ASX MEDIA RELEASE

Havilah Resources
A New Mining Force in South Australia

05 June 2020

NEW MUTOOROO COBALT RESOURCE

HIGHLIGHTS

- **A new cobalt Inferred JORC Mineral Resource for Mutooroo increases total cobalt metal contained in sulphide ore to 20,000 tonnes (144% increase).**
- **Expands Havilah's total cobalt metal inventory to 43,400 tonnes (Kalkaroo + Mutooroo), an increase of 37%, with appreciable upside potential.**
- **Cobalt-bearing iron sulphides can be recovered during the copper sulphide concentration process.**
- **Confirms Mutooroo as one of the highest grade sulphide cobalt deposits associated with copper in Australia.**

Havilah Resources Limited (**Havilah** or **Company**) reports it has estimated a new cobalt and gold Inferred JORC Mineral Resource for its Mutooroo copper-cobalt-gold project (**Mutooroo**) near Broken Hill of **6.683 million tonnes of 0.17% cobalt and 0.17 g/t gold**.

When added to the previously estimated Measured and Indicated JORC Mineral Resources (refer to ASX announcement of 18 October 2010), the total combined Mutooroo **sulphide resource is 12.53 million tonnes of 1.53% copper, 0.16% cobalt and 0.20 g/t gold for a total 20,000 tonnes of cobalt** and 80,600 ounces of gold as summarised in Table 1 below.

Table 1 Mutooroo JORC Mineral Resource Summary[1]

	Tonnes	Copper Grade %	Cobalt Grade %	Gold Grade g/t	Copper Metal Tonnes	Cobalt Metal Tonnes	Gold Metal oz
Oxide							
Measured	**598,000**	**0.56**	**0.04**	**0.08**	**3,300**	**200**	**1,500**
Sulphide							
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 Mineral Resource tonnages and grades for copper, cobalt and gold and the Inferred JORC Mineral Resource tonnage and grade for copper are unchanged from earlier JORC resource estimations (refer to ASX announcement of 18 October 2010).
3. The Inferred JORC Mineral Resource tonnage and grades for cobalt and gold are derived from the resource estimations reported in this announcement.

This new cobalt and gold Inferred JORC Mineral Resource was estimated by Havilah using the previously reported Mutooroo copper sulphide Inferred JORC Mineral Resource shell (refer to ASX announcement of 18 October 2010). In that previous resource estimation there was insufficient assay data to define either a JORC Inferred cobalt or gold resource, as noted at the time.

Subsequently, diamond drill core from five deep Mines Exploration Pty Ltd (**MEPL**) Mutooroo drillholes dating from the 1960s was located and re-sampled in the South Australian Drill Core Reference Library and then re-assayed. The mineralised sulphide intervals in each hole were analysed for a number of elements, including cobalt and gold that were not previously assayed (refer to ASX announcement of 30 May 2018). These re-assays provided the critical additional cobalt and gold data that was required to allow estimation of Inferred JORC Mineral Resources for these metals in the deeper part of the sulphide lode (Table 2 and Figure 1). The typical approximate 10:1 copper to cobalt ratio, seen in the earlier Measured and Indicated JORC Mineral Resources, is also reflected in the current Inferred JORC Mineral Resource which provides important independent validation for the resource estimate (see Table 1 above).

Table 2 Summary of new results for MEPL drill core re-assays.

Hole No	From (m)	To (m)	Interval (m)	Cu % new	MEPL Cu %	Co % new	Au g/t new	Description
DDMM7	469.4	478.8	9.4	1.72	1.96	0.19	0.63	Pyrrhotite (**Po**) dominant massive sulphide breccia with quartz clasts and 5% chalcopyrite (**Cpy**) and 5% pyrite (**Py**)
DDMM8	684.2	687.4	3.2	2.17	2.76	0.17	0.14	Po dominant massive sulphide breccia with quartz clasts and 5% Cpy and 5% Py.
DDMM15D1	637.7	644.6	6.9	1.32	0.95	0.13	0.07	Mostly Po dominant breccia as above with 2 internal zones of weak sulphide min.
DDMM21A	162.0	179.1	17.1	1.66	1.38	0.16	0.18	Mostly Po dominant breccia as above with one internal zone of weak to moderate sulphide mineralisation.
DDMM27A	462.4	462.7	0.3	3.75	3.20	0.30	0.41	Po dominant massive sulphide breccia with quartz clasts and 5 - 10% Cpy and Py.
DDMM27A	470.7	471.1	0.4	0.20	NA	0.13	0.02	Quartz and Po dominant sulphide, minor Cpy.

Notes

1. *MEPL Cu % column contains the original 1960's Cu assays by MEPL that were used in the earlier copper sulphide Inferred JORC Mineral Resource. Variation between the "new" and MEPL Cu assays is probably due to the coarse grainsize of the sulphides and the locally variable % of Cpy. Averaging all intersections indicated a difference of only 5%, which is within acceptable limits.*
2. *NA = not assayed.*

There is good potential to convert the deeper Inferred JORC Mineral Resources to Indicated and Measured JORC Mineral Resources by infill drilling between the existing, widely spaced, MEPL 1960's diamond drill intersections. Thus far, only approximately 700 metres of the more than 2,000 metres strike of the sulphide mineralisation has been drilled to JORC Measured and Indicated resource status by Havilah, predominantly to a depth of less than 200 metres.

Cobalt within the Mutooroo resource is contained within the iron sulphide minerals, pyrite and pyrrhotite. These minerals can be separated and concentrated during the copper sulphide concentration process. The cobalt-bearing iron sulphides are potentially an attractive grade cobalt feedstock for subsequent processing to recover cobalt, and also if feasible, significant amounts of associated gold and sulphur.

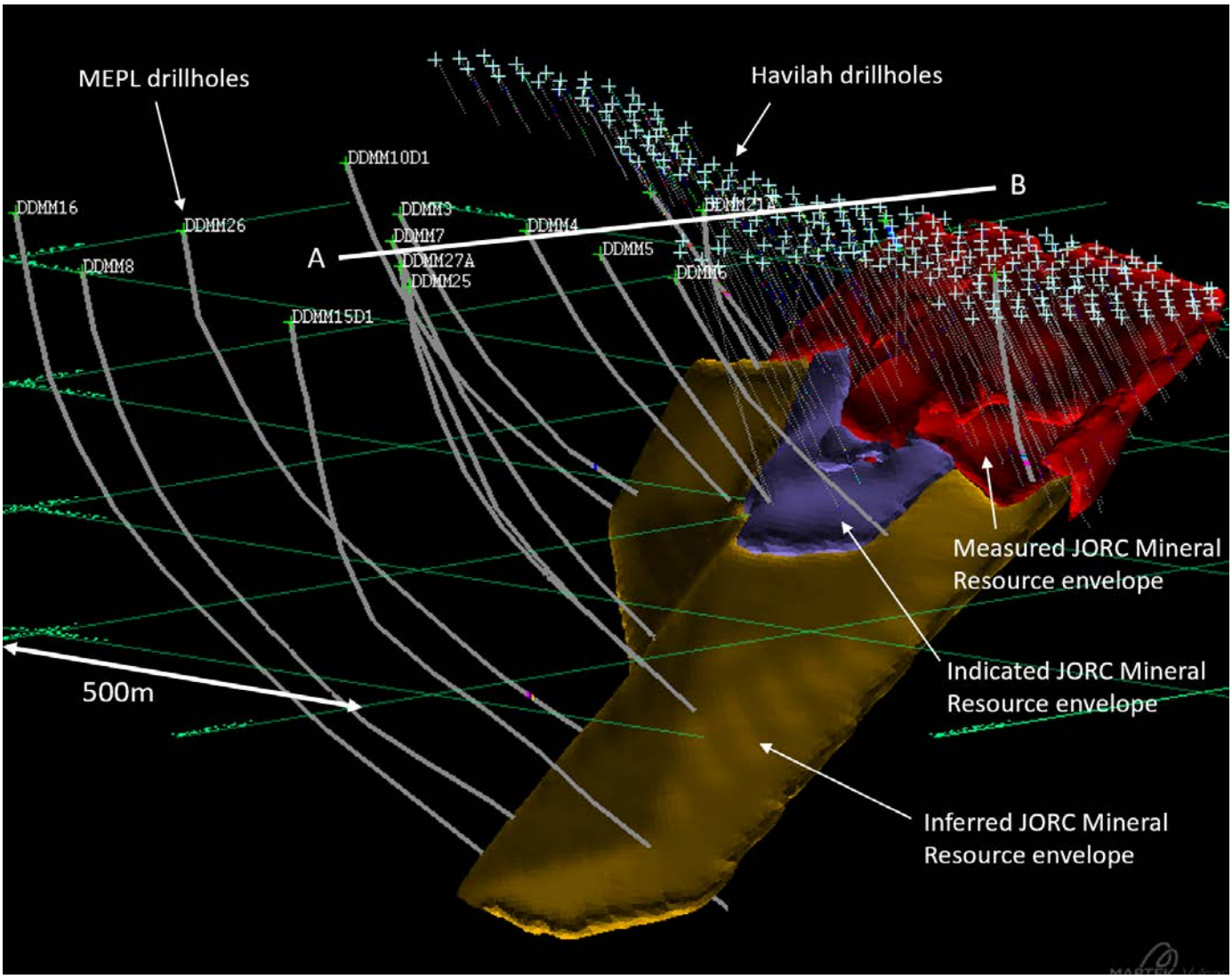

Figure 1 Oblique 3D view of the Mutooroo deposit, showing the location of MEPL drillholes used for defining the Inferred JORC Mineral Resource envelope. Line A-B is the location of the drillhole cross-section shown in Figure 2.

Establishing the most efficient metallurgical process for recovery of cobalt from the iron sulphides is an important focus of Havilah's pre-feasibility study (**PFS**) metallurgical test work. Testing of Mutooroo sulphide ore by Cobalt Blue Limited (ASX: COB) with its proprietary cobalt recovery processing methodology achieved overall recovery of cobalt in the leach solution of 88% (refer to ASX announcement of 21 June 2018). This is similar to the 90% cobalt recoveries earlier achieved by Havilah from fluidised bed roasting and leaching of the resultant calcine (refer to ASX announcement of 25 February 2008).

