

TURKMENISTAN (TKM_S_118)

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

1 September 2025



SOURCE ID

TKM_S_118



COUNTRY

Turkmenistan



COORDINATES

37.97572°, 63.53096°



SECTOR

Oil & Gas



SOURCE TYPE

Pipeline



TOTAL NUMBER OF PLUMES DETECTED

1



DATE OF FIRST DETECTION

22 June 2025



DATE OF REPORTED MITIGATION

3 August 2025



ESTIMATED TOTAL VOLUME OF EMISSIONS

670 tonnes



SAME CLIMATE IMPACT AS

~13,000 cars

DRIVEN FOR A YEAR

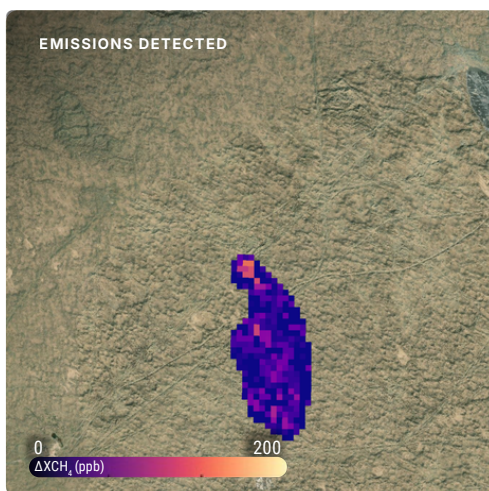


DETECTION & ACTION

THE CAUSE AND THE SOLUTION

The emissions were caused by a leak in a corroded gas line connecting a well to a gas collection point. The operator identified the leak and repaired the affected gas line, and emissions ceased.

The image shows a plume detected by NASA's EMIT in Turkmenistan on 22 June 2025. No further emissions have been detected at the location since 3 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.