



**CASTILLO COPPER
LIMITED**

ASX Release

20 August 2018

**CASTILLO COPPER
LIMITED**
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Issued Capital:

580.1 million shares
84.5 million options

ASX Symbol:

CCZ

Shallow, highly mineralised massive sulphides intersected at Cangai

- **Strong start to the second drilling campaign as massive sulphides intersected with visible copper and zinc minerals; the best drill-hole results comprise:**
 - **CC0023R: 18m significant mineralisation intersected incl: 10m massive sulphides from 41m; and 2m massive sulphides from 56m**
 - **CC0022R: 18m significant mineralisation intersected incl: 1m massive sulphides from 92m; 4m semi-massive sulphides from 110m**
 - **CC0025R: 8m significant mineralisation intersected incl: 3m semi-massive sulphides from 90m**
- **The massive sulphide intersections have extensive visible chalcopyrite, sphalerite, pyrite and pyrrhotite present which is consistent with historic mine reports¹**
- **With only five (out of 39) drill-holes completed, the next targets are a known conductor and the western section of the line of lode, which should expand the mineralised footprint**
- **Down-hole electromagnetic (DHEM) team deploying to site to refine the drilling campaign's trajectory to determine extensions to newly discovered mineralisation**
- **Following the highly encouraging start and to expedite the campaign, a diamond drilling rig is being mobilised to perform critical follow up in-fill work along the line of lode**
- **The Board looks forward to informing shareholders on further progress with the drilling campaign and initial assay results, which are being fast-tracked by ALS in Brisbane**

Castillo Copper's Chairman Peter Meagher commented: *"This is an excellent start to our second drilling campaign. Hitting highly mineralised semi-massive and massive sulphides in multiple holes from 41m near the start of the drilling program is truly a game-changer, especially with 34 more drill-holes to complete. This early result firmly places our core strategic objective to re-open Cangai Copper Mine on track."*

Castillo Copper Limited's ("CCZ" or "the Company") Board is delighted to provide shareholders a progress report on the second drilling campaign at Cangai Copper Mine.

SIGNIFICANT MASSIVE SULPHIDE MINERALISATION INTERSECTED

The second drilling campaign, which commenced at the Volkhardts lode, has intersected significant sulphide mineralisation after completing only five drill-holes from relatively shallow depths – this is a significant milestone to achieve (Table 1). Notably, the standout drill-hole is CC0023R which intersected 10m massive sulphides from 41m and 2m massive sulphides from 56m.

The massive sulphides intersected in CC0023R have extensive visible chalcopyrite, sphalerite, pyrite and pyrrhotite present which is consistent with historic mine reports (Figure 1).¹

FIGURE 1: MASSIVE SULPHIDES FROM DRILL-HOLE CC0023R



Source: CCZ geology team

TABLE 1: SUMMARY OF KEY MINERALISED INTERCEPTS - DRILL-HOLES CC0021-25R

Drillhole	Intercept(m)	from(m)	to(m)	sulphide type	sulphide mineral percentage of rock	notes on sulphide
CC0021R	Void/Mined	31.5	33			
CC0022R	8	92	100	includes		Full width of mineralised interval:
	1	92	93	massive	10-15% Chalcopyrite, 10-15% Pyrite, 5-10% pyrrhotite	Massive sulphide
	4	110	114	semi-massive	5% Chalcopyrite, < 5% sphalerite, 5% Pyrite, 5% pyrrhotite	Semi-massive sulphide
CC0023R	18	40	58	includes		Full width of mineralised interval:
	10	41	51	massive	15-30% Chalcopyrite, <5% sphalerite, 10-20% Pyrite. 10-20% pyrrhotite	Massive sulphide
	2	56	58	massive	5-10% Chalcopyrite, <5% sphalerite, 10-15% pyrite, <5% pyrrhotite	Semi-massive to massive sulphide
CC0024R	Void/Mined	31	33			
CC0025R	8	86	94	includes		Full width of mineralised interval:
	3	90	93	semi-massive	5-10% Chalcopyrite, < 5% sphalerite, 5% Pyrite, 5% pyrrhotite	Semi-massive sulphide
	2	104	106	disseminated	<5% Chalcopyrite, <5% Pyrite, < 5% pyrrhotite	Coarse disseminated sulphides

Note: Disseminated sulphides > 5%-10% sulphides; semi-massive 10% - 30% sulphides; and massive over 30% sulphides

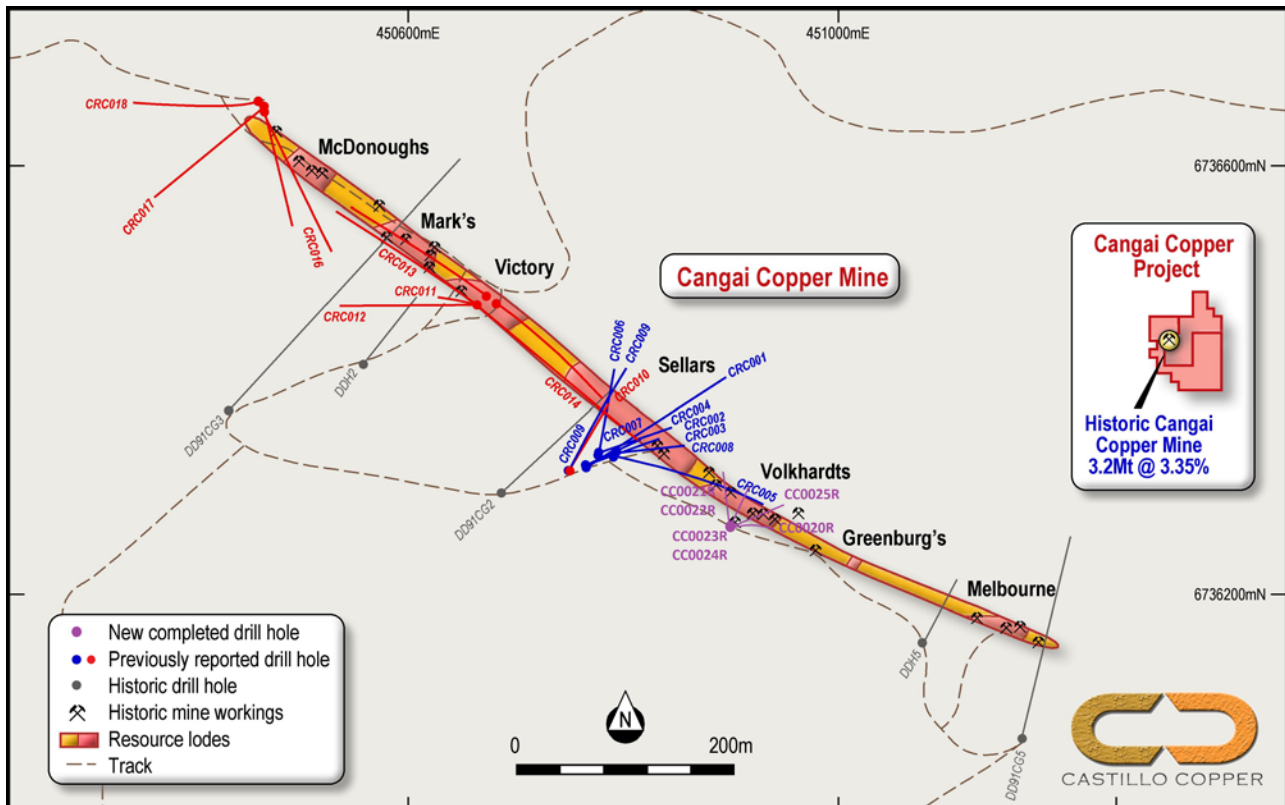
Source: CCZ geology team and refer to Appendix A for Collar table

