QUARTERLY REPORT

FOR THE QUARTER ENDED 31 DECEMBER 2018

HIGHLIGHTS

CORPORATE

- Appointment of Mr Damien Marantelli as Managing Director.
- Closing cash, working capital and investments of $82.1 million including $33.1 million cash.

COPPER DIVISION

- Production of 5,177 tonnes of copper contained in concentrate (previous quarter 4,678 tonnes).
- EBITDA of ($6.2) million (previous quarter ($5.5) million).
- Achievement of over 500 metres of underground development per month of which 97% was outside of the Central Zone (area of historic mining), extending into the west, east and northern zones.
- Increased grade of ore mined at 1.47% Cu (previous quarter 1.30% Cu).
- Increased productivity and efficiency of jumbo development including increased focus on priority headings and debottlenecking development cycle times.
- Further excellent results from resource definition drilling in Regions 6 and 9 that continue to delineate the eastern extension of the orebody:
  - NUG0427: 7.65m at 3.94% Cu in Region 6;
  - NUG0486: 10.20m at 3.41% Cu in Region 9*;
  - NUG0442: 5.20m at 11.26% Cu in Region 9*.

  *True width unless denoted * as downhole width.*

TIN DIVISION

- Production of 1,798 tonnes of tin contained in concentrate at an AISC of $17,436 per tonne of tin (previous quarter 1,616 tonnes at $18,900 per tonne).
- EBITDA of $8.1 million and net cash flow of $5.2 million (MLX 50% share) (previous quarter $7.2 million and $3.6 million respectively).
- Ore sorter commissioned and in operation. Grade of ore processed increased to 1.33% Sn (previous quarter 1.24% Sn).
- Continued outstanding results from ongoing resource definition drilling in the Area 5 and Leatherwood Trend targets (located proximal to existing development and mining areas):
  - U6196: 21.0m at 5.47% Sn in Area 5;
  - U6198: 19.5m at 5.42% Sn in Area 5;
  - U6470: 3.2m at 8.73% Sn in Leatherwood Trend.

  All true width.

NICKEL DIVISION

- Continued re-engagement with potential partners to develop the Wingellina Nickel-Cobalt Project.

Note: EBITDA is unaudited and a non-IFRS measure. $ are AUD unless stated otherwise.
All numbers quoted are for the December 2018 quarter unless stated otherwise.
Renison data is 100% of the operation unless stated as 'MLX 50%' share.

METALS X LIMITED

ENQUIRIES

Damien Marantelli
Damien.marantelli@metalsx.com.au

Steve Robinson
stephen.robinson@metalsx.com.au

CORPORATE DIRECTORY

Level 5, 197 St Georges Terrace
Perth WA 6000 Australia

PO Box 7248
Cloisters Square PO WA 6850

+61 8 9220 5700
reception@metalsx.com.au
www.metalsx.com.au

ASX Code: MLX

Metals X Limited (**Metals X** or the **Company**) is pleased to present its activities report for the quarter ended 31 December 2018.

COPPER DIVISION

NIFTY OPERATIONS (MLX 100%)

Metals X is 100% owner of the Nifty Copper Operations (**Nifty**), located in the East Pilbara region of Western Australia.

STRATEGY AND OPERATIONAL FOCUS

The strategy at Nifty is to increase copper in concentrate production through the development and introduction of new mining areas outside of the Central Zone.

The immediate operational focus at Nifty is:

- Increasing development rates, targeting priority areas;
- Improving mine scheduling, sequencing of development, mining cycle-times and stope availability;
- Driving operational efficiencies and eliminating bottlenecks in the mine;
- Significantly and sustainably reducing operating and capital costs and improving inventory management;
- Progressively increasing the utilisation of established infrastructure.

Key outcomes for the quarter were:

- Increased copper in concentrate production (5,177t Cu versus 4,678t in the previous quarter);
- Increased mined grade (1.47% Cu versus 1.30% Cu in the previous quarter);
- Increased monthly development metres (509m per month versus 455m[1] in the previous quarter);
- Increased development into new mining areas (97% of development was outside the Central Zone).

This operational focus will continue to be the priority for Nifty during 2019.

Work on an initial Life of Mine plan is well progressed and is expected to be finalised in the March 2019 quarter.

PRODUCTION AND COSTS

TABLE 1: NIFTY COPPER OPERATIONS PRODUCTION AND COSTS – DECEMBER 2018 QUARTER

All $ are AUD		December 2018 Quarter	Previous Quarter	Rolling 12-months
Mine Production				
Ore tonnes mined	t	372,749	391,346	1,474,190
Ore grade mined	% Cu	1.47%	1.30%	1.35%
Copper Concentrator				
Tonnes processed	t	376,044	386,566	1,477,892
Ore grade processed	% Cu	1.49%	1.33%	1.37%
Recovery	% Cu	92.2%	91.2%	92.2%
Copper produced	t Cu	5,177	4,678	18,708
Copper sold	t Cu	4,552	2,759	18,645
Copper price	$/t Cu	8,587	8,347	8,759
Realised copper price (net of TC/RC)	$/t Cu	7,557	7,571	7,891
Cost Summary				
Mining	$/t Cu	4,843	4,726	4,579
Processing	$/t Cu	2,139	2,368	2,244
Admin	$/t Cu	902	865	1,073
Stockpile adjustment	$/t Cu	18	-52	8
C1 Cash Cost	**$/t Cu**	**7,902**	**7,907**	**7,903**
Royalties	$/t Cu	811	788	798
Sustaining capital	$/t Cu	1,384	874	910
Reclamation & other adjustments	$/t Cu	2	4	4
Corporate costs	$/t Cu	42	55	52
All-in Sustaining Costs (AISC)	**$/t Cu**	**10,143**	**9,628**	**9,668**
Project costs	$/t Cu	-	-	-
Exploration costs	$/t Cu	298	249	192
All-in Costs (AIC)	**$/t Cu**	**10,441**	**9,877**	**9,860**

[1] The ASX Announcement dated 15 January 2019 incorrectly referenced the September 2018 quarter monthly development rate as 350m.

Total development metres for the quarter increased to 1,526 metres (previous quarter 1,364 metres). Improved productivity and efficiency during the quarter was achieved via a reorganisation of jumbo (underground mining drill rig) development including the acquisition of a new jumbo. There was also an increased focus on waste removal and ground support activities which further facilitated the higher development rate for the quarter.

Ore mined was marginally lower for the quarter at 372,749 tonnes (previous quarter 391,346 tonnes) due to:

- reduced mining capability in October 2018 during a planned, annual five-day crusher and conveyor maintenance outage;
- failure of a primary ventilation fan motor bearing resulting in a 5 day unplanned outage; and
- increased emphasis on reducing dilution and mining to an economic cut-off-grade, rather than focusing primarily on tonnes mined.

The grade of ore mined and processed was higher for the quarter at 1.47% Cu and 1.49% Cu respectively (previous quarter 1.30% Cu and 1.33% Cu respectively). The higher grade resulted from improved quality of stope production and the benefit of chalcocite-rich ore from the north-eastern region of the mine.

It was pleasing to note that during December 2018, the mine was able to achieve daily production rates in excess of 7,000 tonnes for a 5-day period. This demonstrated the capability of the mine to achieve the required higher production level. Improved continuity of production will be enhanced as development continues to move away from the Central Zone and additional production fronts are established west, east and north of the Central Zone.

Similarly, the Nifty Concentrator was operated at a rate of 8,000 tonnes per day for a short period with limited operational challenges, demonstrating the capacity to process at an annualised rate of up to 2.5 million tonnes.

Unit costs were higher with the AISC at $10,143/t Cu (previous quarter $9,627/t Cu). Sustaining capital was $1,384/t Cu compared to $874/t Cu in the previous quarter due to an increase in capital development and other major capital projects such as:

Gas turbine overhaul	$2.1M
Water production bores	$0.5M
Camp accommodation units	$0.4M
New drill jumbo	$2.0M
New ROM loader	$1.1M
Paste plant filter belt	$0.5M
Total major capital	$6.6M

EBITDA (unaudited) for the quarter was ($6.2) million (previous quarter ($5.5) million).

WORKFORCE AND CULTURE

During the quarter, the Company entered into a new Enterprise Agreement with the workforce. This incorporated a move to a two week on, two week off (2:2) roster from the current 2:1 roster. The change in roster required the recruitment of a 4th panel of employees for the operation consisting of approximately 76 employees.

Approximately 80% of the required workforce for the 4th panel were recruited during the quarter, with the Company implementing the new even time roster in December 2018, ahead of schedule.

As well as the move to a new roster, Metals X has embarked on a modest upgrade program of the Nifty Camp, with 30 refurbished rooms delivered and installed during the quarter. In addition, the Company has planned a significant communications upgrade for Nifty and has placed an order for the infrastructure with Telstra.

Further low cost cosmetic and lifestyle improvements to the Camp are budgeted for the coming year.

The combined impact of improvements to the village, the new roster and the ongoing leadership focus on workforce culture has resulted in a significant improvement in workforce engagement.

The benefits of a strong culture and quality of employees are expected to be evidenced through 2019 in increased productivity that will provide a payback on the capital improvements at the Camp and the labour cost increase resulting from the shift to even-time roster.

DEVELOPMENT AND MINING AREAS

Figure 1 shows planned stopes and development for 2019 with reference to the historic Central Zone. Development and production during 2019 will continue to move progressively away from the Central Zone, with planned extraction of remaining Ore Reserve from the Central Zone reducing to a residual 15% to 20% of total stope production.

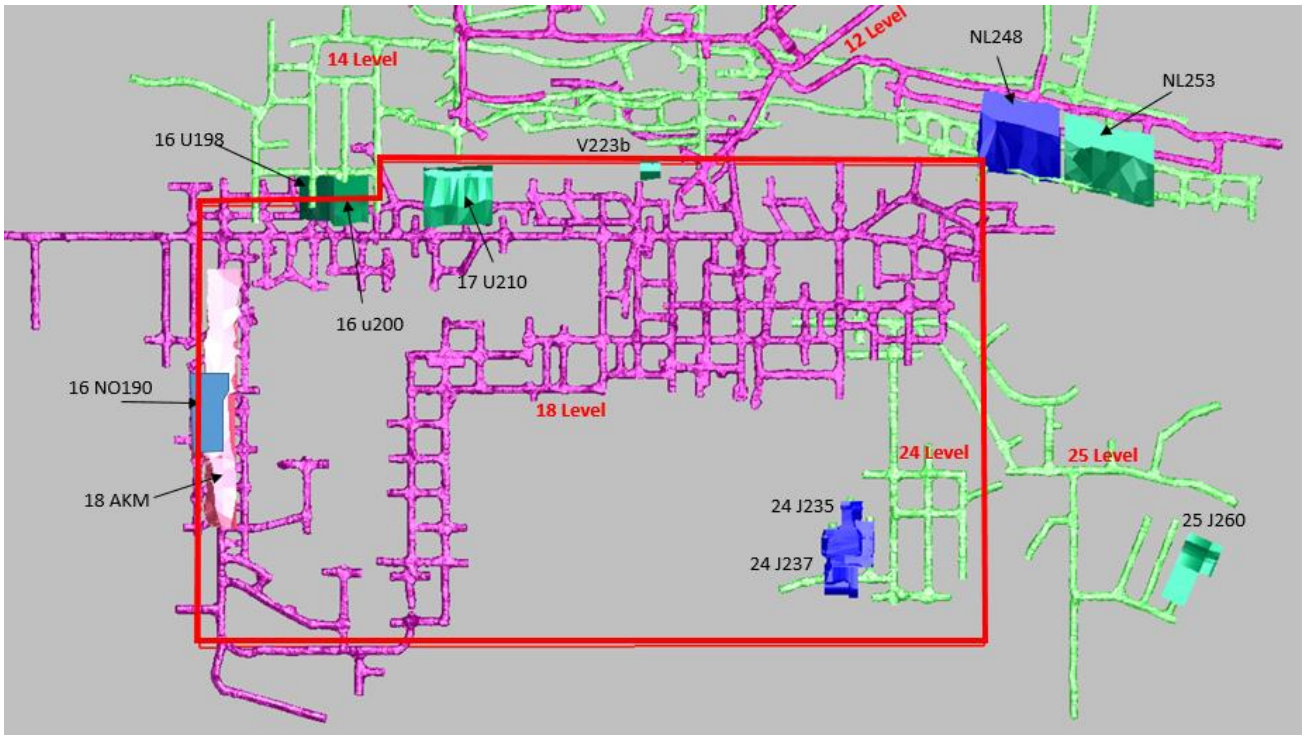

FIGURE 1 : PLAN VIEW OF NIFTY DEPOSIT SHOWING STOPES MINED (COLOURED SHAPES) IN THE DECEMBER 2018 QUARTER WITH REFERENCE TO THE CENTRAL ZONE (RED OUTLINE)

RESOURCE DEFINITION DRILLING PROGRAMS

The Company has continued its commitment to understanding the stratigraphic and structural controls of the Nifty deposit through rigorous geological mapping of underground exposures and an extensive diamond drilling program.

