

## METALLICA MINERALS LIMITED

## **INVESTOR UPDATE**

June 2016



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 Bauxite (Bx) and Heavy Mineral Sands (HMS) Projects, Esmeralda Graphite 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 market development may differ materially from those expressed or implied by these forward looking statements depending on a variety of factors

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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 funds 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 Bauxite 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.

Technical information contained in this report has been compiled by Metallica Minerals Non-Executive Director Mr Andrew Gillies B.Sc. & M. AUSIMM, who is a <u>competent person</u> & 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: 24<sup>th</sup> May 2016, 29<sup>th</sup> April 2016, 28<sup>th</sup> April 2016, 27<sup>th</sup> April 2016, 7<sup>th</sup> April 2016, 10<sup>th</sup> December 2015, 16<sup>th</sup> November 2015, 25<sup>th</sup> June 2015, 11<sup>th</sup> May 2015, 2015 Cru International Limited.



- Well funded through to grant of Urquhart Bauxite mining lease
- Successfully completed Renounceable Rights Issue raising ~\$1.8m<sup>1</sup>
- Tight capital structure with no debt
- Monetising non-core assets—\$1.9 million<sup>2</sup> announced
  - Confirmed exercise of option to deliver a further \$900,000<sup>3</sup>
- Developing the Urquhart Direct Shipping Bauxite Project
  - Planning to commence production in early 2017 with minimal capex
  - Ramp up to 1.5 2mtpa to deliver sustainable free cash flow
  - Strong supply and demand fundamentals supporting development
- Heads of Agreement for access and logistics through Hey Point significantly de-risks Urguhart Bauxite delivering<sup>4</sup>:
  - Low capital start-up
  - Compressed start up schedule
- 91.5% graphite concentrate produced via conventional flotation tests that was upgraded to 97.8% following a single stage caustic bake purification<sup>5</sup>



#### Capital Structure

Shares on issue 227.3m

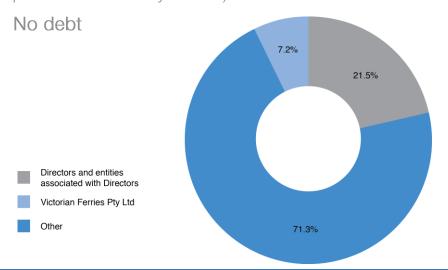
Options on issue 38m

Share price (1 June 2016) A\$0.03

Market capitalisation A\$6.8m

Cash at 31 March 2015 A\$1.41m

(excluding shortfall placement and proceeds from Boyne sale)



