StimPlus Flow Assurance and Well Integrity Services
Long-term flow assurance from chemicals added to a stimulation treatment

The goal of stimulation treatments is to enhance hydrocarbon productivity. However, even after an ideal treatment, changes in well equilibrium can lead to production issues such as inorganic and organic deposition, corrosion, and reservoir souring that impact production and lead to increased operating expenses.

With both stimulation and flow assurance chemical expertise, Baker Hughes is uniquely qualified to improve your well economics with StimPlus™ flow assurance and well integrity services. These services pump flow assurance chemicals deep into the reservoir during a conventional stimulation service, ensuring formation fluids are inhibited before they can cause production flow problems. By combining compatible, optimized stimulation additives and inhibitors with long-term well monitoring, StimPlus services help to manage the complete life cycle of stimulation operation, from pre-job studies through production monitoring and enhanced recovery.

**Improve economics by thinking ahead**

In a traditional well development program, stimulation and remediation are separate, isolated events, which can lead to inefficiencies that multiply over time. When designing StimPlus treatments, Baker Hughes engineers consider the life of a well—or a whole field—as a holistic continuum that extends beyond the initial completion.

By including carefully selected and dispensed chemical systems with an optimized stimulation treatment, Baker Hughes can deliver not only the desired production enhancement, but also a significant reduction in operational expense and lifting costs associated with conventional

**Applications**
- Conventional and unconventional oil and gas wells
- Stimulation and fracturing

**Features and benefits**
- Deliver flow assurance services during stimulation
  - Ensure formation fluids are inhibited before they can cause production flow problems
  - Deliver multi-year inhibition programs for long-lasting performance
- Perform pre- and post-treatment monitoring
  - Research source fluids, field conditions, and reservoir mineralogy to enhance stimulation treatment
  - Optimize subsequent well treatments by measuring stimulation effectiveness and inhibitor residuals
- Offer a portfolio of field-proven chemical technologies
  - Protect against bacteria-induced corrosion and reservoir souring with EPA-registered bacteria control systems
  - Prevent deposition with scale, paraffin, asphaltene, and salt inhibitors
  - Minimize water production with relative permeability modifiers
  - Protect equipment with effective corrosion inhibitors
  - Inhibit downhole deposition and/or tubular damage with slow-releasing Sorb chemicals
production chemical squeezes or injection. In fact, our post-stimulation monitoring assessments aid in optimizing subsequent well treatments by measuring stimulation effectiveness and inhibitor residuals.

**Optimize production with a wide selection of technologies**

StimPlus services include a wide variety of field-proven, patented and chemically compatible additives:

- Traditional flow assurance chemicals: bacteria control systems, scale, paraffin, asphaltene, corrosion and salt inhibitors, as well as fines stabilization additives
- **Sorb™** family of solid chemical inhibitors

Sorb solid specialty chemicals provide a unique offering, to safely and efficiently inhibit downhole deposition and/or tubular damage with slow-releasing and long-lasting chemicals applied to a solid substrate and pumped deep into the formation.

- Compatible chemicals are adsorbed onto a dry, granular substrate
- Solid material is pumped with proppant in a stimulation treatment and becomes integral to propped fractures
- Active chemicals slowly desorb as the well produces

Baker Hughes also offers Sorb Ultra inhibitors, which are based on a ceramic that can withstand high closure pressure and are specifically designed to minimize the risk of lost production and delay expensive interventions in deepwater wells.

Building on our commitment to sustainable operations, we offer and continue to develop environmentally preferred chemicals and programs designed to maximize stimulation and inhibition performance with minimal environmental impact.

**Reduce risks with integrated services**

Our expertise in both production chemicals and stimulation makes us particularly attuned to the issue of compatibility—with stimulation fluids as well as formation fluids and rock. Baker Hughes understands that coordination and compatibility are critical to success, which is why our stimulation and chemical experts work together in the lab and in the field—delivering a smooth, trouble-free integration of stimulation services and chemical management. Like any true synergy, the rewards are multiplied. Coordinated StimPlus services can improve virtually any stimulation program.

To learn how StimPlus flow assurance and well integrity services can reduce risks and improve economics over the full life cycle of your producing assets, contact your Baker Hughes representative today.