



# Havilah Resources

*Strategic Minerals in South Australia*



## KALKAROO COPPER-GOLD

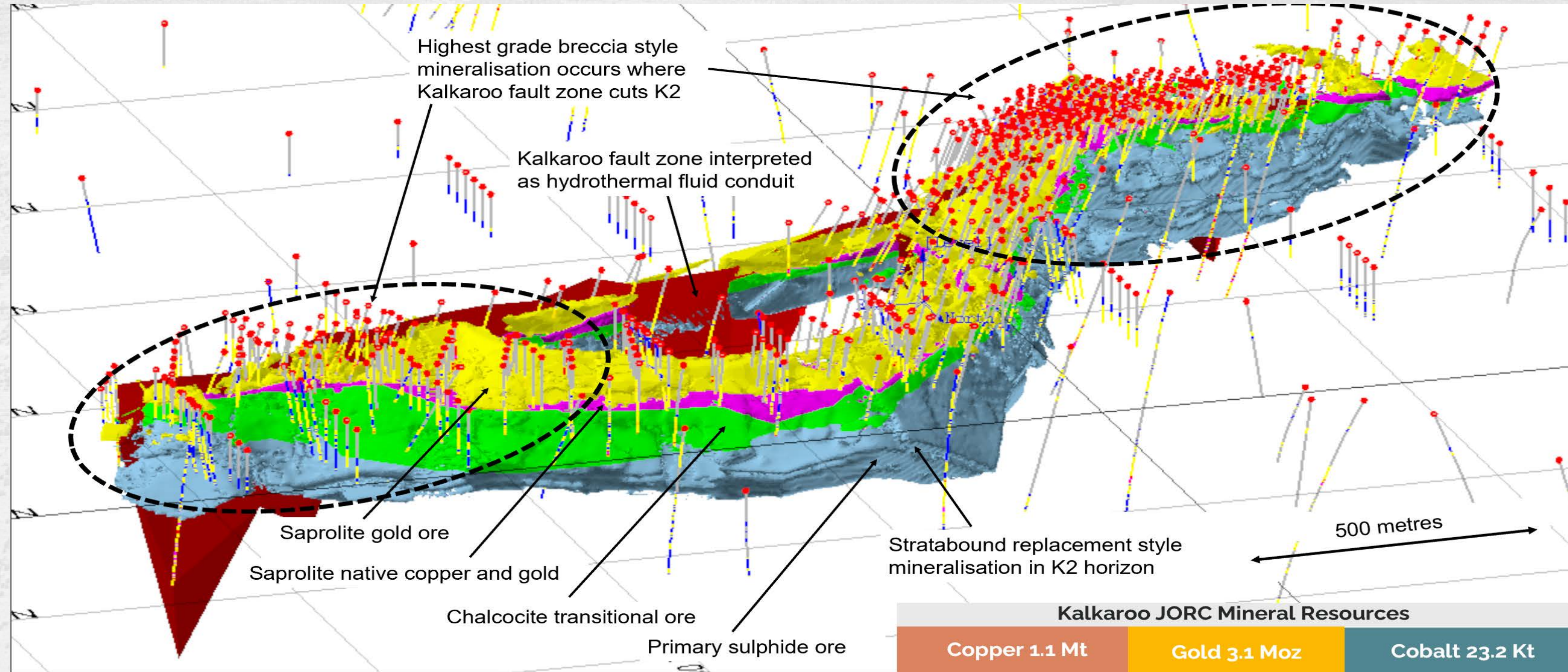
**One of the largest undeveloped open pit copper-gold projects in Australia**





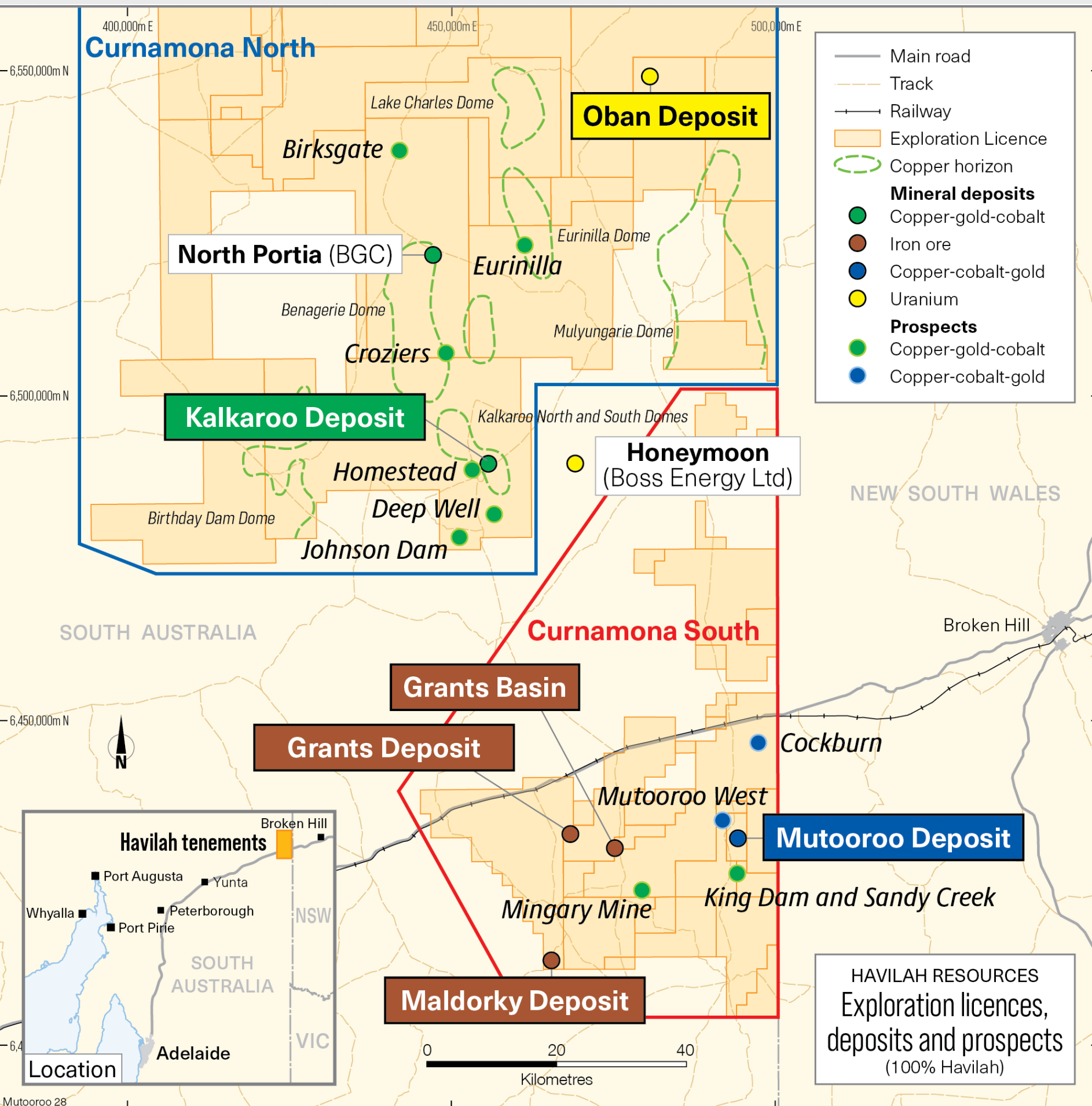
# Kalkaroo investment proposition summary

- One of the larger undeveloped open pit copper-gold deposits in Australia.
- Comprehensive studies confirm favourable economics and no fatal flaws.
- Located in northeastern South Australia in proximity to key infrastructure and Broken Hill.
- Permitting well advanced with granted mining licences and land ownership secured.
- Excellent opportunity for discovery of additional resources on MLs and in the surrounding area.

