Rio Tinto

Notice to ASX

23 February 2022

Rio Tinto reports first Indicated Mineral Resource and 40% increase in contained copper at Winu project

Rio Tinto's 2021 Annual Report which will be released to the market on 24 February 2022 will include changes in estimates of Mineral Resources at Rio Tinto's 100% owned Winu project in Western Australia, compared to those published in the 2020 Rio Tinto Annual Report.

The updated estimates comprise an Indicated Mineral Resource of 249 Mt at 0.55% copper equivalent, and an Inferred Mineral Resource of 358 Mt at 0.46% copper equivalent, giving a total Mineral Resource of 608 Mt at 0.49% copper equivalent, at 0.2% copper equivalent cut-off.

Rio Tinto further reports that:

- contained copper metal in the total Mineral Resource has increased 40%; and
- the Winu deposit is still open in several directions with drilling programs in 2022 continuing to target extensions.

The changes in Mineral Resources are reported in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, 2012 (JORC Code) and the ASX Listing Rules. Supporting information relating to the changes is set out in this release and its appendix. Mineral Resources are quoted in this release on a 100 per cent basis.

The updated Mineral Resource is supported by a substantial increase in drilling information acquired since the release of the initial Inferred Mineral Resource dated 28 July 2020, and on the advancement of mining and processing studies.

Rio Tinto's 2021 Annual Report will set out in full Rio Tinto's Mineral Resources and Ore Reserves position as at 31 December 2021, and Rio Tinto's interests.

At a 0.2% copper equivalent (CuEq) cut-off the total Mineral Resource is 608 Mt @ 0.40% Cu, 0.30 g/t Au or 0.49% CuEq. This represents a 21% increase in tonnage, a 16% increase in copper grade, a 12% increase in gold grade, a 40% increase in contained copper metal and a 35% increase in contained gold metal.

A proportion of the total Resource meets the requirements for Indicated Mineral Resources and an Indicated Mineral Resource is reported for the first time.

Since the initial public release of Mineral Resources, drilling targeting Winu mineralisation has continued, resulting in an 83% increase in reverse circulation drilled metres, a 93% increase in diamond drill metres, for an overall increase of 88% drill metres.

The deposit remains open at depth as well as to the north, south and east and the project team continues to explore the deposit margins. While exploration activity has been somewhat constrained by site clearances at surface, the presence of copper, gold and silver mineralisation of a similar geological style and setting at the margins indicates that the Winu deposit is not, at this time, limited by geology. Further work is required to confirm and increase understanding of extensions to the orebody.

In 2021 the project transitioned from Rio Tinto Exploration to Rio Tinto Copper where it will be advanced through the next phase of delivery. Recent technical and commercial reviews, independent of the study team, were positive and the project continues to enjoy support from the Rio Tinto Board which has approved additional expenditure to progress early works at Winu and further prepare the project for a final investment decision.

The Winu project team continues to work with local Nyangumarta and Martu Traditional Owners and regulators to progress the agreements and approvals required for any future development.

Winu Updated Mineral Resource

The updated Mineral Resource is presented in Table A at 0.2% CuEq cut-off. At a 0.2% CuEq cut-off the Mineral Resource comprises an Indicated Mineral Resource of 249 Mt @ 0.55% CuEq and an Inferred Mineral Resource of 358 Mt @ 0.46% CuEq. The Mineral Resource is constrained by a notional pit shell supported by preliminary mining studies and economic assessment.

(The figures used to calculate Mineral Resources are often more precise than the rounded numbers shown in the tables, hence small differences may result if the calculations are repeated using the tabulated figures).

Table A Winu Mineral Resources as at 31 December 2021 at 0.2% CuEq cut-off, within the notional Mineral Resource pit shell

CuEq % Cut-off		Resource Classification	Tonnes (Mt)	CuEq (%)	Cu (%)	Au (g/t)	Ag (g/t)
>=0.2	Supergene	Indicated	26	0.68	0.64	0.52	3.54
		Inferred	29	0.51	0.45	0.46	2.12
	Supergene Subtotal		*55*	*0.59*	*0.54*	*0.49*	*2.80*
	Hypogene	Indicated	223	0.53	0.43	0.31	2.62
		Inferred	330	0.45	0.37	0.27	1.94
	Hypogene Subtotal		*552*	*0.49*	*0.39*	*0.28*	*2.21*
	Total	**Indicated**	**249**	**0.55**	**0.45**	**0.33**	**2.72**
		Inferred	**358**	**0.46**	**0.37**	**0.28**	**1.95**
	Grand Total		***608***	***0.49***	***0.40***	***0.30***	***2.26***

Included in the Mineral Resource is a higher grade component shown in Table B as a sensitivity. This portion of the Mineral Resource is tabulated at 0.45% CuEq cut-off, constrained by the notional Mineral Resource pit shell.

Table B **Winu Mineral Resources as at 31 December 2021 at 0.45% CuEq cut-off, within the notional Mineral Resource pit shell**

CuEq % Cut-off		Resource Classification	Tonnes (Mt)	CuEq (%)	Cu (%)	Au (g/t)	Ag (g/t)
>=0.45	Supergene	Indicated	15	0.95	0.88	0.72	4.67
		Inferred	11	0.83	0.73	0.70	3.49
	Supergene Subtotal		*27*	*0.90*	*0.82*	*0.71*	*4.17*
	Hypogene	Indicated	113	0.74	0.60	0.40	3.67
		Inferred	129	0.68	0.56	0.34	2.93
	Hypogene Subtotal		*242*	*0.71*	*0.58*	*0.37*	*3.27*
	Total	**Indicated**	**128**	**0.76**	**0.63**	**0.44**	**3.79**
		Inferred	**140**	**0.69**	**0.58**	**0.37**	**2.97**
	Grand Total		***269***	***0.73***	***0.60***	***0.40***	***3.36***

Table C **Comparison of December 31 2021 Mineral Resource to December 31 2020 Mineral Resource**

0.2% CuEq Cut-off	Tonnes (Mt)	Cu (%)	Au (g/t)	Cu metal (Mt)	Au metal (Moz)
2021	608	0.40	0.30	2.5	5.9
2020	503	0.35	0.27	1.8	4.4
% increase	21%	16%	12%	40%	35%

0.45% CuEq Cut-off	Tonnes (Mt)	Cu (%)	Au (g/t)	Cu metal (Mt)	Au metal (Moz)
2021	269	0.60	0.40	1.6	3.5
2020	188	0.55	0.36	1.0	2.2
% increase	43%	10%	12%	57%	61%

Starter pit
The total Mineral Resource is inclusive of a higher grade and shallower body of mineralisation that is the subject of detailed geological and geotechnical assessments, mine design and processing studies, supporting a starter pit design.

