



Helix Resources Limited (ASX:HLX) is a minerals exploration company focused on identification, acquisition and development of projects in Australia and Chile

## MAIDEN INFERRED RESOURCE BLANCO Y NEGRO PROJECT – CHILE

Helix Resources Limited is pleased to announce a maiden inferred resource for the Company's 100% owned Blanco y Negro Project in Region IV – Chile.

### Inferred Resource Estimate – Blanco y Negro Project

Oxide: 1.4Mt @ 1.4% Cu, 0.5g/t Au\*, estimated at a 0.4% Cu cut-off grade  
(20,000t Copper, 23,000oz Gold)

Including a high-grade component of:

Oxide: 0.9Mt @ 2.0% Cu, 0.75g/t Au\*, estimated at a 0.8% Cu Cut-off grade  
(17,000t Copper, 20,000oz Gold)

*\*Numbers subject to rounding*

This is a significant step for the Blanco y Negro project

- The inferred resource provides a foundation for the Company to advance a high grade copper (+ gold) deposit that is nearby to infrastructure in Region IV.
- The resource estimate and associated interpretation has provided a detailed geological model to assist in targeting extensions and repeats of the initial resource at Blanco y Negro.
- Confirms the potential of the area to host deposits of meaningful size and grade that Helix is targeting as part of its broader exploration strategy for the region.

**Table 1: Inferred Mineral Resource Estimate at various cut-off grades**

Cut Off Grade Cu%	Tonnes	Cu %	Au g/t	Cu (t)	Au (oz)
0	2,100,000	1.0	0.4	21,000	24,000
0.3	1,640,000	1.3	0.4	21,000	23,500
<b>0.4</b>	<b>1,440,000</b>	<b>1.4</b>	<b>0.5</b>	<b>20,000</b>	<b>23,000</b>
0.5	1,140,000	1.7	0.6	19,000	22,500
<b>0.8</b>	<b>880,000</b>	<b>2.0</b>	<b>0.7</b>	<b>17,500</b>	<b>21,000</b>
1.5	720,000	2.1	0.8	15,500	19,500
2	430,000	2.4	0.9	10,000	13,000
2.5	100,000	2.9	1.1	3,000	4,000

*Note: Table contents subject to rounding to nearest significant figure*

The resource estimate was undertaken by an external consultant Mr Byron Dumpleton based on geological interpretation by Helix's Chilean and Australian technical team, following the 2,200m of RC/DDH drilling at Blanco y Negro during the 2013 field season. Details of the Estimate are contained in Appendix 1.



