**ASX:RDM** 

**SYDNEY** 

AGM PRESENTATION 27 NOVEMBER 2019

RED METAL AND THE OZ MINERALS ALLIANCE 2020



#### Caution Regarding Forward-Looking Statements

- Statements regarding the Company's plans with respect to exploring its projects are forward-looking.
   There can be no assurance that any mineralisation identified will be proven to be economic, that future evaluation work will confirm the viability of deposits identified or that future required regulatory and / or development approvals will be obtained.
- Such risks and uncertainties are described in periodic filings made by Red Metal Limited with the ASX.
   The Company disclaims any obligation to update information contained in any forward-looking statement.

#### Competent Persons Statement

- The information in this report that relates to Exploration Results is based on and fairly represents information and supporting documentation compiled by Mr Robert Rutherford, who is a member of the Australian Institute of Geoscientists (AIG). Mr Rutherford is the Managing Director of the Company. Mr Rutherford 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" (the JORC Code). Mr Rutherford consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.
- The information in this report that relates to Exploration Results and estimates of Mineral Resources for the Maronan Project was previously reported by the Company in compliance with JORC 2012 in various market releases with the last one being dated 27 September 2018. The Company confirms that it is not aware of any new information or data that materially affects the information included in those earlier market announcements and, in the case of the estimate of Mineral Resources all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed.

# Corporate

- 212M Shares (after 16 years on ASX)
- 7M Employee Options
- \$20-25M Market Cap.
- Targeting large base metal discoveries in Australia
- Maronan Lead-Silver Copper-Gold (JORC 2012 Inferred)
  - 30Mt @ 6.5% Lead and 106g/t Silver (3% Pb cut off grade)
  - 11Mt @ 1.5% Copper and 0.8g/t Gold (1% Cu cut off grade)
- "Greenfields Discovery Alliance" with OZ Minerals
  - Aims to fast track a discovery in Australia for Red Metal and Oz Minerals benefit

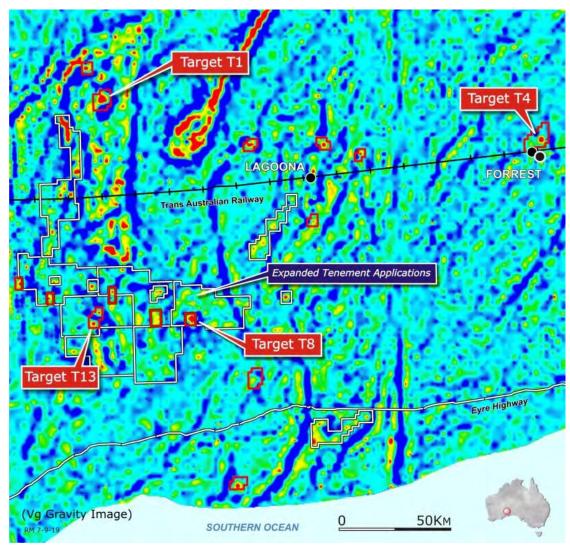
### **OZ** Minerals

#### Greenfield Discovery Alliance Projects

•	Nullarbor – Frontier Cu province  • Proof of concept drill tests in progress	Cu-Au	WA
•	<ul> <li>Three Ways – New Mount Isa shale basin for giant</li> <li>Innovative magneto-telluric survey completed, highly conductive zinc and copper premapped over 20km, drilling early 2020</li> </ul>	Zn & Cu rospective stratigraphy	QLD
•	Mount Skipper – Cannington geophysical look alike • First drill test intersected Cannington near-miss rocks and geochemistry, subseque vector magnetic modelling better highlights location of the magnetic target	Zn-Pb-Ag <sub>nt</sub>	QLD
•	Gulf – Extension of Cloncurry IOCG terrain north  • Proof of concept drilling in 2020 on new IOCG targets	Cu-Au	QLD
•	Yarrie – Paterson Zambian Cu/ ISCG  • Electrical geophysical programs to start in 2020 (pending grant)	Cu+Au+Co	WA
•	Lawn Hill – New base metal plays surrounding Century Innovative use of magneto-telluric surveying in 2020	Zn & Cu	QLD

### Nullarbor

#### Emerging New Cu-Au, Ni-Cu Provinces?



Residual Gravity Image 2km x 2km Stations

#### Coompana / Madura Provinces

- High quality GSWA and GA gravity and magnetic data
- Stratigraphic GSWA drill holes point to copper fertility
- Only 300-600m of younger cover but difficult drilling conditions have deterred past explorers (particularly gold explorers).
- Limited historic drilling

#### First Mover Advantage

- Red Metal will be the first to complete infill geophysical programs and drill test short wavelength geophysical targets in this under drilled frontier province
- Testing for copper-gold or copper-nickel mineralisation potential

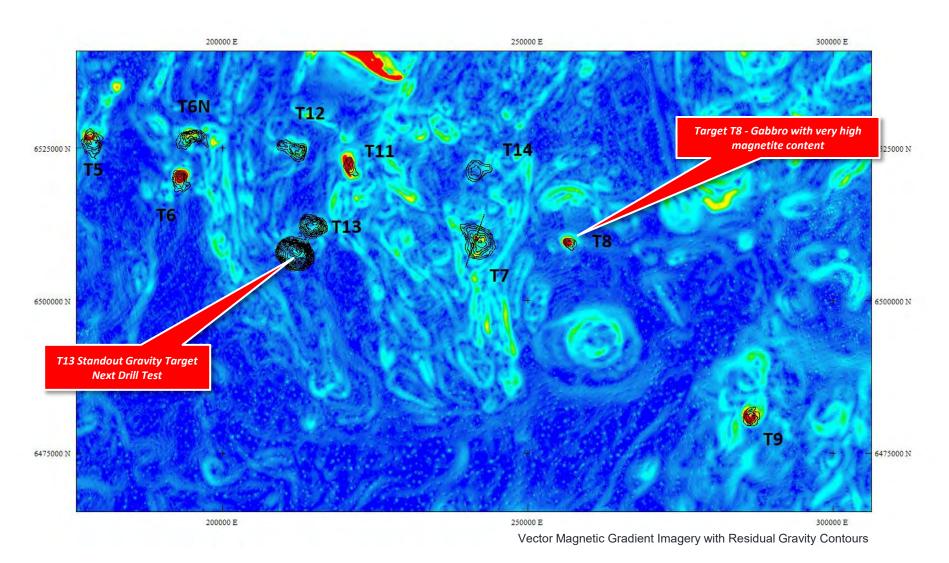
#### Proof of Concept Drill Tests

- T8 gabbro very high magnetite content
- T13 to follow.
- then T4 (budget permitting)



