

Expro Excellence

DAV MX™ achieves reliable multi-cycle circulation at 28,527 ft TD in a 15,000ft horizontal well

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Objectives and background

- A major Middle East operator was drilling a challenging 6" extended-reach horizontal well, with a total measured depth (MD) of 28,527ft and a 15,000ft horizontal section
- The customer needed to:
 - Efficiently clean the wellbore while maintaining circulation through both the drill bit and the circulating sub using split-flow technology
 - Reliably activate a dart / ball operated circulation sub. Given the depth constraints, this presents a significant operational challenge due to the long lateral travel distance, increased hydraulic friction, and the risk of delayed or unsuccessful dart / ball arrival
 - Perform a second hole-cleaning operation at the 7" top of liner, requiring the circulation system to operate through multiple activation and closure cycles
 - Complete both circulation objectives without additional trips, minimizing non-productive time (NPT) and operational risk
- Given Expro's strong track record and proven reliability in previous operations, the customer selected Expro to support this technically demanding extended-reach drilling application

Expro Excellence

- Expro deployed its DAV MX™ Circulating Sub as part of the drilling bottom-hole assembly (BHA), providing a robust and flexible circulation solution for the extended-reach well
- Key features of the solution included:
 - Split-flow circulation capability, enabling fluid to circulate simultaneously through the drill bit and circulation sub ports for enhanced hole cleaning
 - Reliable dart-activated hydraulic operation at extreme measured depths
 - Multi-cycle functionality, allowing the tool to be opened and closed multiple times during the same run
 - Seamless integration into the customer's drilling program with contingency circulation capability whenever additional hole cleaning was required
 - Proven reliability backed by a successful operational history with the customer

Value to the client

- The DAV MX™ Circulating Sub performed flawlessly throughout the operation and met all customer objectives
- Successfully activated at approximately 28,500 ft MD using a 2" Split Flow Dart pumped at 200 GPM on the first attempt
- Completed the planned split-flow hole-cleaning circulation at TD successfully
- Closed successfully on the first attempt following the initial circulation cycle
- A second hole-cleaning operation was subsequently completed at the 7" top of liner using the DAV MX™ multi-cycle capability, with successful reactivation and valve closure on the first attempt
- The DAV MX™ enabled the operator to complete multiple hole-cleaning operations in a 28,527 ft extended-reach well with reliable first-attempt activation and closure throughout the operation. By delivering dependable multi-cycle split-flow circulation without additional trips, Expro improved drilling efficiency, reduced operational risk and demonstrated the performance required for some of the industry's most challenging well construction applications
- Expro demonstrated reliable hydraulic activation and repeated operation on one of the longest horizontal DAV MX™ applications to date

Reduction of rig time



Operational efficiency

