Multi Tube Integrity

Evaluates the metal condition and wall thickness of well system tubulars

What it delivers

The miles of metal tubulars that form the backbone of your well system are fundamental to its integrity. Tracking the condition and wall thickness of all tubulars is essential to maintaining a secure well.

Multi Tube Integrity provides an accurate barrier-by-barrier assessment of up to four concentric tubulars from a single through-tubing deployment.

Powered by our True Integrity system using the Pulse (electromagnetic) platform;

Multi Tube Integrity is the industry’s most accurate multi barrier diagnostic product.

Multi Tube Integrity if used routinely can support your ongoing integrity management programme, or in a targeted fashion to investigate a specific integrity breach. Our ability to assess up to four concentric tubulars simultaneously means that most of the well can be evaluated in a single deployment, without pulling the tubing.
Challenges

- Evaluate and manage tube integrity of multiple tubulars, even with scale
- Assessing maximum allowable annular surface pressure [MAASP]
- Identifying internal and external defects
- Pre-workover, pre-handover, or pre-abandonment assessment of completion
- Routine or targeted surveillance of tubular condition

Benefits

- Proactive integrity management mitigates risk and maintains safe and productive operations
- Track and validate tube condition over time & spot tube weakness before it fails
- Through-tubing deployment in a single run minimises disruption and cost
- Understand true wall thickness
- Identify internal vs. external defects in primary tubes [when used with caliper]
- Maintain regulatory compliance & well system integrity

Indicative logplot for Multi Tube Integrity

Oil producing well with suspected corrosion in multiple barriers.

1st barrier: 136 metal loss zones identified, showing 38% metal loss. 19 corrosion intervals showed >20% metal loss, and 69 significant findings suspected to be mechanical defects.

2nd barrier: 34 metal loss zones showing 24% metal loss. Two zones with >20% metal loss.

3rd barrier: 40 metal loss zones showing 60% metal loss. 24 zones with >20% metal loss.

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Case studies

CS005: Through-barrier tube diagnostics provides reliable low-cost solution to inspect surface casing condition

Technical papers

SPE-190888-MS: Subsea Well Envelope Integrity Assessment Utilising Electromagnetic Pulse and Spectral Noise Logging
SPE-188547-MS: Cathodic Protection Effectiveness Evaluation in ADCO
SPE-188422-MS: Well Integrity Management: Challenges in Extending Life of a Mature Gas Condensate Field

SPE-188258-MS: Field Trial Results For 3rd Barrier Evaluation Using Technology Of Individual Electromagnetic Metal Loss Logging

Depth                            Well Sketch
3 1/2'' tubing                                                                5 1/2'' casing                                                                7'' casing

Indicative logplot for Multi Tube Integrity Oil producing well with suspected corrosion in multiple barriers.
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