



**TECHNOLOGY**  
METALS AUSTRALIA LIMITED

ASX Announcement

13 June 2017

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#### Directors

Michael Fry:  
**Chairman**

Ian Prentice:  
**Executive Director**

Sonu Cheema:  
**Director and Company Secretary**

#### Issued Capital

21,300,001 ("TMT") Fully Paid  
Ordinary Shares

3,800,000 Fully Paid Ordinary Shares  
classified as restricted securities

15,000,000 Unquoted Options  
exercisable at \$0.25 on or before 31  
December 2019 classified as  
restricted securities

10,000,000 Class A Performance  
Shares classified as restricted  
securities

ASX Code: TMT

FRA Code: TN6

# MAIDEN INFERRED RESOURCE DEFINED AT GABANINTHA INCLUDING HIGH GRADE COMPONENT OF 29.5MT AT 1.1% V<sub>2</sub>O<sub>5</sub>

## HIGHLIGHTS

- MASSIVE MAGNETITE BASAL ZONE DELIVERS INITIAL INFERRED HIGH-GRADE RESOURCE OF 29.5MT AT 1.1% V<sub>2</sub>O<sub>5</sub>.
- OVERALL INFERRED RESOURCE OF 62.8MT AT 0.8% V<sub>2</sub>O<sub>5</sub>.
- OPPORTUNITY TO EXPAND THE HIGH GRADE RESOURCE IN THE NORTHERN ZONE WITH INFILL DRILLING.
- MEDIUM GRADE LODES UP DIP FROM THE MASSIVE MAGNETITE BASAL ZONE MAY MATERIALLY ENHANCE ECONOMICS VIA PROVIDING A LOW STRIP RATIO.
- RESOURCE INFILL AND EXTENSIONAL DRILLING TO COMMENCE IN THE SEPTEMBER QUARTER INCLUDING DIAMOND DRILLING FOR ADVANCED METALLURGICAL TESTWORK.
- INITIAL RC DRILLING OF SOUTHERN TENEMENT TO COMMENCE IN SEPTEMBER QUARTER.

## BACKGROUND

Technology Metals Australia Limited (ASX: TMT) ("Technology Metals" or the "Company") is pleased to announce outstanding results for the maiden inferred resource ("Resource") estimate, reported in accordance with the JORC Code 2012, at its Gabanintha Vanadium Project ("Project"). The Resource estimation was completed by independent geological consultants CSA Global and was based on data from the Company's 36 hole RC drilling program completed on the Northern Block of tenements at the Project. The Northern Block of tenements and the Resource are contiguous with the northern extent of Australian Vanadium Limited's (ASX: AVL) Gabanintha Vanadium Project's resource<sup>1</sup> and conceptual open pit<sup>2</sup> (see Figure 1).

The Resource estimate includes an outstanding high grade component of 29.5Mt at 1.1% V<sub>2</sub>O<sub>5</sub> and 12.6% TiO<sub>2</sub> contained within the highly continuous and consistently mineralised massive magnetite basal zone within the mineralised layered mafic igneous unit. The high grade nature of this portion of the resource confirms the position of the Project as one of the highest grade vanadium projects in the world.

The overall resource of 62.8Mt at 0.8% V<sub>2</sub>O<sub>5</sub> and 9.7% TiO<sub>2</sub> includes up to five (5) medium grade lodes located up dip from the high grade massive magnetite basal zone. These medium grade lodes may have a materially positive impact on potential project economics via providing a low open pit strip ratio.

## Mineral Resource Estimation

The inferred Mineral Resource estimate has been completed and reported in accordance with the JORC Code 2012 standard by CSA Global and incorporated the 36 RC holes completed in the Company's maiden drilling program in the Northern Block of tenements at the Gabanintha Vanadium Project<sup>3</sup>. The modelled mineralisation has been defined based on surface mapping, magnetic modelling and the RC drilling data.

The high grade basal massive magnetite zone was constrained geologically and by using a nominal 0.9% V<sub>2</sub>O<sub>5</sub> lower cut off grade, while the hanging wall disseminated zones were constrained using a nominal 0.4% V<sub>2</sub>O<sub>5</sub> lower cut off grade. The inferred resource was estimated using inverse distance squared and was quoted for mineralisation within the defined zones above a 0.4% V<sub>2</sub>O<sub>5</sub> lower cut off grade.

