# **Ferro Alloy Resources**

(LON:FAR)

### Low-cost vanadium producer developing the giant Balasausgandig vanadium deposit in southern Kazakhstan

### Overview

- Principal asset is subsoil-use contract for the Balasausqandiq deposit located in the Shieliiskiy Region of Kyzlorda Oblast in southern Kazakhstan; an advanced black shale vanadium development project.
- PFS shows post-tax NPV10 of US\$2bn using a flat US\$7.50/lb V2O5 price with upfront stage 1 capex of US\$100m and stage 2 capex of US\$225m internally funded, for respective production of 5.6ktpa and 22.4ktpa V2O5.
- Unit costs before by-products of US\$2.26/lb, US\$1.54/lb on a co-product basis and negative US\$-1.20/lb on a by-product basis gives the project an industry leading cost base; around 56% lower than current low cost peers.
- Ore body is not titano-vanidiferous-magnetite (TVM) in nature which enables a simpler metallurgical process which does not include high temperature roasting or pre-concentration. This reduces capex and opex by around 60% against TVM peers which account for 80% of current supply. Overall recoveries over 90% versus around 75% for TVM.
- Surface outcropping and large shallow orebody allow low cost mining with a low strip ratio.
- Annual revenue of US\$135mpa combined with strong margins result in free cash flow generation of US\$103mpa during phase 1; this rises to US\$541mpa and US\$430mpa in phase 2. 2.2 years of phase 1 cashflow is sufficient to fund phase 2 internally.

#### **Existing Production**

- The company currently operates a processing plant which treats brought-in concentrates.
- Near-term expansion of the existing operation, which produced c150t V2O5 in 2019, up to 1.5ktpa.
- Aiming to provide cashflow during construction phase.

#### **Pro Mining Jurisdiction**

- Kazakhstan is located on the Silk Road Economic Belt with corridor of roads, rail, energy, telecoms and infrastructure linking China to
- Significant site infrastructure already in place with easy access to roads, rail, power and water.
- Stable jurisdiction with a mining-friendly government.
- FAR has signed an Investment Incentive Agreement with Kazakh Government stipulating 0% tax until 2026 and full property tax exemption until 2024.

### Reserves and Resources\*

	Tonnes (Mt)	<b>V</b> <sub>2</sub> <b>O</b> <sub>5</sub> %	MoO <sub>3</sub> %	U <sub>3</sub> O <sub>8</sub> %
Balausqandiq – Ore Body 1				
Indicated	21	0.67%	0.03%	0.01%
Inferred	2	0.67%	0.03%	0.01%
Combined	23.0	0.67%	0.03%	0.01%

<sup>\*</sup>Mineral resource estimates produced in Kazakh State Reserves Committee and Competent Person's Reports (2014), currently being upgraded to full bankable feasibility study





# Sites





## Financial Performance

Values in US\$m unless otherwise stated		
Share Price (GBP)	0.09	
Share Price (USD)	0.12	
Shares Outstanding (m)	313.0	
FDSO	313.0	
Market Cap	37.6	
Debt	0	
Cash & Equivalents	4.6	
Enterprise Value	32.9	



# Key Shareholders and Management

Firm	Stake
Andrey Kuznetsov	22.4%
Nicholas Bridgen	20.7%
Citadel Equity Fund	13.4%

Individual	Position
Nicholas Bridgen	CEO
Andrey Kuznetsov	<b>Operations Director</b>
Chris Thomas	Non-Executive Director
James Turian	Non-Executive Director



