

16 November 2023

# WIDE GOLD-COPPER INTERSECTIONS AT NORTH DOME

# **HIGHLIGHTS**

- Gold-copper mineralisation over a strike length of 1.6 km and width of up to 40 metres intersected in Strategic Alliance drilling on a major fault structure at the North Dome prospect.
- Includes 60 metres of 0.56 g/t gold and 54 metres of 0.27% copper in separate drillholes, hosted by quartz vein/breccia.
- More than 5 km strike of the fault structure and analogy with the West Kalkaroo style of fault-controlled mineralisation highlights the potential discovery upside.

Havilah Resources Limited (Havilah or the Company) (ASX: HAV) is pleased to report drilling assay results for the North Dome prospect that was carried out under the Curnamona Province Strategic Alliance (Strategic Alliance). The North Dome prospect lies roughly 5 km north of the Kalkaroo copper-gold-cobalt deposit (Kalkaroo deposit) and is one of several high priority copper-gold-critical minerals prospects in the region that are being explored under the Strategic Alliance (refer to ASX announcement of 25 January 2023) (Figure 1).

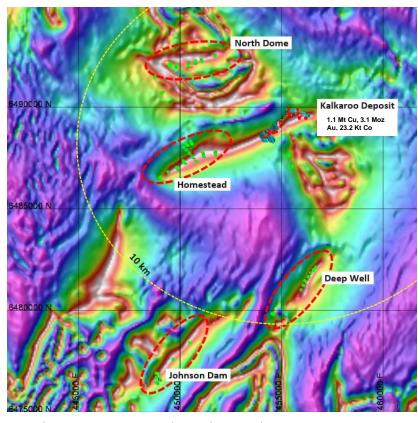


Figure 1 Strategic Alliance prospects in relation to the Kalkaroo copper-golddeposit plotted cobalt aeromagnetic image. The North Dome prospect lies roughly 5 km north of the Kalkaroo deposit and is marked by a prominent linear magnetic anomaly that coincides with an east-west fault. The dashed yellow line is the 10 km radius marker from the Kalkaroo deposit.

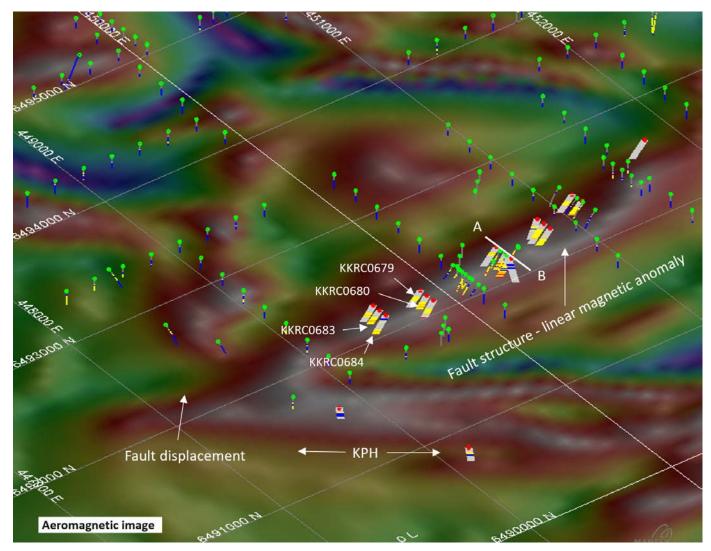
Based on aeromagnetic data, the North Dome prospect is interpreted to lie on a major fault that bisects the Kalkaroo north dome and causes visible displacement of the Kalkaroo prospective horizon (KPH) that hosts the Kalkaroo deposit (Figure 2). Previous drilling by Havilah during 2010 on a low gravity zone that was reflecting a more deeply weathered, altered and sulphide-rich zone, intersected 42 metres of 0.40 g/t gold from 100 metres in drillhole KKRC0372, and 29 metres of 0.44% copper from 176 metres in drillhole KKRC0367 (refer to ASX announcement of 30 November 2010).

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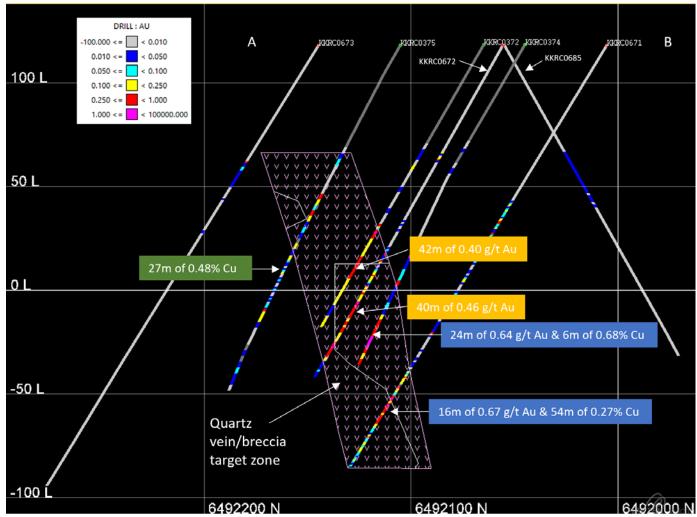


**Figure 2** Oblique 3D view of aeromagnetic image showing the North Dome prospect drilling that is located on a fault structure that is marked by a prominent linear aeromagnetic anomaly. The Kalkaroo prospective horizon (**KPH**) wraps around the Kalkaroo north dome and is displaced by the fault where indicated.