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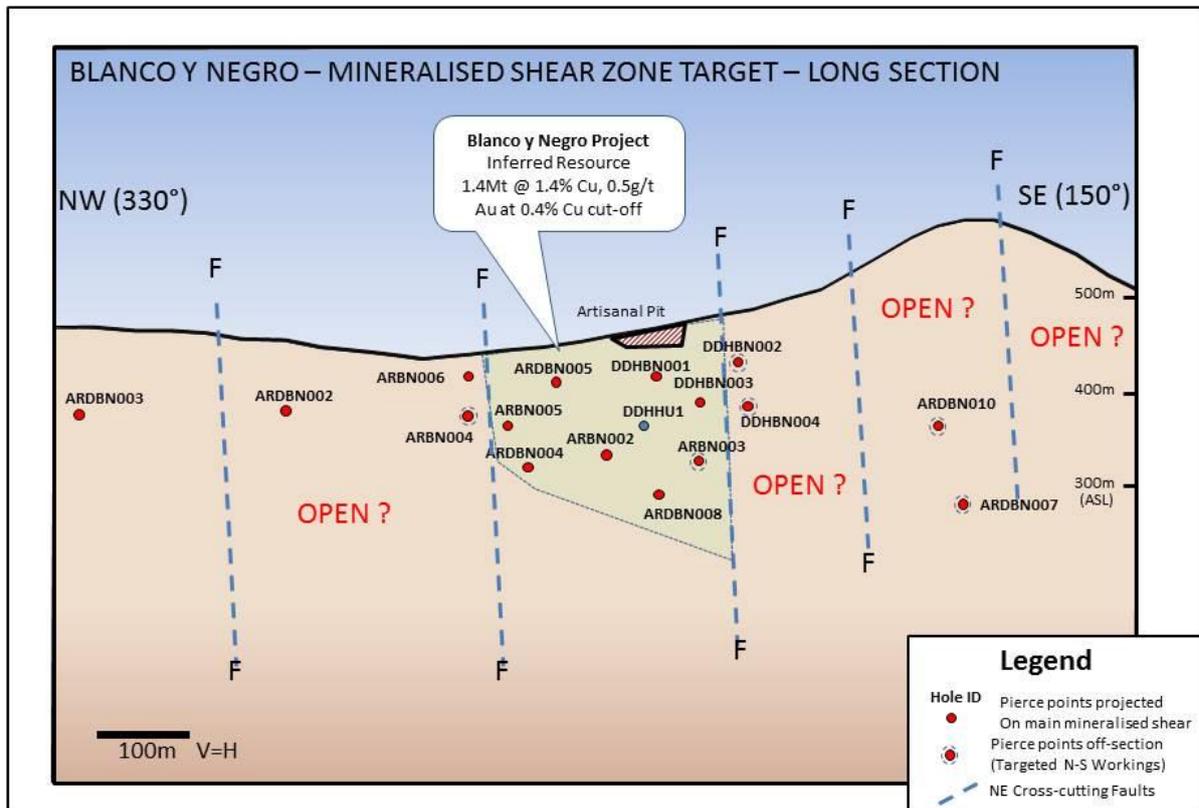


Figure 1: Longsection of main shear direction showing approximate outline of resource wireframe

## Future Activities

Based on the establishment of a maiden inferred resource for the Blanco y Negro Project and geological model derived from the resource process, Helix has identified a series of targets along strike and within the mining lease that will be prioritised for future programs.

The geological model referenced back to surface magnetics (Figure 2) illustrates several zones of interest, where late-stage NE striking faults appear to offset the main NW shearzone.

Surface mapping over a strike of ~600m has been undertaken along the southern extension of the offsets of the main trend and further mapping is planned.



