

ASX ANNOUNCEMENT ASX Code: RCP

24 June 2021

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Redbank Tenements (Granted) Northern Territory – 10,016km²

Redbank Tenements (Applications) Northern Territory – 4,068km²

Millers Creek Project South Australia – 1,110km²

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JORC 2012 Mineral Resource Estimate Update

Exploration Advancing at Redbank Prospect

<u>Highlights:</u>

- Redbank delivers important compliance milestone Mineral Resource Estimate (MRE) completed
- The JORC 2012 inferred MRE for the Redbank Project now stands at <u>8.4Mt @ 1.1% Cu at a 0.3% Cu cut-off</u> for 88,600 tonnes of contained copper
- Previously announced drill results demonstrate high grade potential of resource
 - 102m @ 2.24% Cu from 100m (BL-071 Bluff Deposit)
 - o 17m @ 3.04% Cu from 1m (AZ07-004 Azurite Deposit)
- MRE based on open pit estimates and excludes the underground resources from the JORC 2004 MRE estimate
- MRE includes 7 breccia pipes, and as previously reported 50+ breccia pipes have been identified from recent exploration activities
- Current exploration program aims to define new resource base outside of existing MRE (see Figure 1) this includes:
 - Airborne EM survey to target stratabound copper mineralisation
 - Induced Polarisation (IP) Ground Geophysical Surveys to target disseminated copper mineralisation
 - Combination of reverse circulation and diamond drilling later this year on priority targets defined from the above programs
 - Follow-up exploration and target generation work is advancing with updates to be reported over the coming months

Redbank Copper Limited (ASX: RCP) ('**Redbank**' or '**the Company**') is pleased to report a maiden JORC 2012 Mineral Resource Estimate ("MRE") of **8.4Mt @ 1.1% copper** for the Company's Redbank Copper Project in the McArthur Basin, Northern Territory. The updated MRE is comprised of seven individual copper mineralised vertically-oriented breccia pipes, all captured within conceptual open pit estimates.

Management Commentary

Redbank Executive Director Michael Hannington commented: "We are pleased to be reporting this important compliance milestone for the Redbank Project. The updated MRE represents the completion of a significant body of work to validate huge amounts of historical data and align this with JORC 2012 compliance.

Importantly, this MRE validates the mineralised potential of the region, and lays a solid foundation for the Company to advance the Redbank Project using modern exploration techniques to build a copper resource inventory in a mining friendly jurisdiction that has only recently seen renewed exploration interest.

The Redbank Project continues to reveal its underlying potential at every turn, and our focus is now on advancing exploration across several high priority target areas that we believe have the potential to host an economic copper system. Our technical team is reporting positive early indications from our recently commenced exploration program, and we look forward to providing near-term updates on progress."

Redbank Project - Global Mineral Resource Estimate Details and Parameters

The Redbank Project is located in the east McArthur Basin approximately 30km west of the Northern Territory/Queensland border. In July 2020, Redbank expanded the size of the Project area and secured a district scale tenement holding by pegging open ground following work by Geoscience Australia that highlighted the prospectivity of the area for large base metal deposits between the world-class Tier 1 zinc deposits at the McArthur and Century Mines (see Figure 1). Redbank is searching for large copper deposits to add to the existing copper inventory reported in this announcement. Redbank holds the tenements with a 100% interest.



Figure 1. The existing MRE at the Redbank Project and 2021 exploration program target area

Mineral Resources for the Redbank Project were previously reported by the Company on 24 May 2011 comprising 6.2Mt at 1.53% copper for 96,500 tonnes of copper metal (reported at a 0.5% Cu cut-off grade).

The JORC 2012 MRE reported in this announcement which updates the previous resource estimate reflects changes from the JORC 2004 MRE due to:

- (i) changes in density, with a further 329 specific gravity measurements; and
- (ii) a change in the interpretation approach with the utilisation of a nominal lower 0.3% copper cut-off within each of the seven deposits.

The MRE update has been completed by Entech Pty Ltd and is based on its review of a total of 55,359m of drilling from 787 drill holes. Mineralisation interpretations were informed by diamond drilling (109 drill holes inclusive of diamond tails, of which 69 drill holes intersect the global resource) and reverse circulation drilling (678 drill holes, of which 233 drill holes intersect the global resource) for a combined total of 17,755m of drilling intersecting the global resource.

The updated MRE (see Figure 2) is formed from information gathered over multiple drilling programs, including some that were completed over 50 years ago. To enable drill hole information and assaying across multiple programs to be compliant with JORC 2012 requirements, during the 2020 field season, drill material was sourced from historical drill core and pulps and submitted to ALS assay laboratories for whole rock geochemical analysis. A total of 4,692 samples were analysed to validate the existing historical assay results. Correlation studies were undertaken to compare the original copper assay results to the re-assay results. The correlation coefficient of the drill core was 0.946 and the correlation coefficient of the drill pulp was 0.929.

The Redbank Global MRE is presented by deposit in Table 1 reported above a cut-off grade of 0.3% Cu.

 Table 1. Redbank Project Open Pit Mineral Resource by oxidation at a 0.3% copper cut-off

Project Area	Mineral Resource Category	Weathering	Tonnes (t)	Copper (%)	Metal (t)
		Oxide	208,200	1.3	2,800
Ait -	Informed	Transitional	30,800	1.2	400
Azurite	Inferred	Fresh	52,700	1.0	500
		Subtotal	291,700	1.3	3,700
		Oxide	594,600	1.0	6,100
Bluff	Inferred	Transitional	107,800	0.9	1,000
BIUTT	Interred	Fresh	1,518,700	1.5	24,600
		Subtotal	2,221,100	1.4	31,700
		Oxide	97,500	0.7	700
Duiner	In farmer d	Transitional	122,900	0.7	800
Prince	Inferred	Fresh	-	-	-
		Subtotal	220,400	0.7	1,500
		Oxide	104,200	0.5	500
Dunchhaud	Inferred	Transitional	87,800	0.5	400
Punchbowl		Fresh	970,400	0.9	8,600
		Subtotal	1,162,400	0.8	9,500
		Oxide	222,500	1.0	2,200
Redbank	Informed	Transitional	106,300	1.1	1,100
Reubalik	Inferred	Fresh	108,900	0.8	900
		Subtotal	437,700	1.0	4,200
		Oxide	215,000	0.5	1,000
Demon Ness	Informed	Transitional	149,000	0.6	900
Roman Nose	Inferred	Fresh	599,000	1.1	6,400
		Subtotal	963,000	0.9	8,200
		Oxide	35,700	0.7	300
Sandy Elat	Inferred	Transitional	103,700	0.9	900
Sandy Flat	inierrea	Fresh	2,961,500	1.0	28,700
		Subtotal	3,100,900	1.0	29,800
	Total		8,397,200	1.1	88,600

Tonnages are dry metric tonnes. Minor discrepancies may occur due to rounding.

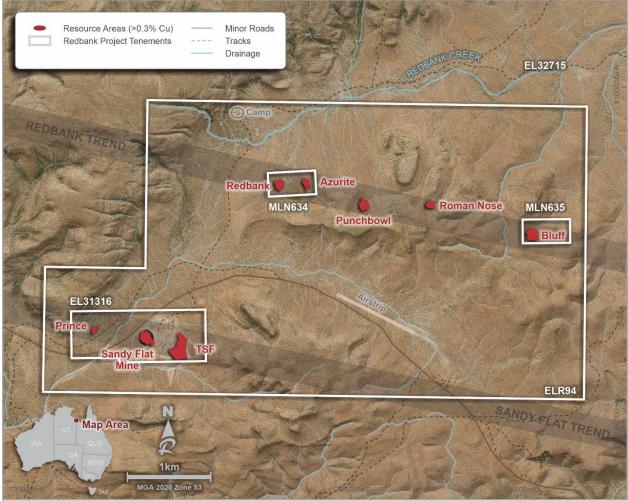


Figure 2. Redbank Project MRE – location of seven breccia pipe deposits and TSF

Sandy Flat TSF Mineral Resource Estimate

The Sandy Flat Tailing Storage Facility ("TSF") MRE has been generated from samples taken following a 'push tube' drilling program undertaken in October 2020. The drill program comprises 302 short vertical holes spaced at 10m centres for a total of 848m.

The Sandy Flat TSF MRE (see Figure 3) was estimated using a digital surface model completed in 2016 representing the topography of the TSF. All 302 drill holes were used to inform the mineralisation interpretation and all drill holes were used in the resource. Depth from surface to the limit of the MRE is approximately 3m to 5m and the TSF extents are approximately 250m by 150m.

The Sandy Flat TSF MRE is presented in Table 2 reported with no lower cutoff grade.

Table 2. Sandy Flat TSF Mineral Resource Estimate

Project Area	Resource Category	Tonnes (t)	Copper (%)	Metal (t)
Sandy Flat Tailings Dam	Inferred	134,100	0.7	940
ΤΟΤΑ	L	134,100	0.7	940

Tonnages are dry metric tonnes. Minor discrepancies may occur due to rounding. No cut-off grade has been used to report the resource, as the potential mining method dictates the removal of the entire dam.

The MRE reported for the Sandy Flat TSF in this announcement is materially lower than the Exploration Target Range (ETR) reported on 6 October 2020 due to the depth of the TSF being shallower and the copper grade being lower than anticipated in the ETR.

Redbank has determined that further follow-up work is required to investigate the potential reasons for the discrepancy between the depth and grade reported in the ETR and MRE respectively. However, further work at the Sandy Flat TSF remains constrained until a clear rehabilitation and commercialisation strategy has been finalised and implemented by the Northern Territory Government. This does not materially impact Redbank's near-term strategic focus which is to advance exploration across its extensive tenure in pursuit of an economic copper mineralised system.

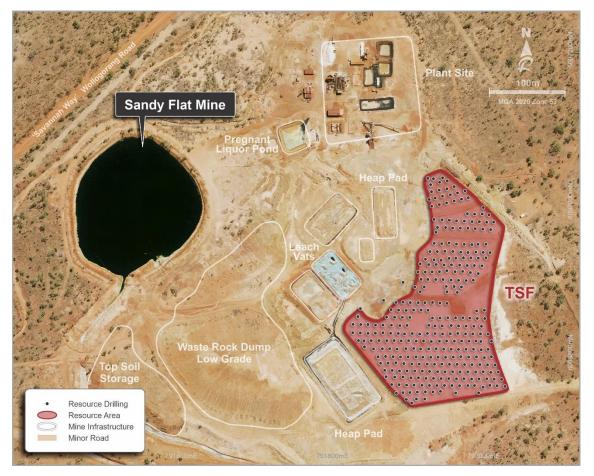


Figure 3. Sandy Flat Mine Site – plan view showing extent of the TSF MRE

COMPETENT PERSON'S STATEMENT

The information that relates to Exploration Results is based on, and fairly represents, information compiled by Mr Brent Simpson, a Competent Person, who is a Member of the Australian Institute of Geoscientists. Mr Simpson is a Senior Geologist at Redbank Copper Ltd and is employed as a technical consultant by the Company. Mr Simpson has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity he is undertaking, to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Simpson consents to the inclusion of the matters based on his information in the form and context in which it appears.

The information that relates to the JORC 2012 Mineral Resource is based on, and fairly represents, information compiled by Ms Christine Shore, a Competent Person, who is a Fellow of the Australasian Institute of Mining and Metallurgy. Ms Shore is a Principal Geological Consultant at Entech Pty Ltd. Ms Shore has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which she undertook to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Ms Shore has consented to the inclusion in Redbank Copper reports of the matters based on her information in the form and context in which it appears.

Ms Shore undertook a site visit to the Redbank Project on 7 May 2021 which included the Sandy Flat, Redbank, Azurite and Bluff deposits. The historical open pit void was viewed at Sandy Flat. The Project core yard, sampling facilities, and drill core and drill chips for the Sandy Flat, Redbank and Bluff deposits were inspected. Ms Shore visited the tailings site to review the drilling and sampling processes in relation to the Mineral Resource Estimation and Entech's Competent Person responsibilities. Push tube drill hole collar locations and on-ground verification of the TSF widths and extents was undertaken during the site visit to ensure spatial correlation with digital data.

No material issues or risks pertaining to the Global Resource for the 7 breccia pipe deposits or the Sandy Flat TSF resource were identified, observed or documented during the visit.

DISCLAIMER

This announcement contains certain forward-looking statements. Forward looking statements include but are not limited to statements concerning Redbank Copper Limited's ('Redbank's') planned exploration program and other statements that are not historical facts including forecasts, production levels and rates, costs, prices, future performance or potential growth of Redbank, industry growth or other trend projections. When used in this announcement, the words such as "could", "plan", "estimate", "expect", "intend", "may", "potential", "should", and similar expressions are forward-looking statements. Such statements are not a guarantee of future performance and involve unknown risks and uncertainties, as well as other factors which are beyond the control of Redbank. Actual results and developments may differ materially from those expressed or implied by these forward-looking statements depending on a variety of factors. Nothing in this announcement should be construed as either an offer to sell or a solicitation of an offer to buy or sell securities.

-ENDS-

For further information please contact:

Michael Hannington Executive Director Ph: +61 8 9362 9888

This announcement was approved and authorised for issue by the Board of RCP.

Appendix 1 – Global MRE for 7 breccia pipe deposits – Resource criteria and methodology

Material Summary – Mineral Resource Statement

Material information summary as required under ASX Listing Rule 5.8 and JORC Code 2012 reporting guidelines.

Mineral Resource Statement

The Mineral Resource Statement for the Redbank Project Mineral Resource Estimate (MRE) was prepared during May 2021 and is reported according to the *Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves* (the 'JORC Code') 2012 edition.

New management of Redbank Copper Ltd (RCP) in 2019 resulted in an extensive site-based geological mapping, cataloguing of historical digital and physical core, chip and pulp data from April to August 2020. An assay resampling programme (15% of resource data) and confirmatory density measurements were also captured during this time.

The Redbank MRE is reported excluding all historical open pit mining activity, surveyed up to the end of mining in 1996 comprises seven individual in situ deposits across a tenement area of 14,000km². Depth from surface to the current vertical limit of the Mineral Resources is approximately 225m for the Bluff and Sandy Flat deposits, 200m for the Punchbowl and Roman Nose deposits and between 60m and 100m for the remaining deposits.

In the opinion of Entech, the resource evaluation reported herein is a reasonable representation of the <u>global</u> open pit copper Mineral Resources for the Redbank Project, based on reverse circulation and diamond drilling sampling data available as of 1 April 2021. The Inferred Mineral Resources comprise oxidised, transitional and fresh rock and is presented in Table 1.

Geology and Geological Interpretation

The Redbank Project lies within the southeastern portion of the Paleoproterozoic-aged McArthur Basin, on the Calvert Hills 1:250,000 map sheet. In this area the McArthur Basin contains a preserved thickness of up to 10km containing an unmetamorphosed and relatively undeformed succession of sedimentary and minor volcanic rocks. The sedimentary package in this region of the southeastern McArthur Basin has been subdivided (in ascending order) into the Tawallah, McArthur, Nathan and Roper Groups.

The Redbank Package of rocks represents the basal sequence of the package including the Paleoproterozoicaged Tawallah Group. Within the Tawallah Group four main units are recognised in the Redbank Project area. Within the immediate Redbank area, dozens of sub-volcanic breccia pipes and diatremes are recognised but not all contain copper mineralisation. The mineralised breccia pipes in the Redbank Project area are hosted in relatively flat-lying stratigraphy of the Gold Creek Volcanics and the Wollogorang Formation. The emplacement structures are interpreted to be regional fault intersections in the Tawallah Group. The mineralised copper deposits occur in two main coincident trends forming clusters, with minimal deep drilling indicating copper mineralisation continues below 300m depth. Breccia pipes commonly have a circular surface expression from 50m to 150m in diameter, but it is recognised that some pipes do not have a surface expression (e.g. Sandy Flat which was covered by approximately 8m of alluvial soil cover, hence the name Sandy Flat).

