

## SCS ENGINEERS

September 26, 2017  
File No. 23212007.05

Ms. Tracy Buchanan  
Ohio EPA Southwest District Office  
401 East Fifth Street  
Dayton, Ohio 45402-2911

*Submitted Electronically*

Subject: Village of St. Bernard Landfill  
MP-10 & MP-7E Contingency Probe Monitoring Results, September 18, 2017  
MP-7E Contingency Probe Monitoring Results, September 21, 2017

Dear Ms. Buchanan:

Enclosed please find the results of the contingency gas monitoring at MP-10 and MP-7E performed on behalf of the Village of St. Bernard at the closed St. Bernard Landfill on September 18, 2017 and the contingency gas monitoring performed at MP-7E on September 21, 2017.

MP-10 had a sustained reading of 44.8 percent combustible gas. The verification reading had a sustained reading of 41.9 percent. Contingency monitoring will therefore continue to be implemented for MP-10.

The sustained reading at MP-7E on September 18<sup>th</sup> was 0 percent. On September 21<sup>th</sup>, the sustained reading at MP-7E was 0 percent. These results complete the process of collecting the 4 readings over a minimum 2-week period required to terminate contingency monitoring. The contingency monitoring results for MP-7E will be summarized in the upcoming 30-day report.

Following the initial and verification sampling for this contingency monitoring event, MP-10 was pumped for 30 minutes, at a rate of approximately 550 cc/min., using the GEM 5000. Approximately 25 casing volumes were removed from MP-10 and the combustible gas concentration was 7.4 percent. The falling methane concentration during the 30 minute purge indicates that the elevated concentration of methane is present in a small area, i.e. only a small volume of soil gas with an elevated concentration of methane is present.

Should you have any questions or comments, please contact the undersigned.

Sincerely,



Randall C. Mills, P.G.  
Senior Project Professional  
**SCS ENGINEERS**



James J. Walsh, P.E.  
Principal  
**SCS ENGINEERS**

cc: Chuck DeJonckheere, Hamilton County Public Health  
Nick Schapman, GHD  
John Estep, Mayor, Village of St. Bernard

Enclosures

## Compliance Probe Monitoring Form for St. Bernard Landfill

Date: <u>09/18/17</u>	Sampler: <u>Mike Broyles</u>
Instrument: <u>GEM 5000</u>	Weather: <u>partly cloudy</u>
Calibration Prior to Sampling: <u>Yes</u>	Ambient Air Temperature (°F): <u>77</u>
Calibration Gas: <u>CH<sub>4</sub> 15%, CO<sub>2</sub> 15%, O<sub>2</sub> 4%</u>	Barometric Pressure (in Hg): <u>30.08</u>
Recalibration: <u>No</u>	Relative Humidity (%): <u>76</u>

Probe ID	Start Time	Stop Time	Gas Pressure (inches water)	Initial CH <sub>4</sub> (% by Volume)	Sustained CH <sub>4</sub> (% by Volume)	Depth to Water Level (feet below ground surface)	Depth to Top of Screen (feet below ground surface)	Open Screen* (feet)
MP-1							not known	
MP-7E	12:44	12:45	-0.02	0	0	8.19	3	5.2
MP-7H							2	
MP-8F							4	
MP-9							2	
MP-10 first reading	12:02	12:03	0.03	43.2	44.8	5.08	2	3.1
MP-16							2	
MP-17							2	
MP-10 verification	12:05	12:06	0.03	41.5	41.9	--	--	--
MP-10 purge	12:06	12:36	0.02	42.1	7.4	--	--	--

Notes:


Signature: \_\_\_\_\_

\* A zero or negative value indicates that the probe is watered in.

## Compliance Probe Monitoring Form for St. Bernard Landfill

Date: <u>09/21/17</u>	Sampler: <u>Mike Broyles</u>
Instrument: <u>GEM 5000</u>	Weather: <u>mostly sunny</u>
Calibration Prior to Sampling: <u>Yes</u>	Ambient Air Temperature (°F): <u>81</u>
Calibration Gas: <u>CH<sub>4</sub> 15%, CO<sub>2</sub> 15%, O<sub>2</sub> 4%</u>	Barometric Pressure (in Hg): <u>30.07</u>
Recalibration: <u>No</u>	Relative Humidity (%): <u>57</u>

Probe ID	Start Time	Stop Time	Gas Pressure (inches water)	Initial CH <sub>4</sub> (% by Volume)	Sustained CH <sub>4</sub> (% by Volume)	Depth to Water Level (feet below ground surface)	Depth to Top of Screen (feet below ground surface)	Open Screen <sup>#</sup> (feet)
MP-1							not known	
MP-7E	13:41	13:42	0.02	0	0	8.20	3	5.2
MP-7H							2	
MP-8F							4	
MP-9							2	
MP-10							2	
MP-16							2	
MP-17							2	

Notes:

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Signature: \_\_\_\_\_

<sup>#</sup> A zero or negative value indicates that the probe is watered in.