

**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: 919-828-0577x222

E-mail: madeline@smithgardnerinc.com

| Facility name:                 | Facility Address:            | Facility Permit # | NC Landfill Rule:<br>(.0500 or .1600) | Actual sampling dates (e.g.,<br>October 20-24, 2006) |
|--------------------------------|------------------------------|-------------------|---------------------------------------|--|
| Washington County C&D Landfill | 718 Landfill Road, Roper, NC | 94-04             | .0500                                 | September 4, 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.

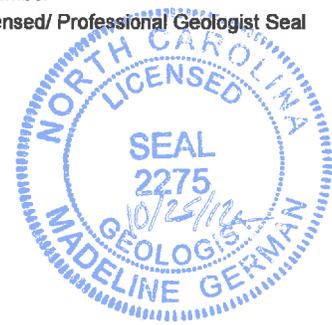
Madeline German, PG Geologist 919-828-0577x222  
 Facility Representative Name (Print) Title (Area Code) Telephone Number

Signature: *[Handwritten Signature]* Date: 10/25/2012

14 N. Boylan Ave, Raleigh, NC 27603  
 Facility Representative Address

CO828

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



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**Ground Water Monitoring Report  
Fall 2012 Semi-Annual Event**

**Washington County C&D Landfill  
Roper, North Carolina  
NC Solid Waste No. 94-04 CDLF-1996**

Prepared for:



**Washington County  
P.O. Box 1007  
Plymouth North Carolina 27962**

**October 2012**

Prepared by:

**SMITH+GARDNER**

14 N. Boylan Avenue, Raleigh NC 27603 | 919.828.0577



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# Washington County C&D Landfill Ground Water Monitoring Report Semi-Annual Event – Fall 2012

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## 1.0 INTRODUCTION

The Washington County C&D Landfill, operating under Solid Waste Permit #94-04-CDLF-1996, is required to perform semi-annual ground water monitoring in accordance with Solid Waste Section Rule 15A NCAC 13B.0500 (et. seq.). This report presents the semi-annual sampling results for the event conducted on September 4, 2012.

The Washington County Landfill is currently accepting C&D waste. The ground water monitoring network includes four wells located around the landfill perimeter. This report summarizes field procedures, laboratory analyses and ground water characterization for the site.

## 2.0 REGIONAL GEOLOGY

The Washington County Landfill is located near Roper, North Carolina. According to the Geologic Map of North Carolina (*USGS, 1985*) this site is underlain by Quaternary surficial deposits including sand, gravel, clay and peat deposited in marine, fluvial, aeolian and lacustrine environments; typical for a coastal plain environment.

## 3.0 SAMPLING PROCEDURES

The sampling event, reportedly performed by Environment 1, Inc. on September 4, 2012, included collecting samples from four ground water wells (CD-1 through CD-4) in accordance with the approved site Sampling and Analysis Plan.

Sampling methods followed the protocol outlined in the North Carolina Water Quality Monitoring Guidance Document for Solid Waste Facilities (North Carolina Department of Environment and Natural Resources, Division of Waste Management). The depth to water in each well was gauged prior to purging and sampling. Water table elevation data is included in **Table 1**. Field measurements for pH, specific conductivity, and temperature were also recorded at each well. A field parameter summary is presented as **Table 2**.

Samples were collected in laboratory prepared containers for the specified analytical procedures. Ground water samples were properly preserved, placed on ice and transported to the laboratory facility within the specified holding times for each analysis.

No surface water sampling locations are identified for this site.

## 4.0 4.0 FIELD & LABORATORY DATA

### 4.1 Laboratory Analysis

The ground water samples were transported to Environment 1, Inc., in Greenville, NC, a North Carolina certified laboratory (NC Wastewater ID #10). Samples were analyzed for the Appendix I VOCs per EPA Test Method 8260B, Appendix I and C&D metals via EPA

Test Method 200.7 or 200.8, iron via Test Method SM3111B. Total alkalinity, chloride, total dissolved residue and sulfate were analyzed by the SWS approved method listed in the lab report. The laboratory analytical report is included as **Appendix A**.

