

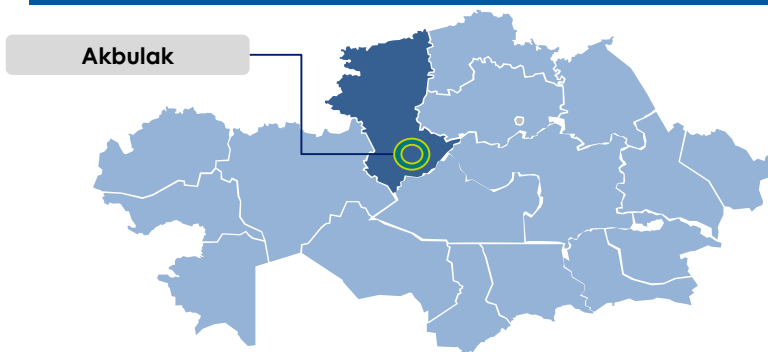
EXPLORATION OF RARE EARTH ELEMENTS AT THE AKBULAK SITE



FORECAST RESERVES

	Forecast reserves	Average content
Yttrium oxide	P1 - 67.9 thousand tons	272 g/t
Oxides of the rare earths	P1 - 281.34 thousand tons	790 g/t

LOCATION



VALUATION METRICS

REQUIRED INVESTMENT

**US\$ 15 million for exploration work under the contract,
from US\$ 1 million for the first year of pilot production**

Project
implementation period

6 years



THE PROJECT

The project involves exploration and pilot production at Akbulak site. Located near the Arkalyk city in Kostanay region, which is connected by rail and highways with the largest centers of the country.



THE COMPANY

National geological company Qazgeology JSC holds contract for the development of Akbulak site. The contract for subsoil use of the site was concluded in November 2018.



GEOLOGICAL EXPLORATION

Systematic study of the area began in the late 40s of the last century with its Northern part Arkalyk-Ashutau structures) in connection with prospecting and exploration geological and geophysical works on the Amangelda group of bauxite deposits. Subsequently, the research extended to the South and East towards the Kurgasyn lead mine, capturing the Arganatinsky uplift of Northern Ulutau. Since the late 50s in the area revealed many anomalies of rare earths, tin, lead, zinc, gold, niobium, but objects of industrial importance is not established. In the course of geochemical searches of 1986-90 the Akbulak zone of rare earth elements was discovered, which is characterized by yttrium contents from 0.01% to 0.1%.



REASONS FOR ENGAGEMENT

The area of the Akbulak deposit is about 2 sq km. Mineralization is confined to linear weathering crusts. The power of the ore zones varies from 1.4 m to 31 m, with a total depth of the weathering crust from 10 to 50 m. The Mineral form of rare earths is xenotimum rhabdophanite, churchite and bastnesite. In addition to yttrium and rare earths (cerium, praseodymium, neodymium, samarium, europium, gadolinium, terbium, dysprosium, holmium, erbium, thulium, ytterbium, lutetium), the ores contain tin (50-200 g/t), and zirconium (150-300 g/t) The expected stripping capacity is 13 m.



INVESTMENT OPPORTUNITY

The project owner is looking for an investor and ready to consider various options of cooperation.