

# KALKAROO COPPER-GOLD

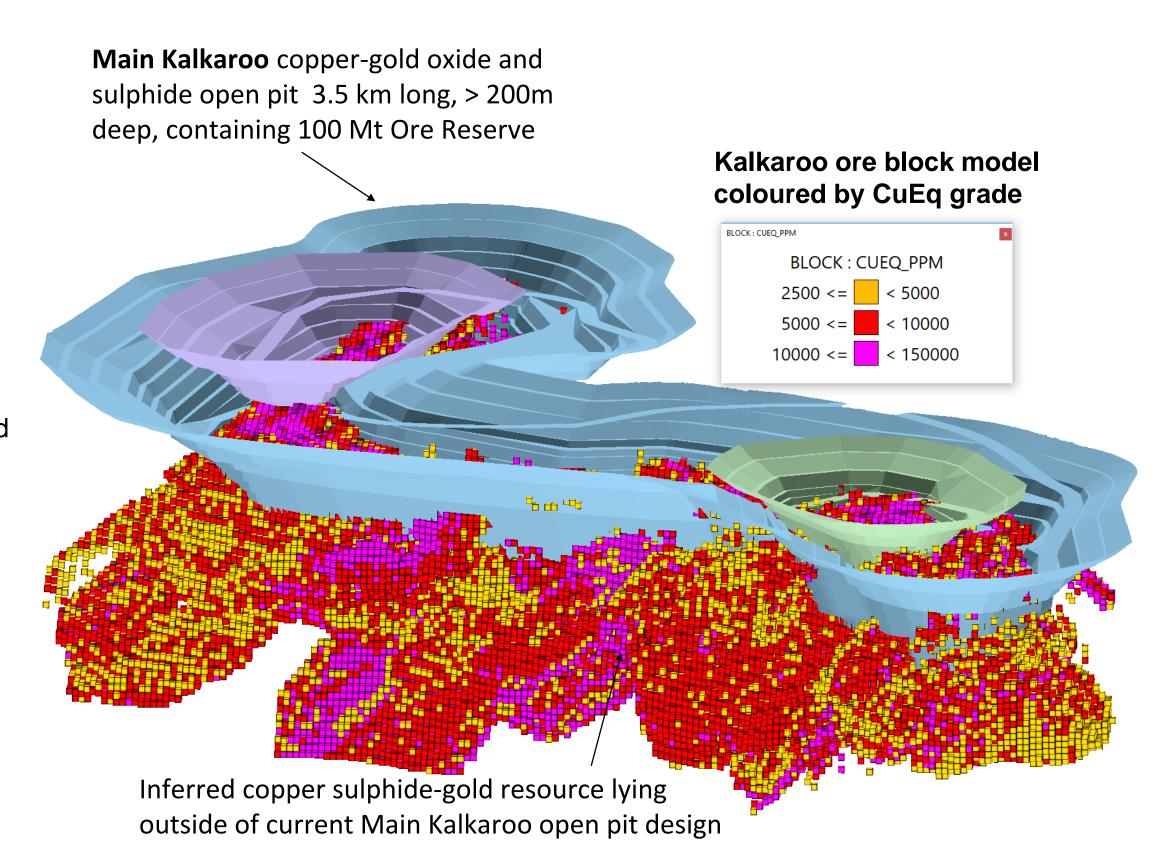
One of the largest undeveloped open pit coppergold projects in Australia





