

CASE STUDY

DROP GYRO SYSTEM REVEALS WELLBORE PLACEMENT INACCURACY OF 40 METERS IN MWD DATA

▶ TECHNOLOGY

- Drop gyro surveying system

▶ APPLICATION

- Directional drilling
- Wellbore placement

▶ LOCATION

- Latin America

INDUSTRY CHALLENGE + OBJECTIVE

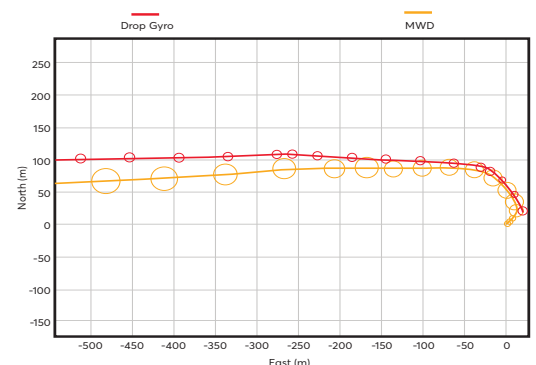
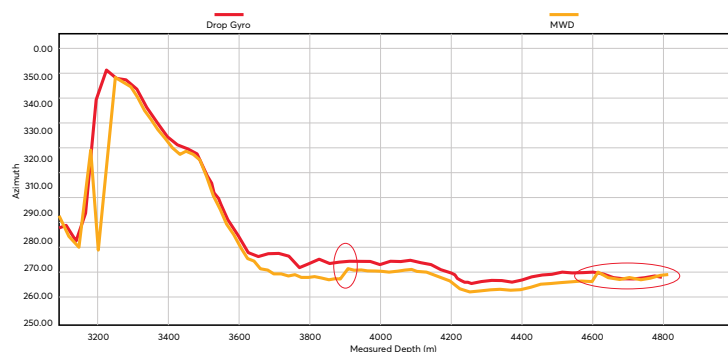
An operator in Latin America needed to ensure that their well was placed accurately in a recent campaign. Issues with magnetic interference had previously been encountered throughout the well, and the operator requested a gyro run to obtain a definitive final survey. Due to the operator's resource and cost constraints associated with mobilizing personnel to the region, we partnered with a local third-party company to execute the project. The well was approximately 4800 m deep and built from a vertical into a lateral section at a maximum inclination of 30°.

TECHNOLOGY + SERVICE SOLUTION

- Drop gyro systems provide improved accuracy and precision in suitable wellbore conditions where magnetic interference is a concern.
- Drop gyro systems save critical downtime associated with taking surveys while tripping, as well as save significant rig time associated with wireline gyro runs—potentially 12 hours or more.

RESULTS + VALUE DELIVERED

- We provided the third-party partner with a detailed training plan and remote instruction on tool assembly and running procedures, with regional personnel providing technical support as necessary.
- We successfully surveyed the well through the sections of magnetic interference where MWD surveys had previously returned unreliable data. Analyzing the azimuth of both tools, we found points where the MWD data indicated uncharacteristic azimuth spikes despite the well being set at a clear inclination at that point.
- The incorrect readings from the MWD surveys showed error due to magnetic interference as suspected. We discovered a 40-m lateral difference between the MWD surveys and our drop gyro surveys, revealing that we were able to accurately provide a definitive survey and reliable well data for the tie-in point.



gyrodata