MAKING A DIFFERENCE

# Sediment-hosted Copper in South Australia - IGO's Copper Coast Project

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# The Copper Coast Project

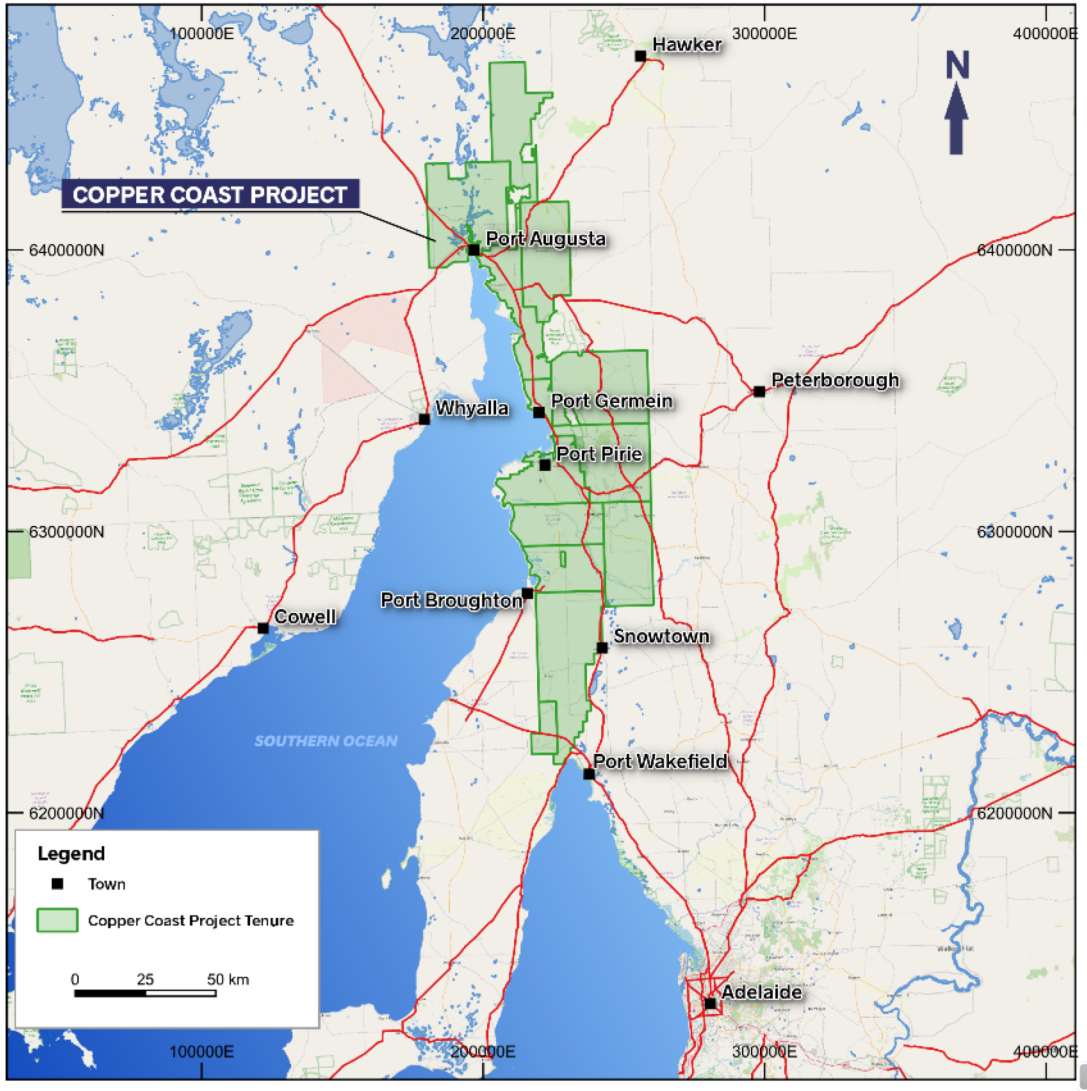
## Searching for large, high-grade sediment-hosted copper

