



(ASX:ABX)

EGM Presentation

16 December 2021

Forward Looking Statement

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Competent Person Statement

Information herein relating to Exploration Results, Mineral Resources and Exploration Targets is based on information compiled by Ian Levy BSc, MSc, who is a Fellow of the Australasian Institute of Mining and Metallurgy and a Fellow of the Australian Institute of Geoscientists. Mr Levy is employed by ABx as Chief Executive Officer. Mr Levy has more than five years experience relevant to the style of mineralisation and type of deposit being reported and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the JORC Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. This report is issued with the prior written consent of the Competent Person as to the form and context in which it appears.

The information in this report relating to Mineral Resources was prepared and first disclosed under the JORC Code 2004. It has not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported.

Direct Shipping Ore

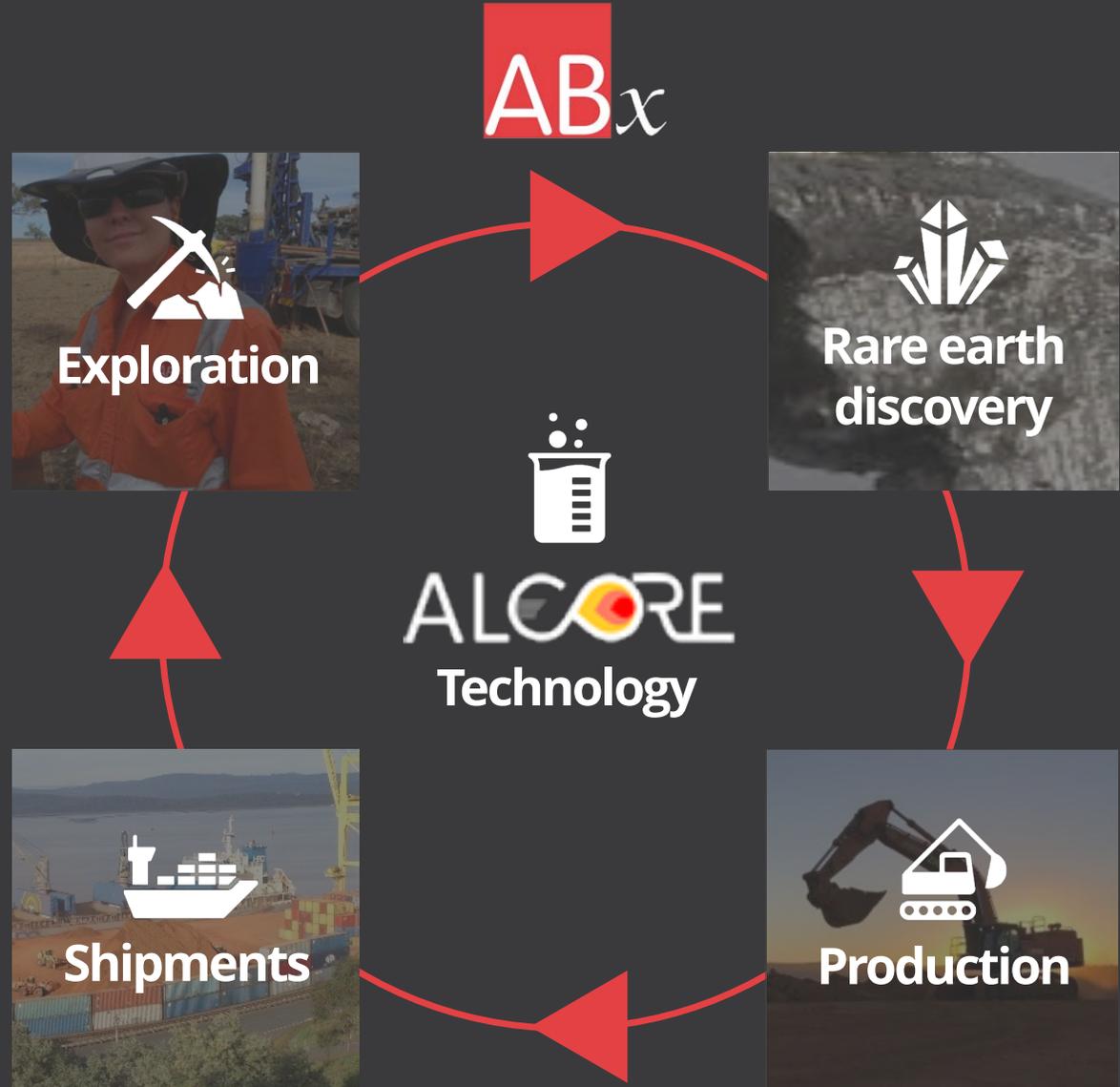
In this presentation all references to direct shipping ore (DSO) refers to the company's exploration objective of defining DSO grade mineralisation. The potential quantity and grade of exploration targets is conceptual in nature, there has been insufficient exploration to define a Mineral Resource and it is uncertain if further exploration will result in the determination of a Mineral Resource.



ABx Group (ASX:ABX) is developing two high-technology businesses:

- 1. Rare Earth Elements discovery of the ideal type within ABx's Tasmanian bauxite project tenements**
- 2. Alcore's high-priced aluminium fluoride for aluminium smelters**

and will continue enhancing the value of its bauxite resources for cement, aluminium and fertilisers.