At a 0.45% CuEq cut-off the Mineral Resource inside the starter pit comprises 128 Mt @ 0.76% CuEq Indicated Resources and 25 Mt @ 0.75% CuEq Inferred Resources for a total of 153 Mt @ 0.76% CuEq, as shown in Table D.

Table D **December 31 2021 Mineral Resource contained within the starter pit**

CuEq % Cut-off		Resource Classification	Tonnes (Mt)	CuEq (%)	Cu (%)	Au (g/t)	Ag (g/t)
>=0.45	Supergene	Indicated	15	0.95	0.88	0.72	4.67
		Inferred	9	0.86	0.77	0.74	3.74
	Supergene Subtotal		*25*	*0.92*	*0.84*	*0.73*	*4.32*
	Hypogene	Indicated	113	0.74	0.60	0.40	3.67
		Inferred	15	0.68	0.53	0.41	3.16
	Hypogene Subtotal		*128*	*0.73*	*0.59*	*0.40*	*3.61*
	Total	**Indicated**	128	0.76	0.63	0.44	3.79
		Inferred	25	0.75	0.62	0.53	3.38
	Grand Total		***153***	***0.76***	***0.63***	***0.45***	***3.72***

Figure 1 on page 7 shows the location of the Winu project. Figure 2 on page 8 shows a plan with the location of all Winu drill holes used in the resource evaluation. Figure 3 (page 9) and Figure 4 (page 10) provide representative cross sections through the Winu orebody.

Summary of information to support Mineral Resource reporting

Mineral Resources are supported by the information set out in the appendix to this release and located at Resources & reserves (riotinto.com) in accordance with the Table 1 checklist in the JORC Code. The following summary information is provided in accordance with rule 5.8 of the ASX Listing Rules.

Geology and geological interpretation
Winu has been interpreted as a structurally controlled vein hosted Cu-Au-Ag deposit focused on the core of an anticline in Neoproterozoic metasedimentary rocks. There are multiple vein generations and orientations but the veins are interpreted as being predominantly axial planar.

Drilling techniques; sampling and sub-sampling techniques; and sample analysis method
Drilling has been carried out using a combination of angled diamond (DD) and vertical and angled reverse circulation (RC) drilling methods, with sampling predominantly on a 1 m sample interval but honouring geological boundaries in the diamond drilled core. Assays have been carried out on half core and split RC samples using a combination of sequential leach assays, full acid digest with AES/MS finish and fire assay for gold.

RC and DD drilling programmes in 2020 and 2021 focussed on testing and delineating copper and gold mineralisation in the central Winu position with data acquisition for geotechnical, geometallurgical, hydrogeological and waste characterisation studies for a possible starter pit.

Resource drilling on the Winu deposit completed since the compilation of the Mineral Resource estimate supporting the December 31 2020 Inferred Resource totalled 242 RC and 131 DD holes for a total increase of 109,366 m.

The Mineral Resource estimate supporting the December 31 2021 Mineral Resource statement consists of 528 mostly vertical-near vertical RC holes (124,513 m) and 235 mostly angled DD holes (109,726 m) for a total of 234,238 m, including holes drilled to support geotechnical and geometallurgical studies. Some holes drilled on the licence outside of the area of known mineralisation, such as sterilisation holes on proposed infrastructure footprint, are not used in the Resource estimate.

Estimation methodology
Grade estimation utilises Ordinary Kriging at panel scale 40 m x 40 m x 5 m with recoverable estimation by Localised Uniform Conditioning based on 10 m x 10 m x 5 m blocks. The objective of the panel scale estimation is to establish a least biased global estimate, taking into account the drill hole spacing. The objective of the Selective Mining Unit (SMU) scale estimation is to predict the likely grade/tonnage distribution to be anticipated at the time of mining.

Dry bulk density has been estimated by Ordinary Kriging on 10 m x 10 m x 5 m blocks using approximately 6,000 measurements from drill core.

Cut-off grades and modifying factors
The lowest cut-off grade reported (0.2% CuEq) is the marginal cut-off grade for the notional pit and the higher grade cutoff (0.45% CuEq) represents a possible economic cut-off.

Copper equivalents have been calculated using the formula CuEq = ((Cu%*Cu price 1% per tonne*Cu_recovery) + (Au ppm*Au price per g/t*Au_recovery) + (Ag ppm*Ag price per g/t*Ag_recovery)) / (Cu price 1 % per tonne). Details of recoveries are shown on an average basis for varying cut-offs in the appendix (JORC Table 1).

The reasonable prospects for eventual economic extraction test is met on the basis of mining and processing studies that have been developed throughout 2021. These studies indicate conventional open pit mining and processing routes will be appropriate for the exploitation of the Winu deposit.

Criteria used for Mineral Resource classification

Resource classification is based fundamentally on the level of confidence assigned to interpretations of geology and mineralisation controls, and assessment of fundamental assay and geological data quality. A specific definition of Indicated Mineral Resource is adopted and is described in Table 1. Blocks are assessed on the basis of a quantitative assessment of Cu grade uncertainty using Conditional Simulation, and linked to proposed mining rates and schedule.

Inferred Mineral Resources are constrained within a notional Resource pit shell to a maximum depth of 740m with sufficient support provided by preliminary mining, processing and other studies and using Rio Tinto forward-looking price assumptions.

Average drill hole spacing is approximately 75 m throughout the deposit within the Resource pit shell with exceptions in several areas. A close-spaced pattern of 14 diamond holes was drilled to test geological and grade continuity at 15 m centres in the east-dipping plane of mineralisation centred on the sulphide breccia units. This set of holes provided sufficient information to support assumptions of short-range grade continuity.

Elsewhere, approximately 12 diamond holes were drilled from north to south, or south to north, to test assumptions of the dominant mineralisation trend.

Land access restrictions have prevented drilling in a northern section of the deposit; it is intended to complete drilling in this area upon the granting of land clearances.

Mineralised material outside of the notional Resource pit shell is not included in the December 31 2021 Mineral Resource statement. However studies are ongoing to determine under what conditions that material may be considered economic.

Within the notional resource pit shell a portion of the deposit has been assessed for a starter pit option via detailed geological, mining and processing studies. The starter pit is indicating a mine life of 32 years. The Mineral Resource in the starter pit is classified predominantly Indicated (23 out of 32 planned production years), on the basis of assessments of expected grade variability in the proposed mine sequence at the proposed mining rate of approximately 30 Mtpa total expit material movement.

