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CASTILLO COPPER LIMITED

**ASX Release**

**28 February 2022**

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CCZ

# Maiden Mineral Resource Estimate 2.1Mt @ 1.1% Cu (21,886t) for Big One Deposit

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**Castillo Copper's CEO Dr Dennis Jensen commented:** *"The Board is delighted to announce the maiden JORC 2012 compliant mineral resource estimate (MRE) for the Big One Deposit is 2.1Mt @ 1.1% Copper, which translates to 21,886t contained metal. Encouragingly, with the underlying deposit open to the north, east and down dip the next drilling campaign will focus exclusively on extending the known orebody. In addition, the underlying copper orebody commences from surface which is a significant positive attribute if the project is fully developed. Concurrently, against a backdrop of strong global demand for copper[1], the Board is investigating potential routes to market via utilising third party processors and applying for a mining lease."*

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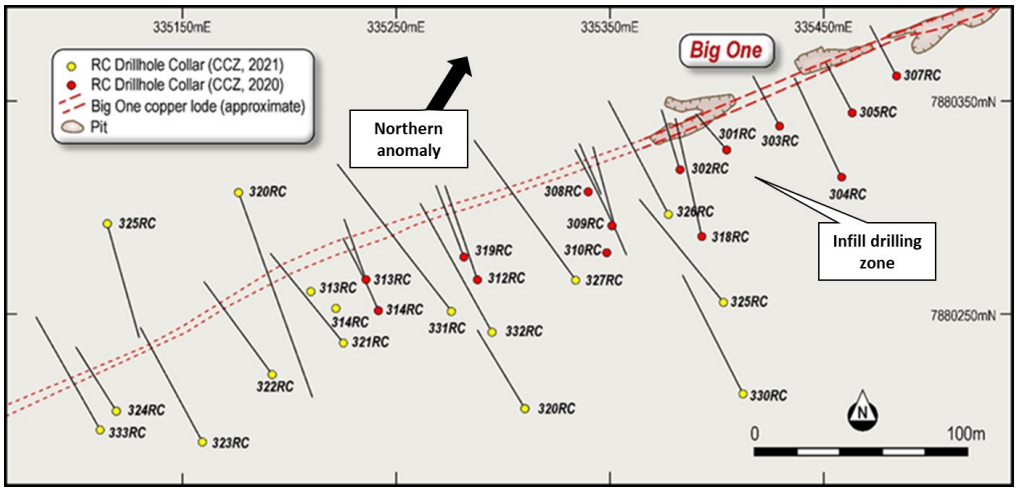
**FIGURE 1: BIG ONE DEPOSIT – LINE OF LODE & 2022 DRILL TARGETS**




Source: CCZ geology team

- **Modelling the 2020-21 reverse circulation and diamond core drilling campaigns[2] at the Big One Deposit produced a maiden JORC 2012 compliant MRE of 2.1Mt @ 1.1% Cu for 21,886t contained metal**
- **The underlying orebody – which commences from surface – is not fully defined, as it remains open to the east, north and down dip**
- **CCZ's geology team have already mapped out the next drilling campaign (slated to start once ground conditions improve), which will target extending the known orebody:**
  - **The campaign comprises infill drilling around the known orebody (drill-holes 301RC, 303RC & 318R[2]; Figure 1); and**
  - **Drill-testing a significant bedrock conductor, north of the line of lode, which is larger than the known orebody along strike[2]**
- **With plans underway to develop the Big One Deposit's full potential, especially given strong demand for copper globally[1], the Board will review the requirements to apply for a mining lease and map out viable routes to market via utilising third party processors**
- **In New South Wales, CCZ's geology team are working on modelling a JORC 2012 compliant MRE (cobalt focused) on the BHA Project[3] and will then review the Cangai Copper Mine which has an inferred MRE of 3.2Mt @ 3.35% Cu for 108,000t contained metal[4]**

**Castillo Copper Limited's ("CCZ")** Board is delighted to report a maiden JORC 2012 compliant MRE for the Big One Deposit of 2.1Mt @ 1.1% Cu for 21,886t contained metal (Figure 2). In addition, there is an estimated 2,459kg (2.1Mt @ 1.2g/t Ag) of contained silver metal credits that modestly boosts the overall result. In calculating the MRE, the geology team primarily used data from the 2020-21 reverse circulation and diamond core drilling campaigns to model the final MRE.

**FIGURE 2: RESOURCE TONNAGES BIG ONE DEPOSIT**

| Resource Type | Ore Type | Inferred (Mt) | Indicated (Mt) | Measured (Mt) | Copper Grade (%) | Silver Grade (g/t) | Contained Copper (t) | Contained Silver (kg) |
|---|---|---|---|---|---|---|---|---|
| Mine Dumps | Oxidised | 0 | 0.007 | - | 1.2 | 4.0 | 86 | 29 |
| Mine Insitu | Oxidised | 1.7 | 0 | - | 1.0 | 1.1 | 17,000 | 1,870 |
| Mine Insitu | Fresh | 0.4 | 0 | 0 | 1.2 | 1.4 | 4,800 | 560 |
| Sub-Totals | | **2.1** | **0.007** | **0** | | | **21,886** | **2,459** |

Note: Cut-off grade 0.45% Cu. Source: CCZ geology team

A key feature of the Big One Deposit is that the copper orebody commences from surface – this is a significant positive in the event the prospect is fully developed. The reporting contains a small-indicated tonnage estimate from ex-mine dump material accurately mapped by drone survey and channel sampling (Appendix D). However, the full extent of the underlying copper orebody is still undetermined at this stage as it remains open to the east, north and down dip. A detailed evaluation of the geology, block model, and MRE methodology is given in Appendices A, B, C and E below.

As such, CCZ's geology team have mapped out the next drilling campaign that will specifically target extending the known copper orebody through the following actions:

- Infill drilling focused around known high-grade copper mineralisation which includes drill-holes 301RC, 303RC & 318R[2] (Figure 1); and
- Drill-testing the sizeable bedrock conductor north of the line of lode that is potentially larger than the known orebody along strike[2].

The timing for the next campaign getting underway is contingent on a significant improvement in ground conditions.

With current plans to fully develop the Big One Deposit's potential, the Board intends to map out optimal routes to market through utilising third party processors. In addition, the Board will review the key requirements necessary to apply for a mining lease.

**Next steps**

In Queensland:

- Reporting of assay results for the Arya Prospect; and
- Big One Deposit – drilling campaign to commence once ground conditions allow.

In NSW:

- Finalisation of a JORC 2012 compliant MRE for the BHA Project East Zone; and
- Review of the Cangai Copper Mine JORC 2012 compliant MRE.

In Zambia:

- Complete geophysical report on the Mkushi Project.

**The Board of Castillo Copper Limited authorised the release of this announcement to the ASX.**

**Dr Dennis Jensen**
**CEO**

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**ABOUT CASTILLO COPPER**

Castillo Copper Limited is an Australian-based explorer primarily focused on copper across Australia and Zambia. The group is embarking on a strategic transformation to morph into a mid-tier copper group underpinned by its core projects:

- A large footprint in the 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.
- Four high-quality prospective assets across Zambia's copper-belt which is the second largest copper producer in Africa.
- A large tenure footprint proximal to Broken Hill's world-class deposit that is prospective for cobalt-zinc-silver-lead-copper-gold.
- Cangai Copper Mine in northern New South Wales, which is one of Australia's highest grading historic copper mines.

The group is listed on the LSE and ASX under the ticker "CCZ."

**References**


1) "Copper is the new oil" Goldman Sachs (18 May 2021) Available at: https://www.goldmansachs.com/insights/podcasts/episodes/05-18-2021-nick-snowdon.html
2) CCZ ASX Release – 30 November 2021
3) CCZ ASX Release – 15 February 2022
4) CCZ ASX Release – 6 September 2017


**Competent Person Statement**

The information in this report that relates to Exploration Results for "Big One Deposit" is based on information compiled or reviewed by Mr Mark Biggs. Mr Biggs is a director of ROM Resources, a company which is a shareholder of Castillo Copper Limited. ROM Resources provides ad hoc geological consultancy services to Castillo Copper Limited. Mr Biggs is a member of the Australian Institute of Mining and Metallurgy (member #107188) and has sufficient experience of relevance to the styles of mineralisation and types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, and Mineral Resources. Mr Biggs holds an AusIMM Online Course Certificate in 2012 JORC Code Reporting. Mr Biggs also consents to the inclusion in this report of the matters based on 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.

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# APPENDIX A: BIG ONE DEPOSIT MODELLING & MRE

CCZ's 100%-owned Big One Depost and surrounding prospects within tenement EPM 26574 covers an area of 323.4 square kilometres. Whilst some areas have been selectively drill-tested, most of the tenement package surrounding the historic mine has not been subject to well targeted and methodical exploration work. Further drilling is warranted along the orebody to the east, north and downdip, as it is not fully defined. Furthermore, there are strong historical surface copper anomalies in the north-west and south-east of EPM 26574 which should be covered by detailed geological mapping and soil sampling and then drill testing.

Recent work has involved extensive creation of a new database, geological block model and MRE.

A maiden 2012 JORC Inferred Resource of 2.1Mt @ 1.1% Cu (Table A-1) is reported at this stage and a well-placed drilling program focussing on diamond coring has the potential to greatly increase this number and confidence class, as the deposit is open to the east and downdip. Further, a new, small, Indicated MRE of ex-mine stockpiles has been included.

**TABLE A-1: RESOURCE TONNAGES BIG ONE DEPOSIT**

| Resource Type | Ore Type | Inferred (Mt) | Indicated (Mt) | Measured (Mt) | Copper Grade % | Silver Grade g/t | Contained Copper (t) | Contained Silver (kg) |
|---|---|---|---|---|---|---|---|---|
| Mine Dumps | Oxidised | 0 | 0.007 | - | 1.2 | 4.0 | 86 | 29.6 |
| Mine Insitu | Oxidised | 1.7 | 0 | - | 1.0 | 1.1 | 17,000 | 1,870 |
| Mine Insitu | Fresh | 0.4 | 0 | 0 | 1.2 | 1.4 | 4,800 | 560 |
| Sub-Totals | | **2.1** | **0.007** | **0** | | | **21,886** | **2,459.6** |

Source: CCZ geology team

A forward geological work program, including a ground geophysical campaign has been planned (magnetics and gravity), more reverse circulation drilling to the immediate north and east of Big One Depost, and deep core drilling at the dyke. A detailed drilling plan has been established with an initial 6-hole campaign followed by a larger program to convert the Inferred to a higher confidence JORC Resource classification.

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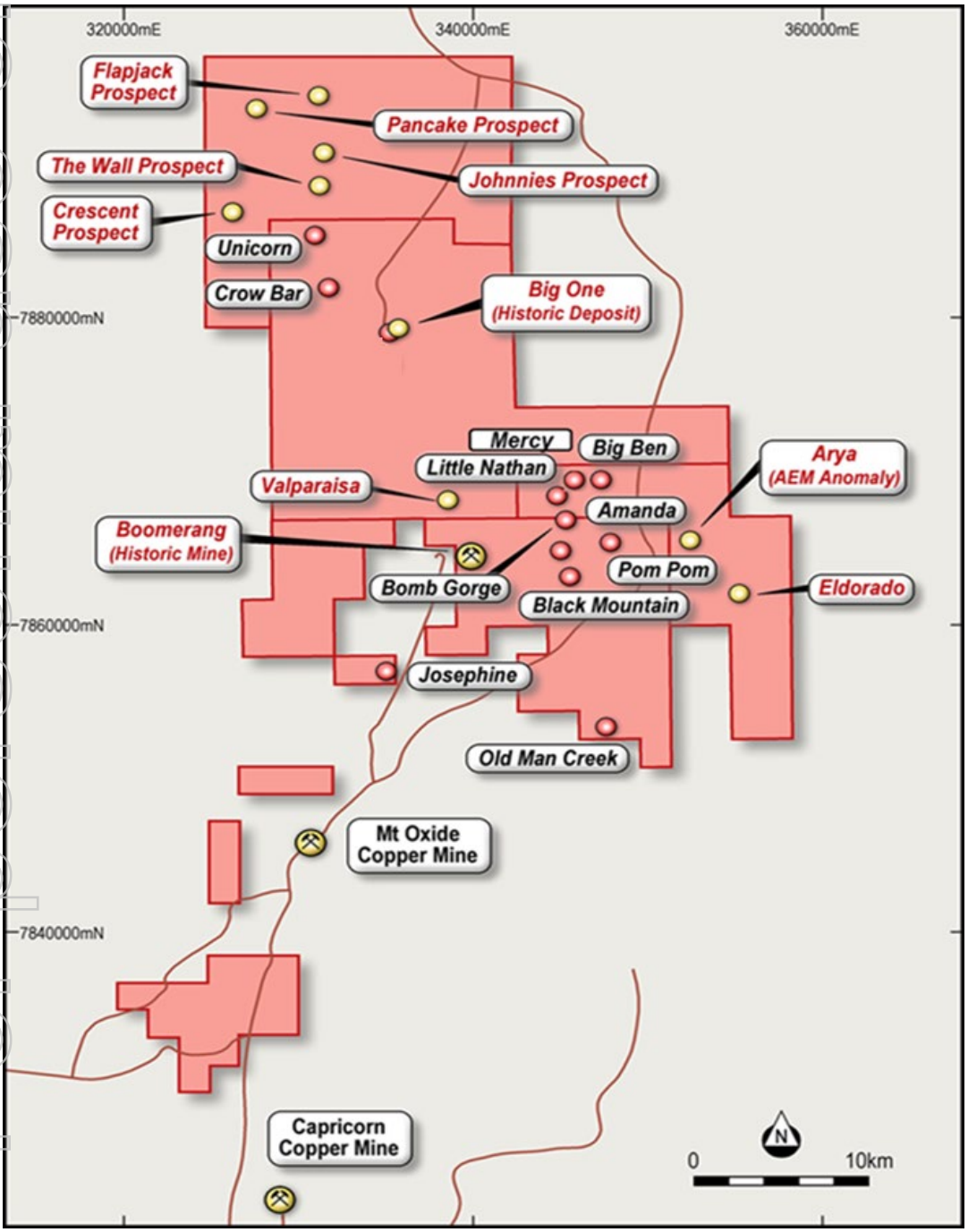
## Location and Scope

CCZ has been exploring the Big One Deposit and historical mine within EPM 26574, some 160km north of Mt Isa in Northwest Queensland, Australia.

The Board has prioritised geological modelling and JORC (2012) Code estimation for an inaugural resource for the Big One Deposit and commissioning an infill drilling campaign. The primary reasons for taking this stance are:

- Recent and historical drilling campaigns have intersected relatively shallow copper mineralisation1 (Figure A-1); and
- There is a significant bedrock conductor, north of the line of lode, which is larger than the anomaly drilled in 2020 that is yet to be drill-tested.

**FIGURE A-1: CASTILLO COPPER POTENTIAL MINERAL PROPSECTS**




Source: CCZ geology team

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## 2021 Work Program

After a first stage of drilling in late 2020, a second tranche of drilling was completed between June to August 2021, with the salient outcomes being noted below:

- The 2021 drilling program concluded on the 20 August 2021, with the CCA with the landowner ending 30 August 2021. A total of 20 reverse circulation drill holes (including one pre-collar) for 2,631.85 m was completed and one partially HQ diameter diamond-cored for 32.13m of core was secured.
- Most holes were downhole geophysically logged with deviation, calliper, natural gamma, and several had acoustic scanner tools run. About 25% of the holes collapsed so coverage downhole is variable. The ground around the dyke is quite fractured and jointed.
- A review of the geological logging found that most lithologies adjacent to the dyke were found to be fine-grained, with the feldspar alteration early relating to dacite intrusives both in the dacite and at varying distances into the wall rocks on both sides. Further, there is mainly greenish sericite (very fine-grained mica) alteration of the dacite and some thin veins of the same in the wall rock sandstones and siltstones. There can be local epidote and chlorite alteration of the dacite, but it is not pervasive as first logged. If mineralization is present, it is later and overprinting the early alteration in the dyke. In BO_321RC pyrolusite, rather than chalcocite was present in thin veins in the sandstone/quartzite.
- Both 2020 and 2021 drillhole collars were ground DGPS surveyed, and a small drone survey produced an orthophoto image of Big One Deposit dyke area with a high accuracy (Figure A-2). When compared to handheld GPS measurements errors were small (± <1m).
- All RC chips were passed for analysis, and where geological logging did not identify visible sulphide or carbonate mineralisation 4m composites were forwarded, else 1m samples were reduced to 2-3kg for laboratory assaying for 48 elements. All chips were tested with the handheld magnetic susceptibility meter. One metre RC chip samples from drillhole BO_315RC were scanned using the portable XRF gun.
- The best intersections are reported below (Table A-2), with a complete list of assay results is given in the end of hitch report.
- Analysis of the assay data has shown that that the porphyritic dacite dyke can be characterised by high chromium and lithium lab assay levels compared to background (up to six times for Cr and ten times for Li).
- Drillholes 315-318RC, 326RC, 327RC, 332RC, and 333RC had significant mineralisation. For the most part the other holes were drilled into various southern IP anomalies, and where there were no dyke intersections, there was little mineralisation recorded visually nor returned from the lab assays. The HQ diamond core hole, BO_334DD, whilst intersecting 9m of dacite dyke, was only mineralised at the top of the dyke (Table A-2 and Figure A-3).
- The best, deepest, mineralisation was BO_318RC with 16m (apparent) from 166 to 182m @ 0.59% Cu, including 3m from 176-179m @ 1.76% Cu. The mineralisation appears best developed over a 400m strike length of the 1,200m mapped extent of the dyke where it intersects at a sharp angle with a major regional fault. In this region the mineralisation extends beyond the confines of the 6m wide dyke into the country rock of quartzites and siltstones.
- Generally, the IP anomalies near the southern side of the dyke have only returned minor copper anomalies (<500ppm; refer to Figures A-3 and 4).

