

ASX Announcement

 26<sup>th</sup> November 2020

## Increased Resources at the Wamum Project

Canterbury (ASX: CBY) is pleased to announce updated Mineral Resource estimates for the Idzan Creek and Wamum Creek copper-gold deposits, which lie within its Wamum Project (EL2658 application) in PNG.

### Summary

- Updated Mineral Resource estimates have been completed for the Idzan Creek and Wamum Creek Cu-Au deposits at the Wamum Project, based on the validation of additional historic data. The main change is a 47% increase in the estimated tonnage at the Wamum Creek deposit.
- Total contained metal for the overall Wamum Project is now 3.16Moz Au and 762kt Cu. This represents an 11% increase for gold and 22% for copper versus the previous estimate.
- At Idzan Creek, porphyry related mineralization is broadly outlined in a 900m x 300m E-W zone, tested by 13 diamond drillholes. The deposit is open along strike and at depth. The Inferred Mineral Resource estimate at a 0.2g/t Au cut-off grade contains 2.34Moz Au and 327kt Cu as follows:

Deposit	Classification	Cut-off	Tonnes	Gold	Copper
Idzan Creek	Inferred	0.2g/t Au	137.3Mt	0.53g/t	0.24%

- At Wamum Creek, porphyry related mineralization is broadly outlined in a 700m x 500m NE-SW zone, tested by 15 diamond drillholes. The deposit is open along strike and at depth. The Inferred Mineral Resource estimate at a 0.2% Cu cut-off grade contains 0.82Moz Au and 435kt Cu as follows:

Deposit	Classification	Cut-off	Tonnes	Gold	Copper
Wamum	Inferred	0.2% Cu	141.5Mt	0.18g/t	0.31%

- The Wamum Project is located 15-20km northwest of the major Wafi-Golpu development project (owned by Newcrest and Harmony Gold). Historic drilling in the region has been undertaken by Newcrest, Barrick, Highlands and CRA. Further reports and data have been sourced covering the CRA and Highlands drillholes and have been used to inform the updated Mineral Resource estimates. In addition, a more accurate surface model and a better estimate of the bulk density of the mineralized rock type have been used.
- Canterbury lodged the Wamum Project application (EL2658) in February 2020. After delays relating to COVID-19 restrictions, a Wardens Hearing was successfully completed at Onom village on 17<sup>th</sup> October. The Hearing was well attended, with no objections and strong support expressed for Canterbury's plans by local representatives. Granting of the tenement will now be assessed by the PNG Mining Advisory Council (MAC) based on the Mining Warden's recommendations.
- Planning has commenced for a scoping study to assess the potential development of a standalone mining operation, to be implemented once the tenement is granted.

Canterbury's Managing Director, Grant Craighead, said:

*"The additional data has enhanced the robustness of the Idzan Creek and Wamum Creek Mineral Resource estimates. The Board is very encouraged by the outcomes and consequently is planning to undertake a scoping study to assess the merits of developing a standalone operation. This work will be implemented once the tenement is granted and suitable partners are identified."*

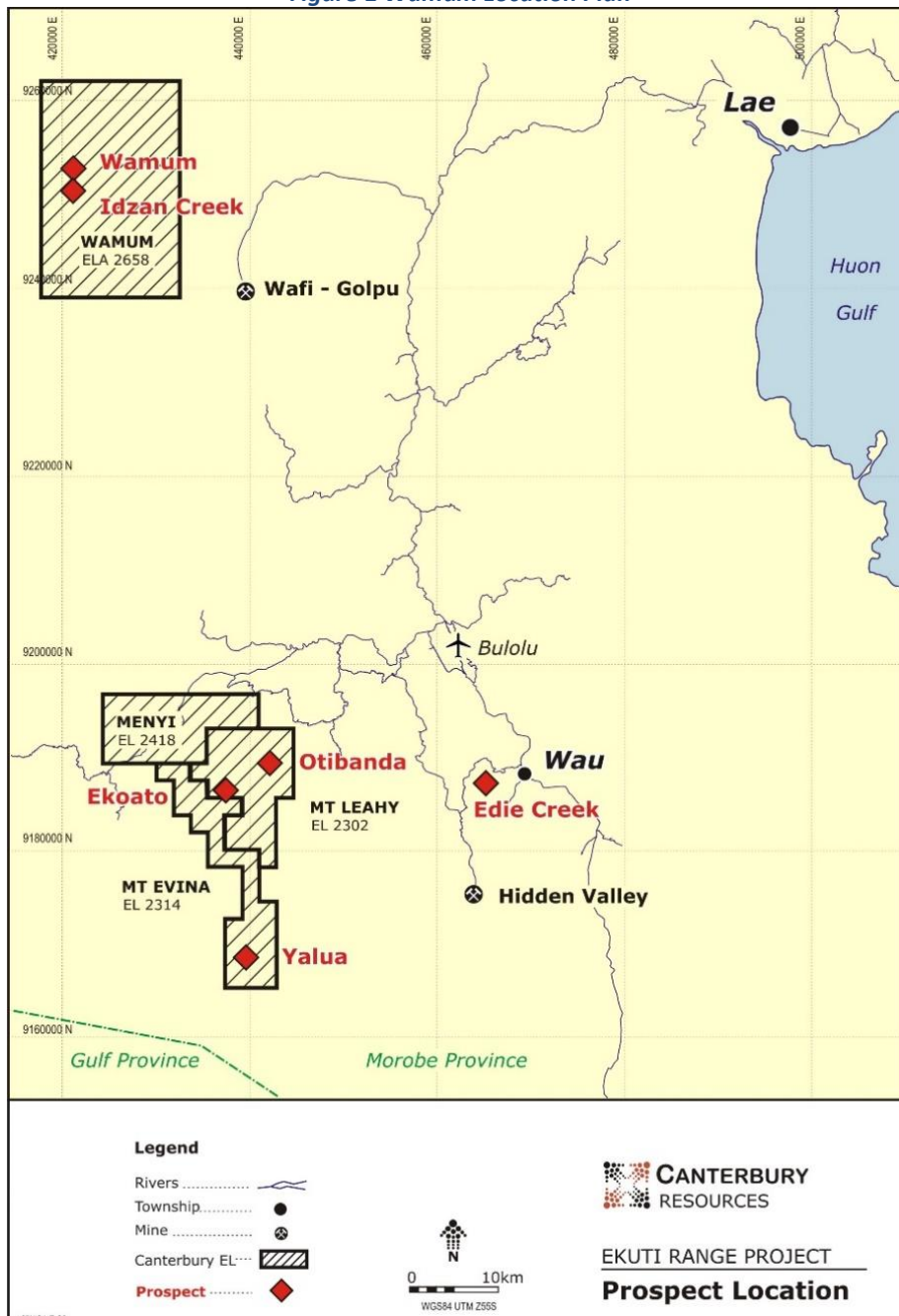
Authorised on behalf of Canterbury Resources Limited by its Managing Director, Mr Grant Craighead.

## Wamum Copper-Gold Project

### Introduction

The Wamum Project application (EL2658) is located 80km west of the port city of Lae and 20km north west of the Wafi-Golpu development project (a JV between Newcrest & Harmony Gold) in Morobe Province, PNG. The application covers an area of 354.64km<sup>2</sup> and includes the Idzan Creek and Wamum Creek prospects where historic exploration has broadly outlined two significant Cu-Au deposits.

Figure 1 Wamum Location Plan



Canterbury lodged the EL2658 application in February 2020 and recently successfully completed a Wardens Hearing at Onom village where clan leaders expressed strong support for Canterbury’s exploration plans. The Wardens Hearing was an important step in the licence approval process, with the next step being consideration by the Mining Advisory Council (MAC) based on the Mining Wardens findings and recommendations.



*Figure 2 Leaders from the four representative clans addressing the Wamum Wardens Hearing at Onom village*

The project area is within the Ono River catchment, a tributary of the Watut-Markham River system. Access from Lae is by helicopter, and there are road links from Lae to the Wafi-Golpu Project, which is separated from the Wamum Project by the Watut river.

The Wamum and Idzan Creek deposits are in the headwaters of Ono River in relatively rugged and forested hill country at an elevation of around 900m. The area is claimed by the Wamum clan, with the main village at Onom on the banks of the Watut River.

*Figure 3 View West Across WamumCreek and Idzan Creek Prospects*



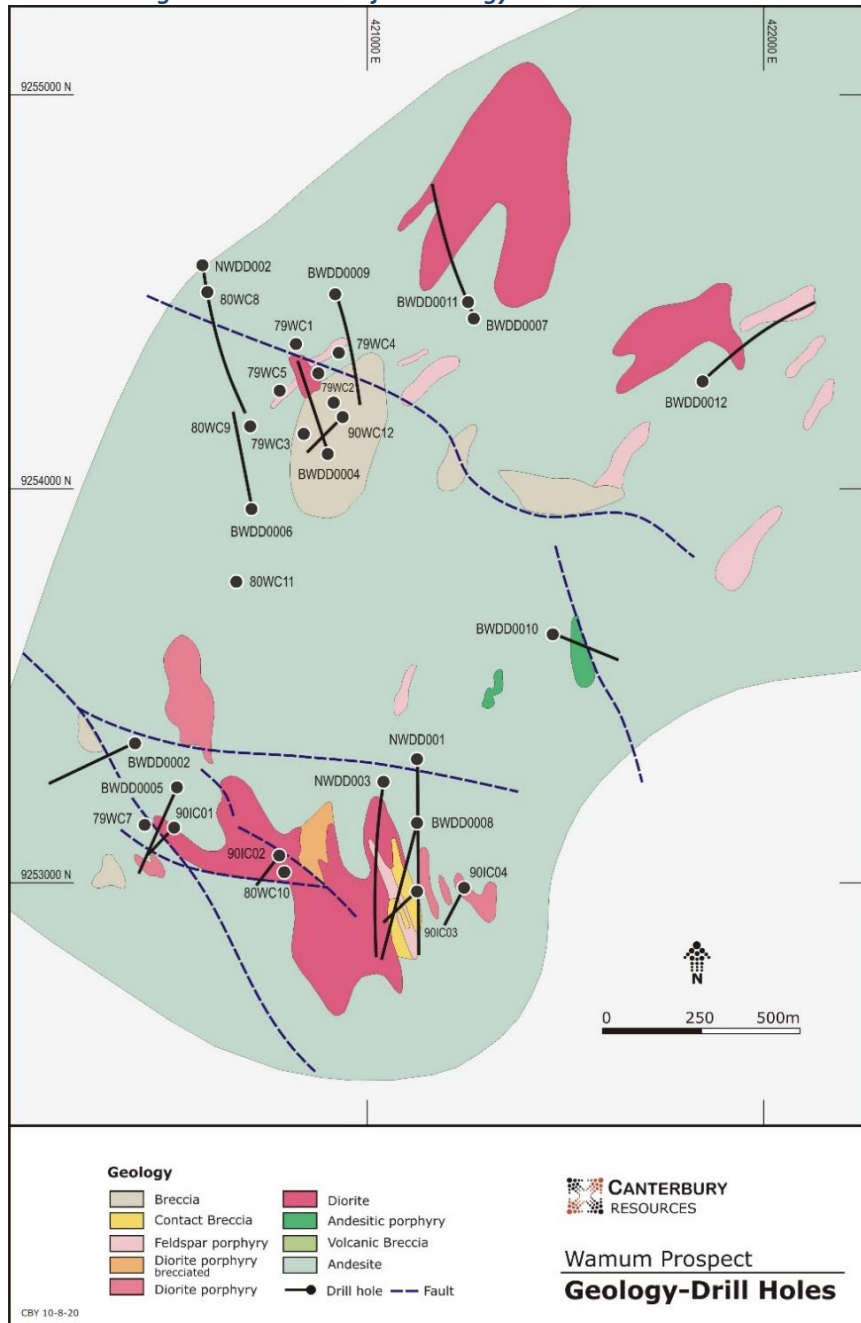
Canterbury personnel have a long association with mineral exploration in Morobe Province, including responsibility for drilling the discovery hole at Golpu when the project was a joint venture between Elders Resources NZFP and CRA. Canterbury directors Grant Craighead and Mike Erceg managed exploration of the Wafi JV at that time, and Wanu Tamu (Canterbury's Lae based Country Manager) was a site geologist.

**Background**

The Wamum region has been subject intermittent modern exploration over the past +40 years, with significant copper and gold mineralisation encountered during periodic drilling programs undertaken by CRA, Highlands Gold, Barrick and Newcrest (a total of 31 diamond drillholes for around 11,253m).

The Idzan Creek and Wamum Creek deposits are porphyry related and display typical characteristics of SW Pacific porphyry systems. Economic mineralisation is dominated by Cu and Au with best grades associated with veins, veinlets and disseminations typical of porphyry-related assemblages.

*Figure 4 Wamum Project Geology & Drill Location Plan*

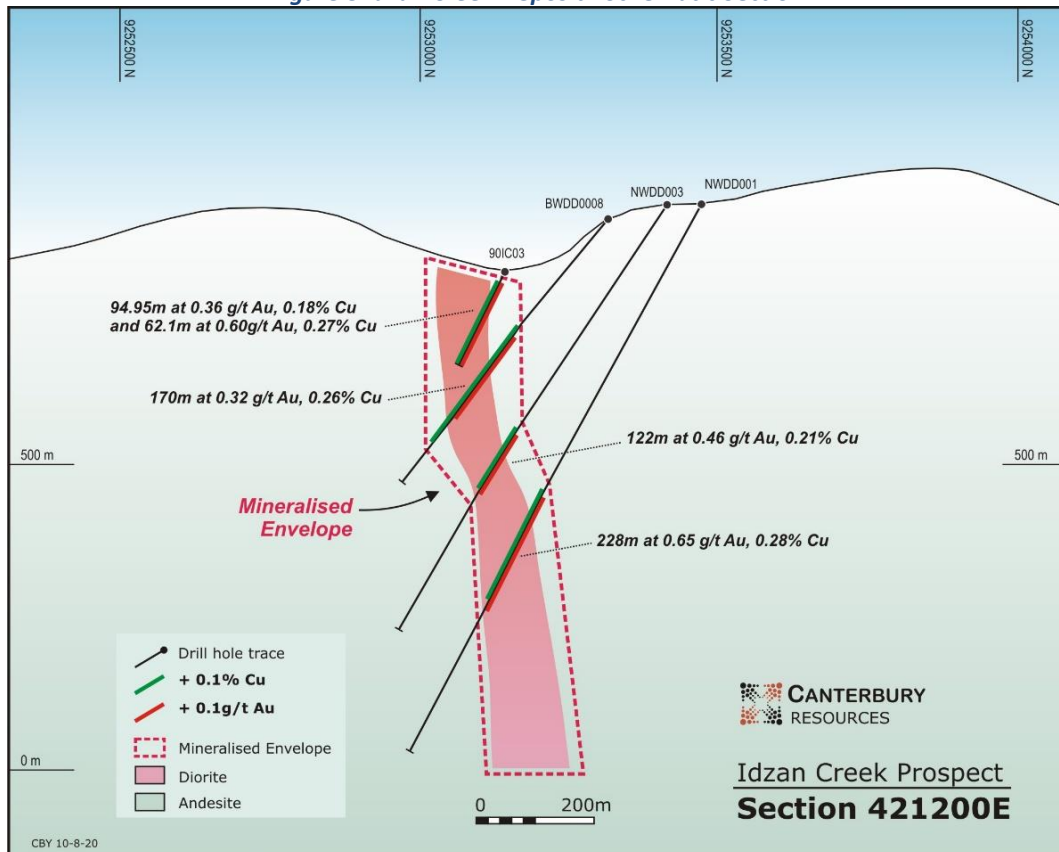


Refer to CBY ASX release “Significant Gold Copper Resource at Idzan Creek” of 26 August 2020 for further details on the exploration history, geological setting and a detailed listing of significant drilling results.

During the past few months, Canterbury has sourced additional data which has enabled its geologists to undertake further geological interpretation and modelling of the Idzan Creek and Wamum Creek deposits, and to better inform updated Mineral Resource estimates. This includes fully utilising drilling data from the CRA and Highlands Gold exploration phases, the acquisition of a more accurate surface model and a better estimate of the mineralised rock type.

At Idzan Creek, hydrothermal alteration, plus associated mineralisation and geochemistry, occurs as a 900m by 300m linear zone that trends east-west. There are indications of increasing grades at depth. The deposit remains open along strike and at depth.

**Figure 5 Idzan Creek Deposit - Schematic Section**



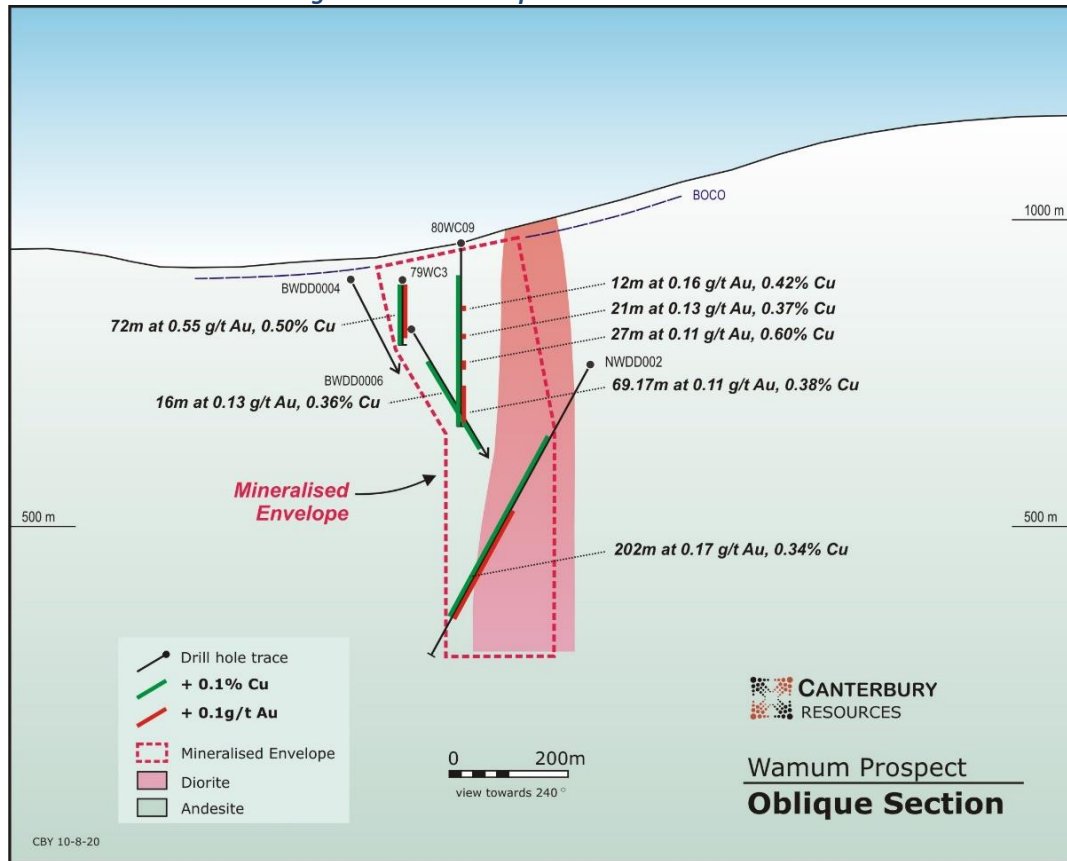
By contrast, at Wamum Creek it occurs as a 700m by 500m zone that trends northeast-southwest. The deposit also remains open along strike and at depth.

