

HyperLine™ Drilling Motor Introduces High-ROP Capabilities in Middle Eastern Deep Gas Asset

Objectives

- Drill a 16-in. (406-mm) large-diameter section in an unstable high-pressure, high-temperature (HPHT) reservoir. The customer previously experienced service quality issues when using motors from other companies in these conditions.
- Maximize rate of penetration (ROP) and enhance drilling efficiency.

Our Approach

- The drilling services team met with the customer to review the drilling histories of nearby wells and to determine the optimal parameters for directional drilling at a high ROP in the hard formation.
- Using the historical well data, the team set benchmarks to achieve high-ROP and drilling efficiency throughout the performance drilling operation.
- To drill the section, the team deployed the HyperLine mud-lubricated motor to power the performance drilling operation.
- The HyperLine mud-lubricated motor enabled the challenging section to be drilled in one trip, with its motor lock assembly and even rubber thickness technology providing greater ROP, lower torque, and reduced stick-slip performance.
- The motor enabled drilling to the desired depth and achieved an average ROP of 19 ft (5.8 m) per hour.

Value to Customer

- Unlike the previously used motors, the HyperLine motor enabled drilling the large-diameter section of the hard formation without service quality issues.
- The motor enabled enhanced drilling efficiency and a high-ROP to save the customer US \$50,000 compared to the performance drilling solutions provided by other companies.
- After delivering exceptional service quality, Weatherford drilling services was awarded contracts to drill two additional high profile directional wells.

LOCATION
Middle East

WELL TYPE
Onshore, gas producer

FORMATION
Interbedded shale

HOLE SIZE
16 in. (406 mm)

RATE OF PENETRATION
19 ft (5.8 m) per hour

PRODUCTS/SERVICES

- Drilling services
- 11 1/4-in. HyperLine drilling motor

The HyperLine mud-lubricated motor with a motor lock assembly and a hard rubber thickness redirects fluid flow in the well to prevent rotation of the bit box and other components below the motor during orientation and actuation of additional hydraulic components.