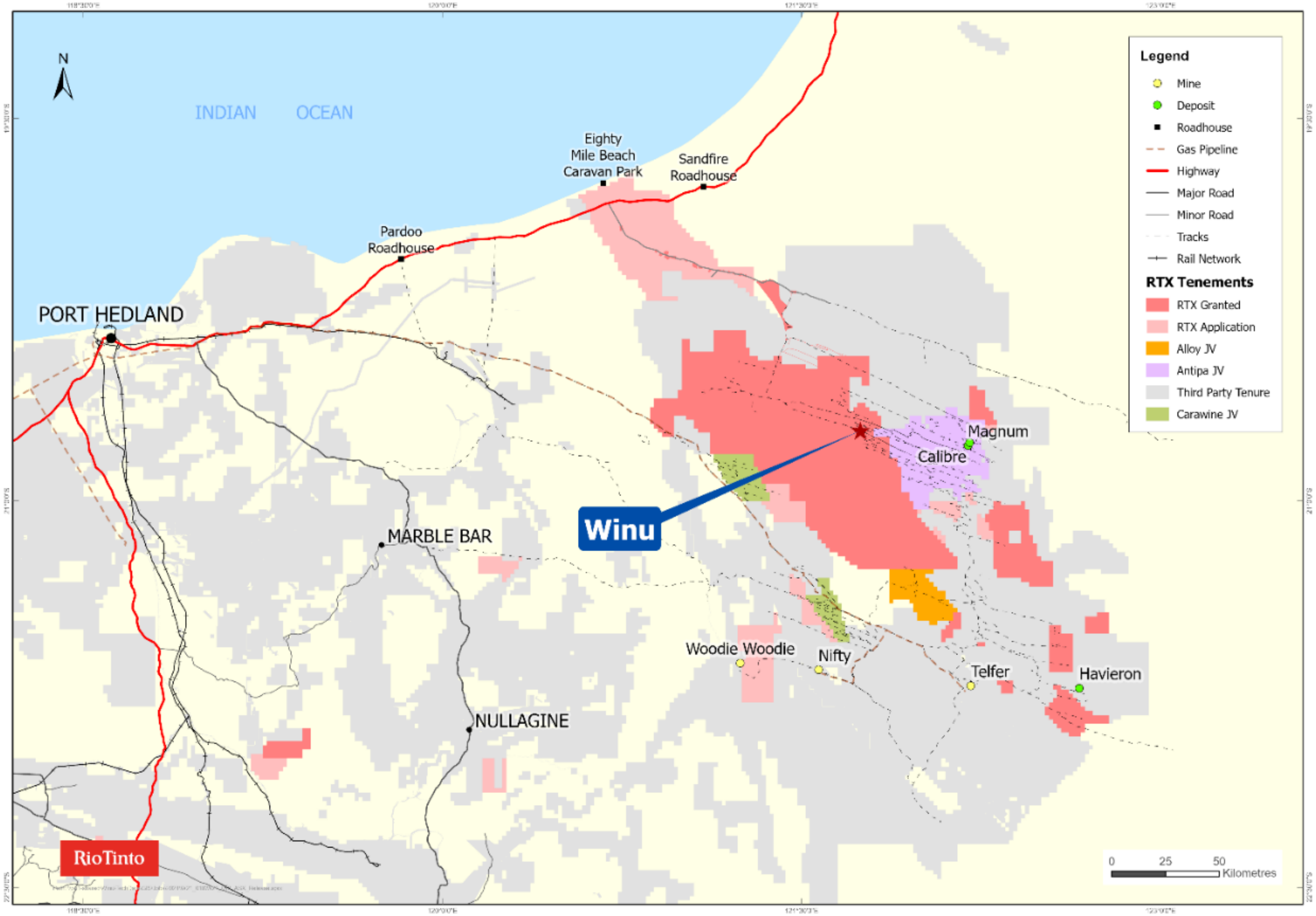

Figure 1 **Property location map**

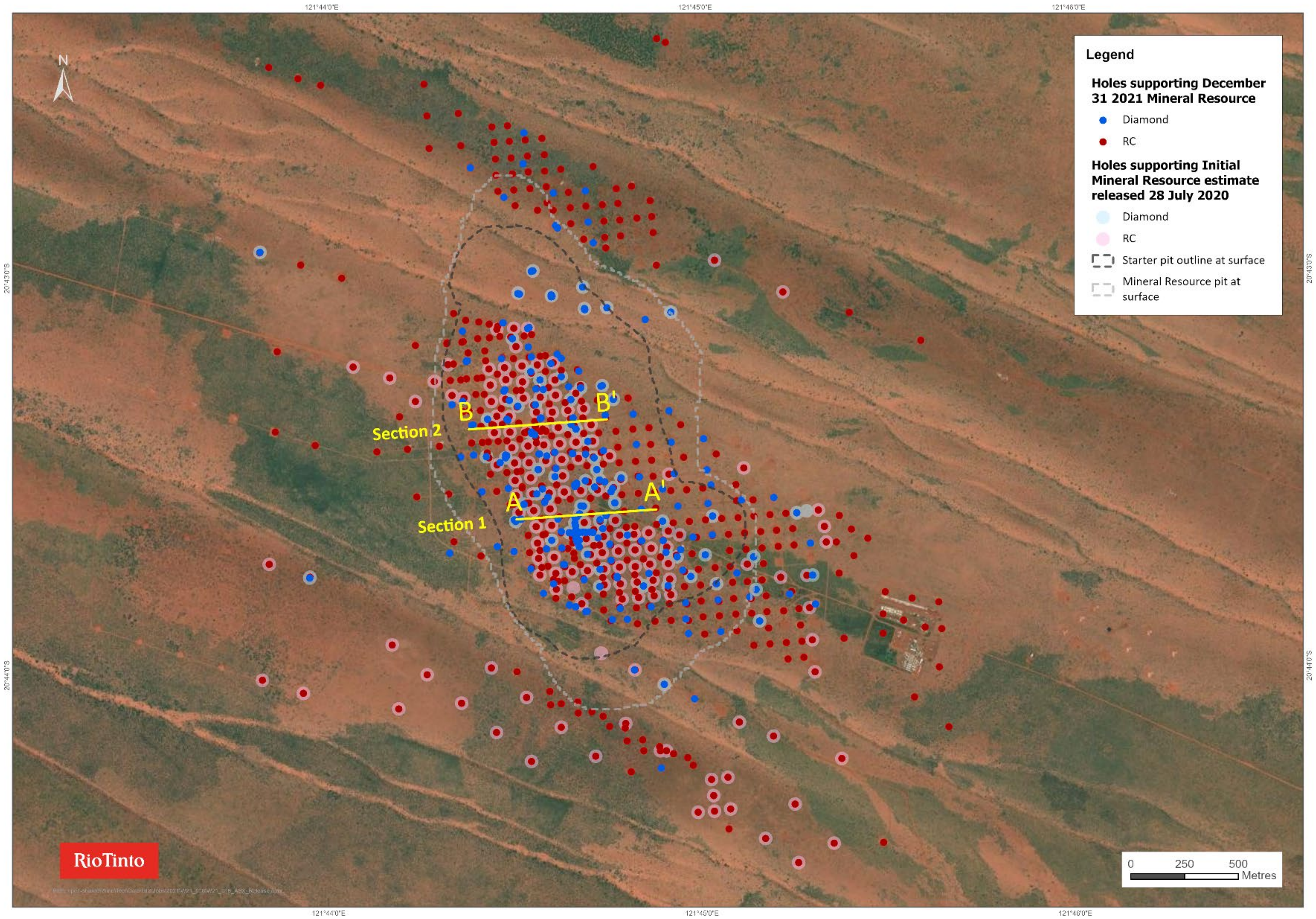

Figure 2: Drill hole collar location plan for all Winu holes used in the December 31 2021 Mineral Resource evaluation. Cross section line locations are also indicated.