A leached advanced argillic alteration and vuggy quartz (Wafi-style) lithocap (<50m thick) occurs above the Wamum Creek deposit. The alteration is partially eroded to expose the porphyry related mineralisation.

Like Golpu, the lithocap implies potential for significant vertical extent of the porphyry-related mineralisation.



Figure 6 Wamum Deposit - Schematic Section



### Updated Resource Estimates

Following the acquisition of further historical exploration and drilling data, Canterbury has generated updated geological models of the Idzan Creek and Wamum Creek deposits and engaged external consultants Bluespoint Mining Services (BMS) to undertake updated Mineral Resource estimation in compliance with the Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves (the JORC Code).

Twenty-eight historic holes were used to develop the geological models and to inform the Mineral Resource estimates (13 at Idzan Creek and 15 at Wamum Creek).

Geological models were generated based on drill cross sections generated in Leapfrog, from surface at ~900m to a depth of 0mRL. Improved topographic data was incorporated into the models. Mineralised envelopes were created at a 0.1% Cu cut-off, and they correlated well with the modelled main intrusive stock and associated alteration halo at both deposits. The base of complete oxidation (BOCO) was also modelled as a surface, resulting in the definition of four domains for the two deposits.

The mineralised envelopes were projected to a maximum depth of 0mRL, approximately 200m beyond the deepest drill hole, and the geology was projected no further than 100m along strike beyond the last drill section. Sectional mineralised envelope wireframes were turned into solids in Leapfrog and the 3D wireframe files were exported into Vulcan to enable completion of the resource estimation process.

Conarco Consulting had previously reviewed the data files to provide general statistics and a spatial analysis of the data (variography). For both the Idzan Creek and Wamum Creek domains, the copper and gold mineralization display a log-normal distribution. The composited data results in a low Coefficient of Variation (CV) with a relatively well-formed bell curve, indicating there is one grade population in each domain. There are only minor inflections on the log probability plot suggesting top-cuts are not required.

Variography was completed using Snowden's Supervisor V8 software and composited data from each domain was used for geostatistical modelling. Directional semi-variograms were produced in the horizontal, across-strike and dip plane directions. The results of nugget and semi-variograms were fitted to a nested spherical model with up to two structures. Semi-variograms were modelled to produce a sill and range in each of the principal directions, resulting in a well-constructed two structure variogram.

A multi-block kriging neighbourhood analysis (KNA) was completed to determine the optimum block size and the appropriate minimum and maximum number of samples to be used during the Mineral Resource estimation. Vulcan block models were created for both deposits, with a block size of 50m N-S x 25m E-W x 25m vertical with sub-cells of 5m x 5m x 5m.

Ordinary Kriging (OK) interpolation with an oriented ellipsoid search was used to estimate Cu and Au grade in the single domains for fresh rock. Inverse Distance (IVD) interpolation with an oriented ellipsoid search was used to estimate Cu and Au grade as a check block model.

An octant search with a maximum of 4 samples was applied and a bulk density value of 2.65t/m<sup>3</sup> was applied. A minor revision was made to the bulk density assumption from the previous estimate, based on results from comparable rock types at Canterbury's Briggs project.

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

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

The volumes were almost identical, with 0.01% difference, and comparison between the copper and gold grade statistics from the block models and composites were acceptable, demonstrating the robustness of the model.

Alternate models were generated as a check process. Each of the models produced relatively consistent outcomes, with the final ordinary kriging with octant search model representing a conservative outcome.

The Mineral Resource estimates are classified as Inferred, based on the relatively broad spacing of drill hole data, combined with the continuity and predictability of the mineralisation system.

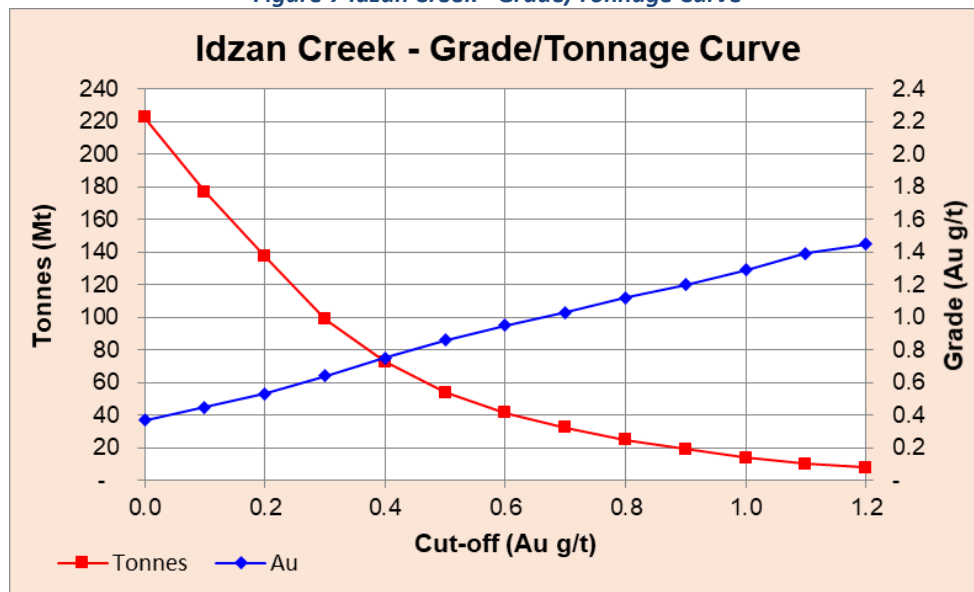
The Mineral Resource estimates for the gold rich Idzan Creek deposit are tabulated and displayed below at selected gold cut-off grades. Globally, there have only been minor changes to the Idzan Creek estimate compared with the August 2020 estimate, albeit the resource is now reported a 0.2g/t Au cut-off grade to reflect the current commodity pricing environment.

**Table 1 Idzan Creek Mineral Resource Estimate**

Cut-off (g/t Au)	Tonnes (Mt)	Gold (g/t)	Copper (%)	Contained Gold (Moz)	Contained Cu (kt)
0.1	176.8	0.45	0.22	2.6	389
0.2	<b>137.3</b>	<b>0.53</b>	<b>0.24</b>	<b>2.3</b>	<b>327</b>
0.3	99.0	0.64	0.26	2.0	254
0.4	72.8	0.75	0.27	1.8	200
0.5	53.9	0.86	0.29	1.5	156



Figure 7 Idzan Creek - Grade/Tonnage Curve

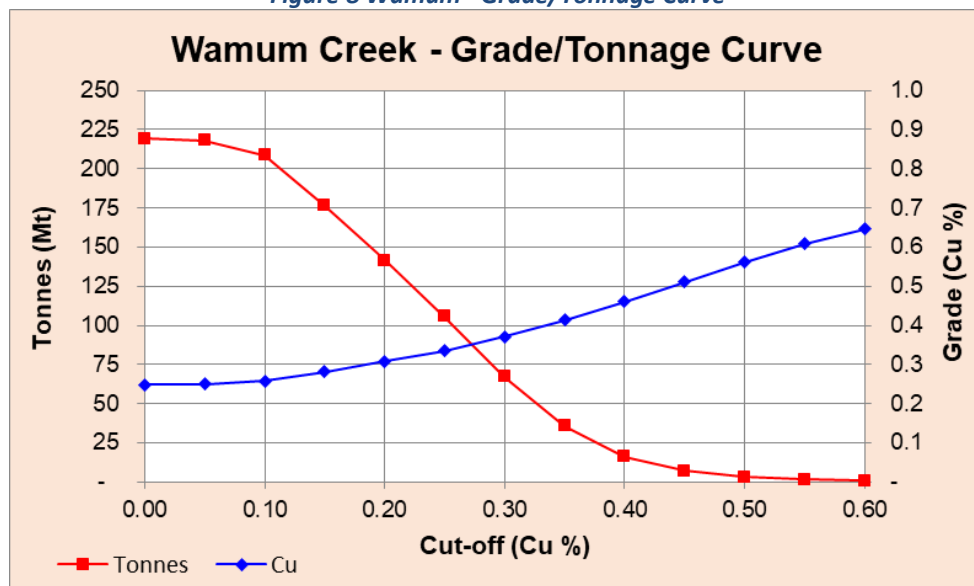


The Mineral Resource estimates for the Wamum Creek deposit are tabulated and displayed below at selected copper cut-off grades. Incorporating additional data has resulted in a 55% increase in contained copper and a 76% increase in contained gold compared to the August 2020 estimate. This reflects a significant increase in tonnes, plus minor increases in grade.

Table 2 Wamum Creek Mineral Resource Estimate

Cut-off (% Cu)	Tonnes (Mt)	Gold (g/t)	Copper (%)	Contained Gold (Moz)	Contained Cu (kt)
0.1	208.7	0.16	0.26	1.1	537
0.2	<b>141.5</b>	<b>0.18</b>	<b>0.31</b>	<b>0.8</b>	<b>435</b>
0.3	67.2	0.21	0.37	0.5	249
0.4	16.3	0.27	0.46	0.1	75
0.5	3.1	0.38	0.56	0.0	17

Figure 8 Wamum - Grade/Tonnage Curve







## Strategic Plan

Planning for the next phase of assessment at the Wamum Project continues, albeit field activities will not be undertaken until the tenement is granted.

In terms of the timing for potential grant of EL2658, the application is steadily advancing through PNG's assessment and approvals process. After experiencing delays due to COVID-19 restrictions and precautions, a Wardens Hearing was successfully completed at Onom Village on 21 October. There were no objections recorded, with strong support for Canterbury's plans expressed by local clan leaders. The application will now be considered by the PNG Mining Advisory Council (MAC), based on the findings and recommendations of the Mining Warden. This will be followed by Ministerial signoff.

Canterbury believes there is good potential to define an economic, standalone operation at the Wamum Project, based on the updated Mineral Resource estimates and industry benchmarking. Accordingly, the Board proposes to commence a Scoping Study assessment phase once the tenement is granted. It is estimated that a Scoping Study will take around 12 months to complete.

Scoping Study activities will include:

- Infill drilling at Idzan Creek on 100 m spaced sections to generate Indicated Mineral Resource estimates
- Further exploration drilling, testing strike and depth extensions at both Idzan Creek and Wamum Creek
- Metallurgical testwork to determine ore types and response to conventional processing methods
- Geotechnical assessment, to enable consideration of mining options
- Economic assessment, to determine capital and operating cost regimes
- Social and environmental investigations
- Consideration of funding options, including potential partnerships

On behalf of the Board  
Grant Craighead  
Managing Director

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## COMPETENT PERSON'S STATEMENT

The technical information in this report which relates to Exploration Results is based on information compiled by Mr Michael Erceg, MAIG RPGeo. Mr Erceg is an Executive Director of Canterbury Resources Limited and has sufficient experience 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 "Australian Code of Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Erceg consents to the inclusion in this report of the matters based on that information in the form and context in which it appears.

The information in this report that relates to the Estimation of Mineral Resources, has been prepared by Mr. Geoff Reed, who is a Member of the Australasian Institute of Mining and Metallurgy and is a Consulting Geologist of Bluespoint Mining Services (BMS).

Mr. Reed is a geologist with over 20 years of diverse mining and exploration industry experience with various major mining and junior exploration companies in Australia. Mr. Reed has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr. Geoff Reed consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

## DISCLAIMER

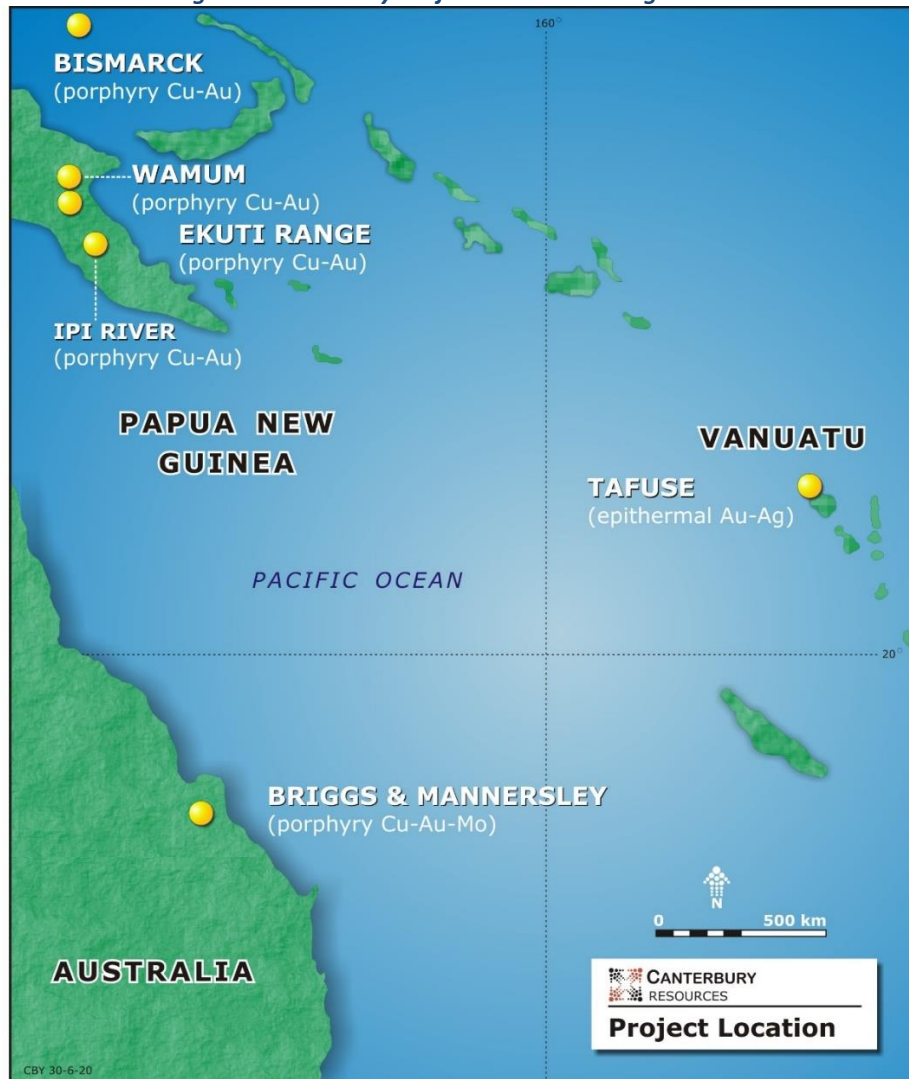
Forward-looking statements are statements that are not historical facts. Words such as "expect(s)", "feel(s)", "believe(s)", "will", "may", "anticipate(s)", "potential(s)" and similar expressions are intended to identify forward-looking statements. These statements include, but are not limited to statements regarding future production, resources or reserves and exploration results. All such statements are subject to certain risks and uncertainties, many of which are difficult to predict and generally beyond the control of the Company, that could cause actual results to differ materially from those expressed in, or implied or projected by, the forward-looking information and statements. These risks and uncertainties include, but are not limited to: (i) those relating to the interpretation of drill results, the geology, grade and continuity of mineral deposits and conclusions of economic evaluations, (ii) risks relating to possible variations in reserves, grade, planned mining dilution and ore loss, or recovery rates and changes in project parameters as plans continue to be refined, (iii) the potential for delays in exploration or development activities or the completion of feasibility studies, (iv) risks related to commodity price and foreign exchange rate fluctuations, (v) risks related to failure to obtain adequate financing on a timely basis and on acceptable terms or delays in obtaining governmental approvals or in the completion of development or construction activities, and (vi) other risks and uncertainties related to the Company's prospects, properties and business strategy. Our audience is cautioned not to place undue reliance on these forward-looking statements that speak only as of the date hereof, and we do not undertake any obligation to revise and disseminate forward-looking statements to reflect events or circumstances after the date hereof, or to reflect the occurrence of or non-occurrence of any events.

### ABOUT CANTERBURY RESOURCES LIMITED

Canterbury Resources Limited (ASX: CBY) (“Canterbury” or the “Company”) is an ASX-listed resource company focused on creating shareholder wealth by generating, exploring and monetising potential Tier-1 copper-gold projects in the southwest Pacific. It has established a strong portfolio of projects in Australia, Papua New Guinea and Vanuatu that are prospective for porphyry copper-gold and epithermal gold-silver deposits. The Company is managed by an experienced team of resource professionals, with a strong track record of exploration success and mine development in the region.

Canterbury has undertaken drilling programs at its more advanced assets – the Ekoato and Bismarck porphyry copper-gold projects in Papua New Guinea and the Briggs porphyry copper project in Queensland. Each project provides potential for the discovery and/or delineation of a large-scale copper ( $\pm$  gold,  $\pm$  molybdenum) resource. An Inferred Mineral Resource of 142.8 Mt at 0.29% copper has been estimated at the Briggs project. The Company also holds a strategically significant application at the Wamum Project where historic exploration has broadly outlined two large-scale copper-gold deposits. Canterbury has estimated an Inferred Mineral Resource of 137.3Mt at 0.53g/t Au & 0.24% Cu at Idzan Creek and 141.5Mt at 0.31% Cu & 0.18g/t Au at Wamum Creek.

*Figure 9 Canterbury Project Locations – August 2020*



## Appendix 1 - JORC Code, 2012 Edition – Table 1, Section 1, 2, 3

### Section 1 Sampling Techniques and Data

This JORC Code 2012 Edition Table 1 relies on data from various historic exploration drilling campaigns at the Wamum Creek and Idzan Creek prospects. This data has been reported periodically according to the various statutory exploration licence conditions and is in the public domain. The drill data has been compiled into digital format.

Since ASX release dated 26<sup>th</sup> August 2020 “Significant Au-Cu Resource at Idzan Creek”, Canterbury has acquired further reports lodged with the library at the Mineral Resources Authority in Port Moresby, Papua New Guinea. These reports detail geological logging and assay results for all CRA Exploration and Highlands Gold drill holes at the Idzan Creek and Wamum Creek prospects. The assay data from these holes was excluded from the August resource model estimation pending receipt of the reports and satisfactory validation of data. This exercise has now been completed.

This updated Idzan Creek and Wamum Creek resource estimate now includes:

- all previously excluded CRA Exploration and Highlands Gold drill holes
- a newly acquired more accurate surface model, and
- a better estimate of the bulk density of mineralized rock type.

The following table summarises the exploration drilling that is recorded at the Wamum Creek and Idzan Creek prospects.

