



# Gas Monitoring Report

Sanitary Landfill Compliance

## SITE INFORMATION

Owner/Permittee: Goochland County  
Landfill ID: Goochland County Sanitary Landfill  
Landfill Permit No.: 179  
Location: Route 665, Goochland County, Virginia  
Site Status: Closed  
Resource Project Number: 97007.12

## INSPECTION DATA

Date of Inspection: April 5, 2017  
Arrival Time: 10:20  
Departure Time: 12:22  
Log Book: Goochland County Landfill - No. 3  
Sampling Technician: Ginny Gills  
Site Contact: Leigh Dunn, Environmental Planner  
Weather: Sunny, high 70s° F  
Barometric Pressure (begin): 29.63" Hg  
Barometric Pressure (end): 29.63" Hg

## SITE CONDITIONS

Number of monitoring probes: 20  
On-site structures with crawl spaces: None  
On-site structures with basements: None  
Distance to nearest off-site structure with basement or crawlspace: Approximately 100 feet  
Building occupants/operator comments regarding odor, headaches, etc.: None

## SAMPLING EQUIPMENT

Type of Meter: LANDTEC GEM-2000  
Date of last Calibration: April 5, 2017

## SAMPLING PROCEDURES

- Visually inspect probe integrity, including foundation pad, and note any unusual odors
- Unlock casing to expose probe, note any unusual conditions
- Attach gas meter inlet hose to probe
- Open stopcock, record pressure and gas concentrations, close stopcock

- Lock probe casing

## **GAS MONITORING RESULTS**

The % LEL indicates the percentage of the Lower Explosive Limit of methane (CH<sub>4</sub>). The Virginia Solid Waste Management Regulations state that compliance is achieved when the concentration of methane at the property boundary is less than 100% of the LEL. 100% of the LEL is reached when the concentration of methane in air is 5%.

### **Gas Probes:**

| <b>Probe #</b> | <b>Probe locked upon arrival?</b> | <b>Pressure (in. of Water)</b> | <b>% CO<sub>2</sub></b> | <b>% O<sub>2</sub></b> | <b>%LEL</b> | <b>Additional comments</b> |
|----------------|-----------------------------------|--------------------------------|-------------------------|------------------------|-------------|----------------------------|
| GP-01          | Yes                               | 0.0                            | 2.1                     | 19.4                   | 0           |                            |
| GP-02          | Yes                               | 0.0                            | 1.4                     | 19.3                   | 0           |                            |
| GP-03A         | Yes                               | 0.0                            | 0.1                     | 20.9                   | 0           |                            |
| GP-03          | Yes                               | 0.0                            | 1.7                     | 19.4                   | 0           |                            |
| GP-04          | Yes                               | 0.0                            | 1.3                     | 19.6                   | 0           |                            |
| GP-05          | Yes                               | 0.0                            | 0.9                     | 20.3                   | 0           |                            |
| GP-06          | Yes                               | 0.0                            | 0.8                     | 20.2                   | 0           |                            |
| GP-07          | Yes                               | 0.0                            | 1.8                     | 18.4                   | 0           |                            |
| GP-08R         | Yes                               | 0.0                            | 0.0                     | 20.9                   | 0           |                            |
| GP-09          | Yes                               | 0.0                            | 1.7                     | 19.6                   | 0           |                            |
| GP-10          | Yes                               | 0.0                            | 0.3                     | 20.8                   | 0           |                            |
| GP-11          | Yes                               | 0.0                            | 0.1                     | 20.9                   | 0           |                            |
| GP-12          | Yes                               | 0.0                            | 1.8                     | 19.2                   | 0           |                            |
| GP-13          | Yes                               | 0.0                            | 0.4                     | 20.6                   | 0           |                            |
| GP-14          | Yes                               | 0.0                            | 1.3                     | 20.0                   | 0           |                            |
| GP-15          | Yes                               | 0.0                            | 0.0                     | 21.1                   | 0           |                            |
| GP-16          | Yes                               | 0.0                            | 0.0                     | 21.0                   | 0           |                            |
| GP-17 red      | Yes                               | 0.0                            | 0.2                     | 20.9                   | 0           |                            |
| GP-17          |                                   | 0.0                            | 0.4                     | 20.7                   | 0           |                            |
| GP-18 red      | Yes                               | 0.0                            | 1.9                     | 18.8                   | 0           |                            |
| GP-18          |                                   | 0.0                            | 0.4                     | 18.6                   | 0           |                            |

### **Nested Probe Data:**

**GP 17, 18 & 19**

**Red probe is at a depth of 9-13' (17A, 18A, 19A)**

**Yellow probe is at a depth of 23-26' (17B, 18B, 19B)**

### **Legend:**

**GP Gas Probe**

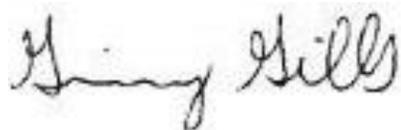
**Offsite Gas Probe:**

| Probe #   | Probe locked upon arrival? | Pressure (in. of Water) | % CO <sub>2</sub> | % O <sub>2</sub> | %LEL | Additional comments |
|-----------|----------------------------|-------------------------|-------------------|------------------|------|---------------------|
| GP-19 red | Yes                        | 0.0                     | 0.9               | 20.0             | 0    |                     |
| GP-19     |                            | 0.0                     | 1.4               | 20.0             | 0    |                     |

**Structures:**

The % LEL indicates the percentage of the Lower Explosive Limit of methane (CH<sub>4</sub>). The Virginia Solid Waste Management Regulations state that compliance is achieved when the concentration of methane inside property structures is less than 25 % of the LEL. 25% of the LEL is reached when the concentration of methane in air is 1.25%.

| Structure  | % CO <sub>2</sub> | %O <sub>2</sub> | % LEL |
|--|-------------------|-----------------|-------|
| Animal Shelter   | 0.0               | 20.9            | 0     |
| Dept. of Parks & Recreation Equipment Storage Building | 0.0               | 20.9            | 0     |
| Attendant's Building at Convenience Center             | 0.0               | 20.9            | 0     |



Technician Signature

April 5, 2017