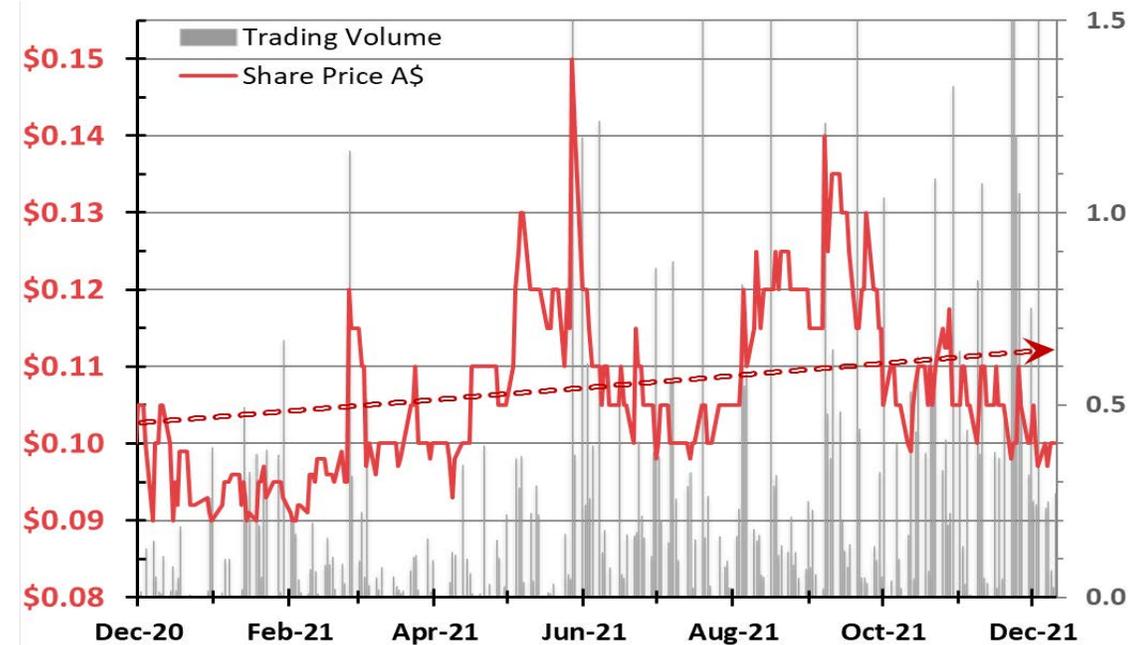
Corporate overview

ASX code **ABX**

Listed	Current Issued shares	Options	52 week range	Average daily volume	Market cap (@ \$0.125)	Cash @ 09 Dec' 21	Shareholders
24 Dec 2009 @ \$0.20	182.8m	38.3m @ \$0.20	\$0.089 - \$0.155	390,000	\$22.4m	\$6.3m	1,864

Major Shareholders	Shares	%
Justevian Pty Limited	5.9 m	3.2
Yarraandoo Pty Ltd	5.6 m	3.1
WSF Pty Ltd	5.2 m	2.9
Top 20 shareholders	60.5 m	33.3
Remainder	121.3 m	66.7

- Deep Leads Rare Earth discovery in Tasmania
- Alcore technology development for aluminium smelters
- 136 million tonnes bauxite resources



Business focus & information flow



Australian technology to produce aluminium fluoride AlF_3

- Australia's first producer of AlF_3 which is essential for aluminium smelters. There is no substitute
- Fully funded \$1.5 million pilot plant and design 2021-22. Aim to commence construction of commercial plant late 2022
- Australia is the only significant aluminium producer without an AlF_3 plant
- Australia has imported all of its AlF_3 , mainly from China
- AlF_3 imports from China to Australasia fell by more than 60% in 2021

Announcements:

1. Progress
2. Milestones
3. Deals
4. Feasibility



Rare Earth Elements Discovery REE

- \$600,000 drilling campaign to confirm ABx's large REE province, Tasmania
- Super magnet REEs for electric vehicles, wind turbines, phones & military
- Water soluble REE ("ionic clay REE") can be developed cheaply, quickly and extracted at low cost
- ABx is 1 of 3 traded stocks globally that give exposure to "ionic clay REE" which was once China's monopoly
- Peers (eg. IXR) have market cap exceeding \$100 million

Announcements:

1. Next results (1-2 wks)
2. Extensions
3. Resource
4. Deals

Board of directors & management



Paul Lennon
Chairman ¹



Leon Hawker
Chief Operating Officer



Ian Levy
Managing Director & CEO



Paul Glover
Logistics & Exploration



Ken Boundy
Non-Executive Director ²



Dr Mark Cooksey
CEO Alcore Limited ³



Henry Kinstlinger
Company Secretary

¹ Ex-Premier of Tasmania

² Investor in Tasmania tourism industry. Holds senior public positions

³ Ex-Rio Tinto Alcan & Ex-CSIRO Minerals

Agenda

1. Rare earths specialty metals markets
2. Deep Leads rare earth project
3. ALCORE - Australian technology to make aluminium fluoride
4. ABx's bauxite operations
5. Corporate & the ABx opportunity

