

## SCS ENGINEERS

September 8, 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  
Quarterly Probe Monitoring Results, and  
MP-10 Contingency Probe Monitoring Results, September 7, 2017

Dear Ms. Buchanan:

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

No combustible gas concentrations at or above the compliance threshold were detected at any of the probes in the compliance monitoring network other than MP-10, except for MP-7E. MP-7E had a sustained reading of 9.7 percent combustible gas. The verification reading had a sustained reading of 6.9 percent. Contingency monitoring will therefore be implemented for MP-7E.

MP-10 had a sustained reading of 49.9 percent combustible gas. The verification reading had a sustained reading of 48.5 percent. Contingency monitoring will therefore continue to be implemented for MP-10.

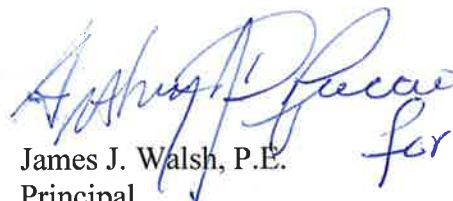
Following the initial and verification sampling for this contingency monitoring event, MP-10 was pumped for 30 minutes, at a rate of approximately 550 cc/min., using the GEM 5000. Approximately 25 casing volumes were removed from MP-10 and the combustible gas concentration was 4.9 percent. The falling 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>09/07/17</u>	Sampler: <u>Randall Mills</u>
Instrument: <u>GEM 5000</u>	Weather: <u>partly cloudy, light to moderate breeze</u>
Calibration Prior to Sampling: <u>Yes</u>	Ambient Air Temperature (°F): <u>67</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>30.09</u>
Recalibration: <u>No</u>	Relative Humidity (%): <u>51</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	13:56	16:57	-0.05	0	0	9.30	not known	
MP-7E first reading	14:33	14:34	0.03	9.1	9.7	7.60	3	4.6
MP-7H	14:40	14:41	0.01	0	0	5.16	2	3.2
MP-8F	14:28	14:29	-0.04	0	0	8.30	4	4.3
MP-9	14:24	14:25	0.19	0	0	7.37	2	5.4
MP-10 first reading	14:14	14:15	0.45	49.4	49.9	4.80	2	2.8
MP-16	14:02	14:03	-0.30	0	0	5.16	2	3.2
MP-17	14:07	14:08	-0.1	0	0	>11.76	2	9.8
MP-7E verification	14:36	14:37	-0.06	8.9	6.9	--	--	--
MP-7E purge	14:45	15:15	0.22	4.7	0.8	--	--	--
MP-10 verification	14:18	14:19	0.31	49.6	48.5	--	--	--
MP-10 purge	15:18	15:48	0	37.7	4.9	--	--	--

Notes:

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Signature: Randall C. Mills

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