Havilah's total cobalt metal inventory now stands at 43,400 tonnes based on the total for Mutooroo (see Table 1 above) and Kalkaroo (23,200 tonnes of cobalt using a 0.012% cobalt grade in Inferred Mineral Resource, refer to ASX announcement of 7 March 2018 and Table 3 below). This is a substantial cobalt resource, especially considering it will be potentially produced as a by-product of mining operations sustained by copper at Mutooroo and copper-gold at Kalkaroo. Cobalt recovery from sulphide deposits typically relies on well established concentration processes with a considerably lower capex and opex as compared to nickel-cobalt laterites that normally require large volumes of sulphuric acid for the high pressure acid leach processing.

Commenting on the new Mutooroo cobalt Inferred resource, Havilah's Technical Director, Dr Chris Giles, said:

"Mutooroo's 0.16% cobalt resource grade makes it one of the highest grade sulphide cobalt deposits with associated copper in Australia.

"Such sulphide cobalt deposits are generally rarer and smaller than nickel-cobalt laterite deposits, but they usually have significant mineral processing advantages.

"The economics of Mutooroo as an open pit, and later as an underground, mining operation are underpinned by comparatively high grades of copper (1.53%) in the sulphide ore. Any revenues from by-product cobalt, gold and sulphur can substantially improve returns from the Mutooroo project.

"Our immediate PFS tasks at Mutooroo are to increase the shallow open pit sulphide resource through further drilling and to determine the best possible option(s) for the recovery of cobalt from iron sulphide concentrates." he said.