Copper mineralisation in the Redbank Project area is in the form of steeply dipping to vertical cylindrical tapering breccia pipes. The pipes contain various proportions of micro-breccia, dolomite, quartz, chlorite, hematite, barite, galena and potassium-feldspar.

Primary copper mineralisation is predominantly chalcopyrite with minor pyrrhotite and arsenopyrite. The pipes have been oxidised to a depth of approximately 30m to 40m below surface, wheregrades may reach >5% Cu. The oxide copper minerals include malachite, azurite, chalcocite, native copper and chrysocolla.

Primary mineralisation consists of disseminations and veins with chalcopyrite and bornite in breccia, typically having an average grade of 1.5% Cu. Gangue minerals are dolomite, barite, chlorite, potassium-feldspar, quartz, pyrite, haematite, apatite and pyrobitumen. Clasts of overlying units in the matrix indicate collapse during breccia formation. Breccia and wall rocks are associated with intense potassic alteration consisting of carbonate-chlorite-potassium feldspar-quartz, pyrite, haematite and pyrobitumen.

Interpretations of domain continuity were initially undertaken using Leapfrog 3D[™] software, with mineralisation intercepts correlating to individual domains manually selected prior to creation of an intrusion model. Interpretation was done in collaboration with Redbank geologists to ensure modelling appropriately represented the current understanding of geology and mineralisation controls.

Mineralisation in each deposit was based on a combination of interpreted breccia pipe location and a nominal cut-off grade of 0.3% Cu. Continuity analysis indicated the presence of an internal higher-grade sub-domain (nominally >1.5% Cu) in the pipes and a lower-grade outer halo. Where possible, this zonation was modelled. Following this, 13 low grade (LG) and high grade (HG) mineralisation volume domains (Figures 4 to 10) were

- delineated across the 7 deposits using a combination of:
 Geological information comprising of previous wireframes and lithological logging which defined the outer limits of the breccia pipes.
 - Interpretation of XRF data routinely collected during the drill programs undertaken in the 2000s which showed sulphur a proxy for mineralisation, and numerical modelling of copper: sulphur ratios.
 - Nominal lower-grade minimum cut-off of 0.3% Cu. This number was based on Exploratory Data Analysis (EDA) of mineralisation sample population as well as visual review of the mineralisation tenor and strike, and dip continuity. Mineral zonation in the breccia pipes which led to a higher-grade internal core was identified both visually and statistically and where applicable, supported the delineation of a high-grade sub-domain.
 - Historical interpretation documentation.
 - Numerical modelling of copper: sulphur ratio which correlated with breccia pipe locations

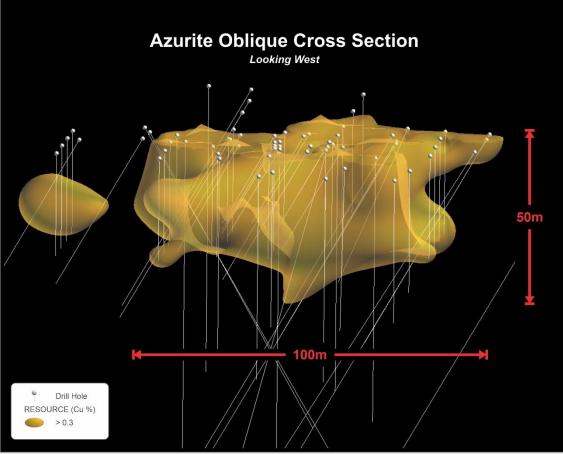


Figure 4. Azurite Deposit – Oblique 3D view showing 0.3% cutoff grade resource shell

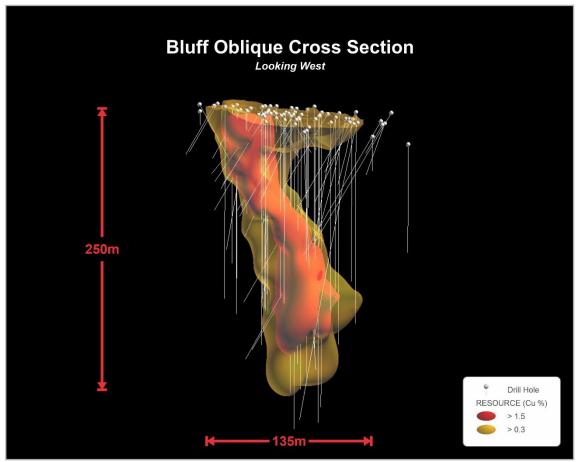


Figure 5. Bluff Deposit – Oblique 3D view showing 0.3% & 1.5% cutoff grade resource shell

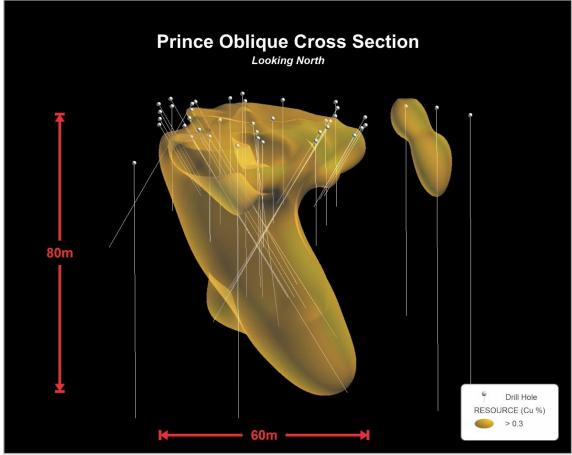


Figure 6. Prince Deposit – Oblique 3D view showing 0.3% cutoff grade resource shell

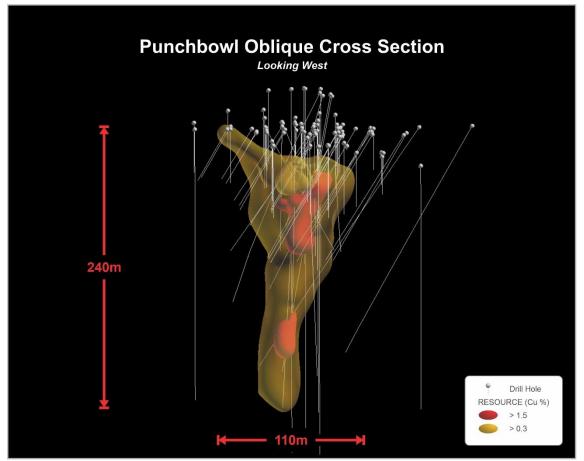


Figure 7. Punchbowl Deposit – Oblique 3D view showing 0.3% & 1.5% cutoff grade resource shell

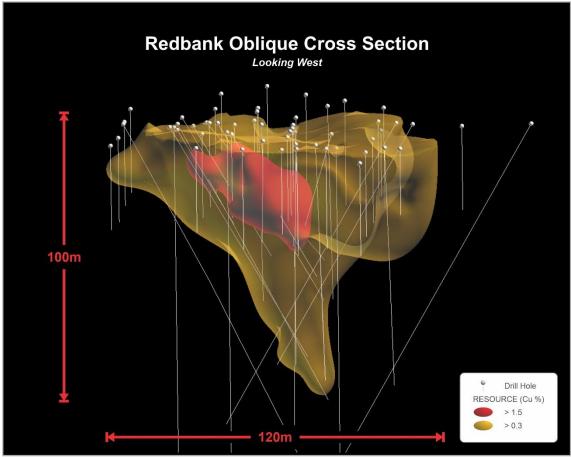


Figure 8. Redbank Deposit – Oblique 3D view showing 0.3% & 1.5% cutoff grade resource shell

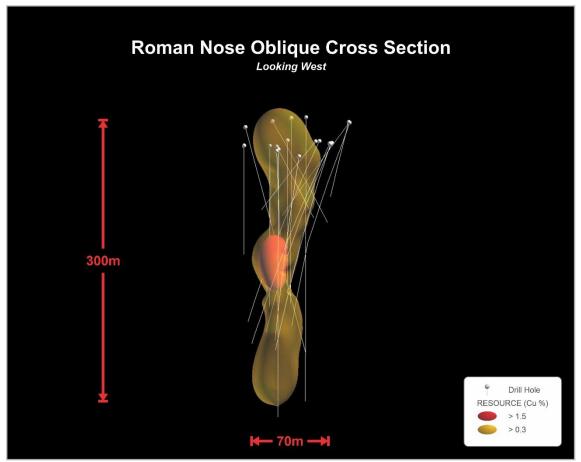


Figure 9. Roman Nose – Oblique 3D view showing 0.3% & 1.5% cutoff grade resource shell

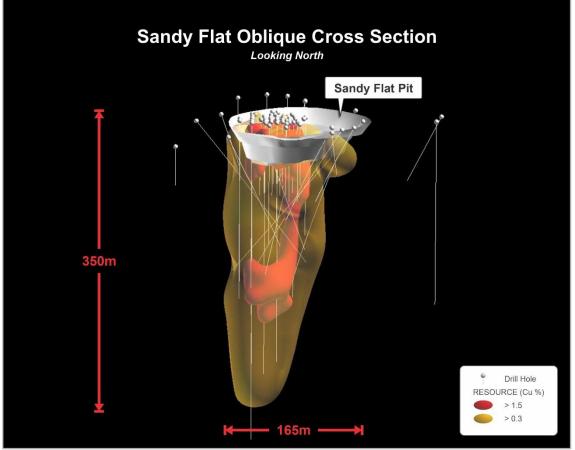


Figure 10. Sandy Flat Deposit – Oblique 3D view showing 0.3% & 1.5% cutoff grade resource shell

Drilling Techniques

The historical drilling comprises reverse circulation and diamond drilling undertaken since the 1970s. A total of 109 diamond drill holes (of which 69 intersect the resource) inclusive of diamond tails and 678 reverse circulation holes (of which 233 intersect the resource) support the Mineral Resource over the deposits. Drilling has been completed by several previous owners and has been undertaken at the Project since the 1970s, when Harbourside Oil NL completed the first program in 1970-71 at the Bluff and Sandy Flat deposits.

Sampling and Sub-sampling Techniques

Historical Sampling

For historical drilling completed between 1971 and 1995, a total of 63 diamond drill holes and 103 reverse circulation holes intersected the current resource wireframes. These holes account for approximately 53% of all resource related drill holes. Details of these drill programs are incompletely documented, with meta data such as drill size, sample recovery and sample method often missing. Drill collar and survey information has been sourced from multiple sources to provide confidence in the drillhole locations. Drillholes without accurate collar and survey information or information deemed unreliable have been removed from resource calculations.

Diamond drill holes ranged in depth from 25m to 405m, with an average depth of 166m. Most of these were drilled using BQ-sized holes as evidenced by core fragments remaining in a core yard that was destroyed in a fire. More modern NQ, HQ and PQ-sized cores are located on site, but records in the drill database are incomplete. Core recovery is noted in handwritten logs and has not yet been transposed to digital metadata in the database.

Mineralised core was either cut in half or quarters using a diamond saw and submitted for analysis and metallurgical testwork. Core is depth delineated and sampled to appropriate intervals, with the core stored on site. Sample intervals are generally between 1m and 1.52m (5 foot) throughout the mineralised domains. Reverse circulation drilling ranged in depth from 22m to 213m, with an average depth of 65m. The hole diameter for these holes has not been recorded in the database.

Stainless steel rods were generally used at the base of the reverse circulation percussion rod string to obtain reasonably accurate downhole surveys within the inner tube. Evidence of open hole surveying is also recognised in the Redbank drilling database.

Reverse circulation samples are generally collected dry, as 1m or historically as 5 foot downhole intervals. Sample collection procedures and QAQC details are rarely documented.

Recent Sampling

Drill programs were completed from 2006 to 2011 and in 2014. Drilling prior to 2009 was carried out by Redbank Mines which changed its name to Redbank Copper Ltd in 2009. The Redbank entities drilled 15 diamond drill holes, 134 reverse circulation holes and 1 combined reverse circulation hole with diamond tail. New management took control of Redbank Copper Ltd in August 2019. Unfortunately, the drilling information provided to the new management team was limited.

All collar locations have been surveyed using either a Differential Global Positioning System (DGPS) accurate to approximately 15cm or a handheld GPS accurate to approximately 3m to 5m.

Diamond drill core collected by Redbank Mines and Redbank Copper Ltd was usually NQ2 or HQ/HQ3. Downhole surveying was carried out with either Ranger or Camteq digital cameras, at approximately 30m to 50m downhole intervals. Magnetically affected azimuth readings have been estimated to reflect downhole trends.

Core recovery is rarely recorded and there are no records of structural logging in the database. Much of the drill core has been analysed by XRF to identify zones of anomalism, which, along with geological logging, were used to identify mineralised intervals suitable for sampling. Drill core was usually cut and sampled to 1m intervals or geological boundaries, with half-core submitted to ALS in Mount Isa/Brisbane, or SGS in Townsville.

Sample analysis at SGS and ALS has generally been via MA-AAS and AR-AAS techniques, with acid-soluble copper analysis also carried out on some samples.

The historical reverse circulation drill holes ranged in depth from 22m to 213m, with an average depth of 65m. The hole diameter for these reverse circulation holes is not recorded in the database.

Stainless steel rods were generally used at the base of the reverse circulation percussion rod string to obtain reasonably accurate downhole surveys in the inner tube. Evidence of open hole surveying is also recognised in the Redbank drilling database.

Reverse circulation samples are generally collected dry, as 1m or historically as 5 foot downhole intervals. Sample collection procedures and QAQC details are rarely documented.

Database checks were completed by Entech and included the following:

- Checking for duplicate drill hole names and duplicate coordinates in the collar table.
- Checking for missing drill holes in the collar, survey, assay and geology tables based on drill hole names.
- Checking for survey inconsistencies including dips and azimuths <0°, dips >90°, azimuths >360°, and negative depth values.
- Checking for inconsistencies in the 'From' and 'To' fields of the assay and geology tables. The inconsistency checks included the identification of negative values, overlapping intervals, duplicate intervals, gaps and intervals where the 'From' value is greater than the 'To' value.

Database checks were conducted in Microsoft Access, Leapfrog Geo[™] 6.0 and Surpac Mining software. Data has also been validated against approximately 5% of hardcopy data.

Sample Analysis Method

Drill hole samples since 2006 have been sent to either Townsville to be analysed by either SGS (AAS22D, AAS72Q) or ALS (Cu-OG48, Cu-AA05s). Most samples have been assayed for copper only, with multi-element analysis (ME-MS61) only carried out for sampling conducted in 2020.

Drill hole samples have been dried, crushed, and pulverised with 97% passing 75µm and subjected to a mixed acid digest or a sulphuric acid leach (non-sulphide) with an AAS finish for copper only. An ICP-OES and ICP-MS finish have been used for multi-element analysis, providing a 48-element assay suite.

Historical laboratory records are poorly documented, with much of the assay data derived from historical open file reports.

The quality of sampling in the database over time cannot be determined as metrics for quality have sporadically been recorded. Some sample analysis in the 2000s included in-house laboratory QAQC checks and standards, as well as irregular company-inserted standards, duplicates and blanks. Statistical analysis indicates there is no evidence to suggest these samples are not representative.

As the Mineral Resource was dependent on historical data, during the 2020 field season, drill material was sourced from historical drill core and pulps and submitted to ALS for whole rock geochemical analysis. A total of 4,692 samples were analysed for validation of existing historical assay results.

