



Weatherford®

REAL RESULTS

Algeria: ER One-Trip Retrievable Straddle Packer Resolves High-Pressure Crossflow Disturbance in First Worldwide Deployment

Objectives

- Straddle and shut in a high-pressure perforated zone in a water injection well completed with 7-in. tubing, diverting the injection to drive production from zones above and below.
- Deliver a solution for setting that would overcome shut-in crossflow of 3,443 BFPD (550 m³/d) from this zone.
- Improve service performance metrics and economics for the operator through innovation.

Results

- Weatherford's new 7-in. ER one-trip retrievable straddle packer, with 25 ft (7.6 m) of element spacing, was run as a package by wireline and set at 10,539 ft (3,212 m), isolating the zone, and allowing injection to drive production from other zones above and below (confirmed by a later production logging tool run).
- Although this was the first deployment worldwide, the ER straddle packer was successfully run and set in a single trip. Thanks to the package's size and weight, the setting operation was not affected by the high-pressure crossflow.

Value to Client

- Successful placement of the straddle increased injection into depleting zones above and below, increasing pressure and offtake from these zones in nearby oil production wells.
- The single package design streamlined the operation. Conventional straddle-packer systems require two sealbore packers, a stinger seal assembly, and two trips into the well. In this situation, the single package design and weight contributed to the success of the setting operation.
- The job was completed in less than half the time required by a conventional straddle packer.
- When necessary, the ER one-trip system can also be retrieved in one trip using coiled tubing.



Weatherford's ER one-trip retrievable straddle packer system resolved a high-pressure crossflow disturbance in half the time required by conventional techniques.

Location

Sahara Desert, Eastern Algeria

Setting Depth

10,539 ft (3,212 m)

Crossflow

3,443 BFPD (550 m³/d)

Completion Tubing

7 in., 29 lb/ft (6.184 in. ID)
from surface to 8,527 ft (2,599 m)

Liner

7 in., 32 lb/ft (6.094 in. ID)
from 8,508 to 11,142 ft (2,593 to 2,599 m)

Minimum Well Restriction

5.875 in. ID landing nipple
Depth: 8,415 ft RT (2,565 m)

Products/Services

ER one-trip retrievable straddle packer