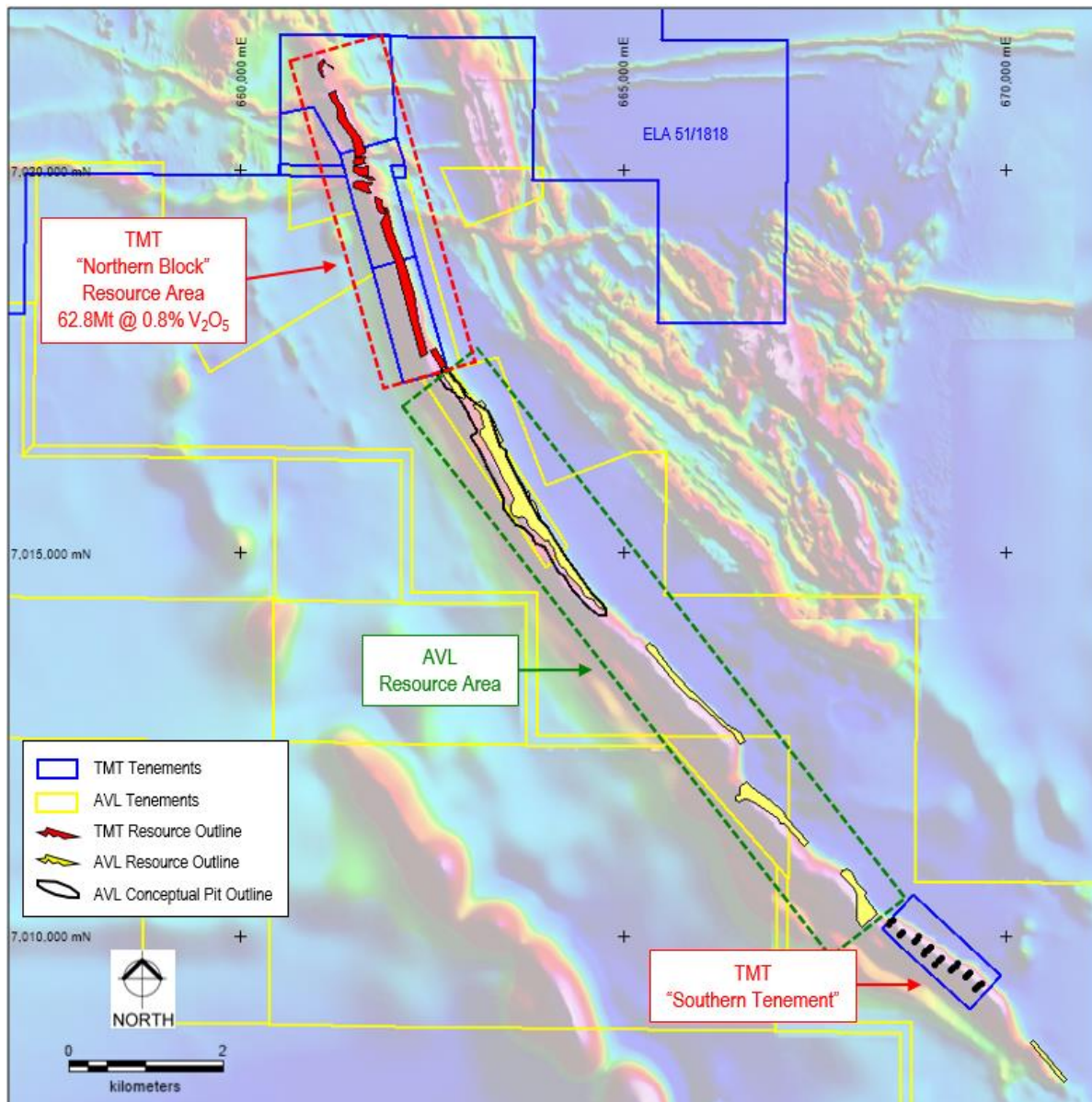


Figure 1: TMT Gabanintha Vanadium Project Mineral Resource Layout

1 – Australian Vanadium Limited (ASX: AVL) – ASX Announcement by Yellow Rock Resources Limited dated 10 November 2015, Substantial high-grade vanadium resource highlights Gabanintha world-class potential. Brian Davis and John Tyrrell.

2 – Australian Vanadium Limited (ASX: AVL) – ASX Announcement dated 31 May 2017, Company Presentation – Investing in the energy storage future, Resources Rising Stars 2017. Vincent Agar.

3 – Technology Metals Australia – ASX Announcement dated 18 April 2017, Exceptional Widths and V<sub>2</sub>O<sub>5</sub> Grades from Maiden Drilling at Gabanintha. Ian Prentice.

**Table 1 Mineral Resource estimate for Technology Metals Gabanintha Vanadium Project as at 12 Jun 2017**

Mineral Resource estimate for Technology Metals Gabanintha Vanadium Project as at 12 Jun 2017									
Mineralised Zone	Classification	Million Tonnes	V2O5 %	Fe %	Al2O3 %	SiO2 %	TiO2 %	LOI %	Density t/m3
Basal massive magnetite	Inferred	29.5	1.1	46.4	6.1	8.2	12.6	1	3.6
Hanging wall disseminated	Inferred	33.2	0.5	26.6	14.9	27.1	7.2	5.1	2.4
<b>Combined Total</b>	<b>Inferred</b>	<b>62.8</b>	<b>0.8</b>	<b>35.9</b>	<b>10.8</b>	<b>18.3</b>	<b>9.7</b>	<b>3.2</b>	<b>2.8</b>

\* Note: The Mineral Resource was estimated within constraining wireframe solids using a nominal 0.9% V2O5 lower cut off for the basal massive magnetite zone and using a nominal 0.4% V2O5 lower cut off for the hanging wall disseminated mineralisation zones. The Mineral Resource is quoted from all classified blocks within these wireframe solids above a lower cut-off grade of 0.4% V2O5. Differences may occur due to rounding.

The basal massive magnetite zone dips to the west at an average of 55°, has a true thickness ranging from 10 to 20 metres and has been modelled over a strike length of about 4.3km. The central and northern portions of this zone have been intersected and variably displaced by dolerite dykes, faults and quartz porphyry units (see Figure 2). Infill drilling will aid in enhanced interpretation of these portions.

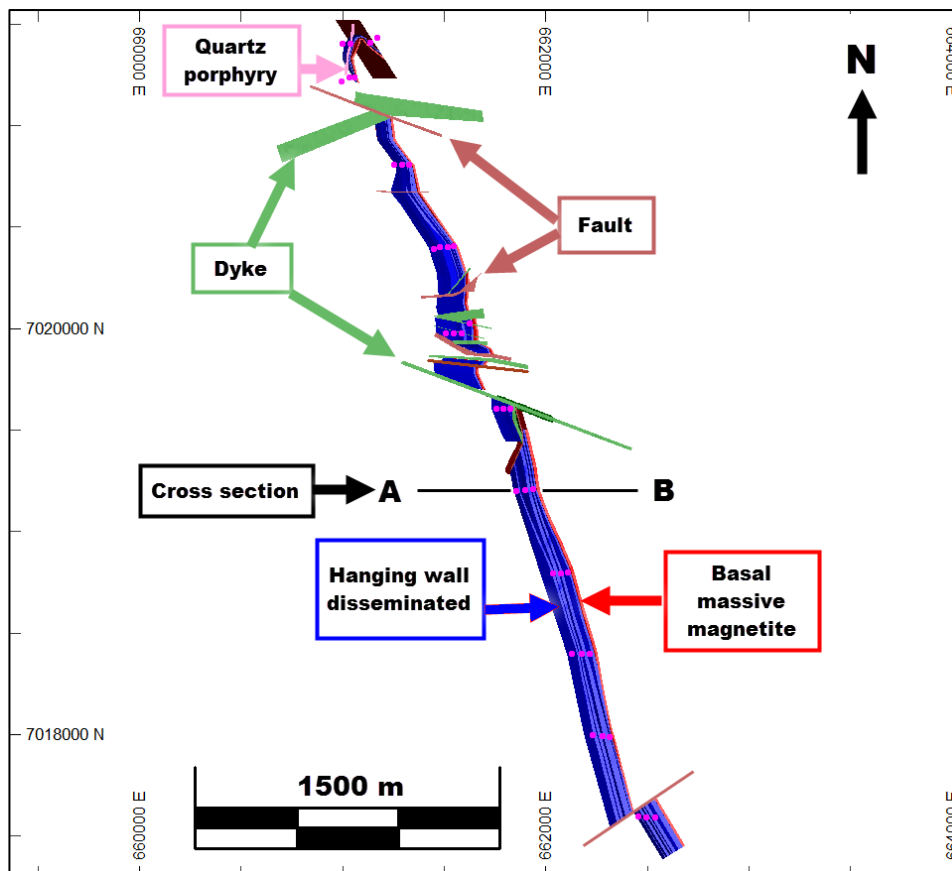


Figure 2: Plan View of the Modelled Mineralisation

The hanging wall disseminated mineralisation consists of up to five separate layers with a cumulative thickness of up to 45m in the south, reducing to about 25m across three layers in the centre of the deposit and one layer of about 8m true thickness in the north.

The schematic cross section in Figure 3 shows the high grade basal massive magnetite zone (red) overlain by a series of medium grade hanging wall disseminated lodes (blue). The geometry of the lodes may result in any open pit development of the basal massive magnetite zone incorporating the medium grade hanging wall disseminated lodes, thereby potentially resulting in an overall lower strip ratio. The lower strip ratio may be expected to have a potentially material positive impact on project economics, meaning that more of the high grade basal massive magnetite could be accessible in an open pit development.

