

NORTH SLOPE

ALASKA

Background

A major operator was concerned about stuck pipe in an extended-reach well where a costly BHA was installed. M-I SWACO recommended to gather and use more frequent real-time rheology and density data obtained with the RheoProfiler* automated rheometer. Rheology was measured at three temperatures and densities every 2 h rather than the standard six intervals to feed into the PRESSPRO RT* real-time downhole performance measurement software.

The increased data intervals were used to optimize the equivalent circulating density and hole-cleaning simulations. The RheoProfiler rheometer was used in the high-risk lateral portion of the well, and measurement was conducted to TD, displacement, and up until the cement job.

Technologies

- RheoProfiler automated rheometer
- PRESSPRO RT real-time downhole performance measurement software

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Accurate Hydraulics Proved Critical in Avoiding Stuck Pipe from Extended-Reach Well

RheoProfiler rheometer and PRESSPRO RT software deliver advanced hydraulics modeling



The RheoProfiler rheometer measured the extra intervals requested by the customer. The optimized PRESSPRO RT software simulations reduced the risk of NPT and aided in successfully drilling the high-risk well without serious issues.