



November 3, 2008

Ms. Jaclyne Drummond
Division of Waste Management - Solid Waste Section
401 Oberlin Road, Suite 150
Raleigh, NC 27605

Re: Methane Monitoring Status Report
Lee County Landfill - Sanford, NC
NCDWM-Solid Waste Section Permit # 53-01

Dear Ms. Drummond:

Terraquest Environmental Consultants, P.C. is hereby reporting the status of methane monitoring at the Lee County Landfill. In accordance with the approved methane monitoring plan, all 38 methane monitoring wells were checked on October 21, 2008. The site location, vicinity, and layout are displayed on the attached Figures 1, 2, and 3, respectively. Figure 4 provides a closer view of the identified LEL violation area. Methane monitoring results are provided on the attached Table 1, and an NCDWM-SW Environmental Monitoring Reporting Form is also attached.

Terraquest personnel used a Q-RAE multigas monitor to check the concentrations of carbon monoxide, LEL vapors (methane), hydrogen sulfide, and oxygen during the October 21, 2008 visit. That information is presented on Table 1 which shows LEL violations in wells M8, M13, M28, M29, M36, M37, and M38. Note that those wells have previously had LEL violations.

Terraquest is currently preparing a groundwater sampling report to document the samples which were also collected during the October 21, 2008 site visit. That report will be submitted shortly. Due to the continued presence of LEL violations, Terraquest recommends the continued monthly monitoring of those wells with such violations.

Feel free to call or email me with any questions or comments you may have. Thanks.

Sincerely,

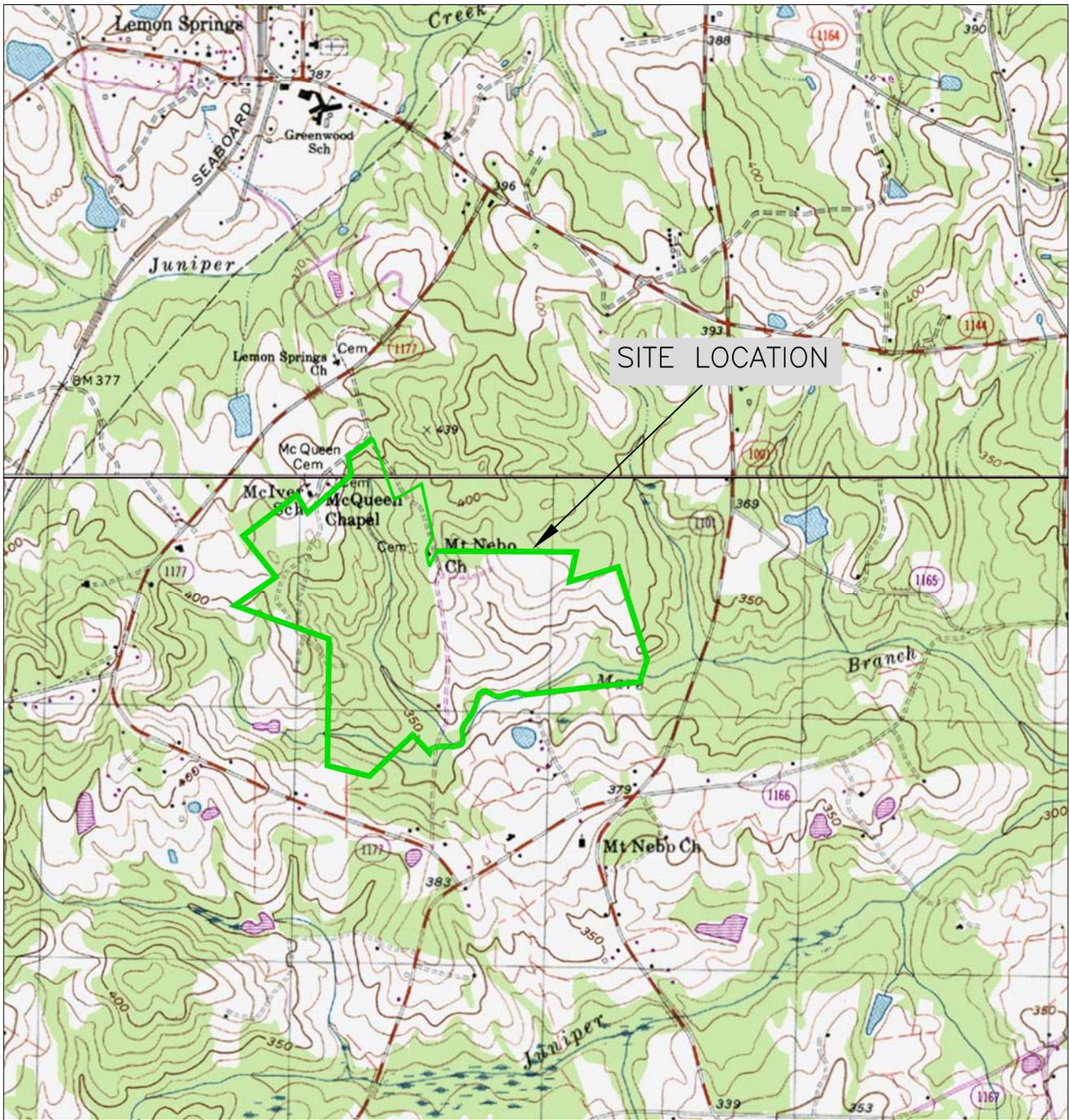
TERRAQUEST ENVIRONMENTAL CONSULTANTS, P.C.