# Kalkaroo copper-gold project

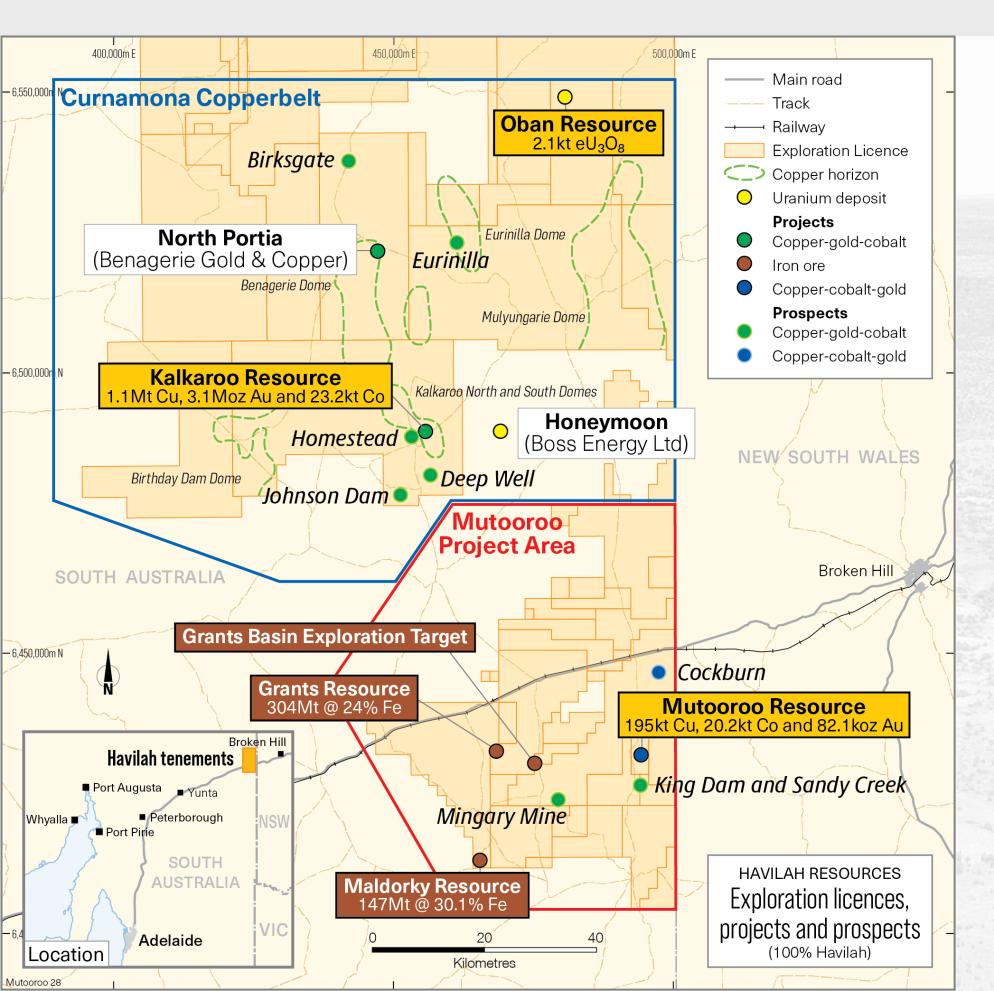
- One of Australia's largest undeveloped open pit copper deposits on a 0.81% CuEq\* Ore Reserve basis
- 1.1 million tonnes of copper, 3.1 million ounces of gold and 23,200 tonnes of cobalt in JORC resources (refer to table at end). Associated critical minerals cobalt, molybdenum, REE and tungsten.
- Classified as a structurally controlled stratabound replacement deposit. Many features in common with Central African Copper Belt deposits - feeder fault structure and reactive carbonate-rich units at a major regional redox boundary.
- Previously explored by Placer, Newcrest, MIM who failed to understand the exploration concept,.
- Comprehensive studies by BHP during 2023 demonstrated a robust open pit copper-gold project with no fatal flaws.
- The projected conceptual open pit mine life was increased to more than 20 years driven by a number of enhancements
- More Kalkaroo project information at <u>www.havilah-resources-projects.com/Kalkaroo</u>.



<sup>\*</sup> CuEq calculation is based on the formula: CuEq = Cu ore reserve grade + (value 1g/t Au /value of 1% Cu x Au ore reserve grade). Assumptions: gold price USD2350 /oz, copper price USD9,858 /tonne, overall metallurgical recoveries for saleable gold and copper are the same based on Kalkaroo PFS, ore metal grades are from published Kalkaroo JORC Ore Reserve table.



