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ASX Announcement

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## PHOENIX COPPER TO DRILL NEW MASSIVE SULPHIDE TARGET AT JOPLIN

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### Highlights:

- **Review of 2011 geophysical data at Joplin shows a near surface coincident conductive and magnetic body similar in intensity and appearance to the response from the Iron Blow and Mt Bonnie deposits less than 3km away**
  - **Recently completed ground geochemical survey using fpXRF highlights discrete zone of base metal anomalism further enhancing the Joplin target**
  - **Drilling is planned to commence once statutory approvals are in place**
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Phoenix Copper Limited (ASX: PNX) is pleased to report that a recent review and re-modelling of 2011 geophysical data at the Joplin prospect has identified a coincident conductive and magnetic body. The Joplin prospect has a similar geophysical signature and dimensions to the Iron Blow and Mt Bonnie deposits (Figure 1). The priority to drill test Joplin has been elevated due to recent geological mapping and a field portable XRF (fpXRF) soil survey over the prospect that defined a coincident discrete zone of base metal anomalism, with a strong Zn-Cu-As metal association (Figure 2).

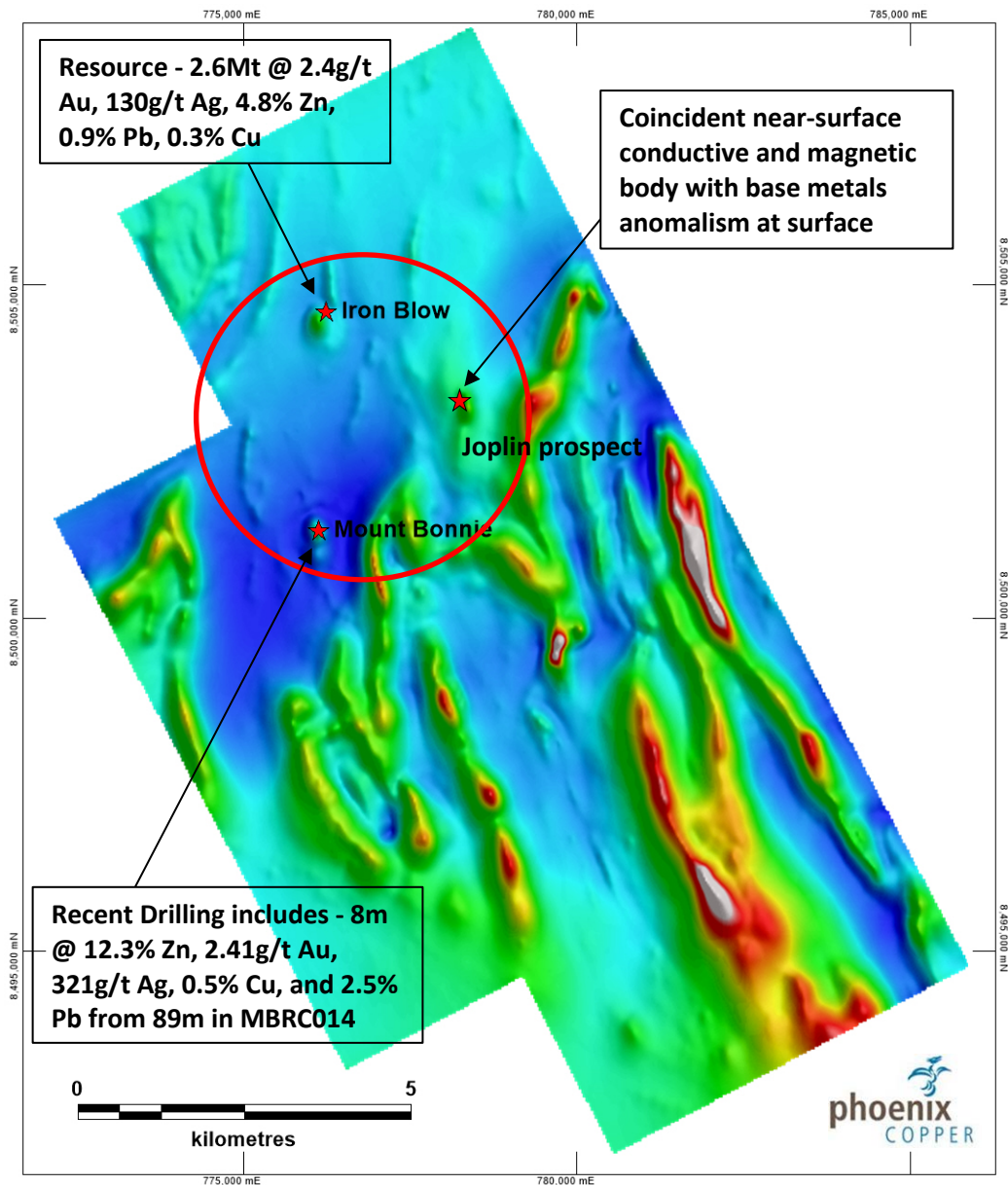
The coincidence of geochemical and geophysical anomalism combined with gossanous quartz veining at surface and the close proximity to existing VMS deposits at Iron Blow and Mt Bonnie provides excellent evidence for a new mineralised system. The Joplin target is considered highly prospective and will be drill tested once statutory approvals have been received.

