**ASX Announcement**
**29 September 2022** **ASX:MLS**

# Diamond Drilling Confirms High-Grade Titanium-Vanadium-Magnetite (Iron) Discovery at Manindi

Metals Australia has received the results of three diamond drillholes that tested key **Battery Materials targets** at the **Manindi Project**, located 20 km southwest of Youanmi in the Murchison District of WA.

## i) Manindi West Titanium- Vanadium-Magnetite (Fe) Discovery

- Diamond drillhole MND003 tested the 3km strike length Manindi West mafic intrusive target below previous RC hole MNRC071 that produced a broad vanadium-titanium-magnetite intersection of: **70m @ 0.30% $V_2O_5$, 28% Fe, 11.5% $TiO_2$** from 48m incl. **20m @ 0.44% $V_2O_5$, 34.8% Fe, 14.3% Ti**[1] (Table 1a).
- **The new diamond drillhole (MND003) produced a broad intersection of 129m @ 0.23% $V_2O_5$, 23.3% Fe and 11.5% $TiO_2$ from 53m** downhole to the eastern or hangingwall contact of the intrusion. It **included a high-grade intersection on the western side of the intrusion**, east of the interpreted footwall contact (that remains untested) of **25m @ 0.47% $V_2O_5$, 24.0% $TiO_2$ and 40.8% Fe, from 53m** (Table 1a).
- **The high-grades of titanium including intersections up to 24% $TiO_2$, are the highest of any vanadium-titanium-magnetite discovery in WA.** This indicates that the titanium is contained in ilmenite that may be separated as a titanium ore, separation of which would in-turn upgrade the vanadium content in the remaining magnetite concentrate. Mineralogical work will determine the titanium mineralogy before preliminary metallurgical testwork is carried out.
- MND003 also **intersected sulphide mineralisation, including up to 0.19% Cu, 0.06% Ni and 0.07% Co in sulphide blebs.** Downhole electromagnetics (DHEM) will be carried out from MND003 to detect sulphide accumulations (as well as higher-grade vanadium-titanium-magnetite mineralisation) at the basal or western contact of the intrusion, which will be tested with follow-up drilling.

## ii) Foundation Pegmatite Samples Despatched for Lithium Mineralogy

- **A diamond drillhole (MND001) that tested extensions of the Foundation Pegmatite at depth** below previous, **high-grade lithium-rubidium intersections** incl. **11m @ 1.23% $Li_2O$, 0.31% Rb** from 16m incl. **5m @ 1.47% $Li_2O$, 0.30% Rb** and incl. **2m @ 1.73% $Li_2O$, 0.64% Rb** in MNRC045[3], produced low to moderate grade results from lepidolite bearing pegmatite (Table 1b).
- Samples from MND001 and selected high-grade samples from the previous RC holes have been submitted for XRD analysis to determine the lithium mineralogy (lepidolite/spodumene or other lithium bearing minerals). **Metallurgical testwork will follow to generate flotation concentrate as well as examining downstream potential to produce ahigh-value, lithium-carbonate product.**

## iii) Kultarr Zinc-Copper Sulphide Extension Drilling

- **Diamond drilling that tested depth and strike extensions of the high-grade zinc mineralisation** at **Kultarr Prospect** to the southeast, down-plunge of the previously announced spectacular intersection of **68m @ 3.09% Zn, 0.20% Cu,** from 89m incl. **24.0m @ 6.47% Zn, 0.29% Cu** in MNRC070[4], intersected extensive sulphide zones, interpreted to represent the pyritic halo of the zinc mineralisation (see results, Table 1c). Downhole electromagnetics will be carried out to pin point the location of the K2 conductor the lies at depth and to the north which represents a potential drill target for copper-rich sulphides below the zinc mineral resource.

Metals Australia Ltd (**"MLS" or "the Company"**) is pleased to announce the results of a **diamond drilling program that tested three key battery materials targets** at the Company's Manindi Project, located 20 km southwest of Youanmi in the Murchison District of Western Australia (see location, Figure 1 below).

The diamond drilling program totalled three holes for 671.6m, specifically testing the three battery materials deposits that have been identified at Manindi. **A significant vanadium-titanium-iron intersection was produced from the new Manindi West mafic/ultramafic intrusive hosted vanadium-titanium-magnetite (Fe) discovery** (see Figure 1 below), that included: **25m @ 0.47% $V_2O_5$, 24.0% $TiO_2$ and 40.8% Fe, from 53m in MND003.**

