

# VRU & Emission Monitoring

With the successful deployment of NevadaNano's MethaneTrack™ system at an upstream facility in the Permian Basin in Q3 2023, this marked a significant advancement in methane monitoring technology. The key features and capabilities of MethaneTrack™ align with the critical needs of the customer, demonstrating a commitment to addressing the challenges associated with methane emissions in the oil and gas industry:

## Quick and Easy Installation:

MethaneTrack™ was installed, commissioned, and online within 3 hours, meeting the customer's requirement for a simple, quick, and easy installation process. This eliminates downtime and allows for swift implementation.

## Rapid Detection of Methane Emission Events:

MethaneTrack™ is designed to detect methane emission events much quicker than current technologies and manual inspection methods. With alerts and notifications generated within hours and days, as opposed to months, operators can respond promptly to mitigate leaks and prevent environmental impact by up to 95%.

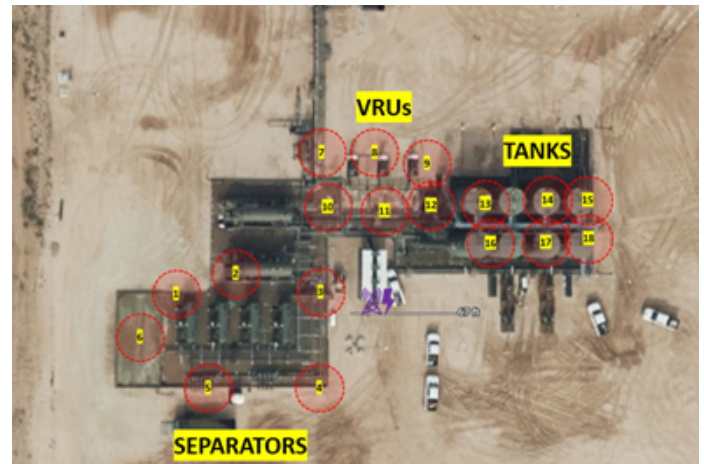
## Precise Location Identification:

MethaneTrack™ provides asset-level location information for the source of emissions. This capability ensures engineers and operators can allocate resources efficiently, leading to quicker resolution of issues and improved overall response time.

## Quantification of Methane Emissions:

MethaneTrack™ accurately quantifies the amount of methane emitted. This data is crucial for government reporting (such as EPA requirements), corporate governance related to ESG (Environmental, Social, Governance), and compliance with OPMG2.0 standards. It also allows for the measurement of Year-over-Year reductions against baseline levels, supporting sustainability goals.

The successful deployment of MethaneTrack™ showcases the potential for advanced monitoring technologies playing a pivotal role in achieving more transparent, efficient, and sustainable operations within the oil and gas industry. This directly aligns with the broader global effort of reducing greenhouse gas emissions and transitioning towards a cleaner energy future.



**For more information on MethaneTrack™ please contact our sales team**

Gary Collins

VP of Sales and Marketing | [Gary.Collins@nevadanano.com](mailto:Gary.Collins@nevadanano.com)

Soon after MethaneTrack™ was commissioned, a significant leak event was identified. On site, MethaneTrack™ emerged as the only system that promptly identify this leak. Employing NevadaNano's Leak Source Isolation™ (LSI™) algorithm, MethaneTrack™ located the source of the leak from the VRU area.

The incident demonstrates several key advantages associated with close-proximity detection technology:

### Significant Emission Reduction:

MethaneTrack™ played a crucial role in reducing the emission potential from the leak event by 95%, compared to the quarterly inspection approach. This emphasizes the system's impact on minimizing methane emissions and contributing to sustainability goals.

### Prompt Identification of Leaks:

MethaneTrack™ proved to be the only system promptly identifying the significant leak event. This rapid detection capability was crucial in preventing prolonged emissions and significantly minimizing environmental impact.



### Precise Leak Localization with LSI™ Algorithm:

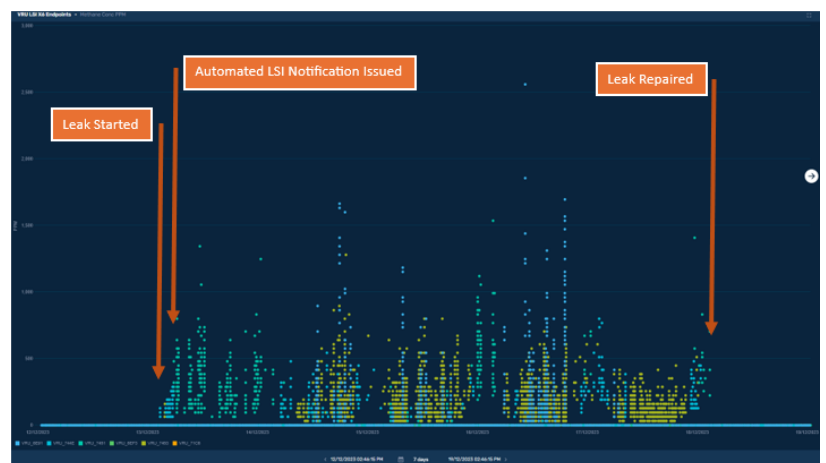
The use of our LSI™ algorithm allowed MethaneTrack™ to pinpoint the exact source of the leak, in this case, from the VRU area. This precise localization was essential for efficient deployment of a repair team and quick resolution of the issue.

### Swift Response and Repair:

The customer's prompt dispatch of a repair team, guided by MethaneTrack™'s accurate information, led to the identification and confirmation of a faulty back pressure valve on the VRU Unit. The immediate repair of the valve was achieved within 5 days from detection. This contrasts significantly with the traditional Leak Detection and Repair (LDAR) quarterly inspection timeline.

The incident underscores the importance of adopting advanced monitoring technologies enabling real-time detection, localization, and quantification of methane leaks. Such systems not only enhance environmental stewardship but also contribute to operational efficiency and the industry's broader commitment to reducing greenhouse gas emissions.

MethaneTrack™'s success in this instance showcases its potential to revolutionize methane leak management in the oil and gas sector.



**For more information on MethaneTrack™ please contact our sales team**

Gary Collins  
 VP of Sales and Marketing | Gary.Collins@nevedanano.com