

#### **ASX Announcement**

18 July 2019

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#### **Directors**

Michael Fry: **Chairman** 

Ian Prentice:

**Managing Director** 

Sonu Cheema:

**Director and Company Secretary** 

#### **Issued Capital**

87,554,167 ("TMT") Fully Paid Ordinary Shares

14,888,750 – Quoted Options ("TMTO") exercisable at \$0.40 on or before 24 May 2020

20,598,334 – Unquoted Options – various exercise prices and dates

**ASX Code: TMT, TMTO** 

FRA Code: TN6





## QUARTERLY ACTIVITIES REPORT & APPENDIX 5B

#### FOR THE QUARTER ENDING 30 JUNE 2019

The Board of Technology Metals Australia Limited (ASX: **TMT**) ("**Technology Metals**" or the "**Company**") is pleased to provide an update on activities for the quarter ending 30 June 2019.

#### **HIGHLIGHTS**

- O Completion of pilot plant scale test work program, a key component in delivery of a high quality, robust DFS was a significant achievement during the quarter.
- Pilot plant scale salt roast / kiln test work conducted by kiln expert FLSmidth delivered very high vanadium solubility / recovery of 84.9% to 90.7%, confirming 85% recovery used in the DFS.
- High quality DFS on the Gabanintha Vanadium Project; a large, long life, low cost development opportunity, is in the final stages of verification and documentation.
- MOU establishing the framework for a binding V2O5 offtake agreement entered in to with CNMC Ningxia Orient Group Company Ltd, a controlled subsidiary of China Nonferrous Metal Mining (Group) Co Ltd.
- Actively pursued partnerships with potential strategic investors, project funding partners and offtake partners with a shared long term view of the vanadium industry.
- Vanadium prices stabilised during the quarter, at levels that are supporting continued growth in consumption, and are expected to recover in the near term to levels that supports consumption growth and the development of high quality green fields projects such as Gabanintha
- As at the end of June 2019 the Company had cash of \$1.84 million plus access to an undrawn R&D rebate finance facility of \$1.42 million and as at 15 July 2019 the Top 20 shareholders held 47.9% of the fully paid ordinary shares.

Chairman, Michael Fry commented: "The successful outcome of the very important pilot plant scale kiln testwork on the bulk sample from Gabanintha clears a major hurdle for the Project and supports the delivery of the high quality DFS. This, combined with the execution of the MOU with CNMNC, are key milestones in the progression of the development of the large, long life, low cost World class Gabanintha Vanadium Project."

#### **SUMMARY**

During the June 2019 Quarter the Company and its high quality team of experienced industry expert consultants progressed the Definitive Feasibility Study ("**DFS**") on the development of the Gabanintha Vanadium Project ("**GVP" or "Project**"). The DFS on GVP, containing the updated Northern Block Resource of 109.5 Mt at 0.8%  $V_2O_5$ , is in the final stages of verification and documentation.

Completion of the pilot plant scale test work program, designed to reduce scalability risk and a key component in delivery of a high quality, robust DFS, was a significant achievement for the Project during the quarter. The pilot scale rotary kiln test work, completed by kiln experts FLSmidth, **confirmed 85% vanadium solubility / recovery rates** in the salt roasting portion of the processing circuit, with analysis of kiln product samples returning between 84.9% and 90.7%, with an average of 88.6%<sup>2</sup>. This is a very important step in determining the scalability of the chemical performance of the salt roasting process and de-risking the proposed processing circuit.

Open pit mine designs, based on the updated Measured and Indicated Resource of  $30.0 \, \text{Mt}$  at  $0.9\% \, \text{V}_2\text{O}_5$  and incorporating the updated geotechnical parameters, have been completed as part of the DFS, delivering an updated mining inventory. This updated mining inventory, which incorporates detailed geometallurgical data, will be the basis for the GVP's revised mining reserve, to be reported in conjunction with the DFS. Other activities included the progression of the development of the capital expenditure and operating cost estimates, leading to the development of the Project financial model.

