

# AUSTRALIAN BAUXITE LIMITED

**Succeeding in emerging bauxite markets  
thanks to new technology**

**Sydney Mining Club  
7<sup>th</sup> September 2017**

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## 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.

# Corporate Overview

## ASX code ABX

Listed	24 Dec 2009 @ \$0.20
Issued shares	142 million
Options	0 million
52 week range	\$0.09 - \$0.26
Average daily volume	250,000
Market cap (@ \$0.17)	\$24 million
Cash @ 28 Aug'17	\$1.2 million
Shareholders	2,693

## Board of Directors & Management

Paul Lennon <sup>1</sup>	Chairman
Ian Levy	Managing Director & CEO
Ken Boundy <sup>2</sup>	Non-Executive Director
Henry Kinstlinger	Company Secretary
Leon Hawker	Chief Operating Officer
Paul Glover	Logistics & Exploration
Jacob Rebek <sup>3</sup>	Chief Geologist

<sup>1</sup> ex-Premier of Tasmania

<sup>2</sup> Investor in Tasmania tourism industry. Holds senior public positions

<sup>3</sup> ex-CRA-Rio Tinto Chief Geologist. Led discovery team for Century Zinc (1993) and Eastern Australian Bauxite (2006-09)

## ASX code ABX



## Major Shareholders

Major Shareholders	Shares	%
Soul Pattinson	6.8 m	4.8
State One Capital	5.8 m	4.0
WSF Pty Ltd	5.8 m	4.0
Top 20 shareholders	49.2 m	34.6
Remainder	93.0 m	65.4

