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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 9, 2014

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 11/25/14

Affix NC Licensed/ Professional Geologist Seal

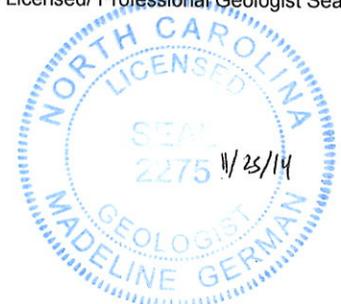
14 N. Boylan Ave, Raleigh, NC 27603

Facility Representative Address

CO828

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

Revised 6/2009



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September 2014 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**

November 2014

Prepared by:

SMITH+GARDNER

14 N. Boylan Avenue, Raleigh NC 27603 | 919.828.0577



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September 2014 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


Madeline German, P.G.
Project Geologist




Joan A. Smyth, P.G.
Senior Hydrogeologist



November 2014

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

September 2014 Groundwater Monitoring Report

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Figure 1 Potentiometric Surface Map

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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 March 6, 2014.

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 9, 2014, included collecting samples from four groundwater wells (CD-1 through CD-4) in accordance with the approved site Sampling and Analysis Plan¹. 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 per EPA Test Method 8260B, tetrahydrofuran, Appendix I and C&D metals via EPA Test Method 200.7 or 200.8. Iron, total alkalinity, chloride, total dissolved

¹ Water Quality Monitoring Plan, S&ME, August 1, 1994

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 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 1.79×10^{-3} ft/day. Hydraulic conductivity data interpreted from November 2011 Design Hydrogeologic Report². 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 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 groundwater monitoring event is tentatively scheduled for March 2015. Results will be reported after receipt of laboratory analysis.