Drill sample re-assaying was carried out using an ICP-MS analytical suite and correlation studies were completed on the 7 deposits for which MREs have been reported. Correlation studies were carried out to compare the original copper assay results to the re-assay results. The correlation coefficient of the drill core was 0.946 and the correlation coefficient of the drill pulp was 0.929, indicating the original assay technique correctly quantified the amount of copper in the drill sample.

Estimation Methodology

Sample data in mineralisation domains were composited downhole to 2m (1m for Bluff), best fit and with lengths with a minimum of 0.5m to be included. Intervals less than 0.5m (residuals) were visually analysed and added into the preceding composite for all domains as they proved significant (spatially) to the interpolation.

Exploratory Data Analysis (EDA) of the declustered composited copper variable within the mineralised domains was undertaken using Supervisor[™] software. Analysis for sample bias, domain homogeneity and top capping was undertaken.

Evidence for further sub-domaining of composite data by weathering, for the purposes of interpolation, was supported by statistical and spatial analysis at Punchbowl. Further sub-domaining was done at the interpretation stage.

Assessment and application of top-capping for the estimate was undertaken on the copper variable within individual domains. Top-caps were applied on a domain-by-domain basis, as outlined below:

- Azurite
 - Domain LG : 10% Cu top-cap and 2.7% metal reduction;
- Bluff
 - Domain LG: no top-cap applied;
 - Domain HG: no top-cap applied;
- Prince
 - Domain LG: 5% Cu top-cap and 0.5% metal reduction
- Punchbowl
 - Domain OXIDE: no top-cap applied;
 - Domain LG: no top-cap applied;
 - Domain HG: no top-cap applied;
- Redbank
 - Domain LG: no top-cap applied ;
 - Domain HG: 17% Cu top-cap and 6.3% metal reduction;
- Roman Nose
 - Domain LG: 3.5% Cu top-cap and 2.9% metal reduction;
 - Domain HG: 3.5% Cu top-cap and 11.2% metal reduction;
- Sandy Flat
 - Domain LG: 5% Cu top-cap and 0.4% metal reduction;
 - Domain HG: 20% Cu top-cap and 2.0% metal reduction.

Variography was undertaken on the capped, declustered copper variable within individual and LG and HG combined deposit mineralisation domains. Robust variogram models were delineated and used for Qualitative Kriging Neighbourhood Analysis (QKNA) to determine parent cell estimation size and optimise search neighbourhoods.

Interpolation was undertaken using Ordinary Kriging (OK) in GEOVIA Surpac[™] within parent and sub-cell block dimensions of:

- Azurite: Y:10 mN, X:10 mE, Z: 5 mRL with sub-celling of Y: 1.25 mN, X: 1.25 mE, Z: 1.25 mRL
- Bluff: Y:10 mN, X:10 mE, Z: 5 mRL with sub-celling of Y: 2.5 mN, X: 2.5 mE, Z: 1.25 mRL
- Prince: Y:10 mN, X:10 mE, Z: 5 mRL with sub-celling of Y: 2.5 mN, X: 2.5 mE, Z: 1.25 mRL
- Punchbowl: Y:10 mN, X:10 mE, Z: 5 mRL with sub-celling of Y: 1.25mN, X: 1.25 mE, Z: 1.25 mRL
- Redbank: Y:10 mN, X:10 mE, Z: 5 mRL with sub-celling of Y: 2.5 mN, X: 2.5 mE, Z: 1.25 mRL
- Roman Nose: Y:10 mN, X:10 mE, Z: 5 mRL with sub-celling of Y: 0.625 mN, X: 0.625 mE, Z: 0.625 mRL
- Sandy Flat: Y: 20 mN, X: 10 mE, Z: 10 mRL with sub-celling of Y: 1.25 mN, X: 1.25 mE, Z: 1.25 mRL.

These cell sizes provided appropriate volume definition of wireframe geometry. Considerations relating to selection of appropriate block size include drill hole data spacing, mining method, SMUs (Selective Mining Units), variogram continuity ranges and search neighbourhood optimisations (QKNA).

Domain boundaries represented hard boundaries, whereby composite samples within that domain were used to estimate blocks in the domain.

Global and local validation of the copper variable estimated outcomes was undertaken with statistical analysis, swath plots and visual comparison (cross and long section) against input data. Estimated grades were comparable to composite grades and were a fair representation of the supporting composite data. For depletion of mined historic workings, a 3D volume was created in GEOVIA Surpac[™] by correlating surface aerial photograph locations and historical production records of tonnes and grade. Only limited production records prior to 1960 were available, with no mapping or detailed description of underground workings. Site

inspection at known mined deposits showed evidence of artisanal, shallow and limited excavations and evidence of mechanised mining methods at the Sandy Flat deposit only.

Bulk density data has been collected from 54 drill holes, with 487 measurements found in the database and measurements determined by displacement method using Archimedes principle on drill core. Bulk densities were determined by deposit and weathering profile and the mean value applied to each weathering horizon. Where no data was available (Azurite Oxide and Transitional and Redbank Transitional material), the assigned density has been taken from the nearest deposit. A relationship between copper and density was not established.

The 3D block model was then coded with density, depletions, weathering and classification prior to evaluation for Mineral Resource reporting.

Mineral Resource Classification

All 7 deposits forming the Global Mineral Resource were classified as Inferred to appropriately represent confidence and risk with respect to the historical data quality, limited geological logging, reliance on oblique drill angles to primary mineralisation orientation and limited or absent historical mining activity records. The reported 7 deposits Mineral Resources have been constrained to a depth of 225m for the Bluff and Sandy Flat deposits and 200m for the Punchbowl and Roman Nose deposits. It is expected that this would be considered a reasonable expectation for potential open pit mining depths. All other resources have been classified to a nominal depth of 60m to 110m below the surface.

Mineralisation in the model which did not satisfy the criteria for classification as Mineral Resources remained unclassified. This includes some areas of mineralisation beneath open-pittable depth constrained resources. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. MREs do not account for selectivity, mining loss and dilution. This MRE includes Inferred Mineral Resources which are unable to have economic considerations applied to them, nor is there certainty that they will be converted to Measured or Indicated Mineral Resources through further sampling.

<u>Cut-Off Grade</u>

The Mineral Resource cut-off grade for reporting of open pit global copper resources at the Redbank Project was 0.3% Cu. This was based on consideration of grade-tonnage data, selectivity and style of potential mining method. Tonnages were estimated on a dry basis.

Project History and Historical Mineral Resources

William Masterton discovered outcropping copper mineralisation at Redbank in 1916 and commenced smallscale production from open pits and shallow underground workings in the supergene copper carbonate zone. Total production by Masterton was more than 1,200 imperial tons of ore from 1916 until 1957, shortly before his death at the age of 91. This production was largely from the Azurite, Redbank and Prince deposits. Although numerous companies investigated the area between the 1940s to the early 1990s, no further production occurred until a small open pit operation at the Sandy Flat deposit in the 1990s which mined and processed 170,000 t at 4.6% Cu, as well as leaving 54,000 t at 6.0% Cu in stockpiles and the mining and processing infrastructure.

In 2005, Burdekin Pacific Limited acquired the Redbank Project and changed its name to Redbank Mines Limited (RML). In 2006, RML commenced a combined RC and diamond resource drilling program, designed to confirm the resource at Bluff, extend the resource at Punchbowl, Redbank and Azurite, as well as providing further density samples. A total of 36 RC holes for 2,067m and 2 diamond holes for 573.3m were drilled which led to updated MREs on all deposits in the Project.

New management took control of the company in 2019, with recapitalisation taking place to re-commence evaluation of the deposits and undertake exploration over the enlarged tenement holding of \sim 14,000 km². Since new management took over the project in 2019, resource evaluation drilling has been carried out on the Sandy Flat Tailings Storage Facility (TSF).

The Mineral Resources for the Redbank Project were previously reported by RCP on 24 May 2011, comprising 6.2 Mt at 1.5% Cu for 96,500 tonnes of copper metal (reported at a 0.5% Cu cut-off grade). Changes between this JORC Code 2012 updated MRE and the previous estimates are due to:

- Changes in densities, with a further 329 samples available;
- Change in the interpretation approach. The previous MRE used a grade shell with a lower cut-off of 0.5% Cu, the updated interpretations use a nominal 0.3% Cu which is considered further representative of the continuity of mineralisation.

Assessment of Reasonable Prospects for Eventual Economic Extraction

Entech assessed the Redbank Project MRE, as reported, to meet *reasonable prospects for eventual economic extraction* (RPEEE) based on the following considerations.

The Redbank Project Sandy Flat deposit was mined, via open pit methodologies, from 1994 to 1996 and oxide ore treated from stockpiles from 2006 to 2008. It consists of an oval excavation of approximately 220m by 180m to an approximate depth of 50m below surface. Mining records indicate 170,000 tonnes at an average grade of 4.6% Cu was extracted using a copper oxide treatment plant. The mine was closed in 2008 due to a sustained decrease in commodity prices.

Previous processing documentation together with several metallurgical programs completed by previous owners from 1991 and discussion with RCP suggest a similar milling process will achieve similar recoveries. It was assumed that the Redbank Project MRE material could be potentially mined via small to medium-scale mechanised open pit mining methods. This assumption was based on excavator sizes of 70 to 100 tonnes. The MRE has been reported from surface to variable depths, with the deepest being 225m below surface (Bluff and Sandy Flat) and Entech considers material at this depth would fall within the definition of RPEEE within an open pit mining framework from high-level pit optimisation studies completed at the Bluff deposit. No dilution or cost factors were applied to the estimate.

No metallurgical recovery factors were applied to the Mineral Resources or Resource Tabulations.

Appendix 2 – Sandy Flat Tailings Storage Facility - Resource criteria and methodology

Material information summary as required under ASX Listing Rule 5.8 and JORC Code 2012 reporting guidelines.

Material Summary – Mineral Resource Statement

Mineral Resource Statement

The Maiden Mineral Resource Statement for the Sandy Flat Tailings Storage Facility (TSF or Dam) Mineral Resource Estimate (MRE) was prepared during May 2021 and is reported according to the *Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves* (the 'JORC Code') 2012 edition. The TSF Mineral Resource estimate has been generated following a push tube drilling program undertaken during October 2020 at the Project. This program comprised of 302 holes for 848m. The TSF MRE is reported including all material surveyed using a Digital Surface Model (DSM) completed in 2016 representing the TSF topography. All 302 vertical holes were used to inform the mineralised interpretation and were utilised in the resource. Depth from surface to the current vertical limit of the Mineral Resources is approximately 3m to 5m and TSF extents are approximately 250m by 150m.

In the opinion of Entech, the resource evaluation reported herein is a reasonable representation of the <u>global</u> TSF Mineral Resources within the Redbank Project, based on push tube sampling data available as of 1 April 2021. The MRE comprises Tailing's clay material and is presented in Table 2.

Geology and Geological Interpretation

The Sandy Flat TSF is a body of clay tailings that is up to 5m thick, with an average thickness of 2.8m. The tailings were derived from the Sandy Flat open pit from production between the years 1994 and 1996 and then re-processing of stockpiles in 2004 to 2006.

The TSF is unlined and clays are flat lying, deposited in sub-horizontal layers as mill tailings sediment from multiple outflow sites and are relatively uniform, covering an area of approximately 38,000m² within the TSF cells. The dam extents are approximately 250m by 150m.

Interpretation of the TSF was determined by:

- Lithological logging of push tube core, where Overburden, Clay and Basement were logged and measured as a proportion of the recovered core volume. These measurements were normalised to the sample length and used to calculate downhole intercepts of the domains.
 - Where there was no Overburden logged, the TSF domain was truncated at the collar position.
 - Where there was no Basement logged, the TSF unit was truncated at the end of hole.
- Geolocated aerial photography was used to delineate the TSF boundary extents.
- A Digital Surface Model (DSM) representative of the tailings dam surface was used and push tube collars draped on this to determine the surface elevation of collar locations.
- The positions of the mill outflow locations known to be on the western extents of the TSF are considered to be the predominant control on mineralisation.

During interpretation, no lower cut-off grade was applied as it is assumed that the TSF deposit will be mined across its full width, from topography to basement, using hydraulic mining methods.

Interpretations of domain continuity were initially undertaken in Leapfrog3D[™] software, with mineralisation intercepts correlating to individual domains manually selected prior to creation of a vein model. While copper mineralisation is primarily hosted in the TSF sediment clay material, a small amount of mineralised overburden on the western edge of the TSF has been defined due to re-working, as well as the movement of material in the dam over time. Following this, two mineralisation volume domains were delineated.

Drilling Techniques

Resource definition drilling across the dam was carried out by push tube drilling using a 9 tonne Geoprobe 7822DT track-mounted rig. A total of 302 vertical holes for 848m were drilled on a 10m by 10m pattern (see figure 4). Holes were drilled to refusal or the base of the dam which was determined by a lithological change in colour and 1m samples collected for the entire interval. An average depth of 2.8m was drilled per hole.

Sampling and Sub-sampling Techniques

Samples were collected each metre within a 1.5m long × 53mm diameter PVC tube liner and generally sampled at 1m intervals, except when split over the clay and basement interface. The average sample recovery was 83%. In total, 1,045 samples were submitted to ALS laboratory for multi-element analysis. The entire sample was placed in a calico bag and weighed using a simple spring balance on site. Sub-sampling of clay drill cores was not carried out, with 100% of the original sample submitted for geochemical analysis.

Sample Analysis Method

A total of 1,045 samples were sent to ALS in Mount Isa for sample preparation, then on to Brisbane for 4A-ICP-MS multi-element analysis using ALS method code ME-MS61. This method is a near total digest and considered appropriate for estimation of the tailings Mineral Resource.

Field duplicates have not been used for this program. Quality control procedures included the use of certified reference materials as field standards and the insertion of blanks. Field duplicates were not utilised for this drilling program.

All QAQC work completed indicates the assay data is valid, with no significant data issues recognised.

Estimation Methodology

Sample data within mineralisation domains were composited downhole to 1m best fit, lengths with a minimum of 0.5m to be included. Intervals less than 0.5m (residuals) were visually analysed and added into the underlying composite data for all domains as they proved significant spatially to the interpolation. Exploratory Data Analysis (EDA) of the composited copper variable within the mineralised domains was undertaken in Supervisor™ software. Analysis for domain homogeneity and top-capping was undertaken. Assessment and application of top-capping for the estimate was undertaken on the copper variable within individual domains. A 2.5% Cu top-cap, resulting in a metal reduction of 1.2%, was applied prior to block grade estimation.

Variography was undertaken on the capped, copper variable within mineralisation domains. Robust variogram models were delineated and used for Qualitative Kriging Neighbourhood Analysis (QKNA) to determine parent cell estimation size and optimise search neighbourhoods.

Interpolation was undertaken using Ordinary Kriging (OK) in GEOVIA SurpacTM within parent and sub-cell block dimensions of Y: 5 mN, X: 5 mE, Z: 1 mZ and sub-celling of Y: 1.25mN, X: 1.25mE, Z: 0.25 mZ. These cell sizes provided appropriate volume definition of wireframe geometry. Considerations relating to selection of appropriate block size include drill hole data spacing and mining method SMU (Selective Mining Units). Domain boundaries represented hard boundaries, whereby composite samples within that domain were used to estimate blocks within the domain. A three-pass search strategy, with maximum distances of possible extrapolation of 40m for Pass 1, 80m for Pass 2 and 160m for Pass 3, was used based on variogram analysis (maximum 180m). A minimum of 10 samples and a maximum of 18 samples along with a block discretisation of $5 \times 5 \times 1$ was adopted for all passes based on search neighbourhood optimisations (QKNA). Global and local validation of the copper variable estimated outcomes was undertaken with statistical analysis, swath plots and visual comparison (cross and long section) against input data. Estimated grades were comparable to composite grades (within 3%) and were a fair representation of the supporting composite data.

