



**TECHNOLOGY**  
METALS AUSTRALIA LIMITED

ASX Announcement

8 November 2018

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#### Directors

Michael Fry:  
**Chairman**

Ian Prentice:  
**Managing Director**

Sonu Cheema:  
**Director and Company Secretary**

#### Issued Capital

47,508,334 ("TMT") Fully Paid  
Ordinary Shares

22,510,000 Fully Paid Ordinary  
Shares classified as restricted  
securities

6,133,333 – Quoted Options  
("TMTO") exercisable at \$0.40 on or  
before 24 May 2020

20,623,334 – Unquoted Options –  
various exercise prices and dates

**ASX Code: TMT, TMTO**

**FRA Code: TN6**



# PROJECT ENHANCEMENT RC DRILLING CONFIRMS HIGH GRADE CONTINUITY

## HIGHLIGHTS

- **RC DRILLING SUCCESSFUL IN BOTH INFILLING AND EXTENDING DEFINED GABANINTHA MINERALISATION.**
- **CENTRAL PIT RC RESULTS CONFIRM CONSISTENCY OF GRADE AND WIDTH OF HIGH GRADE MINERALISATION ALONG STRIKE AND DOWN DIP.**
- **DEPTH EXTENSION INTERSECTIONS 25M TO 50M DOWN DIP OF CURRENT INDICATED RESOURCE. RESULTS INCLUDE:**
  - **14M AT 1.17% V2O5 FROM 208M AND**
  - **12M AT 1.17% V2O5 FROM 192M.**
- **RESOURCE INFILL HOLES INDICATE SCOPE TO EXTEND CENTRAL PIT INDICATED RESOURCE STRIKE LENGTH BY +300M TO THE SOUTH. RESULTS INCLUDE:**
  - **16M AT 1.26% V2O5 FROM 28M AND**
  - **14M AT 1.14% V2O5 FROM 90M.**
- **INFILL DRILLING AT THE SOUTHERN TENEMENT INTERSECTED HIGH GRADE MINERALISATION IN EACH HOLE WITH GRADES CONSISTENT WITH, OR EXCEEDING, THE RESOURCE GRADES.**

## BACKGROUND

Technology Metals Australia Limited (ASX: **TMT**) ("**Technology Metals**" or the "**Company**") is pleased to announce results of the Reverse Circulation ("**RC**") drilling component of the recently completed Stage 1 Project enhancement drilling program in support of the Definitive Feasibility Study ("**DFS**") at its Gabanintha Vanadium Project ("**Gabanintha**" or "**Project**").

The Stage 1 Project enhancement drilling program included 3,714m of RC drilling across the Northern Block of tenements and the Southern Tenement; consisting of sixteen (16) holes in the Central Pit area, four (4) diamond pre-collars in the North Pit area and eight (8) holes in the Southern Tenement.

RC holes were specifically designed to infill and extend the Northern Block Mineral Resource estimate in the Central Pit area, aimed at increasing the Indicated Mineral Resource category / Probable Reserve estimate, and upgrade part of the Southern Tenement Inferred Mineral Resource estimate to the Indicated Resource category.

**Managing Director Ian Prentice commented:** "The results of the RC drilling from the stage 1 enhancement drilling program have delivered exceptional strike continuity, and down dip extension, of the massive magnetite mineralisation. These results are expected to materially increase the Global Resource and more importantly the Indicated Resource component, of this globally significant vanadium Project".

## RC DRILLING COMPONENT OF STAGE 1 PROJECT ENHANCEMENT DRILLING PROGRAM

The RC component of the Stage 1 Project enhancement drilling program was specifically designed to infill and extend the Northern Block Mineral Resource estimate in the Central Pit area (see Figure 1), aimed at increasing the Indicated Mineral Resource category / Probable Reserve estimate, and upgrade part of the Southern Tenement Inferred Mineral Resource estimate to the Indicated Resource category.

The RC drilling consisted of 3,714m across 28 holes in the Northern Block of tenements and the Southern Tenement (see Appendix 1 for Collar Details) being;

- sixteen (16) holes for 2,364m in the Central Pit area;
- four (4) diamond pre-collars for 524m in the North Pit area; and
- eight (8) holes for 826m in the Southern Tenement.

