

CASE HISTORY

REAL-TIME MSA & IFR MITIGATES RISK & ENSURES ACCURATE WELL PLACEMENT

APPLICATION

Collision Avoidance
& Pad Drilling

SERVICE

MSA (Multistation Analysis)
& IFR (Infield Referencing)

LOCATION

South Texas
(Eagle Ford)

CUSTOMER CHALLENGE

The customer was drilling a complex horizontal well, in which the lateral section was to be drilled between an existing horizontal well and a lease boundary. The associated Ellipse of Uncertainty (EOU) generated by the MWD surveys would exceed the customer's range of tolerance, creating a high risk of improper well placement. Due to tight spacing, real-time azimuth corrections were necessary to ensure accurate placement of the lateral section and avoid crossing a lease boundary.

SCIENTIFIC SOLUTION

Scientific Drilling provided Multistation Analysis (MSA) and Infield Referencing (IFR) services to avoid collision risks and reduce the EOU by approximately 60%. MSA was used for drill string interference and survey azimuth corrections to deliver high accuracy data to the rig site during the entire drilling operation. In addition, the IFR data provided highly accurate geomagnetic reference values to optimize the MSA corrections.

CUSTOMER VALUE

SDI's Remote Data Centers provided 24/7 support to ensure the surveys were processed and reported real-time, resulting in no delay to the drilling operation. This also provided increased cost savings to the customer by eliminating the need to run gyro surveys at the end of the section. The MSA corrections ultimately allowed the customer to reduce the EOU delivered by standard MWD surveys, ensuring optimal well placement with minimal collision risks.

