

# OGMP-Aligned, Measurement-Based Validation of Best-in-Class Methane Intensity

## CASE STUDY AT A GLANCE

### Operator:

PETRONAS Canada

### Regulatory or Reporting Frameworks:

British Columbia Energy Regulator Alt-FEMP;  
OGMP 2.0 Gold Standard;  
NGSI Methane Emissions Intensity Protocol

### Technology:

Bridger Photonics' Gas Mapping LiDAR®

### Value Chain Segment(s):

Upstream production and processing

### Results:

- Independent GML data validated corporate inventory accuracy.
- Methane intensity lower than BC average and global targets.

## CHALLENGE

PETRONAS Canada wanted to improve confidence in its methane emission inventory, reduce operational burdens associated with OGI surveys and maintain compliance with British Columbia Energy Regulator's (BCER) fugitive emissions detection requirements.

To achieve this, PETRONAS Canada pursued an Alternative Fugitive Emission Management Program (Alt-FEMP), seeking more complete, accurate, and actionable methane data to support mitigation planning, operational efficiency, and sustained emissions reduction, while also enabling robust OGMP 2.0 Level 4 and 5 reporting and reconciliation.

## APPROACH

PETRONAS Canada deployed Bridger's Gas Mapping LiDAR® (GML) as part of its Alt-FEMP to provide accurate emissions localization, and independent, site-wide methane measurement (OGMP 2.0 Level 5) alongside existing source-level inventories (Levels 3/4).

## BENEFITS



Accurate quantification enables targeted action on the largest emitters



Rapid screening of 100+ sites per day



Comparable data across value chain segments



Equipment-level source localization to support root-cause analysis



Objective detection without user bias

## PROGRAM INSIGHTS



GML's source localization was sufficient to initiate root-cause assessment, repair planning, and direct field crews right to the emission sources. Follow-up investigations confirmed specific issues, including worn compressor rod-packings, malfunctioning pneumatics and passing pressure vacuum relief valves (PVRV) on controlled production tanks, allowing targeted repairs for emissions reduction and inventory refinement.

Reconciliation resulted in strong alignment between source-level OGMP 2.0 Level 3/4 methane inventory, and independent GML Level 5 measurements, strengthening confidence in reported emissions.

## RESULTS



**PETRONAS Canada demonstrated methane intensity below both the British Columbia average and the Global Methane Pledge target of 0.2%.**



**Independent measurements reinforced inventory completeness and credibility.**



**Defensible methane performance data supports differentiated natural gas supply.**

## KEY TAKEAWAY



High-quality, measurement-based methane data was foundational to **Alt-FEMP approval** by the BCER. PETRONAS Canada leveraged this foundation to demonstrate **best-in-class methane intensity** and achieve **OGMP 2.0 Gold Standard** reporting.

## ABOUT PETRONAS CANADA



PETRONAS Energy Canada Ltd. (PETRONAS Canada) is a wholly owned subsidiary of Petroliaam Nasional Berhad (PETRONAS), the national oil and gas company of Malaysia. As one of the largest natural gas resource owners in the country, PETRONAS Canada is focused on responsible production of energy vital to low carbon economies around the globe. We believe innovation and collaboration are key in continuing to reduce our impact.

**For more, see <https://www.petronascanada.com/>.**

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