



# **Boonanarring Mineral Sands Project: The next cab off the mineral sands rank**



**Annual General Meeting  
Of Shareholders  
21 May 2018**

**Patrick Mutz  
*Managing Director*  
Image Resources NL  
ASX: IMA**

# Forward Looking Statements

This presentation has been prepared by the management of Image Resources NL ("Image", "IMA" or the 'Company') in connection with meetings with investors and potential investors and not as specific advice to any particular party or person. The information is based on publicly available information, internally developed data and other sources. Where any opinion is expressed in this presentation, it is based on the assumptions and limitations mentioned herein and is an expression of present opinion only. This presentation does not constitute or form part of any offer or invitation to sell, or any solicitation of any offer to purchase any shares in the Company, nor shall it or any part of it or the fact of its distribution form the basis of, or be relied on in connection with, any contract or commitment or investment decisions relating thereto, nor does it constitute a recommendation regarding the shares of the Company. Past performance cannot be relied upon as a guide to future performance. Please refer to the back of this presentation for information concerning the calculation of reserves and resources referred to herein, and the consents provided by the respective Competent Persons. For further details on the content of this presentation, please refer to the ASX releases on the Company's website.

Certain statements in this investor presentation, and in subsequent oral statements made by and on behalf of Image, constitute "forward-looking statements" or "forward-looking information" within the meaning of applicable securities laws. Such statements involve known and unknown risks, uncertainties and other factors, which may cause actual results, performance or achievements of the Company, the Boonanarring Project, or industry results, to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements or information. Such statements can be identified by the use of words such as "may", "would", "could", "will", "intend", "expect", "believe", "plan", "anticipate", "estimate", "scheduled", "forecast", "predict" and other similar terminology, or state that certain actions, events or results "may", "could", "would", "might" or "will" be taken, occur or be achieved. These statements reflect the Company's current expectations regarding future events, performance and results, and speak only as of the date of this investor presentation.

Statements in this investor presentation that constitute forward-looking statements or information include, but are not limited to statements regarding the Boonanarring/Atlas Project: Production, Cashflows, NPV, IRR, construction timelines, life of the mine; funding; and use of proceeds of the Placement.

The forward-looking information and statements also include metal price assumptions, projected capital and operating costs, metal recoveries, mine life and production rates and other assumptions used in the 2017 Bankable Feasibility Study (as hereinafter defined). Readers are cautioned that actual results may vary from those presented. Certain of the factors and assumptions used to develop the forward-looking information, and the risks that could cause the actual results to differ materially, are contained in the Bankable Feasibility Study lodged with the ASX and disclosed on the Company's website at [www.imageres.com.au](http://www.imageres.com.au).

# Forward Looking Statements

All such forward-looking information and statements are based on certain assumptions and analyses made by the Company's management in light of their experience and perception of historical trends, current conditions and expected future developments, as well as other factors management believe are appropriate in the circumstances. These statements, however, are subject to a variety of risks and uncertainties and other factors that could cause actual events or results to differ materially from those projected in the forward-looking information or statements including, but not limited to, unexpected changes in laws, rules or regulations, or their enforcement by applicable authorities; the failure of parties to contracts to perform as agreed; changes in commodity prices; unexpected failure or inadequacy of infrastructure, or delays in the refurbishment or development of infrastructure, and the failure of exploration programs or other studies to deliver anticipated results or results that would justify and support continued studies, development or operations. Other important factors that could cause actual results to differ from these forward-looking statements also include those described under the heading "Key Risks" in the Appendix to this investor presentation.

Readers are cautioned not to place undue reliance on forward-looking information or statements.

This investor presentation also contains references to estimates of mineral resources and ore reserves. The estimation of mineral resources is inherently uncertain and involves subjective judgments about many relevant factors. Mineral resources that are not ore reserves do not have demonstrated economic viability. The accuracy of any such estimates is a function of the quantity and quality of available data, and of the assumptions made and judgments used in engineering and geological interpretation, which may prove to be unreliable and depend, to a certain extent, upon the analysis of drilling results and statistical inferences that may ultimately prove to be inaccurate. Mineral resources and ore reserve estimates may have to be re-estimated based on, among other things: (i) fluctuations in zircon, ilmenite or other mineral prices; (ii) results of drilling; (iii) results of metallurgical testing and other studies; (iv) changes to proposed mining operations, including dilution; (v) the evaluation of mine plans subsequent to the date of any estimates; and (vi) the possible failure to receive required permits, approvals and licences.

Although the forward-looking statements contained in this investor presentation are based upon what management of the Company believes are reasonable assumptions, the Company cannot assure investors that actual results will be consistent with these forward-looking statements. These forward-looking statements are made as of the date of this investor presentation and are expressly qualified in their entirety by this cautionary statement. Subject to applicable securities laws, the Company does not assume any obligation to update or revise the forward-looking statements contained herein to reflect events or circumstances occurring after the date of this investor presentation.

### Opportunity to invest in company transitioning to profitable mining operator

- **Company fully funded to positive cashflow**
  - ***\$50M as debt; \$25M as equity***
- **Project construction underway (*only \$52M project capital<sup>1</sup>*)**
- **Plant and equipment already acquired**
- **First production scheduled for end of 4<sup>th</sup> QTR 2018 (*6-7 month build*)**
- **Cashflow positive forecast in 1<sup>st</sup> QTR 2019**

*Notes: 1 – Per bankable feasibility study results announced 30 May 2017*

### Opportunity to invest in company transitioning to profitable mining operator

- Binding off-take agreement in place for 100% of production
- Project NPV A\$197 million<sup>1</sup>; IRR 104%<sup>1</sup>; <2 year payback<sup>1</sup>
  - *metrics do not include 1 April 2018 zircon price rise*
- Company market cap. A\$116M<sup>2</sup>
- Share price \$0.135<sup>2</sup>

*Notes: 1 – Per updated bankable feasibility study results announced 27 November 2017*

*2 – as at 18 May 2018*

# Project Location



## LOCATION

- North Perth Basin in Western Australia
- 80 km north of Perth CBD
- Proven mineral sands address
  - Including majors Iluka and Tronox
- Infrastructure rich
  - paved roads, power, gas pipeline water, telecommunications etc.
- Local communities and landowners experienced with, and accepting of, mineral sands mining.

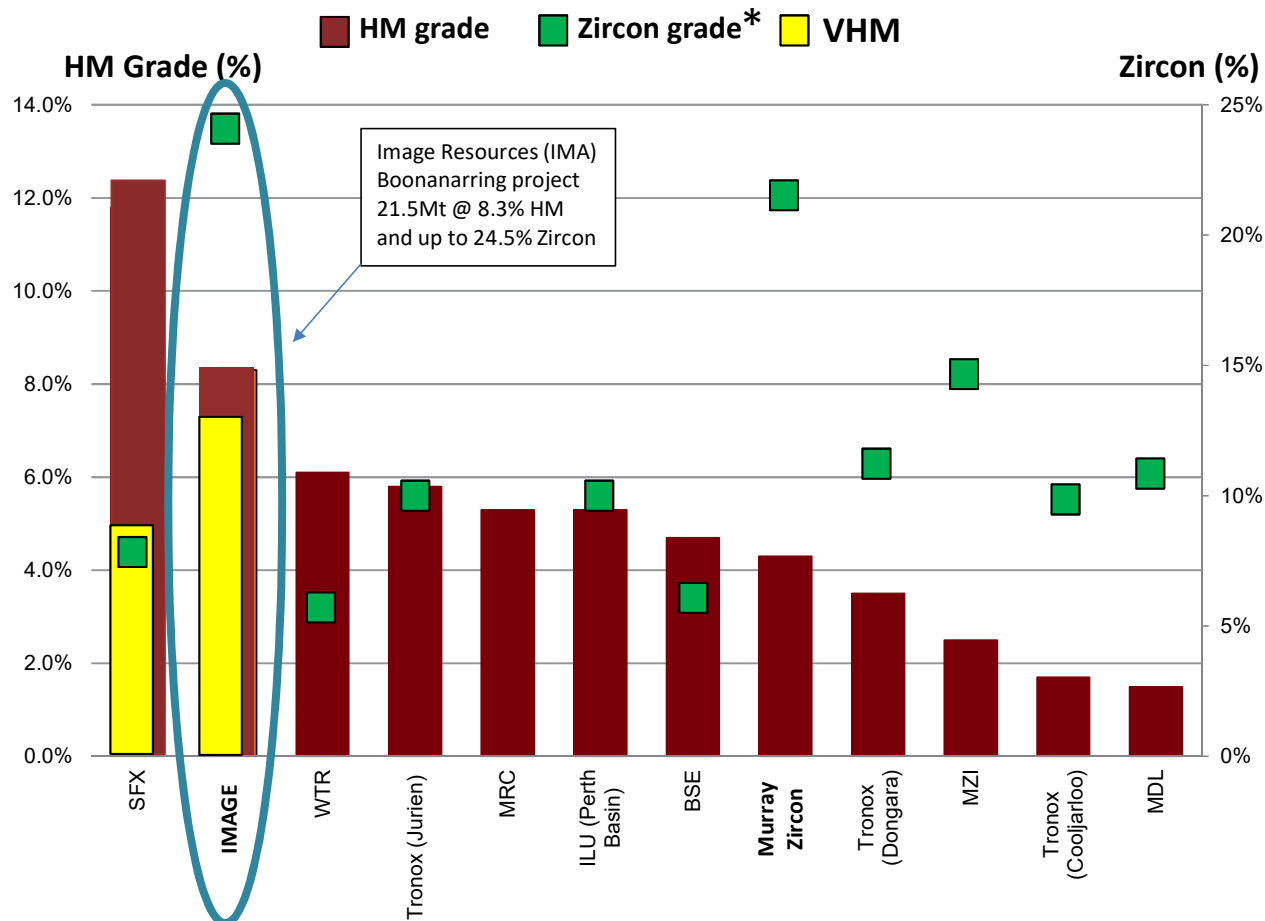


# Boonanarring Project Comparison

## High HM and Zircon grades relative to peers

HM = Heavy Minerals; not all of which make saleable products.

VHM = Valuable Heavy Minerals; that portion of the HM that makes saleable products.