A handwritten signature in black ink, appearing to read "RDK", is written over a light blue horizontal line.

Ryan D. Kerins
Project Manager

Attachments: Figure 1 – Site Location Map, Figure 2 – Site Vicinity Map, Figure 3 – Site Layout Map, Figure 4 – LEL Violation Area
Table 1 – Methane Monitoring
NCDWM-SW Environmental Monitoring Reporting Form

cc: Joe Cherry – Lee County Public Works Department



MAP SOURCE: USGS 7.5 MINUTE TOPOGRAPHICS – SANFORD AND MURCHISONTOWN, NC

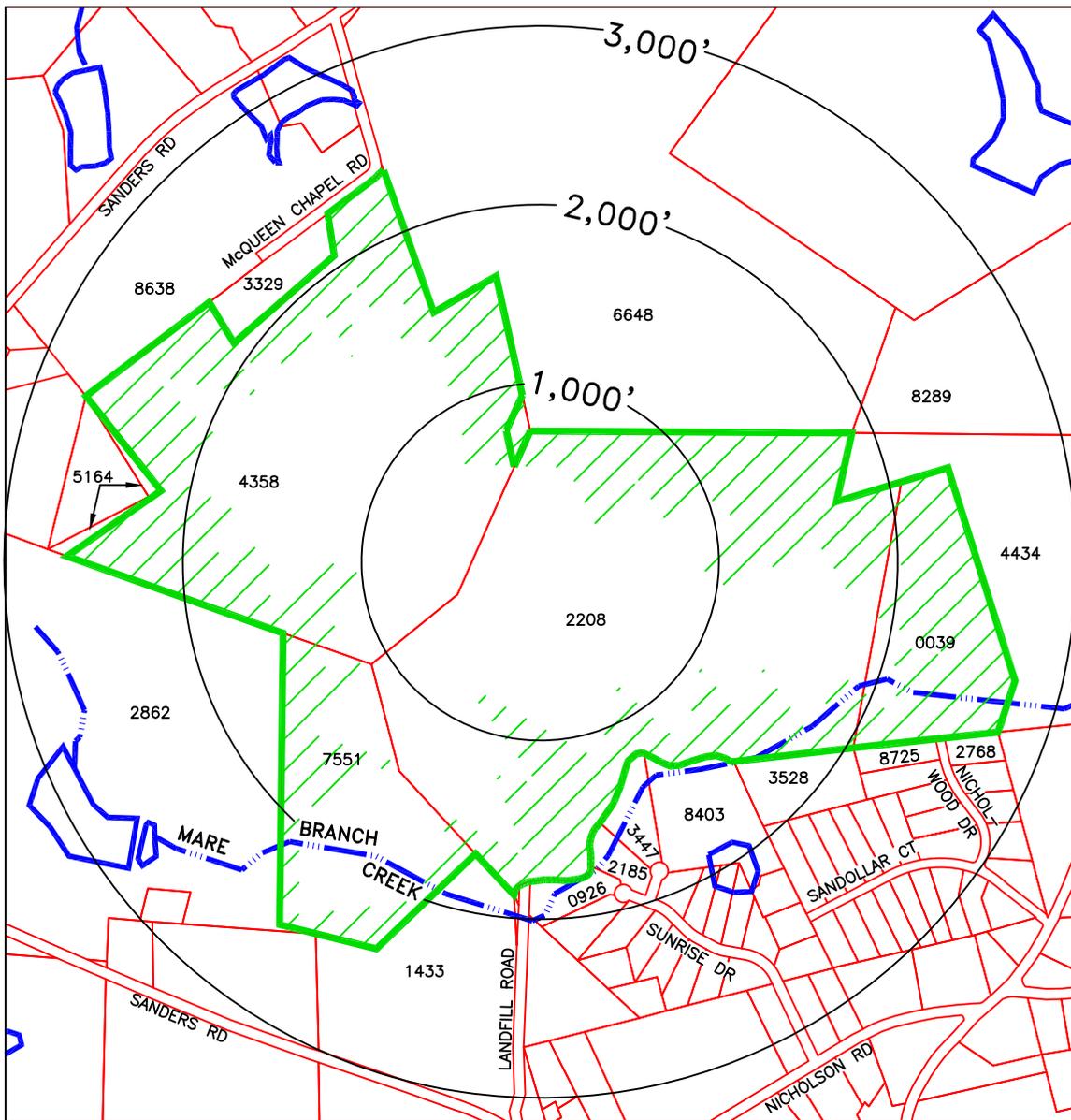
GRAPHIC SCALE



SITE LOCATION MAP

LEE COUNTY LANDFILL
331 LANDFILL ROAD
LEE COUNTY, NORTH CAROLINA

LEE COUNTY PUBLIC WORKS		SANFORD, NC	
PROJECT NO.	02296	DRAWN BY:	RDK
SCALE:	1" = 2000'	CHECKED BY:	JRG/MJB
		DATE:	10/30/08
		FIGURE NO.	1



