

Expro Excellence

VERSAFLO™ Switch successfully fill-up while tripping in/out for an acid job in the Gulf of Mexico

Well Construction | Drilling Technologies



Objectives and background

- A major offshore operator in the Gulf of Mexico was seeking a solution to fill and circulate the lower completion assembly in a recent deepwater well. The lower completion consisted of three different string sizes including 4 1/2", 5 7/8", and 6 5/8". The operation required multiple fluids to be filled and circulated including acid. To minimize rig time connecting the top drive into the string and changing saver sub for each drill pipe size, the VERSAFLO™ Switch was utilized to fill, circulate, and rotate the work string

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- Expro's VERSAFLO™ Switch seals on the ID of the tool joint as opposed to the OD, the entire work string can be filled and circulated with one tool. The Switch, with interchangeable upper and lower connections, was dressed with a GTM69 connections on both upper and lower ends to allow for the connection to string while pumping acid. The versatility of the internal sealing mechanism of the VERSAFLO™ tool allows the tool to pump the acid job and then remain rigged up to facilitate pumping the string out of hole, which helps to ensure critical wellbore stability. All while no time is spent on critical path to change crossovers from the top drive to accommodate the different drill pipe sizes

Value to the client

- The operator was able to successfully perform drill pipe filling and circulating of the entire work string of 4 1/2" Delta 425, 5 7/8" XT-57 and 6 5/8" GTM 69 connections with one tool both while tripping into the hole and pumping out of the hole to maintain wellbore quality
- By leveraging the inherent compatibility of the VERSAFLO™ Switch, Expro eliminated the need to change the saver sub for each drill pipe size and not mechanically connect 154 stands to fill and circulate
 - At four-five minutes of time savings per stand, Expro's VERSAFLO™ Switch delivered over 10 hours of time savings compared to conventionally connecting the top drive to the work string
 - Also, by removing the need for the operator to change saver subs, install crossovers, or fill at the floor, the Switch also eliminated at least four instances of red-zone entry to perform high risk tasks and eliminated time consuming tasks from the critical path time
 - Full circulation was performed in the well, reaching a maximum pressure of 4,500 psi, with an average circulation pressure of 2,500 psi
 - The operator's team was pleased with the performance of the tool due to the amount of time saved, and the reduction of wear to the top drive saver sub by using VERSAFLO™ Switch tool during the completion operations

Safety



Decreased costs

