

# Yathella and Mundarlo Exploration Update New off-hole EM conductors prioritised for follow-up exploration

# Highlights

Exploration drilling at two regional copper prospects have recently been completed. Follow-up downhole EM surveys were undertaken at both the Yathella Prospect, 6km northwest of the Collerina Deposit and the Mundarlo Project, near Gundagai NSW.

Preliminary results confirm the exploration potential of these new target areas, with additional exploration warranted.

Fieldwork is continuing, with the Company providing the following Exploration update for each project:

#### Yathella Prospect

- Three RC holes were completed as an initial drill test of the basement rocks below coincident geochemical and geophysical anomalism at the Yathella Copper Prospect.
- All three holes intersected an ultramafic rock unit, with the target unit (mixed sediment and volcanoclastics) interpreted to lie peripheral to the ultramafic unit (up-dip and/or in the limbs of the prospect).
- Initial assessment of a follow-up downhole EM (DHEM) survey has identified a 550m x 150m off-hole EM conductor northeast of the three RC holes.
- The new DHEM conductor position is currently being assessed and the geochemistry coverage expanded, results from this work will assist in more effective positioning of additional drill holes at Yathella.

#### Mundarlo Project

- A RC/DDH exploration drill hole targeting near the centre of the large MLEM Conductor at Mundarlo has been completed to a depth of 519m.
- Drilling intersected a six metre zone of massive and semi-massive sulphides dominated by a fine grained pyritic unit that has been brecciated and re-annealed by multiple later sulphide events and quartz veining from 483m downhole.
- Drill core from this section of the hole has been sent to the laboratory to be cut and sampled for assay. Results are expected in 3-4 weeks.
- A follow-up DHEM survey in the diamond tail portion of the hole has identified a strong off-hole conductor (1500 Siemens) up-dip from the hole, as well as an EM response in front of the hole. This provides strong nearby targets for testing with further exploration.
- By completing this hole, Helix satisfies it expenditure commitments to earn 80% of the Mundarlo project.

Helix Resources Limited (ASX:HLX) (**Helix** or **the Company**) is pleased to provide the following update from ongoing exploration, including drilling and geophysical activities at the Yathella Prospect and Mundarlo Project in NSW.

# **Yathella Prospect**

The Yathella Copper Prospect is a regional exploration target within the Company's Collerina Copper Project in Central NSW, located approximately 6km northwest of the Collerina Copper Deposit and situated along the prospective Collerina Copper Trend (Figure 1).

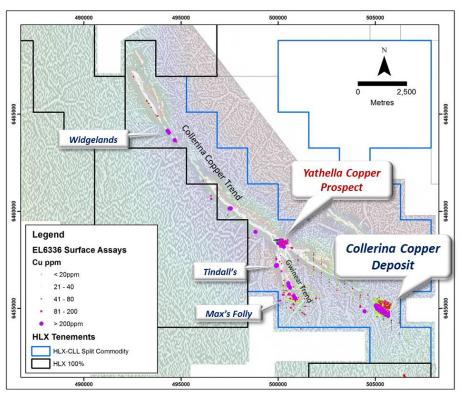


Figure 1: Yathella Copper Prospect, located on the Collerina Copper Trend 6km NW from the Collerina Copper Deposit

An exploration RC drilling program commencing last month was planned to consist of at least 4 holes testing the coincident surface geochemistry and EM conductors derived from an airborne EM survey and a fixed loop EM survey at the Yathella Prospect. The initial target was an interpreted fold axis of a syncline shallowly plunging to the southeast.

Three RC holes were drilled, all intersecting clay and highly weathered saprock before transitioning into weathered and then fresh ultramafic rock units. The third hole, drilled in the opposite direction northwest of YARC001 may have intersected the more favourable target unit in the weathered zone in the top of the hole. The initial drilling does not adequately explain the high-order surface geochemical anomalism and coincident EM anomalism at Yathella and it is likely the holes did not effectively test the target zone.

In order to progress the targeting at Yathella, a DHEM survey was also completed. Preliminary modelling of the DHEM response in YARC002 and YARC003 has identified a moderate (150 Siemen) off-hole EM conductor at around 40-50m down the holes. The EM conductor position models northeast of the drill holes.

A revised geological target model is now proposed for Yathella, incorporating a northwest plunging antiform. This suggests the drilling has intersected below the target horizon and future work at Yathella should target the edges (limbs) of the prospect area (refer Figure 2).