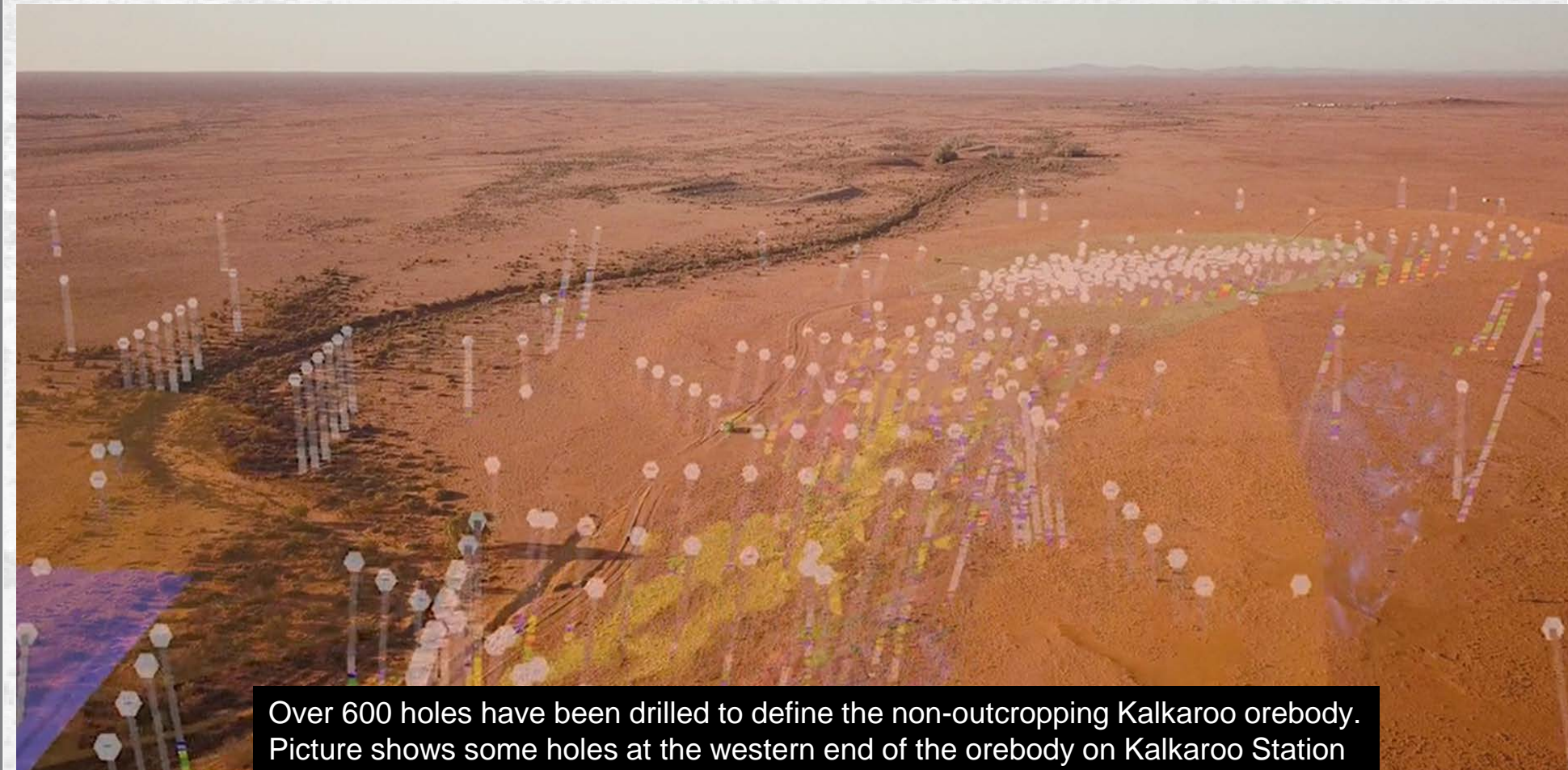




# Favourable location, logistics and land access



- Proximity to main highway and transcontinental railway line and Broken Hill mining infrastructure and skilled workforce. Approximately 5 hour drive from Adelaide along the main Sydney highway.
- Havilah owns 550km<sup>2</sup> Kalkaroo Station, which has been substantially disturbed by over 140 years of sheep grazing and presents no known environmental or cultural impediments to mining.
- Kalkaroo is part of a province wide copper play that is covered by Havilah's extensive surrounding 100% owned tenement holdings.
- Potential access to renewable energy sources from existing wind farm and solar farm near Broken Hill.
- Leveraging off its exploration team's 20+ years of experience in the region and impressive track record of discovery success.



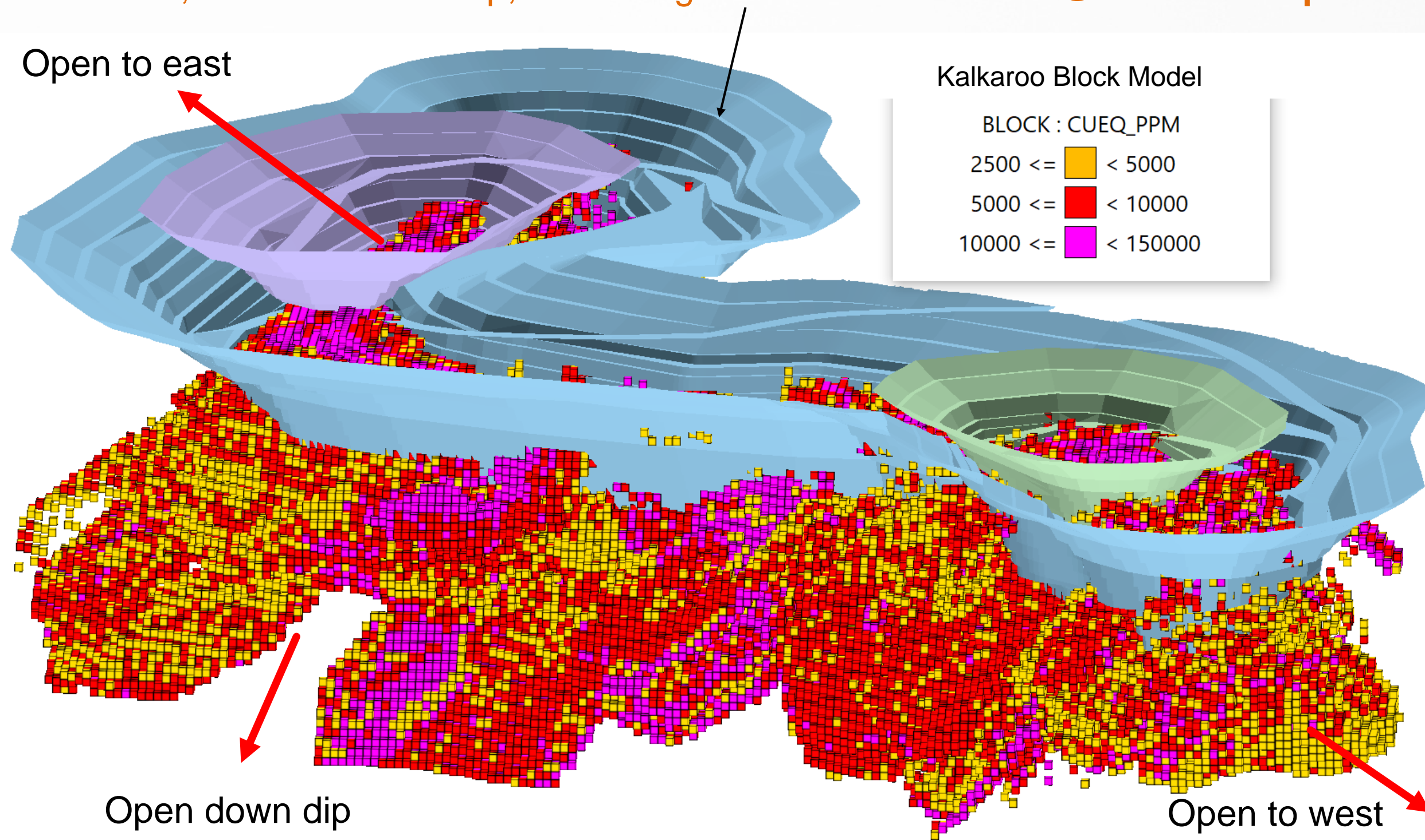


# Kalkaroo is a substantial open pit copper-gold deposit

- Currently one of Australia's largest undeveloped open pit copper deposits on a 0.83% CuEq\* Ore Reserve basis.
- JORC resource 1.1 Mt copper, 3.1 Moz gold and 23.2 Kt cobalt (approx. 7 Moz AuEq or 2.1 Mt CuEq).
- Comprehensive studies by OZL/BHP during 2023 demonstrated a robust open pit copper-gold project with no fatal flaws.
- Land ownership, granted mining leases and a Native Title Mining Agreement are in place for Kalkaroo that will expedite mining development.
- Associated critical minerals – cobalt, REE, molybdenum, tungsten.

\* CuEq = Cu Ore Reserve grade + (Au value per tonne ore / Cu price x Au recovery / Cu recovery) (converted to %). Assumptions: gold price USD2900 /oz, copper price USD9,600 /tonne, ore metal grades and metal recoveries are from published Kalkaroo JORC Ore Reserve table and PFS (refer to slide 12).

