



IMARC Presentation

**Torrens:  
Massive IOCG Copper Target**

LINDSAY OWLER, Director/CEO – 31 October 2017

# CORPORATE OVERVIEW

## ASX Code

ARE

## Capital structure

**Shares on issue:** 1.135 billion

**Share price (28 October 2017):** 1.9c

**Unlisted options:** 164.3 million

**Market cap at 1.9c:** A\$22 million

## Cash

\$1.8 million raised July 2017

## Directors

**Pat Elliott** Non-Executive Chairman

**Lindsay Owler** CEO/Executive Director

**Andrew Bursill** Director/Company Secretary

**Malcolm Richmond** Non-Executive Director



# EXPLORATION FOCUS

## Torrens – Copper, SA

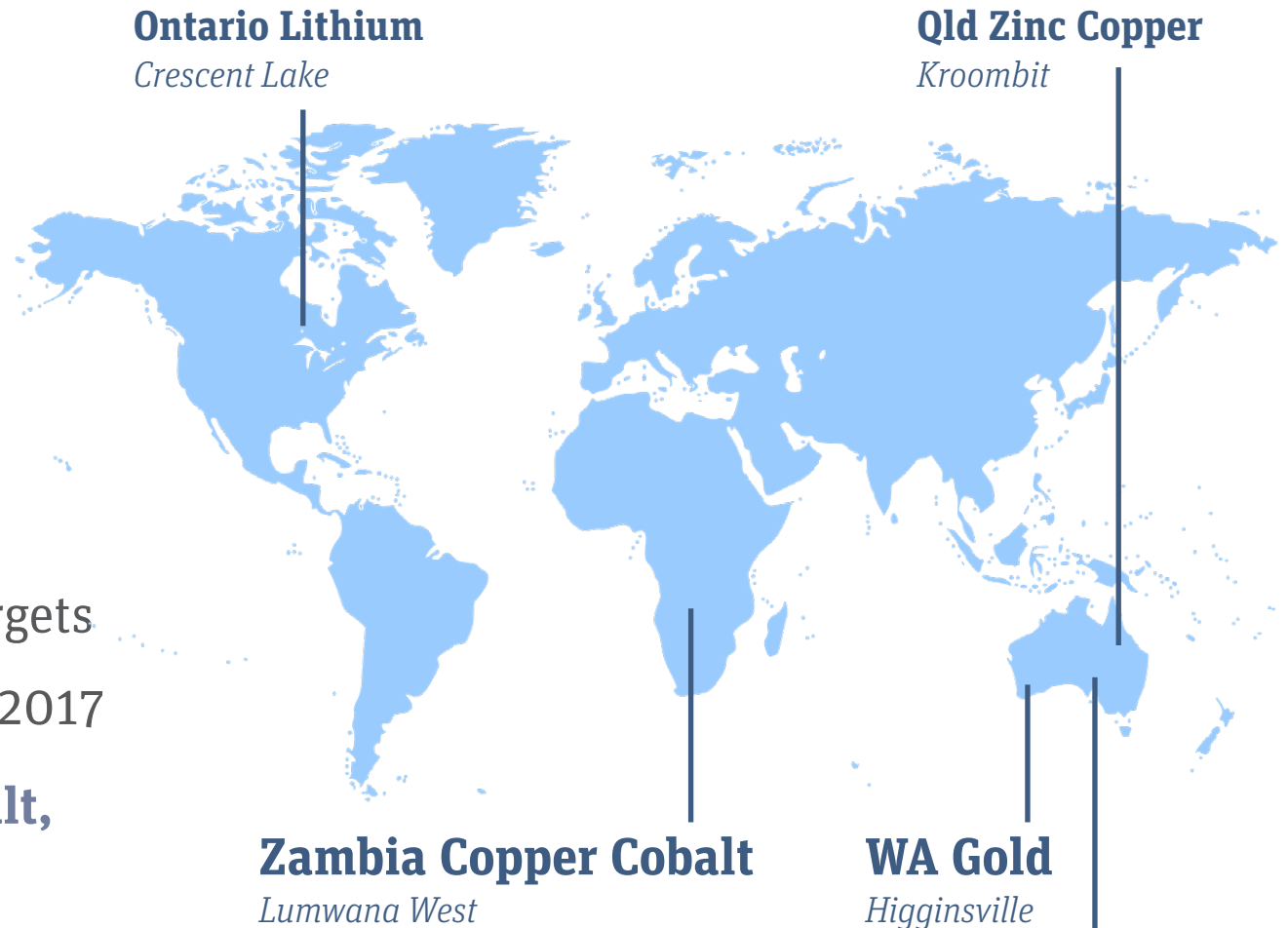
- Massive IOCG system
- Primary focus
- Access resolution coming soon

## Higginsville - Gold, WA

- Multiple gold and nickel targets
- Drilling completed October 2017

## Lumwana West - Copper Cobalt, Zambia

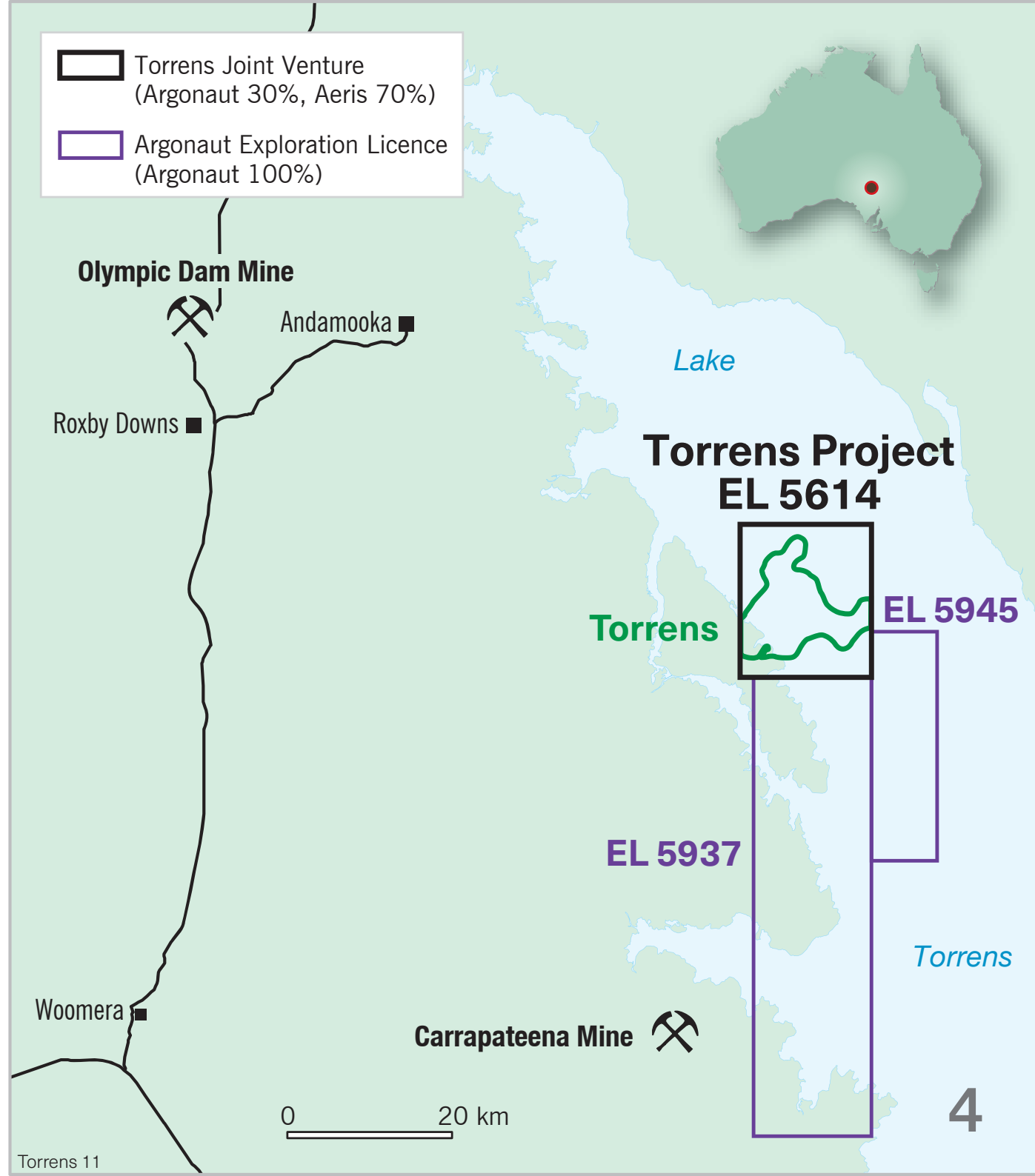
- Nyungu Deposit: JORC 2012  
Exploration Target



