



FASTrak Prism fluid analysis and sampling while drilling service

Get high-quality, high-volume fluid samples—without compromise

The **FASTrak™ service**, the industry's first commercial fluid sampling while drilling solution, just got better, adding visible-to-near-infrared (VIS-NIR) spectrometry to its market leading platform. The **FASTrak Prism fluid analysis and sampling while drilling service** enables operators to capture the large volumes of high-quality fluids they need, and delivers comprehensive, in-situ reservoir fluid characterization in real-time. The service also provides real-time formation pressure and mobility data for enhanced efficiency, optimal well placement, and improved wellsite safety.

Real-time, in-situ fluid characterization

The FASTrak Prism service uses advanced sensors—including the newly introduced VIS-NIR spectrometer—to fully characterize the reservoir fluids, in real-time. The multi-channel optical density and fluorescence measurements allow operators to:

- Accurately quantify fluid type and fluid fractions in multi-phase flow

- Map compositional changes within a reservoir column
- Assess reservoir connectivity
- Monitor and maintain single-phase flow when sampling reservoirs close to saturation pressure

Real-time characterization is rarely enough

Real-time characterization does not always provide the comprehensive reservoir description operators need. For most strategic field development decisions, fluid samples are needed in order to:

- Accurately evaluate reserves
- Design the best completion and surface facilities
- Engineer the best flow-assurance program

Acquiring these samples while drilling offers several advantages, including reduced risk and rig time.

Applications

- Reservoir evaluation and well placement
- Real-time in-situ measurement of reservoir fluid properties
- Single-phase fluid sampling
- High risk wells (eg., deepwater, deviated, and extended-reach, etc.)

Benefits

- Provides reliable, in-situ fluid analysis
- Ensures high-purity fluid samples and accurate formation pressures
- Facilitates flexible placement within the BHA
- Captures up to 16 single-phase 750 ml fluid samples in one trip
- Supports real-time, remote visualization and analysis via JewelSuite™ formation testing application

Not all sampling services are equal

Not just any sample will be sufficient. Operators typically need at least 10 liters (2.6 gal) of representative fluid, which other commercial LWD fluid sampling services can't reliably deliver. The FASTrak Prism service delivers the sample quality, fluid volume, and proven reliability that operators need to be confident.

Sample quality

FASTrak technology has a years-long record of acquiring high-quality samples, with minimal contamination. The sample tanks use a nitrogen pre-charge to keep samples in single-phase state, thereby ensuring the sample pressure stays above both the asphaltene onset pressure (AOP) and saturation pressure.

The service's SmartPad™ closed-loop sealing system efficiently seals even in highly unconsolidated sand formations and irregular boreholes, ensuring only what's in the reservoir is what is captured.

Enhanced real-time monitoring

During a FASTrak Prism sampling operation, the properties of pumped fluid are continually measured with multiple advanced sensors, including the VIS-NIR spectrometer, and analyzed downhole using proprietary algorithms. This enables operators to easily and accurately monitor contamination and reservoir fluid properties before capturing the fluid sample. In addition, the service provides an accurate forecast of the

clean-up time required to achieve this high quality sample, as well as a graphical fluid type indicator—all delivered directly and remotely through a real-time display to facilitate simpler process monitoring.

Fluid volume

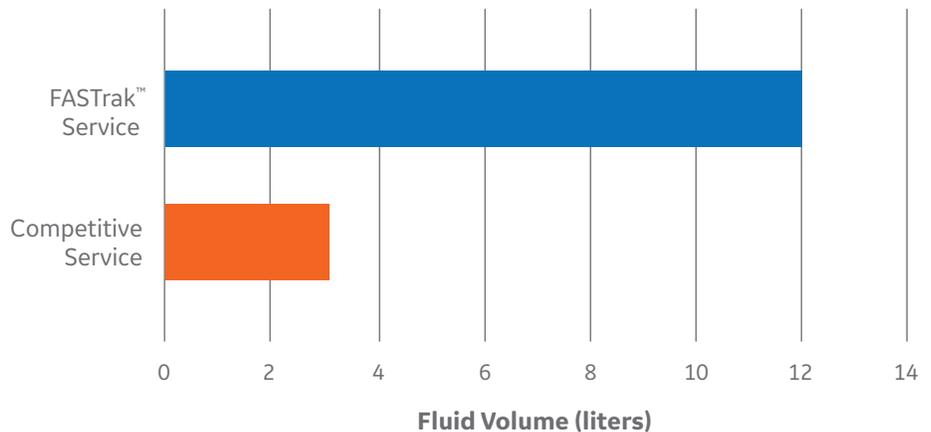
Typical sampling programs often require more than 10L of fluid over different reservoir compartments. The FASTrak Prism service can collect up to 12 liters of single-phase reservoir fluid per run. This provides operators with the ability to acquire the large fluid volumes required for most of their strategic development decisions without necessitating multiple sampling runs.

Proven track record

The FASTrak family of services has an extensive track-record of delivering large volumes of high-quality samples, with thousands of liters collected across hundreds of applications all over the world—without ever getting stuck on the borehole wall. It has set and held the world record for number of samples and volume of fluids collected in a single run.

Contact your Baker Hughes, a GE company (BHGE), representative today or visit BHGE.com to find out how you can get the high volumes of high-quality fluid samples you need using the FASTrak Prism service.

Comparison of Single-phase Sample Volume



The service enables up to 16 individual single-phase samples of 750 ml each—400% more fluid volume than leading competitive sampling services.

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