 J	04/25/13LFJ	EPA200.8
Beryllium, ug/l	0.03	1.0	--- U Missing		0.23 J	0.07 J	--- U	04/25/13LFJ	EPA200.8
Cadmium, ug/l	0.05	1.0	--- U Missing		0.06 J	0.11 J	--- U	04/25/13LFJ	EPA200.8
Cobalt, ug/l	0.02	10.0	0.62 J Missing		9.5 J	2.6 J	0.23 J	04/25/13LFJ	EPA200.8
Copper, ug/l	0.06	10.0	1.8 J Missing		32	12	0.91 J	04/25/13LFJ	EPA200.8
Total Chromium, ug/l	0.04	10.0	--- U Missing		3.1 J	4.8 J	--- U	04/25/13LFJ	EPA200.8
Iron, ug/l	13.6	300.0	1618					05/06/13ADD	3111B-99
Manganese, ug/l	0.21	50.0	17 J					04/25/13LFJ	EPA200.8
Lead, ug/l	0.02	10.0	0.32 J Missing		1.6 J	1.3 J	0.12 J	04/25/13LFJ	EPA200.8
Mercury, ug/l	0.01	0.20	--- U					04/24/13ADD	245.1 R3-94
Nickel, ug/l	0.45	50.0	1.1 J Missing		7.5 J	2.2 J	--- U	04/25/13LFJ	EPA200.8
Selenium, ug/l	0.06	10.0	1.1 J Missing		0.29 J	0.17 J	--- U	04/25/13LFJ	EPA200.8
Silver, ug/l	0.03	10.0	--- U Missing		0.05 J	--- U	--- U	04/25/13LFJ	EPA200.8
Thallium, ug/l	0.02	5.5	--- U Missing		0.08 J	--- U	--- U	04/25/13LFJ	EPA200.8
Vanadium, ug/l	0.07	25.0	3.4 J Missing		36	12.4 J	4.0 J	04/25/13LFJ	EPA200.8
Zinc, ug/l	0.47	10.0	3.5 J Missing		52	17	2.2 J	04/25/13LFJ	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

ID#: 6038

DAVIDSON COUNTY (LINED)  
MS. JOAN SMYTH  
SMITH GARDNER, INC.  
14 NORTH BOYLAN AVE.  
RALEIGH, NC 27603

DATE COLLECTED: 04/16/13  
DATE REPORTED : 05/20/13

REVIEWED BY: 

PARAMETERS	MDL	MW-6 SWSL	MW-7D	MW-8	MW-7S	MW-9A	Analysis		Method
							Date	Analyst	
Antimony, ug/l	0.02	6.0	--- U	0.40 J	0.05 J	0.15 J	0.03 J	04/25/13LFJ	EPA200.8
Arsenic, ug/l	0.05	10.0	--- U	0.19 J	0.33 J	0.64 J	0.32 J	04/25/13LFJ	EPA200.8
Barium, ug/l	0.06	100.0	11.6 J	6.5 J	46.7 J	51.7 J	22.7 J	04/25/13LFJ	EPA200.8
Beryllium, ug/l	0.03	1.0	--- U	0.03 J	0.15 J	0.21 J	0.04 J	04/25/13LFJ	EPA200.8
Cadmium, ug/l	0.05	1.0	0.29 J	0.26 J	--- U	0.34 J	0.33 J	04/25/13LFJ	EPA200.8
Cobalt, ug/l	0.02	10.0	0.07 J	0.16 J	5.0 J	4.9 J	1.6 J	04/25/13LFJ	EPA200.8
Copper, ug/l	0.06	10.0	0.41 J	1.0 J	12	22	11	04/25/13LFJ	EPA200.8
Total Chromium, ug/l	0.04	10.0	--- U	--- U	7.1 J	6.1 J	1.6 J	04/25/13LFJ	EPA200.8
Lead, ug/l	0.02	10.0	0.08 J	0.99 J	4.3 J	3.9 J	0.96 J	04/25/13LFJ	EPA200.8
Nickel, ug/l	0.45	50.0	--- U	--- U	4.0 J	4.0 J	4.1 J	04/25/13LFJ	EPA200.8
Selenium, ug/l	0.06	10.0	0.20 J	--- U	0.30 J	0.36 J	0.68 J	04/25/13LFJ	EPA200.8
Silver, ug/l	0.03	10.0	0.03 J	--- U	--- U	0.04 J	--- U	04/25/13LFJ	EPA200.8
Thallium, ug/l	0.02	5.5	0.28 J	--- U	--- U	--- U	--- U	04/25/13LFJ	EPA200.8
Vanadium, ug/l	0.07	25.0	0.88 J	1.2 J	24.1 J	17.6 J	9.1 J	04/25/13LFJ	EPA200.8
Zinc, ug/l	0.47	10.0	2.6 J	13	14	24	14	04/25/13LFJ	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 (LINED)  
MS. JOAN SMYTH  
SMITH GARDNER, INC.  
14 NORTH BOYLAN AVE.  
RALEIGH, NC 27603

