



**IMAGE**  
RESOURCES

# *Australia's newest mineral sands miner*

## Boonanarring Mineral Sands Project

*100%-owned; high-grade; zircon-rich*

*80km north of Perth in Western Australia*

*Built on-time & on-budget; Production Exceeding Expectations*



**Noosa Mining & Exploration  
Investor Conference  
Peppers Noosa Resort, QLD  
17-19 July 2019**

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

# Disclaimer and Forward-Looking Statements



This presentation/document has been prepared by the management of Image Resources NL ("Image", "IMA", or "the Company"). The information presented includes an indicative outlook of the business activities of Image for the calendar year (CY) 2019 and is provided to aid investors and potential investors with assessing the value of the Company. Some of the information provided may be based on past performance, however, this information should not be considered a reliable indicator of future performance. The information presented supersedes all previously presented information of its kind unless otherwise noted. This information is based in part on Image's interpretation of trends in commodity prices, financial markets, economic and macro-economic factors and consequently is subject to variation.

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Statements in this presentation/documents that constitute forward-looking statements or information include, but are not limited to statements regarding production statistics, revenue, operating costs and EBITDA. Forward-looking information and statements may also include commodity price assumptions, projected capital and operating costs, metal or mineral recoveries, mine life, production rates and other assumptions used in the 2017 Bankable Feasibility Study ("2017BFS"). Readers are cautioned that actual results may vary from those presented. Certain of the factors and assumptions used to develop the forward-looking information, as well as the risks that could cause the actual results to differ materially, are contained in the 2017BFS and subsequent BFS updates, lodged with the ASX and disclosed on the Company's website at [www.imageres.com.au](http://www.imageres.com.au).

Accessing the information contained in this presentation implies an acknowledgement that you have read and understood the above disclaimer and qualifications regarding forward-looking statements.

Information regarding the calculation of ore reserves and mineral resources in this presentation (if any), and the consents provided by the respective Competent Persons is presented at the end of this presentation. For additional information and details on the content of this presentation, please refer to the ASX releases on the Company's website.

# Investor Snapshot

## *Company transitioning to profitable miner and realisation of full valuation*

- **Project construction and commissioning completed ‘on-schedule’ and ‘on-budget’**
- **Production commenced 1 Dec 2018**
- **Ramp-up to full production in 2<sup>nd</sup> month of operations**
- **Completed first full quarter of operations (March 2019)**
  - **HMC Production 167% of budget**
  - **Ore Grade 176% of budget**
  - **Project Operating Costs 72% of budget**
  - **Operating Margin and EBITDA 400% of budget**



*Company transitioning to profitable miner at a time of supply shortage of zircon*

➤ **March QTR (continued):**

- **Zircon grade in ore 129% of budget**
- **Zircon = 84% of revenue**
- **Revenue \$24.8 million**
- **Net Profit After Tax \$0.94M vs budgeted loss of \$4.5M**

➤ **Share price \$0.27<sup>1</sup>**

➤ **Market capitalisation A\$260M<sup>1</sup>**



© geology.com  
Rough zircon grains

## Diverse and experienced Board and Management

ASX Code:	<b>IMA</b>
Share Price:	A\$0.27*
12-Month Price Range:	A\$0.10– 0.28
Shares on Issue:	964m
<b>Market Cap:</b>	<b>A\$260m*</b>
Cash on hand:	A\$7.4m**
Debt:	A\$65.1m***
<b>Enterprise Value:</b>	<b>A\$318m</b>
Top 20 Shareholders:	69%

### 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  
John McEvoy – Chief Financial Officer  
Todd Colton – Chief Operating Officer  
George Sakalidis – Exploration Director



\* - as at 10 July 2019

\*\* - as at 31 March 2019 (includes term deposits)  
and excludes \$10m from HMC shipment #3)

\*\*\* - as at 31 March 2019

*Key products are zircon and titanium dioxide*

- **Zircon sand is processed into zirconium compounds, intermediate products and zirconium metal for a variety of applications;**



- Ceramics (tiles); 55% demand



- Foundry Sands (castings); 14%
- Refractories (furnace linings); 10%



- Chemicals (gem stones, nuclear reactors); 14%
- Others; 7%

Qualities  
whitener  
opacifier  
heat resistant  
abrasion resistant  
metal bio-compatible



*Speciality uses include fibre optics, glass, paints, catalysts, underarm deodorants, adhesives, cosmetics, paper, dental ceramics plus many research applications.*

*Key products are zircon and titanium dioxide*

- **Titanium dioxide (TiO<sub>2</sub>) from rutile and ilmenite is processed into titanium based products and titanium metal for a variety of applications;**



- Ultra-white pigments (paint, paper, plastic); ~90% demand

- Welding rods (flux coating);



- Titanium metal (light, strong, corrosion-resistant, bio-compatible);



- Used in aircraft, spacecraft, motor vehicles and medical implants;



*Speciality uses include sunscreen, adhesives, inks, fabrics, ceramics, cosmetics, toothpaste, catalysts, and pharmaceuticals.*

