



*Havilah Resources Limited plans to sequentially develop its portfolio of gold, copper, iron, cobalt, tin and other mineral resources in South Australia. Our vision is to become a new mining force, delivering value to our shareholders, partners and the community.*

218 million Ordinary Shares -- 14 million Listed Options -- 8 million Unlisted Options

ASX and Media Release: 1 February 2018

ASX Code: HAV



## COBALT RECOVERY INITIATIVE WITH COBALT BLUE

### HIGHLIGHTS

- Agreement reached with Cobalt Blue (COB) to investigate cobalt recovery potential.
- Access to COB's proprietary cobalt recovery process on the Mutooroo copper-cobalt massive sulphide ore.
- Opportunity to cooperate while COB performs due diligence on Mutooroo.
- Cooperation is based on similar cobaltian pyrite ore and geographical proximity.
- Potential to unlock cobalt district in Broken Hill region.
- Could potentially access substantial cobalt resources in the Kalkaroo and North Portia copper-gold deposits.

Havilah Resources Limited (Havilah) is pleased to announce that it has signed a Memorandum of Understanding (MOU) with Cobalt Blue Holdings Limited (ASX : COB) for the joint investigation of the applicability of COB's proprietary process for the recovery of cobalt from pyrite ores. This agreement is consistent with Havilah's *Copper Growth Strategy* as the Mutooroo copper-cobalt project is one of the three copper projects advancing towards investment decisions.

1 – Interval shown is from hole number MTDD112 (drilled in 2007) from 52.0 metres to 53.6 metres.



## Key Points of the MOU:

- COB to complete its due diligence on the Mutooroo copper-cobalt mineral deposit by 30 April 2018.
- Havilah will provide COB with a representative 10kg Mutooroo sulphide ore sample on which COB will perform laboratory testwork using its proprietary technology including crushing, grinding, flotation, calcining and leaching. Full results to be provided to Havilah by 30 April 2018.
- Provides basis for possible future cooperation between the parties by mutual agreement on a wide range of activities, including the marketing of cobalt sulphate concentrate.
- Non-binding, but reflective of the parties willingness to cooperate while still allowing Havilah to continue investigating other opportunities for Mutooroo while this work progresses. The agreement may be terminated by either party at any time, except in the period after testwork has commenced and prior to delivery of test results.

Based on various ASX releases and discussions between technical staff of Havilah and COB, the parties believe that there are similar metallurgical recovery challenges for cobalt from cobaltian pyrite in the respective mineral deposits at Mutooroo (Havilah) and Thackaringa (COB). Both parties wish to undertake due diligence, by initially testing small samples, to explore whether the proprietary technology being developed and tested by COB will enable the economic recovery of cobalt from Mutooroo sulphide ore. Depending on the outcome of the laboratory scale test results, and COB's due diligence studies of the Mutooroo deposit, the parties may decide to continue cooperation by further testing bulk samples of Mutooroo ore with the possibility of ultimately pursuing joint marketing of the Thackaringa-Mutooroo cobalt sulphate product.

The initial 10 kg of test material proposed will provide a simple proof of the COB process for Mutooroo sulphide ore. The aim is to demonstrate the ability of the process to perform the following steps:

1. Concentration and flotation,
2. Pyrolysis (to convert pyrite to pyrrhotite), including production of elemental sulphur, and
3. Cobalt extraction into solution.

At this stage, the testwork will not be designed to optimise recoveries. This will be the subject of further studies.

**Commenting on the cobalt recovery initiative with COB, Havilah CEO, Mr Walter Richards said:** "Given we are neighbours and face similar metallurgical challenges in the recovery of cobalt from cobaltian pyrite ores, this agreement presents a mutually beneficial opportunity for us to work with COB at this time.

