June 3, 2008

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

Re: Methane Monitoring Status
Lee County Landfill - Sanford, NC
NCDWM-Solid Waste Section Permit # 53-01
TerraQuest Project No. 02296

Dear Ms. Drummond:

On behalf of the Lee County Public Works Department, Terraquest Environmental Consultants, P.C. is hereby reporting the status of methane monitoring for the Lee County Landfill located south of Sanford, NC. Due to the prior detection of gas concentrations at 100% of the LEL in M8, M27, M28, and M29, TerraQuest has initiated monitoring on a bi-weekly schedule as outlined in the NCDWM-SW-approved Methane Monitoring Plan. As detailed on the attached Table 1, LEL violations were again present in M8, M28, and M29 on May 21, 2008. An NCDWM-SW Environmental Monitoring Reporting Form is attached. The site location, vicinity, and layout are displayed on the attached Figures 1, 2, and 3, respectively.

During the May 21, 2008 site visit, Terraquest personnel met with Lee County representatives Mark Clark and Joe Cherry to determine the property boundary in the vicinity of the aforementioned wells. Mr. Clark and Mr. Cherry confirmed that M28 is within five (5) feet of the property line. Due to the presence of LEL violations at the property line, remedial actions will be required. Terraquest recommends the installation of two remedial venting wells at the locations shown on the attached Figure 1. Also, monitoring points M8, M28, and M29 should be converted to venting points. An additional assessment well is recommended to the east as shown on Figure 1.

Following approval of the recommended work by the NCDWM-SW and approval of costs by Lee County, Terraquest will schedule the work. Bi-weekly monitoring of the LEL violation wells will continue in the interim. Future actions will be based on the effectiveness of the five venting points and the limit of LEL violations as noted with the installation of another delineation well.

Sincerely,

TERRAQUEST ENVIRONMENTAL CONSULTANTS, P.C.
Ryan D. Kerins
Project Manager

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

cc: Joe Cherry – Lee County Public Works Department

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	May 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
☐ 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.

Ryan Kerins	Project Manager	(919) 563-9091
Facility Representative Name (Print)	Title	(Area Code) Telephone Number
Signature	6/3/08 Date	Affix NC Licensed/ Professional Geologist/Engineer Seal here:

NORTH CAROLINA LICENSED SEAL 1691 GEOLOGIST JONATHAN REED GRUBBS

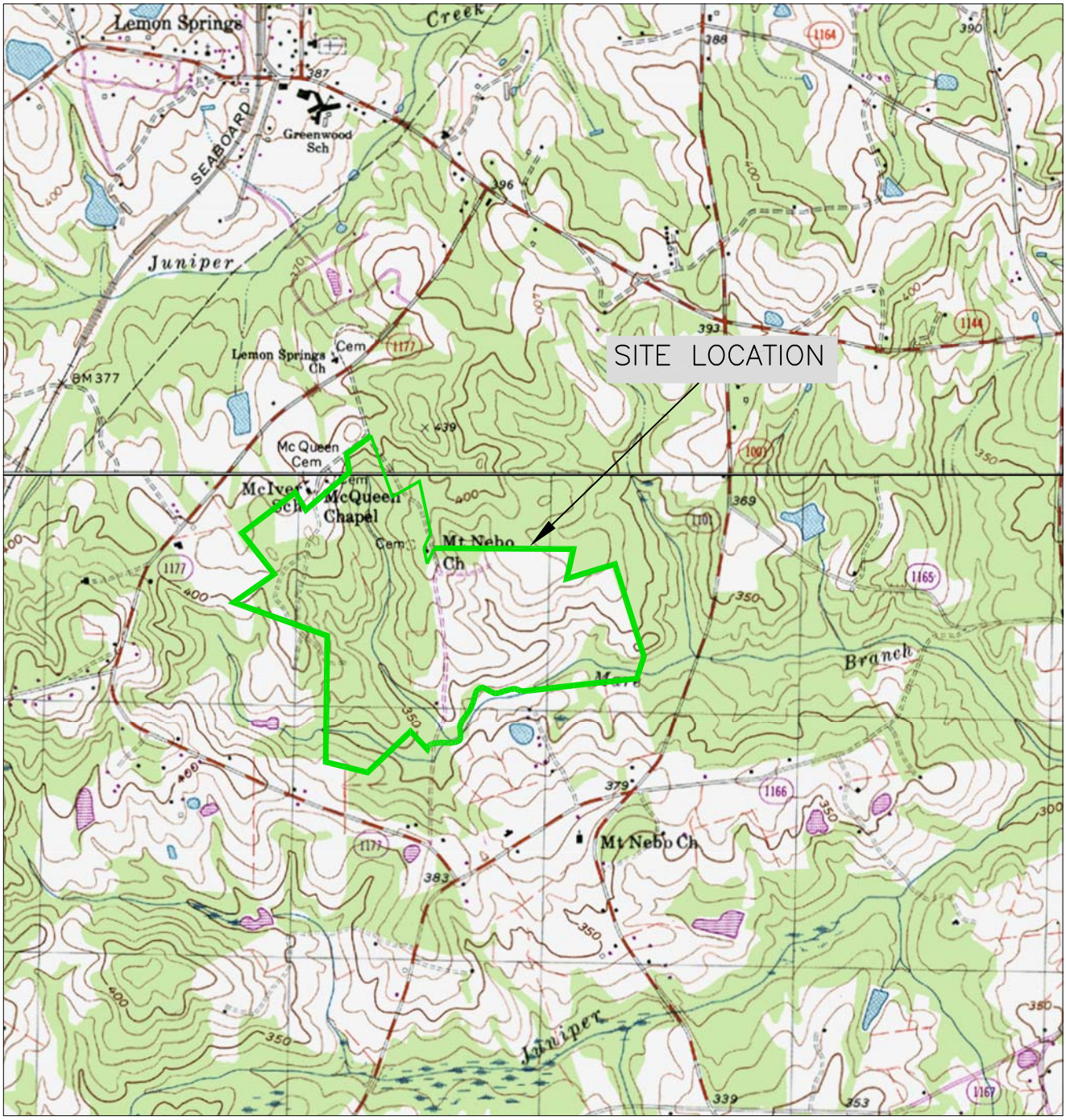
Revised 01/2007

Table 1 METHANE MONITORING 5/21/08

Date: 6/3/08 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	19.0	°C	~10:30AM 5/21/08
53-01	SITE			barometric pressure	29.66	"Hg	~10:30AM 5/21/08
53-01	SITE			barometric pressure	1004.3	hPA	~10:30AM 5/21/08
53-01	M8	SW329	329	methane gas - OVM reading	100	%LEL	5/21/2008
53-01	M8	SW318	318	Depth To Water	9.67	feet	5/21/2008
53-01	M27	SW329	329	methane gas - OVM reading	0	%LEL	5/21/2008
53-01	M27	SW318	318	Depth To Water	8.56	feet	5/21/2008
53-01	M28	SW329	329	methane gas - OVM reading	100	%LEL	5/21/2008
53-01	M28	SW318	318	Depth To Water	7.93	feet	5/21/2008
53-01	M29	SW329	329	methane gas - OVM reading	100	%LEL	5/21/2008
53-01	M29	SW318	318	Depth To Water	7.54	feet	5/21/2008

Note: Results with concentrations at the LEL are highlighted and denoted in red text.



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

GRAPHIC SCALE

0' 2000' 4000'

