

Challenging Horizontal Well with Expected High Torque – Middle East

Torque Concerns on Challenging Horizontal Well

Long horizontal sections raise concerns of high torque and maintaining parameters below equipment limits. Operator experienced high torque while drilling offset wells, and planned to use WWT NRPs to reduce torque.

WWT NRPs Reduce Torque While Drilling

NRPs were installed while drilling and covered the area from surface to 6,084ft at TD with one NRP per joint. As NRPs ran in hole, the torque stabilized at 25,000 ft-lbs. Models predicted torque would have increased to 40,000 ft-lbs without NRPs.

Backmodels show 38% Torque Reduction

Back-modeling suggested an overall Friction Factors (FF) of 0.30 before NRPs were installed and less than 0.20 after all NRPs reached the recommended area.

Torque reduction at the end of section reached 38% in comparison with models run at FFs of 0.30.



Location: Middle East
Well Type: Horizontal
Objective: Torque Reduction
Solution: WWT NRPs
Results: Torque Reduced by 38% when WWT NRPs reached recommended area.

