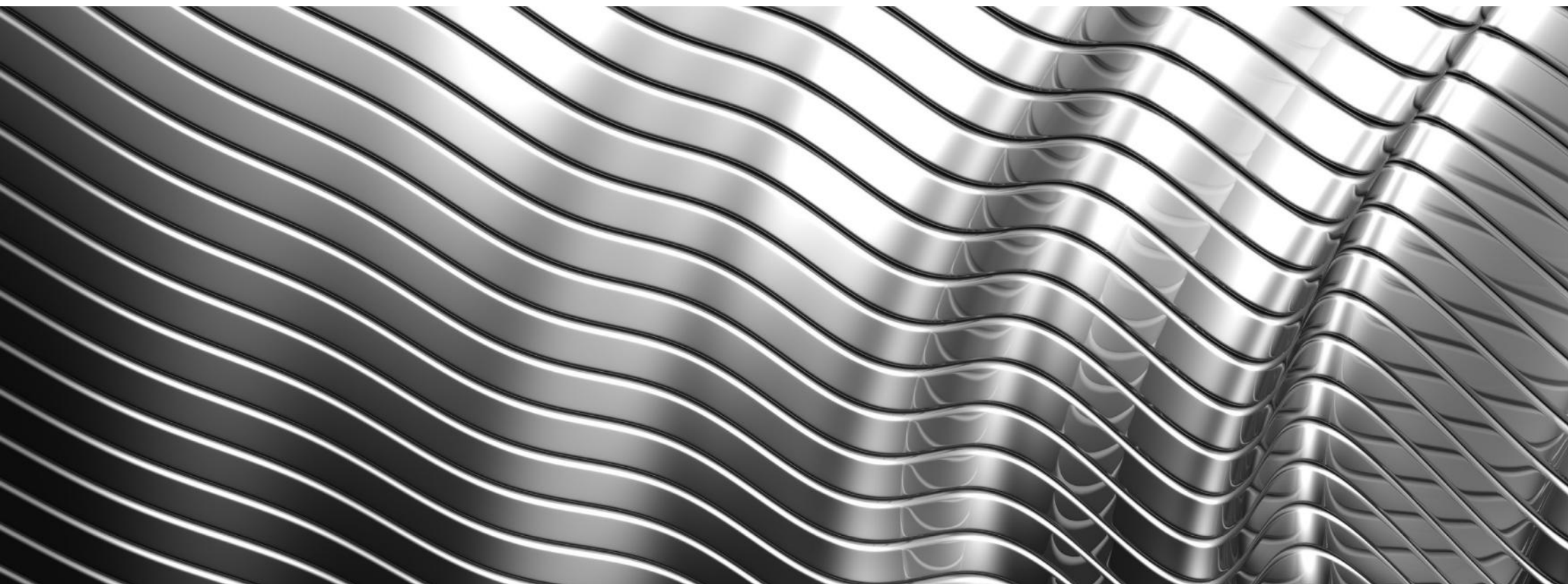


# Building a Bauxite Company

Investor Presentation – June 2018



# 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 Urquhart Bauxite (Bx) and Urquhart Point Heavy Mineral Sands (HMS) Projects, Esmeralda Graphite and the Cape Flattery Silica Sands Projects 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.

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 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.

## Competent Person Statement

### Urquhart Bauxite

The Mineral Reserve estimate and Production Target estimates were undertaken by Mr Stewart Lewis, Mining Engineer, who is a Member and Chartered Professional of the Australasian Institute of Mining and Metallurgy and the CEO of IMC Mining Pty Ltd. Mr Lewis has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Lewis consents to the inclusion of this information in the form and context in which it appears in this release/report.

The Mineral Resource estimate was undertaken by Mr John Horton, Principal Geologist, who is a Fellow and Chartered Professional of the Australasian Institute of Mining and Metallurgy and an associate at IMC Mining Pty Ltd. Mr Horton has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Horton consents to the inclusion of this information in the form and context in which it appears in this release/report.

The information in this report that relates to Exploration Results and Exploration Targets is based on information compiled by John Cameron (a geologist of over 25 years experience), and a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy and is a contract consultant to Metallica Minerals Ltd. Mr Cameron has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Cameron consents to the inclusion of this information in the form and context in which it appears in this release/report.