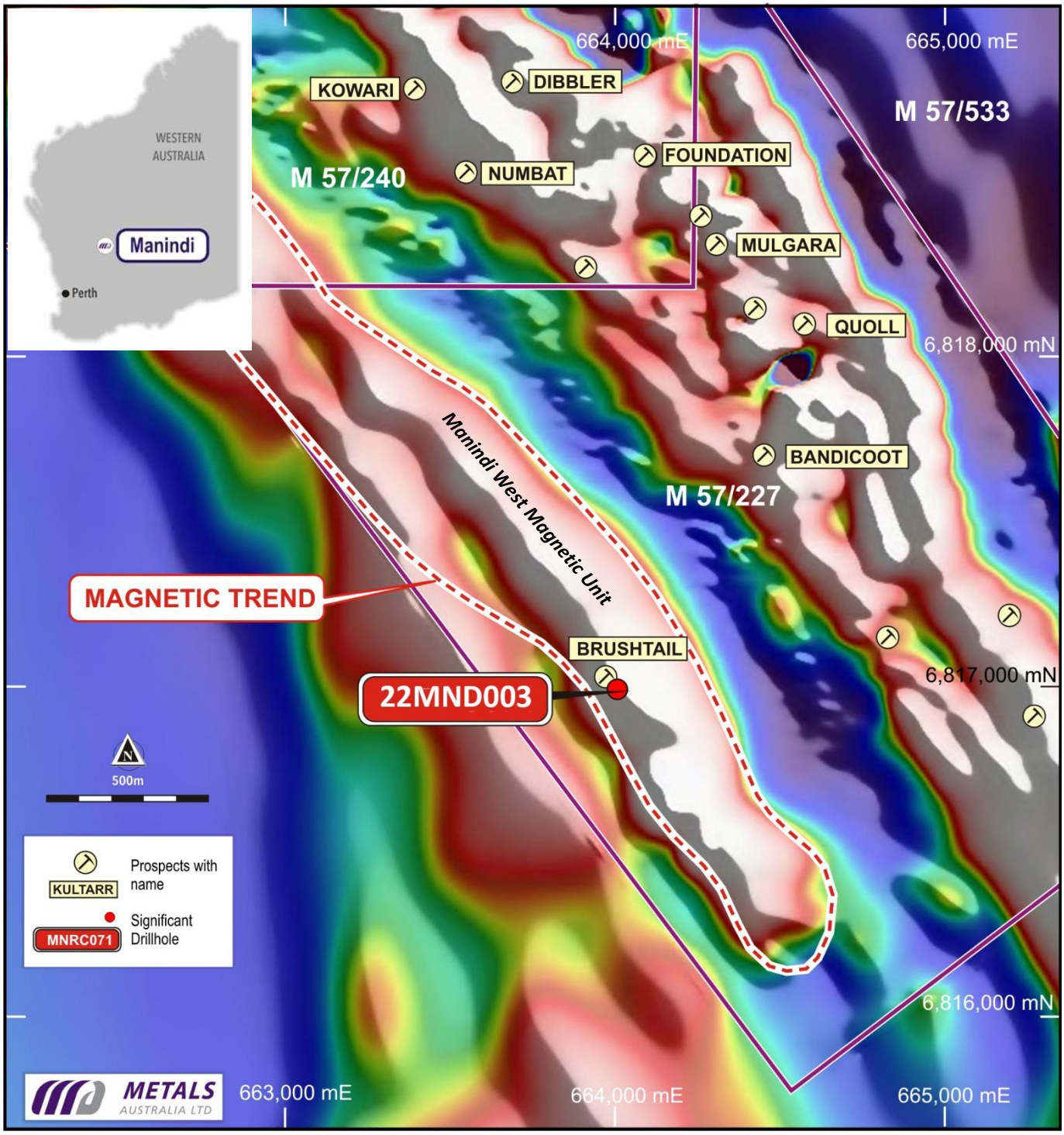


***Figure 1: TMI image showing Manindi West prospect, Kowari zinc resource & Foundation Pegmatite locations***

The results received are from the three key battery materials projects that were tested, which are:

**i) The Manindi West mafic/ultramafic intrusive hosted vanadium-titanium-magnetite deposit**

Diamond drillhole MND003 tested below RC hole MNRC071 that produced a broad vanadium-titanium-magnetite intersection of: **70m @ 0.30% $V_2O_5$, 28% Fe, 11.5% $TiO_2$** from 48m incl. **20m @ 0.44% $V_2O_5$, 34.8% Fe, 14.3% Ti**[1] (Figure's 1,2a and 3).

**ii) The Foundation Lithium-Rubidium Bearing Pegmatite**

Diamond drillhole MND001 tested extensions of the **Foundation Pegmatite** at depth below previous, high-grade lithium-rubidium intersections (e.g., **11m @ 1.23% $Li_2O$, 0.31% Rb from 16m** incl. **5m @ 1.47% $Li_2O$, 0.30% Rb** and incl. **2m @ 1.73% $Li_2O$, 0.64% Rb** in MNRC045[2] (Figure 4), and,

iii) **Kultarr Zinc-Copper-Silver Prospect**

Diamond drillhole MND002 tested strike and depth extensions to the southeast of the high-grade zinc with copper intersection of **68m @ 3.09% Zn, 0.20% Cu** from 89m incl. **24.0m @ 6.47% Zn, 0.29% Cu** in MNRC070[3] (Figure 5).

## Manindi West Vanadium-Titanium-Magnetite Prospect

The Manindi West Prospect is a major northwest trending magnetic zone of more than 3 km strike length and 1 km wide, located to the southwest and parallel to the corridor that contains the Kowari and Kultarr zinc mineral resources. It is interpreted to represent a large mafic/ultramafic intrusive, which was confirmed by previous RC hole **MNRC071[1] that produced a broad intersection of vanadium-titanium-magnetite mineralisation (Figure 1a)** associated with the lower layers of the Youanmi mafic-ultramafic complex**.**

A series of regional gravity profiles completed over both the Manindi West and Kowari-Kultarr zinc trends has confirmed the extensive mafic intrusive complexes indicated by the magnetics imagery (Figure 1).

Follow up diamond drillhole **MND003** intersected the magnetite bearing intrusion below an interpreted pegmatite and continued through to the eastern or hangingwall contact of the mafic intrusive, producing an overall intersection of **129m @ 0.23% $V_2O_5$, 23.29% Fe and 11.51% $TiO_2$ from 53m downhole.** Within this intersection, a strong basal intercept of **25m @ 0.47% $V_2O_5$, 40.8% Fe, 24.0% $TiO_2$ from 53m** was intersected (see Table 1a and cross section, Figure 3).

***Figure 2a: MND003 vanadium-titanium-magnetite***

***Figure 2b: Massive sulphide bleb with chalcopyrite***

The high grade $V_2O_5$ and $TiO_2$ mineralisation within the basal sequence of the intrusive is higher grade than the mineralisation at the Youanmi Vanadium Project of Venus Metals (ASX:VMC) within the same mafic

complex 20km to the northeast of the Manindi Project and similar to the high-grade Australian Vanadium (ASX:AVL) and Technology Metals Australia (ASX:TMT) deposits near Meekatharra, 300km to the northwest.

