

# ASX Announcement 30 November 2022

# Deep Drilling Yields Major Conductive Copper Target and Confirms Main Lode Continuity

#### HIGHLIGHTS

- Downhole Electromagnetic (DHEM) survey identifies major off-hole conductive copper target measuring ~400 metres (m) by 70m (surveyed from CANDD015)
  - Largest DHEM target yet measured on the project with strong conductive response of 500S to 1000S supported by DHEM data from earlier peripheral drillholes
  - Target plunges 60° to 70° to the north and has never been intersected by previous drilling
  - The Target comprises multiple mid- and late-channel conductor plates
- Copper sulphide mineralisation observed<sup>1</sup> in drill core within two shear zones corresponding to the shears which host the upper Western Lodes and deeper Canbelego Main Lode positions;
  - The Main Lode 5m interval of medium to strong chalcopyrite (copper sulphide) mineralisation within a 15.2m zone of a variably copper-mineralised shear from 539.6 m downhole; and
  - The Western Lodes position 22m interval of weak to medium chalcopyrite mineralisation with occasional 1m intervals of strong (>10%) chalcopyrite from 539.6m downhole
- Preliminary conclusions the first of these 'deep drill' tests has:
  - created a highly successful DHEM platform achieving fresh ground coverage and identifying new,
     large, high-integrity conductive targets; and
  - confirmed the vertical continuity of both the Main Lode which hosts the 2010 Inferred Mineral Resource<sup>2</sup> and the newly identified Western Lodes – however, this mineralisation does not appear to be linked to the more intense response from the new off-hole conductor(s)
- Drilling is ongoing on an accelerated basis following these exceptional, prospective results;
  - Second 'deep parent' hole (CANDD016) currently at 630m and will be extended to at least 700m to test the down-plunge of the new, 400m long DHEM conductor
  - First 'daughter' hole CANDD015A wedged from CANDD015 commencing, designed to test up-plunge portion of the new DHEM conductor.

<sup>&</sup>lt;sup>1</sup> Refer Cautionary Note on visual estimates of mineralisation on page 3





**Helix Resources Limited** (ASX: HLX) ("Helix" or "the Company") is pleased to announce the discovery of a large untested DHEM anomaly in addition to the intersection of copper sulphide mineralisation from a bold drilling campaign at its Canbelego Joint Venture (JV) Project located in the Cobar region of NSW.

Two, deep 'Parent' holes, CANDD015 and 016 have been designed to definitively test the down-plunge continuity of high-grade copper shoots identified by drilling over the past year extending up to 200m below the base of the 2010 Inferred Mineral Resource estimate<sup>2</sup> (refer **Figure 1**).

The results highlighted above and described fully in the following "**Technical Report**" section, demonstrate drill hole CANDD015 has identified new, large-scale, conductive targets in an area not previously intersected by any drilling within the interpreted host shears to the Canbelego copper mineralisation. Furthermore, the visual observations<sup>3</sup> of copper minerals (chalcopyrite) in the drill core at the predicted target positions for both the Canbelego Main Lode and the new, Western Lode positions is further confirmation for the vertical continuity of the overall Canbelego copper mineralised system.

Modelling work on the DHEM data indicates the chalcopyrite mineralisation observed in CANDD015 was detected by the DHEM but does not appear to be linked to the more intense conductive response of the new modelled conductive targets.

Preliminary interpretation suggests a new, north-plunging, large-scale shoot structure has been detected by the DHEM. The shoot appears hosted within the steeply dipping, NNW striking shear structures and has the hallmarks of a 'Cobar-style' high-grade copper lode. The geometry of this shoot will be further refined by a DHEM survey on CANDD016, which will commence as soon as this hole is completed.

Rapid drill follow-up is anticipated with CANDD016 which will now be extended to a final depth of at least 700m to intersect the northern, down-plunge portion of the new conductor. The up-plunge, southern section of the conductor will be tested by a new daughter hole (CANDD015A) which has just been wedged and is currently at 230m.