Bulk density values at the Sandy Flat TSF were derived from 818 measurements taken from 258 push tube drill holes. The samples were taken across the TSF from start to end of hole, to ensure an even distribution of density samples across the TSF area and measurements across the TSF profile (surface to basement). Values were calculated from dry weights measured at ALS, divided by the sample volume and normalised to recorded sample recovery. This method was chosen as the clay component of the sample would render it difficult to determine a density using the Archimedes principle. Calculated dry bulk density values were entered into the database and composited to 1m downhole. Exploratory Data Analysis (EDA) of the composited density value was viewed statistically in both histograms and log probability plots and showed outliers which may be due to data entry errors. Therefore bottom and top caps of 0.9 t/m³ and 2.7 t/m³, respectively, were applied to composites. Variography was analysed on the density data and robust variogram models were delineated for estimation parameters. Estimating into the parent cell size of the copper variable, a three-pass search strategy, with maximum distances of possible extrapolation of 40m for Pass 1, 80m for Pass 2 and 160m for Pass 3, was used based on variogram analysis. A minimum of 6 samples and a maximum of 16 samples along with a block discretisation of $5 \times 5 \times 1$ was adopted for all passes based on search neighbourhood optimisations (QKNA).

Mineral Resource Classification

The Sandy Flat TSF Mineral Resource was classified as Inferred to appropriately represent confidence and risk with respect to data quality, drill hole spacing, grade continuity, mineralisation volumes, metallurgical amenability, as well as metal distribution.

In Entech's opinion, the classification of Inferred Mineral Resource reflects the levels of uncertainly in the push tube drilling method, handheld GPS collar pickups, incomplete records of construction extents and further re-working areas of TSF including adding fill for walkways and the limited movement of some material, limited knowledge of potential metallurgical processing of the TSF together with recovery and impact of deleterious elements and an average core recovery of 83%.

All classified Mineral Resources were reported inside the boundary of the TSF, as determined by the Digital Surface Model (DSM), are representative of the tailings dam boundary (verified during site visit inspection) and have been reported to a depth of 2m to 5m below the DSM.

Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. MREs do not account for selectivity, mining loss and dilution. This MRE includes Inferred Mineral Resources which are unable to have economic considerations applied to them, nor is there certainty that they will be converted to Measured or Indicated Mineral Resources through further sampling.

<u>Cut-Off Grade</u>

The Sandy Flat TSF Mineral Resource cut-off grade for reporting of the Sandy Flat TSF was 0.0% (zero) Cu. The mining method assumed in the MRE is hydraulic mining with no selectivity required (volumetrically or grade profile) due to the extraction approach. The Mineral Resource reporting assumes total removal of the material and therefore no cut-off has been applied. Tonnages were estimated on a dry basis.

Project History and Historical Mineral Resources

The Sandy Flat deposit in the Redbank Copper Project was mined from 1994 to 1996 and stockpiles reprocessed from 2006 to 2008 before being placed on care and maintenance due to a fall in copper price. Mining produced approximately 170,000 tonnes at an average grade of 4.6% Cu and stockpiles of 54,000 tonnes at 6% Cu. Ore was treated in a heap leach solvent extraction electrowinning plant. Production milling summary records show that 143,275 tonnes of tails were produced, with an average grade of 0.64% Cu. This figure is within 7% of the estimated TSF MRE tonnage.

New management took control of the company in 2019, with recapitalisation taking place to re-commence evaluation of the deposits and undertake exploration over the enlarged tenement holding of ~14,000 km². Since new management took over the Project in 2019, resource evaluation drilling has been carried out on the Sandy Flat TSF.

This is a maiden Mineral Resources for the Sandy Flat TSF.

Assessment of Reasonable Prospects for Eventual Economic Extraction

Entech assessed the Sandy Flat TSF MRE, as reported, to meet *reasonable prospects for eventual economic extraction* based on the following considerations.

No metallurgical testwork has been completed on the TSF material; however, sequential copper leach analysis on 15% (146 samples) of the push tube samples (November 2020) indicates approximately 50% of the samples are oxide copper species (malachite, azurite and cuprite), 30% are chalcocite sulphide and 20% are sulphide copper (chalcopyrite).

Hydraulic bulk mining method has been assumed from surface to the depth of the TSF (~2m to 4m), with no selectivity and total removal of all material for processing. Entech considers material within the boundary of the TSF would fall within the definition of *reasonable prospects of eventual economic extraction* within this mining framework.

No dilution or cost factors were applied to the estimate.

No metallurgical recovery factors were applied to the Mineral Resources or Resource Tabulations.



Appendix 3. JORC Code Table 1



SECTION 1 7 BRECCIA PIPE DEPOSITS GLOBAL ESTIMATION AND REPORTING OF MINERAL RESOURCES – COMPILED BY REDBANK COPPER LTD

Mr Brent Simpson, Consulting Geologist compiled the information in Section 1 and Section 2 of the following JORC Table 1 and is the Competent Person for those sections. The following Table and Sections are provided to ensure compliance with the JORC Code (2012 edition) requirements for the reporting of Mineral Resources. For further detail, please refer to the announcements made to the ASX by Redbank Copper Ltd relating to the Redbank Project.

Criteria	JORC Code explanation	Commentary
Sampling techniques	Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.	Samples for use in MRE's have been collected from reverse circulation percussion (RC) and diamond (DD) drilling. Sample intervals throughout the mineralised domains generally range from 1 metre to 1.5 metres wide (five feet), with samples sent to an accredited laboratory for chemical analysis.
		The total number of drill metres making up the seven in situ resources is 30,444m, with 21,968 samples related to the resource drillholes.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Resampling of historical pulps and drill core carried was carried out in 2020 using whole rock geochemical analysis and showed good correlation with historical assaying.
		Certified standards are found for drilling carried out since 2006 and statistical analysis indicates there is no evidence to suggest these samples are not representative.
		The QAQC material captured since 2006 accounts for approximately 47% of all resource drillholes. QAQC data for pre 2006 drilling has not been located.
	Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be	The MRE is based on 241 reverse circulation and 78 diamond holes inclusive of diamond tails, with data collected since the early 1970s.



Criteria	JORC Code explanation	Commentary
	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	Historical metadata is often incompletely documented, with details such as drill size, sample recovery and sample method often missing.
	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.	There is no reason to doubt that best-industry practice wasn't followed at the time of data collection.
		The quality of sampling media and assay data has been reviewed by the competent person for all the MRE's (see ASX announcements 26th Oct 2005, 18th July 2007, 17th September 2008 and 8th Dec 2009).
	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.	The MRE is based on 241 reverse circulation and 78 diamond holes inclusive of diamond tails, with data collected since the early 1970s. Sample intervals through mineralised domains generally range from 1 to 1.5 metres, with samples sent to an accredited laboratory for copper analysis by MA-AAS or AR-AAS. Acid soluble copper analysis has also been carried out on some samples.
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).	Details of the 241-reverse circulation, and 78 diamond holes inclusive of diamond tails making up the in situ resource are incompletely documented, with metadata such as drill size, sample recovery and sample method often missing.
		BQ-sized core was commonly utilized in the 1970s and is evidenced on site in proximity to a core yard that was destroyed by fire. Both NQ/HQ/PQ-sized core have been used in modern times.
		Double-barrel core drilling was industry standard in 2000's.
		No records of orientated drill core are found in the database.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	Sample recovery data for reverse circulation percussion or diamond drilling has rarely been recorded. Recovery data, where it exists, is often stored in hand-written logs that have not yet been digitally captured.
	Measures taken to maximise sample recovery and ensure representative nature	



Criteria	JORC Code explanation	Commentary
	of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse	RC bag weighing has been carried out at Bluff, Punchbowl, Redbank and Azurite during drilling programs conducted in 2006 and 2008. The bag weights showed good consistency indicating the sample bags were representative of the 1m sample intervals.
	material.	It was written in the 2007 MRE that 'analysis of bag weights shows that apart from the top 3m, there is no clear relationship between sample size and depth downhole, suggesting the sample recovery is good and that minimal contamination has occurred'.
		Relationships between sample recovery and grade have not been documented, indicating no sample bias has been observed.
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.Whether logging is qualitative or quantitative in nature. Core (or costean, channel,	Of the 319 resource holes 238 were geologically logged for lithology and mineralogy with comments often provided for each interval. Oxidation state was rarely recorded. In total there are 30,444 metres of drilling completed over the resource areas with 23,647 metres geologically logged (78%).
	etc) photography. The total length and percentage of the relevant intersections logged.	Logging of reverse circulation holes has largely been carried out on one metre or five-foot intervals, while logging of diamond holes is usually to geological boundaries, with variable logged interval lengths.
		Logging is qualitative in nature.
		The level of detail is considered sufficient to support Mineral Resource estimation, mining, and metallurgical studies.
		Drill core photography was not routinely completed or has been lost.
		SRK completed detailed geotechnical logging and other geotechnical studies in 2009.
Sub-sampling techniques and	If core, whether cut or sawn and whether quarter, half or all core taken.	Mineralized DD core is typically half-cored using a diamond saw and submitted for copper analysis. Diamond splits although rare are also



Criteria	JORC Code explanation	Commentary
sample preparation	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	recorded in the database. Half, or quarter core has generally been used for analytical and metallurgical work. Core is depth delineated and sampled to appropriate intervals. The residual core has been stored on
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	site for future reference.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	RC samples are generally collected dry, as 1 metre or historically as 5 foot down-hole intervals, via a splitter. Sample collection and QC procedures are rarely documented.
	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.	Diamond sample intervals through mineralised domains are generally 1 metre to five-foot intervals and are considered to be industry-standard and appropriate to represent mineralisation at Redbank.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Resampling carried out in 2020 showed good correlation to the historical assay results, indicating original sampling was representative on in situ material.
		Field duplicates have not been routinely utilised.
Quality of	The nature, quality and appropriateness of the assaying and laboratory	Of the 319 resource holes, assays have not been located for 17 holes.
assay data and laboratory tests	procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc, the	Historically, independent laboratories have been used for analytical work used in the MRE's.
	parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	Drill hole samples (since 2006) have been sent to either SGS (AAS22D), or ALS (Cu-AA05s or ME-MS61) in Brisbane or Townsville.
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of	Drill hole samples are subjected to a mixed acid digest or a sulphuric acid leach (non-sulphide) with an AAS finish for Cu only.
	bias) and precision have been established.	Resampling in 2020 using a 4 acid, near total digest, was carried out on drill core and pulps and show good correlation to historical assay results, indicating historical assay techniques have been appropriate.
		Laboratory QA/QC involves the use of internal lab standards using



Criteria	JORC Code explanation	Commentary
		certified reference material, blanks, splits and replicates as part of the in-house procedures. QC results (blanks, duplicates, standards) were in line with commercial procedures, reproducibility and accuracy.
		Field standards using certified CRMs and blanks showed relatively good performance by all standards, with minimal outliers.
		Field duplicates are only found in the 2020 re-assay programs and show good correlations with original samples.
		XRF instruments have been routinely used from 2006 to 2011 to identify mineralised domains, with samples then submitted for laboratory analysis. XRF results have been used to constrain mineralised wireframes in the absence of laboratory assay data but have not been used for resource estimation purposes.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Sampling of significant intersections was regularly monitored/inspected by senior geological staff; however, no verification was undertaken by independent personnel.
	The use of twinned holes.	No twin drilling has been completed.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Historical sample ledgers and logging data were recorded on paper log sheets. Procedures on historical data entry are not available.
	Discuss any adjustment to assay data.	Digital entry of data begun in 1990s.
		Since the 1990s drilling data has been stored in MS Access databases and more recently, since 2021 in a SQL database.
		Assay data has been checked against original lab reports where available, when not available other sources, including handwritten logs have been used.
		Assay data from 2006 to present has been re-issued from the



Criteria	JORC Code explanation	Commentary
		laboratory, verified, and merged into the SQL database.
		No adjustments have been made to original source data.
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used.	Early 1970s exploration grids were established over each of the prominent prospects. These grids were imperial and aligned towards magnetic north. Seventy-eight holes are located using this early imperial grid system. The method of survey pickup during this time is not documented but a compass and chain were likely used.
	Quality and adequacy of topographic control.	In 1971 imperial survey control was placed over the entire project and tied into the National Geodetic Network. Twenty holes are located using the project wide imperial grid system. While it is not documented a chain and theodolite is the most likely survey method during this time.
		In 1990 a metric mine grid was established, covering the Sandy Flat mine and surrounds. Thirty-three holes are picked up using the Redbank Mine Grid system, again the pickup method has not been documented.
		Post 2006 holes have been picked up using either a handheld Garmin GPS (52 holes), accurate to within 3-5m or a differential GPS (132 holes) accurate to within approximately 10cm.
		In 2016 Aerometrex completed high resolution digital orthophotography over the Redbank Project with data captured at a 15cm pixel size, with a Digital Surface Model (DSM) created using a 50cm cell size. Drill collar heights have been levelled to this surface, with manual modification of heights when affected by vegetation affects.
		Each of the historical grid systems were reconstructed from DGPS pickups of historic survey control points. These surveys were conducted by licenced surveyors that included survey control points and plans that



Criteria	JORC Code explanation	Commentary
		overlap with known location data.
		Drillhole layout images in each of the grid projections have been used to validate drillhole locations.
		All data has been transformed to MGA2020 Zone 53.
		Many historical holes are aligned vertically and have limited downhole survey information.
		Downhole surveying was carried out using magnetic downhole survey tools, with azimuths deemed magnetically affected ignored and estimates provided based on other downhole measurements.
		RC drilling often utilised a stainless-steel starter rod for accurate survey data while DD surveys were often conducted open hole beneath the rod string.
		Downhole surveying since 2006 comprises of either Ranger or Camteq digital cameras, with surveying typically carried out at 30-50m downhole intervals.
Data spacing and distribution	Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore	Sample compositing has been used in selected individual resource calculations, but no physical composting of drilling has been employed. (ASX MRE announcements 26th Oct 2005, 18th July 2007, 17th September 2008 and 8th Dec 2009)
	Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied.	Variable spacing of reverse circulation and diamond drilling occurs through each of the breccia pipes. Nominal spacing distances have not been stated.
Orientation of data in relation to geological	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key	Historical drill holes are predominantly short and vertical, reflecting the flat, readily amenable supergene mineralised horizons. Fewer angled holes intersect sub-vertical, pipe shaped, primary sulphide



Criteria	JORC Code explanation	Commentary
structure	mineralised structures is considered to have introduced a sampling bias, this	mineralisation at depth.
	should be assessed and reported if material.	Intersection angles of the drilling with the Redbank-style mineralisation ranges from perpendicular to oblique.
		Entech are of the opinion the predominant drilling orientation is suitable for mineralisation volume delineation in the individual deposits at Redbank and does not introduce bias nor pose a material risk to the MRE.
Sample	The measures taken to ensure sample security.	Historical sample security measures are not documented.
security		Individual samples collected since 2006 were captured in calico bags, with up to 5 calico samples placed in a polyweave bag and zip tied. The samples were then placed in bulka bags and transported to SGS laboratories in Townsville or ALS laboratories in Mount Isa / Brisbane by local transport companies. No chain of custody security has been documented.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	All sampling, sub sampling and assay techniques in respect to the MRE's were reviewed by the competent person.
		No other review of sampling techniques has taken place.



