

DSI Helps Complete a Milestone in Operational Excellence for New Customer—First Installation, Activation, and Deactivation of Downhole Multiple Activation Circulation Sub in Bahrain



Challenge

A new customer in Bahrain required a reliable and proven circulation solution to address loss circulation risks and maintain operational efficiency at depths of up to 15,000 ft measured depth. The well plan required:

- Precise activation and deactivation of the tool at depth
- Compatibility with loss circulation material (LCM) to mitigate fluid losses
- Minimal disruption to drilling operations in a challenging well environment

Solution

The Operator decided to work with the DSI team, using the 4 3/4-in. PBL® multiple activation circulation sub. With no prior experience with the PBL® system in this region, the operator needed assurance of dependable tool performance and on-site technical expertise to guide installation and execution in real time.

Execution

The operation involved two runs to achieve the successful installation, activation, and deactivation of the 4 3/4-in. PBL®, with the following key activities:

Run 1: A 4 3/4-in. PBL® was installed and deployed at a measured depth of 8,800 ft. One activation ball (12 ppg density) was dropped at a flow rate of 200 GPM, successfully activating the PBL®.

Run 2: The PBL® was successfully installed and deployed at a measured depth of 14,656 ft (~15,000 ft). One Fast Ball (20 ppg density) was dropped at flow rates between 180 and 200 GPM, successfully activating the PBL®. Two stainless steel deactivation balls were then dropped,

successfully deactivating the PBL® and allowing the operator to continue drilling operations seamlessly.

Loss Circulation Management: LCM was pumped to effectively cure losses, demonstrating the PBL® system's compatibility with advanced loss control techniques.

On-Site Support: A DSI field operator was on location, providing critical operational and technical support throughout the installation, activation, and deactivation processes.

Results & Benefits

This operation marked a landmark achievement in Bahrain, with the first successful installation, activation, and deactivation of a 4 3/4-in. PBL® multiple activation circulation sub for a new customer at a measured depth of 14,656 ft (approximately 15,000 ft).

The run demonstrated the robustness, reliability, and versatility of the PBL® system in managing complex drilling environments, while the on-site technical expertise of the DSI field operator ensured flawless execution. This success has reinforced operator confidence in the PBL® system and established a strong foundation for future collaboration.