EXPLORATION UPSIDE

A long way to go

So far, with only five drill-holes completed out of a pre-determined 39-hole drilling campaign (Figure 2), there is arguably significant incremental exploration upside and potential to expand the resource size as the program progresses. The geology team believe the newly found semi-massive and massive sulphides validate that there may be significant incremental mineralisation to be discovered as the drilling campaign progresses.

FIGURE 2: DRILL-HOLES COMPLETED ALONG THE LINE OF LODE



Source: CCZ geology team

To build momentum, and factoring in the encouraging results to date, the Board have agreed to the geology team's recommendation to ramp up the campaign and implement the following:

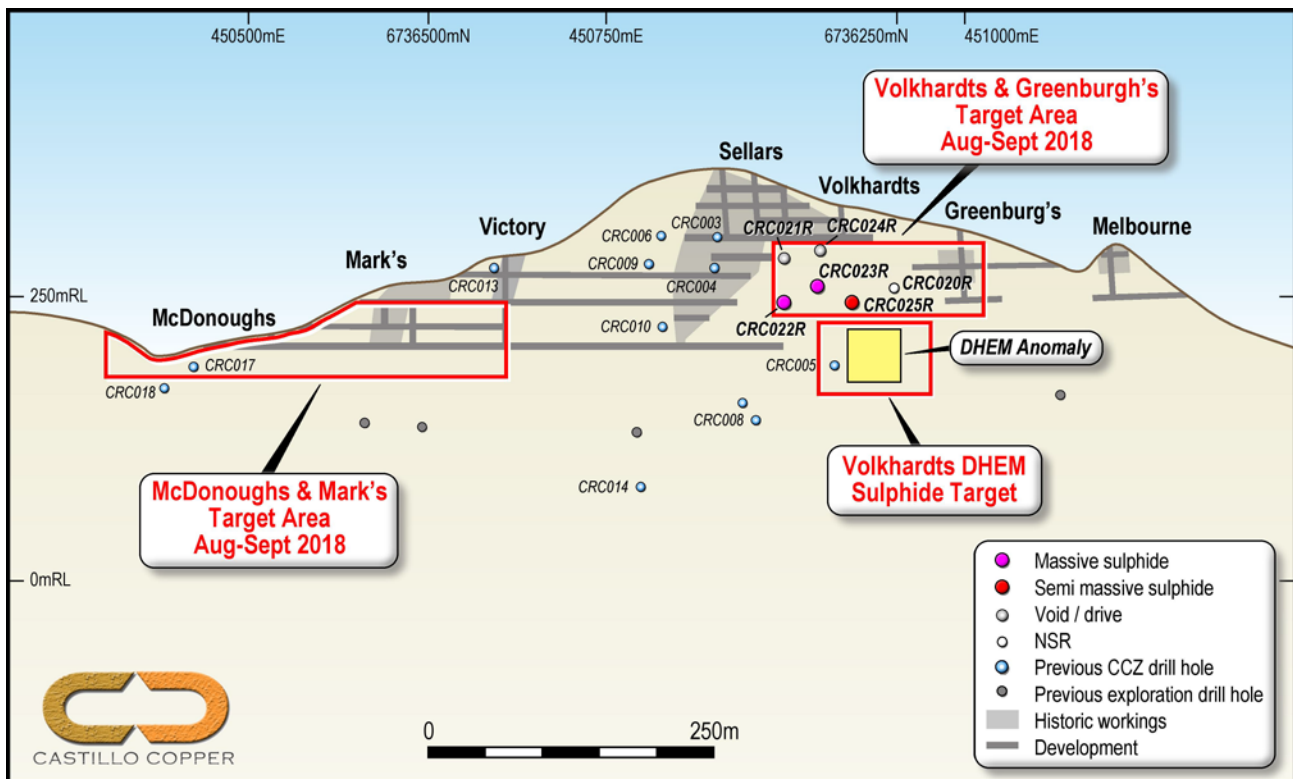
- Leveraging technology and to build in the flexibility to refine the drilling program's trajectory as results come to hand, a DHEM team are deploying to site. Notably, this will enable the geology team to determine potential extensions to newly discovered mineralisation more efficiently.
- A diamond drill rig is to be mobilised to site to undertake critical infill work along the line of lode and aid expediting the drilling campaign. Note, some time was lost commencing the program due to unforeseen mechanical problems with the RC-drill rig.

Prospective target areas

As shown in Figure 3, the next focus area is on the DHEM anomaly previously identified, which is relatively close to where the semi-massive and massive sulphides were intersected. Once this phase of the campaign is complete, the drill rigs will be moved to the western end of the line of lode.

Due to the campaign being 39 drill-holes, the geology team have some flexibility within the current approved program to make refinements if the DHEM team uncover significant new findings.

FIGURE 3: LONG SECTION OF LINE OF LODE AT CANGAI COPPER MINE



Source: CCZ geology team

Next steps

Progress drilling campaign to next stage and await initial assay results from the first five drill-holes.

