

Construction of the plant for the development of the Koklanovskoye less-common metal tungsten - molybdenum deposit

Project – borehole – ore.

Industry: extraction

Koklanovskoe less-common metal tungsten-molybdenum deposit was discovered in 1985. It is located in the northwestern part of the Kurgan Region in the Kataysky District territory, at a 30 km distance south and southwest from the district center and the railway station. Estimated balance of explored reserves in the ore body (30-35% of the licensed site):

- The operating reserves of ore - **251 770.4 thousand tonnes;**
- The average content of **Mo** in the operating reserves - **0,059%;**
- The average content **WO₃** in operating reserves - **0,054%.**

Mining of the construction materials (sand, gravel, etc.) is also possible on the deposit licensed site.

- *Geological estimation of the deposit has been carried out. Reserves of tungsten, molybdenum and rhenium ores, crushed stone and sand approved by State Commission on Mineral Reserves of the Russian Federation (GKZ) and put on the state balance in April, 2015.*

THE CORE OF THE PROJECT

The project involves the construction of a mining pit, crushing and sorting plant, processing factory, a residential town for the employees of the enterprise. Then ore extraction, processing and sale are planned. Besides, the extraction of rare metals - bismuth, lithium, rhenium, beryllium and gold is possible. In addition, there are serious intentions of rare earth mining industry revival in Russia, and our region has a resource base for the REE extraction. It has become important due to a deliberate policy of import substitution. Tungsten is widely used in metallurgy for the manufacture of tool, stainless alloys and special steels, in the solid heat-resistant alloys, electrical engineering, chemical industry, highly demanded in the shipbuilding and domestic military-industrial complex.

THE PROJECT OBJECTIVE IS EXPRESSED IN THE IMPLEMENTATION OF THE FOLLOWING TASKS:

- To create a qualified modern industrial facility
- To offer the 1-st class highly profitable long term business for manufacturing tungsten and molybdenum concentrates, which are necessary in many industries, as well as sand and crash stone of various fractures.
- To carry out activities to increase the contracts for supply products to the home and world market
- To perfect the quality of products systematically and introduce effective technologies that will guarantee success in competition with the other similar enterprises.

KEY INDEXES OF THE PROJECT

Location:	Kataisky District
Deposit:	Koklanovskoye
Balance reserves:	251 176 300 tonnes
The operating reserves of ore:	251 770 400 tonnes
Licensed plot area:	28 square km
Mining and processing plant commissioning	2026
Implementation period	2011-2036

DEPOSIT RESERVES: MOLYBDENUM

Mo operating reserves	148,500 tonnes
The average content of Mo in the operating reserves	0,059 %
Molybdenum concentrate output	0,0922%
The average content of Mo in the concentrate	48,3%
Total amount of Mo concentrate	232,100 tonnes
Amount of Mo in the concentrate	112,100 tonnes

DEPOSIT RESERVES: TUNGSTEN

WO ₃ operating reserves	136,000 tonnes
The average content of WO ₃ in the operating reserves	0,054 %
Concentrate output	0,0661%
The average content of WO ₃ in the concentrate	60,5%
Total amount of WO ₃ concentrate	166,400 tonnes
Amount of WO ₃ in the concentrate	100,700 tonnes

DEPOSIT RESERVES: ASSOCIATED MINERALS

Rubble with fraction 5-70 mm and screening sand	53,986,000 m ³
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PROPOSAL FOR THE INVESTOR

Options for the investors' participation:

- Direct investments 100%;
- Shared investments (governmental, private, foreign);
- Borrowed funds (on the security of the acquired equipment), leasing.

PROJECT ECONOMIC INDICATORS

Estimated period of operation	20 years
Implementation period expense (operating costs)	196 billion roubles
Income for the calculation period	246 billion roubles
Gross profit	50 billion roubles
Net profit	38 billion roubles

FORMS OF THE GOVERNMENTAL SUPPORT

Within the framework of the current federal and regional governmental programs:

- providing tax privilege on property tax, income tax and transportation tax;
- providing grants for partial refund of the utilities and engineering infrastructure construction costs.
- providing grants for partial reimbursement of interest on the borrowed funds attracted;
- providing grants for partial reimbursement of expenses for technological equipment lease payments;
- export support.