

KAZAKHSTAN (KAZ_S_127)

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**
KAZ_S_127

 **COUNTRY**
Kazakhstan

 **COORDINATES**
45.35945°, 52.07579°

 **SECTOR**
Oil & Gas

 **SOURCE TYPE**
Valve

 **TOTAL NUMBER OF PLUMES DETECTED**
6

 **DATE OF FIRST DETECTION**
7 June 2025

 **DATE OF REPORTED MITIGATION**
1 September 2025

 **ESTIMATED TOTAL VOLUME OF EMISSIONS**

2,200 tonnes

 **SAME CLIMATE IMPACT AS**

~42,000 cars

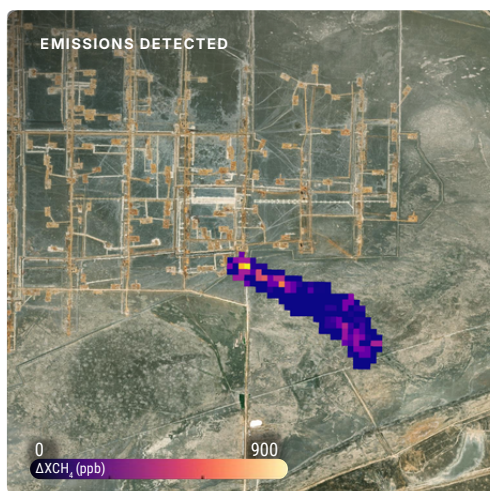
DRIVEN FOR A YEAR

DETECTION & ACTION

THE CAUSE AND THE SOLUTION

The emissions were caused by gas passing through a worn valve in a gas line connected to a tank. The operator replaced the worn valve wedge, which restored proper sealing of the valve and brought the emissions to an end.

The image shows a plume detected by NASA's EMIT in Kazakhstan, on 7 June 2025. No further emissions have been detected at the location since 1 September 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.