### Nullarbor

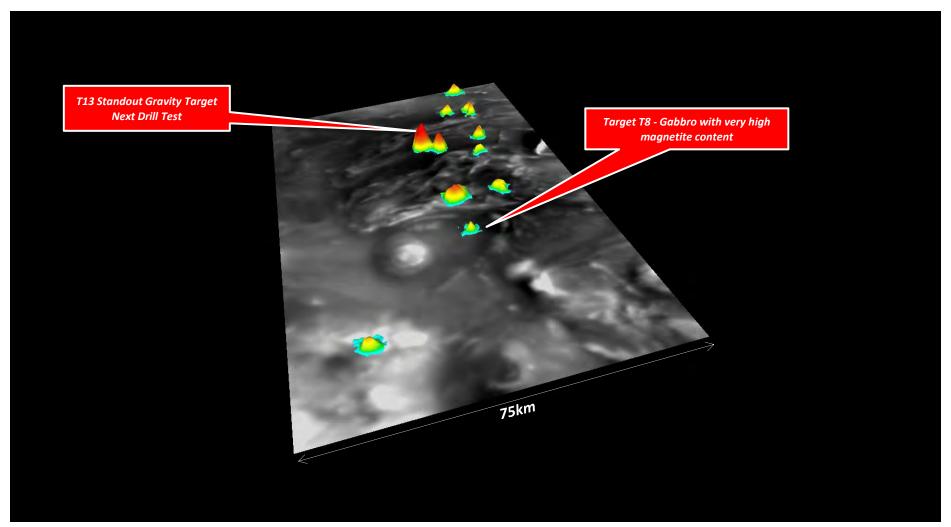
#### Proof of Concept Drill Tests in Progress





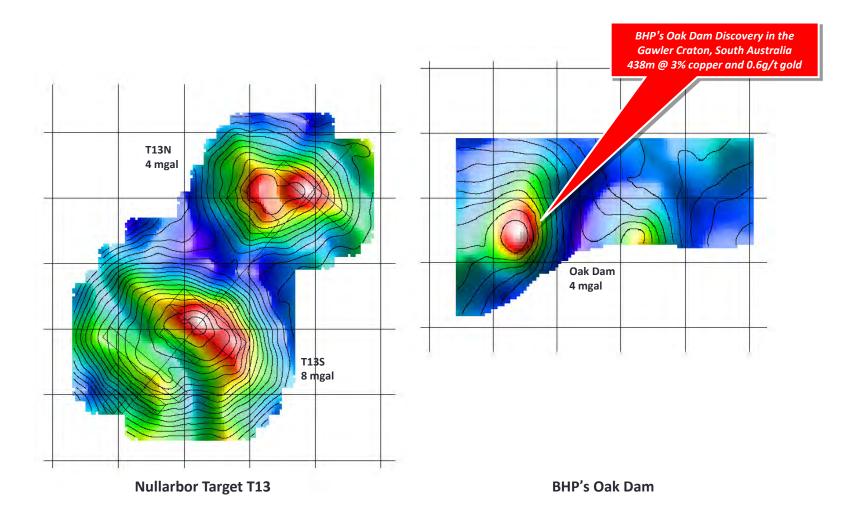
### Nullarbor

#### Proof of Concept Drill Tests in Progress



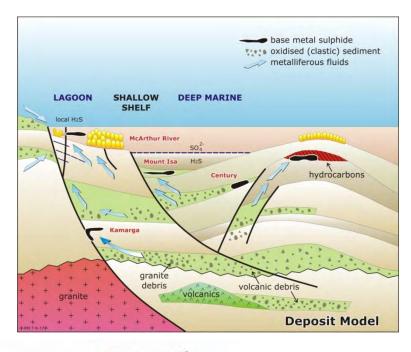
# Nullarbor

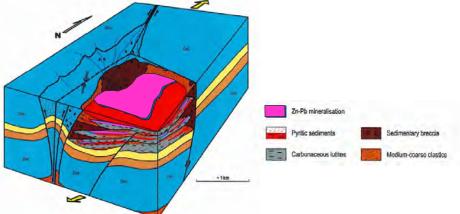
#### **Proof of Concept T13**





#### Zinc-Lead-Silver & Copper-Cobalt



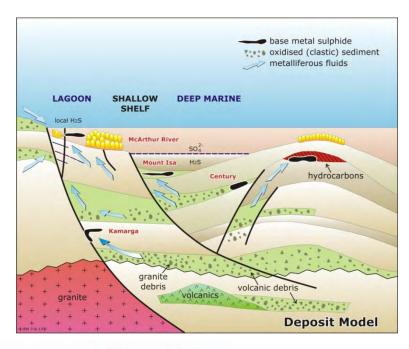


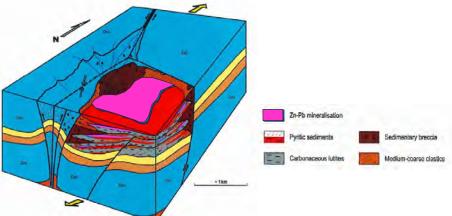
 Where are the next giant Mount Isa style zinc and copper-cobalt deposits?



# Three Ways

#### Zinc-Lead-Silver & Copper-Cobalt





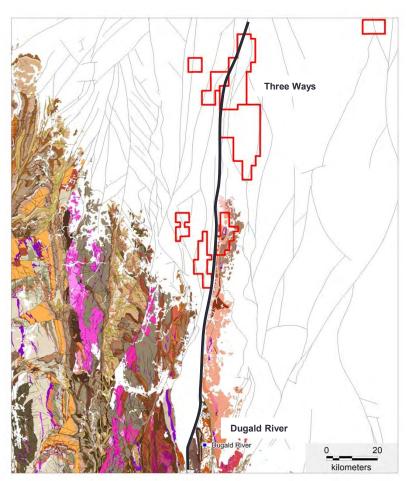
 Where are the next giant Mount Isa style zinc and copper-cobalt deposits?



