METHANE ALERT AND RESPONSE SYSTEM (MARS)
CONFIRMED MITIGATION ACTION

OMAN (OMN_S_016)

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 April 2026

SOURCE ID
OMN_S_016

COUNTRY
Oman

COORDINATES
22.87553°, 55.37277°

SECTOR
Oil & Gas

SOURCE TYPE
Gas Turbine

TOTAL NUMBER OF PLUMES DETECTED
3

DATE OF FIRST DETECTION
23 August 2025

DATE OF REPORTED MITIGATION
31 August 2025

ESTIMATED TOTAL VOLUME OF EMISSIONS

170 tonnes

SAME CLIMATE IMPACT AS

~3,200 cars

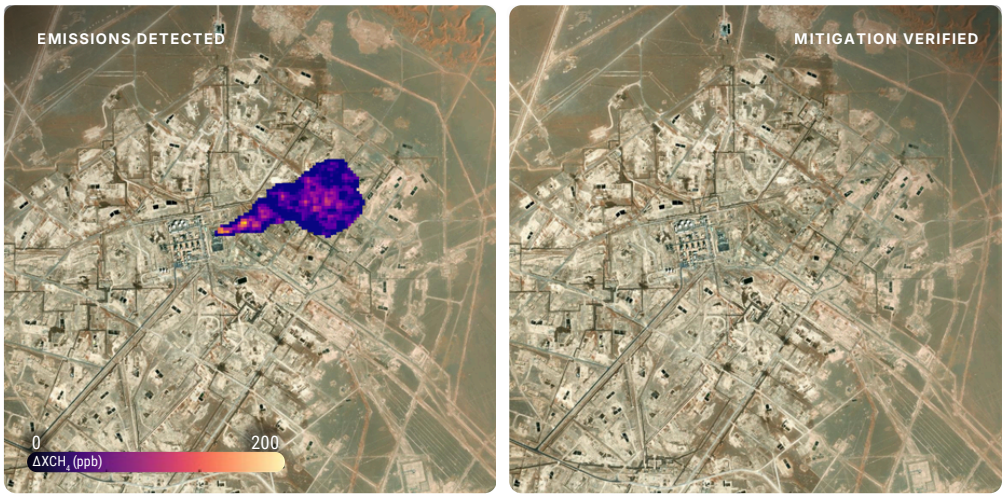
DRIVEN FOR A YEAR

DETECTION & ACTION

THE CAUSE AND THE SOLUTION

The emissions were caused by a malfunctioning air pneumatic regulator, which caused an emergency vent valve to remain open. The operator replaced the faulty regulator and closed the vent valve, stopping the emissions.

The image shows a plume detected by DLR's EnMAP in Oman, on 23 August 2025. No further emissions have been detected at the location since 31 August 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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1 rue Miollis 75015 Paris, France | methanedata.unep.org
For more information, please contact unep-mars@un.org