

PERMIAN OPERATOR GAINS >13% FLUID PRODUCTION WITH BETTER ISOLATION

Fulcrum technology in the cement inhibits communication behind the casing, improving fracturing

On a three-well pad in New Mexico, an operator cemented two wells conventionally and a third with Fulcrum* cement-conveyed frac performance technology, then performed identical multistage fracture completions. The well cemented with Fulcrum technology produced 13.4% more fluids in the first year as compared with the average of the other two wells.

THE OPERATOR'S CONCERNS

Drilling fluid channels in the horizontal laterals enable fracturing fluid and energy to migrate behind the casing, reducing fracture efficiency and well production potential.

WHAT THE OPERATOR TRIED FIRST

The operator followed industry-accepted cementing best practices, including running centralizers.

WHAT SCHLUMBERGER RECOMMENDED

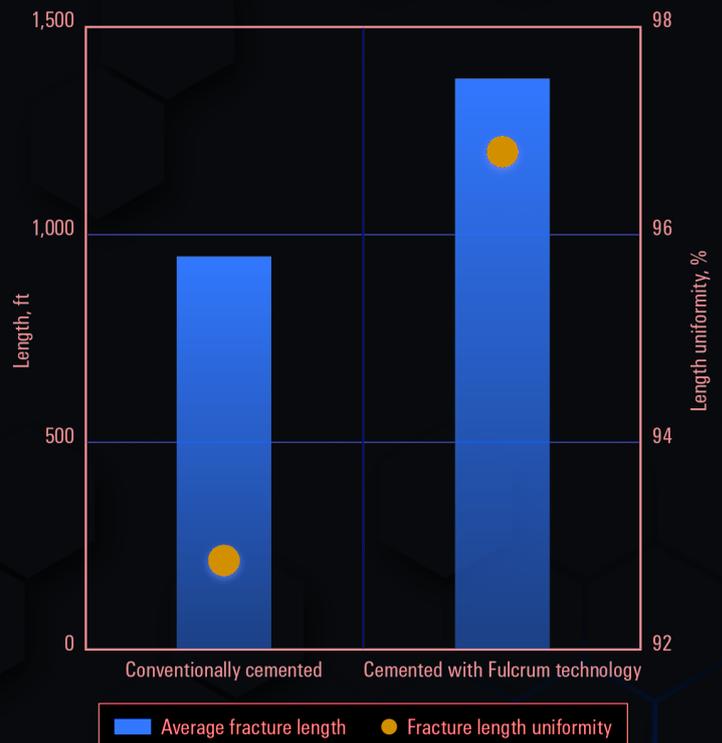
Adding Fulcrum technology to the cement in the horizontal section reduces leftover drilling fluid mobility. Engineers also recommended that the operator analyze fracture development with microseismic measurements, and monitor well production.

WHAT WAS ACHIEVED

After identical zipper-frac stimulation, microseismic analysis found that fracture length in the well cemented with Fulcrum technology was on average 44% greater and more uniform throughout the well as compared with those in one of the conventionally cemented wells.

In the first year of production, the well cemented using Fulcrum technology produced 13.4% more fluids as compared with the average of the other two wells, giving the operator an increment of at least 40,000 bbl of oil.

Microseismic Analysis of Fracture Lengths



Microseismic analysis determined that the well cemented with Fulcrum technology had longer average fracture length and better fracture length uniformity across the full lateral as compared with a neighboring well cemented conventionally.