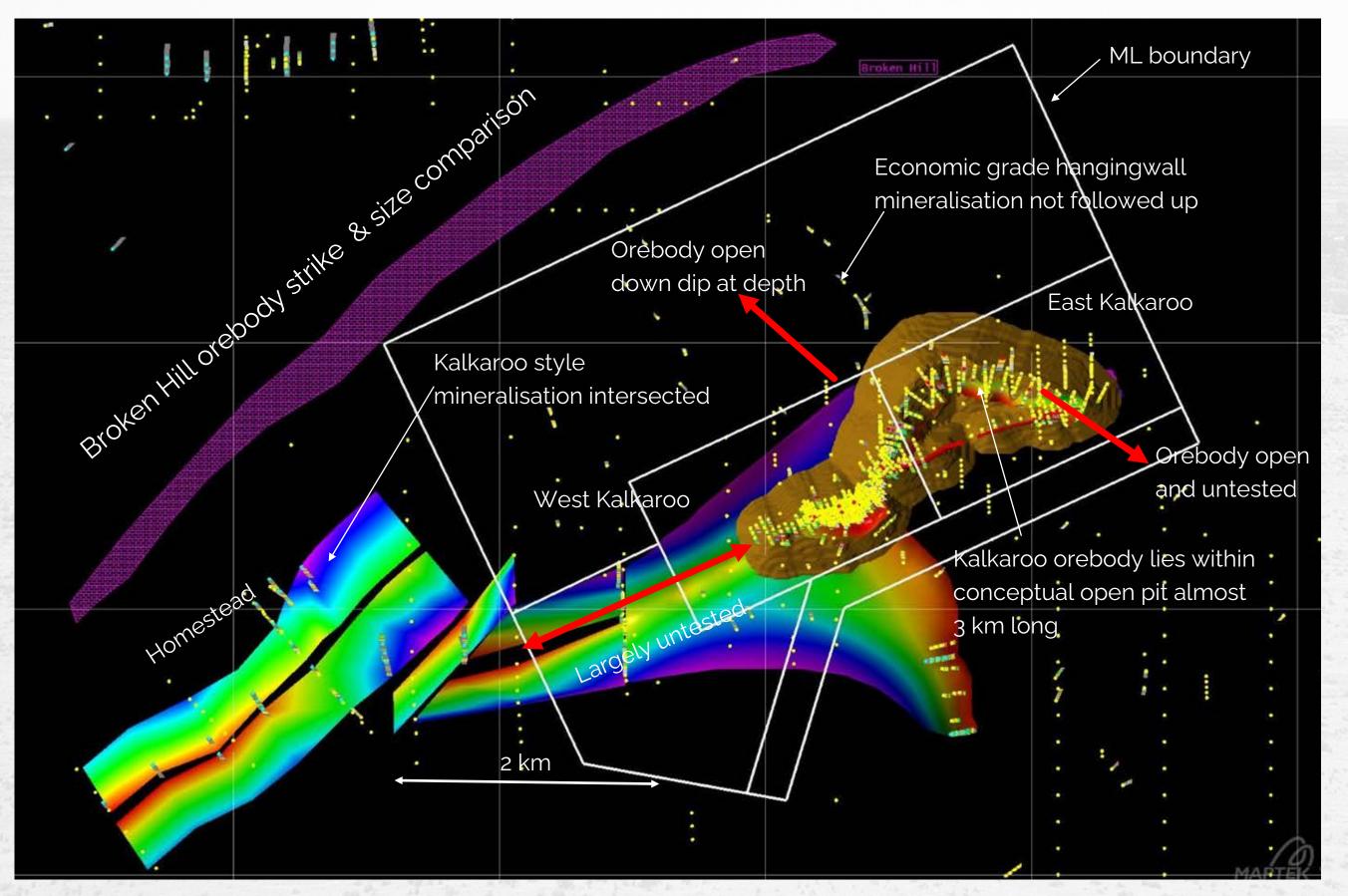
# Favourable location, logistics, land access and ESG



- Located in low sovereign risk northeastern South Australia, which has mandatory and strictly enforced ESG regulations.
- Kalkaroo mining development de-risked and expedited by existing land ownership (by Havilah subsidiary), granted mining leases and a Native Title Mining Agreement that are in place.
- Kalkaroo ML is 100% owned by Havilah, with no legacy royalties or other encumbrances.
- Proximity to main highway and transcontinental railway line and Broken Hill with its established mining infrastructure and skilled workforce.
- Approximately 5 hour drive from Adelaide along the main Sydney highway.
- Potential access to renewable energy sources from existing wind farm and solar farm near Broken Hill.
- Outback pastoral country 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.



