

### Disclaimer

The information contained in this confidential document ("**Presentation**") has been prepared by Ferro-Alloy Resources Limited (the "**Company**"). It has not been fully verified and is subject to material updating, revision and further amendment. This Presentation has not been approved by an authorised person in accordance with Section 21 of the Financial Services and Markets Act 2000 ("**FSMA**"). It is provided for information purposes only and it is not being provided in connection with any offer of securities in any way in any jurisdiction.

While the information contained herein has been prepared in good faith, neither the Company nor any of its shareholders, directors, officers, agents, employees or advisers give, have given or have authority to give, any representations or warranties (express or implied) as to, or in relation to, the accuracy, reliability or completeness of the information in this Presentation, or any revision thereof, or of any other written or oral information made or to be made available to any interested party or its advisers (all such information being referred to as "Information") and liability therefore is expressly disclaimed. Accordingly, neither the Company nor any of its shareholders, directors, officers, agents, employees or advisers take any responsibility for, or will accept any liability whether direct or indirect, express or implied, contractual, tortious, statutory or otherwise, in respect of, the accuracy or completeness of the Information or for any of the opinions contained herein or for any errors, omissions or misstatements or for any loss, howsoever arising, from the use of this Presentation.

This Presentation may contain forward-looking statements that involve substantial risks and uncertainties, and actual results and developments may differ materially from those expressed or implied by these statements. These forward-looking statements are statements regarding the Company's intentions, beliefs or current expectations concerning, among other things, the Company's results of operations, financial condition, prospects, growth, strategies and the industry in which the Company operates. By their nature, forward-looking statements involve risks and uncertainties because they relate to events and depend on circumstances that may or may not occur in the future. These forward-looking statements speak only as of the date of this Presentation and the Company does not undertake any obligation to publicly release any revisions to these forward-looking statements to reflect events or circumstances after the date of this Presentation.

In furnishing this Presentation, the Company does not undertake or agree to any obligation to provide the recipient with access to any additional information or to update this Presentation or to correct any inaccuracies in, or omissions from, this Presentation which may become apparent.

This Presentation should not be considered as the giving of investment advice by the Company or any of its shareholders, directors, officers, agents, employees or advisers. In particular, this Presentation does not constitute an offer or invitation to subscribe for or purchase any securities and neither this Presentation nor anything contained herein shall form the basis of any contract or commitment whatsoever. Each party to whom this Presentation is made available must make its own independent assessment of the Company after making such investigations and taking such advice as may be deemed necessary. In particular, any estimates or projections or opinions contained herein necessarily involve significant elements of subjective judgment, analysis and assumptions and each recipient should satisfy itself in relation to such matters.

Neither this Presentation nor any copy of it may be (a) taken or transmitted into Australia, Canada, Japan, the Republic of South Africa or the United States of America (each a "Restricted Territory"), their territories or possessions; (b) distributed to any U.S. person (as defined in Regulation S under the United States Securities Act of 1933 (as amended)) or (c) distributed to any individual outside a Restricted Territory who is a resident thereof in any such case for the purpose of offer for sale or solicitation or invitation to buy or subscribe any securities or in the context where its distribution may be construed as such offer, solicitation or invitation, in any such case except in compliance with any applicable exemption. The distribution of this document in or to persons subject to other jurisdictions may be restricted by law and persons into whose possession this document comes should inform themselves about, and observe, any such restrictions. Any failure to comply with these restrictions may constitute a violation of the laws of the relevant jurisdiction.

### **Overview**

### Vanadium producer in Kazakhstan

#### Corporate

- Listed on London Stock Exchange and Astana International Exchange
- Operations: Kazakhstan

#### **Activities**

- Producing vanadium, molybdenum and nickel from purchased concentrates
- Feasibility study Balasausqandiq project targeting 22,400 tonnes
   of vanadium pentoxide plus by-products per year



#### Vanadium – a green metal

- Traditional use for micro-alloying steel reduces world steel requirements
- A huge new market as a battery metal

### **Strategic Investment**

Led by Sir Mick Davis, former Xstrata CEO, Vision Blue has made a multi-stage strategic investment into FAR:

• \$10.1m already invested (including \$1.1m by co-investors)

#### Further options:

- \$2.5m option to subscribe within two months of announcement of feasibility study for Phase 1 of the Balasausqandiq project for Convertible Loan Notes (which, subject to certain conditions and any adjustment events occurring, are convertible into 19,952,433 shares at 9p\* per share)
- \$10m option to subscribe for up to 28,731,504 shares at 25p\*\* per share, exercisable when FAR raises funds for construction of Phase 1 of the Balasausgandig project, subject to consents
- \$20m option to subscribe for up to18,417,630 shares at 78p\*\*\* per share, exercisable at any time until two years after the completion date under the investment agreement or when FAR raises money for construction of Phase 1 of Balasausqandiq project, subject to consents

If all options are exercised and Convertible Loan Notes are converted, and excluding the effect of any further capital raise, Vision Blue will hold approximately 29% of the share capital of FAR.

