



AUSTRALIAN BAUXITE LIMITED

ASX: ABX

About Australian Bauxite Limited

ASX Code ABX Web:

www.australianbauxite.com.au

Australian Bauxite Limited (ABx) has its first bauxite mine in Tasmania and holds the core of the Eastern Australian Bauxite Province. ABx's 22 bauxite tenements in Queensland, New South Wales & Tasmania exceed 1,975 km² and 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 high quality gibbsite trihydrate (THA) bauxite that can be processed into alumina at low temperature.

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 including some of outstandingly high quality.

At Bald Hill near Campbell Town, Tasmania, the Company's first bauxite mine commenced operations 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.

Directors & Officers

Paul Lennon	Chairman
Ken Boundy	Director
Ian Levy	CEO & MD
Henry Kinstlinger	Company Secretary
Leon Hawker	Chief Operating Officer
Jacob Rebek	Chief Geologist
Paul Glover	Logistics & Exploration Manager

CEO Presentation at TechKnow Invest Roadshow

In accordance with the requirements of Listing Rule 3.1 we submit the attached material being presented at the TechKnow Invest Roadshow in Melbourne and Sydney.

Mr Ian Levy, CEO is making the presentations.

Melbourne – 24 October 2017 – 2:00pm
Grand Hyatt Hotel Melbourne, Victoria

Sydney – 26 October 2017 – 9:05am
Radisson Blu Hotel Sydney, New South Wales

The public are welcome to attend the presentations.

Ian Levy will be providing an overview on the development of bauxite beneficiation and refining technology to produce Aluminium Fluoride used in aluminium production and in lithium ion batteries, as reported briefly in the June Quarterly Report released on 28 July 2017. A patent application was lodged on 5 June 2017.

Key points include:

- an engineering firm has begun final designs and costings for the Stage 1 plant design. Due end Feb'18; and
- ABx will continue wide consultations before making and announcing final funding strategies which must create value for ABx shareholders.

ABx has no current plans for capital raisings.

For further information please contact:

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Australian Bauxite Limited

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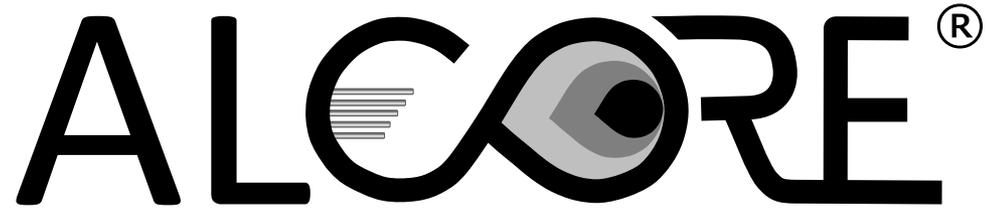
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**Aluminium Fluoride for aluminium smelters & Li ion batteries
and Corethane[®] Gas for energy security**

Bell Bay Tasmania or Townsville QLD



TechKnow Conference 24-26 October 2017



ALCORE is an R&D venture by Australian Bauxite Limited and Refined Ore Industries Limited



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Such statements relate to future events and expectations and, as such, involve known and unknown risks and uncertainties. Actual events and results may differ materially from those expressed or forecasted in forward-looking statements due to a number of factors. The principal important risk factors that could cause ABx's actual performance and future events and actions to differ materially from such forward-looking statements, include, but are not limited to, continuing volatility in the capital or credit markets and other changes in the securities and capital markets, changes in market prices, the occurrence of one or more catastrophic events, such as an earthquake, hurricane, or act of terrorism, changes in laws or regulations, changes in income tax laws, and changes in general economic and market factors that affect the prices of securities or the industries in which it does business.