The high-grade titanium ($TiO_2$) intersection in MND003 demonstrates potential for ilmenite mineralisation within the basal intrusive. Ilmenite should separate from the vanadium bearing magnetite and represents a saleable titanium product. This would also generate an increased concentration of vanadium bearing magnetite product for downstream processing (to produce high-value vanadium pentoxide, $V_2O_5$).

Mineralogical work will be undertaken to determine the titanium and vanadium mineralogy prior to initial metallurgical testwork to generate potentially saleable products.

There is also potential for higher-grade massive sulphide accumulations at the base of the intrusive. DHEM will be carried out from MND003 to locate conductors potentially representing nickel-copper-cobalt bearing massive sulphide zones that would then be tested with further diamond drilling.

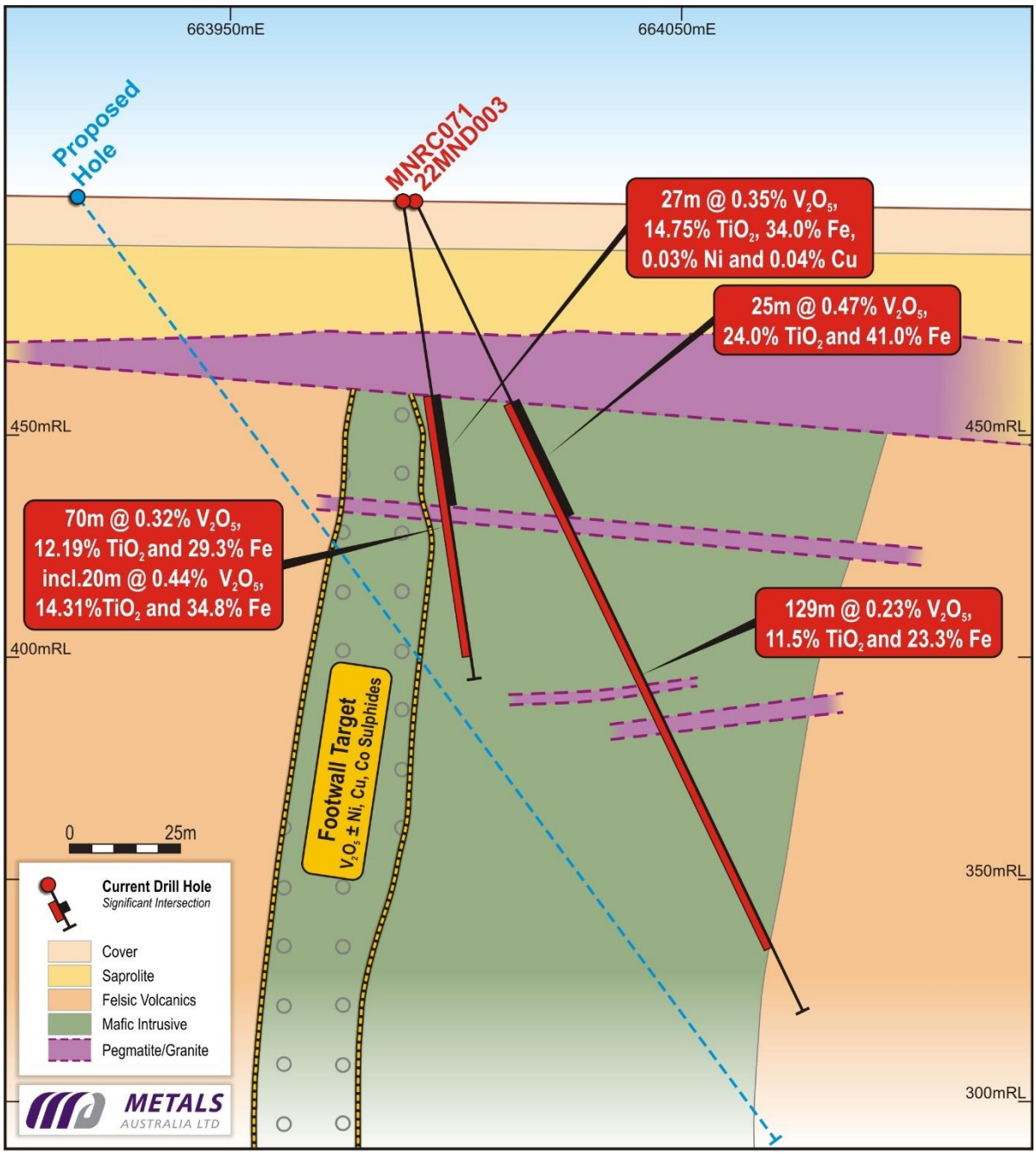


***Figure 3: Cross Section through MND003 intersection, Manindi West with previous MNRC071 intersection***

## Diamond Drilling of the Foundation Lithium Pegmatite Discovery

Diamond drillhole MND001 tested depth extensions beneath the higher-grade section of the **500m strike-length Foundation Pegmatite**, down dip of the high-grade lithium-rubidium pegmatite zone that produced thick and high-grade intersections including:

- **11m @ 1.23% $Li_2O$, 0.31% Rb** from 16m (down hole) in MNRC045[2]
  including **5m @ 1.47% $Li_2O$, 0.30% Rb** from 16m, and,
  including **2m @ 1.73% $Li_2O$, 0.64% Rb** from 25m.
- **13m @ 1.03% $Li_2O$, 0.27% Rb** from 62m (downhole) in MNRC076[2]
  Including **8m @ 1.40% $Li_2O$, 0.31% Rb** from 64m (downhole)

This diamond drillhole (MND001) intersected thick pegmatite intersections of 27m (109m downhole) and 10m (148m downhole) respectively, extending the depth potential of the Foundation Pegmatite to over 120m below surface. Assays results for these pegmatite intersections were lower than expected (see Table 1b). XRD analysis on the drillcore from MND002 is underway to determine the lithium bearing mineral assemblage (e.g., lepidolite/spodumene or another lithium bearing mineral) and the relative proportions of these minerals. XRD analyses will also be carried out on higher-grade samples from adjacent RC holes to determine whether the higher-grade assemblage is in fact spodumene or another lithium bearing mineral.