Kalkaroo copper-gold oxide and sulphide open pit 3.5 km long, 50-80 metres thick, > 200 metres deep, containing **100 Mt Ore Reserve @ 0.83% CuEq\***



JORC Resource:

JORC Mineral Resources

Copper 1.1 Mt

Gold 3.1 Moz

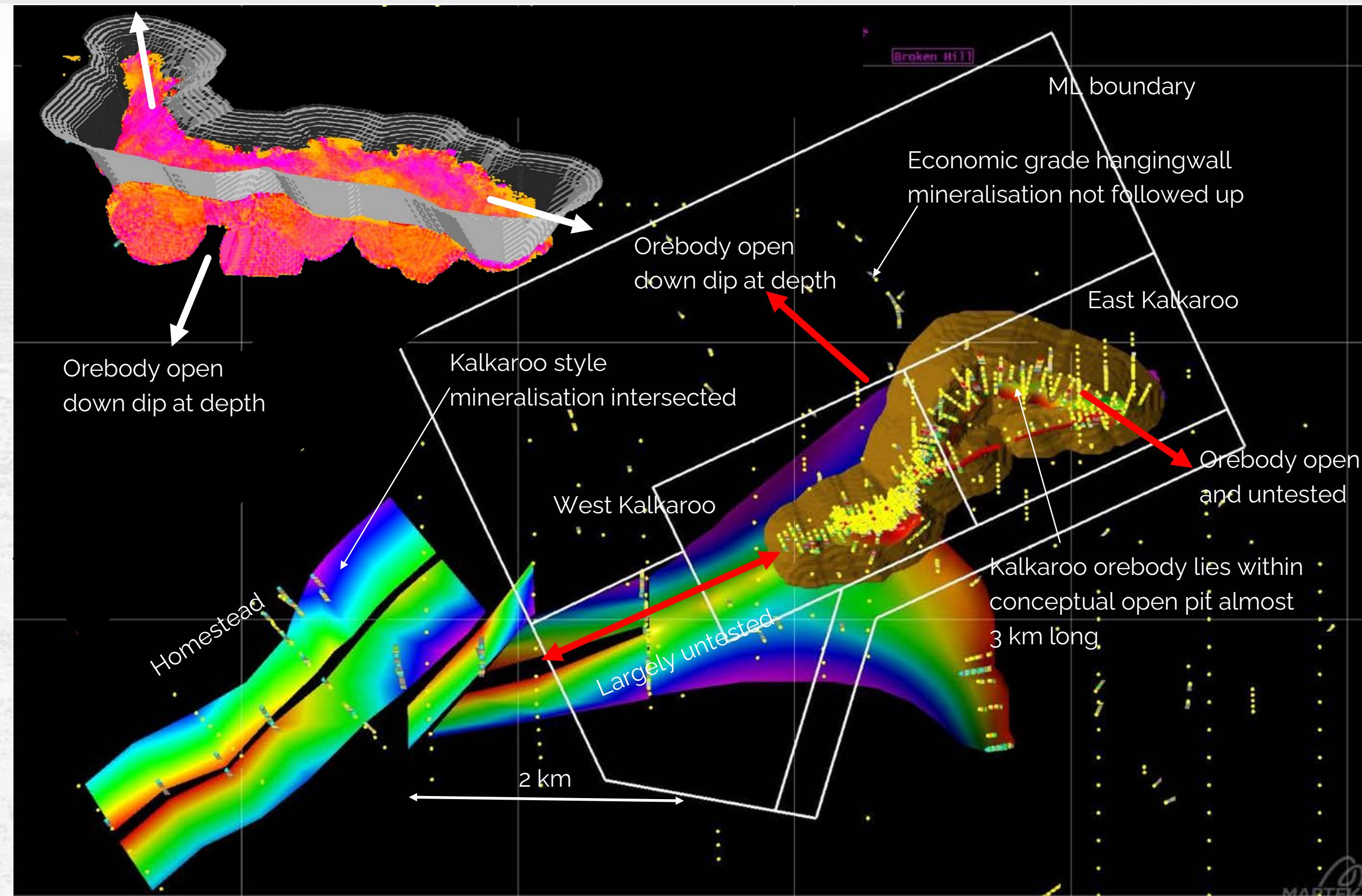
Cobalt 23.2 Kt



# Kalkaroo orebody resource expansion potential

- True size of Kalkaroo is unknown as it has not yet been closed off by drilling on any drill section.
- Opportunity to potentially double the resource within the granted 100% owned MLs along strike and down dip and in stacked stratabound horizons.
- Nearby Homestead prospect could host another Kalkaroo-size deposit ([ASX announcement 29 August 2023](#)).
- Potential for additional revenue from associated critical minerals – cobalt, REE, molybdenum, tungsten.

The image on the right shows the considerable untested resource expansion potential (indicated by the red arrows) that lies within the existing granted ML area (white boundary).



JORC Resource:

Copper 1.1 Mt

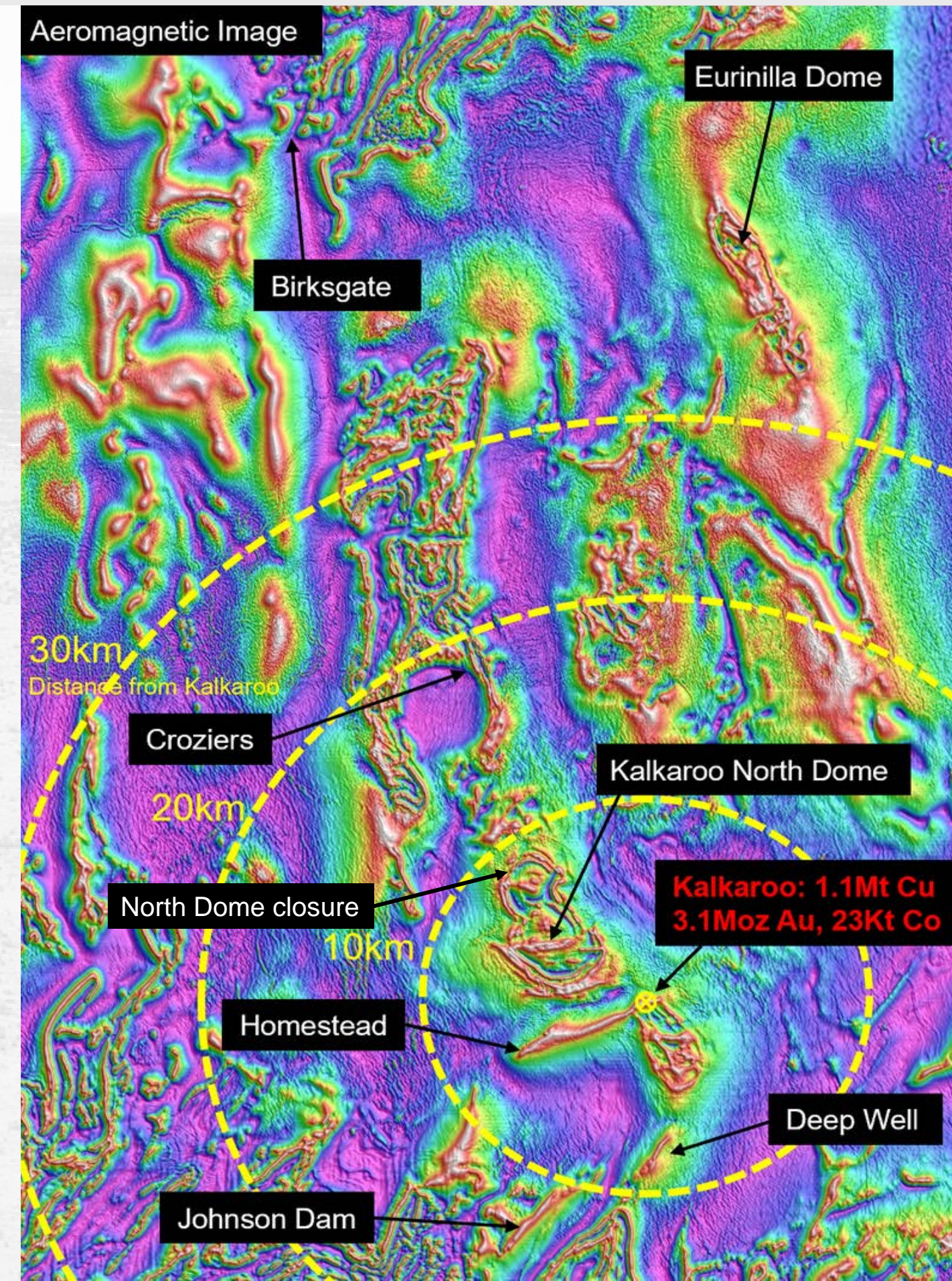
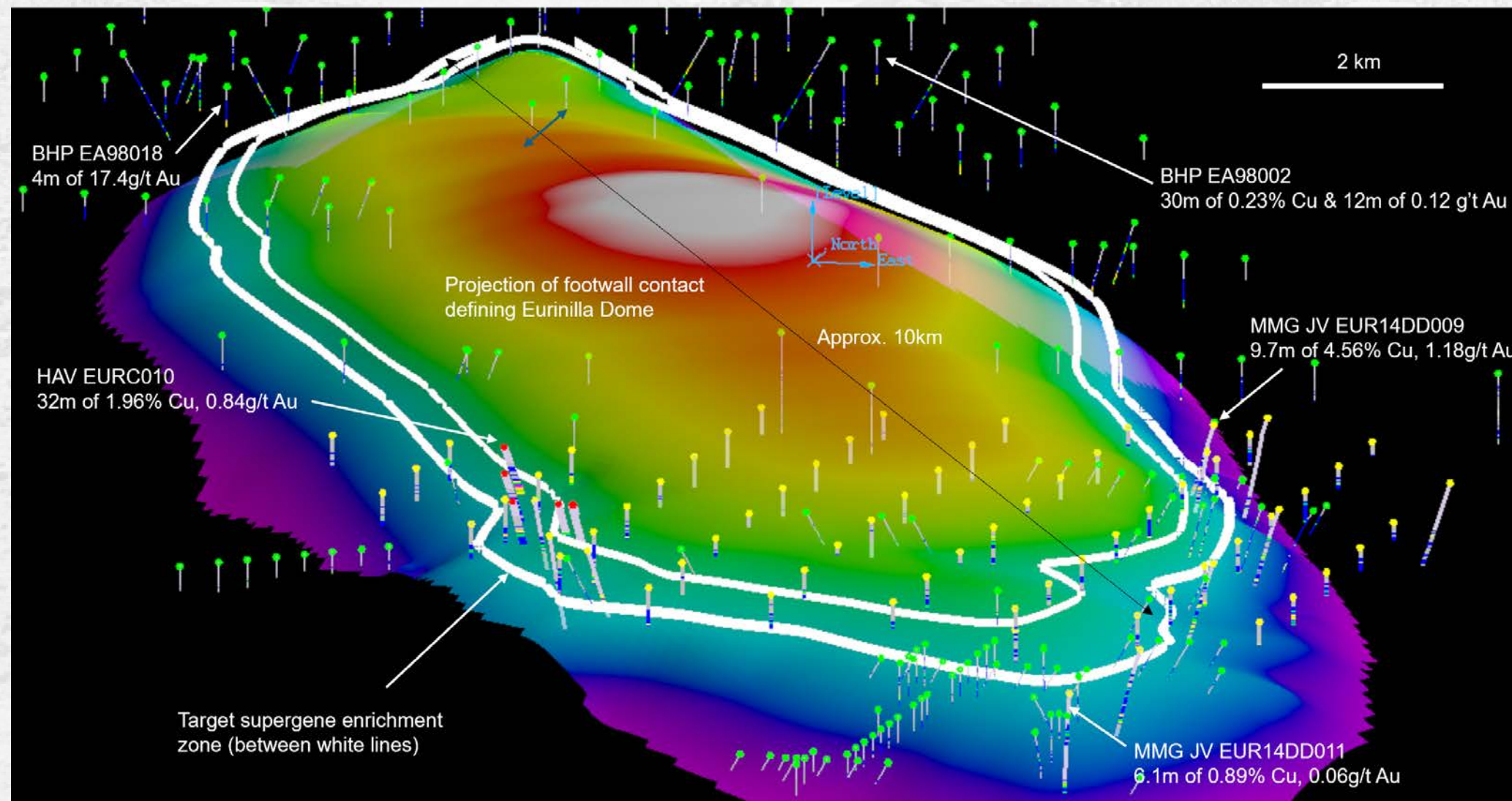
Gold 3.1 Moz

