CASTILLO COPPER LIMITED

ASX Release

16 January 2018

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Issued Capital:
579.7 million shares
67.5 million options

ASX Symbol:
CCZ

Initial drilling & sampling intersects high-grade sulphide mineralisation at Cangai

- **The initial four drill-holes (436m RC-drilling completed) have intersected sulphide mineralisation, with pXRF readings >1% Cu, up to 4.5% Cu**
- **Samples from stockpiles near the main lode returned excellent pXRF readings of >10% Cu, up to 18% Cu, 7.9% Zn and 1,300ppm Co – these are now high priority targets for bulk sampling as they can be included in the JORC model and potentially suitable as a DSO product**
- **The geology team is delighted with progress, as the drilling program validates the current JORC modelled inferred resource – 3.2Mt @ 3.35% Cu; 20.2 g/t Ag; 0.80 g/t Au[1]**
- **The drilling program is in the process of being reoriented to factor in the five anomalies discovered post the recent FLEM survey[2] (those on-and-off the line of lode), which includes fast-tracking an application to the regulator to vary and expand on the current campaign immediately**
- **The conductors discovered in the FLEM survey will be a major focus as drilling continues, since there are similarities to Sandfire's (ASX: SFR) Degrussa project in WA, whereby high-grade supergene ore oxide material sits above larger volumes of highly-mineralised sulphides**
- **The Board will continue to update shareholders on the geology team's findings as the campaign progresses and assay results start to come into the mix**

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Castillo Copper's Executive Director Alan Armstrong commented:
"The Board is delighted with how the geology team is managing the current drilling campaign. In particular, it is pleasing to see excellent pXRF readings up to 4.5% copper at this early stage and confirmation the JORC modelled inferred resource has been validated. More pertinently, with drilling confirming mineralisation within the JORC modelled zone. When combined with stockpile samples of up to 18% copper and significant cobalt mineralisation, the project is developing ahead of expectations. As the program progresses there is significant potential for the resource size to increase materially once the drill rig begins testing between the lodes which is outside of the JORC resource. The Board will monitor progress closely over the balance of the campaign and report to shareholders as news comes to hand."

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Castillo Copper Limited's ("**CCZ**" or "**the Company**") Board is delighted with the initial drilling as it achieved several core objectives including: intersecting the existing high-grade lodes plus validating the existing high-grade JORC inferred resource. All mineralisation will be assayed by ALS Laboratories in NSW with results to be compiled and factored into the next update to the JORC resource, which the geology team is working towards materially increasing in size and categories once the drilling is completed.

[1] Refer ASX Release – 6 September 2017
[2] Refer ASX Announcement 8 January 2018

DRILLING PROGRAM CONTINUES AT CANGAI

Progress meeting geology team's expectations

The drilling program at Cangai Copper Mine continued after a short hiatus for the Christmas and New Year holiday period (Figure 1).

FIGURE 1: DRILLING TEAM IN ACTION AT CANGAI COPPER MINE

Source: CCZ geology team

Notably, the geology team on the ground is delighted with progress as all four completed drill-holes for a total of 436m RC-drilling (Table 1) have intersected sulphide mineralisation, which included pXRF readings of >1% copper and up to 4.5% copper (Appendix A).

Further, the team was able to confirm the veracity of the current JORC compliant inferred resource (3.2Mt @ 3.35% Cu; 20.2 g/t Ag; 0.80 g/t Au[1]) and the potential for significant resource size upside by drill testing in between the lodes.

Table 1: Cangai Drill-holes Completed to 12 January 2018

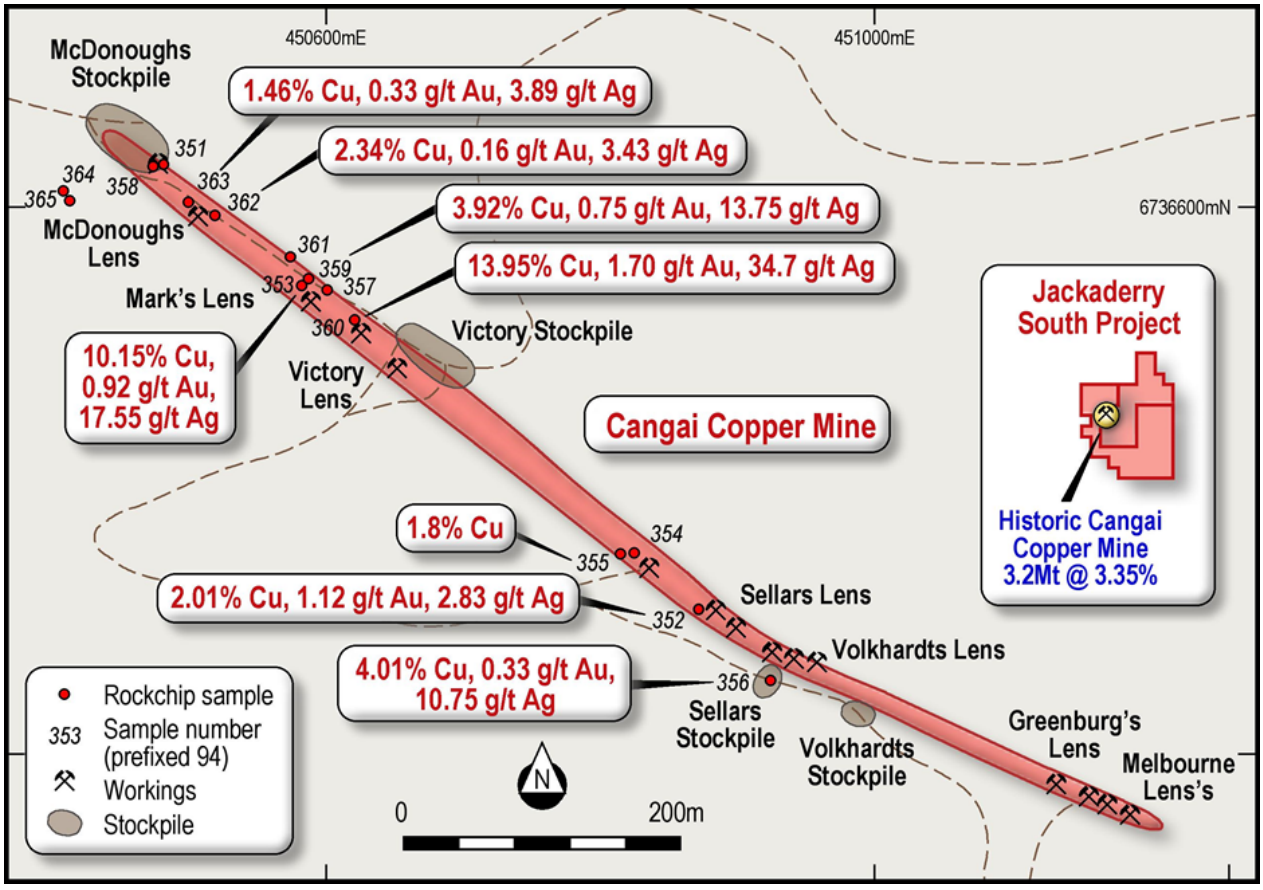
Hole ID	Easting	Northing	AHD	Total Depth	Azimuth	Dip	Type	Comments
CRC001	450794	6736332	370	174	53.65	-45	RC	Sulphides 69-72m EOH
CRC002	450792	6736330	368	58	56.65	-50	RC	Mineralisation 47-52m; hit workings @ 52m, workings 6m wide (oblique)
CRC003	450793	6736330	368	71	66.65	-60	RC	Mineralised 68-69m; hit workings @ 69m
CRC004	450778	6736331	367	133	67.15	-60	RC	Mineralised 91-96; 99-101m; Mining cavities @ 79-81m, 85-87m & 97-98m
CRC005	450778	6736330	367	In progress	94.15	-60	RC	Current Hole drilled to 174m. Target mineralisation @ 190m. Planned to 250m
			TOTAL	436m				

