CASE STUDY

UNMANNED GWD SYSTEM PROVIDES OPERATOR WITH ECONOMIC SOLUTION TO HIGH-ANGLE ANTI-COLLISION RISK

TECHNOLOGY

- GWD90™ system

APPLICATION

- Unmanned GWD
- Wellbore placement
- High-inclination surveying
- Directional drilling

LOCATION

- North Sea

INDUSTRY CHALLENGE + OBJECTIVE

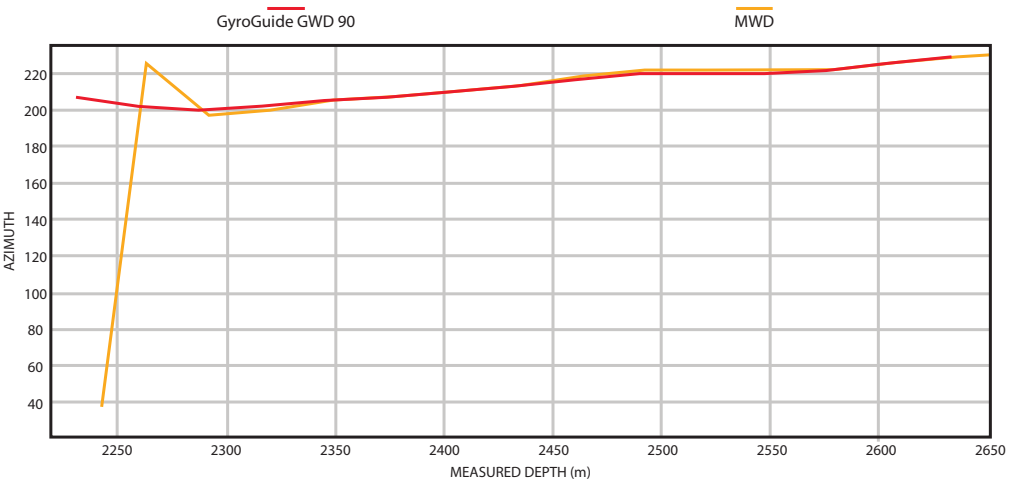
An operator in the North Sea was drilling a sidetrack from an existing well from a whipstock set at close to 90°. The 6300-m horizontal section, which the operator was drilling with an RSS, had an initial zone of approximately 365 m where magnetic interference was expected to be an issue. Without valid survey data over this zone, achieving accurate wellbore positioning in the reservoir would have been challenging due to the length of the section. To overcome these challenges, the operator decided to use a GWD90 system to provide higher quality surveys unaffected by magnetic interference from the motherbore and offset wells.

TECHNOLOGY + SERVICE SOLUTION

- The GWD90 system provided all-attitude, high-accuracy surveys in real time as drilling progressed through the zone of magnetic interference while offering mitigation for potential close approaches of offset wells.
- The third-party service company had an "automatic pumps off" function that allowed surveys to be collected during connections, reducing the amount of necessary rig time.

RESULTS + VALUE DELIVERED

- All GWD operations were carried out entirely remotely with no issues or delays in confirming survey quality.
  - Unmanned GWD eliminated onsite personnel and mobilization costs.
- Delivered improved survey accuracy while establishing separation from the parent well.
- If the section was surveyed by doing a pumpdown wireline survey during drilling, it would have taken 12 hours or more of rig time.
  - Potential savings were $240,000 at a current daily rig rate of $483,000, not including operating costs.
  - Removed the risk of stuck pipe while completing surveying operations.



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