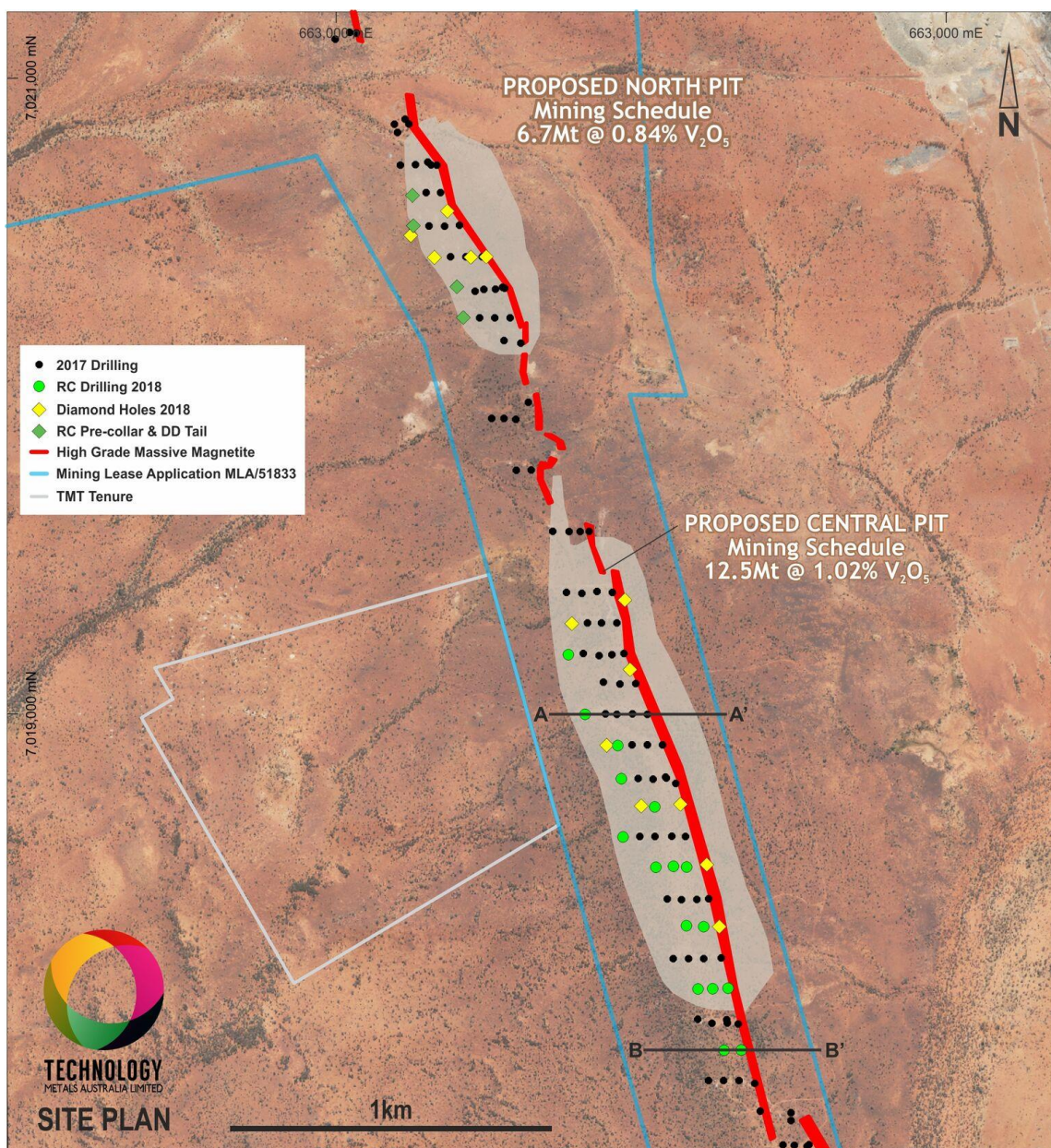


Figure 1: Drill Collar Location Plan, Northern Block of Tenements



The Central Pit area of the Northern Block of tenements has now been drilled on 100m line spacings over a strike length in excess of 1.6km, as shown in Figure 1. The recent drilling was extremely successful in both infilling and extending the defined mineralisation, confirming the outstanding consistency of grade and width of the broad zones of basal massive magnetite mineralisation both along strike and down dip. The high grade basal massive magnetite mineralisation remains open along the full strike length of the Central Pit area.

Results have now been received for all but two of the RC drill holes completed in this program (see Table 1 and Appendix 2) (N.B. assay results pending for GBRC111 and GBRC119).

Hole ID	From	To	Interval	V2O5%	TiO2%	Fe%	SiO2%	Al2O3%	LOI%
GBRC109	190m	204m	14m @	1.19	13.7	53.2	2.1	4.1	-1.8
GBRC110	103m	117m	14m @	1.16	13.2	51.2	4.1	4.7	-1.1
GBRC112	88m	105m	17m @	1.11	12.7	49.3	6.0	5.0	-0.8
GBRC113	135m	148m	13m @	1.16	13.3	51.5	4.0	4.6	-1.4
GBRC114	208m	222m	14m @	1.17	13.2	51.5	3.7	4.1	-1.1
GBRC115	48m	66m	18m @	1.11	12.8	49.3	5.7	5.8	-0.9
GBRC116	105m	124m	19m @	1.07	12.3	48.6	6.4	5.9	-0.6
GBRC117	35m	51m	16m @	1.24	14.2	49.1	4.3	5.3	1.6
GBRC118	90m	101m	11m @	1.22	13.8	53.3	2.3	4.1	-1.4
GBRC120	28m	44m	16m @	1.26	15.9	42.9	8.0	8.2	4.0
GBRC121	90m	104m	14m @	1.14	12.8	48.2	5.4	4.9	1.8
GBRC122	192m	204m	12m @	1.17	13.4	52.2	3.2	4.5	-1.2
GBRC123	172m	183m	11m @	1.14	12.9	50.2	4.2	5.2	-0.3
GBRC124	40m	52m	12m @	1.20	13.3	51.6	3.6	4.6	-1.2
GBRC125	53m	63m	10m @	1.13	12.7	48.6	6.0	5.1	-0.6

**Note:** High grade intervals have been nominally defined using a 0.9% V<sub>2</sub>O<sub>5</sub> lower cut-off grade, length weighted average grades and including no more than 2m of consecutive lower / medium grade mineralisation. N.B. assay results pending for GBRC111 and GBRC119.

**Table 1:** RC Drilling High Grade Intersections – Central Pit, Northern Block

The depth extension drilling typically targeted the basal massive magnetite mineralisation between 25 and 50m down dip of the current Indicated Mineral Resource / base of the “PFS” designed Central Pit. This drilling returned results such as **14m at 1.17% V<sub>2</sub>O<sub>5</sub> from 208m** (GBRC114) and **12m at 1.17% V<sub>2</sub>O<sub>5</sub> from 192m** (GBRC122), intersecting the basal massive magnetite mineralisation at vertical depths of up to 190m (see Figure 2).

These results indicate that a proportion of this previously defined Inferred Mineral Resource will be upgraded to Indicated Mineral Resource category, highlighting the scope to materially deepen the open pit design, and that the Inferred Mineral Resource will be extended further down dip.

The RC drilling has also confirmed the relatively shallow oxidation profile along the strike length of the Central Pit area, with negative or low (<3%) LOI's in all but one of the basal massive magnetite mineralisation intersections (the low LOI's indicate the presence of magnetite at shallow depths, with associated high recovery factors to magnetic concentrates). The shallow oxidation profile has positive implications for early access to higher yielding high grade mineralisation.

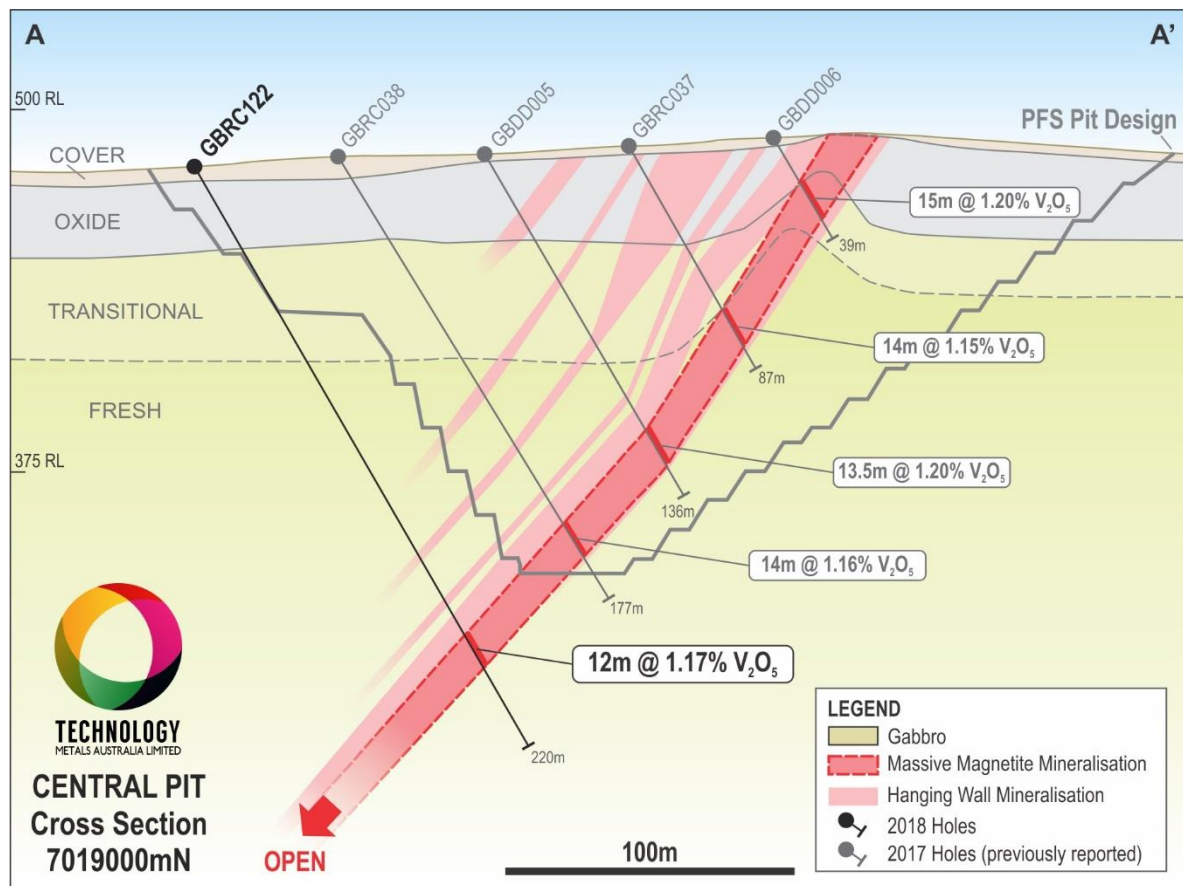


Figure 2: Cross Section 7,019,000N – Central Pit, Northern Block

The cross section shown in Figure 2 also highlights the very shallow (~40°) footwall slope angle in the PFS proposed pit design. The overall competency of the host rocks, as identified from the recently completed geotechnical diamond drilling, is expected to result in a steepening of the footwall slope angle. This is expected to deliver a reduction to the overall strip ratio, thereby reducing operating costs and enabling the open pits to be extended at depth to capture more of the defined basal massive magnetite mineralisation.

Geotechnical data from the diamond drilling is being collated, reviewed and analysed by the Company's geotechnical consultants, with the outcomes of this work to be incorporated in to updated open pit mine designs as the DFS progresses.

The infill drill lines (see Figure 1) were focused on the southern portion of the Central Pit area as well as extending the southern strike extent of the Indicated Resource in this area. This drilling was successful in confirming the extension of the consistently mineralised broad zones of basal massive magnetite mineralisation in excess of 300m south of the current southern end of the Central Pit / southern limit of the Indicated Resource. The southern most infill drill line, section 7017900N, returned **16m at 1.26%  $V_2O_5$  from 28m** (GBRC120) and **14m at 1.14%  $V_2O_5$  from 90m** (GBRC121) (see Figure 3).

These intersections compare very favourably to previously reported results from lines 100m to the north and south, such as 12m at 1.12%  $V_2O_5$  from 95m (GBRC003, section 7018000N) and 14m at 1.16%  $V_2O_5$  from 151m (GBRC094, section 7017800N). The cross section shown in Figure 3 projects the intersections from line 7017800N (100m to the south) to demonstrate the excellent width and grade continuity confirmed by this recent drilling.

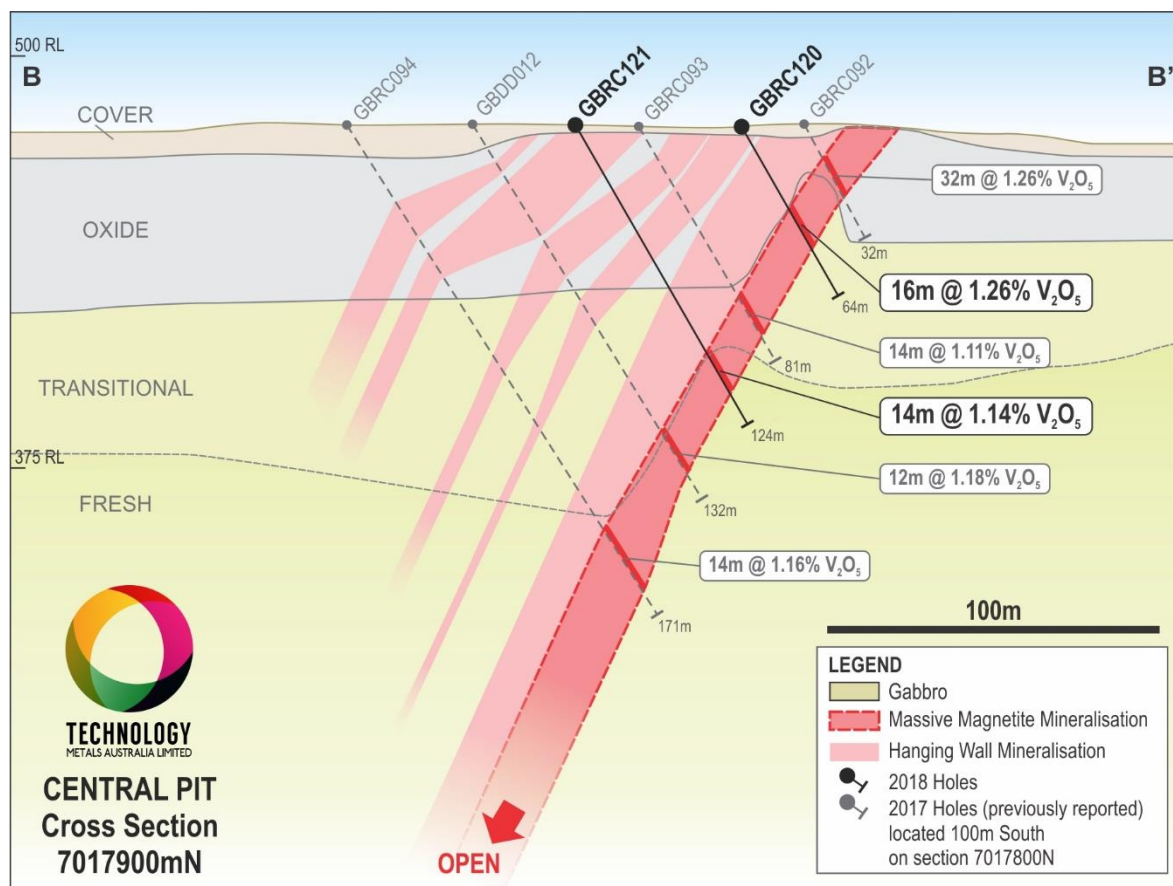


Figure 3: Cross Section 7,017,900N – Central Pit, Northern Block

RC drilling on the Southern Tenement was designed to infill to 100m line spacing along the majority of the strike length of the mineralisation, targeting defined resource blocks. The eight (8) RC holes were complemented with four (4) diamond drill holes; the first diamond holes completed on the Southern Tenement.