Metallurgical testwork will also be carried out to determine lithium-rubidium (tantalum) concentration properties. **Further, downstream testwork is also planned to determine capacity to generate high-value lithium-carbonate product by separating lithium from other elements such as potassium.**

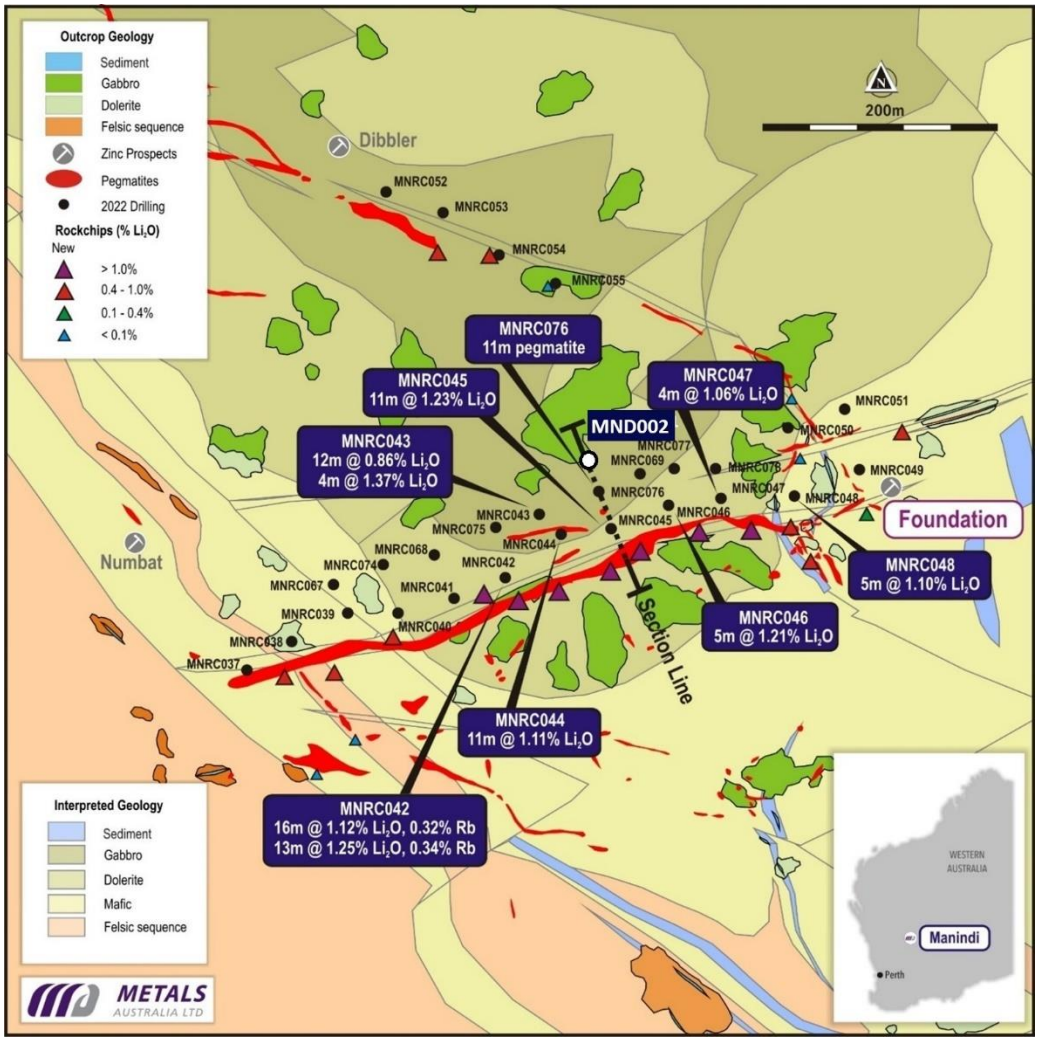


***Figure 4: Manindi lithium Project, Foundation pegmatite, downhole intercepts and rockchip sample locations***

## Diamond Drilling to Test High-Grade –Zinc-Copper Resource Extensions

Diamond drillhole MND002 tested for depth and strike extensions of the previously announced high-grade intersection in **MNRC070** of **68m @ 3.09% Zn, 0.20% Cu, 2.33 g/t Ag from 89m, including 24.0m @ 6.47% Zn, 0.29% Cu, 3.58 g/t Ag from 100m[3].**

Historical (EM) surveys show EM anomalies at depth below both the Kultarr (K2 anomaly) and Kowari (C1 anomaly) zones[4] (Figure 5). The high-grade intersection in MNRC070 confirmed that the high-grade zinc mineralisation extends beyond the previous drilling and opened-up potential to significantly expand the high-grade zinc-copper mineral resources at the prospect.

Drillhole MND002 intersected a broad sulphide zone (29m @ 5.59% sulphur), however zinc grades were lower than the main resource area (see Table 1c) and it appears that the hole has tested below the extent of the high-grade zinc resource target.