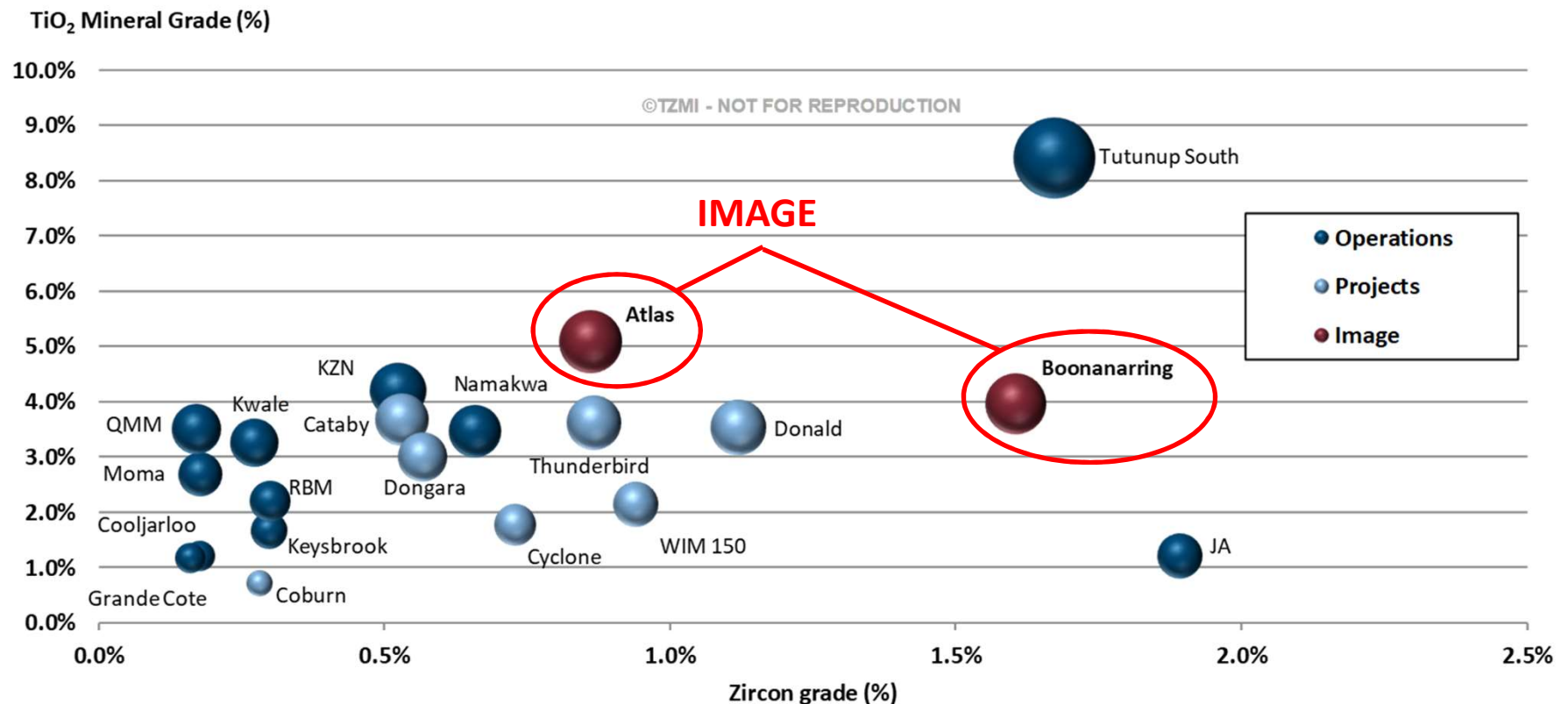


Notes: \* - as % of HM

Source: Released on 4<sup>th</sup> May 2015 – Morgan's Research Note



# Ore Reserves Comparison



**Note:**

- TiO<sub>2</sub> mineral grade represents the in-ground grade of titanium minerals (ilmenite, leucoxene and rutile)
- Zircon grade represents the in-ground grade of zircon
- Size of bubble represents the VHM grade (ilmenite, leucoxene, rutile and zircon).
- Data includes Proved and Probable Ore Reserves.
- Hard rock deposits are excluded from the analysis

Source: TZMI; May 2017



# Ore Reserves



## QUALITY ORE RESERVES

- JORC Code (2012) Compliant
- High HM, VHM and very high zircon at Boonanarring

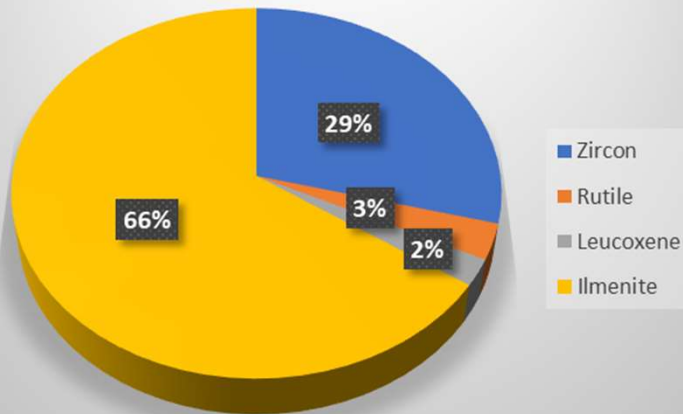
| High Grade Ore Reserves - Strand Deposits; in accordance with the JORC Code (2012) |          |                   |                   |            |             |                  |               |              |               |            |             |
|------------------------------------------------------------------------------------|----------|-------------------|-------------------|------------|-------------|------------------|---------------|--------------|---------------|------------|-------------|
| Project/Deposit                                                                    | Category | Volume            | Tonnes            | % HM       | % Slimes    | HM Tonnes        | VHM (%)       | Ilmenite (%) | Leucoxene (%) | Rutile (%) | Zircon (%)  |
| Boonanarring <sup>2</sup>                                                          | Proved   | 5,008,000         | 9,344,000         | 8.6        | 14.3        | 803,771          | 76.081        | 48.9         | 1.8           | 2.2        | 23.2        |
| Boonanarring <sup>2</sup>                                                          | Probable | 5,565,000         | 10,514,000        | 5.9        | 17.6        | 622,429          | 78.653        | 52.3         | 1.8           | 2.7        | 21.9        |
| <b>Total Boonanarring</b>                                                          |          | <b>10,573,000</b> | <b>19,858,000</b> | <b>7.2</b> | <b>16.1</b> | <b>1,426,200</b> | <b>77.203</b> | <b>50.4</b>  | <b>1.8</b>    | <b>2.4</b> | <b>22.7</b> |
| Atlas <sup>2</sup>                                                                 | Probable | 5,000,000         | 9,477,000         | 8.1        | 15.5        | 767,637          | 73.3          | 50.7         | 4.5           | 7.5        | 10.6        |
| <b>Total Atlas</b>                                                                 |          | <b>5,000,000</b>  | <b>9,477,000</b>  | <b>8.1</b> | <b>15.5</b> | <b>767,637</b>   | <b>73.3</b>   | <b>50.7</b>  | <b>4.5</b>    | <b>7.5</b> | <b>10.6</b> |
| <b>Total Ore Reserves</b>                                                          |          | <b>15,573,000</b> | <b>29,335,000</b> | <b>7.5</b> | <b>15.9</b> | <b>2,193,837</b> | <b>75.8</b>   | <b>50.5</b>  | <b>2.7</b>    | <b>4.2</b> | <b>18.4</b> |

### 2.COMPLIANCE STATEMENT Boonanarring/Atlas Reserve

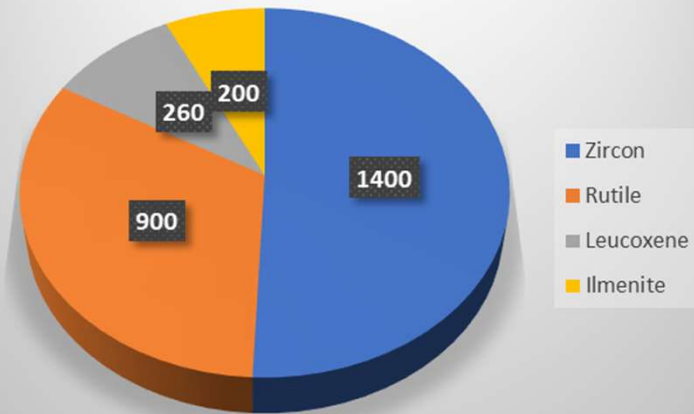
The Ore Reserves statement has been compiled in accordance with the guidelines of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code – 2012 Edition). The Ore Reserves have been compiled by Jarrod Pye, Mining Engineer and full-time employee of Image Resources, under the direction of Andrew Law of Optiro, who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Law has sufficient experience in Ore Reserves estimation relevant to the style of mineralisation and type of deposit under consideration to qualify as a Competent Person as defined in the 2012 Edition of the “Australasian Code for Reporting of Mineral Resources and Ore Reserves”. Mr Law consents to the inclusion in the report of the matters compiled by him in the form and context in which it appears.

