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Hydrothermal transformations of organic matter of low permeability rocks from domanic formation of the romashkino oil field

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Abstract

© 2018, © 2018 Taylor & Francis Group, LLC. The oil generating potential of Domanic rocks from Dankov–Lebedyan horizon of the Zelenogorsk area of Romashkino oil field was evaluated by Rock-Eval pyrolysis technique. The result of given method depends on the content, composition, and thermal stability of organic matter in rocks. During hydrothermal processes, the distinctive conversion behavior of organic matter at temperatures of 200°C, 250°C, 300°C, and 350°C in CO2environment was revealed. The yield of obtained aquathermolysis products and their quality were evaluated. The results of the studies suggest that low-permeability carbonate rocks of the Dankov–Lebedyan horizon contain productive beds with content of Corg1.89–3.03%, which when developed using thermal methods, can become an additional source of liquid hydrocarbons.

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Keywords

carbonate rock, domanic deposit, hydrothermal conversions, kerogen, organic matter, shale oil

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