For and on behalf of Castillo Copper

Alan Armstrong

Executive Director

PHOTO GALLERY – DRILLING TEAM WORKING AT CANGAI COPPER MINE



Source: CCZ geology team at the Volkhardt's Level F adit Drill Site, Cangai Copper Mine in NSW

References

- 1) CCZ ASX Release 6 September 2017

COMPETENT PERSON STATEMENT

The information in this report that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Peter Smith, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy. Peter Smith is employed by Castillo Copper Pty Ltd. Peter Smith has sufficient experience that is relevant to the style of mineralisation and type of deposit 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'. Peter Smith consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. The Australian Securities Exchange has not reviewed and does not accept responsibility for the accuracy or adequacy of this release.

ABOUT CASTILLO COPPER

Castillo Copper Limited (ASX: CCZ) is an ASX-listed base metal explorer that's flagship project is the historic Cangai Copper Mine near Grafton in northeast NSW. The project comprises a volcanogenic massive sulphide ore deposit, with one of Australia's highest grade JORC compliant Inferred Resources for copper: 3.2Mt @ 3.35% (6 September 2017). In terms of contained metal, the Inferred Resource is 107,600t Cu, 11,900t Zn, 2.1Moz Ag and 82,900 Moz Au. A notable positive is the presence of supergene ore with up to 35% copper and 10% zinc which is ideal feedstock for direct shipping ore. Incrementally, the project holds five historic stock piles of high-grade ore located near Cangai Copper Mine.

In brief, CCZ's Australian assets are 100% owned and comprise four tenure groups detailed briefly as follows:

- **NSW assets:** Consists of two projects: 1) Jackaderry, which includes Cangai Copper Mine, is in an area highly prospective for copper-cobalt-zinc and made up of three tenements; and, 2) Broken Hill which consists of two contiguous tenements prospective for cobalt-zinc that are located within a 20km radius of Broken Hill and just north of Cobalt Blue's ground (ASX: COB).
- **Queensland assets:** Comprises two projects: 1) Mt Oxide made up of four prospects (three are contiguous) in the Mt Isa region, northwest Queensland, and are well known for copper-cobalt systems; and, 2) Marlborough which includes three prospects located north-west of Gladstone (adjacent to Queensland Nickel mining leases) in an area with proven high-grade cobalt-nickel systems.

Finally, CCZ' holds six exploration concessions in Chile.

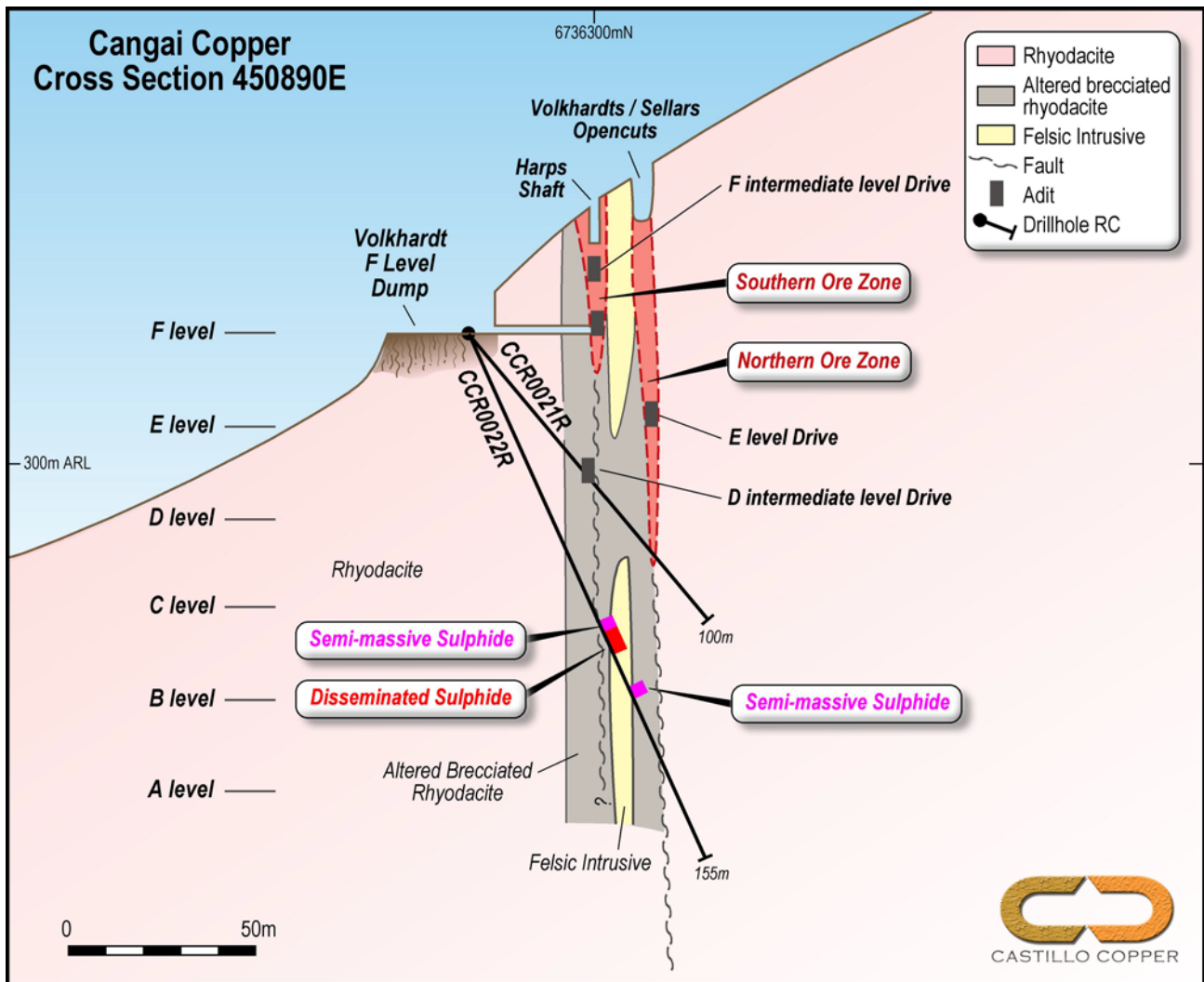
APPENDIX A: COLLAR TABLE AND VOLKHARDTS LODGE CROSS SECTION

TABLE 1: COLLAR TABLE FOR DRILL-HOLES CC0019-25R

HoleID	MGA Zone	AZI_GDA	Dip	Depth (m)	MGAEast	MGANorth	RL	Remarks
CC0019R	56	68	-65	36	450917	6736268	334	Hole abandoned rig problems
CC0020R	56	68	-65	155	450918	6736269	334	Hole deviated and abandoned
CC0021R	56	340	-50	102	450912	6736268	334	Workings 31.5-33m
CC0022R	56	340	-65	145	450912	6736268	334	
CC0023R	56	0	-65	121	450913	6736267	334	
CC0024R	56	0	-50	84	450913	6736267	334	Workings 30.8-33.3m
CC0025R	56	25	-60	115	450914	6736266	334	

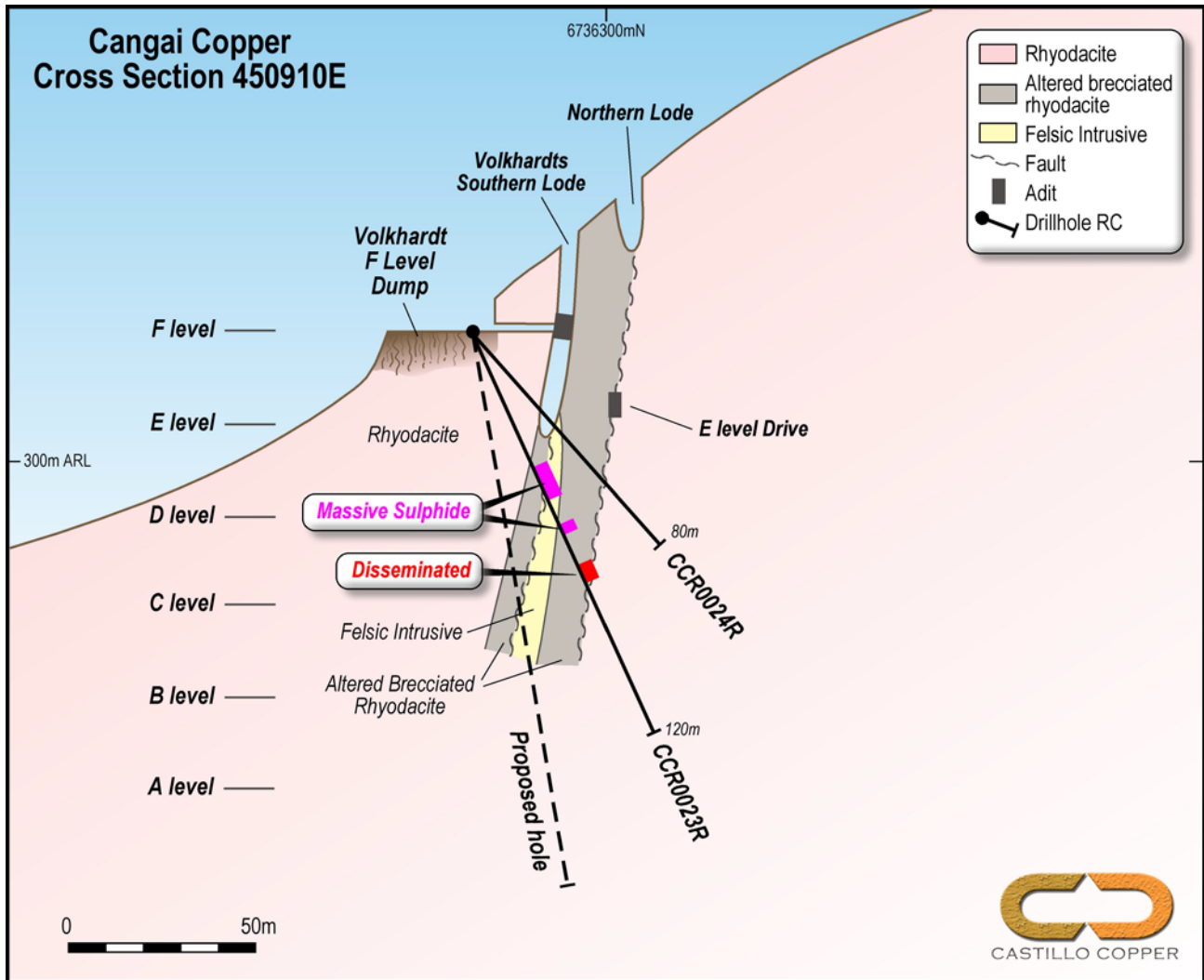
Source: CCZ geology team

FIGURE A1: CROSS SECTION DRILL-HOLES 21-22R



Source: CCZ geology team

FIGURE A2: CROSS SECTION DRILL-HOLES 23-24R



Source: CCZ geology team


APPENDIX B: JORC CODE, 2012 EDITION – TABLE 1: CANGAI DRILLING PROGRAM


Section 1 Sampling Techniques and Data (Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
<p>Sampling techniques</p>	<ul style="list-style-type: none"> • <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 handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</i> • <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i> • <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i> <p><i>In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30-g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</i></p>	<p>Samples from the Cangai drilling program were collected using the reverse circulation method of drilling on a 1 metre basis. Initially 20-25kg of chips and dust was collected and riffled down to a 1-2kg sample for further lab analysis.</p> <p>All samples are delivered for to ALS Laboratory in Orange NSW where the lab undertakes the splitting and compositing of the 5m composite samples and undertakes multi-element analysis on the 1m and 5m composite samples.</p> <p>The 1m samples were also sent to ALS Brisbane for a suite of major oxide and trace element determinations as described in later sections.</p> <p>The drilling program completed to date is shown in the Appendices within the report.</p>
<p>Drilling techniques</p>	<ul style="list-style-type: none"> • <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> 	<p>Drilling was provided by Budd Drilling using a modified track-mounted UDH RC rig as illustrated below:</p>