SECTION 2 7 BRECCIA PIPE DEPOSITS GLOBAL ESTIMATION AND REPORTING OF MINERAL RESOURCES-COMPILED BY REDBANK COPPER LTD

(Criteria listed in Section 1, and where relevant in Section 2, 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.	Redbank Copper owns 100% of the Redbank Project in the Territory. The Redbank Project comprises of the tenements in Table 2: Redbank Tenement Summary					tenements in T	
		Redbank Operations Pty Ltd Tenements						
			No.	EL_ML	Area km ²	Grant date	Expiry date	
			1	MLN634	0.1618	12-Mar-73	31-Dec-28	
			2	MLN635	0.1618	12-Mar-73	31-Dec-28	
			3	ELR94	38.8	10-Aug-89	9-Aug-24	
			4	EL31316	6.3	6-Feb-17	5-Feb-23	
			5	EL32715	715.79	15-Aug-02	26-Apr-27	
			6	EL24654	1576.63	5-Dec-05	4-Dec-22	
			7	EL32323	788.31	10-Sep-20	9-Sep-26	
			8	EL32324	690.56	10-Sep-20	9-Sep-26	
			9	EL32325	778.85	10-Sep-20	9-Sep-26	
			10	EL31236	788.31	In Application		



Criteria	JORC Code explanation	Comment	ary			
					In	
		11	EL31237	595.97	Application	
					In	
		12	EL32460	788.31	Application	
		13	EL32461	788.31	In Application	
					In	
		14	EL32462	788.31	Application	
		15	EL32463	318.48	In Application	
		16	EL32464	690.56	30-Mar-21	29-Mar-27
		17	EL32465	778.85	30-Mar-21	29-Mar-27
		18	EL32466	788.31	30-Mar-21	29-Mar-27
		19	EL32467	788.31	30-Mar-21	29-Mar-27
		20	EL32468	788.31	24-May-21	23-May-27
		21	EL32469	788.31	30-Mar-21	29-Mar-27
		22	EL32470	577.05	30-Mar-21	29-Mar-27
		23	EL32471	220.73	30-Mar-21	29-Mar-27
			Total granted	10016		
			Total in application	4068		
			Total	14084		
		Redbank M 2005). Rec	lines Pty Ltd	in 2005	(see ASX anr	ank Copper Pty L nouncement 31s neir name to Rec



Criteria	JORC Code explanation	Commentary
		The 2005 Sale Agreement dated 5 August 2005 verifies the transaction.
		All tenements are in good standing.
		Native title has not been granted on the existing granted tenements.
		The Sandy Flat mine site/ processing facility is believed to be the source of pollution which affects the surrounding environment. The Northern Territory of Australia acknowledges that no action by Redbank has contributed to the pollution. To facilitate the Northern Territory of Australia access to the Mining Site to carry out works to enable improved environmental outcomes for the mining site and its surrounds, Redbank entered into an agreement with the Northern Territory of Australia on the 29th of June 2016, to surrender the mining leases. The mining leases were replaced by EL31316 granted on the 6th of February 2017.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Copper mineralisation was first discovered at Redbank in 1916. The Redbank area has been subject to an almost continuous history of discovery and mining.
		The Redbank area has been systematically explored by numerous companies since 1969. Prominent amongst these were Newmont NEWAIM JV (1971-1972), Triako Mines NL (1972-1983) with various JV partners (Amax Iron, Aquitane Australia Minerals) and Alameda with CRA Exploration.
		Previous work included, geologic mapping, soil geochemistry, airborne and ground geophysics, extensive drilling campaigns and early non- JORC resource calculations (1970's to 1980's) and rudimentary 2004 JORC calculations (1989-2004). SRK Consulting completed MRE's (JORC 2004) between 2005-2011.
Geology	Deposit type, geological setting, and style of mineralisation.	The Redbank mineralization is consistent with breccia pipe deposits.



Criteria	JORC Code explanation	Commentary
		The Redbank mineralization consists of at least 7 discrete mineralized pipe-shaped deposits, although more than 50 pipe-like intrusions have been identified in the district.
		Copper bearing breccia pipes of the Redbank district intrude an interbedded sequence of middle Proterozoic-aged igneous and dolomitic sedimentary rocks which have undergone regional scale potassic alteration or metasomatism.
		Breccia pipes are steeply inclined, cylindrical, and taper downward.
		The core of these pipes contains both autochthonous and allochthonous breccias of andesitic affinity, with copper mineralisation confined to the breccia matrix.
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: easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. 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. 	 This announcement refers to in-situ resources and other recoverable resources of the Redbank Copper deposit and is not a report on Exploration Results. All drill intersections have been historically released to the market. Due to management changes in Aug 2019, all available Redbank data is being recompiled and accessed. The Redbank project contains approximately 900 documented drill holes. A complete listing of all drill hole collar details and drill hole intercepts used in resource estimates is not appropriate for this document. All drill hole information has been previously reported and its exclusion does not detract from the understanding of this report. Exploration has been documented in company annual reports and announcements.
Data aggregation	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades	No exploration results are reported in this document.



Criteria	JORC Code explanation	Commentary
methods	are usually Material and should be stated.	No aggregated exploration data is reported in this document.
	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.	No metal equivalents are reported in this document.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	
Relationship between	These relationships are particularly important in the reporting of Exploration Results.	No exploration results are reported here.
mineralisation widths and	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	
intercept lengths	If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	
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.	No exploration results are reported here.
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	No exploration results are reported here.
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.	Since the discovery of copper at Redbank deposit, considerable geological information concerning the mineralisation and its host has been compiled. Similarly, numerous geochemical soil surveys and geophysical surveys have been conducted across the tenement package. This information is well documented in company annual reports.
		Metallurgical test work on drill core samples from the Redbank Project



Criteria	JORC Code explanation	Commentary	
		was carried out principally in the 1970s and 1980s prior to Amalg constructing the plant in 1993-5. The details of these reports have not been located. More recently metallurgical testing was conducted by AMMTEC from 2006-10, with samples from the various deposits tested for various leach and comminution tests.	
		Additional geotechnical data was added post 2005. SRK was contracted in late 2008 to provide geotechnical studies on the available core and outcrop, to refine slope angles in optimisation work being undertaken on block models generated from the resource. Geotechnical samples were submitted to SGS Rock Mechanics Laboratory in Welshpool in 2009.	
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).	Following this upgrade of known resources to JORC 2012 additional drilling is planned on the in situ resources to improve geological	
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	confidence categories (i.e. from inferred to Indicated Resource, and from Indicated Resource to Measured Resource) to aid future Reserve estimates and to delineate additional areas of potentially economic mineralisation.	
		The resource upgrade to JORC 2012 documented in this report will, together with new drilling planned, form the basis of scoping level studies. These studies will examine matters such as:	
		 Mining methods Geotechnical Hydrology Metallurgy Plant and Infrastructure Transport and shipping Environmental studies 	



Criteria	JORC Code explanation	Commentary
		Social impact studies.



SECTION 3 7 BRECCIA PIPE DEPOSITS GLOBAL ESTIMATION AND REPORTING OF MINERAL RESOURCES – COMPILED BY ENTECH PTY LTD

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

Criteria	JORC Code explanation	Commentary
Database integrity	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.	Non-digital data has been entered by explorers between the 1970s and the 1990s. Historically, data has been subject to poorly documented validation controls, typical of the years in which the information was collected. Hand-written drill hole logs and early historical reports, where they still exist, are stored, or scanned in digital form.
		 In 2020, database and Mineral Resource Estimate (MRE) data in archive was recovered from SRK and Maxwell Geoscience.
		 No drilling has been done at Redbank since 2014 (with the exception of push tube drilling on the TSF in 2020).
		 In 2021, Redbank drill data was transferred from numerous MS Access databases to a single SQL database.
	Data validation procedures used.	A dedicated data validation and review process began in 2013. Data was checked against original documents, drill hole locations and survey marks were re-surveyed in the field with DGPS where possible, verified from historical data or transformed. Assay data was checked and imported from original reports where available. The checking included the following:
		• Checking for duplicate drill hole names and duplicate coordinates in the collar table.
		• Checking for missing drill holes in the collar, survey, assay and geology tables based on drill hole names.
		 Checking for survey inconsistencies including dips and azimuths <0°, dips >90°, azimuths >360°, and negative depth values.
		Checking for inconsistencies in the 'From' and 'To' fields of the assay



Criteria	JORC Code explanation	Commentary
		and geology tables. The inconsistency checks included the identification of negative values, overlapping intervals, duplicate intervals, gaps and intervals where the 'From' value is greater than the 'To' value.
		Brent Simpson, Consulting Geologist for RCP, accepts responsibility as Competent Person for the sampling data and quality of data underpinning the Mineral Resources. Entech has reviewed the data capture, historical validation processes undertaken by RCP and is of the opinion that the integrity of the historical drill hole data underpinning the Mineral Resource is suitable for MRE evaluation.
		Entech used the drill hole data as supplied, and undertook fatal flaw data audits, visual verification and a site visit as part of Entech's due diligence process.
		The drill hole data, as supplied by RCP, was considered suitable for underpinning Mineral Resource estimation of global copper tonnes.
Site visits	Comment on any site visits undertaken by the Competent Person and the outcome of those visits.	Entech's Principal Consultant, Christine Shore, undertook a site visit to the Redbank Project on 7 May 2021 to inspect mineralisation exposures in the Sandy Flat open pit, Redbank, Azurite and Bluff deposit outcrops and the core yard in relation to the upcoming MRE and to fulfil Entech's Competent Person responsibilities.
		No material issues or risks pertaining to the resource were observed during the site visit.
	If no site visits have been undertaken indicate why this is the case.	Not applicable.
Geological interpretation	Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.	There is a moderate confidence level in the geological interpretation of the mineralised breccia pipe deposits. Mineralised structures have predictable geometries between deposits and the mineralised framework is contained entirely within the breccia unit. All interpretations show similar steeply inclined breccia pipes, mineralisation style, characterisation, dimensions and



Criteria	JORC Code explanation	Commentary
		cylindrical form.
		Entech was supplied with an MS Access database, together with documentation from RCP detailing the 2020 field season re-assay program. Samples were selected in collaboration with the Entech Competent Person to verify the historical data underlying the MRE. A total of 4,692 samples were submitted to ALS for validation of historical assay results. The correlation coefficient of the drill core was 0.946 and 0.929 for the drill pulp, indicating the reliability of this data. This, together with input from RCP geologists, aided in the creation of the mineralised interpretations at each mineral deposit.
		Factors which limited the confidence of the geological interpretation include absent or subjective lithological data on most historical drill holes, and vertical holes intersecting vertical pipe structures at oblique angles.
		Factors which aided the confidence of the geological interpretation include scissor holes at several deposits, 10–20 m drill spacing in some deposits, previous mining of the Sandy Flat pit in the 1990s confirming mineralisation within a breccia pipe structure of similar orientation and dimensions to logged data, and MRE interpretation.
		Entech considers confidence is good for the geological interpretation, geometry and continuity of the structures within the MRE. Locally, the mineralisation is almost exclusively contained within the breccia pipe structures.
	Nature of the data used and of any assumptions made.	Mineralisation interpretations were informed by a total of 787 drill holes, including 678 reverse circulation (RC), 96 diamond drill holes and 13 RC combined with DD tail holes.
		These are further broken down by deposit:
		• Azurite: 42 RC, 2 DD, 1 RCD
		• Bluff: 41 RC, 21 DD, 3 RCD
		Prince: 30 RC



Criteria	JORC Code explanation	Commentary
		Punchbowl: 43 RC, 2 DD
		Redbank: 39 RC, 1 DD, 2 RCD
		Roman Nose: 8 RC, 3 RCD
		• Sandy Flat: 30 RC, 34 DD.
		Mineralisation within each deposit was based on a combination of interpreted breccia pipe location and a nominal cut-off grade of 0.3% Cu.
		Continuity analysis indicated the presence of an internal higher-grade sub- domain (nominally >1.5% Cu within the pipes) and a lower-grade outer halo. Where possible, this zonation was modelled.
		Using this approach, 13 domains were interpreted, including 5 high-grade internal sub-domains, and 8 outer low-grade halos as detailed below:
		Azurite: one low-grade domain
		Bluff: one low-grade and one high-grade domain
		Prince: one low-grade domain
		Punchbowl: two low-grade domains and one high-grade domain
		Redbank: one low-grade domain and one high-grade domain
		Roman Nose: one low-grade domain and one high-grade domain
		Sandy Flat: one low-grade domain and one high-grade domain.
		Within the mineralised wireframe, if an intercept fell below the nominal cut-off but continuity was supported by geological veining/alteration, the intercept was retained for continuity purposes due to the commodity and the style of deposit.
	The effect, if any, of alternative interpretations on Mineral Resource estimation.	The mineralised zones are consistent, hosted with the interpreted breccia units and have clearly defined pipe-shaped geometries, while the oxidation zones are more subjective. An alternative interpretation would globally result in a similar volume and metal content. However, there are localised variations



Criteria	JORC Code explanation	Commentary
		in the oxide boundary and minor material outside of the main pipe in feeder veins that may affect interpretations with future drilling.
		Entech is of the opinion that these variations would have an incremental, not material, impact on the current interpretation due to the close-spaced drilling (10–20 m) available at the deposits.
	The use of geology in guiding and controlling Mineral Resource estimation.	Geological modelling of the host breccia lithological units was generated prior to the mineralisation domain interpretation commencing. Mineralisation interpretations, at a nominal 0.3% Cu, were supported by geology and site- based XRF measurements taken by RCP on all holes during the drill programs carried out in the 2000s, historical assaying and RCP resampling programs.
		As most historical logging and interpretations have not been digitised, these sections were referenced and correlated with recent XRF data (copper/sulphur ratios) to define the boundaries of the pipes.
		Mineralisation domain orientation was aligned with the pipe geometry and mineralisation continuity (as supported by indicator numerical modelling) supported RCP's current understanding of the structural controls on mineralisation.
		Weathering surfaces were created by interpreting a combination of soluble copper analysis, existing drill logging for regolith and oxidation state, and XRF sulphur, and were extended laterally beyond the limits of the Mineral Resource model.
	The factors affecting continuity both of grade and geology.	Zonation within the breccia pipes appears to control the tenor of copper mineralisation within the deposits. Although the high-grade internal core of the deposit is well understood to a depth of 250 m, it is uncertain if relationship continues with depth (due to limited drilling).
		Models for emplacement of breccia pipes may vary, and the deposits are not well understood at depths >350 m below the surface.