**12 tenements covering 7,526km², 100% IGO tenure**

**Prospective for Sediment-hosted Cu in Neoproterozoic sequences**

**IGO to apply a systematic exploration program in search of a tier 1 copper deposit**

**Novel, but not new, exploration methods combined with a holistic basin approach for breakthrough discovery**



# IGO Limited

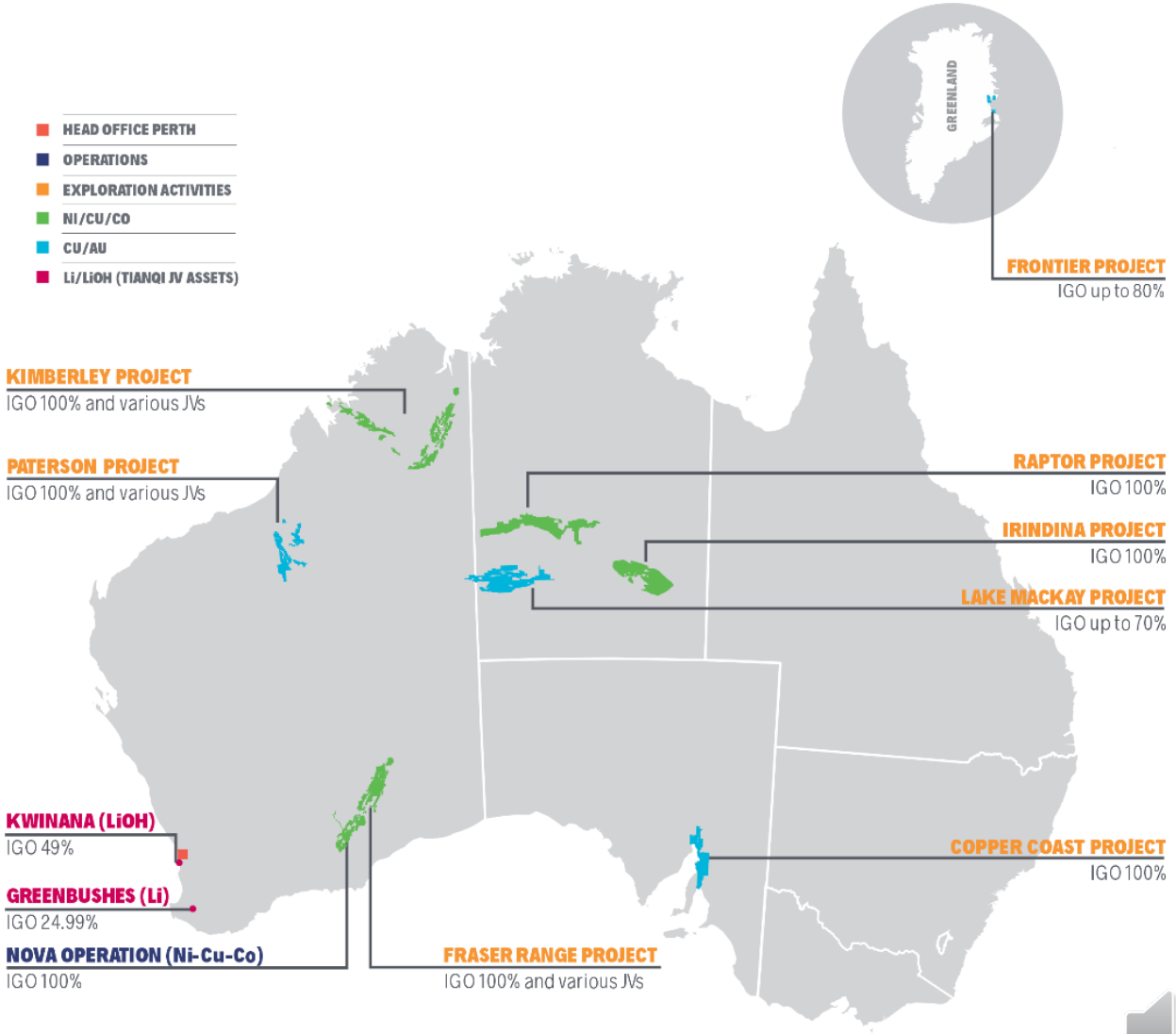
## Building a clean energy metals business

**Portfolio focused on nickel, copper, cobalt and lithium**

**Significant brownfields potential at Nova, Greenbushes and expansion opportunities at Kwinana**

**Tier-1 mineral opportunities**

**Extensive, belt-scale exploration portfolio in Australia & Greenland**



# Our Strategy

## Purpose of Making a Difference has underpinned our strategy

Our winning aspiration is to be a globally relevant supplier of products that are critical to clean energy, to create a better planet.

### DIVERSE SUITE OF PRODUCTS

Made safely, ethically, sustainably and reliably

### CUSTOMER FOCUSED

Connecting with end users through vertical integration

### CARBON NEUTRAL

Committing to carbon neutrality across our business

### PEOPLE

People who are bold, passionate, fearless and fun – a smarter, kinder, more innovative team