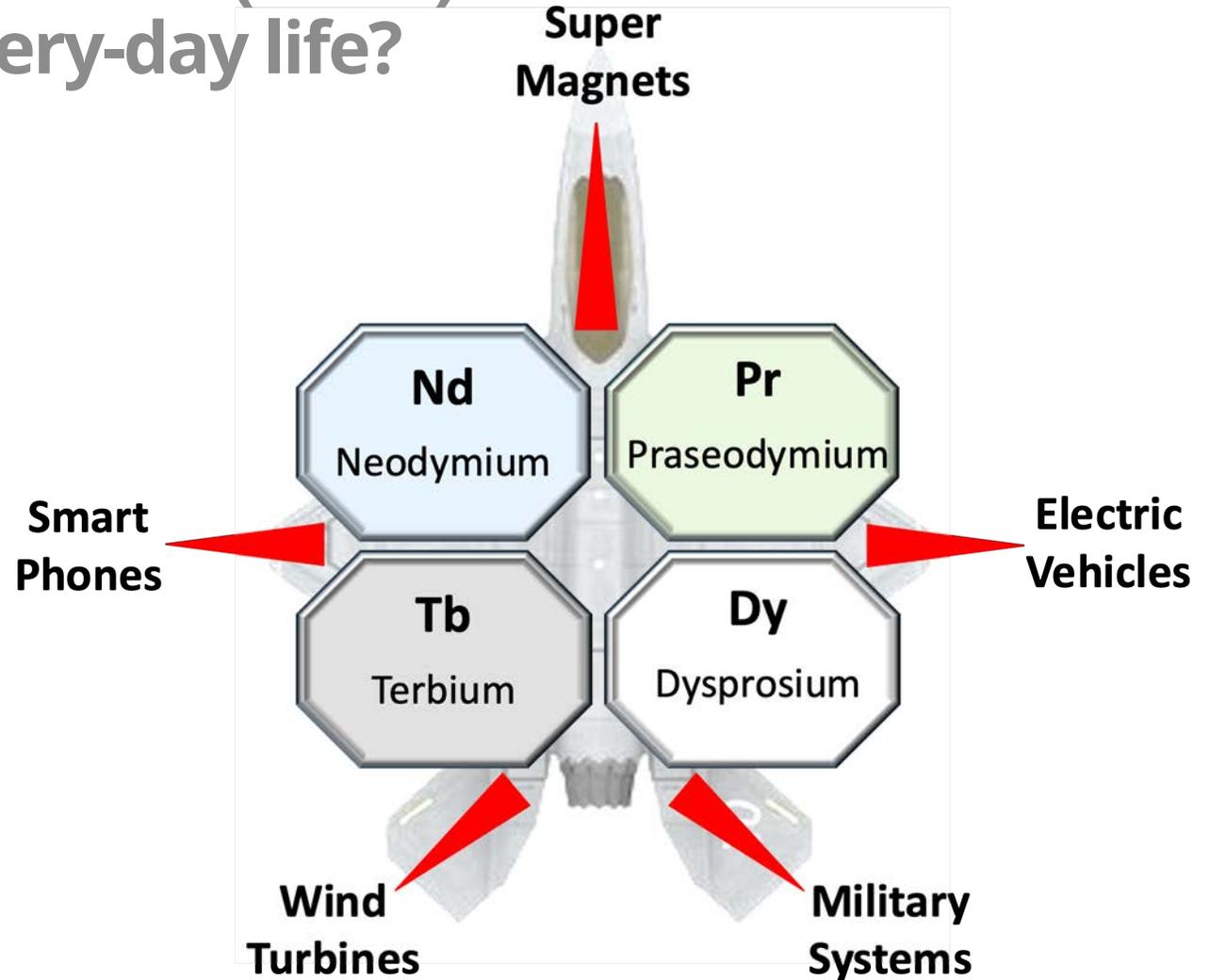


Super magnet rare earth elements (“REE”): What are they used for in every-day life?

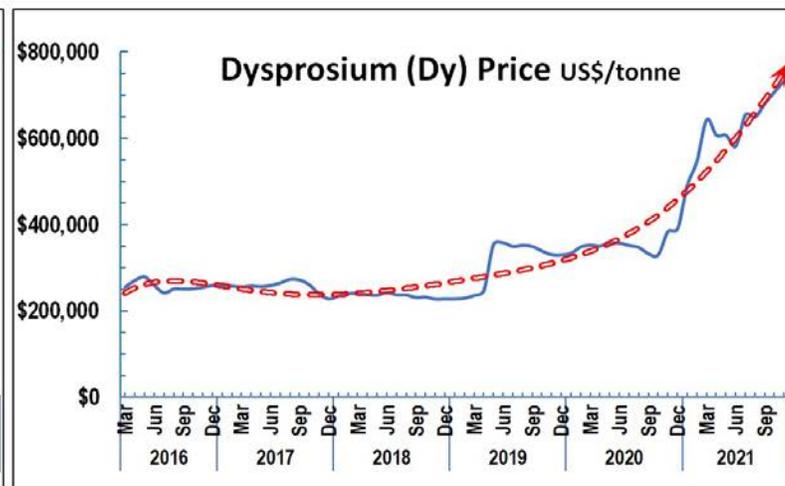
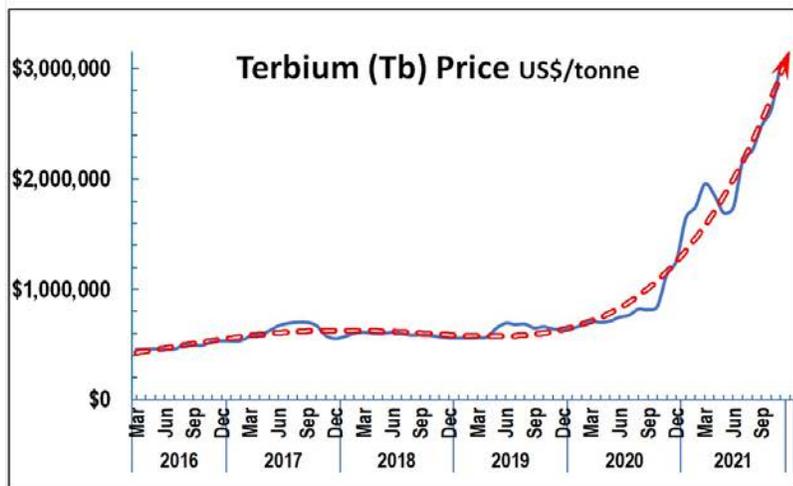
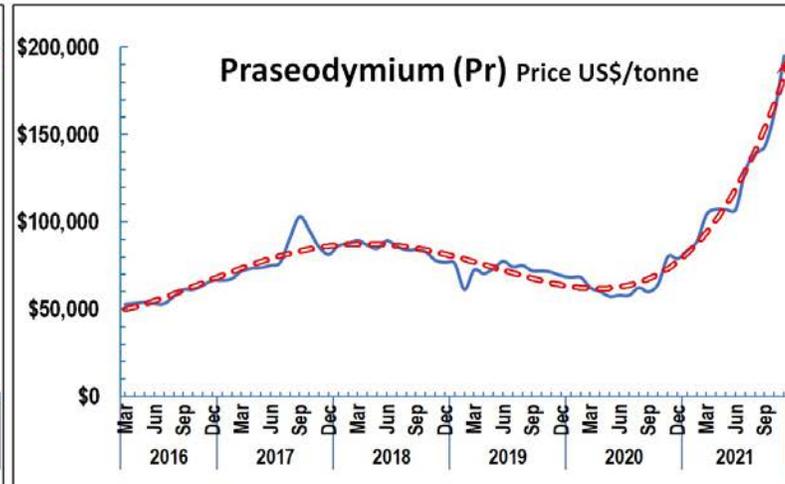
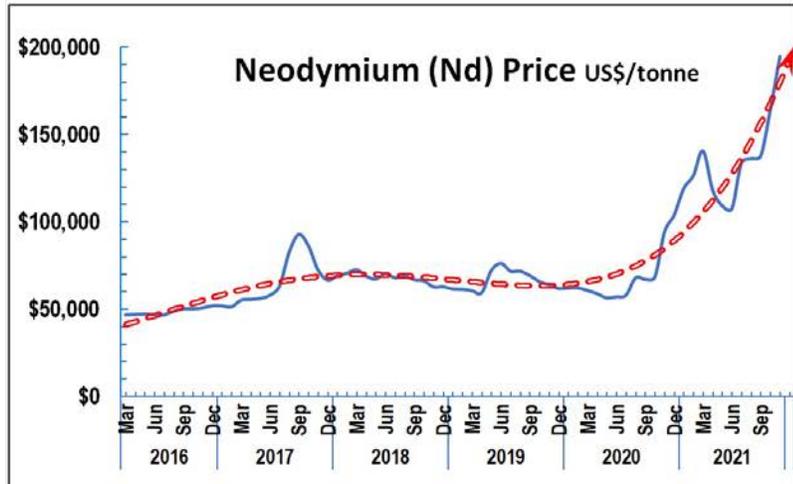
Super-magnet rare-earth elements (REE) are essential strategic metals used for electric vehicles, wind turbines, modern smart phones & military devices.