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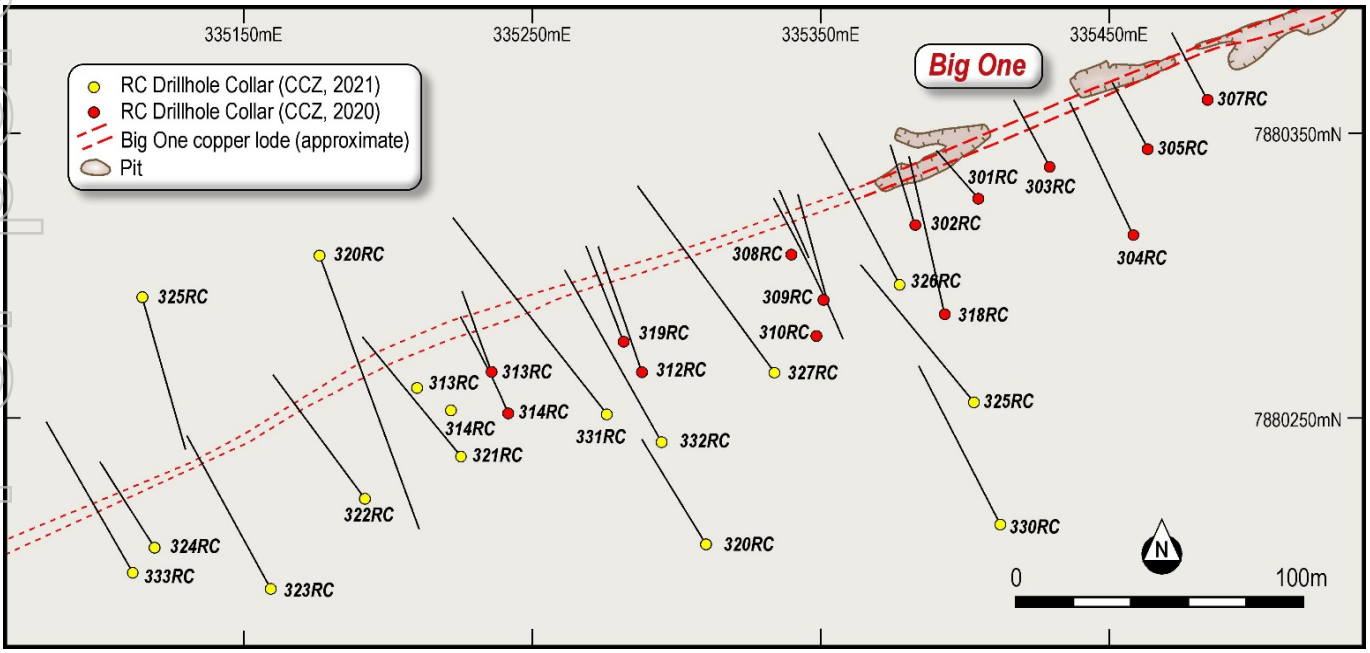
**TABLE A-2: BIG ONE 2021 DRILLING BEST INTERSECTIONS**

| Drillhole | From (m) | To (m) | Apparent Length (m) | Cu (%) | Notes |
|---|---|---|---|---|---|
| **BO_315RC** | 61.0 | 69.0 | 8.0 | 0.50% | Visual mineralisation 62-69m |
| ***including*** | 65.0 | 68.0 | 3.0 | 1.22% | |
| **BO_316RC** | 137.0 | 146.0 | 9.0 | 0.64% | Visual mineralisation 129-146m |
| ***including*** | 141.0 | 146.0 | 5.0 | 1.06% | |
| **BO_317RC** | 88.0 | 97.0 | 9.0 | 1.42% | Visual mineralisation 90.5-103m |
| ***including*** | 92.0 | 96.0 | 4.0 | 3.06% | |
| ***including*** | 92.0 | 93.0 | 1.0 | 9.19% | Also 3.4 g/t Ag |
| **BO_318RC** | 166 | 182 | 16.0 | 0.59% | |
| ***including*** | 176 | 179 | 3.0 | 1.76% | |
| **BO_323RC** | 64 | 65 | 1.0 | 0.06% | |
| **BO_323RC** | 94 | 96 | 2.0 | 0.11% | |
| **BO_326RC** | 100 | 104 | 4.0 | 0.56% | |
| ***including*** | 100 | 101 | 1.0 | 1.58% | |
| **BO_327RC** | 93 | 98 | 5.0 | 0.77% | |
| ***including*** | 95 | 97 | 2.0 | 1.57% | |
| **BO_327RC** | 103 | 104 | 1.0 | 0.43% | |
| **BO_327RC** | 122 | 123 | 1.0 | 0.11% | |
| **BO_333RC** | 42 | 45 | 3.0 | 0.15% | |
| ***including*** | 43 | 44 | 1.0 | 0.31% | |
| **BO_334DD** | 86.43 | 87.43 | 1.0 | 0.52% | See Figure A-3 |
| ***including*** | 86.93 | 87.43 | 0.50 | 1.02% | |

Source: CCZ geology team

Mapping and rock chip sampling was carried out along the IP traverse lines with several high copper values returned from laboratory assay. The stockpile sampling was a standout with more material and good grades evident than originally envisaged. Accurate volumes were calculated from the drone survey. The was a total 7,407t @1.17% Cu estimated over the 12 stockpiles, with the highest value lab assay 3.89% Cu. There will need to be further metallurgical testing and a mining lease applied for and granted to access this material, however (Figure A-2).

**FIGURE A-2: BIG ONE DRILLHOLE LOCATIONS**




Source: CCZ geology team

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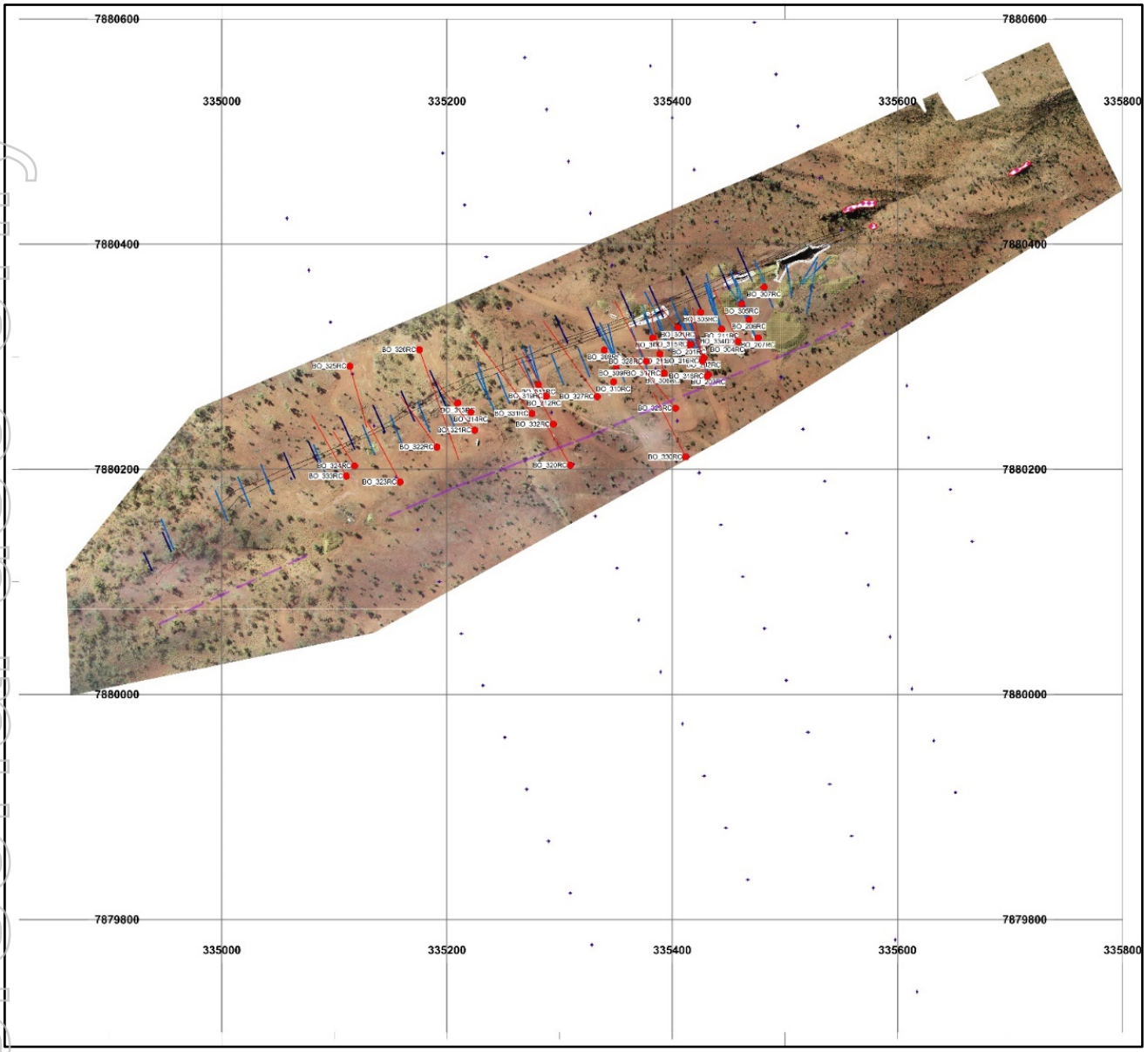
## FIGURE A-3: BIG ONE DRILLHOLE LOCATIONS




Source: CCZ geology team

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**FIGURE A-4: PHOTO GALLERY: BIG ONE DEPOSIT DRILLING & HISTORIC WORKINGS**

Location: 7,880,306E, 335,422N
Source: CCZ geology team

## Geology Review

Post the field logging some drillholes and RC chips were reviewed by Dr P Gregory of GeoDiscovery (Gregory 2021), who noted the ferruginous fine-grained nature of the sandstones and siltstones does not aid recognition of K-feldspar alteration which is just a more subtle pink rather than red brown. Most lithologies adjacent to the dyke were fine-grained, with the feldspar alteration early relating to dacite intrusives both in the dacite and at varying distances into the wall rocks on both sides. Further, there is mainly greenish sericite (very fine-grained mica) alteration of the dacite and some thin veins of the same in the wall rock sandstones and siltstones. There can be local epidote and chlorite alteration of the dacite, but it is not pervasive as first logged. If mineralization is present, it is later and overprinting the early alteration in the dyke. In BO_321RC pyrolusite, rather than chalcocite was present in thin veins in sandstone/quartzite.

Additionally, Gregory (2021) noted there is likely orthoclase in some of the sandstones that may not be alteration, just of a primary origin and that confuses the picture. Most common is quartz veining that is extremely fine-grained and chalcedonic. So, one cannot rule out that perhaps epithermal character may locally be present. Recording of probable K-feldspar-albite alteration is important, as while some is obviously related to the known dyke, if other zones away from the dyke are noted, then the possibility of relationship to buried intrusives is there. But so far, CCZ can't be sure that the dyke is necessarily the source of the copper, or whether fluids from below (metamorphic fluid from Eastern Creek Volcanics reservoir) fortuitously used this conduit.

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The western extent of the dyke may run into a poorly exposed intrusive (hint of oval pattern and perhaps different character on Google satellite image). The objective of the planned mapping and sampling grid is to see if there is any evidence of intrusive or ironstone lag material or even poorly exposed gossan (collect any ferruginous material or interesting rocks for analysis).

In BO_323RC close observation did detect very fine chalcopyrite and possibly chalcocite and digenite, maybe a touch of covellite, but not in great quantities. The alteration picture is certainly early albite and overprinting K-feldspar (orthoclase). The albite is usually a pale pink to even pale green, but distinction between albite and K-feldspar can be difficult. Logging did see chalcopyrite in a K-feldspar vein and in a quartz, vein cutting albite-altered host. There was also some dissemination in the albite-altered host, but extremely fine. CCZ logging suggests that if you haven't got dacite or albite or K-feldspar altered rocks, you won't find mineralisation as these ae the ground preparation for later overprinting mineralizing fluids using the same conduits.

While albite can be more distant from the dacite, orthoclase is more proximal. One other comment is whether K-feldspar alteration exists in medium-grained sandstones well into the hanging wall to the west of the dacite. Most of the albite and K-feldspar alteration near the dyke is in fine-grained sandstone or siltstone, not coarse sandstone which does not seem to be present there. But one needs an open mind in that porous sandstone beds could show conversion of white feldspar to pink-red feldspar if K-rich fluids did move along porous beds.

A series of cross-sections has been previously generated to illustrate the mineralisation detected (e.g., Figure A-5).

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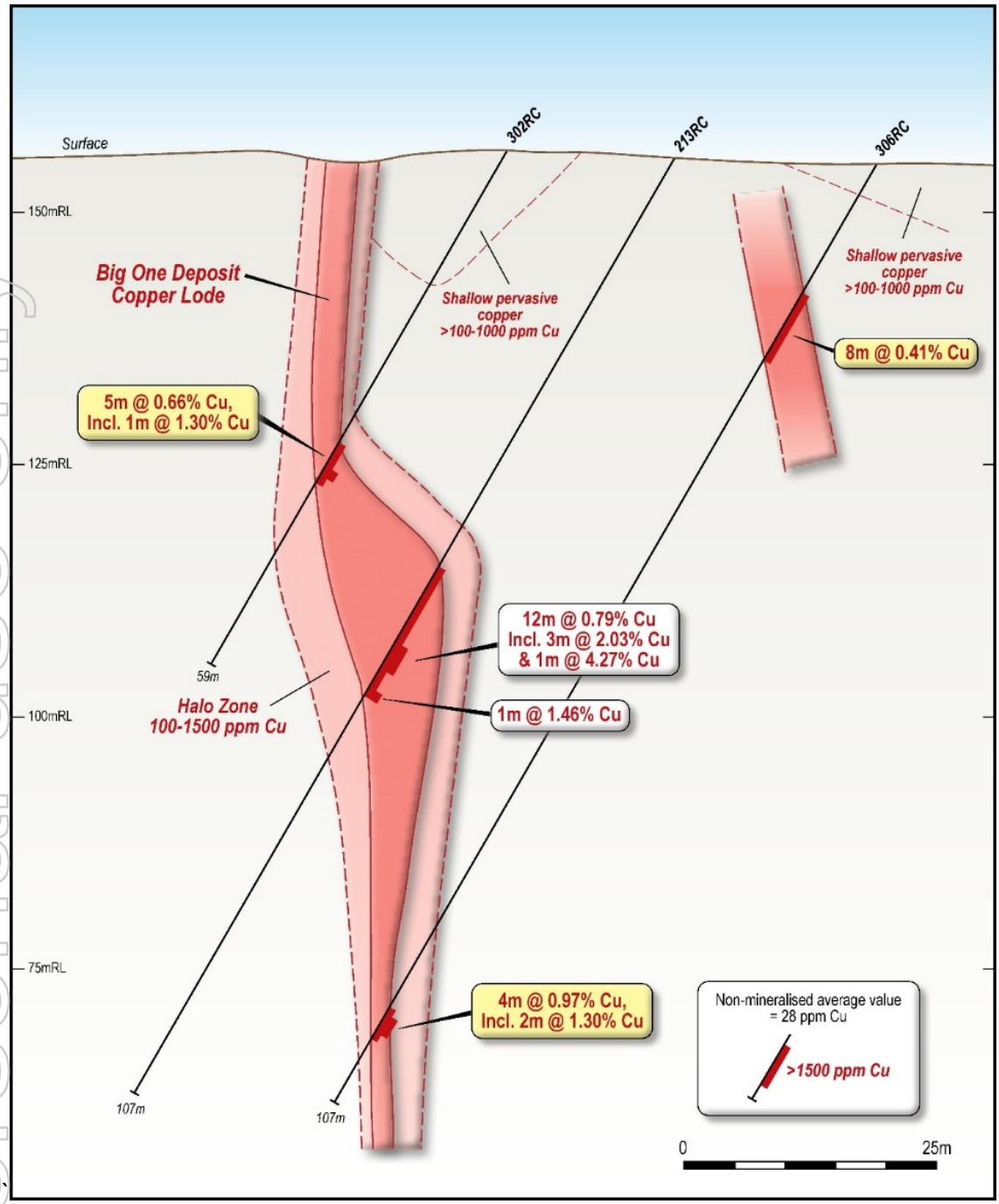
**FIGURE A-5: CROSS-SECTION OF DYKE LOOKING EAST**




Source: CCZ geology team

Figure A-6 illustrates the type of albite and K-Feldspar alteration in the mineralised zone. With Figures A-7 and 8 displaying the drillholes in oblique view, showing downhole histograms of copper (ppm).

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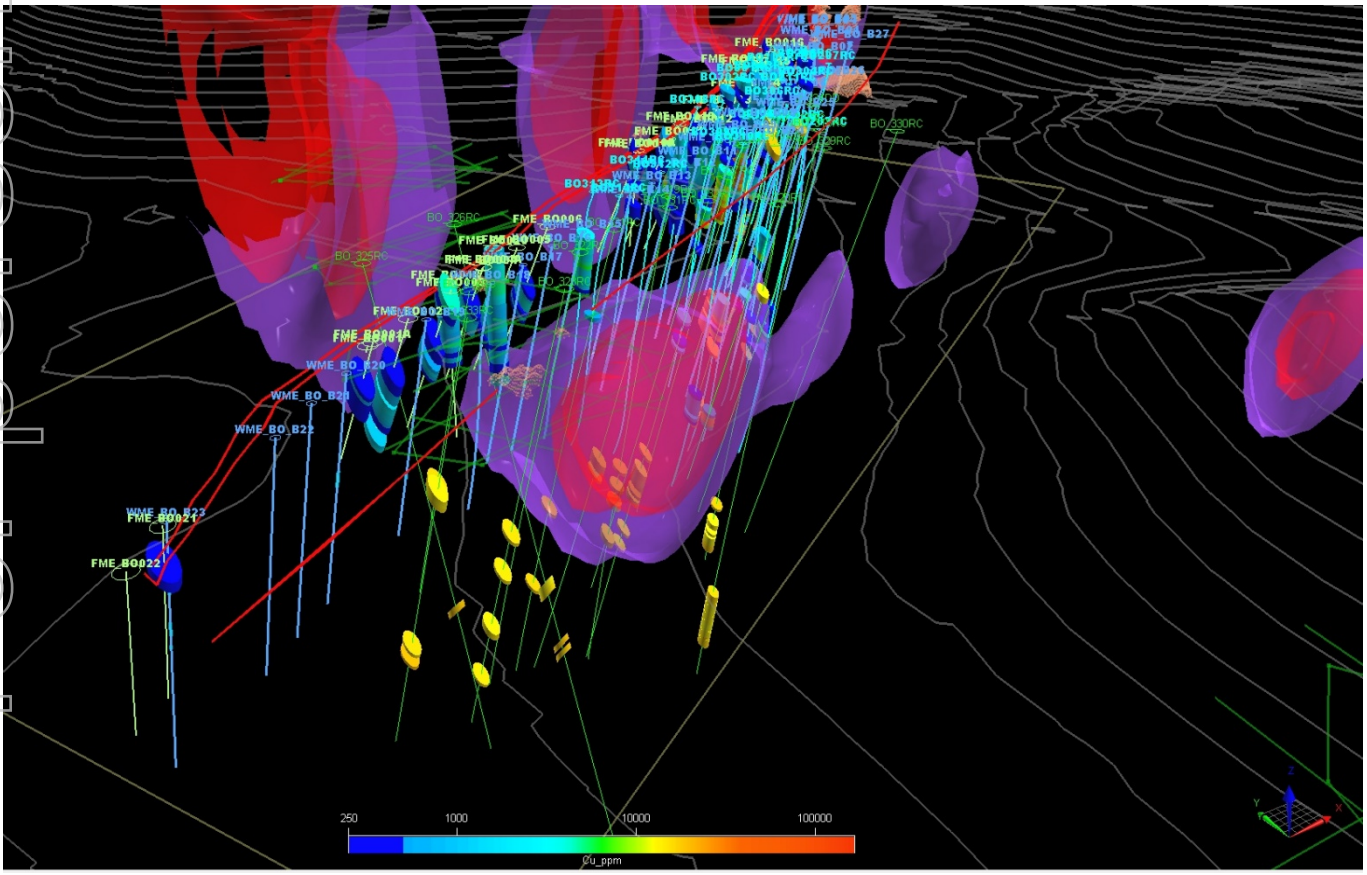
## FIGURE A-6: BO_334DD SULPHIDE AND SERICITE VEINS IN FRACTURED QUARTZITE

