



## QUARTERLY REPORT AND ACTIVITY STATEMENT FOR THREE MONTHS TO 31 DECEMBER 2019

### Corporate

- Group available cash at the end of the quarter was \$0.92 million and is currently is \$0.75 million

### Sales & Operations

- 32,477 tonnes of cement-grade bauxite was loaded and shipped from Bell Bay in early June. Sales of fertiliser-grade bauxite from Bald Hill are on-going to plan, despite drought conditions
- **Binjour:** ABx's bulk-sampling programs at the Binjour bauxite project in QLD have defined the optimum mining lease application and clarified the mining-processing strategy for the project
- **Mining Lease:** ABx's directors have approved the lodgement of a mining lease application in early 2020 following confirmed grades and successful upgrading tests. This lodgement process commenced in late December. The Binjour project pre-production and working capital costs are fully funded by ABx's marketing partner, Rawmin Mining and Industries of India.

## ALCORE Project

- ABx's 90%-owned subsidiary, ALCORE Limited has announced the appointment of Dr Mark Cooksey as General Manager to oversee the transition from research to a design and development project, working with Alcore's engineers to design the lowest risk, most economically attractive Alcore production plant.
  - Mark commenced his professional career as a Research Engineer in aluminium smelting with Comalco (now Rio Tinto Alcan) in 1997, & became senior research engineer in 2000
  - He joined CSIRO in 2004 as Senior Research Engineer, becoming Senior Principal Research Leader in 2016
  - Mark Cooksey holds a PhD (Chemicals & Materials Engineering), Bachelor of Engineering (1st Class Honours) and BSc. He has worked closely with the aluminium and other metal industries commercialising new technologies and processes
- Alcore has been trialling the chemical refining of aluminium-rich raw materials including bauxite into Aluminium Fluoride (AlF<sub>3</sub>) which is a high-priced ingredient in aluminium smelters
- ALCORE's results have exceeded expectations and a production strategy is now firming-up
- ALCORE has proven it can:
  - a. Make Aluminium Fluoride (AlF<sub>3</sub>) from a range of aluminium-rich materials (see New Discovery below)
  - b. Extract valuable silicon oxides by adjusting the reagent mix and processing conditions
  - c. Make Corethane by reducing ash content in coal from 28.5% to 0.3%, thus making a cleaner substitute for expensive metallurgical coal & coke for smelting and as a gas substitute for industrial heating (see Page 4 below). Corethane is also ideally suited for use as a sulphur-free bunker fuel
- **New discovery of "Refine & Recycle" process:** this research discovered that the ALCORE process can do a lot more than expected, including making AlF<sub>3</sub> from aluminium-rich by-products (up to 85% Aluminium) and fluorine-rich by-products (up to 55% Fluorine) from aluminium smelters world-wide so as to introduce 100% recycling into the aluminium smelting industry



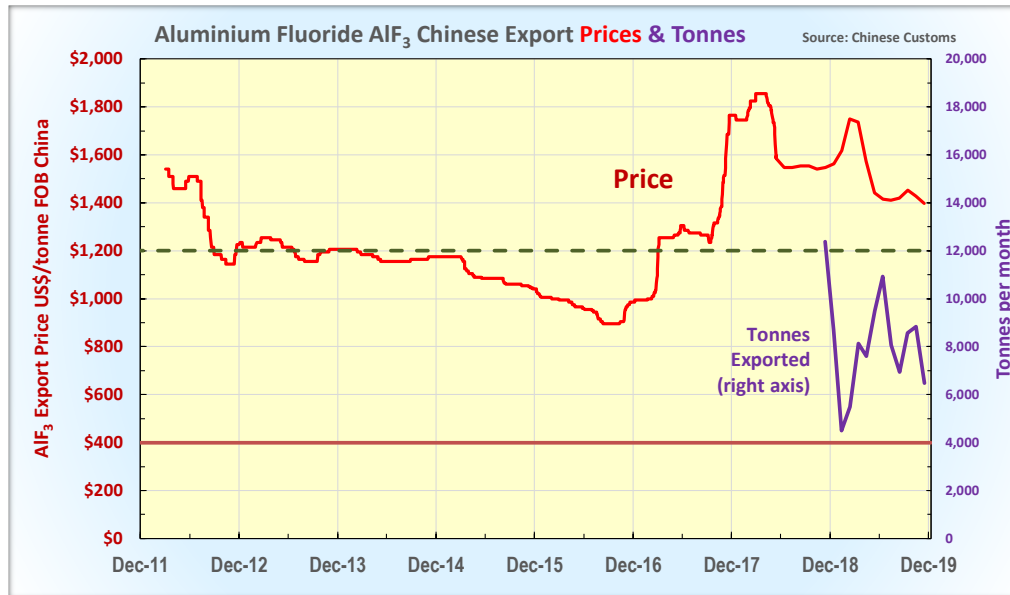
Dr Mark Cooksey

This business opportunity is described as the "Refine & Recycle process" which is lower in capital cost and substantially lower in operating costs than all alternative process routes because the two main chemical components of the AlF<sub>3</sub> product, namely Aluminium "Al" and Fluorine "F" are supplied at no more than zero cost by the smelters which are also the main customers for the AlF<sub>3</sub> produced from those smelter by-products

- **Several potential AlF<sub>3</sub> customers** and supportive major companies in the aluminium industry have visited the ALCORE Research Centre and observed the production of AlF<sub>3</sub> from aluminium smelter by-products
- ALCORE's task list includes:
  - a. Prove that ALCORE can make anhydrous AlF<sub>3</sub> with the appropriate crystal size & density to suit customers
  - b. Determine the efficiency factors for reactions on the Al-rich and F-rich aluminium smelter by-products
  - c. Make ultra-pure AlF<sub>3</sub> that can be used in special batteries, including lithium-ion batteries, which is demanding a very high price above US\$2,800 per tonne of AlF<sub>3</sub> which is twice the prevailing AlF<sub>3</sub> price



