

ASX Announcement

30 January 2018

Expanded Lithium Exploration Opportunities at the Manindi Project**Highlights:**

- **Sampling of historical diamond drill core has shown significant widths of high-grade lithium-bearing pegmatites up to 25 metres wide assaying up to 2.14% Li₂O**
- **Detailed geological mapping at the Mulgari and Warabi prospects has confirmed several lithium-bearing pegmatite dykes exposed at surface with strike lengths of over 300 metres and widths of up to 25-30 metres**
- **Previous rock chip sampling of exposed pegmatite dykes has returned high-grade lithium results of up to 2.84% Li₂O**
- **A review of geological mapping and remote-sensing images extends the area of interest for lithium-bearing pegmatite dykes to more than 2 square kilometres**
- **Potential for extensions of known pegmatite dykes and discovery of pegmatites under shallow cover**

Diversified metals exploration company Metals Australia Limited (ASX:**MLS**) (Metals or the Company) is pleased to announce that it has significantly increased the area of interest for exploration of lithium-bearing pegmatites through a compilation of historical geological mapping information and newly obtained remote sensing images.

The Company has previously announced that significant widths of high-grade lithium-bearing pegmatites up to 25 m wide assaying up to 2.14% Li₂O occur in historical diamond drill core from the Mulgara Prospect area. Furthermore, limited rock chip sampling of exposed pegmatites in the Mulgari-Warabi Prospect areas has returned high-grade lithium results of up to 2.84% Li₂O. For full details, refer to Metals Australia ASX announcement dated 21 March, 2017.

Additional work has shown that the area prospective for lithium-bearing pegmatites extends over a strike length of approximately 2 km. Exposures of pegmatite occur in a zone approximately 800 m wide but interpretation of airborne magnetic images and other remote sensing images indicate that the known pegmatites continue under cover. The work has also identified other pegmatite exploration targets that have not been mapped at surface suggesting there remains significant potential below the shallow cover.

Commenting on the results of the pegmatite interpretation work, Mr Gino D'Anna, a Director of MLS stated:

"Metals Australia undertook further work on the pegmatites at the Manindi Project because we are excited that the area may contain significant lithium mineralisation and potential for a resource, in an area where all key mining related infrastructure is closely located. To-date, the Company had only completed a limited assessment of the lithium potential based on historical drill core and surface exposures. This new work is very encouraging in that it indicates a much larger area of interest for lithium-bearing pegmatites, including where they may extend under cover. We look forward to completing further work in the area to discover new zones of lithium mineralisation".

Manindi Project

The Manindi Project is a significant undeveloped zinc deposit located in the Murchison District of Western Australia, approximately 20 km southwest of the Youanmi gold mine (Figure 1). The project comprises three granted mining leases.

The Manindi base metal deposit is considered to be a volcanogenic massive sulphide (VMS) zinc deposit, comprising a series of lenses of zinc-dominated mineralisation that have been folded, sheared, faulted, and intruded by later dolerite and gabbro. The style of mineralisation is similar to other base metal sulphide deposits in the Yilgarn Craton, particularly Golden Grove at Yalgoo to the west of Manindi, and Teutonic Bore-Jaguar in the Eastern Goldfields.

A total Measured, Indicated and Inferred Resource of 1.08 Mt at 6.52% Zn, 0.26% Cu and 3.19g/t Ag (reported at a 2% Zn cut-off) has been estimated for the Manindi Project (JORC Code 2012 compliant, see announcement dated 17 April, 2015).



Figure 1: Location map of the Manindi Project in Western Australia.

Previous Lithium Exploration

Lithium-bearing pegmatite dykes have previously been identified on the Manindi mining leases in the vicinity of the Mulgara-Warabi Prospect areas (refer to Metals Australia ASX announcement dated 21 March, 2017). Four historical diamond drill holes (MND018, MND019, MND020 and MND022) containing pegmatites were sampled for lithium (see Figure 2). Assay results included 15 m @ 1.20% Li₂O from 34 m, including 5 m @ 1.53% Li₂O from 38 m, in MND018 and 3 m @ 1.00% Li₂O from 41 m in MND022. The lithium mineralisation appears to be associated mainly with the mineral lepidolite, with lesser eucryptite and spodumene.

