

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.

183 million Ordinary Shares -- 7 million Unlisted Options

ASX Code: HAV ASX and Media Release: 21 July 2017

## **Updated Investor Presentation**

Havilah Resources Limited (**ASX:HAV**) (**Havilah**) is pleased to release an updated version of its presentation, entitled "A New Mining Force in South Australia" which will be presented by Managing Director, Dr Chris Giles on 21 July 2017 at the **Noosa Mining Conference**.

This presentation summarises progress on the Portia gold mining operation and Havilah's plans for the future. The presentation will also be posted on the Company's website at <u>www.havilah-resources.com.au</u>.

For further information visit the Company website <u>www.havilah-resources.com.au</u> or contact Dr Chris Giles, Managing Director, on (08) 8338-9292 or email: <u>info@havilah-resources.com.au</u>.

# A New Mining Force in South Australia

#### **Noosa Mining Conference 2017**

Cash flow from gold production

Future project developments

Exceptional exploration upside

Dr Chris Giles, Managing Director



## **Cautionary Statement**

#### Havilah Resources

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.

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.

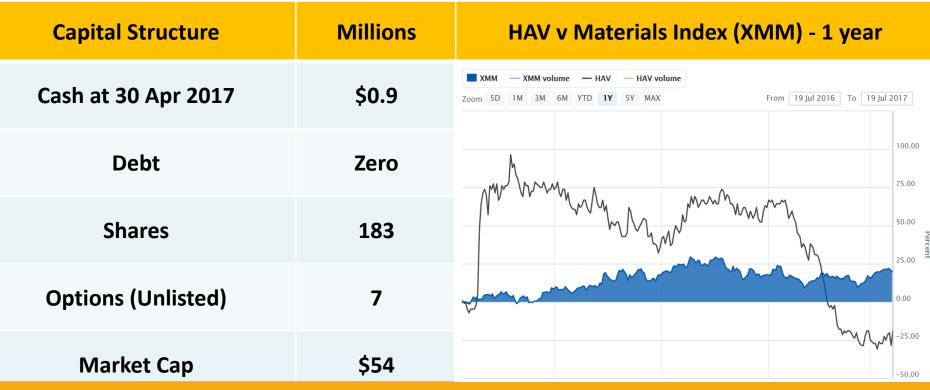
Investors are cautioned that forward-looking statements are not guarantees of future performance and investors are cautioned not to put undue reliance on forward-looking statements due to the inherent uncertainty therein.

#### **Competent Person Statement**

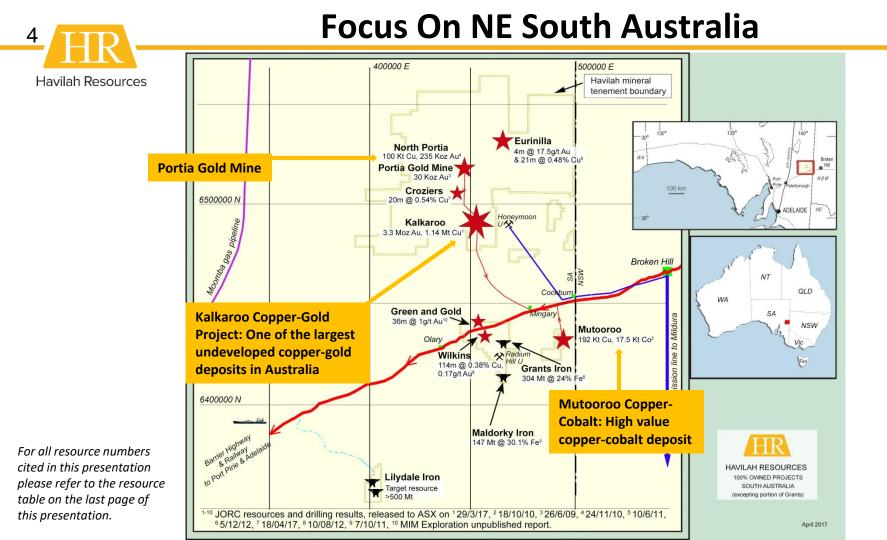
The information in this presentation that relates to Exploration Targets, Exploration Results, Mineral Resources and Ore Reserves is based on data compiled by geologist, Dr Chris Giles, a Competent Person who is a member of The Australian Institute of Geoscientists. Dr. Giles is a director of the Company 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. Information for Kalkaroo and Croziers has been updated to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported. All other information was prepared and first disclosed under the JORC Code 2004.

## **Corporate Summary**





Our vision is to become a new mining force in South Australia, delivering value to our shareholders, partners and the community





- Portia confirmed a successful gold mining operation ..... > 24,000 ounces of gold produced to date <sup>1</sup>, debt free, sub \$800/oz AISC
- Kalkaroo substantially increased copper and gold resources, Wanbao MOU for PFS

..... boosted to 1.14 m tonnes of copper and 3.3 m ounces of gold<sup>2</sup>

Mutooroo – advancing PFS and mine permitting for open pittable copper-cobalt project

..... one of Australia's highest grade cobalt deposits close to Broken Hill

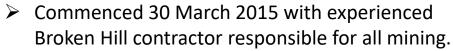
Confirmed Croziers as a significant new copper-tungsten discovery ..... one of many promising prospects in SA's copper belt

<sup>1</sup> On a 100% basis <sup>2</sup> Refer to table on last page of presentation

## **Portia Gold Mine**

### Gold bearing quartz stockwork

6



- Innovative funding arrangement 50:50 revenue sharing with mining contractor.
- > 24,000 ounces of gold produced, repaid all debt, increased resources and plant throughput.
- Estimated two years ore processing ahead subject to profitable treatment of lower grade ore.

Refer ASX release 20/07/17 for further details	Units	Since Inception	FY17 - YTD - Jun	
Overburden mined	BCM	4,971,000	3,882,000	
Ore mined	t	493,000	329,000	
Total wet tonnes processed	t	339,000	307,000	
Grade processed	g/t	2.4	2.4	
Gold produced	OZ	24,154	19,192	
Gold sold	OZ	23,276	19,880	
	Units		FY17 - YTD - Apr	
Achieved gold price	A\$/oz		1,618	
C1 Cash Cost	A\$/oz		509	
All-in Sustaining Cost	A\$/oz		748	

## Ongoing Upgrading Gold Processing Plant Efficiency

High grade ore stockpile

ld room

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#### **Recovery of free gold**

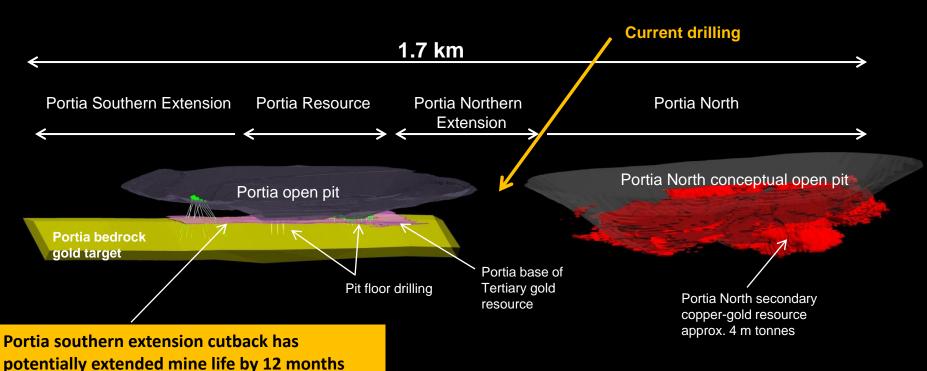
concentrator

Gold plant is operating 24 hours per day.

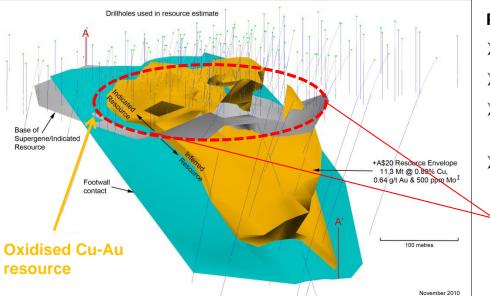
## Focus on Options for Extending Portia Mine Life

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8



## **Portia North Secondary Enriched Copper-Gold**



#### **KEY TASKS TO BE COMPLETED OVER NEXT 12 MONTHS**

- Completion of metallurgy and processing flow sheet.
- Completion PFS and funding.

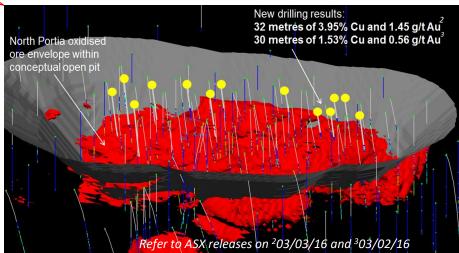
9

Permitting and environmental documentation.

<sup>1</sup>Refer to ASX release 24/11/10 and table at end of this presentation

#### POSITIVES FOR DEVELOPMENT

- Lies within an existing mining lease (ML).
- Best ever copper-gold intersections in recent drilling.
- Cu and Au recovery via minimal grinding of soft ore and conventional flotation.
- Utilize existing Portia infrastructure synergies.



## Kalkaroo – A Large Copper-Gold Deposit

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10

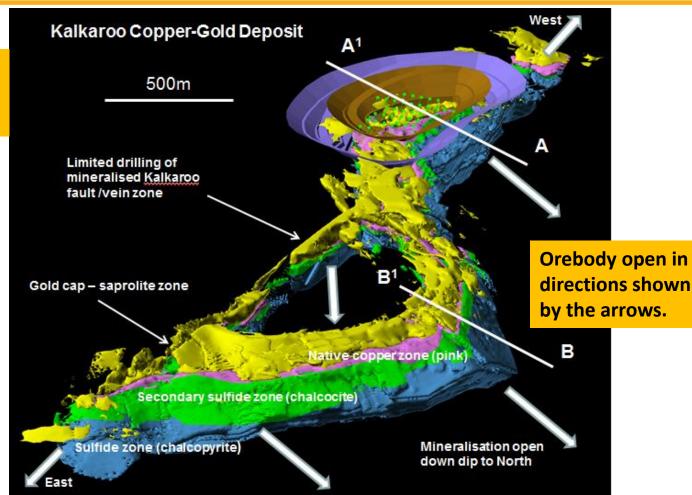
One of the largest undeveloped copper-gold deposits in Australia

**Copper-gold deposit<sup>1</sup>** 1.14 m tonnes Cu & 2.77 m ounces Au *contained within 232.5 mt @ 0.49%Cu, 0.37g/t Au.* 

Gold cap deposit<sup>1</sup>

515,000 ounces Au contained within 21.7 m tonnes @ 0.74g/t Au.

<sup>1</sup>Refer to ASX release 29/03/17 and resource table at end of presentation





### **Recent milestones:**

- ✓ Kalkaroo contained copper metal increased by more than 80% to 1.14 million tonnes and contained gold by more than 60% to 3.3 million ounces.
- ✓ Grant of Mining Licence imminent now that native title terms agreed.
- ✓ MOU with Wanbao Mining to fund PFS leading to investment decision.
- ✓ Own Kalkaroo Station no locked gates.

### Future milestones:

- Complete PFS and mine financing decision by Wanbao early 2018.
- Complete all mine permitting requirements with regulators.

## Wanbao Mining Strategic Partnership

#### Havilah Resources



#### Wanbao Mining Limited – Havilah's partner at Kalkaroo.

- Wanbao Mining is a substantial, Beijing based, internation copper and cobalt producer.

- Wanbou Mining has successful mining operations in Myanmar and the Democratic Republic of Congo, and wishes to expand its operations into Australia.