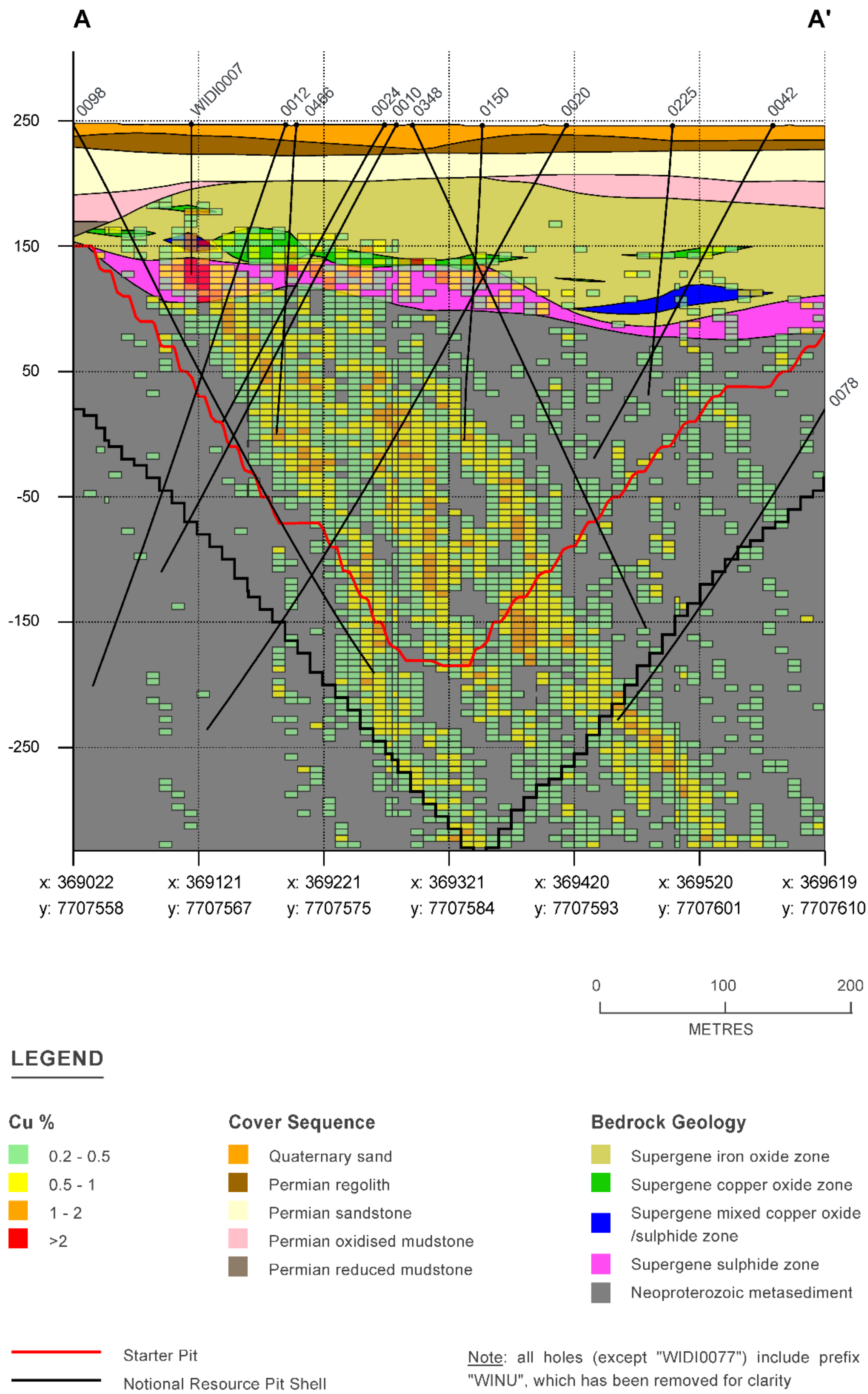

Figure 3: **Cross section 1 through the Winu orebody showing the geological model and copper assay intercepts.**

