



THE MIDSTREAM MINUTE

a STRESS ENGINEERING SERVICES communication



Diesel Flow Loop Testing an ILI Certification Case Study

Creating greater certainty to the overall Integrity Management Program and helping eliminate costly errors.

Ultrasonic ILI Flow Test

Stress Engineering Services performed a diesel flow test to certify the capability of a UT ILI tool on 1.156-inch WT pipe. This test was a blind study as the ILI vendor was not provided any defect information or dimensions. The product and tool speeds were selected by the operator to be representative of real-world conditions. The test really highlighted what the tool can do - and where it had challenges.

"The reported axial locations were within 0.5 inches of actual but surprisingly the circumferential locations did not match as well. The results also showed that the tool tended to under call the more complex geometry defects."

Details of the Test

Defect lengths, widths, depths, and locations were all compared to the ILI vendor's stated/reported specifications. Pipe characteristics, product type, and tool speeds were all variables given by the operator and used to create a physical twin testing setup in a controlled and safe environment.

Value of the Project

Using a physical twin test setup and protocol helped the operator understand true technology performance prior to running the technology in a critical asset. This provided greater certainty to the overall Integrity Management Program and likely eliminated costly errors.

Did you know?

- Validation testing is critical in understanding ILI tool capability before using in a live line.
- Validation spools can be created to recreate specific threats.