Inhibitive HYDRO-GUARD® WBM Helps Set New Field Record, Saving USD 3 Million

BAROID SOLUTION STABILIZES WELLBORE IN REACTIVE CLAYS

PAKISTAN

CHALLENGE

Solve issues associated with drilling reactive clays, including:

- Wellbore destabilization
- Heavy clay accretions on bit and BHA
- Tripping delays due to overpull and pumping necessities

SOLUTION

Highly inhibitive HYDRO-GUARD® WBM, which prevents clay reactivity before it starts

RESULTS

- Incurred zero NPT related to reactive clay issues
- Achieved fast ROPs, with no tripping delays
- Eliminated one intermediate casing string
- Drilled well 25.5 days ahead of plan, saving operator approximately USD 3 million

ENGINEERED HYDRO-GUARD WBM DELIVERS POWERFUL CLAY INHIBITION

The Baroid team analyzed offset well data to determine the specific issues associated with drilling the reactive clays, including severe bit balling and wellbore instability. Both ROP and tripping time were negatively impacted.

Shale mineralogy testing had already been conducted for another operator in the area, and these results were applied to the current case. The Baroid technical team then pilot-tested all proposed products to confirm compatibility within the formulation, along with effectiveness in the formations to be drilled.

As a result, Baroid recommended a HYDRO-GUARD® high-performance water-based mud (WBM) treated with BaraSure™ W-674 shale stabilizer – and proactively arranged for the required products to be at the rigsite, ready for use when the reactive clays were encountered.

WELL SETS NEW FIELD RECORD, SAVING 25.5 DAYS AND USD 3 MILLION

The operator reached total depth (TD) in just 14.5 days, 25.5 days ahead of the planned 40 days, saving approximately USD 3 million. This achievement set a new record for the fastest well in the field, as the operator reached TD more than 25 percent faster than the nearest contender – and with zero nonproductive time (NPT).

The customized HYDRO-GUARD system prevented bit balling and delivered consistent wellbore stability. Trips were completed with no overpull or reaming.

The operator was able to drill to a TD of 3,563 meters (11,690 feet) with only two strings of casing instead of the planned three strings, resulting in significant savings on tubulars, cementing and rig time. Casing was run to bottom with no obstructions, and the wireline logging operations were completed with no issues.

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