Source: CCZ geology team

High-grade mineralised stockpiles

Along the line of lode (refer Figure 2), and at the old Smelter Site there are legacy stockpiles that the recent topography survey identified as relatively sizeable. The geology team, during a break in the drilling program due to heavy rain, made some headway on one of the stockpiles (Figure 3) recording several pXRF readings with samples of >10% copper, up to 18% copper, from the waste ore reject piles. In addition, there were numerous readings for cobalt, with the highest being above 1,300ppm and 7.9% zinc (refer Appendix B).

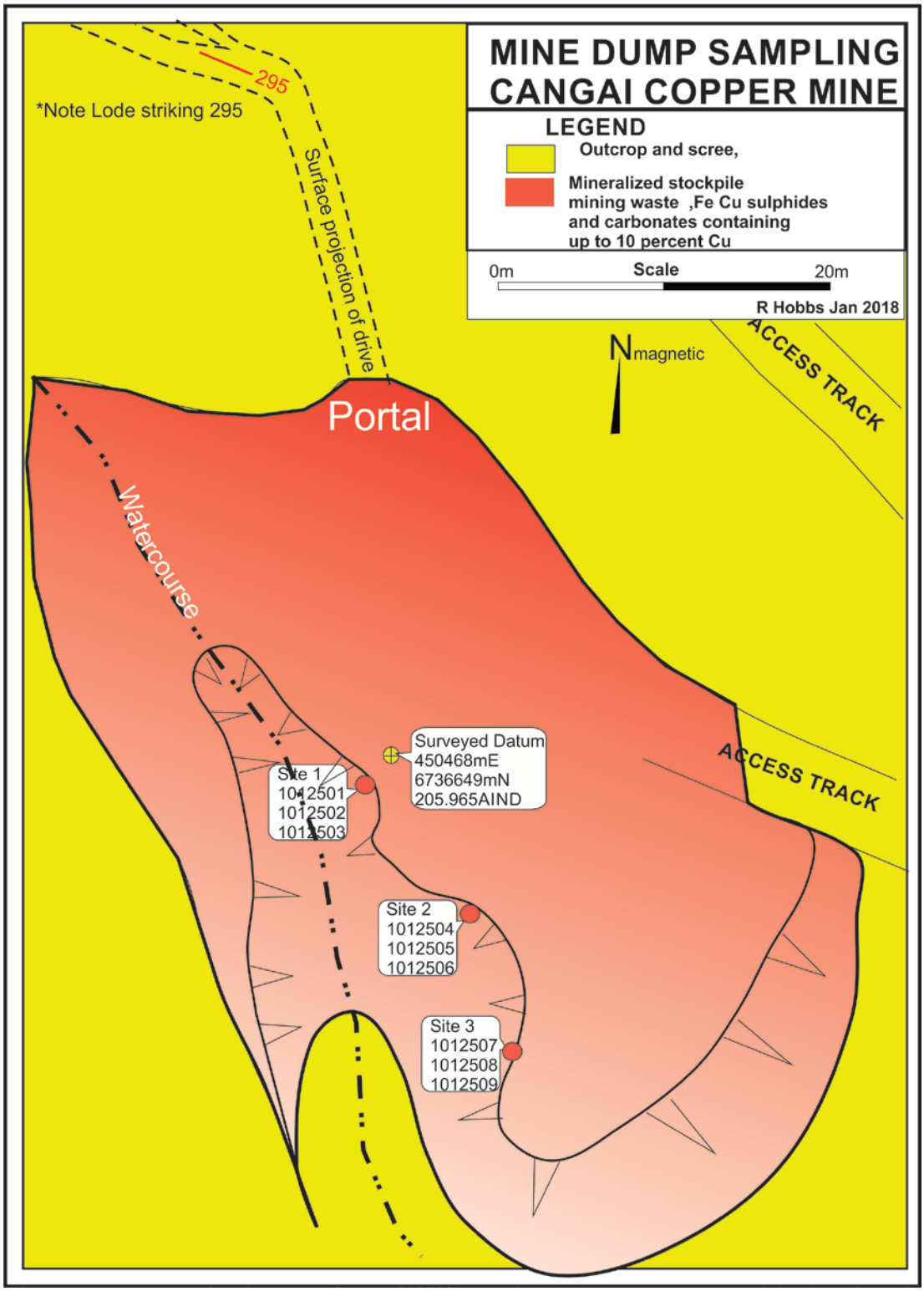
FIGURE 2: STOCKPILES ALONG THE LINE OF LODE



Note: Smelter Creek stockpile off the line of lode to the south-west

Source: CCZ's geology team

FIGURE 3: McDONOUGHS STOCKPILE MAPPING & SAMPLING



Source: CCZ geology team

The stockpiles are relatively deep (refer Figure 4) and with these early high pXRF readings, the geology team plans to get as many of these stockpiles bulk sampled as possible so they can be included in the JORC model update. More significantly, this material is potentially suitable as a high grade oxide Direct Ship Oro (DSO) product for early stage cashflow generation upon commencement of mining operations.