#### **4.2 Field and Laboratory Results**

The inorganic constituents beryllium (CD-1 and CD-2), cobalt (CD-2), iron (CD-1 through CD-4), manganese (CD-1 through CD-4) and zinc (CD-1, CD-2 and CD-3) were detected above their SWSL. Of these, the following constituents were detected above their respective 2L standards:

- iron (CD-1, CD-2, CD-3 and CD-4)
- manganese (CD-1, CD-2 and CD-3)

The indicator parameters chloride (CD-1 through CD-4) and sulfate (CD-1 and CD-2) were reported above their SWSL. The following indicator parameters detections were reported above their 2L Standards:

- sulfate (CD-1 and CD-2)
- total dissolved residue (CD-1 and CD-2)

No volatile organic compounds (VOCs) were detected above the laboratory MDL.

Constituents reported between the MDL and the SWSL are denoted as “J” qualified values; which are not quantifiable values. Detected inorganic constituents are presented in **Table 3**.

### **5.0 GROUND WATER CHARACTERIZATION**

A single-day potentiometric surface map was prepared from ground water data collected from both the C&D landfill and the adjacent MSW landfill during this sampling event. The data indicates that ground water flows generally in a north-northwestern direction. Hydraulic conductivity data is not available for these wells so ground water velocities could not be calculated. The potentiometric surface map is presented as **Figure 1**.

### **6.0 CONCLUSIONS**

The data and analyses show relatively stable ground water quality at the Washington County C&D Landfill. The inorganic constituents detected are likely due to turbidity in the sample as these constituents are generally found to be naturally occurring in the soils across North Carolina.

The next ground water monitoring event is tentatively scheduled for March 2013. Results will be reported after receipt of laboratory analysis.

**FIGURE**

**Groundwater Monitoring Report  
Washington County C&D Landfill  
Semi-Annual Event – Fall 2012**

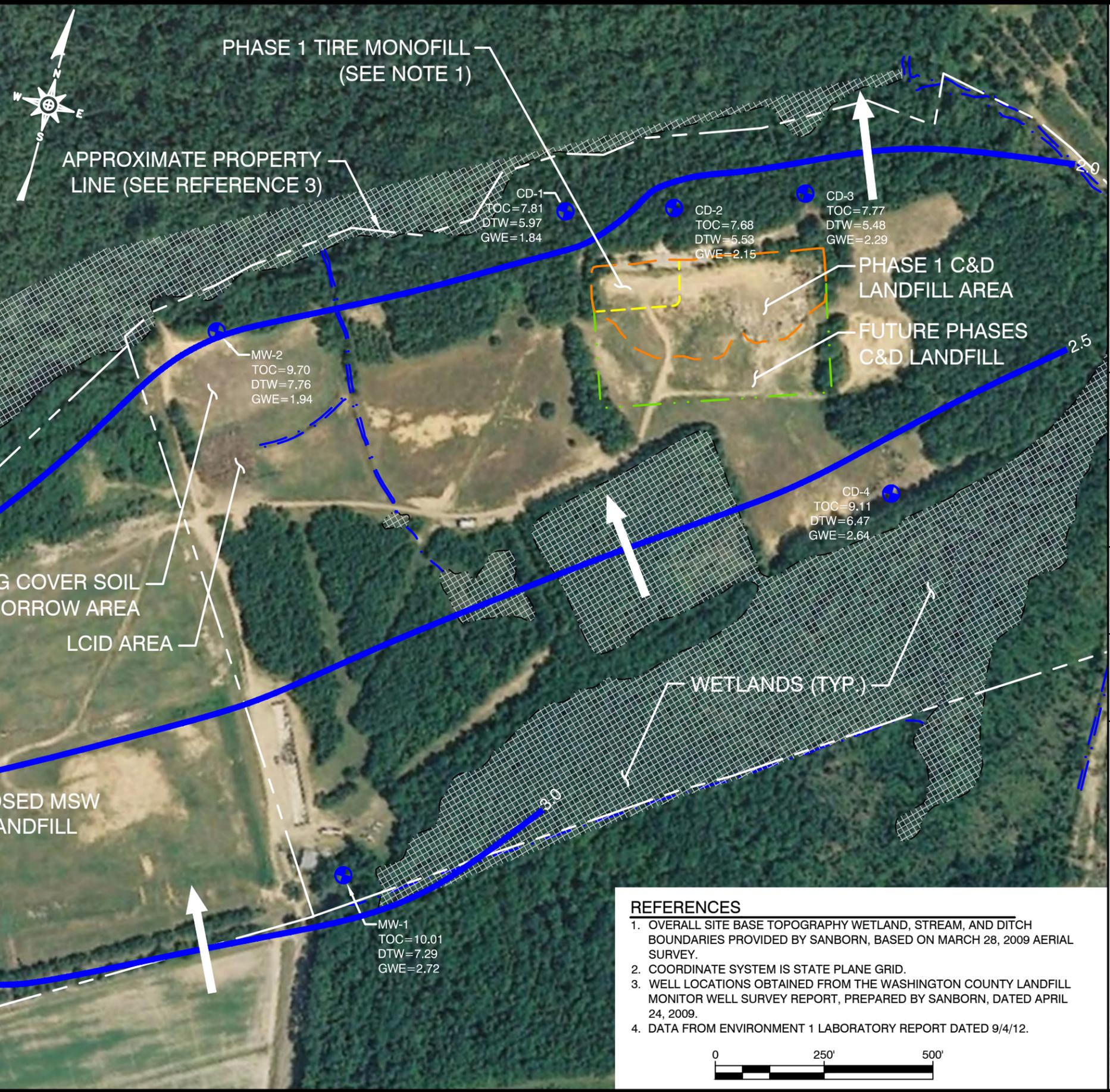
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**LEGEND**

