

Deepwater Sidetrack Success in Uncemented 10³/₄-in. Casing

TrackMaster Select™ enabled a successful deepwater sidetrack in 10³/₄-in. casing with no cement behind pipe, delivering a clean window in 5½ hours and allowing the well to reach TD as planned

Deepwater Sidetrack Overcomes High-Loss Risk in India

A deepwater operator in India required a sidetrack inside 10³/₄-in., 60.70-ppf, L-80 casing. Based on well logs, no cement was expected behind the casing, creating a significant risk of fluid losses once the casing was milled. The top of the whipstock was planned at a depth of 1,853 m.

To address the technical challenges of this application, the customer required a specialized sidetracking solution.

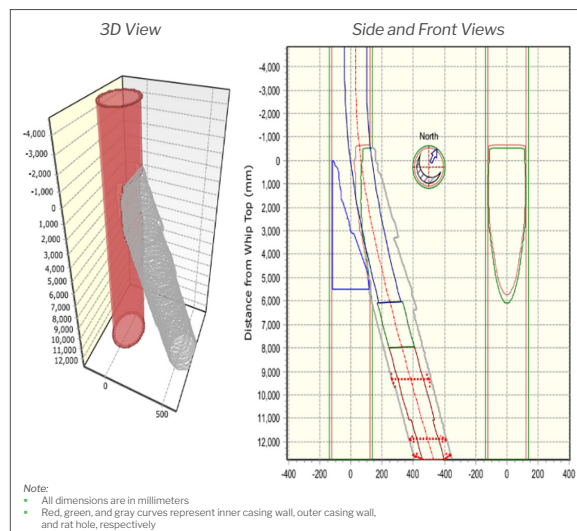
Planning and Execution

Comprehensive pre-job planning included hydraulic optimization, milling BHA selection, and evaluation of the required sidetrack window length. WIS utilized WhipSim® sidetrack window prediction software to model the expected dogleg severity through the window and optimize the milling program.

The operational sequence, parameter roadmap, and risk assessment were thoroughly reviewed with the rig crew and customer. Particular attention was given to depth control due to vessel heave at the deepwater location.

The operation was then executed according to plan, with close monitoring of milling rates, hole cleaning efficiency, and continuous communication among the operational team. This disciplined approach resulted in the successful milling of the 10³/₄-in., 60.70-ppf, L-80 casing window.

Following the sidetrack operation, the customer successfully drilled the new wellbore to total depth (TD) on the subsequent directional drilling run.



CHALLENGE

- Sidetrack a deepwater well inside 10³/₄-in., 60.70-ppf, L-80 casing
- Deepwater well depth 5,243 meters
- Whipstock setting depth 1,853 meters
- Mitigate the high risk of losses due to the absence of cement behind the casing

SOLUTION

- Deploy a 10³/₄-in. TrackMaster Select whipstock system
- Utilize a 9½-in. OD tri-mill to mill the window and initiate the sidetrack
- WhipSim software to model expected dogleg severity through the window
- Optimize hydraulics, BHA design, and operating procedures through detailed pre-job planning

RESULT

- Successfully set the 10³/₄-in. whipstock at the planned depth
- Milled the casing window in 5½ hours
- Drilled the rat hole in 30 minutes
- Achieved excellent swarf recovery at surface
- Enabled the directional BHA to drill the sidetrack to TD as planned