LEGEND

-  LANDFILL PROPERTY BOUNDARY
-  PARCEL BOUNDARIES
-  DISTANCE FROM LANDFILL CENTER
-  SURFACE WATER BODY
- 2106 TAX PARCEL ID (SEE TABLE 1)
- GRAPHIC SCALE (1" = 1,000')
- 
- 0' 500' 1,000' 2,000'

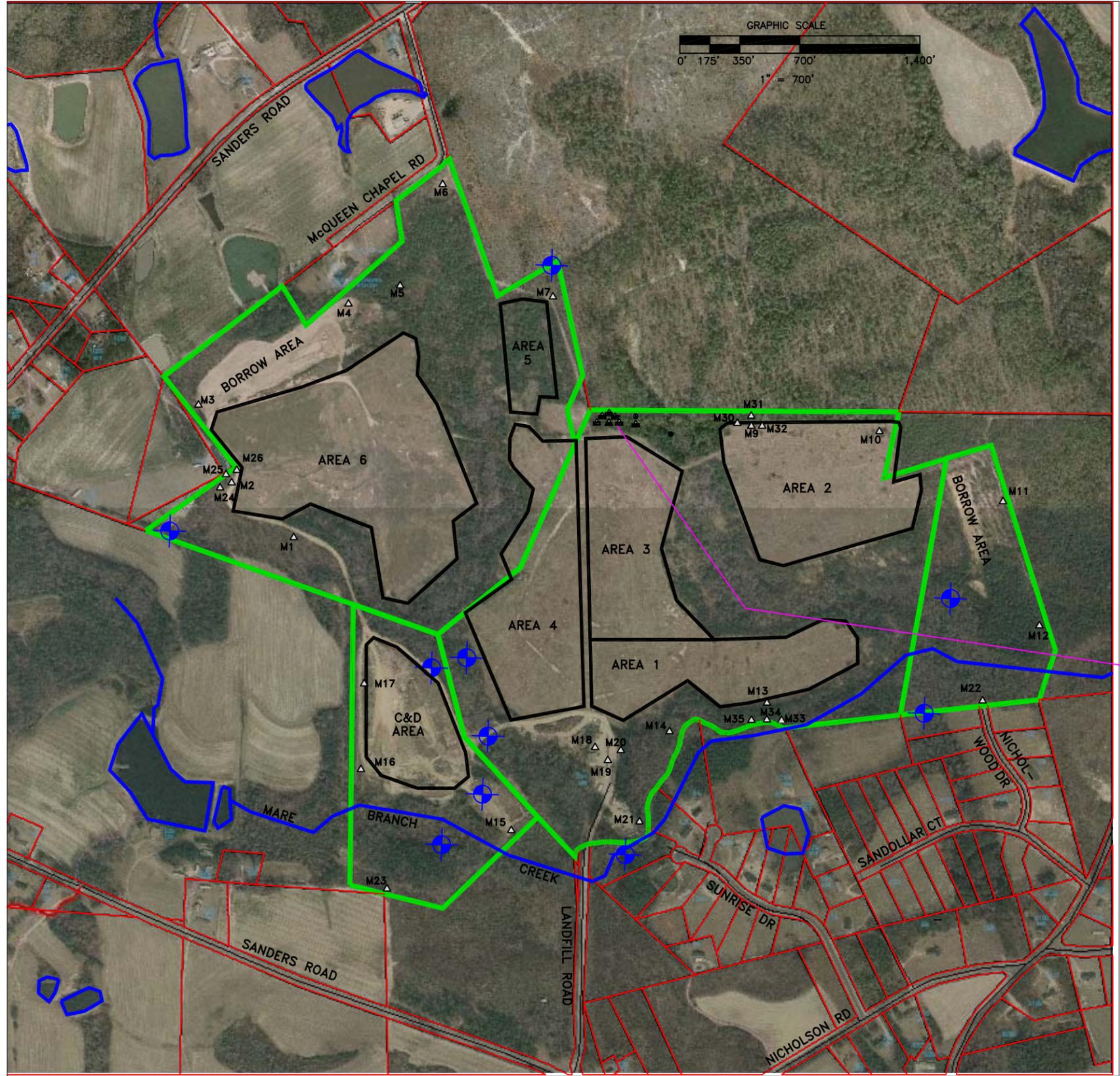
(NOTE: MAP ADAPTED FROM INFORMATION PROVIDED BY THE LEE COUNTY DEPARTMENT OF STRATEGIC SERVICES)



SITE VICINITY MAP

LEE COUNTY LANDFILL
 331 LANDFILL ROAD
 SANFORD, LEE COUNTY, NC 27332

LKEE COUNTY PUBLIC WORKS		SANFORD, NC	
PROJECT NO.	02296	DRAWN BY:	RDK
SCALE:	1" = 1,000'	CHECKED BY:	MJB
DATE:	10/30/08	FIGURE NO.	2