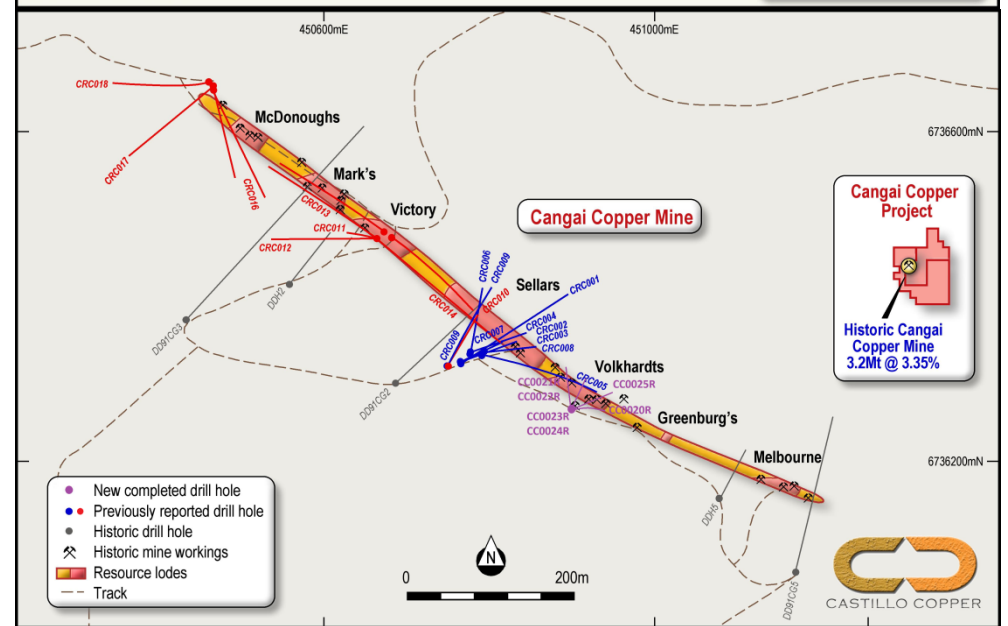
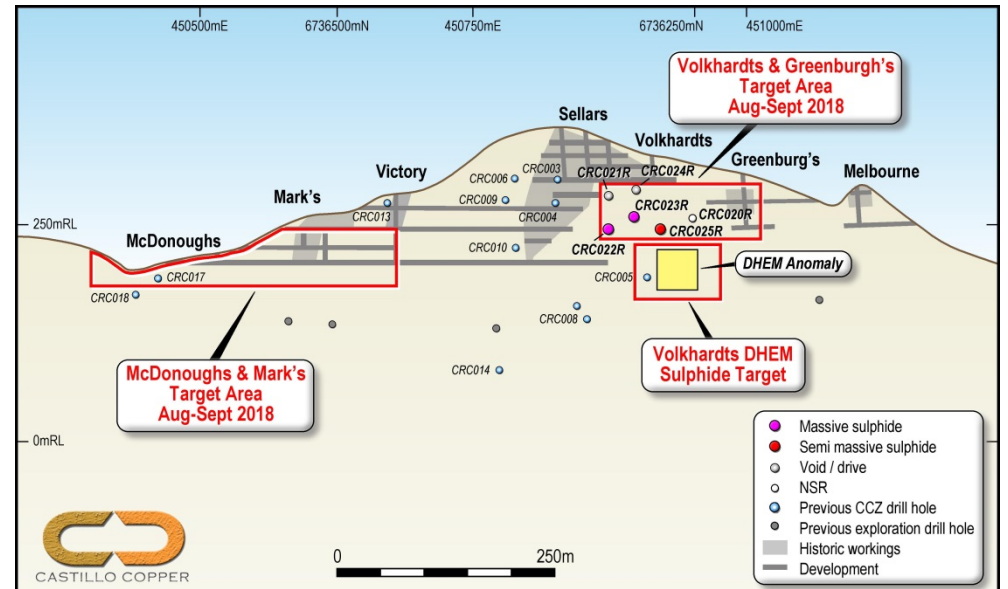
Figure A1-1 Budd Drilling at Cangai



		<p>Figure A1-1 Budd Drilling at Cangai</p> 
<p>Drill sample recovery</p>	<p><i>Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. 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></p>	<p>Sample recovery was generally 90-100% for each metre except when mining cavities (workings >5m wide) were intersected.</p>
<p>Logging</p>	<p><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. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</i></p> <ul style="list-style-type: none"> <i>•The total length and percentage of the relevant intersections logged</i> 	<p>All drilling has been completed to high modern-day standard by a competent field teams & drill crew.</p> <p>Logging of the lithology has been to coded sheets for data entry into Excel and added to the geology database. Plastic chip trays were used to store sample on 1m intervals for future reference as illustrated below:</p> <p>Budd Drilling has provided a single shot tool for hole deviation. Readings are taken every 30m downhole. Hole deviations are in-line with expectations and follow the trend of the geological features.</p>

		<p>Figure A1-2 1M Sample chips preserved in plastic sample trays</p>  <p>CRC013 was planned as a vertical hole but deviated to the southwest.</p>
<p>Subsampling techniques and sample preparation</p>	<p><i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></p> <p><i>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></p> <p><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. Whether sample sizes are appropriate to the grain size of the material being sampled.</i></p>	<p>RC sample are collected in 1m samples and riffle split in to calico bags at the rig. The samples are weighed details recorded. A pXRF unit is utilized to test the samples for mineralisation to determine which samples are tested as individual meters and which samples are to composited into 5m samples. Composite samples are being homogenised and riffle split at the labs prior to assaying.</p> <p>Industry acceptable standards and blanks were used as certified reference material to ensure satisfactory performance of the laboratory.</p>

<p>Quality of assay data and laboratory tests</p>	<p><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></p> <p><i>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.</i></p> <p><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></p>	<p>Multi-suite analysis methodology (MS-ME61) which involves a four-acid digestion, is being completed by ALS in Brisbane QLD, for the following elements ; Ag, As, Se, Ca, K, S, Ba, Sb, Sn, Cd, Pd, Zr, Sr, Rb, Pb, Hg, Zn, W, Cu, Ni, Co, V, Ti, Au, Ga, Ge, Li, La, Fe, Mn, Cr, Sc, Mo, Th, U, Ta.</p> <p>Samples containing >1,000ppm Cu are being tested for Au by fire assay method CU-OG62.</p>
<p>Verification of sampling and assaying</p>	<p><i>The verification of significant intersections by either independent or alternative company personnel.</i></p> <p><i>The use of twinned holes.</i></p> <p><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></p> <p><i>Discuss any adjustment to assay data.</i></p>	<p>Field reading of multi-elements are estimated using Olympus Vanta M Portable XRF analyser as conducted as in internal check prior to sending samples for laboratory analysis.</p> <p>Reading times using 2 beam Geochem Mode was employed via 30sec/beam for a total of 60 sec.</p> <p>All logging and sampling data is collected, and data entered into excel spread sheets.</p>
<p>Location of data points</p>	<p><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></p> <p><i>Specification of the grid system used.</i></p> <p><i>Quality and adequacy of topographic control.</i></p>	<p>Drill pads were initial located using an RTK differential GPS. Drill-holes collar locations have been picked using a Garmin handheld GPS to $\pm 3m$. At completion all drill hole will be accurately surveyed. Collars RLs are corrected and tagged to a recently completed Drone DTM topography model which has accuracies for AHD of $\pm 0.3m$.</p>
<p>Data spacing and distribution</p>	<ul style="list-style-type: none"> • <i>Data spacing for reporting of Exploration Results.</i> • <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> • <i>Whether sample compositing has been applied.</i> 	<p>Drill-holes CC0019R was abandoned after 30m due to Rig problems</p> <p>Drill-hole CC0020R deviated to much from the original plan and was abandoned at 155m</p> <p>All other drill-hole have been drilled from the same drill pad on the Mullock dump from the Volkhardts F level adit, in a fan fashion on 3 nominal sections.</p> <p>Other than field 5m composites the raw assay results returned from the labs have not been composited in the database (other than the 5m sample composites of non mineralised samples at the lab).</p>