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

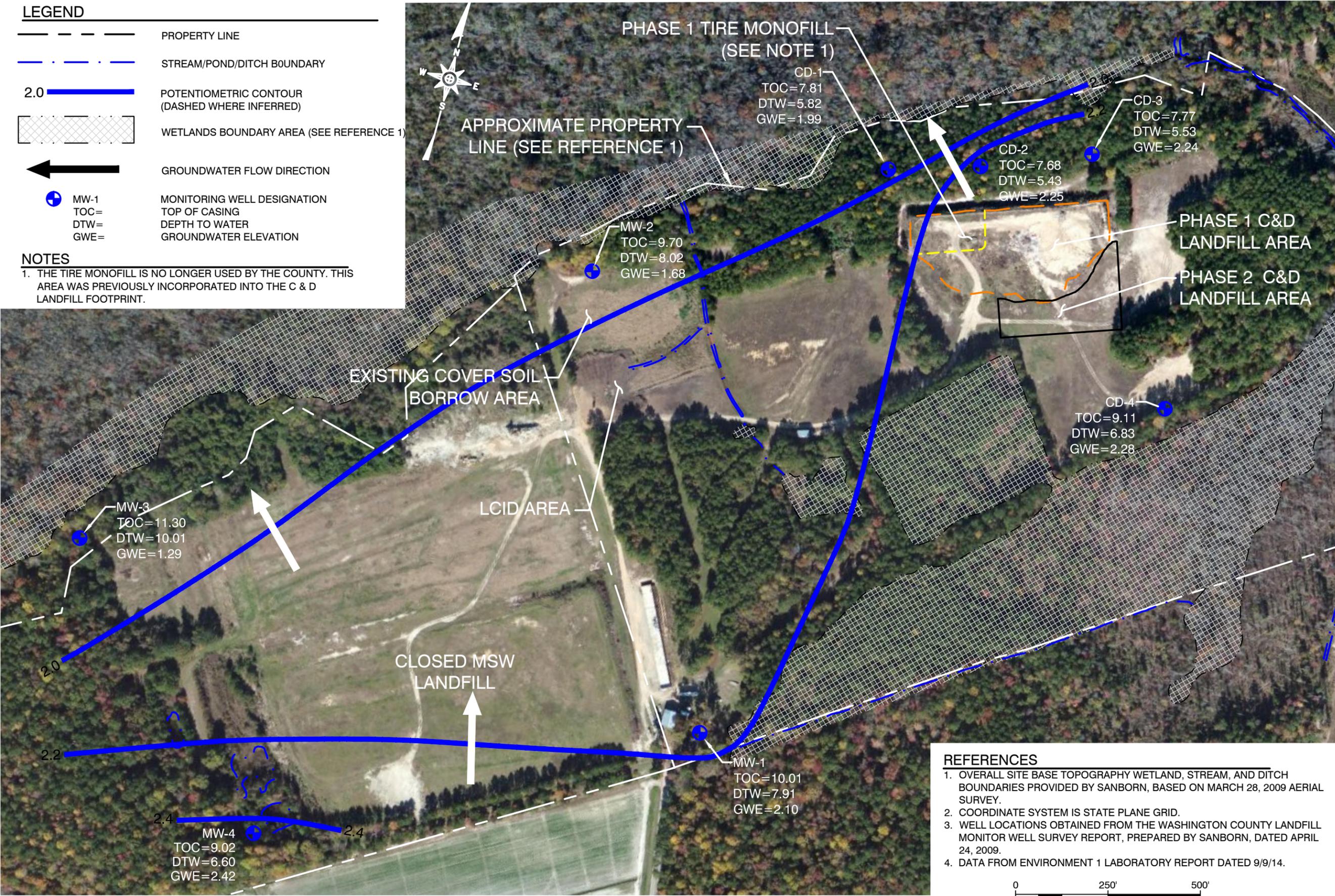
FIGURE

**September 2014 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
	POTENTIOMETRIC CONTOUR (DASHED WHERE INFERRED)
	WETLANDS BOUNDARY AREA (SEE REFERENCE 1)
	GROUNDWATER FLOW DIRECTION
	MONITORING WELL DESIGNATION
	TOC= DTW= GWE=
	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 9/9/14.



PREPARED FOR: WASHINGTON COUNTY
 MSW AND C&D LANDFILLS
 POTENTIOMETRIC SURFACE MAP
 SEPTEMBER 2014

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

DRAWN: J.A.L.	APPROVED: M.M.G.	SCALE: AS SHOWN	FIGURE NO: 1
DATE: Nov 2014	PROJECT NO: WASH 08-2	FILENAME: WASH-B0047	

G:\CAD\Washington County\Wash 08-2\sheets\WASH-B0047.dwg - 11/4/2014 3:13 PM

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TABLES

**September 2014 Groundwater Sampling Report
Washington County C&D Landfill
NC Solid Waste Permit No. 94-04-CDLF-1996**

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**Table 1
Groundwater Elevation Data
Washington County C&D Landfill
September 9, 2014**

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	22.94	3.16	7.81	5.82	1.99	13-23	sand (B-2)
CD-2	NA	35.92324	76.66343	2.0	19.90	4.48	7.68	5.43	2.25	10-20	sand (B-3)
CD-3	NA	35.92353	76.66247	2.0	21.45	5.47	7.77	5.53	2.24	11.5-21.5	sand (B-3)
CD-4	NA	35.92184	76.66252	2.0	20.67	5.19	9.11	6.83	2.28	11-21	sand (B-7)

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

Well depth from Environment 1 lab report.

Depth to water measured from top of PVC casing.

*Screen interval assumed as 10 feet for all locations

** Nearby soil borings were used to determine geology in monitoring wells.

Environmental 1, Inc. data from Report date 10/24/2014, Client ID# 6030

NA = not available

Table 2
Field Parameters
Washington County C&D Landfill
September 9, 2014

Well	pH (Std units)	Specific Conductivity (umhos/cm)	Temperature (Celsius)
CD-1	4.1	577	21
CD-2	4.7	1029	21
CD-3	5.2	299	20
CD-4	5.0	54	21

Note: Lab data from Environmental 1, Inc. Report 10/24/2014, Client ID# 6030

Table 3
 Detected Inorganic Constituents
 Washington County C&D Landfill
 September 9, 2014