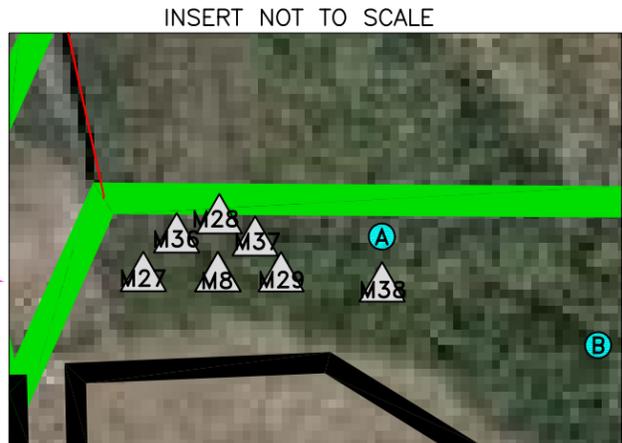
LEGEND

- △ APPROVED METHANE MONITORING WELL
- Ⓐ 7/16/08 INVESTIGATIVE BORING

AREAS 1 – 6 CLOSED MSW
C&D AREA STILL ACTIVE

LANDFILL BOUNDARY

TAX PARCEL BOUNDARIES



(NOTE: MAP ADAPTED FROM INFORMATION PROVIDED BY THE LEE COUNTY DEPARTMENT OF STRATEGIC SERVICES)

