



PERFORMANCE BULLETIN

DSI's PBL® BYPASS SYSTEM was activated using the Fast Ball in a heavy mud weight scenario in Mexico's South region and allowed pumping an innovative mud lubricant containing glass beads which helps to reduce torque and drag while drilling or running the casing.

Application

A major service company working in Mexico requested a 6-3/4" DSI PBL® bypass system to be used in a directional BHA with special logging requirements. In this application, an innovative additive would be displaced in the mud system at the end of the run in order to reduce the torque and drag while running the casing to TD. This lubricant is made of solid, tempered and hardened glass beads that work as small bearings which would not break even under extreme compression.

This additive brings many benefits to the operation such as preventing differential sticking, mud system lubrication greatly reducing the torque and drag in deviated wells either while drilling or running the casing down.

Challenges

Setting down the casing at the planned depth is critical in all oil and gas wells. In this application the challenges faced were:

- "S" type directional paths make setting of the casing difficult due to high friction.
- Deep deviated wells (6,300m MD).
- Heavy mud weight 15.3 to 17.5 ppg.
- MPD system that helps in narrow mud weight parameters.

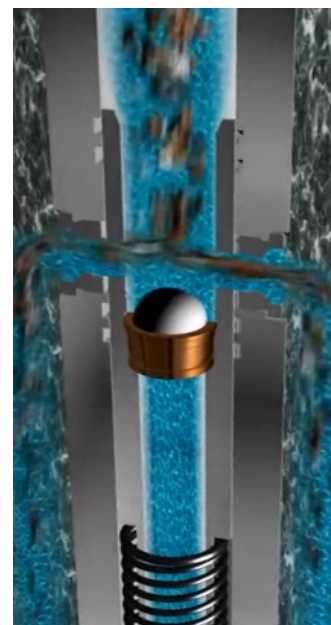
While it is possible to pump this material through the drill bit due to the small size of the particles (500 to 800 microns), any risk of potential wear to the expensive BHA components due to the composition of the pumping material (hardened round glass beads) is eliminated by pumping this additive through the PBL® tool's side ports.

Solutions

The best solution for pumping down this mud additive without taking any risk of BHA damage is to have the PBL tool in place. The tool was activated at 6,328m using the fast ball, and activation was confirmed in a short period of time (a little over 40 minutes). Then, 10m³ of lubricant pill with a concentration of 30kg/m³ and 500–800 microns were pumped at 300GPM and 1,700psi.

Results

The operation was successfully performed. Having the PBL with the Fast Ball in place to allow pumping this innovative lubrication additive to the mud system significantly reduced torque and drag parameters while setting down the casing. Using the PBL® bypass system prevented any damage to the expensive BHA components.



Pumping innovative mud lubricants made of tempered and hardened glass beads through DSI's PBL® bypass system was a very good drilling practice in Mexico. Before POOH the BHA, the material is pumped down through the PBL tool to significantly reduce torque and drag while running the casing to TD.

"Reduce rig time and perform best drilling practices by using the PBL® bypass system for pumping lubrication material that significantly reduces torque and drag while setting down the casing."