

Natural Gas Pipeline MFL Inspection Tool Speed Surge

Challenge:

- Pre-job and tailgate meeting discussions with customer set the run parameters for the inspection
- Operational tool speed was $\approx 2\times$ the agreed upon rate from prescribed 4 mph to actual 8 mph

Solution:

- 10" **EcoVision™** UHRA-MFL/GEO/IMU combination ILI tool specification capable of the unscheduled change of flow rate

Result:

- Successful inspection of the 8.7 mile natural gas pipeline with acceptable magnetic field indications and quality run data



Background

Phillips 66 (formerly DCP) owns a 10" natural gas pipeline in southern Texas. Cypress ILI's 10" **EcoVision™** Ultra-High Resolution A-MFL/GEO/IMU ILI tool underwent pre-run procedures and was carefully placed in front of the launching trap for positioning inside the line. Prescribed pressures and flow rates were confirmed for the operation. After a careful and planned sequence of vent and valve operations, the tool began its expected journey to the receiver station. Tracking crews were previously mobilized to monitor the tools progress throughout the pipeline. Optimal run conditions were expected, and confidence was high as we awaited word from the first AGM passage.

Unexpected Challenges

The pre-job meetings with the customer called for a flow rate and 4 MPH tool speed. After the tool launched and passed the first AGM, we learned the tool was travelling as 8.9 MPH. Most ILI tools with less advanced technologies would have been unable to saturate the pipe and capture the data at that speed, resulting in a failed run. After some time, the tool speed did reduce and stabilized at 7.5 MPH. Fortunately, our ILI tools have 1,408 hz high speed processors that can hold their specifications up to 9 mph. The customer was thrilled that the tool performed very well, lost no data, and didn't incur any damage upon inspection at the receiver. The ILI run was completed ahead of schedule allowing the customer to return the line to service sooner.



Summary

A rugged design and robust data sampling rate give our customers that extra cushion when operating conditions cannot be met due to unforeseen circumstances. Cypress ILI's **EcoVision™** Ultra-High Resolution A-MFL/GEO/IMU ILI tool system not only provide your integrity program best in class performance, but the extra capability and impressive specifications make this system a value-added technology for the energy industry.

Cypress **EcoVision™** Ultra-High Resolution MFL Tools offer the following advantages:

- 1/8" spacing between sensors and overlapping heads offering greater pipe wall coverage
- High speed 1,408 hz sample rate capable of holding specifications up to 9 mph.
- Ruggedized construction that can handle speed incursions without getting damaged.
- **EcoView™** Data analysis software with custom reporting capabilities
- Highly experienced Level 3 Data Analysts
- Lithium-ion rechargeable batteries offering excellent run time and less impact to the environment.
- Experienced Level 2 & 3 Tool operators
- Excellent safety culture and stats