Hole ID	DEPTH	WGS84E_calc	WGS84N_calc	DIP	AZI (T)	Company
79WC1	150.35	420932.9	9254527.55	-90	0	CRA
79WC2	101.05	420992.15	9254455.56	-90	0	CRA
79WC3	100	420953.26	9254297.88	-90	0	CRA
79WC4	123.5	421043.2	9254505.41	-90	0	CRA
79WC5	100	420891.46	9254409.87	-90	0	CRA
79WC6	250	421036.47	9254365.48	-90	0	CRA
79WC7	160.2	420582	9253298	-90	0	CRA
80WC10	200.1	420910	9253200	-90	0	CRA
80WC11	296	420781	9253924	-90	0	CRA
80WC8	160	420706	9254658	-90	0	CRA
80WC9	300.17	420801	9254317	-90	0	CRA
90IC-01	189.15	420608	9253299	-60	212.2	HGL
90IC-02	172.1	420889	9253228	-50	212.2	HGL
90IC-03	181.65	421225	9253139.5	-60	212.2	HGL
90IC-04	205.25	421358.5	9253149.5	-60	201.2	HGL
90WC-12	187.83	421050	9254341.5	-50	221.2	HGL
BWDD0001	470.9	420629	9253401	-60.7	205.4	Barrick
BWDD0002	518.8	420538	9253532	-55.5	241.2	Barrick
BWDD0003	274.8	420629	9253401	-72	200	Barrick
BWDD0004	660.6	421014	9254247	-63.2	335.6	Barrick
BWDD0005	626.8	420629	9253401	-74.7	202.1	Barrick
BWDD0006	488.5	420820	9254110	-62	344.3	Barrick
BWDD0007	42.2	421376	9254587	-60	300	Barrick
BWDD0008	574.8	421241	9253315	-50.6	195	Barrick
BWDD0009	554.2	421032	9254653	-61.7	162.5	Barrick
BWDD0010	300	421584	9253791	-53.5	112.9	Barrick
BWDD0011	493.1	421384	9254591	-47.4	337.8	Barrick
BWDD0012	578.6	421964	9254432	-54.1	47.1	Barrick
NWDD001	1028.9	421238	9253467	-58	187.4	Newcrest
NWDD002	914.1	420695	9254728	-55	168.9	Newcrest
NWDD003	849.7	421156	9253419	-55	189.9	Newcrest



Criteria	Commentary
<b>Sampling techniques</b>	<p>CRAE (drill holes 79WC1-7, 80WC8-11)</p> <ul style="list-style-type: none"> <li>Heli-portable diamond drilling, vertical holes all PQ size (85mm). Core flown to Maralumi exploration basecamp (40 Mile, Lae) where core cut by diamond saw and half core sampled in 3m intervals.</li> </ul> <p>Highlands (drill holes 90IC01 – 4, 90WC12)</p> <ul style="list-style-type: none"> <li>No drilling nor sampling procedures have been documented in reports available to date. Assay results report half core.</li> </ul> <p>Barrick (drill holes BWDD0001 to 12)</p> <ul style="list-style-type: none"> <li>Core drilling utilizing Capital Drilling’s heli-portable diamond rigs, used to obtain 1m half-core samples which were sent to Intertek Laboratory Services in Lae for sample preparation. The sample pulps were sent to Intertek Laboratory Services in Jakarta (Indonesia) for analysis.</li> </ul> <p>Newcrest (drill holes NWDD001-003)</p> <ul style="list-style-type: none"> <li>Core drilling completed by Quest Exploration Drilling (QED) using CS1000 P6L helicopter supported diamond drill rig in PQ, HQ, NQ core sizes. Core cut with automatic core saw. Half core submitted in 2m intervals to Intertek Lae for analysis. Mineralisation was logged and photographed by the geology team prior to cutting.</li> </ul>
<b>Drilling techniques</b>	<p>CRAE (drill holes 79WC1-7, 80WC8-11)</p> <ul style="list-style-type: none"> <li>Heli-portable diamond drilling, vertical holes all PQ size (85mm). Drilling conditions reported as exceptional with 100% recovery and a best shift of 41m.</li> </ul> <p>Highlands (drill holes 90IC01 – 4, 90WC12)</p> <ul style="list-style-type: none"> <li>All holes drilled with PQ and HQ size.</li> </ul> <p>Barrick (drill holes BWDD0001 to 12)</p> <ul style="list-style-type: none"> <li>Holes collared in PQ and drilled as far as possible, reduced to HQ then NQ.</li> <li>Down hole surveys conducted very 30m.</li> </ul> <p>Newcrest (drill holes NWDD001-003)</p> <ul style="list-style-type: none"> <li>Drilling done by Quest Exploration Drilling. All drill core was orientated using the ACE2 orientation system.</li> </ul>
<b>Drill sample recovery</b>	<p>CRAE (drill holes 79WC1-7, 80WC8-11)</p> <ul style="list-style-type: none"> <li>Core recovery reported as 100%.</li> </ul> <p>Highlands (drill holes 90IC01 – 4, 90WC12)</p> <ul style="list-style-type: none"> <li>No detailed information relating to sample weights, core recovery, sample recovery methods and the relationship between grade and sample recovery has been presented in the available historical reports.</li> </ul> <p>Barrick (drill holes BWDD0001 to 12)</p> <ul style="list-style-type: none"> <li>No detailed information relating to sample weights, core recovery, sample recovery methods and the relationship between grade and sample recovery has been presented in the available historical reports.</li> </ul> <p>Newcrest (drill holes NWDD001-003)</p> <ul style="list-style-type: none"> <li>Drill sample recovery was generally greater than 95% and was recorded on a core</li> </ul>



Criteria	Commentary
	<p>block to core block basis as a percentage.</p> <ul style="list-style-type: none"> <li>All drilling was conducted using triple tube using appropriate core handling protocols.</li> <li>No material relationship was been identified between core recovery and grade due to the diffuse nature of mineralisation (i.e. the Idzan Ck and Wamum Ck deposits are porphyry in style).</li> </ul>
<b>Logging</b>	<p>CRAE (drill holes 79WC1-7, 80WC8-11)</p> <ul style="list-style-type: none"> <li>All drill core was photographed and geologically logged.</li> </ul> <p>Highlands (drill holes 90IC01 – 4, 90WC12)</p> <ul style="list-style-type: none"> <li>Geological logs for 90IC01-4 and 90WC12 acquired.</li> </ul> <p>Barrick (drill holes BWDD0001 to 12)</p> <ul style="list-style-type: none"> <li>Detailed geological logs in digital form are available.</li> </ul> <p>Newcrest (drill holes NWDD001-003)</p> <ul style="list-style-type: none"> <li>All drill core was geologically and geotechnically logged to support appropriate Mineral Resource estimation, mining studies and metallurgy studies at a later stage.</li> <li>Geological logging was both qualitative and quantitative and records lithology, mineralisation, alteration mineralogy, weathering, structural characteristics and other physical characteristics of the core.</li> <li>Magnetic susceptibility and ASD readings were taken every metre.</li> <li>Selective samples were taken for thin section descriptions.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<p>Due to the duration of historical exploration and work being conducted by a number of companies, sample preparation procedures are variable and range from undocumented to standard industry practice.</p> <p>CRAE (drill holes 79WC1-7, 80WC8-11)</p> <ul style="list-style-type: none"> <li>No sub-sampling techniques nor information on sample preparation is documented in historic reports.</li> </ul> <p>Highlands (drill holes 90IC01 – 4, 90WC12)</p> <ul style="list-style-type: none"> <li>No sub-sampling techniques nor information on sample preparation is documented in historic reports.</li> </ul> <p>Barrick (drill holes BWDD0001 to 12)</p> <ul style="list-style-type: none"> <li>Drill core cut in half longitudinally using Almonte core saw.</li> <li>Half core sampled at measure intervals, nominally 1m.</li> <li>Samples were collected into labelled calico bags, sealed, and sent to Intertek</li> <li>At Intertek (Lae) half core was oven dried at 105°C, crushed in a jaw crusher with 95% of sample passing 2mm, riffle split and pulverized in an LM2 with 95% passing 75µ. Pulps were sent to Intertek (Jakarta) for assaying.</li> </ul> <p>Newcrest (drill holes NWDD001-003)</p> <ul style="list-style-type: none"> <li>All samples consisted of diamond drill core which was PQ, HQ and NQ in diameter, and was cut with an automatic core saw.</li> <li>All available core was sampled, nominally as two metre composite samples. Half core (PQ, HQ, NQ) samples were prepared for assay and the remaining material</li> </ul>



Criteria	Commentary
	<p>was retained in the core farm for future reference.</p> <ul style="list-style-type: none"> <li>The sampling technique used was considered appropriate for assessment of porphyry style mineralised systems. All samples were prepared at the Intertek sample preparation facility in Lae PNG. Whole samples were dried at &lt;600°C, crushed to 95% passing 2.8mm and 3-4 kg representative sub sample pulverised to 95% passing 106µm. An approximate 100g sub sample was obtained and despatched for analysis. Representative pulverised material was retained for all samples.</li> <li>Repeat samples were obtained from pulverised material at the rate of 1 in 20 samples.</li> <li>All sampling was conducted in accordance with Newcrest sampling and QAQC procedures, and each assay batch was submitted with duplicates and standards to monitor laboratory quality, see further details below.</li> <li>The sample size was considered appropriate for assessment of bulk tonnage mineral deposits e.g. porphyry deposits.</li> </ul>
<p><b>Quality of assay data and laboratory tests</b></p>	<p>CRAE (drill holes 79WC1-7, 80WC8-11)</p> <ul style="list-style-type: none"> <li>Drill holes 79WC1 and 79WC2 were assayed by AAS for Cu, Pb, Zn, Mn, Au, Ag and Mo at Madang Laboratory of Freida Copper Limited. Drill holes 79WC3 to 7 and 80WC8 to 11 were assayed by AAS for Cu, Pb, Zn, Mn, Au, Ag and Mo at Madang Laboratory of Carpentaria Exploration Co Pty Ltd.</li> </ul> <p>Highlands (drill holes 90IC01 – 4, 90WC12)</p> <ul style="list-style-type: none"> <li>Core was assayed at Astrolabe Analytical in Madang for Au, Ag, Cu, Pb, Zn, As, Sb and Hg by codes FA2, G3, G3, G3, G3, AS-H, SB-H and HG2 respectively (no details on codes).</li> </ul> <p>Barrick (drill holes BWDD0001 to 12)</p> <ul style="list-style-type: none"> <li>Analysis for gold was by a 50g fire assay technique which involved fusing the sample with a litharge based flux and collecting the precious metals in a lead button, after cupellation the resulting prill was dissolved in aqua-regia and the Au was determined by an AAS finish with a detection limit of 5ppb. If samples exceeded 5ppm Au they were re-run with a gravimetric finish.</li> <li>Analysis of multi-elements were conducted by a multi acid digestion (HCl/HNO3/HClO4/HF), followed by an ICP finish for the following elements (with their respective detection limits): Ag (0.5ppm), Al (0.01%), As (5ppm), Ba (2ppm), Bi (5ppm), Ca (0.01%), Cd (1ppm), Co (2ppm), Cr (2ppm), Cu (2ppm), Fe (0.01%), Ga (10ppm), K (0.01%), La (1ppm), Li (1ppm), Mg (0.01%), Mn (2ppm), Mo (1ppm), Na (0.01%), Nb (5ppm), Ni (1ppm), Pb (2ppm), Sb (5ppm), Sc (2ppm), Sn (10ppm), Sr (1ppm), Ta (5ppm), Te (10ppm), Ti (0.01%), V (1ppm), W (10ppm), Y (1ppm), Zn (2ppm), Zr (5ppm). If samples exceeded 0.5% Cu they were re-run with an AAS finish.</li> </ul> <p>Newcrest (drill holes NWDD001-003)</p> <ul style="list-style-type: none"> <li>Samples were analysed for gold at the ITS Laboratory in Lae PNG and for multi-elements in Townsville, Australia. Gold was determined by 30g Fire Assay with</li> </ul>



Criteria	Commentary
	<p>AAS finish, and multi-element analyses by multi-acid (partial) digest with ICPOES-ICPMS finish. The analysis methods employed were considered appropriate for the material and mineralisation.</p> <ul style="list-style-type: none"> <li>• Certified reference materials of porphyry style mineralisation were inserted at the rate of 1 in 20 samples. Assay results were assessed on a per batch basis on receipt of assays to determine appropriate levels of accuracy and bias in gold and copper analyses. The acceptance of assays was in accordance with Newcrest QAQC protocols. Routine check assay programs were conducted on a periodic basis.</li> <li>• A centrally based QAQC Specialist reviewed standard performance on a weekly basis and provided regular feedback or recommendations on corrective action if required.</li> </ul>
<p><b>Verification of sampling and assaying</b></p>	<p>There are no reports of independent verification of sample assays by independent or other parties. No holes have been twinned.</p> <p>CRAE (drill holes 79WC1-7, 80WC8-11)</p> <ul style="list-style-type: none"> <li>• No verification information documented in reports available.</li> </ul> <p>Highlands (drill holes 90IC01 – 4, 90WC12)</p> <ul style="list-style-type: none"> <li>• Signed laboratory assay result sheets lodged with reports.</li> </ul> <p>Barrick (drill holes BWDD0001 to 12)</p> <ul style="list-style-type: none"> <li>• No verification information documented in reports available.</li> </ul> <p>Newcrest (drill holes NWDD001-003)</p> <ul style="list-style-type: none"> <li>• Significant results were reported by the Geology Team and verified by the Exploration Manager. Significant intersections were verified again internally by a suitable qualified specialist in accordance with Newcrest protocols who does not directly report to the Exploration Manager.</li> <li>• All field data was captured digitally using Toughbook computers, directly into an Acquire logging system stored electronically in an Acquire database, and exported to a Melbourne based Acquire database, which was maintained by the Database Manager. Digital assay files were received directly from the Laboratory and input directly to Acquire.</li> <li>• No twin holes were drilled as these were first pass exploration drill holes.</li> </ul>
<p><b>Location of data points</b></p>	<p>Surveys are of a mixed type due to various drilling campaigns and number of previous explorers.</p> <p>CRAE (drill holes 79WC1-7, 80WC8-11)</p> <ul style="list-style-type: none"> <li>• A control network of 23 permanent survey stations was established in the project area. The system was tied by Australian Metric Grid to 1<sup>st</sup> order accuracy by a licensed surveyor. Stations consisted of 50mm steel posts set in concrete.</li> </ul> <p>Highlands (drill holes 90IC01 – 4, 90WC12)</p> <ul style="list-style-type: none"> <li>• It is apparent, though not documented, that HGL used CRAE’s trig stations for local survey control. There are no down hole surveys reported.</li> </ul> <p>Barrick (drill holes BWDD0001 to 12)</p>





Criteria	Commentary
	<ul style="list-style-type: none"> <li>Barrick’s drill database has collar and downhole survey files.</li> </ul> <p>Newcrest (drill holes NWDD001-003)</p> <ul style="list-style-type: none"> <li>Drill hole location was determined by hand-held GPS. Drilling orientation surveys were conducted using a Reflex EZTrac instrument, with appropriate routine QC and calibration. All samples were assigned a unique sample number.</li> <li>All coordinates were collected using AGD66 Zone 55.</li> <li>Topographic control was determined by digital terrain models derived from data acquired during a low-level aeromagnetic survey covering the area.</li> </ul>
<b>Data spacing and distribution</b>	<p>There is no regular spacing of the historic drill holes as they were early stage exploration drilling and not a drill-out program. Geological continuity and grade continuity between holes have been determined as adequate for initial resource estimation. No previous mineral resource estimate has been undertaken on this project.</p> <p>CRAE (drill holes 79WC1-7, 80WC8-11)</p> <ul style="list-style-type: none"> <li>Mainly vertical, relatively shallow drilling.</li> </ul> <p>Highlands (drill holes 90IC01 – 4, 90WC12)</p> <ul style="list-style-type: none"> <li>Follow up drilling to CRAE. Generally shallow and angled across the structural grain.</li> </ul> <p>Barrick (drill holes BWDD0001 to 12)</p> <ul style="list-style-type: none"> <li>Well targeted drill campaign testing Idzan and Wamum zones along strike and at depth.</li> </ul> <p>Newcrest (drill holes NWDD001-003)</p> <ul style="list-style-type: none"> <li>Follow up deep holes testing mainly the Idzan zone.</li> <li>Samples are submitted as nominal 2m intervals.</li> <li>No compositing of results has been undertaken.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<p>The Wamum Creek deposit has a south west – north east structural grain and a sub-vertical dip. The Idzan Creek deposit has a west-east structural grain and a sub-vertical dip.</p> <p>CRAE (drill holes 79WC1-7, 80WC8-11)</p> <ul style="list-style-type: none"> <li>Mainly vertical holes to relatively shallow depth testing surface geochemistry.</li> </ul> <p>Highlands (drill holes 90IC01 – 4, 90WC12)</p> <ul style="list-style-type: none"> <li>Drill holes orientated across structural grain some effectively twinning CRAE holes.</li> </ul> <p>Barrick (drill holes BWDD0001 to 12)</p> <ul style="list-style-type: none"> <li>Drill holes orientated across structural grain.</li> </ul> <p>Newcrest (drill holes NWDD001-003)</p> <ul style="list-style-type: none"> <li>Sampling is considered adequate for the diffuse nature of the mineralised system i.e. porphyry deposit.</li> <li>Orientation of the data in perpendicular to the structural grain.</li> </ul>
<b>Sample security</b>	<p>CRAE (drill holes 79WC1-7, 80WC8-11)</p> <ul style="list-style-type: none"> <li>No information on sample security has been provided in any of the reports available. Core was flown to CRAE’s Maralumi exploration base for logging.</li> </ul> <p>Highlands (drill holes 90IC01 – 4, 90WC12)</p> <ul style="list-style-type: none"> <li>No information on sample security has been provided in any of the reports</li> </ul>



Criteria	Commentary
	<p>available.</p> <p>Barrick (drill holes BWDD0001 to 12)</p> <ul style="list-style-type: none"> <li>Core was flown to Barrick’s secure mine site at Kainantu for logging and processing.</li> </ul> <p>Newcrest (drill holes NWDD001-003)</p> <ul style="list-style-type: none"> <li>Samples were assigned a unique sample number. All cut core samples were placed in calico bags clearly marked with the assigned sample number, and placed in polyweave sacks, sealed and transported by company transport to the Intertek sample preparation facility in Lae. Pulps were despatched by Intertek to their Townsville laboratory in Australia.</li> </ul>
<b>Audits or reviews</b>	<p>CRAE (drill holes 79WC1-7, 80WC8-11)</p> <ul style="list-style-type: none"> <li>There are no reported audits or reviews of the sampling techniques and assay results.</li> </ul> <p>Highlands (drill holes 90IC01 – 4, 90WC12)</p> <ul style="list-style-type: none"> <li>There are no reported historic audits or reviews of the sampling techniques and data</li> </ul> <p>Barrick (drill holes BWDD0001 to 12)</p> <ul style="list-style-type: none"> <li>There are no reported historic audits or reviews of the sampling techniques and data.</li> </ul> <p>Newcrest (drill holes NWDD001-003)</p> <ul style="list-style-type: none"> <li>Routine QAQC protocols were employed. No specific audits were undertaken at this stage of the program.</li> </ul>

## Section 2 Reporting of Exploration Results

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

The following tables provide a summary of significant intercepts from reported historic assay results.

