

Shell New Zealand Kapuni Field

The Kapuni Field (KA-19 well) onshore natural gas-condensate field was discovered in 1959 and brought into production in 1970. Shell New Zealand's objective was to land completions in a 6¾" open hole section at a Target Depth of 12,338 ft.

The aim was to land monobore completion using the same internal diameter from the bottom of the well to the surface with 4½" casing.



THE CHALLENGE

It was essential to land at Target Depth because of the tight space between the Target Depth and the first perforation.

The risk from sloughing coal seams and fill had to be managed.

THE SOLUTION

The unconventional coal seam formation demanded that Shell use an alternative reaming technology to ensure getting to Target Depth.

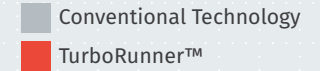
String rotation was not an option so the unique technology of TurboRunner™ provided the solution. The TurboRunner™ provides high-speed reaming to land completions and liners at Target Depth, without the need for surface rotation and allowed washing and reaming of the tight spots to be achieved without any rotation.

THE RESULT

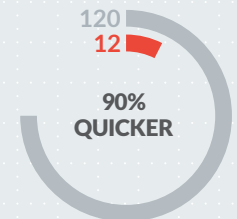
TurboRunner™ was activated towards the end of the section to ensure the removal of fill and the successful landing at Target Depth.

Using oil-based mud, the tool reamed final the 204 ft to get to Target Depth in a total reaming time of 8½ hours. The 5" TurboRunner™ landed 4 ½" x 5" monobore completion first time.

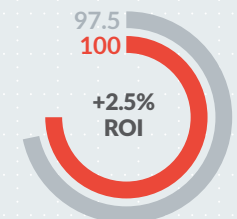
IN NUMBERS



ACHIEVED TD FIRST TIME
Without need for further hole cleaning or wiper trips with conventional technology.



108 HOURS SAVED
12 hours (8 hours reaming) rather than 120 hours of additional runs to reach TD.



ADDITIONAL PRODUCTION
Ensured ROI by delivering the required final 204 ft to TD of the well.

“TurboRunner did the business and got the completion tight to bottom. The DCT tool provided excellent insurance.”

Senior Drilling Engineer