CLIENT ID: 6038  
ANALYST: MAO  
DATE COLLECTED: 04/16/13  
DATE ANALYZED: 04/24/13  
DATE REPORTED: 05/20/13

Page: 1

REVIEWED BY: 

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

PARAMETERS, ug/l	MDL	SWSL	MW-1S	MW-3	MW-4	MW-5	MW-6
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				

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 (LINED)  
MS. JOAN SMYTH  
SMITH GARDNER, INC.  
14 NORTH BOYLAN AVE.  
RALEIGH, NC 27603

CLIENT ID: 6038  
ANALYST: MAO  
DATE COLLECTED: 04/16/13  
DATE ANALYZED: 04/24/13  
DATE REPORTED: 05/20/13

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REVIEWED BY: 

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

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

ID#: 6038 B

DAVIDSON COUNTY (LINED)  
MS. JOAN SMYTH  
SMITH GARDNER, INC.  
14 NORTH BOYLAN AVE.  
RALEIGH ,NC 27603

DATE COLLECTED: 04/16/13  
DATE REPORTED : 05/20/13

REVIEWED BY: 

PARAMETERS	MDL	MW-10 SWSL	MW-11	MW-12	Trip Blank	Analysis		Method Code
						Date	Analyst	
Antimony, ug/l	0.02	6.0	--- U	--- U	--- U	04/25/13L	LFJ	EPA200.8
Arsenic, ug/l	0.05	10.0	0.13 J	0.38 J	--- U	04/25/13L	LFJ	EPA200.8
Barium, ug/l	0.06	100.0	11.4 J	19.3 J	0.96 J	04/25/13L	LFJ	EPA200.8
Beryllium, ug/l	0.03	1.0	0.13 J	0.18 J	--- U	04/25/13L	LFJ	EPA200.8
Cadmium, ug/l	0.05	1.0	0.31 J	0.20 J	--- U	04/25/13L	LFJ	EPA200.8
Cobalt, ug/l	0.02	10.0	2.8 J	3.3 J	0.14 J	04/25/13L	LFJ	EPA200.8
Copper, ug/l	0.06	10.0	3.8 J	14	0.54 J	04/25/13L	LFJ	EPA200.8
Total Chromium, ug/l	0.04	10.0	5.8 J	12	--- U	04/25/13L	LFJ	EPA200.8
Lead, ug/l	0.02	10.0	0.78 J	1.7 J	0.05 J	04/25/13L	LFJ	EPA200.8
Nickel, ug/l	0.45	50.0	3.9 J	6.6 J	1.1 J	04/25/13L	LFJ	EPA200.8
Selenium, ug/l	0.06	10.0	0.18 J	0.31 J	0.44 J	04/25/13L	LFJ	EPA200.8
Silver, ug/l	0.03	10.0	--- U	0.03 J	--- U	04/25/13L	LFJ	EPA200.8
Thallium, ug/l	0.02	5.5	--- U	--- U	--- U	04/25/13L	LFJ	EPA200.8
Vanadium, ug/l	0.07	25.0	12.9 J	28	6.8 J	04/25/13L	LFJ	EPA200.8
Zinc, ug/l	0.47	10.0	6.0 J	12	2.8 J	04/25/13L	LFJ	EPA200.8

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

# Environment 1, Incorporated

Drinking Water ID: 37715  
Wastewater ID: 10

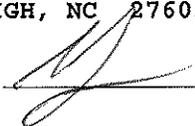
P.O. BOX 7085, 114 OAKMONT DRIVE  
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208  
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CLIENT: DAVIDSON COUNTY (LINED)  
MS. JOAN SMYTH  
SMITH GARDNER, INC.  
14 NORTH BOYLAN AVE.  
RALEIGH, NC 27603

CLIENT ID: 6038 B  
ANALYST: MAO  
DATE COLLECTED: 04/16/13  
DATE REPORTED: 05/20/13

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REVIEWED BY: 

