BaraSure™ W-674 Shale Stabilizer Enables Operator to Save Eight Days of Drilling Time in Highly Reactive Clays

**OPTIMIZED DRILLING FLUID PREVENTS CLAY SWELLING AND IMPROVES OVERALL DRILLING PERFORMANCE**

**RANKIKOT FORMATION, PAKISTAN**

**CHALLENGE**

Reactive clays in the intermediate interval caused slow drilling rates and high fluid treatment costs.

**SOLUTION**

Baroid lab tests on clay samples identified BaraSure™ W-674 shale stabilizer as the best inhibitor for this section.

**RESULTS**

A concentration of 2 percent by volume of BaraSure W-674 shale stabilizer prevented clay swelling, ultimately decreasing drilling time by eight days, compared to offsets.

**TESTING SHOWS BARASURE™ W-674 SHALE STABILIZER IS HIGHLY EFFECTIVE SHALE STABILIZER**

The Baroid team tested clay samples from offset wells, using a linear swell meter to determine the best clay inhibition additive for shale formations present in the overburden. Based on these test results, the team recommended adding 2 percent by volume of BaraSure™ W-674 shale stabilizer when drilling the intermediate hole intervals. BaraSure W-674 shale stabilizer is an effective shale stabilizer for water-sensitive formations, preventing clay swelling caused by hydration, and minimizing cuttings accretion and bit bailing potential on the bottomhole assembly (BHA), which were concerns for this customer.

The addition of BaraSure W-674 shale stabilizer significantly improved drilling performance, most notably by increasing the ROP, eliminating cuttings accretion and bit bailing, and improving wellbore integrity. No tight spots were observed, culminating in a successful drilling operation of the 17-1/2-inch and 12-1/4-inch intervals, with casings landing at total depth (TD) without any obstructions.
OPTIMIZED DRILLING FLUID HELPS SAVE EIGHT DAYS OF RIG TIME

Inhibiting the drilling fluid relative to the reactive clays helped deliver exceptional ROP values and prevented bit balling. The wellbore remained stable throughout drilling, logging, and casing running operations. The savings in rig time were estimated to be USD 320,000 (Figure 2). As a result of this success, the operator is now planning to use BaraSure W-674 shale stabilizer in its upcoming well ZAFIR-XI in the Gambat field.

Figure 2 Time vs. depth chart for well