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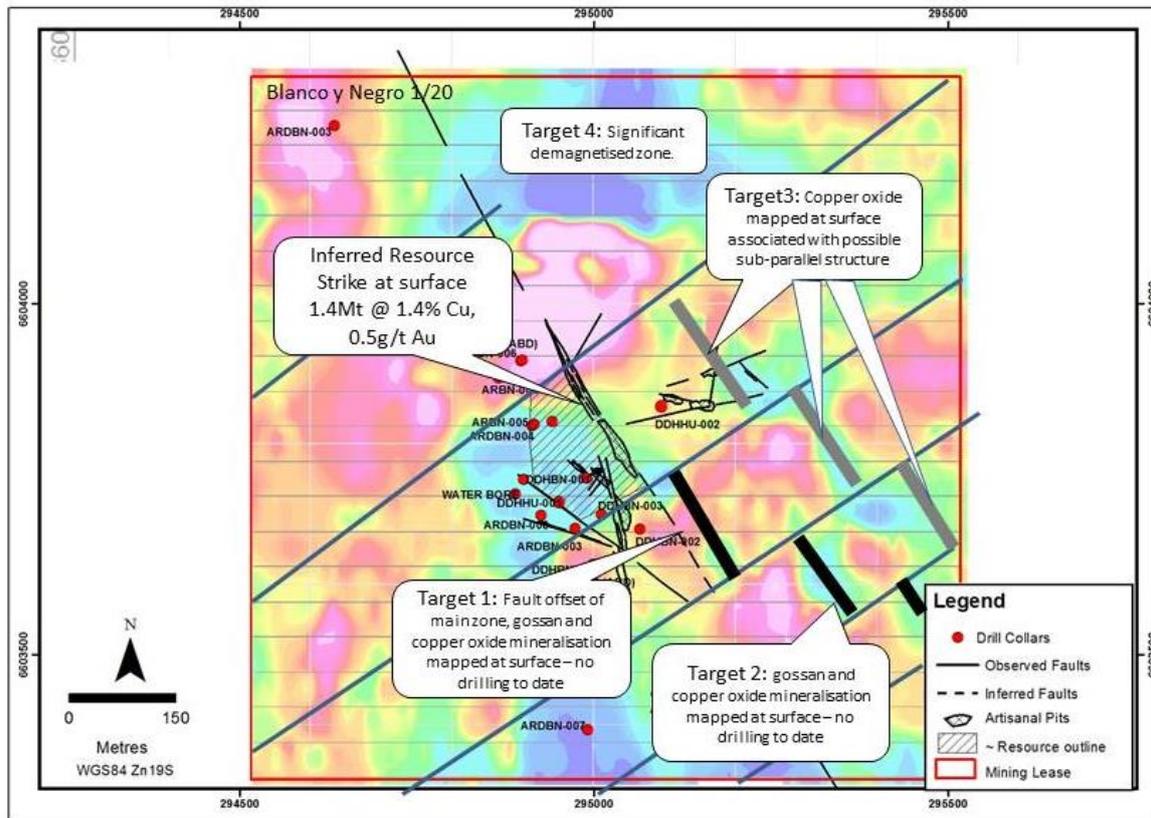


Figure 2: Blanco Y Negro Mining concession on ground magnetics with activities to date and future targets.

Table 2: Drill Collar coordinates

Site ID	Northing WGS84	Easting WGS84	Local N	Local E	RL	Azimuth	Dip	Length
ARBN13-001	6603729	294889	100019	9825	446	0	-90	104
ARBN13-002	6603749	294901	100031	9845	444	60	-55	120
ARBN13-003	6603679	294974	99934	9874	454	60	-80	169
ARBN13-004	6603894	294865	100174	9887	441	60	-58	120
ARBN13-005	6603827	294915	100091	9897	439	60	-60	83
ARBN13-006	6603919	294899	100179	9929	437	60	-55	130
ARDBN13-002	6604074	294775	100375	9899	460	60	-60	159.3
ARDBN13-003	6604253	294634	100601	9866	450	60	-52	151.4
ARDBN13-004	6603826	294913	100091	9894	439	60	-83	140.2
ARDBN13-005	6603832	294941	100082	9922	445	60	-55	100.8
ARDBN13-006	6603918	294897	100179	9927	437	60	-87	40
ARDBN13-007	6603393	294992	99676	9745	468	60	-60	102
ARDBN13-008	6603698	294926	99974	9842	447	60	-80	248.2
ARDBN13-009	6603629	294999	99877	9870	466	60	-85	60
ARDBN13-010	6603443	295089	99671	9855	495	60	-55	240
DDHBN13-001	6603751	294989	99988	9923	461	60	-50	91.6
DDHBN13-002	6603678	295065	99887	9952	478	60	-70	91.6
DDHBN13-003	6603699	295011	99932	9915	469	60	-80	122
DDHBN13-004	6603627	294999	99876	9869	466	60	-63	170.3
DDHHU12-001	6603717	294951	99978	9873	454	50	-60	309.75

Key to collar names: ARBN-XXX - RC Only, ARDBN-XXX - RC with DDH tail, DDHBN-XXX - DDH Only

# Helix Resources Limited

## Gold, Copper, Iron Ore in Australia and Chile



Helix Resources Limited (ASX:HLX) is a minerals exploration company focused on identification, acquisition and development of projects in Australia and Chile

### Competent Persons Statement for the Blanco Y Negro Resource.

The information in this report that relates to Exploration Results is based on information compiled by Mick Wilson and is a full-time employee of Helix Resources Limited. Mr Wilson is a member the Australasian Institute of Mining and Metallurgy. Mr Wilson has sufficient experience of relevance to the style of mineralisation and the types of deposits under consideration, and to the activities undertaken, the qualify as Competent Persons as defined in the 2012 Addition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.

