



METALLICA MINERALS


CAPE YORK
HMS & Bauxite


SCONI
Ni-Co & Sc

Emerging Resource Developer to Producer

 **SydneyResourcesRound-up**

RIU Sydney

12 – 13 May 2015

Andrew Gillies

ASX:MLM



Disclaimer

Statements & material contained in this presentation, particularly those regarding possible or assumed future performance, production levels or rates, metal prices, metal markets, resources or potential growth of Metallica Minerals Ltd, industry growth or other trend projections are, or may be, **Forward Looking Statements**. Such statements relate to future events & expectations as such, involve known & unknown risks & uncertainties.

The **Cape York Heavy Mineral Sands (HMS) and Bauxite (Bx) Projects (Incl Urquhart Pt) and the SCONI Scandium-Cobalt-Nickel Project**, are at the exploration, advanced evaluation & feasibility stage & although reasonable care has been taken to ensure that the facts stated in this presentation are accurate & or that the opinions expressed are fair & reasonable, no reliance can be placed for any purpose whatsoever on the information contained in this document or on its completeness.

Actual results & developments of projects and scandium market development may differ materially from those expressed or implied by these forward looking statements depending on a variety of factors.

Nothing in this presentation should be construed as either an offer to sell or a solicitation of an offer to buy or sell shares in any jurisdiction.

This material is used for a company summary presentation only, for more detailed information the reviewer should seek company information as provided in Metallica's ASX releases, Annual & Quarterly Reports.

Forward-looking statements are based on assumptions regarding Metallica Minerals Limited ("Metallica"), business strategies, plans and objectives of the Company for future operations and development and the environment in which the Metallica may operate.

Forward-looking statements are based on current views, expectations and beliefs as at the date they are expressed and which are subject to various risks and uncertainties. Actual results, performance or achievements of Metallica could be materially different from those expressed in, or implied by, these forward-looking statements. The forward-looking statements contained in this presentation are not guarantees or assurances of future performance and involve known and unknown risks, uncertainties and other factors, many of which are beyond the control of Metallica, which may cause the actual results, performance or achievements of Metallica to differ materially from those expressed or implied by the forward-looking statements. For example, the factors that are likely to affect the results of Metallica include general economic conditions in Australia and globally; ability for Metallica to fund its activities; exchange rates; production levels or rates; demand for Metallica's products, competition in the markets in which Metallica does and will operate; and the inherent regulatory risks in the businesses of Metallica. Given these uncertainties, readers are cautioned to not place undue reliance on such forward looking statements.

- The **Urquhart Point Project** is at an advanced feasibility and development stage and reasonable care has been taken to ensure that the facts stated in this announcement are accurate and or that the opinions expressed are fair and reasonable. However, actual results may differ materially from those expressed or implied by these forward looking statements depending on a variety of factors.
- A key conclusion of the **Feasibility Study (FS)** which is based on forward looking statements is that the Urquhart HMS Project is considered to have positive economic potential project development funding has been through a Joint Venture with Ozore resources and the project is intended to be developed.

Technical information contained in this report has been compiled by Metallica Minerals Managing Director Mr Andrew Gillies B.Sc. & M. AUSIMM, who is a **competent person** & a member of the Australasian Institute of Mining & Metallurgy & have relevant experience to the mineralisation being reported on to qualify as Competent Persons as defined by the Australasian Code for Reporting of Minerals Resources & Reserves. Mr Gillies consents to the inclusion in this presentation of the matters based on the information in the form & context in which it appears.

***Exploration Target** - The potential quantity and grade of the bauxite deposits are conceptual in nature. There is insufficient information at this time to define a mineral resource and there is no certainty that further exploration will result in the determination of a mineral resource in these areas.

For further detailed information on the content of this presentation please also refer to the following ASX Releases dated: 20 May 2014, 17 June & 24 June 2014 & 11 July 2014, 1 & 27 August 2014, 29 & 30 September 2014, Annual Report 6 October 2014, 25 November 2014, 3 December 2014, 21 January 2015, 3 and 26 February and 17 April 2015, Quarterly Report 30 April 2015 and 11 May 2015

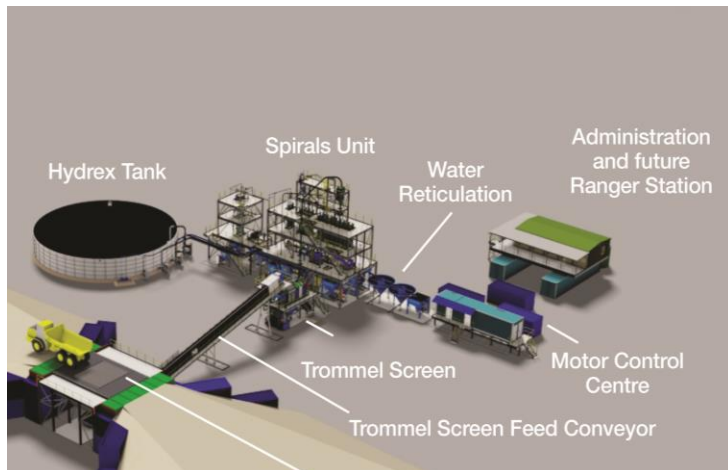


MLM Overview

Metallica Minerals Limited (**ASX: MLM**) is an Australian zircon-rutile, bauxite and nickel-cobalt-scandium resource development and exploration Company.

The Company's core projects are:

- **Cape York HMS and Bauxite Project JV**
(MLM 60%, Ozore 40% progressing to 50%)
- **SCONI Nickel-Cobalt-Scandium Project**
(100% MLM seeking partners)



HMS Processing Plant under construction

ASX:MLM



Weipa (Urquhart) pisolitic Bauxite



Greenvale Nickel Laterite exposure



Cape York HMS & Bauxite Project JV*

3 separate project components;

Urquhart HMS Project

- HMS process plant under construction in South Africa completion (mid May) and scheduled production Sept 2015

Urquhart Bauxite Project

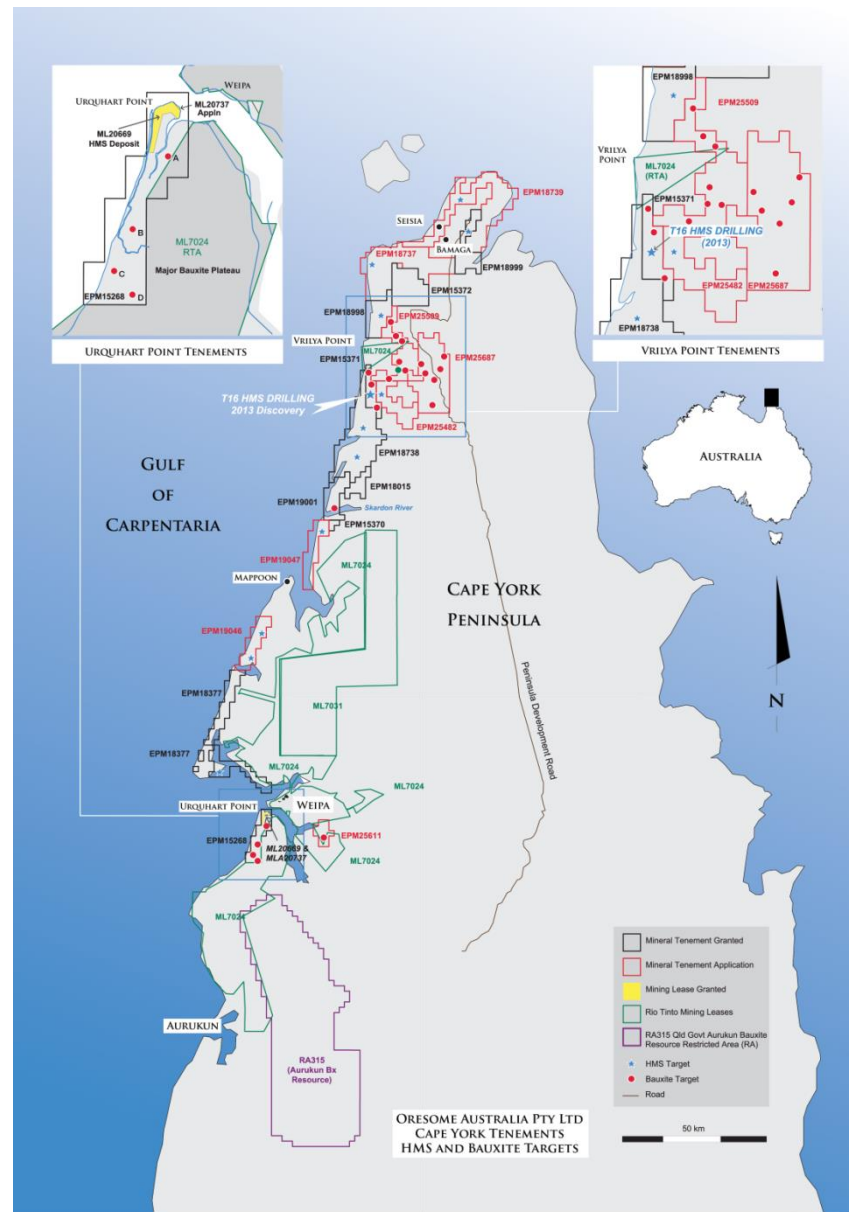
- Maiden JORC Inferred Resource
- Direct Shipping Bauxite (DSB) confirmed
- Export quality high available alumina and moderate reactive silica confirmed Area A
- Late 2016 production target

Regional HMS & Bauxite Project

- Over 2,500km² tenements held which cover numerous HM sand and laterite bauxite targets

* Metallica Minerals holds 60% with Ozore Resources Pty Ltd

ASX:MLM holding 40% (earning a total of 50%)





Urquhart HMS Project Overview

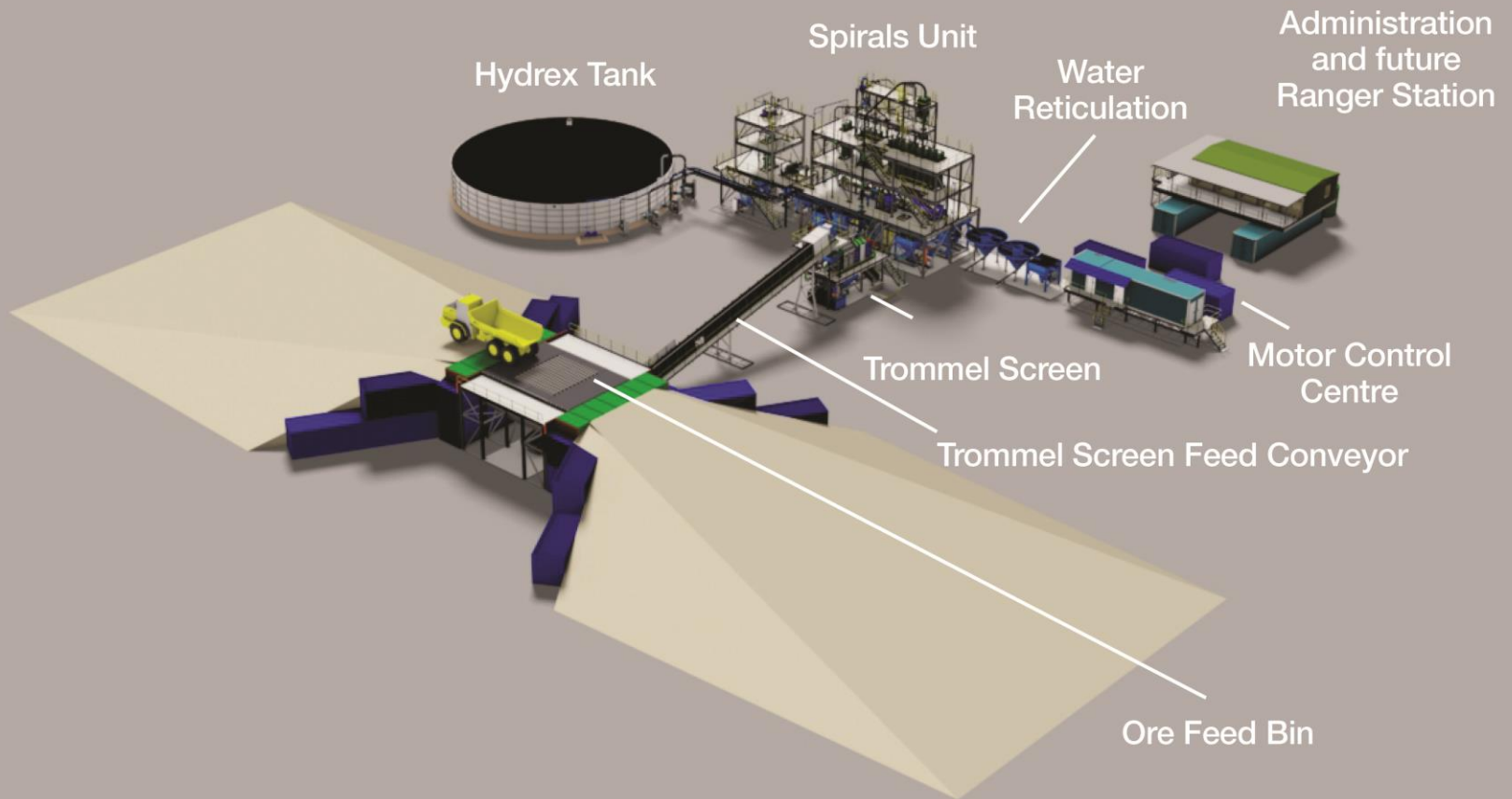
- First zircon-rutile HMC production scheduled for September 2015
- Simple mine (<3m depth), basic 110tph (270ktpa) processing (wet gravity spirals), barge & ship operation
- Supply Contract signed with Consulmet (South Africa) – fixed plant price ~\$3.7M
- Construction to commence on site in July 2015
- Expected total establishment cost (P & E) \$6.5-7M
- HM Offtake in advanced negotiations
- First 18 months HMS feed ~14% HM



Urquhart Plant Site and infrastructure preparation for plant delivery



Urquhart HMS Plant/Processing Site Layout

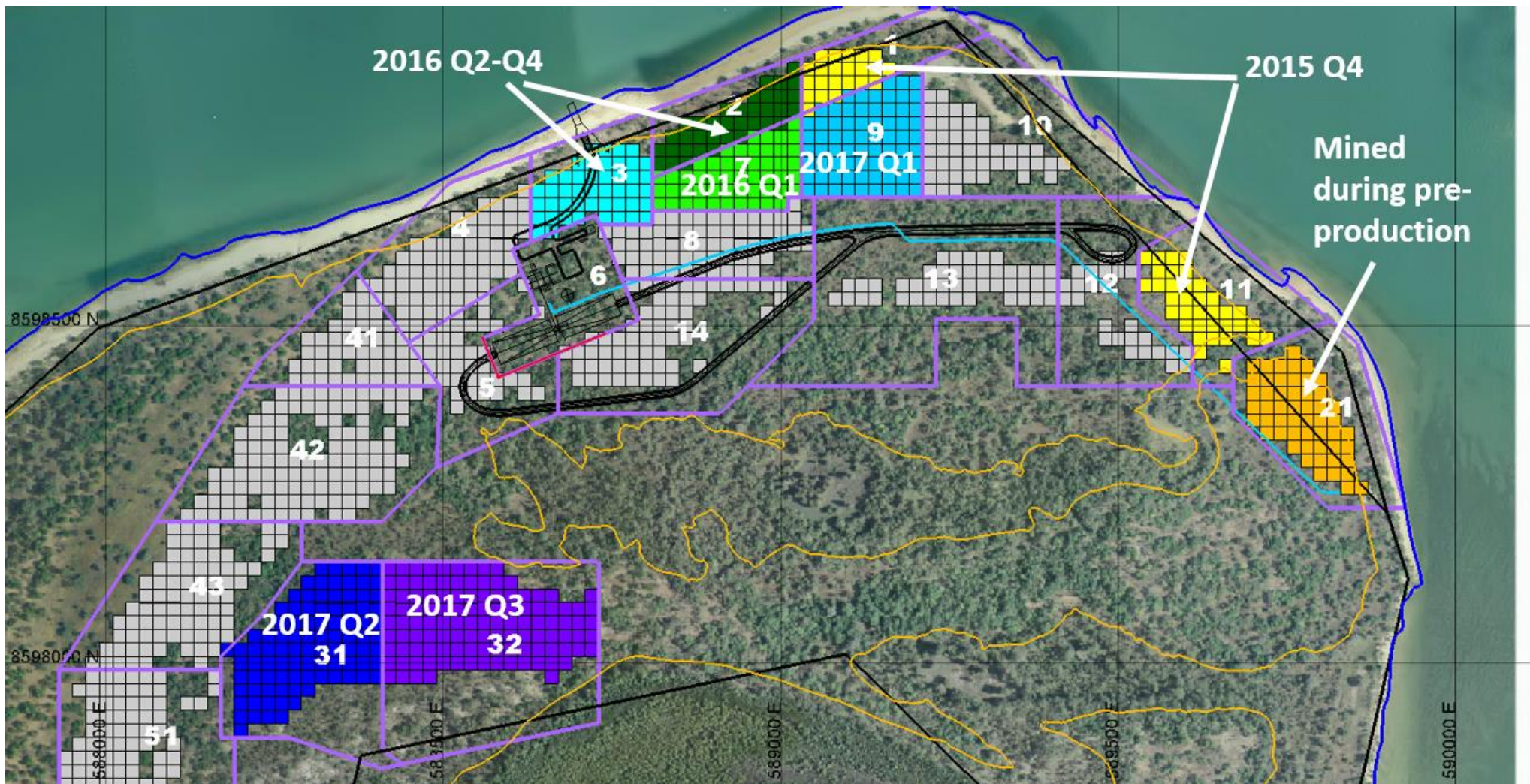


Isometric view
URQUHART POINT HMS PLANT GENERAL ARRANGEMENT

CONA001 - A000 - GA001



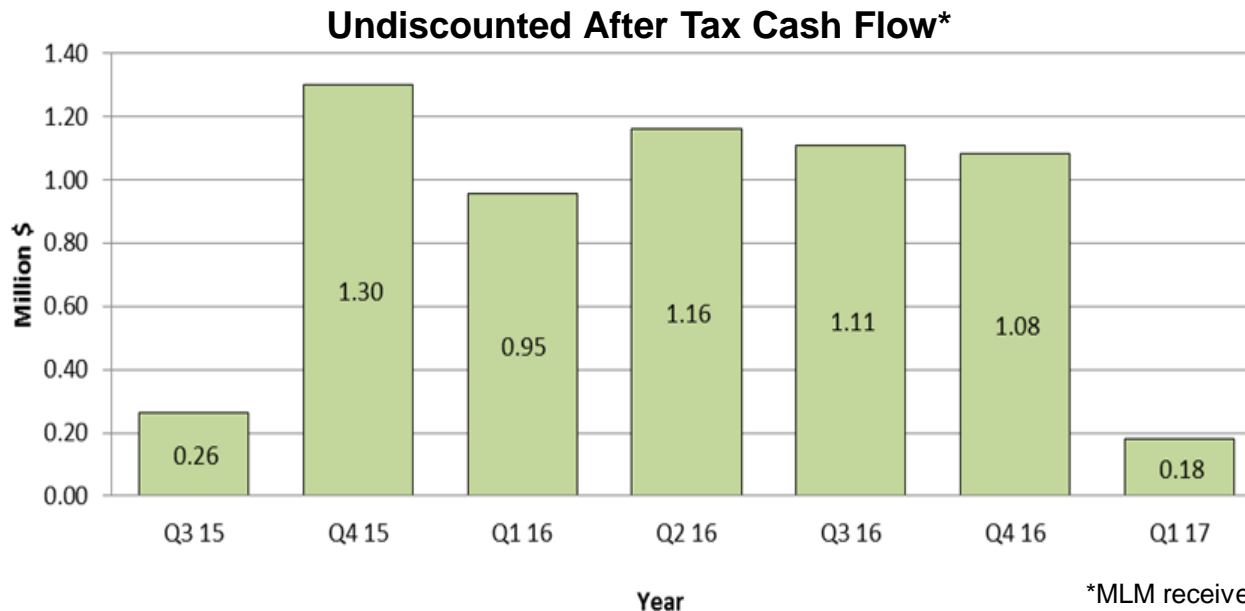
Urquhart HMS Proposed Mine Schedule





Urquhart HMS Financial Metrics

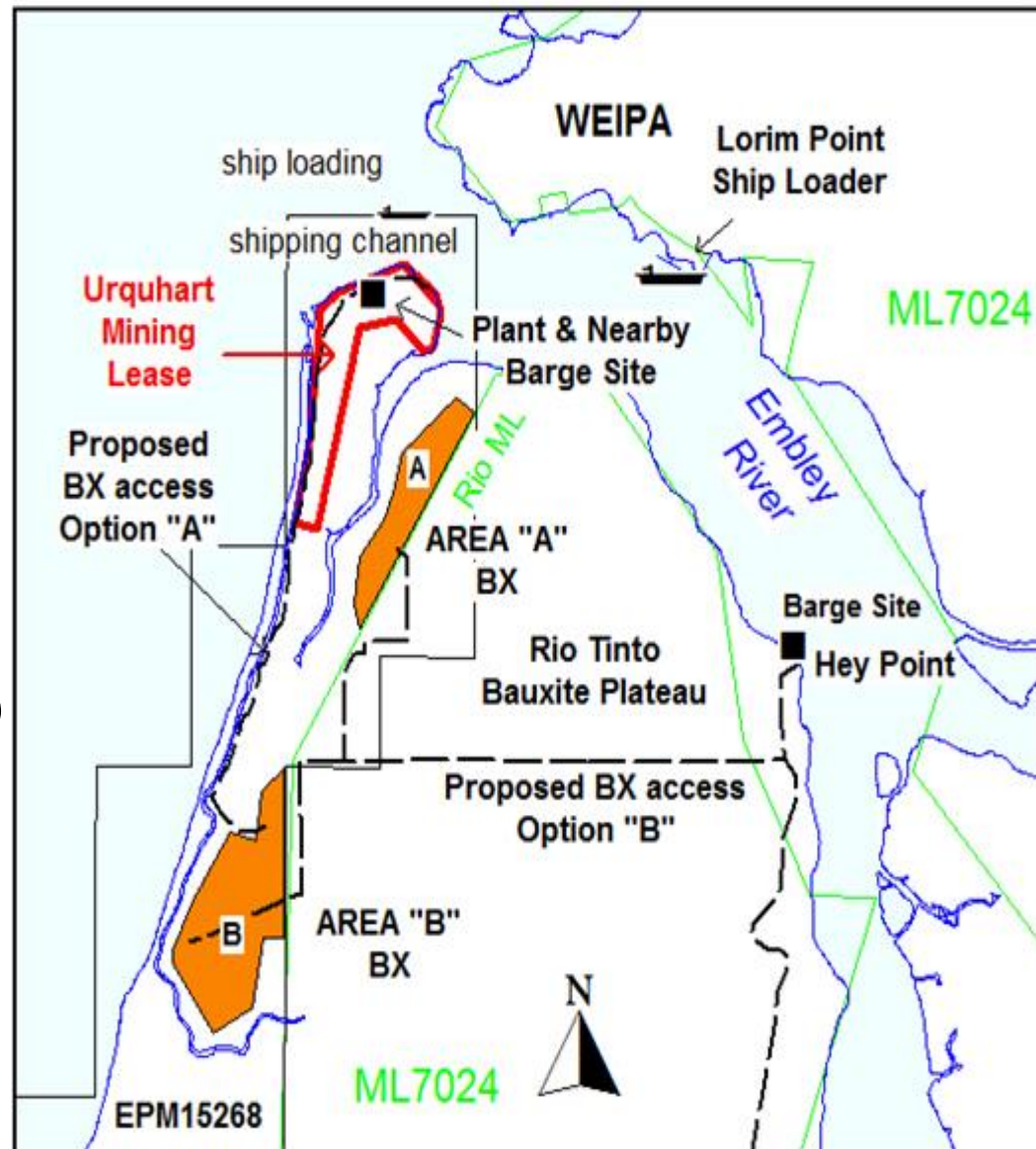
- Financial Model revised due to lower current zircon-rutile (+/- ilmenite) prices
- Mining Schedule revised with High Grade access & stockpiling
- High Feed grade 14% HM feed (first 18 months)
- 30% plus VHM (zircon-rutile) assemblage
- Long term HM pricing outlook unchanged
- Cash flow from after tax of \$6M in 7 Quarters





Urquhart Bauxite Project

- Maiden JORC compliant Inferred Resource released
- 7.5Mt @ 51% Al_2O_3 , 16.3% SiO_2
(see ASX Release 11 May 2015)
- Majority Direct Shipping Bauxite (DSB) Area A
- Area A includes higher grade portion 4Mt @ 53% Al_2O_3 , 13% SiO_2 , 40% available alumina (AAL) and 4.9% reactive silica (RxSi)
(from low temperature (150°C) digestion)
- Permitting, Environmental Studies commenced
- Pathway to late 2016 targeted production (subject to permitting & funding)





HEY POINT

LORIM POINT SHIP LOADING

WEIPA

RIO TINTO BAUXITE PLATEAU

PLANT & NEARBY BARGE SITE

SHIP LOADING SITE

SHIPPING CHANNEL

AREA A BX

RIO ML

PROPOSED BX ACCESS OPTION B

AREA B BX

URQUHART MINING LEASE HMS

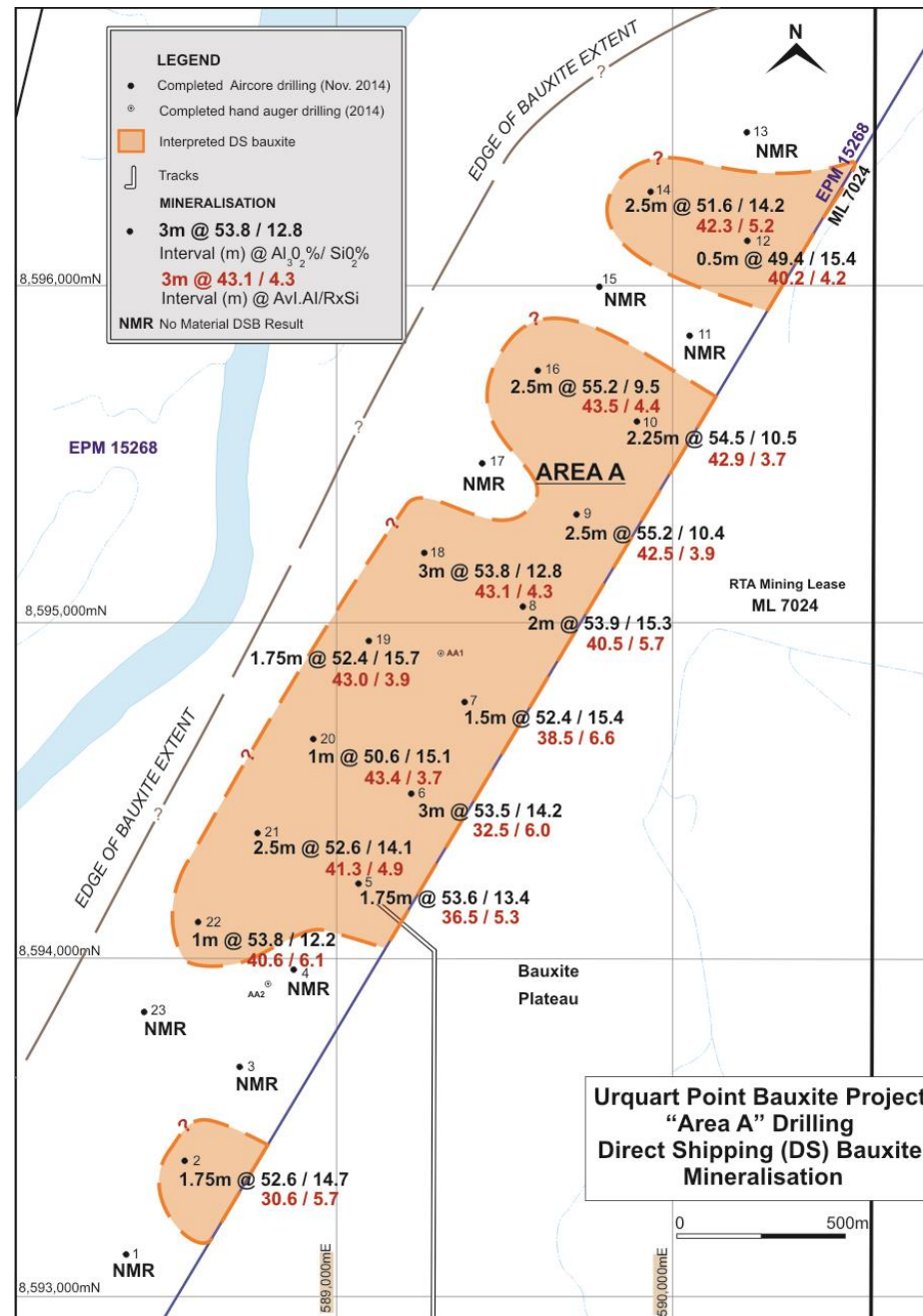
URQUHART EPM

PROPOSED BX ACCESS OPTION A



Urquhart Bauxite Area A

- High grade pisolitic bauxite in 21 of 23 drill hole program
- Direct Shipping Bauxite (DSB) Insitu (unscreened) average grade was 53.3% Al_2O_3 , 13.0% SiO_2 with average thickness of ~2m
- 40.6% AAL, & 4.9% RxSi
- Bauxite deposit ~12km from sheltered waters (Urquhart or Hey Point) ideal for simple barge to ship export operation





Bauxite Development Strategy

- Bauxite quality test results confirm the DSB product is suitable for export
- Proposed straight forward mine-truck-barge-ship operation
- Internal Scoping or Conceptual Development Study to be completed in June
- Project is being planned as a 1.5-2Mtpa shallow mining (<7m depth), short trucking (~12km), barge to ship (2km) operation
- Expected very low operating costs and low capital requirements



Example of bauxite mining in Western Cape York.

Metallica-Ozore JV is planning to be a new bauxite miner and exporter in the Weipa bauxite province



Australian Bauxite Companies – Listed Junior Developers

ASX Code	Bauxite Company Name	Close price cents (c)	Shares on Issue (M)	Market Cap (A\$M)	Core Bauxite Projects and Location	Ownership Bx Project	Cash (A\$M) as at 31 March15	Implied Bauxite Project EV*
ABX	Australian Bauxite Ltd	30.0	140.5	42.2	Bald Hills & Fingal Rail Projects - Tasmania Binjour, QLD	100%	3.6	38.6
BAU	Bauxite Resources Ltd	7.6	231.9	17.6	Fortuna - Felicitas Project, WA NT Project locations	30-100%	23.9	-6.3 ⁽¹⁾
QBL	Queensland Bauxite Ltd	1.3	714.0	9.3	South Johnstone, N QLD	100%	6.5	2.8
MLM	Metallica Minerals Ltd	6.0	166.9	9.7	Urquhart Bauxite – Weipa Western Cape York Regional	60-50%	2.1	7.6
MMI	Metro Mining Ltd	8.5	288.7	24.5	Bauxite Hills – Skardon River CY Western Cape York Regional	100%	4.6	19.9

Note * the Enterprise Value is very simplistic and implied value for bauxite project(s) does not allow for other mineral projects in the company

⁽¹⁾ Cash position exceeds company's market capitalisation



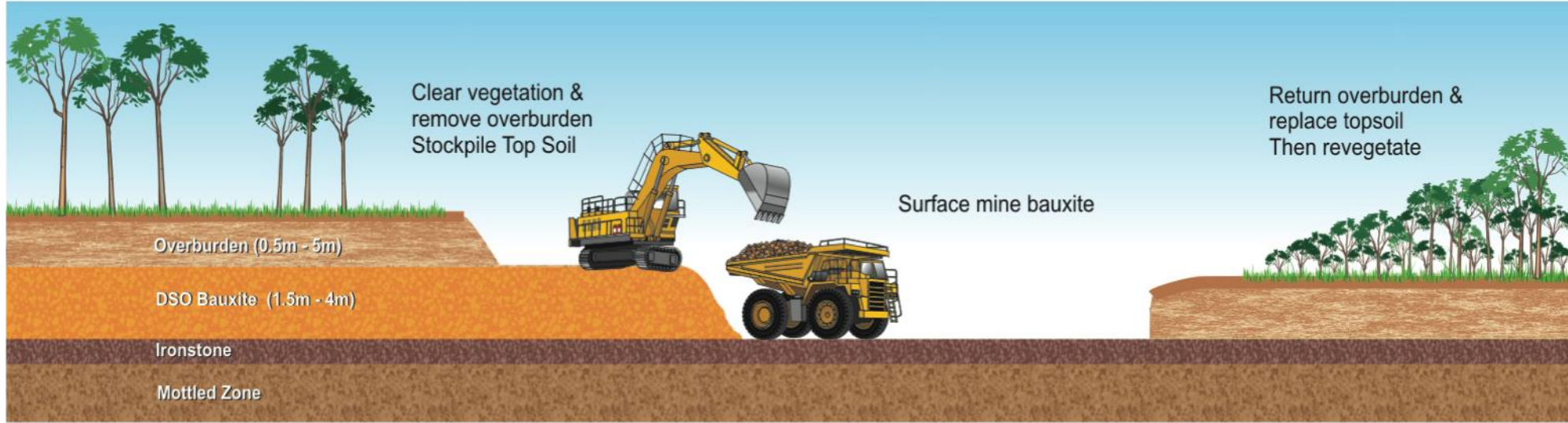
Why invest in the Junior Bauxite Sector?

- Bauxite is a value & growth sector with solid demand/supply/price market attractive fundamentals
- Shortage of bauxite supply to China – very positive market fundamentals
- China lost $\frac{3}{4}$ of import bauxite supply from Indonesia, (chances Indonesia overturning ban are remote)
- China Bx stockpiles being rapidly depleted, expect remaining Indonesian Bx exhausted soon – Bx is essential for their Aluminium industry – where is the bauxite going to come from to fill the gap? what happens next?
- China bauxite (and aluminium) demand growing – Australia is a close reliable supplier (currently just Rio – Weipa/Gove)
- Rio's Weipa & Gove and will continue to be a major supplier, only other DSB companies comprise handful of bauxite companies (each in 1 – 2 Mtpa range)
- Large scale additional Direct Shipping Bauxite (DSB) supply (>10Mt) companies will be from Weipa, Gove, Guinea (West Africa)
- Low number of advanced bauxite projects in the pipeline
- DSB – simple, low CAPEX, low OPEX (expect projects to have high margins)



Direct Shipping Bauxite (DSB) Opportunity

1. Simple Mining - Shallow and Free Dig (Continuous/Simultaneous Rehabilitation)



Example of simple shallow mining of bauxite
ASX:MLM



Barge landing at Urquhart Point

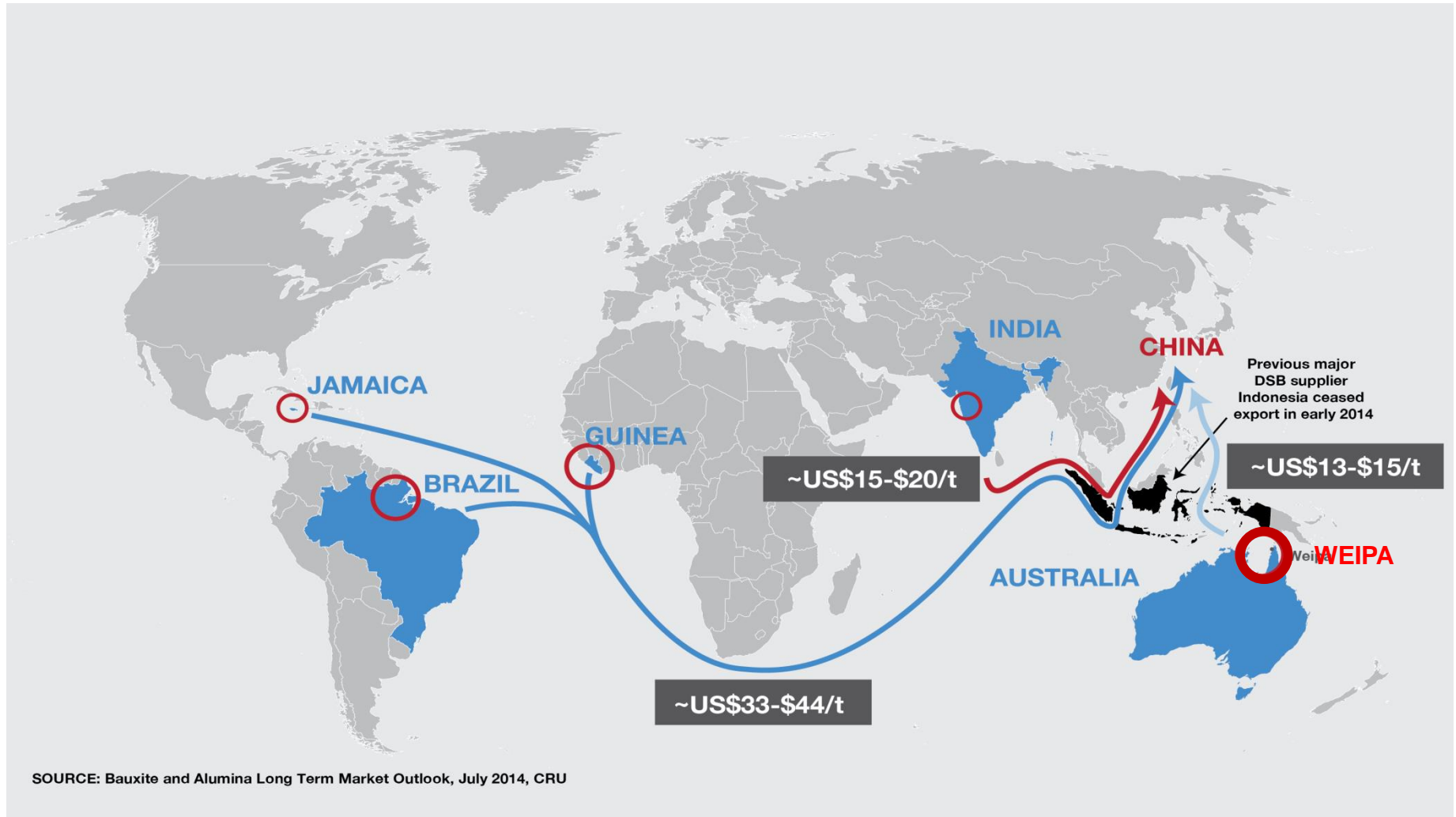


Example of barge transshipment



Weipa Bauxite Advantage

Well Known Quality, Coastal & Close to China

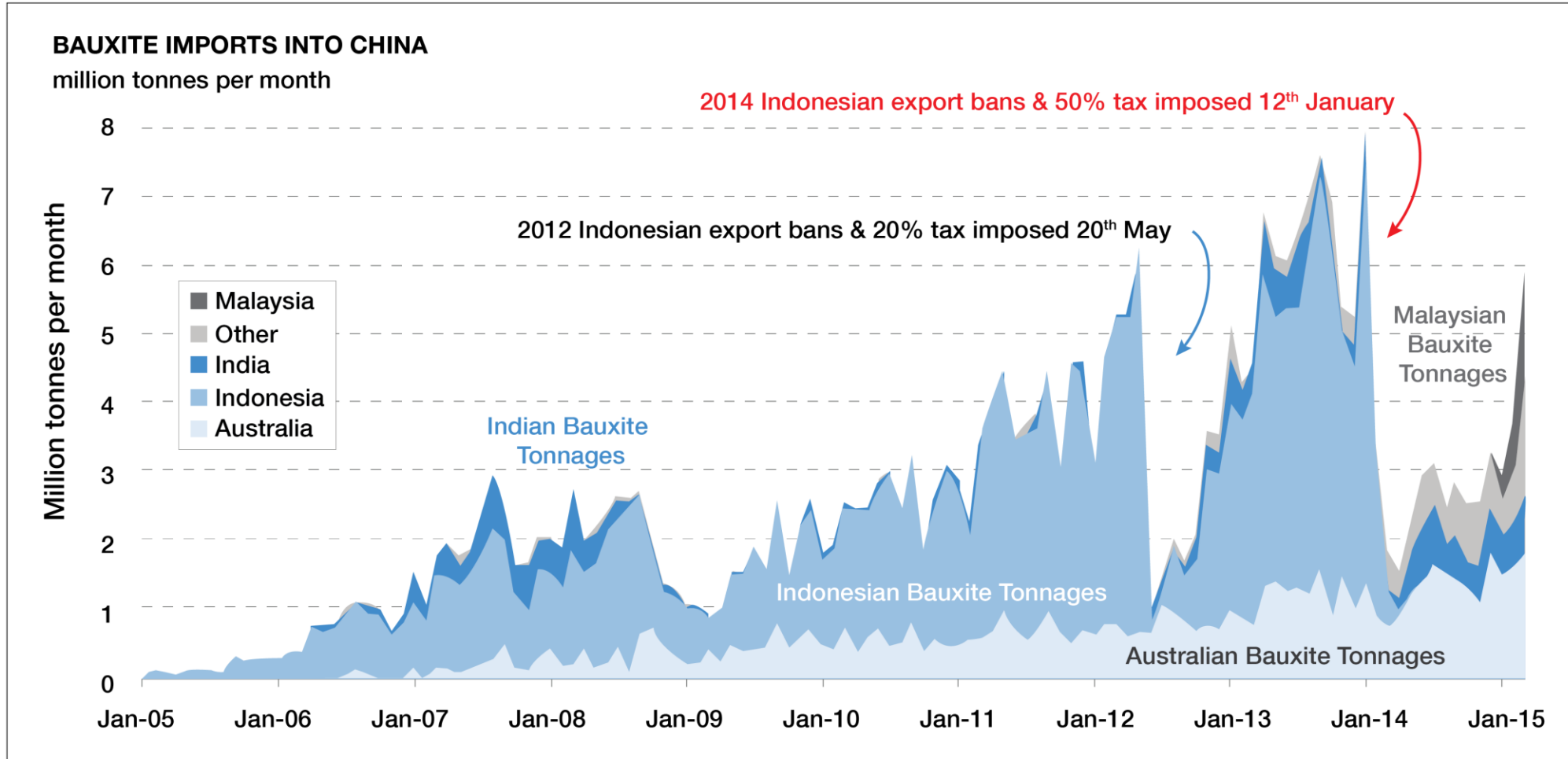


Western Cape York bauxite is located close to the coast and international shipping, lowering operating and transport costs, with ready access to ship-borne trade to China or the Middle East



Bauxite Imports into China

China's major supplier of bauxite Indonesia ($\frac{3}{4}$ supply 2013/14) ceased exports January 2014
– Chinese stockpiles diminishing – China increasingly needs bauxite



Increasingly bauxite demand and prices are expected to intensify due to the simultaneous major reduction in bauxite supply from Indonesia, and increased demand for alumina to supply rising aluminium production and consumption in China, India and Middle East.



Regional HMS & Bauxite Potential

- 2,500km² prospective tenure along 300 km coastal belt
- Underexplored, potential for zircon rich HMS deposits
- Bauxite Exploration Target* 42-128Mt identified at Vrilya area 70km north of Weipa (see table below)
- Further HMS and Bauxite exploration in 2015 (subject to funding)
- Numerous exciting HMS & bauxite targets

Project	Permit	Discrete Targets	Insitu mineralization tonnage range Mt ²	Total Al ₂ O ₃ % ³	Total SiO ₂ % ³
Urquhart	EPM15268	2	5 to 10	43-55	5-18
Vrilya	EPM15371	3	2 to 6	40-47	Insufficient data ¹
Vrilya	EPMA25509	7	12 to 36	40-48	10-191
Vrilya East	EPMA25687	3	28 to 86	40-43	Insufficient data ¹
	TOTAL	15	47 to 138		



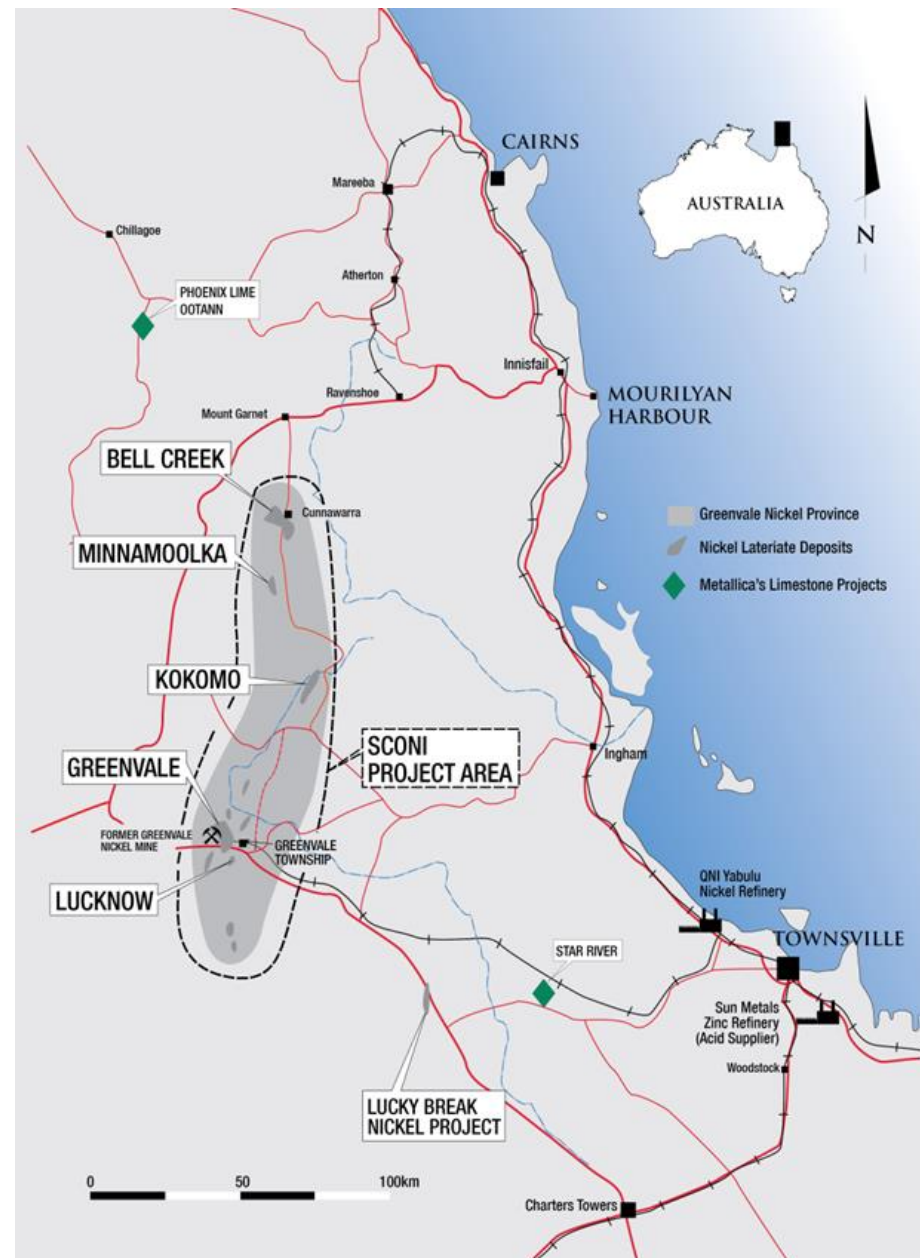
¹ previous exploration reports SiO₂ data incomplete
² range based on measured areas of target plateaus, minimum thickness of >0.5m bauxite, estimated average thickness of 1.5m from previous exploration data and bulk density value of 1.5
³ based on screened sample assay results

***Exploration Target** - The potential quantity and grade of the bauxite deposits are conceptual in nature. There is insufficient information at this time to define a mineral resource and there is no certainty that further exploration will result in the determination of a mineral resource in these areas.



SCONI Nickel-Cobalt-Scandium Project -100% MLM

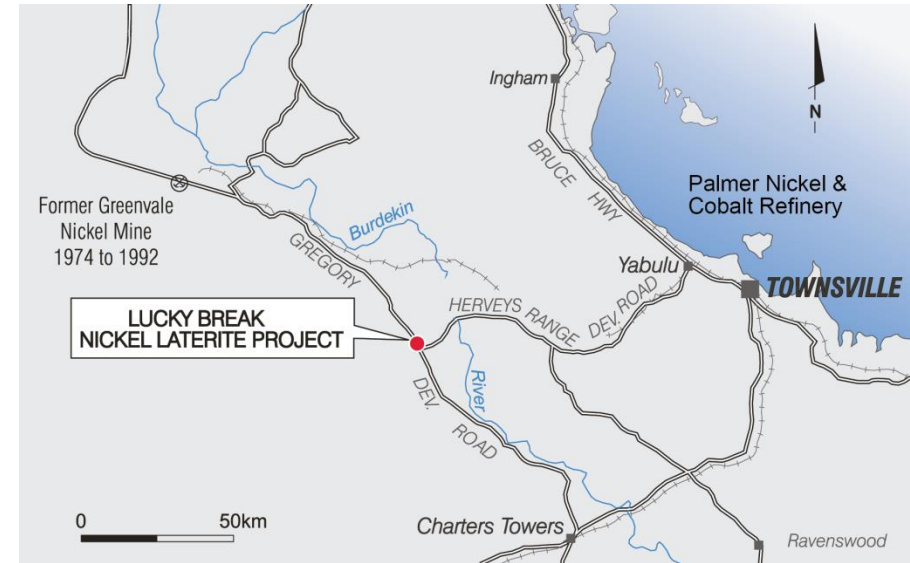
- Ideal location – historical Greenvale nickel mine (40Mt 1974 – 92)
- Established JORC Resources (see 2014 Annual Report)
- Close proximity to industrial services Townsville & Mourilyan Ports
- Good metallurgical ore types
- own Sc recovery & purification IP (100%)
- Low environmental impact & strong community support
- Currently in negotiations for a JV





Lucky Break Nickel Project

- Queensland Nickel Pty Ltd (QN) commenced mining, screening, stockpiling & trucking operations at Dingo Dam Ni laterite deposit
- 17,000 tonnes ore stockpiled in April
- Ore to be trucked to the Palmer Nickel and Cobalt Refinery in Townsville
- \$250,000 Royalty payment received in January
- Further \$200,000 due in September
- A further payment of \$200,000 should QN mine more than 60,000t





New Projects – Graphite & Silica Sand

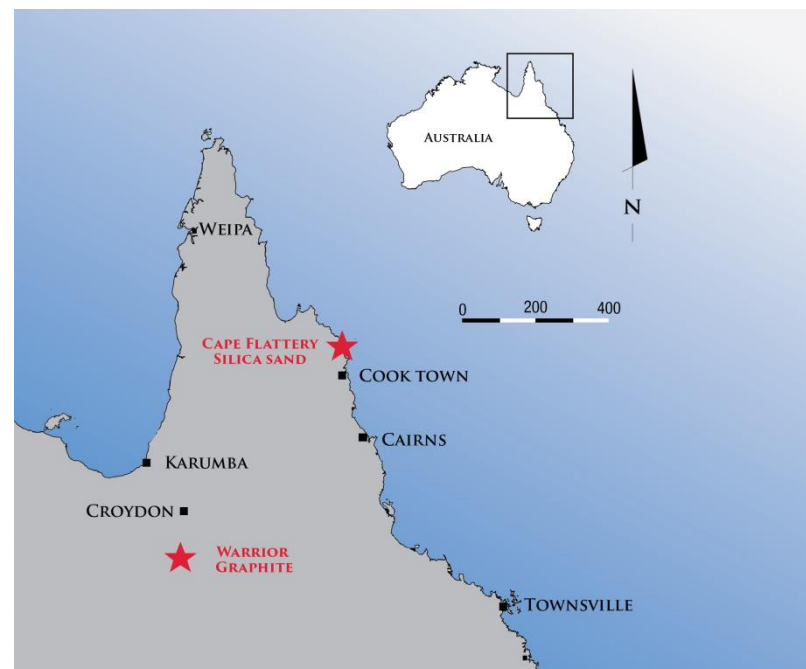
Graphite – 100%

- 3 large EPMA's South of Croydon
- Significant graphite drilled 2006 testing major EM targets for Cu-Ni Sulphides
- Project relinquished in 2007 and reapplied for in late 2014 (for graphite)
- Highly prospective for graphite mineralisation hosted within granitoid rocks “*Graphite in Granite*”

Cape Flattery Silica Sands – 100%

- 200km north of Cairns
- Tenement adjacent to Cape Flattery Silica Mines Pty Ltd which operates the world's largest silica sand mine

Seeking JV Partners





Corporate & Contact Details

Issued Capital (31 March 15)

Shares Issued | 166.9M (Market Cap \$10M)
Unlisted Options | 2M
Shareholders | 2,056
Top 20 hold | 59.46%

Largest Shareholders

Jien Mining Pty Ltd | 24.0%
Victorian Ferries Pty Ltd | 10.4%
Golden Breed Pty Ltd | 5.3%
Bondline Ltd | 2.9%

Board of Directors

David K Barwick | Chairman
Andrew L Gillies | Managing Director
Barry Casson | Non-Executive Director
Shu Wu | Non-Executive Director
(Shu Zhang | Alternate Non-Exec)

Cash Balance

\$2.1M (31/03/2015) No debt

Management Team

Andrew Gillies | Managing Director
John Haley | CFO & Company Secretary
Stewart Hagan | GM Oresome Australia

Registered Office

71 Lytton Road, East Brisbane QLD 4169
GPO Box 122, Brisbane QLD 4001
T+ 61 7 3249 3000 F + 61 7 3249 3001
Email admin@metallicaminerals.com.au
Website: www.metallicaminerals.com.au





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NORNICO Pty Ltd | MLM 100%
Greenvale Operations Pty Ltd | MLM 100%
Lucky Break Operations Pty Ltd | MLM 100%
Scandium Pty Ltd | MLM 100%
Phoenix Lime Pty Ltd | MLM 100%
Oresome Australia Pty Ltd | MLM 100%

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