



MECKLENBURG COUNTY
Land Use and Environmental Services Agency
Solid Waste Services

January 31, 2014

Ms. Jaclynne Drummond
North Carolina Department of Environment
and Natural Resources
Division of Waste Management
Groundwater Compliance Unit
Mail Service Center 1646
Raleigh, NC 27699-1646

Subject: Water Quality Monitoring Report
Harrisburg Road Landfill, Permit 60-01

Dear Ms. Drummond:

Mecklenburg County conducted semi-annual water quality monitoring at the closed Harrisburg Road Landfill December 16 & 17, 2013 in accordance with the approved revised sample and analysis plan dated May 11, 2004. Samples were collected from seven monitoring wells (HBW12B, HBW14, HBW17B, HBW20, HBW21, HBW22 and background well HBW28), two potable wells (MAINTE & HBW744) and, three surface-water sampling locations (HB2006, HB2008 and, HB2010). Laboratory analytical data, field-measured data, and a table of results exceeding water quality standards along with a preliminary explanation of the cause and significance are included on the electronic data deliverable (EDD) submittal on the enclosed CD.

The EDD containing the monitoring data are labeled to reflect the units that are used for reporting. Detection levels and applicable standards have been included for all sampling locations. Surface water standards listed are the water quality standards established for freshwater classification for aquatic life as outlined in 15A NCAC 2B "Classification and Water Quality Standards Applicable to Surface Waters of North Carolina". Groundwater standards listed are the standards outlined in 15A NCAC 2L "Classification of Water Quality Standards applicable to the Groundwaters of North Carolina". If the sample is reported in parts per billion, then the standard is also reported in parts per billion.

Surface-water samples:

Copper was detected in HB2006, HB2008 and HB2010 at levels of 3.1 ug/l, 3.5 ug/l and 4.8 ug/l, respectively. This is below the 2B surface water standard of 7 ug/l. Field-measured parameters for surface-water samples were within the range of established standards and are summarized in the table below.

Location	Temperature	PH	Specific Conductivity	Dissolved Oxygen
HB2006	6.4 ° C	7.2	0.157 ms/cm	11.93 mg/l
HB2008	7.8 ° C	7.3	0.144 ms/cm	11.30 mg/l
HB2010	5.7 ° C	7.3	0.200 ms/cm	11.73 mg/l

Groundwater samples:

Cobalt and Vanadium were detected above the 2L standard in several of the samples. This is due to the new published 2L standards for Cobalt and Vanadium as of October 1, 2010. Chromium was detected above the 2L standard in HBW22. The table below summarizes metals detections in groundwater samples.

Well ID	Ba ug/l	Be ug/l	Cd ug/l	Cr ug/l	Co ug/l	Cu ug/l	Ni ug/l	Pb ug/l	Vn ug/l	Zn ug/l
HBW744	-----	-----	-----	9.2	-----	41	-----	-----	6.9	110
HBW12B	-----	-----	-----	-----	-----	3.2	-----	-----	9.2	-----
HBW14	-----	-----	-----	-----	-----	13	-----	-----	7.7	-----
HBW17B	-----	-----	-----	-----	21	39	-----	-----	6.3	21
HBW20	-----	-----	-----	-----	-----	2.7	-----	-----	9.3	-----
HBW21	-----	-----	-----	-----	-----	2.4	-----	-----	9.4	-----
HBW22	-----	-----	-----	32	-----	4.6	5.1	-----	-----	-----
HBW28	-----	-----	-----	-----	7.9	8.6	-----	-----	-----	11
MAINTE	-----	-----	-----	-----	-----	95	-----	-----	6.9	110
2L Std. ug/l	700	4	2	10	1	1,000	100	15	0.3	1,000

Note: Bolded results exceed 2L Standard

The following eight volatile organic compounds ("VOCs") were detected in the sample collected from well HBW17B:

VOC	Sample Result ug/l	2L Standard ug/l
Benzene	12	1
Tetrachloroethylene	39	0.7
Trichloroethylene	30	3
1,1-Dichloroethane	10	6
1,2-Dichloropropane	11	0.6
cis-1,2 Dichloroethene	130	70
Methylene Chloride	5	5
Xylenes (total)	15	500

Note: Bolded results exceed 2L Standard

Chloroform was detected in HBW744 at a level of 15 ug/l. The well owner had recently chlorinated the water supply well. This is below the 2L standard of 70 ug/l.

In the samples collected from HBW12B, HBW17B, HBW21, HBW22 and background monitoring well HBW28, pH was measured to be more acidic than the standard. Field-measured parameters for groundwater samples are summarized in the following table:

Location	Temperature	pH	Conductivity
HBW12B	14.4 °C	6.4	0.294 ms/cm
HBW14	15.0 °C	6.8	0.198 ms/cm
HBW17B	15.7 °C	5.0	0.055 ms/cm
HBW20	15.8 °C	6.7	0.117 ms/cm
HBW21	15.4 °C	6.2	0.254 ms/cm
HBW22	16.2 °C	6.1	0.064 ms/cm
HBW28	16.2 °C	6.0	0.026 ms/cm
HBW744	16.1 °C	6.8	0.193 ms/cm
MAINTE	11.7 °C	6.9	0.061 ms/cm

Note: Bolded results are outside of the 6.5 to 8.5 S.U. range 2L Standard

Please call me at (704) 432-2478, if you have any questions concerning this report.

Sincerely,



Amber R. Grzymski, P.G.
Project Manager
LUESA Solid Waste Services



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):

Mecklenburg County Land Use & Environmental Services Agency, Solid Waste Services

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

Name: Amber R. Grzymski, P.G. Phone: 704-432-2478

E-mail: Amber.Grzymski@mecklenburgcountync.gov

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
Harrisburg Road Landfill	7817 Harrisburg Road, Charlotte	60-01	.0500	December 16-17, 2013

Environmental Status: (Check all that apply)

- Initial/Background Monitoring Detection Monitoring Assessment Monitoring Corrective Action

Type of data submitted: (Check all that apply)

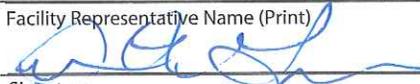
- Groundwater monitoring data from monitoring wells Methane gas monitoring data
 Groundwater monitoring data from private water supply wells Corrective action data (specify) _____
 Leachate monitoring data Other(specify) _____
 Surface water monitoring data

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.

Amber R. Grzymski, P.G. Project Manager 704-432-2478
 Facility Representative Name (Print) Title (Area Code) Telephone Number
 1/31/2014 Affix NC Licensed/ Professional Geologist Seal
 Signature Date

700 N Tryon Street, Charlotte, NC 28202
 Facility Representative Address

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



