

# GORDON ENVIRONMENTAL/PSC

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**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:** October 10, 2018

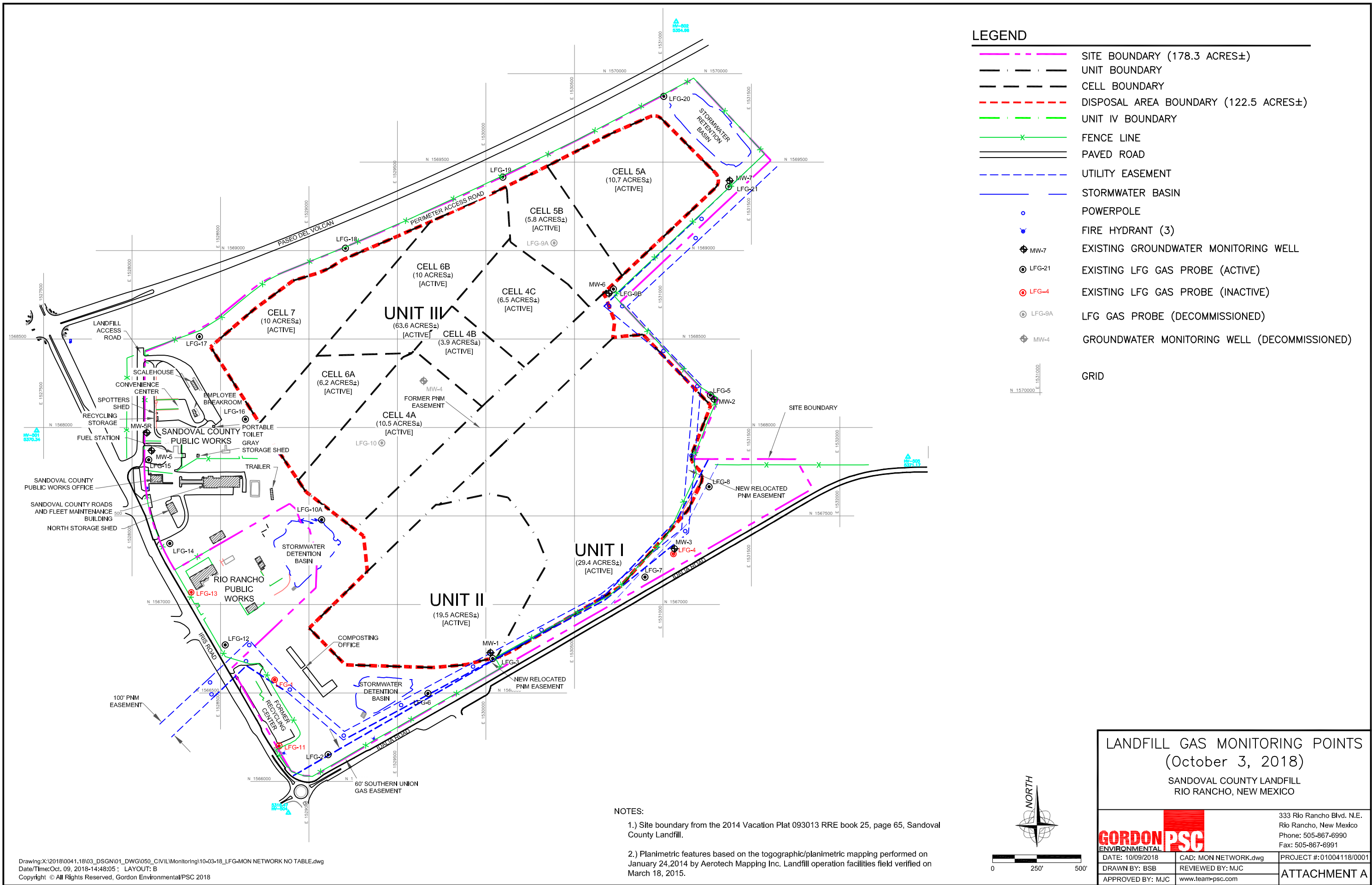
**SUBJECT:** Sandoval County Landfill:  
October 2018 Landfill Gas Monitoring Event [01004118/0002]