### Cape Flattery Silica Sands

The information in this report that relates to the Exploration Results and Targets was undertaken by Mr Neil Mackenzie-Forbes, who is a Member of the Australian Institute of Geoscientist and is a Consulting Geologist employed by Sebrof Projects Pty Ltd. Mr Neil Mackenzie-Forbes has in excess of 20 years mining and exploration experience in Australia with major mining and junior exploration companies. Mr Mackenzie-Forbes has sufficient experience that is relevant to the style of mineralisation and type of deposits under consideration and to the activity being undertaken 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 Neil Mackenzie-Forbes consents to the inclusion of this information in the form and context in which it appears in this release/report.

### Wagina

The information in this report that relates to Exploration Results and Exploration Targets is based on information compiled by Dr Andrew White (a geologist of over 50 years experience), and a Competent Person who is a Fellow of the Australian Institute of Geoscientists, a Consulting Geologist employed by Andrew White and Associates Pty Ltd (AWA) and is a contract consultant to South West Pacific Bauxite Ltd. Dr Andrew White has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Dr Andrew White consents to the inclusion of this information in the form and context in which it appears in this release/report.

The Mineral Resource estimate was undertaken by Mr Geoff Reed, (a geologist of over 20 years experience), who is a Member and Chartered Professional of the Australasian Institute of Mining and Metallurgy and is a Consulting Geologist employed by Breakaway Mining Services Pty Limited. Mr Geoff Reed has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Geoff Reed consents to the inclusion of this information in the form and context in which it appears in this release/report.



# Investment Highlights



**Fully funded**  
through to  
production



Global bauxite  
supply and demand  
fundamentals supporting  
development



Awaiting final  
approval to  
commence  
production



Cash on hand  
**A\$6.7M<sup>1</sup>**



Development Capital  
**A\$1.1M**



Ramp up to  
1.5Mtpa to deliver  
average annual  
EBITDA of  
**A\$18.8M**



Base Case  
Pre-Tax NPV<sub>10</sub>  
**A\$78.4M**



Identified growth  
opportunity in the  
Wagina bauxite  
project<sup>2</sup>

# Corporate Snapshot

Metallica listed on the ASX in 2004 with 61.9M shares on issue



322M

Shares on Issue

39M

Options on Issue

A\$0.044

Share Price  
as at 11 June 2018

A\$14.2M

Market  
Capitalisation

A\$6.7M

Cash 31 Mar 18

A\$2M

Standby credit  
facility secured

A\$1.5M

AUZ shares due  
by 30 June 2018

A\$6M

Enterprise Value

*(Market Cap less Cash  
and Receivables)*

# Corporate Snapshot

## Experienced and Rejuvenated Board and Management



**Peter Turnbull**  
**Non-Executive Chairman**  
*Appointed 12 Dec 2016*

Peter has significant experience as an independent non-executive director and chair across a range of sectors including over a decade in the resources, energy and technology commercialisation sectors. Peter is a non-executive director, Life Member and former President, of the Governance Institute of Australia and is an active contributor, writer and speaker on governance related issues within Australian and international governance circles. Peter is currently a non-executive director of Karoon Gas Australia Limited.



**Simon Slesarewich**  
**Managing Director**  
*Appointed 17 April 2018*

Simon Slesarewich was appointed to the position of Managing Director on 17 April 2018. Simon joined the company in July 2015 as Chief Executive Officer. Simon is a mining engineer with over 20 years of experience in operational and executive roles. He was instrumental in all facets of the development of the large Middlemount Coal mine and has been a senior manager in 4 other mine developments. Simon has experience across various jurisdictions and commodities and was previously the CEO of Boardwalk Resources and a director of Larkham Resources which was backed by a large international private equity group.