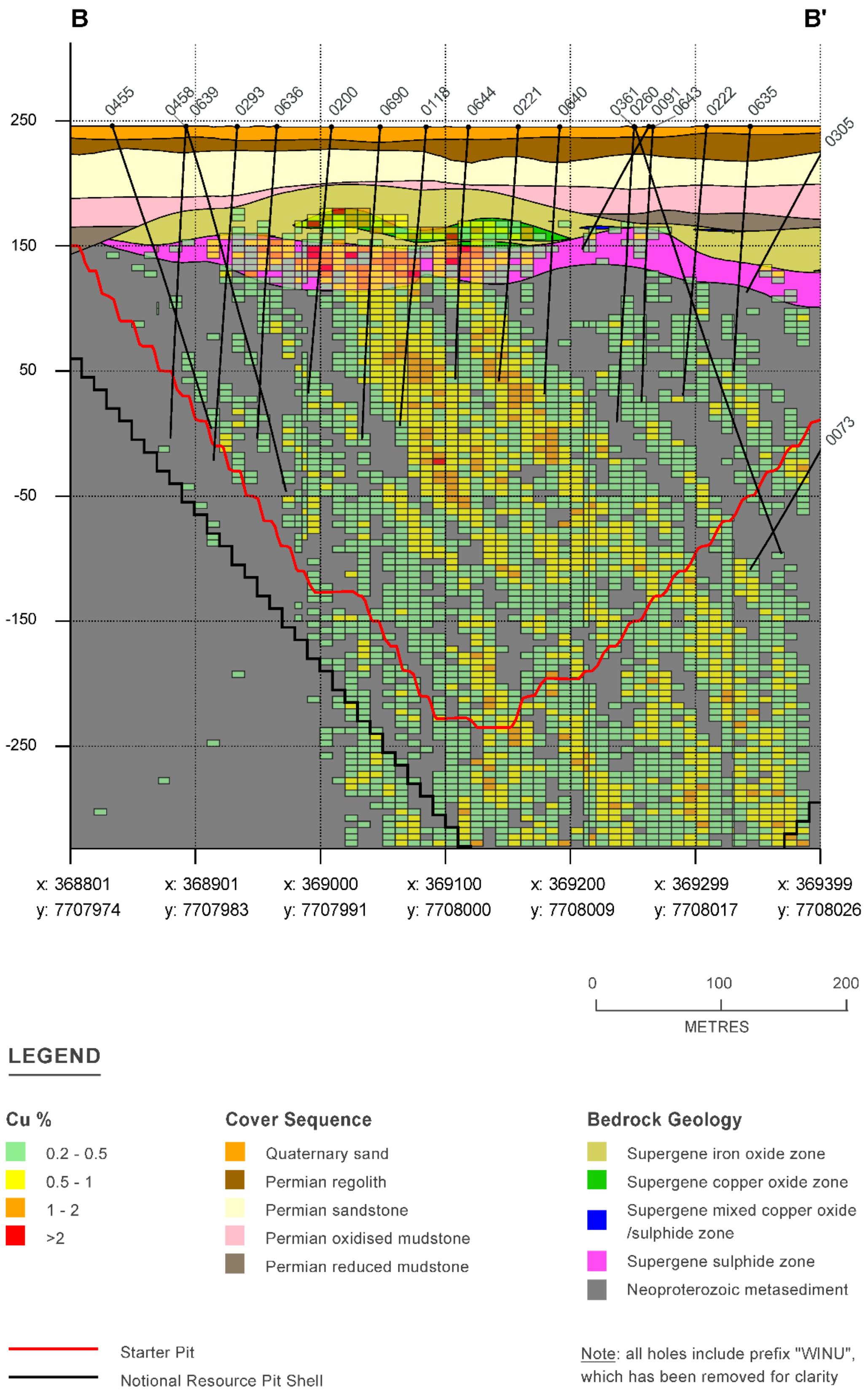

Figure 4: Cross section 2 through the Winu orebody showing the geological model and copper assay intercepts.

Competent Person's Statement

The information in this report that relates to Mineral Resources is based on information compiled under the supervision of James Pocoe, who is a Member of the Australasian Institute of Mining and Metallurgy (MAusIMM). James Pocoe has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity to which he is undertaking to qualify as a Competent Person as defined in the JORC Code. James Pocoe is a full-time employee of Rio Tinto and consents to the inclusion in this report of Mineral Resources based on the information that he has prepared in the form and context in which it appears.

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This announcement is authorised for release to the market by Steve Allen, Rio Tinto's Group Company Secretary.

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Winu JORC Table 1

The following table provides a summary of important assessment and reporting criteria used at the Winu project for the reporting of Mineral Resources in accordance with the Table 1 checklist in *The Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code, 2012 Edition)*. Criteria in each section apply to all preceding and succeeding sections.

Section 1: Sampling Techniques and Data

Criteria	Commentary
Sampling techniques	• Samples used in the Resource estimate were obtained using either reverse circulation (RC) or diamond (DD) drilling. • RC drilling samples were collected from a static cone splitter on a cyclone at 2 m or 1 m intervals depending on drillhole purpose. The samples consisted of 12% of 1 m and 8% of 2 m intervals to produce an average sample weight of 3.6 kg. • Most pre-collars for diamond drill holes were destructively drilled with either tri-cone rock rollers or mud rotary PCD techniques through the unconsolidated Tertiary sands to the top of the consolidated Permian sediments, at which point casing is installed and standard diamond coring techniques are engaged. • Several diamond holes were pre-collared utilising RC rigs. • All diamond core drilling was drilled using 3 m triple tube assemblies. • All drilling has been carried out under Rio Tinto supervision by experienced drilling contractors. • Core was cut using an automated core-cutter and a half core sample was collected on intervals ranging from 0.4 m to 1.3 m length.
Drilling techniques	• All drilling is from surface. • Drilling is predominantly by reverse circulation with face sampling bit or triple tubed DD core techniques. • DD holes were generally cased to 30 m progressing from PQ3 to HQ3 at 160 m on average; however, exact depths vary from hole to hole. • RC drillholes were cased between 50 m and 70 m.
Drill sample recovery	• Core recovery was measured and recorded continuously from the start of core drilling to the end of the hole for each drill hole. The end of each run was marked by a core block which provided the depth, the core drilled and the core recovered from block to block. Core sampling was normally every 1 m, however it was modified by the geologist according to mineral/vein/contact. Sampling does not consider drilling recovery except when core loss is greater than 0.4 m. Sampling recovery, independent of drilling recovery, was not detailed in the logging procedure, however it will be included in the next procedure edition. • RC primary and duplicate samples were weighed upon collection at the rig while all RC samples were weighed upon arrival at the ALS Perth sample preparation facility. • Beyond the point down hole that RC samples cannot be recovered dry, a total of two additional 6 m rods are drilled. Drilling of the hole is stopped if these samples are wet.
Logging	• Detailed descriptions of core were logged qualitatively for lithological composition and texture, structures, veining and alteration. Visual percentage estimates were made for some minerals, including Cu-oxides and Cu-, Fe-, Mo-, Zn-, and Bi-sulphides. • All recovered core was logged in detail. • DD core was oriented using an ACT III RD tool. At the end of each run, the low side of the core was marked by drilling personnel and this was used at the site for marking the whole drill core run with a reference line. Structural and geotechnical measurements were recorded. • All the DD holes were logged before sampling. • The core was photographed both dry and wet inside the core trays. • The logging of the RC chips was done after sieving and washing of the material collected from the cyclone. • All logging information is uploaded into an acQuire database.
Sub-sampling techniques and sample preparation	• PQ3 (83 mm) and HQ3 (61.1 mm) DD core was sawn into two, and half was collected in a bag and submitted for analysis, the other half was kept in the tray and stored. The DD half core and RC samples were sent to an ALS Limited laboratory, where they were dried and crushed to 70% passing 2 mm and then split using a rotary splitter to produce a 750 g sub-sample. The crushed sub-sample was pulverised with 85% passing 75 µm using a LM2 mill and a 100 g

