



**Perimeter Landfill Gas Monitoring  
Landfill Gas Probe No. 04**

There are 30 landfill gas monitoring probes located around the perimeter of the landfill. The probes are shallow, usually three to fifteen feet deep. The probes are monitored on a quarterly basis to determine if landfill gas is migrating away from the landfill cells towards the property boundary. They are checked for methane, carbon dioxide, oxygen, and nitrogen. These are the same parameters that are checked in the gas collection wells. Landfill gas can have odors associated with it and can be explosive in certain concentrations in the atmosphere. For these reasons, we want to know before any landfill gas migrates off our property. These probes are not designed to collect landfill gas; they are only meant to monitor for gas migrating away from the landfill.

The Lanchester Landfill has an extensive landfill gas collection system. There are approximately 170 gas extraction wells, leachate cleanouts, toe-drain collectors, and other points on the landfill where landfill gas is collected. The landfill gas collected via vacuum goes to EDL’s plant located on the west side of the property, where it is compressed, filtered, and dewatered. Some of the processed gas is then utilized by two Caterpillar 3520C engines located at the Granger Energy plant to generate up to 3.2 megawatts of electrical power, with the remaining gas being sent down a 13-mile pipeline into Lancaster County, where seven businesses utilize the gas in place of natural gas.

Perimeter Gas Probe #04 Recent Results

Device ID	Date/Time	% CH4	% CO2	% O2	% N
LANCGP04	6/27/2024 11:52	0	7.4	20.1	79.8
LANCGP04	9/19/2024 13:40	0	6.1	15	78.9
LANCGP04	12/18/2024 14:32	0	0.1	21.4	78.5
LANCGP04	3/11/2025 14:57	0	0.1	13.7	78.9

CH4 – Methane  
 CO2 – Carbon Dioxide  
 O2 – Oxygen  
 N - Nitrogen