# Products and Prices

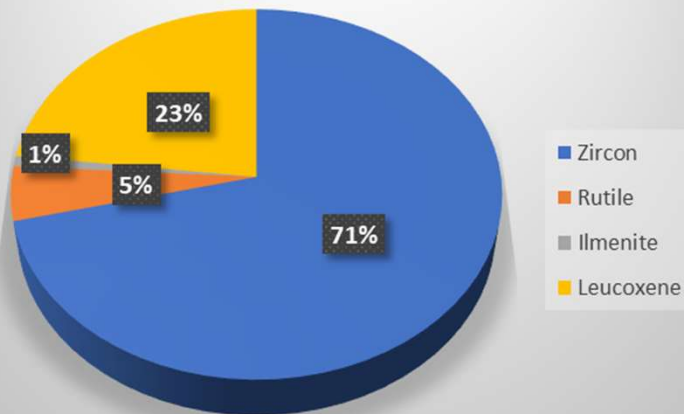
% in VHM



US\$/t



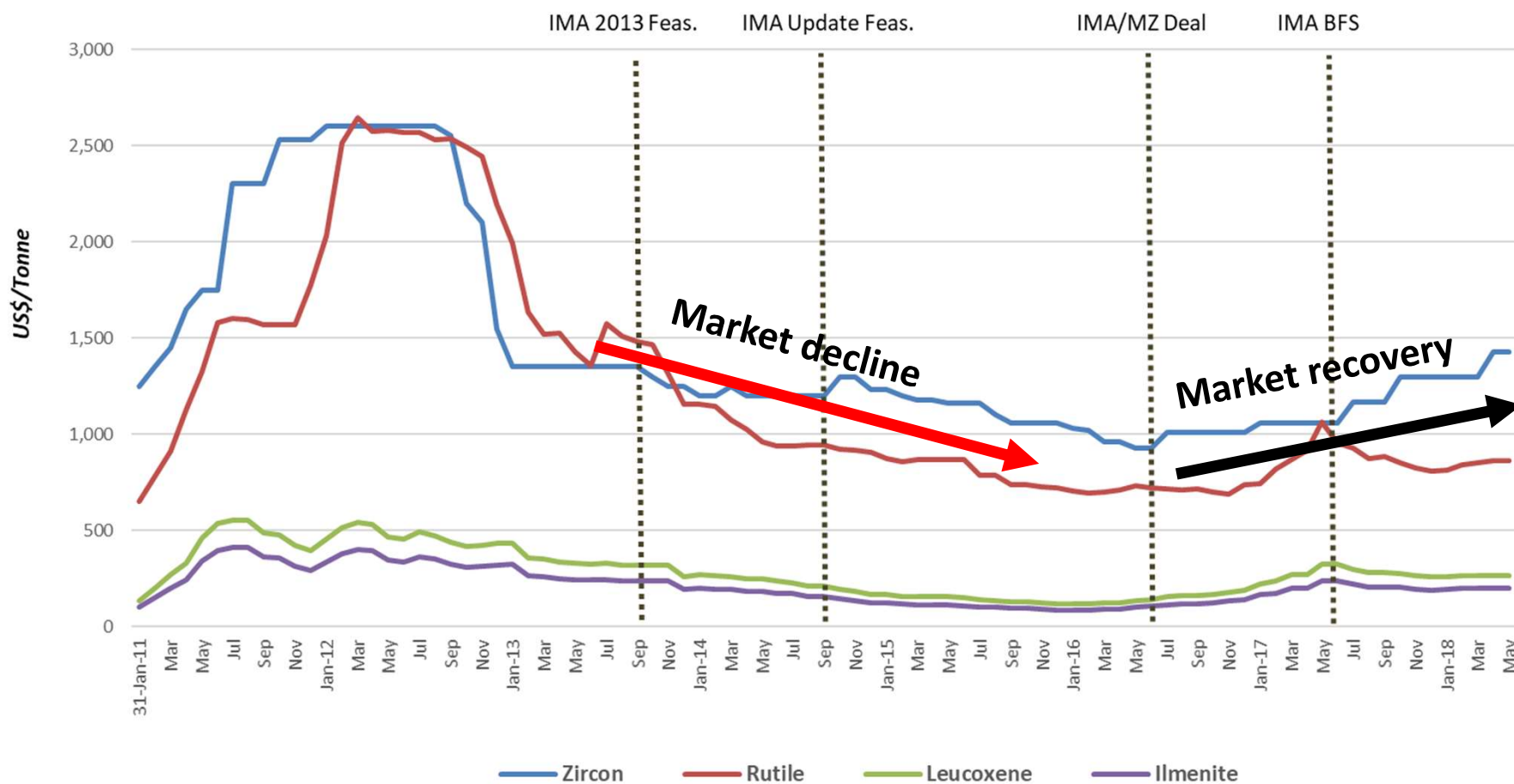
Revenue



Notes: VHM assemblages and commodity prices are estimates based on Boonanarring project heavy mineral concentrate product.

# Commodity Prices – Actual and Projected

## Historic Mineral Sands Commodity Prices and Projections



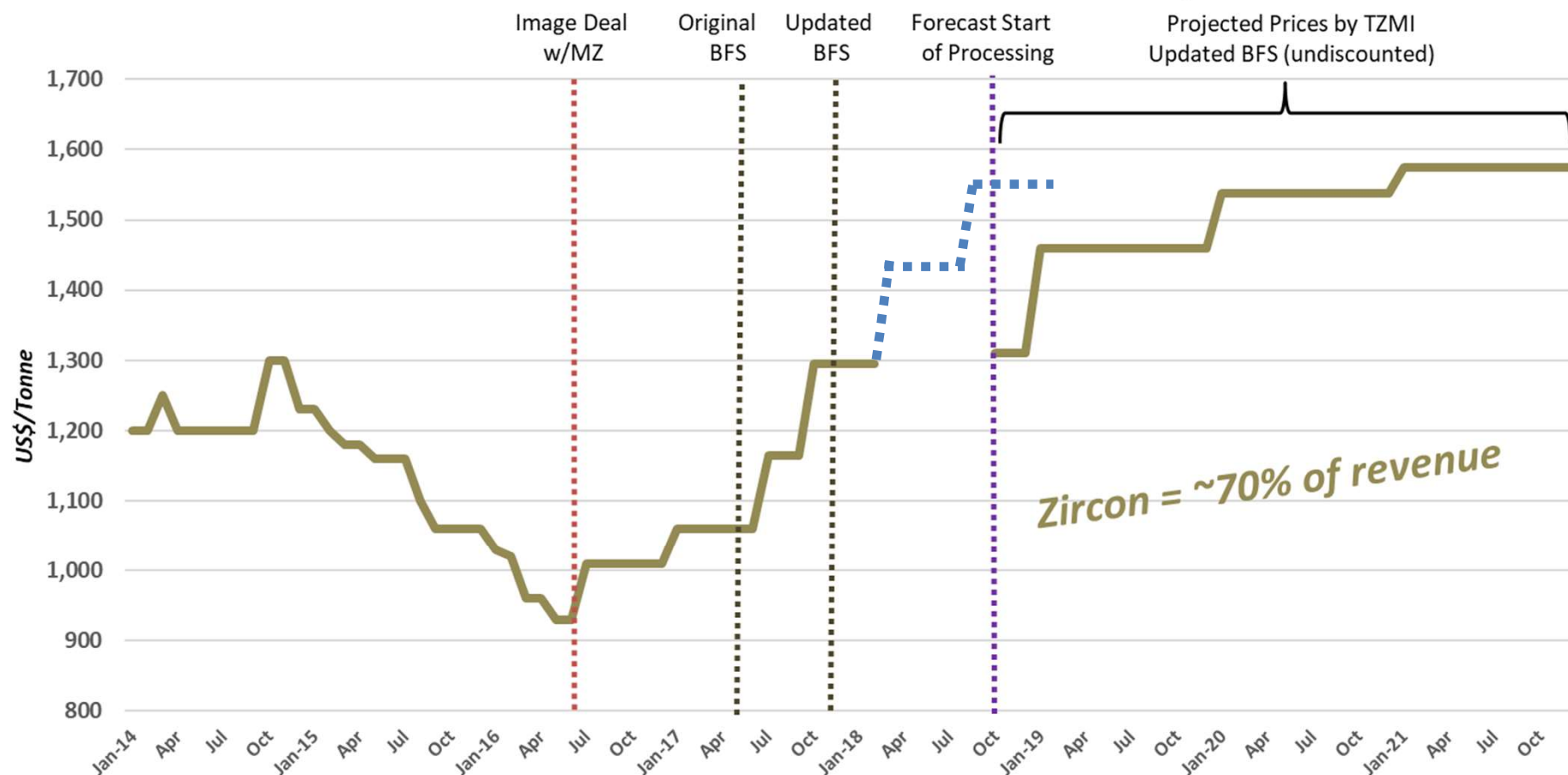
# Foreign Exchange Rate

FX - 20 May 2018 06:12 UTC AUD/USD close:0.75113  
0321



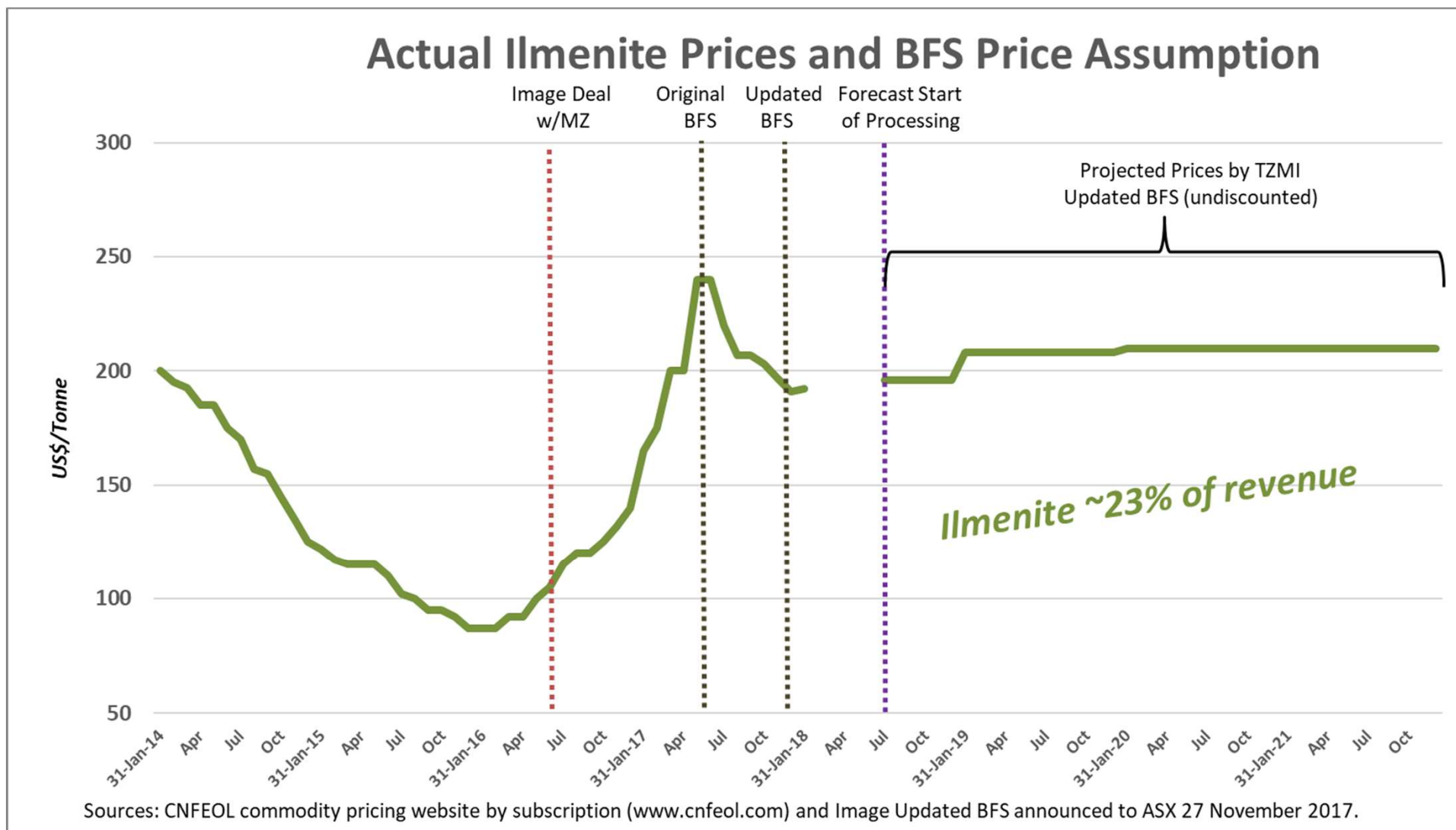
## Commodity Prices – Actual and Projected

### Actual Zircon Prices and BFS Price Assumptions



Sources: CNFEOL commodity pricing website by subscription ([www.cnfeol.com](http://www.cnfeol.com)) and Image Updated BFS announced to ASX 27 November 2017.