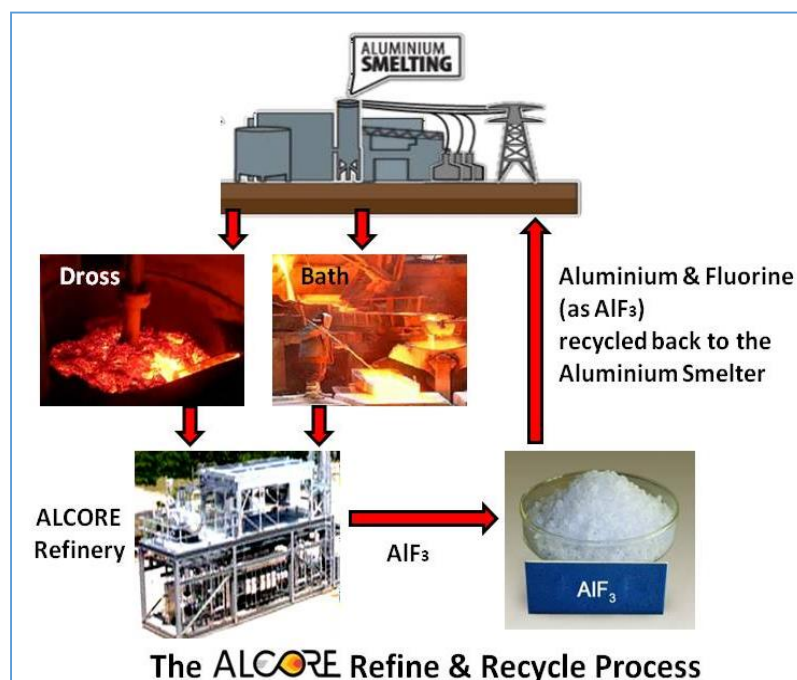
- $\text{AlF}_3$  is an essential electrolyte ingredient in aluminium smelters. Global demand for  $\text{AlF}_3$  increases as aluminium smelter production increases and the use of  $\text{AlF}_3$  in lithium ion batteries increases



**Figure 1**  
Prices & demand for aluminium fluoride  $\text{AlF}_3$  exported from China

$\text{AlF}_3$  markets remain positive for the ALCORE project

- The potential availability of aluminium-rich and fluorine-bearing waste materials from aluminium smelters world-wide is reportedly very large and discussions about contracts for this material have commenced
- The ALCORE business plan targets long-established, broad industrial markets with many potential buyers
- Initial production modules will be the simplest possible, producing the core products for industrial markets and later production modules will become more sophisticated so as to produce a full suite of products
- ALCORE processes are relatively low-risk because they operate at ambient temperatures and pressures
- ALCORE will be the first Australian supplier of  $\text{AlF}_3$  to the Australasian Aluminium Smelters and for export
- **Location of first plant at Bell Bay, Tasmania:** ALCORE is investigating industrial sites at Bell Bay in northern Tasmania for the first production plant
- Discussions continue with governments and supportive major companies in the aluminium industry



**Figure 2**  
Summary of the ALCORE “Refine & Recycle” Business Strategy

This process has the strong potential to be the simplest and lowest cost method to make  $\text{AlF}_3$ . It provides an economically attractive way to utilise the aluminium-rich and fluoride-rich by-products from many aluminium smelters.



**Figure 3**  
**The \$2.5 million ALCORE Laboratory built inside the ALCORE Research Centre**

The Core Lab is a climate-controlled laboratory constructed inside the ALCORE Research Centre for the refining of bauxite and its components to produce test samples of  $AlF_3$  and co-products. It will become a research centre for testing its technology on many ores.



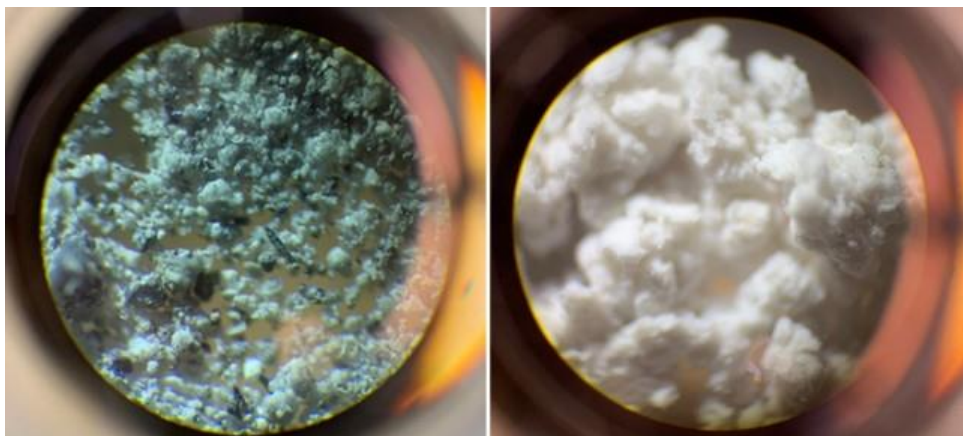
**Figure 4**  
**Ore Preparation & Analytical Lab with XRF & furnaces**



**Figure 5**  
**ALCORE test lab, fume cabinets with hi-tech fume scrubbers, showers, microscopes & Draeger air monitor (far wall)**



**Figure 6: Exterior support systems**  
a) Air purification and atmosphere control system.  
b) Liquids processing & neutralisation plant  
c) Duplicated secure LPG gas supply  
d) Gas-fired Standby-Backup Generator



**Figure 7:**  
**Microscope images showing aluminium smelter by-product in raw form & processed form:**

(Left) before ALCORE processing &

(Right) after ALCORE processing

The reaction took less than 5 minutes to completion





## ALCORE : CORETHANE - SUCCESSFULLY MANUFACTURED

ALCORE's business plan is to produce Aluminium Fluoride ( $\text{AlF}_3$ ) for aluminium smelting and other co-products including Silica Fume for Eco-cement and the gas-substitute Corethane for energy security.

The ALCORE laboratory processed a representative sample of Hunter Valley black coal containing a relatively elevated level of ash at 28.5% ash. After processing, the ash content in this coal was reduced to the target level of 0.3% ash with relative ease. This low level of ash is the equivalent ash content of air. The processed coal was analysed by Bureau Veritas Minerals Pty Ltd laboratories, Cardiff, Newcastle NSW.