-  PROPERTY LINE
-  STREAM/POND/DITCH BOUNDARY
-  0.5 POTENTIOMETRIC CONTOUR (DASHED WHERE INFERRED)
-  WETLANDS BOUNDARY AREA (SEE REFERENCE 1)
-  GROUNDWATER FLOW DIRECTION
-  MW-1  
TOC=  
DTW=  
GWE= MONITORING WELL DESIGNATION  
TOP OF CASING  
DEPTH TO WATER  
GROUND WATER ELEVATION

**NOTES**

1. THE TIRE MONOFILL IS NO LONGER USED BY THE COUNTY. THIS AREA WAS PREVIOUSLY INCORPORATED INTO THE C & D LANDFILL FOOTPRINT.



- REFERENCES**
1. OVERALL SITE BASE TOPOGRAPHY WETLAND, STREAM, AND DITCH BOUNDARIES PROVIDED BY SANBORN, BASED ON MARCH 28, 2009 AERIAL SURVEY.
  2. COORDINATE SYSTEM IS STATE PLANE GRID.
  3. WELL LOCATIONS OBTAINED FROM THE WASHINGTON COUNTY LANDFILL MONITOR WELL SURVEY REPORT, PREPARED BY SANBORN, DATED APRIL 24, 2009.
  4. DATA FROM ENVIRONMENT 1 LABORATORY REPORT DATED 9/4/12.



NC LIC. NO. C-0828 (ENGINEERING)

**SMITH+GARDNER**  
14 N. Boylan Avenue, Raleigh NC 27603 | 919.828.0577

|                |                       |                      |              |
|----------------|-----------------------|----------------------|--------------|
| DRAWN: W.R.B.  | APPROVED: M.M.G.      | SCALE: AS SHOWN      | FIGURE NO: 1 |
| DATE: Oct 2012 | PROJECT NO: WASH 08-2 | FILENAME: WASH-B0034 |              |

**WASHINGTON COUNTY  
MSW AND C&D LANDFILLS  
POTENTIOMETRIC SURFACE MAP  
FALL 2012**

PREPARED FOR:

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## **TABLES**

**Groundwater Sampling Report  
Washington County C&D Landfill  
Semi-Annual Event – Fall 2012**

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**Table 1  
Groundwater Elevation Data  
Washington County C&D Landfill  
9/4/2012**

| Well | Northing  | Easting    | TOC Elevation (feet) | Depth to Water (feet) | GW Elevation (feet) |
|------|-----------|------------|----------------------|-----------------------|---------------------|
| CD-1 | 799028.14 | 2691515.73 | 7.81                 | 5.97                  | 1.84                |
| CD-2 | 799100.90 | 2691755.17 | 7.68                 | 5.53                  | 2.15                |
| CD-3 | 799210.55 | 2692038.09 | 7.77                 | 5.48                  | 2.29                |
| CD-4 | 798597.78 | 2692406.42 | 9.11                 | 6.47                  | 2.64                |

Lab data analyzed by Environmental 1, Inc. ID# 6030

Depth to water measured from top of PVC casing.

Well locations and elevations provided by Sanborn, Charlotte, NC from field survey conducted on 4/8/09.

**Table 2**  
**Field Parameter Results**  
**Washington County C&D Landfill**  
**9/4/2012**

| Well | pH<br>(Std units) | Specific Conductivity<br>(umhos/cm) | Temperature<br>(Celsius) |
|------|-------------------|-------------------------------------|--------------------------|
| CD-1 | 3.9               | 713                                 | 20                       |
| CD-2 | 4.4               | 1039                                | 21                       |
| CD-3 | 5.1               | 361                                 | 20                       |
| CD-4 | 5.1               | 43                                  | 20                       |

**Note:** Lab data analyzed by Environmental 1, Inc. ID# 6030

**Table 3**  
**Detected Inorganic Constituents**  
**Washington County C&D Landfill**  
**9/4/2012**

| Parameter               | MDL  | SWSL   | 2L or GWP Standard | CD-1          | CD-2          | CD-3         | CD-4         |
|-------------------------|------|--------|--------------------|---------------|---------------|--------------|--------------|
| Alkalinity              | 1000 | NE     | NE                 | <1000         | <1000         | 6000         | 7000         |
| Chloride                | 5000 | 5000   | 250000             | <b>26000</b>  | <b>110000</b> | <b>25000</b> | <b>34000</b> |
| Sulfate                 | 5000 | 250000 | 250000             | <b>311000</b> | <b>460000</b> | 113000 J     | 10700 J      |
| Total Dissolved Residue | 1000 | NE     | 500000             | 503000        | 847000        | 248000       | 43000        |
| Antimony                | 0.02 | 6      | 1*                 | 0.10 J        | 0.02 J        | <0.02        | 0.02         |
| Arsenic                 | 0.13 | 10     | 10                 | 0.72 J        | 1.4 J         | 1.1 J        | 0.16 J       |
| Barium                  | 0.07 | 100    | 700                | 14.7 J        | 13.3 J        | 71.1 J       | 17.2 J       |
| Beryllium               | 0.07 | 1      | 4*                 | <b>4</b>      | <b>2</b>      | 0.50 J       | 0.19 J       |
| Cadmium                 | 0.03 | 1      | 2                  | 1             | 0.61 J        | 0.43 J       | 0.06 J       |
| Cobalt                  | 0.02 | 10     | 1*                 | 10            | <b>17</b>     | 2.6 J        | 2.1 J        |
| Copper                  | 0.06 | 10     | 1000               | 0.69 J        | 2.0 J         | 2.7 J        | 1.3 J        |
| Total Chromium          | 0.18 | 10     | 10                 | 0.37 J        | 1.4 J         | 1.5 J        | <0.18        |
| Iron                    | 15.9 | 300    | 300                | <b>7870</b>   | <b>31150</b>  | <b>31350</b> | <b>807</b>   |
| Manganese               | 0.16 | 50     | 50                 | <b>2396</b>   | <b>3293</b>   | <b>2240</b>  | <b>58</b>    |
| Lead                    | 0.08 | 10     | 15                 | 0.56 J        | 0.83 J        | <b>11</b>    | 0.26 J       |
| Mercury                 | 0.02 | 0.2    | 1                  | 0.03 J        | 0.02 J        | 0.02 J       | 0.03 J       |
| Nickel                  | 0.06 | 50     | 100                | 6.3 J         | 5.5 J         | 2.7 J        | 0.79 J       |
| Selenium                | 0.17 | 10     | 20                 | 4.7 J         | 2.1 J         | 0.91 J       | <0.17        |
| Thallium                | 0.07 | 5.5    | 0.28*              | 0.13 J        | 0.15 J        | <0.07        | 0.11 J       |
| Vanadium                | 0.1  | 25     | 0.3*               | 0.73 J        | 7.1 J         | 12.0 J       | 2.5 J        |
| Zinc                    | 0.48 | 10     | 1000               | <b>17</b>     | <b>35</b>     | <b>10</b>    | 4.7 J        |