**Torrens Copper**  
South Australia

# TORRENS COPPER PROJECT

1. Massive anomaly with multiple deposit-scale target zones
2. The right geological address
3. Confirmed Iron Oxide Copper-Gold (IOCG) system



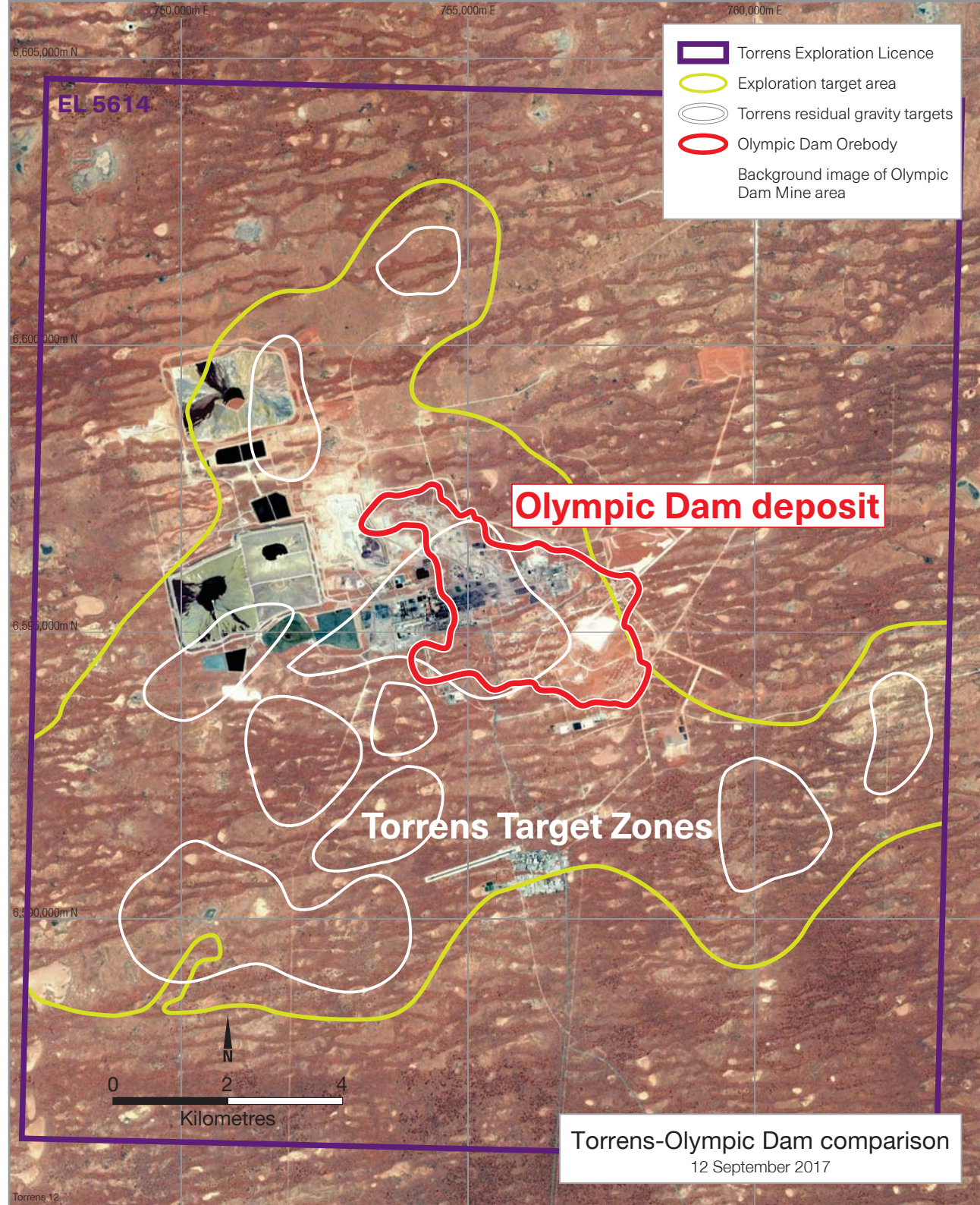
# TORRENS: **BIGGER TARGET** THAN OLYMPIC DAM

## Torrens target zones draped over:

- Olympic Dam mine site (image)
- Olympic Dam ore body outline (red)

## In the event of discovery, there is scope for:

- Very large tonnage deposit
- Successive discoveries



# TORRENS: **MASSIVE** ANOMALY WITH MULTIPLE TARGETS

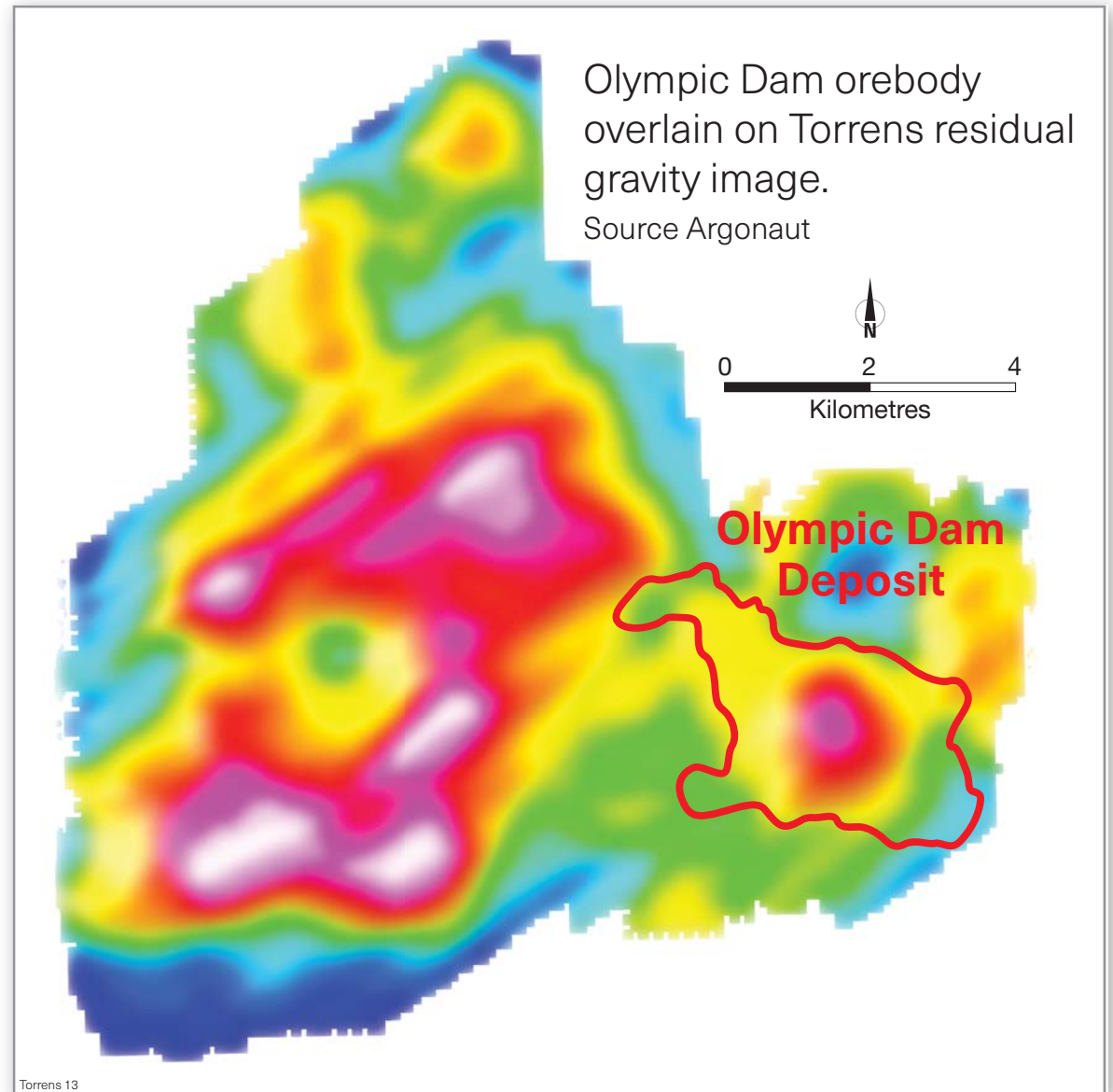
## Broad, intense geophysical anomaly

- 120 km<sup>2</sup> – massive scale
- Similarities with Olympic Dam

## Ten individual target zones

- Multiple discovery opportunities

Each target is large enough to host a world-class deposit bigger than Carrapateena