	pulp was then subsampled for ICP and 30 to 50 g for fire assay. • A portion of the 2 mm sized material was used for VNIR/SWIR spectral readings, which were sent to aiSIRIS International for interpretation. • Sample sizes are considered appropriate for the style of mineralisation.
Quality of assay data and laboratory tests	• All samples were submitted to an ALS Limited laboratory in Perth. • 51 elements were analysed using 4-acid digestion followed by ICP-OES/MS measurements, including qualitative Au, Pt and Pd. • 30 g of sample were used for Au analysis by fire assay with AAS finish. • Portable XRF analysis on pulp for Cr, Nb, S, Si, Ta, Ti, Y and Zr was done using a Delta and Vanta Olympus instrument. • Quality control samples consisted of field duplicates (3 per 100), crush duplicates (1 per 55), pulp duplicates (1 per 55), blanks (3 per 100) and certified reference materials (3 per 100). All the results were checked in the acQuire database before being used, and the analysed batches were continuously reviewed to ensure performance within acceptable accuracy and precision limits for the style of mineralisation. Any samples failing this quality control process resulted in re-analysis of the sample batch prior to acceptance into the database.
Verification of sampling and assaying	• All the sample intervals were visually verified using high quality core photography through Imago, and some selected samples were taken inside the mineralised interval for optical and petrographic microscopy by qualified petrographers. • No adjustment was made to the assay data that are electronically uploaded from the laboratory to the database. • Within the Winu drilling area, a total of 23 sets of twin holes have been drilled and assayed consisting of 6 sets of DD/DD, 14 sets DD/RC and 3 sets RC/RC. Several studies have identified small bias and precision differences between RC and DD where paired data exist. The Competent Person considers the bias to be in an acceptable range. • A systematic analysis of duplicate samples was carried out at each stage of sampling including field, crush and pulp duplicates. The results from the duplicates were within acceptable range for this type of mineralisation and the classification of the resource. The results from blanks did not indicate contamination during the laboratory procedure.
Location of data points	• Drill hole collar locations were surveyed after drilling utilising a handheld Garmin GPS with an accuracy of 5 m, and on a campaign basis by an independent survey contractor using a Leica Viva GS15 GNSS base and rover system operating in RTK mode to a stated accuracy of +/- 20 mm. • The topography is relatively flat with average elevation of 240 m. • The data for the collars use the Geocentric Datum of Australia (GDA94 zone 51). • Downhole surveys were completed every 10, 25 or 50 m using a Reflex EZ Gyro or Reflex SPRINT-IQ. Some RC drill holes could not be completely surveyed due to downhole blockages.
Data spacing and distribution	• Combined RC and DD hole spacing after 2021 drilling is approximately 75 m across strike by 75 m along strike (between lines). • A pattern of 14 DD holes at 15 m spacing north-south and east-west was completed in 2020. This close-spaced drilling targeted a representative section of the main mineralised corridor and supports the interpretation of important contacts between supergene and hypogene units and informs the choice of variogram model used in the kriging and recoverable estimation methodology. • Several DD holes drilled throughout the deposit inside the starter pit from north to south, or south to north, test the assumptions of mineralisation trend. • A section in the north of the deposit and partially inside the starter pit is yet to be drilled due to land access restrictions; it is intended to complete drilling in this area in 2022. • The current drilling provides sufficient information to support classification at Indicated Mineral Resource status for a significant portion of the proposed starter pit. All material outside the starter pit and inside a larger pit shell, representing a larger mining option, is classified as Inferred Mineral Resource. • The mineralisation is still open to the north, south, east and at depth and further drilling is planned to explore these zones in 2022.
Orientation of data in relation to geological structure	• The majority of the drilling is orientated to the west, perpendicular to the dominant structural north-northwest trend associated with the majority of higher grade copper and gold mineralisation. It is recognised that there are multiple mineralisation events and data collection and interpretation to understand the geological structures and controls on mineralisation is ongoing. • DD drilling is mostly oriented east to west at approximately -60°; some west to east scissor holes and north-south oriented DD holes have also been drilled.

	• RC holes are predominantly east to west at -85° to -75° dip.
Sample security	• Samples in calico bags are stored on site in enclosed Bulka-bags and transported via road on trucks from the site to an ALS Limited laboratory in Perth via Port Hedland. • Sample numbers were generated directly from the database. • Each sample was given a barcode at the laboratory and the laboratory reconciled the received sample list with physical samples. Barcode readers were used at the different stages of the analytical process. • The laboratory uses a LIMS system that further ensures the integrity of the results. • All sample pulps are stored in a secure warehouse facility.
Audits or reviews	• The database containing the Winu data was independently checked by a third party in August 2019 and shown to be accurate. • No independent database reviews were conducted in 2020 or 2021.

Section 2: Reporting of Exploration Results

Criteria	Commentary
Mineral tenement and land tenure status	• All Rio Tinto Exploration tenements are kept with respect to the legislation in terms of obligations including minimum expenditure. This project is located within Exploration Licence E45/4833, which is 100% owned by Rio Tinto and expires on the 12th of October 2022.
Exploration done by other parties	• No exploration had been carried out in the Winu area prior to Rio Tinto work in 2016.
Geology	• The prospect is located on the Anketell Shelf of the Yeneena Basin, a Neoproterozoic sequence of metasedimentary rocks and granitoids that is entirely covered by Phanerozoic sediments (mostly Permian) that range from 50 m to 100 m thick in the Winu area. • The main lithologies intercepted by the current drilling at Winu include metasedimentary rocks (quartzites, metasandstones, and metasiltstones), unmetamorphosed sedimentary cover rocks (conglomerates, gritstones, sandstones and mudstones) and mafic intrusions. Host rocks to copper-gold mineralisation are fine to medium-grained subarkosic metasandstones and biotite-rich metasiltstones. • The mineralisation is predominantly vein and breccia controlled chalcopyrite and chalcocite with associated pyrite, pyrrhotite, molybdenite, scheelite, bismuthinite and wolframite. Several generations of veins and breccias are identified and characterised by different mineralogical assemblages and textures. The main mineralisation event is associated with quartz-K-feldspar-sulphide-dolomite veins with dominantly K-feldspar, muscovite, biotite and/or chlorite wallrock alteration. • Primary sulphide mineralisation is overlain by a supergene blanket containing secondary copper minerals as well as native copper in places.
Drillhole Information	• A summary of drilling available to support the Winu Mineral Resource and studies is provided below. Not all holes drilled on the licence are used in the Mineral Resource estimate. Holes excluded from the estimate include holes abandoned due to drilling problems and holes drilled to sterilise proposed infrastructure footprint. <table><tr><td>Drill type</td><td>Number of holes</td><td>Total metres</td></tr><tr><td>RC</td><td>528</td><td>124,513</td></tr><tr><td>DD</td><td>235</td><td>109,726</td></tr><tr><td>Total</td><td>763</td><td>234,238</td></tr></table>
Data aggregation methods	• Previous public reports on Winu exploration results (“Rio Tinto Exploration Update – copper-gold mineralisation discovered in the Paterson Province in the far east Pilbara region of Western Australia” released to ASX on 27 February 2019; “Rio Tinto Exploration Update – Winu Project”, released to ASX on 6 June 2019; “Rio Tinto Exploration Update – Winu Project”, released to the ASX on 1 August 2019; “Rio Tinto reveals maiden Resource at Winu and new discovery”, released to the ASX on 28 July 2020) have reported intersections in an aggregated form. • No individual drill results are reported in this release.
Relationship between mineralisation,	• Previous public releases have reported intersections as apparent widths. No individual drill results are reported in this release.

