CASE STUDY

HOW A CANADIAN OPERATOR SAVED $1.2M BY RECLASSIFYING EMERGENCY DIGS WITH MMT'S NON-DESTRUCTIVE SEAM WELD TESTING

Emergency digs were draining millions from this major Canadian operator's maintenance budget—until they discovered a better way. Routine inline inspections (ILI) had identified crack-like features along an aging pipeline. However, without access to original test records, the operator was forced to rely on a highly conservative fracture toughness assumption of 5 ft-lbs. This led to dozens of unnecessary urgent digs, driving up costs and creating operational strain. To break the cycle of overreaction and unplanned mobilization, the operator turned to MMT for a more accurate, data-driven solution.

The Challenge

Over Conservative Assumptions Trigger Costly Emergency Digs

Multiple anomalies were detected on a legacy pipeline, but without verified toughness data, the operator defaulted to conservative estimates—triggering nearly every feature as high-risk and forcing urgent digs.

These urgent digs created major operational headaches:

- Premium contractor rates due to short-notice scheduling
- Logistical inefficiencies
- Higher safety risks for field crews
- Increased overall cost per repair

With 50 potential digs classified as urgent, the operator needed a reliable method to determine if the anomalies posed a threat and scheduled repairs were appropriate.

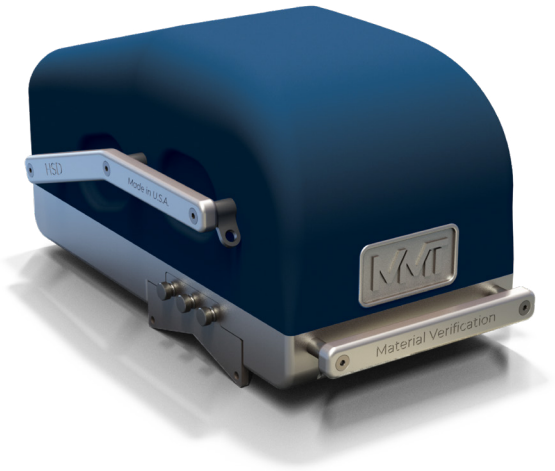
The Solution

Nondestructive Seam Weld Testing Replaces Guesswork with Data

MMT deployed its **HSD+ seam weld toughness testing** to accurately determine the pipeline's fracture resistance, without the need for cutouts or lab-based destructive tests. Using proprietary frictional sliding technology, MMT gathered critical data on:

- Fracture toughness (upper shelf values)
- Seam weld classification
- Yield strength
- Pipe body characteristics.

This information improved the operator's failure pressure calculations using the corLAS model, replacing broad assumptions with precise material data. MMT's toughness analysis provided confidence to make better-informed decisions, and with higher toughness values, the customer saved money by eliminating dig urgency.



The Results:

Fewer Emergency Digs, Safer Workflows, and $1.2M in Cost Avoidance

The outcome was a clear success:

- **Urgent digs dropped from 50 to 18**, as many anomalies were safely reclassified for future, planned scheduling.
- The operator achieved **estimated savings of $1.2 million**, largely from avoided emergency mobilization costs, premium contractor rates, and associated logistical expenses.
- Maintenance teams could plan and execute repairs more efficiently, using fewer contractors under safer conditions.
- The refined data supported stronger internal justification and regulatory confidence in repair strategies.

> "The biggest help that MMT made here is they helped us resolve a mystery—what kind of long seam we had and what its toughness was. With more accurate inputs, our failure pressure calculations became significantly more reliable, allowing for better planning and cost control."
>
> **CANADIAN OPERATOR**

Most importantly, MMT's nondestructive testing enabled the operator to make smarter decisions, transition from reactive to strategic maintenance, reduce unnecessary interventions, and dramatically improve cost efficiency while enhancing overall pipeline safety.

Facing unplanned digs or uncertainty in seam weld toughness?

MMT's nondestructive testing can help you cut costs, reduce risk, and make confident, data-driven decisions. Contact MMT today to learn more about optimizing your pipeline strategy.

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