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

PARAMETERS, ug/l	Date Analyzed:		04/24/13	04/24/13	04/26/13	04/24/13	
	MDL	SWSL	MW-10	MW-11	MW-12	Trip Blank	
1. Chloromethane	0.77	1.0	---	U	---	U	
2. Vinyl Chloride	0.63	1.0	---	U	---	U	
3. Bromomethane	0.67	10.0	---	U	---	U	
4. Chloroethane	0.48	10.0	---	U	---	U	
5. Trichlorofluoromethane	0.24	1.0	---	U	---	U	
6. 1,1-Dichloroethene	0.17	5.0	---	U	---	U	
7. Acetone	9.06	100.0	11.60	J	340.00	---	U
8. Iodomethane	0.26	10.0	---	U	---	U	
9. Carbon Disulfide	0.23	100.0	---	U	---	U	
10. Methylene Chloride	0.64	1.0	---	U	---	U	
11. trans-1,2-Dichloroethene	0.23	5.0	---	U	---	U	
12. 1,1-Dichloroethane	0.20	5.0	---	U	---	U	
13. Vinyl Acetate	0.20	50.0	---	U	---	U	
14. Cis-1,2-Dichloroethene	0.25	5.0	---	U	---	U	
15. 2-Butanone	2.21	100.0	---	U	---	U	
16. Bromochloromethane	0.27	3.0	---	U	---	U	
17. Chloroform	0.25	5.0	---	U	---	U	
18. 1,1,1-Trichloroethane	0.19	1.0	---	U	---	U	
19. Carbon Tetrachloride	0.22	1.0	---	U	---	U	
20. Benzene	0.24	1.0	---	U	---	U	
21. 1,2-Dichloroethane	0.27	1.0	---	U	---	U	
22. Trichloroethene	0.23	1.0	---	U	---	U	
23. 1,2-Dichloropropane	0.21	1.0	---	U	---	U	
24. Bromodichloromethane	0.21	1.0	---	U	---	U	
25. Cis-1,3-Dichloropropene	0.24	1.0	---	U	---	U	
26. 4-Methyl-2-Pentanone	1.19	100.0	---	U	---	U	
27. Toluene	0.23	1.0	---	U	---	U	
28. trans-1,3-Dichloropropene	0.28	1.0	---	U	---	U	
29. 1,1,2-Trichloroethane	0.25	1.0	---	U	---	U	
30. Tetrachloroethene	0.17	1.0	---	U	---	U	
31. 2-Hexanone	1.57	50.0	---	U	---	U	
32. Dibromochloromethane	0.24	3.0	---	U	---	U	
33. 1,2-Dibromoethane	0.26	1.0	---	U	---	U	
34. Chlorobenzene	0.30	3.0	---	U	---	U	
35. 1,1,1,2-Tetrachloroethane	0.22	5.0	---	U	---	U	
36. Ethylbenzene	0.21	1.0	---	U	---	U	
37. Xylenes	0.68	5.0	---	U	---	U	
38. Dibromomethane	0.28	10.0	---	U	---	U	
39. Styrene	0.19	1.0	---	U	---	U	
40. Bromoform	0.20	3.0	---	U	---	U	
41. 1,1,2,2-Tetrachloroethane	0.26	3.0	---	U	---	U	
42. 1,2,3-Trichloropropane	0.43	1.0	---	U	---	U	
43. 1,4-Dichlorobenzene	0.39	1.0	---	U	---	U	
44. 1,2-Dichlorobenzene	0.32	5.0	---	U	---	U	
45. 1,2-Dibromo-3-Chloropropane	0.34	13.0	---	U	---	U	
46. Acrylonitrile	2.72	200.0	---	U	---	U	
47. trans-1,4-Dichloro-2-Butene	0.42	100.0	---	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

ID#: 6038 B

DAVIDSON COUNTY (LINED)  
MS. JOAN SMYTH  
SMITH GARDNER, INC.  
14 NORTH BOYLAN AVE.  
RALEIGH ,NC 27603

DATE COLLECTED: 04/17/13  
DATE REPORTED : 05/20/13

REVIEWED BY: 

PARAMETERS	MDL	SW-1		SW-2		Analysis		Method	
		SWSL				Date	Analyst	Code	
Antimony, ug/l	0.02	6.0	Missing	0.45	J	04/30/13LFLJ	EPA200.8		
Arsenic, ug/l	0.05	10.0	Missing	0.73	J	04/30/13LFLJ	EPA200.8		
Barium, ug/l	0.06	100.0	Missing	22.8	J	04/30/13LFLJ	EPA200.8		
Beryllium, ug/l	0.03	1.0	Missing	---	U	04/30/13LFLJ	EPA200.8		
Cadmium, ug/l	0.05	1.0	Missing	0.08	J	04/30/13LFLJ	EPA200.8		
Cobalt, ug/l	0.02	10.0	Missing	0.61	J	04/30/13LFLJ	EPA200.8		
Copper, ug/l	0.06	10.0	Missing	1.6	J	04/30/13LFLJ	EPA200.8		
Total Chromium, ug/l	0.04	10.0	Missing	0.06	J	04/30/13LFLJ	EPA200.8		
Lead, ug/l	0.02	10.0	Missing	0.25	J	04/30/13LFLJ	EPA200.8		
Nickel, ug/l	0.45	50.0	Missing	0.83	J	04/30/13LFLJ	EPA200.8		
Selenium, ug/l	0.06	10.0	Missing	0.42	J	04/30/13LFLJ	EPA200.8		
Silver, ug/l	0.03	10.0	Missing	0.03	J	04/30/13LFLJ	EPA200.8		
Thallium, ug/l	0.02	5.5	Missing	0.05	J	04/30/13LFLJ	EPA200.8		
Vanadium, ug/l	0.07	25.0	Missing	1.3	J	04/30/13LFLJ	EPA200.8		
Zinc, ug/l	0.47	10.0	Missing	2.7	J	04/30/13LFLJ	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

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

CLIENT ID: 6038 B  
ANALYST: MAO  
DATE COLLECTED: 04/17/13  
DATE ANALYZED: 05/01/13  
DATE REPORTED: 05/20/13

Page: 1

REVIEWED BY: 