Resources = 124 million tonnes bauxite



# ABx Bauxite Production Started in Tasmania.

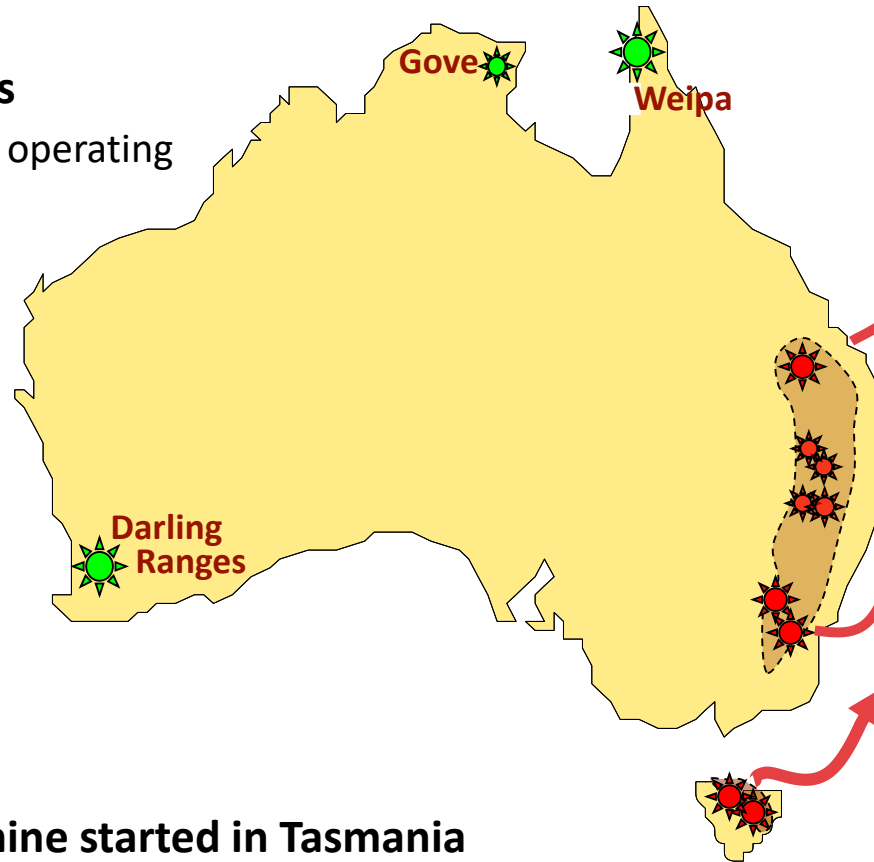
## Next project in QLD, then NSW

★ = ABx bauxite deposits

**Total Resources**

**124 million tonnes**

Targeting \$10 to \$25 operating margins per tonne



**Binjour High Grade Bauxite Project**  
Under assessment.  
+28Mt resources drilled-out

**Penrose Quarry Refractory Grade Bauxite Discovery**

**Tasmanian Producing Mines.**  
+12Mt resources drilled-out

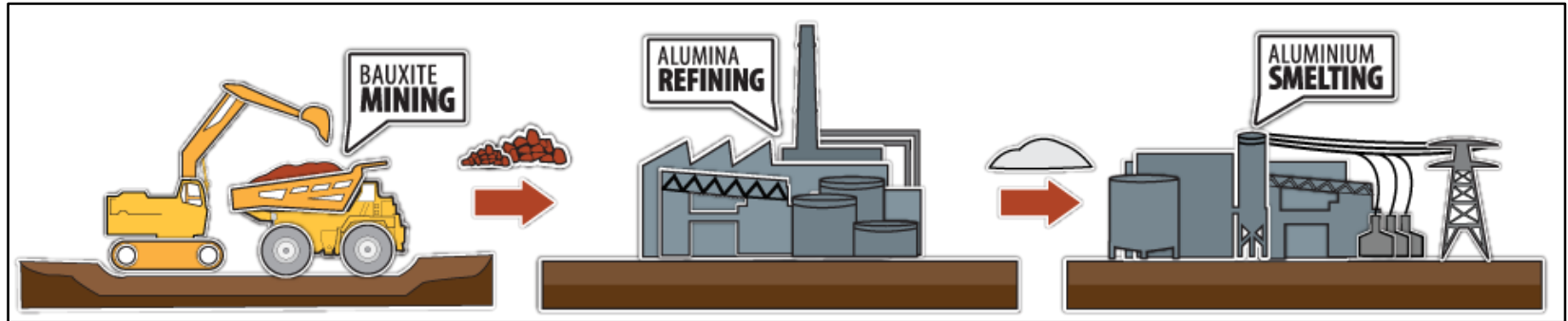
**First mine started in Tasmania**

Strong community & government support

Good infrastructure. Ports open all year

# Bauxite's main use is for aluminium

## “Metallurgical-grade bauxite”



5 tonnes  
bauxite



2 tonnes  
alumina

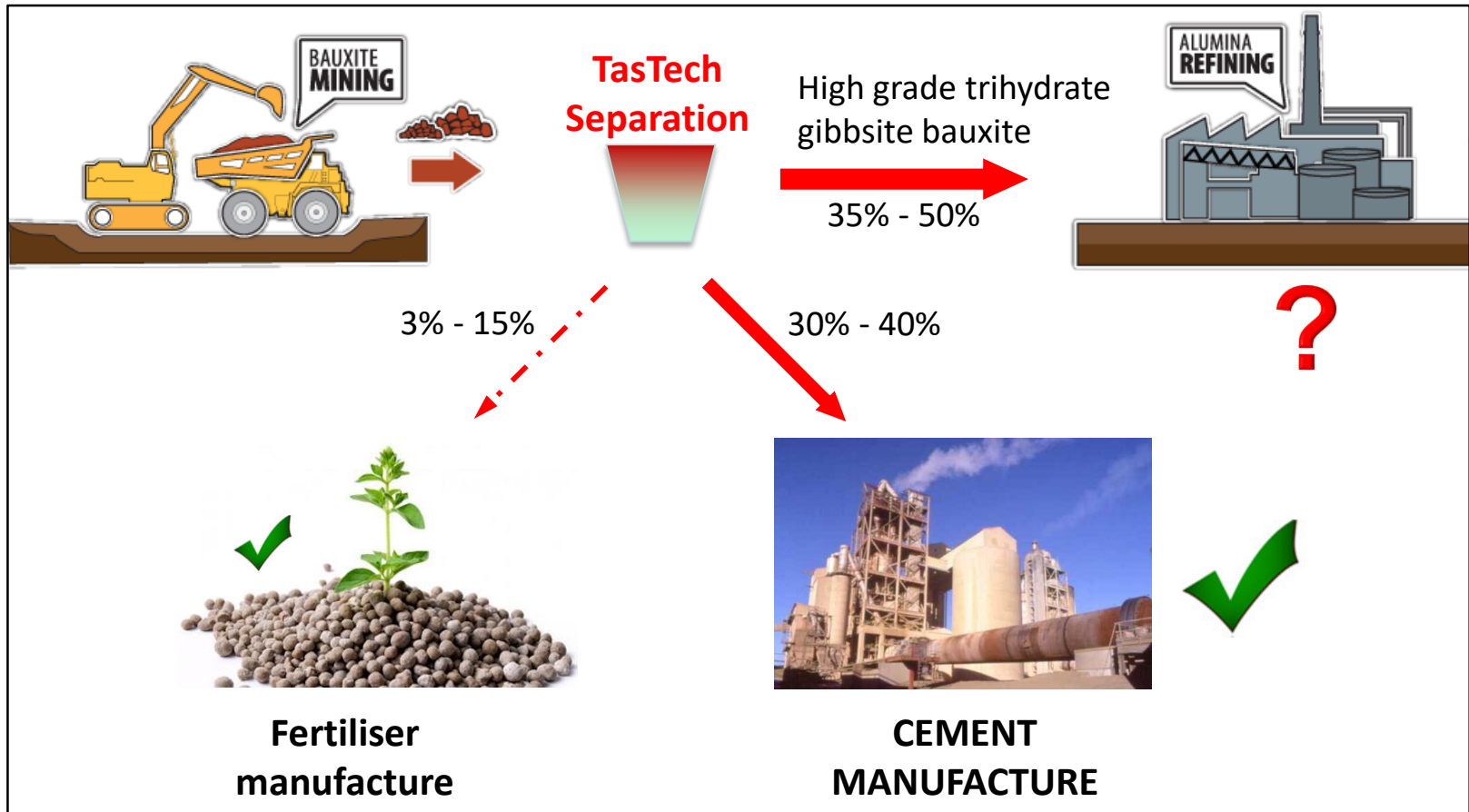


1 tonne  
aluminium

Over-supplied 2015 to 2017. Prices fell 40% in 15 months from Nov'15.

Signs of recovery as aluminium demand keeps growing and alternative supplies are being sought by China & India

# ABx targeting technology & market diversity



ABx sells Cement Grade Bauxite at good prices.

ABx will sell Metallurgical Bauxite when prices improve.

