

TURKMENISTAN (TKM_S_053)

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
TKM_S_053



COUNTRY
Turkmenistan



COORDINATES
40.09926°, 61.95724°



SECTOR
Oil & Gas



SOURCE TYPE
Pipeline



TOTAL NUMBER OF PLUMES DETECTED
9



DATE OF FIRST DETECTION
18 May 2025



DATE OF REPORTED MITIGATION
14 July 2025*



ESTIMATED TOTAL VOLUME OF EMISSIONS

5,700 tonnes



SAME CLIMATE IMPACT AS

~110,000 cars

DRIVEN FOR A YEAR

*AS OF 11 APRIL 2026, IMEO OBSERVED SUBSEQUENT METHANE EMISSIONS AT THIS LOCATION. THROUGH MARS, IMEO CONTINUES TO ENGAGE STAKEHOLDERS TO SUPPORT SUSTAINED MITIGATION.

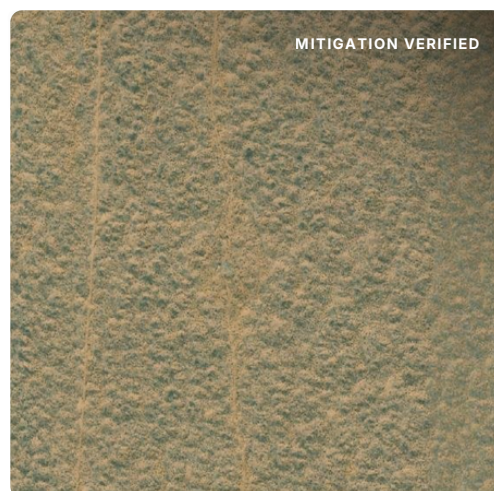
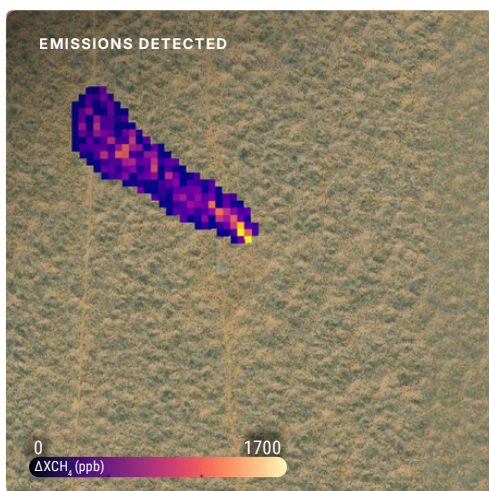


DETECTION & ACTION

THE CAUSE AND THE SOLUTION

The emissions were caused by a leak from a gas pipeline connected to a well. The operator repaired the affected section, and emissions ceased.

The image shows a plume detected by NASA's Landsat 8 in Turkmenistan on 18 May 2025. No further emissions have been detected at the location since 14 July 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.