The RC infill drilling was successful in intersecting the high grade massive magnetite mineralisation in every hole, albeit that structural complexity in this area results in some splitting of high grade intervals and more discrete blocks of mineralisation than recorded in the Northern Block. Results have now been received for all of the RC drill holes completed in this program (see Table 2 and Appendix 3).

Hole ID	From	To	Interval	V2O5%	TiO2%	Fe%	SiO2%	Al2O3%	LOI%
GBRC124	40m	52m	12m @	1.20	13.3	51.6	3.6	4.6	-1.2
GBRC125	53m	63m	10m @	1.13	12.7	48.6	6.0	5.1	-0.6
GBRC126	60m	64m	4m @	0.85	10.1	39.5	15.3	7.3	0.4
GBRC126	68m	74m	6m @	1.07	11.8	46.6	8.1	6.1	0.1
GBRC127	107m	112m	5m @	1.08	12.3	47.9	6.8	5.5	-0.6
GBRC128	11m	26m	15m @	0.97	11.0	43.5	9.4	6.4	4.0
GBRC129	132m	143m	11m @	1.10	12.5	48.4	6.2	5.2	-0.6
GBRC130	64m	71m	7m @	1.19	13.5	52.1	3.5	4.5	-1.7
GBRC131	103m	117m	14m @	1.15	12.8	50.2	4.5	5.0	-0.8

**Note:** High grade intervals have been nominally defined using a 0.9% V<sub>2</sub>O<sub>5</sub> lower cut-off grade, length weighted average grades and including no more than 2m of consecutive lower / medium grade mineralisation.

**Table 2:** RC Drilling High Grade Intersections – Southern Tenement

The overall grade of the high grade intersections is consistent with, or exceeds, the previously reported Southern Tenement Inferred Mineral Resource estimate grade (21.6Mt at 0.9% V<sub>2</sub>O<sub>5</sub>), whilst the bulked width grades incorporating the hanging wall and footwall bands are consistent with the widths and grades of the resource estimate.

Shallow weathering and low oxidation have been confirmed in the Southern Tenement with negative or low (<3%) LOI's in all but one of the basal massive magnetite mineralisation intersections (the low LOI's indicate the presence of magnetite at shallow depths, with associated high recovery factors to magnetic concentrates). The shallow oxidation profile has positive implications for early access to higher yielding high grade mineralisation.

Four (4) diamond pre-collars were completed in the North Pit area, with two of these holes intersecting high grade mineralisation prior to the commencement of the diamond drilling (see Table 3). The balance of the assays for these holes will be reported following the processing and assay of the North pit area diamond holes.

Hole ID	From	To	Interval	V2O5%	TiO2%	Fe%	SiO2%	Al2O3%	LOI%
GBDD018	144m	147m	3m @	1.06	12.4	48.2	7.2	5.3	-1.0
GBDD020	127m	142m	15m @	0.94	10.8	43.4	11.4	6.0	0.1

**Note:** High grade intervals have been nominally defined using a 0.9% V<sub>2</sub>O<sub>5</sub> lower cut-off grade, length weighted average grades and including no more than 2m of consecutive lower / medium grade mineralisation.

**Table 3:** RC Drilling High Grade Intersections – North Pit Pre-Collars, Northern Block

## ONGOING / FUTURE WORK

All diamond core from the diamond drilling holes completed in the North and Central pit areas of the Northern Block have been processed on site, including marking up, geological and geotechnical logging, and preparation for cutting and sampling.

This core has now all been dispatched to the laboratory in Perth, where sections of whole core have been selected and removed by the Company's metallurgical consultants for comminution and other metallurgical testwork. Cutting and sampling in preparation for assay on the remaining core commenced over two weeks ago, with assay results expected to be received from these samples in late November / early December.

Processing of diamond core from the Southern Tenement will occur once all of the Northern Block (Proposed North and Central Pit areas) core has been processed.

The bulk sample generation large diameter diamond drilling program was completed on 8 October 2018 with a total of 21 holes for 1,444m drilled from a number of locations within the current North Pit region which has a very shallow oxidation profile. This sample, designed to replicate the expected process plant feed for the initial mine life at Gabanintha, will be used for process plant equipment vendors and large scale metallurgical testwork as part of the DFS. The bulk sample is a blend of transitional basal massive magnetite mineralisation, fresh hanging wall banded mineralisation and a large portion of fresh basal massive magnetite mineralisation and is expected to deliver an optimal mass recovery in to a magnetic concentrate and metallurgical recovery of vanadium.

A program of RC drilling is scheduled to commence this week focused on water exploration and dewatering assessment plus limited sterilisation drilling of the northern extent of the mineralisation and the north east portion of the Northern Block tenements.

Ongoing activities in support of the DFS include:

- Updating the global Mineral Resource, including the Indicated portion of the Resource;
- Revising the PFS open pit mine designs incorporating updated geotechnical data;
- Updating mine scheduling based on detailed geometallurgical data;
- Provide an updated ore reserve estimate within the expanded global Mineral Resource, and
- Provide revised capital and operating cost estimates to a DFS level of accuracy and an updated Project financial model.

## 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 rapidly developing 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.

Global economic growth and increased intensity of use of vanadium in steel in developing countries will drive near term growth in vanadium demand.

The global vanadium market has been operating in a deficit position for the past five years (source: TTP Squared Inc), with a reported deficit of ~2,600 tonnes V metal in 2017. Vanadium Inventories are reported to have been fully depleted in 2017 (source: TTP Squared Inc). Significant production declines in China and Russia have exacerbated this situation, with further production curtailment occurring in China as a result of mine closures resulting from environmental restrictions and the banning of the import of vanadium slag. Chinese domestic consumption, driven by increasing intensity of use in steel (in particular in rebar) have impacted on Chinese exports ability to fill the global supply gap.

The increasing demand and limited supply side reaction is forecast to result in a global deficit of ~21,300t V (~37,900t V<sub>2</sub>O<sub>5</sub>) in 2025 (Source: TTP Squared) assuming full resumption of Chinese Stone Coal production.

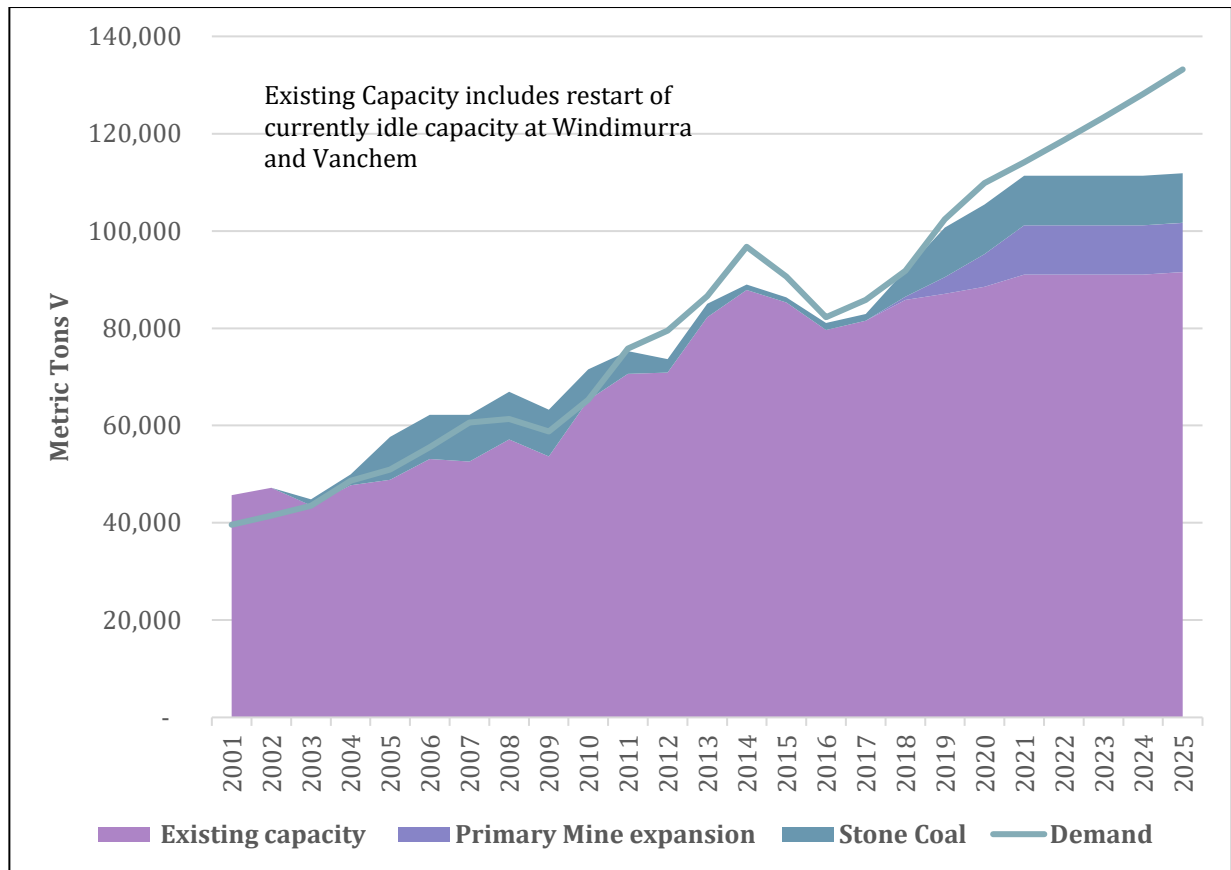


Figure 4: Vanadium Supply and Demand; source TTP Squared

The tightening supplies of vanadium are resulting in a global shortage, with prices appreciating dramatically since mid 2017, with the vanadium pentoxide prices have increased further in 2018 to in excess of US\$30/lb  $V_2O_5$ , from a low of less than US\$4/lb  $V_2O_5$  in early 2017.

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

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

- 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 40 km 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 consists of seven granted tenements (and two Mining Lease applications). 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 Barrambie 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 results in an overall higher grade for the Gabanintha Vanadium Project.

Data from the Company's 2017 drilling programs (85 RC holes (for 8,386 m) and 13 HQ diamond holes (for 1,235.5 m) at the Northern Block and 23 RC holes (for 2,232 m) at the Southern Tenement) has been used by independent geological consultants CSA Global to generate a global Inferred and Indicated Mineral Resource estimate, reported in accordance with the JORC Code 2012 edition, for the Project. The Resource estimate confirmed the position of the Gabanintha Vanadium Project as one of the highest grade vanadium projects in the world.

Table 4: Global Mineral Resource estimate for the Gabanintha Vanadium Project as at 5 March 2018

Technology Metals Gabanintha Vanadium Project - Global Mineral Resources as at March 2018										
Material	Classification	Tonnage (Mt)	V2O5%	Fe%	Al2O3%	SiO2%	TiO2%	LOI%	P%	S%
Massive magnetite	Indicated	14.5	1.1	49.2	5.1	5.8	12.8	-0.2	0.007	0.2
	Inferred	40.5	1.1	48.3	5.5	6.5	12.7	0.2	0.007	0.2
	<b>Indicated + Inferred</b>	<b>55.0</b>	<b>1.1</b>	<b>48.5</b>	<b>5.4</b>	<b>6.3</b>	<b>12.7</b>	<b>0.1</b>	<b>0.007</b>	<b>0.2</b>
Disseminated magnetite	Indicated	7.1	0.6	29.9	12.6	24.4	7.8	2.9	0.032	0.1
	Inferred	57.7	0.6	27.2	13.7	26.7	7.2	4.0	0.024	0.2
	<b>Indicated + Inferred</b>	<b>64.9</b>	<b>0.6</b>	<b>27.5</b>	<b>13.5</b>	<b>26.4</b>	<b>7.2</b>	<b>3.9</b>	<b>0.025</b>	<b>0.2</b>
<b>Combined</b>	<b>Indicated + Inferred</b>	<b>119.9</b>	<b>0.8</b>	<b>37.1</b>	<b>9.8</b>	<b>17.2</b>	<b>9.7</b>	<b>2.1</b>	<b>0.016</b>	<b>0.2</b>

\* Note: The Mineral Resource was estimated within constraining wireframe solids using a nominal 0.9% V2O5 lower cut-off for the Massive magnetite zone and using a nominal 0.4% V2O5 lower cut-off for the banded and 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.

Data from the Global Mineral Resource and the recently completed PFS on the Gabanintha Vanadium Project were used by independent consultants CSA Global to generate a maiden Probable Ore Reserve estimate based on the Indicated Mineral Resource of 21.6 Mt at 0.9% V<sub>2</sub>O<sub>5</sub> located within the Northern Block of tenements at Gabanintha.