Little additional drilling was carried out during the quarter with the focus instead being on processing the backlog of core already drilled. At the end of the quarter, all geological logging work was complete and only a limited amount of core remained to be cut and sampled.

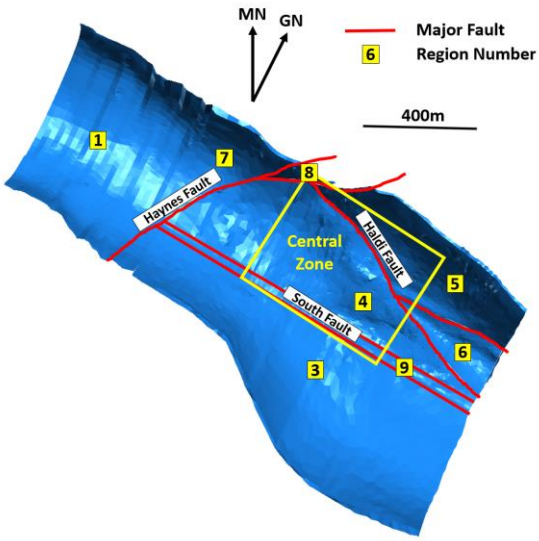

FIGURE 2 : VIEW LOOKING DOWN ON MCU SHOWING MAJOR FAULTS AND "REGION" LOCATIONS RELATIVE TO THE CENTRAL ZONE HISTORIC MINING AREA

Assay results from a further 12 holes completed within Region 6 and 22 holes completed within Region 9 were received during the quarter with additional outstanding intersections returned, confirming that significant copper mineralisation is present in both areas and that the Nifty orebody remains open down-plunge to the east (refer to ASX Announcement dated 21 January 2019).

The mineralisation defined in both Regions 6 & 9 is located proximal to current development and mining areas and as such potentially can be brought into the mining schedule relatively quickly.

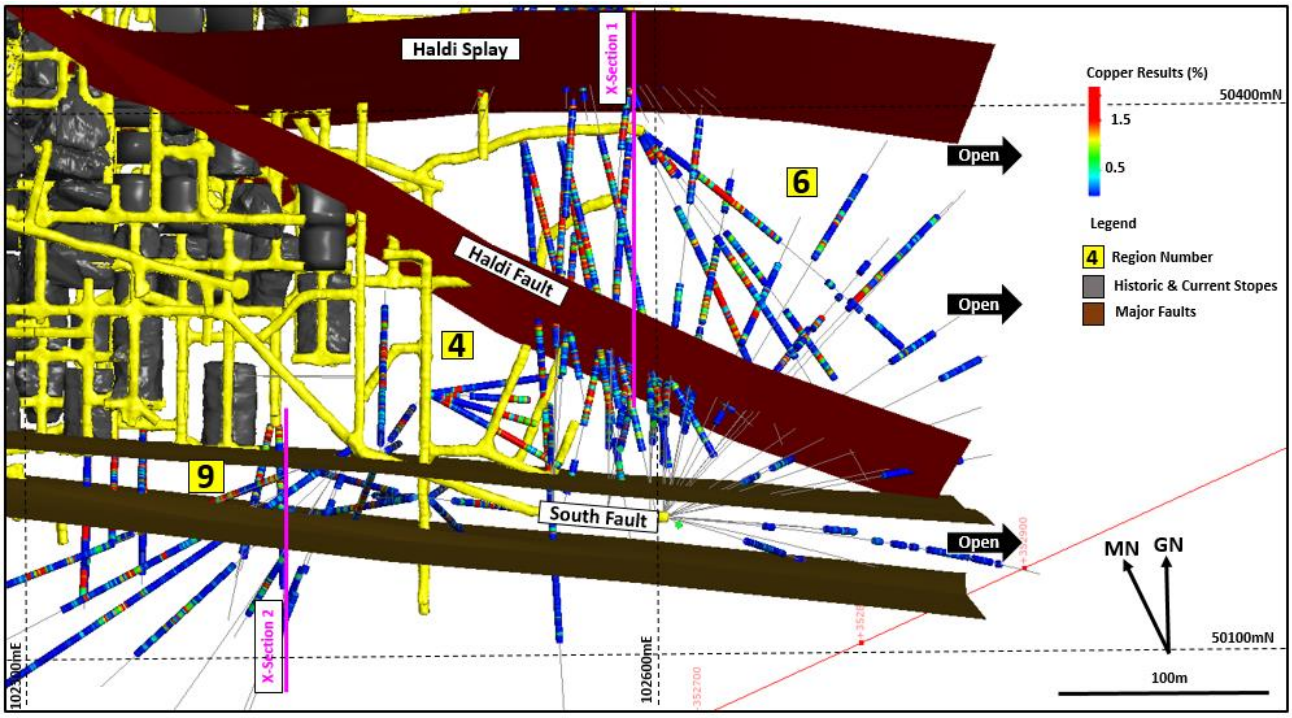

FIGURE 3 : VIEW LOOKING DOWN ON REGION 6 & 9 SHOWING MAJOR FAULTS AND 2018 DRILL HOLES ONLY

Currently, development is progressing to the east to provide drill platforms on the 17 and 19 Levels. Initially this will provide both extensional resource and grade control information for Region 5 to allow it to come into production in a timely manner towards the end of 2019.

Following that, the priority will move to providing a dedicated, long-term drill platform along 20 Level. This will allow for optimal intersection angles with the mineralised units using relatively short holes. The Company expects that the proposed development and drilling programs will rapidly increase the resource in Region 6 to the east.

Resource definition drilling results returned during the quarter are provided in Appendix 1.

REGIONAL EXPLORATION

The Nifty Copper Operations holds 3,183 square kilometres of tenure in the Paterson Province in the North West of Western Australia (refer to FIGURE 4). The ground holding comprises 2,650 km^2 of granted exploration tenure and a further 533 km^2 in applications. The Paterson Province is a highly prospective Neoproterozoic sedimentary basin hosting world class deposits including the Nifty Cu mine, and the Telfer Au-Cu mine.

The project tenure covers the prospective Broadhurst Formation (Nifty and Maroochydore Cu deposits) and underlying Coolbro Sandstone (Rainbow and Rainbow South prospects) of the Yeneena Basin and also part of the overlying Lamill Group (Dromedary and Duke Prospects).

First pass regional exploration activity continued during the quarter with 296 aircore (AC) holes drilled for a total of 20,044 metres across a number of targets. In addition, high resolution gravity data to the south of Nifty and north of Maroochydore was acquired and is currently being processed.

The 2018 drilling program ceased as planned in mid-December due to the expected northern wet season and extreme summer heat conditions. A total of 28,102 metres were drilled during 2018 comprising 4,078 metres RC drilling (27 holes) and 24,024 metres AC drilling (351 holes).

The aim of the drilling programs was to define regolith anomalies of Cu, Pb, Zn and other trace elements in dispersion haloes from any potential ore system to use as vectors to the mineralised areas. Previous exploration success has been achieved using this technique at Maroochydore and Warrabarty. The Nifty deposit had a strong supergene enrichment of Cu in the regolith profile extending over 400 metres away from the deposit.

The results of the AC drilling programs are being compiled with remaining final assay results expected to be received early in the March 2019 quarter. Once the final assay results are received the Company will provide a separate market update on its activities in the Paterson Province.

Anomalous regional exploration drilling results received during the quarter are included in Appendix 1.

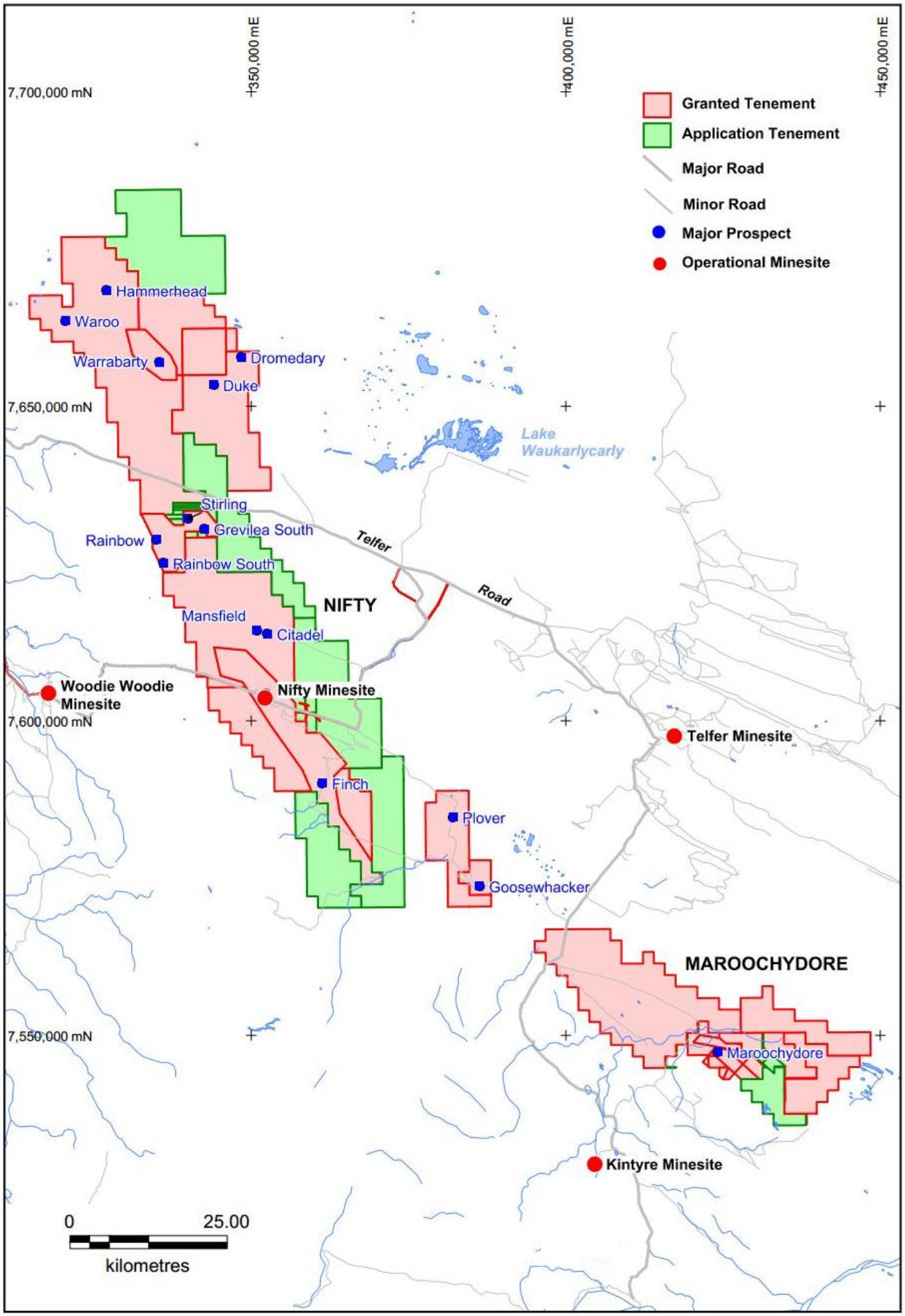

FIGURE 4 : METALS X TENURE IN THE YENEENA BASIN, PATERSON PROVINCE, WESTERN AUSTRALIA, SHOWING NIFTY MINESITE AND SIGNIFICANT PROSPECT LOCATIONS

TIN DIVISION

RENISON TIN OPERATIONS (MLX 50%)

Metals X owns a 50% equity interest in the Renison Tin Operations in Tasmania (**Renison**) through its 50% stake in the Bluestone Mines Tasmania Joint Venture (**BMTJV**). All data in this report is 100% of Renison unless stated as 'MLX 50%' share.

STRATEGY AND OPERATIONAL FOCUS

Renison is a world-class, long life underground mining operation producing tin concentrate.

The strategy at Renison is to increase tin production by processing higher-grade feed while maintaining a 7 year Ore Reserve. In addition, a production expansion is targeted with the Rentails Project.

The operational focus at Renison has been:

- Commissioning and operation of the new purpose-built three stage crushing, screening and ore sorting plant to upgrade ore through the rejection of waste material prior to the processing plant;
- Continued balance between maintaining consistent ore production and ongoing development into new areas; and
- Continued exploration in Area 5 and the Leatherwood Trend, which are proximal to existing development, presenting an opportunity for increasing the grade of ore mined in the medium term.

Outcomes for the quarter resulting from the operational focus were:

- Increased production of tin in concentrate (1,798t of Sn vs 1,616t of Sn in the previous quarter);
- Increased grade of ore processed (1.33% Sn vs 1.24% Sn in the previous quarter);
- Continued impressive exploration results from Area 5 and Leatherwood (refer to ASX Announcement dated 19 December 2018), with work having commenced on development and production options for the area.

Optimisation of the ore sorting circuit and process plant will be ongoing during 2019.

Production from Renison for 2019 is expected to be in the range of 7,500 – 8,000 tonnes of tin in concentrate.

PRODUCTION AND COSTS

TABLE 2: RENISON TIN OPERATIONS PRODUCTION AND COSTS – DECEMBER 2018 QUARTER

All $ are AUD		December 2018 Quarter	Previous Quarter	Rolling 12-months
Mine Production				
Ore tonnes mined	t	186,243	216,010	832,270
Ore grade mined	% Sn	1.25%	1.17%	1.15%
Tin Concentrator				
Tonnes processed	t	186,330	187,563	743,538
Ore grade processed	% Sn	1.33%	1.24%	1.23%
Recovery	% Sn	72.3%	73.5%	71.4%
Tin produced	% Sn	1,798	1,616	6,557
Tin sold	t Sn	1,650	1,414	6,720
Tin price	t Sn	26,558	26,428	26,876
Realised tin price (net of TC/RC)	$/t Sn	24,156	23,850	24,543
Cost Summary				
Mining	$/t Sn	6,558	7,597	7,526
Processing	$/t Sn	5,734	5,672	5,565
Admin	$/t Sn	1,130	1,182	1,174
Stockpile adjustments	$/t Sn	1,081	-921	-854
C1 Cash Cost	**$/t Sn**	**14,502**	**13,529**	**13,411**
Royalties	$/t Sn	624	1,406	984
Sustaining capital	$/t Sn	2,279	3,948	2,947
Reclamation & other adjustments	$/t Sn	4	6	10
Corporate Costs	$/t Sn	27	10	26
All-in Sustaining Costs (AISC)	**$/t Sn**	**17,436**	**18,900**	**17,378**
Project costs	$/t Sn	919	-	2,593
Exploration costs	$/t Sn	3	444	1
All-in Costs (AIC)	**$/t Sn**	**18,358**	**19,344**	**19,972**

Ore mined for the quarter, at 186,243 tonnes, was lower than the previous quarter (216,010 tonnes). Ore mined matched process plant feed (186,330 tonnes). During the prior quarter, ore mined had exceeded ore processed for the purpose of building a low grade surface ore stockpile for the commissioning of the ore sorter.

The grade of ore mined during the quarter increased to 1.25% Sn (up from 1.17% Sn in the previous quarter), driven largely from development ores and improved grades from the Central Federal Bassett (CFB) stopes (refer to FIGURE 5).

Production for the quarter was 1,798 tonnes of tin contained in concentrate at an AISC of $17,436 per tonne of tin compared to the previous quarter production of 1,616 tonnes of tin at an AISC of $18,900 per tonne of tin.

The average tin price achieved for the quarter of $26,558 per tonne was $130 per tonne higher than the previous quarter ($26,428 / t Sn). Since the end of the quarter the tin price has continued to increase; at the date of this report the AUD tin price is trading at over $29,000 per tonne.

EBITDA for the quarter was $8.1 million (MLX 50% share) compared to the previous quarter of $7.2 million. Net cash flow was $5.2 million (MLX 50% share) compared to $3.6 million for the previous quarter.

RENISON EXPLORATION AND DEVELOPMENT

During the quarter, Renison reduced its underground diamond drill rig production from two rigs to one rig to enable processing of the previous quarter's drilled diamond core.

Drilling focus remained on further expanding the resource definition program in the Area 5, Deep Federal, Leatherwood and Huon North lodes.

Results from these campaigns are continuing to flow through with drilling continuing to demonstrate exceptional mineralisation, in particular holes targeting Area 5 and the Leatherwood trend which are upcoming production zones (refer to ASX Announcement 19 December 2018).

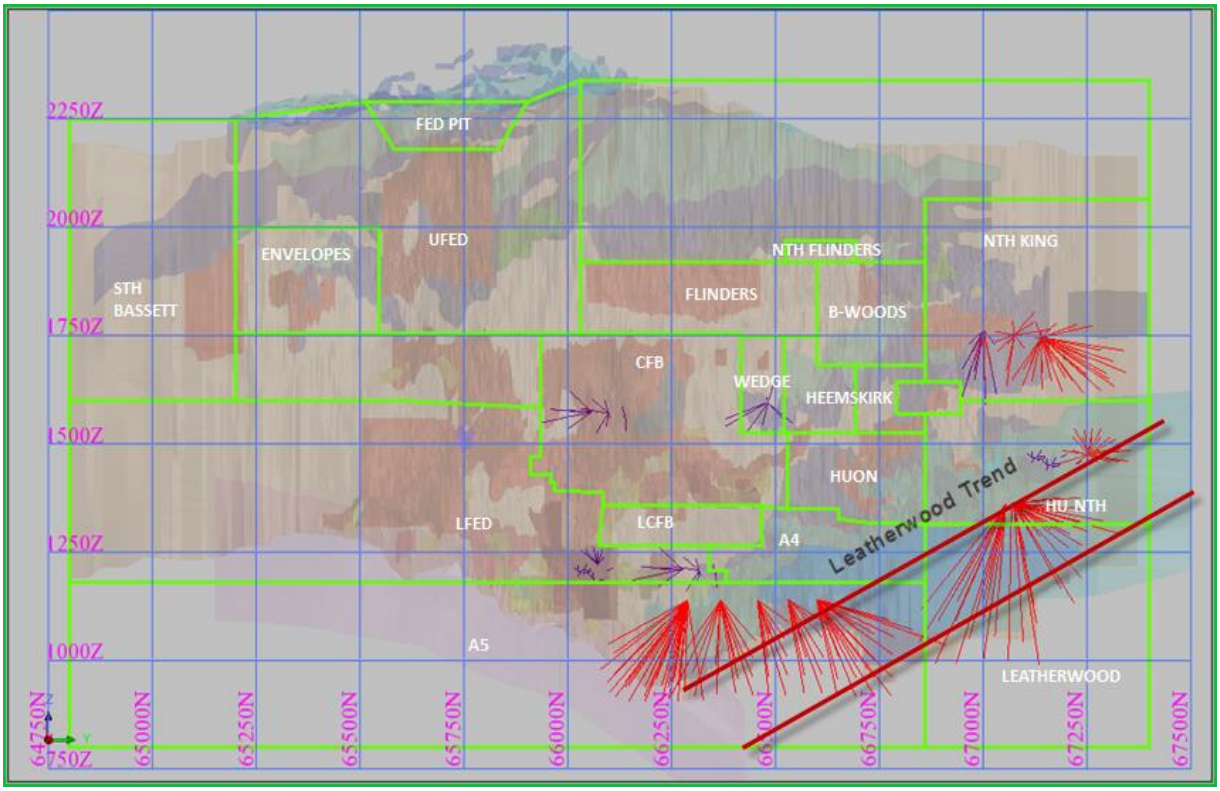

FIGURE 5: LONG SECTION OF RENISON UNDERGROUND GEOLOGY MODEL SHOWING ORE ZONES, FY2019 PLANNED DRILLING AND THE LEATHERWOOD TREND INTO THE HUON NORTH ORE ZONE (RED LINES).

Notable significant intercepts for Area 5 included:

- 21.0m at 5.47% Sn in U6196;
- 13.0m at 4.97% Sn and 3.9m at 8.57 % Sn in U6180;
- 17.3m at 2.93% Sn in U6164;
- 17.0m at 2.06% Sn and 7.3m at 4.51% Sn in U6163;
- 14.5m at 4.12% Sn and 3.8% Sn at 4.86% Sn in U6199;
- 5.5m at 2.72% Sn and 12m at 2.06% Sn in U6181;
- 1.5m at 3.84% Sn, 5m at 2.95% SN, 1.8m at 2.29% Sn and 14m at 3.82% Sn in U6808.

Significant Leatherwood trend drill intercepts included:

- 3.2m at 8.73% Sn in U6470;
- 12.5m at 3.82% Sn in U6697;
- 14.9m at 2.01% Sn in U6692;
- 7.0m at 1.82% Sn in U6691;
- 12.2m at 1.69% Sn in U6687;
- 9.9m at 2.18% Sn in U6695;
- 15.0m at 3.67% Sn in U6690;
- 7.7m at 2.67% Sn in U6689;
- 11.2m at 1.65% Sn in U6693;
- 6.2m at 2.8% Sn in U6686;
- 5.6m at 4.18% Sn in U6461;
- 6.8m at 2.44% Sn in U6458.

Mineralisation in holes targeting the Huon North zone included:

- 4.9m at 3.68% Sn in U6773;
- 9.7m at 1.78% Sn in U6774.

In addition, and of significance is the continued delineation of the Central Federal Bassett (CFB) upper zone that targets grade continuity within the planned CFB upper bulk panel where recent results have demonstrated continued strong mineralisation, including 8m at 3.32% Sn in U6345 and 4.6m at 4.55% Sn in U6403.

EXPLORATION

During the quarter near-mine exploration activities at Renison began to accelerate in preparation for the Tasmanian summer field season. Activities included the completion of an orientation lithogeochemical sampling program and preparation for the upcoming down-hole electromagnetic survey (DHEM).

The aim of the lithogeochemical sampling program is to “fingerprint” the geochemical haloes in both the hangingwall and footwall alteration systems to the various mineralisation styles. This information will then be used to design surface geochemical programs and also to identify possible “near misses” in future exploration drilling programs. The collected samples have been submitted for assay with results pending.

The DHEM survey has been designed to test a series of targets along the main Federal – Bassett Fault, both north and south of the existing Renison resource. Historic, broadly spaced deep drill holes in these areas will be cleaned-out and subsequently surveyed with DHEM with the aim of identifying potential mineralised bodies within 100-200m of the hole position. Field checking and permit submissions to MRT were made during the quarter with hole clean-outs and casing expected to shortly commence. The DHEM survey is planned to be undertaken during March/April 2019.

RENISON TAILINGS RETREATMENT PROJECT (RENTAILS)

The objective of the Rentails Project is to re-process the estimated 22.5 million tonnes of tailings at an average grade of 0.44% tin and 0.23% copper from the historical processing of tin ore. The current tailings dams have a Probable Ore Reserve containing approximately 99,000 tonnes of tin and 51,000 tonnes of copper.

The Rentails DFS proposes to retreat the historical tailings over an 11 year period at an average rate of 2 million tonnes per annum to produce approximately 5,400 tonnes of tin in a high grade tin fume product and 2,200 tonnes of copper in a high grade copper matte (refer to ASX announcement dated 3 July 2017).

Key Rentails Project activities during the quarter were the continuation of the environmental approvals process and mining studies, with associated geochemical testwork, for the purposes of producing a basis of design for tailings dam deconstruction and reconstruction. Discussions continued with the Tasmanian Government on regional infrastructure upgrades.

The Company expects to lodge its Development Proposal and Environmental Management Plan (**DPEMP**) with the Tasmanian Environment Protection Authority (EPA) in the first half of 2019.

NICKEL DIVISION

WINGELLINA NICKEL-COBALT PROJECT (MLX 100%)

BACKGROUND

The Wingellina Nickel-Cobalt Project is part of Metals X's Central Musgrave Project which remains one of the largest undeveloped nickel-cobalt deposits in the world. The Central Musgrave Project has a Mineral Resource containing approximately 2.0 million tonnes of nickel and 154,000 tonnes of cobalt within which Wingellina hosts an Ore Reserve of approximately 1.56 million tonnes of nickel and 123,000 tonnes of cobalt (refer to the 2017 Annual Report).

Metals X has completed a Feasibility Study (±25%) and signed an agreement with the Traditional Owners which provides consent to undertake mining activities. In November 2016 the Company received its Public Environment Review approval from the EPA.

The Company has identified 15 potential high grade cobalt-nickel pits within the existing Wingellina Mineral Resource with a significant quantity of nickel and cobalt (326,100 tonnes Ni and 25,800 tonnes Co) and has infill drilled 6 of these pits. Preliminary optimisations of the high grade cobalt – nickel pits demonstrate potential for a high grade, smaller scale, start-up option for Wingellina (refer to the March 2018 quarterly report).

Metallurgical testwork was also conducted in 2017/18 for the production of high quality cobalt and nickel sulphates targeting the battery market. The testwork was successful in producing both cobalt and nickel sulphate from Wingellina ore.

As a development-ready world-class project, with the ability to produce high grade ore for at least the first 10 years of production and the potential to produce battery-grade nickel sulphate and cobalt sulphate, Wingellina provides a number of investment and development options for potential investment partners.

PROJECT UPDATE

During quarter, the Company completed heritage studies and fauna and flora studies to obtain clearance for resource definition drilling on its significant calcrete deposits (a major neutralising reagent in the proposed processing plant) and also to obtain clearance for exploratory water bore drilling on the Mann Fault. Wingellina already has identified and pump tested two bore fields that will provide sufficient water for the operation. However, the Mann Fault provides a potential closer (within 15 to 20kms) source of water for a possible smaller scale start-up option.

The Company also continued its discussions during the quarter with government departments and potential infrastructure partners for the establishment of infrastructure corridors to service the project with power, gas and upgraded roads.

DEVELOPMENT STRATEGY

The timing of development of Wingellina will depend upon market conditions (nickel and cobalt demand and price). However, the development strategy for Wingellina remains one of development-readiness and optionality.

The work conducted over the past 18 months has leveraged off the growth in demand for battery metals and the increased cobalt price to create further options for project development in regards to initial investment scale and choice of potential final product produced. The increased optionality has afforded a wider field of potential partners to develop the project.

The Company will continue to engage with potential strategic partners for the project.

CORPORATE

BOARD AND SENIOR MANAGEMENT CHANGES

On 12 November 2018 the Company announced the appointment of Mr Damien Marantelli as Managing Director and Chief Executive Officer of the Company, replacing Mr Warren Hallam. Mr Hallam and Mr Allan King, previously Chief Operating Officer, both resigned effective 12 November 2018.

Mr Marantelli, previously a Non-Executive Director of the Company, is a Mining Engineer whose significant operational and leadership experience is already bolstering the ongoing ramp-up of operations at the Nifty Copper Operations.

CASH AND WORKING CAPITAL

Metals X closed the quarter with cash and working capital of $74.7 million including $33.1 million cash.

The Company also has share investments of $7.4 million.

COPPER HEDGING

The Company has no commodity or foreign exchange hedging in place.

ISSUED CAPITAL

During the quarter, 1,200,000 unlisted employee options lapsed and the Company granted 2,682,990 unlisted employee options.

The Company has the following equities on issue (refer to Appendix 3B, lodged 17 December 2018):

Fully Paid Ordinary Shares:	689,060,508
Unlisted Employee Options ($0.76, expiry 20/01/2020):	5,350,000
Unlisted Employee Options ($1.32, expiry 30/11/2020):	5,850,000
Unlisted Employee Options (subject to service and performance hurdles, expiry 30/11/2022):	1,341,495
Unlisted Employee Options (subject to service and performance hurdles, expiry 30/11/2023):	1,341,495

MAJOR SHAREHOLDERS

The current major shareholders of the Company are:

APAC Resources (HKEX:1104)	9.18 %
Jinchuan Group	7.22 %
Blackrock Group	7.11 %
Mitsubishi UFJ Financial Group, Inc.	6.39 %
IOOF Holdings Limited	6.04 %
AustralianSuper Pty Ltd	5.33 %

COMPLIANCE STATEMENTS

The information in this presentation that relates to Exploration Results for the Nifty Copper Operations has been compiled by Metals X Limited technical employees under the supervision of Mr Kim Kremer BSc., who is a member of the Australasian Institute of Geoscientists. Mr Kremer is a full-time employee of the Company and has sufficient experience which is relevant to the style of mineralisation and types of deposit under consideration and to the activities which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the “Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves”. Mr Kremer consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Exploration Results for the Renison Tin Operations has been compiled by BMTJV technical employees under the supervision of Mr Colin Carter B.Sc. (Hons), M.Sc. (Econ. Geol), MAusIMM. Mr Carter is a full-time employee of BMTJV and has sufficient experience which is relevant to the style of mineralisation and types of deposit under consideration and to the activities which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the “Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves”. Mr Carter consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Exploration Results for the Wingellina Nickel-Cobalt Project is compiled by Metals X technical employees and contractors under the supervision of Mr. Simon Rigby B.Sc. (Hons), who is a member of the Australian Institute of Geoscientists. Mr Rigby is a full time employee of the company, and has sufficient experience which is relevant to the styles of mineralisation and types of deposit under consideration and to the activities which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Rigby consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

APPENDIX 1 – SIGNIFICANT EXPLORATION RESULTS

COPPER DIVISION

Significant exploration results for the Nifty Copper Operations for the quarter are shown below.

TABLE 3: SIGNIFICANT UG DRILLING RESULTS FOR NIFTY COPPER OPERATIONS – DECEMBER 2018 QUARTER

Lode	Hole	Intercept N	Intercept E	Intercept RL	Intercept (True Width)	From (m)	Dip	Azi
Region 6	NUG0412	7603561	352732	-88	4.60m at 1.89% Cu	135.8	-34	50
Region 6	NUG0414	7603559	352733	-88	No Significant Intercept		-41	97
Region 6	NUG0427	7603758	352785	-140	7.65m at 3.94% Cu	13.0	0	190
					4.05m at 1.65% Cu	33.0		
					2.30m at 1.80% Cu	115.0		
Region 6	NUG0449	7603558	352733	-87	No Significant Intercept		-37	105
Region 6	NUG0451	7603558	352733	-87	No Significant Intercept		-33	90
Region 6	NUG0452	7603558	352733	-87	No Significant Intercept		-32	82
Region 6	NUG0454	7603561	352733	-88	2.50m at 1.33% Cu	142.4	-44	64
Region 6	NUG0455	7603561	352733	-88	8.40m at 1.27% Cu	151.0	-32	64
Region 6	NUG0456	7603561	352733	-88	3.65m at 0.98% Cu	178.0	-25	55
Region 6	NUG0469	7603669	352748	-172	4.50m at 1.68% Cu#	28.6	2	188
					11.30m at 1.01% Cu#	41.3		
					3.50m at 1.00% Cu#	65.5		
Region 6	NUG0471	7603652	352762	-170	10.70m at 1.89% Cu#	15.6	2	155
Region 6	NUG0479	7603561	352733	-88	3.65m at 2.22% Cu	116.9	-51	37
Region 9	NUG0442	7603617	352620	-139	5.2m at 11.26% Cu	46.5	-59	124
					3.95m at 2.61% Cu	63.0		
Region 9	NUG0443	7603557	352732	-88	3.8m at 1.58% Cu	170.0	-86	126
Region 9	NUG0444	7603557	352732	-88	No Significant Intercept		-66	107
Region 9	NUG0450	7603558	352733	-87	No Significant Intercept		-63	95
Region 9	NUG0480	7603729	352468	-152	12.5m at 3.13% Cu#	3.5	24	205
					24.5m at 2.23% Cu#	40.0		
					10m at 2.02% Cu#	82.0		
Region 9	NUG0481	7603729	352468	-153	19.4m at 2.19% Cu	4.0	10	205
Region 9	NUG0485	7603723	352482	-152	9.7m at 3.24% Cu#	0.3	40	205
					10m at 2.45% Cu#	20.0		
					4.1m at 2.09% Cu#	37.6		
					13m at 1.72% Cu#	54.0		
Region 9	NUG0486	7603723	352482	-152	10.2m at 3.41% Cu#	0.1	28	204
					7.35m at 1.83% Cu	21.8		
					4.4m at 2.01% Cu#	50.9		
Region 9	NUG0492	7603717	322495	-152	6m at 1.97% Cu#	0.0	37	205
					9.7m at 2.93% Cu#	16.0		
					4.4m at 1.82% Cu#	32.6		
					15.7m at 2.44% Cu#	52.5		
Region 9	NUG0493	7603717	322496	-153	4.1m at 1.98% Cu#	1.9	22	205
					19.6m at 2.68% Cu#	19.7		
					5.7m at 2.73% Cu#	51.1		
Region 9	NUG0494	7603717	322496	-154	13m at 4.15% Cu#	0.0	0	205
Region 9	NUG0495	7603717	322495	-155	25m at 2.32% Cu#	0.0	-14	205
					3.6m at 1.48% Cu#	41.4		

Lode	Hole	Intercept N	Intercept E	Intercept RL	Intercept (True Width)	From (m)	Dip	Azi
Region 9	NUG0496	7603717	322495	-155	19.85m at 2.07% Cu#	0.0	-32	205
Region 9	NUG0505	7603690	352558	-150	13.3m at 1.42% Cu#	0.0	40	215
					3.6m at 2.1% Cu	33.9		
					2.2m at 1.2% Cu#	48.3		
Region 9	NUG0506	7603690	352559	-152	22.25m at 1.4% Cu#	0.0	28	216
Region 9	NUG0507	352559	7603691	-153	19.65m at 2.63% Cu#	0.0	14	215
					6.5m at 1.44% Cu#	30.9		
					5m at 1.56% Cu#	41.0		
Region 9	NUG0508	7603691	352559	154	35.7m at 1.68% Cu#	0.0	-1	217
Region 9	NUG0512	7603688	352562	-150	10m at 2.19% Cu#	0.0	30	202
Region 9	NUG0513	352562	7603688	-152	15m at 1.8% Cu#	0.0	17	201
					3.65m at 1.35% Cu#	21.7		
					8.9m at 1.13% Cu#	35.1		
					8m at 1.08% Cu#	49.0		
Region 9	NUG0514	352562	7603688	-153	24.2m at 1.98% Cu#	0.0	2	201
Region 9	NUG0515	352562	7603688	-153	21m at 3.74% Cu#	3.9	-12	201
					21.05m at 2.07% Cu#	29.0		
Region 9	NUG0516	7603688	352562	-153	3.4m at 1.17% Cu#	54.0	-34	202

Notes to table

- Intercepts are true width unless marked with # denoting down-hole width
- Coordinates are intersection.
- Significant = >5%m Cu.

TABLE 4 – SIGNIFICANT SURFACE EXPLORATION DRILLING RESULTS FOR NIFTY OPERATIONS - DECEMBER 2018 QUARTER

Prospect	Hole Id	MGA North	MGA East	From (m)	To (m)	Interval (m)	Cu >200 ppm	Pb >200 ppm	Zn >200 ppm	Other
Dromedary	NAC033	7657394	348005	56	62	6			824	Includes 2190ppm Zn
				59	61	2	250			122 ppm Co
Yeppoon	NAC090	7543813	435835	87	104 EOH	17		308		
				93	104	11			677	Includes 3 metres at 1320 ppm Zn
				96	104	8	705			Includes 3m at 1080ppm Cu, 8m at 67ppm As and 11m metres at 942 ppm P
Mazzoni	NAC108	7601896	354090	54	63	9	267	192	1425	
				54	72	18			1010	
Morder	NAC628	7544705	429903	3	37 EOH	34		897	1222	Includes 2300 ppm Pb and 3580ppm Zn
NNW	NAC679	7612807	347627	69	72	3	572			
				75	87	12			227	
				108	114	6		304	731	
				117	120 EOH	3	227			
NNW	NAC693	7612784	346372	96	99 EOH	3	146	1100	1790	
NNW	NAC708	7611631	346345	81	84	3		422		
				79	80	1	564			
				81	83	2		473	398	
NNW	NAC711	7611185	347458	93	94 EOH	1	622			

TIN DIVISION

Significant exploration results for the Renison Tin Operations for the quarter are shown below.

