



MECKLENBURG COUNTY
Land Use and Environmental Services Agency
Solid Waste Services

July 18, 2013

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 June 2013
Harrisburg Road Landfill, Permit 60-01

Dear Ms. Drummond:

Mecklenburg County conducted semi-annual water quality monitoring at the closed Harrisburg Road Landfill June 4 and June 5, 2013 in accordance with the approved revised sample and analysis plan dated May 11, 2004. Samples were collected from eleven monitoring wells (HBW-12A, HBW-12B, HBW-14, HBW-14B, HBW-14C, HBW-14D, HBW-17B, HBW-20, HBW-21, HBW-22 and background well HBW-28), two potable wells (HBW-744 and MAINT) 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:

Arsenic and Copper were detected at low levels in the samples collected from HB2006, HB2008 and HB 2010. This is likely the result of abundant recent rainfall. The field lab equipment malfunctioned and did not take readings on samples HB2006 and HB2008. Field-measured parameters for surface-water sample HB2010 were within the range of established standards and are summarized in the table below.

Location	Temperature	PH	Specific Conductivity	Dissolved Oxygen
HB2006	---	---	---	---
HB2008	---	---	---	---
HB2010	19.7 ° C	6.92	0.172 ms/cm	8.32 mg/l

Groundwater samples:

Chromium was detected above the 2L standard in HBW22. Cobalt and Vanadium were detected above their newly developed groundwater standards in a number of wells. No other metals were detected above the 2L standard. 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
MAINTE	----	----	----	----	----	40	----	----	6.1	73
HBW744	----	----	----	----	----	----	----	----	5.2	12
HBW12A	----	----	----	5.7	----	19	----	----	36	15
HBW12B	----	----	----	----	6.1	11	----	----	18	12
HBW14	----	----	----	----	----	18	----	----	8.3	15
HBW14B	----	----	----	----	----	10	----	----	----	----
HBW14C	----	----	----	----	----	6.1	----	----	----	----
HBW14D	----	----	----	----	----	3.2	----	----	----	----
HBW17B	----	----	----	----	18	11	----	----	----	22
HBW-20	----	----	----	----	----	4.9	----	----	12	----
HBW-21	----	----	----	----	----	4.7	----	----	10	----
HBW-22	----	----	----	23	----	4.4	----	----	----	----
HBW-28	----	----	----	5.1	5.6	16	----	----	12	13
2L Std. ug/l	700	----	2.0	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 HBW-17B:

VOC	Sample Result ug/l	2L Standard ug/l
Benzene	12	1
Methylene Chloride	14	5
Tetrachloroethylene	58	0.7
Trichloroethylene	42	2.8
1,1-Dichloroethane	13	6
1,2-Dichloropropane	12	0.6
cis-1,2 Dichloroethene	160	70
Xylenes (total)	42	500

Note: Bolded results exceed 2L Standard

The pH was measured to be more acidic than the standard in the samples collected from HBW-12A, HBW-12B, HBW14B, HBW14C, HBW14D, HBW17B, HBW-20, HBW-21, HBW-22 and background monitoring well HBW-28. The field lab equipment malfunctioned and readings were not collected for HBW-744. Field-measured parameters for groundwater samples are summarized in the following table:

Location	Temperature	pH	Conductivity
HBW12A	14.5 °C	5.97	0.255 ms/cm
HBW12B	14.6 °C	5.87	0.279 ms/cm
HBW14	14.2 °C	6.72	0.187 ms/cm
HBW14B	14.6 °C	6.49	0.175 ms/cm
HBW14C	14.5 °C	6.44	0.179 ms/cm
HBW14D	14.4°C	6.08	0.288 ms/cm
HBW17B	16.5 °C	4.75	0.071 ms/cm
HBW-20	16.0 °C	5.78	0.106 ms/cm
HBW-21	15.9 °C	6.03	0.111 ms/cm
HBW-22	17.5 °C	5.57	0.054 ms/cm
HBW-28	17.7 °C	5.06	0.023 ms/cm
HBW-744	-----	-----	-----
MAINTE	17.6 °C	6.76	0.064 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



~~DENR USE ONLY~~

Paper Report

Electronic Data - Email CD (data loaded: Yes / No)

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):

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. Grzymiski, P.G.

Phone: 704-432-2478

E-mail: Amber.Grzymiski@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	June 4-5, 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. Grzymiski, P.G.

Project Manager

704-432-2478

Facility Representative Name (Print)

Title

(Area Code) Telephone Number

Signature

7/18/2013

Affix NC Licensed/ Professional Geologist Seal

700 N Tryon Street, Charlotte, NC 28202

Facility Representative Address

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

Revised 6/2009

