Operator Optimizes Separation Factor on Multi-Well Pad with Precise, Accurate GWD Measurements



GYROSTAR™ GYRO-WHILE-DRILLING SERVICE HELPS IMPROVE WELLBORE PLACEMENT AND MITIGATE COLLISION RISK

CANADA

OVERVIEW

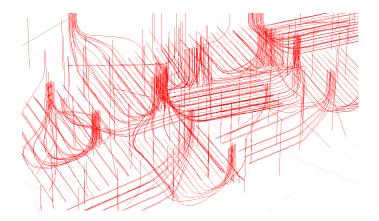
An operator in Canada was drilling a series of infill wells from a single pad. As these wells were within close proximity of those drilled from existing pads in the area, it was critical to ensure no wellbore collisions occurred. The operator also wanted to improve operational efficiency, reduce the risk of tools getting stuck downhole, and drill the lateral sections with a narrower ellipse of uncertainty to optimize both wellbore placement and separation.

The operator utilized the GyroStar™ gyro-while-drilling (GWD) system from Halliburton Sperry Drilling, powered by SPEAR™ solid-state sensors, for drilling the 8½-in. section of each infill well. Placement in a compact collar close to the bit provided precise, real-time collision management while drilling the lateral section at 300° azimuth. The shorter bottomhole assembly (BHA) length improved drill string handling, and survey times were reduced by almost 47% (1 min., 20 sec. versus 2 min., 30 sec.) when compared to a conventional GWD system used on previous infill wells. The solid-state sensors also reduced the risk of getting stuck by shortening the time required for the BHA to be stationary while surveying.

Other noteworthy results of this solution included:

- No backreaming issues while pulling out of the hole
- Zero non-productive time (NPT), no missed surveys, and no disruption to BHA functionality

Finally, the tighter ellipse of uncertainty enabled the operator to achieve improved wellbore placement, and will enable optimized spacing between future wells to maximize asset value throughout the region.



Avoiding wellbore collisions is a key consideration when drilling from a multi-well pad.

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