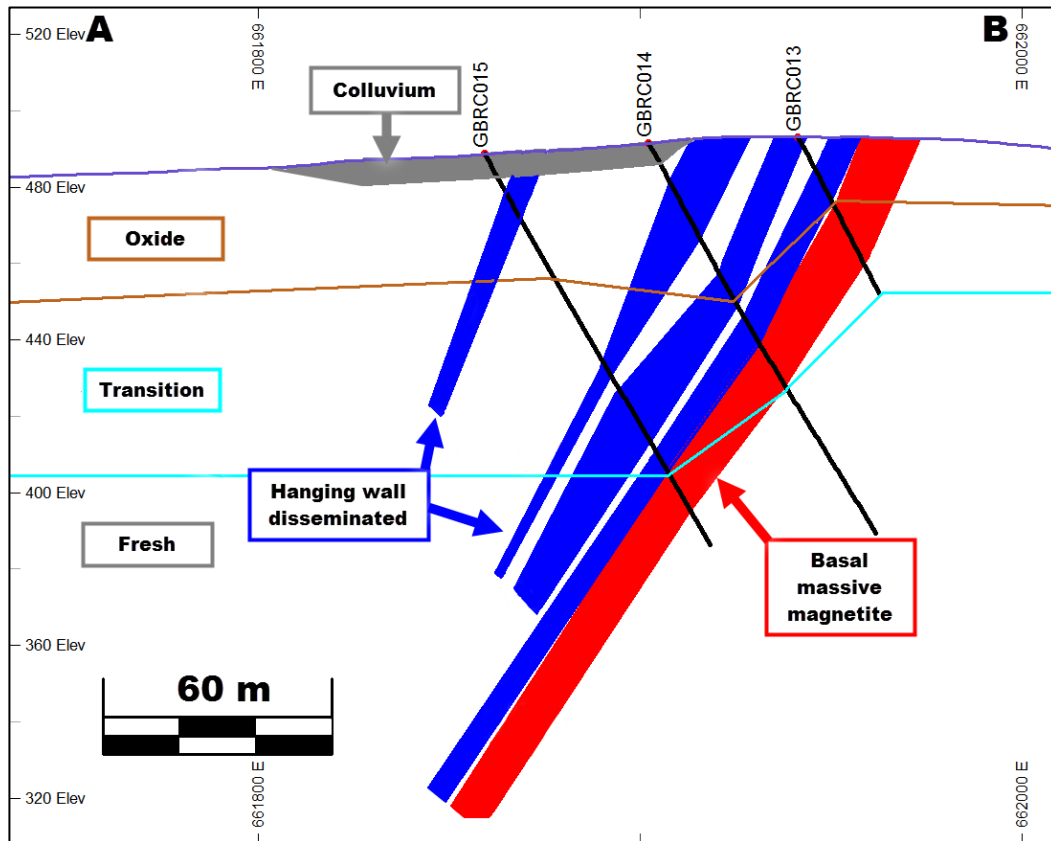


Figure 3: Schematic Cross Section Across Southern Portion of the Deposit (see Figure 2 for section location)

#### Further Work

There is significant opportunity to extend and add to the Project's Resource, with mineralisation in the Northern Block remaining open at depth, infill drilling in the northern zone likely to expand the strike of blocks defined in this area and the Southern Tenement still to be drill tested by the Company.

The Company will incorporate recommendations from CSA Global in its planning for the upcoming program of resource infill and extensional drilling designed to enhance the confidence level and increase the overall resource estimate in the Northern Block. This program will also incorporate a component of diamond drilling designed to provide detailed geological data relating to the various mineralised lodes and to provide samples for detailed metallurgical testwork. It is expected that this program will commence in the September 2017 quarter.

In addition, the Company's first drilling program on the Southern Tenement (see Figures 1 & 4), where historical drilling<sup>4</sup> has returned up to 25m at 1.08% V<sub>2</sub>O<sub>5</sub>, is also expected to commence in the September 2017 quarter. This drilling will target approximately 1.5km of strike of outcropping ironstone that is interpreted to represent the same massive magnetite zone intersected in the RC drilling in the Northern Block. Historic drilling by Intermin Resources NL ("Intermin") and AVL has intersected the layered mafic igneous unit down dip of the outcropping ironstone. There is no assay data available for the AVL drilling, however the Intermin drilling intersected high grade vanadium mineralisation within the layered mafic igneous unit (see Figure 4).

<sup>4</sup> – Technology Metals Australia – ASX Announcement dated 21 December 2016, Drilling to Commence on Gabanintha Vanadium Project in First Quarter of 2017. Ian Prentice.