# Lithium-ion Battery Demand

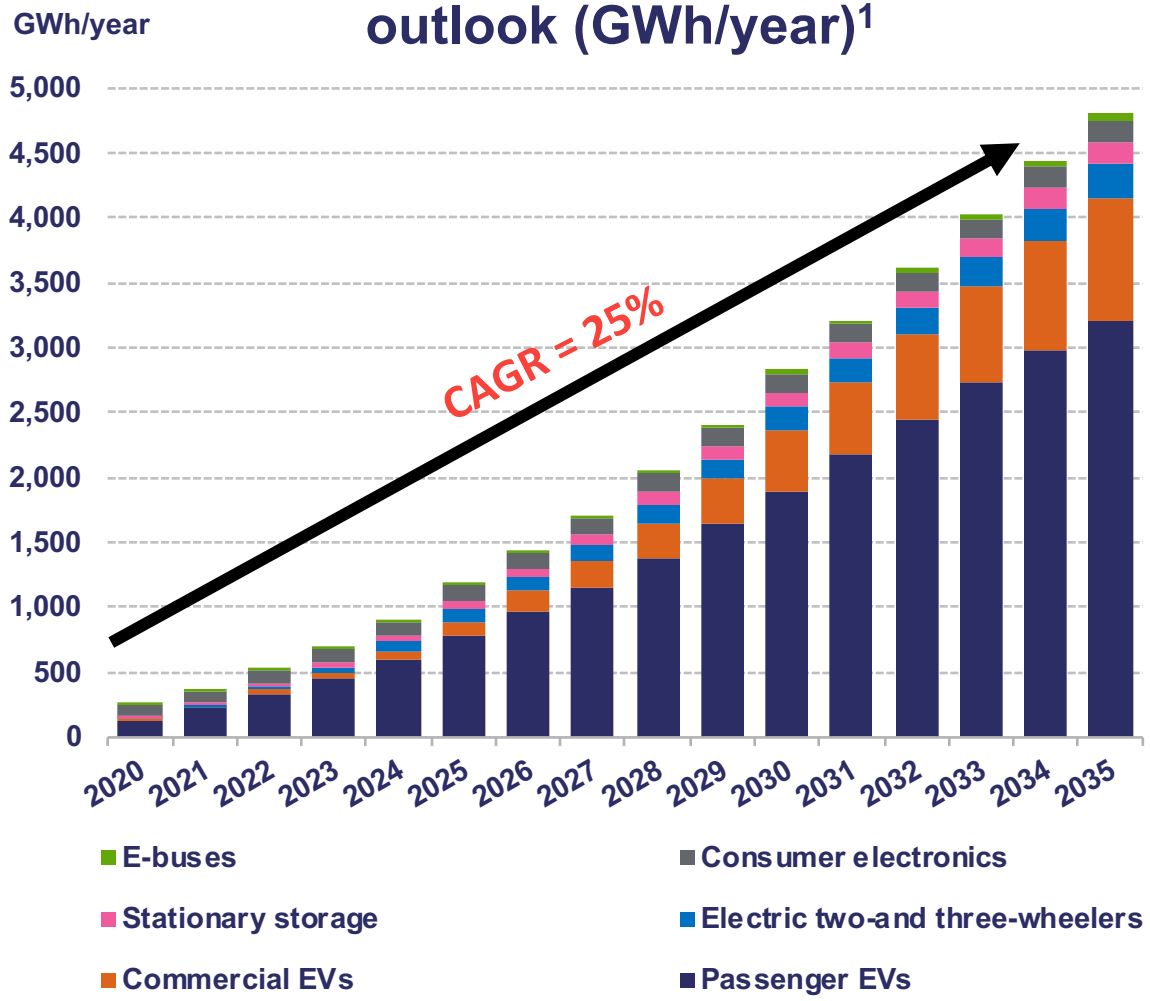
## Substantial growth expected

**Lithium-ion battery demand set to increase 5x over the next decade**

**Passenger vehicle electrification is the primary driver**

**Plug-in EV sales up 150% YTD with 2015-2021 CAGR of 55%[2]**

**Lithium-ion battery demand outlook (GWh/year)[1]**




1) Source: Bloomberg NEF
2) Source: Terra Studio

# Our Exploration Portfolio

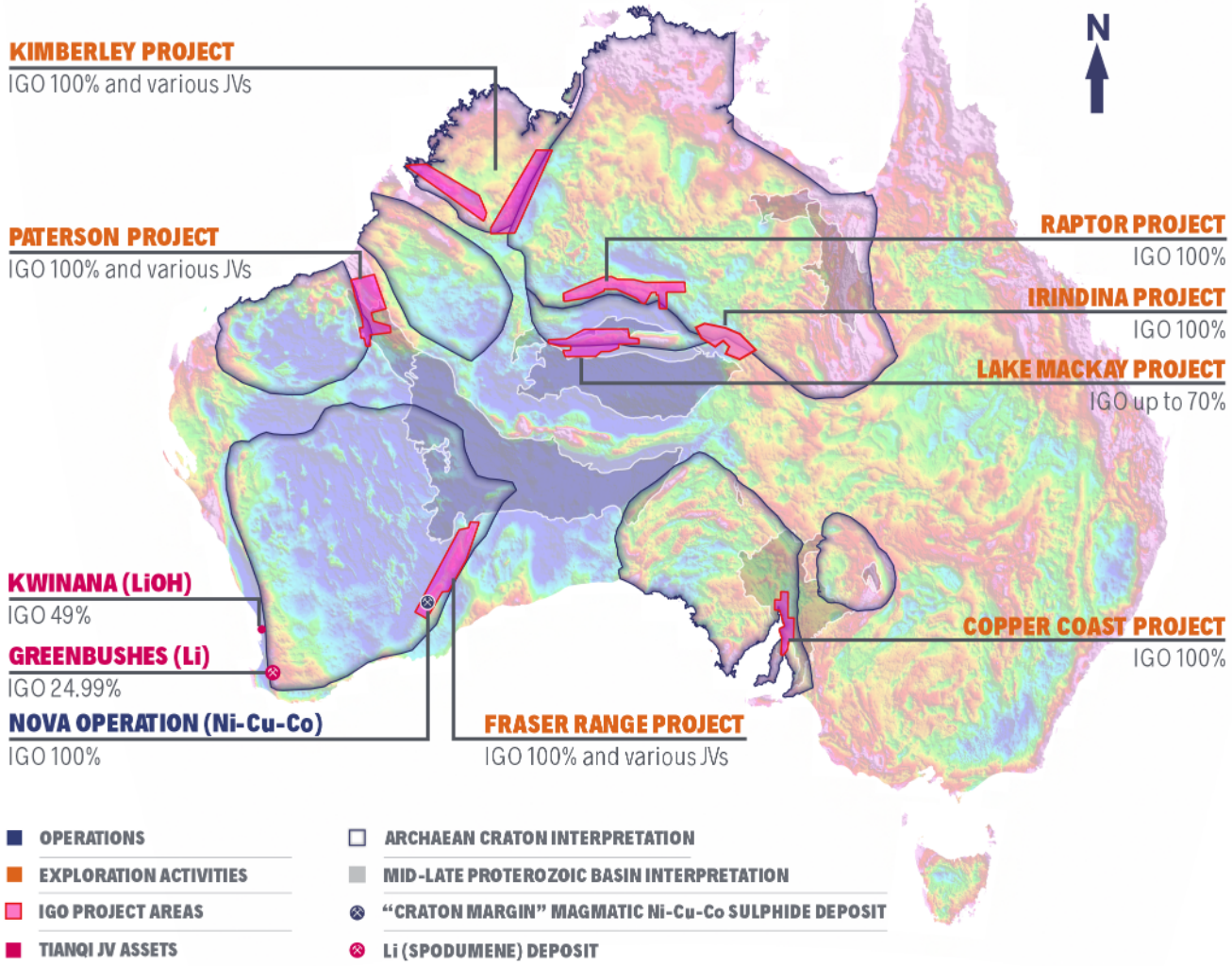
## An organic growth focused company

**Focus on high value magmatic nickel sulphides and sediment hosted copper deposits**

**Extensive highly prospective landholding across Australia**

**Best in class team utilising best science available – geology, geophysics and geochemistry**

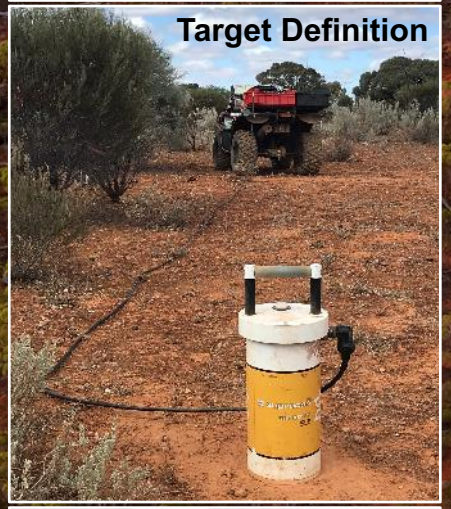
**Strong budget of ~$65M/yr since FY20**