Table 5: Ore Reserve Estimate as at 31 May 2018

Reserve Category	Tonnes (Mt)	Grade V <sub>2</sub> O <sub>5</sub> %	Contained V <sub>2</sub> O <sub>5</sub> Tonnes (Mt)
Proven	-	-	-
Probable	16.7	0.96	0.16
<b>Total</b>	<b>16.7</b>	<b>0.96</b>	<b>0.16</b>

- Includes allowance for mining recovery (95%) and mining dilution (10% at 0.0 %V<sub>2</sub>O<sub>5</sub>)
- Rounding errors may occur

<b>Capital Structure</b>	
Tradeable Fully Paid Ordinary Shares	47.508m
Escrowed Fully paid Ordinary Shares <sup>1</sup>	22.51m
Fully Paid Ordinary Shares on Issue	70.018m
Unquoted Options <sup>2</sup> (\$0.25 – 31/12/19 expiry)	14.615m
Unquoted Options (\$0.35 – 12/01/21 expiry)	2.75m
Quoted Options (\$0.40 – 24/05/20 expiry)	6.133m
Unquoted Options (\$0.40 – 24/05/20 expiry)	3.258m

1 – 22.51 million fully paid ordinary shares will be tradeable from 21 December 2018.

2 – 13.69 million unquoted options are subject to restriction until 21 December 2018.

### 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 is based on information compiled by Mr Aaron Meakin. Mr Meakin is a Principal Consultant with CSA Global and a Member of the Australian Institute of Mining and Metallurgy. Mr Meakin has sufficient experience relevant to the styles of mineralisation and types of deposits which are covered in this report and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' ("**JORC Code**"). Mr Meakin 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 that relates to Ore Reserves is based on information compiled by Mr Daniel Grosso and reviewed by Mr Karl van Olden, both employees of CSA Global Pty Ltd. Mr van Olden takes overall responsibility for the Report as Competent Person. Mr van Olden is a Fellow of The Australasian Institute of Mining and Metallurgy and has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity he is undertaking, to qualify as Competent Person in terms of the JORC (2012 Edition). The Competent Person, Karl van Olden has reviewed the Ore Reserve statement and given permission for the publication of this information in the form and context within which it appears.

The information in this report that relates to the Processing and Metallurgy for the Gabanintha project is based on and fairly represents, information and supporting documentation compiled by Damian Connelly who is a Fellow of The Australasian Institute of Mining and Metallurgy and a full time employee of METS. Damian Connelly has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' ("**JORC Code**"). Damian Connelly consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

## APPENDIX 1

Gabanintha Vanadium Project, Stage 1 Enhancement Drilling Program, RC Drilling Collar Table - GDA94, MGA Zone 50

Hole ID	Easting	Northing	RL (m)	Azimuth	Dip	EOH (m)^	Area
GBDD018*	661416	7020301	473	90	-60	147.0	Proposed North Pit
GBDD020*	661396	7020402	473	90	-60	143.9	Proposed North Pit
GBDD021*	661253	7020602	471	90	-60	89.5	Proposed North Pit
GBDD022*	661250	7020701	471	90	-60	144.0	Proposed North Pit
GBRC109	661761	7019196	483	90	-60	220	Proposed Central Pit
GBRC110	662044	7018697	495	90	-60	130	Proposed Central Pit
GBRC111	662149	7018500	488	90	-60	84	Proposed Central Pit
GBRC112	662106	7018503	490	90	-60	124	Proposed Central Pit
GBRC113	662048	7018500	487	90	-60	160	Proposed Central Pit
GBRC115	662205	7018304	481	90	-60	95	Proposed Central Pit
GBRC116	662148	7018308	484	90	-60	147	Proposed Central Pit
GBRC117	662285	7018103	478	90	-60	64	Proposed Central Pit
GBRC118	662234	7018101	480	90	-60	112	Proposed Central Pit
GBRC119	662186	7018101	483	90	-60	208	Proposed Central Pit
GBRC120	662328	7017901	482	90	-60	64	Proposed Central Pit
GBRC121	662272	7017900	483	90	-60	124	Proposed Central Pit
GBRC122	661816	7019000	479	90	-60	220	Proposed Central Pit
GBRC114	661940	7018598	483	90	-60	232	Proposed Central Pit
GBRC123	661935	7018789	485	90	-60	202	Proposed Central Pit
GBRC132	661923	7018898	488	90	-60	178	Proposed Central Pit
GBRC124	668670	7010085	464	40	-60	82	Southern Tenement
GBRC125	668744	7010027	465	40	-60	90	Southern Tenement
GBRC126	668898	7009886	466	40	-60	94	Southern Tenement
GBRC127	668867	7009848	464	40	-60	130	Southern Tenement
GBRC128	669086	7009799	468	40	-60	46	Southern Tenement
GBRC129	669021	7009717	465	40	-60	154	Southern Tenement
GBRC130	669419	7009552	467	40	-60	94	Southern Tenement
GBRC131	669388	7009516	466	40	-60	136	Southern Tenement

^Holes with diamond drill core tails are deeper than stated

\*RC pre collared holes with diamond tails

## APPENDIX 2

Gabanimtha Vanadium Project, Central Pit area, RC Drilling Significant Intersections