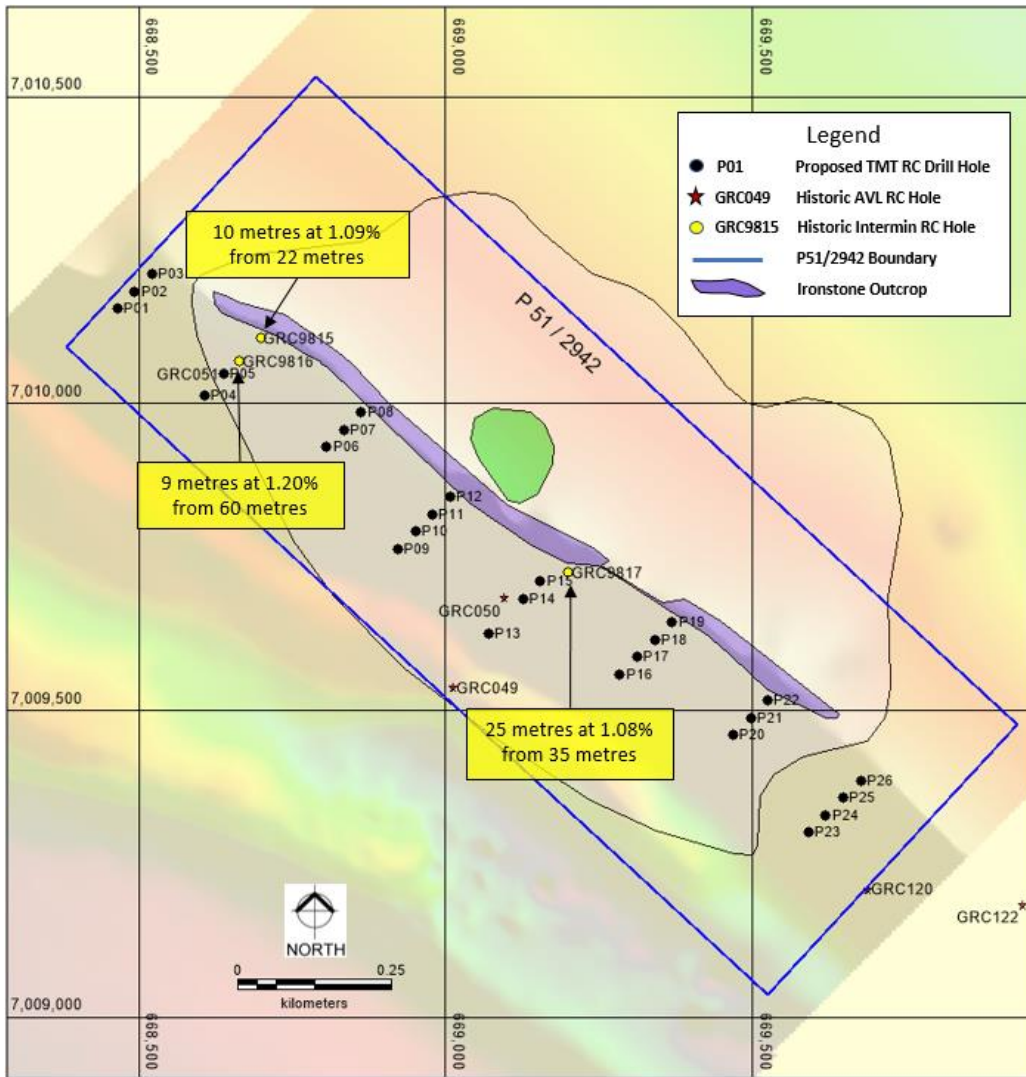


Figure 4: Southern Tenement Proposed Drilling

**CSA Global Technical Summary of Mineral Resource Estimation**

- The drilling database used in the resource estimation consisted of 36 reverse circulation (RC) holes for 3,128 m. Of this total, 1,161 m from 33 holes intersected the modelled mineralisation zones.
- Drill holes are nominally spaced 40 m apart on section lines nominally 400m apart. The majority of the drill holes are drilled at approximately 60° dip towards the east to intersect the mineralised zones approximately perpendicularly. Due to an interpreted fold in the north eastern most section, the drilling is at approximately 60 degrees dip towards the south west.
- The location of drill-hole collars have been surveyed by differential GPS (DGPS) methods. Down hole surveys have been completed by means of a gyro instrument.
- TMT provided a topographic surface DTM generated from data collected during fixed wing aerial geophysical surveys covering the prospect area which CSA Global has used to limit the model.
- TMT provided drill section and plan view string interpretations of the geology, mineralisation and weathering boundaries at the Project, prepared by site staff based on surface mapping, geophysical (magnetic) survey and the drill hole logging data. This information has been reviewed by CSA Global.
- The string interpretation data was used by CSA Global as the basis for the geological and mineralisation zone modelling after snapping to the appropriate drill hole trace intersection.
- Geological logging of drilling intervals included records of lithology, weathering, alteration, and mineralisation.

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- Sufficient QAQC and data validation has been undertaken by CSA Global to verify the integrity of the assay data derived from the drilling. QAQC measures include use of commercial standards, and submission of field duplicates.
- Datamine Studio RM software was used by CSA Global to construct the geological, weathering and mineralisation envelopes and surfaces, and to complete the Mineral Resource estimate.
- A total of ten separate dykes, three quartz porphyry units and nine faults have been interpreted to be younger than and hence offset or displace the mineralised zones. A surface colluvium layer is interpreted on the western side of the mineralisation that is currently set to deplete the interpreted mineralisation lenses.
- Due to the offsetting caused by the later dolerite dykes and faults the basal massive magnetite layer interpretation consists of 12 individual wireframes. These strike approximately 160° to 340°, dipping on average about 55° towards 250°, with a modelled strike extent of approximately 4.3km. Two of these wireframes are further intersected and displaced by the quartz porphyry units. The basal massive magnetite unit has a true thickness varying between approximately 10 to 25 metres.
- The hanging wall disseminated mineralisation is interpreted to consist of up to five separate lenses, cumulatively having a true thickness of the order of 45 meters in the south of the modelled zone. This then reduces to three lenses with a cumulative true thickness roughly 25 meters through the centre of the deposit, and one lens roughly 8 meters thick in the north of the deposit. Due to the fault and dyke offsetting a total of 22 separate wireframes have been developed to represent the disseminated mineralisation lenses.
- The base of complete oxidation (BOCO) and top of fresh rock (TOFR) weathering zone boundary surfaces are interpreted to be deeper in the west, and have been defined based on the lithological and geochemical data collected.
- In order to control the grade estimates the drilling data was flagged based on the mineralised envelopes in which they are located with a MINZON code.
- A ZONE code was then assigned to group mineralisation zone interpretation lenses based on their being either part of the basal massive magnetite, or based on being in a similar stratigraphic position in the hanging wall relative to the basal massive magnetite.
- All samples were also flagged with a weathering state code (WEATH) based on the interpreted BOCO and TOFR surfaces, with the WEATH and ZONE codes then combined to group the interpreted mineralisation lenses for further statistical analysis and grade estimation in a code WEATHZON.
- Statistical analysis and grade estimation for the mineralisation domains have been separated based on weathering state due to expected differences in metallurgical performance and differences in the mean concentrations of some of the estimated grade variables across the weathering boundaries.
- No downhole compositing was required as all sample intervals are at 1 m.
- A detailed statistical analysis was completed for the basal massive magnetite based on weathering state and for the combined disseminated mineralisation zones based on weathering state. This analysis showed that balancing cuts should be applied to prevent estimation bias due to outlier grade values.
- A block model was constructed with parent cell dimensions of 100 m (E) by 10 m (N) by 10 m (RL).
- Sub cells down to a minimum of 5 m (E) by 1 m (N) by 1 m (RL) were used to honour mineralisation zone geometry. The block model was flagged in the same manner as the drill hole data.
- The Mineral Resource estimate was completed at the parent cell scale in Datamine Studio RM software using Inverse Distance Weighting to the power of two (IDW) estimation method. This method was selected in preference to ordinary kriging (OK) as modelled variograms were not considered reliable, due in part to relative paucity of data at the current stage of advancement of the project.
- Hard boundaries have been used between each of the interpreted combined mineralisation and weathering state domains in the grade estimation.

- The search ellipse orientations were defined based on the overall geometry of the deposit with the major axis bearing 160°, semi major axis dipping -55° toward 250° and minor axis at +35° dip towards 250°
- The search ellipse dimensions of 700 m (major) by 100 m (semi-major) and 50 m (minor) are defined with reference to the drill spacing and to ensure that the majority of the mineralisation can be estimated from within the first search volume.
- A maximum of 40 and a minimum of 15 samples was allowed per block estimate for the first search pass. For the second search pass the minimum was maintained at 15 and the maximum was reduced to 30.
- For the third search pass the maximum and minimum number of samples per block estimate were reduced to 20 and 5 respectively.
- The maximum number of samples per drill hole was set at 8, with cell discretisation of 5 (X) by 5 (Y) by 5 (Z), and no octant based searching.
- The results of the grade estimation were validated by means of visual comparison along sections, statistical analysis and trend plots comparing the estimated block grades and drill hole sampling grades for each element.
- No density measurements have been taken as all drilling is by RC. In order to determine a reasonable density to apply to the deposit, research was conducted into ASX announcements for adjacent projects over the same mineralisation trend. The neighbouring tenement holder Australian Vanadium Limited announced the results of a MRE for the same mineralisation trend to the ASX on 15th November 2015. The release documents density measurements obtained for the oxide and fresh portions of the Gabanintha basal massive magnetite and hanging wall disseminated mineralisation. These zones, as reported, have a very similar grade tenor and geometry to the strike extension of the deposit on TMT's neighbouring tenement. Waste rock density for oxide and fresh rock were also documented in the release.

### **Capital Structure**

The delivery of the maiden inferred resource estimate satisfies the performance hurdle for the Class A Performance Shares, which will result in the issue of 10 million fully paid ordinary shares, escrowed until 21 December 2018, and 10 million Class B Performance Shares. The Class B Performance Shares convert in to 10 million fully paid ordinary shares on achievement of an indicated resource of 20 Million tonnes at greater than 0.8% V<sub>2</sub>O<sub>5</sub> on or before 31 December 2019. The Class B Performance Shares and any fully paid ordinary shares issued on conversion of the Performance Shares are subject to restriction until 21 December 2018

<b>Capital Structure</b>	
<i>Tradeable Fully Paid Ordinary Shares</i>	<i>21.3m</i>
<i>Escrowed Fully paid Ordinary Shares<sup>1</sup></i>	<i>13.8m</i>
<i>Fully Paid Ordinary Shares on Issue</i>	<i>35.1m</i>
<i>Unquoted Options<sup>2</sup> (\$0.25 – 31/12/19 expiry)</i>	<i>15.0m</i>
<i>Class B Performance Shares<sup>3</sup></i>	<i>10.0m</i>

<sup>1</sup> – 1.3 million fully paid ordinary shares will be tradeable from 21 September 2017 and 12.5 million fully paid ordinary shares will be tradeable from 21 December 2018. The conversion of Class A performance shares in to escrowed fully paid ordinary shares will be processed in due course with lodgement of accompanying ASX disclosure documentation.