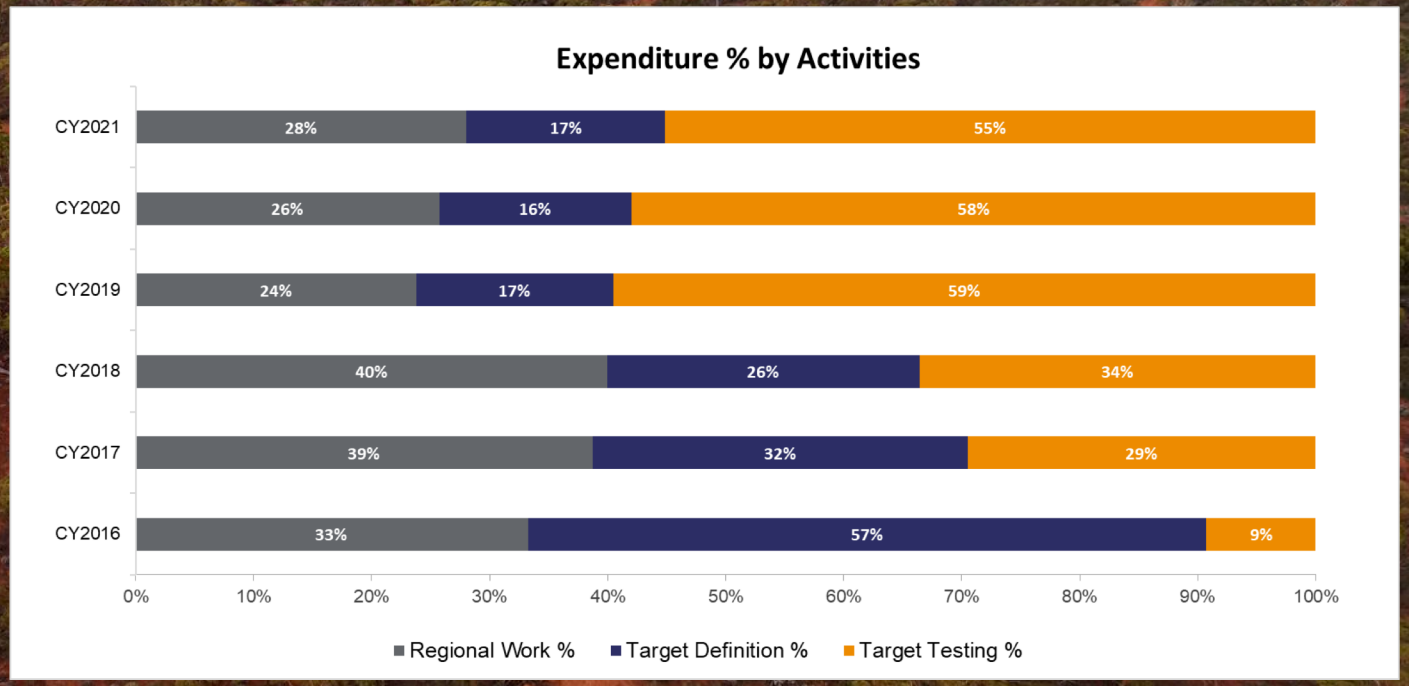
# Our Exploration Methodology

## High power, low detection, fit for purpose toolkit





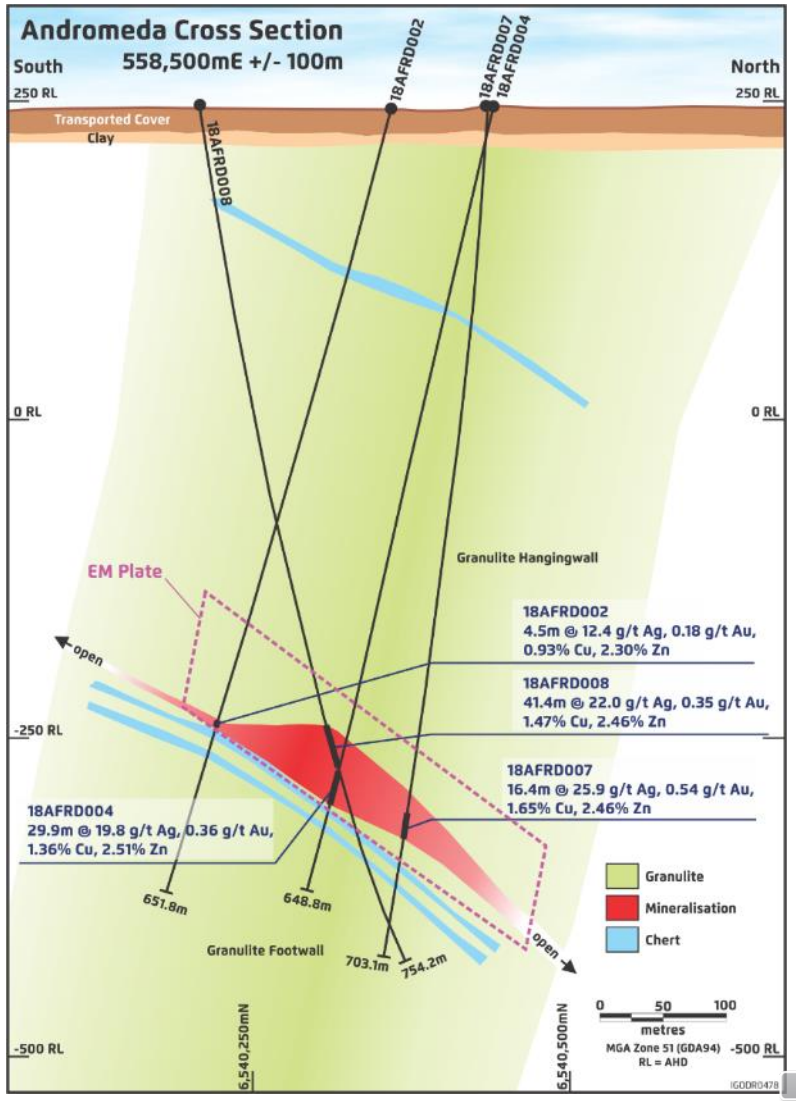

# Exploration Successes Within Belt Scale Projects

## 2018 - Andromeda Cu-Zn-Ag-Au VMS discovery

**TEM survey using Low Temperature SQUID sensor identifies conductive body at >500m**

**Diamond drilling finds Cu-Zn-Au-Ag massive sulphide deposit at ca. 550m extending for >300m**

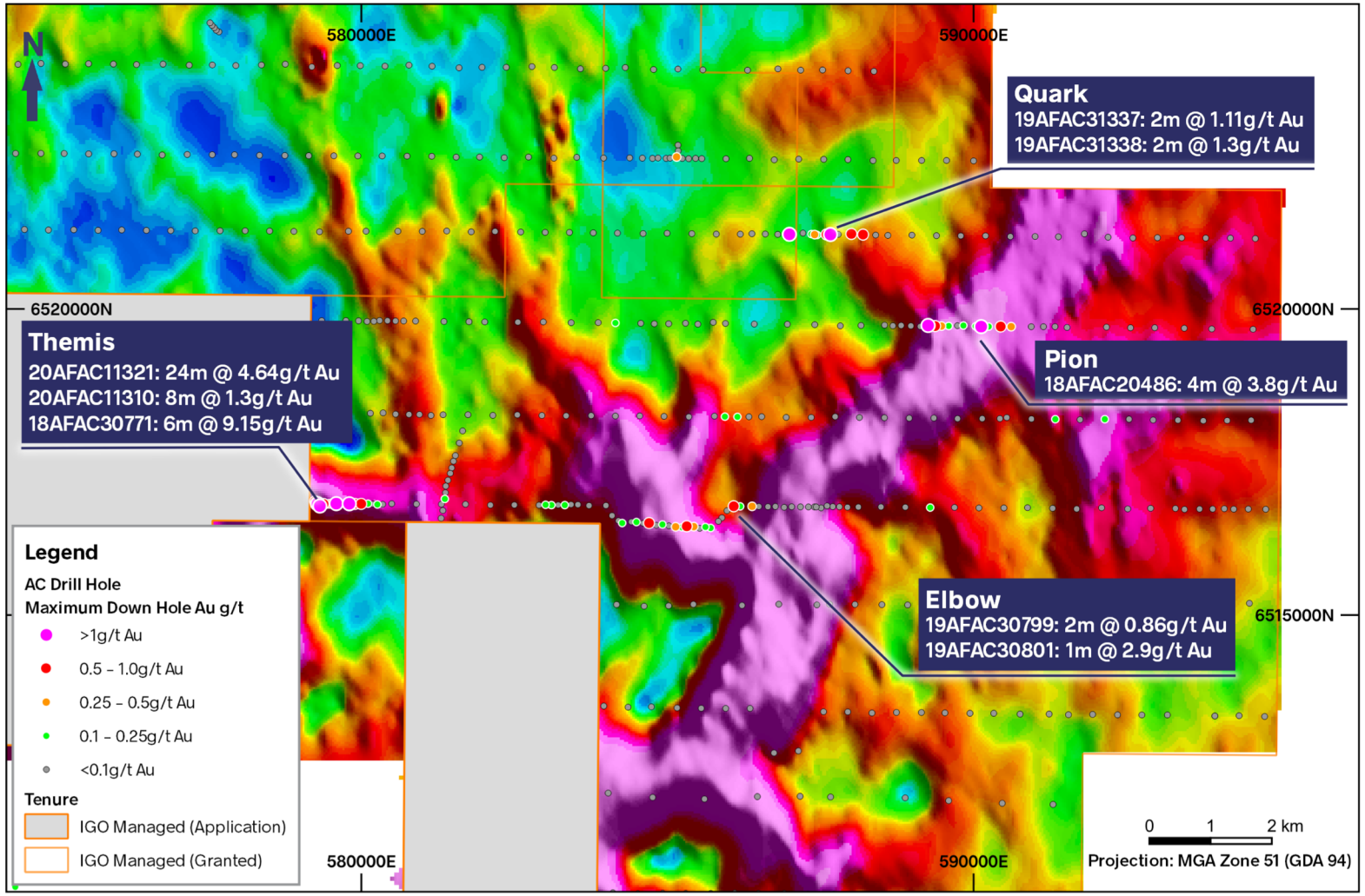
| Hole ID | From (m) | To (m) | Width (m) | Cu % | Zn % | Au ppm | Ag ppm |
|---|---|---|---|---|---|---|---|
| 18AFRD004[1] | 548.1 | 578.0 | 29.9 | 1.36 | 2.51 | 0.36 | 19.8 |
| 18AFRD007[1] | 547.6 | 564.0 | 16.4 | 1.65 | 2.46 | 0.54 | 25.9 |
| 18AFRD008[1] | 531.2 | 572.6 | 41.4 | 1.47 | 2.46 | 0.35 | 22.0 |