TABLE 5: SIGNIFICANT UNDERGROUND DRILLING RESULTS FOR RENISON TIN OPERATIONS – DECEMBER 2018 QUARTER

Lode	Hole	Intercept N	Intercept E	RL	Intercept (True Width)	From (m)	Dip	Azi (mine grid)
LWD	U6466	67054	44671	1361	NSI			
CFB	U6342	65957	44498	1565	0.4m @ 2.89% Sn & 0.03% Cu	152	-48.4	77.0
A5	U6628	66103	44707	1223	NSI			
LWD	U6470	66968	44635	1106	3.2m @ 8.73% Sn & 0.07% Cu	270	0	0.0
A5	U6196	66399	44639	1057	3.5m @ 2.07% Sn & 0.05% Cu	142.23	-35	284.2
A5	U6196	66404	44621	1043	21m @ 5.47% Sn & 0.11% Cu	154.7	-67.2	200.0
CFB	U6398	65950	44499	1550	2.8m @ 1.72% Sn & 0.33% Cu	174	-7.6	125.8
LWD	U6464	67055	44639	1166	2m @ 2.01% Sn & 0.01% Cu	197	-82	256.2
MF	U6347	65986	44430	1711	3.1m @ 0.97% Sn & 0.38% Cu	56	24.9	32.8
LWD	U6475	66867	44663	1070	0.6m @ 2.88% Sn & 0.19% Cu	346.5	-56.9	180.5
LWD	U6473	66955	44659	1121	1.1m @ 2.32% Sn & 0.23% Cu	258.84	-67.22	187.3
CFB	U6346	65979	44440	1683	4.5m @ 1.53% Sn & 0.33% Cu	51	-2.264	46.2
CFB	U6392	66098	44393	1569	1.9m @ 1.32% Sn & 0.29% Cu	13	-4.993	89.3
CFB	U6392	66099	44429	1566	0.9m @ 1.63% Sn & 0.06% Cu	49	-4.993	89.3
CFB	U6392	66100	44453	1564	0.3m @ 9.8% Sn & 0.29% Cu	73.2	-4.993	89.3
CFB	U6399	65986	44472	1575	1m @ 3.32% Sn & 0.17% Cu	128.23	-0.057	123.3
CFB	U6399	65965	44503	1574	0.6m @ 3.72% Sn & 0.08% Cu	165.81	-0.057	123.3
A5	U6165	66582	44678	1110	0.6m @ 2.8% Sn & 0.31% Cu	104.5	-17.226	299.5
CFB	U6343	65965	44494	1594	0.6m @ 1.77% Sn & 0.08% Cu	130	-42.5	72.4
LWD	U6466	67054	44671	1361	NSI			
CFB	U6343	65966	44497	1590	0.4m @ 4.39% Sn & 0.3% Cu	135	-42.5	72.4
CFB	U6343	65970	44511	1576	5.6m @ 1% Sn & 0.1% Cu	148	-42.5	72.4
A5	U6142	66562	44671	1115	1m @ 1.29% Sn & 0.06% Cu	101	-14	287.9
A5	U6142	66585	44600	1094	1.9m @ 3.52% Sn & 0.07% Cu	178	-14	287.9
0	U6374	66312	44361	1569	NSI			
CFB	U6360	66111	44409	1630	1.6m @ 6.84% Sn & 0.68% Cu	16	-26.69	90.1
CFB	U6360	66111	44447	1611	1m @ 3.32% Sn & 0.47% Cu	58.8	-26.69	90.1
CFB	U6360	66111	44451	1609	0.8m @ 1.2% Sn & 0.53% Cu	63	-26.69	90.1
HU	U6702	67129	44512	1342	1.2m @ 2.13% Sn & 0.04% Cu	166	-4.38	290.9
CFB	U6345	65996	44453	1655	8m @ 3.32% Sn & 0.23% Cu	67.7	-21	40.1
CFB	U6391	66095	44426	1582	0.5m @ 4.39% Sn & 0.8% Cu	46.26	13.1218	95.2
CFB	U6391	66093	44450	1588	1.2m @ 4.46% Sn & 2.21% Cu	71.7	13.1218	95.2
CFB	U6391	66090	44479	1595	1m @ 1.81% Sn & 1.03% Cu	101.92	13.1218	95.2
CFB	U6391	66089	44488	1597	1m @ 1.77% Sn & 0.04% Cu	111	13.1218	95.2
CFB	U6391	66089	44495	1599	1m @ 1.7% Sn & 0.1% Cu	118	13.1218	95.2
0	U6400	66057	44364	1574	NSI			
A5	U6180	66445	44637	1058	3.9m @ 8.57% Sn & 0.57% Cu	160	-29.5	302.5

Lode	Hole	Intercept N	Intercept E	RL	Intercept (True Width)	From (m)	Dip	Azi (mine grid)
A5	U6180	66455	44624	1048	13m @ 4.97% Sn & 0.19% Cu	173	-29.5	302.5
CFB	U6387	66209	44445	1619	3.4m @ 1.91% Sn & 1.47% Cu	88.13	40	123.4
CFB	U6390	66086	44422	1582	0.4m @ 3.94% Sn & 0.45% Cu	44.42	14.2	107.2
A5	U6164	66557	44629	1071	17.3m @ 2.93% Sn & 0.08% Cu	146	-25.9	280.1
CFB	U6368	66413	44464	1516	1.6m @ 0.98% Sn & 1.01% Cu	138	-25.8	60.5
CFB	U6403	66139	44412	1558	1.2m @ 0.42% Sn & 0.42% Cu	21.97	-15.5	1.2
CFB	U6403	66139	44499	1533	4.6m @ 4.55% Sn & 0.49% Cu	112.26	-15.5	88.2
A5	U6163	66480	44692	1109	1.2m @ 5.79% Sn & 0.04% Cu	68	-26.5	291.6
A5	U6163	66488	44675	1100	4.2m @ 2.31% Sn & 0.14% Cu	87.1	-26.5	291.6
A5	U6163	66511	44624	1069	17m @ 2.06% Sn & 0.08% Cu	145.18	-26.5	291.6
A5	U6163	66519	44607	1058	7.3m @ 4.51% Sn & 0.56% Cu	171.7	-26.5	291.6
CFB	U6394	66059	44453	1576	0.7m @ 5.4% Sn & 0.09% Cu	84.25	3.247	118.4
LWD	U6697	67160	44506	1321	12.5m @ 3.82% Sn & 0.16% Cu	182.11	-12	299.4
LWD	U6703	67070	44666	1362	NSI			
CFB	U6715	66108	44723	1225	NSI			
A5	U6184	66599	44780	1140	NSI			
HN	U6757	67245	44433	1440	1.9m @ 2.98% Sn & 0.15% Cu	83.85	-9.23	90.3
HN	U6758	67247	44350	1453	NSI			
LWD	U6456	67247	44350	1453	NSI			
HN	U6764	67296	44468	1391	2m @ 1.01% Sn & 0.05% Cu	140	-26.3	67.2
HN	U6765	67335	44467	1390	3.5m @ 1.71% Sn & 0.09% Cu	154	-22.2	51.3
LWD	U6692	67147	44514	1310	14.9m @ 2.01% Sn & 0.2% Cu	170	-15.7	296.1
LWD	U6300	67054	44677	1361	NSI			
CFB	U6340	65939	44403	1684	NSI			
CFB	U6372	66354	44352	1575	NSI			
CFB	U6393	66095	44438	1558	0.8m @ 3.62% Sn & 3.33% Cu	59	-12.064	93.4
CFB	U6393	66094	44457	1554	2.4m @ 4.15% Sn & 1.26% Cu	77.8	-12.064	93.4
CFB	U6393	66092	44482	1548	1.5m @ 3.14% Sn & 0.15% Cu	104.1	-12.064	93.4
A5	U6199	66388	44690	1064	3.8m @ 4.86% Sn & 0.14% Cu	99.25	-49.408	289.2
A5	U6199	66402	44652	1016	14.5m @ 4.12% Sn & 0.13% Cu	155	-49.408	289.2
HN	U6768	67000	44428	1469	2m @ 2.87% Sn & 0.11% Cu	7	-31.373	89.6
HN	U6769	67080	44431	1464	4.2m @ 2.11% Sn & 0.17% Cu	13.1	-33.7	90.7
HN	U6769	67080	44443	1456	1.5m @ 1.53% Sn & 0.07% Cu	27.2	-33.7	90.7
HN	U6766	66960	44415	1475	NSI			
HN	U6770	67090	44425	1469	2.2m @ 1.07% Sn & 0.14% Cu	5	-34	89.3
HN	U6770	67090	44433	1464	1.4m @ 1.22% Sn & 0.16% Cu	15.7	-34	89.3
HN	U6770	67090	44438	1460	2.4m @ 1.35% Sn & 0.12% Cu	20	-34	89.3
HN	U6767	66970	44415	1474	1.3m @ 1.91% Sn & 0.17% Cu	1	-20.99	270.0
0	U6153	66599	44780		NSI			
A5	U6181	66571	44689	1098	5.5m @ 2.72% Sn & 0.33% Cu	92.5	-26.4	297.1

Lode	Hole	Intercept N	Intercept E	RL	Intercept (True Width)	From (m)	Dip	Azi (mine grid)
A5	U6181	66593	44644	1073	12m @ 2.06% Sn & 0.06% Cu	147	-26.4	297.1
A5	U6181	66600	44630	1065	0.8m @ 5.06% Sn & 0.27% Cu	167.87	-26.4	297.1
CFB	U6379	66261	44407	1579	3m @ 2.64% Sn & 1.14% Cu	27	32.2	66.9
HN	U6773	67155	44437	1456	2.5m @ 1.7% Sn & 0.09% Cu	22	-35.6	90.6
HN	U6773	67154	44449	1447	4.9m @ 3.68% Sn & 0.07% Cu	34	-35.6	90.6
0	U6759	67248	44350	1453	NSI			
0	U6762	67247	44350	1453	NSI			
HN	U6763	67244	44467	1390	2.5m @ 3.87% Sn & 0.16% Cu	129.89	-28.4	89.9
0	U6775	67247	44350	1453	NSI			
HN	U6771	67115	44420	1470	2.6m @ 2.46% Sn & 0.2% Cu	0	-26.7	90.7
HN	U6772	67130	44424	1468	2.4m @ 0.92% Sn & 0.15% Cu	4	-24.4	90.0
HN	U6774	67175	44429	1460	9.7m @ 1.78% Sn & 0.24% Cu	5.64	-35.5	90.2
LWD	U6691	67126	44526	1290	7m @ 1.82% Sn & 0.13% Cu	165	-24.2	290.7
CFB	U6717	66196	44542	1285	1.2m @ 3.67% Sn & 0.01% Cu	210.25	18.2	293.4
LWD	U6694	67231	44525	1296	6m @ 1.98% Sn & 0.21% Cu	217	-16	317.7
HN	U6754	67336	44376	1520	1.7m @ 2.11% Sn & 0.21% Cu	97.28	26.2	26.2
LWD	U6687	67166	44540	1276	12.2m @ 1.69% Sn & 0.2% Cu	173.96	-28.3	308.8
LWD	U6695	67224	44510	1313	9.9m @ 2.18% Sn & 0.16% Cu	219	-10.3	318.5
HN	U6756	67247	44350	1453	NSI			
LWD	U6690	67099	44547	1265	15m @ 3.67% Sn & 0.19% Cu	148.5	-38.7	282.1
LWD	U6689	67125	44541	1269	7.7m @ 2.67% Sn & 0.18% Cu	161.2	-33.8	292.9
LWD	U6693	67187	44522	1301	11.2m @ 1.65% Sn & 0.31% Cu	188	-17.9	307.7
LWD	U6701	67071	44666	1362	NSI			
A5	U6634	66740	44706	1035	0.9m @ 8.84% Sn & 1.46% Cu	190.96	-31.3	332.1
A5	U6634	66762	44695	1018	3.7m @ 2.4% Sn & 0.21% Cu	219	-31.3	332.1
LWD	U6686	67191	44556	1283	6.2m @ 2.8% Sn & 0.18% Cu	180.95	-23.96	317.5
LWD	U6686	67218	44532	1264	1.1m @ 1.16% Sn & 1.76% Cu	217.66	-24	317.5
HN	U6748	67267	44360	1533	1.3m @ 1.1% Sn & 0.1% Cu	60.5	65.21	57.3
HN	U6749	67282	44359	1528	1.8m @ 1.96% Sn & 0.26% Cu	62.31	54.63	39.2
HN	U6750	67253	44338	1477	NSI			
HN	U6753	67318	44378	1521	2.5m @ 1.95% Sn & 0.33% Cu	86.3	29.45	33.6
LWD	U6461	67147	44556	1202	4.1m @ 1.7% Sn & 1.23% Cu	210	-48.5	307.1
LWD	U6461	67153	44549	1191	5.6m @ 4.18% Sn & 0.49% Cu	222	-48.5	307.1
HN	U6752	67253	44338	1477	NSI			
HN	U6761	67246	44350	1453	NSI			
LWD	U6696	67206	44509	1325	5.4m @ 0.92% Sn & 0.06% Cu	207	-10.4	309.2
LWD	U6698	67070	44666	1362	NSI			
HN	U6755	67253	44338	1477	NSI			
CFB	U6357	66117	44403	1651	0.9m @ 2.21% Sn & 1.73% Cu	15	73.3	151.8
CFB	U6357	66146	44452	1708	1m @ 4.03% Sn & 0.22% Cu	94.83	73.3	151.8