<sup>2</sup> – 1.3 million unquoted options are subject to restriction until 21 September 2017 and 13.7 million unquoted options are subject to restriction until 21 December 2018.

<sup>3</sup> – Convert in to 10 million fully paid ordinary shares on achievement of an indicated resource of 20 Million tonnes at greater than 0.8% V<sub>2</sub>O<sub>5</sub> on or before 31 December 2019. All Performance Shares and any fully paid ordinary shares issued on conversion of the Performance Shares are subject to restriction until 21 December 2018.

## **About Vanadium**

Vanadium is a hard, silvery grey, ductile and malleable speciality metal with a resistance to corrosion, good structural strength and stability against alkalis, acids and salt water. The elemental metal is rarely found in nature. The main use of vanadium is in the steel industry where it is primarily used in metal alloys such as rebar and structural steel, high speed tools, titanium alloys and aircraft. The addition of a small amount of vanadium can increase steel strength by up to 100% and reduces weight by up to 30%. Vanadium high-carbon steel alloys contain in the order of 0.15 to 0.25% vanadium while high-speed tool steels, used in surgical instruments and speciality tools, contain in the range of 1 to 5% vanadium content. Global economic growth and increased intensity of use of vanadium in steel in developing countries will drive near term growth in vanadium demand.

An emerging and likely very significant use for vanadium is the emerging energy storage (battery) sector with the expanding use and increasing penetration of the vanadium redox batteries (VRB's). VRB's are a rechargeable flow battery that uses vanadium in different oxidation states to store energy, using the unique ability of vanadium to exist in solution in four different oxidation states. VRB's provide an efficient storage and re-supply solution for renewable energy – being able to time-shift large amounts of previously generated energy for later use – ideally suited to micro-grid to large scale energy storage solutions (grid stabilisation). Some of the unique advantages of VRB's are:

- a lifespan of 20 years with very high cycle life (up to 20,000 cycles) and no capacity loss,
- rapid recharge and discharge,
- easily scalable into large MW applications,
- excellent long term charge retention,
- improved safety (non-flammable) compared to Li-ion batteries, and
- can discharge to 100% with no damage.

*For, and on behalf of, the Board of the Company,*

Ian Prentice  
**Executive Director**  
**Technology Metals Australia Limited**

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**+ 61 (0) 405 555 618**

- ENDS -

## **About Technology Metals Australia Limited**

**Technology Metals Australia Limited (ASX: TMT)** was incorporated on 20 May 2016 for the primary purpose of identifying exploration projects in Australia and overseas with the aim of discovering commercially significant mineral deposits. The Company's primary exploration focus is on the Gabanintha Vanadium Project located 40km south east of Meekatharra in the mid-west region of Western Australia with the aim to develop this project to potentially supply high-quality V<sub>2</sub>O<sub>5</sub> flake product to both the steel market and the emerging vanadium redox battery (VRB) market.

The Project, which consists of five granted tenements and one exploration licence application, is on strike from, and covers the same geological sequence as, Australian Vanadium Limited's (ASX: AVL) Gabanintha Vanadium project. Vanadium mineralisation is hosted by a north west – south east trending layered mafic igneous unit with a distinct magnetic signature. Mineralisation at Gabanintha is similar to the Windimurra Vanadium Deposit, located 270km to the south, and the Barambie Vanadium-Titanium Deposit, located 155km to the south east. The key difference between Gabanintha and these deposits is the consistent presence of the high grade massive vanadium – titanium – magnetite basal unit, which is expected to result in an overall higher grade for the Gabanintha Vanadium Project.

The Company will also review the potential for economic mineralisation of various other commodities at Gabanintha and intends to seek, evaluate, review and if appropriate acquire interests in additional resource based projects with a focus on technology and precious metals.



### **Forward-Looking Statements**

This document includes forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning Technology Metal Australia Limited's planned exploration programs, corporate activities and any, and all, statements that are not historical facts. When used in this document, words such as "could," "plan," "estimate," "expect," "intend," "may", "potential," "should" and similar expressions are forward-looking statements. Technology Metal Australia Limited believes that its forward-looking statements are reasonable; however, forward-looking statements involve risks and uncertainties and no assurance can be given that actual future results will be consistent with these forward-looking statements. All figures presented in this document are unaudited and this document does not contain any forecasts of profitability or loss.

### **Competent Persons Statement**

The information in this report that relates to Exploration Results are based on information compiled by Mr Ian Prentice. Mr Prentice is a Director of the Company and a member of the Australian Institute of Mining and Metallurgy. Mr Prentice has sufficient experience relevant to the styles of mineralisation and types of deposits which are covered in this report and to the activity which they are 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' ("JORC Code"). Mr Prentice 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 Mineral Resources are based on information compiled by Mr Galen White. Mr White is a Principal Consultant with CSA Global and a Fellow of the Australian Institute of Mining and Metallurgy. Mr White has sufficient experience relevant to the styles of mineralisation and types of deposits which are covered in this report and to the activity which they are 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' ("JORC Code"). Mr White consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

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JORC Code, 2012 Edition – Table 1 – Gabanintha Deposit

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Reverse circulation drilling was used to obtain 1m samples. The samples are cone split off the rig cyclone, with sample weights of 2 to 3 kg being collected.</li> <li>Duplicate 2 – 3kg samples were collected from every metre sample.</li> <li>Individual metre samples were selected for analysis based on geological logging, with zones below the mineralised intervals not submitted for analysis.</li> <li>Duplicate samples were submitted for analysis for every 20m down hole, ensuring duplicates were submitted for mineralised zones (based on geological logging and handheld Olympus Vanta XRF results).</li> <li>Samples analysed by XRF spectrometry following digestion and Fused Disk preparation.</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>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).</li> </ul>	<ul style="list-style-type: none"> <li>Reverse circulation drilling with face-sampling hammer</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Duplicate 2 – 3kg samples were collected from every metre sample.</li> <li>Sample recovery was assessed based on the estimated bulk sample collected for each metre. Each bag was not weighed. For 1 in 3 holes a spring gauge was used to ensure the cone split remained within the 2 to 3 Kg range.</li> <li>There does not appear to be any relationship between recovery and grade in this "massive" mineralisation.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>Drill samples were logged in the field, with the total length of holes logged in detail.</li> <li>Drill chips for every metre were collected in trays and photographed.</li> <li>No geotechnical logging was undertaken due to all drilling being RC, thus a sample medium amenable to collecting</li> </ul>

