

# ASX Announcement 10 February 2022

# **New Copper Sulphide Zones Emerging at Canbelego**

- Recent RC drilling (9 holes for 1,368 meters) has identified two new parallel potential lode positions west of the Canbelego Main Lode Mineral Resource<sup>1</sup>
- The new zones:
  - o are defined by broad zones of quartz-pyrite-chalcopyrite (copper sulphide) veining; and
  - o each extend for c.100 metres north-south and are open to the north
- The new zones support Helix's 'Cobar-style' exploration model of parallel, structurally controlled lode positions
- Cobar-style deposits are renowned for hosting high-grade, large-scale copper mineralisation, for example the CSA Mine owned by Glencore, located c.50km NW of Canbelego
- Assay results for these new zones are expected mid-late March 2022
- Diamond drilling is in progress at Canbelego Main Lode north zone to extend and confirm structure

**Helix Resources Limited (ASX: HLX)** ("Helix" or "the Company") is pleased to report numerous intercepts with visible copper sulphide (chalcopyrite) mineralisation<sup>2</sup> from its recent reverse-circulation (**RC**) drilling program which is testing for new parallel lode positions at the Canbelego Joint Venture Project located in the Cobar region of NSW (refer **Figure 1** for example).



**Figure 1**: Drill chips from CBLRC023 showing chalcopyrite mineralisation from 94-96 metres with semi-massive pyrite and chalcopyrite from 97-98 metres

<sup>&</sup>lt;sup>1</sup> Refer Appendix 1 for Mineral Resource details.

<sup>&</sup>lt;sup>2</sup> Refer cautionary statement on page 2 on visual estimates of mineralisation.



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

"Last year we undertook the first drilling at Canbelego since 2013, in which we discovered thick, intense copper sulphide mineralisation. Assays confirmed the high-grade nature of these copper results and with detailed systematic geological work we have developed an understanding of the potential of our ground to host large-scale, high-grade 'Cobar-style' deposits.

The preliminary RC drilling outcomes we are reporting validate our 'Cobar-style' exploration model by demonstrating two, new, parallel mineralised zones to the west of the Canbelego Main Lode of approximately 100 metres north-south and that each remain open to the north.

We and our Canbelego JV partner, Aeris Resources, are very encouraged by the increased potential we continue to unearth around Canbelego as we methodically work through the historic data in combination with our new results and interpretations. This approach is also highlighting the significance of regional prospects such as Caballero and Bijoux, which are two to ten kilometres southeast along the Rochford Trend, on 100% Helix tenure.

We are gaining momentum with positive exploration results, and we believe this area holds tremendous potential to make more copper discoveries. Therefore, we plan to focus much of our work on this Western tenement block for the next 3-6 months, with further diamond drilling, surface and down-hole EM work and additional regional target testing and generation – to find more copper!"

### **CAUTIONARY STATEMENT ON VISUAL ESTIMATES OF MINERALISATION**

References in this announcement to visual results are from RC drilling. Visible oxide mineralisation in RC drilling consisted of gossan and trace malachite as listed in Table 1. Fresh sulphide mineralisation (chalcopyrite and pyrite) consisted of disseminated, veins and stringers as well as semi to massive pyrite and chalcopyrite as listed in **Table 1**.

Visual estimates of percentages are based on preliminary visual observations of the RC chips and may not be representative of the entire sample interval. Laboratory assays are required for representative estimates of copper and other metal contents.

The RC holes were sampled in 1 metre intervals for the entire drill hole. Assay results are expected in mid to late March 2022. Refer to the Technical Report below and **Appendix 2** for further details.

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

#### Introduction

The Canbelego Copper Project lies along the regional scale Rochford Copper Trend. It is a 70:30 'contributing' JV (Helix 70% and manager, Aeris Resources Ltd (ASX:AIS) 30%).

In 2021, the JV drilled five diamond drillholes (CANDD001 to CANDD005) for nearly 2,000 metres around and beneath the Canbelego Mineral Resource<sup>3</sup> or Main Lode, after an 8-year exploration hiatus. One diamond hole (CANDD006) was completed last month for 561.7 metres — which clearly highlights the open nature of the highgrade copper mineralisation (refer **Figure 4**). To follow-up on the shallow mineralisation intersected to the west of the Main Lode in holes CANDD005 and 6, nine RC holes (CBLRC022 to 030) for 1,368 metres were completed in early February 2022. Two more diamond holes are planned, one of which is in progress testing northern extensions of the Main Lode.

This report provides initial observations for the RC drilling; whilst preliminary, given the generally visual nature of copper mineralisation these observations are considered by management as potentially material.

The RC drill program tested for parallel lode positions to the west of the Canbelego Main Lode as shown in **Figure 3**. Sulphides were intersected in all the RC holes, confirming the potential for parallel lodes. The delineation of

<sup>&</sup>lt;sup>3</sup> Refer Appendix 1 for details.

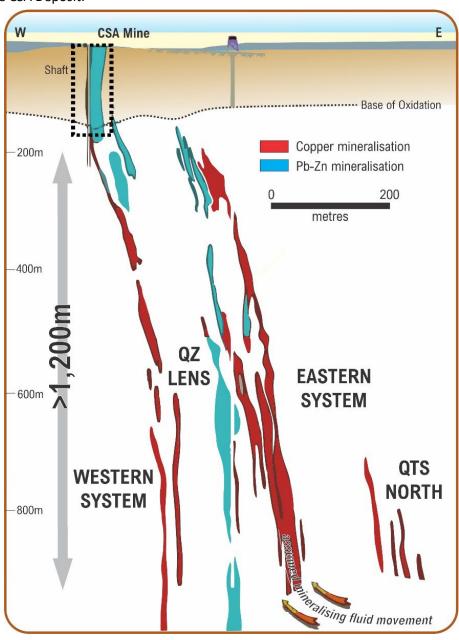


these parallel mineralised zones is consistent with the current exploration model for the area based on the 'Cobar-style' copper deposits such as the CSA Deposit.

The CSA deposit, as depicted schematically in **Figure 2**, is an example of a regional project which has similar 'Cobar-style' geology to the Canbelego Project. Whilst the CSA deposit is a mature operating mine, the comparative regional geological features represent a very attractive exploration target for Helix, with large tonnage and high copper (and silver) grades.

The CSA deposit is owned by Glencore, and after almost 25 years of continuous production (focusing on copper in this most recent operational phase), at c. 50kt of copper in concentrates per year, the deposit has 7.4Mt at 5.4% Cu and 22 g/t Ag classified as Measured & Indicated Mineral Resources and 4.0Mt at 5.4% Cu and 20 g/t Ag classified as Inferred Mineral Resources remaining as at 31 December 2021<sup>4</sup>

This deposit style typically has a 'short' footprint but very long vertical dimensions and occurs in a series of parallel, en-echelon lodes – as represented by the Western, QZ, Eastern and QTS North lode systems in **Figure 2.** Whilst the two projects are at different stages of development, Helix considers that Canbelego has many similar traits to this deposit style based on current geological understanding.



**Figure 2:** Schematic Cross section through CSA Deposit [From 2020 CSA Presentation available on SMEDG.org.au]

#### **RC Drilling**

RC drilling commenced on 15 January 2022 with nine holes completed (CBLRC022 to CBLRC030) for 1,368 metres. Hole depths ranged from 96 to 204 metres. All holes were sampled in 1 metre intervals and samples have been submitted for analysis. Assay results are expected in mid- to late-March 2022.

The copper mineralisation is hosted in a deformed sequence of sandstone, silt, black shale and schist and is often associated with quartz veins and/or quartz breccia. Two significant parallel zones of copper mineralisation, over 100 metres of strike length each, have been defined to the west and southwest of the Main Lode, that remain

<sup>&</sup>lt;sup>4</sup> Glencore 2021 Reserves & Resources Report <a href="https://www.glencore.com/investors/reports-results/reserves-and-resources">https://www.glencore.com/investors/reports-results/reserves-and-resources</a>



open along strike to the north (refer **Figure 3**). As well as copper-sulphide (chalcopyrite), gossan textures and copper oxide (malachite) were also intersected in several holes, suggesting potential for shallow oxide resources. Significant mineralised intervals geologically logged from the RC drilling program are summarised in **Table 1**. Drill hole details are provided in **Table 2**.

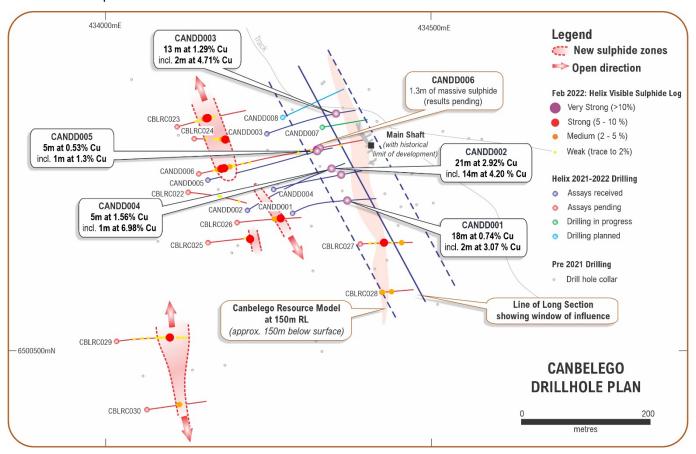


Figure 3: Canbelego Drill Hole Location Plan

Table 1: Canbelego RC Drilling Mineralised Zones\*

Hole ID	Zone	Downhole Width	Preliminary Observations**
Canbelego N	/lain (CBM) Lo	de	
CBLRC027	87 – 91m	4m	Chalcopyrite and pyrite veins and stringers (5%) (see Figure 4).
	129 – 135m	6m	Pyrite and chalcopyrite veins (trace to 2%).
CBLRC028	12 – 26m	14m	Gossanous shale with trace malachite at 26m.
	42 – 51m	9m	Partly oxidised sediments with gossan at 44 – 48m.
Canbelego V	Vest 1 (CBW1)	Zone	
	61 – 67m	6m	Pyrite and chalcopyrite (trace) and trace malachite at 64 – 65m.
CBLRC023	85 – 108m	23m	Chalcopyrite and pyrite veins and stringers (trace to 2%), with strongest development (5 $-$ 10%) between 94 $-$ 100m, including semi-massive pyrite and chalcopyrite at 97 $-$ 98m (see <b>Figure 1</b> ).
CBLRC024	90 – 108m	18m	Pyrite veins and minor chalcopyrite in discrete $1-7m$ zones (trace to 2%), with strongest chalcopyrite development $(5-10\%)$ within a semi-massive zone at $101-102m$ (see <b>Figure 5</b> ).
CBLRC025	112 – 13m	1m	Chalcopyrite veins (2 – 5%) in quartz breccia.
CBLRC026	103 – 120m	17m	Pyrite and chalcopyrite veins in discrete $1-4m$ zones (trace to 2%), with strongest chalcopyrite development $(5-10\%)$ at $118-120m$ (see <b>Figure 6</b> ).



Hole ID	Zone	Downhole Width	Preliminary Observations**
Canbelego V	Vest 2 (CBW2)	Zone	
	75 – 78m	3m	Gossanous schist.
	111 – 119m	8m	Chalcopyrite veins (trace to 1%) associated with quartz veins.
	120 – 143m	23m	Trace disseminated pyrite and pyrite and chalcopyrite veins in discrete
CBLRC029			1m zones (trace).
	143 – 156m	i∃m	Chalcopyrite and pyrite veins and disseminations (2 – 3%), with
			strongest chalcopyrite development (5%) at 154 – 155m.
	173 – 188m	15m	Chalcopyrite veins in discrete 1m zones (trace to 2%).
CBLRC030	97 – 122m	25m	Chalcopyrite veins in discrete 2 – 3m zones (trace to 1%), with strongest
CBLRC030 37 - 122111		23111	chalcopyrite development (3 – 5%) at 103 – 108m.

<sup>\*</sup> More significant intervals shaded

<sup>\*\*</sup> Please note the Cautionary Statement above on the issues related to reporting visual estimates of mineralisation.

Also refer Appendix 2 for JORC Table 1.

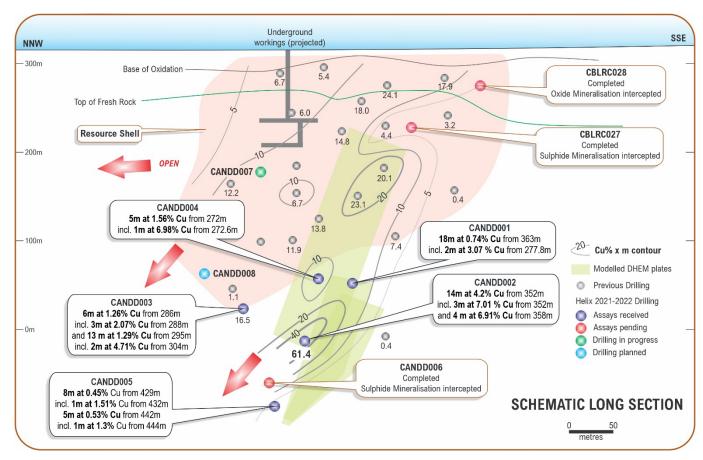


Figure 4: Canbelego – Main Lode, Schematic Long Section showing Cu grade (Cu%) x thickness (m) contours





**Figure 5:** CBLRC027 87 – 91 metres showing vein chalcopyrite-pyrite from 88-90 metres.



Figure 6: CBLRC024 100 – 105 metres showing vein and semi-massive chalcopyrite-pyrite from 101-102 metres.





Figure 7: CBLRC026 118 – 120 metres showing vein and stringer chalcopyrite-pyrite.

#### **Forward Program for Canbelego JV**

The Company is building considerable exploration momentum with strong drill results from Canbelego and developing a compelling exploration target model - the Cobar-style deposit model, to rapidly move the Canbelego Project and other regional prospects forward. The key upcoming work elements for the Canbelego area include:

- Two diamond holes (CANNDD007 and CANDD008) are planned to test the Main Lode north of the historic workings (Figure 3), with CANNDD007 currently in progress. Logging has been completed for CANDD006 and cutting and sampling of this hole is expected to be completed in mid-February 2022, with assay results anticipated in early-April 2022.
- CANDD006 intersected favourable alteration (chlorite alteration and strong silicification) and multiple zones of oxide and sulphide mineralisation. The Main Lode mineralisation occurs within a broad mineralised interval from 421 metres to 435 metres down hole of 1-3% chalcopyrite stringers including 1.1 metres of semi-massive chalcopyrite (50% chalcopyrite) from 425.2 metres.
- The Main Lode intersection in CANDD006 is 65 metres down plunge to the north of the CANDD002 intercept (18 metres at 3.39% Cu, incl. 14 metres at 4.22% Cu)<sup>5</sup> and remains open at depth (**Figure 4**).
- Assay results for this RC program are expected in mid-late March.
- Surface Moving Loop EM survey in broader Canbelego area to better define VTEM anomalies to the northeast.

<sup>&</sup>lt;sup>5</sup> See ASX release 19/01/2022



- Additional downhole EM surveying of recent diamond holes to assist with vectoring for deeper and lateral target positions.
- Work is ongoing to update the geological model based on the recent drill and geophysical data as well as review of the historical data with the aim of better resolving the geological controls on the higher-grade copper zones.

Helix is also working on its more regional prospects along the Rochford trend such as the Caballero and Bijoux prospects located 2-10 km to the southeast of Canbelego.