Cobalt 23.2 Kt




# Eight drilled prospects in proximity to Kalkaroo

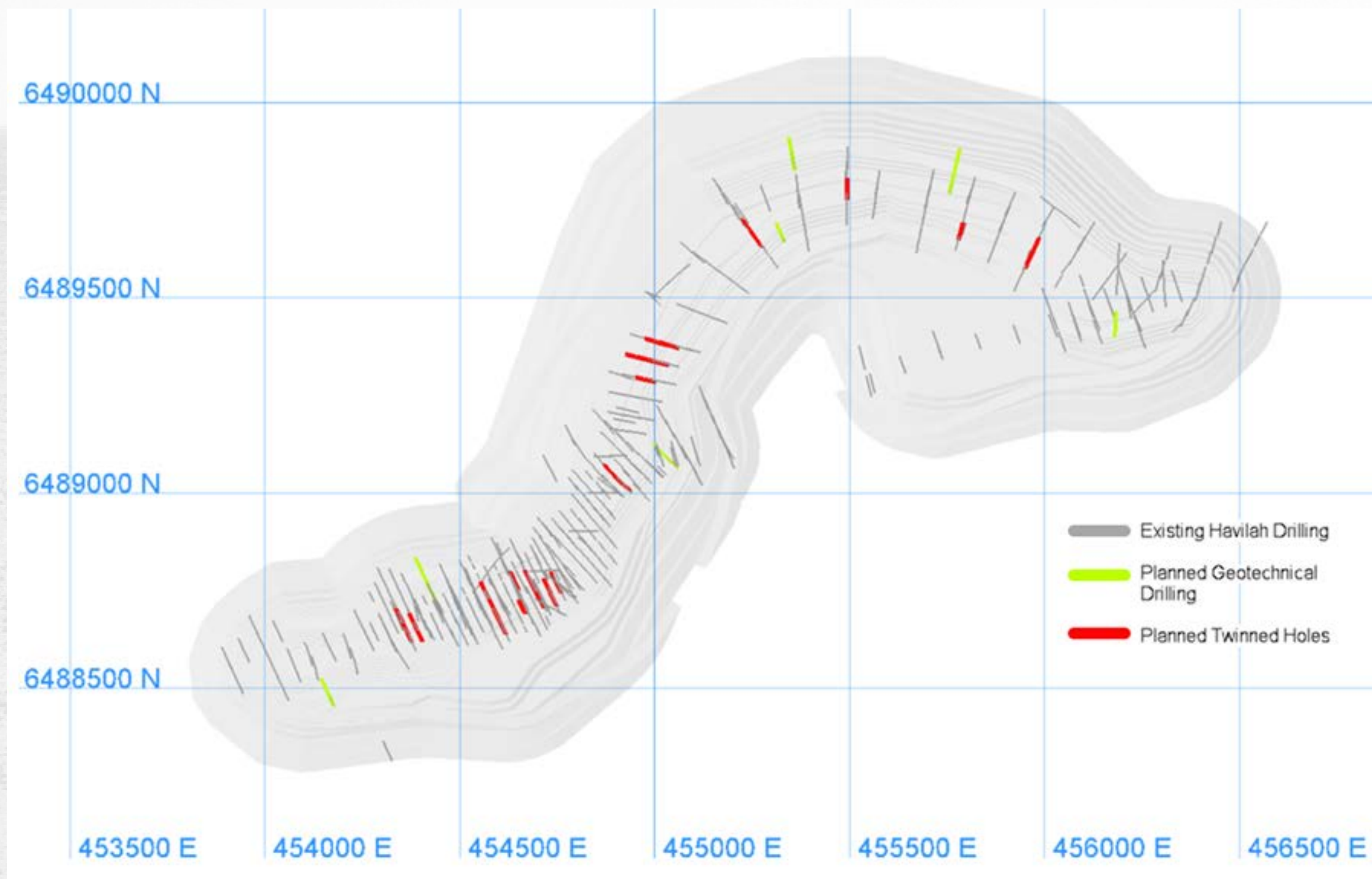
- Havilah has drilled 8 nearby prospects each of which may have the potential to provide additional ore-feed to a future conceptual centrally located processing plant at Kalkaroo.
- Structurally controlled stratabound mineralisation at a regional REDOX boundary folded around a series of domes and basins.
- More than 200km potential strike of prospective stratigraphy.
- Large mineralised systems in each case with kilometres of mineralised strike.
- **Eurinilla Dome** example below – more than 20km of prospective strike with some high grade copper and gold intersections ([ASX announcement 8 March 2024](#)).







**Additional supporting slides**



**31 diamond drillholes completed on Kalkaroo ML 6498 consisting of metallurgical sample holes, twinned holes to compare previous drilling for bias and geotech holes.**

- Twinned holes demonstrated no systematic bias between drilling methods; concluded earlier Havilah aircore and reverse circulation drilling is of comparable reliability to the BHP diamond drillholes.
- Geotech testwork validated Havilah earlier studies (including its field data from Portia gold mine); minor changes to the saprolite, saprock, and fresh rock parameters unlikely to have a material effect on the slope geometry and open pit design parameters.
- Metallurgical testwork results align with Havilah's previous extensive test work; improvements in Cu concentrate grade was achieved using different reagents.
- Geological block model showed close correlation with Havilah's most recent (2020) block model, with non-material variations explainable by software differences.
- New open pit optimisations and mining schedules developed, which potentially extends the conceptual open pit mine life to more than 20 years.
- Financial model confirms a robust long-life project, which is supported by multiple studies on operating, capital, infrastructure, power and access cost inputs.