Hole ID	From	To	Interval	V2O5%	TiO2%	Fe%	SiO2%	Al2O3%	LOI%
GBRC109	161m	163m	2m @	0.55	7.3	28.2	27.4	10.4	0.6
GBRC109	182m	190m	8m @	0.53	7.0	26.6	27.7	13.8	1.4
GBRC109	190m	204m	14m @	1.19	13.7	53.2	2.1	4.1	-1.8
GBRC110	1m	14m	13m @	0.45	5.8	22.7	32.3	20.3	8.5
GBRC110	27m	38m	11m @	0.43	6.2	23.9	28.9	20.4	9.3
GBRC110	40m	42m	2m @	0.67	10.2	32.3	20.8	14.3	7.2
GBRC110	67m	71m	4m @	0.46	6.2	24.5	30.8	11.2	2.3
GBRC110	95m	102m	7m @	0.48	6.4	24.6	29.3	14.9	1.8
GBRC110	103m	117m	14m @	1.16	13.2	51.2	4.1	4.7	-1.1
GBRC111	0m	84m	Results pending						
GBRC112	0m	16m	16m @	0.50	6.5	24.6	30.9	18.0	8.1
GBRC112	27m	32m	5m @	0.52	7.5	30.6	28.9	11.4	6.6
GBRC112	48m	55m	7m @	0.47	6.6	27.0	29.3	12.2	7.2
GBRC112	74m	83m	9m @	0.50	6.5	24.7	28.5	16.1	4.2
GBRC112	88m	105m	17m @	1.11	12.7	49.3	6.0	5.0	-0.8
GBRC113	17m	27m	10m @	0.43	6.9	27.5	28.6	15.7	7.7
GBRC113	123m	126m	3m @	0.43	5.7	22.0	30.9	16.7	2.3
GBRC113	128m	130m	2m @	0.68	8.7	32.3	21.3	12.2	1.1
GBRC113	135m	148m	13m @	1.16	13.3	51.5	4.0	4.6	-1.4
GBRC114	1m	4m	3m @	0.59	5.6	33.3	27.6	12.5	5.1
GBRC114	9m	16m	7m @	0.70	13.6	31.5	15.2	15.2	8.6
GBRC114	102m	104m	2m @	0.46	7.0	25.7	30.8	10.1	2.4
GBRC114	175m	177m	2m @	0.52	6.8	27.0	28.2	10.0	1.5
GBRC114	201m	207m	6m @	0.48	6.4	24.3	29.2	15.0	2.2
GBRC114	208m	222m	14m @	1.17	13.2	51.5	3.7	4.1	-1.1
GBRC115	2m	7m	5m @	0.50	7.3	18.9	31.3	17.2	10.5
GBRC115	13m	22m	9m @	0.52	7.1	31.3	24.7	13.3	7.6
GBRC115	31m	42m	11m @	0.46	6.4	23.2	30.0	18.0	7.8
GBRC115	48m	66m	18m @	1.11	12.8	49.3	5.7	5.8	-0.9
GBRC115	70m	72m	2m @	0.45	5.5	22.8	30.6	15.4	2.8
GBRC115	87m	89m	2m @	0.48	6.0	22.3	28.8	14.4	3.8
GBRC116	14m	20m	6m @	0.51	8.1	25.1	27.4	19.0	8.2
GBRC116	27m	31m	4m @	0.43	6.5	20.9	32.7	20.6	8.7
GBRC116	35m	43m	8m @	0.41	6.1	24.4	31.1	15.9	8.3
GBRC116	72m	76m	4m @	0.46	6.2	24.6	30.6	10.9	1.9
GBRC116	96m	103m	7m @	0.48	6.4	24.6	29.9	14.7	1.9
GBRC116	105m	124m	19m @	1.07	12.3	48.6	6.4	5.9	-0.6
GBRC116	125m	127m	2m @	0.83	9.6	38.9	14.7	8.1	1.4
GBRC117	1m	34m	33m @	0.55	6.6	28.8	23.3	17.7	8.6
GBRC117	35m	51m	16m @	1.24	14.2	49.1	4.3	5.3	1.6
GBRC117	51m	54m	3m @	0.48	5.3	29.8	25.6	12.1	7.1



Hole ID	From	To	Interval	V2O5%	TiO2%	Fe%	SiO2%	Al2O3%	LOI%
GBRC118	4m	15m	11m @	0.44	6.0	24.2	28.6	19.7	9.1
GBRC118	32m	38m	6m @	0.48	6.4	30.5	25.8	11.0	7.0
GBRC118	57m	60m	3m @	0.52	6.9	27.1	28.0	10.4	1.9
GBRC118	73m	80m	6m @	0.51	6.7	25.7	27.7	15.8	2.4
GBRC118	82m	88m	6m @	0.58	7.5	29.2	25.0	12.7	2.1
GBRC118	90m	101m	11m @	1.22	13.8	53.3	2.3	4.1	-1.4
GBRC119	0m	208m	Results pending						
GBRC120	3m	25m	22m @	0.56	8.2	19.6	28.8	23.6	9.6
GBRC120	28m	44m	16m @	1.26	15.9	42.9	8.0	8.2	4.0
GBRC121	4m	19m	15m @	0.42	6.1	28.0	27.4	17.1	8.1
GBRC121	32m	41m	9m @	0.44	6.8	22.4	35.1	17.0	7.0
GBRC121	52m	60m	8m @	0.51	7.5	27.5	28.4	13.5	7.2
GBRC121	77m	90m	13m @	0.56	7.4	25.2	25.0	17.7	8.0
GBRC121	90m	104m	14m @	1.14	12.8	48.2	5.4	4.9	1.8
GBRC122	160m	163m	3m @	0.48	6.5	25.3	28.6	9.9	2.9
GBRC122	179m	182m	3m @	0.43	5.8	21.3	31.1	16.5	2.9
GBRC122	185m	192m	7m @	0.54	7.2	27.5	26.7	13.8	1.4
GBRC122	192m	204m	12m @	1.17	13.4	52.2	3.2	4.5	-1.2
GBRC123	0m	15m	15m @	0.61	9.2	29.8	17.2	18.8	9.4
GBRC123	47m	57m	10m @	0.43	7.2	24.9	25.9	19.2	9.6
GBRC123	133m	136m	3m @	0.49	6.7	26.1	29.3	10.4	1.8
GBRC123	153m	156m	3m @	0.40	5.3	20.6	32.3	17.4	2.3
GBRC123	159m	168m	9m @	0.51	6.7	25.4	28.7	13.6	2.3
GBRC123	172m	183m	11m @	1.14	12.9	50.2	4.2	5.2	-0.3
GBRC123	190m	192m	2m @	0.66	7.6	31.3	20.5	11.8	4.1
GBRC132	0m	4m	4m @	0.54	5.5	32.7	22.9	15.1	8.2
GBRC132	26m	33m	7m @	0.48	8.9	25.9	24.4	19.2	8.9
GBRC132	51m	56m	5m @	0.42	6.9	29.1	22.9	17.0	10.0
GBRC132	116m	118m	2m @	0.54	7.2	27.9	27.1	10.7	1.3
GBRC132	133m	144m	11m @	0.45	6.1	22.8	30.9	16.2	2.6
GBRC132	145m	157m	12m @	1.12	12.9	49.6	5.4	5.2	-0.8

**Note:** High grade intervals have been nominally defined using a 0.9% V<sub>2</sub>O<sub>5</sub> lower cut-off grade, length weighted average grades and including no more than 2m of consecutive lower / medium grade mineralisation. Lower grade intervals have been defined using a 0.4% V<sub>2</sub>O<sub>5</sub> lower cut-off grade, length weighted average grades and including no more than 3m of consecutive sub grade mineralisation as internal dilution.