Key Factors:

- Prices are rising rapidly on strong demand / short supply
- China controls ~85% of REE markets
- Australia emerging fast



Super-magnet REE markets very strong – prices booming



This is a boom situation, like the nickel boom

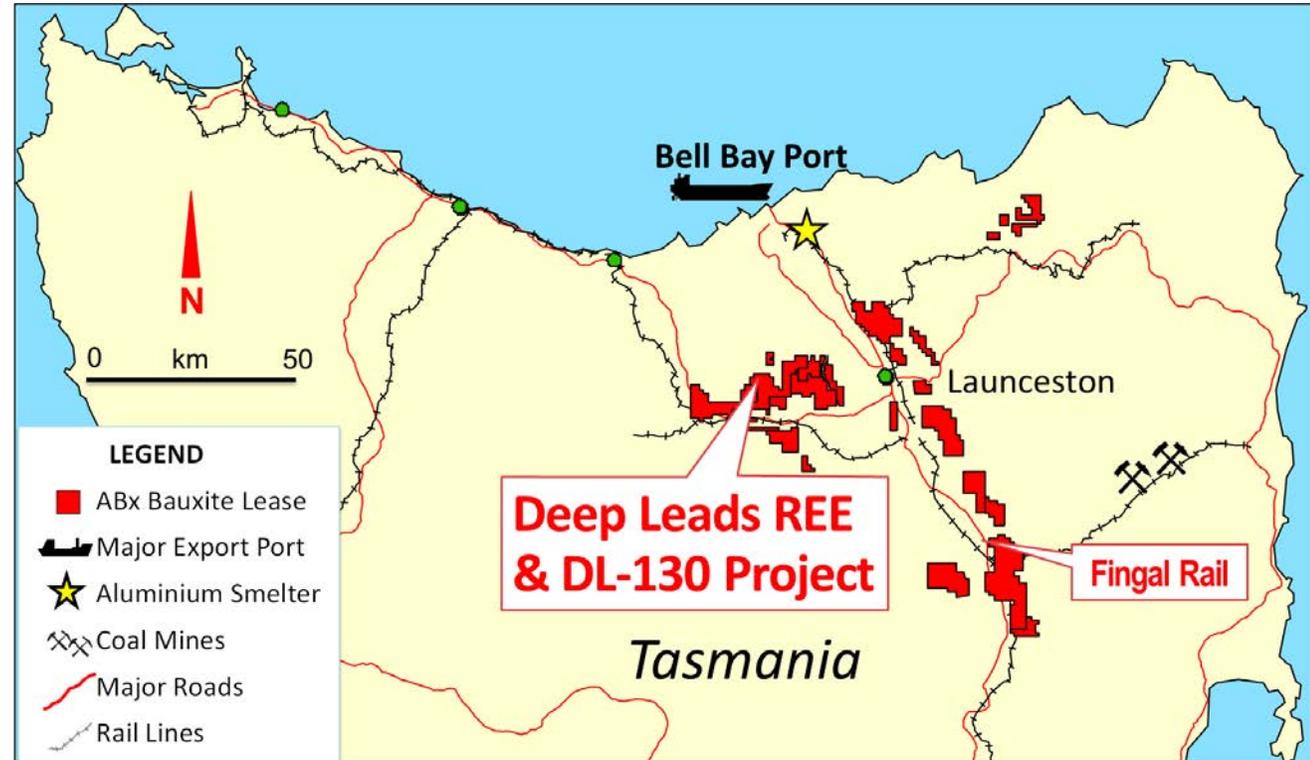
A race to production

Source: China exports, compared with Kitco

ABx Group – rare earth elements discovery in Tasmania

Ticks all the boxes

- ✓ Rich in the super-magnet rare earth metals, **neodymium, praseodymium, dysprosium and terbium**
- ✓ “Water soluble” ionic clay type of REE which can be **developed quickly** at **low cost**;
- ✓ **Shallow depth**, typically 6 to 16 metres from surface; and,
- ✓ **Free of radioactive elements** thorium and uranium so it can be processed in any country