Initial 4m composite samples from these holes were collected and tested offsite using a Niton XRF machine. YARC001 and YARC003 both returned anomalous readings (>0.1% Cu) in the first 20m, with several higher readings (up to 0.47% Cu) in YARC003. However YARC002 had no reading of copper above 700ppm Cu. *Note: XRF readings are included here only to demonstrate anomalism and should not be construed as laboratory assay results*.

The initial XRF responses are consistent with the revised geological model for Yathella. The prospect's surface copper geochemistry coverage over the new target zones require some infill to better define the zones of interest.

Field mapping and further soil sampling at Yathella is planned prior to returning to continue drilling at the Yathella Prospect.

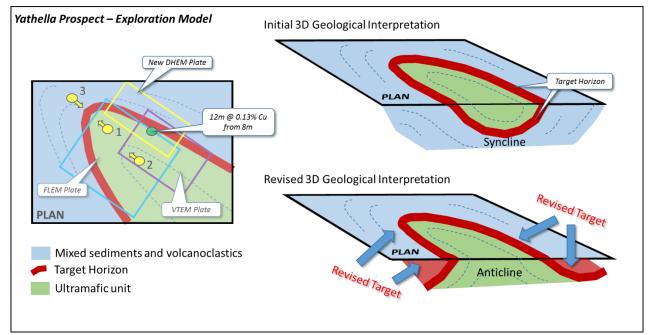


Figure 2: Schematic Yathella geological model, with the initial and revised 3D geological interpretation showing recent RC positions in yellow.

### **Mundarlo Project**

The first diamond drill hole, completed by Helix, designed to target close to the centre of the broad 750m x 600m modelled moving loop EM conductor plate at the Mundarlo Project. The hole intersected semi-massive and massive sulphide over a 6 metre zone from 483m downhole. The sulphide consists of a laminated fine grained pyritic unit that appears to have been brecciated and re-annealed by later events containing sulphide and silica bearing fluids (refer Figure 3).

The drill core from this section of the hole has been sent to the laboratory to be cut and sampled for assay. Results are expected in 3-4 weeks.

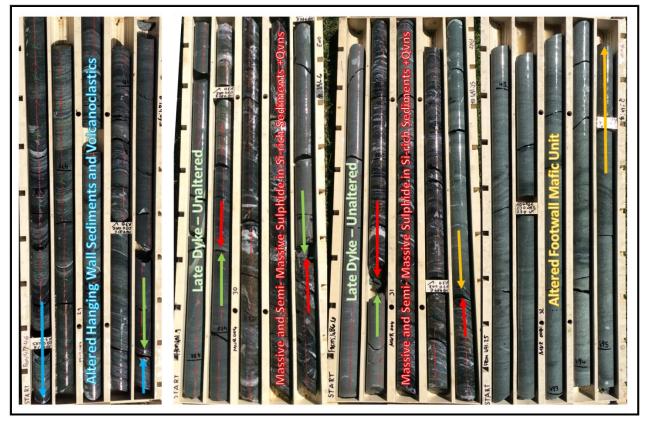


Figure 3: core photos from the zone of interest in MURCDD004 showing a zone of mineralisation surrounded by altered host rocks.

### **Down Hole EM Survey:**

A Clear off-hole anomaly has been identified in preliminary assessments of the DHEM survey data. The Anomaly is present in the middle and late times. It appears the hole went close to the edge of a strong conductor (around 1500S). The modelled conductor from this survey is located above the hole and a little further north of the hole. There is an in-hole response for the zone of sulphide and a possible deeper conductor beyond the bottom of the hole noted in the middle times.

Following receipt of assay results and completion of modelling of the DHEM survey, the data will be assessed to plan further exploration at Mundarlo.

By completing this hole, Helix satisfies it expenditure commitments to earn 80% of the Mundarlo project.

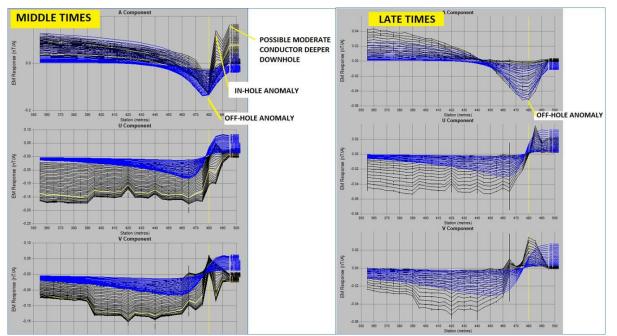


Figure 4: Preliminary modelling of MURCDD004 down hole EM surveys showing EM responses off-hole, in-hole and below hole in the middle and late times.