#### **Board and Management**

Barry Casson

Simon Slesarewich

Andrew Gillies

Shu Wu

Non-Executive Officer

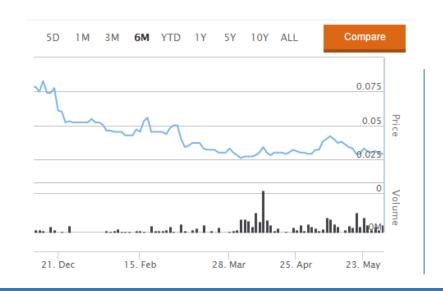
Non-Executive Director

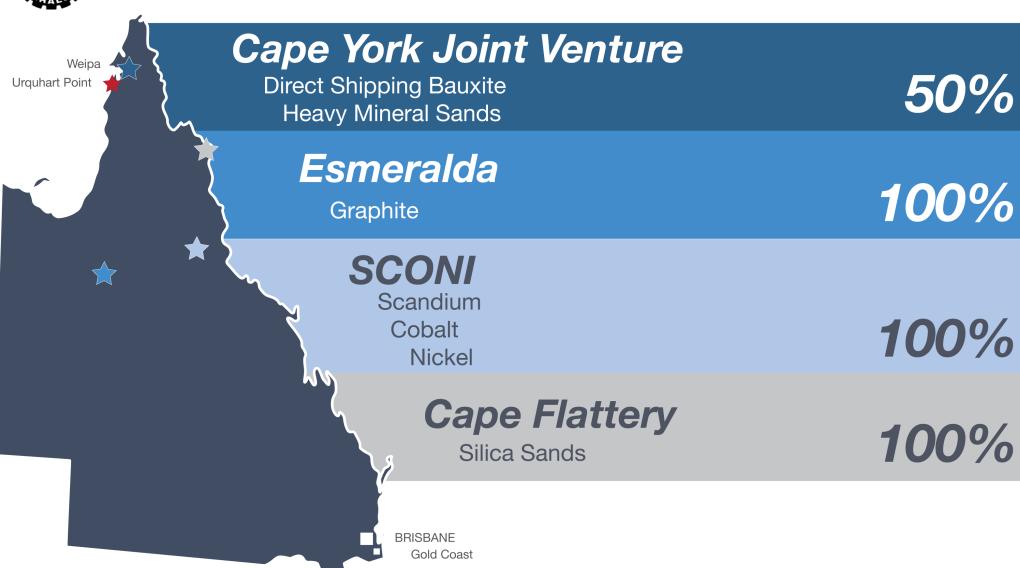
Non-Executive Director

Non-Executive Director

Alternate Non-Executive Director

CFO I Company Secretary







## Cape York HMS & Bauxite Project JV

#### Three separate project components:

#### **Urquhart Bauxite Project**

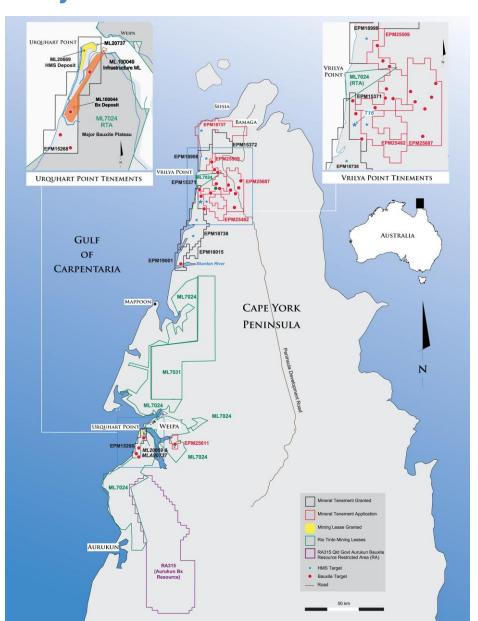
Current focus

#### **Urquhart HMS Project**

- Project on hold
- Reviewing options to deliver value

#### Regional HMS & Bauxite Project

- Over 1,257 km<sup>2</sup> coastal tenements held which cover many HM sand and laterite bauxite targets
- Contains a large (42 Mt 128 Mt) bauxite Exploration Target