Deep Leads REE discovery near DL130 bauxite project



Stunted trees

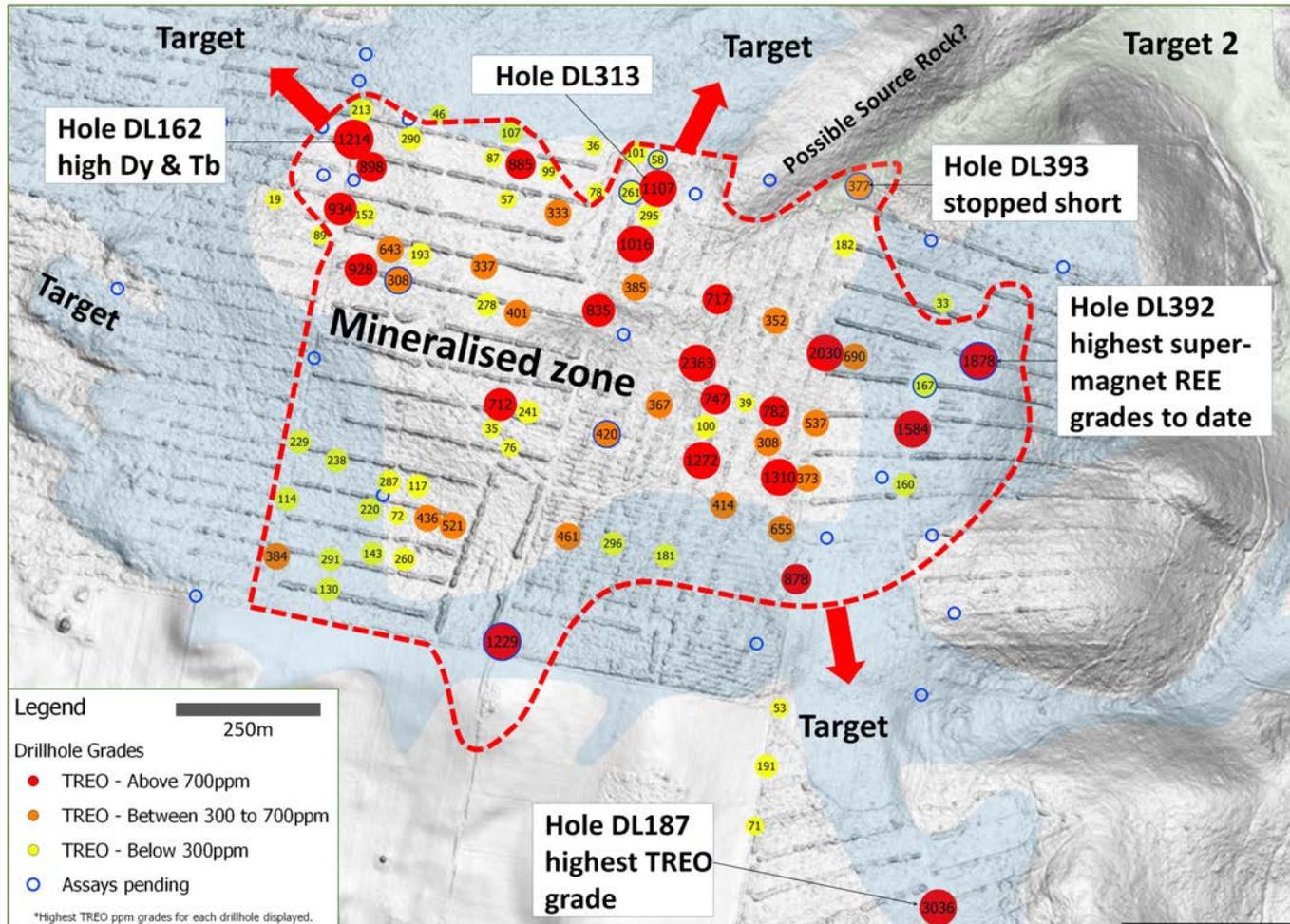


DL130 was found in stunted hardwood plantation trees

Hole DL393 was stopped by wet clays, metres above the REE target depth. See next slide.

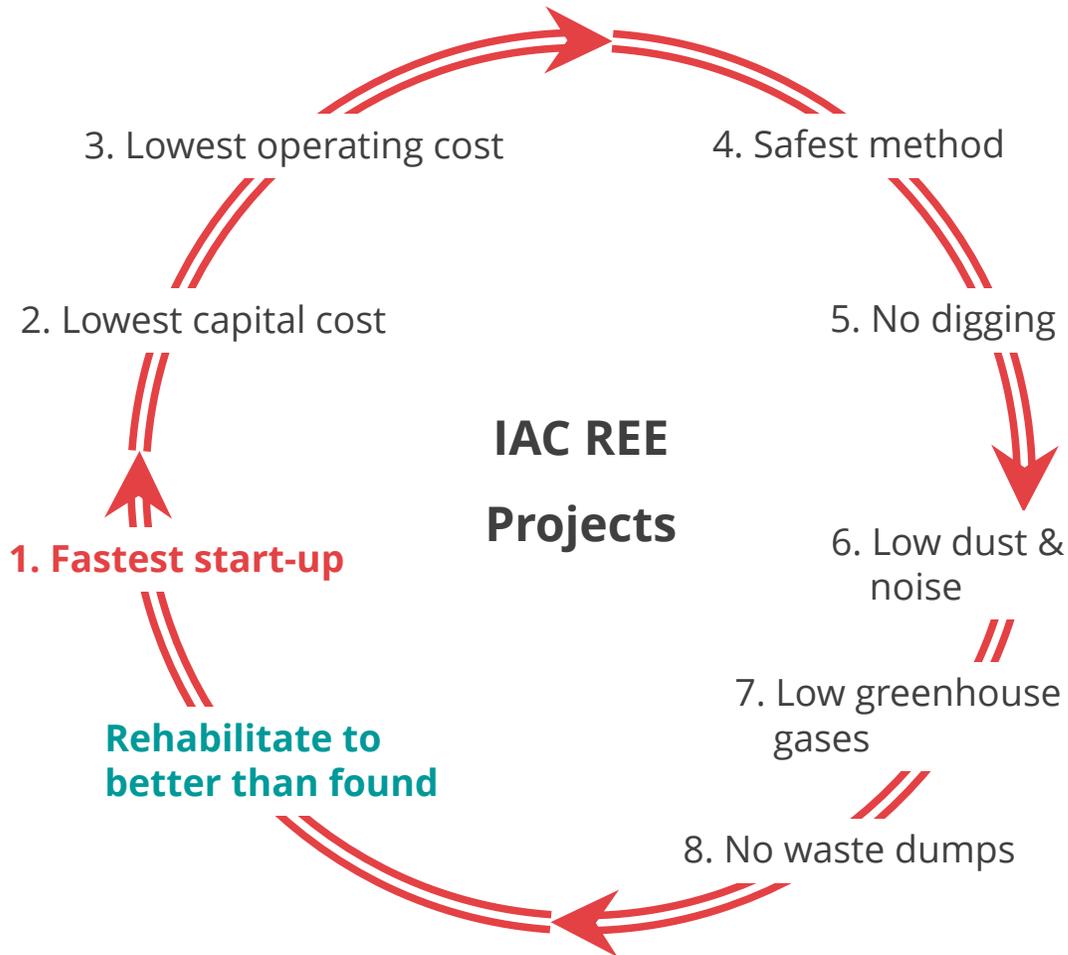
- Deep Leads mineralisation is enriched in all 4 super magnet REE Neodymium (Nd), Praseodymium (Pr), Terbium (Tb) & Dysprosium (Dy)
- Strike length of the Deep Leads REE exceeds 3.25km and **is open** in all directions and at depth
- Many holes did not reach the REE mineralisation depth due to **wet clays and broken ground**.
- New drill rig will drill to full depth early in new year
- Water-soluble ionic adsorption clay REE for quick, low-cost development
- In suitable land settings for early development