**Steve Boulton**  
**Non-Executive Director**  
*Appointed 25 Jan 2017*

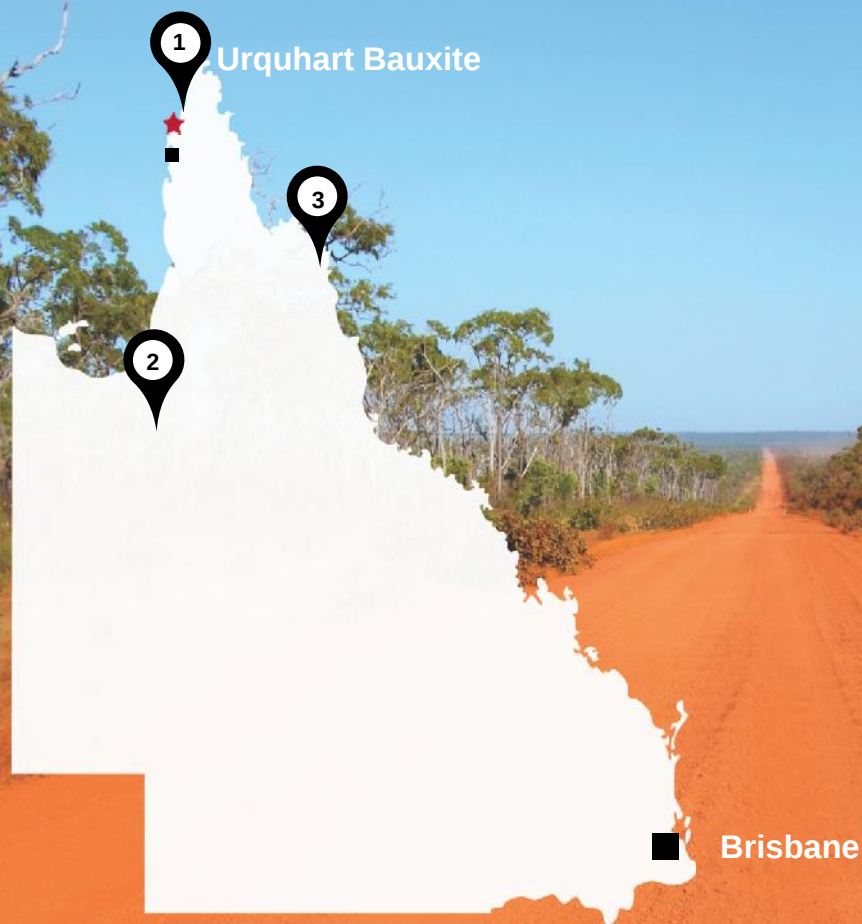
Steve Boulton is an experienced funds management and infrastructure specialist with over 40 years experience that has covered complex fund, asset and investment management and utility and infrastructure enterprises, including experience in the mining/minerals sector in Australia and New Zealand. This has included executive and board positions with CP2 Funds Management, Port of Brisbane, Dalrymple Bay Coal Terminal, PD Ports, Nova Group and Infrastructure Partnerships Australia. He was also the CEO of Hastings Funds Management and Power Co.



**John Haley**  
**Chief Financial Officer /**  
**Company Secretary**

John Haley has over 35 years experience in senior corporate roles in Australia and Canada. John has a diverse career across a range of industries and has been integral as an investor and executive in the launch of various resource companies. Previously John held roles with Coopers & Lybrand and Arthur Andersen & Co., and with listed and unlisted companies in general management, financial reporting and company secretarial positions.

# Project Overview



01

## Cape York JV – 50%

Urquhart Direct Shipping  
Bauxite project  
Urquhart Point HMS project

02

## Esmeralda – 100%

Graphite

03

## Cape Flattery – 100%

Silica Sands

***Metallica is focused on building a sustainable bauxite business with the Urquhart Bauxite project forming the foundation.***

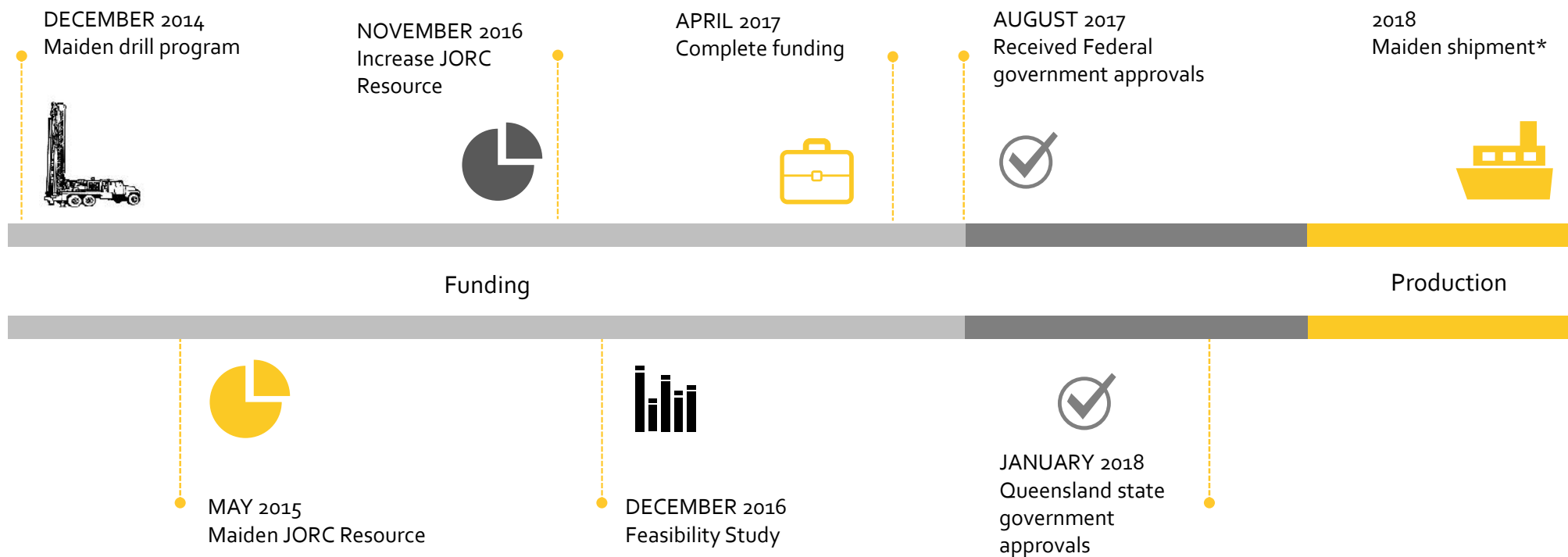
**The Company remains committed to continuing to unlock value in its non-core assets.**

