

Single-Trip Completions Save Operator About 11 Days per Well in a Deepwater Brownfield Offshore Africa

Uniquely customizable setting pressure of BluePack Max RH packers enables realization of completion design mandating two independently set packers and saves USD 8 million

An operator wanted to replace its legacy practice of two trips to run the upper and lower completions with a single-trip completion to improve the economics of a cost-sensitive deepwater brownfield.

Challenges of a one-trip completion

The selected completion design required setting two packers independently. After the lower production packer was set above the screens, drilling mud would be circulated out through a sliding sleeve above the packer and replaced with completion brine. Subsequently, a second packer would be set above the sliding sleeve to isolate it. Delaying setting of the upper packer was critical to successful mud removal. However, most of the operator's suppliers could not provide packers that would allow this customized setting sequence; their packers would set simultaneously and the completion procedure would not work.

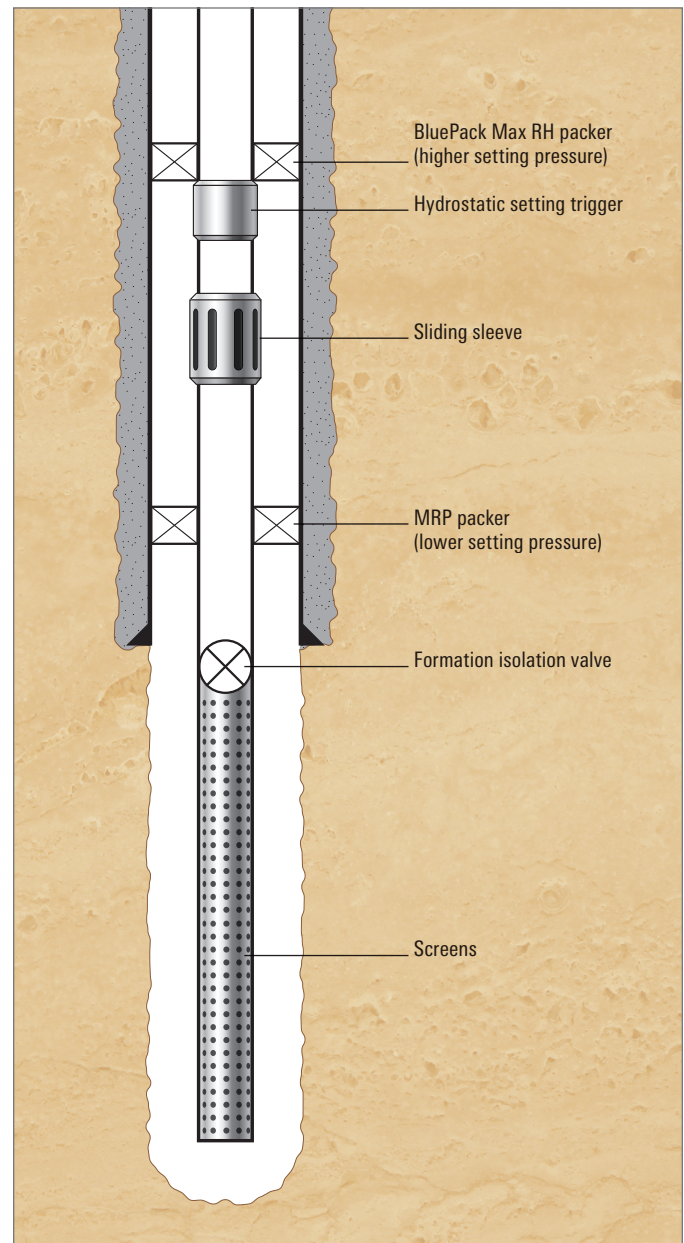
What Schlumberger recommended

BluePack Max RH* high-pressure retrievable hydraulic-set production packers are built on a customizable platform that enables modification of the setting pressure. Schlumberger recommended using this packer as the upper packer and an MRP conventional packer below. Adjusting the BluePack Max RH packer's setting pressure above that of the lower packer enabled the operator to implement its time-saving completion technique of choice.

The upper packer was equipped with a hydrostatic setting trigger (HST). Applying enough hydrostatic pressure to the well to exceed the HST's burst disk rating initiated packer setting, eliminating the need to run a plugging device below the packer and saving even more time. In addition, the HST's antipreset feature prevents premature packer setting and enables faster run-in speeds.

What the operator achieved

Four wells were completed using the one-trip method. The average completion time was just 4.5 days compared with 15 to 17 days in the past, saving the operator approximately USD 2 million per well. BluePack Max RH packers are now the production packers of choice in this deepwater oil field.



Because of its customizable setting pressure, the BluePack Max RH packer was set after setting the MRP packer and circulating drilling mud out through the sliding sleeve, enabling a single-trip completion.