## Commodity Prices – Actual and Projected



## Base Assumptions

- Start mining at Boonanarring
- Dry, open-cut mining
- Production rate - 500 dry tonnes per hour
  - 3.7M dry tonnes per year
- Conventional gravity separation using spirals
- Product: Heavy Mineral Concentrate (HMC)
  - Production rate: avg. approx. 220K tonnes/annum
  - Truck to Bunbury for bulk shipments to China



## Key Financial Metrics

|                               | <u>Original BFS*</u> | <u>Updated BFS**</u> |
|-------------------------------|----------------------|----------------------|
| ➤ Pre-Tax NPV (@ 8%)          | A\$135M              | <b>A\$197M</b>       |
| ➤ Pre-Tax IRR                 | 64%                  | <b>104%</b>          |
| ➤ Payback period (months)     | 22                   | <b>16</b>            |
| ➤ Mine life 8+ years          |                      |                      |
| ➤ Project capital cost A\$52M |                      |                      |
| • includes ~\$8M for land     |                      |                      |

\* ASX Announcement 30 May 2017

\*\* ASX Announcement 27 November 2017

## Boonanarring – Production Statistics

| <b>Boonanarring Project Production</b> |             |             |             |             |             |             |              |
|----------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|
|                                        | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>Total</b> |
| Ore processed (Kt) - HG                | 621         | 3,683       | 3,696       | 3,724       | 3,766       | 2,660       | 18,150       |
| Mined Ore (Kt) - LG                    | 0           | 0           | 0           | 0           | 0           | 0           | 0            |
| Ore grade (%HM)                        | 8.6%        | 7.8%        | 11.2%       | 5.6%        | 7.8%        | 10.9%       | 8.5%         |
| <u>Assemblage (% of HM)</u>            |             |             |             |             |             |             |              |
| Zircon                                 | 22.4%       | 25.4%       | 22.6%       | 25.3%       | 25.4%       | 17.0%       | 23.0%        |
| Rutile                                 | 2.4%        | 2.4%        | 2.2%        | 2.4%        | 2.4%        | 4.8%        | 2.8%         |
| Ilmenite                               | 54.2%       | 48.8%       | 50.4%       | 48.9%       | 48.8%       | 53.3%       | 50.3%        |
| Leucoxene                              | 1.8%        | 1.7%        | 2.1%        | 1.7%        | 1.7%        | 2.7%        | 2.0%         |
| HMC produced (t)                       | 20,530      | 230,897     | 336,817     | 169,717     | 218,452     | 253,490     | 1,229,903    |
| HMC sold (t)                           | 18,700      | 225,000     | 320,000     | 190,000     | 220,000     | 170,000     | 1,143,700    |
| <u>HMC content</u>                     |             |             |             |             |             |             |              |
| Zircon (t)                             | 4,800       | 68,600      | 87,700      | 39,100      | 68,800      | 34,900      | 303,900      |
| Rutile (t)                             | 430         | 5,000       | 6,400       | 4,600       | 5,100       | 7,600       | 29,130       |
| Ilmenite (t)                           | 11,100      | 119,100     | 174,600     | 116,000     | 112,900     | 94,600      | 628,300      |
| Leucoxene (t)                          | 250         | 2,700       | 4,800       | 2,800       | 2,200       | 3,400       | 16,150       |
| Trash HM/silica (t)                    | 2,120       | 29,600      | 46,500      | 27,500      | 31,000      | 29,500      | 166,220      |
| Total                                  | 18,700      | 225,000     | 320,000     | 190,000     | 220,000     | 170,000     | 1,143,700    |
| %VHM                                   | 89%         | 87%         | 85%         | 86%         | 86%         | 83%         | 85%          |

Note: 2023 information includes the start of production at Atlas.

## Boonanarring – Project EBITDA

| <b>Boonanarring Project EBITDA Summary</b> |               |                |                |                |                |                |                 |
|--------------------------------------------|---------------|----------------|----------------|----------------|----------------|----------------|-----------------|
| (AU\$'000)                                 | 2018          | 2019           | 2020           | 2021           | 2022           | 2023           | Total           |
| <b>Revenue</b>                             | <b>8,880</b>  | <b>132,600</b> | <b>186,900</b> | <b>97,200</b>  | <b>127,200</b> | <b>77,400</b>  | <b>630,180</b>  |
| <b><u>Operating Costs</u></b>              |               |                |                |                |                |                |                 |
| Mining                                     | -22,400       | -43,800        | -40,100        | -39,300        | -40,900        | -36,700        | -223,200        |
| Processing                                 | -1,600        | -7,100         | -7,200         | -7,200         | -7,200         | -5,700         | -36,000         |
| Site Administration                        | -3,000        | -4,500         | -4,500         | -4,400         | -4,400         | -4,200         | -25,000         |
| Logistics                                  | -1,600        | -15,500        | -21,000        | -12,600        | -14,500        | -11,300        | -76,500         |
| Royalties/Other                            | -440          | -6,300         | -8,900         | -4,600         | -6,100         | -3,600         | -29,940         |
| Capitalised Op. Costs                      | 19,300        | -              | -              | -              | -              | -              | 19,300          |
| <b>Total Operating Costs</b>               | <b>-9,740</b> | <b>-77,200</b> | <b>-81,700</b> | <b>-68,100</b> | <b>-73,100</b> | <b>-61,500</b> | <b>-371,340</b> |
| Change in Inventory                        | 800           | 700            | 2,600          | -2,700         | -900           | 9,100          | NA              |
| Gains on Asset Disposal                    | 0             | 0              | 0              | 0              | 0              | 1,600          | 1,600           |
| <b>Project EBITDA</b>                      | <b>-60</b>    | <b>56,100</b>  | <b>107,800</b> | <b>26,400</b>  | <b>53,200</b>  | <b>26,600</b>  | <b>270,040</b>  |

Note: 2023 information includes the start of production at Atlas.

**Basis of comparison: Average of full years 2019 and 2020**

### **Boonanarring Project**

- **Average annual revenue: ~A\$160 million**
- **Average annual costs: ~A\$80 million**

### **Gold Project equivalent**

- **Assumed average gold price: A\$1,600 per ounce**
- **Annual gold production equivalent: ~100,000 ounces**
- **Equivalent gold price margin: ~A\$800 per ounce**

## Other Key Project Metrics

- **Binding offtake contract** for heavy mineral concentrate (HMC)
  - **100% of HMC production for life of project**
  - Market-based pricing model
  - Full credit for TiO<sub>2</sub> products
  - No minimum product specifications
- **Capital equipment already acquired**
  - From run-of-mine ore feed through to HMC product



## Plant and Equipment (select examples)



Wet Concentration Plant



Mineral Separation Plant (Option)



Slurry Booster Stations  
& pipelines



HMC Stackers



Power poles, wires  
& transformers

Plus much, much more.