<sup>\* 12.5298</sup> cents (USD) per share using the agreed exchange rate

<sup>\*\* 34.805</sup> cents (USD) per share using the agreed exchange rate and subject to any adjustment events occurring

<sup>\*\*\*</sup> US\$1.085916 per share using the agreed exchange rate and subject to any adjustment events occurring

### **Proposed Placing**

Whilst the existing operation is now nearing completion, the Ukrainian invasion and residual Covid-19 issues are causing concern as to potential disruption to supply chains and export routes.

The aim is to secure sufficient funding so that the Feasibility Study can be completed as quickly as possible, with the maximum scope and quality, and with certainty of completion whatever may arise from the knock on effects of the Covid-19 pandemic and geopolitical issues.

- Firm placing of new ordinary shares to raise US\$10 million (gross) (the "Placing") to fund the use of proceeds (see next slide):
  - Accelerated bookbuild process
  - A retail offer through PrimaryBid
  - New shares rank pari passu with existing shares
- Vision Blue, the Company's strategic investor, has indicated that it intends to cornerstone the Fundraising by subscribing for shares to maintain its percentage and acquiring any shortfall in demand to ensure US\$10 million is raised
- Indicative Placing timings:
  - Roadshow: 6-13 September
  - Opening of book: Wednesday, 14 September
  - Closing of book: Wednesday, 14 September
  - Settlement: T+5 basis
- Joint bookrunners: Shore Capital and Liberum

### **Use of Proceeds**

#### Specific areas that will benefit from the Placing proceeds include:

- Feasibility Study remains on current timetable
- By-product studies to include:
  - o Concentrate of carbon in silica as a substitute for carbon black to make tyres
  - o Briquetted carbon-silica tails as feed for smelting ferro-silicon or similar
  - Sulphuric acid plant reducing the cost of acid and ability to use exothermic heat to produce electricity and steam for processing
- Increased flexibility to maintain stockpiles of concentrates to the existing operation, reducing the impact of potential supply chain issues
- Ability to pro-actively recruit putting the appropriate management in place ready for construction

# Interim financial report for the half year to 30 June 2022

### Operating highlights

- Feasibility study ongoing
- Drilling of four ore-bodies (OB 1 4) nearing completion
- Early comparison of old and new estimate over 800m strike length of OB1, based on semi-quantitative XRF analysis shows a possible 80% increase in volume and 50% increase in metal compared with the previous estimate from wider spaced drilling
- Metallurgical test work confirms 93% recovery into leach
- Half year production of vanadium pentoxide 95% higher than H1 2021
- First production of ferro-molybdenum totalling 40.6 tonnes in the period
- High grade nickel concentrate production to start in H2, with associated additional recovery of vanadium
- Conversion of AMV to vanadium pentoxide to start in final quarter of 2022
- Vanadium pentoxide prices remaining high compared with historic average levels

### Interim results for half year to 30 June 2022

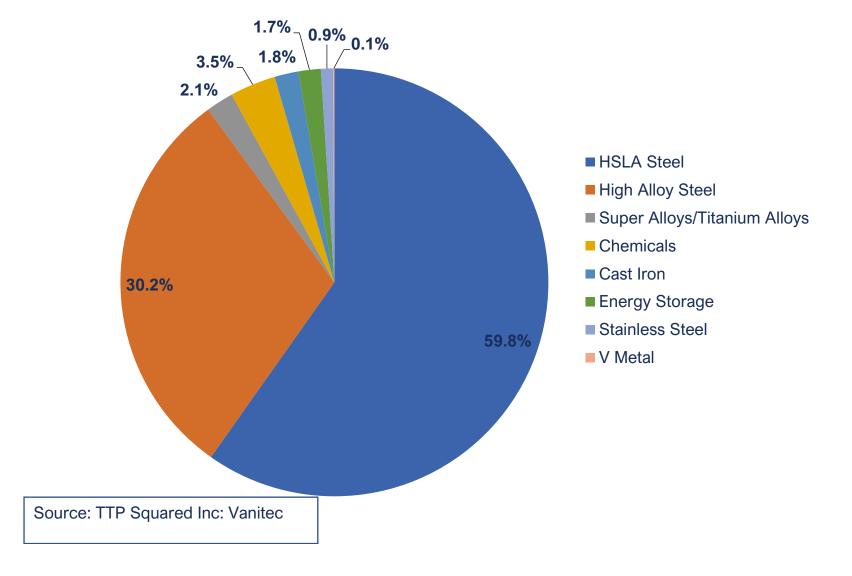
- H1 revenue, while materially ahead of last year, has been impacted by the supply chain issues caused by the war in Ukraine and the after effects of Covid-19
- Uncertainty remains as to the impact these issues will have on the outcome for H2 but the Company expects H2 revenues to be significantly greater than H1
- The reduced revenue profile for the whole year is the primary reason behind the proposed Placing as the Company seeks to ensure that the timetable for the Feasibility Study is not impacted

