



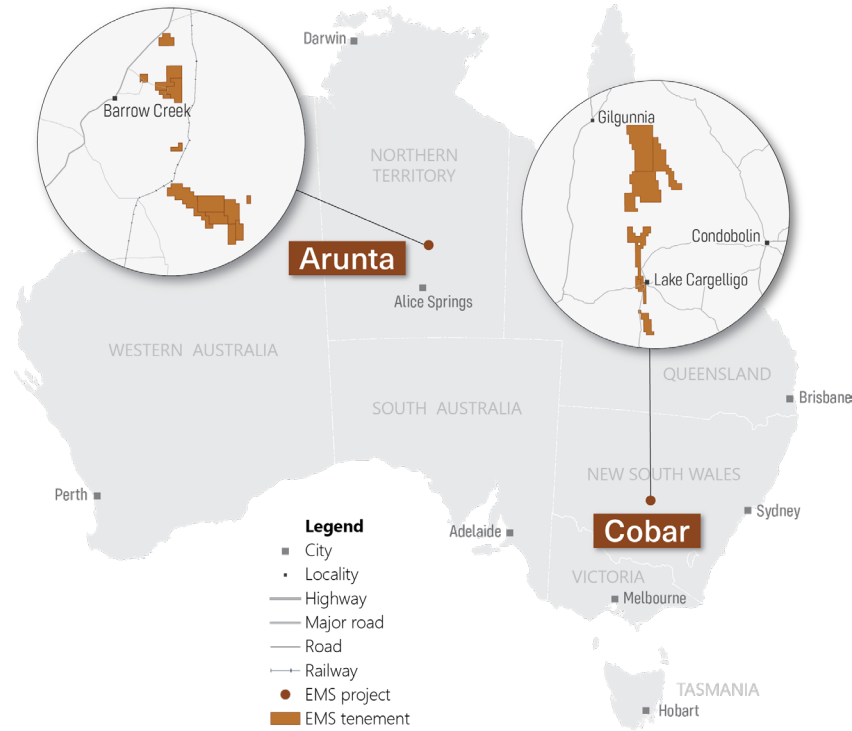
**EASTERN  
METALS**

**NT Resources Week –  
Mining the Territory  
Presentation, Darwin**

NT Resources Week | Mining the Territory  
18-19 September 2024

# OVERVIEW – EASTERN METALS’ ASSETS

EXPLORING FOR METALS VITAL TO ENERGY SECURITY



## Base metals exploration in tier-one mineral provinces

### Arunta Project (NT, 100% owned)

- **Home of Bullion** deposit hosts a Mineral Resource Estimate<sup>^</sup> of **3.1 million tonnes** grading @ **2.9% CuEq**<sup>#</sup>
- **Co-funded Induced Polarisation** survey underway

### Cobar Project (NSW, 100% owned; refer to **Appendix C**)

- **Browns Reef** zinc-silver-lead-copper-gold deposit in the **world-class Cobar Basin**
- **Drilling** currently underway

<sup>^</sup> For details of Mineral Resource Estimate categories, refer to Appendix A

<sup>#</sup> For details of material factors contributing to the copper equivalent (CuEq), refer to Appendix B

\* Eastern Metals Ltd (ASX:EMS) ASX Announcements 8 & 10 March 2023, 'Resource Grows at Home of Bullion Copper Project'

\* Eastern Metals Ltd (ASX:EMS) ASX Announcement 7 August 2024, 'Drilling Underway to Test New, High-priority Targets'

\* Eastern Metals Ltd (ASX:EMS) ASX Announcement 11 June 2024, 'Successful NTGS Co-Funding Collaboration Grant'

# CORPORATE SNAPSHOT

ASX:EMS

## BOARD



**Bob Duffin**  
Non-Executive Chair



**Dr Jason Berton**  
Independent  
Non-Executive Director



**Mark Dugmore**  
Independent  
Non-Executive Director



**Ian White**  
Independent  
Non-Executive Director

## EXECUTIVE

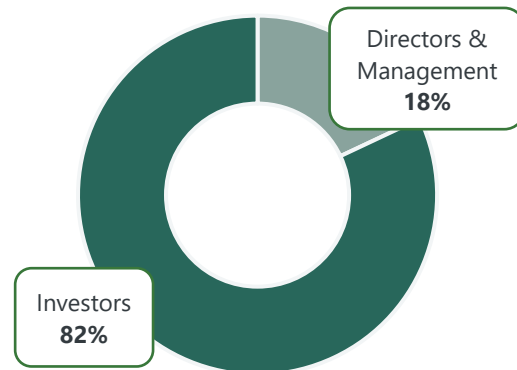
**Ley Kingdom**  
Chief Executive Officer

**Ian Morgan**  
Company Secretary & Chief Financial Officer

## CAPITAL STRUCTURE

<b>Shares on issue</b>	113,676,245
<b>Unlisted options*</b>	46,887,701
<b>Market capitalisation</b>	A\$3.1M
<b>Share price</b> (18 September 2024)	A\$0.027
<b>Cash</b> (30 June 2024)	A\$1.05M
<b>T2 placement</b> (settled post 30 June)	A\$475K
<b>Debt</b>	Nil

\*\$0.30 (26,550,000) and \$0.10 (20,337,701) strike prices





## COPPER –

- **Pivotal to everything that requires electricity** i.e. energy transmission
- Today, **22% of overall copper demand comes from energy** – that percentage is likely to **increase in the next 2-3 decades**, due to structural changes in how we consume and produce energy
- JP Morgan report '*Eye on the Market: Electravision*' by Michael Cembalest:
  - It's now estimated that **the 'AI revolution' will require more power in the US than a future fleet of EVs**

## ZINC –

- Demand driven by galvanisation to **protect steel, batteries, solar panels, offshore wind turbines, electric vehicles**
- Global **zinc inventory at historic lows**