TasTech technology allows ABx to supply all 3 markets



# Bauxite Markets & Strategy

## 1. Metallurgical bauxite for aluminium industry

- + 100 million tonnes pa traded globally
- Currently depressed & oversupplied (cyclical) but signs of recovery

## 2. Cement-grade bauxite demand is fastest growing market (**profitable prices**)

- 25 million tonnes pa of cement-grade bauxite traded, growing fast
- ABx's bauxite helps make corrosion-resistant, late-strength cement
- Salt-free, quartz-free & helps cement kilns operate smoothly
- ***"ABx bauxite is the best favour you can do for yourself & your cement plant"***  
(customer)

## 3. Fertiliser-grade bauxite to make superphosphate from rock phosphate

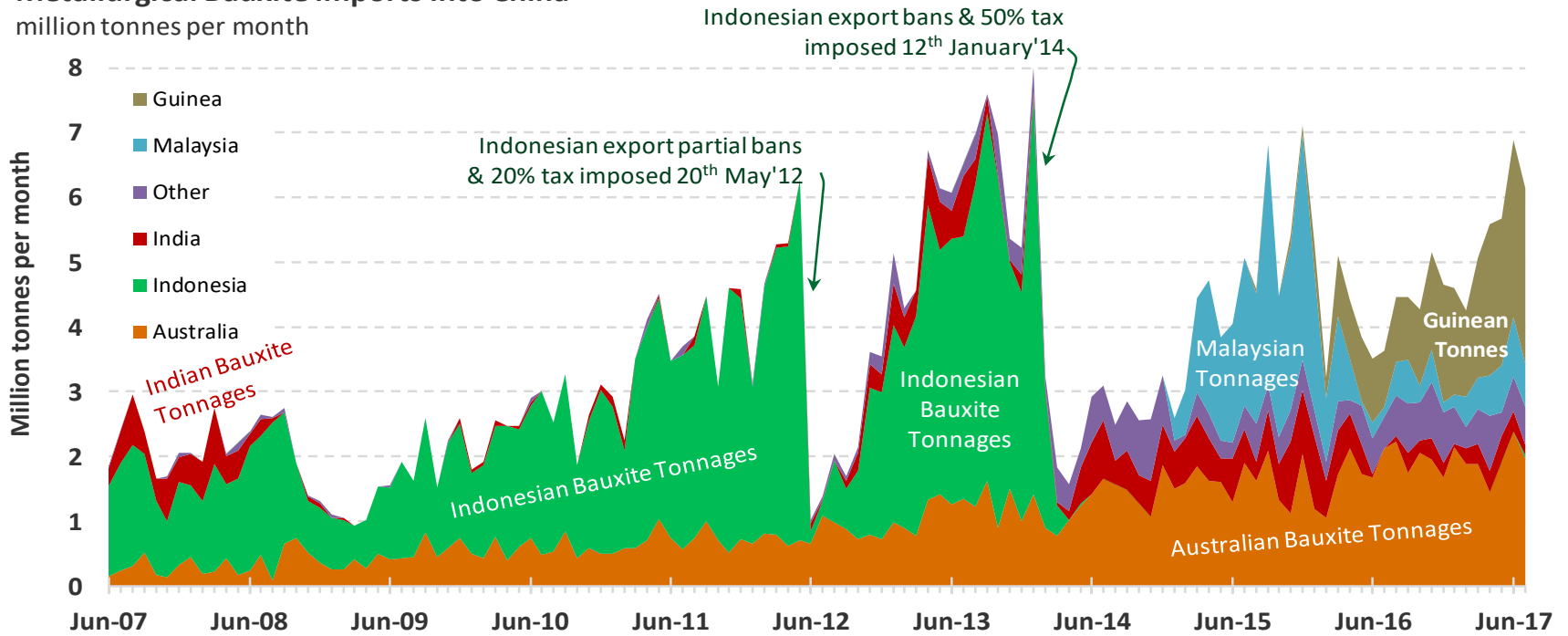
- ABx bauxite used to make granules for superphosphate

## 4. BAUXITE REFINING TO PRODUCE ALUMINIUM FLUORIDE

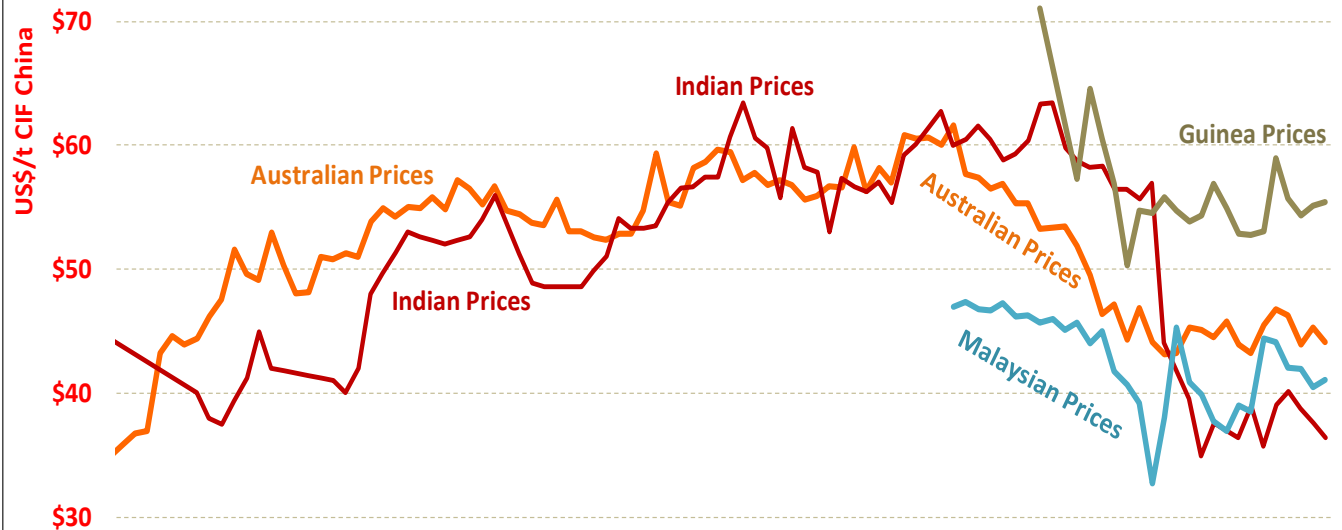
- Increases the value of its bauxite tenfold, capitalising on the clean chemistry of ABx bauxite and the hydro-electricity and skills in Tasmania.