# Urquhart Bauxite – Operations Video



# Urquhart Bauxite

Expedited to be development ready



# Urquhart Bauxite – JORC Resource<sup>8</sup>

## JORC Resource Estimate (48% Al<sub>2</sub>O<sub>3</sub> cut-off)

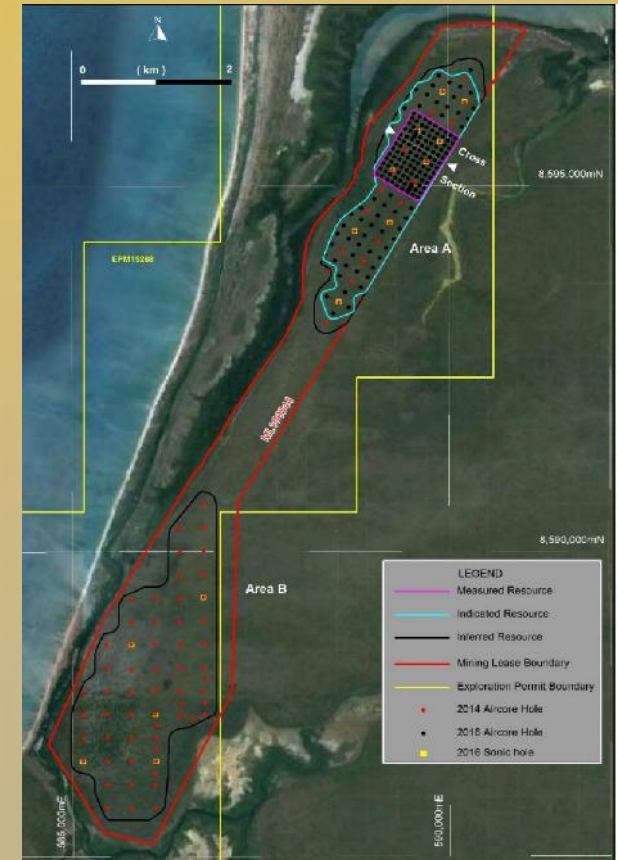
| Classification | Area     | Mt         | Al <sub>2</sub> O <sub>3</sub> % | SiO <sub>2</sub> % | AAI%*       | RSi %**    |
|----------------|----------|------------|----------------------------------|--------------------|-------------|------------|
| Measured       | A        | 3.0        | 54.4                             | 11.8               | 43.2        | 5.0        |
| Indicated      | A        | 3.9        | 53.3                             | 13.1               | 40.8        | 5.2        |
| Inferred       | A        | 0.3        | 54.2                             | 11.3               | 42.0        | 4.7        |
|                | B        | 2.3        | 49.9                             | 17.4               | 37.2        | 6.0        |
|                | Subtotal | 2.6        | 50.3                             | 16.8               | 37.6        | 5.9        |
| <b>Total</b>   |          | <b>9.5</b> | <b>52.8</b>                      | <b>13.7</b>        | <b>40.7</b> | <b>5.3</b> |

## Upside (not included in JORC Resource)

| Classification | Tonnes        | Total Al <sub>2</sub> O <sub>3</sub> | Total SiO <sub>2</sub> |
|----------------|---------------|--------------------------------------|------------------------|
| Measured       | 0.8 Mt        | 44.1%                                | 27.3%                  |
| Indicated      | 1.8 Mt        | 42.0%                                | 30.0%                  |
| Inferred       | 5.9 Mt        | 35.7%                                | 37.9%                  |
| <b>Total</b>   | <b>8.5 Mt</b> | <b>37.8%</b>                         | <b>35.2%</b>           |