### Sources:

- \* Financial Times, 'Copper producers warn of lack of mines to meet demand for metal', 9 October 2023
- \* Doomberg (doomberg.substack.com/p/fission-chips), 'Fission Chips', 7 November 2023
- \* BMO Global Commodities Research, 'Copper: 2024's "bad year" disappears', 10 December 2023
- \* mining.com, 'Gates, Bezos-backed KoBold Metals says Zambia copper find largest in a century', 5 February 2024
- \* JP Morgan Asset & Wealth Management, 'Eye on the Market: Electravision', Michael Cembalest, 5 March 2024
- \* Sprott, 'The Elements of Energy: Uranium and Copper', 7 March 2024
- \* Doomberg (doomberg.substack.com/p/prime-time), 'Prime Time', 12 March 2024
- \* www.investopedia.com/terms/d/doctor-copper.asp
- \* <https://www.industry.gov.au/publications/australias-critical-minerals-list-and-strategic-materials-list>

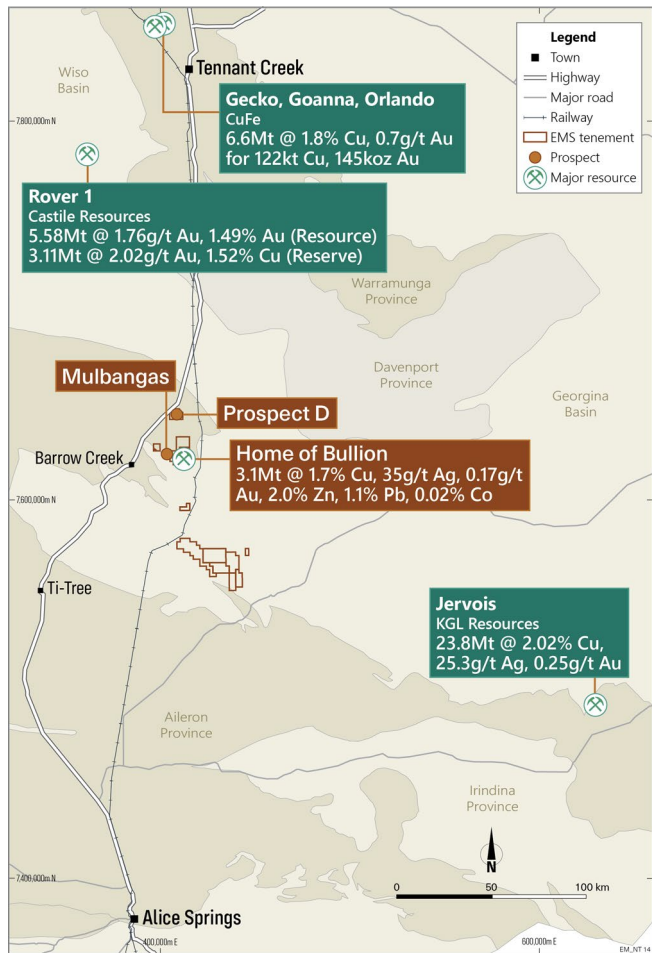
# ARUNTA PROJECT

## STRATEGICALLY LOCATED TENEMENT PACKAGE



- **Home of Bullion** was discovered circa 1923, and to 1949 produced 3,185 tonnes of ore at 22.5% Cu\*

Photo: State Library of South Australia [B 64383/149]  
 \* <https://www.mindat.org/loc-294346.html>



ASX:EMS

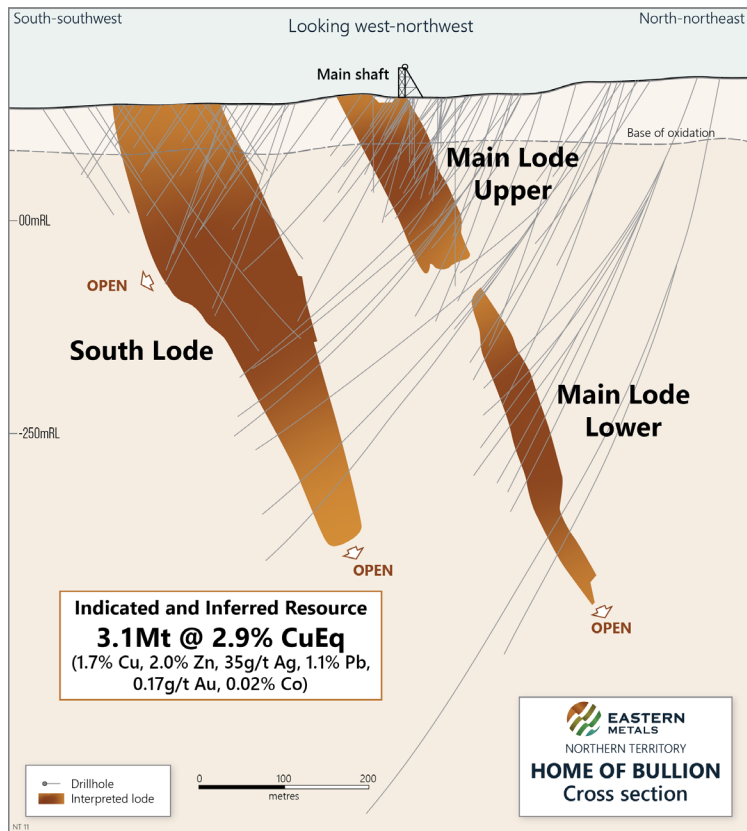
- **Home of Bullion**, 3.1Mt @ 2.9% CuEq#
- **Prospect D**, Cu-Ni mineralisation mapped for ~2km
- **Mulbangas**, Cu prospect, ~9km along strike from Home of Bullion
- **Strategically located** between the Stuart Highway, Darwin-Adelaide railway line + gas pipeline

\* Resource information extracted from each company's website, market announcements, presentations and reports lodged during the FY2024 period