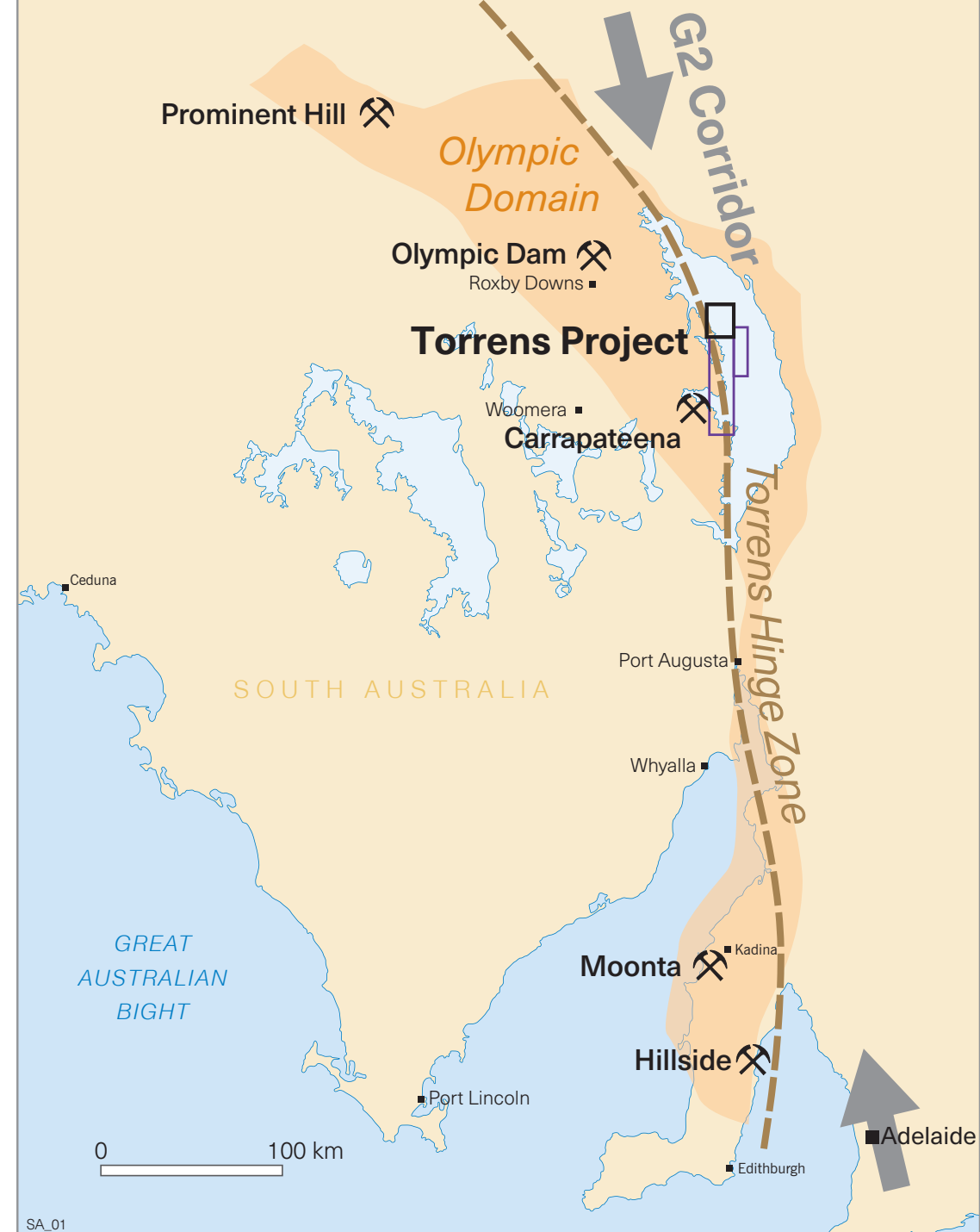


# TORRENS: THE RIGHT GEOLOGICAL ADDRESS

## South Australia's Olympic Domain:

- Host to major Iron Oxide Copper-Gold (IOCG) deposits
- Olympic Dam
- Carrapateena
- Prominent Hill

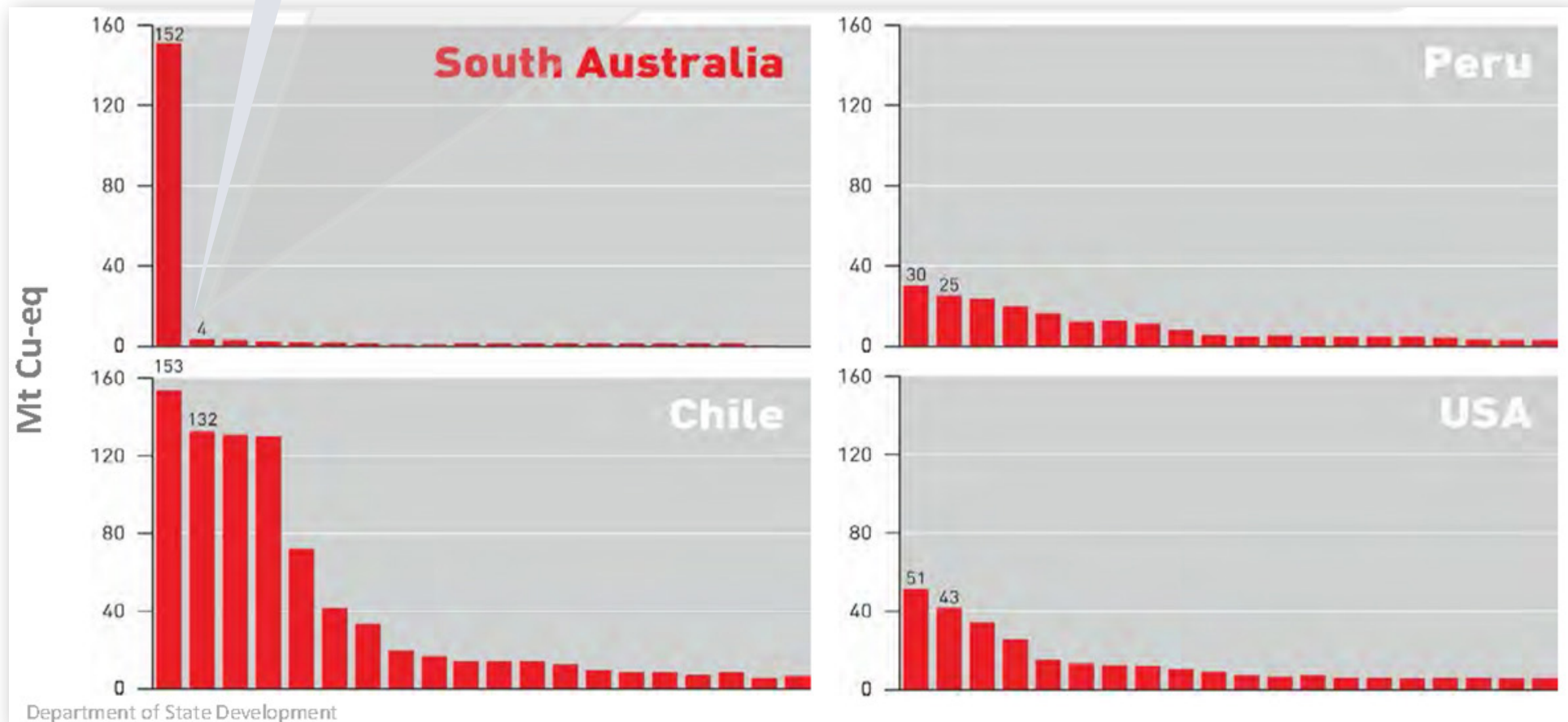
Huge discovery potential



# SOUTH AUSTRALIA: COPPER DISCOVERY GAP

South Australia's copper discovery gap.