- Potential to upgrade low grade material via conventional dry screening
- Material not contained in JORC Resource Estimate
- Capital allowed for drilling and screen test work

\* AAI – Available Alumina @150°C \*\* RSi – Reactive Silica @ 150°C





# Urquhart Bauxite – Key PFS Findings<sup>3</sup>

| Item                                 | Unit        | Scenario 1 (Base Case)                      |
|--------------------------------------|-------------|---------------------------------------------|
|                                      |             | Mining Proved & Probable Reserves in Area A |
| Total Saleable Product               | dry kt      | 6,532                                       |
| Total Al <sub>2</sub> O <sub>3</sub> | %           | 52.7                                        |
| Total SiO <sub>2</sub>               | %           | 13.3                                        |
| Total Revenue                        | A\$m        | 295.5                                       |
| EBITDA                               | A\$m        | 81.8                                        |
| <b>NPV<sub>10</sub> Pre Tax</b>      | <b>A\$m</b> | <b>78.4</b> ←                               |
| LOM Capital                          | A\$m        | 2.7                                         |
| Avg FOB Cost***                      | A\$ tonne   | 32.72                                       |
| Avg FOB Received                     | A\$ tonne   | 45.24                                       |
| Payback                              | months      | 5                                           |

Accumulated tax losses  
of \$20m at 30 June 2017

## Notes:

- Unless otherwise indicated all figures are on a 100% project basis
- Metallica confirms all material assumptions underpinning production targets and corresponding financial information continue to apply and have not materially changed as per Listing Rule 5.19.2

\* AAl – Available Alumina @ 150°C

\*\* RSi – Reactive Silica @ 150°C

\*\*\* Includes all operating costs, royalties and other payments



# Urquhart Bauxite – Key PFS Findings

## Average Operating Costs<sup>4</sup>

| Item                         | Unit             | Scenario 1 (Base Case) |
|------------------------------|------------------|------------------------|
| Total Saleable Product       | dry kt           | 6,532                  |
| Average Price Received (FOB) | A\$/dry t        | 45.24                  |
| AUD:USD                      |                  | 0.71                   |
| Mining Costs                 | A\$/dry t        | 5.63                   |
| Haulage Costs                | A\$/dry t        | 3.06                   |
| Transshipping Costs          | A\$/dry t        | 14.13                  |
| Contractor Overheads         | A\$/dry t        | 1.49                   |
| Other Costs                  | A\$/dry t        | 1.92                   |
| GnA                          | A\$/dry t        | 0.83                   |
| Royalties                    | A\$/dry t        | 5.66                   |
| <b>EBITDA</b>                | <b>A\$/dry t</b> | <b>12.52</b>           |

- Start-up capital limited to working capital ~A\$1.1M (no contingency)
- LCR Group appointed as mining and haulage contractor. Contract prices in line with PFS<sup>5</sup>
- LCR Group have confirmed that they will partially defer Haul Road and Mobilisation capex<sup>5</sup>
- Average price received estimated by London based independent metal analyst CRU International utilising mine plan volumes and grades

Average EBITDA of \$18.8m per annum at 1.5mtpa

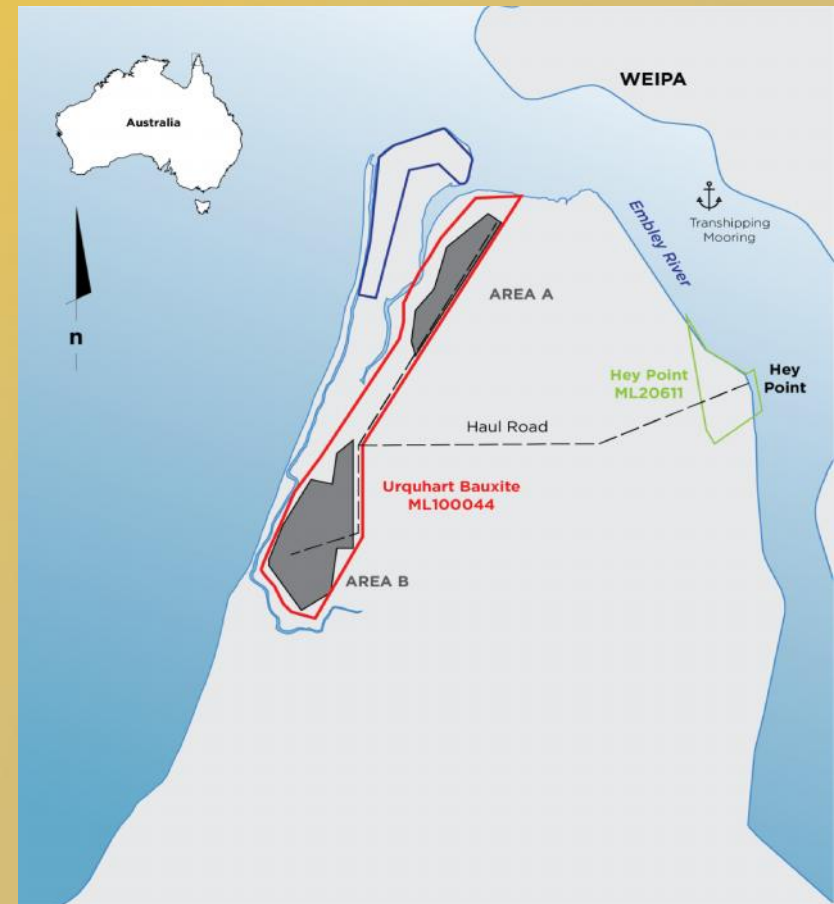
### Notes:

- Metallica confirms all material assumptions underpinning production targets and corresponding financial information continue to apply and have not materially changed as per Listing Rule 5.19.2

# Urquhart Bauxite – Permitting



- Mining Lease issued by Qld state government<sup>6</sup>
- Completing haul road approval to link the mine to the existing Hey Point barge loading facility
  - Utilises previously completed environmental work
  - Previously executed Traditional Land Owner agreements<sup>7</sup> covers the haul road area
- An agreement with the underlying tenure holder is yet to be completed



# Cape Flattery Silica Sands Project (Qld) – 100%



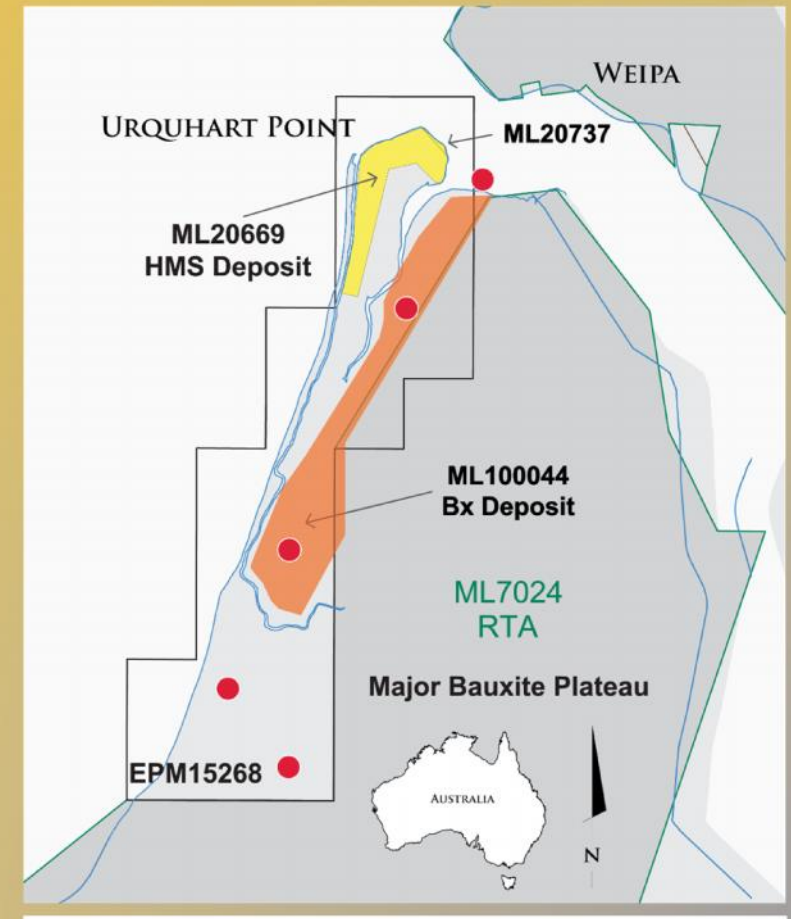
- Maiden sampling program at Cape Flattery Project completed in March <sup>12</sup>
- Sampling identifies high purity silica sands with samples of greater than 99% silica sand ( $\text{SiO}_2$ )
- Exploration target of 20-100 million tonnes across three identified areas
- Located adjacent to Mitsubishi's Cape Flattery mine, the world's single largest source of silica sand
- Large silica sands dune field that has been producing since 1967
- Jetty and ship loading facility in place
- Large exploration tenement – 54 km<sup>2</sup>
- *Assessing options to unlock value value from the project*



