Geolog™ 18

New Innovations for the Industry's Leading Petrophysical Analysis Solution
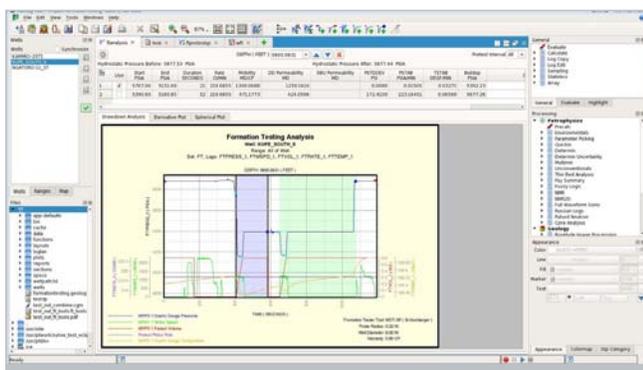
Geolog 18 is the newest version of Paradigm's industry-standard solution for formation evaluation and petrophysical analysis. Released as part of the Paradigm™ 18 software suite, Geolog 18 offers new uncertainty capabilities, enhanced automation for reporting, new methods for Quality Control and interpretation of formation pressure test data, updates to its geomechanics, engineering and production tools, and increased customization.

Generalized uncertainty functionality

Geolog 18 includes a new uncertainty wrapper for Monte Carlo uncertainty analysis. Assessing uncertainty on calculations run through the module launcher enhances the understanding of these uncertainties, and helps quantify the value of results. Users can specify distributions for input parameters, and the module will generate a distribution of outputs. Saved calculations can be restored and re-run with the Monte Carlo mode selected. The new wrapper works both with modules supplied with Geolog and user-created custom modules, with no need for code changes in the user-created modules.

Automated report generation

Geolog 18 includes reusable, user-defined report templates containing text and graphics, that help automate repetitive reporting tasks and streamline report creation. Users can create and deploy standard reports across multiple projects and sites, for rapid delivery of consistent output. Live connection to data allows changes to be propagated to all parts of the report.

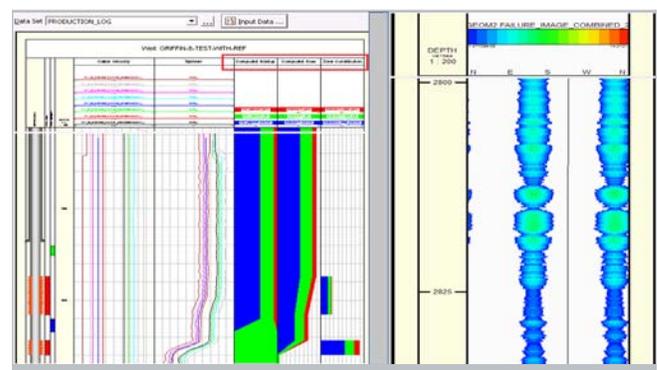### New methods for Quality Control and interpretation of formation pressure test data

Geolog 18 gives geoscientists the opportunity to rapidly load, format, interpret and perhaps most importantly, QC formation test data from all major formation test tools prior to subsequent gradient analysis. Embedded Monte Carlo uncertainty analysis enables the generation of uncertainties on formation test pressure points, on the gradients, and ultimately, on the position of fluid contacts picked using these tests. A new reporting module improves both speed and flexibility when presenting results.

Improvements to the Geolog geomechanics, engineering and production portfolio
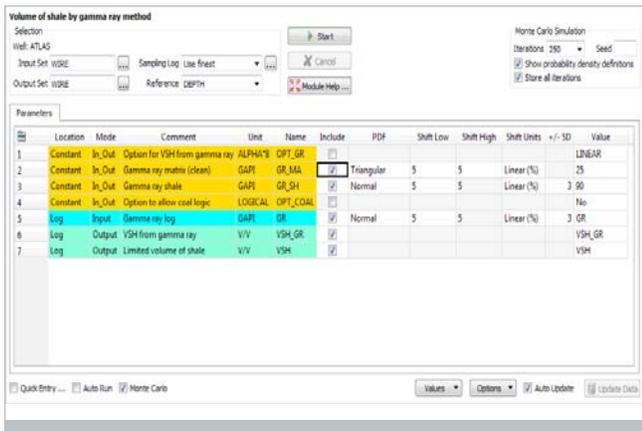
Major updates have been made to Geolog geomechanics, engineering and production capabilities, expanding the product's usability to multiple user communities. Anisotropic geomechanics calculations optimize prediction of well stability, while an enhanced production logging module enables Geolog to efficiently handle deviated wells. A new cement evaluation functionality is also included in this release.

