

Indian Oil Corporation Ltd. identifies leaks using inline confirmation of containment

Leaks located within 5-feet using the SmartBall® tool

Challenge

The Indian Oil Corporation Ltd. (IOCL) operates a 12-inch (300-mm) steel pipeline that transports lube oil from Chennai Port Trust to Tondiarpet Lube Blending Plant. After observing a pressure drop and a discrepancy between volumes pumped and received during mass balance, IOCL suspected that the critical pipeline might have a leak.

Solution

To accurately locate and identify any product losses, IOCL used the SmartBall platform for oil and gas pipelines. The tool is an innovative confirmation of containment technology that identifies the acoustic anomalies associated with product losses. Regular containment surveys are an important part of integrity monitoring programs since product losses are often a preliminary indicator that a pipeline will eventually fail.

The scheduled run of 5.25 miles (8.5 km) was completed twice to ensure a high level of certainty. In order to meet the urgency of the inspection, PureHM modified an existing SmartBall tool to meet the dimensions of IOCL's pipeline. The first survey identified two acoustic anomalies in between the third and fourth tracking sensors. The second survey added an additional tracking point between sensors three and four to improve the location accuracy.

Results

After completing the surveys with SmartBall technology, two losses were accurately identified on the lube oil pipeline. IOCL has temporarily repaired the losses in order to return the pipeline to safe operation, showing their commitment to environmental safety and sustainability.

- SmartBall technology identified one small and one medium sized losses on IOCL's pipeline
- The repair of two areas restored the integrity of the critical pipeline



One of the leaks that was temporarily clamped before repair.

Learn more about how PureHM's pipeline integrity solutions are helping operators deliver their energy products more safely and efficiently at www.purehm.net