

Middle East

Successful 12-Zone intelligent completion

Record-breaking SmartWell® completion doubles number of zones in a single well

CHALLENGES

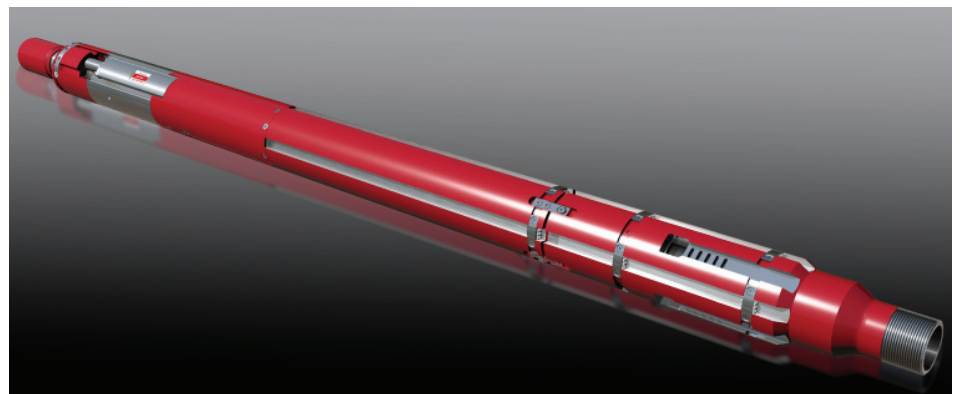
- Long horizontal well – more than 10,000 feet tbc
- Control compartments for water breakthrough
- Intervention required

SOLUTION

- 12 SmartPlex® electro-hydraulic multi-drop HS ICVs to provide control from surface, without intervention
- Fiber optics through all completions zones
- DataSphere® Opsis® permanent downhole gauges

RESULTS

- Record-breaking 12-zone intelligent completion installed flawlessly, with ZERO recordable incidents and ZERO HSE issues
- Monitoring devices and fiber optics reported well information to surface and ICVs function as designed



HAL40695

Overview

Halliburton set a record with the successful installation of a 12-zone intelligent completion for an operator in the MENA. This installation doubled the number of zones Halliburton has ever completed in a single well.

The 12-zone SmartWell® system completion included 12 SmartPlex® electro-hydraulic interval control valves (ICVs), distributed fiber-optic sensing from hanger to toe and DataSphere® Opsis® downhole pressure and temperature gauges at the heel and toe.

This extended-reach completion had more than 10,000 ft of 6 5/8-in. lateral section (total measured depth 21,555 ft).

Challenges

The potential risk of water breakthrough during the early stages of production necessitated a well completion design to curtail water encroachment. Halliburton recommended a 12-zone intelligent completion that included the SmartPlex downhole control system paired with SmartWell ICVs to provide better response to drawdown and water ingress, maximize productivity, and improve well performance. The completion design also included fiber optics and Opsis gauges to monitor and transmit well information to surface.

Solution

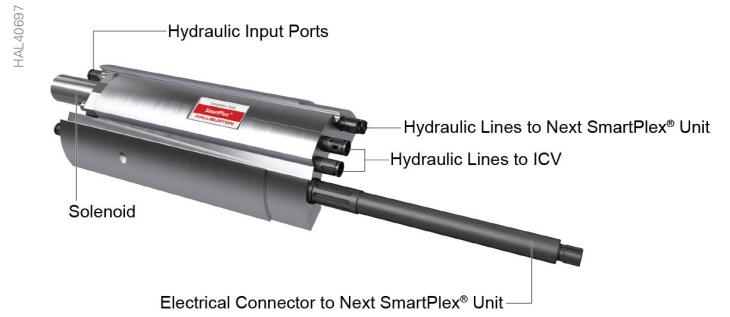
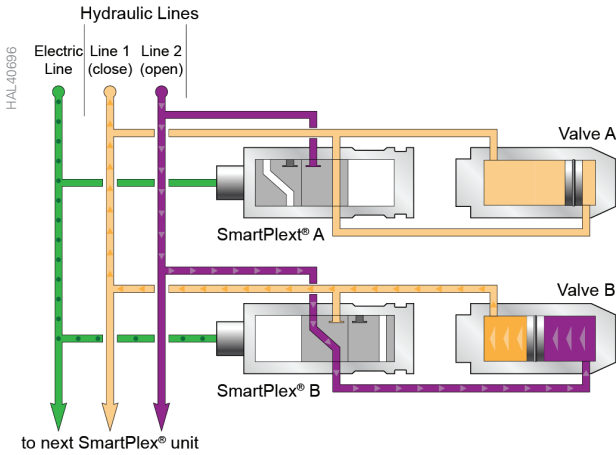
With the likelihood and challenges of ESP replacement in mind, Halliburton designed the intelligent completions with Fuzion-H hydraulic downhole wet-mate connectors run in 9 5/8-in. casing. The hydraulic connectors enable replacement of any part of the upper completion, such as a non-functioning ESP, safety valve or other component, without the need to recover the entire lower intelligent completion.

Results

Halliburton successfully delivered the record-breaking 12-zone intelligent completion as designed, with ZERO incidents or HSE events. Post installation, the team verified continued proper function of the ICVs, monitoring and fiber-optic devices.



CASE STUDY



Electrical selection of the SmartPlex® B system creates the hydraulic circuit to operate Valve B while all the other valves remain balanced



12

zone intelligent
completion
installed flawlessly



ZERO

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issues

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

At Halliburton we collaborate and engineer solutions to maximize asset value for our customers. All products and service solutions are available as integrated offerings or as discrete services, based on customer requirements.

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