

# PetroDB

*Transforms low cost wells into a cored, tested wells*

**PetroDB** is a generic Petrophysical Database consisting of over 26,000 routine and special core analysis plugs intelligently cross-referenced to conventional logs and basic geological information. PetroDB Includes:

- **clastics, carbonates, basement**

- **routine core data:**

- grain density
- porosity
- permeability
- hydraulic flow units

- **special core data:**

- overburden porosity & permeability vs. Routine Core Analysis porosity & permeability
- pore volume compressibility
- brine permeability at reservoir conditions ( $k_{rw}=1$  for reservoir simulation)
- Pc (capillary pressure) air-brine and mercury injection >12,000 points!
- satn-height eqns per rocktype / Flow Zone Indicator (FZI) / Hydraulic Flow Unit (HFU), oil or gas
- pore throat size distributions
- relative permeability curves
- wettability
- Sor
- Swi
- m, m\*
- n, n\*
- CEC, Qv
- clay bound water (CBW)
- capillary bound water (CapBW)

- interfacial tension

- rock type

- clays

- XRD

- depositional environment

- facies

- tvdss

- geological age

- well tests produced fluids and k, kh

- conventional logs

- NMR logs

- miscellaneous hi-tech logs

- vshale, porosity, saturation, permeability, height above FWL (contact depth), capillary pressure

- shale total porosity

- normalized density-neutron separation

- bulk volume water

- bulk volume hydrocarbon

- moved HC volume

- bound fluid volume

- any combination of the above

**PetroDB** may be used in combination with PPL's 150+ Equations and editable Evaluation Command File - "*The Vault*"

## **Process**

- Client contacts PPL with specific questions regarding a well or field where data is insufficient to provide confident answers. For example saturation or permeability are uncertain or a capillary pressure saturation-height function cannot be defined.

- A hard data base of core and tests is identified by intelligent cross-referencing of basic geological information and conventional logs to assess task feasibility. The extent of the available hard data is communicated to client.

- When approved, PPL expertly integrates and interprets the found hard data to answer client's specific questions.

- Finally, a brief Task Report is produced including Results, Figures, Assumptions, Uncertainties and Recommendations. The process is completed rapidly and inexpensively.

PPL will exploit all resources at it's disposal to answer client questions and communicate findings effectively. Expensive "Black Box" results are rejected. PPL will endeavor to work with client to effectively implement PetroDB Task results.

## **Fees**

PetroDB fees are Task Based consisting of a Technical Consulting Day Rate + a Flat 2,000 USD per Task