Orientation of data in relation to geological structure

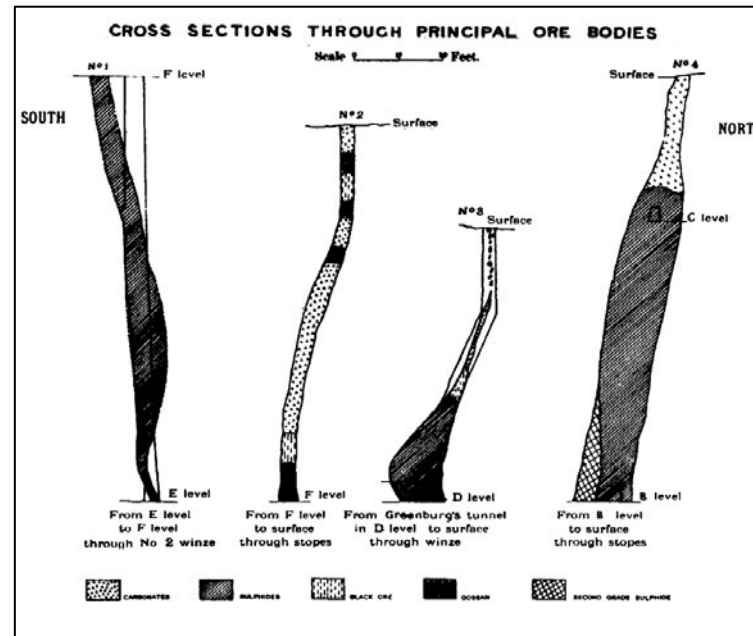
- Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.
- If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.

The drilling is planned to intersect workings and drill into data gaps between orebodies such that in general the intersections are where possible (due to restricted access) perpendicular to a strike of 126 degrees.

Additional surface bedding and foliation data, and that from some of the accessible underground mine adits was compiled from a UNSW Honours thesis (Brauhart 1991). Information is available from underground workings, open cut(s), shaft(s), adit(s), shallow pits and scrapings. The Lode sub-vertical to vertical, striking 126 degrees true north and pitching at 60 degrees to the west. The high-grade ore as mined, varies from 0.3m-3.9m wide

The known copper-gold mineralisation around Cangai strikes from 290-330 degrees, It should be noted that these orebody shapes were drawn at >13% Cu and the major orebody shapes are shown in Figure A1-5 below:

Figure A1-5: Orientation of Copper-Gold Mineralisation at the Cangai Mine



The modelled wireframes in this current resource have been enlarged to try to capture mineralisation down to 0.5% Cu.

Sample security	• <i>The measures taken to ensure sample security.</i>	Samples were bagged and have been delivered by Gnostic Exploration Staff to ALS Orange who on-freighted them to ALS Laboratories Brisbane.
Audits or reviews	• <i>The results of any audits or reviews of sampling techniques and data.</i>	No audits or reviews have yet been undertaken. This will commence once all assay results have been received.

Table A1-1: Cangai Copper Drilling Stage 2

HoleID	MGA Zone	AZI_Mag	AZI_GDA	Dip	Depth (m)	MGAEast	MGANorth	RL	notes
CC0019R	56		68	-65	36	450917	6736268	334	hole abandoned rig problems
CC0020R	56		68	-65	155	450918	6736269	334	hole deviated and abandoned
CC0021R	56		340	-50	102	450912	6736268	334	Workings 31.5-33m
CC0022R	56		340	-65	145	450912	6736268	334	
CC0023R	56		0	-65	121	450913	6736267	334	
CC0024R	56		0	-50	84	450913	6736267	334	Workings 30.8-33.3m
CC0025R	56		25	-60	115	450914	6736266	334	

Cangai Copper Drilling Stage 1 Intersection Summary (Table 1) based on visual logging estimates

Drillhole	Intercept	from	to	sulphide type *	sulphide mineral percentage of rock	notes on sulphide
CC0021R	Void/Mined	31.5	33			
CC0022R	8	92	100	includes		Full width of mineralised interval:
	1	92	93	massive	10-15% Chalcopyrite, 10-15% Pyrite, 5-10% pyrrhotite	Massive sulphide
	4	110	114	semi-massive	5% Chalcopyrite, < 5% sphalerite, 5% Pyrite, 5% pyrrhotite	Semi-massive shulphide
CC0023R	18	40	58	includes		Full width of mineralised interval:
	10	41	51	massive	15-30% Chalcopyrite, <5% sphalerite, 10-20% Pyrite, 10-20% pyrrhotite	Massive sulphide
	2	56	58	massive	5-10% Chalcopyrite, <5% sphalerite, 10-15% pyrite, <5% pyrrhotite	Semi-massive to massive sulphide
CC0024R	VOID/Mined	30.8	33.3			
CC0025R	8	86	94	includes		Full width of mineralised interval:
CC0025R	3	90	93	semi-massive	5-10% Chalcopyrite, < 5% sphalerite, 5% Pyrite, 5% pyrrhotite	Semi-massive sulphide
CC0025R	2	104	106	disseminated	<5% Chalcopyrite, <5% Pyrite, < 5% pyrrhotite	Coarse disseminated sulphides