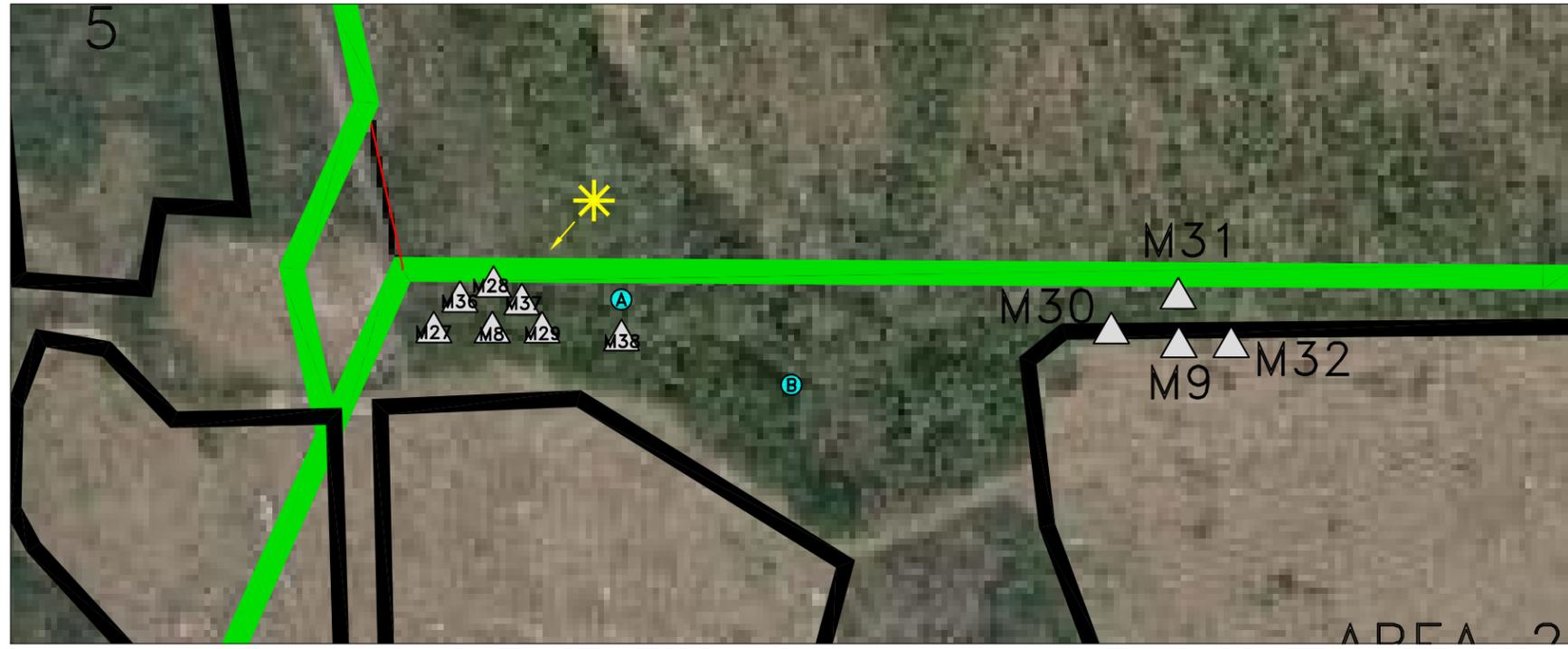


SITE LAYOUT MAP – AERIAL VIEW
LEE COUNTY LANDFILL
SANFORD, LEE COUNTY, NC

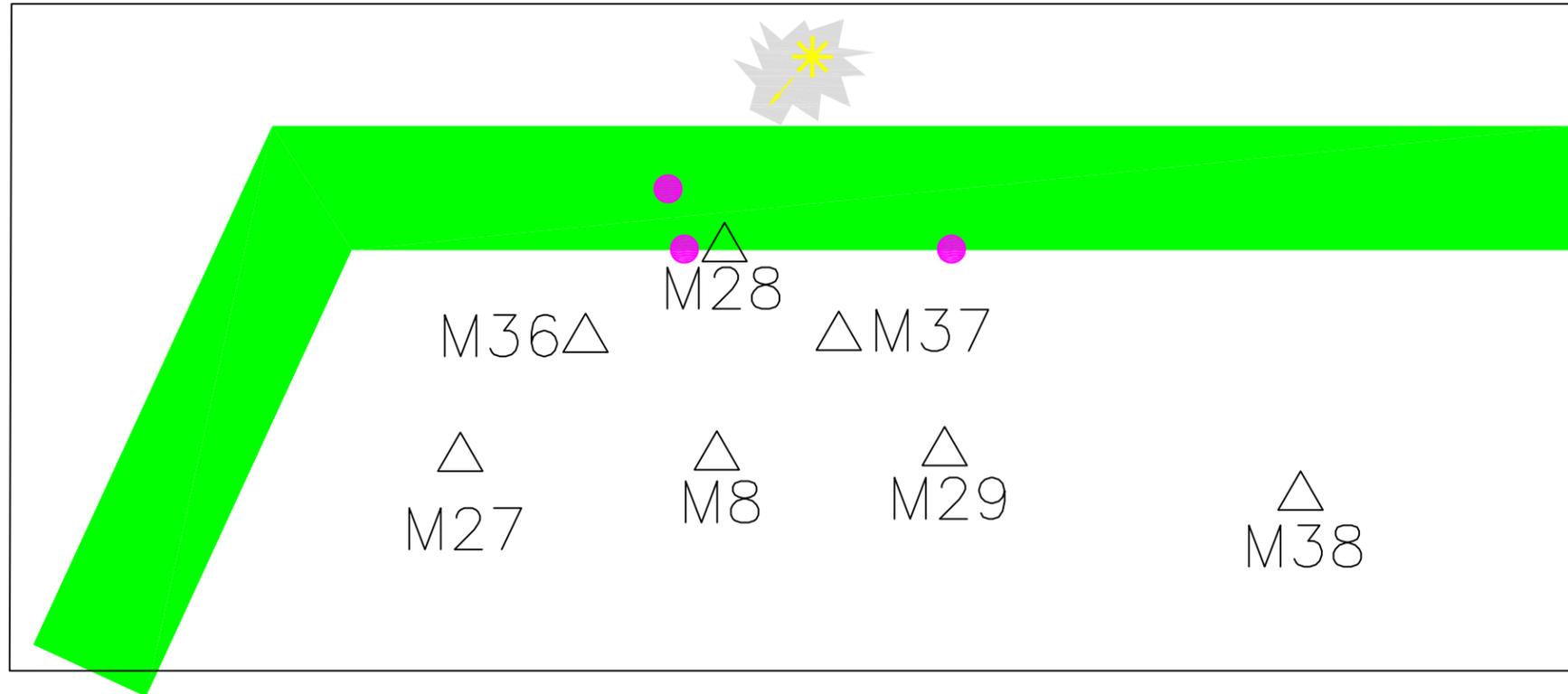
LEE COUNTY PUBLIC WORKS	PROJECT NO: 02296	CHECKED BY: MJB	FIGURE NO. 3	SANFORD, NC
SCALE: 1" = 700'		DRAWN BY: RDK	DATE: 10/30/08	



SCALE: 1" = 200'

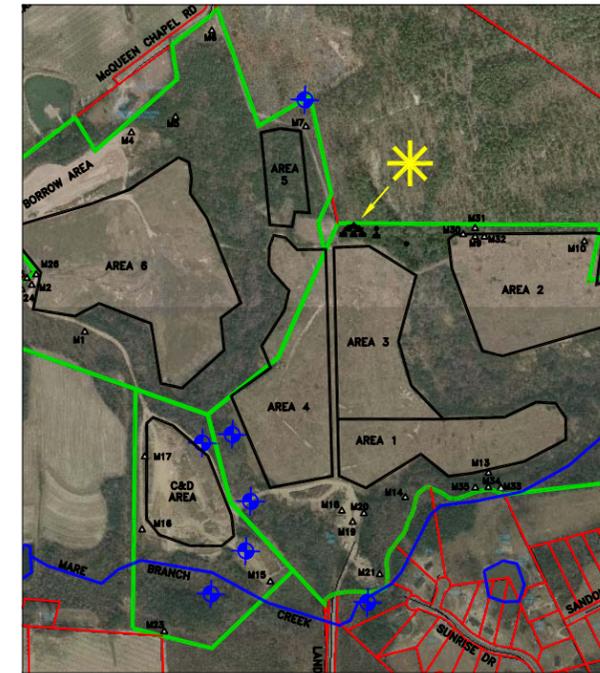


SCALE: 1" = 50'



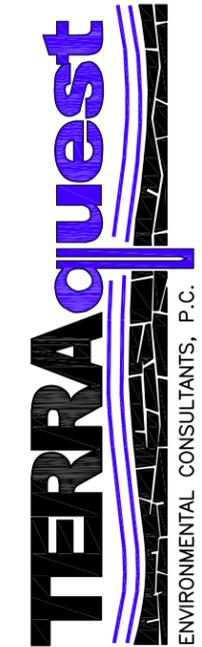
LEGEND

- △ APPROVED METHANE MONITORING WELL
- Ⓐ 7/16/08 LEL INVESTIGATIVE BORING
- 7/16/08 WASTE INVESTIGATIVE BORING



SCALE: 1" = 1,250'

(NOTE: MAP ADAPTED FROM INFORMATION PROVIDED BY THE LEE COUNTY DEPARTMENT OF STRATEGIC SERVICES)



