



Mutooroo Copper-Cobalt-Gold Project

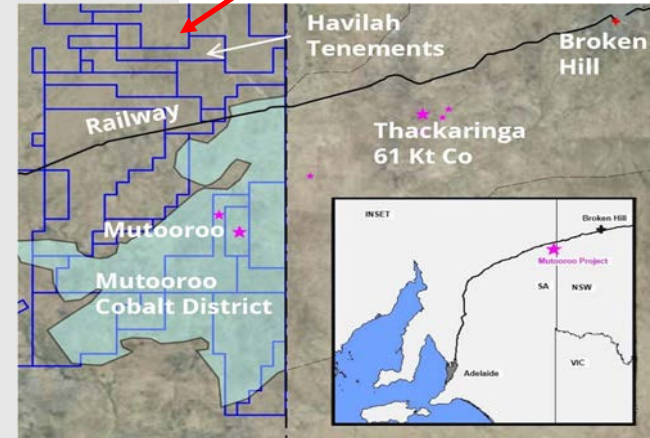


Mutooroo southern copper workings dating from the 1890's

High Grades of Copper and Cobalt in a Massive Sulphide Deposit near Broken Hill

Mutooroo project – key investment points

- **Sulphide JORC Mineral Resources of 12.5Mt @ 1.5% Cu (192kt), 0.16% Co (20kt) and 0.2g/t Au (81koz).**
- **Mineralisation from surface, open in all directions** and with immediate resource extension opportunities along strike and beneath existing drilling.
- One of the **highest grade sulphide cobalt deposits** with associated copper in Australia.
- **High exploration potential** with multiple prospects identified within a >500km² tenement package.
- **Preliminary studies completed** that support a potential open pit and underground development.
- **Simple metallurgy** with >90% copper recovery into a saleable concentrate.
- **Excellent location and logistics**, 16km from a rail line + highway and 60km from the mining centre of Broken Hill, with its skilled workforce.
- **Low risk profile project** from political, technical, logistical, social and environmental perspective. Located in mining friendly South Australia
- Refer to Havilah-resources-projects.com/Mutooroo for more information.



Substantial JORC Mineral Resources:

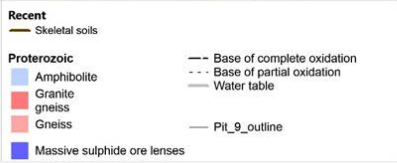
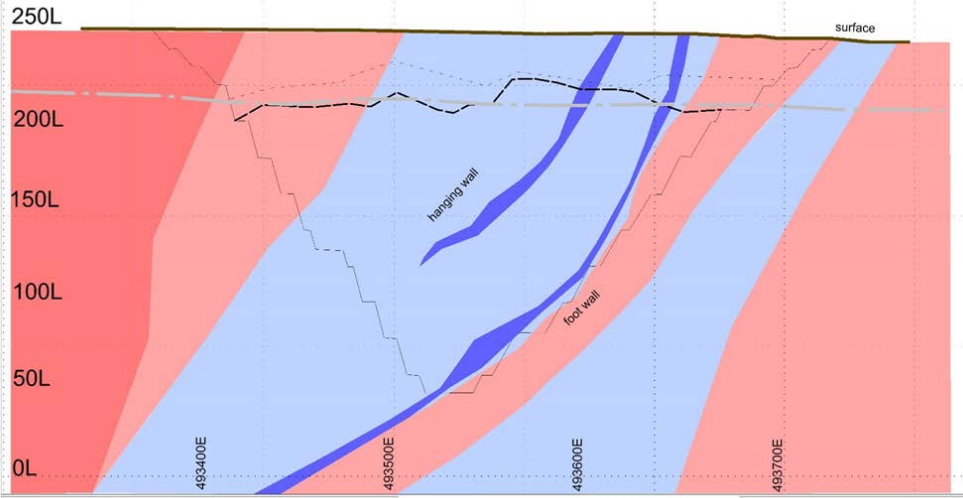
Copper 195.0 Kt

Cobalt 20.2 Kt

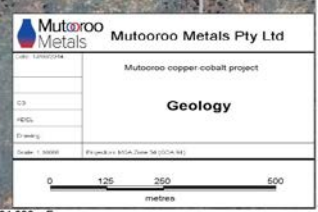
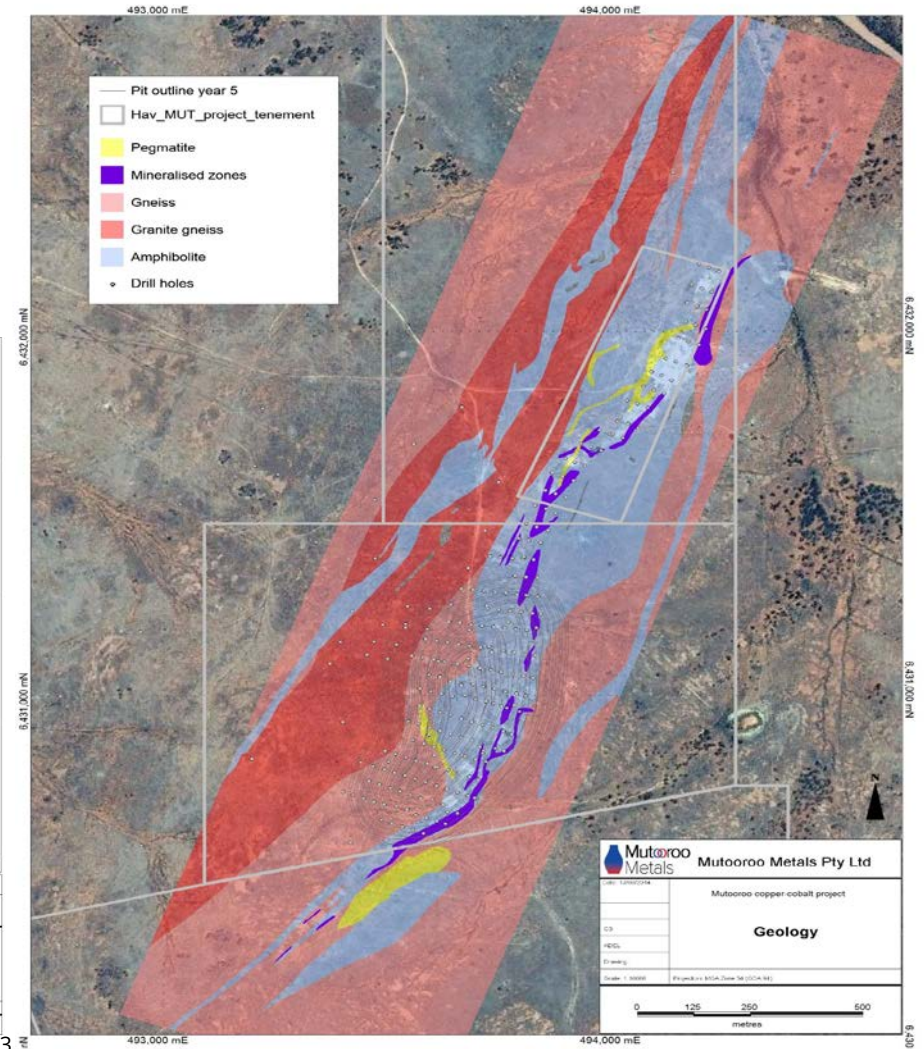
Gold 82.1 Koz

Geology

- Host rocks are high grade metamorphics comprising gneiss, granite gneiss (metamorphosed granite sill) and amphibolite (metamorphosed dolerite sill).
- Sulphide mineralisation lies in a shear zone either within amphibolite or at the gneiss contact.

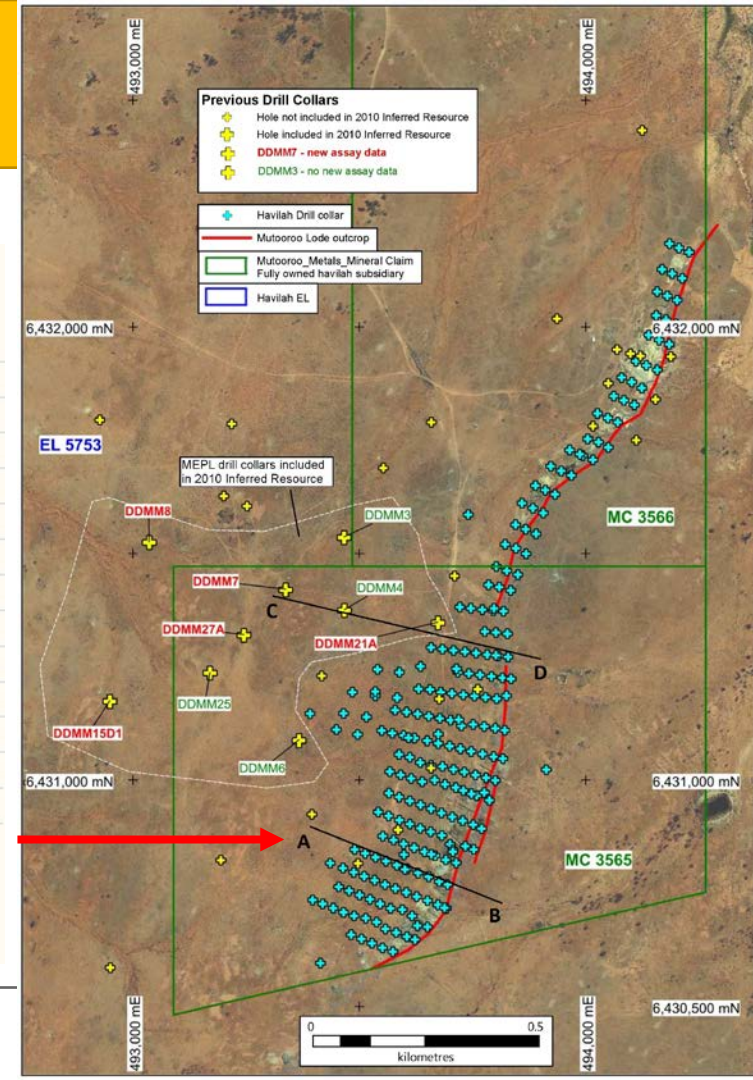
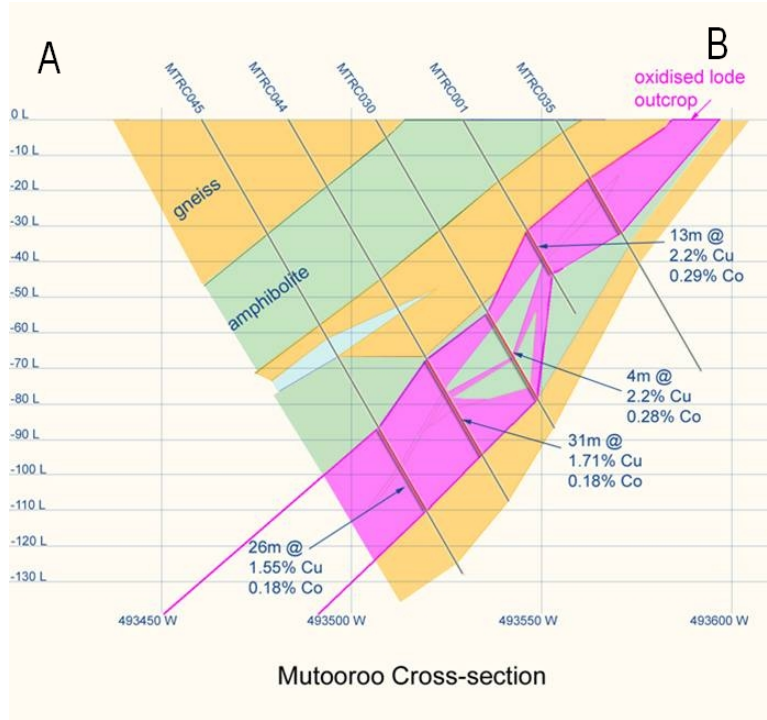


Generalised cross section through the sulphide lode

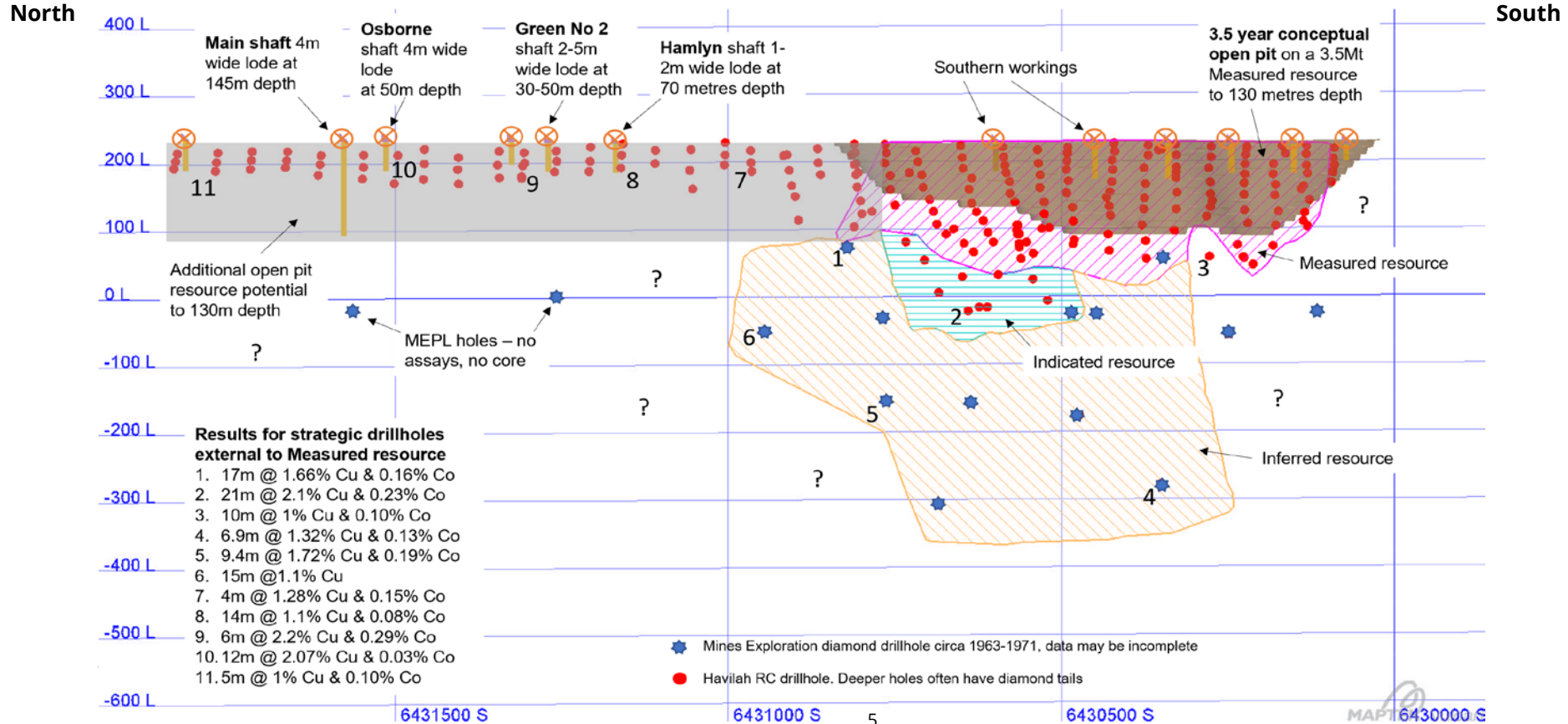


Havilah drilling & cross section

- The current resource is defined by 250 Havilah RC drillholes of which 44 have diamond core tails.
- Mines Exploration Limited completed 28 diamond drillholes in the period 1963-1971 of which 9 were used in Havilah's resource estimation.

