

## Construction of a complex for the production of barite concentrate in Mangystau Oblast

### Project description:

The project involves construction of a complex for the extraction of barite-celestine ores and their processing into barite concentrate for use as weighting agents for drilling muds. The mining of barite-celestine ores and their processing will be carried out at the North Aurtas deposit.

**Product:** Barite-celestine based weighting agent («BCWA»), carbonate based weighting agent («CWA»).

### Reserves (Category C1):

3,579 thousand tons

### Initiator:

Chemicals trading LLC.

### Location:

Mangystau district, Mangystau Oblast

### Annual production capacity:

200 thousand tons of ore per year;

- BCWA - 186 thousand tons;
- CWA - 14 thousand tons.

### Key investment indicators

| Indicator                             | Results |
|---------------------------------------|---------|
| Amount of investments, US\$ thousands | 14,123  |
| Project NPV, US\$ thousands           | 14,999  |
| IRR, %                                | 32.5%   |
| EBITDA margin, %                      | 34-41%  |
| Payback period, years                 | 5.0     |
| Discounted payback period, years      | 6.1     |

### Project location: Mangystau district, Mangystau Oblast



### Project implementation assumptions:

#### Existence of a rich resource base.

The Aurtas deposit, located in Mangystau Oblast, is the largest barite ore deposit with a balance stock of 3.5 million tons of ore. Additionally, ore reserves may increase during additional geological exploration of the area during mining operations.

#### Advantageous location.

The geographical proximity of the Aurtas deposit to the oil and gas fields of western Kazakhstan and to the Caspian Sea and the ports of Aktau and Kuryk provides a favorable logistic advantage in the delivery of final products to both domestic and foreign consumers.

#### Development of the oil and gas industry of Kazakhstan.

The last four years, the volume of purchases of the entire oil and gas market in Kazakhstan has increased by an average of 20% per year. The total amount of oil services purchased in 2018 amounted to US\$ 8.26 billion, which is 15.5% more than in 2017 (US\$ 7.15 billion).

#### Lack of competition in foreign markets and export potential.

According to the analysis of competitors in foreign markets in Turkmenistan, Russia, Azerbaijan and Saudi Arabia, the extraction and processing of barite is insufficient or completely absent to meet domestic demand.

### Project profitability

