



The PBL[®] Bypass System, with Fast Dart, allowed a major offshore operator in Brazil to re-establish circulation and safety complete operations.

Challenge

An operator was drilling an offshore well in Brazil. While picking up off bottom to make a connection (8 ½ inch hole at ~6000m MD, 28° inclination), the drillstring plugged. They planned to pull the drillstring out of the hole to replace the plugged component but wanted to avoid swabbing while tripping out.

Solution

A 6 ¾ inch OD DSI PBL[®] Bypass System was already included in BHA. The team decided to activate the tool with a 2 inch OD PBL[®] Fast Dart to re-establish circulation and circulate while tripping out to avoid swabbing.

Execution

- The Fast Dart was dropped, descended by gravity for one hour and reached the 6 ¾ inch PBL[®], despite the 28° inclination.
- When the Fast Dart reached the PBL[®] system, the trapped pressure was released, and the circulation was re-established through the PBL[®] ports.
- This procedure allowed the operator to pump while tripping out the BHA, thus avoiding swabbing.
- Later, the Auto-lock function of the PBL[®] was successfully activated

Conclusion & Recommendation

Utilizing the PBL[®] Bypass System, as part of the drilling BHA, the operator was able to circulate while tripping out the plugged BHA, avoiding swabbing and mitigating the risk of inducing a kick.

The Activation feature on the PBL[®] Fast Dart proved effective in re-establishing circulation in the plugged string situation at a 28° inclination. To maintain this safety feature in wells with inclination above 55°, DSI's Burst Disk System is recommended.

The PBL[®] Bypass System Auto-lock feature proved to be a safe, reliable, and effective way to pull out of hole dry.

This performance bulletin demonstrates the effectiveness of the PBL[®] Fast Dart in activating the PBL[®] Bypass System whenever limited or zero circulation is encountered. Moreover, it highlights the need to have an Auto-lock PBL[®] Bypass System incorporated in every BHA as a contingency in case of such emergencies.