Hole_ID	From	To	Interval	Au ppm	Ag ppm	Cu %	cutoff
79WC1	24	39	15	0.11	0.7	0.38	0.1g/tAu
	117	150.35	33.35	0.14	0.8	0.24	0.1g/tAu
79WC2	0	101.05	101.05	0.55	0.9	0.50	0.1g/tAu
79WC3	0	72	72	0.55	2.5	0.50	0.1g/tAu
including	12	42	30	0.86	3.2	0.75	0.4g/tAu
79WC4	0	123.5	123.5	0.27	0.7	0.35	0.1g/tAu
79WC5	0	100	100	0.18	1.0	0.32	0.1g/tAu
79WC6	no	significant	assays				
79WC7	0	160.2	160.2	0.80	1.0	0.25	0.1g/tAu
including	0	45	45	0.74	0.9	0.26	0.4g/tAu
including	75	117	42	1.66	2.0	0.46	0.4g/tAu
80WC8	no	significant	assays				
80WC9	96	108	12	0.16	1.0	0.42	0.1g/tAu
and	141	162	21	0.13	0.9	0.37	0.1g/tAu
and	186	213	27	0.11	1.9	0.60	0.1g/tAu
and	231	300.17	69.17	0.11	1.0	0.38	0.1g/tAu
80WC10	no	significant	assays				
80WC11	no	significant	assays				

Hole_ID	From	To	Interval	Au ppm	Ag ppm	Cu %	cutoff
90IC01	28.75	134.1	105.35	1.26	1.6	0.43	0.1g/tAu
including	33.95	125.1	91.15	1.42	1.7	0.47	0.4g/tAu
and	146.35	176.35	30	0.27	1.2	0.23	0.1g/tAu
90IC02	56.8	74.55	17.75	0.27	0.9	0.24	0.1g/tAu
and	88.95	131.18	42.23	0.14	0.6	0.18	0.1g/tAu
90IC03	4.05	99	94.95	0.36	0.4	0.18	0.1g/tAu
including	63.2	74.15	10.95	0.53	0.5	0.27	0.4g/tAu
and	119.55	181.65	62.1	0.60	0.8	0.27	0.1g/tAu
including	136.7	168.7	32	0.96	0.6	0.40	0.4g/tAu
90IC04	8.4	94.7	86.3	0.19	0.7	0.28	0.1g/tAu
and	113	141.25	28.25	0.27	0.5	0.12	0.1g/tAu
90WC12	no	significant	assays				



Hole_ID	From	To	Interval	Au ppm	Ag ppm	Cu %	cutoff
BWDD0001	200	364	164	0.84	1.9	0.31	0.1g/tAu
including	202	254	52	0.68	2.1	0.31	0.4g/tAu
including	269	348	79	1.20	2.1	0.40	0.4g/tAu
BWDD0002	no	significant	assays				
BWDD0003	no	assays	reported	(hole abandoned)			
BWDD0004	405	415	10	0.73	2.4	0.45	0.1g/tAu
and	431	501	70	0.19	1.2	0.13	0.1g/tAu
and	547	660	113	0.19	1.0	0.13	0.1g/tAu
BWDD0005	no	significant	assays				
BWDD0006	378	394	16	0.13	2.1	0.36	0.1g/tAu
and	295	478	183	0.07	1.1	0.23	0.1%Cu
BWDD0007	no	assays	reported	(hole abandoned)			
BWDD0008	263	433	170	0.32	1.4	0.26	0.1g/tAu
BWDD0009	102	216	114	0.18	0.8	0.30	0.1g/tAu
and	285	370	85	0.14	1.5	0.32	0.1g/tAu
BWDD0010	no	significant	assays				
BWDD0011	no	significant	assays				
BWDD0012	294	311	17	0.18	1.0	0.15	0.1g/tAu
and	324	335	11	0.20	0.7	0.13	0.1g/tAu

Hole ID	From	To	Interval	Au ppm	Ag ppm	Cu %	cutoff
NWDD001	544	772	228	0.65	0.9	0.28	0.1g/tAu
including	662	762	100	1.18	1.2	0.36	0.4g/tAu
NWDD002	642	844	202	0.17	0.7	0.34	0.1g/tAu
NWDD003	468	590	122	0.46	0.9	0.21	0.1g/tAu
including	478	512	34	0.71	1.5	0.39	0.4g/tAu

Notes:

1. Raw assays compiled by Barrick/Newcrest unless otherwise referenced
2. Significant intercepts reported >10m down hole intervals
3. Significant intercepts reported at 0.1g/t Au and 0.4g/t Au cutoffs
4. Maximum internal dilution 4m.

Criteria	Commentary
<b>Mineral tenement and land tenure status</b>	<p>Past exploration has been completed under previous titles. The following historic titles are documented:</p> <p>CRAE (drill holes 79WC1-7, 80WC8-11)</p> <ul style="list-style-type: none"> <li>• PA431</li> </ul> <p>Highlands (drill holes 90IC01 – 4, 90WC12)</p> <ul style="list-style-type: none"> <li>• PA731/1</li> </ul> <p>Barrick (drill holes BWDD0001 to 12)</p> <ul style="list-style-type: none"> <li>• EL1369</li> </ul> <p>Newcrest (drill holes NWDD001-003)</p> <ul style="list-style-type: none"> <li>• EL1369</li> </ul>



Criteria	Commentary
	<p>Canterbury Resources</p> <ul style="list-style-type: none"> <li>The Wamum application, EL2658, comprises 104 sub-blocks and covers an area of 354.64km<sup>2</sup>. Canterbury applied for the Wamum area in February 2020. A wardens hearing was successfully completed in October. The application is now pending approval at the Mineral Resources Authority.</li> <li>The following map shows the Wamum Project tenement application EL2658 in relation to Canterbury's other projects in Morobe Province.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Previous explorers over the Wamum prospect area include CRAE (1977 to 1985), Pagini/Highlands Gold (1987-1992), Magma Mines (1997-1998), Terenure (2004-2007), Barrick (2008-2015) and Newcrest (2015-2019). See elsewhere in Section 2 for details of activities.</li> <li>Available historic data has been compiled into a digital database.</li> <li>To date Canterbury has not completed any drilling on the project.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>The Idzan Creek and Wamum Creek porphyry targets lie approximately 22km NW of the Golpu porphyry deposit. The geological setting comprises a Late Miocene sequence of volcanic and volcanoclastic rocks of the Langimar Beds which has been intruded by dioritic porphyry intrusions. The porphyry intrusions display a range of temporal relationships to copper and gold mineralisation (pre-mineralisation, syn-mineralisation and post-mineralisation intrusions are evident).</li> <li>The copper and gold mineralisation is hosted within and adjacent to porphyry intrusions, and is dominated by vein-hosted and lesser fracture fill and</li> </ul>



Criteria	Commentary
	disseminated styles. Chalcopyrite and bornite are the dominant copper sulphides observed in fresh rock.
<b>Drill hole Information</b>	<p>The Wamum project area has been subject to drilling by previous explorers at several stages in the period 1977 – 2019. A total of 31 diamond drill holes were completed during this period, for a total of 11,253.35m. A breakdown of historical drill hole information follows:</p> <ul style="list-style-type: none"> <li>• 1979 - 1980: CRA: 11 drill holes (79WC1 – 79WC7, 80WC8-11) for 1941.37m</li> <li>• 1990 - 1991: Highlands: 5 drill holes (90IC01 – 90IC04, 90WC12) for 935.98m</li> <li>• 2008 - 2012: Barrick: 12 drill holes (BWDD001 – BWDD012) for 5,583.3m</li> <li>• 2015-2019: Newcrest: 3 holes (NWDD001-NWDD003) for 2792.7m.</li> </ul> <p>The collar details of all available historic drill data located to date are summarised in the tables at the beginning of Section 1.</p> <p>The following drill plan shows the Wamum Creek and Idzan Creek mineralised zones, drill hole collar locations and significant intercepts as documented at the front of this section.</p>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>• Significant intercepts from historic drilling are reported at the beginning of Section 2.</li> <li>• Weighted averages are used in calculations.</li> <li>• Significant intervals are reported at 0.1g/t and 0.4g/t Au cut-off grades.</li> <li>• Significant intervals &gt;10m, with maximum internal dilution of 4m.</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>• All assays are reported over down-hole lengths, true widths have not been determined.</li> <li>• Idzan Creek Cu-Au zone has a strong west-east orientation and sub-vertical dip and all drill holes have been collared approximately perpendicular to this orientation.</li> <li>• Wamum Creek Cu-Au zone has a strong southwest-northeast elongation and sub-vertical dip. All holes have been drilled approximately perpendicular to this orientation other than some vertical holes.</li> </ul>

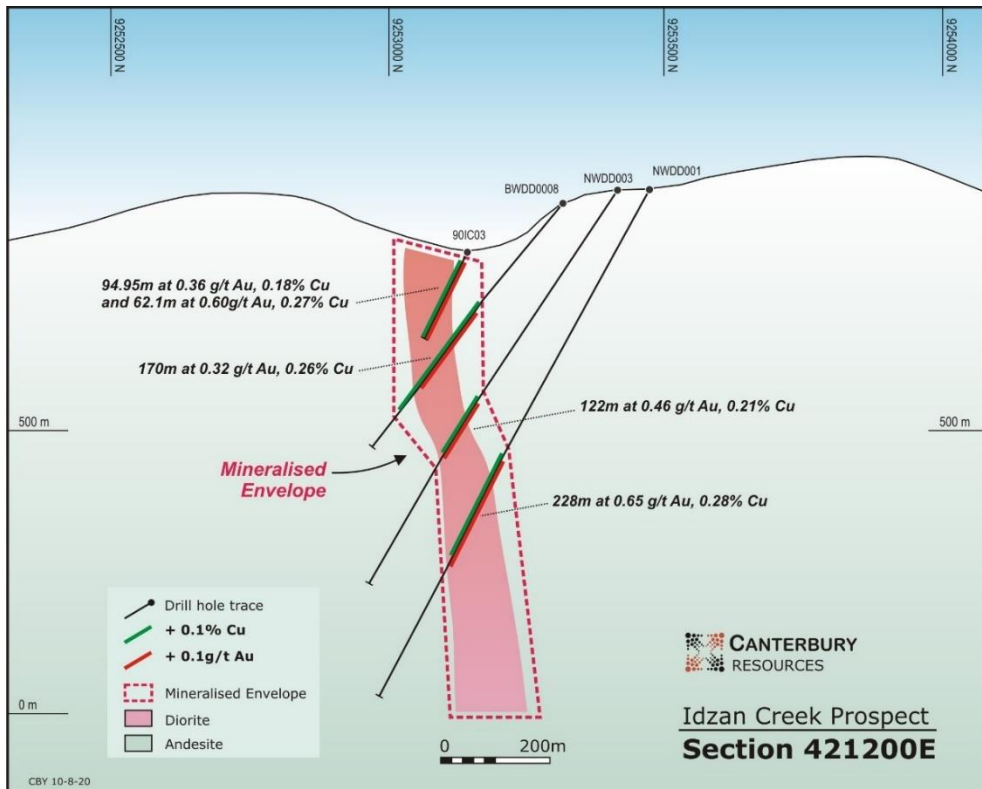
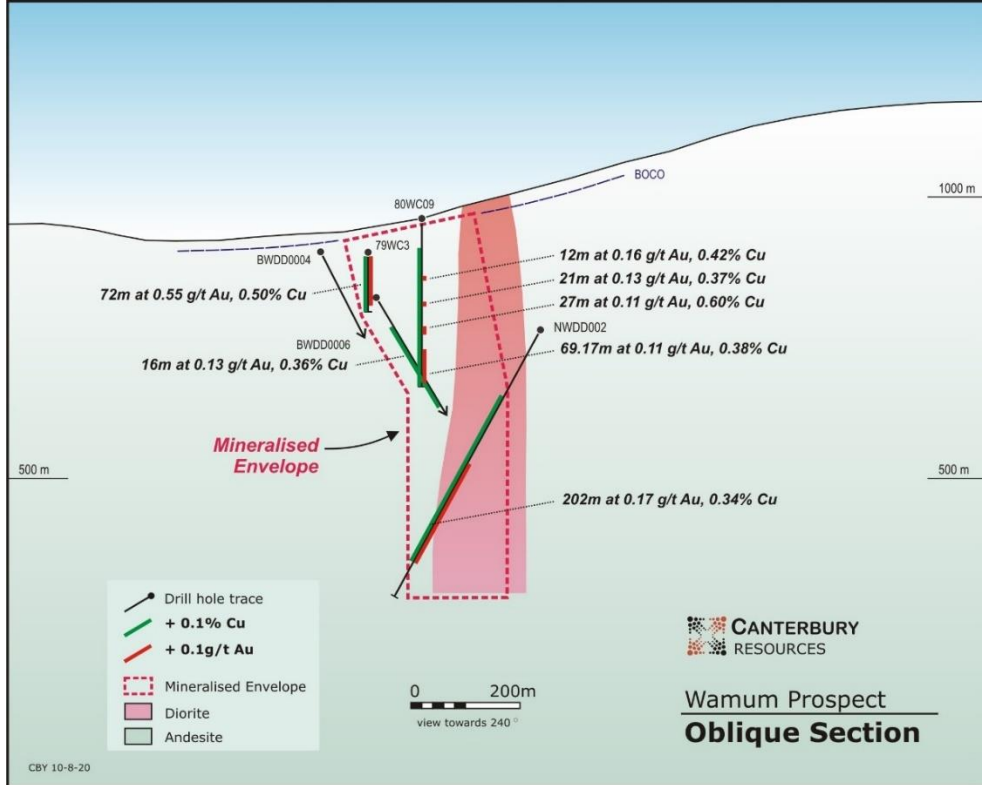


**Criteria**

**Commentary**

**Diagrams**

A plan showing drill hole locations is elsewhere in this section. An Idzan Creek interpreted geology and drill section and Wamum Creek interpreted geology and drill section follow, providing spatial context to historic drilling in relation to the mineralised envelope as defined by +0.1% Cu zone.





Criteria	Commentary
<b>Balanced reporting</b>	All available historic drill holes have been reported as far as the available data allows.
<b>Other substantive exploration data</b>	<p><b>CRA Exploration (1977-1985)</b></p> <p>The Wamum Creek prospect was discovered during helicopter supported drainage reconnaissance by CRAE during 1977. An anomalous value of 138ppm Cu in -180µm stream sediment and weak secondary copper mineralisation in float were recorded near the mouth of the Waruf River, about 10km downstream from the prospect. Follow up prospecting resulted in the discovery of outcropping copper and gold mineralisation in Wamum Creek.</p> <p>Geological mapping, contour benching, geochemical sampling, ground geophysics, diamond drilling and aerial photography were carried out in subsequent programs. Drilling was undertaken during 1979 and 1980 resulting in nine vertical drill holes at Wamum Creek and two at Idzan Creek.</p> <p>A total of 1860.5m was drilled from the eleven holes and five of those in Wamum Creek were used to define a 700m by 700m mineralised zone averaging 0.37% Cu, 0.24g/t Au and 1.06ppm Ag. Of the five holes assessed, drill hole 79WC2 (101m deep) contained results of 0.50% Cu, 0.57ppm Au and 0.88ppm Ag over 101m.</p> <p>The best result gained from the Idzan Creek drilling was from drill hole 79WC7 (160.2m deep). An interval between 75 and 111m (36m) averaged 0.49% Cu, 1.78g/t Au, and 1.02ppm Ag.</p> <p><b>Pagini Mining/Highlands Gold Limited (1987-1992)</b></p> <p>Pagini conducted a detailed compilation of previous work in the Wamum area, together with a photo-geological interpretation and outlined a number of prospects. The property was transferred to Highlands Gold (HGL) in 1988.</p> <p>Wamum Creek was re-investigated commencing March 1990. HGL identified a zone of panned concentrate anomalies, comprising coarse wire gold in Waits and Imuan Creeks.</p> <p>A program of wacker drill sampling and detailed mapping was conducted at Wamum Creek to delineate new mineralisation, or extensions of known mineralisation. This and further contour trenching confirmed the known areas of alteration and mineralisation and highlighted the strong structural control.</p> <p>Five angled drill holes totalling 935.98m drill tested Cu-Au anomalies in late 1990.</p>

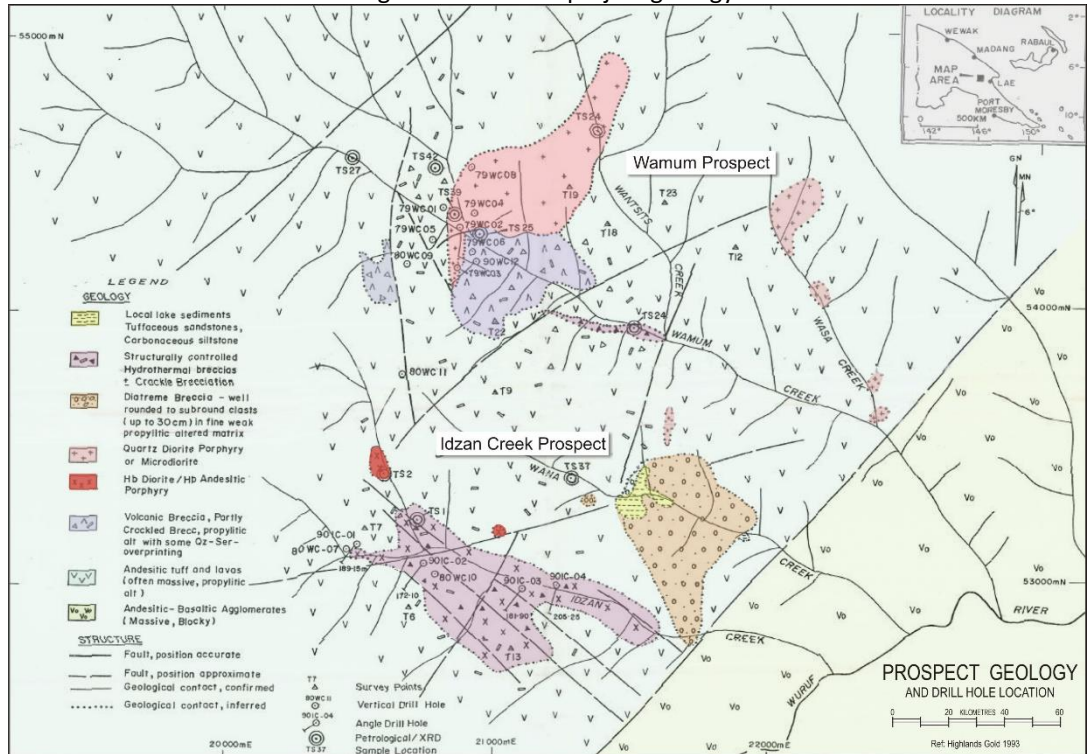




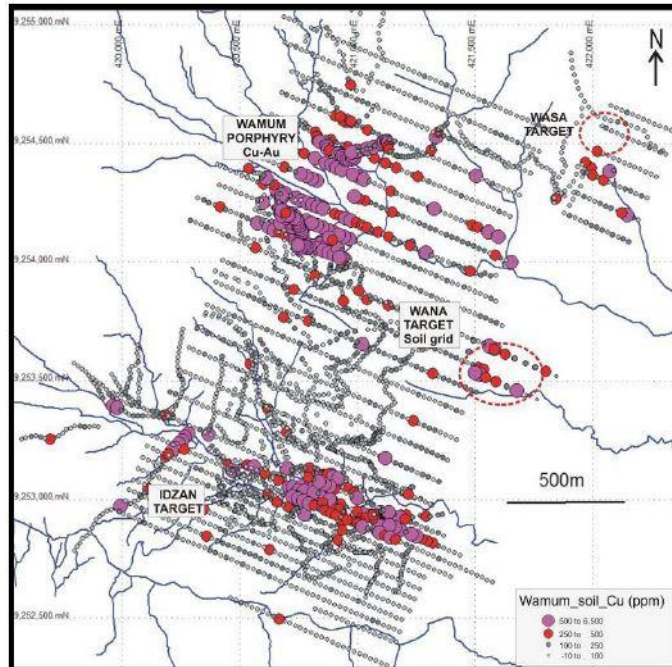
Criteria

Commentary

Highlands Wamum project geology.



CRAE and Highlands copper soil & bedrock (Wacker) geochemistry.



**Magma Mines (1997-1998)**

Magma acquired the property in 1997. Magma compiled a GIS database of all previous work and conducted a Landsat lineament and magnetic interpretation which demonstrated that the mineralisation at Wamum occurred within two discrete copper-gold anomalies with strong north-west trending structural controls.