Geological logging and sampling are underway for CANDD015 and assays are expected early in the new year.

#### Commenting on these initial results, Helix Managing Director Mike Rosenstreich said:

"We know 'electromagnetics' finds copper in the Cobar region as exemplified by Aeris' recent Constellation copper discovery. Regional airborne EM identified the anomaly and subsequent drilling plus DHEM was used to delineate the current Mineral Resource.

The DHEM response we have at Canbelego is outstanding – it is intense, large scale and corroborated by earlier surveys which couldn't quite penetrate deep enough to "illuminate" this new conductor.

These results potentially highlight a major new mineralised position – never seen before by local DHEM and never drilled before. The survey has lit up a major robust conductive target associated with mineralised structures which clearly persist with depth.

These early outcomes vindicate our decision to be bold and 'drill deep' to establish this drill platform for DHEM surveys and to demonstrate the depth continuity of the high-grade copper shoots intersected 200m above.

This is an exciting phase for our copper discovery work and could have a major positive impact on our core objective to find more copper. Fortunately, Helix is well funded to thoroughly assess these opportunities and add real value for our shareholders with further positive results. With two rigs operating – targeting this new conductive zone within the mineralised Canbelego shear, we are well poised to make further discoveries.

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<sup>&</sup>lt;sup>2</sup> Refer Appendix A for further details.

<sup>&</sup>lt;sup>3</sup> Refer Cautionary Note on Visual Estimates of Mineralisation on page 3



### **Cautionary Note – Visual Estimates of Mineralisation**

References in this announcement to visual results are from NQ diamond drill core. Fresh sulphide mineralisation in CANDD015 consisted of chalcopyrite in stringers and veins and clots with quartz veins. Visual estimates of percentages are based on logged visual observations of the drill core surface as presented in the core trays and may not be representative of the entire sample interval. Laboratory assays are required for representative estimates of copper and other metal content abundance. Mineralised sections will be cut, and half-core sampled the for assays. Assay results for CANDD015 are expected in January 2023.

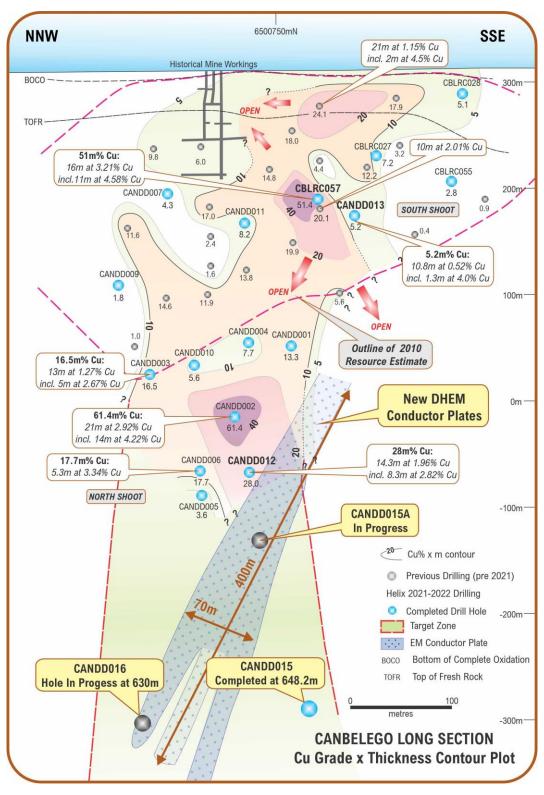


Figure 1: Canbelego Main Lode Long Section – grade-thickness contour plot



#### **TECHNICAL REPORT - CANBELEGO DRILLING**

The following section provides an update of the drilling at the Canbelego Main Lode, in particular observed copper mineralisation at the predicted target zone and details of a major conductive anomaly detected by DHEM from CANDD015.

#### Introduction

The Canbelego Copper Project lies along the regional scale Rochford Copper Trend. The Project falls within the 70:30 'contributing' joint venture (JV) with Aeris Resources Ltd (ASX: AIS) (Helix 70% and Manager, Aeris 30%).