The information in this report that relates to Mineral Resource Estimation is based on information compiled by Mr Byron Dumpleton a Consultant Resource Geologist from his company BKD Resources Pty Ltd. Mr Dumpleton is a member of the Australian Institute of Geoscientist. Mr Dumpleton has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Mineral Exploration Results, Mineral Resources and Ore Reserves" (JORC Code). Mr Dumpleton consents to the inclusion in this report of the matters based on their information in the form and context in which they appear.



# APPENDIX 1

## JORC Code, 2012 Edition – Table 1

### Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>The Blanco y Negro deposit was delineated using Reverse Circulation (RC) and Diamond Core (DC) drilling. A total of 13 holes were used to delineate and bound the resource estimate. Holes were sited on an approximate 100 x 50m grid and were generally orientated to the Grid East (060°) at dips between -50 &amp; 80°.</li> <li>The drill hole locations were located by handheld GPS. Down hole surveys were conducted post drilling using a down-hole gyro system in five of the drill holes completed. No down-hole surveys were conducted in the remaining holes.</li> <li>RC drilling was used to obtain generally 1m and 2m samples from which 3kg was pulverized to produce a charge for geochemical analysis. Diamond core was NQ<sub>2</sub> size for diamond coring and tails off RC pre-collars. Core was split and half-core was collected over 1m intervals within mineralised zones and prepared and assayed using the same methods for RC .</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul style="list-style-type: none"> <li>Diamond drilling accounts for the majority of the drilling through mineralised zones completed to date.</li> <li>RC Drilling was completed using a 140mm face sampling hammer. Depths ranged from 83m to 120m within the main mineralisation corridor.</li> <li>Diamond core drilling comprised NQ<sub>2</sub> core and NQ<sub>2</sub> Core 'tails'. DDH holes ranged from 90-170m. RC Pre-collar depths ranged from 30 to 110m. DC tails ranged in depth from 60 to 150m on these pre-collars.</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <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</li> </ul>	<ul style="list-style-type: none"> <li>Drill core and RC samples recoveries were recorded on the lithology field logs with observations compared to the core and samples produced.</li> <li>RC samples were checked by the geologist for volume, moisture content, possible contamination and recoveries. Core was</li> </ul>

Criteria	JORC Code explanation	Commentary
	<i>and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i>	<p>reconstructed in continuous lengths where applicable and depths marker annotated and checked against core blocks. Any issues are discussed with the drilling contractor.</p> <ul style="list-style-type: none"> <li>• There were some issues with recovery of drill core within the mineralised zones in holes DDHBN13-001 and ARDBN-005, where core recovery was approximately 50-60% due to the friable nature of the mineralisation (breccia).</li> <li>• The copper and gold assays may be more reliable with better recovery in the affected holes. The company plans to “twin” the affected holes in a future program to obtain better recovery via RC or wider diameter DDH core as part of a future program.</li> </ul>
Logging	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li>• <i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Core holes were geologically logged as part of the logging and sampling process. All RC chip samples have a representative grab sample placed in 1m intervals in chip trays and geologically logged.</li> <li>• Logging of both RC and Core samples recorded lithology, alteration, mineralisation, degree of oxidation, fabric and colour. Core was photographed in both dry and wet form. All RC 1m intervals are stored in plastic chip trays, labeled with interval and hole number. Drill Core is labeled, stacked and palletized in timber core trays at the Company’s core yard in Ovalle</li> <li>• All holes (RC and core) were logged in full.</li> </ul>
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <li>• <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li>• <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li>• <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li>• <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li>• <i>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.</i></li> <li>• <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Half core was collected and samples generally on on 1m intervals or smaller intervals in specific cases where clear lithological boundaries or structures were present.</li> <li>• The preparation of both RC and core samples followed industry practice. This involves oven drying, coarse crushing (core-only), pulverization of total sample using LM2 mills until 95% passes 150 micron.</li> <li>• Field QA-QC involved oversight of collection of riffle split sampling of single metre RC samples to approximately 3kg bags by site geologist and review of core-cutting and collection of 1m samples at core yard.</li> <li>• The sample sizes are considered appropriate to the grain size of the material being sampled and assayed.</li> </ul>
Quality of assay data and laboratory	<ul style="list-style-type: none"> <li>• <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li>• <i>For geophysical tools, spectrometers, handheld XRF instruments, etc,</i></li> </ul>	<ul style="list-style-type: none"> <li>• All assays were conducted at an accredited assay laboratory Andes Analytical Assay Limitada. The analytical technique used for basemetals was a mixed acid digest with an ICP_AES finish. Any samples returning greater than 10,000ppm Cu were re-assayed with</li> </ul>

Criteria	JORC Code explanation	Commentary
tests	<p><i>the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i></p> <ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<p>an Atomic Absorption (AAS) finish. Gold was assayed using an aqua regia and aas finish and subsequent high grade material using a 30g charge fire assay technique.</p> <ul style="list-style-type: none"> <li>• This is considered appropriate for the material</li> <li>• N/A</li> <li>• Laboratory QA/QC samples included the use of blanks, duplicates, standards (certified reference materials) as part of in-house procedures. Standard, Repeat and duplicate assays for drilling and are within acceptable limits of accuracy for this style of deposit.</li> </ul>
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>• <i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li>• <i>The use of twinned holes.</i></li> <li>• <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li>• <i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Significant intersections have been verified by the field geologist(s), Exploration Manager and Managing Director.</li> <li>• No twinned holes have been completed to date, however are planned for a future program.</li> <li>• Geological data was collected using handwritten log sheets which detailed geology (weathering, structure, alteration, mineralisation), sampling quality and intervals, sample numbers and survey data. This data, together with the assay data received from the laboratory and subsequent survey data were entered into databases and verified from the original laboratory data and field data.</li> <li>• N/A</li> </ul>
Location of data points	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>Specification of the grid system used.</i></li> <li>• <i>Quality and adequacy of topographic control.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The drill collar positions were picked-up using GPS. A Gyroscopic downhole tools was used to collect survey information subsequent to the completion of drilling where possible.</li> <li>• Grid system is WGS84 Zone 19S. Local grid has also been used for estimation purposes and geological interpretation and drill planning. The local grid is design so that sections are approximately perpendicular to the average strike of the resource. The grid has a rotation of 60 degrees to the west.</li> <li>• Surface RL data collected using GPS. Topography around the resource is a hill in grid east to a valley grid west of the resource area. A topographical wireframe (DTM) has been constructed using the data provided by an external geophysical contractor who undertook a detailed ground magnetic survey over the project area in 2Q13 The survey provided - 50m line spacing with continuous readings.</li> </ul>
Data spacing and	<ul style="list-style-type: none"> <li>• <i>Data spacing for reporting of Exploration Results.</i></li> <li>• <i>Whether the data spacing and distribution is sufficient to establish the</i></li> </ul>	<ul style="list-style-type: none"> <li>• Drill holes for ByN is on an approximate 100m x 50m grid spacing, which covers the majority of the main mineralised zone.</li> </ul>