## Metallurgical Bauxite imports into China

million tonnes per month

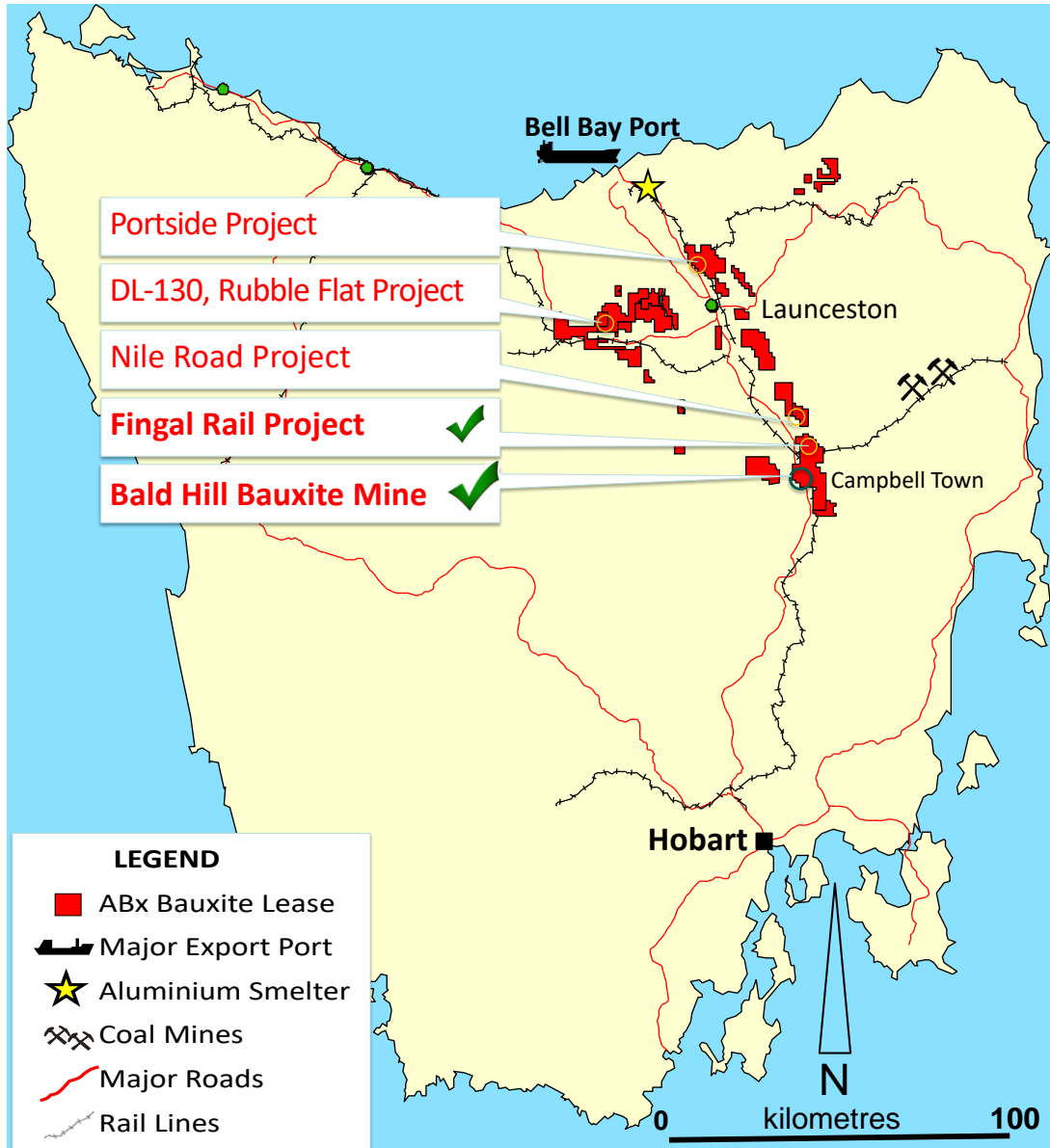


**PRICES  
HIT BY  
CHINESE  
TACTICS**





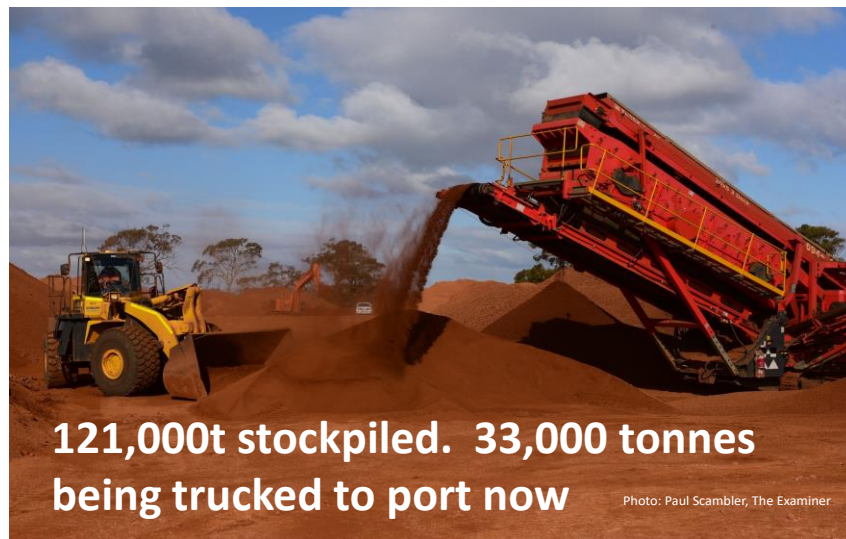
# Mines & transport in Tasmania ideally located



# Simple Quarry & Screen

RETURNS TO GRAZING IN 3 YEARS

## Bald Hill Mine Tasmania



121,000t stockpiled. 33,000 tonnes being trucked to port now

Photo: Paul Scambler, The Examiner

## Blending to customer's specifications

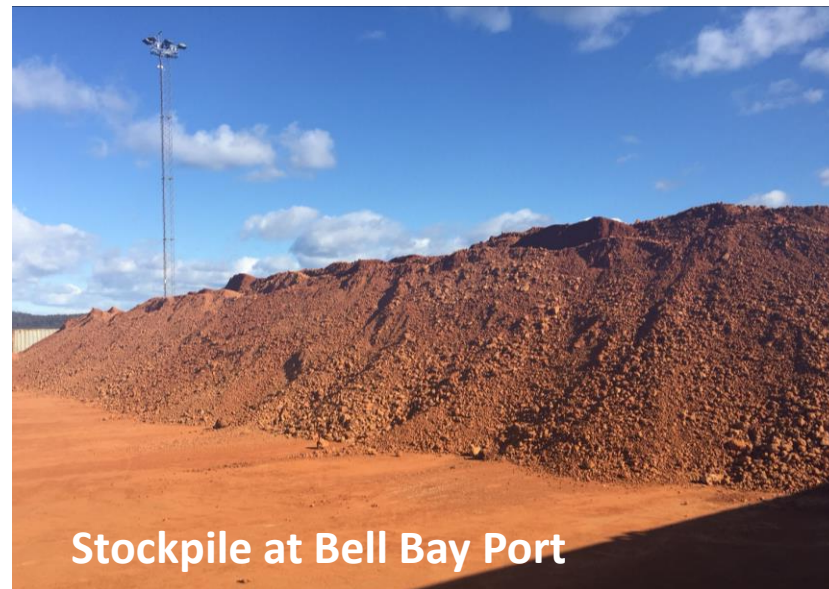


## Bauxite product ready for trucking today.

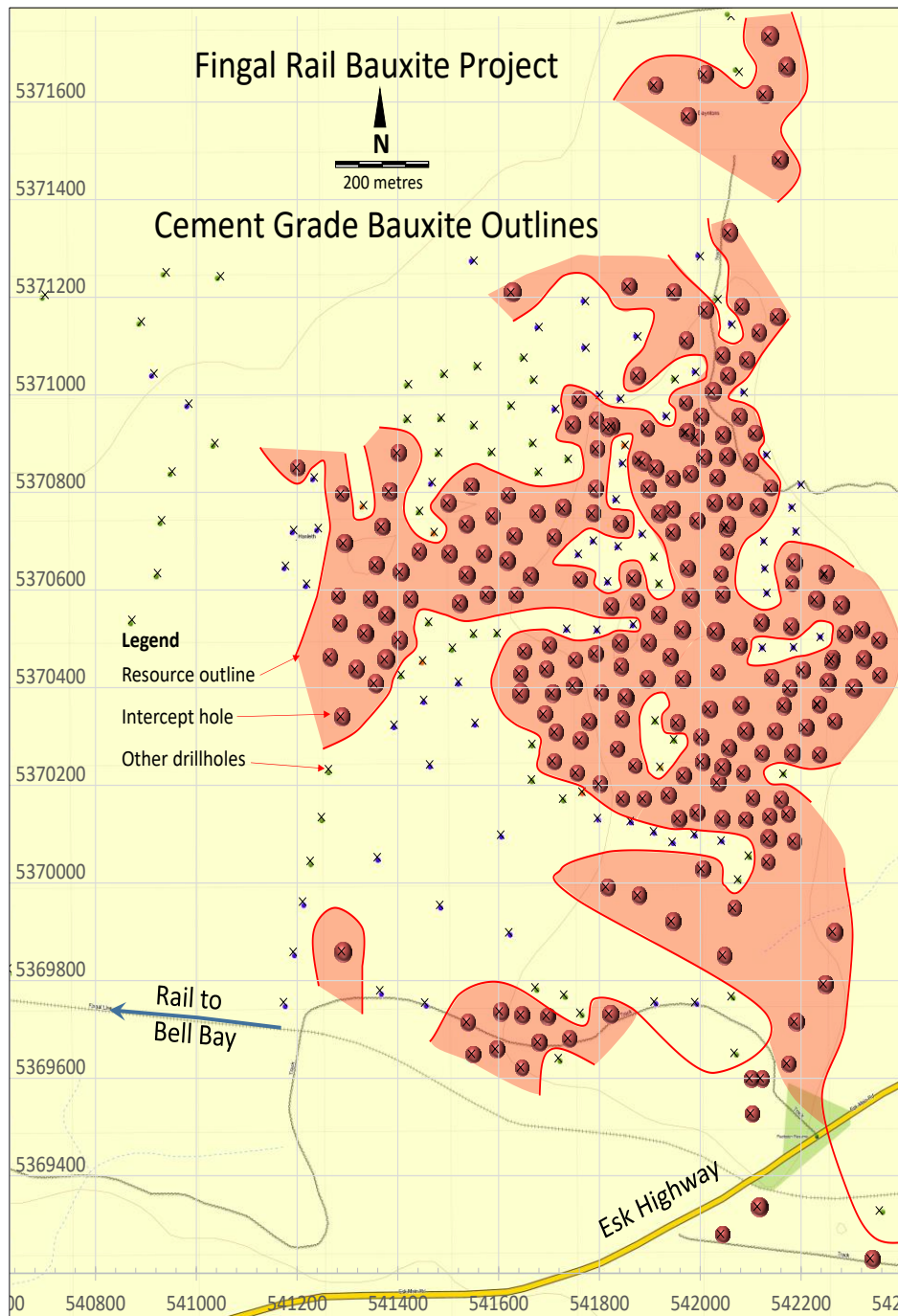


On schedule for shipping late September as contracted





**On schedule for shipping late September as contracted**



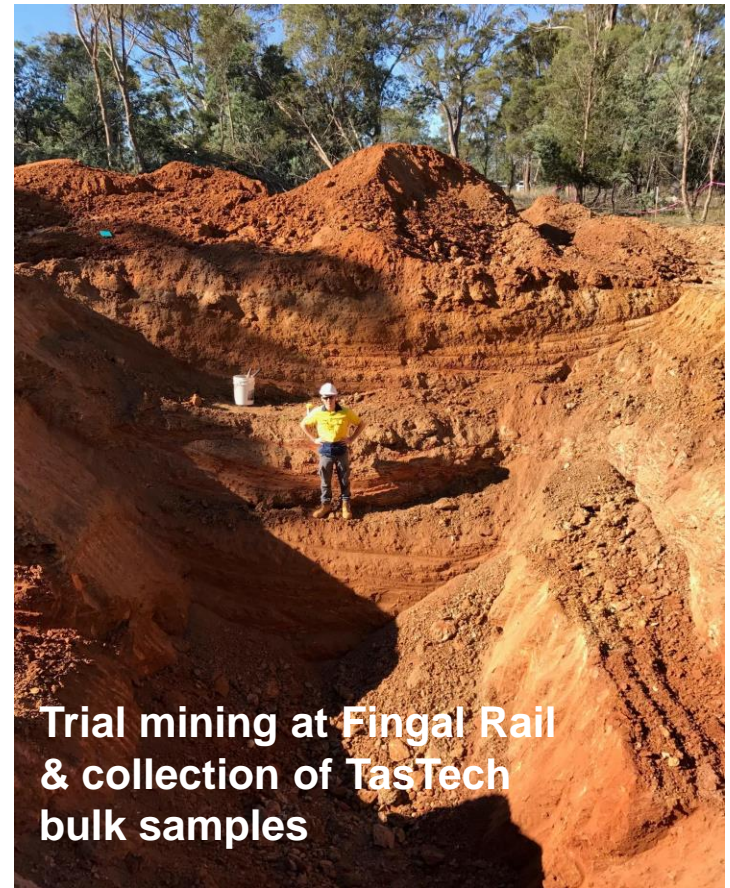
# TasTech Tests Completed

## Fingal Rail Project (our next mine)

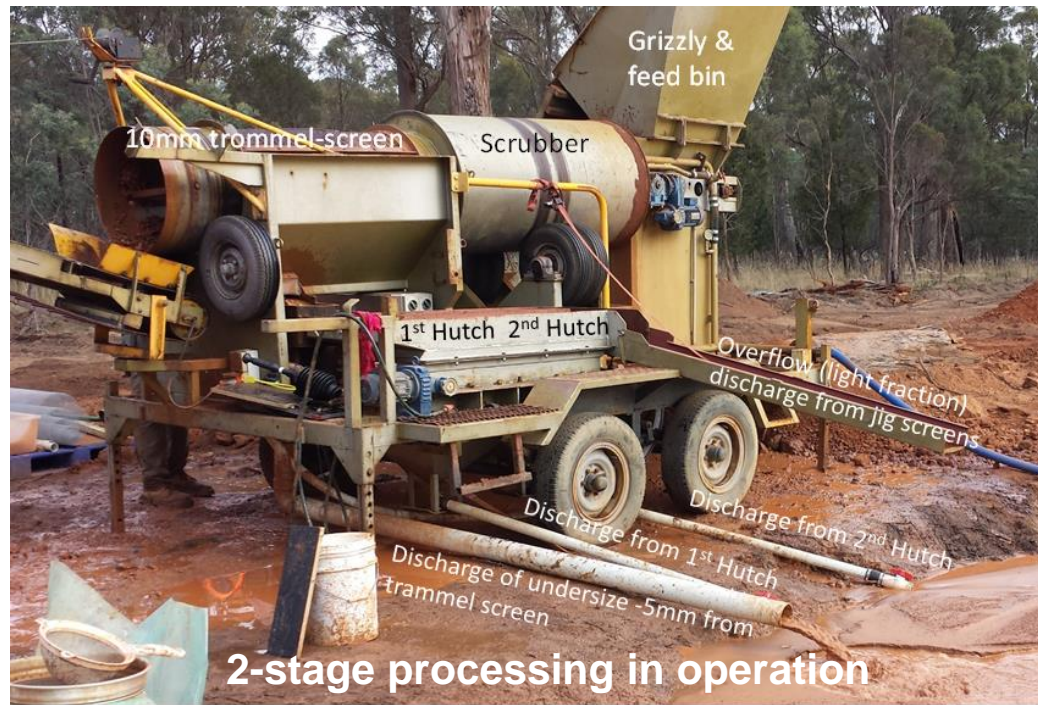
More than 6 million tonnes

**TasTech Technology splits ore into:**

1. High-grade metallurgical bauxite
2. Cement-grade bauxite







# Fingal Rail Bulk Test

our next mine

- TasTech Test & Bulk mining completed with excellent results
- Customer inspections of process and products in progress to design the optimum products for specific customers
- Long-term contracts are being discussed
- Fingal Rail project large tonnages assures long-term supply

# Tasmanian bauxite also suits bauxite refining

Ore worth US\$50/t FOB upgraded to US\$1,000/t products:

Product	Chemistry	Kgs from 1 tonne bauxite	Value US\$/tonne	Value US\$
Aluminium fluoride	AlF <sub>3</sub>	506	\$1,350	\$683
Pure gibbsite	Al <sub>2</sub> O <sub>3</sub> .3H <sub>2</sub> O	96	\$100	\$10
Silica fume	SiO <sub>2</sub>	75	\$2,700	\$203
Iron Ore	Fe <sub>2</sub> O <sub>3</sub>	275	\$80	\$22
Titanium oxide	TiO <sub>2</sub>	38	\$2,500	\$95
<b>Total</b>		<b>990</b>		<b>\$1,012</b>

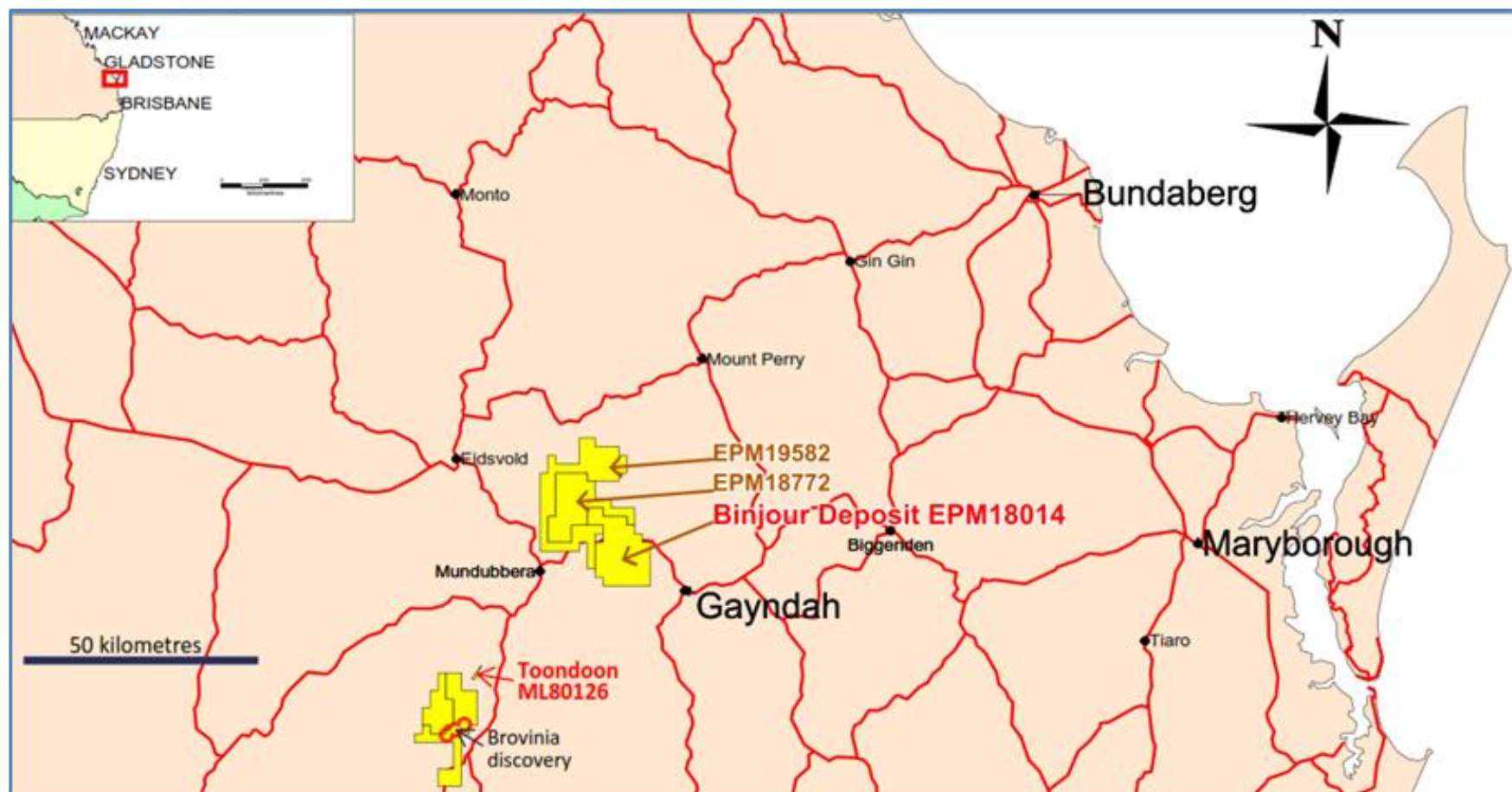
Ore Feed: 84,000 tonnes bauxite per year can produce:

Tonnes	Product	Value (US\$)
50,000	tonnes aluminium fluoride AlF <sub>3</sub>	\$67,500,000
1,110	tonnes gibbsite Al <sub>2</sub> O <sub>3</sub> .3H <sub>2</sub> O	\$111,015
6,300	tonnes silica fume SiO <sub>2</sub>	\$17,010,000
23,100	tonnes iron ore Fe <sub>2</sub> O <sub>3</sub>	\$1,848,000
3,192	tonnes titanium oxide TiO <sub>2</sub>	\$7,980,000
<b>83,702</b>	<b>tonnes products worth</b>	<b>\$94,449,015</b>

# Binjour Project, Queensland: Biggest/Best Deposit

Largest, highest grade new trihydrate gibbsite bauxite project in Pacific Basin  
28 million tonnes @ +44%  $\text{Al}_2\text{O}_3$  defined to date & new discoveries found