Urquhart Shale: Thick package of highly conductive, heavily pyritic dolomitic and carbonaceous siltstone. Preferred host rocks to the giant Mount Isa stratiform zinc and copper orebodies

# Three Ways

#### Zinc-Lead-Silver & Copper-Cobalt



**Exposed Geology** 

#### Three Ways Zinc Project

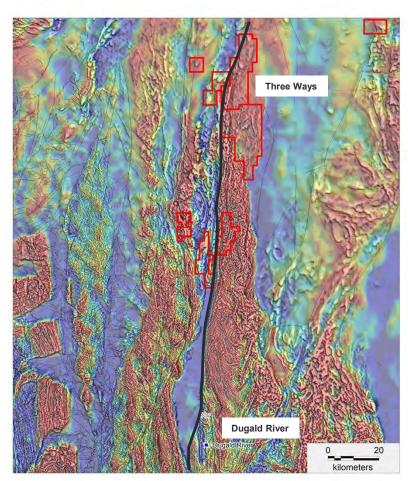
- Northern extension of Dugald River terrain under 400-500metres of cover
- Targeted for Mount Isa style stratiform zinc-lead-silver and structure controlled copper-cobalt

# Innovative Magneto-telluric Survey Recently Completed by Red Metal

- New highly conductive shale basin identified no previous drill history
- Highly conductive trends mapped in basement rocks under 400 metres of highly conductive Mesozoic cover (a world first?)
- 2D modelling integrated with magnetic imagery is defining exciting drill targets
- Strong stratigraphic conductor, about 20km long, adjacent to major fault - similar geological setting to the giant Mount Isa deposits
- Have we found another Urquhart Shale equivalent?
- Drilling Early in the 2020 Field Season

# Three Ways

#### Zinc-Lead-Silver & Copper-Cobalt



Regional Gravity on Grey Scale Vertical Gradient Magnetic Image

#### Three Ways Zinc Project

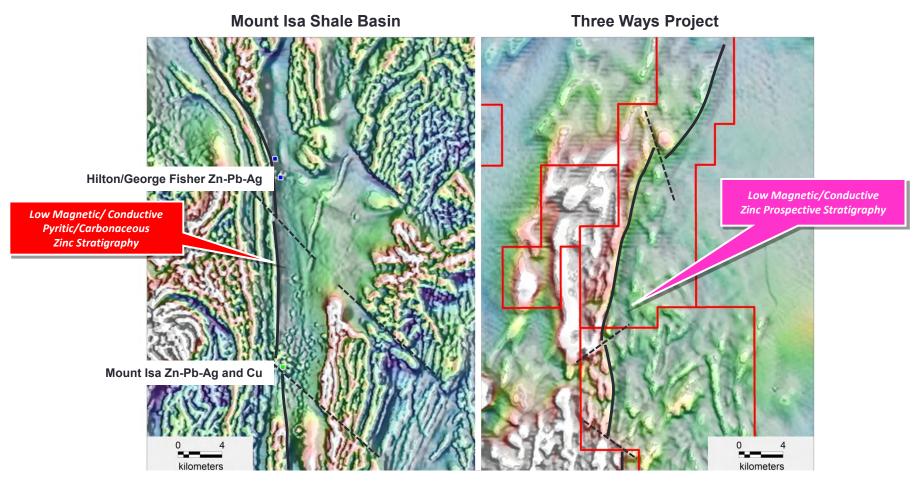
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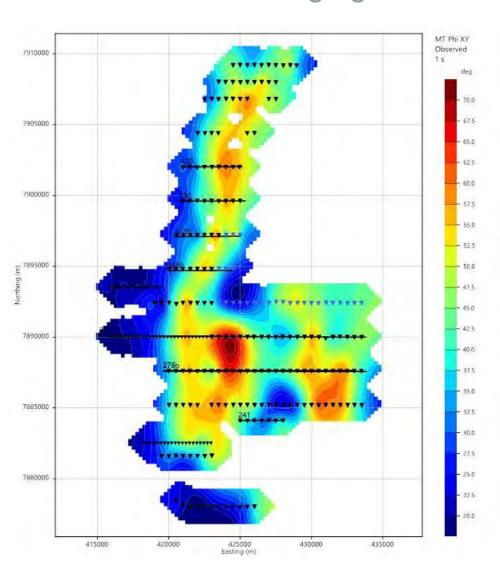
#### Zinc-Lead-Silver & Copper-Cobalt

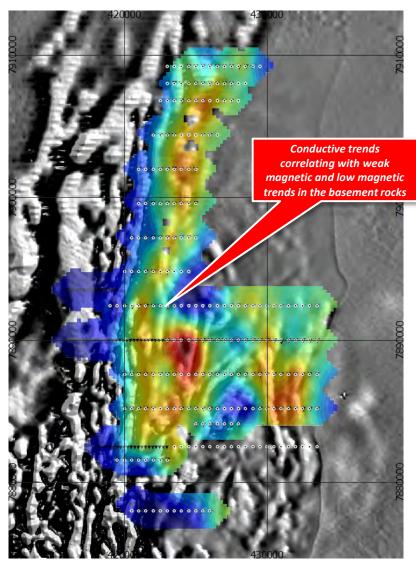


Total Magnetic Intensity on Vertical Greyscale Gradient Magnetic Image

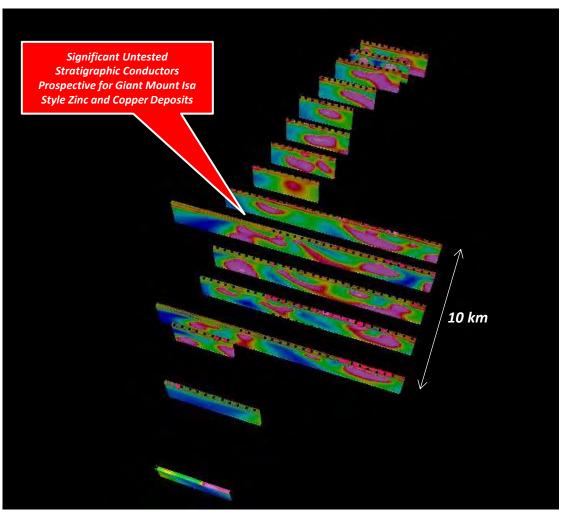
 Low magnetic trend mapping conductive stratigraphy draws comparison with Mount Isa shale basin hosting the giant Mount Isa and George-Fisher zinc-lead-silver deposits and giant Mount Isa copper deposit