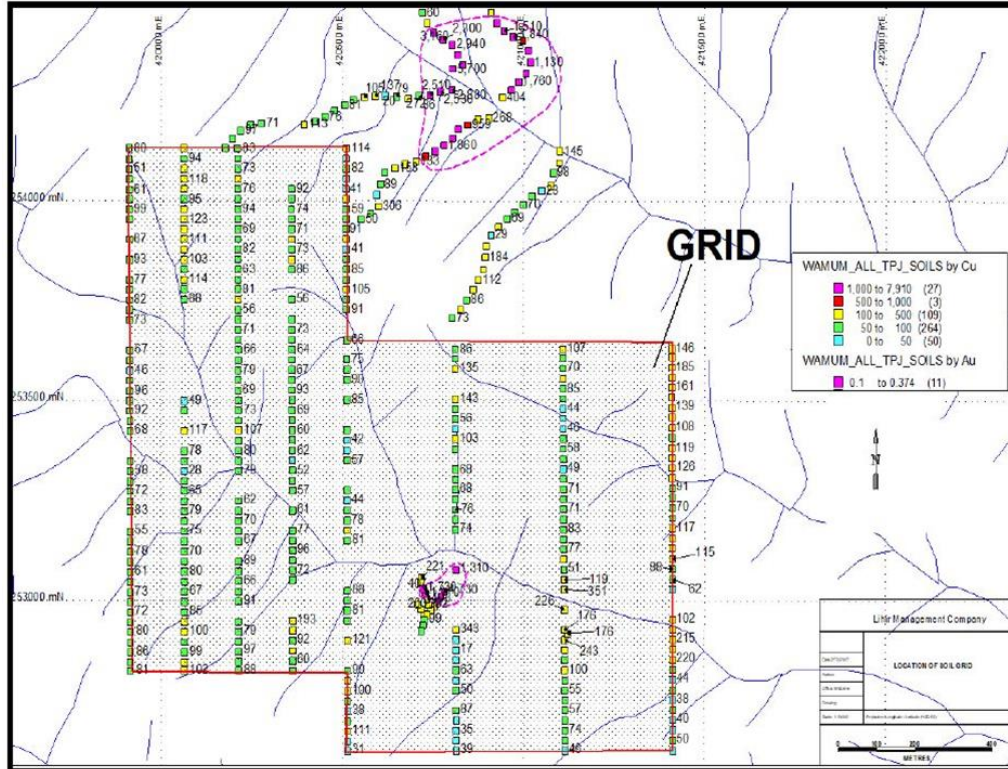
**Criteria**

**Commentary**

**Terenure Limited (2004-2007)**

Terenure Limited, a wholly owned subsidiary of Triple Plate Junction, were granted EL1369 over the Wamum area in November 2004. Terenure managed exploration activities from grant until mid-2007. During this time Terenure completed data compilation, Landsat imagery interpretation, geological mapping, soil sampling, trench and rock chip sampling.

Terenure soil sampling results for copper over the Wamum Creek and Idzan Creek prospects



**Barrick (2008-2015)**

Barrick entered into an option agreement over EL1369 in October 2007 and took over management of the tenement. Barrick completed data compilation and review, geological mapping, geochemical sampling, petrographic studies, airborne magnetic and radiometric geophysical surveying, airborne electromagnetic (AEM) geophysical surveying, diamond drilling, exploration targeting, project ranking and reporting between 2008 and 2013.

**Airborne magnetics and radiometrics survey**

In 2008 Barrick contracted UTS Geophysics to undertake a helicopter-borne magnetic and radiometric survey over the Wamum project area. The survey was flown at a nominal terrain clearance of 50m and a 200m line spacing with areas of infill at Waits Creek, Wamum/Idzan and Suwaira at 100m line spacing.

Wamum Creek and Idzan Creek are both defined by magnetic lows indicating magnetic destruction. The host andesite has relatively elevated magnetic signature. North west and north east trends indicate strong structural control to alteration.

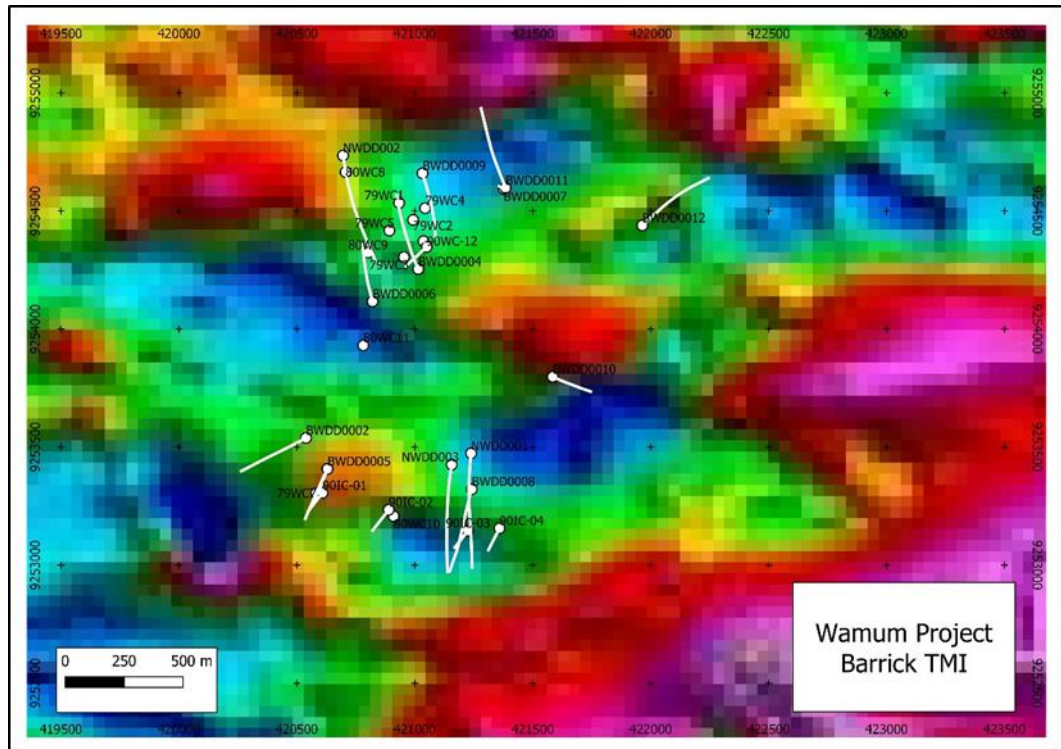
Potassium radiometric anomalies correspond relatively well with mapped phyllic alteration. The potassium anomalies define both Wamum and Idzan Creek deposits.



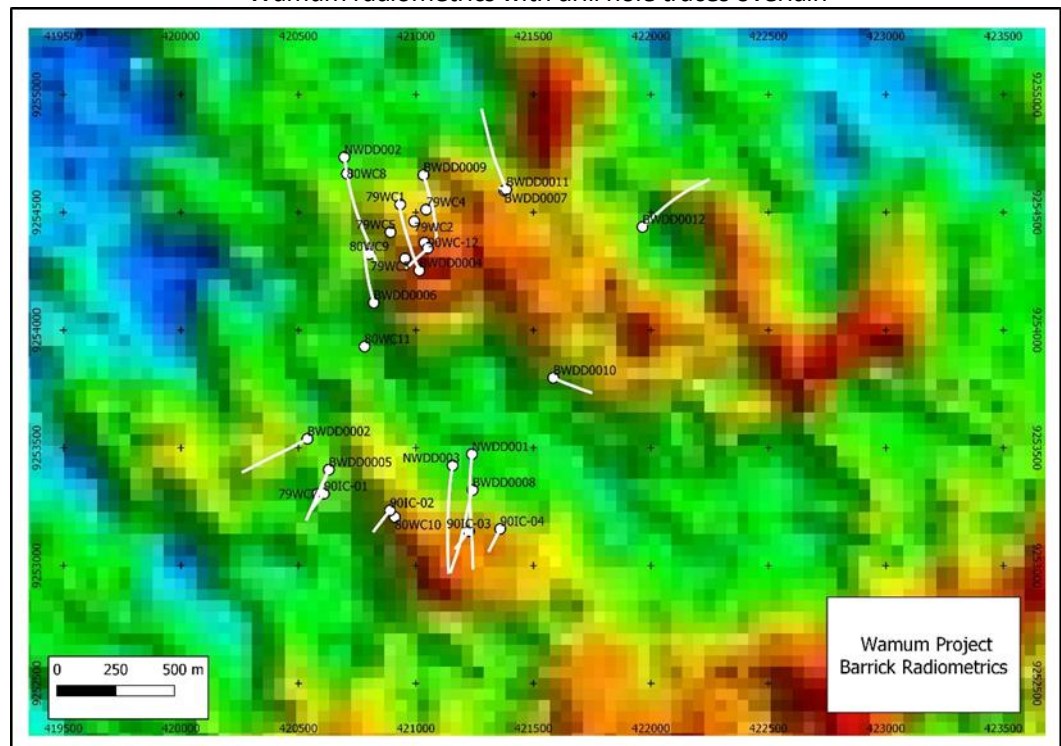
Criteria

Commentary

Wamum TMI with drill hole traces overlain



Wamum radiometrics with drill hole traces overlain



**Wamum and Idzan Creek geological mapping**

The host andesite is the dominant rock type and consists of mainly coherent flows varying between;

- massive fine-grained andesite
- plagioclase porphyritic andesite



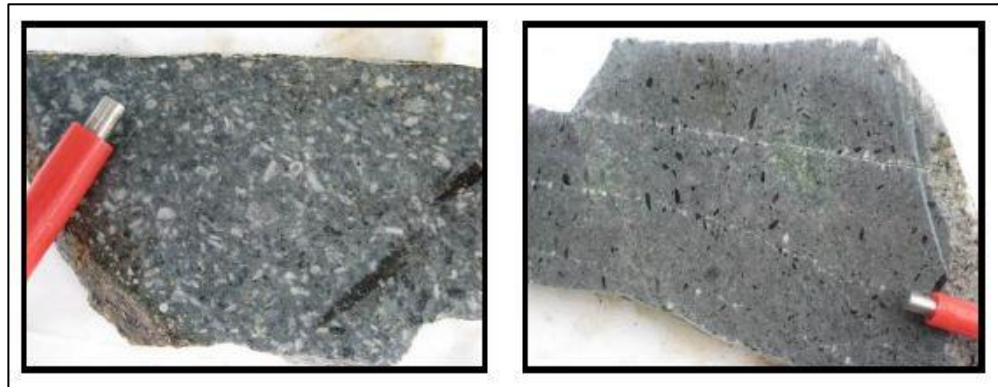
Criteria

Commentary

- hornblende porphyritic andesite

Intrusive rocks are ubiquitously porphyritic and dioritic in composition. A crowded feldspar porphyry forms the bulk of the outcropping diorite at Idzan Creek. The diorite is well mineralised with disseminated chalcopyrite-pyrite stockwork commonly overprinted by sericite-pyrite alteration.

Example of crowded feldspar porphyry (left) and late quartz diorite porphyry with unaltered hornblende needle (right)



At the Wamum prospect crowded feldspar porphyry occurs as dykes up to 50m thick trending north east. The density of quartz stocking and chalcopyrite to pyrite ratio is greatest within the dykes.

Hornblende diorite outcrops along a steep cliff, forming a spectacular waterfall within Wamum Creek. Although located within the pervasively potassic altered and well mineralised andesite in the Wamum porphyry mineralisation, it is weakly altered and interpreted as late-post mineral in timing.

Phreato-magmatic breccias were identified east of the Wamum porphyry along Wamum Creek, in association with the Idzan Creek porphyry and near the Wasa Creek porphyry. The breccia varies in texture from a jigsaw type breccia with dominantly andesitic fragments to a polymict breccia containing irregular shaped clasts of andesite and diorite. The polymict breccia was interpreted as part of a diatreme and is interpreted as post copper-gold porphyry mineralisation. It is spatially associated with phyllic alteration and the formation of late pyrite-sericite veins and low sulphidation epithermal style quartz-carbonate veins.

Wamum diatreme breccia – monomict (left) and polymict (right)

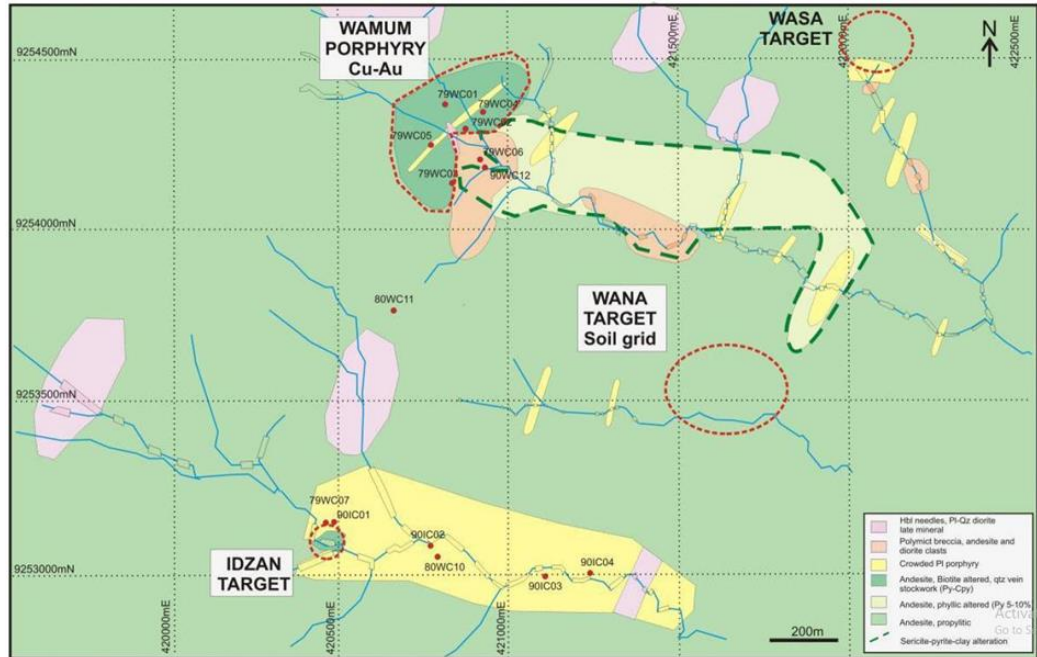




Criteria

Commentary

Barrick Wamum prospect geological map



The overall stratigraphy is gently folded about a north east axis. The diorite dykes, phyllic alteration zones, quartz veins and fractures are all dominantly orientated NW (300°/70-90°) or NE (035°/70-90°). North east trending faults have been observed at Idzan and Wamum Creek.

**Data Capture**

During 2010 and 2011, Barrick completed a review of historic data at the Mineral Resources Authority library in Port Moresby. Historic reports were located, reviewed and data capture in a drill and geochemical data base.

**Petrology**

Thirteen rock samples from Wamum Creek and Idzan Creek prospects and ten rock samples from Wana Creek, Wamum East and Wasa prospects were submitted to Mason Geoscience for petrographic studies.

The primary rock types identified were porphyritic andesite and intermediate porphyries (andesite porphyry and porphyritic micro-diorite).

Fracture, vein and hydrothermal alteration observed included potassic-type, phyllic-type, propylitic-type and late zeolite alteration.


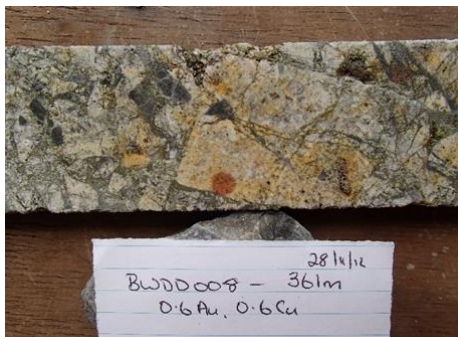
Copper mineralisation was present mainly as chalcopyrite with minor bornite, occurring in veins and associated wall rock alteration of potassic and phyllic types.

**Drilling**

Barrick drilled the Wamum Creek, Idzan Creek, Wasa and Wana targets between February and July 2009. Twelve core holes for 5582.4m were completed including two holes which were abandoned before testing their targets.

Porphyry style mineralisation was intercepted in Barrick holes testing the Wamum Creek and Idzan Creek zones. Selected photos of mineralisation styles follow, captured during a project review by MMJV in 2012.



Criteria	Commentary
BWDD001 (Idzan Creek west)	
	
BWDD004 (Wamum)	
	
BWDD008 (Idzan Creek east)	
	
<p><b>Newcrest (2015-2019)</b></p>	
<p>In July 2013 an Exploration Services Letter of Agreement was signed to allow Morobe Mining Joint Venture to conduct exploration activities on Wamum Joint Venture Project tenure including EL1369. During 2013-2014 MMJV undertook a technical assessment of the Wamum-Idzan Creek area, mapping and surface sampling and portable short-wave infrared (SWIR) scanning and analysis of six existing drill holes.</p>	
<p>In March 2015 a sales agreement between Newcrest PNG Exploration Ltd and Barrick (Niugini) /Terenure was executed. Effective December 2015 Newcrest became the registered holder of EL1369.</p>	
<p>Newcrest completed a project review, data compilation, exploration targeting, technical project reviews, diamond drilling, soil sampling, hyperspectral analysis, green rock analysis, petrology, and an airborne Z-axis Tipper Electromagnetic (ZTEM) geophysical survey.</p>	
<p><b>SWIR Analysis</b></p>	
<p>A selection of Barrick's drill holes was scanned with portable SWIR analyser to assist with hydrothermal mineral identification.</p>	