Large gap between first and second largest copper deposits.





# TORRENS: THE RIGHT GEOLOGICAL ADDRESS

## Crustal Architecture

- Torrens Hinge Zone
  - Continent-scale zone of crustal weakness
- Crustal domain boundary
  - Gawler Craton margin

## Pathway for mantle fluids

- Intersection of O'Driscoll's G2 and G9 corridors
  - Gravity lineations predicting major deposit locations

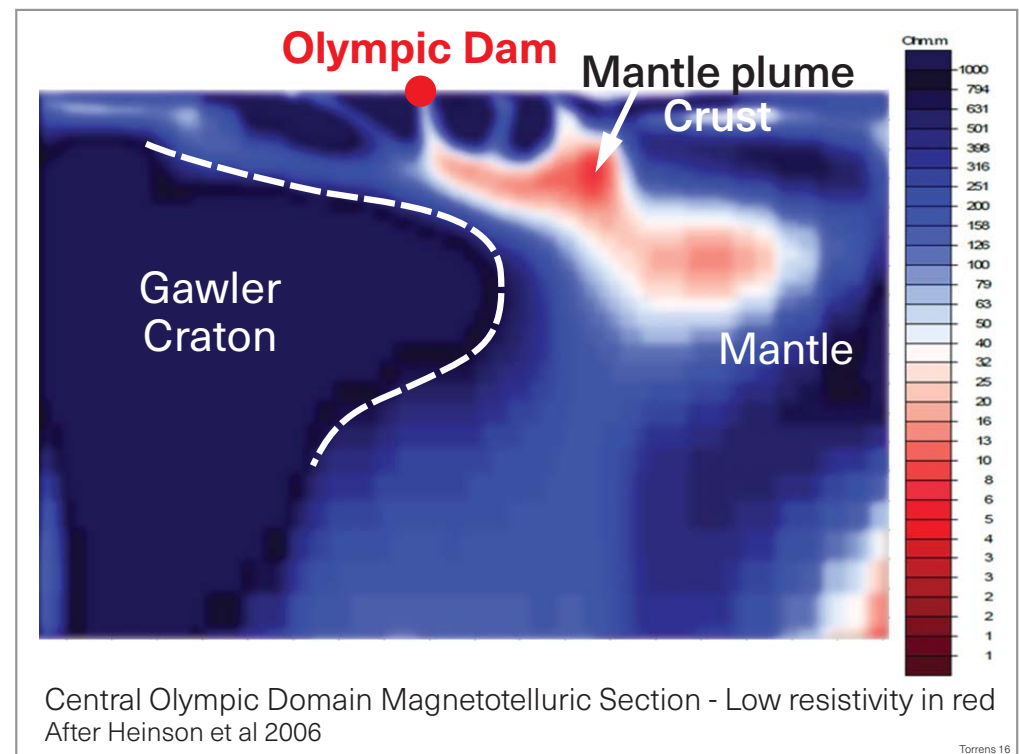
## TORRENS IRON OXIDE ESTIMATES

*from geophysical modelling:*

Magnetite 50 billion tonnes

Hematite/Sulphide 13 billion tonnes

Deep-seeing resistivity provides best explanation for emplacement of large volumes of iron-oxide



# TORRENS: CONFIRMED IOCG SYSTEM

## IOCG CONFIRMATION:

Copper sulphides associated with abundant magnetite and/or hematite:

- Copper assays to 1.36% Cu
- Chalcopyrite and bornite present
- Very large volume of magnetite/hematite

## Alteration minerals:

- All diagnostic alteration minerals noted
- Alteration zonation

## Late-stage hydrothermal mineralisation:

- Hematite replacement
- Sulphides and proximal alteration minerals

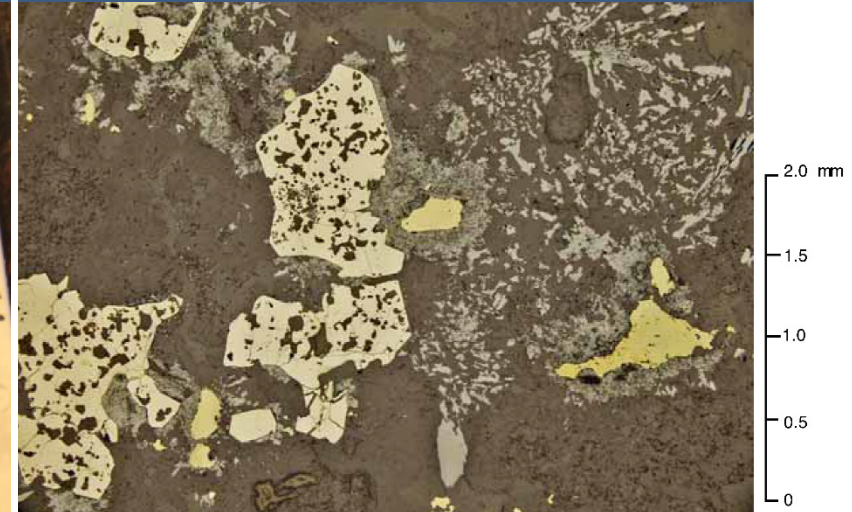
## Accessory/indicator elements:

- Fluorine
- Rare earth elements

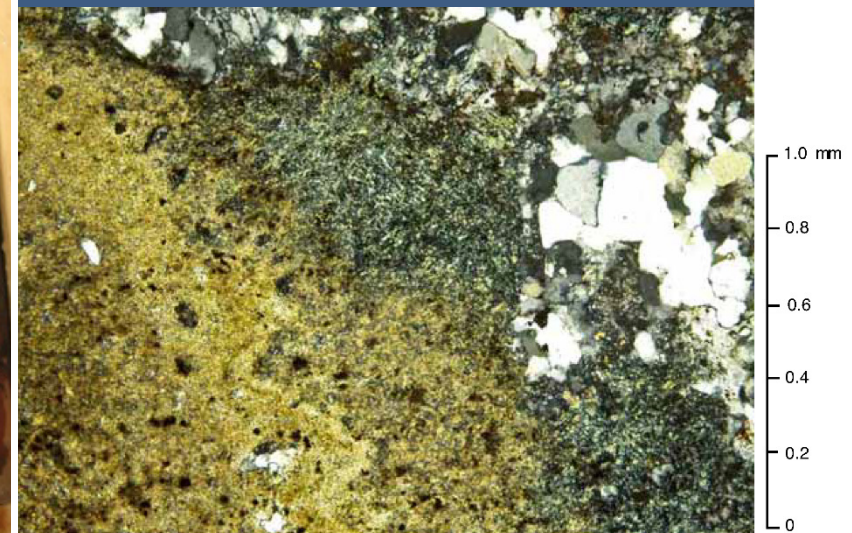
*TD4: Sulphide mineralisation*



*TD4: Hematite - chalcopyrite mineralisation*



*TD4: Chlorite - sericite alteration*



# TORRENS: SUMMARY

## The right geological address

- Olympic Domain, Torrens Hinge Zone
- Mantle fluids pathway
- Large volumes of magnetite/hematite

## Massive anomaly with ten distinct target zones

- Bigger than Olympic Dam
- Ten targets equal or greater in size to Carrapateena

## Confirmed IOCG mineralisation

- Copper sulphides, alteration assemblages, rare earth elements

## ***THEREFORE:***

- *higher likelihood of discovery, and*
- *higher likelihood of commercial tonnages and grades.*

# ARGONAUT: TORRENS EXPLORATION EXPOSURE

## TORRENS JOINT VENTURE

- **Joint venture interests:**
  - » 30% Argonaut Resources NL,
  - » 70% Aeris Resources Ltd.
- **Operator:** Argonaut
- **Expenditure:** Pro rata



