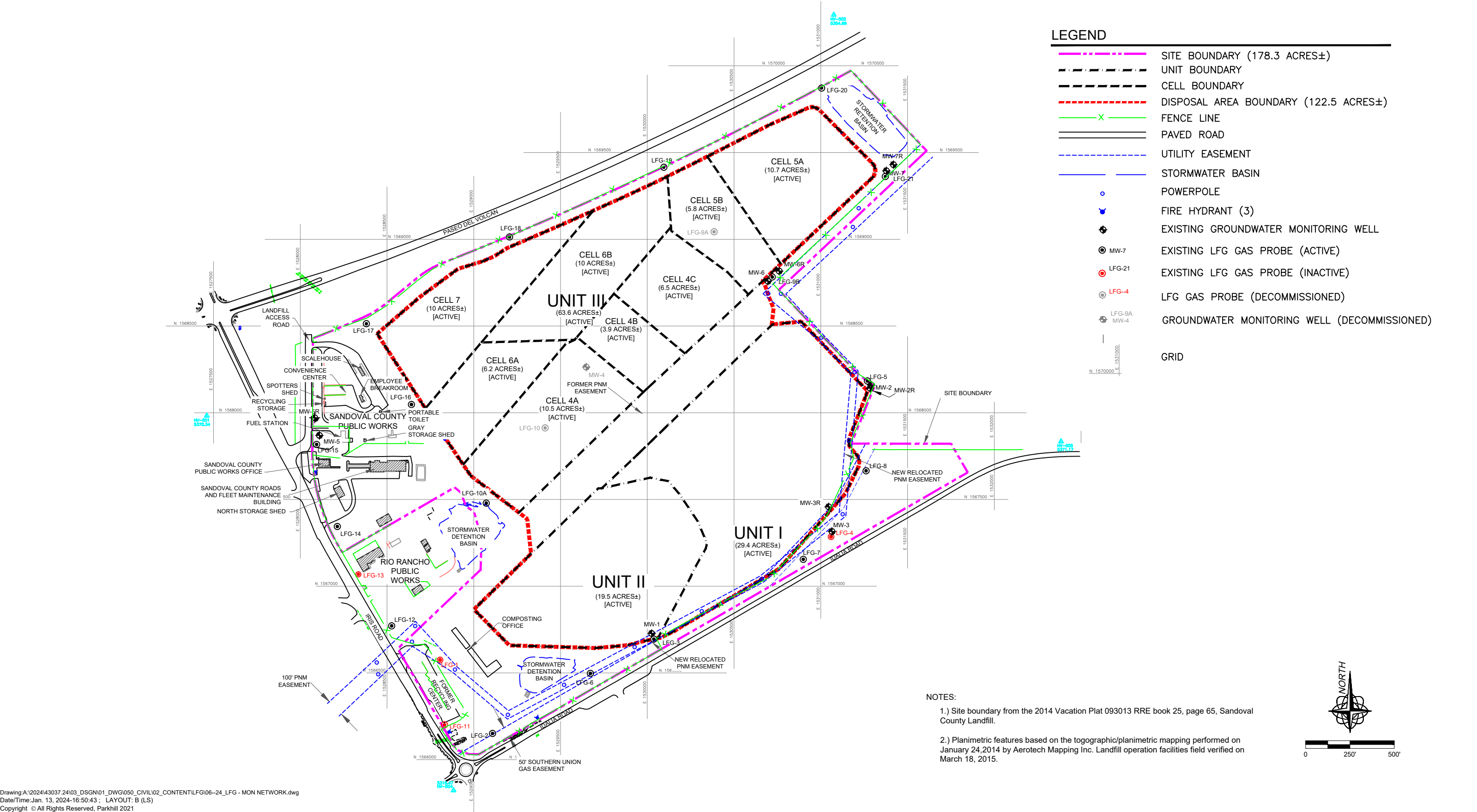


TO:	Daniele Berardelli, Permit Section Manager, NMED Solid Waste Bureau
cc:	Chris Perea, Landfill Manager, Sandoval County Landfill
FROM:	Tyler Zack, PE, Parkhill
DATE:	February 11, 2025
SUBJECT:	Sandoval County Landfill: December 2024 Landfill Gas Monitoring Event [04303724.00]

On December 27, 2024, Parkhill 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 within the ten (10) on-site structures shown on **Exhibit A**. Monitoring results for this event are provided as **Exhibit B**, and a copy of the field notes is included as **Exhibit C**.

Monitoring was performed using a CES Landtec™ GEM-5000® 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-5000® 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 or in any of the dedicated methane monitoring probes. 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-5000® 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-5000® was turned on and the instrument was allowed to operate for a minimum of 90 seconds before stabilized instrument readings were recorded.