**Downhole electromagnetics (DHEM) will be carried out from MND002 to confirm the location of the K2 conductor at depth. The presence of the conductor indicates that the sulphide species at depth will be predominantly iron sulphides and potentially chalcopyrite ($CuFeS_2$).**

**Following the DHEM further drilling will then be planned, targeting a copper-sulphide deposit below/down plunge of the zinc resource** (see longitudinal projection, Figure 5 below).

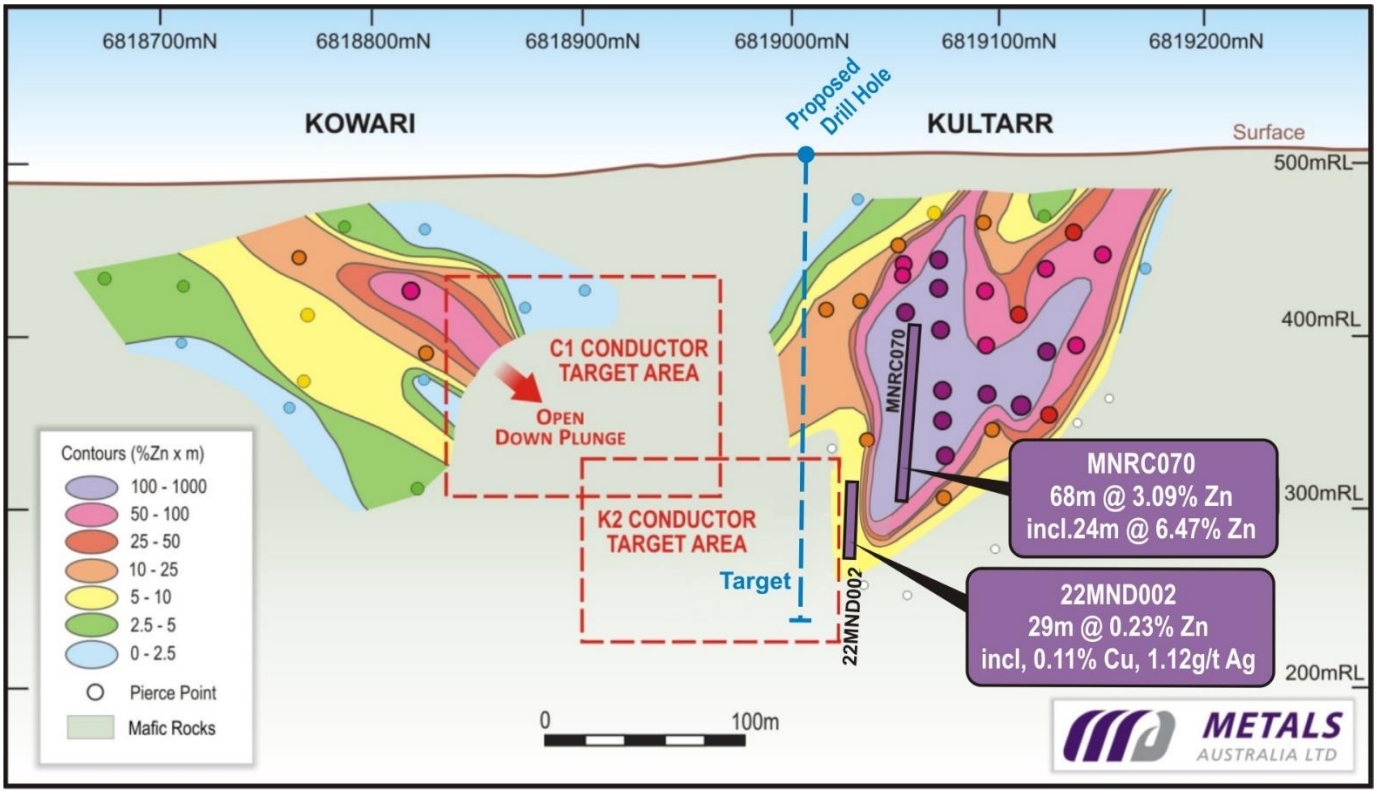


***Figure 5. Kultarr and Kowari Longitudinal Projection with 22MND002 Intersection and diamond drilling targets***

## About Metals Australia

Metals Australia Ltd ("Metals Australia" or "the Company") is an active exploration company listed on the Australian Securities Exchange (ASX:MLS) with a portfolio of battery minerals / metals and gold projects in the well-established mining provinces of Australia and Canada.

The Company's flagship **Lac Rainy Graphite Project** is located in a major graphite province in Quebec, Canada. Lac Rainy hosts a JORC-2012 graphite mineral resource[5] that is one of the highest grade in the region, with potential to grow substantially. Metallurgical testwork has generated high **flotation concentrate results of up to 97% Cg[6]**. A bulk concentrate sample has been despatched to Germany for downstream battery testwork to determine the quality of the Lac Rainy graphite for use in lithium-ion battery applications in the Electric Vehicle (EV) industry.

In Western Australia, Metals Australia holds an 80% interest in **Manindi Project,** located around 500km northeast of Perth, where the Company has been **drilling the project's newly recognised lithium potential and extending the existing high-grade zinc with copper resources. The Company has also identified a new vanadium-titanium discovery with copper-nickel-cobalt sulphide potential**.

Metals Australia has also now purchased an 80% interest in Payne Gully Gold that holds the **Warrambie, Tennant Creek and Murchison Projects[7].** This gives MLS additional exposure to a suite of prospective battery metals and gold assets in Western Australia and the Northern Territory in known mineral provinces**.**

Metals Australia's strategy is to create shareholder value through discovery and development of key battery minerals and metals projects located in favourable jurisdictions.