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On October 3, 2018, 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 twelve (12) 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 (CH<sub>4</sub>), oxygen (O<sub>2</sub>), carbon dioxide (CO<sub>2</sub>), 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% CH<sub>4</sub>, 35% CO<sub>2</sub>, and 4% O<sub>2</sub> 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 LOG SANDOVAL COUNTY LANDFILL SANDOVAL COUNTY, NM

Monitoring Personnel: Braden Belliveau  
Methane Monitoring Type: Dedicated Probe  
Probe Depth: 30'  
Monitoring Date: 10/3/2018

### Weather Information

Date and amount of last precipitation: 10/2/18; 0.09 in  
Temp: 65 °F  
Wind Speed: 4 mph  
Wind Direction: West (observed at site)  
Barometric Pressure: 30.2 (S) inches mercury (Hg)  
Weather Conditions: Partly Cloudy

### Equipment Information

Monitoring Equipment Used: CES-LandTec™ GEM 2000  
Date and Time Last Calibrated: 10/3/18; 0930

### Permanent Landfill Gas Monitoring Probes

Monitoring Probe ID	Time of Measurement	CH <sub>4</sub> (% in air)	CO <sub>2</sub> (% in air)	O <sub>2</sub> (% in air)	Balance Gas (% in air)
LFG-2	1046	0.0	0.3	20.9	78.8
LFG-3	1101	0.0	0.2	20.9	78.9
LFG-5	1137	0.0	3.4	17.8	78.8
LFG-6	1055	0.0	0.4	20.6	79.0
LFG-7	1114	0.0	0.8	20.1	79.1
LFG-8	1124	0.1	0.4	20.4	79.1
LFG-9B	1142	0.0	0.2	20.1	79.7
LFG-10A	1028	0.0	0.3	20.1	79.6
LFG-12	1035	0.0	0.2	20.7	79.1
LFG-14	1000	0.0	0.1	20.9	79.0
LFG-15	0947	0.0	0.2	20.8	79.0
LFG-16	1213	0.0	0.2	20.8	79.0
LFG-17	1208	0.0	0.1	20.9	79.0
LFG-18	1203	0.0	0.0	21.0	79.0
LFG-19	1157	0.0	0.4	20.1	79.5
LFG-20	1151	0.0	0.1	20.6	79.3
LFG-21	1147	0.0	0.0	20.8	79.2

### Landfill Structures

Scalehouse (ticket office)	1221	0.0	0.0	21.7	78.3
Scalehouse (supervisor's office)	1226	0.0	0.0	21.9	78.1
Employee Breakroom	1235	0.0	0.0	21.8	78.2
Spotter's Shed	1021	0.0	0.0	21.2	78.8
Recycling Storage	1019	0.0	0.0	21.2	78.8
Portable Toilet	0941	0.0	0.0	21.1	78.9
Gray Storage Shed	0936	0.0	0.0	21.3	78.7
Composting Office	1040	0.0	0.0	21.1	78.9
Public Works Dept. Admin.	0953	0.0	0.0	21.0	79.0
Roads & Fleet Maintenance Bldg.	1008	0.0	0.0	21.1	78.9
Trailer	1011	0.0	0.0	21.1	78.9
North Storage Shed	1004	0.0	0.0	21.1	78.9
Recycling Center Office	Structure Removed				
Storage Locker	Structure Removed				
Recycling Center Storage #2	Structure Removed				
Recycling Center Storage #3	Structure Removed				
Recycling Center Portable Toilet	Structure Removed				

### Ambient Readings

Near Employee Lounge	0931	0.0	0.0	21.3	78.7
Near Employee Lounge	1236	0.0	0.0	21.9	78.1

Signature(s): 

# ATTACHMENT C

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Storage Locker					
Recycling Center Storage #2					
Recycling Center Storage #3					
Recycling Center Portable Toilet					

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Signature(s):

*Braden Belliveau*