Note: Results are presented in ug/l (ppb).

- MDL - Method Detection Limit
- 2L - Groundwater Standard (15A NCAC 2L 0200)
- SWSL - Solid Waste Section Quantitation Limit
- <MDL - Not detected at or above the MDL
- Shading - Level above 2L Standard or no 2L Standard
- Bold Letters - Level above the SWSL or no SWSL
- J - Detected constituents between the MDL and the SWSL limit
- GWP - Groundwater Protection Standard (indicated with \*)
- NE - Not established

Note: Lab data analyzed by Environmental 1, Inc. ID# 6030  
GWP standard used if 2L Standard not established

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## **Appendix A**

### **Laboratory Analytical Report**

**Groundwater Monitoring Report  
Washington County C&D Landfill  
Semi-Annual Report – Fall 2012**

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# Environment 1, Incorporated

Drinking Water ID: 37715  
Wastewater ID: 10

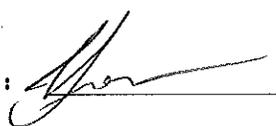
P.O. BOX 7085, 114 OAKMONT DRIVE  
GREENVILLE, N.C. 27835-7085

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

ID#: 6030

WASHINGTON CO. LANDFILL (C&D)  
MR. CARL CRITCHER  
P.O. BOX 1007  
PLYMOUTH, NC 27962

DATE COLLECTED: 09/04/12  
DATE REPORTED : 09/24/12

REVIEWED BY: 