## 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.





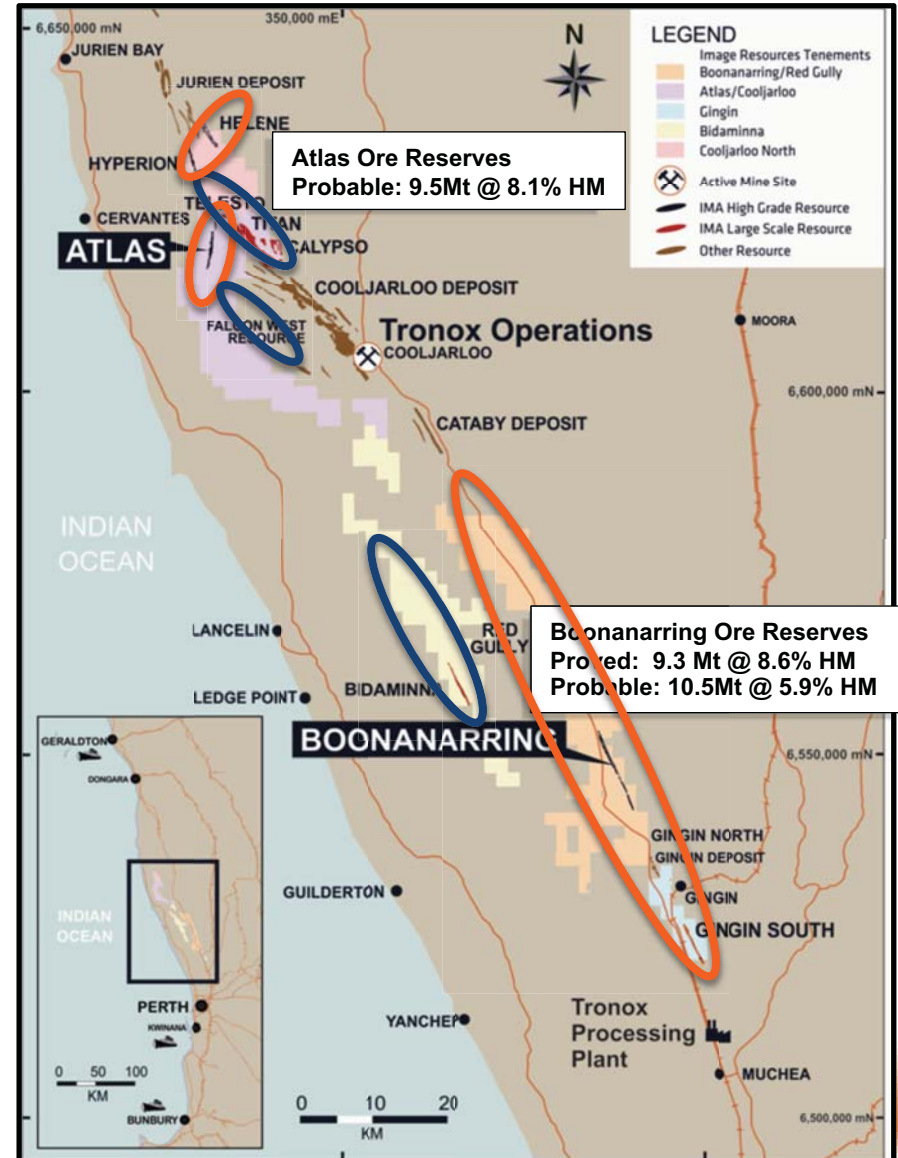
# Project Types and Locations

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



*Multiple opportunities for a second stand-alone mining project within the current 100%-owned tenement package.*