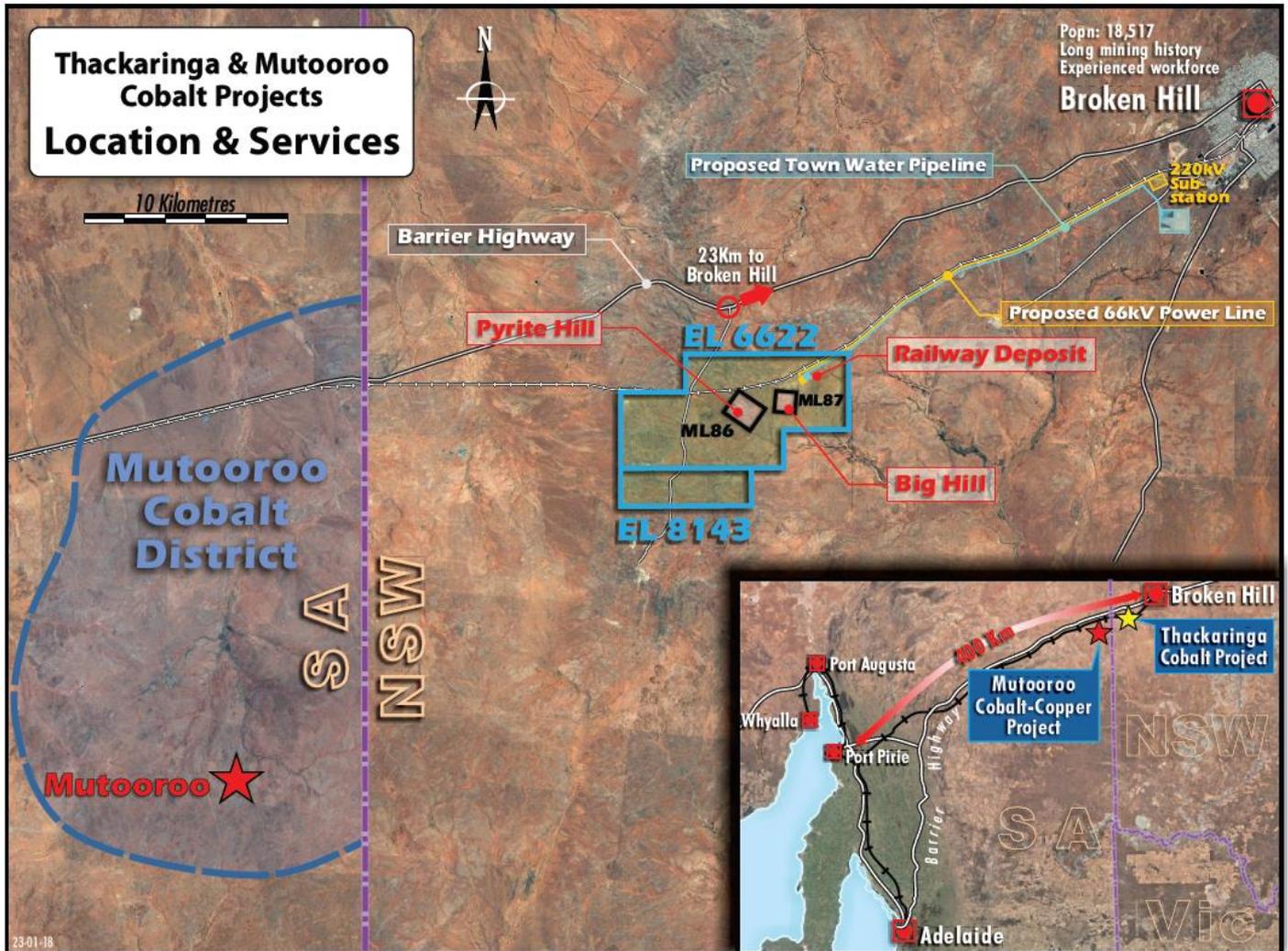
We have been impressed by COB's rigorous scientific approach towards the recovery of cobalt from its Thackaringa pyrite ores, and feel that we can gain much from their experience and expertise.

Because of the large total resources of cobaltian pyrite, with appreciable gold, that we have, not only at Mutooroo, but also at our Kalkaroo and North Portia copper-gold deposits the outcome of this work has important economic implications for Havilah.

If COB's processes enable the recovery of cobalt, it will be a major step forward in enhancing the economic returns from all of our projects, and could well lead to ongoing cooperation with COB."

For further information visit [www.havilah-resources.com.au](http://www.havilah-resources.com.au)

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## About the Mutooroo Copper-Cobalt Project

The Mutooroo copper-cobalt project lies 40 minutes drive west of Broken Hill and 16 km south of the transcontinental railway line. It is a lode-style massive sulphide copper-cobalt deposit that contains a published Measured+Indicated+Inferred JORC Resource of 13.1 million tonnes of 1.48% Cu for a total contained 191,000 tonnes of copper plus associated cobalt and gold (refer to resource table below). It is South Australia's only JORC status cobalt resource. Havilah's immediate objective at Mutooroo is to complete the Pre-Feasibility Study and required permitting for an open pit mining operation to 130 metres depth. This will include sulphide ore throughput in a conventional grinding and flotation circuit that will recover high quality copper concentrate. The best method of recovering cobalt is being investigated and the testing regime contemplated by the COB MOU is an important positive step in this process.



## Mutooroo Resource Estimate – ASX release 18 October 2010

Resource Category	Tonnes	Copper (%)	Gold (g/t)	Cobalt (%)	Contained Copper (tonnes)	Contained Gold (ounces)	Contained Cobalt (kg)
Measured sulphide	4,149,000	1.23	0.18	0.14	51,000	24,000	5,809,000
Indicated sulphide	1,697,000	1.52	0.35	0.14	26,000	19,000	2,376,000
Inferred sulphide	6,683,000	1.71	(est 0.21)	(est 0.14)	114,000		
Measured oxide	598,000	0.56	0.08	0.04			
<b>All categories (rounded)</b>	<b>13,127,000</b>				<b>191,000</b>	<b>43,000</b>	<b>8,185,000</b>

The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant announcement and, in the case of the mineral resources that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

### 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 Persons Statement

The information in this announcement that relates to Exploration Targets, Exploration Results, Mineral Resources or 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 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 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. This information was prepared and first disclosed under the JORC Code 2004. It has not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported.