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Doc/Event #:

NC DENR

Division of Waste Management - Solid Waste

# Environmental Monitoring Reporting Form

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

### Instructions:

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

### Solid Waste Monitoring Data Submittal Information

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

Smith Gardner, Inc.

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

Name: Madeline German

Phone: 919-828-0577x222

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)

Washington County C&D Landfill

718 Landfill Road, Roper, NC

94-04

.0500

September 2, 2015

### 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

Date

Affix NC Licensed/Professional Geologist Seal

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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# September 2015 Groundwater Monitoring Report

**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 2015**

Prepared by:

NC LIC. NO. C-0828 (ENGINEERING)

**SMITH+GARDNER**

14 N. Boylan Avenue, Raleigh NC 27603 | 919.828.0577



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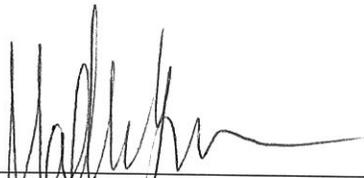
# September 2015 Groundwater Monitoring Report

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

Prepared For:

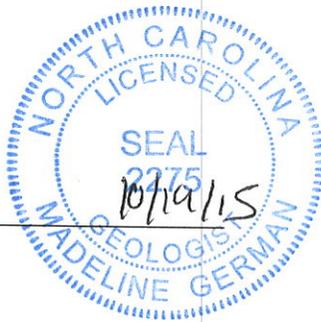
**Washington County  
Plymouth, North Carolina**

**S+G Project No. WASH 08-2**



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Madeline German, P.G.  
Project Geologist



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Joan A. Smyth, P.G.  
Senior Hydrogeologist

**October 2015**

NC LIC. NO. C-0828 (ENGINEERING)

**SMITH+GARDNER**

14 N. Boylan Avenue, Raleigh NC 27603 | 919.828.0577

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**Washington County C&D Landfill  
NC Solid Waste Permit No. 94-04-CDLF-1996**

**September 2015 Groundwater Monitoring Report**

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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 groundwater 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 2, 2015.

The Washington County Landfill is currently accepting C&D waste. The groundwater monitoring network includes four wells located around the landfill perimeter. This report summarizes field procedures, laboratory analyses and groundwater 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 2, 2015, included collecting samples from four groundwater wells (CD-1 through CD-4) in accordance with the approved site Sampling and Analysis Plan<sup>1</sup>. No surface water sampling locations are identified for this site.

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. Groundwater samples were properly preserved, placed on ice and transported to the laboratory facility within the specified holding times for each analysis.

## 4.0 FIELD & LABORATORY DATA

### 4.1 Laboratory Analysis

The groundwater 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 plus tetrahydrofuran per EPA Test Method 8260B, Appendix I and C&D metals via EPA Test Method 200.7 or 200.8. Iron, total alkalinity, chloride, total

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<sup>1</sup> Water Quality Monitoring Plan, S&ME, August 1, 1994

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 cobalt (CD-1 and CD-2), iron (CD-1, CD-2 and CD-3), and manganese (CD-1, CD-2 and CD-3) were reported above their respective 2L standards.

The indicator parameters sulfate (CD-1 and CD-2) and total dissolved residue (CD-2) were reported above their 2L Standards.

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

Constituents reported between the MDL and the SWSL are defined by the laboratory as "J" qualified values; which are not quantifiable values. Detected inorganic constituents are presented in **Table 3**.

## **5.0 GROUNDWATER CHARACTERIZATION**

A single-day potentiometric surface map was prepared from groundwater data collected from both the C&D landfill and the adjacent MSW landfill during this sampling event. The data indicates that groundwater flows generally in a northern direction.

Groundwater flow velocities were calculated for site monitoring wells using the equation:

$$V = Ki/n$$

where K = hydraulic conductivity  
i = groundwater gradient  
n = porosity

Groundwater flow average velocities were  $3.15 \times 10^{-3}$  ft/day. Hydraulic conductivity data interpreted from November 2011 Design Hydrogeologic Report<sup>2</sup>. Well gradients and velocities are presented in **Table 4**. The potentiometric surface map is presented as **Figure 1**.

## **6.0 CONCLUSIONS**

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

The next groundwater monitoring event is tentatively scheduled for March 2016. Results will be reported after receipt of laboratory analysis.

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<sup>2</sup> Design Hydrogeologic Report, Washington County C&D Landfill (Permit 94-04), prepared by Richardson Smith Gardner and Associates, November 2011.

**FIGURE**

**September 2015 Groundwater Monitoring Report  
Washington County C&D Landfill  
NC Solid Waste Permit No. 94-04-CDLF-1996**

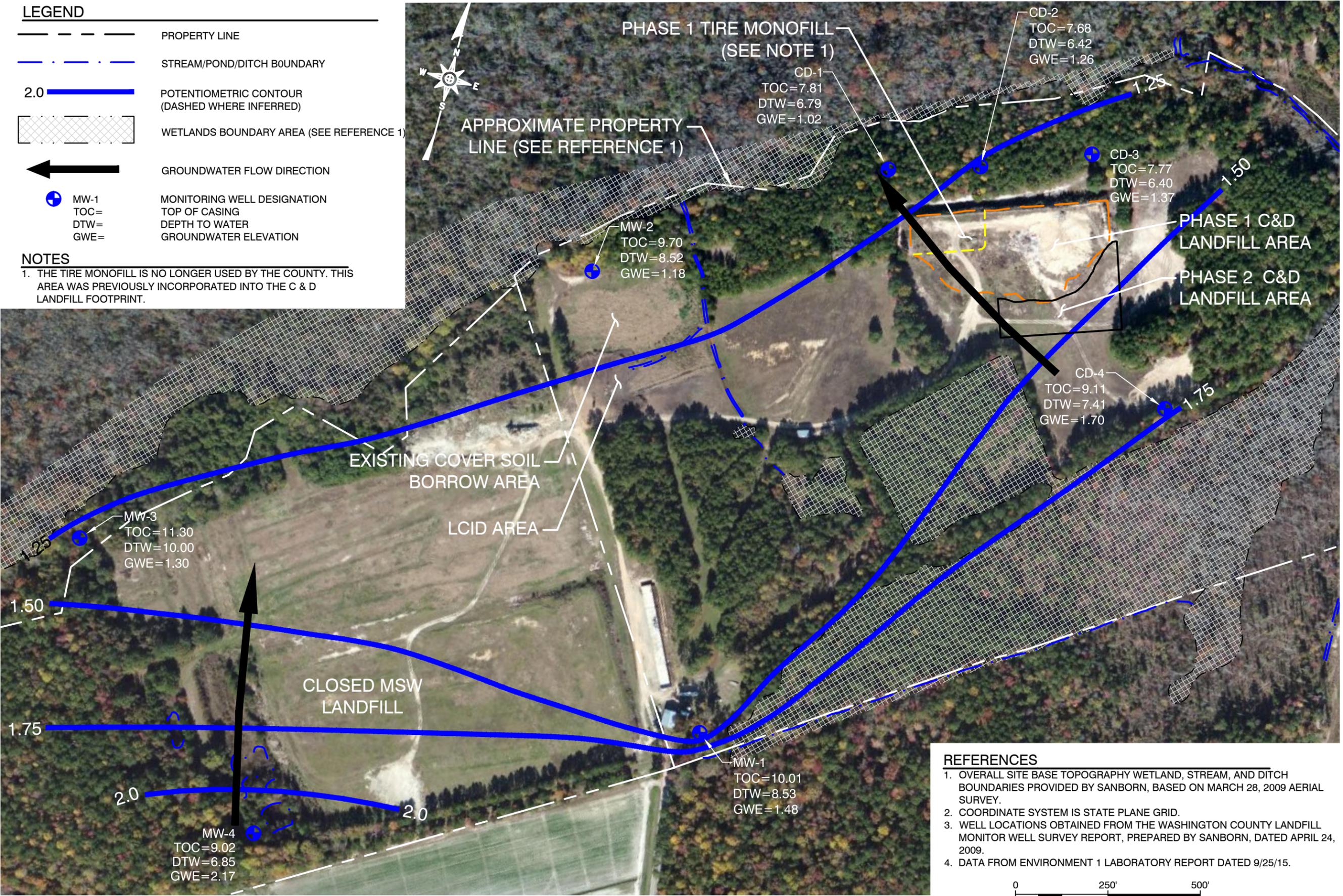
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**LEGEND**

- PROPERTY LINE
- STREAM/POND/DITCH BOUNDARY
- 2.0 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  
GROUNDWATER 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 9/25/15.



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PREPARED FOR: WASHINGTON COUNTY  
MSW AND C&D LANDFILLS  
POTENTIOMETRIC SURFACE MAP  
SEPTEMBER 2015

DRAWN: T.R.S. DATE: Oct 2015

APPROVED: M.M.G. PROJECT NO: WASH 08-2

SCALE: AS SHOWN FILENAME: WASH-B0049

FIGURE NO: 1

PREPARED BY: SMITH+GARDNER  
NC LIC. NO. C-0828 (ENGINEERING)  
14 N. Boylan Avenue, Raleigh NC 27603 | 919.828.0577

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## **TABLES**

**September 2015 Groundwater Sampling Report  
Washington County C&D Landfill  
NC Solid Waste Permit No. 94-04-CDLF-1996**

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Well	Well Installation Date	Latitude	Longitude	Well Diameter (inches)	Total Well Depth (feet bgs)	Ground Surface Elevation (feet amsl)	TOC Elevation (feet amsl)	Depth to Water (feet)	Groundwater Elevation (feet)	Screen Interval* (feet bgs)	Screen Geology** (comparison boring)
CD-1	NA	35.92306	76.66425	2.0	22.90	3.16	7.81	6.79	1.02	13-23	sand (B-2)
CD-2	NA	35.92324	76.66343	2.0	19.90	4.48	7.68	6.42	1.26	10-20	sand (B-3)
CD-3	NA	35.92353	76.66247	2.0	21.45	5.47	7.77	6.40	1.37	11.5-21.5	sand (B-3)
CD-4	NA	35.92184	76.66252	2.0	20.67	5.19	9.11	7.41	1.7	11-21	sand (B-7)

Note:

1. Well locations and elevations provided by Sanborn, Charlotte, NC from field survey conducted on 4/8/09.
  2. Depth to water measured from top of PVC casing.
  3. \*Screen interval assumed as 10 feet for all locations
  4. \*\* Nearby soil borings were used to determine geology in monitoring wells.
  5. Total Well Depth and Depth to Water from Environmental 1. Report date 9/25/2015, Client ID# 6030
- NA = not available

**Table 2**  
 Field Parameters  
 Washington County C&D Landfill  
 September 2, 2015

Well	pH (Std units)	Specific Conductivity (umhos/cm)	Temperature (Celsius)
CD-1	4.0	417	22
CD-2	5.0	926	23
CD-3	5.0	384	22
CD-4	5.1	55	21

Note: Lab data from Environmental 1, Inc. Report September 25, 2015, Client ID# 6030

Parameter	MDL	SWSL	2L or GWP* Standard	MCL	CD-1	CD-2	CD-3	CD-4
Alkalinity	1000	NE	NE	NE	<1000	34000	4000	6000
Chloride	5000	5000	250000	250000	12000	74000	8000	5000
Sulfate	5000	250000	250000	250000	<b>256000</b>	<b>549000</b>	157000 J	14200 J
Total Dissolved Residue	1000	NE	500000	500000	460000	<b>890000</b>	284000	46000
Antimony	0.02	6	1*	6	<0.02	0.03 J	<0.02	<0.02
Arsenic	0.14	10	10	10	0.31 J	0.85 J	<0.14	<0.14
Barium	0.01	100	700	200	13.7 J	15.9 J	113	16.7 J
Beryllium	0.02	1	4*	4	3	1	0.41 J	0.20 J
Cadmium	0.01	1	2	5	0.72 J	0.77 J	0.88 J	0.88 J
Cobalt	0.03	10	1*	NE	<b>38</b>	<b>15</b>	7.7 J	1.2 J
Copper	0.02	10	1000	1300	0.69 J	1.2 J	0.73 J	0.33 J
Total Chromium	0.12	10	10	100	<0.12	0.63 J	0.38 J	<0.12
Iron	8.64	300	300	300	<b>14969</b>	<b>11852</b>	<b>2502</b>	210 J
Manganese	0.21	50	50	50	<b>1030</b>	<b>891</b>	<b>2294</b>	37 J
Lead	0.03	10	15	15	0.18 J	<0.03	0.34 J	<0.03
Nickel	0.01	50	100	NE	5.0 J	6.5 J	3.0 J	0.49 J
Selenium	0.22	10	20	50	4.1 J	2.8 J	1.5 J	<0.22
Thallium	0.02	5.5	NE	2	<0.02	0.08 J	<0.02	<0.02
Vanadium	0.22	25	0.3*	NE	<0.22	1.4 J	0.44 J	0.98 J
Zinc	0.20	10	1000	5000	36	21	7.1 J	0.68 J

