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

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

Name: Dennis F. Tyndall, P.G. Phone: (704) 336-5454

E-mail: Dennis.Tyndall@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	7819 Harrisburg Road	60-01	.0500	January 12, 14 & 15, 2009

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 or explosive methane gas limits 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.

Dennis F. Tyndall Hydrogeologist (704) 336-5454

Facility Representative Name (Print) Title (Area Code) Telephone Number

13 MAY 2009

Signature Date

Affix NC Licensed/ Professional Geologist Seal

NORTH CAROLINA LICENSED SEAL 1845 GEOLOGIST DENNIS F. TYNDALL

Revised 10/2006

MECKLENBURG COUNTY

Land Use and Environmental Services Agency
Water and Land Resources

May 13, 2009

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 in January 2009 in accordance with the approved revised sample and analysis plan dated May 11, 2004. This report details the results of that monitoring event. Laboratory data, field data and a summary table of values exceeding standards are contained on the electronic data deliverable (EDD) submittal on the enclosed CD.

Samples were collected from five monitoring wells (HBW12B, HBW14, HBW17B, HBW-20, HBW-21, HBW-22, HBW-28), two potable wells (HBW744 and CLUBHS) and, three surface-water sampling locations (HB2006, HB2008 and, HB2010).

The monitoring data in the EDD is 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". Results exceeding water quality standards along with a preliminary explanation of the cause and significance are included.

Surface water samples:

Copper was detected between 2.2 and 3.2 ug/l in all three surface water samples below the 2B Standard of 7 ug/l. Zinc was detected at 11.0 and 12.0 ug/l respectively in the samples collected from HB2008 and HB2010 below the 2B Standard of 50ug/l. No other metals or any VOCs were detected in the surface-water samples. All field-measured parameters were within the established regulatory limits. The table below summarizes field-measured parameters for surface-water samples.

Sample Location	Temp. (°C)	pH	Specific Conductivity (ms/cm)	Dissolved Oxygen (mg/l)
HB2006	4.5	7.36	0.167	12.2
HB2008	5.4	7.34	0.177	11.8
HB2010	4.2	7.43	0.240	12.0

Groundwater samples:

Chromium was detected at 79 ug/l in the sample collected from HBW-22 above the 2 L Standard of 50 ug/l. No other metals were detected above the 2L Standard in any other samples. The table below summarizes metals detections in groundwater samples.

Well ID	Ba ug/l	Cr ug/l	Co ug/l	Cu ug/l	Ni ug/l	Vn ug/l	Zn ug/l
CLUBHS	-----	-----	-----	-----	-----	-----	180
HBW744	-----	-----	-----	-----	-----	5.7	-----
HBW12B	-----	-----	35	11	-----	17	12
HBW14	140	-----	5.1	50	-----	23	19
HBW17B	-----	-----	20	23	-----	-----	26
HBW-20	-----	-----	-----	12	-----	18	15
HBW-21	-----	-----	-----	5.9	-----	7.9	12
HBW-22	-----	**79**	-----	17	12	8.3	24
HBW-28	-----	7	11	20	-----	18	21
2L Std.	2,000	50	-----	1,000	100	-----	1,050

Note: Bolded values exceed 2L Std.

The following nine volatile organic compounds ("VOCs") were detected in HBW17B:

VOC	Sample Result ug/l	2L Standard ug/l
1,1-Dichloroethane	18	70
1,2-Dichloropropane	**12**	**0.51**
Benzene	**16**	**1**
cis-1,2 Dichloroethene	**140**	**70**
Methylene Chloride	**24**	**4.6**
Tetrachloroethene	**79**	**0.7**
Trichloroethene	**47**	**2.8**
Vinyl Chloride	**12**	**0.015**
Xylenes (total)	21	530

Note: Bolded values exceed 2L Std.

VOCs were not detected in any other groundwater samples.

Field-measured parameters for groundwater samples are summarized in the table below:

Sample Location	Temp. °C	pH	Specific Conductivity (ms/cm)
HBW12B	12.3	6.74	0.289
HBW14	12.8	6.93	0.239
HBW17B	14.5	**5.50**	0.061
HBW-20	13.8	7.25	0.102
HBW-21	14.9	**6.35**	0.569
HBW-22	14.9	6.80	0.068
HBW-28	15.5	**6.45**	0.027
HBW744	15.0	6.88	0.189
CLUBHS	16.0	6.76	0.072

NOTE: HBW-28 is a background well

Measurements of pH were more acidic than the 2L Standard range in samples collected from HBW17B, HBW-21 and background well HBW-28.

