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Mineral-geochemical features and type of organic matter of the lower-riphean deposits of the eastern-askinskaya area of the republic of Bashkortostan

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Abstract

© SGEM2018. In the East of the Russian plate oil-gas occurrences in Bashkortostan, Perm region and Udmurtia were revealed in the Vendian-Riphean sedimentary deposits. Industrial oil inflows have been obtained in a number of areas. Possible perspective intervals are associated with great depths, in particular, with the deposits of the lower Riphean. The deposits of the Lower Riphean in the territory of Bashkortostan were discovered on the Eastern-Askinskaya area. The results of a study of the material composition of rocks showed that the rocks are heterogeneous in composition and structure-texture features. The upper parts (the kabakovskaya suite) are composed of intercalation of argillites and dolomites, the lower parts are marly dolomites (the kaltasinskaya suite). The rocks of the lower Riphean passed the stage of late diagenesis, they have a dense structure with numerous stylolite sutures. With depth the areas of recrystallization of carbonate rocks increase. Organic residues are more characteristic for rocks of lower intervals. The nature and type of organic matter of the Lower Riphean deposits of the studied area were clarified by a complex of methods of investigation. The most effective method for establishing the type and distribution of organic matter is the EPR method. According to the results of the temperature treatment of the samples and according to the EPR analysis, it was established that the organic matter in its nature refers to the plant type. The results indicate that the rocks of the lower Riphean are composed of dolomites with an admixture of a clay component. It is established that quartz and dolomite in rocks of epigenetic type. In the deep parts of the section, the rocks contain numerous organic remains. Presence of accumulations of organic matter of plant origin testifies to the generation potential of the rocks of the lower Riphean of the Eastern-Askinskaya area of Bashkortostan.

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Keywords

Diagenesis, EPR method, Organic matter, Riphean deposits, Russian plate

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