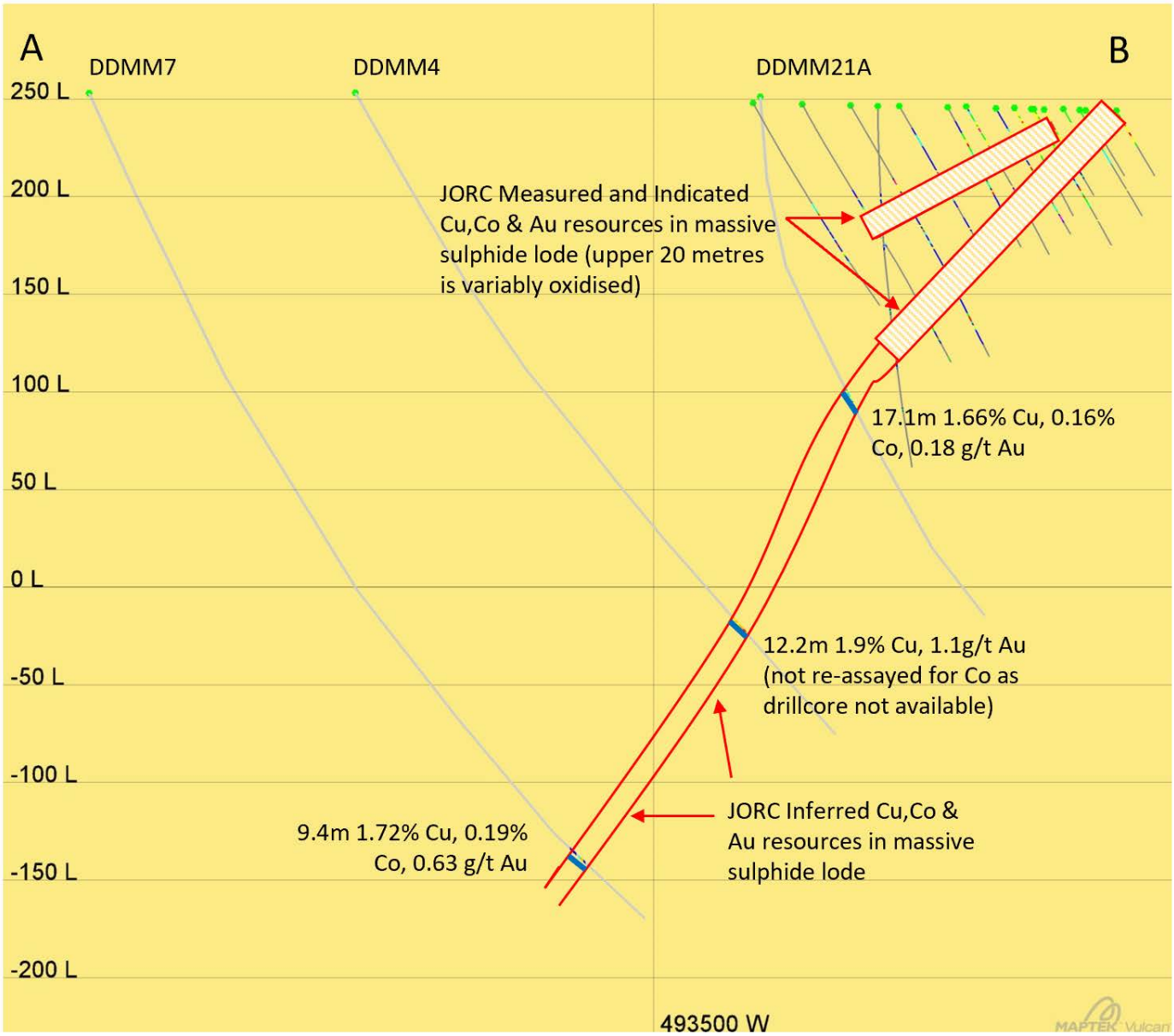

Figure 2 Cross-section through MEPL drillholes DDMM7, DDMM4 and DDMM21A (shown as line A-B on Figure 1). Copper, cobalt and gold assays for DDMM7 and DDMM21A are for drill core that was re-sampled and re-assayed by Havilah. Drill core for DDMM4 was not available for re-sampling.

Required information under Listing Rule 5.8.1

Mutooroo is a westerly dipping lode-style copper-cobalt-gold deposit that is located approximately 60 km southwest of the regional mining centre of Broken Hill, and 16 km south of the transcontinental railway line and Barrier Highway. Historic workings may be traced for over 2 km along strike.

For the re-sampled MEPL drill core sampling intervals ranged from 0.31 metres to 1.81 metres depending on the geology and core recovery. Cobalt assaying followed a standard commercial laboratory methodology of grinding, acid digestion and ICP-MS analysis finish.

While there is good continuity of the sulphide lode, the wide spacing of drillholes and the as yet undefined cobalt recovery process only supports an Inferred Mineral Resource status below 150-200 metres depth. A cobalt lower cut-off grade was not applied on the basis that the cobalt resource was estimated within the confines of the wireframe previously interpreted for the copper Inferred Mineral Resource estimation. Thus, no cobalt resource estimation was undertaken outside of the existing Mutooroo copper JORC Mineral Resource. This is a conservative approach considering cobalt would be accretive in value to the copper in the mining blocks and may ultimately expand the mineable ore. No upper cut-off was applied because there are no outlier high cobalt values of more than one standard deviation.

Estimation methodology exactly followed that for the earlier Mutooroo copper JORC Inferred Mineral Resource. The block model was constructed in Vulcan 12.0.4 software with parent blocks of 10 metre x 10 metre x 10 metre. Estimation was performed using ordinary kriging and inverse distance techniques.

Cautionary Statement

This announcement 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. 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 Statements

The information in this announcement that relates to Exploration Targets, Exploration Results, Mineral Resources and Ore Reserves is based on data and information 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 under consideration and to the activities being undertaken 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 announcement 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 (and the Kalkaroo Inferred cobalt resource reported in Table 3) 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 Table 1 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.

This release has been authorised on behalf of the Havilah Resources Limited Board by Mr Simon Gray.

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Table 3 JORC Mineral Resources for Kalkaroo as at 31 July 2019

Project	Classification	Resource Category	Tonnes	Copper %	Cobalt %	Gold g/t	Copper tonnes	Cobalt tonnes	Gold ounces
Kalkaroo[1]	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[2]	193,000,000		0.012			23,200	

[1] Details released to the ASX 30 January 2018 & 7 March 2018.
[2] Note that the Kalkaroo cobalt Inferred Resource is not added to the total tonnage.

Table 4 Details for MEPL diamond drillholes that were re-sampled and re-assayed by Havilah.

Hole Number	Easting m	Northing m	RL m	Grid azimuth	Dip degrees	EOH depth metres
DDMM7	493215	6431242	253	110	-65	522.4
DDMM8	492914	6431347	248	110	-78	824.5
DDMM15D1	492827	6430996	252	122	-81	731.5
DDMM21A	493552	6431170	251	124	-85	303.6
DDMM27A	493124	6431143	252	124	-80	595

APPENDIX 1: TABLE 1 OF THE 2012 EDITION OF THE JORC CODE

Sections 1 and 2 below provide a description of the assessment and reporting criteria for the resampling of drill core from five diamond holes, drilled by MEPL at Mutooroo during the 1960s, which are stored at the South Australian Drill Core Reference Library in Adelaide, in accordance with Table 1 of *'The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'*. Section 3 of the table provides details of the estimation and reporting of the new Inferred cobalt and gold resources.

Section 1 Sampling Techniques and Data

Criteria	Commentary
Sampling techniques	• All drill core was cut using a diamond saw. Samples of quarter core were collected. • Sample intervals ranged from 0.31 metres to 1.81 metres depending on the geology and core recovery. • Measures taken to ensure sample representivity included cross checking the old logs against actual core which showed that there is good correlation between the old logs and recent observations of remaining drill core. • All samples were collected into pre-numbered calico bags and packed into polyweave bags for transport by Havilah staff to the ALS assay lab in Adelaide.
Drilling techniques	• Diamond core sizes ranged from BQ (37mm) to NQ (48mm).
Drill sample recovery	• Original core recovery within mineralisation is reported to have been good, based on drill log comments, with losses only documented in unmineralised mica schist zones. • Core recovery for the intervals sampled in this report was calculated based on the remaining available core and ranged from 53% to 100% for individual sample intervals averaging 68% for all intervals sampled.
Logging	• Sulphide rich intervals of these old Mines Exploration Pty Ltd (**MEPL**) holes, that were included in Havilah's 2010 Inferred resource for copper, were selected based on the original MEPL logs and were cross checked with the available drill core. Each sulphide mineralised interval was logged by experienced geologists to record lithology, sulphide mineralisation type and intensity and other features of interest. The old drill logs have been re-coded and entered into Havilah's drill database.
Sub-sampling techniques and sample preparation	• Quarter core samples were collected as detailed above. • At the ALS laboratory the samples were crushed in a jaw crusher to a nominal 6mm (method CRU-21) from which a 3kg split was obtained using a riffle splitter. The split was pulverised in an LM5 to 85% passing 75 microns (method PUL-23). The pulps are stored in paper bags.
Quality of assay data and laboratory tests	• The samples were assayed by ALS in Adelaide. Samples were assayed for gold by 50g fire assay (Au-AA26) & base metals by 4 acid digest with ICP AES finish (ME-OG62). • ALS insert a range of blanks and standards into each batch and no data quality issues of significance were identified.
Verification of drilling sampling and assaying	• Assay results received compared well to visual estimates of sulphide mineralisation and to the existing MEPL copper assays conducted in the 1960s. • Comparison of "new" versus "old" copper assays showed local variations in grade per intersection of ± 14 - 28% but when all intersections are averaged, the difference was reduced to 5%.
Location of drillholes	• All of the MEPL collars referred to in this report have been previously located on the ground and surveyed using an Omnistar DGPS with decimeter accuracy by Havilah personnel. • MEPL holes were surveyed using a combination of acid etch and tropari methods. Distance between effective surveys averaged 56 metres with some surveys