Table 2: Drill Hole Details

Hole ID	Туре	Easting (mE)	Northing (mN)	Start Dip	Azimuth	RL	Total Depth
CANDD006	HQ 0-198.6m NQ 198.6-561.7m	434141	6500769	-70	078	308	561.7
CBLRC022	RC	434126	6500741	-60	70	313	168
CBLRC023	RC	434108	6500841	-60	90	310	204
CBLRC024	RC	434134	6500823	-60	80	310	108
CBLRC025	RC	434156	6500665	-60	80.5	313	126
CBLRC026	RC	434199	6500696	-70	80	312	150
CBLRC027	RC	434388	6500662	-70	80	310	156
CBLRC028	RC	434420	6500589	-60	80	309	96
CBLRC029	RC	434016	6500515	-60	80	316	198
CBLRC030	RC	434061	6500411	-60	70	317	162

Grid: MGA94 Zone 55

#### **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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#### **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 1. 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 A2: Canbelego\* (October 2010) (0.5% Cu cut-off)

Classification	Classification Type		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

February 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, randomchips, orspecificspecialised 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 E-NE and drilled with starting dip of 70°.</li> <li>Drill hole locations are determined using a hand-held GPS. Down-hole surveys conducted using the Reflex multi-shot gyro system.</li> <li>Diamond will be sampled in 1m intervals, taking half core at various intervals (=/&lt;1m).</li> <li>The samples will be collected and always supervised by Helix staff</li> <li>The samples were always will be the direct control of Helix staff and transported to the laboratory by a commercial transport contractor.</li> <li>Reverse Circulation (RC) Drilling</li> <li>Commercial drilling contractor Mitchell Services conducted the RC drilling. The holes are orientated approximately E (225°) and were drilled with starting dips of 60° or 70°</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>Holes were sampled at 1m intervals via a cyclone directly split into a numbered calico bag with weights typically from 2kg to 4kg 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	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.).	<ul> <li>Diamond drilling (DDH) was the drilling method chosen.</li> <li>DDH: 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 at secure facilities in Parkes and Orange. The core is comprehensively logged and sampled by experienced Helix geologists or consultants.</li> <li>The core is entirely logged for lithology, alteration, degree of oxidation, structure, colour and occurrence and type of sulphide mineralisation.</li> <li>Note – some of the historic RC drill holes were not geologically logged as annotated in the plans and sections presented.</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 core saw and a half core sample is taken for laboratory analysis.</li> <li>The RC drilling rig is equipped with an in-built cyclone and splitting system, which provided one bulk sample of approximately 20kg to 30kg and a sub-sample of 2-4kg 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 2kg to 4kg 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 CZ:         <ul> <li>Crush and pulverize sample.</li> <li>Au-AA25 Ore Grade Au 30g FA AA Finish</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 relational database procedures and are verified by Helix management.</li> <li>Assay data are not adjusted.</li> <li>Geological data is collected using handwritten graphical log sheets, which detail 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>RQD and 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 Access 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>



Criteria	JORC Code explanation	Commentary		
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 with 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 70% interest 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 considered to be 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:</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 tPerson should clearly explain why this is the case.</li> </ul>	<ul> <li>Refer to Helix's previous announcements available at www.helixresources.com.au.</li> <li>A portion of the results have been included in this announcement as indicative of previous drilling results for information purposes only.</li> <li>The zones being drilled have not been subject to previous drilling and are considered to be new mineralised positions parallel to the Canbelego Main Lode and down dip/plunge extensions of the Canbelego Main Lode.</li> </ul>
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</li> </ul>	<ul> <li>All assays reported are based on 1m samples.</li> <li>Mineralised intercepts for Cu and Au are averaged within a contiguous interval above a specified Cu cut-off grade with a maximum of 2m of internal dilution.</li> <li>Cu and Au 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>



Criteria	JORC Code explanation	Commentary
	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.  The assumptions used for any reporting of metal equivalent values should be clearly stated.	
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. 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.	<ul> <li>The reporting is considered to be balanced and all material information has been disclosed.</li> <li>A Cautionary Statement regarding visual estimates of mineralisation abundance has been included with this report. It states that laboratory assays are required for representative estimates of mineralisation abundance.</li> </ul>
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. An update of the resource to JORC2012 is also planned. Regional auger soil sampling is also planned.