TERRAquest

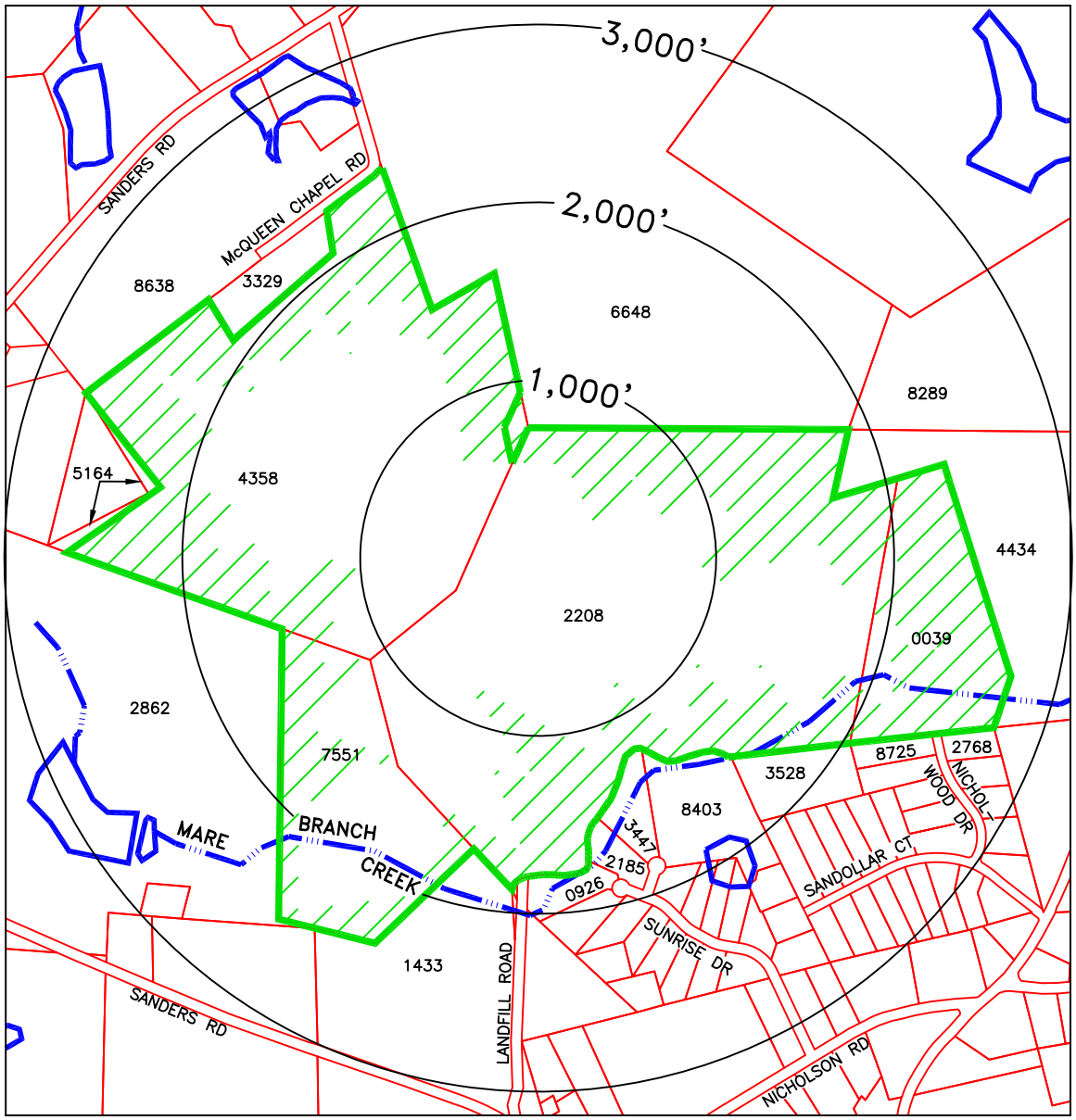
ENVIRONMENTAL CONSULTANTS, P.C.

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	DATE:	6/3/08
SCALE:	1" = 2000'	CHECKED BY:	JRG/MJB	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)

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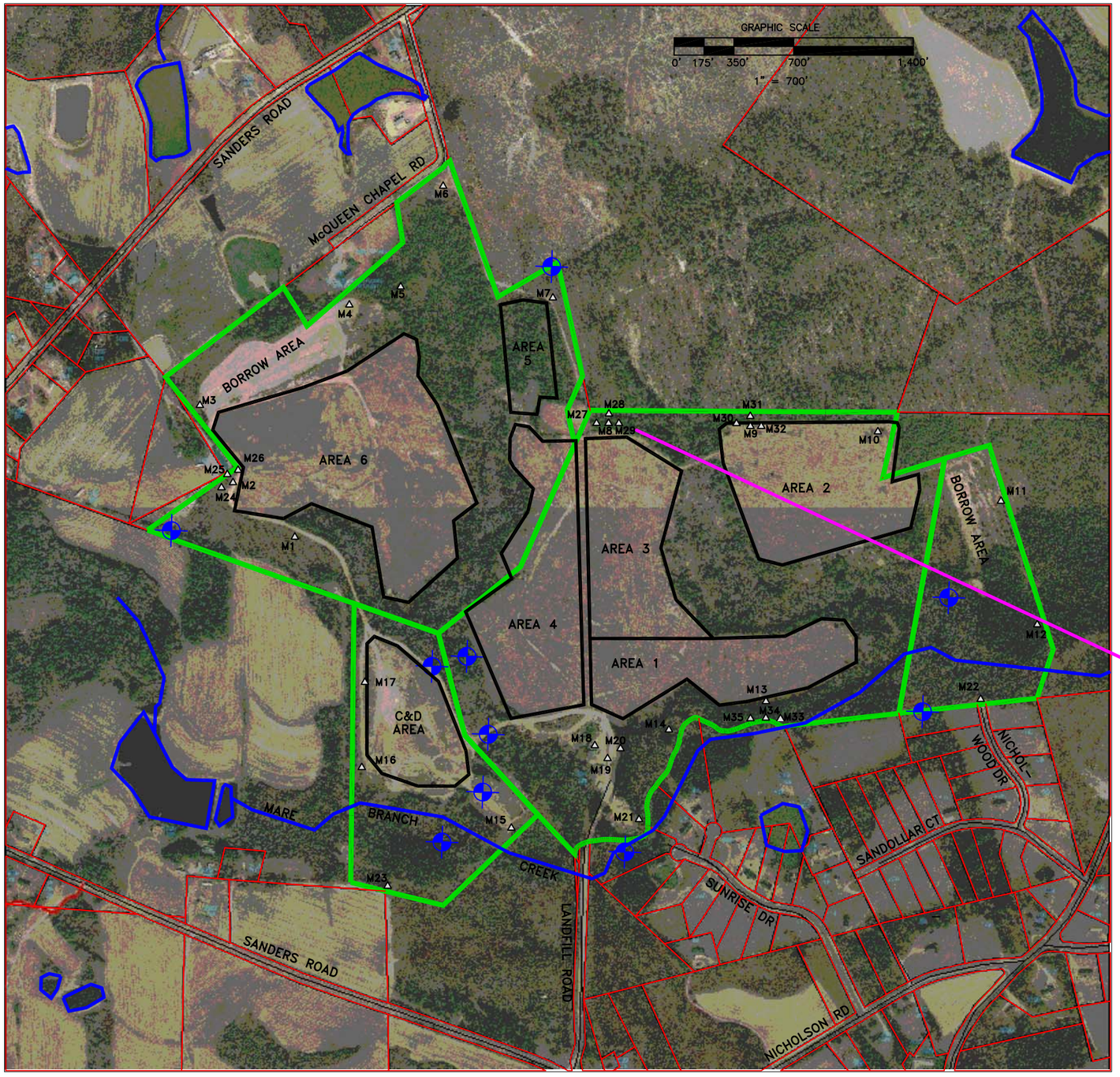
SITE VICINITY MAP
LEE COUNTY LANDFILL
331 LANDFILL ROAD
SANFORD, LEE COUNTY, NC 27332