Mine Slurry Unit



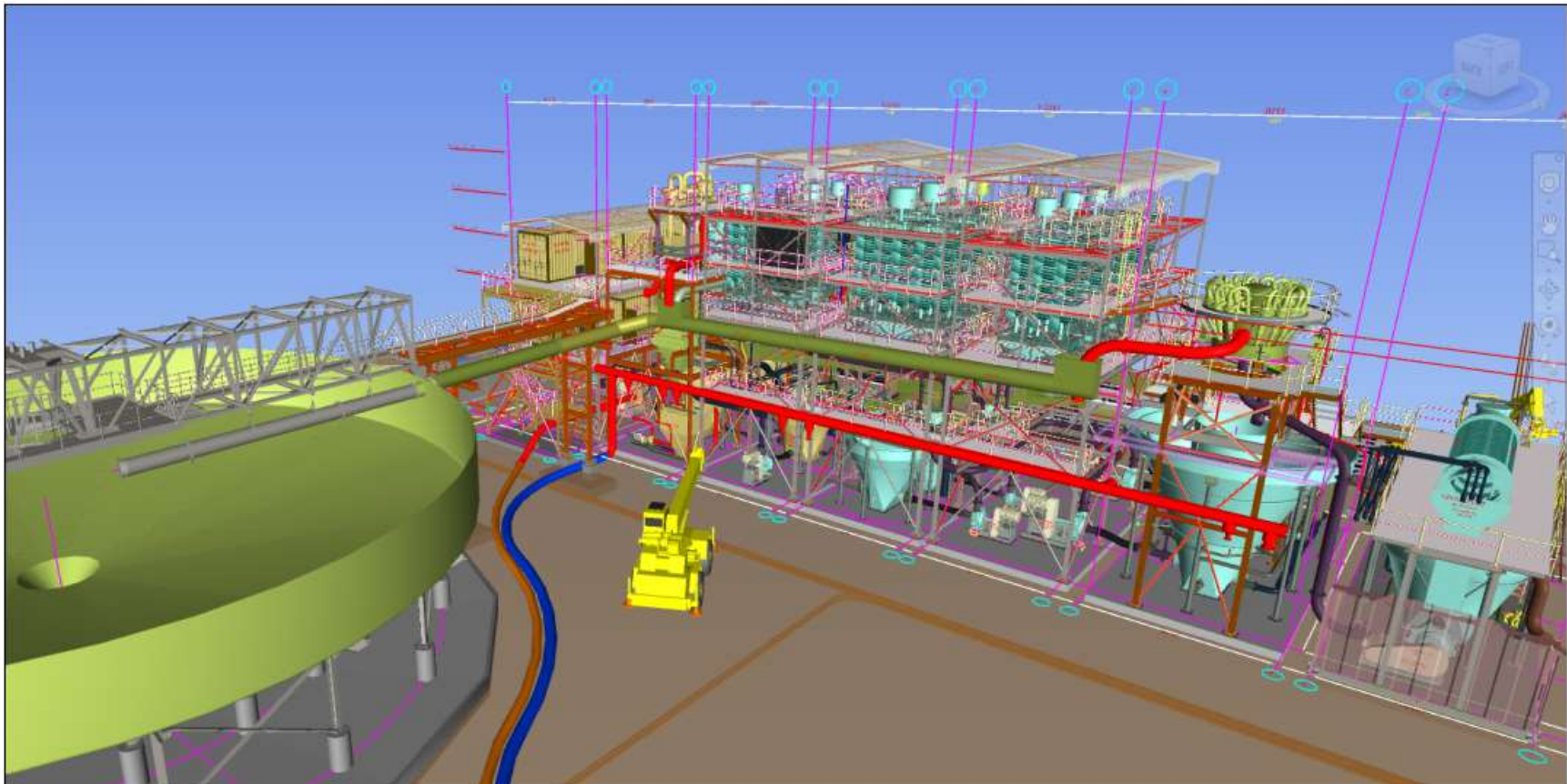
# Image Wet Concentration Plant





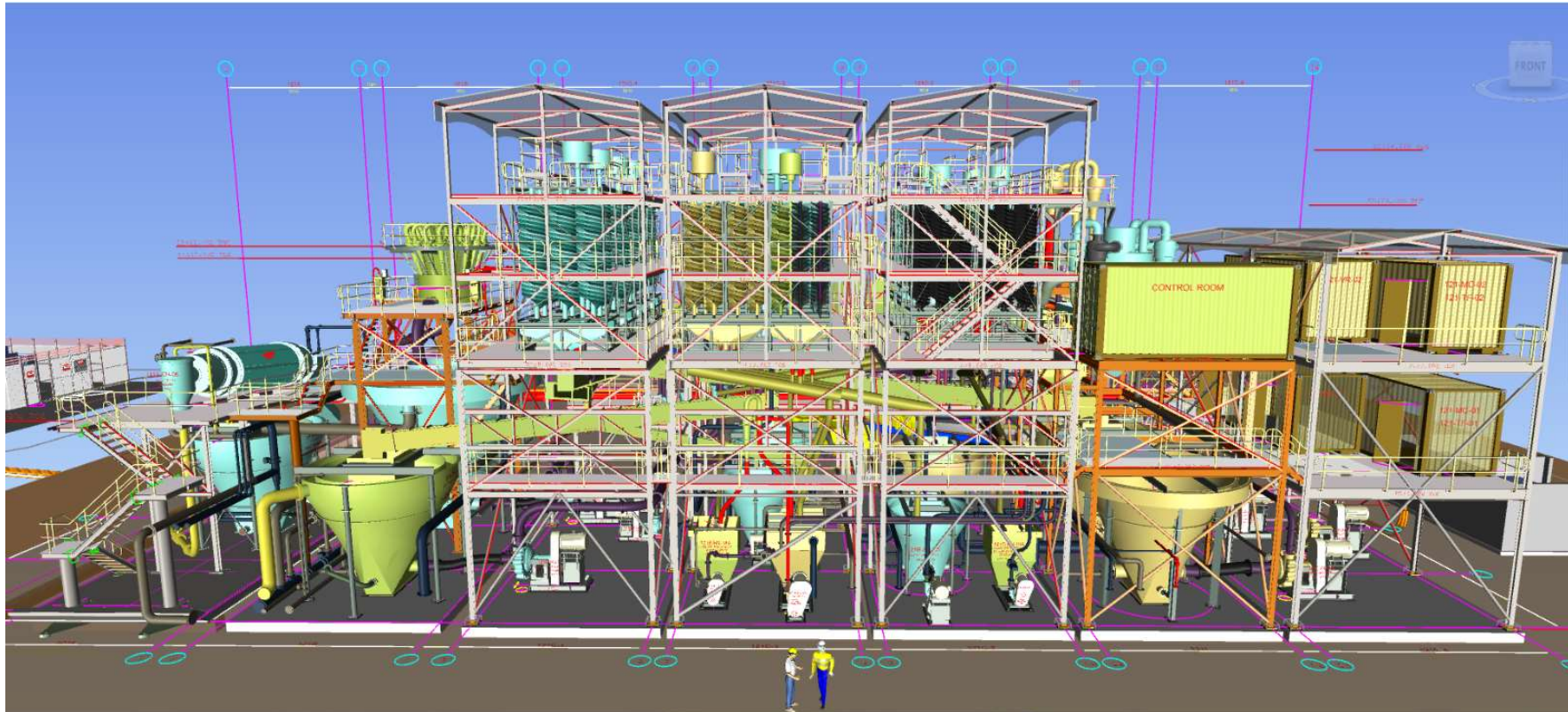
# Wet Concentrator Plant 3D Modelling

Looking North



# Wet Concentrator Plant 3D Modelling

Looking South





## PROJECT APPROVALS

- ✓ Mining Lease & General Purpose Lease
- ✓ Part IV, Environmental Protection Act (WA) – PER
- ✓ EPBC Act (Commonwealth)
- ✓ Land acquisition for processing plant siting and start of mining
- ✓ Groundwater Abstraction Licence (DWER)
- ✓ Interim groundwater licence – site establishment (DWER)
- ✓ Mining Proposal – incl. MCP (DMIRS)
- ✓ Project & Radiation Management Plans (DMIRS)
- ✓ Atlas Project Gap Analysis – Environmental Studies & Approvals
- ✓ Works Approval (DWER)

## Capital funds to be applied to:

- Construction, commissioning of the Boonanarring Project (**A\$52M**)
- Working capital to positive cashflow (**A\$15M**), and
- Corporate, exploration and financing costs to positive cashflow (**A\$8M**)

## Upside potential at and near Boonanarring

- Confirmed potential to extend mine life with high grade mineralisation (ASX announcement 13 March & 26 June 2017);
  - Assuming mineralisation in extension area is identical to known Ore Reserves in all aspects and economics; **two years of additional mine life could add AU\$60M to project NPV.**
- Potential to process lower grade overlying layer of mineralisation;
- Potential to process ores from several other deposits with high grade mineral resources in the vicinity;
  - Red Gully, Regans Ford, and Gingin (South and North).



# Boonanarring Deposit Extensions

ASX - 13 March & 26 June 2017

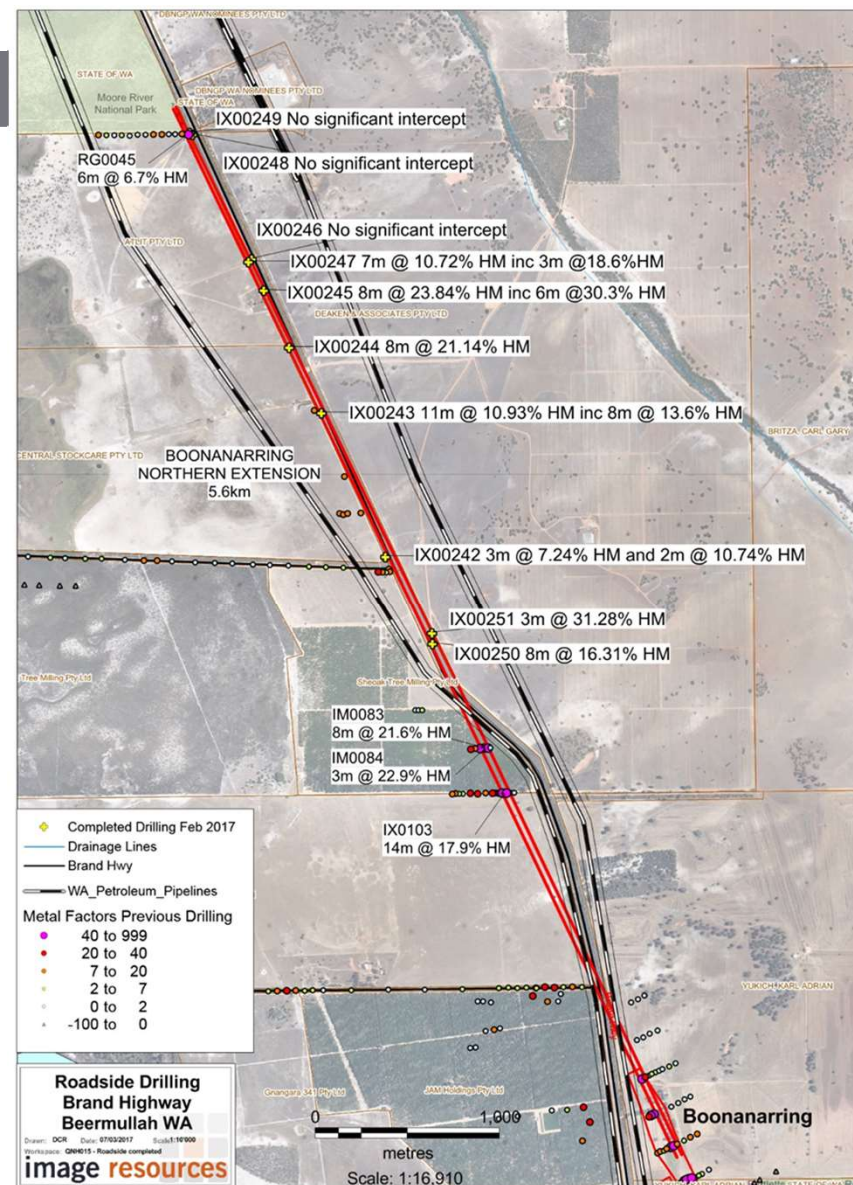
## New Drilling Results (Feb 2017)

- Confirm 5.6km northern extension of Boonanarring mineralisation
- Outstanding high grade intersections:

- 8m @ 23.8% HM in IX00245
- 8m @ 21.1% HM in IX00244 and
- 8m @ 16.3% HM in IX00250

Importantly with high grade zircon:

- 21.5% Zr in HM in IX00245 & 247
- 22.1% Zr in HM in IX00243 & 244
- 16.4% Zr in HM in IX00242, 250 & 251

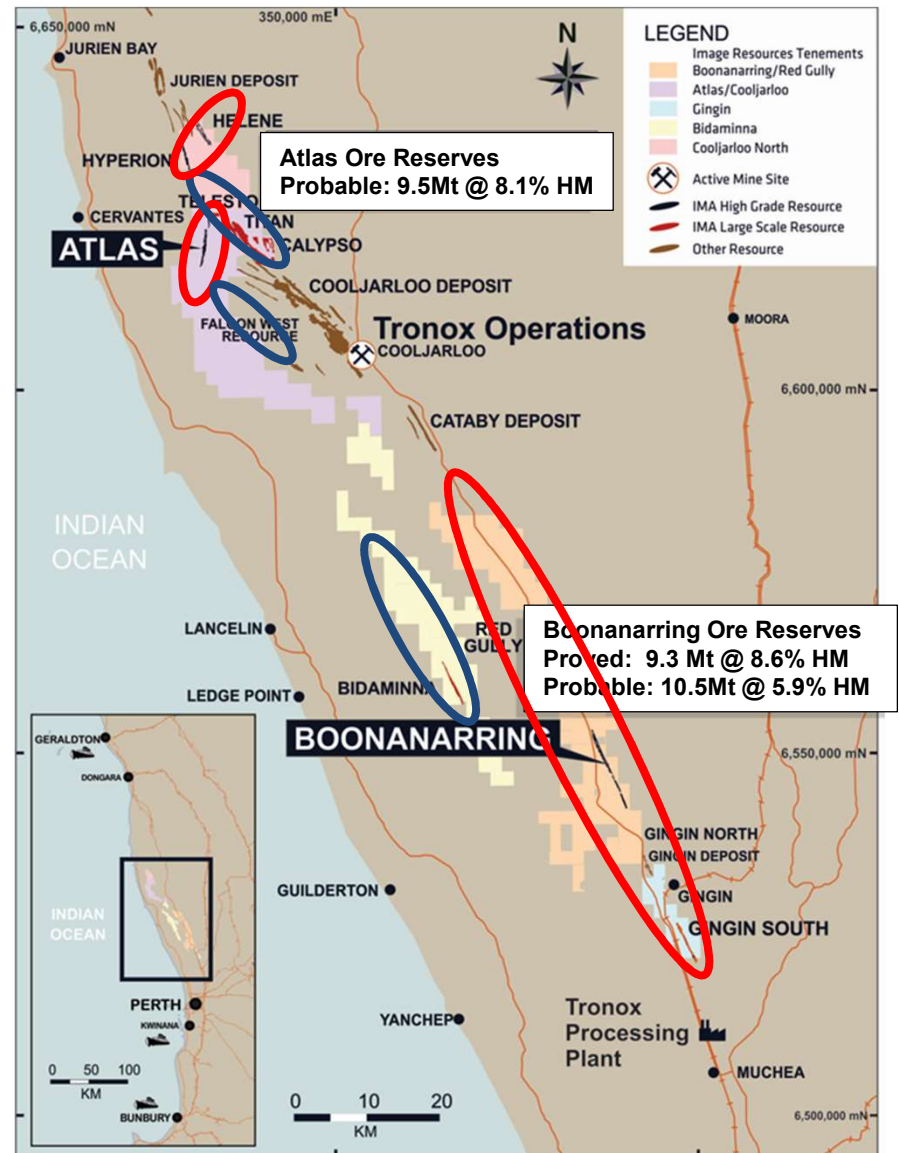


# Projects Types and Locations

- 1,000 km<sup>2</sup> tenements portfolio
- 100% focus on mineral sands
- Strandline projects (dry mining)



