



## 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 only 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 that is collected via vacuum goes to Granger Energy’s plant that is 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 the gas is utilized by a seven businesses in place of natural gas.

### Perimeter Gas Probe #04 Recent Results

Device ID	Date/Time	% CH4	% CO2	% O2	% N
LANCGP04	9/25/2019 10:50	0	8.3	13.2	78.5
LANCGP04	12/6/2019 11:20	0	1.5	20.1	78.4
LANCGP04	3/26/2020 11:35	0	0	21.4	78.6
LANCGP04	6/26/2020 12:04	0	5.8	15.5	78.7

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