VOLATILE ORGANICS  
EPA METHOD 8260B R1(96)

PARAMETERS, ug/l	MDL	SWSL	SW-2
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

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

ID#: 6038 A

DAVIDSON COUNTY (LINED)  
MS. JOAN SMYTH  
SMITH GARDNER, INC.  
14 NORTH BOYLAN AVE.  
RALEIGH ,NC 27603

DATE COLLECTED: 04/18/13  
DATE REPORTED : 05/20/13

REVIEWED BY: 

PARAMETERS	MDL	Leachate		Analysis		Method Code
		SWSL		Date	Analyst	
BOD, mg/l	2.0	2.0	6.8	04/19/13TRB		5210B-01
COD, mg/l	20.0	20.0	1401	04/23/13TRB		H8000-79
Nitrate Nitrogen as N, mg/l	0.03	10.0	0.12 J	04/19/13ANO		353.2 R2-93
Total Phosphorus as P, mg/l	0.04	0.04	0.10	04/25/13BJC		365.4-74
Sulfate, mg/l	5.0	250.0	40.6 J	04/25/13TRB		4500S042E97
Antimony, ug/l	0.02	6.0	0.72 J	04/30/13LFFJ		EPA200.8
Arsenic, ug/l	0.05	10.0	1.3 J	04/30/13LFFJ		EPA200.8
Barium, ug/l	0.06	100.0	66.0 J	04/30/13LFFJ		EPA200.8
Beryllium, ug/l	0.03	1.0	--- U	04/30/13LFFJ		EPA200.8
Cadmium, ug/l	0.05	1.0	--- U	04/30/13LFFJ		EPA200.8
Cobalt, ug/l	0.02	10.0	2.3 J	04/30/13LFFJ		EPA200.8
Copper, ug/l	0.06	10.0	2.8 J	04/30/13LFFJ		EPA200.8
Total Chromium, ug/l	0.04	10.0	0.95 J	04/30/13LFFJ		EPA200.8
Lead, ug/l	0.02	10.0	0.05 J	04/30/13LFFJ		EPA200.8
Nickel, ug/l	0.45	50.0	13.7 J	04/30/13LFFJ		EPA200.8
Selenium, ug/l	0.06	10.0	1.7 J	04/30/13LFFJ		EPA200.8
Silver, ug/l	0.03	10.0	--- U	04/30/13LFFJ		EPA200.8
Thallium, ug/l	0.02	5.5	--- U	04/30/13LFFJ		EPA200.8
Vanadium, ug/l	0.07	25.0	1.8 J	04/30/13LFFJ		EPA200.8
Zinc, ug/l	0.47	10.0	3.3 J	04/30/13LFFJ		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 (LINED)  
MS. JOAN SMYTH  
SMITH GARDNER, INC.  
14 NORTH BOYLAN AVE.  
RALEIGH, NC 27603

CLIENT ID: 6038 A  
ANALYST: MAO  
DATE COLLECTED: 04/18/13  
DATE ANALYZED: 05/01/13  
DATE REPORTED: 05/20/13

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REVIEWED BY: 

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

PARAMETERS, ug/l	MDL	SWSL	Leachate
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. 1,1,1,2,2-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

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

Environment 1, Inc.  
 P.O. Box 7085, 114 Oakmont Dr.  
 Greenville, NC 27858

Phone (252) 756-6208 • Fax (252) 756-0633

CLIENT: 6038 B Week: 12

DAVIDSON COUNTY (LINEB)  
 MS. JOAN SMYTH  
 SMYTH GARDNER, INC.  
 14 NORTH BOYLAN AVE.  
 RALEIGH NC 27603

(919) 828-0577

CHAIN OF CUSTODY RECORD

SAMPLE LOCATION	COLLECTION		TOTAL CHLORINE, mg/l OR ug/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	DISINFECTION			Metals	EPA 8260B	8260 Dup. 1	8260 Dup. 2	CHLORINE NEUTRALIZED AT COLLECTION
	DATE	TIME				CHLORINE	UV	NONE					
MW-10	4/16	8:47A			4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
MW-11	4/16	8:25A			3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
MW-12	4/16	8:10A			3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
SW-1	4/17	2:35P			3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
SW-2	4/17	2:05P			3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
Equipment Blank					2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
Trip Blank					2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
REINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME
<i>[Signature]</i>	4/18 1:03P	<i>[Signature]</i>	4/19 3:00PM	<i>[Signature]</i>									
REINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME

PLEASE READ Instructions for completing this form on the reverse side.

Sampler must place a "C" for composite sample or a "G" for Grab sample in the blocks above for each parameter requested.