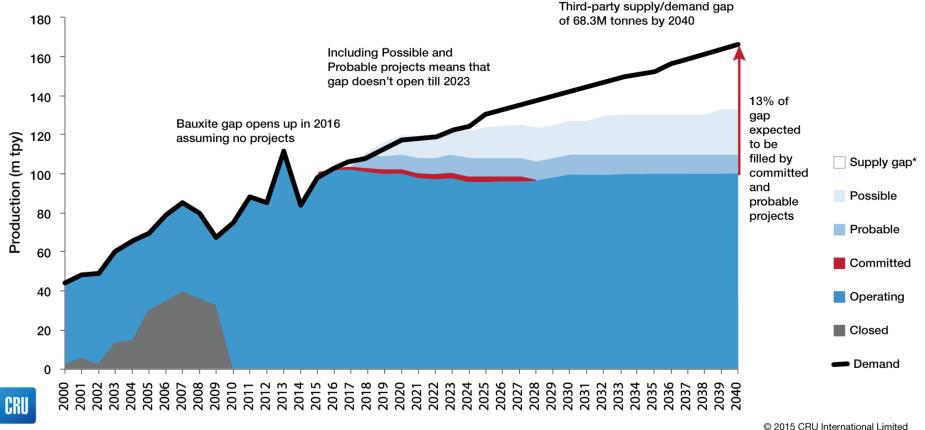
## Low Temperature Bauxite Is In Demand

- Testing has confirmed low temperature bauxite production
- Production and export constraints:
  - Indonesian ban of raw exports removed ~40 Mtpa from the global bauxite market
  - Malaysia has extended a 3 month ban on exports to mid July
  - Some calls within India to reserve bauxite for domestic consumption
- Forecast 68 Mtpa shortfall in supply of low temperature bauxite by 2040<sup>1</sup>
- Initial supply shortfall from 2016
- Low temperature bauxite market undersupplied in the medium to long term
- China's largest refineries are designed to accept low temperature bauxite but China predominantly produces high temperature bauxite
- Bauxite has decoupled from the alumina and aluminium pricing as new refining and smelting capacity is not integrated with dedicated mining operations
- In 2014–15, China imported only 39 Mt (nil from Indonesia), but needs more than 65 Mt of imported bauxite per year, rising even higher to more than 75 Mt in the next 5 years to feed its rapidly growing aluminium industry.



#### Strong growth in Chinese third party bauxite demand to result in a supply-demand gap opening after 2016

World third party bauxite balance, 2000-2040



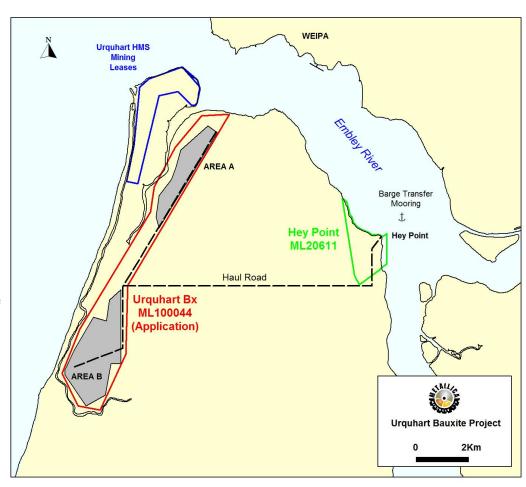
Many new sources of supply are needed!



## **Urquhart Bauxite Project**

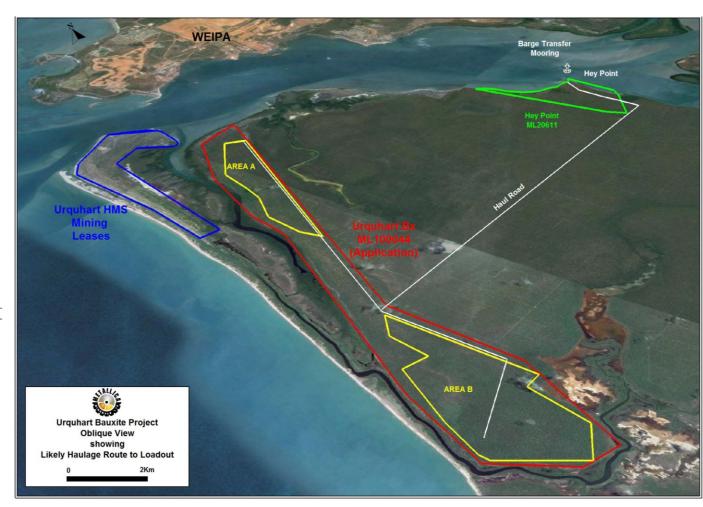
#### Why do we like Urquhart Bauxite?

- Defined path to production in H1 2017
- Simple 1.5 2 Mtpa development
- Positive in-house scoping study
- Modest capex and simple development scenario
- Ideally located near deep water
- Executed Heads of agreement for logistics and access to Hey Point
- Well-known and accepted low temperature bauxite product
- Strong supply and demand fundamentals
  - Indonesia ban
  - Malaysian ban extended
  - Calls for Indian production to be reserved for domestic use
- Proven ability to secure approvals via Urquhart Point HMS mining lease





- Bulk commodities is all about logistics
- Successfully completed an in house options study on logistics and load out options
- Derisked logistics via execution of a Heads of Agreement to utilise infrastructure and access at Hey Point
  - Low capex
  - Compressed start-up





## Guinea to remain the marginal supplier as it is located some distance from China, the largest buyer of third party bauxite