# TORRENS: ACCESS APPROVALS NEAR COMPLETION

## Native title:

- ERD Court Approved access and operational rights granted on 31 March 2017

## Access and compensation agreement:

- Signed July 2017

## Aboriginal heritage:

- First granted in 2010
- Re-grant application in 2017

## Mines/Environment Department

- Granted Sept 2007, Mar 2010, Nov 2010
- Re-grant due November 2017



# TORRENS: ADDITIONAL REGIONAL TARGETS

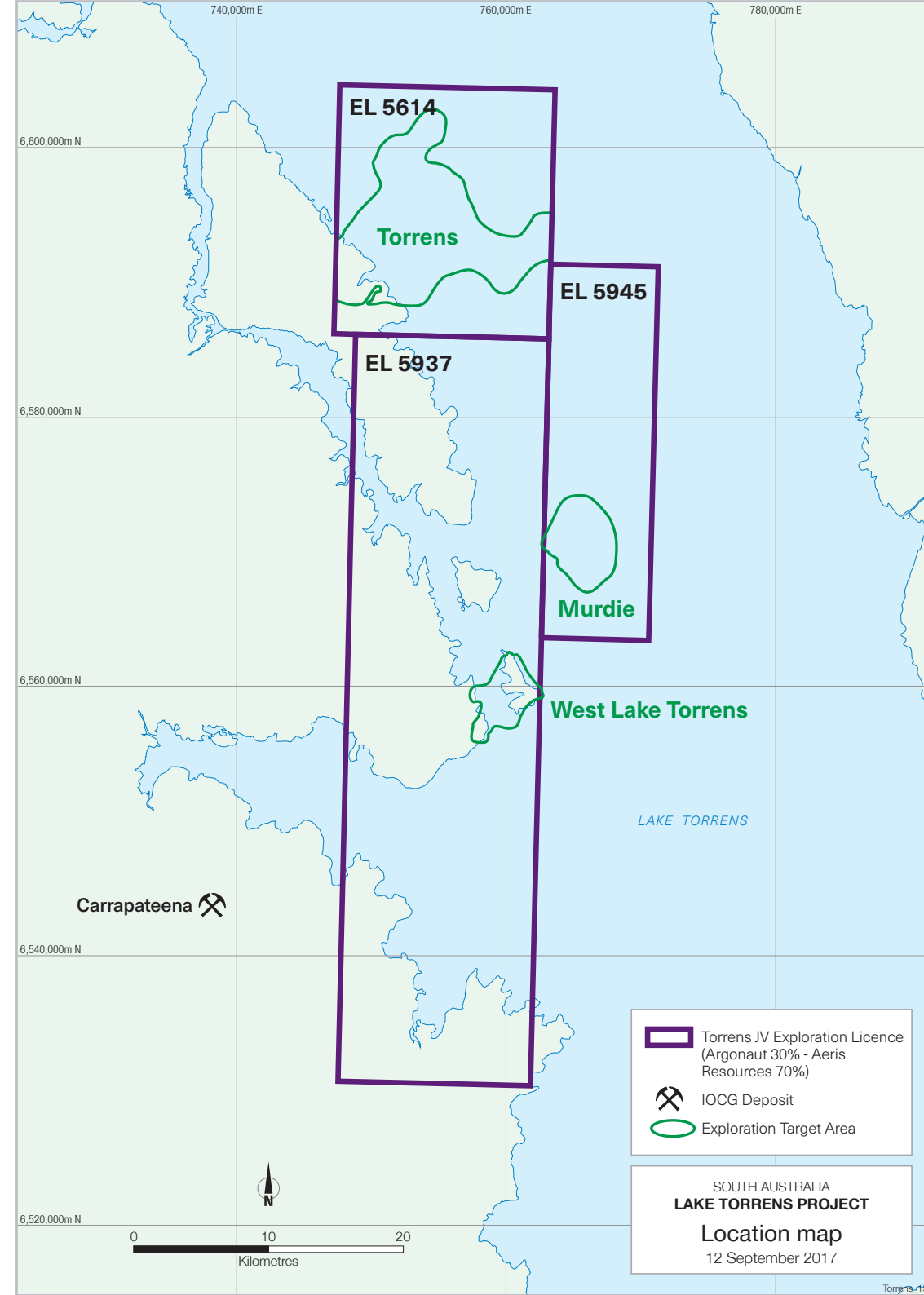
## Argonaut holds a commanding land position:

- Murdie anomaly
  - » Confirmed IOCG system
  - » One drill hole by WMC in 1981
- West Lake Torrens anomaly
  - » Further testing warranted

## Geological setting equivalent to Torrens:

- Olympic Domain
- Torrens Hinge/Craton margin
- Mantle fluid potential

## Primary and secondary exploration targets held in one package



# TORRENS: THE RIGHT COMMODITY AT THE RIGHT TIME

## Copper price recovery:

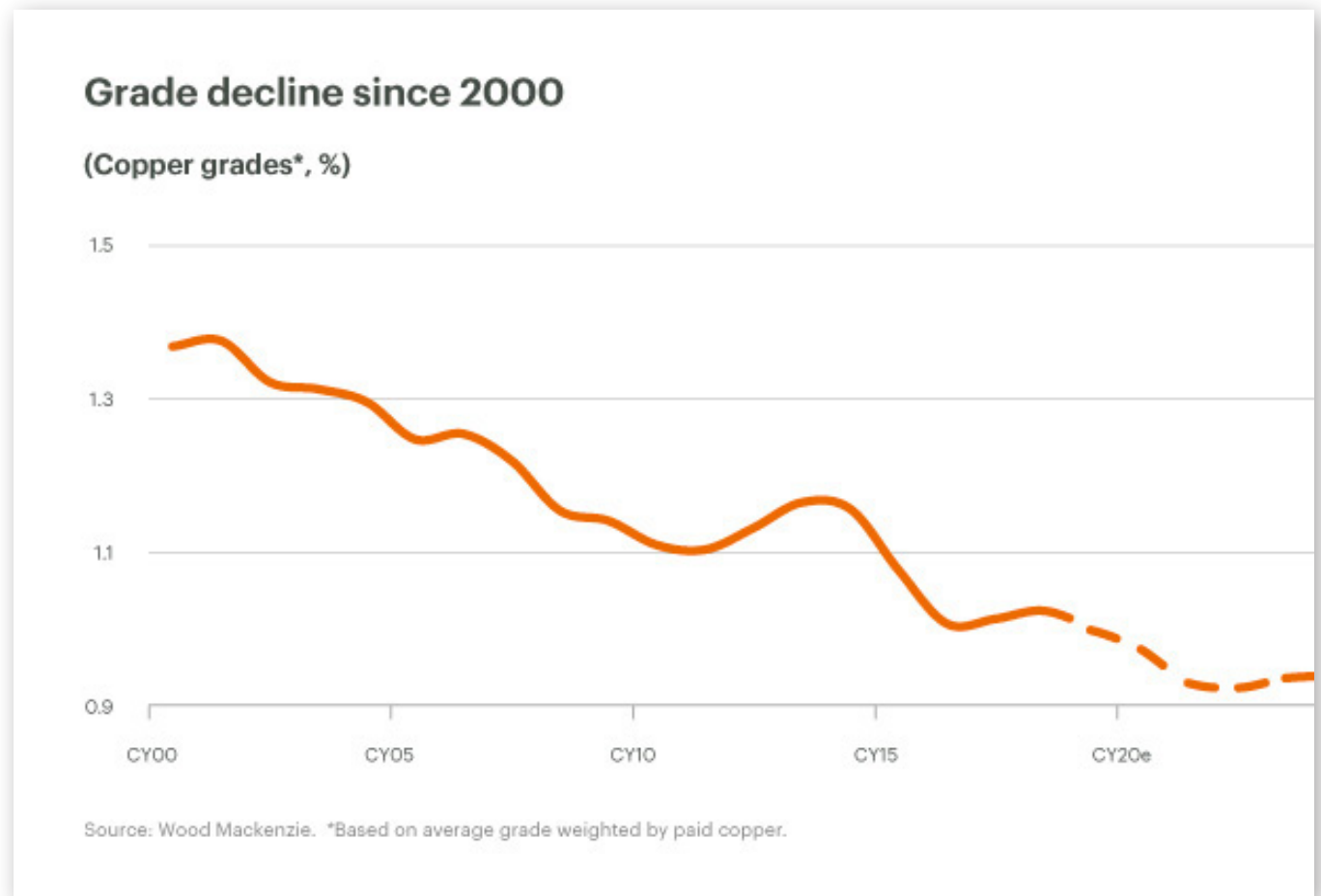
- >50% recovery from 2016 low
- Demand growth overwhelming new supply