Note:

- MDL - Method Detection Limit
- SWSL - Solid Waste Section Quantitation Limit
- 2L - Groundwater Standard (15A NCAC 2L 0200)
- GWP\* - Groundwater Protection Standard (indicated with \*)
- MCL - Federal Maximum Contaminant Limit
- <MDL - Not detected at or above the MDL
- Bold** - Detected above 2L or GWP Standard
- J - Laboratory defined as a constituent concentration between the MDL and the SWSL
- NE - Standard Not Established

Results are presented in ug/l (ppb).

Lab data from Environmental 1, Inc. Report 9/25/2015, Client ID# 6030

GWP standard used if 2L Standard not established

**Table 4**  
 Groundwater Gradients and Velocities  
 Washington County C&D Landfill  
 September 2, 2015

Well	Groundwater Elevation (feet)	Hydraulic Conductivity (cm/sec)	Porosity (%)	Gradient	Velocity (cm/sec)	Velocity (ft/day)
CD-1	1.02	1.31E-04	0.184	0.0020	1.45524E-06	4.13E-03
CD-2	1.26	1.31E-04	0.184	0.0004	2.84783E-07	8.07E-04
CD-3	1.37	1.31E-04	0.184	0.0011	8.01663E-07	2.27E-03
CD-4	1.7	1.31E-04	0.184	0.0027	1.89879E-06	5.38E-03
					<b>Avg V (ft/day)</b>	<b>3.15E-03</b>

Note: Velocity Calculated from  $V=K*i/n$   
 V = velocity  
 K = Hydraulic Conductivity  
 i = Gradient  
 n = Porosity

Hydraulic Conductivity and porosity values averaged from November 2011 Richardson Smith Gardner and Associates, Inc. Design Hydrogeologic Report  
 Water level data collected by Environment 1 personnel.

## **Appendix A**

### **Laboratory Analytical Report**

**September 2015 Groundwater Monitoring Report  
Washington County C&D Landfill  
NC Solid Waste Permit No. 94-04-CDLF-1996**

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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: 09/02/15  
DATE REPORTED : 09/25/15

REVIEWED BY: 

