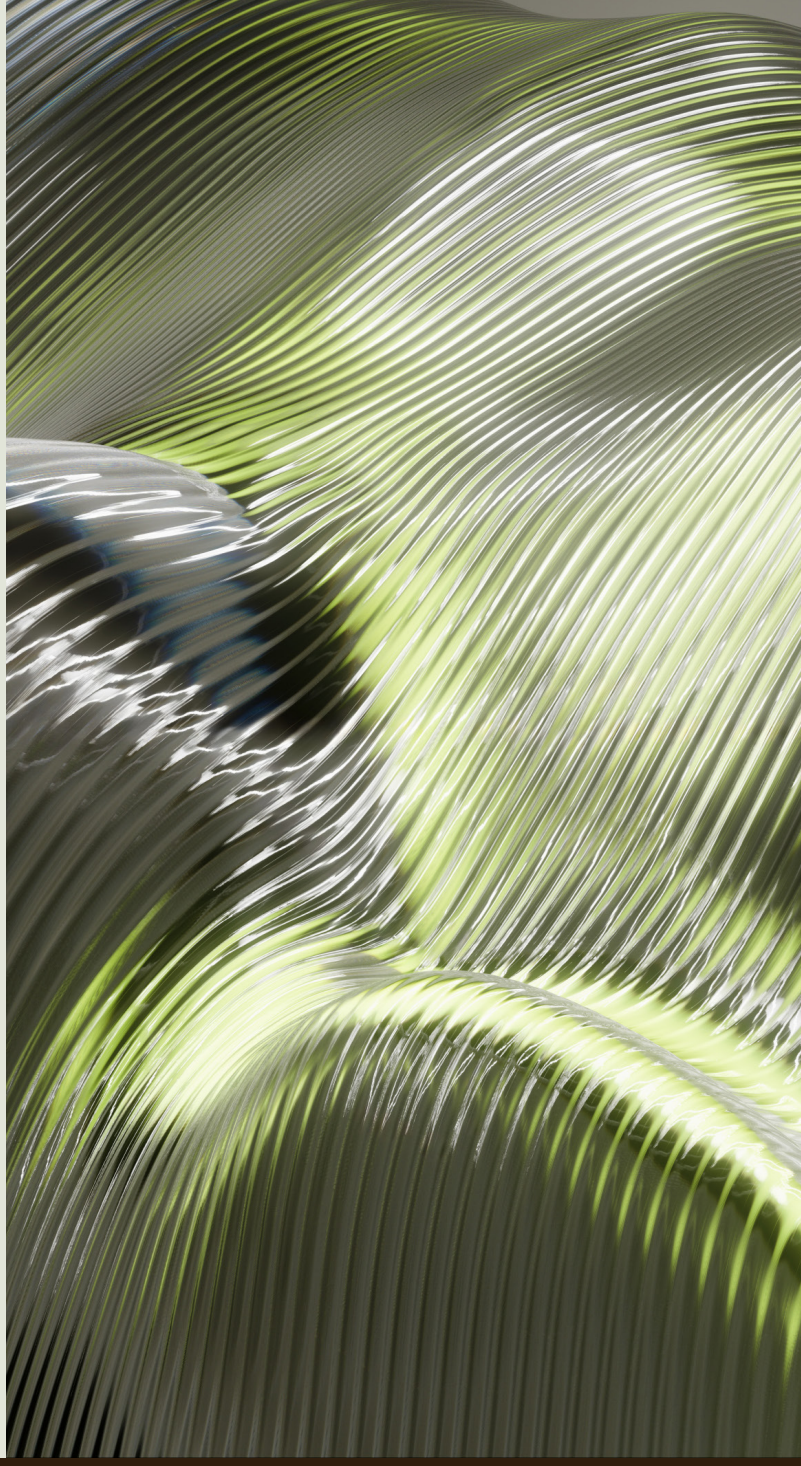
Water Shut-Off Straddle Solution Revitalises Production from a Stacked Offshore Reservoir in the UAE



Region
United Arab Emirates, MENA

Year
Mar 2024

Case Study

Interwell

Key Capabilities

- → Time & cost-effective rigless WSO
- → Water ingress stopped from prominent zone
- → Precisely placed seal in a single run

Benefits

- → Precisely placed solution with Immediate Impact
- → Extend & protect late-life oil producer
- → Uplift in oil production

Challenge

An offshore operator in the UAE faced increasing water cut from a dominant production zone, restricting oil recovery from other reservoir intervals. To restore well performance, a Water Shut-Off (WSO) campaign was implemented to isolate the water-producing zone and enable new perforations below the target interval. This unlocked additional reserves, reduced water production, and improved reservoir management.

By restoring access to previously bypassed oil-bearing zones, the solution increased production potential, maximised asset value, and avoided the cost and complexity of a more extensive well intervention.

Solution

An Interwell straddle solution was deployed to isolate the water-producing interval identified through production logging and diagnostic evaluation.

The Anchored Production Straddle (APS) was conveyed and set on electric line across the target water-producing zone, providing a reliable annular barrier while maintaining sufficient internal drift for subsequent rigless perforating operations. This enabled the operator to safely access and perforate an additional oil-bearing interval below the straddle setting depth.

Following successful perforation and retrieval of the perforating guns, the well was returned to production, reducing water cut and restored access to previously constrained hydrocarbon reserves.

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Value Created

- → The well was returned to production and flowed with 80% less water.
- → Overall oil production increased by 50%.
- → Improved contribution from previously weaker zones was observed following the elimination of liquid loading from the high-velocity fluid flow.
- → The results demonstrate that this rigless method is an effective and practical solution for managing water production.