

GORDON ENVIRONMENTAL/PSC

TO: Chris Perea, 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

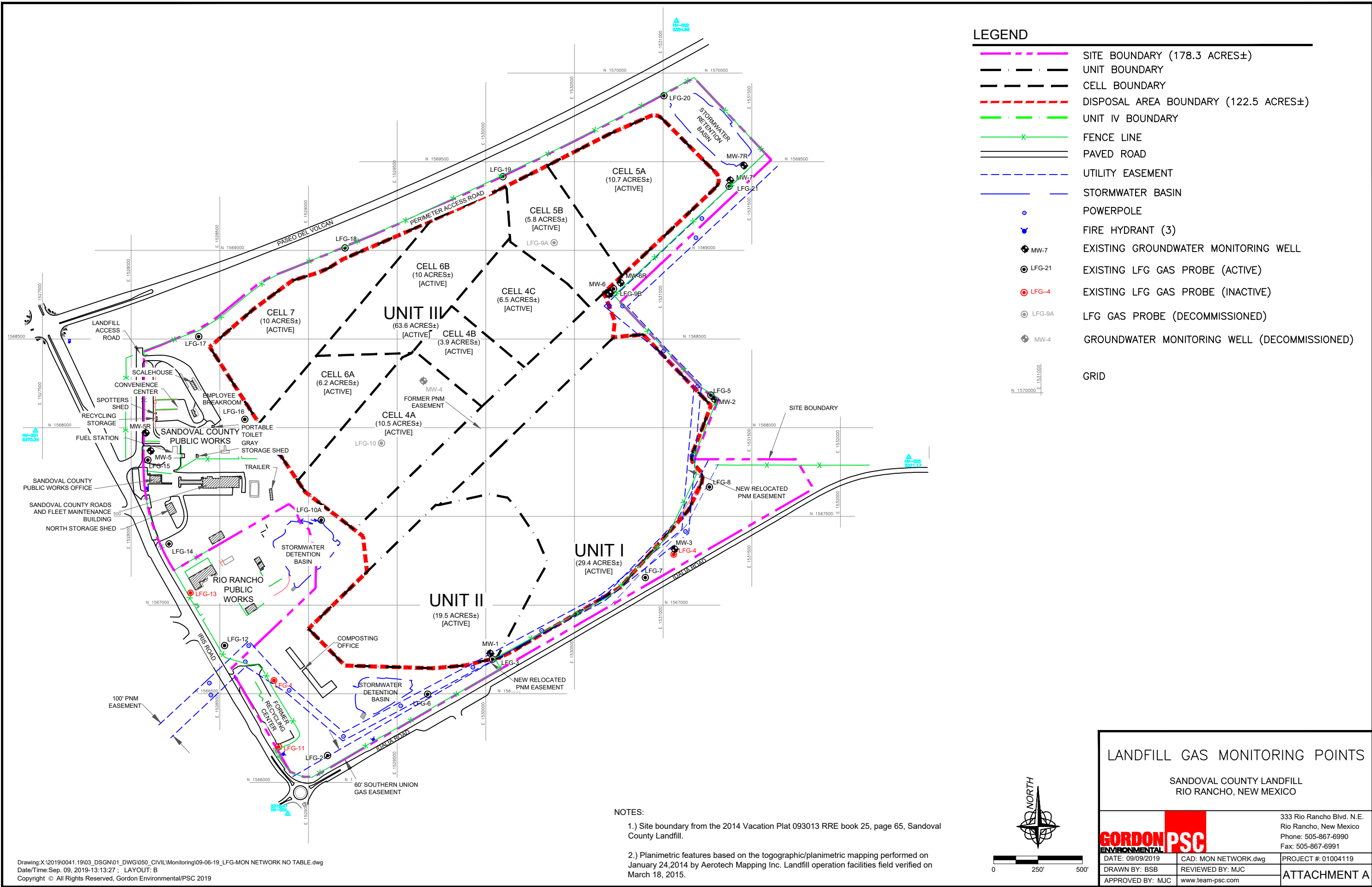
DATE: September 10, 2019

SUBJECT: Sandoval County Landfill:
September 2019 Landfill Gas Monitoring Event [01004119]

