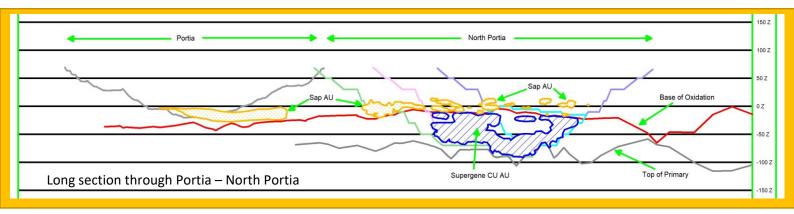


Havilah Resources Limited plans to sequentially develop its portfolio of gold, copper, iron, cobalt, tin and other mineral resources in South Australia. Our vision is to become a new mining force, delivering value to our shareholders, partners and the community.

197 million Ordinary Shares -- 4 million Listed Options -- 8 million Unlisted Options

## ASX and Media Release: 28 November 2017

## ASX Code: HAV



# NORTH PORTIA INFILL DRILLING RESULTS

# HIGHLIGHTS

- Infill resource drilling at North Portia continues to confirm economic copper grades.
- New drilling results will be incorporated into an updated resource model.
- Resource model to guide mining design for PFS.

**Havilah Resources Limited (Havilah)** has recently completed a further round of drilling at the North Portia Copper-Gold deposit (**North Portia**), comprising 23 aircore holes for a total 2,662 metres. Better results include:

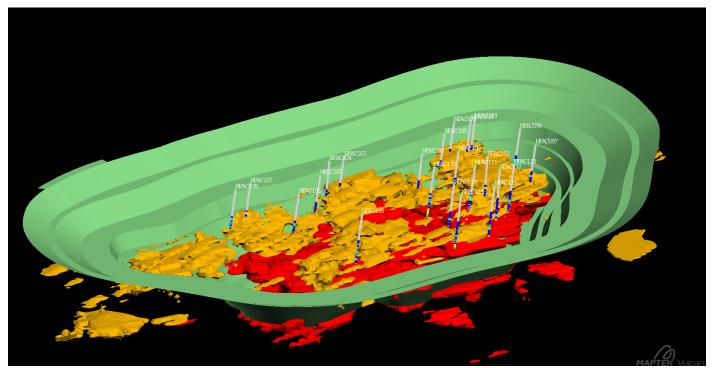
Hole	Line	From (m)	To (m)	Intersection	Comments
NPAC097	6522825N	96	106	10 m @ 0.52% Cu + 0.48 g/t Au	Supergene sulphide zone
NPAC101	6522675N	92	102	10 m @ 1.52% Cu	Supergene sulphide zone
NPAC102	6522725N	100	111	11 m @ 1.52% Cu + 0.80 g/t Au	Supergene sulphide zone
NPAC111	6522725N	81	98	17 m @ 1.15% Cu + 0.81 g/t Au	Supergene sulphide zone
NPAC112	6522750N	114	129	15 m @ 1.44% Cu + 0.55 g/t Au	Supergene sulphide zone
NPAC115	6522675N	106	130	24 m @ 0.90% Cu + 0.55 g/t Au	Supergene sulphide zone

All holes were drilled into the upper secondary enriched zone of the deposit above approximately 140 metres depth with the objective of better defining this part of the resource in order to improve confidence in the resource model. Other holes, not reported here, were also targeted in peripheral areas of the deposit to more accurately define the limits of economic mineralisation and generally returned low to subeconomic grades as expected.

This new drilling data will now be incorporated into a revised resource block model that will be used in mine planning and mine design studies as part of the prefeasibility study (**PFS**) that is presently being jointly conducted



with Consolidated Mining and Civil Pty Ltd (**CMC**), Havilah's mining partner at the Portia Gold Mine (**Portia**) (refer to ASX announcement 22 November 2017).



New AC drillholes in relation to preliminary North Portia open pit design showing gold cap ore (yellow) sitting above the secondary chalcocite copper-gold ore (red). The primary chalcopyrite copper-gold ore (not shown) lies beneath.

**Commenting on the latest North Portia drilling results, Havilah's CEO, Mr Walter Richards said:** "This drilling program has added more important data that confirms the encouraging grades of copper and gold in the upper, secondary enriched part of the North Portia resource.

"It is Havilah's obligation under the North Portia MOU to fund and deliver an independently verified JORC Measured and Indicated Resource for North Portia, and these results will help us to deliver that outcome.

"This is another positive step in the implementation of our *Copper Growth Strategy*", he said.

For further information visit <u>www.havilah-resources.com.au</u>

Contact: Mr Walter Richards, Chief Executive Officer, on (08) 8155-4500 or email: info@havilah-resources.com.au



## About North Portia and the MOU with CMC

North Portia contains a JORC Indicated and Inferred Resource estimate of 11.3 million tonnes of 0.89% Cu, 0.64 g/t Au and 500 ppm Mo (refer to ASX announcement of 24 November 2010 and table attached). Havilah's recent drilling, and the immediate focus of the MOU work, is a secondary (supergene) enriched zone of copper and gold mineralisation in saprolite material above approximately 150 metres depth. This drilling has clearly delineated a gold enriched cap that sits on top of the underlying secondary and primary copper sulphide mineralisation, which can be processed in the existing Portia gold plant, with some upgrades to recover the finer free gold that is present.

