Neometals
All the right elements

SUCCESSFUL COMMERICAL-SCALE SMELTING TRIALS FOR BARRAMBIE

HIGHLIGHTS

- **Commercial-scale smelting of Barrambie mineral concentrate blended with commercial ilmenites produced premium quality chloride grade titanium slag;**
- **Results provide real world industry validation that saleable titanium and iron / vanadium co-products can be produced using a simple and conventional processing pathway;**
- **With technical due diligence completed, Neometals and potential offtake partner, Jiuxing, can commence binding offtake negotiations; and**
- **Completion of pre-feasibility study expected in December quarter to confirm 'value-in-use' for the product basket to support offtake dialogue.**

Emerging battery materials producer, Neometals Ltd (ASX: NMT) ("**Neometals**" or "**the Company**"), is pleased to announce highly encouraging results with production of +90% TiO_2 chloride slag from the industrial scale smelting trial of a blend of Barrambie Mixed Gravity Concentrate ("**MGC**") with other ilmenites. Neometals' potential offtake partner, Jiuxing Titanium Materials (Liaonging) Co. Ltd ("**Jiuxing**"), ran the trial at their production facility in China. Jiuxing is one of the leading chloride-grade titanium slag producers in the world and is the largest in north-eastern China.

During H1 2022, a mixed gravity bulk sample was prepared from Barrambie mineralisation with approximately 40t delivered to Jiuxing in China. Jiuxing then blended the Barrambie MGC with other commercially available titanium sources to produce feedstock suitable for an industrial scale smelter trial. The +90% TiO_2 titanium chloride grade slag produced is within specification of what is a well-established standard titanium industry feedstock. Importantly, the smelting trial was run at a commercial industrial facility and the successful result represents the final stage of technical due diligence required for Jiuxing and Neometals to begin negotiation on a binding formal offtake agreement. Cornerstone offtake of MGC is a key pillar in Neometals' Barrambie strategy of deriving value from the titanium, vanadium and iron mineral resource on a capital light basis with refining activities being undertaken by purchasers overseas.

The Jiuxing MoU[1] contemplates a path to a formal offtake agreement where Neometals supplies a MGC or separate ilmenite and iron-vanadium concentrate from Barrambie to Jiuxing. Specifically, the MoU outlines an evaluation regime and contains the key commercial terms for a formal offtake agreement (i.e. pricing, volumes, price floor etc.), subject to product evaluation from smelting trials. The Jiuxing MoU contemplates the parties negotiating and entering into a binding formal offtake agreement for the supply of 800,000 dry tonnes per annum ("**dtpa**") of MGC or 500,000 dtpa of ilmenite and 275,000 dtpa of iron-vanadium concentrate, on a take-or-pay basis for a period of 5 years from first production.

[1] For full details refer to ASX announcement entitled "Barrambie - MOU for Cornerstone Concentrate Offtake" ("Jiuxing MoU") released on 16th April 2021.

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Chris Reed, Neometals Managing Director said:

"*The ability to produce chloride-grade titanium slag from simple gravity concentrate from Barrambie is the key technical milestone for the next stage of project development. The results establish the potential value-in-use of MGC for negotiations with potential customers who seek quality feedstocks from low-risk jurisdictions that are amenable to simple and conventional processing pathways. Barrambie is a unique tier 1 project that offers a range of development alternatives including the possibility of direct shipping of ore, beneficiation of ore into MGC or further processing of MGC to produce separate ilmenite and vanadium rich magnetite products.*"

Mr Liu, Chairman of the Board of Jiuxing commented:

"*Jiuxing confirms that blending and smelting trials on Barrambie material have been successful and achieved premium quality standard titanium slag. Jiuxing confirms that this is the final technical confirmatory step required to enable the parties to begin negotiation on pricing and final offtake arrangements.*"

Figure 1 – *Left – Titanium chloride grade slag produced from the smelting trials; Right – Pig iron produced from the smelting trials. Source: Jiuxing.*

Next Steps

The Neometals Barrambie contractor engagement process continued during the quarter with leading service providers and this information has been utilised in advancing an Association for the Advancement of Cost Engineering ("**AACE**") Class 4 Barrambie pre-feasibility study ("**PFS**"). The engineering capital and operating cost estimate will consider all aspects of the Barrambie value chain from a simple Direct Shipping Ore ("**DSO**") option, a beneficiation option to make MGC, and an option to Low Temperature Reduction Roast ("**LTR**")[2] the MGC and separate into ilmenite and iron-vanadium concentrate streams. However, given the ongoing offtake discussions with Jiuxing, the PFS estimate is based on the LTR option which provides readily available product market indices to evaluate the project against. The PFS is on track for completion in the December Quarter 2022.

The Barrambie PFS exercise will form a key component of the due diligence required by the successful 'build-own-operate' partner. This development model was used successfully by Neometals and its partners to advance the Mt Marion Lithium Project in 2015, which is now the world's second largest producer of spodumene (hard-rock lithium) concentrates (Neometals sold its final equity position in the project in 2019 and its offtake right in 2021).

