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GIS technologies use for reestimation of mineral resource base of Russia.

New conditions of economic activities in Russia bring the the attention of economic geologists to the new problems. Currently the major problems are reestimation of mineral resource base of Russia and elaboration of methodical basis for economic geology analysis and estimation of mineral deposits and mining regions.

During the first stage the expert judgement is involved to solve the problem. The experts who are a specialists in certain minerals and certain regions estimate the real resources and reserves as regards mineral deposits or the whole economic region. The digital geological maps, schemes, sections and other graphical materials that were created by means of GIS technologies are attached to help to reach a right decision. The map scales and methodic ways of judgement may vary depending on dimension of object under evaluation.

The maps of distribution of mineral resources within the subjects of the Russian Federation, economic or other regions are used for the comparative evaluation of the dynamics of resource modification in time. These maps were created by means of domestic software MAGMAP, EASY, MAP, DIGITMAP. Digital economic geological maps, minerals maps etc are also used.

During the second stage of the reestimation mineral resource base the focus is on the recalculation of ore reserves of mineral deposits which is based on the new specific economic conditions, technological capabilities, and the state of nature. The digital graphic materials created by such GIS technologies that give the possibility to measure closed areas and volumes of ores (ARC/INFO, DRAW), are widely used by recalculating of ore reserves irrespective of existing methods of recalculation.