FIGURE 4: STOCKPILE NEAR MAIN LODES WITH HIGH-GRADE GREEN COPPER OXIDE STAINING

Source: CCZ geology team

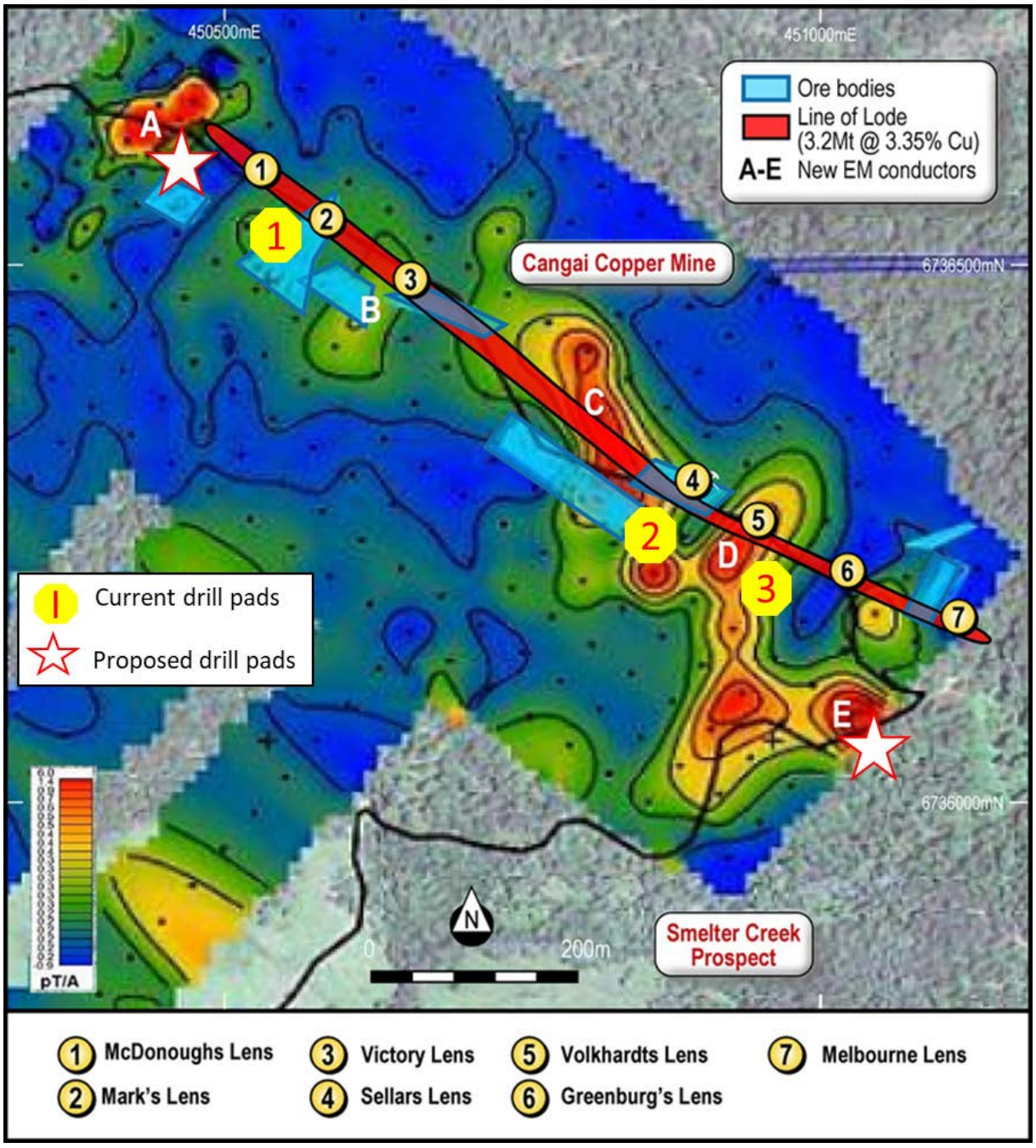
Optimising the drilling campaign

Following the discovery of five anomalies by the FLEM survey[2] the geology team is in the process of undertaking the following measures:

- Re-orienting the current drilling campaign across three approved drill pads so the prospect of hitting sulphide mineralisation identified by the FLEM survey is materially enhanced; and

- Expediting an application to the NSW regulator to secure approval to expand the number of drill pads by at least two immediately (highlighted in Figure 5), so the anomalies identified outside the line of lode can be included in the current drilling campaign.

FIGURE 5: CURRENT AND INDICATED DRILL PADS TO TARGET ANOMALIES



Source: CCZ geology team

One of the key features thrown up by the recent FLEM survey was the similarities with SFR's Degrussa project in WA, which has significant volumes of high-grade sulphide mineralisation below oxidised material. As alluded to in an earlier announcement[2], identifying these significant conductors is clearly a gamechanger and the primary area of focus for the balance of the current drilling campaign.

Conclusion

The early results from the drilling and sampling program are extremely encouraging and highlight the potential for a significant resource upgrade, once the drilling is completed, all the data is in and 3D JORC modelled. The Board will continue to keep shareholders informed of the geology team's progress as the drilling campaign progresses and results materialise.

For and on behalf of Castillo Copper

David Wheeler

Chairman

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 Neil Hutchison, a Competent Person who is a Member of the Australian Institute of Geoscientists. Neil Hutchison is an executive director of Castillo Copper Ltd.

Neil Hutchison 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'. Neil Hutchison 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 – primarily focused on copper, cobalt, zinc and nickel – that has the bulk of its core operating assets in eastern Australia.