The Strategic Alliance drilling reported here, comprising 16 reverse circulation (**RC**) drillholes for 3,304 metres, is the first follow up drilling since that time. Most of the new drillholes intersected steeply south-dipping mineralised quartz vein/breccia over a strike length of 1.6 km within the interpreted position of the fault structure. Unfortunately, due to extremely broken ground many of the RC drillholes lost outside return and stopped in mineralised material. Better results included:

KKRC0671	<b>54 metres of 0.27% copper</b> from 184 metres to EOH and 16 metres of 0.67 g/t gold from 198 metres.
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KKRC0672	40 metres of 0.46 g/t gold from 133 metres.
KKRC0679	9 metres of 0.88 g/t gold from 74 metres.
KKRC0680	12 metres of 0.65 g/t gold from 113 metres and
	17 metres of 0.41 g/t gold from 137 metres to EOH.
KKRC0683	60 metres of 0.56 g/t gold from 124 metres to EOH.
KKRC0684	10 metres of 0.52% copper and 0.29 g/t gold from 216 metres to EOH.





**Figure 3** Cross section A-B (see Figure 2 for location) showing earlier Havilah RC drilling results and results from the Strategic Alliance drilling reported here. The drillholes identify an approximately 40 metre wide zone of well mineralised steeply south-dipping quartz vein/breccia within the fault structure.

In general, the mineralisation is gold rich with variable amounts of associated copper and dips steeply to the south. A significant intersection of copper (27 metres of 0.48% copper from 117 metres) occurs in earlier Havilah drillhole KKRC0375 at the altered margin of the main quartz vein/breccia zone, rather than within it.

The aeromagnetic data indicates the prospective fault structure extends for a strike length of over 5 km and the majority of it remains untested by drilling at this stage. Havilah considers that there is excellent potential for discovery of a substantial fault-hosted copper-gold deposit at North Dome by analogy with the Kalkaroo fault zone at West Kalkaroo.



#### Commenting on the Strategic Alliance drilling results, Havilah's Technical Director, Dr Chris Giles said:

"We know that major fault structures in the region are important conduits for economic copper-gold mineralisation as first seen at the Kalkaroo deposit and now established for the North Dome fault by the present drilling.

"The width (up to 40 metres) and consistency of gold-copper mineralisation and potentially long prospective strike of the fault (over 5 km) are favourable factors for discovery of a sizeable deposit that we consider warrants follow up drilling.

"This is now the fourth success the Strategic Alliance has had in drilling high priority prospects within 15 km of the Kalkaroo deposit over the last 12 months and supports the exploration concepts and discovery opportunity for new copper-gold resources in the Curnamona Province."

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

For further information visit <a href="www.havilah-resources.com.au">www.havilah-resources.com.au</a>
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### **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 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.



# **Appendix 1**

Sections 1 and 2 below provide a description of the sampling and assaying techniques in accordance with Table 1 of The Australasian Code for Reporting of Exploration Results.

## Details for drillholes cited in the text and in Figure 3

Hole Number	Easting m	Northing m	RL m	Grid azimuth	Dip degrees	EOH depth metres
KKRC0671	450400	6492039	118	0	-60	238
KKRC0672	450400	6492089	118	0	-60	184
KKRC0673	450400	6492178	118	3	-60	250
KKRC0679	449800	6492097	118	358	-60	208
KKRC0680	449800	6492037	118	359	-60	154
KKRC0683	449500	6492083	118	0	-60	184
KKRC0684	449500	6492023	118	2.5	-60	226
KKRC0685	450406	6492089	118	3	-60	172
KKRC0367	450098	6492007	118	0	-60	205
KKRC0372	450396	6492098	118	0	-60	157
KKRC0374	450396	6492078	118	0	-60	174
KKRC0375	450396	6492138	118	0	-60	186
Datum: AGD66 Zone 54	1		<u> </u>			l

Note: All azimuths and dips are as measured at surface; deviations from this typically occur at depth.

