

GENETICALLY PECULIARITY AND MIGRATION OF OILS OF HOREYVER DEPRESSION (PECHORA BASIN, RUSSIA)

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Four oil samples from central part of Horeyver depression were investigated in term of their second migration direction. Oils, which we studied have a entire source, this is confirmed by distribution of various biomarkers, and moreover their thermal maturity is mainly the same. Samples of oils from reservoir of Upper Devonian age from 2-Yanemdey, 1-Syurkharatinsk, 65-Upper Kolver and 20-N.Sykhorey wells have identical character of regular steranes distribution: C29C27C28. For that oils low ratio steranes to hopanes are very typical (0.04 or less), that can indicate high bacterial input in sedimentated OM or high degree of OM transformation in early diagenesis stage. Initial OM was deposit under reduce condition (low Pr/Ph and C33/C34 homohopanes ratios). Isolated by column chromatography (Frolov 1989) oils carbazole fraction were GC-MS investigated. Quantitation of carbazole and its methylsubstituted derivates were carried out by peak area measurement on molecular ion mass-chromatograms. Separated oil carbazole fractions contain all methyl- (C0, C1, C2, C3) and benzosubstituted (C0, C1, C2) carbazole derivates, but distribution of isomers is not uniform in oils that we investigated. For evaluation of oil migration indexes based on monomethyl substituted carbazoles and unsubstituted bensocarbazoles are more useful. In our case we find that ratio of 1-Me-/3-Me (carbazole) changes systematically by oil field location, interestly that the ratio benzo[a]/[c]carbazoles does not show systematic character of alteration. Integrated consideration of classic biomarker and carbazole derivates distribution permit to evaluate genetically peculiarity of oils and to get information about their migration.