- Dredge mining prospects

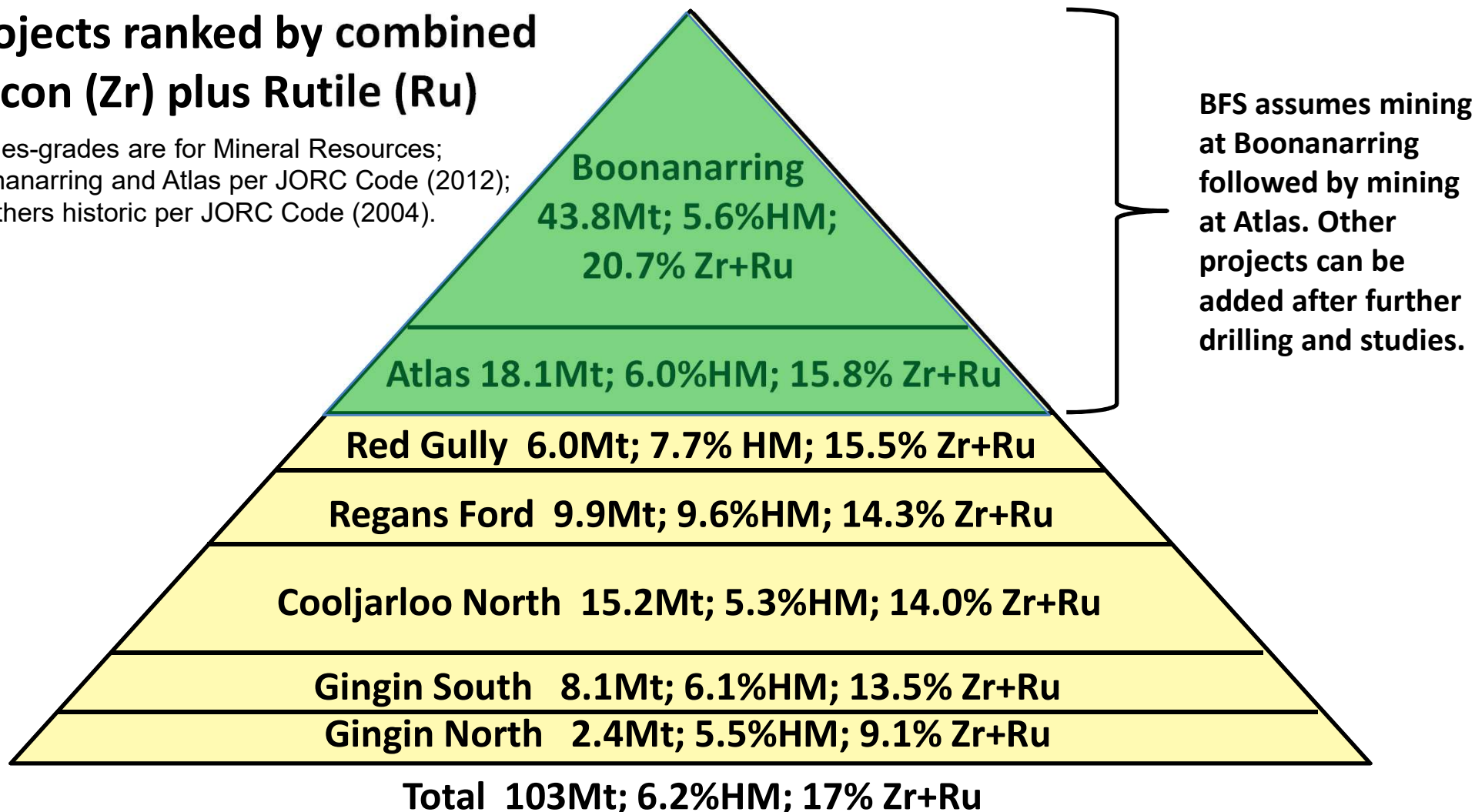


## Projects Pyramid – Strand Deposits

### Mineral Resources – Accessible by Dry Open-Cut Mining

#### Projects ranked by combined Zircon (Zr) plus Rutile (Ru)

Tonnes-grades are for Mineral Resources;  
Boonanarring and Atlas per JORC Code (2012);  
All others historic per JORC Code (2004).

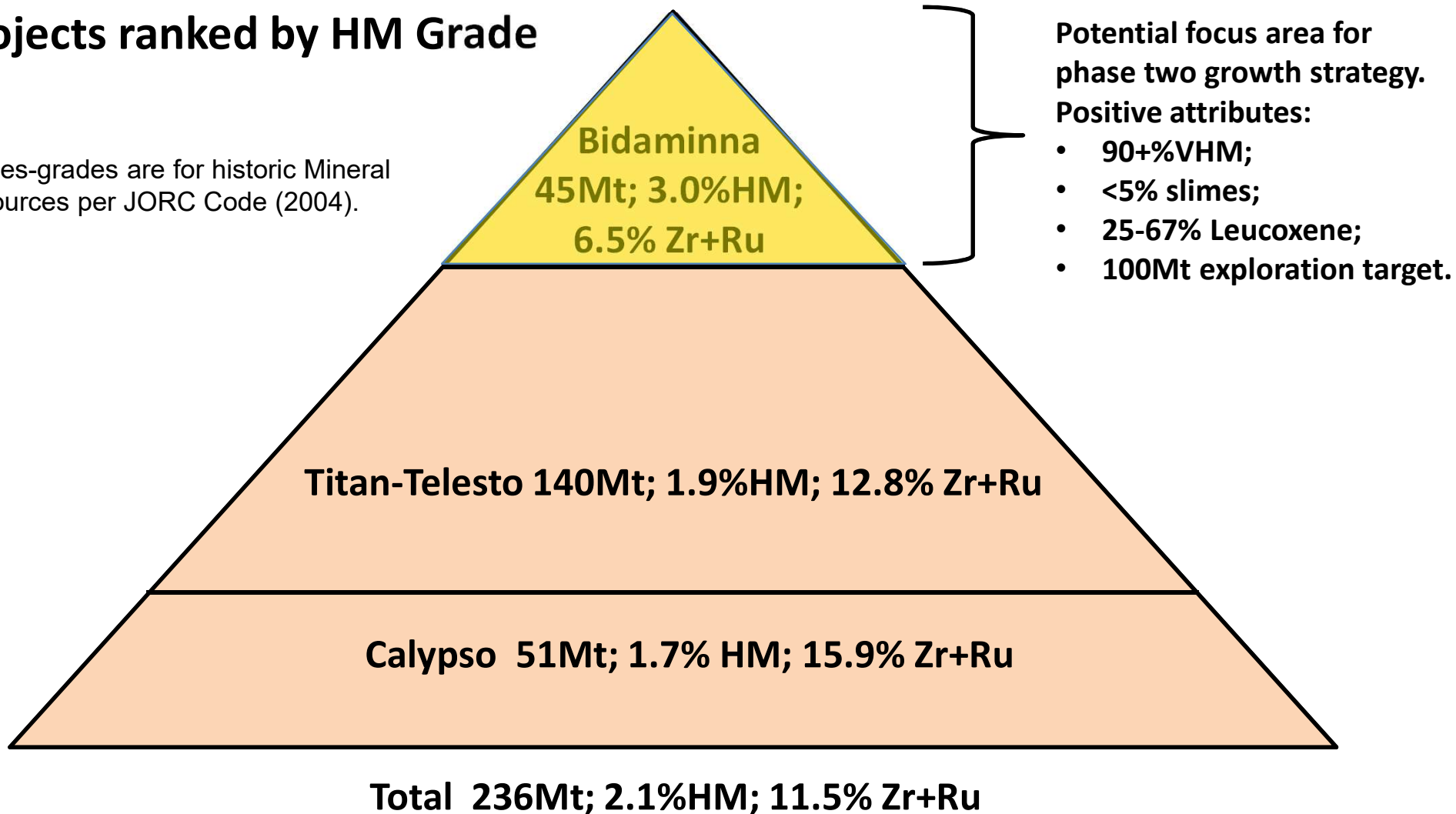


## Projects Pyramid – Dredge Deposits

### Mineral Resources – Accessible by Dredge Mining

#### Projects ranked by HM Grade

Tonnes-grades are for historic Mineral Resources per JORC Code (2004).





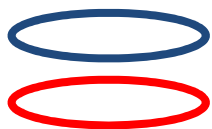
# Potential Royalty from Tronox

## Royalty agreement in place as of 2014

- Small cash payment (already received)
- Sliding-scale royalty on production

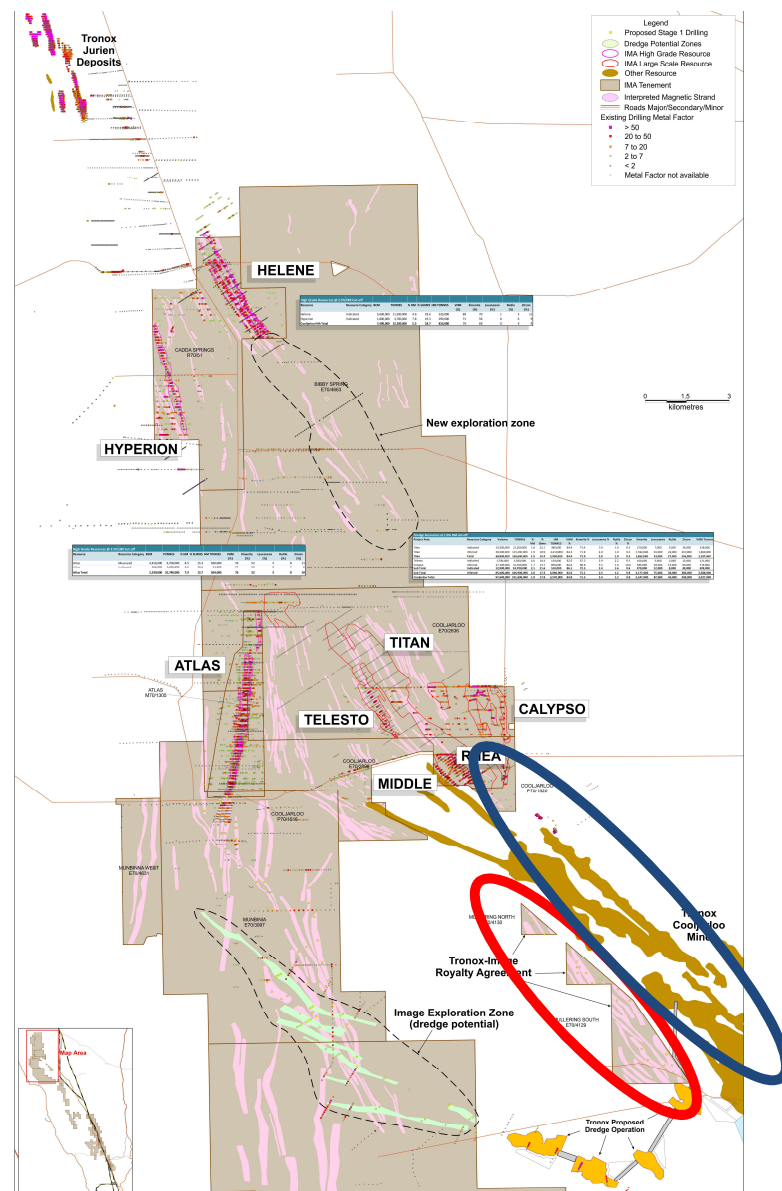
| Avg. HM Grade | Royalty |
|---------------|---------|
| 2.5%          | 1.25%   |
| 3.0%          | 2.50%   |
| 3.5%          | 3.75%   |
| 4.0%          | 5.00%   |

- Indefinite production schedule
- Potential for future arrangements with Tronox or others based on large area of potential dredge mining mineralisation within Image's tenements in the vicinity of Tronox's historic dredge operations.