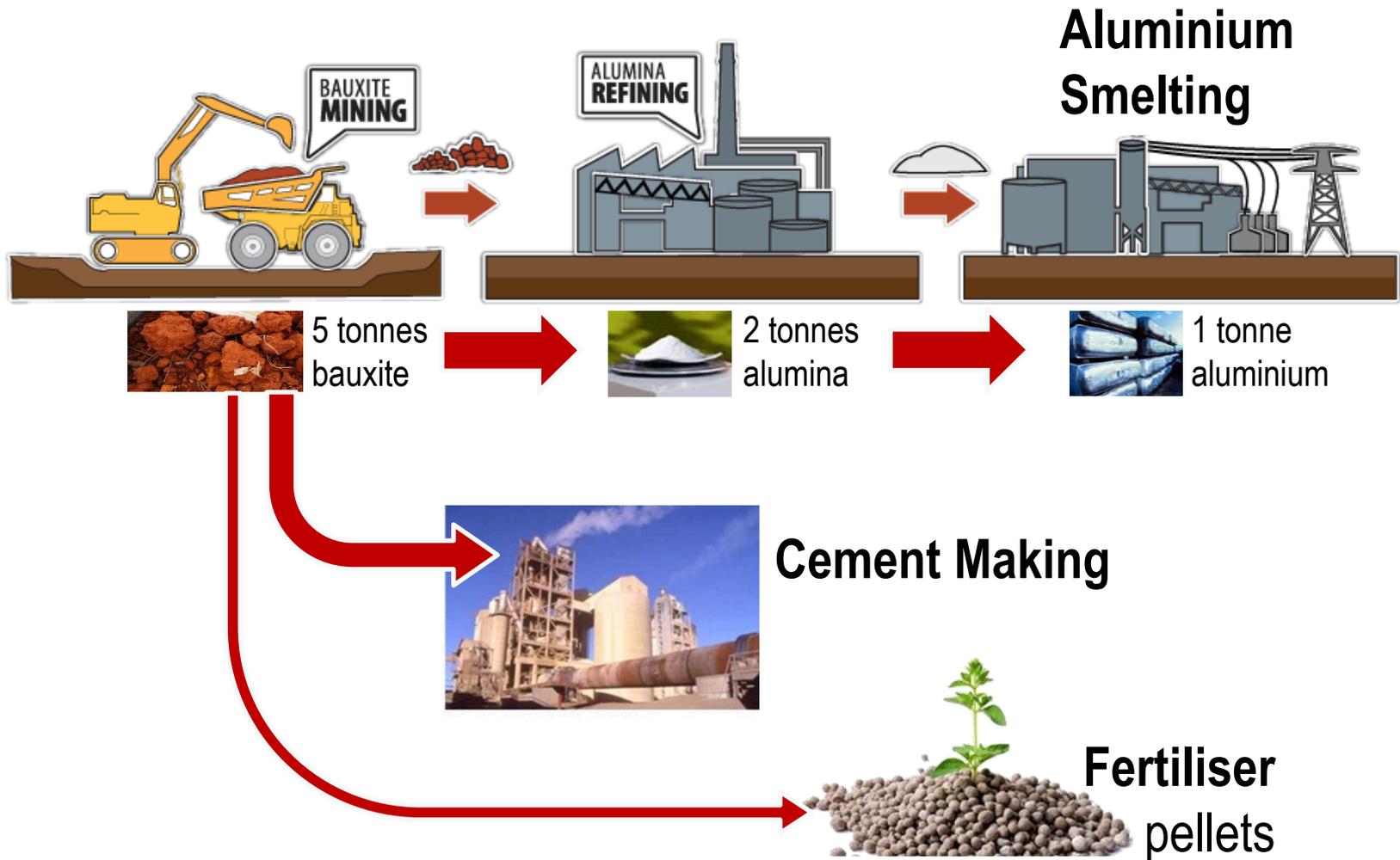
This presentation includes certain statements, estimates and projections that rely upon various assumptions. Those assumptions may or may not prove to be correct. The Presentation does not purport to contain all the information that a prospective investor may require. The information may not be appropriate for all persons, and it is not possible for Australian Bauxite Limited to have any regard to the investment objectives, financial situation and particular needs of each recipient who reads or uses this information.

Photographs and diagrams

Photographs and diagrams used in this Presentation that do not have descriptions are for illustration only or that the assets shown in them are owned by ABx. Diagrams used in this Presentation are illustrative only and may not be drawn to scale. Unless otherwise stated, all data contained in charts, graphs and tables is based on information available at the date of this Presentation.

ABx to use ALCORE technology to add massive value

Today, traditional bauxite market prices ~US\$40 to \$55/tonne



ALCORE's Bauxite Refining technology can add \$600 to \$1,000/tonne in value to bauxite



1 tonne low grade bauxite

36% Al_2O_3
25% Fe_2O_3
10% SiO_2
5% TiO_2
23% H_2O



Bauxite refinery



0.4 to 0.6 tonnes of Aluminium Fluoride worth ~US\$600 to \$1,000



Sell AlF_3 electrolyte to Aluminium Smelters

Lithium Ion Batteries
 AlF_3 electrolyte used for faster recharge of Li ion batteries

ALCORE Bauxite Refining Process : all by-products saleable

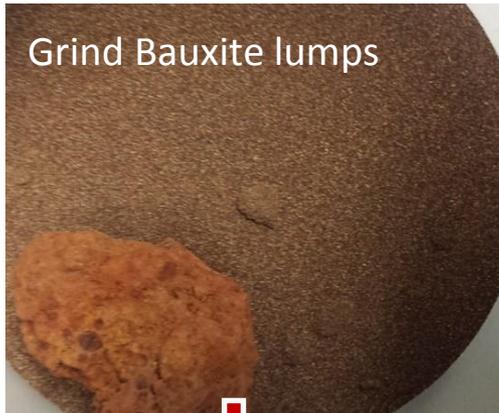
Bauxite = 36% Al_2O_3 25% Fe_2O_3 10% SiO_2 5% TiO_2 & 23% H_2O

