## Baker Hughes >

# WellLink RT service

Optimize well construction operations with real-time aggregation, analysis, and visualization of surface and downhole data

Baker Hughes **WellLink™ RT (WLRT)** service is a real-time data aggregation, analysis, and visualization solution for all phases of well construction. Now supporting the Energistics Transport Protocol (ETP) with 1-second latency, WLRT ensures remotely distributed teams make decisions using exactly the same data as the wellsite teams preventing safety-related incidents and reducing non-productive time.

WLRT supports online archiving of realtime data and the information derived from it, enabling rapid playback for post-well analysis and diagnostics. This is an invaluable resource when planning new wells, even if the adjacent wells were drilled many years ago.

#### Vendor-agnostic

Founded on the WITSML® standard, WLRT can receive data from any vendor using WITSML, WITS 0, or OPC-UA formats and supports connections via WITSMLcompliant third party applications.

## Powerful web-interface for remote collaboration

WLRT has a powerful, flexible, and highly intuitive web browser interface connected to our secure and redundant data hub. This interface is the most advanced visualization tool on the market for monitoring well construction activity and recalling data from diverse sources such as: raw and calculated curves, static objects such as lithology and bottomhole assembly (BHA), logging while drilling (LWD) images, plus WLRT-generated analysis, trends, and KPIs.

#### Geosteering application support

WLRT provides exceptional capabilities for geosteering to reduce email and phone calls among field personnel and office-based subject matter experts. Chat functionality with an audit trail, combined with real-time data visualization via web browser and/or mobile app enables efficient collaboration between all local and remote stakeholders. WITSML data can be downloaded to Baker Hughes's Reservoir Navigation Services (RNS) software or any compliant third party geosteering application in real-time.

#### Applications

- Aggregation of real-time data at any wellsite from multiple sources and formats
- Integration of data during all phases of well construction from multiple service providers (vendor agnostic)
- Remote operations supporting well construction
- WITSML-standard data delivered to any WITSML client

#### **Benefits**

- Collaborative problem solving and enhanced operational decisionmaking with widely distributed teams
- One real-time data aggregator and archive source to manage and monitor all phases of well construction
- Wellsite and remote operations working cohesively with exactly the same data at the same time
- Flexible application sourcing based on industry-standard formats for inputs and outputs
- Workforce mobility with real-time data anytime, anywhere
- Time vs. depth charts (LWD, MWD, SLS, and drilling parameters)

#### **3D trajectory**

The 3D trajectory functionality displays all available trajectories on the well in the currently-active wellbore, along with section dimensions, BHA, measured depth, ellipses of uncertainty, and up to two curves for each trajectory. The trajectory-highlighted range is synchronized both ways with all log widgets inside the same display for a quick and easy overview of curve values, lithology and image logs along the trajectory. Multiple wellbores from a pad or platform can be displayed together, along with their relative distances from each other.

#### Fluid sampling and pressure testing

#### **Reduce rig cost**

Real-time visualization of formation data for drilling operations enables the client to quickly evaluate and determine the next course of action for the ongoing/upcoming run, significantly reducing NPT and total rig expense.

#### Improved operational precision

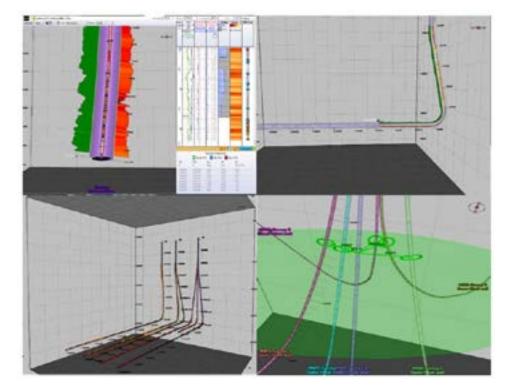
Access to real-time data enables you to apply precise criteria in choosing where to acquire fluid samples and conduct pressure tests. Cursor Tracking enables correlation between data in different widgets. Discovery Formula allows mathematical calculations on curve mnemonics in real-time.

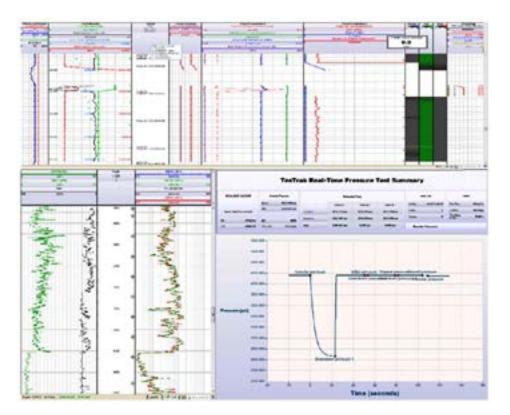
### Reduced health, safety, and environmental (HSE) risk

Experts across the globe use WLRT to remotely monitor the operation and make decisions that they communicate to the rig personnel.

#### Collaboration

Real-time chat enables seamless communication between Baker Hughes and client rig site personnel, client, BEACON support, and global experts. In addition, an audit trail is created for each job.





## Real-time optimization of drilling parameters

The WellLink RT service optimizes operational decisions by continuously analyzing data to warn and inform decision teams. The WellLink RT PowerCurve widget provides a realtime indication of drilling system efficiency by plotting mechanical specific energy (MSE) vs. rate of penetration (ROP) along with horsepower curves in both time and depth view.

Additionally, the WellLink RT PowerCurves widget gives you the capability to view offset wells on the same screen as your real-time well. Offering easy analysis of formation, surface parameters, and vibrations, PowerCurves help you ensure power at the bit. They are useful in preand post-well analysis, as well as realtime optimization of drilling parameters and decision-making.

#### WellLink RT mobile

The WLRT mobile app provides secure access to your real-time well data and ability to chat with entitled stakeholders, from your mobile device—wherever and whenever you are connected to the internet, enabling timely decisionmaking for improved performance.

The app features a "My Wells" page with an executive overview of all entitled wells, alphanumeric displays with customizable alarms, a directional survey display, along with traditional time and depth log displays.

#### Service delivery

- 24 x 7 support
- High availability
- Secure
- Customized solutions

