

Mining and metallurgical complex

Construction of a mining and metallurgical complex on Besshoky Square in the Karaganda region

Project overview:

This investment project (hereinafter referred to as the "Project") provides for the construction of a mining and metallurgical complex at the Besshoky field.

Project goals: development of a group of deposits on Besshoky Square, creation of an effective integrated business for the extraction and processing of copper-molybdenum ore.

Initiator: Ulmus Fund B.V.

Production process: open pit mining; ore processing at the processing plant and production of copper-molybdenum concentrate; processing of concentrate at a smelter to produce copper and molybdenum.

Products: copper and molybdenum

Production capacity:

10 mln tons of ore per year

Project implementation assumptions:

Large reserves of copper. Kazakhstan takes the 8th place in the world in copper reserves with a share of 4.7% of world reserves (37 million tons).

High demand. Copper plays a significant role in modern infrastructure, generation and transmission of electricity, in the production of industrial equipment and electrical appliances. According to the forecasts of the International Copper Study Group, the annual growth in demand for refined copper will be 2% in 2019 and 1.5% in 2020.

Price stabilization. According to Bloomberg, the price of refined copper is expected to increase with its subsequent stabilization in the medium term: 2019 - 6038.5 USD, 2023 - 6087 USD per ton.

Molybdenum price increase. Despite a significant drop in molybdenum prices from 2013 (24,889 USD) to 2015 (11,625 USD), according to the London Metal Exchange (LME) index, the price of molybdenum began to rise steadily to 24.9 thousand USD in 2018 (CAGR for 2015-2018 - 29%).

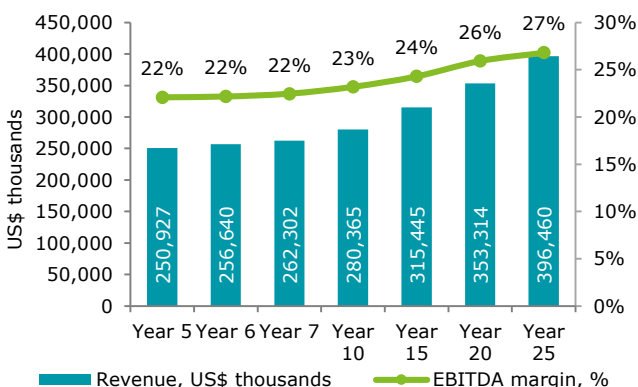
Key investment indicators

Indicator	Results
Amount of investments, US\$ thousands	210,000
Project NPV, US\$ thousands	116,747
IRR, %	21.2%
EBITDA margin, %	14-28%
Payback period, years	8.5
Discounted payback period, years	11.7

Project location: Besshoky square, Karagandy oblast



Project profitability



Field reserves by JORC (2012)

Field	Ore, mln tons	Copper, ths tons	Cu, %
East Besshoky			
Measured	9.64	74.58	0.77
Indicated	19.09	116.93	0.61
South Besshoky			
Measured	44.36	164.52	0.37
Indicated	147.32	527.03	0.36
Kaindyshoky			
Measured	-	-	-
Indicated	37.87	143.52	0.38