

19 August 2024

MUTOOROO AGREEMENT WITH JX ADVANCED METALS

HIGHLIGHTS

- A binding Memorandum of Understanding signed with JX Advanced Metals Corporation (**JXAM**) of Japan for an exclusivity period and study program on the Mutooroo copper-cobalt-gold project (**Mutooroo**).
- This will involve JXAM spending almost \$3 million on resource expansion and resource upgrade drilling and other studies on a non-recourse basis to inform its decision on whether to acquire an interest in Mutooroo.

Havilah Resources Limited (**Havilah** or the **Company**) (**ASX: HAV**) is pleased to advise that it has entered into a binding Memorandum of Understanding with JXAM of Japan, for an exclusivity period and study program relating to Mutooroo in northeastern South Australia near Broken Hill (Figure 1).

The exclusivity may extend until 30 September 2025, during which time JXAM will fund a study program on Mutooroo that will inform its decision on whether to acquire an interest in Mutooroo as part of a potential transaction. Subject to the results of the study program, JXAM and Havilah will negotiate in good faith the terms of a legally binding agreement for the potential transaction during the exclusivity period.

Exclusivity will cover the entire 23 km² area of exploration licence 6592 and mining lease 5678 that lies within it that are both 100% owned by Havilah and/or its wholly owned subsidiary.

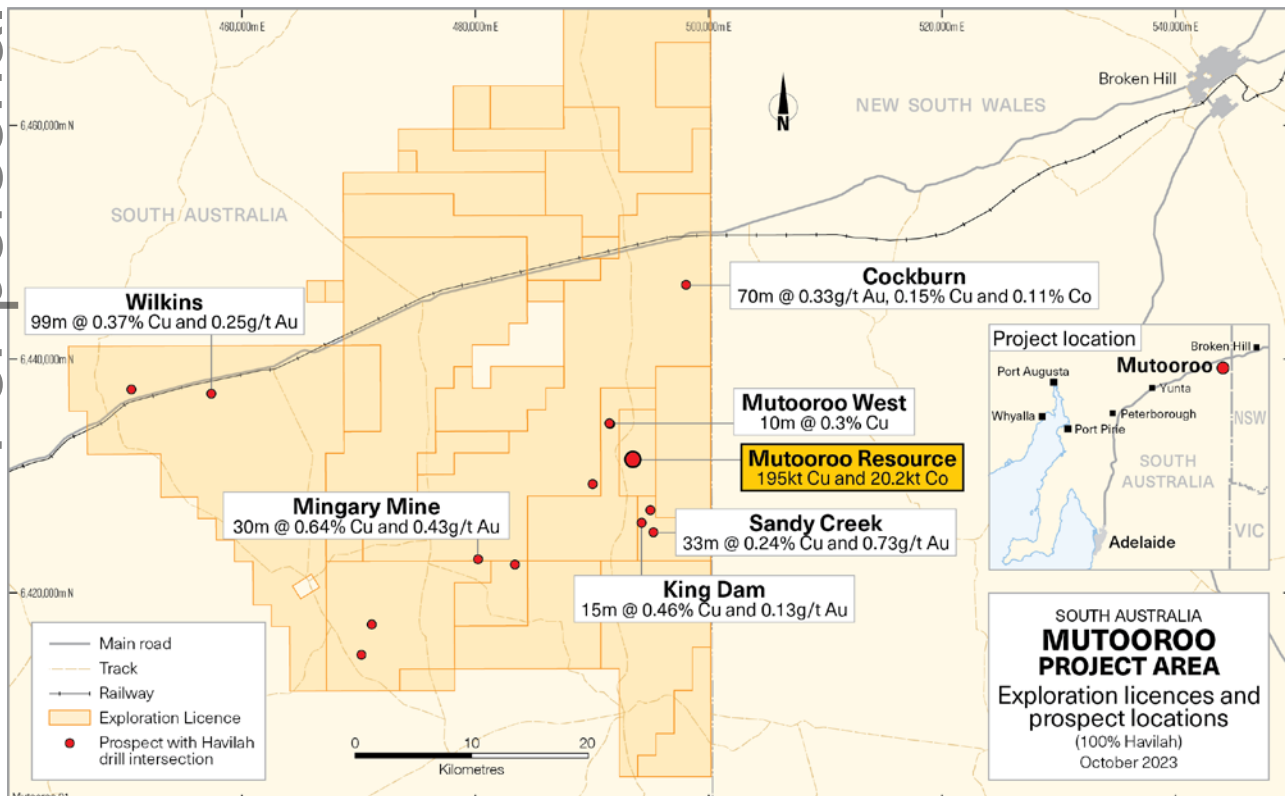


Figure 1 Location of the Mutooroo copper-cobalt-gold deposit within the prospective Mutooroo Project Area.

Expenditure on the study program will be almost \$3 million, with approximately two-thirds directed towards resource expansion and resource upgrade drilling, with the balance split between metallurgical studies and mining/infrastructure/environmental/permitting studies.

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Commenting on the JXAM study program Havilah’s Technical Director, Dr Chris Giles, said:

“We are delighted to have formed a relationship with JXAM, who is at the forefront of sustainable copper production and processing of recycled material that minimises the usage of fossil fuel.

“JXAM has a deep knowledge of the entire metals cycle from exploration to mining and processing, to smelting and refining and production of specialised modern age metal products.

“We believe JXAM is the ideal partner to help us unlock the value of copper, gold, cobalt and sulphur in the Mutooroo massive sulphide ore and Havilah looks forward to working with JXAM on the study program.”

About JX Advanced Metals Corporation (JXAM)

JXAM is a large Japanese nonferrous metals enterprise that conducts global operations related to nonferrous metals such as copper and rare metals. JXAM started out in mining and smelting operations and has expanded to cover the full range of operations from manufacture of advanced materials, smelting and refining, recycling of metals from end-of-life equipment to resource development.

An important and growing part of JXAM’s business is semiconductor materials. In order to ensure a stable supply of mineral resources necessary for this operation, JXAM considers developing not only copper mines but also rare metal mines (including cobalt).

Another important and growing part of JXAM’s business is the collection and pre-treating of recycled raw materials which is becoming even more important. Such recycled raw materials are regenerated into copper, precious metals, and rare metals at JXAM’s Saganoseki Smelter & Refinery. JXAM is progressively increasing its processing of recycled materials using ‘Green Hybrid Smelting’, which makes full use of the oxidation reaction heat generated by the copper ore itself in the smelting process, to minimise the usage of fossil fuel.

JXAM invests in large-scale copper mines, including Caserones (30%), Los Pelambres (12.52%) and Escondida (3%) in Chile, to ensure a stable supply of copper concentrates to the Saganoseki Smelter & Refinery in Japan, which has a copper production capacity of approximately 450,000 tonnes per annum. JXAM procures copper concentrates, undertakes copper smelting, and sells refined copper and smelting byproducts, including sulphuric acid, chemical products, precious metals, and rare metals.

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Summary of JXAM’s business activities in the nonferrous metals industry (image reproduced with permission, from JXAM [website](#)).

About Mutooroo

Mutooroo is Havilah's 100% owned advanced stage copper-cobalt-gold project that is located within commuting distance of Broken Hill, and roughly 16 km south of the Transcontinental railway line and Barrier Highway. It contains **195,000 tonnes of copper, 20,200 tonnes of cobalt and 82,100 ounces of gold** in a predominantly massive sulphide ore lode (see Mutooroo JORC resource table below). As such, Mutooroo is one of the larger and higher grade undeveloped copper-cobalt sulphide deposits in Australia. Such sulphide cobalt deposits are generally rarer and smaller than nickel-cobalt laterite deposits, but they usually have significant mineral processing cost advantages.

Havilah has been progressing studies on the Mutooroo project to determine the feasibility of a potential 1 million tonne per annum throughput copper and cobalt operation, based on current JORC Measured Resources, initially from an open cut mine that transitions to a longer-term underground mining operation. This aspirational objective is favoured by the comparatively high grades of copper (1.53%) and cobalt (0.16%) in the sulphide ore and could be further enhanced by discovery of additional sulphide resources, which is another objective of the study program. Any revenues from byproduct cobalt, gold and sulphur (potentially as sulphuric acid) could improve returns from the Mutooroo project and this will also be a key focus of the JXAM study program.

This announcement has been authorised on behalf of the Havilah Board by Mr Simon Gray.

