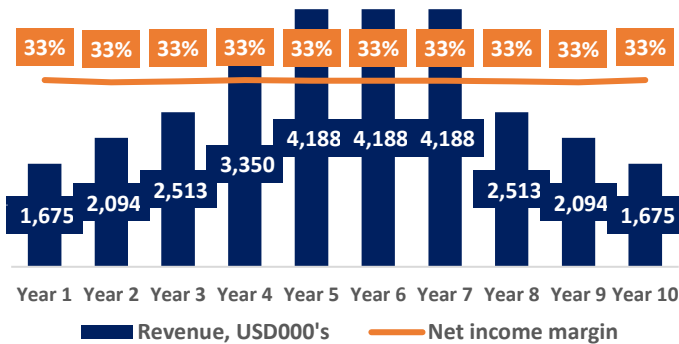




## Sodium sulfate deposit



## Profitability forecast



## Location



## Key products output by Year 5

Na <sub>2</sub> SO <sub>4</sub>	50 thousand tonnes
NaCl	13 thousand tonnes

## Valuation Metrics

Required Investment	US\$2 million
Project NPV	US\$4 million (at 15% discount rate)
Project IRR	55%
Payback Period	3 years



### The Project

- The sodium sulfate deposit is located in Moynkum district of Zhambyl region, 25 km to north-west from the western edge of Balkhash Lake
- The nearest railway station Kashkanteniz is located in 20 km; the Nur-sultan – Almaty highway is located in 30 km. The area is well-developed in terms of infrastructure (power, water, work force, etc.)
- Main minerals of the deposit are thenardite (dehydrated sodium sulfate, Na<sub>2</sub>SO<sub>4</sub>) and halite (technical salt, NaCl). Both minerals are marketable and processing technology is simple. Purified sodium sulfate is obtained from thenardite by washing, crushing, complete dissolution and evaporation with subsequent hydro-classification of the finished product in accordance with the technology
- The favorability of the Project is strengthened by the fact that sodium sulfate is not currently being produced in the Republic of Kazakhstan, however, extensively used in production of glass, textile and paper, non-ferrous metallurgy, chemical, oil & gas, construction and medical industries
- The owners of the company are Kazakh professionals with extensive experience in Mining and Petroleum industry. **At the moment the company holds an exploration license (No. 1211-EL dd. 15 February 2021; The license term is 6 years - till 2027) and land allotment for the license area**
- The company obtained the package of geological information including reserves data. **Official State-approved reserves of Na<sub>2</sub>SO<sub>4</sub> as of 1957 are 1.62 million tons (A+B+C1 categories per GKZ) and were confirmed in 1997.** The company plans to conduct exploration works (circa USD100 thousand needed) and re-approve the reserves based on available data
- According to the Management, the offtake contract with the company from Russian Federation is at negotiation stage at the moment



### Market overview

- Average market prices for sodium sulfate vary from \$80 to \$400-600 per tonne depending on the grade of the product. Wholesale prices in Kazakhstan start from \$220 per tonne for the technical grade product to \$1,560 per tonne for the pure (medical/lab) grade
- Asia Pacific region is the major consumer of the product and demand continue to rise owing to increasing population in countries such as Japan, China, India and Indonesia. The demand is driven by growing textile industry of Japan, where approximately more than 100 thousand tonnes of sodium sulphate is utilized annually by textile manufacturers
- China is one of the largest producer of the product and domestic demand is growing at a significant rate. Pulp and paper industry in India is one the major consumer of the product and demand is anticipated to grow significantly over the period



### Investment Opportunity

- The company is looking for strategic investor. The company plans to sell 80% portion of equity to strategic investor (retaining 20% of equity). The company is open to other possible alternatives in terms of investment structure