

November 3, 2015

Ms. Christine Ritter
NCDENR Division of Waste Management
Solid Waste Section
1646 Mail Service Center
Raleigh, N.C. 27699-1646

**RE: Landfill Gas Monitoring
Warren County Landfill (Permit No.93-01)**

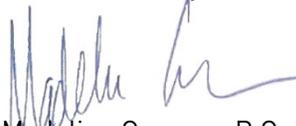
Dear Ms. Ritter:

In May 2015, Smith Gardner, Inc. (S+G) installed a landfill gas monitoring network for the Warren County Landfill as proposed in the landfill gas monitoring plan¹ submitted in December 2014 and approved April 2015. S+G has since performed two LFG monitoring events at the Warren County closed Landfill (permit 93-01) to maintain compliance with SWS regulations. Results from these two events do not indicate a representative trend for the facility. Copies of the data from these events are included as an attachment. A map of the LFG monitoring network is included as **Figure 1**.

Due to the observed lack of supporting data, we request two additional quarters to further evaluate landfill gas concentrations prior to evaluating corrective actions that may be warranted at the site. We anticipate submitting additional information after the first quarter of 2016.

We appreciate your consideration of this request. Please contact us with questions or for additional information at 919-828-0577 or by email below.

Sincerely,
SMITH GARDNER, INC.



Madeline German, P.G.
Project Geologist
madeline@smithgardnerinc.com



Joan A. Smyth, P.G.
Senior Hydrogeologist
joan@smithgardnerinc.com

Attachments: Landfill Gas Records
Figure 1

cc: Marshall Brothers, Warren County
File

¹ Landfill Gas Monitoring Plan, Warren County Closed MSW Landfill Facility, Prepared by Smith Gardner, Inc., December 2014.

NC Division of Waste Management - Solid Waste Section

Landfill Gas Monitoring Data 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).

Facility Name: Warren County Closed MSW Landfill Facility Permit Number: 93-01

Date of Sampling: 6/15/2015 NC Landfill Rule (.0500 or .1600): .0500

Name and Position of Sample Collector: Lisa Hauer - Staff Scientist

Type and Serial Number of Gas Meter: GEM2600-GM2462/10 Calibration Date of Gas Meter: 5/27/2015

Date and Time of Field Calibration: 6/15/15 @ 9:45 AM

Type of Field Calibration Gas (15/15 or 35/50): 15/15 Expiration Date of Field Calibration Gas Canister: 9/7/2017

Pump Rate of Gas Meter: 750 mL/min.

Ambient Air Temperature: 80°F Barometric Pressure: 29.38 Hg General Weather Conditions: hot, sunny

Instructions: Under "Location or LFG Well" identify the monitoring wells or describe the location for other tests (e.g., inside buildings). A drawing showing the location of test must be attached. Report methane readings in both % LEL and % methane by volume. A reading in percent methane by volume can be converted to % LEL as follows: % methane by volume = % LEL/20

Location or LFG Well ID	Sample Tube Purge	Time	Time Pumped (s)	Initial %LEL	Stabilized %LEL	%CH4 by Volume	%O2	%CO2	Notes
LFG-1	760S	10:53	760S	2.0	0	0	11.7	7.4	
LFG-2	760S	10:35	460S	29.0	7100%	33.8	3.7	25.3	
LFG-3	760S	10:02	760S	0	1.36	6.8	8.5	6.7	
LFG-4	760S	10:13	60S	26.0	7100%	5.9	2.5	16.9	
LFG-5	760S	10:20	760S	0	0	0	15.3	4.2	
S-1									
NW	760S	11:03	760S	0	0	0	21.1	0	
SW	760S	10:57	760S	0	0	0	20.8	0	
SE	760S	10:59	760S	0	0	0	20.9	0	
NE	760S	11:01	760S	0	0	0	21.0	0	