## APPENDIX 3

### Gabanintha Vanadium Project, Southern Tenement, RC Drilling Significant Intersections

Hole ID	From	To	Interval	V2O5%	TiO2%	Fe%	SiO2%	Al2O3%	LOI%
GBRC124	14m	29m	15m @	0.48	6.1	23.4	30.2	16.0	3.5
GBRC124	33m	53m	20m @	1.02	11.6	45.3	8.7	6.0	1.3
GBRC124	52m	56m	4m @	0.52	5.6	26.2	27.9	12.1	4.1
GBRC124	60m	63m	3m @	0.76	8.4	35.2	19.3	8.4	1.8
GBRC124	67m	70m	3m @	0.70	7.8	32.4	23.4	10.0	1.4
GBRC125	30m	39m	9m @	0.44	5.8	21.8	31.2	18.1	2.0
GBRC125	53m	66m	13m @	1.04	11.7	45.6	8.6	6.0	0.4
GBRC126	41m	51m	10m @	0.56	7.1	26.6	26.5	16.0	0.8
GBRC126	61m	64m	3m @	0.95	11.3	43.7	11.3	5.8	-0.1
GBRC126	64m	68m	Split by major shear						
GBRC126	68m	76m	8m @	0.98	10.8	43.6	11.1	6.4	0.7
GBRC127	5m	7m	2m @	0.58	7.7	28.7	24.9	9.0	4.8
GBRC127	26m	31m	5m @	0.65	8.0	32.9	23.2	8.4	0.4
GBRC127	78m	93m	15m @	0.42	5.4	20.9	32.3	18.3	1.3
GBRC127	94m	102m	8m @	0.71	8.6	33.0	20.9	9.5	1.4
GBRC127	102m	107m	Split by major shear						
GBRC127	107m	115m	8m @	0.79	8.9	36.6	17.7	8.0	1.8
GBRC128	0m	2m	2m @	0.96	11.7	42.2	11.5	6.5	3.5
GBRC128	11m	26m	15m @	0.97	11.0	43.5	9.4	6.4	4.0
GBRC129	52m	56m	4m @	0.51	7.0	25.7	28.2	14.0	2.2
GBRC129	132m	143m	11m @	1.10	12.5	48.4	6.2	5.2	-0.6
GBRC130	54m	62m	8m @	0.48	6.0	23.0	29.9	16.5	1.5
GBRC130	62m	71m	9m @	1.05	11.9	46.4	8.6	6.4	-0.8
GBRC131	16m	19m	3m @	0.54	7.5	27.5	28.0	11.5	2.5
GBRC131	101m	117m	16m @	1.11	12.5	48.7	5.9	5.3	-0.6

**Note:** Broad high grade intervals have been nominally defined using a 0.7% V<sub>2</sub>O<sub>5</sub> lower cut-off grade, length weighted average grades and including no more than 2m of consecutive lower / medium grade mineralisation. Lower grade intervals have been defined using a 0.4% V<sub>2</sub>O<sub>5</sub> lower cut-off grade, length weighted average grades and including no more than 3m of consecutive sub grade mineralisation as internal dilution.

## APPENDIX 4

### Gabanimtha Vanadium Project, Central Pit area, RC Drilling Significant Intersections

Hole ID	From	To	Interval	V2O5%	TiO2%	Fe%	SiO2%	Al2O3%	LOI%
GBDD018	97m	101m	4m @	0.47	6.7	25.4	29.2	11.2	2.4
GBDD018	121m	125m	4m @	0.52	7.0	26.3	27.8	13.7	1.8
GBDD018	144m	147m	3m @	1.06	12.4	48.2	7.2	5.3	-1.0
GBDD018	Rest of intersection in diamond tail >147m - being processed at lab								
GBDD020	86m	90m	4m @	0.47	6.7	25.4	30.4	11.5	0.3
GBDD020	92m	97m	5m @	0.41	5.8	22.0	31.7	14.7	1.8
GBDD020	105m	108m	3m @	0.45	6.4	24.7	30.8	12.8	0.8
GBDD020	127m	142m	15m @	0.94	10.8	43.4	11.4	6.0	0.1
GBDD021	Intersections in diamond tail >89.5m - being processed at lab								
GBDD022	141m	144m	3m @	0.50	7.1	27.1	28.5	10.9	1.3
GBDD022	Intersections in diamond tail >144m - being processed at lab								

**Note:** High grade intervals have been nominally defined using a 0.9% V<sub>2</sub>O<sub>5</sub> lower cut-off grade, length weighted average grades and including no more than 2m of consecutive lower / medium grade mineralisation. Lower grade intervals have been defined using a 0.4% V<sub>2</sub>O<sub>5</sub> lower cut-off grade, length weighted average grades and including no more than 3m of consecutive sub grade mineralisation as internal dilution.

## APPENDIX 5

### JORC Code, 2012 Edition – Table 1

#### 1.1 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.</li> <li>Duplicate samples were submitted for analysis for every 20m down hole, ensuring duplicates were submitted for mineralised zones (based on geological logging).</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 the "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, not 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>• 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> <li>• Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>• The grid system used for collar positions is 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 GPS with aa accuracy of <math>\pm 5\text{cm}</math> horizontally and <math>\pm 10\text{cm}</math> vertically.</li> <li>• Down hole surveys were completed using an Axis Gyro every 30m down hole and near the collar.</li> </ul>

Criteria	JORC Code explanation	Commentary
<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 100m line spacing with holes located every 50m 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 a 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 or reviews</b>	<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>• A representative from the independent geological consultants, CSA Global, visited the site during the infill and extensional drilling program and found drilling and sampling procedures and practices to be acceptable.</li> <li>• No audits or reviews have been completed to date.</li> </ul>

## 1.2 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 51/2942, 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</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>GRC9817 (on Prospecting Licence 51/2183).</p> <ul style="list-style-type: none"> <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>See attached Appendix 1, Appendix 2, Appendix 3 and Appendix 4.</li> </ul>
<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>Significant intervals (as shown in Appendix 2, Appendix 3 and Appendix 4) have been defined nominally using a 0.4% V<sub>2</sub>O<sub>5</sub> lower cut-off grade, length weighted average grades and no more than 3m of consecutive lower grade mineralisation.</li> <li>High grade intervals (as shown in Table 1, Table 2 and Table 3) have been defined nominally using a 0.9% V<sub>2</sub>O<sub>5</sub> lower cut-off grade, length weighted average grades and no more than 2m of consecutive lower / medium grade mineralisation.</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>Down hole lengths of mineralisation are reported.</li> <li>See the cross section shown at Figure 2 and Figure 3 for an approximation of true widths.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>Appropriate maps and sections (with scales) and tabulations of intercepts</li> </ul>	<ul style="list-style-type: none"> <li>A map showing tenement and drill hole locations has been</li> </ul>

Criteria	JORC Code explanation	Commentary
	<i>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.</i>	<p>included (see Figure 1).</p> <ul style="list-style-type: none"> <li>• Cross sections showing the relationship between mineralisation and geology has been included (see Figure 2 and Figure 3).</li> <li>• A table of all intersections for the reported drilling has been included (see Appendix 2, Appendix 3 and Appendix 4).</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Results for all mineralised intervals have been included, including both low and high grades.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></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>• <i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li>• <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Samples from diamond drilling have been collected to enable further metallurgical testing of the different grades and types of mineralisation encountered in the drilling, including bulk samples for vendor testwork.</li> <li>• Diamond drilling has also been used to gather geotechnical data relevant to open pit mine design parameters.</li> <li>• A program of RC drilling is due to start shortly in the Northern Block focused on water exploration, dewatering assessment and initial sterilisation.</li> </ul>