[2] For full details refer to ASX announcement entitled "Barrambie Flowsheet Breakthrough" released on 22nd December 2020.

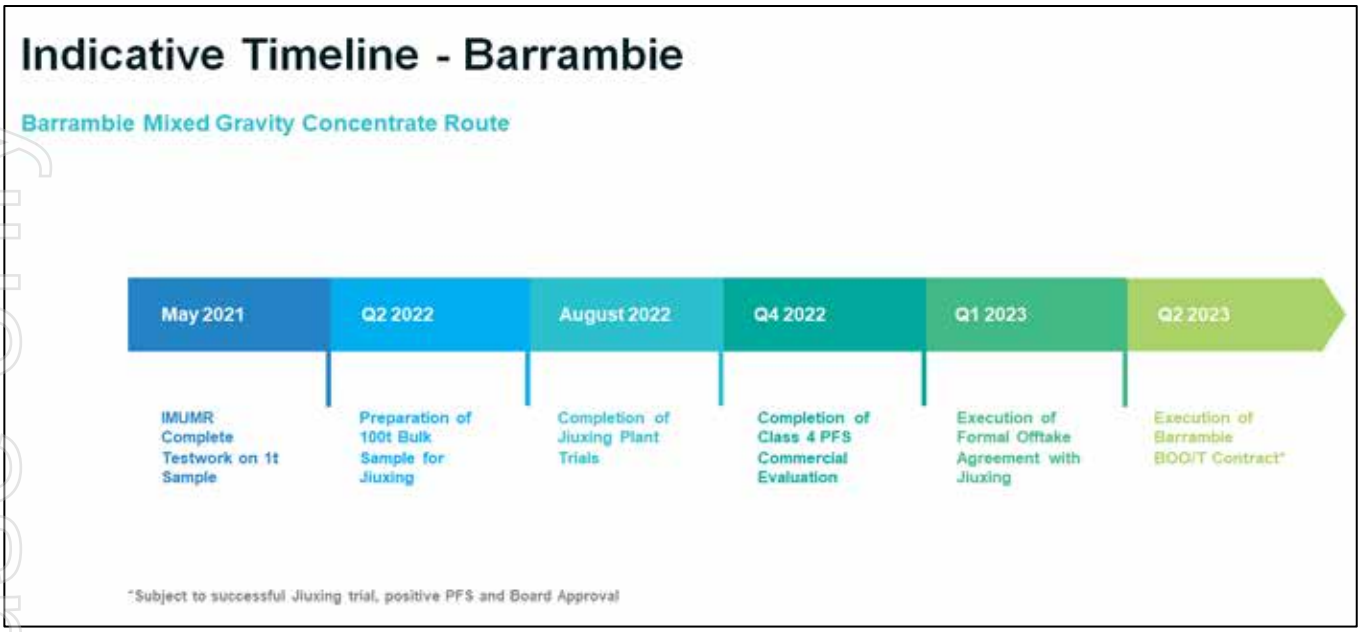

Figure 2 – *Indicative Timeline – Barrambie*

Background

A mine & beneficiate flowsheet option to produce MGC containing titanium, vanadium and iron for direct smelting is the favoured flowsheet option with potential offtake partner Jiuxing. Jiuxing is contemplating a direct smelt of the MGC blended with commercially available ilmenites.

A secondary flowsheet option with a low temperature reduction of the mixed gravity concentrate to enable a magnetic separation to produce two distinct products – ilmenite and iron-vanadium concentrate is also possible.

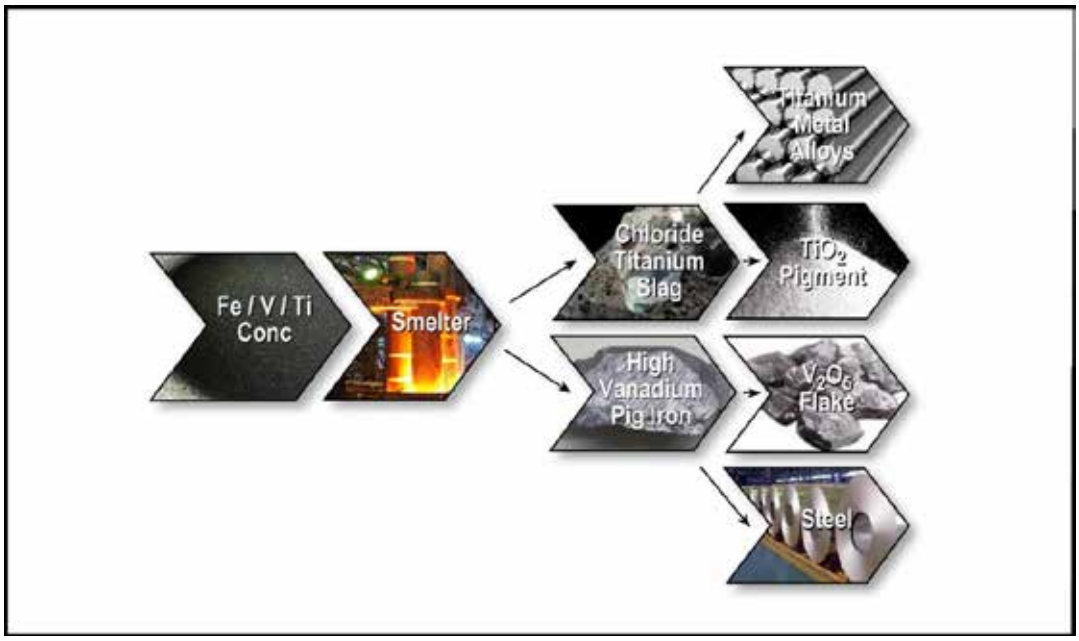

Figure 3 – *Simplified overview of the Barrambie MGC flowsheet*

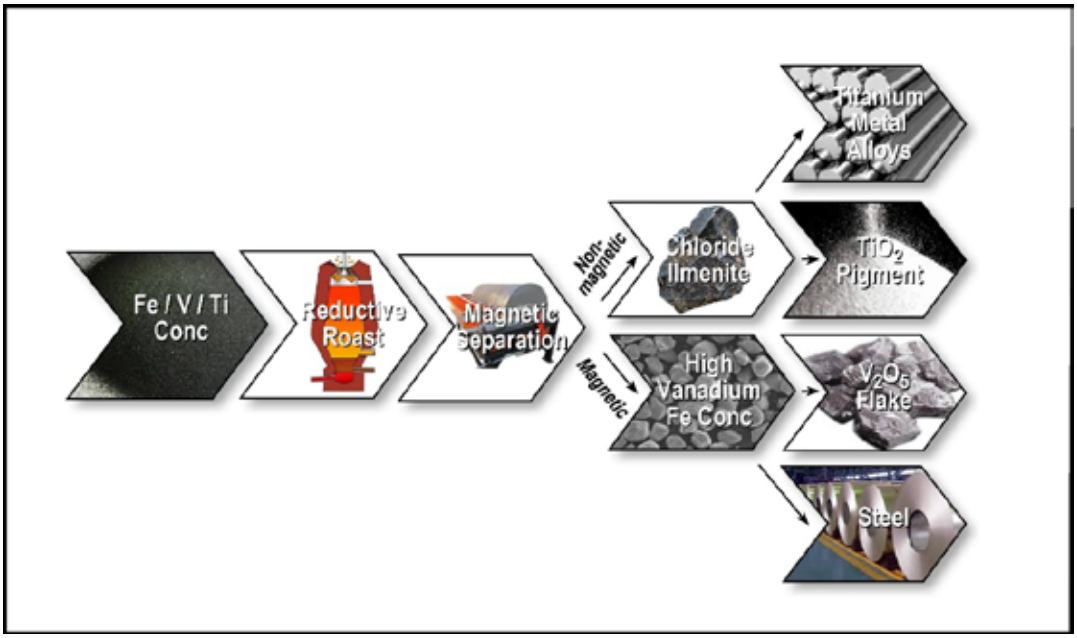

Figure 4–*Simplified overview of the Barrambie LTR flowsheet*

Continued strong demand for high quality chloride grade titanium feedstocks coupled with a shortage of supply is resulting in strong price growth as shown in the following figure.

