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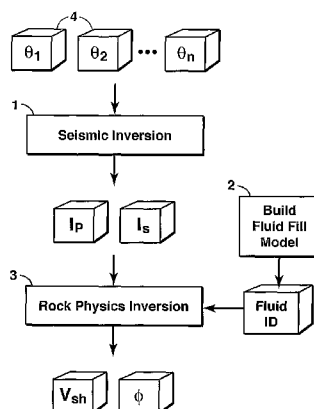
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(54) Title: METHOD FOR PREDICTING LITHOLOGY AND POROSITY FROM SEISMIC REFLECTION DATA



(57) Abstract: The modeling of seismic data to predict the lithology and porosity of subsurface rocks using seismic reflected data (1) using steps for inverting the seismic data to yield the elastic properties including the compressional impedances and the shear impedances (3). The rock physics model is build to relate the porosity and the shale volume fraction and the fluid content of the rock and the elastic properties of the rock. Wherein the model is run backward in a second inversion process to solve for the porosity and lithological properties to include the shale volume fraction (2).

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