

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)).
- In accordance with NC General Statutes Chapter 89C and 89E and NC Solid Waste Management Rules 15A NCAC 13B, be sure to affix a seal to the bottom of this page, when applicable.
- 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.

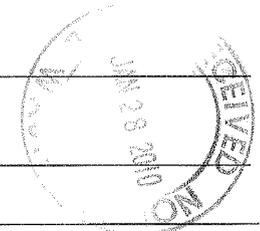
Solid Waste Monitoring Data Submittal Information

Name of entity submitting data (laboratory, consultant, facility owner):

SCS Engineers, PC

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

Name: Brandon King Phone: 804.598.9480
E-mail: bking@scsengineers.com



Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
North Wake County Landfill	9004 Deponie Drive Raleigh, NC 27615	92-09	.1600	December 9, 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 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.

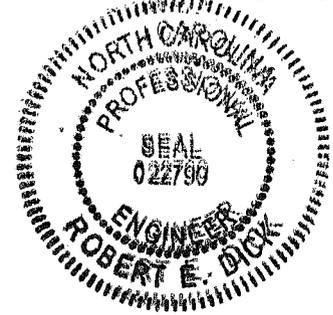
Robert E Dick / SCS Engineers, PC Project Director 804.598.9480

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

Robert E. Dick 1.18.10

Signature Date

Affix NC Licensed/ Professional Geologist/Engineer Seal here:



SCS ENGINEERS

January 25, 2010
File No. 02199312.02-2

Mr. Johnny Beal
Facility Manager
Wake County Solid Waste Management Division
PO Box 550
Raleigh, NC 27602

Subject: Fourth Quarter Landfill Gas Monitoring Event – December 9, 2009
North Wake Landfill – Wake County, North Carolina

Dear Johnny:

SCS Engineers, PC (SCS) is pleased to submit the results of the Fourth Quarter Landfill Gas (LFG) Monitoring Event for 2009, performed at the North Wake Landfill (Permit No. 92-09) on December 9, 2009.

The monitoring was performed in accordance with 15A NCAC 13B.1626(4) at the compliance boundary monitoring probes and on-site structures at the facility. At the facility property boundary, the concentration of methane gas is not to exceed the Lower Explosive Limit (LEL) which is 5 percent by volume (50,000 ppmv). Inside facility structures the concentration of methane gas is not to exceed 25 percent of the LEL (equivalent to 12,500 ppmv).

At each monitoring probe, SCS recorded the subsurface LFG composition (concentrations of methane, carbon dioxide, and oxygen) using a GEM-2000 Infrared Gas Analyzer. Measurements inside facility structures were obtained at critical locations such as conduit penetrations, junction boxes, floor drains, etc. using a Gas-Trac Model No. NGX-6. The results of the probe and on-site structure monitoring are attached as Exhibit 1.

Monitoring was conducted at a total of twenty-six (26) LFG monitoring probes and four (4) on-site structures on December 9, 2009. Three (3) of the LFG monitoring probes, M-3, M-4, and M-23 exhibited subsurface methane concentrations above the regulatory limit. SCS immediately notified Wake Gas Producers (WGP) who operates and maintains the facility's LFG active and perimeter migration control systems, to make necessary operational adjustments. Likewise, electronic mail notification regarding the methane exceedances at probes M-3, M-4, and M-23 was submitted to NCDENR on December 17, 2009.

