THE STRATIFORM MINERALIZATION AND NAPHTIDOGENESIS IN THE RIPHEAN BLACK SHALES SEDIMENTATION BASINS OF THE WESTERN PART OF THE SIBERIAN PLATFORM

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In the western part of the Siberian Plate (Baikit anteclise) and in Yenisey Ridge several levels of carbonaceous carbonate-clayey sediments were established in the late Riphean (1100-650 Ma), which were regarded as hydrocarbon source rock formations for the largest Yurubcheno-Takhome gas-oil field (Baikit anteclise) with recoverable oil reserves of 1.4 bln.t. The same sediments are the source of stratiform polymetal deposits ore components of the Yenisey Ridge, the largest Russian zinc-lead Gorevsk deposit including. The distance between these close synchronous giant deposits is about 300km. The mechanism of base metal and hydrocarbon concentration show a diverse different-stage character. The large part of base metal deposits was formed near the zones of discharge of oil-gas basin underground waters. The massive ores were deposited during the fluid discharge in the bottom part of marine basin (Gorevsk and Linear deposits), and spotted and streak-impregnated ores indirectly in the fault zone and in the accompanying reef structures (Moryahinsk deposit). More close space relationship of ore mineralization with hydrocarbon accumulations is formed at the stage of hydrocarbon field destruction. Thus, in the Yenisey ridge the hard bitumen concentrations as anthraxolite are widespread within the ore area. On the other hand, sulphide mineralization occurs in the sections of deep wells of Urubcheno-Tachom field. It is known, that the products of the earliest hydrocarbon generation stages within this field were destructed by the pre-Vendian erosion. Herewith, the greatest number of sulphide mineralization points, represented by sphalerite, bornite, chalcopyrite, galenite, are confined to the zone of pre-Vendian karst.