



12 February 2014

## Strong SP Anomaly Associated with Known Porphyry

### HIGHLIGHTS

- **Strong Spontaneous Potential (“SP”) anomaly coincides with Chanape porphyry**
- **SP anomaly centred north of porphyry discovery hole CH-DDH001**

On 10 February 2014 Inca Minerals Limited (“Inca” or the “Company”) announced the completion of its third deep hole (CH-DDH011) at Chanape. CH-DDH011 intersected an **open-ended** pyrite-chalcopyrite bearing porphyry sequence of more than 450m (down-hole width). Importantly, CH-DDH011 has the widest intersection of mineralised porphyry and the most visible chalcopyrite (copper mineral) to date. Assay results are pending at the time of writing.

CH-DDH011 is positioned south south-east of the porphyry discovery hole (CH-DDH001) and south-east of the Company’s second deep hole (CH-DDH008) (Figure 1). CH-DDH001, CH-DDH008 and CH-DDH011 have all intercepted open-ended mineralised porphyry.

Data from these holes provide the Company with a means to construct a 3-dimensional outline of this rapidly unfolding porphyry and a means to determine the size potential of this porphyry system. The horizontal distance of the porphyry intersections between CH-DDH001 and CH-DDH008 is  $\pm 390\text{m}$ , between CH-DDH008 and CH-DDH011 it is  $\pm 410\text{m}$ , and between CH-DDH001 and CH-DDH011 it is  $\pm 210\text{m}$  (a four-sided shape with a projected area of approximately  $67,300\text{m}^2$  or  $6.7\text{ha}$ ) (shaded yellow - Figure 1).

Of clear significance for the Company’s future drill targets is that the porphyry shape emerging from this data appears to coincide with the southern part of a large SP Anomaly (SP Anomaly A) (Figure 1). From Figure 1, it is apparent that both CH-DDH008 and CH-DH011 were collared outside the SP anomaly and drilled into it at depth.

The porphyry intersections in 3-dimensions present a porphyry system with upper contacts rising to the north. This is entirely consistent with the style and nature of sulphides, alteration patterns of the porphyry (as seen in the three deep holes) and the shape and extent of SP Anomaly A.

SP Anomaly A is a large anomaly with dimensions of approximately  $1,000\text{m} \times 1,000\text{m}$ . In addition, it has a maximum millivolt low of  $-560\text{mV}$ , which is considered a relatively high value indicative of a strong anomaly<sup>1</sup>. A strong anomaly of  $-500\text{mV}$  covers the billion tonne Lone Star porphyry deposit in Arizona (grade of  $0.58\% \text{Cu}$ ). A multi-centred SP anomaly of  $-200\text{mV}$  covers the five billion tonne Pebble porphyry deposit in Alaska (at  $0.42\% \text{Cu}$ ,  $0.35\text{g/t Au}$ ,  $200\text{ppm Mo}$ ).

<sup>1</sup> Strong SP [negative] anomalies are typically associated with chemical reactions at the water table within sulphide mineralisation that produce essentially a battery-like effect (Thoman et al, 2000).

