

October 27, 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 October 27, 2021.

MP-9 had an initial sustained reading of 38.6 percent combustible gas. The verification reading had a sustained reading of 33.5 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 12.6 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>10/27/21</u>	Sampler: <u>Randall Mills</u>
Instrument: <u>GEM 5000</u>	Weather: <u>clear, calm</u>
Calibration Prior to Sampling: <u>Yes</u>	Ambient Air Temperature (°F): <u>45</u>
Calibration Gas: <u>CH₄ 15%, CO₂ 15%, O₂ 4%</u>	Barometric Pressure (in Hg): <u>29.50</u>
Recalibration: <u>No</u>	Relative Humidity (%): <u>78</u>

Probe ID	Start Time	Stop Time	Gas Pressure (inches water)	Initial CH ₄ (%) by Volume)	Sustained CH ₄ (% by Volume)	Depth to Water Level (feet below ground surface)	Depth to Top of Screen (feet below ground surface)	Open Screen [#] (feet)
MP-9	10:50	10:51	-0.01	37.4	38.6	7.51	2	5.5
MP-9 validation	10:55	10:56	0.03	37.3	22.5	--	--	--
MP-9 post purge	11:19	11:20	0	9.4	12.6	--	--	--
BP-1	11:29	11:30	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.

Signature: *Randall C. Mills*

[#] A zero or negative value indicates that the probe is watered in.