#### Mutooroo – High Value Copper & Cobalt 13 Havilah's next development project Havilah Resources MUTOOROO PROCESSING STRATEGY Stage 1 Flotation circuit Quartz 12-15% Average Mine site by weight Gravity separation Run of Mine ore Tailings waste Mixed dense sulphide Co 0.14 Cu 1.73% Co 0.16% Copper sulphide Fe 44% Otz 18% Iron sulphide S 41% concentrate concentrate Fe 51% >30% copper Mutooroo conceptual open >95% recoveries pit captures approximately 6 mt sulphide ore at 1.5% Cu and 0.14% Co Stage 2 One tonne of sulphide ore could yield: Copper 15kg \$110 / t Cobalt 1.4kg \$70/t oxidised lode Cogeneration of outcrop Acid 1.1 t \$110/t electricity from SO<sub>2</sub> gas 0 L \$110 / t (63% Fe) Iron ox 1 t waste heat Sulphuric acid 20 L TOTAL VALUE \$400 / t 30 L Feedstock for pig iron 13m @ 2.2% Cu IO L Plus 20 MW electricity and 0.2 g/t Au Iron Residue production after removal 0.29% Co 50 L of copper, cobalt and gold 30 L 70 L 4m @ 2.2% Cu Leach 80 L 0.28% Co 90 L 31m @ Remaining copper Cobalt 1.71% Cu 100 L 0.18% Co 110 L 20 L 26m @ 1.55% Cu 130 L Precipitate 0.18% Co Electrowin Gold by cobalt hydroxide 493500 W 403550 14 403800 14 cvanidation Massive sulphide ore

Mutooroo Cross-section



• A higher grade sulphide cobalt deposit with a realistic chance of development.

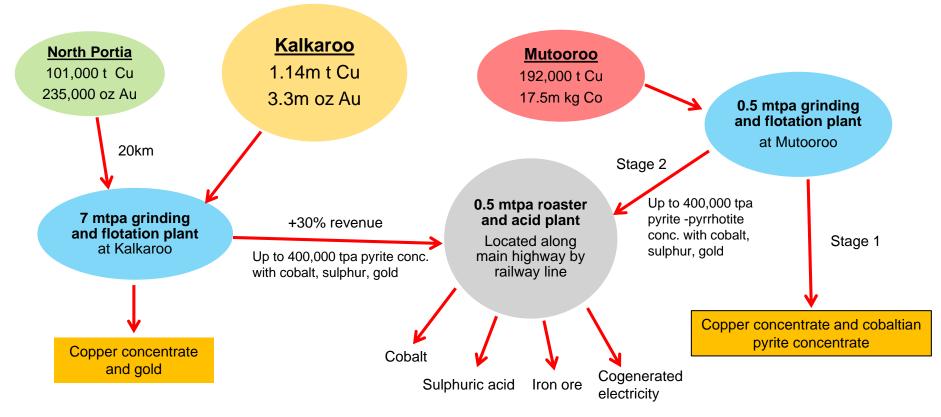
- Project works on copper alone (1.5% open pittable) with a Co bonus.
- Stage 1 flotation of copper and cobaltian pyrite concentrate is estimated to have a relatively low capex of the order of \$30m possibly fundable via advance purchase of copper concentrate tied to a longer term offtake contract.
- Objective over the next twelve months is to complete Mutooroo PFS and mining approval documentation.
- Have appointed a project manager with relevant technical, permitting and stakeholder engagement skills and experience.
- A large amount of technical has already been generated.

## >20 Year Minerals Processing Industry Is Possible

Based on Havilah Resources' current JORC resource inventory

High quality copper concentrates and large cobaltian pyrite resources

15

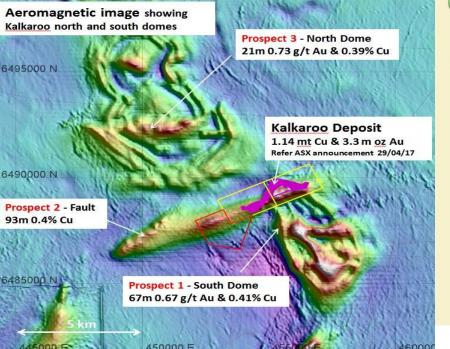


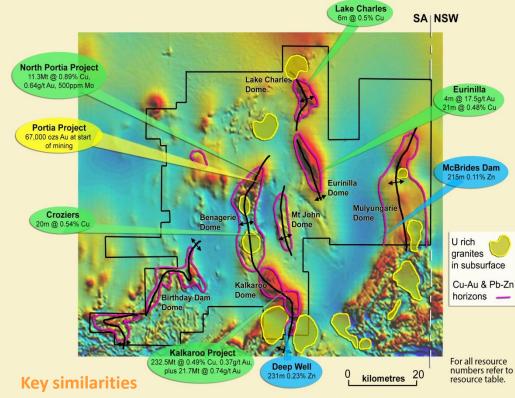
## **Regional Exploration – SA's Own Copper Belt**

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16

#### Near Kalkaroo example





Regionally mineralised "prospective horizon" at a major REDOX boundary.

- Ore grades where structural disruption and preparation ("broken rocks").
- Persistent cobalt association, but gold is an added bonus in SA.



## **Key Strategic Objectives Going Forward**

Sustainable cash flow from mining for development and exploration

- Extend Portia mine life, including North Portia copper-gold .....aim to generate a steady cash flow that can fund exploration.
- Permit and develop the low capex Mutooroo copper-cobalt deposit .....good logistics, good grades, no overburden, long term cobalt source.
- Strategic partnership with Wanbao Mining to develop Kalkaroo copper-gold project subject to results of PFS in progress ......\$350m of capital required, trade project equity for finance, JV structure.
- Make new discoveries that are material to Havilah (eg Croziers) .....track record of success, highly prospective geology, many drilling targets.



#### Cash flow from gold sales, JORC resources and appreciable upside

- > A stake in an operating gold mine in mining friendly South Australia.
- A share of 1.4 million tonnes of copper and 3.6 million ounces gold in JORC resources<sup>1</sup> that will support major new copper-gold mine developments.
- > The expertise of a proven mine finding exploration team, who are drilling for new mineral deposits in a world class mineralised terrain (host to Broken Hill).
- Exposure to a wide range of commodities in an up-trending resource cycle gold, copper, cobalt, tin, iron ore, uranium, molybdenum.

<sup>1</sup> refer to table at the end of this presentation

## Havilah Resources

A New Mining Force in South Australia

Cash flow from gold production
New project developments
Exceptional exploration upside

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19

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## **Sustaining The Development Model**

#### A strong project development pipeline





## **Copper-Gold Resource Metal Inventory**

Copper: 1.43 million tonnes (Kalkaroo + Mutooroo + North Portia)

Gold: **3.6 million ounces** (Kalkaroo + Mutooroo + Portia + North Portia)

#### Cobalt: 17.5 M Kg (Mutooroo)

Project*	Resource Category	Tonnes	Copper (%)	Gold (g/t)	Cobalt (%)	Contained Copper (tonnes)	Contained Gold (ounces)	Contained Cobalt (kg)
Kalkaroo <sup>1</sup>	Gold Cap Meas. Ind. Inf	21,700,000		0.74			515,000	
	CuAu Measured	74,500,000	0.56	0.42		1,139,000	2,770,000	
	CuAu Indicated	46,200,000	0.50	0.34		Added to above	Added to above	
	CuAu Inferred	111,800,000	0.44	0.35		Added to above	Added to above	
Portia <sup>4</sup>	Inferred	300,000		2.9			30,000	
North Portia <sup>3</sup>	Indicated (supergene)	2,750,000	1.0	0.65		101,000	234,500	
	Inferred (sulphide)	8,610,000	0.85	0.64		Added to above	Added to above	
Mutooroo <sup>2</sup>	Measured sulphide	4,149,000	1.23	0.18	0.14	192,000	92,700	17,540,000
	Indicated sulphide	1,697,000	1.52	0.35	0.14	Added to above	Added to above	Added to above
	Inferred sulphide	6,683,000	1.71	0.21	(est 0.14)	Added to above	Added to above	
	Measured oxide	598,000	0.56	0.08	0.04			
Total all projects	All categories (rounded)	278,987,000				1,432,000 t	3,642,200 oz	17,540,000 kg

Based on JORC resources, details released to ASX on : 1. 29/3/17 2. 18/10/10 3. 23/10/10 4. 26/6/09