Criteria	JORC Code explanation	Commentary
		geotechnical data.
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>• If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>• If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>• For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>• Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>• 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.</li> <li>• Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>• Duplicate 2 – 3kg samples were collected from every metre sample.</li> <li>• Samples were cone split at the drill rig, and represent approximately 5% of the total material for each metre sampled.</li> <li>• The majority of samples were dry.</li> <li>• Samples were dried and pulverised in the laboratory and fused with a lithium borate flux and cast in to disks for analysis.</li> <li>• Field duplicates were submitted such that there were at least 1 duplicate sample for every 20 samples analysed.</li> <li>• No diamond twin drilling has been completed to date to determine any potential relationship between current RC sampling size, grain size and grade, however the sample size is considered to be appropriate to the material being sampled.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>• The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>• 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.</li> <li>• 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.</li> </ul>	<ul style="list-style-type: none"> <li>• Pulverised samples from every metre were fused with a lithium borate flux and cast in to disks and analysed by XRF spectrometry – method FB1/XRF77.</li> <li>• Field duplicates (at least 1 duplicate sample for every 20 samples analysed), laboratory check samples and standards are considered to be suitable quality control procedures.</li> <li>• Quality control procedures demonstrate acceptable levels of accuracy and precision have been achieved. CRM materials inserted to the sample stream at the laboratory have performed acceptably, and field duplicate samples have performed well.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>• The verification of significant intersections by either independent or alternative company personnel.</li> <li>• The use of twinned holes.</li> <li>• Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>• Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>• Significant intersections correlate with mineralised zones as defined from geological logging. All sampling was completed by an independent geologist.</li> <li>• The estimation of significant intersections has been verified by alternate company personnel.</li> <li>• There were no adjustments to assay data.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>• 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.</li> <li>• Specification of the grid system used.</li> </ul>	<ul style="list-style-type: none"> <li>• The grid system used for collar positions was MGA94 – Zone 50.</li> <li>• Planned hole collar positions were located using hand held GPS.</li> <li>• Final hole collar positions were surveyed using differential RTK</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>Quality and adequacy of topographic control.</li> </ul>	<p>GPS with an accuracy of <math>\pm 5\text{cm}</math> horizontally and <math>\pm 15\text{cm}</math> vertically.</p> <ul style="list-style-type: none"> <li>Down hole surveys were completed using an Axis Gyro every 30m down hole and near the collar.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>The drill data is on nominal 400m line spacing with holes located every 40m along the drill lines.</li> <li>Detailed airborne magnetics supports strike and down dip continuity assumptions of the massive magnetite zone which is known to host high grade mineralisation.</li> <li>This continuity has been additionally supported by drilling data.</li> <li>Data is considered appropriate for use in estimating an Inferred Mineral Resource.</li> <li>No sample compositing was applied.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The drilling has been completed at an orientation that would have been unlikely to have introduced a sampling bias. The drill holes are drilled orthogonal to the measured strike <math>\pm 10^\circ</math>, the apparent thickness is 0.85 X the true thickness, drill deviations were not noticeably higher through the mineralised zone</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>Samples were collected in polyweave bags, sealed securely and transported by Company personnel until handover to a commercial transport company, which delivered the samples by road transport to the laboratory.</li> </ul>
<b>Audits reviews</b>	<p>or</p> <ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>No audits or reviews have been completed to date.</li> </ul>

## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The areas drilled are located on current Prospecting Licences 51/2943 and 51/2944 and Exploration Licence 51/1510).</li> <li>The tenements are granted and held by The KOP Ventures Pty Ltd, a wholly owned subsidiary of Technology Metals Australia Limited.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Reverse circulation drilling was completed in 1998 by Intermin Resources NL under an option agreement on tenements held by Oakland Nominees Pty Ltd – consisting of GRC9801 to GRC9805 (on Prospecting Licences 51/2164) and GRC9815 to GRC9817 (on Prospecting Licence 51/2183).</li> <li>The areas drilled are located on current Prospecting Licences 51/2943 (GRC9801, GRC9802), 51/2944 (GRC9803, GRC9804, GRC9805) and 51/2942 (GRC9815 to GRC9817) held by The KOP Ventures Pty Ltd, a wholly owned subsidiary of Technology Metals Australia Limited.</li> <li>Exploration prior to this drilling included geological mapping and limited rock chip sampling completed across a zone of outcropping vanadiferous titanomagnetite layered mafic igneous unit by various parties.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>Massive vanadiferous titanomagnetite layered mafic igneous unit in outcrop.</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li>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"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Not relevant. Exploration results are not being reported. Mineral Resources are being disclosed. (See Section 3).</li> <li>All relevant material has previously been reported to the ASX on the following dates: 9th March 2017, 4th April 2017, 19th April 2017 and 28th April 2017</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>Not relevant. Exploration results are not being reported. Mineral Resources are being disclosed. (See Section 3).</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	<ul style="list-style-type: none"> <li>Not relevant. Exploration results are not being reported. Mineral Resources are being disclosed. (See Section 3).</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Appropriate diagrams contained in the report to which this Table 1 applies.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Not relevant. Exploration results are not being reported. Mineral Resources are being disclosed. (See Section 3).</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Geophysical data in the form of aero magnetic data assists the geological interpretation of the main high magnetite unit and highlights offsets due to faults and or dykes. Historic drilling data is not used due to uncertainty in location and orientation</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul style="list-style-type: none"> <li>Further drilling will be completed on the deposit, to include infill drilling to increase confidence in the geometry of mineralisation zones and to provide greater sample support.</li> <li>Technology Metals Australia Limited will review the results of the full reverse circulation drilling program plus the resource estimation work prior to planning the next stage of exploration activity.</li> <li>Samples from the reverse circulation drilling program are planned to be collected to enable preliminary metallurgical testing if the different grades and types of mineralisation encountered in the drilling.</li> </ul>