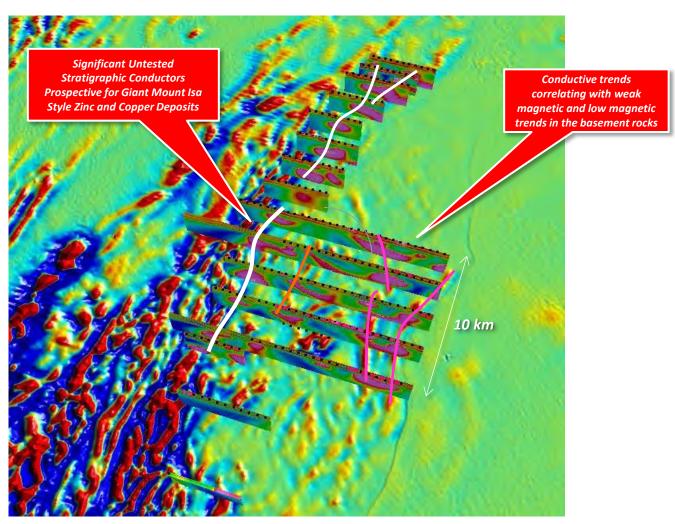






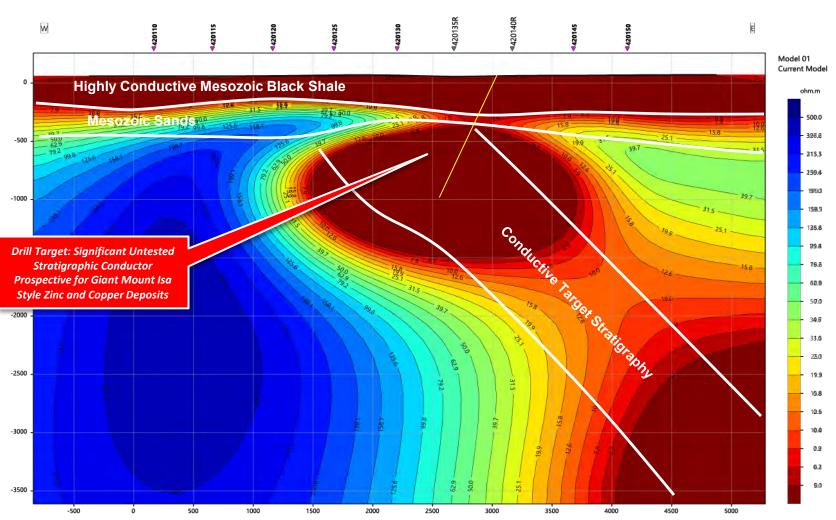
Magneto-telluric 2D conductance models presented as stacked, 3D oblique view facing north west.

# Three Ways



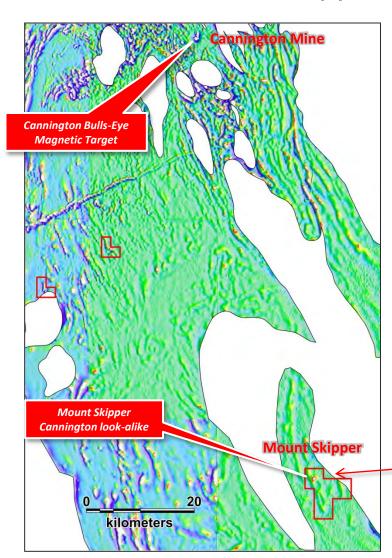
Magneto-telluric 2D conductance models presented as stacked, 3D oblique view facing north west underlain by vertical gradient magnetic image. .





Magneto-telluric 2D conductance model with general geological interpretation.

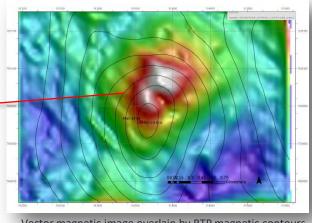
# Mount Skipper Zinc-Lead-Silver-Copper



Vertical Residual Magnetic Imagery

#### A Cannington Analog

- Similar bulls-eye magnetic target 90km south of Cannington
- Same Mount Norna host sequence
- Depth to basement 480m
- First Red Metal drill test intersected Cannington near-miss (halo) rocks and geochemistry – but magnetic target remains untested
- Subsequent vector magnetic modelling has better located the untested magnetic target 200m north shift suggests magnetic remanence in the target may have made the original RTP models inaccurate



Vector magnetic image overlain by RTP magnetic contours



# Mount Skipper

#### Spotted Sillimanite Rocks - A Cannington Near-Miss?



Spotted Sillimanite-Biotite-Quartz-Feldspar-Garnet Gneiss



**Knotted Biotite-Quartz-Sillimanite-Muscovite-Garnet Schist** 



**Fine-Garnet Altered Quartzite** 



# Mount Skipper

### A Cannington Near-Miss?



Biotite-sillimanite-quartz schist with strong muscovite retrograding and unusual coarse, angular, grey porphyroblasts retrograded to fine muscovite. Porphyroblasts may be after cordiorite but now mostly very fine-muscovite (needs petrology).



Semi-massive pyrite veins and bands with trace chalcopyrite and pyrrhotite. Pyrite bands appears to be folded.