This refined coal would be a cleaner substitute for more expensive metallurgical coal & coke for smelting. More importantly, the exceptionally low ash level allows the coal to be milled without abrasion into a very fine powder (finer than cigarette smoke particles) to create a fuel called "CORETHANE" that can be atomised to create a high-energy gas that burns clean, like natural gas but produces lower cost heat energy, lower cost electricity and low-cost liquid fuels.

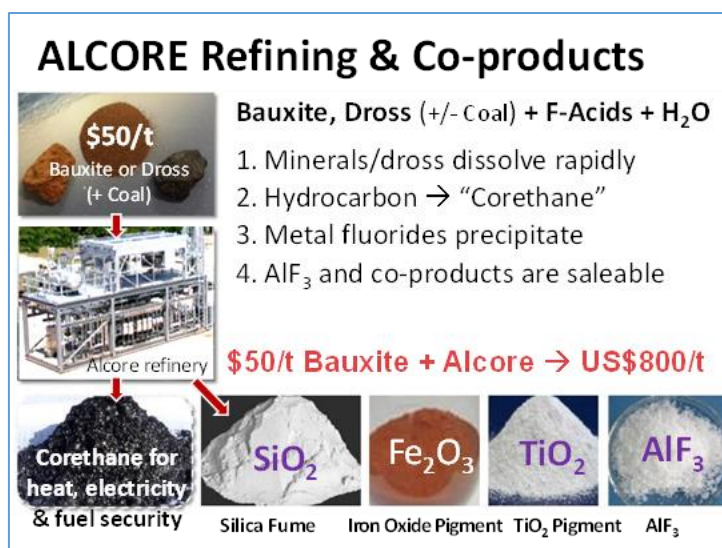


Figure 8

The full ALCORE process:

1. Inputs,
2.  $\text{AlF}_3$  product &
3. All co-products

Corethane is an ultra-pure hydrocarbon to power the production plant with zero particulate emissions &  $\text{CO}_2$  emissions similar to natural gas.

ALCORE can also sell electricity to the grid or sell Corethane to industrial customers, including as a metallurgical reductant in smelters, several of which have already expressed interest.

### Summary

ALCORE's bauxite refining has the potential to convert a tonne of bauxite valued at US\$50 per tonne into a suite of products worth in excess of **US\$800** representing a **10-times** increase in net value. It can also convert aluminium smelter by-products into  $\text{AlF}_3$  using a simplified, lower-cost, higher-profit "Refine & Recycle" version of the ALCORE Process.

**An ALCORE project can be located anywhere** in the world, importing bauxite from bauxite producers for less than the \$US50 per tonne which is being conservatively assumed in ALCORE's economic studies. It can also be located adjacent to aluminium smelters to Refine & Recycle aluminium smelter by-products.

Therefore, the ALCORE Technology is not constrained by resource supply and can be located near its major customers, near sources of low-cost feedstock such as recyclable waste materials from aluminium smelting.

### Risk management

The ALCORE business plan is designed to minimise both the financial and technical risks as follows:

1. ALCORE technology operates at low temperatures & low pressures
2. ALCORE's main products in the start-up years 1 to 5 are designed to be  $\text{AlF}_3$ , silica fume and high-grade bauxite. These products have deep, well-established markets with many customers.

This plan for ALCORE's initial products avoids the market risks of targeting high-purity products which can take several years of process improvements to achieve and often have very few buyers.



## Binjour Project, QLD – located 115kms inland from Bundaberg Port, Queensland

- ABx's board of directors approved the lodgement of mining lease application and related project strategy for the Binjour Bauxite Project in early 2020.
- The Binjour Bauxite Project pre-production and working capital costs are fully funded by ABx's marketing partner, Rawmin Mining and Industries of India.
- Tripartite Memorandum of Understanding (**MoU**) between ABx, Rawmin Mining and Industries of India and Tianshan Aluminium of China is for the sale of 0.5 to 1.5 million tonnes of bauxite from Binjour to Tianshan's new low temperature refinery in southern China which is due to commence production in late 2020
- ABx considers Binjour to be the best source of gibbsite-trihydrate (**THA**) bauxite in Queensland that is suitable for processing in low-temperature Bayer-technology alumina refineries and sweetener circuits
- Bauxite resources total 40.5 million tonnes comprising 37 million tonnes of thick bauxite at Binjour plateau and 3.5 million tonnes in the granted mining lease at Toondoon, located 46 kms south of Binjour <sup>1</sup>
- Binjour bauxite is 3 to 15 metres thick and comprises 10.4 million tonnes suitable for simple bulk mining and shipping as "DSO Bauxite <sup>1</sup>" and 26.6 million tonnes to be upgraded by ABx's proprietary TasTech technology to achieve the long-term sales grade of 44% to 45% Al<sub>2</sub>O<sub>3</sub> & 5% SiO<sub>2</sub> which is ideal "metallurgical bauxite" for producing aluminium metal via the low-temperature Bayer alumina refineries

