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Regional interpretation of geophysical fields of Barents Sea region

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In 2007 VSEGEI experts carried out the works directed on the revised deep geological model of the crust by the geophysical data in Barents Sea region. Processing and analysis of the geophysical information consist of 4 stages. At the first stage the basic transformations of geopotential fields (gradients, regional and local components) were designed. The second stage of acquisition tests included the calculation of the seam depth determined by the geophysical data, and construction of three-dimensional models of the crustal rock tightness and magnetism. At the third stage for studying a deep structure seismic, geologic-geophysical profiles were used. Besides for that have been simulated petromagnetical and formation density the profiles crossing reconnoitered oil-and-gas deposits. As a result of these works have been specified depths overlap soles of a sedimentary cover and position of the Conrad and Mochorovichich dicontinuitys. The complex analysis of statistical characteristics of geophysical fields and division into districts by results of the morpholostructural analysis at the fourth stage promoted specification of borders of tectonic elements and criteria of oil-and-gas forecasting.