Criteria	JORC Code explanation	Commentary
Dimensions	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.	Mineralisation is generally contained in pipe-like geometries in individual deposits and generally has a surface expression of 100–200 m. The mineralisation has a subvertical, steep dipping, conical tail extending over 300 m deep.
		Dimensions of the mineralised domains in the Project are as follows:
		• Azurite: surface expression 100 m in diameter and depth below surface 50 m
		Bluff: surface expression 130 m in diameter and depth below surface 250 m
		• Prince: surface expression 90m in diameter and depth below surface 60 m
		Punchbowl: surface expression 160m in diameter and depth below surface 200 m
		Redbank: surface expression 120m in diameter and depth below surface 100 m
		Roman Nose: surface expression 80m in diameter and depth below surface 225m
		• Sandy Flat: surface expression 150m in diameter and depth below surface 220m.
Estimation	The nature and appropriateness of the estimation technique(s) applied and	Historical
and modeling techniques	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.	SRK completed five consecutive 2004 JORC Code compliant MREs (see ASX announcements 26 October 2005, 18 July 2007, 17 September 2008 and 8 December 2009) as follows:
		2005 Mineral Resource Estimate
		Calculated for Sandy Flat, Bluff and Punchbowl including transitional dump and oxide stockpiles and valuation including pit water.
		2007 Mineral Resource Estimate
		Including additional data at Punchbowl, Redbank and Azurite with



Criteria	JORC Code explanation	Commentary
		maiden and revised estimates.
		2008 Mineral Resource Estimate
		Including additional data at Sandy Flat, Bluff, Redbank and Azurite.
		2009 Mineral Resource Estimate
		RC drilling and large-diameter diamond drilling including estimates of the remaining stockpiles generated from surveys and sampling to update estimates.
		2011 Mineral Resource Estimate
		Redbank, Azurite and Prince were modelled and added to the 2009 MRE Statement.
		The combined 2011 MRE Statement tabulates resources across seven individual deposits.
		 In the initial 2005 MRE, SRK created initial domains of each of three deposits using Leapfrog software at a cut-off grade of 0.5% Cu (0.4% Cu at Bluff); the domains were created from variably composited assay data. Domains were further divided on assay values and population density. Domains were unconstrained where data was not sufficiently dense. Multiple variograms were constructed using Gaussian-transformed values. Grades were estimated by Ordinary Kriging.
		 Consecutive MREs in 2007, 2008, 2009 and 2011 include successive additional deposits in the Redbank district and essentially followed the same procedure for estimation, albeit with less data, lower assay density and lower confidence.
		 Models for Sandy Flat were validated against the Sandy Flat production tonnes and grade inside the open pit, with the sum of ore processed and stockpiled. Although the production was close to the grade-tonnage curve, the model suggests that significant amounts of low-grade mineralisation may have been sent to the waste dump during mining.



Criteria	JORC Code explanation	Commentary
		Current
		Interpretations of domain continuity were undertaken in Leapfrog [™] Geo software, with mineralisation intercepts correlating to individual domains manually selected prior to creation of an intrusion model. Where required, further edits were manually added to the model to limit the volume in sparsely drilled areas.
		Interpretation was done in collaboration with RCP geologists to ensure modelling appropriately represented observations and current understanding of geology and mineralisation controls. Domain interpretations used all available RC and diamond drill hole (DD) data.
		Sample data was composited at all deposits (except Bluff) using a 2 m and best fit method, with a minimum of 0.5 m length, in GEOVIA Surpac [™] software. All residuals were visually analysed and added to the preceding composite for all domains.
		For the Bluff deposit, sample data was composited using a 1 m downhole length and best fit method, with a minimum length of 0.5 m, in GEOVIA Surpac™ software. Residuals were visually analysed and added to the preceding composite.
		Top-caps, where appropriate, were investigated statistically and spatially before being applied prior to the block grade estimation. The maximum distance of possible extrapolation within each domain was based on variogram analysis.
		Exploratory Data Analysis (EDA) and variography analysis of the capped and declustered composited copper variable, grouped by deposit, hole type and weathering was undertaken using Supervisor™ software.
		An Ordinary Kriging (OK) interpolation approach in Geovia Surpac [™] was selected for all interpreted deposits and domains. All estimates used domain boundaries as hard boundaries for grade estimation wherein only composite samples in that domain are used to estimate blocks coded as falling within



Criteria	JORC Code explanation	Commentary
		that domain. No weathering hard boundaries were used.
		Estimation parameters including estimate block size and search neighbourhoods were derived through Kriging Neighbourhood Analysis (KNA).
		Details for each deposit are as follows:
		• Azurite: Rotation (ZYX) Z = 250°, Y = -65°, X = 0°. Max. search distance (first pass) = 30 m, min. samples = 10, max. samples = 20
		• Bluff: Rotation (ZYX) Z = 200°, Y = 70°, X = 0°. Max. search distance (first pass) = 20 m, min. samples = 14, max. samples = 27
		 Prince: Rotation (ZYX) Z = 323.741°, Y = 58.392°, X = -49.264°. Max. search distance (first pass) = 20 m, min. samples = 12, max. samples = 23
		• Punchbowl Oxide: Rotation (ZYX) Z = 134.622°, Y = -4.981°, X = -8.682°. Max. search distance (first pass) = 40 m, min. samples = 10, max. samples = 23
		• Punchbowl: Rotation (ZYX) Z = 165°, Y = -80°, X = 0°. Max. search distance (first pass) = 40 m, min. samples = 10, max samples = 23
		• Redbank: Rotation (ZYX) Z = 115°, Y = 50°, X = 0°. Max. search distance (first pass) = 20 m, min. samples = 6, max. samples = 16
		 Roman Nose: Rotation (ZYX) Z = 312.054°, Y = 72.036°, X = -55.734°. Max. search distance (first pass) = 40 m, Min. samples = 10, max. samples = 20
		• Sandy Flat: Rotation (ZYX) Z = 40.6°, Y = -58.5°, X = -16.7°. Max. search distance (first pass) = 20 m, min. samples = 11, max. samples = 25.
	The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.	Check estimates were carried out for each deposit using the Inverse Distance Squared (constrained by individual mineralisation domains) method. Results were compared to previous estimates and where necessary, and differences in results detailed.



Criteria	JORC Code explanation	Commentary
		No mine production data was available to reconcile the Sandy Flat MRE results.
	The assumptions made regarding recovery of by-products.	No assumptions with respect to by-products were made.
	Estimation of deleterious elements or other non-grade variables of economic	Deleterious elements or other non-grade variables were not estimated.
	significance (e.g. sulphur for acid mine drainage characterisation).	Discussions with RCP personnel throughout the MRE process indicated that no deleterious elements had been identified which would materially affect extraction or processing amenability.
	In the case of block model interpolation, the block size in relation to the	Block dimensions for interpolations and average sample spacings were:
	average sample spacing and the search employed.	• Azurite: Y:10 mN, X:10 mE, Z: 5 mRL with sub-celling of Y: 1.25 mN, X: 1.25 mE, Z: 1.25 mRL and an average sample spacing of 10 m ranging to 20 m
		 Bluff: Y:10 mN, X:10 mE, Z: 5 mRL with sub-celling of Y: 2.5 mN, X: 2.5 mE, Z: 1.25 mRL and an average sample spacing of 10 m ranging to 20 m
		 Prince: Y:10 mN, X:10 mE, Z: 5 mRL with sub-celling of Y: 2.5 mN, X: 2.5 mE, Z: 1.25 mRL and an average sample spacing of 10 m ranging to 20 m
		 Punchbowl: Y:10 mN, X:10 mE, Z: 5 mRL with sub-celling of Y: 1.25 mN, X: 1.25 mE, Z: 1.25 mRL and an average sample spacing of 15 m ranging to 25 m
		• Redbank: Y:10 mN, X:10 mE, Z: 5 mRL with sub-celling of Y: 2.5 mN, X: 2.5 mE, Z: 1.25 mRL and an average sample spacing of 10 m ranging to 20 m
		 Roman Nose: Y:10 mN, X:10 mE, Z: 5 mRL with sub-celling of Y: 0.625 mN, X: 0.625 mE, Z: 0.625 mRL and an average sample spacing of 15 m ranging to 30 m
		 Sandy Flat: Y: 20 mN, X: 10 mE, Z: 10 mRL with sub-celling of Y: 1.25 mN, X: 1.25 mE, Z: 1.25 mRL and an average sample spacing of 10 m ranging to 20 m.



Criteria	JORC Code explanation	Commentary
		The parent and sub-cell block sizes were selected to provide adequate domain volume definition and honour wireframe geometry. Considerations relating to appropriate block size included drill hole data spacing, conceptual mining method, selective mining unit analysis, variogram continuity ranges and search neighbourhood optimisations.
		DD and RC drill data was used for all deposits during the estimate.
		The following isotropic search strategy for each estimate was used:
		Azurite: Single-pass search strategy with a search distance of 30 m
		 Bluff: Three-pass search strategy with a search distance 20 m, 40 m and 60 m
		 Prince: Three-pass search strategy with a search distance of 20 m, 40 m and 60 m
		• Punchbowl: Single-pass search strategy with a search distance of 40 m
		 Redbank: Two-pass search strategy with a search distance of 20 m and 40 m
		 Roman Nose: Single-pass search strategy with a search distance of 40 m
		 Sandy Flat: Three-pass search strategy with a search distance of 20 m, 40 m and 80 m.
		This search strategy allowed sufficient estimate definition of the defined domains. A drill hole sample limit was not used in any of the domains. High-grade sample distance limiting was used at Prince (Domain 11) to further restrict the spread of high-grade metal in the estimate.
	Any assumptions behind modelling of selective mining units.	No selective mining units were assumed in this estimate.
	Any assumptions about correlation between variables.	Limited correlation analysis was undertaken primarily to investigate the relationship of elements related to alteration/brecciation and copper mineralisation. No correlation between variables was found and therefore no



Criteria	JORC Code explanation	Commentary
		assumptions have been made regarding correlation between variables.
	Description of how the geological interpretation was used to control the resource estimates.	All domain estimates were based on mineralisation domain constraints constructed using a combination of geological logging and a nominal cut-off grade of 0.3% copper for the low-grade mineralised halos and a nominal 1.5% Cu for the higher-grade internal sub-domains. The mineralisation constraints have been used as hard boundaries for grade estimation wherein only composite samples in that domain are used to estimate blocks coded as falling within that domain.
	Discussion of basis for using or not using grade cutting or capping.	Assessment and application of top-capping for the estimate was undertaken on the copper variable in individual domains as outlined below:
		• Azurite: Domain 10 – 7.5% Cu top-cap and 2.7% metal reduction
		Bluff: Domain 1 and 2 – no top-cap applied
		Prince: Domain 11 – 5% Cu top-cap and -0.53% metal reduction
		 Punchbowl: Domains 3, 4 and 5 – no top-cap applied
		Redbank: Domain 8 – no top-cap applied
		Redbank: Domain 9 – 17% Cu top-cap and 6.3% metal reduction
		• Roman Nose: Domain 12 – 5.5% Cu top-cap and 2.9% metal reduction
		• Roman Nose: Domain 13 – 3.5% Cu top-cap and 1.2% metal reduction
		Sandy Flat: Domain 6 – 5% Cu top-cap and 0.4% metal reduction
		• Sandy Flat: Domain 7 – 20% Cu top-cap and 2.0% metal reduction.
	The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	Validation of the copper estimate outcomes was completed by global and local bias analysis (swath plots), and statistical and visual comparison (cross and long sections) with input data. No mining production data was available for reconciliation against current, or historical, Mineral Resources.
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	The tonnages were estimated on a dry basis.



Criteria	JORC Code explanation	Commentary
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	The Mineral Resource cut-off grade for reporting of open pit global copper resources at each Project was 0.3% Cu. This was based on consideration of grade-tonnage data, selectivity and potential open pit mining and benchmarking against deposits of comparable size and similar mineralisation style and tenor.
Mining factors or assumptions	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.	Pit optimisation has been run at Bluff with mining from surface to an approximate depth of 250m below surface based on a high-level optimisation which uses hydraulic machinery (70 to 120 tonne excavator). The grades and tonnages of material below 250 m are unlikely to make them cost-effective to extract. All other deposits are conceptual estimates based on Bluff. No dilution or cost factors were applied to the estimate.
Metallurgical factors or assumptions	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.	Entech did not encounter evidence of metallurgical amenability risks during documentation reviews, historical production records (oxide, transitional and sulphide material), nor in discussions with RCP personnel. Metallurgical testwork at the Project has shown that oxide ore at Redbank is acid soluble and mining has historically extracted oxide and transitional ore to produce a copper cement product. Further metallurgical testwork and investigations were carried out in 2009/10 and showed that the processing plant could be upgraded to include flotation, solvent extraction and electrowinning of sulphide ores.
		No metallurgical recovery factors were applied to the Mineral Resources or resource tabulations. Entech is of the opinion the global metal contained within the MRE is suitable for extraction via open pit mining methodologies and conventional processing techniques. However, additional metallurgical testwork is required. The classification of all MRE material as Inferred accounts for this uncertainty and Entech is of the opinion that the classification approach appropriately



Criteria	JORC Code explanation	Commentary
		communicates this level of confidence.
Environmental factors or assumptions	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	The Redbank Plant processed copper ore between 1994 and 1996 and between 2006 and 2008. Mining in the 1994-96 period left stockpiles of copper-bearing ore and waste behind, and the Sandy Flat pit filled with copper-bearing water. Investigation is currently being conducted to rehabilitate and remove metalliferous pollutants created from historical mining activity and extract economic value from recoverable historical resources (in conjunction with the Northern Territory government).
	be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	Discussions with RCP personnel have led Entech to understand that the Sandy Flat legacy environmental issues are not contingent on further potential mining being carried out at the Project.
		With respect to the Sandy Flat deposit, Entech understands that RCP is investigating approaches to assist in the rehabilitation and removal of metalliferous pollutants created by historical mining activity, and extraction of economic value from copper-bearing water currently within the historical open pit void.
		No environmental factors were applied to the Mineral Resources or resource tabulations.
Bulk density	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.	Bulk density values for the Project were derived from 513 historical measurements taken from diamond drill holes (66 oxide, 58 transitional and 389 fresh). Most measurements were taken in a laboratory using the waxed core displacement method, at the laboratories of ALS, NTEL (Intertek), Ammtec, Warman International and Chem Centre WA.
		Previous MREs
		In the 2005 MREs:
		 Sandy Flat: Used a bulk density of 1.8 t/m³ which was applied from both previous testwork and samples of fresh core in April 2005. It was reported that there was no clear trend of increasing density with



ria	JORC Code explanation	Commentary				
		increasing de	epth.			
		taken vertica	a bulk density of 2.1 Illy in the orebody. I easing density with i	It was repo	orted that	
			No density determ t/m ³ was applied and			
		Redbank: Fo MREs after 2	our density values w 2005.	vere collec	ted and 2	.1 t/m ³ was used in
		Azurite: Dens	sity measurements	were assu	med at 2.4	1 t/m ³ .
		Prince: Dens 2.4 t/m ³ for fr	sity measurements v resh.	were assu	med at 2.2	2 t/m ³ for oxide and
		Current MREs				
		A further 329 samples were taken during the 2020 field season, sourced fueld for the season and sent to ALS laboratory for density analysing the displacement method with wax coating (ALS code OA-GRA0). These samples were between 10 cm and 15 cm in length.			for density analysis code OA-GRA08a).	
		little variation of domains or lithol weathering horizo	ere determined by c bulk density value ogy. Therefore, me on in each deposit. V taken from the nea	es betweer ean values Where no c	n minerali have be ata is ava	sed, unmineralised en applied to each
		Bulk densities a tabulated as follow	pplied to each we ws:	athering h	iorizon in	each deposit are
		Project Area W	Veathering Horizon	Count	Density	
			Oxide	assigned	2.23	
		Azurite	Transitional	assigned	2.23	
			Fresh Total	6 6	2.29 2.28	4
			Total	o	2.20	1



Criteria	JORC Code explanation	Commentary				
			Oxide	10	2.23	
		DI#	Transitional	3	2.23	1
		Bluff	Fresh	159	2.40	1
			Total	172	2.29	1
			Oxide	2	2.20	
		Prince	Transitional	4	2.32	
		Filice	Fresh	6	2.32	
			Total	12	2.28	
			Oxide	4	1.87	
		Punch Bowl	Transitional	14	2.04	
			Fresh	34	2.29	
			Total	52	2.07	
			Oxide	3	2.12	
		Redbank	Transitional	assigned	2.23	
		Reubalik	Fresh	30	2.35	
			Total	33	2.33	
			Oxide	3	2.01	
		Roman Nose	Transitional	3	2.05	
		Roman Nose	Fresh	12	2.37	
			Total	18	2.27	
			Oxide	44	1.75	
		Sandy Flat	Transitional	34	1.75	
		Sanuy Flat	Fresh	117	1.90	
			Total	195	1.83	
		Gra	Ind Total	488		
	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.	competent fre measurements	ements by water imm sh core. Samples used the wax-coat nt for void spacing.	s sent to	laborat	ories for density
	Discuss assumptions for bulk density estimates used in the evaluation	Little spatial va	riation is noted for	the bulk de	ensity data	a within lithological