1) Refer to IGO ASX release dated 20 February 2019: Annual Update of Exploration Results, Mineral Resources and Ore Reserves

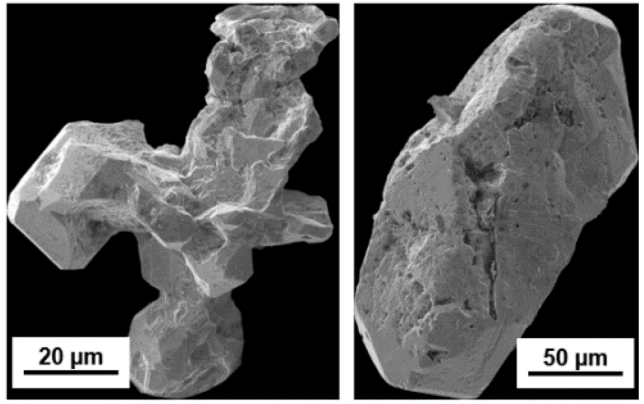
# Exploration Successes Within Belt Scale Projects

## 2019 - Gazelle paleochannel Au discovery[2]




**Systematic AC drilling on a 1500m x 800m spacing identifies 15km long paleochannel gold system**

**Primary and secondary detrital gold crystals occur in the Gazelle area[1]**




1) Curtin University School of Earth and Planetary Sciences. Honours thesis by Lorgen Siziba; supervisors, Nick Timms and Mehrooz Aspandiar.
2) ASX Announcement, 01 July, 2019, Rumble Resources – "JV Partner Intersects Significant High-Grade Gold Mineralisation in Fraser Range" and 06 October 2020, Rumble Resources - "16m @ 6.69 g/t Gold Intersected at Fraser Range.