The Company continued to engage with potential strategic investors, project funding partners and offtake partners via a series of meetings and presentations in Australia, China and Japan. As a direct result of some of these meetings the Company entered into a non-binding MOU establishing the framework for a binding  $V_2O_5$  offtake agreement with CNMC Ningxia Orient Group Company Ltd ("**CNMNC**"), a controlled subsidiary of China Nonferrous Metal Mining (Group) Co Ltd ("**CNMC**")<sup>3</sup>. Ongoing discussions with a range of groups have been very encouraging, with the Company actively pursuing partnerships with a shared long term view of the vanadium industry and capacity to participate at a meaningful level in the Project.

Vanadium prices stabilised during the quarter, down from the unsustainable highs seen during the December 2018 quarter, to levels that are supporting continued growth in consumption. Prices are expected to recover in the near term to more sustainable levels as consumption in the steel industry increases on managed implementation of the revised rebar standards in a market where global inventories continue to be drawn down. Market commentators are forecasting prices of approximately US\$15/lb  $V_2O_5$  in the second half of 2019, a price point that supports consumption growth and the development of high quality green fields projects such as GVP.

As at the end of June 2019 TMT had cash of \$1.84 million plus access to an up to \$1.42 million finance facility secured against the Company's 2019 financial year R&D rebate. The Company received an R&D rebate of \$994,000 for the 2018 financial year and its tax advisers have reviewed the expected R&D rebate for the first 9 months of the 2019 financial year, providing comfort that the Company has a valid claim for research activities completed in this period. The available facility on commercial terms is equivalent to 80% of the forecast claim for the first 9 months of the 2019 financial year and will be repaid from the receipt of the 2019 financial year R&D rebate.

<sup>1 -</sup> Technology Metals Australia - ASX Announcement dated 29 March 2019, Gabanintha Northern Block Resource Upgrade

<sup>2 –</sup> Technology Metals Australia – ASX Announcement dated 19 June 2019, Pilot Plant Scale Kiln Testwork Confirms High Vanadium recovery

<sup>3 –</sup> Technology Metals Australia – ASX Announcement dated 22 May 2019, MOU With CNMC (Ningxia) Orient Group Co Ltd

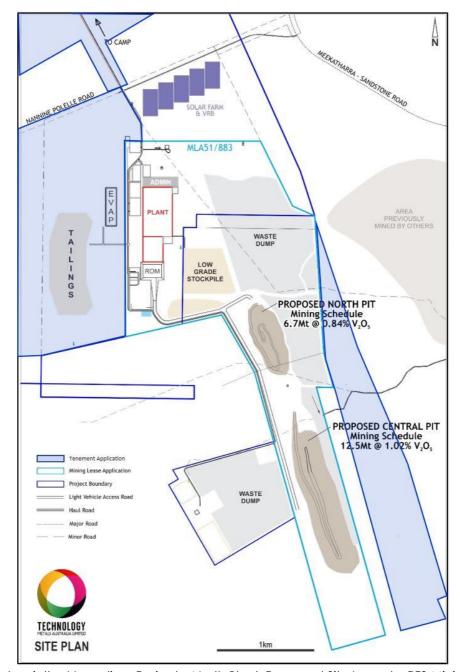


Figure 1: Gabanintha Vanadium Project – North Block Proposed Site Layout – PFS Mining Schedule

#### **DEFINITIVE FEASIBILITY STUDY**

The high quality DFS aimed at progressing the development of the globally significant Gabanintha Vanadium Project ("GVP"), host to the updated Northern Block Resource of 109.5 Mt at 0.8%  $V_2O_5$ , including a Measured and Indicated Resource of 30.0 Mt at 0.9%  $V_2O_5$ , is in the final stages of verification and documentation. The DFS is being managed on behalf of the Company by Wave International ("Wave") as the lead consultant supported by a range of industry leading consultants with considerable expertise in their fields;

- METS Engineering for metallurgical test work, product assessment and mineral processing, supported by a range of accredited laboratories;
- CSA Global for resource and mining study work, supported by third party geotechnical engineering consultants, and;
- Integrate Sustainability for environmental, heritage, health, safety and statutory approvals advice and support, supported by third party consultants.