***Bidaminna is high on priority list.***



## QUALITY ORE RESERVES

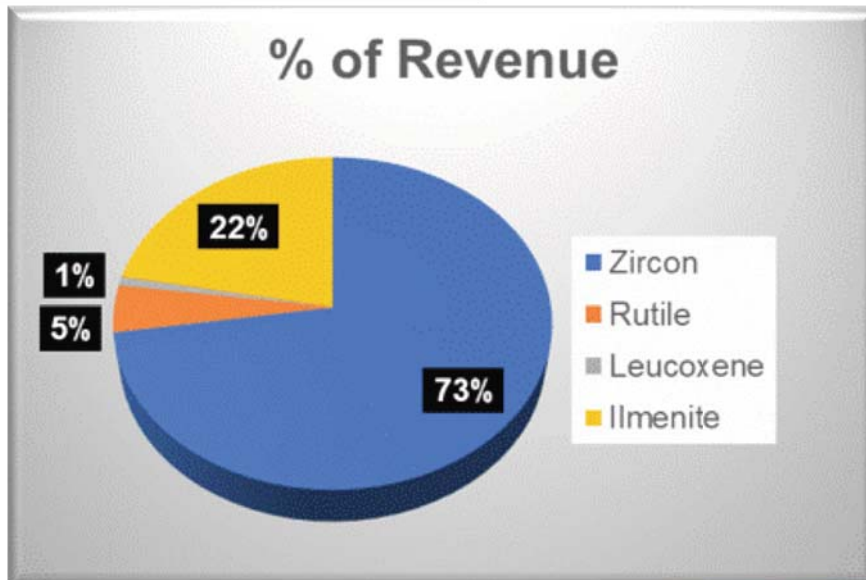
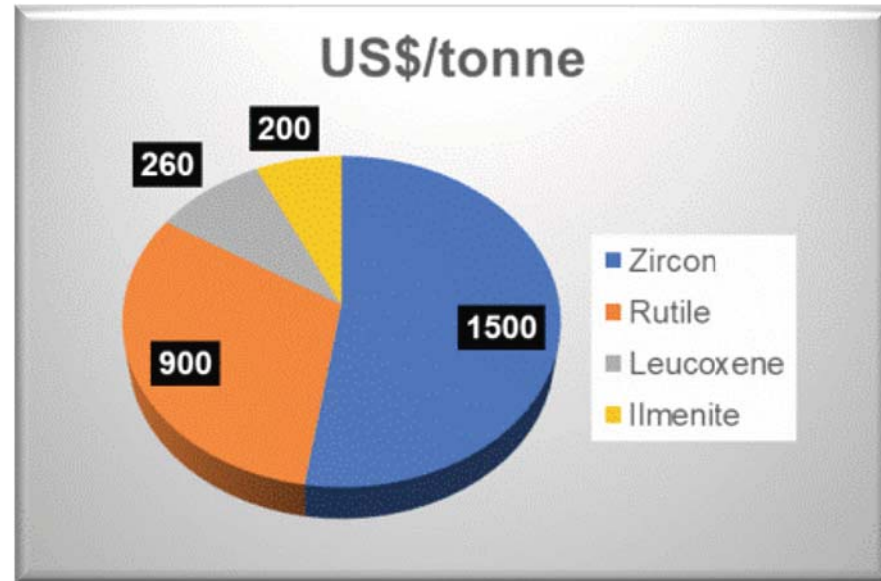
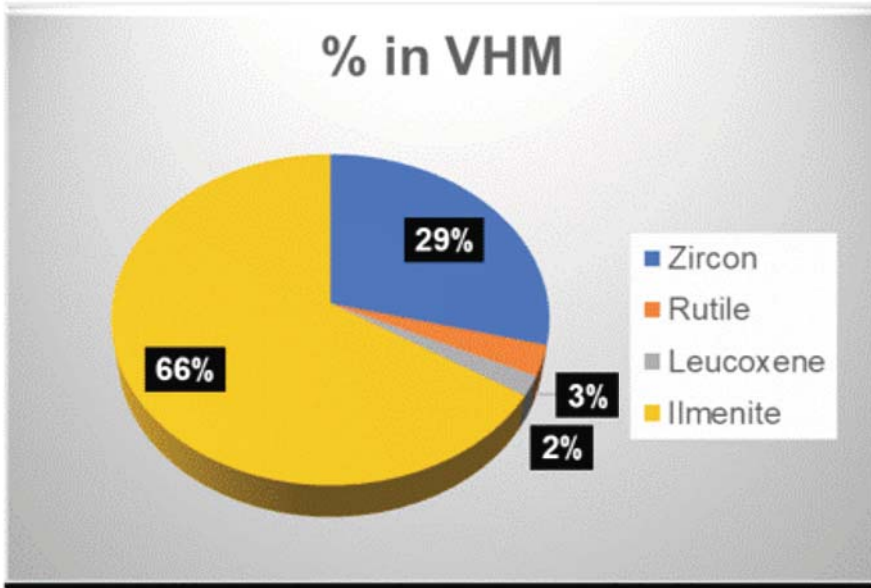
- JORC Code (2012) Compliant
- High HM, VHM and very high zircon at Boonanarring

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>1</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>1</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>1</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>

### 1. COMPLIANCE STATEMENT - Boonanarring/Atlas Ore Reserves

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



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

## 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. 240K tonnes/annum
  - Truck to Bunbury for bulk shipments to China