On September 6, 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 0.1% 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 Data

Monitoring Personnel: Braden Belliveau, Tyler Zack
Methane Monitoring Type: Dedicated Probe
Probe Depth: 30'
Monitoring Date: 9/6/2019

Weather Information

Date and amount of last precipitation 09/03/2019, 0.01 in
Temp: 76 °F
Wind Speed: 1 mph
Wind Direction: North (observed at site)
Barometric Pressure: 30.3 (S) inches mercury (Hg)
Weather Conditions: Clear

Equipment Information

Monitoring Equipment Used: CES-LandTec™ GEM 2000
Date and Time Last Calibrated: 09/06/19, 0821

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	1017	0.0	0.1	19.7	80.2
LFG-3	1029	0.0	0.0	19.7	80.3
LFG-5	1056	0.0	2.4	17.8	79.8
LFG-6	1024	0.0	0.0	19.6	80.4
LFG-7	1248	0.0	0.5	19.3	80.2
LFG-8	1253	0.1	0.2	20.1	79.6
LFG-9B	1112	0.0	0.0	20.2	79.8
LFG-10A	0955	0.0	0.0	19.4	80.6
LFG-12	1002	0.0	0.1	19.3	80.6
LFG-14	0940	0.0	0.0	19.3	80.7
LFG-15	0920	0.0	0.1	19.2	80.7
LFG-16	1202	0.0	0.2	19.9	79.9
LFG-17	1208	0.0	0.1	20.3	79.6
LFG-18	1157	0.0	0.0	20.4	79.6
LFG-19	1153	0.0	0.1	19.6	80.3
LFG-20	1148	0.0	0.1	19.6	80.3
LFG-21	1128	0.0	0.0	20.0	80.0

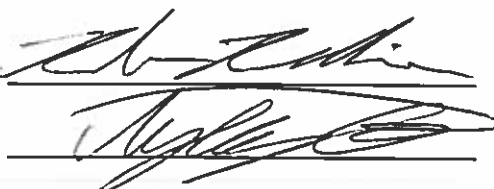
Landfill Structures

Scalehouse (ticket office)	1214	0.0	0.0	20.8	79.2
Scalehouse (supervisor's office)	1217	0.0	0.0	20.9	79.1
Employee Breakroom	0825	0.0	0.0	20.0	80.0
Spotter's Shed	0829	0.0	0.0	19.9	80.1
Recycling Storage	0831	0.0	0.0	19.9	80.1
Portable Toilet	0837	0.0	0.0	19.7	80.3
Gray Storage Shed	0834	0.0	0.0	19.8	80.2
Composting Office	1009	0.0	0.0	19.8	80.2
Public Works Dept. Admin.	0841	0.0	0.0	19.7	80.3
Roads & Fleet Maintenance Bldg.	0846	0.0	0.0	19.7	80.3
Trailer	0947	0.0	0.0	19.4	80.6
North Storage Shed	0943	0.0	0.0	19.5	80.5

Ambient Readings

Outside Public Works Office	0824	0	0.0	20.0	80.0
Near LFG-8	1222	0	0	21.1	78.9

Signature(s):



Attachment C - Landfill Gas Monitoring Field Log

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Methane Monitoring Type: Dedicated Probe
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Monitoring Date: 9/6/19

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Wind Direction: North (observed at site)
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Weather Conditions: Clear

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Roads & Fleet Maintenance Bldg.	0846	0	0	19.7	80.3
Trailer	0947	0	0	19.4	80.6
North Storage Shed	0943	0	0	19.5	80.5

Ambient Readings

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Signature(s):