A verification monitoring event was conducted at two (2) of the LFG exceedance probes, M-4 and M-23 on December 10, 2009. Probe M-3 was not rechecked pending the installation of a replacement probe, M-3R, which was approved by NCDENR in October 2009. Probes M-4 and M-23 exhibited methane concentrations below the regulatory limit during this verification event. The results of LFG exceedance probe verification monitoring are



EXHIBIT 1. LANDFILL GAS MONITORING PROBES NORTH WAKE LANDFILL - WAKE COUNTY, NORTH CAROLINA

Personnel: DBK
Equipment: GEM-2000, Gas-Trac

Date: December 9, 2009
Project No: 02199312.02-2
Weather: Sunny, 45°F

Monitoring Probe No.	Time (24-hr)	Methane (% vol)	Carbon Dioxide (% vol)	Oxygen (% vol)	Balance Gas (% vol)	Pressure (in-wc)	Methane (% vol)	Interior Monitoring Location
M 1	9:16	0.0	6.0	14.9	79.1	NM	ND	Scale House
M 2	9:22	0.0	5.3	15.8	78.9	NM	ND	Front Office
M 3	9:26	48.0	38.7	IE	IE	NM	ND	Bathrooms (2)
M 4	9:30	9.5	5.6	10.9	74.0	NM	ND	Hallway
M 5	10:02	0.2	13.4	0.1	86.3	NM	ND	Kitchen
M 6R	11:39	0.0	8.3	9.2	82.5	NM	ND	Admin. Offices
M 7	8:55	0.0	3.9	16.8	79.3	NM	ND	Offices (4)
M 8	8:58	0.0	3.3	17.0	79.7	NM	ND	Reception Area
M 9	9:07	0.1	5.8	14.7	79.4	NM	ND	Bathrooms (2)
M 10	11:48	0.0	2.5	6.0	91.5	NM	ND	Conference Area
M 11	12:38	0.0	10.6	8.5	80.9	NM	ND	Kitchen
M 12	11:55	0.0	4.0	16.2	79.8	NM	ND	Storage Area
M 13	12:00	0.0	4.9	14.8	80.3	NM	ND	Drop Off/Transfer
M 14	12:11	0.0	6.6	13.0	80.4	NM	ND	Office
M 15	12:15	0.0	6.5	13.4	80.1	NM	ND	Service Bay
M 16	12:20	0.0	9.6	12.3	78.1	NM	ND	Maintenance Shop
M 17	12:25	0.0	7.0	13.2	79.8	NM	ND	Service Bay
M 18	12:30	0.0	7.4	13.4	79.2	NM	ND	Service Bay
M 19R	8:35	0.0	2.0	17.0	81.0	NM	ND	Service Bay
M 20	8:40	0.0	2.6	17.3	80.1	NM	ND	Service Bay
M 21	8:45	0.0	2.9	17.1	80.0	NM	ND	Service Bay
M 22	8:49	0.0	2.0	18.4	79.6	NM	ND	Service Bay
M 23	9:02	11.9	9.8	10.9	67.4	NM	ND	Service Bay
M 24	9:12	0.2	3.2	17.3	79.3	NM	ND	Service Bay
M 25	11:35	0.0	3.4	14.2	82.4	NM	ND	Service Bay
M 26	11:31	0.4	1.1	17.8	80.7	NM	ND	Service Bay

Notes:
 ND = No Detection; Samples below 0.1% (1000 ppm) methane
 IE = Instrument Error
 NM = Not monitored

EXHIBIT 2. LANDFILL GAS MONITORING EXCEEDANCE PROBES NORTH WAKE LANDFILL - WAKE COUNTY, NORTH CAROLINA

Personnel: DBK
Equipment: GEM-2000

Date: December 9 and 10, 2009
Project No: 02199312.02-2
Weather: Sunny, 50°F

Date (mm/dd/yy)	Monitoring Probe No.	Time (24-hr)	Methane (% vol)	Carbon Dioxide (% vol)	Oxygen (% vol)	Balance Gas (% vol)
12/9/09	M-3	9:26	48.0	38.7	N/A	N/A
12/9/09	M-4	9:30	9.5	5.6	10.9	74.0
12/9/09	M-23	9:02	11.9	9.8	10.9	67.4
12/10/09	M-23	9:59	0.0	0.3	20.4	79.3
12/10/09	M-4	10:11	1.5	2.0	17.3	79.2

Notes: