METHANE ALERT AND RESPONSE SYSTEM (MARS)
CONFIRMED MITIGATION ACTION

KAZAKHSTAN (KAZ_S_159)



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 2026

SOURCE ID
KAZ_S_159

COUNTRY
Kazakhstan

COORDINATES
43.41337°, 52.91829°

SECTOR
Oil & Gas

SOURCE TYPE
Pipeline

TOTAL NUMBER OF PLUMES DETECTED
2

DATE OF FIRST DETECTION
5 June 2026

DATE OF REPORTED MITIGATION
12 July 2026

ESTIMATED TOTAL VOLUME OF EMISSIONS

365 tonnes

SAME CLIMATE IMPACT AS

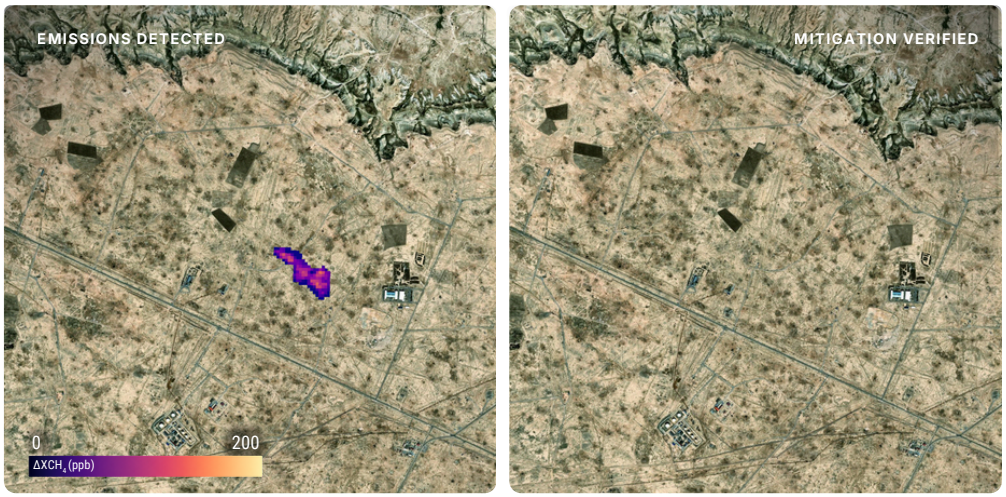
~7,000 cars

DRIVEN FOR A YEAR

DETECTION & ACTION

THE CAUSE AND THE SOLUTION

The emissions were caused by a leak on a gas pipeline. The affected 2-meter pipeline section was replaced, its integrirty was restored and the emissions ceased.



The image shows a plume detected by DLR's EnMAP in Kazakhstan, on 11 July 2026. No further emissions have been detected at the location since 12 July 2026.

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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