# Cannington

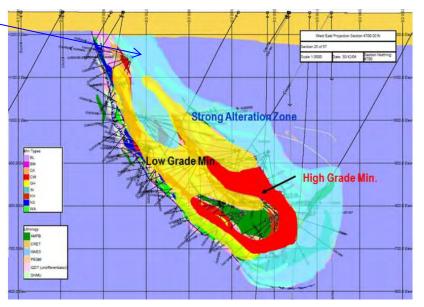
### Spotted Sillimanite Near-Miss Rocks



**Spotted Sillimanite-Muscovite-Garnet Alteration** 



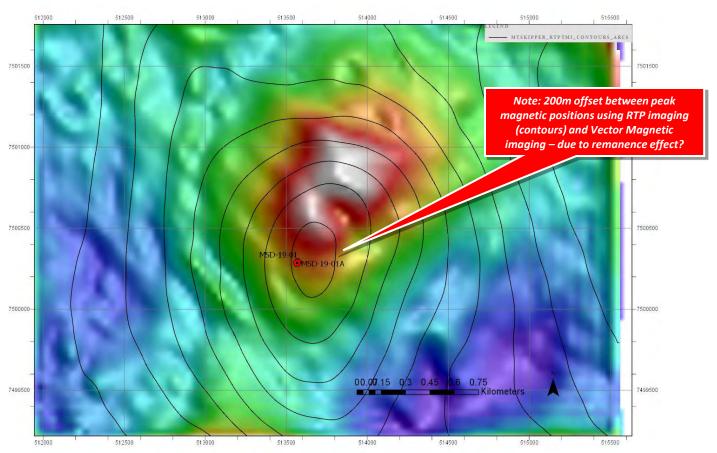
**Fine-Garnet Altered Quartzite** 



Cannington Cross Section
Showing 200m Thick Strong Alteration Halo

## Mount Skipper

#### Vector Magnetic vs RTP Modelling – Remanence Issue



Vector magnetic image overlain by RTP magnetic contours

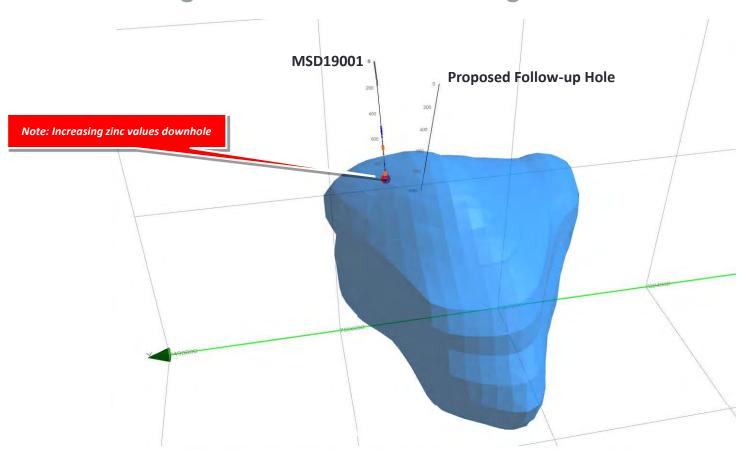
Offset between vector magnetic high (image) and RTP magnetic high (contours) may be due to magnetic remanence

This offset may explain why magnetic target was missed by the first hole



# Mount Skipper

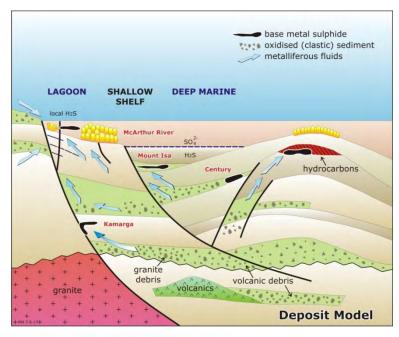
Vector Magnetic vs RTP Modelling – Remanence Issue

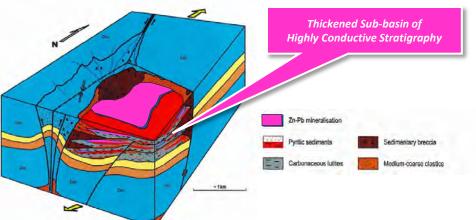


**3D Vector Magnetic Model** 

### Lawn Hill

#### Zinc-Lead-Silver and Copper



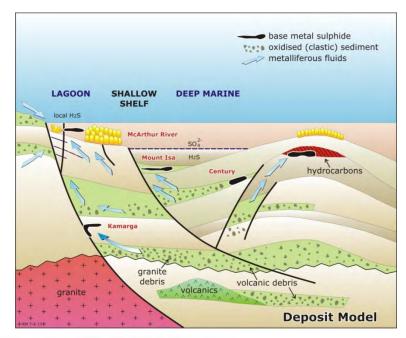


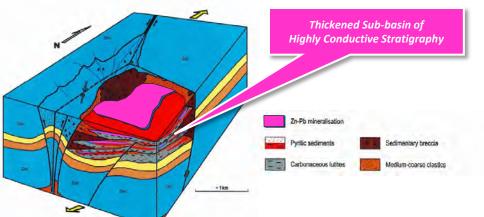
- Scope for more than one giant base metal deposit type in the Lawn Hill region.
- Where are the giant stratiform McArthur River or Mount Isa style zinc deposits or Zambian style copper deposits?