# For details of material factors contributing to the copper equivalent (CuEq), refer to Appendix B

# ARUNTA PROJECT – HOME OF BULLION

## EXISTING COPPER RESOURCE



- The total **Mineral Resource Estimate**<sup>^</sup> was updated in March 2023 to:
  - **3.1Mt** averaging 1.7% Cu (**2.9% CuEq**<sup>#</sup>), 2.0% Zn, 35g/t Ag, 1.1% Pb, 0.17ppm Au and 0.02% Co
  - **Tonnage increased by 0.6Mt** or 24% from ASX:KDR's 2014 MRE and the grade by 0.1% CuEq<sup>#</sup> (or 4%)
  - **Contained CuEq**<sup>#</sup> increased from 70kt to 89.9kt of metal – an increase of 28%
- High-grade, structurally controlled, volcanogenic massive sulphide (VMS) style deposit, **open along-strike** and at depth
- Preliminary metallurgical testing showed **good copper flotation recovery**

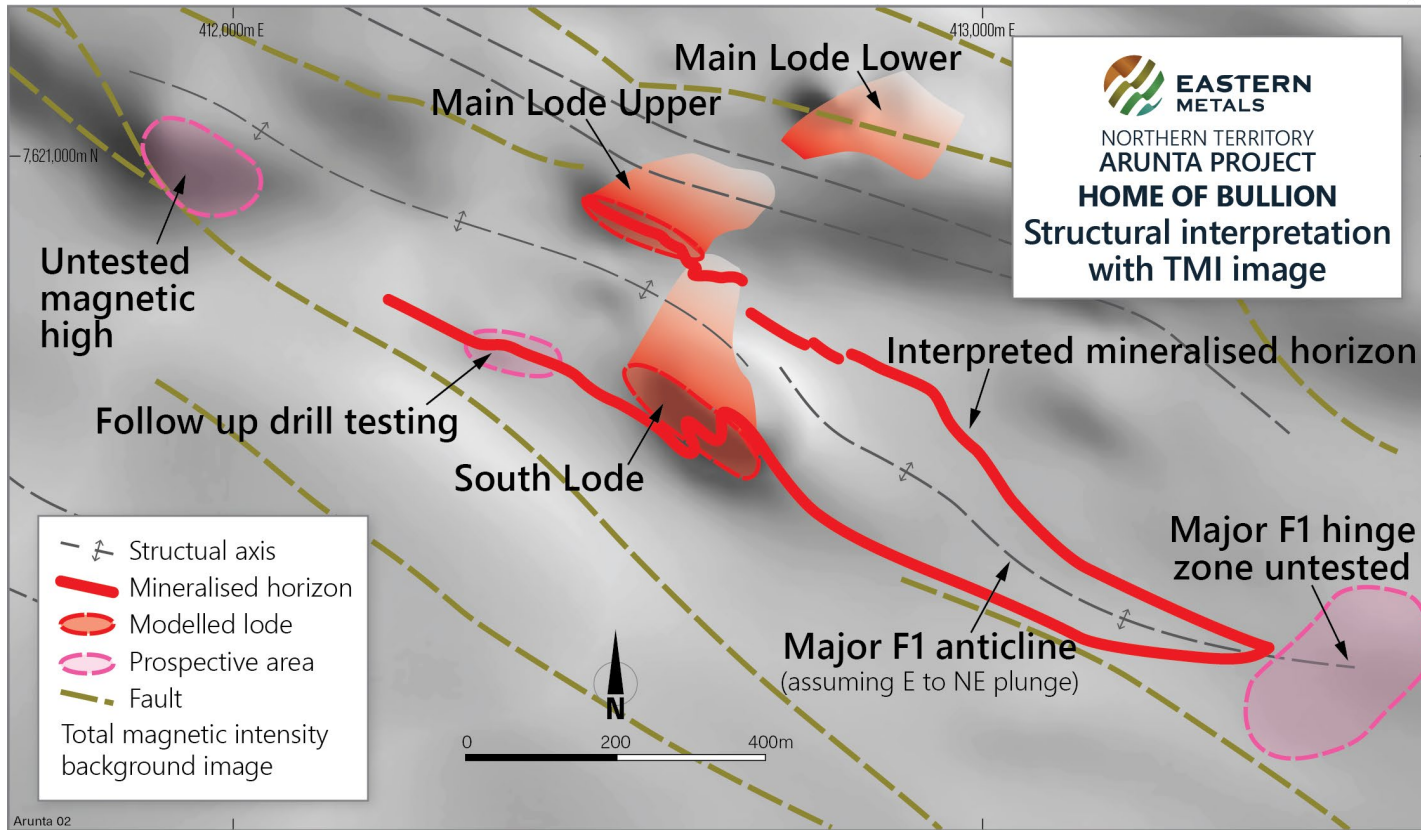
<sup>^</sup> For details of Mineral Resource Estimate categories, refer to Appendix A

<sup>#</sup> For details of material factors contributing to the copper equivalent (CuEq), refer to Appendix B

\* Kidman Resources Ltd (ASX:KDR) ASX Announcement 29 July 2014, 'Maiden Resource at Home of Bullion'

