

97% Sleeve Shift Efficiency Leads to Higher Production

[United States](#), [Marmaton StackFRAC HD System](#)

An operator working in Oklahoma's STACK (Sooner Trend, Anadarko, Canadian, Kingfisher) discovered that their completion systems were providing inconsistent zonal isolation and inconsistent sleeve shifts. To improve development of its large acreage, the operator switched to Packers Plus completion technology.

Challenge

During completion operations, a pressure signature is typically visible on pump charts when a fracture port sleeve shifts open. Fracture ports may not open for a number of reasons, from manufacturing defects causing shear pin or ball seat failures to a variety of operational issues and formation characteristics.

After running radioactive tracers, it became clear that not all port sleeves were shifting open. The tracer logs further identified stages with poor zonal isolation and unstimulated zones of the wellbore. This information highlighted the need for high quality and reliable completion systems.

Solution

The Packers Plus StackFRAC® HD ball-drop completion system is field-proven, efficient, and cost-effective. The system combines dual-element RockSEAL® H2 packers with FracPORT™ H2 sleeves.

The hydraulically-set mechanical packers are designed with high expansion ratios and premium seal technology, along with adjustable setting forces and anti-preset features for a fully customizable completion.

Packers Plus aims to lower operators' risk by ensuring that tools function as planned. This is done with a fully integrated quality assurance and quality control process that ensures each part is fully tested to meet stringent material and tolerance specifications.



Previous completion system supplier - radioactive tracer confirms poor zonal isolation



Packers Plus completion systems - radioactive tracer confirms effective zonal isolation

Results

Analysis from radioactive tracer logs showed that after switching to Packers Plus StackFRAC HD completion technology, the operator increased sleeve efficiency to more than 97% from an average 67% using another completion system supplier.

The tracer logs also showed an improvement in zonal isolation using Packers Plus RockSEAL H2 packers. The combination of improved zonal isolation and higher sleeve efficiency resulted in higher cumulative production.