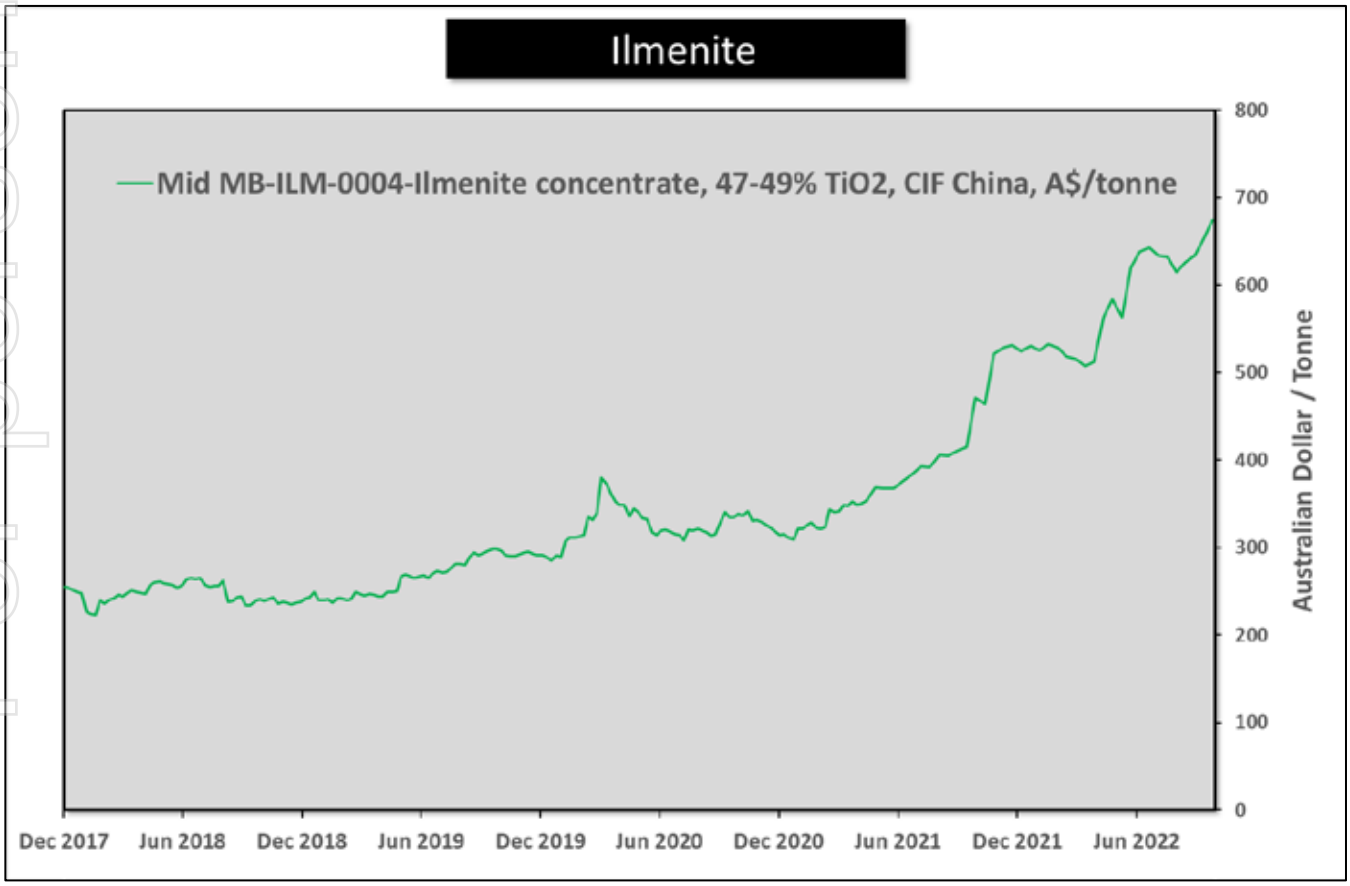

Figure 5 – *Price trend 2018 – 2022 ilmenite concentrate, 47-49% TiO2, CIF China, A$/tonne. Source: Fastmarkets.*

Costeaning

Between June and August 2021, a costeaning and bulk sampling program was completed at Barrambie. The program was designed to extract mineralisation from three costeans on Mining Lease M57/173-I with material taken from near surface with TiO_2 grades similar to the Mineral Resource[3]. 470t of mineralisation was excavated, sampled and bagged for transportation. Diagrams of the location of costeans from where the bulk sample mineralisation was obtained are included in Appendix 1.

Figure 6 – *Costeaning operations to extract, sample and bag mineralisation at Barrambie. Source: Neometals.*

Beneficiation of MGC bulk sample

Beneficiation of the mineralised bulk sample included crushing, dry & wet milling, de-sliming and gravity separation via spirals at various sites between Perth, Kalgoorlie and Menzies. Approximately 130t of MGC bulk sample was produced. Sampling of the material between each stage of beneficiation occurred by taking of falling stream crosscut samples 3 to 4 times per 1t bulka bag.

Figure 7 – *Milling and gravity beneficiation of mineralisation to produce 130t MGC bulk sample. Source: Neometals.*

[3] For full details refer to ASX announcement entitled "Updated Barrambie Mineral Resource Estimate" released on 17th April 2018.

Figure 8 – *Falling stream of Barrambie MGC and packaged bulka bags of MGC ready for shipment to Jiuxing. Source: Neometals.*

The 40t of material which was shipped to Jiuxing's facility in China had the following assay:

Table 1 – Quality of the 40t of MGC delivered to Jiuxing. Source: Neometals

	TiO_2	V_2O_5	Fe_2O_3	SiO_2	Al_2O_3	CaO	Cr_2O_3	K_2O	MgO	MnO	Nb_2O_5	P_2O_5	SO_3	Th	U
	%	%	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm
Barrambie MGC	35.3	0.84	58.1	2.4	1.2	0.22	<0.002	0.004	0.05	0.23	0.01	0.01	0.28	10	<10

Smelting trial and products

Barrambie MGC was blended with two commercially available ilmenites and sufficient reductant (coke) according to the following Schemes:

- Scheme 1 – 1:1 blend of "Ilmenite 1" (56.4% TiO_2) with MGC.
- Scheme 2 – 2:1 blend of "Ilmenite 2" (53.6% TiO_2) with MGC.

Figure 9 – *Mixed material from Scheme 2 ready for smelting. Source: Jiuxing and Nanjing Radiant International*

Approximately 17t of MGC and 23t of commercially available ilmenites were consumed in the smelting trials to produce two products – titanium slag and high vanadium pig iron. 9.5t of TiO_2 slag and 6.3t of pig iron were produced based on Scheme 1. And 9.51t of TiO_2 slag and 6.8t of pig iron were produced based on Scheme 2.