- ENDS -

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#### **Competent Persons Statement**

The information in this announcement that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information reviewed by Mr M Wilson who is a full time employee of Helix Resources Limited and a Member of The Australasian Institute of Mining and Metallurgy. Mr M Wilson has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 and 2012 Editions of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr M Wilson consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Details of the assumptions underlying any Resource estimations are contained in previous ASX releases or at www.helix.net.au For full details of exploration results refer to previous ASX announcements on Helix's website. Helix Resources is not aware of any new information or data

that materially effects the information in this announcement

<sup>1</sup> For full details of exploration results refer to the ASX announcements dated 4 February 2015, 29 June 2016, 1 December 2016, 3 August 2017, 8 November 2017, 14 February 2018, 27 February 2018, 5 April 2018, 14 May 2108 and 13 June 2018. Helix Resources is not aware of any new information or data that materially effects the information in these announcements.

#### Forward-Looking Statements

This ASX release may include forward-looking statements. These forward-looking statements are not historical facts but rather are based on Helix Resources Ltd.'s current expectations, estimates and assumptions about the industry in which Helix Resources Ltd operates, and beliefs and assumptions regarding Helix Resources Ltd.'s future performance. Words such as "anticipates", "expects", "intends", "plans", "believes", "seeks", "estimates", "potential" and similar expressions are intended to identify forward-looking statements. Forward- looking statements are only predictions and are not guaranteed, and they are subject to known and unknown risks, uncertainties and assumptions, some of which are outside the control of Helix Resources Ltd. Past performance is not necessarily a guide to future performance and no representation or warranty is made as to the likelihood of achievement or reasonableness of any forward-looking statements, recipients are cautioned not to place reliance on forward looking statements. Any forward- looking statements. Given these uncertainties, recipients are cautioned not to place reliance on forward looking statements. Any forward- looking statements in this announcement. Subject to any continuing obligations under applicable law and the ASX Listing Rules, Helix Resources Ltd does not undertake any obligation to update or revise any information or any of the forward-looking statements in this announcement or any changes in events, conditions or circumstances on which any such forward looking statement is based.

No new information that is considered material is included in this document. All information relating to exploration results has been previously released to the market and is appropriately referenced in this document. JORC tables are not considered necessary to accompany this document.

Table 1: Drill Collar locations for RC drilling at the Yathella Prospect – Collerina Project NSW

<u></u>							
PROSPECT	Hole ID	GRID	EAST	NORTH	AZIMUTH	Dip	DEPTH (m)
YATHELLA	YARC001	MGA94_55	500200	6458400	300 (grid)	-60	108
YATHELLA	YARC002	MGA94_55	500320	6458330	300 (grid)	-60	168
YATHELLA	YARC003	MGA94_55	500128	6458435	120 (grid)	-60	100

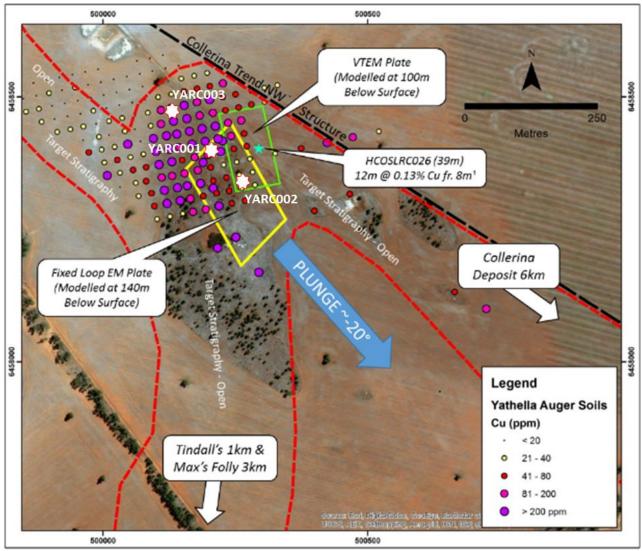


Figure 5: Yathella Prospect showing position of the initial drill collars from recent drilling.

