GeoNeurale

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-Postdoctoral and doctorand training for Geoscientists and Engineers
-Industry postdoctoral and cross-disciplinary training

Module 2.

Clastics Petrophysics

Formation factor and resistivity index.
Cementation exponent calculation in the Archie equation.
Sw equations and porosity-conductivity partitioning.
Sw calculation in non-Archie formations.
Porosity and saturation partitioning.
Physics of petrophysics parameters measurements.
Equivalent circuits for induction and laterolog tools.
Density and photoelectric cross section measurements.
Pulsed neutron log.
Nuclear magnetic resonance tool theory.
Surface, bulk and diffusion relaxation.
T2 spectrum and cutoffs.
FFI, BWF, BVW typing.
Kozeny-Kenyon and Timur-Coates permeability.
Pc curve and NMR log links.
Dipole-Dipole sonic applications. STC processing.
K and Stoneley waves.
Shear waves anisotropy: fast ans slow S-waves.
V-Phi transforms.
Secondary porosity index.
Gas detection. Xplots DT-Vp/Vs.
Shear waves polarization and splitting: structural and geomechanical interpretation.
Sonic and FMI correlations.
P-S slowness and elastic parameters.
Log tools resolution and ray of investigation.
Log interpretation methodes: Deterministic and stochastik.
Xplots: NPHI-RHOB, DT-RHOB, M-N, Rhoma-Uma, Rwa-Gamma.
Shale typing on xplots, shale and gas corrections.
Pickett plot.
Buckle plot: BVW, Pcap, Swirr, Flow units, Permeability.
BVW and hydrocarbon interpretation.
m-PHI and porosity characterization.