Table 2 – Product generated from MGC smelting trials. Source Jiuxing and Nanjing Radiant International

	Product	Scheme 1 (t)	Scheme 2 (t)
Total from five smelting trials of each Scheme	Titanium slag	9.50	9.51
	Pig iron	6.30	6.80
	Total	15.80	16.31

Chloride grade titanium slag quality

Titanium slags were sampled and tested by Jiuxing's laboratory with confirmatory test assays performed on representative samples in China and Australia.

Table 3 – Assay results of chloride grade slag from Jiuxing smelting trials of MGC. Source Jiuxing and Neometals.

	TiO_2 Slag from Scheme 1		TiO_2 Slag from Scheme 2	
	Jiuxing Assay	Australian Check Assay	Jiuxing Assay	Australian Check Assay
TiO_2	90.86%	**92.35%**	91.68%	**91.2%**
CaO	0.25%	**0.43%**	0.31%	**0.30%**
MgO	0.45%	**0.45%**	0.54%	**0.54%**
ΣFe	3.86%	**1.93%**	4.08%	**4.37%**
SiO_2	-	**2.62%**	-	**1.63%**
V_2O_5	-	**0.85%**	-	**0.65%**

Figure 10 – *Smelting of the Barrambie MGC / ilmenite blend and coke material during the Jiuxing smelting trials. Source Jiuxing and Neometals*

Authorised on behalf of Neometals by Christopher Reed, Managing Director

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About Neometals Ltd

Neometals' focus is the continuous development and commercialisation of our proprietary innovative technologies with strong global partners to generate value through sustainable production of battery materials.

Decarbonisation, sustainability and resilient supply chains are the key challenges for the energy storage and electric vehicle supply chain. Our technologies, particularly those in battery materials recycling and recovery, reduce reliance on traditional mining and processing, and support circular economic principles.

Neometals have three core battery materials businesses commercialising proprietary, low-cost, low-carbon process technologies:

- Lithium-ion Battery ("LIB") Recycling (50% equity)– to produce nickel, cobalt and lithium from production scrap and end-of-life LIBs in an incorporated JV with leading global plant builder SMS group. The Primobius JV is operating a commercial disposal service at its 10tpd Shredding 'Spoke' in Germany and is the recycling technology partner to Mercedes Benz. Primobius' first 50tpd operation will be in partnership with Stelco in Canada is expected to reach investment decision in Dec 2022;

- Vanadium Recovery (earning 50% equity) – to produce high-purity vanadium pentoxide via processing of steelmaking by-product ("Slag"). Finalising evaluation studies on a 300,000tpa operation in Pori, Finland and a potential JV with Critical Metals, underpinned by a 2Mt, 10-year Slag supply agreement (together with potential availability of a further 1.1Mt) with leading Scandinavian steelmaker SSAB. Investment decision expected end Dec 2022. MOU with H2Green Steel for up to 4Mt of Slag underpins a potential second operation in Boden, Sweden; and

- Lithium Chemicals (earning 35% equity)– to produce battery quality lithium hydroxide from brine and/or hard-rock feedstocks using RAM's patented ELi® electrolysis process. Co-funding pilot plant and evaluation studies on a 20,000tpa operation in Estarreja, Portugal in a 50:50 JV between RAM (70% NMT, 30% Mineral Resources Ltd) and Portugal's largest chemical producer Bondalti Chemicals S.A. Investment decision expected Dec 2023.

COMPETENT PERSONS STATEMENT

Exploration

The information in this report that relates to Exploration Results is based on, and fairly represents, information and supporting documentation compiled by Mr Gregory Hudson, who is a member of the Australian Institute of Geoscientists. Mr Hudson is a full-time employee of Neometals Ltd and has sufficient experience relevant to the styles 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 December 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Hudson has consented to the inclusion of the matters in this report based on his information in the form and context in which it appears.

Metallurgy and Sampling

The information in this report that relates to metallurgical test work results is based on information compiled and / or reviewed by Mr Gavin Beer who is a Member and Chartered Professional of The Australasian Institute of Mining and Metallurgy. Mr Beer is a full-time employee of Neometals Ltd and has sufficient experience relevant to the activity which he is undertaking to be recognised as competent to compile and report such information. Mr Beer consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

COMPLIANCE STATEMENT

The information in this report that relates to Mineral Resource Estimates for the Barrambie Titanium Project are extracted from the ASX Announcement entitled "Updated Barrambie Mineral Resource Estimate" lodged 17 April 2018. The Company confirms that it is not aware of any new information or data that materially affects the information included on the original market announcement and that all material assumptions and technical parameters underpinning the estimates in the market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified form the original market announcement.