Detailed surface mapping carried out at Mulgara and Warabi Prospects identified at least three lithium bearing pegmatites outcropping at surface with strike lengths of over 300 m and widths up to 25-30 m (Figure 2). Results from twelve rock chip samples collected from these pegmatites have returned high grade assays up to 2.84% Li₂O (Table 1). The pegmatites were sampled where exposed and mapping indicated that they extended under cover.

Table 1: Rock chip assay results from the Mulgara-Warabi Prospect areas (see ASX announcement dated 21 March 2017)

Sample ID	North	East	Lithium (% Li ₂ O)
MDD402	6818222	664358	0.77
MDD403	6818222	664322	1.08
MDD404	6818208	664286	1.44
MDD405	6818200	664250	1.46
MDD406	6818187	664210	0.85
MDD407	6818280	664235	2.07
MDD408	6818287	664270	2.37
MDD409	6818292	664295	2.84
MDD410	6818270	664270	1.55
MDD411	6818294	664325	2.75
MDD412	6818173	664170	1.47

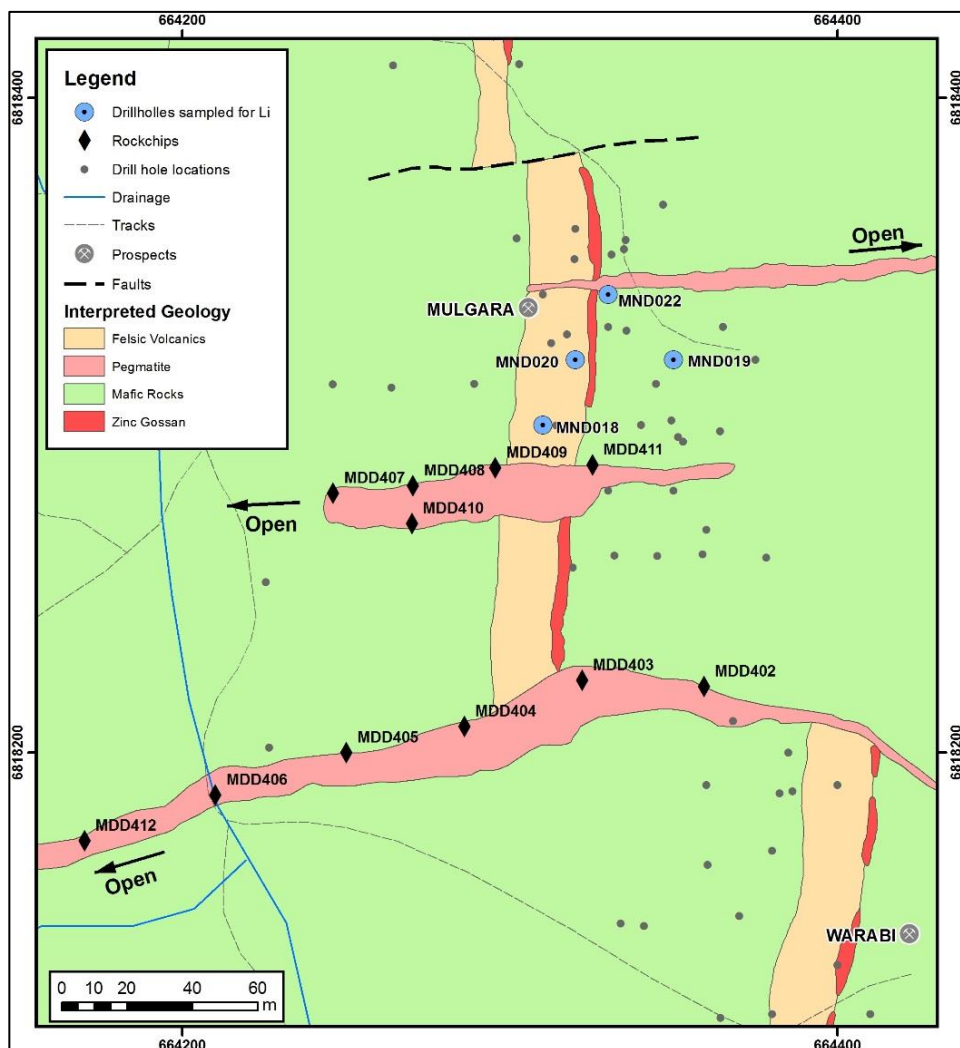


Figure 2: Interpreted geology of the Mulgara-Warabi area showing pegmatite intrusions, rock chip sample locations, historic drill holes sampled for lithium, historic drill hole collar positions and outcropping zinc mineralisation (shown in red) on the felsic-mafic contact.