Deep Leads – higher rare earth grades intercepted



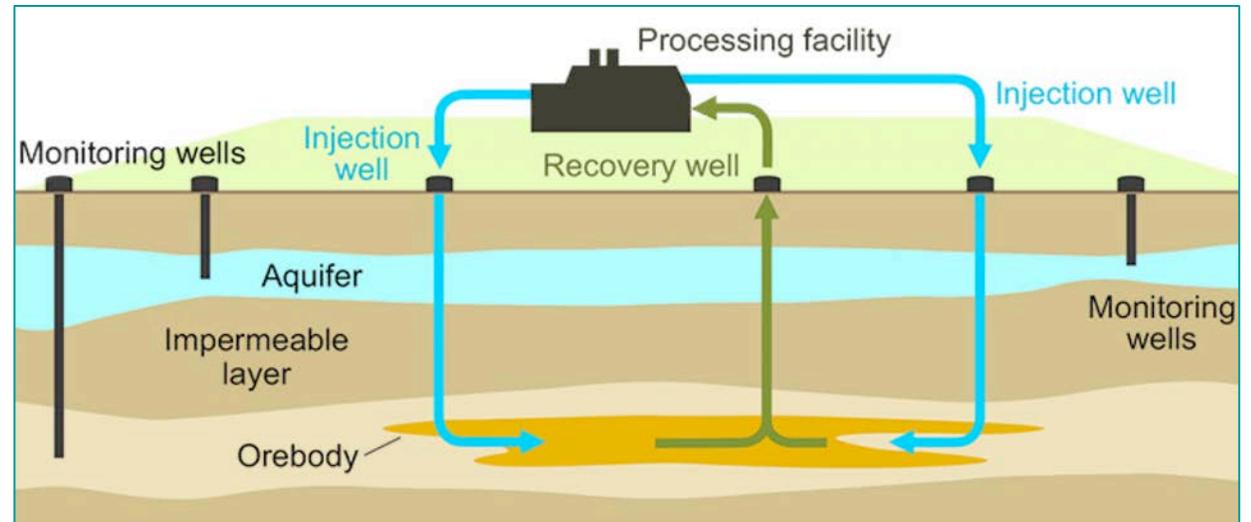
- **Getting better:** Each step out drilling has returned new record high REE grades
- **Hole DL392:**
 - Highest neodymium grade to date of 493 ppm Nd_2O_3 with 1,878 ppm total rare earths oxide (TREO)
 - Represents a 250-metre easterly extension of the REE mineralisation
 - Thickness of mineralised zone interpreted to be **at least 3m**
- **Next announcements:** Assay results pending from 20 new holes may materially expand the Deep Leads REE size and grade

Lowest cost REE and fastest into production



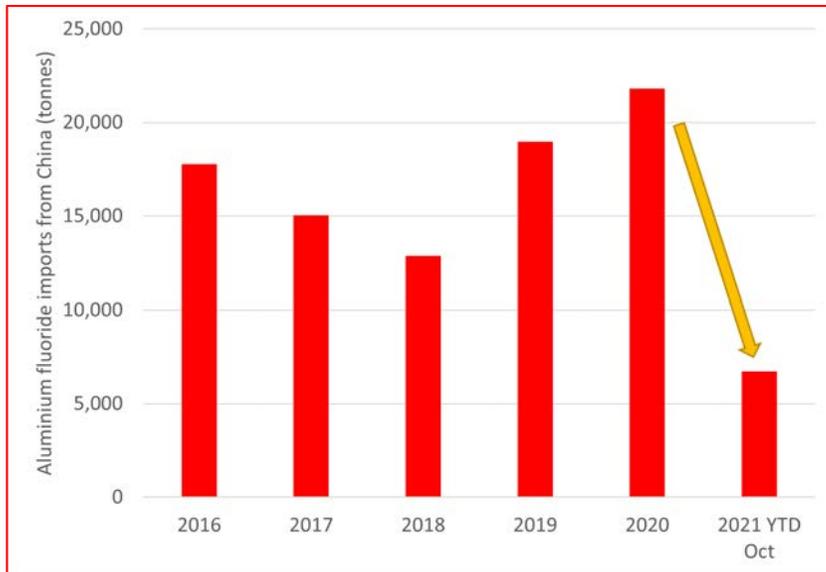
Ionic adsorption clay "IAC" REE advantages:

- Water soluble REE ideal for in-situ extraction
- Start project producing bulk REE concentrate
- Value-adding technology developments:
 - Produce higher purity REE concentrates
 - Produce separate REE oxides/carbonates

