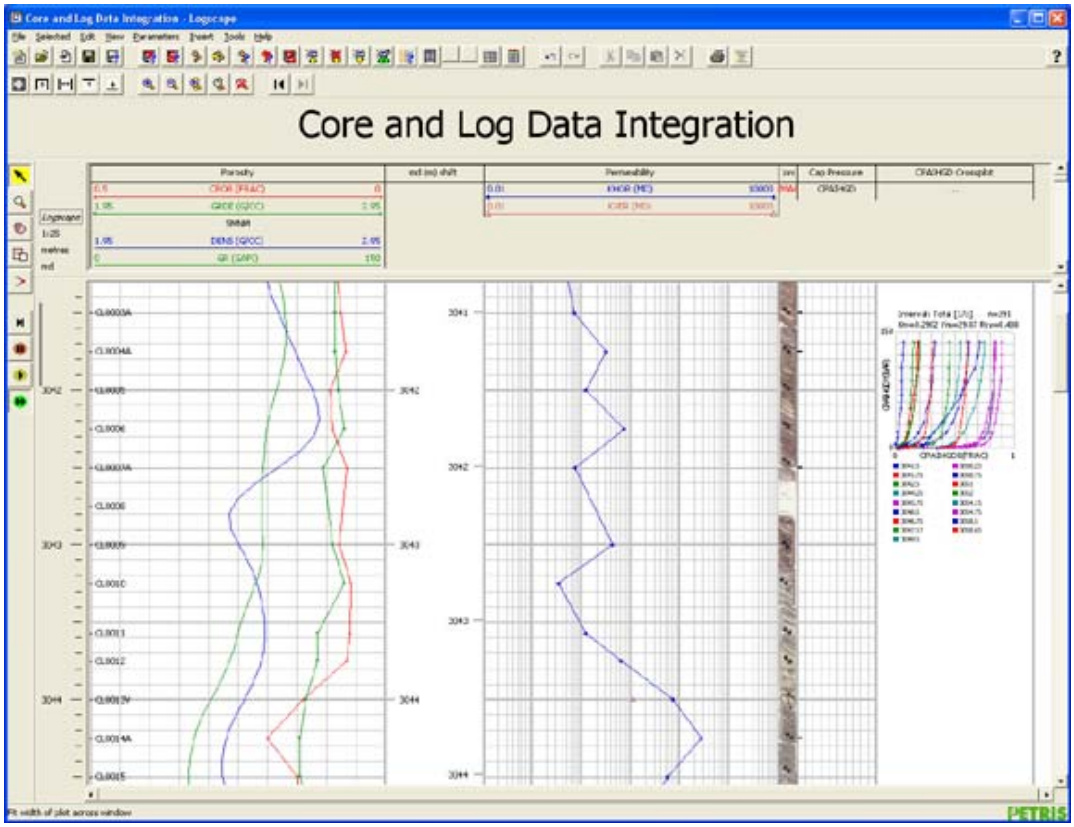
PetrisWINDS® Recall Petrophysical Applications - Technical Overview

Petris Petrophysical Applications

The petrophysical applications within PetrisWINDS Recall provide the most interactive 'feel' for sensitivity to key parameters as compared to other products in the marketplace today. PETROS 3 and LOGSCAPE are superb at supporting multi-well analysis and data organization, and are ideal for use in integrating with core and other wellbore data (such as formation testers). Like all Petris products, PETROS 3 and LOGSCAPE are supported by a global team which is directly connected to the experts and developers of the product.

Key Features

- Robust, tried & tested, fully documented algorithms
- Capture of detailed audit trails
- Fully interactive single-well suite based on LOGSCAPE
- Excellent data organization, hence easy to switch single- to multi-well
- User programming language for proprietary and experimental algorithms
- Handling of multiple depth references (driller's, logger's, TVD, TVT, TST) at multiple datums
- Full support for deviated, horizontal & upturning wells



Integrating log and core measurements with core slab view and SCL data, in LOGSCAPE

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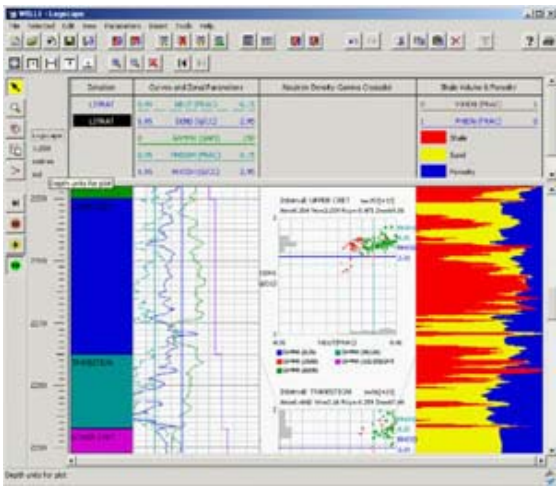
PetrisWINDS Recall LOGSCAPE

PetrisWINDS Recall LOGSCAPE is a unique interactive tool for the visualization, manipulation and analysis of borehole data. It provides interactive graphical editing and processing for all types of log and core data. A toolbox of manipulation utilities and specific petrophysical and general formulae, plus user-defined formulae, allows a user to create sophisticated interactive applications. Several standard petrophysical applications are also conveniently accessed as templates from a toolbar.



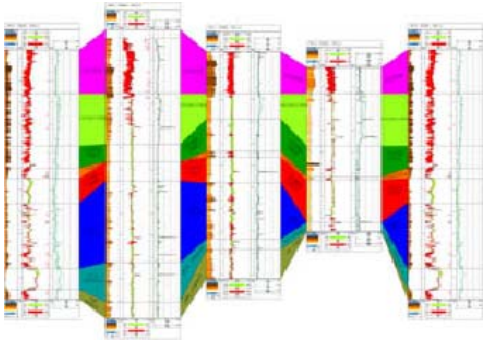
Interactive Petrophysical Analysis in Logscape

Standard lithology, porosity, saturation, net pay and summary statistics calculations are offered within the interactive LOGSCAPE environment. There are also options for basic data editing and cleanup including despiking, depth shifting, splicing and filtering, and some for hydrodynamic pressure analysis. LOGSCAPE data displays, cross-plots, formulae and user interactions are not discriminated by data type, and so core-log integration is easily accommodated – including interactive shifting to match driller's and logger's references.

LOGSCAPE is able to instantly recalculate and redisplay curves and statistics as a user 'drags' a threshold, a zone boundary or a point on a cross plot (representing zonal parameters), so it is particularly useful as a training tool, and for sensitivity analyses.

PetrisWINDS Recall PETROS 3 Deterministic Analysis Modules

PETROS 3 is a suite of petrophysical analysis modules that allow the user to set up and run combinations of calculation methods for shale volume, porosity and lithology, water saturation, permeability and net pay. A comprehensive set of industry-standard algorithms, with full help text transparency (to avoid 'black boxes'), is available, with options for user-defined ones as well. These modules may be run in single-well or multi-well mode, with all parameters specifiable as constants, curves or zonal parameters, and so are appropriate for use in large field studies. The summaries module provides final zoned averages with user control over output format, together with options for output files that are easily transferable into Excel.



Convenient multi-well analysis and plotting reflects excellent data organization

There are also modules for pre-calculations within PETROS 3, such as Rwa, apparent matrix density, Rw from SP, temperature curve creation, multiple regression analysis, bad hole and mineral detection.

In addition to standard crossplots - typically used for parameter picking - there are more specific crossplot formats available for Pickett plot analysis, histograms (with interactive normalization), pressure gradient analysis and display of core capillary pressure curves.