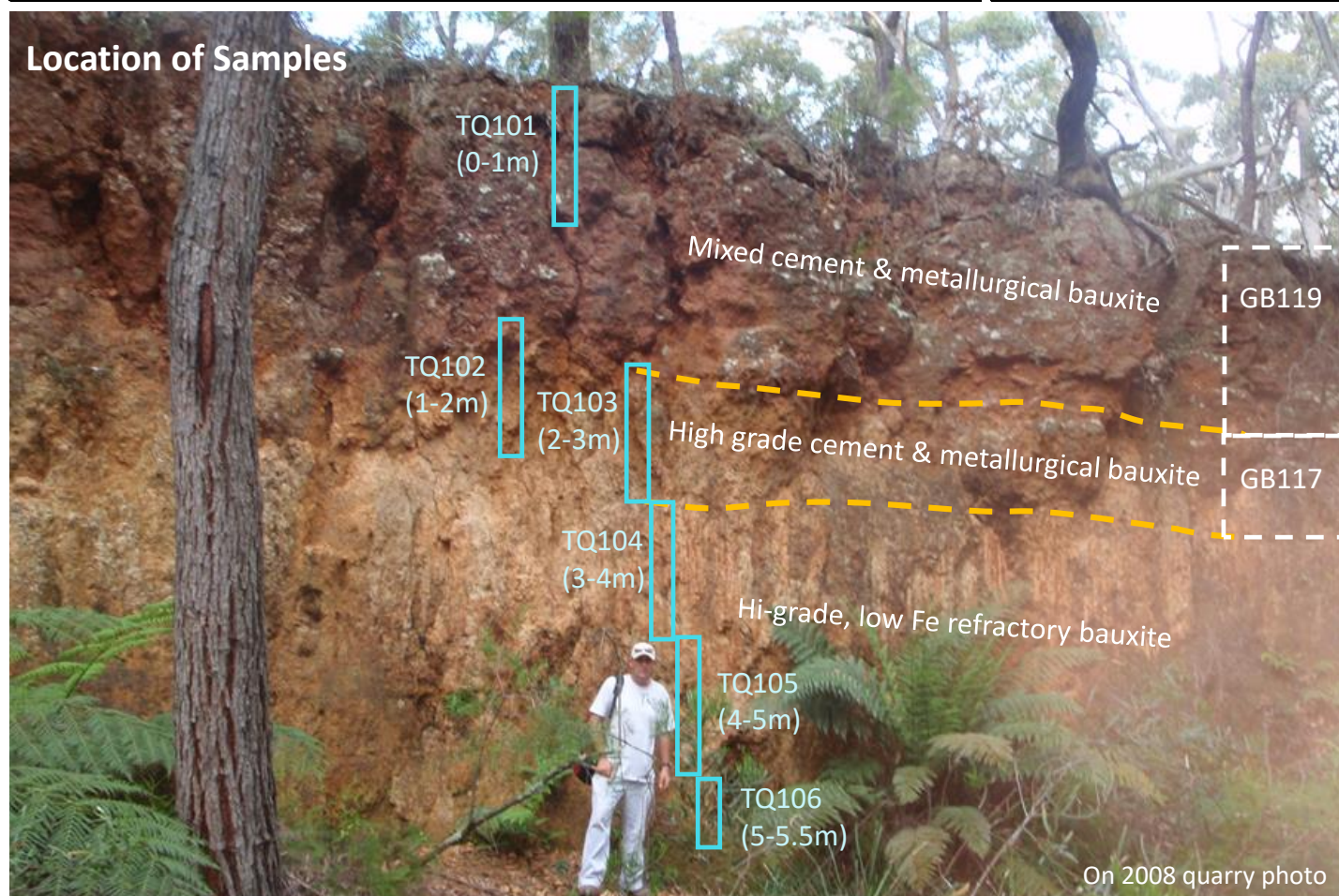
Government negotiations in progress for early start-up





# Penrose Quarry Discovery, NSW: Refractory Grade

PENROSE QUARRY BAUXITE LAYERS	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 %	CaO %	Na <sub>2</sub> O %	K <sub>2</sub> O %	MgO %	P <sub>2</sub> O <sub>5</sub> %	SO <sub>3</sub> %	Metres m	Density t/m <sup>3</sup>
Top: Cement-Grade	40.40	4.69	29.45	6.46	18.65	0.01	0.01	0.01	0.04	0.04	0.10	1.80	2.05
Mid: Metallurgical-Grade	50.63	5.46	6.38	9.33	27.85	0.01	0.01	<0.01	0.03	0.04	0.10	1.00	1.85
Bottom: Refractory-Grade	54.61	6.60	3.31	7.56	27.68	0.01	0.01	<0.01	0.02	0.04	0.11	2.50	1.75



# Good Landholder Relations

**ABX endorses best practices on agricultural land to leave land and environment better than we find it. We only operate where we are welcomed**





# ABx JORC-Compliant Mineral Resources

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>	Inferred	9.0	3.9	43.7	4.5	10	22.4	3.6	24.2	38.0	3.8	10	59	8.2	0.3
	DSO Indicated	15.5	5.3	44.2	3.1	15	23.4	3.7	24.9	39.5	2.6	15	62	9.4	0.3
	Total	24.5	4.8	44.1	3.6	12	23.1	3.7	24.6	39.0	3.0	13	61	8.9	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 <sup>*</sup>	Inferred	7.6	2.5	37.0	6.0	6	38.4	3.5	13.3	22.1 <sup>*</sup>	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 <sup>*</sup>	1.1	20	71	0.7	0.4
	Total	17.8	5.8	37.3	4.8	8	39.6	3.6	13.5	22.3 <sup>*</sup>	1.2	18	72	0.5	0.3
	Total Taralga	37.9	5.7	39.2	5.2	8	32.0	3.8	18.3	35.4	1.6	23	63	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	

**GRAND TOTAL ALL AREAS 124.6**

<sup>\*</sup> 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, 24.5 million tonnes announced on 29/06/2012

<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> ASX ABX Initial resources for first Tasmanian mine announced on 24/03/2015

<sup>8</sup> ASX ABX Resource Upgrade for Fingal Rail Project Tasmania announced on 25/08/2016