# Urquhart Point HMS Project (Qld) – 50%



- Project currently on hold
- Fully permitted
- HMS processing plant constructed and in storage near Brisbane
- Over \$4.5m spent on design and manufacture of the processing plant alone
- Able to bring into production in 3-4 months from an internal decision to proceed with development
- Highly leveraged to a rebound in heavy mineral sand prices
- Heavy mineral sands prices have continued to recover
- Simple dry mining and processing plant

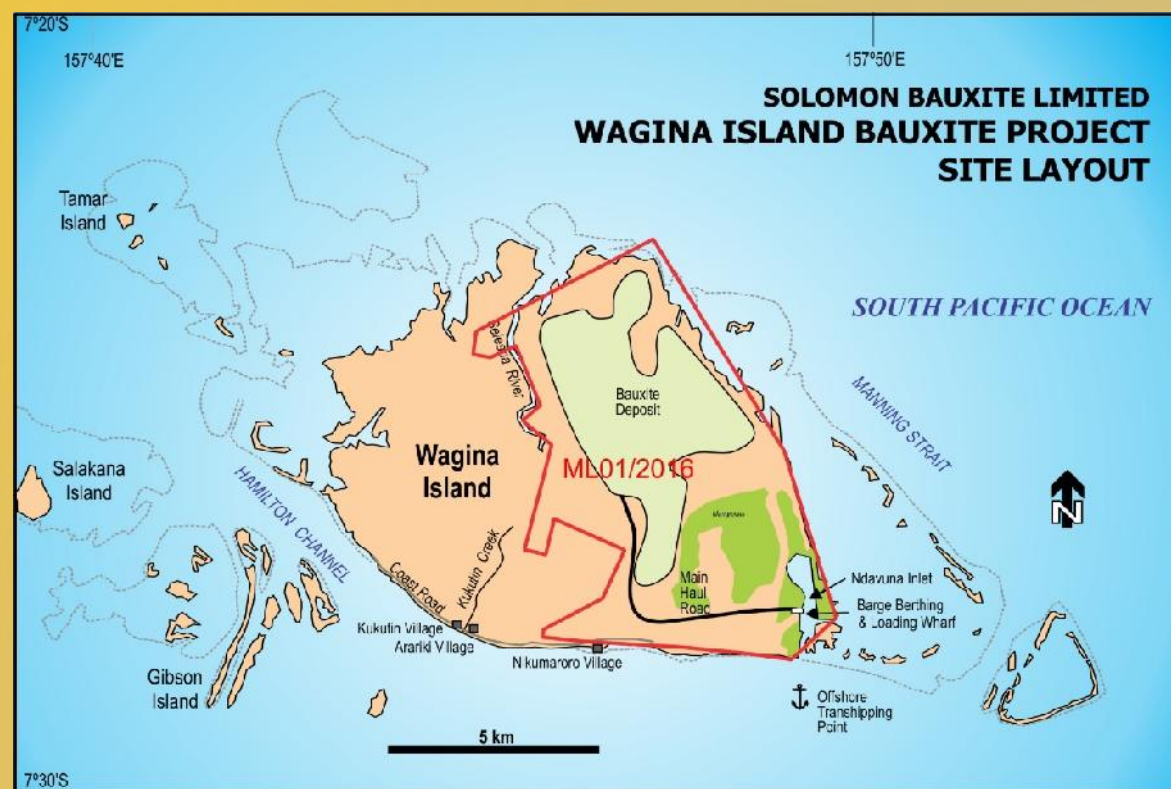


# Growth – Wagina bauxite project



- Strategic Loan to South West Pacific Bauxite – Majority owner of the attractive Wagina bauxite project
- Currently undertaking due diligence on Wagina ahead of a potential transaction

| Classification | Tonnes  | Total Al <sub>2</sub> O <sub>3</sub> | Total SiO <sub>2</sub> |
|----------------|---------|--------------------------------------|------------------------|
| Measured       | 26.1Mt  | 46.8%                                | 3.0%                   |
| Indicated      | 3.6Mt   | 47.5%                                | 2.5%                   |
| Inferred       | 0.5 Mt  | 46.7%                                | 3.6%                   |
| Total          | 30.1 Mt | 46.9%                                | 3.0%                   |