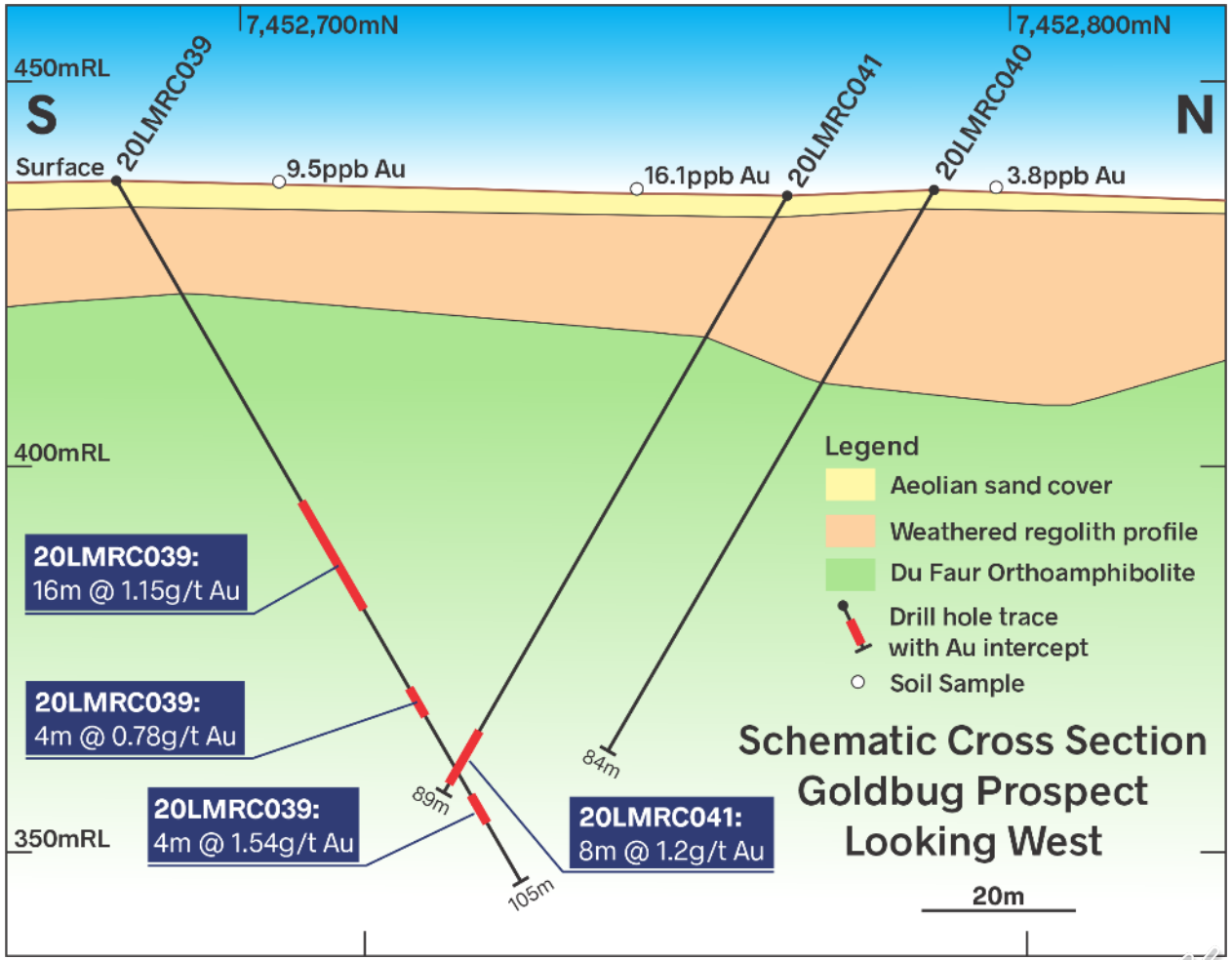
# Exploration Successes Within Belt Scale Projects

## 2016 to 2021 – Grapple, Goldbug and Arcee discoveries

**Soil sampling using low detection geochemistry to identify gold anomalism**

**Multi-point gold anomalies, from 2 to 20ppb, result in discovery of multiple gold and base metal prospects**

| Prospect | From (m) | Width (m) | Au ppm | Ag ppm | Cu % |
|---|---|---|---|---|---|
| Grapple[1] | 38 | 4 | 8.98 | 23.5 | 1.45 |
| Goldbug[2] | 48 | 16 | 1.15 | N.R. | N.R. |
| Arcee[2] | 112 | 12 | 3.47 | 0.00 | 0.01 |




1) ASX Announcement, 20 December, 2016, ABM Resources – "Exploration Update – Grapple Prospect Drill Intersections".
2) ASX Announcement, 16 October, 2019, Prodigy Gold– "Lake Mackay JV Update: New Gold Prospect Identified" and 18 January, 2021, Prodigy Gold - "Lake Mackay JV: First bedrock gold intersected at Goldbug Prospect".

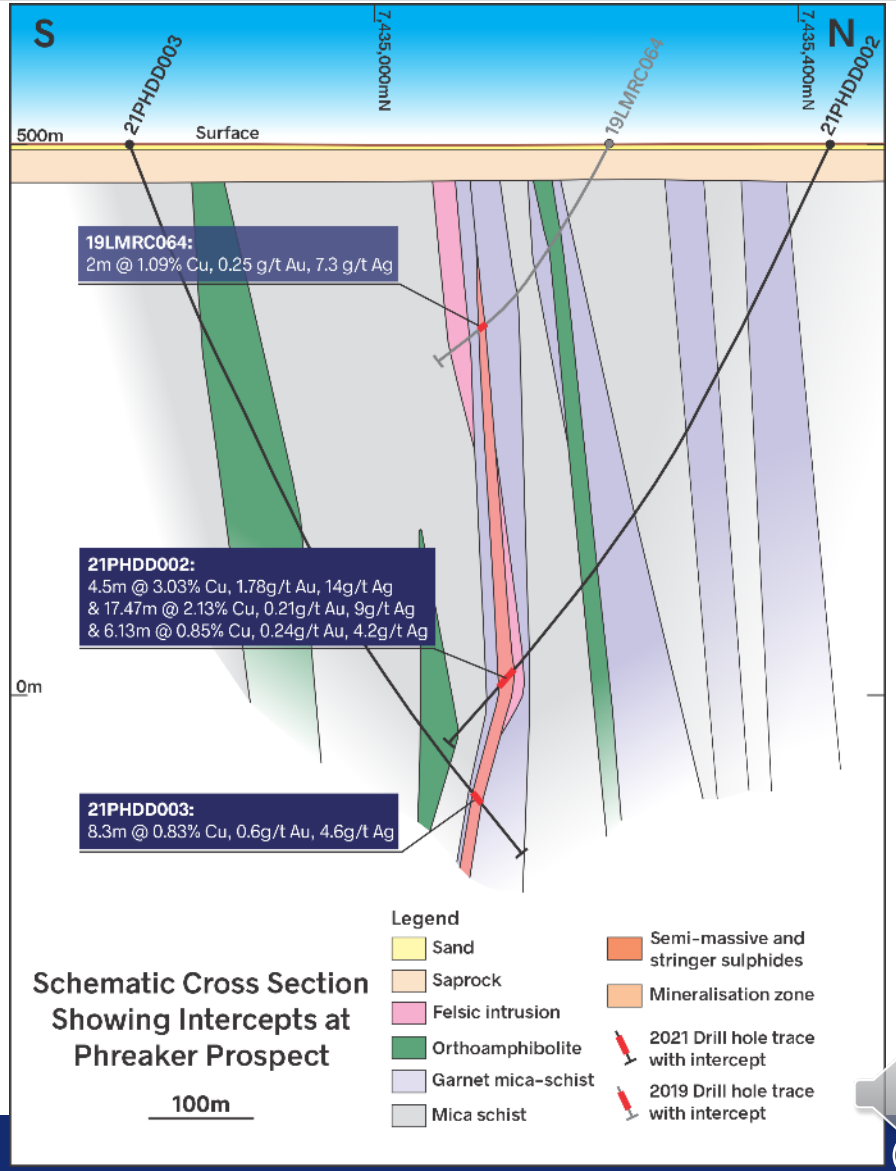
# Exploration Successes Within Belt Scale Projects

## 2019 to 2021 – The Phreaker Cu-Au-Ag discovery

**High powered Spectrem AEM survey identifies multiple conductive plates at Lake Mackay to 300m**

**RC, then diamond drilling finds massive sulphide Cu-Au-Ag mineralisation from 75m to 560m**

| Hole ID | From (m) | Width (m) | Cu % | Zn % | Au ppm | Ag ppm |
|---|---|---|---|---|---|---|
| 21PHDD001[1] | 479.9 | 4.7 | 1.24 | 0.28 | 0.02 | 7.7 |
| 21PHDD002[1] | 562.0 | 4.5 | 3.03 | 0.65 | 1.78 | 14 |
| 21PHDD003[1] | 575.2 | 17.5 | 2.13 | 0.31 | 0.21 | 9 |




1) ASX Announcement, 26 May, 2021, Prodigy Gold – "Exceptional High Grade copper intersections at the Phreaker Prospect within Lake Mackay JV".
2) ASX Announcement, 17 July, 2019, Prodigy Gold – "More Copper and Cobalt intersected at Lake Mackay and promising new prospect identified".

# Why South Australia

## It's all about copper

**Adelaidean Rift Complex with clear stratigraphic similarities to the CACB**

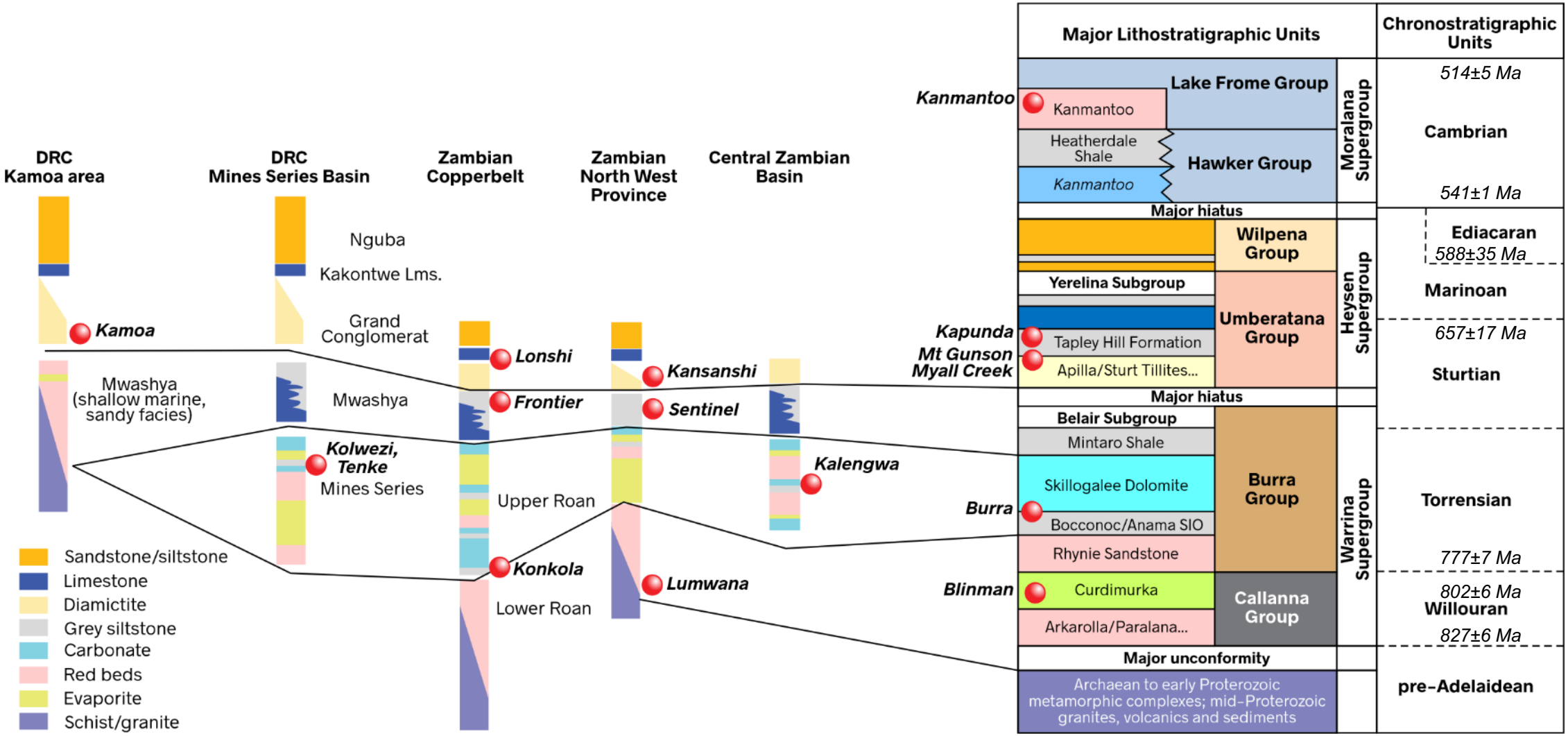
**Small, but high-grade Sediment-hosted copper deposits across Adelaidean demonstrate process**