Drawing: A:\2024\43037.24\03_DSGN\01_DWG\050_CIVIL\02_CONTENT\LFG\06-24_LFG - MON NETWORK.dwg
Date/Time: Jan. 13, 2024-16:50:43; LAYOUT: B (LS)
Copyright © All Rights Reserved, Parkhill 2021

Parkhill

DECEMBER 2024 LANDFILL GAS MONITORING EVEN

LANDFILL GAS MONITORING POINTS

Parkhill.com

SANDOVAL COUNTY LANDFILL
RIO RANCHO, NEW MEXICO

Date:01/13/2024
Project No:43037.24
Sheet:EXHIBIT A

Exhibit B - Landfill Gas Monitoring Field Log

Monitoring Personnel: Tyler Zack & Lucas Batsita

Methane Monitoring Type: Dedicated Probe

Probe Depth: 30'

Monitoring Date: 12/27/2024

Weather Information

Date and amount of last precipitation 11/18/24 0.21in

Temp: 42 °F

Wind Speed: 5 mph

Wind Direction: SE (observed at site)

Barometric Pressure: 24.98 inches mercury (Hg)

Weather Conditions: Partly Cloudy

Equipment Information

Monitoring Equipment Used: CES-LandTec™ GEM 5000

Date and Time Last Calibrated: 12/27/24: 1018

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	1140	0.0	0.5	20.8	78.7
LFG-3	1147	0.0	0.9	20.2	78.9
LFG-5	1205	0.0	4.5	16.7	78.8
LFG-6	1155	0.0	0.6	20.1	79.3
LFG-7	1332	0.0	1.1	20.1	78.8
LFG-8	1339	0.2	0.8	20.2	78.8
LFG-9B	1216	0.1	0.9	19.2	79.8
LFG-10A	1118	0.0	0.7	19.9	79.4
LFG-12	1128	0.0	0.4	20.9	78.7
LFG-14	1039	0.0	0.4	21.2	78.4
LFG-15	1046	0.0	0.3	21.4	78.3
LFG-16	1318	0.0	1.1	20.4	78.5
LFG-17	1301	0.0	0.5	21.1	78.4
LFG-18	1310	0.0	0.7	20.4	78.9
LFG-19	1240	0.0	1.3	19.5	79.2
LFG-20	1232	0.0	0.2	21.1	78.7
LFG-21	1221	0.0	0.3	20.8	78.9

Landfill Structures

Scalehouse (ticket office)	1108	0.0	0.1	21.5	78.4
Scalehouse (supervisor's office)	1111	0.0	0.1	21.5	78.4
Employee Breakroom	1104	0.0	0.1	21.5	78.4
Spotter's Shed	1059	0.0	0.1	21.5	78.4
Recycling Storage	1100	0.0	0.1	21.5	78.4
Portable Toilet	1322	0.0	0.1	21.6	78.3
Gray Storage Shed	1055	0.0	0.1	21.4	78.5
Composting Office	1135	0.0	0.1	21.1	78.8
Public Works Dept. Admin.	1026	0.0	0.1	21.1	78.8
Roads & Fleet Maintenance Bldg.	1031	0.0	0.1	21.3	78.6
North Storage Shed	1035	0.0	0.1	21.5	78.4

Ambient Readings

Office	1021	0.0	0.1	20.7	79.2
Near LFG 8	1340	0.0	0.1	21.2	78.7

Signature(s): 

Exhibit C - Landfill Gas Monitoring Field Log

Monitoring Personnel: Tyler Zack & Lucas Batista

Methane Monitoring Type: Dedicated Probe

Probe Depth: 30'

Monitoring Date: 12/27/24

Weather Information

Date and amount of last precipitation 11/8/24, 0.21 in.

Temp: 42 °F

Wind Speed: 5 mph

Wind Direction: SE (observed at site)

Barometric Pressure: 29.48 inches mercury (Hg)

Weather Conditions: partly cloudy

Equipment Information

Monitoring Equipment Used: CES-LandTec™ GEM 5000

Date and Time Last Calibrated: 12/27/24 @ 1018

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	11:43	0.0	0.5	20.8	78.7
LFG-3	11:47	0.0	0.9	20.2	78.9
LFG-5	12:05	0.0	4.5	16.7	78.8 LB
LFG-6	11:55	0.0	0.6	20.1	79.3
LFG-7	12:32	0.0	1.1	20.1	78.8
LFG-8	12:39	0.2	0.8	20.2	78.8
LFG-9B	12:16	0.1	0.9	19.2	79.8
LFG-10A	11:18	0.0	0.7	19.9	79.4
LFG-12	11:28	0.0	0.4	20.9	78.7
LFG-14	10:39	0.0	0.4	21.2	78.4
LFG-15	10:46	0.0	0.3	21.4	78.3
LFG-18 17	13:01	0.0	0.5	21.1	78.4
LFG-17 16	13:18	0.0	1.1	20.4	78.5
LFG-18	13:10	0.0	0.7	20.4	78.9
LFG-19	12:40	0.0	1.3	19.5	79.2
LFG-20	12:32	0.0	0.2	21.1	78.7
LFG-21	12:21	0.0	0.3	20.8	78.9

Landfill Structures

Scalehouse (ticket office)	11:08	0.0	0.1	21.5	78.4
Scalehouse (supervisor's office)	11:11	0.0	0.1	21.5	78.4
Employee Breakroom	11:04	0.0	0.1	21.5	78.4
Spotter's Shed	10:59	0.0	0.1	21.5	78.4
Recycling Storage	11:00	0.0	0.1	21.5	78.4
Portable Toilet	13:22	0.0	0.1	21.6	78.3
Gray Storage Shed	10:55	0.0	0.1	21.4	78.5
Composting Office	11:35	0.0	0.1	21.1	78.8
Public Works Dept. Admin.	10:26	0.0	0.1	21.1	78.8
Roads & Fleet Maintenance Bldg.	10:31	0.0	0.1	21.3	78.6
North Storage Shed	10:35	0.0	0.1	21.5	78.4

Ambient Readings

Office	10:21	0.0	0.1	20.7	79.2
Near LFG 8	13:40	0.0	0.1	21.2	78.7

Signature(s):