	2022 \$000	2021 \$000
Revenue from customers	4,327	1,520
Adjustment to revenue price-changes after delivery and fair value *	(417)	27
Total revenue	3,910	1,547
Cost of sales	(3,541)	(1,491)
Gross income	369	56
Loss for the period	(694)	(1,083)

<sup>\*</sup> Reflecting the change in metal prices between the amounts booked at time of shipment and the prices finally agreed at based on the contractual pricing period.

## **The Vanadium Market**

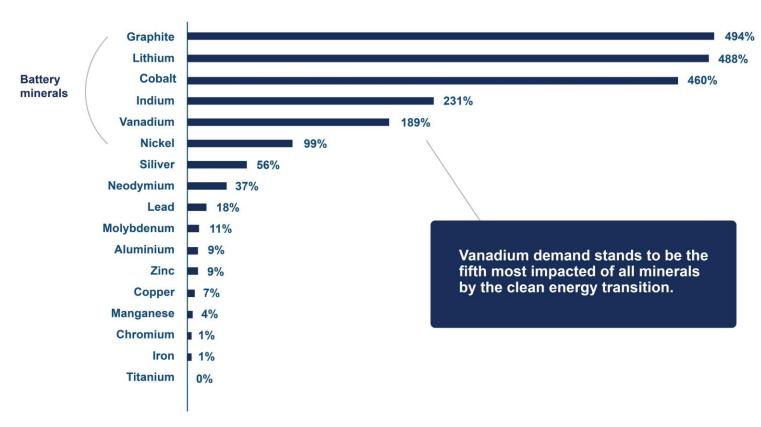
### Vanadium consumption by application 2021



### Vanadium is a battery metal

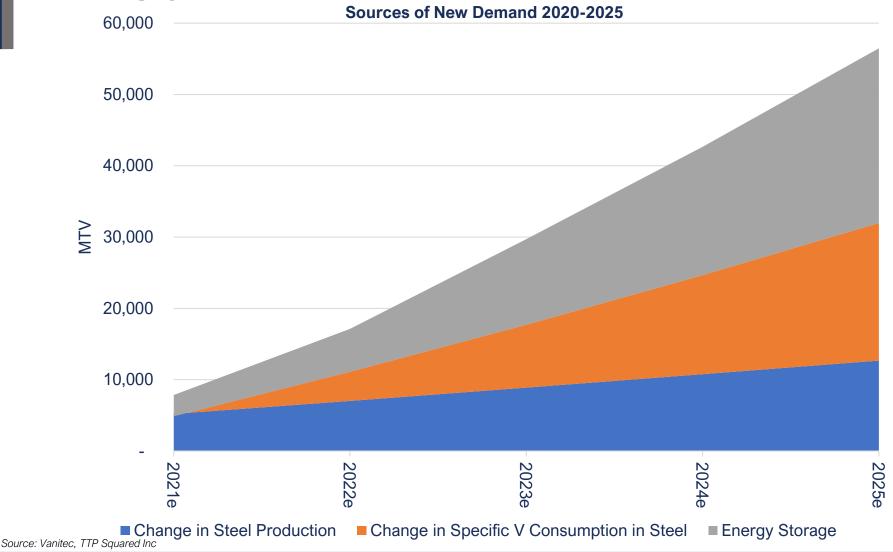
An entirely new major market for vanadium

Projected annual demand in 2050 for Energy Technologies as a percentage of 2018 Production Levels under 2DS



Source: presentation to Vanitec 2020

# World market for vanadium is growing strongly



# Two operations

A: Balasausqandiq project – approximately 96% of NPV

B: Existing processing operation – approximately 4% of NPV

# Balasausqandiq deposit

(96% of FAR's NPV)

### Balasausqandiq deposit: An unusual type of ore





Nearly all the vanadium produced in the world is from titano-vanadiferous magnetite, a form of iron ore. Extraction of vanadium from this material is energy intensive and expensive.