# Growth – Wagina bauxite project

## Why we like it:

- Advanced project on a granted mining lease
- Has the potential to be brought into production via a low capex model
- Capex to be facilitated via Marketing Agreement with Noble
- Ability to deliver meaningful free cash flow when in operations
- Large JORC Resource – 30.1mt
- Envisage a 2 to 3 mtpa operation
- Deep sheltered water just 2km from shore
- Nearby Rennel Island commenced production in 2014, with 2017 exports being 1.53 million tonnes, receiving up to US\$54.69 per dry tonne delivered (CIF)
- Attractively located just 10 days shipping to the Chinese market (Guinea in West Africa approximately 33 days)

*"Delivering on the Company's vision to be producing 5-7Mtpa of bauxite over the coming 3 to 5 years"*

# Moving Forward



- Secure haul road approval
- Finalise logistics contract with Green Coast Resources
- Finalise Offtake for Urquhart Bauxite
- Production and cash flow from Urquhart bauxite
- Complete due diligence on Wagina, Solomon Islands
- Continue to evaluate new opportunities

# Key Take Away



## Funded

Cash + Standby credit  
facility + SCONI sale  
proceeds  
~ **\$10.2 m**



## Production

Near term\*.  
Finalising haul road  
approval.



## Growth

Looking for value  
accretive near term or  
producing bauxite assets

*Significantly Undervalued*

\* Subject to final approvals and agreements

# Thank You



## **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

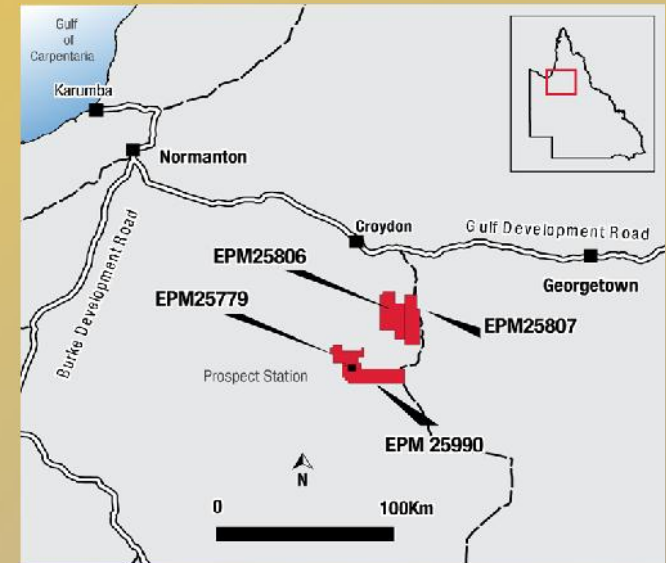
# Appendix



# Esmeralda Graphite Project (Qld) – 100%



- Spectacular<sup>9</sup> high grade graphite intersections at the 100% owned Esmeralda Project
  - WD001 – 95 m @ 6.5% Cg<sup>10</sup> from 71m
  - WD002 – 29.1 m @ 7.8% Cg<sup>10</sup> from 71.9m, including 7.1 m @ 12.9% Cg
- 91.5% graphite concentrate produced with a 91% recovery via conventional flotation tests<sup>11</sup>
- Upgrade of concentrate to 97.8% via single stage caustic bake<sup>10</sup>
- Petrology confirms the same mineralisation style hosted within hydrothermally altered granite is present in both holes which are 1.2km apart
- 2016 Electromagnetic survey over 3.5% of the project area failed to identify near surface mineralisation<sup>4</sup>





# Footnotes

1. See ASX Release 30 April 2018 "Quarterly Activities Report and Appendix 5B"
2. See ASX Release 30 April 2018 "Strategic Loan to Bauxite Developer"
3. See ASX Release 21 December 2016 "Strong PFS for Urquhart Bauxite project"
4. See ASX Release 16 January 2016 "Quarterly Activities Report"
5. See ASX Release 22 May 2017 "Mining and Haulage Contractor Appointed"
6. See ASX Release 3 January 2018 "Mining Lease Granted for Urquhart Bauxite Project"
7. See ASX Release 21 June 2017 "Traditional Land Owner Compensation Agreement"
8. See ASX Release 14 November 2016 "Significant Increase to Mineral Resource at Urquhart Bauxite"
9. See ASX Release 10 December 2015 "Assays strongly support potential for large graphite deposit"
10. Using a cut-off grade of 3% Cg
11. See ASX Release 24 May 2016 "High Purity and Recovery from Esmerelda Graphite testwork"
12. See ASX Release 18 April 2018 "High Purity Silica Sands at Cape Flattery"