The Rochford Trend has the potential to host 'Cobar-style' copper deposits analogous to the large-scale, high-grade mineralisation found at the nearby CSA Copper Mine, owned by Glencore and under offer from Metals Acquisition Corp (NYSE: MTAL.U).

In 2021, the JV drilled five diamond drillholes for nearly 2,000 metres around and beneath the Canbelego Mineral Resource<sup>2</sup> at Main Lode, after an 8-year exploration hiatus. Positive results led to further RC and diamond drilling highlighting high-grade shoot extensions on the Canbelego 'Main Lode' and identifying new, multiple, parallel lode positions, the 'Western Lodes' to the west of the Main Lode.

This report provides an update on the current diamond drilling and downhole EM surveys. Two Parent diamond drill holes were designed to reach approximately 660m depth to test the down-plunge extension of the high-grade copper shoots identified at the Canbelego Main Lode.

A critical aspect of the Parent holes is that they also provide a platform for downhole electromagnetic (DHEM) surveys, which are vital for detecting a 'near-miss' and vectoring additional drilling toward conductive targets – interpreted to be copper mineralisation. Electromagnetic surveys whether at a regional, prospect or drill hole scale are proven copper 'discovery tools' in the region. In this case the DHEM data provides a unique opportunity to test a large volume of the prospective target zone for conductive targets which could represent copper-rich shoots. Any encouraging mineralisation or DHEM targets will be followed up with the daughter holes that wedge-off the parent holes. The daughter holes will save time and money and reduce the surface ground disturbance by minimising the need for new drill sites. The drilling of the daughter holes will likely continue until Christmas, after which there will be a 2-3 week break from all exploration activities.

The first parent hole, CANDD015 was completed to a depth of 648.2m, and the second parent hole, CANDD016, is currently at a depth of 630m and is anticipated to reach the target depth shortly.

DHEM surveys have been designed for both parent holes, and the DHEM survey for CANDD015 has been completed. Geological observations and details of the DHEM interpretation are provided below.

#### Copper Mineralisation – Observed<sup>4</sup>

Copper mineralisation at Canbelego is hosted in sub-parallel NNW-trending shear zones. CANDD015 intersected two mineralised shear zones interpreted to coincide with the Western Lode and Main lode positions:

- The upper shear zone was intersected between 379m to 428.4m downhole in the down dip position of the West Lodes and may be the down dip extension of the CBW1 lode intersected in previous RC drilling.
- The lower shear zone from 529.8m to 554.8m downhole corresponds to the targeted Main Lode, confirming that the mineralised structure that hosts the Main Lode extends 150m down-dip of the copper mineralisation intersected in CANDD012 (14.3m at 1.96 % Cu from 417m, including 8.3m at 2.82% Cu<sup>5</sup>) and remains open at depth.

<sup>&</sup>lt;sup>4</sup> Refer Cautionary Note on visual estimates of mineralisation on page 2

<sup>&</sup>lt;sup>5</sup> Refer ASX report 10 October 2022



The shear zones consist of bucky and brecciated quartz veins with variable vein densities accompanied by intense dark green to black chlorite alteration. Weak to strong chalcopyrite mineralisation is present within the shear zones as stringers along the shear fabric or coarser clots within the quartz veins (**Table 1**).

Geological logging and sampling are in progress for CANDD015, and assay results are expected early in the new year. Core processing, logging and sampling of CANDD016 will commence shortly. Mineralised intervals in CANDD015 are summarised in **Table 1** and drill hole details and status are provided in **Table 2**.

#### **Downhole Electromagnetic Surveys**

A DHEM survey was completed on CANDD015 from 80m to 648m downhole. The DHEM data was processed and interpreted by geophysicist Russell Mortimer of Southern Geoscience Consultants, who has been involved with the project for several years and has worked with many other advanced projects in the region.

