

18 August 2021

## AFRICAN ENERGY SECURES EXCLUSIVE RIGHTS TO LARGE PORPHYRY COPPER PROJECT IN SE QUEENSLAND

#### **Highlights**

- Binding Term Sheet signed with Canterbury Resources Limited to secure exclusive option to earn up to a 70% interest in the Briggs, Mannersley and Fig Tree Hill Porphyry Copper Project in SE Queensland ("Option").
- The Project contains a JORC compliant Inferred Mineral Resource of 143Mt @ 0.29% copper at a 0.2% cut-off grade and is close to major infrastructure including Gladstone deep-water port, 50km to the east.
- Undrilled porphyry copper mineralisation is visible at surface within a 2km geochemical anomaly surrounding the Inferred Mineral Resource, indicating excellent potential to substantially increase the size of the resource with further exploration drilling.
- Higher grade mineralisation, identified in volcanic sediments surrounding the intrusive core and in internal quartz rich bodies, indicate potential to increase the grade of the deposit with further exploration drilling.
- Key Terms are as follows:
  - African Energy will subscribe for 8,333,333 Canterbury Shares at 12c each for a total investment of \$1.0M to secure the Option until 31 July 2022.
  - African Energy must sole fund \$750,000 of exploration expenditure during the Option Period and may then elect to commence a staged Earn-In to form an unincorporated joint venture.
  - African Energy may then earn up to a 70% interest through staged joint venture expenditure totalling up to \$15.25M over 9 years.
- Exploration programs including ~3,000m of reverse circulation percussion drilling are scheduled to commence later this quarter and will form a significant portion of the Option Expenditure Commitment.
- African Energy has received firm commitments to raise \$1.4M via a Private Placement at 2 cents per share to fund the Option Expenditure Commitment.

#### **Introduction and Summary**

African Energy Resources Limited (ASX: AFR, "African Energy" or "the Company") is pleased to advise that it has executed a binding terms sheet for the subscription of securities in Canterbury Resources Limited (ASX: CBY) ("Canterbury") and the exclusive option to earn up to a 70% interest in the Briggs, Mannersley and Fig Tree Hill Porphyry Copper Project (the "Project") in SE Queensland (Figure 1), currently 100% owned by Canterbury ("Terms Sheet").



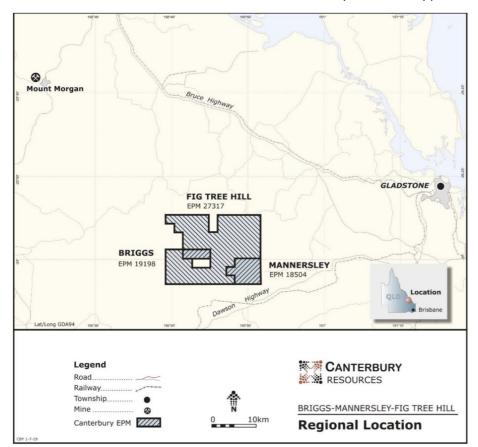
The Project comprises three exploration permits for minerals (EPM's) covering a total area of approximately 241 km<sup>2</sup> and contains a JORC compliant Inferred Mineral Resource estimate of 143Mt @ 0.29% copper at a 0.2% copper cut-off grade in the Central Porphyry zone of the Briggs Copper Project. The Project is located close to key infrastructure, including sealed roads, rail, grid power, gas pipelines and a deep-water port at Gladstone which lies approximately 50km to the east (Figure 1).

Under the Terms Sheet, African Energy will subscribe for 8,333,333 ordinary shares in Canterbury at 12c each for a total investment of \$1.0M ("Subscription"). African Energy will also be granted 3,000,000 options over ordinary shares exercisable at \$0.24 per option on or before to 31 December 2023. After the Subscription African Energy will be granted an exclusive option to earn an interest in the Project ("Option"), provided African Energy spends \$750,000 on exploration expenditure ("Option Expenditure Commitment") before 31 July 2022 ("Option End Date").

African Energy may exercise the Option to enter a staged earn-in under an unincorporated joint venture, earning up to a 70% interest in the Project ("Earn-in"). The Earn-In comprises three stages, each sole funded and managed by African Energy:

- 1. \$2.25M in exploration expenditure to earn a 30% interest within 2 years of exercising the Option.
- 2. A further \$3.0M in expenditure to reach a 51% interest within 4 years of exercising the Option.
- 3. A further \$10.0M in expenditure to reach a 70% interest within 9 years of exercising the Option.

Upon African Energy reaching a 70% project interest, the joint venture will become a contributing joint venture funded pro-rata by each party and subject to industry standard funding and dilution provisions. Full details of the commercial terms of the Terms Sheet are provided in Appendix 1.



**Figure 1.** Location Map of the Briggs and Mannersley Copper Project, SE Queensland

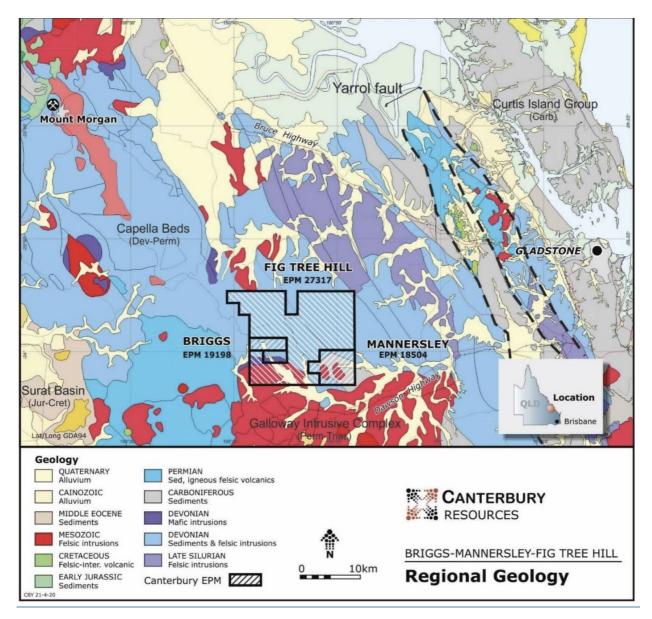


#### **Technical Description of the Project**

See appendix 2 (Summary of material information to understand Mineral Resource) and appendix 3 (JORC Table 1).

#### **Geological Setting**

The Project lies within the Yarrol Province of the northern New England Orogen containing Silurian to Permian volcanic, volcanoclastic and sedimentary rocks of island arc origin. These are intruded by the late Permian to Triassic Galloway Plains Intrusive Complex (Figure 2). Porphyry copper mineralisation at Briggs and at Mannersley is associated with multi-phase phyllic and potassic altered granodiorite to tonalitic stocks which form part of the Galloway Plains Intrusive Complex, intruded into Silurian to Devonian aged sediments and volcanic rocks.



**Figure 2.** Regional geological setting of the Briggs and Mannersley Project in SE Queensland



#### **Exploration History**

The Project has been explored over a long period, but only 32 drill holes have been drilled at Briggs, of which only nine have been deeper than 150m, with only one hole drilled at Mannersley. Previous exploration campaigns are summarised below (for details refer to Canterbury's ASX release 10 June 2020):

- Noranda (1969-1972)
  - Briggs discovery through stream sediment survey and geological mapping
  - o Ground geophysics (Induced Polarisation ("IP")) and limited drilling (14 holes)
- Geopeko (1969-1975)
  - o Initially held surrounding ground which is now in the Fig Tree Hill EPM
  - o Extensive geochemical soil sampling
  - o 2 core drill holes
- CRA Exploration (1991-1994)
  - Mapping and geochemical soil sampling
  - 7 reverse circulation (RC) drill holes
- Rio Tinto Exploration (2012-2016)
  - 3D IP and VTEM geophysical surveys
  - Conceptual, deep porphyry target
  - o 1 core hole drilled.
- Canterbury Resources (2017-present)
  - o 5 core holes
  - Inferred resource estimate.

#### Porphyry Copper Mineralisation at Briggs

The Inferred Mineral Resource of 143Mt @ 0.29% Cu occurs in the Central Porphyry at Briggs, a porphyritic granodiorite stock with dimensions in excess of 500m x 200m and which has been drilled to a depth of over 500m. It is one of at least three intrusive centres which make up the Briggs prospect. Mineralisation occurs in stockworks of quartz veins containing quartz, chalcopyrite, minor molybdenite, potassium feldspars and locally anhydrite (see Figures 3 and 4). Biotite alteration is also present in the immediately adjacent host rocks.

Observation of drill core provides clear evidence that multiple intrusive phases and multiple mineralising events have occurred. Further drilling is required to better define these phases and to determine vectors towards higher grades and additional resource volume.

Drilling to date indicates that the highest copper grades are associated with sub-vertical banded silica bodies at the contacts between different intrusive phases, or in the volcanic sediments immediately adjacent to the granodiorite intrusions. Significant opportunity to increase average grades at the Central Porphyry is present once these positions are drilled to a higher density.

The Northern and Southern Porphyry's occur along strike from the Central Porphyry and show evidence of porphyry vein stockworks and banded silica bodies at surface similar to those seen at the Central Porphyry, along with copper anomalism in soil sampling (Figure 5). Limited drilling at both of these prospects has intersected similar mineralisation at similar grades to the Central Porphyry and represent immediate targets for further drilling for resource delineation.

The overall intrusive centre appears to be at least 2,000m long, is elongated along a prominent WNW to NW trending structural corridor and extends into untested ground held in the Fig Tree Hill EPM to the northwest, providing significant potential to increase the overall size of the resource.



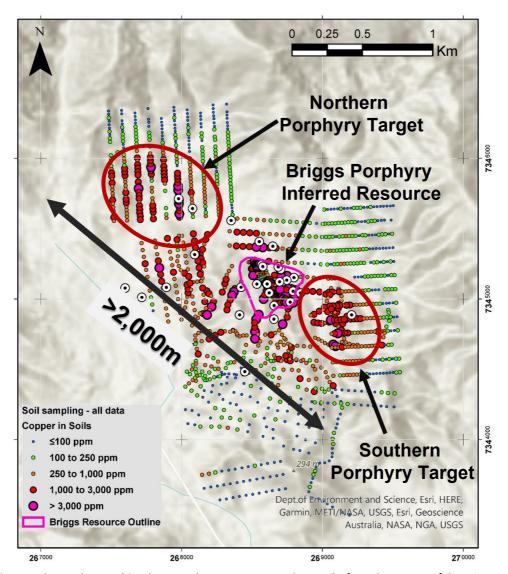


**Figure 3.** Outcropping stockwork of quartz-chalcopyrite veins in porphyritic granodiorite at the Central Porphyry of the Briggs copper deposit.



**Figure 4.** Multi-phase porphyry veins with blebby chalcopyrite mineralisation and associated potassic alteration overprinting volcanoclastic sediments, drill hole BD019-003 Central Porphyry, Briggs.





**Figure 5** The Northern and Southern porphyry targets occur along strike from the outcrop of the Briggs central Inferred Mineral Resource along a >2km long trend

#### **Next Steps**

After completion of the Subscription, and subject to obtaining all necessary permits and land access, exploration programs will commence. These will form a significant part of the Option Expenditure Commitment during the Option Period.

The initial exploration programs will comprise:

- 1. Grid based soil sampling over the Briggs porphyry system on a nominal 100m x 50m spacing. A total of approximately 1,500 samples will be collected. Results from this survey will be used to guide future drilling programs.
- 2. A program of reverse circulation drilling at Briggs will be undertaken to test for strike extensions of known mineralisation and for higher grade positions within and adjacent to the current Inferred Mineral Resource, particularly those associated with the enclosing mineralised volcanic sediments and with quartz rich zones within the resource.



#### **Capital Raising**

African Energy has elected to proceed with a capital raising to provide additional working capital that will be used to fund the Option Expenditure Commitment.

Firm commitments have been received to raise up to A\$1,400,000 (before costs) via a share placement to institutional, sophisticated and professional investors at A\$0.02 per share, with up to 70 million new fully paid ordinary shares to be issued (Placement).

The Placement shall be settled directly with African Energy and there are no broker fees payable. The Placement was well supported by existing sophisticated shareholders and new institutional investors.