Completion of the pilot plant scale test work program, which is key to de-risking the proposed processing circuit and confirming recovery and scalability of the key components of the circuit, was a significant achievement for the Project during the quarter. This test work is a very important component of delivery of a high quality, robust DFS, reducing the scalability risk of the process flow sheet and supporting ongoing discussions with potential off take partners and financiers.

Other DFS related activities completed during the quarter included:

- Open pit mine designs based on the updated Measured and Indicated Mineral Resource incorporating updated geotechnical data (steeper pit wall slope angles) and other inputs including mining contractor costings. This work has delivered an updated mining inventory as the basis for the DFS financial model and will ultimately deliver a revised mining reserve;
- Mine scheduling based on the updated mining inventory incorporating detailed geometallurgical data that has been populated into the Mineral Resource model;
- Water drilling to further define the initial process water source contained with the Company's E51/1818 (to the north of the proposed processing plant) and install initial production water bores;
- Progression of environmental and heritage work in support of advancing statutory approvals;
- Lock down of the detailed process flow diagrams, process plant engineering/design (following
  input from the pilot plant scale test work) and site infrastructure layout plans;
- Evaluation and compilation of all process plant equipment request for quotation (RFQ's) packages
  to enable progression of the build-up of the revised capital expenditure estimate to a DFS level of
  accuracy, including input from the roasting kiln vendor following the pilot plant scale test work;
  and
- Build-up of revised operating cost estimates to a DFS level of accuracy, including vanadium recovery estimates and reagent consumption rates confirmed by the pilot plant scale test work.

Activities being completed as part of the finalisation of the DFS include:

- Compilation of flow data and water quality from the water drilling completed during the June quarter;
- Delivery of an updated ore reserve estimate within the expanded global Mineral Resource;
- Updating, peer review and verification of the Project financial model incorporating the capital
  expenditure and operating cost estimates to a DFS level of accuracy, including development of
  updated revenue assumptions; and
- Compilation of the comprehensive DFS documentation detailing all the activities completed and data collected over the course of the DFS program.

#### **BULK SAMPLE PILOT PLANT SCALE TEST WORK**

The bulk sample for the pilot plant scale test work was collected from within the North Pit region of the GVP in September / October 2018. A total of 14.2 tonnes of sample was collected from this program; consisting of a blend of transitional massive magnetite mineralisation, fresh massive magnetite mineralisation, transitional hanging wall banded mineralisation, fresh hanging wall banded mineralisation and fresh footwall banded mineralisation. The pilot plant scale test work using this bulk sample was designed to confirm optimal operating parameters and scalability of laboratory test work results and provide data for vendor definition of design parameters and cost estimates for the "roasting" section of the processing circuit.

Initial "sighter" scale crushing, milling (grinding), magnetic beneficiation and salt roast / kiln test work, completed on a representative 300kg sub-sample of the bulk sample, which generated a 156kg magnetic concentrate sample, confirmed the very high purity of final vanadium pentoxide product that can be produced from the GVP, delivering a  $99.36\% V_2O_5$  product purity.

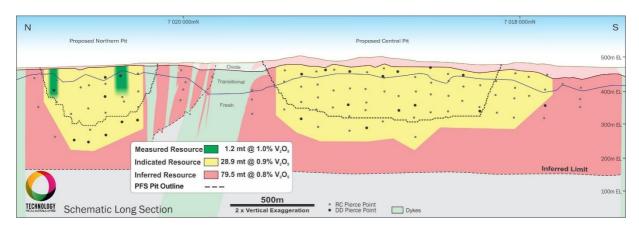


Figure 2: Schematic Long Section – Northern Block – Bulk Sample Collected from North Pit Region

The majority of the balance of the bulk sample, approximately 11.5 tonnes, was processed through a pilot plant scale crushing, milling (grinding) and magnetic beneficiation (LIMS) process to generate magnetic concentrates. Approximately 7.5 tonnes of magnetic concentrate averaging 1.36%  $V_2O_5$ , 1.2%  $SiO_2$  and 3.15%  $Al_2O_3$  was then shipped to roasting kiln suppliers FLSmidth Inc ("FLSmidth") in Pennsylvania, USA, for pilot plant scale salt roast / kiln test work. This work was designed to confirm the "scaled up" operating parameters and reagent consumption to optimise vanadium recovery into a soluble form.

FLSmidth conducted a series of smaller scale batch rotary kiln tests in late April 2019 to confirm operating parameters and reagent inputs prior to commencement of the pilot scale rotary kiln phase of the test work. The pilot scale rotary kiln test work, utilising a 9.8m long by 0.9m in diameter rotary kiln (see Figure 3) at FLSmidth's Bethlehem test facility, was completed between 6<sup>th</sup> and 15<sup>th</sup> May 2019.



Figure 3: Pilot Rotary Kiln (9.8m long by 0.9m diameter) at FLSmidth Test Facility

Magnetic concentrate, blended with a salt mix, was fed into the "uphill" end of the rotary kiln. The test work experienced some initial problems with regard to materials handling and management of temperature control, however these problems were resolved and / or managed resulting in the delivery of a continuous feed of the magnetic concentrate / salt mix enabling measurement of key factors such as vanadium solubility / recovery and estimated residence times.

Samples of the product derived from the pilot scale rotary kiln test work were collected regularly throughout the continuous test work program. Analysis of these samples by an independent Australian laboratory indicate vanadium solubility / recovery rates of between 84.9% and 90.7%, with an average of 88.6%. Based on this data, a vanadium solubility / recovery rate of 85% has been confirmed for use in the Definitive Feasibility Study ("DFS"), in line with the Pre-Feasibility Study ("PFS") estimates. Confirmation of the 85% vanadium solubility / recovery rates is a very important step in determining the scalability of the chemical performance of the salt roasting process portion of the processing circuit.

The data generated from the pilot scale rotary kiln test work has been used by FLSmidth to assist in completion of the engineering design and cost estimate studies for the "roasting" section of the processing circuit. This information has been incorporated in to the DFS process circuit design and cost estimates.

#### **ENVIRONMENTAL APPROVALS**

The DFS, and work completed during the PFS, has incorporated a range of environmental surveys across the Project area in support of the environmental approvals framework. Surveys completed include flora and vegetation, terrestrial fauna, short-range endemic invertebrate, subterranean fauna, surface and groundwater assessments and social surrounds assessment. The recently completed water drilling on E51/1818 provides additional sample sources for subterranean fauna.

As previously reported, the Company self-referred the proposed Project development to the WA Environmental Protection Authority (EPA). As a result of the self referral the EPA determined that the Project will undergo a formal environmental impact assessment with no public comments period. The Company is awaiting an Environmental Scoping Document (ESD) being prepared by the EPA, with input from other key decision making agencies, which will set out the key environmental factors to be addressed in the Project Environmental Review Document.

The Company will continue with its planned environmental surveys post delivery of the DFS, aimed at ensuring the work completed addresses all of the identified key environmental factors in a timely fashion to support the targeted lodgement of the Project's Environmental Impact Document.

#### MARKETING ACTIVITIES

During the quarter the Company attended the 96<sup>th</sup> Vanitec Meeting in Xichang, Sichuan, China on 9<sup>th</sup> to 11<sup>th</sup> April 2019, China's 2019 4<sup>th</sup> International Vanadium Forum in Chengdu, Sichuan, China on 12<sup>th</sup> to 13<sup>th</sup> April 2019, the Sydney Mining Club's inaugural "Leading Edge" event on 2<sup>nd</sup> May 2019 and the RIU Sydney Resources Round-up on 7<sup>th</sup> to 9<sup>th</sup> May 2019. The Managing Director, Ian Prentice, delivered a presentation entitled "Leading the Charge in the Vanadium Industry; Gabanintha Vanadium Project" at the Sydney Mining Club event and the RIU Sydney Resources Round-up.

