# CASTILLO COPPER LIMITED

**ASX Release** 

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#### **Issued Capital:**

830.4 million shares 245.5 million options 93.7 million performance shares

> ASX Symbol: CCZ

## Mt. Oxide - Expanded Drilling Targets at Big One Deposit

- Continuing a review of all relevant historical reports<sup>1</sup> related to the Big One Deposit, within the Mt Oxide pillar, CCZ's geology team has expanded the upcoming RC drilling campaign to include the following targets:
  - Along the line of lode at depth below known shallow supergene ore mineralisation, which is 600m long, and includes three historic open pit workings<sup>1</sup>
  - A sizeable gossan<sup>2</sup>, based on historic surface observations that is circa 200m north from the line of lode
  - Several areas south from the line of lode where field work observations show elevated copper mineralisation at surface<sup>3</sup>
- This drill program is designed to verify the four factors underpinning the Big One Deposit's upside<sup>1</sup> which complement the supergene mineralised porphyry dyke:
  - Strongly altered hanging wall mineralisation containing malachite / cuprite nodules<sup>4</sup>
  - Footwall fault gouge and elevated altered sediments<sup>4</sup>
  - ✤ Gossan mineralisation<sup>2</sup>, and
  - \* Mineralised sulphides beneath the supergene ore layer
- The best economic intercepts from previous drilling in 1993 (including up to 28.4% Cu<sup>4</sup>) targeted shallow high-grade supergene ore from surface, comprised:
  - B07: 3m @ 12.25% Cu from 42m incl: 2m @ 17.87% Cu from 43m; and 1m @ 28.4% Cu from 44m
  - B05: 8m @ 2.33% Cu from 44m incl: 6m @ 3.00% Cu from 45m; and 5m @ 3.28% Cu from 45m
  - B06: 4m @ 2.20% Cu from 44m incl: 2m @ 3.19% Cu from 46m and 1m @ 3.63% Cu from 47m
  - Section Se
- The Board will provide a detailed update on plans for the Arya prospect, selected drilling contractor and status quo on regulatory approvals in due course

**Castillo Copper's Managing Director Simon Paull commented:** "As noted in our mid-January release, there is a lot of upside potential from progressing plans to drill the Big One Deposit. The main focus of the expanded drilling program is to hit all the main targets along the line of lode, particularly to test for extensions to known mineralisation at depth. In addition, there are now targets north and south of the strike zone which are highly prospective for underlying copper mineralisation. The Board is extremely eager to continue exploring the Mt Oxide project as the ongoing geological review has uncovered some excellent targets to test-drill." **Castillo Copper Limited ("CCZ")** is pleased to announce expanded drilling targets for the Big One Deposit (refer Appendix A), within the Mt Oxide pillar, following a final review of all relevant historic geology reports<sup>1</sup>.

### **EXPANDED DRILLING TARGETS**

The geology team has planned out an ambitious set of targets for the Big One Deposit which are due to be drill-tested once a contractor has been selected and regulatory approvals secured.

The expanded targets are within the following areas:

- Along the 600m line of lode (Figure 1) at depth below known shallow supergene ore mineralisation

   this includes three historic open-pit workings<sup>1</sup>;
- About 200m north from the line of lode is a sizeable, potentially mineralised gossan<sup>2</sup> based on historic surface observations; and
- A number of areas south from the line of lode where historic field work observations, over several different exploration campaigns, indicated anomalous copper mineralisation<sup>3</sup> at surface.



#### FIGURE 1: BIG ONE DEPOSIT - LINE OF LODE

Note: 1993 WME RC drill holes in plan view showing the porphyry dyke intercepts in red linking the footwall contact at surface to the drill hole intercepts

Source: CCZ geology team (refer to CCZ ASX Release - 14 January 2020)

In mid-January 2020, CCZ announced the Big One Deposit<sup>1</sup> delivered significant exploration through targeting the following:

- Hanging wall mineralisation which is reported to be a strongly altered containing malachite / cuprite nodules<sup>4</sup>;
- ➢ Footwall fault gouge and altered sediments, which are elevated in assayed samples<sup>4</sup>;
- Gossan mineralisation<sup>2</sup> which is north of the line of lode; and
- Underlying sulphide mineralisation.

Consequently, the core objective of the upcoming drilling campaign is to verify the extent to which these factors underpin the mineralisation apparent at the Big One Deposit.

#### Targets off the line of lode

A closer review of historic reports<sup>1</sup> highlighted a gossan circa 200m to the north of the line of lode<sup>2</sup>. The upcoming drilling campaign will be test-drilling for supergene ore and underlying massive sulphides consistent with the current line of lode. Furthermore, the campaign is targeting incremental intruded porphyry dykes and a potential fault splay that controls the structural emplacement of the mineralised porphyry dyke<sup>3</sup> (Figure 2).

The objective with test-drilling for the Big One Deposit is to see if there are material extensions to known copper mineralisation, in conjunction with verifying historic reports of gossan mineralisation through field exploration activities.



#### FIGURE 2: 'BIG ONE' DEPOSIT LINE OF LODE AND INTERPRETED MINERALISED TARGETS

Source: Xplore Resources (refer to Appendix B JORC Code [2012 Edition] Table 1)

For context, identifying a gossan can be significant as it is a signpost to what lies beneath the surface. As a generalised profile example, Figure 3 shows near text-book gossan formation over a copper massive sulphide deposit.



#### FIGURE 3: GENERALISED PROFILE OF GOSSAN FORMATION

Source: Mineral Exploration Principles and Applications Book, 2nd Edition, 2018<sup>5</sup>

## Historic drill intercepts

To re-cap, in mid-January 2020, CCZ reported assay results from previously listed West Australian Metals' (ASX: WME), the former owner of the Big One Deposit. In late 1993, WME undertook a 27-hole (1,673m) RC drilling campaign which delivered excellent economic copper intercepts up to **28.4% Cu<sup>1,4</sup>** (Figure 4). Notably, the drilling intersected shallow high-grade supergene copper ore.

#### FIGURE 4: HIGH GRADE ECONOMIC COPPER INTERCEPTS

B07: 3m @ 12.25% Cu from 42m incl: 2m @ 17.87% Cu from 43m; and 1m @ 28.4% Cu from 44m

B05: 8m @ 2.33% Cu from 44m incl: 6m @ 3.00% Cu from 45m; and 5m @ 3.28% Cu from 45m

B06: 4m @ 2.20% Cu from 44m incl: 2m @ 3.19% Cu from 46m and 1m @ 3.63% Cu from 47m

B25: 6m @ 1.55% Cu from 66m incl: 5m @ 1.79% Cu from 66m and 2m @ 2.08% Cu from 66m

B02: 4m @ 1.45% Cu from 36m incl: 1m @ 2.48% Cu from 37m

B26: 3m @ 1.36% Cu from 73m incl: 2m @ 2.29% Cu from 73m and 1m @ 1.02% Cu from 74m

B07: 9m @ 0.84% Cu from 32m incl: 3m @ 1.69% Cu from 36m; and 1m @ 2.37% Cu from 36m

B08: 3m @ 0.80% Cu from 48m incl: 1m @ 1.18% Cu from 49m

Source: CCZ ASX Release – 14 January 2020

#### Next steps

Publish a detailed review on the Arya prospect.

Provide updates on when a drilling contractor is appointed and securing approvals to move forward with the drilling campaign.

For and on behalf of Castillo Copper

Simon Paull Managing Director

#### ABOUT CASTILLO COPPER

Castillo Copper Limited (ASX: CCZ) is a base metal explorer primarily focused on copper then zinc & nickel.

The group is embarking on a strategic transformation to morph into a mid-tier copper group underpinned by three core pillars:

- **Pillar I:** The Mt Oxide project in the Mt Isa copper-belt district, north-west Queensland, which delivers significant exploration upside through having several high-grade targets and a sizeable untested anomaly within its boundaries in a copper-rich region.
- **Pillar II:** Four high-quality prospective assets across Zambia's copper-belt which is the second largest copper producer in Africa.
- **Pillar III:** Cangai Copper Mine in northern New South Wales, which is one of Australia's highest grading historic copper mines.

In addition, Castillo Copper is progressing a dual listing on the Standard Board of the London Stock Exchange.

#### References

- 1) CCZ ASX Release 14 January 2020
- 2) Csar, M, 1996. Big One & Mt Storm Copper Deposits. Unpublished field report. CCZ ASX Release 14 January 2020
- 3) Xplore Resources Pty Ltd Interpretation of historical exploration reports, primarily (a) Dampier Mining CO Ltd. Authority to Prospect 1528M Alhambra N.W. Queensland Annual Report for 1975. QDEX Report number: 5682; and (b) Mt Isa Metals Limited. EPM 16498 Johnnies Annual Report for the Period 9/1/2009 to 8/2/2010. QDEX Report number: 61204
- 4) West Australian Metals NL, 1994. Drill Programme at the "Big One" Copper Deposit, North Queensland for West Australian Metals NL and refer to CCZ ASX Release CCZ ASX Release 14 January 2020
- 5) Mineral Exploration Principles and Applications Book, 2nd Edition, 2018 <a href="https://www.sciencedirect.com/topics/earth-and-planetary-sciences/gossan">https://www.sciencedirect.com/topics/earth-and-planetary-sciences/gossan</a>

#### **Competent Person Statement**

The information in this report that relates to Exploration Results for the Mt Oxide pillar Crescent prospect contained in this announcement is based on a fair and accurate representation of the publicly available information at the time of compiling the ASX Release, and is based on information and supporting documentation compiled by Nicholas Ryan, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy. Nicholas Ryan is Consultant Resource Geologist employed by Xplore Resources Pty Ltd. Mr Ryan has been a Member of the Australian Institute of Mining and Metallurgy for 14 years and is a Chartered Professional (Geology). Mr Ryan is employed by Xplore Resources Pty Ltd. Mr Ryan 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'. Mr Ryan consents to the inclusion in the report of the matters based on his information and 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.

## APPENDIX A: MT OXIDE PILLAR



Source: CCZ ASX Release - 14 January 2020 & CCZ geology team

# APPENDIX B: JORC CODE, 2012 EDITION – TABLE 1 – 1993 HISTORICAL DRILLING UNDERTAKEN ON THE 'BIG ONE' MINE (FORMERLY QLD ML5481) BY WEST AUSTRALIAN METALS NL

## Section 1 Sampling Techniques and Data

Primary source of data: West Australian Metals NL, 1994. Drill Programme at the "Big One" Copper Deposit, North Queensland for West Australian Metals NL. [refer to the accompanying JORC (2012) Code Table 1 for a summary of the 1993 drill programme]

The reader of this ASX Release is referred to the CCZ's first publication of the 1993 historical reverse circulation drilling results for additional diagrams and drilling information: "Historic drill data verifies grades up to 28.40% Cu from <50m in supergene ore at Mt Oxide Pillar" released on the ASX by CCZ on the 14-January-2020.

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg 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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>The reverse circulation drill chips were obtained on 1m intervals, into a cyclone.</li> <li>Sub-sampling occurred as the sample discharged from the cyclone discussed in <i>'Sub-sampling techniques and sample preparation'</i> in Section 1 of the current Table 1.</li> </ul>
Drilling techniques	<ul> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face- sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul> <li>Reverse circulation undertaken for the drilling programme.</li> </ul>

Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul> <li>The sample recovery for each reverse circulation drill chips obtained on 1m intervals, had been stated to range from approximately 11kg to 12kg.</li> <li>For each 1m sampled interval sent to the certified testing laboratory it was stated that 1kg to 2kg was dispatched, with the bulk sample retained.</li> <li>No association had been made in the historical reporting of the drill programme for a relationship between sample recovery and grade.</li> <li>It is noted that the historical reporting of the drill programme did state that the copper mineralisation was controlled by supergene minerals associated with a sericitic altered porphyry dyke.</li> <li>The 1993 exploration results from the West Australian Metals NL drill holes are suitable for the reporting 'exploration results' for mineral prospectivity, additional exploration work would have to be completed in order to geologically model and then estimate a mineral resource.</li> </ul>
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>The logging of the reverse circulation drill holes appeared to have occurred on a qualitative basis for a range of lithological and mineralogical observations.</li> <li>The Drill logs recorded and characterised the reverse circulation drillholes on 1m increments, returned sample was logged or recorded as no sample.</li> <li>The drill logs included the following key items:         <ul> <li>Mineralisation;</li> <li>Alteration;</li> <li>Shade &amp; Colour;</li> <li>Rock type description; and</li> <li>Additional information as it is encountered (for example: water).</li> </ul> </li> <li>The 1993 exploration results from the West Australian Metals NL drill holes are suitable for the reporting 'exploration results' for mineral prospectivity, additional exploration work would have to be completed in order to geologically model and then estimate a mineral resource.</li> </ul>

Sub- sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>Sub-sampling occurred at the drill rig, with a riffle splitter attached to the cycle, sub-sampling the 1m intervals to produce 1kg to 2kg sub-samples for dispatch, with the bulk sample retained.</li> <li>The bulk sample retained was approximately 10kg. It is assumed that no viable bulk sample is available, given the length of time passed from the completion of the 1993 drilling programme.</li> <li>The recovered samples were predominantly dry, in a handful of drillholes, below the porphyry dyke water had been intersected, drilling ceased within a few metres of water being intersected.</li> <li>The 1993 exploration results from the West Australian Metals NL drill holes are suitable for the reporting 'exploration results' for mineral prospectivity, additional exploration work would have to be completed in order to geologically model and then estimate a mineral resource.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>Analabs Pty Ltd at Townsville had been the certified analytical laboratory to undertake the copper analysis using method GA140/GA145.</li> <li>Prior to digestion the sample was pulverised, the current information available for the 1993 drilling programme did not state the exact pulverisation specifications.</li> <li>Method GA140/GA145 digested approximately 100g to 200g of the sub-sample in aqua regia/perchloric acid digest, that then underwent analysis by Atomic Absorption Spectroscopy (AAS).</li> <li>The current information available for the 1993 drilling programme did not include the full extent of the quality control procedures applied to the 1993 reverse circulation drilling samples dispatched to the certified testing laboratory. It should be noted that the copper mineralisation is understood to be discretely bound with the supergene copper mineralisation, associated with a NE trending fault (062° to 242°) that is intruded by a porphyry dyke.</li> <li>The 1993 exploration results from the West Australian Metals NL drill holes are suitable for the reporting 'exploration results' for mineral prospectivity, additional exploration work would have to be completed in order to geologically model and then estimate a mineral resource.</li> </ul>

Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>No formal reports have to date been located that indicate that third parties preformed any verification of sampling or assaying.</li> <li>The 1993 drilling programme did not involve any hole twinning but did at times involve drill clusters to target continuity of observed mineralisation: this occurred at the drillhole cluster B01, B03, &amp; B04.</li> <li>The 1993 exploration results from the West Australian Metals NL drill holes are suitable for the reporting 'exploration results' for mineral prospectivity, additional exploration work would have to be completed in order to geologically model and then estimate a mineral resource.</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>The 1993 layout of the drill pattern was relative to a local grid, the local grid is in effect used on paper to have the grid aligned north-south on the paper, this is a rotation of 28° clockwise from the reported magnetic north alignment to the local grid. The datum was stated to orientated around a known point 10,000E, 5,000N.</li> <li>The local grid used an internal lease datum and orientation to maximise the alignment of the drill holes to intersect the predicted supergene zone for the mineralised dyke. The porphyry dyke intrudes a north-east trending NE trending fault (062° to 242°).</li> <li>The drillholes were as close as 25m along strike, drilled approximately 20m to 25m to the south of the surface workings that targeted the mineralised porphyry dyke, and/or targeting potential extensions of the mineralised porphyry dyke, 30m perpendicular to strike.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>The drill programme had been designed to typically intersect the steeply dipping lode, for supergene copper, typically at vertical depths of 25 – 35m.</li> <li>The drillholes were as close as 25m along strike, in order to intersect the subsurface at 25m to 35m below the ground surface into the predicted supergene zone.</li> <li>Analysing the 27 drillhole collar spatial locations in MineScape v6.0.2466.2 showed the collars were as close as 2.03m (B03 &amp; B04 – refer to Appendix B for the Collar information on azimuth and declination). The average distance apart between the 27</li> </ul>

		<ul> <li>drillholes was 22.03m with a standard deviation of 10.15m, and the maximum distance apart was 54.35m (refer to diagrams in CCZ ASX Release on 14-Jan-2020).</li> <li>In three locations drillholes were offset 30m to the south-east from the initial drill line, in order to test deeper extensions of significant mineralisation in drillholes: B024,, B025, &amp; B026.</li> <li>The drill rig employed could not mobilise to the east of B03/B04 due to steep topography.</li> <li>The data aggregation methods utilised in the current ASX Release use length weighted average assay values for the reporting of all drillhole intercepts greater than 1m in length. Reported intercepts were calculated from the raw data.</li> <li>The 1993 exploration results from the West Australian Metals NL drill holes are suitable for the reporting 'exploration results' for mineral prospectivity, additional exploration work would have to be completed in order to geologically model and then estimate a mineral resource.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul> <li>The targeted lode / mineralised dyke is observable on the surface. The mineralisation targeted in the 1993 drilling programmed is a supergene copper mineralisation that includes malachite, azurite, cuprite, and tenorite, all associated with a NE trending fault (062° to 242°) that is intruded by a porphyry dyke.</li> <li>The 1993 exploration results from the West Australian Metals NL drill holes are suitable for the reporting 'exploration results' for mineral prospectivity, additional exploration work would have to be completed in order to geologically model and then estimate a mineral resource.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>The samples once obtained, were on a remote historical mining lease ('Big One' ML5481), it is assumed that sample security, transportation, and a chain of custody process followed industry standard practice at the time the drilling programme was completed.</li> <li>The 1993 exploration results from the West Australian Metals NL drill holes are suitable for the reporting 'exploration results' for mineral prospectivity, additional exploration work would have to be completed in order to geologically model and then estimate a mineral resource.</li> </ul>

Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul> <li>To date there are no known audits or review reports completed of the sample techniques and resultant data generated from the 1993 drilling programme completed by West Australian Metals NL at the 'Big One' mine (historical tenure ML5481).</li> <li>WME undertook a Mineral Resource Estimate and this had been reported in the same report as the results of the 1993 reverse circulation drilling campaign for the 'Big One' mine. The 1994 Mineral Resource Estimate is not compliant with the JORC Code (2012 Edition) and is therefore not reported upon the ASX.</li> </ul>
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## 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	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>The following mineral tenures are held 100% by subsidiaries of Castillo Copper Limited, totalling an area of 736.8 km<sup>2</sup> in the "Mt Oxide project":         <ul> <li>EPM 26574 (Valprasia North) – encompasses the Big One historical mineral resource, Holder Total Minerals Pty Ltd, Granted 12-June-2018 for a 5 year period over 100 sub-blocks (323.3Km<sup>2</sup>), Expires 11-June-2023;</li> <li>EPM 26462 (Big Oxide North) – encompasses the 'Boomerang' historical mine and the 'Big One' historical mine, Holder: QLD Commodities Pty Ltd, Granted: 29-Aug-2017 for a 5 year period over 67 sub-blocks (216.5Km<sup>2</sup>), Expires: 28-Aug-2022;</li> <li>EPM 26525 (Hill of Grace) – encompasses the Ayra significant aeromagnetic anomaly, Holder: Total Minerals Pty Ltd for a 5 year period over 38 sub-blocks (128.8Km<sup>2</sup>), Granted: 12-June-2018, Expires: 11-June-2023;</li> <li>EPM 26513 (Torpedo Creek/Alpha Project) – Granted 13-Aug-2018 for a 5-year period over 23 sub-blocks (74.2Km<sup>2</sup>), Expires 12-Aug-2023; and</li> <li>EPMA 27440 (The Wall) – An application lodged on the 12-Dec-2019 over 70 sub-blocks (~215Km<sup>2</sup>) by Castillo Conper Limited</li> </ul> </li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Historical QDEX / mineral exploration reports have been reviewed for historical tenures that cover or partially cover the Project Area in this announcement. Federal and State Government reports supplement the historical mineral exploration reporting (QDEX open file exploration records).</li> <li>Most explorers were searching for Cu-Au-U, and in particular, proving satellite deposit style extensions to the several small sub-economic copper deposits (e.g. Big Oxide and Josephine).</li> <li>With the Mt Oxide Project in regional proximity to Mt Isa and numerous historical mineral tenure subject to various styles of surface sampling, with selected locations typically targeted by shallow drilling (Total hole depth is typically less than 50m).</li> <li>The Mt Oxide project tenure package has a significant opportunity to be reviewed and explored by modern exploration methods in a coherent package of EPM's, with three of these forming a contiguous tenure</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>package.</li> <li>Various Holders and related parties of the 'Big One' historical mining tenure (ML8451) completed a range of mining activities and exploration activities on what is now the 'Big One' prospect for EPM 26462. The following unpublished work is acknowledged (and previously shown in the reference list): <ul> <li>West Australian Metals NL, 1994. Drill Programme at the "Big One" Copper Deposit, North Queensland for West Australian Metals NL.</li> <li>Wilson, D., 2011. 'Big One' Copper Mine Lease 5481 Memorandum – dated 7 May 2011.</li> <li>Wilson, D., 2015. 'Big One' Mining Lease Memorandum – dated 25 May 2015: and</li> <li>Csar, M, 1996. Big One &amp; Mt Storm Copper Deposits. Unpublished field report.</li> </ul> </li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>The Mt Oxide North project is located within the Mt Isa Inlier of western Queensland, a large exposed section of Proterozoic (2.5 billion to 540 million year old) crustal rocks. The inlier records a long history of tectonic evolution, now thought to be similar to that of the Broken Hill Block in western New South Wales.</li> <li>The Mt Oxide project lies within the Mt Oxide Domain, straddling the Lawn Hill Platform and Leichhardt River Fault Trough. The geology of the tenement is principally comprised of rocks of the Surprise Creek and Quilalar Formations which include feldspathic quartzites, conglomerates, arkosic grits, shales, siltstones and minor dolomites and limestones.</li> <li>The Project area is cut by a major fault zone, trending north- northeast – south- southwest across the permits. This fault is associated with major folding, forming a number of tight syncline- anticline structures along its length.</li> <li>The Desktop studies commissioned by CCZ on the granted mineral tenures described four main styles of mineralisation account for the majority of mineral resources within the rocks of the Mt Isa Province (after Withnall &amp; Cranfield, 2013).</li> <li>Sediment hosted silver-lead-zinc – occurs mainly within fine- grained sedimentary rocks of the Isa Super basin within the Western Fold Belt. Deposits include Black Star (Mount Isa Pb- Zn), Century, George Fisher North, George Fisher South (Hilton) and Lady Loretta deposits;</li> </ul>

Criteria	JORC Code explanation	Commentary
Criteria	JORC Code explanation	<ul> <li>Brecciated sediment hosted copper – occurs dominantly within the Leichhardt, Calvert and Isa Super basin of the Western Fold Belt, hosted in brecciated dolomitic, carbonaceous and pyritic sediments or brecciated rocks proximal to major fault/shear zones. Includes the Mount Isa copper orebodies and the Esperanza/Mammoth mineralisation.</li> <li>Iron-oxide-copper-gold ("IOCG") – predominantly chalcopyrite-pyrite magnetite/hematite mineralisation within high grade metamorphic rocks of the Eastern Fold Belt. Deposits of this style include Ernest Henry, Osborne and Selwyn; and</li> <li>Broken Hill type silver-lead-zinc – occur within the high-grade metamorphic rocks of the Eastern Fold Belt. Cannington is the major example, but several smaller currently sub-economic deposits are known.</li> <li>Gold is primarily found associated with copper within the IOCG deposits of the Eastern Fold Belt. However, a significant exception is noted at Tick Hill where high grade gold mineralisation was produced, between 1991 and 1995 by Carpentaria Gold Pty Ltd, some 700 000 tonnes of ore was mined at an average grade of 22.5 g/t Au, producing 15 900 kg Au. The Tick Hill deposit style is poorly understood (Withnall &amp; Cranfield, 2013).</li> <li>Rom Resources had noted in a series of recent reports for CC2 on the granted tenures, that cover the known mineralisation styles including:         <ul> <li>Stratabound copper mineralisation styles including:</li> <li>Stratabound copper mineralisation styles including:</li> <li>Disseminated copper associated with trachyte dykes.</li> <li>Copper-rich iron stones (possible IOCG) in E-W fault zones; and possible Mississipi Valley Type ("MVT") stockwork sulphide mineralisation carrying anomalous copper-lead-zinc and silver.</li> </ul> </li> <li>The Mt Oxide and Mt Gordon occurrences are thought to be breccia and replacement zones with interconnecting faults. The Mt Gordon/Mammoth deposit is hosted by brittl</li></ul>
		North Queensland for West Australian Metals NL."):

Criteria JORC Code explanation	Commentary
	<ul> <li>The targeted lode / mineralised dyke is observable on the surface. The mineralisation targeted in the 1993 drilling programmed is a supergene copper mineralisation that includes malachite, azurite, cuprite, and tenorite, all associated with a NE trending fault (062° to 242°) that is intruded by a porphyry dyke.</li> <li>The mineralised porphyry dyke is vertical to near vertical (85°), with the 'true width' dimensions reaching up to 7m at surface.</li> <li>At least 600m in strike length, with strong Malachite staining observed along the entire strike length, with historical open pits having targeted approximately 200m of this strike. Exact depth of mining below the original ground surface is not clear in the historical documents, given the pits are not battered it is anticipated that excavations have reached 5m to 10m beneath the original ground surface.</li> <li>Associated with the porphyry dyke are zones of fractured and/or sheared rock, the siltstones are described as brecciated, and sandstones around the shear as carbonaceous.</li> <li>The known mineralisation from the exploration activities to date had identified shallow supergene mineralisation, with a few drillholes targeting deeper mineralisation in and around the 200m of strike historical open</li> <li>A strongly altered hanging wall that contained malachite and cuprite nodules. Chalcocite mineralization has been identified but it is unclear on the prevalence of the Chalcocite; and</li> <li>The mineralisation was amenable to high grade open pit mining methods of the oxide mineralization (as indicated by numerous historical open pit shallow workings into the shear zone).</li> <li>Desktop studies commissioned by CCZ and completed by ROM Resources and SRK Exploration have determined that the Big One prospect is prospective for Cuco, and Ag.</li> <li>Desktop studies commissioned by CCZ have determined the Boomerang prospect contains:         <ul> <li>Secondary copper staining over ~800m of strike leng</li></ul></li></ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>At the 'Flapjack' prospect there is the potential for:         <ul> <li>Skarn mineralisation for Cu-Au and/or Zn-Pb-Cu from replacement carbonate mineralisation, particularly the Quilalar Formation;</li> <li>Thermal Gold Aurole mineralisation is a potential model due to the high silica alteration in thermal aureole with contact of A-Type Weberra Granite – related to the Au mineralisation; and</li> <li>IOCG mineralisation related to chloride rich fluids.</li> </ul> </li> <li>At the 'Crescent' prospect there is the potential for:         <ul> <li>Skarn mineralisation for Cu-Au and/or Zn-Pb-Cu from replacement carbonate mineralisation, particularly the Quilalar Formation; and</li> <li>Thermal Gold Aurole mineralisation is a potential model due to the high silica alteration in thermal aureole with contact of A-Type Weberra Granite – related to the Au mineralisation; and</li> <li>Thermal Gold Aurole mineralisation is a potential model due to the high silica alteration in thermal aureole with contact of A-Type Weberra Granite – related to the Au mineralisation; and</li> <li>IOCG mineralisation related to potassic rich fluids.</li> </ul> </li> <li>All publicly available QDEX documents / historical exploration reports have been reviewed, refer to Section 2, sub-section "Further Work" for</li> </ul>
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul> <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> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul> <li>Doth actions in progress and proposed future actions.</li> <li>The drill hole information presented in the current ASX Release relates to the 1993 reverse circulation drilling campaign undertaken on historical tenure for the 'Big One' mine (ML5481).</li> <li>The 1993 drilling campaign utilised a local grid, for which further details can be located in the current JORC (2012) Code Table 1, Section 1, subsection <i>"Location of data points"</i>.</li> <li>A summary table of the relevant drill hole collar information can be located in <i>Appendix B</i> of the current ASX Release.</li> <li>Castillo Copper Limited's geological consultants rotated the local grid drillhole and mine feature locations 22° counter-clockwise (accounting for magnetic north adjustment to grid north for MGA94 zone54), using a rotation point which is known to have both local grid and MGA94 zone54 Eastings and Northings. This known point is an "old mine shaft".</li> <li>Each drillhole was then assigned a relative easting and northing based on the rotated local grid centre point (the "old mine shaft"). The relative easting or northing of each drillhole had respectively added to the</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>MGA94 zone54 Easting or Northing, to produce the assigned MGA94 zone54 Easting or Northing for each drillhole and mine feature.</li> <li>Accuracy of the translation of datum, then used spatial interpretation of the geology and mining features in the Bing Satellite imagery, in combination with historical AMG84 zone54 locations (handheld GPS) of the three shallow pits that constituted the main surface delving's at the 'Big One' Mine. Additional controls on the interpretation of the geology and mining features in the Bing Satellite imagery, can be additional verified by a second dataset of samples collected using MGA94 zone54 (handheld GPS).</li> <li>Error assigned to the above described translation process is of the range -/+5m to -/+20m, with an expected average error of approximately - /+10m to -/+15m: this is due to the fact that most drillholes are not close to the rotation centre point (the "old mine shaft").</li> <li>The 1993 exploration results from the West Australian Metals NL drill holes are suitable for the reporting 'exploration results' for mineral prospectivity, additional exploration work would have to be completed in order to geologically model and then estimate a mineral resource.</li> <li>A table of drillhole intersection lengths can be found in Section 2, subsection 'Relationship between mineralisation widths and intercept lengths'.</li> </ul>
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>The data aggregation methods utilised in the current ASX Release use length weighted average assay values for the reporting of all drillhole intercepts greater than 1m in length.</li> <li>No metal equivalent values are reported in the current ASX Release.</li> <li>The 1993 exploration results from the West Australian Metals NL drill holes are suitable for the reporting 'exploration results' for mineral prospectivity, additional exploration work would have to be completed in order to geologically model and then estimate a mineral resource.</li> </ul>

Criteria	JORC Code explanation	Comm	entary					
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul> <li>All reverse circulation drilling had been completed at 60° dec from the ground surface, the targeted porphyry dyke is vertical vertical, therefore the drillhole intercepts reported in the announcement would be longer than the 'true width' of the po dyke.</li> <li>Drillhole intercepts to true width were calculated as follows:</li> </ul>						leclination cal to near e current porphyry
		Drill hole	Porphyry Dyke Intercept depth (m)	Downhole Intercept Length (m)	Declination (degrees)	True Width (m)	True Depth (m)	
		B01	10	10	60	5.00	8.66	
		B02	34	1	60	0.50	29.44	
		B03	47	13	60	6.50	40.70	
		B04	33	13	60	6.50	28.58	
		B05	40	13	60	6.50	34.64	
		B06	39	13	60	6.50	33.77	
		B07	31	10	60	5.00	26.85	
		B08	45	8	60	4.00	38.97	
		B09	44	10	60	5.00	38.11	
		B10	39	9	60	4.50	33.77	
		B11	35	4	60	2.00	30.31	
		B12	41	6	60	3.00	35.51	
		B13	48	9	60	4.50	41.57	
		B14	41	8	60	4.00	35.51	
		B15	38	4	60	2.00	32.91	
		D10	33	4	60	2.00	28.58	
		B18	32	1	60	0.50	26.85	
		B19	19	3	60	1.50	16.45	
		B20	35	4	60	2.00	30.31	
		B21	34	7	60	3.50	29.44	
		B22	19	6	60	3.00	16.45	
		B23	No Intercept recorded in drill 60 log - possibly faulted		No Internet No Internet No Internet No Internet No. 1997	No Intercept recorded in drill log - possibly faulted		

Criteria	JORC Code explanation	Commentary						
		B24	74	4	60	2.00	64.09	
		B25	69	4	60	2.00	59.76	
		B26	73	3	60	1.50	63.22	
		B27	No Intercept re log - probabl cha	ecorded in drill le lode trend nge	60	No Inte recorded ir probable lo char	ercept a drill log - ode trend age	
Diagrams	<ul> <li>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.</li> </ul>	•	The 1993 expla holes are suit: prospectivity, a in order to geo The reader of t the 1993 hist diagrams and a to 28.40% Cu f on the ASX by a The reader of t the 1993 hist diagrams and a to 28.40% Cu f on the ASX by a The 1993 expla-	oration result able for the additional exp logically mode his ASX Releas orical reverse drilling inform from <50m in CCZ on the 14- his ASX Releas orical reverse drilling inform from <50m in CCZ on the 14- oration result able for the	s from the W reporting 'ex loration work al and then es se is referred ation: "Histor supergene or -January-2020 se is referred circulation ation: "Histor supergene or -January-2020 s from the W	/est Austra ploration in k would har stimate a m to the CCZ' drilling res ric drill dat re at Mt O2 0. to the CCZ' drilling res ric drill dat re at Mt O2 0. /est Austra ploration in	lian Meta results' fo ve to be o nineral res s first pub sults for a verifies kide Pillar s first pub sults for a verifies kide Pillar	als NL drill or mineral completed cource. lication of additional grades up " released lication of additional grades up " released additional grades up
		prospectivity, additional exploration work would have to be completed in order to geologically model and then estimate a mineral resource.						
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	•	For the purpos supergene cop intruded a NE apparently con brown quartz s to have been sl dyke: providin surrounding th assayed to det rock units adja The 1993 expl holes are suit	ses of Balance per mineralise trending fau atrols where the andstones where heared and/or of further com- ne porphyry de ermine addition cent to the po- oration results able for the po- additional exp	d Reporting i ation is association is association of intrusive p ich have been fractured in of nduits for m yke are yet t onal mineralis orphyry dyke. s from the W reporting 'ex-	it is reitera ciated with 242°). The orphyry dy n noted in t close proxin ineralisatio o be exten sation (grad /est Austra ploration	ted that t the porp NE tren ke can oc he 1993 d nity to the on. The r sively sar de and wid lian Meta results' fo	he known hyry dyke ding fault cur, in the rilling logs e porphyry rock units npled and dth) in the als NL drill or mineral

Criteria	JORC Code explanation	Commentary
		in order to geologically model and then estimate a mineral resource.
Other substantive exploration data	<ul> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	<ul> <li>The interpretation of the mineralised Porphyry dike change in orientation and/or splay is based on historical exploration report information provided by:         <ul> <li>Dampier Mining CO Ltd. Authority to Prospect 1528M Alhambra N.W. Queensland Annual Report for 1975. QDEX Report number: 5682; and</li> <li>Mt Isa Metals Limited. EPM 16498 Johnnies Annual Report for the Period 9/1/2009 to 8/2/2010. QDEX Report number: 61204.</li> </ul> </li> <li>The interpretation of an additional potentially mineralised structure for a 'probable' and 'possible' is based on information provided in the above aforementioned historical exploration reports.</li> <li>No other material substantive exploration data is known to exist for the project under the reporting requirements of both Chapter 5 of the ASX Listing Rules and the JORC Code (2012 Edition), other than what had previously been disclosed to the market.</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>The 1993 exploration results from the West Australian Metals NL drill holes are suitable for the reporting 'exploration results' for mineral prospectivity, additional exploration work would have to be completed in order to geologically model and then estimate a mineral resource.</li> <li>A Future exploration fieldwork programme, over at a minimum of the Big One prospects, will endeavor to verify the physical locations of historical drill holes, historical workings, and/or key mining lease pegs. The information to be verified is contained in both publicly accessible documents that include the following: [i] historical exploration documents, [ii] Federal reports, and [iii] State reports.</li> <li>Future exploration work proposed in sequence or concurrently above will complete fieldwork verification and/or surface sampling of the 'gossan' mineralisation.</li> <li>A detailed drill design is being generated for the Big One deposit and is currently awaiting detailed cost estimates from contractors to support the exploration program.</li> </ul>