№ 254823

CLASSIFICATION:  
 WASTEWATER (NPDES)  
 DRINKING WATER  
 DWO/GW  
 SOLID WASTE SECTION

CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY  
 Y  N

SAMPLES COLLECTED BY:  
 (Please Print)

SAMPLES RECEIVED IN LAB AT 1.4 °C

COMMENTS:  
 SW-1 DRY

Equipment Blank Vials returned empty





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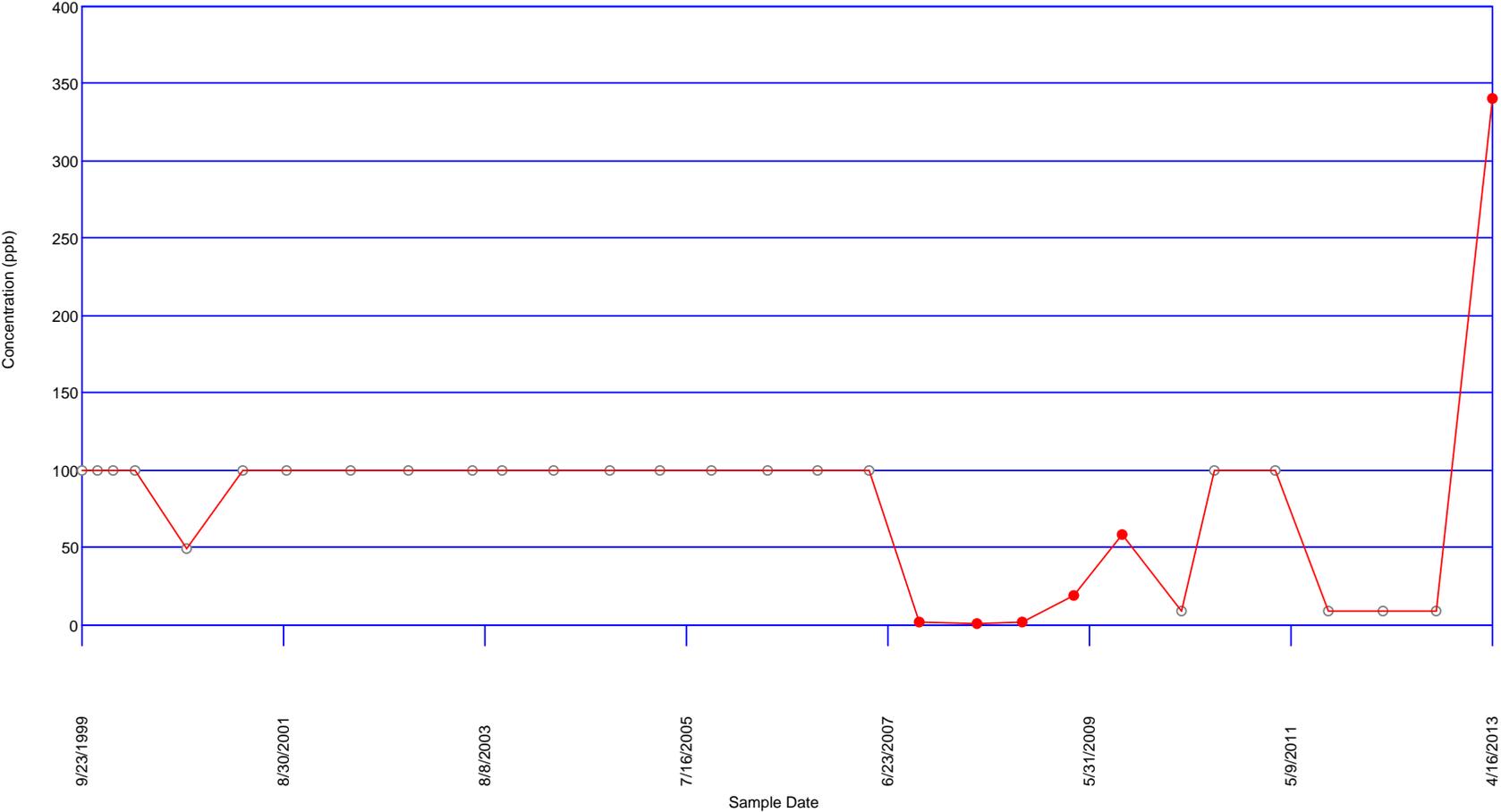
## **Appendix D**