The Australian assets comprise four tenure groups that collectively hold 11 highly prospective copper-cobalt-zinc-nickel project areas in New South Wales and Queensland, detailed briefly as follows:

- **Jackaderry Project** – comprises three prospects (two in the south that are contiguous) in the New England Orogen in NSW which are highly prospective for copper-cobalt-zinc. Of significance is the historic Cangai Copper Cobalt Mine (within Jackaderry South) as legacy data confirms the presence of supergene ore with up to 35% copper and 10% zinc which implies direct shipping ore is potentially feasible. On 6 September 2017, CCZ announced one of Australia's highest grade JORC compliant Inferred Resources for copper: 3.2Mt @ 3.35%.
- **Broken Hill Project** – consists of two contiguous tenements that are located within a 20km radius of Broken Hill, NSW, that are prospective for copper-cobalt-zinc. A key feature of the project is an area in the southern part of the tenure, which exhibits significant high-grade zinc mineralisation.
- **Mt Oxide Project** – made up of three prospects (two are contiguous) in the Mt Isa region, northwest Queensland, and are well known for copper-cobalt systems.
- **Marlborough Project** – includes three prospects that are located north-west of Gladstone (adjacent to Queensland Nickel mining leases) in an area, which is made up of proven high-grade cobalt-nickel systems. .

Castillo Copper also holds wholly-owned Chilean assets comprise of six exploration concessions across a total area of 1,800 hectares that are well known for high grade copper-gold projects.

APPENDIX A: PXRF RESULTS FROM DRILL-HOLES

Hole ID	From (m)	To (m)	Sample ID	Sample wt (kg)	Sample type	Cu pXRF ppm	Zn pXRF ppm	Comments
CRC003	67	68	277512	1.40	RC	45000	6000	2.1% - 4.5% Cu;0.3% - 0.6% Zn
CRC004	95	96	277613	0.60	RC	5000	9000	0.5% Cu 0.9% Zn
CRC004	96	97	277614	0.05	RC	16000	10000	1.6% Cu 1% Zn
CRC004	97	98	277615	0.05	RC	17000	7000	1.7% Cu 0.7% Zn
CRC004	98	99	277616	0.80	RC	16000	5000	1.6% cu 0.5% Zn
CRC004	101	102	277619	1.90	RC	6000	1500	0.6% Cu 0.15% Zn
CRC004	102	103	277620	1.40	RC	13000	4000	1.3% Cu 0.4% Zn
CRC005	66	67	277719	1.10	RC	82	1488	
CRC005	102	103	277757	1.30	RC	74	743	

Please note: Only drill holes from CRC003 onwards were tested with pXRF. All results await confirmatory assays from lab results.

APPENDIX B: NITON PXRF SUMMARY RESULTS FOR CU, ZN, CO, AU, AG

SAMPLE ID		Cu ppm	Co ppm	Zn ppm	Au ppm	Ag ppm
1012501	No of readings	6	6	6	6	6
	Highest	11696.98	419.33	8731.22	<LOD	<LOD
	Lowest	463.26	<LOD	1177.93	<LOD	<LOD
	Average	6080.12		4954.575		

SAMPLE ID		Cu	Co	Zn	Au	Ag
1012502	No of readings	6	6	6	6	6
	Highest	9868.78	<LOD	2402.69	<LOD	<LOD
	Lowest	914.62	<LOD	1159.14	<LOD	<LOD
	Average	5391.7		1780.915		

SAMPLE ID		Cu	Co	Zn	Au	Ag
1012503	No of readings	6	6	6	6	6
	Highest	157229.13	700.35	19304.52	<LOD	<LOD
	Lowest	7848.74	<LOD	1229.41	<LOD	<LOD
	Average	82538.935		10266.97		

SAMPLE ID		Cu	Co	Zn	Au	Ag
1012504	No of readings	6	6	6	6	6
	Highest	31510.99	435.39	19173.94	30.75	<LOD
	Lowest	1936.82	<LOD	196.09	<LOD	<LOD
	Average	16723.905		9685.015		

SAMPLE ID		Cu	Co	Zn	Au	Ag
1012505	No of readings	6	6	6	6	6
	Highest	77373.62	797.92	79981.65	54	<LOD
	Lowest	11343.07	<LOD	1937.5	<LOD	<LOD
	Average	44358.345		40959.58		

SAMPLE ID		Cu	Co	Zn	Au	Ag
1012506	No of readings	6	6	6	6	6
	Highest	74060.95	1397.62	71264.56	<LOD	<LOD
	Lowest	51817.7	<LOD	1940.48	<LOD	<LOD
	Average	62939.325		36602.52		

SAMPLE ID		Cu	Co	Zn	Au	Ag
1012507	No of readings	6	6	6	6	6
	Highest	189016.64	<LOD	22116.87	44.45	<LOD
	Lowest	2962.76	<LOD	605.35	<LOD	<LOD
	Average	95989.7		11361.11		

SAMPLE ID		Cu	Co	Zn	Au	Ag
1012508	No of readings	6	6	6	6	6
	Highest	31290.84	<LOD	2656.37	<LOD	<LOD
	Lowest	1998.57	<LOD	716.21	<LOD	<LOD
	Average	16644.705		1686.29		

SAMPLE ID		Cu	Co	Zn	Au	Ag
1012510	No of readings	6	6	6	6	6
	Highest	112716.28	899.43	19930.03	<LOD	<LOD
	Lowest	295.96	<LOD	456.06	<LOD	<LOD
	Average	56506.12		10193.05		

