



Operator Quickly Diagnoses Root Cause of Back Pressure in Pipeline

INNERVUE™ PIPESUITE DIAGNOSTICS SERVICE ELIMINATES NEED FOR INTRUSIVE TOOLS TO GATHER PIPELINE PROFILE DATA

INDIA – OFFSHORE

CHALLENGE

- » Significant back pressure in the pipeline limiting crude oil production
- » Deterioration of the pipeline flow over the previous few months
- » Minimal disruption to the production requested by the customer
- » Limited and expensive access to the subsea outlet of the pipeline

SOLUTION

Use InnerVue™ PipeSuite survey technology to:

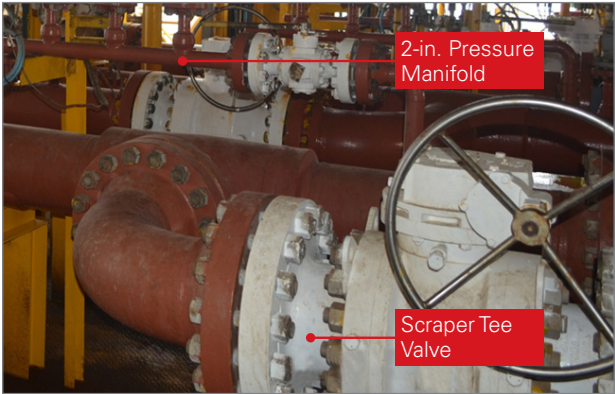
- » Profile hydraulic diameter of the pipeline
- » Collect and analyze data to locate deposits

RESULT

- » Only two days onsite to collect InnerVue PipeSuite survey data in various configurations
- » Quick turnaround for the results with the hydraulic diameter profile submitted less than 24 hours after demobilization
- » Provided detailed information as input for engineering remediation plan

OVERVIEW

The operator of a crude oilfield located in the Bombay Offshore Basin, 60-90km from Mumbai, India, needed to get to the root cause of pipeline back pressure that was adversely impacting production, by greater than 25% throughput reduction, after months of pipeline flow deterioration. As most diagnostic technology was time-consuming and high risk, as it typically required subsea intervention, or intrusive tools to assess such a situation, running the risk of further pipeline blockages from a stuck tool, the client needed a more efficient and reliable method to identify and analyze the problem.



InnerVue™ PipeSuite survey tie-in location and pulse generation valve.

Halliburton's InnerVue™ PipeSuite survey technology was the solution of choice, with pressure wave technology profiling the pipe's hydraulic diameter to identify and locate any build-up of deposits. Data was collected "non-intrusively," producing results in just two days of onsite deployment. And, indeed, significant debris buildup was found within the pipeline. With this accurate information, the client could proceed with its remediation strategy.

BENEFITS

InnerVue PipeSuite technology enabled the operator to gain vital information on their pipeline contents in a short time period, without having to use intrusive tools and risk pipeline blockages. By executing the diagnostics with production fluid in the line, at a nominal flowrate, there was no need for a complete shutdown of operations and there was minimal disruption to the pipeline production. Finally, personnel and equipment were rapidly deployed to perform the required service and fast turnaround of analysis and presentation of results.

DID YOU KNOW

The InnerVue PipeSuite service is a low risk, fast and accurate technique used to map the quantity and distribution of what may be limiting the throughput of the pipeline system,

such as wax, hydrate, stuck pig, or tool. A pressure wave is created at one end of the pipeline and travels through its entire length at the speed of sound. A reflected signature wave is returned, which corresponds to actual conditions within the pipeline, including:

- » Changes in flow velocity from deposits/debris
- » Changes in medium properties, such as density, viscosity, and phase

Analysis of critical data collected by the “pressure wave” technology will increase your understanding of a given pipeline transportation system—from end to end—and provide valuable insight for decisive asset performance management.



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