

Seismic Prediction of Hydrocarbon Reservoirs - A (Critical) Review
on the Determination of Lithological Parameters from Seismic Data

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The approach in seismic reservoir prediction is a combination of the extraction of physical parameters from seismic measurements, seismogram inversion including the calibration at available well locations and modelling. The key to most present-day reservoir interpretation is understanding the reflection wave shape as a function of structural and petrophysical parameters.

Much success in the recognition of stratigraphical traps, prediction of pore filler changes and the extent of hydrocarbon reservoirs from seismic sections during the last decade is based on

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improvements in seismic data acquisition plus processing and a better understanding of the relations between seismic surface data and petrophysical/lithological situations in the subsurface.

After a brief review on new developments and trends in Exploration Seismics the concepts of data extraction and modelling, the condition required for their application and limitation are discussed.
