



CASE STUDY

CANADIAN PIPELINE OPERATOR AVOIDS SHUTDOWN WITH MMT NON-DESTRUCTIVE TESTING METHOD

A Canadian pipeline operator identified cracks and flaws during a routine In-Line Inspection (ILI). To determine the appropriate course of action, the operator needed to estimate the fracture toughness of these flaws to assess if repairs or replacements were necessary.

The Challenge

Even small cracks and flaws in pipelines can pose significant risks to lives, property, and the environment. Pipeline failures can also cause costly shutdowns and disrupt the flow of essential resources. Early detection and accurate assessment of these flaws are crucial for preventing such disasters.

Traditional methods for evaluating pipeline flaws involve cutting out sections of the pipe, which is both disruptive and expensive. The customer contacted MMT looking for a more effective alternative.

The Solution

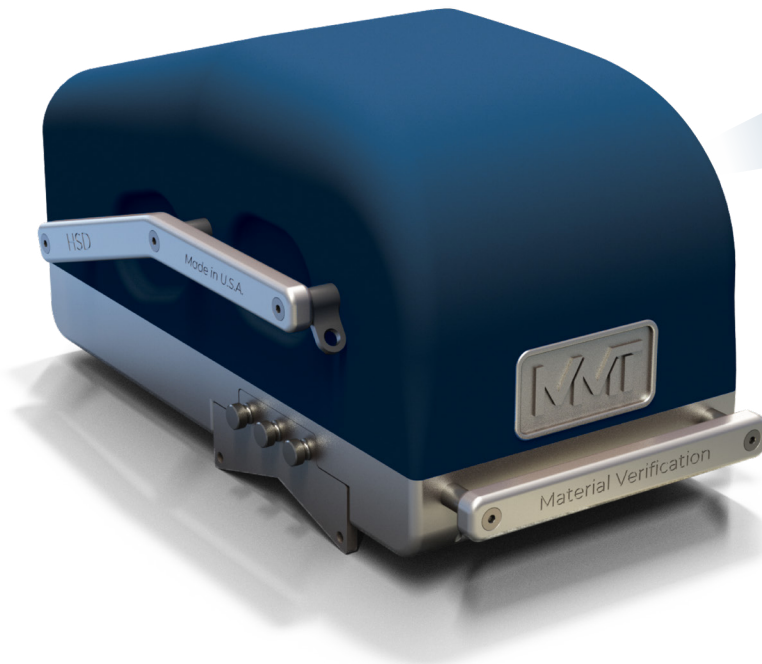
The proposed solution was an HSD Plus (Hardness, Strength and Ductility) test with a seam toughness report. Using its patented [frictional sliding technology](#), MMT collects comprehensive data without interrupting operations.

In addition to the pipeline's yield strength, chemistry, and microstructure, this approach provided a clear picture of the seam CVN toughness, enabling informed repair and maintenance decisions. Critically, **MMT is the only technology provider that uses this comprehensive data set to calculate strength values and the only technology capable of determining seam toughness.**

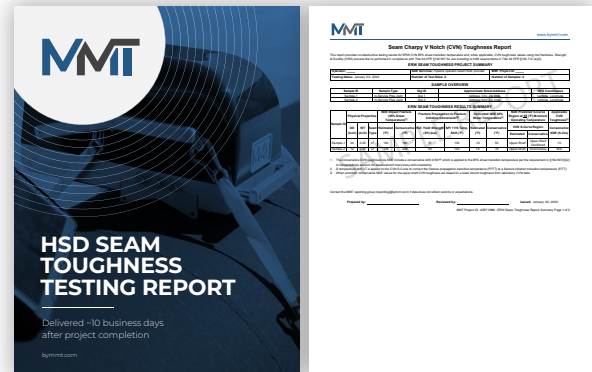
Make Informed Decisions with MMT's Comprehensive Data, Analysis and Reporting

MMT's comprehensive data, analysis, and reporting empower clients to make informed decisions by providing detailed insights into critical material properties. Our reports include yield strength, ultimate tensile strength (UTS), chemical composition, grain sizing, and seam CVN toughness. These metrics are presented both individually and in summarized formats where applicable. This thorough reporting enables clients to make conservative estimations that exceed the minimum assumptions, even in the absence of additional information. Specifically, higher toughness values indicate larger minimum flaw sizes that necessitate repairs, allowing for more precise and effective maintenance strategies.

~6 business days after testing was completed, a detailed HSD Plus report was delivered, providing a deeper understanding of the pipeline's condition and valuable insight for future maintenance planning, minimizing risk, cost and downtime, and ensuring pipeline safety and efficiency.



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The Results

MMT's testing revealed that the pipeline had a higher toughness value than initially anticipated. This meant the cracks and flaws were not critical and could be addressed with lesser repairs, such as wraps. As a result, the customer achieved several benefits, such as avoiding shutdowns and unnecessary repair or replacements, resulting in significant time, cost, and resource savings. Most importantly, MMT's testing ensured continued safe and efficient pipeline operations by providing the data needed to make informed decisions.



Avoid Costly Shutdowns and Ensure Safety of Your Pipeline Operations

Contact MMT today for a free consultation on your testing needs.

CONTACT US