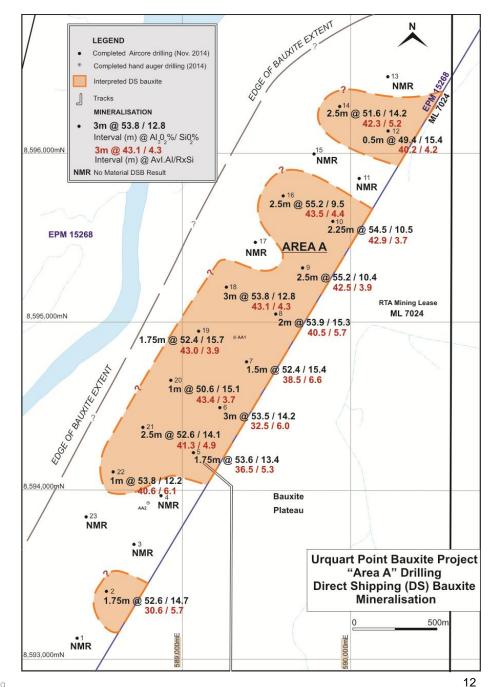
China's favoured regions for third party bauxite supply



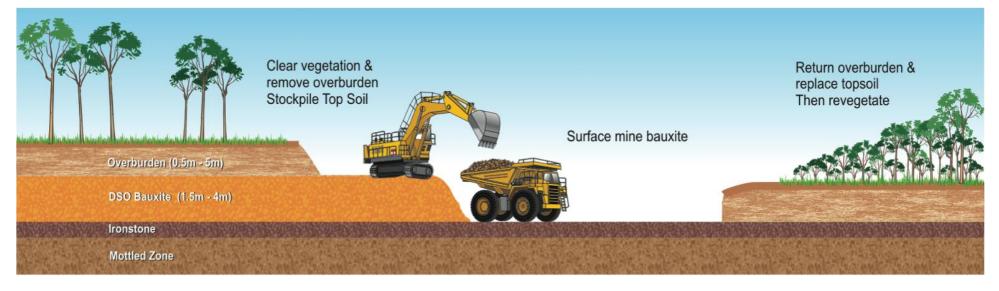


## **Urquhart Bauxite**

- Good quality and readily saleable into the seaborne market
  - 40.6% AAI and 4.9% RSi<sup>1</sup>
- Maiden JORC-compliant Inferred Resource released1
  - 7.5 Mt @ 51% Al<sub>2</sub>O<sub>3</sub>, 16.3% SiO<sub>2</sub>
- Direct Shipping Bauxite (DSB) with average thickness of ~2 m
- Low temperature DSB confirmed<sup>1</sup>
- Mining Lease Application lodged<sup>2</sup>
- Environmental studies and Traditional Land Owner negations are ongoing
- Pathway to early 2017 development and production<sup>3</sup>







- Simple 1.5–2.0 Mtpa mine-truck-barge-ship operation
- Proximity to the established mining town of Weipa
- Expected low operating costs coupled with low capital requirements
- Ability to lock in costs near the bottom of the cycle
- Utilise contractors to reduce capital requirements



Example of barge transhipment



## **Urquhart Bauxite Development Timeline**

	2015			2016				2017			
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Submit Mining Lease Application											
Landowner exploration agreement											
Preliminary exploration Drilling (Inferred)											
Resource Drilling											
Market testing and Studies											
Updated JORC Report											
Wet/Dry Ecological reports											
Hydrology Reporting											
EA approval pathway (site specific application)											
Submit EA											
Issue draft EA to Mining Register and DNRM											
Develop TLO compensation agreements											
Combined Department Decision											
Mining Lease Granted											
Procurement and Contracting											
Pre civil works and site clearance											
Mining and shipping commence									$\star$		