Under the terms of the North Portia MOU, CMC will have an exclusive option until 30 June 2018 to enter into a development agreement for North Portia on terms to be agreed. During the exclusive option period, CMC and Havilah have agreed on a shared work program that is designed to provide the key information to assist CMC and Havilah to determine a mutually acceptable arrangement that will lead to the development of North Portia. This work will include completion of a PFS and securing permitting to commence overburden removal by July 2018. The initial mining target will be approximately 5 million tonnes of free digging secondary saprolite gold and copper-gold material above 150 metres depth. It is expected that all of this material will be able to be processed in the Portia processing plant, with the addition of a flotation circuit to recover the finer free gold and the copper sulphides.

Category	Tonnes	Cu%	Au ppm	Mo ppm	SG
Supergene	2,750,146	1.00	0.65	451	1.91
Sulphide	8,609,519	0.85	0.64	531	2.65
All	11,359,665	0.89	0.64	500	2.42
Supergene	7,732,410	Supergene	e Mo only	340	1.81
	Category Supergene Sulphide All	Category         Tonnes           Supergene         2,750,146           Sulphide         8,609,519           All         11,359,665	Category         Tonnes         Cu%           Supergene         2,750,146         1.00           Sulphide         8,609,519         0.85           All         11,359,665         0.89	CategoryTonnesCu%Au ppmSupergene2,750,1461.000.65Sulphide8,609,5190.850.64All11,359,6650.890.64	CategoryTonnesCu%Au ppmMo ppmSupergene2,750,1461.000.65451Sulphide8,609,5190.850.64531All11,359,6650.890.64500

### North Portia Resource Estimate – November 2010

#### **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.

## Details for all drillholes reported in the text

		Grid S	ystem UTM Zor	Dip			
Hole ID	Area	Easting m	Northing m	RL m	UTM azimuth	degrees	EOH m
NPAC097	North Portia	447871	6522825	66	270	-75	130
NPAC101	North Portia	447830	6522675	67	270	-75	116
NPAC102	North Portia	447845	6522722	67	270	-75	122
NPAC111	North Portia	447890	6522726	66	270	-75	140
NPAC112	North Portia	447875	6522774	66	270	-75	130
NPAC115	North Portia	447930	6522675	67	270	-75	130



# JORC Code, 2012 Edition – "Table 1"

## **Section 1 Sampling Techniques and Data**

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>RC or AC drill chips received directly from the drilling rig via a cyclone were riffle split as 1m intervals to obtain 2-3kg samples and collected in numbered calico bags. Damp samples are collected by scoop sampling. All samples were submitted to ALS Global assay lab in Adelaide.</li> <li>At ALS assay lab the samples are crushed in a jaw crusher to a nominal 6mm (method CRU-21) from which a 3 kg split is obtained using a riffle splitter. The split is pulverized in an LM5 to 85% passing 75 microns (method PUL-23). These pulps are stored in paper bags.</li> <li>All samples are then analysed for a 33 element package using ALS's ME-ICP61 suite, whereby samples undergo a 4 acid digest and analysis by ICP-atomic emission spectrometry and/or ICP mass spectrometry. Over limit Cu, Pb and Zn are re-assayed using ME-OG62</li> <li>Gold is analysed by 50g fire assay, with atomic absorption spectrometry finish using ALS method Au-AA26.</li> <li>Handheld XRF readings may be collected from certain intervals and used as a guide but are not reported here.</li> </ul>
Drilling techniques	<ul> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul> <li>All RC holes were drilled using standard face-sampling bits, with bit sizes ranging from 120mm to 144mm.</li> <li>All AC holes used 121mm blade bit.</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse</li> </ul>	<ul> <li>The sample yield and wetness of the RC and AC samples was routinely recorded in drill logs.</li> <li>Sample recoveries were continuously monitored by the geologist on site and adjustments to drilling methodology were made to optimize sample recovery and quality where necessary.</li> <li>It is noted that sample quality may be less</li> </ul>



Criteria	JORC Code explanation	Commentary
	material.	than optimum for short intervals particularly at rod changes, which is a perennial problem in air core and reverse circulation drilling at North Portia, where soft, fractured and wet sample may be encountered. Poor quality samples are not submitted for analysis but there is no evidence that gold is concentrated in intervals with poor sample recoveries, so that the possibility of systematic grade overestimation is unlikely. Overall RC and AC sample recoveries were at an acceptable level for interpretation purposes at a resource definition level.
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>All RC and AC samples and drill core were logged in detail by experienced geologists directly into a digital logging system with data uploaded directly into an XL spreadsheet.</li> <li>Logging is semi-quantitative and 100% of reported intersections have been logged.</li> <li>Logging is of a sufficiently high standard to support any subsequent interpretations, resource estimations and mining and metallurgical studies.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>Dry RC and AC drill samples were riffle split on 1m intervals while damp intervals are scoop sampled on 1m intervals.</li> <li>Sample preparation and assaying methods are summarized above.</li> <li>Quality control procedures include the insertion of standards, blanks and duplicates into the regular sample number sequence (1 in 25 samples). If any blank, standard or duplicate is out of spec, reassay of retained samples is requested of the laboratory as a first step.</li> <li>Sampling size is considered to be appropriate for the style of mineralisation observed. Assay repeatability for gold and other metals has not proven to be an issue.</li> <li>No drill core samples were collected for assay.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the</li> </ul>	<ul> <li>All samples are prepared at ALS Global laboratory in Adelaide and assayed interstate. The total assay methods are standard ALS procedure and are considered appropriate at the exploration reporting stage.</li> <li>All gold was determined by fire assay with</li> </ul>



Criteria	JORC Code explanation	Commentary
	<ul> <li>analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>AAS finish. Higher grade samples were check re-assayed as described below.</li> <li>Other elements were analysed by multi-element digest methods with ICP finish. Quality control procedures include the insertion of standards, blanks and duplicates into the regular sample number sequence (1 in 25 samples). If any blank, standard or duplicate is out of spec, reassay of retained samples is requested of the laboratory as a first step ALS also insert their own QC/QA samples into the sample sequence.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>Rigorous internal QC procedures are followed to check all assay results.</li> <li>All data entry is under control of a specialist database geologist, who is responsible for data management, storage and security.</li> <li>No adjustments to assay data are carried out.</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Down hole drill surveys were conducted routinely every 30m down hole.</li> <li>Drillhole collar coordinates are surveyed in UTM coordinates using a differential GPS system with an x:y:z accuracy of 20cm:20cm:40cm and are quoted in AGD66 datum coordinates.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>This is a resource definition drilling program designed to test for mineralisation limits, extensions and continuity, hence drillhole spacing is important. RC and AC holes were generally spaced at regular intervals on lines designed to infill gaps in the resource model.</li> <li>Sample compositing was not used.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul> <li>The drillhole azimuth and dip was chosen to intersect the mineralized zones as nearly as possible to right angles and at the desired positions to maximize the value of the drilling data.</li> <li>At this stage, no material sampling bias is known to have been introduced by the drilling direction.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>RC and AC assay samples are collected directly from the riffle splitter in prenumbered calico bags.</li> <li>Several calico bags are placed in each</li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul> <li>polyweave bag which are then sealed with cable ties. The samples are transported to the assay lab by Havilah personnel at the end of each field stint.</li> <li>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.</li> <li>This is considered to be a secure and reasonable procedure and no known instances of tampering with samples have occurred since drilling commenced</li> </ul>
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul> <li>Ongoing internal auditing of sampling techniques and assay data has not revealed any material issues.</li> </ul>

## **Section 2 Reporting of Exploration Results**

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>Exploration is taking place on Havilah Resources 100% owned Exploration Licenses and Portia Mining Lease ML6346</li> </ul>
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>Aircore drilling was carried out in the region by the Pasminco – Werrie Gold JV in the late 1990s.</li> </ul>
Geology	<ul> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul> <li>Structurally controlled, stratabound primary Cu-Au sulphide deposit, overlain by supergene enriched Cu-Au sulphide zone and oxidised Au cap in saprolite. Overlain by 50m Tertiary cover sequence.</li> </ul>
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> </ul> </li> </ul>	<ul> <li>See separate Tables in this Report</li> </ul>



Criteria	JORC Code explanation	Commentary
	<ul> <li>hole length.</li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	• Certain holes were drilled to test the currently known limits of the deposit. In general these holes returned uneconomic to subeconomic grades of mineralisation as they are outside the resource and are therefore not material to the current report.
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>Intercepts are calculated using the length-weighted averages of individual samples. Minimum grade truncations are applied. Local geology is also used as an input.</li> <li>Where higher grades exist, a separate high grade sub-interval will normally be reported.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul> <li>Down-hole lengths are reported. Drillholes are always oriented with the objective of intersecting mineralisation as near as possible to right angles, and hence down- hole intersections in general are as near as possible to true width.</li> <li>For the purposes of the geological interpretations and resource calculations the true widths are always used.</li> </ul>
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	• Figure showing the location of the drillholes in relation to the deposit and a table of drillhole data.
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	<ul> <li>Only meaningful potentially economic grade intervals are reported.</li> </ul>
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or	<ul> <li>Relevant geological observations are reported in this and previous announcements. Other data not yet collected or not relevant</li> </ul>



Criteria	JORC Code explanation	Commentary
	contaminating substances.	
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	These holes are part of a resource definition drilling program.