### **Time vs. Concentration Graphs**

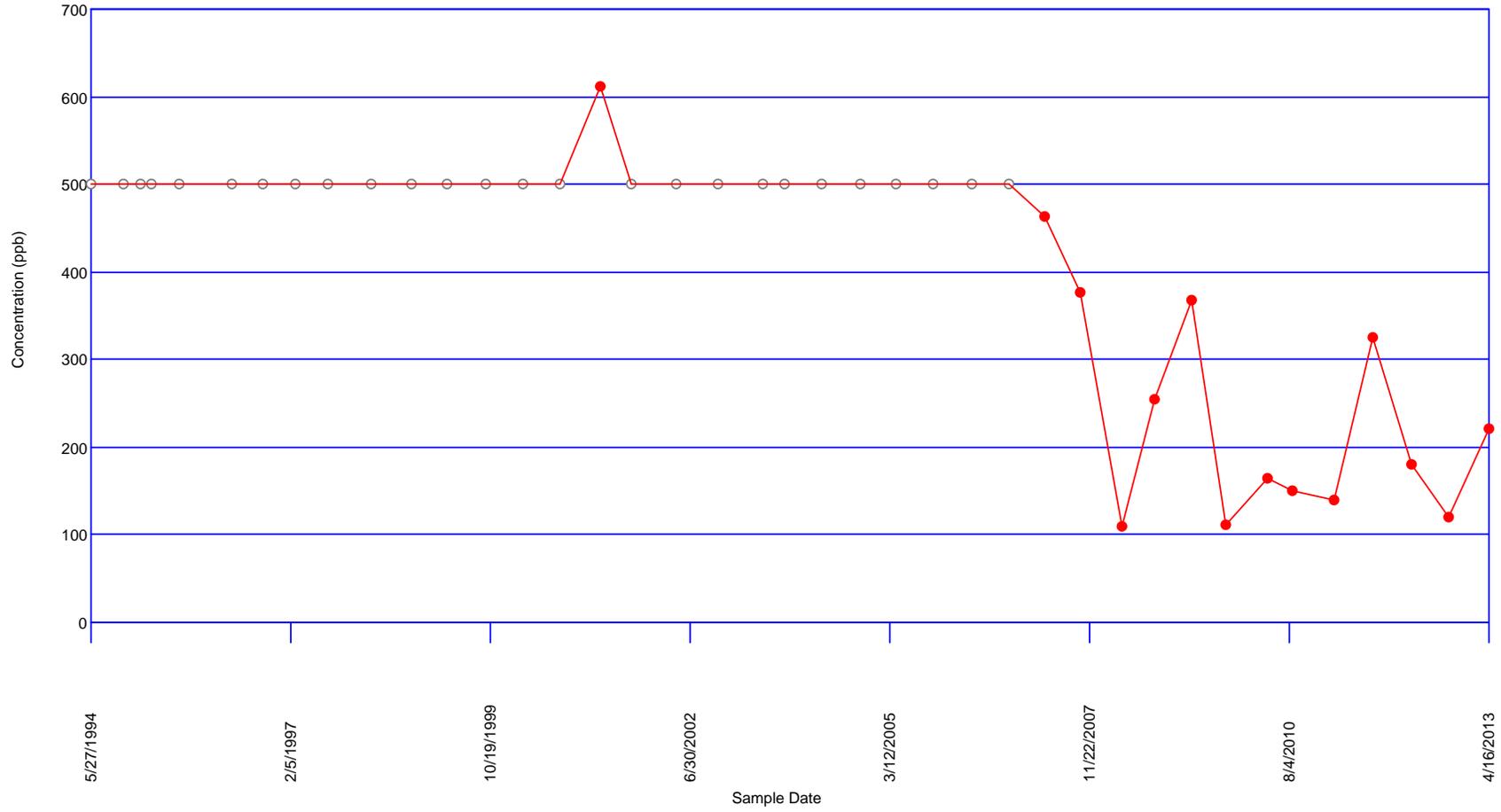
**April 2013 Groundwater Monitoring Report  
Davidson County Phase 1 Lined Landfill  
NC Solid Waste Permit No. 29-06**

