SandStoneDivert Viscoelastic Surfactant Diverter System

Improve acid stimulation and increase treatment efficiency with a surfactant-based gelling agent

In order to ensure that acid treatments reach the zones that need them most, operators routinely use diverters to seal-off zones that don’t need further treatment. But conventional diverters, such as nitrogen-foamed brine, typically break down quickly and require extra equipment such as pumps and storage tanks.

The SandStoneDivert™ viscoelastic surfactant diverter system maintains viscosity up to 4 times as long as conventional systems, and features a surfactant-based gelling agent to enable enhanced acid stimulation treatments—without extra equipment requirements.

The system, which can be used in wells with temperatures ranging from 75°F (24°C) to 300°F (148°C), are designed with ammonium chloride for diversion of HCl/HF acid stages to stimulate production from sandstone formations. The system can also be foamed for even longer-lasing, more viscous fluid.

After treatments are completed, the system’s viscosity can be reduced through exposure to high temperature, dilution in water, or contact with hydrocarbon liquids such as oil or solvent for easy cleanup and flowback. An internal breaker can also be used, if desired.

Contact your Baker Hughes representative today for more information about how the SandStoneDivert system can improve acid stimulation and increase treatment efficiency in your next job.

### Applications

- Diversion in matrix sandstone acidizing treatments

### Features and Benefits

- High temperature stability
  - Offers reliable performance in bottomhole temperatures up to 300°F
- Viscous surfactant-based gel
  - Provides effective diversion in sandstone acidizing
  - Maintains gel stability, even at elevated temperatures
- Develops robust viscous gel in presence of iron contamination and in additives, including alcohols
- Surfactant-based systems
  - Eliminate risk of polymer damage to the formation
  - Break post-treatment when in contact with oil, water, or high temperatures

### Typical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clear amber liquid</td>
</tr>
<tr>
<td>Application temperature range</td>
<td>Up to 300°F (148°C)</td>
</tr>
<tr>
<td>Density</td>
<td>7.51 lbm/gal</td>
</tr>
<tr>
<td>pH</td>
<td>8 to 9</td>
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<tr>
<td>Flash point</td>
<td>Closed cup: 77°F (25°C)</td>
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<tr>
<td>Solubility</td>
<td>Soluble in brine and acid</td>
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</tbody>
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