

Extraction of Reservoir Parameters with Reservoir Geophysical Processing Techniques

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The petroleum industry has recognized the value of 3D seismic for structural mapping in all tectonic environments. In complex structural environments, optimized 3D survey design and advanced depth imaging techniques are the keys to success of structural mapping. However, the main challenge today of geophysical exploration is to go beyond structural information, and to extract stratigraphical parameters (internal reservoir architecture), quantify the reservoir quality (porosity, net sand,..) and eventually identify the fluid types. Classification of seismic attributes through neuronal network technology, acoustic impedance inversion and amplitud versus offset are proven techniques, when combined with geological and petrophysical analysis. This paper will show some examples of successful applications of these advanced reservoir geophysical techniques."