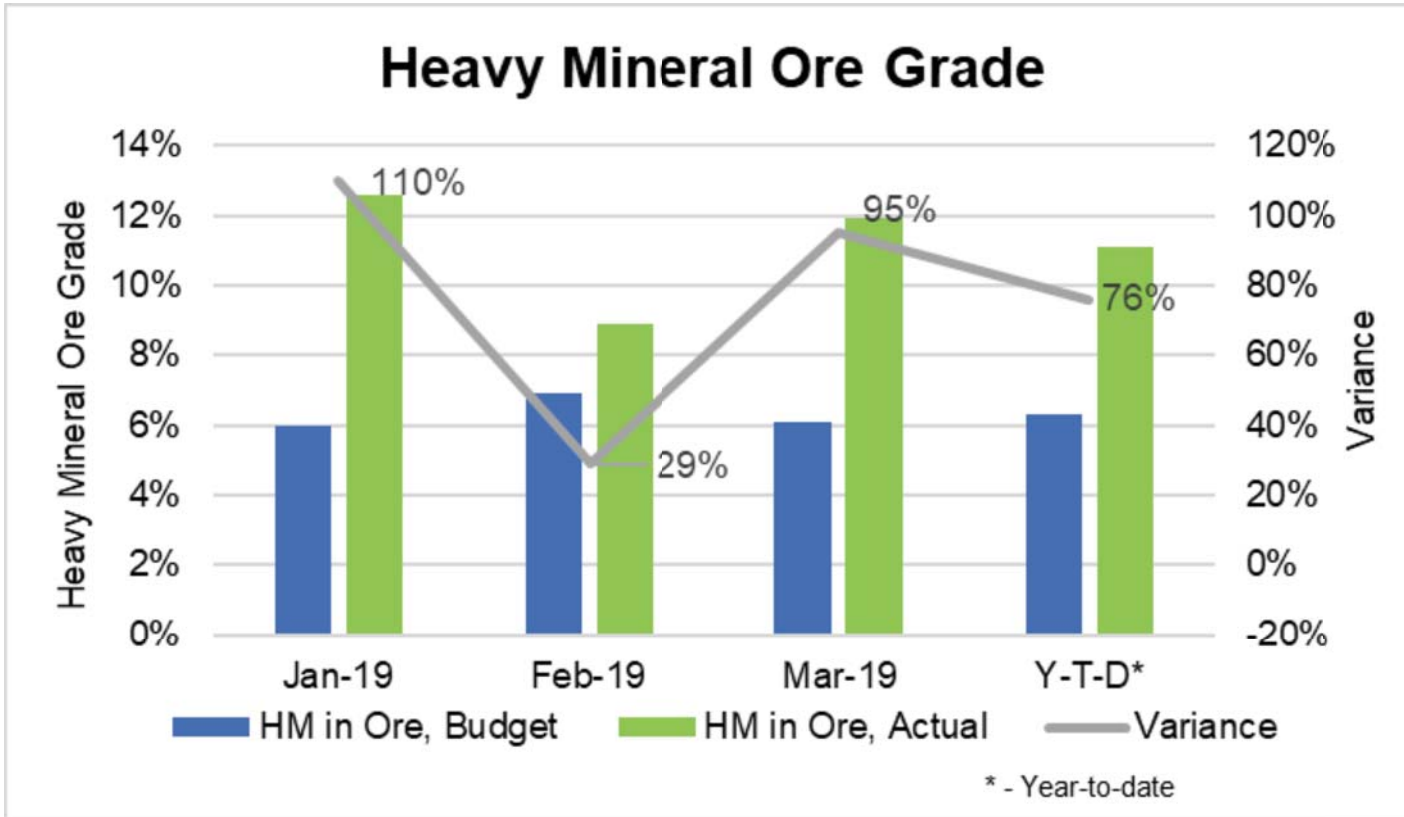
***Punches 4 times above its weight\*!***

*\* -Equivalent in revenue to  
2,000 tonnes per hour at  