# Expansion of the Kalkaroo resource with further drilling 3



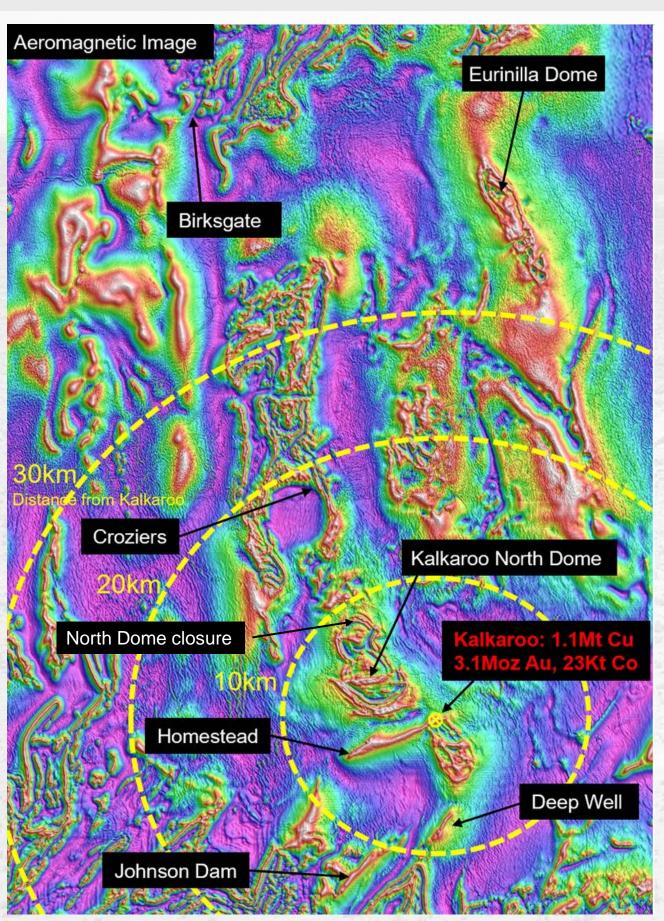
- Orebody is not closed off by current drilling along strike at the eastern and western ends of the deposit and down dip.
- Space to substantially expand the size of the Kalkaroo orebody within the ML.
- Economic grade hangingwall mineralisation intersected not yet followed up.
- Nearby Homestead prospect has sufficient length strike the prospective horizon (K2) to potentially host another Kalkaroo-size deposit (refer to ASX announcement 29 August 2023).
- Associated strategic minerals cobalt, REE, molybdenite, tungsten.

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



# Located within an under-explored copper province

(a regional exploration copper belt play covered by Havilah's extensive tenement holdings)



The image at left shows the locations of 8 promising prospects recently drilled by Havilah, plotted on a regional aeromagnetic image, with the distance from Kalkaroo indicated by the yellow circles. Some brief details below.

#### 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 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 >8km² in a synclinal structure.

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

- 32 metres of 1.96% Cu and 0.84 g/t Au in a supergene enriched 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.

#### Croziers prospect (ASX announcement 18 April 2017)

- 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.



# **Directors and Management**

### **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 paractial 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**



**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 2023

#### JORC Mineral Resources as at 31 July 2023

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			
	Total	Oxide Gold Cap	21,680,000			0.74			514,500
	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			
	Total	Sulphide Copper- Gold	223,800,000	0.49		0.36	1,096,600		2,590,300
		Total Kalkaroo	245,480,000				1,096,600		3,104,800
	Inferred	Cobalt Sulphide <sup>3</sup>	193,000,000		0.012			23,200	

#### JORC Ore Reserves as at 31 July 2023

Project	Classification	Tonnes (Mt)	Copper %	Gold g/t	Copper tonnes (Kt)	Gold ounces (Koz)
Kalkaroo¹	Proved	90.2	0.48	0.44	430	1,282
	Probable	9.9	0.45	0.39	44	125
1	Γotal	100.1	0.47	0.44	474	1,407