### Lawn Hill

#### Zinc-Lead-Silver and Copper





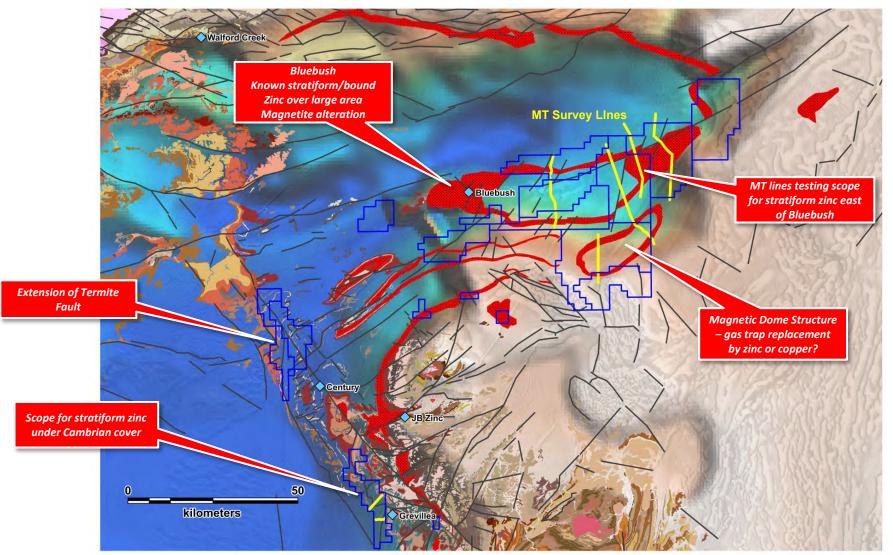
# red metal

- Targeting new zinc and copper plays in 2020.
  - McArthur River style zinc
  - Gas trap replacement zinc or copper
  - Breccia/fault hosted zinc and copper
- Trial magneto-telluric surveying (MT) to map zinc prospective stratigraphy and potential gas trap seals.
- Validate fault controlled conductors interpreted from the GSQ airborne VTEM survey with modern ground based EM technique.



### Lawn Hill

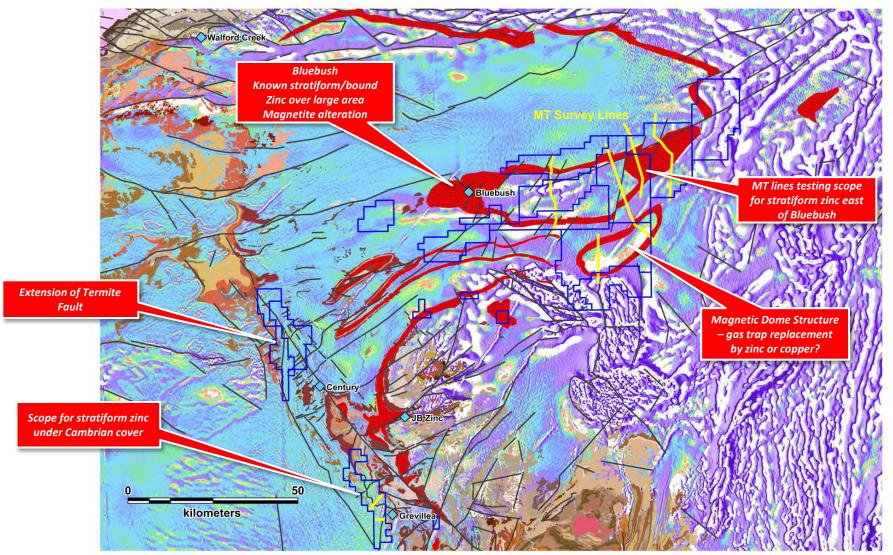
#### New Zinc and Copper Plays 2020

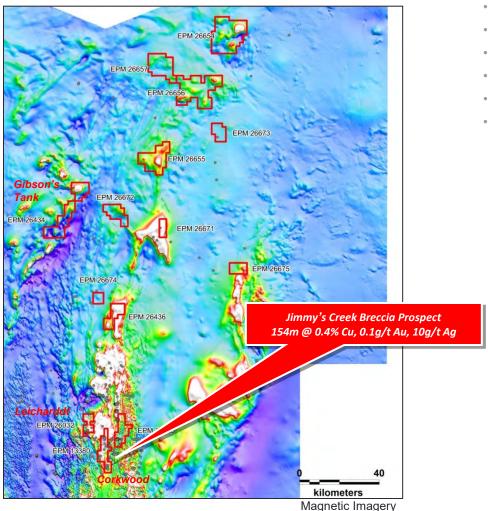


Surface Geology on Seabase Depth to Magnetic Basement Underlain by Greyscale Vertical Gradient Magnetic Image

### Lawn Hill

#### New Zinc and Copper Plays 2020



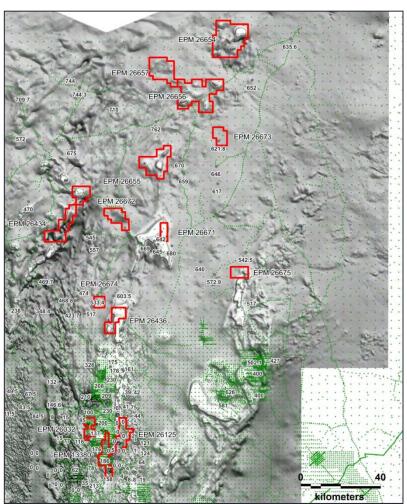


# red metal

#### First Mover Advantage

- In proven IOCG terrain
- Extension of Leichhardt/Jimmy's Creek IOCG terrain
- Numerous untested gravity/magnetic targets
- Favorable volcanic host rocks and intrusive granites
- Targets at mineable depths
- Depth to basement 150-650m
- Gravity only regional on 4km x 4km spacing





Magnetic Imagery Highlighting Wide Spaced Gravity Stations (Green Dots)

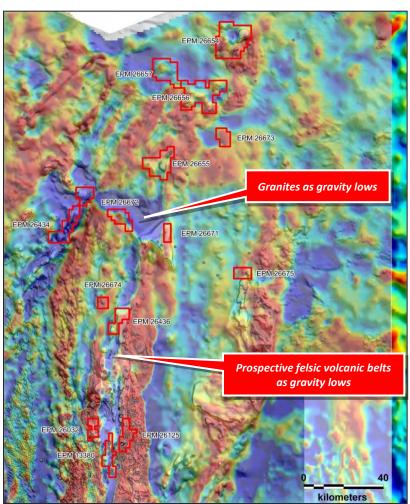


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#### Infill Gravity

Infill gravity grids completed over key target areas



Vertical Gradient Gravity Imagery Underlain by Vertical Gradient Magnetic Imagery

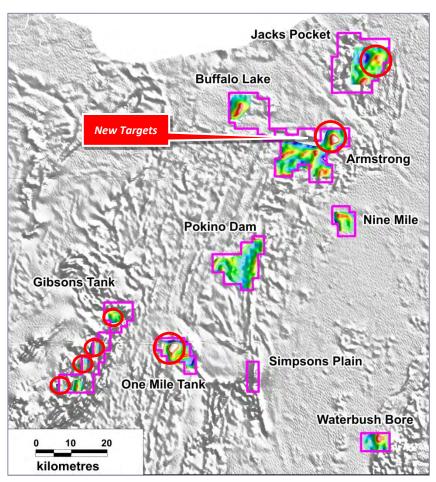
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Red Metal's Gravity Grids on Greyscale Vertical Gradient Magnetic Imagery

