

The DSI PBL® Bypass System successfully activated multiple times in a single run to pump LCM in an offshore well in Mexico, with 1,063 total hours below the rotary table.



Challenge

A major oil company in Mexico wanted to run an 8 ¼ inch OD PBL® Bypass System to pump and displace lost circulation material (LCM) to bridge and obturate the highly fractured carbonate formation. This would allow them to successfully drill the well to TD.

- Drilling a long section
- Three highly fractured formation zones
- Total loss circulation scenario
- Hole cleaning was key
- High mud weigh density 16.9 ppg
- Minimize formation damage due to mud losses

Solution

The operator worked with the DSI team and determined that a 6¾ inch OD PBL® Multiple Activation Bypass System would be utilized to clean out the well. The tool would be activated in the horizontal section of the well once TD is reached, then the BHA would be pulled back to the 9⅝ inch liner shoe.

Conclusion & Recommendation

- The PBL® Bypass System was successfully utilized to avoid POOH, while controlling major mud losses.
- Stayed downhole below the rotary table for a total of 1,063 hrs.
- Assured a successful drilling operation.

Execution

- A total of 3,553 ft was drilled through the highly fractured carbonate formation.
- The customer activated the PBL® Bypass System using PBL® Fast Balls to pump 223 bbls of LCM with a concentration of 106 lb/bbl in three different zones in a single run.
- Following best practices and procedures, the customer helped ensure optimized drilling parameters.