Lode	Hole	Intercept N	Intercept E	RL	Intercept (True Width)	From (m)	Dip	Azi (mine grid)
CFB	U6354	66112	44392	1641	NSI			
LWD	U6477	66965	44674	1072	0.5m @ 2.97% Sn & 0.03% Cu	303.08	-71.7	176.6
HN	U6751	67320	44366	1535	1.5m @ 2.78% Sn & 0.33% Cu	90.94	39.6	23.6
CFB	U6716	66231	44542	1283	5.1m @ 2.14% Sn & 0.08% Cu	227	17.2	303.2
CFB	U6716	66237	44533	1286	0.7m @ 4.8% Sn & 0.03% Cu	238	17.2	303.2
LWD	U6455	67194	44485	1367	1m @ 2.97% Sn & 0.19% Cu	225	3.21	307.2
LWD	U6463	67057	44596	1125	1m @ 1.47% Sn & 0.33% Cu	246.85	-73.445	265.9
LWD	U6463	67057	44590	1107	1.2m @ 2.13% Sn & 0.6% Cu	265.26	-73.445	265.9
LWD	U6463	67056	44584	1087	0.8m @ 5.79% Sn & 0.09% Cu	285.98	-73.445	265.9
LWD	U6463	67056	44578	1066	5m @ 1.6% Sn & 0.19% Cu	307.93	-73.445	265.9
A5	U6803	66548	44616	1089	1m @ 1.33% Sn & 0.07% Cu	158.5	-18.48	276.1
A5	U6803	66549	44609	1086	3.3m @ 10.39% Sn & 0.12% Cu	166.1	-18.48	276.1
A5	U6802	66536	44665	1120	1m @ 1.22% Sn & 0.02% Cu	101.6	-11.014	272.1
LWD	U6458	67135	44519	1305	6.8m @ 2.44% Sn & 0.16% Cu	173.95	-18.16	295.4
CFB	U6305	66389	44491	1378	NSI			
CFB	U6723	66096	44695	1225	NSI			
HN	U6776	67403	44390	1477	2.1m @ 2.3% Sn & 0.05% Cu	156.62	1.45	19.5
A5	U6666	66601	44789	1140	NSI			
CFB	U6713	66141	44555	1268	2.6m @ 1.53% Sn & 0.19% Cu	154	18.72	286.6
A5	U6808	66519	44696	1116	1.5m @ 3.84% Sn & 0.01% Cu	74.5	-18.29	258.5
A5	U6808	66506	44619	1086	5m @ 2.95% Sn & 0.12% Cu	158	-18.29	258.5
A5	U6808	66504	44607	1081	1.8m @ 2.29% Sn & 0.04% Cu	171	-18.29	258.5
A5	U6808	66503	44604	1079	14m @ 3.82% Sn & 0.12% Cu	176	-18.29	258.5
LWD	U6457	67216	44513	1316	1.6m @ 1.55% Sn & 0.14% Cu	221	-11.87	312.9
LWD	U6460	67062	44666	1361	NSI			
LWD	U6302	67248	44502	1340	1.6m @ 1.65% Sn & 0.2% Cu	242	-4.93	316.1
HN	U6699	67071	44666	1362	NSI			

Notes to table:

- Widths are true
- Coordinates are intersection.
- Grid is Renison Mine Grid.
- Significant = >4%m Sn.

APPENDIX 2 – MINERAL RESOURCE ESTIMATES

COPPER DIVISION

The Mineral Resource estimates for Nifty Copper Operations are in compliance with the JORC Code (2012 Edition). The Nifty Oxide and Heap Leach Mineral Resource estimates are at 31 March 2017 and were published on 31 May 2018. The Nifty Sulphide Mineral Resource is at 31 August 2017 and was published on 12 October 2017. The Maroochydore Copper Prospect Mineral Resource estimate is at 31 March 2016 and was published by Aditya Birla Minerals on 16 May 2016. There have been no material changes to these Mineral Resource estimates since the dates of these publications.

TABLE 6: NIFTY COPPER OPERATIONS MINERAL RESOURCE ESTIMATE

Deposit	Mineral Resource Category[1]	Mt[2]	Grade % Cu	Copper tonnes[2]
Nifty Sulphide[3]	Measured	25.36	1.68%	426,000
	Indicated	8.10	1.31%	106,000
	Inferred	8.12	1.11%	90,000
	Total	41.58	1.50%	622,000
Nifty Oxide[4]	Measured	1.43	0.91%	13,000
	Indicated	1.22	0.86%	10,000
	Inferred	1.68	0.83%	14,000
	Total	4.33	0.86%	37,000
Nifty Heap Leach[5]	Measured	-	-	-
	Indicated	2.85	0.75%	20,000
	Inferred	0.46	0.66%	3,000
	Total	3.31	0.74%	23,000
TOTAL NIFTY OPERATIONS	Measured	26.79	1.64%	439,000
	Indicated	12.17	1.12%	136,000
	Inferred	10.26	1.04%	107,000
	Total	**49.22**	**1.39%**	**682,000**

1. Mineral Resources are reported inclusive of Mineral Resources modified to produce the Ore Reserve;
2. Tonnes are reported as million tonnes (Mt) and rounded to nearest 10,000; Cu tonnes are rounded to nearest 1,000 tonnes; rounding may result in some slight apparent discrepancies in totals.
3. Cut-off grade of 0.75% Cu.
4. Cut-off Grade of 0.4% Cu.
5. Cut-off Grade of 0.5% Cu.

TABLE 7: MAROOCHYDORE COPPER PROSPECT MINERAL RESOURCE ESTIMATE

			Copper		Cobalt	
Deposit	Mineral Resource Category	Mt[1]	Grade % Cu	Copper tonnes[2]	Grade ppm Co	Cobalt tonnes[2]
Oxide[3]	Measured	-	-	-	-	-
	Indicated	40.80	0.92%	375,000	388	15,800
	Inferred	2.40	0.81%	19,000	451	1,100
	Total	43.20	0.91%	394,000	391	16,900
Sulphide[4]	Measured	-	-	-	-	-
	Indicated	-	-	-	-	-
	Inferred	5.43	1.66%	90,000	292	1,600
	Total	5.43	1.66%	90,000	292	1,600
TOTAL[5]	Measured	-	-	-	-	-
	Indicated	40.80	0.92%	375,000	388	15,800
	Inferred	7.83	1.40%	110,000	341	2,700
	Total	**48.63**	**1.00%**	**486,000**	**380**	**18,500**

1. Tonnes are reported as million tonnes (Mt) and rounded to nearest 10,000;
2. Cu tonnes are rounded to nearest 1,000 tonnes; Co tonnes are rounded to the nearest 100 tonnes;
3. Cut-off Grade of 0.5% Cu;
4. Cut-off Grade of 1.1% Cu;
5. Rounding may result in some slight apparent discrepancies in totals.

TIN DIVISION

The Mineral Resource estimate for the Renison Tin Operations is in compliance with the JORC Code (2012 Edition) and is at 31 March 2018 and was published on 23 August 2018. There has been no material change to the Mineral Resource estimates since the date of this publication.

Metals X's equity share is 50% of the Mineral Resource estimates shown below.

TABLE 8: RENISON TIN OPERATIONS MINERAL RESOURCE ESTIMATE[6]

		Tin			Copper		
Deposit	**Mineral Resource Category[1]**	**'000 tonnes[2]**	**Grade % Sn**	**Tin tonnes[2]**	**'000 tonnes**	**Grade % Cu**	**Copper tonnes[2]**
Renison Tin Mine[3]	Measured	1,540	1.69%	25,900	1,540	0.36%	5,500
	Indicated	7,142	1.30%	92,700	6,949	0.28%	19,700
	Inferred	7,756	1.25%	97,000	7,748	0.11%	8,700
	Total	16,437	1.31%	215,700	16,236	0.21%	33,900
Mt Bischoff[4]	Measured	-	-	-	-	-	-
	Indicated	968	0.59%	5,700	-	-	-
	Inferred	699	0.47%	3,300	-	-	-
	Total	1,667	0.54%	9,000	-	-	-
Rentails Project[5]	Measured	23,886	0.44%	104,400	23,886	0.22%	52,700
	Indicated	-	-	-	-	-	-
	Inferred	-	-	-	-	-	-
	Total	23,886	0.44%	104,370	23,886	0.22%	52,700
Total	Measured	25,426	0.51%	130,300	25,426	0.23%	58,300
	Indicated	8,109	1.21%	98,400	6,949	0.28%	19,700
	Inferred	8,455	1.19%	100,300	7,748	0.11%	8,700
	Total	**41,990**	**0.78%**	**329,000**	**40,122**	**0.22%**	**86,700**

1. Mineral Resources are reported inclusive of Mineral Resources modified to produce the Ore Reserve;
2. Tonnes are reported as kilo tonnes ('000t) and rounded to nearest 1,000; Sn and Cu tonnes are rounded to the nearest 100 tonnes; rounding may result in some slight apparent discrepancies in totals.
3. Cut-off grade of 0.7% Sn.
4. Cut-off Grade of 0.5% Sn.
5. Cut-off Grade of 0.0% Sn.
6. The Rentails Mineral Resource is at 31 May 2018.

NICKEL DIVISION

The Mineral Resource estimate for the Central Musgrave Project is in compliance with the JORC Code (2012 Edition) and is at 30 June 2016 and was published on 18 August 2016. There has been no change to the Mineral Resource estimate since the date of this publication.

TABLE 9: CENTRAL MUSGRAVE PROJECT MINERAL RESOURCE ESTIMATE

			Nickel		Cobalt	
Deposit	**Mineral**	**Mt[2]**	**Grade**	**Nickel**	**Grade**	**Cobalt**
Wingellina (cut-off 0.50% Ni)	Measured	37.6	0.98%	368	0.07%	28.0
	Indicated	130.9	0.91%	1,193	0.07%	94.6
	Inferred	14.1	0.87%	122	0.06%	9.1
	Total	**182.6**	**0.92%**	**1,684**	**0.07%**	**131.7**
Claude Hills (cut-off 0.50% Ni)	Measured	-	-	-	-	-
	Indicated	-	-	-	-	-
	Inferred	33.3	0.81%	270	0.07%	22.7
	Total	**33.3**	**0.81%**	**270**	**0.07%**	**22.7**
Total Central Musgrave Project	Measured	37.6	0.98%	368	0.07%	28.0
	Indicated	130.9	0.91%	1,193	0.07%	94.6
	Inferred	47.4	0.83%	392	0.07%	31.8
	Total	**215.8**	**0.91%**	**1,953**	**0.07%**	**154.4**

1. Mineral Resources are reported inclusive of Mineral Resources modified to produce the Ore Reserve;
2. Tonnes are reported as million tonnes (Mt) and rounded to nearest 100,000; nickel tonnes are reported as thousand tonnes (kt) and rounded to the nearest 1000 tonnes; cobalt tonnes are reported as thousand tonnes (kt) and rounded to the nearest 100 tonnes; rounding may result in some slight apparent discrepancies in totals.