Prior to the Vanitec meeting in Xichang, Sichuan, the Company took the opportunity to meet with a number of potential partners in China. As a direct result of these meetings the Company entered into a non-binding MOU establishing the framework for a binding  $V_2O_5$  offtake agreement with CNMC Ningxia Orient Group Company Ltd ("**CNMNC**"), a controlled subsidiary of China Nonferrous Metal Mining (Group) Co Ltd ("**CNMC**"). CNMNC produces vanadium nitrogen alloys and ferrovanadium for use in the Chinese steel industry. Key parameters defined in the MOU include minimum offtake volumes, pricing structure and term of agreement.

In June 2019, the Company conducted a series of meetings with potential strategic investors, project funding partners and offtake partners in China and Japan, including further meetings with CNMNC. These discussions have been very encouraging, with the Company actively progressing its relationship with CNMNC and its associated Companies, as well as actively pursuing partnerships with a shared long term view of the vanadium industry and capacity to participate at a meaningful level in the Project

#### VANADIUM MARKET COMMENTARY

Having reached unsustainably high prices in excess of US\$30/lb  $V_2O_5$  during the December 2018 quarter, driven by the expected rapid implementation of the revised Chinese rebar standards that require increased vanadium consumption per tonne of rebar produced, vanadium prices have experienced a marked decline. The decline was linked to seasonal demand factors and to high prices impacting on short term demand. Vanadium prices have now stabilised at levels that are supportive of continued growth in consumption, with an expected price recovery in the near term to more sustainable levels.

#### **Outlook**

Global vanadium production is forecast to remain below consumption levels in 2019 and beyond, with global inventories continuing to be drawn down leading to market tightness. This is expected to see prices stabilise and then improve in the near term as vanadium consumption in the Chinese steel industry increases on the managed implementation of the revised rebar standards. Market commentators are forecasting a recovery in prices to approximately US\$15/lb  $V_2O_5$  in the second half of 2019, a more sustainable price point that supports consumption growth and the development of high quality green fields projects such as GVP.

#### **TENEMENTS**

Additional tenure in support of the development of the Project, consisting of one Prospecting Licence P51/3140 and one Miscellaneous Licence (L51/102) (replacing the withdrawn L51/100), was applied for during the quarter (see Figure 4). P51/3140 is expected to provide additional area for supporting infrastructure to the east of the North Pit. This application covers the same area as competing application P51/3141. Miscellaneous Licence L51/102 covers the proposed process water bore field and supporting infrastructure. Miscellaneous Licence L51/101, which covers the accommodation village and supporting infrastructure was granted during the quarter.

The Company continued with efforts to engage with representatives of the native title claimant group in the Project area to progress the process of grant of its two Mining Lease applications; M51/883 over the Northern Block of Tenements and M51/884 over the Southern Tenement.

LOCATION	TENEMENT	INTEREST ACQUIRED OR DISPOSED OF DURING THE QUARTER	ECONOMIC INTEREST
Gabanintha Project (WA)	E51/1510-I	Nil	100%
Gabanintha Project (WA)	E51/1818	Nil	100%
Gabanintha Project (WA)	L51/101	Nil	100%
Gabanintha Project (WA)	P51/2785-I	Nil	100%
Gabanintha Project (WA)	P51/2930	Nil	100%
Gabanintha Project (WA)	P51/2942	Nil	100%
Gabanintha Project (WA)	P51/2943	Nil	100%
Gabanintha Project (WA)	P51/2944	Nil	100%
Gabanintha Project (WA)	G51/29	Nil - Application	100%
Gabanintha Project (WA)	G51/30	Nil - Application	100%
Gabanintha Project (WA)	L51/102	Nil - Application	100%
Gabanintha Project (WA)	M51/883	Nil - Application	100%
Gabanintha Project (WA)	M51/884	Nil - Application	100%
Gabanintha Project (WA)	P51/3140	Application	100%

