

ACTive Straddle Inflatable Packer Cleanout Doubles Production in Two Wells

Kuwait Oil Company isolates and selectively treats plugged inflow control devices in two wells, saving more than one week of rig time and producing 50,000 bbl of oil

CHALLENGE

Identify and clean specific inflow control devices (ICDs) in wells with dozens of possible areas of interest—even within the same zone.

SOLUTION

- Use ACTive DTS Inversion* distributed temperature measurement analysis to discover problem zones.
- Perform a single ACTive Straddle* CT real-time multiset inflatable packer run to selectively clean out plugged ICDs.
- Monitor real-time downhole pressure to confirm treatment and optimize time efficiency.

RESULTS

- Increased production from Well A by 150%.
- Increased production from Well B by 171%.
- Saved more than a week of intervention time compared with conventional intervention treatments.



Plugged ICDs impede well production

Maximizing recovery in extended-reach horizontal wells requires multizone stimulation and advanced reservoir fluids management. In homogeneous formations, significant pressure drops occur as fluids flow from TD toward the heel of the well, and in many wells, this can prematurely end the well's productive life and leave substantial reserves untouched. Completions using ICDs enable engineers to adjust flow from zones with uneven pressure or early water breakthrough.

Over time, fines migration led to plugged ICDs and diminished production in two of Kuwait Oil Company's wells in the Minagish and Sabriyah fields. With more than 20 ICDs in each well, Kuwait Oil Company needed to identify and selectively clean out the problematic ICDs and restore production with minimal downtime.

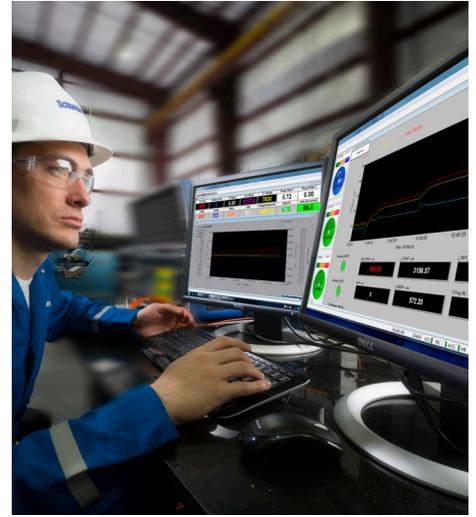
Fiber-optic CT reveals problem zones, enables efficient cleanout

Several isolated zones in the completion had multiple ICDs, making the discovery process especially challenging. Schlumberger ran ACTive DTS Inversion analysis via real-time, fiber-optic coiled tubing to collect continuous temperature profiles along the length of the wellbore. This data helped engineers determine the specific zones that needed treatment.

With the zones identified, Schlumberger performed a single multiset ACTive Straddle packer run to selectively clean out the plugged ICDs in each well—eliminating the need for a workover rig. ACTive Straddle packers were set on the selected ICDs and monitored using the ACTive* family of live downhole coiled tubing services to clean the devices and confirm treatment in real time.

Kuwait Oil Company cuts intervention time, doubles oil production

This innovative coiled tubing intervention using ACTive services helped Kuwait Oil Company more than double production in both wells while saving more than a week of intervention time compared with conventional methods. The time saved by using ACTive services instead of conventional treatment resulted in production in Well A increasing by 150% and in Well B increasing by 171%.



Manipulations of ACTive Straddle Packer are confirmed through real-time measurements displayed in acquisition software at surface.