

Completion evaluation delivers \$1.13 million in incremental value

Fracture modeling, data-driven analysis combine to sidestep water-bearing zone, triple production

Eagle Ford, South Texas

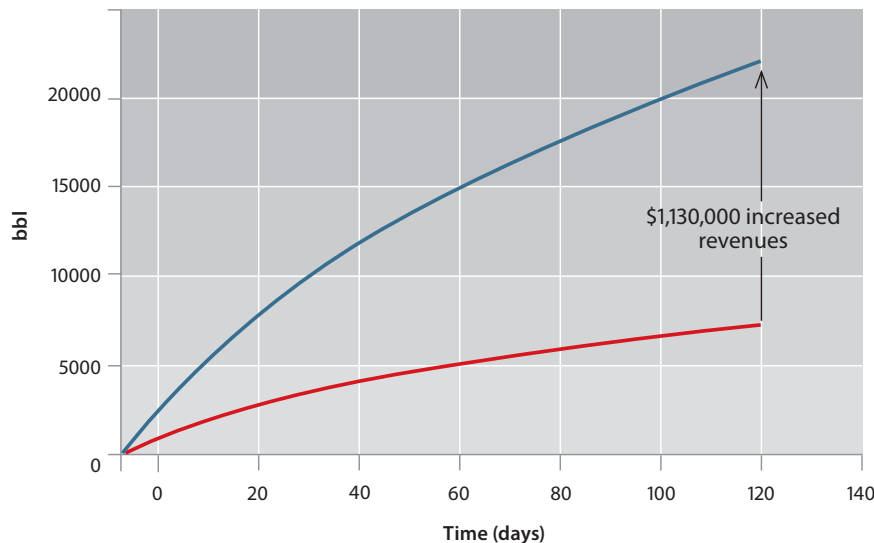
The challenge

The operator planned to complete a horizontal oil well with 25 equally spaced fracture stimulation stages. As part of a relationship with the operator to evaluate its completions and fracture designs, STRATAGEN® assembled an extensive well database and fracture model data for this field. Upon evaluation, our advisors identified segments of the lateral section that posed a high risk of contacting a water-bearing zone, thereby threatening maximum overall production.

The solution

Employing the historical data set, as well as the FRACPRO® fracture design and analysis software, it was recommended the operator not complete the portion of the lateral that likely would intersect the water-wet zone. STRATAGEN indicated that remaining with the 25-stage completion design could result in cumulative production as low as 7,000 bbl. To ensure maximum overall drainage, our advisors recommended the operator complete the well with 20 stages, rather than 25 stages. Savings of \$150,000 on the completion AFE.

As illustrated in the four-month cumulative production, the STRATAGEN-recommended completion redesign increased normalized production nearly three-fold.



Completing fewer stages to avoid fractures growing in high water saturation interval resulted in reduced completion costs of approximately \$150,000 and increased revenues of \$1,130,000 in the first 120 days.

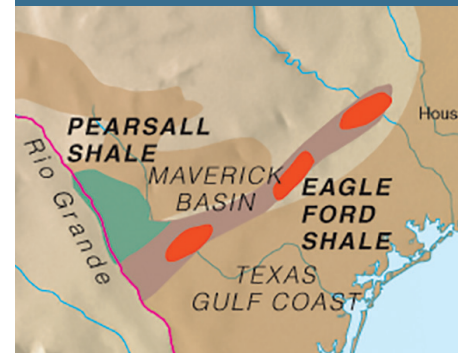
Well Data

Location: Eagle Ford, South Texas

Well type: Oil

Original completion design: 25 equally spaced fracture stages

Final completion design: 20 equally spaced fracture stages



Actual completion



Planned completion

The results

Owing to the optimized fracture design, the well delivered cumulative four-month oil production of 22,000 bbl, and indicated no detrimental effects from the water-saturated zone. Consequently, the operator increased production some three-fold over the planned completion, resulting in incremental value of \$1.13 million from a well that otherwise could have proven uneconomical.

Contact

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Talk to STRATAGEN to find out how we can help you enhance your production.

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