Table 2: Drill Collar Location for RC/DDH drilling at the Mundarlo Project NSW

PROSPECT	Hole ID	GRID	EAST	NORTH	AZIMUTH	Dip	DEPTH (m)
MUNDARLO	MURCDD004	MGA94_56	584800	6112570	55 (mag)	-80	519

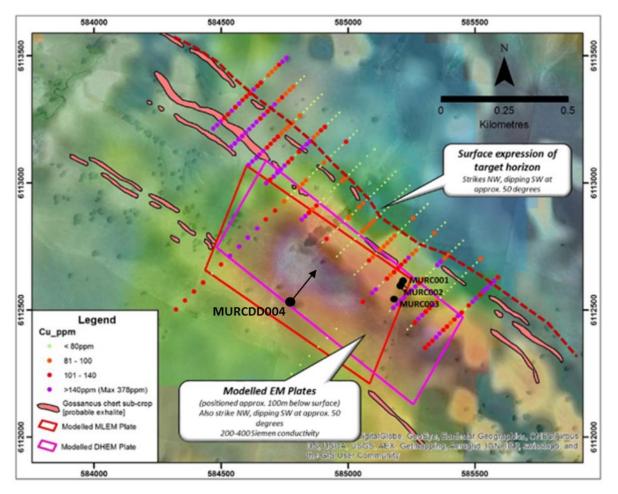


Figure 6: Location of MURCDD004 collar at the Mundarlo Project NSW

### JORC Code – Table 1

# Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
<i>Sampling techniques</i>	<ul> <li>Nature and quality of sampling (eg cut channels, rando chips, or specific specialised industry standal measurement tools appropriate to the minerals und investigation, such as down hole gamma sondes, chandheld XRF instruments, etc). These examples shou not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure samp representivity and the appropriate calibration of all measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that a Material to the Public Report.</li> <li>In cases where 'industry standard' work has been don this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 k was pulverised to produce a 30 g charge for fire assay In other cases more explanation may be required, such where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation type (eg submarine nodules) may warrant disclosure detailed information.</li> </ul>	<ul> <li>RC drilling. Approximately 350m of drilling occurred in 3 holes drilled at Yathella (refer Table 1). 350m of RC and 169m of Diamond drilling in one hole at the Mundarlo Project (refer Table 2). Holes were orientated to various grid directions, and were drilled at dips of 60-80°.</li> <li>The drill hole locations were located by handheld GPS with down hole surveys were conducted during drilling, using an in-rod downhole system.</li> <li>RC Drilling was used to obtain 1m samples, NQ diamond drilling to collect core in 1 metre interval. RC Sampling was completed as 4m composites as a first pass at Yathella, collected by Helix staff and transported for initial XRF analysis. NQ core from a zone of interest was shipped to the laboratory for cutting and assay.</li> </ul>
Drilling techniques	• Drill type (eg core, reverse circulation, open-ho hammer, rotary air blast, auger, Bangka, sonic, etc) ar details (eg core diameter, triple or standard tube, dep of diamond tails, face-sampling bit or other type, wheth core is oriented and if so, by what method, etc).	a 150mm face sampling hammer using industry practice drilling th methods.
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip samp recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensu representative nature of the samples.</li> </ul>	any sample under-sized or over-sized was noted the geological logs.

Criteria	JORC Code explanation	Commentary
	• Whether a relationship exists between sample recover and grade and whether sample bias may have occurre due to preferential loss/gain of fine/coarse material.	
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>collected in trays for future reference.</li> <li>Logging of Drilling recorded lithology, alteration, degree of oxidation, fabric and colour.</li> <li>All holes were or are being logged in full.</li> </ul>
<i>Sub- sampling techniques and sample preparation</i>	<ul> <li>If core, whether cut or sawn and whether quarter, half call core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, et and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality an appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling or instance results for field duplicate/second-had sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>XRF assessment first. Diamond drilling samples follow industry practice. This involves half core cutting, oven drying, pulverization of total sample using LM5 mills until 85% passes 75 micron. DDH assays are pending.</li> <li>Field QA_QC involved repeat sampling and the laboratories standard QA_QC procedures.</li> <li>The sample sizes are considered appropriate to the grain size of the material being sampled. Repeatability of assays was good.</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 XR instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation etc.</li> </ul>	<ul> <li>which was calibrated every 20<sup>th</sup> reading using standards. Mundarlo assaying is being conducted at accredited assay laboratory. The analytical technique used for base metals is a mixed acid digest with a MS collection. Gold is assayed via the fire assay method.</li> <li>Laboratory QA/QC samples involving the use of blanks, duplicates,</li> </ul>

