Liner System Enables Deployment of Acidizing Treatment in 1 Trip and Saves 1 to 2 Days of Rig Time

Objectives

- Install a liner system to serve as a conduit for an acidizing treatment using 15% hydrochloric acid (HCl). The treatment was intended to dissolve a mud cake, to mitigate future formation compaction, and to enable an increase in production rates.
- Use a hydraulic liner system. Previous mechanical liner hangers provided by other companies had failed in this well.

Our Approach

- Weatherford installed its hydraulic liner system, which consisted of a slotted liner, polished bore receptacle, liner-top packer, and liner hanger. The hydraulic liner system was suited for this deep, highly deviated well because the system could be activated by means of an internal pressure application.
- Before running equipment downhole, the team performed a compatibility analysis to confirm that the components of the liner system could handle short- and long-term exposure to HCl.
- The liner system ran to the setting depth of 7,007 ft (2,136 m) without any incidents.
- The team displaced the well with 15% HCl. The liner equipment was exposed to HCl for approximately 4 hours without a negative impact on performance.
- The liner-top packer successfully set and pressure tested to 2,500 psi (17.2 MPa).
- The entire operation—including running and setting the liner system, and deploying the acidizing treatment—occurred in one trip.

Value to Client

- The single-trip operation saved 1 to 2 days of rig time.
- The operator reported improvements in production rates as a result of the acidizing treatment that was enabled by the Weatherford liner system.