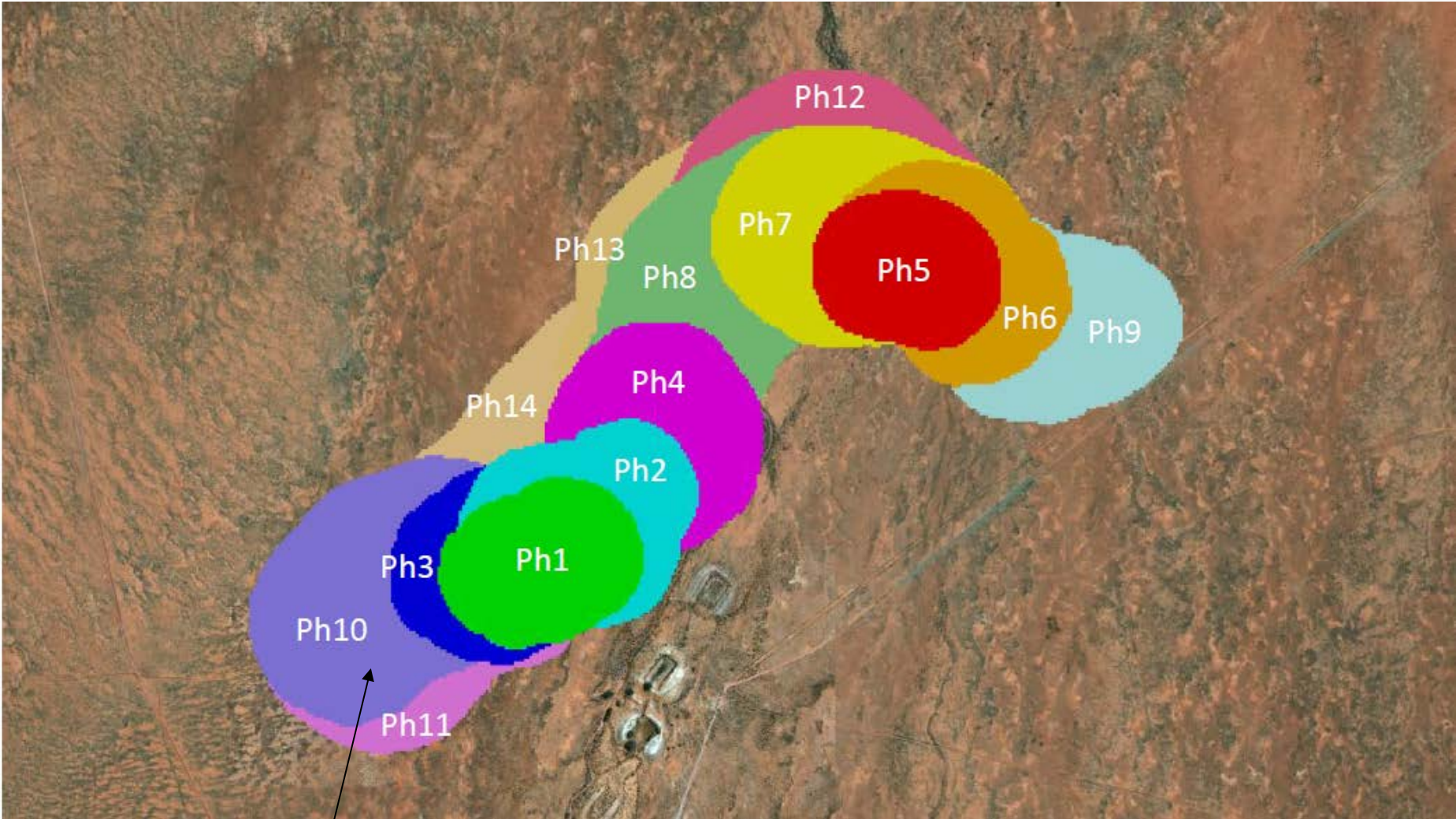
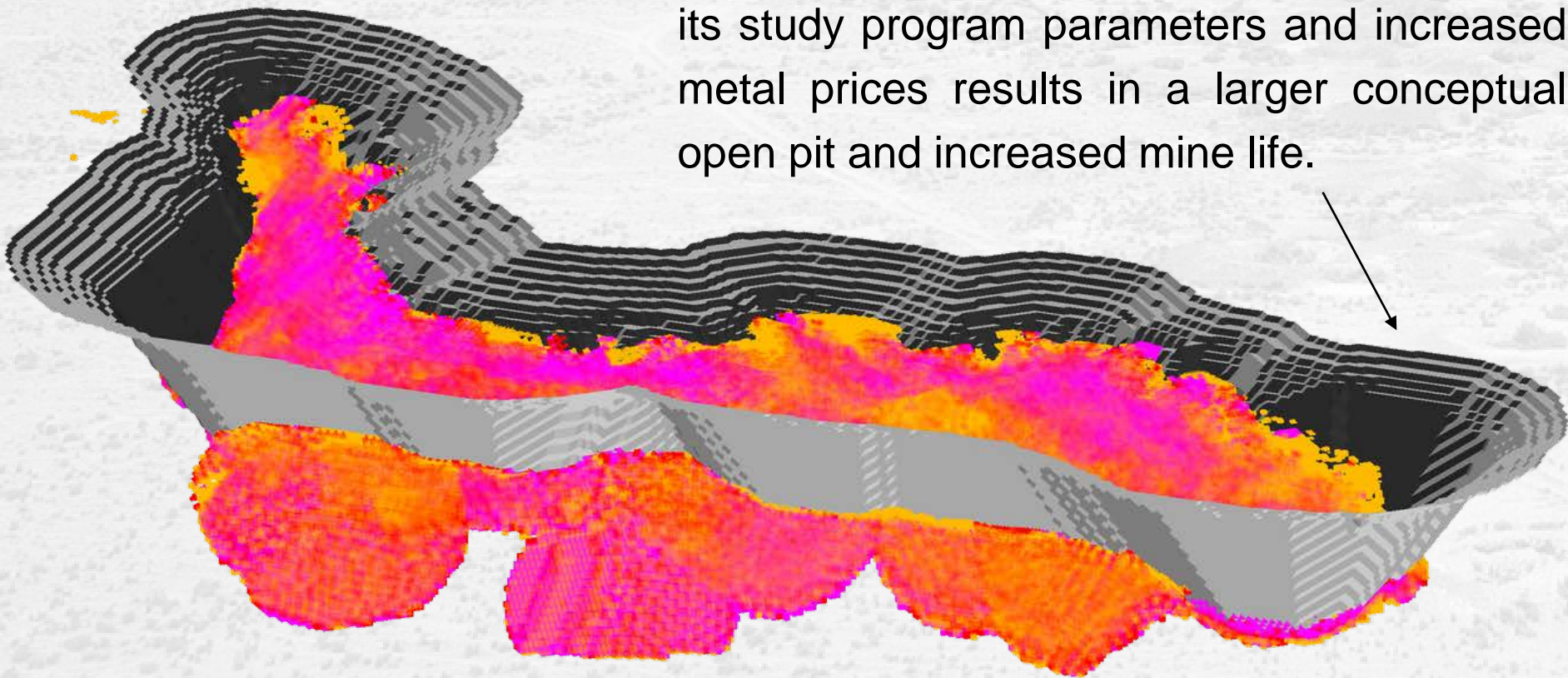
The image above shows the geotechnical and twinned diamond drillhole locations relative to Havilah's original PFS pit and previous drilling locations. Some metallurgical holes were also drilled to provide representative drillcore samples for BHP's comprehensive metallurgical testwork program.



## BHP Kalkaroo Study Program 2023 – Mining Phase Design

Key Financial and Production Metrics	Unit	Live
Processing capacity	Mtpa	11.8
Mine Life	Years	23
Mining inventory	Mt	184
	%	0.42%Cu and 0.36 g/t Au

BHP's updated open pit optimisation using its study program parameters and increased metal prices results in a larger conceptual open pit and increased mine life.



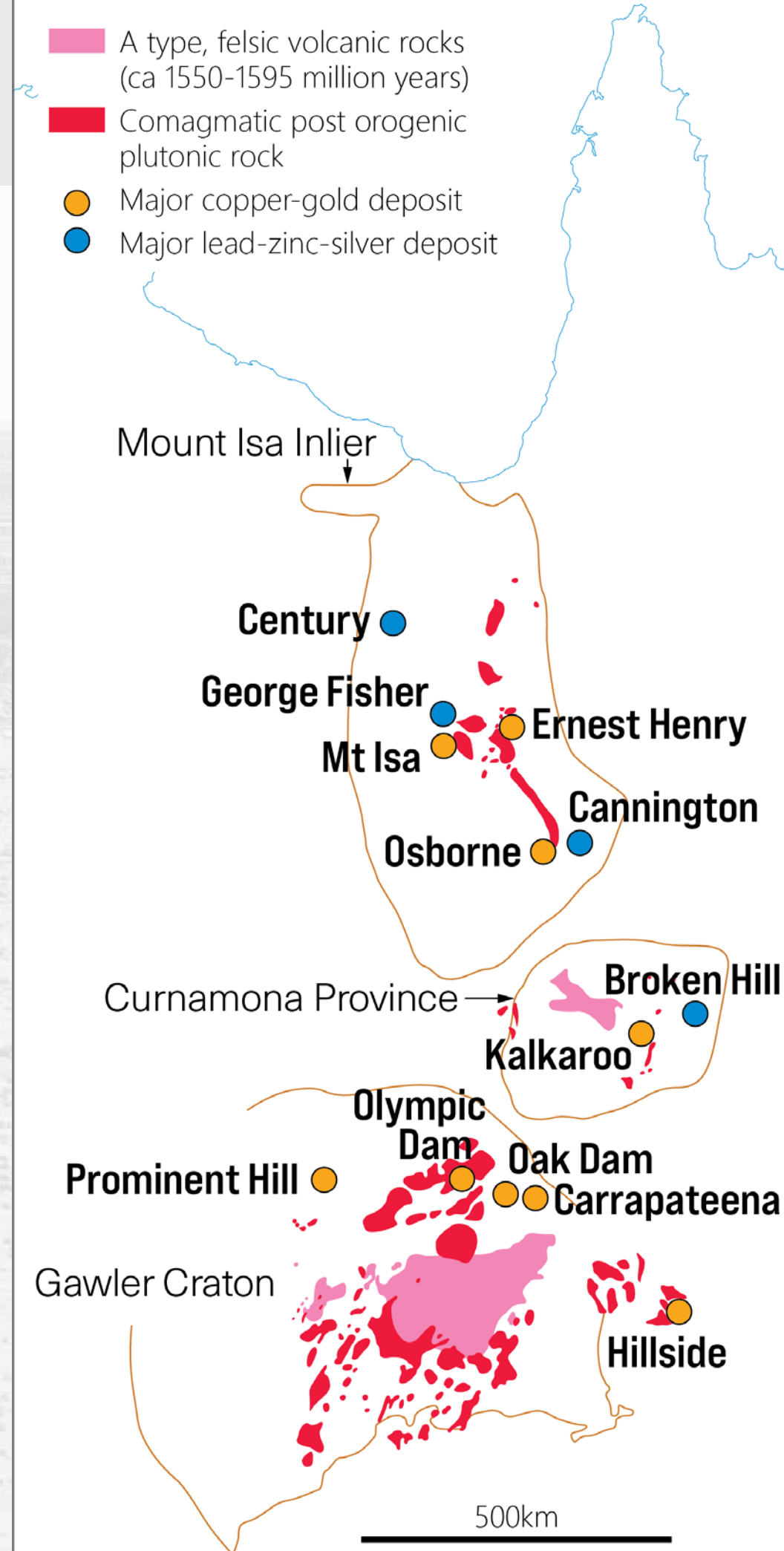
14 mining phases were generated within the open pit shell. Phases 1 to 8 are within the Measured and Indicated resources. Phases 9 to 14 within the Inferred resource.