APPENDIX C: JORC CODE, 2012 EDITION – TABLE 1 REPORT TEMPLATE; CANGAI DRILLING PROGRAM UPDATE 16TH JANUARY 2018

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

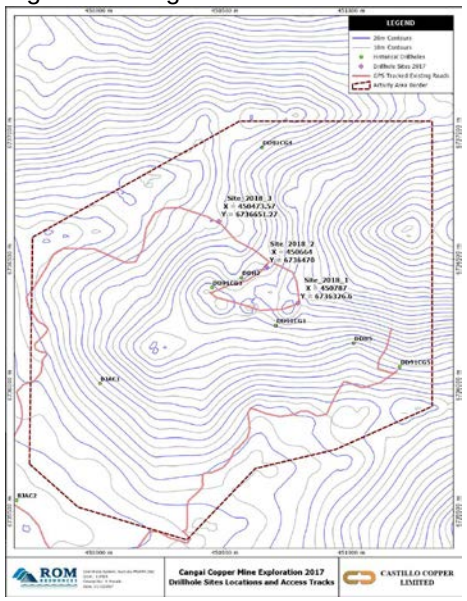
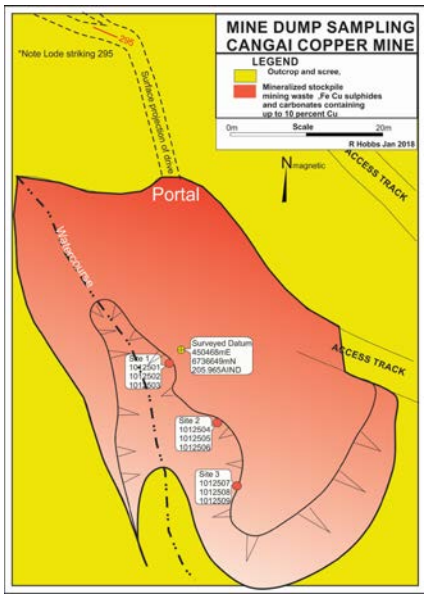
Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *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 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.*	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. From drillhole CRC003, a portable XRF machine was available to initially analyse the final samples, again on a metre-by-metre basis. The PXRF Analysis on rock samples was carried out by using a handheld NITON XLt3 950 Portable XRF analyser. Measurements were taken on the surface of the sample chips and dust in several positions to estimate average grades for the sample. The pXRF grades are indicative grades only, therefore samples were delivered for further analysis to ALS Laboratory in Orange NSW. The drilling program completed thus far is shown in Table A1 at the end of this section Samples from the Cangai stockpile sampling program comprised a low order tape and compass survey which was completed over the mine dumps adjacent the main Portal and two shafts along the strike of the main lodes which was measured at 295 degrees magnetic. The main dump is deeply incised by an active watercourse enabling a depth estimate of the tailings. This data was used to estimate the volume of material. Three vertical channel samples were collected from the face of the watercourse incision to give a reasonably representative section through the tailings. These samples were tested by spot Niton XRF to give an indication of the metallic content. Six spot analysis were conducted on each sample to try and get a representative result. All samples are being despatched for comprehensive assay analysis to ALS Laboratory in Orange NSW to determine the Cu, Co, Au, Ag and Zn content in particular. The two tailings dumps adjacent the two shafts along strike have been surveyed buy not sampled at the time of this report.

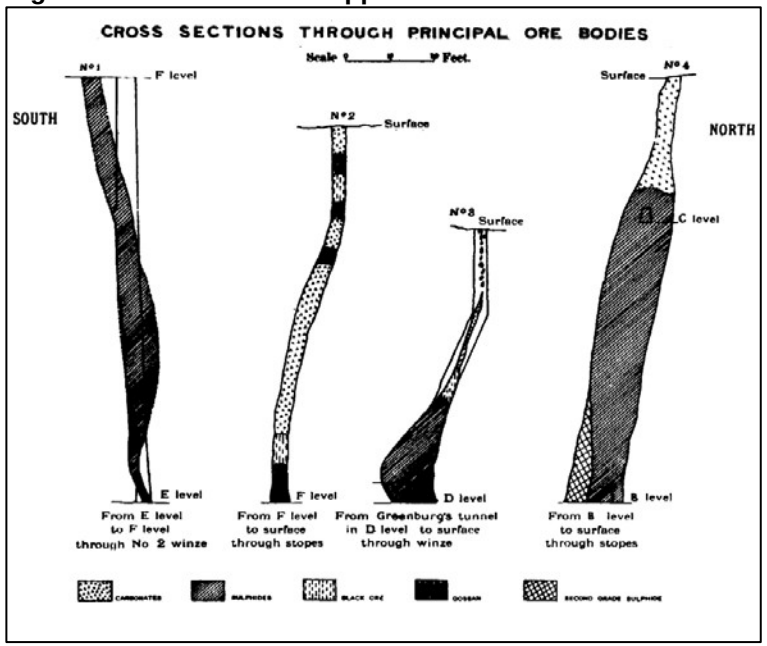
Drilling techniques	•	*Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).*	• Drilling was provided by Budd Drilling using a modified track-mounted UDH rig as illustrated below: 
Drill sample recovery	• • •	*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.*	• Sample recovery was generally 90-100% for each metre except when mining cavities (workings >5m wide) were intersected. Circulation and sample was lost IN CRC002 &3, and these holes terminated in workings, but CRC004 was able to progress to planned depth, despite the fact that the three workings intersected were 2 metres wide, in each instance. Drill recovery was lower through this zones.
Logging	• •	*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.* • *The total length and percentage of the relevant intersections logged*	The drilling that did occur was completed to modern-day standards. Logging of the lithology has been to coded sheets for later addition to the geology database. Plastic chip trays were used to store sample as illustrated below: No downhole geophysical logging has yet place, but downhole EM is planned. Budd Drilling has provided a single shot tool for hole deviation. Readings were taken every 30m downhole. Hole deviations have so far been <10%.

			 Costean or channel sampling as depicted above has been completed on the historic mine dumps/ore stockpiles at 3 locations to determine potential average grades. Only pXRF logging of the samples has been completed as the samples are mixed in not insitu.

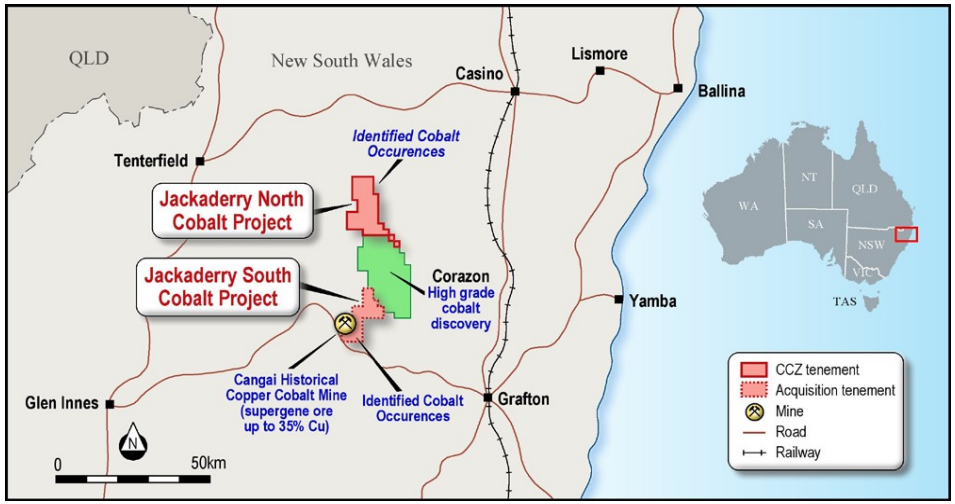
Subsampling techniques and sample preparation	•	*If core, whether cut or sawn and whether quarter, half or all core taken.*	•	Industry acceptable standards and blanks were used as certified reference material to ensure satisfactory performance of the pXRF.
	•	*If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.*	•	Blanks and certified reference samples have also been included in the laboratory analyses, currently in progress.
	•	*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.*	•	
	•	*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.*		
	•			
Quality of assay data and laboratory tests	•	*The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*	•	XRF geochemical data was taken from field portable XRF Thermo Niton. Duration of sampling 30 seconds per filter (3 filters). Calibration of the unit was carried out on the unit at the start of the sampling at site
	•	*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. 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.*	•	The following elements were analysed; Ag, As, Se, Ca, K, S, Ba, Sb, Sn, Cd, Pd, Zr, Sr, Rb, Pb, Hg, Zn, W, Cu, Ni, Co, V, Ti, Au, Fe, Mn, Cr, Sc, Mo, Th, U, Ta.
	•		•	A similar multi-suite analysis methodology is proposed by ALS, with samples containing >5000ppm Cu being tested for Au by fire assay.
			•	
Verification of sampling and assaying	•	*The verification of significant intersections by either independent or alternative company personnel.*	•	Field reading of multi-elements are estimated using NITON XLt3 950 Portable XRF analyser prior to sending samples for laboratory analysis. Reading times using 2 beam Geochem Mode was employed via 30sec/beam for a total of 60 sec.
	•	*The use of twinned holes.*		
	•	*Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*		
	•	*Discuss any adjustment to assay data.*		

Location of data points	•	*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.*	•	Drillholes and stockpile sample locations have been ocated by GPS, but their collars and stockpile extents will be accurately surveyed. They are currently tagged to the Drone DTM topography model which has accuracies for AHD of ±0.3m.
	•	*Specification of the grid system used.*	•	
	•	*Quality and adequacy of topographic control.*		
Data spacing and distribution	•	*Data spacing for reporting of Exploration Results.* • *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.* • *Whether sample compositing has been applied.*		Multiple drillholes are planned at three locations with differing orientations proposed the three sites are approximately 350 apart, and shown below in Figure 2: Cangai Initial Drill Pad Locations   3 channel samples across the stockpile dumps have been completed and comprise 3 samples from each channel. Figure 3: Cangai Mine Dump Sample Locations

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 voids between orebodies such that in general the intersections are 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, with the major orebody shapes shown by Figure 3, below: **Figure 3: Orientation of Copper-Gold Mineralisation at the Cangai Mine**  It should be noted that these orebody shapes were drawn at >13% Cu so that the modelled wireframes in this current resource have been enlarged to try to capture mineralisation down to 1% Cu

Sample security	• *The measures taken to ensure sample security.*	• Samples were bagged and have been delivered by Gnomic Exploration Staff to ALS Orange who on-freighted them to ALS Laboratories Brisbane. Results are not yet to hand so these samples were not used in this model
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No audits or reviews have yet been undertaken.

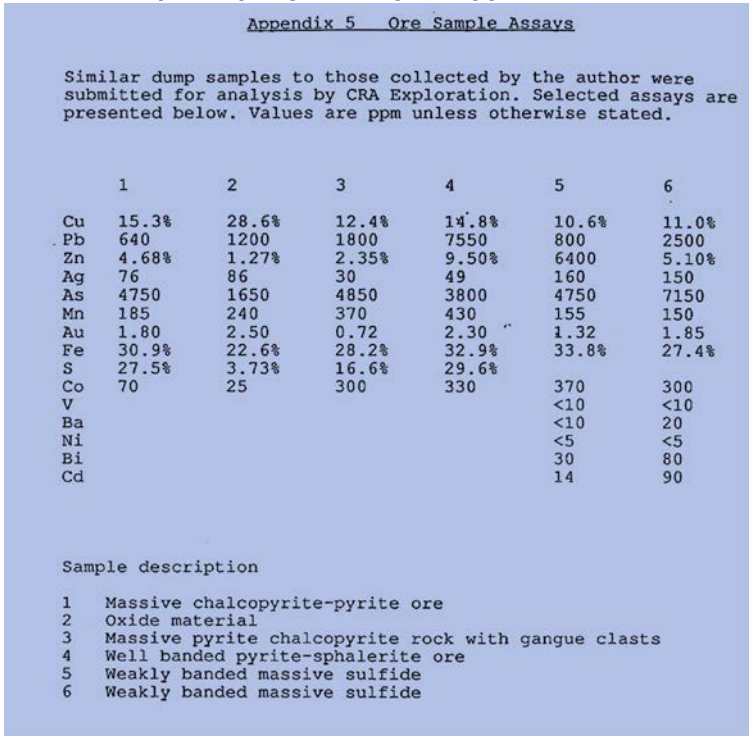
Section 2: Reporting of Exploration Results (Criteria listed in the preceding section also apply to this section)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *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.*	• Castillo Copper holds EL 8625 & EL 8635. The tenure has been granted for a period of thirty-six months until 17th July 2020, for Group 1 minerals. The location of the tenure is shown in Figure A2.1 below: **Figure A2.1: Location of EL 8625 and EL8635 Jackaderry South** 