#### 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: <u>18 June 2018</u> (Kalkaroo)
- <sup>2</sup> Details released to ASX <u>30 January 2018</u> & <u>7 March 2018</u> (Kalkaroo)
- <sup>3</sup> Note that the Kalkaroo cobalt Inferred resource is not added to the total tonnage

# Cautionary and Competent Person's Statements

## **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.

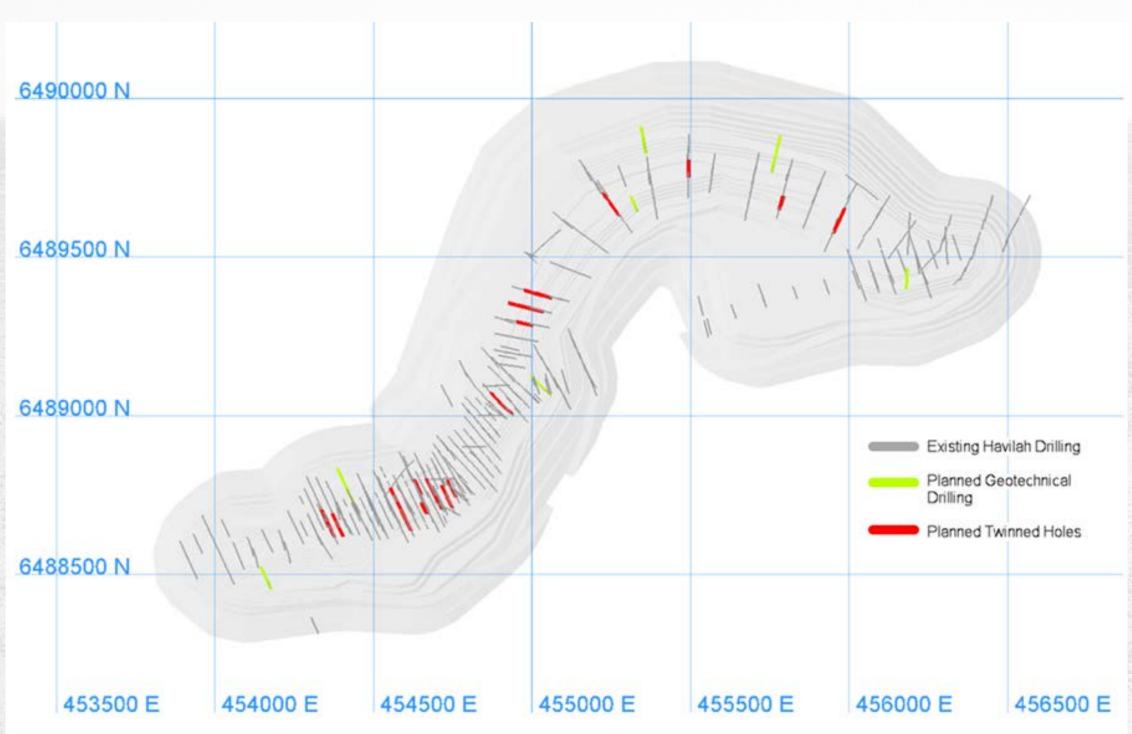
### **Competent Person's Statement**

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.



# Appendix 1 BHP Kalkaroo study program 2023 summary



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.

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.

# Improved Kalkaroo ore processing recoveries in BHP

study 500m Gold cap - saprolite zone (22Mt)

The image at left shows the distribution and tonnages of the four Kalkaroo ore types as defined in the 2019 Havilah pre-feasibility study. BHP's twinned diamond drillholes confirmed the overall validity of Havilah's early drilling results and interpretations.

Stratabound mineralisation open down dip Native copper zone (14Mt) Secondary sulphide zone (chalcocite-pyrite (27Mt) Untested depth potential for breccia style mineralisation in major fault zone Primary sulphide zone chalcopyrite-pyrite (183Mt)

The table at right summarises the metallurgical recoveries obtained by the BHP study program based on a new comprehensive metallurgical testwork program using samples derived from BHP's twinned diamond drillholes (see slide 8).

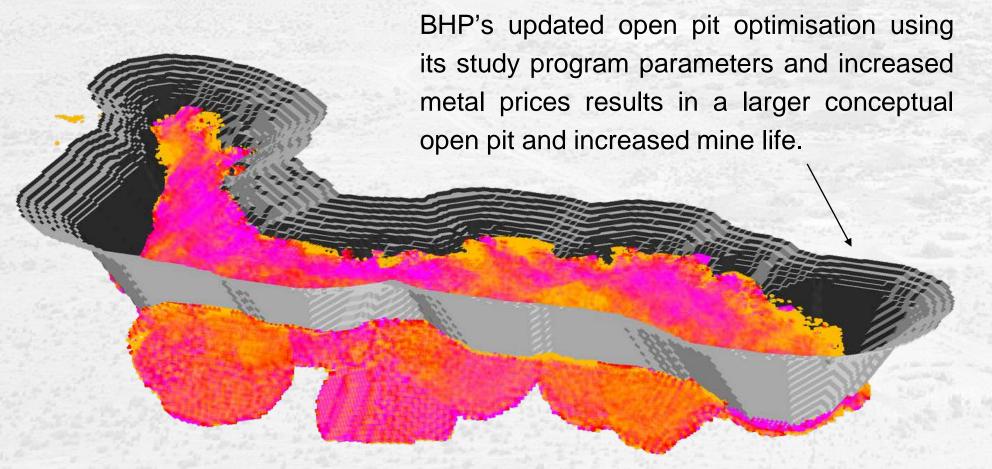
% Cu	Material	LOM tonnes (M)	Cu metal ore (t)	fraction metal	Cu % Rec
0.12	SAP	14	16,800	0.022	54.0
0.59	NC	14	82,600	0.11	54.0
0.7	СС	25	175,000	0.23	82.7
0.38	СР	131	497,800	0.64	92.2
0.42	TOTAL	184	772,200		85.1
g/t Au			Au metal ore (g)		Au % Rec
0.79	SAP	14	11,060,000	0.17	74.0
0.61	NC	14	8,540,000	0.13	74.0
0.4	CC	25	10,000,000	0.15	66.8
0.28	СР	131	36,680,000	0.55	72.0
0.36	TOTAL	184	66,280,000	and the second	71.8

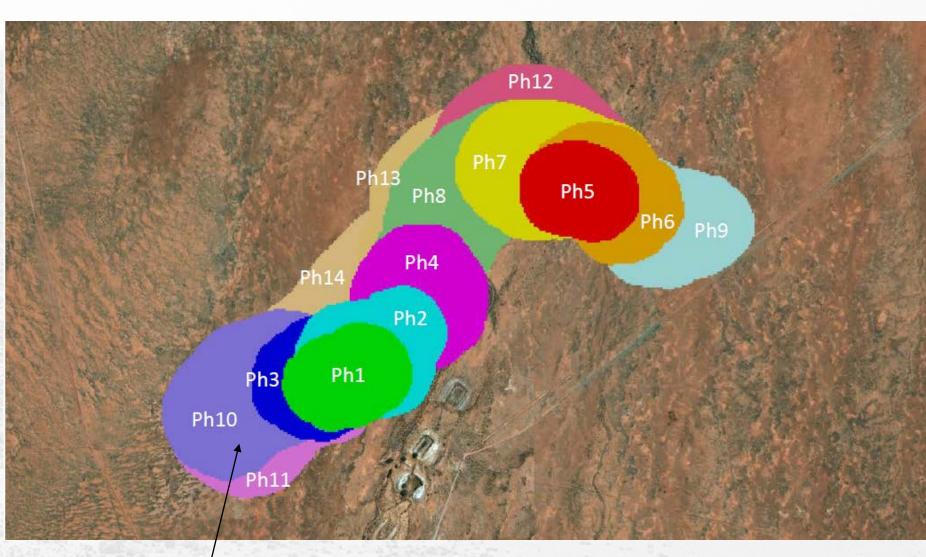


# Increased conceptual mine life generated by updated open pit optimisation

#### BHP Kalkaroo Study Program 2023 – Mining Phase Design

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





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.