**Likely sustained upswing**



# COPPER MARKET

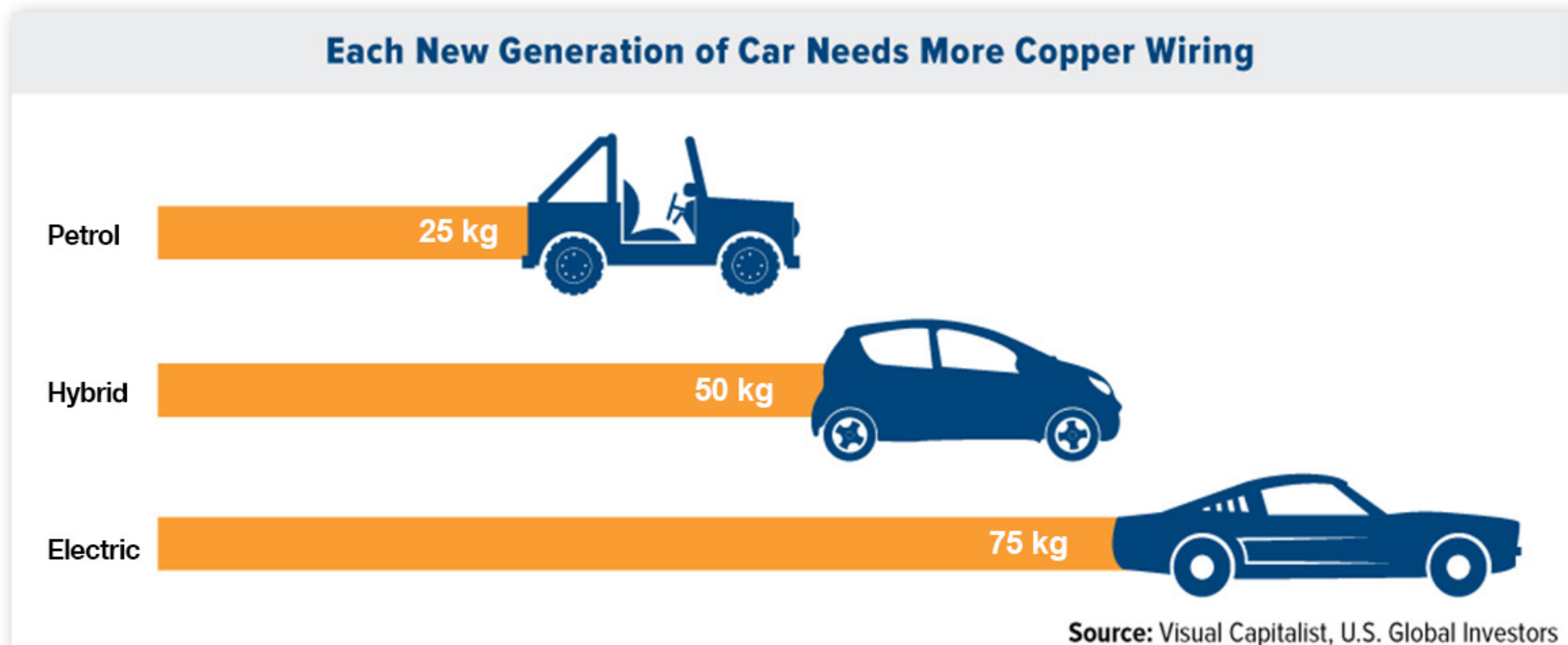
- Structural deficit
- Demand driving prices
- Insufficient new supply coming
  - » pipeline of new supply is thin vs demand growth
- Grades are declining
  - » low prices encouraged 'high-grading' of mines
- Reserves are depleted
  - » underinvestment in exploration since 2012





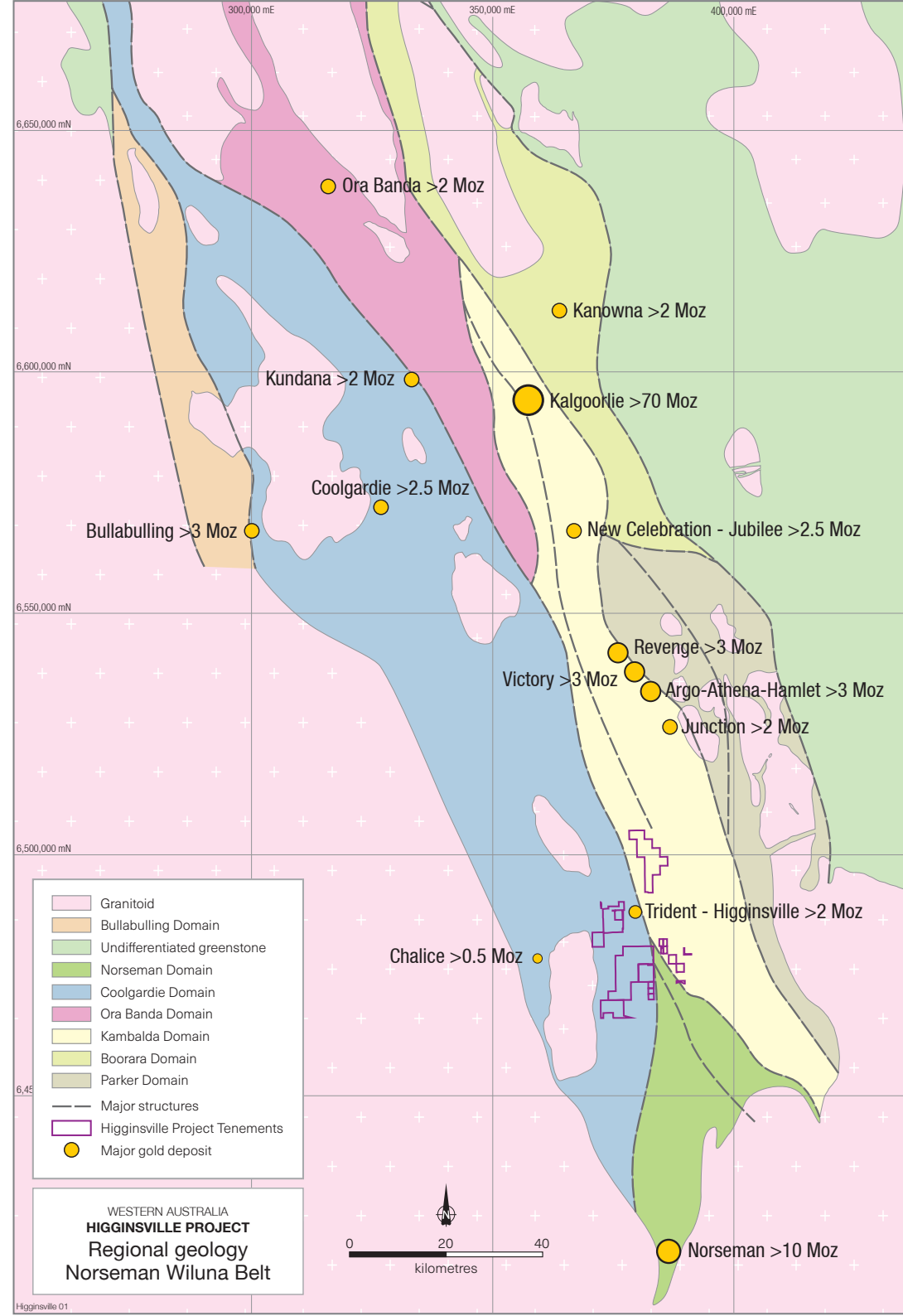
# COPPER DEMAND GROWTH ACCELERATING FROM EMISSIONS REDUCTION

- We are experiencing an explosion in electric vehicle demand
- Hybrid and electric vehicles demand much more copper than conventional cars
- Ongoing demand growth from urbanisation trends