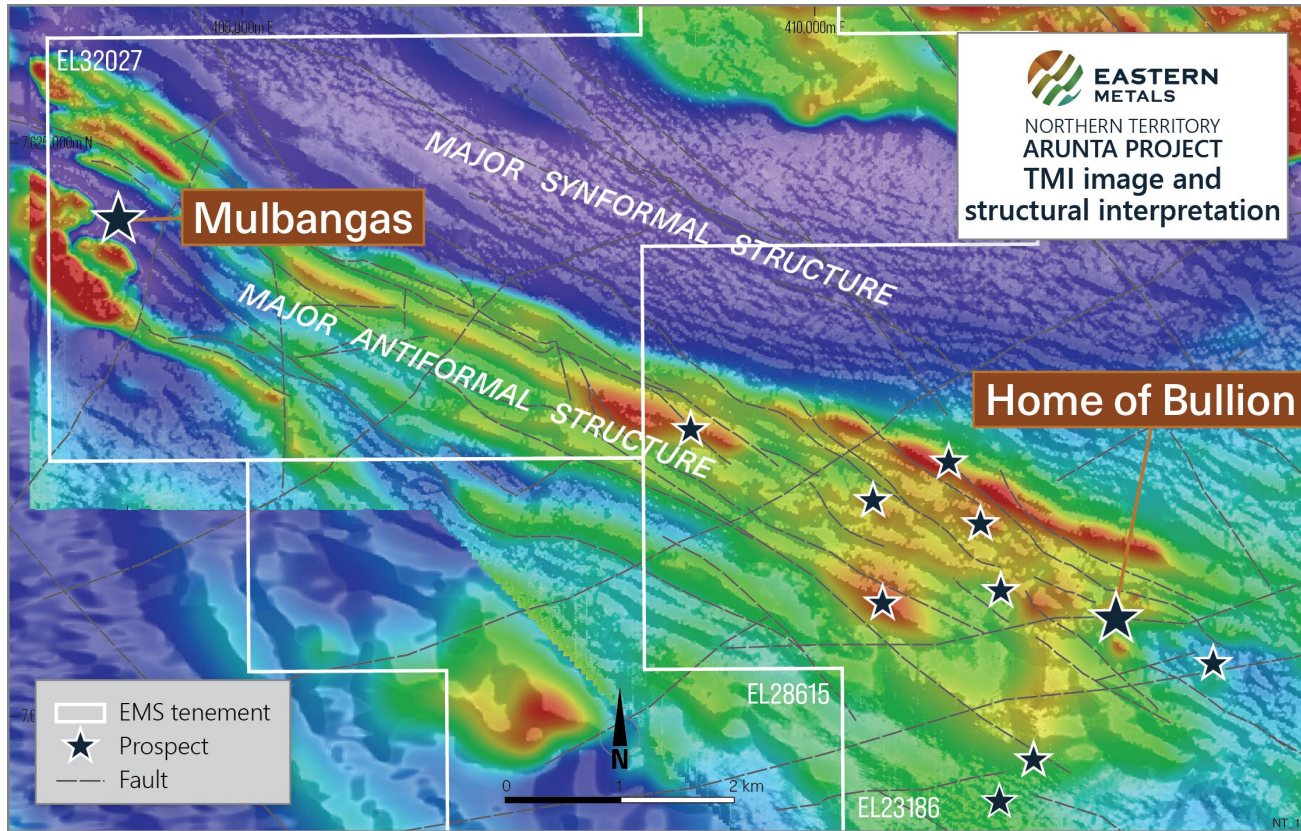
\* Eastern Metals Ltd (ASX:EMS) ASX Announcements 8 & 10 March 2023, 'Resource Grows at Home of Bullion Copper Project'

# ARUNTA PROJECT – HOME OF BULLION



Source: Adapted from Dr John Stewart, PGN Geoscience

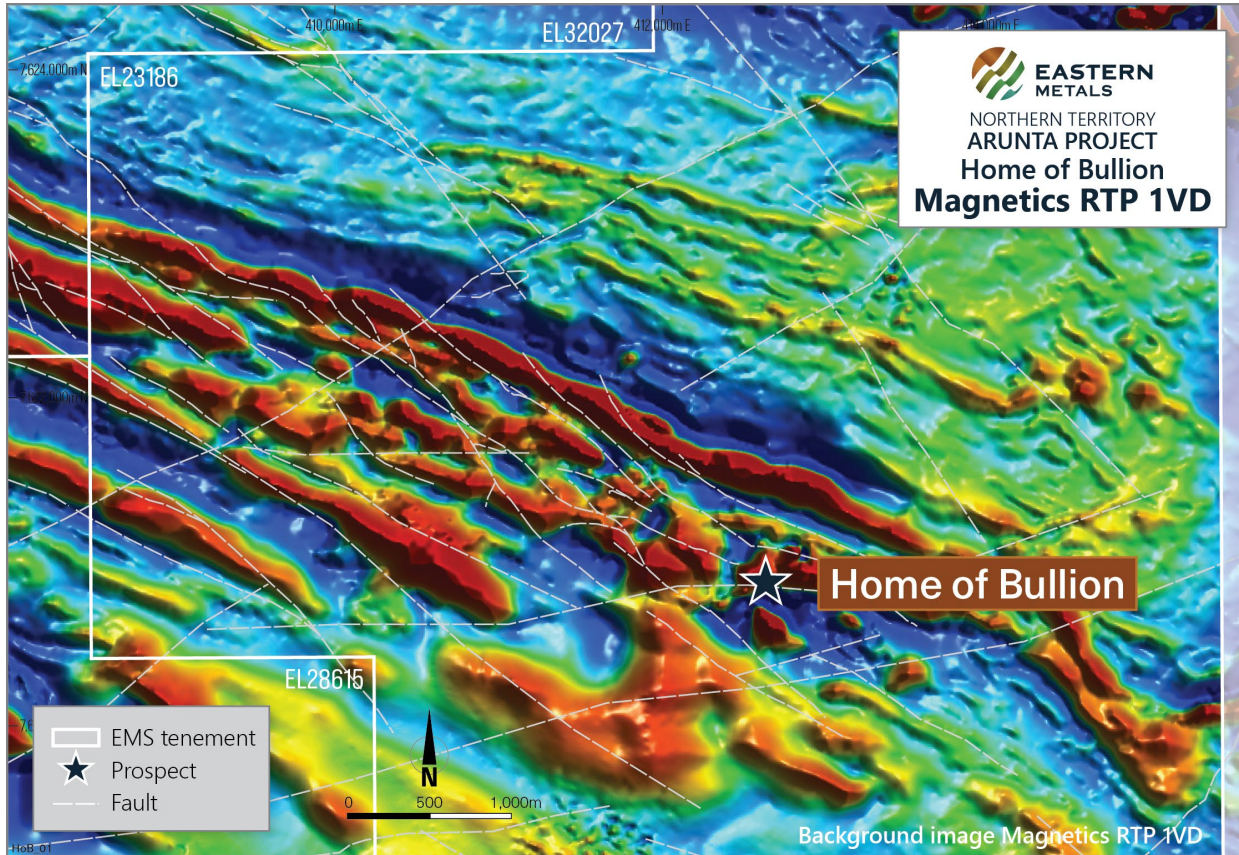
# ARUNTA PROJECT – HOME OF BULLION, WHAT NEXT?