| PARAMETERS                      | MDL  | SWSL  | CD-1   | CD-2   | CD-3   | CD-4   | Analysis Date | Method Analyst Code |
|---------------------------------|------|-------|--------|--------|--------|--------|---------------|---------------------|
|                                 |      |       |        |        |        |        |               |                     |
| PH (field measurement), Units   |      |       | 3.9    | 4.4    | 5.1    | 5.1    | 09/04/12RJH   | SM4500HB            |
| Total Alkalinity, mg/l          | 1.0  | 1.0   | --- U  | - - U  | 6      | 7      | 09/04/12TRB   | SM2320B             |
| Chloride, mg/l                  | 5.0  | 5.0   | 26     | 110    | 25     | 34     | 09/06/12MSG   | SM4500-CLB          |
| Total Dissolved Residue, mg/l   | 1.0  | 1.0   | 503    | 847    | 248    | 43     | 09/10/12HLB   | SM2540C             |
| Sulfate, mg/l                   | 5.0  | 250.0 | 311    | 460    | 113 J  | 10.7 J | 09/05/12TRB   | 4500SO42E97         |
| Antimony, ug/l                  | 0.02 | 6.0   | 0.10 J | 0.02 J | --- U  | --- U  | 09/13/12LFJ   | EPA200.8            |
| Arsenic, ug/l                   | 0.13 | 10.0  | 0.72 J | 1.4 J  | 1.1 J  | 0.16 J | 09/13/12LFJ   | EPA200.8            |
| Barium, ug/l                    | 0.07 | 100.0 | 14.7 J | 13.3 J | 71.1 J | 17.2 J | 09/13/12LFJ   | EPA200.8            |
| Beryllium, ug/l                 | 0.07 | 1.0   | 4      | 2      | 0.50 J | 0.19 J | 09/13/12LFJ   | EPA200.8            |
| Cadmium, ug/l                   | 0.03 | 1.0   | 1      | 0.61 J | 0.43 J | 0.06 J | 09/13/12LFJ   | EPA200.8            |
| Cobalt, ug/l                    | 0.02 | 10.0  | 10     | 17     | 2.6 J  | 2.1 J  | 09/13/12LFJ   | EPA200.8            |
| Copper, ug/l                    | 0.06 | 10.0  | 0.69 J | 2.0 J  | 2.7 J  | 1.3 J  | 09/13/12LFJ   | EPA200.8            |
| Total Chromium, ug/l            | 0.18 | 10.0  | 0.37 J | 1.4 J  | 1.5 J  | ---    | 09/13/12LFJ   | EPA200.8            |
| Iron, ug/l                      | 15.9 | 300.0 | 7870   | 31150  | 31350  | 807    | 09/21/12ADD   | SM3111B             |
| Manganese, ug/l                 | 0.16 | 50.0  | 2396   | 3293   | 2240   | 58     | 09/12/12LFJ   | EPA200.7            |
| Lead, ug/l                      | 0.08 | 10.0  | 0.56 J | 0.83 J | 11     | 0.26 J | 09/13/12LFJ   | EPA200.8            |
| Mercury, ug/l                   | 0.02 | 0.20  | 0.03 J | 0.02 J | 0.02 J | 0.03 J | 09/13/12LFJ   | EPA200.8            |
| Nickel, ug/l                    | 0.06 | 50.0  | 6.3 J  | 5.5 J  | 2.7 J  | 0.79 J | 09/13/12LFJ   | EPA200.8            |
| Selenium, ug/l                  | 0.17 | 10.0  | 4.7 J  | 2.1 J  | 0.91 J | ---    | 09/13/12LFJ   | EPA200.8            |
| Silver, ug/l                    | 0.10 | 10.0  | --- U  | - - U  | ---    | ---    | 09/13/12LFJ   | EPA200.8            |
| Thallium, ug/l                  | 0.07 | 5.5   | 0.13 J | 0.15 J | ---    | 0.11 J | 09/13/12LFJ   | EPA200.8            |
| Vanadium, ug/l                  | 0.10 | 25.0  | 0.73 J | 7.1 J  | 12.0 J | 2.5 J  | 09/13/12LFJ   | EPA200.8            |
| Zinc, ug/l                      | 0.48 | 10.0  | 17     | 35     | 10     | 4.7 J  | 09/13/12LFJ   | EPA200.8            |
| Conductivity (at 25c), uMhos/cm | 1.0  | 1.0   | 713    | 1039   | 361    | 43     | 09/04/12RJH   | SM2510B             |
| Temperature, °C                 |      |       | 20     | 21     | 20     | 20     | 09/04/12RJH   | SM2550B             |
| Static Water Level, feet        |      |       | 5.97   | 5.53   | 5.48   | 6.47   | 09/04/12RJH   |                     |
| Well Depth, feet                |      |       | 22.90  | 19.90  | 21.45  | 20.67  | 09/04/12RJH   |                     |

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

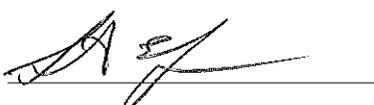
PHONE (252) 756-6208  
FAX (252) 756-0633

CLIENT: WASHINGTON CO. LANDFILL (C&D)  
MR. CARL CRITCHER  
P.O. BOX 1007  
PLYMOUTH, NC 27962

CLIENT ID: 6030

ANALYST: MAO  
DATE COLLECTED: 09/04/12  
DATE ANALYZED: 09/10/12  
DATE REPORTED: 09/24/12

Page: 1

REVIEWED BY: 

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

| PARAMETERS, ug/l                | MDL  | SWSL  | CD-1 | CD-2  | CD-3  | CD-4  |
|---------------------------------|------|-------|------|-------|-------|-------|
| 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 |
| 48. Tetrahydrofuran             | 0.39 | 1.0   | -- U | --- U | --- U | --- U |