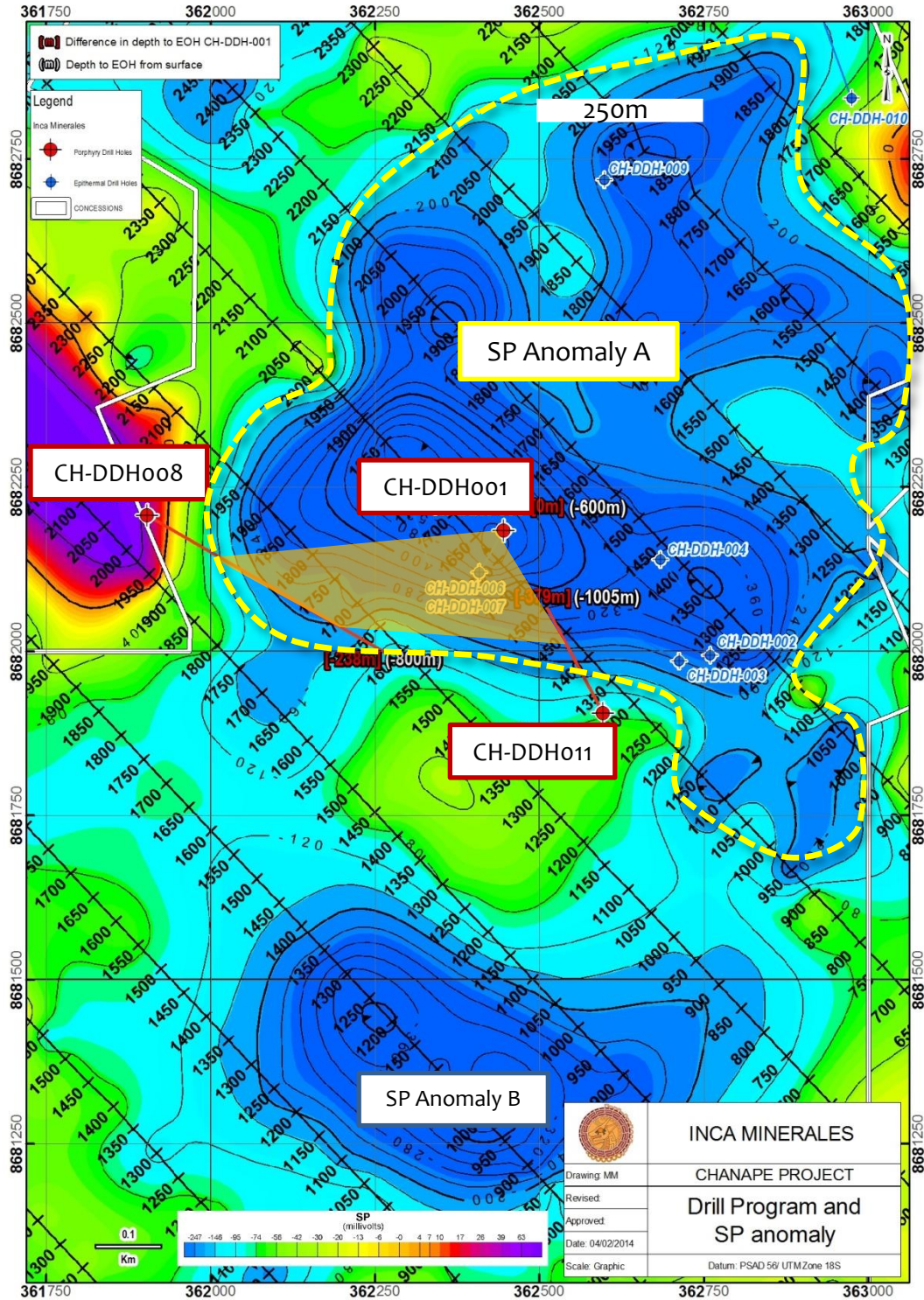


Figure 1: Plan showing the position of the three deep holes CH-DDH001, CH-DDH008, CH-DDH011 (red), as well as the current shallow holes (white) in relation to the SP Anomaly A (anomaly area defined by blue shading). SP Anomaly B is also shown.