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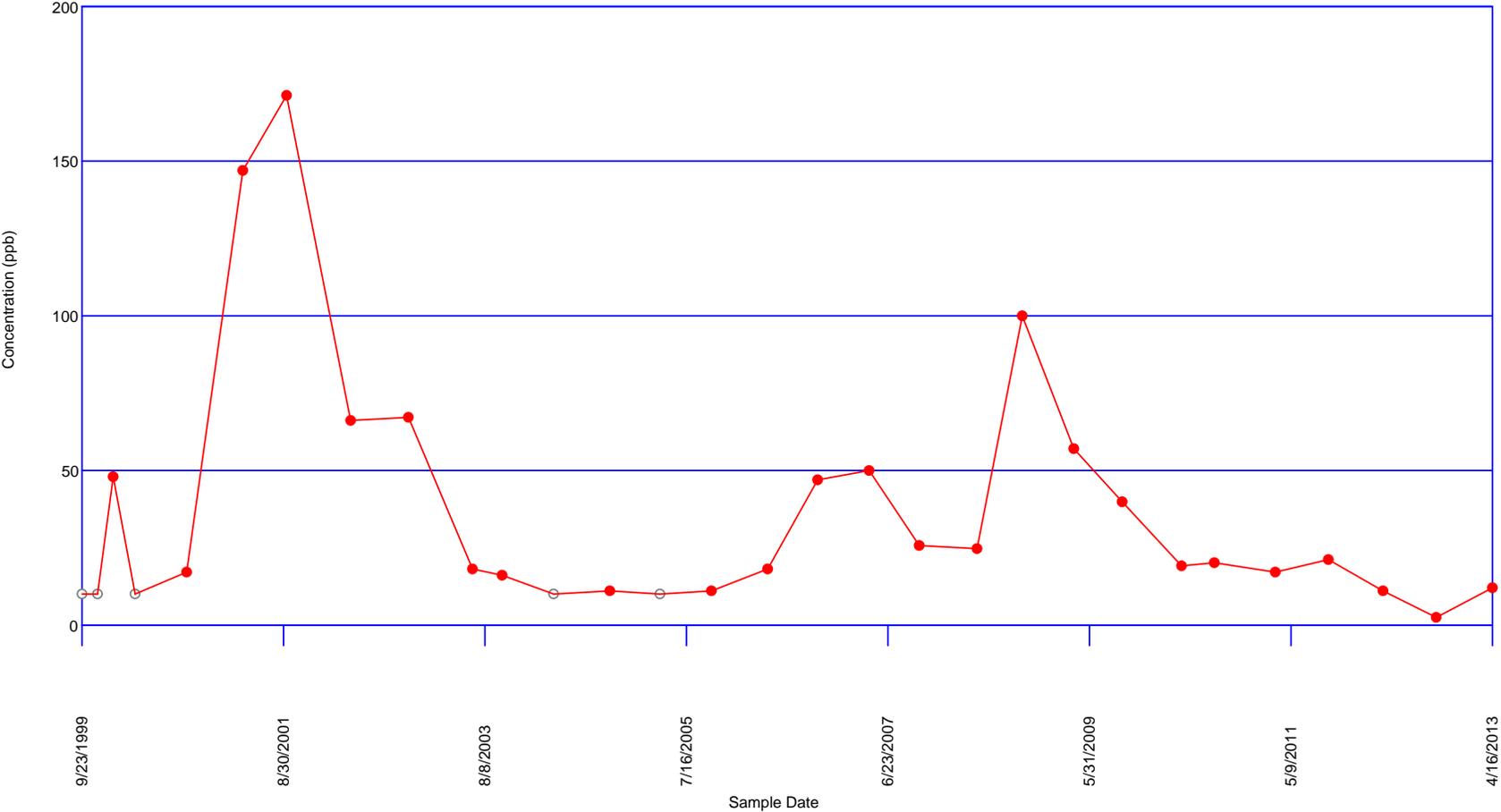
**Acetone**  
**Time-Series Graph of MW-11**



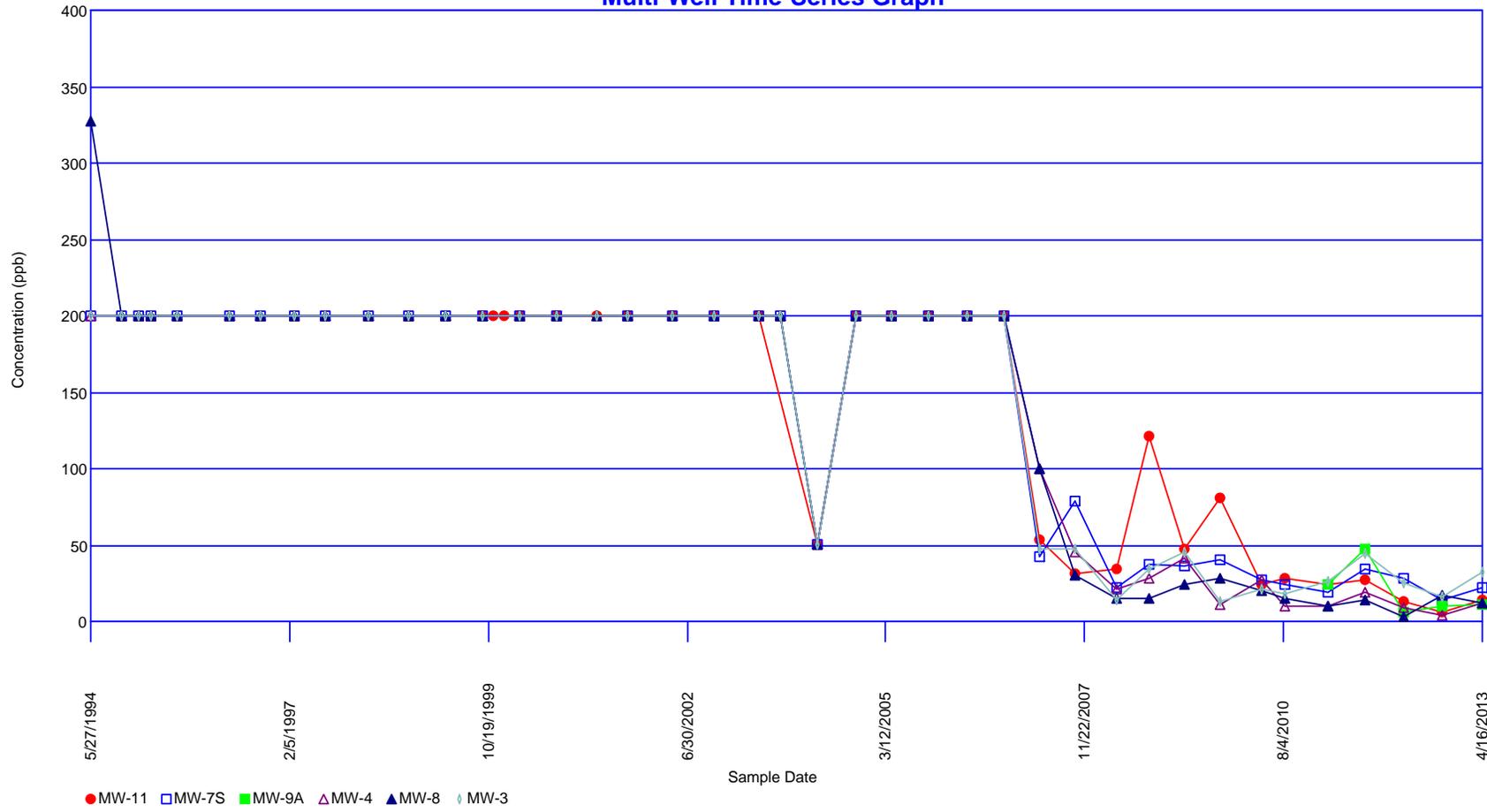
### Barium, total Time-Series Graph of MW-3