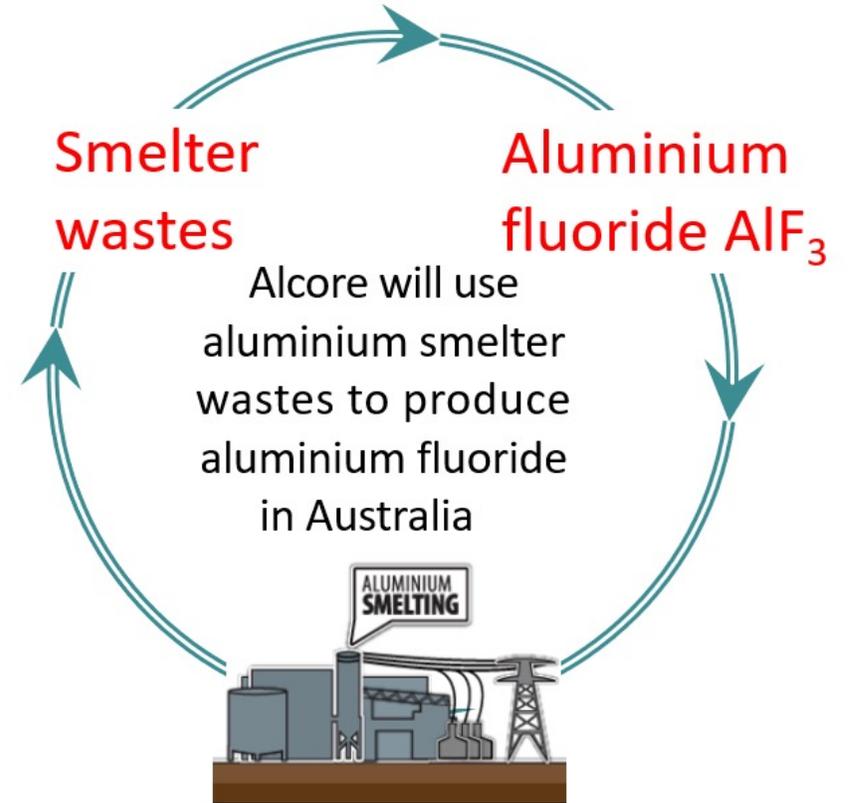


ALCORE Australian technology to produce AlF_3

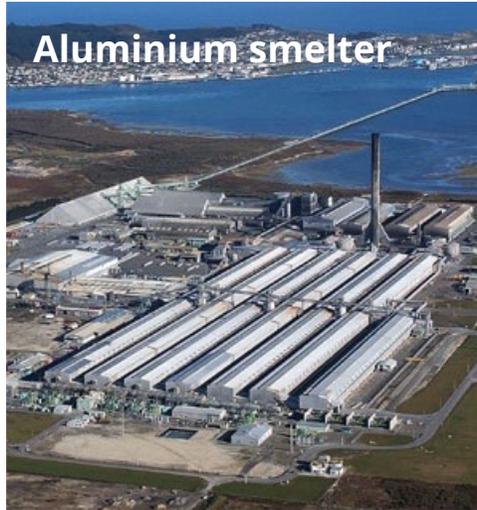
- ABx's 87%-owned refining technology subsidiary
- Australia's first producer of aluminium fluoride (AlF_3), which is essential for aluminium smelters
- Australia is the only significant aluminium producer without an AlF_3 plant
- Fully-funded A\$1.5 million pilot plant & design 2021-22. Aim to start construction of main plant late 2022



AlF_3 imports from China to Australasia fell by more than 60% in 2021



ALCORE Aluminium fluoride (AlF₃) overview



Alcore's AlF₃ basics

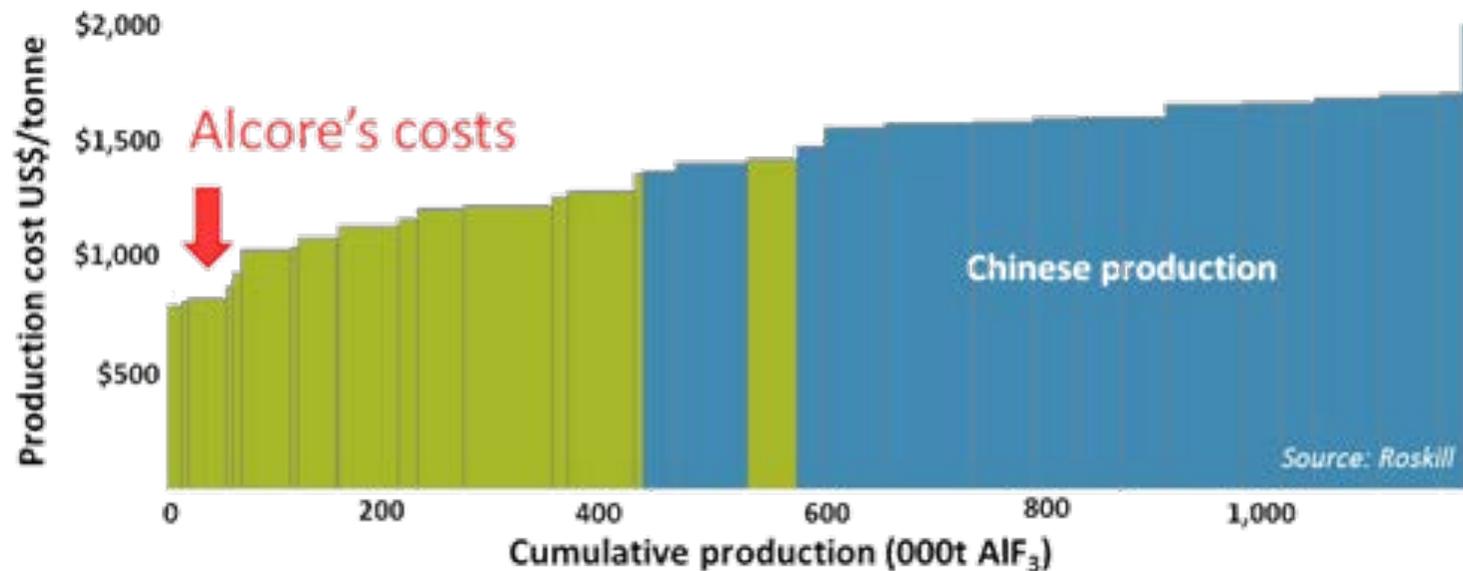
- **Essential** in aluminium smelting
- **No substitute** for AlF₃ in aluminium production
- **100% imported** into Australia, mostly from China
- Chinese sales to Australasia suddenly **fell in 2021**
- **Alcore** aims to be Australia's **first producer**
- **Security** of supply &
- **Recycling** benefits

High value, well-established market

- US\$1,000 to US\$1,800 per tonne price
- Traditionally produced from high-cost aluminium hydroxide & fluorspar
- Achievable specification - Product purity risk is low
- Mature Market - Dozens of customers globally

ALCORE Process economics

- Traditional AlF_3 production costs are US\$1,000/t to US\$1,700/t
- Alcore costs US\$650/t to US\$900/t AlF_3^* due to low-cost raw materials from smelter wastes
- Alcore's engineers design & costing 1st production module & later modules up to 60,000 t/year AlF_3 estimated to make ~A\$50 million EBITDA pa *
- Alcore can expand into other commodity markets including by-product chemicals, fluorine chemicals and advanced lithium-ion batteries

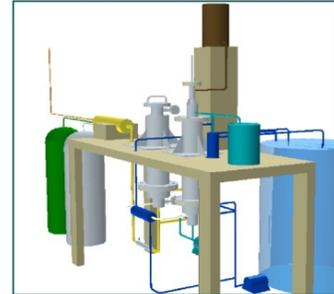


ALCORE Commercialisation of technology

A\$1.5M pilot plant & design 2021-22. Construction of commercial plant envisioned to commence late 2022

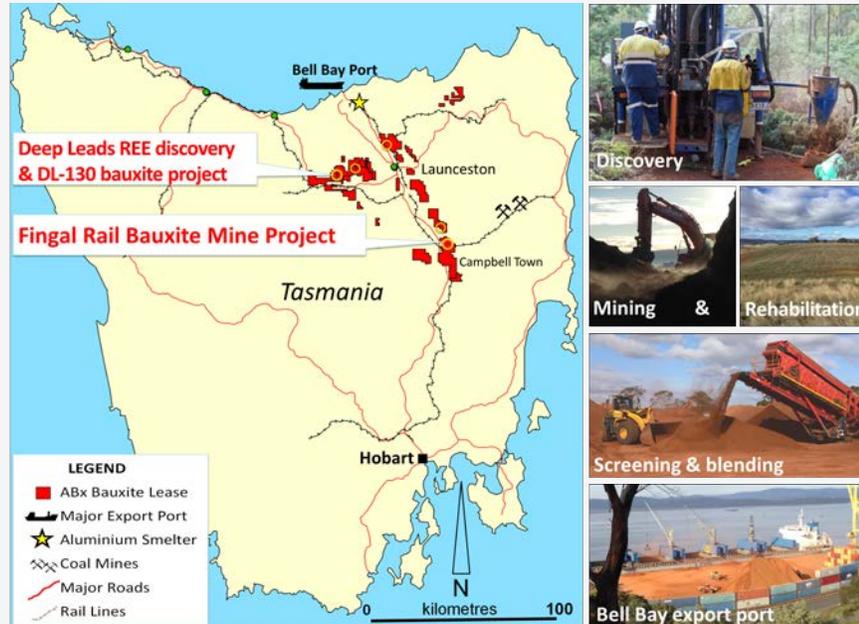
Commercial Plant:

- Australia's first AlF_3 plant planned for Bell Bay, northern Tasmania, near an existing hydro-powered aluminium smelter
- 10,000 t/y aluminium fluoride initial capacity to supply ~35% of the demand from the Australasian aluminium smelters
- Ultimate capacity 30,000-60,000 t/y
- International process engineers have completed process flowsheet modelling for the 10,000 t/y AlF_3 plant using dross as feedstock.
- Results increase confidence in the Alcore process & support Alcore's approach to process development



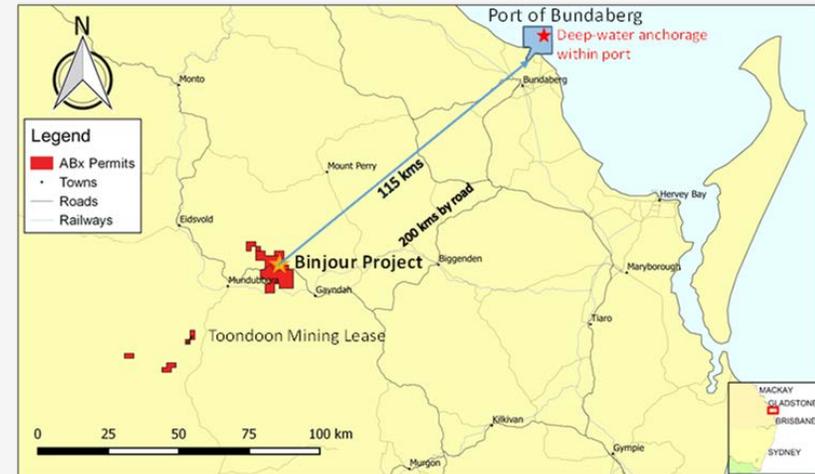
ABx bauxite operations

Fingal Rail project Northern Tasmania



- Mining lease application for Fingal Rail project for cement & fertiliser bauxite for 15 years
- 700 tonne trial sample delivered to customers in November for confirmation processing

Sunrise Bauxite Project Queensland



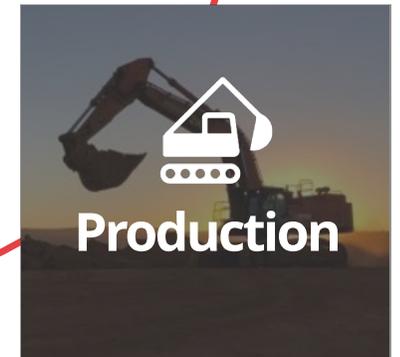
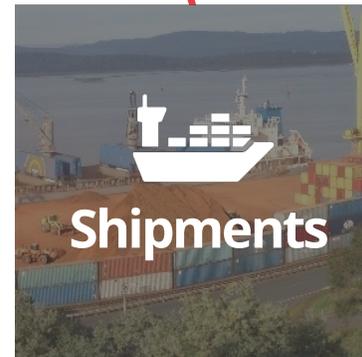
- 50:50 joint venture with Rawmin Mining of India
- Mining lease application is on the large Binjour deposit, 115km west of Bundaberg Port
- Rawmin contracts for funding and technology to deliver bulk-scale bauxite shipments being finalized now that QLD lockout is lifted
- ABx has appointed a senior QLD Manager

Significant blue-sky opportunity

Maximising shareholder value via rare earth discovery and high-tech AlF_3 production

- **ABx is 1 of only 3 traded stocks** globally with **ionic adsorption clay type of REE** which was once a Chinese monopoly
- Market capitalisations of ABx's peer group companies in the REE exploration sector **exceed \$100 million (ABx current market cap of \$22.4M)**
- **Strategically positioned** to significantly benefit from being Australia's first producer of AlF_3 - essential for Aluminium Smelters. There are no substitutes

ABx Group



ABx Group



Thank you

ABx Group

L5 52 Phillip Street

Sydney 2000

Australia

Phone: +61 2 9251 7177

E: corporate@abxgroup.com.au

Julie Young

Marketing & Investor Relations Manager

E: jyoung@abxgroup.com.au