- **Generate targets** along the **Home of Bullion** magnetic trend
- Integrate the IP data with previous datasets to obtain a more detailed analysis of the project area
- Potential to materially extend orebody with several **underexplored satellite prospects**
- **Increase confidence** and **tonnage** of known resource



# ARUNTA PROJECT – HOME OF BULLION



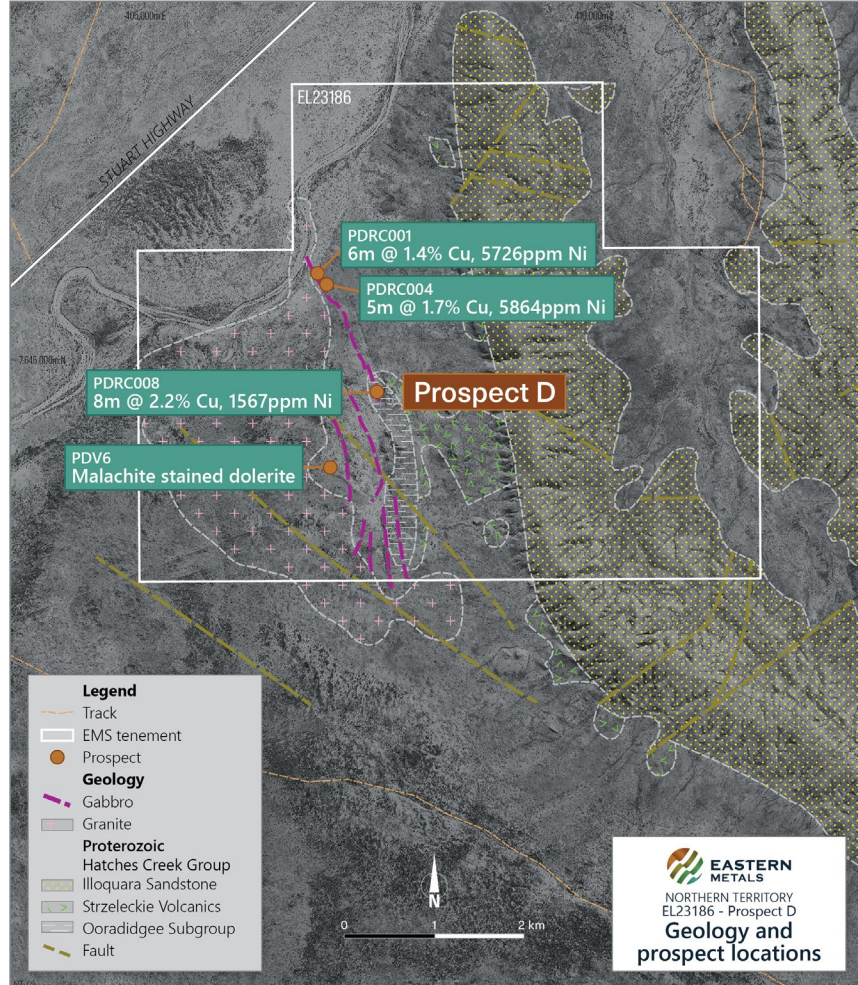
- **NTGS co-funded IP survey currently in progress** by Fender Geophysics
- IP survey design along strike from Home of Bullion, consistent with the orientation of the **Bullion Schist host rock** and a **magnetic high trend**
- The IP survey is **expected to improve the geological understanding** of prospective lodes within the Bullion Schist and **possibly increase the scale** of the Home of Bullion deposit

\* Eastern Metals Ltd (ASX:EMS) ASX Announcement 11 June 2024, 'Successful NTGS Co-Funding Collaboration Grant'

\* Eastern Metals Ltd (ASX:EMS) ASX Announcement 12 September 2024, 'Geophysical Survey Underway at Home of Bullion'

# ARUNTA PROJECT – PROSPECT D

- **Cu-Ni mineralisation mapped for ~2km**, only known mafic-hosted Ni mineralisation at surface in the region
- In **partnership with IGO**, a soil and vegetation sampling survey to commence in late-September, early-October 2024
- Different acquisition and laboratory methods will be trialled to **test which method is optimal for detecting mineralisation** at surface



# SUMMARY

- **Two advanced polymetallic exploration projects, Home of Bullion (NT) and Browns Reef (NSW)**
  - Located in world class mineral provinces
  - Established production and transport infrastructure
- **NTGS co-funded IP survey currently in progress** by Fender Geophysics
  - Generate targets, **potential to extend orebody and increase scale**
- **Prospect D sampling program planned**, in partnership with IGO
- **Highly experienced team** with a strong track record in mineral exploration, development, monetisation and governance





**EASTERN  
METALS**

**Thank you**

[www.easternmetals.com.au](http://www.easternmetals.com.au)

**ASX:EMS**

**Ley Kingdom**

Chief Executive Officer

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# IMPORTANT INFORMATION

## DISCLAIMER

This presentation may contain certain statements and projections provided by or on behalf of Eastern Metals Limited (**ASX:EMS, Eastern Metals, or the Company**) with respect to the anticipated future undertakings. These forward-looking statements reflect various assumptions by or on behalf of Eastern Metals. Accordingly, these statements are subject to significant business, economic and competitive uncertainties and contingencies associated with the mining industry which may be beyond the control of Eastern Metals which could cause actual results or trends to differ materially, including but not limited to price and currency fluctuations, geotechnical factors, drilling and production results, development progress, operating results, reserve estimates, legislative, fiscal and regulatory developments, economic and financial markets conditions in various countries, approvals and cost estimates, environmental risks, ability to meet funding requirements, share price volatility. Accordingly, there can be no assurance that such statements and projections will be realised. Eastern Metals makes no representations as to the accuracy or completeness of any such statement of projections or that any forecasts will be achieved.

