Wellbore Integrity SOLUTIONS

A Rapid Solution that Enables a Successful Sidetrack from an 18 inch Casing in the Gulf of Mexico

Wellbore Integrity Solutions (WIS) engineering, manufacturing, and operational teams successfully collaborated on deploying a TrackMaster Select* System to sidetrack from 18 in., 117 lbm/ft, P-110 casing resulting in the recovery of the 16.5 in. hole section.

CHALLENGE

The customer required a technical feasibility plan and urgent mobilization of equipment to create a window and sidetrack from 18 in., 117 lbm/ft, grade P-110 casing. A full gauge, high-quality window was required to ensure that the subsequent RSS BHA and 16 in. 109 lbm/ft, Q-125 liner could be passed through the window freely.

SOLUTION

WIS applied comprehensive engineering analysis and mobilized operational resources on short notice to optimize the planning and execution of a sidetrack operation. WhipSim simulation was used in the planning process, and the TrackMaster Select hydraulic whipstock system was used to exit the casing successfully.

RESULTS

- A successful sidetrack operation utilizing team collaboration for planning, deployment, and execution.
- An urgent mobilization time-frame was met.
- A 28 ft long window was milled and 15 ft of rathole drilled.
- Subsequent drilling BHA and liner assemblies were deployed without issues.
- A 16.5 in. hole section was recovered for the customer.

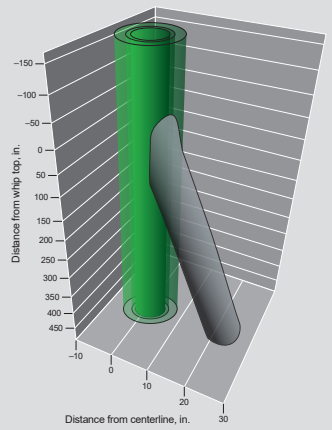
A Collaborative, Customer-Focused Approach Delivers a Successful Sidetrack

A customer, drilling in the Gulf of Mexico's Mississippi Canyon, encountered unexpected issues while running the 16 in., 109 lbm/ft liner. WIS was contacted to perform a sidetrack from the 18 in., 117 lbm/ft casing string, allowing recovery of the 16.5 in. hole section. Operational job planning, simulation, and technical analysis were completed promptly to deliver an optimum solution on short notice.

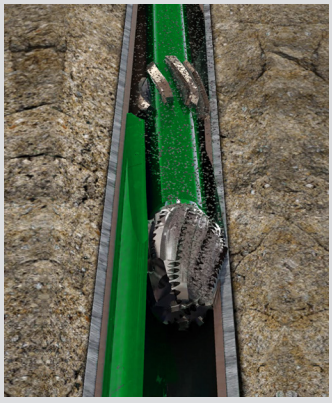
WhipSim* whipstock simulation software was used to model the whipstock setting, casing exit, and bending stresses on the subsequent BHA and liner operations. The WhipSim calculations also assisted in metal recovery planning, expected to be 2,000 lbs, on the downhole magnets. Effective metal recovery extends the life of downhole tools and wellbore components.

The TrackMaster Select hydraulic whipstock system with an Expandable Anchor was deployed, oriented, and set successfully. A 28 ft long window and 15 ft of rathole were completed in a total of 10.3 hours. Additional clean-out runs were planned with the customer to ensure a full-gauge 16.5 in. usable window to prepare for subsequent operations.

The Rotary Steerable System (RSS) BHA and liner conveyance operations continued without issues, allowing the operator to avoid the costly and time-consuming requirement of re-drilling the hole section.



WhipSim whipstock simulation software example.



TrackMaster Select

- A HISTORY OF INNOVATION
- UNRIVALED EXPERIENCE
- GLOBAL PRESENCE