The ore at Balasausqandiq is different. It is a sedimentary deposit, with a high grade of vanadium and negligible iron – a significant advantage

# Balasausqandiq – why a huge cost advantage over other producers and projects?

Crucially **not** a titano-vanadiferous magnetite deposit

#### WHY THIS MATTERS:

- No need for high temperature roasting
- No need to pre-concentrate ore
- High recovery
- Valuable by-products

- Significantly reduces capital costs
- Significantly reduces operating costs
- Negative cost of vanadium production after by-product credits



### Balasausqandiq – other advantages

#### FAVOURABLE GEOLOGY

- · Outcrops at surface, open pit,
- Very large deposit
- Total resource plus exploration potential 115m tonnes (middle of estimated range)
- Visible geological cut-off, low stripping ratio

#### EXISTING INFRASTRUCTURE AND TRANSPORT LINKS

- Surfaced road already existing to site from town of Shieli (70 km)
- Shieli lies on the route of the motorway and rail links connecting Western Europe with East-Coast China
- High voltage (110kV) power line already connected
- Water and land readily available

#### ENVIRONMENTAL AND SOCIAL

- All the constituents of the ore and recycling operations can be sold as products
- No arable land will be disturbed
- The site is 16 km from the nearest habitation no people will be moved or disturbed
- Lower CO2e than other primary vanadium suppliers

### Balasausqandiq – economics

#### LOW COST PRODUCER

Balasausqandiq forecast cash cost of production:

- \$1.54/lb expected (costs apportioned between products)
- \$(1.20) if by-product revenues are deducted from costs

#### EXCEPTIONAL FINANCIAL STATISTICS (Phases 1 and 2 combined)

- NPV of \$2 billion (10% discount rate, after tax cash flows)
- 79% operating margin
- 89% IRR
- Annual operating cash flow \$430m per year after tax (at 2018 assumed V2O5 price of \$7.50/lb)

Source: Competent Person's Report, 2018

### Feasibility study highlights

#### Resource

Around 18,500m out of the total drilling programme of 22,850 metres completed Ore Body 1 infill drilling completed. Drilling of OB2-4 ongoing Early semi-quantitative results of infill drilling of three new sections at 200m intervals within an 800m strike length of OB1 potentially indicated thicker sections compared with the original modelling. Full assays are awaited

#### Metallurgy

Vanadium recovery into leach at 93%+, in accordance with pilot plant results Test-work on sorption and final recovery ongoing

#### Carbon

Testwork on producing a carbon-silica concentrate and suitability for making tyres as substitute for carbon black successful

#### Expanded scope

Scope previously expanded to include Phase 2. Now potentially including sulphuric acid plant and carbon concentrator plant

# Development plan

### **Development plan**

Now	Expansion of existing operation and feasibility study for Balasausqandiq	Ongoing
Phase 1	Mining and processing 1 Mtpa of ore Production 5,600 tpa (to be funded from existing operations, debt, and exercise of options by strategic partner)	Capex \$100m
Phase 2	Expansion to 4 Mtpa of ore Production increase to 22,400 tpa (to be funded from earnings of Phase 1)	Capex \$225m

Production figures in tonnes of vanadium pentoxide (V2O5). Source for capex and production Competent Person's Report 2018

- Equity for funding for Phase 1 is expected to be by the cash flows arising from the existing operation and by debt plus limited equity issues if required. Note: Strategic partner has options to subscribe for additional US\$32.5m equity or convertible loan notes
- The current intention is that funding of Phase 2 will be substantially from operating earnings of Phase 1 plus limited debt

### Timeline – near term

Approximate timeline of existing plant and feasibility study

	Completed by
Commissioning of new molybdenum circuit	Q4 2022
Commissioning of new press filter and repulpation	Q4 2022
Commissioning of nickel roast and leach circuit	Q4 2022
Completion of drilling of OB 2, 3 &4	Q4 2022
Full metallurgical testwork Phase 1	Q4 2022
Commissioning of dissociation oven	Q4 2022
Revised resource estimation	Q4 2022/Q1 2023
Full feasibility study Phase 1	Q2/Q3 2023
Full feasibility study Phase 2	Q2/Q3 2024

