Schlumberger

ScaleMAT

Acid-compatible scale inhibitor

APPLICATIONS

- Matrix stimulation in carbonate and sandstone formations
- Dissolution and inhibition of common carbonate and sulfate scales

BENEFITS

- Reduces cost by minimizing the number of interventions
- Maximizes workover efficiency by minimizing shut-in time and deferred production
- Protects the stimulated matrix with effective scale inhibitor placement
- Improves coverage of the completed interval with the scale inhibitor as part of a properly diverted matrix stimulation treatment

FEATURES

- Fully compatible with sandstone and carbonate stimulation fluid systems
- Rated for bottomhole temperatures up to 350 degF [177 degC]
- Tolerant of calcium as well as high levels of ferric iron contamination
- Customizable packaging of the appropriate matrix simulation fluid with the inhibitor

The ScaleMAT* acid-compatible scale inhibitor integrates both matrix stimulation and scale inhibition in a single treatment without the need to shut a well in. Using ScaleMAT inhibitor to place a scale inhibition treatment at the same time as a matrix stimulation treatment also eliminates at least one subsequent inhibitor squeeze treatment per matrix stimulation, which reduces costs and helps maintain well productivity.

In addition to a cost reduction advantage, the use of ScaleMAT inhibitor protects the stimulated matrix through improved placement of the inhibitor and enhances coverage of the completed interval as part of a properly diverted acid treatment.

Features

The following features of the ScaleMAT scale inhibitor are the result of innovative chemistry:

- calcium tolerance for full compatibility with the most common matrix stimulation fluid systems (including acids, chelating agents, and organic systems) in both sandstone and carbonate reservoirs
- tolerance to high levels of ferric iron contamination, providing robust stability under typical field conditions
- effective inhibition of common carbonate and sulfate scales
- polymer-based chemistry for superior inhibitor retention efficiency

Application

ScaleMAT inhibitor dissolves mineral scale and other materials plugging the flow path of oil or gas in the pore spaces between sediment grains. It deposits an effective scale inhibitor coating at the same time, while the rest of the stimulation fluids are flowed back at the end of the treatment. This ensures long-term protection of the stimulated matrix at a much-reduced cost as compared to performing a separate scale inhibitor squeeze treatment.



Scale and other damage plugging the pore space.



Combined acid stimulation and scale inhibitor package.



The acid is produced back after removing the damage; the inhibitor stays to protect.

Scale — Acid — Scale inhibitor

Dissolving away the damage and protecting the stimulated matrix in a single treatment.