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February 27, 2014

Ms. Jackie Drummond  
North Carolina Department of Environment and Natural Resources  
Division of Waste Management, Solid Waste Section  
1646 Mail Service Center  
Raleigh, North Carolina 27699-1646

**RE: Landfill Gas Monitoring Report  
First Quarter Sampling Event of 2014  
Granville County – Butner Closed MSW Landfill, Permit No. 39-02  
JOYCE Project No. 660.1302.12, Task No. 08**

Dear Ms. Drummond,

Attached please find the Landfill Gas Monitoring Log and Gas Probe Location Map, for the monitoring event that occurred on February 24, 2014 at the Granville County Butner Landfill (Permit number 39-02) for inclusion in your records. Methane was detected above the LEL in gas probe, GP-4, during this event. Two bar-hole probes (BP-1 and BP-2) were monitored within the vicinity of GP-4 and no methane was detected.

Landfill gas monitoring will continue on a quarterly basis for the Butner Landfill. If you have any questions, please contact me or Van Burbach at (336) 323-0092.

Sincerely,  
**JOYCE ENGINEERING**

Adam Cox  
Field Consultant

Attachments: LFG monitoring log, Environmental Monitoring Report Form, and Location Map  
Copy: Jason Falls, Granville County

### Landfill Gas Monitoring Data Form

Facility Name: Butner Landfill, Granville County

Date of Sampling: February 24, 2014

Gas Monitor Type & Serial Number: GEM 2000 #5194

Field Calibration Date & Time: 2/24/2014 10:35

General Weather Conditions: Sunny, 50's F

Permit Number: 39-02

Personnel: A. Cox/A. Freeman JOYCE

Calibration Date: 9/20/2013

Calibration Gas Type: 50% CH4, exp. 5-2014

Barometer : 30.05 In-Hg

Location or ID	Time	Probe Pressure (In-Wg)	Instr. sample tube purged	Time Pumped (sec.)	CH4 %LEL	CH4 (%Vol)	% LEL Limit	Comments
GP-1	1040	0.00	Y	45	0	0	100	
GP-2	1130	0.00	Y	45	0	0	100	
GP-3	1235	0.00	Y	45	0	0	100	
GP-4	1344	0.10	Y	45	388	19.4	100	
BP-1	1346	-	Y	45	0	0	100	25ft West of GP-4
BP-2	1348	-	Y	45	0	0	100	25ft North of GP-4
GP-5	1330	0.00	Y	45	0	0	100	
GP-6	1333	0.00	Y	45	0	0	100	
GP-8	1350	-	Y	180	0	0	25	scalehouse/office building

Notes: GP-7 could not be located and may be damaged & missing.

BP: Barhole Probe

**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)).
- 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):  
 Joyce Engineering, Inc.

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

Name: G. Van Ness Burbach, Ph.D., P.G. Phone: (336) 323-0092  
 E-mail: vburbach@joyceengineering.com

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
Butner Landfill	State Road 1004 Butner, NC	39-02	.1600	February 24, 2014

**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.

G. VanNess Burbach, Ph.D., PG Technical Consultant (336) 323-0092

Facility Representative Name (Print) G. Van Ness Burbach Title Technical Consultant (Area Code) Telephone Number 336 323-0092  
 Signature [Signature] Date 2/28/14 Affix NC Licensed Professional Geologist Seal

2211 W. Meadowview Rd., Ste. 101 Greensboro, NC 27407  
 Facility Representative Address

C-0782  
 NC PE Firm License Number (if applicable effective May 1, 2009)

