Case Study

StackFRAC production results exceed expectations

Background

An operator working in northwest Oklahoma approached Packers Plus to complete a pilot project consisting of three horizontal oil wells targeting the Atoka and Marmaton Lime formations in the Anadarko Basin. According to Packers Plus salesman Don McLean, horizontal wells had never been drilled in the Marmaton Lime. The economics were such that the operator had to do it as inexpensively as possible.

Challenge

Working with three wells, the operator initiated a pilot program to prove the area out as a horizontal oil producing field. “The operator came to us based off of work that we had done for other companies,” said Don McLean. “They knew that we were the front runners for open hole, multi-stage completion technology.”

Solution

Packers Plus designed 7-, 8- and 9-stage, 4-½ in. StackFRAC® systems for the three wells, which were all 6-⅛ in. open hole horizontals. The first well in the Marmaton formation met the client’s expectations for production.

The second well, drilled 6 months later, also targeted the Marmaton, but it was more difficult because it lost fluid the entire time the system was in operation due to natural
fractures in the formation. In these conditions, the challenge was to make sure a tool did not set prematurely. This well was also successful and production expectations were exceeded.

The third well was drilled approximately a month later, targeting the Atoka formation and had the same loss of circulation issues as the second well, but operationally the company was able to stay on top of it and had no issues setting the RockSEAL® II open hole packers or fracturing the well. This third well produced the best among the three wells and exceeded the client’s expectations.

Results

The three pilot wells were increasingly more successful with the final two exceeding the client’s production expectations. The operator plans to move to a development program in this field, continuing with the StackFRAC multi-stage fracturing system for the foreseeable future.