CASE HISTORY

NANOMITE C ceramic microproppant increases long-term well productivity

NANOMITE C reduces treatment pressure, early screen outs and poor proppant placement

US land

The challenge

The operator experienced difficulties with proppant placement, elevated treatment pressure and early screen outs during treatment for its well operation located in an unconventional play in North America. Additionally, the operator sought to increase the probability of placing all the designed proppant into each stage, which would significantly increase production. These operational challenges led the operator to seek out a cost-effective solution to its ongoing setbacks.

The solution

NANOMITE C ceramic microproppant is a fraction of the size of the smallest ceramic proppant commonly used. It provides operators with flexibility in treatment design as it contains a broad range of particle sizes within the 150 to 635 mesh range. The smallest NANOMITE C particles are over five times smaller than the smallest particles in 100 mesh frac sand. This allows the particles to prop open even the narrowest secondary fractures and microfractures.

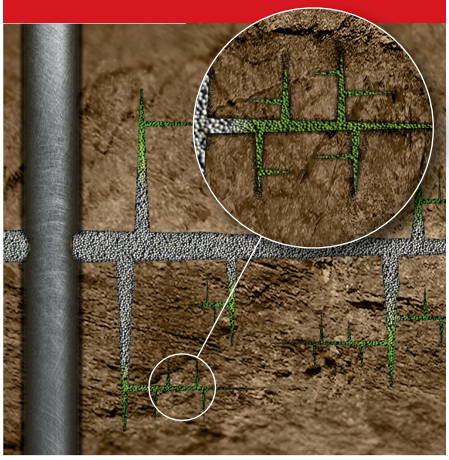
The range of small particle sizes results in varied settling velocities, which are over 10 times slower than the settling rate of 100 mesh sand. The small size and enhanced transport traits enable the particles to navigate tight angles experienced in complex fracture networks. These characteristics diminish treatment pressure and ensure long-term well productivity for operators.

The lack of silicosis concerns with NANOMITE C microproppant compared to silica-based products also made it a safer solution for the operator and its operational challenges. NANOMITE C microproppant has broad pumping flexibility (dry or slurry) that allowed the operator to seamlessly incorporate the microproppant into operations, regardless of the pumping company and proppant delivery system used.

The results

Once NANOMITE C microproppant was implemented into the operator's design, they realized a 300-500 psi reduction in treatment pressure. This reduction decreased the risk of early screen-out during the treatments, which resulted in improved success in placing the total desired proppant volume. This increase in proppant placement, along with propping the microfractures, is expected to improve the long term productivity of the wells. The lower treatment pressures also resulted in savings in fracturing horsepower costs.

Location: US land
Operator: Independent
Number of stages: 250
Reservoir type: Shale gas
Well type: Horizontal gas



"I believe this product can be used in any reservoir, any basin, any type of completions. I already have approval to use it in every one of my wells," *commented the operator.*

For more information contact:
technology@carboceramics.com

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

carboceramics.com

CARBO
Production. Enhanced.