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Techlog for Operations

Greater integration and knowledge application while drilling

APPLICATIONS

- Information capture while drilling
- Borehole quality analysis
- Log analysis

BENEFITS

- Increase productivity—highly intuitive interface
- Improve integration and knowledge application
- Ensure safer working conditions through improved pressure management
- Reduce operational risk via results correlation in zones of interest
- Simplify processes—all drilling information captured in a single platform
- Enable faster turnaround from data acquisition to formation evaluation

FEATURES

- Interpret data from multiple sources
- Apply quick-look workflows in real time
- Visualize, analyze, interpret, and edit all wellbore data
- Calculate safe mud-weight windows
- Work in an integrated, intuitive platform

The Techlog* wellbore software platform provides unique capabilities, integrating all wellbore data and disciplines to solve complex reservoir and drilling challenges. With Techlog software you can visualize, analyze, interpret, and edit all of your wellbore data.

It is now more critical than ever to be able to survey and act on drilling operations. Daily reports and real-time data providers are common methods for receiving data and well information from the rig. However, geoscientists and engineers involved in drilling face many challenges and have different needs and responsibilities. Complex targets, safety regulations, and demanding financial environments are driving the need to achieve greater integration and knowledge sharing between the various stages of the drilling process.

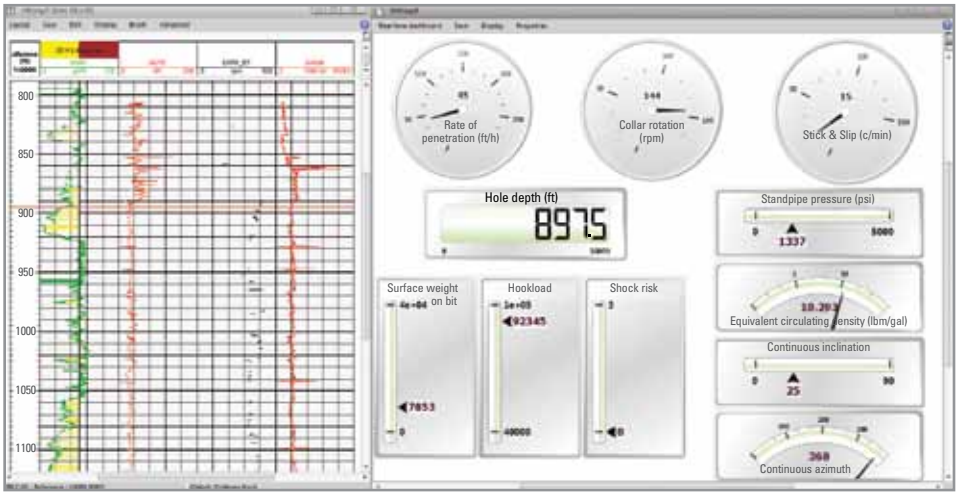
Oil and gas companies interact with a wide variety of vendors providing many services and data types. Techlog software is able to incorporate all of this data into a single wellbore software platform.

Data integration and real-time workflows

Data such as mud logs, drilling parameters, LWD and MWD, and wireline logs are captured during the various operations stages and are essential for the log analysis phase. An understanding of the borehole quality is critical for effective analysis of these data. The basic quick-look workflows within the Techlog platform can be applied in real time, extending the active reach of the geoscience departments to the wellsite. Capturing all relative drilling information in one platform simplifies your processes, ensuring the fastest turnaround time possible between the data acquisition stage and the completion of the initial formation evaluation.

Improved operational safety

The complexity of current operations demands that all operators ensure the highest safety standards are achieved—pressure management is a significant drilling hazard. Pore pressure prediction workflows are key to ensuring safe operations, but require constant validation through the integration of several, regularly-updated data types (e.g., logs, mud logs, cuttings, and formation integrity tests).



The Real Time module displays live data updates while drilling.