### Section 3 Estimation and Reporting of Mineral Resources

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

Criteria	JORC Code explanation	Commentary
Database integrity	<ul style="list-style-type: none"> <li>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</li> <li>Data validation procedures used.</li> </ul>	<ul style="list-style-type: none"> <li>Drilling data is stored in a DataShed database system which an industry best practise relational geological database. Data that has been entered to this data base is cross checked by independent geological contracting staff to ensure accuracy. CSA Global has been provided with a number of pdf format assay certificates from the laboratory and completed its own checks, finding that all checked assay data was correctly captured in the relevant database table.</li> <li>Data used in the Mineral Resource estimate is sourced from a database export. Relevant tables from the data base are exported to MS Excel format and converted to csv format for import into Datamine Studio RM software.</li> <li>Validation of the data import include checks for overlapping intervals, missing survey data, missing assay data, missing lithological data, and missing collars.</li> </ul>
Site visits	<ul style="list-style-type: none"> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>No site visit has been completed by CSA Global personnel, as this was not considered necessary at this relatively early project stage. The drilling and sampling program has been completed for TMT by an independent geologist, Mr John McDougall. CSA Global has viewed photographic evidence provided by Mr McDougall of the drilling in progress, as well a drill spoil piles and discussed the project in detail with him. The deposit is an along strike continuation of the neighbouring Australian Vanadium Limited (AVL) Gabanintha V-Ti-magnetite deposit that is well documented in the public domain, and a project that CSA Global has had prior involvement in (AVL, ASX 7 February 2011). The MRE results reported to the ASX (AVL, ASX 10 November 2015) by AVL, and the work completed by CSA Global for Technology Metals show geological and mineralisation zone interpretations having similar spatial relationships and the Mineral Resource estimate tenor being similar. The geophysical evidence in the form of total magnetic intensity (TMI) maps provided to CSA Global provide further evidence of the strike continuity of the Gabanintha deposit.</li> </ul>
Geological interpretation	<ul style="list-style-type: none"> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource</li> </ul>	<ul style="list-style-type: none"> <li>Based on surface geological and structural mapping, drill hole logging and sample analysis data and geophysical TMI data, the geology and mineral distribution of the basal massive V-Ti-magnetite zone appears to be consistent through the interpreted strike length of the deposit.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p>estimation.</p> <ul style="list-style-type: none"> <li>• The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>• The factors affecting continuity both of grade and geology.</li> </ul>	<ul style="list-style-type: none"> <li>• Cross cutting faults and dykes, interpreted from the drill hole and magnetic data and surface mapping have been modelled. These features displace the mineralisation as shown in the diagrams in the body of this report. Drill hole logging has shown some narrow quartz porphyry units which have been modelled, cutting through the mineralisation on some sections. In the hanging wall of the basal massive magnetite zone, the mineralised units are defined at a nominal 0.4% V<sub>2</sub>O<sub>5</sub> lower cut-off grade. The geological and grade continuity of these zones is not as well understood as the basal massive magnetite unit, however drill sample analysis demonstrates consistent zones of more disseminated mineralisation existing in the hanging wall above the basal unit along strike and on section. Weathering surfaces for the base of complete oxidation (BOCO) and top of fresh rock (TOFR) have been generated based on a combination of drill hole logging, magnetic susceptibility readings and sample analysis results.</li> <li>• Surface mapping, drill hole intercept logging, sample analysis results and TMI data have formed the basis of the geological and mineralisation interpretations. Assumptions have been made on the depth and strike extent of the mineralisation based on the drilling and geophysical data, as documented further on in this table. Based on the currently available information contained in the drilling data, surface mapping and the geophysical data, the assumption has been made that the hanging wall disseminated mineralisation lenses that are in the same stratigraphic position relative to the basal magnetite are related and are grouped together as the same zones for estimation purposes.</li> <li>• The extents of the modelled mineralisation zones are constrained by the available drill and geophysical data. Alternative interpretations are not expected to have a significant influence on the global Mineral Resource estimate.</li> <li>• The continuity of the geology and mineralisation can be identified and traced between drill holes by visual, geophysical and geochemical characteristics. Additional data is required to more accurately model the effect of any potential structural or other influences on the modelled mineralised units, Confidence in the grade and geological continuity is reflected in the Mineral Resource classification.</li> </ul>
Dimensions	<ul style="list-style-type: none"> <li>• The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</li> </ul>	<ul style="list-style-type: none"> <li>• The modelled mineralisation strikes approximately 160° to 340°, dipping on average about 55° towards 250°, with a modelled strike extent of approximately 4.3km. The mineralisation is interpreted to be folded back</li> </ul>



Criteria	JORC Code explanation	Commentary
		<p>on itself at the northern end.</p> <ul style="list-style-type: none"> <li>• The stratiform basal massive magnetite unit has a true thickness varying between 10m and 25m. The interpreted hanging wall disseminated mineralisation lenses appear to be better developed in the southern half of the modelled area, with cumulative true thickness of the order of 45m in the south from up to five lenses, reducing to roughly 25m in the centre from three lenses and about 8m from one lens in the north of the deposit.</li> <li>• The basal magnetite outcrops and has been mapped along the strike extent and has been extended to a maximum of approximately 170m below topographic surface. The strike extent is extended a nominal 200m, or half the nominal drill section spacing, past the last drilling section in the south to the intersection with the tenement boundary based on the surface mapping and geophysical data extents.</li> <li>• In the north, the mineralisation is terminated nominally 100m past drilling based on the surface mapping extents of the outcropping mineralisation. In the folded area in the north down dip extent is limited to a maximum 50m down dip of drill section data, or 120m below topographic surface, due to the greater geological uncertainty. The immediate hanging wall disseminated mineralisation zone above the basal massive magnetite is interpretation to similar extents as the basal magnetite. The lenses further up in the hanging wall are not as clearly constrained and understood and therefore the down dip extent is nominally half that of the basal magnetite, or between 70 to 100m below topographic surface.</li> <li>• Given the continuity defined over the drilled extents (fenceline spacings of 400m), and being additionally informed by the magnetics (TMI), these extrapolation extents are considered reasonable.</li> </ul>
<p><i>Estimation and modelling techniques</i></p>	<ul style="list-style-type: none"> <li>• <i>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</i></li> <li>• <i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i></li> <li>• <i>The assumptions made regarding recovery of by-products.</i></li> <li>• <i>Estimation of deleterious elements or other non-grade variables of</i></li> </ul>	<ul style="list-style-type: none"> <li>• The Mineral Resource estimate was completed in Datamine Studio RM software using the Inverse Distance Weighting to the power of two (IDW) estimation method. This method was selected in preference to ordinary kriging (OK) as modelled variograms were not considered reliable, due in part to relative paucity of data at the current stage of advancement of the project.</li> <li>• Estimations were completed for V2O5, Fe and contaminant elements, TiO2, Al2O3, SiO2, P and S, and loss on ignition at 1000°C (LOI). Due to the mineralised zones being cut by and / or offset by faults and dykes the mineralisation interpretation consists of 12 basal magnetite and 22 hanging wall lenses. These are grouped together using a numeric zone</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>economic significance (e.g. sulphur for acid mine drainage characterisation).</i></p> <ul style="list-style-type: none"> <li>• <i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i></li> <li>• <i>Any assumptions behind modelling of selective mining units.</i></li> <li>• <i>Any assumptions about correlation between variables.</i></li> <li>• <i>Description of how the geological interpretation was used to control the resource estimates.</i></li> <li>• <i>Discussion of basis for using or not using grade cutting or capping.</i></li> <li>• <i>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</i></li> </ul>	<p>code as the basal magnetite lenses, or for the disseminated mineralisation lenses they are grouped together based on stratigraphic position in the hanging wall above the basal magnetite. These lens groupings are then further split based on the weathering surface interpretations into oxide, transition and fresh materials. This has resulted in 12 separate estimation domains being defined with hard boundaries being used between estimation domains. Due to insufficient sample data points, the basal magnetite oxide material was combined with transitional to form one estimation domain. Similarly, for some hanging wall mineralisation domains where there was insufficient data, weathering state domains have been combined for estimation purposes.</p> <ul style="list-style-type: none"> <li>• Statistical analysis was completed on the basal magnetite weathering domains separately, and for the hanging wall disseminated domains combined based on the weathering state. This analysis showed that while co-efficient of variation was generally low (below 0.5) for all grade variables, some outlier grades existed and in the CP's our opinion required balancing cuts to prevent estimation bias associated with outlier values. Bottom cuts were required for Fe, V2O5 and LOI and a top cut for SiO2 in the basal magnetite oxide / transitional domain Bottom cuts were required for Fe, and V2O5, and top cuts for SiO2, Al2O3 and LOI in the basal magnetite fresh zone. For the hanging wall zones in the oxide material bottom cuts were deemed necessary for Fe and LOI, with top cuts for SiO2, TiO2 and LOI. In the transitional zone a top cut was applied to TiO2. Drill spacing is nominally 40m on sections spaced 400m apart.</li> <li>• Maximum extrapolation away from data points is to 200m in the south and up to 100m down dip. Search ellipse extents are set to 700m along strike, 100m down dip and 50m across dip, to ensure that the majority of the block estimates find sufficient data to be completed in the first search volume. The search volume was doubled for the second search pass and increased 20-fold for the third search pass to ensure all block were estimated.</li> <li>• A maximum of 8 samples per hole, with a minimum of 15 and a maximum of 40 samples are allowed for a block estimate in the first search pass, reducing to a maximum 30 samples for the second pass, and further reducing to a minimum of 5 and maximum 20 samples for the final pass.</li> <li>• This is the first Mineral Resource estimate for this deposit (a Maiden</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>Mineral Resource Estimate). Despite the known deficiencies in generating reliable variograms, for the purposes of generating a check estimate, nonetheless an OK estimate was run, and produced comparable results with an 0.2% difference in global V2O5 grade</p> <ul style="list-style-type: none"> <li>• No assumptions have been made regarding by-product recovery at this early project stage.</li> <li>• Potentially deleterious P and S have been estimated.</li> <li>• A volume block model with parent block sizes of 100 m (N) by 10 m (E) by 10 (RL) was constructed using Datamine Studio Software. Minimum sub cells down to 5 m (N) by 1 m (E) by 1 m (RL) were allowed for domain volume resolution. Drill spacing is nominally 40m across strike on west to east sections spaced 400 m apart north to south.</li> <li>• No assumptions have been made regarding selective mining units at this early stage of the project.</li> <li>• A strong positive correlation exists between Fe and V2O5 and TiO2 and a strong negative correlation between Fe and Al2O3, SiO2 and LOI.</li> <li>• The separate interpreted mineralisation zones domained based on the geological, geochemical and geophysical data, and further domained by weathering state have been separately estimated using hard boundaries between domains. The model is depleted by fault zones, intrusive dykes, cross cutting quartz porphyries and surficial colluvium zones that have been interpreted based on the geological, geochemical and geophysical data.</li> <li>• Block model validation has been completed by statistical comparison of drill sample grades with the IDW and OK check estimate results for each estimation zone. Visual validation of grade trends along the drill sections was completed and trend plots comparing drill sample grades and model grades for northings, eastings and elevation were completed. These checks show reasonable comparison between estimated block grades and drill sample grades with an increase in block model grade compared to the drill sample data for V2O5 of &lt;1% in the basal magnetite, and a decrease of &lt;2% for block grades compared to drill sample data in the disseminated mineralisation.</li> <li>• With no mining having taken place there is no reconciliation data available to test the model against.</li> </ul>
Moisture	<ul style="list-style-type: none"> <li>• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</li> </ul>	<ul style="list-style-type: none"> <li>• Tonnages have been estimated on a dry, in situ basis.</li> </ul>

