

Actual Well/Field Evaluation - Laptop
Instructor Mark Deakin, PhD (Petrophysics)
www.petrophysics.net

Who Should Attend?

[Print pdf](#)

New petrophysicists, operations geologists, all geo-modelers (Petrel, Eclipse etc), exploration & reservoir geologists, geophysicists. Anyone who wants a hands-on, fast paced experience of a guided, basic petrophysical evaluation. No previous petrophysical knowledge is required, however, attendance to [Integrated Petrophysics for Reservoir Characterisation](#) or, if a client supplied carbonate data set is used, to [Carbonate and Fracture Petrophysics](#), is recommended.

You Will Learn

- The importance of preparing and loading all data
- The big picture objectives of why, what and how to do petrophysics quickly and effectively
- To question alternatives and negotiate the best evaluation for today's typical basic data sets
- How to quickly use Core, SCAL, MDT's and DST's together with common logs
- How to do all essential quick look methods
- All PPL's quick look integration and checking techniques
- Tips and tricks from the author's 25 year evolved "Vault" evaluation file
- The basic ideas behind major parallel methods in petrophysics e.g. Sw Rt vs. Cap.press
- To quickly sort through the barrage of confusing modern petrophysical data, to think clearly about objectives and how to advance your team **quickly** towards Fit-For-Purpose results
- The essential ingredients and style of a succinct, informative petrophysical report
- To get excited about logging, petrophysics, reservoirs and geo-models!

About the Course

[Testimonials](#)

In this laptop run basic course Instructor and student groups perform an actual evaluation on a typical, simple core-log data set, or client supplied data set. Data is loaded to Instructor (IP or Geolog) or client software. ALL major stages necessary for a full petrophysical integration are discussed and then actually performed first by Instructor, then by students. **A twice daily open critique and proposal session of the ongoing evaluation keeps the class highly motivated, involved and tightly focused.** The evaluation/integration quick look sequence is continuously referenced to reinforce the real-world constraints of Time vs. Fit-For-Purpose results. All evaluation parameters are documented together with a short report and key figures, exactly as in a real study. Stages include: *Log, Core, SCAL, MDT, and DST data organisation, zonation, vclay, total and effective porosities, water zones, Rw, Pickett plots, Rwa, m, Ro prediction, n, Swrt, Fluid Zones, Bound fluid volumes, Timur-Coates permeability, Capillary pressure quick-look Sw's* (yes, this is possible [see Integrated Petrophysics..](#)), *Sw and Sw checks, Netpay, Zonal averages, short Report and Figures.* **All data is properly integrated according to PPL standards.** Students elect to receive a Staged Certificate. These 5 days offer a powerful, involved learning session in which participants actually experience the practical issues at stake and make the key choices which impact reserves themselves, in preparation for their own work.

Course Content

[Detailed contents](#)

(Public courses 5 days. Tailored In-House 3 or 5days)

- The importance of preparing and loading all petrophysically relevant data to log software
- Check core data. Calibrate log to core porosity
- Review common SCAL data sets. Use SCAL to calibrate log resistivity equations
- Extract key answers from MDT data: FWL, Fluid type, Pc. Check log analysis. Set up a quick look Saturation-Height tables simply and quickly straight from the lab report in Excel
- Check/calibrate log results with core saturations and hydrocarbon pore volumes
- Check/calibrate log results with DSTs (well tests)
- Produce a Petrophysical Results Table (sums and averages) and results las file as geo-model input
- Integrate all common petrophysical data with logs using 25 year industry established PPL procedures
- Check your results with simple, common sense logic
- Participate in Daily morning Recaps and develop practical Do's and Don'ts for petrophysics
- Observe and actually perform software (IP or Geolog) key petrophysical procedures:
Vshale, Øt, Øe, Sw100, Rwa, Pickett, aRw, m, Ro, n, Swrt, Fluid zones, Bound fluid, Permeability, Cap.press Sw, Pay, Net, Averages, Report.
- Excitement and even mild stress as you actually make the decisions and DO petrophysics yourselves rather than just sit there and LISTEN!
- Choose if you wish to be issued with a PETROPHYSICS Pty Ltd Staged Certificate

The Instructor

[CV](#)

Dr Mark Deakin is a consultant, author and tutor in Petrophysical Data Integration. He holds a Ph.D. in 'Integrated Petrophysics' from London's Imperial College, is an ex Amoco petrophysicist, and has 25 years experience, including 12 as a lecturer and Director of his consulting company, Petrophysics Pty Ltd. He has performed over 50 detailed reservoir studies, primarily in Southeast Asia's difficult carbonate and stacked 'low-contrast-pay' reservoirs, keeping abreast of new technologies by technical reading, operations work and lecturing. Deakin's straight forward approach is to first identify and rank reserves uncertainties, then guide companies toward defensible booked reserves via the systematic integration of targeted "data proofs". After his PhD Deakin authored the first public "Integrated Petrophysics" course which has evolved over 20 years to become the industry benchmark course for mainstream petrophysics. Recently Deakin developed "Carbonates & Fracture Petrophysics - A Roadmap" and the powerful **PetroDB** core-log-test cross-linked database to work with his "Vault" evaluation command file to improve the efficient development of complex reservoirs. Deakin is a member of SPWLA with offices in Perth, Australia.

PS: A fast paced, hands-on experience of the actual petrophysical evaluation process

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