

Validating & Facilitating Emission Mitigation With Satellite Data

United Kingdom / Europe

PROJECT DESCRIPTION

GHGSat's high-resolution satellites detected a methane leak from a damaged pipeline of Wales & West Utilities—marking the United Kingdom's first-ever space-facilitated methane emission detection and mitigation effort.

The discovery was initiated by University of Leeds researchers using data obtained through the European Space Agency's (ESA) Third-Party Missions program (TPM). TPM facilitated access to high-resolution emissions data from GHGSat's satellite monitoring technology, confirming an emission exceeding 200 kg/hr.



Satellite CH₄ Measurement

Oil & Gas - United Kingdom



BACKGROUND ©2023
MAPBOX
Date: 2023-04-20
Time: 13:59:19 UTC

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ENHANCEMENT ABOVE BACKGROUND (ppb)

PARTNERS INVOLVED IN PROJECT

- GHGSat
- West & Wales Utilities
- University of Leeds
- European Space Agency's Earthnet TPM Program
- Royal Holloway University of London

RESULTS ACHIEVED

- GHGSat recorded 5 successful measurements over 2 months that revealed methane emissions ranging from 200 to 1400 kg/hr.
- The emission source was precisely pinpointed to Wales & West Utilities' faulty pipeline.
- Timely alerts and data for Wales & West Utilities enabled rapid deployment of ground investigation and mitigation.
- The total methane mitigated through this campaign was equivalent to the annual electricity consumption of over 7,500 homes.

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