CASE HISTORY

REDUCING RISK & RIG TIME IN HIGH-ANGLE SIDETRACK WITH URSA GYROMWD

APPLICATION

- Sidetrack
- Close Proximity
- Collision Avoidance
- Whipstock Orientation

TECHNOLOGY

- **Wellbore Surveying**
  URSA gyroMWD

LOCATION

- Eastern Desert, Egypt

CLIENT CHALLENGE

Executing a high-angle sidetrack at approximately 67° inclination presents significant operational complexity, particularly when the new wellbore must safely separate from a parent well. The client needed to achieve this separation while maintaining precise positional awareness to avoid potential interference between the wells.

At such high inclinations, conventional wireline gyro deployment becomes operationally challenging, often requiring multiple runs to obtain reliable survey data. These additional runs increase rig time, cost, and operational risk, particularly during the interference-avoidance phase when accurate well positioning is critical. As a result, the client required a reliable gyro surveying solution capable of operating effectively in high-angle conditions while minimizing runs and reducing overall operational risk.

SCIENTIFIC SOLUTION

Scientific deployed its URSA™ gyroMWD system to deliver continuous toolface orientation as well as precise and accurate surveying throughout the high-angle sidetrack.

After setting the whipstock across 9⅝" casing at approximately 1,230m, an 8½" directional BHA equipped with the URSA gyroMWD system was run. The well was steered using a combination of sliding and rotary drilling, enabling precise trajectory control and efficient separation from the parent well while eliminating the need for conventional wireline gyro runs.

The approach allowed the high-angle sidetrack to be completed efficiently, totaling 42.5 circulating hours and 60 downhole hours, while maintaining accurate wellbore positioning throughout the operation.

VALUE DELIVERED

By incorporating SDI's URSA™ gyroMWD system into the BHA, the client was able to eliminate the need for multiple wireline gyro runs, ensuring the high-angle sidetrack was completed efficiently at greater depth, all while maintaining accurate wellbore positioning.

This more streamlined and comprehensive approach enabled the client to avoid additional drilling days, extra casing requirements, and increased facility utilization that could have resulted from more complex conventional surveying operations. As a result, the client achieved reduced rig time, lower operational costs, and minimized operational risk, while ensuring safe and reliable separation from the existing well.

Updated March 2026