StageFRAC Services Facilitate Completions in Tight Texas Sands

Case study: Innovative fracturing services cut horizontal well completion time from 21 days to 1 day for Jones Energy

Challenge
Maximize commercial potential of reserves in very tight sandstone formations and lower completion costs.

Solution
Use StageFRAC*† technology to complete a multistage horizontal well to reduce completion time and increase production.

Results
Innovative fracturing services maximized reservoir contact, cut completion time from 21 days to 1 day, and shortened time to market.

StageFRAC technology incorporates mechanical openhole packers with tandem elements.

Improved production economics
In developing a field in Lipscomb County, Texas, Jones Energy sought to maximize the commercial potential of reserves in very tight sandstone formations ranging from approximately 20 ft to 60 ft [6m to 18 m] in thickness with permeability ranging from 0.01 mD to 0.50 mD. Historical development in the area had used vertical wells exclusively. While successful in the past, the vertical approach was no longer economically feasible in today’s operating environment.

In addition to improved production economics, the operator was also interested in lowering completion costs. Offset historical wells drilled by a different producer had taken up to three weeks for completions using traditional multistage fracturing techniques.

A step-change technology
Using the StageFRAC technology, Jones Energy could typically complete a multistage horizontal well in a single day, while achieving equal or superior production.
StageFRAC is one of the breakthrough technologies from the Contact* staged fracturing and completion family. It permits precise placement of fractures to maximize reservoir contact and increase recovery. Since its introduction, StageFRAC has been used successfully in more than 2,750 stages in more than 1.25 million ft of open hole.

StageFRAC permits multiple fractures of an uncemented borehole in a single pumping treatment. Openhole packers run on conventional casing are used to segment the reservoir. Hydraulically activated sliding sleeves are located between each set of packers. Balls dropped from the surface during pumping act to open each sleeve, isolating previously fractured zones.

Reduced completion costs and time to market

The success of the StageFRAC technology in completing the first horizontal wells has prompted Jones Energy to continue using it throughout their Lipscomb County operation. The combination of precise fracture placement and significant savings in rig time from 21 days to 1 day makes StageFRAC the approach of choice in this very active area. Since 2006, the StageFRAC system has been deployed on more than 80 wells for Jones Energy and more than 465 stages.

About the Contact family

StageFRAC technology is part of the permanent category of the Contact four-category portfolio of staged fracturing and completion services. These technologies maximize reservoir contact by offering the most efficient and effective services for each well. The Contact permanent category enables fracturing and isolation of multiple stages in one pumping operation using equipment installed with the completion. Contact services can be enhanced with real-time measurement options.

“We chose StageFRAC because it can isolate the lateral into up to nine segments and because it allows you to frac each segment separately and know you’re getting a good frac through all sections.”

Stephen P. Roberts
Senior Vice President of Operations,
Jones Energy Ltd.

StageFRAC provides effective reservoir drainage through multistage fracturing of openhole wellbores and reduces completion times from days to hours.

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