### About Joplin

The Joplin prospect (Figure 1) is located less than 3km to the south-east of Phoenix Copper's Zn-Au-Ag resource at Iron Blow and less than 3km to the north-east of the Mt Bonnie deposit where results from recent drilling have confirmed significant near-surface massive sulphide Zn-Au-Ag mineralisation.

At the surface, a gossanous quartz vein is partly exposed which may represent weathered sulphide mineralisation. In 2011, Crocodile Gold drilled one hole (MBEXD001) into the northern part of the conductive body below the gossanous quartz vein and intersected disseminated sulphides over a 63.8 metre interval from 29.3 metres, consistent with what is observed on the periphery of the Iron Blow and Mt Bonnie deposits.

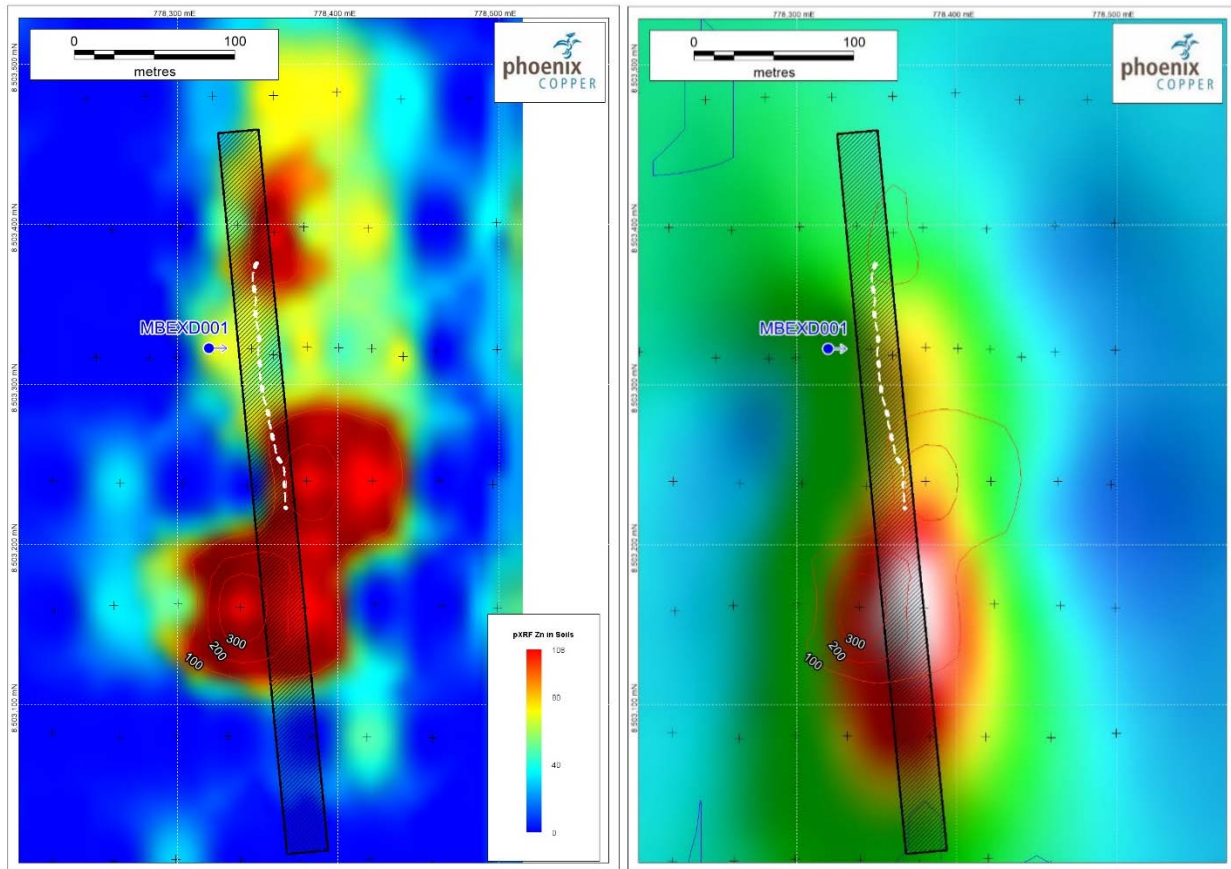
Phoenix Copper continues to field-evaluate new gold and base metal targets in and around the Hayes Creek area prioritised by the 2011 VTEM survey flown by Crocodile Gold. The Joplin prospect is the first of many targets under investigation.



