

Case Study – Caspian Region

The TrackMaster Select™ System Enables Reservoir Access in an Extended Reach, High Angle Well

Completed the milling of a full-gauge window on an extended reach drilling (ERD) well

Ultra-Deep Cased Hole Sidetrack Performed with the TrackMaster Select™ System

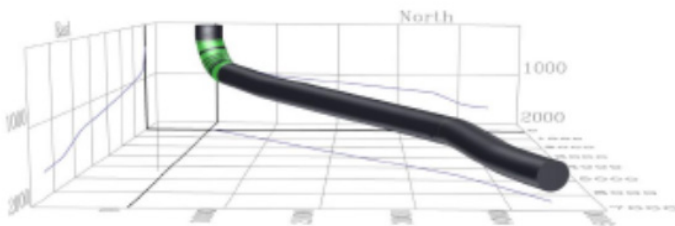
An operator planned to perform an ultra-deep cased hole sidetrack to access a new reservoir. The TrackMaster Select whipstock system was chosen to mill the window and drill the rathole for the subsequent drilling BHA.

Simulation Software is Key for Successful Pre-job Planning

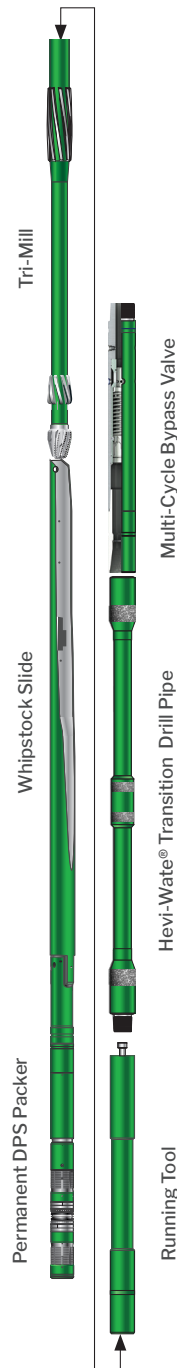
ERD wells may incur challenges such as high tensile and torsional loads, which is critical to evaluate for sidetrack operations. Risks were minimized by using the whipstock simulation software WhipSim® and Runner torque and drag evaluation software. An optimal BHA was proposed to avoid buckling while tripping, which could fatigue the shear bolt and inhibit milling operations.

TrackMaster Select System Delivers a Full-Gauge Window in an ERD Well

The pre-determined BHA was run in the hole, the whipstock was set at 6350 m, and the break bolt was successfully sheared. A full-gauge window and rathole was milled in one trip allowing the subsequent BHA to pass through with no issues.



Well path trajectory from Runner torque and drag evaluation software for the sidetrack at 6350 m



CHALLENGE

Mill a full-gauge window in 9 5/8-inch, 40-lbm/ft casing and drill a 3.5-m rathole at 6,350 m measured depth with an 85° inclination to access a new reservoir.

SOLUTION

The 9 5/8-inch TrackMaster Select system for the cased hole was supplied. Its configuration with the 8 1/2-inch OD tri-mill was designed for milling a full-gauge window and drilling a rathole of the required length in a single trip.

RESULT

- A high-quality window was created in the horizontal section
- Zero hours of non-productive time (NPT) reported
- Subsequent BHA passed the window with no drag