

PreVue

Pore pressure analysis service

APPLICATIONS

Estimation and monitoring of pore pressure and fracture gradients in any environment, including

- wildcat exploration wells
- deep gas wells
- deepwater wells with narrow mud weight windows
- high-pressure, high-temperature (HPHT) wells

BENEFITS

- Safer well trajectory and better well control through proactive and actionable pore pressure recommendations
- Enhanced drilling efficiency and reduced non productive time (NPT) through informed selection of drilling parameters such as mud weight

FEATURES

- Real-time evaluation of normal hydrostatic pressure, overburden, pore pressure, and fracture gradients
- Discrete pressure compartment analysis to better understand pore pressure envelope shifts at bedding interfaces (e.g., sand and shale)
- Corrected d-exponent analysis for evaluation of pore pressure gradient
- Daily geopressure reports, event logs, drill cuttings graphics, and calculated and estimated pore pressure/fracture gradient log
- Gas event trend analysis
- 24/7 monitoring at the wellsite by two dedicated pore pressure engineers

The PreVue* pore pressure analysis service provides real-time monitoring and prediction of pore pressure and fracture gradients at the wellsite, using LWD (gamma ray, resistivity, and sonic), MWD (annular pressure while drilling), drilling (ROP, torque), gas (C1–C5) and other mud logging data including cutting and caving morphology diagnosis.



Abnormal pressure events such as kicks, mud losses, and other well control problems can lead to the loss of the entire well, together with potential loss of life and property. The PreVue service can play a decisive role in minimizing these risks and improving drilling performance.

Predrill planning

Before drilling starts, pore pressure experts in the Geopressure Technical Center analyze offset data such as results from leakoff tests (LOT), engineering and geological reports, well logs, and mud weights. The experts use this information to model the pore pressures likely to be encountered along the proposed wellbore trajectory. Potential hazards are identified and analyzed and contingency plans are recommended.

Real-time monitoring

During drilling, two Geoservices engineers specialized in the PreVue service provide a 24-hour service at the wellsite, using real-time pressure monitoring software, evaluating data, and adjusting the predrill model for accurate estimation of pore pressure, fracture gradient, and overburden. Interpretations and recommendations are communicated to key decision makers both at the wellsite and in the office. Interpretation experts based at the Geopressure Technical Center provide additional support to the wellsite and client teams as required, through in-depth analysis of the daily reports submitted by the wellsite engineers.