# Curnamona Province

## ...the right geology for big copper deposits

- A major volcanic belt ran down along the eastern margin of 'proto Australia' 1.5-1.6 billion years ago from the Mt Isa Inlier through the Curnamona Province to the Gawler Craton.
- This volcano-plutonic event was responsible for the formation of nearly all the major copper deposits in Australia such as Mt Isa and Ernest Henry in the Mt Isa Inlier and Olympic Dam, Carrapateena and Prominent Hill in the Gawler Craton as well as the large lead-zinc-silver deposits.
- Such large copper deposits should also be in the Curnamona Province (noting that Broken Hill is the largest lead-zinc deposit in Australia).
- **Havilah's exploration has demonstrated widespread and substantial copper mineralisation in the Curnamona Province indicating the big copper deposits are likely to occur but they are yet to be fully revealed by exploration.**

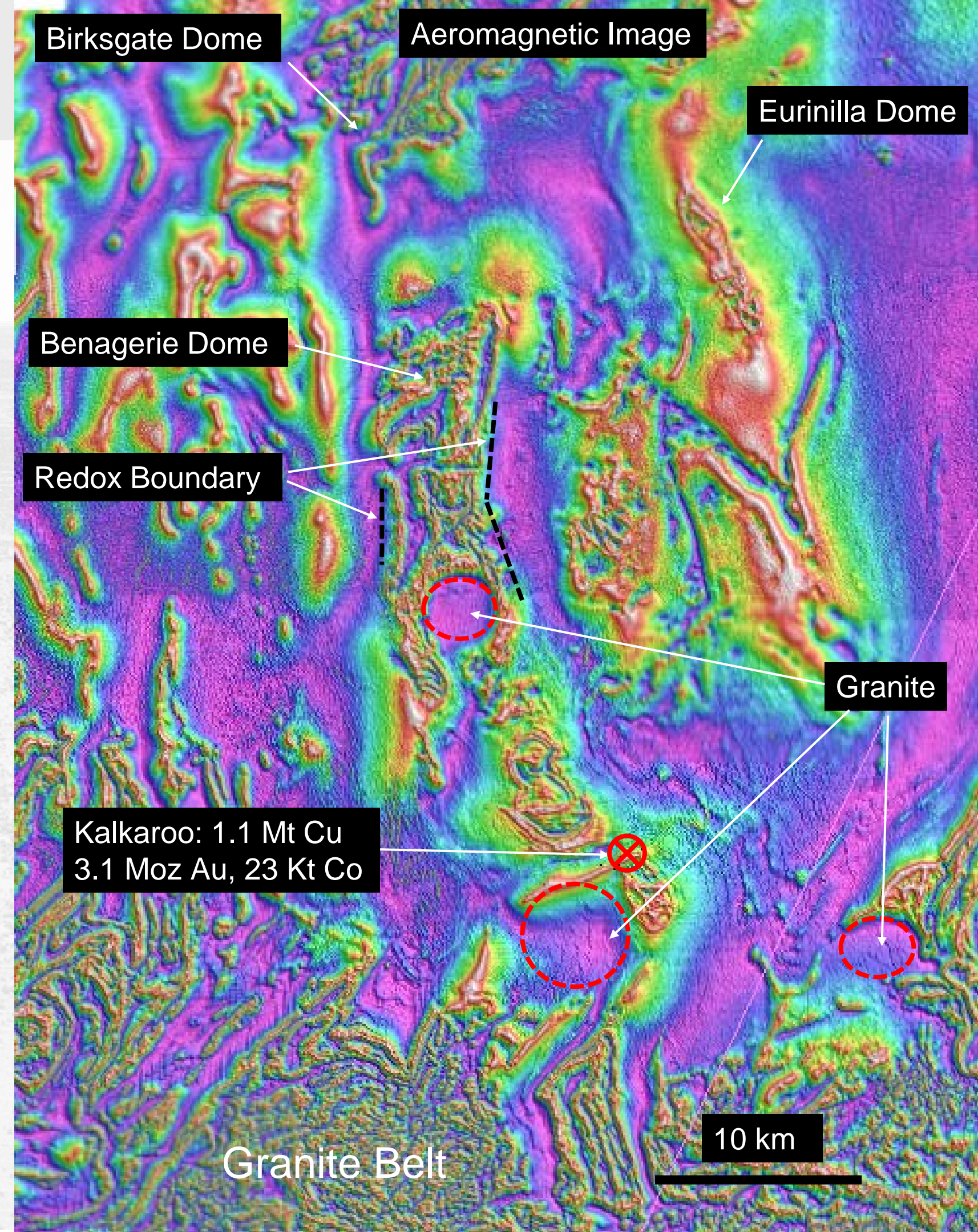




# Curnamona Province

## geological setting

- Mostly stratabound mineralisation, which typically occurs in carbonate rich horizons (K2 unit) at a major regional REDOX boundary as highlighted by the aeromagnetics.
- Series of domes and basins frequently intruded by granites and cut by later stage brittle fault structures that are the hydrothermal fluid conduits (eg Kalkaroo fault zone).
- Overall is classified as structurally controlled, stratabound mineralisation of mostly replacement style often showing skarn affinities as at Birksgate project.
- Typical temperature controlled metal zonation from deeper (higher temperature) W-Be to Cu-Au-Mo-REE to Cu-Au-As-U to Pb-Zn.
- Multiple stages of alteration including pervasive regional albitisation overprinted by mineralisation associated potassic alteration (biotite, K-feldspar-magnetite) and skarn mineral assemblages (diopside, hornblende, magnetite, apatite, sphene, allanite) and their retrograde products.
- Havalah has drilled eight large scale multi-metal copper-gold-critical minerals mineralised systems on its Curnamona Province tenements (see slide 12).





Eight large copper-gold-strategic metals mineralised systems discovered within potential trucking distance of Kalkaroo

## Deep Well prospect ([ASX announcement 9 May 2023](#))

- 19 metres of 0.42% Cu and 206 ppm Co in faulted anticlinal closure.
- > 4 km untested strike of prospective horizon (K2 unit) and fault zone.

## Johnson Dam prospect ([ASX announcement 17 May 2023](#))

- 22 metres of 0.27% Cu, 15 metres 405 ppm Co, 22 metres of 3,533 ppm TREEO, 6 metres of 3.3 lbs/tonne U3O8 on eastern faulted anticlinal limb. > 3 km untested strike of K2 unit.

## Homestead prospect ([ASX announcement 29 Aug. 2023](#))

- 27 metres of 0.23% Cu, 3 metres of 5,530 ppm TREEO, 4 metres of 3.3 lbs/tonne U3O8 in extension of West Kalkaroo – faulted anticline. > 5 km untested strike of K2 unit.

## North Dome prospect ([ASX announcement 16 Nov. 2023](#))

- 54 metres of 0.27% Cu; 60 metres 0.56 g/t Au to end of hole in fault/quartz breccia zone.
- > 5 km untested strike of fault zone.

## Birksgate prospect ([ASX announcement 15 January 2024](#))

- 10.9 metres of 0.84% Cu, 0.64/g/t Au, 493 ppm Mo plus U and V in MMG-Havilah JV diamond drilling confirmed by HAV RC drilling more than 1.5 km to the east.
- Mineralised K3 unit target potentially covers an area of >8km<sup>2</sup> in a synclinal structure.