LEE VIOLATION AREA
LEE COUNTY LANDFILL
SANFORD, LEE COUNTY, NC

LEE COUNTY PUBLIC WORKS	PROJECT NO: 02296	CHECKED BY: MJB	FIGURE NO. 4	SANFORD, NC
SCALE: AS SHOWN	AS SHOWN	DRAWN BY: RDK	DATE: 10/30/08	

METHANE MONITORING							
Date: 11/3/08 Facility Name: Lee County Landfill							
FACILITY PERMIT	WELL ID	CAS Number	SWS ID	PARAMETER	RESULT	UNITS	COLLECT DATE
53-01	SITE	SW325	325	ambient temperature	14.0	°C	15:00 7/17/08
53-01	SITE			barometric pressure	30.18	"Hg	15:00 7/17/08
53-01	SITE			barometric pressure	1,021.9	hPA	15:00 7/17/08
53-01	M1			carbon monoxide	3	ppm	10/21/2008
53-01	M1			methane gas	0	%LEL	10/21/2008
53-01	M1	SW338	338	hydrogen sulfide	0	ppm	10/21/2008
53-01	M1			oxygen	20.5	%	10/21/2008
53-01	M1	SW318	318	Depth To Water	7.93	feet	10/21/2008
53-01	M2			carbon monoxide	51	ppm	10/21/2008
53-01	M2			methane gas	25	%LEL	10/21/2008
53-01	M2	SW338	338	hydrogen sulfide	0	ppm	10/21/2008
53-01	M2			oxygen	20.9	%	10/21/2008
53-01	M2	SW318	318	Depth To Water	7.92	feet	10/21/2008
53-01	M3			carbon monoxide	0	ppm	10/21/2008
53-01	M3			methane gas	0	%LEL	10/21/2008
53-01	M3	SW338	338	hydrogen sulfide	0	ppm	10/21/2008
53-01	M3			oxygen	20.9	%	10/21/2008
53-01	M3	SW318	318	Depth To Water	well dry	feet	10/21/2008
53-01	M4			carbon monoxide	0	ppm	10/21/2008
53-01	M4			methane gas	0	%LEL	10/21/2008
53-01	M4	SW338	338	hydrogen sulfide	0	ppm	10/21/2008
53-01	M4			oxygen	20.9	%	10/21/2008
53-01	M4	SW318	318	Depth To Water	4.59	feet	10/21/2008
53-01	M5			carbon monoxide	0	ppm	10/21/2008
53-01	M5			methane gas	0	%LEL	10/21/2008
53-01	M5	SW338	338	hydrogen sulfide	0	ppm	10/21/2008
53-01	M5			oxygen	20.9	%	10/21/2008
53-01	M5	SW318	318	Depth To Water	9.49	feet	10/21/2008
53-01	M6			carbon monoxide	2	ppm	10/21/2008
53-01	M6			methane gas	0	%LEL	10/21/2008
53-01	M6	SW338	338	hydrogen sulfide	0	ppm	10/21/2008
53-01	M6			oxygen	20.9	%	10/21/2008
53-01	M6	SW318	318	Depth To Water	7.48	feet	10/21/2008
53-01	M7			carbon monoxide	2	ppm	10/21/2008
53-01	M7			methane gas	0	%LEL	10/21/2008
53-01	M7	SW338	338	hydrogen sulfide	0	ppm	10/21/2008
53-01	M7			oxygen	20.9	%	10/21/2008
53-01	M7	SW318	318	Depth To Water	11.59	feet	10/21/2008
53-01	M8			carbon monoxide	5	ppm	10/21/2008
53-01	M8			methane gas	100	%LEL	10/21/2008
53-01	M8	SW338	338	hydrogen sulfide	114	ppm	10/21/2008
53-01	M8			oxygen	20.9	%	10/21/2008
53-01	M8	SW318	318	Depth To Water	10.97	feet	10/21/2008
53-01	M9			carbon monoxide	0	ppm	10/21/2008
53-01	M9			methane gas	100	%LEL	10/21/2008
53-01	M9	SW338	338	hydrogen sulfide	0	ppm	10/21/2008
53-01	M9			oxygen	20.9	%	10/21/2008
53-01	M9	SW318	318	Depth To Water	4.33	feet	10/21/2008
53-01	M10			carbon monoxide	0	ppm	10/21/2008
53-01	M10			methane gas	0	%LEL	10/21/2008
53-01	M10	SW338	338	hydrogen sulfide	0	ppm	10/21/2008
53-01	M10			oxygen	20.9	%	10/21/2008
53-01	M10	SW318	318	Depth To Water	7.22	feet	10/21/2008
53-01	M11			carbon monoxide	0	ppm	10/21/2008
53-01	M11			methane gas	0	%LEL	10/21/2008
53-01	M11	SW338	338	hydrogen sulfide	0	ppm	10/21/2008
53-01	M11			oxygen	20.9	%	10/21/2008
53-01	M11	SW318	318	Depth To Water	dry	feet	10/21/2008
53-01	M12			carbon monoxide	0	ppm	10/21/2008
53-01	M12			methane gas	0	%LEL	10/21/2008
53-01	M12	SW338	338	hydrogen sulfide	0	ppm	10/21/2008
53-01	M12			oxygen	20.9	%	10/21/2008
53-01	M12	SW318	318	Depth To Water	-	feet	10/21/2008
53-01	M13			carbon monoxide	26	ppm	10/21/2008
53-01	M13			methane gas	100	%LEL	10/21/2008
53-01	M13	SW338	338	hydrogen sulfide	0	ppm	10/21/2008
53-01	M13			oxygen	20.9	%	10/21/2008
53-01	M13	SW318	318	Depth To Water	8.68	feet	10/21/2008
53-01	M14			carbon monoxide	0	ppm	10/21/2008
53-01	M14			methane gas	0	%LEL	10/21/2008
53-01	M14	SW338	338	hydrogen sulfide	0	ppm	10/21/2008
53-01	M14			oxygen	20.9	%	10/21/2008
53-01	M14	SW318	318	Depth To Water	9.96	feet	10/21/2008
53-01	M15			carbon monoxide	0	ppm	10/21/2008
53-01	M15			methane gas	0	%LEL	10/21/2008
53-01	M15	SW338	338	hydrogen sulfide	0	ppm	10/21/2008
53-01	M15			oxygen	20.5	%	10/21/2008
53-01	M15	SW318	318	Depth To Water	8.14	feet	10/21/2008