### Timeline – post feasibility study

Approximate timeline of development plan

Completed	Ву	
Existing plant at full capacity	Q4 2022	
Finance for Phase 1	Q3/Q4 2023	
Front end engineering Phase 1	Q1 2024	
Construction Phase 1	Q4 2025	
Construction Phase 2	Q2 2028	

# **Existing operation**

(4% of FAR's NPV)

### **Existing process plant - today**



- Recovers vanadium, molybdenum and nickel from recycled raw-materials
- All the valuable components are recovered and sold – no significant residues are left on site
- Based on expanded pilot/test plant for the Balasausqandiq project

### **Existing Production**

The existing process plant production of  $V^2O^5$ :





### **Existing process plant**

#### Advantages:

- Useful cash flow targeting \$10m free cash flow per year
- Balasausgandig is not a green-field site
- An experienced management team
  - Technical experience
  - Four PhD's within technical team
  - Enables informed input to design of Balasausqandiq project
  - Capability in-house to develop needed technology
- Operating management ready for operations
- Well-equipped laboratory and highly professional staff
- Previously tested the Balasausqandiq process at significant scale

Operating the existing process plant significantly de-risks the implementation of the Balasausqandiq project

### Products and revenue – existing operation

	Jan-June 2022 (average per month) Tonnes	Projected 2023 (average per month) Tonnes	Projected monthly sales revenue 2023 at current prices and discounts \$m (% of total)
Tonnes treated	196	275 - 325	
Production:			
Vanadium pentoxide	29	55 - 62	\$1.0m - \$1.15m (50%)
Molybdenum in FeMo	4	13 - 15	\$0.7m - \$0.8m (35%)
Nickel in concentrate	Stockpiled	14 - 16	\$0.3m - \$0.35m (15%)
Total			\$2.0m - \$2.3m (100%)

The metal content of raw-materials varies considerably and high-grade materials are more expensive to buy. The above projected figures are based on a typical mix of raw-materials but the actual materials treated may be different. Figures are approximate

### **Existing operation - update**

The expansion of the process plant is now nearing completion and, with the new nickel operation due to start up later this year, is capable of generating significant funds

The final steps in the expansion due to be completed in the final guarter 2022 are:

- New molybdenum sorption circuit to significantly increase ferro-molybdenum production
- Filter press to allow repulpation of tailings to recover additional vanadium
- Nickel roasting and leach circuit to upgrade the nickel concentrate, boosting sales prices
- A second dissociation oven to convert AMV into vanadium pentoxide

At the conclusion of these steps, all the valuable materials contained in the raw materials will be recovered, principally vanadium, molybdenum and nickel. No tailings are expected to be retained on site.

Surplus funds generated from this operation will be used to start Front End Engineering and Design, reducing the time to start construction of Phase 1, without the need to raise further funds.

# **Appendix**

### Share capital

### Major shareholders

Shareholder	Current shares (m)	After conversion of VBR loan notes* (m)
Vision Blue Resources*	38.3 (10.1%)	71.8 (17.5%)
Andrey Kuznetsov	68.5 (18.1%)	68.5 (16.6%)
Nicholas Bridgen	49.7 (13.2%)	49.7 (12.1%)
Other shareholders	221.2	221.2
Total	377.7	411.2

<sup>\*</sup>Vision Blue Resources holds US\$4,200,000 of loan notes which are convertible into 33,520,088 shares at the preagreed issue price of 9p per share (12.5298 cents (USD) per share using the agreed exchange rate and subject to any adjustment events occurring)

<sup>\*\*</sup>Excludes 8,779,073 shares held by co-investors

### Kazakhstan

An attractive operating environment

- An upper-middle income country (World Bank)
- 25th (of 191) in ease of doing business (World Bank 2020)
- 10% income tax, 20% profits tax
- No general requirement for government free-carry or local ownership
- Subsoil use law updated in 2018 based on international practices

"Since independence in 1991, Kazakhstan has experienced remarkable economic performance. Rapid growth, fuelled by structural reforms, abundant hydrocarbon resources, strong domestic demand, and foreign direct investment (FDI), has helped reduce poverty and transform the country into an upper-middle-income economy." - World Bank 2021



### **By-products**

Valuable by-products produced as part of the single processing route

#### Carbon-silica

Concentrated to make a 40% carbon concentrate, can be used in the manufacture of rubber, principally tyres. Carbon-silica mix can also be briquetted to make feed for ferro-silicon smelting