Criteria	JORC Code explanation	Commentary
	process of the different materials.	boundaries and therefore an average bulk density has been assigned for tonnage reporting based on weathering code.
Classification	The basis for the classification of the Mineral Resources into varying confidence categories.	Mineral Resources were classified as Inferred to appropriately represent confidence and risk with respect to data quality, drill hole spacing, geological and grade continuity, mineralisation volumes, historical mining activity, metallurgical amenability as well as metal distribution and in accordance with the JORC Code 2012 guidelines.
		A range of criteria were considered in determining the classification extents, including drilling, surveying, sampling, analytical methods and quality controls and in Entech's opinion, these are appropriate for the style of deposit under consideration. This is further supported by the 2020 resampling program which validated the historical data.
		The reported Mineral Resources have been constrained to a depth of 200 m below the surface for Punchbowl and Roman Nose and 225 m for Bluff and Sandy Flat. All other resources have been classified to a nominal depth between 60 m and 110 m below the surface based on consideration of potential open pit mining depths.
		Mineralisation within the model which did not satisfy the criteria for classification as Mineral Resources remained unclassified.
	Whether appropriate account has been taken of all relevant factors (i.e. 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).	Consideration has been given to all factors material to the Mineral Resource outcomes, including but not limited to confidence in volume and grade delineation, quality of data underpinning Mineral Resources, mineralisation continuity and variability of alternate volume interpretations and grade interpolations (sensitivity analysis).
		In addition to the above factors, the classification process considered nominal drill hole spacing and estimation quality (conditional bias slope, number of samples and distance to informing samples).
	Whether the result appropriately reflects the Competent Person's view of the	The delineation of Inferred Mineral Resources appropriately reflects the



Criteria		JORC Code explanation	Commentary
		deposit.	Competent Person's view on continuity and risk at the deposit.
Audits reviews	or	The results of any audits or reviews of Mineral Resource estimates.	Internal audits and peer review were undertaken by Entech, with a focus on independent resource tabulation, block model validation, verification of technical inputs, and peer review of approaches to domaining, interpolation and classification.
Discussion relative accuracy/ confidence	of	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	The Mineral Resource has been reported in accordance with the guidelines established in the 2012 edition of the JORC Code. The MREs are reported as global resource estimates for each deposit.
		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.	It is the opinion of the Competent Person that the classification criteria of Inferred appropriately communicates the potential variances in tonnage, grade and metal that could occur with further definition drilling.
	F		Further considerations taken into account during classification of the estimates include:
		 Historical drilling – all holes used in this MRE have been drilled between 1970s and 2000s, with limited digital data capture and QAQC on processes and procedures. 	
		 Drill hole orientation – vertical drilling (70 % of drilling) orientations which have a high angle intersection to the steeply dipping pipe mineralisation may preferentially sample the high-grade copper or exaggerate the volumes of domains. 	
		 Historical mining records are either missing or poorly documented. Depletion surfaces have been re-built from plans and documentation; however, no records are available for underground voids. These have been recreated based on known spatial locations from aerial photography and historical records from journal articles. 	
			 Uncertainly remains in relation to metallurgical amenability of the mineralisation and further testwork is required.
		The statement should specify whether it relates to global or local estimates,	The Mineral Resource Statement relates to global tonnage and grade



Criteria	JORC Code explanation	Commentary
and, if local, state the relevant tonnages, which should be relevant to esti		estimates.
	technical and economic evaluation. Documentation should include assumptions made and the procedures used.	No formal confidence intervals nor recoverable resources were undertaken or derived.
	These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	No recent or relevant production data was available for comparison purposes.

SECTION 1 SANDY FLAT TSF ESTIMATION AND REPORTING OF MINERAL RESOURCES – COMPILED BY REDBANK COPPER LTD

Mr Brent Simpson, Consulting Geologist compiled the information in Section 1 and Section 2 of the following JORC Table 1 and is the Competent Person for those sections. The following Table and Sections are provided to ensure compliance with the JORC Code (2012 edition) requirements for the reporting of Mineral Resources. For further detail, please refer to the announcements made to the ASX by Redbank Copper Ltd relating to the Redbank Project.

Criteria	JORC Code explanation	Commentary
Sampling techniques	Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad	Samples for use in the TSF MRE have been collected from push tube (PT) drilling. The push tube samples were raised each metre of the advance and captured within a 1.5m long x 53mm diameter PVC tube liner.
	meaning of sampling.	The sampling interval was one metre advance by default; however, sampling was regularly (but not exclusively) split over the clay/ basement interface.
		A total of 1045 samples were analysed by multielement analysis with 848m of drilling completed.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Clay cores were measured in the PVC tube liner to determine recovery. An average recovery of 83% was achieved from the drill samples.



Criteria	JORC Code explanation	Commentary
		The entire sample was placed in a calico bag and weighed using a simple spring balance. Weights were generally in the range of 1.5-3.5kg with an average of 2.25kg.
		Field duplicates were not utilised for this drilling program.
	Aspects of the determination of mineralisation that are Material to the Public	Push tube drilling was carried out on 10m centres and drilled to refusal.
	Report. In cases where 'industry standard' work has been done this would be	Hole depths varied between 0.7m and 6m, with an average of 2.8m.
	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	Depth to basement varied between 0.58m and 4.89m, with an average of 2.55m.
	has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	The basement is clearly recognisable with a sharp colour change at the boundary.
	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.	Push tube drilling was used to obtain a clay core of approximately 1 m in length which has been sent for 4A ICP-MS analysis.
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	The 302-push tube drillholes were drilled using a 9 tonne Geoprobe 7822DT track mounted rig. Drilling advanced using a nitrogen charged hydraulic hammer.
	so, by what method, etc).	Note this is a direct push tube rig and not a sonic rig.
		Push tube drilling is designed for soft sediments and is typically used on tailings. The Geoprobe drills an 89mm drill hole size (collar diameter) with the shoe bit cutting a 47mm diameter core at the bit face, passing into a 1.5m long x 53mm diameter PVC tube liner.
		All holes were drilled vertically with the samples not orientated.
Drill sample	Method of recording and assessing core and chip sample recoveries and results	Clay cores were measured in the PVC tube liner to determine recovery.



Criteria	JORC Code explanation	Commentary
recovery	assessed.	An average recovery of 83% was achieved from the drill samples.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Due to the relatively uniform nature of the tailings clay within the TSF, it is considered highly unlikely that a relationship between sample recovery and grade exists.
	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.	
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.	In broad terms, the upper section of compressed clay was firm and damp, with shades of light brown to brown goethitic clay. Beyond the first metre as moisture increases, clay darkens to shades of brown to are y clay with the consistency of plasticing. The becoment is clearly
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	grey clay with the consistency of plasticine. The basement is clearly recognisable with a sharp colour change to orange clay, and the introduction of rock fragments that would be typical of a surface regolith environment.
	The total length and percentage of the relevant intersections logged.	Geological logging of each hole was carried out with the clay / basement interface representing a relatively planar surface.
		Sampling is usually but not exclusively carried out to the TSF clay / basement interface.
		Logging is qualitative in nature, with 100% of the PT drilling logged.
Sub-sampling techniques and	If core, whether cut or sawn and whether quarter, half or all core taken.	Sub-sampling of clay drill cores was not carried out, with 100% of the original sample submitted for geochemical analysis.
sample preparation	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	Clay core was measured in the PVC tube liner on presentation to determine recovery. An average recovery of 83% was achieved from the drill samples.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	. The sampling interval was one metre advance by default; however,
	Quality control procedures adopted for all sub-sampling stages to maximise	sampling was regularly (but not exclusively) split over the clay/ basement interface.



Criteria	JORC Code explanation	Commentary
	representivity of samples.	Field duplicates have not been used for this program.
	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.	Due to the relatively fine-grained nature of the tailings, and the PT shoe bit cutting a 47mm diameter clay core; this is considered adequate to generate a representative drill sample.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	
Quality of assay data and	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	A total of 302 push tube holes were drilled in the Sandy Flat TSF, for 848 drill metres.
laboratory tests	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.	A total of 1045 samples were sent to ALS in Mount Isa for sample preparation, then on to Brisbane for 4A-ICPMS multielement analysis using ALS method code ME-MS61. This method is a near total digest and considered appropriate for the TSF mineral resource estimation.
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	Quality control procedures included the use of certified reference material as field standards, and the use of blanks. Field duplicates were not utilised for this drilling program.
		All QAQC work completed to date indicates the assay data is valid, with no significant data issues recognised.
		An internal QAQC report for the TSF drilling program has been cited by the competent person.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Sampling and supervision of significant intersections were monitored/ inspected by senior geological staff; however, no verification was undertaken by independent personnel.
	The use of twinned holes.	No twin drilling has been completed.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Assay work was supervised by senior ALS staff experienced in multielement analysis. QC data reports confirming the sample quality have been cited by the competent person.



Criteria	JORC Code explanation	Commentary
	Discuss any adjustment to assay data.	Drilling data has been captured in excel spreadsheets then loaded into the companies SQL database.
		No adjustments have been made to original source data.
		Assay certificates from the ALS have been added to the Redbank assay library, within the data server.
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.	The TSF drill collars were picked up on completion of drilling using a handheld Garmin GPSMAP64st using a GDA94 zone 53 coordinate system.
	Specification of the grid system used.	The horizontal accuracy of a handheld GPS is usually in the range of 3-5m.
	Quality and adequacy of topographic control.	The drill collars have nominal 10m centres.
		Resource estimation has been carried out using MGA2020 zone 53 projected coordinate system, with conversion from GDA94 using MapInfo.
		In 2016 Aerometrix completed high resolution aerial photography from over the project and generated a high-resolution Digital Surface Model (DSM), accurate to within 50cm (but subject to topographic affects from vegetation etc). TSF drill collar heights have been levelled to this surface, with no modification due to the sparse vegetation on the TSF.
		All push tube drill holes were drilled vertically, and down hole surveys were not undertaken.
Data spacing and	Data spacing for reporting of Exploration Results.	Push tube TSF drilling was carried out on nominal 10m centres, with all holes drilled vertically.
distribution	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.	Due to the relatively uniform nature of the tailings clay within the TSF, the data spacing is considered sufficient to establish the degree of geological and grade continuity appropriate for the resource estimation.
		Sample compositing has not been applied.



Criteria	JORC Code explanation	Commentary
	Whether sample compositing has been applied.	
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this	The tailings clays within the TSF are flat lying and relatively uniform covering approximately 38,000m2 within the TSF cells. The vertical drillholes are perpendicular to mineralisation hosted within the relatively flat lying tailings clays. The vertical drill holes are considered optimal given the flat lying
	should be assessed and reported if material.	mineralisation. No sample bias is expected given this drill orientation.
Sample security	The measures taken to ensure sample security.	Individual samples were captured in calico bags with up to 5 calico samples placed in a polyweave bag and zip tied. The samples were then placed in a bulka bag and transported to ALS laboratories prep facility in Mount Isa by local transport companies.
		No chain of custody security has been established.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	All sampling and assay techniques in respect to the TSF MRE were reviewed by the competent person.
		No other review of sampling techniques has taken place.

SECTION 2 SANDY FLAT TSF ESTIMATION AND REPORTING OF MINERAL RESOURCES – COMPILED BY REDBANK COPPER LTD

(Criteria listed in Section 1, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral	Type, reference name/number, location and ownership including agreements or	Redbank Copper owns 100% of the Redbank Project in the Northern



Criteria	JORC Code explanation	Com	ment	ary				
land tenure	material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	Territ	Territory. The Redbank Project comprises of the tenements in Table Table 2: Redbank Tenement Summary					able 2
			Redbank Operations Pty Ltd Tenements					
			No.	EL_ML	Area km ²	Grant date	Expiry date	
			1	MLN634	0.1618	12-Mar-73	31-Dec-28	
			2	MLN635	0.1618	12-Mar-73	31-Dec-28	
			3	ELR94	38.8	10-Aug-89	9-Aug-24	
			4	EL31316	6.3	6-Feb-17	5-Feb-23	
			5	EL32715	715.79	15-Aug-02	26-Apr-27	
			6	EL24654	1576.63	5-Dec-05	4-Dec-22	
			7	EL32323	788.31	10-Sep-20	9-Sep-26	
			8	EL32324	690.56	10-Sep-20	9-Sep-26	
			9	EL32325	778.85	10-Sep-20	9-Sep-26	
			10	EL31236	788.31	In Application		
			11	EL31237	595.97	In Application		
			12	EL32460	788.31	In Application		
			13	EL32461	788.31	In Application		
			14	EL32462	788.31	In Application		



Criteria	JORC Code explanation	Comme	ntary				
		15	EL32463	318.48	In Application		
		16		690.56	30-Mar-21	29-Mar-27	
		17	EL32465	778.85	30-Mar-21	29-Mar-27	
		18	EL32466	788.31	30-Mar-21	29-Mar-27	
		19	EL32467	788.31	30-Mar-21	29-Mar-27	
		20	EL32468	788.31	24-May-21	23-May-27	
		21	EL32469	788.31	30-Mar-21	29-Mar-27	
		22	EL32470	577.05	30-Mar-21	29-Mar-27	
		23	EL32471	220.73	30-Mar-21	29-Mar-27	
			Total granted	10016			
			Total in applicatio	4068			
			Total	14084			
		Redbank 2005). R Copper L	Mines Pty L	td in 2005 s Pty Ltd t 9.	eed from Redba (see ASX ann hen changed 1.	ouncement 31	August
			•		on the existing	aranted tenem	ents.
		The Sanc of pollutio Territory contribute	ly Flat mine s on which affe of Australia ed to the po	te/ processi cts the surr acknowledg Ilution. To	ng facility is be rounding enviro les that no ac facilitate the Site to carry	lieved to be the onment. The N tion by Redba Northern Ter	e source Northern ank has ritory of



Criteria	JORC Code explanation	Commentary
		improved environmental outcomes for the mining site and its surrounds, Redbank entered into an agreement with the Northern Territory of Australia on the 29th of June 2016, to surrender the mining leases. The mining leases were replaced by EL31316 granted on the 6th of February 2017.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Copper mineralisation was first discovered at Redbank in 1916. The Redbank area has been subject to an almost continuous history of discovery and mining.
		The Redbank area has been systematically explored by numerous companies since 1969. Prominent amongst these were Newmont NEWAIM JV (1971-1972), Triako Mines NL (1972-1983) with various JV partners (Amax Iron, Aquitane Australia Minerals) and Alameda with CRA Exploration.
		Previous work included, geologic mapping, soil geochemistry, airborne and ground geophysics, extensive drilling campaigns and early non- JORC resource calculations (1970's to 1980's) and rudimentary 2004 JORC calculations (1989-2004). SRK Consulting completed MRE's (JORC 2004) between 2005-2011.
		No previous drilling has been conducted on the TSF.
Geology	Deposit type, geological setting, and style of mineralisation.	The TSF is a body of copper-contaminated tailings that is up to 4.89m thick, with an average thickness of 2.55m.
		The TSF is unlined and assay results confirm the aqueous movement of copper mineralisation into the regolith basement. It is highly likely that copper has been lost to the environment.
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: easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) 	This announcement refers to in-situ resources and other recoverable resources of the Redbank Copper deposit and is not a report on Exploration Results. All drill intersections have been historically released to the market.



