

张枝焕,王铁冠.油、水、干层的地球化学识别[J].地质论评,2001,47(5):514-520

油、水、干层的地球化学识别 [点此下载全文](#)

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基金项目:

DOI:

摘要:

本文介绍一种判断油、水、干层的地球化学方法,根据储层样品中有机抽提物的含量和组成特征,结合油层物性,地层测试和试油资料编制识别油、水、干层的图版,提出判别油、水、干层的地质/地球化学指标,确定油层的地球化学参数的下限,并运用此方法对松辽盆地新站油田主要油层分布段的油、水、干层进行判别。根据试油资料验证表明,地球化学判断结果比传统的地质录井及地球物理测井资料判断结果更符合实际情况。

关键词: [地球化学](#) [油层识别](#) [抽提物含量](#) [储层物性](#) [水](#) [松辽盆地](#) [油气勘探](#)

Geochemical Method Distinguishing the Oil, Water and Dry Layers [Download Fulltext](#)

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Fund Project:

Abstract:

The relations between hydrocarbon extraction contents in reservoir rock and electrical-logging parameters, such as microspheric-logging parameter, and the relations between hydrocarbon extraction contents in reservoir rock and oil saturation in reservoir determined in laboratory were discussed in detail in this paper. The relation between individual-well daily crude production rate and individual-well hydrocarbon contents (equal to hydrocarbon extraction contents in reservoir rock X effective thickness of production layers) is also analyzed. The reservoir rock sample and reservoir geological and engineering information are obtained from two main production layers, Putaohua and Heidimiao, in the Xinzhan Oilfield, Songliao Basin. The result shows that the hydrocarbon extraction contents in the reservoir rock may reflect hydrocarbon saturation of production layers. On the basis of the distribution characteristics of hydrocarbon extraction saturation and the reservoir properties, such as porosity, of reservoir in the oil, water and dry layers, a geochemical plot or geochemical standard to distinguish the oil, water and dry layers was worked out to explain the oil-bearing of different layers. The results were compared with well-logging explanation results and confirmed by the well testing results, and it can be concluded that the results from the geochemical distinction are more reliable than those of well-logging explanation. The geochemical characteristics of oil, water and dry layers are summarized. The geochemical plots to distinguish the oil, water and dry layers between the Putaohua and Heidimiao production layers are obviously different. This result shows that the geochemical plots or standards to distinguish the oil, water and dry layers put out in this paper are localized like other methods to distinguish the oil, water and dry layers, such as well-logging or electrical-logging. In different regions or different layers in a specific region, the geochemical plots or geochemical standards are different.

Keywords: [geochemistry](#) [reservoir geochemical appraisal](#) [extraction content](#) [reservoir properties](#)

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