Tronox historic mining area

Image-Tronox royalty area





## Project Development Schedule

Targeting first production 4<sup>th</sup> Quarter 2018

[illegible]

# Image Corporate Snapshot

## Diverse and experienced Board and Management

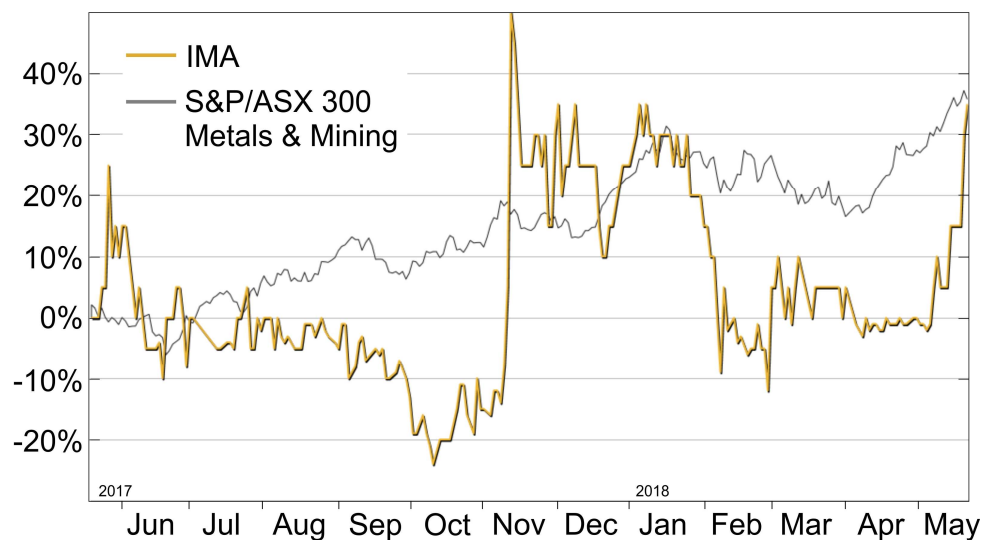
|                       |                      |
|-----------------------|----------------------|
| ASX Code:             | <b>IMA</b>           |
| Share Price:          | <b>A\$0.10*</b>      |
| 12-Month Price Range: | <b>A\$0.07– 0.17</b> |
| Shares on Issue:      | <b>861m</b>          |
| Market Cap:           | <b>A\$86m*</b>       |
| Cash on hand:         | <b>A\$25.8m**</b>    |
| Debt (short-term):    | <b>A\$4.0m</b>       |
| Top 20 Shareholders:  | <b>70%</b>           |

### Board of Directors

Bob Besley – Independent Chairman  
Patrick Mutz – Managing Director  
Chaodian Chen - Non-Executive Director  
Aaron Chong Veoy Soo – Non-Executive Dir  
George Sakalidis – Executive Director  
Peter Thomas – Non-Executive Director  
Fei (Eddy) Wu – Non-Executive Director  
Huang Cheng Li – Non-Executive Director

### Key Management

Patrick Mutz – CEO  
George Sakalidis – Exploration Director  
John McEvoy – Chief Financial Officer  
Todd Colton – General Manager – Dev.



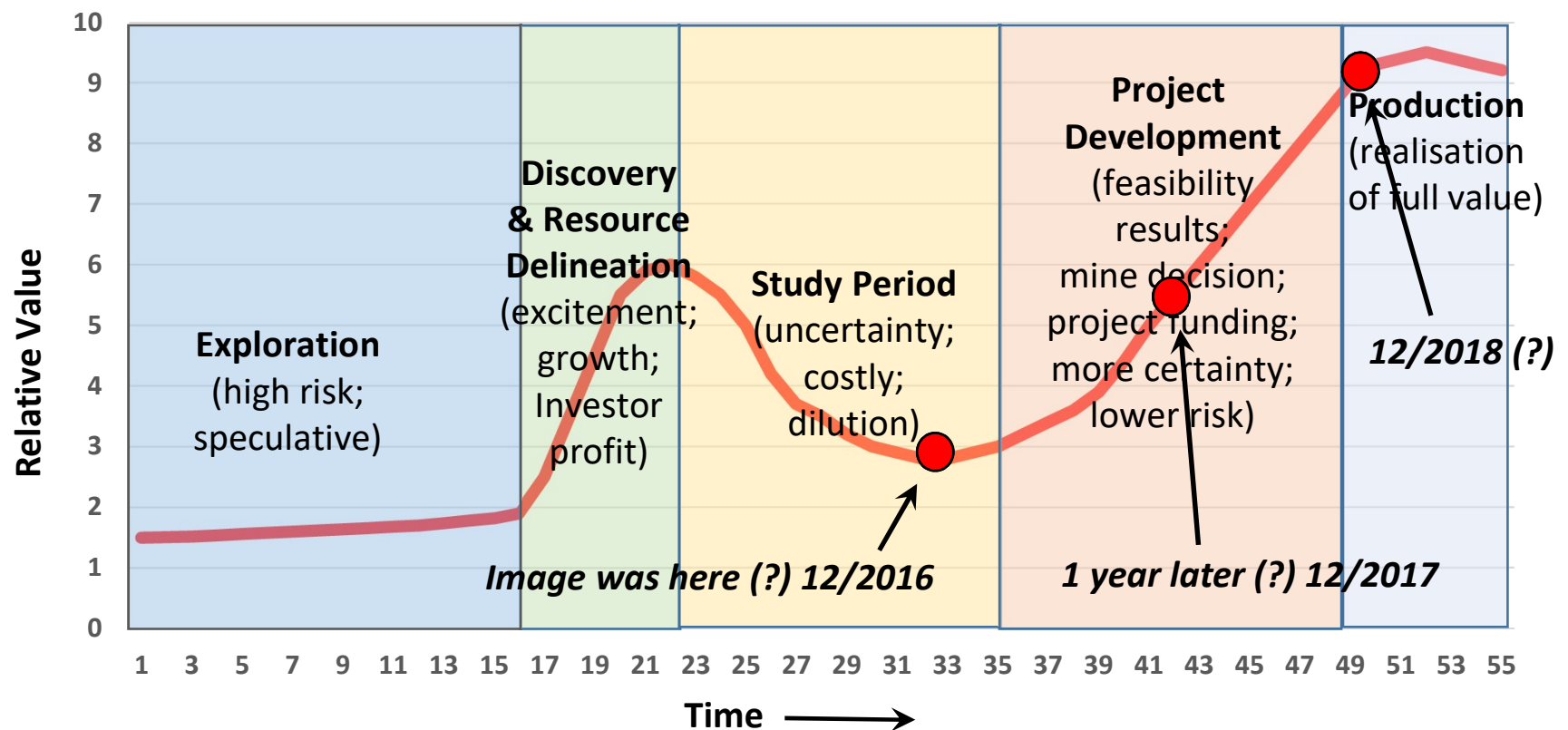
\* - as at 30 April 2018

\*\* - as at 31 March 2018

# Transition from Explorer to Producer

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## Generalisation of Transition from Explorer to Producer



## Use of Solar Energy

Heads of Agreement with **Sunrise Energy Group Pty Ltd** to provide 3-4 MW<sub>AC</sub> solar farm to be:

- Constructed and operated by Sunrise Energy;
- Located on Image owned land adjacent to Boonanarring mine site; and
- Providing 25% of total electricity requirements for mine and processing operations.



*Additional information regarding Heads of Agreement announced to ASX on 23 April 2018.*

For further information

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**Patrick Mutz**  
*Managing Director*  
**Image Resources NL**

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# Additional Information

## **COMPLIANCE STATEMENT FOR EXPLORATION**

Information in this presentation that relates to Exploration Results is based on information compiled by George Sakalidis BSc (Hons) who is a member of the Australasian Institute of Mining and Metallurgy. At the time that the Exploration Results, Mineral Resources and Mineral Reserves were compiled, George Sakalidis was a director of Image Resources NL. He has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking 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'. George Sakalidis consents to the inclusion of this information in the form and context in which it appears in this report.

## **2. COMPLIANCE STATEMENT FOR BOONANARRING AND ATLAS DEPOSITS ORE RESERVES**

The Ore Reserves statements for the Atlas and Boonanarring deposits have been compiled in accordance with the guidelines of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code – 2012 Edition). The Ore Reserves have been compiled by Jarrod Pye, Mining Engineer and full-time employee of Image Resources, under the direction of Andrew Law of Optiro, who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Law has sufficient experience in Ore Reserves estimation relevant to the style of mineralisation and type of deposit under consideration to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Mineral Resources and Ore Reserves". Mr Law consents to the inclusion in the report of the matters compiled by him in the form and context in which it appears.