Table 1: Tenement Status as at 30 June 2019

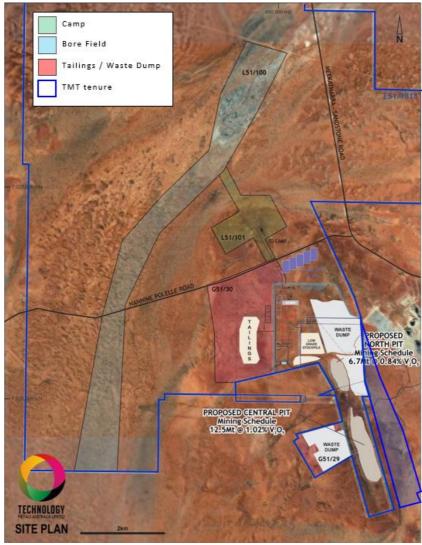


Figure 4: Gabanintha Project site layout and supporting tenure

#### **CORPORATE**

As at 15 July 2019 the Top 20 shareholders held 47.9% of the fully paid ordinary shares and the Company had cash of \$1.84 million as at 30 June 2019.

TMT has also secured access to an up to \$1.42 million finance facility via Radium Capital secured against the Company's 2019 financial year research and development rebate ("R&D rebate"). The Company received an R&D rebate of \$994,000 for the 2018 financial year based on research activities completed in conjunction with the PFS. The research activities were continued in the 2019 financial year in conjunction with the DFS. The Company's tax advisers and tax advisers appointed by Radium reviewed the expected R&D rebate for the first 9 months of the 2019 financial year, providing comfort that the Company has a valid claim for research activities completed in this period. The available facility is equivalent to 80% of the forecast claim for the first 9 months of the 2019 financial year. The facility incorporates terms and conditions typical of this nature of financing. The balance of drawn amounts will be repaid from the receipts of the 2019 financial year R&D rebate, with Radium having security over the claim amount only. The Company is progressing preparation of the 2019 financial year claim and expects to lodge the claim over the course of the current quarter. The facility remains undrawn.

Project specific announcements lodged on the ASX during the June 2019 quarter were:

- TMT Investor Presentation RIU Sydney Resources Round-up Conference, 7 May 2019;
- MOU with CNMC (Ningxia) Orient Group Co., Ltd, 22 May 2019;
- Pilot Plant Scale Kiln Testwork Confirms High Vanadium Recovery; 19 June 2019

#### **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.

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

lan Prentice
Executive 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 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 V2O5 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, two Miscellaneous Licence applications and two General Purpose Lease). 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 and 2018 drilling programs has been used by independent geological consultants CSA Global to generate a global Measured, Indicated and Inferred Mineral Resource estimate, reported in accordance with the JORC Code 2012 edition, for the Project. The Resource estimate confirms the position of the Gabanintha Vanadium Project as one of the highest grade vanadium projects in the world.

Table 8: Global Mineral Resource estimate for the Gabanintha Vanadium Project as at 27 March 2019