# red metal

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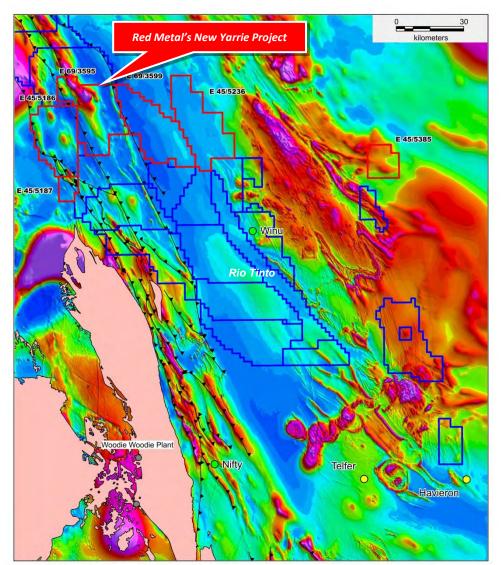
Infill gravity grids completed over key target areas

#### Proof of Concept Drill Tests

3-4 drill tests on variety of target types in 2020

### Paterson Province

# red metal



**Total RTP Magnetic Imagery** 

#### Western Margin

- Marginal marine sequences with a mixture of oxidised sands and reduced shale, carbonate sequences
- Mount Isa style Sedimentary-Hosted copper and cobalt at Nifty (>176Mt @ 1.3% Cu)
- Zambian style Sedimentary-Hosted copper and cobalt at Maroochydore (48.6Mt @ 1.0% Cu)

#### Further Fast

- Deeper basin sequences dominated by reduced turbiditic sands, silts, shales and carbonate sediments
- Intruded by late-granites
- Granite-related gold plus copper at Telfer
- New copper and gold discoveries at Winu and Havieron
- Is this an emerging ISCG/IOCG province?

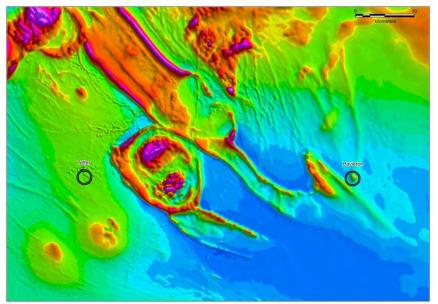
#### Red Metal Yarrie 2020 (Pending Grant)

- Electrical geophysical targeting
  - Possible first drill test late in 2020 field season?

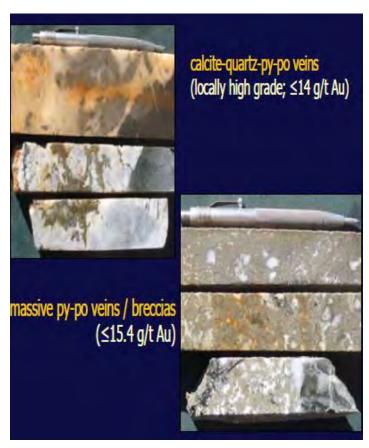
#### Paterson Province

#### Greatland Gold's Havieron

- Upper Zone
  - 118 m at 0.84% copper and 3.08g/t gold including
     11.5m at 2.49% copper and 6.23g/t gold
     7.5 m at 1.2% copper and 32.8g/t gold
- Lower Zone
  - 157m at 0.44% copper and 6.04g/t gold including
     113 m at 0.61% copper and 8.30g/t gold including
     38m at 0.82% copper and 20.2gpt gold



Total RTP Magnetic Imagery

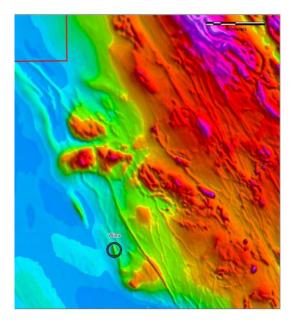


Pyrrhotite (Iron Sulphide) Associated

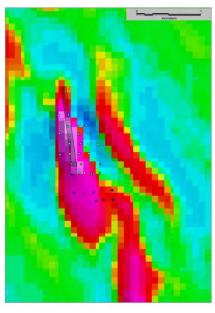
### Paterson Province

#### Rio Tinto's Winu Copper-Gold

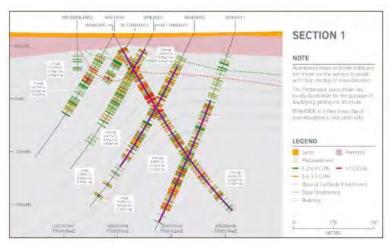
- Multiple quartz-sulphide and carbonate-sulphide vein sets in meta-sediment
- Chalcopyrite-pyrite-pyrrhotite-bornite-molybdebite-scheelite-bismuthite-wulframite
- CuAuAg + MoWBi
- K-feldspar, muscovite-biotite and or chlorite alteration
- 763m @ 0.44% copper and 0.65g/t gold 2.9g/t silver (shallow)
- 6m @ 4.7% copper and 2.5 g/t gold 26g/t silver (highest grade)



