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. 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, NC	60-01	.0500	June 14-15, 2011

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

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

Signature | 7-20-2011 Date

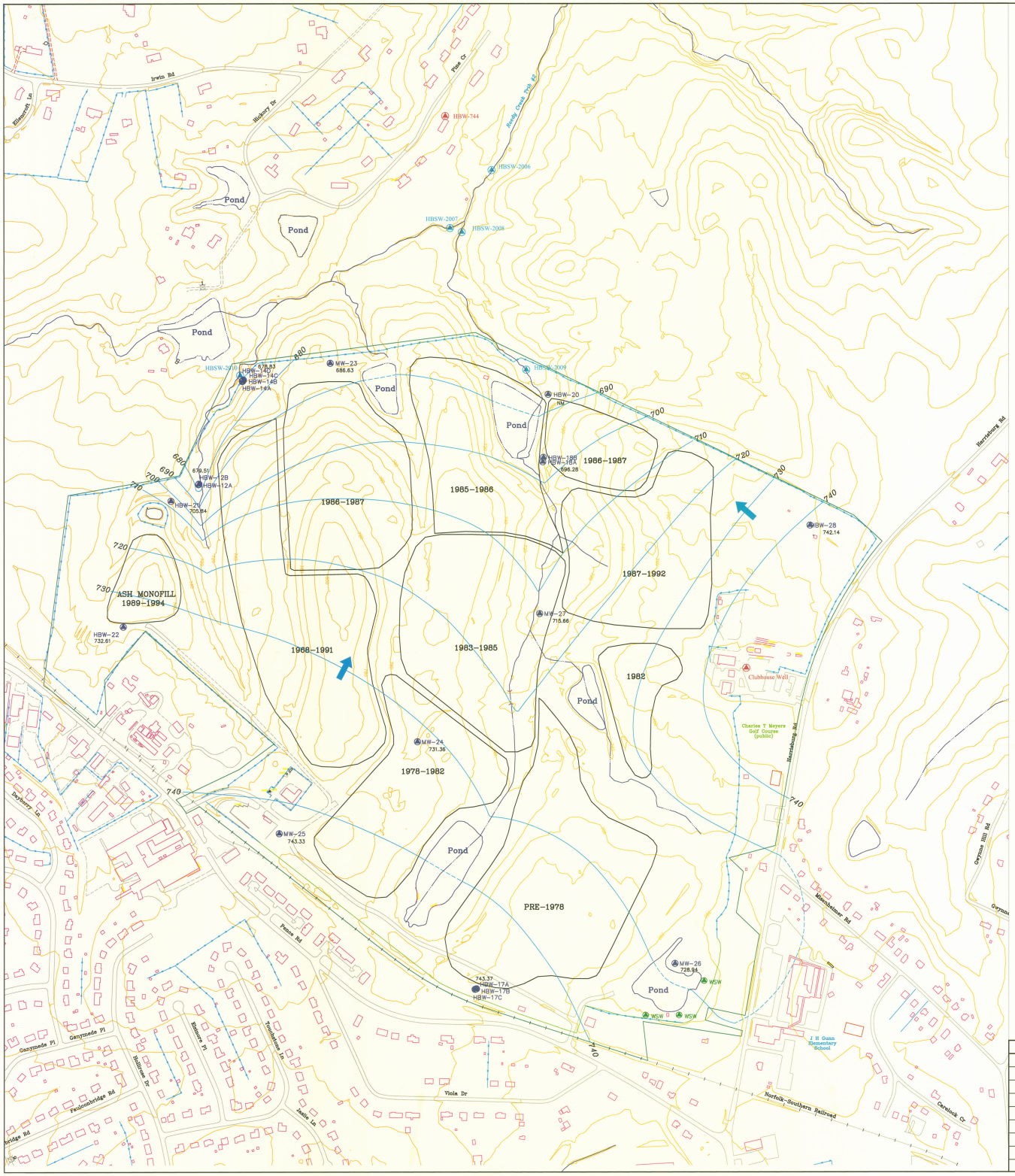
Affix NC Licensed/ Professional Geologist Seal

700 N Tryon Street, Charlotte, NC 28202

Facility Representative Address

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

Revised 6/2009



LEGEND

- MONITORING WELL
- POTABLE WELL
- SURFACE-WATER SAMPLING LOCATIONS
- WATER SUPPLY WELLS FOR IRRIGATION PURPOSES
- 731.46 GROUNDWATER SURFACE ELEVATION (FT) (4/23/01)
- APPROXIMATE WASTE BOUNDARY AND DATES OF PLACEMENT
- GROUNDWATER SURFACE (ESTIMATED WHERE DASHED)
- GENERALIZED GROUNDWATER FLOW DIRECTION
- PLANIMETRIC FENCELINE CAPTURED AT PHOTOSCALE 1" = 1000'
- SURFACE WATER CAPTURED AT PHOTOSCALE 1" = 1000'
- TAX PARCEL BOUNDARY

NOTES:
1. ALL ON SITE WELL LOCATIONS WERE SURVEYED BY FDL ASSOC.
2. GROUNDWATER DATA REFLECTS PUMPING CONDITIONS FROM WATER SUPPLY WELLS IN THE AREA OF MW-26.
3. SURFACE-WATER SAMPLING SITES LOCATED USING GPS - SEPTEMBER 3, 2002
4. GROUNDWATER SURFACE CONTOURS BASED ON S&ME MAP DATED JUNE 4, 2001
5. HBW-28 RENAMED FROM MW-28

NORTH CAROLINA LICENSED SEAL 1845 GEOLOGIST DENNIS F. TYNDALL

GRAPHIC SCALE

600 300 150 0 300 900

(IN FEET)
1 inch = 300 ft.

