SeaShield® Model 7875 DS RCD Enables Continuous Drilling Operations and Saves 13 Hours of Rig Time Valued at $290,000

Objectives

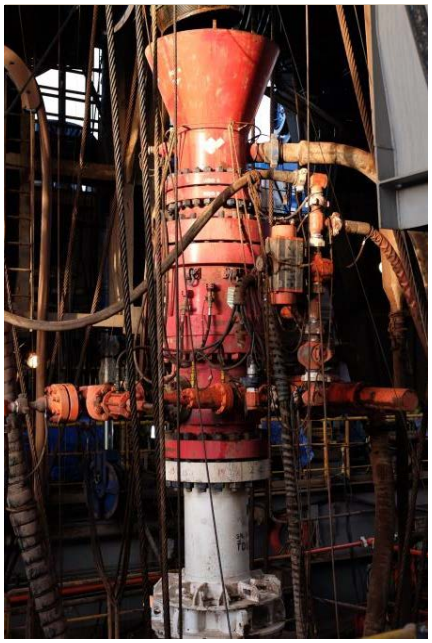
- Mitigate drilling-mud losses and well-control risks while drilling two sections in a carbonate zone. Previous wells in the field had severe mud losses and well-control incidents while drilling through this hazard zone.
- Enable the client to collect coring samples by drilling the well to total depth (TD) safely and efficiently.

Our Approach

- Weatherford installed the API 16-certified SeaShield Model 7875 docking station (DS) rotating control device (RCD) on the rig to drill the two sections using pressurized mud cap drilling (PMCD), which is a variant of managed pressure drilling (MPD). The operator selected the SeaShield RCD because of its capability to contain and divert annular gas and its suitability on moored floating rigs.
- The team initiated PMCD by sealing the mud-return line and then intermittently pumping a column of mud down the back side of the drillstring. The mud served as a barrier, or cap, for annular pressure control; seawater served as sacrificial drilling fluid, which minimized losses of more costly mud.
- The RCD augmented pressure control of the mud cap so that both sections could be drilled to TD successfully. The RCD also circulated gas from the mud returns and prevented it from breaking out at the rig floor.
- The RCD bearing assembly enabled continuous wellhead-jetting operations by diverting mud returns directly into the mud-return line and bypassing the trip tank line, which has flow limitations. Other service providers' RCDs that the client used in previous drilling operations required rigging down the RCD, and therefore interrupting operations, to run the jetting tool.

Value to Client

- Eliminating the need to rig down the SeaShield RCD for wellhead jetting saved the operator 13 hours of rig time valued at approximately US $290,000.
- Using the RCD and PMCD to manage annular pressure helped to avoid well-control incidents.
- The RCD enhanced safety by preventing gas from breaking out at the rig floor.
- By using PMCD to drill through a hazard zone to TD, Weatherford enabled the operator to gather the desired coring samples from the appraisal well.



The Weatherford SeaShield Model 7875 DS RCD enabled PMCD through a hazard zone to mitigate drilling-fluid losses and enhance drilling efficiency.

LOCATION
Malaysia

WELL TYPE
Offshore, appraisal, gas

HOLE SIZE
8-1/2 to 12-1/4 in.

TOTAL DEPTH
7,782 ft (2,372 m)

PRODUCTS/SERVICES
- MPD services
- SeaShield Model 7875 DS RCD

Weatherford®