Expanded customization and connectivity

Geolog has many options for customization. A new addition in Geolog 18 is the ability to create Python scripts in Geolog Loglan, with no need for compilation. Python also offers a rich set of libraries for mathematics, graphics, statistical analysis and machine learning, which can be used to further extend customization.

▲ New methods for QC and interpretation of formation pressure test data enable users to rapidly load, organize and analyze FT data.

▲ New geomechanical and engineering features expand Geolog usability to many user communities.

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▲ Monte Carlo uncertainty can be run both with modules supplied with Geolog and user-created custom modules, with no need for code changes in the user-created modules

Interoperability

In this release, Geolog-Petrel connectivity has been updated to Petrel* 2017 (* *a mark of Schlumberger*).

All Epos™-based applications enable interoperability with third-party data stores, including:

- OpenWorks® R5000.10
- GeoFrame® 2012
- Recall™

System specifications

- 64-bit Red Hat® Enterprise Linux® 6.8 and subsequent minor releases, and 7.1 and subsequent minor releases
- Microsoft® Windows® 7, 8.1, 10 (64-bit)

The Paradigm Advantage

- Vendor independence gives users the freedom to choose the best tools for each task, with no conflict of interest.
- Fully scalable and customizable, Geolog meets the needs of users, from generalist geologists, to expert petrophysicists, to engineers working in field development.
- An intuitive, interactive, Windows-style interface optimizes usability and ensures a short learning curve.
- Integration with other Paradigm products provides access to a full range of industry-leading E&P software.
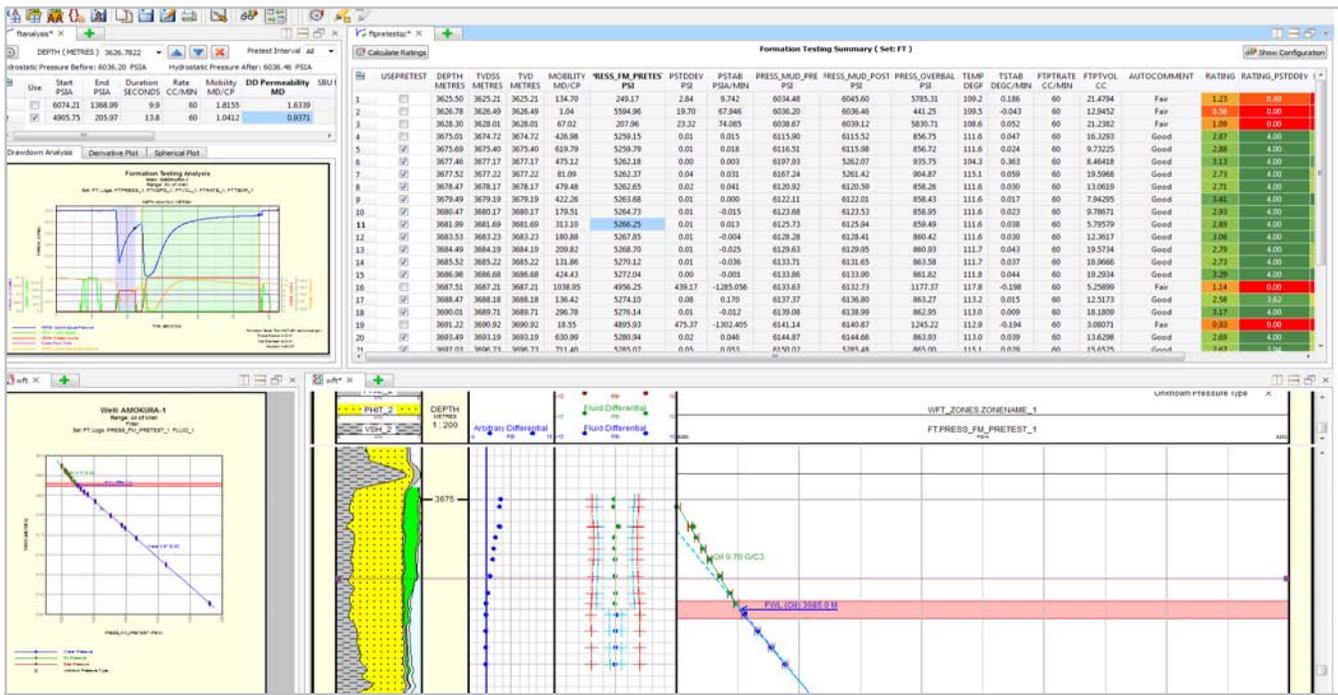
▲ Load, format, interpret and QC formation test data from all major formation test tools prior to subsequent gradient analysis.

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