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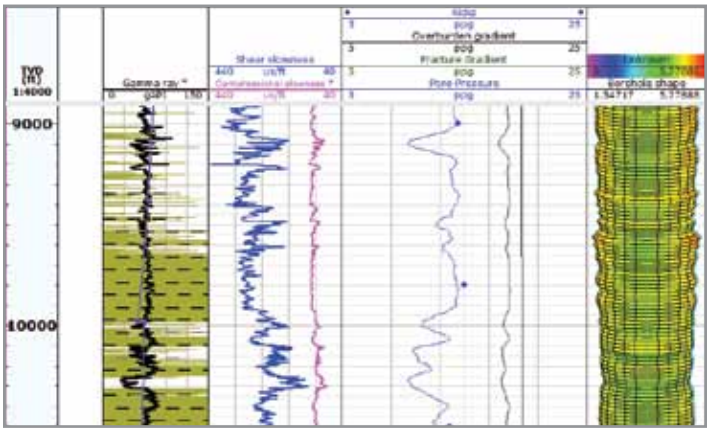
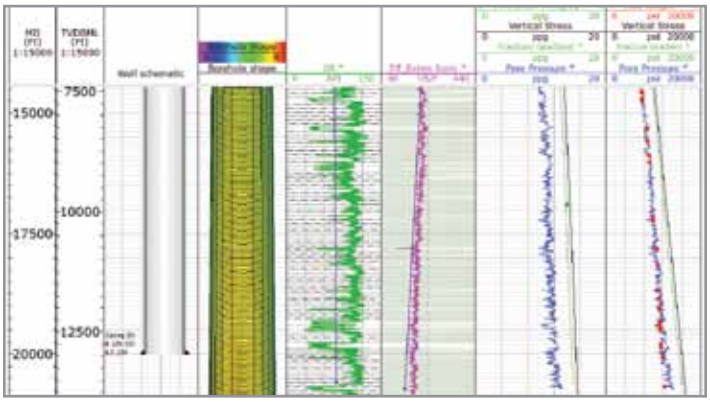
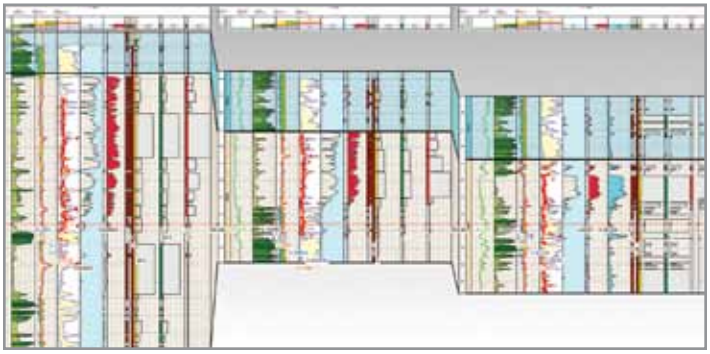


Safe mud-weight window analysis in the Techlog Pore Pressure Prediction module.



Pore pressure calculation from sonic data using the Eaton method.



Comparison of the basic petrophysics in multiple wells using the Techlog Quanti module.

The safe mud-weight window can be computed in Techlog software using several methodologies for pore pressure, including Amoco Gulf of Mexico correlation, Gardner equation, and Miller equation, as well as constant K0, Eaton, and Matthews and Kelly methods for fracture gradient. The cut-offs and parameters required for these calculations can be interactively selected in the pore pressure and fracture gradient workflows. Furthermore, multiwell capabilities and visualization of geomechanical outputs (e.g., horizontal stress and rock properties) allow rapid correlation of the results in the zones of interest, enhancing your ability to identify areas of operational risk.

Schlumberger Information Solutions

Schlumberger Information Solutions (SIS) is an operating unit of Schlumberger that provides software, information management, IT, and related services. SIS collaborates closely with oil and gas companies to solve today's tough reservoir challenges with an open business approach and comprehensive solution deployment. Through our technologies and services, oil and gas companies empower their people to improve business performance by reducing exploration and development risk and optimizing operational efficiencies.

E-mail sisinfo@slb.com or contact your local Schlumberger representative to learn more.

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