A large, moderate to strong (500S to 1000S), clear, broad, off hole anomaly was identified above and north of CANDD015. Modelling of mid- and late-channels has resolved multiple conductor plates in an elongate zone plunging  $60^{\circ}$  to  $70^{\circ}$  to the north with a maximum dimension of approximately 400m by 70m (**Figure 1**).

These extensive conductors extend to the second parent hole, CANDD016, which is currently in progress at a depth of 630m and is located 150m north of CANDD015.

#### **On-Going Drilling**

As outlined above, the modelled DHEM conductors extend below CANDD016 which had a planned depth of 660m. This drill hole will now be extended to beyond 700m to ensure an adequate test of the conductor at depth. CANDD016 will also be surveyed with DHEM, which will allow further refinement and definition of the stronger conductors.

A 'daughter' hole (CANDD015A) is currently being wedged off CANDD015 at a depth of 175m – designed to intersect the upper extent of the DHEM conductor, approximately 70m below the mineralisation intersected in CANDD012.

**Table 1** – Logged Mineralised Intervals in CANDD015

From	То	Interval	Strength	Description	
Western Lo	Western Lodes Position				
392.3	393.5	1.2	Strong	10% chalcopyrite in quartz veins and stringers	
393.5	403.3	9.8	Weak	trace to 1% chalcopyrite in quartz veins	
403.3	406.8	3.5	Weak	trace to 1% chalcopyrite veins	
406.8	407.9	1.1	Strong	10% chalcopyrite in quartz veins	
407.9	414.6	6.7	Weak	trace chalcopyrite in foliation	
414.6	414.7	0.1	Medium	2% chalcopyrite in veins	
423	428.4	5.4	Weak	trace chalcopyrite in quartz stringers	
Main Lode	Position				
539.6	543	3.4	Weak	trace to 1% chalcopyrite in stringers and quartz veins	
543	545	2	Medium	3-5% chalcopyrite in stringers and brecciate quartz veins	
545	546.7	1.7	Weak	1-2% chalcopyrite stringers	
546.7	546.8	0.1	Strong	10% chalcopyrite in quartz vein	
546.8	547.6	0.8	Weak	trace chalcopyrite stringers	
547.6	548	0.4	Medium	4% chalcopyrite stringers	
548	549.2	1.2	Weak	trace chalcopyrite stringers	
549.2	549.6	0.4	Medium	5% chalcopyrite stringers	
549.6	550.1	0.5	Weak	trace chalcopyrite stringers	
550.1	550.2	0.1	Medium	5% chalcopyrite stringers	
550.2	554.8	4.6	Weak	trace chalcopyrite stringers	



Table 2: Drill Hole Details and Status

Hole ID	Hole Type	Location	Status	Northing	Easting	Dip	Azimuth	RL	Total Depth
CANDD014	DD	Caballero	Assays pending	6498841	435912	-65	65	307.0	417.5
CANDD015	DD	Main Lode	Assays pending	6500625	434120	-76	60	315.0	648.2
CANDD015A	DD	Main Lode	In progress – daughter hole	6500625	434120	-76	60	315.0	[400]
CANDD016	DD	Main Lode	In progress	6500760	434090	-78	60	312.3	[700]