\_\_\_\_\_

#### Uranium / molybdenum

Yellowcake concentrate. Kazatomprom has a statutory first right to purchase uranium products in Kazakhstan

\_\_\_\_\_

#### Potassium alum

Able to market in China or break-down into alumina and fertilisers

.\_\_\_\_

Product	Projected revenue per tonne of ore (\$/t)
Vanadium (V <sub>2</sub> O <sub>5</sub> ) @ \$7.50/lb	93
Carbon-silica	26
Uranium	3
Aluminium/ potassium	10
Molybdenum	4

### **Board**

#### Experienced team with proven capability

#### Sir Mick Davis Chairman

A highly successful mining executive accredited with building Xstrata plc into one of the largest mining companies in the world prior to its acquisition by Glencore plc. Before listing Xstrata on the LSE as CEO he was CFO of Billiton plc and Chairman of Billiton Coal which he joined from the position of Eskom CFO. During his career in mining he has raised almost US\$40bn from global capital markets and successfully completed over US\$120bn of corporate transactions. Founder of Vision Blue Resources.

#### Nicholas Bridgen Chief Executive

Chartered accountant, lives in Kazakhstan and speaks Russian. 14 years with Rio Tinto group in various roles and 26 years' board level experience with companies operating in the FSU including CEO of Hambledon Mining.

#### William Callewaert Chief Financial Officer

Experienced finance professional, FCA qualified and a chartered accountant (ICAEW) with over 20 years' experience working across audit and advisory services both in the UK and offshore. Holds an honours degree in Law from Durham University.

#### Andrey Kuznetsov Director of Operations

Engineer with PhD in mathematical logic, native Russian, English speaker. Previously lead the Scientific Department in Central Committee of Youth, Kontakt Research and Development and TOO Firma Balausa. Author of more than 10 vanadium treatment technology patents.

#### Chris Thomas Non-Executive Director

Chairman of I&S BBDO, Japan and previously CEO for BBDO in the Americas as well as for Asia, Middle East and Africa.

#### James Turian Non-Executive Director

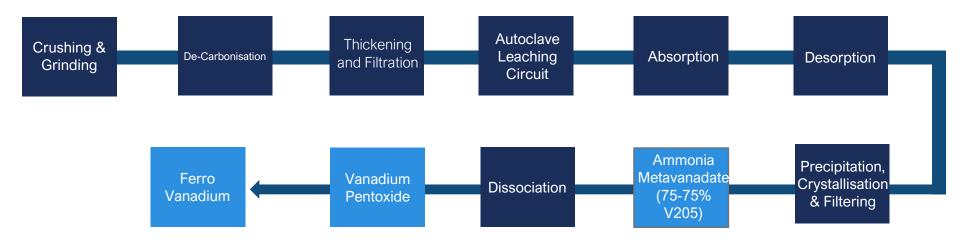
Background in accounting and trust management and a Chartered Fellow of the Securities Institute IAQ and a Fellow of the Institute of Directors. Director of Accounts For You Ltd.

#### Peet Nienaber Non-Executive Director

Former CEO of Xstrata Alloys, one of the largest producers of ferrochrome and a leading producer of vanadium, with some 20,000 people under Peet's leadership. Holds a BSc in Metallurgical Engineering and a BSc in Engineering from the University of Pretoria.

### Straightforward process

Process flowsheet tested in 15,000 tpa pilot plant



### Balasausqandiq

### Resources and potential

JORC resource based on OB1 plus exploration potential in OB2 – OB5

Orebody	Category (JORC 2012)	Tonnes (Mt)	V2O5 (%)	V2O5 (tonnes)
OB1	Indicated Primary <sup>1</sup>	21.4	0.67	143,380
OB1	Inferred Oxide <sup>2</sup>	1.3	0.89	11,570
OB1	Inferred Primary <sup>1</sup>	1.6	0.67	10,720
То	tal	24.3	0.68	165,670
OB2-OB5	Exploration Target <sup>3</sup>	90.5	0.69	624,550
То	tal	114.8	0.68	790,220

<sup>1.</sup> Oxide ore based on bulk density of 1.7

<sup>2.</sup> Primary ore based on bulk density of 2.4

<sup>3.</sup> Mean of range estimated by FAR's independent geologist. GBM CPR, 12 November 2018

A Reserve (JORC 2012) based on the indicated resource of OB 1 only amounts to 23m tonnes. In addition, the Inferred primary material in the table above lies within the contours of the planned open pit.