Ore grades of  
3% HM in ore and  
10% zircon in VHM*

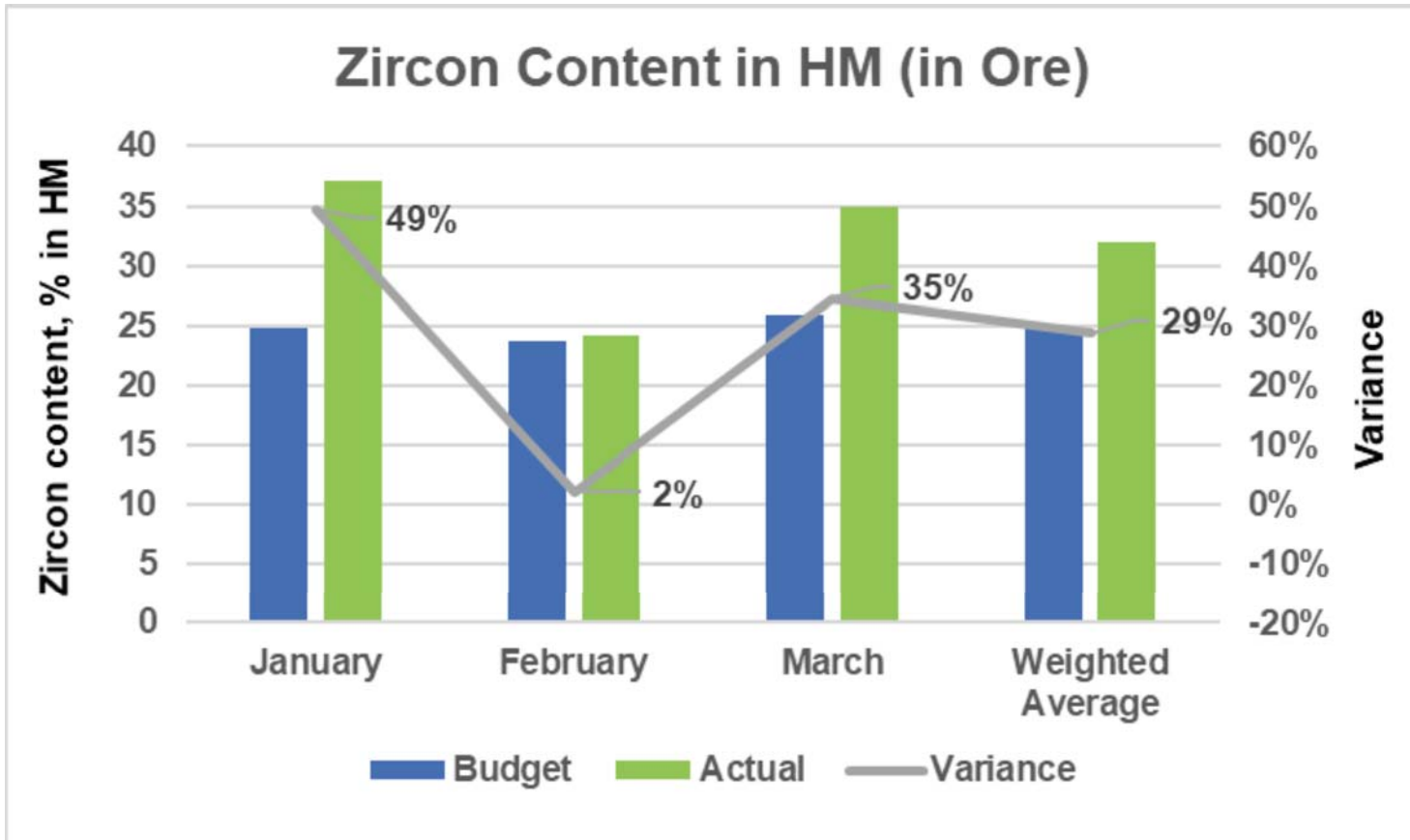
### **Average annual production at Boonanarring (5 yrs)**