Additionally, Eastern Metals makes no representation or warranty, express or implied, in relation to, and no responsibility or liability (whether for negligence, under statute or otherwise) is or will be accepted by Eastern Metals or by any of their respective officers, directors, shareholders, partners, employees, or advisers as to or in relation to the accuracy or completeness of the information, statements, opinions or matters (express or implied) arising out of, contained in or derived from this presentation or any omission from this presentation or of any other written or oral information or opinions provided now or in the future to any interested party or its advisers. In furnishing this presentation, Eastern Metals undertakes no obligation to provide any additional or updated information whether as a result of new information, future events or results or otherwise.

Nothing in this material should be construed as either an offer to sell or a solicitation of an offer to buy or sell securities. It does not include all available information and should not be used in isolation as a basis to invest in Eastern Metals. This presentation contains exploration results and historic exploration results as originally reported in the Company's Prospectus dated 18 August 2021 (ASX:EMS released 22 October 2021).

### Competent Person Statement

The information in this Presentation that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves (as those terms are used and defined in the JORC Code), except where otherwise noted, is based on information compiled by Messrs Gary Jones and David Edgecombe. Mr Jones is a Fellow of the Australasian Institute of Mining and Metallurgy (AusIMM), a full-time employee of Geonz Associates, Consultant Geologists, shareholder and former director of Eastern Metals. Mr Edgecombe is a Member of AusIMM and the Australian Institute of Geoscientists, a full-time employee of Kelpie Exploration Pty Ltd and shareholder of Eastern Metals. Messrs Jones and Edgecombe have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity which they are undertaking to qualify as Competent Persons as defined in the JORC Code. Messrs Jones and Edgecombe consent to the inclusion in this document of the matters based on his information in the form and context in which it appears.

### Previously Reported Information

The information pertaining to the Browns Reef Exploration Target was extracted from the report entitled "Browns Reef Mineral Resource Estimate" dated 12 December 2014 prepared by Geos Mining. The information for the Browns Reef Project was first disclosed by Kidman Resources Limited (ASX:KDR) under the JORC Code 2012 on 29 December 2014 (Competent Persons, Lyle Sawyer for resource estimation and Michael Green for exploration) and further clarified on 20 January 2015 (Competent Persons, Lyle Sawyer for resource estimation and Michael Green for exploration) and is available on [www.asx.com.au](http://www.asx.com.au).

The information pertaining to the Home of Bullion project mineral resource estimate was extracted from the report entitled "Home of Bullion Resource Estimate", March 2023 prepared by SRK Consulting (Australasia) Pty Ltd as originally reported in an announcement on 8 & 10 March 2023 (ASX:EMS) (Competent Person, Gary Jones). The information for the Home of Bullion Project was first disclosed by Kidman Resource Limited Resources (ASX:KDR) under the JORC Code 2012 and released on 29 July 2014 (Competent Person, Danny Kentwell) and is available to view on [www.asx.com.au](http://www.asx.com.au). For details of Mineral Resource Estimate categories, refer to **Appendix A**; for details of material factors contributing to the copper equivalent (CuEq), refer to **Appendix B**.

Eastern Metals has not undertaken any work on the project that would impact the published resource estimates. The information in this report that references previously reported Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is extracted from the Company's Prospectus released on 18 August 2021 (ASX:EMS 22 October 2021). The Prospectus is available to view on the Company's website or on the ASX website ([www.asx.com.au](http://www.asx.com.au)). The Company confirms that it is not aware of any new information or data that materially affects the information included in the Prospectus and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Persons' findings are presented have not been materially modified from the original market announcements.

# APPENDIX A – HOME OF BULLION RESOURCE ESTIMATE\*#

Lode	Weathering	Class	Tonnage (kt)	Density	CuEq %	Cu %	Zn %	Ag ppm	Pb %	Au ppm	Co %
Main Upper	Oxide	Indicated	110	2.7	4.0	2.3	1.0	71	2.6	0.37	0.01
Main Upper	Fresh	Indicated	370	3.8	4.7	2.8	4.1	47	1.2	0.28	0.03
Main Lower	Fresh	Inferred	740	4.3	4.5	2.7	2.9	39	1.1	0.43	0.03
South	Oxide	Inferred	120	2.7	2.1	1.4	1.3	19	0.7	0.02	0.01
South	Fresh	Inferred	1,100	3.8	2.5	1.4	1.7	40	1.2	0.05	0.02
South LGFW	Oxide	Inferred	40	2.7	0.8	0.4	0.4	10	0.5	0.01	0.00
South LGFW	Fresh	Inferred	580	3.4	0.9	0.4	0.8	14	0.6	0.01	0.01
<b>Total</b>			<b>3,100</b>	<b>3.7</b>	<b>2.9</b>	<b>1.7</b>	<b>2.0</b>	<b>35</b>	<b>1.1</b>	<b>0.17</b>	<b>0.02</b>
All	Oxide		270	2.7	2.6	1.6	1.0	39	1.4	0.16	0.01
All	Fresh		2,790	3.9	2.9	1.7	2.2	35	1.1	0.17	0.02
<b>Total</b>			<b>3,100</b>	<b>3.7</b>	<b>2.9</b>	<b>1.7</b>	<b>2.0</b>	<b>35</b>	<b>1.1</b>	<b>0.17</b>	<b>0.02</b>
All		Indicated	480	3.6	4.6	2.7	3.4	53	1.5	0.3	0.03
All		Inferred	2,580	3.8	2.6	1.5	1.8	32	1.0	0.1	0.02
<b>Total</b>			<b>3,100</b>	<b>3.7</b>	<b>2.9</b>	<b>1.7</b>	<b>2.0</b>	<b>35</b>	<b>1.1</b>	<b>0.17</b>	<b>0.02</b>

\* See EMS ASX announcements 8 March 2023 and 10 March 2023 for further details

\* LGFW means low grade footwall unit

# For details of material factors contributing to the copper equivalent (CuEq), refer to Appendix B

# APPENDIX B – MATERIAL FACTORS CONTRIBUTING TO COPPER EQUIVALENT VALUES

Metal	Prices	Units	Recoveries
Cu	8,900	US\$/t	0.9
Zn	3,300	US\$/t	0.6
Ag	26	US\$/troy oz	0.8
Au	1,850	US\$/troy oz	0.8
Pb	2,500	US\$/t	0.6
Co	57,300	US\$/t	0.6