SOURCE: MECKLENBURG COUNTY GIS AND GPS SURVEY FOR WELL LOCATIONS AND S&ME MAP DATED JUNE 4, 2001

NO.	DATE:	DESCRIPTION	BY

Mapping / GIS Services
Mecklenburg County Land Use & Environmental Services Agency

SAMPLE LOCATION PLAN

HARRISBURG ROAD LANDFILL
CHARLOTTE, NORTH CAROLINA

SCALE:	1" = 300'	DRAWN BY:	S.GREGORY	CHECKED BY:	
JOB NO.	MAP/GIS	DATE:	10/15/02	FIGURE:	FIGURE1

MECKLENBURG COUNTY

Land Use and Environmental Services Agency
Solid Waste Services

July 20, 2011

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 2011
Harrisburg Road Landfill, Permit 60-01

Dear Ms. Drummond:

Mecklenburg County conducted semi-annual water quality monitoring at the closed Harrisburg Road Landfill June 14 and June 15, 2011 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 CLUBHS) 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.

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www.wipeoutwaste.com

Surface-water samples:
No analytes were detected in the samples collected from HB2006, HB2008. Copper was detected in HB2010 at a level of 3.2 ug/l which is below the 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	21.1 ° C	7.32	0.204 ms/cm	10.15 mg/l
HB2008	21.2 ° C	7.30	0.212 ms/cm	10.07 mg/l
HB2010	19.6 ° C	6.97	0.220 ms/cm	10.05 mg/l

Groundwater samples:
Chromium was detected above the 2L standard in HBW22. This was due to the lowering of the groundwater standard from 50 ug/l to 10 ug/l. 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
CLUBHS	-----	-----	-----	-----	-----	-----	-----	-----	-----	90
HBW744	-----	-----	-----	-----	-----	-----	-----	-----	**5.7**	-----
HBW12A	-----	-----	-----	7.9	**5.8**	24	-----	-----	**47**	19
HBW12B	-----	-----	-----	-----	**6.8**	3.2	-----	-----	**9.6**	-----
HBW14	-----	-----	-----	-----	-----	35	-----	-----	**17**	25
HBW14B	-----	-----	-----	-----	-----	2.1	-----	-----	-----	18
HBW14C	-----	-----	-----	-----	-----	-----	-----	-----	-----	22
HBW14D	-----	-----	-----	-----	-----	4.4	-----	-----	-----	45
HBW17B	-----	-----	-----	-----	**17**	17	-----	-----	-----	23
HBW-20	-----	-----	-----	-----	-----	16	-----	-----	**28**	41
HBW-21	-----	-----	-----	-----	-----	2.3	-----	-----	-----	-----
HBW-22	-----	-----	-----	**28**	-----	4.5	-----	-----	-----	39
HBW-28	-----	-----	-----	6.3	**37**	20	5.8	-----	**11**	27
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 nine volatile organic compounds ("VOCs") were detected in the sample collected from well HBW-17B:

VOC	Sample Result ug/l	2L Standard ug/l
Benzene	**15**	**1**
Methylene Chloride	**5**	**5**
Tetrachloroethylene	**63**	**0.7**
Trichloroethylene	**38**	**2.8**
1,1-Dichloroethane	**13**	**6**
1,2-Dichloropropane	**12**	**0.6**
cis-1,2 Dichloroethene	**150**	**70**
Vinyl Chloride	**5**	**.03**
Xylenes (total)	23	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, HBW14, HBW14B, HBW14C, HBW14D, HBW17B, HBW-20, HBW-21, and background monitoring well HBW-28. Field-measured parameters for groundwater samples are summarized in the following table:

Location	Temperature	pH	Conductivity
HBW12A	14.8 °C	**6.41**	0.256 ms/cm
HBW12B	14.9 °C	**6.20**	0.282 ms/cm
HBW14	14.1 °C	**6.08**	0.185 ms/cm
HBW14B	14.4 °C	**5.92**	0.170 ms/cm
HBW14C	14.5 °C	**5.93**	0.177 ms/cm
HBW14D	15.1°C	**5.82**	0.286 ms/cm
HBW17B	16.7 °C	**5.24**	0.054 ms/cm
HBW-20	15.8 °C	**6.12**	0.099 ms/cm
HBW-21	16.1 °C	**5.96**	0.356 ms/cm
HBW-22	18.1 °C	6.52	0.055 ms/cm
HBW-28	17.8 °C	**5.77**	0.050 ms/cm
HBW-744	18.1 °C	6.57	0.166 ms/cm
CLUBHS	18.1 °C	6.58	0.077 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