SNEPCO Bonga Reservoir

SNEPCO (Shell Nigeria Exploration and Production Company) planned to drill a new horizontal 2D well to develop the BNW690 reservoir within the Bonga North West field, part of the Bonga Deep Water Project, south west of the Niger Delta.

SNEPCO intended to run the first of Weatherford’s new RFID controlled single trip intelligent completion in an 8 ½” open hole reservoir section, in the first of four confirmed wells. The aim was to run the upper and lower completion in one trip.

THE CHALLENGE

With this type of completion, correct placement is paramount - if the completion is set off bottom, this reduces reservoir contact, production and return on investment.

Correct placement of the completion, on the other hand, results in maximum return on investment.

As SNEPCO personnel were concerned that there may have been restrictions in the hole, they decided to use a reamer that would be capable of overcoming organic restrictions such as hole fill, micro doglegs, ledges and undergauge sections.

Due to the nature of the completion, they also required a reamer that combined high speed and minimal vibration with low operational pressure, and did not require rotation of the completion.

THE SOLUTION

Prior to the operation, we supplied a TurboRunner™ to SNEPCO, free of charge, so that they could carry out three trial installations at the Bridge of Don rig.

Having witnessed the benefits of using the highspeed reaming system first-hand, SNEPCO selected the TurboRunner™ as the best option for the job.

When running in hole with the completion assembly, the string got stuck around 50ft off bottom, and due to the nature of the completion, it was not possible to set down much weight or rotate to attempt to reach TD.

Flow was then introduced to activate the TurboRunner™. With the benefits of low circulating rates and operational pressures, high speed rotation, low vibration and reactive torque, the reamer shoe began clearing obstructions, enabling the completion to progress.

As planned, the TurboRunner™ reamed through the obstruction, and enabled the completion to be landed at TD.

THE RESULT

Successful installation of the completion to TD. Without the TurboRunner™, the completion would have been set 50ft high or have been pulled out of hole.

Combining the single trip completion and the TurboRunner™ resulted in significant time and potential re-run savings.

72 HOURS SAVED

One quarter of the time required to prepare the hole compared to conventional technology.

3 DAYS SAVED

75% TIME SAVED

The TurboRunner™ reamed through the final 50ft when the completion hung up shallow, negating the need to pull and re-run.

95% 100+5% ROI

ADDITIONAL PRODUCTION

An additional 5% ROI was achieved as the TurboRunner™ enabled the completion to reach TD.

75% QUICKER

24 1

96 24

IN NUMBERS

Conventional Technology

TurboRunner™