# Mineral Resources – Strand Deposits

## Strand Deposits 1 of 2

| High Grade Mineral Resources - Strand Deposits; in accordance with the JORC Code (2012) @ 2.0% HM Cut-off |           |                   |                   |            |             |                  |             |                 |                  |               |               |
|-----------------------------------------------------------------------------------------------------------|-----------|-------------------|-------------------|------------|-------------|------------------|-------------|-----------------|------------------|---------------|---------------|
| Project/Deposit                                                                                           | Category  | Volume            | Tonnes            | % HM       | % Slimes    | HM Tonnes        | VHM<br>(%)  | Ilmenite<br>(%) | Leucoxene<br>(%) | Rutile<br>(%) | Zircon<br>(%) |
| Boonanarring <sup>1</sup>                                                                                 | Measured  | 6,359,359         | 11,799,213        | 8.0        | 14          | 942,167          | 74.3        | 48.3            | 1.7              | 2.2           | 22.0          |
| Boonanarring <sup>1</sup>                                                                                 | Indicated | 11,802,047        | 22,265,400        | 4.9        | 18.3        | 1,081,208        | 71.7        | 49.2            | 2.2              | 2.5           | 17.8          |
| Boonanarring <sup>1</sup>                                                                                 | Inferred  | 4,987,703         | 9,420,449         | 4.5        | 21          | 422,507          | 68.8        | 50.0            | 3.5              | 3.4           | 11.9          |
| <b>Boonanarring Total</b>                                                                                 |           | <b>22,886,875</b> | <b>43,485,062</b> | <b>5.6</b> | <b>18</b>   | <b>2,445,882</b> | <b>72.2</b> | <b>49.0</b>     | <b>2.2</b>       | <b>2.6</b>    | <b>18.4</b>   |
| Atlas <sup>1</sup>                                                                                        | Measured  | 5,210,526         | 9,900,000         | 7.9        | 16.1        | 782,000          | 71.0        | 49.1            | 4.2              | 7.2           | 10.5          |
| Atlas <sup>1</sup>                                                                                        | Indicated | 3,368,421         | 6,400,000         | 3.7        | 17.3        | 237,000          | 56.5        | 41.6            | 3.4              | 4.7           | 6.8           |
| Atlas <sup>1</sup>                                                                                        | Inferred  | 947,368           | 1,800,000         | 4.0        | 19.9        | 72,000           | 41.5        | 29.0            | 3.3              | 4.4           | 4.8           |
| <b>Atlas Total</b>                                                                                        |           | <b>9,526,316</b>  | <b>18,100,000</b> | <b>6.0</b> | <b>16.9</b> | <b>1,091,000</b> | <b>65.9</b> | <b>46.1</b>     | <b>4.0</b>       | <b>6.5</b>    | <b>9.3</b>    |
| <b>Sub-Total Atlas/Boonanarring</b>                                                                       |           | <b>32,413,191</b> | <b>61,585,062</b> | <b>5.7</b> | <b>17.7</b> | <b>3,536,882</b> | <b>70.3</b> | <b>48.1</b>     | <b>2.8</b>       | <b>3.8</b>    | <b>15.6</b>   |

# Mineral Resources – Strand Deposits

## Strand Deposits 2 of 2

| Previously Reported Mineral Resources - Strand Deposits; in accordance with JORC Code (2004) @ 2.5% HM Cut-off |           |                   |                   |            |             |                  |             |              |               |            |             |
|----------------------------------------------------------------------------------------------------------------|-----------|-------------------|-------------------|------------|-------------|------------------|-------------|--------------|---------------|------------|-------------|
| Project/Deposit                                                                                                | Category  | Volume            | Tonnes            | % HM       | % Slimes    | HM Tonnes        | VHM (%)     | Ilmenite (%) | Leucoxene (%) | Rutile (%) | Zircon (%)  |
| Gingin Nth <sup>3</sup>                                                                                        | Indicated | 680,175           | 1,318,642         | 5.7        | 15.7        | 75,163           | 75.4        | 57.4         | 9.3           | 3.2        | 5.5         |
| Gingin Nth <sup>3</sup>                                                                                        | Inferred  | 580,000           | 1,090,000         | 5.2        | 14.0        | 57,116           | 78.4        | 57.3         | 11.3          | 3.7        | 6.0         |
| <b>Gingin Nth Total</b>                                                                                        |           | <b>1,260,175</b>  | <b>2,408,642</b>  | <b>5.5</b> | <b>15.0</b> | <b>132,279</b>   | <b>76.7</b> | <b>57.3</b>  | <b>10.2</b>   | <b>3.4</b> | <b>5.7</b>  |
| Gingin Sth <sup>3</sup>                                                                                        | Measured  | 872,830           | 1,526,122         | 4.4        | 7.2         | 67,149           | 79.4        | 50.7         | 15.3          | 5.6        | 7.8         |
| Gingin Sth <sup>3</sup>                                                                                        | Indicated | 3,241,835         | 5,820,480         | 6.5        | 7.1         | 377,167          | 90.6        | 67.6         | 9.8           | 5.1        | 8.1         |
| Gingin Sth <sup>3</sup>                                                                                        | Inferred  | 398,573           | 732,912           | 6.5        | 8.4         | 47,566           | 91.6        | 67.4         | 7.5           | 5.8        | 10.9        |
| <b>Gingin Sth Total</b>                                                                                        |           | <b>4,513,238</b>  | <b>8,079,514</b>  | <b>6.1</b> | <b>7.3</b>  | <b>491,882</b>   | <b>89.2</b> | <b>65.3</b>  | <b>10.3</b>   | <b>5.2</b> | <b>8.3</b>  |
| Helene <sup>3</sup>                                                                                            | Indicated | 5,568,110         | 11,466,106        | 4.6        | 18.6        | 522,854          | 88.7        | 74.6         | 0.0           | 3.6        | 10.5        |
| Hyperion <sup>3</sup>                                                                                          | Indicated | 1,786,781         | 3,742,471         | 7.7        | 19.3        | 286,673          | 69.4        | 55.8         | 0.0           | 6.3        | 7.3         |
| <b>Cooljarloo Nth Total</b>                                                                                    |           | <b>7,354,891</b>  | <b>15,208,577</b> | <b>5.3</b> | <b>18.8</b> | <b>809,528</b>   | <b>81.9</b> | <b>67.9</b>  | <b>0.0</b>    | <b>4.6</b> | <b>9.4</b>  |
| Red Gully <sup>3</sup>                                                                                         | Indicated | 1,930,000         | 3,409,768         | 7.8        | 11.5        | 265,962          | 89.7        | 66.0         | 8.3           | 3.1        | 12.4        |
| Red Gully <sup>3</sup>                                                                                         | Inferred  | 1,455,000         | 2,565,631         | 7.5        | 10.7        | 192,422          | 89.0        | 65.4         | 8.2           | 3.0        | 12.3        |
| <b>Red Gully Total</b>                                                                                         |           | <b>3,385,000</b>  | <b>5,975,399</b>  | <b>7.7</b> | <b>11.2</b> | <b>458,384</b>   | <b>89.4</b> | <b>65.7</b>  | <b>8.2</b>    | <b>3.1</b> | <b>12.4</b> |
| <b>Sub-Total Other</b>                                                                                         |           | <b>16,513,304</b> | <b>31,672,132</b> | <b>6.0</b> | <b>14.1</b> | <b>1,892,073</b> | <b>85.2</b> | <b>66.0</b>  | <b>5.4</b>    | <b>4.3</b> | <b>9.6</b>  |
| Historic Deposit - Strand deposit; in accordance with JORC Code (2004)                                         |           |                   |                   |            |             |                  |             |              |               |            |             |
| Project/Deposit                                                                                                | Category  | Volume            | Tonnes            | % HM       | % Slimes    | HM Tonnes        | VHM (%)     | Ilmenite (%) | Leucoxene (%) | Rutile (%) | Zircon (%)  |
| Regans Ford <sup>4</sup>                                                                                       | Indicated | 4,505,285         | 9,024,226         | 9.9        | 16.8        | 893,398          | 94.3        | 70.0         | 10.0          | 4.3        | 10.0        |
| Regans Ford <sup>4</sup>                                                                                       | Inferred  | 455,933           | 918,536           | 6.5        | 18.5        | 59,705           | 90.5        | 68.3         | 7.7           | 4.4        | 10.1        |
| <b>Regans Ford Total</b>                                                                                       |           | <b>4,961,218</b>  | <b>9,942,762</b>  | <b>9.6</b> | <b>17.0</b> | <b>953,103</b>   | <b>94.1</b> | <b>69.9</b>  | <b>9.9</b>    | <b>4.3</b> | <b>10.0</b> |

# Mineral Resources – Dredge Deposits

## Dredge Deposits 1 of 1

| Previously Reported Mineral Resources - Dredge deposits; in accordance with JORC Code (2004) @ 1.0% HM Cut-off |              |                    |                    |            |             |                  |             |              |               |            |            |
|----------------------------------------------------------------------------------------------------------------|--------------|--------------------|--------------------|------------|-------------|------------------|-------------|--------------|---------------|------------|------------|
| Project/Deposit                                                                                                | Category     | Volume             | Tonnes             | % HM       | % Slimes    | HM Tonnes        | VHM (%)     | Ilmenite (%) | Leucoxene (%) | Rutile (%) | Zircon (%) |
| Titan <sup>3</sup>                                                                                             | Indicated    | 10,335,053         | 21,163,741         | 1.8        | 22.1        | 378,831          | 86.0        | 71.9         | 1.5           | 3.1        | 9.5        |
| Titan <sup>3</sup>                                                                                             | Inferred     | 58,517,775         | 115,445,391        | 1.9        | 18.9        | 2,205,007        | 85.9        | 71.8         | 1.5           | 3.1        | 9.5        |
| <b>Total Titan</b>                                                                                             | <b>Total</b> | <b>68,852,828</b>  | <b>136,609,132</b> | <b>1.9</b> | <b>19.4</b> | <b>2,583,838</b> | <b>85.9</b> | <b>71.8</b>  | <b>1.5</b>    | <b>3.1</b> | <b>9.5</b> |
| Telesto <sup>3</sup>                                                                                           | Indicated    | 1,716,328          | 3,512,204          | 3.8        | 18.4        | 134,499          | 83.3        | 67.5         | 0.7           | 5.6        | 9.5        |
| Calypso <sup>3</sup>                                                                                           | Inferred     | 27,113,647         | 51,457,008         | 1.7        | 13.7        | 854,186          | 85.6        | 68.1         | 1.6           | 5.1        | 10.8       |
| Bidaminna <sup>3</sup>                                                                                         | Inferred     | 26,260,000         | 44,642,000         | 3.0        | 3.6         | 1,339,260        | 96.8        | 83.11        | 7.2           | 1.0        | 5.5        |
|                                                                                                                |              |                    |                    |            |             |                  |             |              |               |            |            |
| <b>Total Dredge</b>                                                                                            |              | <b>123,942,803</b> | <b>236,220,344</b> | <b>2.1</b> | <b>15.2</b> | <b>4,911,783</b> | <b>88.7</b> | <b>74.1</b>  | <b>3.1</b>    | <b>2.9</b> | <b>8.6</b> |



## **COMPLIANCE STATEMENT FOR MINERAL RESOURCES**

### **1. COMPLIANCE STATEMENT Boonanarring/Atlas Mineral Resources**

The information in this presentation that relates to the estimation of Mineral Resources is based on information compiled by Mrs Christine Standing, who is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM) and the Australian Institute of Geoscientists (AIG). Mrs Standing is a full-time employee of Optiro Pty Ltd and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which she is undertaking 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'. Mrs Standing consents to the inclusion in this report of the matters based on her information in the form and context in which it appears.

### **3. COMPETENT PERSON'S STATEMENT – MINERAL RESOURCE ESTIMATES**

The information in this presentation that relates to Mineral Resources is based on information compiled by Lynn Widenbar BSc, MSc, DIC MAusIMM MAIG employed by Widenbar & Associates who is a consultant to the Company. Lynn Widenbar has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 edition of the 'Australasian Code of Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Lynn Widenbar consents to the inclusion of this information in the form and context in which it appears.

### **4. HISTORIC INFORMATION – REGANS FORD DEPOSIT**

The information in this presentation that relates to tonnes, grades and mineral assemblage is based on historic information published by Iluka Resources Limited and indicating the mineral resources were compiled in accordance with the JORC Code (2004).