Material Type	Classification	Tonnage (Mt)	V <sub>2</sub> O <sub>5</sub> %	Fe%	Al <sub>2</sub> O <sub>3</sub> %	SiO <sub>2</sub> %	TiO₂%	LOI%	P%	<b>\$</b> %
	Measured (North)	1.2	1.0	44.7	6.2	10.4	11.4	0.0	0.009	0.2
	Indicated (North)	18.5	1.1	49.1	5.2	5.8	12.9	-0.1	0.007	0.2
Massive	Inferred (North)	41	1.1	47.7	5.6	7.1	12.6	0.3	0.008	0.2
Magnetite	Inferred (South)	10.4	1.1	49.1	4.9	5.9	12.6	-0.4	0.004	0.3
	Total Inferred	51.5	1.1	48.0	5.5	6.9	12.6	0.1	0.007	0.2
	Massive Global	71.2	1.1	48.2	5.4	6.7	12.7	0.1	0.007	0.2
	Indicated (North)	10.3	0.6	28.6	13.1	25.5	7.5	3.0	0.030	0.2
Disseminated	Inferred (North)	38.5	0.5	27.1	12.7	27.4	6.9	3.3	0.027	0.2
/ Banded	Inferred (South)	11.1	0.6	30.2	11.9	23.4	7.7	2.4	0.012	0.4
Magnetite	Total Inferred	49.6	0.6	27.8	12.5	26.5	7.1	3.1	0.024	0.2
	Diss / Band Global	59.9	0.6	27.9	12.6	26.4	7.2	3.1	0.025	0.2
Combined	Measured + Indicated + Inferred	131	0.9	39.0	8.7	15.7	10.1	1.4	0.015	0.2

<sup>\*</sup> Note: The Mineral Resource was estimated within constraining wireframe solids using a nominal 0.9% V205 lower cut-off grade for the basal massive magnetite zone and using a nominal 0.4% V205 lower cut-off grade 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% V205. Differences may occur due to rounding

Data from the PFS on the Gabanintha Vanadium Project were used by independent consultants CSA Global to generate a maiden Probable Ore Reserve estimate based on the previously defined Indicated Mineral Resource of 21.6 Mt at  $0.9\%~V_2O_5$  located within the Northern Block of tenements at Gabanintha. The Ore Reserve estimate is being updated as part of the DFS.

Table 7: Ore Reserve Estimate as at 31 May 2018

Reserve Category	Tonnes (Mt)	Grade V₂O₅%	Contained V <sub>2</sub> O <sub>5</sub> Tonnes (Mt)
Proven	-	-	-
Probable	16.7	0.96	0.16
Total	16.7	0.96	0.16

- Includes allowance for mining recovery (95%) and mining dilution (10% at 0.0 %V₂O₅)
- Rounding errors may occur

Capital Structure	
Fully Paid Ordinary Shares on Issue	87.554m
Unquoted Options (\$0.25 – 31/12/19 expiry)	14.59m
Unquoted Options (\$0.35 – 12/01/21 expiry)	2.75m
Quoted Options (\$0.40 – 24/05/20 expiry)	14.889m
Unquoted Options (\$0.40 – 24/05/20 expiry)	3.258m

#### **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 Grant Louw. Mr Louw is a Principal Consultant with CSA Global and a Member of the Australian Institute of Geoscientists. Mr Louw 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 Louw 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.

+Rule 5.5

### **Appendix 5B**

## Mining exploration entity and oil and gas exploration entity monthly report

Introduced 01/07/96 Origin Appendix 8 Amended 01/07/97, 01/07/98, 30/09/01, 01/06/10, 17/12/10, 01/05/13, 01/09/16

#### Name of entity

Technology Metals Australia Limited

# ACN Quarter ended ("current quarter") 612 531 389 Consolidated statement of cash flows Current Quarter (Jun 2019) (12 months) \$A'000 \$A'000

		\$A'000	\$A'000
1.	Cash flows from operating activities		
1.1	Receipts from customers	-	-
1.2	Payments for:		
	(a) exploration & evaluation	(3,056)	(11,861)
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	(77)	(308)
	(e) administration and corporate costs	(266)	(1,115)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	6	23
1.5	Interest and other costs of finance paid	(1)	(1)
1.6	Income taxes paid	-	-
1.7	Research and development refunds	-	-
1.8	Other <sup>1</sup>	294	2,151

<sup>&</sup>lt;sup>1</sup> R&D Refund for the 2018 Financial Year and GST Refund for the quarter ending 31 December 2018.