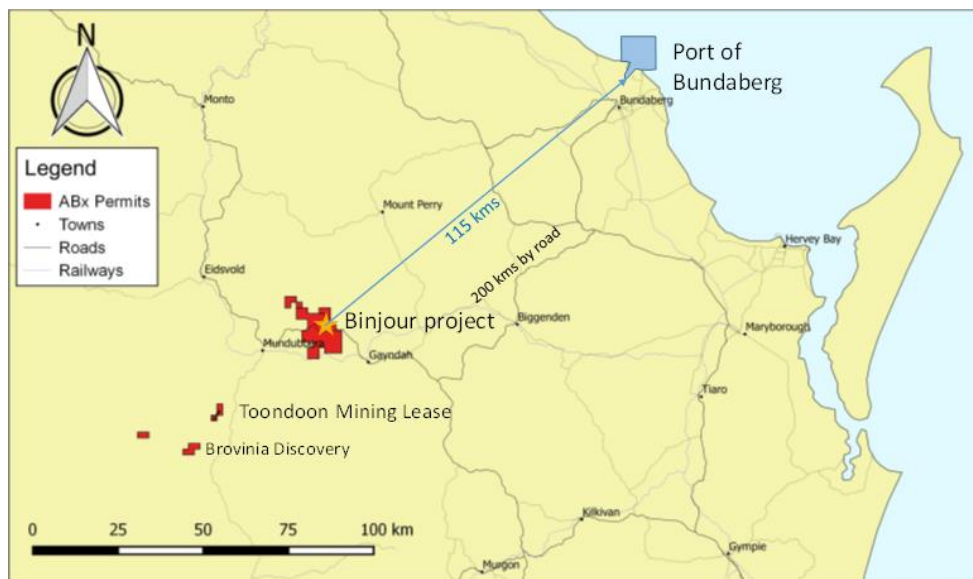


Figure 9  
Locations of Binjour & Toondoon bauxite projects and transport infrastructure in Queensland

- **Bulk sampling & processing testwork** confirmed ABx's decision to committing to project development. This work confirmed that Binjour bauxite screens much better than expected (ASX: 30 May 2019). **It also discovered** that an extensive deep bauxite layer grading more than 48% Al<sub>2</sub>O<sub>3</sub> and less than 3% SiO<sub>2</sub> which is the highest quality gibbsite-trihydrate bauxite in eastern Australia. **This new knowledge** was obscured by an overlying red mud layer that conceals the true nature of the bauxite.
- **Mining simulation:** Bulk sampling tested production parameters including **dilution** from red mud overburden, **mining** behaviour, screening and handling characteristics.
- **Grades:** Results show that bulk-mined, bulk-screened bauxite from Binjour can meet the required DSO grades to be marketable.
- **Operations:** Information about operating methods, dust and noise management, environmental issues, and rehabilitation options was also learned.
- **Rehabilitation:** ABx always examines post-mining reinstatement of the land at the outset of all mining projects. This important planning work commenced in November-December 2019 and several attractive options exist to leave the land significantly better than we found it. We only operate where welcomed.

1. See Resource Statement



Figures 10 & 11 (above) : Bulk sampling Pits 10 & 11 at Binjour QLD

### Bulk dry-screening of Binjour bauxite

A 28 tonne bulk sample was mined and mixed onto a stockpile from Pits 10 & 11, using methods that are expected to be used during production. This sample was trucked to Gympie and screened using a rotating trommel with a 10mm aperture screen.



Figure 12  
Screening & environmental measurements at Gympie

This bulk-screening testwork in late September confirmed the laboratory tests in mid 2019 that Binjour bauxite is ideal for dry-screening to remove fine fractions that must be minimised for safe shipping.

Dust-carry was measured to help decide the location and size of any mining lease application(s).



Figure 13  
Best ore comes as blocks which need crushing  
Grades exceed +50%  $\text{Al}_2\text{O}_3$  and less than 2%  $\text{SiO}_2$



## Assay Results From Pit Sampling and Dry-Screening

PIT 10	Al <sub>2</sub> O <sub>3</sub> %	SiO <sub>2</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	TiO <sub>2</sub> %	LOI %	Al <sub>2</sub> O <sub>3</sub> avl %	Rx SiO <sub>2</sub> %
0-1m	42.6	8.3	19.2	5.3	24.2	33.3	7.3
1-2m	45.3	4.7	18.3	5.2	26.1	40.0	4.2
2-3m	42.5	4.2	23.2	5.1	24.5	37.2	3.6
3-4m	45.1	3.9	19.7	5.2	25.6	41.2	3.4
4-5m	48.9	1.7	17.1	4.5	27.3	45.4	1.5
<b>Pit 10 averages</b>	<b>44.9</b>	<b>4.5</b>	<b>19.5</b>	<b>5.1</b>	<b>25.5</b>	<b>39.4</b>	<b>4.0</b>

**Table 1**

**Assays of bulk samples of Pits 10 & 11**

**Bulk samples confirm that the required grades can be produced.**

PIT 11	Al <sub>2</sub> O <sub>3</sub> %	SiO <sub>2</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	TiO <sub>2</sub> %	LOI %	Al <sub>2</sub> O <sub>3</sub> avl %	Rx SiO <sub>2</sub> %
3-4m	45.5	4.7	17.5	5.7	26.1	40.5	4.2
3.5-4.5m	45.4	3.4	18.9	5.8	26.0	40.4	2.9
4.5-5.5m	49.0	2.3	14.2	6.3	27.7	46.6	2.0
<b>Pit 11 averages</b>	<b>46.6</b>	<b>3.4</b>	<b>16.9</b>	<b>5.9</b>	<b>26.6</b>	<b>42.5</b>	<b>3.0</b>

**Deeper layers are consistently high grade**

Screened 28 tonnes bulk mined from Pits 10 & 11	Al <sub>2</sub> O <sub>3</sub> %	SiO <sub>2</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	TiO <sub>2</sub> %	LOI %	Al <sub>2</sub> O <sub>3</sub> Avl* %	Rx SiO <sub>2</sub> * %
Coarse fraction +10mm	45.8	2.3	20.0	5.5	25.9	42.6	2.0
Fine fraction -10mm	45.4	6.0	16.5	6.0	25.6	39.1	5.5
<b>Average (45:55 ratio)</b>	<b>45.5</b>	<b>4.5</b>	<b>17.9</b>	<b>5.8</b>	<b>25.7</b>	<b>40.5</b>	<b>4.1</b>

**Table 2**

**Assays of bulk screening of a 28 tonne combined bulk sample from Pits 10 & 11**

**Very consistent with pit samples**

\* Leach conditions to measure available alumina "Al<sub>2</sub>O<sub>3</sub> Avl" & reactive silica "Rx SiO<sub>2</sub>" is 1g leached in 10ml of 90gpl NaOH at 143 degrees C for 30 mins.

