

P0150

DENR USE ONLY

Paper Report

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

Doc/Event #:

RCO 2282

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 date(s), e.g.,
October 20-24, 2006

North Wake County Landfill

9004 Deponie Drive
Raleigh, NC 27615

92-09

.1600

December 12-13, 2006

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)

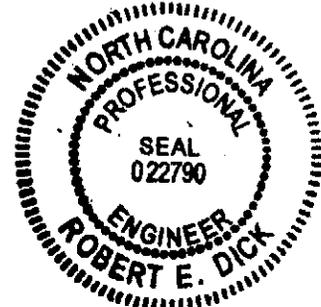
Title

(Area Code) Telephone Number

Robert E. Dick
Signature

1.3.07
Date

Affix NC Licensed/ Professional Geologist/Engineer Seal here:





SCS ENGINEERS

January 3, 2007

File No. 02199312.02-2

Mr. Johnny Beal
Wake County
PO Box 550
Raleigh, NC 27602

Subject: Fourth Quarter Landfill Gas Monitoring Event – December 12-13, 2006
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 2006, performed at the North Wake Landfill on December 12 and 13, 2006.

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) and pressure using a GEM-500 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 17 LFG monitoring probes and 8 on-site structures. Probe M-6 has been destroyed and a replacement probe is scheduled to be installed prior to the next sampling event. LFG probe M-10 is being monitored on a monthly basis and demonstrated variable conditions during three separate samples obtained during this event. Two of the three samples for M-10 yielded methane concentrations of 6.3 and 11.6 percent, which exceeded the regulatory limit. The monitoring results indicate that none of the remaining probes exhibited subsurface methane concentrations above the regulatory limit. None of the on-site structures monitored during this event detected significant concentrations of methane.



Mr. Johnny Beal
January 3, 2007
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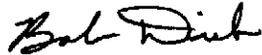
SCS observed the probe conditions and addressed basic probe repair and maintenance needs during monitoring activities. SCS will notify Wake County of the proposed schedule for the first round of Quarterly LFG Compliance Boundary Probe Monitoring for 2007 (to be performed prior to March 31, 2007).

Please contact either of the undersigned if you have questions or require additional information.

Sincerely,



D. Brandon King
Associate Staff Scientist



Robert E. Dick, PE
Project Director
SCS ENGINEERS, PC

DBK/RED:asd

Attach.

cc: Jackie Drummond, NCDENR

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

Date: December 12 and 13, 2006
 Project No: 02199312.02-2
 Weather: Variable, 65°F

Personnel: DBK
 Equipment: GEM-500, Gas-Trac

Monitoring Probe No.	Time (24-hr)	Methane (% vol)	Carbon Dioxide (% vol)	Oxygen (% vol)	Balance Gas (% vol)	Pressure (in-wc)
M 1	9:17	0	0.2	20.9	78.9	0
M 2	9:27	0	0.2	21	78.8	0
M 3	9:34	0	1.2	20.1	78.7	0
M 4	9:41	0	2.6	19.4	78	-0.1
M 5	9:47	0	19.2	2.8	78	-2.8
M 6	NM	NM	NM	NM	NM	NM
M 7	8:59	0	0.2	19.7	80.1	0
M 8	9:04	0	0.2	20.9	78.9	-0.1
M 9	9:10	0	0.2	21	78.8	0
M 10	8:47	1.1	10	3.8	85.1	0
M 10	16:59	6.3	9.6	2.4	81.7	0
*M 10	8:56	11.6	10	0.6	77.8	0
M 11	8:51	0	8.1	11.9	80	0
M 12	8:11	0	4	17.4	78.6	0
M 13	8:16	0	4.4	17.2	78.4	0
M 14	8:21	0	5.4	15.8	78.8	0
M 15	8:30	0	7.4	13.7	78.9	0
M 16	8:33	0	4.4	16.4	79.2	0
M 17	8:40	0	4.7	15.9	79.4	0
M 18	8:46	0	3.7	16.9	79.4	0

Interior Monitoring Location	Methane (% vol)
Scale House	
Front Office	ND
Bathrooms (2)	ND
Hallway	ND
Kitchen	ND
Admin. Offices	
Offices (4)	ND
Reception Area	ND
Bathrooms (2)	ND
Conference Area	ND
Kitchen	ND
Storage Area	ND
Drop Off/Transfer	
Office	ND
Service Bay	ND
Maintenance Shop	
Service Bay	ND
Equipment Maintenance Trailer	
Offices (2)	ND
Bathroom	ND
Conference Area	ND
Field Storage Building (Wake County)	
Service Bay	NM
Drop Off/Transfer	
Offices (6)	NM
Bathrooms (2)	NM
Conference Area	NM
Break Room/Kitchen	NM
Reception	NM
Sign Shop	NM
Copy/Storage Room	NM
Project Room	NM
Tool Room	NM
Shipping and Receiving	NM

Notes:
 NM = Not Monitored
 ND = No Detection; Samples below 0.1% (1000 ppm) methane
 * M-10 reading obtained on 12/13/06

