



## PERFORMANCE BULLETIN

# DSI's PBL® Multiple Activation Bypass System was utilized to pump cement to cure severe losses in an exploration drilling project for a major operator in Malaysia

### The challenge:

The PBL® Multiple Activation circulating sub was requested by an operator to be utilized in the 12-1/4" hole section in a deep-water operation offshore Malaysia. The 8-1/4" PBL tool was placed above the BHA to cure major mud losses, which allowed pumping LCM and thixotropic cement whenever needed without the need to pull out the BHA.



### Execution

While drilling at 4,880 m depth, severe losses were encountered, the PBL tool was activated, and LCM pills were pumped and the PBL was deactivated with no issues. However, the mud losses continued at an unacceptable rate of 60 bbl/hr. The decision was made to activate the PBL tool for a second time and the cement slurry was pumped through the PBL's open ports. 120 bbl of cement slurry 16 ppg followed by oil-based mud were displaced.

The well was monitored, and as the losses remained at a higher level than permitted, a second batch of cement slurry was displaced, and mud losses were finally eliminated. The PBL tool was successfully deactivated and the flow through the BHA was re-established allowing the operator to drill the section to the total depth (TD) with no additional issues.



### Conclusion/ Recommendation / Benefits

- ✓ As the PBL® Bypass System closes after the cement slurry is displaced to the annular. The drill string integrity is preserved, preventing the undesirable "U-tube" and flowback effects.
- ✓ Aggressive LCM and cement were displaced through the PBL® Bypass System hence, isolating and protecting the expensive BHA components below it (LWD, MWD and motor) and mud losses were eliminated.
- ✓ The PBL® Bypass System demonstrated its value to the operator by preventing the NPT and providing huge savings on drilling rig time by eliminating the need of dedicated trips to perform several cementing operations in sequence until the losses are controlled.

**The PBL® Bypass System demonstrated its value by preventing NPT and eliminating the need for dedicated trips to perform several cementing operations. This translated into significant cost savings in rig time to the operator.**