## Selection of an Initial Mining Lease Application Area at Binjour

- Based on the evidence from bulk sampling, ABx has assessed the results from its 1,000 drillholes at Binjour and has identified sites that:
  - Are on freehold land titles, with no strategic cropping or environmental issues
  - Are ideally located for transport, processing, environmental and community issues; and
  - Contain the high quality layer of bauxite which will be in great demand.
- Coordinated production:** The Binjour Bauxite Project will maximise production during the Queensland dry season from April to November and ABx's Tasmanian mines will maximise production in summer from December to May. Rawmin's mines in north western India will maximise production in the Indian dry season from November to May but cease shipments in monsoon months June to September. Coordinated production and shipments will achieve all-year delivery to the customer of bauxite at a consistent specification
- Memorandum of Understanding Agreement** for access to the preferred stockpile site at the Port of Bundaberg was finalised and executed during 2019

## Penrose bauxite types in strong demand

ABx's Penrose bauxite deposit located in a pine plantation 90km inland of Port Kembla NSW (see Figure 14) contains a bottom layer grading 55% Al<sub>2</sub>O<sub>3</sub> and very low iron content suitable for refractory bauxite applications. The strategy for Penrose is to sell each layer to separate customers but a primary customer-partner is needed.

ABx has concluded that whilst Penrose bauxite is ideal feedstock for the ALCORE bauxite refining technology, it is best for the manufacture of an Australia building product and separate sale of other layers.

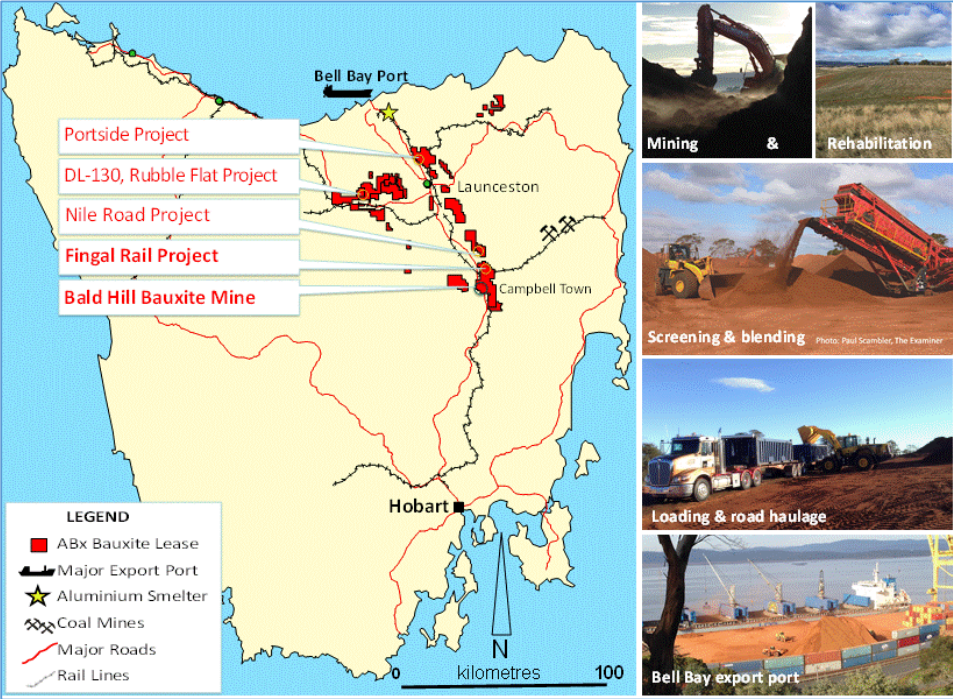
## Search of other low-iron grey-white bauxite deposits

Prior to making an offer to the "primary partner" for ABx's grey-white bauxite, ABx has searched its large database for other deposits of this type of bauxite and has found low-iron bauxite in Tasmania, Binjour in QLD and in the Taralga project area located north of Goulburn NSW. ABx has drafted a business proposal.



**Figure 14**  
 Locations of Penrose bauxite project, 90kms inland from Port Kembla, New South Wales

**Sales & Operations: Bald Hill Bauxite Project, Campbell Town, Northern Tasmania**



**Figure 15**  
 Locations of ABx bauxite mines, projects and transport infrastructure in Tasmania





Dispatch Date	Sale Tonnes
20/01/2016	446
8/04/2016	5,557
7/08/2016	35,913
9/09/2016	89
19/09/2017	30,000
28/09/2017	5,000
30/10/2017	669
30/04/2019	32,477
<b>Cement Sub Total</b>	<b>110,152</b>
24/11/2015	195
16/03/2016	390
14/09/2016	1,500
31/01/2017	351
28/02/2017	429
31/03/2017	430
30/04/2017	78
3/10/2017	468
13/11/2017	857
6/12/2017	704
23/03/2018	1,412
30/09/2018	978
5/02/2019	347
7/03/2019	586
3/04/2019	310
12/06/2019	540
12/07/2019	154
<b>Fertiliser Sub Total</b>	<b>9,730</b>
<b>Total all sales</b>	<b>119,882</b>

**Minesite screened stockpiles** (grade controlled, ready to blend/sell)

Metallurgical grade	150 tonnes
Cement-grade	350 tonnes
Fertiliser grade	7,585 tonnes
<b>Subtotal mine s/piles</b>	<b>8,085 tonnes</b>

**Port stockpiles**

Cement-grade (bauxite stockpile pad)	1,864 tonnes
<b>Total saleable processed stockpiles</b>	<b>9,949 tonnes</b>

Screened material available for classification	94,426 tonnes
Broken Ore Stocks ready for screening:	19,250 tonnes
<b>Grand total</b>	<b>123,625 tonnes</b>

**This Period Totals**

**Production statistics as at 30 June 2019**

Tonnes mined	48,471 tonnes
<b>Tonnes screened (primary)</b>	<b>77,161 tonnes</b>
Tonnes metallurgical-grade (added to cement-grade)	0 tonnes
Tonnes cement-grade	33,741 tonnes
Tonnes other screened material	35,798 tonnes
<b>Total saleable tonnes produced</b>	<b>69,539 tonnes</b>

Table 3

Operating Statistics For Bald Hill Bauxite Project

**Rehabilitation on schedule**



Figure 16

Rehabilitation at Bald Hill mine was nearing completion at the end of the quarter.

