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气田开发

油藏数值模拟中油水相对渗透率曲线处理方法

张枫, 王振升, 程岩, 于凤梅, 郝木水, 陈红, 孙卫刚

1.中国石油大学，北京102249；2.中国石油大港油田分公司，天津 300280；
3.渤海钻探工程技术研究院，天津 300280；4.渤海钻探第二录井公司,河北 任丘 062552

摘要：

油水相对渗透率数据是油藏数值模拟输入的基础参数之一，是模拟预测中影响产油量和产水量的重要参数。针对没有岩心资料的区域如何选用油水相对渗透率曲线的问题，提出通过FZI(Flow Zone Indicator，流动层指数)划分流动单元的方法，通过绘制RQI与FZL的双对数关系图，判断研究目标区与取心样品区是否具有相似的影响流体流动的岩石物理性质，从而决定油水相渗曲线的选用。该方法较全面地考虑了储层岩石内部孔隙结构、迂曲度、渗透率等参数对流体渗流能力的影响,具有较好的应用效果。

关键词：

Processing Methods for Relative-permeability Curves in Reservoir Numerical Simulation

ZHANG Feng, WANG Zhen-Sheng, CHENG Yan, YU Feng-Mei, HAO Mu-Shui, Chen-Hong, SUN Wei-Gang

1.China University of Petroleum,Beijing 102249,China; 2. Dagang Oilfield Company，PetroChina, Tianjin 300280, China;3. Bohai Drilling Engineering and Technology Research Institute, Tianjin 300280, China;
4. Second Mud Logging Branch under Bohai Drilling Engineering Co. Ltd.,CNPC，Renqiu 062552,China

Abstract:

Oil\|water relative permeability is one of the most basic input data of the reservoir numerical simulation, and also an important parameter to effect produce of oil and water. In this paper, we discussed how to choose an oil-water relative permeability curve in the region with no core data. Here, FZI index (Flow Zone Indicator) as a standard was introduced to classify the flow unit. We draw the double logarithmic diagram of RQI and to determine whether or not the similar of petrophysical properties in target zones and core sampling areas existed to affect the fluid flow. If the petrophysical property for both areas is similar, then the relative permeability of samples can be used. The method can give more comprehensive information about reservoir porosity, permeability, and tortuosity to impact ability of fluid flow.

Keywords:

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通讯作者: 张枫zhfeng6969@163.com

作者简介: 张枫(1974-)，女，四川南部人，博士后，主要从事油气田开发及数值模拟工作.

作者Email: zhfeng6969@163.com

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