

GORDON ENVIRONMENTAL/PSC

TO: Robert Sanchez, Sandoval County Landfill

cc: George Schuman, Permit Section Manager, NMED Solid Waste Bureau

FROM: Mike Crepeau, P.E.; Gordon Environmental/PSC
Braden Belliveau, EIT; Gordon Environmental/PSC

DATE: March 15, 2019

SUBJECT: Sandoval County Landfill:
February 2018 Landfill Gas Monitoring Event [01004118/0002]

On February 25, 2019, Gordon Environmental/PSC performed quarterly landfill gas (LFG) monitoring at the Sandoval County Landfill (SCLF). Landfill gas measurements were recorded at the seventeen (17) active perimeter gas monitoring probes and eleven (11) on-site structures shown on **Attachment A**. Monitoring results for this event are provided as **Attachment B**, and a copy of the field notes is included as **Attachment C**.

Monitoring was performed using a CES Landtec™ GEM-2000® portable gas analyzer to measure methane (CH₄), oxygen (O₂), carbon dioxide (CO₂), and balance gas (typically nitrogen) in and around facility structures and in the perimeter probes. The GEM-2000® records gas measurements in terms of percent by volume in air; and was calibrated in the field prior to monitoring with 50% CH₄, 35% CO₂, and 4% O₂ calibration gases. Methane was not detected above the regulatory threshold of 25% of the lower explosive limit (LEL) for methane (1.25% by volume in air) at any of the monitoring locations. Methane was detected at a concentration of 0.2% by volume in air in LFG monitoring probe LFG-8. The detected values for carbon dioxide and oxygen are generally consistent with the results of previous monitoring events.

Landfill gas monitoring at the perimeter probes is accomplished by connecting the GEM-2000® to the quick-connect port atop the probe with flexible Teflon tubing. Monitoring within structures is performed by connecting a 3-foot-long fiberglass extension rod to the tubing. For each type of monitoring, the pump on the GEM-2000® was turned on and the instrument was allowed to operate for a minimum of 90 seconds before stabilized instrument readings were recorded.

Attachment B - Landfill Gas Monitoring Field Log

Landfill Gas Monitoring Field Data

Monitoring Personnel: Braden Belliveau, Tyler Zach
Methane Monitoring Type: Dedicated Probe
Probe Depth: 30'
Monitoring Date: 2/25/2019

Weather Information

Date and amount of last precipitation: 2/22/2019; 0.34 in
Temp: 38 °F
Wind Speed: 0-1 mph
Wind Direction: NW (observed at site)
Barometric Pressure: 30.13 (S) inches mercury (Hg)
Weather Conditions: Clear

Equipment Information

Monitoring Equipment Used: CES-LandTec™ GEM 2000

Date and Time Last Calibrated: 02/25/19; 0831

Permanent Landfill Gas Monitoring Probes

Monitoring Probe ID	Time of Measurement	CH ₄ (% in air)	CO ₂ (% in air)	O ₂ (% in air)	Balance Gas (% in air)
LFG-2	1030	0.0	0.4	20.3	79.3
LFG-3	1041	0.0	0.3	20.3	79.4
LFG-5	1134	0.0	2.6	18.3	79.1
LFG-6	1036	0.0	0.4	20.1	79.5
LFG-7	1100	0.0	1.0	19.7	79.3
LFG-8	1121	0.2	0.8	19.8	79.2
LFG-9B	1147	0.0	0.0	20.7	79.3
LFG-10A	1007	0.0	0.1	20.6	79.3
LFG-12	1020	0.0	0.3	20.4	79.3
LFG-14	0957	0.0	0.1	20.7	79.2
LFG-15	0949	0.0	0.2	20.6	79.2
LFG-16	1248	0.0	0.3	19.9	79.8
LFG-17	1244	0.0	0.2	20.0	79.8
LFG-18	1240	0.0	0.1	20.1	79.8
LFG-19	1233	0.0	0.2	20.0	79.8
LFG-20	1228	0.0	0.1	20.0	79.9
LFG-21	1211	0.0	0.0	20.5	79.5


Landfill Structures

Scalehouse (ticket office)	0906	0.0	0.1	21.3	78.6
Scalehouse (supervisor's office)	0909	0.0	0.1	21.2	78.7
Employee Breakroom	0903	0.0	0.0	21.3	78.7
Spotter's Shed	0918	0.0	0.0	21.2	78.8
Recycling Storage	0913	0.0	0.0	21.2	78.8
Portable Toilet	0929	0.0	0.0	21.3	78.7
Gray Storage Shed	1252	0.0	0.0	20.4	79.6
Composting Office	1013	0.0	0.0	20.7	79.3
Public Works Dept. Admin.	0941	0.0	0.0	21.1	78.9
Roads & Fleet Maintenance Bldg.	0932	0.0	0.0	21.2	78.8
Trailer	0936	0.0	0.0	21.1	78.9
North Storage Shed	1000	0.0	0.0	20.8	79.2

Ambient Readings

Near Employee Lounge	0900	0	0.0	21.2	78.8
Near Employee Lounge	1256	0	0	20.6	79.4

Signature(s):


Tyler Zach

Attachment C - Landfill Gas Monitoring Field Log

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Signature(s):

Tyler Zach BSR