## Eurinilla Dome prospect ([ASX announcement 8 March 2024](#))

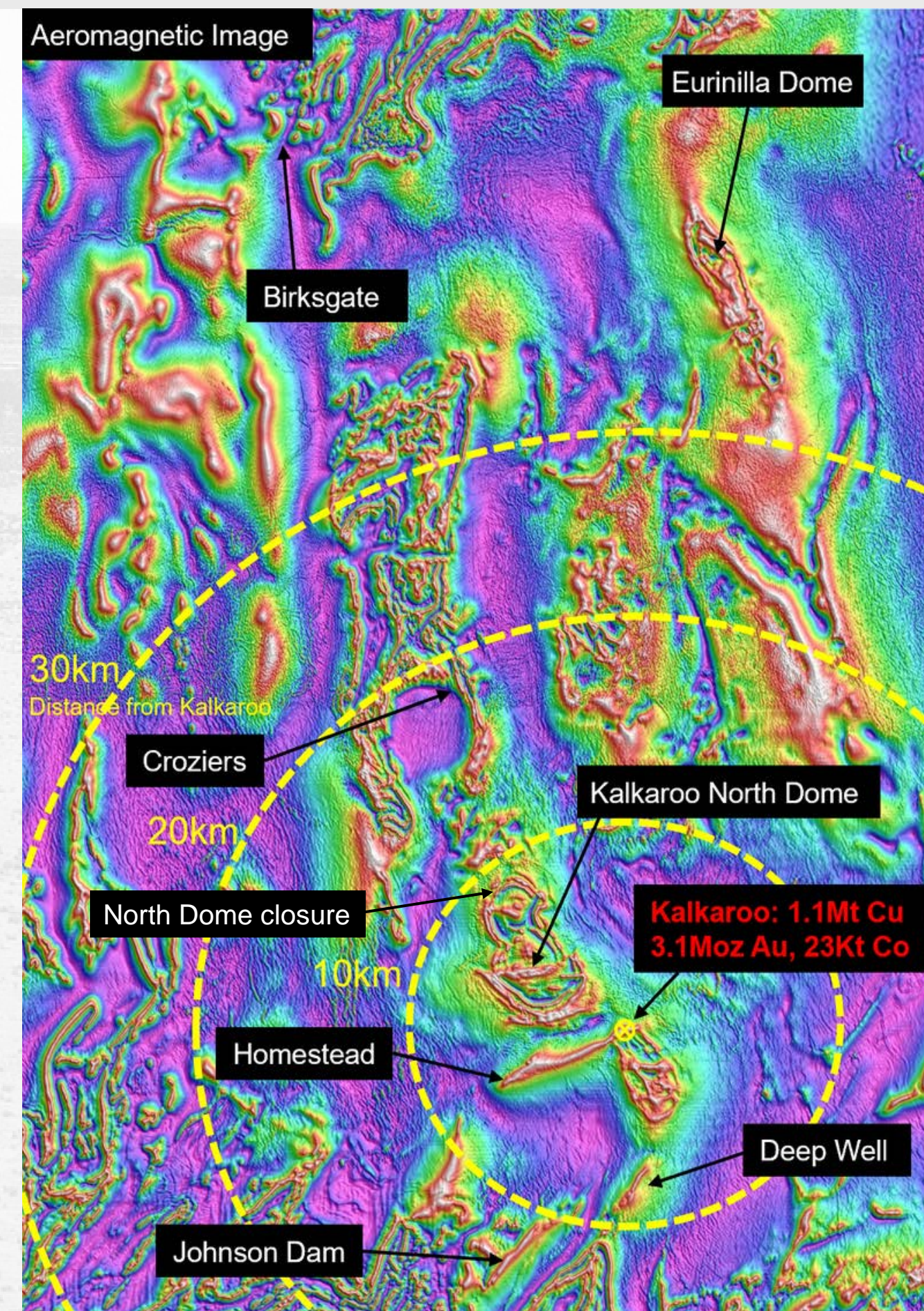
- 32 metres of 1.96% Cu and 0.84 g/t Au including 8 metres of 6.38% Cu and 2.72 g/t Au in supergene zone.
- >20 km prospective strike around the dome.

## North Dome Closure prospect ([ASX announcement 27 May 2024](#))

- 30 metres of 0.21% Mo and 5 metres of 4.79 g/t Au in K2 unit and widespread low grade Cu, HREE, uranium.
- >12 km of untested prospective strike around the dome.

## Croziars prospect ([ASX announcement 18 April 2017](#), [ASX announcement 11 December 2024](#))

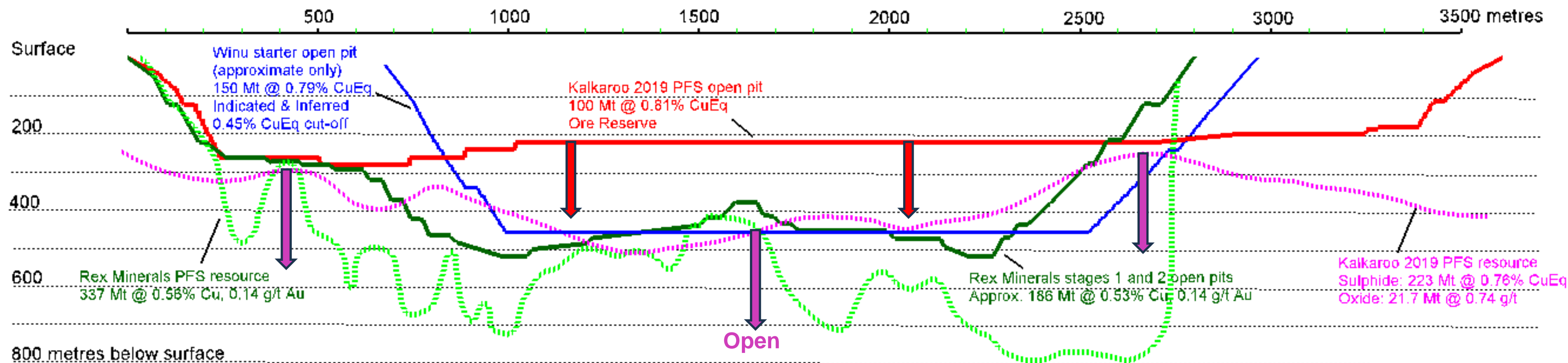
- 20 metres of 0.54% Cu plus associated >1000 ppm Nd and W in skarn horizon.
- Abundant magnet REE and economic grade W. > 4 km strike potential in multiple zones.





# Kalkaroo copper-gold project peer comparisons

Schematic, comparative long sections through Kalkaroo, Hillside and Winu copper-gold projects based on published reports



Project*	Owner	Acquisition cost (A\$)	Sunk cost (A\$)	Ore Reserve	Status
<b>Kalkaroo</b>	Havilah 100%	n/a	\$22 M	Proved: 90.2 Mt @ 0.48% Cu, 0.44 g/t Au	PFS update
				Probable: 9.9 Mt @ 0.45% Cu, 0.39 g/t Au	ML granted
<b>Hillside</b>	MACH 100%	<b>\$393 M</b>	not available	Proved: 61 Mt @ 0.50% Cu, 0.16 g/t Au	FS pre-develop.
	Rex Minerals takeover by MACH Metals			Probable: 125 Mt @ 0.55% Cu, 0.13 g/t Au	Fully permitted
<b>Winu</b>	RioTinto 100%	<b>\$662 M</b> for 30%	\$674 M	No Ore Reserve	PFS in progress
	Term sheet for sale of 30% to Sumitomo			PFS not completed	
<b>Eva</b>	Harmony Gold	<b>\$343 M</b>	not available	Proved: 93 Mt @ 0.48% Cu, 0.08 g/t Au	FS review and update
	Acquisition from Copper Mountain (C6C)			Probable: 78 Mt @ 0.43% Cu, 0.05 g/t Au	

\*For sources of JORC Mineral Resource and Ore Reserve data and other information for each of these copper-gold deposits, as shown in the long section and the table, refer to slide 17 and for Kalkaroo, slide 10. Note that in choosing the peer comparison assets, the Company's material assumption was that each asset had to be an undeveloped potentially open pit copper-gold deposit within Australia that was of similar size to Havilah's own Kalkaroo project. Each asset is at an advanced study stage with substantial JORC Mineral Resources of copper and gold.



## Undeveloped Open Pit Copper-Gold Deposits

... then there was one.

**Rio Tinto**

### Winu Project

Agreement with SMM to acquire 30% interest for A\$662 M.  
Implying a project value of > A\$2 B

**REX**  
MINERALS LTD

### Rex Minerals

Hillside Project

A\$393 M

**RXM SOLD**

### Copper Mountain

Eva Project

~A\$370 M

**SOLD**

**HR**  
HAVILAH RESOURCES LTD

### Havilah Resources

Kalkaroo Project

SUB A\$80 M

**MARKET CAP**

**For Rex Minerals Limited** – refer to ASX announcements of [8 July 2024](#) and [18 July 2024](#)

**For Copper Mountain** – refer to ASX announcement of [6 October 2022](#) (Note: Eva copper-gold project sold for US\$230 million, which equates to A\$343 million at A\$:US\$ 0.67 conversion rate). Refer also to slide 16.



1. **Rex Minerals Limited, Hillside Project**, [Annual Report 2024](#) is the source of the following JORC Mineral Resource, Ore Reserve and other information.

