Case History

Drilling Optimization

Matched System Delivers Increased ROP and Zero NPT for Field Record in Saudi Arabia
Location: Shedgum Field, Saudi Arabia

OPERATOR’S CHALLENGE – Excel on performance to safely and economically drill a vertical lump sum turnkey well in the Shedgum Field.

HALLIBURTON’S SOLUTION – Halliburton provided an integrated “matched” solution including SperryDrill® performance motor and Halliburton Drill Bits and Services’ FM3661Z PDC bit. Sperry Drilling services also used MaxBHA™ drilling optimization software, which optimizes drilling performance and tool reliability through real-time modeling of critical rotary speeds for vibration mitigation.

ECONOMIC VALUE CREATED – Using a matched system for bit, motor and BHA design enabled Sperry to drill the hole section quicker, smoother, and with zero non-productive time (NPT).

Section Length: 2,513 feet (766 meters)
Total Hours: 31 hours
Average ROP: 81.67 feet (24.89 meters) per hour

This is a new field record with 22 percent improvement over the previous field record.

SperryDrill® motors operate reliably under a wide range of downhole conditions helping to reduce drillpipe, collar and casing wear, and minimizing related problems.