**On a global scale, Sediment-hosted copper deposits tend to be large and high-grade**

**GSSA and local community very receptive and supportive; infrastructure is excellent**

# Comparing Stratigraphic Frameworks

## Central African Copper Belt versus Adelaidean Rift Complex



# A holistic approach to sediment-hosted copper exploration

## Identifying the key criteria required to form world class copper deposits

**Understand permissive stratigraphy**

**Identify thick copper source rocks**

**Reconstruct basin architecture from both existing and new data**

**Recognise links between potential host rocks and timing of major fluid events**

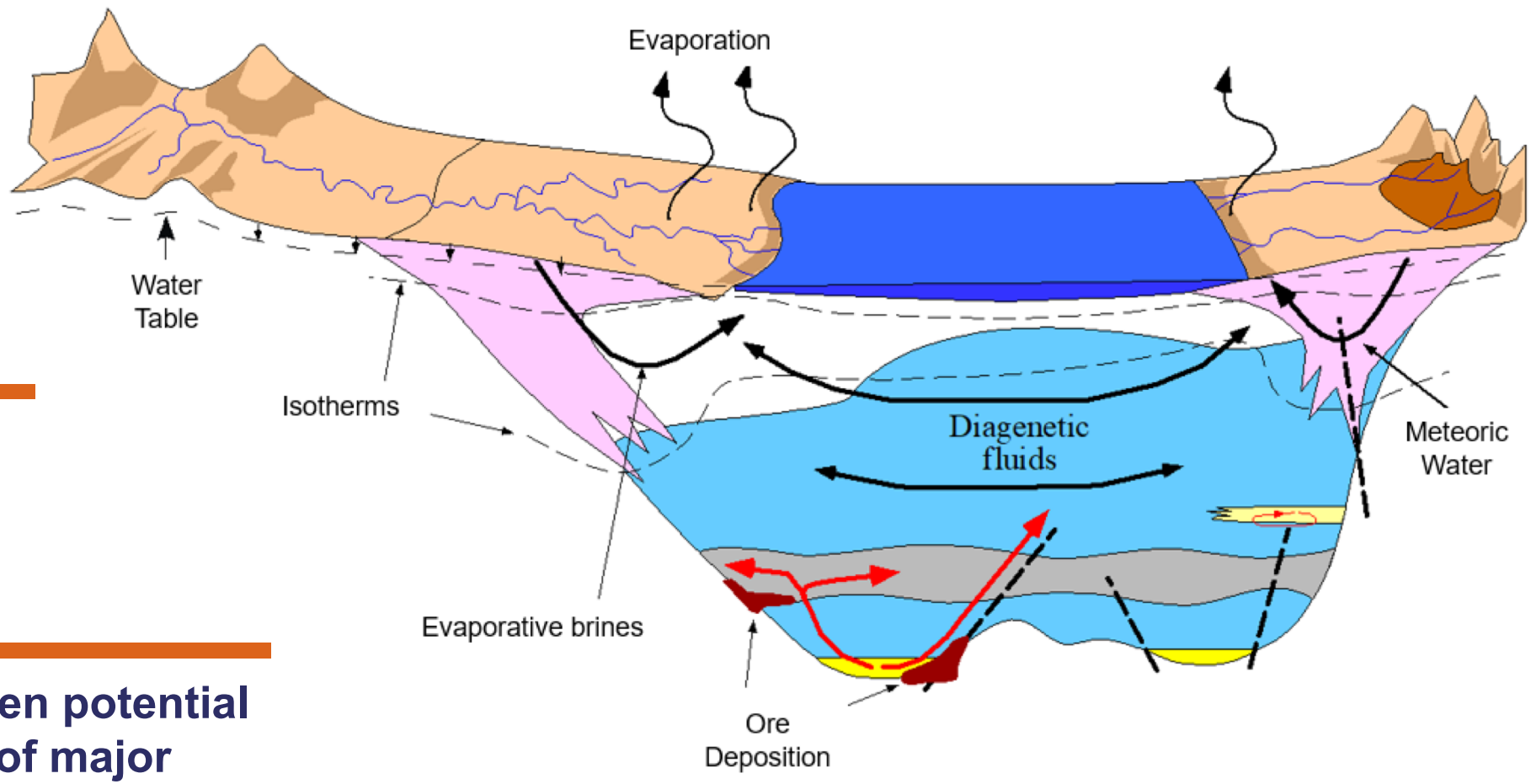



Figure from Kyser, 2000.

# Our Exploration Methodology

## A different style of toolbox

No direct detection expected

Historical and new drill holes providing key clues

Reliance on methods that unravel architecture





# 2022 Focus

## Copper Coast - building our clean energy metals business

- Continue analysis of all drilling data to better understand basin burial and diagenetic history
- Complete airborne MT survey to gain insight into 3D architecture across the project
- Investigate the merits of completing a series of 2D seismic traverses across project
- Complete stratigraphic drilling program in key locations
- Progress our understanding of fluid flow processes and mineralization through in-house research

# MAKING A DIFFERENCE

We believe in a world where people power makes amazing things happen. Where technology opens up new horizons and clean energy makes the planet a better place for every generation to come.

We are bold, passionate, fearless and fun – a smarter, kinder, more innovative company. Our work is making fundamental changes to the way communities all over the world grow, prosper and stay sustainable.

Our teams are finding and producing the specialist metals that will make energy storage mobile, efficient and effective enough to make long-term improvements to the lifestyle of hundreds of millions of people across the globe.

How? New battery storage technology is finally unleashing the full potential of renewable energy by allowing power produced from sun, wind and other sources to be stored and used when and where it's needed.

This technology will impact future generations in ways we cannot yet imagine, improving people's quality of life and changing the way we live.

We believe in a green energy future and by delivering the metals needed for new age batteries, we are making it happen.

**This is the IGO Difference.**

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