Criteria	JORC Code explanation	Commentary
	• 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>Verification of sampling and assaying</i>	<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>XRF Results have been assessed by Company management.</li> <li>Geological data was collected using handwritten log sheets which detailed geology (weathering, structure, alteration, mineralisation), sampling quality and intervals, sample numbers, QA/QC and survey data. This data, together with the assay data received from the laboratory and subsequent survey data were entered into a secure Access databases and verified.</li> </ul>
<i>Location of data points</i>	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>The drill collar positions were picked-up using GPS.</li> <li>Grid system is GDA94 Zone 55 and 56.</li> <li>Surface RL data collected using GPS. Topography around the drilled area is a slope grading from Grid North-East with drainage intersecting northwest of the drilled area. Variation in topography is less than 50m across the area.</li> </ul>
<i>Data spacing and distribution</i>	<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>Drill holes at the Yathella Prospect were testing basement lithologies below a coincident surface copper anomaly and EM conductor. The Hole at the Mundarlo Project were targeting a geological and geophysical target.</li> <li>This was a maiden RC drilling program conducted by Helix for the Yathella Prospect and the first known diamond hole at Mundarlo.</li> <li>Sampling involved 4m interval composite samples.</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>These are early exploration programs at Yathella and Mundarlo, and are yet to intersect economic mineralisation, therefore the information available is insufficient to make any such observations.</li> <li>No significant results yet in drilling.</li> </ul>

Criteria	J	OR	C Code explanation	Con	nmentary
Sample security		•	The measures taken to ensure sample security.	•	Chain of Custody is managed by the Company. The Mundarlo Core samples were freighted directly to the laboratory with appropriate documentation , cut, with analytical methods requested.
Audits reviews	or	•	<i>The results of any audits or reviews of sampling techniques and data.</i>	•	No additional QA/QC has 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
<i>Mineral tenement and land tenure status</i>	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	• The Yathella drilling is on the Collerina Project, where Helix holds the precious and base metal rights on the tenement. The tenement was recently renewed and will have a new EL number assigned shortly. The Mundarlo Project is on EL8096. Helix has secured a 60% equity in the project and by completing this hole has earned another 20% The tenement is in good standing, with a renewal due in March 2020. There are no known impediments to operating in either area.
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Previous modern exploration at the Yathella prospect was limited to lateritic Nickel exploration, with no holes directly testing the area of interest. At the Mundarlo Project previous exploration was limited to surface sampling by JODODEX in the 1980's, copper anomalism was noted.</li> </ul>
Geology	• Deposit type, geological setting and style of mineralisation.	• Both projects are considered to be prospective for VMS and possibly intrusion related precious and base metal mineralisation styles
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 Person should clearly explain why this is the case.</li> </ul>	<ul> <li>Refer to table 1 and 2 in the body of the text</li> <li>No significant results were derived from the initial drilling, although anomalous copper was noted in the xrf readings in holes YAR001 and YARC003. Assays from the Mundarlo hole have not been received.</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 (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>	
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul> <li>The programs were designed to target various EM positions below surface soil geochemistry, subsequent DHEM suggests there are targets off-hole and require further assessment.</li> <li>From our understanding of the Geophysics, drilling was designed to intersect EM targets as close to perpendicular as practical. No clear EM related geology was intersected at Yathella, at Mundarlo sulphide was intersected at the approximate depth of a modelled EM plate</li> </ul>
Diagrams	• Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	
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.	
<i>Other substantive exploration data</i>	<ul> <li>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</li> </ul>	<ul> <li>Previously reported activities Refer to ASX announcements on <u>www.helix.net.au</u> for details</li> </ul>

Criteria	JORC Code explanation	Commentary
	characteristics; potential deleterious or contaminating substances.	
Further work	• The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).	<ul> <li>Additional assessments are underway at both Prospects with planning of additional drilling expected to follow, to further assess the potential for base metal systems.</li> </ul>
	• Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	