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

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

CHAIN OF CUSTODY RECORD

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

CLIENT: 6030 Week: 39

WASHINGTON CO. LANDFILL (C&D)  
 MR. CARL CRITCHER  
 P.O. BOX 1007  
 PLYMOUTH NC 27962

(252) 793-5615

| SAMPLE LOCATION        | COLLECTION |                    | TOTAL CHLORINE, mg/l AT COLLECTION | TEMPERATURE, °C AT COLLECTION | # OF CONTAINERS | DISINFECTION  |                                     |                                     | Field pH | Alkalinity | Chloride | TDS | Sulfate | Metals | Conductivity | Temperature | Field Parameter | EPA 8260B | 8260 Dup. 1 | 8260 Dup. 2 | PARAMETERS   | CLASSIFICATION:   |
|------------------------|------------|--------------------|------------------------------------|-------------------------------|-----------------|---|-------------------------------------|-------------------------------------|----------|------------|----------|-----|---------|--------|--------------|-------------|-----------------|-----------|-------------|-------------|--|---|
|                        | DATE       | TIME               |                                    |                               |                 | CHLORINE  | UV                                  | NONE                                |          |            |          |     |         |        |              |             |                 |           |             |             |  |   |
| CD-1                   | 09         | 04/12/1030         | 20                                 | 20                            | 9               | <input checked="" type="checkbox"/>                 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | A        | A          | A        | A   | A       | A      | A            | A           | A               | E         | G           | E           | A - NONE<br>B - HNO <sub>3</sub><br>C - H <sub>2</sub> SO <sub>4</sub><br>D - NaOH<br>E - HCL<br>F - ZINC ACETATE<br>G - NATHIOSULFATE | WASTEWATER (NPDES)<br>DRINKING WATER<br>DWO/GW<br>SOLID WASTE SECTION |
| CD-2                   | 09         | 04/12/1035         | 21                                 | 20                            | 8               | <input checked="" type="checkbox"/>                 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | A        | A          | A        | A   | A       | A      | A            | A           | A               | E         | G           | E           |  |   |
| CD-3                   | 09         | 04/12/1050         | 20                                 | 20                            | 8               | <input checked="" type="checkbox"/>                 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | A        | A          | A        | A   | A       | A      | A            | A           | A               | E         | G           | E           |  |   |
| CD-4                   | 09         | 04/12/1105         | 22                                 | 20                            | 8               | <input checked="" type="checkbox"/>                 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | A        | A          | A        | A   | A       | A      | A            | A           | A               | E         | G           | E           |  |   |
| RELINQUISHED BY (SIG.) | DATE/TIME  | RECEIVED BY (SIG.) | DATE/TIME                          | RECEIVED BY (SIG.)            | DATE/TIME       | COMMENTS:   |                                     |                                     |          |            |          |     |         |        |              |             |                 |           |             |             |  |   |
| <i>Hope</i>            | 8/04/12    | <i>[Signature]</i> | 9/4/12 140                         | <i>[Signature]</i>            |                 | SAMPLER MUST BE MAINTAINED DURING SHIPMENT/DELIVERY |                                     |                                     |          |            |          |     |         |        |              |             |                 |           |             |             |  |   |
| RELINQUISHED BY (SIG.) | DATE/TIME  | RECEIVED BY (SIG.) | DATE/TIME                          | RECEIVED BY (SIG.)            | DATE/TIME       | SAMPLER MUST BE MAINTAINED DURING SHIPMENT/DELIVERY |                                     |                                     |          |            |          |     |         |        |              |             |                 |           |             |             |  |   |
| RELINQUISHED BY (SIG.) | DATE/TIME  | RECEIVED BY (SIG.) | DATE/TIME                          | RECEIVED BY (SIG.)            | DATE/TIME       | SAMPLER MUST BE MAINTAINED DURING SHIPMENT/DELIVERY |                                     |                                     |          |            |          |     |         |        |              |             |                 |           |             |             |  |   |

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. No 244677