**Figure 1:** Hayes Creek project showing existing VMS deposits at Iron Blow and Mt Bonnie, with new prospect at Joplin on reduced to pole (RTP) magnetics with EM line 70240, see Figure 3.

### Managing Director Comment

Managing Director of Phoenix Copper, James Fox said, “The Joplin prospect is a priority drill target that exhibits similar geophysical and geochemical signatures to existing VMS deposits at Iron Blow and Mt Bonnie. These styles of deposits typically occur in clusters and the geological environment at the Hayes Creek project is conducive to supporting a number of such deposits. Sourcing of additional economic resources at a third mining area would further enhance the economics of the Hayes Creek project. We look forward to commencing drilling at Joplin once statutory approvals have been granted, and will continue to field evaluate new gold and base metals targets in the area.”



**Figure 2:** Joplin Prospect - LHS: Zn in soil contour image, and RHS: Magnetics with Zn in soil contours, black rectangle is modelled conductor from the EM data, white dashed line represents mapped gossanous quartz vein.

### About the Hayes Creek Project

The Joplin prospect and the Iron Blow and Mt Bonnie deposits form part of Phoenix Copper's Hayes Creek Project within the Pine Creek region of the Northern Territory, 180km south of Darwin (Figure 3). The Iron Blow and Mt Bonnie deposits are situated on granted Mining Leases. The Joplin prospect is situated on EL25430 where Phoenix Copper is earning-in to up to a 90% interest in 21 Exploration Licenses and 4 Mining Leases covering 1,700km<sup>2</sup> from Crocodile Gold Australia, see ASX release 18 August 2014 for full details. The Joplin prospect and Iron Blow and Mt Bonnie deposits are located close to infrastructure that includes rail, road, high voltage power lines and water.

The Iron Blow deposit was upgraded to a JORC (2012) compliant inferred mineral resource estimate by Phoenix Copper in late 2014 (Table 1), and contains approximately 200,000oz of gold, 10.7M oz of silver and 125,000t of zinc at potentially mineable grades (ASX release 3 November 2014).

An initial drill program was recently completed at Mt Bonnie and was successful in delineating near-surface massive sulphide mineralisation containing high grades of Zn-Au-Ag. Further drilling is being planned.

Phoenix Copper will continue to test exploration targets with VMS and gold potential in close proximity to Iron Blow and Mt Bonnie. Target stratigraphy can be traced on the surface for at least 10km with numerous additional areas identified within the broader Burnside project to be followed up. A regional exploration program is ongoing to map and sample the prospective horizon, and to ground truth new prospective areas.

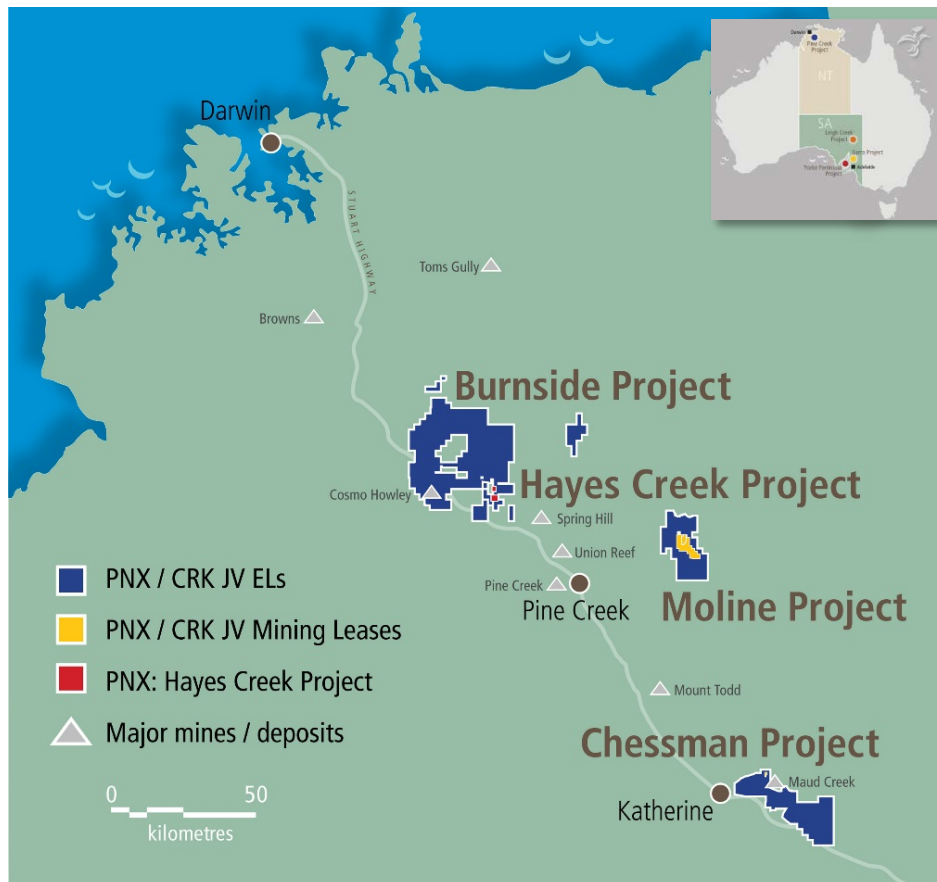
During 2015 the Company aims to define sufficient resources at the Hayes Creek project to provide inputs to complete a Scoping Study. If the resources are defined the Study, which would be completed

by the beginning of 2016, will be used to demonstrate the potential viability of the project and guide further drilling and other testing to allow a full feasibility study.

**Table 1: Iron Blow Inferred Mineral Resource Estimate as at 8th October 2014\***

Depth	AuEq cut-off (g/t)	Tonnes	AuEq (g/t)	Au (g/t)	Ag (g/t)	Cu (%)	Pb (%)	Zn (%)	ZnEq %
> -90 mRL	0.7	2.2Mt	6.7	2.4	140	0.3	1.0	4.9	11.8
< -90 mRL	3.0	0.4Mt	5.6	2.7	71	0.4	0.4	4.1	10.0
Total Inferred Mineral Resource		2.6Mt	6.5	2.4	130	0.3	0.9	4.8	11.5
Total Contained Metal			<b>543,000 oz</b>	203,000 oz	10,700,000 oz	7,000 t	23,000 t	125,000 t	<b>300,000 t</b>

\* See ASX release 3 November 2014 for details, ‘High Grade Mineral Resource Estimate for Iron Blow Deposit’, where further details are provided. All material assumptions and technical parameters underpinning the resource estimate announced on 3 November 2014 continue to apply and have not materially changed. Results of drilling by Phoenix Copper since October 2014 have not been included in the estimate but if they were, they would not likely have a material change on the October 2014 resource estimate.



**Figure 3: Hayes Creek Project and the Burnside, Moline and Chessman Exploration Projects**

**Competent Person’s Statement**

The information in this report that relates to Exploration Results is based on information compiled by Mr Andrew Bennett, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM). Mr Bennett has sufficient experience relevant to the style of mineralisation and the type of deposits under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the “Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves”. Mr Bennett consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

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# JORC Code, 2012 Edition – Table 1

## Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole 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>A hand held Niton field portable X-ray fluorescence (XL3T-500) analyser (fpXRF) was used to obtain soil analysis.</li> <li>Sampling was carried out under PNX protocols and QAQC procedures. Factory QC of the instrument was performed on 10/6/2015 and calibration tests were completed on an ongoing basis during survey.</li> <li>Samples were sieved in the field to provide a consistent 80 micron sampling media, approximately 200g of sample was collected in small sample sachets, with analyses performed on the outside bag. 147 locations were sampled at approximate 80 x 40m spacing over the target area.</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>No drilling was completed.</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 and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul style="list-style-type: none"> <li>No drilling was completed.</li> </ul>
Logging	<ul style="list-style-type: none"> <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> </ul>	<ul style="list-style-type: none"> <li>No drilling was completed.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <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>	
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>No drilling was completed.</li> <li>Samples were dry-sieved using a 200 mesh sieve to approximately 80 micron, with approximately 200g retained for analysis.</li> <li>80 micron is an appropriate size for exploration soil fpXRF analysis.</li> <li>None adopted.</li> <li>Standards, blanks and duplicate analyses indicated acceptable analytical accuracy.</li> <li>Samples were appropriately sized.</li> </ul>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul style="list-style-type: none"> <li>XRF is a total analytical technique suitable for base metal analyses. Anomalous soil concentrations are well above the lower detection limit of the instrument.</li> <li>Instrument used was a Niton XL3T-500. Reading time set at 50 seconds with measurements taken in soil mode. No calibration factors have been applied.</li> <li>QAQC data includes standards, blanks and duplicates introduced at start of program and after every 50 samples. Standards, blanks and duplicate analyses indicated acceptable analytical accuracy.</li> </ul>
Verification of sampling and assaying	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>No drilling was completed.</li> <li>No drilling was completed.</li> <li>Primary data was collected using fpXRF. Data was downloaded, validated by PNx geologist and compiled in MS EXCEL.</li> <li>No adjustments were made to data.</li> </ul>
Location of data points	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Sample location points are collected using a Trimble Juno 3D GPS with autonomous accuracy of +/- 5 meters.</li> <li>The Grid system used is MGA_GDA94, Zone 52.</li> <li>Topography has been mapped appropriately.</li> </ul>