- All lodes have been reported at 0.5% Cu equivalent (CuEq)\*
- CuEq, as well as the six estimated elements, are reported. CuEq has been calculated from the block estimates on a block-by-block basis
- Copper equivalent is calculated as follows:
  - $\text{CuEq} = \text{Cu} + (\text{Zn} \times 0.25) + (\text{Ag} \times 83.49) + (\text{Au} \times 5904) + (\text{Pb} \times 0.19) + (\text{Co} \times 4.29)$  (all elements in ppm)
- This calculation is based on the following assumed metal prices and recoveries, which were provided by Eastern Metals Ltd
- A cut-off grade of 0.5% CuEq is consistent with other comparable copper deposits and can be demonstrated to be break even for base processing costs at approximately US\$45/t ore.  $\text{Cut-off (\%)} = \text{processing cost} / (\text{recovery} \times \text{price [per \% unit]})$ . For example,  $0.5 = 45 / (0.9 \times 100)$
- It is the Company's opinion that all the elements included in the metal equivalents calculation have a reasonable potential to be recovered and sold

\* Eastern Metals Ltd (ASX:EMS) ASX Announcements 8 & 10 March 2023, 'Resource Grows at Home of Bullion Copper Project'

# APPENDIX C – COBAR PROJECT (NSW)

## BROWNS REEF – EASTERN METALS' Zn-Ag-Pb-Cu-Au ASSET

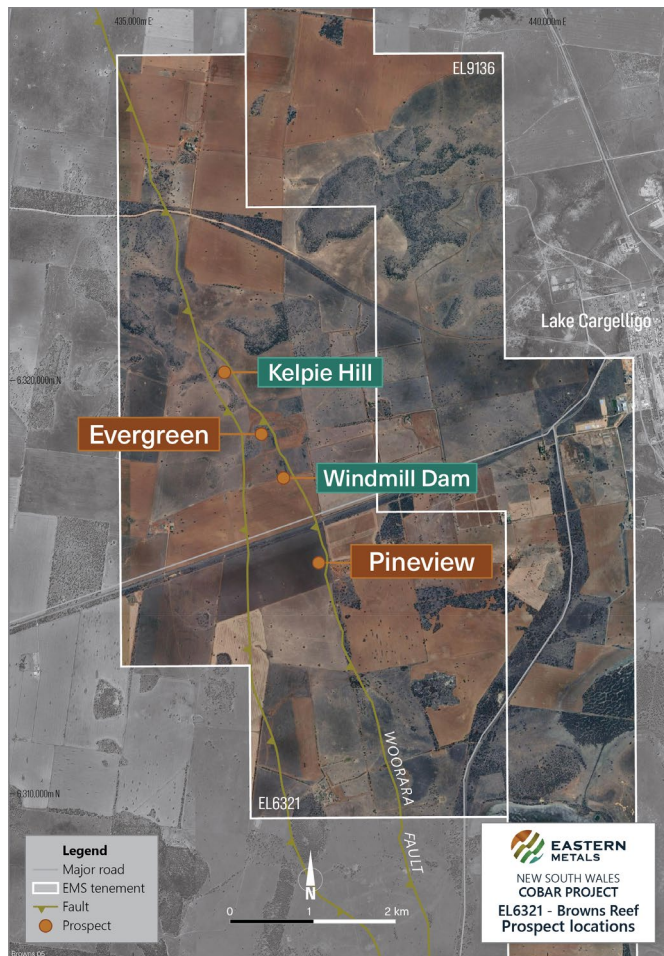
- **Drilling underway at two new high-priority targets** identified, **Kelpie Hill** and **Windmill Dam**, north and south of the **high-grade Evergreen** zone
- **Strike length of Evergreen-Pineview** is **comparable to** Peel Mining's (ASX:PEX) **Wagga Tank-Southern Nights** Zn-Pb-Ag system (about 2km in length)
- **Exploration Target\*** consisting of **27-37Mt** averaging between 1.3-1.4% Zn (**2.28-2.34% ZnEq**), 0.6- 0.7% Pb, 9-10g/t Ag and 0.2-0.3% Cu



**BRD018**, massive sulphide mineralisation (253.0-255.5m)

Sources:

- \* Kidman Resources Ltd (ASX:KDR) ASX Announcement 20 January 2015, 'Clarification to Browns Reef Announcement'
- \* Kidman Resources Ltd (ASX:KDR) ASX Announcement 16 October 2014, 'New mineralised extensions at Browns Reef'
- \* Peel Mining Ltd (ASX:PEX), Investor Presentation November 2022
- \* Eastern Metals Ltd (ASX:EMS) ASX Announcement 9 March 2022, 'Browns Reef Lode Extended Along Strike and at Depth'
- \* Eastern Metals Ltd (ASX:EMS) ASX Announcement 3 June 2024, 'New High-Priority Targets Identified at Browns Reef, NSW'
- \* The potential quantity and grade of an Exploration Target is conceptual in nature, there has been insufficient exploration to define a Mineral Resource, and it is uncertain if further exploration will result in the determination of a Mineral Resource