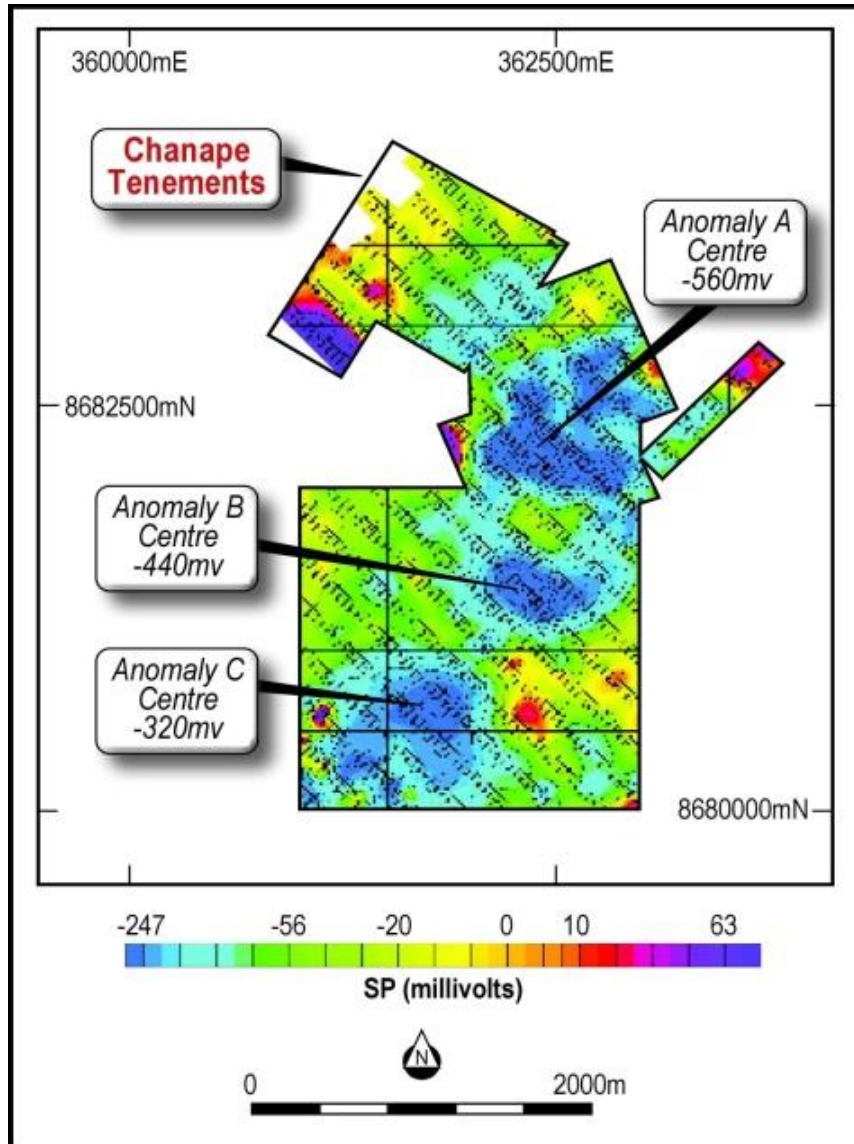


Figure 2: The SP Anomaly A is the northern most of three anomalies occurring within a broad SP anomaly (shaded in pale blue). The boarder SP has a contiguous extent of approximately 2.5km x 1km.

### Significance of Results

In terrains where metal sulphides are well preserved, as is the case at Chanape, SP anomalies may reflect metal sulphides content. Absolute values (given in millivolts) depend on depth to and percentage of sulphide. Images such as that presented in Figures 1 and 2 reflect relative SP values.

The size and magnitude of SP Anomaly A is significant. The anomaly is approximately 1km<sup>2</sup> in area. The anomaly peak value of -560mV (to -600mV) is of significant magnitude (as seen at other porphyry deposits). These parameters, plus its close spatial association with known porphyry mineralisation makes the SP anomaly a very strong target. Nevertheless, while the known porphyry and SP anomaly appear coincident, the Company remains committed to using all tools at its disposal (including *inter alia* hydrothermal mapping, geochemistry) to test current and future targets occurring at Chanape.



It is important to note that there are two additional SP anomalies (SP Anomaly B and SP Anomaly C) occurring in the southern part of project. Both anomalies are similar in magnitude and size to SP Anomaly A and have the same potential as representing hidden porphyry mineralisation as SP Anomaly A. Their existence may indicate either a deep and significant extension of the known porphyry to the south and south west, or to the possibility of additional porphyries in this part of the project area.

As well as designing follow-up drilling to determine the size of the known porphyry, the Company plans to now include closer examination of SP Anomalies B and C to determine the possible existence of two additional porphyry centres within the project area.

\*\*\*\*\*

Ross Brown  
Managing Director

Office: +61 (0)8 6145 0300

Email address: [info@incaminerals.com.au](mailto:info@incaminerals.com.au)

### Competent Person Statement

The information in this report that relates to gold, copper, silver, zinc epithermal and porphyry style mineralisation for the Chanape Project, located in Peru, is based on information compiled by Mr Ross Brown BSc (Hons), MAusIMM, SEG, MAICD Managing Director, Inca Minerals Limited, who is a Member of the Australian Institute of Mining and Metallurgy. He has sufficient experience, which is relevant to the style of mineralisation and types of deposits under consideration, and to the activity which has been undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the “Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves”. Mr Brown is a full time employee of Inca Minerals Limited and consents to the report being issued in the form and context in which it appears.