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

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</li> </ul>	<ul> <li>circulation (RC) drillholes as documented in the table above.</li> <li>RC samples were collected at 1 metre intervals in large plastic bags and laid out in rows.</li> </ul>



Criteria	JORC Code explanation	Commentary
	Public Report. 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.	selected based on hand-held Niton XRF readings, particularly Cu. The remaining samples were left at the drill site until assays were received.
Drilling techniques	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).	All RC holes were drilled with a face sampling hammer bit. All samples were collected via cone splitting directly from the cyclone.
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 material.</li> </ul>	Person consider that overall the results are acceptable for interpretation purposes.
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource	



Criteria	JORC Code explanation	Commentary
	estimation, mining studies and metallurgical studies.  • Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.  • The total length and percentage of the relevant intersections logged.	<ul> <li>approved and uploaded to a remote Geobank database.</li> <li>All RC chip sample trays and some representative samples are stored on site.</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>RC drill chips were received directly from the drilling rig via a cyclone and were cone split on 1 metre intervals to obtain 2-3 kg samples.</li> <li>Sampling size is considered to be appropriate for the style of mineralisation observed. Assay repeatability for copper, gold and other metals has not proven to be an issue in the past and is checked with regular duplicates.</li> <li>All Havilah samples were collected in numbered calico bags that were sent to BV assay lab in Adelaide.</li> <li>At BV assay lab the samples are crushed in a jaw crusher to a nominal 10mm (method PR102) from which a 3kg split is obtained using a riffle splitter. The split is pulverized in an LM5 to minimum 85% passing 75 microns (method PR303). These pulps are stored in paper bags.</li> <li>All samples were analysed for gold by 40g fire assay, with AAS finish using BV method FA001 and a range of other metals by BV methods MA101 and 102.</li> <li>All sample pulps are retained by Havilah so that check or other elements may be assayed using these pulps in the future.</li> </ul>



Criteria	JORC Code explanation	Commentary
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 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>Fire assay method FA001 is a total gold analysis.</li> <li>Assay data accuracy and precision was continuously checked through submission of field and laboratory standards, blanks and repeats which were inserted at a nominal rate of approximately 1 per 20 drill samples.</li> <li>Assay data for laboratory standards and repeats have been previously statistically analysed and no material issues were noted.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.         The use of twinned holes.         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 the responsible geologist, who is responsible for data management, storage and security.</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>The holes were surveyed using an electronic downhole camera.</li> <li>Present drillhole collar coordinates were surveyed in UTM coordinates using a GPS system with an x:y:z accuracy of &lt;5m and are quoted in AGD66 Zone 54 datum.</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>The RC drillholes were positioned at appropriate spacing to test down dip of the surface expression of mineralisation.</li> <li>Sample compositing was not used.</li> </ul>



Criteria	JORC Code explanation	Commentary
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 interpreted mineralised zones as nearly as possible to right angles and at the desired positions to maximise 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 chip samples are directly collected from the cone splitter on the cyclone in numbered calico bags.</li> <li>Several calico bags are placed in each polyweave bag which are then sealed with cable ties. The samples are transported to the assay lab by a reputable local carrier at regular intervals.</li> <li>There is minimal opportunity for systematic tampering with the samples as they are not out of the control of Havilah personnel on site and the carrier is very reputable. The samples are transported to the lab within one or two days, limiting time for any interference.</li> <li>This is considered to be a secure and practical procedure and no known instances of tampering with samples has ever occurred.</li> </ul>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	<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	JORC Code explanation	Commentary
Mineral tenement and land tenure status	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	exploration licence (EL) 6599 owned 100% by Havilah that is in good standing.



Criteria	JORC Code explanation	Commentary
	<ul> <li>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 license to operate in the area.</li> </ul>	A Native Title Exploration Agreement is in place for EL 6599. The agreement was executed between Havilah and NAWNTAC, the representative claimant organisation.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Much of the area has been explored by a number of groups in the past including Placer, Newcrest, and MIM.</li> <li>This has included shallow aircore drilling, reverse circulation drilling and diamond drilling.</li> <li>All previous exploration data has been integrated into Havilah's databases.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	The mineralisation style is generally classified as structurally controlled, stratabound replacement. Sometimes it has skarn style affinities.
Drill hole information	<ul> <li>A summary of all information material to the under-standing 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> <li>hole length</li> </ul> </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>	This information is provided in the accompanying table for the relevant drillholes.
Data aggregation methods	<ul> <li>In reporting Exploration Results,     weighting averaging techniques,     maximum and/or minimum grade     truncations (e.g. cutting of high grades)     and cut-off grades are usually Material     and should be stated.</li> </ul>	Not applicable as not reporting mineral resources.



Criteria	JORC Code explanation	Commentary
	<ul> <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>	
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 (e.g. 'down hole length, true width not known').</li> </ul>	<ul> <li>Downhole lengths are reported.         Drillholes are typically oriented with the objective of intersecting mineralisation as near as possible to right angles, and hence downhole 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.	This information is provided.
Balanced Reporting	<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>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.</li> </ul>	Not applicable as not reporting mineral resources.
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;	Relevant geological observations are reported.



Criteria	JORC Code explanation	Commentary
	metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	
Further work	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large- scale stepout 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>	Additional drilling may be carried out in the future to explore strike and depth extensions and for resource delineation.