Parameter	MDL	SWSL	2L or GWP* Standard	MCL	CD-1	CD-2	CD-3	CD-4
Alkalinity	1000	NE	NE	NE	<1000	25000	12000	5000
Chloride	5000	5000	250000	250000	15000	107000	10000	<5000
Sulfate	5000	250000	250000	250000	281000	343000	178000 J	10200 J
Total Dissolved Residue	1000	NE	500000	500000	433000	881000	215000	41000
Antimony	0.12	6	1*	6	0.19 J	<0.12	0.54 J	0.15 J
Arsenic	0.10	10	10	10	0.69 J	1 J	0.33 J	<0.10
Barium	0.12	100	700	200	17.1 J	17.5 J	87.3 J	16.4 J
Beryllium	0.04	1	4*	4	3	1	0.36 J	0.16 J
Cadmium	0.04	1	2	5	0.62 J	0.51 J	0.4 J	<0.04
Cobalt	0.12	10	1*	NE	34	18	3 J	0.86 J
Copper	0.10	10	1000	1300	0.73 J	0.61 J	0.45 J	0.17 J
Total Chromium	0.14	10	10	100	0.22 J	0.69 J	0.54 J	0.32 J
Iron	16	300	300	300	12080	14860	2000	74 J
Manganese	0.21	50	50	50	1941	1246	1929	37 J
Lead	0.13	10	15	15	0.29 J	0.16 J	0.83 J	<0.13
Nickel	0.12	50	100	NE	4.5 J	5.8 J	1.5 J	0.47 J
Selenium	0.16	10	20	50	2.8 J	2.8 J	0.84 J	0.32 J
Silver	0.04	10	20	100	0.04 J	<0.04	<0.04	<0.04
Thallium	0.13	5.5	0.28*	2.00	<0.13	0.15 J	<0.13	<0.13
Vanadium	0.06	25	0.3*	NE	0.44 J	3 J	1.2 J	0.91 J
Zinc	0.53	10	1000	5000	207	25	4.7 J	2.6 J

Note:

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

Results are presented in ug/l (ppb).

Lab data from Environmental 1, Inc. Report 10/24/2014, Client ID# 6030

GWP standard used if 2L Standard not established

**Table 4
Groundwater Gradients and Velocities
Washington County C&D Landfil
September 9, 2014**

Well	Groundwater Elevation (feet)	Hydraulic Conductivity (cm/sec)	Porosity (%)	Gradient	Velocity (cm/sec)	Velocity (ft/day)
CD-1	1.99	1.31E-04	0.184	0.0004	2.848E-07	8.07E-04
CD-2	2.25	1.31E-04	0.184	0.0027	1.899E-06	5.38E-03
CD-3	2.24	1.31E-04	0.184	0.0004	2.68E-07	7.60E-04
CD-4	2.28	1.31E-04	0.184	0.0001	7.594E-08	2.15E-04

Notes

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 2014 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: 09/09/14
DATE REPORTED : 10/24/14

REVIEWED BY: 