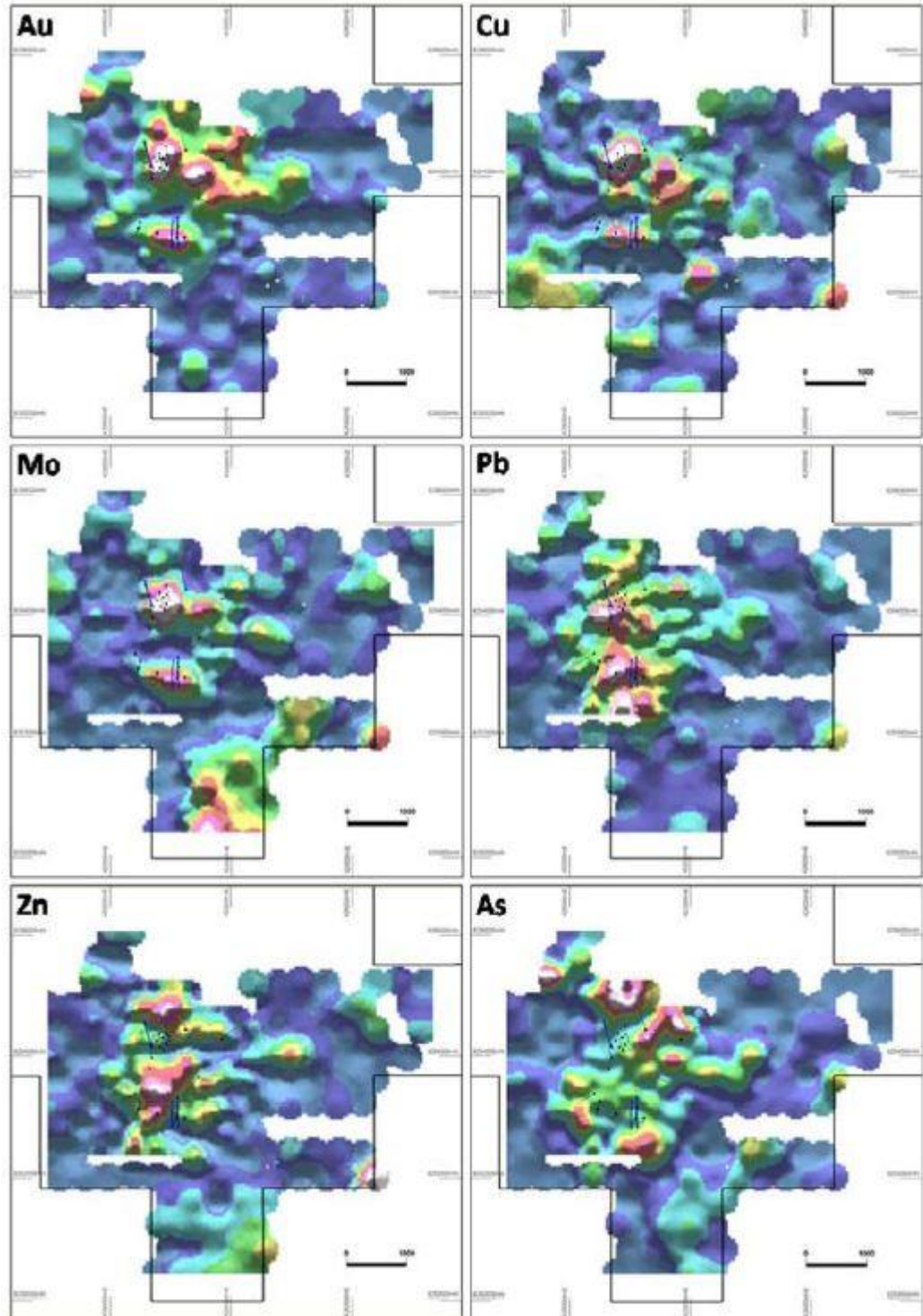
Criteria	Commentary
	<p>The SWIR analysis identified the following:</p> <ul style="list-style-type: none"> <li>• advanced argillic zones in BWDD0004 of pyrophyllite-alunite-kaolinite and in BWDD0002 diaspore-kaolinite.</li> <li>• Sericite-gypsum-jarosite-clay breccia in faults in BWDD0004 (251-249m) and BWDD0009 (417-560m).</li> <li>• Mg-chlorite (after phlogopite) in BWDD0001, BWDD0004 and BWDD0009 in the potassic zones.</li> <li>• Peripheral Fe-chlorite in BWDD0008.</li> </ul> <p><b>Green Rock Analysis</b></p> <p>Ten core samples from NWDD001 were subject to green-rock analysis at CODES University of Tasmania. Trace and major element analysis of chlorite and epidote was compared with that of known porphyry copper systems.</p> <p>Proximity and fertility indicators were considered moderate with conflicting results suggesting green rock analytical results may have been unreliable.</p> <p>No new targets were identified from the work.</p> <p><b>Soil Sampling</b></p> <p>Newcrest completed a soil sampling program over Wamum, Idzan and surrounding areas in 2016 with a view to improve density and quality of surface geochemistry by using methods with low detections and obtaining a multi-element dataset.</p> <p>The results highlighted;</p> <ul style="list-style-type: none"> <li>• Strong coincident Cu-Au-Mo anomalism over Wamum Creek and Idzan Creek prospects,</li> <li>• Mn and Zn depletion over Wamum Creek and Idzan Creek,</li> <li>• Enrichment of Sn, Se, and Tl over Idzan Creek as upper level indicators suggesting preservation of the porphyry system, whereas the elements are inconsistent at Wamum suggesting a possible deeper level of erosion.</li> <li>• Te, Bi, As and Sb anomalism defines a broad high level to near epithermal system halo. This highlights possible remnant lithocap alteration south of Idzan Creek and north of Wamum.</li> </ul>



Criteria

Commentary

Map of Au, Cu, Mo, Sb, Zn, and As anomalism from Newcrest soil sampling over Wamum and Idzan Creek – drill holes for reference



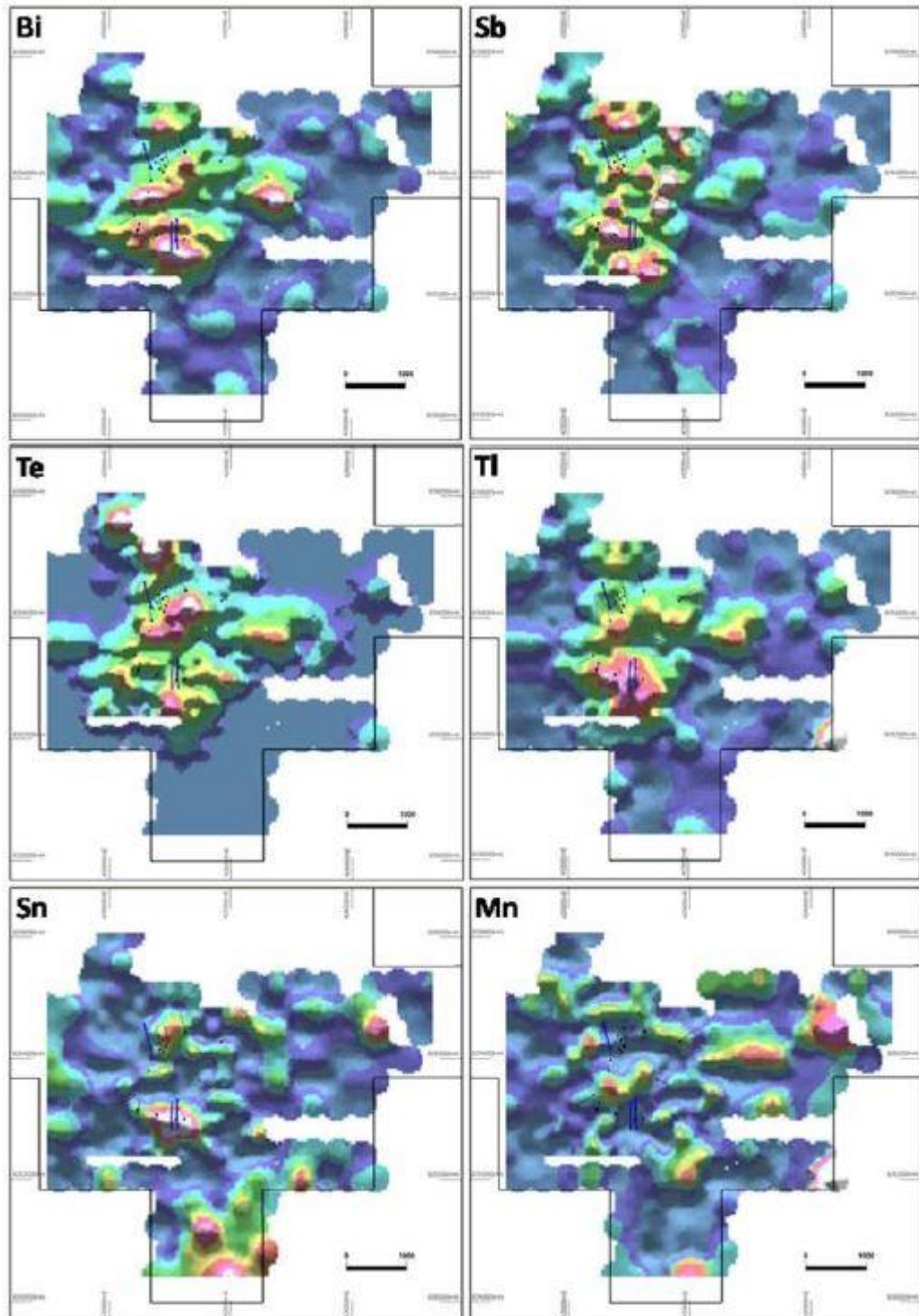




Criteria

Commentary

Map of Bi, Sb, Te, Tl, Sn, and Mn anomalism from Newcrest soil sampling over Wamum and Idzan Creek – drill holes for reference



**Reprocessed Airborne Electromagnetic (EM)**

Barrick airborne Electro-Magnetic (EM) geophysical data were reprocessed. The reprocessing confirmed that a broad area of resistivity along a north-easterly trend occurs across the main Wamum Creek prospect areas and beyond. However, Idzan Creek itself was on the margin of this resistive zone. This resistive response covers the general area of known alteration around the Wamum Creek and Idzan Creek prospects and extends further than existing drilling. This relative resistive response was considered unusual for such a system however indicated that the

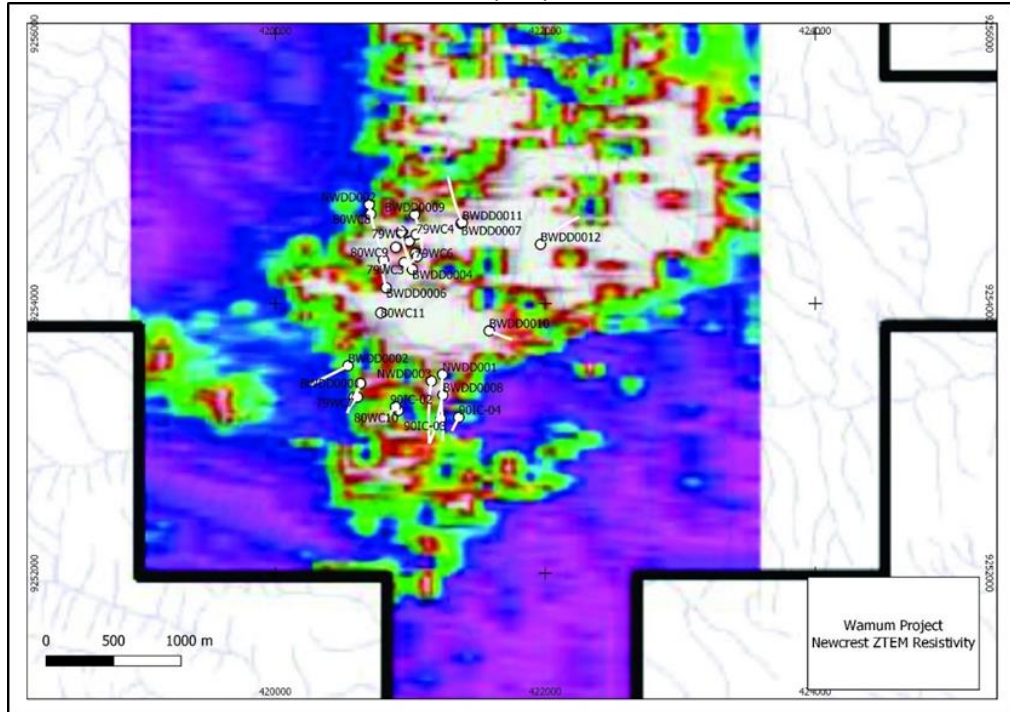


**Criteria**

**Commentary**

alteration system extended beyond the known mineralised areas as drilled. Alternatively the response may have been reflecting lithology.

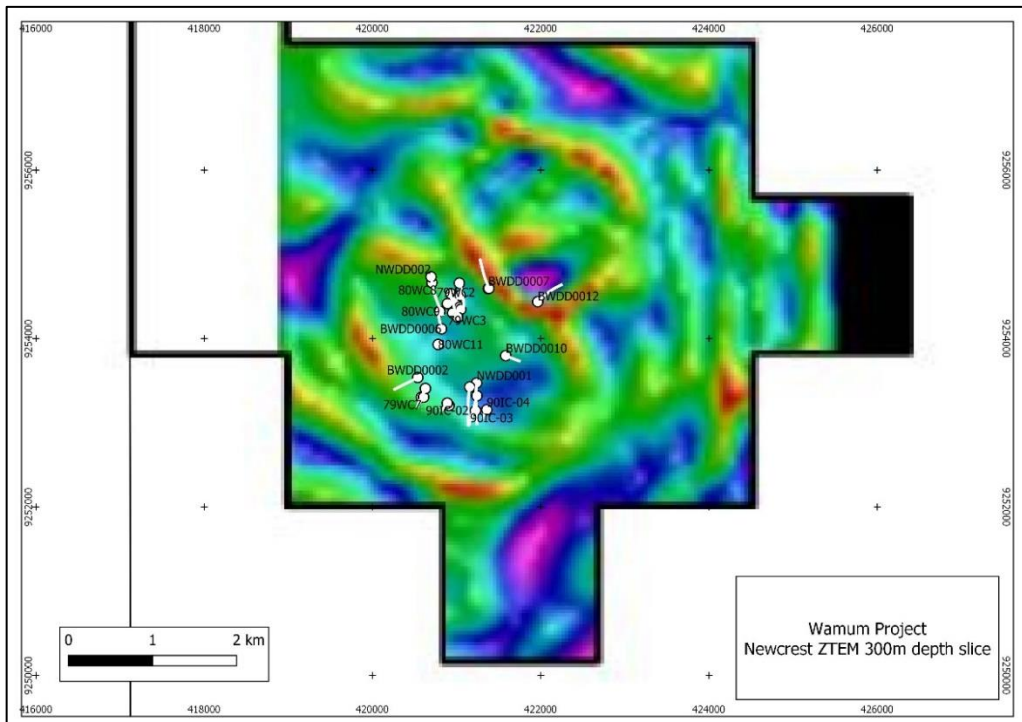
AEM resistivity Depth Slice 105



**Airborne ZTEM Geophysical Survey**

In 2017 Newcrest commissioned UTS Geophysics to complete an airborne ZTEM (Z-Axis Tipper Electromagnetic) geophysical survey across their properties.

Wamum Creek and Idzan Creek consist of a broad conductivity anomaly (blue) while the best drilling intercepts corresponded with an inverse subtle resistivity anomaly.





Criteria	Commentary
	<p><b>Drilling</b></p> <p>A program of three core drill holes for 2,792.7m was completed between September 2015 and January 2016 to test the Wamum Creek and Idzan Creek prospects. Drilling was completed by Quest Exploration Drilling (QED) using a CS1000 P6L helicopter supported diamond drill rig.</p> <p>The geology of NWDD003 was similar to that intersected in NWDD001 collared 100m to the northeast and drilled roughly parallel. Host rocks were andesitic volcanic units dominated by lithic tuffs and variably brecciated. Several intrusive rock units intruded the host tuffs; two to three diorite phases which were variably brecciated, and a late andesitic to basaltic-andesitic phase which appeared to postdate the diorites. Brecciation was widespread throughout the Idzan Creek prospect, and post-dated the dioritic intrusive phases, was variably mineralised and altered, and was related to the majority of mineralisation at the prospect.</p> <p>At the Idzan Creek prospect, porphyry-style mineralisation and alteration was intercepted in NWDD001. An intercept of 228m at 0.65g/t Au and 0.28% Cu was intercepted and is associated with K-feldspar-biotite-(albite-magnetite) altered diorite. Breccia-hosted and lesser porphyry-style mineralisation and alteration was intercepted in NWDD003. An intercept of 122m @ 0.46g/t Au and 0.21% Cu was intercepted. Mineralisation was associated with brecciated and K-feldspar-biotite-(albite-magnetite) altered diorite, with minor veining and infill containing quartz, pyrite, chalcopyrite and magnetite. The mineralisation was dominantly breccia-hosted with lesser classic stockwork porphyry veining. Mineralisation in NWDD003 was less developed than in NWDD001, both in width and grade. However, the similar high Au:Cu ratio was retained. At Idzan Creek, a predictable but asymmetrical zonal arrangement of hydrothermal alteration from an inner biotite - (K-feldspar-zeolite) → actinolite+albite → distal magnetite-chlorite-epidote alteration was observed.</p> <p>At the Wamum Creek prospect, NWDD002 intersected porphyry style mineralisation and alteration. Mineralisation was significant but of a similar tenor to that intersected in previous drilling. An intercept of 202m at 0.17g/t Au and 0.34% Cu was returned from feldspar-biotite-magnetite altered andesitic volcanics.</p>
<b>Balanced Reporting</b>	All known historic exploration data of significance to the Mineral Resource Statement, compiled from company reports and ASX releases, is reported.
<b>Further work</b>	<ul style="list-style-type: none"> <li>• Infill drilling to increase confidence in the Mineral Resource Estimate</li> <li>• Selected twin holes and scissor holes.</li> <li>• Preliminary metallurgical studies</li> <li>• Preliminary geotechnical investigations</li> <li>• Preliminary mining option studies.</li> </ul>

### Section 3 Estimation and Reporting of Mineral Resources

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

Criteria	Commentary
<b>Database integrity</b>	<ul style="list-style-type: none"> <li>Newcrest's digital drill database was used for resource estimation.</li> <li>Checks on the data integrity to the satisfaction of the Competent Person was made from company reports submitted to the Mines Department in Port Moresby.</li> </ul>
<b>Site visits</b>	<ul style="list-style-type: none"> <li>The Competent Person for Exploration Results (Mr. Erceg) visited site and inspected outcrop in both Idzan and Wamum Creeks. Barrick's drill core was inspected in some detail at their Kainantu Mine site as part of a project assessment for the Newcrest/Harmony Joint Venture in November 2012.</li> </ul>
<b>Geological interpretation</b>	<ul style="list-style-type: none"> <li>Porphyry style alteration and mineralisation is associated with dioritic intrusions hosted in andesitic volcanics.</li> <li>Hydrothermal alteration, associated mineralisation and geochemistry at Idzan Creek appears to be zoned in a 900m by 300m linear zone that trends east-west. By contrast, hydrothermal alteration and mineralisation at Wamum defines an anomalous zone that is 700m by 500m trending southwest-northeast.</li> <li>Both Cu-Au deposits are characterised by predictable zonal arrangement of hydrothermal alteration from: an inner biotite-chlorite (K-feldspar-zeolite) → magnetite-actinolite-albite → actinolite ± albite → distal chlorite-epidote alteration.</li> <li>Metal grades are highest immediately adjacent to single intrusive phases. Chalcopyrite veins, veinlets and disseminations overprint pervasive biotite (± K-feldspar-albite) alteration. Massive centimetre-scale chalcopyrite veins have been intersected.</li> </ul>
<b>Dimensions</b>	<ul style="list-style-type: none"> <li>The modelling domain containing the Idzan Creek has a nominally 1200m x 200m extent that trends east-west and Wamum Creek has a nominally 800m x 200m extent that trends southwest-northeast. The maximum vertical extent of Idzan Creek is 800m. The maximum vertical extent of Wamum Creek is 800m.</li> </ul>
<b>Estimation and modelling techniques</b>	<p><b>Geological Modelling</b></p> <ul style="list-style-type: none"> <li>The geology of Idzan Creek and Wamum Creek prospects was modelled on drill cross sections generated in Leapfrog, from surface at ~900m to a depth of 0mRL.</li> <li>A Mineralised Envelope was modelled using a 0.1% Cu cut-off. This envelope correlated well with the modelled main intrusive stock and an alteration halo at both Idzan Creek and Wamum Creek deposits.</li> <li>A more accurate surface DTM was acquired.</li> <li>The base of oxidation (BOCO) was modelled as a surface. Cutting the Idzan domain and the Wamum domain with the oxidation boundary resulted in four domains: IDZ_fresh, IDZ_ox, WAM_fresh and WAM_ox.</li> </ul> <p><b>Wireframe Construction</b></p> <ul style="list-style-type: none"> <li>Wireframes were digitised on each drill section in Leapfrog modelling the limits of the 0.1% Cu zone. The Mineralised Envelope was projected to a maximum depth of 0mRL approximately 200m beyond the deepest drill hole. Similarly, geology was projected no further than 100m along strike beyond the last drill section.</li> <li>Sectional Mineralised Envelope wireframes were then turned into solids in</li> </ul>



