CASE STUDY

HALLIBURTON

Middle East

Intelligent completions are designed to support long-term reliability and precise flow control

Operator maximizes reservoir recovery with durable intelligent completion systems with documented performance over a 16-year operating period

CHALLENGE

- Manage flow in multiple laterals
- Maintain long-term reliability in HP/HT conditions
- Reduce well interventions
- Support full system retrieval without milling

SOLUTION

- Deploy SmartWell® intelligent completions for HP/HT environments
- Use ICVs and packers for precise flow control
- Cycle ICVs for sustained performance
- Execute full string retrieval with straight over-pull

RESULT

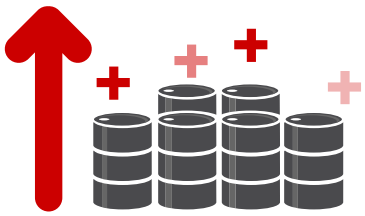
- Operated continuously for approximately 16 years under the operator's field conditions
- Supported consistent lateral flow control throughout well lifecycle
- Helped control the frequency of well interventions
- Retrieved system smoothly during first workover
- Completed the workover with no reported nonproductive time (NPT)

Overview

Between 2008 and 2009, an offshore operator in the Middle East deployed SmartWell® intelligent completion systems in three wells to manage production from multiple zones and support commingled flow. Each system included interval control valves (ICVs) and zonal isolation packers that supported active, more accurate control of contribution from each lateral. The technology helped improve hydrocarbon recovery and extended the productive life of the wells.

After 16 years of continuous operation, the intelligent completion systems continued to operate with no significant performance degradation observed under the documented operating conditions. The equipment remained functional during the production lifecycle. In 2025, the operator retrieved the first SmartWell intelligent completion system intact, which indicated durability, retrievability, and long-term reliability of the design. The system's stability supported consistent reservoir management and helped control well interventions for more than a decade.

The operator achieved sustained recovery, helped reduce workover frequency, and supported well integrity throughout the lifecycle. The intelligent completions provided demonstrated downhole control, reduced operational risk, and supported future workover efficiency.



Operator retrieves full intelligent completion string intact and completes workover efficiently

Challenge

The operator required a completion strategy that controlled and isolated production from each lateral and helped support long-term reliability within complex downhole conditions.

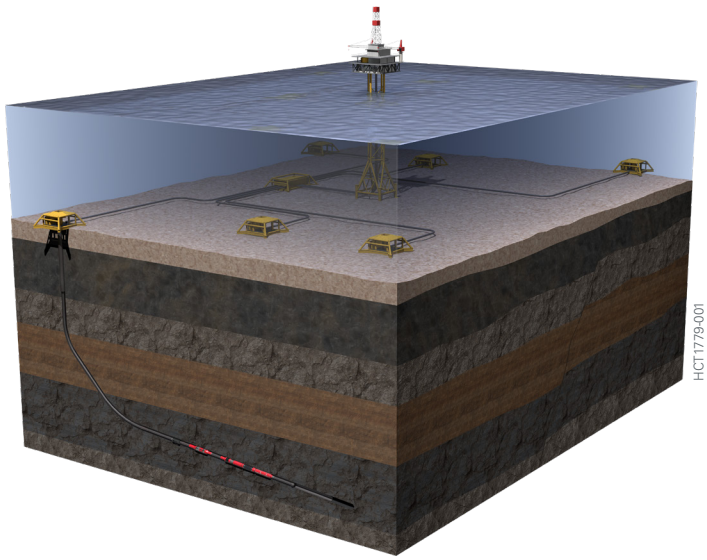
The system was required to operate in HP/HT environments, maintain operational performance throughout the life of the well, and allow full retrieval of the completion string without tubing cuts or packer milling. The operator aimed to reduce intervention-related costs and preserve the benefits of production optimization in the field.

Solution

Halliburton deployed intelligent completion equipment engineered for HP/HT environments and long-term service. The SmartWell® system architecture allowed precise lateral flow control and supported improved recovery while it minimized intervention requirements. The system design included ICVs and packers that allowed the operator to adjust production from each lateral as reservoir conditions evolved.

Halliburton advised routine cycling of ICVs to maintain performance throughout the system's life. The installation also incorporated a retrieval design that allowed the operator to remove the entire completion string with a straight over-pull after shifting the packers. This capability helped simplify planned workovers and eliminated the requirement for milling or tubing cuts, which reduced operational complexity.

16 years of documented reliability with no reported SQ issues or NPT



SmartWell® intelligent completion systems improve reservoir recovery and minimize the requirement for well interventions.

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

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