Criteria	JORC Code explanation	Commentary
	of the drill hole collardip and azimuth of the holedown hole length and interception depth	Due to management changes in Aug 2019, all available Redbank data is being recompiled and accessed. The Redbank project contains approximately 900 documented drill holes.
	 hole length. 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. 	A complete listing of all drill hole collar details and drill hole intercepts used in resource estimates is not appropriate for this document. All drill hole information has been previously reported and its exclusion does not detract from the understanding of this report.
		Exploration has been documented in company annual reports and announcements.
Data aggregation	gregation and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades	No exploration results are reported in this document. No aggregated exploration data is reported in this document.
methods		No metal equivalents are reported in this document.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	
Relationship between mineralisation widths and	These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	No exploration results are reported here.
intercept lengths	If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	
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	No exploration results are reported here.



Criteria	JORC Code explanation	Commentary
	views.	
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	No exploration results are reported here.
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.	Since the discovery of copper at Redbank deposit, considerable geological information concerning the mineralisation and its host has been compiled. Similarly, numerous geochemical soil surveys and geophysical surveys have been conducted across the tenement package. This information is well documented in company annual reports.
		Metallurgical test work on drill core samples from the Redbank Project was carried out principally in the 1970s and 1980s prior to Amalg constructing the plant in 1993-5. The details of these reports have not been located. More recently metallurgical testing was conducted by AMMTEC from 2006-10, with samples from the various deposits tested for various leach and comminution tests. No metallurgical testing has been completed on TSF samples.
		Additional geotechnical data was added post 2005. SRK was contracted in late 2008 to provide geotechnical studies on the available core and outcrop, to refine slope angles in optimisation work being undertaken on block models generated from the resource. Geotechnical samples were submitted to SGS Rock Mechanics Laboratory in Welshpool in 2009.
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).	Following this upgrade of known resources to JORC 2012 additional drilling is planned on the in situ resources to improve geological
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	confidence categories (i.e. from inferred to Indicated Resource, and from Indicated Resource to Measured Resource) to aid future Reserve estimates and to delineate additional areas of potentially economic mineralisation.



Criteria	JORC Code explanation	Commentary
		The resource upgrade to JORC 2012 documented in this report will, together with new drilling planned, form the basis of scoping level studies. These studies will examine matters such as:
		 Mining methods Geotechnical Hydrology Metallurgy Plant and Infrastructure Transport and shipping
		Environmental studiesSocial impact studies.



SECTION 3 SANDY FLAT TSF ESTIMATION AND REPORTING OF MINERAL RESOURCES – COMPILED BY ENTECH PTY LTD

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

Criteria	JORC Code explanation	Commentary
Database integrity	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.	Geological metadata is stored centrally in an SQL database managed using MinRep software. The RCP database administrator is responsible for the integrity of data imported and modified in the MinRep system. All geological and field data is entered into Excel spreadsheets with look- up tables and fixed formatting (and protected from modification) so that data can only be entered using the geological code system and sampling protocol. Data is then emailed to the database administrator for validation and importation into an SQL database using the DataShed data management structure. Unique sample numbers and pre- numbered calico sample bags are used.
	Data validation procedures used.	 Database checks completed by the RCP database administrator included: Checking for duplicate drill hole names and duplicate coordinates in the collar table; Checking for missing drill holes in the collar, survey, assay and geology tables, based on drill hole names; Checking for survey inconsistencies, including dips and azimuths <0°, dips >90°, azimuths >360°, large azimuth
		 azimutits <0, dips >90, azimutits >300, large azimutit variations and negative depth values; Checking for inconsistencies in the 'From' and 'To' fields of the assay and geology tables. The inconsistency checks included the identification of negative values, overlapping intervals, duplicate intervals, gaps, and intervals where the 'From' value



Criteria	JORC Code explanation	Commentary
		is greater than the 'To' value.
		Database checks were conducted in Microsoft Excel, Access, MapInfo and GOCAD® Mining Suite. Drill hole data was validated against open file reports on the NTGS GEMIS system.
		RCP has suitable processes and due diligence in place to ensure acceptable integrity of the drill hole data underpinning the Mineral Resource. Entech used the drill hole data as supplied, and undertook fatal flaw data audits, visual verification and a site visit as part of its due diligence process.
		The drill hole data, as supplied by RCP, was considered suitable for underpinning Mineral Resource estimation of global copper tonnes. The data incorporated drilling results available up to and including 29 October 2020.
Site visits	Comment on any site visits undertaken by the Competent Person and the outcome of those visits.	Entech's Principal Consultant, Christine Shore, undertook a site visit to the Sandy Flat TSF on 7 May 2021. The Competent Person visited the TSF site to review the drilling and sampling processes in relation to the upcoming Mineral Resource Estimate (MRE) and Entech's Competent Person responsibilities.
		No material issues or risks pertaining to the resource were observed during the site visit.
	If no site visits have been undertaken indicate why this is the case.	Not applicable.
Geological interpretation	Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.	Three material types were logged from push tube drilling at the Sandy Flat TSF: overburden, tailings and basement material. Basement material is in situ regolith below the TSF and was defined by the change in colour from grey to orange. Overburden is the term used for reworked material emplaced during milling operations.
		Factors which limit the confidence of the interpretation include the use of a handheld GPS to survey drill hole collar positions and the average



Criteria	JORC Code explanation	Commentary
		sample recovery being 83%.
		Factors which aid the confidence of the interpretation include close-spaced drilling (10×10 m) and the constrained tailings dam boundary during deposition.
		Entech considers confidence is high for the interpretation as there are no other controls on the mineralisation. Volumetrically, the tailings material sits above the in situ basement material and in 299 of 302 holes, tailings material is logged from the collar. The TSF dimensions are 300 m (length) by 250 m (width).
	Nature of the data used and of any assumptions made.	Mineralisation interpretations were informed by 302 push tube holes and the spatial extents of the Sandy Flat TSF. Digital orthophotography over the Redbank Project was used to determine the spatial location and extents of the TSF and was captured using a 15 cm pixel size, with a Digital Surface Model (DSM) created using a 50 cm cell size. The survey resolution on the TSF is considered high due to the lack of vegetation.
		Mineralisation depth was informed by intersection of basement material.
	The effect, if any, of alternative interpretations on Mineral Resource estimation.	A more accurate survey of the TSF surface may affect only the spatial position of the TSF at the centimetre scale but should not materially affect the overall volume of material as the thickness of the unit was defined by drill hole intercepts of basement material. There is no known historically surveyed basal surface against which to reference the drill hole intercepts.
	The use of geology in guiding and controlling Mineral Resource estimation.	A model of the host tailings and overburden units was generated for use as the mineralisation domain interpretation. The contact between TSF and basement material was defined by lithological logging of push tube core with a change in colour from grey to orange. The downhole depth of this contact was calculated from percentage of intervals logged as



Criteria	JORC Code explanation	Commentary
		tailings material. These units were clipped to the spatial extents of the TSF in the northing and easting directions.
	The factors affecting continuity both of grade and geology.	The variography shows the sub-horizontal nature of the tailing deposition and minor grade variability is dependent on distance from outflow positions, demonstrating the tailings mineralisation is continuous. The estimation parameters used reflect this.
Dimensions	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 Mineral Resource area is the entire area of the TSF: approximately 300 m north–south by 250 m east–west, with depths between 2 and 4 m.
Estimation and modeling techniques	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	Interpretations of domain continuity were undertaken us Leapfrog3D [™] software, with mineralisation intercepts manually selec to create a vein model. Domain interpretations made use of all availa push tube data.
		Sample data was composited to a 1 m downhole length using a best fit method. A top cap of 2.5% copper, resulting in a metal reduction of 1.2%, was applied prior to block grade estimation. The maximum distances of possible extrapolation were 40 m for Pass 1, 80 m for Pass 2 and 160 m for Pass 3 within each domain, based on variogram analysis. A minimum of 10 samples and a maximum of 18 samples, and a block discretisation of $5 \times 5 \times 1$ was adopted for the first search.
		Exploratory Data Analysis (EDA) and variography analysis of the capped and composited copper variable within the TSF was undertaken using Datamine Supervisor [™] software.
		An Ordinary Kriging (OK) interpolation approach in GEOVIA Surpac [™] was used. The estimate used all composite samples from within the TSF boundary for grade estimation.
		Estimation parameters, including block size of 5 mX, 5 mY and 1 mZ, a first search distance of 40 m, second search distance of 80 m and third



Criteria	JORC Code explanation	Commentary
		search distance of 160 m, were derived through Kriging Neighbourhood Analysis (KNA).
	The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.	A check estimate was undertaken using the Inverse Distance Squared (ID2) method. The estimation was also checked against historical milling records between November 1994 and August 1996. Global OK and ID2 grade estimates differed by 1%. Comparing the OK estimate to historical milling data, tonnes were 6.5% lower, grade 6.6% higher and total metal 0.5% lower.
	The assumptions made regarding recovery of by-products.	Multi-element sample analysis indicated no material recovery of by- products.
	Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).	No estimation for deleterious elements or other non-grade variables was undertaken. There are no deleterious elements that are likely to affect recovery.
	In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	Block dimensions for interpolation were 5 mN (Y), 5 mE (X) and 1 mRL (Z), with sub-celling of 1.25 mN (Y), 1.25 mE (X) and 0.25 mRL (Z) to provide adequate domain volume definition and honour wireframe geometry. Considerations relating to appropriate block size include drill hole data spacing, variogram continuity ranges and search neighbourhood optimisations.
		Push tube data was used during the estimate. The average sample spacing is approximately 10×10 m.
		A multi-search strategy was used for all estimates. A drill hole sample limit was not used in any of the domains. The minimum and maximum number of samples for the tailings domain were set at 10 and 18, respectively, and the minimum and maximum number of samples for the overburden domain were set at 2 and 4, respectively. Search criteria within individual domains are outlined below:
		• Tailings domain: First pass 40 m, second pass of 80 m and



Criteria	JORC Code explanation	Commentary
		third pass of 180 m in the horizontal plane.Overburden domain: First pass 40 m, second pass of 80 m and third pass of 180 m in the horizontal plane.
	Any assumptions behind modelling of selective mining units.	No selective mining units were assumed in this estimate. It is anticipated that the entire tailings deposit will be extracted via hydraulic mining.
	Any assumptions about correlation between variables.	A high-level analysis was completed, and variables were found not to correlate. No further work was completed on correlated variables.
	Description of how the geological interpretation was used to control the resource estimates.	The estimation search has been orientated to reflect the flat depositional nature of the tailings dam.
	Discussion of basis for using or not using grade cutting or capping.	High copper grades were cut to restrict the influence of outlier grades within the tailings domain.
	The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	Validation of the copper estimate outcomes was completed by global and local bias analysis (swath plots), statistical and visual comparison (cross and long sections) with input data. The estimate was also compared to historical processing summary records provided by RCP and verified by the Competent Person, with grade being within 5% of historical tailings grade.
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	The tonnages were estimated on a dry basis. A moisture percent of 22.5% was assigned to the tailings based on laboratory measurements on 61 plastic-wrapped samples.
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	No cut-off grade was applied as all the tailings material is mineralised and the planned mining approach will require full extraction from surface to basement. It is not considered practical for the TSF to be mined selectively.
Mining factors or assumptions	Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always	It is assumed that a bulk recovery, non-selective mining method, such as hydraulic mining, will be used. No assumptions have been made



Criteria	JORC Code explanation	Commentary
	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.	regarding mining dilution as it is considered that all the mineralised tailings will be mined from the area within the tailings dam boundaries.
Metallurgical factors or	or always necessary as part of the process of determining reasonable prospects for	Entech understands that no metallurgical testwork has been carried out on the TSF.
assumptions		Entech did not encounter evidence of metallurgical amenability risks during documentation reviews, historical production records (oxide, transitional and fresh material), nor in discussions with RCP personnel.
		No metallurgical recovery factors were applied to the Mineral Resource estimates or resource tabulations.
Environmental factors or assumptions	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.	Through discussions with RCP personnel, Entech understands that environmental factors, assumptions or impact studies on this TSF material have been undertaken. It is expected that removal of the tailings and subsequent processing and deposition in an alternate TSF will be addressed by the NT Government as part of its liability to remediate the Sandy Flat Mine Site under an agreement with Redbank dated 29 June 2016 and reported to the ASX on 30 April 2020 within the Activities Report for the Quarter ended 31 March 2020.
Bulk density	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.	Bulk density values at the Sandy Flat TSF were derived from 818 measurements taken from 258 push tube drill holes. The values were calculated from dry weights measured at ALS, divided by the sample volume and normalised to recorded sample recovery.
		Calculated dry bulk density values were entered into the database and composited to 1 m downhole.



Criteria	JORC Code explanation	Commentary
		Top and bottom caps of 0.9 t/m3 and 2.7 t/m3, respectively, were applied to composites to minimise the influence of outliers or data entry errors.
		Geostatistical analysis was performed on the capped composites and density was estimated based on the parameters defined during this analysis.
	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.	Dry bulk density was calculated from laboratory-measured dry weights and interval volumes normalised against recorded core recovery. The tailings, being a plastic clay-type material, have no vugs or inherent porosity.
	Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	In all, 818 density calculations were carried out across the TSF. These showed minor variations which may have reflected moving outflow locations during the deposition of mineralisation. These results where estimated using OK in the block model.
Classification	The basis for the classification of the Mineral Resources into varying confidence categories.	The TSF Mineral Resource has been classified as Inferred in accordance with the JORC Code (2012) to appropriately represent confidence and risk with respect to data quality, drill hole spacing, grade continuity, mineralisation volumes, as well as metal distribution.
		In Entech's opinion the classification of Inferred Mineral Resource reflects the levels of uncertainly in the push tube drilling method, handheld GPS collar pickups and average 83% core recovery.
		All classified Mineral Resources were reported inside the boundary of the TSF, as determined by the DSM and are representative of the tailings dam boundary.
	Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the	Consideration has been given to all factors that are material to the Mineral Resource outcomes, including but not limited to confidence in volume and grade delineation, quality of data underpinning Mineral



Criteria		JORC Code explanation	Commentary
		data).	Resources and mineralisation continuity.
			In addition to the above factors the classification process considered nominal drill hole spacing and estimation quality (conditional bias slope, number of samples and distance to informing samples).
		Whether the result appropriately reflects the Competent Person's view of the deposit.	The delineation of Inferred Mineral Resources appropriately reflects the Competent Person's view on continuity and risk at the deposit.
Audits reviews	or	The results of any audits or reviews of Mineral Resource estimates.	Internal audits and peer review were undertaken by Entech with a focus on independent resource tabulation, block model validation, verification of technical inputs, and peer review of approaches to domaining, interpolation and classification.
Discussion relative accuracy/ confidence	of	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.	 It is the opinion of the Competent Person that the classification of Inferred appropriately captures and communicates the confidence level of the Mineral Resource in the TSF due to: Accuracy of the drill hole collars surveyed with a hand-held GPS; Limited documentation of the spatial extents, deposition and re-working of the TSF over time; Limited knowledge of potential metallurgical processing of the TSF, together with recovery and impact of deleterious elements A moderate level of confidence in the identification of lithological and mineral boundaries during logging and sampling A sample recovery of 83% with the PT drilling method and sampling across lithological mineral boundaries.



Criteria	JORC Code explanation	Commentary
	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	The Mineral Resource statement relates to global tonnage and grade estimates.
	economic evaluation. Documentation should include assumptions made and the procedures used.	No formal confidence intervals nor recoverable resources were undertaken or derived.
	These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	Internal reconciliation communications provided by RCP show historical production records of 0.64% copper average tailings stream grades during processing.

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