Criteria	Commentary																																																								
	<p>Leapfrog generating the Idzan and Wamum solids. The 3D dxf wireframes files of the two domains were exported from Leapfrog and imported into Vulcan and built into 3D wireframes and snapped to the drill holes.</p> <p><b>Drill Hole Data</b></p> <ul style="list-style-type: none"> <li>Twenty-eight historic holes were used to develop the geological model and inform the Mineral Resource Estimate (see following tables).</li> </ul> <p style="text-align: center;">Idzan Creek drill holes used in Mineral Resource Estimate</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Hole Type</th> <th colspan="3">Idzan Creek Drill Holes used in Estimate</th> </tr> <tr> <td></td> <th>Series</th> <th>Number</th> <th>Metres</th> </tr> </thead> <tbody> <tr> <td>Core</td> <td>CRAE</td> <td>2</td> <td>360.3</td> </tr> <tr> <td>Core</td> <td>Highlands</td> <td>4</td> <td>748.15</td> </tr> <tr> <td>Core</td> <td>Barrick</td> <td>5</td> <td>2466.1</td> </tr> <tr> <td>Core</td> <td>Newcrest</td> <td>2</td> <td>1878.6</td> </tr> <tr> <td><b>Total</b></td> <td></td> <td><b>13</b></td> <td><b>4625.6</b></td> </tr> </tbody> </table> <p style="text-align: center;">Wamum Creek drill holes used in Mineral Resource Estimate</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Hole Type</th> <th colspan="3">Wamum Drill Holes used in Estimate</th> </tr> <tr> <td></td> <th>Series</th> <th>Number</th> <th>Metres</th> </tr> </thead> <tbody> <tr> <td>Core</td> <td>CRAE</td> <td>8</td> <td>1285.07</td> </tr> <tr> <td>Core</td> <td>Highlands</td> <td>1</td> <td>187.83</td> </tr> <tr> <td>Core</td> <td>Barrick</td> <td>5</td> <td>2238.6</td> </tr> <tr> <td>Core</td> <td>Newcrest</td> <td>1</td> <td>914.1</td> </tr> <tr> <td><b>Total</b></td> <td></td> <td><b>15</b></td> <td><b>5453.15</b></td> </tr> </tbody> </table> <p><b>Statistics</b></p> <ul style="list-style-type: none"> <li>Conarco Consulting was engaged to review data files and comment on the general statistics and provide a spatial analysis (variography). Two wireframes were provided to Conarco, the modelled Mineralised Envelope for Idzan Creek and the modelled Mineralised Envelope for Wamum Creek. Both were cut by the oxidation boundary resulting in four domains. The oxide zone for both mineralized zones comprised very few samples and were excluded from the Conarco review.</li> <li>An analysis of the combined mineralised dataset suggested that the majority of the sample lengths were 1.0m with several clusters at 2.0m and 3.0m. As a general rule, the appropriate composite length should be close to the model distribution of the data set. Therefore, a 1.0 m composite length was chosen.</li> <li>A comparison between the raw samples and the composited samples suggested that there was no material difference between the two data sets.</li> <li>For both the Idzan and Wamum domains, the copper and gold mineralization show a log-normal distribution. The composited data resulted in a low Coefficient of Variation (CV) with a relatively well formed “bell curve”. This data suggested that there was one grade population within each domain. There were only minor inflections on the log probability plot suggesting that top-cuts were not required.</li> </ul> <p><b>Variography</b></p> <ul style="list-style-type: none"> <li>Variography was completed using Snowden’s Supervisor V8 software. The composited data from each domain was used for geostatistical modelling. To determine the nugget value, a downhole variogram with a 1m lag was used.</li> </ul>	Hole Type	Idzan Creek Drill Holes used in Estimate				Series	Number	Metres	Core	CRAE	2	360.3	Core	Highlands	4	748.15	Core	Barrick	5	2466.1	Core	Newcrest	2	1878.6	<b>Total</b>		<b>13</b>	<b>4625.6</b>	Hole Type	Wamum Drill Holes used in Estimate				Series	Number	Metres	Core	CRAE	8	1285.07	Core	Highlands	1	187.83	Core	Barrick	5	2238.6	Core	Newcrest	1	914.1	<b>Total</b>		<b>15</b>	<b>5453.15</b>
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**Criteria**

**Commentary**

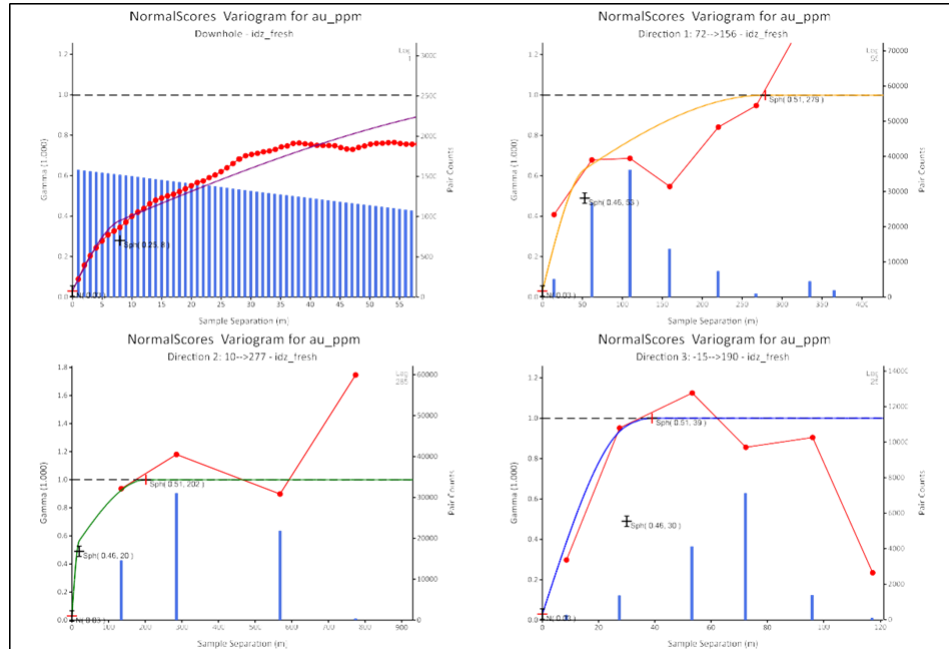
Directional semi-variograms were then produced in the horizontal, across-strike and dip plane directions. The results of the nugget and semi-variograms were then fitted to a nested spherical model with up to two structures if required. The semi-variograms were then modelled to produce a sill and range in each of the principal directions.

**Results of Variography**

Domain	Element	Dir 1	Dir 2	Dir 3	Rotation 1	Rotation 2	Rotation 3	C0	C1	A1	C2	A2
Idz_fresh	Au	072-->156	-010-->097	-015-->190	155	72	-147	0.03	0.46	53.0	0.5	279.0
										20.0		202.0
										30.0		39.0
Warn_fresh	Au	068-->194	020-->044	-010-->130	194	67	117	0.11	0.38	40.0	0.5	287.0
										111.0		297.0
										20.0		136.0
Idz_fresh	Cu	072-->156	-010-->097	-015-->190	155	72	-147	0.03	0.74	31.0	0.2	132.0
										260.0		361.0
										19.0		41.0
Warn_fresh	Cu	068-->194	020-->044	-010-->130	194	67	117	0.11	0.6	83.0	0.3	287.0
										44.0		171.0
										20.0		136.0

- Overall, the result was a well-constructed two structure variogram (see below). There are some “holes” in the variogram most likely caused by the wide drill spacing.
- As an alternative, given the wide drill spacing in the Wamum Creek zone, an inverse distance weighted estimation method was recommended by Conarco.

**Gold variography for the Idzan Creek zone**

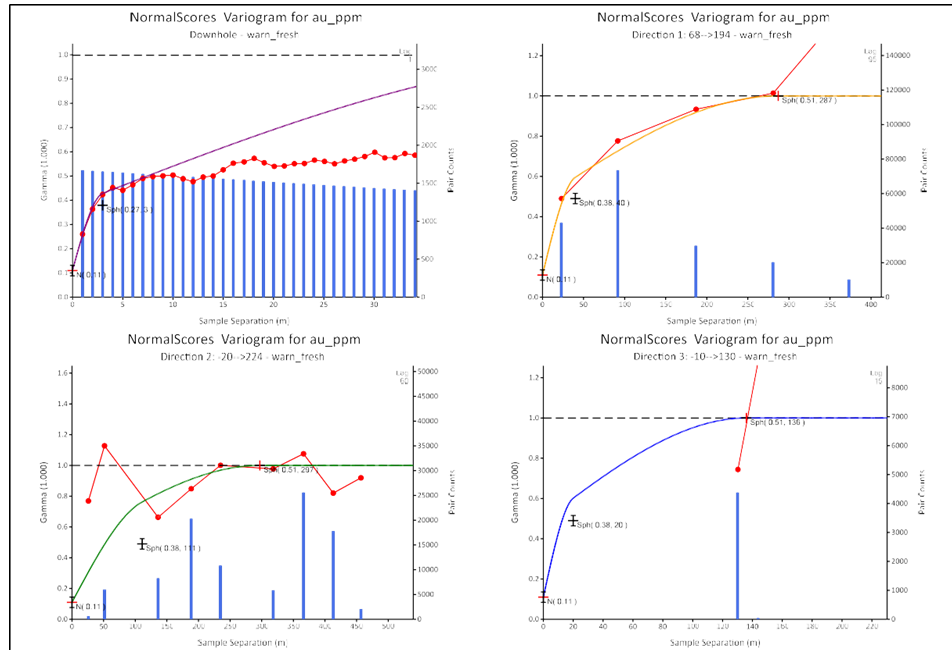




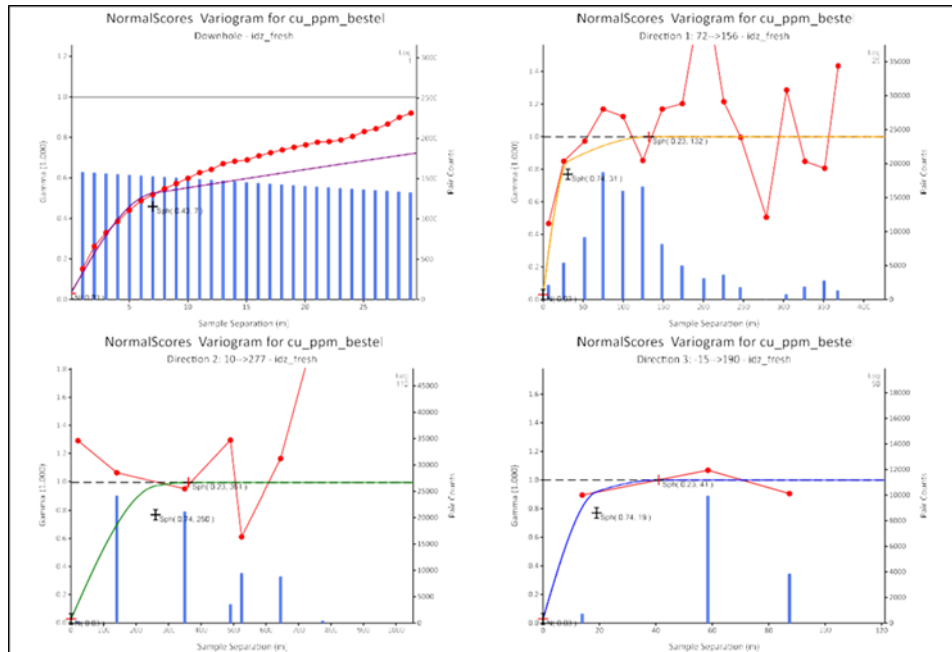
Criteria

Commentary

Gold variography for the Wamum Creek zone



Copper variography for Idzan Creek zone

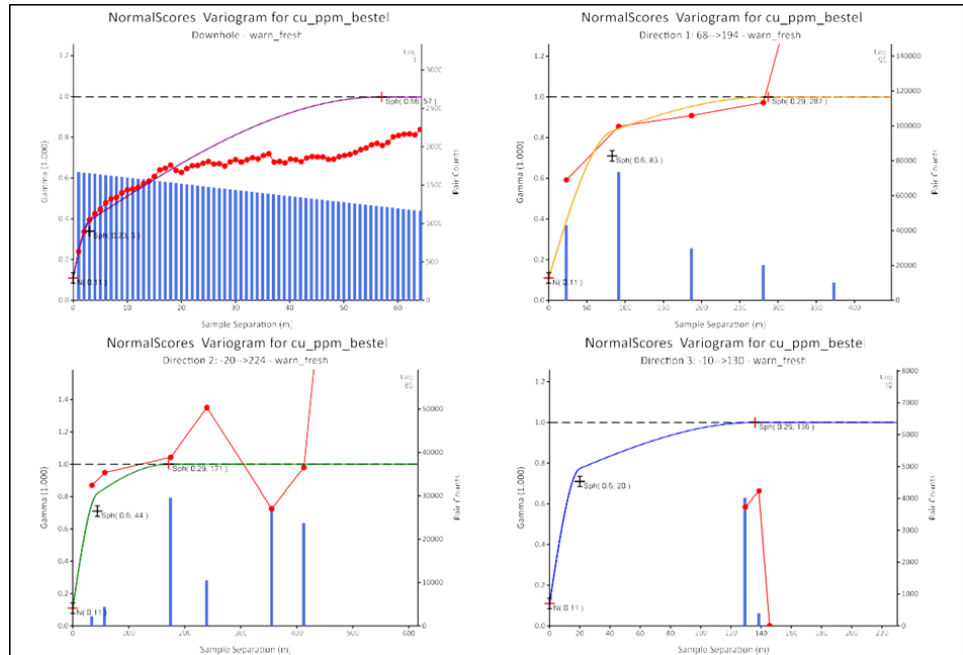




Criteria

Commentary

Copper variography for the Wamum Creek zone



**Kriging Neighbourhood Analysis**

- A multi-block kriging neighbourhood analysis (KNA) was completed for the Idzan Creek zone to determine the optimum block size as well as appropriate minimum and maximum number of samples used in the estimate. This was achieved by estimating a given point at certain block sizes, differing number of samples, minimum samples per drill hole (set to 5), differing search ranges determined by the variography and discretisation steps. The table below is a summary of the results recommended by Conarco to be used during the Mineral Resource Estimation.

KNA Summary Lode	Element	Block Coordinates			Block Size	No. Samples		Search			Discretisation
		X	Y	Z		Min	Max	Maj	S-Maj	Min	
Idz_fresh	Au	multi-block	multi-block	multi-block	50x25x25	10	25	257	297	136	3x3x3

- A kriging efficiency above 80% and a slope of regression above 0.9 was considered a robust estimate. Conarco recommended that block values less than this be reflected by the Mineral Resource classification.
- A block size of 50(X) x 25(Y) x 25(Z) was chosen as this resulted in the best overall kriging efficiencies and also slope of regression, although the results were relatively low.

**Block Model**

- A Vulcan block model was created by BluesPoint Mining Services (BMS) for the Idzan Mineral Resource Estimate with a block size of 50m N-S x 25m E-W x 25m vertical with sub-cells of 5m x 5m x 5m.
- The block model was constrained to a single domain. Parameters of the model are shown below.
- Copper and gold were modelled through the block model with both elements being reported.





Criteria

Commentary

*Idzan Block Model Parameters*

Model Name	Viebm_idz_ok91120_oct		
	X	Y	Z
<b>Origin</b>	420000	9253000	-100
<b>Offset</b>	0	-200	0
<b>Offset</b>	2000	600	1300
<b>Block Size (Sub-blocks)</b>	50 (5)	25 (5)	25 (5)

*Idzan Block Model Parameters for all Block Model*

Rotation	90
Attributes:	
Cu	grade- reportable
Au	grade- reportable
Bd	Bulk density
Class	Measured = 1, indicated = 2, inferred = 3
Min_domain	Mineralisation domain
Ag	grade- non reportable
As	grade- non reportable
Cuflg	Cu Estimation flag
Auflg	Au Estimation flag
Hole_count	Number of Drillholes
Avedist	Average distance to samples
Numsam	Average distance to samples

- A Vulcan block model was created by BluesPoint Mining Services (BMS) for the Wamum Creek Resource Estimate with a block size of 50m NE-SW x 25m NW-SE x 25m vertical with sub-cells of 5m x 5m x 5m.
- The block model was constrained to a single domain. Parameters of the model are shown below.
- Copper and gold were modelled through the block model with both elements being reported.

*Wamum Block Model Parameters*

Model Name	Viebm_wmm_1120_ok_oct		
	X	Y	Z
<b>Origin</b>	420500	9254000	200
<b>Offset</b>	-400	-0	0
<b>Offset</b>	200	1000	1100
<b>Block Size (Sub-blocks)</b>	50 (5)	25 (5)	25 (5)



Criteria	Commentary																												
	<p><i>Wamum Block Model Parameters for all Block Models</i></p> <table border="1"> <tr> <td>Rotation</td> <td>147</td> </tr> <tr> <td>Attributes:</td> <td></td> </tr> <tr> <td>Cu</td> <td>grade- reportable</td> </tr> <tr> <td>Au</td> <td>grade- reportable</td> </tr> <tr> <td>Bd</td> <td>Bulk density</td> </tr> <tr> <td>Class</td> <td>Measured = 1, indicated = 2, inferred = 3</td> </tr> <tr> <td>Min_domain</td> <td>Mineralisation domain</td> </tr> <tr> <td>Ag</td> <td>grade- non reportable</td> </tr> <tr> <td>As</td> <td>grade- non reportable</td> </tr> <tr> <td>Cuflg</td> <td>Cu Estimation flag</td> </tr> <tr> <td>Auflg</td> <td>Au Estimation flag</td> </tr> <tr> <td>Hole_count</td> <td>Number of Drillholes</td> </tr> <tr> <td>Avedist</td> <td>Average distance to samples</td> </tr> <tr> <td>Numsam</td> <td>Average distance to samples</td> </tr> </table>	Rotation	147	Attributes:		Cu	grade- reportable	Au	grade- reportable	Bd	Bulk density	Class	Measured = 1, indicated = 2, inferred = 3	Min_domain	Mineralisation domain	Ag	grade- non reportable	As	grade- non reportable	Cuflg	Cu Estimation flag	Auflg	Au Estimation flag	Hole_count	Number of Drillholes	Avedist	Average distance to samples	Numsam	Average distance to samples
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	<p><b>Grade Interpolation</b></p> <ul style="list-style-type: none"> <li>• Ordinary Kriging (OK) interpolation with an oriented ellipsoid search was used to estimate Cu and Au grade in the single domains for fresh rock. Inverse Distance (IVD) interpolation with an oriented ellipsoid search was used to estimate Cu and Au grade in the single domains for fresh rock as a check OK Mineral Resource estimate.</li> <li>• A first pass long axis radius of 200m with a minimum number of informing samples of 10 was used. The major axis radius was increased to 400m for the second pass. A third pass with an increased search radius of 1500m and a decrease in the minimum number of samples from 8 to 2 was required to fill blocks within the extremities of the resource wireframes (see tables below).</li> <li>• Approximately 18% of the resource volume filled in the 1st pass, approximately 22% in the 2nd pass and the remainder in the 3rd pass for Idzan Creek.</li> <li>• Approximately 28% of the resource volume filled in the 1st pass, approximately 33% in the 2nd pass and the remainder in the 3rd pass for Wamum Creek.</li> <li>• No high-grade copper nor gold cut was applied to either the Idzan Creek or Wamum Creek deposits.</li> <li>• An Octant Search with a maximum of 4 samples was applied to the fresh rock domains.</li> <li>• A bulk density value of 2.65t/m<sup>3</sup> was applied to both Idzan Creek and Wamum Creek deposits.</li> </ul>																												



Criteria

Commentary

*Search Parameters*

Pass	Min Sample	Max Sample	Distance
1	10	32	200
2	10	32	400
3	2	32	1500

*Estimation Parameters*

Search	Bearing	Plunge	Dip	Discretisation
Fresh(IDZ)	103	-7	86	3x:3y:3z
Fresh(WMM)	56	-11	83	3x:3y:3z

**Model Validation**

- To check that the interpolation of the Block Model correctly honored the drilling data and domain wireframes, BMS carried out a validation of the estimate using the following procedures:
  - Comparison of volumes defined by the domain wireframes and the associated Block Model,
  - A comparison of the composited sample grade statistics with Block Model grade statistics for each domain,
  - Visual sectional comparison of drill hole grades versus estimated block grades, and
  - Spatial comparison of composite grades and block grades by elevation, N-S/NE-SW and E-W/NW-SE orientations.
- The volumes were almost identical, with 0.01% difference. The overall volume difference is less than 1%. BMS considered this to be an acceptable result.
- Comparison between the copper grade and gold grade statistics from the Idzan Creek and Wamum Creek block models and composites were acceptable for each domain. For copper, domains Idzan 100 and 200 and Wamum 300 and 400 present the highest difference (a mean grade variance up to approximately 6.7%). For gold, domains Idzan 100 and 200 and Wamum 300 and 400 present the highest difference (a mean grade variance up to approximately 9.3%). The distance between composites and the amount of composites may have contributed the variation range less than 10% for Idzan 100 and 200 and Wamum 300 and 400.
- Comparison of the block values and composites results showed the block model grade was very close to the composites for all domains.