Placement shares will be issued pursuant to the Company's existing placement capacity under ASX Listing Rules 7.1 aside from Directors Alasdair Cooke (\$100,000) and Frazer Tabeart (\$25,000) whose participation in the Placement shall be subject to shareholder approval.

#### **Introduction Fee**

African Energy will pay an Introduction Fee to parties that brought the opportunity to the Company. The total Fee payable comprises 20,000,000 options over ordinary shares in the Company, exercisable at 5c per option, and subject to the following vesting hurdles:

- a. 10,000,000 options vest immediately. These options will expire on 31 December 2022.
- b. 7,000,000 options vest if Stage-1 of the Earn-In is triggered. These options will expire 2 years after issue.
- c. 3,000,000 options vest if Stage-2 of the Earn-In is triggered. These options will expire 3 years after issue.

#### **New Management Incentives**

African Energy's board of directors has resolved to issue up to 20,000,000 options to African Energy management. The options are awarded to management as a component of compensation packages such that there is a component of at-risk compensation related to share price performance. The board considered options to be the best instrument to provide performance and retention incentives to staff at this stage of the Company's development.

Options shall be issued with key terms as follows:

- Exercise Price 5c
- Expiring on 31 July 2024 subject to maintaining employment with AFR (3-year term)
- Immediate vesting

20,000,000 options equals 2.9% of the shares on issue post Placement. There are no existing share-based incentives in place for African Energy management.

The issue of 8,000,000 options to managing director, Frazer Tabeart and 8,000,000 options to executive chairman, Alasdair Cooke, will be issued subject to shareholder approval at a future shareholder meeting.

For and on behalf of the board. Authorised for release by Frazer Tabeart, CEO For further information, please contact the Company directly on +61 8 6465 5500.



#### **COMPETENT PERSONS STATEMENT**

The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the 'JORC Code (2012 Edition)') sets out minimum standards, recommendations and guidelines for Public Reporting in Australasia of Exploration Results, Mineral Resources and Ore Reserves. The information contained in this announcement has been presented in accordance with the JORC Code (2012 edition) and references to "Measured, Indicated and Inferred Resources" are to those terms as defined in the JORC Code (2012 edition).

The information in this report relating to Exploration Results and Mineral Resources is based on information compiled by Dr Frazer Tabeart (Executive Director of African Energy Resources Limited) a competent person who is a member of the Australian Institute of Geoscientists. Dr Tabeart is a qualified geologist and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken, to qualify as Competent Persons as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Dr Tabeart consents to the inclusion in this ASX release of the matters based on his information in the form and context in which it appears.

#### Forward Looking Statements:

Any forward-looking information contained in this news release is made as of the date of this news release. Except as required under applicable securities legislation, African Energy does not intend, and does not assume any obligation, to update this forward-looking information. Any forward-looking information contained in this news release is based on numerous assumptions and is subject to all of the risks and uncertainties inherent in the Company's business, including risks inherent in resource exploration and development. As a result, actual results may vary materially from those described in the forward-looking information. Readers are cautioned not to place undue reliance on forward-looking information due to the inherent uncertainty thereof.



#### **Appendix 1: Key Commercial Terms**

All dollar amounts refer to Australian Dollars.

Share Subscription	African Energy Resources Ltd ("AFR") will subscribe for 8,333,333 new ordinary shares in Canterbury Resources Limited ("CBY") at a price of \$0.12 per share for a total investment of \$1,000,000.
	The Share Subscription secures an exclusive Option for AFR over the Briggs, Mannersley and Fig Tree Hill EPM's (the " <b>Project</b> ") until 31 July 2022.
CBY Options	CBY will issue AFR with 3,000,000 options, each convertible into one ordinary share in CBY, exercisable at \$0.24 per CBY Option prior to 31 December 2023.
	CBY will seek ratification of the issue of shares and issue of options by shareholder approval at its next annual general meeting.
Option	Upon completion of the Share Subscription, AFR will be granted an exclusive option to enter into an unincorporated joint venture agreement with CBY for the exploration and development of the Project, and to acquire up to a 70% legal and beneficial interest in the Project (" <b>Option</b> ").
	Exercise of the Option is conditional on AFR spending at least \$750,000 on exploration on the Project, which will include a detailed soil sampling program and ~3,000m of RC drilling on the tenements ("Option Expenditure Commitment") on or before 31 July 2022 unless extended (up to a maximum of 6 months) due to a force majeure event ("Option Expiry Date").
Earn-In Terms and Conditions	If AFR exercises the Option (" <b>Option Exercise Date</b> "), AFR's earn-in rights will be as follows:
	<ul> <li>Stage 1 Earn-In: Expenditure of at least \$2,250,000 on exploration activities on the Project within 2 years from the Option Exercise Date to earn a 30% interest in the Project. AFR will have absolute discretion on the manner and on what tenements the expenditure is incurred, which may include additional drilling, enabling surveys, preliminary metallurgical studies, and a resource update.</li> <li>Stage 2 Earn-In: Expenditure of a further \$3,000,000 on exploration activities on the Project within 4 years from the Option Exercise Date to earn a further 21% interest in the Project (resulting in a 51% interest in aggregate). AFR will have absolute discretion on the manner and on what tenements the expenditure is incurred, which may include additional drilling, a resource update, and a scoping study.</li> <li>Stage 3 Earn-In: Expenditure of a further \$10,000,000 on exploration activities on the Project within 9 years from the Option Exercise Date to earn a further 19% interest in the Project (resulting in a 70% interest in aggregate). AFR will have absolute discretion on the manner and on what tenements the expenditure is incurred, which may include a prefeasibility study.</li> </ul>



## Should AFR complete the Stage 2 Earn-In, but not elect to proceed with the Stage 3 Earn-In, AFR's interest in the Project will reduce to 49%.

#### Farm-In and Joint Venture Agreement

As soon as practicable after the exercise of the Option, the parties will use all reasonable endeavours to negotiate in good faith a formal farm-in and joint venture agreement for the purposes of establishing an unincorporated joint venture ("Joint Venture") with respect to the Project upon completion of the Stage 1 Earn-In, pursuant to which:

- The parties will establish a management committee, chaired by a representative of the largest participant.
- AFR will be appointed as the manager of the Joint Venture and will remain the manager through the Earn-In period.
- The Earn-in periods may be extended due to force majeure, provided that if such extension exceeds 12 months, or some other period agreed in writing between the parties, the parties agree to meet to discuss modifications to the Terms Sheet or the Farm-In and Joint Venture Agreement to consider a revised timetable.
- The detailed structure and other terms related to the management, governance and administration will be consistent with industry practice for exploration, development and operating farm-ins and joint ventures.
- At the end of the Earn-In period, the largest participant will be appointed
  as the manager and each participant Venturer will have an obligation to
  contribute to the expenditure of the Joint Venture on a pro rata basis or
  be subject to dilution provisions that are consistent with industry practice
  for exploration, development and operating farm-ins and joint ventures;
- Each party will have a first right of refusal in respect of any proposed assignment or other disposal of the other party's participating interest. Each party's first right of refusal will be limited to a right to acquire the other party's participating interest on the same terms and conditions of any bona fide third-party offer received by the other party.

## Ongoing Rio Tinto Exploration Rights

Rio Tinto Exploration Ltd ("RTX"), a previous owner of the Briggs EPM and the Mannersley EPM, will retain a 1.5% NSR over those tenements, and the right to a one-off cash payment of \$0.50 per tonne of copper equivalent metal in declared mining reserves, should a decision to mine be made over any deposit in either of those two tenements. The 1.5% NSR can be reduced to a 1% NSR by making a cash payment to RTX, equal to the fair market value of the 0.5% NSR at the time of a decision to mine.

RTX will also retain certain rights under Sale and Purchase Agreement entered into with CBY and Canterbury Exploration dated 9 February 2017 (**SPA**) in connection with the Briggs EPM and Mannersley EPM, and AFR will be required to enter into a deed of assumption in relation to the SPA upon completion of the Stage 1 Earn-in.



#### **Appendix 2:**

#### SUMMARY OF RESOURCE ESTIMATE AND REPORTING CRITERIA – ASX LISTING RULE 5.8

As per ASX Listing Rule 5.8 and the 2012 JORC reporting guidelines, a summary of the material information used to estimate the Mineral Resource is detailed below (for more detail please refer to Table 1, Sections 1 to 3 included below in Appendix 3).

#### **Geology and geological interpretation of the Briggs Porphyry Copper Deposit**

A granodiorite porphyry stock (GDP) with dimensions in excess of 500m by 200m has been drilled to a depth of  $\sim$ 500m at the Briggs Central Porphyry prospect. This stock has intruded volcanoclastic sediments and caused a zone of hornfels along the contact. The Central Porphyry is one of at least three intrusive centres comprising the Briggs porphyry Cu  $\pm$  Mo prospect. Outcropping mineralised intrusive rocks, soil geochemistry and magnetics surveying indicate the existence of at least two other mineralised porphyry centres, referred to as the Northern and Southern Porphyry, that have been comparatively poorly explored.

Copper occurs in the mineral chalcopyrite, which with minor molybdenum dominates the potentially economic minerals. A relatively thin oxide zone blankets the deposit. The GDP is pervasively altered with biotite and k-feldspar (potassic alteration) overprinted by sericite (phyllic) alteration. Distribution of copper grade is relatively consistent and predictable within the GDP and in the contact hornfels.

Canterbury's observations are that the timing of alteration and mineralisation are late to post- GDP. The implication is that there is a parent intrusive body at depth which is potentially mineralised.

Banded silica bodies with universal solidification textures (UST) have been observed at Northern, Central and Southern Porphyries. Similar quartz zones have been intersected in drilling. These siliceous bodies appear to be sub-vertical and dyke-like in character and may have formed at contacts between intrusive phases. The silica bodies are generally well mineralised.

Canterbury's interpretation is that copper deposition at Briggs is multi-stage, with an earlier event associated with quartz - k-feldspar - chalcopyrite - molybdenum veins and a later cross-cutting event dominated by quartz - sericite - chalcopyrite. The earlier event appears related to the intrusion of the granodiorite porphyry and potassic alteration, while the later event is thought to be related to phyllic alteration and an as-yet undiscovered intrusive at depth.

The earlier copper event is predominantly hosted within the granodiorite porphyry and the latter along the contact between the intrusive stock and volcanoclastic sediments, probably taking advantage of permeability afforded along intrusive contacts and faults with deposition controlled by brittle fracture and reaction with Fe-rich host rocks.

#### **Drilling techniques and hole spacing**

Five diamond holes for a total of 2,069m were drilled by Canterbury during 2019, providing most of the data used in the current resource. The drilling was contracted to Grid Drilling based in Bundaberg utilizing an Alton900 rig. Holes were drilled on three ~200m spaced section lines. Holes dip between 55° and 75° and were designed to intersect very broad intervals of copper mineralisation developed within the granodiorite porphyry host and test the contact zone of the adjacent volcanoclastic host sequence.



Historic holes have also been compiled in the Briggs database, however drill data generated by early explorers Noranda and Geopeko could not be validated and was not used in the resource estimation process. CRA Exploration holes were considered reliable enough to be included in the study, although only one vertical hole near the eastern edge of the deposit, BR93RC5, fell within the geological model shells that were evaluated.

#### Sampling and sub-sampling techniques

Sampling was derived from half core in nominally 1m sample intervals, reducing to shorter intervals in areas of structures and/or geological complexity. This was considered appropriate for the style of minerlaisation being sampled. No twinning was undertaken.

#### Sample analysis method

Samples were dried, crushed and pulverized using Australian Laboratory Services. Samples were crushed in a Jaw Crusher, riffle split to a maximum sample size of 3kg if required, and then pulverised in an LM5 to 85% passing  $75\mu m$ .

Pulps were assayed for gold by fire assay with an AAS finish on a 30g sample (suitable for gold ranges from 0.01 to 100ppm) and by four-acid digestion with an ICPMS finish on a 0.25g sample. The analyte suite included Ag, Al, As, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Fe, Ga, Ge, Hf, In, K, La, Li, Mg, Mn, Mo, Na, Nb, Ni, P, Pb, Rb, Re, S, Sb, Sc, Se, Sn, Sr, Ta, Te, Th, Ti, Tl, U, V, W, Y, Zn, Zr (48 elements).

#### **Cut-off grades**

The geological model was based on geological contacts and not on grade cut offs.

#### **Estimation Methodology**

The geology was modelled on drill cross sections generated in Leapfrog, from surface to a depth of -500mRL. 3D geological modelling by Canterbury enabled the definition of two primary domains. An inner domain of mineralised GDP and a surrounding domain of mineralised hornfelsed sediments (MINSED). The base of oxidation (TOFR) was modelled as a surface. Cutting the GDP and MINSED domain with the TOFR surface effectively produced four mineralised domains, GDP\_ox, GDP\_fr, MINSED\_ox, MINSED\_fr and assigned codes 100, 200, 300, 400 respectively.

Data was composited to 1m. Cu mineralisation was log normal in the mineralised domain, with a low coefficent of variation (CV). A high-grade copper cut of 10,000ppm Cu (1.0% Cu) was applied to the GDP Oxide and 16,000ppm Cu (1.6% Cu) to the GDP Fresh. Data for the oxide domain comprised a small population, therefore making it difficult to assess. Top-cuts were not used for these domains.

Estimation parameters were based on the variogram models, data geometry and kriging estimation statistics.

A Vulcan block model was created for the estimate with a block size of 20m NE-SW x 70m NW-SE x 20m vertical with sub-cells of  $2m \times 7m \times 2m$ . The block model was constrained to the GDP and MINSED domains. Copper and molybdenum were modelled though the results of the molybdenum modelling indicated block molybdenum grades were deemed sub-economic and did not warrant further reporting.



Ordinary Kriging (OK) interpolation with an oriented ellipsoid search was used to estimate Cu and Mo grade in the geology domains GDP and MINSED for fresh rock. Inverse Distance (IVD) interpolation with an oriented ellipsoid search was used to estimate Cu and Mo grade in the geology domains GDP and MINSED for oxide rock.

A bulk density value of 2.6t/m³ was applied to the GDP domains and 2.7t/m³ was applied to MINSED domains.

#### **Classification criteria**

The Briggs Mineral Resource estimate has been classified according to JORC 2012 guidelines based on the drilling density, grade continuity and the level of geological understanding.

The Briggs resource shows good continuity at 0.2% Cu. Within the GDP and MINSED domains there is a reasonable expectation that further infill and step-out drilling will increase the geological confidence and allow for the estimation of an Indicated or Measured Resource in the future.

As noted, the drill spacing is regular but relatively wide spaced, and is regarded as suitable for the current resource estimate.

Canterbury believes the current estimated grade is at a relatively low level of confidence in detail and further drilling is likely to impact the internal distribution of block grades. As a result, the global resource is classified as an Inferred Mineral Resource.

#### Mining and metallurgical methods and parameters

The assumption is that hypogene ore will be extracted by bulk mining open cut methods. It is also assumed that the supergene mineralisation is of little or no economic significance.

The assumption is that the ore is amenable to standard comminution methods used in large scale, low grade operations and the hypogene copper ore can be extracted by flotation methods.



#### Appendix 3: JORC TABLE 1 for the Briggs Porphyry Deposit

#### **Section 1 Sampling Techniques and Data**

(Criteria in this section apply to all succeeding sections.)

#### Criteria

#### Commentary

## Sampling techniques

• Core drilling using track-mounted Alton 900 core rig (see photograph below), used to obtain 1m samples from which ~3kg was pulverized for Cu and Mo assay as part of multi-element assay suite and Au by fire assay.



- Standard 1m sampling intervals, routine measurement and monitoring of core recovery.
- Although coarse chalcopyrite was observed occasionally in quartz veins up to 1cm scale (see photograph below), the bulk of the copper mineralisation was essentially disseminated at less than 1cm in diameter and generally less than 1mm.

Examples of coarser chalcopyrite mineralisation associated with quartz veins (drill hole BD0004 327 & 335m, width of core 61mm):





### Drilling techniques

- Core HQ3 (61.1mm), and NQ3 (45mm) sizes drilled from surface.
- Core was orientated (electronic core orientation tool).



Criteria	Commentary
Drill sample	<ul> <li>Core was placed in commercially available plastic core trays with core blocks indicating hole depth at the end of each drill run.</li> <li>A representative of Canterbury Resources, the Site Geologist, monitored the drill program.</li> <li>Actual recovered core lengths were compared with drill runs (usually 3m) and</li> </ul>
recovery	<ul> <li>Prilling conditions were generally good and triple tube was used throughout to maximise recoveries.</li> <li>Average core recovery over the assayed intervals (excluding colluvium) were BD019-001 &gt;99%, BD019-002 &gt;99%, BD019-003 98%, BD019-004 97%, BD019-005 &gt;99%.</li> <li>Sample bias was not considered a material issue.</li> </ul>
Logging	<ul> <li>All drill core was photographed and geologically and geotechnically logged to a level of detail to support appropriate mineral resource estimation, mining and metallurgical studies.</li> <li>Drill core was transported from the Briggs drill site to Canterbury's logging facility at Calliope for logging.</li> <li>Meter marks were painted on the core. Core was photographed wet and dry using a digital camera. Digital photos were labelled with hole number and depth and uploaded to Canterbury's SharePoint drill data folder.</li> <li>The site geologist logged into Geology, Survey, Geotech, and Structure spreadsheets for uploading directly into an Access Database managed by the Database Manager in Canterbury's office in Sydney.</li> <li>All core was sampled and assayed except for intervals of colluvium at the tops of holes, viz:         <ul> <li>BD019001 0-6m</li> <li>BD019002 0-4.5m</li> <li>BD019003 0-5.2m</li> <li>BD019004 0-7.8m</li> <li>BD019005 0-6.3m.</li> </ul> </li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>Drill core was logged in Calliope. Core trays were palletised, plastic wrapped and transported in batches by commercial carriers to Canterbury's core processing facility at East West Mining Services yard in Caboolture, Brisbane.</li> <li>Canterbury personnel (senior field assistant) received and processed the samples under the supervision of both the site geologist and Exploration Manager.</li> <li>On receipt of a batch of core at Caboolture the trays were laid out on racks in order and checked against a sample cut sheet provided by the site geologist.</li> <li>Numbered calico bags were prepared to match the numbers on the cut sheet.</li> <li>Core was cut using a Clipper core saw. Selected pieces of core were placed in a Vnotch and halved length-ways. The cut core was returned to the tray.</li> <li>Sampling was of half core in nominally 1m sample intervals reducing in areas of structures and/or geological complexity which was considered appropriate for the grain size of the material being sampled.</li> <li>Samples were bagged and delivered to Australian Laboratory Services Sample Preparation Facility in Brisbane by Canterbury personnel.</li> </ul>



#### Criteria

tests

# Quality of assay data and laboratory

#### Commentary

- Samples were dried, crushed and pulverized using Australian Laboratory Services codes DRY-21, CRU-21 and PUL-24. Samples were crushed in a Jaw Crusher, riffle split to a maximum sample size of 3kg if required, and then pulverised in an LM5 to 85% passing 75μm.
- Reject samples and pulps were returned and are stored at Canterbury's Core Processing Facility at Caboolture.
- Pulps were assayed by codes Au-AA23 (Au determination by fire assay and AAS finish on a 30g sample suitable for gold ranges from 0.01 to 100ppm) and ME-MS61 (a four-acid digestion with an ICPMS finish on a 0.25g sample). The analyte suite included Ag, Al, As, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Fe, Ga, Ge, Hf, In, K, La, Li, Mg, Mn, Mo, Na, Nb, Ni, P, Pb, Rb, Re, S, Sb, Sc, Se, Sn, Sr, Ta, Te, Th, Ti, Tl, U, V, W, Y, Zn, Zr (48 elements).
- Appropriate commercially available Standards or Blanks were inserted every 10<sup>th</sup> sample (Refer to table below).

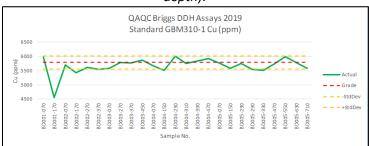
#### Details of range of Standards used and specifications:

,	,		, ,	
Standard	Cu mean (ppm)	Std Dev <sup>1</sup>	Count	95%Cl <sup>2</sup>
GBM310-1	5792	227	186	±33
GBM316-10	4554	146	78	±33.2
GBM316-5	57	4	64	±1.1
GBM312-8	1530	103	111	±19.4
GBM313-7	2976	81	57	±21.6

Notes accompanying certified reference materials (www.geostats.com.au):

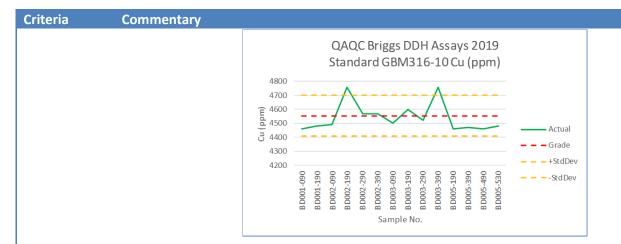
- The standard deviation indicates the likely spread of the analyses performed on the material. It is expected that the laboratory can return results within 3 times the standard deviation of the target grade.
   The 95%CI (confidence interval) refers to the margin of error in the mean at a 95% confidence.
- The 95%CI (confidence interval) refers to the margin of error in the mean at a 95% confidence.
   It is an indication of the quality of the test work on the material and the quality of the material itself, and not to be confused with the control limits for assaying.

## Assay results of Standard GBM310-1 for copper (Sample No indicates hole and depth):

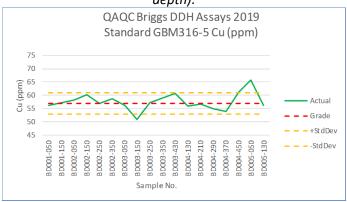


Assay results of Standard GBM316-10 for copper (Sample No indicates hole and depth):

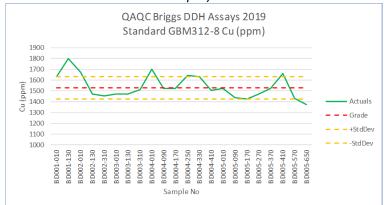




Assay results for Standard GBM316-5 for copper (Sample No indicates hole and depth):

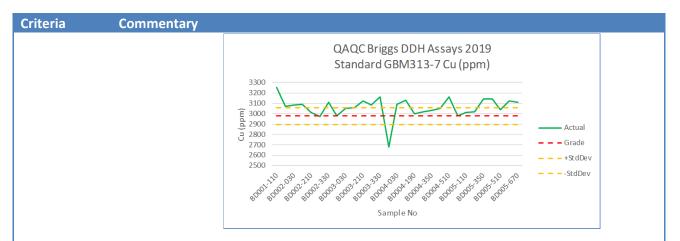


## Assay results for Standard GBM312-8 for copper(Sample No indicates hole and depth):



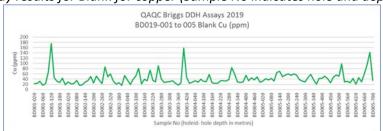
Assay results for Standard GBM313-7 for copper (Sample No indicates hole and depth):





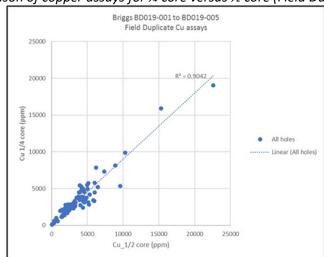
- Overall the results of the assaying of the Standards did not indicate any issues with laboratory method.
- The blanks were made up from crushed glass used in pool filters. Similarly, the results of the assaying of the Blank material did not indicate any issue with contamination between samples nor any mix up in samples.

#### Assay results for Blank for copper (Sample No indicates hole and depth):



• Field duplicates (94 samples) using ¼ core were collected and sent to Australian Laboratory Services for assay. Scatter from the x=y line at assays greater than 0.5% (see below) were attributed to volume variance effect.

Comparison of copper assays for ¼ core versus ½ core (Field Duplicates):



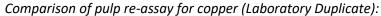
• Laboratory duplicates were selected from residual pulps and sent to an alternate laboratory (Intertek Townsville). Ninety-two pulps were sent for re-assay. Copper,

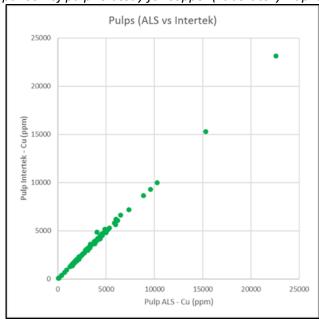


#### Criteria

#### Commentary

as part of a multi-element suite, was assayed by 4A/MS method. Results (see graph below) indicated very good correlation indicating little or no bias between laboratories.





# Verification of sampling and assaying

- Significant intersections were determined by weighted average and reported by the Exploration Manager.
- No holes were twinned.
- Data was collected in fit-for-purpose data entry templates and stored in the company database.
- No adjustment was made to any assay data.

## Location of data points

- Coordinates were in GDA94 MGA Zone 56.
- Topographic surface was LIDAR. A 2km by 2km area over the Briggs prospect was Lidar surveyed in 2018 by Helimetrex Pty Ltd completed with ground stations picked up by DGPS.
- Drill collars were surveyed by Ingliss Survey and Mapping using a DGPS. BD019-001 to BD019-005 and 14 historic drill holes were surveyed; the latter where there was strong evidence of a collar. The survey specifications were:

Hz datum: GDA94

Coord System: MGA94 Zone 56

Level Datum: AHD

Geoid Model: AUSGEOID 09

Origin of Coordinates and Levels: PSM152612 (Star Picket near Ayrddrie

Homestead) Easting: 273352.254 Northing: 7343627.375 RL: 135.601

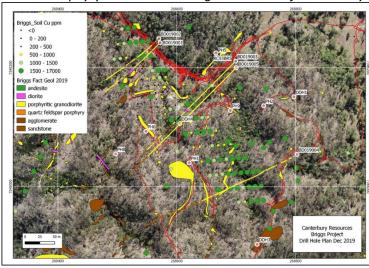
Magnetic Declination: 10° declination to MGA94 – based on an 80m base line only.



## Data spacing and distribution

- The 2019 drill holes were drilled on three ~200m spaced section lines (see image below).
- Data spacing and distribution was considered sufficient to establish the degree of geological and grade continuity appropriate for the inferred mineral resource.
- Samples were composited to 1m intervals for resource estimation.

Briggs Central Porphyry Drill Plan showing hole traces of Canterbury drilling:



#### Orientation of data in relation to geological structure

- Drill hole sections were designed to test across the regional northwest southeast structural trend.
- No material sampling bias was introduced.

## Sample security

- The Briggs drill site and core logging area in Calliope was under the continuous supervision of the Canterbury site geologist.
- Core was palleted and plastic wrapped before being transported by commercial freight operators direct to Caboolture core cutting facility.
- Canterbury's core cutting facility in Caboolture was under the supervision of Canterbury's senior field assistant with regular inspection by the site geologist and Exploration Manager.
- Samples once bagged in Caboolture were hand-delivered to the Australian Laboratory Services Geebung sample preparation facility.

### Audits or reviews

• No audits or reviews have been undertaken of sampling techniques or data.



#### **Section 2 Reporting of Exploration Results**

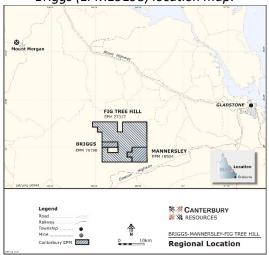
(Criteria listed in the preceding section also apply to this section.)

# Criteria Mineral tenement and land tenure status

#### Commentary

- EPM19198 is located 50km south west of Gladstone in central Queensland.
- EPM19198 is 100% owned by Canterbury Resources.
- Rio Tinto retains a 1% NSR and a back-in option to claw back 60% joint venture equity by paying Canterbury A\$15m in cash and sole-funding the next A\$50m of joint venture expenditure.

Briggs (EPM19198) location map:



## Exploration done by other parties

Previous explorers over the Briggs area include Noranda (1969 to 1972), Geopeko (1970s), CRAE (1990s) and Rio Tinto (2011-2017). See elsewhere in Section 2 for details.

#### Geology

• At Briggs, a granodiorite porphyry stock (GDP) with dimensions in excess of 500m by 200m has been drilled to a depth of ~500m at the Central Porphyry prospect. This stock has intruded volcanoclastic sediments with a zone of hornfels along the contact. The Central Porphyry is one of at least three intrusive centres comprising the Briggs Cu ± Mo porphyry prospect. Intrusive outcrop, soil geochemistry and magnetics (depressed susceptibility) indicate the existence of at least two other centres, referred to as the Northern and Southern Porphyry, that have been comparatively poorly explored.

Copper as chalcopyrite with minor molybdenum dominate the potentially economic minerals. A relatively thin oxide zone blankets the deposit. The GDP is pervasively altered to potassic style alteration (biotite – k-feldspar) overprinted by phyllic (sericite) alteration. Distribution of copper grade is relatively consistent and predictable within the GDP and in the contact hornfels.

Canterbury's observations are that the timing of alteration and mineralisation are late to post- GDP. The implication is that there is a parent intrusive body at depth which is potentially mineralised.

Banded silica bodies with UST textures have been observed at Northern, Central and Southern Porphyries. Similar quartz zones have been intersected in drilling. These siliceous bodies appear to be sub-vertical and dyke-like in character and may



#### Criteria

#### Commentary

have formed at contacts between intrusive phases. The silica bodies are generally well mineralised. It is suggested that they represent emanations from a fertile parent intrusive at depth.

Canterbury's interpretation is that copper deposition at Briggs is multi-stage, with an earlier event associated with quartz - k-feldspar - chalcopyrite - molybdenum veins and a later cross-cutting event dominated by quartz - sericite - chalcopyrite. The earlier event appears related to the intrusion of the granodiorite porphyry and potassic alteration, while the later event is thought to be related to phyllic alteration and an as-yet undiscovered intrusive at depth.

The earlier copper event is predominantly hosted within the granodiorite porphyry and the latter along the contact between the intrusive stock and volcanoclastic sediments, probably taking advantage of permeability afforded along intrusive contacts and faults with deposition controlled by brittle fracture and reaction with Fe-rich host rocks.

### Drill hole Information

#### Canterbury Resources drilling

Five holes for a total of 2069.2m were drilled by Canterbury Resources during 2019. The drilling was contracted to Grid Drilling based in Bundaberg utilizing an Alton900 rig.

Drill hole details 2019 Canterbury drilling:							
Drill Hole	MGA94 Zone	MGA94 Zone	Elevation	Depth (m)	Dip	Azimuth	Core Size
	56 East (m)	56 North (m)	(m)		(°)	(°T)	
DD010 001	200 E00 04	7 245 244 77	102.00	202.6	EE	225	LIOTT

Drill Hole	MGA94 Zone	MGA94 Zone	Elevation	Deptn (m)	DIP	Azimutn	Core Size
	56 East (m)	56 North (m)	(m)		(°)	(°T)	
BD019-001	268,566.84	7,345,241.77	183.96	203.6	-55	225	HQTT
BD019-002	268,568.74	7,345,243.72	183.90	375.2	-75	225	HQTT
BD019-003	268,702.51	7,345,205.95	189.18	398.8	-55	225	HQTT
BD019-004	268,792.36	7,345,055.26	232.43	452.8	-55	240	HQTT
BD019-005	268,704.18	7,345,211.75	189.41	638.8	-66	225	HQTT→388m NQTT→638.8m
Total				2069.2			000.0111

#### • Treatment of historic data

Historic drill holes were uploaded into the drill database for completeness (refer to table below for list of all historic drill holes completed at Briggs). However, Noranda's and Geopeko's drill hole data could not be validated and has not been used in the resource estimation process. CRA Exploration holes were deemed reliable and were included in the resource estimate process, although only drill hole (BR93RC5) fell within the geological domains evaluated.



#### Collar details of all drill holes at Briggs prospect:

Project	Hole_ID	Type	East	North	RL	De pth	Dip	Azi T	Company	Priority
Briggs	DDH1	Core	268798.07	7345152.53	202.66	122	-90	0	Noranda	2
Briggs	DDH2	Core	268411.63	7344887.2	266	60	-90	0	Noranda	2
Briggs	DDH3	Core	268657.39	7344953.22	223.86	152	-90	0	Noranda	2
Briggs	DDH4	Core	268607.89	7345106.76	210.51	152	-90	0	Noranda	2
Briggs	DDH5	Core	268655.85	7344856.83	269.06	109	-90	0	Noranda	2
Briggs	PH1	Pe rc	268622.41	7345043.81	233.87	54	-90	0	Noranda	2
Briggs	PH2	Pe rc	268747.04	7345134.21	211.86	40	-90	0	Noranda	2
Briggs	PH3	Pe rc	268844.4	7345042.11	216.74	33	-90	0	Noranda	2
Briggs	PH4	Pe rc	268771.15	7344977.71	239.82	52	-90	0	Noranda	2
Briggs	PH5	Pe rc	268576.98	7345230.8	184.94	43	-90	0	Noranda	2
Briggs	PH6	Pe rc	268534.87	7345106.25	214.04	34	-90	0	Noranda	2
Briggs	PH7	Pe rc	268093	7345316	206	46	-90	0	Noranda	2
Briggs	PH8	Pe rc	268422.47	7345083.83	223.45	46	-90	0	Noranda	2
Briggs	PH9	Pe rc	268696.04	7345122.56	196.09	35	-90	0	Noranda	2
Briggs	RC93BR1	RC	268648	7345375	216	126	-90	0	CRAE	2
Briggs	RC93BR2	RC	267892	7345083	204	149	-90	0	CRAE	1
Briggs	RC93BR3	RC	269207.62	7344887.17	266.42	136	-71	144	CRAE	1
Briggs	RC93BR4	RC	267842	7344788	169	84	-90	0	CRAE	1
Briggs	RC93BR5	RC	268687	7345228	187	109	-90	0	CRAE	1
Briggs	RC93BR6	RC	268552	7345408	203	45	-90	0	CRAE	1
Briggs	RC93BR7	RC	268352	7345558	184	50	-90	0	CRAE	1
Briggs	DDH36-1	Core	267599	7345078	180	24.02	-90	0	Geopeko	2
Briggs	DDH36-2	Core	267721	7344736	180	21.59	-90	0	Geopeko	2
Briggs	DDH36-3	Core	267718	7345012	180	19.95	-90	0	Geopeko	2
Briggs	DDH36-4	Core	267979	7345713	180	270.97	-90	0	Geopeko	2
Briggs	DDH36-5	Core	268078	7345643	180	106.98	-90	0	Geopeko	2
Briggs	BRIG0001	Core	268449	7344484	214	417.8	-70	59	Rio Tinto	1
Briggs	BD019001	Core	268566.84	7345241.77	183.96	203.6	-55	225	CBY	1
Briggs	BD019002	Core	268568.74	7345243.72	183.9	375.2	-75	225	CBY	1
Briggs	BD019003	Core	268702.51	7345205.95	189.18	398.8	-55	225	CBY	1
Briggs	BD019004	Core	268792.36	7345055.26	232.43	452.3	-55	240	CBY	1
Briggs	BD019005	Core	268704.18	7345211.75	189.41	638.8	-66	225	CBY	1

## Data aggregation methods

- Significant intercepts from historic and Canterbury drilling are reported elsewhere in Section 2.
  - Weighted averages are used in calculations.
  - Significant results reported at 0.1%, 0.2% and 0.3% Cu cut-off grades
  - Significant intervals >10m, with maximum internal dilution of 4m

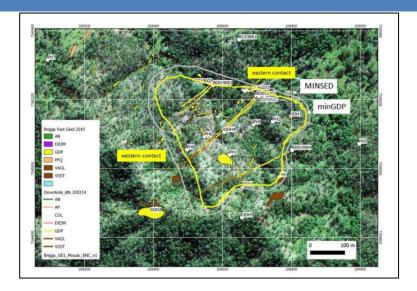
#### Relationship between mineralisatio n widths and intercept lengths

- Down-hole lengths reported.
- Canterbury drill holes were designed to test across the dominant NW-SE structural grain. Reported significant intercepts are down-hole intercepts and may not reflect true width.

**Diagrams** 

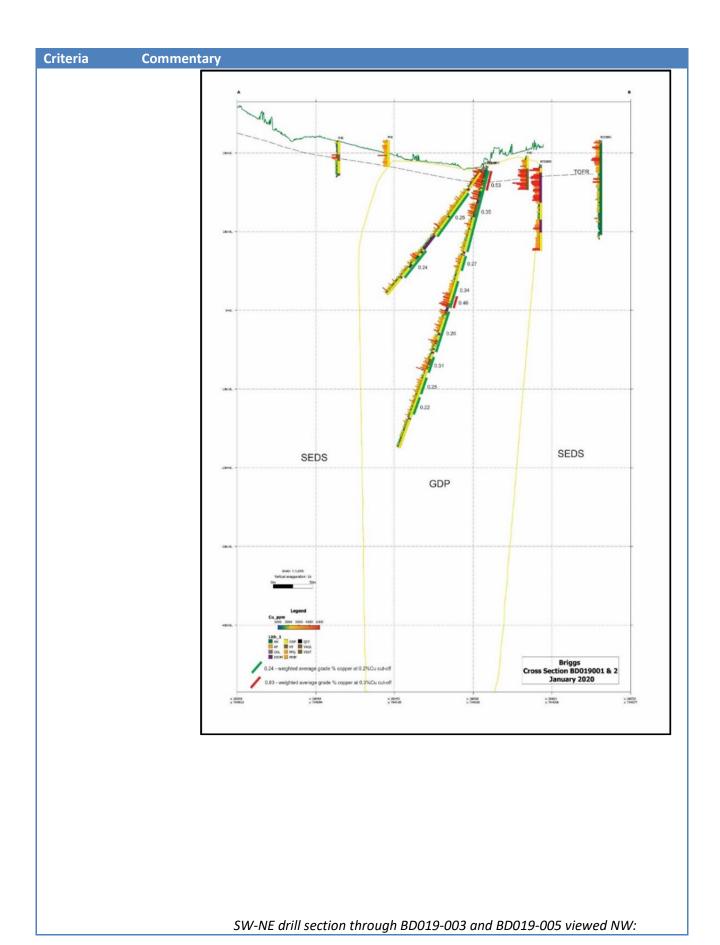
Plan view of central porphyry (GDP domain, yellow outline) showing surrounding mineralised hornfelsed volcanoclastics (MINSED domain, grey outline), historic drill collars, Canterbury drill holes (hole traces) and fact geology:



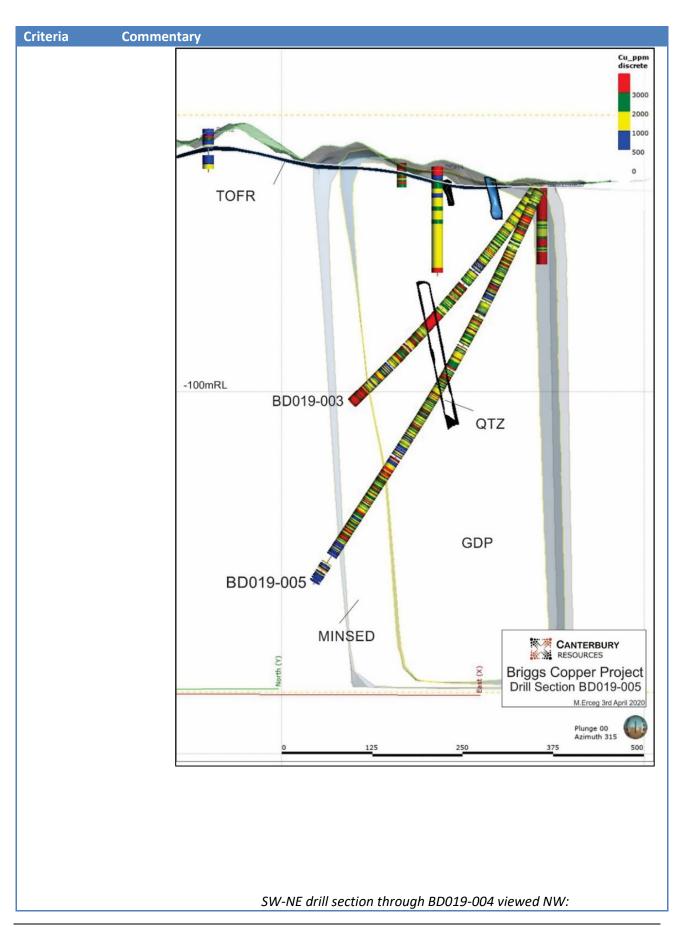


SW-NE drill section through BD019-001 and BD019-002 viewed NW:

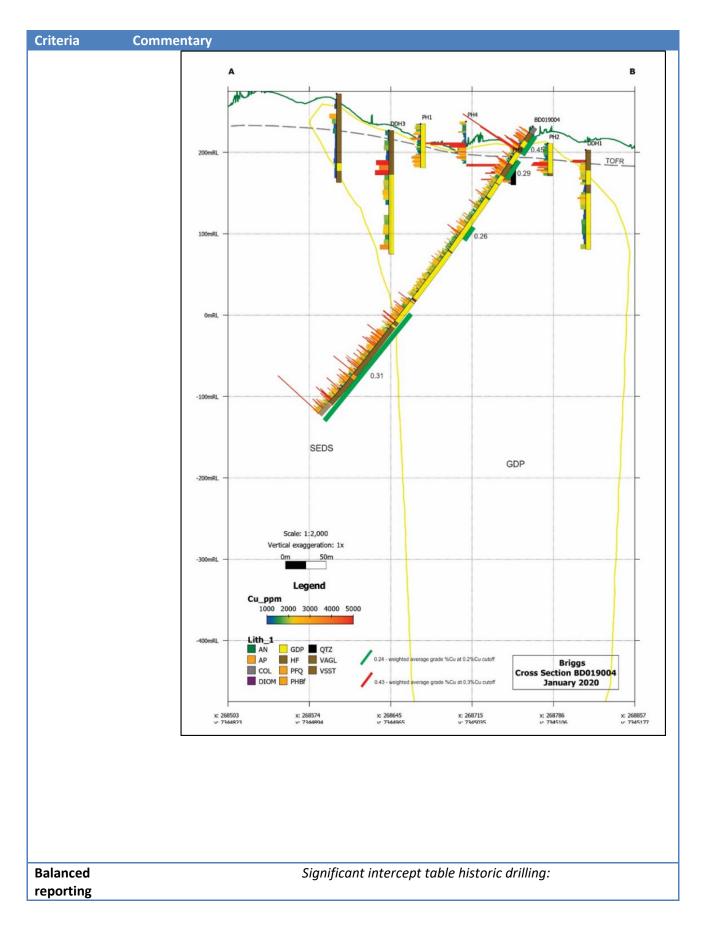














Hole_ID	From	То	Intercept	Cu (%)	Cutoff
DDH1	8.54	42.70	34.16	0.23	0.10
and	48.80	122.00	73.20	0.16	0.10
DDH2	0.00	15.25	15.25	0.36	0.10
and	48.80	61.00	12.20	0.13	0.10
DDH3	0.00	91.50	91.50	0.23	0.10
and	103.70	152.50	48.80	0.21	0.10
DDH4	0.00	152.50	152.50	0.21	0.1
DDH5	24.40	48.80	24.40	0.18	0.1
PH1	0.00	54.90	54.90	0.21	0.1
PH2	0.00	39.95	39.65	0.24	0.1
including	21.35	35.08	13.73	0.41	0.25
PH3	0.00	42.70	42.70	0.11	0.10
PH4	0.00	51.85	51.85	0.30	0.10
including	25.93	45.75	19.82	0.54	0.25
PH5	3.05	42.70	39.65	0.49	0.10
including	4.58	42.70	38.12	0.50	0.25
PH6	0.00	33.55	33.55	0.31	0.10
including	0.00	33.55	33.55	0.31	0.25
PH7	no	significant	intercepts	0.31	0.23
PH8	1.53	45.75	44.22	0.18	0.10
PH9	7.63	33.55	25.92	0.68	0.10
FHS	7.03	33.33	25.92	0.08	0.10
RC93BR1	0.00	126.00	126.00	0.27	0.1
	0.00	42.00	42.00	0.27	0.1
including including	48.00	60.00	12.00	0.35	0.1
		44.00			
RC93BR2 RC93BR3	0.00 2.00	110.00	44.00 108.00	0.20 0.23	0.10 0.10
-	26.00	36.00	108.00	0.23	0.10
including					
including	60.00	82.00	22.00	0.32	0.25
including	90.00	106.00	16.00	0.25	0.25
and	122.00	136.00	14.00	0.16	0.1
RC93BR4	no 4.00	significant	intercepts	0.35	0.1
RC93BR5	4.00	109.00	105.00	0.35	0.1
including	4.00	48.00	44.00	0.51	0.25
including	70.00	109.00	39.00	0.33	0.25
RC93BR6	2.00	45.00	43.00	0.16	0.10
RC93BR7	no	significant	intercepts		
DDU2C 1		olore!fir 1	interest		
DDH36-1	no	significant	intercepts		
DDH36-2	no	significant	intercepts		
DDH36-3	no	significant	intercepts		
DE::27	0.00	00.00	02.05	0.00	2.4
DDH36-4	0.00	93.00	93.00	0.22	0.1
including	26.00	39.00	13.00	0.37	0.25
including	45.00	83.00	38.00	0.25	0.25
and	107.00	201.00	94.00	0.28	0.1
including	117.00	146.00	29.00	0.34	0.25
including	153.00	178.00	25.00	0.35	0.25
and	209.00	270.97	61.97	0.22	0.1
including	239.00	255.00	16.00	0.31	0.25
DDH36-5	no	significant	intercepts		
BRIG0001	no	significant	intercepts		

Significant intercept table BD019-001, 002 and 003:



					1	
Hole ID	Depth From	Depth To	Length	Cu	Mo	Cut-off
Hore_ID	(m)	(m)	(m)	(%)	(ppm)	(%Cu)
BD019-001	6.0	203.6	197.6	0.22	7	0.1
including	37.0	110.0	73.0	0.25	2	0.2
including	79.0	96.0	17.0	0.31	3	0.3
and	129.0	173.7	44.7	0.24	19	0.2
including	138.0	148.0	10.0	0.36	7	0.3
and	184.0	203.6	19.6	0.24	2	0.2
BD019-002	4.5	375.0	370.5	0.27	10	0.1
including	5.0	112.0	107.0	0.35	10	0.2
including	6.0	45.0	39.0	0.53	14	0.3
and	117.0	139.0	22.0	0.27	13	0.2
and	146.0	186.0	40.0	0.34	5	0.2
including	168.0	186.0	18.0	0.46	6	0.3
and	191.0	245.0	54.0	0.26	16	0.2
and	250.0	273.0	23.0	0.31	12	0.2
and	279.0	302.0	23.0	0.25	5	0.2
and	306.0	332.0	26.0	0.22	11	0.2
BD019-003	5.2	136.0	130.8	0.20	34	0.1
including	76.0	103.0	27.0	0.23	41	0.2
and	108.0	120.0	12.0	0.23	80	0.2
plus	152.0	398.8	246.8	0.30	10	0.1
including	157.0	282.0	125.0	0.36	12	0.2
including	226.0	254.0	28.0	0.83	17	0.3
including	236.4	254.0	17.6	1.00	17	0.5
and	289.0	311.0	21.7	0.35	7	0.2
and	369.7	398.8	29.0	0.37	19	0.3

#### Significant intercept table BD019-004:

Hole No.	Depth From (m)	Depth To (m)	Length (m)	Cu (%)	Mo (ppm)	Cut-off (% Cu)
BD019-004	7.8	452.8	445.0	0.27	42	0.1
including	7.8	40.0	32.2	0.45	81	0.2
including	27.0	37.0	10.0	0.85	185	0.5
and	45.0	75.0	30.0	0.29	59	0.2
including	54.0	72.0	18.0	0.34	65	0.3
and	146.0	167.0	21.0	0.26	62	0.2
and	279.0	452.0	173.0	0.31	34	0.2
including	279.0	292.0	13.0	0.32	9	0.3
and	297.0	309.0	12.0	0.31	20	0.3
and	320.0	340.0	20.0	0.38	29	0.3
and	366.0	376.1	10.1	0.34	62	0.3
and	382.0	402.0	20.0	0.31	25	0.3
and	410.0	420.0	10.0	0.32	33	0.3
and	442.0	452.8	10.8	0.45	24	0.3

#### Significant intercept table for BD019-005:

Hole No.	Depth From (m)	Depth To (m)	Length (m)	Cu (%)	Mo (ppm)	Cut-off (% Cu)
BD019-005	8.5	169.0	160.5	0.24	22	0.1
Including	31.2	76.6	45.4	0.33	17	0.2
Including	44.0	75.0	31.0	0.38	13	0.3
And	107.3	146.0	38.7	0.24	19	0.2
Including	115.0	125.0	10.0	0.31	6	0.3
And	151.0	165.0	14.0	0.29	17	0.2
Plus	175.0	411.0	236.0	0.20	8	0.1
Including	187.0	222.8	35.8	0.22	10	0.2
And	228.0	242.0	14.0	0.22	4	0.2
And	267.0	312.0	45.0	0.29	9	0.2
Including	295.0	306.0	11.0	0.50	7	0.3
And	323.0	387.0	64.0	0.22	5	0.2
Plus	440.0	568.8	128.8	0.24	21	0.1
Including	446.0	525.0	79.0	0.24	23	0.2
Including	446.0	467.0	21.0	0.31	15	0.3
And	530.0	566.0	36.0	0.26	16	0.2
Including	546.3	562.0	15.7	0.30	15	0.3
	· ·					



#### Criteria

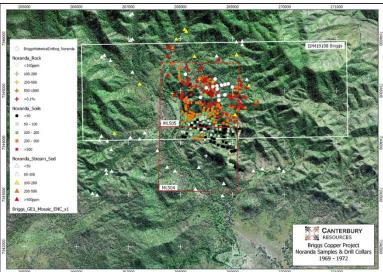
#### Commentary

Other substantive exploration data

#### Previous Exploration Noranda (1968-1972)

Noranda discovered the Briggs copper prospect in the early 1970's through regional stream sediment sampling and geological mapping. Geophysical surveys (IP and magnetics) defined a magnetic low representing the altered intrusive stock surrounded by a chargeability high interpreted to represent a pyritic halo. Five core holes and 9 percussion holes were drilled and identified a small near-surface supergene enriched copper resource.

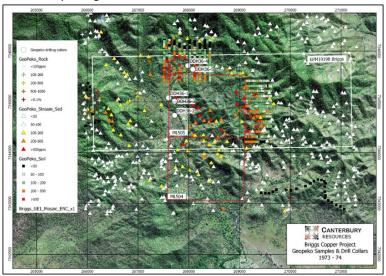
Noranda geochemical sample and drill collar locations:



#### Geopeko (early 70s)

Geopeko explored the ground around Noranda's in the early 1970's. There was extensive surface geochemical sampling, as well as three auger holes and two deep core holes. Geopeko discovered the northern extension of Briggs porphyry (Rivershead prospect) and the southern porphyry.

Geopeko geochemical data and drill collar locations:





#### CRAE (1990s)

CRAE conducted soil sampling, geological mapping and 563m of RC drilling testing for extensions of the central Briggs porphyry. They discovered higher grade copper mineralisation in a hornfelsed volcanoclastic along the eastern contact of the Briggs porphyry.

285000 35000 35000 35000 35000 37000

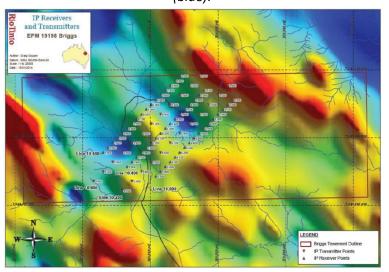
CRA Exploration geochemical sample and drill collar locations:

#### Rio Tinto (2012-2016)

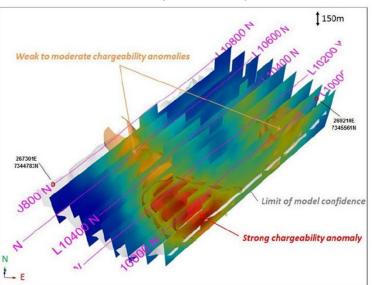
Rio Tinto targeted a conceptual deep mineralised core to the intrusive complex postulated to be responsible for copper mineralisation and associated phyllic and potassic alteration observed at surface. They conducted an IP survey which showed a strong chargeability anomaly interpreted to be sulphides on the western side of the Briggs porphyry. Rio Tinto drilled one hole designed to test the chargeability anomaly, collared south of Briggs porphyry, but failed to intersect significant copper mineralisation. A VTEM survey was flown to test for conductive areas possibly related to alteration but the main conductive feature correlated with alluvial sediments of the Calliope River.



RTX Briggs IP survey lines on RTP magnetics (Briggs central porphyry is central low (blue):



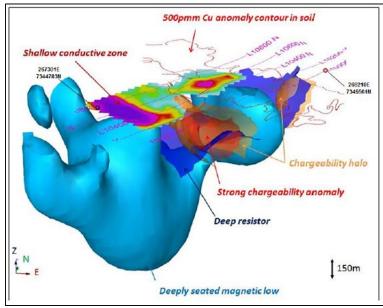
Results of RTX IP survey:



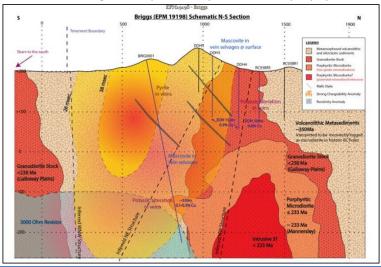
Combined IP and magnetic 3D image. The modelled magnetic low (magnetite



destruction) in blue beneath Briggs (500ppm Cu anomaly in soil) flanked by the strong chargeability anomaly:



Schematic section showing buried potentially mineralised porphyritic microdiorite:

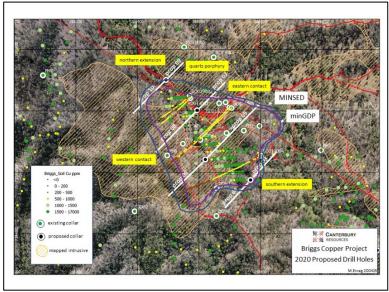


#### **Further work**

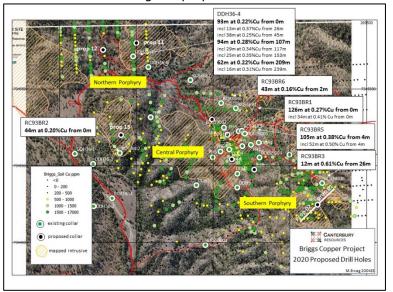
- Further drilling is planned to target the relatively higher-grade contact zones of the central porphyry (MINSED domain) particularly on the eastern side, to improve the overall grade of the deposit
- Vectoring studies are planned to better target the buried core of the porphyry system.
- Scout drilling is proposed to test both the northern and southern porphyries.

Briggs Central Porphyry plan illustrating modelled outlines of GDP and MINSED domains, copper soil geochemistry, all drill collars (green circles with white rim) and planned holes (black circles white rim, white traces):





Briggs Corridor illustrating locations of Northern, Central and Southern porphyries, copper soil geochemistry, historic drill collars and significant results of regional drilling and proposed holes:





#### **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	Commentary
Database integrity	<ul> <li>A drill and surface sampling Master Database was set up in Access and administered by Canterbury's database administrator in head-office.</li> <li>Data collected in the field, including geological logging, structural data (oriented core), alteration and mineralization, and downhole surveys, was entered directly into logging templates with drop-downs back-up by a comprehensive library.</li> <li>The templates matched the fields in the Database to ensure seamless upload.</li> <li>Similarly drill core sampling cut sheets were uploaded to the Database and matched with digital assay data received from the laboratory.</li> <li>Checks on data integrity was performed by the Database Manager and the site geologist validated the Database by viewing data in Leapfrog.</li> </ul>
Site visits	<ul> <li>Mike Erceg site visit details:         20-23 March 2017 – site familiarization visit with RTX fieldy         1-4 May 2017 – site familiarization visit with RTX geologist         8-9 February 2018 – site visit SRK geologist         18-21 October 2018 – GPS pick up tracks historic drill collars, meet landowner, recon Northern Porphyry         6-8 February 2019 – site visit with Paul Wright (site geologist), select drill sites, landowner and First Nations meetings         4 November 2019 – Caboolture Core Facility review core cutting set up, sample storage, pulp re-assay, SG determinations set up.         6 December 2019 - Caboolture Core Facility review core with Sandfire Resources         11 December 2019 – Site visit, inspect rig site with Sandfire Resources         13 December 2019 – Caboolture Core Facility, work with Mark Pirlo geochemist on Bulk Density determinations procedure         16 December 2019 – Caboolture Core Facility, sample collection for Bulk Density determinations.         17 December 2019 – Site visit and drill site with Freeport         20 December 2019 – Caboolture Core Facility Bulk Density determinations BD019-002 to 004         10 January 2020 – Caboolture Core Facility, select core for RTX visit, deliver sample batch to ALS Geebung Facility and talk to the ALS Prep Manager.</li> <li>Geoff Reed visited site, acting as site geologist supervising the drill program from 17 June 2019 to 23 June 2019, 9 September 2019 to 18 September 2019, 1</li> </ul>
Geological interpretation	<ul> <li>November 2019 to 11 November 2019.</li> <li>The results of detailed surface mapping by Canterbury in the central porphyry area combined with down-hole geology contributed to a robust model of the</li> </ul>
p. cadion	granodiorite porphyry stock (GDP domain), hosting volcanoclastic sediments and mineralised hornfelsed contact zone (MINSED domain).



#### Criteria

#### Commentary

- Although logging of drill core indicated several different phases of GDP, the phases were combined into one domain for resource estimation purposes. This was primarily because alteration and mineralisation did not appear strongly controlled by lithology.
- Although surface mapping suggested the GDP stock extended both to the northwest and south east, the GDP domain was limited to 100m beyond the last drill section.
- There was more confidence modelling the mineralised hornfelsed volcanoclastic envelope on the western side of the GDP where several drill holes tested the unit. A horizontal thickness of 50m was determined for the MINSED domain on the western margin. There was less confidence due to lack of drill data on the eastern margin. Consequently, a thinner envelope of 10-15m was used for the MINSED domain in this area.
- Surface mapping and several drill intersections indicated relatively higher copper grades were associated with massive quartz zones. The was little confidence in the modelling of these zones, which appeared thin and discontinuous, into a discrete domain(s) and were incorporated into the GDP domain.

# Estimation and modelling techniques

#### Geological Modelling

The geology was modelled on drill cross sections generated in Leapfrog, from surface to a depth of -500mRL.

3D geological modelling by Canterbury enabled the definition of two primary domains. An inner domain of mineralised GDP and a surrounding domain of MINSED.

The base of oxidation (TOFR) was modelled as a surface. Cutting the GDP and MINSED domain with the TOFR surface effectively produced four mineralised domains, GDP\_ox, GDP\_fr, MINSED\_ox, MINSED\_fr and assigned codes 100, 200, 300, 400 respectively.

#### • Wireframe Construction

Wireframes were digitised on each drill section in Leapfrog modelling the limits of the GDP and MINSED. Geology was projected to a depth of -500mRL approximately 100m beyond the deepest drill hole. Similarly, geology was projected no further than 100m along strike beyond the last drill section. Sectional geological wireframes were then turned into solids in Leapfrog generating the GDP and MINSED solids. The GDP solid was cut from the MINSED solid to generate the GDP domain and MINSED domain.

The 3D dxf wireframes files of the domains were exported from Leapfrog into Vulcan and built into 3D wireframes, snapped to the drill holes.



#### **Briggs Domains:**

Wirefame	Domain Name	Domain Number	Description
1_gpd_abv_20414	Min_Domain	100	Gdp oxide
2_gpd_bl_20414	Min_Domain	200	Gdp fresh
3_minsed_abv_20414	Min_Domain	300	Minsed oxide
4_minsed_bl_20414	Min_Domain	400	Minsed fresh
5_tofr_20403_close_apr20	Min_Domain	500	Waste rock fresh
6_topo_sect_close_apr20	Min_Domain	600	Waste rock oxide
5_tofr_20403_close_apr20	Ох	5000	Fresh
6_topo_sect_close_apr20	Ох	6000	Oxide
7_bm_close_apr20	Ox	7000*	Air and model extent

#### Drill Hole Data

Canterbury's drilling at the Central Porphyry zone is on ~200m spaced, NE-SW oriented section lines perpendicular to the strike of the Briggs corridor. Canterbury's drill holes are at dips of between 55° and 75° and were designed to intersect very broad intervals of copper mineralisation developed within a granodiorite porphyry host and test the contact zone of the adjacent volcanoclastic host sequence.

One hole (RC93BR5) drilled by CRAE was included in the database for resource estimation purposes. It is a vertical drill hole collared in volcanoclastic sediments near the eastern margin of the deposit, close to the collar of BD019-003 and BD019-005.

Six drill holes were selected for resource estimation purposes (see table below).

Hole Type	Drill Holes					
	Series	Number	Metres			
RC	CRA Exploration	1	109.0			
Core	Canterbury	5	2069.2			
Total		6	2,178.2			

#### Statistics

Conarco Consulting was engaged to review data files and comment on the general statistics and provide a spatial analysis (variography).

Three wireframes were provided to Conarco which included the mineralised porphyry (GDP domain), mineralised sediments (MINSED domain) and TOFR (top of fresh rock). The TOFR wireframe was used to split the two mineralised wireframes into fresh and oxidised resulting in four mineralised domains.

An analysis of the combined mineralised dataset suggested that the majority of the sample lengths were 1.0m. As a general rule, the appropriate composite length should be close to the model distribution of the data set. Therefore, a 1 m composite length was chosen.

For the copper mineralisation the major domains showed a log-normal distribution. The



composited data resulted in a low Coefficient of Variation (CV) with a relatively well formed "bell curve". The data suggested that there was one grade population within each domain. In addition, there was only minor inflections on the log probability plot. This would normally suggest that top-cuts were not required. However, the large jump in grade from the normal distribution histogram suggested that there was "disintegration" of grade and therefore it was recommended that a top-cut of 16,000ppm Cu be used for the fresh GDP domain and 10,000ppm Cu for the fresh MINSED domain be used.

A comparison between the composited data and the top-cut data suggested that using top-cuts would not have a material change to the Mineral Resource estimate. Data for the oxide domain comprised a small population, therefore making it difficult to assess. It was suggested that top-cuts were not used for these domains.

#### Variography

Variography was completed using Snowden's Supervisor V8 software (see results below for copper). The composited top-cut data from each domain were used for geostatistical modelling. To determine the nugget value, a downhole variogram with a 1m lag was used. Directional semi-variograms were then produced in the horizontal, across-strike and dip plane directions. The results of the nugget and semi-variograms were then fitted to a nested spherical model with up to two structures if required. The semi-variograms were then modelled to produce a sill and range in each of the principal directions.

075-->130 015-->310 130 0.6 116.0 gdp\_fresh 18.0 93.0 075-->130 015-->310 minsed\_fresh 0.3 118.0 gdp\_ox minsed\_ax 075-->130 015-->310 75 0.11 0.78 211.0 0.1 251.0 gdp\_fresh 130 015-->310 0.71 minsed\_fresh 75-->130 0.: adp ox Мо no variography - use fresh

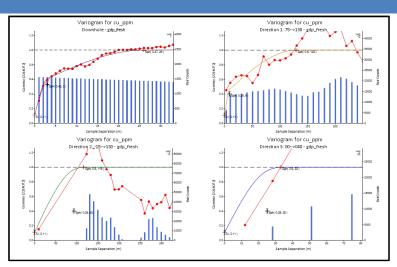
Variography parameters for copper:

Overall, the result was a well-constructed two structure variogram (see below). There is some "noise" at small distances, especially in the semi-major direction. A normal scores variogram was also trialed but did not improve the variogram. Variography was not possible for the oxide zones and therefore it was suggested that the results of the variogram for the respective fresh domains be applied.

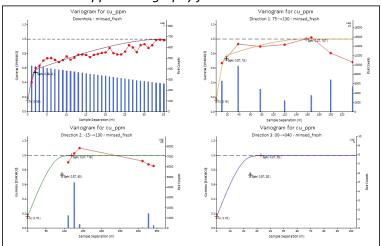
Copper variography for Fresh GDP:







#### Copper variography for Fresh MINSED:



#### Kriging Neighbourhood Analysis

A multi-block kriging neighbourhood analysis (KNA) was completed for the fresh GDP domain to determine the optimum block size as well as appropriate minimum and maximum number of samples used in the estimate. This was achieved by estimating a given point at certain block sizes, differing number of samples, maximum samples per drill hole (set to 4), differing search ranges determined by the variography and discretisation steps. Table below is a summary of the results recommended to be used during the Mineral Resource estimation.

Γ	KNA Summary	Flowent	Blo	ck Coordina	ates	Dioak Cizo	No. Sa	amples		Search	ı	Discretisation
Г	Lode	Element	X	Υ	Z	BIOCK SIZE	Min	Max	Mai	S-Mai	Min	Discretisation
г	adn froch	Oil	multi block	multi block	multi block	20270220	0	40	120	116	22	27272

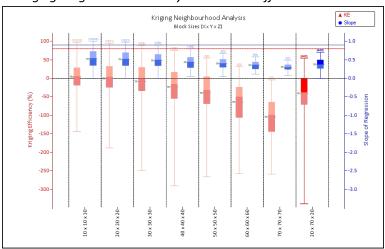
A kriging efficiency above 80% and a slope of regression above 0.9 was considered a robust estimate. It recommended that block values less than this should be reflected by the Mineral Resource classification.

A block size of  $20(X) \times 70(Y) \times 20(Z)$  was chosen as this resulted in the best overall kriging efficiencies and also slope of regression, although the results were relatively low (see below).



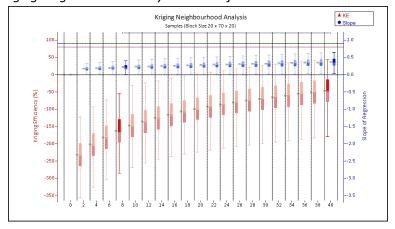


Kriging Neighbourhood Analysis results at different Block Sizes:



A minimum of 8 samples and a maximum of 40 samples were chosen whereby there was little change to the kriging efficiency and slope of regression when more samples were used. Therefore, choosing more samples did not improve the estimation. A review of the negative weights over this sample range suggested they were at a minimum and should not grossly affect the estimation.

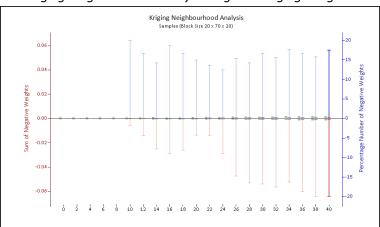
Kriging Neighbourhood Analysis results of Block Size  $20m \times 70m \times 20m$ :





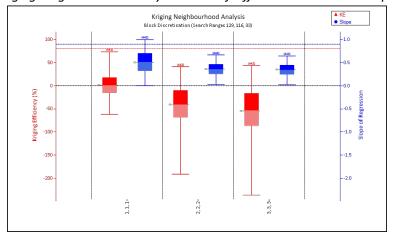


Kriging Neighbourhood Analysis Negative Kriging Weights:



From these results, a comparison of the discretisation steps showed a single discretisation point had the best kriging efficiencies and slope of regression. However, the size of the parent block had to be considered and therefore it was suggested that a  $3(X) \times 3(Y) \times 3(Z)$  regime be used.

Kriging Neighbourhood Analysis results of different Discretisation Steps:



#### Block Model

A Vulcan block model was created by Blues Point Mining Services (BMS) for the estimate with a block size of 20m NE-SW x 70m NW-SE x 20m vertical with sub-cells of  $2m \times 7m \times 2m$ .

The block model was constrained to the GDP and MINSED domains. Parameters of the model are shown below.

Copper and molybdenum were modelled though the results of the molybdenum modelling indicated block molybdenum grades were deemed sub-economic and did not warrant further reporting.

**Block Model Parameters:** 



Criteria	Commentary

Model Name	Vie207020briggs8.bmf				
	X	Y	Z		
Origin	268350	7344840	-600		
Offset	-700	-400	0		
Offset	0	300	900		
Block Size (Sub-blocks)	20 (2)	70 (7)	20 (2)		

#### Block Model Parameters for all Block Models:

Rotation	227
Attributes:	
Cu	grade- reportable
Мо	grade- not reportable
Bd	Bulk density
Rsc_cat	Measured = 1, indicated = 2, inferred = 3
Min_domain	Mineralisation domain
Ох	Oxidised,transitional,fresh
Rocktype	Rocktype
Cuflg	Cu Estimation flag
Moflg	Mo Estimation flag
Hole_count	Number of Drillholes
Avedist	Average distance to samples
Numsam	Average distance to samples
Cu_bv	Block variance for cu
Cu_kv	Kriging variance for cu
Cu_ke	Kriging efficiency for cu
Cu_lgp	lagrange for cu
Cu_sor	Slope of regression for cu
Cu_mingrhwgt	Min kriging weight for cu

#### • Grade Interpolation

Ordinary Kriging (OK) interpolation with an oriented ellipsoid search was used to estimate Cu and Mo grade in the geology domains GDP and MINSED for fresh rock. Inverse Distance (IVD) interpolation with an oriented ellipsoid search was used to estimate Cu and Mo grade in the geology domains GDP and MINSED for oxide rock. A first pass long axis radius of 129m with a minimum number of informing samples of 8 was used. The major axis radius was increased to 258m for the second pass. A third pass with an increased search radius of 1032m and a decrease in the minimum number of samples from 8 to 2 was required to fill blocks within the extremities of the resource wireframes (see tables below). ~31% of the resource volume filled in the 1st pass, ~38% in the 2nd pass and the remainder in the 3rd pass.

A high-grade copper cut of 10,000ppm Cu was applied to the GDP Oxide and 16,000ppm Cu to the GDP Fresh.

An Octant Search with a maximum of 8 samples was applied to the fresh rock domains.

A bulk density value of 2.6t/m<sup>3</sup> was applied to the GDP domains and 2.7t/m<sup>3</sup> was



applied to MINSED domains.

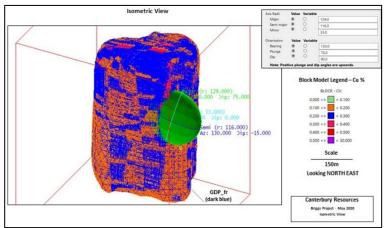
Search Parameters:

Pass	Min Sample	n Sample Max Sample	
1	8	40	129
2	8	40	258
3	2	40	1032

**Estimation Parameters:** 

Search	Bearing	Plunge	Dip	Discretisation
Oxide	283	-4	-15	3x:3y:3z
Fresh	130	75	90	3x:3y:3z

Ellipsoid illustrating orientation of copper variography:



#### Model Validation

To check that the interpolation of the Block Model correctly honored the drilling data and domain wireframes, BMS carried out a validation of the estimate using the following procedures:

- Comparison of volumes defined by the domain wireframes and the associated Block Model,
- A comparison of the composited sample grade statistics with Block Model grade statistics for each domain,
- Visual sectional comparison of drill hole grades versus estimated block grades,
   and
- Spatial comparison of composite grades and block grades by elevation, NE-SW and NW-SE orientations.

The volumes were almost identical, with 0.03% difference. The overall volume difference is less than 1%. BMS considered this to be an acceptable result.



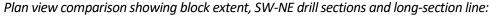
Comparison between the copper grade statistics from the block model and composites were acceptable for each domain. For copper, domains MINSED\_ox and MINSED\_fr present the highest difference (a mean grade variance up to approximately 13%). GDP\_ox and GDP\_fr domains present differences within 9%. The distance between composites and the amount of composites may have contributed the variation range greater than 10% for MINSED\_ox and MINSED\_fr. The important domain of GDP\_fr with the largest volume and largest amount of composites had a variation within 9%.

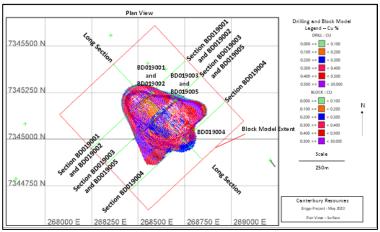
Comparison of the block values and composites results showed the Block Model grade was very close to the composites for all domains.

Summary of resource block model validation by domain:

	Resource Block Model Validation by Domain						
		Wireframe	Block M	Block Model		sites	
	Domain	Pod	Resource	Cu	Number of	Cu	
	Number	Volume	Volume	%	Comps	%	
GDP_ox	100	818,149	819,336	0.25	33	0.24	
GDP_fr	200	54,757,110	54,746,832	0.21	1,564	0.23	
Msed_ox	300	505,678	505,344	0.49	34	0.55	
Msed_fr	400	22,146,661	22,180,872	0.35	433	0.31	
	Total	78,227,598	78,252,384	0.25	2,064	0.25	
	* Discrepancy in volumes						
	78,227,598	78,252,384	-24,786	100.03%			

A visual section comparison was undertaken of drill hole grades versus the estimated block grades, which revealed satisfactory comparable grades.

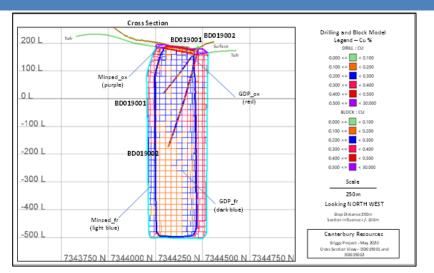




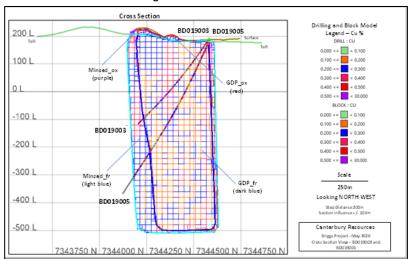
SW-NE drill section through BD019-001 and BD019-002 viewed NW:



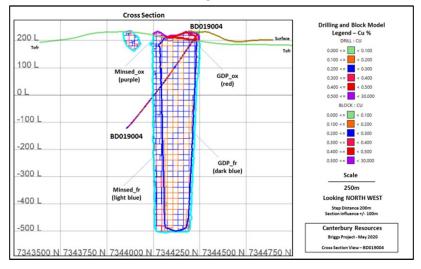
# <u>Criteria</u> Commentary



#### SW-NE drill section through BD019-003 and BD019-005 viewed NW:

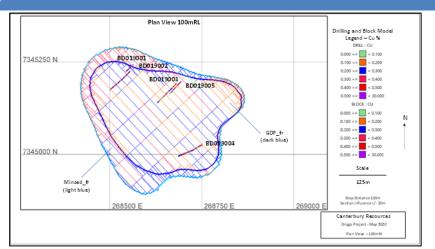


#### SW-NE drill section through BD019-004 viewed NW:

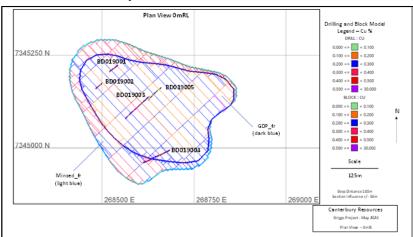


Plan view of block model and drill holes at 100mRL:

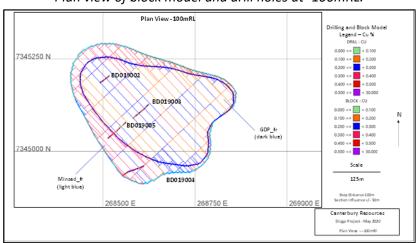




# Plan view of block model and drill holes at 0mRL:

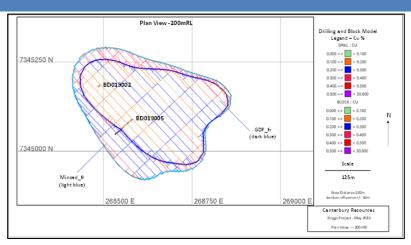


#### Plan view of block model and drill holes at -100mRL:

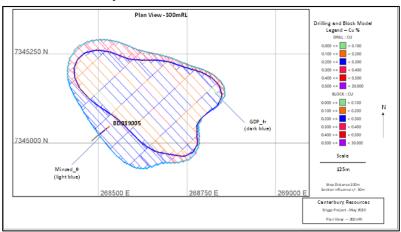


Plan view of block model and drill holes at -200mRL:

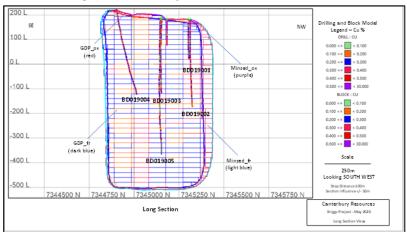




#### Plan view of block model and drill holes at -300mRL:



# Long-section view of block model and drill holes:

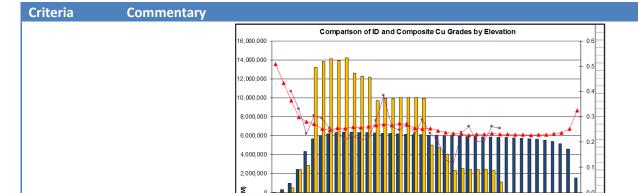


A spatial comparison was undertaken of composite volumes and grades, with block model volumes and grades. There was a close match of overall volumes between the block model and composites (see below).

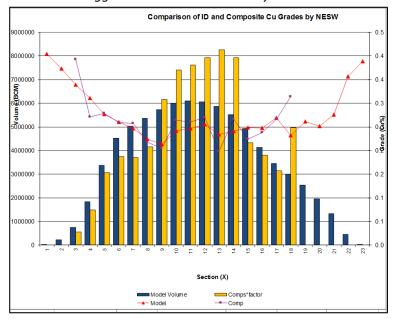
Similarly, a close match was achieved for grades between the block model and the composite data, demonstrating the robustness of the model.

Briggs block model validation by elevation:





Twenty metre slice sections perpendicular to the direction of drilling (i.e. long section) are shown below. In the core of the model grades and volumes compare well, again indicating a robust model.

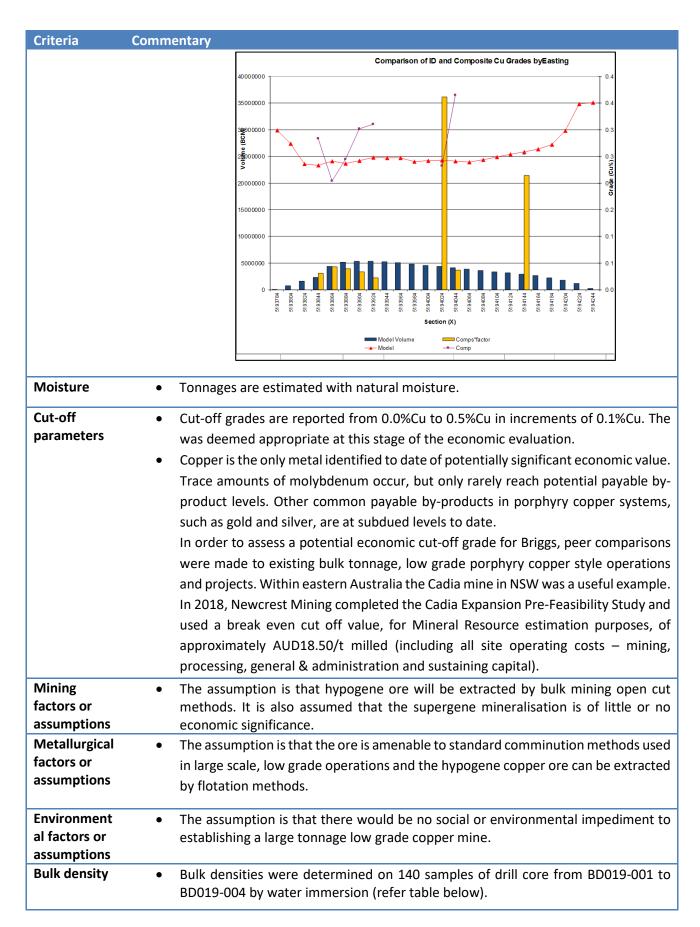


Briggs block model validation by NE-SW:

Twenty metre sliced sections parallel to the direction of drilling (i.e. cross sections) results are shown below. This highlights that the drilling data is concentrated on three sections, approximately 200m apart, and that the block model has generated grades consistently between sections.

Briggs block model validation by Drill Cross Section:







#### Results of Bulk Density Determinations in Briggs Drill Core:

Rock Type	Number of Samples	Average Bulk Density
Granodiorite porphyry (GDP)	94	2.6
Volcanogenic sandstone (VSST)	8	2.7
Volcanogenic agglomerate (VAGL)	22	2.7
Diorite (DIOM)	5	2.7
Quartz feldspar porphyry (PFQ)	3	2.6
Andesite (AND)	3	2.6
Quartz (QTZ)	5	2.7
Total	140	

#### Classification

The Briggs Mineral Resource estimate has been classified according to JORC 2012 guidelines based on the drilling density, grade continuity and the level of geological understanding.

The Briggs resource shows good continuity at 0.2% Cu. Within the GDP and MINSED domains there is a reasonable expectation that further infill and step-out drilling will increase the geological confidence and allow for the estimation of an Indicated or Measured Resource in the future.

As noted, the drill spacing is regular but relatively wide spaced, and is regarded as suitable for the current resource estimate.

BMS believes the current estimated grade is at a relatively low level of confidence in detail and further drilling is likely to impact the internal distribution of block grades. As a result, the global resource is classified as an Inferred Mineral Resource.

Summary of Briggs Inferred Mineral Resource Estimate:

Classification	Cut off	Tonnes	Cu	Density
	Cu %	Mt	%	t/m <sup>3</sup>
Inferred	0.0	205.7	0.25	2.61
Inferred	0.1	205.1	0.25	2.61
Inferred	0.2	142.8	0.29	2.61
Inferred	0.3	50.7	0.37	2.61
Inferred	0.4	10.7	0.46	2.61
Inferred	0.5	2.2	0.57	2.61
	-1	I	I	1

The Mineral Resource was estimated using inverse distance (IVD) and ordinary kriging (OK) methods, constrained by resource domains based on geology and mineralised intervals interpreted by Canterbury. No minimum width was used in the interpretation of the resource.

Globally there was no difference between the estimates derived from the inverse distance and ordinary kriged methods.

OK was used to estimate the fresh rock component of the Mineral Resource which has a substantial dataset and appropriate variography parameters. IVD was used to estimate the oxide rock component of the Mineral Resource estimate due to the limited data available in this domain.

The block dimensions used in the model were 20m NE-SW x 70m NW-SE x 20m vertical, with sub-cells of  $2m \times 7m \times 2m$ . The  $20m \times 70m \times 20m$  size was based on the Kriging Neighbourhood Analysis (KNA) derived by external consultants Conarco Consulting.

The Mineral Resource estimate is classified as an Inferred Mineral Resource based on



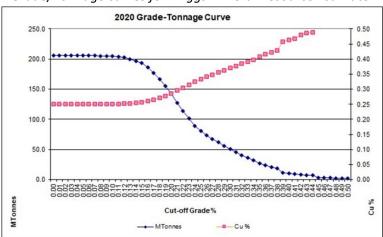
#### Criteria

#### Commentary

the relatively broad spacing of drill sections (approximately 200m) combined with the documented continuity and predictability of the mineralisation system.

Grade-tonnage curves representing all blocks in the model for copper are shown below.





# Audits or reviews

• No external independent audits or reviews have been undertaken.

# Discussion of relative accuracy/ confidence

- The Briggs Project has been tested with high quality drilling, sampling and assaying.
   Drilling and logging have defined the limit within the GDP and MINSED domains to provide an accurate volume. The relative accuracy of the Mineral Resource estimate is reflected in the reporting of the Mineral Resource. The Mineral Resource has been classified as an Inferred Mineral Resource as per the guidelines of Australasian Code for the Reporting of identified Mineral Resources and Ore Reserves (JORC 2012).
- These Mineral Resource estimates are global in nature until relevant tonnages and relevant technical and economic evaluations are required and have been undertaken in further sections of the Australasian Code for the Reporting of identified Mineral Resources and Ore Reserves (JORC 2012).