

Production Technology Still Evolving

By Dan Holder

The oil and natural gas industry has been remarkably successful at finding hydrocarbons, growing total U.S. proved reserves of both oil and gas by 70 percent in recent years, thanks largely to unconventional reservoirs.

However, efficiently extracting hydrocarbons from ultralow-permeability rocks is no small feat. And the challenges are only intensified by the multiphase nature of the production flows, characteristically steep decline curves, low recovery rates, and of course, tight economic margins. Companies are working with each other, bringing in university researchers, and combining new technology and processes to help them overcome those challenges.

Field Productivity

To help improve operational productivity and reduce requirements for field personnel to regularly visit production sites, Clariant has released its VERITRAX™ intelligent chemical management system to automate well monitoring and dosing, the company says. It combines field-level sensors, cell phone technology, and cloud-based data collection, using sensors powered by batteries that can go three to five years with minimal intervention by field technicians.

According to Clariant, the VERITRAX system optimizes chemical management tasks and reduces labor costs by using automation and cloud-based technologies to optimize the chemical supply chain and give producers better control over their chemical spending.

Clariant's chemical tank level sensors maintain a constant watch on dosing tank levels, and the system sends alarms when a tank nears preset levels. A field technician monitors all the wells in his charge using the Clariant Chemical Dashboard, which allows him to focus his in-field activity only on wells that need attention.

VERITRAX can be fully integrated into production setups such as SCADA and distributed control systems, providing continuous real-time data flow directly to laptops and smart phones, Clariant says. The system allows customers to monitor a number of data streams, including well production figures or chemical injection rates, while also supporting inventory management. The company points out that the unit automatically co-

ordinates chemical deliveries.

The system's data analysis and chemical pump control allow operators to provide optimized dosages for individual wells, and its online surveillance capabilities provide fieldwide production data rate streams using analytical results uploaded from the field or laboratory, the company describes.

"The priorities for oil and gas companies are risk management, production efficiency, and cost optimization," reflects Jon Rogers, global head of Clariant Oil Services. "Information technology is playing an increasingly important role for oil and gas companies as they look for ways to optimize all aspects of their operations. VERITRAX technology can deliver both cost reduction and increases in operational efficiency." □

Clariant's VERITRAX™ intelligent chemical management system improves operational productivity and reduces requirements for field personnel to visit production sites. The company says it combines field-level sensors, cell phone technology, and cloud-based data collection.