- 240k tonnes HMC; containing;
  - 60kt zircon (70kt/year in 2019-20)
  - 130kt ilmenite
  - 6kt rutile
  - 4kt leucoxene
- 5.5 years mine life with potential to add 3-4 years additional ore reserves

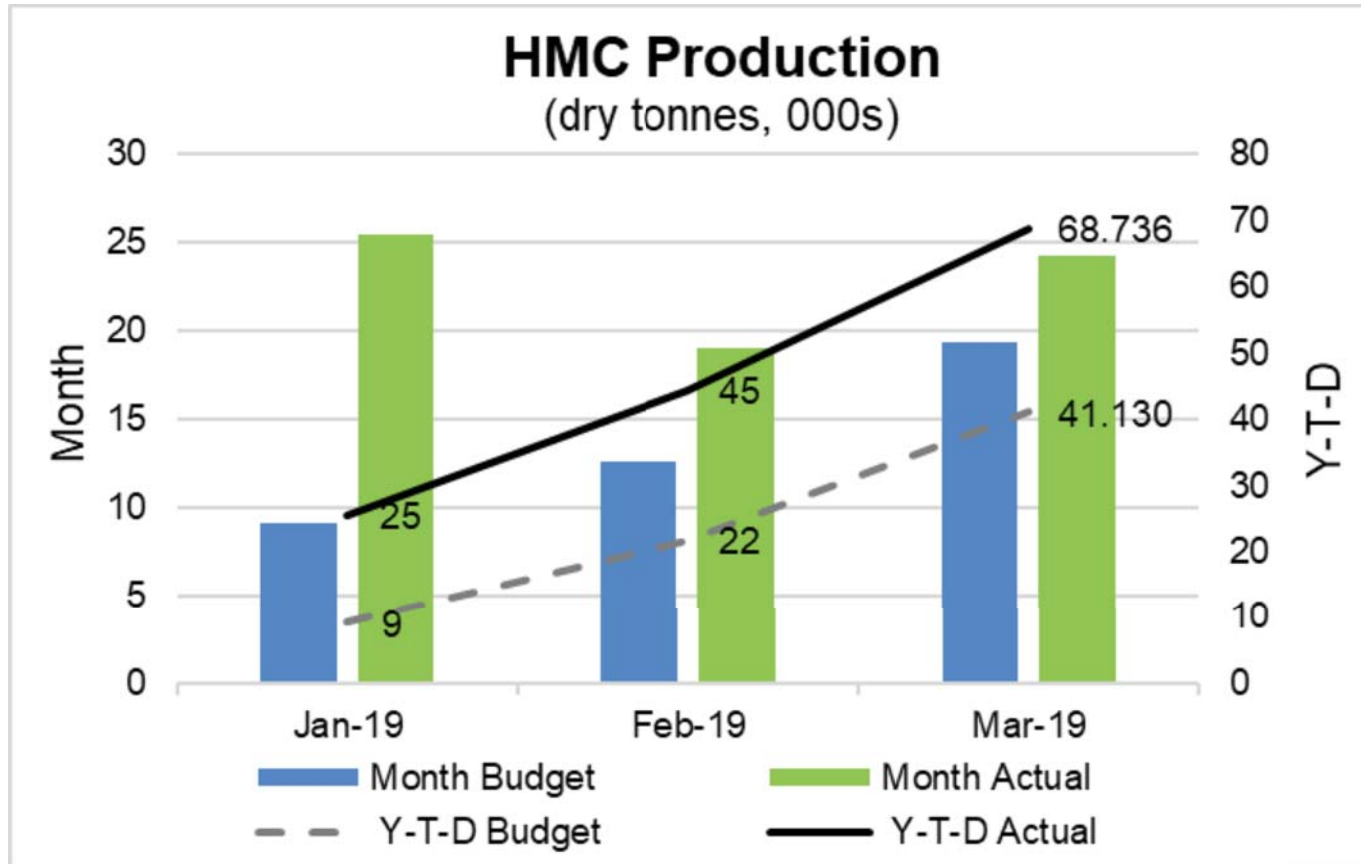
# Boonanarring – HM Ore Grade



# Boonanarring – Zircon Grade in Ore HM



# Boonanarring – HMC Production





## Recent Announcements



- **14 March 2019; 'Targeting Ore Reserve Upgrade at Boonanarring'**
  - **High grade Core identified in eastern ore strand**
  
- **13 May 2019; 'Image Mines Ultra-High-Grade Ore'**
  - **Identification of zone of direct shipping ore (DSO) at up to 95%HM and 70% zircon in the HM; 500 tonnes mined**
  
- **27 May 2019; 'Image Secures Sales Agreements for all Current HMC Inventory'**.
  - **Sales commitments for 70K tonnes of HMC valued at >A\$35M**
  
- **2 July 2019; 'Image Completes Sales of 70,000 Tonnes HMC Inventory in June Quarter'**.
  
- **15 July 2019; 'Image Confirms Existence of High-Grade Core in Eastern Strand'**.
  
- **17 July 2019; 'Image Secures Drilling Access to High-Grade Northern Extension at Boonanarring'**.

# Boonanarring – 2019 Guidance



## 2019 CY Production and Profitability Guidance<sup>1,2</sup>

<u>Production</u>	<u>2019 Guidance</u>	<u>2020 Forecast</u>
Ore processed (million tonnes)	3.4-3.7	3.6-3.8
HMC <sup>3</sup> produced (000 tonnes)	220-240	280-300
HMC sold (000 tonnes)	220-240	280-300
<b><u>Costs (AU\$)</u></b>		
Project operating costs <sup>4</sup> (million)	\$85-95	\$85-95
Cost per tonne HMC	\$385-420	\$310-330
<b><u>Revenue (AU\$)</u></b>		
Total revenue (million)	\$125-142	\$180-200
<b>Project EBITDA<sup>4</sup> (AU\$ million)</b>	<b>\$40-50</b>	<b>\$90-110</b>
<b>USD:AUD Fx</b>	0.74	0.74

**8% HM Ore Grade**

**11% HM Ore Grade**

**Jan-Mar 2019  
actual ore grade  
11.1% HM**

Notes: 1. To be read in conjunction with Disclaimer and Forward-Looking Statements.

2. Information derived from Image 2017 Bankable Feasibility Study (announced to ASX 30 May 2018) and as subsequently updated for commodity prices and foreign exchange rate (announced to ASX 28 June 2018) but with other material assumptions underpinning the 2017 BFS unchanged.

3. Heavy Mineral Concentrate product.

4. Non-IFRS Financial Information: This document contains non-IFRS unaudited financial measures including Project operating costs and Project EBITDA. Image management considers these to be key financial performance indicators used to measure underlying operational performance. Project operating costs include costs incurred in producing HMC at the Boonanarring Project plus logistics costs but exclude corporate and exploration costs, depreciation/amortisation, financing costs and income tax. Project EBITDA is calculated as revenue from sale of HMC less Project Operating Costs.