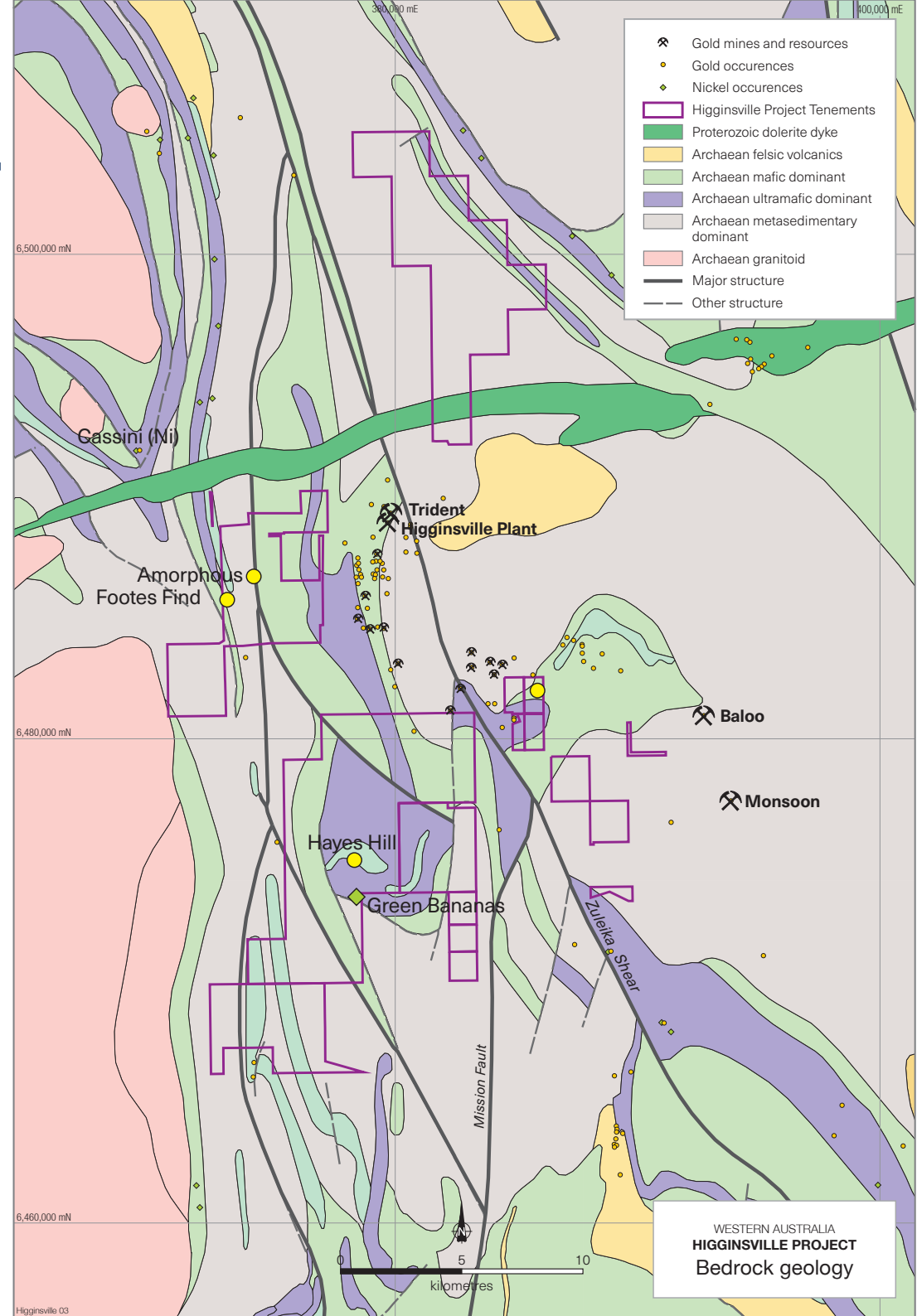
# HIGGINSVILLE GOLD AND NICKEL PROJECT

- Multiple gold and nickel targets
- Eastern Goldfields, Western Australia
- International-scale gold endowment
- Home to majority of Australia's historic gold reserves
- Excellent infrastructure and processing capacity
- Abundant historic shallow drill data
- Earn-in joint venture
  - 51% for \$500,000 spend
  - 80% for additional \$1.5M spend

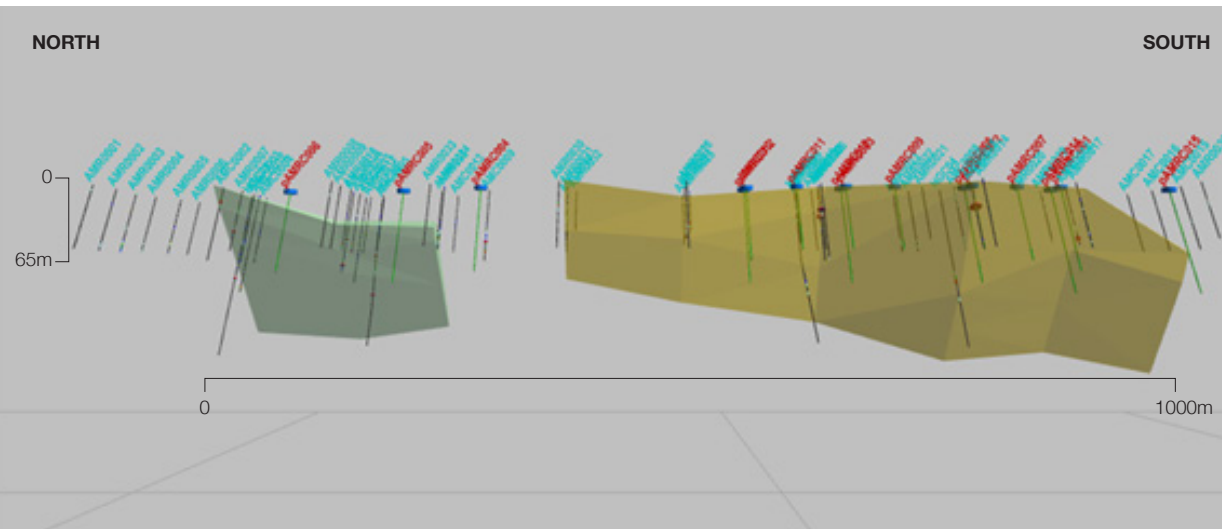


# HIGGINSVILLE GOLD AND NICKEL PROJECT

- Gold mineralisation at Amorphous and Footes Find is typically hosted in quartz veins within a steeply dipping gabbroic unit
- Shallow oxide gold and deeper primary gold targets
- Nearby to production infrastructure
- 2017 RC drilling program has been completed by Argonaut Resources



# HIGGINSVILLE: AMORPHOUS PROSPECT



Gold mineralisation shells with existing and recently completed drill holes.

