



# 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: January 25, 2017  
Arrival Time: 9:05  
Departure Time: 15:30  
Log Book: Goochland County Landfill - No. 3  
Sampling Technician: Ginny Gills  
Site Contact: Leigh Dunn, Environmental Planner  
Weather: Sunny, high 60s° F  
Barometric Pressure (begin): 29.57" Hg  
Barometric Pressure (end): 29.43" Hg

## SITE CONDITIONS

Number of monitoring probes: 19  
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: January 25, 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:

Probe #	Probe locked upon arrival?	Pressure (in. of Water)	% CO <sub>2</sub>	% O <sub>2</sub>	%LEL	Additional comments
GP-01	Yes	0.7	1.7	19.7	0	
GP-02	Yes	0.7	0.7	20.8	0	
GP-03	Yes	0.7	0.6	21.1	0	
GP-04	Yes	0.7	3.4	20.1	2	0.1% CH <sub>4</sub>
GP-05	Yes	0.7	0.3	20.8	0	
GP-06	Yes	0.7	0.9	20.3	0	
GP-07	Yes	0.8	1.0	20.4	0	
GP-08R	Yes	0.8	6.4	12.3	0	
GP-09	Yes	0.8	1.6	19.9	0	
GP-10	Yes	0.8	0.3	21.3	0	
GP-11	Yes	0.8	0.3	21.5	0	
GP-12	Yes	0.8	0.1	21.1	0	
GP-14	Yes	0.9	1.7	20.2	0	
GP-15	Yes	0.9	0.1	21.9	0	
GP-16	Yes	0.9	0.0	22.1	0	
GP-17 red	Yes	0.8	1.2	20.0	0	
GP-17		0.8	1.7	19.6	0	
GP-18 red	Yes	Unable to sample (lock jammed)				
GP-18		Unable to sample (lock jammed)				

**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

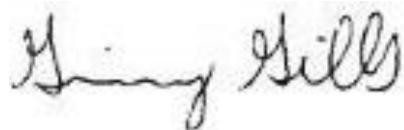
**Offsite Gas Probe:**

Probe #	Probe locked upon arrival?	Pressure (in. of Water)	% CO <sub>2</sub>	% O <sub>2</sub>	%LEL	Additional comments
GP-19 red	Yes	0.8	5.1	16.5	0	
GP-19		0.8	0.1	21.5	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	0.1	21.7	0
Dept. of Parks & Recreation Equipment Storage Building	0.1	21.7	0
Attendant's Building at Convenience Center	0.1	21.7	0



Technician Signature

January 25, 2017