



# Gas Monitoring Report

Sanitary Landfill Compliance

ENGINEERS • SCIENTISTS • SURVEYORS • PLANNERS  
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## 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: 97007.09

## INSPECTION DATA

Date of Inspection: July 13, 2016  
Arrival Time: 9:12  
Departure Time: 14:17  
Log Book: Goochland County Landfill - No. 3  
Sampling Technician: Ginny Gills  
Site Contact: Leigh Dunn, Environmental Planner  
Weather: Sunny; upper 80s° F  
Barometric Pressure (begin): 29.75" Hg  
Barometric Pressure (end): 29.63" 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: July 13, 2016

## SAMPLING PROCEDURES

- X Visually inspect probe integrity, including foundation pad, and note any unusual odors
- X Unlock casing to expose probe, note any unusual conditions
- X Attach gas meter inlet hose to probe

- X Open stopcock, record pressure and gas concentrations, close stopcock
- X 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)	% O <sub>2</sub>	%LEL	Additional comments
GP-01	Yes	-0.04	18.7	0	
GP-02	Yes	-0.04	19.6	0	
GP-03	Yes	-0.04	19.8	0	
GP-04	Yes	-0.02	20.4	0	
GP-05	Yes	-0.02	21.1	0	
GP-06	Yes	-0.02	20.8	0	
GP-07	Yes	-0.02	20.3	0	
GP-08R	Yes	-0.02	21.2	0	
GP-09	Yes	-0.02	19.0	0	
GP-10	Yes	-0.02	20.8	0	
GP-11	Yes	-0.02	18.6	0	
GP-12	Yes	-0.02	19.6	0	
GP-14	Yes	+0.02	20.2	0	
GP-15	Yes	+0.02	17.9	0	
GP-16	Yes	+0.02	18.0	0	
GP-17 red	Yes	+0.16	20.8	0	
GP-17 yellow		+0.16	21.0	0	
GP-18 red	Yes	+0.02	21.1	0	
GP-18 yellow		+0.02	20.9	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**

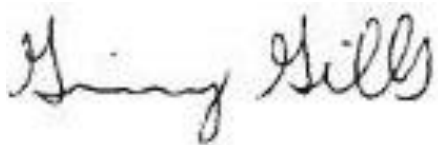
**Offsite Gas Probe:**

Probe #	Probe locked upon arrival?	Pressure (in. of Water)	% O <sub>2</sub>	%LEL	Additional comments
GP-19 red	Yes	-0.02	20.7	0	
GP-19 yellow		-0.02	21.1	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	%O <sub>2</sub>	% LEL
Animal Shelter	21.3	0
Dept. of Parks & Recreation Equipment Storage Building	21.4	0
Attendant's Building at Convenience Center	21.4	0



Technician Signature

July 14, 2016