PARAMETERS	MDL	SWSL	CD-1	CD-2	CD-3	CD-4	Analysis		Method
							Date	Analyst	Code
PH (field measurement), Units			4.1	4.7	5.2	5.0	09/09/14	BF	4500HB-00
Total Alkalinity (to pH 4.5), mg/l	1.0	1.0	--- U	25	12	5	09/09/14	TRB	2320B-97
Chloride, mg/l	5.0	5.0	15	107	10	--- U	09/11/14	LW	4500CLB-97
Total Dissolved Residue, mg/l	1.0	1.0	433	881	215	41	09/11/14	KKF	2540C-97
Sulfate, mg/l	5.0	250.0	281	343	178 J	10.2 J	09/15/14	TRB	4500SO42E97
Antimony, ug/l	0.12	6.0	0.19 J	--- U	0.54 J	0.15 J	10/22/14	LFJ	EPA200.8
Arsenic, ug/l	0.10	10.0	0.69 J	1.0 J	0.33 J	--- U	10/22/14	LFJ	EPA200.8
Barium, ug/l	0.12	100.0	17.1 J	17.5 J	87.3 J	16.4 J	10/22/14	LFJ	EPA200.8
Beryllium, ug/l	0.04	1.0	3	1	0.36 J	0.16 J	10/22/14	LFJ	EPA200.8
Cadmium, ug/l	0.04	1.0	0.62 J	0.51 J	0.40 J	--- U	10/22/14	LFJ	EPA200.8
Cobalt, ug/l	0.12	10.0	34	18	3.0 J	0.86 J	10/22/14	LFJ	EPA200.8
Copper, ug/l	0.10	10.0	0.73 J	0.61 J	0.45 J	0.17 J	10/22/14	LFJ	EPA200.8
Total Chromium, ug/l	0.14	10.0	0.22 J	0.69 J	0.54 J	0.32 J	10/22/14	LFJ	EPA200.8
Iron, ug/l	16.0	300.0	12080	14860	2000	74 J	09/22/14	MTM	3111B-99
Manganese, ug/l	0.21	50.0	1941	1246	1929	37 J	09/18/14	LFJ	EPA200.7
Lead, ug/l	0.13	10.0	0.29 J	0.16 J	0.83 J	--- U	10/22/14	LFJ	EPA200.8
Mercury, ug/l	0.06	0.20	--- U	--- U	--- U	--- U	09/19/14	MTM	245.1 R3-94
Nickel, ug/l	0.12	50.0	4.5 J	5.8 J	1.5 J	0.47 J	10/22/14	LFJ	EPA200.8
Selenium, ug/l	0.16	10.0	2.8 J	2.8 J	0.84 J	0.32 J	10/22/14	LFJ	EPA200.8
Silver, ug/l	0.04	10.0	0.04 J	--- U	--- U	--- U	10/22/14	LFJ	EPA200.8
Thallium, ug/l	0.13	5.5	--- U	0.15 J	--- U	--- U	10/22/14	LFJ	EPA200.8
Vanadium, ug/l	0.06	25.0	0.44 J	3.0 J	1.2 J	0.91 J	10/22/14	LFJ	EPA200.8
Zinc, ug/l	0.53	10.0	207	25	4.7 J	2.6 J	10/22/14	LFJ	EPA200.8
Conductivity (at 25c), uMhos/cm	1.0	1.0	577	1029	299	54	09/09/14	BF	2510B-97
Temperatura, °C			21	21	20	21	09/09/14	BF	2550B-00
Static Water Level, feet			5.82	5.43	5.53	6.83	09/09/14	BF	
Well Depth, feet			22.94	19.90	21.45	20.67	09/09/14	BF	

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: 09/09/14
DATE REPORTED: 10/24/14

Page: 1

REVIEWED BY: 

VOLATILE ORGANICS EPA METHOD 8260B R1(96)

PARAMETERS, ug/l	Date Analyzed:		09/20/14	09/19/14	09/19/14	09/20/14
	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

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: 09/09/14
DATE REPORTED: 10/24/14

Page: 2

REVIEWED BY: 

VOLATILE ORGANICS EPA METHOD 8260B R1 (96)

PARAMETERS, ug/l	Date Analyzed:		09/20/14	09/19/14	09/19/14	09/20/14
	MDL	SWSL	CD-1	CD-2	CD-3	CD-4
48. Tetrahydrofuran	0.39	1.0	--- U	--- U	--- U	--- U

CHAIN OF CUSTODY RECORD

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 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
	DATE	TIME				CHLORINE	UV	NONE													
CD-1	9-9-14	1040		21	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 D - NAOH B - HNO ₃ E - HCL C - H ₂ SO ₄ F - ZINC ACETATE/NAOH G - NA THIOSULFATE
CD-2	9-9-14	1055		21	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	9-9-14	1115		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	9-9-14	1135		21	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	
CHLORINE NEUTRALIZED AT COLLECTION pH CHECK (LAB) CONTAINER TYPE: P/G CHEMICAL PRESERVATION CLASSIFICATION: <input type="checkbox"/> WASTEWATER (NPDES) <input type="checkbox"/> DRINKING WATER <input type="checkbox"/> DWQ/GW <input checked="" type="checkbox"/> SOLID WASTE SECTION CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY SAMPLES COLLECTED BY: <u>Bobby Tom</u> (Please Print) SAMPLES RECEIVED IN LAB AT <u>0.9</u> °C																					
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	COMMENTS:															
<u>Bobby Tom</u>	9-9-14 1141	<u>Bobby Tom</u>	9-9-14 1142																		
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	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. **NO 282040**