

An Optimized High Angle Casing Exit Success in Qatar

The use of the TrackMaster* Select System with Heli-Mag* high capacity string magnets combined to deliver a successful solution in a challenging sidetrack application.

A Sidetrack Solution with Effective Debris Management

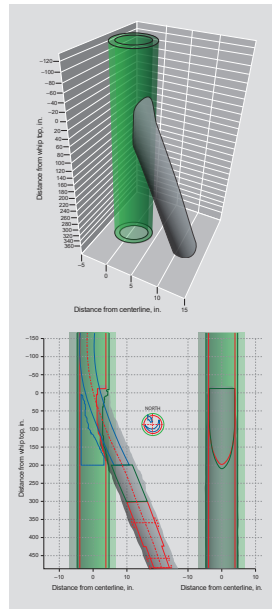
A customer in Qatar required to sidetrack a pre-existing wellbore to optimize production from the same well. This unique application, in a 7 inch casing, presented a number of operational and technical risks.

Risk Mitigation:

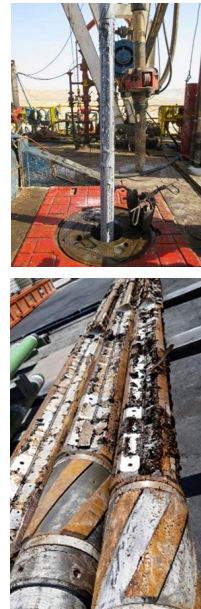
- With a hole angle at a setting depth of 88.7 degrees and a high DLS in the wellbore ranging from 4.6 to 13.9 degrees / 100ft, the TrackMaster Select System was configured to be conveyed with a shear sub. A permanent packer-type anchor was selected and was hydraulically set at the desired depth and orientation.
- The use of proprietary Whipsim analytical software was used as an integral part of the sidetrack planning process to simulate the casing exit geometry.
- Optimized hole cleaning while milling the casing exit was also essential to eliminate risks associated with debris in the wellbore. Three Heli-Mag String Magnets were placed in the milling assembly to ensure optimized hole cleaning.

The job was completed successfully as planned.

Pre-job Whipsim Analysis



Post-run Heli-Mag* String Magnet



CHALLENGE

Mill a 7 inch casing exit in a highly deviated and high DLS application with optimized hole cleaning assurance.

SOLUTION

- The TrackMaster Select was configured for this specific application. Whipsim modeling was utilized in the pre-job planning process, and an effective debris management BHA was provided during sidetracking.

RESULTS

- The sidetrack objective was achieved in one run.
- Effective debris management was demonstrated:
 - > 90% metal cuttings recovery rate
 - Large pieces of corroded casing measuring 1 inch wide x 3 inch long were also recovered
 - No further clean out runs were required to clean the sidetracked hole and window
- The subsequent directional drilling assemblies passed through the window freely and allowed drilling operations to continue as desired.



TrackMaster Select™

- A HISTORY OF INNOVATION
- UNRIVALED EXPERIENCE
- GLOBAL PRESENCE

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