***Table 1a: Significant intersections in MNRC071 and MND003:***

| Hole ID | From | To | M | $V_2O_5$% | Fe % | $TiO_2$% | Ni % | Cu % | Co ppm |
|---|---|---|---|---|---|---|---|---|---|
| **MND003** | 53 | 182 | 129 | **0.23** | **23.29** | **11.51** | | | |
| incl. | 53 | 78 | 25 | **0.47** | **40.75** | **24.00** | 0.023 | 0.05 | 226 |
| **MNRC071** | 48 | 130 | 82 | **0.30** | **27.80** | **11.51** | 0.018 | 0.030 | 148 |
| incl. | 48 | 118 | 70 | **0.32** | **29.26** | **12.19** | 0.020 | 0.032 | 159 |
| incl. | 48 | 75 | 27 | **0.35** | **34.84** | **14.75** | 0.029 | 0.045 | 221 |
| & incl. | 80 | 100 | 20 | **0.44** | **34.82** | **14.31** | 0.022 | 0.037 | 170 |

***Table 1b: Significant intersections in MND001 and previous high-grade intersections on the same section:***

| Hole ID | From | To | M | $Li_2O$% | Rb % | $Ta_20_5$ ppm | $Cs_2O$ ppm | Cut-off ($Li_2O$%) |
|---|---|---|---|---|---|---|---|---|
| **MND001** | 86 | 91 | 5 | 0.11 | 0.04 | 60.2 | **124.6** | 0.01% |
| | 108 | 113 | 5 | 0.10 | 0.10 | 63.4 | **103.8** | 0.01% |
| | 119 | 122 | 3 | 0.13 | 0.10 | **89.9** | **294.6** | 0.01% |
| **MNRC045** | 16 | 27 | 11 | **1.23** | **0.31** | 60.2 | **124.6** | 0.30% |
| incl | 16 | 21 | 5 | **1.47** | **0.30** | 63.4 | **103.8** | 1.00% |
| | 25 | 27 | 2 | **1.73** | **0.64** | **89.9** | **294.6** | 1.00% |

***Table 1c: Significant results from MND002***

| Hole ID | From | To | M | Zn % | Cu % | Ag ppm | S % |
|---|---|---|---|---|---|---|---|
| **MND002** | 71 | 77 | 6 | 0.19 | 0.18 | 1.84 | 9.49 |
| | 156 | 185 | 29 | 0.23 | 0.11 | 1.18 | 5.59 |

***Table 2: Diamond Drillhole Locations and details***

| Hole ID | Northing | Easting | Az | Dip | Depth |
|---|---|---|---|---|---|
| 22MND001 | 6818616 | 663866 | 160 | -60 | 160.1 |
| 22MND002 | 6819045 | 663305 | 240 | -72 | 306.8 |
| 22MND003 | 6817000 | 663990 | 060 | -60 | 204.7 |

## References


[1] *Metals Australia Ltd, 09 June 2022. Substantial Vanadium (Iron-Titanium) Intersection at Manindi.*
[2] *Metals Australia Ltd, 26 May 2022. Multiple High-Grade Lithium Intersections from Manindi Pegmatites.*
[3] *Metals Australia Ltd, 24 May 2022. Exceptional 68m @ 3.09% Zinc Intersection at Manindi.*
[4] *Metals Australia Ltd, 25 July 2017. C4 Conductor Delivers High Grade Zinc Intersection at Manindi.*
[5] *Metals Australia Ltd, 15 June 2020. Metals Australia delivers High Grade Maiden JORC Resource at Lac Rainy Graphite.*
[6] *Metals Australia Ltd, 28 February 2022. Outstanding 96.8% Flake Graphite Concentrate for Lac Rainy.*
[7] *Metals Australia Ltd, 16 June 2022. Metals Australia Acquires Key Battery Metals Projects.*


This announcement was authorised for release by the Board of Directors.

*****ENDS*****

**For further information, please refer to the Company's website or contact:**


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### Cautionary Statement regarding Forward-Looking information

*This document contains forward-looking statements concerning Metals Australia Ltd. Forward-looking statements are not statements of historical fact and actual events and results may differ materially from those described in the forward-looking statements as a result of a variety of risks, uncertainties and other factors. Forward-looking statements are inherently subject to business, economic, competitive, political and social uncertainties and contingencies. Many factors could cause the Company's actual results to differ materially from those expressed or implied in any forward-looking information provided by the Company, or on behalf of, the Company. Such factors include, among other things, risks relating to additional funding requirements, metal prices, exploration, development and operating risks, competition, production risks, regulatory restrictions, including environmental regulation and liability and potential title disputes.*

*Forward looking statements in this document are based on the company's beliefs, opinions and estimates of Metals Australia Ltd as of the dates the forward-looking statements are made, and no obligation is assumed to update forward looking statements if these beliefs, opinions and estimates should change or to reflect other future developments.*

### Competent Person Statement

*The information in this report that relates to exploration results has been reviewed, compiled and fairly represented by Mr Nick Burn. Mr Burn is the Exploration Manager of Metals Australia Limited and a member of the AIG. Mr Burn has sufficient experience relevant to the style of mineralisation and type of deposits under consideration to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee ('JORC') Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves. Mr Burn consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.*

*The information in this report that relates to Mineral Resources and Exploration Targets has been reviewed, compiled and fairly represented by Mr Jonathon Dugdale. Mr Dugdale is a Technical Advisor to Metals Australia Ltd and a Fellow of the Australian Institute of Mining and Metallurgy ('FAusIMM'). Mr Dugdale has sufficient experience, including over 34 years' experience in exploration, resource evaluation, mine geology and finance, relevant to the style of mineralisation and type of deposits under consideration to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee ('JORC') Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves. Mr Dugdale consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.*