LKEE COUNTY PUBLIC WORKS — SANFORD, NC

PROJECT NO.	02296	DRAWN BY:	RDK	DATE:	6/3/08
SCALE:	1" = 1,000'	CHECKED BY:	MJB	FIGURE NO.	2

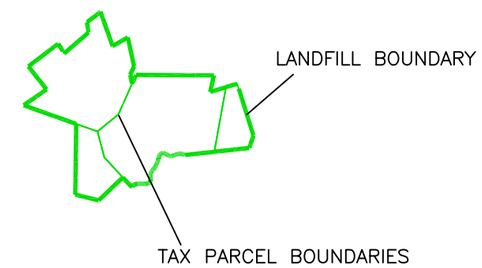


LEGEND

- △ APPROVED METHANE MONITORING WELL
- V PROPOSED VENT WELL LOCATION
- A PROPOSED METHANE ASSESSMENT WELL

AREAS 1 – 6 CLOSED MSW

C&D AREA STILL ACTIVE



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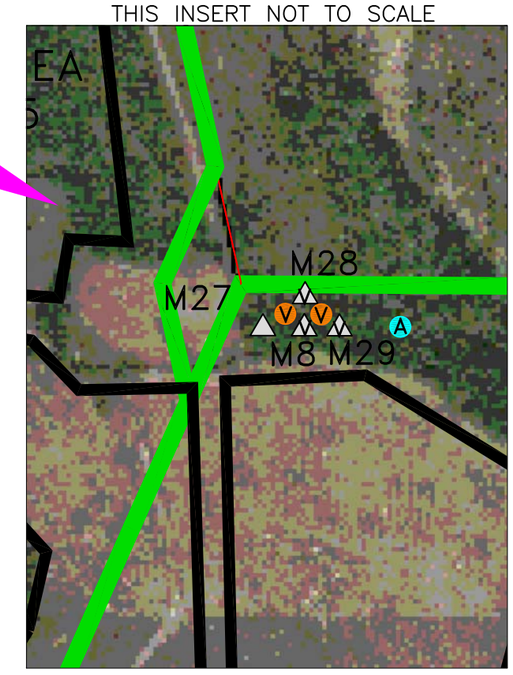

(NOTE: MAP ADAPTED FROM INFORMATION PROVIDED BY THE LEE COUNTY DEPARTMENT OF STRATEGIC SERVICES)

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

LEE COUNTY PUBLIC WORKS
SANFORD, NC

PROJECT NO: 02296	CHECKED BY: MJB	FIGURE NO.	3
SCALE: 1" = 700'	DRAWN BY: RDK	DATE:	6/3/08

TERRAquest
ENVIRONMENTAL CONSULTANTS, P.C.