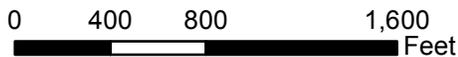
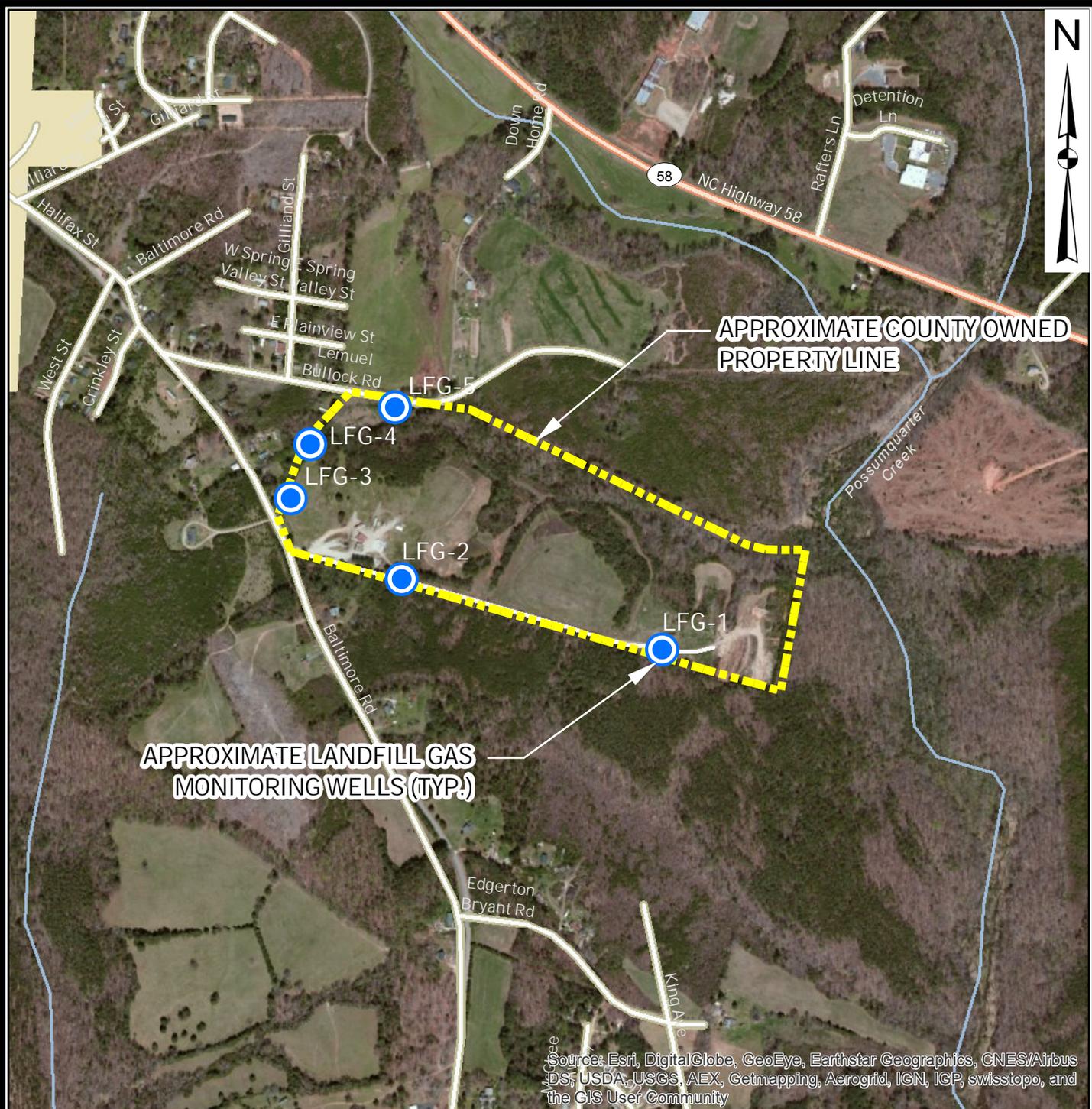
If your facility has more gas monitoring locations than there is room on this form, please attach additional sheets listing the same information as contained on this form.

Certification

To the best of my knowledge, the information reported and statements made on this data submittal and attachments are true and correct. I am aware that there are significant penalties for making any false statement, representation, or certification including the possibility of a fine and imprisonment.

Lisa M. Hauer
SIGNATURE

Staff Scientist
TITLE



**LANDFILL GAS MONITORING WELLS
CLOSED WARREN COUNTY LANDFILL
WARRENTON, NC**

NC LIC. NO. C-0828 (ENGINEERING)

SMITH + GARDNER

14 N. Boylan Avenue, Raleigh NC 27603 | 919.828.0577

DRAWN: C.T.J.	APPROVED: J.A.S.	SCALE: AS SHOWN	DATE: May, 2015	PROJECT NO.: WARREN 14-1	FIGURE NO.: 1
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