Grid: MGA94 Zone 55

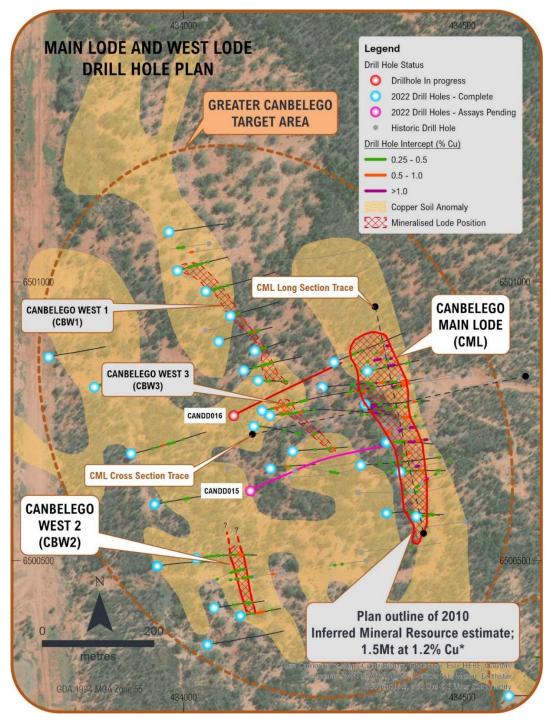


Figure 2: Location Plan – Greater Canbelego Area



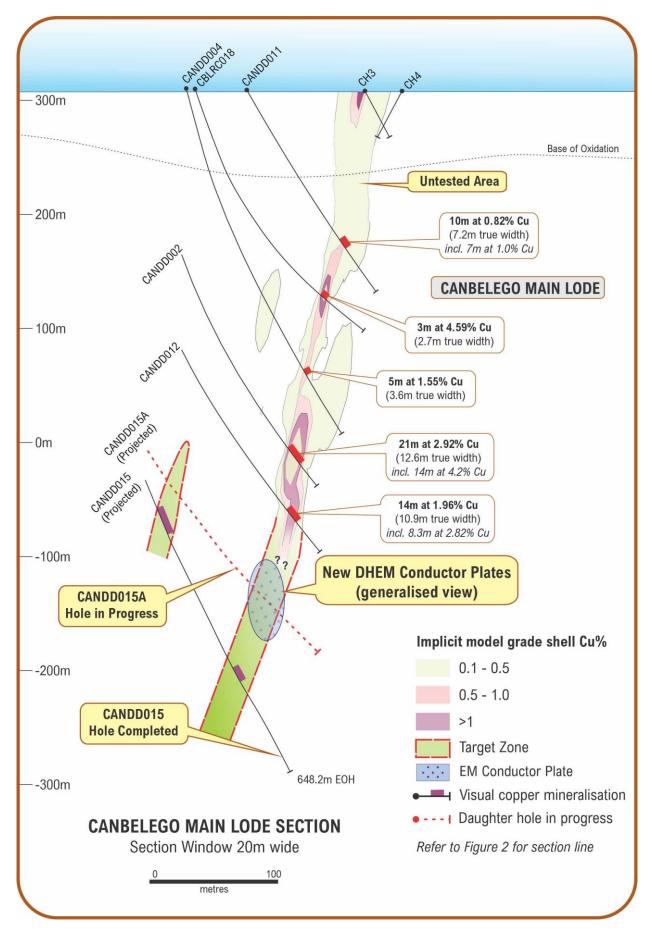


Figure 3 - Main Lode Cross Section



#### **COMPETENT PERSON STATEMENT**

The information in this report that relates to exploration results, Mineral Resource estimates and geological data for the Cobar projects is based on information generated and compiled by Mr Gordon Barnes and Mr Mike Rosenstreich who are both employees and shareholders of the Company. Mr Barnes is a Member, of the Australian Institute of Geoscientists and Mr Rosenstreich is a Fellow of the Australasian Institute of Mining and Metallurgy. They both have sufficient experience that is relevant to the styles of mineralisation and types of deposits under consideration and to the activities being undertaken to each qualify as Competent Person(s) as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Barnes and Mr Rosenstreich have consented to the inclusion of this information in the form and context in which it appears in this report.

#### This ASX release was authorised by the Board of Directors of Helix Resources Ltd.



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#### **About Helix Resources**

Helix Resources is an ASX-listed resources company which is 'all-in on copper' exploration in the prolific copper producing region of Cobar, NSW. The Company possesses a sizable ground position across two tenement groups which are largely untested despite being located within ~50km of significant copper producing operations. The western tenement consists of 30km of contiguous strike and the Company is advancing a pipeline of wholly owned copper opportunities, as well as the Canbelego JV Project (70% owned and operated by Helix and 30% owned by Aeris Resources) where massive copper sulphides have been intersected. The eastern tenement group encompasses more than 150km of prospective strike and includes the 100% owned CZ copper deposit.



