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论文

利用时移地震资料划分油藏流体流动单元的可行性分析

王大伟,刘震,赵伟,陈小宏,伍向阳

1 中国石油大学石油天然气成藏机理教育部重点实验室，北京 102249 2 中国石油天然气集团公司物探重点实验室，北京 102249 3 中海石油研究中心，北京 100027 4 中国科学院地质与地球物理研究所，北京 100029

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摘要 油田开发过程中，油层内部流体渗流所引起的含油饱和度、流体压力变化以及原油脱气均可导致时移地震资料的差异振幅. 时移地震资料可以揭示油层内部渗流的影响，为划分油藏流体流动单元提供依据，根据差异振幅的幅度及范围可以确定流动单元的品质及范围，并且油层内部的渗流影响发生在同一流动单元之内. 本文从理论上分析并证明了该方法的可行性.

关键词 油藏流体流动单元 时移地震 差异振幅 流体性质 储层物性

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Feasibility analysis on division of flow units using time_lapse seismic data

WANG Da_Wei, LIU Zhen, ZHAO Wei, CHEN Xiao_Hong, WU Xiang_Yang [4]

1 Key Laboratory for Hydrocarbon Accumulation, China University of Petroleum, Ministry of Education, Beijing 102249, China 2 Key Laboratory of Geophysical Exploration, China National Petroleum Corporation, Beijing 102249, China 3 CNOOC Research Center, Beijing 100027, China 4 Institute of Geology and Geophysics, Chinese Academy of Sciences, Beijing 100029, China

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Abstract Fluid flow of oil_bed results in changes such as oil saturation reducing and fluid pressure decreasing or gas_free during oil field production. These changes lead to different responses of time_lapse seismic data. These data can reveal fluid flow, and offer evidence to divide the fluid flow units in oil_bed. The size and extension of differential amplitude can be used to determine the quality and range of fluid flow units, and fluid flows in the same unit. We have analyzed and proved theoretically the feasibility of using time_lapse seismic to divide flow units.

Key words Reservoir fluid flow units; Time_lapse seismic; Difference amplitude; Fluid properties; Reservoir physical parameters

通讯作者:
david -petrol@126 com
作者个人主页: 王大伟;刘震;赵伟;陈小宏;伍向阳