Inhibitive HYDRO-GUARD® HPWBM Delivers Trouble-Free Gauge Hole, Zero Cuttings Handling Costs

BAROID SOLUTION SAVES OPERATOR SEVERAL DAYS OF RIG TIME
AIN AMENAS, SOUTHEAST ALGERIA

CHALLENGES
» Replace NAF systems with an inhibitive water-based mud
» Eliminate need for costly cuttings handling and disposal
» Achieve reliable wellbore stability with minimal washout

SOLUTION
Drill with HYDRO-GUARD® high-performance, water-based mud
» Customized to match specific wellbore mineralogy
» Environmentally friendly

RESULT
» Gauge wellbore with < 1 percent washout
» No wiper trips, saving 2.5 rig days
» No cuttings handling/disposal, saving USD 300,000

OPERATORS NEED HIGH-PERFORMANCE WBM TO REPLACE IEFS

In Algeria, operators who choose to drill with non-aqueous fluids (NAFs) face many challenges, to the extent that using NAFs can become uneconomical. The skip-and-ship cuttings handling and disposal operation is very expensive. Additionally, the distance from the well to the nearest supply point can be as far as 1,000 kilometers (621 miles), complicating the resupply of mud, diesel and chemicals.

Recent trial wells drilled with inhibitive HYDRO-GUARD® high-performance water-based mud (HPWBM) confirmed that this fluid could meet field performance objectives without the costly cuttings management process or logistical problems related to NAF maintenance.

HYDRO-GUARD® HPWBM DELIVERS EXCEPTIONAL INHIBITION OF REACTIVE CLAYS

The decision to run HYDRO-GUARD systems resulted from intensive testing conducted prior to the successful first trial well. Before drilling a second trial well, the Baroid technical team analyzed the mineralogy of the cuttings samples, which contained both illite and smectite. The fluid was customized to match wellbore conditions, targeting the reactive clays. This second trial validated the performance and logistical benefits of the fluid.

The HYDRO-GUARD fluid exhibited a high degree of clay inhibition, wellbore stability and rheology control. The well caliper log showed a gauge hole with less than 1 percent washout. The operator reached target total depth on each interval, and casing was run and cemented with no issues.
Running the HYDRO-GUARD fluid also eliminated the costs and constraints associated with cuttings handling and disposal.

**NO WIPER TRIPS, NO CUTTINGS DISPOSAL COSTS = SAVINGS OF USD 400,000**

The HYDRO-GUARD system delivered several advantages over NAF systems previously used on offset wells. The operator was able to drill the 12-1/4-, 8-1/2- and 6-inch sections faster due to improved wellbore stability. When wireline imagery confirmed the excellent hole conditions, the operator was able to cancel wiper trips – and save rig time.

The operator saved approximately USD 0.3 million by eliminating charges for cuttings management and the oil-on-cuttings (OOC) recovery system used when drilling with NAFs. Canceling wiper trips saved 2.5 days of rig time, valued at USD 100,000.

Baroid received two letters of commendation from the operator and was awarded an additional HYDRO-GUARD HPWBM project. Customized HYDRO-GUARD systems have become the fluid of choice in the area.