Criteria	JORC Code explanation	Commentary
<i>distribution</i>	<p><i>degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i></p> <ul style="list-style-type: none"> <li><i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>The drill spacing is adequate for the geological and grade continuity and is appropriate for Mineral Resource and Ore Reserve estimation.</li> <li>Samples were composited to 1 metre lengths in any drill hole intercepts where 2m sampling was included in the resource modelling.</li> </ul>
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li><i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>Inclined RC and DDH drilling has been completed within the mineralised zones with good correlation observed between data sets</li> <li>No orientation based sampling bias has been identified in the data to date.</li> </ul>
<i>Sample security</i>	<ul style="list-style-type: none"> <li><i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>Chain of Custody is managed by the Company. RC Samples were collected onsite generally in polyweave bags containing 5-10 samples. The bags are securely tied and freighted directly to the laboratory in secure cages with appropriate documentation listing sample numbers and analytical methods requested.</li> <li>Diamond core was transported by Helix staff, logged and cut at the Company secure core yard in the nearby town of Ovalle, with samples bagged, batched and freighted directly to the laboratory with appropriate documentation listing sample numbers and analytical methods requested.</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li><i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>No additional QA/QC has been conducted for the 2013 Resource model drilling. Umpire lab re-assaying of selected samples is planned as part of future development studies.</li> </ul>

## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li><i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i></li> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>The Blanco y Negro 1/20 mining concession is 100% owned by Helix Resources Chile Limitada, a 100% owned subsidiary of Helix Resource limited.</li> <li>Title Blanco y Negro 1/20 of the concession is in good standing at the time of reporting and is a mining lease.</li> </ul>

Criteria	JORC Code explanation	Commentary
Exploration done by other parties	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>N/A</li> </ul>
Geology	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>Blanco y Negro is a shear and vein hosted copper and gold system in a geological setting of volcanics, intrusives and associated sediments, variably sheared and faulted within the regionally significant Los Mantos Fault system. The material included in the resource is dominated by oxide copper mineral species (dominate species, malachite and azurite).</li> </ul>
Drill hole Information	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>Refer to drill collar table in main announcement</li> </ul>
Data aggregation methods	<ul style="list-style-type: none"> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>Refer to section 3</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul style="list-style-type: none"> <li>Drilling was generally aimed at intersecting mineralisation as close to perpendicular as possible, based on the ability to position a drill rig to do so. Holes used to estimate the resource are within this criteria</li> </ul>

Criteria	JORC Code explanation	Commentary
<i>Diagrams</i>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Refer to previous releases</li> </ul>
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• N/A</li> </ul>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>• <i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i></li> </ul>	<ul style="list-style-type: none"> <li>• No additional data is available at the time of reporting</li> </ul>
<i>Further work</i>	<ul style="list-style-type: none"> <li>• <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li>• <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Refer to main body of this release</li> </ul>

### Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
<i>Database integrity</i>	<ul style="list-style-type: none"> <li>• <i>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</i></li> <li>• <i>Data validation procedures used.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Data used in the resource estimation was derived from the projects drilling database held in Chile and replicated on the company database in Australia.</li> <li>• Validation has occurred through cross-checking of geology to assays, assay data compared to original files received from the laboratory by the field staff in Chile, and then by Helix staff in Australia prior to resource estimation. Hardcopies of both geological logs and certified copies of laboratory assays are held in the Chile office. Original laboratory digital files are also available for cross reference.</li> </ul>
<i>Site visits</i>	<ul style="list-style-type: none"> <li>• <i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i></li> <li>• <i>If no site visits have been undertaken indicate why this is the case.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Mr. Mick Wilson, acting as a Competent Person for the geology and exploration portions of the Table was involved with the project from its purchase in mid-2012 and has made numerous site visits during this time, including during the drilling program. He was part of the team</li> </ul>