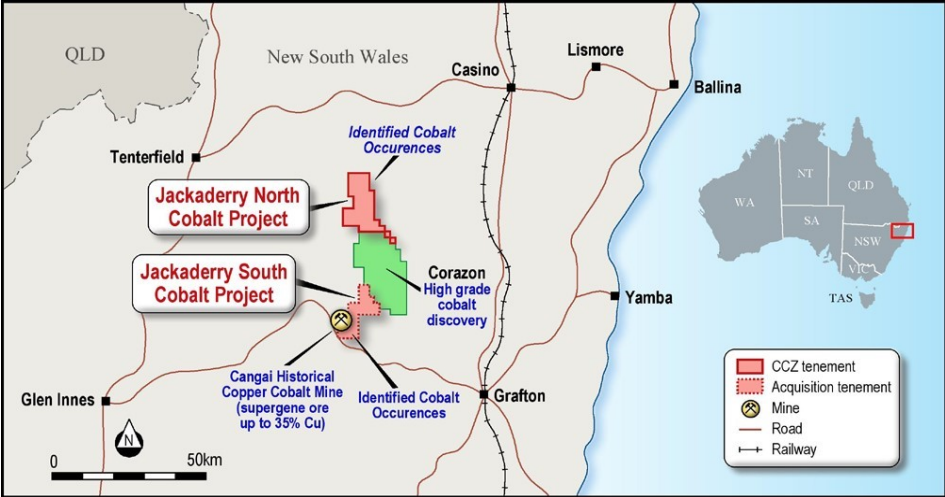
*** For visual sulphide estimates**

Disseminated sulphides > 5%-10% sulphides

Semi-Massive 10% - 30% sulphides

Massive over 30% sulphides

Section 2: Reporting of Exploration Results (Criteria listed in the preceding section also apply to this section)

Criteria	JORC Code explanation	Commentary
<p>Mineral tenement and land tenure status</p>	<ul style="list-style-type: none"> 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. 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. 	<p>Castillo Copper holds 100% of EL 8625 & EL 8635. The tenure has been granted for a period of thirty-six months until 17 July 2020, for Group 1 minerals. The location of the tenure is shown in Figure A2.1 below:</p> <p>Figure A2.1: Location of EL 8625 and EL8635 Jackaderry South</p>  <p>The current drilling has all been completed on EL 8625 and EL 8635 Jackaderry South only.</p>

<p>Exploration done by other parties</p>	<ul style="list-style-type: none"> • <i>Acknowledgment and appraisal of exploration by other parties.</i> 	<p>Some mining history and discovery information provided by North Broken Hill Ltd (1970) is as follows:</p> <div data-bbox="1128 256 2083 541" style="border: 1px solid black; padding: 5px;"> <p>Cangai The Cangai copper mine, located 10 km north west of Jackadgery, is one of the richest copper and gold mines in the region. This deposit was discovered in 1901 by J. Sellers and was subsequently mined by the Grafton Copper Mining Company Ltd from 1904 to 1917. A copper smelter was built and a substantial village with a sawmill developed. Recorded production is 5080 tonnes of copper, 52.7 kg of gold and 1035 kg of silver (Henley and Barnes 1992). The mine was unusual in that its discovery post-dated much of the initial mineral discoveries in New England. It had the distinction of paying its own way from ore produced from the mine and paid rich dividends to its shareholders as a result of the rich ore and the low production costs related to the self fluxing ore and that ore could be easily hauled downhill to the smelter. The mine prompted upgrades to roads and communications into the area.</p> </div> <p>Previous explorers (Brownlow, 1989; Abraham-Jones, 2012) have noted that a 'basement window' of exposed magmatic hydrothermal alteration and historical copper workings may represent the western and upper extent of a much larger hydrothermal system concealed under Mesozoic cover to the east, prospective for:</p> <ul style="list-style-type: none"> • Quartz-tourmaline-sulphide-cemented, magmatic-hydrothermal breccia hosted copper-gold-molybdenum-cobalt (Cu-Au-Mo-Co) deposit; • Concealed porphyry copper-gold-molybdenum-cobalt (Cu-Au-Mo-Co) ore body associated with quartz diorite to tonalitic porphyry apophyses proximal to the tourmaline-sulphide cemented breccia's; • Potential also exists for copper-gold (Cu-Au) skarn; <p>Considerable exploration has taken place in and around the Cangai Copper Mine (closed) by several large explorers such as Western Mining and CRA Exploration, the results of which are covered in the Local Geology section</p>
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<p>Geology</p>	<p><i>Deposit type, geological setting and style of mineralisation.</i></p>	<p>Regional Geology</p> <p>The underlying geology is contained within the Coffs Harbour Block, east of the Demon Fault. The major basement unit is the Silurian-Devonian Silverwood Group (locally the Willowie Creek Beds), a mixed sequence of tuffaceous mudstones, intermediate to basic igneous rocks, slates, and phyllites, a low stage of regional metamorphism. Overlying this rock formation is a younger tectonic melange of Early Carboniferous age – the Gundahl Complex of slates, phyllites and schist, with chert, greenstone and massive lithic greywackes. These rocks are intruded by the Early Permian Kaloe Granodiorite (tonalite), which also in turn is intruded by numerous later-stage mafic (lamprophyre) dykes. Local Geology</p> <p>The local geology is well understood as considerable exploration has taken place in and around the Cangai Copper Mine (closed) by several major explorers such as Western Mining and CRA Exploration, the results of which are covered in the section below. The mineralisation is controlled by the presence of shear zones within the country rock and persistent jointing. Chloritic alteration is pervasive, with the major minerals identified (Henley and Barnes 1990) as:</p> <ul style="list-style-type: none"> • Azurite major ore • Chalcocite major ore • Chalcopyrite major ore • Copper major ore • Malachite major ore • Pyrite major ore • Pyrrhotite major ore • Arsenopyrite minor ore • Sphalerite minor ore • Cuprite minor ore • Gold minor ore • Limonite minor ore • Chlorite major gangue • Calcite major gangue • Quartz major gangue • Sericite minor gangue
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Western Mining 1982-1984

Western Mining found that the recognition of substantial amounts of pyrrhotite in high grade ore collected from mine dumps led to the reappraisal of previous explorer's ground magnetics (Brown, 1984). Two soil anomalies were identified @ +60ppm Cu (max 1100ppm) and several strong linear magnetic anomalies (=250nT above background). Soil sampling and detailed ground inspections conducted over the linear magnetic high failed to identify any anomalous geochemistry or a possible source lithology. A 180m diamond drill hole was drilled to test the anomaly. Given the poor results of both the drilling and the follow-up stream sediment sampling, no further work was recommended. The decision was made to relinquish the licence in 1984. **CRA**

Exploration 1991-1992

CRA Exploration examined the geological form, setting and genesis of the mineralisation at the Cangai Copper Mine over several years. The work carried out consisted of geological mapping, collection of rock chip samples, and underground investigations at the mine site. Drill core from a CRA exploration program and mine dumps were also inspected. They concluded that the Cangai Copper Mine is hosted by sedimentary rocks of the Siluro-Devonian Willowie Creek Beds of tuffaceous mudstones, tuffaceous sandstones and conglomerates. Mineralisation appears to be associated with steeply plunging ore shoots in and adjacent to the main shear zone (Figure A2-2). Massive primary ore consists of chalcopyrite, pyrite and pyrrhotite with lesser sphalerite and minor arsenopyrite and galena. A detailed, well documented report was produced, but no reasons were given for the relinquishment of the licence.

