

“Erdenet” company’s today and the future.

Dear Sirs and Madams,

First of all please accept my best greetings. Two years ago we had an opportunity to exchange our viewpoints in regard to the development of “Erdenet” Mining company.

“Erdenet” Mining Corporation has been continuing its production and economical activity for more than 28 years since the first production stage was put into operation on the 14th of December, 1978.

During the first 10 years the main policy of the management of the company was run all other production stages and make the plant to work in full capacity, to ensure preparation of experienced personnel from the younger staff and establish friendly working collective. In compliance with the intergovernmental agreement concluded in 1991, the company has obtained a right to continue its trade and material-technical supply activity independently, therefore responsibility and initiative of the management and workers sharply increased. With the purpose of continuous operation of the enterprise there had been made technical and technological renovations and due to this measures production output had increased and the attention of the collective was focused to eliminate negative influences of old mining machinery and unfavourable geological conditions. Establishment of the Programme of the development strategy and foreign investments of “Erdenet” company in the years 1994-2004 opened an opportunity for reliable transition to the market economy and secured continuous operation of the enterprise, increased level of realization and sale of the end product and assured successful eventual outcome. The Programme of development and technical innovation of “Erdenet” Mining Corporation was implemented with the approval of the Board of JV and introduction to the Mongolian government. Within the said period the capacity extension was provided by replacement of old machinery with progressive and more powerful ones with employment of novel technologies. In 1994-2004 years the company financed from its own sources USD 203.8 million for investments and as a result the main part of the machinery was renovated and the production capacity reached 25 million tons. Thus by extension of production capacity we could eliminate unfavourable influences of copper content reduction originated from the depth of the open pit mine. But if we look at the results of geological researches it's clear that copper content in ore has been reducing constantly.

At the time of the first mining works the copper content in ore was 0.94%, but today the copper content had decreased down to 0.59%.

“Conception” involves technical innovation, production expansion and innovative works based on self-financing.

Utilization of the above “Conception” within the last several years resulted change of main parameters, such as ore recovery increased up to 7.17 mln tons (35.2%), ore processing to 5.26 mln.tons (32.5%) in 2005 in comparison with 1994, in spite of copper content decrease in ore (0.17-0.20%). In 2005 copper content in ore has increased up to 6.4 mln tons (5.3%) and reached 126.55 thousand tons.

1. Open Pit Mine

Within the frames of the "Conception" there was planned a full renovation of mining machinery and vehicles, construction of several new objects and development of necessary project works. In 2000-2004 stripping constantly increased and in 2005 it reached 27.55 mln tons, ore mining 27.55 mln tons respectively.

Production cost

Production cost of 1m³ stripping

Production cost of 1ton mined ore

Technical innovation of main equipments have been carried out by replacement of 3 excavators / 2 LIEBHERR R-994B type hydraulic excavators with bucket of 18m³ capacity, produced in Germany/, 4 SBSH-250MN crushers, 9 bulldozers /6 of which are chained/, 4 loaders, 2 autograders, 1 charger. These vehicles were produced by the worldwide well known firms, such as CAT, KOMATZU, LIEBHERR.

Our company has financed USD 526.2 thous. for overhaul of open pit mine equipments and machinery. In 2001-2005 23 BELAZ autodump trucks with "Cummins" engine was put in operation, from which 9 dump trucks are of 120 tons and 14 trucks are of 130 tons.

Manufacturing cost of technological transport is 10 tkm USD 0.135 per tkm.

2. Mineral Processing Plant

Ore processing volume has reached 25 mln from 20 mln tons by introduction of new equipments and technology at the Mineral Processing Plant.

4 crushers out of 5 KSD-2200 type old crushers were replaced by KSD-220012-D crushers, all 5 KMD-3000T small crushers were replaced by KMD-3000T2-DP crushers, and the 6th KMD-3000 T type crusher was installed in small crushing section. 7 hauling equipments of GST -72M type were replaced by those of GPKT-72U type. As a result of reconstruction of the crushing unit, the size of ore has decreased down to 14.5 mm. Engines of 6 OK-100 type equipment of hauling section were renovated, KIP automatic system had been installed and there was introduced a method of nitrogen utilization in the processing. The capacity of the 6th flotation section was expanded with production output up to 6 mln tons per year. As a result of technical measures and improvement of production efficiency/ ore preparation, crushing and hauling, grinding and flotation, automatization/, metal recovery increased from 84.4% to 85.09% regardless of copper content in ore.

Last 5 years the company produced 22743.5 tons of copper by increasing the processed ore volume and copper ore recovery. The profit has reached 40810.7 thous.tons as a result of increase of metal recovery from ore.

There is no possibility for further expansion or further increase of enterprise capacity. Because with the current copper production rate there is remained only 30 years lifetime reserves at the south-western part of Erdenet deposit. Therefore a further improvement of the efficiency of processing is required, in other words increase of profit by improvement of metall recovery.

The main directives of EMC Development Program for 2015 had been worked out.

The main feature of the Program is not drop the level of production indices of 2004 and at the same time to develop the processing stage. On the basis of hydrometallurgical tests on ore and concentrate the following projects were developed:

In accordance with agreement concluded with "Metal-Tech" company from Izrael the construction of "Shim Technology" plant specializing on production of pure molybdenum oxide will be soon accomplished. At present the first stage of production is already accomplished and production is running on the experimental basis. USD24 mln. was invested to the Shim Technology plant and the invested money is expected to be repayed during 6 years, the plant is planning to provide with work place about 140 people and the estimated income would be USD 4 mln per year.

The company conjointly with "Outocumpu" company from Finland is developing "Hydro Copper" Project for production of cast copper products. In accordance with the above Project we are planning to produce 50000 tons of copper wire rod with 8 mm diameter annually. Investment to the plant amounts USD 250 million and about 100 people will be involved in the production.

We have worked out preliminary assessment for producing 10000 tons of pure copper annually by leaching method from low grade and oxidized ore or other ores, which are not suitable to concentrate mill and 20000 tons of copper by autoclave leaching technology. We have concluded an agreement with "Samsung" corporation from Korea on the above project. The basic technical and economical characteristics of the Project are worked out by Australian "Bateman" company and according to preliminary assessment USD140 mln is to be invested to the Project, involving 100 people's work place.

According to estimated Development Program for the time up to 2015, USD534.2 million is required for projects intended for technical innovation, utilization of progressive technologies and metal recovery. We are planning to finance USD 445.2 mln from our own sources. The remaining part could be invested by foreign investors and companies. It also could be invested from each shareholder's side of our JV. The estimated income from the above projects amounts USD 1523 million.

Since the last our report "The past and the future" the price of mineral resources at the world market has been stably high, that was quite favourable for our company and other mining companies. In 2004 EMC contributed to the state budget 83.7 billion tugriks and in 2005 - 121.3 billion tugriks and produced 9.5% of GNP, 32.6% of GDP, 36.1% of export respectively.

EMC has been utilizing world's progressive techniques and technologies in production and intends improving levels of processing stages for more profitability and at the same time continues its geological researches at the nearby areas.

We are ready to accept offers from foreign companies and specialists who are interested to cooperate on the related our new projects and geological researches.