Wellbore Integrity SOLUTIONS

Case Study – North Sea

TrackMaster Select™ Thru-Tubing Casing Exits in the North Sea Deliver Low DLS Windows

Window and rathole created in single trip each time

Casing Exits Required for Sidetracking Through Tubing

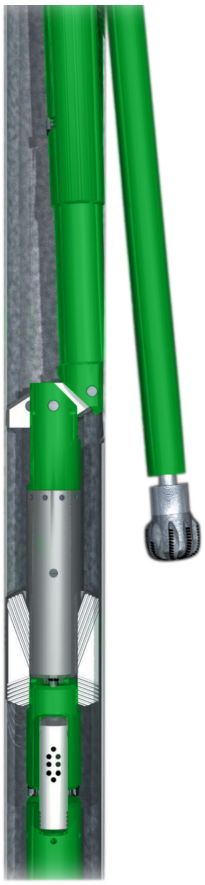
An operator required a window to be milled through 5½-inch, 17 lbm/ft, L80 liner in each of two deviated wells in the North Sea to enable thru-tubing (TT) sidetracking. The dogleg severity (DLS) across each window needed to remain low enough to preserve the fatigue life of the 2⅞-inch tubing workstring. Additionally, each window was to be completed in a single trip.

TrackMaster™ Select TT Whipstock System Deployed with FasTrack Mill

The TrackMaster Select TT whipstock system is designed to pass through the tubing ID and, once below the tubing string, can be hydraulically anchored inside the liner to enable window milling operations. In this deployment, a 5½-inch whipstock and a FasTrack one-trip mill were used to create an extended-gauge window and drill the rathole in a single run.

Each exit created in a single trip with subsequent trouble-free sidetracking:

- A 9.6 ft window was milled at 10,519 ft in 1½ hours and a 24-ft rathole was drilled and reamed in 3 hours on the first well, which had a 22° inclination. The window orientation was 48.5° to the left of the high side.
- On the second well, with a 52.5° inclination, a 9.6 ft window was milled at 11,729 ft in 2½ hours and a 16-ft rathole was drilled and reamed in 3½ hours. The window orientation was 47° to the left of the high side.
- Two notable successful thru-tubing casing exits were accomplished in a single trip each.
- The workstring performance was not compromised. Subsequent directional and completion assemblies passed through the window without difficulty.



CHALLENGE

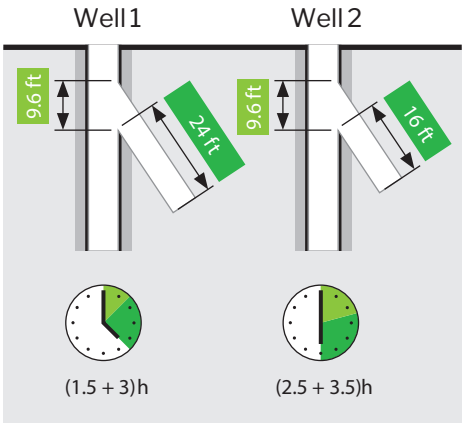
Mill a window through 5½-inch, 17 lbm/ft liner and drill a suitable rathole to enable deployment of a thru-tubing directional drilling assembly in each of two deviated wells.

SOLUTION

- Run 5½-inch TrackMaster Select TT thru-tubing whipstock system
- Use FasTrack one-trip mill
- Create extended-gauge windows
- Drill corresponding ratholes

RESULT

Completed two thru-tubing casing exits—each in a single trip—and deployed directional and completion assemblies through both



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TrackMaster Select

- A HISTORY OF INNOVATION
- UNRIVALED EXPERIENCE
- GLOBAL PRESENCE

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