Aerodyne Mobile Lab

What can it do for you?

Meet our team leaders

Conner Daube

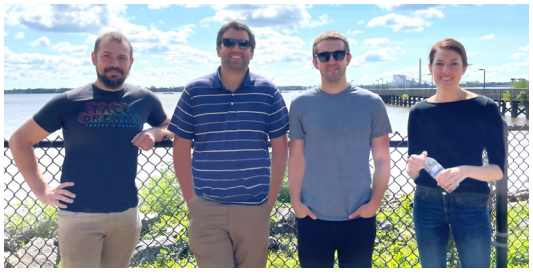
Manager of Field Measurement Studies

Since joining in 2015, Mr. Daube has pursued the development of state-of-the-art emission quantification techniques using mobile laboratories. He has led the successful execution of numerous field measurement campaigns.

Dr. Scott C. Herndon

Center Director

Since joining in 1999, Dr. Herndon's research interests have focused on the development and utilization of trace gas and fine particle instrumentation for a wide variety of field and laboratory applications. He leads the **Center for Atmospheric & Environmental Chemistry at Aerodyne**.



An variety of team members will be onsite to answer your questions.

Aerodyne Research

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Lab Instruments & Capabilities

The **Aerodyne Mobile Laboratory** has a suite of instrumentation that changes depending on the requirements of the measurement campaign.

- TILDAS Laser Trace Gas Analyzers
- Vocus CI-TOF Mass Spectrometer
- Aerosol Mass Spectrometer
- CAPS NO_2 Monitor
- Aerodyne Gas Chromatograph

Fenceline Monitoring & Leak Detection

Real-time detection and source identification of equipment leaks can be attained through mobile fenceline and on-site surveys.

Pollution Heatmaps

Intensive mapping of industrial pollutant emissions has been used to characterize the impact on downwind residential populations.

Emission Rate Quantification

Using tracer release methods, the Aerodyne Mobile Laboratory quantifies oil and natural gas emissions across North America, from well pad to whole facility scale.

Alternative Platforms

Aerodyne has installed suites of instruments aboard aircraft and ships of various sizes.

Field Campaigns

Air Quality in Cities

A full suite of trace gas, PM, and VOC instruments has been used to investigate industrial emissions and other air quality concerns in several major cities.

Wildfire Smoke Emissions

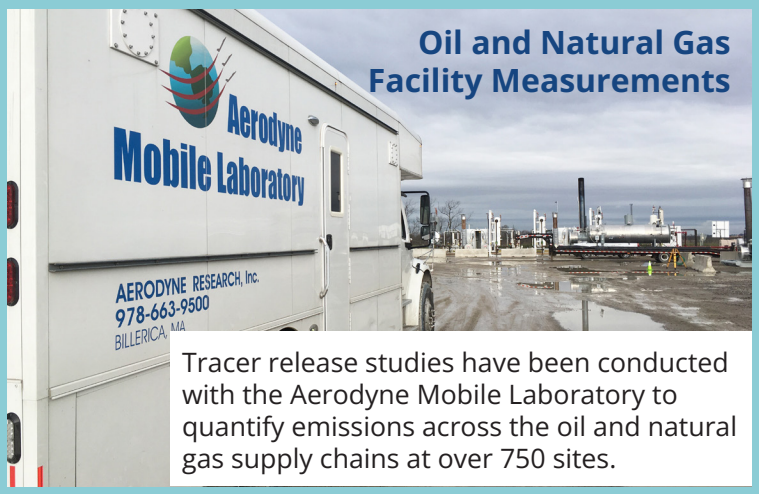
Aerodyne has participated in the **NOAA and NASA FIREX** campaigns as part of a multidisciplinary team studying forest fire emissions.

Subsurface Microbial Research

Aerodyne is teaming up with soil and environmental researchers to quantify a wide range of subsurface gases using TILDAS and Vocus technologies.

Agricultural Emissions

Methane emissions associated with the agricultural use of cows have been quantified at several farms in central California.



Oil and Natural Gas Facility Measurements

Tracer release studies have been conducted with the Aerodyne Mobile Laboratory to quantify emissions across the oil and natural gas supply chains at over 750 sites.

Offshore Platforms

Emissions from offshore oil and gas platforms in the Gulf of Mexico were measured with a suite of instruments installed on a boat, including methane, ethane and the isotopes of methane.

Ozone Precursors in Detroit, MI

The Aerodyne Mobile Laboratory participated in the Chemical Source Signatures (CHESS) sub-experiment as part of the Michigan-Ontario Ozone Source Experiment (MOOSE).