

Middle East

Drilling-with-liner trial reduces deepwater deployment risk in the Middle East

Single-run expandable liner system confirms readiness before offshore application

CHALLENGE

- Deepwater environment prone to severe drilling losses
- Complex wellbore conditions
- DWL technology new to operator

SOLUTION

- Execute structured onshore trial to simulate offshore conditions
- Integrate ELH with casing while drilling BHA
- Drill beyond planned total depth to further evaluate system performance

RESULT

- Reduced uncertainty for future deepwater wells
- Demonstrated single-run drill, run, set, and cement capability
- Supported reliable cementing and future well deepening



Overview

Operators in the Middle East pursue deepwater developments that require solutions to help mitigate drilling risks associated with severe losses and complex wellbore conditions. In deepwater environments, drilling losses can escalate costs, increase nonproductive time (NPT), and compromise operational continuity, which makes risk mitigation a critical factor to well construction planning.

The Agiba JV/IOC drilling team identified drilling losses as a key risk that could significantly affect the cost, safety, and operational continuity of its planned offshore deepwater wells. To address this challenge, the operator evaluated drilling-with-liner (DWL) technology as a potential method to help reduce exposure by drilling and installing the liner in a single run.

Before moving forward with offshore deployment, the operator wanted to confirm DWL performance in realistic drilling environments. Agiba selected an onshore trial well in the Western Desert field as a controlled environment to verify system reliability, confirm operational procedures, and reduce uncertainty before deepwater application.

Halliburton collaborated closely with Agiba to plan and execute the first in region DWL operation using a VersaFlex® expandable liner hanger (ELH) system integrated with a DeepForge™ casing while drilling bit.

Challenge

Deepwater wells can present significant financial and operational risk, which makes the introduction of new technologies particularly sensitive. The operator wanted assurance that DWL technology could be deployed without compromising drilling performance or increasing nonproductive time (NPT). A primary concern was whether the liner hanger and running tools could withstand drilling conditions and maintain full functionality throughout the operation.

The operator also wanted to understand how the DWL system might affect hole quality and tool integrity in loss-prone formations. Cementing flexibility was also an important consideration; the system required a pressure activated secondary flow port to allow circulation and cementing operations to proceed without disruption, if required. Finally, the operator wanted to confirm that the casing while drilling bit was drillable to allow future well deepening or drillout for subsequent sections.

Solution

Halliburton and Agiba collaborated to design a structured onshore trial that closely simulated future offshore deepwater conditions. The team selected a vertical onshore well and developed detailed execution and contingency plans to ensure a safe and efficient operation while capturing meaningful performance data.

The DWL system combined a VersaFlex XSL high-torque expandable liner hanger with a bottomhole assembly that included a DeepForge casing while drilling bit. This configuration facilitated drilling beyond the planned total depth to further evaluate system robustness.

A preset, pressure activated mechanism allowed activation of a secondary flow port, which provided flexibility to support conventional cementing and allowed for circulation operations if required.

The operation was executed using local personnel, supported by Halliburton's global technical expertise. During the trial, the team drilled 161 ft (49 m) of rat hole in eight hours, which was beyond the planned total depth. Average rotary speed reached approximately 60 rev/min, which demonstrated the system's capability to operate under actual drilling conditions while maintaining stability and performance.

Result

The onshore trial validated the DWL technology and gave the operator confidence to advance the solution toward future offshore deployment. The operation confirmed that the liner could be drilled, run, set, and cemented in a single run while preserving flexibility for future well deepening in complex deepwater environments.

The trial demonstrated system integrity, drilling performance, and cementing flexibility, which reduced uncertainty around deployment of DWL technology in severe loss environments. The results supported the operator's capability to mitigate drilling loss risk, limit NPT exposure, and maintain operational continuity in future deepwater wells. The validation also facilitated more informed offshore well design decisions and supported safer execution and improved cost predictability for upcoming developments.

For more information, contact your local Halliburton representative or visit us on the web at www.halliburton.com

Sales of Halliburton products and services will be in accord solely with the terms and conditions contained in the contract between Halliburton and the customer that is applicable to the sale.

H015284 07/26 © 2026 Halliburton. All Rights Reserved.

halliburton.com

HALLIBURTON