



Weatherford®

REAL RESULTS

ACP™ Annulus Casing Packer Converts into Open-Hole Bridge Plug to Permanently Plug Shale Formation, Dispose of Produced Water

Objectives

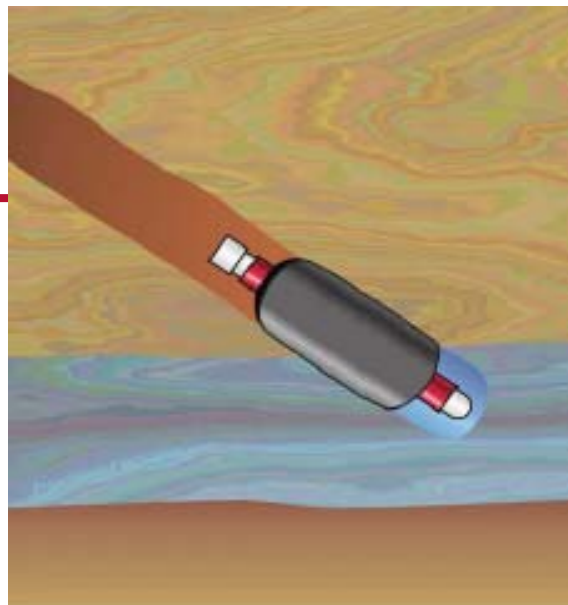
- Permanently plug off a producing formation (Zubair) in a well with lost circulation to allow disposal of produced water to the upper formation (Shuaiba). Squeeze cementing had been attempted without success. The operator wanted to avoid the additional expense and operational difficulty of another squeeze job.

Results

- Weatherford ran its 5 1/2-in. x 20-ft (6-m) ACP system with its plug-and-abandonment (P&A) kit into the hole on drillpipe. (The P&A kit converts the ACP packer into an open-hole bridge plug.)
- The packer/P&A assembly was inflated with cement and hydraulically released, extra cement was dumped on top of the packer, and the drillpipe was pulled out of the hole, leaving the permanent open-hole bridge plug to isolate and abandon the Zubair shale. The plug tested successfully to 2,000 psi (13.8 MPa).
- The Shuaiba formation was acid-treated to increase disposal capacity, and water disposal was successfully initiated.

Value to Client

- The ACP solution provided the operator with a more reliable, economical alternative for plugging off the shale formation.
- The combination of Weatherford's ACP system and P&A kit saved considerable costs associated with rig time and service expenses and eliminated the need for drilling an 8 1/2-in. sidetrack.



Weatherford's ACP annulus casing packer can be used to plug and abandon a section of a wellbore completely after drilling at the end of a horizontal section.

Client

Kuwait Oil Company

Location

Minaguish, Kuwait

Formation

- Zubair shale (plugged)
- Shuaiba (disposal)

Depth

9,486 ft (2,891 m)

Well Type

Horizontal disposal well with 90° deviation

Casing Size

9-5/8 in., 43.5 lb/ft

Dogleg Severity

7°/100 ft (30 m)

Products/Services

- ACP annulus casing packer
- P&A kit