Reagents are mixtures of:

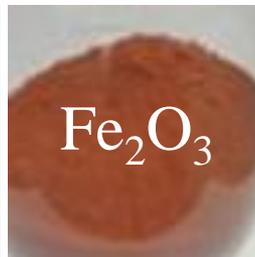
1. HF acid (as used in glass etching & metal cleaning)
2. H_2SiF_6 ("FSA" as used to fluoridate water supplies)
3. H_2O Process Water

Process:

1. Crush/grind & add reagents
2. All minerals dissolved by reagents, forming metal fluorides
3. Fluoride species are sequentially precipitated as metal-fluorides (eg. AlF_3) or pure oxides to release fluorine chemicals for recycling of reagents
4. Oxides & fluorides are all in saleable pure forms



SiO_2
US\$600/t



Fe_2O_3
US\$600/t



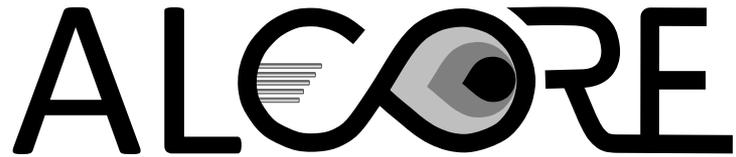
Pure bauxite
US\$200/t



TiO_2
US\$1,800/t



AlF_3 Aluminium
Fluoride US\$1,500/t



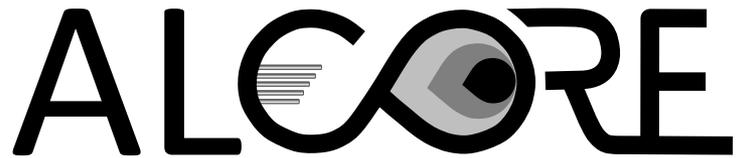
ABx's bauxite refining initiative

When other oxides are sold, Alcore bauxite refining increases bauxite value from US\$50 per tonne to more than US\$1,000 per tonne

Bauxite refining is additional to normal ABx bauxite sales to customers

84,000 tonnes bauxite per year worth US\$4.2 million gets refined to produce products worth US\$94 million per year.

Tonnes	Product	Value (US\$)
50,000	tonnes aluminium fluoride AlF_3	\$67,500,000
1,110	tonnes gibbsite $\text{Al}_2\text{O}_3 \cdot 3\text{H}_2\text{O}$	\$111,015
6,300	tonnes silica fume SiO_2	\$17,010,000
23,100	tonnes iron ore Fe_2O_3	\$1,848,000
3,192	tonnes titanium oxide TiO_2	\$7,980,000
83,702	tonnes products worth	\$94,449,015



**Delivering this
refining initiative**

Base Case Plan at present: 2 Stage Development

Stage 1: Engineering Evaluation Plant (EV Plant) A\$12.5m to A\$16m

Stage 2: 50,000 tonnes per year production plant “ALF 1” for ~A\$50m

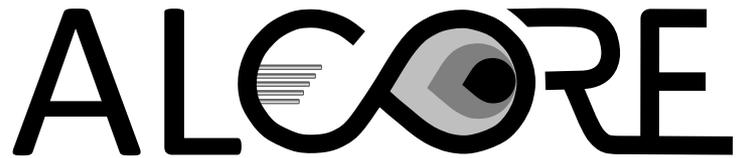
Timetable

1. Design & costing EV Plant - end February 2018
2. **“Shareholder consultation”** & funding strategy - end Q1 2018
3. Funding Q1 & Q2 2018
4. Marketing samples for offtake contracts Sept-Nov 2018
5. Bankable feasibility study of ALF 1 production plant Q1 2019
6. Commissioning ALF 1 production plant end 2019

Why Bell Bay, Tasmania or Townsville, QLD ?

