METHANE ALERT AND RESPONSE SYSTEM (MARS)
CONFIRMED MITIGATION ACTION

OMAN (OMN_S_004)

Through MARS, UNEP's International Methane Emissions Observatory (IMEO) turns satellite data into methane action. MARS is the only public global satellite-based system alerting governments and companies of extreme methane emissions. Using 30+ satellite instruments, combined with expert analysis and AI models, MARS detects major emission events and enables rapid response.

LAST UPDATED
15 July 2025

SOURCE ID
OMN_S_004

COUNTRY
Oman

COORDINATES
22.83470°, 55.85009°

SECTOR
Oil & Gas

SOURCE TYPE
Flowline

TOTAL NUMBER OF PLUMES DETECTED
1

DATE OF FIRST DETECTION
2 February 2025

DATE OF REPORTED MITIGATION
11 February 2025

ESTIMATED TOTAL VOLUME OF EMISSIONS

200 tonnes

SAME CLIMATE IMPACT AS

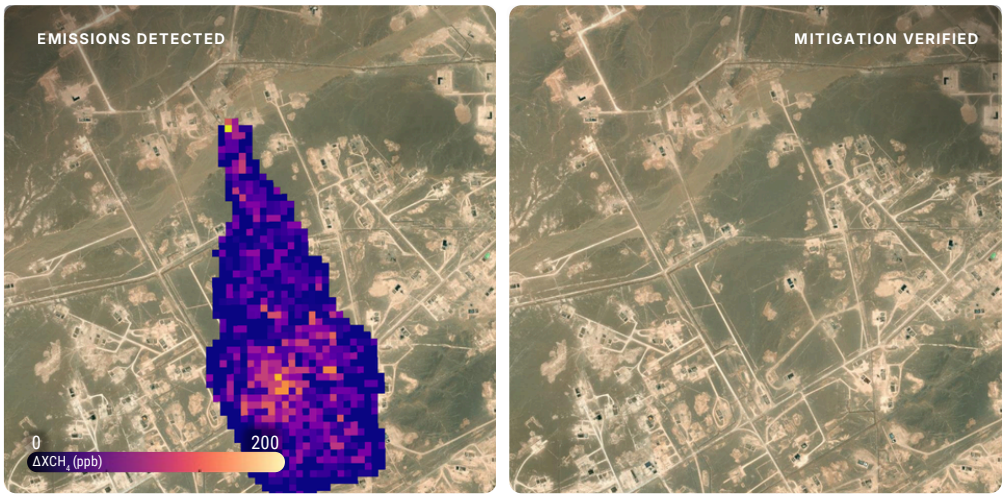
4,000 cars

DRIVEN FOR A YEAR

DETECTION & ACTION

THE CAUSE AND THE SOLUTION

The emissions were caused by a leak on a flowline connected to a well. The operator repaired the leak, stopping the emissions.



The image shows a plume detected by NASA's EMIT in Oman on 2 February 2025. No further emissions have been detected at the location since 11 February 2025.

In implementing MARS, UNEP collaborates with various institutional partners, including the World Bank, International Energy Agency, the Climate and Clean Air Coalition, Universitat Politècnica de València, the Netherlands Institute for Space Research, the Committee on Earth Observation Satellites and the Copernicus Atmosphere Monitoring Service.

Based on satellite data used by MARS, it is not possible to confirm the presence of minimal methane emissions at a given location. Rather, this data can confirm the absence of emissions at levels higher than a given satellite's detection limit, which varies based on the technology, ground conditions and the weather.

UN environment programme | International Methane Emissions Observatory

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