Comprehensively Evaluating Methane Emissions in the Field for a "Leak Tight" Natural Gas Value Chain

Evaluating methane emissions from across the natural gas value chain accelerates emissions mitigation opportunities and supports the administration's goal of a "net-zero" carbon economy.







Demonstrating orphaned well finding technology: The unique magnetic signature of a metalliccased well can be detected via unmanned drone magnetic surveys.

Methane is the primary component in natural gas and the second most abundant anthropogenic greenhouse gas after carbon dioxide. Methane accounts for about 16% of global emissions, but it is more than 28 times as potent as carbon dioxide at trapping heat in the atmosphere. NETL is focused on developing accurate, cost-effective and efficient technology solutions and best practices to identify, detect, characterize and substantially mitigate methane emissions, with specific focus on:

- Reducing or eliminating chronic emissions from natural gas infrastructure.
- Identifying and characterizing undocumented orphaned wells.
- Conducting field campaigns to test and validate methane identification, detection and characterization technologies.
- NETL has conducted multiple field campaigns to detect and characterize methane emissions in Hillman State Park (Pennsylvania), Stonewall Jackson State Park (West Virginia), Wayne National Forest (Ohio), Daniel Boone National Forest (Kentucky), and the Osage Nation Reservation (Oklahoma).



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