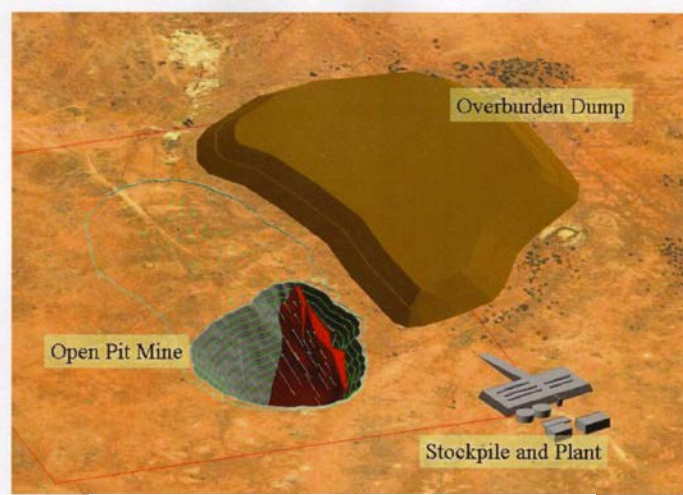


North-south long section along the line of lode

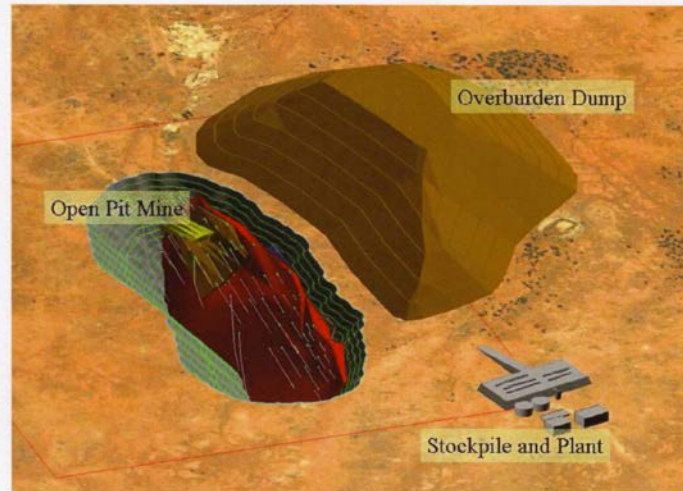


Potential open pit copper mine

- The concept is for an initial shallow open pit exploiting >1.3% Cu and 0.14% Co Measured resources.
- Preliminary modelling indicates that the practical limit of open pit mining is probably 130-150 metres depth, below which underground mining becomes more economical.
- On this basis the open pit mine life based on current Measured resources is 3.5-4 years at an ore mining and milling rate of 1 million tpa.
- Ideally the open pit life should target 5-7 years. To achieve this will require delineation of additional shallow copper resources.
- The most likely area is the northern extensions of the lode structure, where there are good indications based on old mining records and earlier Havilah drilling (see long section).
- Three potential revenue streams – copper, cobalt and gold.



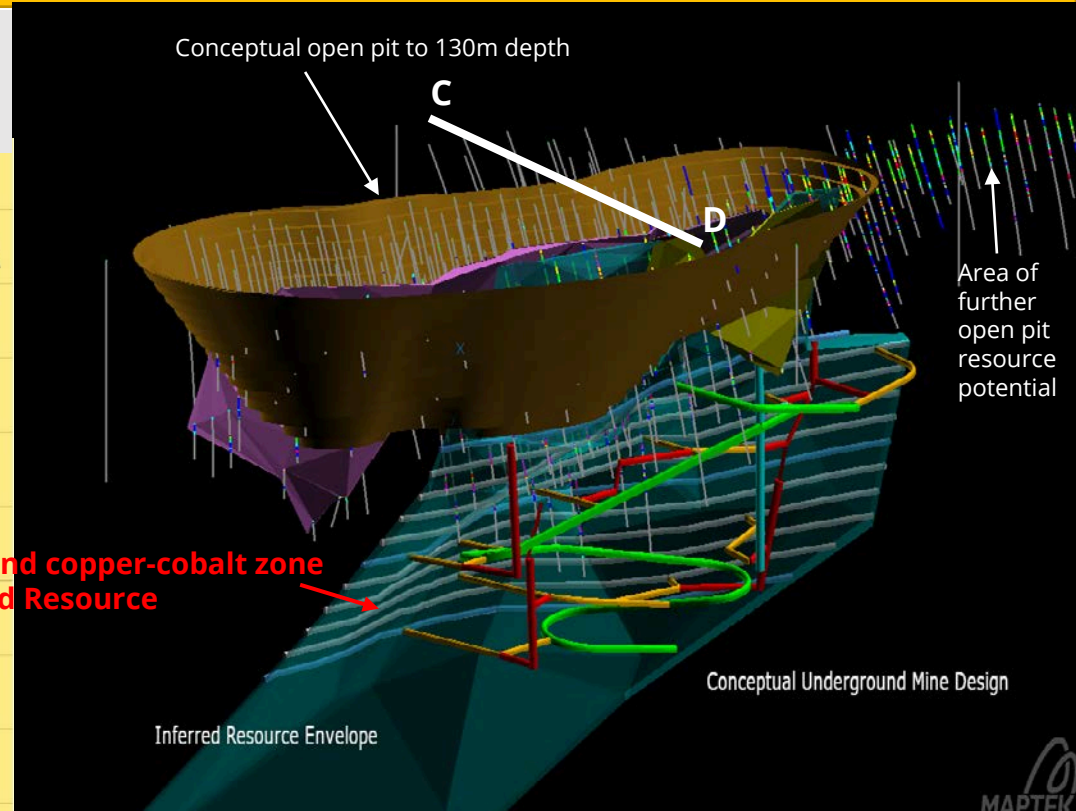
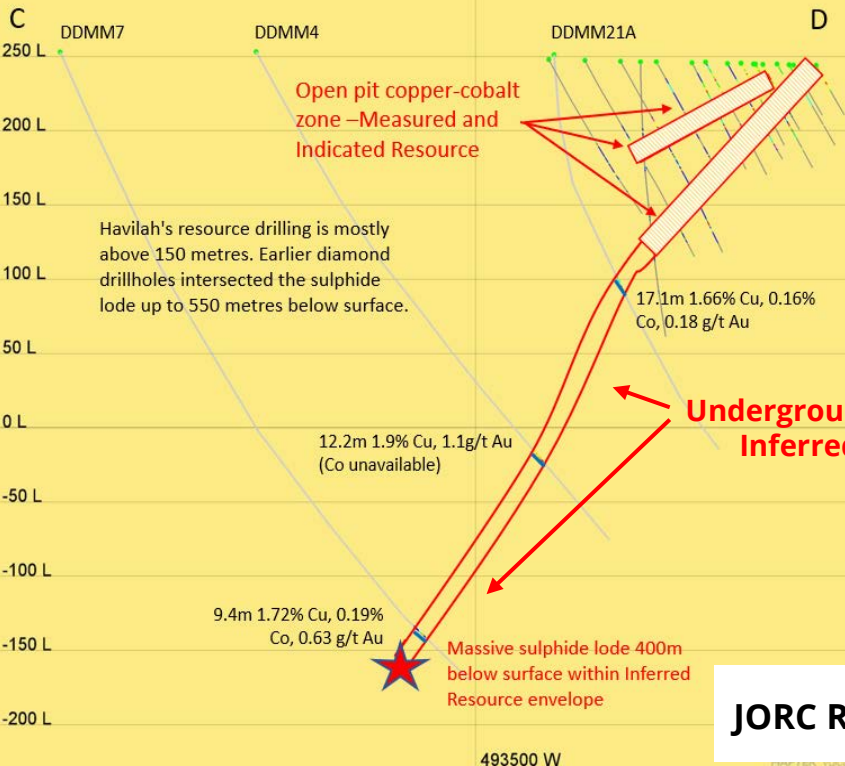
Conceptual 3 year open pit and waste dump



Conceptual 6 year open pit and waste dump

Potentially transitioning to an underground mine

Preliminary work suggests the current Inferred resources, that contain >1.7% Cu and >0.17% Co, are high enough grade to support a profitable underground mining operation for at least ten years. Access will be via a decline from the open pit floor.



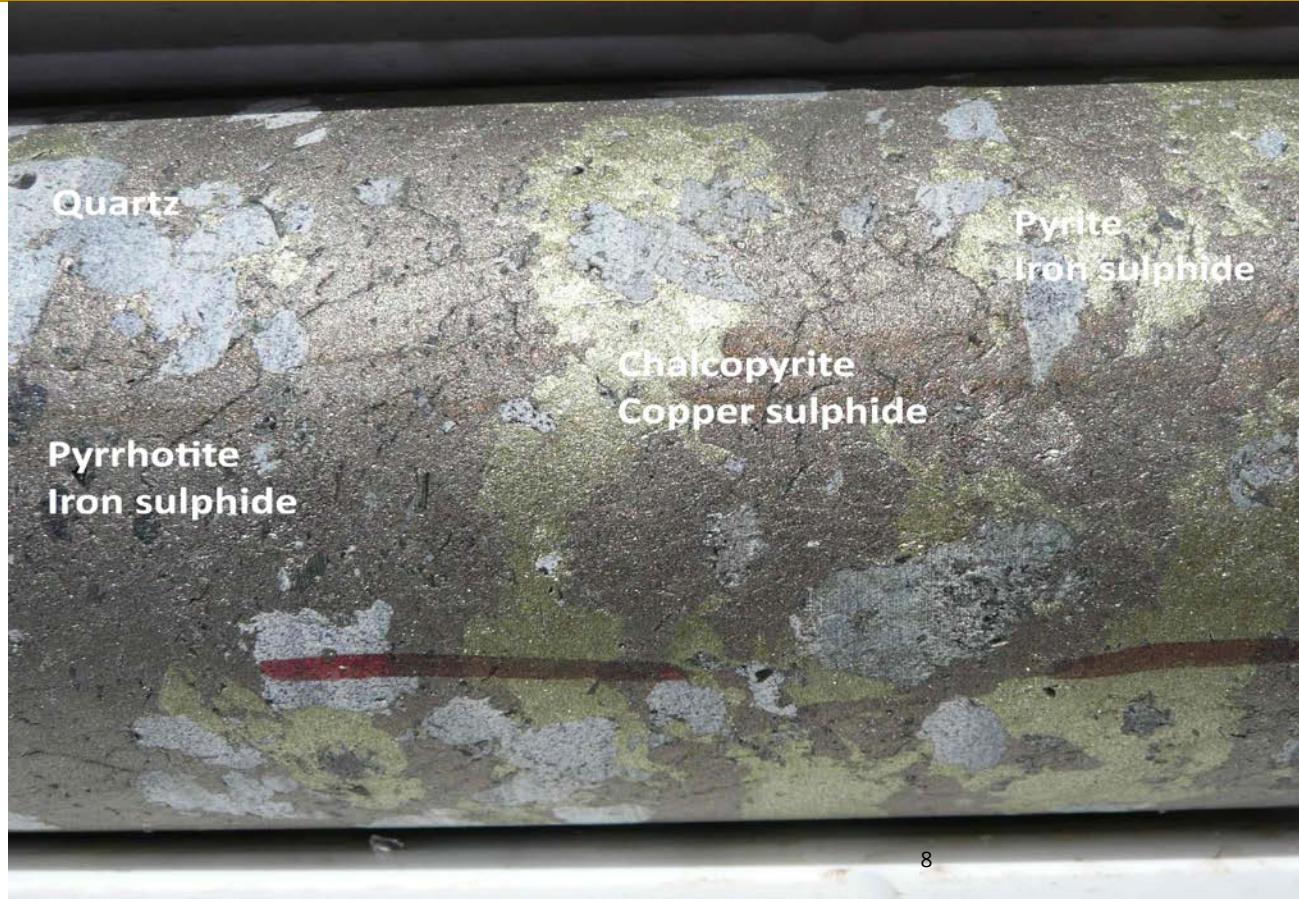
JORC Resources:

Copper 195.0 Kt

Cobalt 20.2 Kt

Gold 82.1 Koz

Unique massive sulphide copper-cobalt ore



Indicated low mining and grinding costs for the massive sulphide ore

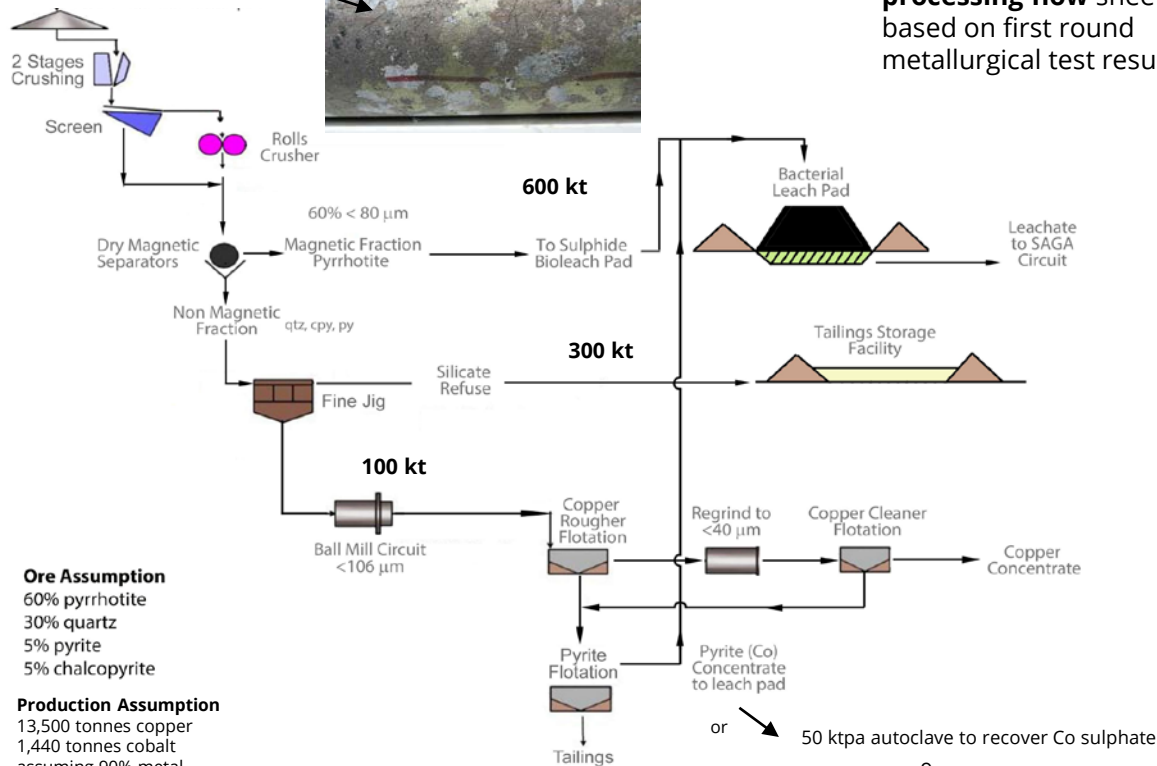
- Unique, coarse-grained massive sulphide ore that typically contains:
 - 60% pyrrhotite (moderate cobalt),
 - 5% chalcopyrite (high copper),
 - 5% pyrite (high cobalt)
 - 30% barren quartz.
- Ore is brittle and has a low impact work index (6.1-11.1 kWh/tonne), a low bond abrasion index (0.263) and a weak unconfined compressive strength (18.4 MPa).
- High density ore (SG 4.5) meaning that the mining volumes are comparatively small resulting in low ore mining costs.
- Drive-in drive-out to Broken Hill with its skilled workforce will considerably reduce administrative and labour costs compared with a remote site.

Opportunity for a low cost processing plant

Mill feed: 1Mtpa @ 1.5% Cu, 0.16% Co massive sulphide ore



Preliminary conceptual processing flow sheet based on first round metallurgical test results.



Ore Assumption

- 60% pyrrhotite
- 30% quartz
- 5% pyrite
- 5% chalcopyrite

Production Assumption

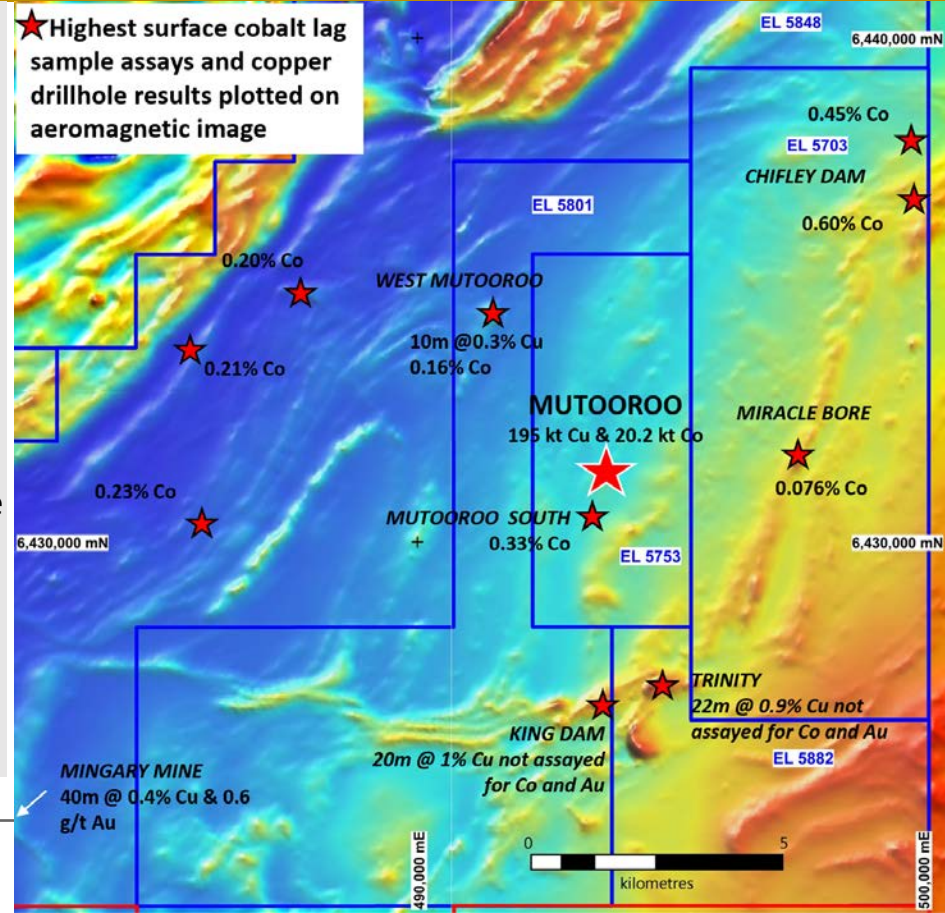
- 13,500 tonnes copper
- 1,440 tonnes cobalt assuming 90% metal recoveries.

Expected low processing capital and operating costs as a result of:

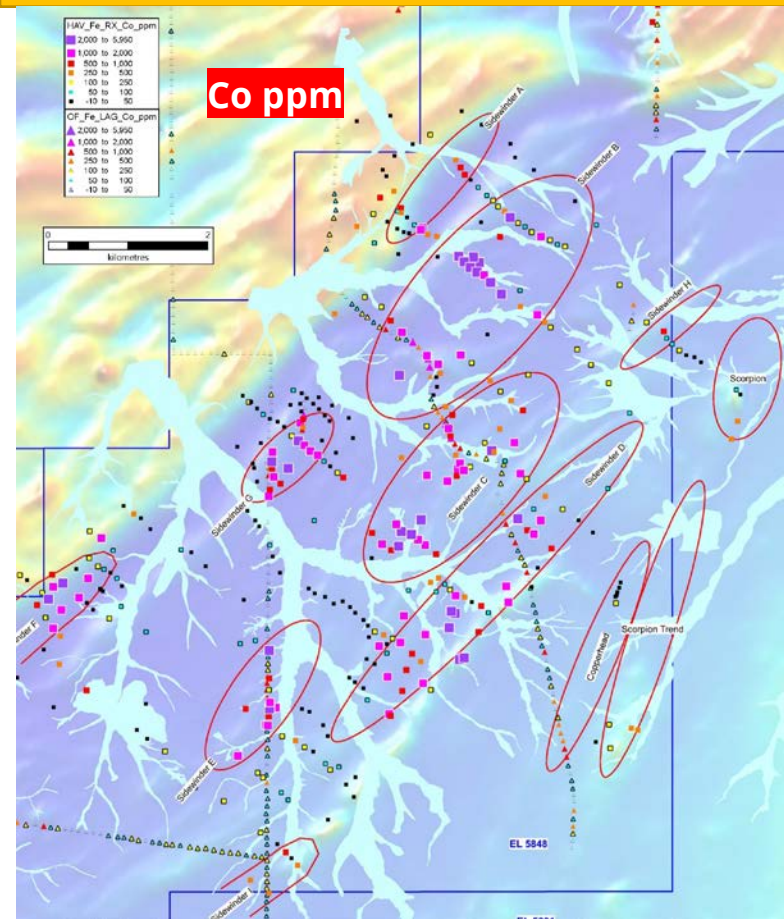
- Coarsely ground pyrrhotite is removed by magnetic separation. Low density quartz is removed by a jig.
- Approx. 100,000 tonnes of chalcopyrite and pyrite is ground and separated in a small flotation plant.
- Approx. 50,000 tonnes of pyrite concentrate contains an estimated 700-800 tonnes of cobalt (90% recovery) that could be treated in a mini-autoclave to recover cobalt sulphate.
- Flotation tests show good recoveries (>95%) of a high grade copper concentrate (>30%) with very low arsenic, cadmium, uranium and other penalty elements.
- Future metallurgical studies to focus on simulating the processing flow sheet and determining the best route to produce a saleable cobalt product.

Mutooroo Copper-Cobalt District prospectivity

- Mutooroo lies within a very prospective copper-cobalt district that has high discovery potential for additional resources at nearby prospects.
- On adjacent 100% owned exploration licences are numerous prospects dating from the 1960's with potentially ore-grade copper drilling intersections, but never subsequently assayed for cobalt and gold nor followed up with drilling (e.g. West Mutooroo, King Dam and Trinity).
- Widespread high copper and cobalt results in Havilah's surface lag geochemical sampling. Peak cobalt grades are at economic levels (eg 0.45%-0.60% Co at Chifley Dam, 0.33% Co at Mutooroo South, 0.20-0.23% Co in areas to the west). There is invariably associated highly anomalous copper ([ASX release 7 December 2018](#)).
- Previous ore-grade copper-gold intersections by Minotaur in two drillholes at Mingary Mine, including 40m @ 0.60 g/t Au & 0.40% Cu and 16m @ 1.07 g/t Au & 0.26% Cu in a folded sheared mineralised horizon.



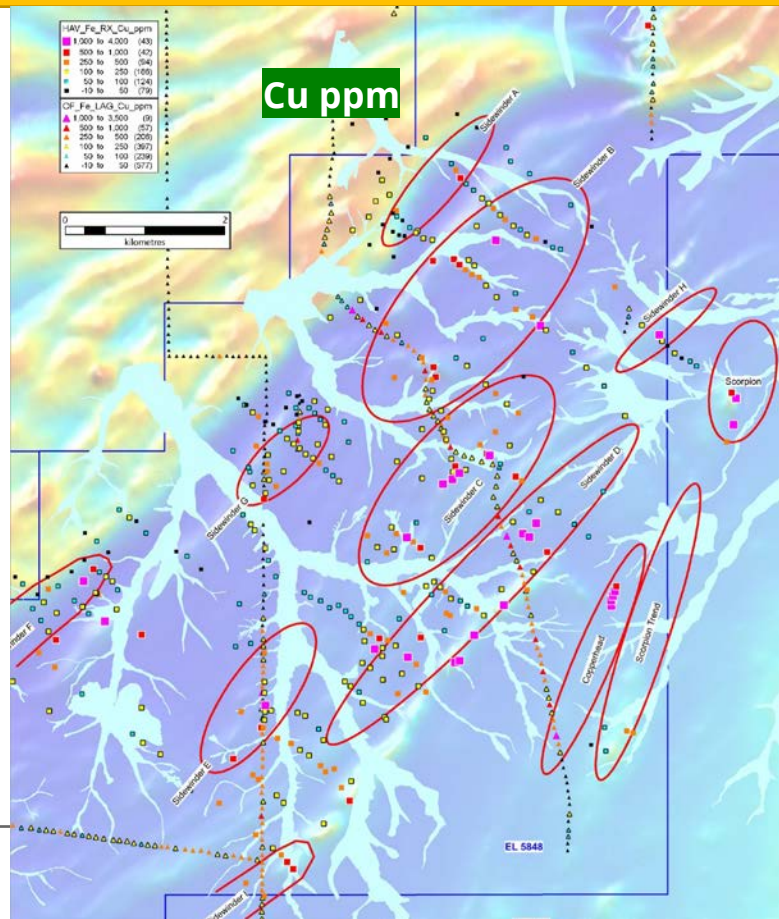
Exceptional surface geochemical sampling results



Widespread high copper-cobalt results in lag samples have defined a large exploration target area.

This is likely to be indicating hidden sulphide lodes near surface.

Future drilling will aim to discover and define any sulphide lodes that are present.



Mutooroo JORC Mineral Resource

Classification	Tonnes	Copper Grade %	Cobalt Grade %	Gold Grade g/t	Copper Metal Tonnes	Cobalt Metal Tonnes	Gold Metal Ounces
Measured Oxide ²	598,000	0.56	0.04	0.08			
Total Oxide	598,000	0.56	0.04	0.08	3,300	200	1,500
Measured ²	4,149,000	1.23	0.14	0.18			
Indicated ²	1,697,000	1.52	0.14	0.35			
Inferred ^{2&3}	6,683,000	1.71	0.17	0.17			
Total Sulphide	12,529,000	1.53	0.16	0.20	191,700	20,000	80,600
Total Mutooroo	13,127,000				195,000	20,200	82,100

1. Numbers in table are rounded.

2. The Measured and Indicated JORC 2004 Mineral Resource tonnages and grades for copper, cobalt and gold and the Inferred JORC Mineral Resource tonnage and grade for copper relate to resource estimations reported during October 2010 ([refer to ASX announcement of 18 October 2010](#)).

3. The Inferred JORC 2012 Mineral Resource tonnage and grades for cobalt and gold are derived from the resource estimations reported during June 2020 ([refer to ASX announcement of 5 June 2020](#)).

Cautionary and Competent Person's Statement

Cautionary Statement

The information contained in this presentation is not financial product advice. 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 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.

Competent Person's Statement

The information in this presentation that relates to Exploration Targets, 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 a director of the Company, is a substantial shareholder and is employed by the Company on a consulting contract. 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.

The estimates of the Mutooroo Inferred cobalt and gold resources reported here have been carried out in accordance with the JORC Code 2012. All other information pertaining to Mineral Resources for Mutooroo reported on 18 October 2010 and as presented in the previous slide was prepared and first disclosed under the JORC Code 2004 and is presented on the basis that the information has not materially changed since it was last reported. Havilah confirms that all material assumptions and technical parameters underpinning the JORC Code 2004 Mineral Resource estimates for Mutooroo continue to apply and have not materially changed.

Except where explicitly stated, this announcement contains references to prior exploration results and JORC Mineral Resources, all of which have been 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.

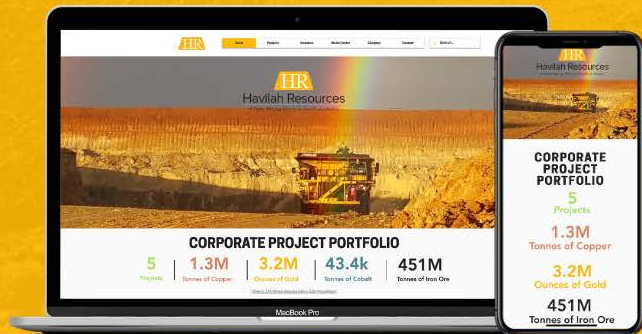
CONTACT INFORMATION

SUBSCRIBE TO OUR MAILING LIST

KEEP UP WITH THE LATEST NEWS AND ANNOUNCEMENTS



CLICK HERE



FIND US ONLINE

www.havilah-resources.com.au



[youtube.com/havilahresources](https://www.youtube.com/havilahresources)



[linkedin.com/havilah-resources](https://www.linkedin.com/havilah-resources)



[facebook.com/havilah-resources](https://www.facebook.com/havilah-resources)



twitter.com/havilah-resources



CORPORATE

Havilah Resources Limited

ABN: 39 077 435 520

ASX Code: HAV



OFFICE

PO BOX 3

Fullarton, 5063

South Australia, Australia

Tel: +61 (08) 7111 3627

Email: info@havilah-resources.com.au