

Petrophysical Evaluation of Shale (Mudstone) Reservoirs

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Typically, geologists and engineers work to develop a data set to define reservoir potential and establish a drilling strategy that will provide optimum results. The characterization of a shale (mudstone) reservoir combines the evaluation of several important parameters and includes petrophysical (core and logs), petrographic, geochemical and mechanical property data. Producing criteria are different depending on the type of hydrocarbons to be produced (gas or oil). All data types are important in defining reservoir potential, targeting zones with the greatest potential and for comparing shale reservoirs from different provinces. Unless all key parameters are favorable, it is unlikely that economic production can be achieved.

This presentation will discuss analytical techniques developed or used by GeoSystems for the characterization of pore level attributes and mineral distribution. These two parameters have an important effect on deliverability and hydraulic fracture characteristics.