

Collisional metallogenia of gold in Verkhoyano-Kolymskaya ore-containing region (Russian North-East)

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Verkhoyano-Kolymskaya ore-containing region is situated on the territory to the East from the Siberian platform and spreads along the distance of about 2000km from Okhotsky sea in the South and Laptev sea in the North. Two zones can be distinguished within the structure of the ore-containing region: internal and external. Internal zone which is separated from the external one by the Yano-Indigirskaya system of break-ups looks like a terrain collection, accreted to the edge of the North-Asian cratone and making the Kolymo-Omolonsky micro-continent (super- terrain) (Parfenov, 1997). The external zone has been formed by the deposits of passive continental outskirts, which form the Verkhoyansky folded- overlapping belt.

Early and later- collisional metallogenic zones have been distinguished. Within the external zone of the Verkhoyano-Kolymskaya ore-containing region form the regular lateral rows – early-collisional metallogenic zones of lamellar fans frontal structures which in the interior turn into later-collisional metallogenic zones of fault structure with combined kinematics. There has been displayed the direction of ore- and structure-forming processes in Verkhoyano-Kolymskaya ore-containing regions which can also be seen in the North-East of Asia. In the beginning of the development of folded belts there forms an early-collisional tectonomorphogenic 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 outskirts contains ore-making process within the mesozoic belts.