Some of the information in this report may relate to previously released gold, copper, silver, zinc epithermal and porphyry style mineralisation for the Chanape Project, located in Peru, and subsequently prepared and first disclosed under the JORC Code 2004. It has not been updated to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported, and is based on the information compiled by Mr Ross Brown BSc (Hons), MAusIMM, SEG, MAICD Managing Director, Inca Minerals Limited, who is a Member of the Australian Institute of Mining and Metallurgy. He has sufficient experience, which is relevant to the style of mineralisation and types of deposits under consideration, and to the activity which has been undertaken, to qualify as a Competent Person as defined in the 2004 Edition of the “Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves”. Mr Brown is a full time employee of Inca Minerals Limited and consents to the report being issued in the form and context in which it appears.

**Table 1: Drill Hole Parameters**

Hole Number	Coordinates			Height above sea level	Azimuth	Dip	Total Depth
	Easting	Northing	DATUM				
CH-DDH001	362447mE	8682191mN	PSAD56	4,637m	N/A	Vertical	600m
CH-DDH008	361903mE	8682207mN	PSAD56	4,397m	120°	50°	729m
CH-DDH011	362596mE	8681906mN	PSAD56	4,693m	332°	80°	1,049m



**Appendix**

The following information is provided to comply with the JORC Code (2012) requirements for the reporting of the above diamond drilling results in relation to geophysics on the mining concessions known as San Antonio 2 de Chanape , San Antonio 4 and Chanape (located in Peru).

**Section 1 Sampling Techniques and Data**

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
<b>Sampling techniques</b>	<i>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or hand-held XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</i>	No sampling or sampling data is referred to in this announcement. For the sake of clarity, this announcement refers to lithological results of three diamond drill holes in relation to a previously released geophysical result.
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	No sampling or sampling data is referred to in this announcement.
	<i>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where ‘industry standard’ work has been done this would be relatively simple (e.g. ‘reverse circulation drilling was used to obtain 1m samples from which 3 kg was pulverised to produce a 30g charge for fire assay’). In other cases more explanation may be required, such as where there is a coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</i>	No sampling or sampling data is referred to in this announcement.
<b>Drilling techniques</b>	<i>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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.).</i>	No drill sampling or sampling data is referred to in this announcement.
<b>Drill sample recovery</b>	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	No drill sampling or sampling data is referred to in this announcement.
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	No drill sampling or sampling data is referred to in this announcement.
	<i>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.</i>	No drill sampling or sampling data is referred to in this announcement.
<b>Logging</b>	<i>Whether core and chip samples have been geologically and geo-technically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i>	On-site geologist(s) log lithology, alteration, mineralisation on a shift basis. Core recoveries are noted.
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</i>	Core logging is both qualitative and quantitative. Core photos were taken.
	<i>The total length and percentage of the relevant intersections logged.</i>	100% of the core was logged.



CRITERIA	JORC CODE EXPLANATION	COMMENTARY
<b>Sub-sampling techniques and sample preparation</b>	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	No sampling or sampling data is referred to in this announcement.
	<i>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</i>	No sampling or sampling data is referred to in this announcement.
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	No sampling or sampling data is referred to in this announcement.
	<i>Quality control procedures adopted for all sub-sampling stages to maximise “representivity” of samples.</i>	No sampling or sampling data is referred to in this announcement.
	<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>	No sampling or sampling data is referred to in this announcement.
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	No sampling or sampling data is referred to in this announcement.
<b>Quality of assay data and laboratory tests</b>	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	No assay results were made part of this announcement.
	<i>For geophysical tools, spectrometers, hand-held XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i>	No assay results (assisted by geophysical tools, spectrometers, etc...) or otherwise, were made part of this announcement.
	<i>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i>	No assay results were made part of this announcement.
<b>Verification of sampling and assaying</b>	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	No assay results were made part of this announcement.
	<i>The use of twinned holes.</i>	This announcement refers to three drill holes – none were twinned.
	<i>Documentation of primary data, data entry procedures, date verification, data storage (physical and electronic) protocols.</i>	No assay results were made part of this announcement.
	<i>Discuss any adjustment to assay data.</i>	No adjustments were made.
<b>Location of data points</b>	<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>	Drill hole locations have been determined using a hand-held GPS.
	<i>Specification of the grid system used.</i>	PSAD56.
	<i>Quality and adequacy of topographic control.</i>	Topographic control is achieved via the use of government topographic maps, in association with GPS and Digital Terrain Maps (DTM’s), the latter generated during antecedent detailed geophysical surveys.