Source: CCZ geology team

## FIGURE A-7: 3D VIEWS OF IP ANOMALIES & COPPER ASSAY >250PPM, LOOKING NORTHEAST




Source: CCZ geology team

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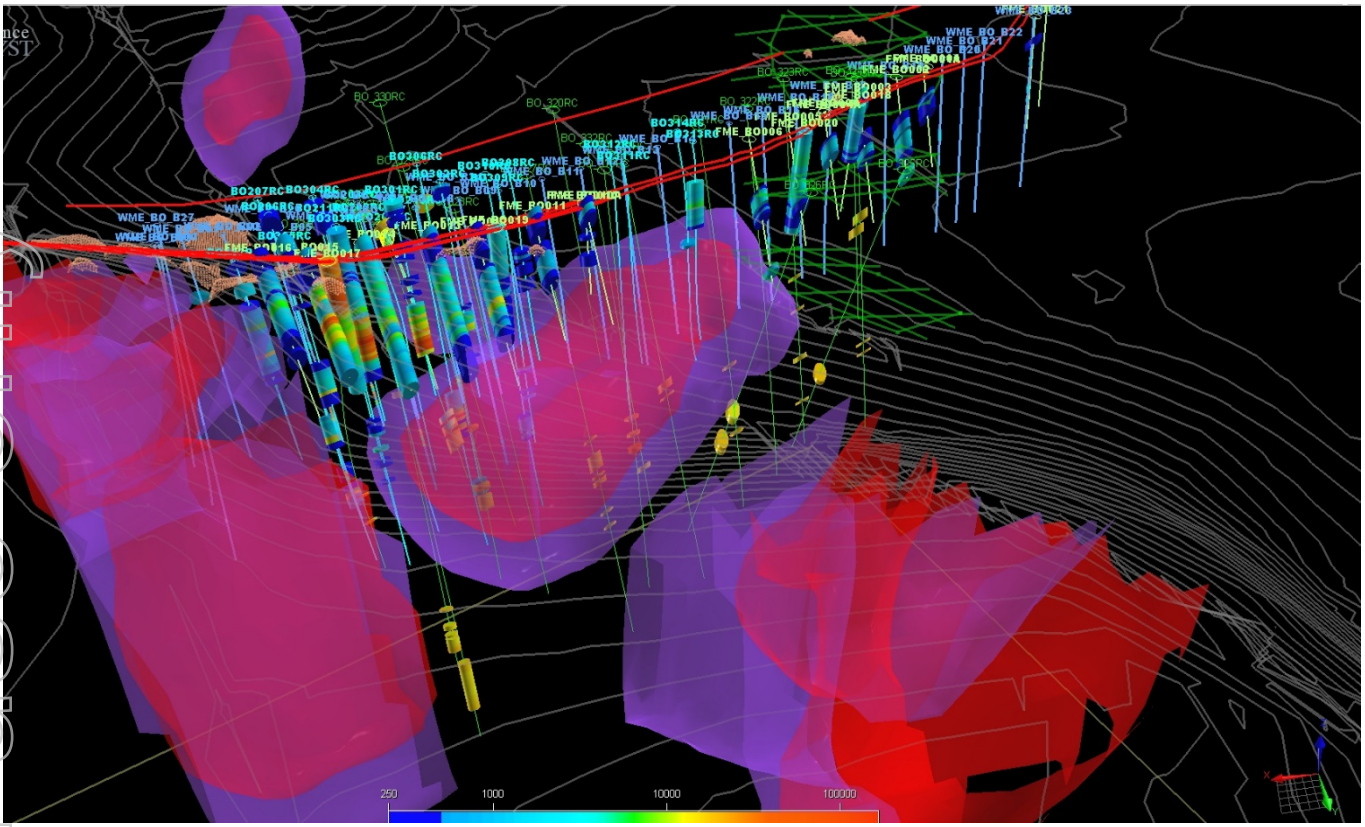
**FIGURE A-8: 3D VIEWS OF IP ANOMALIES AND DRILLHOLE COPPER ASSAY >250PPM, LOOKING SOUTH-SOUTHWEST**




Notes:

1. Two (2) times vertical exaggeration.
2. Copper colour scale is in Cu ppm.
3. Topographic contours 2m AHD

Source: CCZ geology team

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## Stockpile Sampling

Twelve separate stockpile samples have been mapped and sampled (see example below, Figure A-8) and were covered by the drone survey, from which accurate volumes were estimated. All of the stockpiles originated from historic mining Pits 1-3 and were mostly comprised of mineralised reject material (cupriferous dyke and quartzite) from the 1990's mining.

Initial XRF readings on some indicated high copper (highest 3.84%). All twelve separate stockpiles were grab sampled at regular spacings across the base of each stockpile, with multiple samples collected across each stockpile. Samples were dispatched to lab on the Monday 23 August and received on the 3 September 2021. The XRF readings were vindicated with laboratory assays returning copper values as high as 3.89%.

**FIGURE A-8: STOCKPILE 11 PHOTOS AND TONNAGE CALCULATIONS**

| Stockpile | Sample Id | Cu ppm | Volume $m^3$ | Bulk Density ($kg/m^3$ | Mass (t) |
|---|---|---|---|---|---|
| **BO_SP11** | CCZBO_SP11_01 | 11,450 | | | |
| **BO_SP11** | CCZBO_SP11_02 | 10,550 | | | |
| **BO_SP11** | CCZBO_SP11_03 | 5,390 | | | |
| | | **9,130** | 224 | 1.9 | 425.6 |

Source: CCZ geology team

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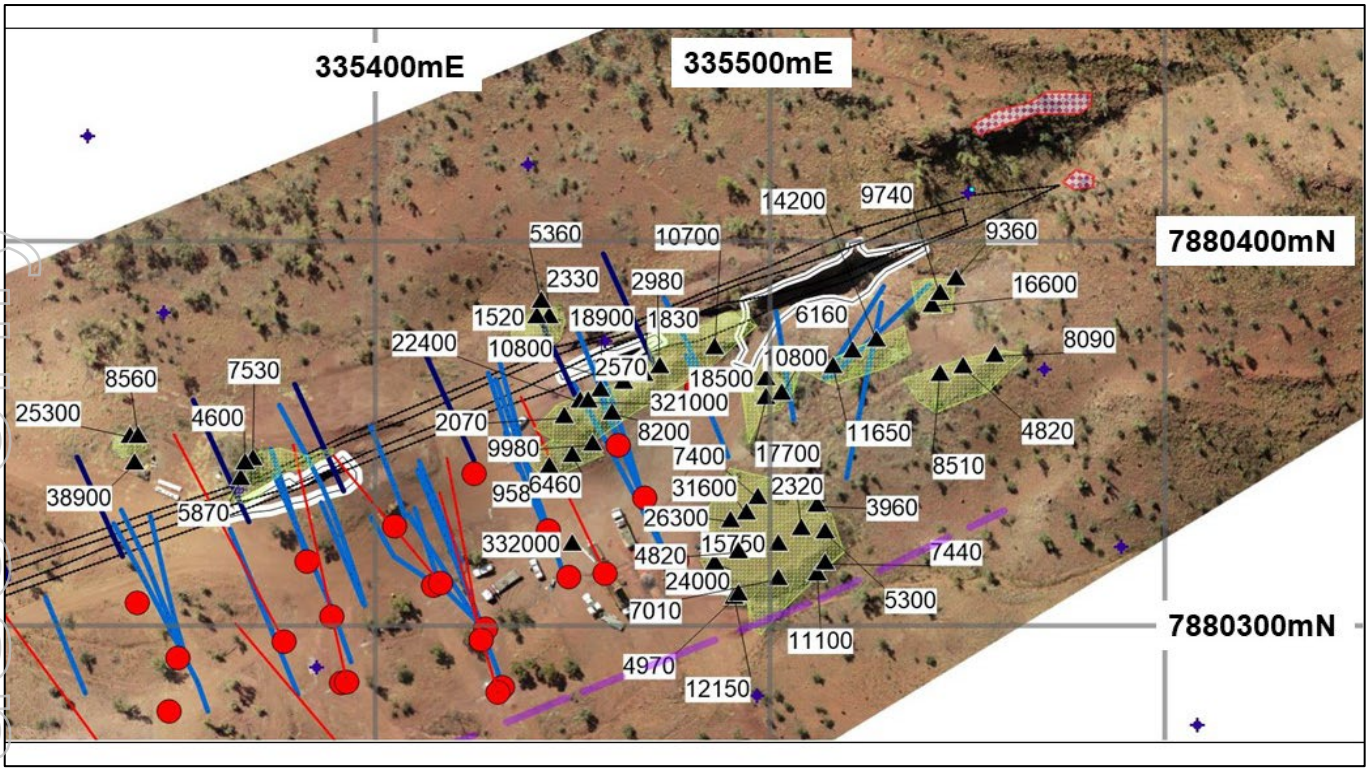
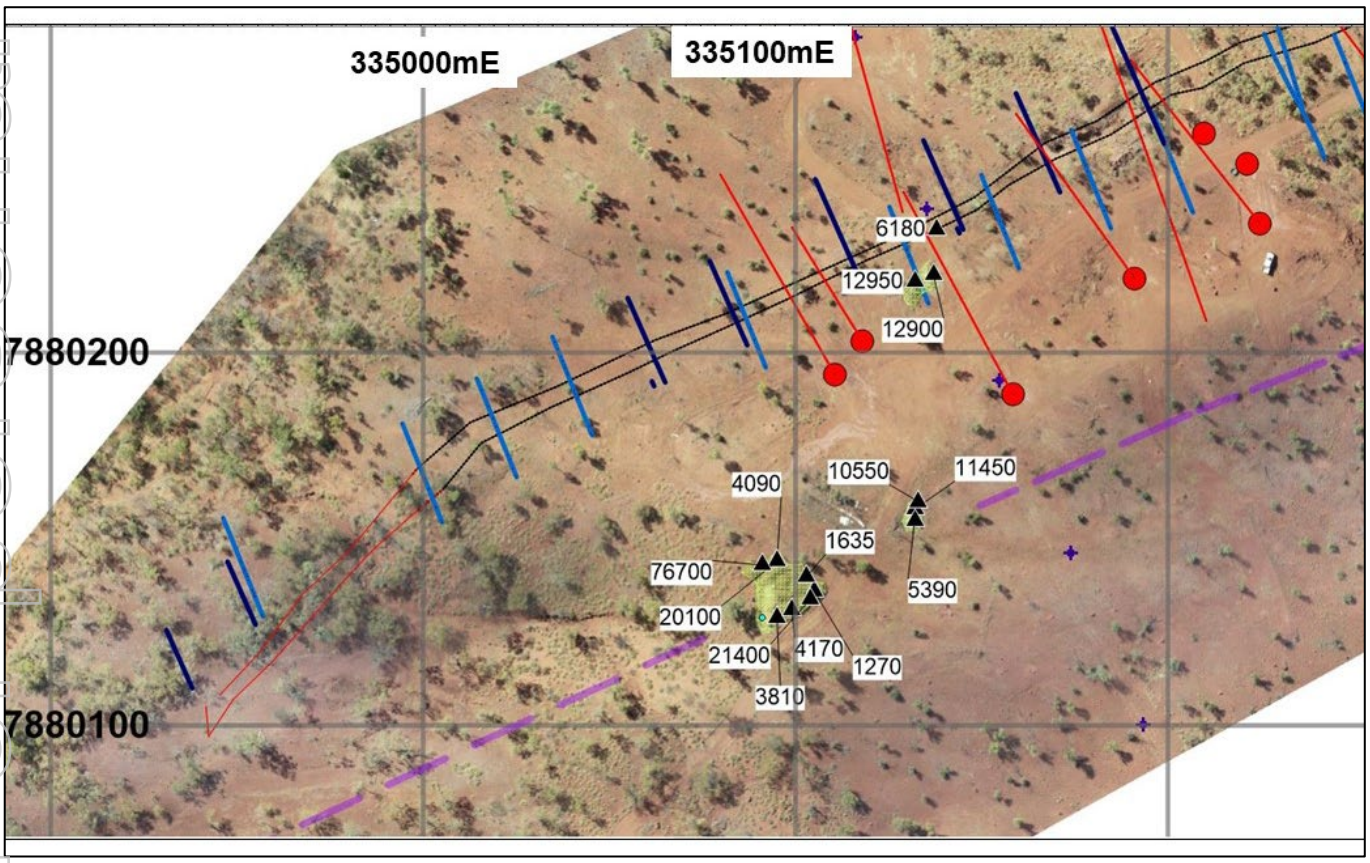
Figure A-9 shows the laboratory assays returned for copper (in ppm). Elevated results for silver, cobalt and chromium were returned. The images shown in Figure A-6a &b are in MGA94, Zone 54 projection.

**FIGURE A-9: STOCKPILE ASSAY RESULTS FOR COPPER (PPM)**




Source: CCZ geology team

Similar calculations for the other stockpiles (see Appendix C, D; and JORC Table 1) resulted in a total accumulation of 7,407t @ average of 1.17%Cu. Further metallurgical testing would be required to verify recoveries, and a valid mining lease will be required to exploit this on-surface resource.

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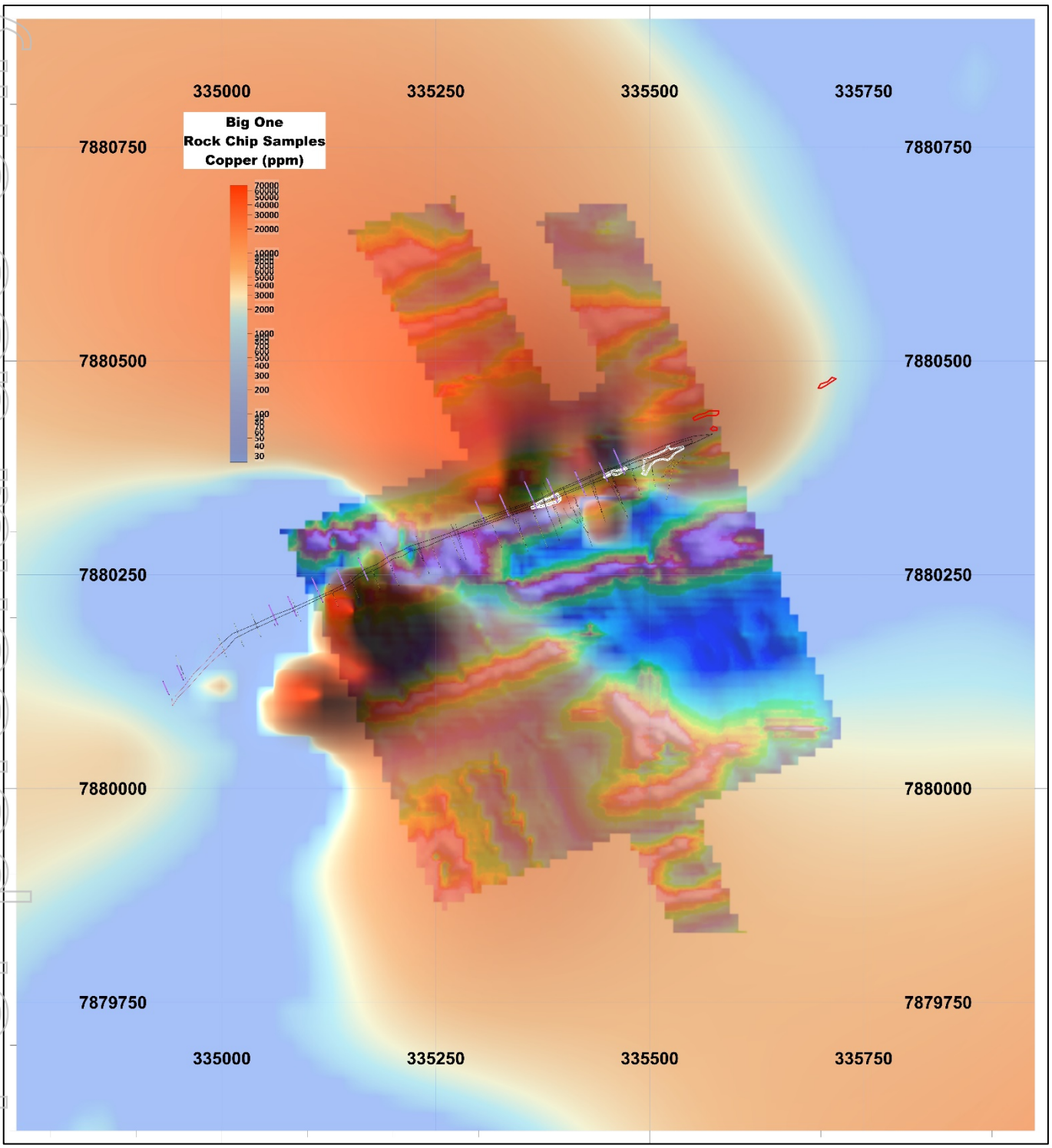
# Modelling and Insitu Mineral Resource Estimate

## Geological Modelling

Recent work included collating all surface sampling data sets and contouring significant anomalous elements (Au, Ag, Co, Zn, and Cu). As an example, Figure A-10 shows anomalous copper in surface rock chip samples only. A database of 79 drill-holes was created, and geological block model (20m x 20m x 2m; Figure A-12) of the Cu, Au, Ag, and Co mineralisation at Mt Norma using the mine planning software Datamine's Minescape Block Model module.

**FIGURE A-10: BIG ONE OUTCROP AND RC CHIP SAMPLING**




Source: CCZ geology team

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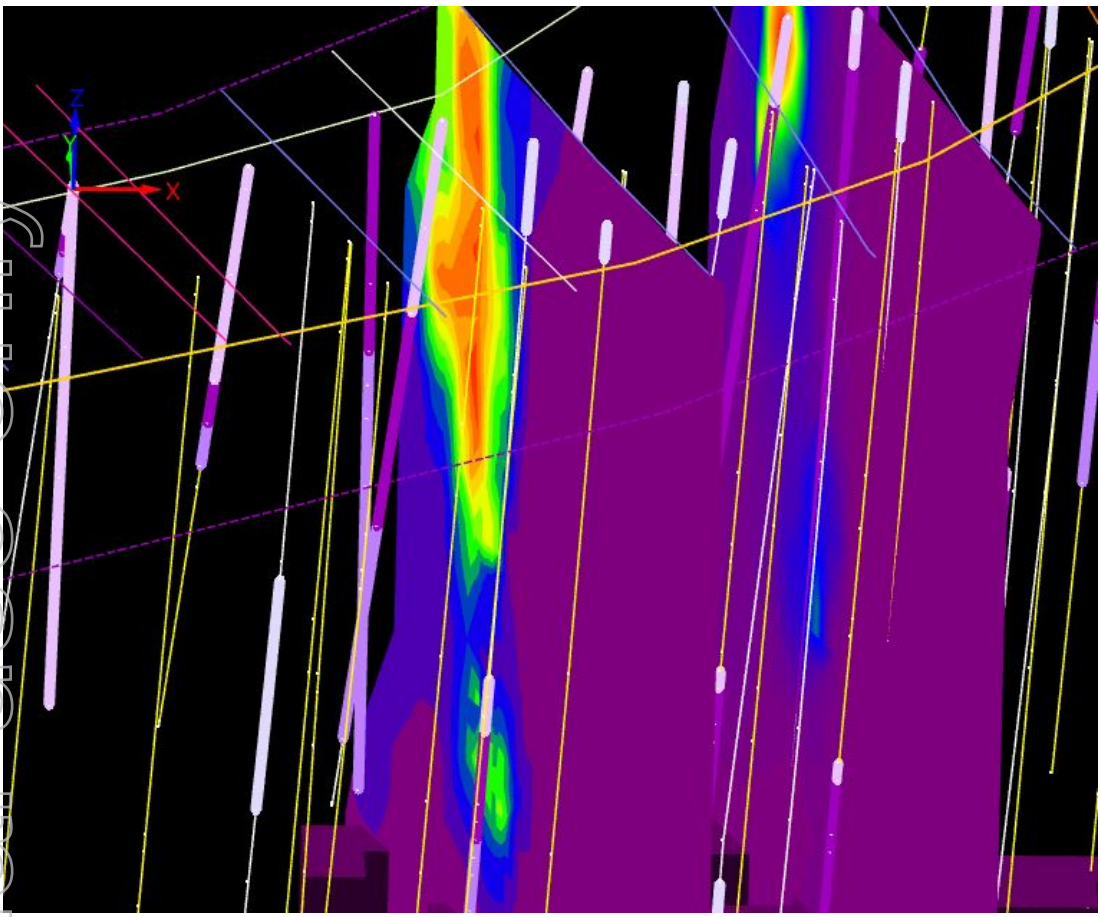
Figure A-11 shows the modelled drillholes looking north-east. Histograms of copper from laboratory assay are shown downhole in rainbow colouring, the red being >2% Cu. Further modelling of options and methods are detailed in JORC Table 1 Section 3 (Appendix B).

**FIGURE A-11: BIG ONE SECTION VIEW OF BLOCK MODEL**




Note: Green coloured blocks > 0.4% Cu, red blocks > 2% Cu

Source: CCZ geology team

The original investigations suggested that on rough estimation the resource was about 100,000-150,000t Indicated and 2-3Mt Inferred and some Exploration Target. As time went on, the mineral resource estimate was downgraded to a smaller Inferred tonnage (with the initial Inferred tonnes downgraded to Exploration Target) due to the following factors:

- Lack of an available previous computer-based geological models, with only vague hardcopy estimates reported.
- Uncertainty as to levels and georeferencing of the open-cut mining component, especially the lack of any referenced mapping made available by previous owners.
- Lack of accurately located historical mining sampling and assays resulting from any grab or channel samples, although I am sure that many were taken.
- Lack of data for some of the non-CCZ drilling (lithology, some discrepancy from plans on locations, lack of QA/QC.

The interpolator used was a simple inverse distance squared due to mediocre semi-variogram modelling (insufficient sample pairs for ordinary kriging). The first search ellipse is orientated 60 degrees and has a radius of 40m, the second pass 55m. The interpolation bias is in the Y and Z directions, being smallest in the X direction.

## Estimation Methodology

The mineral resource was constrained to mineralisation envelopes or lodes in 3D that were created using a nominal 0.45 % Cu cut-off, as the mineralisation exists both within and outside the dyke wireframe. To maintain continuity of interpretation, some drill intercepts <0.45% Cu were included within lode wireframes. Copper, cobalt, silver, and gold was interpolated into the block model. Where drill density decreased, extrapolation was restricted to a distance generally equal to half the typical hole spacing i.e., if holes were spaced at 50m the interpretation extended 25m beyond the last hole. A top cut of 10% Cu was applied.

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The resource blocks were estimated using Inverse Distance Squared (ID2) at a parent block size of 40m by 40m by 4m sub-blocked to 20m by 20m by 2m using 1m fixed-length composites. Each lode was estimated independently using hard boundaries, i.e., only composites that fell within the lode shell. IDS validation included:

- visual examination of the estimated block grades against the drill hole assays on plan and in section.
- comparing 1m composite and IDS block statistics by lode and by swath plots.

No material issues were noted.

The Big One Deposit is characterised by deep, irregular weathering down the main shear structure and variable weathering in the parent rock. In situ bulk density was assigned to each block based on the degree of oxidation noted in geological logs, which was modelled as a surface. The oxide-fresh rock boundary (BOCO) has been selected at the interface of moderate and partially weathered material. Typically, the mineralised oxide zone is a mix of weakly to strongly oxidised material with only minor amounts of completely oxidised material. Oxidised and fresh lode material were assigned bulk densities of 2.45 Kg/m$^3$ and 2.65 kg/m$^3$ respectively, which is considered conservative. Laboratory-derived bulk density testing were available from BO_334DD which showed an average of 2.70 for unmineralised rock. A summary of the contained tonnes of copper within the unconstrained block model is shown in Figure A-12.

**FIGURE A-12: BIG ONE Grade Tonnage**

| Cu-Cut-off grade (%) | Insitu Tonnage (Oxid and Fresh) Mt | Copper Grade | Contained Insitu Copper (%) |
|---|---|---|---|
| 0.25 | 2.9 | 0.6 | 16,820 |
| 0.35 | 2.7 | 0.8 | 21,060 |
| 0.45 | 2.1 | 1.1 | 21,800 |
| 0.65 | 1.6 | 1.2 | 19,200 |

## Cut-off Grades

A 0.45% Cu cut-off grade was assumed for potential open pit material down to the 160 m RL, around 80m below the lowest part of the historic pit. Below this level the stripping ratio is likely to be too high for open pit extraction. These cut-off grades are preliminary in nature and are subject to confirmation by feasibility work on the project.

## Classification Criteria

Mineral Resource classifications were assigned on a block-by-block basis using estimation outputs. Inferred resource blocks required the closest sample within 55m on the second pass, an average sample distance <35m, and a minimum of three drill-hole samples, with the remaining blocks between 55-90m could be assigned to an Exploration Target.

## Resource estimate

Due to the uncertainty with the location of some historical holes (excluded from the modelling) and the distribution of drilling, only an Inferred Resource of 2.1Mt @ 1.1% Cu is reported at this stage, which compares favourably to several previous non-JORC estimates. A well-placed drilling program has the potential to greatly increase this number and confidence class, as the deposit is open to the north, east, and downdip.

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. Recent resource estimates of mine stockpiles have also been included, and 6,500t of previously mined material has been deducted from the oxidised ore estimate (Table A-3). About 70% of the insitu ore is oxidised and the remainder fresh sulphide (chalcocite).

**TABLE A-3: RESOURCE TONNAGES BIG ONE PROJECT**

| Tenure Name | Ore Type | Exploration Target Range Low (Mt) | Exploration Target Range High (Mt) | Exploration Target Range Mid (Mt) | Inferred (Mt) | Indicated (Mt) | Measured (Mt) | Copper Grade % | Silver Grade g/t | Contained Copper (t) | Contained Silver (kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mine Dumps | Oxidised | 0 | 0 | 0 | 0 | 0.007 | - | 1.2 | 4.0 | 86 | 29.6 |
| Mine Insitu | Oxidised | 0.02 | 0.10 | 0.06 | 1.7 | 0 | - | 1.0 | 1.1 | 17,000 | 1,870 |
| Mine Insitu | Fresh | 0.2 | 1.2 | 0.7 | 0.4 | 0 | 0 | 1.2 | 1.4 | 4,800 | 560 |
| Sub-Totals | | **0.22** | **1.3** | **0.8** | **2.1** | **0.007** | **0** | | | **21,886** | **2,459.6** |

Source: CCZ geology team

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# APPENDIX B: JORC TABLE 1

The following JORC Code (2012 Edition) Table 1 is primarily supplied for the provision of the final release of data for the 2021 Drilling Program at the Big One Deposit. There is additional commentary provided at the end of Section 2.

Criteria in this section apply to all succeeding sections.)

## Section 1 Sampling Techniques and Data

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| ***Sampling techniques*** | • *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.*<br>• *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*<br>• *Aspects of the determination of mineralisation that are Material to the Public Report.*<br>• *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.* | • For the 2021 program, samples are taken off a cyclone for every metre drilled, put through a three tier, 87.5/12.5 splitter where approximately 2.5 kg of RC chip samples were collected for every metre drilled. The remainder was bagged separately and stored in case additional sub sampling is required before the end of the program.<br>• Weights recovered from riffle splitting varied between 1-2kg for both the 1970 and 1993 drilling programs.<br>• For the 2021 program, samples were also composited every four metres where visual inspection did not initially indicate copper mineralisation. All samples were collected to maximise optimal representation for each sample.<br>• Each metre sample had an amount removed for washing and cleaning and sieving then place into metre allocated chip trays (see Figure A1-1). These chips were logged on site by the rig geologists and those logs have been saved into a spreadsheet and stored on the Company server. Any visible mineralisation, alteration or other salient features were recorded in the logs. Industry-wide, acceptable, standard practices were adhered to for the drilling and sampling of each metre as per the drilling and sampling Procedures set out before commencement of the drilling programme. |
| ***Drilling techniques*** | • *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).* | • Reverse Circulation, RC, and HQ-sized diamond wireline drilling techniques were utilised for all holes drilled at the Big One Deposit. |
| ***Drill sample recovery*** | • *Method of recording and assessing core and chip sample recoveries and results assessed.*<br>• *Measures taken to maximise sample recovery and ensure representative nature of the samples.*<br>• *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.* | • For the 2021 program, within acceptable industry standard limits, all samples collected were of near equal mass and recoveries were also within acceptable limits for RC drilling and all recorded in the daily logs. Every effort was made on site to maximise recovery including cleaning out the sample trays, splitter and cyclone and ensuring that the drillers progressed at a steady constant rate for the rig to easily complete each metre effectively. |
| ***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.*<br>• *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.*<br>• *The total length and percentage of the relevant intersections logged.* | • For all drilling programs, every metre drilled and sampled was logged geologically in accordance with industry-wide acceptable standard for RC logging and the logging was qualitative in nature with every metre logged. Unfortunately, lithology dictionaries and descriptions varied between programs. The 2021 programs also recorded visible sulphide and carbonate concentrations and alteration minerals, such as orthoclase, epidote, chlorite, and sericite. |

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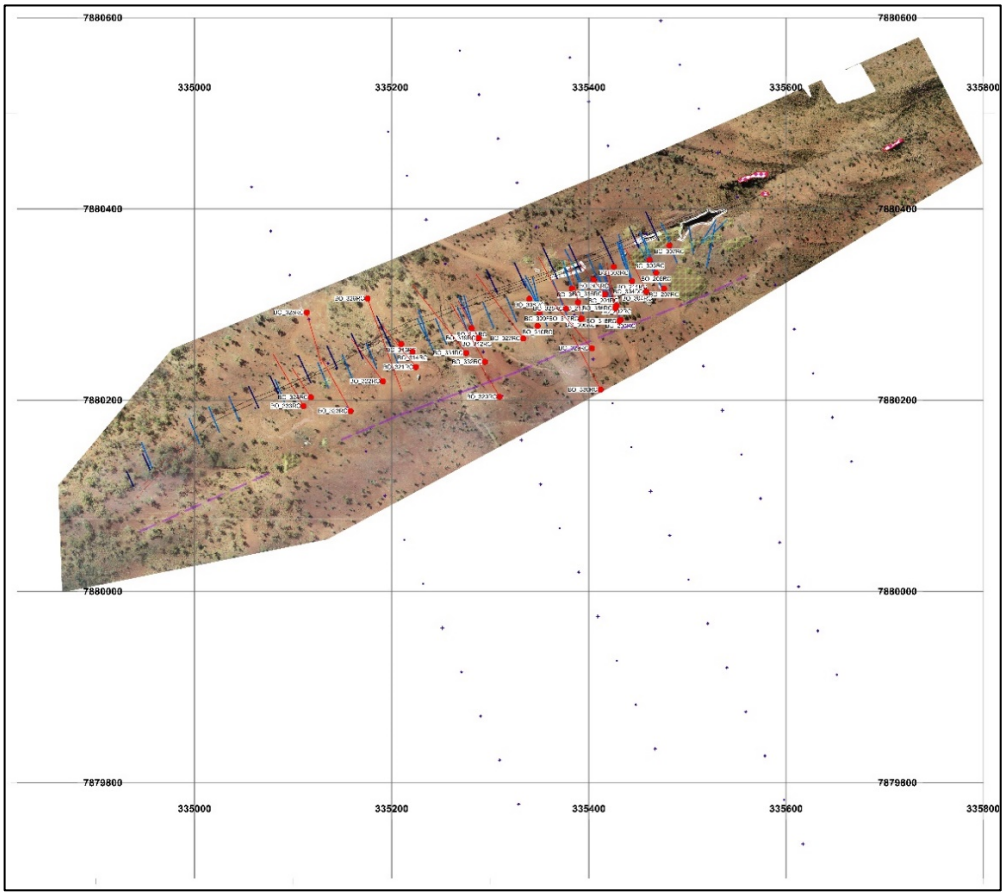
| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| ***Sub-sampling techniques and sample preparation*** | • *If core, whether cut or sawn and whether quarter, half or all core taken.*<br>• *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.*<br>• *For all sample types, the nature, quality, and appropriateness of the sample preparation technique.*<br>• *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*<br>• *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.*<br>• *Whether sample sizes are appropriate to the grain size of the material being sampled.* | • For the 2021 program, samples with pXRF copper <200ppm will be composited every four metres and all samples were collected to maximise optimal representation for each sample. If XRF is not available, then all samples with no visible mineralisation will be sampled as above.<br>• Each metre sample had an amount removed for washing and cleaning and sieving then place into metre allocated chip trays. These chips were logged on site by the rig geologists and those logs have been saved into a spreadsheet and stored on the Company server. Any visible mineralisation, alteration or other salient features were recorded in the logs. Industry wide, acceptable, standard practices were adhered to for the drilling and sampling of each metre as per the Drilling and Sampling Procedures set out before commencement of the drilling programme.<br>• Any reporting of significant mineralised intervals was on a received apparent thickness x interval calculation (i.e., thickness averaged). |
| ***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.*<br>• *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.*<br>• *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.* | • CCZ's DDH and RC holes will be assayed by an independent laboratory, ALS at Mt Isa, Townsville, or Brisbane Australia. Methods used were as follows:<br>  ○ Gold – by method **Au-AA25** 30g charge (fire Assay with AAS finish);<br>  ○ High gold values within oxide zone/supergene zone may need further testing by method Au-**SCR21**.<br>  ○ Copper and 32 other – by method **ME-ICP41** (HF-HN03-HCL04 acid digest, HCL leach and ICP-AES finish).<br>  ○ Over-limit copper (>10,000 ppm [0.01%]) to be re assayed for copper by method **Cu-OC62** (HF-HN03-HCL04 acid digest, HCL leach and ICP-AES finish).<br>• These analytical methods are considered as suitable and appropriate for this type of mineralisation.<br>• For the current drilling program ALS Brisbane will analyse all samples. All elements except for gold were analysed by method ME-MS61 (41 element testing via Aqua Regia digest then ICP-AES) and with any copper assays >1%, the copper will be redone using method Cu-OG46 with ICP-AES. The gold was done by method AA25. All methods used were both suitable and appropriate for the styles of mineralisation present in the Big One Deposit at the time of sampling. |
| ***Verification of sampling and assaying*** | • *The verification of significant intersections by either independent or alternative company personnel.*<br>• *The use of twinned holes.*<br>• *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*<br>• *Discuss any adjustment to assay data.* | • All CCZ's DDH and RC hole assay results from ALS have been reviewed by two independent consultant geologists. Assays from the BO_334DD have recently been resolved.<br>• For current the rock chip sampling, Independent Laboratory assaying by ALS has confirmed, within acceptable limits, the occurrences of high-grade copper inferred from the initial XRF readings. Laboratory standards and duplicates were used in accordance with standard procedures for geochemical assaying. |
| ***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.*<br>• *Specification of the grid system used.*<br>• *Quality and adequacy of topographic control.* | • All twenty holes done by CCZ in 2021 have had their location surveyed by GPS and will, at then, at the completion of drilling, were surveyed by differential GPS by independent licensed surveyors (GMC Surveys).<br>• The spatial location for these holes has been differentially surveyed into MGA94 – Zone 54. Collar heights are to the Australian Height Datum.<br>• The locations of the 1970 drillholes and 1993 drillholes have been determined from georeferencing several plans and utilizing tables in historical reports. Location errors for the 1970 drilling is ±20m whereas it is about ±12m that for the 1993 holes. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| ***Data spacing and distribution*** | • *Data spacing for reporting of Exploration Results.*<br>• *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.*<br>• *Whether sample compositing has been applied.* | • The final 20 RC holes were part of a 35-hole program that was set out on a nominal 100m pattern or to redrill 2020 holes that were found to be too short. The 1970 drilling was set at a 30m spacing and the 1993 drilling also at a 50m spacing. At the completion of all the planned holes, the drillhole collars were differentially surveyed by an independent, licensed surveyor and the grid pattern verified. A drone survey over a 2.3Ha area was flown over the exploration area and covered the outcrop length of the dyke. Data was supplied as spot height clouds, orthophoto and topographic contours in DXF / DWG format. |
| ***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.*<br>• *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 current CCZ RC drilling programme (Figures B1-1, B1-2) has had all holes oriented to intersect the mineralised structure/zone subsurface perpendicularly and therefore does not constitute any perceived bias. The typical dip direction of the new drillholes is 335-350 deg (Grid North).<br>• Rock chip samples have also been taken at areas of interest from observed mineralisation along the line of lode of the mineralised dyke, secondary structures, and surrounding spoil heaps. |
| ***Sample security*** | • *The measures taken to ensure sample security.* | • Each day's RC samples were removed from site and stored in a secure location off site.<br>• The RC chip samples taken were securely locked within the vehicle on site until delivered to Mt Isa for dispatch to the laboratory in person by the field personnel. |
| ***Audits or reviews*** | • *The results of any audits or reviews of sampling techniques and data.* | • This will be done once all 28 holes in CCZ's Stage 2021 program, and their assay results have been verified.<br>• For the historical drilling, the sampling techniques and the data generated from the Laboratory Assay results have been peer reviewed by consultant geologists familiar with the overall Mt Oxide Project and deemed to be acceptable. To facilitate this, six (6) sites have twinned drillholes, with the current drilling spudded immediately adjacent to the historical 1970, 1993 and 2020 drilling programs. |

**FIGURE A1-1: DRILLHOLE LOCATION MAP**




Note: The coordinate system shown is MGA1994-Zone 54.

Source: CCZ Geology team

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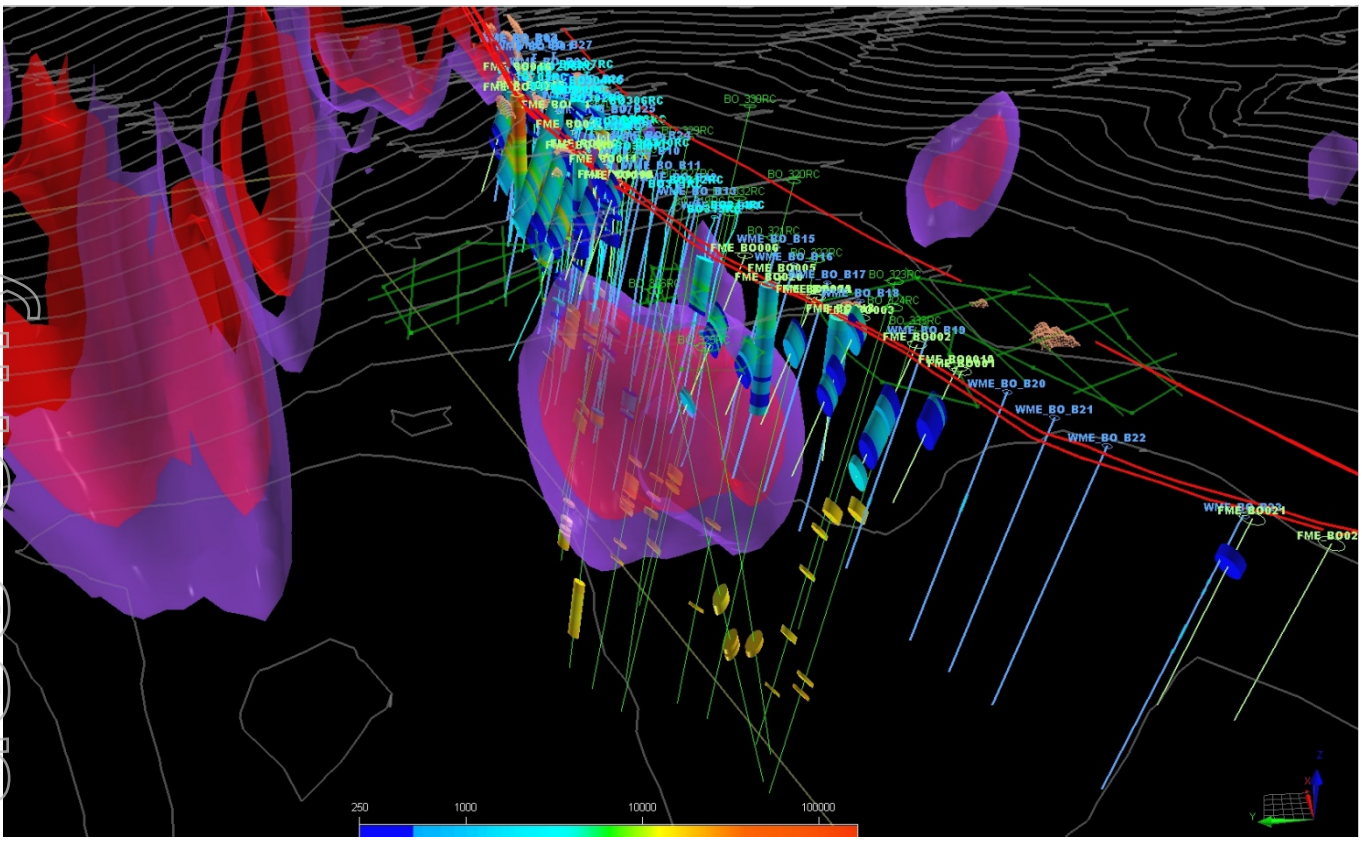
**FIGURE A1-2: 3D VIEW OF IP ANOMALIES AND DRILLHOLES COPPER ASSAY >250PPM, LOOKING SOUTH-SOUTHWEST**




Notes:

(A) Two times vertical exaggeration.

(B) Copper colour scale is in Cu ppm.

(C) Topographic contours 2m AHD

Source: CCZ geology team

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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*** | • *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.*<br>• *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.* | • The following mineral tenures are held 100% by subsidiaries of Castillo Copper Limited, totalling an area of 736.8 $km^2$ in the "Mt Oxide North Project":<br>○ EPM 26574 (Valparaisa 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 (323.3$Km^2$), Expires 11-June-2023.<br>○ 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 (216.5 $Km^2$), Expires: 28-Aug-2022.<br>○ EPM 26525 (Hill of Grace) – encompasses the Arya (previously Myally Gap) significant airborne EM anomaly, Holder: Total Minerals Pty Ltd for a 5-year period over 38 sub-blocks (128.8$Km^2$), Granted: 12-June-2018, Expires: 11-June-2023.<br>○ EPM 26513 (Torpedo Creek/Alpha Project) – Granted 13-Aug-2018 for a 5-year period over 23 sub-blocks (74.2 $Km^2$), Expires 12-Aug-2023; and<br>○ EPM 27440 (The Wall) – An application lodged on the 12-Dec-2019 over 70 sub-blocks (~215 $Km^2$) by Castillo Copper Limited. The tenure was granted on the 18th of March 2021.<br>• A check on the tenures in 'granted' status was completed in 'GeoResGlobe' on the 12th of Feb 2022. |
| ***Exploration done by other parties*** | • *Acknowledgment and appraisal of exploration by other parties.* | • 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).<br>• Most explorers were searching for Cu-Au-U, and, proving satellite deposit style extensions to the several small sub-economic copper deposits (e.g., Big Oxide and Josephine).<br>• With the Mt Oxide North Project in regional proximity to Mt Isa and numerous historical and active mines, the Project area has seen portions of the historical mineral tenure subject to various styles of surface sampling, with selected locations typically targeted by shallow drilling (Total hole depth is characteristically less than 50m).<br>• The Mt Oxide North 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 package.<br>• 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 26574. The following unpublished work is acknowledged (and previously shown in the reference list):<br>○ Katz, E., 1970, Report on the Big One, Mt Devine, and Mt Martin Mining Lease Prospects, Forsayth Mineral Exploration NL, report to the Department of Mines, CR5353, 63pp<br>○ West Australian Metals NL, 1994. Drill Programme at the "Big One" Copper Deposit, North Queensland for West Australian Metals NL.<br>○ Wilson, D., 2011. 'Big One' Copper Mine Lease 5481 Memorandum – dated 7 May 2011.<br>○ Wilson, D., 2015. 'Big One' Mining Lease Memorandum – dated 25 May 2015: and<br>○ Csar, M, 1996. Big One & Mt Storm Copper Deposits. Unpublished field report.<br>• The reader of the current ASX Release is referred to the CCZ's first publication of the 1993 historical reverse |

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| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | | 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.<br>• The SRK Independent Geologists Report released by CCZ on the ASX on 28-July-2020 contains further details on the 'Exploration done by other parties - Acknowledgment and appraisal of exploration by other parties' this report is formally titled "A Competent Persons Report on the Mineral Assets of Castillo Copper Limited" Prepared as part of the Castillo Copper Limited (ASX: CCZ, LSE: CCZ) LSE Prospectus, with the effective date of the 17-July-2020. |
| ***Geology*** | • *Deposit type, geological setting, and style of mineralisation.* | • 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 like that of the Broken Hill Block in western New South Wales.<br>• The Mt Oxide North 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.<br>• 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 several tight synclines- anticline structures along its length.<br>• The Desktop studies commissioned by CCZ on the granted mineral tenures described four main styles of mineralisation account for most mineral resources within the rocks of the Mt Isa Province (after Withnall & Cranfield, 2013).<br>  ○ 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.<br>  ○ 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 |

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| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | | sediments or brecciated rocks proximal to major fault/shear zones. Includes the Mount Isa copper orebodies and the Esperanza/Mammoth mineralisation.<br>○ 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<br>○ 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.<br>• 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 & Cranfield, 2013).<br>• ROM Resources had noted in a series of recent reports for CCZ on the granted tenures, that cover the known mineralisation styles including:<br>○ Stratabound copper mineralisation within ferruginous sandstones and siltstones of the Surprise Creek Formation.<br>○ Disseminated copper associated with trachyte dykes.<br>○ Copper-rich iron stones (possible IOCG) in E-W fault zones; and<br>○ possible Mississippi Valley Type ("MVT") stockwork sulphide mineralisation carrying anomalous copper-lead-zinc and silver.<br>• 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 brittle quartzites, and Esperanza by carbonaceous shales. Mineralisation has been related to the Isan Orogeny (1,590 – 1,500 Ma).<br>• Mineralisation at all deposits is primarily chalcopyrite-pyrite-chalcocite, typically as massive sulphide within breccias.<br>• At the Big One prospect, West Australian Metals NL described the mineralisation as (as sourced from the document "West Australian Metals NL, 1994. Drill Programme at the "Big One" Copper Deposit, North Queensland for West Australian Metals NL."):<br>○ 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 (062º to 242º) that is intruded by a porphyry dyke.<br>○ The mineralised porphyry dyke is vertical to near vertical (85º), with the 'true width' dimensions reaching up to 7m at surface.<br>○ 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.<br>○ Associated with the porphyry dyke are zones of fractured and/or sheared rock, the siltstones are described as brecciated, and sandstones around |

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| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | | the shear as carbonaceous.<br>○ 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 cut pits.<br>○ 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<br>○ 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).<br>• Desktop studies commissioned by CCZ and completed by ROM Resources and SRK Exploration have determined that the Big One prospect is prospective for Cu, Co, and Ag.<br>• Desktop studies commissioned by CCZ have determined the Boomerang prospect contains:<br>○ Secondary copper staining over ~800m of strike length.<br>○ Associated with a major east-west trending fault that juxtaposes the upper Surprise Creek Formation sediments against both the underlying Bigie Formation and the upper Quilalar Formation units.<br>• At the 'Flapjack' prospect there is the additional potential for:<br>○ Skarn mineralisation for Cu-Au and/or Zn-Pb-Cu from replacement carbonate mineralisation, particularly the Quilalar Formation.<br>○ Thermal Gold Auroele 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/or<br>○ IOCG mineralisation related to chloride rich fluids.<br>• At the 'Crescent' prospect there is the additional potential for:<br>○ Skarn mineralisation for Cu-Au and/or Zn-Pb-Cu from replacement carbonate mineralisation, particularly the Quilalar Formation; and/or<br>○ Thermal Gold Auroele 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<br>○ IOCG mineralisation related to potassic rich fluids.<br>• At the 'Arya' prospect there is the additional potential for:<br>○ Supergene mineralisation forming at the surface along the fault, fault breccia, and the Surprise Creek Formation 'PLrd' rock unit ('Prd' historical).<br>○ Epigenetic replacement mineralisation for Cu (with minor components of other base metals and gold) from replacement carbonate mineralisation, particularly the Surprise Creek Formation.<br>○ Skarn mineralisation for Cu-Au and/or Zn-Pb-Cu from replacement carbonate mineralisation, particularly the Surprised Creek Formation.<br>○ Sulphide mineralisation within breccia zones, along stress dilation fractures, emplaced within pore spaces, voids, or in other rock fractures; and/or<br>○ IOCG mineralisation related to chloride rich fluids.<br>• A selection of publicly available QDEX documents / historical exploration reports have been reviewed, refer to Section 2, sub-section "Further Work" for both actions in progress and proposed future actions.<br>• The SRK Independent Geologists Report released by CCZ on the ASX on 28-July-2020 contains further details on the 'Geology - Deposit type, geological setting and style of mineralisation': this report is formally titled "A Competent Persons Report on the Mineral Assets of Castillo Copper Limited" Prepared as part of the Castillo Copper Limited |

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| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | | (ASX: CCZ, LSE: CCZ) LSE Prospectus, with the effective date of the 17-July-2020. |
| ***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:*<br>○ *easting and northing of the drill hole collar*<br>○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*<br>○ *dip and azimuth of the hole*<br>○ *down hole length and interception depth*<br>○ *hole length.*<br>• *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.* | • For the current program, all drillhole information was coded to the same formatted spreadsheets used by CCZ, being hand-encoded from hard-copy reports, plans, and cross-sections.<br>• For CCZ's current drilling program, this information has been recorded in formatted spreadsheets during the drilling and will be checked and verified at the conclusion of the current program. The current reported holes (315-317RC) are listed in Appendix 2, with previous drilling collars listed in the 11$^{TH}$ and 26th July ASX release and in Tables B2-2 and B2-3.<br>• A summary of the holes drilled are given at the end of Appendix C. |
| ***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.*<br>• *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.*<br>• *The assumptions used for any reporting of metal equivalent values should be clearly stated.* | • Queries on some assays are currently pending on CCZ's current drilling program.<br>• For historical surface sampling, Independent Laboratory Assay results for soil and rock chip samples from the Big One Deposit were averaged if more than one reading or determination was given.<br>• Copper grades were reported in this ASX release as per the received laboratory report, i.e., there was no cutting of high-grade copper results as they are directly relatable to high grade mineralisation styles readily visible in the relevant samples and modelling has yet not commenced.<br>• There were no cut-off grades factored into any assay results reported, however once modelling commences a high cut-off grade of 10,000ppm or 10% copper will be used. |
| ***Relationship between mineralisation widths and intercept lengths*** | • *These relationships are particularly important in the reporting of Exploration Results.*<br>• *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.*<br>• *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').* | • When available, all mineralised intervals (i.e., >500ppm) have been reported in this and previous ASX releases as the "as-intersected" apparent thickness (in metres) and given that most drillholes dip at -60 to -70 degrees from the horizontal, true intersection widths will be calculated during the block modelling process. |
| ***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.* | • This part will be done once CCZ's current drilling program is completed, and all samples have been assayed and verified.<br>• Appropriate diagrams are presented in the body and the Appendices of the current ASX Release. Where scales are absent from the diagram, grids have been included and clearly labelled to act as a scale for distance.<br>• Maps and Plans presented in the current ASX Release are in MGA94 Zone 54, Eastings (mE), and Northing (mN), unless clearly labelled otherwise.<br>• A series of cross-sections have been generated at Big One displaying copper analyses in ppm to aid interpretation and exploration planning (in previous ASX releases in July and August 2021) |

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| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| ***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.* | • Comprehensive reporting is planned once CCZ's current drilling program has all sample queries returned and have been verified.<br>  ○ Appropriate diagrams are presented in the body and the Appendices of the current ASX Release. Where scales are absent from the diagram, grids have been included and clearly labelled to act as a scale for distance.<br>• A complete comparison of visual mineralisation estimated by the site geologist is given in Tables C2-6 through to C2-8 at the end of the next section. All intersected intervals are apparent thicknesses in metres. |
| ***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.* | • Several airborne EM and magnetic surveys have been conducted nearby by historical explorers and Castillo Copper has conducted its own surface sampling program prior to drilling commencing as noted above. A major IP survey was completed during May 2021 across five (5) north-east trending survey lines (dipole-dipole array). Historical work has focussed on drilling and geochemical sampling, with no detailed geophysical data collection. The copper intersected to date appears to be associated with a NE-SW trending dyke. It occurs in two zones - oxidised (malachite, azurite, tenorite, cuprite) and chalcocite. The aim of the IP survey was to ascertain if the copper mineralisation intersected to date has a discernible electrical response (chargeable and / or conductive). If so, it is hoped that other zones of similar electrical response can be highlighted to better focus the upcoming drill program.<br>As a result of the evaluation of data from the IP surveys carried out, the following recommendations are made:<br>• The 2D section models are likely to give the most accurate representation of the earth's conductivity and chargeability variations and should be used when drill targeting. The 3D model output allows trends and structures to be mapped and may give some indications of off-line anomalies.<br>• Treat anomalies on the edge of lines (and at depth) with caution. Although care was taken to remove spurious data, some edge effects may persist in the data. Before testing any anomalies, GeoDiscovery can check the raw data to verify if a particular anomaly likely to be real.<br>• 50m DP-DP is shown to be a cost-effective method to cover ground relatively quickly and map the electrical properties of the top 150m or so. If drill testing the regions of elevated chargeability proves successful, a larger 100m DP-DP or P-DP campaign may be considered to cover more ground and to greater depth.<br>• Incorporate the 3D and 2D IP models into the available geological database to determine the extent to which the chargeable zones may or may not have been tested, as well as their geological / stratigraphic significance.<br>• It is recommended that where IP anomalies occur near surface, a field visit is undertaken to see if anomaly can be explained by surficial clays / lithology. |
| ***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).*<br>• *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.* | • Future potential work is described within the body of the ASX Release, and will include:<br>  ○ Detailed mapping and rock chip sampling.<br>  ○ Surface gravity and magnetic surveys, and potentially downhole EM surveys.<br>  ○ Diamond Coring.<br>  ○ Block modelling and wireframing.<br>  ○ Update of Resource Estimation. |

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## Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

| Criteria / JORC Code Explanation | Commentary |
|---|---|
| *Database integrity*<br>• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.*<br>• *Data validation procedures used.* | Historical data from hard copy reports and electronic files such as excel and word, have been captured within a Datamine GDB database. Historical data has been audited by ROM Resources Geologists before entered, and cross referenced with recent data. Data base checks have been run by ROM Resources geologists before resource estimation commenced. Where the location of historical drill holes was in question they have been removed from the model. Reported collars have been adjusted to the topography model (drone) where the discrepancy is ±0.2m. |
| *Site visits*<br>• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.*<br>• *If no site visits have been undertaken indicate why this is the case.* | Mr Mark Biggs visited site on the 20th of November 2021 to observe the geology, as well as drilling and sampling procedures (Biggs, 2021). Recommendations to: (1) collect additional bulk density data from mineralised lodes; and (2) employ triple tube diamond drilling methods and in split logging for geotechnical holes have since been implemented. No other material issues were noted. |
| *Geological interpretation*<br>• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.*<br>• *Nature of the data used and of any assumptions made.*<br>• *The effect, if any, of alternative interpretations on Mineral Resource estimation.*<br>• *The use of geology in guiding and controlling Mineral Resource estimation.*<br>• *The factors affecting continuity both of grade and geology.* | The deposits have been interpreted on vertical oblique sections at variable spacing by reviewing geological logging and copper grades, as well as considering interpretations from historic mining reports and previously mined voids. Confidence is moderate in areas of close-spaced drilling.<br><br>Data has been supplied as a drill hole database, including collar, survey, lithology, weathering, and assay data.<br><br>Magnetic susceptibility readings completed on the RC chips have not uniquely characterised mineralised zones, either within or outside the dyke wireframe. The dyke is characterised by 10x backround Cr assay values.<br><br>Alternate correlations of lodes between drill holes are possible in some places but would not materially affect the Mineral Resource estimate.<br><br>Mineralised lodes have been interpreted using a 0.45% nominal copper cut off and aided with the use of lithology, veining, and structure to help identify the key shear structures.<br><br>Potentially economic mineralisation not always restricted to an easily identifiable sheared, porphyritic syenite or diorite. Within the lodes higher grade copper (>2%) is erratically distributed.<br><br>The main lode wireframe includes some barren material between copper mineralisation.<br><br>Due to its narrow nature the orientation of interpreted lode wireframe can be influenced locally due to the accuracy of down-hole surveys. |
| *Dimensions*<br>• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.* | The extent of Mineral Resource below the original topography is:<br><br>Main Strike = 1,200m, Depth = 200m, Width = 6 to 14m.<br><br>Mineralisation extends from the historical pit floor for the main lode. |
| *Estimation and modelling techniques*<br>• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.*<br>• *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.*<br>• *The assumptions made regarding recovery of by-products.* | Block grade estimation for Cu was by inverse distance squared methods (ID2). ID2 was considered suitable for the style of mineralisation, size of blocks relative to the drill hole spacing, and the assumed open pit and underground mining selectivity.<br><br>Drill holes were composited to 1m and data was interpolated using Datamine Minescape Block Model software.<br><br>Hard boundaries were adopted for the lode wireframe, with each lode estimated independently.<br><br>No blocks outside the interpreted lodes were estimated.<br><br>Blocks were estimated using 1 – 8 samples with a maximum of 2 samples from any one drill hole. |

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| | |
|---|---|
| • *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).*<br>• *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.*<br>• *Any assumptions behind modelling of selective mining units.*<br>• *Any assumptions about correlation between variables.*<br>• *Description of how the geological interpretation was used to control the resource estimates.*<br>• *Discussion of basis for using or not using grade cutting or capping.*<br>• *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.* | A two-pass search strategy was employed with search ellipsoids orientated in accordance with the average lode orientation.<br><br>Main Lode:<br><br>Maximum search distance of 40m by 40m by 2m for search pass 1.<br><br>Maximum search distance of 55m by 55m by 4m for search pass 2. |
| *Moisture*<br>• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.* | Resource tonnages are estimated on a dry in situ basis (air-dried). |
| *Cut-off parameters*<br>• *The basis of the adopted cut-off grade(s) or quality parameters applied.* | Reporting cut-off grades of 0.45% Cu for open pit and will require confirmation through feasibility work. |
| *Mining factors or assumptions*<br>• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.* | Big One has previously been selectively mined by open cut mining methods. A total of 6,500t of ore @ 6% Cu has been deducted from the resource estimate to reflect this.<br><br>Portions of the remaining resources are considered to have sufficient grade and continuity to be considered for both selective open cut and underground mining but will require confirmation through feasibility work.<br><br>No mining parameters or modifying factors have been applied to the Mineral Resources. |
| *Metallurgical factors or assumptions*<br>• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.* | Metallurgical test work and the treatment process and metallurgical recovery will need to be confirmed through feasibility work. |
| *Environmental factors or assumptions*<br>• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.* | Big One is a lapsed Mining License with an EA in place (only on the EPM).<br><br>Historically, ore processing and tailings storage has been conducted off-site, various third-party options are available for offsite ore processing and tailings storage.<br><br>Mining has previously taken place at Big One with no significant environmental impediments. |
| *Bulk density*<br>• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.*<br>• *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.*<br>• *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.* | Bulk dry density has been determined from 0.3m unmineralised core from BO_334DD, which gave an average of 2.70 kg/m$^3$ Measurements would been taken during the 1992-1996 open cut mining operation, which have not been sighted.<br><br>Average density measurements were assigned to the Big One model as follows; Oxide non-lode = 2.45 t/m$^3$, Oxide lode = 2.55 t/m$^3$, Fresh = 2.65. |

| | |
|---|---|
| *Classification*<br>• *The basis for the classification of the Mineral Resources into varying confidence categories.*<br>• *Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).*<br>• *Whether the result appropriately reflects the Competent Person's view of the deposit.* | The resources were classified on a block-by-block basis using estimation outputs. Inferred resource blocks required the closest sample within 35m, an average sample distance <55m, and a minimum of 2 drill holes, with the remaining blocks assigned to Exploration Target ranges.<br><br>The resource classification appropriately reflects the Competent Person's view of the deposit. |
| *Audits or reviews*<br>• *The results of any audits or reviews of Mineral Resource estimates.* | The Big One Mineral Resource estimate was undertaken by an external consultant but has not been audited or reviewed. |
| *Discussion of relative accuracy/ confidence*<br>• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.*<br>• *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.*<br>• *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.* | The relative accuracy of the Mineral Resource estimate is reflected in the reporting of the Mineral Resource as per the guidelines of the 2012 JORC Code.<br><br>Detailed statistical and geostatistical methods to quantify the relative accuracy of the resource have not been undertaken. However, preliminary statistical analysis suggests the relative error of this estimate to be ±20-30%<br><br>Lode geometry and grade can vary significantly over short distances, but continuity of mineralisation and grade is supported by close-spaced drilling in areas classified as Inferred.<br><br>Drill hole data was collected and analysed using prevailing industry practices but a small amount of drilling pre-dates 1990. This was excluded in the Mineral Resource classification. There is a small possibility of the resource including minor amounts of undocumented underground voids from historical mining, however, post mining drilling did not intersect any underground voids.<br><br>The resource statement relates to the global resource estimate. The grade cut-offs and depth of potential open pit material used to determine the Mineral Resource were assumed and require confirmation through feasibility work. The deposit is not currently being mined, but the resource estimate has a lower average grade than production records for the same mineralisation zone that was mined at higher elevations from 1972-1996. |

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# APPENDIX C: 2021 DRILLING END OF HITCH REPORT

## Detailed ground and drone survey

The surveyor (GMC Surveys) completed surveying of all forty 2020 and 2021 drillhole collars (Tables C-1, C-2). Average errors compared to the handheld GPS readings taken whilst each hole was drilled were negligible at ±0.7m in X and Y.

The surveyor picked up six of the 1993 drillhole collars where there was still casing evident; these needing rehabilitation. The average error compared to the georeferenced 1993 coordinates (from a hard copy plan) were about ±12m in X and Y. The detailed drone and ground survey including building a PSM at Big One and established that the QLD 1 Sec DEM topography model was on average 3.40m too high at the drillhole collars.

Co-ordinates of unrehabilitated historical holes was taken.

### TABLE C-1: LOCATION ALL COMPLETED 2021 DRILLHOLES – GMC SURVEY

| SiteID | Easting (GDA94) | Northing (GDA94) | Collar RL (m) | Total Depth (m) | Azimuth | Dip | Note | Comments |
|---|---|---|---|---|---|---|---|---|
| **BO_315RC** | 335416.54 | 7880310.99 | 156.13 | 80.00 | 320.8 | -57.6 | Redrill 201RC | Breakdowns delayed hole. |
| **BO_316RC** | 335426.88 | 7880296.19 | 156.04 | 155.00 | 349.6 | -71.9 | Redrill 202RC | |
| **BO_317RC** | 335392.82 | 7880285.23 | 154.67 | 125.00 | 347.6 | -59.6 | Redrill 306RC | |
| **BO_318RC** | 335431.00 | 7880282.63 | 155.58 | 203.00 | 344.2 | -74.6 | Redrill 203RC | |
| **BO_319RC** | 335288.27 | 7880265.10 | 152.63 | 149.00 | 331.9 | -72.7 | Redrill 312RC | |
| **BO_320RC** | 335309.56 | 7880203.56 | 155.53 | 83.00 | 329.3 | -60.0 | New hole | Abandoned due to high water flow |
| **BO_321RC** | 335224.68 | 7880234.68 | 154.47 | 137.00 | 321.6 | -66.0 | | |
| **BO_322RC** | 335191.11 | 7880219.79 | 154.75 | 131.00 | 324.2 | -65.4 | | |
| **BO_323RC** | 335158.35 | 7880188.76 | 155.04 | 131.00 | 331.6 | -61.9 | Matched to 325RC | |
| **BO_324RC** | 335118.00 | 7880203.00 | 157.00 | 76.00 | 328.2 | -61.8 | | Abandoned due to faulted ground and cavities |
| **BO_325RC** | 335113.69 | 7880291.66 | 151.26 | 130.00 | 164.4 | -64.5 | Oriented south | |
| **BO_326RC** | 335175.53 | 7880306.22 | 151.81 | 191.00 | 160.4 | -57.1 | Oriented south | Breakdowns, abandoned due to high water flow |
| **BO_327RC** | 335333.50 | 7880264.58 | 153.26 | 173.00 | 324.4 | -61.6 | | |
| **BO_328RC** | 335376.95 | 7880295.83 | 154.36 | 131.00 | 332.6 | -62.4 | | |
| **BO_329RC** | 335402.88 | 7880254.32 | 155.84 | 120.00 | 320.4 | -60.0 | | |
| **BO_330RC** | 335412.00 | 7880211.00 | 163.00 | 130.00 | 333.2 | -60.4 | | |
| **BO_331RC** | 335275.45 | 7880249.48 | 152.89 | 161.00 | 322.6 | -56.0 | | |
| **BO_332RC** | 335294.48 | 7880240.07 | 153.76 | 132.00 | 330.8 | -58.0 | | Redrill of 320RC |
| **BO_333RC** | 335110.60 | 7880194.01 | 154.21 | 125.00 | 330.2 | -60.3 | | Redrill of 324RC |
| **BO_334DD** | 335458.29 | 7880313.59 | 157.59 | 104.98 | 335.0 | -61.2 | Between 207RC and 304RC | HQ cored from 68.85m; 32.31m HQ core |
| | | | | **2,667.98** | | | | |

Notes:

1. All drillholes except BO_334DD downhole geophysically logged the entire hole.
2. Azimuths and dips are averaged readings from downhole deviation tool over the length of the hole.

Source: CCZ geology team

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## TABLE C-2: LOCATION ALL COMPLETED 2020 DRILLHOLES – GMC SURVEY

| SiteID | Easting (GDA94) | Northing (GDA94) | Collar RL (m) | Total Depth (m) | Azimuth | Dip | Note | Comments |
|---|---|---|---|---|---|---|---|---|
| **BO_201RC** | 335414.80 | 7880310.43 | 156.04 | 50.0 | 306.5 | -51.6 | | |
| **BO_202RC** | 335428.03 | 7880299.12 | 156.29 | 82.0 | 342.0 | -62.2 | | |
| **BO_203RC** | 335432.18 | 7880283.98 | 155.60 | 107.0 | 330.5 | -70.5 | | |
| **BO_206RC** | 335468.16 | 7880333.15 | 158.40 | 71.0 | 340.1 | -65.5 | | |
| **BO_207RC** | 335476.25 | 7880316.80 | 158.42 | 95.0 | 332.1 | -61.4 | | |
| **BO_211RC** | 335443.87 | 7880324.68 | 157.30 | 107.0 | 345.0 | -67.9 | | |
| **BO_213RC** | 335389.02 | 7880302.33 | 155.35 | 107.0 | 338.4 | -69.3 | | |
| **BO_301RC** | 335405.00 | 7880325.87 | 156.98 | 53.0 | 339.0 | -66.7 | | Mineralised entire length |
| **BO_302RC** | 335382.75 | 7880316.70 | 156.11 | 59.0 | 342.3 | -68.1 | | |
| **BO_303RC** | 335425.16 | 7880339.52 | 158.31 | 53.0 | 342.6 | -60.8 | | Mineralised entire length |
| **BO_304RC** | 335448.96 | 7880312.64 | 157.18 | 107.0 | 340.8 | -65.3 | | |
| **BO_305RC** | 335461.65 | 7880346.92 | 159.13 | 53.0 | 340.5 | -69.0 | | |
| **BO_306RC** | 335391.40 | 7880285.01 | 154.58 | 107.00 | 337.4 | -70.1 | | |
| **BO_307RC** | 335481.53 | 7880361.85 | 160.40 | 91.00 | 336.4 | -69.2 | | |
| **BO_308RC** | 335339.75 | 7880305.93 | 153.40 | 53.0 | 335.8 | -65.3 | | |
| **BO_309RC** | 335350.03 | 7880291.61 | 153.31 | 77.0 | 346.5 | -68.5 | | |
| **BO_310RC** | 335347.89 | 7880277.61 | 153.62 | 107.0 | 336.1 | -66.9 | | |
| **BO_311RC** | 335281.18 | 7880275.09 | 152.02 | 59.0 | 336.8 | -66.7 | | |
| **BO_312RC** | 335286.17 | 7880264.98 | 152.23 | 83.0 | 344.0 | -65.3 | | |
| **BO_313RC** | 335209.65 | 7880258.84 | 153.98 | 59.0 | 344.8 | -66.8 | | |
| **BO_314RC** | 335221.14 | 7880250.74 | 153.92 | 71.0 | 330.2 | -63.2 | | |
| | | | | **1,651** | | | | |

Notes:

1 All drillholes except BO_314RC downhole geophysically logged.
2 Azimuths and dips are averaged readings from downhole deviation tool over the length of the hole.

Source: CCZ geology team

BO_315, 16, 17, 18, and 327RC have been the standouts so far. In addition, minor mineralisation was observed in BO_323RC, 324RC, 325RC, and 333RC.

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Results for major copper mineralisation of holes completed have now been received from the laboratory, as summarised in Table C-3.

**TABLE C-3: BO_315-334DD LABORATORY ANALYSIS – COPPER ASSAY COMPARISON**

| Drillhole | From (m) | To (m) | Apparent Length (m) | Cu (%) | Notes |
|---|---|---|---|---|---|
| **BO_315RC** | **61.0** | **69.0** | **8.0** | 0.50% | Visual mineralisation 62-69m |
| ***including*** | **65.0** | **68.0** | **3.0** | **1.22%** | |
| **BO_316RC** | **137.0** | **146.0** | **9.0** | **0.64%** | Visual mineralisation 129-146m |
| ***including*** | **141.0** | **146.0** | **5.0** | **1.06%** | |
| **BO_317RC** | **88.0** | **97.0** | **9.0** | 1.42% | Visual mineralisation 90.5-103m |
| ***including*** | **92.0** | **96.0** | **4.0** | **3.06%** | |
| ***including*** | **92.0** | **93.0** | **1.0** | **9.19%** | Also 3.4 g/t Ag |
| **BO_318RC** | **166** | **182** | **16.0** | 0.59% | |
| ***including*** | **176** | **179** | **3.0** | **1.76%** | |
| **BO_319RC** | - | - | 0 | - | All samples <500ppm. |
| **BO_320RC** | - | - | 0 | - | Abandoned shallow; All samples <500ppm. |
| **BO_321RC** | - | - | 0 | - | All samples <500ppm. |
| **BO_322RC** | - | - | 0 | - | All samples <500ppm. |
| **BO_323RC** | 64 | 65 | 1.0 | 0.06% | |
| **BO_323RC** | 94 | 96 | 2.0 | 0.11% | |
| **BO_324RC** | 46 | 49 | 3.0 | 0.05% | Abandoned shallow; All other samples <500ppm. |
| **BO_325RC** | 88 | 89 | 1.0 | 0.05% | All other samples <500ppm. |
| **BO_326RC** | **100** | **104** | **4.0** | **0.56%** | |
| ***including*** | **100** | **101** | **1.0** | **1.58%** | |
| **BO_326RC** | 102 | 103 | 1.0 | - | 0.15ppm Au |
| **BO_326RC** | 141 | 144 | 3.0 | - | 0.16ppm Au |
| **BO_327RC** | **93** | **98** | **5.0** | **0.77%** | |
| ***including*** | **95** | **97** | **2.0** | **1.57%** | |
| **BO_327RC** | 103 | 104 | 1.0 | 0.43% | |
| **BO_327RC** | 122 | 123 | 1.0 | 0.11% | |
| **BO_328RC** | - | - | 0 | - | All samples <500ppm. |
| **BO_329RC** | - | - | 0 | - | No dyke; All samples <500ppm. |
| **BO_330RC** | - | - | 0 | - | No dyke; All samples <500ppm. |
| **BO_331RC** | 75 | 76 | 1.0 | 0.05% | |
| **BO_332RC** | 110 | 111 | 1.0 | 0.05% | |
| **BO_333RC** | 42 | 45 | 3.0 | 0.15% | |
| ***including*** | **43** | **44** | **1.0** | **0.31%** | |
| **BO_334DD** | | | | | In the RC section, all samples <500ppm. Cored section not received yet. |

Source: CCZ geology team

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The major dyke and halo intersections are listed in Table C-4 below, followed by Table C-5, which documents the qualitative assessment of mineral ranges present for drillholes, from the geologist's logs.

**TABLE C-4: MAJOR DYKE AND HALO INTERSECTIONS**

| Borehole | From (m) | To (m) | Apparent Thickness (m) | Comments |
|---|---|---|---|---|
| **BO_315RC** | 58.0 | 61.0 | 2.0 | Quartzite |
| **BO_315RC** | 61.0 | 69.0 | 8.0 | Trachyte to porphyry dacite |
| **BO_315RC** | 69.0 | 71.0 | 2.0 | Quartzite |
| **BO_316RC** | 113.0 | 120.0 | 7.0 | Quartzite |
| **BO_316RC** | 129.0 | 146.5 | 17.5 | Trachyte to porphyry dacite |
| **BO_317RC** | 11.0 | 13.0 | 2.0 | Haematite-rich Shale |
| **BO_317RC** | 20.0 | 24.0 | 1.0 | Quartzite; Pyrolusite |
| **BO_317RC** | 42.0 | 43.0 | 1.0 | Quartzite; Pyrolusite |
| **BO_317RC** | 65.0 | 66.0 | 1.0 | Quartzite; Pyrolusite |
| **BO_317RC** | 75.0 | 76.0 | 1.0 | Siltstone; Potassic Alteration |
| **BO_317RC** | 90.5 | 103.0 | 12.5 | Andesite dyke, plus sericite and chrysocolla |
| **BO_317RC** | 103.0 | 105.0 | 2.0 | Quartzite |
| **BO_318RC** | 89.0 | 100.0 | 11.0 | Dacitic |
| **BO_318RC** | 153.0 | 187.0 | 34.0 | Dacitic, some orthoclase |
| **BO_319RC** | 55.0 | 64.0 | 9.0 | Dacitic, some orthoclase |
| **BO_319RC** | 83.0 | 84.0 | 1.0 | Quartzite |
| **BO_319RC** | 87.0 | 91.0 | 4.0 | Dacitic |
| **BO_319RC** | 96.0 | 98.0 | 2.0 | Dacitic |
| **BO_320RC** | 79.0 | 80.0 | 1.0 | Quartzite, some orthoclase |
| **BO_321RC** | 63.0 | 72.0 | 9.0 | Dacitic |
| **BO_321RC** | 86.0 | 88.0 | 2.0 | Quartzite |
| **BO_321RC** | 97.0 | 100.0 | 3.0 | Quartzite |
| **BO_322RC** | 57 | 73.5 | **16.5** | Dacitic |
| **BO_323RC** | 8 | 9 | **1.0** | Dacitic, pervasive orthoclase |
| **BO_323RC** | 82 | 97 | **15.0** | Dacitic, some orthoclase |
| **BO_324RC** | 3 | 6 | **3.0** | Quartzite |
| **BO_324RC** | 33 | 40 | **7.0** | Fractured quartzite |
| **BO_324RC** | 41 | 53 | **12.0** | Dacite |
| **BO_325RC** | 2 | 4 | **2.0** | Dacite |
| **BO_325RC** | 45 | 46 | **1.0** | Dacitic |
| **BO_326RC** | 5 | 9 | **4.0** | Dacite |
| **BO_326RC** | 27 | 28 | **1.0** | Quartzite with abundant pyrite |
| **BO_326RC** | 134 | 161 | **27.0** | Dacite |
| **BO_327RC** | 84 | 98 | **14.0** | Dacite |
| **BO_327RC** | 98 | 99 | **1.0** | Quartzite |
| **BO_328RC** | 62 | 73.5 | **11.5** | Dacite |
| **BO_328RC** | 101 | 102 | **1** | Dacite |
| **BO_329RC** | | | **0** | No igneous intrusions |
| **BO_330RC** | 70 | 75 | 5.0 | No igneous intrusions; but skarn |

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| | | | | |
|---|---|---|---|---|
| **BO_330RC** | 81 | 82 | 1.0 | Skarn |
| **BO_330RC** | 100 | 102 | 2.0 | Skarn |
| **BO_330RC** | 122 | 125 | 3.0 | Skarn |
| **BO_331RC** | 58 | 59 | 1.0 | Dacite |
| **BO_331RC** | 75.5 | 83.5 | 8.0 | Dacite |
| **BO_331RC** | 114.5 | 116 | 1.5 | Dacite and skarn |
| **BO_332RC** | 81.5 | 94.5 | 13.0 | Dacite |
| **BO_332RC** | 108.5 | 111 | 2.5 | Dacite |
| **BO_333RC** | 37 | 42 | 5.0 | Dacite |
| **BO_333RC** | 45 | 46 | 1.0 | Dacite |
| **BO_334DD** | 86.49 | 95.52 | 9.03 | Dacite |

Source: CCZ geology team

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## TABLE C-5: QUALITATIVE ASSESSMENT OF MINERALS IN DRILL-HOLES 315RC TO 334DD

| Borehole | From (m) | To (m) | Apparent Thick. (m) | Magnetite (%) | Epidote (%) | Sericite (%) | Sulphides (%) | Comments |
|---|---|---|---|---|---|---|---|---|
| **BO_315RC** | 58.0 | 61.0 | 2.0 | | 0-1 | 1-3 | | Quartzite, very weakly mineralised |
| **BO_315RC** | 61.0 | 69.0 | **8.0** | | 1-2 | 1-8 | 1-4 | Trachyte to porphyry dacite |
| **BO_315RC** | 69.0 | 71.0 | 2.0 | | | 1-5 | 0-1 | Quartzite, very weakly mineralised |
| **BO_316RC** | 113.0 | 120.0 | 7.0 | | | 1-15 | 0-1 | Quartzite, very weakly mineralised |
| **BO_316RC** | 129.0 | 146.5 | **17.5** | | 1-5 | 1-10 | 1-7 | Trachyte to porphyry dacite |
| **BO_317RC** | 11.0 | 13.0 | 2.0 | 1-3 | | | | Haematite-rich Shale |
| **BO_317RC** | 20.0 | 24.0 | 1.0 | 0-1 | | | | Quartzite; 0-2% Pyrolusite |
| **BO_317RC** | 42.0 | 43.0 | 1.0 | | | | | Quartzite; 0-2% Pyrolusite |
| **BO_317RC** | 65.0 | 66.0 | 1.0 | | | | | Quartzite; 0-2% Pyrolusite |
| **BO_317RC** | 75.0 | 76.0 | 1.0 | | | | | Siltstone; 3-5% Potassic Alteration |
| **BO_317RC** | 90.5 | 103.0 | **12.5** | 0-2 | 1-15 | 1-3 | 1-4 | Andesite dyke, plus sericite and chrysocolla |
| **BO_317RC** | 103.0 | 105.0 | 2.0 | | 1-2 | | | Quartzite, very weakly mineralised |
| **BO_318RC** | 89 | 100 | 11 | 1-3 | 1-3 | 1-2 | 0-1 | Drilled next to 203RC, Dacitic |
| **BO_318RC** | 153 | 187 | **34** | 1-5 | 1-5 | | 1-15 | Dacitic, some orthoclase |
| **BO_319RC** | 55 | 64 | **9** | 1-10 | 1-5 | 1-3 | 0-10 | Drilled next to 312RC. Dacitic, some orthoclase |
| **BO_319RC** | 83 | 84 | 1 | 0 | | | 1-5 | Quartzite |
| **BO_319RC** | 87 | 91 | **4** | 1-5 | | | 1-5 | Dacitic |
| **BO_319RC** | 96 | 98 | **2** | 0 | 1-5 | | 1-5 | Dacitic |
| **BO_320RC** | 79 | 80 | 1 | 5-10 | | | | Quartzite. new hole abandoned at 83m due to high water flow; up to 10% orthoclase |
| **BO_321RC** | 63 | 72 | 9 | 5-50 | 1-5 | | | Dacitic |
| **BO_321RC** | 86 | 88 | 2 | 5-10 | | | 1-3 | Quartzite |
| **BO_321RC** | 97 | 100 | 3 | 0-5 | 1-10 | | 0-1 | Quartzite |
| **BO_322RC** | 57 | 73.5 | **16.5** | 1-10 | 0 | 1-2 | 0-5 | Dacitic |
| **BO_323RC** | 8 | 9 | 1.0 | 1-20 | 1-2 | 0 | 3-5 | Dacitic, pervasive orthoclase |
| **BO_323RC** | 82 | 97 | **15.0** | 1-10 | 1-5 | 0 | 0-3 | Dacitic, some orthoclase |
| **BO_324RC** | 3 | 6 | 3.0 | 1-5 | 0 | 1-3 | 1-5 | Quartzite |
| **BO_324RC** | 33 | 40 | 7.0 | 1-10 | 0 | 0 | 1-2 | Fractured quartzite |
| **BO_324RC** | 41 | 53 | **12.0** | 2-15 | 1-5 | 1-5 | 1-6 | Dacite; hole abandoned at 76m |
| **BO_325RC** | 2 | 4 | 2.0 | 5-10 | 0 | 0 | 1-5 | Dacite |
| **BO_325RC** | 45 | 46 | 1.0 | 1-5 | 1-5 | 1-5 | 1-3 | Dacitic |
| **BO_326RC** | 5 | 9 | 4.0 | 5-10 | 0 | 0 | 1-3 | Dacite |
| **BO_326RC** | 27 | 28 | 1.0 | 0-5 | 0 | 1-5 | 0-1 | Quartzite with abundant pyrite |
| **BO_326RC** | 96 | 100 | 4.0 | 0-5 | 0-2 | 1-5 | 1-3 | Dacite |
| **BO_326RC** | 134 | 160 | **26.0** | 0-25 | 1-5 | 0-10 | 1-6 | Dacite |
| **BO_327RC** | 60 | 68 | **8.0** | 0-10 | 1-3 | 0-2 | 1-5 | Dacite |
| **BO_327RC** | 81 | 90 | **8.0** | 0-15 | 1-5 | 0-3 | 1-5 | Dacite |

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| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **BO_327RC** | 90 | 99 | 9.0 | 0-20 | 1-3 | 0 | 5-10 | Quartzite |
| **BO_328RC** | 5 | 6 | 1.0 | 0 | 0 | 0 | 5-6 | Azurite |
| **BO_328RC** | 63 | 65 | 2.0 | 0 | 0 | 0 | 0-2 | Dacite |
| **BO_328RC** | 65 | 66 | 1.0 | 0 | 0 | 0 | 1-3 | Dacite |
| **BO_328RC** | 66 | 68 | 2.0 | 0 | 0 | 0 | 0-2 | Also 2% chlorite |
| **BO_329RC** | 29 | 32 | 3.0 | 0-5 | 0 | 0 | 0 | Goethite |
| **BO_329RC** | 116 | 117 | 1.0 | 0 | 2-10 | 0 | 0-1 | Quartzite |
| **BO_330RC** | 58 | 60 | 2.0 | 0 | 0 | 0 | 0-2 | Chalcopyrite and Chalcocite |
| **BO_330RC** | 60 | 61 | 1.0 | 0 | 0 | 0 | 0-1 | Sphalerite |
| **BO_330RC** | 70 | 75 | **5.0** | 0 | 0 | 0 | 0 | Skarn 2-6% garnet |
| **BO_330RC** | 110 | 111 | 1.0 | 0 | 0 | 0 | 0-2 | Chalcopyrite |
| **BO_330RC** | 127 | 128 | 1.0 | 0 | 0 | 0 | 0-2 | Chalcopyrite |
| **BO_330RC** | 131 | 132 | 1.0 | 0 | 0 | 0 | 0-2 | Chalcopyrite |
| **BO_330RC** | 133 | 134 | 1.0 | 0 | 0 | 0 | 0-2 | Chalcopyrite |
| **BO_331RC** | 58 | 59 | 1.0 | 0 | 0 | 0 | 0-1 | Dacite |
| **BO_331RC** | 75.5 | 83.5 | 8.0 | 0 | 0-1 | 1-5 | 0-3 | Dacite |
| **BO_331RC** | 104 | 105 | 1.0 | 0 | 0 | 0 | 0-1 | Quartzite |
| **BO_331RC** | 114.5 | 116 | 1.5 | 0 | 0 | 2-15 | 0 | Skarn, Garnet 1-2% |
| **BO_332RC** | 81.5 | 94.5 | 13.0 | 0-1 | 0-3 | 1-5 | 1-2 | Dacite |
| **BO_332RC** | 102 | 103 | 1.0 | 0 | 0 | 0-2 | 0-2 | Quartzite |
| **BO_332RC** | 108.5 | 111 | 2.5 | 0 | 1-10 | 1-5 | 0-2 | Dacite |
| **BO_332RC** | 120 | 122 | 2.0 | 0 | 0 | 0 | 0-1 | Quartzite |
| **BO_333RC** | 11 | 13 | 2.0 | 0 | 0 | 0 | 0-2 | Siltstone |
| **BO_333RC** | 19 | 21 | 2.0 | 0 | 0 | 0 | 0-2 | Quartzite |
| **BO_333RC** | 26 | 27 | 1.0 | 0 | 0 | 1.5 | 0-2 | Quartzite |
| **BO_333RC** | 37 | 42 | 6.0 | 0-1 | 1-5 | 1-10 | 0-3 | Dacite |
| **BO_333RC** | 45 | 46 | 1.0 | 0 | 0-5 | 1-3 | 0-3 | Dacite |
| **BO_333RC** | 104 | 108 | 4.0 | 0 | 0 | 0 | 0-1 | Quartzite, 1-3% chlorite |
| **BO_333RC** | 117 | 118 | 1.0 | 0 | 0 | 0 | 0-1 | Quartzite |
| **BO_334DD** | 71 | 78 | 6.0 | 0-1 | 0-2 | 0-2 | 0-1 | Quartzite |
| **BO_334DD** | 86.49 | 95.52 | 9.03 | 0-5 | 1-5 | 1-10 | 0-3 | Dacite |

Notes:

1. Samples have been taken at 1m intervals (refer to Figure C-1).
2. Mineralisation estimated from field geologists rock chip estimates.
3. True vertical depths will be calculated by Minescape block model procedures.
4. A zone of limited mineralisation inferred to be associated with the dyke was intersected in each deepened drill hole.

Source: CCZ geology team

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**FIGURE C-1: SIEVING RC CHIPS FOR GEOLOGICAL ASSESSMENT**

Source: CCZ geology team

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## TABLE C-6: IP SURVEY TRAVERSE LINES (>100PPM CU)

| *Line_SiteID* | *X* | *Y* | *Z* | *Cu_Pxrf_ ppm* | *Lab_Au_ ppm* | *Lab_Ag_ ppm* | *Lab_Co_ ppm* | *Lab_Cu_ ppm* | **Rock Description** |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
| **300_02** | 335244.6 | 7880365.7 | 155.7 | 55.5 | 0.01 | 0.05 | 9 | 180 | Weathered light grey, brown quartzite |
| **300_03** | 335254.3 | 7880342.6 | 155.0 | 49.5 | <0.01 | 0.01 | 9 | 144 | Strongly weathered fine grained siltstone with secondary haematite |
| **300_12** | 335341.3 | 7880135.1 | 160.2 | 62 | <0.01 | 0.07 | 16 | 135 | Weathered pink partly albite altered sandstone with manganese? staining |
| **400_16** | 335356.0 | 7880358.0 | 157.0 | 146 | <0.01 | 0.09 | 8 | 165 | Strongly weathered fine grained ferruginous sandstone with some secondary haematite veins |
| **400_17** | 335366.0 | 7880335.0 | 156.0 | 615 | <0.01 | 0.74 | 31 | 8,260 | Weathered locally spherulitic? dacite, part sericite altered and sericite-epidote alteration of spherules. Some dark grey haematite after sulphide veins |
| **400_18** | 335376.0 | 7880312.0 | 156.0 | 101 | <0.01 | 0.03 | 4 | 117 | Medium grained white quartzite (all quartz) |
| **400_19** | 335385.0 | 7880289.0 | 156.0 | 738 | <0.01 | 0.06 | 17 | 164 | Medium grained pink ferruginous sandstone |
| **500_05** | 335458.1 | 7880373.9 | 165.2 | 222 | 0.01 | 0.01 | 21 | 405 | Weathered ferruginous siltstone |
| **500_06** | 335467.7 | 7880350.8 | 162.7 | 2,422 | <0.01 | 0.49 | 46 | 3,180 | Chrysocolla-stained strong albite-K-feldspar altered siltstone with relict haematite after oxidised chalcopyrite? |
| **500_07** | 335477.4 | 7880327.8 | 160.9 | 578 | 0.01 | 0.48 | 37 | 6,430 | Pink, brown weathered siltstone |
| **600_12** | 335540.6 | 7880435.6 | 190.8 | 103 | <0.01 | 0.01 | 7 | 115 | Strongly weathered light to medium brown, medium grained quartz-feldspar-clay-feldspar sandstone with haematite and goethite |
| **600_13** | 335550.3 | 7880412.6 | 186.5 | 236 | 0.06 | 0.02 | 7 | 333 | Strongly weathered pitted red brown to light brown quartzite with quartz and intergranular clay |
| **600_14** | 335559.9 | 7880389.5 | 182.3 | 1,049 | <0.01 | 0.21 | 168 | 4,000 | Strongly albitised siltstone with traces of malachite on surface, part botryoidal fine-grained haematite after possible sulphide vein |

Source: CCZ geology team

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## TABLE C-7: LAB ASSAY FOR 2022 DRILLHOLE SITES

| SiteID | X | Y | Z | Cu_Pxrf_ ppm | Lab_Au_ ppm | Lab_Ag_ ppm | Lab_Co _ppm | Lab_Cu _ppm | Rock Description |
|---|---|---|---|---|---|---|---|---|---|
| **2021_BO_03** | 335532 | 7880325 | 160 | 28 | 0.02 | 0.02 | 7.9 | 21.7 | Pink fine grained finely bedded siltstone |
| **2021_BO_11** | 335574 | 7880283 | 160 | 20 | 0.01 | 0.01 | 0.6 | 6 | Quartz vein in white quartzite with some secondary haematite |
| **2021_BO_15** | 335325 | 7880173 | 160 | 27 | 0.02 | 0.01 | 13.3 | 33.2 | Weathered finely bedded pink haematitic siltstone |
| **2021_BO_20** | 335470 | 7880108 | 160 | 26 | 0.01 | 0.01 | 1.5 | 5.7 | Dark brown weathered spotted pink quartzite with spots after garnet? |
| **2021_BO_21** | 335437 | 7880411 | 160 | 62 | 0.01 | 0.01 | 5.8 | 34.2 | Dark brown strongly weathered goethitic sandstone |
| **2021_BO_23** | 335625 | 7880553 | 160 | 18 | 0.01 | 0.01 | 1.1 | 6.3 | Pink quartz-feldspar quartzite |
| **2021_BO_24** | 335560 | 7880585 | 160 | 22 | 0.02 | 0.01 | 0.8 | 4.1 | Coarse pink quartzite with secondary limonite-haematite |
| **2021_BO_25** | 335297 | 7880695 | 160 | 17 | 0.02 | 0.01 | 1.1 | 4.3 | Medium grained white quartzite |
| **2021_BO_26** | 335173 | 7880308 | 160 | 22 | 0.01 | 0.02 | 0.7 | 9.4 | Brown spotted fine grained quartz-feldspar sandstone with dark brown secondary limonite after garnet? |
| **2021_BO_27** | 335054 | 7880242 | 160 | 30 | 0.01 | 0.04 | 8.5 | 155 | Light brown strongly weathered fine grained limonitic sandstone |
| **2021_BO_28** | 334943 | 7880188 | 160 | 28 | 0.01 | 0.01 | 2 | 14.3 | Coarse to medium grained weathered white quartzite with secondary iron |
| **2021_BO_29** | 335170 | 7880512 | 160 | 25 | 0.02 | 0.02 | 6.8 | 10.5 | Weathered red brown ferruginous siltstone |
| **2021_BO_30** | 335287 | 7880218 | 160 | 34 | 0.01 | 0.01 | 6.3 | 20.8 | Weathered fine grained haematitic sandstone with some goethite |
| **2021_BO_31** | 335268 | 7880500 | 160 | 34 | 0.02 | 0.01 | 3.4 | 6.8 | Weathered pink, brown fine-grained sandstone |
| **2021_BO_32** | 335055 | 7880054 | 160 | 37 | 0.01 | 0.02 | 21.3 | 17.3 | Weathered medium brown fine gained siltstone |

Notes:

1. Locations for 2022 drilling sites listed in the Table 5 are shown on Figure 6.
2. All coordinates in MGA94-Zone 54.

Source: CCZ geology team

# Individual Drillhole Commentary

Most drill-holes intersected the trachyte – porphyritic dacite dyke and associated mineralisation within and surrounding the dyke, except for those holes drilled to test IP anomalies south of the dyke. The first five holes were re-drills of 2020 holes that didn't drill deep enough or were orientated incorrectly. As these five sites deeply affected the preliminary block geological model, it was important to get these holes completed first.

## BO_315RC

The redrill of BO_201RC was delayed by breakdowns, but was eventually completed to 80m, intersecting the dyke and significant mineralisation from 62-69m. The original hole was only drilled to 52m.

## BO_316RC

The redrill of BO_202RC was completed to 155m, intersecting the dyke and significant mineralisation from 129-146m, but solid mineralisation from 137-146m. Scattered thin, minor mineralisation was returned above and below the dyke.

## BO_317RC

This hole was the redrill of BO_306RC Whilst the dyke was intersected between 90.5m and 103m, significant copper mineralisation was intersected between 88 – 97m, averaging 1.42% Cu over the 9m (apparent thickness). The hole was completed to 125m with only minor mineralisation noted below the dyke.

## BO_318RC

BO_318RC was commenced with groundwater (low flowrate) intersected at 45m, and then an intrusive body (not visibly mineralised) at 89 to 100m where it was predicted at approximately 160m. It is possible that there are several generations of dykes or a possible sill development.

The hole ended at a depth of 203m early the next afternoon after intersecting **a second intrusion 154-190m** (36m thick). Chalcopyrite and chalcocite mineralisation were clearly 176-180m (see Figure C-2), and heavy alteration (epidote/orthoclase) were noted elsewhere in the intrusion. Magnetic Susceptibility readings were taken on all samples from this drillhole.

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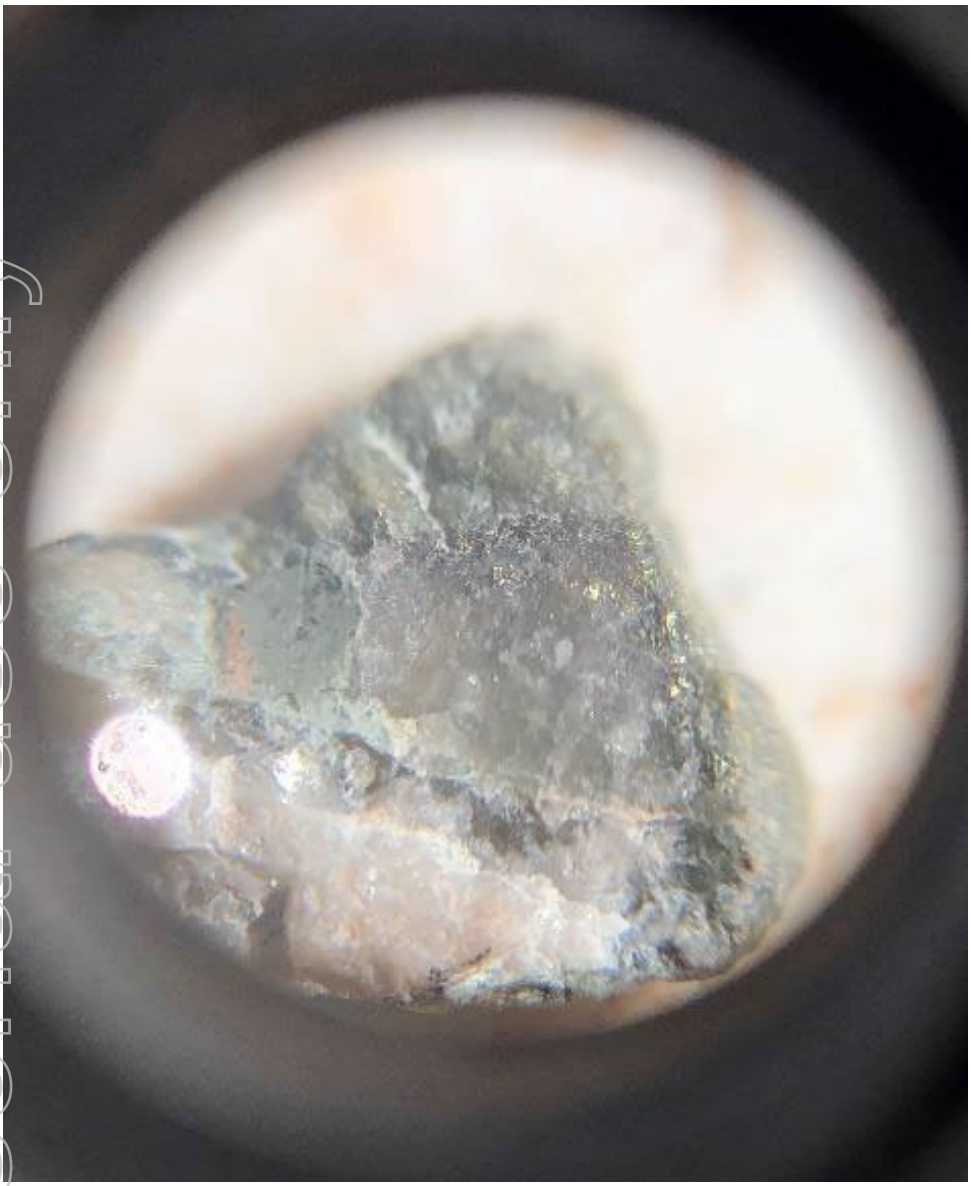
**Figure C-2: Chalcopyrite under 10x magnification, at 178m, BO_318RC**



Source: CCZ geology team

## BO_319RC

BO_319RC was completed at a depth of 149m. Intrusive complex, with up to four intervals intersected between 50m and 100m. Some mineralisation was observed. Sampling and magnetic susceptibility testing have been completed.

## BO_320RC

BO_320RC intersected alteration from 45-60m, including suspected sulphide mineralisation at 52m (5% sulphides). Significant water flows were intersected at 73m, the driller reported a fast penetration rate, but samples returned appeared like the surrounding host rock. A high-water flow was recorded at just above 1L/sec (approximately 1,000 gal/hr). Unfortunately, the hole was abandoned at 83m due to sample integrity issues because of this high-water flow.

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## BO_321RC

The rig moved to BO_321RC and drilled to 65m by end of shift. Alteration was noted around 50m. The hole was eventually completed to a depth of 137m, where water flows were intersected from 65m (intrusion boundary) and again at 88m; with a combined flow rate of approximately 1L/sec. Mineralisation was observed around and throughout the intrusion.

## BO_322RC

BO_322RC was completed the planned depth of 131m. The dacite dyke was intersected from 57 to 73.5m (16.5m), with visible orthoclase up to 10% within and on the margins of the dyke and chalcocite and other sulphides up to 5%.

## BO_323RC

BO_323RC progressed smoothly and was drilled to 101m. The dacite dyke was intercepted from 82 to 97m (15m). Low levels of sulphides, epidote and orthoclase were noted throughout BO_323RC, including 1m of 5% chalcocite at 9m.

## BO_324RC

BO_324RC and drilled to 65m before encountering drilling difficulties (air circulation loss due to ground conditions – cavities or faulting). The hole was eventually abandoned at 76m. Sulphides noted at 3-6m, and 33-40m at up to 5%. The dacite dyke was evident from 41 to 54.5m (13.5m).

## BO_325RC

Rig 18 drilled BO_325RC to a depth of 130m. Only thin intrusive material was noted between 2-4m and 45-46m. Possible, weathered sulphides were also encountered near surface. Extensive low-grade orthoclase alteration was noted but only limited mineralisation intersected. Water flows caused sampling problems for the drillers deeper than 100m (excessively wet samples in places), and the interval between 126-130m could not be sampled. Mag susceptibility readings were recorded along the length of the hole.

## BO_326RC

Drilling completed at BO_326RC to 191m. A pervasive but largely unmineralised orthoclase alteration was recorded, at shallow depths, except for some possible sulphides at 9m and pyrite at 28m. Some sulphides (1-5%) were observed between 61m and 105m. Acid igneous intrusions were intersected between 5–8m, 96-100m, and 134-160m. Mag susceptibility readings were variable and recorded along the length of the hole (Figure 3).

Water was intersected at 47m, with flows steadily increasing. The drillhole terminated 9m shallower than planned due to a slow penetration rate from water flows.

## BO_327RC

Drilling at site 2021_BO05/BO_327RC intersected intrusions noted at 60-68m and 81-90m. Some mineralisation noted throughout drillhole, but a notable intersection occurred between 89-99m. BO_327RC completed around mid-day. No further geology of note intersected except minor mineralisation at 162. Water flow rate at TD 0.4L/second.

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## BO_328RC

Drilling finished at the site of 2021_BO14/BO_328RC (Figure C-3). Extensive low-grade orthoclase alteration was noted, with intrusive material at 63-68m but only minor mineralisation noted.

**FIGURE C-3: DRILLING BO_328RC AT DAWN**

Source: CCZ geology team

## BO_329RC

2021_BO10/BO_329RC completed mid-afternoon 22 July 2021. Extensive, but generally low intensity orthoclase alteration noted. Drilling was completed early afternoon but was blocked for logging at 27m immediately after rig relocated site.

## BO_330RC

Borehole 2021_BO13/BO_330RC drilled to a depth of 112m, with approximately 18m more to drill until a TD of 130m is reached. Limited mineralisation was observed. Water was intersected at 48m and further flows at 96m (2.0 l/sec). Borehole BO_330RC was completed mid-morning. Water slowed drilling. Limited mineralisation again was observed throughout hole.

## BO_331RC

Rig relocated to site 2021_BO06/BO_331RC; one of the two remaining drill sites targeting the western IP anomaly and drilled to a depth of 53m. Limited mineralisation or alteration observed.

Drilling of BO_331RC around midday. Alteration and mineralisation observed in patches from 60m to the intrusion at 81m, strong alteration from 76-81. Patchy mineralisation only below the intrusion from 83m, possible garnet skarn observed at 116m.

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## BO_332RC

Rig 18 moved to 2021_BO17/BO_332RC, located on the southern IP anomaly (Figure C-4). No mineralisation or major alteration observed in first 29m drilled. Drilling of 2021_BO09/BO_332RC was completed, the second of the two holes testing the southern IP anomaly. Some mineralisation and alteration were observed, largely around the intrusive at 85-94m.

**FIGURE C-4: DRILLING OF BO_332RC**

Source: CCZ geology team

## BO_333RC

Rig 18 moved to 2021_BO09/BO_333RC to redrill the hole previously abandoned (BO_324RC) due to ground stability issues. Stability problems encountered again at 28m; drilling continued to 53m at end of day. Mineralisation, alteration and intrusive all were observed. Drilling was completed with noted ground instability throughout the hole. Mineralisation was noted in the middle of the hole (Figure C-5), with some trace sulphides through to the tail. The water flow slowed drilling. Due to ground conditions the hole was too unstable to be geophysically logged to total depth.

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**FIGURE C-5: SULPHIDE MINERALISATION IN BO_333RC CHIPS**

Source: CCZ geology team

## BO_334DD

As expected, only minor mineralisation encountered in the pre-collar (trace chalcopyrite at 62-64m in fractures). Fractured ground conditions (Figures C-6 and C-7) impacting on production rates and water loss. The driller was required to use the water truck to keep sumps full throughout the day, delaying dispatch of samples to ALS Mt Isa.

BO_334DD was cored from a depth of 59m, about 25m above the predicted intrusive start depth. At the end of the first run, the core barrel separated at the back reamer and was left downhole when the drill crew pulled drill rods. Several recovery options were investigated. Significant fracturing and faulting were observed, with consistent chalcopyrite traces from 71-78m (Figure C-6). Stronger sericite alteration and chalcocite/other sulphides noted at depths closer to the intrusive (Figures C-8 and C-9). Fractured ground and associated downhole water loss slowed drilling.

The geophysical logger logged deviation on the cored section of BO_334DD from 59-78m. Top section to be logged after HWT casing removed at hole completion. Drilling 2021_BO01/BO_334DD was completed 19 August 2021 to a depth of 104.98m. Minimal alteration was observed below the intrusion. Core was analysed with the portable XRF gun. Drillers encountered issues removing HWT (steel) casing but after multiple attempts, casing was freed.

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Whilst waiting for drillers to complete the cored hole, the geophysical logger collected deviation data from the pre-2020 drill holes still open. On completion of cored hole, the geophysical logger was able to collect deviation data from that hole but had to abandon density and scanner logging due to unstable ground conditions. The rig relocated to a Big One groundwater well site at the conclusion of the program.

**FIGURE C-6: BO_334DD SULPHIDE AND SERICITE VEINS IN FRACTURED QUARTZITE**

Source: CCZ geology team

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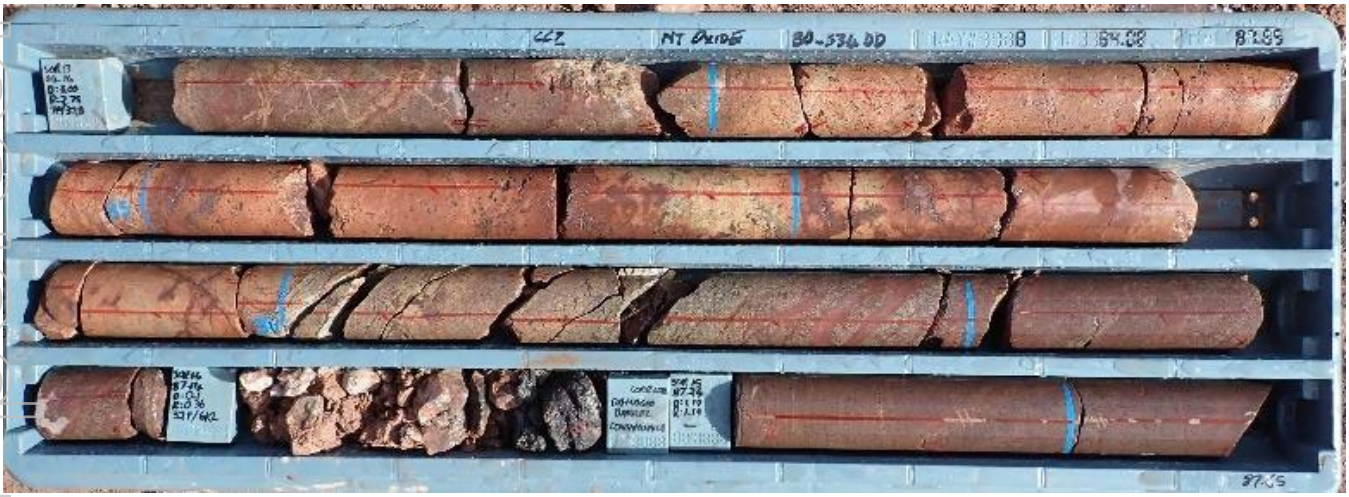
**FIGURE C-7: BO_334DD SHOWING FRACTURED AND JOINTED ROCK ABOVE THE DYKE**

Source: CCZ geology team

**FIGURE C-8: BO_334DD TOP OF DYKE 86.49M**




Source: CCZ geology team

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**FIGURE C-9: BO_334DD CHLORITE AND SERICITE ALTERATION IN JOINTED QUARTZITE**

Source: CCZ geology team

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# Appendix D: Stockpile Mapping and Sampling

## TABLE D-1: STOCKPILE TONNAGE ESTIMATES

| Stockpile | Sample Id | Easting | Northing | Cu (ppm) | Volume $m^3$ | Bulk Density ($kg/m^3$ | Mass (t) | Proportion. Cu ppm |
|---|---|---|---|---|---|---|---|---|
| **BO_SP01** | CCZBO_SP01_01 | 335338 | 7880349 | 25,300 | | | | |
| **BO_SP01** | CCZBO_SP01_02 | 335339 | 7880342 | 38,900 | | | | |
| **BO_SP01** | CCZBO_SP01_03 | 335340 | 7880349 | 8,560 | | | | |
| | | | | **24,253** | 34 | 1.8 | 61.2 | 200.4 |
| **BO_SP02** | CCZBO_SP02_01 | 335366 | 7880338 | 5,870 | | | | |
| **BO_SP02** | CCZBO_SP02_02 | 335369 | 7880343 | 7,530 | | | | |
| **BO_SP02** | CCZBO_SP02_03 | 335367 | 7880342 | 4,600 | | | | |
| | | | | **6,000** | 33 | 1.8 | 59.4 | 48.1 |
| **BO_SP03** | CCZBO_SP03_01 | 335444 | 7880380 | 2,330 | | | | |
| **BO_SP03** | CCZBO_SP03_02 | 335441 | 7880380 | 1,520 | | | | |
| **BO_SP03** | CCZBO_SP03_03 | 335442 | 7880384 | 5,360 | | | | |
| | | | | **3,070** | 122 | 1.9 | 231.8 | 96.1 |
| **BO_SP04** | CCZBO_SP04_01 | 335448 | 7880354 | 2,070 | | | | |
| **BO_SP04** | CCZBO_SP04_02 | 335452 | 7880358 | 22,400 | | | | |
| **BO_SP04** | CCZBO_SP04_03 | 335457 | 7880361 | 18,900 | | | | |
| **BO_SP04** | CCZBO_SP04_04 | 335463 | 7880363 | 10,800 | | | | |
| **BO_SP04** | CCZBO_SP04_05 | 335468 | 7880365 | 1,830 | | | | |
| **BO_SP04** | CCZBO_SP04_06 | 335444 | 7880341 | 958 | | | | |
| **BO_SP04** | CCZBO_SP04_07 | 335450 | 7880344 | 6,460 | | | | |
| **BO_SP04** | CCZBO_SP04_08 | 335455 | 7880347 | 9,980 | | | | |
| **BO_SP04** | CCZBO_SP04_09 | 335460 | 7880355 | 8,200 | | | | |
| **BO_SP04** | CCZBO_SP04_10 | 335472 | 7880367 | 2,980 | | | | |
| **BO_SP04** | CCZBO_SP04_11 | 335472 | 7880367 | 2,570 | | | | |
| **BO_SP04** | CCZBO_SP04_12 | 335486 | 7880372 | 10,700 | | | | |
| | | | | **8,154** | 175 | 1.9 | 332.5 | 366.0 |
| **BO_SP05** | CCZBO_SP05_01 | 335499 | 7880364 | 18,500 | | | | |
| **BO_SP05** | CCZBO_SP05_02 | 335499 | 7880359 | 17,700 | | | | |
| **BO_SP05** | CCZBO_SP05_03 | 335503 | 7880360 | 10,800 | | | | |
| | | | | **15,667** | 901 | 2.1 | 1892.1 | 4002.1 |
| **BO_SP06** | CCZBO_SP06_01 | 335516 | 7880367 | 11,650 | | | | |
| **BO_SP06** | CCZBO_SP06_02 | 335521 | 7880371 | 6,160 | | | | |
| **BO_SP06** | CCZBO_SP06_03 | 335527 | 7880374 | 14,200 | | | | |
| | | | | **10,670** | 105 | 1.9 | 199.5 | 287.4 |
| **BO_SP07** | CCZBO_SP07_01 | 335541 | 7880383 | 16,600 | | | | |
| **BO_SP07** | CCZBO_SP07_02 | 335543 | 7880386 | 9,740 | | | | |
| **BO_SP07** | CCZBO_SP07_03 | 335547 | 7880390 | 9,360 | | | | |
| | | | | **11,900** | 309 | 1.9 | 587.1 | 943.2 |
| **BO_SP08** | CCZBO_SP08_01 | 335543 | 7880365 | 8,510 | | | | |
| **BO_SP08** | CCZBO_SP08_02 | 335549 | 7880367 | 4,820 | | | | |
| **BO_SP08** | CCZBO_SP08_03 | 335557 | 7880370 | 8,090 | | | | |
| | | | | **7,140** | 72 | 1.8 | 129.6 | 125.0 |
| **BO_SP09** | CCZBO_SP09_01 | 335486 | 7880316 | 24,000 | | | | |
| **BO_SP09** | CCZBO_SP09_02 | 335491 | 7880307 | 12,150 | | | | |
| **BO_SP09** | CCZBO_SP09_03 | 335492 | 7880308 | 4,970 | | | | |
| **BO_SP09** | CCZBO_SP09_04 | 335502 | 7880312 | 7,010 | | | | |

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|---|---|---|---|---|---|---|---|---|
| **BO_SP09** | CCZBO_SP09_05 | 335512 | 7880313 | 11,100 | | | | |
| **BO_SP09** | CCZBO_SP09_06 | 335514 | 7880316 | 7,440 | | | | |
| **BO_SP09** | CCZBO_SP09_07 | 335514 | 7880324 | 5,300 | | | | |
| **BO_SP09** | CCZBO_SP09_08 | 335512 | 7880331 | 3,960 | | | | |
| **BO_SP09** | CCZBO_SP09_09 | 335508 | 7880325 | 2,320 | | | | |
| **BO_SP09** | CCZBO_SP09_10 | 335502 | 7880321 | 15,750 | | | | |
| **BO_SP09** | CCZBO_SP09_11 | 335492 | 7880319 | 4,820 | | | | |
| **BO_SP09** | CCZBO_SP09_12 | 335497 | 7880333 | 7,400 | | | | |
| **BO_SP09** | CCZBO_SP09_13 | 335494 | 7880329 | 31,600 | | | | |
| **BO_SP09** | CCZBO_SP09_14 | 335490 | 7880327 | 26,300 | | | | |
| | | | | **11,723** | 243 | 1.9 | 461.7 | 730.7 |
| **BO_SP10** | CCZBO_SP10_01 | 335138 | 7880233 | 6,180 | | | | |
| **BO_SP10** | CCZBO_SP10_02 | 335137 | 7880221 | 12,900 | | | | |
| **BO_SP10** | CCZBO_SP10_03 | 335132 | 7880219 | 12,950 | | | | |
| | | | | **10,677** | 1365 | 2.2 | 3003 | 4328.7 |
| **BO_SP11** | CCZBO_SP11_01 | 335132 | 7880158 | 11,450 | | | | |
| **BO_SP11** | CCZBO_SP11_02 | 335133 | 7880160 | 10,550 | | | | |
| **BO_SP11** | CCZBO_SP11_03 | 335132 | 7880155 | 5,390 | | | | |
| | | | | **9,130** | 224 | 1.9 | 425.6 | 524.6 |
| **BO_SP12** | CCZBO_SP12_01 | 335095 | 7880129 | 3,810 | | | | |
| **BO_SP12** | CCZBO_SP12_02 | 335099 | 7880131 | 4,170 | | | | |
| **BO_SP12** | CCZBO_SP12_03 | 335105 | 7880136 | 1,270 | | | | |
| **BO_SP12** | CCZBO_SP12_04 | 335103 | 7880140 | 1,635 | | | | |
| **BO_SP12** | CCZBO_SP12_05 | 335095 | 7880144 | 4,090 | | | | |
| **BO_SP12** | CCZBO_SP12_06 | 335095 | 7880144 | 20,100 | | | | |
| | | | | **5,846** | 13 | 1.8 | 23.4 | 18.5 |
| | | | | | | | **7,406.9t** | **11,671ppm** |

Notes:

1. Stockpile volumes from Drone Survey interpretation, provided by GSM Surveys
2. Bulk densities estimated from proportion of rock, air, and moisture estimated for each separate pile.
3. Coordinate grid system is MGA94-Zone 54.

Source: CCZ geology team

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# Appendix E: 1993 WME Drilling Reconciliation

**TABLE E-1: COMPARISON OF ACTUAL VS SURVEYED WME 1993 DRILLHOLES**

| BoreID | Current X | Current Y | Current Z | Easting | Northing | Collar AHD | Diff X | Diff Y | Located? | Casing visible? | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **WME_BO_B26** | 335473.6 | 7880318.4 | 163.1 | 335474.0 | 7880318.0 | | | | Yes | Yes | In proximity to hole BO_207RC |
| **WME_BO_B05** | 335467.8 | 7880333.3 | 162.4 | 335468.0 | 7880333.0 | | | | Yes | Yes | In proximity to hole BO_206RC |
| **WME_BO_B06** | 335443.6 | 7880323.8 | 161.4 | 335444.0 | 7880324.0 | | | | Yes | Yes | In proximity to hole BO_211RC |
| **WME_BO_B06** | | | | 335406.0 | 7880322.0 | | **38.0** | **2.0** | Yes | Yes | On road, cased; UNKNOWN 1; **WME_BO_B06** |
| **WME_BO_B25** | 335427 | 7880300.2 | 159.4 | 335427.0 | 7880300.0 | | | | Yes | Yes | In proximity to hole BO_202RC. Located on site 2021_04 |
| **WME_BO_B25** | | | | 335413.0 | 7880307.0 | | **14.0** | **-7.0** | Yes | Yes | On road, cased and grouted; **WME_BO_B25** |
| **FME_BO014** | 335425 | 7880343 | 161.1 | 335425.0 | 7880343.0 | | | | Yes | Yes | In proximity to hole BO_303RC that has been grouted |
| **WME_BO_B07** | 335421.8 | 7880316.4 | 159.9 | 335422.0 | 7880316.0 | | | | Yes | Yes | In proximity to hole BO_201RC/BO_315RC - site 2021_03 |
| **WME_BO_B07** | | | | 335428.0 | 7880331.0 | | **-6.0** | **-15.0** | Yes | Yes | On road, cased and grouted; W**ME_BO_B07** |
| **WME_BO_B08** | 335397 | 7880305.6 | 158.5 | 335397.0 | 7880306.0 | | | | Yes | Yes | In proximity to hole BO_302RC |
| **WME_BO_B10** | 335351.8 | 7880292.2 | 156.8 | 335352.0 | 7880292.0 | | | | Yes | Yes | In proximity to hole BO_309RC |
| **FME_BO011** | 335336 | 7880318 | 157.1 | 335336.0 | 7880318.0 | | | | Yes | Yes | In proximity to hole BO_308RC |
| **FME_BO006** | 335199 | 7880256 | 154.9 | 335199.0 | 7880256.0 | | | | Yes | Yes | In proximity to hole BO_313RC |
| **WME_BO_B16** | 335184.7 | 7880233.3 | 154.95 | 335185.0 | 7880233.0 | | | | Yes | Yes | |
| **WME_BO_B16** | | | | 335173.9 | 7880228.5 | 154.715 | **11.1** | **4.5** | Yes | Yes | Given ID **Unknown 3** - original hole ID **WME_BO_B16**. Deviation logged to 5m. Near site 2021_BO08 |
| **WME_BO_B21** | 335025.1 | 7880166.6 | 154.4 | 335025.0 | 7880167.0 | | | | Yes | Yes | |
| **WME_BO_B21** | | | | 335017.3 | 7880154.2 | 152.018 | **7.7** | **12.8** | Yes | Yes | Given ID **Unknown 4** - original hole ID Prob **WME_BO_B21**. Deviation logged to 2m. |
| | | | | | | Avg. Diff (m) | **13.0** | **-0.5** | | | |

Source: CCZ geology team

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