Criteria	JORC Code explanation	Commentary
		that developed the Geological Interpretation for the Blanco Y Negro Deposit.
<i>Geological interpretation</i>	<ul style="list-style-type: none"> <li>• <i>Confidence in (or conversely, the uncertainty of ) the geological interpretation of the mineral deposit.</i></li> <li>• <i>Nature of the data used and of any assumptions made.</i></li> <li>• <i>The effect, if any, of alternative interpretations on Mineral Resource estimation.</i></li> <li>• <i>The use of geology in guiding and controlling Mineral Resource estimation.</i></li> <li>• <i>The factors affecting continuity both of grade and geology.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The confidence of the resource figures is suitable for Inferred. The continuity of the geology is reasonably understood but there is not enough drilling information for grade, hence actual metal distribution and is not yet suitable for public reserve evaluation.</li> <li>• Mineralisation has been defined by one main central mineralised zone with a single zone of weak mineralisation in the HW and a single zone in the FW. The FW zone has been based around a single intercept from hole ARBN13-002. The main zone has been interpreted over six drill sections approximately 50m apart with actual mineralisation between 4 continuous sections. The mineralised central zone has been extrapolated down dip and terminated against a cross-cutting fault. Mineralisation has been interpreted based on a nominal 0.3% Cu cut off or vein material with a steep dip of -65 towards grid west.</li> <li>• The geological interpretation has been based on geological and grade boundaries</li> <li>• The factors for grade continuity are subjective with the limited drilling information. The continuity of the Geology is reasonably understood.</li> </ul>
<i>Dimensions</i>	<ul style="list-style-type: none"> <li>• <i>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The main mineralised zone is approximately 250 metre along strike with mineralisation extended to depths from approximately 50 to 350 metres. The variable depths is due to the oblique nature of the intersection between the moderately westerly (grid) steep dipping mineralised zone against the NW (grid) trending near vertical fault. The mineralised (true) width varies from 2 to 15 metres.</li> </ul>
<i>Estimation and modelling techniques</i>	<ul style="list-style-type: none"> <li>• <i>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</i></li> <li>• <i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i></li> <li>• <i>The assumptions made regarding recovery of by-products.</i></li> <li>• <i>Estimation of deleterious elements or other non-grade variables of</i></li> </ul>	<ul style="list-style-type: none"> <li>• The resource estimation for grade was estimated using Inverse distance to the power of 2. The software package for the grade estimation and geological interpretation was Surpac. Copper, Gold, Silver and Density were estimate. Estimation for each element was conducted using the same parameters and were estimated using two passes. For the first pass a search radius of 100 metres along strike/plunge with an anisotropy used for the search ellipsoid with a ratio of 2:1 for major to semi-major direction (i.e. down dip direction the distance is 50 m) and 5 to 1 for major to minor direction (i.e. 20m across strike/plunge). For the second pass a 200m radius was used also using the same anisotropy ratios for both the major to semi-major and major to minor directions. Estimation of grade was within</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>economic significance (eg sulphur for acid mine drainage characterisation).</i></p> <ul style="list-style-type: none"> <li><i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i></li> <li><i>Any assumptions behind modelling of selective mining units.</i></li> <li><i>Any assumptions about correlation between variables.</i></li> <li><i>Description of how the geological interpretation was used to control the resource estimates.</i></li> <li><i>Discussion of basis for using or not using grade cutting or capping.</i></li> <li><i>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</i></li> </ul>	<p>interpreted hard grade boundaries based on a nominal 0.3 Cu % with a minimum of 2m down hole. Internal dilution was domained separately when mineralised grade was less than 0.3% Cu for sections greater than 2m in width and estimated separately.</p> <ul style="list-style-type: none"> <li>Blanco Y Negro is a maiden resource. Mining by local artisanal miners has been conducted at surface. No historical records were available to reconcile against the current model.</li> <li>No assumptions have been made for recovery of by-products.</li> <li>No deleterious elements were estimated.</li> <li>The resource was modelled using a 20 mN by 5 mE by 5 mZ (grid) with sub celling down to 5 mN by 1.25 mE and 1.25 mZ. Each ore domain has been flagged, coded and modelled separately.</li> <li>The Z direction selected at 5 metres to reflect the possible selected mining bench height.</li> <li>N/A</li> <li>Ore grade boundaries were defined within the Blanco Y Negro vein/shear.</li> <li>No top cuts were applied for any of the elements estimated. Coefficient of variation for the estimated elements were low.</li> <li>Block model volume validation was validated against ore solid wireframes for each ore domain. Block model validation for grade was conducted visually by section northings.</li> </ul>
Moisture	<ul style="list-style-type: none"> <li><i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i></li> </ul>	<ul style="list-style-type: none"> <li>Tonnages are estimated on dry bases.</li> </ul>
Cut-off parameters	<ul style="list-style-type: none"> <li><i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>The nominal 0.3 % Cu cutoff grade used for the mineralized interpretation was chosen as this appears to reflect the natural background grade cutoff.</li> </ul>
Mining factors or assumptions	<ul style="list-style-type: none"> <li><i>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</i></li> </ul>	<ul style="list-style-type: none"> <li>Only assumption made regarding to possible mining practices is the setting of the model in the Z direction to 5 metres. The most likely bench height for open pit mining (+/- 1m) assuming hydraulic equipment is used. No account has been taken for mining dilution along or across strike.</li> </ul>

