PowerLogFrac

Better data for more effective frac designs

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PowerLogFrac

PowerLogFrac™ is the industry’s first petrophysical software that quickly generates formatted rock and fluid properties. This is a new tool to petrophysically analyze well log data and directly feed results into fracture simulation software. Completions engineers use the resulting models to design better hydraulic fracturing projects and improve well performance.

Built on proven technology

Renowned for its functionality and ease of use, PowerLog is an industry-standard petrophysical interpretation package introduced to the oil and gas community more than 30 years ago. PowerLogFrac consists of a fit-for-purpose version of PowerLog bundled with the new FracRAT module that CGG developed in partnership with Baker Hughes Pressure Pumping Division.

FracRAT takes petrophysical curve data from PowerLog and uses empirical and deterministic algorithms to generate formatted rock and fluid properties required by fracture simulation software.

Clients who already use PowerLog may purchase FracRAT as an add-on module to their existing PowerLog software.

Improved collaboration for better decisions

PowerLogFrac allows oil companies and service providers to combine their knowledge and implement frac simulation as part of a standard completions process. Increased collaboration enables faster decisions, essential for enhanced fracture design and improved well performance.

Faster, more accurate models and multiple scenarios

A clear understanding of the subsurface and factors controlling production for a specific play is an ongoing issue, particularly in fractured reservoirs. In shale plays, for example, production can vary across plays and even between wells drilled from the same pad. Yet, frac design and analysis is currently applied in only a very small percentage of hydraulic fracturing projects, largely due to the length of time required to gather input data for fracture simulation models.

PowerLogFrac allows engineers to leverage petrophysical analysis to model multiple frac scenarios with increased accuracy in hours instead of days by eliminating manual calculations and spreadsheets.

Intelligent decision-making

PowerLog provides a robust toolkit for petrophysical evaluation of log and core data. Clear understanding of your data equips you to perform a better analysis.

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Powerful integrated workflow

**FracRAT** converts the petrophysical analysis to rock and fluid properties required for frac simulation. An intuitive interface allows the user to define intervals for computing zone average values before or after running the **FracRAT** module depending on the needs of the user (average petrophysical values or average rock/fluid properties values). **FracRAT** features include:

- Both deterministic and empirical algorithms
- Tuning parameters to simulation inputs with stimulation test data
  
  a) Load, edit and apply corrections to log curve data and then generate detailed petrophysical analysis
  
  b) Interactively define intervals for generation of average values of raw and interpreted curve data for input into **FracRAT**
  
  c) Use **FracRAT** to transform raw and processed curve data and generate rock/fluid properties from empirical and deterministic algorithms
  
  d) Produce a user-formatted spreadsheet file for direct import into fracture simulation software
  
  e) Match simulation inputs to stimulation test results with Parameter Tuning Tool

With **PowerLogFrac**, oil companies and service partners can now combine information and quickly achieve consensus on an effective well completions program. Better decisions drive more effective and profitable drilling programs and speed is particularly critical when multiple partners are involved in developing a field.
CGG GeoSoftware

CGG GeoSoftware provides the industry’s preferred comprehensive set of software products and support for E&P multi-disciplinary teamwork. High-end, cross-product workflows enable a better understanding of reservoir properties and how they evolve through the life of the field. GeoSoftware helps reduce reservoir risk and uncertainty in seismic reservoir characterization, velocity modeling, advanced interpretation, petrophysics, rock physics, AVO and geological modeling. The GeoSoftware portfolio includes HampsonRussell, Jason, InsightEarth, PowerLog, EarthModel FT and VelPro.

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