



# Biogas Analysis Services

Laboratory Analysis | Sampling Equipment & Supplies | On-site Sampling

Ohio Lumex is a leading source for comprehensive Biogas Analysis Services, including lab analysis and on-site sampling of waste-to-energy, landfill gas, wastewater, and other renewable energy projects. Our Accredited Laboratory offers an all-inclusive range of biogas analysis services performed according to industry methods and standards, including ASTM, ISO, EPA, etc.

Our services apply to a variety of applications at biogas sites working with renewable energy, including RNG interconnection compliance (both startup and ongoing), pipeline integrity, process control, and various research and development efforts.

## Applications

- Landfills
- Wastewater Treatment Plants
- Food Waste Digesters (co-digestion)
- Dairy Farms
- Hog and Chicken Farms
- Others

## Available Services

- Laboratory analysis of biogas composition, including:
  - Methane (CH<sub>4</sub>)
  - Carbon Monoxide (CO)
  - Carbon Dioxide (CO<sub>2</sub>)
  - Hydrogen (H<sub>2</sub>)
  - Nitrogen (N<sub>2</sub>)
  - Oxygen (O<sub>2</sub>)
  - Mercury (Hg)
  - Ammonia (NH<sub>3</sub>)
  - Chlorine (Cl) and Fluorine (F)
  - Biologicals
  - Siloxanes (TMSOL, L2, L3, L4, L5, D3, D4, D5, D6)
  - Metals in Gas (As, Cu, Sb, Pb)
  - Volatile Organic Compounds (VOCs)
  - Total Reduced and Speciated Sulfur
  - Hydrocarbons and Hydrocarbon Dew point
  - BTU, Wobbe Index
  - Moisture
  - PCBs
  - Pesticides
  - Radioactive Isotopes
- Weekly sampling system rental, sample cylinder rental, instruction, and supplies to ensure your sampling team delivers quality samples for analysis
- On-site sampling from our experienced Field Services team
- The industry's best turnaround time, with options to meet your specific project needs



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## Biogas Testing Services

Require additional testing? Contact our lab as we may have other services available upon request.

Analyte	Supplies and Equipment Options	Method
Major Gases and BTU, CO <sub>2</sub> , CH <sub>4</sub> , O <sub>2</sub> , N <sub>2</sub> , CO, H <sub>2</sub> , BTU, Wobbe Index, Hydrocarbon Dewpoint, and Hydrocarbons (C2+, C6+)	<ul style="list-style-type: none"> <li>Passivated High-Pressure Cylinder*</li> <li>Tedlar Bag</li> </ul>	<ul style="list-style-type: none"> <li>ASTM D1945, D1946, D3588</li> </ul>
Total Hg	<ul style="list-style-type: none"> <li>Gold Sorbent Traps*</li> <li>Passivated High-Pressure Cylinder</li> </ul>	<ul style="list-style-type: none"> <li>ASTM D5954</li> </ul>
Siloxanes and Silanols: L2, L3, L4, L5, D3, D4, D5, D6, TMSOL	<ul style="list-style-type: none"> <li>Siloxane Sorbent Traps*</li> <li>Passivated High-Pressure Cylinder</li> <li>Tedlar Bag</li> </ul>	<ul style="list-style-type: none"> <li>ASTM D8230</li> </ul>
Total and Speciated Sulfur	<ul style="list-style-type: none"> <li>Passivated High-Pressure Cylinder*</li> <li>Tedlar Bag</li> </ul>	<ul style="list-style-type: none"> <li>ASTM D6228</li> </ul>
Ammonia in Biogas	<ul style="list-style-type: none"> <li>NH<sub>3</sub> Sorbent Traps</li> </ul>	<ul style="list-style-type: none"> <li>NIOSH 6016</li> </ul>
Volatile Organic Compounds (VOCs)	<ul style="list-style-type: none"> <li>SUMMA Canister</li> </ul>	<ul style="list-style-type: none"> <li>EPA Method TO-15</li> </ul>
Nitroso-n-di-propylamine (NDPA)	<ul style="list-style-type: none"> <li>SVOC Sorbent Trap</li> </ul>	<ul style="list-style-type: none"> <li>SW-846 0010/8270C</li> </ul>
Chlorine and Fluorine (Inorganic)	<ul style="list-style-type: none"> <li>HCl/HF Sorbent Traps</li> </ul>	<ul style="list-style-type: none"> <li>Modified EPA OTM-40</li> </ul>
Chlorine and Fluorine Organic (Halocarbons)	<ul style="list-style-type: none"> <li>Passivated High-Pressure Cylinder</li> </ul>	<ul style="list-style-type: none"> <li>EPA Method TO-14</li> </ul>
Metals in Gas: As, Cu, Sb, Pb <i>Others Available Upon Request</i>	<ul style="list-style-type: none"> <li>Impinger Sampling Train</li> </ul>	<ul style="list-style-type: none"> <li>Modified EPA Method 29</li> </ul>
Aldehydes and Ketones	<ul style="list-style-type: none"> <li>Aldehyde and Ketone Sorbent Trap</li> </ul>	<ul style="list-style-type: none"> <li>EPA Method TO-11A</li> </ul>
Biologicals (MICs): Total Bacteria, SRB, APB, IOB <i>Others Available Upon Request</i>	<ul style="list-style-type: none"> <li>Sterile MIC gas sampling device</li> </ul>	<ul style="list-style-type: none"> <li>qPCR Technique</li> </ul>
PCBs	<ul style="list-style-type: none"> <li>Impinger Sampling Train</li> </ul>	<ul style="list-style-type: none"> <li>EPA SW8082</li> </ul>
Pesticides	<ul style="list-style-type: none"> <li>Impinger Sampling Train</li> </ul>	<ul style="list-style-type: none"> <li>EPA SW8081</li> </ul>
Particulates and Condensables	<ul style="list-style-type: none"> <li>Sorbent Trap</li> </ul>	<ul style="list-style-type: none"> <li>OL Custom</li> </ul>
Moisture	<ul style="list-style-type: none"> <li>Portable Hygrometer</li> <li>Chilled Mirror</li> </ul>	<ul style="list-style-type: none"> <li>ASTM D5454</li> <li>ASTM D1142</li> </ul>
Gross Alpha and Beta	<ul style="list-style-type: none"> <li>Radiological Sample Filter</li> </ul>	<ul style="list-style-type: none"> <li>E900</li> <li>EPA SW6020</li> </ul>
Radon	<ul style="list-style-type: none"> <li>Radiological Sorbent Trap</li> </ul>	<ul style="list-style-type: none"> <li>E115</li> </ul>

\* Recommended for Sample Stability and Sensitivity

**Sampling Systems, Equipment and Supplies Available for Purchase or Rent**  
On-site service is available to perform sampling | Other analytes available upon request



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