Criteria	JORC Code explanation	Commentary
Cut-off parameters	<ul style="list-style-type: none"> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	<ul style="list-style-type: none"> <li>The adopted lower interpretation cut-off grade of 0.9% V2O5 for the basal mineralisation and 0.4% V2O5 for the hanging wall interpretation, and a reporting cut-off of 0.4% V2O5 for the model as a whole is considered to be a reasonable threshold to inform reasonable chances of eventual economic extraction, the resulting average V2O55 model grades are comparable with the adjacent deposit (AVL) for which more advanced technical works in consideration of preliminary metallurgical and recovery works have been completed (AVL ASX Announcement 07 December 2015).</li> <li>Consideration of the interpreted mineralisation zone as a continuation to that of the adjacent project, for which a current Mineral Resource has been publicly reported and for which some metallurgical study work has been completed on material considered similar, is considered to represent validity of reasonable justification for potential economic viability. The results from the adjacent project whilst not definitive, would indicate that the interpreted mineralisation zones have reasonable prospects for eventual economic extraction.</li> </ul>
Mining factors or assumptions	<ul style="list-style-type: none"> <li>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</li> </ul>	<ul style="list-style-type: none"> <li>It has been assumed that these deposits will be amenable to open cut mining methods and are economic to exploit to the depths currently modelled using the cut-off grade applied. No assumptions regarding minimum mining widths and dilution have been made.</li> </ul>
Metallurgical factors or assumptions	<ul style="list-style-type: none"> <li>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</li> </ul>	<ul style="list-style-type: none"> <li>Metallurgical amenability has been assumed based on a review of publicly reported metallurgical results from material gathered BY AVL from the adjacent project (AVL, ASX Announcement 07 December 2015) which is considered to be similar in geological and mineralogical character. Whilst no metallurgical test work has been completed on TMT samples by the company, the availability of testwork conclusions from the adjacent project, in the public domain, is considered to provide support for a reasonable assumption of metallurgical amenability.</li> </ul>
Environmental factors or assumptions	<ul style="list-style-type: none"> <li>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and</li> </ul>	<ul style="list-style-type: none"> <li>No work has been completed by the company regarding waste disposal options. It is assumed that such disposal will not present a significant barrier to exploitation of the deposit and that any disposal and potential environmental impacts would be correctly managed as</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p>processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</p>	<p>required under the regulatory permitting conditions.</p>
Bulk density	<ul style="list-style-type: none"> <li>• Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</li> <li>• The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</li> <li>• Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	<ul style="list-style-type: none"> <li>• No bulk density testing has been completed over the project. Bulk density values have been assumed based on research into publicly available Mineral Resource Estimation disclosure of the neighbouring tenement holder AVL (ASX Announcement 10 November 2015) which is based on sample data considered to be geologically and mineralogically similar. The CP considers that the assumption of bulk density based on data from a neighbouring project, of similar character, to be a reasonable one.</li> </ul>
Classification	<ul style="list-style-type: none"> <li>• The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>• Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</li> <li>• Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	<ul style="list-style-type: none"> <li>• Classification of the Mineral Resource was carried out taking into account the level of geological understanding of the deposit, quantity, quality and reliability of sampling data and assumptions of continuity based on drill hole spacing.</li> <li>• The Mineral Resource estimate has been classified in accordance with the JORC Code, 2012 Edition using a qualitative approach. All factors that have been considered have been adequately communicated in Section 1 and Section 3 of this Table.</li> <li>• Overall the continuity of mineralisation can be assumed over numerous drill sections, to the level of confidence required to support the Mineral Resource classification.</li> <li>• The Mineral Resource estimate appropriately reflects the view of the Competent Person.</li> <li>• The Mineral Resource is classified as an Inferred Mineral Resource.</li> </ul>
Audits or reviews	<ul style="list-style-type: none"> <li>• The results of any audits or reviews of Mineral Resource estimates.</li> </ul>	<ul style="list-style-type: none"> <li>• Internal audits and peer review were completed by CSA Global which verified and considered the technical inputs, methodology, parameters and results of the estimate. No external audits have been undertaken.</li> </ul>
Discussion of relative accuracy/ confidence	<ul style="list-style-type: none"> <li>• Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence</li> </ul>	<ul style="list-style-type: none"> <li>• The relative accuracy of the Mineral Resource estimate is reflected in the reporting of the Mineral Resource as per the guidelines of the 2012 JORC Code.</li> <li>• The Mineral Resource statement relates to global estimates of <i>in situ</i> tonnes and grade.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</i></p> <ul style="list-style-type: none"><li><i>• The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</i></li><li><i>• These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i></li></ul>	