Expanded Area of Interest for Lithium Exploration

The additional work undertaken using historical mapping, geophysics and remote sensing images has shown that the area prospective for lithium-bearing pegmatite dykes extends over a much larger area than previously tested with sampling. Pegmatites occur over a strike length of approximately 2 km, from the Kultarr Prospect southeast to the Bandicoot Prospect (Figure 3).

Known exposures of pegmatite occur in a zone approximately 800 m wide but interpretation of airborne magnetic images and other remote sensing images strongly indicate that the known pegmatites continue under cover. The work has also identified other pegmatite exploration targets that have not been mapped at surface suggesting there remains significant untested potential below the shallow cover.

Geological Mapping

Detailed geological mapping completed over the Manindi Project in 2008 by consultants Coffey Mining identified that pegmatite dykes are common throughout the central part of the tenement area, where there is the greatest structural complexity. The pegmatite dykes range from ~0.5 to 6 m wide and up to 1 km length and typically display an east-west to east-northeast (070) trends. The mapping identified a number of pegmatite intrusions (Figure 3) that are significantly more widespread than those sampled in early 2017 and noted that lepidolite is observed in the larger dykes.

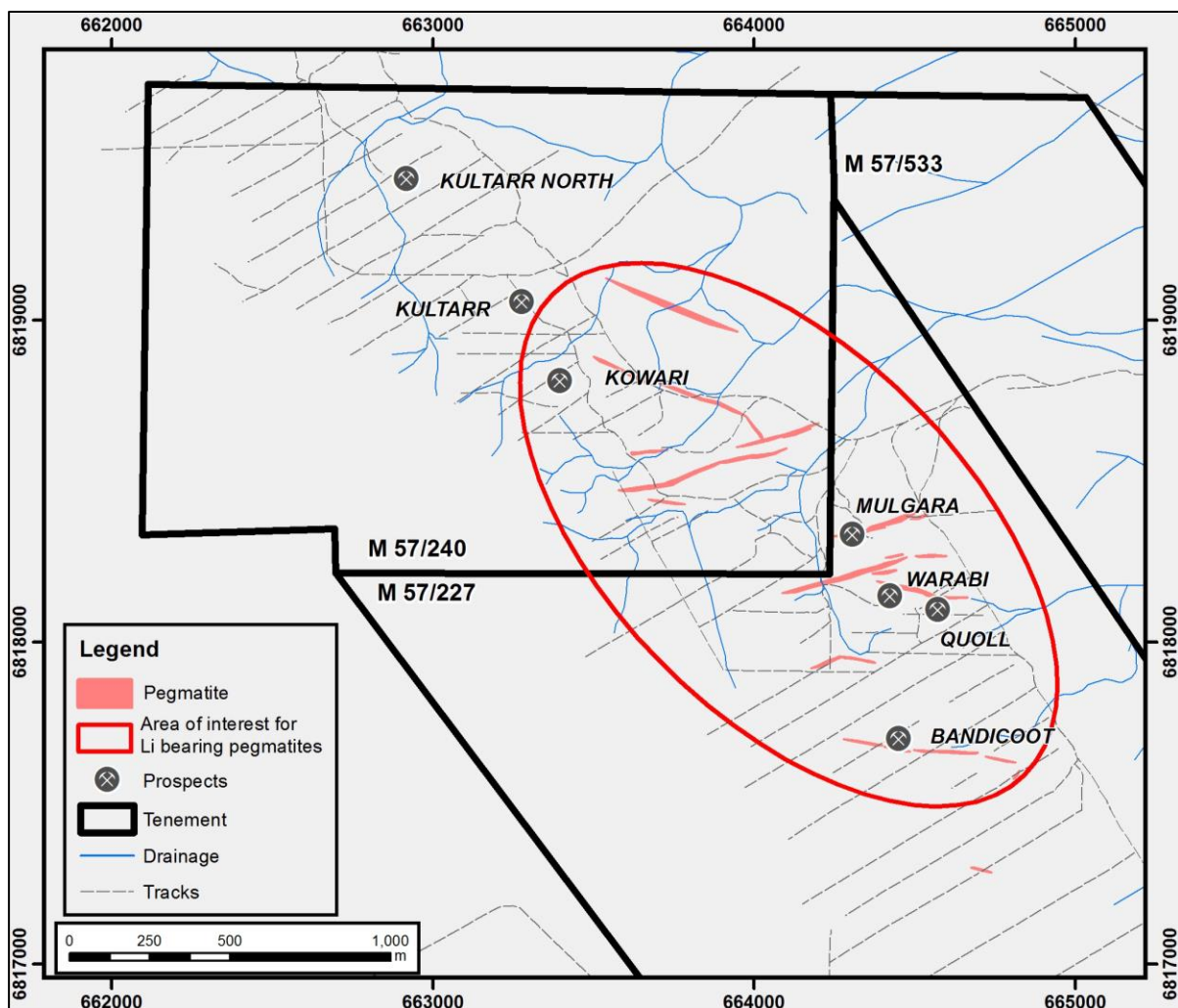


Figure 3: Mapped pegmatite occurrences at the Manindi Project, marked prospects are known areas of zinc mineralisation.

Geophysics and Remote Sensing Imagery

A suite of processed airborne magnetic images and remote sensing imagery for the Manindi Project area was obtained from Southern Geoscience Consultants Ltd (SGC). Magnetic surveys were processed to provide a variety of total magnetic intensity (TMI), reduced to pole (RTP) and analytic signal (AS) images. The remote sensing images included digital elevation, radiometrics, and satellite imagery from ASTER and Landsat 8.

A number of images, particularly magnetic, radiometric and some ASTER images show anomalies or characteristic spectral responses spatially associated with the mapped pegmatite locations (i.e. Figure 4). Furthermore, these responses and trends continue beneath areas of shallow cover, suggesting that the pegmatites also continue. The pegmatite dykes have similar trends to mapped structures in the Manindi Project area and it is believed that structures interpreted in detailed magnetic images may provide additional pegmatite exploration targets under cover.

