



SOSNOVOE DEPOSIT

Sosnovoe deposit is located within Telaiz licensed subsoil area (license XMH 15758 BP - valid until 2039).

Sosnovoe deposit is located within a tectonic plate composed of acidic volcanic rocks (metarhyolites) limited with overthrusts from below and from above. The bottom and top of plate is composed of two-mica granite-gneisses.

Metarhyolites plate is dissected with north-eastern fractures, Western and Eastern, which form an area between them with variously oriented quartz-sulfide, quartz-carbon-sulfide bodies, lenses and veins accompanied by a cap of metasomatites with scattered sulfide (pyritic) mineralization.

Auriferous areas are represented by shaped quartz-carbon-sulfide bodies, quartz-sulfide veins, straight-line shear cracks, near-vein metasomatites and disjunctive rocks. Sulfides include pyrite, galenite, chalcopyrite, sphalerite with prevalence of pyrite and galenite. The total volume of sulfides ranges from 1-2% to 5%. Main producing association: gold-galenite-pyritic. Coarse virgin gold (up to 3 mm) is prevalent in ores.

The deposit was researched in 1999-2001 within the project "Completion of Preliminary Survey of Sosnovoe Gold Ore Deposit and Assessment of Prospects of Gold Content of Palnikshorskoe Occurrence". According to results of the above survey, the following gold resources in Sosnovoe deposit are approved by the State Reserves Commission under the Ministry of Natural Resources of the Russian Federation (minutes no. 863 as of August 30, 2003) in category C1 + C2: ore - 130 thousand tons, gold - 1,421.8 kg with average gold content 10.94 g/t. The deposit is classified as group 4 deposit by geological complexity. Ore is of gold-sulfide-quartz low-sulfide type with free gold. It is easily subject to gravity concentration.

The following geological exploration works were carried out at the deposit:

- open pit excavation - 7,510 m³;
- underground excavation - 3,447 line meters;
- core drilling - 3,138 line meters.

Mine development (pit) and ore treatment with test concentration unit (gravity concentration) were carried out in 2006-2007. Production: ore - 11.1 thousand tons, gold - 109.9 kg.

Remaining reserves in Sosnovoe deposit: ore - 118.9 thousand tons, gold - 1,311.9 kg. Projected P1 gold resources amount to 924 kg (approved by Central Research Institute of Geological Prospecting for Non-Ferrous and Precious Metals).