JORC Table 1, Section 1, Sampling Techniques, and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	· *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* · *Include reference to measures taken to ensure sample representativity and the appropriate calibration of any measurement tools or systems used.* · *Aspects of the determination of mineralisation that are Material to the Public Report.* · *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant*	<u>Costeaning</u> · Samples were taken during excavation of 3 costeans from the Barrambie Mining Lease M57/173-I in June to August 2021. · Material was dug from costeans in a grid pattern with approximately 1t samples put into numbered Bulka Bags for transport. · Samples were loaded by a 6 tonne or 14 tonne excavator. · Four ~3kg representative sub-samples were taken from each Bulka Bag as they were filled. · The four sub-samples were sent to ALS laboratories ("**ALS**") in Perth for preparation (crushing and pulverisation) and assay by means of fused bead XRF. · Individual samples have been assayed by XRF (ME-XRF21n) for a suite of 24 elements including TiO_2, V_2O_5, Fe and S. · Three stage Loss on Ignition (371°C, 650°C and 1,000°C) analyses were carried out on each sub sample. · The average of these assays and LOI measures were used to determine the grade of the material in each Bulka Bag.

Criteria	JORC Code explanation	Commentary
	disclosure of detailed information.	Beneficiation of MGC bulk sample · During crushing and dry milling the mineralisation was composited into 20t lots and sampled during bagging of every 1t bulka bag. · During wet milling, de-sliming and gravity beneficiation samples were taken between each stage of processing. · Samples of final MGC were taken by cross-cut sampling of a falling stream 3 times per 1t bulka bag. · Daily composite samples of intermediate streams were taken to cross check daily MGC values. · Randomly selected bags of MGC were sampled with a spear sampler at three different angles per bulka bag to provide samples for check assays. · All samples were placed into individually labelled, consecutively numbered sample bags. · The samples obtained of the MGC are considered representative of the MGC produced. · Sampling was supervised by Allied Mineral Laboratories ("**AML**"). · Assays were performed at ALS in Perth. Smelting trial · The MGC / ilmenite / coke smelting feed mixture was homogenised by loader prior to the smelting trials. · Multiple random grab samples of feed mixture for each Scheme were taken to create composites for assay. · After the end of the smelting reactions, the products were discharged from the furnace in a mixed form of titanium slag and iron. During natural cooling, the difference in specific gravity caused the products to delaminate which enabled the titanium slag and pig iron to be separated. · The separate products were then crushed, milled and screened to homogenise for sampling. · 5 smelting trials were completed for each Scheme to ensure clean out of the smelter and confidence in the repeatability of the results. · Sampling was supervised by a qualified metallurgical representative supplied by Nanjing Radiant International ("**NRI**"). · Assays were performed in Jiuxing's internal lab, and sealed, individually labelled samples were sent by reputable courier for check assay at ALS in Perth.
Drilling techniques	· *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	Costeaning · There was no drilling used in the winning of samples for this work, however results from previous drill and sample work at Barrambie were used to identify the mineralised areas where the costeans were dug.
Drill sample recovery	· *Method of recording and assessing core and chip sample recoveries and results assessed.* · *Measures taken to maximise sample recovery and ensure representative nature of the samples.* · *Whether a relationship exists between sample*	· Not Applicable

Criteria	JORC Code explanation	Commentary
	recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	
Logging	· *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* · *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* · *The total length and percentage of the relevant intersections logged.*	<u>Costeaning</u> · A basic qualitative log was taken of each sub sample sourced during excavation, with colour, hardness and simple mineral identification carried out. · Basic mapping of the costean floors was also undertaken for each "flitch" extracted. · The location of each "sample block" that was put into each bulka bag was surveyed using Real Time Kinematic ("**RTK**") GPS enabling precise location of each grade block. <u>Beneficiation of MGC bulk sample</u> · An electronic log was taken of each stage of beneficiation (crush & dry mill, wet mill, and gravity separation) with detail of processing flow, composite provenance and assay results. · A summary electronic database of all assay results has been established to link provenance of mineralisation to individual 1t MGC bulka bag lots. · Separate logs were established for each distinct sea container shipped to ensure transparent accounting of material. <u>Smelting trial</u> · Jiuxing utilised their daily production resources for the recording and supervision of the smelting trials. · The smelting trial was supervised by a qualified metallurgical representative supplied by NRI who produced a report of the trial inclusive of methodology, mass balances, sampling and outcomes achieved.
Sub-sampling techniques and sample preparation	· *If core, whether cut or sawn and whether quarter, half or all core taken.* · *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* · *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* · *Quality control procedures adopted for all sub-sampling stages to maximise representativity of samples.* · *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* · *Whether sample sizes are appropriate to the grain size of the material being sampled.*	<u>Costeaning</u> · Approximately 3-5kg of sub-sample was sent to the laboratory for analysis, with 4 sub-samples sent for each "sample block" that was captured into a bulka bag. · Individual sub-samples were weighed as received at the laboratory in Perth and then dried in a gas oven for up to 12 hours at 105°C. · Samples >3 kg were riffle split 50:50 and excess discarded. All samples were then pulverised in a LM5 pulveriser for 5 minutes to achieve 85% passing 75um. 1:50 grind checks were performed to verify passing size was achieved. · A 300g split was taken from the pulverisation bowl upon completion of the grind and sent for assay. The remainder of the pulverised sample was retained. · For each submitted sample, the remaining sample material less the aliquot used for analysis was retained, with the majority retained and returned to the original calico bag and a nominal 300g portion split into a pulp packet for future reference. · Individual samples have been assayed by XRF (ME-XRF21n) for a suite of 24 elements including TiO_2, V_2O_5, Fe and S. Three stage LOI analyses were also carried out at

Criteria	JORC Code explanation	Commentary
		371°C, 650°C and 1000°C. · Where TiO_2 grades exceeded 30% pulps were assayed using an alternate XRF methodology (ME-XRF15c) with analysis of TiO_2, Fe and V_2O_5. Beneficiation of MGC bulk sample · Each sample (5-10kg) of MGC from 1t bulk sample was dried, riffle split and packaged into individually labelled, seal bags for assay at ALS in Perth. · Further processing of the remnant samples was taken to AML in Perth to perform particle size distributions. · Remnant samples for each MGC bulka bag have been retained for future testing and / or check assays as needed. Smelting trial · Each sample of feed material blend to the smelting trial was split into individually labelled and sealed samples for assay at Jiuxing's internal lab in China and check assay at ALS in Perth. · Once the titanium slag and pig iron had been cooled and separated, milled and homogenised each sample was split and packaged into individually labelled and sealed bags for assay at Jiuxing's internal lab in China and check assay at ALS in Perth. · Remnant samples for each smelting trial have been retained for future testing and / or check assays as needed.
Quality of assay data and laboratory tests	· *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* · *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* · *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	Costeaning · Neometals followed established QA/QC procedures for the samples excavated from the costeans with the use of Certified Reference Materials ("**CRM**") as field and laboratory standards. · Laboratory duplicates have been used and results assessed. · A detailed QA/QC analysis has been conducted on results received · All results show good repeatability and CRM'S have met expected values relevant to titanium, vanadium, iron and elements critical to providing a satisfactory product for beneficiation. Beneficiation of MGC bulk sample · AML followed internal QA/QC procedures for the collection of samples during beneficiation of MGC and sub-splitting of representative samples for assay. · ALS has an integrated laboratory information management system that manages quality requirements and includes internal and external inter-laboratory QA/QC programs / audits which meet all requirements of ISO/IEC 17025:2017 and ISO 9001:2015. · Sample results were reviewed as received and assessed against expected values for titanium, vanadium and iron. Spurious results were sent back to ALS for re-check.

Criteria	JORC Code explanation	Commentary
		Smelting trial · Jiuxing followed internal QA/QC procedures for the collection of samples during smelting trials of Barrambie MGC and sub-splitting of representative samples for assay. · All metallurgical work and sampling was supervised by a qualified metallurgical representative supplied by NRI. · All samples were split into individually labelled sample bags for check assay at ALS in Australia.
Verification of sampling and assaying	· *The verification of significant intersections by either independent or alternative company personnel.* · *The use of twinned holes.* · *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* · *Discuss any adjustment to assay data.*	Costeaning · The sample grades from the costeans verified the predicted grades of the areas which were interpreted using samples from previous drilling at the costean locations. Beneficiation of MGC bulk sample · Assay results were verified by ALS and checked by a representative from AML. Smelting trial · Assay results were obtained by Jiuxing's lab in China and check assays were verified by ALS in Perth.
Location of data points	· *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* · *Specification of the grid system used.* · *Quality and adequacy of topographic control.*	Costeaning · Basic mapping of the costean floors was undertaken for each "flitch" extracted. · The Bulk sample material was taken from 3 costeans across M57/173. Two of the costeans (labelled 6B and 6C) were central to the deposit and approximately 100 metres apart. A third costean (labelled 3A) is located 1 km north of the Costeans 6B&C. Costeans were typically 4 metres wide and between 15 and 35 metres long. · The location of each "sample block" that was put into each bulka bag was surveyed using RTK-GPS enabling precise location of each grade block.
Data spacing and distribution	· *Data spacing for reporting of Exploration Results.* · *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* · *Whether sample compositing has been applied.*	Costeaning · The sampling regime of the costeans bulk sample was very intensive, with at least one 3+ kg sub-sample taken for every 250kg extracted. · The Bulk sample material was taken from 3 costeans across M57/173. Two of the costeans (labelled 6B and 6C) were central to the deposit and approximately 100 metres apart. A third costean (labelled 3A) is located 1 km north of the Costeans 6B&C. Costeans were typically 4 metres wide and between 15 and 35 metres long. · There were effectively 4 sub-samples for every ~50 x 50 x 50cm cube extracted from the original costean bulk sample. Beneficiation of MGC bulk sample · The sampling regime of the MGC bulk samples was comprehensive with multiple samples taken per 1t of material at each stage of the processing pathway (i.e. crushing & milling; wet milling; de-slime & gravity

