应用实例

分频技术在储层预测中的应用

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摘要　由于多个波阻抗界面产生的子波叠加效应和鸣振效应，使得地震道不能直观反映界面位置和地层组合特点，而且不同的地质目标对地震资料的不同频率成分的敏感程度也不同。因此，利用地震信号的特定频率或频带信息来突出地质目标的成像效果，一直是石油物探技术研究的重要内容。利用分频反演、小波分频成像和时频三原色等分频技术，对N9井区的三维地震资料进行了综合研究，得到了比较清晰和合理的储层解释结果，证实了分频技术在储层预测中的有效性和实用性。

关键词　分频反演；小波分频成像；时频三原色；储层预测

Application of frequency　divided technique in reservoir prediction

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Abstract　The wavelet stacking and ringing arisen from different wave impedance interfaces make it impossible for seismic traces to depict the interface location and the characteristics of formation association visually. Different geological objects have different sensitivities to different frequency components of seismic data. Therefore, using a specific frequency to outstand the images of geological objects is always the primary concern of geophysical studies. We studied the 3　D seismic data of Niu 9 well field by using frequency　divided inversion, wavelet frequency　divided imaging and time　frequency three primary colors. A reasonable reservoir interpretation has been obtained, which demonstrated the validity and applicability of the frequency　divided technique.

Key words　frequency　divided inversion; wavelet frequency　divided imaging; time　frequency technique using three primary colors; reservoir prediction

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