PARAMETERS	MDL	SWSL	CD-1	CD-2	CD-3	CD-4	Analysis Date	Method Analyst	Code
PH (field measurement), Units			4.0	5.0	5.0	5.1	09/02/15	TB	4500HB-00
Alkalinity (to pH 4.5), mg CaCO3/l	1.0	1.0	--- U	34	4	6	09/04/15	SEJ	2320B-97
Chloride, mg/l	5.0	5.0	12	74	8	5	09/08/15	KDS	4500CLB-97
Total Dissolved Residue, mg/l	1.0	1.0	460	890	284	46	09/05/15	SDB	2540C-97
Sulfate, mg/l	5.0	250.0	256	549	157 J	14.2 J	09/14/15	SEJ	4500SO42E97
Antimony, ug/l	0.02	6.0	--- U	0.03 J	--- U	--- U	09/11/15	LFJ	EPA200.8
Arsenic, ug/l	0.14	10.0	0.31 J	0.85 J	--- U	--- U	09/11/15	LFJ	EPA200.8
Barium, ug/l	0.01	100.0	13.7 J	15.9 J	113	16.7 J	09/11/15	LFJ	EPA200.8
Beryllium, ug/l	0.02	1.0	3	1	0.41 J	0.20 J	09/11/15	LFJ	EPA200.8
Cadmium, ug/l	0.01	1.0	0.72 J	0.77 J	0.88 J	0.88 J	09/11/15	LFJ	EPA200.8
Cobalt, ug/l	0.03	10.0	38	15	7.7 J	1.2 J	09/11/15	LFJ	EPA200.8
Total Chromium, ug/l	0.12	10.0	--- U	0.63 J	0.38 J	--- U	09/11/15	LFJ	EPA200.8
Copper, ug/l	0.02	10.0	0.69 J	1.2 J	0.73 J	0.33 J	09/11/15	LFJ	EPA200.8
Iron, ug/l	8.64	300.0	14969	11852	2502	210 J	09/10/15	LFJ	EPA200.7
Manganese, ug/l	0.21	50.0	1030	891	2294	37 J	09/10/15	LFJ	EPA200.7
Lead, ug/l	0.03	10.0	0.18 J	--- U	0.34 J	--- U	09/11/15	LFJ	EPA200.8
Mercury, ug/l	0.05	0.20	--- U	--- U	--- U	--- U	09/11/15	MJM	245.1 R3-94
Nickel, ug/l	0.01	50.0	5.0 J	6.5 J	3.0 J	0.49 J	09/11/15	LFJ	EPA200.8
Selenium, ug/l	0.22	10.0	4.1 J	2.8 J	1.5 J	--- U	09/11/15	LFJ	EPA200.8
Silver, ug/l	0.01	10.0	--- U	--- U	--- U	--- U	09/11/15	LFJ	EPA200.8
Thallium, ug/l	0.02	5.5	--- U	0.08 J	--- U	--- U	09/11/15	LFJ	EPA200.8
Vanadium, ug/l	0.22	25.0	--- U	1.4 J	0.44 J	0.98 J	09/11/15	LFJ	EPA200.8
Zinc, ug/l	0.20	10.0	36	21	7.1 J	0.68 J	09/11/15	LFJ	EPA200.8
Conductivity (at 25c), uMhos/cm	1.0	1.0	417	926	384	55	09/02/15	TB	2510B-97
Temperature, °C			22	23	22	21	09/02/15	TB	2550B-00
Static Water Level, feet			6.79	6.42	6.40	7.41	09/02/15	TB	
Well Depth, feet			22.90	19.90	21.45	20.67	09/02/15	TB	

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: 09/02/15  
DATE ANALYZED: 09/14/15  
DATE REPORTED: 09/25/15

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-Dichloropropane	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.

Environment 1, Inc.  
 P.O. Box 7085, 114 Oakmont Dr.  
 Greenville, NC 27858  
 environment1inc.com  
 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

CHAIN OF CUSTODY RECORD

SAMPLE LOCATION	COLLECTION		TOTAL CHLORINE, mg/l OR ug/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/TESTS	CLASSIFICATION:
	DATE	TIME				CHLORINE	UV	NONE														
CD-1	9-2-15	1055	22	22	9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	C	C	C	C	C	C	C	C	C	C	C	C	A-NONE D-NAOH B-HNO <sub>3</sub> E-HCL C-H <sub>2</sub> SO <sub>4</sub> F-ZINC ACETATE/NAOH G-NATRIOSULFATE	WASTEWATER (NPDES)
CD-2	9-2-15	1110	23	23	8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	C	C	C	C	C	C	C	C	C	C	C	C		DRINKING WATER
CD-3	9-2-15	1130	22	22	8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	C	C	C	C	C	C	C	C	C	C	C	C		DW/GW
CD-4	9-2-15	1150	21	21	8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	C	C	C	C	C	C	C	C	C	C	C	C		SOLID WASTE SECTION
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	COMMENTS:																
<i>Tom Beasley</i>	9-2-15 1435	<i>[Signature]</i>	9-2-15 242	<i>[Signature]</i>		SAMPLER MUST BE PLACED IN LAB AT 0-2 °C																
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	SAMPLER MUST BE PLACED IN LAB AT 0-2 °C																

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 306223

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