#### **APPENDIX 1: Canbelego Copper Deposit - Context**

The Canbelego Deposit is located 45km south-east of Cobar and 5km south of the historic Mt Boppy Mine along the Rochford Copper Trend. Historic production from the Canbelego Copper mine was reported (1920) to be ~10,000t of hand-picked ore grading 5% Cu with mining stopped at the water table at ~80 metres depth.

Canbelego is located on EL6105 which is a joint venture with local copper producer Aeris Resources (ASX: AIS). Helix holds 70% and is the Manager and AIS is a contributing, 30% partner.

Structural remobilisation is considered an important control on high-grade copper in these mineralised systems, termed Cobar-style base metal deposits. Copper mineralisation is developed as structurally controlled, subvertically plunging, semi-massive to massive sulphide shoots.

A mineral resource compliant with the 2004 JORC Code of 1.5Mt at 1.2% Cu (oxide, transition and fresh), 100% Inferred was reported in October 2010 as presented in Table A1. This Mineral Resource estimate is based on a total of 39 holes for 8,080 metres of RC and diamond drill core.

Other than results contained in this ASX release, Helix confirms that it is not aware of any new information or data that materially affects the Mineral Resource information included in Helix ASX release dated 7 October 2010 *Initial Copper Resources for Canbelego and Exploration Update*. All material assumptions and technical parameters underpinning the estimates in that release continue to apply and have not materially changed.

Table A1: Canbelego\* (October 2010) (0.5% Cu cut-off)

Classification	Туре	Tonnes	Copper	Gold	<b>Contained Copper</b>	<b>Contained Gold</b>
		Mt	%	g/t	t	Oz
Inferred	Oxide/Transition/Fresh	1.50	1.2	N/A	18,000	N/A
Total	Combined	1.50	1.2	N/A	18,000	N/A

(Rounding discrepencies may occur in summary tables)

Reported as 100% of deposit



# Appendix 2: JORC Code Table 1

November 2022 – Canbelego Drilling

Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sounds, 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 (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>Diamond Core Drilling (DD)</li> <li>Commercial drilling contractor Mitchell Services conducted the DD drilling. The holes are orientated approximately ENE and drilled with starting dips of 60° to 78°.</li> <li>Drill hole locations are determined using a hand-held GPS. Down-hole surveys were conducted using the Reflex multi-shot gyro system.</li> <li>Diamond core is sampled in 1m intervals, taking half core at various intervals (=/&lt;1m).</li> <li>The samples were collected and supervised by Helix staff</li> <li>The samples were in the direct control of Helix staff and transported to the laboratory by Helix.</li> <li>Reverse Circulation (RC) Drilling</li> <li>Commercial drilling contractor Mitchell Services conducted the RC drilling. The holes were orientated approximately E (225°) and were drilled with starting dips of 60° or 70°</li> <li>Drill hole locations were determined using a hand-held GPS. Down-hole surveys were conducted using the Reflex multi-shot gyro system.</li> <li>Holes were sampled at 1m intervals via a cyclone cone splitter into a numbered calico bag with weights typically from 1.5kg to 3kg for the lab sample, and a large plastic bag for the remaining sample.</li> <li>The lab samples were collected and always supervised by Helix staff.</li> <li>The samples were always under the direct control of Helix staff and were transported to the laboratory by a commercial transport contractor.</li> </ul>
Drilling techniques	<ul> <li>Drill type (e.g. core, reverse circulation, open- hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, tripleorstandard 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>DD: HQ and NQ drill core was collected using triple tube and all other industry practice methods.</li> <li>RC: 5 ½ inch diameter drill bit.</li> </ul>