Criteria

Commentary

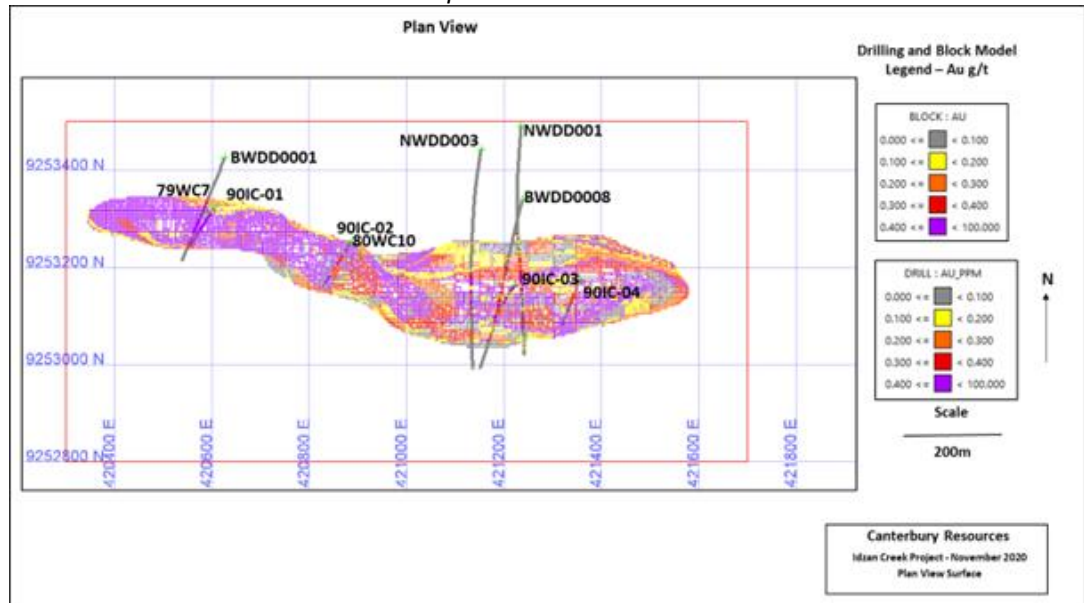
*Summary of resource block model validation by domain*

Resource Block Model Validation by Domain							
Domain Number	Wireframe	Block Model			Composites		
	Pod Volume	Resource Volume	Cu ppm	Au g/t	Number of Comps	Cu ppm	Au g/t
Idzan 100 200	84,039,135	84,042,625	2009.00	0.37	1,831	2149.00	0.43
Wamum 300 400	82,711,663	82,707,625	2487.00	0.15	2039	2638.00	0.16
<b>Total</b>	<b>166,750,798</b>	<b>166,750,250</b>	<b>2246.09</b>	<b>0.26</b>	<b>3,870</b>	<b>2406.64</b>	<b>0.29</b>
* Discrepancy in volumes							
	84,039,135	84,042,625	-3,490	100.00%			
	82,711,663	82,707,625	4,038	100.00%			

(Domain numbers - Idzan 100 = oxide, Idzan 200 = fresh, Wamum 300 = oxide, Wamum 400 = fresh)

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

*Plan view comparison block extent Idzan Creek*

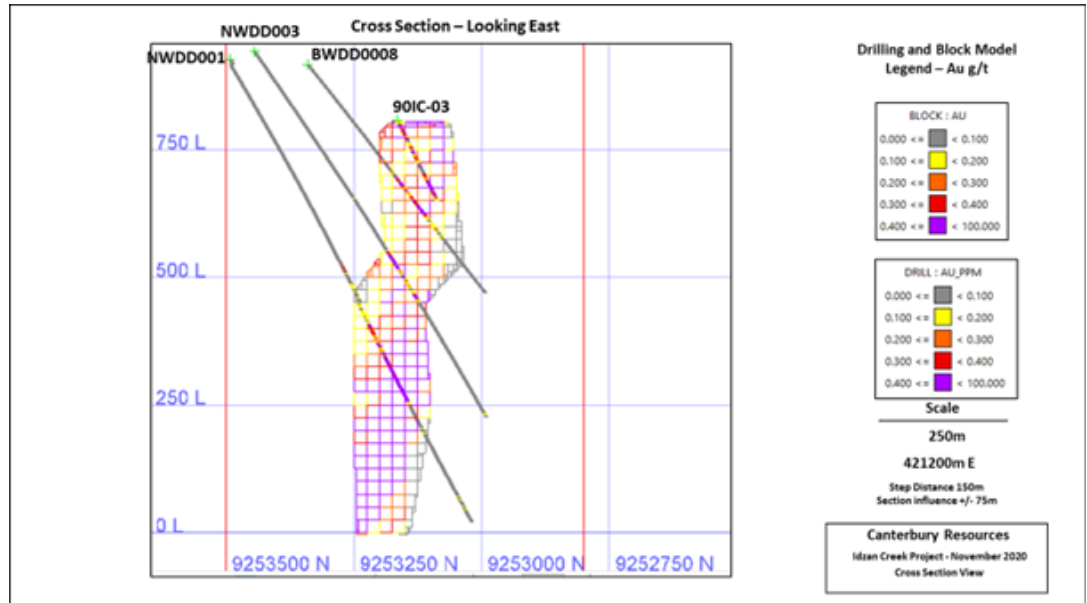




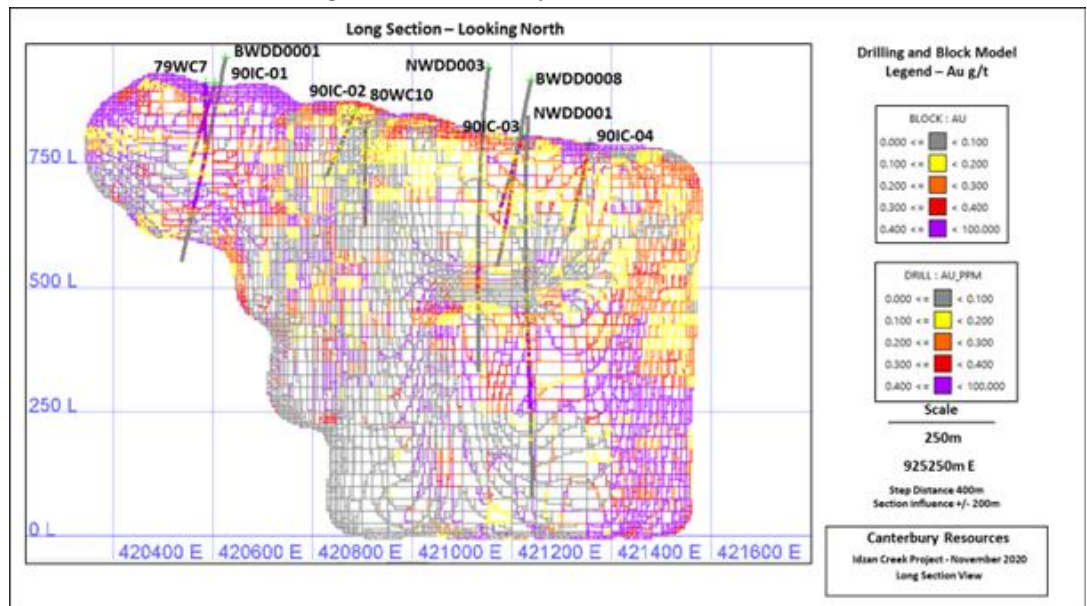
Criteria

Commentary

Section view comparison 421200mE Idzan Creek



Long section view comparison 9253250mN Idzan Creek



Moisture

- Tonnages are estimated with natural moisture.

Cut-off parameters

- Idzan Creek - cut-off grades are reported from 0.0g/t Au to 0.5g/t Au in increments of 0.1g/t Au. This was deemed appropriate at this stage of the economic evaluation.
- Wamum Creek - cut-off grades are reported from 0.0% Cu to 0.5% Cu in increments of 0.1% Cu. This was deemed appropriate at this stage of the economic evaluation.
- Copper and gold are the only metals identified to date of potentially significant economic value. Other common payable by-products in porphyry copper systems, such as molybdenum and silver, are at subdued levels and were not estimated.
- In order to assess a potential economic cut-off grade for Idzan and Wamum deposits, peer comparisons were made to existing bulk tonnage, low grade



Criteria	Commentary
	<p>porphyry copper-gold style operations and projects. Within eastern Australia the Cadia mine in NSW was a useful example. In 2018, Newcrest Mining completed the Cadia Expansion Pre-Feasibility Study and used a break-even cut-off value, for Mineral Resource estimation purposes, of approximately AUD18.50/t milled (including all site operating costs – mining, processing, general and administration and sustaining capital) which equates to ~0.2% Cu cutoff and/or ~0.2g/t Au at prevailing commodity prices.</p>
<b>Mining factors or assumptions</b>	<ul style="list-style-type: none"> <li>The assumption is that hypogene ore will be extracted by bulk open cut mining and bulk underground mining methods. It is also assumed that the supergene mineralisation is of little or no economic significance.</li> </ul>
<b>Metallurgical factors or assumptions</b>	<ul style="list-style-type: none"> <li>The assumption is that the ore is amenable to standard comminution methods used in large scale, low grade operations and the hypogene copper - gold ore can be extracted by flotation methods.</li> </ul>
<b>Environmental factors or assumptions</b>	<ul style="list-style-type: none"> <li>The assumption is that there would be no social or environmental impediment to establishing a large tonnage low grade copper-gold mine.</li> </ul>
<b>Bulk density</b>	<ul style="list-style-type: none"> <li>A revised bulk density of 2.65t/m<sup>3</sup> has been assumed.</li> </ul>
<b>Classification</b>	<ul style="list-style-type: none"> <li>The Wamum Creek and Idzan Creek Mineral Resource estimates have been classified as Inferred according to JORC 2012 guidelines based on the drilling density, grade continuity and the level of geological understanding.</li> <li>The Idzan Creek resource shows adequate continuity at 0.1% Cu. There is a reasonable expectation that further infill and step-out drilling will increase the geological confidence and allow for the estimation of an Indicated or Measured Resource in the future.</li> <li>Similarly, the Wamum Creek resource shows adequate continuity at 0.1% Cu. There is a reasonable expectation that further infill and step-out drilling will increase the geological confidence and allow for the estimation of an Indicated or Measured Resource in the future.</li> <li>Drilling density is low and wide-spaced however it is regarded as sufficient for an Inferred Mineral Resource estimate.</li> <li>BMS believes the current estimated grade is at a relatively low level of confidence in detail and further drilling is likely to impact the internal distribution of block grades. As a result, the global resource is classified as an Inferred Mineral Resource.</li> <li>The Mineral Resource was estimated using inverse distance (IVD) and ordinary kriging (OK) methods, constrained by resource domains based on geology and mineralised intervals interpreted by Canterbury. No minimum width was used in the interpretation of the resource.</li> <li>Globally there was no difference between the estimates derived from the inverse distance and ordinary kriged methods.</li> <li>OK was used to estimate the fresh rock component of the Mineral Resource which has appropriate variography parameters. No estimate the oxide rock component of the Mineral Resource Estimate due to the limited data available in this domain.</li> <li>The block dimensions used in the model were 50m N-S and 50m NE-SW x 25m W-E and</li> </ul>



**Criteria**

**Commentary**

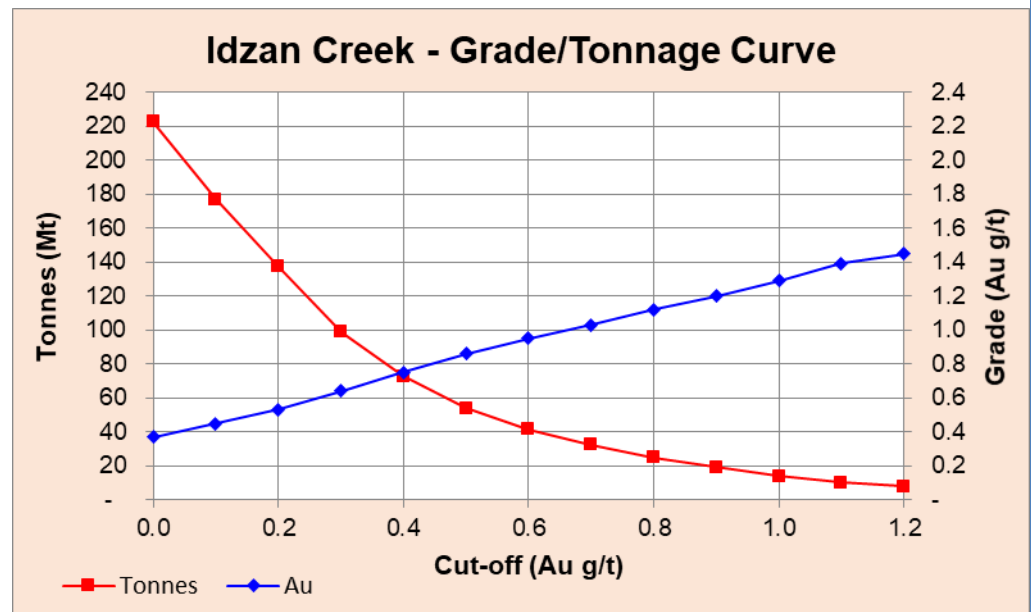
25m NW-SE x 25m vertical respectively for Idzan Creek and Wamum Creek zones, with sub-cells of 3m x 3m x 3m. The 50m x 25m x 25m size was based on the Kriging Neighbourhood Analysis (KNA) derived by external consultants Conarco Consulting.

- The Mineral Resource estimate is classified as an Inferred Mineral Resource based on the relatively broad spacing of drill sections combined with the documented continuity and predictability of the porphyry-style mineralisation system.
- Grade-tonnage tables and curves representing all “fresh” blocks in the model for copper and gold at Idzan Creek and Wamum Creek are shown below.

*Grade/tonnage table for Idzan Creek Mineral Resource Estimate*

Cut-off (g/t Au)	Tonnes (Mt)	Gold (g/t)	Copper (%)	Contained Au (Moz)	Contained Cu (kt)
0.1	176.8	0.45	0.22	2.6	389
0.2	137.3	0.53	0.24	2.3	327
0.3	99.0	0.64	0.26	2.0	254
0.4	72.8	0.75	0.27	1.8	200
0.5	53.9	0.86	0.29	1.5	156

*Grade/tonnage curve for Idzan Mineral Resource Estimate*



*Grade/tonnage table for Wamum Mineral Resource Estimate*

Cut-off (% Cu)	Tonnes (Mt)	Gold (g/t)	Copper (%)	Contained Au (Moz)	Contained Cu (kt)
0.1	208.7	0.16	0.26	1.1	537
0.2	141.5	0.18	0.31	0.8	435
0.3	67.2	0.21	0.37	0.5	249
0.4	16.3	0.27	0.46	0.1	75
0.5	3.1	0.38	0.56	0.0	17



Criteria	Commentary																																										
	<p><i>Grade/tonnage curve for Wamum Creek Mineral Resource Estimate</i></p> <table border="1"> <caption>Wamum - Grade/Tonnage Curve Data</caption> <thead> <tr> <th>Cut-off (Cu %)</th> <th>Tonnes (Mt)</th> <th>Grade (Cu %)</th> </tr> </thead> <tbody> <tr><td>0.0</td><td>220</td><td>0.25</td></tr> <tr><td>0.05</td><td>215</td><td>0.26</td></tr> <tr><td>0.1</td><td>205</td><td>0.27</td></tr> <tr><td>0.15</td><td>175</td><td>0.30</td></tr> <tr><td>0.2</td><td>140</td><td>0.33</td></tr> <tr><td>0.25</td><td>105</td><td>0.36</td></tr> <tr><td>0.3</td><td>65</td><td>0.40</td></tr> <tr><td>0.35</td><td>35</td><td>0.44</td></tr> <tr><td>0.4</td><td>15</td><td>0.48</td></tr> <tr><td>0.45</td><td>5</td><td>0.52</td></tr> <tr><td>0.5</td><td>2</td><td>0.56</td></tr> <tr><td>0.55</td><td>1</td><td>0.60</td></tr> <tr><td>0.6</td><td>0</td><td>0.65</td></tr> </tbody> </table>	Cut-off (Cu %)	Tonnes (Mt)	Grade (Cu %)	0.0	220	0.25	0.05	215	0.26	0.1	205	0.27	0.15	175	0.30	0.2	140	0.33	0.25	105	0.36	0.3	65	0.40	0.35	35	0.44	0.4	15	0.48	0.45	5	0.52	0.5	2	0.56	0.55	1	0.60	0.6	0	0.65
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<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>No external independent audits or reviews have been undertaken.</li> </ul>																																										
<b>Discussion of relative accuracy/confidence</b>	<ul style="list-style-type: none"> <li>The Wamum Creek and Idzan Creek deposits have been tested with industry standard drilling, sampling and assaying. Drilling and logging have defined a mineralized envelope to provide an accurate volume. The relative accuracy of the Mineral Resource Estimate is reflected in the reporting of the Mineral Resource. The Mineral Resource has been classified as an Inferred Mineral Resource as per the guidelines of Australasian Code for the Reporting of identified Mineral Resources and Ore Reserves (JORC 2012).</li> <li>These Mineral Resource Estimates are global in nature until relevant tonnages and relevant technical and economic evaluations are required and have been undertaken.</li> </ul>																																										