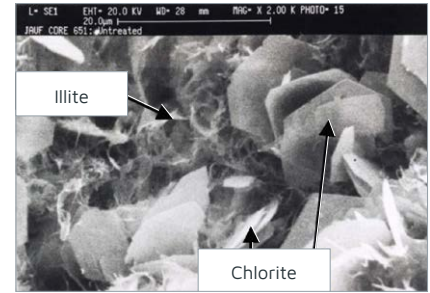


STIMULATION

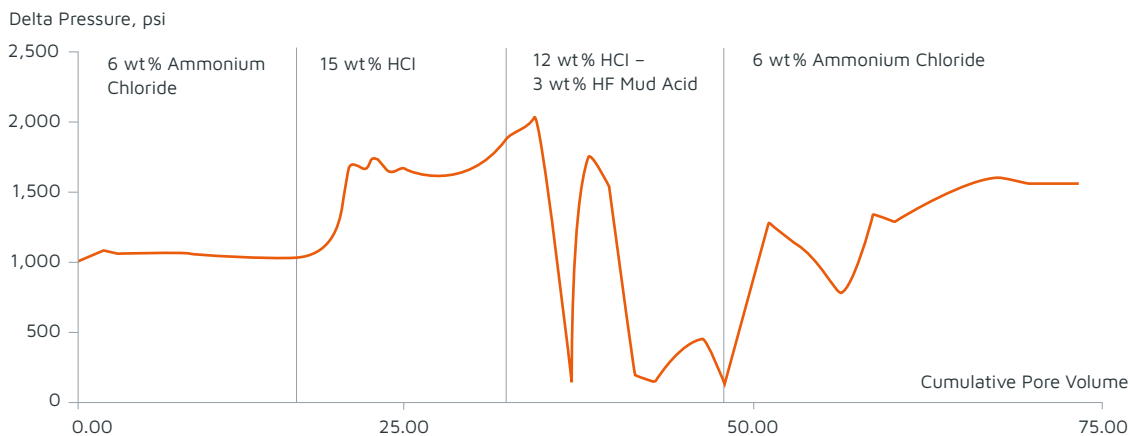
SFB-007: Premium treatment system for granite and sandstone formations

Impact of hydrochloric acid pre-flush

Core flood experiments and field results indicate that high temperature illitic sandstone is sensitive to conventional mud acid treatments. Here, the commonly employed HCl pre-flush degrades illite and chlorite leading to fines migration and formation damage (SPE-71690).

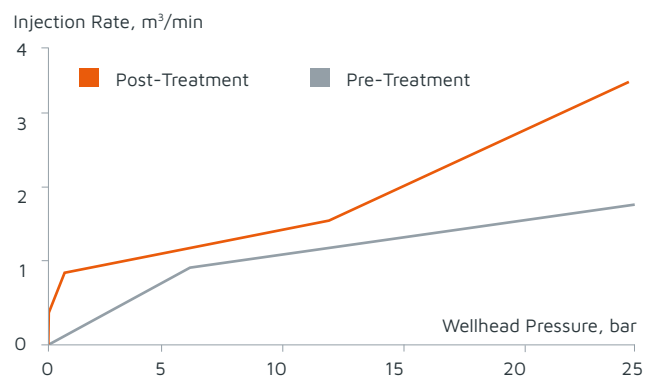
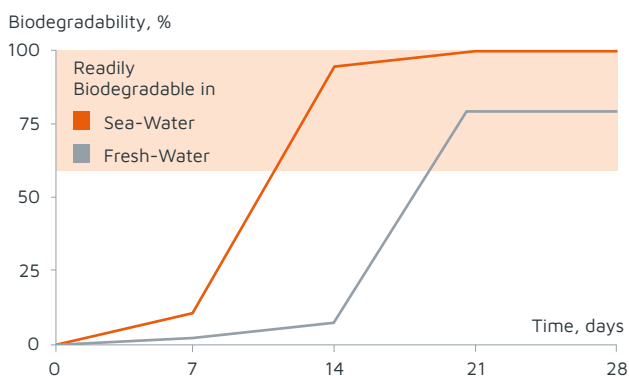


Jauf Core # 710 HCl and Mud Acid Sensitivity Test @ 300°F



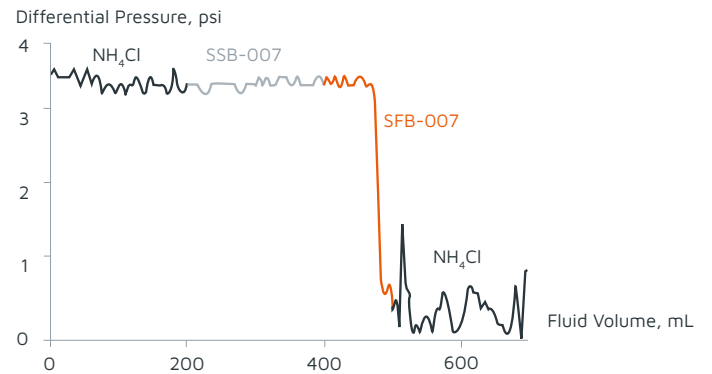
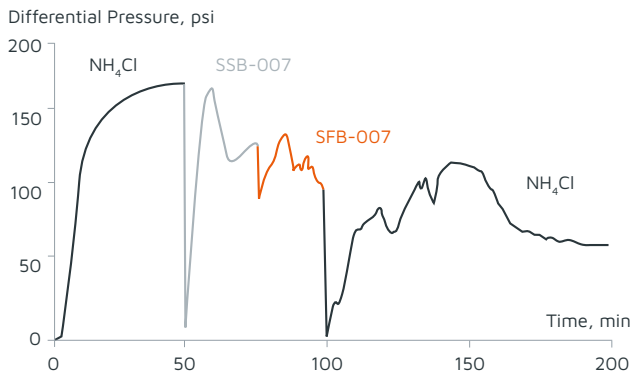
Biodegradable alternative

SSB-007 is a naturally retarded, biodegradable acid blend with an excellent environmental impact. Its first field trial in a highly fractured sandstone/granite formation at 165°C resulted into a greatly enhanced performance of the geothermal well (SPE-174242).



SSB-007 acid pre-flush

Outstanding compatibility with clay minerals makes SSB-007 to a highly recommendable acid pre-flush for sandstone treatments. Additionally and in contrast to HCl-based fluids, this innovative fluid system has a low corrosion tendency, even at high temperature.



SFB-007 for sandstone and granite formations

HT core flood tests with bunter and granite plugs revealed the premium efficiency of SFB-007 to target silicates. In spite of the presence of illite and further sensitive clay minerals, no fines migration was observed. SSB-007/SFB-007: An exceptional treatment fluid system.



Pre-Treatment



Post-Treatment

Benefits

- ✓ Well-established treatment fluid for dissolving carbonates in sandstone and granite formations
- ✓ Low corrosion tendency, even at high temperature
- ✓ Excellent compatibility with clay minerals and elastomers
- ✓ Premium solution for dissolving clay minerals in sandstone and granite formation

READY FOR SERVICE

Dr. Nils Recalde Lummer

Senior Chemist

☎ +49 4471 98008-25

📱 +49 151 41425882

✉ nlummer@fangmannngroup.com

🌐 fangmannenergyservices.com