widths and intercept lengths	
Diagrams	• Plans are included in the release as below: • Location map (Figure 1), Winu drill hole collar plan (Figure 2), Winu cross section (Figures 3 and 4).
Balanced reporting	• This is the fifth public release for the Winu deposit. Drilling is ongoing and further updates will be released at an appropriate time.
Other substantive exploration data	• Specific gravity measurements are taken on 20 cm lengths of solid core every 10 m or 20 m, representing different lithology and mineralised intervals. The measurement used the hydrostatic/gravimetric method (Archimedes Principle of buoyancy). There are approximately 6,000 individual density measurements in the database. • Hyperspectral and high-resolution core imagery is being collected using a CoreScan Hyperspectral Core Imager. Historical Winu core from 2018 and 2019 is imaged as half core. Holes drilled 2020 onwards are whole core imaged prior to sample cutting, where possible. • Magnetic susceptibility was measured for each sample using KT-10 (kappameter) instrument. • Geophysical surveys were carried out over the deposit area including airborne electromagnetics, ground gravity, induced polarisation/resistivity, passive seismic, and downhole density, gamma, conductivity, resistivity, induced polarisation, magnetic susceptibility, and optical and acoustic televiewer. • Geometallurgical characterisation has been conducted on numerous holes since the project commenced and has informed an early understanding of the potential metal recovery. This work continued throughout 2021. • LiDAR imagery was acquired to help in better planning and reporting of the exploration programme.
Further work	• Rio Tinto will continue to evaluate and interpret the results from the 2021 work programme at Winu. • Drilling is ongoing to define the extents of the mineralisation and to provide increased confidence in a potential initial mining area. • The results presented here indicate the mineralisation is not closed off by the drilling performed to date. • Metallurgical test work is ongoing. • Geotechnical drilling and logging is ongoing. • Installation of water bores and water monitoring points is ongoing. • In addition to the ongoing work at Winu, Rio Tinto has conducted exploration within the broader Paterson Province on its wholly owned licences and joint venture licences during 2021.

Section 3: Estimation and Reporting of Mineral Resources

Criteria	Commentary
Database integrity	• All drilling data is stored in the Rio Tinto Copper Winu Project acQuire™ drillhole database. • All data previously stored in the Rio Tinto Exploration acQuire™ drillhole database was migrated to the Rio Tinto Copper database in 2021 in a process managed by Rio Tinto IS&T. The migration included all aspects of ore body knowledge data sets and applications. The system is backed up daily to physical and cloud servers. • All newly acquired data is transferred electronically and is checked prior to upload to the database. • In-built validation tools are used in the acQuire™ database and data loggers are used to minimise keystroke errors, flag potential errors and validate against internal library codes. Data that is found to be in error is investigated and corrected where possible. If the data cannot be corrected it is removed from the data set used for resource modelling and estimation. Routine checks of raw assay data against the database have been implemented. • Drillhole collars are visually validated and compared to planned locations. Downhole trends and sectional trends are validated and outliers checked. Statistical analysis of assay results by geology domains are checked for trends and outliers. Ongoing comparison with earlier work is undertaken. • The drillhole database used for the resource estimation has been validated. Methods included checking of QA/QC data, extreme values, zero values, negative values, possible miscoded data based on location within a geology domain and assay value, sample overlaps, and inconsistencies in length of drillhole surveyed, length of drillhole logged and sampled and sample size at laboratory. • The drill core logging data was managed by a computerised system and strict validation steps were followed. • The data are stored in a secured database with restricted access.

	• Documentation of primary data, data entry procedures, data verification and data storage protocols have all been validated by a third-party audit.
Site visits	• The Competent Person has worked closely with the Winu site and Perth based project teams throughout 2020 and 2021 and is familiar with drill data acquisition procedures and QA/QC system, geological logging, geological data and its interpretation, and the geological model development. • The Competent Person visited Winu site in December 2021. The site visit allowed the Competent Person to gain familiarity with and confidence in field procedures, in particular those impacting drilling, sampling and logging data acquisition.
Geological interpretation	• Data supporting the geology interpretation includes drill cores, RC chips, geological logs, borehole geophysical logs, ground and airborne geophysical surveys, core imaging, borehole imaging, and chemical analyses. • The orebody is not yet exposed by mining. • Sequences of cover, supergene zones and hypogene zones are well defined at the scale of the drill grid. Details of geology are discussed in Section 2. • A supergene zone consisting of copper oxides, leached cap and mixed secondary and primary sulphides has been modelled with available data including sequential copper analyses and mineralogy. • Geological differentiation within the hypogene zone is limited to identified sulphide breccia units and proximal quartz-sulphide veins that are associated with most of the copper, gold and silver mineralisation. Several narrow marker units have been identified in the metasediments and a pre-mineral dyke has been identified. • The interpreted genetic model for Winu is that granite intrusions and deformation related to the Paterson Orogeny (approximately 650 million years ago) were the source of the mineralisation, and created the structures into which the veins were emplaced. • Some stratigraphy-parallel veins that crosscut the axial planar fabric have been identified and these appear to be more common on the limbs of the antiform. • Primary mineralisation is remobilised into supergene zones that are discordant to the axial planar fabric. • At deposit scale, copper and gold grade continuity within the broad mineralised central zone of the deposit is well supported by available drilling data. Several breccia units have been identified in the centre of the deposit and, although later, host the highest copper grades. These units are mappable between drill holes along strike. Individual veins are narrower and show less persistence along strike and down dip and cannot be confidently mapped between drill holes. • In the southeast corner of the proposed starter pit and extending into the larger Resource pit shell, gold-dominant (low copper) mineralisation hosted in east-west trending near vertical quartz veins have been intersected in RC and DD drilling. This is a different style of mineralisation to that seen in the main central mineralisation zone and more drilling is required to test grade and extent and to understand the geological controls.
Dimensions	• Known extents of anomalous copper and gold mineralisation strikes approximately north-northwest to south-southeast with a strike extent of 2,500 m and width of approximately 400 m in the main hypogene mineralisation, and up to 700 m in the supergene mineralisation. Mineralisation occurs below approximately 80 m below surface.
Estimation and modelling techniques	• Raw RC and DD samples, mostly at 1 m, were length weighted to regular 2 m composites prior to data analysis and estimation. • The supergene zone was divided into several discrete domains on the basis of sequential copper and mineralogy data and the domains are used to constrain grade estimation. • A low-grade copper grade shell was used to limit grade estimation within the hypogene zone. The shell was defined at a low (0.02%) Cu grade and modelled as an Indicator by kriging onto blocks. • In the southeast corner of the deposit, a low-grade Au shell was modelled to constrain estimation of Au and Bi in the hypogene and mixed primary and secondary sulphides zones. The shell was defined at 0.1 ppm Au and modelled as an Indicator by kriging onto blocks. • Exploratory data analysis was conducted to generate domains, evaluate domain boundary conditions, establish variogram models, and define interpolation parameters. • The distribution of copper and gold grades within each domain is typically skewed to the right. A small number of high-grade samples were deemed to be outliers and the values were trimmed back to better-supported grade values prior to use in estimation. The sensitivity of the trimming of outlier values has decreased with the addition of drilling data. No other modifications were made to the composite data used for analysis and estimation. • The raw Cu, Au, Ag and Bi values were transformed to Normal distributions for data analysis and to choose variogram models. The Normal variogram models were back-transformed to raw grade