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Metallurgical factors or assumptions	<ul style="list-style-type: none"> <li>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</li> </ul>	<ul style="list-style-type: none"> <li>Surface material has been previously extracted from the Blanco Y Negro concession by artisanal miners and processed at a government-run copper SX-EW plant approximately 30km by road from the mining concession. It is assumed that the material in the resource has similar characteristics to the material previously mined. Metallurgical testing will be undertaken part of any future advancement of the project within a Scoping study or similar.</li> </ul>
Environmental factors or assumptions	<ul style="list-style-type: none"> <li>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</li> </ul>	<ul style="list-style-type: none"> <li>Desktop studies and background work has commenced on various aspects regarding average rainfall, ground water, land access and potential mining scenarios. More detailed work will form part of any future advancement of the project within a Scoping study or mine permitting framework.</li> </ul>
Bulk density	<ul style="list-style-type: none"> <li>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</li> <li>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	<ul style="list-style-type: none"> <li>For the Blanco Y Negro resource bulk density values were determined for host rock and mineralised shear and vein material from selected that appear to be representative.</li> <li>Density measurements were determined on diamond core samples using the 'Archimedes Method' (weight in air v's weight in water).</li> <li>It was not possible to determine the density of much of the friable material, much of which was not recovered in DDHBN13-001 and ARDBN005</li> <li>Bulk density was assigned by weathering/material type interpreted from geological logging.</li> </ul>
Classification	<ul style="list-style-type: none"> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	<ul style="list-style-type: none"> <li>Classification of the resource is based on drilling density, geological confidence and the position of the shoots within the main shear and vein material within the two passes of the estimation runs. All material within the interpreted shear/vein zone within the two passes are classified as Inferred.</li> <li>Appropriate account has been taken of all relevant factors</li> <li>yes</li> </ul>
Audits or reviews	<ul style="list-style-type: none"> <li>The results of any audits or reviews of Mineral Resource estimates.</li> </ul>	<ul style="list-style-type: none"> <li>No External Audits have been conducted. This is a maiden resource, historical mining has occurred by artisanal miners.</li> </ul>

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<i>Discussion of relative accuracy/confidence</i>	<ul style="list-style-type: none"> <li>• <i>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</i></li> <li>• <i>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</i></li> <li>• <i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The relative accuracy of the Mineral Resource estimate is reflected in the reporting of the Mineral Resource as per the guidelines of the 2012 JORC code.</li> <li>• The statement relates to global estimate of tonnes and grade for an Inferred resource.</li> <li>• No production data is available.</li> </ul>