Criteria	JORC Code explanation	Commentary
<i>Data spacing and distribution</i>	<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 degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i></li> <li>• <i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Measurements taken typically at 40 metre intervals on lines spaced at 80 metres.</li> <li>• Data spacing was deemed appropriate for the size of target.</li> <li>• No sample compositing has been applied.</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>• Sample lines oriented 090 degrees, perpendicular to interpreted strike of strata. Line and sample spacing are adequate to define sizable geochemical anomalies of any orientation with confidence.</li> <li>• No drilling was completed.</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>• Samples have been stored for reference or further testing at Brock's Creek secured compound.</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 audits or reviews undertaken at this time.</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>• This report refers to the area within EL 23540, which is held by Crocodile Gold Australia and being explored by Phoenix Copper as part of an earn-in to a Joint Venture. There are no third party agreements, no government royalties, historical sites or environmental issues Phoenix Copper is aware of at this time. A heritage survey over the area was completed in 2011, with no significant sites recorded. See PNX ASX release 18 August 2014 for full details of agreement between Phoenix Copper and Crocodile Gold Australia.</li> <li>• The exploration tenement EL 23540 is in good standing and no known impediments exist.</li> </ul>
<i>Exploration done by other</i>	<ul style="list-style-type: none"> <li>• <i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The Joplin prospect has been held by numerous previous explorers. Geopeko undertook exploration of the area in the 1970's but there is</li> </ul>

Criteria	JORC Code explanation	Commentary
<i>parties</i>		no data remaining from their field activities. Crocodile Gold Australia drilled one diamond hole in 2011 in the northern portion of the prospect, see diagram in main release for location.
<i>Geology</i>	<ul style="list-style-type: none"> <li>• <i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The Joplin target is a VMS-style base metal and gold prospect in the Pine Creek region, analogous to the nearby Iron Blow and Mt Bonnie deposits.</li> <li>• The geology at Joplin is mapped as Gerowie Tuff of the South Alligator Group, within the Pine Creek Orogen of the Northern Territory.</li> </ul>
<i>Drill hole Information</i>	<ul style="list-style-type: none"> <li>• <i>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:</i> <ul style="list-style-type: none"> <li>○ <i>easting and northing of the drill hole collar</i></li> <li>○ <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li> <li>○ <i>dip and azimuth of the hole</i></li> <li>○ <i>down hole length and interception depth</i></li> <li>○ <i>hole length.</i></li> </ul> </li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• No drilling been undertaken by Phoenix Copper Limited.</li> </ul>
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>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.</i></li> <li>• <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<ul style="list-style-type: none"> <li>• No averaging techniques or cut-offs used.</li> </ul>
<i>Relationship between mineralisation widths and intercept</i>	<ul style="list-style-type: none"> <li>• <i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li>• <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li>• <i>If it is not known and only the down hole lengths are reported, there</i></li> </ul>	<ul style="list-style-type: none"> <li>• No drilling was undertaken.</li> </ul>



Criteria	JORC Code explanation	Commentary
<i>lengths</i>	<i>should be a clear statement to this effect (e.g. 'down hole length, true width not known').</i>	
<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 main announcement for relevant diagrams.</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>All matters of importance have been included.</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>All relevant information has been included, geophysical modelling was undertaken independently by BlueMarbleX using Versatile Time Domain Electromagnetic data acquired by Crocodile Gold in 2011, and surface Fixed Loop Electromagnetic Data acquired by Phoenix Copper in 2015.</li> </ul>
<i>Further work</i>	<ul style="list-style-type: none"> <li><i>The nature and scale of planned further work (e.g. 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>The likely method of follow up to these results will be Diamond drilling at selected points into the geophysical and geochemical targets. Should this discover significant mineralisation, follow up infill drilling, possibly with Reverse Circulation may be appropriate.</li> </ul>