



Chasing Bubbles

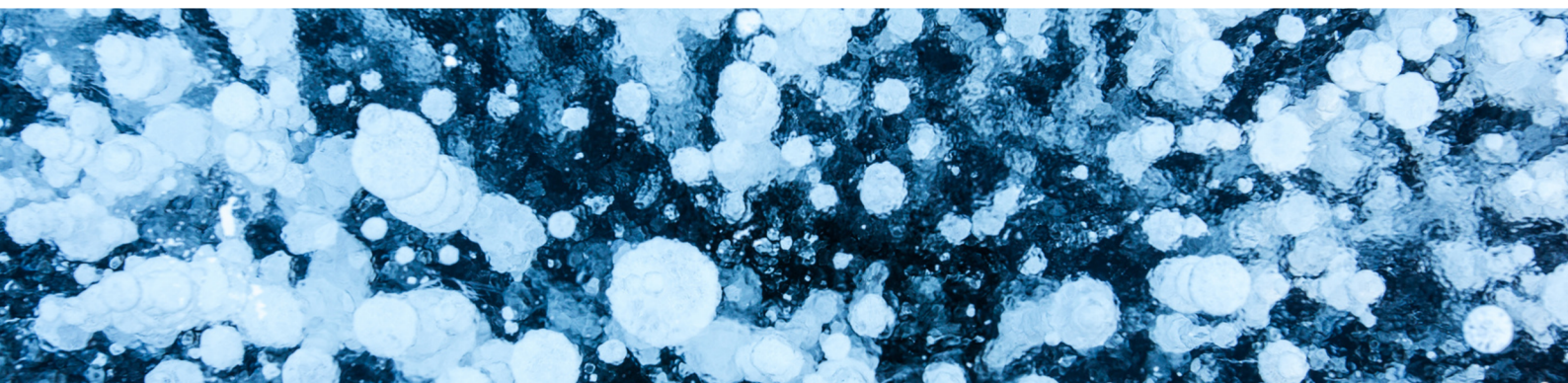
How Qanti-Fi Helps Mitigate the Risk of False Positives in Rogue Methane Emissions



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The oil and gas industry are under increasing scrutiny to address its environmental impact, particularly regarding methane emissions. Methane, a potent greenhouse gas, poses not only environmental challenges but also significant financial risks for operators. At the plug and abandon stage of well asset management, verifying well integrity is critical. However, the industry-standard "bubble test," used widely in Australia, often leads to false positives —erroneously identifying methane leaks that don't exist. These false positives can trigger unnecessary and costly remediation efforts for oil and gas operators.

In contrast, countries like Canada have implemented more advanced measurement protocols, aligning with evolving regulations and sustainability objectives. At the forefront of these advancements is Qanti-Fi, a state-of-the-art gas verification technology supplied through our partnership with Ventbuster®. This blog explores how Qanti-Fi provides robust, reliable data to eliminate the guesswork, enabling operators to confidently manage well integrity while mitigating financial and environmental risks.



The Flaws of the Bubble Test.

The bubble test is a simple diagnostic tool: when a hose connected to the surface casing vent is submerged in water, the presence of bubbles indicates potential gas leakage. While the method is quick and cost-effective, it lacks precision and is prone to errors:

+ False Positives

The bubble test cannot distinguish between methane and other harmless gases, nor validate the quantity or actual existence of gas in the well - often leading to unnecessary interventions.

+ Subjectivity

Results can vary depending on operator technique and environmental conditions.

+ Temporary

Merely obtaining point-in-time detection doesn't securely safeguard against emission detection and is dependent on the right place, right time principle. This likely isn't up to rigour expected for safeguard mechanism reporting.

+ Regulatory Limitations

As methane regulations tighten globally, reliance on such basic testing methods may expose operators to compliance risks.

Introducing Qanti-Fi: Precision in Methane Detection

Qanti-Fi represents the next generation of well integrity testing. Developed by Ventbuster®, it provides a scientifically robust alternative to the bubble test. Here's how it addresses the critical gaps in methane detection:

ACCURATE EMISSION VERIFICATION:

- + Ventbuster® utilises gas flow meters in conjunction with pressure and temperature sensors to precisely measure methane flow rates. By focusing on actual gas flow characteristics, it eliminates the potential for false positives caused by non-methane surface gases or environmental conditions, such as water heating.
- + This ensures highly reliable and actionable data for decision-making, enabling operators to target genuine emissions effectively.

REGULATORY COMPLIANCE:

- + As seen in Canada, where strict methane regulations have been enforced, Ventbuster® meets or exceeds mandated standards for gas measurement.
- + Early adoption of Ventbuster® positions operators ahead of potential regulatory shifts in Australia.

COST EFFICIENCY:

- + By eliminating false positives, Ventbuster® prevents unnecessary diagnostics, repairs, and remediation efforts.
- + The technology enables targeted interventions, reducing operational costs associated with plug and abandon stages.

SUSTAINABILITY ALIGNMENT:

- + Reducing methane emissions is a key focus in global sustainability initiatives, including the Global Methane Pledge.
- + Qanti-Fi empowers operators to demonstrate their commitment to environmental stewardship, enhancing brand reputation.



Real-World Impact:

Lessons from Canada

Canada has led the charge in adopting rigorous methane measurement protocols.

Regulatory bodies require detailed methane verification at various stages of a well's lifecycle, including abandonment. Studies highlight that surface casing vent flows (SCVFs), previously underestimated, are now reliably quantified using advanced technologies like Qanti-Fi. This approach has yielded:

- **Reduced Environmental Impact:** Methane emissions from abandoned wells are now accurately measured and mitigated.
- **Improved Industry Reporting:** Operators are equipped with precise data to meet compliance requirements, strengthening stakeholder confidence.
- **Lower Remediation Costs:** False positives are virtually eliminated, enabling operators to allocate resources more effectively.

By embracing similar technologies, Australian oil and gas operators can proactively address methane risks, avoiding the pitfalls of outdated methods like the bubble test.





HOW QANTI-FI FITS INTO YOUR OPERATIONS

Integrating Qanti-Fi into your asset management workflow is straightforward:

01 Assessment

Conduct a site evaluation to identify high-priority wells requiring methane verification.

02 Deployment

Install Qanti-Fi technology at targeted well sites, supported by our technical experts.

03 Data Analysis

Receive detailed reports on methane emissions, enabling informed decisions about well remediation and compliance.

04 Actionable Insights

Use Qanti-Fi data to address verified methane leaks efficiently, saving time and resources.

THE FUTURE OF METHANE MANAGEMENT.

WHY ACT NOW?

With methane emissions reduction becoming a central pillar of environmental and regulatory policies, now is the time to transition to more reliable and precise practices. By adopting Qanti-Fi, operators can:

Mitigate Risk

Avoid unnecessary remediation costs and compliance penalties.

Enhance Efficiency

Streamline the plug and abandon process with precise data.

Lead In Sustainability

Position your organisation as an industry leader in environmental responsibility.

PARTNER WITH US

Transitioning to advanced methane verification doesn't have to be daunting. Our team is here to guide you every step of the way, from initial deployment to ongoing support. Together, we can ensure your operations are not only compliant but also environmentally sustainable and financially optimised.

Download the full brochure to learn more about Qanti-Fi and how it can revolutionise methane management in your operations.

An aerial photograph of an offshore oil rig is positioned in the top right corner of the page. The rig is a complex structure with various platforms, pipes, and equipment, situated in the middle of a dark blue ocean.

Let's Get Work Together

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