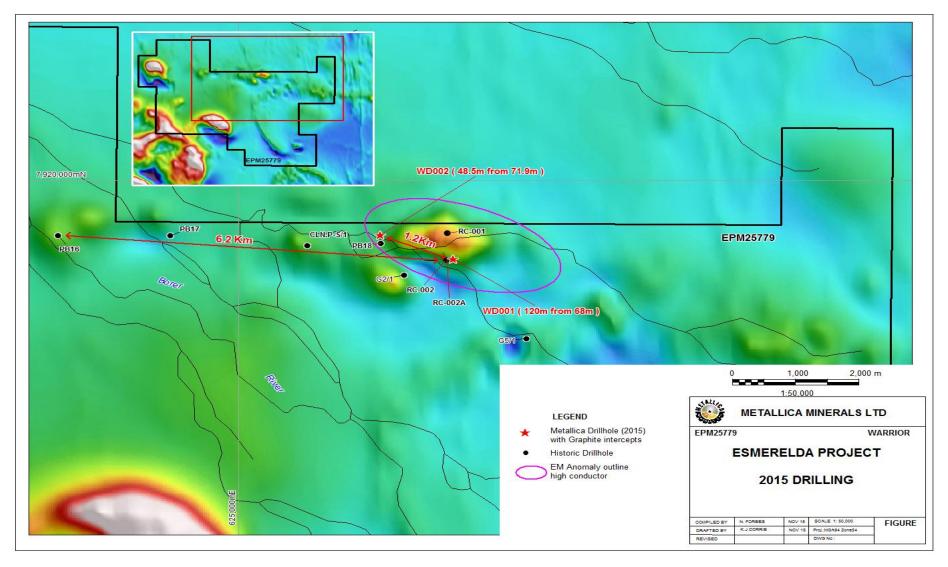
### **Esmeralda Graphite**

- Spectacular<sup>1</sup> high grade graphite intersections at the 100% owned Esmeralda Project
  - WD001 95 m @ 6.5% Cg² from 71m
  - WD002 29.1 m @ 7.8%1Cg² from 71.9m, including 7.1 m @ 12.9% Cg
- 91.5% graphite concentrate produced with a 91% recovery via conventional flotation tests
- Upgrade of concentrate to 97.8% via single stage caustic bake
- Petrology confirms the same mineralisation style hosted within hydrothermally altered granite is present in both holes which are 1.2km apart





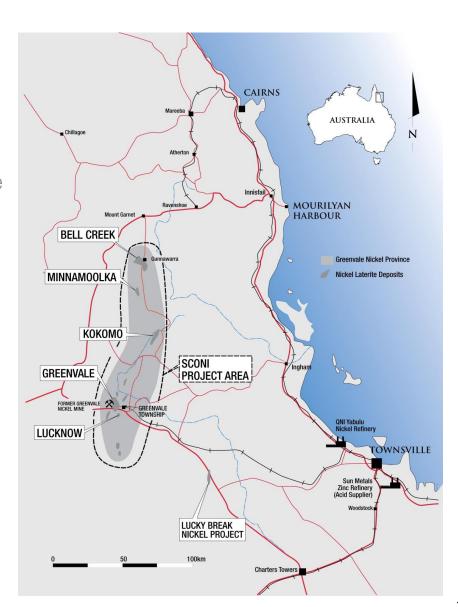
# **Esmeralda Graphite**





## SCONI Nickel-Cobalt-Scandium Project -100% MLM

- Over \$10 million already spent
- Ideal location historical Greenvale nickel mine
- Established JORC Resources
- Close proximity to industrial services Townsville and Mourilyan Ports
- Good metallurgical ore types
- Metallica-owned Scandium IP recovery and purification technology
- Low environmental impact and strong community support
- Currently in negotiations for a JV or sale





- ✓ Execute Heads of Agreement for preferred logistics solution at Hey Point
- ✓ Exercise of Boyne limestone option to deliver \$900,000
- ✓ Metallurgical test results from Esmeralda
- Upgrade Resource category and studies for Urquhart bauxite
- Grant of Urquhart bauxite mining lease
- Production from Urguhart bauxite
- Continued disposal or jv of non-core assets
- Strong pipeline of new opportunities



#### **SUBSIDIARY COMPANIES**

NORNICO Pty Ltd ACN 065 384 045
Oresome Australia Pty Ltd ACN 071 762 484
Oresome Bauxite Pty Ltd ACN 606 362 252
Lucky Break Operations Pty Ltd ACN 126 272 580
Phoenix Lime Pty Ltd ACN 096 355 761
Greenvale Operations Pty Ltd ACN 139 136 708
Scandium Pty Ltd ACN 138 608 894
Touchstone Resources Pty Ltd ACN 126 306 018

THANK YOU