APPENDIX 3 – ORE RESERVE ESTIMATES

COPPER DIVISION

The Ore Reserve estimate for Nifty Copper Operations is in compliance with the JORC Code (2012 Edition) and is at 31 August 2017 and was published on 12 October 2017. There has been no material change to the Ore Reserve estimate since the date of this publication.

TABLE 10: NIFTY COPPER OPERATIONS ORE RESERVE ESTIMATE

Deposit	Ore Reserve Category	Ore Mt[2]	Grade % Cu	Copper tonnes[2]
Nifty Sulphide[1]	Proved	11.75	1.76%	207,000
	Probable	2.15	1.42%	30,500
	Total	**13.90**	**1.71%**	**237,500**

1. The Ore Reserve is based on the Nifty sulphide Mineral Resource estimate at 31 August 2017, with applied modifying factors, at a 1.0% Cu cut-off grade, using a copper price of US$5,750/t and assumed exchange rate of USD/AUD 0.7419 for a price of AUD $7,750/t Cu
2. Tonnes are reported as million tonnes (Mt) and rounded to the nearest 10,000; copper tonnes are rounded to the nearest 500 tonnes; rounding may result in some slight apparent discrepancies in totals.

TIN DIVISION

The Ore Reserve estimate for the Renison Tin Operations is in compliance with the JORC Code (2012 Edition) and is at 31 March 2018 and was published on 23 August 2018. There has been no material change to the Ore Reserve estimate since the date of this publication.

Metals X's equity share is 50% of the Ore Reserve estimate shown below.

TABLE 11: RENISON TIN OPERATIONS ORE RESERVE ESTIMATE

		Tin			Copper		
Project	Ore Reserve Category[1]	Ore '000 tonnes	Grade % Sn	Tin tonnes[2]	Ore '000 tonnes	Grade % Cu	Copper tonnes[2]
Renison Tin Mine	Proved	1,310	1.29%	16,900	1,310	0.33%	4,300
	Probable	5,512	0.94%	51,800	5,512	0.20%	10,900
	Total	6,822	1.01%	68,800	6,822	0.22%	15,200
Rentails	Proved	-	-	-	-	-	-
	Probable	22,313	0.44%	98,900	22,313	0.23%	50,700
	Total	22,313	0.44%	98,900	22,313	0.23%	50,700
Renison total	Proved	1,310	1.29%	16,900	1,310	0.33%	4,300
	Probable	27,825	0.54%	150,800	27,825	0.22%	61,600
	Total	29,135	0.58%	167,700	29,135	0.23%	65,800

1. The Ore Reserve is based on the Renison Mineral Resource estimate at 31 March 2018, with applied modifying factors, at a cut-off grade of 0.8% Sn for the Renison Tin Mine and 0.0% Sn for Rentails;
2. Sn and Cu tonnes are rounded to the nearest 100 tonnes; rounding may result in some slight apparent discrepancies in totals.

NICKEL DIVISION

The Ore Reserve estimate for the Wingellina Nickel-Cobalt Project is in compliance with the JORC Code (2012 Edition) and is at 30 June 2016 and was published on 18 August 2016. There has been no change to the Ore Reserve estimate since the date of this publication.

TABLE 12: WINGELLINA NICKEL-COBALT PROJECT ORE RESERVE ESTIMATE

			Nickel		Cobalt	
Project	**Ore Reserve Category[1]**	**Ore Mt[2]**	**Grade % Ni**	**Nickel kt Ni[2]**	**Grade % Co**	**Cobalt kt Co[2]**
Wingellina	Proved	-	-	-	-	-
	Probable	168.4	0.93%	1,561	0.07%	122.6
	Total[2]	**168.4**	**0.93%**	**1,561**	**0.07%**	**122.6**

1. The Ore Reserve is based on the Wingellina Mineral Resource estimate at 30 June 2016 with applied modifying factors, at a cut-off grade of 0.5% Ni;
2. Tonnes are reported as million tonnes (Mt) and rounded to nearest 100,000; nickel tonnes are reported as thousand tonnes (kt) and rounded to the nearest 1000 tonnes; cobalt tonnes are reported as thousand tonnes (kt) and rounded to the nearest 100 tonnes; rounding may result in some slight apparent discrepancies in totals.

APPENDIX 4 – JORC CODE (2012) TABLE 1

COPPER DIVISION

INFORMATION MATERIAL TO UNDERSTANDING THE EXPLORATION RESULTS

THE INFORMATION IN THIS TABLE REFERS TO THE FOLLOWING PROJECTS AT THE NIFTY COPPER OPERATIONS: NIFTY SULPHIDE, NIFTY OXIDE AND NIFTY HEAP LEACH

SECTION 1: SAMPLING TECHNIQUES AND DATA

(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Sampling techniques **Drilling techniques** **Drill sample recovery**	• Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling. • Include reference to measures taken to ensure sample representivity 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 (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information. • Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.). • 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 recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	• The deposit has been drilled and sampled using various techniques with diamond and reverse circulation drilling utilised for mineral estimation. This information comes from surface and underground and is on variable spacing along and across strike. The total metres within the immediate vicinity of the Deposit are 249,973m. The holes are drilled on most occasions to intersect as near as possible perpendicularly the synclinal east plunge mineralisation. • The drilling programs have been ongoing since initial discovery to both expand the mineralisation and provided control for mining. The hole collars were surveyed by Company employees/contractors with the orientation recorded. Down hole survey is recorded using appropriate equipment. The diamond core was logged for lithology and other geological features. • The diamond core varied from HQ to NQ in diameter and mineralised intervals and adjacent locations were sampled by cutting the core in half. The RC samples were collected from the cyclone of the rig and spilt at site to approximate 2 to 3Kg weight. The preparation and analysis was undertaken at accredited commercial laboratories, ALS or Intertek Genalysis. Both laboratories have attained ISO/IEC 17025 accreditation. ALS uses the ME-ICP61 four acid digest methods using a sample of 0.2g with an ICP-OES finish. Over limit results (>1% Cu) are re-analysed using the ME-OG62 method, which involves subjecting a 0.4g sample to a four acid digest with an ICP-OES finish. Intertek Genalysis use a four acid digest using a 0.2g sample with an ICP-OES finish. Over limit results (>1% Cu) are re-assayed using an ore grade four acid digestion of 0.2g sample, and an AAS finish. The analysis and preparation of recent diamond drilling by Metals X has been undertaken at the onsite Nifty laboratory which has been contracted to accredited analytical testing service by ALS. On-site, ALS uses a Fusion XRF15C method for analysis. • The drilling was completed using a combination of surface and underground drilling. In general the orientation of the drilling is appropriate given the strike and dip of the mineralisation. • The core recovery is recorded in the database and in most instances was in excess of 95%. This was assessed by measuring core length against the drilled core run. There is no record of the quantity (weight) of RC chips collected per sample length. • The ground conditions in the mineralised zone are competent. In areas of less competent material core return is maximised by controlling drill speed. In the case of RC samples areas of less competent material are identified in the log. • Whilst no assessment has been reported, the competency of the material sampled would tend to preclude any potential issue of sampling bias.
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.	• The routine logging of core and chips describes the general geology features including stratigraphy, lithology, mineralisation, alteration etc. For the majority of holes this information is sufficient and appropriate to apply mineralisation constraints. Some core drilling is orientated and structural measurements of bedding, joints, veins etc. has occurred as well as fracture densities. • Geological logging has recorded summary and detailed stratigraphy, lithology, mineralisation content, and alteration, some angle to core axis information, vein type, incidence and frequency, magnetic content. • The entire length of all holes, apart from surface casing, was logged.

Criteria	JORC Code explanation	Commentary
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 representivity 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.	• All core to be sampled was cut in half using a mechanical saw. It is not known if the core was consistently taken from the same side of the stick. • RC chip samples are collected via a cyclone which is cleaned with air blast between samples. The samples riffled to collect between 2 and 3kg. Most samples are dry with any moisture noted on the logs. • Field sub-sampling for chip samples appears appropriate as is the use of core cutting equipment for the submitted core. Procedures adopted in the laboratories are industry standard practises including that in the mine site facility. • In field riffles are cleaned between sampling using compressed air. The diamond cutting equipment is cleaned during the process using water. All laboratories adopt appropriate industry best practises to reduce sample size homogeneously to the required particle size. • No field duplicate information was observed. • The style of mineralisation and high sulphide content does not rely on grain size as being influential on grade. Thus there is confidence in the overall grade of the deposit being fairly represented by the sampling.
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 (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	• The assay techniques are appropriate for the determination of the level of mineralisation in the sample. • No geophysical tools were utilised to ascertain grade. • Standard and Blanks are included with all samples sent for analysis in the rate of between 1 in 20 and 1 in 30. The most recent reporting covering the majority of holes used in the estimate provide support for the quality of the Cu assays.
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.	• The extensive data set has been reviewed by various parties including Maxwell Geoscience and DataGeo and the intersections within the mineralisation have been confirmed. • No twinned holes observed but there is a significant amount of closely spaced supportive drilling results. • Field data is captured electronically, validated by the responsible geologist and stored on corporate computer facilities. Protocols for drilling, sampling and QAQC are contained with the company operating manuals. The information generated by the site geologists is loaded into a database by the company database manager and undergoes further validation at this point against standard acceptable codes for all variables.
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.	• The collar positions were resurveyed by the Company surveyor or their contractors from a known datum. The survey is on a known local grid with demonstrated control. The orientation and dip at the collars is checked (aligned) by the geologist and down hole recording of azimuth and dip are taken at 30m intervals on most occasions using appropriate equipment. • The regional grid is GDA94 Zone 50 and the drilling is laid out on a local grid. • Topographic control is from surface survey - note the deposit modelled is totally underground and is not influenced by surface topography.
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.	• The majority of drilling utilised is on 40m x 20m grid specifically targeting lithological and hence mineralisation sequence definition. • The geological sequence is well understood from the mining which supports the current drill spacing as adequate for both grade continuity assessment and lithological modelling • The sampling reflects the geological conditions. For mineral resource estimation a 1m composite length was chosen given that this is the dominant sample length in dataset.

Criteria	JORC Code explanation	Commentary
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.	• Given the shape of the sequence, the drilling as best as practically possible, is orientated to intersect the sequence perpendicularly. This is limited to drill sites from underground and surface. • No sampling bias is considered to have been introduced.
Sample security	• The measures taken to ensure sample security.	• The samples once collected and numbered are stored in the lockable site core yard. Each sample bag is securely tied with the sample number on the bag and inside on metal tags transported by commercial contractors to Perth. Upon receipt at the laboratory the samples are checked against the dispatch sheets to ensure all samples are present.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• Resources and reserves are routinely reviewed by the Metals X Corporate technical team. • Database management companies have over the past 2 years audited the drill hole database and found it representative of the information contained.

SECTION 2: REPORTING OF EXPLORATION RESULTS

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. • 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 Nifty deposit is situated on mining lease M271/SA, which is 100% held by Nifty Copper Pty Ltd, a wholly owned subsidiary of Metals X.
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	• WMC Resources Ltd discovered Nifty in 1980 by using regional ironstone sampling and reconnaissance geology. Malachite staining of an outcrop and Cu-anomalous ironstones from dune swale reconnaissance sampling were the initial indicators. This was followed up by lag sampling on a 500 x 50m grid that detected a 2.5 x 1.5km Cu-Pb anomaly. Secondary Cu mineralisation was intersected in percussion drilling in mid-1981, with high grade primary ore (20.8m at 3.8% Cu) discovered in 1983. WMC commenced open pit mining of the secondary oxide ore in 1992 and continued mining until September 1998 when Nifty was sold to Straits Resources. • The project was subsequently purchased from Straits Resources by Aditya Birla Minerals Ltd in 2003. • Open pit mining ceased in June 2006. • Copper extraction using heap leaching ceased in January 2009. • Underground mining of the primary (chalcopyrite) mineralisation started in 2009. • The project was purchased from Aditya Birla in 2016 by Metals X Ltd.
Geology	• Deposit type, geological setting and style of mineralisation.	• The Nifty deposit is hosted within the folded late-Proterozoic Broadhurst Formation which is part of the Yeneena Group. The Broadhurst Formation is between 1000 m to 2000 m thick and consists of a stacked series of carbonaceous shales, turbiditic sandstones, dolomite and limestone. Structurally, the dominant feature is the Nifty Syncline which strikes approximately southeast-northwest and plunges at about 6-12 degrees to the southeast. The stratabound copper mineralisation occurs as a structurally controlled, chalcopyrite-quartz- dolomite replacement of carbonaceous and dolomitic shale within the folded sequence. The bulk of the primary mineralisation which is currently being mined is largely hosted within the keel and northern limb of the Syncline.

Criteria	JORC Code explanation	Commentary
Drill hole Information	• A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: ○ easting and northing of the drill hole collar ○ elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar ○ dip and azimuth of the hole ○ down hole length and interception depth ○ hole length. • If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	• Refer to body of the Report.
Data aggregation methods	• In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. 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.	• Refer to body of the Report.
Relationship between mineralisation widths and intercept lengths	• 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 are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	• Refer to body of the Report.
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.	• NA
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.	• NA
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.	• NA
Further work	• The nature & scale of planned further work (e.g. 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.	• Open pit and underground feasibility works; • Validation drilling in areas of potential economic mineralisation; • Infill drill areas of data paucity proximal to the underground development. This will increase resource confidence and resultant classifications. • Validation of the underground void model.

TIN DIVISION

INFORMATION MATERIAL TO UNDERSTANDING THE EXPLORATION RESULTS

THE INFORMATION IN THIS TABLE REFERS TO THE FOLLOWING PROJECTS AT THE RENISON TIN OPERATIONS: RENISON BELL, RENTAILS AND MT BISCHOFF

SECTION 1 SAMPLING TECHNIQUES AND DATA

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

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 representivity 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 disclosure of detailed information.	**Diamond Drilling** • The bulk of the data used in resource calculations at Renison has been gathered from diamond core. Three sizes have been used historically NQ2 (45.1mm nominal core diameter), LTK60 (45.2mm nominal core diameter) and LTK48 (36.1mm nominal core diameter), with NQ2 currently in use. This core is geologically logged and subsequently halved for sampling. Grade control holes may be whole-cored to streamline the core handling process if required. • NQ and HQ core sizes have been recorded as being used at Mount Bischoff. This core is geologically logged and subsequently halved for sampling. • There is no diamond drilling for the Rentails Project. Face Sampling -Each development face / round is horizontally chip sampled at Renison. The sampling intervals are domained by geological constraints (e.g. rock type, veining and alteration / sulphidation etc.). Samples are taken in a range from 0.3m up to 1.2m in waste. All exposures within the orebody are sampled. A similar process would have been followed for historical Mount Bischoff face sampling. • There is no face sampling for the Rentails Project. **Sludge Drilling** • Sludge drilling at Renison is performed with an underground production drill rig. It is an open hole drilling method using water as the flushing medium, with a 64mm (nominal) hole diameter. Sample intervals are ostensibly the length of the drill steel. Holes are drilled at sufficient angles to allow flushing of the hole with water following each interval to prevent contamination. • There is no sludge drilling for the Mount Bischoff Project. There is no sludge drilling for the Rentails Project. **RC Drilling** • RC drilling has been utilised at Mount Bischoff. • Drill cuttings are extracted from the RC return via cyclone. The underflow from each interval is transferred via bucket to a four tiered riffle splitter, delivering approximately three kilograms of the recovered material into calico bags for analysis. The residual material is retained on the ground near the hole. Composite samples are obtained from the residue material for initial analysis, with the split samples remaining with the individual residual piles until required for re-split analysis or eventual disposal. • There is no RC drilling for the Renison Project. • There is no RC drilling for the Rentails Project. **Percussion Drilling** • This drilling method was used for the Rentails project and uses a rotary tubular drilling cutter which was driven percussively into the tailings. The head of the cutting tube consisted of a 50mm diameter hard tipped cutting head inside which were fitted 4 spring steel fingers which allowed the core sample to enter and then prevented it from falling out as the drill tube was withdrawn from the drill hole. • There is no percussion drilling for the Renison Project. • There is no percussion drilling for the Mount Bischoff Project. • All geology input is logged and validated by the relevant area geologists, incorporated into this is assessment of sample recovery. No defined relationship exists between sample recovery and grade. Nor has sample bias due to preferential loss or gain of fine or coarse material been noted.
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	• Diamond core is logged geologically and geotechnically. • RC chips are logged geologically. • Development faces are mapped geologically. • Logging is qualitative in nature. • All holes are logged completely, all faces are mapped completely.

Criteria	JORC Code Explanation	Commentary
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 representivity 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.	• Drill core is halved for sampling. Grade control holes may be whole-cored to streamline the core handling process if required. • Samples are dried at 90°C, then crushed to <3mm. Samples are then riffle split to obtain a sub-sample of approximately 100g which is then pulverized to 90% passing 75um. 2g of the pulp sample is then weighed with 12g of reagents including a binding agent, the weighed sample is then pulverised again for one minute. The sample is then compressed into a pressed powder tablet for introduction to the XRF. This preparation has been proven to be appropriate for the style of mineralisation being considered. • QA/QC is ensured during the sub-sampling stages process via the use of the systems of an independent NATA / ISO accredited laboratory contractor. • The sample size is considered appropriate for the grain size of the material being sampled. • The un-sampled half of diamond core is retained for check sampling if required. • For RC chips regular field duplicates are collected and analysed for significant variance to primary results.
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, spectrometres, handheld XRF instruments, etc, the parametres 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.	• Assaying is undertaken via the pressed powder XRF technique. Sn, As and Cu have a detection limit 0.01%, Fe and S detection limits are 0.1%. These assay methodologies are appropriate for the resource in question. • All assay data has built in quality control checks. Each XRF batch of twenty consists of one blank, one internal standard, one duplicate and a replicate, anomalies are re-assayed to ensure quality control. • Specific gravity / density values for individual areas are routinely sampled during all diamond drilling where material is competent enough to do so.
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.	• Anomalous intervals as well as random intervals are routinely checked assayed as part of the internal QA/QC process. • Virtual twinned holes have been drilled in several instances across all sites with no significant issues highlighted. Drillhole data is also routinely confirmed by development assay data in the operating environment. • Primary data is loaded into the drillhole database system and then archived for reference. • All data used in the calculation of resources and reserves are compiled in databases (underground and open pit) which are overseen and validated by senior geologists. • No primary assays data is modified in any way.
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.	• All data is spatially oriented by survey controls via direct pickups by the survey department. Drillholes are all surveyed downhole, currently with a GyroSmart tool in the underground environment at Renison, and a multishot camera for the typically short surface diamond holes. • All drilling and resource estimation is undertaken in local mine grid at the various sites. • Topographic control is generated from remote sensing methods in general, with ground based surveys undertaken where additional detail is required. This methodology is adequate for the resource in question.
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.	• Drilling in the underground environment at Renison is nominally carried-out on 40m x 40m spacing in the south of the mine and 25m, x 25m spacing in the north of the mine prior to mining occurring. A lengthy history of mining has shown that this data spacing is appropriate for the Mineral Resource estimation process and to allow for classification of the resource as it stands. • Drilling at Mount Bischoff is variably spaced. A lengthy history of mining has shown that this data spacing is appropriate for the Mineral resource estimation process and to allow for classification of the resource as it stands. • Drilling at Rentails is usually carried out on a 100m centres. This is appropriate for the Mineral resource estimation process and to allow for classification of the resource as it stands. • Compositing is carried out based upon the modal sample length of each individual domain.

Criteria	JORC Code Explanation	Commentary
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.	• Drilling intersections are nominally designed to be normal to the orebody as far as underground infrastructure constraints / topography allows. • Development sampling is nominally undertaken normal to the various orebodies. • It is not considered that drilling orientation has introduced an appreciable sampling bias.
Sample security	• The measures taken to ensure sample security.	• At Renison, Mount Bischoff and Rentails samples are delivered directly to the on-site laboratory by the geotechnical crew where they are taken into custody by the independent laboratory contractor.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data	• Site generated resources and reserves and the parent geological data is routinely reviewed by the Metals X Corporate technical team.

SECTION 2 REPORTING OF EXPLORATION RESULTS

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

Criteria	JORC Code Explanation	Commentary
Mineral tenement and land tenure status	• Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. • 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.	• All Tasmania resources are hosted within 12M1995 and 12M2006. Both tenements are standard Tasmanian mining leases. • No native title interests are recorded against the Tasmanian tenements. • Tasmanian tenements are held by the Bluestone Mines Tasmania Joint Venture of which Metals X has 50% ownership. • No royalties above legislated state royalties apply for the Tasmanian tenements. • Bluestone Mines Tasmania Joint Venture operates in accordance with all environmental conditions set down as conditions for grant of the mining leases. • There are no known issues regarding security of tenure.
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	• The Renison and Mount Bischoff areas have an exploration and production history in excess of 100 years. • Bluestone Mines Tasmania Joint Venture work has generally confirmed the veracity of historic exploration data.
Geology	• Deposit type, geological setting and style of mineralisation.	• Renison is one of the world's largest operating underground tin mines and Australia's largest primary tin producer. Renison is the largest of three major Skarn, carbonate replacement, pyrrhotite-cassiterite deposits within western Tasmania. The Renison Mine area is situated in the Dundas Trough, a province underlain by a thick sequence of Neoproterozoic-Cambrian siliciclastic and volcaniclastic rocks. At Renison there are three shallow-dipping dolomite horizons which host replacement mineralisation. • Mount Bischoff is the second of three major Skarn, carbonate replacement, pyrrhotite- cassiterite deposits within western Tasmania. The Mount Bischoff Mine area is situated within the Dundas Trough, a province underlain by a thick sequence of Neoproterozoic- Cambrian siliciclastic and volcaniclastic rocks. At Mount Bischoff folded and faulted shallow-dipping dolomite horizons host replacement mineralisation with fluid interpreted to be sourced from the forceful emplacement of a granite ridge and associated porphyry intrusions associated with the Devonian Meredith Granite, which resulted in the complex brittle / ductile deformation of the host rocks. Lithologies outside the current mining area are almost exclusively metamorphosed siltstones. Major porphyry dykes and faults such as the Giblin and Queen provided the major focus for ascending hydrothermal fluids from a buried ridge of the Meredith Granite. Mineralisation has resulted in tin-rich sulphide replacement in the dolomite lodes, greisen and sulphide lodes in the porphyry and fault / vein lodes in the major faults. All lodes contain tin as cassiterite within sulphide mineralisation with some coarse cassiterite as veins throughout the lodes. • The Rentails resource is contained within three Tailing Storage Facilities (TSF's) that have been built up from the processing of tin ore at the Renison Bell mine over the period 1968 to 2013.

Criteria	JORC Code Explanation	Commentary
Drill hole Information	• A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: • easting and northing of the drill hole collar • elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar • dip and azimuth of the hole • down hole length and interception depth • hole length. • If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	• Excluded results are non-significant and do not materially affect understanding of the Renison deposit.
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.	• Results are reported on a length weighted average basis. • Results are reported above a 4%m Sn cut-off.
Relationship between mineralisation widths and intercept lengths	• 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 are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').	• Interval widths are true width unless otherwise stated.
Diagrams	• Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	• No new discoveries reported.
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.	• Presented above. • Excluded results are non-significant and do not materially affect understanding of the Renison deposit.
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.	• No relevant information to be presented.
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.	• Exploration assessment and normal mine extensional drilling continues to take place at Renison. • Exploration assessment continues to progress at Mount Bischoff. • Project assessment continues to progress at Rentails.