For further information visit www.havilah-resources.com.au

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Mutooroo JORC Mineral Resource Table as at 31 July 2023, from the Havilah 2023 Annual Report

Project	Classification	Resource Category	Tonnes	Copper %	Cobalt %	Gold g/t	Copper tonnes	Cobalt tonnes	Gold ounces
Mutooroo ¹	Measured	Oxide	598,000	0.56	0.04	0.08			
	Total	Oxide	598,000	0.56	0.04	0.08	3,300	200	1,500
	Measured	Sulphide Copper-Cobalt-Gold	4,149,000	1.23	0.14	0.18			
	Indicated	Sulphide Copper-Cobalt-Gold	1,697,000	1.52	0.14	0.35			
	Inferred	Sulphide Copper-Cobalt-Gold	6,683,000	1.71	0.17	0.17			
	Total	Sulphide Copper-Cobalt-Gold	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

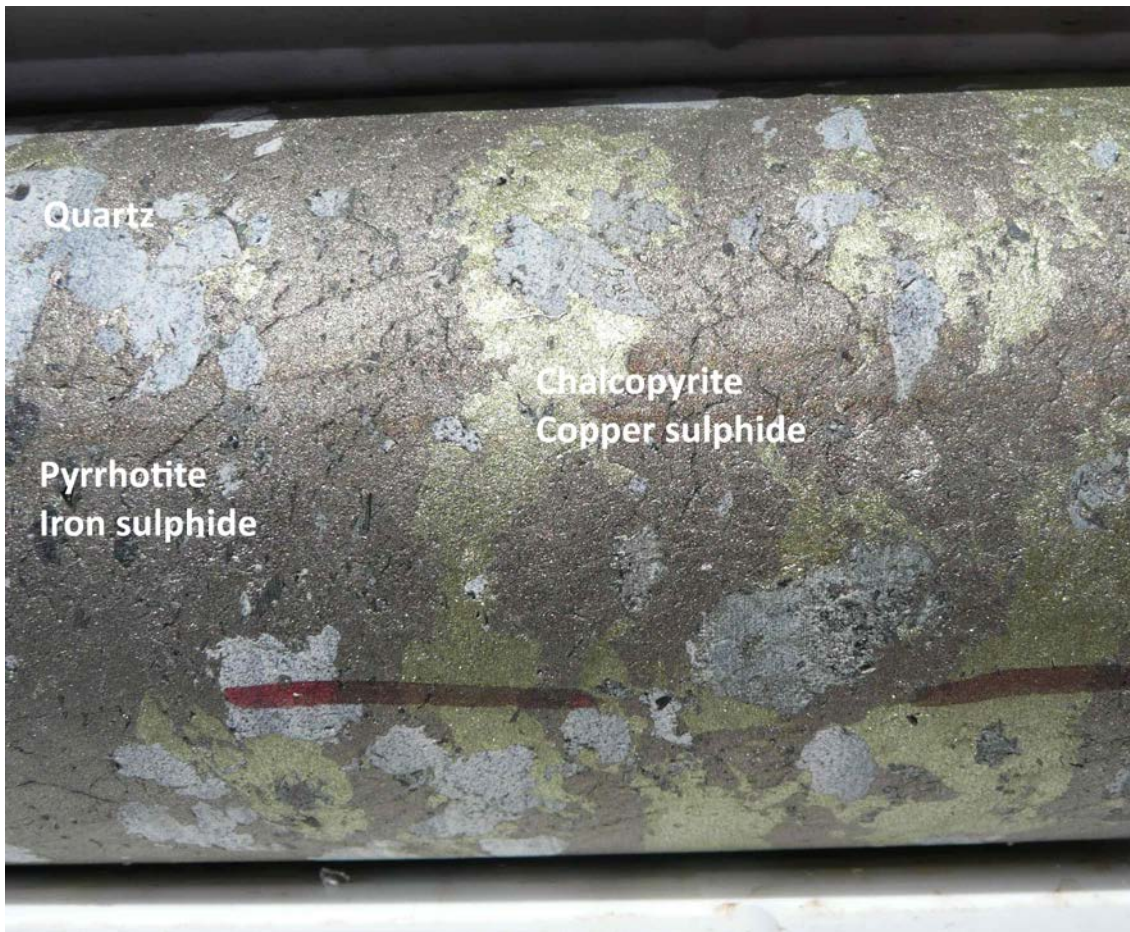
Numbers in above table are rounded. ¹ Details released to the ASX: 18 October 2010 and 5 June 2020.

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 Results and JORC Mineral Resources 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. Information for the Mutooroo Inferred cobalt & gold Mineral Resources complies with the JORC Code 2012. All other Mutooroo Mineral Resource information 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 resources continue to apply and have not materially changed. 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.



Mutooroo massive sulphide ore

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