Mine operators are waiting for optimum weather for seeding and weed suppression.



**Figures 17 & 18: Pits MB5 & 6 during mining and after rehabilitation**

**Land can be restored to productive standard within 2 or 3 years – as shown for the rehabilitated mined area above.**

**Corporate skills in rehabilitating agricultural lands post-mining:** Unlike several other bauxite producers which operate in remote tropical savannah regions, ABx has considerable experience dealing with the rehabilitation of good quality agricultural land. This will be important when ABx commences mining and rehabilitation operations in Binjour 115kms inland from Bundaberg, QLD.

This announcement has been authorised for release by the Board of Australian Bauxite Limited.

**For further information please contact:**

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## Qualifying statements

### General

The information in this report that relate to Exploration Information and Mineral Resources are based on information compiled by Jacob Rebek and Ian Levy who are members of The Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. Mr Rebek and Mr Levy are qualified geologists and Mr Levy is a director of Australian Bauxite Limited.

### Mainland

The information relating to Mineral Resources on the Mainland 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.

Mr Rebek and Mr Levy have sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activity, which they are undertaking to qualify as a Competent Person as defined in the 2004 Edition of the Australasian Code for Reporting of exploration Results, Mineral Resources and Ore Reserves. Mr Rebek and Mr Levy have consented in writing to the inclusion in this report of the Exploration Information in the form and context in which it appears.

### Tasmania

The information relating to Exploration Information and Mineral Resources in Tasmania has been prepared or updated under the JORC Code 2012.

Mr Rebek and Mr Levy have sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activity, which they are undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Rebek and Mr Levy have consented in writing to the inclusion in this report of the Exploration Information in the form and context in which it appears.

### Disclaimer Regarding Forward Looking Statements

This ASX announcement (Announcement) contains various forward-looking statements. All statements other than statements of historical fact are forward-looking statements. Forward-looking statements are inherently subject to uncertainties in that they may be affected by a variety of known and unknown risks, variables and factors which could cause actual values or results, performance or achievements to differ materially from the expectations described in such forward-looking statements.

ABx does not give any assurance that the anticipated results, performance or achievements expressed or implied in those forward-looking statements will be achieved.

### Patent

As advised previously, Refined Ore Industries Ltd (ROIL) was the owner of the CORE process technology via ROIL's intellectual property company, Berkeley Process Technologies Pty. Ltd which issued a global exclusive licence for the aluminium-related portion of the CORE process technology to ABx in November 2017 and ABx has issued a global exclusive sub-licence to Alcore Limited when Alcore was incorporated on 1 July 2018. After a company restructure and expansion of the patent definition to cover isolation and extraction of mineral compounds, metals, metalloids, alloys and elements from waste streams, mineral ores, recyclable commodities, industrial by-products and mixed substances, the holding company is now named Core Refining Limited (CRL) and the intellectual property company is Core Intelligence Australia Pty Ltd (CIAL) which holds the Patent Application No. 2019904311 and the global exclusive licences to ABx and Alcore continue in force.

CRL's CORE process technology involves the refining of a wide range of ore types using a combination of fluorine acids and related thermal energy process steps. The technology that is licensed to ABx and ALCORE by CRL is part of CRL's broader Core technology.

**Table 4: Tenement information required under LR 5.3.3**

Tenement No.	Location
<b>New South Wales</b>	
EL 6997	Inverell
EL 8370	Penrose Forest
EL 7357	Taralga
EL 8600	Penrose Quarry
<b>Queensland</b>	
EPM 18014	Binjour
EPM 18772	Binjour Extension
EPM 25146	Toondoon EPM
ML 80126	Toondoon ML

<b>Tasmania</b>	
EL 7/2010	Conara
EL 9/2010	Deloraine
EL 18/2014	Prosser's Road
ML 1961 P/M	Bald Hill Bauxite

**Notes:** During the quarter, two exploration tenements were relinquished.

All tenements are in good standing, 100% owned and not subject to any Farm-in or Farm-out agreements, third-party royalties nor are they encumbered in any way



## Resource Statement

Tabulated below are the Mineral Resources for each ABx Project. The initial ASX disclosure for these Resources is given in the footnotes to the table. Refer to these announcements for full details of resource estimation methodology and attributions.

**Table 5: ABx JORC-Compliant Resource Estimates**

Region	Resource Category	Million Tonnes	Thickness (m)	Al <sub>2</sub> O <sub>3</sub>	SiO <sub>2</sub>	A/S	Fe <sub>2</sub> O <sub>3</sub>	TiO <sub>2</sub>	LOI	Al <sub>2</sub> O <sub>3</sub> Avl	Rx SiO <sub>2</sub>	Avl/Rx	% Lab	O'Burden	Int.Waste
				%	%	ratio	%	%	%	@ 143°C	%	ratio	Yield	(m)	(m)
CAMPBELL TOWN AREA TASMANIA <sup>7</sup>	Inferred	1.3	3.0	42.6	3.5	12	25.4	3.5	24.6	36.7	3.0	12	50	2.1	0.1
	Indicated	1.4	3.2	42.5	3.2	14	26.4	3.0	24.5	36.2	2.8	14	55	1.8	0.1
	Total	2.7	3.1	42.5	3.3	13	25.9	3.3	24.5	36.5	2.9	13	52	2.0	0.1
Fingal Rail Cement-Grade Bauxite <sup>8</sup>	Inferred	2.4	3.3	30.9	19.5	--	35.4	3.9	16.7	--	--	--	--	1.9	0.1
	Indicated	3.9	3.8	31.1	19.0	--	35.2	4.0	16.9	--	--	--	--	1.7	0.1
	Total	6.3	3.6	31.0	19.2	--	35.3	4.0	16.8	--	--	--	--	1.8	0.1
DL-130 AREA TAS <sup>1</sup>	Inferred	5.7	3.8	44.1	4.3	10	22.8	3.1	25.0	37.6	3.2	12	55	1.5	0.1
	Total Tas	14.7	3.6	38.2	10.5	n.a.	28.7	3.5	21.4	n.a.	n.a.	n.a.	54	1.7	0.1
BINJOUR QLD <sup>2</sup> DSO, Screen & Cement	Inferred	14.2	4.3	40.7	7.3	6	24.7	4.3	22.1	32.3	6.7	5	80	8.5	0.3
	Indicated	22.8	4.0	33.5	19.2	2	24.9	4.2	16.8	15.8	17.4	1	63	6.6	0.3
	Total	37.0	4.1	36.2	14.6	3	24.9	4.2	18.8	22.1	13.3	2	69	7.3	0.3
TOONDOON QLD <sup>3</sup>	Inferred	3.5	4.9	40.2	7.2	6	25.3	4.9	21.7	32.8	5.2	6	67	1.5	0.0
TARALGA S. NSW <sup>4</sup>	Inferred	9.9	3.1	40.4	5.7	7	24.6	4.1	22.2	35.2	1.9	18	54	0.1	0.2
	Indicated	10.2	3.7	41.3	5.3	8	25.9	4.0	22.9	36.1	1.9	19	55	0.7	0.4
	Total	20.1	5.6	40.8	5.5	7	25.3	4.0	22.6	35.7	1.9	19	55	0.5	0.3
	PDM-DSO* Inferred	7.6	2.5	37.0	6.0	6	38.4	3.5	13.3	22.1*	1.3	17	72	0.2	0.1
	Indicated	10.3	3.1	37.6	3.9	10	40.4	3.7	13.5	22.4*	1.1	20	71	0.7	0.4
Total Taralga	17.8	5.8	37.3	4.8	8	39.6	3.6	13.5	22.3*	1.2	18	72	0.5	0.3	
INVERELL N. NSW <sup>5</sup>	Inferred	17.5	4.7	39.8	4.8	8	27.7	4.3	22.2	31.0	4.2	7	61	2.3	
	Indicated	20.5	4.8	40.6	4.7	9	26.9	4.1	22.5	32.0	4.0	8	60	2.4	
	Total	38.0	4.8	40.2	4.7	9	27.3	4.2	22.4	31.6	4.1	8	61	2.4	
GUYRA N. NSW <sup>6</sup>	Inferred	2.3	4.2	41.4	3.6	12	26.2	3.3	24.6	35.0	2.8	13	56	3.4	
	Indicated	3.8	5.9	43.1	2.6	16	27.3	3.9	24.5	37.4	2.0	18	61	4.4	
	Total	6.0	5.3	42.5	3.0	14	26.9	3.7	24.5	36.5	2.3	16	59	4.0	
<b>GRAND TOTAL ALL AREAS</b>		<b>137.1</b>													

\* PDM is Al<sub>2</sub>O<sub>3</sub> spinel. Al<sub>2</sub>O<sub>3</sub> Avl at 225°C is >35%

**Explanations:** All resources 100% owned & unencumbered. Resource tonnage estimates are quoted as in-situ, pre mined tonnages. All assaying done at NATA-registered ALS Laboratories, Brisbane.  
**Chemical definitions:** Leach conditions to measure available alumina "Al<sub>2</sub>O<sub>3</sub> Avl" & reactive silica "Rx SiO<sub>2</sub>" is 1g leached in 10ml of 90gpl NaOH at 143°C for 30 minutes. LOI = loss on ignition at 1000°C. "Avl/Rx" ratio is (Al<sub>2</sub>O<sub>3</sub> Avl)/(Rx SiO<sub>2</sub>) and "A/S" ratio is Al<sub>2</sub>O<sub>3</sub>/SiO<sub>2</sub>. Values above 6 are good, above 10 are excellent. Tonnage is for bauxite in-situ. Lab Yield is for drill dust samples screened by ALS lab at 0.26mm. Production yields are not directly related and are typically between 60% and 75%. Tonnages requiring no upgrade will have 100% yield. Resource estimates exclude large tonnages of potential extensions, overburden & interburden detrital bauxite and underlying transitional bauxite mineralisation. Production will clarify these materials.

The information above relates to Mineral Resources previously reported according to the JORC Code (see Competent Person Statement) as follows:

- <sup>1</sup> Maiden Tasmania Mineral Resource, 5.7 million tonnes announced on 08/11/2012
- <sup>2</sup> Binjour Mineral Resource, 37.0 million tonnes announced on 18/06/2018
- <sup>3</sup> QLD Mining Lease 80126 Maiden Resource, 3.5 million tonnes announced on 03/12/2012
- <sup>4</sup> Goulburn Taralga Bauxite Resource Increased by 50% to 37.9 million tonnes announced on 31/05/2012
- <sup>5</sup> Inverell Mineral Resource update, 38.0 million tonnes announced on 08/05/2012
- <sup>6</sup> Guyra Maiden Mineral Resource, 6.0 million tonnes announced on 15/08/2011
- <sup>7</sup> Initial resources for 1<sup>st</sup> Tasmanian mine, 3.5 million tonnes announced on 24/03/2015
- <sup>8</sup> Resource Upgrade for Fingal Rail Project, Tasmania announced on 25/08/2016

Tabulated Resource numbers have been rounded for reporting purposes. The Company conducts regular reviews of these Resources and Reserve estimates and updates as a result of material changes to input parameters such as geology, drilling data and financial metrics.

**Global Mineral Resources total 137.1 million tonnes.**



**About Australian Bauxite Limited ASX Code ABX**

Australian Bauxite Limited (ABx) has its first bauxite mine in Tasmania & holds the core of the Eastern Australian Bauxite Province. ABx's 12 bauxite tenements in Queensland, New South Wales & Tasmania totalled 719 km<sup>2</sup> & were selected for (1) good quality bauxite; (2) near infrastructure connected to export ports; & (3) free of socio-environmental constraints. All tenements are 100% owned, unencumbered & free of third-party royalties. ABx's discovery rate is increasing as knowledge, technology & expertise grows. The Company's bauxite is gibbsite trihydrate (THA) bauxite that can be processed into alumina at low temperature and is becoming increasingly in shortest supply.