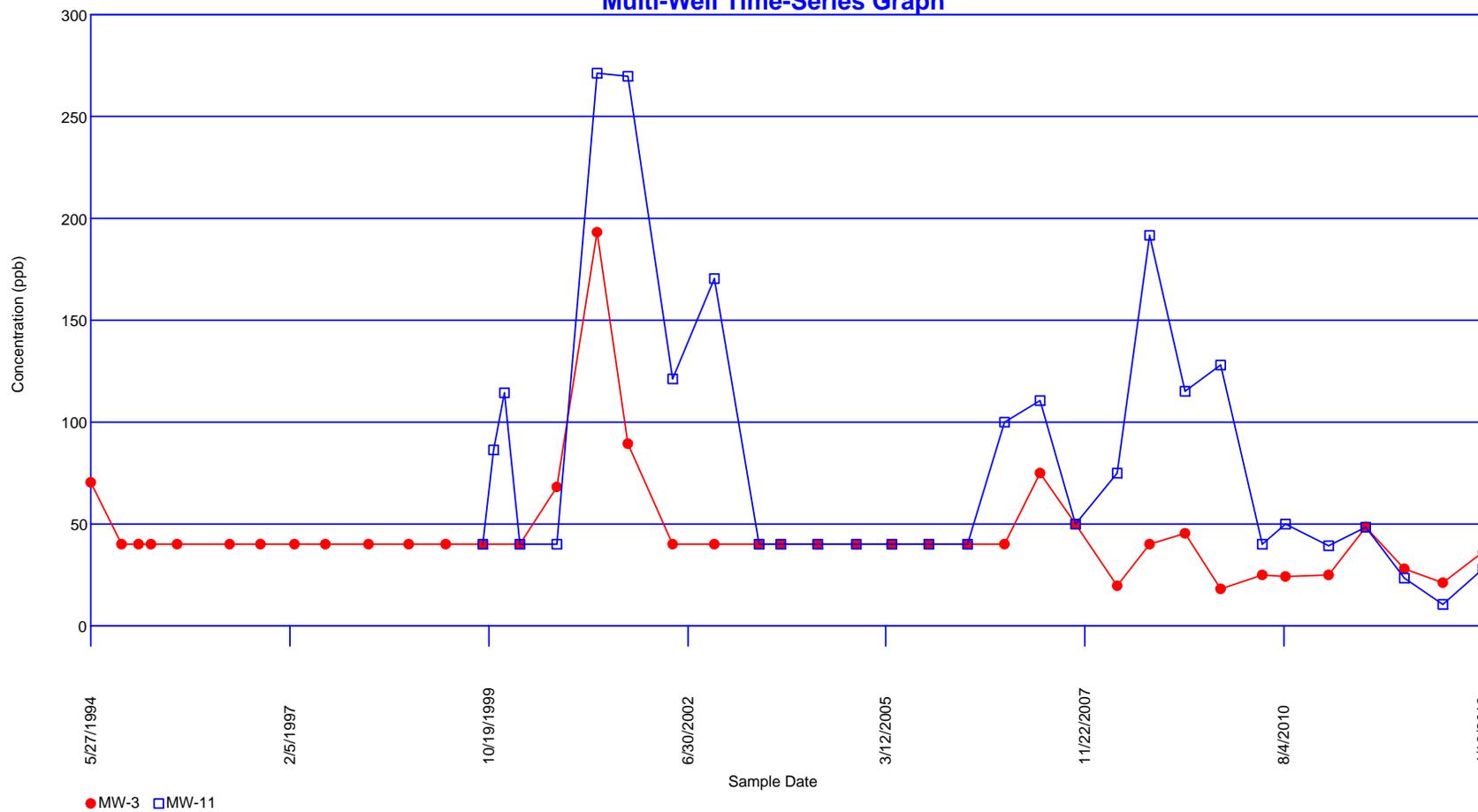
### Total Chromium Time-Series Graph of MW-11



# Copper, total Multi-Well Time-Series Graph



# Vanadium Multi-Well Time-Series Graph



# Zinc

## Multi-Well Time-Series Graph

