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# APPLICATION NOTE


October 2023

## WAND Sensor Installation at Unpiggable Locations Along Natural Gas Pipelines

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# OVERVIEW

| | |
|---|---|
| APPLICATION | WAND Sensor installation at unpiggable locations on gas pipelines |
| CLIENT | Natural gas transporter |
| ASSET | Natural gas pipeline |
| TEMPERATURE | Ambient |
| DEGRADATION | Uniform & pitting corrosion |
| INSPECTION FREQUENCY | Once / month - Once / 5 years |

# CHALLENGES

A significant portion of the customer's pipeline was unpiggable due to lack of launcher/receiver, or geometry constraints such as short radius bends. Permanently installed solutions were required in order to accurately and easily monitor these locations.

Precise, repeatable permanently installed solutions were required in order to validate their inline pigging data at various locations along the pipeline. The sizing accuracy of the customer's pigging method was ±20%, hence a permanently installed solution was required as a more accurate reference.

Manual UT was previously being used in place permanently installed technologies for monitoring localised spots of pitting corrosion. Human error associated with manual UT was leading to inaccurate thickness data, making reliable internal corrosion trending impossible.



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# SOLUTION

WAND sensors were installed at a number of unpiggable locations along the customer's pipeline. In addition, WAND sensors were installed in 'ring configurations' at various locations as reference thickness values for their intelligent pig. Thickness data was collected easily and quickly by maintenance technicians using the WAND handheld data collector.

# RESULTS

Human error associated with manual UT was eliminated using the WAND system, providing them with accurate, reliable thickness measurements that could be simultaneously used as reference data value for their inline inspection method.

WAND sensors provided the customer with a means of cost-effectively, and frequently collecting accurate thickness measurements from locations along their pipeline that could not be accessed using their intelligent pig.



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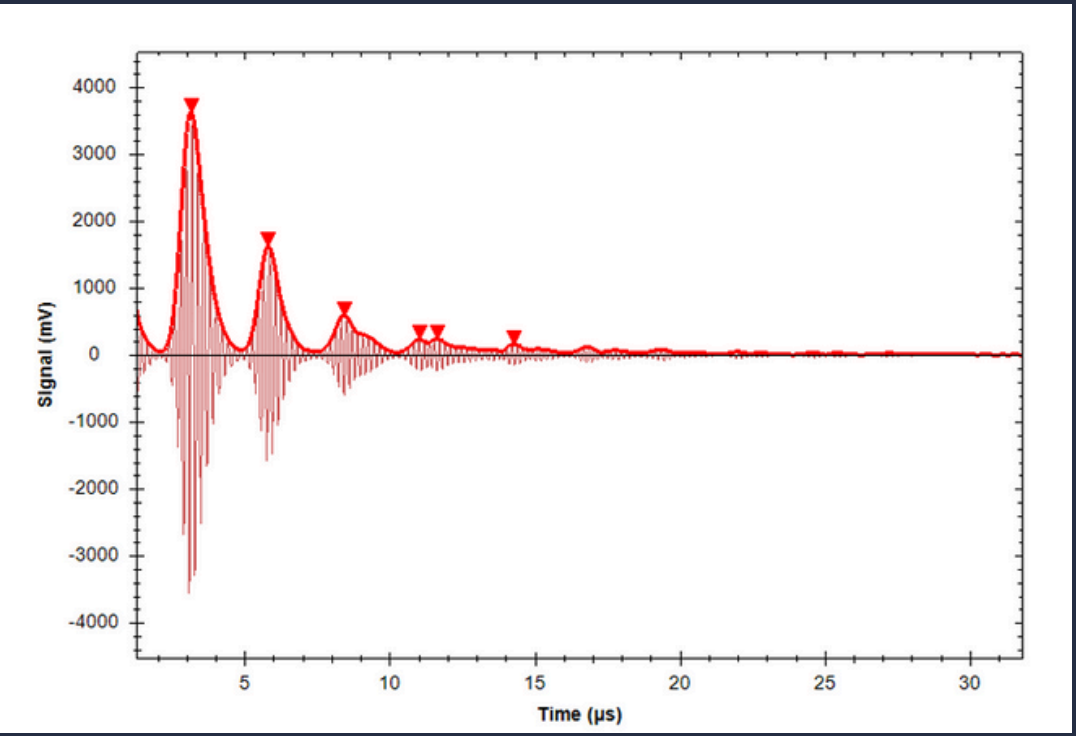


Example A-scan from one of the WAND sensors installed on the customer's pipeline, as shown in Inductosense's Data Analysis & Reporting Toolkit.