Criteria	Commentary
	excluded due to excessive dip or azimuth variations (i.e. erroneous readings).
Data spacing and distribution	• MEPL holes were drilled at approximately right angles to the lodes and were generally spaced at 150 metre intervals targeting mineralisation between 150 metres and 560 metres below surface. • The intersection angle of most holes varied between 70 and 90 degrees depending on hole deviations.
Orientation of data in relation to geological structure	• The intersection angle of most holes varied between 70 and 90 degrees depending on hole deviations. • At this stage, no material sampling bias is known to have been introduced by the drilling direction.
Sample security	• All samples were collected by Havilah personnel and placed in pre- numbered calico bags which were placed in polyweave bags which were then sealed with cable ties. The samples were transported to the ALS assay lab by Havilah personnel. • There is minimal opportunity for systematic tampering with the samples as they are not out of the control of Havilah until they are delivered to the assay lab. • This is considered to be a secure and reasonable procedure and no known instances of tampering with samples occurred during the drilling programs
Audits, reviews	• Ongoing internal auditing of sampling techniques and assay data has not revealed any material issues.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	Commentary
Mineral tenement and land tenure status	• The Mutooroo deposit lies within current Mineral Claims MC 3565 and MC 3566 held by Mutooroo Metals Pty Ltd, a wholly owned Havilah Resources Limited subsidiary, within Exploration Licence EL 5753 held 100% by Havilah Resources Limited.
Exploration done by other parties	• Most exploration of significance, for this announcement, was undertaken by MEPL who drilled 29 deep diamond drillholes at Mutooroo during the 1960s targeting copper resources. • All previous exploration data has been integrated into Havilah's databases.
Geology	• The Mutooroo copper-cobalt mineralisation occurs as a series of an echelon, locally structurally remobilised, sulphide rich breccia zones/lodes developed within a locally altered shear/fracture zone largely confined to an amphibolite body. The amphibolite body/sill is flanked by a high grade deformed felsic gneiss and schist package. • The mineralisation trends NNE and dips to the west at approximately 45 degrees. • The upper 30-40 metres is oxidised and consists of iron oxides and quartz fragments with local secondary copper minerals including atacamite, chrysocolla, malachite and cuprite. • A variably developed secondary/supergene sulphide zone occurs below the base of oxidation and extends down along the footwall and hanging contacts of most lodes. Secondary vuggy/powdery pyrite after pyrrhotite occurs along with chalcocite, bornite/covellite and remnant chalcopyrite. Secondary sulphides have been intersected up to 250 metres below surface with the thicker lodes having a selvedge of secondary sulphides around a core of primary sulphides while thinner lodes are commonly completely replaced by secondary sulphides. • Primary sulphides are dominated by pyrrhotite with lesser pyrite and chalcopyrite.