Total RTP Magnetic Imagery



Vertical Gradient Magnetic Imagery

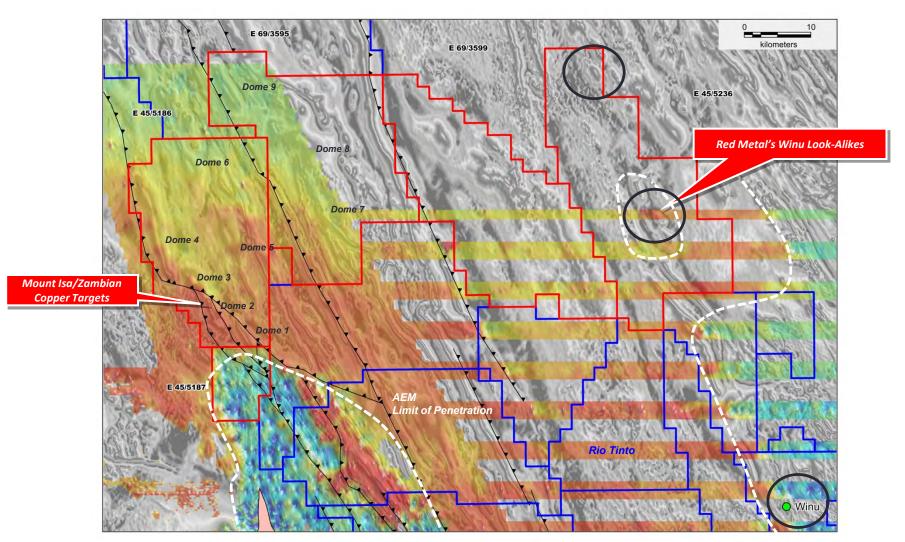






### Paterson Province

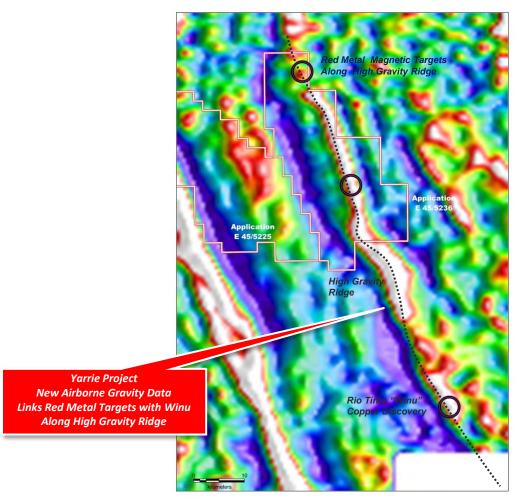
Yarrie Copper-Cobalt (West) and Copper-Gold (East)

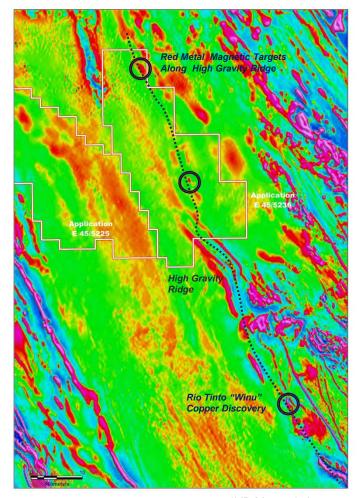




### Paterson Province

#### Red Metal's Yarrie Copper-Gold (East)



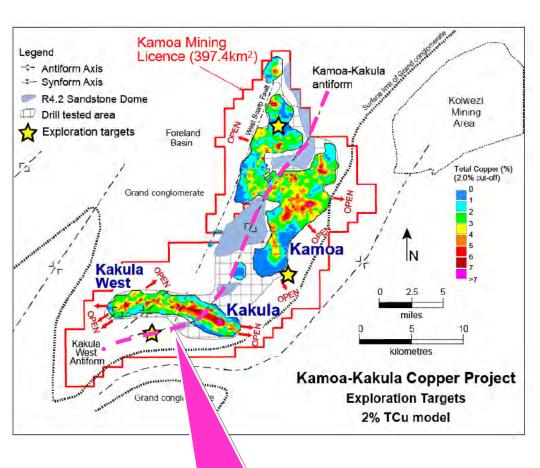


Falcon Gravity Vertical Gradient Imagery

**1VD Magnetic Imagery** 

#### Paterson Province

#### Red Metal's Yarrie Copper-Cobalt (West)

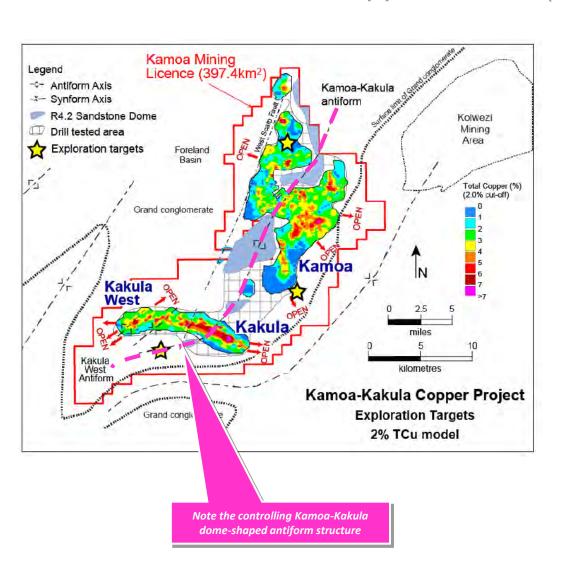


- Targeting Sedimentary-Hosted Copper
  - Giant high-grade copper styles
  - Structural Mount Isa (or Nifty) types
    - >255Mt @ 3.3% copper
  - Zambian or Komoa-Kakula types
    - >1Bt @ 3.17%
- Kamoa-Kabula
  - Newest discovery in the DRC
  - Giant sedimentary-hosted copper deposit
  - Worlds largest undeveloped copper deposit
  - Worlds largest high-grade deposit (>2.5%Cu)
  - Focused in regional anticlines or domes
- Using 1.5% Cut of Grade
  - Indicated 1.03Bt @ 3.17% Copper
  - Inferred 183Mt @ 2.31% Copper

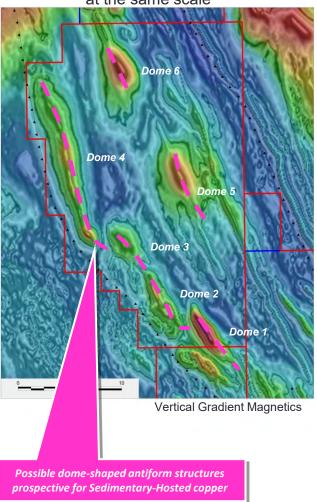
Note the controlling Kamoa-Kakula anticlinal dome-shaped structure

### Paterson Province

#### Red Metal's Yarrie Copper-Cobalt (West)



Yarrie Project, Paterson Province, WA at the same scale



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