	scale prior to use in estimation. • Data analysis, kriging and recoverable resource estimation was completed using Isatis geostatistical software. Final block models are prepared using Vulcan software. • Cu, Au, Ag, and Bi grades were estimated by Ordinary Kriging (OK) onto 40 m x 40 m x 5 m panels followed by Uniform Conditioning (UC) by kriged panel grade and finally a localisation (LUC) onto blocks of 10 m x 10 m x 5 m. • A suite of additional elements and compounds including soluble copper, As, C, S, Na, K, Al, Ca, Fe, Sb, Mg, Si, Mn, Pb, Zn was estimated onto 10 m x 10 m x 5 m blocks by either LUC or directly by OK. • Validation of grade, metal and tonnage estimates is by visualisation along with input data, geological models and previous estimates. • Grade and metal estimates by LUC on 10 m x 10 m x 5 m blocks were compared to 40 m x 40 m x 5 m kriged panel-scale estimates to confirm global unbiasedness, and to global change of support estimates to confirm the distributions are appropriately modelled.
Moisture	• All tonnages and grades are presented on a dry basis.
Cut-off parameters	• The cut-off parameters used as the basis of this Mineral Resource are on a copper equivalent basis. A copper equivalent unit is defined as: (((Cu_pct * (Cu price 1%/tonne) * Cu_recovery) + (Au_ppm * Au($/t) * Au_recovery) + (Ag_ppm * Ag ($/t) * Ag_recovery)) / (Cu (price 1%/tonne)) • Average grades for the individual metals included in the metal equivalent calculation are shown in the Mineral Resource tabulations. • Metal prices applied were provided by Rio Tinto Economics and generated based on industry capacity analysis, global commodity consumption and economic growth trends. A single long term price point was used in the definition of ore and waste and in the financial evaluations underpinning the resources statement. • Average recoveries for each of the supergene and hypogene domains were derived from metallurgical test work and detailed mineralogy studies using drill core acquired from purpose-drilled metallurgical and resource drillholes. • Rio Tinto considers that Cu, Au and Ag included in the metal equivalent calculation have a reasonable potential to be recovered and sold.

Geomet Zone	Average Metal Recoveries* % Cu Recovery (Rough +Float)	% Au Recovery (Float + Gravity)	% Ag Recovery (Float)
Copper Oxide	*36*	*76*	*22*
Mixed Secondary Oxide	*50*	*40*	*43*
Leached Cap	*5*	*59*	*9*
Secondary Sulphide	*84*	*64*	*59*
Secondary Mafic	*84*	*59*	*58*
Primary	*92*	*62*	*48*
Primary Mafic	*90*	*58*	*28*

*Average metal recoveries at a 0.2% CuEq cutoff within notional pit shell.

Mining factors or assumptions	• Surface mining is the most likely method to be used in the extraction of this orebody. • Mining studies have advanced over the course of 2021 to Prefeasibility level and form the basis of the reasonable prospects of eventual economic extraction test applied to the total Resource (larger pit shell) and the smaller starter pit
Metallurgical factors or assumptions	• Metallurgical studies have advanced over the course of 2021 to Prefeasibility level. The basis for predictions of metallurgical performance is the ongoing comminution and flotation test work conducted on samples composited from geometallurgical zones from numerous geometallurgical and resource DD holes. • The studies confirm that the mineralisation is amenable to processing through conventional crushing, grinding, and flotation circuits. • The current assumption is that Cu, Au and Ag will be recovered via a flotation circuit with additional Au recovery via a gravity recovery circuit.
Environmental factors or assumptions	• Detailed closure studies have advanced over the course of 2020/2021 to a conceptual level of study.
Bulk density	• Dry bulk density field measurements by Archimedes Principle are routinely made on drill core. • Some variability exists between material types in the supergene zone. Dry bulk density values have low variability in the hypogene zone.

	• Dry bulk density was estimated directly onto 10 m x 10 m x 5 m blocks by Ordinary Kriging.
Classification	• A starter pit shell centred on the dominant north-south trending Cu-Au-Ag mineralised structures forms the basis of mining studies completed in 2021. Only mineralisation that is considered to have Reasonable Prospects of Eventual Economic Extraction (RPEEE) has been reported as either Indicated or Inferred Mineral Resource in this release. • Inside the starter pit shell a portion of the Mineral Resources is classified Indicated. The adopted definition of Indicated Resources is +/-15% variation in copper metal terms with a 90% confidence interval on an annual basis. • The precision of copper grade estimates has been quantified using a geostatistical simulation and is specific to the mine schedule developed for the starter pit. Classification of the Resource is applied on an annual basis, which means that if the precision of the grade estimates of the set of blocks making up an annual increment meets the criteria for Indicated Resources, all blocks in the annual increment are categorised as Indicated. • Geological controls of gold mineralisation associated with quartz veins in the southeast corner of the starter pit, extending into the larger pit shell, are known at lower confidence. The easterly extent of the starter pit is limited by the bulk processing scheme assumptions (optimised for Cu) and mining in the southeast corner will occur concurrently with other areas. • A mining schedule has been developed for material inside the starter pit. In this schedule, 23 of 32 planned mining years meet the criteria for Indicated. The remainder of material in the starter pit is classified Inferred. • Evaluation of processing flowsheet and rate and mining rate scenarios is ongoing to inform the longer-term strategy for developing the Winu deposit beyond the starter pit. Several cases have been developed demonstrating RPEEE. One particular case is adopted as the basis for reporting Mineral Resources beyond the starter pit. This pit shell encompasses material inside the starter pit. All material outside the starter pit shell and inside the larger Resource pit shell is classified Inferred. In this area, drill hole spacing is wider providing less support for grade continuity than that inside the starter pit. However, drillhole sampling quality, QA/QC including standards, blanks and repeat samples are managed to the same standard as those inside the starter pit.
Audits or reviews	• A formal external audit of resource estimation methodology and results was conducted in 2020. The audit found that the estimation methodology was fit for purpose; no fatal flaws were identified. • The auditors made several recommendations for further analysis to further support modelling decisions made. This work was conducted prior to the updated Mineral Resource reported here. • Several auditor recommendations in regard to estimation domain definition were adopted in the resource estimation methodology used to generate the estimates reported here.
Discussion of relative accuracy/ confidence	• The precision of copper grade estimates was determined using a set of geostatistical simulations and relates directly to the planned mining rates inside the proposed starter pit. The uncertainty of copper grade estimates is inherent in the classification scheme described above, specifically +/-15% variation in copper metal terms with a 90% confidence interval on an annual basis. • Confidence in geological boundaries has not been quantified. The Competent Person has taken into consideration the maturity of the geological model in determining that the continuity of geological features associated with copper and gold mineralisation is sufficient to support the classification of the Mineral Resource.