## Upside potential at and near Boonanarring

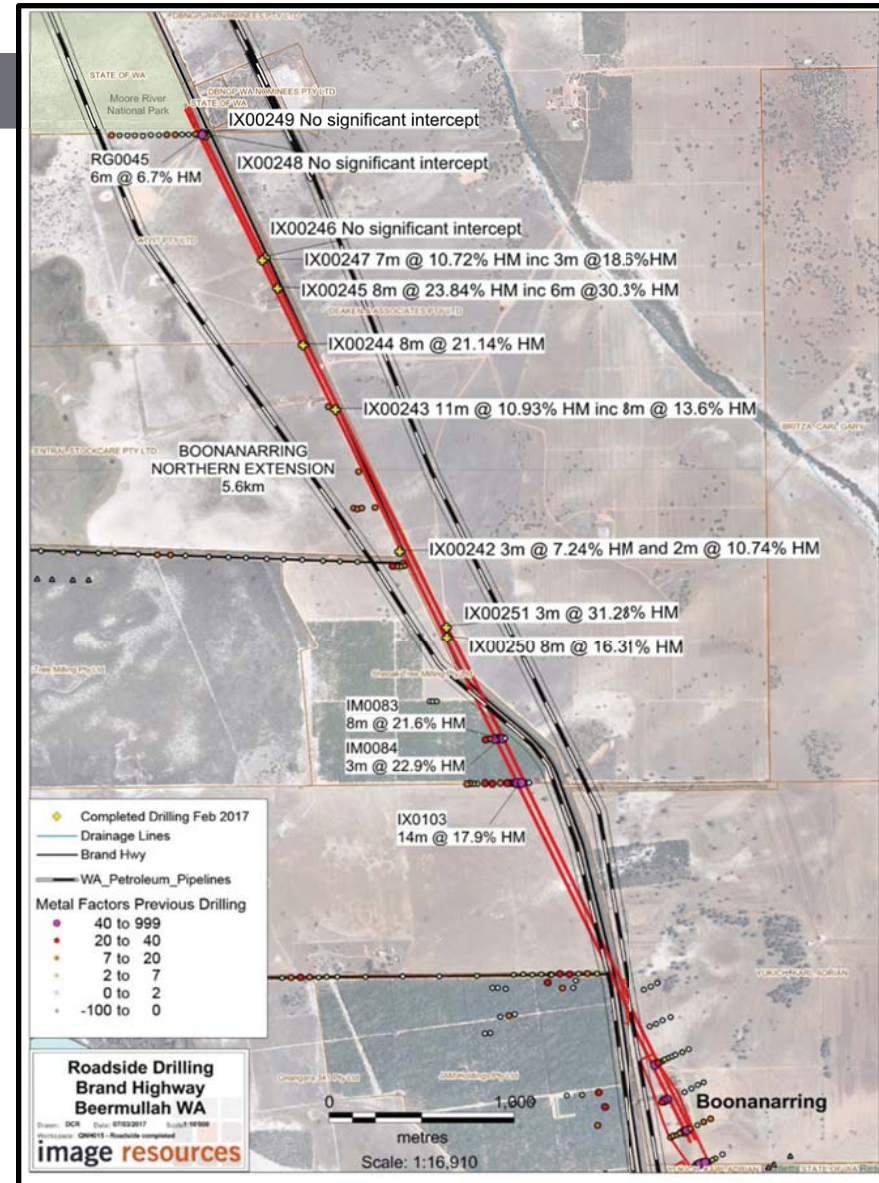
- Confirmed potential to extend mine life with high grade mineralisation (ASX announcement 13 March & 26 June 2017);
  - Assuming mineralisation in extension area is identical to known Ore Reserves in all aspects and economics; **two years of additional mine life could add AU\$60M to project NPV.**
- 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 High-Grade Extension