ABx has committed a large proportion of its expenditure into Research and Development to find ways to capitalise on the main strengths of its bauxite type, mainly highly clean, free of all deleterious elements and partitioned into layers, nodules, particles and grains of different qualities that can be separated into different product streams using physical, chemical and geophysical methods.

ABx has declared large Mineral Resources at Inverell & Guyra in northern NSW, Taralga in southern NSW, Binjour in central QLD & in Tasmania, confirming that ABx has discovered significant bauxite deposits.

ABx's first mine commenced at Bald Hill near Campbell Town, Tasmania in December 2014 – the first new Australian bauxite mine for more than 35 years.

ABx aspires to identify large bauxite resources in the Eastern Australian Bauxite Province, which is a globally significant bauxite province. ABx has created significant bauxite developments in 3 states - Queensland, New South Wales and Tasmania. Its bauxite deposits are favourably located for direct shipping of bauxite to both local and export customers.

**ABx endorses best practices on agricultural land, strives to leave land and environment better than we find it.**

**We only operate where welcomed.**

**About ALCORE Limited:**

Australian Bauxite Limited (ABx) has incorporated ALCORE Limited as a wholly-owned subsidiary to fund and manage the ALCORE Project, to lead to the construction of an ALCORE Production Plant to produce Aluminium Fluoride (AlF<sub>3</sub>) and valuable co-products, using patent application new technology. The ALCORE Technology is designed to convert low grade bauxite worth \$50 per tonne into a suite of valuable products worth more than \$800 per tonne. Site construction works for Stage 1 of the ALCORE project commenced on 1 July as planned at ALCORE's pre-approved Research Centre in Berkeley Vale, Central Coast NSW.

Stage 1 is designed to produce AlF<sub>3</sub> test samples for pre-qualified aluminium smelter customers & then produce Corethane, which is pure hydrocarbon powder refined from low-value coals and has been used to provide thermal and electrical power with low CO<sub>2</sub> emissions when used as a gas-substitute to fuel large gas turbine. Corethane has also been used as a diesel substitute for fuel security purposes and is ideally suited for use as a sulphur-free bunker fuel.

**Directors of ABx**

Paul Lennon Chairman  
Ian Levy CEO & MD  
Ken Boundy Director  
Henry Kinstlinger Company Secretary

**Officers**

Leon Hawker COO  
Jacob Rebek Chief Geologist  
Paul Glover Marketing, Exploration

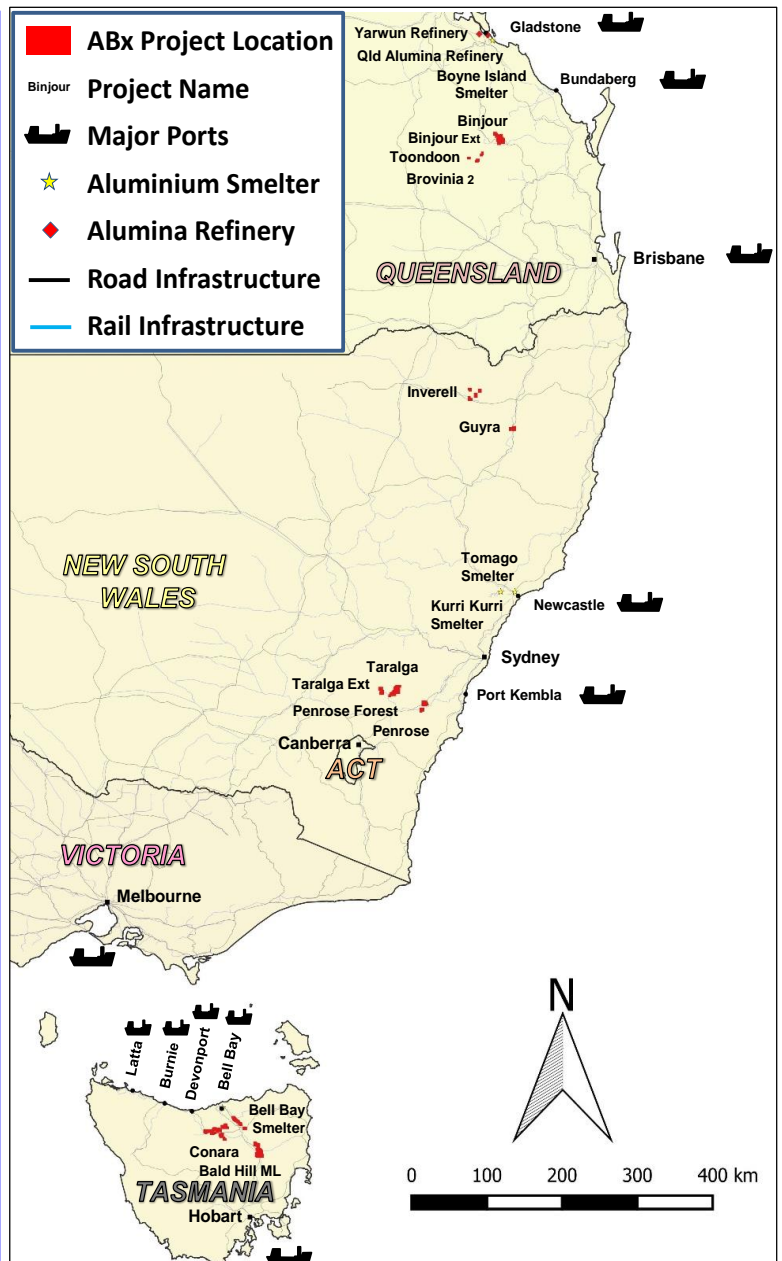


Figure 19 above

**ABx Project Tenements & Major Infrastructure in ABx's major bauxite project areas nearest export ports in Eastern Australia as follows, from south to north:**

1. Northern Tasmania, south of Bell Bay Port
2. Southern NSW Taralga & Penrose pine forest west of Pt Kembla
3. Central Queensland based on the major Binjour Bauxite Project, southwest of Port of Bundaberg which is a port that has no impact on the Great Barrier Reef.