Criteria	Commentary
	Breccia fragments include quartz and a range of variably altered wall rock fragments. Primary pyrrhotite dominant mineralisation has been intersected from 35 metre vertical depth. • Sulphide lodes have been interpreted generally using a minimum 10% logged sulphide content. Most lode contacts are relatively sharp with generally only minor disseminated sulphides occurring outside the lode margins. • Six lodes with good continuity from section to section were modelled and used in the resource estimation. Other discontinuous or crosscutting sulphide zones have not been included in the resource at this stage.
Drillhole Information	• MEPL drilled 29 diamond drillholes totalling approximately 14,400 metres in the 1960s. Fifteen of these holes were used to define the copper resource envelope for the deeper, Inferred part of the JORC Mineral Resource. • There is good general correlation of the geology and assay data between these earlier drillholes and some nearby Havilah drillholes.
Data aggregation methods	• Weighted averages are used for intersection calculations.
Relationship between mineralisation widths and intercept lengths	• Downhole lengths are reported. Drillholes were oriented to intersect mineralisation as close as possible to right angles.
Diagrams	• Refer to figures in the accompanying text.
Balanced reporting	• All results are reported.
Other substantive exploration data	• All relevant data is reported. • The assays reported here and previous assays from Mutooroo have not identified any deleterious elements.
Further work	• An upgraded resource estimation may be calculated using this new drill data. • Additional infill drilling may be carried out in the future to upgrade the Inferred Resource to Indicated and Measured Resources and also to explore for strike and depth extensions outside of the current resource envelopes.

Section 3 Estimation and Reporting of Mineral Resources

Criteria	Commentary
Database integrity	• All data in the database is validated for consistency and accuracy. Various powerful QC checks for overlapping data, missing assays and other errors are performed at the time the data is transferred into the Vulcan 3D database for the resource modelling work. Errors identified are immediately fixed and cross-checked to ensure there are no systemic errors. • Drillhole plots were examined to ensure consistency of surveys. • Examination of the database has not revealed any systemic issues of concern that could significantly affect the current resource estimation.
Site visits	• The Competent Person has worked on site and been involved in earlier drilling programs.

Criteria	Commentary
Geological interpretation	• The Mutooroo copper-cobalt mineralisation occurs as a series of en echelon, locally structurally remobilised, sulphide rich breccia zones/lodes developed within a locally altered shear/fracture zone largely confined to an amphibolite body. The amphibolite body/sill is flanked by a high grade deformed felsic gneiss and schist package. • The mineralisation trends NNE and dips to the west at approximately 45 degrees. • The upper 30-40 metres is oxidised and consists of iron oxides and quartz fragments with local secondary copper minerals including atacamite, chrysocolla, malachite and cuprite. • A variably developed secondary/supergene sulphide zone occurs below the base of oxidation and extends down along the footwall and hanging contacts of most lodes. Secondary vuggy/powdery pyrite after pyrrhotite occurs along with chalcocite, bornite/covellite and remnant chalcopyrite. Secondary sulphides have been intersected up to 250 metres below surface with the thicker lodes having a selvedge of secondary sulphides around a core of primary sulphides while thinner lodes are commonly completely replaced by secondary sulphides. • Primary sulphides are dominated by pyrrhotite with lesser pyrite and chalcopyrite. Breccia fragments include quartz and a range of variably altered wall rock fragments. Primary pyrrhotite dominant mineralisation has been intersected from 35m vertical depth. • Sulphide lodes have been interpreted generally using a minimum 10% logged sulphide content. Most lode contacts are relatively sharp with generally only minor disseminated sulphides occurring outside the lode margins. • Six lodes with good continuity from section to section were modelled and used in the resource estimation. Other discontinuous or crosscutting sulphide zones have not been included in the resource at this stage.
Dimensions	• The Mutooroo copper-cobalt mineralisation crops out at surface for over 2 km of strike. Only approximately 700 metres of this strike has been drilled to JORC resource status. Mineralisation is also open at depth. • The true width of mineralisation ranges from 2-25 metres thick in a series of lenses. • The deepest holes drilled are the MEPL diamond drillholes, which have established continuity of mineralisation to over 450 metres below surface.
Estimation and modelling techniques	• Polygons and hence triangulations are based on interpretations completed on nominal 50m sections for the upper part of the Mutooroo deposit. • Triangulated interpretations have been generated for the following lithological domains: Min1, Min2, Min3, Min4, Min5, Min6. • Triangulated interpretations were also generated for the base of oxidation and each of the above domains were estimated separately for oxidised and unoxidised material. • The block model was constructed with parent blocks of 10 metres Easting by 10 metres Northing by 10 metres RL with sub blocks available to a minimum of 1 metres Easting by 2 metres Northing by 2 metres RL. • Inverse distance was used to estimate cobalt and gold grades (and previously copper grades) and specific gravity separately for all domains and oxidation states. • The search directions for each estimation was aligned with relevant geological correlation and distances based on drill hole spacing. Unfolding was used during estimation to interpolate grades and specific gravity honouring spatial orebody geometry. • 1 metre assay composites were used with length weighting used in estimation. • A minimum of 1 and maximum of 5 composites were used per estimate.
Moisture	• Tonnes have been estimated on a dry basis.