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

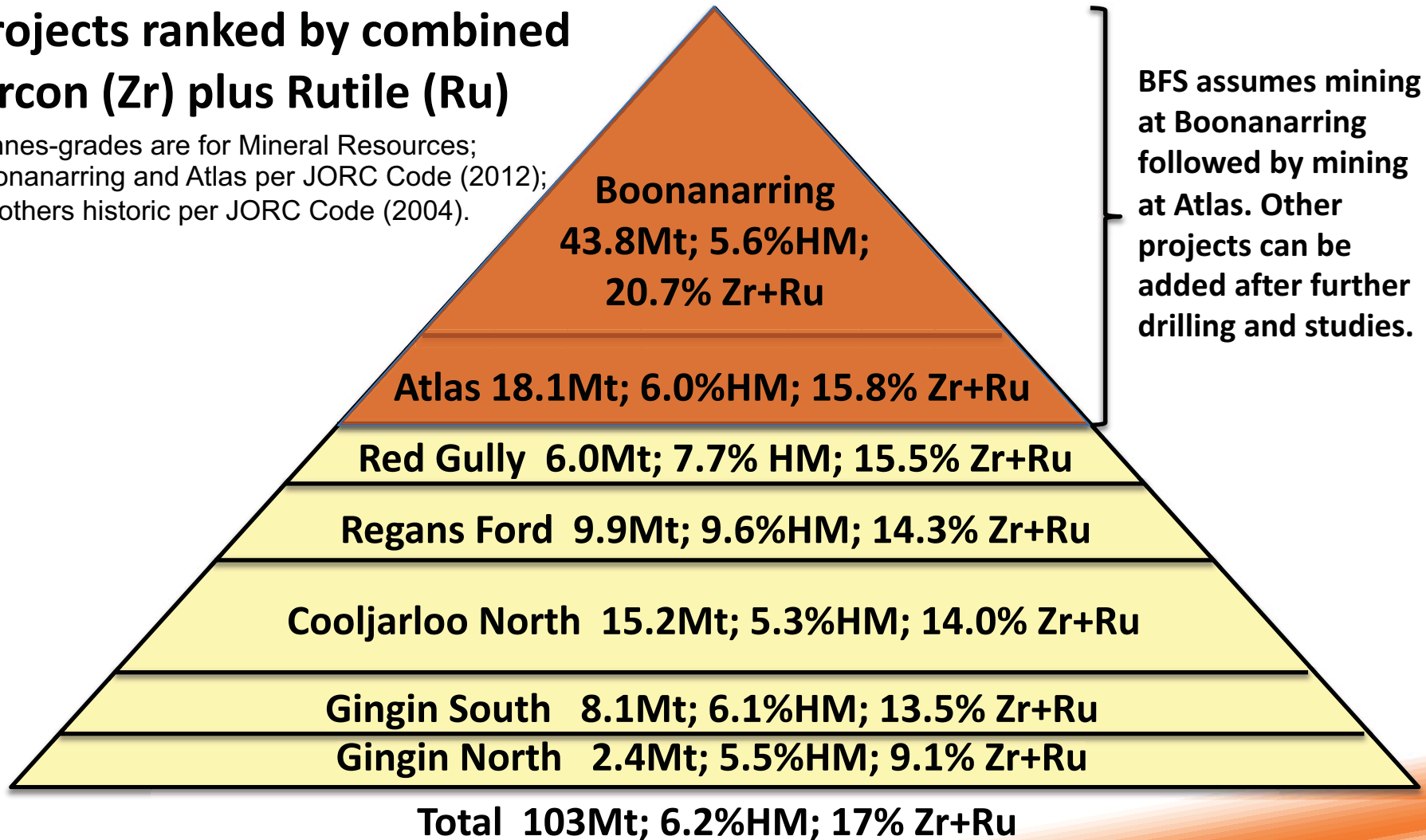


# Projects Pyramid – Strand Deposits

## 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 Prospects

## Mineral Resources – Accessible by Dredge Mining

### Projects ranked by HM Grade

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

**Bidamina**  
45Mt; 3.0%HM;  
6.5% Zr+Ru

**Titan-Telesto** 140Mt; 1.9%HM; 12.8% Zr+Ru

**Calypso** 51Mt; 1.7% HM; 15.9% Zr+Ru

**Total** 236Mt; 2.1%HM; 11.5% Zr+Ru

#### Positive attributes

- 90+%VHM;
- <5% slimes;
- 25-67% Leucoxene;
- 100Mt exploration target.

Potential focus for  
2<sup>nd</sup> operating centre.

# Potential Royalty from Tronox

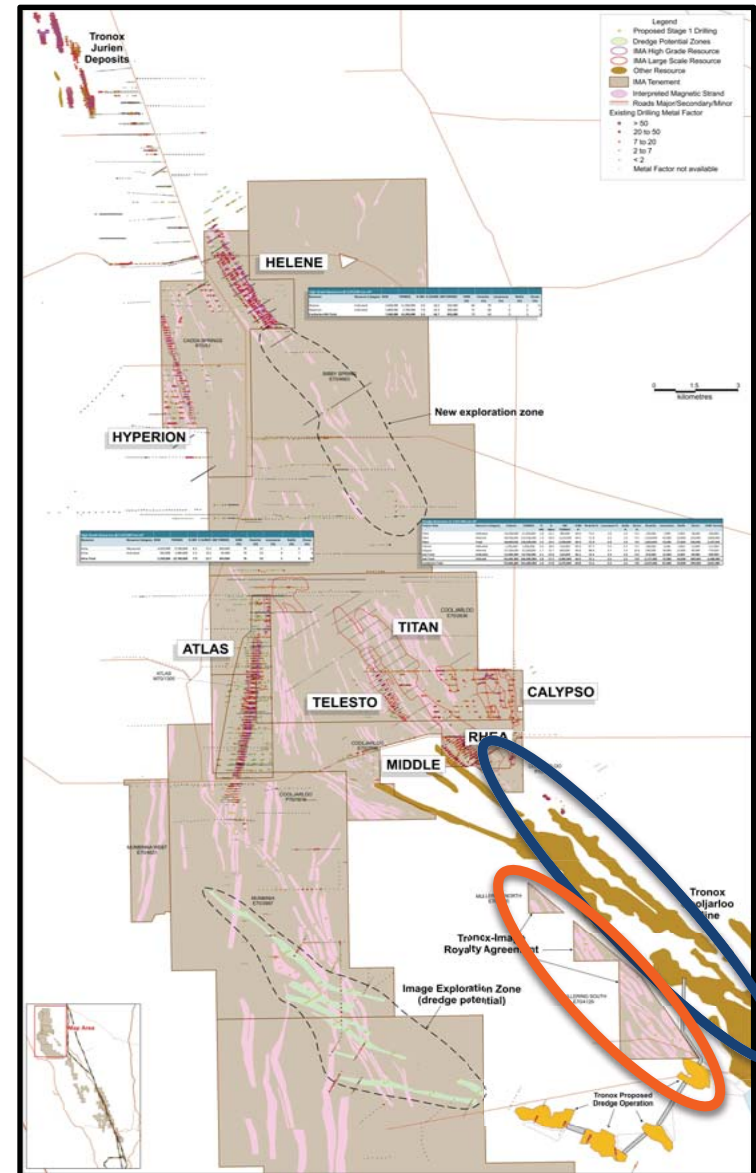
## Royalty agreement in place as of 2014

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

<u>Avg. HM Grade</u>	<u>Royalty</u>
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



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.





## For further information

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RESOURCES

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