

YEMEN, (YEM_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**
YEM_S_004

 **COUNTRY**
Yemen

 **COORDINATES**
15.58622°, 46.03610°

 **SECTOR**
Oil & Gas

 **SOURCE TYPE**
Well

 **TOTAL NUMBER OF PLUMES DETECTED**
95

 **DATE OF FIRST DETECTION**
7 January 2022

 **DATE OF REPORTED MITIGATION**
11 April 2025

 **ESTIMATED TOTAL VOLUME OF EMISSIONS**

67,000 tonnes

 **SAME CLIMATE IMPACT AS**

~1,300,000 cars

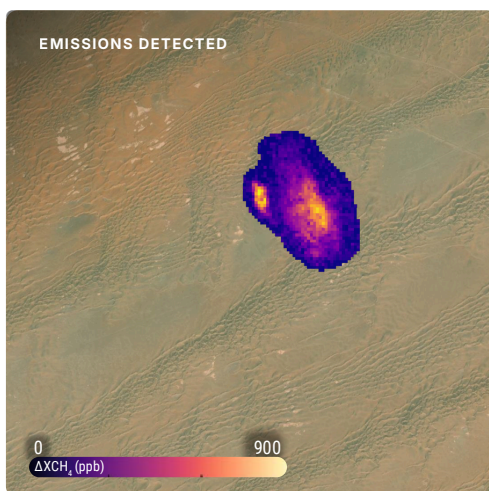
DRIVEN FOR A YEAR

DETECTION & ACTION

THE CAUSE AND THE SOLUTION

The emissions were caused by gas leaking from a well casing. The operator killed the well, pumping heavy liquid and sealing material to stop the flow of gas. Then, the operator secured and abandoned the well, stopping the emissions.

The image shows a plume detected by ESA's Sentinel-2A in Yemen on 7 January 2022. No further emissions have been detected at the location since 11 April 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.