

November 3, 2021  
File No. 23212007.09

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

*Submitted Electronically*

Subject: Village of St. Bernard Landfill  
MP-9 Weekly Contingency Monitoring Report

Dear Ms. Lammers:

Attached please find the results of the weekly contingency gas monitoring at MP-9, performed on behalf of the Village of St. Bernard at the closed St. Bernard Landfill on November 3, 2021.

MP-9 had an initial sustained reading of 16.3 percent combustible gas. The verification reading had a sustained reading of 14.1 percent. Contingency monitoring will therefore continue to be performed at MP-9 until sufficient data has been collected to meet the cessation criteria.

Following the initial and verification sampling for this contingency monitoring event, MP-9 was pumped for 20 minutes, at a rate of approximately 550 cc/min., using the GEM 5000. Approximately 10 casing volumes were removed from MP-9. Following the purge, the sustained combustible gas concentration was 4.8 percent. The falling methane concentration during the 20 minute purge indicates that the elevated concentration of methane is present in a small area, i.e. there is only a small volume of soil gas with an elevated concentration of methane present.

In addition to the monitoring of MP-9, a temporary bar punch test, BP-1, was performed 5 feet from the property fence in between MP-9 and the residence at 437 Bank Avenue. The bar punch did not detect any combustible gas.

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

Sincerely,



Randall C. Mills, P.G.  
Senior Project Scientist  
SCS Engineers



James J. Walsh, P.E.  
Principal  
SCS Engineers

RCM/JJW

cc: Nick Schapman, GHD  
Tom Paul, Village of St. Bernard  
Jonathan Stuchell, Village of St. Bernard  
Chuck DeJonckheere, R.S., Hamilton County Public Health

Encl.



## Compliance Probe Monitoring Form for St. Bernard Landfill

Date: <u>11/03/21</u>	Sampler: <u>Randall Mills</u>
Instrument: <u>GEM 5000</u>	Weather: <u>mostly clear, calm</u>
Calibration Prior to Sampling: <u>Yes</u>	Ambient Air Temperature (°F): <u>35</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>30.42</u>
Recalibration: <u>No</u>	Relative Humidity (%): <u>91</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-9	9:10	9:11	0.03	15.7	16.3	7.46	2	5.5
MP-9 validation	9:13	9:14	0.05	15.5	14.1	--	--	--
MP-9 post purge	9:39	9:40	-0.03	3.6	4.8	--	--	--
BP-1	9:51	9:52	0.01	0	0	--	--	--

Notes: Temporary BP-1 is located 5 feet from the property fence in between MP-9 and the residence, in the back yard of 437 Bank Avenue.

MP-9 was purged for 20 minutes between the validation reading and the post purge reading.

Signature: *Randall C. Mills*

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