

Collisional metallogenia of gold Verkhoyansk-Kolyma orogenic region (North-East Russian)

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Verkhoyansk-Kolyma orogenic region is situated on the territory to the east from the Siberian platform and spreads along the distance of about 2000km from Okhotsk sea in the South and Laptev sea in the North. Two zones can be distinguished within the structure of the orogenic region: internal and external. Internal zone which is separated from the external one by the Yano-Indigirskaya system of thrust looks like a terrain collage, accreted to the edge of the North-Asian cratone and making the Kolymo-Ornolonsk microcontinent (superterrain) (Parfenov, 1997). The external zone has been formed by the deposits of passive continental margin, which form the Verkhoyansk fold and-thrust belt. The most distal deposits of the Verkhoyansk continental margin are united into the Kular-Nersk slate belt, also overthrust-folded. Early and later collisional metallogenic zones have been distinguished. Within the external zone of the Verkhoyansk-Kolyma orogenic region form the regular lateral rows - early-collisional metallogenic zones of imbricate fans frontal structures which in the interior turn into later-collisional metallogenic zones of strike-slip fault with combined kinematics. There has been displayed the direction of ore- and structure-forming processes in Verkhoyansk-Kolyma orogenic regions which can also be seen in the North-East of Asia and is as well as the characteristic of other folded belts of North Pacific. In the beginning of the development of folded belts there forms an early-collisional tectonometamorphogenic gold-quartz mineralization. Then forms a later-collisional gold-quartz and gold-rare metallic mineralization of granitoid row. Post-accretion complex gold-silver, gold-rare metallic, gold-antimony and gold-mercury mineralization, connected with the development of re-covering and suturing volcano-plutonic complexes of active margin contains ore-making process within the mesozoic ore-containing belts.