Available key chemicals, large bauxite resources and skilled workforces near under-utilised export ports

1. AlF_3 prices have risen strongly from US\$800 to above US\$1,600 per tonne in 5 years (extra demand from batteries)
2. Aluminium smelters use 30kgs of AlF_3 per tonne of aluminium (ie. 3%)
3. Global demand exceeds 1.5 million tonnes of AlF_3 per year
4. Alcore to target Australasian aluminium smelters as main customers
5. Lithium Ion Battery market will be blue sky
6. Alcore production is ~30% cheaper than traditional AlF_3 production
7. Payback of major production plant capital cost less than 3 years
8. Upside is additional production plants to supply SE Asia, India & Middle East

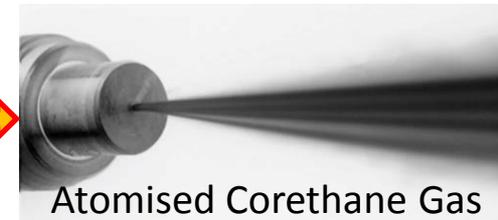
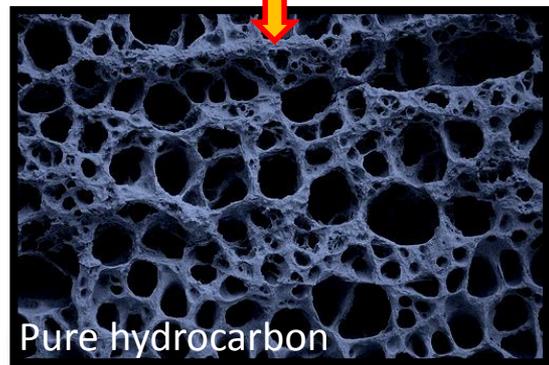
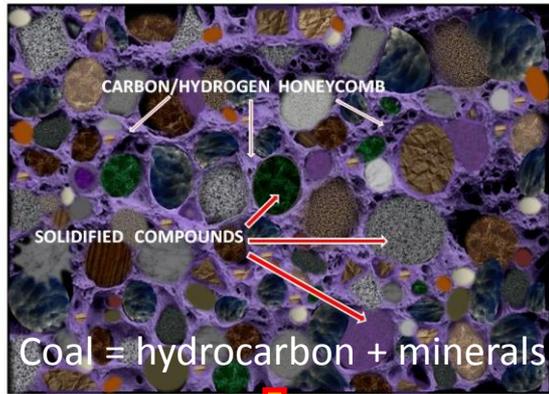


Environmental Benefits

No smoke-stack, no emissions, no waste products, value adding

- 1. Alcore Production Process uses waste acids from zinc refineries and fertiliser plants for reagent make-up.**
- 2. Reagents are recycled**
- 3. No emissions, particulates or waste generated**
- 4. AlF_3 improves aluminium smelting efficiency - saves electricity**
- 5. Lithium Ion Battery recharge rates improved by AlF_3**
- 6. Can be self-sufficient for heating & electricity (co-product Corethane gas)**

Corethane Gas co-product to take ALF 1 Plant off the energy grid if needed



Coal = mix of hydrocarbons & ash minerals

Reagents same as for AlF_3 process: HF, FSA acid & water

Process same as for AlF_3 process:

1. Crush coal to 5^{mm} & add reagents
2. Ash minerals are dissolved, forming same products as for AlF_3 process & 100% recycling (no discharges)
3. Hydrocarbons are untouched by reagents & recovered
4. 99.97% pure hydrocarbon = "Corethane"
5. Micronised and atomised = Corethane Gas to heat the ALF 1 plant and/or generate electricity

Corethane Gas is a clean, cheap gas substitute. Meets Finkel Review emission targets

Technology development. It's time has come

Previous refining plants were successful but not focussed on AlF_3



2,300 tpa EV Plant



50,000 tpa Corethane Refinery mid 1980s

ABx has driven the focus of technology on AlF_3 over the past 18 months

Patent application lodged 5th June 2017

Due Diligence Documentation

Refined Ore Industries Ltd (ROIL) has extensive due diligence material:

- Process reviews, historical data & photos of the CORE Process, test results & reviews.
- Process economics studies, budgets & feasibility studies as technology improved
- Environmental impact reviews

SOME BACKGROUND MARKET INFORMATION ON AlF_3

Source: <https://www.metalbulletin.com/Article/2831942/Aluminium-fluoride-prices-boosted-by-supply-shortage.html>

Aluminium fluoride prices boosted by supply shortage

According to industry sources, latest spot prices for Chinese-produced AlF_3 , on a CIF delivered basis, stand at \$1700-\$1750/tonne. FOB China prices are quoted between a range of \$1650-1700/tonne. This is 25% higher than an FOB China price of \$1300-1325/tonne at the start of the year.

<https://www.zauba.com/import-aluminium+fluoride-hs-code.html>

&

<http://original.metal.com/metals/productinfo/201106140015>

Application in Lithium Ion Batteries

Aluminum Fluoride coatings have been shown to improve the cycling performance of LiCoO_2 cathodes^{[3][1]}.

AlF_3 is also used in the production of high purity aluminum, fluoroaluminate glasses, and low refractive index thin films^[2].