



Gas Monitoring Report

Sanitary Landfill Compliance

ENGINEERS • SCIENTISTS • SURVEYORS • PLANNERS
P.O. BOX 6160 • 9560 KINGS CHARTER DRIVE • ASHLAND, VA 23005
(804) 550-9200 • FAX (804) 550-9259

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: 13 January 2014
Arrival Time: 10:17
Departure Time: 13:09
Log Book: Goochland County Landfill - No. 3
Sampling Technician: Karla Hunt
Site Contact: Leigh Dunn, Environmental Planner
Weather: Partly cloudy, mid 40s to mid 50s° F
Barometric Pressure (begin): 29.82" Hg
Barometric Pressure (end): 29.68" 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: 9 January 2014

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 (CH₄). 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 ₂	%LEL	Additional comments
GP-01	Yes	0	19.3	0	
GP-02	Yes	0	19.9	0	
GP-03	Yes	-0.01	16.8	31	1.6% CH ₄
GP-04	Yes	0	19.3	0	
GP-05	Yes	0	20.1	0	
GP-06	Yes	0	19.9	0	
GP-07	Yes	0	20.0	0	
GP-08R	Yes	0.20	20.2	0	
GP-09	Yes	0.01	19.8	0	
GP-10	Yes	0	20.1	0	
GP-11	Yes	0.01	20.3	0	
GP-12	Yes	0	20.3	0	
GP-14	Yes	0	18.3	0	
GP-15	Yes	0	20.5	0	
GP-16	Yes	0	20.5	0	
GP-17 red	No*	0.07	20.0	0	
GP-17 yellow		0.07	20.2	0	
GP-18 red	No†	0	18.8	0	
GP-18 yellow		0	13.1	1	0.1% CH ₄

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

*** Existing padlock relocked**

† New padlock installed

Offsite Gas Probe:

Probe #	Probe locked upon arrival?	Pressure (in. of Water)	% O ₂	%LEL	Additional comments
GP-19 red	Yes	0.05	20.0	0	
GP-19 yellow		0.55	20.5	0	

Structures:

The % LEL indicates the percentage of the Lower Explosive Limit of methane (CH₄). 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 ₂	% LEL
Animal Shelter	20.4	0
Dept. of Parks & Recreation Equipment Storage Building	20.4	0
Attendant's Building at Convenience Center	20.3	0



Technician Signature

13 January 2014