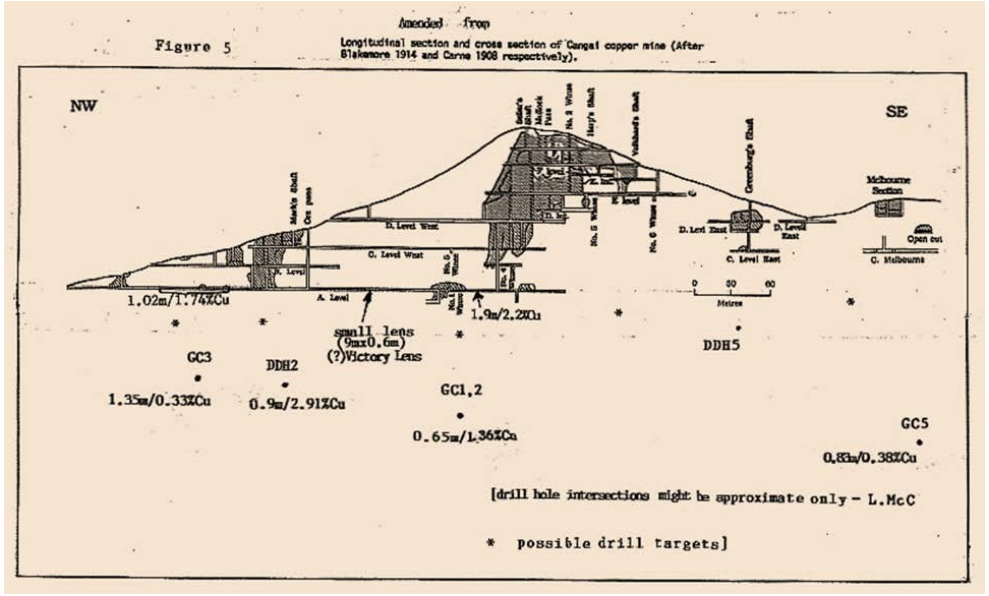
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	Some mining history and discovery information provided by North Broken Hill Ltd (1970) is as follows: **Cangai** The Cangai copper mine, located 10 km north west of Jackadgery, is one of the richest copper 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. 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: • 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; 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

Geology	•	*Deposit type, geological setting and style of mineralisation.*	Regional Geology 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 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: • **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

		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
Drill hole Information	•	*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:* o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* o *dip and azimuth of the hole* • o *down hole length and interception depth* o *hole length.* *If the exclusion of this information is justified on the basis that the information is not Material and this*	• During late May 2017, ROM Resources personnel visited the NSW Geological Survey core storage facility at Londonderry in the Western Sydney area, to view, log and resample Cangai Mine cores. Of the ten (10) drillholes completed by various exploration and mining companies (including Western Mining and CRA Exploration) during the period 1972-1991, eight (8) had core stored with the Department. • As this was a preliminary visit, and many of the core only had quarter core samples remaining it was decided to scan targeted areas with a portable pXRF machine, and record the average grade for a suite of minerals over that interval which were generally 0.5-2m in length. The drillholes were sited in and around the mined-out areas and generally the target intervals were of andesite or tuff that had been brecciated and displaying multi-sulphide mineralisation were tested. Some of the intervals tested had normal laboratory results available, but only for Cu, Au, Ag, Pb and Zn.

		exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	Comparisons have yet to be made with the pXRF values, only to note that pXRF copper values were higher than the comparable assayed interval. • A summary of selected results for all holes combined is given below in Table 2.3. In all 22 elements were tested. • Total Minerals considers that if laboratory retesting of the core for cobalt is achieved then, combined with the mine working data and other geological information, sufficient data exists to calculate a small copper-cobalt-zinc resource based on the unmined portions of the now closed Cangai Copper Mine. • **Table 2.3: Summary of Cangai pXRF Testing** • Note: pXRF testing is indicative only, and further laboratory testing is required. It should be noted that the main purpose of the pXRF testing was to confirm the presence of cobalt which was previously not analysed
Data aggregation methods	•	*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.*	• In the final reporting copper tonnage was stated between 1 and 10%, with any values that exceeded 10% (only in the Sellers Lens) cut to 10%.
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').*	• Lode 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 Melbourne, Marks, Sellers & Greenbergs lens. Secondary zone grades averaged 20-35% Cu. Sulphides zone decreased to 8-10% Cu at depth. The Lode largest at intersections. Breccia 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 deg centigrade (Brauhart 1991). Meta-hydrothermal 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  • Georegistering was undertaken in August and September 2017, particularly the anomalous zones (which are in the process of being digitised off the 1908 and 1912 mine plans (Brauhart 1991), which become priority targets for geological mapping, ground magnetic and EM surveys. • Data is also being extracted from a thorough UNSW Honours Thesis as referenced below: Brauhart, 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	•	*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.*	• A plan view of the current drillholes completed is given by Figures A2-4 and 5 at the end of this section

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 avoiding misleading reporting of Exploration Results.*	• All drillholes completed to date have been reported.
Other substantive exploration data	•	*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.*	• 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 8th January ASX Release)
Further work	• •	*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.*	• A second Stage of drilling is being planned to test the numerous recently discovered EM anomalies, whose conductive plate modelling is nearing completion. Many of these six (6) conductive anomalies occur off the line-of-lode. The Stage 2 program will require NSW Government approval as a variation to the existing EA permit; • In conjunction with the drilling program a program of comprehensive sampling and surveying of the reject ore and smelting slag stockpiles is being devised with the aim of reporting a JORC resource; • The regional exploration team for EL 8625 & 8635 (Jackaderry South) is also progressing a tenure-wide review of the other copper-gold occurrences that occur along strike to the east, with a view to preliminary ground mapping and EM survey.

Figure A2-4: Plan view of actual and planned holes intersecting Sellars Lode

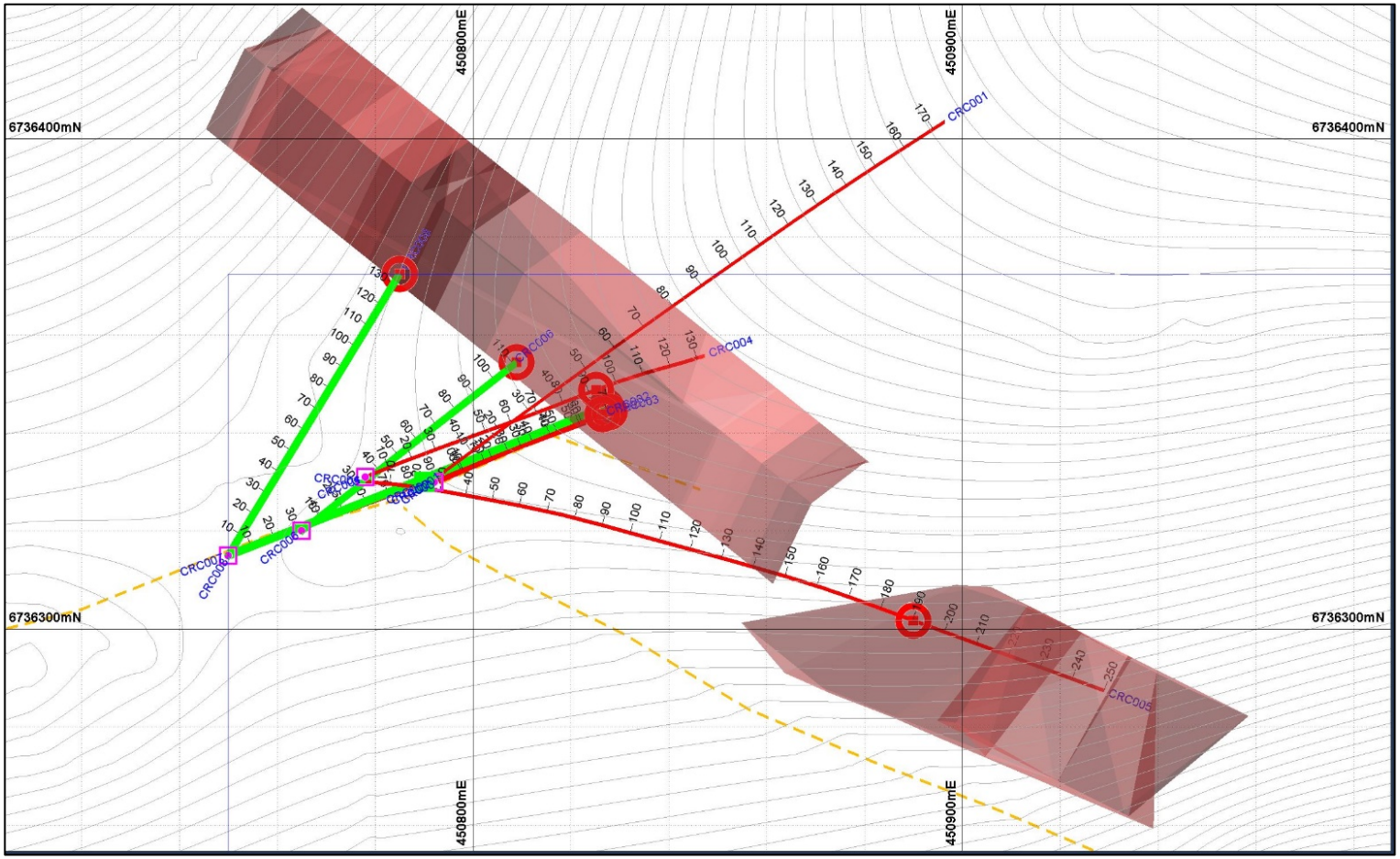
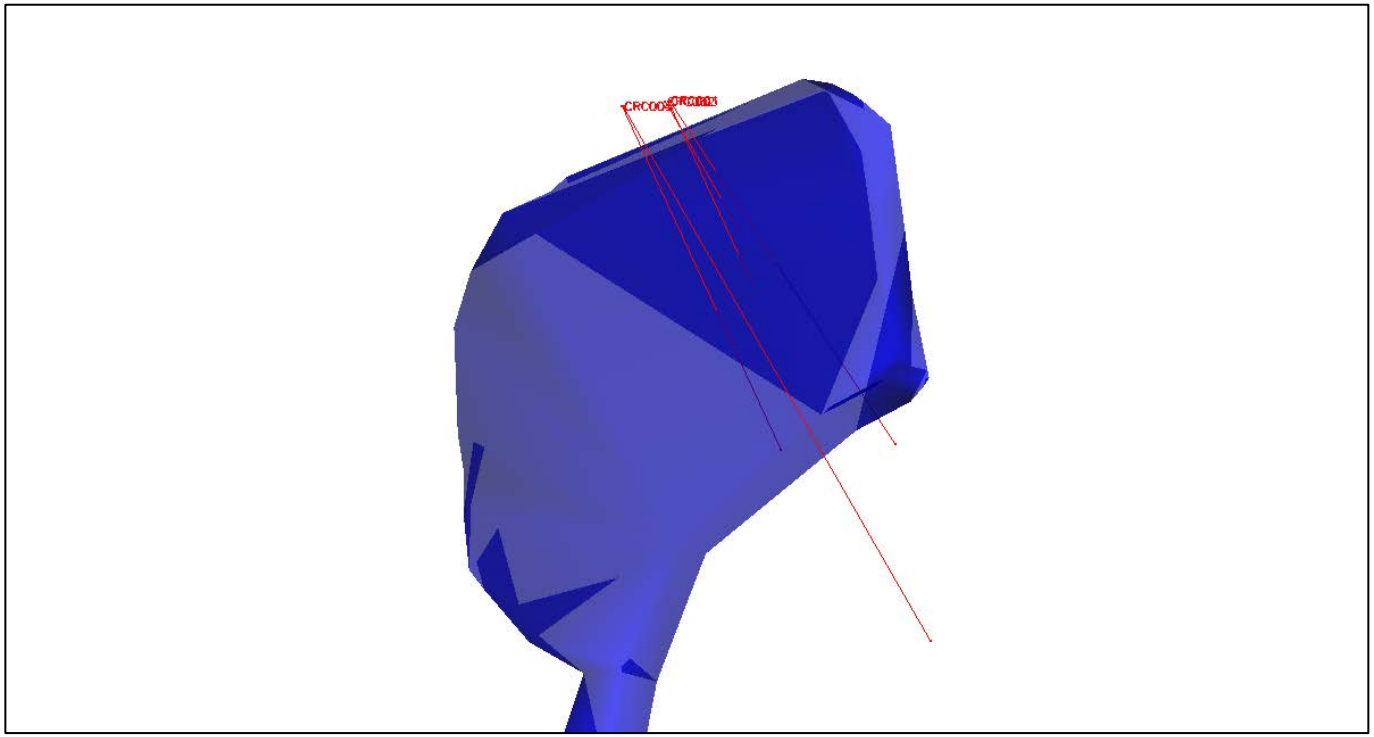


Figure A2-5 Drilling into the Sellars Orebody



Section 3 Estimation and Reporting of Mineral Resources (Criteria listed in section 1, and where relevant in section 2, also apply to this section)

Not applicable to this release