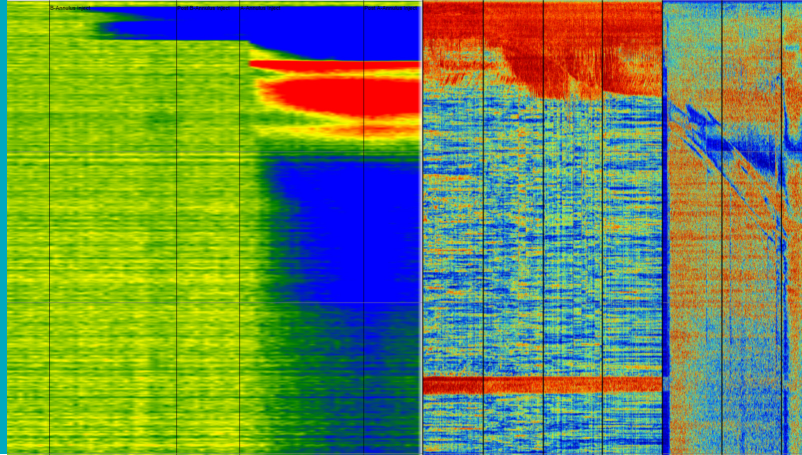


Expro Excellence

Expro's Distributed Fibre optic enabled Slickline deployment for tubing to A-annulus & B-annulus leak detection

Well Intervention



Customer challenge

- A customer in the North Sea was looking to utilise Expro's DFOS technology to identify a leak within the A-annulus, confirm the leak is not at the packer and to identify a separate pressure anomaly within the B-annulus
- By utilising this available technology, the fibre enabled slickline cable records Distributed Acoustic Sensing (DAS) and Distributed Temperature Sensing (DTS) data. This has the ability to find potential leak paths through outer casing strings or through cement sheaths. This is particularly true where leak paths and fluid movements are periodic and not identifiable by conventional logging tools

Expro Excellence

- Survey time from RIH to completion was 12.5 hours, of which 7 hours were DAS/DTS survey time
- Leak sites stimulated by injection into the B annulus and subsequently A-annulus
- 7 MB of DTS data was gathered along with 1.4 TB of raw DAS data that was processed at the well site down to 2.6 GB for transmission to Expro's onshore analysis team
- Quick look interpretation report was sent to the customer within 2 hours for rapid decision making
- Outer casing leaks in B-annulus identified
- Tubing to A-annulus leaks identified
- Confirmation of no leak at the packer

Value to the client

- The logging operation was performed in a third of the time it would take to investigate the B-annulus using stationary stops of a conventional noise logging tool. Expro's DFOS technology lowered the overall risk to the customer due to the reduced time rigged up on the well. This helped reduce operational carbon emissions for the customer
- Our technology enabled the identification of outer casing leaks in the B-annulus along with tubing to A-annulus leaks
- Fast data interpretation to allow rapid decision making for offshore assets
- Dynamic measurement of distributed acoustic and distributed temperature data across the entire survey interval allowed tracking the direction and velocity of fluid movements during the survey
- Identification of behind casing flow within the formation

Environment



Contact

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