*The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.*

## Appendix 2 JORC Code, 2012 Edition – Table 1 - Section 1 Sampling Techniques and Data

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| ***Sampling techniques*** | • *Nature and quality of sampling (e.g., cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.*<br>• *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*<br>• *Aspects of the determination of mineralisation that are Material to the Public Report.*<br>• *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.* | Reverse circulation (RC) percussion drilling was used to obtain 1 m samples, from which approximately 2-3 kg was sub-sampled and pulverised to produce a sample for assay.<br>Samples for the current RC program are being analysed as 1m sample or 4m composites as determined by geological logging.<br>Previous and current diamond drilling has been sampled at approximate 1m intervals, utilising geological contacts where necessary.<br>Rockchip samples reported in this release were grab samples of pegmatite occurrences, collected in a calico bag and weighing approximately 2 to 3 kg.. |
| ***Drilling techniques*** | • *Drill type (e.g., core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g., core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).* | Drilling type is (i) reverse circulation (RC) percussion drilling, using a 4.5" face-sampling drill bit.<br>(ii) Diamond drilling is currently being undertaken by SD1000 rig collecting HQ size core |
| ***Drill sample recovery*** | • *Method of recording and assessing core and chip sample recoveries and results assessed.*<br>• *Measures taken to maximise sample recovery and ensure representative nature of the samples.*<br>• *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.* | Sample recovery was visually assessed on basis of the volume of RC percussion chip recovery and overall is considered to be good based on the drilling records.<br>Standard RC percussion drilling techniques were utilised to maximise sample recovery. The cyclone unit was routinely cleaned to limit contamination and ensure representivity of the sample.<br>There is no apparent relationship between sample recovery and grade.<br>Diamond drill core recovery is considered high and is recorded by standard geological techniques |
| ***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.*<br>• *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.*<br>• *The total length and percentage of the relevant intersections logged.* | Chips from 1m RC percussion drilling intervals were logged according to industry standard practice and representative samples stored in chip trays. HQ core was logged to industry standard practice<br>Logging was qualitative in nature and recorded using standard logging templates. The resulting data was uploaded to a Datashed database and validated. Core photography was undertaken for records<br>100% of the RC chips and diamond core drilling was logged. |
| ***Sub-sampling techniques and sample preparation*** | • *If core, whether cut or sawn and whether quarter, half or all cores taken.*<br>• *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.*<br>• *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*<br>• *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*<br>• *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.*<br>• *Whether sample sizes are appropriate to the grain size of the material being sampled.* | RC percussion samples were collected for every metre drilled using a cone splitter installed beneath the rig cyclone. Each sample had a weight of approximately 2-3 kg. Duplicate samples of the same size were collected using a second collection point from the cone splitter at a frequency of approximately one duplicate per 20 samples.<br>For all samples, the nature, quality and appropriateness of the sample preparation technique is considered suitable as per industry best practice.<br>All samples were sent to the Bureau Veritas laboratory in Perth for sample preparation (codes PR001 and PR302) using standard codes of practices. All samples were dry and presented to the lab "as is".<br>Rockchip samples were processed by Intertek / Genalysis laboratories in Maddington, Perth and analysed using the 48 element "Lithium Package" (4A-Li/MS48).<br>The sample preparation is considered appropriate for the sample size and grain size of the material |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | | being sampled and appropriate for the sample type.<br>Currently drilled HQ core is sampled over 1m intervals or geological contacts and was cut to quarter core for sample analysis. Duplicate analyses were collected at a 1 in 25 interval for check results with blanks inserted in the sample process at a similar spacing. |
| *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.*<br>• *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.*<br>• *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.* | Previous assaying was completed by the Bureau Veritas (BV) laboratory based in Perth, Western Australia. BV undertook a standard multi-element assay procedures (codes PF100, PF101 and PF102) utilising a peroxide fusion digestion technique followed by ICP-AES and ICP-MS analysis.<br>Assaying for this current RC and diamond drill program is being undertaken by Intertek Perth utilising their 4A-Li/MS48 (four acid digest/ICP-MS) package.<br>The quality of the assay and laboratory procedures is considered to be high and appropriate for the type of mineralisation. The technique used is considered to be a total digestion.<br>A comprehensive QAQC program (1 in 25) including blank, standard and duplicate samples were submitted by the Company for analysis with the drilling samples. The results of the QAQC program have been reviewed by the Company's consultant, who has not identified any material concerns. Routine internal QAQC checks were also completed by Intertek and the results are considered to be satisfactory with no material concerns. |
| *Verification of sampling and assaying* | • *The verification of significant intersections by either independent or alternative company personnel.*<br>• *The use of twinned holes.*<br>• *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*<br>• *Discuss any adjustment to assay data.* | Significant intersections have been reviewed and verified by company technical and management personnel.<br>Primary drilling data was documented in detailed electronic drill hole logs. Primary assay data was received electronically from the analytical laboratory. Data is uploaded to a Datashed geological database and verified. No adjustments have been made to the reported assays other than the calculation of $Li_2O$ , $Ta_2O_5$,, $V_2O_5$ and $TiO_2$ grades from assay data, as specified in the announcement. |
| *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.*<br>• *Specification of the grid system used.*<br>• *Quality and adequacy of topographic control.* | Drill hole collar and rock chip sample locations have been verified with handheld GPS with a ±5 m degree of accuracy.<br>The grid system used is GDA94 datum, MGA zone 50 projection.<br>Topographic control is based on a digital terrain model (DTM) with an accuracy of ±5m. |
| *Data spacing and distribution* | • *Data spacing for reporting of Exploration Results.*<br>• *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.*<br>• *Whether sample compositing has been applied.* | Data spacing is 1 m intervals downhole. Drill holes spaced at approximately 20 m intervals along strike of the Kultarr resource.<br>The drilling intersection announced presents sufficient data to establish the degree of geological and grade continuity required for estimation of a resource. Further drilling will be carried out before a revised resource estimate is produced.<br>No sample compositing has been applied. |
| *Orientation of data in relation to geological structure* | • *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*<br>• *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.* | The drilling and sampling orientation is not considered to have resulted in a true width intersection of the zinc or titanium mineralised zones (see figure 1, cross section).<br>Given the nature of the deposit type, the drilling and the sampling is considered to achieve unbiased sampling as the sulphide body has been tested from hangingwall to footwall. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| *Sample security* | • *The measures taken to ensure sample security.* | Industry standard chain of custody followed, with samples collected, transported and delivered to a secure freight depot by Company geologist. Samples were shipped directly to the analytical lab. |
| *Audits or reviews* | • *The results of any audits or reviews of sampling techniques and data.* | The Company's consultant has reviewed the sampling and assay data for completeness and quality control and has not identified any material concerns. |