METHANE MONITORING							
Table 1-cont. Facility Name: Lee County Landfill							
Date: 11/3/08							
53-01	M16			carbon monoxide	1	ppm	10/21/2008
53-01	M16			methane gas	0	%LEL	10/21/2008
53-01	M16	SW338	338	hydrogen sulfide	0	ppm	10/21/2008
53-01	M16			oxygen	20.5	%	10/21/2008
53-01	M16	SW318	318	Depth To Water	4.14	feet	10/21/2008
53-01	M17			carbon monoxide	0	ppm	10/21/2008
53-01	M17			methane gas	0	%LEL	10/21/2008
53-01	M17	SW338	338	hydrogen sulfide	0	ppm	10/21/2008
53-01	M17			oxygen	20.5	%	10/21/2008
53-01	M17	SW318	318	Depth To Water	3.83	feet	10/21/2008
53-01	M18			carbon monoxide	0	ppm	10/21/2008
53-01	M18			methane gas	0	%LEL	10/21/2008
53-01	M18	SW338	338	hydrogen sulfide	0	ppm	10/21/2008
53-01	M18			oxygen	20.9	%	10/21/2008
53-01	M18	SW318	318	Depth To Water	7.88	feet	10/21/2008
53-01	M19			carbon monoxide	0	ppm	10/21/2008
53-01	M19			methane gas	0	%LEL	10/21/2008
53-01	M19	SW338	338	hydrogen sulfide	0	ppm	10/21/2008
53-01	M19			oxygen	20.9	%	10/21/2008
53-01	M19	SW318	318	Depth To Water	8.37	feet	10/21/2008
53-01	M20			carbon monoxide	0	ppm	10/21/2008
53-01	M20			methane gas	0	%LEL	10/21/2008
53-01	M20	SW338	338	hydrogen sulfide	0	ppm	10/21/2008
53-01	M20			oxygen	20.9	%	10/21/2008
53-01	M20	SW318	318	Depth To Water	10.31	feet	10/21/2008
53-01	M21			carbon monoxide	0	ppm	10/21/2008
53-01	M21			methane gas	0	%LEL	10/21/2008
53-01	M21	SW338	338	hydrogen sulfide	0	ppm	10/21/2008
53-01	M21			oxygen	20.9	%	10/21/2008
53-01	M21	SW318	318	Depth To Water	8.65	feet	10/21/2008
53-01	M22			carbon monoxide	0	ppm	10/21/2008
53-01	M22			methane gas	0	%LEL	10/21/2008
53-01	M22	SW338	338	hydrogen sulfide	0	ppm	10/21/2008
53-01	M22			oxygen	20.9	%	10/21/2008
53-01	M22	SW318	318	Depth To Water	-	feet	10/21/2008
53-01	M23			carbon monoxide	0	ppm	10/21/2008
53-01	M23			methane gas	0	%LEL	10/21/2008
53-01	M23	SW338	338	hydrogen sulfide	0	ppm	10/21/2008
53-01	M23			oxygen	20.9	%	10/21/2008
53-01	M23	SW318	318	Depth To Water	3.46	feet	10/21/2008
53-01	M24			carbon monoxide	0	ppm	10/21/2008
53-01	M24			methane gas	0	%LEL	10/21/2008
53-01	M24	SW338	338	hydrogen sulfide	0	ppm	10/21/2008
53-01	M24			oxygen	20.9	%	10/21/2008
53-01	M24	SW318	318	Depth To Water	8.92	feet	10/21/2008
53-01	M25			carbon monoxide	1	ppm	10/21/2008
53-01	M25			methane gas	0	%LEL	10/21/2008
53-01	M25	SW338	338	hydrogen sulfide	0	ppm	10/21/2008
53-01	M25			oxygen	20.9	%	10/21/2008
53-01	M25	SW318	318	Depth To Water	8.17	feet	10/21/2008
53-01	M26			carbon monoxide	0	ppm	10/21/2008
53-01	M26			methane gas	2	%LEL	10/21/2008
53-01	M26	SW338	338	hydrogen sulfide	0	ppm	10/21/2008
53-01	M26			oxygen	20.9	%	10/21/2008
53-01	M26	SW318	318	Depth To Water	6.68	feet	10/21/2008
53-01	M27			carbon monoxide	0	ppm	10/21/2008
53-01	M27			methane gas	0	%LEL	10/21/2008
53-01	M27	SW338	338	hydrogen sulfide	0	ppm	10/21/2008
53-01	M27			oxygen	20.9	%	10/21/2008
53-01	M27	SW318	318	Depth To Water	9.41	feet	10/21/2008
53-01	M28			carbon monoxide	5	ppm	10/21/2008
53-01	M28			methane gas	100	%LEL	10/21/2008
53-01	M28	SW338	338	hydrogen sulfide	0	ppm	10/21/2008
53-01	M28			oxygen	20.9	%	10/21/2008
53-01	M28	SW318	318	Depth To Water	7.20	feet	10/21/2008
53-01	M29			carbon monoxide	0	ppm	10/21/2008
53-01	M29			methane gas	100	%LEL	10/21/2008
53-01	M29	SW338	338	hydrogen sulfide	0	ppm	10/21/2008
53-01	M29			oxygen	20.9	%	10/21/2008
53-01	M29	SW318	318	Depth To Water	8.13	feet	10/21/2008
53-01	M30			carbon monoxide	0	ppm	10/21/2008
53-01	M30			methane gas	0	%LEL	10/21/2008
53-01	M30	SW338	338	hydrogen sulfide	0	ppm	10/21/2008
53-01	M30			oxygen	20.9	%	10/21/2008
53-01	M30	SW318	318	Depth To Water	6.98	feet	10/21/2008
53-01	M31			carbon monoxide	0	ppm	10/21/2008
53-01	M31			methane gas	0	%LEL	10/21/2008
53-01	M31	SW338	338	hydrogen sulfide	0	ppm	10/21/2008
53-01	M31			oxygen	20.9	%	10/21/2008
53-01	M31	SW318	318	Depth To Water	6.75	feet	10/21/2008