Zone	Resource Category	Tonnes (Mt)	Copper (%)	Gold (g/t)	Contained Copper (kt)	Contained Gold (koz)
Oxide Copper	Measured	16	0.54	0.22	88	114
	Indicated	4.4	0.49	0.12	21	17
	Inferred	0.2	0.76	0.22	1.6	1.5
Secondary Sulphide	Measured	8.8	0.62	0.20	55	58
	Indicated	3.0	0.57	0.13	17	13
	Inferred	0.1	0.61	0.07	0.7	0.3
Primary Sulphide	Measured	47	0.54	0.16	253	248
	Indicated	143	0.59	0.13	837	596
	Inferred	114	0.55	0.13	623	479
<b>Total</b>		<b>337</b>	<b>0.56</b>	<b>0.14</b>	<b>1,897</b>	<b>1,528</b>

Table 1: Hillside Mineral Resources Estimate – December 2022

0.2% copper cut-off applied

**Project status:** pre-development, with an optimised feasibility study completed, fully permitted and key approvals in place to allow commencement of development and mining operations

2. **Copper Mountain Mining Corporation, Eva Project**, [Annual Report 2022](#) (page 30), for resource estimate prior to acquisition by Harmony Gold as follows:

Measured 112 Mt @ 0.45% Cu, 0.05 g/t Au

Indicated 141 Mt @ 0.40% Cu, 0.04 g/t Au

Inferred 46.3 Mt @ 0.42% Cu, 0.04 g/t Au (cut-offs not available)

3. **RioTinto Limited, Winu Project**, [supporting information and Table 1 checklists](#) (from page 32) and ASX announcement of [4 December 2024](#) (footnote 1).

Indicated 114 Mt @ 0.64% Cu, 0.48 g/t Au (0.79% CuEq) applying a 0.45% CuEq cut-off

Inferred 36 Mt @ 0.71% Cu, 0.54 g/t Au (0.78% CuEq) applying a 0.45% CuEq cut-off

Note that the Winu indicative starter pit outline was extrapolated by Havilah from RioTinto's published plans and sections and is approximate only.

Note that in choosing the peer comparison assets, the Company's material assumption was that each asset had to be an undeveloped potentially open pit copper-gold deposit within Australia that was of similar size to Havilah's own Kalkaroo project. Each asset is at an advanced study stage with substantial JORC Mineral Resources of copper and gold.



## Slide 14 - references to asset sales

- 1. Rex Minerals Limited, Hillside Project** – refer to ASX announcements of [8 July 2024](#) and [18 July 2024](#).
- 2. Copper Mountain Mining Corporation, Eva Project** – refer to ASX announcement of [6 October 2022](#). Note that Eva copper-gold project sold for US\$230 million, which equates to A\$343 million at A\$:US\$ 0.67 conversion rate.
- 3. RioTinto Limited, Winu Project** – joint venture agreement with Sumitomo Metal Mining Co., Ltd 's and acquisition of a 30% interest in the Winu copper-gold project for an upfront cash payment of US\$195 million (A\$300 million) and a deferred consideration of US\$235.4 million (A\$362 million) (using A\$:US\$ 0.65 conversion rate). [Refer to media release 12 May 2025](#).

Note that in choosing the peer comparison assets, the Company's material assumption was that each asset had to be an undeveloped potentially open pit copper-gold deposit within Australia that was of similar size to Havilah's own Kalkaroo project. Each asset is at an advanced study stage with substantial JORC Mineral Resources of copper and gold.



## Board of Directors



**Simon Gray**

B.EC.(COM)

**Executive Director, Chairman, CFO**

A Chartered Accountant with over 35 years' experience in the financial industry including 20 years as a partner with Grant Thornton, 5 years of which he was responsible for the mining and energy group. Simon brings a wealth of practical business knowledge in the junior resources sector.



**Victor Previn**

B.ENG (ELECTRICAL)

**Independent Non-Executive Director**

A professional engineer and was responsible for founding, developing and commercialising the ophthalmic technological platform that is the core of Nova Eye Medical Limited's (ASX: EYE) current production. Victor brings broad experience in running public companies and paractical business and entrepreneurial skills.



**Dr Chris Giles**

BSC(HONS),PHD, MAIG

**Executive Technical Director**

An internationally experienced exploration geologist involved in discovery of several gold mines. Chris has been responsible for ground selection and exploration oversight that has led to Havilah's present JORC Mineral Resource inventory. He is a founder of Havilah and remains a substantial shareholder.

## Management Team



**Richard Buckley**

B.ENG (MINING)

**Chief Operating Officer**

A qualified mining engineer, with over 25 years' experience, who specialises in resource evaluation, mine planning and open pit optimisation using state of the art 3D mining software.



**Traviss Just**

B.APP.SC, MSC IN GEOLOGY

**Chief Geologist**

Experienced Exploration Geologist with 30 years' of experience. Responsible for exploration strategy and program implementation.



*Management team also includes 2 geologists, a mining engineer, an environmental and liaison officer, a financial administrator and a part-time tenements manager supported by a competent and experienced field crew.*





# Kalkaroo JORC Ore Reserve and Mineral Resources 2024

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## JORC Mineral Resources as at 31 July 2024

Project	Classification	Resource Category	Tonnes	Copper %	Cobalt %	Gold g/t	Copper tonnes	Cobalt tonnes	Gold ounces
Kalkaroo <sup>2</sup>	Measured	Oxide Gold Cap	12,000,000			0.82			
	Indicated	Oxide Gold Cap	6,970,000			0.62			
	Inferred	Oxide Gold Cap	2,710,000			0.68			
	<b>Total</b>	<b>Oxide Gold Cap</b>	<b>21,680,000</b>			<b>0.74</b>			<b>514,500</b>
	Measured	Sulphide Copper-Gold	85,600,000	0.57		0.42			
	Indicated	Sulphide Copper-Gold	27,900,000	0.49		0.36			
	Inferred	Sulphide Copper-Gold	110,300,000	0.43		0.32			
	<b>Total</b>	<b>Sulphide Copper-Gold</b>	<b>223,800,000</b>	<b>0.49</b>		<b>0.36</b>	<b>1,096,600</b>		<b>2,590,300</b>
		<b>Total Kalkaroo</b>	<b>245,480,000</b>				<b>1,096,600</b>		<b>3,104,800</b>
	Inferred	Cobalt Sulphide <sup>3</sup>	193,000,000		0.012			23,200	

### Footnotes to the JORC Ore Reserve and Mineral Resource Tables

Numbers in tables are rounded. Ore Reserves are a subset of the Mineral Resources.

<sup>1</sup> Details released to ASX: [18 June 2018](#) (Kalkaroo)

<sup>2</sup> Details released to ASX [30 January 2018](#) & [7 March 2018](#) (Kalkaroo)

<sup>3</sup> Note that the Kalkaroo cobalt Inferred resource is not added to the total tonnage

## JORC Ore Reserves as at 31 July 2024

Project	Classification	Tonnes (Mt)	Copper %	Gold g/t	Copper tonnes (Kt)	Gold ounces (Koz)
Kalkaroo <sup>1</sup>	Proved	90.2	0.48	0.44	430	1,282
	Probable	9.9	0.45	0.39	44	125
<b>Total</b>		<b>100.1</b>	<b>0.47</b>	<b>0.44</b>	<b>474</b>	<b>1,407</b>



## Cautionary Statement

The information contained in this presentation is not financial product advice and does not constitute an offer. The presentation is for information purposes and is of a general and summary nature only. Neither Havilah Resources Limited (Havilah) nor any member of the Havilah Group of companies, gives no warranties in relation to the statements and information in this presentation. Investors should seek appropriate advice on their own objectives, financial situation and needs.

It is not recommended that any person makes any investment decision in relation to Havilah or the Kalkaroo project based on this presentation. This presentation should be read in conjunction with the latest Annual Report together with any announcements made by Havilah in accordance with its continuous disclosure obligations arising under the Corporations Act 2001.

This presentation contains certain statements which may constitute 'forward-looking statements'. Such statements are only predictions and are subject to inherent risks and uncertainties which could cause actual values, performance or achievements to differ materially from those expressed, implied or projected in any forward-looking statements.

Havilah disclaims any intent or obligation to update publicly any forward-looking statements, whether as a result of new information, future events or results or otherwise. Investors are cautioned that forward-looking statements are not guarantees of future performance and investors are cautioned not to put undue reliance on forward-looking statements due to the inherent uncertainty therein.

Where discovery upside is identified, this is a collective opinion of Havilah's geologists based on their best interpretations of the available data and their experience in the region. Further work may disprove any or all the interpretations and models put forward in this presentation.

## Competent Person's Statement

The information in this presentation that relates to Exploration Results, Mineral Resources and Ore Reserves is based on data compiled by geologist Dr Chris Giles, a Competent Person who is a member of The Australian Institute of Geoscientists. Dr Giles is Technical Director of the Company, a full-time employee and is a substantial shareholder. Dr Giles has sufficient experience, which is relevant to the style of mineralisation and type of deposit and activities described herein to qualify as a Competent Person as defined in the 2012 Edition of 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Dr Giles consents to the inclusion in the presentation of the matters based on his information in the form and context in which it appears.

Information for Ore Reserve & Mineral Resources complies with the JORC Code 2012. Havilah confirms that all material assumptions and technical parameters underpinning the reserves and resources continue to apply and have not materially changed. Except where explicitly stated, this presentation contains references to prior exploration results and JORC Mineral Resources, which are cross-referenced to previous ASX announcements made by Havilah. The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant ASX announcements.