Baroid's Mix On The Fly (MOTF) System Allows Continuous Drilling With Limited Pit Volume

Location: Offshore, Brunei

**OPERATOR’S CHALLENGE** – This customer called upon Halliburton Baroid to find a solution for mixing high volumes of Dynamic Kill Drilling (DKD) mud with limited pit volume of 655m³. In addition, during exploration sections of drilling, the drilling mud weight would likely be changed with little notice, so the solution would have to be able to accommodate such rapid changes.

**HALLIBURTON’S SOLUTION** – For an efficient and flexible solution, Baroid provided a custom-built Mix on the Fly (MOTF) unit, which does not require additional electrical connections. The only electrical components are the flowmeter displays which monitor the flow and run on batteries. The rig safe electrical components do not require any tie in into electrical connection reducing safety risks associated with DKD Mixing. The MOTF system provided was able to mix 1.9sg DKD mud with seawater simultaneously so that drilling operations could continue unabated.

The pit volume on the rig was only able to hold 655m³ at one time. Baroid’s MOTF was used to mix over 4400m³ of 1.3sg DKD mud during the riserless section at rates of up to 5500l/m. The mud weight ranged from 1.5sg to 1.3sg during different sections of drilling. This was all done on the fly with Baroid’s MOTF system.

**ECONOMIC VALUE CREATED** – Using the Baroid MOTF system, this customer was able to deliver 1.9sg DKD mud to the rig despite limited pit volume. In addition, the MOTF system enabled the customer to determine the desired mud weight on location. Furthermore, unlike conventional mixing methods, the system allowed for rapid, on the fly changes to desired mud weight as needed.