Criteria	JORC Code explanation	Commentary
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>	<ul> <li>Core recoveries are recorded by the driller on core blocks and checked by a geologist or field technician.</li> <li>Diamond core is reconstructed into continuous runs on an angle iron cradle for orientation marking and depths are checked against the depths recorded on core blocks. Rod counts are routinely undertaken by drillers as a further cross-reference for depth and core recovery.</li> <li>Samples were checked by the geologist for consistency and compared to the sample interval data for accuracy.</li> <li>RC bulk bag samples are not weighed, however recoveries are monitored and recorded by the supervising geologist.</li> <li>When poor sample recovery is encountered during drilling, the geologist and driller attempt to rectify the problem to ensure maximum sample recovery.</li> <li>Sample recoveries at Canbelego are typically good for both RC and DD, apart from when voids are intersected. The void intervals are recorded on geological logs.</li> </ul>
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>The drill core is stored in core trays on pallets and the RC chips are stored in standard RC chip trays in numbered boxes on pallets.</li> <li>The drill core and RC chips are stored at Helix's secure facility in Orange.</li> <li>The drill core and RC chips are comprehensively logged and sampled by experienced Helix geologists or consultants, including lithology, alteration, degree of oxidation, structure, colour and occurrence and type of sulphide mineralisation.</li> <li>The visual estimate of the proportion of copper sulphide is from systematic logging of diamond drill core and RC drill chips. The amount of copper sulphide and the relative proportions of the copper sulphide species from metre to metre vary and a detailed estimate of this variability is not possible within the limits of acceptable accuracy. Metal grades of the core are determined by laboratory assay. The copper sulphide typically occurs as disseminations, blebs, stringers, laminations, vein fill and semimassive sulphide. Fine copper sulphide may be under-estimated, if present. Identification of the sulphide species and visual estimates of the proportions of those sulphide species present have been made by an experienced geologist with more than 10 years' experience in copper mineralisation in this region.</li> <li>Diamond core and RC chips are logged to an appropriate level of detail to increase the level of geological knowledge and increase the geological understanding of the deposit.</li> </ul>



Criteria	JORC Code explanation	Commentary
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 subsampling 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>Drill core is cut with a Corewise automatic core cutter, and a half core sample is taken for laboratory analysis.</li> <li>The RC drilling rig is equipped with an in-built cyclone and cone splitting system, which provided one bulk sample of approximately 20kg to 30kg and a sub-sample of 1.5-3kg per metre drilled.</li> <li>All RC samples were split using the system described above to maximise and maintain consistent representivity. The majority of samples were dry.</li> <li>Bulk samples were placed in green plastic bags, with the sub-samples collected placed in calico sample bags.</li> <li>Field duplicates were collected by spear from green plastic bags. These duplicates were designed for laboratory checks.</li> <li>Certified Reference Material (CRM) standards and blanks are inserted into the sample stream at approximately 1:35.</li> <li>Laboratory duplicate samples are split with a riffle splitter.</li> <li>A 1.5kg to 3kg RC sample was collected from 1m intervals and is considered appropriate and representative for the grain size and style of mineralisation.</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 analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<ul> <li>ALS Laboratory Services were used for Au and multi-element analysis work carried on out on 1m split RC samples and half core DD samples. The laboratory techniques below are for all samples submitted to ALS and are considered appropriate for the style of mineralisation at Canbelego:         <ul> <li>Crush and pulverize sample.</li> <li>Au-AA25 Ore Grade Au 30g FA AA Finish (only on selected samples)</li> <li>ME-ICP61 48 element 4 acid digest ICP-AES.</li> <li>OG62 Ore Grade finish for non-Au over range samples.</li> </ul> </li> <li>The QA/QC data includes standards, duplicates and laboratory checks.</li> <li>Duplicates for percussion drilling are collected from the one metre sample bag using a spear.</li> <li>QA/QC tests are conducted by the laboratory on each batch of samples with CRM standards.</li> </ul>