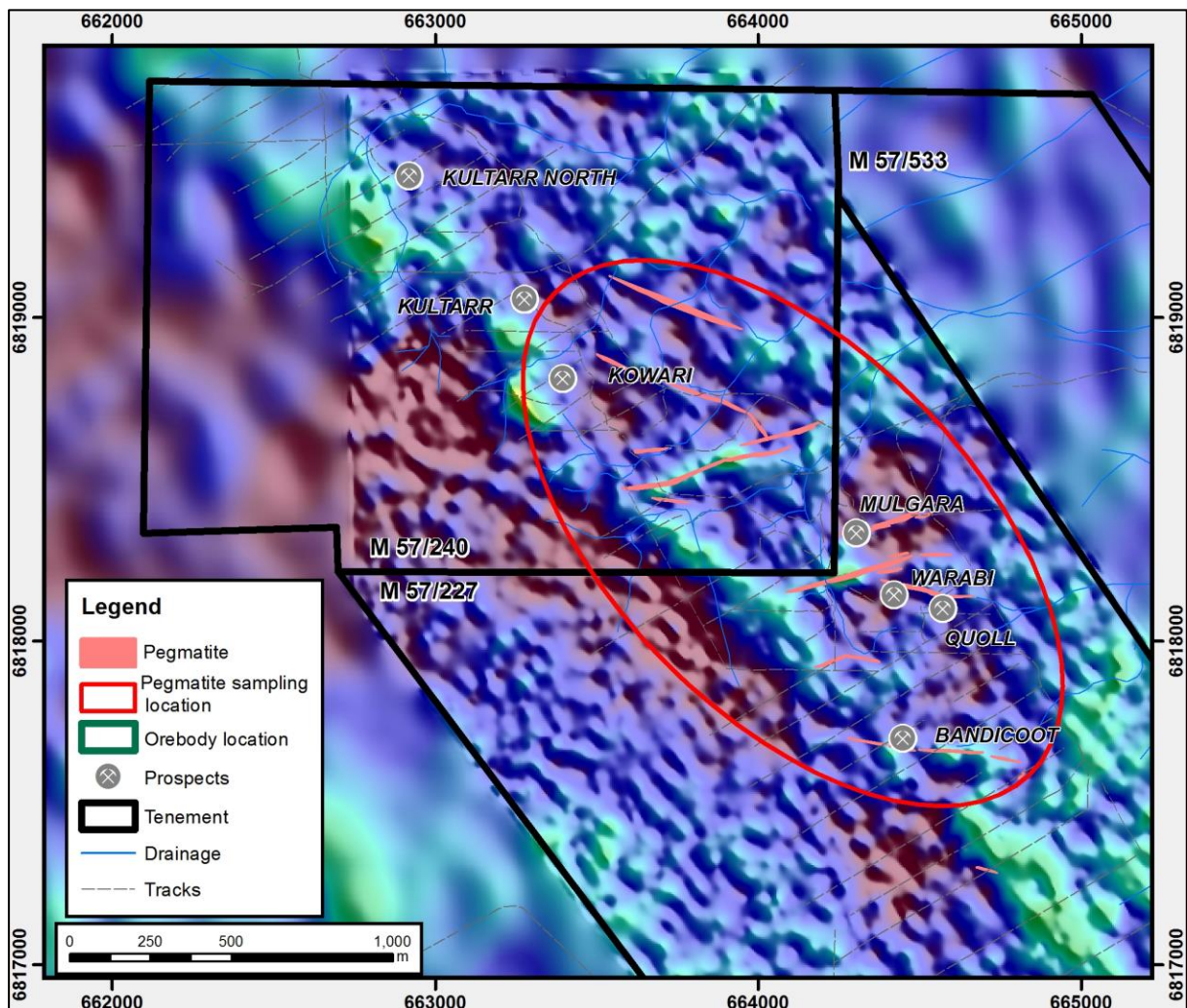


Figure 4: Mapped pegmatite dykes overlain on potassium (K) channel radiometric image (shaded with 50% NE gradient and linear color scaling). Note correlation of pegmatites with radiometric anomalies, potentially extending beyond the mapped exposures. Pegmatite trends also correspond with structures interpreted from magnetic images.

Further Work

Metals Australia is planning further exploration of the lithium potential at the Manindi Project. Mapping and remote sensing interpretation indicates that the pegmatite intrusions are significantly more widespread than just those previously sampled and significant potential exists for further discoveries of lithium-bearing rocks.

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Competent Person Statement

The information in this announcement that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves, as applicable, is based on information compiled by Mr. Lachlan Reynolds. Mr Reynolds is a consultant to Metals Australia Limited and is a member of the Australasian Institute of Mining and Metallurgy. Mr. Reynolds has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. Reynolds consents to the inclusion in the report of the matters based on their 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.



JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> 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. 	<p>Sampling includes diamond core and rock chip.</p> <p>Random rock chips have been collected as a first pass assessment and orientation of the outcropping pegmatites in the project area. The samples have an irregular spacing reflecting the reconnaissance nature of the assessment and the availability of suitable outcropping material for sampling.</p> <p>A total of 12 rock chip samples ranging from 2-3kg of material were collected in the field to properly represent and characterise the material targeted. Sample weights have been recorded and reported by the laboratory.</p> <p>A total of 4 historical diamond holes had 95 sample intervals selected from them in this program. Diamond core sampling was cut to ½ core with sampling breaks adjusted to geological boundaries.</p>
Drilling techniques	<ul style="list-style-type: none"> Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc). 	No drilling completed.
Drill sample recovery	<ul style="list-style-type: none"> 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. 	Samples were selected on a basis of pegmatite intersection and high lepidolite occurrence, hence are not an unbiased sample.
Logging	<ul style="list-style-type: none"> 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. 	<p>All logging was completed according to industry standard practice. Logging was completed using standard logging templates. The resulting data is uploaded to a Datashed database and validated. Once validated, the data is exported to modelling software for visual validation and interpretation.</p> <p>All field descriptions are qualitative in nature.</p>
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> 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. 	<p>For all sample types, the nature, quality and appropriateness of the sample preparation technique is considered suitable as per industry best practice.</p> <p>A total of 12 rock chip samples were collected. A total of 95 samples of ½ cut diamond core were taken during this program.</p> <p>All samples were sent to Bureau Veritas laboratories in Perth for sample preparation and analysis using standard codes of practices. All samples were dry and presented to the laboratory "as is".</p> <p>The whole sample have been sorted, dried, crushed and pulverised. Primary preparation has been by crushing the whole sample.</p> <p>This procedure is considered appropriate for LCT pegmatite analysis.</p>



Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established. 	<p>A standard sample preparation and analysis technique has been utilised by the assay laboratory, which conform to industry standards. Appropriate assaying procedures have been used for the type and style of mineralisation.</p> <p>A 0.25g sample aliquot was digested in a four acid solution for a "near" total digestion and analysed by ICP-MS. The assay technique is considered to be a total digest. Assays have appropriate detection limits for the mineralisation being evaluated.</p> <p>The Laboratories inserted their own standards and blanks at random intervals and to confirm acceptable levels of accuracy and precision. No additional standards, blanks or duplicates were included.</p>
Verification of sampling and assaying	<ul style="list-style-type: none"> 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. 	<p>All significant intersections are reviewed and confirmed by senior personnel before release to the market.</p> <p>All data is validated using the QAQC reporter validation tool within Datashed. Visual validations are then carried out by senior staff members.</p> <p>No adjustments to assay data have been made.</p>
Location of data points	<ul style="list-style-type: none"> 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. 	<p>The Grid system used is GDA94 datum, MGA zone 50 projection.</p> <p>Rock chip positions were recorded with a handheld GPS system with expected accuracy of +/- 5m horizontal and +/- 10m vertical.</p>
Data spacing and distribution	<ul style="list-style-type: none"> 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. 	<p>Diamond drill hole samples were collected at nominal 1.0 m down-hole intervals for reporting.</p> <p>The data spacing and distribution is not sufficient to establish the degree of geological and grade continuity to appropriate for Mineral Resource estimation purposes.</p> <p>Samples have not been composited.</p>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> 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. 	<p>Orientation of sampling may be biased as drilling reporting in this announcement is interpreted to have intersected structures at low angles and sub-parallel to the trend of mineralised pegmatite dykes.</p> <p>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this would be assessed and reported if considered material.</p>
Sample security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<p>All samples remain in the custody of company geologists, and are fully supervised from point of field collection to laboratory submission.</p>
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data. 	<p>No audits or reviews have been undertaken by independent experts for these exploration data.</p>



Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> 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. 	<p>The Company controls an 80% Interest in three granted Mining Licences in Western Australia covering the known mineralisation and surrounding area.</p> <p>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.</p> <p>There are no known impediments with respect to operating in the area.</p>
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<p>The 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.</p> <p>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.</p> <p>The deposits have never been mined.</p>
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<p>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.</p> <p>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.</p> <p>Pegmatite dykes that occur in the area are considered to be of the lithium-caesium-tantalum type (LCT)</p>
Drill hole Information	<ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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. 	<p>The information relating to drill holes was fully disclosed in the Metals Australia announcement dated 21/03/2017. There has been no change to this information.</p>
Data aggregation methods	<ul style="list-style-type: none"> 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 	<p>All exploration results are reported by a length weighted average. This ensures that short lengths of high grade material receive less weighting than longer lengths of low grade material.</p> <p>In the case of data contained in Table 1, no data aggregation method has been used and assay results are reported as received.</p>



Criteria	JORC Code explanation	Commentary
	<i>stated.</i>	No metal equivalent values are reported.
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> 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'). 	<p>The base metal mineralisation at Manindi is complex in nature but confined to a series of approximately NW-SE striking zones located along the contact between a package of felsic rocks in the west and a gabbroic intrusion to the east.</p> <p>The overall zone of lower grade mineralisation appears to be stratabound following the complex NW-SE trending stratigraphy. Higher grade zones of zinc mineralisation are located within the lower grade envelope and these have more varying orientations. Overall the zone is steeply dipping to subvertical.</p> <p>A majority of the holes drilled to date dip steeply to the southwest and as such intersect the mineralisation at high angles, resulting in close to true thickness intersections. A smaller portion of the holes are drilled towards the northeast and appear to intersect the mineralisation at low angles.</p> <p>The pegmatite dykes have been mapped with an overall east-west strike and the majority of historic drilling was conducted in a similar orientation. Further drilling work is required to determine the true width of pegmatite intercepts returned in historic drilling. Intercept widths do not reflect the true width of these dykes.</p>
<i>Diagrams</i>	<ul style="list-style-type: none"> 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. 	Relevant diagrams are contained in the body of the announcement.
<i>Balanced reporting</i>	<ul style="list-style-type: none"> 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. 	Selected intersections from drill holes are discussed in the announcement. All rock chip sample results are listed in Table 1 in the announcement.
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> 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. 	This announcement contains interpretations based on images derived from Landsat 8 ASTER. Images have also been derived from a merge of 3 open-file airborne magnetic and radiometric survey datasets.
<i>Further work</i>	<ul style="list-style-type: none"> 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. 	<p>Plans for further work are outlined in the body of the announcement.</p> <p>Diagrams highlighting the areas of possible extensions are included in the body of the announcement</p>

