

TrackMaster Nexus™ Doubles Tripping Speed, Achieves Low-Side Exit in North Slope Alaska Re-Entry Well

Low-Side Exit Enhances Flexibility in Wellbore Trajectory Design.

TrackMaster Nexus™ Single Trip 9⁵/₈ inch Low-Side Exit

In a North Slope re-entry well, a 9⁵/₈ inch TrackMaster™ Nexus whipstock system anchored with a permanent packer was deployed to provide isolation of the parent wellbore in compliance with regulatory requirements. The deviated wellbore had 39° inclination at the planned kickoff point, with a directional plan requiring a low-side exit. A high-quality window with low dogleg severity (DLS) was critical to enable smooth passage of a rotary-steerable BHA. The whipstock system was paired with an 8¹/₂ inch Integral Tri-Mill assembly featuring TruEdge™ cutters strategically positioned on the gauge area to enhance milling stability and maintain gauge. An improved whipstock-to-mill attachment method featuring a high-strength integral lug, twice as robust as conventional systems enabled a significant increase in tripping speed, from 45 ft/min to 100 ft/min. Upon reaching setting depth, the whipstock was oriented at 120° right of high side using MWD tools to achieve the planned low-side exit. The operation was executed in a single trip, successfully milling an 18 ft window and 20 ft rat hole. Post-run inspection confirmed the lead mill, dressed with TruEdge™ cutters, remained within 1/16 inch of nominal gauge, validating tool integrity and cutter durability under challenging wellbore departure conditions.



CHALLENGE

- Plan and execute a sidetrack on a re-entry well through 9⁵/₈ inch, 47ppf L-80 casing.
- Deviated wellbore with 39 degrees inclination at setting depth.
- Directional plan requiring a low-side cased hole exit.
- Deliver a high-quality window enabling pass-through of a rotary-steerable directional BHA.

SOLUTION

- One-trip 9⁵/₈ inch CH TrackMaster Nexus™ system with permanent packer anchor.
- 8¹/₂ inch TrackMaster Nexus Integral Tri-Mill with TruEdge™ cutter positioned on gauge area.
- Whipstock system configuration to enable a low-side exit.

RESULTS

- Doubled rig tripping speed from 45 to 100 ft/min.
- Enabled orientation with MWD tools achieve low-side exit at 120 degrees right of high side.
- Completed 18ft window and 20ft of rat hole in single trip with 8¹/₂ inch TrackMaster Nexus Tri-Mill.
- Lead mill dressed with TruEdge cutters measured 1/16 inch under gauge.



TrackMaster Nexus™
Trip Fast | Scrape | Set | Mill | All at Once

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