Figure A2.2: Rock Chip Sampling at Cangai Copper Mine

Appendix 5 Ore Sample Assays

Similar dump samples to those collected by the author were submitted for analysis by CRA Exploration. Selected assays are presented below. Values are ppm unless otherwise stated.

	1	2	3	4	5	6
Cu	15.3%	28.6%	12.4%	14.8%	10.6%	11.0%
Pb	640	1200	1800	7550	800	2500
Zn	4.68%	1.27%	2.35%	9.50%	6400	5.10%
Ag	76	86	30	49	160	150
As	4750	1650	4850	3800	4750	7150
Mn	185	240	370	430	155	150
Au	1.80	2.50	0.72	2.30	1.32	1.85
Fe	30.9%	22.6%	28.2%	32.9%	33.8%	27.4%
S	27.5%	3.73%	16.6%	29.6%		
Co	70	25	300	330	370	300
V					<10	<10
Ba					<10	20
Ni					<5	<5
Bi					30	80
Cd					14	90

Sample description

- 1 Massive chalcopyrite-pyrite ore
- 2 Oxide material
- 3 Massive pyrite chalcopyrite rock with gangue clasts
- 4 Well banded pyrite-sphalerite ore
- 5 Weakly banded massive sulfide
- 6 Weakly banded massive sulfide

<p>Drill hole Information</p>	<p>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:</p> <ul style="list-style-type: none"> • easting and northing of the drill hole collar • elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar • dip and azimuth of the hole • down hole length and interception depth • hole length. <p>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</p>	<p>Drill hole collar summary table and intersection summary tables are included as an Appendices in the report and shown in table A1-1 above.</p> <p>Mineralised zones are identified by the field geologist and flagged as geological/mineralised zones as shown in Table A1-1.</p>
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<p>Data aggregation methods</p>	<p>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. 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. The assumptions used for any reporting of metal equivalent values should be clearly stated.</p>	<p>No top cuts have been applied to reporting of the Significant Intersections and lower cut of 0.5% (5,000ppm) Cu has generally been used. No more than 1m of lower internal dilution has been used in the calculations. Full detailed assay intervals for the key elements are included in the Appendices of this report</p> <p>Summary Intersections have been reported based on estimated sulphide content</p> <p>Minimum criteria = 0.5% Cu or 0.2% Zn or 2 g/t Ag if assays</p> <p>For visual sulphide estimates</p> <p><i>Disseminated sulphides > 5%-10% sulphides</i> <i>Semi-Massive 10% - 30% sulphides</i> <i>Massive over 30% sulphides</i></p>
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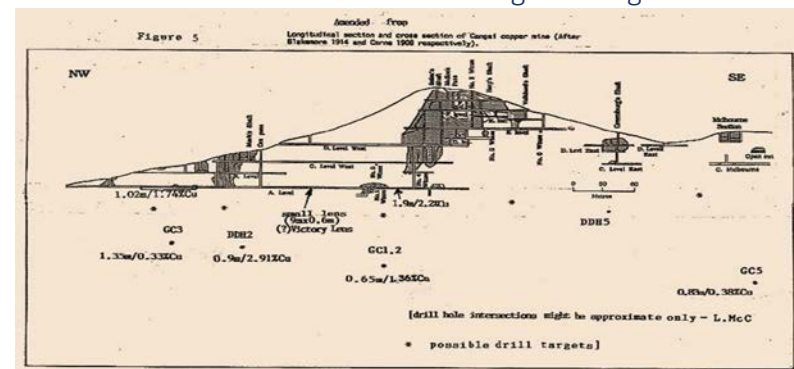
Relationship between mineralisation widths and intercept lengths

These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').

All intersections are reported as downhole widths. Once assays are returned and the geological controls are fully established, the 3D modelling package will determine true widths which will be reported in due course.

The Lode is currently modelled to be sub-vertical to vertical, striking 126 degrees and pitching at 60 degrees west. Varies from 0.3m-3.9m wide. The main mining was from Volkardts, Melbourne, Marks, Sellers & Greenbergs lens. The secondary supergene zone grades averaged 20-35% Cu. The sulphide zone decreased to 8-10% Cu at depth. The Lode was largest at structural intersections. Breccia was recorded at D level. The host rock is massive fine-grained intermediate volcanic, and bedding is difficult to define. The deposit is structurally controlled with lodes following or adjacent to the shear zone. A temperature of formation is suggested to be about 380 degrees centigrade (Brauhat 1991). The NSW Geological Survey has characterized Cangai as a metahydrothermal structurally-controlled deposit. Figure A2-3, below is a cross-section showing the four (4) main near vertical mineralised zones at the Cangai Mine.

Figure A2-3: NW to SE Cross-section of workings at Cangai Mine



Geo-registering was undertaken in June 2018, particularly the anomalous zones (which are in the process of being digitised off the 1908, 1912, and 1914 mine plans (Brauhat 1991), which become priority targets for geological mapping, ground magnetic and EM surveys.

Data has been extracted from a thorough UNSW Honours Thesis as referenced below: Brauhat, C. (1991). *The Geology & Mineralisation of the Cangai Copper Mine, Coffs Harbour Block Northeastern New South Wales*. CRAE Report No: 17739. University of NSW.

Diagrams	<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>	Appropriate diagrams have been included in the body text of the announcement.
Balanced reporting	<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 avoiding misleading reporting of Exploration Results.</i>	All drillholes completed to date have been reported.
Other substantive exploration data	<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>	Historical explorers have also conducted airborne and ground gravity, magnetic, EM, and resistivity surveys over parts of the tenure area but this is yet to be collated. A new EM Survey has been undertaken and has been previously reported (Multiple conductors discovered from FLEM survey, drill program to be expanded 8 January 2018 ASX Release).
Future Work	<i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). 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>	Castillo Copper is preparing for completing Phase 2 of drilling with 39 drill-holes submitted for regulatory approval by the NSW Dept Mines. Targeting the following locations Smelter Creek Copper Smelter Dumps Along strike and under the McDonoughs workings Proximal to Marks' workings Underneath Volkhardts' workings DHEM anomaly located along strike from CRC005