Criteria	JORC Code explanation	Commentary
		beneficiation). The bulk sample assay results were deemed representative of the material shipped to Jiuxing.
Orientation of data in relation to geological structure	· *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* · *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	Costeaning · The costeans were deliberately orientated along the strike of mineralisation to maximise the amount of TiO_2 product available per tonne of material excavated.
Sample security	· *The measures taken to ensure sample security.*	Costeaning · Samples were transported from Barrambie site to ALS in Perth in sealed bulka bags by recognised and reliable couriers. Beneficiation of MGC bulk sample · Samples were transported from the Menzies beneficiation site to AML and ALS laboratory in Perth in sealed bags either by AML representatives or by recognised and reliable couriers. Smelting trial · Jiuxing followed its standard practice and strict security controls in the smelting facility. · Jiuxing products are stored in different warehouses to ensure no contamination. · Samples for check assay in Australia were transported in sealed individually labelled bags by recognised and reputable couriers.
Audits or reviews	· *The results of any audits or reviews of sampling techniques and data.*	· QA/QC data is reviewed and audited in each of the relevant labs according to their quality management systems.

JORC Table 1, Section 2, Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	· *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* · *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	· The Barrambie mineralisation is within the granted mining lease M57/173-I, located in the Murchison district of Western Australia between the townships of Meekatharra and Sandstone. · The Mining Lease is held by Australian Titanium Pty Ltd, a 100% owned subsidiary of Neometals. · No known impediments exist for Neometals to operate on the tenement.
Exploration done by other parties	· *Acknowledgment and appraisal of exploration by other parties.*	· No exploration by other parties is relevant to this report and announcement.
Geology	· *Deposit type, geological setting and style of mineralisation.*	· The ferrovanadium titanium (Ti-V-Fe) deposit occurs within the Archaean Barrambie Greenstone Belt, which is a narrow, NNW-

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		SSE trending greenstone belt in the northern Yilgarn Craton. The linear greenstone belt is about 60 km long and attains a maximum width of about 4 km. It is flanked by banded gneiss and granitoids. · The mineralisation is hosted within a large layered, mafic intrusive complex (the Barrambie Igneous Complex), which has intruded into and is conformable with the general trend of the enclosing Greenstone Belt. From aeromagnetic data and regional geological mapping, it appears that this layered sill complex extends over a distance of at least 25 km into tenements to the north and south of M57/173-I. · Ti-V-Fe mineralisation occurs as bands of cumulate aggregations of vanadiferous magnetite (martite)-ilmenite (leucoxene) in massive and disseminated layers and lenses. · Within the Mining Lease M57/173-I the layered deposit has been divided into sections established at major fault offsets. Cross faults have displacements that range from a few metres to 400 m.
Drill hole Information	· *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* o *dip and azimuth of the hole* o *down hole length and interception depth* o *hole length.* · *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	· The drill hole information of the Barrambie deposit is not relevant to this announcement, other than to say that RC drilling and sampling at ranges of 50 x 50 metres down to 10 x 10 metre collar spacing was used to determine locations of TiO_2 mineralisation. The costeans were planned at locations which enabled Neometals to extract 470 tonnes of material from near surface with TiO_2 grades similar to that of the Mineral Resource.
Data aggregation methods	· *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* · *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* · *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	<u>Costeaning</u> · Samples and sub-samples from the costeans were all treated equally, with no bias, top-cuts or high grading of the material. · Four sub-samples for each sample block were given equal weighting in the assignment of grade to a sample block, or bulka bag. <u>Beneficiation of MGC bulk sample</u> · Samples from each of the 1t bulka bags were treated equally when included in the bulk sample composite, accounting only for minor differences in weights between the bags to create a weighted average of the bulk sample. · The bulk sample assay result wase deemed representative of the material shipped to Jiuxing.
Relationship between mineralisation widths and	· *These relationships are particularly important in the reporting of Exploration Results.* · *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* · *If it is not known and only the down hole lengths*	· The bulk sample was sourced from costeans situated on expression of the Barrambie Eastern zone, a titanium enriched zone within the Mineral Resource. · The thickness of the Eastern zone varies between 5 and 20 metres along the deposit, and the ability to take a bulk sample at TiO_2 grades aligned with the Mineral Resource supports the

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intercept lengths	*are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	robustness of the deposit.
Diagrams	· *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	· Diagrams of the location of costeans from where the bulk sample mineralisation was obtained are included in Appendix 1.
Balanced reporting	· *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	· Results relevant to the costean extracted MGC bulk sample are reported with full transparency. · Results relevant to the smelting trial have been reported by Jiuxing in collaboration with a metallurgical representative supplied by NRI. · Smelting trial product assays have been verified with check assays in Chinese and Australian labs.
Other substantive exploration data	· *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	· Not Applicable
Further work	· *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* · *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	· No further work is currently planned. However Jiuxing has a further 23t of MGC available for confirmatory or optimisation smelting trials as needed. Neometals also has a further 90t of MGC in warehouse stocks available for further confirmatory testing, alternate partner testing and / or for bulk scale confirmation testing of the LTR route.

APPENDIX 1

Plan of the Barrambie Project showing the source locations of the bulk sample material