Criteria	JORC Code explanation	Commentary
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>Assays results are validated by standard database procedures and are verified by Helix management.</li> <li>Assay data are not adjusted.</li> <li>Geological data is logged into laptop using OCRIS mobile software. This software includes validation procedures to ensure data integrity.</li> <li>Logged data includes detailed geology (weathering, structure, alteration, mineralisation), sample quality, sample interval and sample number.</li> <li>QA/QC inserts (standards, duplicates, blanks) are added to the sample stream.</li> <li>Magnetic susceptibility data is collected using a datalogger.</li> <li>All logged data, the assay data received from the laboratory, and survey data is loaded into a secure database and verified.</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 Resourceestimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>The drill collar positions were determined using a GPS (±5m).</li> <li>Grid system is MGA94 Zone 55.</li> <li>Surface RL data collected using GPS and verified by public Digital Elevation Models.</li> <li>Relief with the drilling zone ranges from 0m to 15m.</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>Drilling has been conducted by Helix, Aeris (Straits) and historic drilling by companies in the 1970's.</li> <li>The drilling had been conducted in a manner consistent with the procedures set out in this JORC table.</li> <li>Assays used in the current resource were generated by Straits or Helix and include some re-sampling of the historic core.</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>Surface sampling, the position of the drill holes and the sampling techniques and intervals are considered appropriate for the early-phase exploration of a system such as that identified at Canbelego.</li> <li>The distribution of copper is known to be variably enriched and depleted within the structurally controlled, sub vertical copper deposit at Canbelego.</li> <li>Drilling is designed to intersect mineralisation as close to perpendicular as possible.</li> <li>Drill hole deviation will influence true width estimates of mineralisation. True width of mineralisation will be further assessed with detailed logging of orientated structural data and when the resource model is updated.</li> <li>Drill hole intersections of mineralisation are not considered to be biased.</li> </ul>
Sample security	The measures taken to ensure sample security.	Chain of Custody is managed by Helix staff and its contractors. The samples were freighted directly to the laboratory, or transported directly by Helix staff, with



Criteria	JORC Code explanation	Commentary
		appropriate documentation listing sample numbers, sample batches, and required analytical methods and element determinations.
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	No additional audits or reviews have been conducted for the drilling to date.

## **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, overridingroyalties, 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>The Canbelego JV Project is located on EL6105 approximately 10km SSW of the Canbelego township. Helix has earned a 70% interest in the project and is Manager of the JV, with JV Partner Aeris retaining 30% and contributing.</li> <li>The tenement is in good standing.</li> <li>This is no statutory, minimum annual expenditure. Rather a program-based exploration commitment is applicable.</li> <li>There are no known impediments to operating in this area.</li> <li>The drill area is situated in a grazing paddock and can be accessed all year round.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Previous drilling, soil sampling and early geophysics was conducted by Straits (Aeris) and companies during the 1970's.</li> <li>Several small historic mines and workings are present throughout the tenement.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	The project is prospective for structurally controlled copper.
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> <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 thecase.</li> </ul>	<ul> <li>Refer to tables included with this report.</li> <li>The zones west of the Canbelego Main Lode have not been subject to previous drilling and represent new mineralised positions parallel to the Canbelego Main Lode.</li> </ul>



Criteria	JORC Code explanation	Commentary
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> <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> </ul>	<ul> <li>Assays included in intercept calculations are weighted by interval width</li> <li>Mineralised intercepts for Cu are averaged within a contiguous interval above a specified Cu cut-off grade with a maximum of 2m of internal dilution.</li> <li>Cu intercepts were calculated for Cu cut-off grades of 0.1% Cu, 0.5% Cu and 1% Cu.</li> <li>No assay cut of high-grade material has been applied.</li> <li>No metal equivalent values have been calculated.</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.         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>Drilling is designed to intersect mineralisation as close to perpendicular as possible.</li> <li>Drill hole deviation will influence true width estimates of mineralisation.</li> <li>The true width of mineralisation will be further assessed on analysis of orientated structural data and when the resource model is updated.</li> </ul>
Diagrams	<ul> <li>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.</li> </ul>	Refer to Figures in this announcement.
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.	The reporting is balanced, and all material information has been disclosed.
Further work	<ul> <li>The nature and scale of planned further work (e.g. 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>	Further DD and RC drilling, assaying and EM surveys will be undertaken. An update of the resource to JORC2012 standard is planned. Regional auger soil sampling is also planned.