Criteria	Commentary
Cut-off parameters	• No cut off parameters have been applied as the resource is constrained by geological boundaries of sulphide bearing lodes.
Bulk density	• A total of 653 Havilah core samples were measured for density using the weight in air versus weight in water method. • Results were geocoded to allow for SGs to be calculated for the main rock and mineralisation types which were then applied to all Havilah RC and diamond drill intersections. These calculated SGs were then block modelled and compared to measured SGs with excellent correlation. • All MEPL mineralised intervals were given an SG of 3.45 which was based on the conversion of a "tonnage factor" of 10.5 cubic feet/ton, which was used in the 1973 pre JORC resource calculations. No information on background for this "tonnage factor" has been found but is very close to Havilah calculations for fresh sulphide lode material.
Classification	• Mineral resources have been classified taking into account drilling density, geological confidence in the continuity of mineralisation, the quality of the data used and metallurgical certainty of cobalt and gold recoveries. As a result the current deeper resource defined here that relies on the older MEPL drilling has been categorised as Inferred mainly due to the wider drill spacing (100-200 metres). • The Mineral Resource estimate appropriately reflects the view of the Competent Person. In the Competent Person's opinion there is a high probability that further drilling within the Inferred resource envelope would convert the resources to Indicated and Measured.
Mining factors or assumptions	• The Inferred resource could only be mined by underground methods due to its depth. • No assumptions have been made about mining selectivity for specific material types or quality. • No external mining dilution or other factors have been applied to the resource estimate. • Studies to date indicate that there is a sound basis for determining reasonable prospects for eventual economic extraction of the cobalt-bearing iron sulphides and gold as a by-product.
Metallurgical factors or assumptions	• No metallurgical assumptions have been applied to the resource model. • Metallurgical test work to date indicates that copper could be recovered satisfactorily from the Inferred resource material by standard flotation methods. • Metallurgical test work shows that most of the cobalt is contained within the pyrite mineral lattice and is thus intimately associated with pyrite. The best means of recovering cobalt from pyrite is the subject of ongoing PFS metallurgical test work.
Environmental factors or assumptions	• A comprehensive mining lease proposal document, in process of preparation, will addresses a range of environmental issues connected with the proposed Mutooroo mining operation in some detail. • Mining development is subject to the approval of a Program for Environmental Protection and Rehabilitation (**PEPR**) by the Department for Energy and Mining. • This study will comprehensively address all environmental and social impacts and the risk mitigation methodologies to be employed.
Audits or reviews	• The resource estimation work for cobalt and gold as reported here was undertaken by independent resource geologist Mr Steve Sullivan, an employee of Maptek Pty Ltd (**Maptek**) who has had more than 30 years' experience in the mining industry, the majority of which has been spent in resource estimation. • All drilling data and relevant interpretations were supplied to Maptek by Havilah and there were extensive technical discussions during the estimation process between Havilah geologists and mining engineers and Maptek to ensure that all of

Criteria	Commentary
	Havilah's geological knowledge and interpretations were taken into account in generating the block model. • Havilah conducted internal peer review of the resource processes and reporting outcomes during the resource estimation work.
Discussion of relative accuracy/ confidence	• The relative accuracy of the Mineral Resource is reflected in the reporting of the Mineral Resource as per the guidelines of the 2012 JORC Code. • Geological and block models have been validated visually against drilling and statistically against input data sets on a domain and swath basis. • The Mineral Resource estimate is based on the assumption that underground mining methods will be applied and that grade control sampling will be available for selective material delineation. As such the resource estimate should be considered to represent a global resource estimate. • No production data is available to reconcile results.