CRITERIA	JORC CODE EXPLANATION	COMMENTARY
<b>Data spacing and distribution</b>	<i>Data spacing for reporting of Exploration Results.</i>	No drill sampling or sampling data is referred to in this announcement.
	<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>	No drill sampling or sampling data is referred to in this announcement.
	<i>Whether sample compositing has been applied.</i>	No drill sampling or sampling data is referred to in this announcement.
<b>Orientation of data in relation to geological structure</b>	<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>	No drill sampling or sampling data is referred to in this announcement.
	<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>	No drill sampling or sampling data is referred to in this announcement.
<b>Sample security</b>	<i>The measures taken to ensure sample security.</i>	No drill sampling or sampling data is referred to in this announcement.
<b>Audits or reviews</b>	<i>The results of any audits or reviews of sampling techniques and data.</i>	No drill sampling or sampling data is referred to in this announcement.

**Section 2 Reporting of Exploration Results**

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
<b>Mineral tenement and land tenure status</b>	<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>	Tenement Type: Peruvian mining concession.  Name: Three concessions: San Antonio 2 De Chanape, San Antonio 4 and Chanape.  Ownership: The concessions are registered on INGEMMET (Peruvian Geological Survey) in the name of the Company. The Company has a 5-year mining assignment agreement whereby the Company may earn 100% outright ownership of the concessions.
	<i>The security of the land tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i>	With further reference to above, the mining assignment agreement is in good standing at the time of writing. The concessions are all in good standing.
<b>Exploration done by other parties</b>	<i>Acknowledgement and appraisal of exploration by other parties.</i>	The drill holes, cross referenced to geophysical anomalies in this announcement were carried out by Bramsa MDH – a drilling company that adheres to industry best practises. Geophysical modelling was carried out by Arse Geofisicos – a geophysical company that adheres to industry best practises.
<b>Geology</b>	<i>Deposit type, geological setting and style of mineralisation.</i>	The geological setting of the area subject to drilling (subsequently reported in this announcement) is that of Mesozoic



CRITERIA	JORC CODE EXPLANATION	COMMENTARY
		subduction zone, mountain-building terrain comprising of acidic and intermediate volcanics and intrusives. Porphyry intrusions and associated brecciation have widely affected the volcanic sequence, introducing epithermal, porphyry and possible porphyry-related mineralisation.
<b>Drill hole information</b>	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>	Refer to Table 1
	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.	Refer to Table 1
<b>Data aggregation methods</b>	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	Not applicable – no weighting averages nor maximum/minimum truncations were applied.
	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 shown in detail.	Not applicable – no weighting averages nor maximum/minimum truncations were applied.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	Not applicable – no equivalents were used.
<b>Relationship between mineralisation widths and intercept lengths</b>	<p>These relationships are particularly important in the reporting of Exploration Results.</p> <p>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</p> <p>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. ‘down hole length, true width not known’).</p>	Where ever mineralisation was reported in this announcement, clear reference to it being “down hole” width/thickness was made.
<b>Diagrams</b>	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not limited to a plan view of drill hole collar locations and appropriate sectional	2-D plans are provided to provide insight as to the reported geophysical anomalies in relation to porphyry mineralisation in drill holes. 2D terrain images with coordinates are provided to locate the holes subject of





CRITERIA	JORC CODE EXPLANATION	COMMENTARY
	<i>via ws.</i>	this announcement.
<b>Balanced reporting</b>	<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>	The Company believes the ASX announcement provides a balanced report on the geophysical anomalies and drill holes.
<b>Other substantive exploration data</b>	<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>	This announcement makes reference to results of CH-DDH001, CH-DDH008 and CH-DDH011 in relation to SP anomalies. Announcements pertaining to CH-DDH001 were made on the 29 Jan 2013, 06 Feb 2013 and 27 Feb 2013. Announcements pertaining to CH-DDH008 were made on the 13 Dec 2013 and 10 Jan 2014. Announcements pertaining to CH-DDH011 were made on the 13 Dec 2013 and 10 February 2014.
<b>Further work</b>	<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>	By nature of early phase exploration, further work is necessary to better understand the mineralisation systems that appear characteristic of this area.
	<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>	2D terrain plans were included in this ASX announcement to illustrate the position of drill holes and the relative position of it in relation to a Cu-Mo porphyry model.

\*\*\*\*\*