# COBAR PROJECT – BROWNS REEF (NSW)

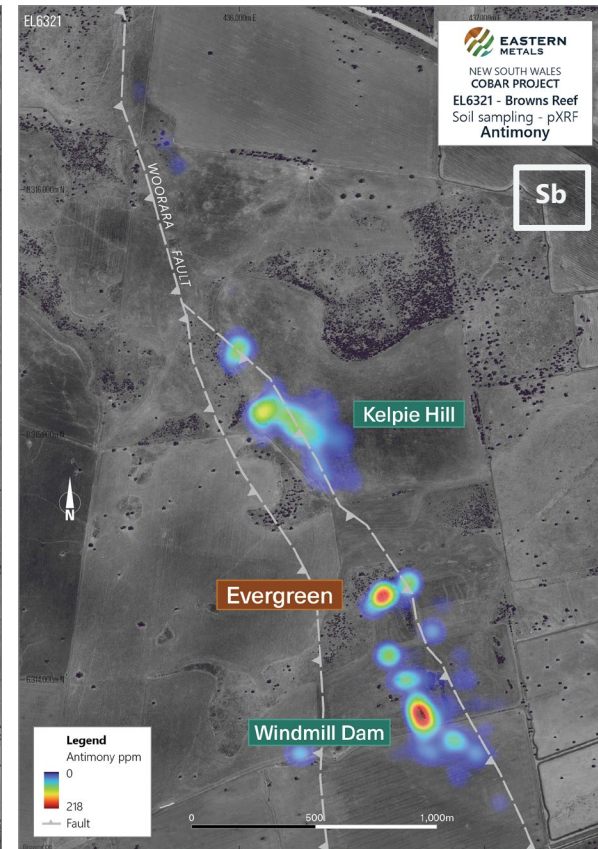
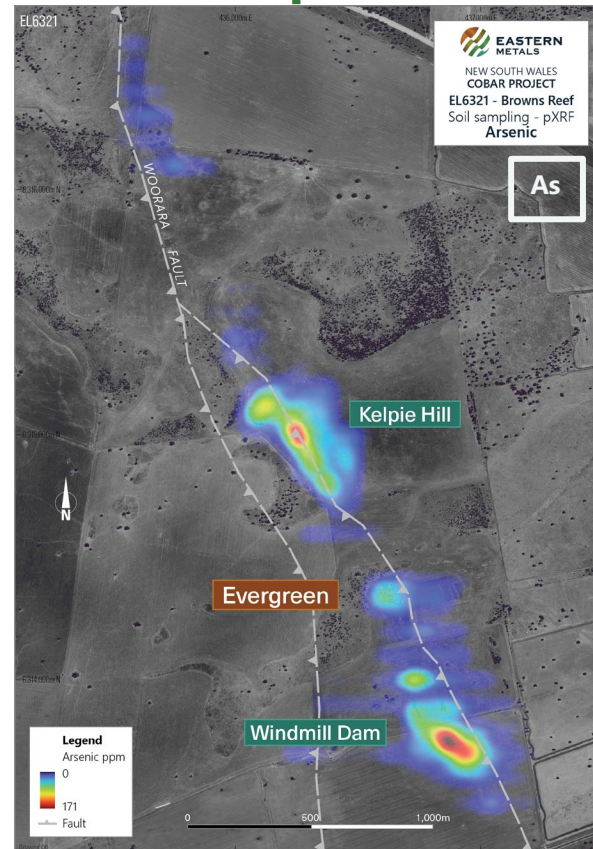
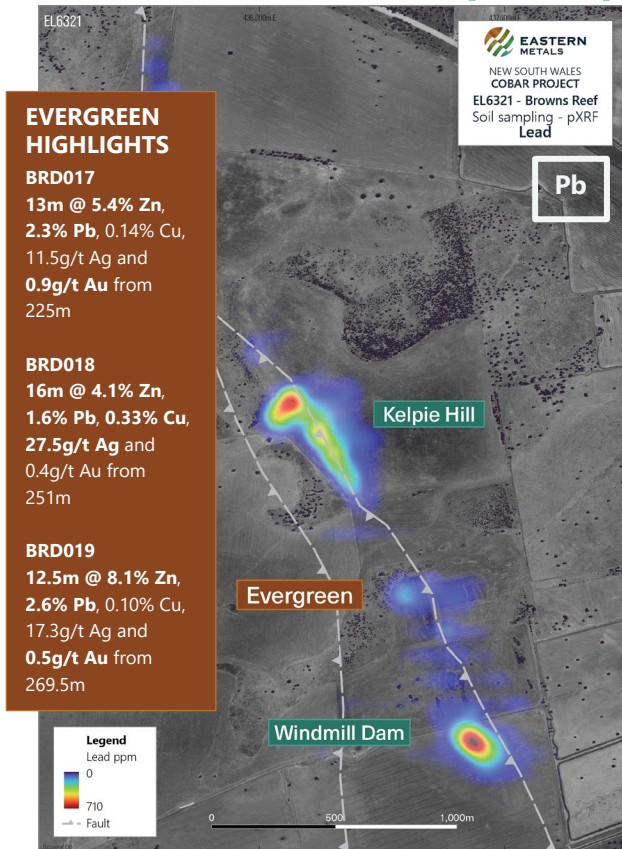
## EASTERN METALS' Zn-Ag-Pb-Cu-Au ASSET

- Mapping, rock chip sampling and pXRF traverses along the **prospective Woorara Fault**, identified **new high-priority targets** north and south of Evergreen, **Kelpie Hill** and **Windmill Dam**
  - Initial results confirmed the ability of soil pXRF analysis to **identify geochemical trends** along the **Woorara Fault**
  - pXRF analysis clearly defined areas of much younger Tertiary basalt cover, which obscures the underlying, more prospective geology
- **Drilling underway** at Kelpie Hill, Windmill Dam and Evergreen



\* Eastern Metals Ltd (ASX:EMS) ASX Announcement 3 June 2024, 'New High-Priority Targets Identified at Browns Reef, NSW'  
\* Eastern Metals Ltd (ASX:EMS) ASX Announcement 7 August 2024, 'Drilling Underway to Test New, High-priority Targets'  
\* Photo: Gossanous ironstone float, Kelpie Hill (not sampled)

# BROWNS REEF (NSW) – SURFACE pXRF DATA



\* "Evergreen Highlights" from Eastern Metals Ltd (ASX:EMS) ASX Announcement 27 June 2022, "Evergreen Discovery Zone Expanded at Browns Reef"

# COBAR PROJECT – BROWNS REEF (NSW)

## WHAT NEXT?

- **Assay results** from recent RC drilling at **Kelpie Hill** and **Windmill Dam** are **pending**
  - **Drilling in progress** at Kelpie Hill and Windmill Dam
  - **Two diamond holes at Evergreen** to test for an extension of the mineralisation along strike to the north
- **Planning underway for an Induced Polarisation (IP) survey** to ‘see through’ the Tertiary basalt, potentially highlighting new target areas for drilling