## JORC Code, 2012 Edition – Table 1 - Section 2 Reporting of Exploration Results

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| *Mineral tenement and land tenure status* | • *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.*<br>• *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 Company controls an 80% Interest in three granted Mining Licences in Western Australia covering the known mineralisation and surrounding area.<br>The licences are M57/227, M57/240 and M57/533. The licence reports and expenditure are all in good standing at the time of reporting.<br>There are no known impediments with respect to operating in the area. |
| *Exploration done by other parties* | • *Acknowledgment and appraisal of exploration by other parties.* | The Manindi zinc deposits were identified by WMC in the early 1970s and have been extensively explored using surface and geophysical techniques prior to drilling. Mapping and soil geochemistry preceded airborne, and surface geophysical techniques being applied to the project.<br>The Project has been drilled in 8 separate drill programs since 1971, with a total of 393 holes having been completed. These include 109 diamond drillholes, 109 RC drillholes, 169 RAB drillholes and 8 percussion holes.<br>The zinc deposits have never been mined.<br>The Project has not previously been explored for lithium mineralisation or vanadium bearing titanium at Manindi West. |
| *Geology* | • *Deposit type, geological setting and style of mineralisation.* | The mineralisation at Manindi is hosted within an Archaean felsic and mafic volcanic sequence. The sequence has been extensively deformed by regional metamorphism and structural event related to the Youanmi Fault and emplacement of the Youanmi gabbro intrusion and other later granitic phases.<br>The Manindi zinc-copper mineralisation is considered to be a volcanogenic massive sulphide (VMS) deposit, comprising a series of lenses of zinc-dominated mineralisation that have been folded, sheared, faulted, and possibly intruded by later dolerite and gabbro.<br>Pegmatite dykes crosscut the felsic and mafic rock sequences at a high angle and are interpreted to have intruded along structures that transect the area. The dykes that occur in the area are considered to be of the lithium-caesium-tantalum type (LCT) and some contain visible lepidolite mineralisation.<br>Initial exploration of the Manindi West magnetic 'high' identified a steeply dipping mafic intrusive under 20m of cover. |
| *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:*<br>o *easting and northing of the drill hole collar*<br>o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* | A summary of all information material to the understanding of the previous lithium exploration results is included in the announcement, see Appendix 1 of the announcement by Metals Australia Ltd, 24 July 2018. "Results of RC percussion drilling program at Manindi Lithium Project".<br>A summary of previous exploration at Kultarr is included in the announcement by Metals Australia Ltd, |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | ○ *dip and azimuth of the hole*<br>○ *down hole length and interception depth*<br>○ *hole length.*<br>• *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.* | 25 July 2017. "C4 Conductor delivers High Grade Zinc Intersection at Manindi" |
| ***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.*<br>• *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.*<br>• *The assumptions used for any reporting of metal equivalent values should be clearly stated.* | Exploration results are reported as a length weighted average grade. This ensures that short lengths of high-grade material receive less weighting than longer lengths of low-grade material.<br>Where aggregate intercepts incorporate short lengths of high-grade results within longer lengths of lower grade results, these zones have been reported separately.<br>No maximum or minimum grade truncations have been applied.<br>No metal equivalents are reported. |
| ***Relationship between mineralisation widths and intercept lengths*** | • *These relationships are particularly important in the reporting of Exploration Results.*<br>• *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.*<br>• *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').* | The orientation and dip of the reported zinc diamond drill hole 22MND002 was designed to investigate the potential for down plunge Zn mineralisation and an interpreted EM plate anomaly. The reported mineralised intersections are therefore not true width.<br>Diamond drill hole 22MND003 at Manindi West is investigating the thickness of the covered mafic intrusive and seeking the hanging wall of the intrusive. |
| ***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.* | Appropriate maps and sectional views are included in the body of the announcement. |
| ***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 avoiding misleading reporting of Exploration Results.* | Full and representative reporting of previous relevant results in announcement by Metals Australia Ltd, 24 July 2018. "Results of RC percussion drilling program at Manindi Lithium Project".<br>With respect to previous zinc exploration, see a summary of previous exploration at Kultarr included in the announcement by Metals Australia Ltd, 25 July 2017. "C4 Conductor delivers High Grade Zinc Intersection at Manindi" |
| ***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.* | There are no other substantive exploration data. |
| ***Further work*** | • *The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large-scale step-out drilling).*<br>• *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.* | Further drilling to test the grade, thickness and continuity of lithium mineralisation at the Manindi Project, as discussed in previous announcements. Metallurgical testwork to determine the liithium mineralisation style.<br>DHEM down hole surveying of 22MND002 to increased copper content and EM plates to the south of the Kultarr resource and to determine down plunge extensions of the Kultarr mineral resource.<br>DHEM surveying of 22MND003 to test Manindi West titanium mineralisation in the footwall of the mafic intrusive. Followup drilling and mineralogy to investigate extent and style of mineralisation |