		1	
2.	Cash flows from investing activities		
2.1	Payments to acquire:		
	(a) property, plant and equipment	-	-
	(b) tenements (see item 10)	-	-
	(c) investments	-	-
	(d) other non-current assets	-	-
2.2	Proceeds from the disposal of:		
	(a) property, plant and equipment	-	-

(3,100)

Net cash from / (used in) operating

1.9

activities

(11,111)

<sup>+</sup> See chapter 19 for defined terms

<sup>1</sup> September 2016

	(b) tenements (see item 10)	-	-
	(c) investments	-	-
	(d) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)	-	-
2.6	Net cash from / (used in) investing activities	-	-

3.	Cash flows from financing activities		
3.1	Proceeds from issues of shares	-	10,522
3.2	Proceeds from issue of convertible notes	-	-
3.3	Proceeds from exercise of share options	-	373
3.4	Transaction costs related to issues of shares, convertible notes or options	-	(655)
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	-	-
3.10	Net cash from / (used in) financing activities	-	10,240

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	4,939	2,710
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(3,100)	(11,111)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	-	-
4.4	Net cash from / (used in) financing activities (item 3.10 above)	-	10,240
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	Cash and cash equivalents at end of period	1,839	1,839

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<sup>+</sup> See chapter 19 for defined terms 1 September 2016

5.	Reconciliation of cash and cash equivalents at the end of the month (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current Quarter \$A'000	Previous Quarter \$A'000
5.1	Bank balances	1,839	4,939
5.2	Call deposits	-	-
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	1,839	4,939

6.	Payments to directors of the entity and their associates	Current quarter \$A'000
6.1	Aggregate amount of payments to these parties included in item 1.2	77
6.2	Aggregate amount of cash flow from loans to these parties included in item 2.3	-

6.3 Include below any explanation necessary to understand the transactions included in items 6.1 and 6.2

Payment of director's fees.

7.	Payments to related entities of the entity and their associates	\$A'000
7.1	Aggregate amount of payments to these parties included in item 1.2	33
7.2	Aggregate amount of cash flow from loans to these parties included in item 2.3	-

7.3 Include below any explanation necessary to understand the transactions included in items 7.1 and 7.2

The Company engages Cicero Corporate Services Pty Ltd, which Mr Sonu Cheema is a director of, for administrative, rent and company secretarial services.

8.	Financing facilities available Add notes as necessary for an understanding of the position	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000	
8.1	Loan facilities	-	-	
8.2	Credit standby arrangements	1,417	-	
8.3	Other (please specify)	-	-	

8.4 Include below a description of each facility above, including the lender, interest rate and whether it is secured or unsecured. If any additional facilities have been entered into or are proposed to be entered into after month end, include details of those facilities as well.

During the quarter ending 30 June 2019, the Company secured a credit facility from Radium Capital. The Company is able to draw down on this credit facility in accordance with the Radium Capital processes.

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<sup>+</sup> See chapter 19 for defined terms

9.	Estimated cash outflows for next quarter	\$A'000
9.1	Exploration and evaluation	1,820
9.2	Development	-
9.3	Production	-
9.4	Staff costs	70
9.5	Administration and corporate costs	225
9.6	Other (provide details if material)	-
9.7	Total estimated cash outflows	2,115

10.	Changes in tenements (items 2.1(b) and 2.2(b) above)	Tenement reference and location	Nature of interest	Interest at beginning of quarter	Interest at end of quarter
10.1	Interests in mining tenements and petroleum tenements lapsed, relinquished or reduced	-	-	-	-
10.2	Interests in mining tenements and petroleum tenements acquired or increased	-	-	-	-

#### **Compliance statement**

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Sign here: Date: 18 July 2019

Director and Company Secretary

Print name: Sonu Cheema

#### **Notes**

- 1. The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity that wishes to disclose additional information is encouraged to do so, in a note or notes included in or attached to this report.
- 2. If this quarterly report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report. If this monthly report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
- 3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.

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<sup>+</sup> See chapter 19 for defined terms