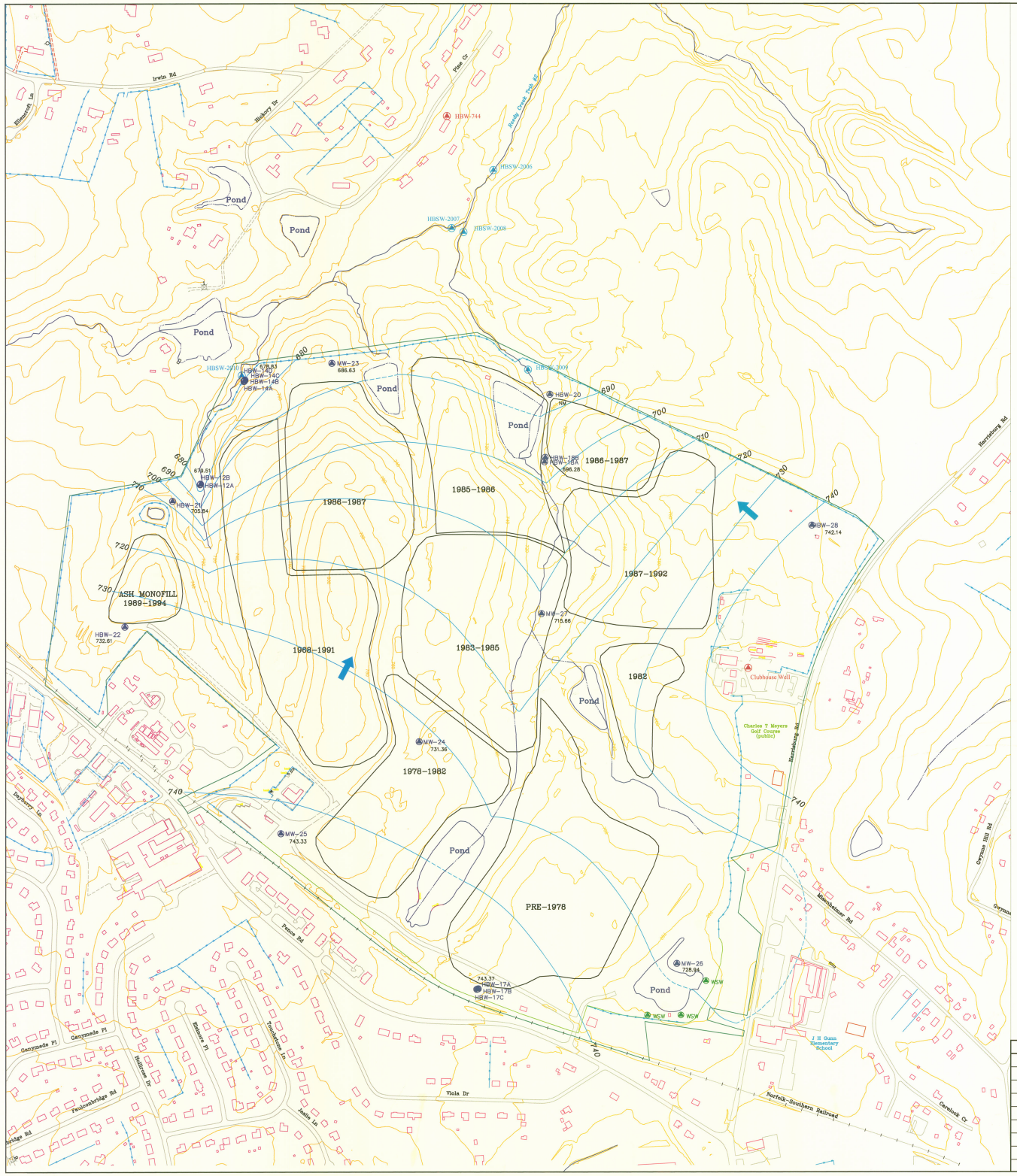
Please call me at (704) 336-5454, if you have any questions regarding this submittal.

Sincerely,

NORTH CAROLINA LICENSED SEAL 1845 GEOLOGIST DENNIS F. TYNDALL

Dennis F. Tyndall, P.G.
Hydrogeologist
Groundwater and Wastewater Services

cc: Amber Lindon, P.G., Mecklenburg County LUESA Solid Waste Management



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 1945 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