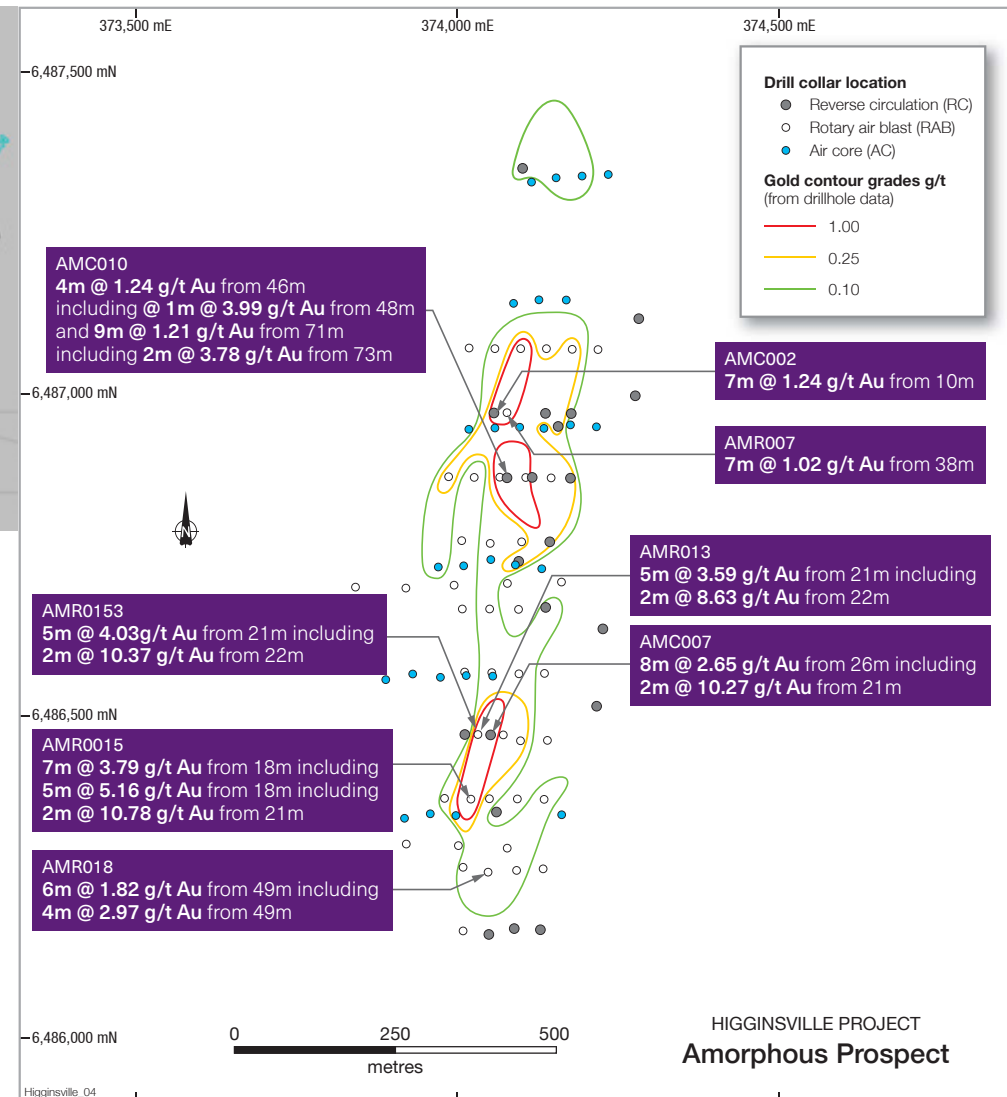
## HISTORIC DRILLING

### Amorphous Prospect

- AMC0007: **8m at 2.07g/t gold from 26m**, including 2m at 7.94g/t gold from 28m
- AMC0010: **9m at 1.21g/t gold from 71m**, including 2m at 3.78g/t gold from 73m
- AMR0013: **5m at 4.03g/t gold from 21m**, including 2m at 10.37g/t gold from 22m
- AMR0015: **8m at 3.27g/t gold from 17m**, including 3m at 9.6g/t gold from 21m

### Footes Find Prospect

- FFP0010: **7m at 2.13g/t gold from 28m**, including 1m at 12.5g/t gold from 30m



Historical drilling.

# DIVERSIFIED ASSETS

## Torrens – Copper, SA

- Massive IOCG system
- Primary focus
- Access resolution coming soon

## Higginsville – Gold, WA

- Multiple gold and nickel targets
- Drilling completed October 2017

## Lumwana West – Copper Cobalt, Zambia

- **Nyungu Deposit:** JORC 2012 Exploration Target:

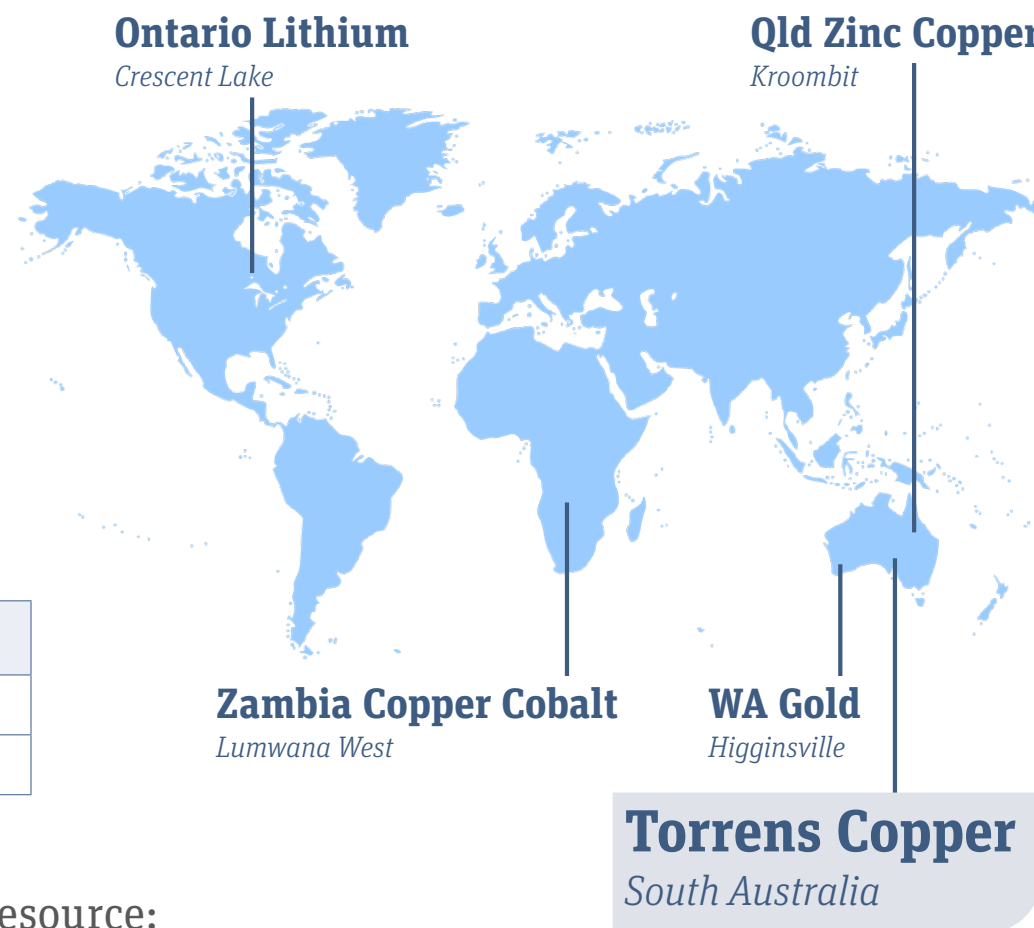
Commodity	Tonnage (Mt)	Grade (%)	Contained metal (kt)
Copper	130 to 180	0.45 to 0.65	580 to 1,150
Cobalt	15 to 20	0.08 to 0.12	12 to 24

## Kroombit – Zinc Copper, QLD

- **Kroombit Deposit:** JORC Inferred and Indicated Resource:
  - 5.2 million tonnes grading at 1.9% zinc and 0.2% copper at a cut-off of 1.0% Zn
  - 0.9 million tonnes at 1.0% copper at a cut-off of 0.5% Cu.

## Crescent Lake – Lithium, Canada

- Spodumene pegmatite lithium



# ARGONAUT – COMING SHARE PRICE CATALYSTS

Drilling at Higginsville, WA gold properties	Oct 2017
Final access approvals to Torrens	Nov 2017 and Jan 2018
JV announcement of exploration program scope • Considering 30 hole program over 16-18 months	Jan 2018
Finalisation of Torrens program funding	Jan 2018
Drilling at Torrens – expect to start	Feb 2018
<b>Possible economic grade intersection at Torrens??</b>	<b>From Mar 2018?</b>

# ARGONAUT SUMMARY

**Market Capitalisation:** A\$22 million

**Focus on Torrens IOCG Target:**

- Right geological address
- Massive scale
  - » Larger geophysical anomaly than Olympic Dam
  - » Multiple targets within system
- Confirmed IOCG system
- Exploration access close

**Extreme leverage to discovery**

**Copper demand and prices rising**

## ***ARGONAUT AT TORRENS:***

- *Multiple drill targets = higher likelihood of discovery, and*
- *Huge upside potential on discovery*