Table 1-cont.		METHANE MONITORING					
Date: 11/3/08		Facility Name: Lee County Landfill					
53-01	M32			carbon monoxide	0	ppm	10/21/2008
53-01	M32			methane gas	0	%LEL	10/21/2008
53-01	M32	SW338	338	hydrogen sulfide	0	ppm	10/21/2008
53-01	M32			oxygen	20.9	%	10/21/2008
53-01	M32	SW318	318	Depth To Water	6.34	feet	10/21/2008
53-01	M33			carbon monoxide	0	ppm	10/21/2008
53-01	M33			methane gas	0	%LEL	10/21/2008
53-01	M33	SW338	338	hydrogen sulfide	0	ppm	10/21/2008
53-01	M33			oxygen	20.9	%	10/21/2008
53-01	M33	SW318	318	Depth To Water	-	feet	10/21/2008
53-01	M34			carbon monoxide	0	ppm	10/21/2008
53-01	M34			methane gas	0	%LEL	10/21/2008
53-01	M34	SW338	338	hydrogen sulfide	0	ppm	10/21/2008
53-01	M34			oxygen	20.9	%	10/21/2008
53-01	M34	SW318	318	Depth To Water	6.04	feet	10/21/2008
53-01	M35			carbon monoxide	0	ppm	10/21/2008
53-01	M35			methane gas	0	%LEL	10/21/2008
53-01	M35	SW338	338	hydrogen sulfide	0	ppm	10/21/2008
53-01	M35			oxygen	20.7	%	10/21/2008
53-01	M35	SW318	318	Depth To Water	7.03	feet	10/21/2008
53-01	M36			carbon monoxide	54	ppm	10/21/2008
53-01	M36			methane gas	100	%LEL	10/21/2008
53-01	M36	SW338	338	hydrogen sulfide	5	ppm	10/21/2008
53-01	M36			oxygen	20.9	%	10/21/2008
53-01	M36	SW318	318	Depth To Water	10.62	feet	10/21/2008
53-01	M37			carbon monoxide	6	ppm	10/21/2008
53-01	M37			methane gas	100	%LEL	10/21/2008
53-01	M37	SW338	338	hydrogen sulfide	114	ppm	10/21/2008
53-01	M37			oxygen	20.9	%	10/21/2008
53-01	M37	SW318	318	Depth To Water	8.84	feet	10/21/2008
53-01	M38			carbon monoxide	6	ppm	10/21/2008
53-01	M38			methane gas	100	%LEL	10/21/2008
53-01	M38	SW338	338	hydrogen sulfide	413	ppm	10/21/2008
53-01	M38			oxygen	20.9	%	10/21/2008
53-01	M38	SW318	318	Depth To Water	9.37	feet	10/21/2008

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):

TerraQuest Environmental Consultants, P.C.

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

Name: Ryan Kerins

Phone: (919) 563-9091

E-mail: rdkerins@terraquestpc.com

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
Lee County Landfill	331 Landfill Rd, Sanford, NC 27332	53-01	.1600	October 21, 2008

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.

Ryan Kerins

Project Manager

(919) 563-9091

Facility Representative Name (Print)

Title

(Area Code) Telephone Number

Signature

Date

11/3/08

Affix NC Licensed/ Professional Geologist/Engineer Seal here:

